



Supplemental Report 1

The original report has been revised to include the Level III deliverables package.



WORK ORDER NUMBER: 17-03-0335

The difference is service



AIR | SOIL | WATER | MARINE CHEMISTRY

Analytical Report For

Client: Andersen Environmental

Client Project Name: Burbank Airport / 9836002041

Attention: Brian Martasin
5261 West Imperial Highway
Los Angeles, CA 90045-6231

A handwritten signature in black ink, appearing to read "S. Nowak".

Approved for release on 04/12/2017 by:
Stephen Nowak
Project Manager

ResultLink ▶

Email your PM ▶

Eurofins Calscience, Inc. (Calscience) certifies that the test results provided in this report meet all NELAC requirements for parameters for which accreditation is required or available. Any exceptions to NELAC requirements are noted in the case narrative. The original report of subcontracted analyses, if any, is attached to this report. The results in this report are limited to the sample(s) tested and any reproduction thereof must be made in its entirety. The client or recipient of this report is specifically prohibited from making material changes to said report and, to the extent that such changes are made, Calscience is not responsible, legally or otherwise. The client or recipient agrees to indemnify Calscience for any defense to any litigation which may arise.

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 Work Order Number: 17-03-0335

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Work Order Narrative

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Condition Upon Receipt:

Samples were received under Chain-of-Custody (COC) on 03/03/17. They were assigned to Work Order 17-03-0335.

Unless otherwise noted on the Sample Receiving forms all samples were received in good condition and within the recommended EPA temperature criteria for the methods noted on the COC. The COC and Sample Receiving Documents are integral elements of the analytical report and are presented at the back of the report.

Holding Times:

All samples were analyzed within prescribed holding times (HT) and/or in accordance with the Calscience Sample Acceptance Policy unless otherwise noted in the analytical report and/or comprehensive case narrative, if required.

Any parameter identified in 40CFR Part 136.3 Table II that is designated as "analyze immediately" with a holding time of ≤ 15 minutes (40CFR-136.3 Table II, footnote 4), is considered a "field" test and the reported results will be qualified as being received outside of the stated holding time unless received at the laboratory within 15 minutes of the collection time.

Quality Control:

All quality control parameters (QC) were within established control limits except where noted in the QC summary forms or described further within this report.

Subcontractor Information:

Unless otherwise noted below (or on the subcontract form), no samples were subcontracted.

Additional Comments:

Air - Sorbent-extracted air methods (EPA TO-4A, EPA TO-10, EPA TO-13A, EPA TO-17): Analytical results are converted from mass/sample basis to mass/volume basis using client-supplied air volumes.

Solid - Unless otherwise indicated, solid sample data is reported on a wet weight basis, not corrected for % moisture. All QC results are always reported on a wet weight basis.

Sample Summary

Client: Andersen Environmental	Work Order: 17-03-0335
5261 West Imperial Highway	Project Name: Burbank Airport / 9836002041
Los Angeles, CA 90045-6231	PO Number:
	Date/Time Received: 03/03/17 18:45
	Number of Containers: 16
Attn: Brian Martasin	

Sample Identification	Lab Number	Collection Date and Time	Number of Containers	Matrix
D-DU1-S-SG-06-03S	17-03-0335-1	03/03/17 08:57	1	Solid
D-DU1-S-SG-06-08S	17-03-0335-2	03/03/17 09:03	1	Solid
D-DU1-S-SG-06-15S	17-03-0335-3	03/03/17 09:08	1	Solid
D-DU1-S-SG-06-25S	17-03-0335-4	03/03/17 09:15	1	Solid
D-DU1-S-SG-07-03S	17-03-0335-5	03/03/17 10:00	1	Solid
D-DU1-S-SG-07-08S	17-03-0335-6	03/03/17 10:02	1	Solid
D-DU1-S-SG-07-15S	17-03-0335-7	03/03/17 10:18	1	Solid
D-DU1-S-SG-07-25S	17-03-0335-8	03/03/17 10:55	1	Solid
D-DU1-S-SG-08-03S	17-03-0335-9	03/03/17 07:20	1	Solid
D-DU1-S-SG-08-08S	17-03-0335-10	03/03/17 07:25	1	Solid
D-DU1-S-SG-08-15S	17-03-0335-11	03/03/17 07:42	1	Solid
D-DU1-S-SG-08-25S	17-03-0335-12	03/03/17 07:55	1	Solid
D-DU1-S-SG-09-3S	17-03-0335-13	03/02/17 14:30	1	Solid
D-DU1-S-SG-09-8S	17-03-0335-14	03/02/17 14:50	1	Solid
D-DU1-S-SG-09-15S	17-03-0335-15	03/02/17 14:58	1	Solid
D-DU1-S-SG-09-25S	17-03-0335-16	03/02/17 16:10	1	Solid

Detections Summary

Client: Andersen Environmental
5261 West Imperial Highway
Los Angeles, CA 90045-6231

Work Order: 17-03-0335
Project Name: Burbank Airport / 9836002041
Received: 03/03/17

Attn: Brian Martasin

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Client SampleID

Analyte	Result	Qualifiers	RL	Units	Method	Extraction
D-DU1-S-SG-06-15S (17-03-0335-3)						
Moisture	3.8		0.10	%	ASTM D-2216 (M)	N/A
Barium	53.8		0.505	mg/kg	EPA 6010B	EPA 3050B
Chromium	3.90		0.252	mg/kg	EPA 6010B	EPA 3050B
Cobalt	4.02		0.252	mg/kg	EPA 6010B	EPA 3050B
Copper	6.72		0.505	mg/kg	EPA 6010B	EPA 3050B
Lead	1.56		0.505	mg/kg	EPA 6010B	EPA 3050B
Nickel	3.29		0.252	mg/kg	EPA 6010B	EPA 3050B
Vanadium	12.9		0.252	mg/kg	EPA 6010B	EPA 3050B
Zinc	24.3		1.01	mg/kg	EPA 6010B	EPA 3050B
D-DU1-S-SG-06-25S (17-03-0335-4)						
Moisture	4.1		0.10	%	ASTM D-2216 (M)	N/A
Barium	48.9		0.501	mg/kg	EPA 6010B	EPA 3050B
Chromium	3.97		0.251	mg/kg	EPA 6010B	EPA 3050B
Cobalt	3.78		0.251	mg/kg	EPA 6010B	EPA 3050B
Copper	5.60		0.501	mg/kg	EPA 6010B	EPA 3050B
Lead	1.46		0.501	mg/kg	EPA 6010B	EPA 3050B
Nickel	3.05		0.251	mg/kg	EPA 6010B	EPA 3050B
Vanadium	12.5		0.251	mg/kg	EPA 6010B	EPA 3050B
Zinc	21.5		1.00	mg/kg	EPA 6010B	EPA 3050B
D-DU1-S-SG-07-15S (17-03-0335-7)						
Moisture	3.6		0.10	%	ASTM D-2216 (M)	N/A
Barium	32.1		0.506	mg/kg	EPA 6010B	EPA 3050B
Chromium	2.75		0.253	mg/kg	EPA 6010B	EPA 3050B
Cobalt	2.33		0.253	mg/kg	EPA 6010B	EPA 3050B
Copper	3.52		0.506	mg/kg	EPA 6010B	EPA 3050B
Lead	0.805		0.506	mg/kg	EPA 6010B	EPA 3050B
Molybdenum	0.350		0.253	mg/kg	EPA 6010B	EPA 3050B
Nickel	1.80		0.253	mg/kg	EPA 6010B	EPA 3050B
Vanadium	6.92		0.253	mg/kg	EPA 6010B	EPA 3050B
Zinc	17.0		1.01	mg/kg	EPA 6010B	EPA 3050B

* MDL is shown

Detections Summary

Client: Andersen Environmental
5261 West Imperial Highway
Los Angeles, CA 90045-6231

Work Order: 17-03-0335
Project Name: Burbank Airport / 9836002041
Received: 03/03/17

Attn: Brian Martasin

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Client SampleID

<u>Analyte</u>	<u>Result</u>	<u>Qualifiers</u>	<u>RL</u>	<u>Units</u>	<u>Method</u>	<u>Extraction</u>
D-DU1-S-SG-07-25S (17-03-0335-8)						
Moisture	8.1		0.10	%	ASTM D-2216 (M)	N/A
Arsenic	0.805		0.781	mg/kg	EPA 6010B	EPA 3050B
Barium	71.7		0.521	mg/kg	EPA 6010B	EPA 3050B
Chromium	4.63		0.260	mg/kg	EPA 6010B	EPA 3050B
Cobalt	4.66		0.260	mg/kg	EPA 6010B	EPA 3050B
Copper	7.35		0.521	mg/kg	EPA 6010B	EPA 3050B
Lead	1.75		0.521	mg/kg	EPA 6010B	EPA 3050B
Nickel	3.88		0.260	mg/kg	EPA 6010B	EPA 3050B
Vanadium	14.9		0.260	mg/kg	EPA 6010B	EPA 3050B
Zinc	26.2		1.04	mg/kg	EPA 6010B	EPA 3050B
D-DU1-S-SG-08-15S (17-03-0335-11)						
Moisture	3.5		0.10	%	ASTM D-2216 (M)	N/A
Barium	34.2		0.510	mg/kg	EPA 6010B	EPA 3050B
Chromium	2.13		0.255	mg/kg	EPA 6010B	EPA 3050B
Cobalt	2.56		0.255	mg/kg	EPA 6010B	EPA 3050B
Copper	4.13		0.510	mg/kg	EPA 6010B	EPA 3050B
Lead	1.03		0.510	mg/kg	EPA 6010B	EPA 3050B
Nickel	2.28		0.255	mg/kg	EPA 6010B	EPA 3050B
Vanadium	7.75		0.255	mg/kg	EPA 6010B	EPA 3050B
Zinc	17.3		1.02	mg/kg	EPA 6010B	EPA 3050B
D-DU1-S-SG-08-25S (17-03-0335-12)						
Moisture	6.3		0.10	%	ASTM D-2216 (M)	N/A
Barium	75.4		0.521	mg/kg	EPA 6010B	EPA 3050B
Chromium	4.81		0.260	mg/kg	EPA 6010B	EPA 3050B
Cobalt	5.16		0.260	mg/kg	EPA 6010B	EPA 3050B
Copper	8.88		0.521	mg/kg	EPA 6010B	EPA 3050B
Lead	1.69		0.521	mg/kg	EPA 6010B	EPA 3050B
Nickel	5.07		0.260	mg/kg	EPA 6010B	EPA 3050B
Vanadium	16.4		0.260	mg/kg	EPA 6010B	EPA 3050B
Zinc	27.9		1.04	mg/kg	EPA 6010B	EPA 3050B

* MDL is shown

Detections Summary

Client: Andersen Environmental
5261 West Imperial Highway
Los Angeles, CA 90045-6231

Work Order: 17-03-0335
Project Name: Burbank Airport / 9836002041
Received: 03/03/17

Attn: Brian Martasin

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Client SampleID

<u>Analyte</u>	<u>Result</u>	<u>Qualifiers</u>	<u>RL</u>	<u>Units</u>	<u>Method</u>	<u>Extraction</u>
D-DU1-S-SG-09-15S (17-03-0335-15)						
Moisture	6.7		0.10	%	ASTM D-2216 (M)	N/A
Barium	62.2		0.520	mg/kg	EPA 6010B	EPA 3050B
Chromium	4.19		0.260	mg/kg	EPA 6010B	EPA 3050B
Cobalt	4.43		0.260	mg/kg	EPA 6010B	EPA 3050B
Copper	6.66		0.520	mg/kg	EPA 6010B	EPA 3050B
Lead	1.63		0.520	mg/kg	EPA 6010B	EPA 3050B
Nickel	3.71		0.260	mg/kg	EPA 6010B	EPA 3050B
Vanadium	13.8		0.260	mg/kg	EPA 6010B	EPA 3050B
Zinc	27.5		1.04	mg/kg	EPA 6010B	EPA 3050B
D-DU1-S-SG-09-25S (17-03-0335-16)						
Moisture	4.9		0.10	%	ASTM D-2216 (M)	N/A
Barium	44.8		0.518	mg/kg	EPA 6010B	EPA 3050B
Chromium	6.64		0.259	mg/kg	EPA 6010B	EPA 3050B
Cobalt	3.23		0.259	mg/kg	EPA 6010B	EPA 3050B
Copper	6.32		0.518	mg/kg	EPA 6010B	EPA 3050B
Lead	1.26		0.518	mg/kg	EPA 6010B	EPA 3050B
Molybdenum	1.02		0.259	mg/kg	EPA 6010B	EPA 3050B
Nickel	3.37		0.259	mg/kg	EPA 6010B	EPA 3050B
Vanadium	10.0		0.259	mg/kg	EPA 6010B	EPA 3050B
Zinc	23.4		1.04	mg/kg	EPA 6010B	EPA 3050B

Subcontracted analyses, if any, are not included in this summary.

* MDL is shown

Analytical Report

Andersen Environmental
5261 West Imperial Highway
Los Angeles, CA 90045-6231

Date Received: 03/03/17
Work Order: 17-03-0335
Preparation: N/A
Method: ASTM D-2216 (M)
Units: %

Project: Burbank Airport / 9836002041

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
D-DU1-S-SG-06-15S	17-03-0335-3-A	03/03/17 09:08	Solid	N/A	03/07/17	03/07/17 21:00	H0307MOIB2
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>	<u>Qualifiers</u>	
Moisture		3.8	0.10		1.00		
D-DU1-S-SG-06-25S	17-03-0335-4-A	03/03/17 09:15	Solid	N/A	03/07/17	03/07/17 21:00	H0307MOIB2
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>	<u>Qualifiers</u>	
Moisture		4.1	0.10		1.00		
D-DU1-S-SG-07-15S	17-03-0335-7-A	03/03/17 10:18	Solid	N/A	03/07/17	03/07/17 21:00	H0307MOIB2
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>	<u>Qualifiers</u>	
Moisture		3.6	0.10		1.00		
D-DU1-S-SG-07-25S	17-03-0335-8-A	03/03/17 10:55	Solid	N/A	03/07/17	03/07/17 21:00	H0307MOIB2
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>	<u>Qualifiers</u>	
Moisture		8.1	0.10		1.00		
D-DU1-S-SG-08-15S	17-03-0335-11-A	03/03/17 07:42	Solid	N/A	03/07/17	03/07/17 21:00	H0307MOIB2
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>	<u>Qualifiers</u>	
Moisture		3.5	0.10		1.00		
D-DU1-S-SG-08-25S	17-03-0335-12-A	03/03/17 07:55	Solid	N/A	03/07/17	03/07/17 21:00	H0307MOIB2
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>	<u>Qualifiers</u>	
Moisture		6.3	0.10		1.00		
D-DU1-S-SG-09-15S	17-03-0335-15-A	03/02/17 14:58	Solid	N/A	03/07/17	03/07/17 21:00	H0307MOIB2
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>	<u>Qualifiers</u>	
Moisture		6.7	0.10		1.00		
D-DU1-S-SG-09-25S	17-03-0335-16-A	03/02/17 16:10	Solid	N/A	03/07/17	03/07/17 21:00	H0307MOIB2
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>	<u>Qualifiers</u>	
Moisture		4.9	0.10		1.00		

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RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

Andersen Environmental
5261 West Imperial Highway
Los Angeles, CA 90045-6231

Date Received: 03/03/17
Work Order: 17-03-0335
Preparation: N/A
Method: ASTM D-2216 (M)
Units: %

Project: Burbank Airport / 9836002041

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	099-05-014-6727	N/A	Solid	N/A	03/07/17	03/07/17 21:00	H0307MOIB2

<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>
Moisture	ND	0.10	1.00	

Analytical Report

Andersen Environmental
 5261 West Imperial Highway
 Los Angeles, CA 90045-6231

Date Received: 03/03/17
 Work Order: 17-03-0335
 Preparation: EPA 3550B
 Method: EPA 8015B (M)
 Units: mg/kg

Project: Burbank Airport / 9836002041

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
D-DU1-S-SG-06-15S	17-03-0335-3-A	03/03/17 09:08	Solid	GC 49	03/07/17	03/07/17 23:43	170307B06

Comment(s):
 - Results are reported on a dry weight basis.
 - Motor Oil Range Organics (C17-C44) uses a Diesel Range Organics (C10-C28) standard for quantitation and quality control.

<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>
TPH as Diesel	ND	5.1	1.00	
TPH as Motor Oil	ND	5.1	1.00	

<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
n-Octacosane	128	61-145	

D-DU1-S-SG-06-25S	17-03-0335-4-A	03/03/17 09:15	Solid	GC 49	03/07/17	03/08/17 00:04	170307B06

Comment(s):
 - Results are reported on a dry weight basis.
 - Motor Oil Range Organics (C17-C44) uses a Diesel Range Organics (C10-C28) standard for quantitation and quality control.

<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>
TPH as Diesel	ND	5.2	1.00	
TPH as Motor Oil	ND	5.2	1.00	

<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
n-Octacosane	127	61-145	

D-DU1-S-SG-07-15S	17-03-0335-7-A	03/03/17 10:18	Solid	GC 49	03/07/17	03/08/17 00:25	170307B06

Comment(s):
 - Results are reported on a dry weight basis.
 - Motor Oil Range Organics (C17-C44) uses a Diesel Range Organics (C10-C28) standard for quantitation and quality control.

<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>
TPH as Diesel	ND	5.1	1.00	
TPH as Motor Oil	ND	5.1	1.00	

<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
n-Octacosane	128	61-145	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

Andersen Environmental
 5261 West Imperial Highway
 Los Angeles, CA 90045-6231

Date Received: 03/03/17
 Work Order: 17-03-0335
 Preparation: EPA 3550B
 Method: EPA 8015B (M)
 Units: mg/kg

Project: Burbank Airport / 9836002041

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
D-DU1-S-SG-07-25S	17-03-0335-8-A	03/03/17 10:55	Solid	GC 49	03/07/17	03/08/17 00:45	170307B06

Comment(s):
 - Results are reported on a dry weight basis.
 - Motor Oil Range Organics (C17-C44) uses a Diesel Range Organics (C10-C28) standard for quantitation and quality control.

<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>
TPH as Diesel	ND	5.5	1.00	
TPH as Motor Oil	ND	5.5	1.00	

<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
n-Octacosane	114	61-145	

D-DU1-S-SG-08-15S	17-03-0335-11-A	03/03/17 07:42	Solid	GC 49	03/07/17	03/08/17 01:06	170307B06

Comment(s):
 - Results are reported on a dry weight basis.
 - Motor Oil Range Organics (C17-C44) uses a Diesel Range Organics (C10-C28) standard for quantitation and quality control.

<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>
TPH as Diesel	ND	5.1	1.00	
TPH as Motor Oil	ND	5.1	1.00	

<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
n-Octacosane	120	61-145	

D-DU1-S-SG-08-25S	17-03-0335-12-A	03/03/17 07:55	Solid	GC 49	03/07/17	03/08/17 01:26	170307B06

Comment(s):
 - Results are reported on a dry weight basis.
 - Motor Oil Range Organics (C17-C44) uses a Diesel Range Organics (C10-C28) standard for quantitation and quality control.

<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>
TPH as Diesel	ND	5.3	1.00	
TPH as Motor Oil	ND	5.3	1.00	

<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
n-Octacosane	123	61-145	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

Andersen Environmental
5261 West Imperial Highway
Los Angeles, CA 90045-6231

Date Received: 03/03/17
Work Order: 17-03-0335
Preparation: EPA 3550B
Method: EPA 8015B (M)
Units: mg/kg

Project: Burbank Airport / 9836002041

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
D-DU1-S-SG-09-15S	17-03-0335-15-A	03/02/17 14:58	Solid	GC 49	03/07/17	03/08/17 01:47	170307B06

Comment(s): - Results are reported on a dry weight basis.
- Motor Oil Range Organics (C17-C44) uses a Diesel Range Organics (C10-C28) standard for quantitation and quality control.

<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>
TPH as Diesel	ND	5.3	1.00	
TPH as Motor Oil	ND	5.3	1.00	

<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
n-Octacosane	119	61-145	

D-DU1-S-SG-09-25S	17-03-0335-16-A	03/02/17 16:10	Solid	GC 49	03/07/17	03/08/17 02:08	170307B06

Comment(s): - Results are reported on a dry weight basis.
- Motor Oil Range Organics (C17-C44) uses a Diesel Range Organics (C10-C28) standard for quantitation and quality control.

<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>
TPH as Diesel	ND	5.2	1.00	
TPH as Motor Oil	ND	5.2	1.00	

<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
n-Octacosane	132	61-145	

Method Blank	099-14-353-4	N/A	Solid	GC 49	03/07/17	03/07/17 22:19	170307B06

Comment(s): - Motor Oil Range Organics (C17-C44) uses a Diesel Range Organics (C10-C28) standard for quantitation and quality control.

<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>
TPH as Diesel	ND	5.0	1.00	
TPH as Motor Oil	ND	5.0	1.00	

<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
n-Octacosane	117	61-145	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

Andersen Environmental
 5261 West Imperial Highway
 Los Angeles, CA 90045-6231

Date Received: 03/03/17
 Work Order: 17-03-0335
 Preparation: EPA 3050B
 Method: EPA 6010B
 Units: mg/kg

Project: Burbank Airport / 9836002041

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
D-DU1-S-SG-06-15S	17-03-0335-3-A	03/03/17 09:08	Solid	ICP 7300	03/08/17	03/08/17 14:19	170308L01

Comment(s): - Results are reported on a dry weight basis.

<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>
Antimony	ND	0.757	0.971	
Arsenic	ND	0.757	0.971	
Barium	53.8	0.505	0.971	
Beryllium	ND	0.252	0.971	
Cadmium	ND	0.505	0.971	
Chromium	3.90	0.252	0.971	
Cobalt	4.02	0.252	0.971	
Copper	6.72	0.505	0.971	
Lead	1.56	0.505	0.971	
Molybdenum	ND	0.252	0.971	
Nickel	3.29	0.252	0.971	
Selenium	ND	0.757	0.971	
Silver	ND	0.252	0.971	
Thallium	ND	0.757	0.971	
Vanadium	12.9	0.252	0.971	
Zinc	24.3	1.01	0.971	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

Andersen Environmental
 5261 West Imperial Highway
 Los Angeles, CA 90045-6231

Date Received: 03/03/17
 Work Order: 17-03-0335
 Preparation: EPA 3050B
 Method: EPA 6010B
 Units: mg/kg

Project: Burbank Airport / 9836002041

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
D-DU1-S-SG-06-25S	17-03-0335-4-A	03/03/17 09:15	Solid	ICP 7300	03/08/17	03/08/17 14:22	170308L01

Comment(s): - Results are reported on a dry weight basis.

<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>
Antimony	ND	0.752	0.962	
Arsenic	ND	0.752	0.962	
Barium	48.9	0.501	0.962	
Beryllium	ND	0.251	0.962	
Cadmium	ND	0.501	0.962	
Chromium	3.97	0.251	0.962	
Cobalt	3.78	0.251	0.962	
Copper	5.60	0.501	0.962	
Lead	1.46	0.501	0.962	
Molybdenum	ND	0.251	0.962	
Nickel	3.05	0.251	0.962	
Selenium	ND	0.752	0.962	
Silver	ND	0.251	0.962	
Thallium	ND	0.752	0.962	
Vanadium	12.5	0.251	0.962	
Zinc	21.5	1.00	0.962	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

Andersen Environmental
 5261 West Imperial Highway
 Los Angeles, CA 90045-6231

Date Received: 03/03/17
 Work Order: 17-03-0335
 Preparation: EPA 3050B
 Method: EPA 6010B
 Units: mg/kg

Project: Burbank Airport / 9836002041

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
D-DU1-S-SG-07-15S	17-03-0335-7-A	03/03/17 10:18	Solid	ICP 7300	03/08/17	03/08/17 14:23	170308L01

Comment(s): - Results are reported on a dry weight basis.

<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>
Antimony	ND	0.759	0.976	
Arsenic	ND	0.759	0.976	
Barium	32.1	0.506	0.976	
Beryllium	ND	0.253	0.976	
Cadmium	ND	0.506	0.976	
Chromium	2.75	0.253	0.976	
Cobalt	2.33	0.253	0.976	
Copper	3.52	0.506	0.976	
Lead	0.805	0.506	0.976	
Molybdenum	0.350	0.253	0.976	
Nickel	1.80	0.253	0.976	
Selenium	ND	0.759	0.976	
Silver	ND	0.253	0.976	
Thallium	ND	0.759	0.976	
Vanadium	6.92	0.253	0.976	
Zinc	17.0	1.01	0.976	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

Andersen Environmental
 5261 West Imperial Highway
 Los Angeles, CA 90045-6231

Date Received: 03/03/17
 Work Order: 17-03-0335
 Preparation: EPA 3050B
 Method: EPA 6010B
 Units: mg/kg

Project: Burbank Airport / 9836002041

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
D-DU1-S-SG-07-25S	17-03-0335-8-A	03/03/17 10:55	Solid	ICP 7300	03/08/17	03/08/17 14:24	170308L01

Comment(s): - Results are reported on a dry weight basis.

<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>
Antimony	ND	0.781	0.957	
Arsenic	0.805	0.781	0.957	
Barium	71.7	0.521	0.957	
Beryllium	ND	0.260	0.957	
Cadmium	ND	0.521	0.957	
Chromium	4.63	0.260	0.957	
Cobalt	4.66	0.260	0.957	
Copper	7.35	0.521	0.957	
Lead	1.75	0.521	0.957	
Molybdenum	ND	0.260	0.957	
Nickel	3.88	0.260	0.957	
Selenium	ND	0.781	0.957	
Silver	ND	0.260	0.957	
Thallium	ND	0.781	0.957	
Vanadium	14.9	0.260	0.957	
Zinc	26.2	1.04	0.957	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

Andersen Environmental
 5261 West Imperial Highway
 Los Angeles, CA 90045-6231

Date Received: 03/03/17
 Work Order: 17-03-0335
 Preparation: EPA 3050B
 Method: EPA 6010B
 Units: mg/kg

Project: Burbank Airport / 9836002041

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
D-DU1-S-SG-08-15S	17-03-0335-11-A	03/03/17 07:42	Solid	ICP 7300	03/08/17	03/08/17 14:24	170308L01

Comment(s): - Results are reported on a dry weight basis.

<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>
Antimony	ND	0.766	0.985	
Arsenic	ND	0.766	0.985	
Barium	34.2	0.510	0.985	
Beryllium	ND	0.255	0.985	
Cadmium	ND	0.510	0.985	
Chromium	2.13	0.255	0.985	
Cobalt	2.56	0.255	0.985	
Copper	4.13	0.510	0.985	
Lead	1.03	0.510	0.985	
Molybdenum	ND	0.255	0.985	
Nickel	2.28	0.255	0.985	
Selenium	ND	0.766	0.985	
Silver	ND	0.255	0.985	
Thallium	ND	0.766	0.985	
Vanadium	7.75	0.255	0.985	
Zinc	17.3	1.02	0.985	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

Andersen Environmental
 5261 West Imperial Highway
 Los Angeles, CA 90045-6231

Date Received: 03/03/17
 Work Order: 17-03-0335
 Preparation: EPA 3050B
 Method: EPA 6010B
 Units: mg/kg

Project: Burbank Airport / 9836002041

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
D-DU1-S-SG-08-25S	17-03-0335-12-A	03/03/17 07:55	Solid	ICP 7300	03/08/17	03/08/17 14:25	170308L01

Comment(s): - Results are reported on a dry weight basis.

<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>
Antimony	ND	0.781	0.976	
Arsenic	ND	0.781	0.976	
Barium	75.4	0.521	0.976	
Beryllium	ND	0.260	0.976	
Cadmium	ND	0.521	0.976	
Chromium	4.81	0.260	0.976	
Cobalt	5.16	0.260	0.976	
Copper	8.88	0.521	0.976	
Lead	1.69	0.521	0.976	
Molybdenum	ND	0.260	0.976	
Nickel	5.07	0.260	0.976	
Selenium	ND	0.781	0.976	
Silver	ND	0.260	0.976	
Thallium	ND	0.781	0.976	
Vanadium	16.4	0.260	0.976	
Zinc	27.9	1.04	0.976	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

Andersen Environmental
 5261 West Imperial Highway
 Los Angeles, CA 90045-6231

Date Received: 03/03/17
 Work Order: 17-03-0335
 Preparation: EPA 3050B
 Method: EPA 6010B
 Units: mg/kg

Project: Burbank Airport / 9836002041

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
D-DU1-S-SG-09-15S	17-03-0335-15-A	03/02/17 14:58	Solid	ICP 7300	03/08/17	03/08/17 14:28	170308L01

Comment(s): - Results are reported on a dry weight basis.

<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>
Antimony	ND	0.780	0.971	
Arsenic	ND	0.780	0.971	
Barium	62.2	0.520	0.971	
Beryllium	ND	0.260	0.971	
Cadmium	ND	0.520	0.971	
Chromium	4.19	0.260	0.971	
Cobalt	4.43	0.260	0.971	
Copper	6.66	0.520	0.971	
Lead	1.63	0.520	0.971	
Molybdenum	ND	0.260	0.971	
Nickel	3.71	0.260	0.971	
Selenium	ND	0.780	0.971	
Silver	ND	0.260	0.971	
Thallium	ND	0.780	0.971	
Vanadium	13.8	0.260	0.971	
Zinc	27.5	1.04	0.971	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

Andersen Environmental
 5261 West Imperial Highway
 Los Angeles, CA 90045-6231

Date Received: 03/03/17
 Work Order: 17-03-0335
 Preparation: EPA 3050B
 Method: EPA 6010B
 Units: mg/kg

Project: Burbank Airport / 9836002041

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
D-DU1-S-SG-09-25S	17-03-0335-16-A	03/02/17 16:10	Solid	ICP 7300	03/08/17	03/08/17 14:29	170308L01

Comment(s): - Results are reported on a dry weight basis.

<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>
Antimony	ND	0.777	0.985	
Arsenic	ND	0.777	0.985	
Barium	44.8	0.518	0.985	
Beryllium	ND	0.259	0.985	
Cadmium	ND	0.518	0.985	
Chromium	6.64	0.259	0.985	
Cobalt	3.23	0.259	0.985	
Copper	6.32	0.518	0.985	
Lead	1.26	0.518	0.985	
Molybdenum	1.02	0.259	0.985	
Nickel	3.37	0.259	0.985	
Selenium	ND	0.777	0.985	
Silver	ND	0.259	0.985	
Thallium	ND	0.777	0.985	
Vanadium	10.0	0.259	0.985	
Zinc	23.4	1.04	0.985	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

Andersen Environmental
5261 West Imperial Highway
Los Angeles, CA 90045-6231

Date Received: 03/03/17
Work Order: 17-03-0335
Preparation: EPA 3050B
Method: EPA 6010B
Units: mg/kg

Project: Burbank Airport / 9836002041

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	097-01-002-24425	N/A	Solid	ICP 7300	03/08/17	03/08/17 14:17	170308L01

<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>
Antimony	ND	0.725	0.966	
Arsenic	ND	0.725	0.966	
Barium	ND	0.483	0.966	
Beryllium	ND	0.242	0.966	
Cadmium	ND	0.483	0.966	
Chromium	ND	0.242	0.966	
Cobalt	ND	0.242	0.966	
Copper	ND	0.483	0.966	
Lead	ND	0.483	0.966	
Molybdenum	ND	0.242	0.966	
Nickel	ND	0.242	0.966	
Selenium	ND	0.725	0.966	
Silver	ND	0.242	0.966	
Thallium	ND	0.725	0.966	
Vanadium	ND	0.242	0.966	
Zinc	ND	0.966	0.966	

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RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

Andersen Environmental
5261 West Imperial Highway
Los Angeles, CA 90045-6231

Date Received: 03/03/17
Work Order: 17-03-0335
Preparation: EPA 7471A Total
Method: EPA 7471A
Units: mg/kg

Project: Burbank Airport / 9836002041

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
D-DU1-S-SG-06-15S	17-03-0335-3-A	03/03/17 09:08	Solid	Mercury 08	03/08/17	03/08/17 15:43	170308L03

Comment(s): - Results are reported on a dry weight basis.

<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>
Mercury	ND	0.0838	1.00	

D-DU1-S-SG-06-25S	17-03-0335-4-A	03/03/17 09:15	Solid	Mercury 08	03/08/17	03/08/17 15:50	170308L03

Comment(s): - Results are reported on a dry weight basis.

<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>
Mercury	ND	0.0828	1.00	

D-DU1-S-SG-07-15S	17-03-0335-7-A	03/03/17 10:18	Solid	Mercury 08	03/08/17	03/08/17 15:52	170308L03

Comment(s): - Results are reported on a dry weight basis.

<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>
Mercury	ND	0.0850	1.00	

D-DU1-S-SG-07-25S	17-03-0335-8-A	03/03/17 10:55	Solid	Mercury 08	03/08/17	03/08/17 15:54	170308L03

Comment(s): - Results are reported on a dry weight basis.

<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>
Mercury	ND	0.0878	1.00	

D-DU1-S-SG-08-15S	17-03-0335-11-A	03/03/17 07:42	Solid	Mercury 08	03/08/17	03/08/17 15:57	170308L03

Comment(s): - Results are reported on a dry weight basis.

<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>
Mercury	ND	0.0849	1.00	

D-DU1-S-SG-08-25S	17-03-0335-12-A	03/03/17 07:55	Solid	Mercury 08	03/08/17	03/08/17 15:59	170308L03

Comment(s): - Results are reported on a dry weight basis.

<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>
Mercury	ND	0.0847	1.00	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

Andersen Environmental
5261 West Imperial Highway
Los Angeles, CA 90045-6231

Date Received: 03/03/17
Work Order: 17-03-0335
Preparation: EPA 7471A Total
Method: EPA 7471A
Units: mg/kg

Project: Burbank Airport / 9836002041

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
D-DU1-S-SG-09-15S	17-03-0335-15-A	03/02/17 14:58	Solid	Mercury 08	03/08/17	03/08/17 16:01	170308L03

Comment(s): - Results are reported on a dry weight basis.

<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>
Mercury	ND	0.0864	1.00	

D-DU1-S-SG-09-25S	17-03-0335-16-A	03/02/17 16:10	Solid	Mercury 08	03/08/17	03/08/17 16:08	170308L03

Comment(s): - Results are reported on a dry weight basis.

<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>
Mercury	ND	0.0835	1.00	

Method Blank	099-16-272-2864	N/A	Solid	Mercury 08	03/08/17	03/08/17 15:33	170308L03

<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>
Mercury	ND	0.0833	1.00	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

Andersen Environmental
5261 West Imperial Highway
Los Angeles, CA 90045-6231

Date Received: 03/03/17
Work Order: 17-03-0335
Preparation: EPA 3545
Method: EPA 8082
Units: ug/kg

Project: Burbank Airport / 9836002041

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
D-DU1-S-SG-06-15S	17-03-0335-3-A	03/03/17 09:08	Solid	GC 31	03/06/17	03/07/17 18:03	170306L05

Comment(s): - Results are reported on a dry weight basis.

<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>
Aroclor-1016	ND	52	1.00	
Aroclor-1221	ND	52	1.00	
Aroclor-1232	ND	52	1.00	
Aroclor-1242	ND	52	1.00	
Aroclor-1248	ND	52	1.00	
Aroclor-1254	ND	52	1.00	
Aroclor-1260	ND	52	1.00	
Aroclor-1262	ND	52	1.00	
Aroclor-1268	ND	52	1.00	

<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
Decachlorobiphenyl	73	24-168	
2,4,5,6-Tetrachloro-m-Xylene	55	25-145	

D-DU1-S-SG-06-25S	17-03-0335-4-A	03/03/17 09:15	Solid	GC 31	03/06/17	03/07/17 18:22	170306L05

Comment(s): - Results are reported on a dry weight basis.

<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>
Aroclor-1016	ND	52	1.00	
Aroclor-1221	ND	52	1.00	
Aroclor-1232	ND	52	1.00	
Aroclor-1242	ND	52	1.00	
Aroclor-1248	ND	52	1.00	
Aroclor-1254	ND	52	1.00	
Aroclor-1260	ND	52	1.00	
Aroclor-1262	ND	52	1.00	
Aroclor-1268	ND	52	1.00	

<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
Decachlorobiphenyl	78	24-168	
2,4,5,6-Tetrachloro-m-Xylene	63	25-145	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

Andersen Environmental
 5261 West Imperial Highway
 Los Angeles, CA 90045-6231

Date Received: 03/03/17
 Work Order: 17-03-0335
 Preparation: EPA 3545
 Method: EPA 8082
 Units: ug/kg

Project: Burbank Airport / 9836002041

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
D-DU1-S-SG-07-15S	17-03-0335-7-A	03/03/17 10:18	Solid	GC 31	03/06/17	03/07/17 18:41	170306L05

Comment(s): - Results are reported on a dry weight basis.

<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>
Aroclor-1016	ND	52	1.00	
Aroclor-1221	ND	52	1.00	
Aroclor-1232	ND	52	1.00	
Aroclor-1242	ND	52	1.00	
Aroclor-1248	ND	52	1.00	
Aroclor-1254	ND	52	1.00	
Aroclor-1260	ND	52	1.00	
Aroclor-1262	ND	52	1.00	
Aroclor-1268	ND	52	1.00	

<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
Decachlorobiphenyl	80	24-168	
2,4,5,6-Tetrachloro-m-Xylene	65	25-145	

D-DU1-S-SG-07-25S	17-03-0335-8-A	03/03/17 10:55	Solid	GC 31	03/06/17	03/07/17 19:00	170306L05

Comment(s): - Results are reported on a dry weight basis.

<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>
Aroclor-1016	ND	54	1.00	
Aroclor-1221	ND	54	1.00	
Aroclor-1232	ND	54	1.00	
Aroclor-1242	ND	54	1.00	
Aroclor-1248	ND	54	1.00	
Aroclor-1254	ND	54	1.00	
Aroclor-1260	ND	54	1.00	
Aroclor-1262	ND	54	1.00	
Aroclor-1268	ND	54	1.00	

<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
Decachlorobiphenyl	75	24-168	
2,4,5,6-Tetrachloro-m-Xylene	62	25-145	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

Andersen Environmental
 5261 West Imperial Highway
 Los Angeles, CA 90045-6231

Date Received: 03/03/17
 Work Order: 17-03-0335
 Preparation: EPA 3545
 Method: EPA 8082
 Units: ug/kg

Project: Burbank Airport / 9836002041

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
D-DU1-S-SG-08-15S	17-03-0335-11-A	03/03/17 07:42	Solid	GC 31	03/06/17	03/07/17 19:19	170306L05

Comment(s): - Results are reported on a dry weight basis.

<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>
Aroclor-1016	ND	52	1.00	
Aroclor-1221	ND	52	1.00	
Aroclor-1232	ND	52	1.00	
Aroclor-1242	ND	52	1.00	
Aroclor-1248	ND	52	1.00	
Aroclor-1254	ND	52	1.00	
Aroclor-1260	ND	52	1.00	
Aroclor-1262	ND	52	1.00	
Aroclor-1268	ND	52	1.00	

<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
Decachlorobiphenyl	78	24-168	
2,4,5,6-Tetrachloro-m-Xylene	63	25-145	

D-DU1-S-SG-08-25S	17-03-0335-12-A	03/03/17 07:55	Solid	GC 31	03/06/17	03/07/17 19:38	170306L05

Comment(s): - Results are reported on a dry weight basis.

<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>
Aroclor-1016	ND	53	1.00	
Aroclor-1221	ND	53	1.00	
Aroclor-1232	ND	53	1.00	
Aroclor-1242	ND	53	1.00	
Aroclor-1248	ND	53	1.00	
Aroclor-1254	ND	53	1.00	
Aroclor-1260	ND	53	1.00	
Aroclor-1262	ND	53	1.00	
Aroclor-1268	ND	53	1.00	

<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
Decachlorobiphenyl	76	24-168	
2,4,5,6-Tetrachloro-m-Xylene	57	25-145	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

Andersen Environmental
5261 West Imperial Highway
Los Angeles, CA 90045-6231

Date Received: 03/03/17
Work Order: 17-03-0335
Preparation: EPA 3545
Method: EPA 8082
Units: ug/kg

Project: Burbank Airport / 9836002041

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
D-DU1-S-SG-09-15S	17-03-0335-15-A	03/02/17 14:58	Solid	GC 31	03/06/17	03/07/17 19:57	170306L05

Comment(s): - Results are reported on a dry weight basis.

<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>
Aroclor-1016	ND	54	1.00	
Aroclor-1221	ND	54	1.00	
Aroclor-1232	ND	54	1.00	
Aroclor-1242	ND	54	1.00	
Aroclor-1248	ND	54	1.00	
Aroclor-1254	ND	54	1.00	
Aroclor-1260	ND	54	1.00	
Aroclor-1262	ND	54	1.00	
Aroclor-1268	ND	54	1.00	

<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
Decachlorobiphenyl	77	24-168	
2,4,5,6-Tetrachloro-m-Xylene	58	25-145	

D-DU1-S-SG-09-25S	17-03-0335-16-A	03/02/17 16:10	Solid	GC 31	03/06/17	03/07/17 20:16	170306L05

Comment(s): - Results are reported on a dry weight basis.

<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>
Aroclor-1016	ND	52	1.00	
Aroclor-1221	ND	52	1.00	
Aroclor-1232	ND	52	1.00	
Aroclor-1242	ND	52	1.00	
Aroclor-1248	ND	52	1.00	
Aroclor-1254	ND	52	1.00	
Aroclor-1260	ND	52	1.00	
Aroclor-1262	ND	52	1.00	
Aroclor-1268	ND	52	1.00	

<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
Decachlorobiphenyl	78	24-168	
2,4,5,6-Tetrachloro-m-Xylene	71	25-145	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

Andersen Environmental
5261 West Imperial Highway
Los Angeles, CA 90045-6231

Date Received: 03/03/17
Work Order: 17-03-0335
Preparation: EPA 3545
Method: EPA 8082
Units: ug/kg

Project: Burbank Airport / 9836002041

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	099-12-535-4077	N/A	Solid	GC 31	03/06/17	03/07/17 09:57	170306L05

<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>
Aroclor-1016	ND	50	1.00	
Aroclor-1221	ND	50	1.00	
Aroclor-1232	ND	50	1.00	
Aroclor-1242	ND	50	1.00	
Aroclor-1248	ND	50	1.00	
Aroclor-1254	ND	50	1.00	
Aroclor-1260	ND	50	1.00	
Aroclor-1262	ND	50	1.00	
Aroclor-1268	ND	50	1.00	

<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
Decachlorobiphenyl	76	24-168	
2,4,5,6-Tetrachloro-m-Xylene	67	25-145	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

Andersen Environmental
 5261 West Imperial Highway
 Los Angeles, CA 90045-6231

Date Received: 03/03/17
 Work Order: 17-03-0335
 Preparation: EPA 3545
 Method: EPA 8270C SIM PAHs
 Units: mg/kg

Project: Burbank Airport / 9836002041

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
D-DU1-S-SG-06-15S	17-03-0335-3-A	03/03/17 09:08	Solid	GC/MS EEE	03/06/17	03/07/17 14:17	170306L10

Comment(s): - Results are reported on a dry weight basis.

<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>
Naphthalene	ND	0.010	1.00	
2-Methylnaphthalene	ND	0.010	1.00	
1-Methylnaphthalene	ND	0.010	1.00	
Acenaphthylene	ND	0.010	1.00	
Acenaphthene	ND	0.010	1.00	
Fluorene	ND	0.010	1.00	
Phenanthrene	ND	0.010	1.00	
Anthracene	ND	0.010	1.00	
Fluoranthene	ND	0.010	1.00	
Pyrene	ND	0.010	1.00	
Benzo (a) Anthracene	ND	0.010	1.00	
Chrysene	ND	0.010	1.00	
Benzo (k) Fluoranthene	ND	0.010	1.00	
Benzo (b) Fluoranthene	ND	0.010	1.00	
Benzo (a) Pyrene	ND	0.010	1.00	
Indeno (1,2,3-c,d) Pyrene	ND	0.010	1.00	
Dibenz (a,h) Anthracene	ND	0.010	1.00	
Benzo (g,h,i) Perylene	ND	0.010	1.00	

<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
2-Fluorobiphenyl	79	13-127	
Nitrobenzene-d5	89	17-137	
p-Terphenyl-d14	94	4-160	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

Andersen Environmental
5261 West Imperial Highway
Los Angeles, CA 90045-6231

Date Received: 03/03/17
Work Order: 17-03-0335
Preparation: EPA 3545
Method: EPA 8270C SIM PAHs
Units: mg/kg

Project: Burbank Airport / 9836002041

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
D-DU1-S-SG-06-25S	17-03-0335-4-A	03/03/17 09:15	Solid	GC/MS EEE	03/06/17	03/07/17 14:57	170306L10

Comment(s): - Results are reported on a dry weight basis.

<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>
Naphthalene	ND	0.010	1.00	
2-Methylnaphthalene	ND	0.010	1.00	
1-Methylnaphthalene	ND	0.010	1.00	
Acenaphthylene	ND	0.010	1.00	
Acenaphthene	ND	0.010	1.00	
Fluorene	ND	0.010	1.00	
Phenanthrene	ND	0.010	1.00	
Anthracene	ND	0.010	1.00	
Fluoranthene	ND	0.010	1.00	
Pyrene	ND	0.010	1.00	
Benzo (a) Anthracene	ND	0.010	1.00	
Chrysene	ND	0.010	1.00	
Benzo (k) Fluoranthene	ND	0.010	1.00	
Benzo (b) Fluoranthene	ND	0.010	1.00	
Benzo (a) Pyrene	ND	0.010	1.00	
Indeno (1,2,3-c,d) Pyrene	ND	0.010	1.00	
Dibenz (a,h) Anthracene	ND	0.010	1.00	
Benzo (g,h,i) Perylene	ND	0.010	1.00	

<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
2-Fluorobiphenyl	87	13-127	
Nitrobenzene-d5	110	17-137	
p-Terphenyl-d14	90	4-160	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

Andersen Environmental
 5261 West Imperial Highway
 Los Angeles, CA 90045-6231

Date Received: 03/03/17
 Work Order: 17-03-0335
 Preparation: EPA 3545
 Method: EPA 8270C SIM PAHs
 Units: mg/kg

Project: Burbank Airport / 9836002041

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
D-DU1-S-SG-07-15S	17-03-0335-7-A	03/03/17 10:18	Solid	GC/MS EEE	03/06/17	03/07/17 15:17	170306L10

Comment(s): - Results are reported on a dry weight basis.

<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>
Naphthalene	ND	0.010	1.00	
2-Methylnaphthalene	ND	0.010	1.00	
1-Methylnaphthalene	ND	0.010	1.00	
Acenaphthylene	ND	0.010	1.00	
Acenaphthene	ND	0.010	1.00	
Fluorene	ND	0.010	1.00	
Phenanthrene	ND	0.010	1.00	
Anthracene	ND	0.010	1.00	
Fluoranthene	ND	0.010	1.00	
Pyrene	ND	0.010	1.00	
Benzo (a) Anthracene	ND	0.010	1.00	
Chrysene	ND	0.010	1.00	
Benzo (k) Fluoranthene	ND	0.010	1.00	
Benzo (b) Fluoranthene	ND	0.010	1.00	
Benzo (a) Pyrene	ND	0.010	1.00	
Indeno (1,2,3-c,d) Pyrene	ND	0.010	1.00	
Dibenz (a,h) Anthracene	ND	0.010	1.00	
Benzo (g,h,i) Perylene	ND	0.010	1.00	

<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
2-Fluorobiphenyl	72	13-127	
Nitrobenzene-d5	71	17-137	
p-Terphenyl-d14	88	4-160	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

Andersen Environmental
 5261 West Imperial Highway
 Los Angeles, CA 90045-6231

Date Received: 03/03/17
 Work Order: 17-03-0335
 Preparation: EPA 3545
 Method: EPA 8270C SIM PAHs
 Units: mg/kg

Project: Burbank Airport / 9836002041

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
D-DU1-S-SG-07-25S	17-03-0335-8-A	03/03/17 10:55	Solid	GC/MS EEE	03/06/17	03/07/17 15:38	170306L10

Comment(s): - Results are reported on a dry weight basis.

<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>
Naphthalene	ND	0.011	1.00	
2-Methylnaphthalene	ND	0.011	1.00	
1-Methylnaphthalene	ND	0.011	1.00	
Acenaphthylene	ND	0.011	1.00	
Acenaphthene	ND	0.011	1.00	
Fluorene	ND	0.011	1.00	
Phenanthrene	ND	0.011	1.00	
Anthracene	ND	0.011	1.00	
Fluoranthene	ND	0.011	1.00	
Pyrene	ND	0.011	1.00	
Benzo (a) Anthracene	ND	0.011	1.00	
Chrysene	ND	0.011	1.00	
Benzo (k) Fluoranthene	ND	0.011	1.00	
Benzo (b) Fluoranthene	ND	0.011	1.00	
Benzo (a) Pyrene	ND	0.011	1.00	
Indeno (1,2,3-c,d) Pyrene	ND	0.011	1.00	
Dibenz (a,h) Anthracene	ND	0.011	1.00	
Benzo (g,h,i) Perylene	ND	0.011	1.00	

<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
2-Fluorobiphenyl	74	13-127	
Nitrobenzene-d5	82	17-137	
p-Terphenyl-d14	89	4-160	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

Andersen Environmental
 5261 West Imperial Highway
 Los Angeles, CA 90045-6231

Date Received: 03/03/17
 Work Order: 17-03-0335
 Preparation: EPA 3545
 Method: EPA 8270C SIM PAHs
 Units: mg/kg

Project: Burbank Airport / 9836002041

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
D-DU1-S-SG-08-15S	17-03-0335-11-A	03/03/17 07:42	Solid	GC/MS EEE	03/06/17	03/07/17 15:58	170306L10

Comment(s): - Results are reported on a dry weight basis.

<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>
Naphthalene	ND	0.010	1.00	
2-Methylnaphthalene	ND	0.010	1.00	
1-Methylnaphthalene	ND	0.010	1.00	
Acenaphthylene	ND	0.010	1.00	
Acenaphthene	ND	0.010	1.00	
Fluorene	ND	0.010	1.00	
Phenanthrene	ND	0.010	1.00	
Anthracene	ND	0.010	1.00	
Fluoranthene	ND	0.010	1.00	
Pyrene	ND	0.010	1.00	
Benzo (a) Anthracene	ND	0.010	1.00	
Chrysene	ND	0.010	1.00	
Benzo (k) Fluoranthene	ND	0.010	1.00	
Benzo (b) Fluoranthene	ND	0.010	1.00	
Benzo (a) Pyrene	ND	0.010	1.00	
Indeno (1,2,3-c,d) Pyrene	ND	0.010	1.00	
Dibenz (a,h) Anthracene	ND	0.010	1.00	
Benzo (g,h,i) Perylene	ND	0.010	1.00	

<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
2-Fluorobiphenyl	79	13-127	
Nitrobenzene-d5	88	17-137	
p-Terphenyl-d14	94	4-160	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

Andersen Environmental
 5261 West Imperial Highway
 Los Angeles, CA 90045-6231

Date Received: 03/03/17
 Work Order: 17-03-0335
 Preparation: EPA 3545
 Method: EPA 8270C SIM PAHs
 Units: mg/kg

Project: Burbank Airport / 9836002041

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
D-DU1-S-SG-08-25S	17-03-0335-12-A	03/03/17 07:55	Solid	GC/MS EEE	03/06/17	03/07/17 16:18	170306L10

Comment(s): - Results are reported on a dry weight basis.

<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>
Naphthalene	ND	0.011	1.00	
2-Methylnaphthalene	ND	0.011	1.00	
1-Methylnaphthalene	ND	0.011	1.00	
Acenaphthylene	ND	0.011	1.00	
Acenaphthene	ND	0.011	1.00	
Fluorene	ND	0.011	1.00	
Phenanthrene	ND	0.011	1.00	
Anthracene	ND	0.011	1.00	
Fluoranthene	ND	0.011	1.00	
Pyrene	ND	0.011	1.00	
Benzo (a) Anthracene	ND	0.011	1.00	
Chrysene	ND	0.011	1.00	
Benzo (k) Fluoranthene	ND	0.011	1.00	
Benzo (b) Fluoranthene	ND	0.011	1.00	
Benzo (a) Pyrene	ND	0.011	1.00	
Indeno (1,2,3-c,d) Pyrene	ND	0.011	1.00	
Dibenz (a,h) Anthracene	ND	0.011	1.00	
Benzo (g,h,i) Perylene	ND	0.011	1.00	

<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
2-Fluorobiphenyl	74	13-127	
Nitrobenzene-d5	86	17-137	
p-Terphenyl-d14	88	4-160	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

Andersen Environmental
 5261 West Imperial Highway
 Los Angeles, CA 90045-6231

Date Received: 03/03/17
 Work Order: 17-03-0335
 Preparation: EPA 3545
 Method: EPA 8270C SIM PAHs
 Units: mg/kg

Project: Burbank Airport / 9836002041

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
D-DU1-S-SG-09-15S	17-03-0335-15-A	03/02/17 14:58	Solid	GC/MS EEE	03/06/17	03/07/17 16:38	170306L10

Comment(s): - Results are reported on a dry weight basis.

<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>
Naphthalene	ND	0.011	1.00	
2-Methylnaphthalene	ND	0.011	1.00	
1-Methylnaphthalene	ND	0.011	1.00	
Acenaphthylene	ND	0.011	1.00	
Acenaphthene	ND	0.011	1.00	
Fluorene	ND	0.011	1.00	
Phenanthrene	ND	0.011	1.00	
Anthracene	ND	0.011	1.00	
Fluoranthene	ND	0.011	1.00	
Pyrene	ND	0.011	1.00	
Benzo (a) Anthracene	ND	0.011	1.00	
Chrysene	ND	0.011	1.00	
Benzo (k) Fluoranthene	ND	0.011	1.00	
Benzo (b) Fluoranthene	ND	0.011	1.00	
Benzo (a) Pyrene	ND	0.011	1.00	
Indeno (1,2,3-c,d) Pyrene	ND	0.011	1.00	
Dibenz (a,h) Anthracene	ND	0.011	1.00	
Benzo (g,h,i) Perylene	ND	0.011	1.00	

<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
2-Fluorobiphenyl	84	13-127	
Nitrobenzene-d5	94	17-137	
p-Terphenyl-d14	97	4-160	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

Andersen Environmental
5261 West Imperial Highway
Los Angeles, CA 90045-6231

Date Received: 03/03/17
Work Order: 17-03-0335
Preparation: EPA 3545
Method: EPA 8270C SIM PAHs
Units: mg/kg

Project: Burbank Airport / 9836002041

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
D-DU1-S-SG-09-25S	17-03-0335-16-A	03/02/17 16:10	Solid	GC/MS EEE	03/06/17	03/07/17 16:58	170306L10

Comment(s): - Results are reported on a dry weight basis.

<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>
Naphthalene	ND	0.010	1.00	
2-Methylnaphthalene	ND	0.010	1.00	
1-Methylnaphthalene	ND	0.010	1.00	
Acenaphthylene	ND	0.010	1.00	
Acenaphthene	ND	0.010	1.00	
Fluorene	ND	0.010	1.00	
Phenanthrene	ND	0.010	1.00	
Anthracene	ND	0.010	1.00	
Fluoranthene	ND	0.010	1.00	
Pyrene	ND	0.010	1.00	
Benzo (a) Anthracene	ND	0.010	1.00	
Chrysene	ND	0.010	1.00	
Benzo (k) Fluoranthene	ND	0.010	1.00	
Benzo (b) Fluoranthene	ND	0.010	1.00	
Benzo (a) Pyrene	ND	0.010	1.00	
Indeno (1,2,3-c,d) Pyrene	ND	0.010	1.00	
Dibenz (a,h) Anthracene	ND	0.010	1.00	
Benzo (g,h,i) Perylene	ND	0.010	1.00	

<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
2-Fluorobiphenyl	75	13-127	
Nitrobenzene-d5	86	17-137	
p-Terphenyl-d14	89	4-160	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

Andersen Environmental
5261 West Imperial Highway
Los Angeles, CA 90045-6231

Date Received: 03/03/17
Work Order: 17-03-0335
Preparation: EPA 3545
Method: EPA 8270C SIM PAHs
Units: mg/kg

Project: Burbank Airport / 9836002041

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	099-14-035-377	N/A	Solid	GC/MS EEE	03/06/17	03/07/17 10:49	170306L10

Parameter	Result	RL	DF	Qualifiers
Naphthalene	ND	0.010	1.00	
2-Methylnaphthalene	ND	0.010	1.00	
1-Methylnaphthalene	ND	0.010	1.00	
Acenaphthylene	ND	0.010	1.00	
Acenaphthene	ND	0.010	1.00	
Fluorene	ND	0.010	1.00	
Phenanthrene	ND	0.010	1.00	
Anthracene	ND	0.010	1.00	
Fluoranthene	ND	0.010	1.00	
Pyrene	ND	0.010	1.00	
Benzo (a) Anthracene	ND	0.010	1.00	
Chrysene	ND	0.010	1.00	
Benzo (k) Fluoranthene	ND	0.010	1.00	
Benzo (b) Fluoranthene	ND	0.010	1.00	
Benzo (a) Pyrene	ND	0.010	1.00	
Indeno (1,2,3-c,d) Pyrene	ND	0.010	1.00	
Dibenz (a,h) Anthracene	ND	0.010	1.00	
Benzo (g,h,i) Perylene	ND	0.010	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
2-Fluorobiphenyl	81	13-127	
Nitrobenzene-d5	88	17-137	
p-Terphenyl-d14	96	4-160	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Calscience

Quality Control - Spike/Spike Duplicate

Andersen Environmental
5261 West Imperial Highway
Los Angeles, CA 90045-6231

Date Received: 03/03/17
Work Order: 17-03-0335
Preparation: EPA 3550B
Method: EPA 8015B (M)

Project: Burbank Airport / 9836002041

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
D-DU1-S-SG-08-15S	Sample	Solid	GC 49	03/07/17	03/08/17 01:06	170307S06
D-DU1-S-SG-08-15S	Matrix Spike	Solid	GC 49	03/07/17	03/07/17 23:01	170307S06
D-DU1-S-SG-08-15S	Matrix Spike Duplicate	Solid	GC 49	03/07/17	03/07/17 23:22	170307S06

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
TPH as Diesel	ND	400.0	315.9	79	343.9	86	61-145	8	0-25	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits



Calscience

Quality Control - Spike/Spike Duplicate

Andersen Environmental
5261 West Imperial Highway
Los Angeles, CA 90045-6231

Date Received: 03/03/17
Work Order: 17-03-0335
Preparation: EPA 3050B
Method: EPA 6010B

Project: Burbank Airport / 9836002041

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number				
D-DU1-S-SG-06-15S	Sample	Solid	ICP 7300	03/08/17	03/08/17 14:19	170308S01				
D-DU1-S-SG-06-15S	Matrix Spike	Solid	ICP 7300	03/08/17	03/08/17 14:20	170308S01				
D-DU1-S-SG-06-15S	Matrix Spike Duplicate	Solid	ICP 7300	03/08/17	03/08/17 14:21	170308S01				
Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Antimony	ND	25.00	13.82	55	11.26	45	50-115	20	0-20	3
Arsenic	ND	25.00	27.61	110	27.06	108	75-125	2	0-20	
Barium	51.72	25.00	85.01	133	90.08	153	75-125	6	0-20	3
Beryllium	ND	25.00	27.97	112	26.73	107	75-125	5	0-20	
Cadmium	ND	25.00	27.52	110	26.05	104	75-125	5	0-20	
Chromium	3.748	25.00	31.35	110	30.09	105	75-125	4	0-20	
Cobalt	3.869	25.00	31.23	109	30.13	105	75-125	4	0-20	
Copper	6.462	25.00	34.33	111	34.55	112	75-125	1	0-20	
Lead	1.497	25.00	29.61	112	28.13	107	75-125	5	0-20	
Molybdenum	ND	25.00	26.76	107	25.49	102	75-125	5	0-20	
Nickel	3.161	25.00	30.15	108	28.97	103	75-125	4	0-20	
Selenium	ND	25.00	27.48	110	26.23	105	75-125	5	0-20	
Silver	ND	12.50	13.37	107	12.41	99	75-125	7	0-20	
Thallium	ND	25.00	26.54	106	24.78	99	75-125	7	0-20	
Vanadium	12.40	25.00	40.93	114	38.73	105	75-125	6	0-20	
Zinc	23.37	25.00	52.53	117	50.65	109	75-125	4	0-20	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits



Calscience

Quality Control - Spike/Spike Duplicate

Andersen Environmental
5261 West Imperial Highway
Los Angeles, CA 90045-6231

Date Received: 03/03/17
Work Order: 17-03-0335
Preparation: EPA 7471A Total
Method: EPA 7471A

Project: Burbank Airport / 9836002041

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
D-DU1-S-SG-06-15S	Sample	Solid	Mercury 08	03/08/17	03/08/17 15:43	170308S03
D-DU1-S-SG-06-15S	Matrix Spike	Solid	Mercury 08	03/08/17	03/08/17 15:45	170308S03
D-DU1-S-SG-06-15S	Matrix Spike Duplicate	Solid	Mercury 08	03/08/17	03/08/17 15:48	170308S03

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Mercury	ND	0.8350	0.7637	91	0.6569	79	71-137	15	0-14	4

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits



Calscience

Quality Control - Spike/Spike Duplicate

Andersen Environmental
5261 West Imperial Highway
Los Angeles, CA 90045-6231

Date Received: 03/03/17
Work Order: 17-03-0335
Preparation: EPA 3545
Method: EPA 8082

Project: Burbank Airport / 9836002041

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
17-03-0341-1	Sample	Solid	GC 31	03/06/17	03/07/17 11:09	170306S05
17-03-0341-1	Matrix Spike	Solid	GC 31	03/06/17	03/07/17 10:34	170306S05
17-03-0341-1	Matrix Spike Duplicate	Solid	GC 31	03/06/17	03/07/17 10:53	170306S05

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Aroclor-1016	ND	100.0	67.00	67	76.50	76	50-135	13	0-20	
Aroclor-1260	ND	100.0	81.50	82	93.00	93	50-135	13	0-20	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits



Calscience

Quality Control - Spike/Spike Duplicate

Andersen Environmental
5261 West Imperial Highway
Los Angeles, CA 90045-6231

Date Received: 03/03/17
Work Order: 17-03-0335
Preparation: EPA 3545
Method: EPA 8270C SIM PAHS

Project: Burbank Airport / 9836002041

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number				
D-DU1-S-SG-06-15S	Sample	Solid	GC/MS EEE	03/06/17	03/07/17 14:17	170306S10				
D-DU1-S-SG-06-15S	Matrix Spike	Solid	GC/MS EEE	03/06/17	03/07/17 13:37	170306S10				
D-DU1-S-SG-06-15S	Matrix Spike Duplicate	Solid	GC/MS EEE	03/06/17	03/07/17 13:56	170306S10				
Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Naphthalene	ND	0.1000	0.07824	78	0.07935	79	20-150	1	0-33	
2-Methylnaphthalene	ND	0.1000	0.08935	89	0.09361	94	29-137	5	0-31	
1-Methylnaphthalene	ND	0.1000	0.07897	79	0.08532	85	34-136	8	0-29	
Acenaphthylene	ND	0.1000	0.07172	72	0.07478	75	29-131	4	0-32	
Acenaphthene	ND	0.1000	0.07304	73	0.07507	75	29-137	3	0-28	
Fluorene	ND	0.1000	0.07346	73	0.07788	78	36-132	6	0-27	
Phenanthrene	ND	0.1000	0.08062	81	0.08486	85	20-144	5	0-27	
Anthracene	ND	0.1000	0.08123	81	0.08461	85	26-134	4	0-27	
Fluoranthene	ND	0.1000	0.08556	86	0.08960	90	20-151	5	0-26	
Pyrene	ND	0.1000	0.08020	80	0.08337	83	20-150	4	0-32	
Benzo (a) Anthracene	ND	0.1000	0.08354	84	0.08669	87	24-150	4	0-24	
Chrysene	ND	0.1000	0.08213	82	0.08458	85	25-145	3	0-28	
Benzo (k) Fluoranthene	ND	0.1000	0.08425	84	0.08750	88	28-148	4	0-26	
Benzo (b) Fluoranthene	ND	0.1000	0.08427	84	0.09110	91	21-153	8	0-26	
Benzo (a) Pyrene	ND	0.1000	0.08726	87	0.09022	90	29-149	3	0-22	
Indeno (1,2,3-c,d) Pyrene	ND	0.1000	0.09109	91	0.09352	94	20-154	3	0-25	
Dibenz (a,h) Anthracene	ND	0.1000	0.09278	93	0.09727	97	20-132	5	0-26	
Benzo (g,h,i) Perylene	ND	0.1000	0.09490	95	0.09644	96	20-148	2	0-27	

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RPD: Relative Percent Difference. CL: Control Limits

Quality Control - Sample Duplicate

Andersen Environmental
5261 West Imperial Highway
Los Angeles, CA 90045-6231

Date Received: 03/03/17
Work Order: 17-03-0335
Preparation: N/A
Method: ASTM D-2216 (M)

Project: Burbank Airport / 9836002041

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	Duplicate Batch Number
17-03-0426-7	Sample	Solid	N/A	03/07/17 00:00	03/07/17 21:00	H0307MOID2
17-03-0426-7	Sample Duplicate	Solid	N/A	03/07/17 00:00	03/07/17 21:00	H0307MOID2

<u>Parameter</u>	<u>Sample Conc.</u>	<u>DUP Conc.</u>	<u>RPD</u>	<u>RPD CL</u>	<u>Qualifiers</u>
Moisture	7.200	7.700	7	0-10	

Quality Control - LCS

Andersen Environmental
5261 West Imperial Highway
Los Angeles, CA 90045-6231

Date Received: 03/03/17
Work Order: 17-03-0335
Preparation: EPA 3550B
Method: EPA 8015B (M)

Project: Burbank Airport / 9836002041

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number
099-14-353-4	LCS	Solid	GC 49	03/07/17	03/07/17 22:40	170307B06

<u>Parameter</u>	<u>Spike Added</u>	<u>Conc. Recovered</u>	<u>LCS %Rec.</u>	<u>%Rec. CL</u>	<u>Qualifiers</u>
TPH as Diesel	400.0	360.5	90	61-145	

Quality Control - LCS

Andersen Environmental
5261 West Imperial Highway
Los Angeles, CA 90045-6231

Date Received: 03/03/17
Work Order: 17-03-0335
Preparation: EPA 3050B
Method: EPA 6010B

Project: Burbank Airport / 9836002041

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number
097-01-002-24425	LCS	Solid	ICP 7300	03/08/17	03/08/17 14:18	170308L01
Parameter	Spike Added	Conc. Recovered	LCS %Rec.	%Rec. CL	ME CL	Qualifiers
Antimony	25.00	22.68	91	80-120	73-127	
Arsenic	25.00	23.32	93	80-120	73-127	
Barium	25.00	24.77	99	80-120	73-127	
Beryllium	25.00	22.82	91	80-120	73-127	
Cadmium	25.00	23.76	95	80-120	73-127	
Chromium	25.00	24.07	96	80-120	73-127	
Cobalt	25.00	24.74	99	80-120	73-127	
Copper	25.00	24.04	96	80-120	73-127	
Lead	25.00	24.64	99	80-120	73-127	
Molybdenum	25.00	23.60	94	80-120	73-127	
Nickel	25.00	23.88	96	80-120	73-127	
Selenium	25.00	23.10	92	80-120	73-127	
Silver	12.50	11.16	89	80-120	73-127	
Thallium	25.00	24.03	96	80-120	73-127	
Vanadium	25.00	22.79	91	80-120	73-127	
Zinc	25.00	23.94	96	80-120	73-127	

Total number of LCS compounds: 16

Total number of ME compounds: 0

Total number of ME compounds allowed: 1

LCS ME CL validation result: Pass

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Quality Control - LCS

Andersen Environmental
5261 West Imperial Highway
Los Angeles, CA 90045-6231

Date Received: 03/03/17
Work Order: 17-03-0335
Preparation: EPA 7471A Total
Method: EPA 7471A

Project: Burbank Airport / 9836002041

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number
099-16-272-2864	LCS	Solid	Mercury 08	03/08/17	03/08/17 15:41	170308L03
<u>Parameter</u>		<u>Spike Added</u>	<u>Conc. Recovered</u>	<u>LCS %Rec.</u>	<u>%Rec. CL</u>	<u>Qualifiers</u>
Mercury		0.8350	0.7976	96	85-121	

Quality Control - LCS

Andersen Environmental
5261 West Imperial Highway
Los Angeles, CA 90045-6231

Date Received: 03/03/17
Work Order: 17-03-0335
Preparation: EPA 3545
Method: EPA 8082

Project: Burbank Airport / 9836002041

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number
099-12-535-4077	LCS	Solid	GC 31	03/06/17	03/07/17 10:16	170306L05
<u>Parameter</u>		<u>Spike Added</u>	<u>Conc. Recovered</u>	<u>LCS %Rec.</u>	<u>%Rec. CL</u>	<u>Qualifiers</u>
Aroclor-1016		100.0	88.50	88	50-135	
Aroclor-1260		100.0	89.00	89	50-135	

Quality Control - LCS

Andersen Environmental
5261 West Imperial Highway
Los Angeles, CA 90045-6231

Date Received: 03/03/17
Work Order: 17-03-0335
Preparation: EPA 3545
Method: EPA 8270C SIM PAHs

Project: Burbank Airport / 9836002041

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number
099-14-035-377	LCS	Solid	GC/MS EEE	03/06/17	03/07/17 11:09	170306L10
Parameter	Spike Added	Conc. Recovered	LCS %Rec.	%Rec. CL	ME CL	Qualifiers
Naphthalene	0.1000	0.09332	93	51-129	38-142	
2-Methylnaphthalene	0.1000	0.1080	108	50-127	37-140	
1-Methylnaphthalene	0.1000	0.1019	102	54-132	41-145	
Acenaphthylene	0.1000	0.08533	85	50-123	38-135	
Acenaphthene	0.1000	0.08642	86	53-125	41-137	
Fluorene	0.1000	0.08738	87	55-127	43-139	
Phenanthrene	0.1000	0.09564	96	50-122	38-134	
Anthracene	0.1000	0.09771	98	50-132	36-146	
Fluoranthene	0.1000	0.09986	100	55-127	43-139	
Pyrene	0.1000	0.09302	93	50-134	36-148	
Benzo (a) Anthracene	0.1000	0.09672	97	50-133	36-147	
Chrysene	0.1000	0.09393	94	51-129	38-142	
Benzo (k) Fluoranthene	0.1000	0.1008	101	49-150	32-167	
Benzo (b) Fluoranthene	0.1000	0.1044	104	50-142	35-157	
Benzo (a) Pyrene	0.1000	0.1030	103	50-134	36-148	
Indeno (1,2,3-c,d) Pyrene	0.1000	0.1078	108	50-148	34-164	
Dibenz (a,h) Anthracene	0.1000	0.1095	110	50-133	36-147	
Benzo (g,h,i) Perylene	0.1000	0.1129	113	50-130	37-143	

Total number of LCS compounds: 18

Total number of ME compounds: 0

Total number of ME compounds allowed: 1

LCS ME CL validation result: Pass

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Sample Analysis Summary Report

Work Order: 17-03-0335

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<u>Method</u>	<u>Extraction</u>	<u>Chemist ID</u>	<u>Instrument</u>	<u>Analytical Location</u>
ASTM D-2216 (M)	N/A	1009	N/A	1
EPA 6010B	EPA 3050B	935	ICP 7300	1
EPA 7471A	EPA 7471A Total	868	Mercury 08	1
EPA 8015B (M)	EPA 3550B	972	GC 49	1
EPA 8082	EPA 3545	944	GC 31	1
EPA 8270C SIM PAHs	EPA 3545	907	GC/MS EEE	1

Glossary of Terms and Qualifiers

Work Order: 17-03-0335

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<u>Qualifiers</u>	<u>Definition</u>
*	See applicable analysis comment.
<	Less than the indicated value.
>	Greater than the indicated value.
1	Surrogate compound recovery was out of control due to a required sample dilution. Therefore, the sample data was reported without further clarification.
2	Surrogate compound recovery was out of control due to matrix interference. The associated method blank surrogate spike compound was in control and, therefore, the sample data was reported without further clarification.
3	Recovery of the Matrix Spike (MS) or Matrix Spike Duplicate (MSD) compound was out of control due to suspected matrix interference. The associated LCS recovery was in control.
4	The MS/MSD RPD was out of control due to suspected matrix interference.
5	The PDS/PDSD or PES/PESD associated with this batch of samples was out of control due to suspected matrix interference.
6	Surrogate recovery below the acceptance limit.
7	Surrogate recovery above the acceptance limit.
B	Analyte was present in the associated method blank.
BU	Sample analyzed after holding time expired.
BV	Sample received after holding time expired.
CI	See case narrative.
E	Concentration exceeds the calibration range.
ET	Sample was extracted past end of recommended max. holding time.
HD	The chromatographic pattern was inconsistent with the profile of the reference fuel standard.
HDH	The sample chromatographic pattern for TPH matches the chromatographic pattern of the specified standard but heavier hydrocarbons were also present (or detected).
HDL	The sample chromatographic pattern for TPH matches the chromatographic pattern of the specified standard but lighter hydrocarbons were also present (or detected).
J	Analyte was detected at a concentration below the reporting limit and above the laboratory method detection limit. Reported value is estimated.
JA	Analyte positively identified but quantitation is an estimate.
ME	LCS Recovery Percentage is within Marginal Exceedance (ME) Control Limit range (+/- 4 SD from the mean).
ND	Parameter not detected at the indicated reporting limit.
Q	Spike recovery and RPD control limits do not apply resulting from the parameter concentration in the sample exceeding the spike concentration by a factor of four or greater.
SG	The sample extract was subjected to Silica Gel treatment prior to analysis.
X	% Recovery and/or RPD out-of-range.
Z	Analyte presence was not confirmed by second column or GC/MS analysis.
	Solid - Unless otherwise indicated, solid sample data is reported on a wet weight basis, not corrected for % moisture. All QC results are reported on a wet weight basis.

Any parameter identified in 40CFR Part 136.3 Table II that is designated as "analyze immediately" with a holding time of ≤ 15 minutes (40CFR-136.3 Table II, footnote 4), is considered a "field" test and the reported results will be qualified as being received outside of the stated holding time unless received at the laboratory within 15 minutes of the collection time.

A calculated total result (Example: Total Pesticides) is the summation of each component concentration and/or, if "J" flags are reported, estimated concentration. Component concentrations showing not detected (ND) are summed into the calculated total result as zero concentrations.

Analytical Laboratory: **CalScience** Job # 9836002041

Project Name: Burbank Airport

Project Address: 2627 N. Hollywood Way, Burbank

Project Manager: B. Martasin

Sampled by: G. Baader

Phone/Email: 310-854-6300, brian_martasin@efiglobal.com

Phone/Email: Robert Cheung, 510-529-5948, RCheung@Geosyntec.com

Number	Sample ID	Lab ID	Type		Matrix				Preservative				Sampling Information	
			Grab	Discrete	Water	Soil	Vapor	Other	Cold (4° C)	HNO3	NaHSO4	HCl	Date	Time
1	D-DU1-S-SG-06-035		X		X				X				3/3/17	8:57
2	-085												"	9:03
3	-155												"	9:08
4	-255												"	9:15
5	D-DU1-S-SG-07-035												"	10:00
6	-085												"	10:02
7	-155												"	10:18
8	-255												"	10:55
9	D-DU1-S-SG-08-035												"	7:20
10	-085												"	7:25
11	-155												"	7:42
12	-255												"	7:55
13	D-DU1-S-SG-09-3S		X		X	X	X		X				3/2/17	14:30
14	D-DU1-S-SG-09-8S		X		X	X	X		X				3/2/17	14:50
15	D-DU1-S-SG-09-15S		X		X	X	X		X				3/2/17	14:58
16	D-DU1-S-SG-09-25S		X		X	X	X		X				3/2/17	16:10

Redquisitioned by: *[Signature]* **Date:** 3/3/17

Received by: *[Signature]* **Date:** 3/3/17

Time: 3:31/17

Method	Container				Turnaround Time	
	OCPS, EPA Method 8081A	PAHs, EPA Method 8270C SIM	Metals, EPA Method 6010B/7471A	Lead, EPA Method 6010B	Arsenic, EPA Method 6010B	STLC Lead EPA Method
OCPS, EPA Method 8081A	X	X	X	X	X	X
PAHs, EPA Method 8270C SIM	X	X	X	X	X	X
Metals, EPA Method 6010B/7471A	X	X	X	X	X	X
Lead, EPA Method 6010B	X	X	X	X	X	X
Arsenic, EPA Method 6010B	X	X	X	X	X	X
STLC Lead EPA Method	X	X	X	X	X	X
TCLP Lead EPA Method	X	X	X	X	X	X
PCBs, EPA Method 8082	X	X	X	X	X	X
TPH full chain, EPA Method 8015M	X	X	X	X	X	X
TPH, TPHmo, EPA Method 8015M	X	X	X	X	X	X
Composite	X	X	X	X	X	X
Hold	X	X	X	X	X	X
4 or 8-ounce Glass	X	X	X	X	X	X
250-ml Poly Bottle	X	X	X	X	X	X
EZ Draw (EPA 5035)	X	X	X	X	X	X
Acetate Liner	X	X	X	X	X	X
1-l Amber Bottle	X	X	X	X	X	X
24 hours	X	X	X	X	X	X
48 hours	X	X	X	X	X	X
Normal	X	X	X	X	X	X

Remarks: 3 and 8" samples
Sample condition (circle): Chilled Intact

Hold until: 3/3/17

Received by: *[Signature]* **Date:** 3/3/17

Time: 3:31/17

Hold remaining portions of 15-foot samples (after extraction) pending results of the shallower ISM samples

Then take sample from each liner in center unless otherwise indicated

Received for 25h composites.

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SAMPLE RECEIPT CHECKLIST

COOLER 1 OF 1

CLIENT: EFi/ANDERSEN

DATE: 03 / 03 / 2017

TEMPERATURE: (Criteria: 0.0°C – 6.0°C, not frozen except sediment/tissue)

Thermometer ID: SC3B (CF: 0.0°C); Temperature (w/o CF): 3.3 °C (w/ CF): 3.3 °C; ☒ Blank ☐ Sample

☐ Sample(s) outside temperature criteria (PM/APM contacted by: _____)

☐ Sample(s) outside temperature criteria but received on ice/chilled on same day of sampling

☐ Sample(s) received at ambient temperature; placed on ice for transport by courier

Ambient Temperature: ☐ Air ☐ Filter

Checked by: 804

CUSTODY SEAL:

Cooler ☒ Present and Intact ☐ Present but Not Intact ☐ Not Present ☐ N/A

Checked by: 804

Sample(s) ☐ Present and Intact ☐ Present but Not Intact ☒ Not Present ☐ N/A

Checked by: 1110

SAMPLE CONDITION:

Chain-of-Custody (COC) document(s) received with samples ☒ Yes ☐ No ☐ N/A

COC document(s) received complete ☒ Yes ☐ No ☐ N/A

☐ Sampling date ☐ Sampling time ☐ Matrix ☐ Number of containers

☐ No analysis requested ☐ Not relinquished ☐ No relinquished date ☐ No relinquished time

Sampler's name indicated on COC ☒ Yes ☐ No ☐ N/A

Sample container label(s) consistent with COC ☒ Yes ☐ No ☐ N/A

Sample container(s) intact and in good condition ☒ Yes ☐ No ☐ N/A

Proper containers for analyses requested ☒ Yes ☐ No ☐ N/A

Sufficient volume/mass for analyses requested ☒ Yes ☐ No ☐ N/A

Samples received within holding time ☒ Yes ☐ No ☐ N/A

Aqueous samples for certain analyses received within 15-minute holding time

☐ pH ☐ Residual Chlorine ☐ Dissolved Sulfide ☐ Dissolved Oxygen ☐ Yes ☐ No ☒ N/A

Proper preservation chemical(s) noted on COC and/or sample container ☐ Yes ☐ No ☒ N/A

Unpreserved aqueous sample(s) received for certain analyses

☐ Volatile Organics ☐ Total Metals ☐ Dissolved Metals

Container(s) for certain analysis free of headspace ☐ Yes ☐ No ☒ N/A

☐ Volatile Organics ☐ Dissolved Gases (RSK-175) ☐ Dissolved Oxygen (SM 4500)

☐ Carbon Dioxide (SM 4500) ☐ Ferrous Iron (SM 3500) ☐ Hydrogen Sulfide (Hach)

Tedlar™ bag(s) free of condensation ☐ Yes ☐ No ☒ N/A

CONTAINER TYPE:

(Trip Blank Lot Number: _____)

Aqueous: ☐ VOA ☐ VOAh ☐ VOAna₂ ☐ 100PJ ☐ 100PJna₂ ☐ 125AGB ☐ 125AGBh ☐ 125AGBp ☐ 125PB

☐ 125PBznn ☐ 250AGB ☐ 250CGB ☐ 250CGBs ☐ 250PB ☐ 250PBn ☐ 500AGB ☐ 500AGJ ☐ 500AGJs

☐ 500PB ☐ 1AGB ☐ 1AGBna₂ ☐ 1AGBs ☐ 1PB ☐ 1PBna ☐ _____ ☐ _____ ☐ _____

Solid: ☐ 4ozCGJ ☐ 8ozCGJ ☐ 16ozCGJ ☒ Sleeve (P) ☐ EnCores® (_____) ☐ TerraCores® (_____) ☐ _____

Air: ☐ Tedlar™ ☐ Canister ☐ Sorbent Tube ☐ PUF ☐ _____ Other Matrix (_____) ☐ _____ ☐ _____

Container: A = Amber, B = Bottle, C = Clear, E = Envelope, G = Glass, J = Jar, P = Plastic, and Z = Ziploc/Resealable Bag

Preservative: b = buffered, f = filtered, h = HCl, n = HNO₃, na = NaOH, na₂ = Na₂S₂O₃, p = H₃PO₄, Labeled/Checked by: 1110

s = H₂SO₄, u = ultra-pure, x = Na₂SO₃+NaHSO₄.H₂O, znnn = Zn (CH₃CO₂)₂ + NaOH

Reviewed by: 1017

SAMPLE ANOMALY REPORT

DATE: 03 / 03 / 2017

SAMPLES, CONTAINERS, AND LABELS:

- ☐ Sample(s) NOT RECEIVED but listed on COC
- ☒ Sample(s) received but NOT LISTED on COC
- ☐ Holding time expired (list client or ECI sample ID and analysis)
- ☐ Insufficient sample amount for requested analysis (list analysis)
- ☐ Improper container(s) used (list analysis)
- ☐ Improper preservative used (list analysis)
- ☐ No preservative noted on COC or label (list analysis and notify lab)
- ☐ Sample container(s) not labeled
- ☐ Client sample label(s) illegible (list container type and analysis)
- ☐ Client sample label(s) do not match COC (comment)
 - ☐ Project information
 - ☐ Client sample ID
 - ☐ Sampling date and/or time
 - ☐ Number of container(s)
 - ☐ Requested analysis
- ☐ Sample container(s) compromised (comment)
 - ☐ Broken
 - ☐ Water present in sample container
- ☐ Air sample container(s) compromised (comment)
 - ☐ Flat
 - ☐ Very low in volume
 - ☐ Leaking (not transferred; duplicate bag submitted)
 - ☐ Leaking (transferred into ECI Tedlar™ bags*)
 - ☐ Leaking (transferred into client's Tedlar™ bags*)

* Transferred at client's request.

Comments

Received sleeve not listed
on CoC
(-13) D-DU-5-SG-09-35
03/02/2017 - 14:30
(-14) D-DU-5-SG-09-85
03/02/2017 - 14:50
(-15) D-DU-5-SG-09-155
03/02/2017 - 14:58
(-16) D-DU-5-SG-09-255
03/02/2017 - 16:10

MISCELLANEOUS: (Describe)

Comments

HEADSPACE:

(Containers with bubble > 6 mm or ¼ inch for volatile organic or dissolved gas analysis)

ECI Sample ID	ECI Container ID	Total Number**	ECI Sample ID	ECI Container ID	Total Number**

(Containers with bubble for other analysis)

ECI Sample ID	ECI Container ID	Total Number**	Requested Analysis

Comments: _____

Reported by: 1110
Reviewed by: 1017

** Record the total number of containers (i.e., vials or bottles) for the affected sample.

Case Narrative

Client Project Name: Burbank Airport / 9836002041

Work Order Number: 17-03-0335

CONDITION UPON RECEIPT:

Eurofins Calscience, Inc. received (16) solid samples on March 3rd, 2017. A total of (16) containers were received in good condition and at a temperature of 3.3°C, which was within the recommended temperature of 0°C – 6°C.

Client Sample ID	Lab Sample ID	Date & Time Sampled	Date & Time Received
D-DU1-S-SG-06-03S	17-03-0335-1	03/03/17 08:57	03/03/17 18:45
D-DU1-S-SG-06-08S	17-03-0335-2	03/03/17 09:03	03/03/17 18:45
D-DU1-S-SG-06-15S	17-03-0335-3	03/03/17 09:08	03/03/17 18:45
D-DU1-S-SG-06-25S	17-03-0335-4	03/03/17 09:15	03/03/17 18:45
D-DU1-S-SG-07-03S	17-03-0335-5	03/03/17 10:00	03/03/17 18:45
D-DU1-S-SG-07-08S	17-03-0335-6	03/03/17 10:02	03/03/17 18:45
D-DU1-S-SG-07-15S	17-03-0335-7	03/03/17 10:18	03/03/17 18:45
D-DU1-S-SG-07-25S	17-03-0335-8	03/03/17 10:55	03/03/17 18:45
D-DU1-S-SG-08-03S	17-03-0335-9	03/03/17 07:20	03/03/17 18:45
D-DU1-S-SG-08-08S	17-03-0335-10	03/03/17 07:25	03/03/17 18:45
D-DU1-S-SG-08-15S	17-03-0335-11	03/03/17 07:42	03/03/17 18:45
D-DU1-S-SG-08-25S	17-03-0335-12	03/03/17 07:55	03/03/17 18:45
D-DU1-S-SG-09-3S	17-03-0335-13	03/02/17 14:30	03/03/17 18:45
D-DU1-S-SG-09-8S	17-03-0335-14	03/02/17 14:50	03/03/17 18:45
D-DU1-S-SG-09-15S	17-03-0335-15	03/02/17 14:58	03/03/17 18:45
D-DU1-S-SG-09-25S	17-03-0335-16	03/02/17 16:10	03/03/17 18:45

DATA SUMMARY:

As per the chain of custody (COC), the samples were analyzed using one or more of the following methodologies:

- ASTM D-2216 (M) Moisture Content (Solid)
- EPA 6010B Title 22 Metals (Solid)
- EPA 7471A Mercury (Solid)
- EPA 8015B (M) Diesel and Motor Oil Ranges (Solid)
- EPA 8082 PCB Aroclors (Solid)
- EPA 8270C SIM PAHs (Solid)

The samples were analyzed within the suggested EPA holding time for the requested methods unless otherwise noted.

Case Narrative

Client Project Name: Burbank Airport / 9836002041

Work Order Number: 17-03-0335

Sample results were reported in the RL format.

The sample data is reported in dry weight. The instrument printouts do not reflect the correction for dry weight.

Any dilutions made to the sample(s) and/or QC will be noted in the following narrative. Reporting limits have been adjusted accordingly.

Manual integrations made to the data will be noted in the following narrative. The before and amended chromatograms have been included in the data package.

All sample and analytical QC are within acceptance criteria unless otherwise noted.

ASTM D-2216 (M) Moisture Content (Solid):

Samples -3, -4, -7, -8, -11, -12, -15, and -16 were analyzed for % Moisture by ASTM D-2216 (M). The samples were prepared and analyzed on 03/07/17 in batch #s H0307MOIB2 / H0307MOID2 .

Balance Calibration/Verification:

All values were within acceptance criteria.

Sample and QC:

A sample from a different work order was used as the sample duplicate for quality control. The method blank was non-detect and the QC duplicate was within acceptance criteria.

EPA 6010B Title 22 Metals (Solid):

Samples -3, -4, -7, -8, -11, -12, -15, and -16 were analyzed for Metals by EPA 6010B. The samples were prepared and analyzed on 03/08/17 in batch #s 170308L01 / 170308S01 on ICP 7300.

Initial Calibration, Initial Calibration Verification, and Initial Calibration Blank:

All values were within acceptance criteria.

Continuing Calibration Verification and Continuing Calibration Blank:

All values were within acceptance criteria.

Case Narrative

Client Project Name: Burbank Airport / 9836002041

Work Order Number: 17-03-0335

ICS A/AB:

All values were within acceptance criteria.

Sample and QC:

The method blank was non-detect and the LCS was within acceptance criteria.

Sample -3 was used for the MS/MSD. All values were within acceptance criteria for project-specific analytes except for the MS and/or MSD % recoveries for Antimony and Barium, which were out of range.

EPA 7471A Mercury (Solid):

Samples -3, -4, -7, -8, -11, -12, -15, and -16 were analyzed for Mercury by EPA 7471A. The samples were prepared and analyzed on 03/08/17 in batch #s 170308L03 / 170308S03 on Mercury 08.

Initial Calibration, Initial Calibration Verification, and Initial Calibration Blank:

All values were within acceptance criteria.

Continuing Calibration Verification and Continuing Calibration Blank:

All values were within acceptance criteria.

Sample and QC:

The method blank was non-detect and the LCS was within acceptance criteria.

Sample -3 was used for the MS/MSD. The MS/MSD RPD for Mercury was out of range.

EPA 8015B (M) Diesel and Motor Oil Ranges (Solid):

Samples -3, -4, -7, -8, -11, -12, -15, and -16 were analyzed for Diesel and Motor Oil Ranges by EPA 8015B (M). The samples were prepared on 03/07/17 and analyzed on 03/07 - 08/17 in batch #s 170307B06 / 170307S06 on GC 49.

Initial Calibration and Initial Calibration Verification:

The initial calibration was performed on 03/06/17 on GC 49. The ICAL was within the 20% RSD acceptance criteria and the ICV was within the 30% D acceptance criteria.

Case Narrative

Client Project Name: Burbank Airport / 9836002041

Work Order Number: 17-03-0335

For the Diesel and Motor Oil Ranges, Diesel is used for the initial calibration and spiking standards. The surrogate recoveries for the samples and QC were calculated from the 5-point surrogate curve analyzed with the Diesel ICAL.

Continuing Calibration Verification:

All values were within the 20% D acceptance criteria.

Sample and QC:

Sample -11 was used for the MS/MSD. The method blank was non-detect; the LCS, MS/MSD, and all surrogate recoveries were within acceptance criteria.

EPA 8082 PCB Aroclors (Solid):

Samples -3, -4, -7, -8, -11, -12, -15, and -16 were analyzed for Polychlorinated Biphenyls Aroclors by EPA 8082. The samples were prepared on 03/06/17 and analyzed on 03/07/17 in batch #s 170306L05 / 170306S05 on GC 31.

Initial Calibration and Initial Calibration Verification:

The initial calibration was performed on 03/04/17 on GC 31. The ICAL was within the 20% RSD acceptance criteria and the ICV was within the 15% D acceptance criteria for Aroclors 1016 and 1260 on primary column. Single point response factors were generated for all other Aroclors.

Continuing Calibration Verification:

All values were within the 15% D acceptance criteria.

Sample and QC:

The method blank was non-detect; the LCS and all surrogate recoveries were within acceptance criteria.

A non-client sample was used for the MS/MSD; refer to the MS/MSD summary form for further information.

EPA 8270C SIM PAHs (Solid):

Samples -3, -4, -7, -8, -11, -12, -15, and -16 were analyzed for Polynuclear Aromatic Hydrocarbons by EPA 8270C SIM. The samples were prepared on 03/06/17 and analyzed on 03/07/17 in batch #s 170306L10 / 170306S10 on GC/MS EEE.

Case Narrative

Client Project Name: Burbank Airport / 9836002041

Work Order Number: 17-03-0335

Initial Calibration and Initial Calibration Verification:

The initial calibration was performed on 02/27/17 on GC/MS EEE. The ICAL was within the 15% RSD acceptance criteria and the ICV was within the 20% D acceptance criteria.

Continuing Calibration Verification:

All values were within the 20% D acceptance criteria.

Tuning Standards:

All instrument tuning standards (DFTPP) were within acceptance criteria.

Sample and QC:

Sample -3 was used for the MS/MSD. The method blank was non-detect; the LCS, MS/MSD, all surrogate and internal standard recoveries were within acceptance criteria.

ASTM D-2216 (M)

Moisture Content

(Solid)

RAW DATA

**RAW DATA SHEET
FOR METHOD: ASTM D-2216 (M)**

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WORK ORDER: 17-03-0335
INSTRUMENT: N/A
EXTRACTION : N/A
D/T EXTRACTED: 2017-03-07 00:00

ANALYZED BY: 1,009
D/T ANALYZED: 2017-03-07 21:00
REVIEWED BY: 1,009
D/T REVIEWED: 2017-03-09 09:22

DATA FILE: NONE

3 **CLIENT SAMPLE NUMBER:** D-DU1-S-SG-06-15S

<u>LCS/MB BATCH:</u>	H0307MOIB2	<u>SAMPLE VOLUME / WEIGHT:</u>	DEFAULT: 1.00 g
<u>MS/MSD BATCH:</u>	H0307MOID2	<u>FINAL VOLUME / WEIGHT:</u>	DEFAULT: 1.00 ml
<u>UNITS:</u>	%	<u>ADJUSTMENT RATIO TO PF:</u>	1.00

COMMENT:

<u>COMPOUND</u>	<u>ON COL CONC</u>	<u>DF</u>	<u>CONC</u>	<u>RL</u>	<u>QUAL</u>
Moisture	3.80	1.00	3.80	0.10	

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**RAW DATA SHEET
FOR METHOD: ASTM D-2216 (M)**

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WORK ORDER: 17-03-0335
INSTRUMENT: N/A
EXTRACTION: N/A
D/T EXTRACTED: 2017-03-07 00:00
DATA FILE: NONE

ANALYZED BY: 1,009
D/T ANALYZED: 2017-03-07 21:00
REVIEWED BY: 1,009
D/T REVIEWED: 2017-03-09 09:22

4 **CLIENT SAMPLE NUMBER:** D-DU1-S-SG-06-25S

<u>LCS/MB BATCH:</u>	H0307MOIB2	<u>SAMPLE VOLUME / WEIGHT:</u>	DEFAULT: 1.00 g
<u>MS/MSD BATCH:</u>	H0307MOID2	<u>FINAL VOLUME / WEIGHT:</u>	DEFAULT: 1.00 ml
<u>UNITS:</u>	%	<u>ADJUSTMENT RATIO TO PF:</u>	1.00

COMMENT:

<u>COMPOUND</u>	<u>ON COL CONC</u>	<u>DF</u>	<u>CONC</u>	<u>RL</u>	<u>QUAL</u>
Moisture	4.10	1.00	4.10	0.10	

**RAW DATA SHEET
FOR METHOD: ASTM D-2216 (M)**

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WORK ORDER: 17-03-0335
INSTRUMENT: N/A
EXTRACTION: N/A
D/T EXTRACTED: 2017-03-07 00:00

ANALYZED BY: 1,009
D/T ANALYZED: 2017-03-07 21:00
REVIEWED BY: 1,009
D/T REVIEWED: 2017-03-09 09:22

DATA FILE: NONE

7 **CLIENT SAMPLE NUMBER:** D-DU1-S-SG-07-15S

<u>LCS/MB BATCH:</u>	H0307MOIB2	<u>SAMPLE VOLUME / WEIGHT:</u>	DEFAULT: 1.00 g
<u>MS/MSD BATCH:</u>	H0307MOID2	<u>FINAL VOLUME / WEIGHT:</u>	DEFAULT: 1.00 ml
<u>UNITS:</u>	%	<u>ADJUSTMENT RATIO TO PF:</u>	1.00

COMMENT:

<u>COMPOUND</u>	<u>ON COL CONC</u>	<u>DF</u>	<u>CONC</u>	<u>RL</u>	<u>QUAL</u>
Moisture	3.60	1.00	3.60	0.10	

**RAW DATA SHEET
FOR METHOD: ASTM D-2216 (M)**

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WORK ORDER: 17-03-0335
INSTRUMENT: N/A
EXTRACTION: N/A
D/T EXTRACTED: 2017-03-07 00:00

ANALYZED BY: 1,009
D/T ANALYZED: 2017-03-07 21:00
REVIEWED BY: 1,009
D/T REVIEWED: 2017-03-09 09:22

DATA FILE: NONE

8 **CLIENT SAMPLE NUMBER:** D-DU1-S-SG-07-25S

LCS/MB BATCH:	H0307MOIB2	SAMPLE VOLUME / WEIGHT:	DEFAULT: 1.00 g
MS/MSD BATCH:	H0307MOID2	FINAL VOLUME / WEIGHT:	DEFAULT: 1.00 ml
UNITS:	%	ADJUSTMENT RATIO TO PF:	1.00

COMMENT:

COMPOUND	ON COL CONC	DF	CONC	RL	QUAL
Moisture	8.10	1.00	8.10	0.10	

**RAW DATA SHEET
FOR METHOD: ASTM D-2216 (M)**

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WORK ORDER: 17-03-0335
INSTRUMENT: N/A
EXTRACTION: N/A
D/T EXTRACTED: 2017-03-07 00:00
DATA FILE: NONE

ANALYZED BY: 1,009
D/T ANALYZED: 2017-03-07 21:00
REVIEWED BY: 1,009
D/T REVIEWED: 2017-03-09 09:22

11 **CLIENT SAMPLE NUMBER:** D-DU1-S-SG-08-15S

<u>LCS/MB BATCH:</u>	H0307MOIB2	<u>SAMPLE VOLUME / WEIGHT:</u>	DEFAULT: 1.00 g
<u>MS/MSD BATCH:</u>	H0307MOID2	<u>FINAL VOLUME / WEIGHT:</u>	DEFAULT: 1.00 ml
<u>UNITS:</u>	%	<u>ADJUSTMENT RATIO TO PF:</u>	1.00

COMMENT:

<u>COMPOUND</u>	<u>ON COL CONC</u>	<u>DF</u>	<u>CONC</u>	<u>RL</u>	<u>QUAL</u>
Moisture	3.50	1.00	3.50	0.10	


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**RAW DATA SHEET
FOR METHOD: ASTM D-2216 (M)**

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WORK ORDER: 17-03-0335
INSTRUMENT: N/A
EXTRACTION: N/A
D/T EXTRACTED: 2017-03-07 00:00

ANALYZED BY: 1,009
D/T ANALYZED: 2017-03-07 21:00
REVIEWED BY: 1,009
D/T REVIEWED: 2017-03-09 09:22

DATA FILE: NONE

12 **CLIENT SAMPLE NUMBER:** D-DU1-S-SG-08-25S

LCS/MB BATCH:	H0307MOIB2	SAMPLE VOLUME / WEIGHT:	DEFAULT: 1.00 g
MS/MSD BATCH:	H0307MOID2	FINAL VOLUME / WEIGHT:	DEFAULT: 1.00 ml
UNITS:	%	ADJUSTMENT RATIO TO PF:	1.00

COMMENT:

COMPOUND	ON COL CONC	DF	CONC	RL	QUAL
Moisture	6.30	1.00	6.30	0.10	

**RAW DATA SHEET
FOR METHOD: ASTM D-2216 (M)**

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WORK ORDER: 17-03-0335
INSTRUMENT: N/A
EXTRACTION: N/A
D/T EXTRACTED: 2017-03-07 00:00
DATA FILE: NONE

ANALYZED BY: 1,009
D/T ANALYZED: 2017-03-07 21:00
REVIEWED BY: 1,009
D/T REVIEWED: 2017-03-09 09:22

15 **CLIENT SAMPLE NUMBER:** D-DU1-S-SG-09-15S

<u>LCS/MB BATCH:</u>	H0307MOIB2	<u>SAMPLE VOLUME / WEIGHT:</u>	DEFAULT: 1.00 g
<u>MS/MSD BATCH:</u>	H0307MOID2	<u>FINAL VOLUME / WEIGHT:</u>	DEFAULT: 1.00 ml
<u>UNITS:</u>	%	<u>ADJUSTMENT RATIO TO PF:</u>	1.00

COMMENT:

<u>COMPOUND</u>	<u>ON COL CONC</u>	<u>DF</u>	<u>CONC</u>	<u>RL</u>	<u>QUAL</u>
Moisture	6.70	1.00	6.70	0.10	

**RAW DATA SHEET
FOR METHOD: ASTM D-2216 (M)**

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WORK ORDER: 17-03-0335
INSTRUMENT: N/A
EXTRACTION: N/A
D/T EXTRACTED: 2017-03-07 00:00
DATA FILE: NONE

ANALYZED BY: 1,009
D/T ANALYZED: 2017-03-07 21:00
REVIEWED BY: 1,009
D/T REVIEWED: 2017-03-09 09:22

16 **CLIENT SAMPLE NUMBER:** D-DU1-S-SG-09-25S

<u>LCS/MB BATCH:</u>	H0307MOIB2	<u>SAMPLE VOLUME / WEIGHT:</u>	DEFAULT: 1.00 g
<u>MS/MSD BATCH:</u>	H0307MOID2	<u>FINAL VOLUME / WEIGHT:</u>	DEFAULT: 1.00 ml
<u>UNITS:</u>	%	<u>ADJUSTMENT RATIO TO PF:</u>	1.00

COMMENT:

<u>COMPOUND</u>	<u>ON COL CONC</u>	<u>DF</u>	<u>CONC</u>	<u>RL</u>	<u>QUAL</u>
Moisture	4.90	1.00	4.90	0.10	

METHOD BLANK ASSOCIATION SUMMARY

FOR METHOD: ASTM D-2216 (M)

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MB SAMPLE ID: 099-05-014-6727
MB BATCH ID: H0307MOIB2
INSTRUMENT: N/A
EXTRACTION: N/A
D/T EXTRACTED: 2017-03-07 00:00

ANALYZED BY: 1,009
D/T ANALYZED: 2017-03-07 21:00
REVIEWED BY: 1,009
D/T REVIEWED: 2017-03-09 09:22
MATRIX: Soil

DATA FILE: NONE

CLIENT WORK ORDER: 17-03-0335

S#	RUN TYPE	CLIENT SAMPLE ID	D/T ANALYZED	DATA FILE
3	D-DU1-S-SG-06-15S		2017-03-07 21:00	NONE
4	D-DU1-S-SG-06-25S		2017-03-07 21:00	NONE
7	D-DU1-S-SG-07-15S		2017-03-07 21:00	NONE
8	D-DU1-S-SG-07-25S		2017-03-07 21:00	NONE
11	D-DU1-S-SG-08-15S		2017-03-07 21:00	NONE
12	D-DU1-S-SG-08-25S		2017-03-07 21:00	NONE
15	D-DU1-S-SG-09-15S		2017-03-07 21:00	NONE
16	D-DU1-S-SG-09-25S		2017-03-07 21:00	NONE

**RAW DATA SHEET
FOR METHOD: ASTM D-2216 (M)**

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WORK ORDER: 099-05-014
INSTRUMENT: N/A
EXTRACTION: N/A
D/T EXTRACTED: 2017-03-07 00:00

ANALYZED BY: 1,009
D/T ANALYZED: 2017-03-07 21:00
REVIEWED BY: 1,009
D/T REVIEWED: 2017-03-09 09:22

DATA FILE: NONE

MB **CLIENT SAMPLE NUMBER:** Method Blank

LCS/MB BATCH:	H0307MOIB2	SAMPLE VOLUME / WEIGHT:	DEFAULT: 1.00 g
MS/MSD BATCH:		FINAL VOLUME / WEIGHT:	DEFAULT: 1.00 ml
UNITS:	%	ADJUSTMENT RATIO TO PF:	1.00

COMMENT:

COMPOUND	ON COL CONC	DF	CONC	RL	QUAL
Moisture	0.000	1.00	ND	0.10	

Return to Contents

DUPLICATE REPORT
FOR METHOD: ASTM D-2216 (M)

DUP SAMPLE ID: 17-03-0426-7
DUP BATCH: H0307MOID2
INSTRUMENTS:
SAMPLE: N/A
DUP SAMPLE: N/A

EXTRACTION: N/A
D/T EXTRACTED:
SAMPLE: 2017-03-07 00:00
DUP SAMPLE: 2017-03-07 00:00

ANALYZED BY: 1,009
D/T ANALYZED
SAMPLE: 2017-03-07 21:00
DUP SAMPLE: 2017-03-07 21:00
REVIEWED BY: 1,009
D/T REVIEWED 2017-03-09 09:22

<u>COMPOUND</u>	<u>SAMPLE CONC</u>	<u>DUP CONC</u>	<u>% RPD</u>	<u>CONTROL LIMIT</u>	<u>STATUS</u>	<u>QUALIFIERS</u>
Moisture	7.200	7.700	7	0-10	PASS	

Data Files:

<u>TYPE</u>	<u>DATA FILE</u>	<u>DATA FILE PATH</u>
SDP	NONE	

Moisture Content Raw Data Logbook

METHOD	MATRIX	DATE	ANALYST(S)	BATCH NUMBER
ASTM D2216(M)	☒ Solid ☐ Sediment ☐ Other	Preparation: 3/7/17 Analysis: 4	1050/1009	MB: H0307 Mol B2 Sample Duplicate: D2

CEL ID #	MASS (g)	DRY DISH	MOISTURE	% MOISTURE	RL (%)	COMMENTS	ALUMINUM DISH SUPPLY ID
MB		1.87	0.00	0.00	0.10		G007-66-15

CEL ID #	% MOISTURE	RPD	CONTROL LIMIT	OVEN ID	THERMOMETER ID / CF (°C)	OVEN TEMP (°C)	BATCH PREP TIME (hh:mm)
Sample 17-03-0426-7A	7.2	7	0 - 10	☒ IO 07	☒ TSS IO7A CF: -2	Start: 103	Start: 1300
Duplicate 4	7.7			☐ IO 08	☐ TSS IO8A CF:	End: 103	End: 2100

Instructions: CEL ID consists of Work Order Number and Container ID

CEL ID #	DISH	MASS (g)		DISH + SAMPLE (as-received)	SAMPLE (as-received)	DISH + SAMPLE (oven-dried)	MOISTURE	% MOISTURE		BALANCE ID #	RL (%)	QUAL	COMMENTS
		DISH	DRY DISH					WET-BASED	DRY-BASED				
Duplicate 17-03-0426-7A	1.87	12.10	1.87	10.23	10.23	11.31	0.79	7.7		63	0.10		11.31
17-03-0426-1A	1.86	12.10	1.86	10.24	10.24	11.23	0.87	8.5					
-2A	1.87	12.14	1.87	10.27	10.27	11.01	1.13	11.0					
-3A	1.87	12.28	1.87	10.41	10.41	10.66	1.62	15.6					
-4A	1.87	12.52	1.87	10.65	10.65	11.95	0.57	5.4					
-5A	1.87	12.82	1.87	10.95	10.95	11.59	1.23	11.2					
-6A	1.88	12.27	1.88	10.39	10.39	11.72	0.55	5.3					
-7A	1.92	12.08	1.92	10.16	10.16	11.35	0.73	7.2					
-8A	1.86	12.63	1.86	10.77	10.77	11.97	0.66	6.1					
-9A	1.86	12.30	1.86	10.44	10.44	11.44	0.86	8.2					
17-03-0335-3A	1.86	12.13	1.86	10.27	10.27	11.74	0.39	3.8	3.8				
-4A	1.84	12.88	1.84	11.04	11.04	12.43	0.45	4.1					
-7A	1.85	12.84	1.85	10.99	10.99	12.44	0.40	3.6					
-8A	1.85	12.64	1.85	10.79	10.79	11.77	0.87	8.1					
-11A	1.86	12.49	1.86	10.63	10.63	12.12	0.37	3.5					
-12A	1.88	12.33	1.88	10.45	10.45	11.67	0.66	6.3					
-15A	1.90	12.05	1.90	10.15	10.15	11.37	0.68	6.7					
-16A	1.90	12.50	1.90	10.60	10.60	11.98	0.52	4.9					
17-03-0456-1A	1.84	12.59	1.84	10.75	10.75	6.36	6.23	58.0					
-2A	1.87	12.28	1.87	10.41	10.41	6.34	5.94	57.1					

BATCH TIME
Time (24 Hr): 2100
Initials: 1050/1009

Drying / Weighing Cycle Raw Data Logbook

Analyte: ☒ Moisture Content, ☐ Solids Content, ☐ Total Dissolved Solids (TDS), ☐ Total Suspended Solids (TSS), ☐ Volatile Solids (VS), ☐ Volatile Suspended Solids (VSS), ☐ Lipid Content, ☐ Mobility Extraction (TCLP/SPLP/STLC), ☐ Other (Specified)

METHOD		MASS CHANGE CONTROL LIMIT		COMMENTS
☒ ASTM D2216(M)	☐ EPA 160.4 ☐ SM 2540 C ☐ WET (STLC)	Moisture/Solids Content: < 0.1% of previous mass		
☐ EPA 160.1	☐ EPA 1311 ☐ SM 2540 D ☐ Other	TDS/TSS/VSS/VSS: < 4% of previous mass or 0.5 mg, whichever is less		
☐ EPA 160.2	☐ EPA 1312 ☐ SM 2540 E	TCLP/SPLP/STLC: within ± 1% of previous mass		
☐ EPA 160.3	☐ SM 2540 B ☐ SOP-M489			

MATRIX	DATE	ANALYST(S)	BATCH NUMBER	MB: 140307 M01 B2	LCS/LCSD: NA	COMMENTS
Solid	03/7/17	1050/1009	1	D2	NA	
Preparation:	03/7/17	1050/1009	1	D2	NA	
Analysis:	1					

ECI ID #	OVEN ID #	CONTAINER + RESIDUE (OVEN-DRIED)										FINAL MASS CHANGE WITHIN LIMITS	BALANCE ID #	COMMENTS
		CYCLE 1				CYCLE 2				CYCLE 3				
		MASS (g)	TIME (hr:mm)		MASS (g)	TIME (hr:mm)		MASS (g)	TIME (hr:mm)					
			IN	OUT		IN	OUT		IN	OUT				
MB	10-07	1.87	1400	1800	1.87	1900	2000				Y	N	63	
LCS											Y	N		
LCSD											Y	N		
MS											Y	N		
MSD/Duplicate											Y	N		
Duplicate	17-03-0426-7A	11.31	1400	1800	11.31	1900	2000				Y	N	63	
	17-03-0426-1A	11.23			11.23						Y	N		
	2A	11.01			11.01						Y	N		
	3A	10.66			10.66						Y	N		
	4A	11.95			11.95						Y	N		
	5A	11.59			11.59						Y	N		
	6A	11.72			11.72						Y	N		
	7A	11.35			11.35						Y	N		
	8A	11.97			11.97						Y	N		
	9A	11.44			11.44						Y	N		
	17-03-0335-3A	11.74			11.74						Y	N		
	4A	12.43			12.43						Y	N		
	7A	12.44			12.44						Y	N		
	8A	11.77			11.77						Y	N		
	11A	12.12			12.12						Y	N		
	12A	11.67			11.67						Y	N		
	15A	11.37			11.37						Y	N		
	16A	11.98			11.98						Y	N		
	17-03-0456-1A	6.36			6.36						Y	N		
	2A	6.34			6.34						Y	N		

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BALANCE CALIBRATION CHECK LOG

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Date performed: 3/17/17 Initials: lll

ID	Class 2 Weight (g)	Reading (g)	Acceptance Range	Pass? (circle one)	Comment (If not passed, note removal or corrective action)
25	1	1.00	0.98 - 1.02	⓪ N	IO Lab
	100	100.00	98.00 - 102.00	⓪ N	
	500	498.98	498.00 - 502.00	⓪ N	
62	0.002	.0020	0.00180 - 0.00220	⓪ N	IO Lab
	1	.9996	0.99900 - 1.00100	⓪ N	
	100	99.9962	99.90000 - 100.10000	⓪ N	
26	1	1.00	0.98 - 1.02	⓪ N	IO Lab
	100	99.99	98.00 - 102.00	⓪ N	
55	1	.98	0.98 - 1.02	⓪ N	IO Lab
	100	99.96	98.00 - 102.00	Y N	
	500	499.83	498.00 - 502.00	⓪ N	
11	1	.99	0.98 - 1.02	⓪ N	IO Lab
	100	100.00	98.00 - 102.00	⓪ N	
66	0.002	.0020	0.00180 - 0.00220	⓪ N	Metals
	1	.9996	0.99900 - 1.00100	⓪ N	
	100	100.0004	99.90000 - 100.10000	⓪ N	
53	0.1	.10	0.09 - 0.11	⓪ N	Extractions
	1	1.00	0.98 - 1.02	⓪ N	
	100	99.98	98.00 - 102.00	⓪ N	
	500	499.93	498 - 502	⓪ N	
80 70	1	1.00	0.98 - 1.02	⓪ N	Extractions
	100	99.83	98.00 - 102.00	⓪ N	
	500	499.18	498.00 - 502.00	⓪ N	
57	100	100.0	98.0-102.0	⓪ N	Extractions
	1000	1000.0	998.0-1002.0	⓪ N	
	2000	1999.9	1998.0-2002.0	⓪ N	
52	0.002	.0020	0.0018 - 0.0022	⓪ N	Extractions
	1	.9996	0.9990 - 1.0010	⓪ N	
	100	99.9967	99.9000 - 100.1000	⓪ N	
71	0.002	.0019	0.0018 - 0.0022	⓪ N	BOD Room
	1	.9993	0.9990 - 1.0010	⓪ N	
	100	99.9962	99.9000 - 100.1000	⓪ N	
63	0.1	.10	0.09-0.11	⓪ N	BOD Room
	100	99.99	98.00 - 102.00	⓪ N	
64	1	.99	0.98 - 1.02	⓪ N	Metals Clean Room
	10	10.01	9.8 - 10.2	Y N	
	100	100.00	98.00 - 102.00	⓪ N	
72	0.002	.0020	0.0018 - 0.0022	⓪ N	Oil & Grease Room
	1	.9995	0.9990 - 1.0010	⓪ N	
	100	100.0011	99.9000 - 100.1000	Y N	
30	1	1.00	0.98 - 1.02	⓪ N	Oil & Grease Room
	100	100.00	98.00 - 102.00	⓪ N	

EPA 8015B (M) Diesel + Motor Oil

RAW DATA

EPA 8015B (M)
Diesel + Motor Oil
INITIAL CALIBRATION

INITIAL CALIBRATION QUALITY CONTROL SUMMARY
FOR METHOD: EPA 8015B (M)

ICAL WORK ORDER: 099-14-354-23-5901
ICAL BATCH ID: 1703061006
INSTRUMENT: GC 49

ANALYZED BY: 972
ICAL D/T ANALYZED: 2017-03-06 16:25
REVIEWED BY:
D/T REVIEWED:

COMPOUND	COMP. TYPE	CALIB. MODEL	1	2	3	4	5	6	7	8	9	Avg. RF	Min. RF	%RSD CL	%RSD CL	R or R ² CL	R or R ² CL	STATUS
TPH as Diesel	C	Avg RF	1,245.677	912.737	918.784	901.660	906.221					977.0	0.00	15	0-20			PASS
												16						

Data Files:

Level #	D/T Analyzed	Data File
1	2017-03-06 16:25	T:\GC_49\GC_49_data\2017\170306\17030614.d\Report.txt17030614
2	2017-03-06 16:46	T:\GC_49\GC_49_data\2017\170306\17030615.d\Report.txt17030615
3	2017-03-06 17:06	T:\GC_49\GC_49_data\2017\170306\17030616.d\Report.txt17030616
4	2017-03-06 17:27	T:\GC_49\GC_49_data\2017\170306\17030617.d\Report.txt17030617
5	2017-03-06 17:48	T:\GC_49\GC_49_data\2017\170306\17030618.d\Report.txt17030618

INITIAL CALIBRATION VERIFICATION QUALITY CONTROL SHEET FOR METHOD: EPA 8015B (M)

ICV WORK ORDER: 099-14-354-23-5901
INITIAL BATCH: 1703061006
INSTRUMENT: GC 49

ANALYZED BY: 972
D/T ANALYZED: 2017-03-06 16:25
INITIAL: 2017-03-06 18:09
ICV:
REVIEWED BY:
D/T REVIEWED:

DATA FILE: T:\GC_49\GC_49_data\2017\170306\17030619.d\Report.txt17030619

COMPOUND NAME	COMP TYPE	CALIB MODEL		MIN RF	AVG RF	ICV RF	AMOUNT	ICV CONC	ICV %D	ICV %D CL	STATUS
TPH as Diesel	C	Avg Resp		0.00	977.016	886.920			9	0-30	PASS

MIN RF: Method Specified Minimum Response Factor

Report Date : 06-Mar-2017 19:11

Page 1

Eurofins Calscience

INITIAL CALIBRATION DATA

Start Cal Date : 09-NOV-2016 21:15
 End Cal Date : 06-MAR-2017 17:48
 Quant Method : ESTD
 Origin : Disabled
 Target Version : 3.50
 Integrator : HP Genie
 Method file : /chem1/SVOA/GC_49.i/170306.b/8015d.m
 Cal Date : 06-Mar-2017 19:09 d2ef
 Curve Type : Average

Calibration File Names:

Level 1: /chem1/SVOA/GC_49.i/170124.b/17012441.d
 Level 2: /chem1/SVOA/GC_49.i/170124.b/17012442.d
 Level 3: /chem1/SVOA/GC_49.i/170124.b/17012443.d
 Level 4: /chem1/SVOA/GC_49.i/170124.b/17012444.d
 Level 5: /chem1/SVOA/GC_49.i/170124.b/17012445.d

	5.000	200.000	400.000	800.000	1600.000		
Compound	Level 1	Level 2	Level 3	Level 4	Level 5	RRF	% RSD
=====	=====	=====	=====	=====	=====	=====	=====
S 1 TPH as Jet A rf	886434	816845	849166	1193052	863474	921794	17
S 4 TPH as JP5 rf	822008	830452	736341	726438	850947	793237	7
S 14 TPH as Diesel rf	1245677	912737	918784	901660	906221	977016	15

Report Date : 06-Mar-2017 19:11

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Eurofins Calscience

INITIAL CALIBRATION DATA

Start Cal Date : 09-NOV-2016 21:15
 End Cal Date : 06-MAR-2017 17:48
 Quant Method : ESTD
 Origin : Disabled
 Target Version : 3.50
 Integrator : HP Genie
 Method file : /chem1/SVOA/GC_49.i/170306.b/8015d.m
 Cal Date : 06-Mar-2017 19:09 d2ef
 Curve Type : Average

	5.000	200.000	400.000	800.000	1600.000		
Compound	Level 1	Level 2	Level 3	Level 4	Level 5	RRF	% RSD
S 26 Diesel Range Organics rf	1109325	837831	843320	828547	840256	891856	14
S 31 Oil Range Organics rf	325793	329796	315888	323023	313064	321513	2
S 35 TPH as Motor Oil rf	386723	335050	318855	325562	315112	336260	9

Report Date : 06-Mar-2017 19:11

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Eurofins Calscience
INITIAL CALIBRATION DATA

Start Cal Date : 09-NOV-2016 21:15
 End Cal Date : 06-MAR-2017 17:48
 Quant Method : ESTD
 Origin : Disabled
 Target Version : 3.50
 Integrator : HP Genie
 Method file : /chem1/SVOA/GC_49.i/170306.b/8015d.m
 Cal Date : 06-Mar-2017 19:09 d2ef
 Curve Type : Average

	5.000	200.000	400.000	800.000	1600.000		
Compound	Level 1	Level 2	Level 3	Level 4	Level 5	RRF	% RSD
=====	=====	=====	=====	=====	=====	=====	=====
S 274 Micro-TPH as Motor Oil rf	531070	608933	689551	700484	707426	647493	12
S 200 NWTPH_Diesel rf	838068	650960	682751	690067	691436	710656	10
S 268 NWTPH_Diesel Range rf	838068	650960	682751	690067	691436	710656	10
S 201 NWTPH_Motor Oil rf	386163	394983	425714	434936	389269	406213	6
=====	=====	=====	=====	=====	=====	=====	=====
\$ 92 n-Octacosane	244278	235628	228262	230419	222709	232259	4
\$ 93 C28 n-Octacosane	340990	511509	511646	496028	456324	463300	16

Data File: /chem1/SVOA/GC_49.i/170306.b/17030619.d
 Report Date: 03/07/2017 10:23

Eurofins CalScience
 Calibration Verification Report

Instrument ID: GC_49.i Injection Date and Time: 06-MAR-2017 18:09
 Sample Name: ICV D400 C28 50 L102516G Initial Calibration Date(s): 09-NOV-2016 06-MAR-2017
 Sublist used: CCV_D-DRO.sub Initial Calibration Time(s): 21:15 19:52
 Method used: /chem1/SVOA/GC_49.i/170306.b/8015d.m

Target Compounds	ICAL RRF or Amount	ICV RRF	Min. RRF	%D / %Drift	Max%D /Drift	Curve Type
Diesel Range Organics	891855.748	841967.223	0.00	6	15	Averaged
TPH as Diesel	977015.903	886919.945	0.00	9	15	Averaged
Surrogate Standards	ICAL RRF or Amount	ICV RRF	Min. RRF	%D / %Drift	Max%D /Drift	Curve Type
n-Octacosane	232259.309	243037.580	0.00	-5	20	Averaged

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Data File: /chem1/SVOA/GC_49.i/170306.b/17030614.d
 Report Date: 07-Mar-2017 10:16

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Eurofins Calscience

EPA 8015B(M)

Data file : /chem1/SVOA/GC_49.i/170306.b/17030614.d
 Lab Smp Id:
 Inj Date : 06-MAR-2017 16:25
 Operator : 682
 Smp Info : ICAL D5 C28 0.625 L102516B
 Misc Info :
 Comment :
 Method : /chem1/SVOA/GC_49.i/170306.b/8015d.m
 Meth Date : 07-Mar-2017 10:13 uj3k
 Cal Date : 25-JAN-2017 00:58
 Als bottle: 14
 Dil Factor: 1.00000
 Integrator: HP Genie
 Target Version: 3.50
 Processing Host: US26TAR4

Inst ID: GC_49.i

Quant Type: ESTD

Cal File: 17012441.d

Calibration Sample, Level: 1

Compound Sublist: ICAL_D-DRO.sub

Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable

Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS	
					CAL-AMT (ppm)	ON-COL (ppm)
=====	==	=====	=====	=====	=====	=====
S 14 TPH as Diesel	0.697-7.962			6228384	5.00000	6.374
S 26 Diesel Range Organics	2.315-7.962			5546623	5.00000	6.219
\$ 92 n-Octacosane	7.758	7.756	0.002	152674	0.62500	0.657

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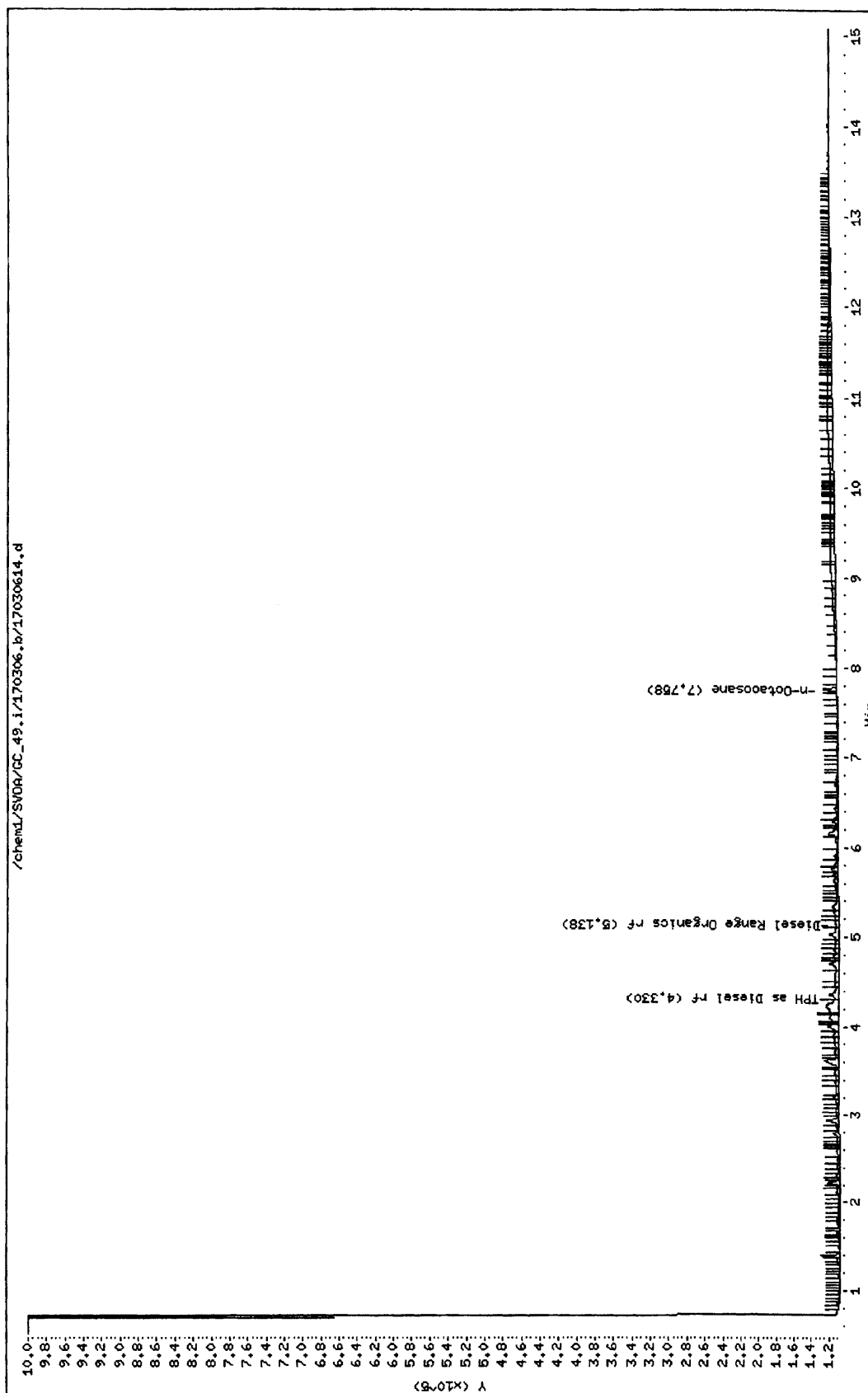
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 Date : 06-MAR-2017 16:25
 Client ID:
 Sample Info: ICAL B5 C28 0.625 L1025168

Instrument: GC_49.i

Operator: 682

Column diameter: 2.00

Column phase:



Data File: /chem1/SVOA/GC_49.i/170306.b/17030615.d
 Report Date: 07-Mar-2017 10:17

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Eurofins Calscience

EPA 8015B(M)

Data file : /chem1/SVOA/GC_49.i/170306.b/17030615.d
 Lab Smp Id:
 Inj Date : 06-MAR-2017 16:46
 Operator : 682 Inst ID: GC_49.i
 Smp Info : ICAL D200 C28 25 L102516C
 Misc Info :
 Comment :
 Method : /chem1/SVOA/GC_49.i/170306.b/8015d.m
 Meth Date : 07-Mar-2017 10:16 uj3k Quant Type: ESTD
 Cal Date : 25-JAN-2017 01:19 Cal File: 17012442.d
 Als bottle: 15 Calibration Sample, Level: 2
 Dil Factor: 1.00000
 Integrator: HP Genie Compound Sublist: ICAL_D-DRO.sub
 Target Version: 3.50
 Processing Host: US26TAR4

Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable

Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS	
					CAL-AMT (ppm)	ON-COL (ppm)
S 14 TPH as Diesel	0.697-7.962			182547475	200.000	186.841
S 26 Diesel Range Organics	2.315-7.962			167566270	200.000	187.884
\$ 92 n-Octacosane	7.757	7.758	-0.001	5890705	25.0000	25.362

Page 1

Data File: /chem1/SVDR/GC_49.i/170306.b/17030615.d

Date : 06-MAR-2017 16:46

Client ID:

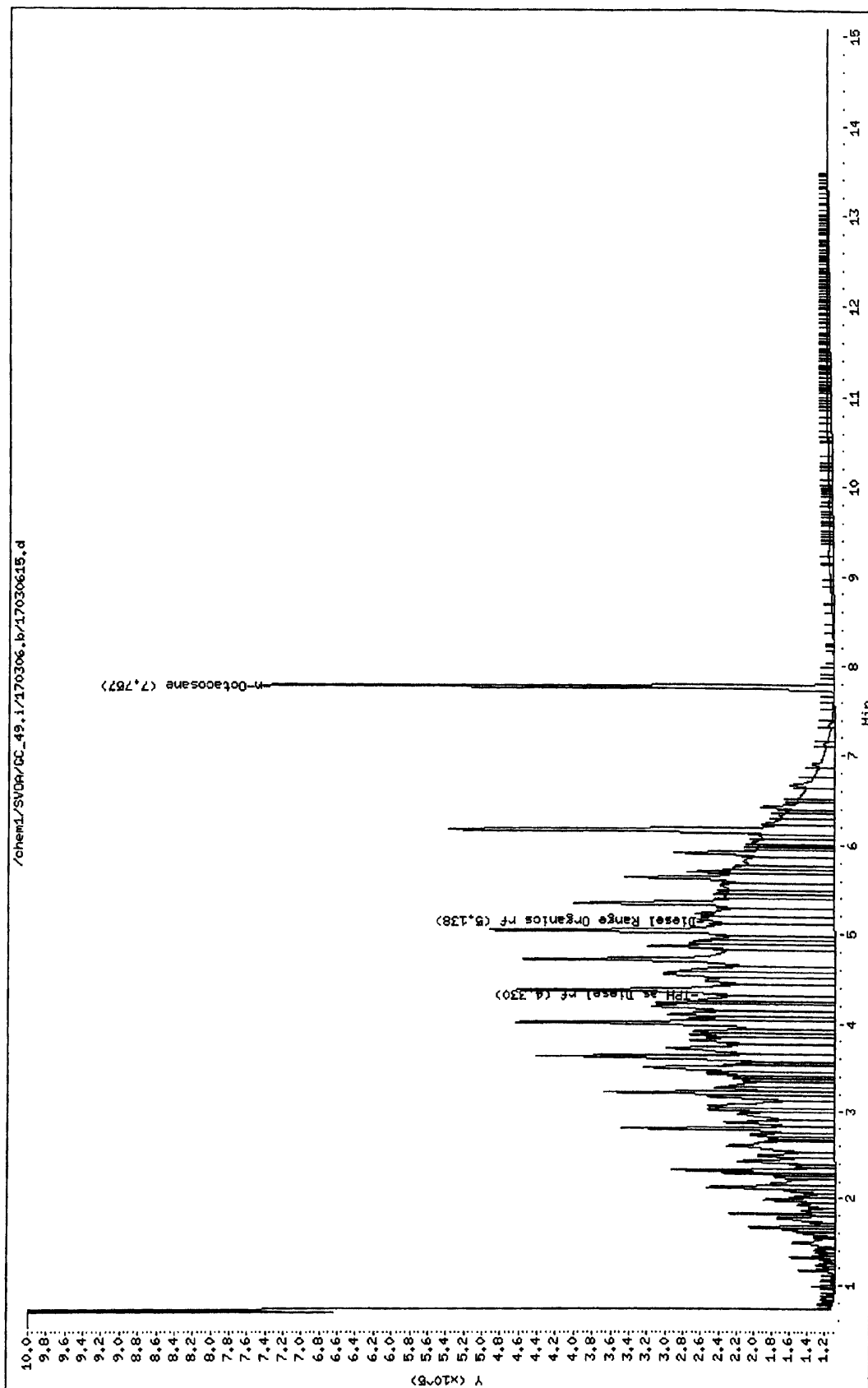
Sample Info: ICAH D200 C28 25 L102516C

Instrument: GC_49.i

Operator: 682

Column diameter: 2.00

Column phase:



Data File: /chem1/SVOA/GC_49.i/170306.b/17030616.d
 Report Date: 07-Mar-2017 10:17

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Eurofins Calscience

EPA 8015B(M)

Data file : /chem1/SVOA/GC_49.i/170306.b/17030616.d
 Lab Smp Id:
 Inj Date : 06-MAR-2017 17:06
 Operator : 682
 Smp Info : ICAL D400 C28 50 L102516D
 Misc Info :
 Comment :
 Method : /chem1/SVOA/GC_49.i/170306.b/8015d.m
 Meth Date : 07-Mar-2017 10:16 uj3k
 Cal Date : 25-JAN-2017 01:41
 Als bottle: 16
 Dil Factor: 1.00000
 Integrator: HP Genie
 Target Version: 3.50
 Processing Host: US26TAR4

Inst ID: GC_49.i

Quant Type: ESTD

Cal File: 17012443.d

Calibration Sample, Level: 3

Compound Sublist: ICAL_D-DRO.sub

Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable

Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS	
					CAL-AMT (ppm)	ON-COL (ppm)
S 14 TPH as Diesel	0.697-7.962			367513694	400.000	376.159
S 26 Diesel Range Organics	2.315-7.962			337327915	400.000	378.231
\$ 92 n-Octacosane	7.757	7.757	0.000	11413099	50.0000	49.139

Page 1

Data File: /chem1/SV04/CC_49.i/170306.b/17030616.d

Date : 06-MAR-2017 17:06

Client ID:

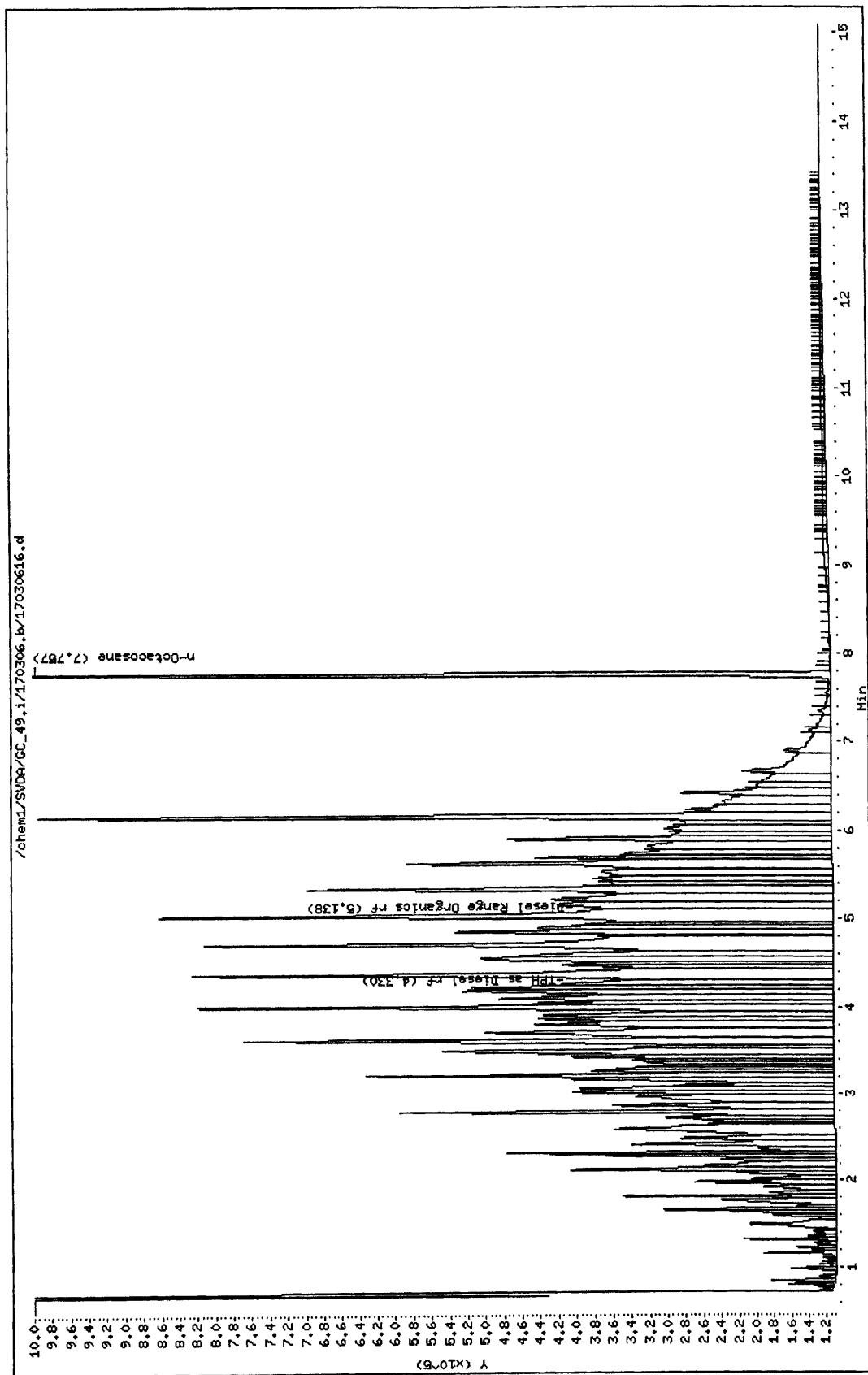
Sample Info: ICAL D400 C28 50 L102516D

Instrument: GC_49.i

Operator: 682

Column diameter: 2.00

Column phase:



Data File: /chem1/SVOA/GC_49.i/170306.b/17030617.d
 Report Date: 07-Mar-2017 10:17

Page 1

Eurofins Calscience

EPA 8015B(M)

Data file : /chem1/SVOA/GC_49.i/170306.b/17030617.d
 Lab Smp Id:
 Inj Date : 06-MAR-2017 17:27
 Operator : 682
 Smp Info : ICAL D800 C28 100 L102516E
 Misc Info :
 Comment :
 Method : /chem1/SVOA/GC_49.i/170306.b/8015d.m
 Meth Date : 07-Mar-2017 10:17 uj3k
 Cal Date : 25-JAN-2017 02:02
 Als bottle: 17
 Dil Factor: 1.00000
 Integrator: HP Genie
 Target Version: 3.50
 Processing Host: US26TAR4

Inst ID: GC_49.i

Quant Type: ESTD

Cal File: 17012444.d

Calibration Sample, Level: 4

Compound Sublist: ICAL_D-DRO.sub

Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable

Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS	
					CAL-AMT (ppm)	ON-COL (ppm)
S 14 TPH as Diesel	0.697-7.962			721328088	800.000	738.297
S 26 Diesel Range Organics	2.315-7.962			662837940	800.000	743.212
\$ 92 n-Octacosane	7.759	7.757	0.002	23041891	100.000	99.207

Page 1

Data File: /chem1/SVDA/GC_49.i/170306.b/17030617.d

Date : 06-MAR-2017 17:27

Client ID:

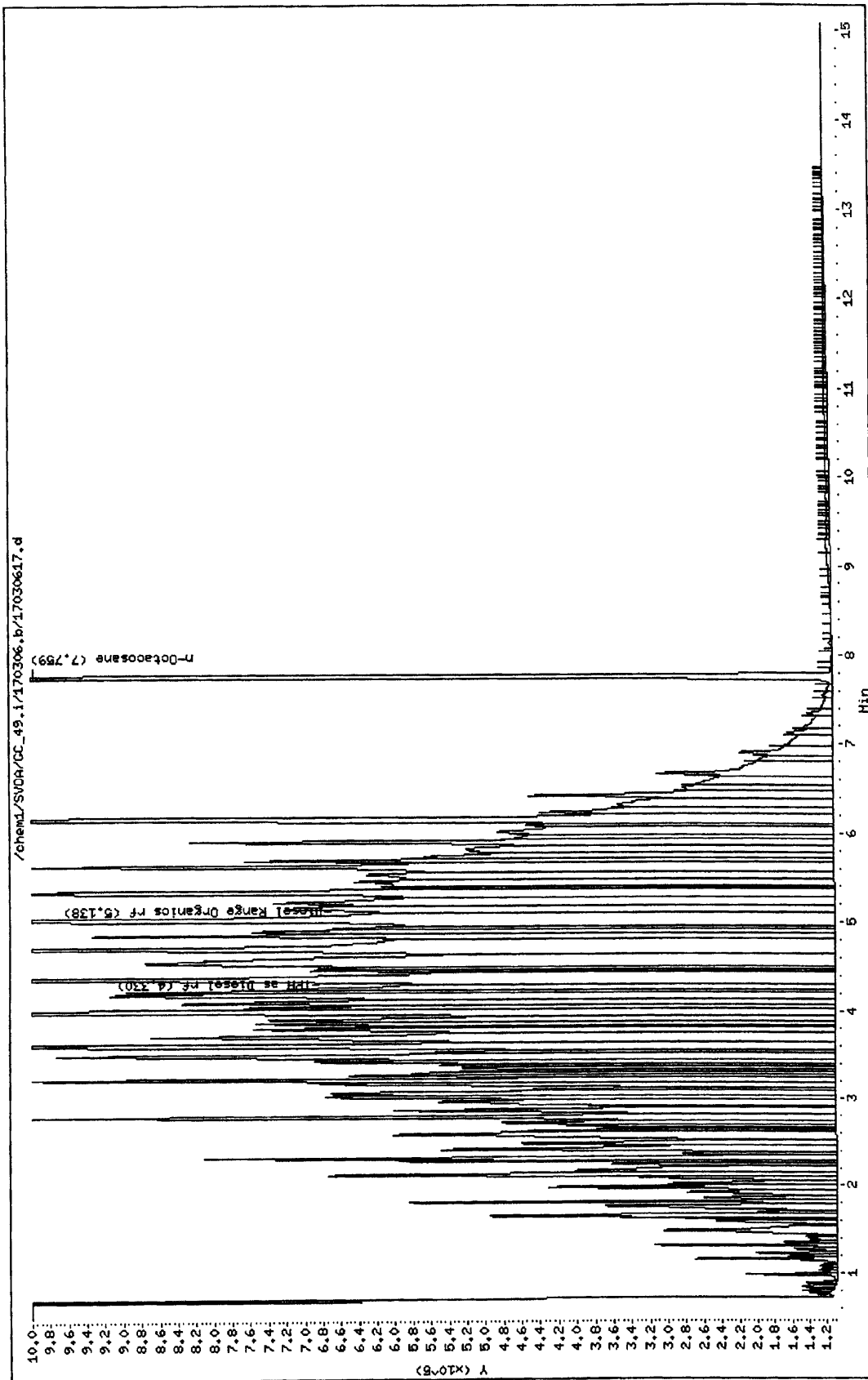
Sample Info: ICAL D800 C28 100 L102516E

Instrument: GC_49.i

Operator: 682

Column diameter: 2.00

Column phase:



Data File: /chem1/SVOA/GC_49.i/170306.b/17030618.d
 Report Date: 07-Mar-2017 10:17

Page 1

Eurofins Calscience

EPA 8015B(M)

Data file : /chem1/SVOA/GC_49.i/170306.b/17030618.d
 Lab Smp Id:
 Inj Date : 06-MAR-2017 17:48
 Operator : 682 Inst ID: GC_49.i
 Smp Info : ICAL D1600 C28 200 L102516F
 Misc Info :
 Comment :
 Method : /chem1/SVOA/GC_49.i/170306.b/8015d.m
 Meth Date : 07-Mar-2017 10:17 uj3k Quant Type: ESTD
 Cal Date : 25-JAN-2017 02:23 Cal File: 17012445.d
 Als bottle: 18 Calibration Sample, Level: 5
 Dil Factor: 1.00000
 Integrator: HP Genie Compound Sublist: ICAL_D-DRO.sub
 Target Version: 3.50
 Processing Host: US26TAR4

Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable

Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS	
					CAL-AMT (ppm)	ON-COL (ppm)
=====	==	=====	=====	=====	=====	=====
S 14 TPH as Diesel	0.697-7.962			1449953593	1600.00	1484.063
S 26 Diesel Range Organics	2.315-7.962			1344408923	1600.00	1507.428
\$ 92 n-Octacosane	7.762	7.759	0.003	44541811	200.000	191.776

Page 1

Data File: /chem1/SV04/CC_49.i/170306.b/17030618.d

Date : 06-Mar-2017 17:48

Client ID:

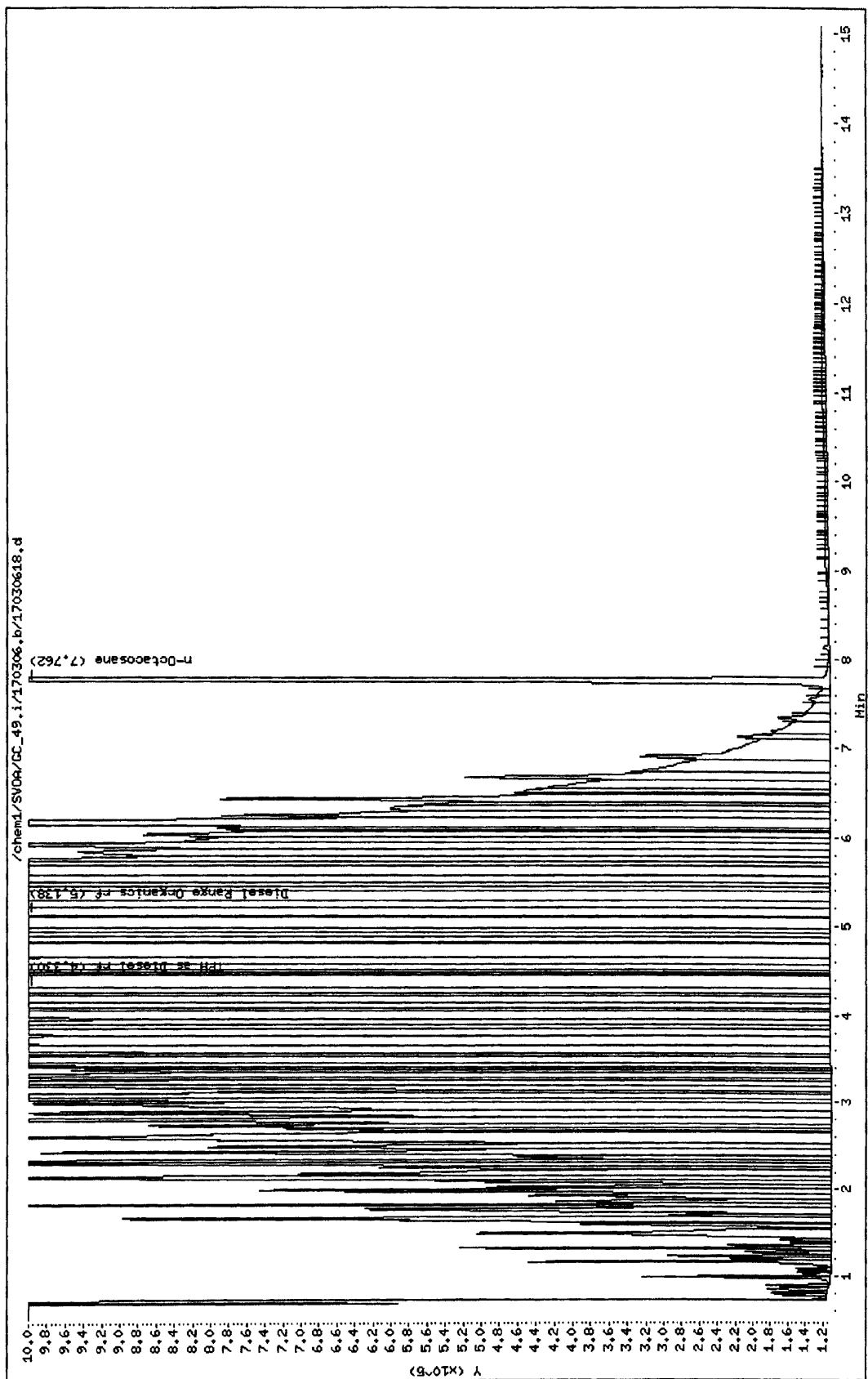
Sample Info: ICAL D1600 C28 200 L102516F

Instrument: GC_49.i

Operator: 682

Column diameter: 2.00

Column phase:



Data File: /chem1/SVOA/GC_49.i/170306.b/17030619.d
 Report Date: 07-Mar-2017 10:17

Page 1

Eurofins Calscience

EPA 8015B(M)

Data file : /chem1/SVOA/GC_49.i/170306.b/17030619.d
 Lab Smp Id:
 Inj Date : 06-MAR-2017 18:09
 Operator : 682
 Smp Info : ICV D400 C28 50 L102516G
 Misc Info :
 Comment :
 Method : /chem1/SVOA/GC_49.i/170306.b/8015d.m
 Meth Date : 07-Mar-2017 10:17 uj3k
 Cal Date : 25-JAN-2017 02:23
 Als bottle: 19
 Dil Factor: 1.00000
 Integrator: HP Genie
 Target Version: 3.50
 Processing Host: US26TAR4

Inst ID: GC_49.i

Quant Type: ESTD

Cal File: 17012445.d

Continuing Calibration Sample

Compound Sublist: CCV_D-DRO.sub

Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable

Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS	
					CAL-AMT (ppm)	ON-COL (ppm)
S 14 TPH as Diesel	0.697-7.962			354767978	400.000	363.113
S 26 Diesel Range Organics	2.315-7.962			336786889	400.000	377.624
\$ 92 n-Octacosane	7.756	7.762	-0.006	12151879	50.0000	52.320

Page 1

Data File: /chem1/SVDA/CC_49.i/170306.b/17030619.d

Date : 06-MAR-2017 18:09

Client ID:

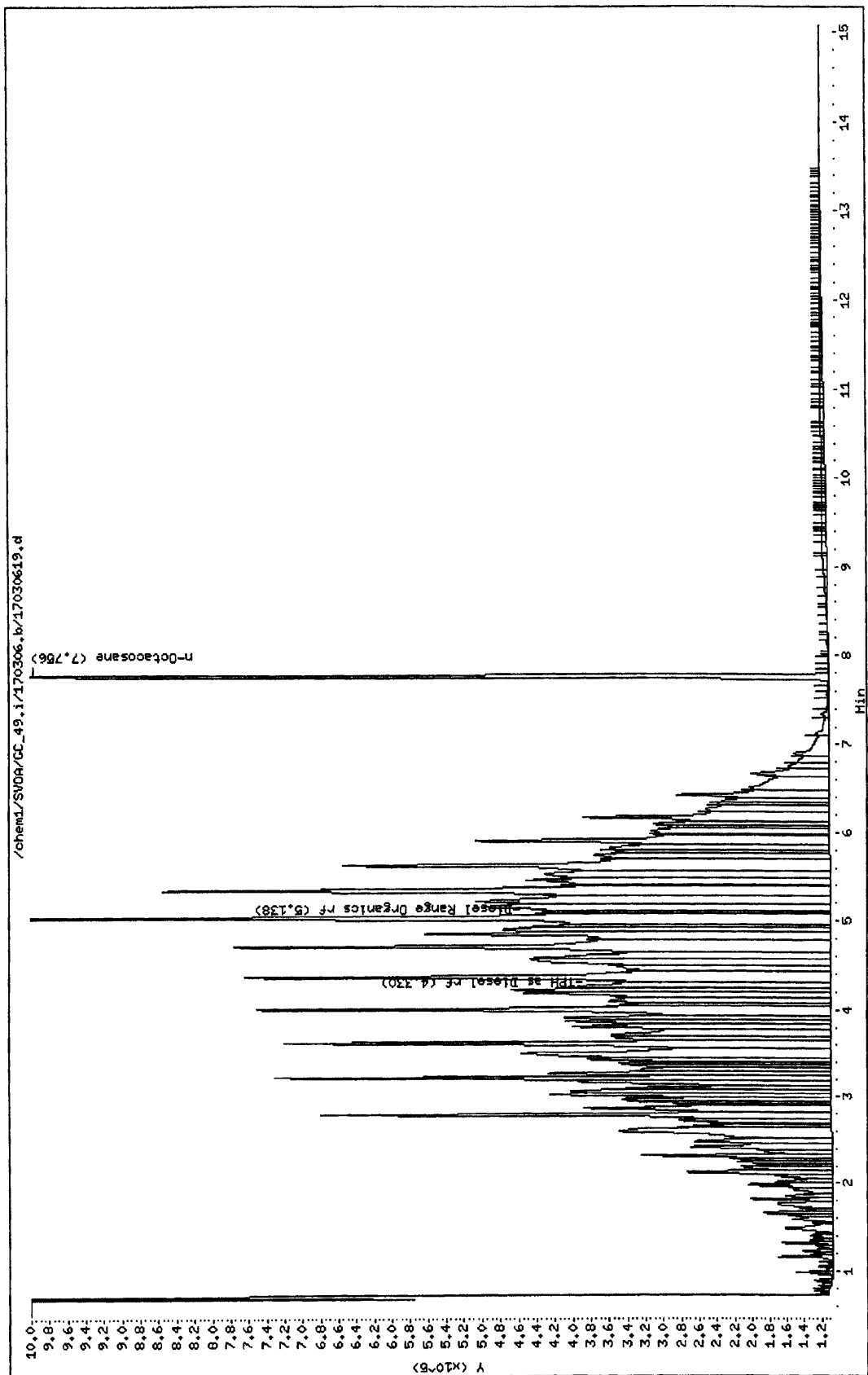
Sample Info: ICV D400 C28 50 L102516C

Instrument: GC_49.i

Operator: 682

Column diameter: 2.00

Column phase:



=====

External Standard Report

=====

Data File Name : /chem1/SVOA/GC_49/170306/17030602.d
 Page Number :
 Operator : 682 Vial Number : Vial 2
 Instrument : GC 49 Injection Number : 2
 Sample Name : C6-C44 L110816A Sequence Line : 0
 Instrument Method: 8015d.m
 Acquired on : 06 MAR 17 12:07
 Report Created on: 07-MAR-17 10:23 Compound Sublist : all
 Software Revision: Target 3.50

Sig. 1 in /chem1/SVOA/GC_49.i/170306.b/17030602.d

RT Range	Exp RT	DLT RT	Response	ppm	Compound
0.697	7.850	7.153	2200075.00	0.00	C6-Hexane
0.882	7.850	6.968	3983348.00	0.00	C7-Heptane
1.317	7.850	6.533	5426841.00	0.00	C8-Octane
1.814	7.850	6.036	5539750.00	0.00	C9-Nonane
2.315	7.850	5.535	5698858.00	0.00	C10-Decane
2.783	7.850	5.067	5780938.00	0.00	C11-Undecane
3.217	7.850	4.633	5762413.00	0.00	C12-Dodecane
3.623	7.850	4.227	5863572.00	0.00	C13-Tridecane
4.004	7.850	3.846	5844937.00	0.00	C14-Tetradecane
4.364	7.850	3.486	5816534.00	0.00	C15-pentadecane
4.704	7.850	3.146	5811167.00	0.00	C16-Hexadecane
5.027	7.850	2.823	5915621.00	0.00	C17-Heptadecane
5.333	7.850	2.517	5944391.00	0.00	C18-Octadecane
5.626	7.850	2.224	6035801.00	0.00	C19-Nonadecane
5.905	7.850	1.945	6159045.00	0.00	C20-Eicosane
6.172	7.850	1.678	6187213.00	0.00	C21-Heneicosane
6.428	7.850	1.422	6163868.00	0.00	C22-Docosane
6.674	7.850	1.176	5942329.00	0.00	C23-Tricosane
6.909	7.850	0.941	5510708.00	0.00	C24-Tetracosane
7.135	7.850	0.715	4799734.00	0.00	C25-Pentacosane
7.353	7.850	0.497	3885114.00	0.00	C26-Hexacosane
7.563	7.850	0.287	2673879.00	0.00	C27-Heptacosane
7.766	7.850	0.084	1744614.00	7.51	n-Octacosane
7.962	7.850	-0.112	979046.00	0.00	C29-Nonacosane
8.152	7.850	-0.302	541331.00	0.00	C30-Triacontane
8.335	7.850	-0.485	292943.00	0.00	C31-Hentriacontane
8.513	7.850	-0.663	187410.00	0.00	C32-Dotriacontane
8.685	7.850	-0.835	153599.00	0.00	C33-Tritriacontane
8.853	7.850	-1.003	120180.00	0.00	C34-Tetratriacontane
9.016	7.850	-1.166	101264.00	0.00	C35-Pentatriacontane
9.176	7.850	-1.326	130921.00	0.00	C36-Hexatriacontane
9.351	7.850	-1.501	69385.00	0.00	C37-Heptatriacontane
9.555	7.850	-1.705	45993.00	0.00	C38-Octatriacontane
9.794	7.850	-1.944	81150.00	0.00	C39-Nonatriacontane
10.062	7.850	-2.212	37339.00	0.00	C40-Tetracontane
11.777	7.850	-3.927	401386.00	0.00	C44-Tetratetracontane

End of File

Page 1

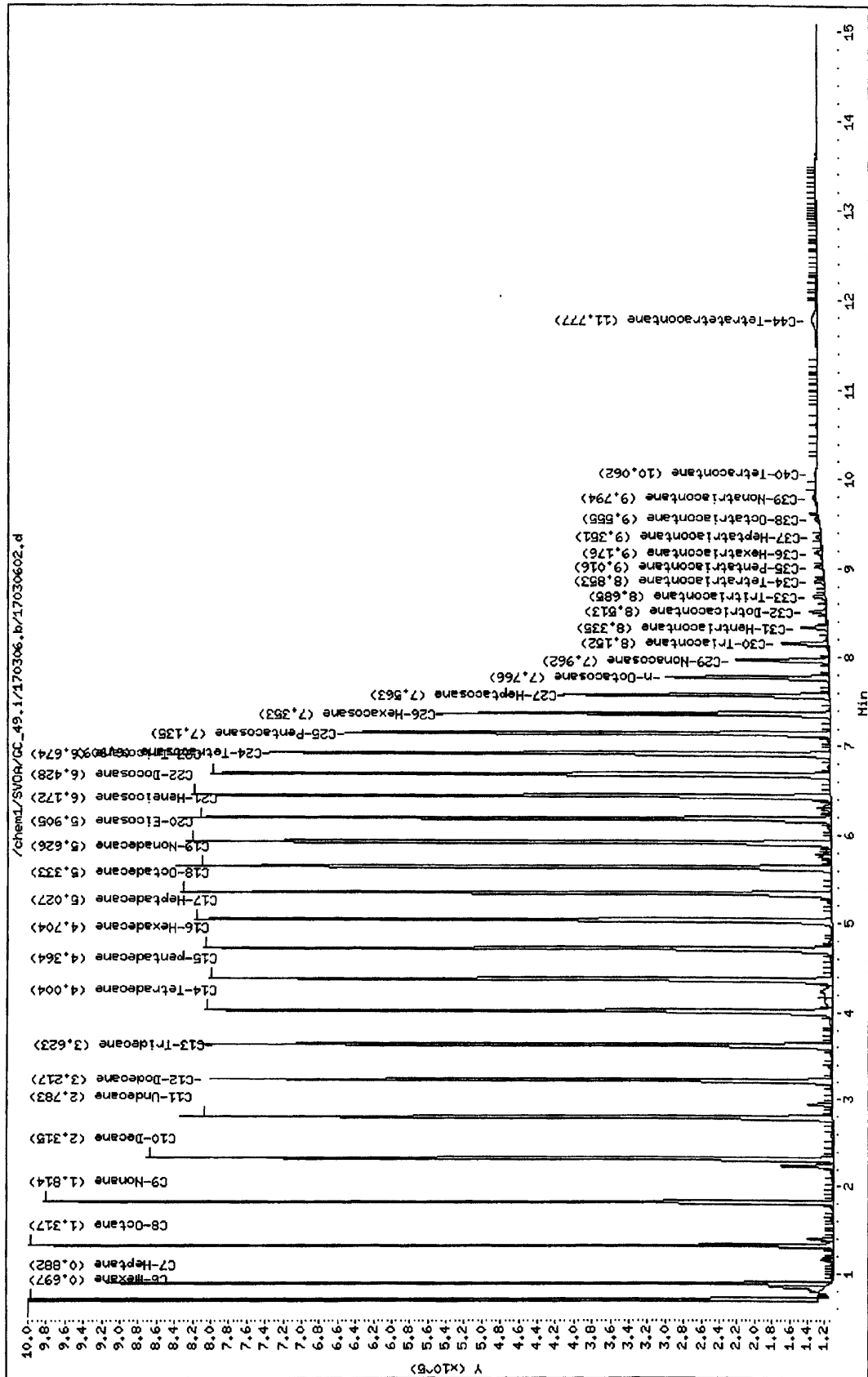
Data File: /chem1/SV04/CC_49.i/170306.b/17030602.d
 Date : 06-MAR-2017 12:07
 Client ID:
 Sample Info: C6-C44 L110816A

Instrument: GC_49.i

Operator: 682

Column diameter: 2.00

Column phase:



EPA 8015B (M)

Diesel + Motor Oil

SAMPLE DATA

**RAW DATA SHEET
FOR METHOD: EPA 8015B (M)**

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WORK ORDER: 17-03-0335

INSTRUMENT: GC 49

EXTRACTION: EPA 3550B

D/T EXTRACTED: 2017-03-07 00:00

ANALYZED BY: 972

D/T ANALYZED: 2017-03-07 23:43

REVIEWED BY:

D/T REVIEWED:

DATA FILE: T:\GC_49\GC_49_data\2017\170307\17030740.d\Report.txt17030740

3

CLIENT SAMPLE NUMBER: D-DU1-S-SG-06-15S

LCS/MB BATCH: 170307B06

MS/MSD BATCH: 170307S06

UNITS: mg/kg

SAMPLE VOLUME / WEIGHT:

FINAL VOLUME / WEIGHT:

ADJUSTMENT RATIO TO PF:

DEFAULT: 10.00 g / ACTUAL: 10.20 g

DEFAULT: 10.00 ml / ACTUAL: 10.00 ml

0.98

COMMENT:

COMPOUND

ON COL CONC

DF

CONC

RL

QUAL

TPH as Diesel

1.32

1.00

ND

4.9

TPH as Motor Oil

0.330

1.00

ND

4.9

Return to Contents

=====

External Standard Report

=====

Data File Name : /chem1/SVOA/GC_49/170307/17030740.d
 Page Number :
 Operator : 682 Vial Number : Vial 40
 Instrument : GC 49 Injection Number : 40
 Sample Name : 17-03-0335-3 Sequence Line : 0
 Instrument Method: 8015d.m
 Acquired on : 07 MAR 17 23:43
 Report Created on: 08-MAR-17 13:56 Compound Sublist : all
 Software Revision: Target 3.50

Sig. 1 in /chem1/SVOA/GC_49.i/170307.b/17030740.d

RT Range	Exp RT	DLT RT	Response	ppm	Compound
7.750	7.850	0.100	14838349.00	63.89	n-Octacosane
2.313- 7.945			1286697.43	1.32	TPH as Diesel
5.022-11.750			317767.62	0.33	TPH as Motor Oil

End of File

Page 1

Data File: /chem1/SV00/CC_49.i/170307.b/17030740.d

Date : 07-MAR-2017 23:43

Client ID:

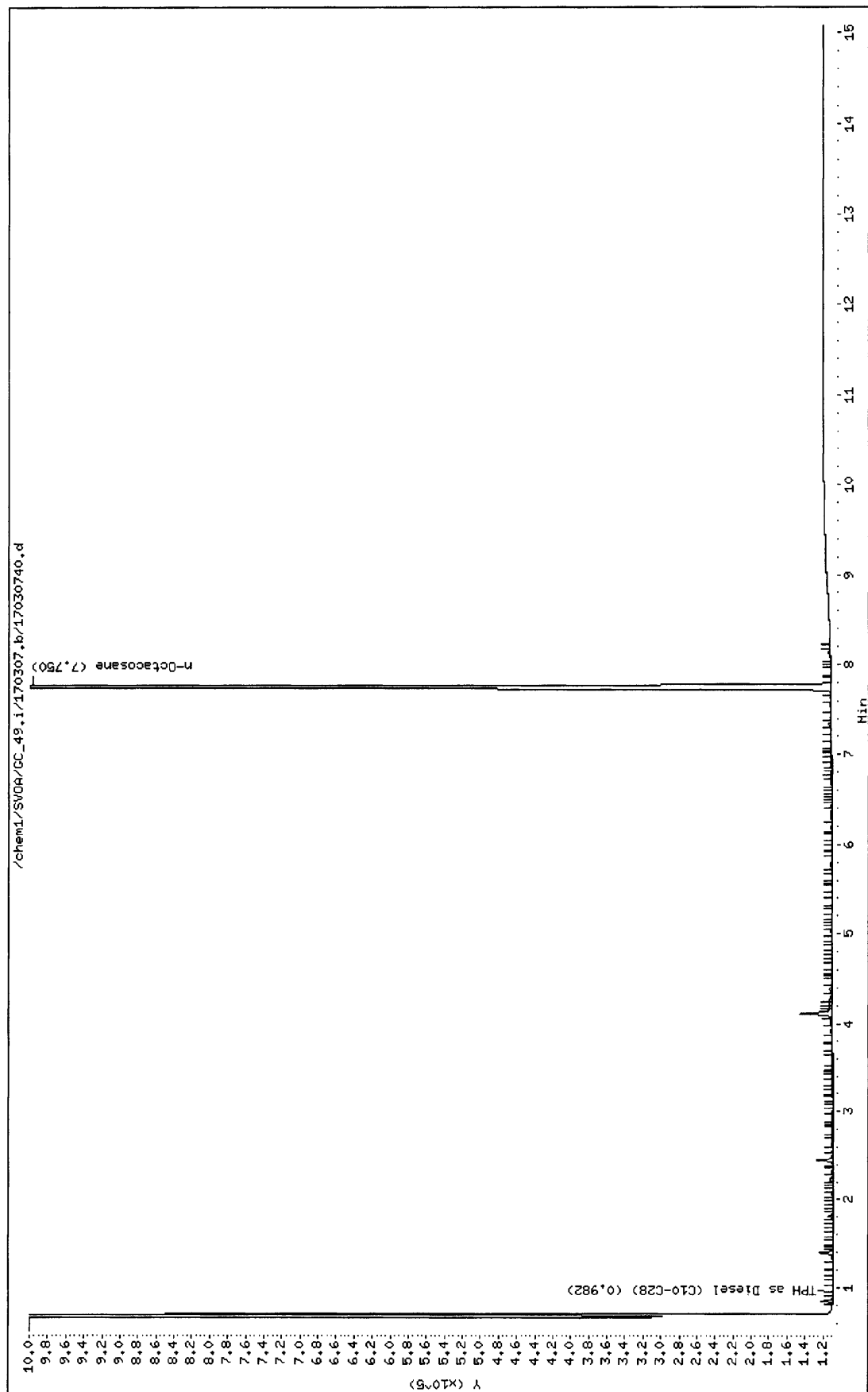
Sample Info: 17-03-0335-3

Instrument: GC_49.i

Operator: 682

Column diameter: 2.00

Column phase:



**RAW DATA SHEET
FOR METHOD: EPA 8015B (M)**

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WORK ORDER: 17-03-0335

INSTRUMENT: GC 49

EXTRACTION: EPA 3550B

D/T EXTRACTED: 2017-03-07 00:00

ANALYZED BY: 972

D/T ANALYZED: 2017-03-08 00:04

REVIEWED BY:

D/T REVIEWED:

DATA FILE: T:\GC_49\GC_49_data\2017\170307\17030741.d\Report.txt17030741

4

CLIENT SAMPLE NUMBER: D-DU1-S-SG-06-25S

LCS/MB BATCH: 170307B06

MS/MSD BATCH: 170307S06

UNITS: mg/kg

SAMPLE VOLUME / WEIGHT:

FINAL VOLUME / WEIGHT:

ADJUSTMENT RATIO TO PF:

DEFAULT: 10.00 g / ACTUAL: 10.10 g

DEFAULT: 10.00 ml / ACTUAL: 10.00 ml

0.99

COMMENT:

COMPOUND

ON COL CONC

DF

CONC

RL

QUAL

TPH as Diesel

1.21

1.00

ND

5.0

TPH as Motor Oil

0.420

1.00

ND

5.0

Return to Contents

=====

External Standard Report

=====

Data File Name : /chem1/SVOA/GC_49/170307/17030741.d
Page Number :
Operator : 682 Vial Number : Vial 41
Instrument : GC 49 Injection Number : 41
Sample Name : 17-03-0335-4 Sequence Line : 0
Instrument Method: 8015d.m
Acquired on : 08 MAR 17 00:04
Report Created on: 08-MAR-17 13:55 Compound Sublist : all
Software Revision: Target 3.50

Sig. 1 in /chem1/SVOA/GC_49.i/170307.b/17030741.d

RT Range	Exp RT	DLT RT	Response	ppm	Compound
7.751	7.850	0.099	14787751.00	63.67	n-Octacosane
2.313- 7.945			1183418.27	1.21	TPH as Diesel
5.022-11.750			413608.08	0.42	TPH as Motor Oil

End of File

Page 1

Data File: /chem1/SVDA/GC_49.i/170307.b/17030741.d

Date : 08-HAR-2017 00:04

Client ID:

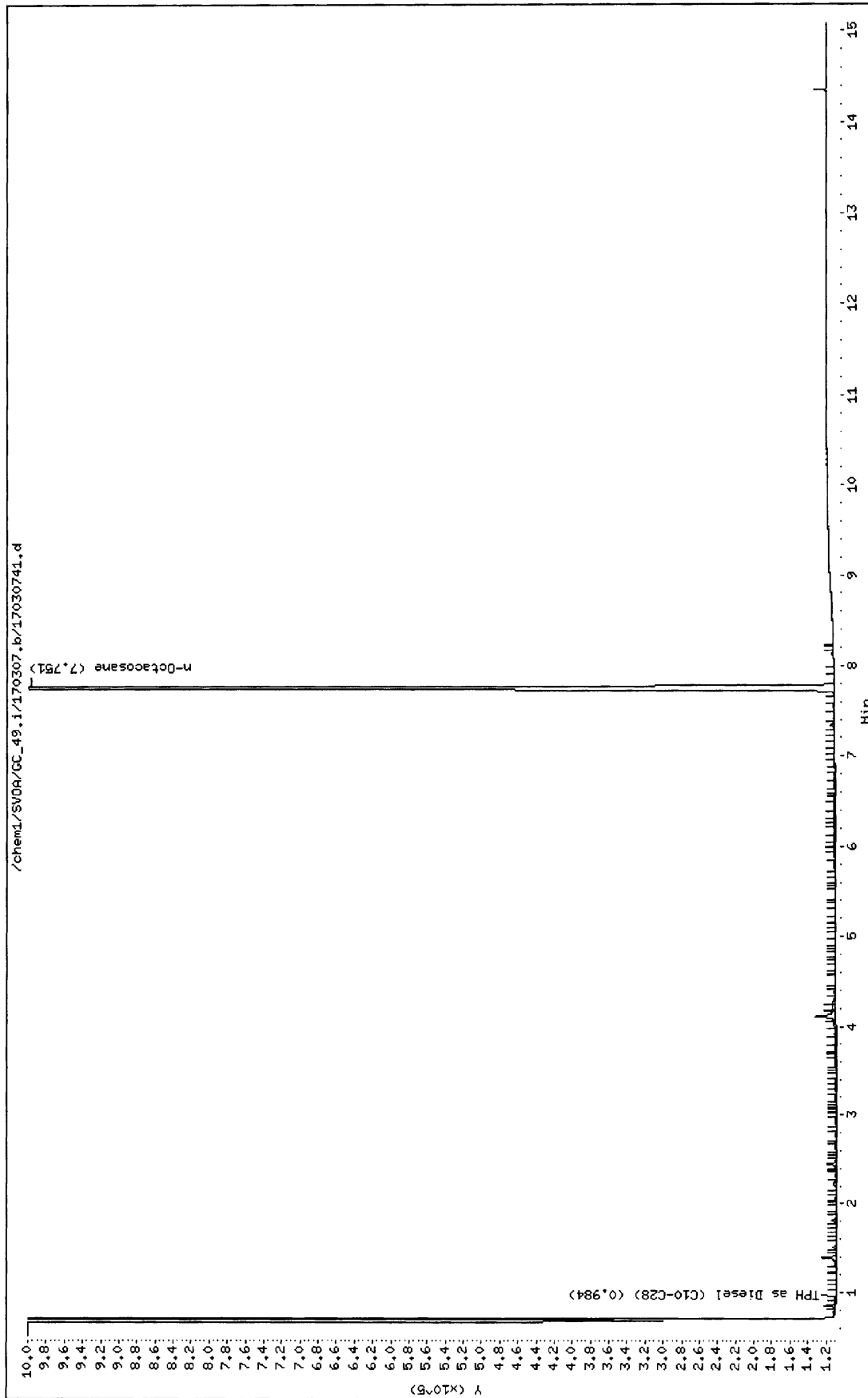
Sample Info: 17-03-0335-4

Instrument: GC_49.i

Operator: 682

Column diameter: 2.00

Column phase:



**RAW DATA SHEET
FOR METHOD: EPA 8015B (M)**

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WORK ORDER: 17-03-0335
INSTRUMENT: GC 49
EXTRACTION: EPA 3550B
D/T EXTRACTED: 2017-03-07 00:00

ANALYZED BY: 972
D/T ANALYZED: 2017-03-08 00:25
REVIEWED BY:
D/T REVIEWED:

DATA FILE: T:\GC_49\GC_49_data\2017\170307\17030742.d\Report.txt17030742

7 **CLIENT SAMPLE NUMBER:** D-DU1-S-SG-07-15S

LCS/MB BATCH: 170307B06	SAMPLE VOLUME / WEIGHT: DEFAULT: 10.00 g / ACTUAL: 10.20 g
MS/MSD BATCH: 170307S06	FINAL VOLUME / WEIGHT: DEFAULT: 10.00 ml / ACTUAL: 10.00 ml
UNITS: mg/kg	ADJUSTMENT RATIO TO PF: 0.98

COMMENT:

<u>COMPOUND</u>	<u>ON COL CONC</u>	<u>DF</u>	<u>CONC</u>	<u>RL</u>	<u>QUAL</u>
TPH as Diesel	1.56	1.00	ND	4.9	
TPH as Motor Oil	0.510	1.00	ND	4.9	

=====

External Standard Report

=====

Data File Name : /chem1/SVOA/GC_49/170307/17030742.d
Page Number :
Operator : 682 Vial Number : Vial 42
Instrument : GC 49 Injection Number : 42
Sample Name : 17-03-0335-7 Sequence Line : 0
Instrument Method: 8015d.m
Acquired on : 08 MAR 17 00:25
Report Created on: 08-MAR-17 13:57 Compound Sublist : all
Software Revision: Target 3.50

Sig. 1 in /chem1/SVOA/GC_49.i/170307.b/17030742.d

RT Range	Exp RT	DLT RT	Response	ppm	Compound
7.751	7.850	0.099	14818414.00	63.80	n-Octacosane
2.313- 7.945			1523244.12	1.56	TPH as Diesel
5.022-11.750			499137.90	0.51	TPH as Motor Oil

End of File

Page 1

Data File: /chem1/SVOR/GC_49.i/170307.b/17030742.d

Date : 08-MAR-2017 00:25

Client ID:

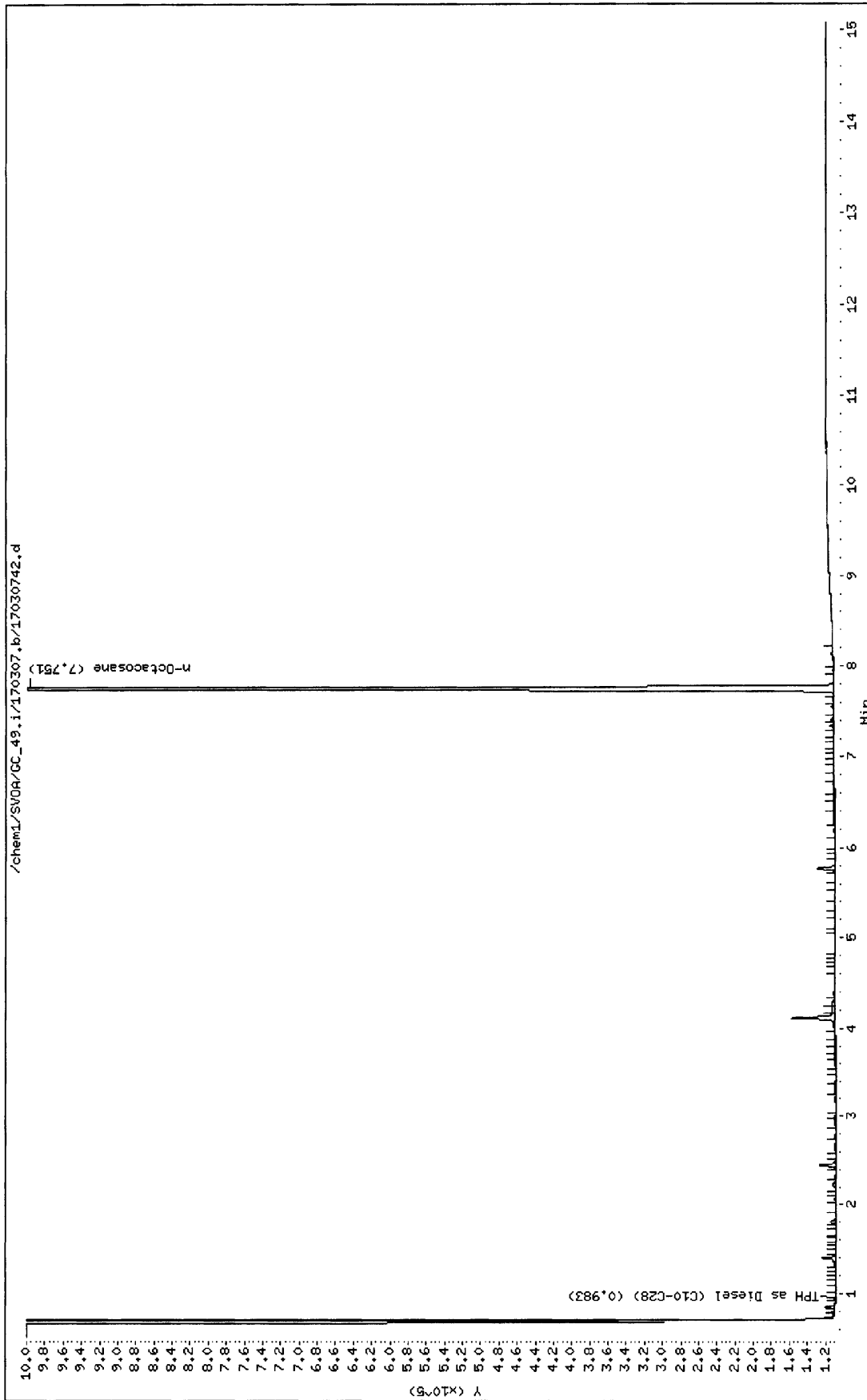
Sample Info: 17-03-0335-7

Instrument: GC_49.i

Operator: 682

Column diameter: 2.00

Column phase:



**RAW DATA SHEET
FOR METHOD: EPA 8015B (M)**

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WORK ORDER: 17-03-0335
INSTRUMENT: GC 49
EXTRACTION: EPA 3550B
D/T EXTRACTED: 2017-03-07 00:00

ANALYZED BY: 972
D/T ANALYZED: 2017-03-08 00:45
REVIEWED BY:
D/T REVIEWED:

DATA FILE: T:\GC_49\GC_49_data\2017\170307\17030743.d\Report.txt17030743

8 **CLIENT SAMPLE NUMBER: D-DU1-S-SG-07-25S**

LCS/MB BATCH: 170307B06	SAMPLE VOLUME / WEIGHT: DEFAULT: 10.00 g / ACTUAL: 9.98 g
MS/MSD BATCH: 170307S06	FINAL VOLUME / WEIGHT: DEFAULT: 10.00 ml / ACTUAL: 10.00 ml
UNITS: mg/kg	ADJUSTMENT RATIO TO PF: 1.00

COMMENT:

<u>COMPOUND</u>	<u>ON COL CONC</u>	<u>DF</u>	<u>CONC</u>	<u>RL</u>	<u>QUAL</u>
TPH as Diesel	0.940	1.00	ND	5.0	
TPH as Motor Oil	0.370	1.00	ND	5.0	

=====

External Standard Report

=====

Data File Name : /chem1/SVOA/GC_49/170307/17030743.d
 Page Number :
 Operator : 682 Vial Number : Vial 43
 Instrument : GC 49 Injection Number : 43
 Sample Name : 17-03-0335-8 Sequence Line : 0
 Instrument Method: 8015d.m
 Acquired on : 08 MAR 17 00:45
 Report Created on: 08-MAR-17 13:56 Compound Sublist : all
 Software Revision: Target 3.50

Sig. 1 in /chem1/SVOA/GC_49.1/170307.b/17030743.d

RT Range	Exp RT	DLT RT	Response	ppm	Compound
7.751	7.850	0.099	13272424.00	57.14	n-Octacosane
2.313- 7.945			918887.16	0.94	TPH as Diesel
5.022-11.750			366283.99	0.37	TPH as Motor Oil

End of File

Page 1

Data File: /chem1/SV04/GC_49.i/170307.b/17030743.d

Date : 08-MAR-2017 00:45

Client ID:

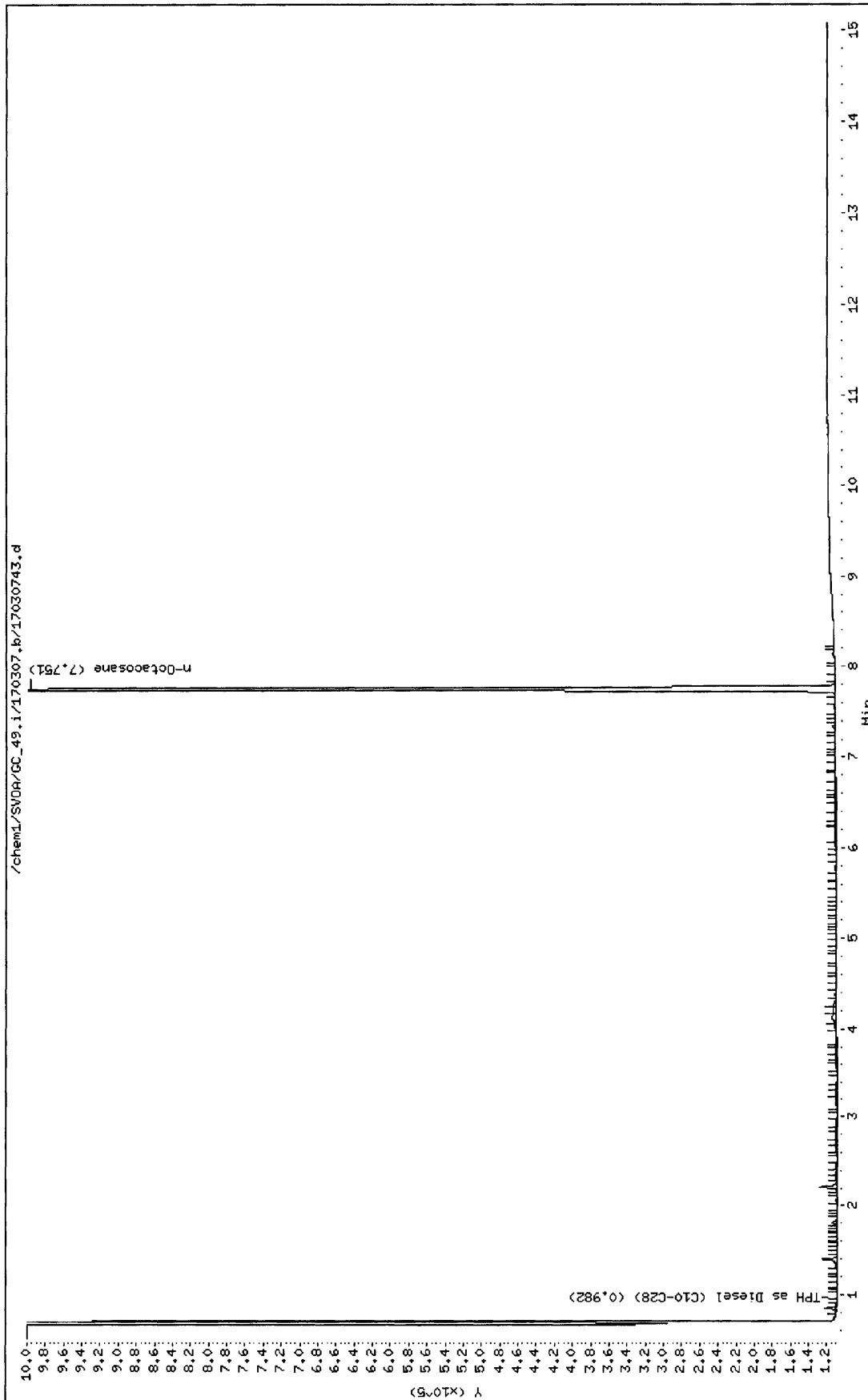
Sample Info: 17-03-0335-8

Instrument: GC_49.i

Operator: 682

Column diameter: 2.00

Column phase:



**RAW DATA SHEET
FOR METHOD: EPA 8015B (M)**

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WORK ORDER: 17-03-0335
INSTRUMENT: GC 49
EXTRACTION: EPA 3550B
D/T EXTRACTED: 2017-03-07 00:00

ANALYZED BY: 972
D/T ANALYZED: 2017-03-08 01:06
REVIEWED BY:
D/T REVIEWED:

DATA FILE: T:\GC_49\GC_49_data\2017\170307\17030744.d\Report.txt17030744

11 **CLIENT SAMPLE NUMBER: D-DU1-S-SG-08-15S**

LCS/MB BATCH: 170307B06	SAMPLE VOLUME / WEIGHT: DEFAULT: 10.00 g / ACTUAL: 10.10 g
MS/MSD BATCH: 170307S06	FINAL VOLUME / WEIGHT: DEFAULT: 10.00 ml / ACTUAL: 10.00 ml
UNITS: mg/kg	ADJUSTMENT RATIO TO PF: 0.99

COMMENT:

<u>COMPOUND</u>	<u>ON COL CONC</u>	<u>DF</u>	<u>CONC</u>	<u>RL</u>	<u>QUAL</u>
TPH as Diesel	0.920	1.00	ND	5.0	
TPH as Motor Oil	0.250	1.00	ND	5.0	

=====

External Standard Report

=====

Data File Name : /chem1/SVOA/GC_49/170307/17030744.d
Page Number :
Operator : 682 Vial Number : Vial 44
Instrument : GC 49 Injection Number : 44
Sample Name : 17-03-0335-11 Sequence Line : 0
Instrument Method: 8015d.m
Acquired on : 08 MAR 17 01:06
Report Created on: 08-MAR-17 13:57 Compound Sublist : all
Software Revision: Target 3.50

Sig. 1 in /chem1/SVOA/GC_49.1/170307.b/17030744.d

RT Range	Exp RT	DLT RT	Response	ppm	Compound
7.752	7.850	0.098	13983688.00	60.21	n-Octacosane
2.313- 7.945			895953.89	0.92	TPH as Diesel
5.022-11.750			241569.04	0.25	TPH as Motor Oil

End of File

Page 1

Data File: /chem1/SVOR/GC_49.i/170307.b/17030744.d

Date : 08-MAR-2017 01:06

Client ID:

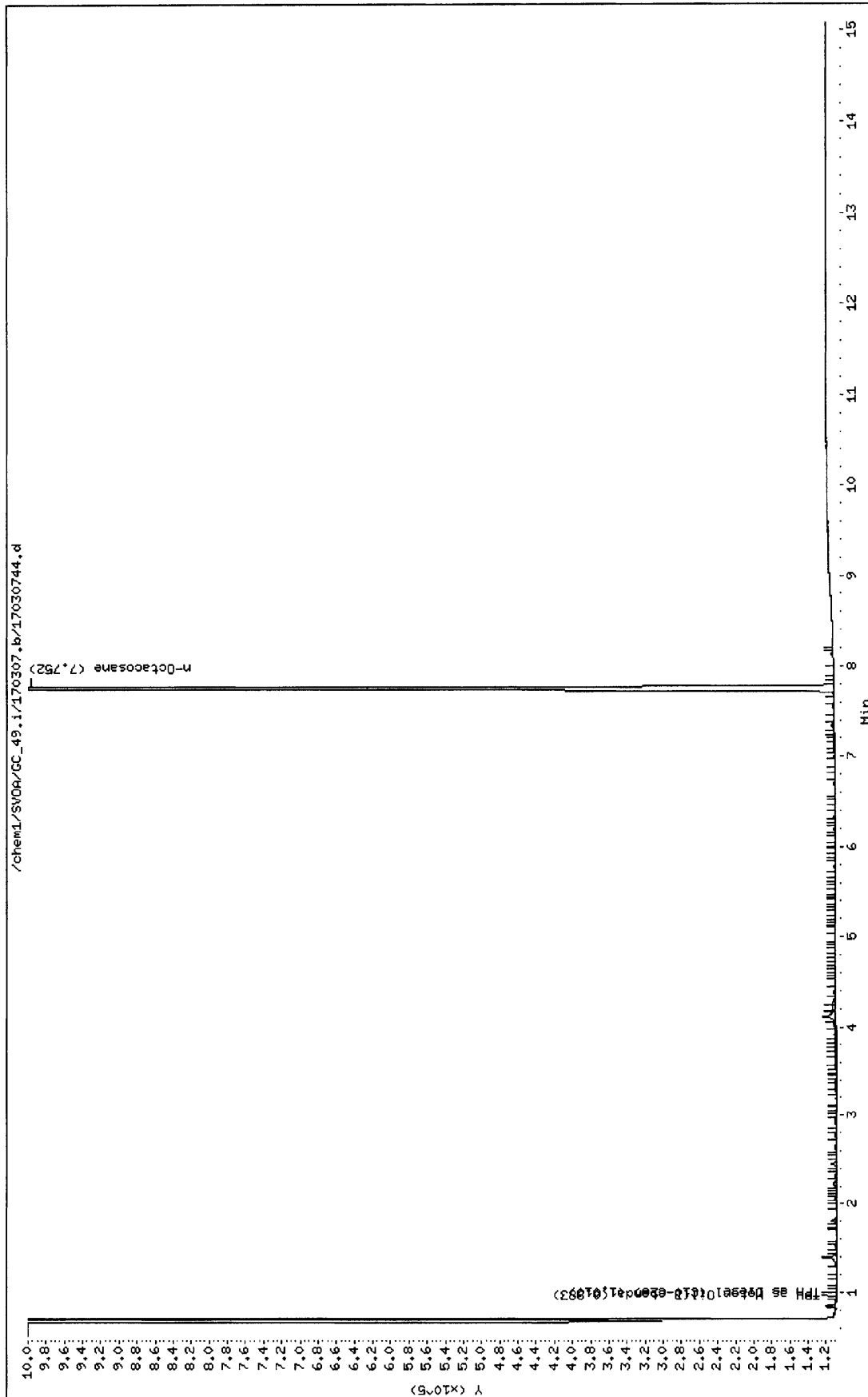
Sample Info: 17-03-0335-11

Instrument: GC_49.i

Operator: 682

Column diameter: 2.00

Column phase:



**RAW DATA SHEET
FOR METHOD: EPA 8015B (M)**

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WORK ORDER: 17-03-0335
INSTRUMENT: GC 49
EXTRACTION: EPA 3550B
D/T EXTRACTED: 2017-03-07 00:00

ANALYZED BY: 972
D/T ANALYZED: 2017-03-08 01:26
REVIEWED BY:
D/T REVIEWED:

DATA FILE: T:\GC_49\GC_49_data\2017\170307\17030745.d\Report.txt17030745

12 **CLIENT SAMPLE NUMBER: D-DU1-S-SG-08-25S**

LCS/MB BATCH: 170307B06	SAMPLE VOLUME / WEIGHT: DEFAULT: 10.00 g / ACTUAL: 10.00 g
MS/MSD BATCH: 170307S06	FINAL VOLUME / WEIGHT: DEFAULT: 10.00 ml / ACTUAL: 10.00 ml
UNITS: mg/kg	ADJUSTMENT RATIO TO PF: 1.00

COMMENT:

<u>COMPOUND</u>	<u>ON COL CONC</u>	<u>DF</u>	<u>CONC</u>	<u>RL</u>	<u>QUAL</u>
TPH as Diesel	1.13	1.00	ND	5.0	
TPH as Motor Oil	0.280	1.00	ND	5.0	

=====

External Standard Report

=====

Data File Name : /chem1/SVOA/GC_49/170307/17030745.d
Page Number :
Operator : 682 Vial Number : Vial 45
Instrument : GC 49 Injection Number : 45
Sample Name : 17-03-0335-12 Sequence Line : 0
Instrument Method: 8015d.m
Acquired on : 08 MAR 17 01:26
Report Created on: 08-MAR-17 14:02 Compound Sublist : all
Software Revision: Target 3.50

Sig. 1 in /chem1/SVOA/GC_49.i/170307.b/17030745.d

RT Range	Exp RT	DLT RT	Response	ppm	Compound
7.752	7.850	0.098	14292978.00	61.54	n-Octacosane
2.313- 7.945			1104843.15	1.13	TPH as Diesel
5.022-11.750			274717.85	0.28	TPH as Motor Oil

End of File

Page 1

Data File: /chem1/SVDA/GC_49.i/170307.b/17030745.d

Date : 08-MAR-2017 01:26

Client ID:

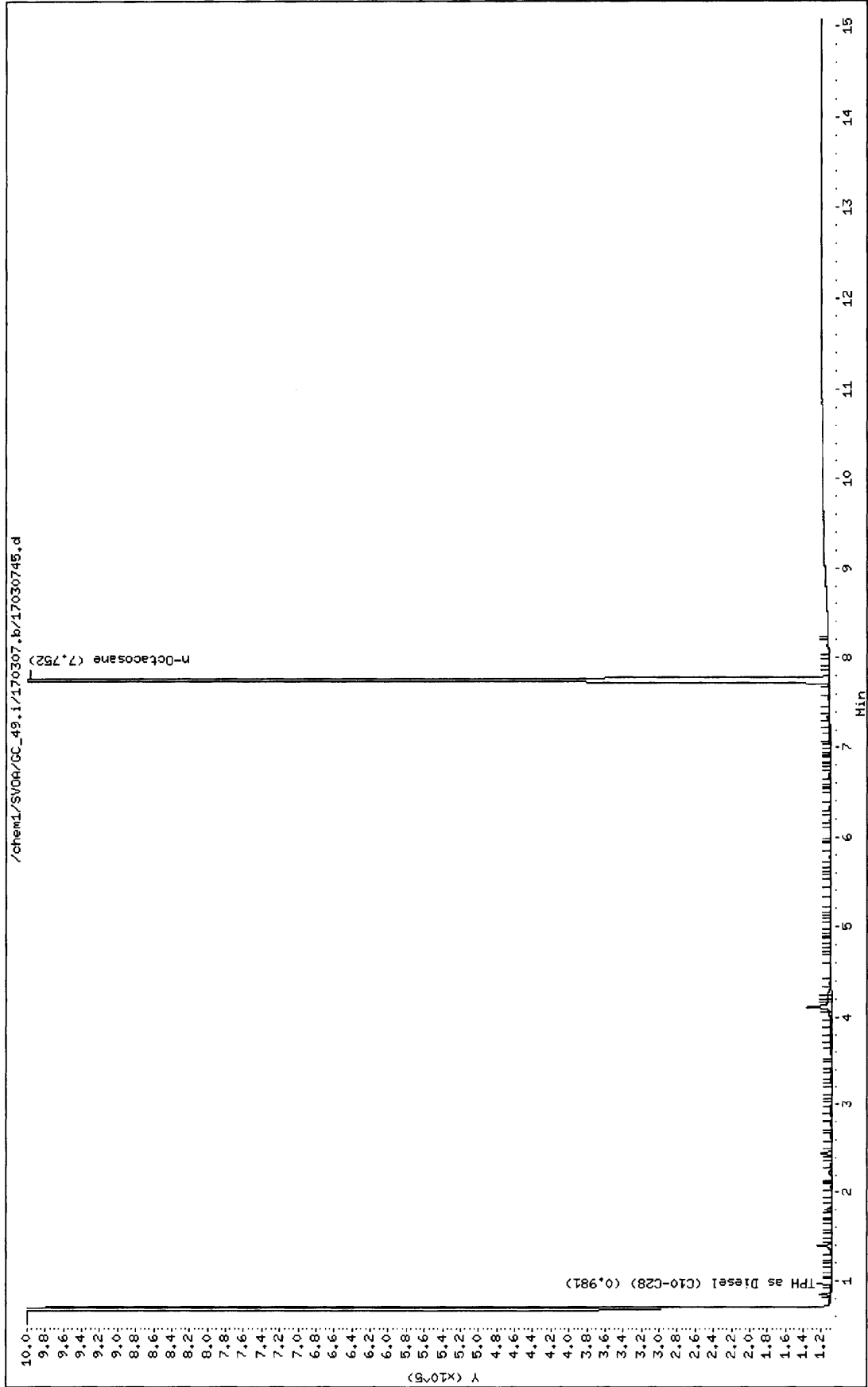
Sample Info: 17-03-0335-12

Instrument: GC_49.i

Operator: 682

Column diameter: 2.00

Column phase:



**RAW DATA SHEET
FOR METHOD: EPA 8015B (M)**

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WORK ORDER: 17-03-0335

INSTRUMENT: GC 49

EXTRACTION: EPA 3550B

D/T EXTRACTED: 2017-03-07 00:00

ANALYZED BY: 972

D/T ANALYZED: 2017-03-08 01:47

REVIEWED BY:

D/T REVIEWED:

DATA FILE: T:\GC_49\GC_49_data\2017\170307\17030746.d\Report.txt17030746

15 **CLIENT SAMPLE NUMBER: D-DU1-S-SG-09-15S**

LCS/MB BATCH: 170307B06

MS/MSD BATCH: 170307S06

UNITS: mg/kg

SAMPLE VOLUME / WEIGHT:

FINAL VOLUME / WEIGHT:

ADJUSTMENT RATIO TO PF:

DEFAULT: 10.00 g / ACTUAL: 10.10 g

DEFAULT: 10.00 ml / ACTUAL: 10.00 ml

0.99

COMMENT:

COMPOUND

ON COL CONC

DF

CONC

RL

QUAL

TPH as Diesel

0.940

1.00

ND

5.0

TPH as Motor Oil

0.250

1.00

ND

5.0

=====
External Standard Report
=====

Data File Name : /chem1/SVOA/GC_49/170307/17030746.d
Page Number :
Operator : 682 Vial Number : Vial 46
Instrument : GC 49 Injection Number : 46
Sample Name : 17-03-0335-15 Sequence Line : 0
Instrument Method: 8015d.m
Acquired on : 08 MAR 17 01:47
Report Created on: 08-MAR-17 13:58 Compound Sublist : all
Software Revision: Target 3.50

Sig. 1 in /chem1/SVOA/GC_49.i/170307.b/17030746.d

RT Range	Exp RT	DLT RT	Response	ppm	Compound
7.752	7.850	0.098	13808689.00	59.45	n-Octacosane
2.313- 7.945			923196.76	0.94	TPH as Diesel
5.022-11.750			242080.69	0.25	TPH as Motor Oil

End of File

Page 1

Data File: /chem1/SVOR/GC_49.i/170307.b/17030746.d

Date : 08-MAR-2017 01:47

Client ID:

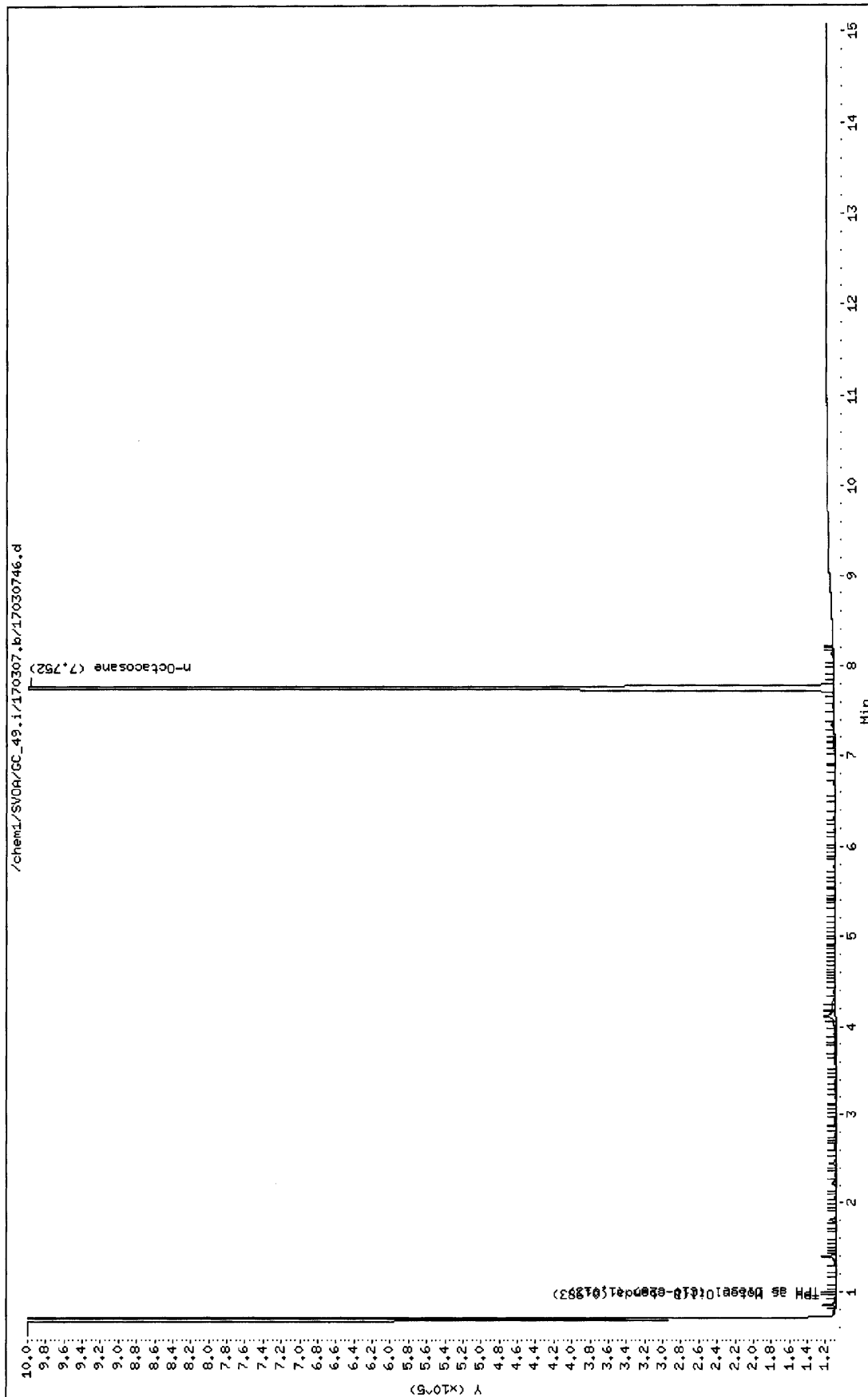
Sample Info: 17-03-0335-15

Instrument: GC_49.i

Operator: 682

Column diameter: 2.00

Column phase:



**RAW DATA SHEET
FOR METHOD: EPA 8015B (M)**

Page 119 of 471

WORK ORDER: 17-03-0335

INSTRUMENT: GC 49

EXTRACTION: EPA 3550B

D/T EXTRACTED: 2017-03-07 00:00

ANALYZED BY: 972

D/T ANALYZED: 2017-03-08 02:08

REVIEWED BY:

D/T REVIEWED:

DATA FILE: T:\GC_49\GC_49_data\2017\170307\17030747.d\Report.txt17030747

16

CLIENT SAMPLE NUMBER: D-DU1-S-SG-09-25S

LCS/MB BATCH: 170307B06

MS/MSD BATCH: 170307S06

UNITS: mg/kg

SAMPLE VOLUME / WEIGHT:

FINAL VOLUME / WEIGHT:

ADJUSTMENT RATIO TO PF:

DEFAULT: 10.00 g / ACTUAL: 10.10 g

DEFAULT: 10.00 ml / ACTUAL: 10.00 ml

0.99

COMMENT:

COMPOUND

ON COL CONC

DF

CONC

RL

QUAL

TPH as Diesel

1.04

1.00

ND

5.0

TPH as Motor Oil

0.300

1.00

ND

5.0

Return to Contents

=====
External Standard Report
=====

Data File Name : /chem1/SVOA/GC_49/170307/17030747.d
Page Number :
Operator : 682 Vial Number : Vial 47
Instrument : GC 49 Injection Number : 47
Sample Name : 17-03-0335-16 Sequence Line : 0
Instrument Method: 8015d.m
Acquired on : 08 MAR 17 02:08
Report Created on: 08-MAR-17 13:58 Compound Sublist : all
Software Revision: Target 3.50

Sig. 1 in /chem1/SVOA/GC_49.i/170307.b/17030747.d

RT Range	Exp RT	DLT RT	Response	ppm	Compound
7.752	7.850	0.098	15321373.00	65.97	n-Octacosane
2.313- 7.945			1020553.54	1.04	TPH as Diesel
5.022-11.750			291473.04	0.30	TPH as Motor Oil

End of File

Page 1

Data File: /chem1/SVDA/GC_49.i/170307.b/17030747.d

Date : 08-MAR-2017 02:08

Client ID:

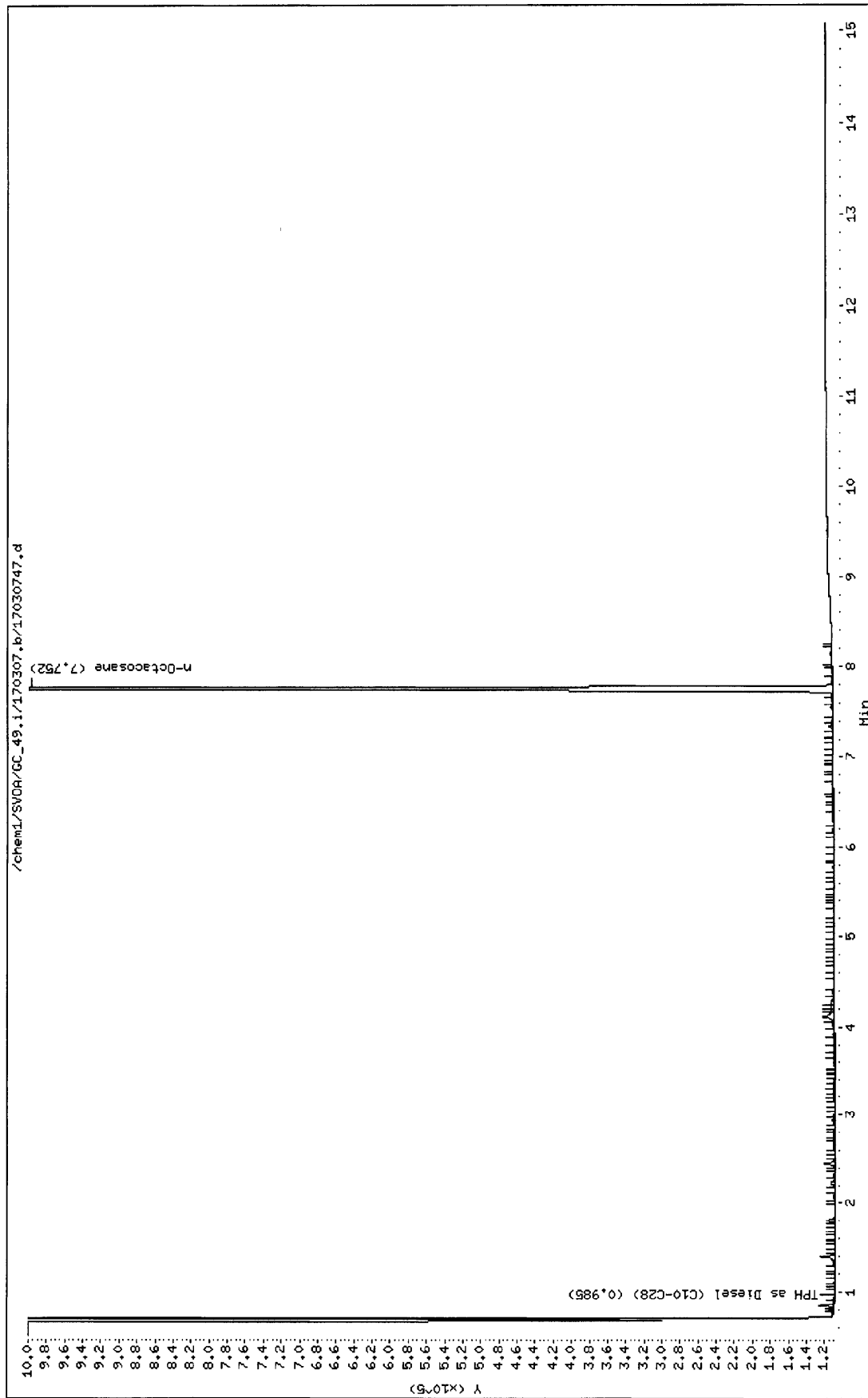
Sample Info: 17-03-0335-16

Instrument: GC_49.i

Operator: 682

Column diameter: 2.00

Column phase:



EPA 8015B (M)
Diesel + Motor Oil

QUALITY CONTROL

Method Blank
LCS/LCSD
MS/MSD

METHOD BLANK ASSOCIATION SUMMARY
FOR METHOD: EPA 8015B (M)

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MB SAMPLE ID: 099-14-353-4
MB BATCH ID: 170307B06
INSTRUMENT: GC 49
EXTRACTION: EPA 3550B
D/T EXTRACTED: 2017-03-07 00:00

ANALYZED BY: 972
D/T ANALYZED: 2017-03-07 22:19
REVIEWED BY:
D/T REVIEWED:
MATRIX: Soil

DATA FILE: T:\GC_49\GC_49_data\2017\170307\17030736.d\Report.txt17030736

CLIENT WORK ORDER: 17-03-0335

<u>S#</u>	<u>RUN TYPE</u>	<u>CLIENT SAMPLE ID</u>	<u>D/T ANALYZED</u>	<u>DATA FILE</u>
3	D-DU1-S-SG-06-15S		2017-03-07 23:43	T:\GC_49\GC_49_data\2017\170307\17030740.d\Report.txt17030740
4	D-DU1-S-SG-06-25S		2017-03-08 00:04	T:\GC_49\GC_49_data\2017\170307\17030741.d\Report.txt17030741
7	D-DU1-S-SG-07-15S		2017-03-08 00:25	T:\GC_49\GC_49_data\2017\170307\17030742.d\Report.txt17030742
8	D-DU1-S-SG-07-25S		2017-03-08 00:45	T:\GC_49\GC_49_data\2017\170307\17030743.d\Report.txt17030743
11	D-DU1-S-SG-08-15S		2017-03-08 01:06	T:\GC_49\GC_49_data\2017\170307\17030744.d\Report.txt17030744
12	D-DU1-S-SG-08-25S		2017-03-08 01:26	T:\GC_49\GC_49_data\2017\170307\17030745.d\Report.txt17030745
15	D-DU1-S-SG-09-15S		2017-03-08 01:47	T:\GC_49\GC_49_data\2017\170307\17030746.d\Report.txt17030746
16	D-DU1-S-SG-09-25S		2017-03-08 02:08	T:\GC_49\GC_49_data\2017\170307\17030747.d\Report.txt17030747

**RAW DATA SHEET
FOR METHOD: EPA 8015B (M)**

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WORK ORDER: 099-14-353
INSTRUMENT: GC 49
EXTRACTION: EPA 3550B
D/T EXTRACTED: 2017-03-07 00:00

ANALYZED BY: 972
D/T ANALYZED: 2017-03-07 22:19
REVIEWED BY:
D/T REVIEWED:

DATA FILE: T:\GC_49\GC_49_data\2017\170307\17030736.d\Report.txt17030736

MB **CLIENT SAMPLE NUMBER:** Method Blank

LCS/MB BATCH: 170307B06	SAMPLE VOLUME / WEIGHT: DEFAULT: 10.00 g / ACTUAL: 10.00 g
MS/MSD BATCH:	FINAL VOLUME / WEIGHT: DEFAULT: 10.00 ml / ACTUAL: 10.00 ml
UNITS: mg/kg	ADJUSTMENT RATIO TO PF: 1.00

COMMENT:

<u>COMPOUND</u>	<u>ON COL CONC</u>	<u>DF</u>	<u>CONC</u>	<u>RL</u>	<u>QUAL</u>
TPH as Diesel	0.450	1.00	ND	5.0	
TPH as Motor Oil	0.260	1.00	ND	5.0	

LCS QUALITY CONTROL SHEET FOR METHOD: EPA 8015B (M)

LCS SAMPLE ID: 099-14-353-4
LCS/MB BATCH ID: 170307B06
INSTRUMENT: GC 49

EXTRACTION: EPA 3550B
D/T EXTRACTED: 2017-03-07 00:00

ANALYZED BY: 972
D/T ANALYZED: 2017-03-07 22:40
REVIEWED BY:
D/T REVIEWED:

DATA FILE: T:\GC_49\data\2017\170307\17030737.d\Report.txt17030737

<u>COMPOUND NAME</u>	<u>CONC ADDED</u>	<u>CONC REC</u>	<u>%RECOVERY</u>	<u>%REC CONTROL LIMIT</u>	<u>STATUS</u>	<u>QUALIFIERS</u>
TPH as Diesel	400.0	360.5	90	61-145	PASS	

MATRIX SPIKE / MATRIX SPIKE DUPLICATE QUALITY CONTROL SHEET
FOR METHOD: EPA 8015B (M)

SPIKED SAMPLE ID: 17-03-0335-11
MS/MSD BATCH: 170307S06
INSTRUMENTS:
SAMPLE: GC 49
MS: GC 49
MSD: GC 49

EXTRACTION: EPA 3550B
D/T EXTRACTED:
SAMPLE: 2017-03-07 00:00
MS: 2017-03-07 00:00
MSD: 2017-03-07 00:00

ANALYZED BY: 972
D/T ANALYZED:
SAMPLE: 2017-03-08 01:06
MS: 2017-03-07 23:01
MSD: 2017-03-07 23:22
REVIEWED BY:
D/T REVIEWED:

COMMENT:

COMPOUND NAME	SAMPLE	INITIAL	FINAL	MS CONC	% MS REC	MSD CONC	% MSD REC	% REC CL	RPD	RPD CL	STATUS	QUALIFIERS
TPH as Diesel	ND	400.0	400.0	315.9	79	343.9	86	61-145	8	0-25	PASS	

Data Files:

TYPE	DATA FILE	DATA FILE PATH
MS	17030738	T:\GC_49\GC_49_data\2017\170307\17030738.d\Report.txt
MSD	17030739	T:\GC_49\GC_49_data\2017\170307\17030739.d\Report.txt

SURROGATE RECOVERIES FOR METHOD: EPA 8015B (M)

WORK ORDER: 17-03-0335

BATCH ID:

LCS/MB: 170307B06MS: 170307S06EXTRACTION: EPA 3550BREVIEWED BY:D/T REVIEWED:**# 3 CLIENT SAMPLE NUMBER : D-DU1-S-SG-06-15S**INSTRUMENT: GC 49D/T EXTRACTED: 2017-03-07 00:00DATA FILE: T:\GC_49\GC_49_data\2017\170307\17030740.d\Report.txt17030740ANALYZED BY: 972D/T ANALYZED 2017-03-07 23:43COMMENT:

<u>COMPOUND</u>	<u>% REC</u>	<u>% REC CL</u>	<u>STATUS</u>	<u>QUALIFIERS</u>
n-Octacosane	128	61-145	PASS	

4 CLIENT SAMPLE NUMBER : D-DU1-S-SG-06-25SINSTRUMENT: GC 49D/T EXTRACTED: 2017-03-07 00:00DATA FILE: T:\GC_49\GC_49_data\2017\170307\17030741.d\Report.txt17030741ANALYZED BY: 972D/T ANALYZED 2017-03-08 00:04COMMENT:

<u>COMPOUND</u>	<u>% REC</u>	<u>% REC CL</u>	<u>STATUS</u>	<u>QUALIFIERS</u>
n-Octacosane	127	61-145	PASS	

7 CLIENT SAMPLE NUMBER : D-DU1-S-SG-07-15SINSTRUMENT: GC 49D/T EXTRACTED: 2017-03-07 00:00DATA FILE: T:\GC_49\GC_49_data\2017\170307\17030742.d\Report.txt17030742ANALYZED BY: 972D/T ANALYZED 2017-03-08 00:25COMMENT:

<u>COMPOUND</u>	<u>% REC</u>	<u>% REC CL</u>	<u>STATUS</u>	<u>QUALIFIERS</u>
n-Octacosane	128	61-145	PASS	

8 CLIENT SAMPLE NUMBER : D-DU1-S-SG-07-25SINSTRUMENT: GC 49D/T EXTRACTED: 2017-03-07 00:00DATA FILE: T:\GC_49\GC_49_data\2017\170307\17030743.d\Report.txt17030743ANALYZED BY: 972D/T ANALYZED 2017-03-08 00:45COMMENT:

<u>COMPOUND</u>	<u>% REC</u>	<u>% REC CL</u>	<u>STATUS</u>	<u>QUALIFIERS</u>
n-Octacosane	114	61-145	PASS	

**SURROGATE RECOVERIES
FOR METHOD: EPA 8015B (M)**

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WORK ORDER: 17-03-0335

BATCH ID:

LCS/MB: 170307B06

MS: 170307S06

EXTRACTION: EPA 3550B

REVIEWED BY:

D/T REVIEWED:

11 CLIENT SAMPLE NUMBER : D-DU1-S-SG-08-15S

INSTRUMENT: GC 49

D/T EXTRACTED: 2017-03-07 00:00

DATA FILE: T:\GC_49\GC_49_data\2017\170307\17030744.d\Report.txt17030744

ANALYZED BY: 972

D/T ANALYZED 2017-03-08 01:06

COMMENT:

<u>COMPOUND</u>	<u>% REC</u>	<u>% REC CL</u>	<u>STATUS</u>	<u>QUALIFIERS</u>
n-Octacosane	120	61-145	PASS	

12 CLIENT SAMPLE NUMBER : D-DU1-S-SG-08-25S

INSTRUMENT: GC 49

D/T EXTRACTED: 2017-03-07 00:00

DATA FILE: T:\GC_49\GC_49_data\2017\170307\17030745.d\Report.txt17030745

ANALYZED BY: 972

D/T ANALYZED 2017-03-08 01:26

COMMENT:

<u>COMPOUND</u>	<u>% REC</u>	<u>% REC CL</u>	<u>STATUS</u>	<u>QUALIFIERS</u>
n-Octacosane	123	61-145	PASS	

15 CLIENT SAMPLE NUMBER : D-DU1-S-SG-09-15S

INSTRUMENT: GC 49

D/T EXTRACTED: 2017-03-07 00:00

DATA FILE: T:\GC_49\GC_49_data\2017\170307\17030746.d\Report.txt17030746

ANALYZED BY: 972

D/T ANALYZED 2017-03-08 01:47

COMMENT:

<u>COMPOUND</u>	<u>% REC</u>	<u>% REC CL</u>	<u>STATUS</u>	<u>QUALIFIERS</u>
n-Octacosane	119	61-145	PASS	

16 CLIENT SAMPLE NUMBER : D-DU1-S-SG-09-25S

INSTRUMENT: GC 49

D/T EXTRACTED: 2017-03-07 00:00

DATA FILE: T:\GC_49\GC_49_data\2017\170307\17030747.d\Report.txt17030747

ANALYZED BY: 972

D/T ANALYZED 2017-03-08 02:08

COMMENT:

<u>COMPOUND</u>	<u>% REC</u>	<u>% REC CL</u>	<u>STATUS</u>	<u>QUALIFIERS</u>
n-Octacosane	132	61-145	PASS	

SURROGATE RECOVERIES FOR METHOD: EPA 8015B (M)

WORK ORDER: 17-03-0335

BATCH ID:

LCS/MB: 170307B06MS:

EXTRACTION: EPA 3550B

REVIEWED BY:D/T REVIEWED:# **MB** CLIENT SAMPLE NUMBER: Method BlankINSTRUMENT: GC 49ANALYZED BY: 972D/T EXTRACTED: 2017-03-07 00:00D/T ANALYZED 2017-03-07 22:19DATA FILE: T:\GC_49\GC_49_data\2017\170307\17030736.d\Report.txt17030736COMMENT:

<u>COMPOUND</u>	<u>% REC</u>	<u>% REC CL</u>	<u>STATUS</u>	<u>QUALIFIERS</u>
n-Octacosane	117	61-145	PASS	

LCS CLIENT SAMPLE NUMBER: Lab Control SampleINSTRUMENT: GC 49ANALYZED BY: 972D/T EXTRACTED: 2017-03-07 00:00D/T ANALYZED 2017-03-07 22:40DATA FILE: T:\GC_49\GC_49_data\2017\170307\17030737.d\Report.txt17030737COMMENT:

<u>COMPOUND</u>	<u>% REC</u>	<u>% REC CL</u>	<u>STATUS</u>	<u>QUALIFIERS</u>
n-Octacosane	124	61-145	PASS	

MS CLIENT SAMPLE NUMBER: Matrix SpikeINSTRUMENT: GC 49ANALYZED BY: 972D/T EXTRACTED: 2017-03-07 00:00D/T ANALYZED 2017-03-07 23:01DATA FILE: T:\GC_49\GC_49_data\2017\170307\17030738.d\Report.txt17030738COMMENT:

<u>COMPOUND</u>	<u>% REC</u>	<u>% REC CL</u>	<u>STATUS</u>	<u>QUALIFIERS</u>
n-Octacosane	119	61-145	PASS	

MSD CLIENT SAMPLE NUMBER: Matrix Spike DuplicateINSTRUMENT: GC 49ANALYZED BY: 972D/T EXTRACTED: 2017-03-07 00:00D/T ANALYZED 2017-03-07 23:22DATA FILE: T:\GC_49\GC_49_data\2017\170307\17030739.d\Report.txt17030739COMMENT:

<u>COMPOUND</u>	<u>% REC</u>	<u>% REC CL</u>	<u>STATUS</u>	<u>QUALIFIERS</u>
n-Octacosane	110	61-145	PASS	

=====

External Standard Report

=====

Data File Name : /chem1/SVOA/GC_49/170307/17030736.d
Page Number :
Operator : 682 Vial Number : Vial 36
Instrument : GC 49 Injection Number : 36
Sample Name : MB 17030706 Sequence Line : 0
Instrument Method: 8015d.m

Acquired on : 07 MAR 17 22:19
Report Created on: 08-MAR-17 13:54 Compound Sublist : all
Software Revision: Target 3.50

Sig. 1 in /chem1/SVOA/GC_49.i/170307.b/17030736.d

RT Range	Exp RT	DLT RT	Response	ppm	Compound
7.752	7.850	0.098	13587785.00	58.50	n-Octacosane
2.313- 7.945			439837.37	0.45	TPH as Diesel
5.022-11.750			253529.63	0.26	TPH as Motor Oil

End of File

Page 1

Data File: /chem1/SVDA/GC_49.i/170307.b/17030736.d

Date : 07-MAR-2017 22:19

Client ID:

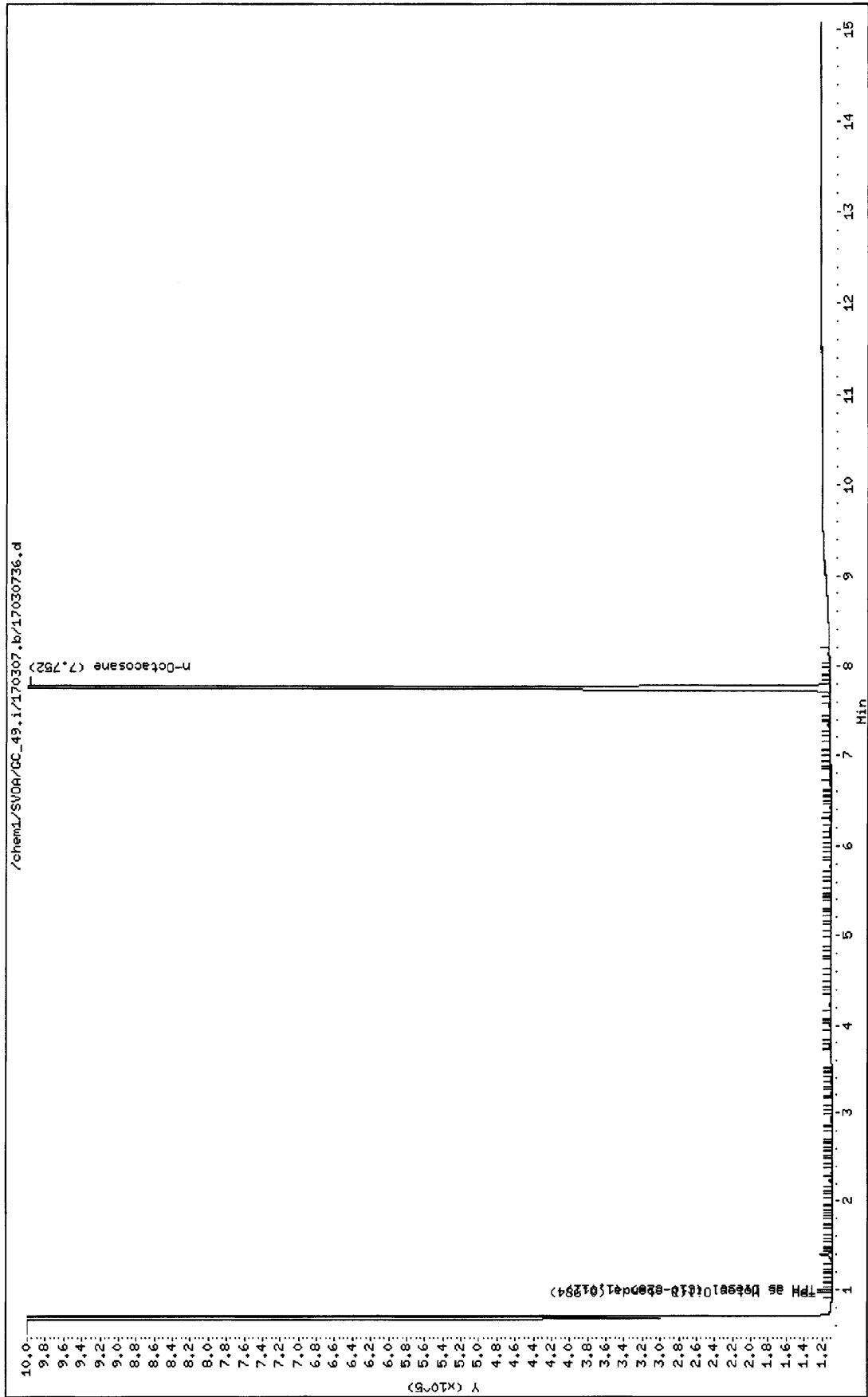
Sample Info: HB 17030706

Instrument: GC_49.i

Operator: 682

Column diameter: 2.00

Column phase:



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External Standard Report

=====

Data File Name : /chem1/SVOA/GC_49/170307/17030737.d
 Page Number :
 Operator : 682 Vial Number : Vial 37
 Instrument : GC 49 Injection Number : 37
 Sample Name : LCS 17030706 Sequence Line : 0
 Instrument Method: 8015d.m

Acquired on : 07 MAR 17 22:40
 Report Created on: 08-MAR-17 13:54 Compound Sublist : all
 Software Revision: Target 3.50

Sig. 1 in /chem1/SVOA/GC_49.i/170307.b/17030737.d

RT Range	Exp RT	DLT RT	Response	ppm	Compound
7.752	7.850	0.098	14358575.00	61.82	n-Octacosane
0.698- 7.945			352250625.47	360.54	TPH as Diesel
2.313- 7.945			334504844.23	375.07	Diesel Range Organics

End of File

Page 1

Data File: /chem1/SV0A/GC_49.i/170307.b/17030737.d

Date : 07-MAR-2017 22:40

Client ID:

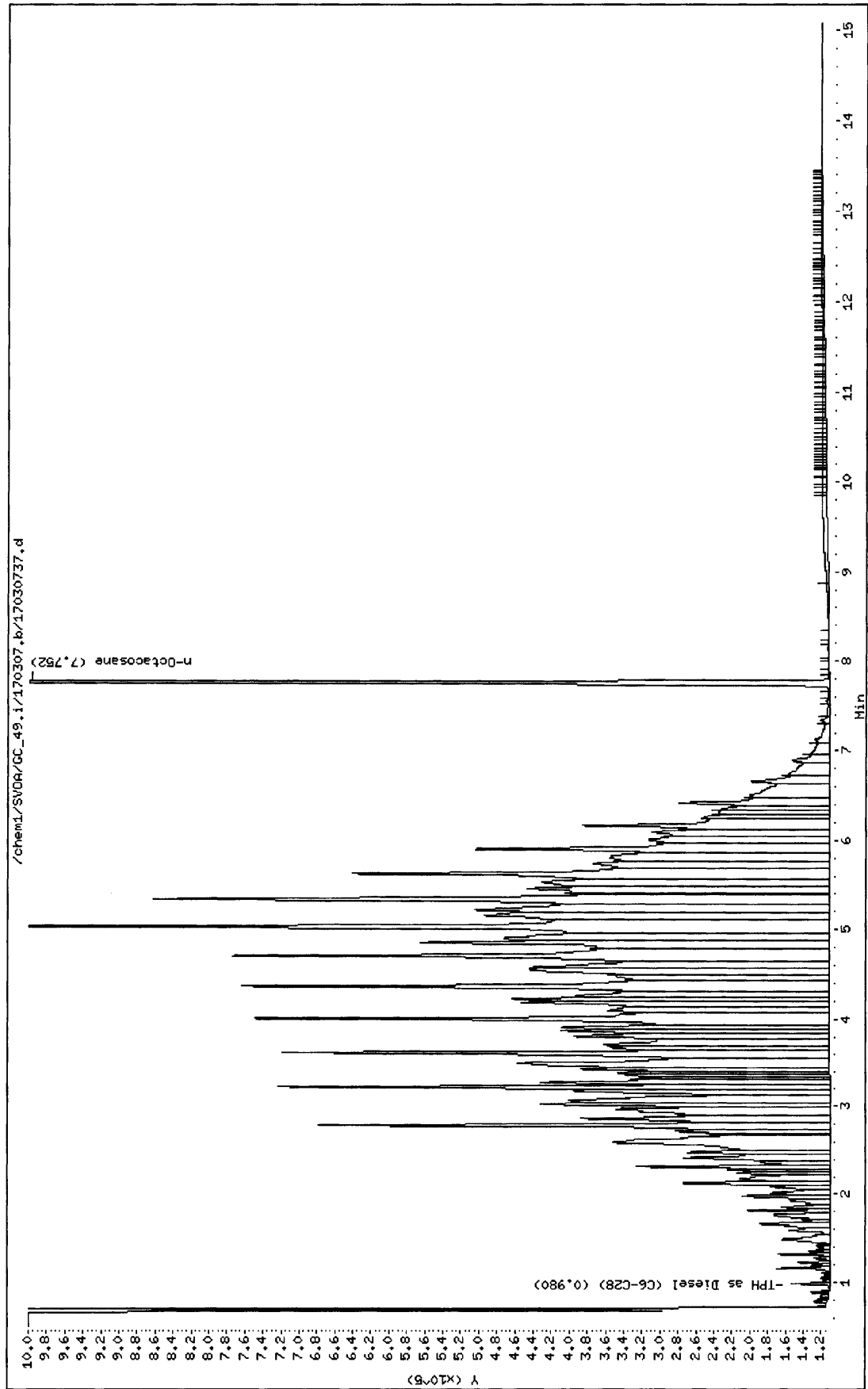
Sample Info: LCS 17030706

Instrument: GC_49.i

Operator: 682

Column diameter: 2.00

Column phase:



=====

External Standard Report

=====

Data File Name : /chem1/SVOA/GC_49/170307/17030738.d
Page Number :
Operator : 682 Vial Number : Vial 38
Instrument : GC 49 Injection Number : 38
Sample Name : MS 17-03-0335-11 Sequence Line : 0
Instrument Method: 8015d.m
Acquired on : 07 MAR 17 23:01
Report Created on: 08-MAR-17 13:55 Compound Sublist : all
Software Revision: Target 3.50

Sig. 1 in /chem1/SVOA/GC_49.i/170307.b/17030738.d

RT Range	Exp RT	DLT RT	Response	ppm	Compound
7.750	7.850	0.100	13778536.00	59.32	n-Octacosane
2.313- 7.945			308677974.69	315.94	TPH as Diesel
5.022-11.750			125252160.79	128.20	TPH as Motor Oil

End of File

Data File: 'chem1/SV0A/GC_49.i/170307.b/17030738.d

Date : 07-MAR-2017 23:01

Client ID:

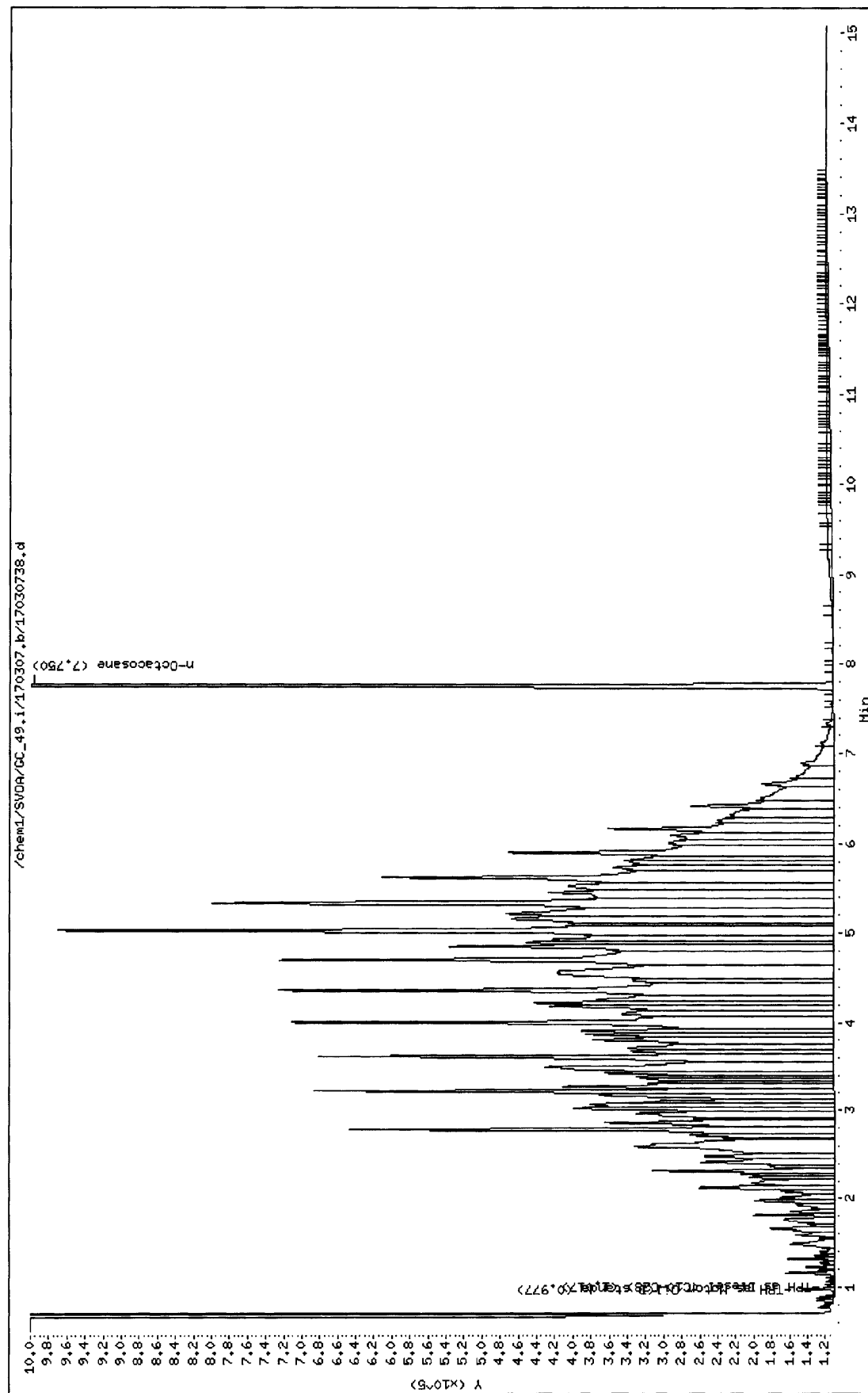
Sample Info: MS 17-03-0335-11

Instrument: GC_49.i

Operator: 682

Column diameter: 2.00

Column phase:



=====

External Standard Report

=====

Data File Name : /chem1/SVOA/GC_49/170307/17030739.d
Page Number :
Operator : 682 Vial Number : Vial 39
Instrument : GC 49 Injection Number : 39
Sample Name : MSD 17-03-0335-11 Sequence Line : 0
Instrument Method: 8015d.m

Acquired on : 07 MAR 17 23:22
Report Created on: 08-MAR-17 13:55 Compound Sublist : all
Software Revision: Target 3.50

Sig. 1 in /chem1/SVOA/GC_49.i/170307.b/17030739.d

RT Range	Exp RT	DLT RT	Response	ppm	Compound
7.750	7.850	0.100	12817666.00	55.19	n-Octacosane
2.313- 7.945			336015929.94	343.92	TPH as Diesel
5.022-11.750			136318122.19	139.52	TPH as Motor Oil

End of File

Page 1

Data File: /chem1/SV0A/GC_49.i/170307.b/17030739.d

Date : 07-HAR-2017 23:22

Client ID:

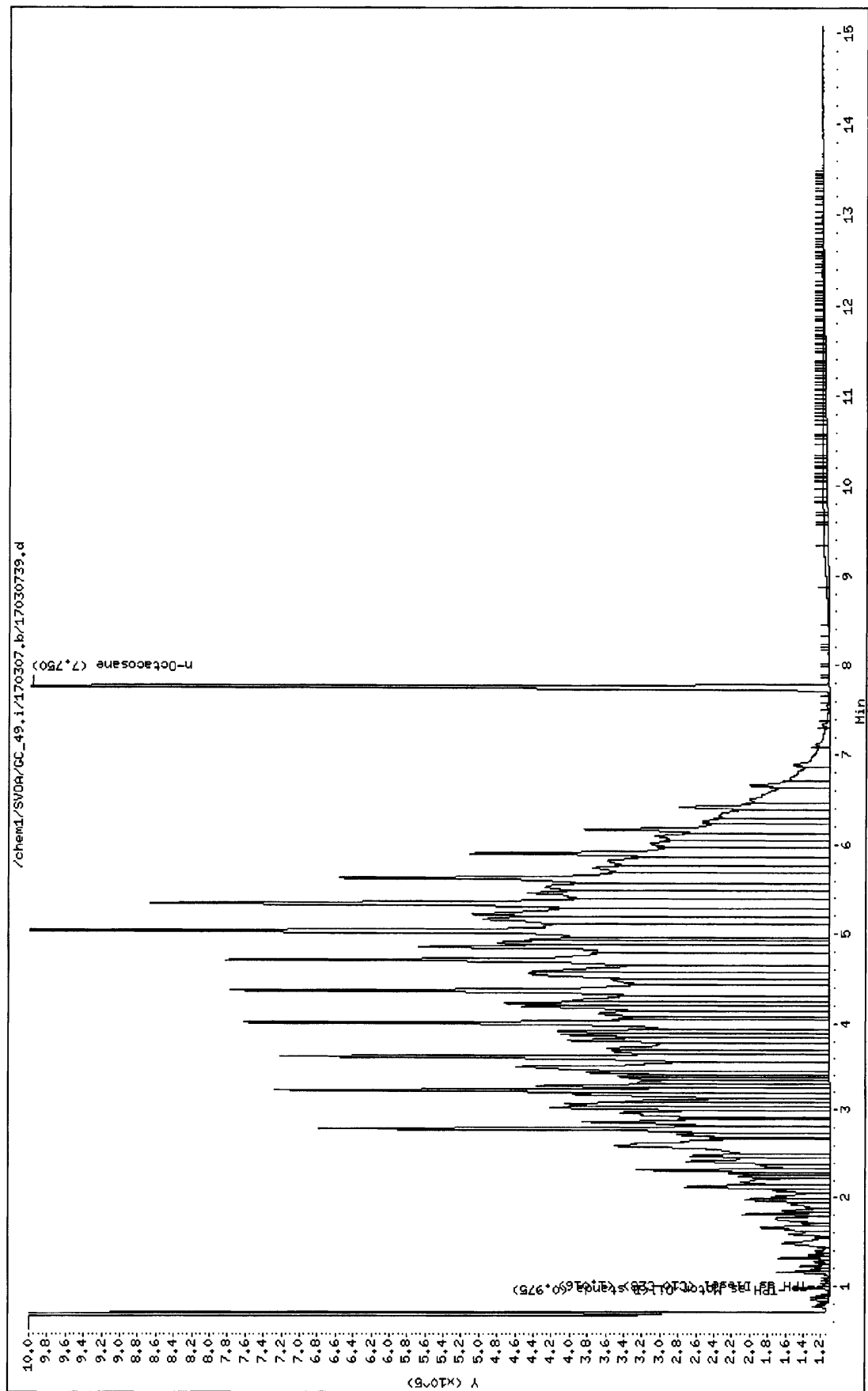
Sample Info: MSD 17-03-0335-11

Instrument: GC_49.i

Operator: 682

Column diameter: 2.00

Column phase:



EPA 8015B (M) Diesel + Motor Oil

CONTINUING CALIBRATION

CCV ASSOCIATION SUMMARY FOR METHOD: EPA 8015B (M)

BATCH ID: 170307A070
INSTRUMENT: GC 49

ANALYZED BY: 972

WORK ORDER: 099-14-354
MATRIX: Water

REVIEWED BY: 1,027
D/T REVIEWED: 2017-03-09 14:39

<u>CEL SAMPLE #</u>	<u>CLIENT SAMPLE ID</u>	<u>D/T ANALYZED</u>	<u>DATA FILE</u>
24	Daily Calibration	2017-03-07 21:39	T:\GC_49\GC_49_data\2017\170307\17030734.d\Report.txt17030734

WORK ORDER: 17-03-0335
MATRIX: Soil

REVIEWED BY: 1,027
D/T REVIEWED: 2017-03-09 17:18

<u>CEL SAMPLE #</u>	<u>CLIENT SAMPLE ID</u>	<u>D/T ANALYZED</u>	<u>DATA FILE</u>
3	D-DU1-S-SG-06-15S	2017-03-07 23:43	T:\GC_49\GC_49_data\2017\170307\17030740.d\Report.txt17030740
4	D-DU1-S-SG-06-25S	2017-03-08 00:04	T:\GC_49\GC_49_data\2017\170307\17030741.d\Report.txt17030741
7	D-DU1-S-SG-07-15S	2017-03-08 00:25	T:\GC_49\GC_49_data\2017\170307\17030742.d\Report.txt17030742
8	D-DU1-S-SG-07-25S	2017-03-08 00:45	T:\GC_49\GC_49_data\2017\170307\17030743.d\Report.txt17030743
11	D-DU1-S-SG-08-15S	2017-03-08 01:06	T:\GC_49\GC_49_data\2017\170307\17030744.d\Report.txt17030744
11	D-DU1-S-SG-08-15S	2017-03-07 23:01	T:\GC_49\GC_49_data\2017\170307\17030738.d\Report.txt17030738
11	D-DU1-S-SG-08-15S	2017-03-07 23:22	T:\GC_49\GC_49_data\2017\170307\17030739.d\Report.txt17030739
12	D-DU1-S-SG-08-25S	2017-03-08 01:26	T:\GC_49\GC_49_data\2017\170307\17030745.d\Report.txt17030745
15	D-DU1-S-SG-09-15S	2017-03-08 01:47	T:\GC_49\GC_49_data\2017\170307\17030746.d\Report.txt17030746
16	D-DU1-S-SG-09-25S	2017-03-08 02:08	T:\GC_49\GC_49_data\2017\170307\17030747.d\Report.txt17030747

CONTINUING CALIBRATION VERIFICATION QUALITY CONTROL SHEET FOR METHOD: EPA 8015B (M)

CCV WORK ORDER: 099-14-354-24-5901

BATCH ID:

INITIAL: 170306I006
CCV: 170307A070
INSTRUMENT: GC 49

DATA FILE: T:\GC_49\GC_49_data\2017\170307\17030734.d\Report.txt17030734

ANALYZED BY: 972

D/T ANALYZED:

INITIAL: 2017-03-06 16:25
CCV: 2017-03-07 21:39

REVIEWED BY:

D/T REVIEWED:

COMPOUND NAME	TYPE	CALIB MODEL	MIN RF	AVG RF	CCV RF	AMOUNT	CCV CONC	CCV %D	CCV %D CL	STATUS
TPH as Diesel	C	Avg Resp	0.00	977.016	919.283			6	0-20	PASS

MIN RF: Method Specified Minimum Response Factor

Data File: /chem1/SVOA/GC_49.i/170307.b/17030734.d
 Report Date: 03/08/2017 13:52

Eurofins CalScience
 Calibration Verification Report

Instrument ID: GC_49.i Injection Date and Time: 07-MAR-2017 21:39
 Sample Name: CCV D400 C28 50 L102516D Initial Calibration Date(s): 09-NOV-2016 06-MAR-2017
 Sublist used: CCV_D-DRO.sub Initial Calibration Time(s): 21:15 19:52
 Method used: /chem1/SVOA/GC_49.i/170307.b/8015d.m

Target Compounds	ICAL RRF or Amount	ICV RRF	Min. RRF	%D / %Drift	Max%D /Drift	Curve Type
Diesel Range Organics	891855.748	844213.558	0.00	5	15	Averaged
TPH as Diesel	977015.903	919283.173	0.00	6	15	Averaged
Surrogate Standards	ICAL RRF or Amount	ICV RRF	Min. RRF	%D / %Drift	Max%D /Drift	Curve Type
n-Octacosane	232259.309	250374.400	0.00	-8	20	Averaged

page 1

Data File: /chem1/SVOA/GC_49.i/170307.b/17030734.d
 Report Date: 08-Mar-2017 13:52

Page 1

Eurofins Calscience

EPA 8015B(M)

Data file : /chem1/SVOA/GC_49.i/170307.b/17030734.d
 Lab Smp Id:
 Inj Date : 07-MAR-2017 21:39
 Operator : 682 Inst ID: GC_49.i
 Smp Info : CCV D400 C28 50 L102516D
 Misc Info :
 Comment :
 Method : /chem1/SVOA/GC_49.i/170307.b/8015d.m
 Meth Date : 08-Mar-2017 13:52 umd6 Quant Type: ESTD
 Cal Date : 25-JAN-2017 02:23 Cal File: 17012445.d
 Als bottle: 34 Continuing Calibration Sample
 Dil Factor: 1.00000
 Integrator: HP Genie Compound Sublist: CCV_D-DRO.sub
 Target Version: 3.50
 Processing Host: US26TAR4

Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable

Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS	
					CAL-AMT (ppm)	ON-COL (ppm)
=====	==	=====	=====	=====	=====	=====
S 14 TPH as Diesel	0.698-7.945			367713269	400.000	376.363
S 26 Diesel Range Organics	2.313-7.945			337685423	400.000	378.632
\$ 92 n-Octacosane	7.752	7.752	0.000	12518720	50.0000	53.899

Page 1

Data File: /chem1/SV0A/GC_49.i/170307.b/17030734.d

Date : 07-MAR-2017 21:39

Client ID:

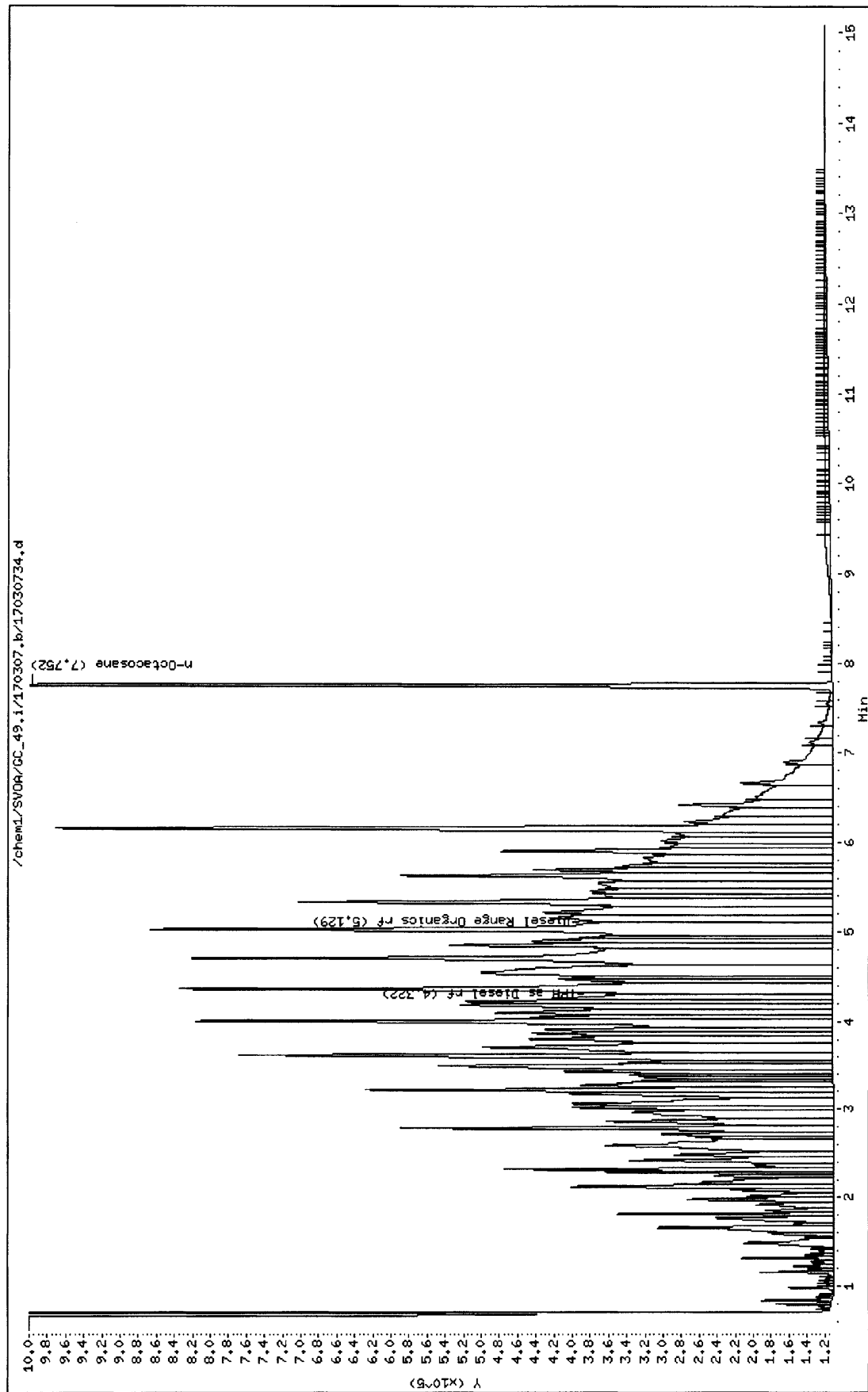
Sample Info: CCV D400 C28 50 L102816D

Instrument: GC_49.i

Operator: 682

Column diameter: 2.00

Column phase:



Data File: /chem1/SVOA/GC_49.i/170307.b/17030750.d
 Report Date: 03/08/2017 13:59

Eurofins CalScience
 Calibration Verification Report

Instrument ID: GC_49.i Injection Date and Time: 08-MAR-2017 03:11
 Sample Name: CCV D400 C28 50 L102516D Initial Calibration Date(s): 09-NOV-2016 06-MAR-2017
 Sublist used: CCV_D-DRO.sub Initial Calibration Time(s): 21:15 19:52
 Method used: /chem1/SVOA/GC_49.i/170307.b/8015d.m

Target Compounds	ICAL RRF or Amount	ICV RRF	Min. RRF	%D / %Drift	Max%D Drift	Curve Type
Diesel Range Organics	891855.748	848534.623	0.00	5	15	Averaged
TPH as Diesel	977015.903	924700.295	0.00	5	15	Averaged
Surrogate Standards	ICAL RRF or Amount	ICV RRF	Min. RRF	%D / %Drift	Max%D Drift	Curve Type
n-Octacosane	232259.309	277904.420	0.00	-20	20	Averaged

page 1

Data File: /chem1/SVOA/GC_49.i/170307.b/17030750.d
 Report Date: 08-Mar-2017 13:57

Page 1

Eurofins Calscience

EPA 8015B(M)

Data file : /chem1/SVOA/GC_49.i/170307.b/17030750.d

Lab Smp Id:

Inj Date : 08-MAR-2017 03:11

Operator : 682

Inst ID: GC_49.i

Smp Info : CCV D400 C28 50 L102516D

Misc Info :

Comment :

Method : /chem1/SVOA/GC_49.i/170307.b/8015d.m

Meth Date : 08-Mar-2017 13:57 umd6

Quant Type: ESTD

Cal Date : 25-JAN-2017 02:23

Cal File: 17012445.d

Als bottle: 50

Continuing Calibration Sample

Dil Factor: 1.00000

Integrator: HP Genie

Compound Sublist: CCV_D-DRO.sub

Target Version: 3.50

Processing Host: US26TAR4

Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable

Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS	
					CAL-AMT (ppm)	ON-COL (ppm)
S 14 TPH as Diesel	0.698-7.945			369880118	400.000	378.581
S 26 Diesel Range Organics	2.313-7.945			339413849	400.000	380.570
\$ 92 n-Octacosane	7.753	7.753	0.000	13895221	50.0000	59.826

Page 1

Data File: /chem1/SV0A/GC_49.i/170307.b/17030750.d

Date : 08-HAR-2017 03:11

Client ID:

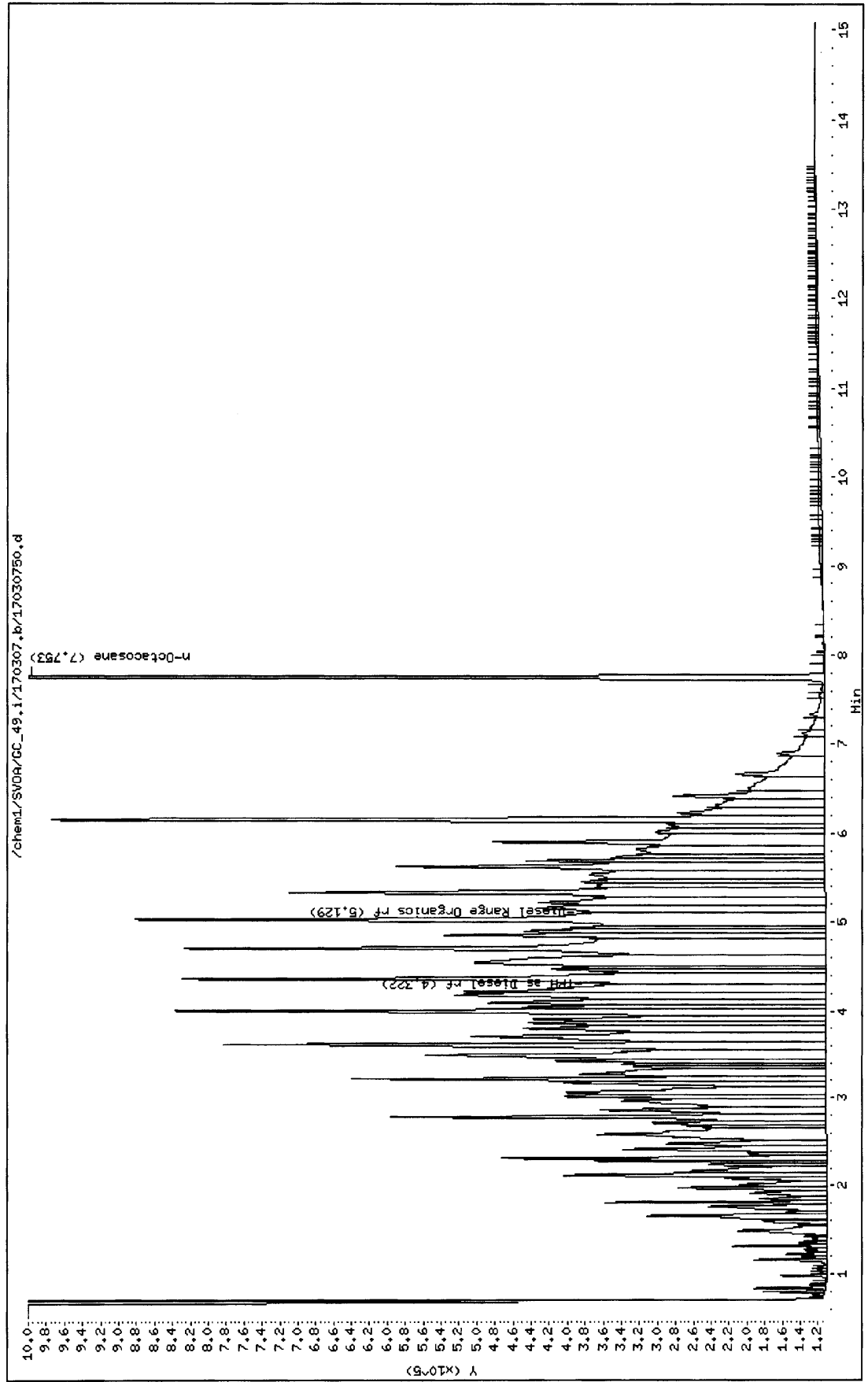
Sample Info: CCV I400 C28 50 L102516D

Instrument: GC_49.i

Operator: 682

Column diameter: 2.00

Column phase:



Data File: /chem1/SVOA/GC_49.i/170307.b/17030761.d
 Report Date: 03/08/2017 14:11

Eurofins CalScience
 Calibration Verification Report

Instrument ID: GC_49.i Injection Date and Time: 08-MAR-2017 07:01
 Sample Name: CCV D400 C28 50 L102516D Initial Calibration Date(s): 09-NOV-2016 06-MAR-2017
 Sublist used: CCV_D-DRO.sub Initial Calibration Time(s): 21:15 19:52
 Method used: /chem1/SVOA/GC_49.i/170307.b/8015d.m

Target Compounds	ICAL RRF or Amount	ICV RRF	Min. RRF	%D / %Drift	Max%D /Drift	Curve Type
Diesel Range Organics	891855.748	828483.083	0.00	7	15	Averaged
TPH as Diesel	977015.903	901858.895	0.00	8	15	Averaged
Surrogate Standards	ICAL RRF or Amount	ICV RRF	Min. RRF	%D / %Drift	Max%D /Drift	Curve Type
n-Octacosane	232259.309	245028.580	0.00	-5	20	Averaged

page 1

Data File: /chem1/SVOA/GC_49.i/170307.b/17030761.d
 Report Date: 08-Mar-2017 14:05

Page 1

Eurofins Calscience

EPA 8015B(M)

Data file : /chem1/SVOA/GC_49.i/170307.b/17030761.d
 Lab Smp Id:
 Inj Date : 08-MAR-2017 07:01
 Operator : 682 Inst ID: GC_49.i
 Smp Info : CCV D400 C28 50 L102516D
 Misc Info :
 Comment :
 Method : /chem1/SVOA/GC_49.i/170307.b/8015d.m
 Meth Date : 08-Mar-2017 14:05 umd6 Quant Type: ESTD
 Cal Date : 25-JAN-2017 02:23 Cal File: 17012445.d
 Als bottle: 61 Continuing Calibration Sample
 Dil Factor: 1.00000
 Integrator: HP Genie Compound Sublist: CCV_D-DRO.sub
 Target Version: 3.50
 Processing Host: US26TAR4

Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS	
					CAL-AMT (ppm)	ON-COL (ppm)
S 14 TPH as Diesel	0.698-7.945			360743558	400.000	369.229
S 26 Diesel Range Organics	2.313-7.945			331393233	400.000	371.577
\$ 92 n-Octacosane	7.754	7.754	0.000	12251429	50.0000	52.748

Page 1

Data File: /chem1/SV0A/GC_49.i/170307.b/17030761.d

Date : 08-MAR-2017 07:01

Client ID:

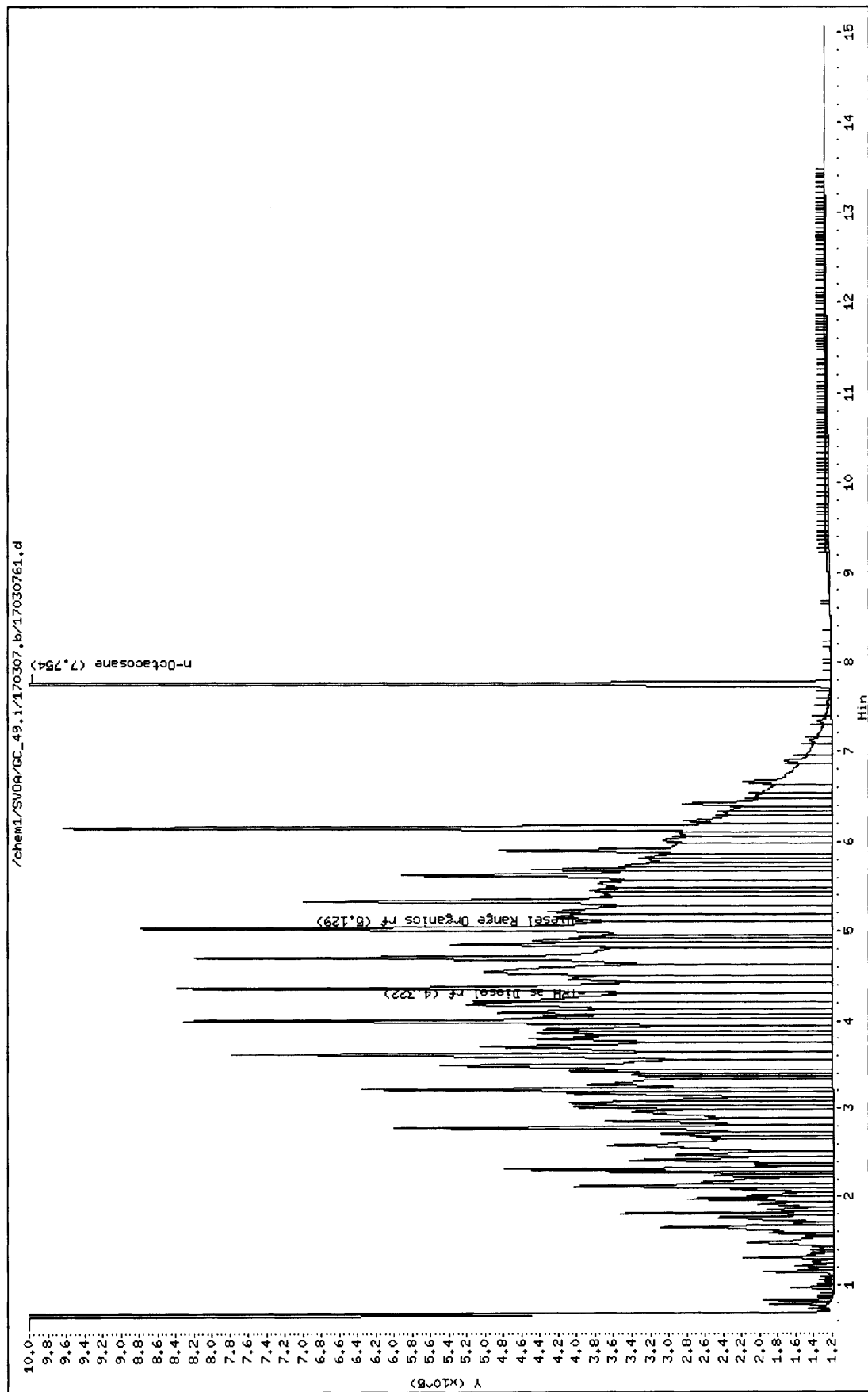
Sample Info: GCV D400 C28 50 L102516D

Instrument: GC_49.i

Operator: 682

Column diameter: 2.00

Column phase:



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External Standard Report

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Data File Name : /chem1/SVOA/GC_49/170307/1703070201.d
 Page Number :
 Operator : 682 Vial Number : Vial 2
 Instrument : GC 49 Injection Number : 2
 Sample Name : C6-C44 L110816A Sequence Line : 0
 Instrument Method: 8015d.m

Acquired on : 07 MAR 17 21:18
 Report Created on: 08-MAR-17 13:45 Compound Sublist : all
 Software Revision: Target 3.50

Sig. 1 in /chem1/SVOA/GC_49.i/170307.b/1703070201.d

RT Range	Exp RT	DLT RT	Response	ppm	Compound
0.698	7.850	7.152	1878342.00	0.00	C6-Hexane
0.882	7.850	6.968	3992764.00	0.00	C7-Heptane
1.317	7.850	6.533	6722542.00	0.00	C8-Octane
1.812	7.850	6.038	6284867.00	0.00	C9-Nonane
2.313	7.850	5.537	6684334.00	0.00	C10-Decane
2.781	7.850	5.069	6825184.00	0.00	C11-Undecane
3.215	7.850	4.635	6808515.00	0.00	C12-Dodecane
3.620	7.850	4.230	7172389.00	0.00	C13-Tridecane
4.001	7.850	3.849	6804465.00	0.00	C14-Tetradecane
4.360	7.850	3.490	6825321.00	0.00	C15-pentadecane
4.700	7.850	3.150	6856853.00	0.00	C16-Hexadecane
5.022	7.850	2.828	6982119.00	0.00	C17-Heptadecane
5.328	7.850	2.522	7150278.00	0.00	C18-Octadecane
5.619	7.850	2.231	7155603.00	0.00	C19-Nonadecane
5.898	7.850	1.952	7292098.00	0.00	C20-Eicosane
6.164	7.850	1.686	7286645.00	0.00	C21-Heneicosane
6.419	7.850	1.431	7290830.00	0.00	C22-Docosane
6.663	7.850	1.187	6946679.00	0.00	C23-Tricosane
6.897	7.850	0.953	6429963.00	0.00	C24-Tetracosane
7.122	7.850	0.728	5568125.00	0.00	C25-Pentacosane
7.339	7.850	0.511	4531942.00	0.00	C26-Hexacosane
7.548	7.850	0.302	3120521.00	0.00	C27-Heptacosane
7.750	7.850	0.100	2035240.00	8.76	n-Octacosane
7.945	7.850	-0.095	1148415.00	0.00	C29-Nonacosane
8.133	7.850	-0.283	624966.00	0.00	C30-Triacontane
8.316	7.850	-0.466	352701.00	0.00	C31-Hentriacontane
8.494	7.850	-0.644	251449.00	0.00	C32-Dotriacontane
8.666	7.850	-0.816	211163.00	0.00	C33-Tritriacontane
8.833	7.850	-0.983	200449.00	0.00	C34-Tetratriacontane
8.995	7.850	-1.145	225186.00	0.00	C35-Pentatriacontane
9.154	7.850	-1.304	264278.00	0.00	C36-Hexatriacontane
9.328	7.850	-1.478	302023.00	0.00	C37-Heptatriacontane
9.529	7.850	-1.679	328381.00	0.00	C38-Octatriacontane
9.766	7.850	-1.916	193002.00	0.00	C39-Nonatriacontane
10.042	7.850	-2.192	117639.00	0.00	C40-Tetracontane
11.750	7.850	-3.900	437419.00	0.00	C44-Tetratetracontane

End of File

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Date : 07-MAR-2017 21:18

Client ID:

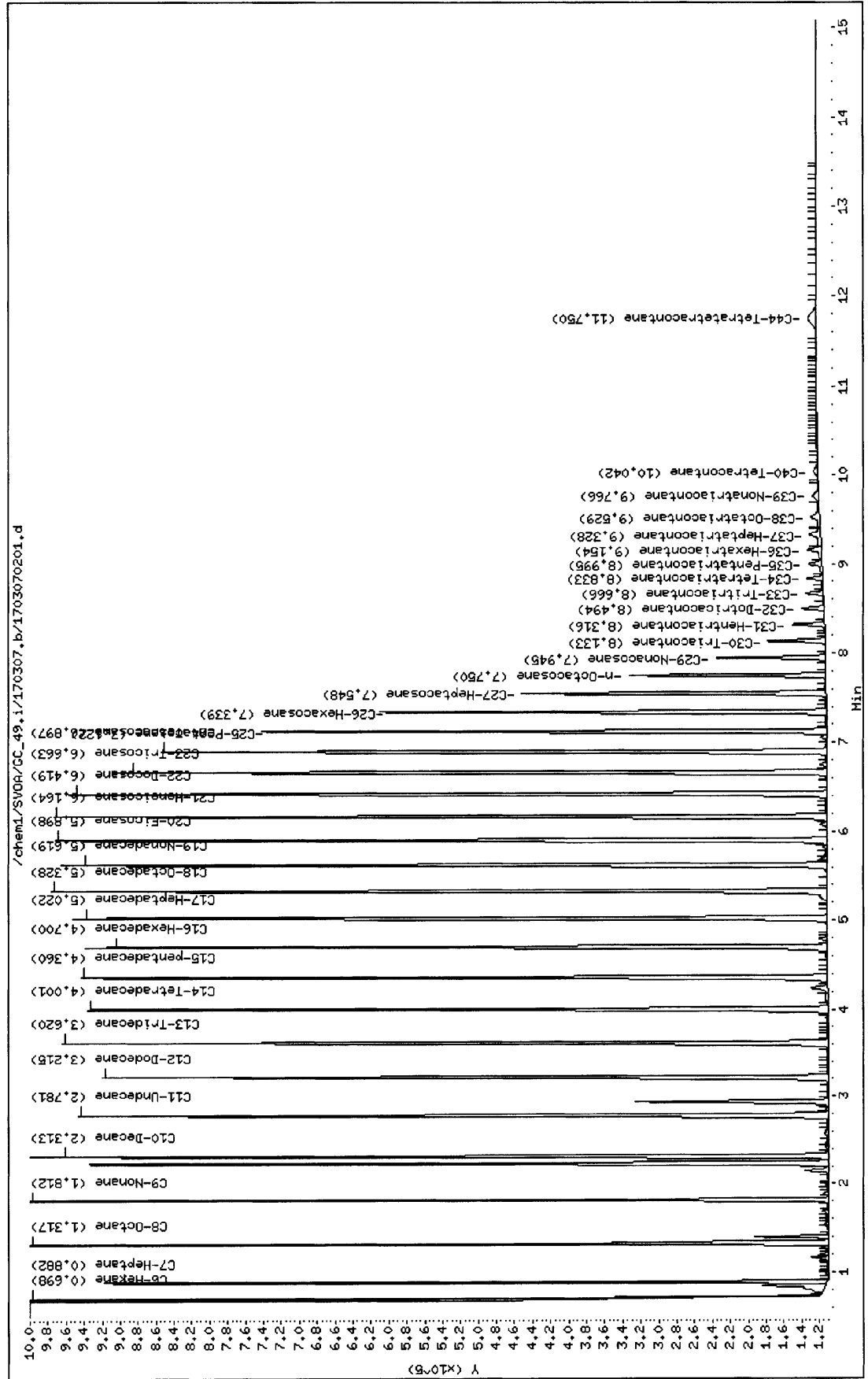
Instrument: GC_49.i

Sample Info: C6-C44 L110816A

Operator: 682

Column diameter: 2.00

Column phase:



EPA 8015B (M) Diesel + Motor Oil

RUN LOGS

Table: Rear DataPath: W:\GC_49\DATA\GC49\2017\170306\

Line	Vial	File	Name	Method	InjVolume	Acquired
1	1	17030600	BLK	8015D		06-Mar-17, 11:25:13
2	1	17030601	BLK	8015D		06-Mar-17, 11:45:48
3	2	17030602	C6-C44 L110816A	8015D		06-Mar-17, 12:07:03
4	4	17030604	CCV D400 C28 50 L102516D	8015D		06-Mar-17, 12:28:22
5	5	17030605	ICAL MO25 L030317B	8015D		06-Mar-17, 12:48:48
6	6	17030606	ICAL MO200 L030317C	8015D		06-Mar-17, 13:09:50
7	7	17030607	ICAL MO400 L030317D	8015D		06-Mar-17, 13:31:11
8	8	17030608	ICAL MO600 L030317E	8015D		06-Mar-17, 13:51:35
9	9	17030609	ICAL MO800 L030317F	8015D		06-Mar-17, 14:12:38
10	10	17030610	ICV MO400 L030317G	8015D		06-Mar-17, 14:33:58
11	11	17030611	CCV MO400 L030317D	8015D		06-Mar-17, 14:54:20
12	12	17030612	17-03-0253-1 5X RB	8015D		06-Mar-17, 15:35:53
13	13	17030613	17-03-0253-4 5X RB	8015D		06-Mar-17, 15:56:23
14	14	17030614	ICAL D5 C28 0.625 L102516B	8015D		06-Mar-17, 16:25:48
15	15	17030615	ICAL D200 C28 25 L102516C	8015D		06-Mar-17, 16:46:21
16	16	17030616	ICAL D400 C28 50 L102516D	8015D		06-Mar-17, 17:06:57
17	17	17030617	ICAL D800 C28 100 L102516E	8015D		06-Mar-17, 17:27:57
18	18	17030618	ICAL D1600 C28 200 L102516F	8015D		06-Mar-17, 17:48:57
19	19	17030619	ICV D400 C28 50 L102516G	8015D		06-Mar-17, 18:09:15
20	20	17030620	ICAL MO25 L030317B	8015D		06-Mar-17, 18:30:00
21	21	17030621	ICAL MO200 L030317C	8015D		06-Mar-17, 18:50:53
22	22	17030622	ICAL MO400 L030317D	8015D		06-Mar-17, 19:11:14
23	23	17030623	ICAL MO600 L030317E	8015D		06-Mar-17, 19:31:29
24	24	17030624	ICAL MO800 L030317F	8015D		06-Mar-17, 19:52:28
25	25	17030625	ICV MO400 L030317G	8015D		06-Mar-17, 20:12:56
26	26	17030626	CCV D400 C28 50 L102516D	8015D		06-Mar-17, 20:33:14
27	27	17030627	CCV MO400 L030317D	8015D		06-Mar-17, 20:53:54

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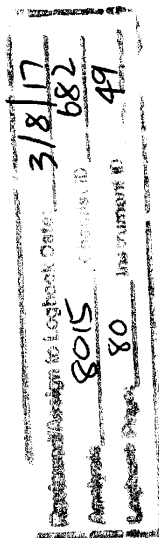
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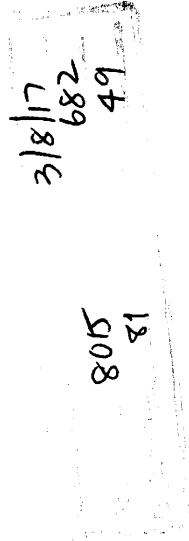
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2	2	17030702	C6-C44 L110816A	8015D		07-Mar-17, 09:56:15
3	3	17030704	CCV D400 C28 50 L102516D A039	8015D		07-Mar-17, 10:16:57
4	4	17030705	CCV MO400 L030317D	8015D		07-Mar-17, 10:37:51
5	5	17030703	MB 17030701/02	8015D		07-Mar-17, 11:12:12
6	6	17030706	LCS 17030701	8015D		07-Mar-17, 11:32:49
7	7	17030707	MOLCS 17030702	8015D		07-Mar-17, 11:53:06
8	8	17030708	MS 17-03-0278-1	8015D		07-Mar-17, 12:13:20
9	9	17030709	MSD 17-03-0278-1	8015D		07-Mar-17, 12:34:11
10	10	17030710	MOMS 17-03-0278-1	8015D		07-Mar-17, 12:55:15
11	11	17030711	MOMSD 17-03-0278-1	8015D		07-Mar-17, 13:16:39
12	12	17030712	17-03-0278-1	8015D		07-Mar-17, 13:37:18
13	13	17030713	17-03-0472-1	8015D		07-Mar-17, 13:57:37
14	14	17030714	17-03-0278-3 25X	8015D		07-Mar-17, 14:18:44
15	15	17030715	17-03-0278-4 50X	8015D		07-Mar-17, 14:39:31
16	16	17030716	17-03-0278-5 5X	8015D		07-Mar-17, 14:59:48
17	17	17030717	17-03-0278-6	8015D		07-Mar-17, 15:20:40
18	18	17030718	17-03-0278-7 10X	8015D		07-Mar-17, 15:42:04
19	19	17030719	17-03-0278-8	8015D		07-Mar-17, 16:02:53
20	20	17030720	17-03-0278-9 5X	8015D		07-Mar-17, 16:23:20
21	21	17030721	17-03-0278-10 25X	8015D		07-Mar-17, 16:46:23
22	22	17030722	CCV D400 C28 50 L102516D A069	8015D		07-Mar-17, 17:07:24
23	23	17030723	CCV MO400 L030317D	8015D		07-Mar-17, 17:27:45
24	24	17030724	17-03-0278-2 10X	8015D		07-Mar-17, 17:48:10
25	25	17030725	17-02-0506-5 CONF	8015D		07-Mar-17, 18:09:05
26	26	17030726	17-02-0506-6 CONF	8015D		07-Mar-17, 18:30:01
27	27	17030727	17-02-0506-7 CONF	8015D		07-Mar-17, 18:50:34
28	28	17030728	17-03-0323-1 5X	8015D		07-Mar-17, 19:10:50
29	29	17030729	17-03-0323-2 25X	8015D		07-Mar-17, 19:31:12
30	30	17030730	17-03-0323-3 5X	8015D		07-Mar-17, 19:55:32
31	31	17030731	17-03-0323-4 5X	8015D		07-Mar-17, 20:16:08
32	32	17030732	17-03-0323-5	8015D		07-Mar-17, 20:36:22
33	33	17030733	17-03-0323-6 50X	8015D		07-Mar-17, 20:57:10
34	2	1703070201	C6-C44 L110816A	8015D		07-Mar-17, 21:18:23
35	34	17030734	CCV D400 C28 50 L102516D A070	8015D		07-Mar-17, 21:39:03
36	35	17030735	CCV MO400 L030317D	8015D		07-Mar-17, 21:59:26
37	36	17030736	MB 17030706	8015D		07-Mar-17, 22:19:42
38	37	17030737	LCS 17030706	8015D		07-Mar-17, 22:40:35
39	38	17030738	MS 17-03-0335-11	8015D		07-Mar-17, 23:01:40
40	39	17030739	MSD 17-03-0335-11	8015D		07-Mar-17, 23:22:34
41	40	17030740	17-03-0335-3	8015D		07-Mar-17, 23:43:41
42	41	17030741	17-03-0335-4	8015D		08-Mar-17, 00:04:46
43	42	17030742	17-03-0335-7	8015D		08-Mar-17, 00:25:23
44	43	17030743	17-03-0335-8	8015D		08-Mar-17, 00:45:57
45	44	17030744	17-03-0335-11	8015D		08-Mar-17, 01:06:31
46	45	17030745	17-03-0335-12	8015D		08-Mar-17, 01:26:51
47	46	17030746	17-03-0335-15	8015D		08-Mar-17, 01:47:20
48	47	17030747	17-03-0335-16	8015D		08-Mar-17, 02:08:10
49	48	17030748	17-03-0444-3	8015D		08-Mar-17, 02:29:19
50	49	17030749	17-03-0444-4	8015D		08-Mar-17, 02:50:24
51	50	17030750	CCV D400 C28 50 L102516D A071	8015D		08-Mar-17, 03:11:34
52	51	17030751	CCV MO400 L030317D	8015D		08-Mar-17, 03:32:37
53	52	17030752	17-03-0444-7	8015D		08-Mar-17, 03:53:37
54	53	17030753	17-03-0444-8	8015D		08-Mar-17, 04:14:33
55	54	17030754	17-03-0336-3	8015D		08-Mar-17, 04:35:06
56	55	17030755	17-03-0336-4	8015D		08-Mar-17, 04:55:34
57	56	17030756	17-03-0140-27	8015D		08-Mar-17, 05:16:49
58	57	17030757	17-03-0140-28	8015D		08-Mar-17, 05:37:47
59	58	17030758	17-03-0140-29	8015D		08-Mar-17, 05:58:33
60	59	17030759	17-03-0140-30	8015D		08-Mar-17, 06:19:13



61 60 17030760 17-03-0140-31
62 61 17030761 CCV D400 C28 50 L102516D
63 62 17030762 CCV MO400 L030317D

8015D
8015D
8015D

08-Mar-17, 06:40:24
08-Mar-17, 07:01:30
08-Mar-17, 07:22:01



EPA 8015B (M)
Diesel + Motor Oil
PREPARATION LOGS

Revision Date: 10/24/16

EPA 6010B ICP Metals (Solid)

RAW DATA

EPA 6010B ICP Metals (Solid)

Initial Calibration

ICV/ICB
CCV/CCB
ICSA/B

EPA Method 6010B
Initial Calibration Verification

Work Order No: 17-03-0335

Instrument ID: ICP 7300

Concentration Unit: mg/L

Analyte Name	Initial Calibration Verification				
	True	ICV-1		Control	Comment
		Observed	%D	Limit	
Silver	0.500000	0.495683	1	+/-10	
Arsenic	5.000000	5.035563	-1	+/-10	
Barium	1.000000	1.042145	-4	+/-10	
Beryllium	0.500000	0.518209	-4	+/-10	
Cadmium	1.500000	1.504425	0	+/-10	
Cobalt	1.000000	1.027255	-3	+/-10	
Chromium	0.400000	0.400117	0	+/-10	
Copper	1.000000	1.004321	0	+/-10	
Molybdenum	2.500000	2.478650	1	+/-10	
Nickel	0.400000	0.415226	-4	+/-10	
Lead	5.000000	5.088901	-2	+/-10	
Antimony	2.000000	1.988478	1	+/-10	
Selenium	2.000000	2.011083	-1	+/-10	
Thallium	2.000000	2.023142	-1	+/-10	
Vanadium	1.000000	0.988770	1	+/-10	
Zinc	1.500000	1.519628	-1	+/-10	

Report Time: 3/10/2017 1:21:47 PM

ICV-1 File: ICV-M072816C

Analysis Time: 3/8/2017 10:29:06 AM

Note: Note: %D= (True-Observed) / True x 100%

01/22/2014 Revision

Work Order No: 17-03-0335

Instrument ID: ICP 7300

Concentration Unit: mg/L

Analyte	Initial Calibration Blank		
	ICB-1	RL	Comment
Silver	0.000251	0.005000	
Arsenic	0.001746	0.010000	
Barium	0.000075	0.010000	
Beryllium	-0.000020	0.010000	
Cadmium	0.000074	0.010000	
Cobalt	-0.000096	0.010000	
Chromium	0.000471	0.010000	
Copper	-0.001031	0.010000	
Molybdenum	-0.000116	0.010000	
Nickel	-0.000385	0.010000	
Lead	-0.000021	0.010000	
Antimony	0.003155	0.015000	
Selenium	-0.000150	0.015000	
Thallium	0.000008	0.015000	
Vanadium	-0.000818	0.010000	
Zinc	0.000195	0.010000	

Report Time: 3/10/2017 1:21:47 PM

ICB-1 File: ICB-R12091601

Analysis Time: 3/8/2017 10:31:37 AM

01/22/2014 Revision

Work Order No: 17-03-0335

Instrument ID: ICP 7300

Concentration Unit: mg/L

Analyte	Interference Check						Comment
	ICS-A-1		ICS-AB-1				
	Observed	Control Limit	True	Observed	%D	Control Limit	
Silver	-0.000573	0.005000	0.300000	0.310746	-4	+/-20	
Arsenic	0.002908	0.010000	1.000000	1.045277	-5	+/-20	
Barium	0.002568	0.010000	0.300000	0.317760	-6	+/-20	
Beryllium	-0.000073	0.010000	0.100000	0.108274	-8	+/-20	
Cadmium	0.002115	0.010000	0.300000	0.299455	0	+/-20	
Cobalt	0.001038	0.010000	0.300000	0.304743	-2	+/-20	
Chromium	-0.001353	0.010000	0.300000	0.304776	-2	+/-20	
Copper	-0.001754	0.010000	0.300000	0.312318	-4	+/-20	
Molybdenum	0.001037	0.010000	0.300000	0.306137	-2	+/-20	
Nickel	-0.000167	0.010000	0.300000	0.310032	-3	+/-20	
Lead	-0.006335	0.010000	1.000000	0.998093	0	+/-20	
Antimony	-0.004590	0.015000	1.000000	0.989200	1	+/-20	
Selenium	-0.007043	0.015000	0.500000	0.513103	-3	+/-20	
Thallium	-0.009166	0.015000	1.000000	1.017047	-2	+/-20	
Vanadium	0.000099	0.010000	0.300000	0.300437	0	+/-20	
Zinc	0.000924	0.010000	0.300000	0.304064	-1	+/-20	

Report Time: 3/10/2017 1:21:47 PM

ICS-A-1 File: ICS_A - M110116B Analysis Time: 3/8/2017 10:32:40 AM
ICS-AB-1 File: ICS_AB - M110116A Analysis Time: 3/8/2017 10:33:31 AM

01/22/2014 Revision

Work Order No: 17-03-0335

Instrument ID: ICP 7300

Concentration Unit: mg/L

Analyte	Continuing Calibration Verification						
	True	CCV-1		CCV-2		Control Limit	Comment
		Observed	%D	Observed	%D		
Silver	0.375000	0.380575	-1	0.378388	-1	+/-10	
Arsenic	3.750000	3.930528	-5	3.877125	-3	+/-10	
Barium	7.500000	8.221189	-10	8.087813	-8	+/-10	
Beryllium	0.562500	0.603767	-7	0.594050	-6	+/-10	
Cadmium	0.750000	0.791276	-6	0.775044	-3	+/-10	
Cobalt	1.875000	2.002979	-7	1.970059	-5	+/-10	
Chromium	0.600000	0.627086	-5	0.620638	-3	+/-10	
Copper	0.937500	0.967153	-3	0.959345	-2	+/-10	
Molybdenum	0.600000	0.630970	-5	0.626601	-4	+/-10	
Nickel	0.600000	0.626620	-4	0.620167	-3	+/-10	
Lead	3.750000	3.977279	-6	3.890986	-4	+/-10	
Antimony	4.500000	4.703409	-5	4.674454	-4	+/-10	
Selenium	1.500000	1.588818	-6	1.575214	-5	+/-10	
Thallium	1.500000	1.603300	-7	1.589761	-6	+/-10	
Vanadium	1.875000	1.956567	-4	1.939432	-3	+/-10	
Zinc	2.500000	2.638609	-6	2.575351	-3	+/-10	

Report Time: 3/10/2017 1:21:47 PM

CCV-1 File: CCV= STD3x0.5

Analysis Time: 3/8/2017 2:16:07 PM

CCV-2 File: CCV= STD3x0.5

Analysis Time: 3/8/2017 2:26:38 PM

Note: Note: %D= (True-Observed) / True x 100%

01/22/2014 Revision

Work Order No: 17-03-0335

Instrument ID: ICP 7300

Concentration Unit: mg/L

Analyte	Continuing Calibration Blank			Qualifier
	CCB-1	CCB-2	RL	
Silver	0.000295	0.001379	0.005000	
Arsenic	0.005545	-0.009042	0.010000	
Barium	0.002981	0.003586	0.010000	
Beryllium	0.000190	0.000244	0.010000	
Cadmium	0.000359	0.000327	0.010000	
Cobalt	0.000849	0.000844	0.010000	
Chromium	-0.000112	0.000419	0.010000	
Copper	-0.000248	0.000643	0.010000	
Molybdenum	0.000618	0.000328	0.010000	
Nickel	-0.000109	0.000483	0.010000	
Lead	-0.000793	0.001908	0.010000	
Antimony	0.001315	0.006976	0.015000	
Selenium	-0.001446	0.000594	0.015000	
Thallium	0.002343	0.004310	0.015000	
Vanadium	0.000754	0.001054	0.010000	
Zinc	-0.000428	-0.000256	0.010000	

Report Time: 3/10/2017 1:21:47 PM

CCB-1 File: CCB-R12091601

Analysis Time: 3/8/2017 2:17:00 PM

CCB-2 File: CCB-R12091601

Analysis Time: 3/8/2017 2:27:31 PM

01/22/2014 Revision

Work Order No: 17-03-0335

Instrument ID: ICP 7300

Concentration Unit: mg/L

Analyte	Continuing Calibration Verification						
	True	CCV-3				Control Limit	Comment
		Observed	%D	Observed	%D		
Silver	0.375000	0.377950	-1			+/-10	
Arsenic	3.750000	3.763868	0			+/-10	
Barium	7.500000	8.092468	-8			+/-10	
Beryllium	0.562500	0.595990	-6			+/-10	
Cadmium	0.750000	0.782349	-4			+/-10	
Cobalt	1.875000	1.977531	-5			+/-10	
Chromium	0.600000	0.619296	-3			+/-10	
Copper	0.937500	0.956059	-2			+/-10	
Molybdenum	0.600000	0.606347	-1			+/-10	
Nickel	0.600000	0.600508	0			+/-10	
Lead	3.750000	3.917504	-4			+/-10	
Antimony	4.500000	4.525718	-1			+/-10	
Selenium	1.500000	1.530365	-2			+/-10	
Thallium	1.500000	1.536271	-2			+/-10	
Vanadium	1.875000	1.937063	-3			+/-10	
Zinc	2.500000	2.600114	-4			+/-10	

Report Time: 3/10/2017 1:21:47 PM

CCV-3 File: CCV= STD3x0.5

Analysis Time: 3/8/2017 2:31:49 PM

Note: Note: %D= (True-Observed) / True x 100%

01/22/2014 Revision

Work Order No: 17-03-0335

Instrument ID: ICP 7300

Concentration Unit: mg/L

Continuing Calibration Blank				
Analyte	CCB-3		RL	Qualifier
Silver	-0.000627		0.005000	
Arsenic	0.001995		0.010000	
Barium	0.003727		0.010000	
Beryllium	0.000266		0.010000	
Cadmium	0.000265		0.010000	
Cobalt	0.000686		0.010000	
Chromium	0.000387		0.010000	
Copper	-0.000412		0.010000	
Molybdenum	-0.000116		0.010000	
Nickel	0.000119		0.010000	
Lead	0.000165		0.010000	
Antimony	0.000235		0.015000	
Selenium	-0.002266		0.015000	
Thallium	-0.001127		0.015000	
Vanadium	-0.000390		0.010000	
Zinc	0.000228		0.010000	

Report Time: 3/10/2017 1:21:47 PM

CCB-3 File: CCB-R12091601

Analysis Time: 3/8/2017 2:32:42 PM

01/22/2014 Revision

Return to Contents

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Reprocessing Begun

Logged In Analyst: Oscar Gomez 935

Technique: ICP Continuous

Results Data Set (original): 170308C 1

Results Library (original): W:\pe\7300\Results\results.mdb

Results Data Set (reprocessed): 170308C1

Results Library (reprocessed): W:\pe\7300\Results\results.mdb

=====

Sequence No.: 1

Autosampler Location: 1

Sample ID: Cal blankR12091601_935

Date Collected: 3/8/2017 10:27:03 AM

Analyst:

Data Type: Reprocessed on 3/8/2017 11:06:50 AM

Logged In Analyst (Original) : Oscar Gomez 935

Initial Sample Wt:

Initial Sample Vol:

Dilution:

Sample Prep Vol:

Wash Time:

=====

Mean Data: Cal blankR12091601_935

Analyte	Mean Corrected	Std.Dev.	RSD	Conc.	Calib
					Units
Tb 384	70607.7	579.92	0.82%	100.0	%
Tb 350	110205.4	721.72	0.65%	100.0	%
Ag 328.068*†	-907.6	9.80	1.08%	[0.00]	mg/L
Al 308.215*†	-2059.1	82.62	4.01%	[0.00]	mg/L
As 188.979†	8.1	8.41	103.43%	[0.00]	mg/L
As 193.696*†	2.6	13.25	511.56%	[0.00]	mg/L
B 249.677*†	-896.6	35.97	4.01%	[0.00]	mg/L
Ba 233.527*†	-264.1	6.23	2.36%	[0.00]	mg/L
Be 313.042*†	-899.1	13.19	1.47%	[0.00]	mg/L
Ca 317.933*†	20.1	0.71	3.50%	[0.00]	mg/L
Cd 226.502*†	-7.8	12.32	158.26%	[0.00]	mg/L
Cd 228.802†	6.9	4.33	62.75%	[0.00]	mg/L
Co 228.616*†	-88.4	1.64	1.85%	[0.00]	mg/L
Cr 267.716*†	399.1	43.27	10.84%	[0.00]	mg/L
Cu 324.752*†	1947.6	229.66	11.79%	[0.00]	mg/L
Fe 273.955*†	-227.0	9.18	4.04%	[0.00]	mg/L
K 766.490*†	1103.9	49.53	4.49%	[0.00]	mg/L
Mg 279.077*†	-7933.3	211.12	2.66%	[0.00]	mg/L
Mn 257.610*†	2010.7	3.79	0.19%	[0.00]	mg/L
Mo 202.031*†	-46.8	4.27	9.12%	[0.00]	mg/L
Na 589.592*†	353.6	18.57	5.25%	[0.00]	mg/L
Ni 231.604*†	-55.4	6.48	11.70%	[0.00]	mg/L
P 213.617*†	-133.7	1.48	1.11%	[0.00]	mg/L
P 214.914†	-40.0	10.56	26.43%	[0.00]	mg/L
Pb 220.353*†	-27.8	10.58	38.10%	[0.00]	mg/L
Sb 206.836†	21.5	4.09	19.00%	[0.00]	mg/L
Sb 217.582*†	-5.7	1.01	17.77%	[0.00]	mg/L
Se 196.026*†	6.5	3.96	60.96%	[0.00]	mg/L
Si 251.611*†	1216.2	21.13	1.74%	[0.00]	mg/L
Sn 189.927*†	-88.3	2.64	2.98%	[0.00]	mg/L
Sn 242.170†	-418.0	15.46	3.70%	[0.00]	mg/L
Sr 407.771*†	114.7	10.22	8.91%	[0.00]	mg/L
Ti 334.940†	25058.0	1.69	0.01%	[0.00]	mg/L
Ti 336.121*†	-1431.2	22.20	1.55%	[0.00]	mg/L
Tl 190.801*†	-5.4	9.37	172.66%	[0.00]	mg/L
V 292.402*†	255.7	94.70	37.03%	[0.00]	mg/L
Zn 206.200*†	-220.2	8.20	3.72%	[0.00]	mg/L
Zn 213.857*†	-52.6	0.90	1.71%	[0.00]	mg/L

Sequence No.: 2

Sample ID: STD3-M111116A_935_ICP7300

Analyst:

Logged In Analyst (Original) : Oscar Gomez 935

Initial Sample Wt:

Dilution:

Wash Time:

Autosampler Location: 2

Date Collected: 3/8/2017 10:28:10 AM

Data Type: Reprocessed on 3/8/2017 11:06:52 AM

Initial Sample Vol:

Sample Prep Vol:

Mean Data: STD3-M111116A_935_ICP7300

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Calib Conc. Units
Tb 384	60827.8	826.83	1.36%	86.15 %
Tb 350	98891.1	1694.29	1.71%	89.73 %
Ag 328.068*†	129856.2	198.92	0.15%	[0.75] mg/L
Al 308.215*†	426809.3	368.46	0.09%	[27.0] mg/L
As 188.979†	13708.4	138.69	1.01%	[7.50] mg/L
As 193.696*†	9582.0	136.61	1.43%	[7.50] mg/L
B 249.677*†	344304.9	1196.54	0.35%	[7.50] mg/L
Ba 233.527*†	1980628.7	77431.43	3.91%	[15.0] mg/L
Be 313.042*†	3633343.7	161308.94	4.44%	[1.125] mg/L
Ca 317.933*†	104324.8	3742.32	3.59%	[60.0] mg/L
Cd 226.502*†	103545.5	662.64	0.64%	[1.50] mg/L
Cd 228.802†	52247.0	239.51	0.46%	[1.50] mg/L
Co 228.616*†	94055.5	383.63	0.41%	[3.75] mg/L
Cr 267.716*†	122879.8	119.46	0.10%	[1.20] mg/L
Cu 324.752*†	427231.7	307.56	0.07%	[1.875] mg/L
Fe 273.955*†	158512.6	946.16	0.60%	[7.50] mg/L
K 766.490*†	148852.5	4971.22	3.34%	[54.0] mg/L
Mg 279.077*†	253910.4	1719.13	0.68%	[15.0] mg/L
Mn 257.610*†	829500.5	33242.43	4.01%	[1.50] mg/L
Mo 202.031*†	10064.9	150.11	1.49%	[1.20] mg/L
Na 589.592*†	291382.1	10593.08	3.64%	[72.0] mg/L
Ni 231.604*†	26082.9	67.89	0.26%	[1.20] mg/L
P 213.617*†	20604.8	222.90	1.08%	[12.0] mg/L
P 214.914†	13256.2	155.57	1.17%	[12.0] mg/L
Pb 220.353*†	53533.6	166.09	0.31%	[7.50] mg/L
Sb 206.836†	15118.2	204.54	1.35%	[9.0] mg/L
Sb 217.582*†	15157.2	220.65	1.46%	[9.0] mg/L
Se 196.026*†	5738.2	59.98	1.05%	[3.0] mg/L
Si 251.611*†	418850.0	703.20	0.17%	[12.0] mg/L
Sn 189.927*†	32204.1	447.97	1.39%	[6.0] mg/L
Sn 242.170†	9457.3	117.00	1.24%	[6.0] mg/L
Sr 407.771*†	176787.4	6771.42	3.83%	[0.60] mg/L
Ti 334.940†	870257.8	35553.32	4.09%	[1.20] mg/L
Ti 336.121*†	635141.2	993.02	0.16%	[1.20] mg/L
Tl 190.801*†	4895.3	81.86	1.67%	[3.0] mg/L
V 292.402*†	465995.3	440.76	0.09%	[3.75] mg/L
Zn 206.200*†	183796.0	1117.00	0.61%	[5.0] mg/L
Zn 213.857*†	320730.8	1982.15	0.62%	[5.0] mg/L

Sequence No.: 1

Sample ID: ICV-M072816C

Analyst: 935 icp 7300

Logged In Analyst (Original) : Oscar Gomez 935

Initial Sample Wt:

Dilution:

Wash Time:

Autosampler Location: 10

Date Collected: 3/8/2017 10:29:06 AM

Data Type: Reprocessed on 3/8/2017 11:07:29 AM

Initial Sample Vol:

Sample Prep Vol:

Mean Data: ICV-M072816C

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Tb 384	62651.5	88.73	%	1.275			1.44%
Tb 350	101442.7	92.05	%	1.598			1.74%
Ag 328.068*†	85823.3	0.4957	mg/L	0.00204	0.4957 mg/L	0.00204	0.41%
QC value within limits for Ag 328.068* Recovery = 99.14%							
Al 308.215*†	66481.7	4.206	mg/L	0.0073	4.206 mg/L	0.0073	0.17%
QC value within limits for Al 308.215* Recovery = 105.14%							
As 188.979†	9186.8	5.026	mg/L	0.0967	5.026 mg/L	0.0967	1.92%
QC value within limits for As 188.979 Recovery = 100.52%							
As 193.696*†	6433.4	5.036	mg/L	0.1054	5.036 mg/L	0.1054	2.09%
QC value within limits for As 193.696* Recovery = 100.71%							
B 249.677*†	113427.5	2.471	mg/L	0.0033	2.471 mg/L	0.0033	0.13%
QC value within limits for B 249.677* Recovery = 98.83%							
Ba 233.527*†	137606.8	1.042	mg/L	0.0023	1.042 mg/L	0.0023	0.22%
QC value within limits for Ba 233.527* Recovery = 104.21%							
Be 313.042*†	1673628.4	0.5182	mg/L	0.00328	0.5182 mg/L	0.00328	0.63%
QC value within limits for Be 313.042* Recovery = 103.64%							
Ca 317.933*†	33293.2	19.15	mg/L	0.854	19.15 mg/L	0.854	4.46%
QC value within limits for Ca 317.933* Recovery = 95.74%							
Cd 226.502*†	103851.0	1.504	mg/L	0.0097	1.504 mg/L	0.0097	0.65%
QC value within limits for Cd 226.502* Recovery = 100.29%							
Cd 228.802†	52086.6	1.495	mg/L	0.0105	1.495 mg/L	0.0105	0.70%
Co 228.616*†	25765.1	1.027	mg/L	0.0068	1.027 mg/L	0.0068	0.67%
QC value within limits for Co 228.616* Recovery = 102.73%							
Cr 267.716*†	40971.9	0.4001	mg/L	0.00134	0.4001 mg/L	0.00134	0.33%
QC value within limits for Cr 267.716* Recovery = 100.03%							
Cu 324.752*†	228841.6	1.004	mg/L	0.0017	1.004 mg/L	0.0017	0.17%
QC value within limits for Cu 324.752* Recovery = 100.43%							
Fe 273.955*†	2161374.5	102.3	mg/L	0.98	102.3 mg/L	0.98	0.95%
QC value within limits for Fe 273.955* Recovery = 102.27%							
K 766.490*†	21650.5	7.854	mg/L	0.3035	7.854 mg/L	0.3035	3.86%
QC value within limits for K 766.490* Recovery = 98.18%							
Mg 279.077*†	169269.4	10.000	mg/L	0.0098	10.000 mg/L	0.0098	0.10%
QC value within limits for Mg 279.077* Recovery = 100.00%							
Mn 257.610*†	579556.5	1.048	mg/L	0.0002	1.048 mg/L	0.0002	0.02%
QC value within limits for Mn 257.610* Recovery = 104.80%							
Mo 202.031*†	20789.6	2.479	mg/L	0.0493	2.479 mg/L	0.0493	1.99%
QC value within limits for Mo 202.031* Recovery = 99.15%							
Na 589.592*†	216634.8	53.53	mg/L	1.947	53.53 mg/L	1.947	3.64%
QC value within limits for Na 589.592* Recovery = 99.13%							
Ni 231.604*†	9025.3	0.4152	mg/L	0.00529	0.4152 mg/L	0.00529	1.27%
QC value within limits for Ni 231.604* Recovery = 103.81%							
P 213.617*†	8431.1	4.910	mg/L	0.0635	4.910 mg/L	0.0635	1.29%
QC value within limits for P 213.617* Recovery = 98.20%							
P 214.914†	5612.2	5.080	mg/L	0.0581	5.080 mg/L	0.0581	1.14%
Pb 220.353*†	36323.6	5.089	mg/L	0.0124	5.089 mg/L	0.0124	0.24%
QC value within limits for Pb 220.353* Recovery = 101.78%							
Sb 206.836†	3305.8	1.968	mg/L	0.0317	1.968 mg/L	0.0317	1.61%
QC value within limits for Sb 206.836 Recovery = 98.40%							
Sb 217.582*†	3348.9	1.988	mg/L	0.0269	1.988 mg/L	0.0269	1.35%
QC value within limits for Sb 217.582* Recovery = 99.42%							
Se 196.026*†	3846.6	2.011	mg/L	0.0256	2.011 mg/L	0.0256	1.27%
QC value within limits for Se 196.026* Recovery = 100.55%							
Si 251.611*†	334746.1	9.590	mg/L	0.0268	9.590 mg/L	0.0268	0.28%
QC value within limits for Si 251.611* Recovery = 95.90%							
Sn 189.927*†	13710.4	2.554	mg/L	0.0521	2.554 mg/L	0.0521	2.04%
QC value within limits for Sn 189.927* Recovery = 102.18%							
Sn 242.170†	4470.2	2.836	mg/L	0.0758	2.836 mg/L	0.0758	2.67%
Sr 407.771*†	57641.8	0.1956	mg/L	0.00652	0.1956 mg/L	0.00652	3.33%

QC value within limits for Sr 407.771* Recovery = 97.82%

Ti 334.940†	3644770.5	5.026 mg/L	0.0535	5.026 mg/L	0.0535	1.06%
Ti 336.121*†	2574192.2	4.864 mg/L	0.0545	4.864 mg/L	0.0545	1.12%
QC value within limits for Ti 336.121* Recovery = 97.27%						
Tl 190.801*†	3301.3	2.023 mg/L	0.0404	2.023 mg/L	0.0404	2.00%
QC value within limits for Tl 190.801* Recovery = 101.16%						
V 292.402*†	123078.3	0.9888 mg/L	0.00031	0.9888 mg/L	0.00031	0.03%
QC value within limits for V 292.402* Recovery = 98.88%						
Zn 206.200*†	55860.3	1.520 mg/L	0.0093	1.520 mg/L	0.0093	0.61%
QC value within limits for Zn 206.200* Recovery = 101.31%						
Zn 213.857*†	97128.6	1.506 mg/L	0.0050	1.506 mg/L	0.0050	0.33%
QC value within limits for Zn 213.857* Recovery = 100.38%						

All analyte(s) passed QC.

Sequence No.: 2

Sample ID: ICB-R12091601

Analyst: 935 icp 7300

Logged In Analyst (Original) : Oscar Gomez 935

Initial Sample Wt:

Dilution:

Wash Time:

Autosampler Location: 1

Date Collected: 3/8/2017 10:31:37 AM

Data Type: Reprocessed on 3/8/2017 11:07:30 AM

Initial Sample Vol:

Sample Prep Vol:

Mean Data: ICB-R12091601

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Tb 384	69288.1	98.13 %	0.539			0.55%
Tb 350	108024.3	98.02 %	0.353			0.36%
Ag 328.068*†	43.5	0.0003 mg/L	0.00076	0.0003 mg/L	0.00076	300.87%
Al 308.215*†	-3.3	-0.0002 mg/L	0.00286	-0.0002 mg/L	0.00286	>999.9%
As 188.979†	0.1	0.0001 mg/L	0.00114	0.0001 mg/L	0.00114	>999.9%
As 193.696*†	2.2	0.0017 mg/L	0.00036	0.0017 mg/L	0.00036	20.59%
QC value within limits for As 193.696* Recovery = Not calculated						
B 249.677*†	778.7	0.0170 mg/L	0.00049	0.0170 mg/L	0.00049	2.89%
QC value within limits for B 249.677* Recovery = Not calculated						
Ba 233.527*†	9.9	0.0001 mg/L	0.00010	0.0001 mg/L	0.00010	135.01%
Be 313.042*†	-65.2	-0.0000 mg/L	0.00003	-0.0000 mg/L	0.00003	130.02%
Ca 317.933*†	9.5	0.0055 mg/L	0.00041	0.0055 mg/L	0.00041	7.52%
Cd 226.502*†	5.1	0.0001 mg/L	0.00009	0.0001 mg/L	0.00009	116.22%
Cd 228.802†	-11.1	-0.0003 mg/L	0.00002	-0.0003 mg/L	0.00002	5.09%
Co 228.616*†	-2.4	-0.0001 mg/L	0.00002	-0.0001 mg/L	0.00002	23.07%
Cr 267.716*†	48.2	0.0005 mg/L	0.00010	0.0005 mg/L	0.00010	20.34%
Cu 324.752*†	-234.9	-0.0010 mg/L	0.00044	-0.0010 mg/L	0.00044	42.73%
Fe 273.955*†	-2.7	-0.0001 mg/L	0.00078	-0.0001 mg/L	0.00078	610.02%
K 766.490*†	-437.0	-0.1585 mg/L	0.03245	-0.1585 mg/L	0.03245	20.47%
Mg 279.077*†	16.1	0.0010 mg/L	0.00586	0.0010 mg/L	0.00586	616.00%
Mn 257.610*†	18.6	0.0000 mg/L	0.00004	0.0000 mg/L	0.00004	123.29%
Mo 202.031*†	-1.0	-0.0001 mg/L	0.00046	-0.0001 mg/L	0.00046	400.87%
Na 589.592*†	211.6	0.0523 mg/L	0.02372	0.0523 mg/L	0.02372	45.38%
Ni 231.604*†	-8.4	-0.0004 mg/L	0.00019	-0.0004 mg/L	0.00019	50.51%
P 213.617*†	-18.7	-0.0109 mg/L	0.00765	-0.0109 mg/L	0.00765	70.04%
P 214.914†	-11.5	-0.0104 mg/L	0.00336	-0.0104 mg/L	0.00336	32.17%
Pb 220.353*†	-0.1	-0.0000 mg/L	0.00104	-0.0000 mg/L	0.00104	>999.9%
QC value within limits for Pb 220.353* Recovery = Not calculated						
Sb 206.836†	-3.7	-0.0022 mg/L	0.00374	-0.0022 mg/L	0.00374	167.37%
Sb 217.582*†	5.3	0.0032 mg/L	0.00907	0.0032 mg/L	0.00907	287.44%
QC value within limits for Sb 217.582* Recovery = Not calculated						
Se 196.026*†	-0.3	-0.0002 mg/L	0.00583	-0.0002 mg/L	0.00583	>999.9%
QC value within limits for Se 196.026* Recovery = Not calculated						
Si 251.611*†	77.7	0.0022 mg/L	0.00057	0.0022 mg/L	0.00057	25.52%
QC value within limits for Si 251.611* Recovery = Not calculated						
Sn 189.927*†	0.8	0.0002 mg/L	0.00438	0.0002 mg/L	0.00438	>999.9%
Sn 242.170†	53.8	0.0341 mg/L	0.00362	0.0341 mg/L	0.00362	10.60%
Sr 407.771*†	-34.5	-0.0001 mg/L	0.00012	-0.0001 mg/L	0.00012	100.98%
Ti 334.940†	-203.0	-0.0003 mg/L	0.00004	-0.0003 mg/L	0.00004	14.77%
Ti 336.121*†	257.5	0.0005 mg/L	0.00030	0.0005 mg/L	0.00030	61.94%
Tl 190.801*†	0.0	0.0000 mg/L	0.00366	0.0000 mg/L	0.00366	>999.9%
QC value within limits for Tl 190.801* Recovery = Not calculated						
V 292.402*†	-101.7	-0.0008 mg/L	0.00030	-0.0008 mg/L	0.00030	36.49%
Zn 206.200*†	7.2	0.0002 mg/L	0.00002	0.0002 mg/L	0.00002	8.06%
Zn 213.857*†	16.3	0.0003 mg/L	0.00003	0.0003 mg/L	0.00003	11.09%

All analyte(s) passed QC.

Sequence No.: 3

Sample ID: ICS_A - M110116B

Analyst: 935 icp 7300

Logged In Analyst (Original) : Oscar Gomez 935

Initial Sample Wt:

Dilution:

Wash Time:

Autosampler Location: 8

Date Collected: 3/8/2017 10:32:40 AM

Data Type: Reprocessed on 3/8/2017 11:07:31 AM

Initial Sample Vol:

Sample Prep Vol:

Mean Data: ICS_A - M110116B

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Tb 384	59442.4	84.19 %	1.035			1.23%
Tb 350	96026.3	87.13 %	0.405			0.46%
Ag 328.068*†	-99.3	-0.0006 mg/L	0.00073	-0.0006 mg/L	0.00073	127.19%
Al 308.215*†	393617.6	24.90 mg/L	0.036	24.90 mg/L	0.036	0.14%
As 188.979†	2.6	0.0014 mg/L	0.00506	0.0014 mg/L	0.00506	354.80%
As 193.696*†	3.7	0.0029 mg/L	0.00860	0.0029 mg/L	0.00860	295.87%
B 249.677*†	561.7	0.0122 mg/L	0.00017	0.0122 mg/L	0.00017	1.38%
Ba 233.527*†	339.1	0.0026 mg/L	0.00031	0.0026 mg/L	0.00031	12.12%
Be 313.042*†	-235.0	-0.0001 mg/L	0.00003	-0.0001 mg/L	0.00003	39.91%
Ca 317.933*†	208986.6	120.2 mg/L	2.55	120.2 mg/L	2.55	2.12%
Cd 226.502*†	146.0	0.0021 mg/L	0.00032	0.0021 mg/L	0.00032	15.22%
Cd 228.802†	-1.8	-0.0001 mg/L	0.00045	-0.0001 mg/L	0.00045	868.00%
Co 228.616*†	26.0	0.0010 mg/L	0.00086	0.0010 mg/L	0.00086	82.79%
Cr 267.716*†	-138.5	-0.0014 mg/L	0.00041	-0.0014 mg/L	0.00041	30.48%
Cu 324.752*†	-399.7	-0.0018 mg/L	0.00040	-0.0018 mg/L	0.00040	23.03%
Fe 273.955*†	2024184.8	95.77 mg/L	0.087	95.77 mg/L	0.087	0.09%
K 766.490*†	25.5	0.0092 mg/L	0.03922	0.0092 mg/L	0.03922	424.83%
Mg 279.077*†	1007171.1	59.50 mg/L	0.145	59.50 mg/L	0.145	0.24%
Mn 257.610*†	-2102.0	-0.0038 mg/L	0.00012	-0.0038 mg/L	0.00012	3.09%
Mo 202.031*†	8.7	0.0010 mg/L	0.00118	0.0010 mg/L	0.00118	113.72%
Na 589.592*†	85569.6	21.14 mg/L	0.405	21.14 mg/L	0.405	1.92%
Ni 231.604*†	-3.6	-0.0002 mg/L	0.00092	-0.0002 mg/L	0.00092	552.13%
P 213.617*†	-274.2	-0.1597 mg/L	0.00022	-0.1597 mg/L	0.00022	0.13%
P 214.914†	45.1	0.0409 mg/L	0.00843	0.0409 mg/L	0.00843	20.63%
Pb 220.353*†	-45.2	-0.0063 mg/L	0.00056	-0.0063 mg/L	0.00056	8.83%
Sb 206.836†	24.6	0.0146 mg/L	0.00412	0.0146 mg/L	0.00412	28.13%
Sb 217.582*†	-7.7	-0.0046 mg/L	0.00594	-0.0046 mg/L	0.00594	129.37%
Se 196.026*†	-13.5	-0.0070 mg/L	0.00381	-0.0070 mg/L	0.00381	54.11%
Si 251.611*†	240.0	0.0069 mg/L	0.00076	0.0069 mg/L	0.00076	11.02%
Sn 189.927*†	11.2	0.0021 mg/L	0.00007	0.0021 mg/L	0.00007	3.33%
Sn 242.170†	425.0	0.2696 mg/L	0.01730	0.2696 mg/L	0.01730	6.42%
Sr 407.771*†	975.4	0.0033 mg/L	0.00018	0.0033 mg/L	0.00018	5.35%
Ti 334.940†	-1778.2	-0.0025 mg/L	0.00030	-0.0025 mg/L	0.00030	12.16%
Ti 336.121*†	-437.0	-0.0008 mg/L	0.00034	-0.0008 mg/L	0.00034	40.64%
Tl 190.801*†	-15.0	-0.0092 mg/L	0.00208	-0.0092 mg/L	0.00208	22.74%
V 292.402*†	207.5	0.0001 mg/L	0.00035	0.0001 mg/L	0.00035	352.45%
Zn 206.200*†	33.9	0.0009 mg/L	0.00070	0.0009 mg/L	0.00070	76.03%
Zn 213.857*†	470.9	-0.0006 mg/L	0.00072	-0.0006 mg/L	0.00072	116.07%

Sequence No.: 4

Sample ID: ICS_AB - M110116A

Analyst: 935 icp 7300

Logged In Analyst (Original) : Oscar Gomez 935

Initial Sample Wt:

Dilution:

Wash Time:

Autosampler Location: 9

Date Collected: 3/8/2017 10:33:31 AM

Data Type: Reprocessed on 3/8/2017 11:07:32 AM

Initial Sample Vol:

Sample Prep Vol:

Mean Data: ICS_AB - M110116A

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Tb 384	58998.3	83.56 %	0.738			0.88%
Tb 350	95753.5	86.89 %	1.810			2.08%
Ag 328.068*†	53803.1	0.3107 mg/L	0.00421	0.3107 mg/L	0.00421	1.36%
Al 308.215*†	390606.7	24.71 mg/L	0.130	24.71 mg/L	0.130	0.53%
As 188.979†	1894.6	1.037 mg/L	0.0238	1.037 mg/L	0.0238	2.29%
As 193.696*†	1335.4	1.045 mg/L	0.0257	1.045 mg/L	0.0257	2.46%
B 249.677*†	22111.0	0.4816 mg/L	0.00127	0.4816 mg/L	0.00127	0.26%
Ba 233.527*†	41957.7	0.3178 mg/L	0.00162	0.3178 mg/L	0.00162	0.51%
Be 313.042*†	349686.5	0.1083 mg/L	0.00056	0.1083 mg/L	0.00056	0.52%
Ca 317.933*†	207350.7	119.3 mg/L	4.01	119.3 mg/L	4.01	3.36%
Cd 226.502*†	20671.5	0.2995 mg/L	0.00706	0.2995 mg/L	0.00706	2.36%
Cd 228.802†	10487.7	0.3011 mg/L	0.00672	0.3011 mg/L	0.00672	2.23%
Co 228.616*†	7643.4	0.3047 mg/L	0.00729	0.3047 mg/L	0.00729	2.39%
Cr 267.716*†	31209.0	0.3048 mg/L	0.00302	0.3048 mg/L	0.00302	0.99%
Cu 324.752*†	71163.8	0.3123 mg/L	0.00147	0.3123 mg/L	0.00147	0.47%
Fe 273.955*†	2013346.7	95.26 mg/L	0.354	95.26 mg/L	0.354	0.37%
K 766.490*†	60082.6	21.80 mg/L	0.732	21.80 mg/L	0.732	3.36%
Mg 279.077*†	995881.2	58.83 mg/L	0.259	58.83 mg/L	0.259	0.44%
Mn 257.610*†	115321.3	0.2085 mg/L	0.00063	0.2085 mg/L	0.00063	0.30%
Mo 202.031*†	2567.7	0.3061 mg/L	0.00877	0.3061 mg/L	0.00877	2.86%
Na 589.592*†	84567.1	20.90 mg/L	0.654	20.90 mg/L	0.654	3.13%
Ni 231.604*†	6738.8	0.3100 mg/L	0.00660	0.3100 mg/L	0.00660	2.13%
P 213.617*†	-254.0	-0.1479 mg/L	0.00491	-0.1479 mg/L	0.00491	3.32%
P 214.914†	57.6	0.0521 mg/L	0.00981	0.0521 mg/L	0.00981	18.83%
Pb 220.353*†	7124.2	0.9981 mg/L	0.02312	0.9981 mg/L	0.02312	2.32%
Sb 206.836†	1672.9	0.9959 mg/L	0.01635	0.9959 mg/L	0.01635	1.64%
Sb 217.582*†	1665.9	0.9892 mg/L	0.02420	0.9892 mg/L	0.02420	2.45%
Se 196.026*†	981.4	0.5131 mg/L	0.02434	0.5131 mg/L	0.02434	4.74%
Si 251.611*†	7321.8	0.2098 mg/L	0.00323	0.2098 mg/L	0.00323	1.54%
Sn 189.927*†	-44.5	-0.0083 mg/L	0.00100	-0.0083 mg/L	0.00100	12.09%
Sn 242.170†	415.9	0.2639 mg/L	0.00290	0.2639 mg/L	0.00290	1.10%
Sr 407.771*†	816.5	0.0028 mg/L	0.00018	0.0028 mg/L	0.00018	6.53%
Ti 334.940†	752678.9	1.038 mg/L	0.0055	1.038 mg/L	0.0055	0.53%
Ti 336.121*†	529602.5	1.001 mg/L	0.0014	1.001 mg/L	0.0014	0.14%
Tl 190.801*†	1659.6	1.017 mg/L	0.0418	1.017 mg/L	0.0418	4.11%
V 292.402*†	37528.1	0.3004 mg/L	0.00231	0.3004 mg/L	0.00231	0.77%
Zn 206.200*†	11177.1	0.3041 mg/L	0.00691	0.3041 mg/L	0.00691	2.27%
Zn 213.857*†	19880.2	0.3020 mg/L	0.00666	0.3020 mg/L	0.00666	2.21%

Sequence No.: 20

Sample ID: CCV= STD3x0.5

Analyst: 935 icp 7300

Initial Sample Wt:

Dilution:

Wash Time: 20

Autosampler Location: 3

Date Collected: 3/8/2017 2:16:07 PM

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

Auto Dilution Factor: 1

Mean Data: CCV= STD3x0.5

Analyte	Mean Corrected Intensity	Conc. Units	Calib. Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Tb 384	62272.1	88.19 %	0.968			1.10%
Tb 350	103047.8	93.51 %	0.453			0.48%
Ag 328.068*†	65893.4	0.3806 mg/L	0.00040	0.3806 mg/L	0.00040	0.10%
QC value within limits for Ag 328.068*		Recovery = 101.49%				
Al 308.215*†	225288.0	14.25 mg/L	0.040	14.25 mg/L	0.040	0.28%
QC value within limits for Al 308.215*		Recovery = 105.57%				
As 188.979†	7173.2	3.925 mg/L	0.0151	3.925 mg/L	0.0151	0.38%
QC value within limits for As 188.979		Recovery = 104.65%				
As 193.696*†	5021.6	3.931 mg/L	0.0160	3.931 mg/L	0.0160	0.41%
QC value within limits for As 193.696*		Recovery = 104.81%				
B 249.677*†	177634.2	3.869 mg/L	0.0476	3.869 mg/L	0.0476	1.23%
QC value within limits for B 249.677*		Recovery = 103.18%				
Ba 233.527*†	1085541.5	8.221 mg/L	0.0176	8.221 mg/L	0.0176	0.21%
QC value within limits for Ba 233.527*		Recovery = 109.62%				
Be 313.042*†	1949949.8	0.6038 mg/L	0.00065	0.6038 mg/L	0.00065	0.11%
QC value within limits for Be 313.042*		Recovery = 107.34%				
Ca 317.933*†	51869.3	29.83 mg/L	0.326	29.83 mg/L	0.326	1.09%
QC value within limits for Ca 317.933*		Recovery = 99.44%				
Cd 226.502*†	54622.1	0.7913 mg/L	0.00361	0.7913 mg/L	0.00361	0.46%
QC value within limits for Cd 226.502*		Recovery = 105.50%				
Cd 228.802†	27576.0	0.7917 mg/L	0.00151	0.7917 mg/L	0.00151	0.19%
Co 228.616*†	50237.7	2.003 mg/L	0.0132	2.003 mg/L	0.0132	0.66%
QC value within limits for Co 228.616*		Recovery = 106.83%				
Cr 267.716*†	64213.5	0.6271 mg/L	0.00378	0.6271 mg/L	0.00378	0.60%
QC value within limits for Cr 267.716*		Recovery = 104.51%				
Cu 324.752*†	220372.6	0.9672 mg/L	0.00058	0.9672 mg/L	0.00058	0.06%
QC value within limits for Cu 324.752*		Recovery = 103.16%				
Fe 273.955*†	84835.5	4.014 mg/L	0.0154	4.014 mg/L	0.0154	0.38%
QC value within limits for Fe 273.955*		Recovery = 107.04%				
K 766.490*†	73546.9	26.68 mg/L	0.304	26.68 mg/L	0.304	1.14%
QC value within limits for K 766.490*		Recovery = 98.82%				
Mg 279.077*†	135040.2	7.978 mg/L	0.0205	7.978 mg/L	0.0205	0.26%
QC value within limits for Mg 279.077*		Recovery = 106.37%				
Mn 257.610*†	452727.4	0.8187 mg/L	0.00248	0.8187 mg/L	0.00248	0.30%
QC value within limits for Mn 257.610*		Recovery = 109.16%				
Mo 202.031*†	5292.2	0.6310 mg/L	0.00116	0.6310 mg/L	0.00116	0.18%
QC value within limits for Mo 202.031*		Recovery = 105.16%				
Na 589.592*†	147732.0	36.50 mg/L	0.523	36.50 mg/L	0.523	1.43%
QC value within limits for Na 589.592*		Recovery = 101.40%				
Ni 231.604*†	13620.1	0.6266 mg/L	0.00326	0.6266 mg/L	0.00326	0.52%
QC value within limits for Ni 231.604*		Recovery = 104.44%				
P 213.617*†	10614.2	6.182 mg/L	0.0432	6.182 mg/L	0.0432	0.70%
QC value within limits for P 213.617*		Recovery = 103.03%				
P 214.914†	6965.0	6.305 mg/L	0.0240	6.305 mg/L	0.0240	0.38%
Pb 220.353*†	28389.1	3.977 mg/L	0.0154	3.977 mg/L	0.0154	0.39%
QC value within limits for Pb 220.353*		Recovery = 106.06%				
Sb 206.836†	7943.5	4.729 mg/L	0.0032	4.729 mg/L	0.0032	0.07%
QC value within limits for Sb 206.836		Recovery = 105.09%				
Sb 217.582*†	7921.2	4.703 mg/L	0.0207	4.703 mg/L	0.0207	0.44%
QC value within limits for Sb 217.582*		Recovery = 104.52%				
Se 196.026*†	3039.0	1.589 mg/L	0.0083	1.589 mg/L	0.0083	0.52%
QC value within limits for Se 196.026*		Recovery = 105.92%				
Si 251.611*†	219318.2	6.283 mg/L	0.0477	6.283 mg/L	0.0477	0.76%
QC value within limits for Si 251.611*		Recovery = 104.72%				
Sn 189.927*†	17187.4	3.202 mg/L	0.0002	3.202 mg/L	0.0002	0.01%
QC value within limits for Sn 189.927*		Recovery = 106.74%				
Sn 242.170†	5002.7	3.174 mg/L	0.0022	3.174 mg/L	0.0022	0.07%
Sr 407.771*†	87625.7	0.2974 mg/L	0.00494	0.2974 mg/L	0.00494	1.66%
QC value within limits for Sr 407.771*		Recovery = 99.13%				

Tl 334.940†	468269.2	0.6457 mg/L	0.00214	0.6457 mg/L	0.00214	0.33%
Tl 336.121*†	330558.4	0.6245 mg/L	0.00172	0.6245 mg/L	0.00172	0.28%
QC value within limits for Tl 336.121* Recovery = 104.09%						
Tl 190.801*†	2616.2	1.603 mg/L	0.0002	1.603 mg/L	0.0002	0.01%
QC value within limits for Tl 190.801* Recovery = 106.89%						
V 292.402*†	243141.9	1.957 mg/L	0.0074	1.957 mg/L	0.0074	0.38%
QC value within limits for V 292.402* Recovery = 104.35%						
Zn 206.200*†	96993.1	2.639 mg/L	0.0078	2.639 mg/L	0.0078	0.29%
QC value within limits for Zn 206.200* Recovery = 105.54%						
Zn 213.857*†	169259.4	2.638 mg/L	0.0045	2.638 mg/L	0.0045	0.17%
QC value within limits for Zn 213.857* Recovery = 105.53%						

All analyte(s) passed QC.

Sequence No.: 21

Sample ID: CCB-R12091601

Analyst: 935 icp 7300

Initial Sample Wt:

Dilution:

Wash Time: 15

Autosampler Location: 1

Date Collected: 3/8/2017 2:17:00 PM

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

Auto Dilution Factor: 1

Mean Data: CCB-R12091601

Analyte	Mean Corrected Intensity	Conc. Units	Calib. Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Tb 384	70828.8	100.3 %	1.63			1.63%
Tb 350	112346.5	101.9 %	1.30			1.28%
Ag 328.068*†	51.1	0.0003 mg/L	0.00020	0.0003 mg/L	0.00020	66.97%
QC value within limits for Ag 328.068* Recovery = Not calculated						
Al 308.215*†	-101.6	-0.0064 mg/L	0.00248	-0.0064 mg/L	0.00248	38.54%
As 188.979†	-4.1	-0.0023 mg/L	0.00307	-0.0023 mg/L	0.00307	135.77%
As 193.696*†	7.1	0.0055 mg/L	0.00075	0.0055 mg/L	0.00075	13.48%
QC value within limits for As 193.696* Recovery = Not calculated						
B 249.677*†	1131.6	0.0246 mg/L	0.00172	0.0246 mg/L	0.00172	6.97%
Ba 233.527*†	393.6	0.0030 mg/L	0.00006	0.0030 mg/L	0.00006	2.06%
Be 313.042*†	612.7	0.0002 mg/L	0.00003	0.0002 mg/L	0.00003	17.55%
Ca 317.953*†	22.9	0.0132 mg/L	0.00103	0.0132 mg/L	0.00103	7.79%
Cd 226.502*†	24.8	0.0004 mg/L	0.00007	0.0004 mg/L	0.00007	19.89%
Cd 228.802†	-2.8	-0.0001 mg/L	0.00030	-0.0001 mg/L	0.00030	373.59%
Co 228.616*†	21.3	0.0008 mg/L	0.00074	0.0008 mg/L	0.00074	86.65%
Cr 267.716*†	-11.5	-0.0001 mg/L	0.00045	-0.0001 mg/L	0.00045	396.19%
Cu 324.752*†	-56.5	-0.0002 mg/L	0.00073	-0.0002 mg/L	0.00073	294.45%
Fe 273.955*†	12.6	0.0006 mg/L	0.00050	0.0006 mg/L	0.00050	84.62%
K 766.490*†	-233.0	-0.0845 mg/L	0.14252	-0.0845 mg/L	0.14252	168.64%
Mg 279.077*†	81.6	0.0048 mg/L	0.00809	0.0048 mg/L	0.00809	167.93%
Mn 257.610*†	-1852.1	-0.0033 mg/L	0.00004	-0.0033 mg/L	0.00004	1.07%
Mo 202.031*†	5.2	0.0006 mg/L	0.00014	0.0006 mg/L	0.00014	21.98%
Na 589.592*†	499.6	0.1234 mg/L	0.00051	0.1234 mg/L	0.00051	0.41%
Ni 231.604*†	-2.4	-0.0001 mg/L	0.00027	-0.0001 mg/L	0.00027	247.26%
P 213.617*†	-13.2	-0.0077 mg/L	0.00612	-0.0077 mg/L	0.00612	79.62%
P 214.914†	10.7	0.0097 mg/L	0.00644	0.0097 mg/L	0.00644	66.20%
Pb 220.353*†	-5.7	-0.0008 mg/L	0.00120	-0.0008 mg/L	0.00120	151.81%
Sb 206.836†	6.2	0.0037 mg/L	0.00557	0.0037 mg/L	0.00557	151.67%
Sb 217.582*†	2.2	0.0013 mg/L	0.00495	0.0013 mg/L	0.00495	376.54%
QC value within limits for Sb 217.582* Recovery = Not calculated						
Se 196.026*†	-2.8	-0.0014 mg/L	0.00582	-0.0014 mg/L	0.00582	402.72%
QC value within limits for Se 196.026* Recovery = Not calculated						
Si 251.611*†	241.6	0.0069 mg/L	0.00164	0.0069 mg/L	0.00164	23.63%
Sn 189.927*†	27.0	0.0050 mg/L	0.00107	0.0050 mg/L	0.00107	21.29%
Sn 242.170†	10.3	0.0065 mg/L	0.00603	0.0065 mg/L	0.00603	92.28%
Sr 407.771*†	5.8	0.0000 mg/L	0.00009	0.0000 mg/L	0.00009	431.34%
Ti 334.940†	191.4	0.0003 mg/L	0.00006	0.0003 mg/L	0.00006	21.44%
Ti 336.121*†	205.4	0.0004 mg/L	0.00003	0.0004 mg/L	0.00003	6.52%
Tl 190.801*†	3.8	0.0023 mg/L	0.00873	0.0023 mg/L	0.00873	372.65%
V 292.402*†	93.7	0.0008 mg/L	0.00047	0.0008 mg/L	0.00047	62.10%
Zn 206.200*†	-15.7	-0.0004 mg/L	0.00016	-0.0004 mg/L	0.00016	37.17%
QC value within limits for Zn 206.200* Recovery = Not calculated						
Zn 213.857*†	-1.0	-0.0000 mg/L	0.00044	-0.0000 mg/L	0.00044	>999.9%
QC value within limits for Zn 213.857* Recovery = Not calculated						

All analyte(s) passed QC.

Sequence No.: 11

Sample ID: CCV= STD3x0.5

Analyst: 935 icp 7300

Initial Sample Wt:

Dilution:

Wash Time: 15

Autosampler Location: 3

Date Collected: 3/8/2017 2:26:38 PM

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

Auto Dilution Factor: 1

Mean Data: CCV= STD3x0.5

Analyte	Mean Corrected Intensity	Conc. Units	Calib. Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Tb 384	63602.1	90.08 %	1.364			1.51%
Tb 350	104155.1	94.51 %	0.571			0.60%
Ag 328.058*†	65514.8	0.3784 mg/L	0.00279	0.3784 mg/L	0.00279	0.74%
QC value within limits for Ag 328.068* Recovery = 100.90%						
Al 308.215*†	222935.9	14.10 mg/L	0.064	14.10 mg/L	0.064	0.45%
QC value within limits for Al 308.215* Recovery = 104.47%						
As 188.979†	7095.6	3.882 mg/L	0.0078	3.882 mg/L	0.0078	0.20%
QC value within limits for As 188.979 Recovery = 103.52%						
As 193.696*†	4953.4	3.877 mg/L	0.0246	3.877 mg/L	0.0246	0.63%
QC value within limits for As 193.696* Recovery = 103.39%						
B 249.677*†	174516.2	3.801 mg/L	0.0809	3.801 mg/L	0.0809	2.13%
QC value within limits for B 249.677* Recovery = 101.37%						
Ba 233.527*†	1067930.2	8.088 mg/L	0.0609	8.088 mg/L	0.0609	0.75%
QC value within limits for Ba 233.527* Recovery = 107.84%						
Be 313.042*†	1918568.2	0.5941 mg/L	0.00795	0.5941 mg/L	0.00795	1.34%
QC value within limits for Be 313.042* Recovery = 105.61%						
Ca 317.933*†	51139.8	29.41 mg/L	0.185	29.41 mg/L	0.185	0.63%
QC value within limits for Ca 317.933* Recovery = 98.04%						
Cd 226.502*†	53501.6	0.7750 mg/L	0.01211	0.7750 mg/L	0.01211	1.56%
QC value within limits for Cd 226.502* Recovery = 103.34%						
Cd 228.802†	27121.7	0.7787 mg/L	0.00800	0.7787 mg/L	0.00800	1.03%
Co 228.616*†	49412.0	1.970 mg/L	0.0085	1.970 mg/L	0.0085	0.43%
QC value within limits for Co 228.616* Recovery = 105.07%						
Cr 267.716*†	63553.2	0.6206 mg/L	0.00209	0.6206 mg/L	0.00209	0.34%
QC value within limits for Cr 267.716* Recovery = 103.44%						
Cu 324.752*†	218593.5	0.9593 mg/L	0.00653	0.9593 mg/L	0.00653	0.68%
QC value within limits for Cu 324.752* Recovery = 102.33%						
Fe 273.955*†	84373.1	3.992 mg/L	0.0381	3.992 mg/L	0.0381	0.95%
QC value within limits for Fe 273.955* Recovery = 106.46%						
K 766.490*†	72917.2	26.45 mg/L	0.224	26.45 mg/L	0.224	0.85%
QC value within limits for K 766.490* Recovery = 97.97%						
Mg 279.077*†	132982.9	7.856 mg/L	0.0801	7.856 mg/L	0.0801	1.02%
QC value within limits for Mg 279.077* Recovery = 104.75%						
Mn 257.610*†	445491.0	0.8056 mg/L	0.00675	0.8056 mg/L	0.00675	0.84%
QC value within limits for Mn 257.610* Recovery = 107.41%						
Mo 202.031*†	5255.6	0.6266 mg/L	0.00354	0.6266 mg/L	0.00354	0.56%
QC value within limits for Mo 202.031* Recovery = 104.43%						
Na 589.592*†	146002.9	36.08 mg/L	0.286	36.08 mg/L	0.286	0.79%
QC value within limits for Na 589.592* Recovery = 100.21%						
Ni 231.604*†	13479.8	0.6202 mg/L	0.00314	0.6202 mg/L	0.00314	0.51%
QC value within limits for Ni 231.604* Recovery = 103.36%						
P 213.617*†	10420.9	6.069 mg/L	0.0179	6.069 mg/L	0.0179	0.30%
QC value within limits for P 213.617* Recovery = 101.15%						
P 214.914†	6878.6	6.227 mg/L	0.0060	6.227 mg/L	0.0060	0.10%
Pb 220.353*†	27773.1	3.891 mg/L	0.0436	3.891 mg/L	0.0436	1.12%
QC value within limits for Pb 220.353* Recovery = 103.76%						
Sb 206.836†	7847.5	4.672 mg/L	0.0274	4.672 mg/L	0.0274	0.59%
QC value within limits for Sb 206.836 Recovery = 103.82%						
Sb 217.582*†	7872.4	4.674 mg/L	0.0211	4.674 mg/L	0.0211	0.45%
QC value within limits for Sb 217.582* Recovery = 103.88%						
Se 196.026*†	3012.9	1.575 mg/L	0.0143	1.575 mg/L	0.0143	0.91%
QC value within limits for Se 196.026* Recovery = 105.01%						
Si 251.611*†	216253.0	6.196 mg/L	0.0657	6.196 mg/L	0.0657	1.06%
QC value within limits for Si 251.611* Recovery = 103.26%						
Sn 189.927*†	17007.8	3.169 mg/L	0.0102	3.169 mg/L	0.0102	0.32%
QC value within limits for Sn 189.927* Recovery = 105.62%						
Sn 242.170†	4959.5	3.146 mg/L	0.0124	3.146 mg/L	0.0124	0.39%
Sr 407.771*†	87050.1	0.2954 mg/L	0.00294	0.2954 mg/L	0.00294	0.99%
QC value within limits for Sr 407.771* Recovery = 98.48%						

Ti 334.940†	470106.1	0.6482 mg/L	0.00656	0.6482 mg/L	0.00656	1.01%
Ti 336.121*†	332972.7	0.6291 mg/L	0.00473	0.6291 mg/L	0.00473	0.75%
QC value within limits for Ti 336.121* Recovery = 104.85%						
Tl 190.801*†	2594.1	1.590 mg/L	0.0108	1.590 mg/L	0.0108	0.68%
QC value within limits for Tl 190.801* Recovery = 105.98%						
V 292.402*†	241012.5	1.939 mg/L	0.0083	1.939 mg/L	0.0083	0.43%
QC value within limits for V 292.402* Recovery = 103.44%						
Zn 206.200*†	94667.8	2.575 mg/L	0.0351	2.575 mg/L	0.0351	1.36%
QC value within limits for Zn 206.200* Recovery = 103.01%						

All analyte(s) passed QC.

Sequence No.: 12

Sample ID: CCB-R12091601

Analyst: 935 icp 7300

Initial Sample Wt:

Dilution:

Wash Time: 15

Autosampler Location: 1

Date Collected: 3/8/2017 2:27:31 PM

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

Auto Dilution Factor: 1

Mean Data: CCB-R12091601

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Tb 384	70431.7	99.75 %	4.786			4.80%
Tb 350	111181.0	100.9 %	3.88			3.85%
Ag 328.068*†	238.8	0.0014 mg/L	0.00081	0.0014 mg/L	0.00081	58.88%
Al 308.215*†	13.9	0.0009 mg/L	0.00057	0.0009 mg/L	0.00057	64.83%
As 188.979†	3.2	0.0018 mg/L	0.00034	0.0018 mg/L	0.00034	19.16%
As 193.696*†	-11.6	-0.0090 mg/L	0.00082	-0.0090 mg/L	0.00082	9.03%
QC value within limits for As 193.696* Recovery = Not calculated						
B 249.677*†	1178.8	0.0257 mg/L	0.00169	0.0257 mg/L	0.00169	6.60%
Ba 233.527*†	473.6	0.0036 mg/L	0.00026	0.0036 mg/L	0.00026	7.38%
Be 313.042*†	789.6	0.0002 mg/L	0.00003	0.0002 mg/L	0.00003	12.95%
Ca 317.933*†	23.5	0.0135 mg/L	0.00203	0.0135 mg/L	0.00203	15.03%
Cd 226.502*†	22.6	0.0003 mg/L	0.00009	0.0003 mg/L	0.00009	27.42%
Cd 228.802†	11.5	0.0003 mg/L	0.00008	0.0003 mg/L	0.00008	23.12%
Co 228.616*†	21.2	0.0008 mg/L	0.00010	0.0008 mg/L	0.00010	11.41%
Cr 267.716*†	42.9	0.0004 mg/L	0.00011	0.0004 mg/L	0.00011	25.55%
Cu 324.752*†	146.5	0.0006 mg/L	0.00016	0.0006 mg/L	0.00016	25.39%
Fe 273.955*†	88.0	0.0042 mg/L	0.00116	0.0042 mg/L	0.00116	27.76%
K 766.490*†	180.0	0.0653 mg/L	0.01619	0.0653 mg/L	0.01619	24.80%
Mg 279.077*†	52.9	0.0031 mg/L	0.01517	0.0031 mg/L	0.01517	485.05%
Mn 257.610*†	-1745.7	-0.0032 mg/L	0.00010	-0.0032 mg/L	0.00010	3.12%
Mo 202.031*†	2.8	0.0003 mg/L	0.00072	0.0003 mg/L	0.00072	219.77%
Na 589.592*†	386.0	0.0954 mg/L	0.05076	0.0954 mg/L	0.05076	53.22%
Ni 231.604*†	10.5	0.0005 mg/L	0.00007	0.0005 mg/L	0.00007	13.77%
P 213.617*†	3.3	0.0019 mg/L	0.01694	0.0019 mg/L	0.01694	879.51%
P 214.914†	-7.6	-0.0069 mg/L	0.00397	-0.0069 mg/L	0.00397	57.81%
Pb 220.353*†	13.6	0.0019 mg/L	0.00016	0.0019 mg/L	0.00016	8.40%
Sb 206.836†	6.8	0.0041 mg/L	0.00390	0.0041 mg/L	0.00390	96.15%
Sb 217.582*†	11.7	0.0070 mg/L	0.00326	0.0070 mg/L	0.00326	46.76%
QC value within limits for Sb 217.582* Recovery = Not calculated						
Se 196.026*†	1.1	0.0006 mg/L	0.00300	0.0006 mg/L	0.00300	505.84%
QC value within limits for Se 196.026* Recovery = Not calculated						
Si 251.611*†	434.6	0.0125 mg/L	0.00435	0.0125 mg/L	0.00435	34.93%
Sn 189.927*†	26.5	0.0049 mg/L	0.00071	0.0049 mg/L	0.00071	14.45%
Sn 242.170†	-3.9	-0.0025 mg/L	0.03348	-0.0025 mg/L	0.03348	>999.9%
Sr 407.771*†	20.1	0.0001 mg/L	0.00005	0.0001 mg/L	0.00005	75.65%
Tl 334.940†	633.8	0.0009 mg/L	0.00018	0.0009 mg/L	0.00018	21.06%
Tl 336.121*†	761.6	0.0014 mg/L	0.00012	0.0014 mg/L	0.00012	8.22%
Tl 190.801*†	7.0	0.0043 mg/L	0.00377	0.0043 mg/L	0.00377	87.41%
QC value within limits for Tl 190.801* Recovery = Not calculated						
V 292.402*†	131.0	0.0011 mg/L	0.00111	0.0011 mg/L	0.00111	105.70%
Zn 206.200*†	-9.4	-0.0003 mg/L	0.00009	-0.0003 mg/L	0.00009	33.61%
QC value within limits for Zn 206.200* Recovery = Not calculated						
All analyte(s) passed QC.						

Sequence No.: 17

Sample ID: CCV= STD3x0.5

Analyst: 935 icp 7300

Initial Sample Wt:

Dilution:

Wash Time: 15

Autosampler Location: 3

Date Collected: 3/8/2017 2:31:49 PM

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

Auto Dilution Factor: 1

Mean Data: CCV= STD3x0.5

Analyte	Mean Corrected Intensity	Conc. Units	Calib. Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Tb 384	65138.3	92.25 %	0.902			0.98%
Tb 350	106920.4	97.02 %	0.603			0.62%
Ag 328.068*†	65438.8	0.3779 mg/L	0.00303	0.3779 mg/L	0.00303	0.80%
QC value within limits for Ag 328.068* Recovery = 100.79%						
Al 308.215*†	222900.0	14.10 mg/L	0.062	14.10 mg/L	0.062	0.44%
QC value within limits for Al 308.215* Recovery = 104.45%						
As 188.979†	6852.9	3.749 mg/L	0.0323	3.749 mg/L	0.0323	0.86%
QC value within limits for As 188.979 Recovery = 99.98%						
As 193.696*†	4808.7	3.764 mg/L	0.0249	3.764 mg/L	0.0249	0.66%
QC value within limits for As 193.696* Recovery = 100.37%						
B 249.677*†	176201.0	3.838 mg/L	0.0185	3.838 mg/L	0.0185	0.48%
QC value within limits for B 249.677* Recovery = 102.35%						
Ba 233.527*†	1068545.0	8.092 mg/L	0.0469	8.092 mg/L	0.0469	0.58%
QC value within limits for Ba 233.527* Recovery = 107.90%						
Be 313.042*†	1924833.0	0.5960 mg/L	0.00094	0.5960 mg/L	0.00094	0.16%
QC value within limits for Be 313.042* Recovery = 105.95%						
Ca 317.933*†	50335.3	28.95 mg/L	0.596	28.95 mg/L	0.596	2.06%
QC value within limits for Ca 317.933* Recovery = 96.50%						
Cd 226.502*†	54005.8	0.7823 mg/L	0.00545	0.7823 mg/L	0.00545	0.70%
QC value within limits for Cd 226.502* Recovery = 104.31%						
Cd 228.802†	27248.2	0.7823 mg/L	0.00613	0.7823 mg/L	0.00613	0.78%
Co 228.616*†	49599.4	1.978 mg/L	0.0128	1.978 mg/L	0.0128	0.65%
QC value within limits for Co 228.616* Recovery = 105.47%						
Cr 267.716*†	63415.8	0.6193 mg/L	0.00505	0.6193 mg/L	0.00505	0.81%
QC value within limits for Cr 267.716* Recovery = 103.22%						
Cu 324.752*†	217844.7	0.9561 mg/L	0.00179	0.9561 mg/L	0.00179	0.19%
QC value within limits for Cu 324.752* Recovery = 101.98%						
Fe 273.955*†	85016.0	4.023 mg/L	0.0165	4.023 mg/L	0.0165	0.41%
QC value within limits for Fe 273.955* Recovery = 107.27%						
K 766.490*†	71509.7	25.94 mg/L	0.391	25.94 mg/L	0.391	1.51%
QC value within limits for K 766.490* Recovery = 96.08%						
Mg 279.077*†	133667.3	7.897 mg/L	0.0642	7.897 mg/L	0.0642	0.81%
QC value within limits for Mg 279.077* Recovery = 105.29%						
Mn 257.610*†	446399.0	0.8072 mg/L	0.00444	0.8072 mg/L	0.00444	0.55%
QC value within limits for Mn 257.610* Recovery = 107.63%						
Mo 202.031*†	5085.7	0.6063 mg/L	0.00719	0.6063 mg/L	0.00719	1.19%
QC value within limits for Mo 202.031* Recovery = 101.06%						
Na 589.592*†	143108.6	35.36 mg/L	0.611	35.36 mg/L	0.611	1.73%
QC value within limits for Na 589.592* Recovery = 98.23%						
Ni 231.604*†	13052.5	0.6005 mg/L	0.00485	0.6005 mg/L	0.00485	0.81%
QC value within limits for Ni 231.604* Recovery = 100.08%						
P 213.617*†	10177.3	5.927 mg/L	0.0716	5.927 mg/L	0.0716	1.21%
QC value within limits for P 213.617* Recovery = 98.79%						
P 214.914†	6673.5	6.041 mg/L	0.0791	6.041 mg/L	0.0791	1.31%
Pb 220.353*†	27962.4	3.918 mg/L	0.0777	3.918 mg/L	0.0777	1.98%
QC value within limits for Pb 220.353* Recovery = 104.47%						
Sb 206.836†	7582.8	4.514 mg/L	0.0441	4.514 mg/L	0.0441	0.98%
QC value within limits for Sb 206.836 Recovery = 100.31%						
Sb 217.582*†	7621.9	4.526 mg/L	0.0363	4.526 mg/L	0.0363	0.80%
QC value within limits for Sb 217.582* Recovery = 100.57%						
Se 196.026*†	2927.2	1.530 mg/L	0.0243	1.530 mg/L	0.0243	1.59%
QC value within limits for Se 196.026* Recovery = 102.02%						
Si 251.611*†	216841.1	6.212 mg/L	0.0081	6.212 mg/L	0.0081	0.13%
QC value within limits for Si 251.611* Recovery = 103.54%						
Sn 189.927*†	16517.1	3.077 mg/L	0.0309	3.077 mg/L	0.0309	1.00%
QC value within limits for Sn 189.927* Recovery = 102.58%						
Sn 242.170†	4818.9	3.057 mg/L	0.0455	3.057 mg/L	0.0455	1.49%
Sr 407.771*†	85307.5	0.2895 mg/L	0.00563	0.2895 mg/L	0.00563	1.94%
QC value within limits for Sr 407.771* Recovery = 96.51%						

Ti 334.940†	468360.0	0.6458 mg/L	0.00120	0.6458 mg/L	0.00120	0.19%
Ti 336.121*†	330729.9	0.6249 mg/L	0.00112	0.6249 mg/L	0.00112	0.18%
QC value within limits for Ti 336.121* Recovery = 104.14%						
Tl 190.801*†	2506.8	1.536 mg/L	0.0170	1.536 mg/L	0.0170	1.11%
QC value within limits for Tl 190.801* Recovery = 102.42%						
V 292.402*†	240718.2	1.937 mg/L	0.0105	1.937 mg/L	0.0105	0.54%
QC value within limits for V 292.402* Recovery = 103.31%						
Zn 206.200*†	95578.1	2.600 mg/L	0.0168	2.600 mg/L	0.0168	0.65%
QC value within limits for Zn 206.200* Recovery = 104.00%						

All analyte(s) passed QC.

Sequence No.: 18

Sample ID: CCB-R12091601

Analyst: 935 icp 7300

Initial Sample Wt:

Dilution:

Wash Time: 15

Autosampler Location: 1

Date Collected: 3/8/2017 2:32:42 PM

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

Auto Dilution Factor: 1

Mean Data: CCB-R12091601

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Tb 384	71533.0	101.3 %	3.50			3.46%
Tb 350	114243.7	103.7 %	5.26			5.07%
Ag 328.068*†	-108.6	-0.0006 mg/L	0.00073	-0.0006 mg/L	0.00073	116.98%
Al 308.215*†	-69.1	-0.0044 mg/L	0.00438	-0.0044 mg/L	0.00438	100.12%
As 188.979†	-7.6	-0.0042 mg/L	0.00179	-0.0042 mg/L	0.00179	42.99%
As 193.696*†	2.5	0.0020 mg/L	0.00723	0.0020 mg/L	0.00723	362.65%
QC value within limits for As 193.696* Recovery = Not calculated						
B 249.677*†	1251.4	0.0273 mg/L	0.00263	0.0273 mg/L	0.00263	9.63%
Ba 233.527*†	492.1	0.0037 mg/L	0.00010	0.0037 mg/L	0.00010	2.82%
Be 313.042*†	860.1	0.0003 mg/L	0.00002	0.0003 mg/L	0.00002	8.53%
Ca 317.933*†	34.3	0.0198 mg/L	0.00768	0.0198 mg/L	0.00768	38.88%
Cd 226.502*†	18.3	0.0003 mg/L	0.00021	0.0003 mg/L	0.00021	80.32%
Cd 228.802†	10.9	0.0003 mg/L	0.00008	0.0003 mg/L	0.00008	26.74%
Co 228.616*†	17.2	0.0007 mg/L	0.00023	0.0007 mg/L	0.00023	32.87%
Cr 267.716*†	39.6	0.0004 mg/L	0.00014	0.0004 mg/L	0.00014	36.91%
Cu 324.752*†	-93.8	-0.0004 mg/L	0.00019	-0.0004 mg/L	0.00019	45.01%
Fe 273.955*†	106.3	0.0050 mg/L	0.00006	0.0050 mg/L	0.00006	1.26%
K 766.490*†	-61.6	-0.0224 mg/L	0.10601	-0.0224 mg/L	0.10601	474.06%
Mg 279.077*†	196.1	0.0116 mg/L	0.00936	0.0116 mg/L	0.00936	80.76%
Mn 257.610*†	-1737.3	-0.0031 mg/L	0.00004	-0.0031 mg/L	0.00004	1.37%
Mo 202.031*†	-1.0	-0.0001 mg/L	0.00002	-0.0001 mg/L	0.00002	21.07%
Na 589.592*†	298.6	0.0738 mg/L	0.02650	0.0738 mg/L	0.02650	35.92%
Ni 231.604*†	2.6	0.0001 mg/L	0.00101	0.0001 mg/L	0.00101	850.42%
P 213.617*†	3.9	0.0023 mg/L	0.00706	0.0023 mg/L	0.00706	309.81%
P 214.914†	9.0	0.0081 mg/L	0.00892	0.0081 mg/L	0.00892	110.13%
Pb 220.353*†	1.2	0.0002 mg/L	0.00107	0.0002 mg/L	0.00107	649.24%
Sb 206.836†	9.5	0.0057 mg/L	0.00323	0.0057 mg/L	0.00323	57.00%
Sb 217.582*†	0.4	0.0002 mg/L	0.00196	0.0002 mg/L	0.00196	835.69%
QC value within limits for Sb 217.582* Recovery = Not calculated						
Se 196.026*†	-4.3	-0.0023 mg/L	0.00262	-0.0023 mg/L	0.00262	115.58%
QC value within limits for Se 196.026* Recovery = Not calculated						
Si 251.611*†	322.3	0.0092 mg/L	0.00491	0.0092 mg/L	0.00491	53.14%
Sn 189.927*†	21.9	0.0041 mg/L	0.00140	0.0041 mg/L	0.00140	34.21%
Sn 242.170†	20.7	0.0131 mg/L	0.00214	0.0131 mg/L	0.00214	16.29%
Sr 407.771*†	26.0	0.0001 mg/L	0.00005	0.0001 mg/L	0.00005	60.11%
Ti 334.940†	741.5	0.0010 mg/L	0.00041	0.0010 mg/L	0.00041	39.68%
Ti 336.121*†	885.6	0.0017 mg/L	0.00046	0.0017 mg/L	0.00046	27.68%
Tl 190.801*†	-1.8	-0.0011 mg/L	0.00295	-0.0011 mg/L	0.00295	262.01%
QC value within limits for Tl 190.801* Recovery = Not calculated						
V 292.402*†	-48.5	-0.0004 mg/L	0.00113	-0.0004 mg/L	0.00113	288.31%
Zn 206.200*†	8.4	0.0002 mg/L	0.00013	0.0002 mg/L	0.00013	56.97%
QC value within limits for Zn 206.200* Recovery = Not calculated						

All analyte(s) passed QC.

EPA 6010B ICP Metals (Solid)

Sample Data

RAW DATA SHEET FOR METHOD: EPA 6010B

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WORK ORDER: 17-03-0335
INSTRUMENT: ICP 7300
EXTRACTION: EPA 3050B
D/T EXTRACTED: 2017-03-08 00:00

ANALYZED BY: 935
D/T ANALYZED: 2017-03-08 14:19
REVIEWED BY:
D/T REVIEWED:

DATA FILE: W:\ICP-DATA\170308C1\17-03-0335-3.icp

3 **CLIENT SAMPLE NUMBER:** D-DU1-S-SG-06-15S

LCS/MB BATCH: 170308L01	SAMPLE VOLUME / WEIGHT: DEFAULT: 2.00 g / ACTUAL: 2.00 g	
MS/MSD BATCH: 170308S01	FINAL VOLUME / WEIGHT: DEFAULT: 100.00 ml / ACTUAL: 100.00 ml	
UNITS: mg/kg	ADJUSTMENT RATIO TO PF: 1.00	

COMMENT:

<u>COMPOUND</u>	<u>ON COL CONC</u>	<u>DF</u>	<u>CONC</u>	<u>RL</u>	<u>QUAL</u>
Antimony	0.00118	0.971	ND	0.728	
Arsenic	0.0108	0.971	ND	0.728	
Barium	1.07	0.971	51.7	0.485	
Beryllium	0.00299	0.971	ND	0.243	
Cadmium	0.00421	0.971	ND	0.485	
Chromium	0.0772	0.971	3.75	0.243	
Cobalt	0.0797	0.971	3.87	0.243	
Copper	0.133	0.971	6.46	0.485	
Lead	0.0308	0.971	1.50	0.485	
Molybdenum	0.000568	0.971	ND	0.243	
Nickel	0.0651	0.971	3.16	0.243	
Selenium	-0.0143	0.971	ND	0.728	
Silver	-0.00207	0.971	ND	0.243	
Thallium	-0.00740	0.971	ND	0.728	
Vanadium	0.255	0.971	12.4	0.243	
Zinc	0.482	0.971	23.4	0.971	

Return to Contents

Sequence No.: 3

Sample ID: 17-03-0335-3

Analyst: 935 icp 7300

Initial Sample Wt: 2.06 g

Dilution:

Wash Time: 15

Autosampler Location: 220

Date Collected: 3/8/2017 2:19:50 PM

Data Type: Original

Initial Sample Vol:

Sample Prep Vol: 100 mL

Auto Dilution Factor: 1

Mean Data: 17-03-0335-3

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Tb 384	54902.7	77.76 %	2.776			3.57%
Tb 350	100795.5	91.46 %	2.879			3.15%
Ag 328.068*†	-358.7	-0.0021 mg/L	0.00086	-0.1006 mg/kg	0.04187	41.63%
Al 308.215*†	1544664.5	97.72 mg/L	2.347	4743 mg/kg	113.95	2.40%
As 188.979†	38.7	0.0212 mg/L	0.00261	1.028 mg/kg	0.1265	12.31%
As 193.696*†	13.8	0.0108 mg/L	0.00929	0.5232 mg/kg	0.45114	86.22%
B 249.677*†	253.2	0.0055 mg/L	0.00012	0.2677 mg/kg	0.00587	2.19%
Ba 233.527*†	140681.2	1.065 mg/L	0.0025	51.72 mg/kg	0.120	0.23%
Be 313.042*†	9662.0	0.0030 mg/L	0.00002	0.1452 mg/kg	0.00075	0.52%
Ca 317.933*†	87378.9	50.25 mg/L	1.418	2440 mg/kg	68.85	2.82%
Cd 226.502*†	290.4	0.0042 mg/L	0.00001	0.2042 mg/kg	0.00048	0.24%
Cd 228.802†	8.9	0.0003 mg/L	0.00038	0.0124 mg/kg	0.01828	147.89%
Co 228.616*†	1999.2	0.0797 mg/L	0.00218	3.869 mg/kg	0.1058	2.73%
Cr 267.716*†	7905.7	0.0772 mg/L	0.00235	3.748 mg/kg	0.1141	3.05%
Cu 324.752*†	30332.6	0.1331 mg/L	0.00064	6.462 mg/kg	0.0309	0.48%
Fe 273.955*†	2948842.4	139.5 mg/L	3.16	6773 mg/kg	153.25	2.26%
K 766.490*†	79314.6	28.77 mg/L	1.034	1397 mg/kg	50.20	3.59%
Mg 279.077*†	825710.6	48.78 mg/L	1.154	2368 mg/kg	56.01	2.37%
Mn 257.610*†	1663873.1	3.009 mg/L	0.0729	146.1 mg/kg	3.54	2.42%
Mo 202.031*†	4.8	0.0006 mg/L	0.00120	0.0276 mg/kg	0.05838	211.86%
Na 589.592*†	14081.9	3.480 mg/L	0.1404	168.9 mg/kg	6.82	4.03%
Ni 231.604*†	1415.3	0.0651 mg/L	0.00198	3.161 mg/kg	0.0963	3.05%
P 213.617*†	16200.4	9.435 mg/L	0.2969	458.0 mg/kg	14.41	3.15%
P 214.914†	10980.2	9.940 mg/L	0.2802	482.5 mg/kg	13.60	2.82%
Pb 220.353*†	220.2	0.0308 mg/L	0.00192	1.497 mg/kg	0.0932	6.23%
Sb 206.836†	6.4	0.0038 mg/L	0.00183	0.1850 mg/kg	0.08885	48.03%
Sb 217.532*†	2.0	0.0012 mg/L	0.00218	0.0571 mg/kg	0.10595	185.67%
Se 196.026*†	-27.3	-0.0143 mg/L	0.00093	-0.6932 mg/kg	0.04516	6.52%
Si 251.611*†	246629.5	7.066 mg/L	0.0069	343.0 mg/kg	0.34	0.10%
Sn 189.927*†	-271.6	-0.0506 mg/L	0.00509	-2.456 mg/kg	0.2472	10.06%
Sn 242.170†	639.1	0.4054 mg/L	0.01197	19.68 mg/kg	0.581	2.95%
Sr 407.771*†	136925.7	0.4647 mg/L	0.01538	22.56 mg/kg	0.747	3.31%
Ti 334.940†	6842060.5	9.435 mg/L	0.2471	458.0 mg/kg	11.99	2.62%
Ti 336.121*†	4887848.9	9.235 mg/L	0.2256	448.3 mg/kg	10.95	2.44%
Tl 190.801*†	-12.1	-0.0074 mg/L	0.00580	-0.3593 mg/kg	0.28140	78.32%
V 292.402*†	32031.8	0.2555 mg/L	0.00218	12.40 mg/kg	0.106	0.85%
Zn 206.200*†	17699.8	0.4815 mg/L	0.01426	23.37 mg/kg	0.692	2.96%

RAW DATA SHEET FOR METHOD: EPA 6010B

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WORK ORDER: 17-03-0335
INSTRUMENT: ICP 7300
EXTRACTION: EPA 3050B
D/T EXTRACTED: 2017-03-08 00:00

ANALYZED BY: 935
D/T ANALYZED: 2017-03-08 14:22
REVIEWED BY:
D/T REVIEWED:

DATA FILE: W:\ICP-DATA\170308C1\17-03-0335-4.icp

4 **CLIENT SAMPLE NUMBER:** D-DU1-S-SG-06-25S

LCS/MB BATCH: 170308L01 **SAMPLE VOLUME / WEIGHT:** DEFAULT: 2.00 g / ACTUAL: 2.00 g
MS/MSD BATCH: 170308S01 **FINAL VOLUME / WEIGHT:** DEFAULT: 100.00 ml / ACTUAL: 100.00 ml
UNITS: mg/kg **ADJUSTMENT RATIO TO PF:** 1.00

COMMENT:

<u>COMPOUND</u>	<u>ON COL CONC</u>	<u>DF</u>	<u>CONC</u>	<u>RL</u>	<u>QUAL</u>
Antimony	-0.00174	0.962	ND	0.721	
Arsenic	0.00972	0.962	ND	0.721	
Barium	0.976	0.962	46.9	0.481	
Beryllium	0.00256	0.962	ND	0.240	
Cadmium	0.00367	0.962	ND	0.481	
Chromium	0.0792	0.962	3.81	0.240	
Cobalt	0.0754	0.962	3.62	0.240	
Copper	0.112	0.962	5.37	0.481	
Lead	0.0291	0.962	1.40	0.481	
Molybdenum	0.000134	0.962	ND	0.240	
Nickel	0.0609	0.962	2.93	0.240	
Selenium	-0.00376	0.962	ND	0.721	
Silver	-0.00189	0.962	ND	0.240	
Thallium	-0.00544	0.962	ND	0.721	
Vanadium	0.248	0.962	11.9	0.240	
Zinc	0.428	0.962	20.6	0.962	

Return to Contents

Sequence No.: 6
 Sample ID: 17-03-0335-4
 Analyst: 935 icp 7300
 Initial Sample Wt: 2.08 g
 Dilution:
 Wash Time: 15

Autosampler Location: 223
 Date Collected: 3/8/2017 2:22:23 PM
 Data Type: Original
 Initial Sample Vol:
 Sample Prep Vol: 100 mL
 Auto Dilution Factor: 1

Mean Data: 17-03-0335-4

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Tb 384	58108.8	82.30 %	0.274			0.33%
Tb 350	102846.6	93.32 %	1.427			1.53%
Ag 328.068*†	-327.7	-0.0019 mg/L	0.00030	-0.0910 mg/kg	0.01461	16.05%
Al 308.215*†	1387832.8	87.79 mg/L	0.724	4221 mg/kg	34.82	0.82%
As 188.979†	33.7	0.0184 mg/L	0.00193	0.8854 mg/kg	0.09289	10.49%
As 193.696*†	12.4	0.0097 mg/L	0.01641	0.4674 mg/kg	0.78916	168.84%
B 249.677*†	120.9	0.0026 mg/L	0.00214	0.1266 mg/kg	0.10309	81.41%
Ba 233.527*†	128848.6	0.9758 mg/L	0.00931	46.91 mg/kg	0.448	0.95%
Be 313.042*†	8282.7	0.0026 mg/L	0.00007	0.1233 mg/kg	0.00353	2.87%
Ca 317.933*†	83627.0	48.10 mg/L	0.976	2312 mg/kg	46.93	2.03%
Cd 226.502*†	253.5	0.0037 mg/L	0.00018	0.1765 mg/kg	0.00875	4.96%
Cd 228.802†	5.3	0.0002 mg/L	0.00004	0.0074 mg/kg	0.00215	29.21%
Co 228.616*†	1890.3	0.0754 mg/L	0.00209	3.623 mg/kg	0.1005	2.77%
Cr 267.716*†	8113.5	0.0792 mg/L	0.00255	3.809 mg/kg	0.1224	3.21%
Cu 324.752*†	25463.4	0.1118 mg/L	0.00204	5.373 mg/kg	0.0980	1.82%
Fe 273.955*†	2768657.1	131.0 mg/L	0.47	6298 mg/kg	22.55	0.36%
K 766.490*†	69769.7	25.31 mg/L	0.365	1217 mg/kg	17.55	1.44%
Mg 279.077*†	752915.7	44.48 mg/L	0.725	2138 mg/kg	34.85	1.63%
Mn 257.610*†	1312069.5	2.373 mg/L	0.0165	114.1 mg/kg	0.79	0.70%
Mo 202.031*†	1.1	0.0001 mg/L	0.00005	0.0064 mg/kg	0.00230	35.78%
Na 589.592*†	12182.4	3.010 mg/L	0.0291	144.7 mg/kg	1.40	0.97%
Ni 231.604*†	1323.3	0.0609 mg/L	0.00274	2.927 mg/kg	0.1319	4.50%
P 213.617*†	17576.7	10.24 mg/L	0.414	492.1 mg/kg	19.92	4.05%
P 214.914†	11891.8	10.76 mg/L	0.344	517.5 mg/kg	16.53	3.19%
Pb 220.353*†	207.4	0.0291 mg/L	0.00134	1.397 mg/kg	0.0644	4.61%
Sb 206.836†	2.7	0.0016 mg/L	0.00506	0.0767 mg/kg	0.24320	316.89%
Sb 217.582*†	-2.9	-0.0017 mg/L	0.00060	-0.0835 mg/kg	0.02878	34.45%
Se 196.026*†	-7.2	-0.0038 mg/L	0.00942	-0.1806 mg/kg	0.45271	250.64%
Si 251.611*†	301245.1	8.631 mg/L	0.1098	414.9 mg/kg	5.28	1.27%
Sn 189.927*†	-236.4	-0.0440 mg/L	0.00333	-2.117 mg/kg	0.1602	7.56%
Sn 242.170†	581.2	0.3687 mg/L	0.03590	17.73 mg/kg	1.726	9.74%
Sr 407.771*†	140521.7	0.4769 mg/L	0.00762	22.93 mg/kg	0.366	1.60%
Ti 334.940†	6423002.6	8.857 mg/L	0.0820	425.8 mg/kg	3.94	0.93%
Ti 336.121*†	4586609.8	8.666 mg/L	0.0764	416.6 mg/kg	3.67	0.88%
Tl 190.801*†	-8.9	-0.0054 mg/L	0.00329	-0.2616 mg/kg	0.15824	60.49%
V 292.402*†	31135.2	0.2484 mg/L	0.00023	11.94 mg/kg	0.011	0.09%
Zn 206.200*†	15737.6	0.4281 mg/L	0.01396	20.58 mg/kg	0.671	3.26%

RAW DATA SHEET FOR METHOD: EPA 6010B

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WORK ORDER: 17-03-0335
INSTRUMENT: ICP 7300
EXTRACTION: EPA 3050B
D/T EXTRACTED: 2017-03-08 00:00

ANALYZED BY: 935
D/T ANALYZED: 2017-03-08 14:23
REVIEWED BY:
D/T REVIEWED:

DATA FILE: W:\ICP-DATA\170308C1\17-03-0335-7.icp

7 **CLIENT SAMPLE NUMBER:** D-DU1-S-SG-07-15S

LCS/MB BATCH: 170308L01	SAMPLE VOLUME / WEIGHT: DEFAULT: 2.00 g / ACTUAL: 2.00 g	
MS/MSD BATCH: 170308S01	FINAL VOLUME / WEIGHT: DEFAULT: 100.00 ml / ACTUAL: 100.00 ml	
UNITS: mg/kg	ADJUSTMENT RATIO TO PF: 1.00	

COMMENT:

<u>COMPOUND</u>	<u>ON COL CONC</u>	<u>DF</u>	<u>CONC</u>	<u>RL</u>	<u>QUAL</u>
Antimony	-0.00295	0.976	ND	0.732	
Arsenic	0.00504	0.976	ND	0.732	
Barium	0.634	0.976	30.9	0.488	
Beryllium	0.00136	0.976	ND	0.244	
Cadmium	0.00239	0.976	ND	0.488	
Chromium	0.0543	0.976	2.65	0.244	
Cobalt	0.0461	0.976	2.25	0.244	
Copper	0.0696	0.976	3.40	0.488	
Lead	0.0159	0.976	0.776	0.488	
Molybdenum	0.00693	0.976	0.338	0.244	
Nickel	0.0356	0.976	1.74	0.244	
Selenium	-0.00279	0.976	ND	0.732	
Silver	-0.00243	0.976	ND	0.244	
Thallium	-0.0103	0.976	ND	0.732	
Vanadium	0.137	0.976	6.67	0.244	
Zinc	0.336	0.976	16.4	0.976	

Return to Contents

Sequence No.: 7

Sample ID: 17-03-0335-7

Analyst: 935 icp 7300

Initial Sample Wt: 2.05 g

Dilution:

Wash Time: 15

Autosampler Location: 224

Date Collected: 3/8/2017 2:23:14 PM

Data Type: Original

Initial Sample Vol:

Sample Prep Vol: 100 mL

Auto Dilution Factor: 1

Mean Data: 17-03-0335-7

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Tb 384	58894.0	83.41 %	0.187			0.22%
Tb 350	106376.5	96.53 %	0.028			0.03%
Ag 328.068*†	-419.9	-0.0024 mg/L	0.00087	-0.1183 mg/kg	0.04266	36.06%
Al 308.215*†	933600.6	59.06 mg/L	1.685	2881 mg/kg	82.19	2.85%
As 188.979†	23.6	0.0129 mg/L	0.00518	0.6308 mg/kg	0.25292	40.09%
As 193.696*†	6.4	0.0050 mg/L	0.00572	0.2461 mg/kg	0.27905	113.40%
B 249.677*†	83.1	0.0018 mg/L	0.00573	0.0883 mg/kg	0.27949	316.68%
Ba 233.527*†	83691.5	0.6338 mg/L	0.00317	30.92 mg/kg	0.155	0.50%
Be 313.042*†	4407.3	0.0014 mg/L	0.00000	0.0666 mg/kg	0.00014	0.20%
Ca 317.933*†	47076.8	27.08 mg/L	0.272	1321 mg/kg	13.28	1.01%
Cd 226.502*†	165.3	0.0024 mg/L	0.00002	0.1168 mg/kg	0.00093	0.80%
Cd 228.802†	-7.0	-0.0002 mg/L	0.00015	-0.0098 mg/kg	0.00743	76.05%
Co 228.616*†	1155.1	0.0461 mg/L	0.00068	2.246 mg/kg	0.0333	1.48%
Cr 267.716*†	5558.4	0.0543 mg/L	0.00000	2.648 mg/kg	0.0000	0.00%
Cu 324.752*†	15860.1	0.0696 mg/L	0.00008	3.395 mg/kg	0.0037	0.11%
Fe 273.955*†	1809416.0	85.61 mg/L	2.876	4176 mg/kg	140.30	3.36%
K 766.490*†	52902.5	19.19 mg/L	0.379	936.2 mg/kg	18.50	1.98%
Mg 279.077*†	544560.2	32.17 mg/L	0.035	1569 mg/kg	1.73	0.11%
Mn 257.610*†	933189.0	1.688 mg/L	0.0558	82.32 mg/kg	2.722	3.31%
Mo 202.031*†	58.1	0.0069 mg/L	0.00050	0.3378 mg/kg	0.02456	7.27%
Na 589.592*†	8931.2	2.207 mg/L	0.0548	107.7 mg/kg	2.67	2.48%
Ni 231.604*†	774.8	0.0356 mg/L	0.00035	1.739 mg/kg	0.0171	0.98%
P 213.617*†	7918.6	4.612 mg/L	0.0033	225.0 mg/kg	0.16	0.07%
P 214.914†	5368.4	4.860 mg/L	0.0248	237.1 mg/kg	1.21	0.51%
Pb 220.353*†	113.6	0.0159 mg/L	0.00121	0.7762 mg/kg	0.05895	7.59%
Sb 206.836†	-7.9	-0.0047 mg/L	0.00310	-0.2293 mg/kg	0.15119	65.93%
Sb 217.582*†	-5.0	-0.0030 mg/L	0.00134	-0.1441 mg/kg	0.06535	45.35%
Se 196.026*†	-5.3	-0.0028 mg/L	0.00151	-0.1362 mg/kg	0.07360	54.05%
Si 251.611*†	262156.3	7.511 mg/L	0.0035	366.4 mg/kg	0.17	0.05%
Sn 189.927*†	-161.0	-0.0300 mg/L	0.00267	-1.463 mg/kg	0.1304	8.92%
Sn 242.170†	389.6	0.2472 mg/L	0.02553	12.06 mg/kg	1.246	10.33%
Sr 407.771*†	78187.0	0.2654 mg/L	0.00176	12.94 mg/kg	0.086	0.66%
Ti 334.940†	4713816.5	6.500 mg/L	0.2107	317.1 mg/kg	10.28	3.24%
Ti 336.121*†	3359226.4	6.347 mg/L	0.2070	309.6 mg/kg	10.10	3.26%
Tl 190.801*†	-16.7	-0.0103 mg/L	0.00597	-0.5001 mg/kg	0.29126	58.25%
V 292.402*†	17172.2	0.1368 mg/L	0.00007	6.672 mg/kg	0.0034	0.05%
Zn 206.200*†	12336.6	0.3356 mg/L	0.00023	16.37 mg/kg	0.011	0.07%

RAW DATA SHEET FOR METHOD: EPA 6010B

WORK ORDER: 17-03-0335
INSTRUMENT: ICP 7300
EXTRACTION: EPA 3050B
D/T EXTRACTED: 2017-03-08 00:00

ANALYZED BY: 935
D/T ANALYZED: 2017-03-08 14:24
REVIEWED BY:
D/T REVIEWED:

DATA FILE: W:\ICP-DATA\170308C1\17-03-0335-8.icp

8 **CLIENT SAMPLE NUMBER:** D-DU1-S-SG-07-25S

LCS/MB BATCH: 170308L01 **SAMPLE VOLUME / WEIGHT:** DEFAULT: 2.00 g / ACTUAL: 2.00 g
MS/MSD BATCH: 170308S01 **FINAL VOLUME / WEIGHT:** DEFAULT: 100.00 ml / ACTUAL: 100.00 ml
UNITS: mg/kg **ADJUSTMENT RATIO TO PF:** 1.00

COMMENT:

<u>COMPOUND</u>	<u>ON COL CONC</u>	<u>DF</u>	<u>CONC</u>	<u>RL</u>	<u>QUAL</u>
Antimony	-0.00256	0.957	ND	0.718	
Arsenic	0.0155	0.957	0.739	0.718	
Barium	1.38	0.957	65.9	0.478	
Beryllium	0.00299	0.957	ND	0.239	
Cadmium	0.00448	0.957	ND	0.478	
Chromium	0.0890	0.957	4.26	0.239	
Cobalt	0.0894	0.957	4.28	0.239	
Copper	0.141	0.957	6.76	0.478	
Lead	0.0336	0.957	1.61	0.478	
Molybdenum	0.000905	0.957	ND	0.239	
Nickel	0.0746	0.957	3.57	0.239	
Selenium	-0.00846	0.957	ND	0.718	
Silver	-0.000601	0.957	ND	0.239	
Thallium	-0.0115	0.957	ND	0.718	
Vanadium	0.286	0.957	13.7	0.239	
Zinc	0.502	0.957	24.0	0.957	

Sequence No.: 8

Sample ID: 17-03-0335-8

Analyst: 935 icp 7300

Initial Sample Wt: 2.09 g

Dilution:

Wash Time: 15

Autosampler Location: 225

Date Collected: 3/8/2017 2:24:05 PM

Data Type: Original

Initial Sample Vol:

Sample Prep Vol: 100 mL

Auto Dilution Factor: 1

Mean Data: 17-03-0335-8

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Tb 384	56091.5	79.44 %	0.107			0.13%
Tb 350	98976.9	89.81 %	0.502			0.56%
Ag 328.068*†	-104.0	-0.0006 mg/L	0.00170	-0.0287 mg/kg	0.08142	283.21%
Al 308.215*†	1879113.2	118.9 mg/L	0.59	5688 mg/kg	28.33	0.50%
As 188.979†	36.4	0.0199 mg/L	0.00302	0.9530 mg/kg	0.14445	15.16%
As 193.696*†	19.7	0.0155 mg/L	0.00892	0.7395 mg/kg	0.42690	57.73%
B 249.677*†	92.6	0.0020 mg/L	0.00180	0.0965 mg/kg	0.08626	89.36%
Ba 233.527*†	181793.4	1.377 mg/L	0.0060	65.87 mg/kg	0.285	0.43%
Be 313.042*†	9669.9	0.0030 mg/L	0.00003	0.1433 mg/kg	0.00128	0.90%
Ca 317.933*†	96569.5	55.54 mg/L	0.108	2657 mg/kg	5.17	0.19%
Cd 226.502*†	309.0	0.0045 mg/L	0.00007	0.2142 mg/kg	0.00337	1.57%
Cd 228.802†	-4.7	-0.0001 mg/L	0.00033	-0.0064 mg/kg	0.01596	249.67%
Co 228.616*†	2243.2	0.0894 mg/L	0.00075	4.279 mg/kg	0.0361	0.84%
Cr 267.716*†	9114.1	0.0890 mg/L	0.00013	4.259 mg/kg	0.0060	0.14%
Cu 324.752*†	32179.5	0.1412 mg/L	0.00107	6.757 mg/kg	0.0510	0.76%
Fe 273.955*†	3104721.0	146.9 mg/L	3.80	7029 mg/kg	181.74	2.59%
K 766.490*†	96567.4	35.03 mg/L	0.152	1676 mg/kg	7.26	0.43%
Mg 279.077*†	980792.0	57.94 mg/L	0.287	2772 mg/kg	13.71	0.49%
Mn 257.610*†	1619221.4	2.928 mg/L	0.0202	140.1 mg/kg	0.96	0.69%
Mo 202.031*†	7.6	0.0009 mg/L	0.00010	0.0433 mg/kg	0.00461	10.65%
Na 589.592*†	16825.9	4.158 mg/L	0.0256	198.9 mg/kg	1.22	0.62%
Ni 231.604*†	1620.9	0.0746 mg/L	0.00056	3.568 mg/kg	0.0266	0.74%
P 213.617*†	15826.1	9.217 mg/L	0.0083	441.0 mg/kg	0.40	0.09%
P 214.914†	10703.2	9.689 mg/L	0.0007	463.6 mg/kg	0.03	0.01%
Pb 220.353*†	240.1	0.0336 mg/L	0.00128	1.610 mg/kg	0.0613	3.81%
Sb 206.836†	-2.9	-0.0017 mg/L	0.00333	-0.0826 mg/kg	0.15957	193.20%
Sb 217.582*†	-4.3	-0.0026 mg/L	0.01024	-0.1226 mg/kg	0.48981	399.56%
Se 196.026*†	-16.2	-0.0085 mg/L	0.00729	-0.4049 mg/kg	0.34897	86.19%
Si 251.611*†	325360.6	9.322 mg/L	0.0458	446.0 mg/kg	2.19	0.49%
Sn 189.927*†	-368.1	-0.0686 mg/L	0.00612	-3.282 mg/kg	0.2930	8.93%
Sn 242.170†	621.9	0.3945 mg/L	0.03077	18.88 mg/kg	1.472	7.80%
Sr 407.771*†	190812.1	0.6476 mg/L	0.00010	30.99 mg/kg	0.005	0.02%
Ti 334.940†	8595530.6	11.85 mg/L	0.244	567.1 mg/kg	11.67	2.06%
Ti 336.121*†	6145010.0	11.61 mg/L	0.256	555.5 mg/kg	12.25	2.21%
Tl 190.801*†	-18.7	-0.0115 mg/L	0.00495	-0.5481 mg/kg	0.23707	43.26%
V 292.402*†	35792.1	0.2856 mg/L	0.00006	13.67 mg/kg	0.003	0.02%
Zn 206.200*†	18470.3	0.5025 mg/L	0.00082	24.04 mg/kg	0.039	0.16%

RAW DATA SHEET FOR METHOD: EPA 6010B

WORK ORDER: 17-03-0335
INSTRUMENT: ICP 7300
EXTRACTION: EPA 3050B
D/T EXTRACTED: 2017-03-08 00:00

ANALYZED BY: 935
D/T ANALYZED: 2017-03-08 14:24
REVIEWED BY:
D/T REVIEWED:

DATA FILE: W:\ICP-DATA\170308C1\17-03-0335-11.icp

11 **CLIENT SAMPLE NUMBER:** D-DU1-S-SG-08-15S

LCS/MB BATCH: 170308L01 **SAMPLE VOLUME / WEIGHT:** DEFAULT: 2.00 g / ACTUAL: 2.00 g
MS/MSD BATCH: 170308S01 **FINAL VOLUME / WEIGHT:** DEFAULT: 100.00 ml / ACTUAL: 100.00 ml
UNITS: mg/kg **ADJUSTMENT RATIO TO PF:** 1.00

COMMENT:

<u>COMPOUND</u>	<u>ON COL CONC</u>	<u>DF</u>	<u>CONC</u>	<u>RL</u>	<u>QUAL</u>
Antimony	-0.00297	0.985	ND	0.739	
Arsenic	0.00494	0.985	ND	0.739	
Barium	0.671	0.985	33.0	0.493	
Beryllium	0.00187	0.985	ND	0.246	
Cadmium	0.00236	0.985	ND	0.493	
Chromium	0.0417	0.985	2.06	0.246	
Cobalt	0.0501	0.985	2.47	0.246	
Copper	0.0810	0.985	3.99	0.493	
Lead	0.0201	0.985	0.993	0.493	
Molybdenum	0.000734	0.985	ND	0.246	
Nickel	0.0447	0.985	2.20	0.246	
Selenium	-0.00778	0.985	ND	0.739	
Silver	-0.00144	0.985	ND	0.246	
Thallium	-0.00554	0.985	ND	0.739	
Vanadium	0.152	0.985	7.48	0.246	
Zinc	0.338	0.985	16.7	0.985	

Sequence No.: 9

Sample ID: 17-03-0335-11

Analyst: 935 icp 7300

Initial Sample Wt: 2.03 g

Dilution:

Wash Time: 15

Autosampler Location: 226

Date Collected: 3/8/2017 2:24:56 PM

Data Type: Original

Initial Sample Vol:

Sample Prep Vol: 100 mL

Auto Dilution Factor: 1

Mean Data: 17-03-0335-11

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Tb 384	59819.0	84.72 %	0.713			0.84%
Tb 350	105360.9	95.60 %	0.773			0.81%
Ag 328.068*†	-248.6	-0.0014 mg/L	0.00042	-0.0707 mg/kg	0.02068	29.25%
Al 308.215*†	1126634.1	71.27 mg/L	0.416	3511 mg/kg	20.47	0.58%
As 188.979†	21.6	0.0118 mg/L	0.00143	0.5810 mg/kg	0.07035	12.11%
As 193.696*†	6.3	0.0049 mg/L	0.00183	0.2432 mg/kg	0.09026	37.12%
B 249.677*†	214.1	0.0047 mg/L	0.00220	0.2297 mg/kg	0.10845	47.21%
Ba 233.527*†	88571.9	0.6708 mg/L	0.00385	33.04 mg/kg	0.190	0.57%
Be 313.042*†	6048.4	0.0019 mg/L	0.00004	0.0923 mg/kg	0.00185	2.01%
Ca 317.933*†	60006.6	34.51 mg/L	1.257	1700 mg/kg	61.91	3.64%
Cd 226.502*†	162.7	0.0024 mg/L	0.00005	0.1161 mg/kg	0.00250	2.15%
Cd 228.802†	2.4	0.0001 mg/L	0.00021	0.0033 mg/kg	0.01024	305.98%
Co 228.616*†	1256.3	0.0501 mg/L	0.00018	2.467 mg/kg	0.0089	0.36%
Cr 267.716*†	4274.7	0.0417 mg/L	0.00025	2.056 mg/kg	0.0123	0.60%
Cu 324.752*†	18453.5	0.0810 mg/L	0.00007	3.990 mg/kg	0.0035	0.09%
Fe 273.955*†	1840890.2	87.10 mg/L	0.309	4291 mg/kg	15.21	0.35%
K 766.490*†	46314.6	16.80 mg/L	0.418	827.7 mg/kg	20.61	2.49%
Mg 279.077*†	561040.7	33.14 mg/L	0.251	1633 mg/kg	12.38	0.76%
Mn 257.610*†	971764.8	1.757 mg/L	0.0033	86.56 mg/kg	0.161	0.19%
Mo 202.031*†	6.2	0.0007 mg/L	0.00084	0.0362 mg/kg	0.04144	114.59%
Na 589.592*†	12932.2	3.196 mg/L	0.0902	157.4 mg/kg	4.44	2.82%
Ni 231.604*†	971.6	0.0447 mg/L	0.00045	2.202 mg/kg	0.0221	1.00%
P 213.617*†	8971.9	5.225 mg/L	0.0355	257.4 mg/kg	1.75	0.68%
P 214.914†	6146.1	5.564 mg/L	0.0341	274.1 mg/kg	1.68	0.61%
Pb 220.353*†	143.8	0.0201 mg/L	0.00235	0.9925 mg/kg	0.11578	11.66%
Sb 206.836†	-0.3	-0.0002 mg/L	0.00323	-0.0076 mg/kg	0.15925	>999.9%
Sb 217.582*†	-5.0	-0.0030 mg/L	0.00135	-0.1463 mg/kg	0.06646	45.42%
Se 196.026*†	-14.9	-0.0078 mg/L	0.00296	-0.3834 mg/kg	0.14571	38.00%
Si 251.611*†	273370.4	7.832 mg/L	0.0364	385.8 mg/kg	1.79	0.47%
Sn 189.927*†	-146.6	-0.0273 mg/L	0.00346	-1.345 mg/kg	0.1705	12.68%
Sn 242.170†	398.3	0.2527 mg/L	0.00230	12.45 mg/kg	0.113	0.91%
Sr 407.771*†	153244.5	0.5201 mg/L	0.01483	25.62 mg/kg	0.731	2.85%
Ti 334.940†	4052032.6	5.587 mg/L	0.0115	275.2 mg/kg	0.57	0.21%
Ti 336.121*†	2896269.2	5.472 mg/L	0.0122	269.6 mg/kg	0.60	0.22%
Tl 190.801*†	-9.0	-0.0055 mg/L	0.00527	-0.2730 mg/kg	0.25950	95.05%
V 292.402*†	19038.6	0.1518 mg/L	0.00329	7.477 mg/kg	0.1620	2.17%
Zn 206.200*†	12427.0	0.3381 mg/L	0.00232	16.65 mg/kg	0.114	0.69%

RAW DATA SHEET FOR METHOD: EPA 6010B

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WORK ORDER: 17-03-0335
INSTRUMENT: ICP 7300
EXTRACTION: EPA 3050B
D/T EXTRACTED: 2017-03-08 00:00

ANALYZED BY: 935
D/T ANALYZED: 2017-03-08 14:25
REVIEWED BY:
D/T REVIEWED:

DATA FILE: W:\ICP-DATA\170308C1\17-03-0335-12.icp

12 **CLIENT SAMPLE NUMBER:** D-DU1-S-SG-08-25S

LCS/MB BATCH: 170308L01 **SAMPLE VOLUME / WEIGHT:** DEFAULT: 2.00 g / ACTUAL: 2.00 g
MS/MSD BATCH: 170308S01 **FINAL VOLUME / WEIGHT:** DEFAULT: 100.00 ml / ACTUAL: 100.00 ml
UNITS: mg/kg **ADJUSTMENT RATIO TO PF:** 1.00

COMMENT:

<u>COMPOUND</u>	<u>ON COL CONC</u>	<u>DF</u>	<u>CONC</u>	<u>RL</u>	<u>QUAL</u>
Antimony	-0.00606	0.976	ND	0.732	
Arsenic	0.00829	0.976	ND	0.732	
Barium	1.45	0.976	70.7	0.488	
Beryllium	0.00294	0.976	ND	0.244	
Cadmium	0.00439	0.976	ND	0.488	
Chromium	0.0923	0.976	4.50	0.244	
Cobalt	0.0991	0.976	4.83	0.244	
Copper	0.171	0.976	8.32	0.488	
Lead	0.0325	0.976	1.59	0.488	
Molybdenum	-0.000310	0.976	ND	0.244	
Nickel	0.0974	0.976	4.75	0.244	
Selenium	-0.0118	0.976	ND	0.732	
Silver	-0.00151	0.976	ND	0.244	
Thallium	-0.0120	0.976	ND	0.732	
Vanadium	0.315	0.976	15.4	0.244	
Zinc	0.535	0.976	26.1	0.976	

Return to Contents

Sequence No.: 10

Sample ID: 17-03-0335-12

Analyst: 935 icp 7300

Initial Sample Wt: 2.05 g

Dilution:

Wash Time: 15

Autosampler Location: 227

Date Collected: 3/8/2017 2:25:47 PM

Data Type: Original

Initial Sample Vol:

Sample Prep Vol: 100 mL

Auto Dilution Factor: 1

Mean Data: 17-03-0335-12

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Tb 384	57343.4	81.21 %	0.964			1.19%
Tb 350	101858.8	92.43 %	0.733			0.79%
Ag 328.068*†	-261.8	-0.0015 mg/L	0.00152	-0.0737 mg/kg	0.07399	100.33%
Al 308.215*†	1904622.6	120.5 mg/L	0.93	5877 mg/kg	45.38	0.77%
As 188.979†	36.9	0.0202 mg/L	0.00030	0.9854 mg/kg	0.01462	1.48%
As 193.696*†	10.6	0.0083 mg/L	0.00080	0.4043 mg/kg	0.03883	9.60%
B 249.677*†	-69.0	-0.0015 mg/L	0.00093	-0.0734 mg/kg	0.04524	61.67%
Ba 233.527*†	191293.9	1.449 mg/L	0.0143	70.67 mg/kg	0.697	0.99%
Be 313.042*†	9481.4	0.0029 mg/L	0.00003	0.1432 mg/kg	0.00134	0.93%
Ca 317.933*†	95375.0	54.85 mg/L	0.535	2676 mg/kg	26.10	0.98%
Cd 226.502*†	303.3	0.0044 mg/L	0.00001	0.2143 mg/kg	0.00033	0.16%
Cd 228.802†	-12.4	-0.0004 mg/L	0.00001	-0.0173 mg/kg	0.00064	3.67%
Co 228.616*†	2484.8	0.0991 mg/L	0.00015	4.833 mg/kg	0.0074	0.15%
Cr 267.716*†	9453.5	0.0923 mg/L	0.00038	4.503 mg/kg	0.0186	0.41%
Cu 324.752*†	38859.4	0.1705 mg/L	0.00120	8.319 mg/kg	0.0584	0.70%
Fe 273.955*†	3479370.7	164.6 mg/L	0.32	8031 mg/kg	15.56	0.19%
K 766.490*†	101064.0	36.66 mg/L	0.337	1788 mg/kg	16.43	0.92%
Mg 279.077*†	1017535.6	60.11 mg/L	0.784	2932 mg/kg	38.25	1.30%
Mn 257.610*†	1684677.6	3.046 mg/L	0.0289	148.6 mg/kg	1.41	0.95%
Mo 202.031*†	-2.6	-0.0003 mg/L	0.00012	-0.0151 mg/kg	0.00578	38.21%
Na 589.592*†	16511.4	4.080 mg/L	0.0394	199.0 mg/kg	1.92	0.97%
Ni 231.604*†	2116.8	0.0974 mg/L	0.00011	4.751 mg/kg	0.0054	0.11%
P 213.617*†	17201.6	10.02 mg/L	0.138	488.7 mg/kg	6.73	1.38%
P 214.914†	11712.8	10.60 mg/L	0.061	517.2 mg/kg	2.99	0.58%
Pb 220.353*†	232.2	0.0325 mg/L	0.00001	1.587 mg/kg	0.0007	0.04%
Sb 206.836†	-4.9	-0.0029 mg/L	0.01056	-0.1412 mg/kg	0.51529	364.93%
Sb 217.582*†	-10.2	-0.0061 mg/L	0.00183	-0.2956 mg/kg	0.08911	30.15%
Se 196.026*†	-22.6	-0.0118 mg/L	0.00591	-0.5757 mg/kg	0.28821	50.06%
Si 251.611*†	327473.5	9.382 mg/L	0.0858	457.7 mg/kg	4.19	0.91%
Sn 189.927*†	-367.3	-0.0684 mg/L	0.00025	-3.338 mg/kg	0.0123	0.37%
Sn 242.170†	731.1	0.4639 mg/L	0.00252	22.63 mg/kg	0.123	0.54%
Sr 407.771*†	191818.1	0.6510 mg/L	0.00646	31.76 mg/kg	0.315	0.99%
Ti 334.940†	9335396.1	12.87 mg/L	0.009	627.9 mg/kg	0.44	0.07%
Ti 336.121*†	6662164.5	12.59 mg/L	0.013	614.0 mg/kg	0.65	0.11%
Tl 190.801*†	-19.6	-0.0120 mg/L	0.00315	-0.5872 mg/kg	0.15357	26.15%
V 292.402*†	39471.4	0.3149 mg/L	0.00217	15.36 mg/kg	0.106	0.69%
Zn 206.200*†	19671.6	0.5351 mg/L	0.00216	26.10 mg/kg	0.106	0.40%

RAW DATA SHEET FOR METHOD: EPA 6010B

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WORK ORDER: 17-03-0335
INSTRUMENT: ICP 7300
EXTRACTION: EPA 3050B
D/T EXTRACTED: 2017-03-08 00:00

ANALYZED BY: 935
D/T ANALYZED: 2017-03-08 14:28
REVIEWED BY:
D/T REVIEWED:

DATA FILE: W:\ICP-DATA\170308C1\17-03-0335-15.icp

15 **CLIENT SAMPLE NUMBER:** D-DU1-S-SG-09-15S

LCS/MB BATCH: 170308L01 **SAMPLE VOLUME / WEIGHT:** DEFAULT: 2.00 g / ACTUAL: 2.00 g
MS/MSD BATCH: 170308S01 **FINAL VOLUME / WEIGHT:** DEFAULT: 100.00 ml / ACTUAL: 100.00 ml
UNITS: mg/kg **ADJUSTMENT RATIO TO PF:** 1.00

COMMENT:

<u>COMPOUND</u>	<u>ON COL CONC</u>	<u>DF</u>	<u>CONC</u>	<u>RL</u>	<u>QUAL</u>
Antimony	-0.000964	0.971	ND	0.728	
Arsenic	0.00411	0.971	ND	0.728	
Barium	1.19	0.971	58.0	0.485	
Beryllium	0.00253	0.971	ND	0.243	
Cadmium	0.00395	0.971	ND	0.485	
Chromium	0.0806	0.971	3.91	0.243	
Cobalt	0.0852	0.971	4.14	0.243	
Copper	0.128	0.971	6.21	0.485	
Lead	0.0312	0.971	1.52	0.485	
Molybdenum	0.00105	0.971	ND	0.243	
Nickel	0.0713	0.971	3.46	0.243	
Selenium	0.000300	0.971	ND	0.728	
Silver	-0.00114	0.971	ND	0.243	
Thallium	-0.00850	0.971	ND	0.728	
Vanadium	0.265	0.971	12.9	0.243	
Zinc	0.528	0.971	25.6	0.971	

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Sequence No.: 13

Sample ID: 17-03-0335-15

Analyst: 935 icp 7300

Initial Sample Wt: 2.06 g

Dilution:

Wash Time: 15

Autosampler Location: 228

Date Collected: 3/8/2017 2:28:31 PM

Data Type: Original

Initial Sample Vol:

Sample Prep Vol: 100 mL

Auto Dilution Factor: 1

Mean Data: 17-03-0335-15

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Tb 384	56215.4	79.62 %	0.777			0.98%
Tb 350	100532.0	91.22 %	1.127			1.24%
Ag 328.068*†	-197.6	-0.0011 mg/L	0.00155	-0.0554 mg/kg	0.07539	136.05%
Al 308.215*†	1694053.2	107.2 mg/L	0.61	5202 mg/kg	29.57	0.57%
As 188.979†	33.6	0.0184 mg/L	0.00006	0.8920 mg/kg	0.00304	0.34%
As 193.696*†	5.3	0.0041 mg/L	0.01473	0.1996 mg/kg	0.71507	358.17%
B 249.677*†	441.1	0.0096 mg/L	0.00095	0.4665 mg/kg	0.04615	9.89%
Ba 233.527*†	157763.5	1.195 mg/L	0.0065	58.00 mg/kg	0.317	0.55%
Be 313.042*†	8186.1	0.0025 mg/L	0.00001	0.1230 mg/kg	0.00061	0.50%
Ca 317.933*†	90693.4	52.16 mg/L	2.398	2532 mg/kg	116.39	4.60%
Cd 226.502*†	272.9	0.0040 mg/L	0.00009	0.1919 mg/kg	0.00444	2.31%
Cd 228.802†	-20.4	-0.0006 mg/L	0.00055	-0.0285 mg/kg	0.02651	93.16%
Co 228.616*†	2137.3	0.0852 mg/L	0.00154	4.137 mg/kg	0.0747	1.81%
Cr 267.716*†	8250.9	0.0806 mg/L	0.00173	3.911 mg/kg	0.0841	2.15%
Cu 324.752*†	29162.0	0.1280 mg/L	0.00055	6.213 mg/kg	0.0265	0.43%
Fe 273.955*†	2977916.1	140.9 mg/L	2.43	6840 mg/kg	117.91	1.72%
K 766.490*†	92891.2	33.70 mg/L	1.180	1636 mg/kg	57.29	3.50%
Mg 279.077*†	926470.2	54.73 mg/L	0.347	2657 mg/kg	16.82	0.63%
Mn 257.610*†	1517790.8	2.745 mg/L	0.0127	133.2 mg/kg	0.62	0.46%
Mo 202.031*†	8.8	0.0011 mg/L	0.00086	0.0511 mg/kg	0.04162	81.49%
Na 589.592*†	14597.0	3.607 mg/L	0.1966	175.1 mg/kg	9.54	5.45%
Ni 231.604*†	1549.9	0.0713 mg/L	0.00105	3.461 mg/kg	0.0511	1.48%
P 213.617*†	18266.8	10.64 mg/L	0.260	516.4 mg/kg	12.60	2.44%
P 214.914†	12338.2	11.17 mg/L	0.245	542.2 mg/kg	11.91	2.20%
Pb 220.353*†	223.0	0.0312 mg/L	0.00157	1.517 mg/kg	0.0760	5.01%
Sb 206.836†	4.7	0.0028 mg/L	0.00098	0.1368 mg/kg	0.04740	34.66%
Sb 217.582*†	-1.6	-0.0010 mg/L	0.00255	-0.0468 mg/kg	0.12362	264.20%
Se 196.026*†	0.6	0.0003 mg/L	0.00451	0.0146 mg/kg	0.21894	>999.9%
Si 251.611*†	271799.8	7.787 mg/L	0.0613	378.0 mg/kg	2.98	0.79%
Sn 189.927*†	-324.9	-0.0605 mg/L	0.00484	-2.939 mg/kg	0.2348	7.99%
Sn 242.170†	603.3	0.3827 mg/L	0.01982	18.58 mg/kg	0.962	5.18%
Sr 407.771*†	160068.3	0.5433 mg/L	0.02290	26.37 mg/kg	1.111	4.21%
Ti 334.940†	8152815.9	11.24 mg/L	0.236	545.7 mg/kg	11.47	2.10%
Ti 336.121*†	5813100.7	10.98 mg/L	0.204	533.2 mg/kg	9.91	1.86%
Tl 190.801*†	-13.9	-0.0085 mg/L	0.00952	-0.4125 mg/kg	0.46196	111.98%
V 292.402*†	33273.7	0.2655 mg/L	0.00179	12.89 mg/kg	0.087	0.67%
Zn 206.200*†	19398.4	0.5277 mg/L	0.01061	25.62 mg/kg	0.515	2.01%

RAW DATA SHEET FOR METHOD: EPA 6010B

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WORK ORDER: 17-03-0335
INSTRUMENT: ICP 7300
EXTRACTION: EPA 3050B
D/T EXTRACTED: 2017-03-08 00:00

ANALYZED BY: 935
D/T ANALYZED: 2017-03-08 14:29
REVIEWED BY:
D/T REVIEWED:

DATA FILE: W:\ICP-DATA\170308C1\17-03-0335-16.icp

16 **CLIENT SAMPLE NUMBER:** D-DU1-S-SG-09-25S

LCS/MB BATCH: 170308L01 **SAMPLE VOLUME / WEIGHT:** DEFAULT: 2.00 g / ACTUAL: 2.00 g
MS/MSD BATCH: 170308S01 **FINAL VOLUME / WEIGHT:** DEFAULT: 100.00 ml / ACTUAL: 100.00 ml
UNITS: mg/kg **ADJUSTMENT RATIO TO PF:** 1.00

COMMENT:

<u>COMPOUND</u>	<u>ON COL CONC</u>	<u>DF</u>	<u>CONC</u>	<u>RL</u>	<u>QUAL</u>
Antimony	-0.00840	0.985	ND	0.739	
Arsenic	0.0143	0.985	ND	0.739	
Barium	0.865	0.985	42.6	0.493	
Beryllium	0.00211	0.985	ND	0.246	
Cadmium	0.00297	0.985	ND	0.493	
Chromium	0.128	0.985	6.31	0.246	
Cobalt	0.0624	0.985	3.07	0.246	
Copper	0.122	0.985	6.01	0.493	
Lead	0.0244	0.985	1.20	0.493	
Molybdenum	0.0198	0.985	0.973	0.246	
Nickel	0.0651	0.985	3.21	0.246	
Selenium	0.000813	0.985	ND	0.739	
Silver	-0.000759	0.985	ND	0.246	
Thallium	-0.0115	0.985	ND	0.739	
Vanadium	0.194	0.985	9.55	0.246	
Zinc	0.452	0.985	22.3	0.985	

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Sequence No.: 14

Autosampler Location: 229

Sample ID: 17-03-0335-16

Date Collected: 3/8/2017 2:29:25 PM

Analyst: 935 icp 7300

Data Type: Original

Initial Sample Wt: 2.03 g

Initial Sample Vol:

Dilution:

Sample Prep Vol: 100 mL

Wash Time: 15

Auto Dilution Factor: 1

Mean Data: 17-03-0335-16

Analyte	Mean Corrected Intensity	Conc. Units	Calib.	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Tb 384	58969.4	83.52	%	1.010			1.21%
Tb 350	102023.8	92.58	%	0.271			0.29%
Ag 328.068*†	-131.5	-0.0008	mg/L	0.00065	-0.0374	0.03219	86.05%
Al 308.215*†	1335206.8	84.47	mg/L	3.480	4161	171.42	4.12%
As 188.979†	33.3	0.0182	mg/L	0.00036	0.8978	0.01794	2.00%
As 193.696*†	18.3	0.0143	mg/L	0.00481	0.7044	0.23712	33.66%
B 249.677*†	222.2	0.0048	mg/L	0.00192	0.2384	0.09482	39.77%
Ba 233.527*†	114214.6	0.8650	mg/L	0.00354	42.61	0.174	0.41%
Be 313.042*†	6819.0	0.0021	mg/L	0.00003	0.1040	0.00140	1.35%
Ca 317.933*†	82572.7	47.49	mg/L	0.233	2339	11.50	0.49%
Cd 226.502*†	205.1	0.0030	mg/L	0.00013	0.1463	0.00634	4.33%
Cd 228.802†	-12.9	-0.0004	mg/L	0.00025	-0.0183	0.01213	66.36%
Co 228.616*†	1564.0	0.0624	mg/L	0.00064	3.072	0.0313	1.02%
Cr 267.716*†	13117.9	0.1281	mg/L	0.00063	6.311	0.0310	0.49%
Cu 324.752*†	27797.1	0.1220	mg/L	0.00036	6.010	0.0177	0.29%
Fe 273.955*†	2464117.8	116.6	mg/L	5.69	5743	280.37	4.88%
K 766.490*†	56548.3	20.51	mg/L	0.119	1011	5.89	0.58%
Mg 279.077*†	665645.7	39.32	mg/L	0.360	1937	17.72	0.91%
Mn 257.610*†	1193671.3	2.159	mg/L	0.1008	106.3	4.97	4.67%
Mo 202.031*†	165.8	0.0198	mg/L	0.00002	0.9735	0.00079	0.08%
Na 589.592*†	15230.7	3.763	mg/L	0.0655	185.4	3.23	1.74%
Ni 231.604*†	1415.6	0.0651	mg/L	0.00006	3.208	0.0028	0.09%
P 213.617*†	13582.0	7.910	mg/L	0.1219	389.7	6.00	1.54%
P 214.914†	9174.4	8.305	mg/L	0.0588	409.1	2.90	0.71%
Pb 220.353*†	174.3	0.0244	mg/L	0.00110	1.203	0.0542	4.50%
Sb 206.836†	5.0	0.0030	mg/L	0.00011	0.1467	0.00547	3.73%
Sb 217.582*†	-14.1	-0.0084	mg/L	0.00929	-0.4138	0.45769	110.60%
Se 196.026*†	1.6	0.0008	mg/L	0.00200	0.0400	0.09869	246.45%
Si 251.611*†	275073.1	7.881	mg/L	0.0510	388.2	2.51	0.65%
Sn 189.927*†	-188.4	-0.0351	mg/L	0.00079	-1.729	0.0387	2.24%
Sn 242.170†	498.0	0.3160	mg/L	0.00113	15.57	0.056	0.36%
Sr 407.771*†	145564.9	0.4940	mg/L	0.00094	24.34	0.046	0.19%
Ti 334.940†	5130770.4	7.075	mg/L	0.3018	348.5	14.87	4.27%
Ti 336.121*†	3656901.2	6.909	mg/L	0.2912	340.4	14.34	4.21%
Tl 190.801*†	-18.8	-0.0115	mg/L	0.00024	-0.5676	0.01181	2.08%
V 292.402*†	24320.2	0.1938	mg/L	0.00042	9.547	0.0207	0.22%
Zn 206.200*†	16603.6	0.4517	mg/L	0.00364	22.25	0.179	0.81%

EPA 6010B ICP Metals (Solid)

Quality Control

Method Blank
LCS/LCSD
MS/MSD
PDS/PDSD

METHOD BLANK ASSOCIATION SUMMARY

FOR METHOD: EPA 6010B

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MB SAMPLE ID: 097-01-002-24425
MB BATCH ID: 170308L01
INSTRUMENT: ICP 7300
EXTRACTION: EPA 3050B
D/T EXTRACTED: 2017-03-08 00:00

ANALYZED BY: 935
D/T ANALYZED: 2017-03-08 14:17
REVIEWED BY:
D/T REVIEWED:
MATRIX: Soil

DATA FILE: W:\ICP-DATA\170308C1\170308-b-01__174.icp

CLIENT WORK ORDER: 17-03-0335

<u>S#</u>	<u>RUN TYPE</u>	<u>CLIENT SAMPLE ID</u>	<u>D/T ANALYZED</u>	<u>DATA FILE</u>
3	D-DU1-S-SG-06-15S		2017-03-08 14:19	W:\ICP-DATA\170308C1\17-03-0335-3.icp
4	D-DU1-S-SG-06-25S		2017-03-08 14:22	W:\ICP-DATA\170308C1\17-03-0335-4.icp
7	D-DU1-S-SG-07-15S		2017-03-08 14:23	W:\ICP-DATA\170308C1\17-03-0335-7.icp
8	D-DU1-S-SG-07-25S		2017-03-08 14:24	W:\ICP-DATA\170308C1\17-03-0335-8.icp
11	D-DU1-S-SG-08-15S		2017-03-08 14:24	W:\ICP-DATA\170308C1\17-03-0335-11.icp
12	D-DU1-S-SG-08-25S		2017-03-08 14:25	W:\ICP-DATA\170308C1\17-03-0335-12.icp
15	D-DU1-S-SG-09-15S		2017-03-08 14:28	W:\ICP-DATA\170308C1\17-03-0335-15.icp
16	D-DU1-S-SG-09-25S		2017-03-08 14:29	W:\ICP-DATA\170308C1\17-03-0335-16.icp


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RAW DATA SHEET FOR METHOD: EPA 6010B

WORK ORDER: 097-01-002
INSTRUMENT: ICP 7300
EXTRACTION: EPA 3050B
D/T EXTRACTED: 2017-03-08 00:00

ANALYZED BY: 935
D/T ANALYZED: 2017-03-08 14:17
REVIEWED BY:
D/T REVIEWED:

DATA FILE: W:\ICP-DATA\170308C1\170308-b-01__174.icp

MB **CLIENT SAMPLE NUMBER:** Method Blank

LCS/MB BATCH: 170308L01 **SAMPLE VOLUME / WEIGHT:** DEFAULT: 2.00 g / ACTUAL: 2.00 g
MS/MSD BATCH: **FINAL VOLUME / WEIGHT:** DEFAULT: 100.00 ml / ACTUAL: 100.00 ml
UNITS: mg/kg **ADJUSTMENT RATIO TO PF:** 1.00

COMMENT:

<u>COMPOUND</u>	<u>ON COL CONC</u>	<u>DF</u>	<u>CONC</u>	<u>RL</u>	<u>QUAL</u>
Antimony	-0.000899	0.966	ND	0.725	
Arsenic	0.00452	0.966	ND	0.725	
Barium	-0.000283	0.966	ND	0.483	
Beryllium	-0.0000424	0.966	ND	0.242	
Cadmium	-0.0000319	0.966	ND	0.483	
Chromium	0.000451	0.966	ND	0.242	
Cobalt	0.000342	0.966	ND	0.242	
Copper	-0.000537	0.966	ND	0.483	
Lead	-0.00366	0.966	ND	0.483	
Molybdenum	-0.000196	0.966	ND	0.242	
Nickel	0.000141	0.966	ND	0.242	
Selenium	-0.00254	0.966	ND	0.725	
Silver	-0.000169	0.966	ND	0.242	
Thallium	-0.00763	0.966	ND	0.725	
Vanadium	-0.00201	0.966	ND	0.242	
Zinc	-0.000904	0.966	ND	0.966	

LCS QUALITY CONTROL SHEET

FOR METHOD: EPA 6010B

LCS SAMPLE ID: 097-01-002-24425
LCS/MB BATCH ID: 170308L01
INSTRUMENT: ICP 7300

EXTRACTION: EPA 3050B
D/T EXTRACTED: 2017-03-08 00:00

ANALYZED BY: 935
D/T ANALYZED: 2017-03-08 14:18
REVIEWED BY:
D/T REVIEWED:

DATA FILE: W:\ICP-DATA\170308C\1\170308-I-01_175.icp

COMPOUND	CONC	CONC REC	%REC	%REC CL	ME CL	STATUS	QUALIFIERS
Antimony	25.00	22.68	91	80-120	73-127	PASS	
Arsenic	25.00	23.32	93	80-120	73-127	PASS	
Barium	25.00	24.77	99	80-120	73-127	PASS	
Beryllium	25.00	22.82	91	80-120	73-127	PASS	
Cadmium	25.00	23.76	95	80-120	73-127	PASS	
Chromium	25.00	24.07	96	80-120	73-127	PASS	
Cobalt	25.00	24.74	99	80-120	73-127	PASS	
Copper	25.00	24.04	96	80-120	73-127	PASS	
Lead	25.00	24.64	99	80-120	73-127	PASS	
Molybdenum	25.00	23.60	94	80-120	73-127	PASS	
Nickel	25.00	23.88	96	80-120	73-127	PASS	
Phosphorus	25.00	23.24	93	80-120	73-127	PASS	
Selenium	25.00	23.10	92	80-120	73-127	PASS	
Silver	12.50	11.16	89	80-120	73-127	PASS	
Thallium	25.00	24.03	96	80-120	73-127	PASS	
Vanadium	25.00	22.79	91	80-120	73-127	PASS	
Zinc	25.00	23.94	96	80-120	73-127	PASS	
Aluminum	25.00	24.13	97	80-120	73-127	PASS	
Calcium	25.00	23.62	94	80-120	73-127	PASS	
Iron	25.00	24.21	97	80-120	73-127	PASS	
Magnesium	25.00	23.89	96	80-120	73-127	PASS	
Manganese	25.00	24.60	98	80-120	73-127	PASS	
Potassium	250.0	204.8	82	80-120	73-127	PASS	
Sodium	250.0	225.7	90	80-120	73-127	PASS	
Strontium	25.00	22.98	92	80-120	73-127	PASS	
Tin	25.00	24.10	96	80-120	73-127	PASS	
Titanium	25.00	23.08	92	80-120	73-127	PASS	
Boron	25.00	21.29	85	80-120	73-127	PASS	
Silicon	25.00	23.17	93	80-120	73-127	PASS	

LCS QUALITY CONTROL SHEET
FOR METHOD: EPA 6010B

LCS SAMPLE ID: 097-01-002-24425
LCS/MB BATCH ID: 170308L01
INSTRUMENT: ICP 7300

EXTRACTION: EPA 3050B
D/T EXTRACTED: 2017-03-08 00:00

ANALYZED BY: 935
D/T ANALYZED: 2017-03-08 14:18
REVIEWED BY:
D/T REVIEWED:

DATA FILE: W:\ICP-DATA\170308C\1\170308-I01_175.icp

<u>COMPOUND</u>	<u>CONC</u>	<u>CONC REC</u>	<u>%REC</u>	<u>%REC CL</u>	<u>ME CL</u>	<u>STATUS</u>	<u>QUALIFIERS</u>
Total number of LCS compounds: 29							
Total number of ME compounds: 0							
Total number of ME compounds allowed: 1							
LCS ME CL validation result: Pass							

Compounds listed in bold are required to be reported.

MATRIX SPIKE / MATRIX SPIKE DUPLICATE QUALITY CONTROL SHEET
FOR METHOD: EPA 6010B

SPIKED SAMPLE ID: 17-03-0335-3
MS/MSD BATCH: 170308S01
INSTRUMENTS:
SAMPLE: ICP 7300
MS: ICP 7300
MSD: ICP 7300

EXTRACTION: EPA 3050B
D/T EXTRACTED:
SAMPLE: 2017-03-08 00:00
MS: 2017-03-08 00:00
MSD: 2017-03-08 00:00

ANALYZED BY: 935
D/T ANALYZED:
SAMPLE: 2017-03-08 14:19
MS: 2017-03-08 14:20
MSD: 2017-03-08 14:21
REVIEWED BY:
D/T REVIEWED:

COMMENT:

COMPOUND NAME	SAMPLE	INITIAL	FINAL	MS CONC	% MS.REC	MSD CONC	% MSD.REC	% REC CL	RPD	RPD CL	STATUS	QUALIFIERS
Antimony	ND	0.5000	25.00	13.82	55	11.26	45	50-115	20	0-20	FAIL	3G
Arsenic	ND	0.5000	25.00	27.61	110	27.06	108	75-125	2	0-20	PASS	
Barium	51.72	0.5000	25.00	85.01	133	90.08	153	75-125	6	0-20	FAIL	3F
Beryllium	ND	0.5000	25.00	27.97	112	26.73	107	75-125	5	0-20	PASS	
Cadmium	ND	0.5000	25.00	27.52	110	26.05	104	75-125	5	0-20	PASS	
Chromium	3.748	0.5000	25.00	31.35	110	30.09	105	75-125	4	0-20	PASS	
Cobalt	3.869	0.5000	25.00	31.23	109	30.13	105	75-125	4	0-20	PASS	
Copper	6.462	0.5000	25.00	34.33	111	34.55	112	75-125	1	0-20	PASS	
Lead	1.497	0.5000	25.00	29.61	112	28.13	107	75-125	5	0-20	PASS	
Molybdenum	ND	0.5000	25.00	26.76	107	25.49	102	75-125	5	0-20	PASS	
Nickel	3.161	0.5000	25.00	30.15	108	28.97	103	75-125	4	0-20	PASS	
Phosphorus	458.0	0.5000	25.00	532.4	4x	588.1	4x	75-125	4x	0-20	PASS	Q
Selenium	ND	0.5000	25.00	27.48	110	26.23	105	75-125	5	0-20	PASS	
Silver	ND	0.2500	12.50	13.37	107	12.41	99	75-125	7	0-20	PASS	
Thallium	ND	0.5000	25.00	26.54	106	24.78	99	75-125	7	0-20	PASS	
Vanadium	12.40	0.5000	25.00	40.93	114	38.73	105	75-125	6	0-20	PASS	
Zinc	23.37	0.5000	25.00	52.53	117	50.65	109	75-125	4	0-20	PASS	
Aluminum	4743	0.5000	25.00	5258	4x	5794	4x	75-125	4x	0-20	PASS	Q
Calcium	2440	0.5000	25.00	2642	4x	3094	4x	75-125	4x	0-20	PASS	Q
Iron	6773	0.5000	25.00	7723	4x	7381	4x	75-125	4x	0-20	PASS	Q
Magnesium	2368	0.5000	25.00	2625	4x	2562	4x	75-125	4x	0-20	PASS	Q
Manganese	146.1	0.5000	25.00	182.8	4x	169.5	4x	75-125	4x	0-20	PASS	Q
Potassium	1397	5.000	250.0	1779	4x	1774	4x	75-125	4x	0-20	PASS	Q
Sodium	168.9	5.000	250.0	445.8	111	545.5	151	75-125	20	0-20	FAIL	3F
Strontium	22.56	0.5000	25.00	51.46	116	68.08	182	75-125	28	0-20	FAIL	34F
Tin	ND	0.5000	25.00	23.91	96	23.14	93	75-125	3	0-20	PASS	
Titanium	448.3	0.5000	25.00	548.4	4x	526.5	4x	75-125	4x	0-20	PASS	Q
Boron	ND	0.5000	25.00	26.29	105	24.42	98	75-125	7	0-20	PASS	

MATRIX SPIKE / MATRIX SPIKE DUPLICATE QUALITY CONTROL SHEET
FOR METHOD: EPA 6010B

SPIKED SAMPLE ID: 17-03-0335-3
MS/MSD BATCH: 170308S01
INSTRUMENTS:
SAMPLE: ICP 7300
MS: ICP 7300
MSD: ICP 7300

EXTRACTION: EPA 3050B
D/T EXTRACTED:
SAMPLE: 2017-03-08 00:00
MS: 2017-03-08 00:00
MSD: 2017-03-08 00:00

ANALYZED BY: 935
D/T ANALYZED:
SAMPLE: 2017-03-08 14:19
MS: 2017-03-08 14:20
MSD: 2017-03-08 14:21
REVIEWED BY:
D/T REVIEWED:

COMMENT:

COMPOUND NAME	SAMPLE	INITIAL	FINAL	MS CONC	% MS REC	MSD CONC	% MSD REC	% REC CL	RPD	RPD CL	STATUS	QUALIFIERS
Silicon	343.0	0.5000	25.00	522.2	4x	503.0	4x	75-125	4x	0-20	PASS	Q

Data Files:

TYPE	DATA FILE	DATA FILE PATH
MS	17-03-0335-3 ms.icp	W:\ICP-DATA\170308C1\
MSD	17-03-0335-3 msd.icp	W:\ICP-DATA\170308C1\

Sequence No.: 1

Sample ID: 170308-b-01

Analyst: 935 icp 7300

Initial Sample Wt: 2.07 g

Dilution:

Wash Time:

Autosampler Location: 218

Date Collected: 3/8/2017 2:17:52 PM

Data Type: Original

Initial Sample Vol:

Sample Prep Vol: 100 mL

Mean Data: 170308-b-01

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Tb 384	69853.5	98.93 %	1.058			1.07%
Tb 350	110481.1	100.3 %	1.24			1.23%
Ag 328.068*†	-29.3	-0.0002 mg/L	0.00038	-0.0082 mg/kg	0.01846	225.66%
Al 308.215*†	-144.2	-0.0091 mg/L	0.00106	-0.4408 mg/kg	0.05108	11.59%
As 188.979†	-3.4	-0.0019 mg/L	0.00481	-0.0898 mg/kg	0.23247	258.96%
As 193.696*†	5.8	0.0045 mg/L	0.00031	0.2183 mg/kg	0.01501	6.88%
B 249.677*†	445.2	0.0097 mg/L	0.00192	0.4684 mg/kg	0.09287	19.82%
Ba 233.527*†	-37.4	-0.0003 mg/L	0.00023	-0.0137 mg/kg	0.01121	81.91%
Be 313.042*†	-136.9	-0.0000 mg/L	0.00002	-0.0020 mg/kg	0.00093	45.52%
Ce 317.933*†	12.6	0.0073 mg/L	0.00250	0.3507 mg/kg	0.12092	34.48%
Cd 226.502*†	-2.2	-0.0000 mg/L	0.00016	-0.0015 mg/kg	0.00779	506.54%
Cd 228.802†	-0.1	-0.0000 mg/L	0.00022	-0.0002 mg/kg	0.01062	>999.9%
Co 228.616*†	8.6	0.0003 mg/L	0.00027	0.0165 mg/kg	0.01284	77.67%
Cr 267.716*†	46.2	0.0005 mg/L	0.00050	0.0218 mg/kg	0.02430	111.54%
Cu 324.752*†	-122.4	-0.0005 mg/L	0.00048	-0.0259 mg/kg	0.02297	88.51%
Fe 273.955*†	56.9	0.0027 mg/L	0.00023	0.1302 mg/kg	0.01093	8.40%
K 766.490*†	-212.1	-0.0769 mg/L	0.11601	-3.717 mg/kg	5.6043	150.79%
Mg 279.077*†	-74.1	-0.0044 mg/L	0.01784	-0.2116 mg/kg	0.86201	407.45%
Mn 257.610*†	-1852.2	-0.0033 mg/L	0.00005	-0.1618 mg/kg	0.00258	1.59%
Mo 202.031*†	-1.6	-0.0002 mg/L	0.00083	-0.0095 mg/kg	0.04005	422.43%
Na 589.592*†	483.9	0.1196 mg/L	0.02213	5.776 mg/kg	1.0691	18.51%
Ni 231.604*†	3.1	0.0001 mg/L	0.00052	0.0068 mg/kg	0.02496	367.39%
P 213.617*†	-41.3	-0.0240 mg/L	0.00528	-1.161 mg/kg	0.2553	21.99%
P 214.914†	-1.2	-0.0011 mg/L	0.01034	-0.0539 mg/kg	0.49960	926.77%
Pb 220.353*†	-26.1	-0.0037 mg/L	0.00088	-0.1766 mg/kg	0.04253	24.08%
Sb 206.836†	-0.6	-0.0004 mg/L	0.00600	-0.0181 mg/kg	0.28972	>999.9%
Sb 217.582*†	-1.5	-0.0009 mg/L	0.00386	-0.0434 mg/kg	0.18652	429.53%
Se 196.026*†	-4.9	-0.0025 mg/L	0.00501	-0.1226 mg/kg	0.24188	197.23%
Si 251.611*†	720.5	0.0206 mg/L	0.01119	0.9972 mg/kg	0.54075	54.22%
Sn 189.927*†	0.3	0.0000 mg/L	0.00085	0.0024 mg/kg	0.04120	>999.9%
Sn 242.170†	-15.7	-0.0099 mg/L	0.01674	-0.4802 mg/kg	0.80881	168.43%
Sr 407.771*†	-6.9	-0.0000 mg/L	0.00004	-0.0011 mg/kg	0.00215	190.37%
Ti 334.940†	-181.4	-0.0003 mg/L	0.00004	-0.0121 mg/kg	0.00192	15.93%
Ti 336.121*†	236.9	0.0004 mg/L	0.00025	0.0216 mg/kg	0.01199	55.47%
Tl 190.801*†	-12.4	-0.0076 mg/L	0.00126	-0.3685 mg/kg	0.06072	16.48%
V 292.402*†	-249.6	-0.0020 mg/L	0.00051	-0.0970 mg/kg	0.02459	25.34%
Zn 206.200*†	-33.2	-0.0009 mg/L	0.00022	-0.0437 mg/kg	0.01073	24.57%

Sequence No.: 2
Sample ID: 170308-1-01
Analyst: 935 icp 7300
Initial Sample Wt: 2.07 g
Dilution:
Wash Time: 15

Autosampler Location: 219
Date Collected: 3/8/2017 2:18:59 PM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol: 100 mL
Auto Dilution Factor: 1

Mean Data: 170308-1-01

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Tb 384	66929.3	94.79 %	1.072			1.13%
Tb 350	108667.1	98.60 %	0.298			0.30%
Ag 328.068*†	40007.9	0.2311 mg/L	0.00090	11.16 mg/kg	0.044	0.39%
Al 308.215*†	7894.8	0.4994 mg/L	0.00186	24.13 mg/kg	0.090	0.37%
As 188.979†	876.8	0.4797 mg/L	0.00344	23.17 mg/kg	0.166	0.72%
As 193.696*†	616.7	0.4827 mg/L	0.00987	23.32 mg/kg	0.477	2.05%
B 249.677*†	20228.4	0.4406 mg/L	0.00065	21.29 mg/kg	0.031	0.15%
Ba 233.527*†	67692.2	0.5127 mg/L	0.00027	24.77 mg/kg	0.013	0.05%
Be 313.042*†	1525665.1	0.4724 mg/L	0.00874	22.82 mg/kg	0.422	1.85%
Ca 317.953*†	850.2	0.4890 mg/L	0.03210	23.62 mg/kg	1.551	6.56%
Cd 226.502*†	33946.6	0.4918 mg/L	0.00379	23.76 mg/kg	0.183	0.77%
Cd 228.802†	16978.1	0.4874 mg/L	0.00093	23.55 mg/kg	0.045	0.19%
Co 228.616*†	12843.2	0.5121 mg/L	0.00258	24.74 mg/kg	0.125	0.50%
Cr 267.736*†	51015.8	0.4982 mg/L	0.00214	24.07 mg/kg	0.104	0.43%
Cu 324.752*†	113387.5	0.4976 mg/L	0.00021	24.04 mg/kg	0.010	0.04%
Fe 273.955*†	10589.9	0.5011 mg/L	0.00576	24.21 mg/kg	0.278	1.15%
K 766.490*†	11685.0	4.239 mg/L	0.0583	204.8 mg/kg	2.82	1.38%
Mg 279.077*†	8372.1	0.4946 mg/L	0.00506	23.89 mg/kg	0.244	1.02%
Mn 257.610*†	281596.5	0.5092 mg/L	0.00240	24.60 mg/kg	0.116	0.47%
Mo 202.031*†	4098.2	0.4886 mg/L	0.00225	23.60 mg/kg	0.109	0.46%
Na 589.592*†	18908.2	4.672 mg/L	0.1383	225.7 mg/kg	6.68	2.96%
Ni 231.604*†	10744.2	0.4943 mg/L	0.00319	23.88 mg/kg	0.154	0.65%
P 213.617*†	825.9	0.4810 mg/L	0.01585	23.24 mg/kg	0.766	3.29%
P 214.914†	509.3	0.4611 mg/L	0.01263	22.27 mg/kg	0.610	2.74%
Pb 220.353*†	3640.2	0.5100 mg/L	0.00084	24.64 mg/kg	0.041	0.16%
Sb 206.836†	806.0	0.4798 mg/L	0.00124	23.18 mg/kg	0.060	0.26%
Sb 217.532*†	790.5	0.4694 mg/L	0.00536	22.68 mg/kg	0.259	1.14%
Se 196.026*†	914.6	0.4782 mg/L	0.00275	23.10 mg/kg	0.133	0.58%
Si 251.611*†	16742.1	0.4797 mg/L	0.00263	23.17 mg/kg	0.127	0.55%
Sn 189.927*†	2677.6	0.4989 mg/L	0.00031	24.10 mg/kg	0.015	0.06%
Sn 242.170†	746.5	0.4736 mg/L	0.00723	22.88 mg/kg	0.349	1.53%
Sr 407.771*†	140148.3	0.4757 mg/L	0.01328	22.98 mg/kg	0.641	2.79%
Ti 334.940†	350456.5	0.4832 mg/L	0.01445	23.35 mg/kg	0.698	2.99%
Ti 336.121*†	252919.7	0.4779 mg/L	0.00025	23.08 mg/kg	0.012	0.05%
Tl 190.801*†	811.6	0.4974 mg/L	0.00079	24.03 mg/kg	0.038	0.16%
V 292.402*†	58633.6	0.4718 mg/L	0.00346	22.79 mg/kg	0.167	0.73%
Zn 206.200*†	18215.7	0.4955 mg/L	0.00034	23.94 mg/kg	0.017	0.07%

Sequence No.: 4

Sample ID: 17-03-0335-3 ms

Analyst: 935 icp 7300

Initial Sample Wt: 2.01 g

Dilution:

Wash Time: 15

Autosampler Location: 221

Date Collected: 3/8/2017 2:20:41 PM

Data Type: Original

Initial Sample Vol:

Sample Prep Vol: 100 mL

Auto Dilution Factor: 1

Mean Data: 17-03-0335-3 ms

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Tb 384	54060.5	76.56 %	1.718			2.24%
Tb 350	99360.9	90.16 %	3.644			4.04%
Ag 328.068*†	46520.5	0.2687 mg/L	0.00125	13.37 mg/kg	0.062	0.47%
Al 308.215*†	1670508.6	105.7 mg/L	0.22	5258 mg/kg	11.00	0.21%
As 188.979†	1054.3	0.5768 mg/L	0.00746	28.70 mg/kg	0.371	1.29%
As 193.696*†	709.0	0.5549 mg/L	0.00750	27.61 mg/kg	0.373	1.35%
B 249.677*†	24259.5	0.5284 mg/L	0.00959	26.29 mg/kg	0.477	1.81%
Ba 233.527*†	225626.3	1.709 mg/L	0.0123	85.01 mg/kg	0.612	0.72%
Be 313.042*†	1815966.1	0.5623 mg/L	0.00022	27.97 mg/kg	0.011	0.04%
Ca 317.933*†	92337.5	53.11 mg/L	0.732	2642 mg/kg	36.43	1.38%
Cd 226.502*†	38188.5	0.5532 mg/L	0.00644	27.52 mg/kg	0.320	1.16%
Cd 228.802†	19039.0	0.5466 mg/L	0.02046	27.19 mg/kg	1.018	3.74%
Co 228.616*†	15745.9	0.6278 mg/L	0.02261	31.23 mg/kg	1.125	3.60%
Cr 267.716*†	64533.1	0.6302 mg/L	0.00058	31.35 mg/kg	0.029	0.09%
Cu 324.752*†	157229.5	0.6900 mg/L	0.00135	34.33 mg/kg	0.067	0.20%
Fe 273.955*†	3280972.8	155.2 mg/L	9.15	7723 mg/kg	455.06	5.89%
K 766.490*†	98580.0	35.76 mg/L	0.377	1779 mg/kg	18.77	1.05%
Mg 279.077*†	893109.5	52.76 mg/L	0.635	2625 mg/kg	31.57	1.20%
Mn 257.610*†	2032408.8	3.675 mg/L	0.0184	182.8 mg/kg	0.92	0.50%
Mo 202.031*†	4510.9	0.5378 mg/L	0.01838	26.76 mg/kg	0.914	3.42%
Na 589.592*†	36264.9	8.961 mg/L	0.0218	445.8 mg/kg	1.09	0.24%
Ni 231.604*†	13170.4	0.6059 mg/L	0.02424	30.15 mg/kg	1.206	4.00%
P 213.617*†	18373.1	10.70 mg/L	0.404	532.4 mg/kg	20.09	3.77%
P 214.914†	12383.1	11.21 mg/L	0.381	557.7 mg/kg	18.94	3.40%
Pb 220.353*†	4247.7	0.5951 mg/L	0.02470	29.61 mg/kg	1.229	4.15%
Sb 206.836†	456.7	0.2719 mg/L	0.01537	13.53 mg/kg	0.765	5.65%
Sb 217.582*†	467.7	0.2777 mg/L	0.01335	13.82 mg/kg	0.664	4.81%
Se 196.026*†	1056.4	0.5523 mg/L	0.01531	27.48 mg/kg	0.762	2.77%
Si 251.611*†	366395.4	10.50 mg/L	0.075	522.2 mg/kg	3.74	0.72%
Sn 189.927*†	2579.7	0.4806 mg/L	0.01412	23.91 mg/kg	0.703	2.94%
Sn 242.170†	1536.5	0.9748 mg/L	0.02813	48.50 mg/kg	1.399	2.89%
Sr 407.771*†	304771.6	1.034 mg/L	0.0042	51.46 mg/kg	0.211	0.41%
Ti 334.940†	8183859.8	11.28 mg/L	0.632	561.4 mg/kg	31.46	5.60%
Ti 336.121*†	5833741.1	11.02 mg/L	0.620	548.4 mg/kg	30.84	5.62%
Tl 190.801*†	870.6	0.5335 mg/L	0.01356	26.54 mg/kg	0.675	2.54%
V 292.402*†	102549.0	0.8227 mg/L	0.00184	40.93 mg/kg	0.092	0.22%
Zn 206.200*†	38811.9	1.056 mg/L	0.0101	52.53 mg/kg	0.503	0.96%

Sequence No.: 5

Sample ID: 17-03-0335-3 msd

Analyst: 935 icp 7300

Initial Sample Wt: 2.02 g

Dilution:

Wash Time: 15

Autosampler Location: 222

Date Collected: 3/8/2017 2:21:32 PM

Data Type: Original

Initial Sample Vol:

Sample Prep Vol: 100 mL

Auto Dilution Factor: 1

Mean Data: 17-03-0335-3 msd

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Tb 384	53575.5	75.88 %	0.157			0.21%
Tb 350	98527.5	89.40 %	0.717			0.80%
Ag 328.068*†	43394.3	0.2506 mg/L	0.00119	12.41 mg/kg	0.059	0.47%
Al 308.215*†	1849973.8	117.0 mg/L	0.29	5794 mg/kg	14.29	0.25%
As 188.979†	1001.7	0.5480 mg/L	0.00087	27.13 mg/kg	0.043	0.16%
As 193.696*†	698.3	0.5466 mg/L	0.00085	27.06 mg/kg	0.042	0.16%
B 249.677*†	22645.1	0.4933 mg/L	0.00413	24.42 mg/kg	0.205	0.84%
Ba 233.527*†	240270.8	1.820 mg/L	0.0068	90.08 mg/kg	0.339	0.38%
Be 313.042*†	1743515.2	0.5398 mg/L	0.00030	26.73 mg/kg	0.015	0.06%
Ca 317.933*†	108656.2	62.49 mg/L	4.593	3094 mg/kg	227.36	7.35%
Cd 226.502*†	36331.3	0.5263 mg/L	0.00086	26.05 mg/kg	0.042	0.16%
Cd 228.802†	18417.7	0.5288 mg/L	0.00836	26.18 mg/kg	0.414	1.58%
Co 228.616*†	15263.4	0.6086 mg/L	0.00923	30.13 mg/kg	0.457	1.52%
Cr 267.716*†	62237.6	0.6078 mg/L	0.00082	30.09 mg/kg	0.041	0.14%
Cu 324.752*†	159028.2	0.6979 mg/L	0.00005	34.55 mg/kg	0.003	0.01%
Fe 273.955*†	3151125.3	149.1 mg/L	2.60	7381 mg/kg	128.55	1.74%
K 766.490*†	98767.8	35.83 mg/L	2.099	1774 mg/kg	103.89	5.86%
Mg 279.077*†	876076.9	51.76 mg/L	0.008	2562 mg/kg	0.40	0.02%
Mn 257.610*†	1893100.8	3.423 mg/L	0.0032	169.5 mg/kg	0.16	0.09%
Mo 202.031*†	4318.1	0.5148 mg/L	0.00688	25.49 mg/kg	0.341	1.34%
Na 589.532*†	44590.0	11.02 mg/L	0.613	545.5 mg/kg	30.36	5.57%
Ni 231.634*†	12719.9	0.5852 mg/L	0.00817	28.97 mg/kg	0.404	1.40%
P 213.617*†	20399.6	11.88 mg/L	0.165	588.1 mg/kg	8.18	1.39%
P 214.914†	13750.5	12.45 mg/L	0.200	616.2 mg/kg	9.88	1.60%
Pb 220.353*†	4056.4	0.5683 mg/L	0.01173	28.13 mg/kg	0.581	2.06%
Sb 206.836†	387.3	0.2306 mg/L	0.00422	11.41 mg/kg	0.209	1.83%
Sb 217.582*†	383.1	0.2275 mg/L	0.00404	11.26 mg/kg	0.200	1.78%
Se 196.026*†	1013.4	0.5298 mg/L	0.00142	26.23 mg/kg	0.071	0.27%
Si 251.611*†	354648.4	10.16 mg/L	0.005	503.0 mg/kg	0.25	0.05%
Sn 189.927*†	2508.7	0.4674 mg/L	0.00520	23.14 mg/kg	0.257	1.11%
Sn 242.170†	1450.5	0.9202 mg/L	0.02846	45.56 mg/kg	1.409	3.09%
Sr 407.771*†	405192.9	1.375 mg/L	0.0749	68.08 mg/kg	3.709	5.45%
Ti 334.940†	7893278.5	10.88 mg/L	0.182	538.8 mg/kg	9.03	1.68%
Ti 336.121*†	5629176.1	10.64 mg/L	0.172	526.5 mg/kg	8.50	1.62%
Tl 190.801*†	816.8	0.5005 mg/L	0.00186	24.78 mg/kg	0.092	0.37%
V 292.402*†	97526.9	0.7824 mg/L	0.00131	38.73 mg/kg	0.065	0.17%
Zn 206.200*†	37609.5	1.023 mg/L	0.0150	50.65 mg/kg	0.742	1.46%

EPA 6010B ICP Metals (Solid)

Run Logs

170308C1

INT STD M120716A M006-032-05 0.050 ml
R.B. R12091602 PDS/PDSD 10 ml
M006-032-06 0.050 ml

Carrier/wash sol R12091604/R12091603

No.	File Name	Date	Time	Analyst	A/S
1	Cal blankR12091601_935	3/8/2017	10:27:03 AM	935 icp 7300	1
2	STD3-M111116A_935_ICP7300	3/8/2017	10:28:10 AM	935 icp 7300	2
3	ICV-M072816C	3/8/2017	10:29:06 AM	935 icp 7300	10
4	ICB-R12091601	3/8/2017	10:31:37 AM	935 icp 7300	1
5	ICS_A - M110116B	3/8/2017	10:32:40 AM	935 icp 7300	8
6	ICS_AB - M110116A	3/8/2017	10:33:31 AM	935 icp 7300	9
7	CCV= STD3x0.5	3/8/2017	10:34:21 AM	935 icp 7300	3
8	CCB-R12091601	3/8/2017	10:35:13 AM	935 icp 7300	1
9	LLCV-M082616A	3/8/2017	10:36:05 AM	935 icp 7300	459
10	LLCV--M082616A	3/8/2017	10:37:11 AM	935 icp 7300	460
11	170307-b-03	3/8/2017	10:38:10 AM	935 icp 7300	104
12	170307-l-03	3/8/2017	10:39:11 AM	935 icp 7300	105
13	17-03-0457x5-1	3/8/2017	10:40:02 AM	935 icp 7300	106
14	17-03-0457-1	3/8/2017	10:40:51 AM	935 icp 7300	107
15	17-03-0457-1 ms	3/8/2017	10:41:42 AM	935 icp 7300	108
16	17-03-0457-1 msd	3/8/2017	10:42:33 AM	935 icp 7300	109
17	17-03-0457-1 pds	3/8/2017	10:43:25 AM	935 icp 7300	110
18	17-03-0457-2	3/8/2017	10:44:16 AM	935 icp 7300	111
19	CCV= STD3x0.5	3/8/2017	10:45:07 AM	935 icp 7300	3
20	CCB-R12091601	3/8/2017	10:46:00 AM	935 icp 7300	1
21	17-03-0457-3	3/8/2017	10:47:01 AM	935 icp 7300	112
22	17-03-0457-4	3/8/2017	10:47:55 AM	935 icp 7300	113
23	17-03-0457-5	3/8/2017	10:48:46 AM	935 icp 7300	114
24	17-03-0458x5-1	3/8/2017	10:49:37 AM	935 icp 7300	115

B, Mn out

No.	File Name	Date	Time	Analyst Name	A/S Location
153	170303-ba-7	3/8/2017	1:57:31 PM	935 icp 7300	201
154	170303-la-1	3/8/2017	1:58:36 PM	935 icp 7300	202
155	17-02-1890-5 ms	3/8/2017	1:59:42 PM	935 icp 7300	203
156	17-02-1890-5 ms	3/8/2017	2:00:36 PM	935 icp 7300	204
157	170308-ba-3	3/8/2017	2:01:30 PM	935 icp 7300	205
158	170308-la-3	3/8/2017	2:02:35 PM	935 icp 7300	206
159	17-02-2463-tc-1	3/8/2017	2:03:31 PM	935 icp 7300	207
160	17-02-2463-tc-1 ms	3/8/2017	2:04:36 PM	935 icp 7300	208
161	17-02-2463-tc-1 msd	3/8/2017	2:05:32 PM	935 icp 7300	209
162	17-03-0521-tc-1	3/8/2017	2:06:28 PM	935 icp 7300	210
163	CCV= STD3x0.5	3/8/2017	2:07:20 PM	935 icp 7300	3
164	CCB-R12091601	3/8/2017	2:08:14 PM	935 icp 7300	1
165	17-03-0521-tc-2	3/8/2017	2:09:15 PM	935 icp 7300	211
166	17-02-2444-tc-1	3/8/2017	2:10:11 PM	935 icp 7300	212
167	17-03-0016-tc-3	3/8/2017	2:11:06 PM	935 icp 7300	213
168	17-03-0192-tc-1	3/8/2017	2:12:00 PM	935 icp 7300	214
169	17-03-0192-tc-3	3/8/2017	2:12:54 PM	935 icp 7300	215
170	17-03-0192-tc-6	3/8/2017	2:13:58 PM	935 icp 7300	216
171	17-03-0192-tc-7	3/8/2017	2:15:03 PM	935 icp 7300	217
172	CCV= STD3x0.5	3/8/2017	2:16:07 PM	935 icp 7300	3
173	CCB-R12091601	3/8/2017	2:17:00 PM	935 icp 7300	1
174	170308-b-01	3/8/2017	2:17:52 PM	935 icp 7300	218
175	170308-l-01	3/8/2017	2:18:59 PM	935 icp 7300	219
176	17-03-0335-3	3/8/2017	2:19:50 PM	935 icp 7300	220
177	17-03-0335-3 ms	3/8/2017	2:20:41 PM	935 icp 7300	221
178	17-03-0335-3 msd	3/8/2017	2:21:32 PM	935 icp 7300	222
179	17-03-0335-4	3/8/2017	2:22:23 PM	935 icp 7300	223
180	17-03-0335-7	3/8/2017	2:23:14 PM	935 icp 7300	224
181	17-03-0335-8	3/8/2017	2:24:05 PM	935 icp 7300	225
182	17-03-0335-11	3/8/2017	2:24:56 PM	935 icp 7300	226
183	17-03-0335-12	3/8/2017	2:25:47 PM	935 icp 7300	227
184	CCV= STD3x0.5	3/8/2017	2:26:38 PM	935 icp 7300	3

No.	File Name	Date	Time	Analyst Name	A/S	Location
185	CCB-R12091601	3/8/2017	2:27:31 PM	935 icp 7300	1	
186	17-03-0335-15	3/8/2017	2:28:31 PM	935 icp 7300	228	
187	17-03-0335-16	3/8/2017	2:29:25 PM	935 icp 7300	229	
188	17-03-0336-3	3/8/2017	2:30:16 PM	935 icp 7300	230	
189	17-03-0336-4	3/8/2017	2:30:58 PM	935 icp 7300	231	
190	CCV= STD3x0.5 <i>4*</i>	3/8/2017	2:31:49 PM	935 icp 7300	3	<i>4* T22 + minerals (600 h soil)</i>
191	CCB-R12091601	3/8/2017	2:32:42 PM	935 icp 7300	1	
192	CCV= STD3x0.5 <i>4**</i>	3/8/2017	2:52:04 PM	935 icp 7300	3	<i>4** T22 + minerals (600 h water)</i>
193	CCB-R12091601	3/8/2017	2:53:02 PM	935 icp 7300	1	
194	170308-ba-4	3/8/2017	2:59:44 PM	935 icp 7300	232	
195	170308-la-4	3/8/2017	3:00:56 PM	935 icp 7300	233	
196	17-03-0496-st-1	3/8/2017	3:02:03 PM	935 icp 7300	234	
197	17-03-0496-st-1 ms	3/8/2017	3:03:03 PM	935 icp 7300	235	
198	17-03-0496-st-1 msd	3/8/2017	3:03:54 PM	935 icp 7300	236	
199	17-03-0095-st-2	3/8/2017	3:04:45 PM	935 icp 7300	237	
200	17-02-2444-st-1	3/8/2017	3:05:39 PM	935 icp 7300	238	
201	CCV= STD3x0.5	3/8/2017	3:06:33 PM	935 icp 7300	3	
202	CCB-R12091601	3/8/2017	3:07:26 PM	935 icp 7300	1	
203	170308-b-03	3/8/2017	3:08:18 PM	935 icp 7300	239	
204	170308-l-03	3/8/2017	3:09:25 PM	935 icp 7300	240	
205	17-03-0573-1	3/8/2017	3:10:26 PM	935 icp 7300	241	
206	17-03-0573-1 ms	3/8/2017	3:11:17 PM	935 icp 7300	242	
207	17-03-0573-1 msd	3/8/2017	3:12:08 PM	935 icp 7300	243	
208	17-03-0573-2	3/8/2017	3:12:59 PM	935 icp 7300	244	
209	17-03-0573-3	3/8/2017	3:13:50 PM	935 icp 7300	245	
210	17-03-0573-4	3/8/2017	3:14:41 PM	935 icp 7300	246	
211	17-03-0573-5	3/8/2017	3:15:32 PM	935 icp 7300	247	
212	CCV= STD3x0.5 <i>4*</i>	3/8/2017	3:16:23 PM	935 icp 7300	3	
213	CCB-R12091601	3/8/2017	3:17:16 PM	935 icp 7300	1	
214	CCV= STD3x0.5 <i>4**</i>	3/8/2017	4:54:17 PM	935 icp 7300	3	
215	CCB-R12091601	3/8/2017	4:55:15 PM	935 icp 7300	1	
216	17-02-1890-tc-5 ms	3/8/2017	4:58:25 PM	935 icp 7300	402	

Reviewed/Assigned/Logbook Date: 3/9/17
 Analysis: 200.7/2010 Character: 1012
 Logbook Page: 16 Instrument ID: 1027

EPA 6010B ICP Metals (Solid)

Preparation Logs

Metals Sample Preparation Logbook (Solid / Other)

METHOD		MATRIX		EQUIPMENT ID #		REAGENT ID #		STANDARD ID #	
☒ EPA 3050B	☒ Solid	Thermometer	HP16 (CF -2.0 °C)	HNO ₃	R01311701	20 mL	Spike 1	MO22017A	
☐ EPA 200.7	☐ Other (Specify)	Block Digester	8	HCl	R12301602	15 mL	Spike 2	MO20617C	
☐ EPA 200.8		Pipetter / Dispenser	P-072 / P-027 / P-028	H ₂ O ₂	MO26-040-13	3.0 mL	Spike 3		
BATCH NUMBER		SUPPLY LOT #		BALANCE ID #		QUALITY SYSTEM MATRIX ID #		SAMPLE HANDLING	
MS/MSD 170308-501		Tube / Container 170104		65		Teflon Chip MO26-035-15		1 = Composite 2 = Subsample	
(Specify)		Filter				(Specify)		3 = Homogenize 4 = None	
DIGESTION									
START				END					
DATE	TIME	TEMP W/O CF (°C)	PREP TECH ID #	TIME	TEMP W/O CF (°C)	PREP TECH ID #	SAMPLE HANDLING	ECI ID #	ANALYTE(S)
3/8/17	12:00	95	1080	13:30	95	1080	4	MS 17-03-0335-3A	Metals
								MSD	
								LCS 17-0308-LOI	
								LCSD / MB -B01	
								17-03-0335-3A	
								-4A	
								-7A-18 ³⁰	
								-8A	
								-11A	
								-12A	
								-15A	
								-16A	
								17-03-0336-3A	
								-4A	

COMMENTS:

EPA 7471A Mercury (Solid)

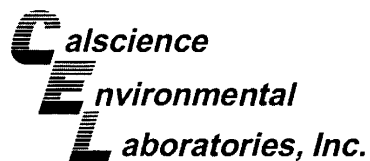
RAW DATA

EPA 7471A Mercury (Solid)

Initial Calibration
ICV/ICB
CCV/CCB

Sample Data

Quality Control
Method Blank
LCS/LCSD
MS/MSD
PDS/PDSD



**EPA Method 7471A
Initial Calibration Verification**



Work Order No.: 17-03-0335

Instrument ID: HG 8 (H)

Concentration Unit: $\mu\text{g/L}$

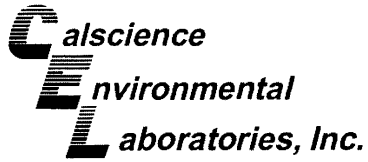
Test Method: EPA 7471A

Analyte	Initial Calibration Verification			
	True	ICV-1		Control Limit
		Observed	%D	
Mercury	5.000000	4.807788	4	0 - 10

03/09/2017 12:28

ICV-1 File: ICV M030617B 03/08/2017 12:12:46 PM





EPA Method 7471A **Continuing Calibration Verification**



Work Order No.: 17-03-0335

Instrument ID: HG 8 (H)

Concentration Unit: µg/L

Test Method: EPA 7471A

Analyte	Continuing Calibration Verification									
	True	CCV-1		CCV-2		CCV-3		CCV-4		Control Limit
		Observed	%D	Observed	%D	Observed	%D	Observed	%D	
Mercury	2.000000	1.993902	0	1.974421	1	2.004488	0	2.004381	0	0 - 20

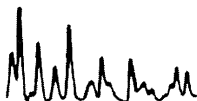
03/09/2017 12:29

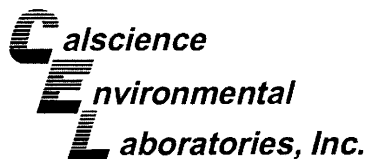
CCV-1 File: CCV 0.2x10ppb 03/08/2017 03:08:38 PM

CCV-2 File: CCV 0.2x10ppb 03/08/2017 03:36:55 PM

CCV-3 File: CCV 0.2x10ppb 03/08/2017 04:03:55 PM

CCV-4 File: CCV 0.2x10ppb 03/08/2017 04:31:07 PM





EPA Method 7471A
Initial and Continuing Calibration Blanks



Work Order No.: 17-03-0335

Instrument ID: HG 8 (H)

Concentration Unit: µg/L

Test Method: EPA 7471A

Analyte	Initial and Continuing Calibration Blanks					
	ICB-1	CCB-1	CCB-2	CCB-3	CCB-4	RL (No PF)
Mercury	0.011460	0.016483	-0.004304	-0.005495	-0.000072	0.500000

03/09/2017 12:30

ICB-1 File: ICB 03/08/2017 12:15:00 PM

CCB-1 File: CCB 03/08/2017 03:10:54 PM

CCB-2 File: CCB 03/08/2017 03:39:10 PM

CCB-3 File: CCB 03/08/2017 04:06:11 PM

CCB-4 File: CCB 03/08/2017 04:33:23 PM

Note: Preparation factor (PF) = 167 L/kg

**RAW DATA SHEET
FOR METHOD: EPA 7471A**

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WORK ORDER: 17-03-0335
INSTRUMENT: Mercury 08
EXTRACTION: EPA 7471A Total
D/T EXTRACTED: 2017-03-08 00:00

ANALYZED BY: 868
D/T ANALYZED: 2017-03-08 15:43
REVIEWED BY: 309
D/T REVIEWED: 2017-03-09 12:20

DATA FILE: W:\MERCURY_DATA\FINAL\170308H1\17-03-0335-3.icp

3 **CLIENT SAMPLE NUMBER:** D-DU1-S-SG-06-15S

LCS/MB BATCH: 170308L03	SAMPLE VOLUME / WEIGHT: DEFAULT: 0.60 g / ACTUAL: 0.62 g
MS/MSD BATCH: 170308S03	FINAL VOLUME / WEIGHT: DEFAULT: 100.00 ml
UNITS: mg/kg	ADJUSTMENT RATIO TO PF: 0.97

COMMENT:

<u>COMPOUND</u>	<u>ON COL CONC</u>	<u>DF</u>	<u>CONC</u>	<u>RL</u>	<u>QUAL</u>
Mercury	0.000147	1.00	ND	0.0806	

**RAW DATA SHEET
FOR METHOD: EPA 7471A**

Page 223 of 471

WORK ORDER: 17-03-0335
INSTRUMENT: Mercury 08
EXTRACTION: EPA 7471A Total
D/T EXTRACTED: 2017-03-08 00:00

ANALYZED BY: 868
D/T ANALYZED: 2017-03-08 15:50
REVIEWED BY: 309
D/T REVIEWED: 2017-03-09 12:20

DATA FILE: W:\MERCURY_DATA\FINAL\170308H1\17-03-0335-4.icp

4 **CLIENT SAMPLE NUMBER:** D-DU1-S-SG-06-25S

<u>LCS/MB BATCH:</u>	170308L03	<u>SAMPLE VOLUME / WEIGHT:</u>	DEFAULT: 0.60 g / ACTUAL: 0.63 g
<u>MS/MSD BATCH:</u>	170308S03	<u>FINAL VOLUME / WEIGHT:</u>	DEFAULT: 100.00 ml
<u>UNITS:</u>	mg/kg	<u>ADJUSTMENT RATIO TO PF:</u>	0.95

COMMENT:

<u>COMPOUND</u>	<u>ON COL CONC</u>	<u>DF</u>	<u>CONC</u>	<u>RL</u>	<u>QUAL</u>
Mercury	0.000176	1.00	ND	0.0794	

**RAW DATA SHEET
FOR METHOD: EPA 7471A**

Page 224 of 471

WORK ORDER: 17-03-0335
INSTRUMENT: Mercury 08
EXTRACTION: EPA 7471A Total
D/T EXTRACTED: 2017-03-08 00:00

ANALYZED BY: 868
D/T ANALYZED: 2017-03-08 15:52
REVIEWED BY: 309
D/T REVIEWED: 2017-03-09 12:20

DATA FILE: W:\MERCURY_DATA\FINAL\170308H1\17-03-0335-7.icp

7 **CLIENT SAMPLE NUMBER:** D-DU1-S-SG-07-15S

<u>LCS/MB BATCH:</u>	170308L03	<u>SAMPLE VOLUME / WEIGHT:</u>	DEFAULT: 0.60 g / ACTUAL: 0.61 g
<u>MS/MSD BATCH:</u>	170308S03	<u>FINAL VOLUME / WEIGHT:</u>	DEFAULT: 100.00 ml
<u>UNITS:</u>	mg/kg	<u>ADJUSTMENT RATIO TO PF:</u>	0.98

COMMENT:

<u>COMPOUND</u>	<u>ON COL CONC</u>	<u>DF</u>	<u>CONC</u>	<u>RL</u>	<u>QUAL</u>
Mercury	0.000180	1.00	ND	0.0820	

**RAW DATA SHEET
FOR METHOD: EPA 7471A**

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WORK ORDER: 17-03-0335
INSTRUMENT: Mercury 08
EXTRACTION: EPA 7471A Total
D/T EXTRACTED: 2017-03-08 00:00

ANALYZED BY: 868
D/T ANALYZED: 2017-03-08 15:54
REVIEWED BY: 309
D/T REVIEWED: 2017-03-09 12:20

DATA FILE: W:\MERCURY_DATA\FINAL\170308H1\17-03-0335-8.icp

8 **CLIENT SAMPLE NUMBER:** D-DU1-S-SG-07-25S

<u>LCS/MB BATCH:</u>	170308L03	<u>SAMPLE VOLUME / WEIGHT:</u>	DEFAULT: 0.60 g / ACTUAL: 0.62 g
<u>MS/MSD BATCH:</u>	170308S03	<u>FINAL VOLUME / WEIGHT:</u>	DEFAULT: 100.00 ml
<u>UNITS:</u>	mg/kg	<u>ADJUSTMENT RATIO TO PF:</u>	0.97

COMMENT:

<u>COMPOUND</u>	<u>ON COL CONC</u>	<u>DF</u>	<u>CONC</u>	<u>RL</u>	<u>QUAL</u>
Mercury	0.000143	1.00	ND	0.0806	

**RAW DATA SHEET
FOR METHOD: EPA 7471A**

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WORK ORDER: 17-03-0335

INSTRUMENT: Mercury 08

EXTRACTION: EPA 7471A Total

D/T EXTRACTED: 2017-03-08 00:00

ANALYZED BY: 868

D/T ANALYZED: 2017-03-08 15:57

REVIEWED BY: 309

D/T REVIEWED: 2017-03-09 12:20

DATA FILE: W:\MERCURY_DATA\FINAL\170308H1\17-03-0335-11.icp

11

CLIENT SAMPLE NUMBER: D-DU1-S-SG-08-15S

LCS/MB BATCH: 170308L03

MS/MSD BATCH: 170308S03

UNITS: mg/kg

SAMPLE VOLUME / WEIGHT:

FINAL VOLUME / WEIGHT:

ADJUSTMENT RATIO TO PF:

DEFAULT: 0.60 g / ACTUAL: 0.61 g

DEFAULT: 100.00 ml

0.98

COMMENT:

COMPOUND

ON COL CONC

DF

CONC

RL

QUAL

Mercury

0.000149

1.00

ND

0.0820

**RAW DATA SHEET
FOR METHOD: EPA 7471A**

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WORK ORDER: 17-03-0335
INSTRUMENT: Mercury 08
EXTRACTION : EPA 7471A Total
D/T EXTRACTED: 2017-03-08 00:00

ANALYZED BY: 868
D/T ANALYZED: 2017-03-08 15:59
REVIEWED BY: 309
D/T REVIEWED: 2017-03-09 12:20

DATA FILE: W:\MERCURY_DATA\FINAL\170308H1\17-03-0335-12.icp

12 **CLIENT SAMPLE NUMBER: D-DU1-S-SG-08-25S**

LCS/MB BATCH: 170308L03	SAMPLE VOLUME / WEIGHT: DEFAULT: 0.60 g / ACTUAL: 0.63 g
MS/MSD BATCH: 170308S03	FINAL VOLUME / WEIGHT: DEFAULT: 100.00 ml
UNITS: mg/kg	ADJUSTMENT RATIO TO PF: 0.95

COMMENT:

<u>COMPOUND</u>	<u>ON COL CONC</u>	<u>DF</u>	<u>CONC</u>	<u>RL</u>	<u>QUAL</u>
Mercury	0.000114	1.00	ND	0.0794	

**RAW DATA SHEET
FOR METHOD: EPA 7471A**

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WORK ORDER: 17-03-0335
INSTRUMENT: Mercury 08
EXTRACTION: EPA 7471A Total
D/T EXTRACTED: 2017-03-08 00:00

ANALYZED BY: 868
D/T ANALYZED: 2017-03-08 16:01
REVIEWED BY: 309
D/T REVIEWED: 2017-03-09 12:20

DATA FILE: W:\MERCURY_DATA\FINAL\170308H1\17-03-0335-15.icp

15 **CLIENT SAMPLE NUMBER: D-DU1-S-SG-09-15S**

LCS/MB BATCH: 170308L03	SAMPLE VOLUME / WEIGHT: DEFAULT: 0.60 g / ACTUAL: 0.62 g
MS/MSD BATCH: 170308S03	FINAL VOLUME / WEIGHT: DEFAULT: 100.00 ml
UNITS: mg/kg	ADJUSTMENT RATIO TO PF: 0.97

COMMENT:

<u>COMPOUND</u>	<u>ON COL CONC</u>	<u>DF</u>	<u>CONC</u>	<u>RL</u>	<u>QUAL</u>
Mercury	0.000167	1.00	ND	0.0806	

**RAW DATA SHEET
FOR METHOD: EPA 7471A**

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WORK ORDER: 17-03-0335
INSTRUMENT: Mercury 08
EXTRACTION: EPA 7471A Total
D/T EXTRACTED: 2017-03-08 00:00

ANALYZED BY: 868
D/T ANALYZED: 2017-03-08 16:08
REVIEWED BY: 309
D/T REVIEWED: 2017-03-09 12:20

DATA FILE: W:\MERCURY_DATA\FINAL\170308H1\17-03-0335-16.icp

16 **CLIENT SAMPLE NUMBER:** D-DU1-S-SG-09-25S

<u>LCS/MB BATCH:</u>	170308L03	<u>SAMPLE VOLUME / WEIGHT:</u>	DEFAULT: 0.60 g / ACTUAL: 0.63 g
<u>MS/MSD BATCH:</u>	170308S03	<u>FINAL VOLUME / WEIGHT:</u>	DEFAULT: 100.00 ml
<u>UNITS:</u>	mg/kg	<u>ADJUSTMENT RATIO TO PF:</u>	0.95

COMMENT:

<u>COMPOUND</u>	<u>ON COL CONC</u>	<u>DF</u>	<u>CONC</u>	<u>RL</u>	<u>QUAL</u>
Mercury	0.0000921	1.00	ND	0.0794	

METHOD BLANK ASSOCIATION SUMMARY

FOR METHOD: EPA 7471A

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MB SAMPLE ID: 099-16-272-2864
MB BATCH ID: 170308L03
INSTRUMENT: Mercury 08
EXTRACTION: EPA 7471A Total
D/T EXTRACTED: 2017-03-08 00:00

ANALYZED BY: 868
D/T ANALYZED: 2017-03-08 15:33
REVIEWED BY: 309
D/T REVIEWED: 2017-03-09 12:19
MATRIX: Soil

DATA FILE: W:\MERCURY_DATA\FINAL\170308H1\170308-B-03.icp

CLIENT WORK ORDER: 17-03-0335

<u>S#</u>	<u>RUN TYPE</u>	<u>CLIENT SAMPLE ID</u>	<u>D/T ANALYZED</u>	<u>DATA FILE</u>
3	D-DU1-S-SG-06-15S		2017-03-08 15:43	W:\MERCURY_DATA\FINAL\170308H1\17-03-0335-3.icp
4	D-DU1-S-SG-06-25S		2017-03-08 15:50	W:\MERCURY_DATA\FINAL\170308H1\17-03-0335-4.icp
7	D-DU1-S-SG-07-15S		2017-03-08 15:52	W:\MERCURY_DATA\FINAL\170308H1\17-03-0335-7.icp
8	D-DU1-S-SG-07-25S		2017-03-08 15:54	W:\MERCURY_DATA\FINAL\170308H1\17-03-0335-8.icp
11	D-DU1-S-SG-08-15S		2017-03-08 15:57	W:\MERCURY_DATA\FINAL\170308H1\17-03-0335-11.icp
12	D-DU1-S-SG-08-25S		2017-03-08 15:59	W:\MERCURY_DATA\FINAL\170308H1\17-03-0335-12.icp
15	D-DU1-S-SG-09-15S		2017-03-08 16:01	W:\MERCURY_DATA\FINAL\170308H1\17-03-0335-15.icp
16	D-DU1-S-SG-09-25S		2017-03-08 16:08	W:\MERCURY_DATA\FINAL\170308H1\17-03-0335-16.icp

**RAW DATA SHEET
FOR METHOD: EPA 7471A**

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WORK ORDER: 099-16-272
INSTRUMENT: Mercury 08
EXTRACTION: EPA 7471A Total
D/T EXTRACTED: 2017-03-08 00:00

ANALYZED BY: 868
D/T ANALYZED: 2017-03-08 15:33
REVIEWED BY: 309
D/T REVIEWED: 2017-03-09 12:19

DATA FILE: W:\MERCURY_DATA\FINAL\170308H1\170308-B-03.icp

MB **CLIENT SAMPLE NUMBER:** Method Blank

LCS/MB BATCH:	170308L03	SAMPLE VOLUME / WEIGHT:	DEFAULT: 0.60 g / ACTUAL: 0.60 g
MS/MSD BATCH:		FINAL VOLUME / WEIGHT:	DEFAULT: 100.00 ml
UNITS:	mg/kg	ADJUSTMENT RATIO TO PF:	1.00

COMMENT:

COMPOUND	ON COL CONC	DF	CONC	RL	QUAL
Mercury	-0.0000110	1.00	ND	0.0833	

LCS QUALITY CONTROL SHEET FOR METHOD: EPA 7471A

LCS SAMPLE ID: 099-16-272- 2864
LCS/MB BATCH ID: 170308L03
INSTRUMENT: Mercury 08

EXTRACTION: EPA 7471A Total
D/T EXTRACTED: 2017-03-08 00:00

ANALYZED BY: 868
D/T ANALYZED: 2017-03-08 15:41
REVIEWED BY: 309
D/T REVIEWED: 2017-03-09 12:19

DATA FILE: W:\MERCURY_DATA\FINAL\170308H1\170308-L-03.icp

<u>COMPOUND NAME</u>	<u>CONC ADDED</u>	<u>CONC REC</u>	<u>%RECOVERY</u>	<u>%REC CONTROL LIMIT</u>	<u>STATUS</u>	<u>QUALIFIERS</u>
Mercury	0.8350	0.7976	96	85-121	PASS	

MATRIX SPIKE / MATRIX SPIKE DUPLICATE QUALITY CONTROL SHEET
FOR METHOD: EPA 7471A

SPIKED SAMPLE ID: 17-03-0335-3
MS/MSD BATCH: 170308S03
INSTRUMENTS:
SAMPLE: Mercury 08
MS: Mercury 08
MSD: Mercury 08

EXTRACTION: EPA 7471A Total
D/T EXTRACTED:
SAMPLE: 2017-03-08 00:00
MS: 2017-03-08 00:00
MSD: 2017-03-08 00:00

ANALYZED BY: 868
D/T ANALYZED:
SAMPLE: 2017-03-08 15:43
MS: 2017-03-08 15:45
MSD: 2017-03-08 15:48
REVIEWED BY: 309
D/T REVIEWED: 2017-03-09 12:20

COMMENT:

COMPOUND NAME	SAMPLE	INITIAL	FINAL	MS CONC	% MS.REC	MSD CONC	% MSD.REC	% REC CL	RPD	RPD CL	STATUS	QUALIFIERS
Mercury	ND	0.005000	0.8350	0.7637	91	0.6569	79	71-137	15	0-14	FAIL	4

Data Files:

TYPE	DATA FILE	DATA FILE PATH
MS	17-03-0335-3 MS.icp	W:\MERCURY_DATA\FINAL\170308H1\
MSD	17-03-0335-3 MSD.icp	W:\MERCURY_DATA\FINAL\170308H1\

=====
Analysis BegunLogged In Analyst: US26_SVC_INSTRUMENT
Spectrometer: FIMS-400, S/N B050-9560Technique: AA FIMS-MHS
Autosampler: S10Sample Information File: C:\Users\Public\PerkinElmer Syngistix\AA\Data\Sample Information\
170308H1.sifx

Batch ID:

Results Data Set: 170308H1

Results Library: U:\MERCURY_8\Data\Results\results.mdb

=====
Sequence No.: 1

Sample ID: Calib blank_868

Analyst: 868

Initial Sample Wt:

Dilution:

Wash Time (before sample): 0

Autosampler Location: 1

Date Collected: 3/8/2017 11:48:40 AM

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

Auto Dilution Factor: 1

Replicate Data: Calib blank_868

Analyte: Hg 253.7

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	mg/L	ug/L	Signal	Area	Height		Stored
1		[0.00]	0.0001	-0.0103	0.0001	11:49:43 AM	Yes
2		[0.00]	0.0002	-0.0035	0.0002	11:50:28 AM	Yes
Mean:		[0.00]	0.0001				
SD:		0.0000	0.0001				
%RSD:		0.00%	66.80				

Auto-zero performed.

=====
Sequence No.: 2

Sample ID: 0.025ppb 0.005x5ppb

Analyst: 868

Initial Sample Wt:

Dilution:

Wash Time (before sample): 0

Autosampler Location: 2

Date Collected: 3/8/2017 11:50:53 AM

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

Auto Dilution Factor: 1

Replicate Data: 0.025ppb 0.005x5ppb

Analyte: Hg 253.7

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	mg/L	ug/L	Signal	Area	Height		Stored
1		[0.025]	0.0002	-0.0014	0.0003	11:51:57 AM	Yes
2		[0.025]	0.0002	-0.0013	0.0003	11:52:41 AM	Yes
Mean:		[0.025]	0.0002				
SD:		0.00000	0.0000				
%RSD:		0.00%	7.40				

Standard number 1 applied. [0.025]

Correlation Coef.: 1.000000 Slope: 0.00648 Intercept: 0.00000

=====
Sequence No.: 3

Sample ID: 0.10ppb M030617AX0.0001

Analyst: 868

Initial Sample Wt:

Dilution:

Wash Time (before sample): 0

Autosampler Location: 3

Date Collected: 3/8/2017 11:53:07 AM

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

Auto Dilution Factor: 1

Replicate Data: 0.10ppb M030617AX0.0001

Analyte: Hg 253.7

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	mg/L	ug/L	Signal	Area	Height		Stored
1		[0.100]	0.0010	0.0024	0.0012	11:54:11 AM	Yes
2		[0.100]	0.0010	0.0034	0.0012	11:54:56 AM	Yes
Mean:		[0.100]	0.0010				
SD:		0.00000	0.0000				
%RSD:		0.00%	1.82				

Standard number 2 applied. [0.100]

Correlation Coef.: 0.995447 Slope: 0.01057 Intercept: -0.00004

Sequence No.: 4
Sample ID: 1.00ppb M030617AX0.001
Analyst: 868
Initial Sample Wt:
Dilution:
Wash Time (before sample): 0

Autosampler Location: 4
Date Collected: 3/8/2017 11:55:22 AM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:
Auto Dilution Factor: 1

Replicate Data: 1.00ppb M030617AX0.001
Analyte: Hg 253.7

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	mg/L	ug/L	Signal	Area	Height		Stored
1		[1.000]	0.0118	0.0424	0.0119	11:56:26 AM	Yes
2		[1.000]	0.0111	0.0372	0.0112	11:57:11 AM	Yes
Mean:		[1.000]	0.0114				
SD:		0.00000	0.0005				
%RSD:		0.00%	4.44				
Standard number 3 applied. [1.000]							
Correlation Coef.: 0.999943 Slope: 0.01151 Intercept: -0.00008							

Sequence No.: 5
Sample ID: 2.00ppb M030617AX0.002
Analyst: 868
Initial Sample Wt:
Dilution:
Wash Time (before sample): 0

Autosampler Location: 5
Date Collected: 3/8/2017 11:57:37 AM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:
Auto Dilution Factor: 1

Replicate Data: 2.00ppb M030617AX0.002
Analyte: Hg 253.7

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	mg/L	ug/L	Signal	Area	Height		Stored
1		[2.000]	0.0239	0.0846	0.0241	11:58:42 AM	Yes
2		[2.000]	0.0223	0.0743	0.0225	11:59:27 AM	Yes
Mean:		[2.000]	0.0231				
SD:		0.00000	0.0011				
%RSD:		0.00%	4.87				
Standard number 4 applied. [2.000]							
Correlation Coef.: 0.999979 Slope: 0.01160 Intercept: -0.00010							

Sequence No.: 6
Sample ID: 5.00ppb M030617AX0.005
Analyst: 868
Initial Sample Wt:
Dilution:
Wash Time (before sample): 0

Autosampler Location: 6
Date Collected: 3/8/2017 11:59:53 AM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:
Auto Dilution Factor: 1

Replicate Data: 5.00ppb M030617AX0.005
Analyte: Hg 253.7

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	mg/L	ug/L	Signal	Area	Height		Stored
1		[5.000]	0.0611	0.2166	0.0612	12:00:57 PM	Yes
2		[5.000]	0.0565	0.1893	0.0567	12:01:41 PM	Yes
Mean:		[5.000]	0.0588				
SD:		0.00000	0.0032				
%RSD:		0.00%	5.50				
Standard number 5 applied. [5.000]							
Correlation Coef.: 0.999976 Slope: 0.01177 Intercept: -0.00018							

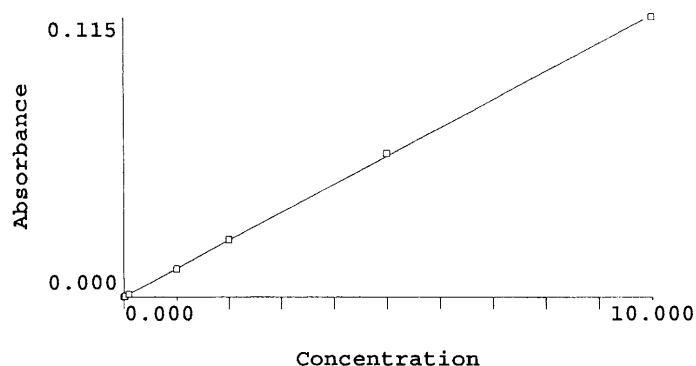
Sequence No.: 7
Sample ID: 10.0ppb M030617AX0.01
Analyst: 868
Initial Sample Wt:
Dilution:
Wash Time (before sample): 0

Autosampler Location: 7
Date Collected: 3/8/2017 12:02:06 PM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:
Auto Dilution Factor: 1

Replicate Data: 10.0ppb M030617AX0.01
Analyte: Hg 253.7

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	mg/L	ug/L	Signal	Area	Height		Stored

1 [10.00] 0.1179 0.4222 0.1180 12:03:10 PM Yes
 2 [10.00] 0.1113 0.3695 0.1114 12:03:55 PM Yes
 Mean: [10.00] 0.1146
 SD: 0.0000 0.0047
 %RSD: 0.00% 4.08
 Standard number 6 applied. [10.00]
 Correlation Coef.: 0.999917 Slope: 0.01151 Intercept: 0.00008



Calibration data for Hg 253.7

Equation: Linear, Calculated Intercept

ID	Mean Signal (Abs)	Entered Conc. ug/L	Calculated Conc. ug/L	Standard Deviation	%RSD
Calib blank_868	0.0000	0	-0.006791	0.00	66.80
0.025ppb 0.005x5ppb	0.0002	0.025	0.007280	0.00	7.40
0.10ppb M030617AX0.0001	0.0010	0.100	0.082482	0.00	1.82
1.00ppb M030617AX0.001	0.0114	1.000	0.986952	0.00	4.44
2.00ppb M030617AX0.002	0.0231	2.000	2.003249	0.00	4.87
5.00ppb M030617AX0.005	0.0588	5.000	5.101909	0.00	5.50
10.0ppb M030617AX0.01	0.1146	10.00	9.949920	0.00	4.08

Correlation Coef.: 0.999917 Slope: 0.01151 Intercept: 0.00008

=====
Analysis BegunLogged In Analyst: US26_SVC_INSTRUMENT
Spectrometer: FIMS-400, S/N B050-9560Technique: AA FIMS-MHS
Autosampler: S10Sample Information File: C:\Users\Public\PerkinElmer Syngistix\AA\Data\Sample Information\
170308H1.sifxBatch ID:
Results Data Set: 170308H1
Results Library: U:\MERCURY_8\Data\Results\results.mdb=====
Sequence No.: 1
Sample ID: ICV M030617B
Analyst: 868 HG-8
Initial Sample Wt:
Dilution:
Wash Time (before sample): 0
Autosampler Location: 8
Date Collected: 3/8/2017 12:10:56 PM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:
Auto Dilution Factor: 1.0000-----
Replicate Data: ICV M030617B
Analyte: Hg 253.7

Repl	SampleConc	StdConc	BlankCorr	Peak	Peak	Time	Peak
#	mg/L	ug/L	Signal	Area	Height		Stored
1	0.00495	4.95	0.0571	0.2066	0.0572	12:12:01 PM	Yes
2	0.00466	4.66	0.0537	0.1790	0.0539	12:12:46 PM	Yes
Mean:	0.00481	4.81	0.0554				
SD:	0.000208	0.208	0.0024				
%RSD:	4.32%	4.32%	4.32				

QC value within limits for Hg 253.7 Recovery = 96.16%
All analyte(s) passed QC.

Sequence No.: 2
Sample ID: ICB
Analyst: 868 HG-8
Initial Sample Wt:
Dilution:
Wash Time (before sample): 0
Autosampler Location: 1
Date Collected: 3/8/2017 12:13:12 PM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:
Auto Dilution Factor: 1.0000-----
Replicate Data: ICB
Analyte: Hg 253.7

Repl	SampleConc	StdConc	BlankCorr	Peak	Peak	Time	Peak
#	mg/L	ug/L	Signal	Area	Height		Stored
1	0.000016	0.0161	0.0003	0.0003	0.0004	12:14:15 PM	Yes
2	0.000007	0.00682	0.0002	-0.0010	0.0003	12:15:00 PM	Yes
Mean:	0.000011	0.0115	0.0002				
SD:	0.0000066	0.00656	0.0001				
%RSD:	57.23%	57.23%	35.93				

QC value within limits for Hg 253.7 Recovery = Not calculated
All analyte(s) passed QC.

Sequence No.: 3
Sample ID: CRQL 0.25
Analyst: 868 HG-8
Initial Sample Wt: 0.6 g
Dilution:
Wash Time (before sample): 0
Autosampler Location: 9
Date Collected: 3/8/2017 12:15:25 PM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol: 100 mL
Auto Dilution Factor: 1-----
Replicate Data: CRQL 0.25
Analyte: Hg 253.7

Repl	SampleConc	StdConc	BlankCorr	Peak	Peak	Time	Peak
#	mg/kg	ug/L	Signal	Area	Height		Stored
1	0.0433	0.260	0.0031	0.0106	0.0032	12:16:30 PM	Yes
2	0.0405	0.243	0.0029	0.0092	0.0030	12:17:14 PM	Yes
Mean:	0.0419	0.251	0.0030				
SD:	0.00201	0.0121	0.0001				
%RSD:	4.80%	4.80%	4.67				

=====

Dilution: 5X
Wash Time (before sample): 0

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03/09/17

Sample Prep Vol: 100 mL
Auto Dilution Factor: 1

Replicate Data: 17-03-0458-1 5X

Analyte: Hg 253.7

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	mg/kg	ug/L	Signal	Area	Height		Stored
1	0.00473	0.0293	0.0004	0.0021	0.0006	3:00:59 PM	Yes
2	0.00444 X5	0.0275	0.0004	0.0018	0.0005	3:01:44 PM	Yes
Mean:	0.00458	0.0284	0.0004				
SD:	0.000204	0.00126	0.0000				
%RSD:	4.45%	4.45%	3.59				

Sequence No.: 9

Autosampler Location: 135

Sample ID: 17-03-0458-2

Date Collected: 3/8/2017 3:02:11 PM

Analyst: 868 HG-8

Data Type: Original

Initial Sample Wt: 0.6 g

Initial Sample Vol:

Dilution:

Sample Prep Vol: 100 mL

Wash Time (before sample): 0

Auto Dilution Factor: 1

Replicate Data: 17-03-0458-2

Analyte: Hg 253.7

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	mg/kg	ug/L	Signal	Area	Height		Stored
1	0.0293	0.176	0.0021	0.0084	0.0022	3:03:16 PM	Yes
2	0.0276	0.166	0.0020	0.0083	0.0021	3:04:01 PM	Yes
Mean:	0.0284	0.171	0.0020				
SD:	0.00117	0.0070	0.0001				
%RSD:	4.12%	4.12%	3.96				

Sequence No.: 10

Autosampler Location: 136

Sample ID: 17-03-0457-1

Date Collected: 3/8/2017 3:04:28 PM

Analyst: 868 HG-8

Data Type: Original

Initial Sample Wt: 0.6 g

Initial Sample Vol:

Dilution:

Sample Prep Vol: 100 mL

Wash Time (before sample): 0

Auto Dilution Factor: 1

Replicate Data: 17-03-0457-1

Analyte: Hg 253.7

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	mg/kg	ug/L	Signal	Area	Height		Stored
1	0.0513	0.308	0.0036	0.0140	0.0038	3:05:34 PM	Yes
2	0.0484	0.290	0.0034	0.0123	0.0036	3:06:18 PM	Yes
Mean:	0.0498	0.299	0.0035				
SD:	0.00208	0.0125	0.0001				
%RSD:	4.17%	4.17%	4.08				

Sequence No.: 11

Autosampler Location: 5

Sample ID: CCV 0.2x10ppb

Date Collected: 3/8/2017 3:06:46 PM

Analyst: 868 HG-8

Data Type: Original

Initial Sample Wt:

Initial Sample Vol:

Dilution:

Sample Prep Vol:

Wash Time (before sample): 0

Auto Dilution Factor: 1.0000

Replicate Data: CCV 0.2x10ppb

Analyte: Hg 253.7

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	mg/L	ug/L	Signal	Area	Height		Stored
1	0.00205	2.05	0.0237	0.0852	0.0238	3:07:52 PM	Yes
2	0.00194	1.94	0.0224	0.0765	0.0225	3:08:38 PM	Yes
Mean:	0.00199	1.99	0.0230				
SD:	0.000080	0.080	0.0009				
%RSD:	4.03%	4.03%	4.02				

QC value within limits for Hg 253.7 Recovery = 99.70%

All analyte(s) passed QC.

Sequence No.: 12

Autosampler Location: 1

Sample ID: CCB

Date Collected: 3/8/2017 3:09:05 PM

Analyst: 868 HG-8
Initial Sample Wt:
Dilution:
Wash Time (before sample): 0

Data Type: Original
Initial Sample Vol:
Sample Prep Vol:
Auto Dilution Factor: 1.0000

Replicate Data: CCB

Analyte: Hg 253.7

Repl	SampleConc	StdndConc	BlndCorr	Peak	Peak	Time	Peak
#	mg/L	ug/L	Signal	Area	Height		Stored
1	0.000018	0.0176	0.0003	0.0011	0.0004	3:10:09 PM	Yes
2	0.000015	0.0154	0.0003	0.0007	0.0004	3:10:54 PM	Yes
Mean:	0.000016	0.0165	0.0003				
SD:	0.0000015	0.00153	0.0000				
%RSD:	9.30%	9.30%	6.59				

QC value within limits for Hg 253.7 Recovery = Not calculated

All analyte(s) passed QC.

=====

Sequence No.: 13

Autosampler Location: 137

Sample ID: 17-03-0457-2

Date Collected: 3/8/2017 3:11:19 PM

Analyst: 868 HG-8

Data Type: Original

Initial Sample Wt: 0.62 g

Initial Sample Vol:

Dilution:

Sample Prep Vol: 100 mL

Wash Time (before sample): 0

Auto Dilution Factor: 1

Replicate Data: 17-03-0457-2

Analyte: Hg 253.7

Repl	SampleConc	StdndConc	BlndCorr	Peak	Peak	Time	Peak
#	mg/kg	ug/L	Signal	Area	Height		Stored
1	0.0468	0.290	0.0034	0.0128	0.0036	3:12:25 PM	Yes
2	0.0437	0.271	0.0032	0.0119	0.0033	3:13:09 PM	Yes
Mean:	0.0452	0.280	0.0033				
SD:	0.00218	0.0135	0.0002				
%RSD:	4.83%	4.83%	4.71				

=====

Sequence No.: 14

Autosampler Location: 138

Sample ID: 17-03-0457-3

Date Collected: 3/8/2017 3:13:37 PM

Analyst: 868 HG-8

Data Type: Original

Initial Sample Wt: 0.62 g

Initial Sample Vol:

Dilution:

Sample Prep Vol: 100 mL

Wash Time (before sample): 0

Auto Dilution Factor: 1

Replicate Data: 17-03-0457-3

Analyte: Hg 253.7

Repl	SampleConc	StdndConc	BlndCorr	Peak	Peak	Time	Peak
#	mg/kg	ug/L	Signal	Area	Height		Stored
1	0.0233	0.145	0.0017	0.0076	0.0019	3:14:42 PM	Yes
2	0.0220	0.136	0.0016	0.0068	0.0018	3:15:27 PM	Yes
Mean:	0.0226	0.140	0.0017				
SD:	0.00096	0.0060	0.0001				
%RSD:	4.24%	4.24%	4.04				

=====

Sequence No.: 15

Autosampler Location: 139

Sample ID: 17-03-0457-4

Date Collected: 3/8/2017 3:15:55 PM

Analyst: 868 HG-8

Data Type: Original

Initial Sample Wt: 0.61 g

Initial Sample Vol:

Dilution:

Sample Prep Vol: 100 mL

Wash Time (before sample): 0

Auto Dilution Factor: 1

Replicate Data: 17-03-0457-4

Analyte: Hg 253.7

Repl	SampleConc	StdndConc	BlndCorr	Peak	Peak	Time	Peak
#	mg/kg	ug/L	Signal	Area	Height		Stored
1	0.0314	0.192	0.0023	0.0084	0.0024	3:17:00 PM	Yes
2	0.0307	0.187	0.0022	0.0083	0.0024	3:17:45 PM	Yes
Mean:	0.0310	0.189	0.0023				
SD:	0.00055	0.0034	0.0000				
%RSD:	1.78%	1.78%	1.72				

Sequence No.: 16
Sample ID: 17-03-0457-5
Analyst: 868 HG-8
Initial Sample Wt: 0.6 g
Dilution:
Wash Time (before sample): 0

Autosampler Location: 140
Date Collected: 3/8/2017 3:18:13 PM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol: 100 mL
Auto Dilution Factor: 1

Replicate Data: 17-03-0457-5

Analyte: Hg 253.7

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	mg/kg	ug/L	Signal	Area	Height		Stored
1	0.0151	0.0905	0.0011	0.0047	0.0013	3:19:19 PM	Yes
2	0.0141	0.0846	0.0011	0.0037	0.0012	3:20:04 PM	Yes
Mean:	0.0146	0.0876	0.0011				
SD:	0.00069	0.00415	0.0000				
%RSD:	4.74%	4.74%	4.40				

Sequence No.: 17
Sample ID: 17-03-0542-1
Analyst: 868 HG-8
Initial Sample Wt: 0.62 g
Dilution:
Wash Time (before sample): 0

Autosampler Location: 141
Date Collected: 3/8/2017 3:20:31 PM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol: 100 mL
Auto Dilution Factor: 1

Replicate Data: 17-03-0542-1

Analyte: Hg 253.7

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	mg/kg	ug/L	Signal	Area	Height		Stored
1	0.0290	0.180	0.0021	0.0074	0.0023	3:21:37 PM	Yes
2	0.0271	0.168	0.0020	0.0062	0.0021	3:22:23 PM	Yes
Mean:	0.0281	0.174	0.0021				
SD:	0.00136	0.0084	0.0001				
%RSD:	4.85%	4.85%	4.67				

Sequence No.: 18
Sample ID: 17-03-0542-2
Analyst: 868 HG-8
Initial Sample Wt: 0.6 g
Dilution:
Wash Time (before sample): 0

Autosampler Location: 142
Date Collected: 3/8/2017 3:22:50 PM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol: 100 mL
Auto Dilution Factor: 1

Replicate Data: 17-03-0542-2

Analyte: Hg 253.7

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	mg/kg	ug/L	Signal	Area	Height		Stored
1	0.0466	0.280	0.0033	0.0102	0.0034	3:23:56 PM	Yes
2	0.0438	0.263	0.0031	0.0093	0.0032	3:24:41 PM	Yes
Mean:	0.0452	0.271	0.0032				
SD:	0.00204	0.0122	0.0001				
%RSD:	4.51%	4.51%	4.40				

Sequence No.: 19
Sample ID: 17-03-0542-3
Analyst: 868 HG-8
Initial Sample Wt: 0.63 g
Dilution:
Wash Time (before sample): 0

Autosampler Location: 143
Date Collected: 3/8/2017 3:25:09 PM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol: 100 mL
Auto Dilution Factor: 1

Replicate Data: 17-03-0542-3

Analyte: Hg 253.7

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	mg/kg	ug/L	Signal	Area	Height		Stored
1	0.0210	0.132	0.0016	0.0046	0.0017	3:26:14 PM	Yes
2	0.0210	0.132	0.0016	0.0046	0.0017	3:27:00 PM	Yes
Mean:	0.0210	0.132	0.0016				
SD:	0.00001	0.0001	0.0000				
%RSD:	0.06%	0.06%	0.06				

Sequence No.: 20
Sample ID: 17-03-0542-4
Analyst: 868 HG-8
Initial Sample Wt: 0.62 g
Dilution:
Wash Time (before sample): 0

Autosampler Location: 144
Date Collected: 3/8/2017 3:27:28 PM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol: 100 mL
Auto Dilution Factor: 1

Replicate Data: 17-03-0542-4

Repl #	SampleConc mg/kg	StdConc ug/L	BlkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.0148	0.0916	0.0011	0.0039	0.0013	3:28:34 PM	Yes
2	0.0144	0.0890	0.0011	0.0038	0.0012	3:29:19 PM	Yes
Mean:	0.0146	0.0903	0.0011				
SD:	0.00029	0.00179	0.0000				
%RSD:	1.98%	1.98%	1.85				

Analyte: Hg 253.7

Sequence No.: 21
Sample ID: CRQL 0.25
Analyst: 868 HG-8
Initial Sample Wt: 0.6 g
Dilution:
Wash Time (before sample): 0

Autosampler Location: 9
Date Collected: 3/8/2017 3:29:47 PM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol: 100 mL
Auto Dilution Factor: 1

Replicate Data: CRQL 0.25

Repl #	SampleConc mg/kg	StdConc ug/L	BlkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.0444	0.266	0.0031	0.0113	0.0033	3:30:51 PM	Yes
2	0.0415	0.249	0.0029	0.0103	0.0031	3:31:37 PM	Yes
Mean:	0.0430	0.258	0.0030				
SD:	0.00202	0.0121	0.0001				
%RSD:	4.71%	4.71%	4.59				

Analyte: Hg 253.7

Sequence No.: 22
Sample ID: 170308-B-03
Analyst: 868 HG-8
Initial Sample Wt: 0.6 g
Dilution:
Wash Time (before sample): 0

Autosampler Location: 10
Date Collected: 3/8/2017 3:32:04 PM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol: 100 mL
Auto Dilution Factor: 1

Replicate Data: 170308-B-03

Repl #	SampleConc mg/kg	StdConc ug/L	BlkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.00216	-0.0129	-0.0001	-0.0004	0.0001	3:33:08 PM	Yes
2	-0.00151	-0.00904	-0.0000	0.0004	0.0001	3:33:53 PM	Yes
Mean:	-0.00183	-0.0110	-0.0000				
SD:	0.000461	0.00276	0.0000				
%RSD:	25.14%	25.14%	65.78				

Analyte: Hg 253.7

User canceled analysis.

Analysis Begun

Logged In Analyst: US26_SVC_INSTRUMENT
Spectrometer: FIMS-400, S/N B050-9560

Technique: AA FIMS-MHS
Autosampler: S10

Sample Information File: C:\Users\Public\PerkinElmer Syngistix\AA\Data\Sample Information\
170308H1.sifx

Batch ID:
Results Data Set: 170308H1
Results Library: U:\MERCURY_8\Data\Results\results.mdb

Sequence No.: 23
Sample ID: CCV 0.2x10ppb
Analyst: 868 HG-8
Initial Sample Wt:
Dilution:

Autosampler Location: 5
Date Collected: 3/8/2017 3:35:05 PM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Wash Time (before sample): 0

Auto Dilution Factor: 1.0000

Replicate Data: CCV 0.2x10ppb

Analyte: Hg 253.7

Repl #	SampleConc mg/L	StdConc ug/L	BlkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.00204	2.04	0.0235	0.0871	0.0236	3:36:10 PM	Yes
2	0.00191	1.91	0.0221	0.0763	0.0222	3:36:55 PM	Yes
Mean:	0.00197	1.97	0.0228				
SD:	0.000086	0.086	0.0010				
%RSD:	4.37%	4.37%	4.35				

QC value within limits for Hg 253.7 Recovery = 98.72%

All analyte(s) passed QC.

Sequence No.: 24

Autosampler Location: 1

Sample ID: CCB

Date Collected: 3/8/2017 3:37:22 PM

Analyst: 868 HG-8

Data Type: Original

Initial Sample Wt:

Initial Sample Vol:

Dilution:

Sample Prep Vol:

Wash Time (before sample): 0

Auto Dilution Factor: 1.0000

Replicate Data: CCB

Analyte: Hg 253.7

Repl #	SampleConc mg/L	StdConc ug/L	BlkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.000004	-0.00367	0.0000	0.0006	0.0002	3:38:25 PM	Yes
2	-0.000005	-0.00494	0.0000	0.0005	0.0002	3:39:10 PM	Yes
Mean:	-0.000004	-0.00430	0.0000				
SD:	0.0000009	0.000903	0.0000				
%RSD:	20.98%	20.98%	36.31				

QC value within limits for Hg 253.7 Recovery = Not calculated

All analyte(s) passed QC.

Sequence No.: 25

Autosampler Location: 11

Sample ID: 170308-L-03

Date Collected: 3/8/2017 3:39:35 PM

Analyst: 868 HG-8

Data Type: Original

Initial Sample Wt: 0.6 g

Initial Sample Vol:

Dilution:

Sample Prep Vol: 100 mL

Wash Time (before sample): 0

Auto Dilution Factor: 1

Replicate Data: 170308-L-03

Analyte: Hg 253.7

Repl #	SampleConc mg/kg	StdConc ug/L	BlkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.817	4.90	0.0565	0.2055	0.0566	3:40:40 PM	Yes
2	0.778	4.67	0.0538	0.1876	0.0540	3:41:25 PM	Yes
Mean:	0.798	4.79	0.0552				
SD:	0.0275	0.165	0.0019				
%RSD:	3.45%	3.45%	3.45				

Sequence No.: 26

Autosampler Location: 12

Sample ID: 17-03-0335-3

Date Collected: 3/8/2017 3:41:51 PM

Analyst: 868 HG-8

Data Type: Original

Initial Sample Wt: 0.62 g

Initial Sample Vol:

Dilution:

Sample Prep Vol: 100 mL

Wash Time (before sample): 0

Auto Dilution Factor: 1

Replicate Data: 17-03-0335-3

Analyte: Hg 253.7

Repl #	SampleConc mg/kg	StdConc ug/L	BlkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.0244	0.151	0.0018	0.0072	0.0020	3:42:55 PM	Yes
2	0.0229	0.142	0.0017	0.0066	0.0018	3:43:40 PM	Yes
Mean:	0.0237	0.147	0.0018				
SD:	0.00108	0.0067	0.0001				
%RSD:	4.55%	4.55%	4.35				

Sequence No.: 27

Autosampler Location: 13

Sample ID: 17-03-0335-3 MS
Analyst: 868 HG-8
Initial Sample Wt: 0.6 g
Dilution:
Wash Time (before sample): 0

Date Collected: 3/8/2017 3:44:07 PM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol: 100 mL
Auto Dilution Factor: 1

Replicate Data: 17-03-0335-3 MS

Analyte: Hg 253.7

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	mg/kg	ug/L	Signal	Area	Height		Stored
1	0.784	4.70	0.0542	0.1993	0.0544	3:45:12 PM	Yes
2	0.743	4.46	0.0514	0.1806	0.0515	3:45:57 PM	Yes
Mean:	0.764	4.58	0.0528				
SD:	0.0288	0.173	0.0020				
%RSD:	3.77%	3.77%	3.76				

=====

Sequence No.: 28
Sample ID: 17-03-0335-3 MSD
Analyst: 868 HG-8
Initial Sample Wt: 0.61 g
Dilution:
Wash Time (before sample): 0

Autosampler Location: 14
Date Collected: 3/8/2017 3:46:24 PM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol: 100 mL
Auto Dilution Factor: 1

Replicate Data: 17-03-0335-3 MSD

Analyte: Hg 253.7

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	mg/kg	ug/L	Signal	Area	Height		Stored
1	0.674	4.11	0.0474	0.1736	0.0475	3:47:28 PM	Yes
2	0.640	3.91	0.0450	0.1574	0.0452	3:48:13 PM	Yes
Mean:	0.657	4.01	0.0462				
SD:	0.0235	0.143	0.0016				
%RSD:	3.57%	3.57%	3.57				

=====

Sequence No.: 29
Sample ID: 17-03-0335-4
Analyst: 868 HG-8
Initial Sample Wt: 0.63 g
Dilution:
Wash Time (before sample): 0

Autosampler Location: 15
Date Collected: 3/8/2017 3:48:38 PM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol: 100 mL
Auto Dilution Factor: 1

Replicate Data: 17-03-0335-4

Analyte: Hg 253.7

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	mg/kg	ug/L	Signal	Area	Height		Stored
1	0.0292	0.184	0.0022	0.0095	0.0023	3:49:42 PM	Yes
2	0.0267	0.168	0.0020	0.0077	0.0021	3:50:27 PM	Yes
Mean:	0.0279	0.176	0.0021				
SD:	0.00180	0.0113	0.0001				
%RSD:	6.45%	6.45%	6.21				

=====

Sequence No.: 30
Sample ID: 17-03-0335-7
Analyst: 868 HG-8
Initial Sample Wt: 0.61 g
Dilution:
Wash Time (before sample): 0

Autosampler Location: 16
Date Collected: 3/8/2017 3:50:53 PM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol: 100 mL
Auto Dilution Factor: 1

Replicate Data: 17-03-0335-7

Analyte: Hg 253.7

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	mg/kg	ug/L	Signal	Area	Height		Stored
1	0.0301	0.184	0.0022	0.0085	0.0023	3:51:57 PM	Yes
2	0.0287	0.175	0.0021	0.0082	0.0022	3:52:41 PM	Yes
Mean:	0.0294	0.180	0.0021				
SD:	0.00097	0.0059	0.0001				
%RSD:	3.28%	3.28%	3.16				

=====

Sequence No.: 31

Autosampler Location: 17

Sample ID: 17-03-0335-8
Analyst: 868 HG-8
Initial Sample Wt: 0.62 g
Dilution:
Wash Time (before sample): 0

Date Collected: 3/8/2017 3:53:07 PM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol: 100 mL
Auto Dilution Factor: 1

Replicate Data: 17-03-0335-8

Analyte: Hg 253.7

Repl #	SampleConc mg/kg	StdConc ug/L	BlkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.0238	0.147	0.0018	0.0068	0.0019	3:54:10 PM	Yes
2	0.0224	0.139	0.0017	0.0062	0.0018	3:54:55 PM	Yes
Mean:	0.0231	0.143	0.0017				
SD:	0.00095	0.0059	0.0001				
%RSD:	4.11%	4.11%	3.93				

Sequence No.: 32

Autosampler Location: 18

Sample ID: 17-03-0335-11

Date Collected: 3/8/2017 3:55:20 PM

Analyst: 868 HG-8

Data Type: Original

Initial Sample Wt: 0.61 g

Initial Sample Vol:

Dilution:

Sample Prep Vol: 100 mL

Wash Time (before sample): 0

Auto Dilution Factor: 1

Replicate Data: 17-03-0335-11

Analyte: Hg 253.7

Repl #	SampleConc mg/kg	StdConc ug/L	BlkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.0254	0.155	0.0019	0.0057	0.0020	3:56:24 PM	Yes
2	0.0235	0.144	0.0017	0.0051	0.0019	3:57:09 PM	Yes
Mean:	0.0245	0.149	0.0018				
SD:	0.00132	0.0081	0.0001				
%RSD:	5.40%	5.40%	5.16				

Sequence No.: 33

Autosampler Location: 19

Sample ID: 17-03-0335-12

Date Collected: 3/8/2017 3:57:34 PM

Analyst: 868 HG-8

Data Type: Original

Initial Sample Wt: 0.63 g

Initial Sample Vol:

Dilution:

Sample Prep Vol: 100 mL

Wash Time (before sample): 0

Auto Dilution Factor: 1

Replicate Data: 17-03-0335-12

Analyte: Hg 253.7

Repl #	SampleConc mg/kg	StdConc ug/L	BlkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.0185	0.117	0.0014	0.0041	0.0016	3:58:38 PM	Yes
2	0.0176	0.111	0.0014	0.0042	0.0015	3:59:23 PM	Yes
Mean:	0.0180	0.114	0.0014				
SD:	0.00066	0.0042	0.0000				
%RSD:	3.69%	3.69%	3.48				

Sequence No.: 34

Autosampler Location: 20

Sample ID: 17-03-0335-15

Date Collected: 3/8/2017 3:59:49 PM

Analyst: 868 HG-8

Data Type: Original

Initial Sample Wt: 0.62 g

Initial Sample Vol:

Dilution:

Sample Prep Vol: 100 mL

Wash Time (before sample): 0

Auto Dilution Factor: 1

Replicate Data: 17-03-0335-15

Analyte: Hg 253.7

Repl #	SampleConc mg/kg	StdConc ug/L	BlkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.0272	0.169	0.0020	0.0071	0.0022	4:00:53 PM	Yes
2	0.0268	0.166	0.0020	0.0078	0.0021	4:01:39 PM	Yes
Mean:	0.0270	0.167	0.0020				
SD:	0.00032	0.0020	0.0000				
%RSD:	1.17%	1.17%	1.12				

Sequence No.: 35

Autosampler Location: 5

Sample ID: CCV 0.2x10ppb
Analyst: 868 HG-8
Initial Sample Wt:
Dilution:
Wash Time (before sample): 0

Date Collected: 3/8/2017 4:02:04 PM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:
Auto Dilution Factor: 1.0000

Replicate Data: CCV 0.2x10ppb

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	mg/L	ug/L	Signal	Area	Height		Stored
1	0.00205	2.05	0.0237	0.0863	0.0239	4:03:10 PM	Yes
2	0.00195	1.95	0.0226	0.0786	0.0227	4:03:55 PM	Yes
Mean:	0.00200	2.00	0.0231				
SD:	0.000071	0.071	0.0008				
%RSD:	3.56%	3.56%	3.55				

QC value within limits for Hg 253.7 Recovery = 100.22%
All analyte(s) passed QC.

=====

Sequence No.: 36
Sample ID: CCB
Analyst: 868 HG-8
Initial Sample Wt:
Dilution:
Wash Time (before sample): 0

Autosampler Location: 1
Date Collected: 3/8/2017 4:04:22 PM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:
Auto Dilution Factor: 1.0000

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	mg/L	ug/L	Signal	Area	Height		Stored
1	-0.000006	-0.00617	0.0000	0.0000	0.0001	4:05:26 PM	Yes
2	-0.000005	-0.00482	0.0000	0.0005	0.0002	4:06:11 PM	Yes
Mean:	-0.000005	-0.00550	0.0000				
SD:	0.0000009	0.000949	0.0000				
%RSD:	17.27%	17.27%	73.25				

QC value within limits for Hg 253.7 Recovery = Not calculated
All analyte(s) passed QC.

=====

Sequence No.: 37
Sample ID: 17-03-0335-16
Analyst: 868 HG-8
Initial Sample Wt: 0.63 g
Dilution:
Wash Time (before sample): 0

Autosampler Location: 21
Date Collected: 3/8/2017 4:06:36 PM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol: 100 mL
Auto Dilution Factor: 1

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	mg/kg	ug/L	Signal	Area	Height		Stored
1	0.0148	0.0931	0.0011	0.0043	0.0013	4:07:40 PM	Yes
2	0.0145	0.0912	0.0011	0.0045	0.0013	4:08:26 PM	Yes
Mean:	0.0146	0.0921	0.0011				
SD:	0.00021	0.00130	0.0000				
%RSD:	1.41%	1.41%	1.31				

=====

Sequence No.: 38
Sample ID: 17-03-0336-3
Analyst: 868 HG-8
Initial Sample Wt: 0.61 g
Dilution:
Wash Time (before sample): 0

Autosampler Location: 22
Date Collected: 3/8/2017 4:08:52 PM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol: 100 mL
Auto Dilution Factor: 1

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	mg/kg	ug/L	Signal	Area	Height		Stored
1	0.0101	0.0615	0.0008	0.0032	0.0009	4:09:57 PM	Yes
2	0.0101	0.0617	0.0008	0.0041	0.0009	4:10:42 PM	Yes
Mean:	0.0101	0.0616	0.0008				
SD:	0.00002	0.00015	0.0000				

%RSD: 0.24% 0.24% 0.22

Sequence No.: 39

Sample ID: 17-03-0336-4

Analyst: 868 HG-8

Initial Sample Wt: 0.62 g

Dilution:

Wash Time (before sample): 0

Autosampler Location: 23

Date Collected: 3/8/2017 4:11:08 PM

Data Type: Original

Initial Sample Vol:

Sample Prep Vol: 100 mL

Auto Dilution Factor: 1

Replicate Data: 17-03-0336-4

Analyte: Hg 253.7

Repl #	SampleConc mg/kg	StdConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.0451	0.280	0.0033	0.0131	0.0034	4:12:13 PM	Yes
2	0.0431	0.267	0.0032	0.0121	0.0033	4:12:58 PM	Yes
Mean:	0.0441	0.273	0.0032				
SD:	0.00147	0.0091	0.0001				
%RSD:	3.33%	3.33%	3.25				

Sequence No.: 40

Sample ID: 17-03-0140-27

Analyst: 868 HG-8

Initial Sample Wt: 0.61 g

Dilution:

Wash Time (before sample): 0

Autosampler Location: 24

Date Collected: 3/8/2017 4:13:25 PM

Data Type: Original

Initial Sample Vol:

Sample Prep Vol: 100 mL

Auto Dilution Factor: 1

Replicate Data: 17-03-0140-27

Analyte: Hg 253.7

Repl #	SampleConc mg/kg	StdConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.0164	0.1000	0.0012	0.0050	0.0014	4:14:30 PM	Yes
2	0.0158	0.0962	0.0012	0.0047	0.0013	4:15:16 PM	Yes
Mean:	0.0161	0.0981	0.0012				
SD:	0.00043	0.00265	0.0000				
%RSD:	2.70%	2.70%	2.53				

Sequence No.: 41

Sample ID: 17-03-0140-28

Analyst: 868 HG-8

Initial Sample Wt: 0.63 g

Dilution:

Wash Time (before sample): 0

Autosampler Location: 25

Date Collected: 3/8/2017 4:15:42 PM

Data Type: Original

Initial Sample Vol:

Sample Prep Vol: 100 mL

Auto Dilution Factor: 1

Replicate Data: 17-03-0140-28

Analyte: Hg 253.7

Repl #	SampleConc mg/kg	StdConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.0192	0.121	0.0015	0.0057	0.0016	4:16:48 PM	Yes
2	0.0184	0.116	0.0014	0.0055	0.0015	4:17:33 PM	Yes
Mean:	0.0188	0.118	0.0014				
SD:	0.00055	0.0035	0.0000				
%RSD:	2.94%	2.94%	2.78				

Sequence No.: 42

Sample ID: 17-03-0140-29

Analyst: 868 HG-8

Initial Sample Wt: 0.6 g

Dilution:

Wash Time (before sample): 0

Autosampler Location: 26

Date Collected: 3/8/2017 4:18:00 PM

Data Type: Original

Initial Sample Vol:

Sample Prep Vol: 100 mL

Auto Dilution Factor: 1

Replicate Data: 17-03-0140-29

Analyte: Hg 253.7

Repl #	SampleConc mg/kg	StdConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.0229	0.137	0.0017	0.0059	0.0018	4:19:04 PM	Yes
2	0.0219	0.131	0.0016	0.0058	0.0017	4:19:50 PM	Yes
Mean:	0.0224	0.134	0.0016				
SD:	0.00071	0.0043	0.0000				

%RSD: 3.17% 3.17% 3.02

Sequence No.: 43
Sample ID: 17-03-0140-30
Analyst: 868 HG-8
Initial Sample Wt: 0.62 g
Dilution:
Wash Time (before sample): 0

Autosampler Location: 27
Date Collected: 3/8/2017 4:20:16 PM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol: 100 mL
Auto Dilution Factor: 1

Replicate Data: 17-03-0140-30
Analyte: Hg 253.7

Repl #	SampleConc mg/kg	StdConc ug/L	Blncorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.0238	0.147	0.0018	0.0051	0.0019	4:21:20 PM	Yes
2	0.0228	0.141	0.0017	0.0049	0.0018	4:22:05 PM	Yes
Mean:	0.0233	0.144	0.0017				
SD:	0.00070	0.0043	0.0001				
%RSD:	3.01%	3.01%	2.88				

Sequence No.: 44
Sample ID: 17-03-0140-31
Analyst: 868 HG-8
Initial Sample Wt: 0.61 g
Dilution:
Wash Time (before sample): 0

Autosampler Location: 28
Date Collected: 3/8/2017 4:22:31 PM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol: 100 mL
Auto Dilution Factor: 1

Replicate Data: 17-03-0140-31
Analyte: Hg 253.7

Repl #	SampleConc mg/kg	StdConc ug/L	Blncorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.0218	0.133	0.0016	0.0067	0.0017	4:23:35 PM	Yes
2	0.0199	0.122	0.0015	0.0044	0.0016	4:24:21 PM	Yes
Mean:	0.0209	0.127	0.0015				
SD:	0.00135	0.0082	0.0001				
%RSD:	6.44%	6.44%	6.11				

Sequence No.: 45
Sample ID: 17-03-0141-27
Analyst: 868 HG-8
Initial Sample Wt: 0.62 g
Dilution:
Wash Time (before sample): 0

Autosampler Location: 29
Date Collected: 3/8/2017 4:24:46 PM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol: 100 mL
Auto Dilution Factor: 1

Replicate Data: 17-03-0141-27
Analyte: Hg 253.7

Repl #	SampleConc mg/kg	StdConc ug/L	Blncorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.0104	0.0642	0.0008	0.0028	0.0010	4:25:50 PM	Yes
2	0.00881	0.0546	0.0007	0.0026	0.0008	4:26:36 PM	Yes
Mean:	0.00958	0.0594	0.0008				
SD:	0.001091	0.00676	0.0001				
%RSD:	11.38%	11.38%	10.21				

Sequence No.: 46
Sample ID: 17-03-0141-28
Analyst: 868 HG-8
Initial Sample Wt: 0.61 g
Dilution:
Wash Time (before sample): 0

Autosampler Location: 30
Date Collected: 3/8/2017 4:27:01 PM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol: 100 mL
Auto Dilution Factor: 1

Replicate Data: 17-03-0141-28
Analyte: Hg 253.7

Repl #	SampleConc mg/kg	StdConc ug/L	Blncorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.0237	0.144	0.0017	0.0089	0.0019	4:28:05 PM	Yes
2	0.0202	0.123	0.0015	0.0058	0.0016	4:28:51 PM	Yes
Mean:	0.0219	0.134	0.0016				
SD:	0.00245	0.0150	0.0002				

%RSD: 11.18% 11.18% 10.64

Sequence No.: 47

Sample ID: CCV 0.2x10ppb

Analyst: 868 HG-8

Initial Sample Wt:

Dilution:

Wash Time (before sample): 0

Autosampler Location: 5

Date Collected: 3/8/2017 4:29:17 PM

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

Auto Dilution Factor: 1.0000

Replicate Data: CCV 0.2x10ppb

Analyte: Hg 253.7

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	mg/L	ug/L	Signal	Area	Height		Stored
1	0.00206	2.06	0.0238	0.0873	0.0239	4:30:22 PM	Yes
2	0.00195	1.95	0.0225	0.0794	0.0226	4:31:07 PM	Yes
Mean:	0.00200	2.00	0.0231				
SD:	0.000081	0.081	0.0009				
%RSD:	4.06%	4.06%	4.05				

QC value within limits for Hg 253.7 Recovery = 100.22%
All analyte(s) passed QC.

Sequence No.: 48

Sample ID: CCB

Analyst: 868 HG-8

Initial Sample Wt:

Dilution:

Wash Time (before sample): 0

Autosampler Location: 1

Date Collected: 3/8/2017 4:31:34 PM

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

Auto Dilution Factor: 1.0000

Replicate Data: CCB

Analyte: Hg 253.7

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	mg/L	ug/L	Signal	Area	Height		Stored
1	0.000001	0.00139	0.0001	0.0017	0.0002	4:32:38 PM	Yes
2	-0.000002	-0.00153	0.0001	0.0013	0.0002	4:33:23 PM	Yes
Mean:	-0.000000	-0.000072	0.0001				
SD:	0.0000021	0.0020660	0.0000				
%RSD:	>999.9%	>999.9%	30.75				

QC value within limits for Hg 253.7 Recovery = Not calculated
All analyte(s) passed QC.

Sequence No.: 49

Sample ID: 17-03-0141-29

Analyst: 868 HG-8

Initial Sample Wt: 0.63 g

Dilution:

Wash Time (before sample): 0

Autosampler Location: 31

Date Collected: 3/8/2017 4:33:48 PM

Data Type: Original

Initial Sample Vol:

Sample Prep Vol: 100 mL

Auto Dilution Factor: 1

Replicate Data: 17-03-0141-29

Analyte: Hg 253.7

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	mg/kg	ug/L	Signal	Area	Height		Stored
1	0.102	0.640	0.0074	0.0276	0.0076	4:34:52 PM	Yes
2	0.0957	0.603	0.0070	0.0261	0.0072	4:35:37 PM	Yes
Mean:	0.0986	0.621	0.0072				
SD:	0.00414	0.0261	0.0003				
%RSD:	4.19%	4.19%	4.15				

Sequence No.: 50

Sample ID: 17-03-0141-30

Analyst: 868 HG-8

Initial Sample Wt: 0.6 g

Dilution:

Wash Time (before sample): 0

Autosampler Location: 32

Date Collected: 3/8/2017 4:36:03 PM

Data Type: Original

Initial Sample Vol:

Sample Prep Vol: 100 mL

Auto Dilution Factor: 1

Replicate Data: 17-03-0141-30

Analyte: Hg 253.7

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	mg/kg	ug/L	Signal	Area	Height		Stored

EPA 7471A Mercury (Solid)

Run Logs

170308H1

Carrier solution R07141602

Reducing Agent R07141603

Sample ID	Analyst Name	Sample Wt	Analyte Name	Date	Time	Conc		Units		Corr Coef
						(Calib)	(Calib)	(Samp)	(Samp)	
Calib blank_868	868 HG-8		Hg 253.7	3/8/2017	11:50:28 AM	ug/L			mg/L	
0.025ppb 0.005x5ppb	868 HG-8		Hg 253.7	3/8/2017	11:52:41 AM	ug/L			mg/L	
0.10ppb M030617AX0.0001	868 HG-8		Hg 253.7	3/8/2017	11:54:56 AM	ug/L			mg/L	
1.00ppb M030617AX0.001	868 HG-8		Hg 253.7	3/8/2017	11:57:11 AM	ug/L			mg/L	
2.00ppb M030617AX0.002	868 HG-8		Hg 253.7	3/8/2017	11:59:27 AM	ug/L			mg/L	
5.00ppb M030617AX0.005	868 HG-8		Hg 253.7	3/8/2017	12:01:41 PM	ug/L			mg/L	
10.0ppb M030617AX0.01	868 HG-8		Hg 253.7	3/8/2017	12:03:55 PM	ug/L			mg/L	
ICV M030617B	868 HG-8		Hg 253.7	3/8/2017	12:12:46 PM	4.807788 ug/L		0.004808	mg/L	0.999917
ICB	868 HG-8		Hg 253.7	3/8/2017	12:15:00 PM	0.01146 ug/L		1.15E-05	mg/L	0.999917
CRQL 0.25	868 HG-8	0.6	Hg 253.7	3/8/2017	12:17:14 PM	0.251262 ug/L		0.041877	mg/kg	0.999917
17-03-0095-1	868 HG-8	0.61	Hg 253.7	3/8/2017	12:19:29 PM	0.135703 ug/L		0.022246	mg/kg	0.999917
CCV 0.2x10ppb	868 HG-8		Hg 253.7	3/8/2017	12:21:45 PM	1.963129 ug/L		0.001963	mg/L	0.999917
CCB	868 HG-8		Hg 253.7	3/8/2017	12:23:59 PM	0.011141 ug/L		1.11E-05	mg/L	0.999917
17-03-0187-3 10X	868 HG-8	0.61	Hg 253.7	3/8/2017	1:16:59 PM	1.992736 ug/L		3.26678	mg/kg	0.999917
170308-B-01	868 HG-8	0.6	Hg 253.7	3/8/2017	1:19:16 PM	-0.0082 ug/L		-0.00137	mg/kg	0.999917
170308-L-01	868 HG-8	0.6	Hg 253.7	3/8/2017	1:21:32 PM	4.691487 ug/L		0.781915	mg/kg	0.999917
17-03-0221-1	868 HG-8	0.61	Hg 253.7	3/8/2017	1:23:50 PM	0.037136 ug/L		0.006088	mg/kg	0.999917
17-03-0221-1 MS	868 HG-8	0.62	Hg 253.7	3/8/2017	1:26:07 PM	4.865908 ug/L		0.784824	mg/kg	0.999917
17-03-0221-1 MSD	868 HG-8	0.61	Hg 253.7	3/8/2017	1:28:25 PM	5.566896 ug/L		0.912606	mg/kg	0.999917
17-03-0221-2	868 HG-8	0.6	Hg 253.7	3/8/2017	1:30:42 PM	0.012982 ug/L		0.002164	mg/kg	0.999917
17-03-0221-5	868 HG-8	0.6	Hg 253.7	3/8/2017	1:33:00 PM	-0.00468 ug/L		-0.00078	mg/kg	0.999917
17-03-0221-6	868 HG-8	0.59	Hg 253.7	3/8/2017	1:35:17 PM	-0.01885 ug/L		-0.00319	mg/kg	0.999917
17-03-0221-9	868 HG-8	0.61	Hg 253.7	3/8/2017	1:37:34 PM	0.044651 ug/L		0.00732	mg/kg	0.999917
CCV 0.2x10ppb	868 HG-8		Hg 253.7	3/8/2017	1:39:50 PM	2.009831 ug/L		0.00201	mg/L	0.999917
CCB	868 HG-8		Hg 253.7	3/8/2017	1:42:05 PM	0.011703 ug/L		1.17E-05	mg/L	0.999917

Reviewed/Assigned to: 03-09-17
 Analysis: Hg 309
 Logbook Page: 18 Instrument ID: Hg 8

Sample ID	Analyst Name	Initial Sample		Date	Time	Conc		Conc		Corr Coef
		Wt	Analyte Name			(Calib)	Units (Calib)	(Samp)	Units (Samp)	
17-03-0221-10	868 HG-8	0.62	Hg 253.7	3/8/2017	1:44:20 PM	0.007925	ug/L	0.001278	mg/kg	0.999917
17-03-0221-13	868 HG-8	0.6	Hg 253.7	3/8/2017	1:46:37 PM	0.002139	ug/L	0.000357	mg/kg	0.999917
17-03-0221-14	868 HG-8	0.61	Hg 253.7	3/8/2017	1:48:54 PM	0.007794	ug/L	0.001278	mg/kg	0.999917
17-03-0128-1	868 HG-8	0.58	Hg 253.7	3/8/2017	1:51:11 PM	0.485535	ug/L	0.083713	mg/kg	0.999917
17-03-0128-4	868 HG-8	0.61	Hg 253.7	3/8/2017	1:53:28 PM	0.454294	ug/L	0.074474	mg/kg	0.999917
CCV 0.2x10ppb	868 HG-8		Hg 253.7	3/8/2017	1:55:44 PM	1.984692	ug/L	0.001985	mg/L	0.999917
CCB	868 HG-8		Hg 253.7	3/8/2017	1:57:58 PM	0.016753	ug/L	1.68E-05	mg/L	0.999917
170307-B-02	868 HG-8	0.6	Hg 253.7	3/8/2017	2:19:49 PM	-0.01237	ug/L	-0.00206	mg/kg	0.999917
170307-L-02	868 HG-8	0.6	Hg 253.7	3/8/2017	2:22:07 PM	4.542766	ug/L	0.757128	mg/kg	0.999917
17-03-0154-1	868 HG-8	0.61	Hg 253.7	3/8/2017	2:24:25 PM	6.095209	ug/L	0.999215	mg/kg	0.999917
17-03-0154-1 MS	868 HG-8	0.62	Hg 253.7	3/8/2017	2:26:42 PM	9.167473	ug/L	1.478625	mg/kg	0.999917
17-03-0154-1 MSD	868 HG-8	0.61	Hg 253.7	3/8/2017	2:28:59 PM	8.862963	ug/L	1.452945	mg/kg	0.999917
17-03-0518-1	868 HG-8	0.6	Hg 253.7	3/8/2017	2:31:16 PM	0.003397	ug/L	0.000566	mg/kg	0.999917
CCV 0.2x10ppb	868 HG-8		Hg 253.7	3/8/2017	2:33:33 PM	2.020521	ug/L	0.002021	mg/L	0.999917
CCB	868 HG-8		Hg 253.7	3/8/2017	2:35:48 PM	0.017314	ug/L	1.73E-05	mg/L	0.999917
17-02-2480-5	868 HG-8	0.62	Hg 253.7	3/8/2017	2:45:44 PM	0.585836	ug/L	0.09449	mg/kg	0.999917
170308-B-02	868 HG-8	0.6	Hg 253.7	3/8/2017	2:48:01 PM	-0.00863	ug/L	-0.00144	mg/kg	0.999917
170308-L-02	868 HG-8	0.6	Hg 253.7	3/8/2017	2:50:18 PM	4.770499	ug/L	0.795083	mg/kg	0.999917
17-03-0458-1	868 HG-8	0.62	Hg 253.7	3/8/2017	2:52:35 PM	0.199314	ug/L	0.032147	mg/kg	0.999917
17-03-0458-1 MS	868 HG-8	0.6	Hg 253.7	3/8/2017	2:54:52 PM	4.444273	ug/L	0.740712	mg/kg	0.999917
17-03-0458-1 MSD	868 HG-8	0.62	Hg 253.7	3/8/2017	2:57:09 PM	4.45869	ug/L	0.719144	mg/kg	0.999917
17-03-0458-1 PDS	868 HG-8	0.62	Hg 253.7	3/8/2017	2:59:26 PM	4.480489	ug/L	0.72266	mg/kg	0.999917
17-03-0458-1 5X	868 HG-8	0.62	Hg 253.7	3/8/2017	3:01:44 PM	0.028423	ug/L	0.022922	mg/kg	0.999917
17-03-0458-2	868 HG-8	0.6	Hg 253.7	3/8/2017	3:04:01 PM	0.170539	ug/L	0.028423	mg/kg	0.999917
17-03-0457-1	868 HG-8	0.6	Hg 253.7	3/8/2017	3:06:18 PM	0.299	ug/L	0.049833	mg/kg	0.999917
CCV 0.2x10ppb	868 HG-8		Hg 253.7	3/8/2017	3:08:38 PM	1.993902	ug/L	0.001994	mg/L	0.999917
CCB	868 HG-8		Hg 253.7	3/8/2017	3:10:54 PM	0.016483	ug/L	1.65E-05	mg/L	0.999917
17-03-0457-2	868 HG-8	0.62	Hg 253.7	3/8/2017	3:13:09 PM	0.28045	ug/L	0.045234	mg/kg	0.999917
17-03-0457-3	868 HG-8	0.62	Hg 253.7	3/8/2017	3:15:27 PM	0.140396	ug/L	0.022644	mg/kg	0.999917

Reviewed/Assign to Logbook Date: 03-09-17
 Analysis: Hg Chemist ID: 309
 Logbook Page: 19 Instrument ID: Hg-8

Sample ID	Analyst Name	Initial Sample		Date	Time	Conc		Conc	Units	Conc		Corr Coef
		Wt	Analyte Name			(Calib)	(Calib)			(Samp)	(Samp)	
17-03-0457-4	868 HG-8	0.61	Hg 253.7	3/8/2017	3:17:45 PM	0.189384	ug/L	0.031047	mg/kg	0.031047	mg/kg	0.999917
17-03-0457-5	868 HG-8	0.6	Hg 253.7	3/8/2017	3:20:04 PM	0.087569	ug/L	0.014595	mg/kg	0.014595	mg/kg	0.999917
17-03-0542-1	868 HG-8	0.62	Hg 253.7	3/8/2017	3:22:23 PM	0.173912	ug/L	0.02805	mg/kg	0.02805	mg/kg	0.999917
17-03-0542-2	868 HG-8	0.6	Hg 253.7	3/8/2017	3:24:41 PM	0.271186	ug/L	0.045198	mg/kg	0.045198	mg/kg	0.999917
17-03-0542-3	868 HG-8	0.63	Hg 253.7	3/8/2017	3:27:00 PM	0.132441	ug/L	0.021022	mg/kg	0.021022	mg/kg	0.999917
17-03-0542-4	868 HG-8	0.62	Hg 253.7	3/8/2017	3:29:19 PM	0.090313	ug/L	0.014567	mg/kg	0.014567	mg/kg	0.999917
CRQL 0.25	868 HG-8	0.6	Hg 253.7	3/8/2017	3:31:37 PM	0.257799	ug/L	0.042967	mg/kg	0.042967	mg/kg	0.999917
170308-B-03	868 HG-8	0.6	Hg 253.7	3/8/2017	3:33:53 PM	-0.01099	ug/L	-0.00183	mg/kg	-0.00183	mg/kg	0.999917
CCV 0.2x10ppb	868 HG-8		Hg 253.7	3/8/2017	3:36:55 PM	1.974421	ug/L	0.001974	mg/L	0.001974	mg/L	0.999917
CCB	868 HG-8		Hg 253.7	3/8/2017	3:39:10 PM	-0.0043	ug/L	-4.30E-06	mg/L	-4.30E-06	mg/L	0.999917
170308-L-03	868 HG-8	0.6	Hg 253.7	3/8/2017	3:41:25 PM	4.785791	ug/L	0.797632	mg/kg	0.797632	mg/kg	0.999917
17-03-0335-3	868 HG-8	0.62	Hg 253.7	3/8/2017	3:43:40 PM	0.146672	ug/L	0.023657	mg/kg	0.023657	mg/kg	0.999917
17-03-0335-3 MS	868 HG-8	0.6	Hg 253.7	3/8/2017	3:45:57 PM	4.582061	ug/L	0.763677	mg/kg	0.763677	mg/kg	0.999917
17-03-0335-3 MSD	868 HG-8	0.61	Hg 253.7	3/8/2017	3:48:13 PM	4.007181	ug/L	0.656915	mg/kg	0.656915	mg/kg	0.999917
17-03-0335-4	868 HG-8	0.63	Hg 253.7	3/8/2017	3:50:27 PM	0.176047	ug/L	0.027944	mg/kg	0.027944	mg/kg	0.999917
17-03-0335-7	868 HG-8	0.61	Hg 253.7	3/8/2017	3:52:41 PM	0.179509	ug/L	0.029428	mg/kg	0.029428	mg/kg	0.999917
17-03-0335-8	868 HG-8	0.62	Hg 253.7	3/8/2017	3:54:55 PM	0.143104	ug/L	0.023081	mg/kg	0.023081	mg/kg	0.999917
17-03-0335-11	868 HG-8	0.61	Hg 253.7	3/8/2017	3:57:09 PM	0.149329	ug/L	0.02448	mg/kg	0.02448	mg/kg	0.999917
17-03-0335-12	868 HG-8	0.63	Hg 253.7	3/8/2017	3:59:23 PM	0.113615	ug/L	0.018034	mg/kg	0.018034	mg/kg	0.999917
17-03-0335-15	868 HG-8	0.62	Hg 253.7	3/8/2017	4:01:39 PM	0.167234	ug/L	0.026973	mg/kg	0.026973	mg/kg	0.999917
CCV 0.2x10ppb	868 HG-8		Hg 253.7	3/8/2017	4:03:55 PM	2.004488	ug/L	0.002004	mg/L	0.002004	mg/L	0.999917
CCB	868 HG-8		Hg 253.7	3/8/2017	4:06:11 PM	-0.0055	ug/L	-5.50E-06	mg/L	-5.50E-06	mg/L	0.999917
17-03-0335-16	868 HG-8	0.63	Hg 253.7	3/8/2017	4:08:26 PM	0.092148	ug/L	0.014627	mg/kg	0.014627	mg/kg	0.999917
17-03-0336-3	868 HG-8	0.61	Hg 253.7	3/8/2017	4:10:42 PM	0.061562	ug/L	0.010092	mg/kg	0.010092	mg/kg	0.999917
17-03-0336-4	868 HG-8	0.62	Hg 253.7	3/8/2017	4:12:58 PM	0.273378	ug/L	0.044093	mg/kg	0.044093	mg/kg	0.999917
17-03-0140-27	868 HG-8	0.61	Hg 253.7	3/8/2017	4:15:16 PM	0.09808	ug/L	0.016079	mg/kg	0.016079	mg/kg	0.999917
17-03-0140-28	868 HG-8	0.63	Hg 253.7	3/8/2017	4:17:33 PM	0.118324	ug/L	0.018782	mg/kg	0.018782	mg/kg	0.999917
17-03-0140-29	868 HG-8	0.6	Hg 253.7	3/8/2017	4:19:50 PM	0.134214	ug/L	0.022369	mg/kg	0.022369	mg/kg	0.999917
17-03-0140-30	868 HG-8	0.62	Hg 253.7	3/8/2017	4:22:05 PM	0.144241	ug/L	0.023265	mg/kg	0.023265	mg/kg	0.999917

Reviewed/Assign to Logbook Date: 03-09-17
 Analysis kg Chemist ID: 309
 Logbook Page: 20 Instrument ID: kg-8

Sample ID	Analyst Name	Initial Sample Wt	Analyte Name	Date	Time	Conc		Units		Conc	Units		Corr Coef
						(Calib)	(Calib)	(Calib)	(Calib)	(Samp)	(Samp)	(Samp)	
17-03-0140-31	868 HG-8	0.61	Hg 253.7	3/8/2017	4:24:21 PM	0.127391	ug/L	0.020884	mg/kg	0.020884	mg/kg	0.999917	0.999917
17-03-0141-27	868 HG-8	0.62	Hg 253.7	3/8/2017	4:26:36 PM	0.059416	ug/L	0.009583	mg/kg	0.009583	mg/kg	0.999917	0.999917
17-03-0141-28	868 HG-8	0.61	Hg 253.7	3/8/2017	4:28:51 PM	0.133866	ug/L	0.021945	mg/kg	0.021945	mg/kg	0.999917	0.999917
CCV 0.2x10ppb	868 HG-8		Hg 253.7	3/8/2017	4:31:07 PM	2.004381	ug/L	0.002004	mg/L	0.002004	mg/L	0.999917	0.999917
CCB	868 HG-8		Hg 253.7	3/8/2017	4:33:23 PM	-7.25E-05	ug/L	-7.25E-08	mg/L	-7.25E-08	mg/L	0.999917	0.999917
17-03-0141-29	868 HG-8	0.63	Hg 253.7	3/8/2017	4:35:37 PM	0.621358	ug/L	0.098628	mg/kg	0.098628	mg/kg	0.999917	0.999917
17-03-0141-30	868 HG-8	0.6	Hg 253.7	3/8/2017	4:37:53 PM	0.075767	ug/L	0.012628	mg/kg	0.012628	mg/kg	0.999917	0.999917
17-03-0141-31	868 HG-8	0.62	Hg 253.7	3/8/2017	4:40:09 PM	0.145055	ug/L	0.023396	mg/kg	0.023396	mg/kg	0.999917	0.999917
CCV 0.2x10ppb	868 HG-8		Hg 253.7	3/8/2017	4:42:25 PM	1.981489	ug/L	0.001981	mg/L	0.001981	mg/L	0.999917	0.999917
CCB	868 HG-8		Hg 253.7	3/8/2017	4:44:41 PM	-0.00321	ug/L	-3.21E-06	mg/L	-3.21E-06	mg/L	0.999917	0.999917
17-03-0254-1	868 HG-8	0.61	Hg 253.7	3/8/2017	5:26:02 PM	0.92864	ug/L	0.152236	mg/kg	0.152236	mg/kg	0.999917	0.999917
17-03-0261-1	868 HG-8	0.63	Hg 253.7	3/8/2017	5:28:19 PM	0.026399	ug/L	0.00419	mg/kg	0.00419	mg/kg	0.999917	0.999917
17-03-0262-1	868 HG-8	0.62	Hg 253.7	3/8/2017	5:30:35 PM	0.456701	ug/L	0.073661	mg/kg	0.073661	mg/kg	0.999917	0.999917
17-03-0263-1	868 HG-8	0.63	Hg 253.7	3/8/2017	5:32:53 PM	0.399731	ug/L	0.063449	mg/kg	0.063449	mg/kg	0.999917	0.999917
17-03-0265-1	868 HG-8	0.61	Hg 253.7	3/8/2017	5:35:08 PM	0.137598	ug/L	0.022557	mg/kg	0.022557	mg/kg	0.999917	0.999917
17-03-0265-3	868 HG-8	0.62	Hg 253.7	3/8/2017	5:37:22 PM	0.046507	ug/L	0.007501	mg/kg	0.007501	mg/kg	0.999917	0.999917
17-03-0267-1	868 HG-8	0.61	Hg 253.7	3/8/2017	5:39:38 PM	0.258294	ug/L	0.042343	mg/kg	0.042343	mg/kg	0.999917	0.999917
17-03-0291-1	868 HG-8	0.63	Hg 253.7	3/8/2017	5:41:53 PM	0.070434	ug/L	0.01118	mg/kg	0.01118	mg/kg	0.999917	0.999917
17-03-0607-1	868 HG-8	0.6	Hg 253.7	3/8/2017	5:44:09 PM	0.025224	ug/L	0.004204	mg/kg	0.004204	mg/kg	0.999917	0.999917
CCV 0.2x10ppb	868 HG-8		Hg 253.7	3/8/2017	5:46:23 PM	1.980812	ug/L	0.001981	mg/L	0.001981	mg/L	0.999917	0.999917
CCB	868 HG-8		Hg 253.7	3/8/2017	5:48:38 PM	0.000409	ug/L	4.09E-07	mg/L	4.09E-07	mg/L	0.999917	0.999917

Reviewed/Assign to Logbook Date: 03-29-17
 Analysis Hg Chemist ID: 309
 Logbook Page: 21 Instrument ID: Hg-8

EPA 7471A Mercury (Solid)

Preparation Logs

Mercury Sample Preparation Logbook (Solid / Other)

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METHOD		MATRIX		EQUIPMENT ID #		REAGENT ID #		STANDARD ID #				
☒ EPA 7471A	☒ Solid	Thermometer	1711147495 (CF 0.0 °C)	Aqua Regia	R04791661	10 mL	Spike	M0306171				
☐ EPA 7471B	☐ Other (Specify)	Block Digester	5	5% KMnO ₄	R00061661		IC	1 A				
		Pipetter / Dispenser	P671 / X	NaCl-H ₂ NO-HCl	R10261661	6 mL	ICV	1 B				
BATCH NUMBER		SUPPLY LOT #		BALANCE ID #		QUALITY SYSTEM MATRIX ID #		SAMPLE HANDLING				
MS/MSD 170308-503		Tube / Container 160975		36		Teflon Chip M006-3518		1 = Composite 2 = Subsample				
(Specify)		Filter				(Specify)		3 = Homogenize 4 = None				
DIGESTION												
DATE	START		END		SAMPLE HANDLING	ECL ID #	SAMPLE		5% KMNO ₄ V (mL)	SPIKE OR IC/ICV V (μL)		
	TIME	TEMP W/O CF (°C)	PREP TECH ID #	TIME			TEMP W/O CF (°C)	PREP TECH ID #			INITIAL (g)	FINAL (mL)
3/8/17	13:00	95	868	13:45	95	868	4	MS 17-03-0335-3A	0.60	100	15	500
								MSD 1	0.61			
								LCS 170308-603	0.60			
								LCSD / MB 170308-603	0.60			
								17-03-0335-3A	0.62			
								4	0.63			
								78	0.61			
								8	0.62			
								11	0.61			
								12	0.63			
								15	0.62			
								16	0.63			
								17-03-0336-3A	0.61			
								4A	0.62			
								17-03-0146-27A	0.61			
								28	0.63			
								29	0.40			
								30	0.62			
								31	0.61			
								17-03-0141-27A	0.62			
								28	0.61			
								29	0.63			
								30	0.60			
								31	0.62			
								IC				
								ICV				
								CB				

COMMENTS: * D-005 / M0-043 / 0058

EPA METHOD 8082 PCB

RAW DATA

EPA METHOD 8082 PCB

Initial Calibration

INITIAL CALIBRATION QUALITY CONTROL SUMMARY
FOR METHOD: EPA 8082

ICAL WORK ORDER: 099-12-532-9393-5154
ICAL BATCH ID: 170304I001
INSTRUMENT: GC 31

ANALYZED BY: 1,028
ICAL D/T ANALYZED: 2017-03-04 10:22
REVIEWED BY: 27
D/T REVIEWED: 2017-03-06 17:02

COMPOUND	COMP. TYPE	CALIB. MODEL	1	2	3	4	5	6	7	8	9	Avg. RF	Min. RF	%RSD CL	%RSD CL	R or R ² CL	STATUS
Aroclor-1016	C	Avg RF	19,249,615	18,706,288	17,015,642	17,289,182	15,623,019					17,576,749	0.00	8	0-20		PASS
Aroclor-1260	C	Avg RF	26,230,863	26,789,816	25,221,137	26,147,934	24,408,278					25,759,606	0.00	4	0-20		PASS

Data Files:

Level #	D/T Analyzed	Data File
1	2017-03-04 10:22	/chem1/SVOA/GC_31/170304/b1703040117030401
2	2017-03-04 10:41	/chem1/SVOA/GC_31/170304/b1703040217030402
3	2017-03-04 11:00	/chem1/SVOA/GC_31/170304/b1703040317030403
4	2017-03-04 11:19	/chem1/SVOA/GC_31/170304/b1703040417030404
5	2017-03-04 11:38	/chem1/SVOA/GC_31/170304/b1703040517030405

INITIAL CALIBRATION VERIFICATION QUALITY CONTROL SHEET
FOR METHOD: EPA 8082

ICV WORK ORDER: 099-12-532-9393-5154

INITIAL BATCH: 1703041001

INSTRUMENT: GC 31

ANALYZED BY: 1028

D/T ANALYZED: 2017-03-04 10:22

INITIAL: 2017-03-04 11:57

ICV: 27

REVIEWED BY: 2017-03-06 17:02

D/T REVIEWED:

DATA FILE: /chem1/SVOA/GC_31/170304/b1703040617030406

COMPOUND NAME	COMP CALIB		MIN RF	AVG RF	ICV RF	AMOUNT	ICV CONC	ICV %D	ICV %D CL	STATUS
	TYPE	MODEL								
Aroclor-1016	C	Avg Resp	0.00	17576749.207	19696440.288			-12	0-15	PASS
Aroclor-1260	C	Avg Resp	0.00	25759605.728	29007372.118			-13	0-15	PASS

MIN RF: Method Specified Minimum Response Factor

Report Date : 06-Mar-2017 17:42

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Eurofins Calscience

INITIAL CALIBRATION DATA

Start Cal Date : 20-FEB-2017 15:04
 End Cal Date : 04-MAR-2017 13:13
 Quant Method : ESTD
 Origin : Disabled
 Target Version : 3.50
 Integrator : HP Genie
 Method file : /chem1/SVOA/GC_31.i/170304.b/b8082-n2.m
 Cal Date : 06-Mar-2017 17:42 uj3k
 Curve Type : Average

Calibration File Names:

Level 1: /chem1/SVOA/GC_31.i/170304.b/b17030401.d
 Level 2: /chem1/SVOA/GC_31.i/170304.b/b17030402.d
 Level 3: /chem1/SVOA/GC_31.i/170304.b/b17030410.d
 Level 4: /chem1/SVOA/GC_31.i/170304.b/b17030404.d
 Level 5: /chem1/SVOA/GC_31.i/170304.b/b17030405.d

Compound	100.000	250.000	500.000	750.000	2000.000	RRF	% RSD
Level 1	Level 2	Level 3	Level 4	Level 5			
M 2 Aroclor-1016	19249615	18706288	17015642	17289182	15623019	17576749	8
3 Aroclor 1016 (1)	1983085	1885965	1683438	1690801	1481968	1745051	11
4 Aroclor 1016 (2)	3632807	3452678	3087749	3094435	2735552	3200644	11
5 Aroclor 1016 (3)	7966622	7861253	7225962	7402995	6797514	7450869	6
6 Aroclor 1016 (4)	3527818	3409886	3088396	3129991	2806775	3192573	9
7 Aroclor 1016 (5)	2139284	2096506	1930097	1970959	1801211	1987611	7
M 8 Aroclor-1260	26230863	26789816	25221137	26147934	24408278	25759606	4
9 Aroclor 1260 (1)	8789079	8866860	8284457	8558423	7953637	8490491	4
10 Aroclor 1260 (2)	6550552	6706313	6284875	6513710	6071780	6425446	4
11 Aroclor 1260 (3)	5530864	5631827	5283737	5465561	5100326	5402463	4
12 Aroclor 1260 (4)	1785336	1872330	1795191	1867271	1753301	1814686	3
13 Aroclor 1260 (5)	3575031	3712486	3572876	3742970	3529235	3626520	3
M 14 Aroclor-1221	+++++	+++++	5969514	+++++	+++++	5969514	0
15 Aroclor 1221 (1)	+++++	+++++	860886	+++++	+++++	860886	0
16 Aroclor 1221 (2)	+++++	+++++	1169075	+++++	+++++	1169075	0
17 Aroclor 1221 (3)	+++++	+++++	715120	+++++	+++++	715120	0
18 Aroclor 1221 (4)	+++++	+++++	2809197	+++++	+++++	2809197	0
19 Aroclor 1221 (5)	+++++	+++++	415237	+++++	+++++	415237	0
M 20 Aroclor-1232	+++++	+++++	9615252	+++++	+++++	9615252	0
21 Aroclor 1232 (1)	+++++	+++++	1925678	+++++	+++++	1925678	0
22 Aroclor 1232 (2)	+++++	+++++	1576358	+++++	+++++	1576358	0
23 Aroclor 1232 (3)	+++++	+++++	3590708	+++++	+++++	3590708	0

Report Date : 06-Mar-2017 17:42

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Eurofins Calscience
INITIAL CALIBRATION DATA

Start Cal Date : 20-FEB-2017 15:04
 End Cal Date : 04-MAR-2017 13:13
 Quant Method : ESTD
 Origin : Disabled
 Target Version : 3.50
 Integrator : HP Genie
 Method file : /chem1/SVOA/GC_31.i/170304.b/b8082-n2.m
 Cal Date : 06-Mar-2017 17:42 uj3k
 Curve Type : Average

Compound	100.000 Level 1	250.000 Level 2	500.000 Level 3	750.000 Level 4	2000.000 Level 5	RRF	% RSD
24 Aroclor 1232 (4)	++++	++++	1540058	++++	++++	1540058	0
25 Aroclor 1232 (5)	++++	++++	982449	++++	++++	982449	0
M 26 Aroclor-1242	++++	++++	14059923	++++	++++	14059923	0
27 Aroclor 1242 (1)	++++	++++	1379943	++++	++++	1379943	0
28 Aroclor 1242 (2)	++++	++++	2583673	++++	++++	2583673	0
29 Aroclor 1242 (3)	++++	++++	5947418	++++	++++	5947418	0
30 Aroclor 1242 (4)	++++	++++	2555790	++++	++++	2555790	0
31 Aroclor 1242 (5)	++++	++++	1593100	++++	++++	1593100	0
M 32 Aroclor-1248	++++	++++	13176520	++++	++++	13176520	0
33 Aroclor 1248 (1)	++++	++++	3966685	++++	++++	3966685	0
34 Aroclor 1248 (2)	++++	++++	1745177	++++	++++	1745177	0
35 Aroclor 1248 (3)	++++	++++	1372014	++++	++++	1372014	0
36 Aroclor 1248 (4)	++++	++++	3938668	++++	++++	3938668	0
37 Aroclor 1248 (5)	++++	++++	2153975	++++	++++	2153975	0
M 38 Aroclor-1254	++++	++++	28971309	++++	++++	28971309	0
39 Aroclor 1254 (1)	++++	++++	3542745	++++	++++	3542745	0
40 Aroclor 1254 (2)	++++	++++	7162081	++++	++++	7162081	0
41 Aroclor 1254 (3)	++++	++++	7758459	++++	++++	7758459	0
42 Aroclor 1254 (4)	++++	++++	5910202	++++	++++	5910202	0
43 Aroclor 1254 (5)	++++	++++	4597822	++++	++++	4597822	0
M 44 Aroclor-1262	++++	++++	32017792	++++	++++	32017792	0
45 Aroclor 1262 (1)	++++	++++	6340146	++++	++++	6340146	0
46 Aroclor 1262 (2)	++++	++++	9736368	++++	++++	9736368	0
47 Aroclor 1262 (3)	++++	++++	7178488	++++	++++	7178488	0
48 Aroclor 1262 (4)	++++	++++	2632364	++++	++++	2632364	0
49 Aroclor 1262 (5)	++++	++++	6130426	++++	++++	6130426	0
M 50 Aroclor-1268	++++	++++	114984779	++++	++++	114984779	0
51 Aroclor 1268 (1)	++++	++++	21643288	++++	++++	21643288	0
52 Aroclor 1268 (2)	++++	++++	18907197	++++	++++	18907197	0

Report Date : 06-Mar-2017 17:42

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Eurofins Calscience

INITIAL CALIBRATION DATA

Start Cal Date : 20-FEB-2017 15:04
 End Cal Date : 04-MAR-2017 13:13
 Quant Method : ESTD
 Origin : Disabled
 Target Version : 3.50
 Integrator : HP Genie
 Method file : /chem1/SVOA/GC_31.i/170304.b/b8082-n2.m
 Cal Date : 06-Mar-2017 17:42 uj3k
 Curve Type : Average

	100.000	250.000	500.000	750.000	2000.000		
Compound	Level 1	Level 2	Level 3	Level 4	Level 5	RRP	% RSD
53 Aroclor 1268 (3)	++++	++++	16479388	++++	++++	16479388	0
54 Aroclor 1268 (4)	++++	++++	6708239	++++	++++	6708239	0
55 Aroclor 1268 (5)	++++	++++	51246667	++++	++++	51246667	0
\$ 1 2,4,5,6-Tetrachloro-m-xylene	120250383	124492405	117939301	122922039	117891264	120699078	2
\$ 56 Decachlorobiphenyl	138531667	143418298	137990673	144864454	140562313	141073481	2

Report Date : 06-Mar-2017 17:42

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Eurofins Calscience

INITIAL CALIBRATION DATA

Start Cal Date : 20-FEB-2017 15:04
End Cal Date : 04-MAR-2017 13:13
Quant Method : ESTD
Origin : Disabled
Target Version : 3.50
Integrator : HP Genie
Method file : /chem1/SVOA/GC_31.i/170304.b/b8082-n2.m
Cal Date : 06-Mar-2017 17:42 uj3k
Curve Type : Average

Average %RSD Results.	
=====	
Calculated Average %RSD =	5.60073
Maximum Average %RSD =	20.00000
* Passed Average %RSD Test.	

Eurofins CalScience
Calibration Verification Report

Instrument ID: GC_31.i Injection Date and Time: 04-MAR-2017 11:57
Sample Name: ICV 500 P021517H Initial Calibration Date(s): 20-FEB-2017 04-MAR-2017
Sublist used: p1016_1260.sub Initial Calibration Time(s): 15:04 11:38
Method used: /chem1/SVOA/GC_31.i/170304.b/b8082-n2.m

Target Compounds	ICAL RRF or Amount	ICV RRF	Min. RRF	%D / %Drift	Max%D / Drift	Curve Type	
Aroclor-1016	17576749.207	19696440.288	0.01	-12	15	Averaged	
Aroclor 1016 (1)	1745051.275	2085704.676	0.01	-20	15	Averaged	<-Failed
Aroclor 1016 (2)	3200644.184	3506833.022	0.01	-10	15	Averaged	
Aroclor 1016 (3)	7450869.197	8327245.412	0.01	-12	15	Averaged	
Aroclor 1016 (4)	3192573.193	3544592.018	0.01	-11	15	Averaged	
Aroclor 1016 (5)	1987611.359	2232065.160	0.01	-12	15	Averaged	
Aroclor 1260 (4)	1814685.680	1972480.858	0.01	-9	15	Averaged	
Aroclor-1260	25759605.727	29007372.117	0.01	-13	15	Averaged	
Aroclor 1260 (5)	3626519.827	4073151.701	0.01	-12	15	Averaged	
Aroclor 1260 (1)	8490491.306	10027132.506	0.01	-18	15	Averaged	<-Failed
Aroclor 1260 (2)	6425445.977	7030129.425	0.01	-9	15	Averaged	
Aroclor 1260 (3)	5402462.938	5904477.627	0.01	-9	15	Averaged	
Surrogate Standards	ICAL RRF or Amount	ICV RRF	Min. RRF	%D / %Drift	Max%D / Drift	Curve Type	
2,4,5,6-Tetrachloro-m-xylene	120699078.403	113721274.432	0.01	6	15	Averaged	
Decachlorobiphenyl	141073480.845	134637184.912	0.01	5	15	Averaged	

Eurofins Calscience

EPA8082/A PCB analysis

Data file : /chem1/SVOA/GC_31.i/170304.b/b17030401.d
 Lab Smp Id:
 Inj Date : 04-MAR-2017 10:22
 Operator : 944 Inst ID: GC_31.i
 Smp Info : ICAL-1 P021517F
 Misc Info :
 Comment : Rtx-CLPesticide II
 Method : /chem1/SVOA/GC_31.i/170304.b/b8082-n2.m
 Meth Date : 06-Mar-2017 13:36 uj3k Quant Type: ESTD
 Cal Date : 04-MAR-2017 10:22 Cal File: b17030401.d
 Als bottle: 1 Calibration Sample, Level: 1
 Dil Factor: 1.00000
 Integrator: HP Genie Compound Sublist: p1016_1260.sub
 Target Version: 3.50
 Processing Host: US26TAR4

Concentration Formula: Amt * DF * *vf/vi * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
vf	1.00000	Final extract volume (mL)
vi	1.00000	Initial sample volume (L)

Cpnd Variable Local Compound Variable

				AMOUNTS		
				CAL-AMT	ON-COL	
Compounds	RT	EXP RT	DLT RT	RESPONSE	(ppb)	(ppb)
=====	==	=====	=====	=====	=====	=====
\$ 1 2,4,5,6-Tetrachloro-m-xylene	5.025	5.025	0.000	2405007666	20.0000	19.9
M 2 Aroclor-1016				1924961548	100.000	110
3 Aroclor 1016 (1)	5.552	5.552	0.000	198308499	100.000	114
4 Aroclor 1016 (2)	6.037	6.037	0.000	363280725	100.000	114
5 Aroclor 1016 (3)	6.644	6.644	0.000	796662161	100.000	107
6 Aroclor 1016 (4)	6.814	6.814	0.000	352781794	100.000	110
7 Aroclor 1016 (5)	6.892	6.892	0.000	213928369	100.000	108
M 8 Aroclor-1260				2623086267	100.000	102
9 Aroclor 1260 (1)	9.071	9.071	0.000	878907891	100.000	104
10 Aroclor 1260 (2)	9.517	9.517	0.000	655055232	100.000	102
11 Aroclor 1260 (3)	9.799	9.799	0.000	553086415	100.000	102
12 Aroclor 1260 (4)	10.871	10.871	0.000	178533585	100.000	98.4 (a)
13 Aroclor 1260 (5)	11.157	11.157	0.000	357503144	100.000	98.6 (a)
\$ 56 Decachlorobiphenyl	11.684	11.684	0.000	2770633335	20.0000	19.6

QC Flag Legend

- a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).

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Data File: /chem1/SV0A/GC_31.i/170304.b/b17030401.d

Date : 04-MAR-2017 10:22

Client ID:

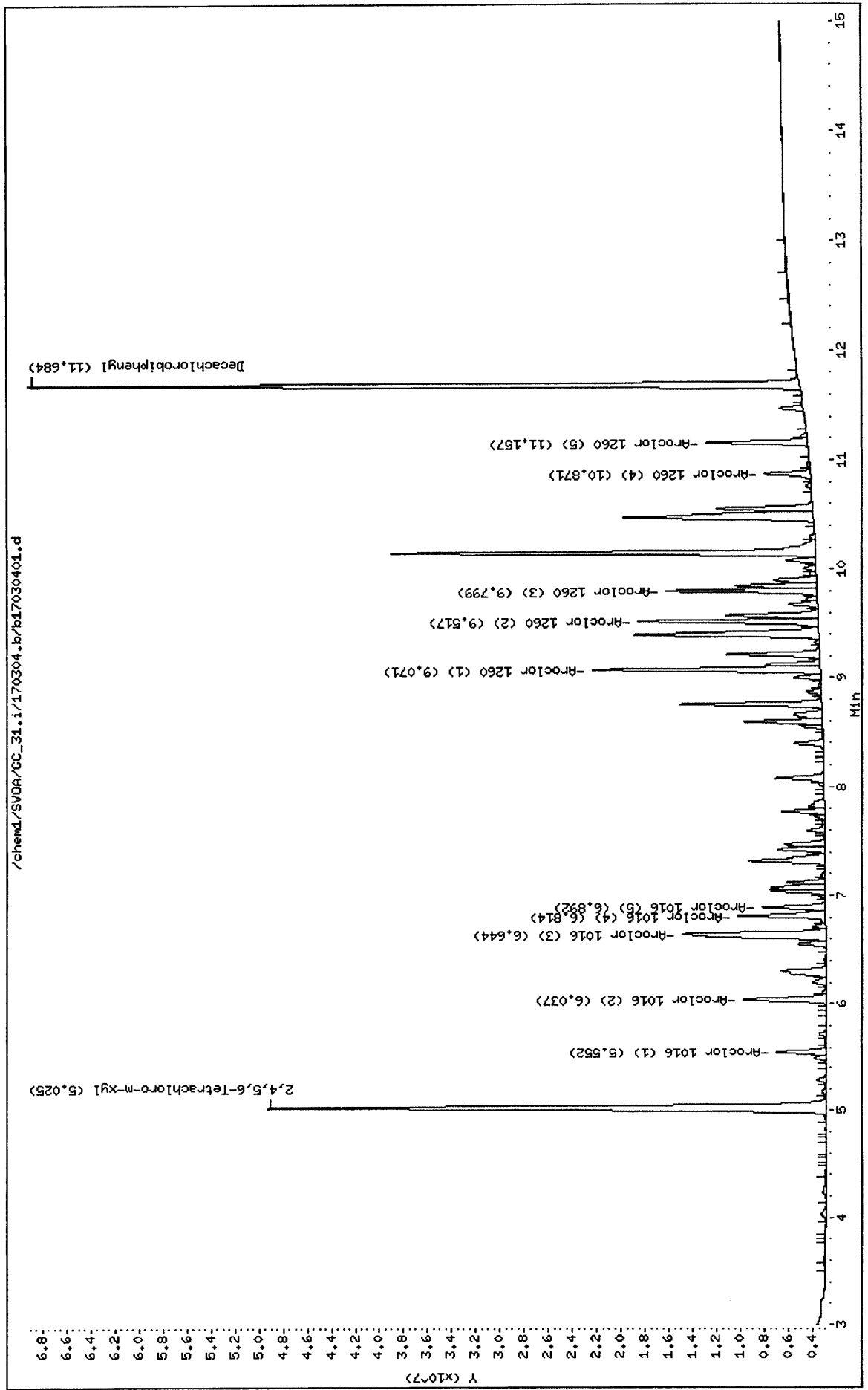
Sample Info: ICAL-1 P021517F

Instrument: GC_31.i

Operator: 944

Column diameter: 2.00

Column phase:



Eurofins Calscience

EPA8082/A PCB analysis

Data file : /chem1/SVOA/GC_31.i/170304.b/b17030402.d
Lab Smp Id:
Inj Date : 04-MAR-2017 10:41
Operator : 944
Smp Info : ICAL-2 P021517E
Misc Info :
Comment : Rtx-CLPesticide II
Method : /chem1/SVOA/GC_31.i/170304.b/b8082-n2.m
Meth Date : 06-Mar-2017 13:37 uj3k
Cal Date : 04-MAR-2017 10:41
Als bottle: 2
Dil Factor: 1.00000
Integrator: HP Genie
Target Version: 3.50
Processing Host: US26TAR4

Inst ID: GC_31.i

Quant Type: ESTD

Cal File: b17030402.d

Calibration Sample, Level: 2

Compound Sublist: p1016_1260.sub

Concentration Formula: Amt * DF * *vf/vi * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
vf	1.00000	Final extract volume (mL)
vi	1.00000	Initial sample volume (L)

Cpnd Variable Local Compound Variable

					AMOUNTS	
					CAL-AMT	ON-COL
Compounds	RT	EXP RT	DLT RT	RESPONSE	(ppb)	(ppb)
-----	--	-----	-----	-----	-----	-----
\$ 1 2,4,5,6-Tetrachloro-m-xylene	5.027	5.027	0.000	6224620237	50.0000	51.6
M 2 Aroclor-1016				4676571916	250.000	266
3 Aroclor 1016 (1)	5.552	5.552	0.000	471491190	250.000	270
4 Aroclor 1016 (2)	6.039	6.039	0.000	863169516	250.000	270
5 Aroclor 1016 (3)	6.644	6.644	0.000	1965313221	250.000	264
6 Aroclor 1016 (4)	6.814	6.814	0.000	852471442	250.000	267
7 Aroclor 1016 (5)	6.893	6.893	0.000	524126547	250.000	264
M 8 Aroclor-1260				6697454078	250.000	260
9 Aroclor 1260 (1)	9.071	9.071	0.000	2216715064	250.000	261
10 Aroclor 1260 (2)	9.518	9.518	0.000	1676578224	250.000	261
11 Aroclor 1260 (3)	9.799	9.799	0.000	1407956764	250.000	261
12 Aroclor 1260 (4)	10.871	10.871	0.000	468082486	250.000	258
13 Aroclor 1260 (5)	11.157	11.157	0.000	928121540	250.000	256
\$ 56 Decachlorobiphenyl	11.683	11.683	0.000	7170914886	50.0000	50.8

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Data File: /chem1/SV0A/GC_31.i/170304.b/b17030402.d

Date : 04-MAR-2017 10:41

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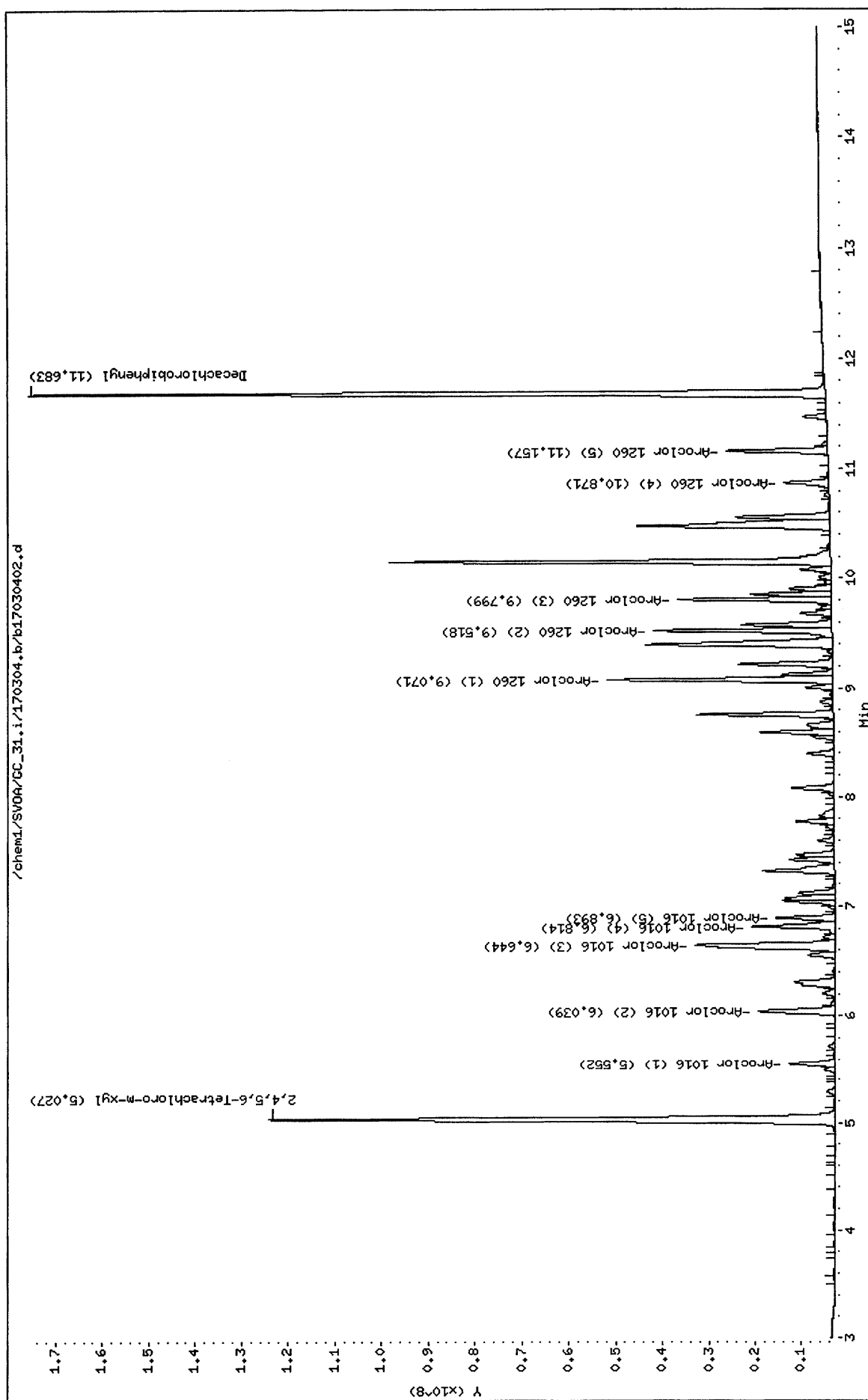
Sample Info: ICAL-2 P021517E

Instrument: GC_31.i

Operator: 944

Column diameter: 2.00

Column phase:



Eurofins Calscience

EPA8082/A PCB analysis

Data file : /chem1/SVOA/GC_31.i/170304.b/b17030403.d
 Lab Smp Id:
 Inj Date : 04-MAR-2017 11:00
 Operator : 944 Inst ID: GC_31.i
 Smp Info : ICAL-3 P021517D
 Misc Info :
 Comment : Rtx-CLPesticide II
 Method : /chem1/SVOA/GC_31.i/170304.b/b8082-n2.m
 Meth Date : 06-Mar-2017 13:37 uj3k Quant Type: ESTD
 Cal Date : 20-FEB-2017 17:55 Cal File: b17022011.d
 Als bottle: 3 Calibration Sample, Level: 3
 Dil Factor: 1.00000
 Integrator: HP Genie Compound Sublist: p1016_1260.sub
 Target Version: 3.50
 Processing Host: US26TAR4

Concentration Formula: Amt * DF * *vf/vi * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
vf	1.00000	Final extract volume(mL)
vi	1.00000	Initial sample volume(L)

Cpnd Variable Local Compound Variable

					AMOUNTS	
Compounds	RT	EXP RT	DLT RT	RESPONSE	CAL-AMT (ppb)	ON-COL (ppb)
-----	--	-----	-----	-----	-----	-----
\$ 1 2,4,5,6-Tetrachloro-m-xylene	5.026	5.026	0.000	11793930052	100.000	97.7
M 2 Aroclor-1016				8507820834	500.000	484
3 Aroclor 1016 (1)	5.552	5.552	0.000	841719008	500.000	482
4 Aroclor 1016 (2)	6.038	6.038	0.000	1543874358	500.000	482
5 Aroclor 1016 (3)	6.645	6.645	0.000	3612980978	500.000	485
6 Aroclor 1016 (4)	6.813	6.813	0.000	1544197970	500.000	484
7 Aroclor 1016 (5)	6.892	6.892	0.000	965048520	500.000	486
M 8 Aroclor-1260				12610568611	500.000	490
9 Aroclor 1260 (1)	9.071	9.071	0.000	4142228685	500.000	488
10 Aroclor 1260 (2)	9.517	9.517	0.000	3142437485	500.000	489
11 Aroclor 1260 (3)	9.799	9.799	0.000	2641868598	500.000	489
12 Aroclor 1260 (4)	10.872	10.872	0.000	897595681	500.000	495
13 Aroclor 1260 (5)	11.156	11.156	0.000	1786438162	500.000	493
\$ 56 Decachlorobiphenyl	11.684	11.684	0.000	13799067307	100.000	97.8

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Data File: /chem1/SV00A/GC_31.i/170304.b/b17030403.d

Date : 04-MAR-2017 11:00

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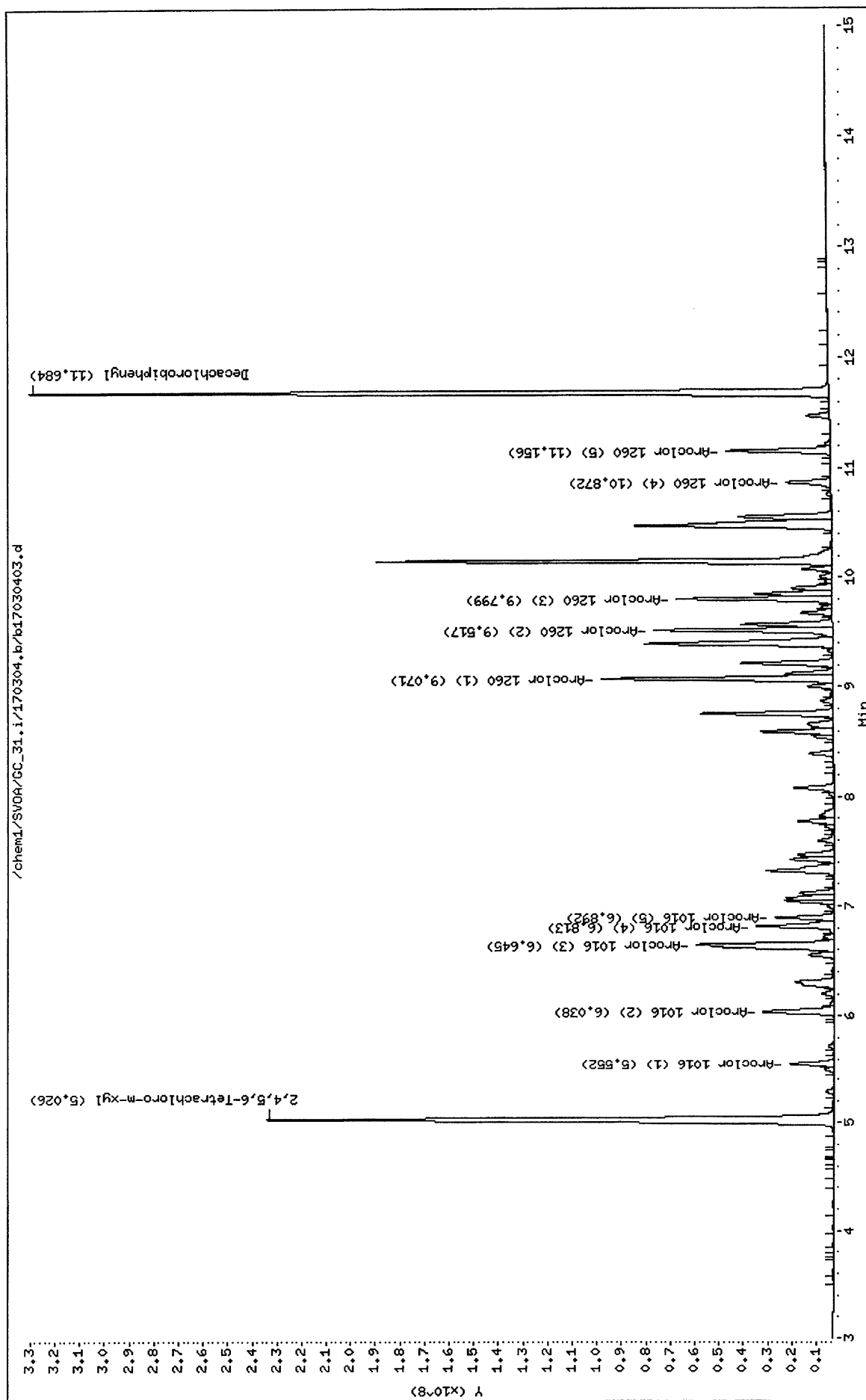
Sample Info: ICAL-3 P021517D

Instrument: GC_31.i

Operator: 944

Column diameter: 2.00

Column phase:

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Eurofins Calscience

EPA8082/A PCB analysis

Data file : /chem1/SVOA/GC_31.i/170304.b/b17030404.d
Lab Smp Id:
Inj Date : 04-MAR-2017 11:19
Operator : 944
Smp Info : ICAL-4 P021517C
Misc Info :
Comment : Rtx-CLPesticide II
Method : /chem1/SVOA/GC_31.i/170304.b/b8082-n2.m
Meth Date : 06-Mar-2017 13:37 uj3k
Cal Date : 04-MAR-2017 11:19
Als bottle: 4
Dil Factor: 1.00000
Integrator: HP Genie
Target Version: 3.50
Processing Host: US26TAR4

Inst ID: GC_31.i

Quant Type: ESTD

Cal File: b17030404.d

Calibration Sample, Level: 4

Compound Sublist: p1016_1260.sub

Concentration Formula: Amt * DF * *vf/vi * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
vf	1.00000	Final extract volume (mL)
vi	1.00000	Initial sample volume (L)

Cpnd Variable

Local Compound Variable

					AMOUNTS	
					CAL-AMT	ON-COL
Compounds	RT	EXP RT	DLT RT	RESPONSE	(ppb)	(ppb)
=====	==	=====	=====	=====	=====	=====
\$ 1 2,4,5,6-Tetrachloro-m-xylene	5.027	5.027	0.000	18438305845	150.000	153
M 2 Aroclor-1016				12966886409	750.000	738
3 Aroclor 1016 (1)	5.553	5.553	0.000	1268100693	750.000	727
4 Aroclor 1016 (2)	6.039	6.039	0.000	2320826194	750.000	725
5 Aroclor 1016 (3)	6.646	6.646	0.000	5552246620	750.000	745
6 Aroclor 1016 (4)	6.815	6.815	0.000	2347493470	750.000	735
7 Aroclor 1016 (5)	6.893	6.893	0.000	1478219432	750.000	744
M 8 Aroclor-1260				19610950761	750.000	761
9 Aroclor 1260 (1)	9.070	9.070	0.000	6418817433	750.000	756
10 Aroclor 1260 (2)	9.516	9.516	0.000	4885282199	750.000	760
11 Aroclor 1260 (3)	9.798	9.798	0.000	4099170588	750.000	759
12 Aroclor 1260 (4)	10.870	10.870	0.000	1400452971	750.000	772
13 Aroclor 1260 (5)	11.155	11.155	0.000	2807227570	750.000	774
\$ 56 Decachlorobiphenyl	11.683	11.683	0.000	21729668071	150.000	154

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Data File: /chem1/SV0A/GC_31.i/170304.b/b17030404.d

Date : 04-MAR-2017 11:19

Client ID:

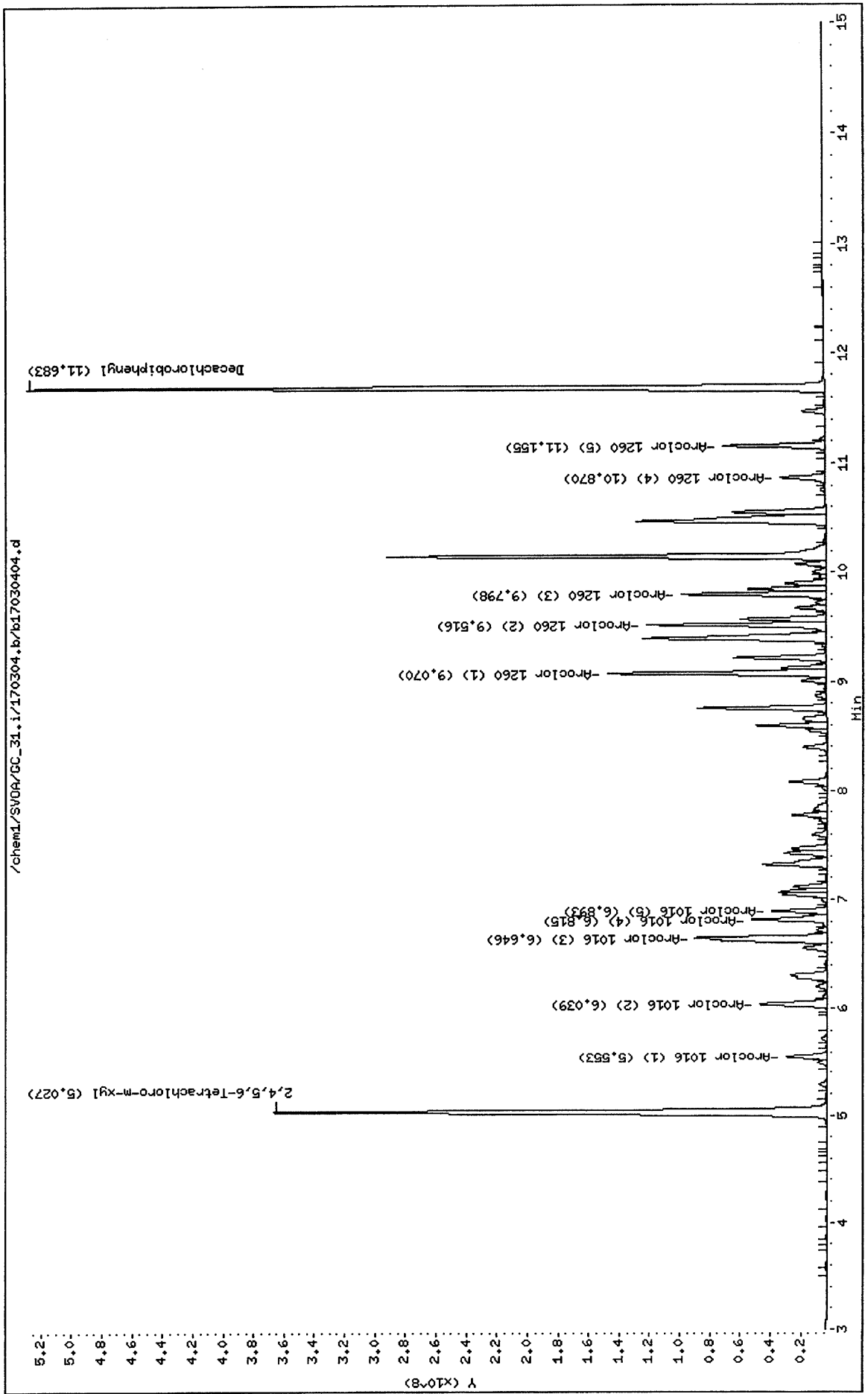
Sample Info: ICAL-4 P021517C

Instrument: GC_31.i

Operator: 944

Column diameter: 2.00

Column phase:



Eurofins Calscience

EPA8082/A PCB analysis

Data file : /chem1/SVOA/GC_31.i/170304.b/b17030405.d
Lab Smp Id:
Inj Date : 04-MAR-2017 11:38
Operator : 944
Smp Info : ICAL-5 P021517B
Misc Info :
Comment : Rtx-CLPesticide II
Method : /chem1/SVOA/GC_31.i/170304.b/b8082-n2.m
Meth Date : 06-Mar-2017 13:37 uj3k
Cal Date : 04-MAR-2017 11:38
Als bottle: 5
Dil Factor: 1.00000
Integrator: HP Genie
Target Version: 3.50
Processing Host: US26TAR4

Inst ID: GC_31.i
Quant Type: ESTD
Cal File: b17030405.d
Calibration Sample, Level: 5
Compound Sublist: p1016_1260.sub

Concentration Formula: Amt * DF * *vf/vi * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
vf	1.00000	Final extract volume (mL)
vi	1.00000	Initial sample volume (L)

Cpnd Variable Local Compound Variable

					AMOUNTS	
					CAL-AMT	ON-COL
Compounds	RT	EXP RT	DLT RT	RESPONSE	(ppb)	(ppb)
\$ 1 2,4,5,6-Tetrachloro-m-xylene	5.027	5.027	0.000	47156505791	400.000	391
M 2 Aroclor-1016				31246038687	2000.00	1780
3 Aroclor 1016 (1)	5.552	5.552	0.000	2963935368	2000.00	1700
4 Aroclor 1016 (2)	6.038	6.038	0.000	5471103923	2000.00	1710
5 Aroclor 1016 (3)	6.645	6.645	0.000	13595028085	2000.00	1820
6 Aroclor 1016 (4)	6.814	6.814	0.000	5613550046	2000.00	1760
7 Aroclor 1016 (5)	6.893	6.893	0.000	3602421266	2000.00	1810
M 8 Aroclor-1260				48816556174	2000.00	1900
9 Aroclor 1260 (1)	9.070	9.070	0.000	15907273501	2000.00	1870
10 Aroclor 1260 (2)	9.516	9.516	0.000	12143560198	2000.00	1890
11 Aroclor 1260 (3)	9.797	9.797	0.000	10200651004	2000.00	1890
12 Aroclor 1260 (4)	10.870	10.870	0.000	3506601231	2000.00	1930
13 Aroclor 1260 (5)	11.154	11.154	0.000	7058470239	2000.00	1950
\$ 56 Decachlorobiphenyl	11.683	11.683	0.000	56224925147	400.000	398

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Data File: /chem1/SVDA/GC_31.i/170304.b/b17030405.d

Date : 04-MAR-2017 11:38

Client ID:

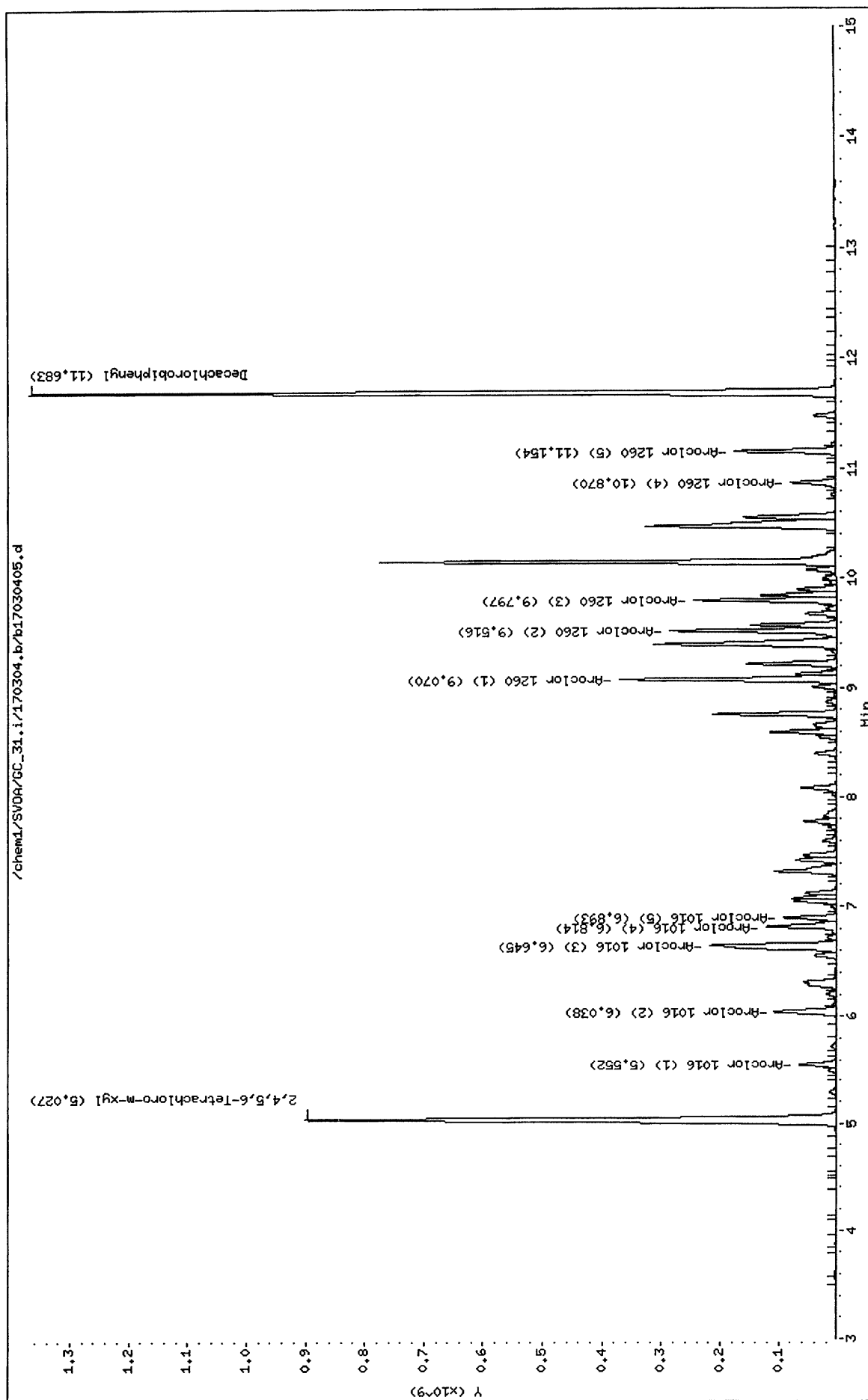
Sample Info: ICAL-5 P021517B

Instrument: GC_31.i

Operator: 944

Column diameter: 2.00

Column phase:



Eurofins Calscience

EPA8082/A PCB analysis

Data file : /chem1/SVOA/GC_31.i/170304.b/b17030406.d
Lab Smp Id:
Inj Date : 04-MAR-2017 11:57
Operator : 944
Smp Info : ICV 500 P021517H
Misc Info :
Comment : Rtx-CLPesticide II
Method : /chem1/SVOA/GC_31.i/170304.b/b8082-n2.m
Meth Date : 06-Mar-2017 13:37 uj3k
Cal Date : 04-MAR-2017 11:38
Als bottle: 6
Dil Factor: 1.00000
Integrator: HP Genie
Target Version: 3.50
Processing Host: US26TAR4

Inst ID: GC_31.i

Quant Type: ESTD

Cal File: b17030405.d

Continuing Calibration Sample

Compound Sublist: p1016_1260.sub

Concentration Formula: Amt * DF * *vf/vi * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
vf	1.00000	Final extract volume (mL)
vi	1.00000	Initial sample volume (L)

Cpnd Variable Local Compound Variable

						AMOUNTS	
Compounds		RT	EXP RT	DLT RT	RESPONSE	CAL-AMT (ppb)	ON-COL (ppb)
=====		==	=====	=====	=====	=====	=====
\$	1 2,4,5,6-Tetrachloro-m-xylene	5.026	5.026	0.000	11372127443	100.000	94.2
M	2 Aroclor-1016				9848220144	500.000	560
	3 Aroclor 1016 (1)	5.552	5.552	0.000	1042852338	500.000	598
	4 Aroclor 1016 (2)	6.038	6.038	0.000	1753416511	500.000	548
	5 Aroclor 1016 (3)	6.645	6.645	0.000	4163622706	500.000	559
	6 Aroclor 1016 (4)	6.814	6.814	0.000	1772296009	500.000	555
	7 Aroclor 1016 (5)	6.892	6.892	0.000	1116032580	500.000	561
M	8 Aroclor-1260				14503686059	500.000	563
	9 Aroclor 1260 (1)	9.070	9.070	0.000	5013566253	500.000	590
	10 Aroclor 1260 (2)	9.516	9.516	0.000	3515064713	500.000	547
	11 Aroclor 1260 (3)	9.797	9.797	0.000	2952238813	500.000	546
	12 Aroclor 1260 (4)	10.871	10.871	0.000	986240429	500.000	543
	13 Aroclor 1260 (5)	11.156	11.156	0.000	2036575851	500.000	562
\$	56 Decachlorobiphenyl	11.683	11.683	0.000	13463718491	100.000	95.4

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Data File: /chem1/SV0A/GC_31.i/170304.b/b17030406.d

Date : 04-MAR-2017 11:57

Client ID:

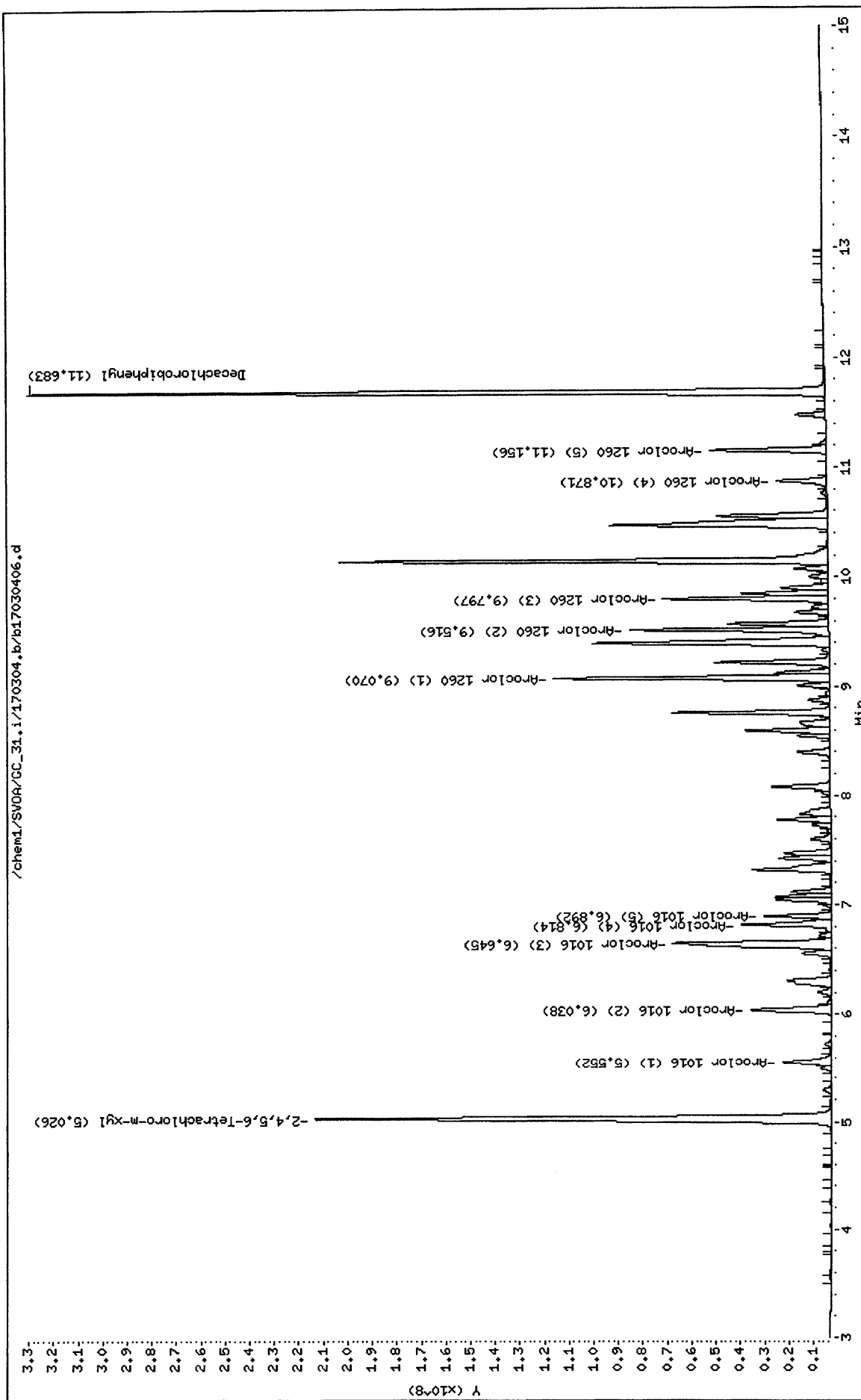
Sample Info: ICV 500 P021517H

Instrument: GC_31.i

Operator: 944

Column diameter: 2.00

Column phase:



Eurofins Calscience

EPA8082/A PCB analysis

Data file : /chem1/SVOA/GC_31.i/170304.b/b17030407.d
Lab Smp Id:
Inj Date : 04-MAR-2017 12:16
Operator : 944
Smp Info : 1221/54 P120616M
Misc Info :
Comment : Rtx-CLPesticide II
Method : /chem1/SVOA/GC_31.i/170304.b/b8082-n2.m
Meth Date : 06-Mar-2017 13:59 uj3k
Cal Date : 20-FEB-2017 17:55
Als bottle: 7
Dil Factor: 1.00000
Integrator: HP Genie
Target Version: 3.50
Processing Host: US26TAR4

Inst ID: GC_31.i
Quant Type: ESTD
Cal File: b17022011.d
Calibration Sample, Level: 3
Compound Sublist: p1221_1254.sub

Concentration Formula: Amt * DF * *vf/vi * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
vf	1.00000	Final extract volume (mL)
vi	1.00000	Initial sample volume (L)

Cpnd Variable Local Compound Variable

		AMOUNTS				
Compounds		RT	EXP RT	DLT RT	RESPONSE	ON-COL
					(ppb)	(ppb)
=====		==	=====	=====	=====	=====
M 14	Aroclor-1221				2984757077	500.000
	15 Aroclor 1221 (1)	4.230	4.230	0.000	430443011	500.000
	16 Aroclor 1221 (2)	5.283	5.283	0.000	584537488	500.000
	17 Aroclor 1221 (3)	5.494	5.494	0.000	357560063	500.000
	18 Aroclor 1221 (4)	5.551	5.551	0.000	1404598261	500.000
	19 Aroclor 1221 (5)	6.207	6.207	0.000	207618254	500.000
M 38	Aroclor-1254				14485654714	500.000
	39 Aroclor 1254 (1)	7.774	7.774	0.000	1771372509	500.000
	40 Aroclor 1254 (2)	8.080	8.080	0.000	3581040483	500.000
	41 Arcolor 1254 (3)	8.546	8.546	0.000	3879229685	500.000
	42 Aroclor 1254 (4)	8.866	8.866	0.000	2955100925	500.000
	43 Aroclor 1254 (5)	9.187	9.187	0.000	2298911112	500.000

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Data File: /chem1/SV00A/GC_31.1/170304.b/b17030407.d

Date : 04-MAR-2017 12:16

Client ID:

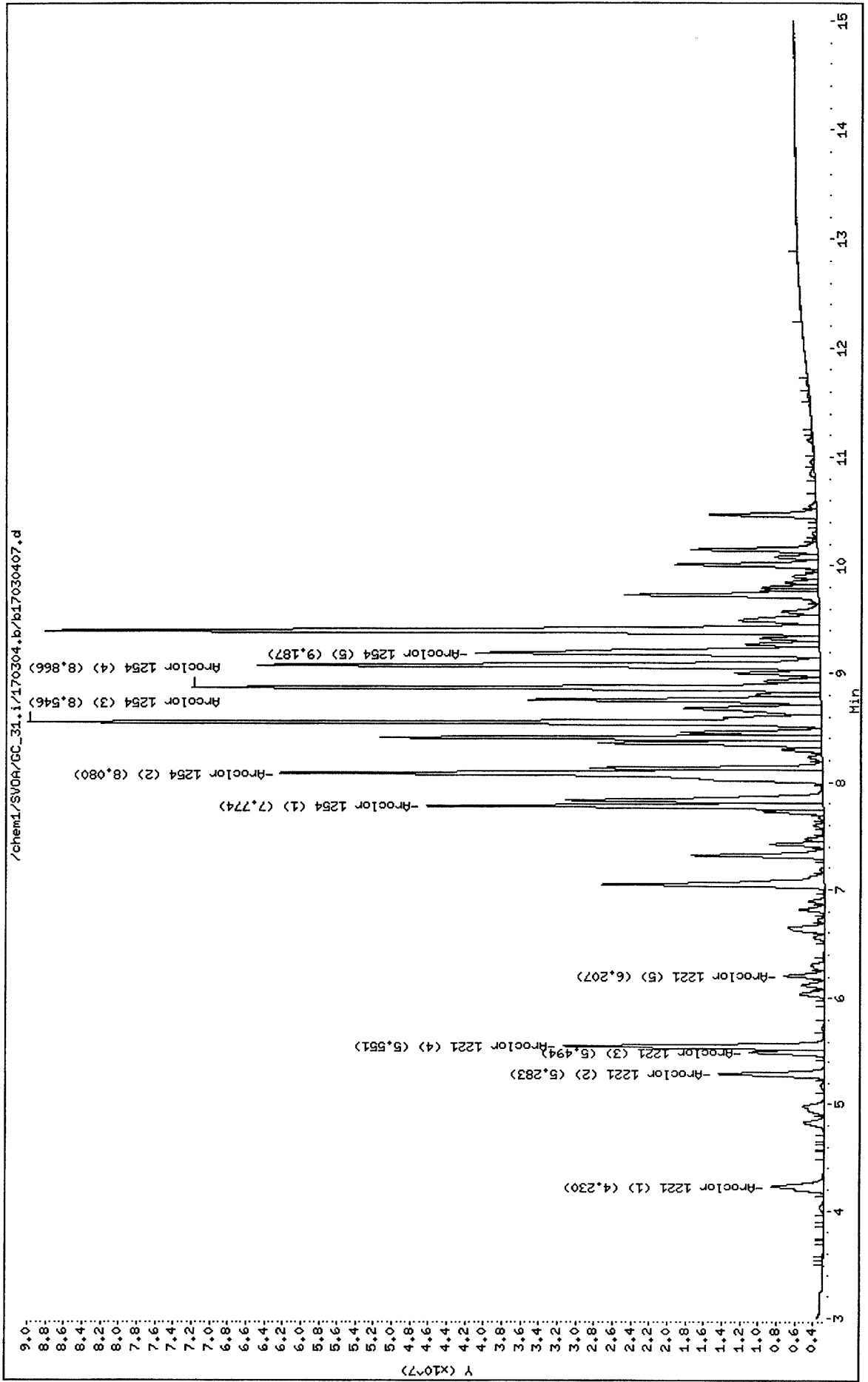
Sample Info: 1221/54 P120616M

Instrument: GC_31.1

Operator: 944

Column diameter: 2.00

Column phase:



Eurofins Calscience

EPA8082/A PCB analysis

Data file : /chem1/SVOA/GC_31.i/170304.b/b17030408.d
Lab Smp Id:
Inj Date : 04-MAR-2017 12:35
Operator : 944
Smp Info : 1232/62 P120616N
Misc Info :
Comment : Rtx-CLPesticide II
Method : /chem1/SVOA/GC_31.i/170304.b/b8082-n2.m
Meth Date : 06-Mar-2017 13:59 uj3k
Cal Date : 20-FEB-2017 17:55
Als bottle: 8
Dil Factor: 1.00000
Integrator: HP Genie
Target Version: 3.50
Processing Host: US26TAR4

Inst ID: GC_31.i

Quant Type: ESTD

Cal File: b17022011.d

Calibration Sample, Level: 3

Compound Sublist: p1232_1262.sub

Concentration Formula: Amt * DF * *vf/vi * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
vf	1.00000	Final extract volume (mL)
vi	1.00000	Initial sample volume (L)

Cpnd Variable

Local Compound Variable

		AMOUNTS				
		RT	EXP RT	DLT RT	RESPONSE	CAL-AMT ON-COL
					(ppb)	(ppb)
Compounds		RT	EXP RT	DLT RT	RESPONSE	CAL-AMT ON-COL
=====		==	=====	=====	=====	=====
M 20	Aroclor-1232				4807625868	500.000 500
21	Aroclor 1232 (1)	5.553	5.553	0.000	962839226	500.000 500
22	Aroclor 1232 (2)	6.039	6.039	0.000	788178867	500.000 500
23	Aroclor 1232 (3)	6.645	6.645	0.000	1795354238	500.000 500
24	Aroclor 1232 (4)	6.815	6.815	0.000	770028933	500.000 500
25	Aroclor 1232 (5)	6.893	6.893	0.000	491224604	500.000 500
M 44	Aroclor-1262				16008896196	500.000 500
45	Aroclor 1262 (1)	9.070	9.070	0.000	3170072761	500.000 500
46	Aroclor 1262 (2)	9.517	9.517	0.000	4868184050	500.000 500
47	Aroclor 1262 (3)	9.798	9.798	0.000	3589244055	500.000 500
48	Aroclor 1262 (4)	10.872	10.872	0.000	1316182204	500.000 500
49	Aroclor 1262 (5)	11.156	11.156	0.000	3065213126	500.000 500

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Data File: /chem1/SV00A/GC_31.i/170304.b/b17030408.d

Date : 04-MAR-2017 12:35

Client ID:

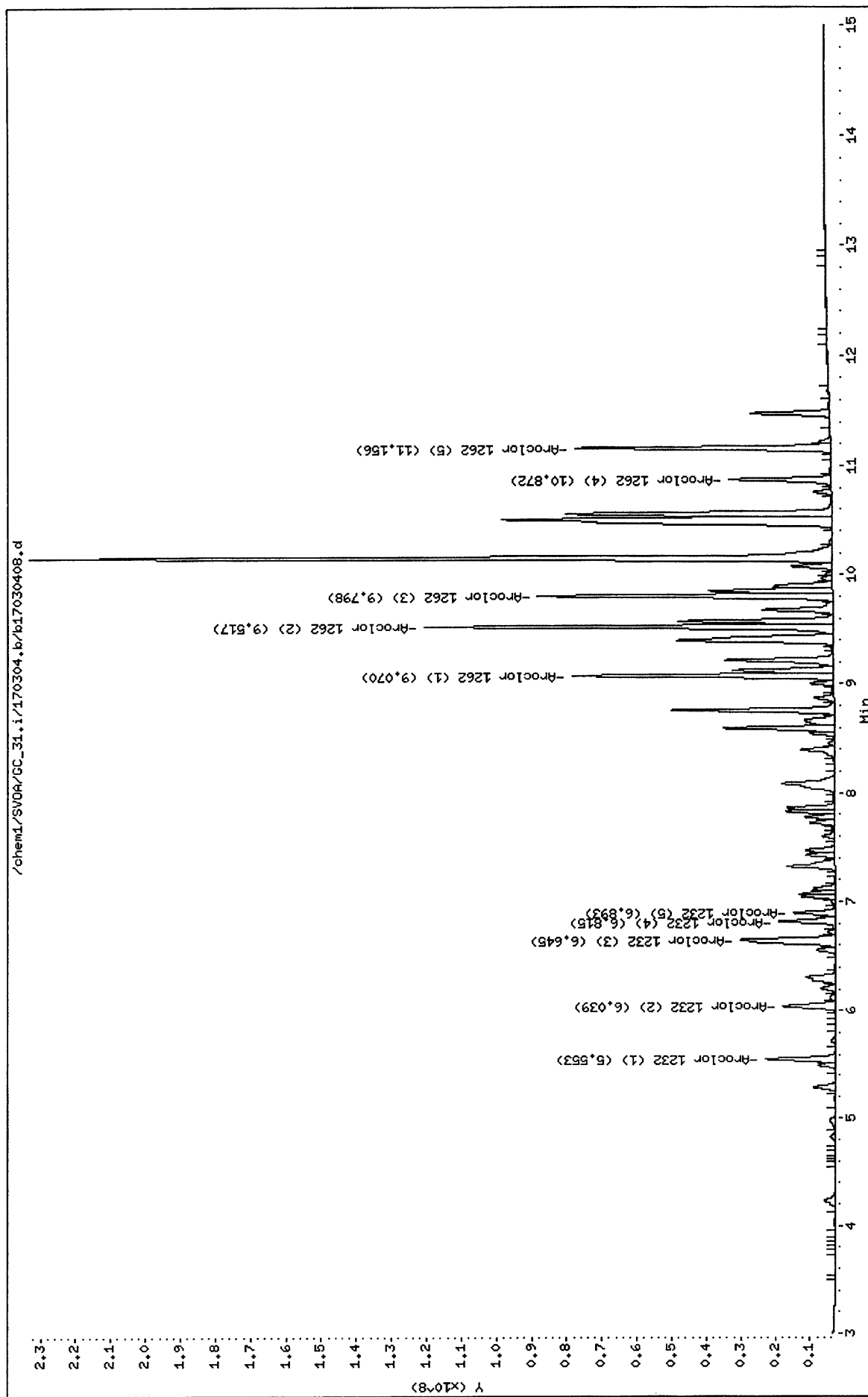
Sample Info: 1232/62 P120616N

Instrument: GC_31.i

Operator: 944

Column diameter: 2.00

Column phase:



Eurofins Calscience

EPA8082/A PCB analysis

Data file : /chem1/SVOA/GC_31.i/170304.b/b17030409.d
Lab Smp Id:
Inj Date : 04-MAR-2017 12:54
Operator : 944
Smp Info : 1248/68 P1206160
Misc Info :
Comment : Rtx-CLPesticide II
Method : /chem1/SVOA/GC_31.i/170304.b/b8082-n2.m
Meth Date : 06-Mar-2017 13:59 uj3k
Cal Date : 20-FEB-2017 17:55
Als bottle: 9
Dil Factor: 1.00000
Integrator: HP Genie
Target Version: 3.50
Processing Host: US26TAR4

Inst ID: GC_31.i

Quant Type: ESTD

Cal File: b17022011.d

Calibration Sample, Level: 3

Compound Sublist: p1248_1268.sub

Concentration Formula: Amt * DF * *vf/vi * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
vf	1.00000	Final extract volume(mL)
vi	1.00000	Initial sample volume(L)

Cpnd Variable Local Compound Variable

AMOUNTS						
				CAL-AMT	ON-COL	
Compounds	RT	EXP RT	DLT RT	RESPONSE	(ppb)	(ppb)
=====	==	=====	=====	=====	=====	=====
M 32 Aroclor-1248				6588259910	500.000	500
33 Aroclor 1248 (1)	6.643	6.643	0.000	1983342730	500.000	500
34 Aroclor 1248 (2)	7.070	7.070	0.000	872588556	500.000	500
35 Aroclor 1248 (3)	7.117	7.117	0.000	686007111	500.000	500
36 Aroclor 1248 (4)	7.318	7.318	0.000	1969334220	500.000	500
37 Aroclor 1248 (5)	7.422	7.422	0.000	1076987293	500.000	500
M 50 Aroclor-1268				57492389586	500.000	500
51 Aroclor 1268 (1)	10.500	10.500	0.000	10821644014	500.000	500
52 Aroclor 1268 (2)	10.544	10.544	0.000	9453598711	500.000	500
53 Aroclor 1268 (3)	10.761	10.761	0.000	8239694104	500.000	500
54 Aroclor 1268 (4)	11.157	11.157	0.000	3354119469	500.000	500
55 Aroclor 1268 (5)	11.473	11.473	0.000	25623333289	500.000	500

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Data File: /chem1/SV0A/GC_31.i/170304.b/b17030409.d

Date : 04-MAR-2017 12:54

Client ID:

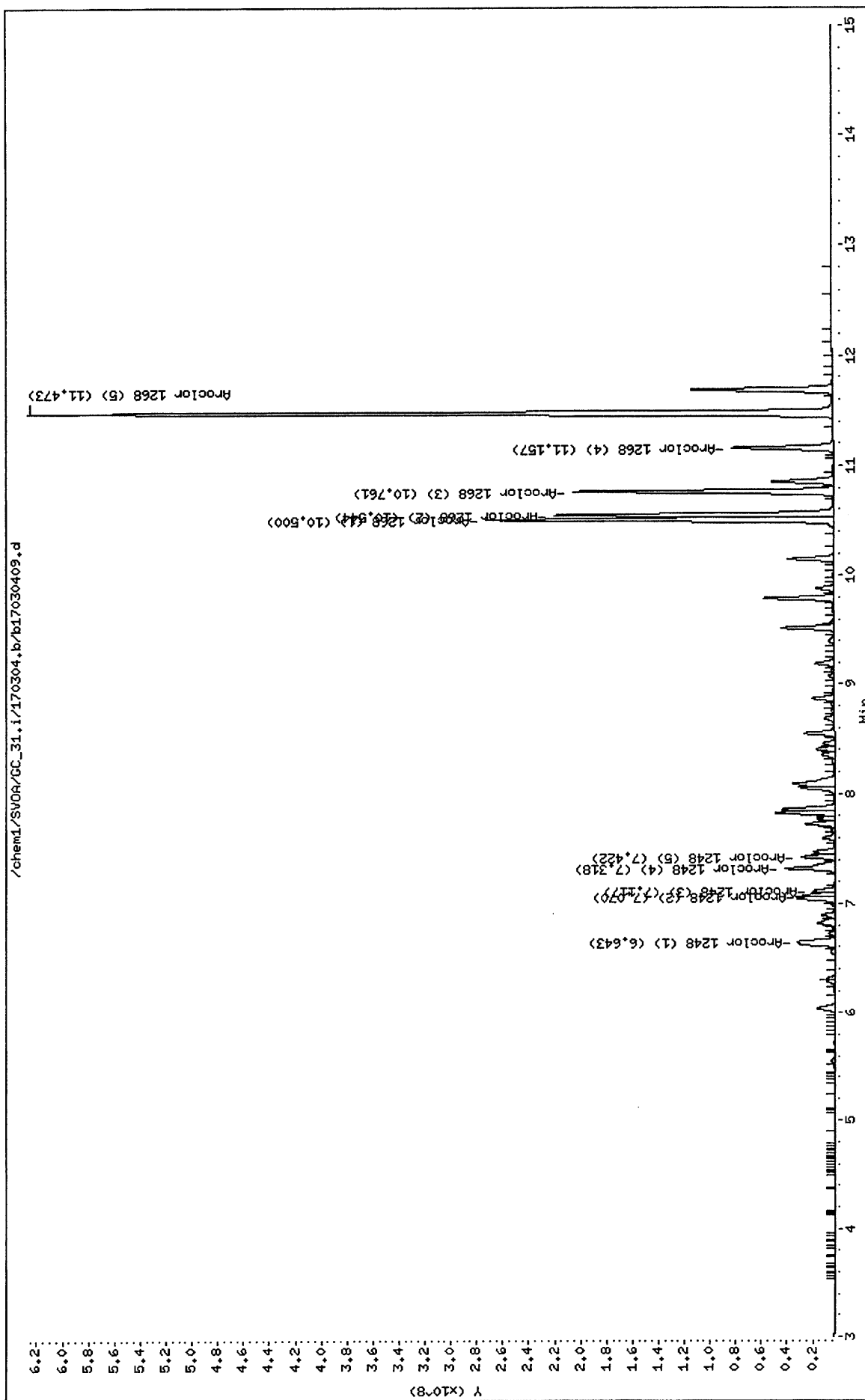
Sample Info: 1248/68 P1206160

Instrument: GC_31.i

Operator: 944

Column diameter: 2.00

Column phase:

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Eurofins Calscience

EPA8082/A PCB analysis

Data file : /chem1/SVOA/GC_31.i/170304.b/b17030410.d
Lab Smp Id:
Inj Date : 04-MAR-2017 13:13
Operator : 944 Inst ID: GC_31.i
Smp Info : 1242 P120616P
Misc Info :
Comment : Rtx-CLPesticide II
Method : /chem1/SVOA/GC_31.i/170304.b/b8082-n2.m
Meth Date : 06-Mar-2017 13:59 uj3k Quant Type: ESTD
Cal Date : 04-MAR-2017 13:13 Cal File: b17030410.d
Als bottle: 10 Calibration Sample, Level: 3
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: p1242.sub
Target Version: 3.50
Processing Host: US26TAR4

Concentration Formula: Amt * DF * *vf/vi * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
vf	1.00000	Final extract volume (mL)
vi	1.00000	Initial sample volume (L)

Cpnd Variable Local Compound Variable

		AMOUNTS				
		RT	EXP RT	DLT RT	RESPONSE	CAL-AMT ON-COL
						(ppb) (ppb)
Compounds		==	=====	=====	=====	=====
M 26	Aroclor-1242				7029961718	500.000 500
27	Aroclor 1242 (1)	5.553	5.553	0.000	689971385	500.000 500
28	Aroclor 1242 (2)	6.039	6.039	0.000	1291836345	500.000 500
29	Aroclor 1242 (3)	6.646	6.646	0.000	2973708982	500.000 500
30	Aroclor 1242 (4)	6.815	6.815	0.000	1277895142	500.000 500
31	Aroclor 1242 (5)	6.893	6.893	0.000	796549864	500.000 500

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Data File: /chem1/SV0A/GC_31.i/170304.b/b17030410.d

Date : 04-MAR-2017 13:13

Client ID:

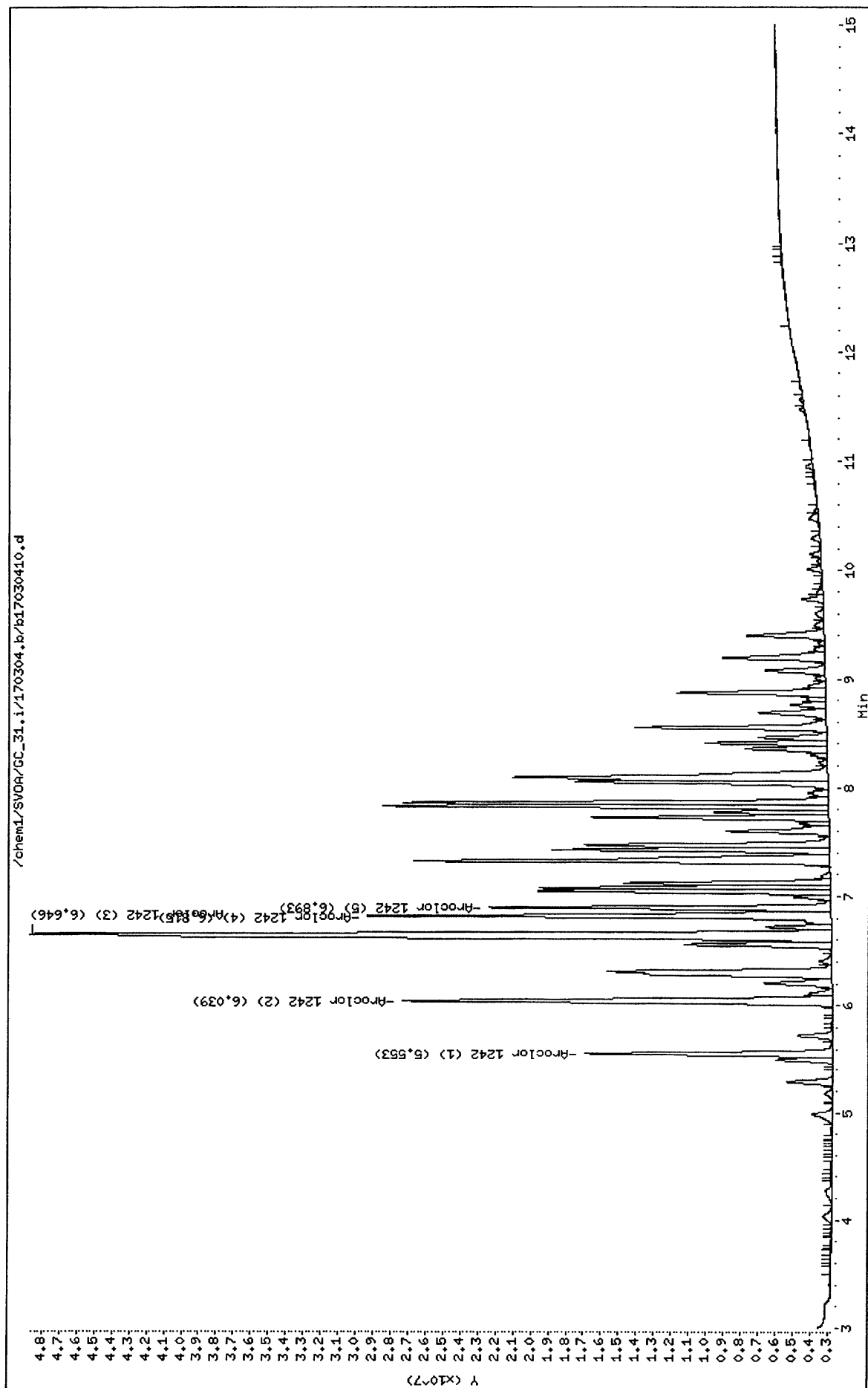
Sample Info: 1242 P120616P

Instrument: GC_31.i

Operator: 944

Column diameter: 2.00

Column phase:



EPA METHOD 8082 PCB

Sample Data

**RAW DATA SHEET
FOR METHOD: EPA 8082**

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WORK ORDER: 17-03-0335
INSTRUMENT: GC 31
EXTRACTION: EPA 3545
D/T EXTRACTED: 2017-03-06 00:00

ANALYZED BY: 944
D/T ANALYZED: 2017-03-07 18:03
REVIEWED BY: 
D/T REVIEWED:

DATA FILE: /chem1/SVOA/GC_31/170307/b1703172817031728

3 **CLIENT SAMPLE NUMBER: D-DU1-S-SG-06-15S**

LCS/MB BATCH: 170306L05	SAMPLE VOLUME / WEIGHT: DEFAULT: 20.00 g / ACTUAL: 20.00 g
MS/MSD BATCH: 170306S05	FINAL VOLUME / WEIGHT: DEFAULT: 10.00 ml / ACTUAL: 10.00 ml
UNITS: ug/kg	ADJUSTMENT RATIO TO PF: 1.00

COMMENT: Results were evaluated to the MDL (DL), concentrations $\geq$ to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

<u>COMPOUND</u>	<u>ON COL CONC</u>	<u>DF</u>	<u>CONC</u>	<u>RL</u>	<u>QUAL</u>
Aroclor-1016	0.000	1.00	ND	50	
Aroclor-1221	0.000	1.00	ND	50	
Aroclor-1232	0.000	1.00	ND	50	
Aroclor-1242	0.000	1.00	ND	50	
Aroclor-1248	0.000	1.00	ND	50	
Aroclor-1254	0.000	1.00	ND	50	
Aroclor-1260	0.000	1.00	ND	50	
Aroclor-1262	0.000	1.00	ND	50	
Aroclor-1268	0.000	1.00	ND	50	


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Data File: /chem1/SVOA/GC_31.i/170307.b/b17031728.d
 Report Date: 07-Mar-2017 18:48

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EPA8082/A PCB analysis

Data file : /chem1/SVOA/GC_31.i/170307.b/b17031728.d
 Lab Smp Id:
 Inj Date : 07-MAR-2017 18:03
 Operator : 944 Inst ID: GC_31.i
 Smp Info : 17-03-0335-3
 Misc Info :
 Comment : Rtx-CLPesticide II
 Method : /chem1/SVOA/GC_31.i/170307.b/b8082-n2.m
 Meth Date : 07-Mar-2017 15:59 src3 Quant Type: ESTD
 Cal Date : 04-MAR-2017 13:13 Cal File: b17030410.d
 Als bottle: 28
 Dil Factor: 1.00000
 Integrator: HP Genie Compound Sublist: all.sub
 Target Version: 3.50
 Processing Host: US26TAR4

Concentration Formula: Amt * DF * *vf/vi * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
vf	1.00000	Final extract volume (mL)
vi	1.00000	Initial sample volume (L)

Cpnd Variable Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS	
					ON-COLUMN (ppb)	FINAL (ug)
\$ 1 2,4,5,6-Tetrachloro-m-xylene	5.027	5.027	0.000	6602830246	54.7049	54.7 (R)
M 2 Aroclor-1016				Compound Not Detected.		
3 Aroclor 1016 (1)				Compound Not Detected.		
4 Aroclor 1016 (2)				Compound Not Detected.		
5 Aroclor 1016 (3)				Compound Not Detected.		
6 Aroclor 1016 (4)				Compound Not Detected.		
7 Aroclor 1016 (5)				Compound Not Detected.		
M 8 Aroclor-1260				Compound Not Detected.		
9 Aroclor 1260 (1)				Compound Not Detected.		
10 Aroclor 1260 (2)				Compound Not Detected.		
11 Aroclor 1260 (3)				Compound Not Detected.		
12 Aroclor 1260 (4)				Compound Not Detected.		
13 Aroclor 1260 (5)				Compound Not Detected.		
M 14 Aroclor-1221				Compound Not Detected.		
15 Aroclor 1221 (1)				Compound Not Detected.		

Data File: /chem1/SVOA/GC_31.i/170307.b/b17031728.d
Report Date: 07-Mar-2017 18:48

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Compounds	RT	EXP	RT	DLT	RT	RESPONSE	CONCENTRATIONS	
							ON-COLUMN (ppb)	FINAL (ug)
=====	==	=====	=====	=====	=====	=====	=====	=====
16 Aroclor 1221 (2)						Compound Not Detected.		
17 Aroclor 1221 (3)						Compound Not Detected.		
18 Aroclor 1221 (4)						Compound Not Detected.		
19 Aroclor 1221 (5)						Compound Not Detected.		
M 20 Aroclor-1232						Compound Not Detected.		
21 Aroclor 1232 (1)						Compound Not Detected.		
22 Aroclor 1232 (2)						Compound Not Detected.		
23 Aroclor 1232 (3)						Compound Not Detected.		
24 Aroclor 1232 (4)						Compound Not Detected.		
25 Aroclor 1232 (5)						Compound Not Detected.		
M 26 Aroclor-1242						Compound Not Detected.		
27 Aroclor 1242 (1)						Compound Not Detected.		
28 Aroclor 1242 (2)						Compound Not Detected.		
29 Aroclor 1242 (3)						Compound Not Detected.		
30 Aroclor 1242 (4)						Compound Not Detected.		
31 Aroclor 1242 (5)						Compound Not Detected.		
M 32 Aroclor-1248						Compound Not Detected.		
33 Aroclor 1248 (1)						Compound Not Detected.		
34 Aroclor 1248 (2)						Compound Not Detected.		
35 Aroclor 1248 (3)						Compound Not Detected.		
36 Aroclor 1248 (4)						Compound Not Detected.		
37 Aroclor 1248 (5)						Compound Not Detected.		
M 38 Aroclor-1254						Compound Not Detected.		
39 Aroclor 1254 (1)						Compound Not Detected.		
40 Aroclor 1254 (2)						Compound Not Detected.		
41 Aroclor 1254 (3)						Compound Not Detected.		
42 Aroclor 1254 (4)						Compound Not Detected.		
43 Aroclor 1254 (5)						Compound Not Detected.		
M 44 Aroclor-1262						Compound Not Detected.		
45 Aroclor 1262 (1)						Compound Not Detected.		
46 Aroclor 1262 (2)						Compound Not Detected.		
47 Aroclor 1262 (3)						Compound Not Detected.		
48 Aroclor 1262 (4)						Compound Not Detected.		
49 Aroclor 1262 (5)						Compound Not Detected.		
M 50 Aroclor-1268						Compound Not Detected.		
51 Aroclor 1268 (1)						Compound Not Detected.		
52 Aroclor 1268 (2)						Compound Not Detected.		
53 Aroclor 1268 (3)						Compound Not Detected.		
54 Aroclor 1268 (4)						Compound Not Detected.		
55 Aroclor 1268 (5)						Compound Not Detected.		
\$ 56 Decachlorobiphenyl	11.682	11.682	0.000	10257166582			72.7080	72.7

QC Flag Legend

R - Spike/Surrogate failed recovery limits.

Data File: /chem1/SV0A/GC_31.i/170307.b/b17031728.d

Date : 07-MAR-2017 18:03

Client ID:

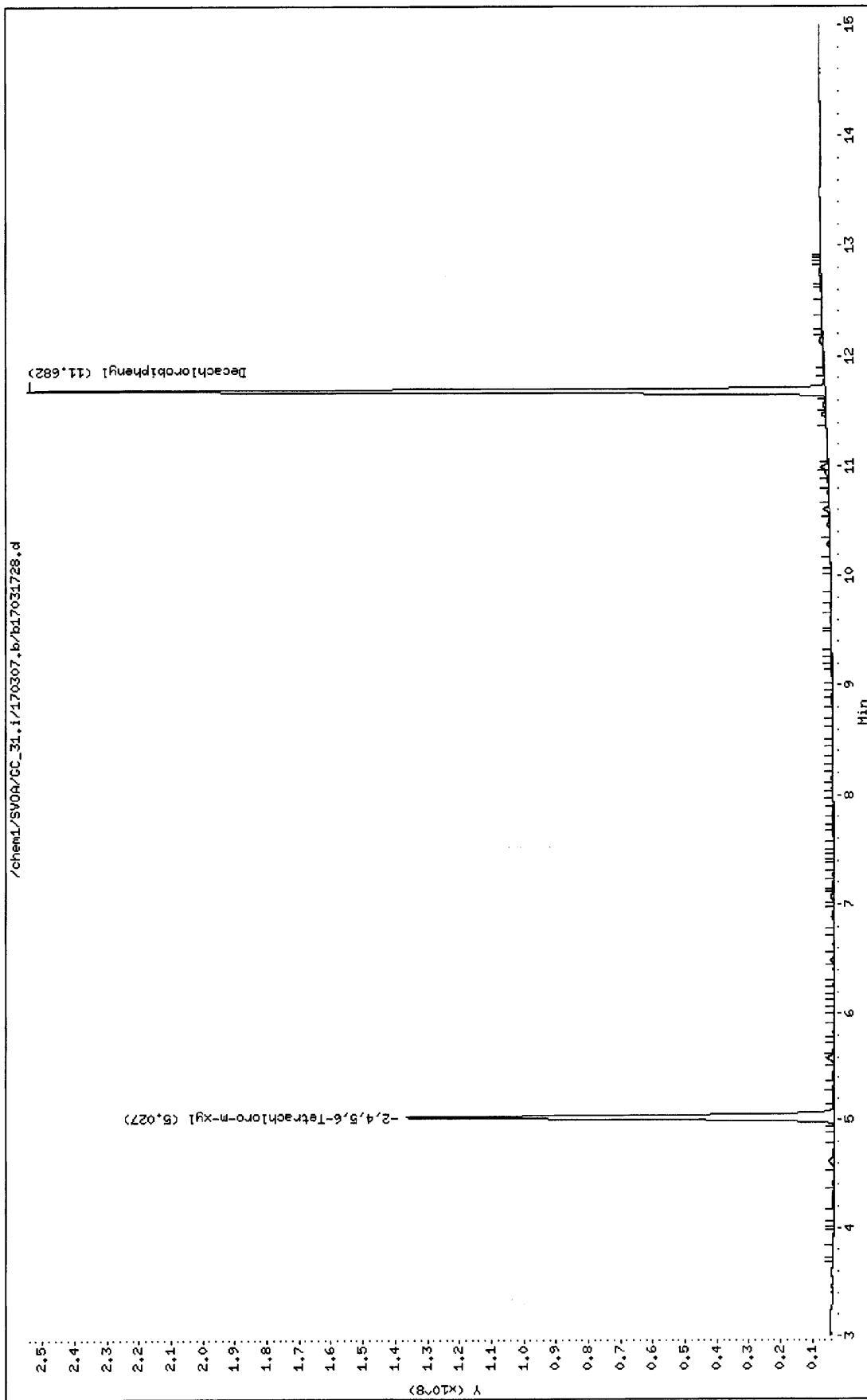
Sample Info: 17-03-0335-3

Instrument: GC_31.i

Operator: 944

Column diameter: 2.00

Column phase:



**RAW DATA SHEET
FOR METHOD: EPA 8082**

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WORK ORDER: 17-03-0335
INSTRUMENT: GC 31
EXTRACTION: EPA 3545
D/T EXTRACTED: 2017-03-06 00:00

ANALYZED BY: 944
D/T ANALYZED: 2017-03-07 18:22
REVIEWED BY:
D/T REVIEWED: 

DATA FILE: /chem1/SVOA/GC_31/170307/b1703172917031729

4 **CLIENT SAMPLE NUMBER: D-DU1-S-SG-06-25S**

LCS/MB BATCH: 170306L05	SAMPLE VOLUME / WEIGHT: DEFAULT: 20.00 g / ACTUAL: 20.10 g
MS/MSD BATCH: 170306S05	FINAL VOLUME / WEIGHT: DEFAULT: 10.00 ml / ACTUAL: 10.00 ml
UNITS: ug/kg	ADJUSTMENT RATIO TO PF: 1.00

COMMENT: Results were evaluated to the MDL (DL), concentrations $\geq$ to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

COMPOUND	ON COL CONC	DF	CONC	RL	QUAL
Aroclor-1016	0.000	1.00	ND	50	
Aroclor-1221	0.000	1.00	ND	50	
Aroclor-1232	0.000	1.00	ND	50	
Aroclor-1242	0.000	1.00	ND	50	
Aroclor-1248	0.000	1.00	ND	50	
Aroclor-1254	0.000	1.00	ND	50	
Aroclor-1260	0.000	1.00	ND	50	
Aroclor-1262	0.000	1.00	ND	50	
Aroclor-1268	0.000	1.00	ND	50	


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Data File: /chem1/SVOA/GC_31.i/170307.b/b17031729.d
 Report Date: 07-Mar-2017 18:48

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EPA8082/A PCB analysis

Data file : /chem1/SVOA/GC_31.i/170307.b/b17031729.d
 Lab Smp Id:
 Inj Date : 07-MAR-2017 18:22
 Operator : 944 Inst ID: GC_31.i
 Smp Info : 17-03-0335-4
 Misc Info :
 Comment : Rtx-CLPesticide II
 Method : /chem1/SVOA/GC_31.i/170307.b/b8082-n2.m
 Meth Date : 07-Mar-2017 15:59 src3 Quant Type: ESTD
 Cal Date : 04-MAR-2017 13:13 Cal File: b17030410.d
 Als bottle: 29
 Dil Factor: 1.00000
 Integrator: HP Genie Compound Sublist: all.sub
 Target Version: 3.50
 Processing Host: US26TAR4

Concentration Formula: Amt * DF * *vf/vi * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
vf	1.00000	Final extract volume (mL)
vi	1.00000	Initial sample volume (L)

Cpnd Variable Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS	
					ON-COLUMN (ppb)	FINAL (ug)
\$ 1 2,4,5,6-Tetrachloro-m-xylene	5.027	5.027	0.000	7627246804	63.1923	63.2
M 2 Aroclor-1016				Compound Not Detected.		
3 Aroclor 1016 (1)				Compound Not Detected.		
4 Aroclor 1016 (2)				Compound Not Detected.		
5 Aroclor 1016 (3)				Compound Not Detected.		
6 Aroclor 1016 (4)				Compound Not Detected.		
7 Aroclor 1016 (5)				Compound Not Detected.		
M 8 Aroclor-1260				Compound Not Detected.		
9 Aroclor 1260 (1)				Compound Not Detected.		
10 Aroclor 1260 (2)				Compound Not Detected.		
11 Aroclor 1260 (3)				Compound Not Detected.		
12 Aroclor 1260 (4)				Compound Not Detected.		
13 Aroclor 1260 (5)				Compound Not Detected.		
M 14 Aroclor-1221				Compound Not Detected.		
15 Aroclor 1221 (1)				Compound Not Detected.		

Data File: /chem1/SVOA/GC_31.i/170307.b/b17031729.d
 Report Date: 07-Mar-2017 18:48

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Compounds	CONCENTRATIONS					RESPONSE	ON-COLUMN (ppb)	FINAL (ug)
	RT	EXP RT	DLT RT	RT				
=====	==	=====	=====	=====	=====	=====	=====	=====
16 Aroclor 1221 (2)					Compound Not Detected.			
17 Aroclor 1221 (3)					Compound Not Detected.			
18 Aroclor 1221 (4)					Compound Not Detected.			
19 Aroclor 1221 (5)					Compound Not Detected.			
M 20 Aroclor-1232					Compound Not Detected.			
21 Aroclor 1232 (1)					Compound Not Detected.			
22 Aroclor 1232 (2)					Compound Not Detected.			
23 Aroclor 1232 (3)					Compound Not Detected.			
24 Aroclor 1232 (4)					Compound Not Detected.			
25 Aroclor 1232 (5)					Compound Not Detected.			
M 26 Aroclor-1242					Compound Not Detected.			
27 Aroclor 1242 (1)					Compound Not Detected.			
28 Aroclor 1242 (2)					Compound Not Detected.			
29 Aroclor 1242 (3)					Compound Not Detected.			
30 Aroclor 1242 (4)					Compound Not Detected.			
31 Aroclor 1242 (5)					Compound Not Detected.			
M 32 Aroclor-1248					Compound Not Detected.			
33 Aroclor 1248 (1)					Compound Not Detected.			
34 Aroclor 1248 (2)					Compound Not Detected.			
35 Aroclor 1248 (3)					Compound Not Detected.			
36 Aroclor 1248 (4)					Compound Not Detected.			
37 Aroclor 1248 (5)					Compound Not Detected.			
M 38 Aroclor-1254					Compound Not Detected.			
39 Aroclor 1254 (1)					Compound Not Detected.			
40 Aroclor 1254 (2)					Compound Not Detected.			
41 Aroclor 1254 (3)					Compound Not Detected.			
42 Aroclor 1254 (4)					Compound Not Detected.			
43 Aroclor 1254 (5)					Compound Not Detected.			
M 44 Aroclor-1262					Compound Not Detected.			
45 Aroclor 1262 (1)					Compound Not Detected.			
46 Aroclor 1262 (2)					Compound Not Detected.			
47 Aroclor 1262 (3)					Compound Not Detected.			
48 Aroclor 1262 (4)					Compound Not Detected.			
49 Aroclor 1262 (5)					Compound Not Detected.			
M 50 Aroclor-1268					Compound Not Detected.			
51 Aroclor 1268 (1)					Compound Not Detected.			
52 Aroclor 1268 (2)					Compound Not Detected.			
53 Aroclor 1268 (3)					Compound Not Detected.			
54 Aroclor 1268 (4)					Compound Not Detected.			
55 Aroclor 1268 (5)					Compound Not Detected.			
\$ 56 Decachlorobiphenyl	11.682	11.682	0.000	10952266300		77.6352	77.6	

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Data File: /chem1/SV09/GC_31.i/170307.b/b17031729.d

Date : 07-MAR-2017 18:22

Client ID:

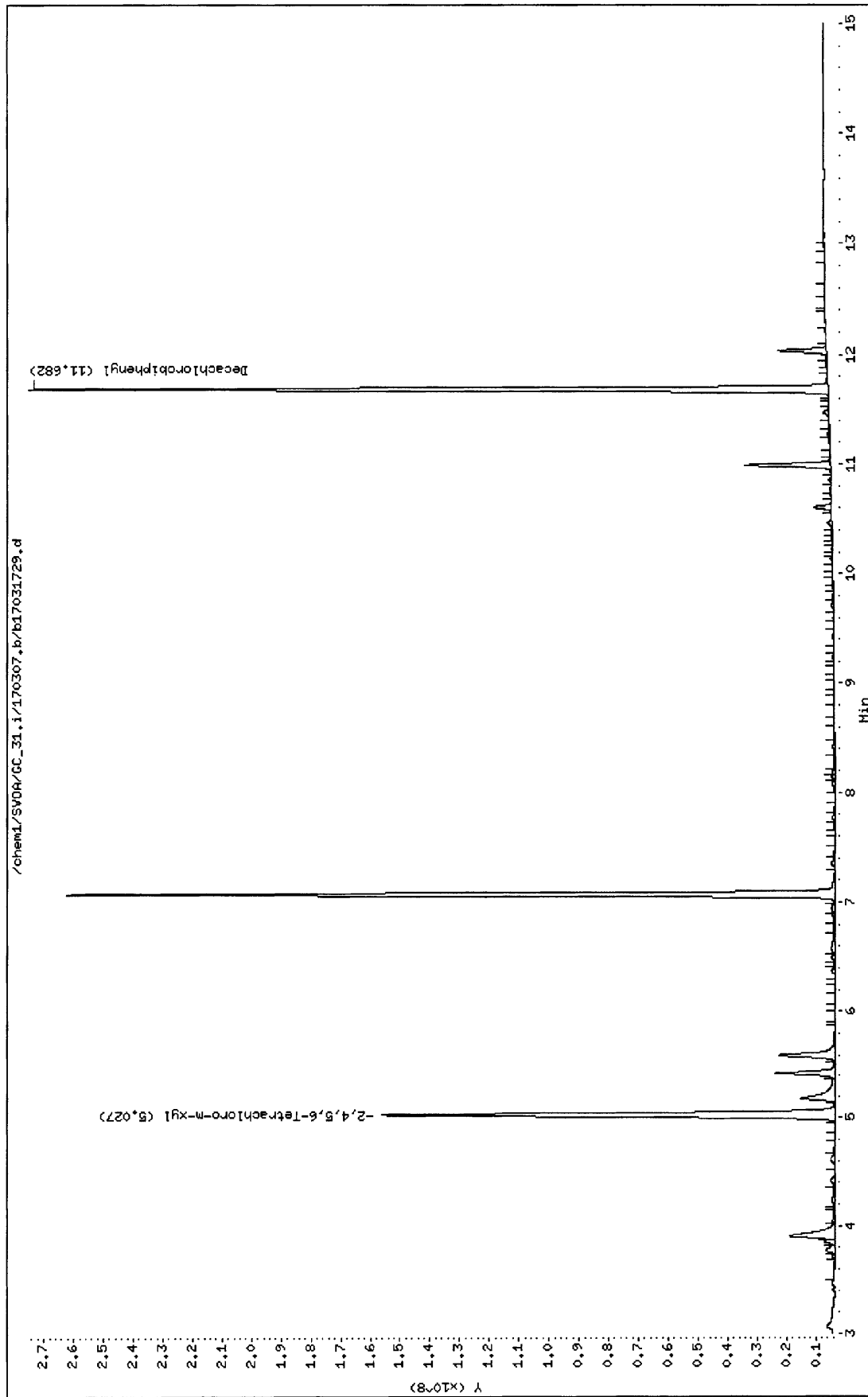
Sample Info: 17-03-0335-4

Instrument: GC_31.i

Operator: 944

Column diameter: 2.00

Column phase:



**RAW DATA SHEET
FOR METHOD: EPA 8082**

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WORK ORDER: 17-03-0335
INSTRUMENT: GC 31
EXTRACTION: EPA 3545
D/T EXTRACTED: 2017-03-06 00:00

ANALYZED BY: 944
D/T ANALYZED: 2017-03-07 18:41
REVIEWED BY:
D/T REVIEWED: 

DATA FILE: /chem1/SVOA/GC_31/170307/b1703173017031730

7 **CLIENT SAMPLE NUMBER: D-DU1-S-SG-07-15S**

LCS/MB BATCH: 170306L05	SAMPLE VOLUME / WEIGHT: DEFAULT: 20.00 g / ACTUAL: 20.10 g
MS/MSD BATCH: 170306S05	FINAL VOLUME / WEIGHT: DEFAULT: 10.00 ml / ACTUAL: 10.00 ml
UNITS: ug/kg	ADJUSTMENT RATIO TO PF: 1.00

COMMENT: Results were evaluated to the MDL (DL), concentrations $\geq$ to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

<u>COMPOUND</u>	<u>ON COL CONC</u>	<u>DF</u>	<u>CONC</u>	<u>RL</u>	<u>QUAL</u>
Aroclor-1016	0.000	1.00	ND	50	
Aroclor-1221	0.000	1.00	ND	50	
Aroclor-1232	0.000	1.00	ND	50	
Aroclor-1242	0.000	1.00	ND	50	
Aroclor-1248	0.000	1.00	ND	50	
Aroclor-1254	0.000	1.00	ND	50	
Aroclor-1260	0.000	1.00	ND	50	
Aroclor-1262	0.000	1.00	ND	50	
Aroclor-1268	0.000	1.00	ND	50	

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Data File: /chem1/SVOA/GC_31.i/170307.b/b17031730.d
 Report Date: 07-Mar-2017 19:12

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Eurofins Calscience

EPA8082/A PCB analysis

Data file : /chem1/SVOA/GC_31.i/170307.b/b17031730.d
 Lab Smp Id:
 Inj Date : 07-MAR-2017 18:41
 Operator : 944 Inst ID: GC_31.i
 Smp Info : 17-03-0335-7
 Misc Info :
 Comment : Rtx-CLPesticide II
 Method : /chem1/SVOA/GC_31.i/170307.b/b8082-n2.m
 Meth Date : 07-Mar-2017 15:59 src3 Quant Type: ESTD
 Cal Date : 04-MAR-2017 13:13 Cal File: b17030410.d
 Als bottle: 30
 Dil Factor: 1.00000
 Integrator: HP Genie Compound Sublist: all.sub
 Target Version: 3.50
 Processing Host: US26TAR4

Concentration Formula: Amt * DF * *vf/vi * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
vf	1.00000	Final extract volume(mL)
vi	1.00000	Initial sample volume(L)

Cpnd Variable Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS	
					ON-COLUMN (ppb)	FINAL (ug)
\$ 1 2,4,5,6-Tetrachloro-m-xylene	5.027	5.027	0.000	7844500418	64.9922	65.0
M 2 Aroclor-1016				Compound Not Detected.		
3 Aroclor 1016 (1)				Compound Not Detected.		
4 Aroclor 1016 (2)				Compound Not Detected.		
5 Aroclor 1016 (3)				Compound Not Detected.		
6 Aroclor 1016 (4)				Compound Not Detected.		
7 Aroclor 1016 (5)				Compound Not Detected.		
M 8 Aroclor-1260				Compound Not Detected.		
9 Aroclor 1260 (1)				Compound Not Detected.		
10 Aroclor 1260 (2)				Compound Not Detected.		
11 Aroclor 1260 (3)				Compound Not Detected.		
12 Aroclor 1260 (4)				Compound Not Detected.		
13 Aroclor 1260 (5)				Compound Not Detected.		
M 14 Aroclor-1221				Compound Not Detected.		
15 Aroclor 1221 (1)				Compound Not Detected.		

Data File: /chem1/SVOA/GC_31.i/170307.b/bi7031730.d
 Report Date: 07-Mar-2017 19:12

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Compounds	RT	EXP	RT	DLT	RT	RESPONSE	CONCENTRATIONS	
							ON-COLUMN	FINAL
							(ppb)	(ug)
=====	==	=====	=====	=====	=====	=====	=====	=====
16 Aroclor 1221 (2)					Compound Not Detected.			
17 Aroclor 1221 (3)					Compound Not Detected.			
18 Aroclor 1221 (4)					Compound Not Detected.			
19 Aroclor 1221 (5)					Compound Not Detected.			
M 20 Aroclor-1232					Compound Not Detected.			
21 Aroclor 1232 (1)					Compound Not Detected.			
22 Aroclor 1232 (2)					Compound Not Detected.			
23 Aroclor 1232 (3)					Compound Not Detected.			
24 Aroclor 1232 (4)					Compound Not Detected.			
25 Aroclor 1232 (5)					Compound Not Detected.			
M 26 Aroclor-1242					Compound Not Detected.			
27 Aroclor 1242 (1)					Compound Not Detected.			
28 Aroclor 1242 (2)					Compound Not Detected.			
29 Aroclor 1242 (3)					Compound Not Detected.			
30 Aroclor 1242 (4)					Compound Not Detected.			
31 Aroclor 1242 (5)					Compound Not Detected.			
M 32 Aroclor-1248					Compound Not Detected.			
33 Aroclor 1248 (1)					Compound Not Detected.			
34 Aroclor 1248 (2)					Compound Not Detected.			
35 Aroclor 1248 (3)					Compound Not Detected.			
36 Aroclor 1248 (4)					Compound Not Detected.			
37 Aroclor 1248 (5)					Compound Not Detected.			
M 38 Aroclor-1254					Compound Not Detected.			
39 Aroclor 1254 (1)					Compound Not Detected.			
40 Aroclor 1254 (2)					Compound Not Detected.			
41 Aroclor 1254 (3)					Compound Not Detected.			
42 Aroclor 1254 (4)					Compound Not Detected.			
43 Aroclor 1254 (5)					Compound Not Detected.			
M 44 Aroclor-1262					Compound Not Detected.			
45 Aroclor 1262 (1)					Compound Not Detected.			
46 Aroclor 1262 (2)					Compound Not Detected.			
47 Aroclor 1262 (3)					Compound Not Detected.			
48 Aroclor 1262 (4)					Compound Not Detected.			
49 Aroclor 1262 (5)					Compound Not Detected.			
M 50 Aroclor-1268					Compound Not Detected.			
51 Aroclor 1268 (1)					Compound Not Detected.			
52 Aroclor 1268 (2)					Compound Not Detected.			
53 Aroclor 1268 (3)					Compound Not Detected.			
54 Aroclor 1268 (4)					Compound Not Detected.			
55 Aroclor 1268 (5)					Compound Not Detected.			
\$ 56 Decachlorobiphenyl	11.682	11.682	0.000	11252409046		79.7628		79.8

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Data File: /chem1/SVDA/GC_31.i/170307.b/b17031730.d

Date : 07-MAR-2017 18:41

Client ID:

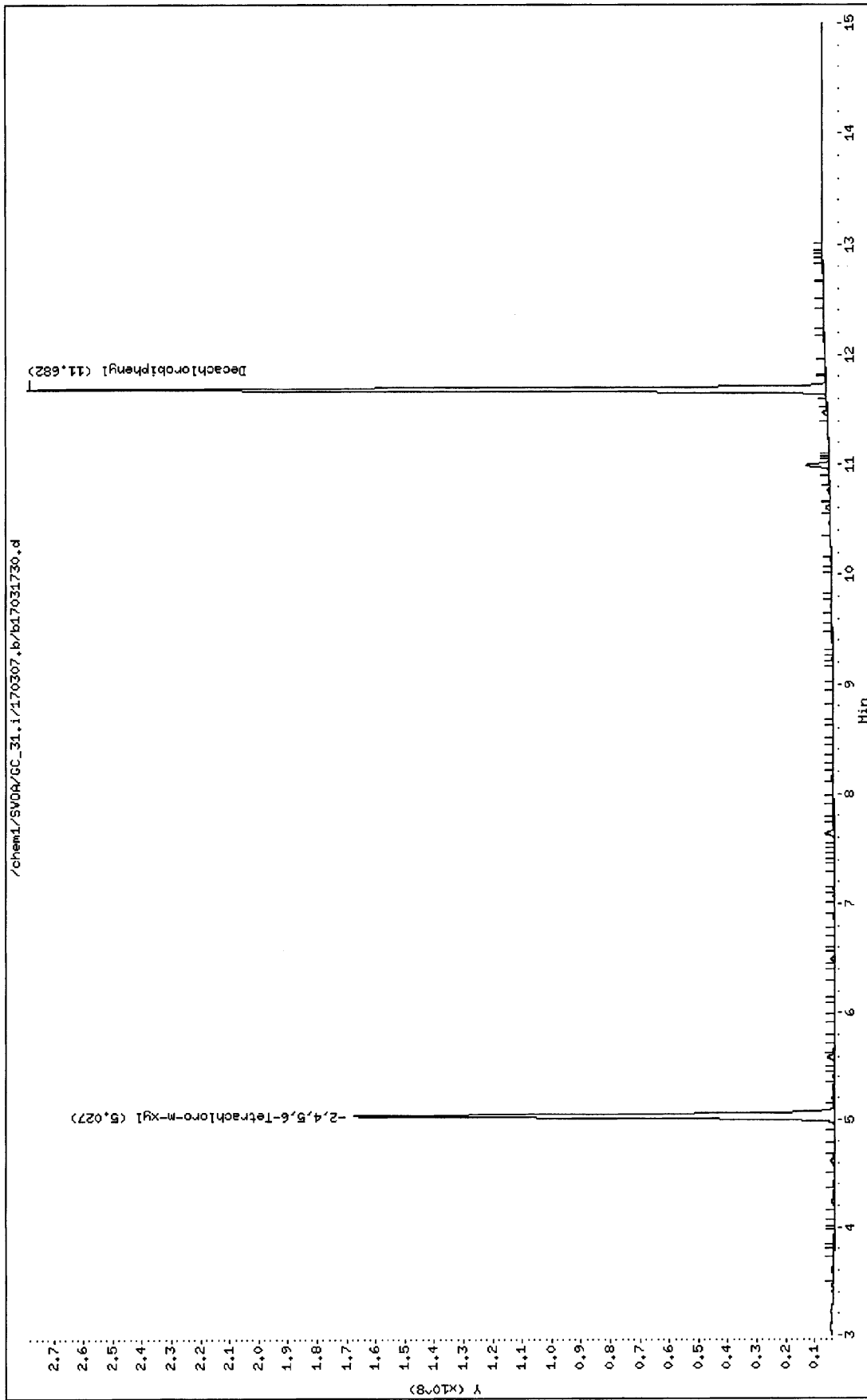
Sample Info: 17-03-0335-7

Instrument: GC_31.i

Operator: 944

Column diameter: 2.00

Column phase:



**RAW DATA SHEET
FOR METHOD: EPA 8082**

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WORK ORDER: 17-03-0335
INSTRUMENT: GC 31
EXTRACTION: EPA 3545
D/T EXTRACTED: 2017-03-06 00:00

ANALYZED BY: 944
D/T ANALYZED: 2017-03-07 19:00
REVIEWED BY:
D/T REVIEWED: *M*

DATA FILE: /chem1/SVOA/GC_31/170307/b1703173117031731

8 **CLIENT SAMPLE NUMBER:** D-DU1-S-SG-07-25S

LCS/MB BATCH: 170306L05	SAMPLE VOLUME / WEIGHT: DEFAULT: 20.00 g / ACTUAL: 20.20 g
MS/MSD BATCH: 170306S05	FINAL VOLUME / WEIGHT: DEFAULT: 10.00 ml / ACTUAL: 10.00 ml
UNITS: ug/kg	ADJUSTMENT RATIO TO PF: 0.99

COMMENT: Results were evaluated to the MDL (DL), concentrations $\geq$ to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

<u>COMPOUND</u>	<u>ON COL CONC</u>	<u>DF</u>	<u>CONC</u>	<u>RL</u>	<u>QUAL</u>
Aroclor-1016	0.000	1.00	ND	50	
Aroclor-1221	0.000	1.00	ND	50	
Aroclor-1232	0.000	1.00	ND	50	
Aroclor-1242	0.000	1.00	ND	50	
Aroclor-1248	0.000	1.00	ND	50	
Aroclor-1254	0.000	1.00	ND	50	
Aroclor-1260	0.000	1.00	ND	50	
Aroclor-1262	0.000	1.00	ND	50	
Aroclor-1268	0.000	1.00	ND	50	

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Data File: /chem1/SVOA/GC_31.i/170307.b/b17031731.d
 Report Date: 07-Mar-2017 19:23

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Eurofins Calscience

EPA8082/A PCB analysis

Data file : /chem1/SVOA/GC_31.i/170307.b/b17031731.d
 Lab Smp Id:
 Inj Date : 07-MAR-2017 19:00
 Operator : 944 Inst ID: GC_31.i
 Smp Info : 17-03-0335-8
 Misc Info :
 Comment : Rtx-CLPesticide II
 Method : /chem1/SVOA/GC_31.i/170307.b/b8082-n2.m
 Meth Date : 07-Mar-2017 15:59 src3 Quant Type: ESTD
 Cal Date : 04-MAR-2017 13:13 Cal File: b17030410.d
 Als bottle: 31
 Dil Factor: 1.00000
 Integrator: HP Genie Compound Sublist: all.sub
 Target Version: 3.50
 Processing Host: US26TAR4

Concentration Formula: Amt * DF * *vf/vi * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
vf	1.00000	Final extract volume(mL)
vi	1.00000	Initial sample volume(L)

Cpnd Variable Local Compound Variable

				CONCENTRATIONS			
Compounds		RT	EXP RT	DLT RT	RESPONSE	ON-COLUMN (ppb)	FINAL (ug)
=====		==	=====	=====	=====	=====	=====
\$	1 2,4,5,6-Tetrachloro-m-xylene	5.028	5.027	0.001	7484663516	62.0109	62.0
M	2 Aroclor-1016	Compound Not Detected.					
	3 Aroclor 1016 (1)	Compound Not Detected.					
	4 Aroclor 1016 (2)	Compound Not Detected.					
	5 Aroclor 1016 (3)	Compound Not Detected.					
	6 Aroclor 1016 (4)	Compound Not Detected.					
	7 Aroclor 1016 (5)	Compound Not Detected.					
M	8 Aroclor-1260	Compound Not Detected.					
	9 Aroclor 1260 (1)	Compound Not Detected.					
	10 Aroclor 1260 (2)	Compound Not Detected.					
	11 Aroclor 1260 (3)	Compound Not Detected.					
	12 Aroclor 1260 (4)	Compound Not Detected.					
	13 Aroclor 1260 (5)	Compound Not Detected.					
M	14 Aroclor-1221	Compound Not Detected.					
	15 Aroclor 1221 (1)	Compound Not Detected.					

Data File: /chem1/SVOA/GC_31.i/170307.b/b17031731.d
 Report Date: 07-Mar-2017 19:23

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Compounds	RT	EXP	RT	DLT	RT	RESPONSE	CONCENTRATIONS	
							ON-COLUMN	FINAL
							(ppb)	(ug)
=====	==	=====	=====	=====	=====	=====	=====	=====
16 Aroclor 1221 (2)					Compound Not Detected.			
17 Aroclor 1221 (3)					Compound Not Detected.			
18 Aroclor 1221 (4)					Compound Not Detected.			
19 Aroclor 1221 (5)					Compound Not Detected.			
M 20 Aroclor-1232					Compound Not Detected.			
21 Aroclor 1232 (1)					Compound Not Detected.			
22 Aroclor 1232 (2)					Compound Not Detected.			
23 Aroclor 1232 (3)					Compound Not Detected.			
24 Aroclor 1232 (4)					Compound Not Detected.			
25 Aroclor 1232 (5)					Compound Not Detected.			
M 26 Aroclor-1242					Compound Not Detected.			
27 Aroclor 1242 (1)					Compound Not Detected.			
28 Aroclor 1242 (2)					Compound Not Detected.			
29 Aroclor 1242 (3)					Compound Not Detected.			
30 Aroclor 1242 (4)					Compound Not Detected.			
31 Aroclor 1242 (5)					Compound Not Detected.			
M 32 Aroclor-1248					Compound Not Detected.			
33 Aroclor 1248 (1)					Compound Not Detected.			
34 Aroclor 1248 (2)					Compound Not Detected.			
35 Aroclor 1248 (3)					Compound Not Detected.			
36 Aroclor 1248 (4)					Compound Not Detected.			
37 Aroclor 1248 (5)					Compound Not Detected.			
M 38 Aroclor-1254					Compound Not Detected.			
39 Aroclor 1254 (1)					Compound Not Detected.			
40 Aroclor 1254 (2)					Compound Not Detected.			
41 Aroclor 1254 (3)					Compound Not Detected.			
42 Aroclor 1254 (4)					Compound Not Detected.			
43 Aroclor 1254 (5)					Compound Not Detected.			
M 44 Aroclor-1262					Compound Not Detected.			
45 Aroclor 1262 (1)					Compound Not Detected.			
46 Aroclor 1262 (2)					Compound Not Detected.			
47 Aroclor 1262 (3)					Compound Not Detected.			
48 Aroclor 1262 (4)					Compound Not Detected.			
49 Aroclor 1262 (5)					Compound Not Detected.			
M 50 Aroclor-1268					Compound Not Detected.			
51 Aroclor 1268 (1)					Compound Not Detected.			
52 Aroclor 1268 (2)					Compound Not Detected.			
53 Aroclor 1268 (3)					Compound Not Detected.			
54 Aroclor 1268 (4)					Compound Not Detected.			
55 Aroclor 1268 (5)					Compound Not Detected.			
\$ 56 Decachlorobiphenyl	11.683	11.682	0.001	10545229300		74.7499	74.7	

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Data File: /chem1/SV00A/GC_31.i/170307.b/b17031731.d

Date : 07-MAR-2017 19:00

Client ID:

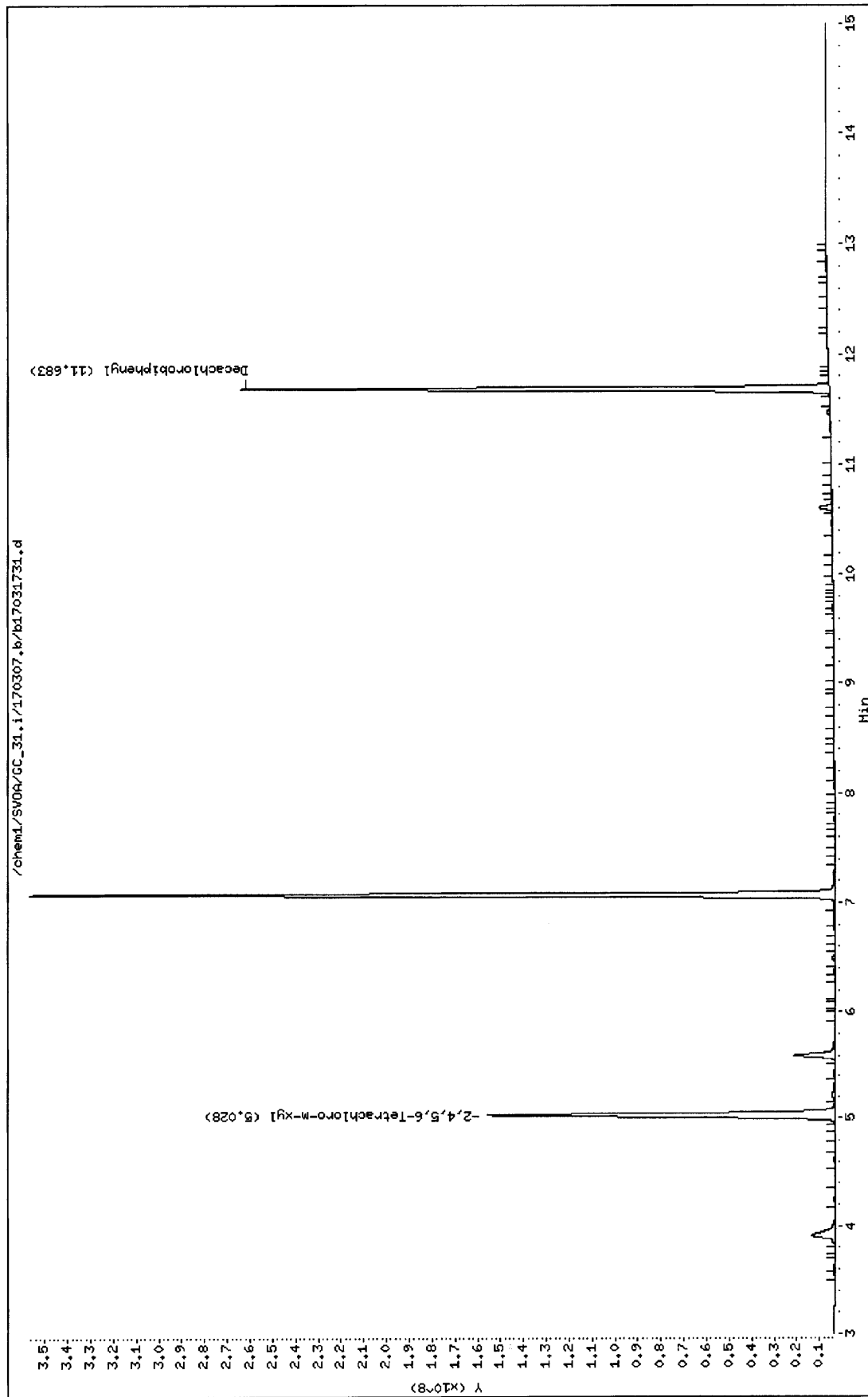
Sample Info: 17-03-0335-8

Instrument: GC_31.i

Operator: 944

Column diameter: 2.00

Column phase:



**RAW DATA SHEET
FOR METHOD: EPA 8082**

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WORK ORDER: 17-03-0335
INSTRUMENT: GC 31
EXTRACTION: EPA 3545
D/T EXTRACTED: 2017-03-06 00:00

ANALYZED BY: 944
D/T ANALYZED: 2017-03-07 19:19
REVIEWED BY: 
D/T REVIEWED:

DATA FILE: /chem1/SVOA/GC_31/170307/b1703173217031732

11 **CLIENT SAMPLE NUMBER: D-DU1-S-SG-08-15S**

LCS/MB BATCH: 170306L05	SAMPLE VOLUME / WEIGHT: DEFAULT: 20.00 g / ACTUAL: 20.10 g
MS/MSD BATCH: 170306S05	FINAL VOLUME / WEIGHT: DEFAULT: 10.00 ml / ACTUAL: 10.00 ml
UNITS: ug/kg	ADJUSTMENT RATIO TO PF: 1.00

COMMENT: Results were evaluated to the MDL (DL), concentrations $\geq$ to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

<u>COMPOUND</u>	<u>ON COL CONC</u>	<u>DF</u>	<u>CONC</u>	<u>RL</u>	<u>QUAL</u>
Aroclor-1016	0.000	1.00	ND	50	
Aroclor-1221	0.000	1.00	ND	50	
Aroclor-1232	0.000	1.00	ND	50	
Aroclor-1242	0.000	1.00	ND	50	
Aroclor-1248	0.000	1.00	ND	50	
Aroclor-1254	0.000	1.00	ND	50	
Aroclor-1260	0.000	1.00	ND	50	
Aroclor-1262	0.000	1.00	ND	50	
Aroclor-1268	0.000	1.00	ND	50	

Data File: /chem1/SVOA/GC_31.i/170307.b/b17031732.d
 Report Date: 07-Mar-2017 19:43

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Eurofins Calscience

EPA8082/A PCB analysis

Data file : /chem1/SVOA/GC_31.i/170307.b/b17031732.d
 Lab Smp Id:
 Inj Date : 07-MAR-2017 19:19
 Operator : 944 Inst ID: GC_31.i
 Smp Info : 17-03-0335-11
 Misc Info :
 Comment : Rtx-CLPesticide II
 Method : /chem1/SVOA/GC_31.i/170307.b/b8082-n2.m
 Meth Date : 07-Mar-2017 15:59 src3 Quant Type: ESTD
 Cal Date : 04-MAR-2017 13:13 Cal File: b17030410.d
 Als bottle: 32
 Dil Factor: 1.00000
 Integrator: HP Genie Compound Sublist: all.sub
 Target Version: 3.50
 Processing Host: US26TAR4

Concentration Formula: Amt * DF * *vf/vi * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
vf	1.00000	Final extract volume(mL)
vi	1.00000	Initial sample volume(L)

Cpnd Variable Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS	
					ON-COLUMN (ppb)	FINAL (ug)
\$ 1 2,4,5,6-Tetrachloro-m-xylene	5.027	5.027	0.000	7589553463	62.8800	62.9
M 2 Aroclor-1016				Compound Not Detected.		
3 Aroclor 1016 (1)				Compound Not Detected.		
4 Aroclor 1016 (2)				Compound Not Detected.		
5 Aroclor 1016 (3)				Compound Not Detected.		
6 Aroclor 1016 (4)				Compound Not Detected.		
7 Aroclor 1016 (5)				Compound Not Detected.		
M 8 Aroclor-1260				Compound Not Detected.		
9 Aroclor 1260 (1)				Compound Not Detected.		
10 Aroclor 1260 (2)				Compound Not Detected.		
11 Aroclor 1260 (3)				Compound Not Detected.		
12 Aroclor 1260 (4)				Compound Not Detected.		
13 Aroclor 1260 (5)				Compound Not Detected.		
M 14 Aroclor-1221				Compound Not Detected.		
15 Aroclor 1221 (1)				Compound Not Detected.		

Data File: /chem1/SVOA/GC_31.i/170307.b/b17031732.d
 Report Date: 07-Mar-2017 19:43

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Compounds	RT	EXP	RT	DLT	RT	RESPONSE	CONCENTRATIONS	
							ON-COLUMN	FINAL
							(ppb)	(ug)
=====	==	=====	=====	=====	=====	=====	=====	=====
16 Aroclor 1221 (2)					Compound Not Detected.			
17 Aroclor 1221 (3)					Compound Not Detected.			
18 Aroclor 1221 (4)					Compound Not Detected.			
19 Aroclor 1221 (5)					Compound Not Detected.			
M 20 Aroclor-1232					Compound Not Detected.			
21 Aroclor 1232 (1)					Compound Not Detected.			
22 Aroclor 1232 (2)					Compound Not Detected.			
23 Aroclor 1232 (3)					Compound Not Detected.			
24 Aroclor 1232 (4)					Compound Not Detected.			
25 Aroclor 1232 (5)					Compound Not Detected.			
M 26 Aroclor-1242					Compound Not Detected.			
27 Aroclor 1242 (1)					Compound Not Detected.			
28 Aroclor 1242 (2)					Compound Not Detected.			
29 Aroclor 1242 (3)					Compound Not Detected.			
30 Aroclor 1242 (4)					Compound Not Detected.			
31 Aroclor 1242 (5)					Compound Not Detected.			
M 32 Aroclor-1248					Compound Not Detected.			
33 Aroclor 1248 (1)					Compound Not Detected.			
34 Aroclor 1248 (2)					Compound Not Detected.			
35 Aroclor 1248 (3)					Compound Not Detected.			
36 Aroclor 1248 (4)					Compound Not Detected.			
37 Aroclor 1248 (5)					Compound Not Detected.			
M 38 Aroclor-1254					Compound Not Detected.			
39 Aroclor 1254 (1)					Compound Not Detected.			
40 Aroclor 1254 (2)					Compound Not Detected.			
41 Aroclor 1254 (3)					Compound Not Detected.			
42 Aroclor 1254 (4)					Compound Not Detected.			
43 Aroclor 1254 (5)					Compound Not Detected.			
M 44 Aroclor-1262					Compound Not Detected.			
45 Aroclor 1262 (1)					Compound Not Detected.			
46 Aroclor 1262 (2)					Compound Not Detected.			
47 Aroclor 1262 (3)					Compound Not Detected.			
48 Aroclor 1262 (4)					Compound Not Detected.			
49 Aroclor 1262 (5)					Compound Not Detected.			
M 50 Aroclor-1268					Compound Not Detected.			
51 Aroclor 1268 (1)					Compound Not Detected.			
52 Aroclor 1268 (2)					Compound Not Detected.			
53 Aroclor 1268 (3)					Compound Not Detected.			
54 Aroclor 1268 (4)					Compound Not Detected.			
55 Aroclor 1268 (5)					Compound Not Detected.			
\$ 56 Decachlorobiphenyl	11.682	11.682	0.000	10978694983		77.8225	77.8	

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Data File: /chem1/SV0A/GC_31.i/170307.b/b17031732.d

Date : 07-MAR-2017 19:19

Client ID:

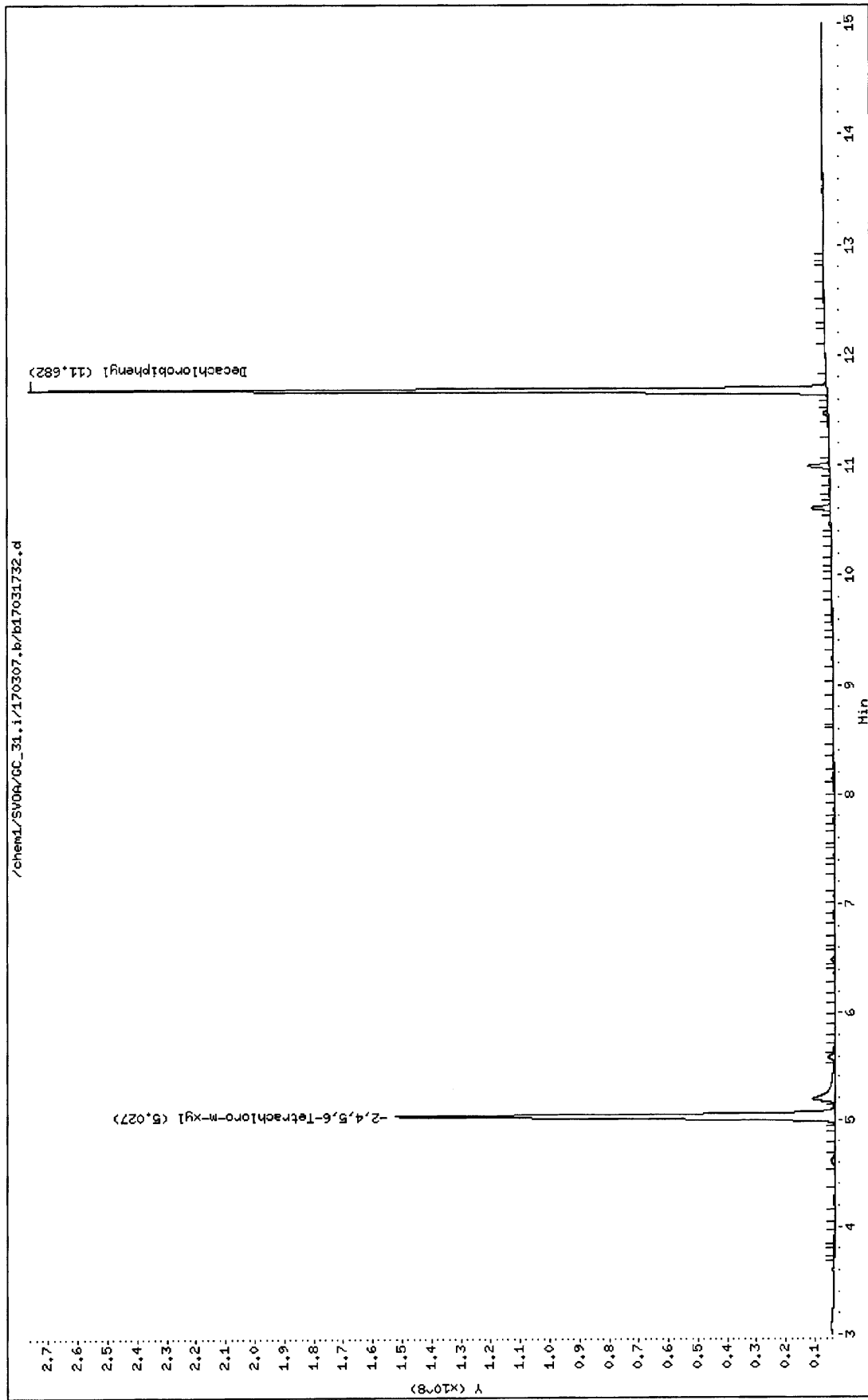
Sample Info: 17-03-0335-11

Instrument: GC_31.i

Operator: 944

Column diameter: 2.00

Column phase:



**RAW DATA SHEET
FOR METHOD: EPA 8082**

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WORK ORDER: 17-03-0335
INSTRUMENT: GC 31
EXTRACTION: EPA 3545
D/T EXTRACTED: 2017-03-06 00:00

ANALYZED BY: 944
D/T ANALYZED: 2017-03-07 19:38
REVIEWED BY: *m*
D/T REVIEWED:

DATA FILE: /chem1/SVOA/GC_31/170307/b1703173317031733

12 **CLIENT SAMPLE NUMBER: D-DU1-S-SG-08-25S**

LCS/MB BATCH: 170306L05	SAMPLE VOLUME / WEIGHT: DEFAULT: 20.00 g / ACTUAL: 20.00 g
MS/MSD BATCH: 170306S05	FINAL VOLUME / WEIGHT: DEFAULT: 10.00 ml / ACTUAL: 10.00 ml
UNITS: ug/kg	ADJUSTMENT RATIO TO PF: 1.00

COMMENT: Results were evaluated to the MDL (DL), concentrations $\geq$ to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

COMPOUND	ON COL CONC	DF	CONC	RL	QUAL
Aroclor-1016	0.000	1.00	ND	50	
Aroclor-1221	0.000	1.00	ND	50	
Aroclor-1232	0.000	1.00	ND	50	
Aroclor-1242	0.000	1.00	ND	50	
Aroclor-1248	0.000	1.00	ND	50	
Aroclor-1254	0.000	1.00	ND	50	
Aroclor-1260	0.000	1.00	ND	50	
Aroclor-1262	0.000	1.00	ND	50	
Aroclor-1268	0.000	1.00	ND	50	

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Data File: /chem1/SVOA/GC_31.i/170307.b/b17031733.d
 Report Date: 07-Mar-2017 20:00

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Eurofins Calscience

EPA8082/A PCB analysis

Data file : /chem1/SVOA/GC_31.i/170307.b/b17031733.d
 Lab Smp Id:
 Inj Date : 07-MAR-2017 19:38
 Operator : 944 Inst ID: GC_31.i
 Smp Info : 17-03-0335-12
 Misc Info :
 Comment : Rtx-CLPesticide II
 Method : /chem1/SVOA/GC_31.i/170307.b/b8082-n2.m
 Meth Date : 07-Mar-2017 15:59 src3 Quant Type: ESTD
 Cal Date : 04-MAR-2017 13:13 Cal File: b17030410.d
 Als bottle: 33
 Dil Factor: 1.00000
 Integrator: HP Genie Compound Sublist: all.sub
 Target Version: 3.50
 Processing Host: US26TAR4

Concentration Formula: Amt * DF * *vf/vi * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
vf	1.00000	Final extract volume (mL)
vi	1.00000	Initial sample volume (L)

Cpnd Variable Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS	
					ON-COLUMN (ppb)	FINAL (ug)
\$ 1 2,4,5,6-Tetrachloro-m-xylene	5.027	5.027	0.000	6878443417	56.9884	57.0
M 2 Aroclor-1016				Compound Not Detected.		
3 Aroclor 1016 (1)				Compound Not Detected.		
4 Aroclor 1016 (2)				Compound Not Detected.		
5 Aroclor 1016 (3)				Compound Not Detected.		
6 Aroclor 1016 (4)				Compound Not Detected.		
7 Aroclor 1016 (5)				Compound Not Detected.		
M 8 Aroclor-1260				Compound Not Detected.		
9 Aroclor 1260 (1)				Compound Not Detected.		
10 Aroclor 1260 (2)				Compound Not Detected.		
11 Aroclor 1260 (3)				Compound Not Detected.		
12 Aroclor 1260 (4)				Compound Not Detected.		
13 Aroclor 1260 (5)				Compound Not Detected.		
M 14 Aroclor-1221				Compound Not Detected.		
15 Aroclor 1221 (1)				Compound Not Detected.		

Data File: /chem1/SVOA/GC_31.i/170307.b/b17031733.d
 Report Date: 07-Mar-2017 20:00

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Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS	
					ON-COLUMN (ppb)	FINAL (ug)
=====	==	=====	=====	=====	=====	=====
16 Aroclor 1221 (2)				Compound Not Detected.		
17 Aroclor 1221 (3)				Compound Not Detected.		
18 Aroclor 1221 (4)				Compound Not Detected.		
19 Aroclor 1221 (5)				Compound Not Detected.		
M 20 Aroclor-1232				Compound Not Detected.		
21 Aroclor 1232 (1)				Compound Not Detected.		
22 Aroclor 1232 (2)				Compound Not Detected.		
23 Aroclor 1232 (3)				Compound Not Detected.		
24 Aroclor 1232 (4)				Compound Not Detected.		
25 Aroclor 1232 (5)				Compound Not Detected.		
M 26 Aroclor-1242				Compound Not Detected.		
27 Aroclor 1242 (1)				Compound Not Detected.		
28 Aroclor 1242 (2)				Compound Not Detected.		
29 Aroclor 1242 (3)				Compound Not Detected.		
30 Aroclor 1242 (4)				Compound Not Detected.		
31 Aroclor 1242 (5)				Compound Not Detected.		
M 32 Aroclor-1248				Compound Not Detected.		
33 Aroclor 1248 (1)				Compound Not Detected.		
34 Aroclor 1248 (2)				Compound Not Detected.		
35 Aroclor 1248 (3)				Compound Not Detected.		
36 Aroclor 1248 (4)				Compound Not Detected.		
37 Aroclor 1248 (5)				Compound Not Detected.		
M 38 Aroclor-1254				Compound Not Detected.		
39 Aroclor 1254 (1)				Compound Not Detected.		
40 Aroclor 1254 (2)				Compound Not Detected.		
41 Aroclor 1254 (3)				Compound Not Detected.		
42 Aroclor 1254 (4)				Compound Not Detected.		
43 Aroclor 1254 (5)				Compound Not Detected.		
M 44 Aroclor-1262				Compound Not Detected.		
45 Aroclor 1262 (1)				Compound Not Detected.		
46 Aroclor 1262 (2)				Compound Not Detected.		
47 Aroclor 1262 (3)				Compound Not Detected.		
48 Aroclor 1262 (4)				Compound Not Detected.		
49 Aroclor 1262 (5)				Compound Not Detected.		
M 50 Aroclor-1268				Compound Not Detected.		
51 Aroclor 1268 (1)				Compound Not Detected.		
52 Aroclor 1268 (2)				Compound Not Detected.		
53 Aroclor 1268 (3)				Compound Not Detected.		
54 Aroclor 1268 (4)				Compound Not Detected.		
55 Aroclor 1268 (5)				Compound Not Detected.		
\$ 56 Decachlorobiphenyl	11.681	11.682	-0.001	10729188376	76.0539	76.0

Page 1

Data File: /chem1/SVDA/GC_31.i/170307.b/b17031733.d

Date : 07-MAR-2017 19:38

Client ID:

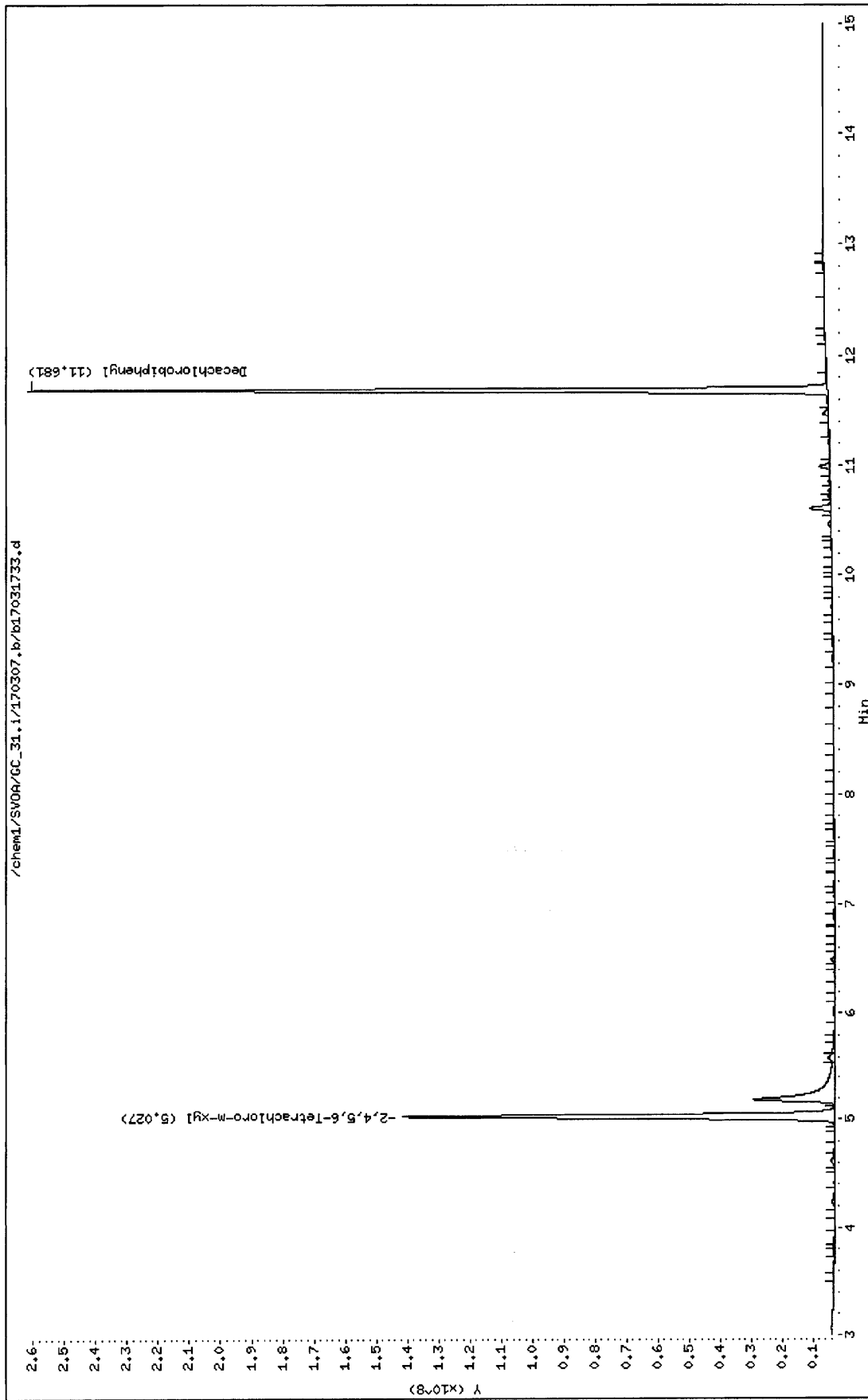
Sample Info: 17-03-0335-12

Instrument: GC_31.i

Operator: 944

Column diameter: 2.00

Column phase:



**RAW DATA SHEET
FOR METHOD: EPA 8082**

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WORK ORDER: 17-03-0335
INSTRUMENT: GC 31
EXTRACTION: EPA 3545
D/T EXTRACTED: 2017-03-06 00:00

ANALYZED BY: 944
D/T ANALYZED: 2017-03-07 19:57
REVIEWED BY: 
D/T REVIEWED:

DATA FILE: /chem1/SVOA/GC_31/170307/b1703173417031734

15 **CLIENT SAMPLE NUMBER: D-DU1-S-SG-09-15S**

LCS/MB BATCH: 170306L05	SAMPLE VOLUME / WEIGHT: DEFAULT: 20.00 g / ACTUAL: 20.00 g
MS/MSD BATCH: 170306S05	FINAL VOLUME / WEIGHT: DEFAULT: 10.00 ml / ACTUAL: 10.00 ml
UNITS: ug/kg	ADJUSTMENT RATIO TO PF: 1.00

COMMENT: Results were evaluated to the MDL (DL), concentrations $\geq$ to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

<u>COMPOUND</u>	<u>ON COL CONC</u>	<u>DF</u>	<u>CONC</u>	<u>RL</u>	<u>QUAL</u>
Aroclor-1016	0.000	1.00	ND	50	
Aroclor-1221	0.000	1.00	ND	50	
Aroclor-1232	0.000	1.00	ND	50	
Aroclor-1242	0.000	1.00	ND	50	
Aroclor-1248	0.000	1.00	ND	50	
Aroclor-1254	0.000	1.00	ND	50	
Aroclor-1260	0.000	1.00	ND	50	
Aroclor-1262	0.000	1.00	ND	50	
Aroclor-1268	0.000	1.00	ND	50	


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Data File: /chem1/SVOA/GC_31.i/170307.b/b17031734.d
 Report Date: 08-Mar-2017 10:12

Page 1

Eurofins Calscience

EPA8082/A PCB analysis

Data file : /chem1/SVOA/GC_31.i/170307.b/b17031734.d
 Lab Smp Id:
 Inj Date : 07-MAR-2017 19:57
 Operator : 944 Inst ID: GC_31.i
 Smp Info : 17-03-0335-15
 Misc Info :
 Comment : Rtx-CLPesticide II
 Method : /chem1/SVOA/GC_31.i/170307.b/b8082-n2.m
 Meth Date : 08-Mar-2017 09:20 src3 Quant Type: ESTD
 Cal Date : 04-MAR-2017 13:13 Cal File: b17030410.d
 Als bottle: 34
 Dil Factor: 1.00000
 Integrator: HP Genie Compound Sublist: all.sub
 Target Version: 3.50
 Processing Host: US26TAR4

Concentration Formula: Amt * DF * *vf/vi * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
vf	1.00000	Final extract volume(mL)
vi	1.00000	Initial sample volume(L)

Cpnd Variable Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS	
					ON-COLUMN (ppb)	FINAL (ug)
\$ 1 2,4,5,6-Tetrachloro-m-xylene	5.028	5.027	0.001	7005926477	58.0446	58.0
M 2 Aroclor-1016				Compound Not Detected.		
3 Aroclor 1016 (1)				Compound Not Detected.		
4 Aroclor 1016 (2)				Compound Not Detected.		
5 Aroclor 1016 (3)				Compound Not Detected.		
6 Aroclor 1016 (4)				Compound Not Detected.		
7 Aroclor 1016 (5)				Compound Not Detected.		
M 8 Aroclor-1260				Compound Not Detected.		
9 Aroclor 1260 (1)				Compound Not Detected.		
10 Aroclor 1260 (2)				Compound Not Detected.		
11 Aroclor 1260 (3)				Compound Not Detected.		
12 Aroclor 1260 (4)				Compound Not Detected.		
13 Aroclor 1260 (5)				Compound Not Detected.		
M 14 Aroclor-1221				Compound Not Detected.		
15 Aroclor 1221 (1)				Compound Not Detected.		

Data File: /chem1/SVOA/GC_31.i/170307.b/b17031734.d
 Report Date: 08-Mar-2017 10:12

Page 2

Compounds	RT	EXP	RT	DLT	RT	RESPONSE	CONCENTRATIONS	
							ON-COLUMN	FINAL
							(ppb)	(ug)
=====	==	=====	=====		=====	=====	=====	=====
16 Aroclor 1221 (2)					Compound Not Detected.			
17 Aroclor 1221 (3)					Compound Not Detected.			
18 Aroclor 1221 (4)					Compound Not Detected.			
19 Aroclor 1221 (5)					Compound Not Detected.			
M 20 Aroclor-1232					Compound Not Detected.			
21 Aroclor 1232 (1)					Compound Not Detected.			
22 Aroclor 1232 (2)					Compound Not Detected.			
23 Aroclor 1232 (3)					Compound Not Detected.			
24 Aroclor 1232 (4)					Compound Not Detected.			
25 Aroclor 1232 (5)					Compound Not Detected.			
M 26 Aroclor-1242					Compound Not Detected.			
27 Aroclor 1242 (1)					Compound Not Detected.			
28 Aroclor 1242 (2)					Compound Not Detected.			
29 Aroclor 1242 (3)					Compound Not Detected.			
30 Aroclor 1242 (4)					Compound Not Detected.			
31 Aroclor 1242 (5)					Compound Not Detected.			
M 32 Aroclor-1248					Compound Not Detected.			
33 Aroclor 1248 (1)					Compound Not Detected.			
34 Aroclor 1248 (2)					Compound Not Detected.			
35 Aroclor 1248 (3)					Compound Not Detected.			
36 Aroclor 1248 (4)					Compound Not Detected.			
37 Aroclor 1248 (5)					Compound Not Detected.			
M 38 Aroclor-1254					Compound Not Detected.			
39 Aroclor 1254 (1)					Compound Not Detected.			
40 Aroclor 1254 (2)					Compound Not Detected.			
41 Aroclor 1254 (3)					Compound Not Detected.			
42 Aroclor 1254 (4)					Compound Not Detected.			
43 Aroclor 1254 (5)					Compound Not Detected.			
M 44 Aroclor-1262					Compound Not Detected.			
45 Aroclor 1262 (1)					Compound Not Detected.			
46 Aroclor 1262 (2)					Compound Not Detected.			
47 Aroclor 1262 (3)					Compound Not Detected.			
48 Aroclor 1262 (4)					Compound Not Detected.			
49 Aroclor 1262 (5)					Compound Not Detected.			
M 50 Aroclor-1268					Compound Not Detected.			
51 Aroclor 1268 (1)					Compound Not Detected.			
52 Aroclor 1268 (2)					Compound Not Detected.			
53 Aroclor 1268 (3)					Compound Not Detected.			
54 Aroclor 1268 (4)					Compound Not Detected.			
55 Aroclor 1268 (5)					Compound Not Detected.			
\$ 56 Decachlorobiphenyl	11.682	11.683	-0.001	10799682672		76.5536	76.6	

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Data File: /chem1/SVDA/GC_31.i/170307.b/b17031734.d

Date : 07-MAR-2017 19:57

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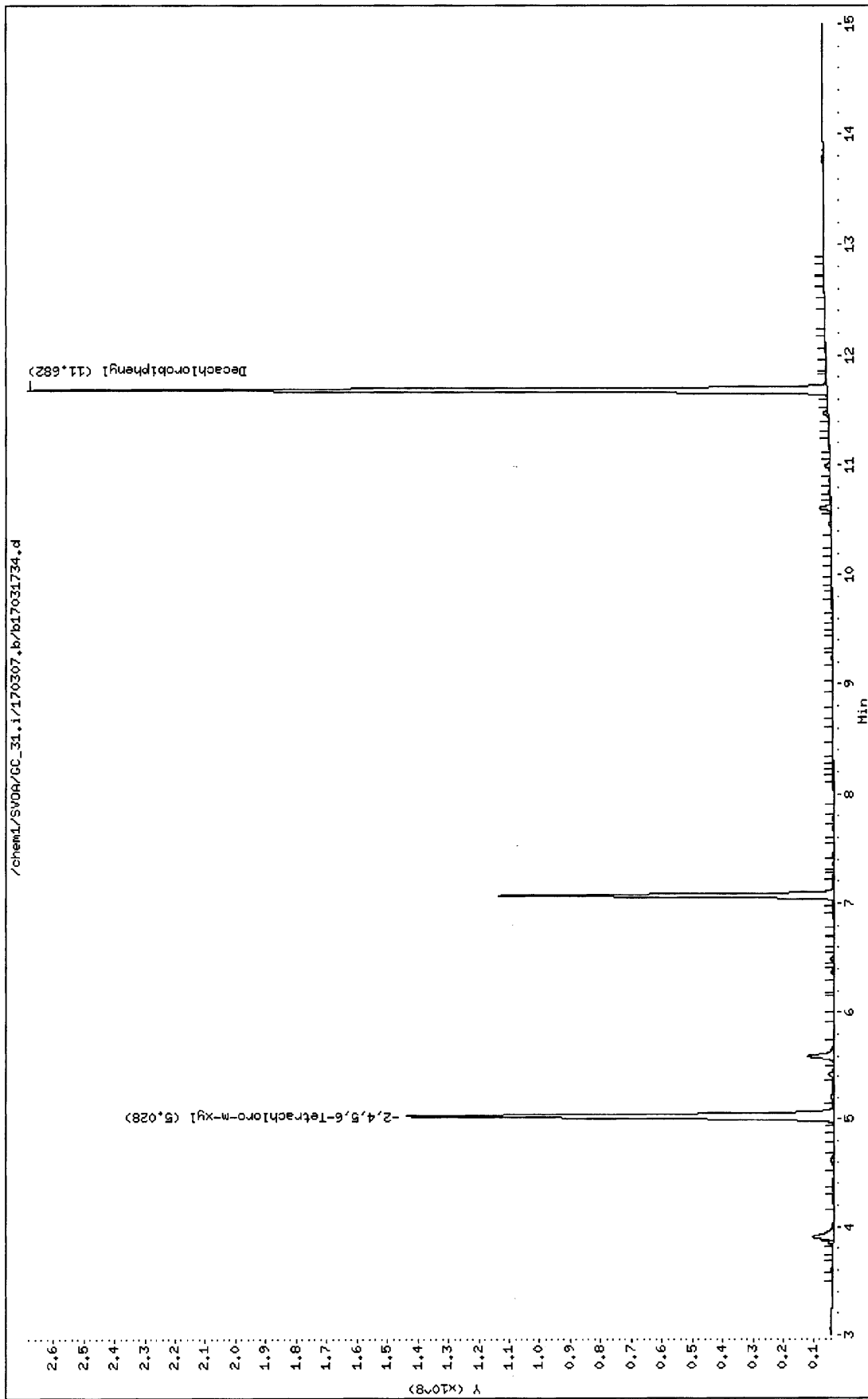
Sample Info: 17-03-0335-15

Instrument: GC_31.i

Operator: 944

Column diameter: 2.00

Column phase:



**RAW DATA SHEET
FOR METHOD: EPA 8082**

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WORK ORDER: 17-03-0335
INSTRUMENT: GC 31
EXTRACTION: EPA 3545
D/T EXTRACTED: 2017-03-06 00:00

ANALYZED BY: 944
D/T ANALYZED: 2017-03-07 20:16
REVIEWED BY:
D/T REVIEWED: M

DATA FILE: /chem1/SVOA/GC_31/170307/b1703173517031735

16 **CLIENT SAMPLE NUMBER: D-DU1-S-SG-09-25S**

LCS/MB BATCH: 170306L05	SAMPLE VOLUME / WEIGHT: DEFAULT: 20.00 g / ACTUAL: 20.10 g
MS/MSD BATCH: 170306S05	FINAL VOLUME / WEIGHT: DEFAULT: 10.00 ml / ACTUAL: 10.00 ml
UNITS: ug/kg	ADJUSTMENT RATIO TO PF: 1.00

COMMENT: Results were evaluated to the MDL (DL), concentrations $\geq$ to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

<u>COMPOUND</u>	<u>ON COL CONC</u>	<u>DF</u>	<u>CONC</u>	<u>RL</u>	<u>QUAL</u>
Aroclor-1016	0.000	1.00	ND	50	
Aroclor-1221	0.000	1.00	ND	50	
Aroclor-1232	0.000	1.00	ND	50	
Aroclor-1242	0.000	1.00	ND	50	
Aroclor-1248	0.000	1.00	ND	50	
Aroclor-1254	0.000	1.00	ND	50	
Aroclor-1260	0.000	1.00	ND	50	
Aroclor-1262	0.000	1.00	ND	50	
Aroclor-1268	0.000	1.00	ND	50	

Data File: /chem1/SVOA/GC_31.i/170307.b/b17031735.d
 Report Date: 08-Mar-2017 10:12

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Eurofins Calscience

EPA8082/A PCB analysis

Data file : /chem1/SVOA/GC_31.i/170307.b/b17031735.d
 Lab Smp Id:
 Inj Date : 07-MAR-2017 20:16
 Operator : 944 Inst ID: GC_31.i
 Smp Info : 17-03-0335-16
 Misc Info :
 Comment : Rtx-CLPesticide II
 Method : /chem1/SVOA/GC_31.i/170307.b/b8082-n2.m
 Meth Date : 08-Mar-2017 09:20 src3 Quant Type: ESTD
 Cal Date : 04-MAR-2017 13:13 Cal File: b17030410.d
 Als bottle: 35
 Dil Factor: 1.00000
 Integrator: HP Genie Compound Sublist: all.sub
 Target Version: 3.50
 Processing Host: US26TAR4

Concentration Formula: Amt * DF * *vf/vi * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
vf	1.00000	Final extract volume(mL)
vi	1.00000	Initial sample volume(L)

Cpnd Variable Local Compound Variable

Compounds	RT	EXP	RT	DLT	RT	RESPONSE	CONCENTRATIONS	
							ON-COLUMN (ppb)	FINAL (ug)
\$ 1 2,4,5,6-Tetrachloro-m-xylene	5.027	5.027	0.000	8606010507	71.3014	71.3		
M 2 Aroclor-1016								
3 Aroclor 1016 (1)								
4 Aroclor 1016 (2)								
5 Aroclor 1016 (3)								
6 Aroclor 1016 (4)								
7 Aroclor 1016 (5)								
M 8 Aroclor-1260								
9 Aroclor 1260 (1)								
10 Aroclor 1260 (2)								
11 Aroclor 1260 (3)								
12 Aroclor 1260 (4)								
13 Aroclor 1260 (5)								
M 14 Aroclor-1221								
15 Aroclor 1221 (1)								

Data File: /chem1/SVOA/GC_31.i/170307.b/b17031735.d
 Report Date: 08-Mar-2017 10:12

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Compounds	RT	EXP	RT	DLT	RT	RESPONSE	CONCENTRATIONS	
							ON-COLUMN	FINAL
							(ppb)	(uG)
=====	==	=====	=====	=====	=====	=====	=====	=====
16 Aroclor 1221 (2)					Compound Not Detected.			
17 Aroclor 1221 (3)					Compound Not Detected.			
18 Aroclor 1221 (4)					Compound Not Detected.			
19 Aroclor 1221 (5)					Compound Not Detected.			
M 20 Aroclor-1232					Compound Not Detected.			
21 Aroclor 1232 (1)					Compound Not Detected.			
22 Aroclor 1232 (2)					Compound Not Detected.			
23 Aroclor 1232 (3)					Compound Not Detected.			
24 Aroclor 1232 (4)					Compound Not Detected.			
25 Aroclor 1232 (5)					Compound Not Detected.			
M 26 Aroclor-1242					Compound Not Detected.			
27 Aroclor 1242 (1)					Compound Not Detected.			
28 Aroclor 1242 (2)					Compound Not Detected.			
29 Aroclor 1242 (3)					Compound Not Detected.			
30 Aroclor 1242 (4)					Compound Not Detected.			
31 Aroclor 1242 (5)					Compound Not Detected.			
M 32 Aroclor-1248					Compound Not Detected.			
33 Aroclor 1248 (1)					Compound Not Detected.			
34 Aroclor 1248 (2)					Compound Not Detected.			
35 Aroclor 1248 (3)					Compound Not Detected.			
36 Aroclor 1248 (4)					Compound Not Detected.			
37 Aroclor 1248 (5)					Compound Not Detected.			
M 38 Aroclor-1254					Compound Not Detected.			
39 Aroclor 1254 (1)					Compound Not Detected.			
40 Aroclor 1254 (2)					Compound Not Detected.			
41 Aroclor 1254 (3)					Compound Not Detected.			
42 Aroclor 1254 (4)					Compound Not Detected.			
43 Aroclor 1254 (5)					Compound Not Detected.			
M 44 Aroclor-1262					Compound Not Detected.			
45 Aroclor 1262 (1)					Compound Not Detected.			
46 Aroclor 1262 (2)					Compound Not Detected.			
47 Aroclor 1262 (3)					Compound Not Detected.			
48 Aroclor 1262 (4)					Compound Not Detected.			
49 Aroclor 1262 (5)					Compound Not Detected.			
M 50 Aroclor-1268					Compound Not Detected.			
51 Aroclor 1268 (1)					Compound Not Detected.			
52 Aroclor 1268 (2)					Compound Not Detected.			
53 Aroclor 1268 (3)					Compound Not Detected.			
54 Aroclor 1268 (4)					Compound Not Detected.			
55 Aroclor 1268 (5)					Compound Not Detected.			
\$ 56 Decachlorobiphenyl	11.682	11.683	-0.001	10951917659		77.6327	77.6	

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Data File: /chem1/SV04/GC_31.i/170307.b/b17031735.d

Date : 07-MAR-2017 20:16

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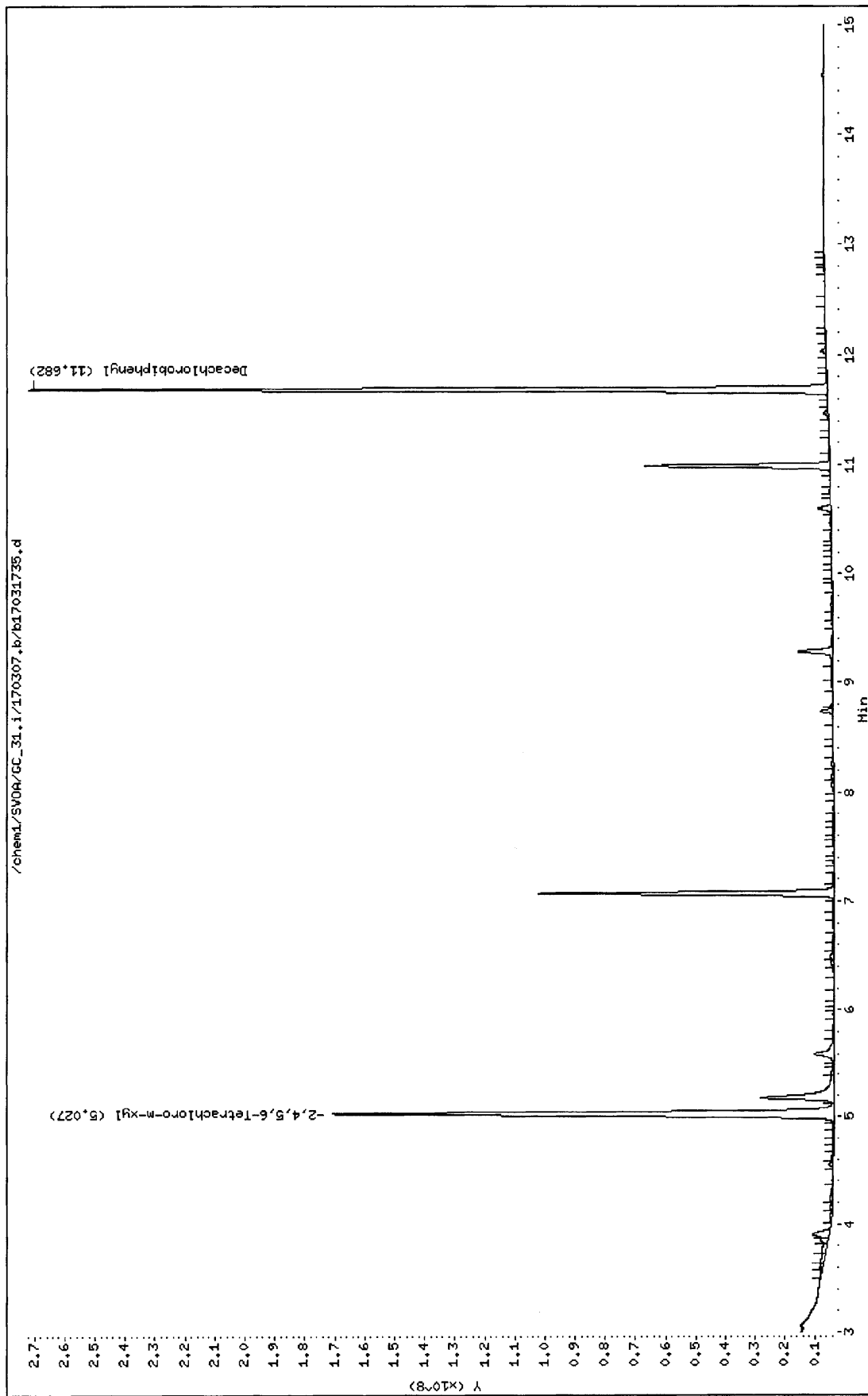
Sample Info: 17-03-0335-16

Instrument: GC_31.i

Operator: 944

Column diameter: 2.00

Column phase:



EPA METHOD 8082 PCB

Quality Control

Method Blank LCS/LCSD MS/MSD

METHOD BLANK ASSOCIATION SUMMARY
FOR METHOD: EPA 8082

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MB SAMPLE ID: 099-12-535-4077
MB BATCH ID: 170306L05
INSTRUMENT: GC 31
EXTRACTION: EPA 3545
D/T EXTRACTED: 2017-03-06 00:00

ANALYZED BY: 944
D/T ANALYZED: 2017-03-07 09:57
REVIEWED BY: 
D/T REVIEWED:
MATRIX: Soil

DATA FILE: /chem1/SVOA/GC_31/170307/b1703070217030702

CLIENT WORK ORDER: 17-03-0335

<u>S#</u>	<u>RUN TYPE</u>	<u>CLIENT SAMPLE ID</u>	<u>D/T ANALYZED</u>	<u>DATA FILE</u>
3	D-DU1-S-SG-06-15S		2017-03-07 18:03	/chem1/SVOA/GC_31/170307/b1703172817031728
4	D-DU1-S-SG-06-25S		2017-03-07 18:22	/chem1/SVOA/GC_31/170307/b1703172917031729
7	D-DU1-S-SG-07-15S		2017-03-07 18:41	/chem1/SVOA/GC_31/170307/b1703173017031730
8	D-DU1-S-SG-07-25S		2017-03-07 19:00	/chem1/SVOA/GC_31/170307/b1703173117031731
11	D-DU1-S-SG-08-15S		2017-03-07 19:19	/chem1/SVOA/GC_31/170307/b1703173217031732
12	D-DU1-S-SG-08-25S		2017-03-07 19:38	/chem1/SVOA/GC_31/170307/b1703173317031733
15	D-DU1-S-SG-09-15S		2017-03-07 19:57	/chem1/SVOA/GC_31/170307/b1703173417031734
16	D-DU1-S-SG-09-25S		2017-03-07 20:16	/chem1/SVOA/GC_31/170307/b1703173517031735

RAW DATA SHEET FOR METHOD: EPA 8082

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WORK ORDER: 099-12-535
INSTRUMENT: GC 31
EXTRACTION: EPA 3545
D/T EXTRACTED: 2017-03-06 00:00

ANALYZED BY: 944
D/T ANALYZED: 2017-03-07 09:57
REVIEWED BY:
D/T REVIEWED: 

DATA FILE: /chem1/SVOA/GC_31/170307/b1703070217030702

MB **CLIENT SAMPLE NUMBER:** Method Blank

LCS/MB BATCH: 170306L05 **SAMPLE VOLUME / WEIGHT:** DEFAULT: 1.00 / ACTUAL: 1.00
MS/MSD BATCH: **FINAL VOLUME / WEIGHT:** DEFAULT: 1.00 ml / ACTUAL: 1.00 ml
UNITS: ug/kg **ADJUSTMENT RATIO TO PF:** 1.00

COMMENT:

<u>COMPOUND</u>	<u>ON COL CONC</u>	<u>DF</u>	<u>CONC</u>	<u>RL</u>	<u>QUAL</u>
Aroclor-1016	0.000	1.00	ND	50	
Aroclor-1221	0.000	1.00	ND	50	
Aroclor-1232	0.000	1.00	ND	50	
Aroclor-1242	0.000	1.00	ND	50	
Aroclor-1248	0.000	1.00	ND	50	
Aroclor-1254	0.000	1.00	ND	50	
Aroclor-1260	0.000	1.00	ND	50	
Aroclor-1262	0.000	1.00	ND	50	
Aroclor-1268	0.000	1.00	ND	50	


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LCS QUALITY CONTROL SHEET FOR METHOD: EPA 8082

LCS SAMPLE ID: 099-12-535- 4077
LCS/MB BATCH ID: 170306L05
INSTRUMENT: GC 31

EXTRACTION: EPA 3545
D/T EXTRACTED: 2017-03-06 00:00

ANALYZED BY: 944
D/T ANALYZED: 2017-03-07 10:16
REVIEWED BY:
D/T REVIEWED: *m*

DATA FILE: /chem1/SVOA/GC_31/170307/b1703070317030703

<u>COMPOUND NAME</u>	<u>CONC ADDED</u>	<u>CONC REC</u>	<u>%RECOVERY</u>	<u>%REC CONTROL LIMIT</u>	<u>STATUS</u>	<u>QUALIFIERS</u>
Atroclor-1016	100.0	88.50	88	50-135	PASS	
Atroclor-1260	100.0	89.00	89	50-135	PASS	

MATRIX SPIKE / MATRIX SPIKE DUPLICATE QUALITY CONTROL SHEET

FOR METHOD: EPA 8082

SPIKED SAMPLE ID: 17-03-0341-1
MS/MSD BATCH: 170306S05
INSTRUMENTS:
 SAMPLE: GC 31
 MS: GC 31
 MSD: GC 31

EXTRACTION: EPA 3545
D/T EXTRACTED:
 SAMPLE: 2017-03-06 00:00
 MS: 2017-03-06 00:00
 MSD: 2017-03-06 00:00

ANALYZED BY: 944
D/T ANALYZED:
 SAMPLE: 2017-03-07 11:09
 MS: 2017-03-07 10:34
 MSD: 2017-03-07 10:53
REVIEWED BY: 27
D/T REVIEWED: 2017-03-07 14:34

COMMENT:

COMPOUND NAME	SAMPLE	INITIAL	FINAL	MS CONC	% MS.REC	MSD CONC	% MSD.REC	% REC CL	RPD	RPD CL	STATUS	QUALIFIERS
Aroclor-1016	ND	200.0	100.0	67.00	67	76.50	76	50-135	13	0-20	PASS	
Aroclor-1260	ND	200.0	100.0	81.50	82	93.00	93	50-135	13	0-20	PASS	

Data Files:

TYPE	DATA FILE	DATA FILE PATH
MS	17030704	/chem1/SVOA/GC_31/170307/b17030704
MSD	17030705	/chem1/SVOA/GC_31/170307/b17030705

SURROGATE RECOVERIES FOR METHOD: EPA 8082

WORK ORDER: 17-03-0335

BATCH ID:

LCS/MB: 170306L05

MS: 170306S05

EXTRACTION: EPA 3545

REVIEWED BY: 

D/T REVIEWED:

3 CLIENT SAMPLE NUMBER : D-DU1-S-SG-06-15S

INSTRUMENT: GC 31

D/T EXTRACTED: 2017-03-06 00:00

DATA FILE: /chem1/SVOA/GC_31/170307/b1703172817031728

ANALYZED BY: 944

D/T ANALYZED 2017-03-07 18:03

COMMENT:

COMPOUND	% REC	% REC CL	STATUS	QUALIFIERS
Decachlorobiphenyl	73	24-168	PASS	
2,4,5,6-Tetrachloro-m-Xylene	55	25-145	PASS	

4 CLIENT SAMPLE NUMBER : D-DU1-S-SG-06-25S

INSTRUMENT: GC 31

D/T EXTRACTED: 2017-03-06 00:00

DATA FILE: /chem1/SVOA/GC_31/170307/b1703172917031729

ANALYZED BY: 944

D/T ANALYZED 2017-03-07 18:22

COMMENT:

COMPOUND	% REC	% REC CL	STATUS	QUALIFIERS
Decachlorobiphenyl	78	24-168	PASS	
2,4,5,6-Tetrachloro-m-Xylene	63	25-145	PASS	

7 CLIENT SAMPLE NUMBER : D-DU1-S-SG-07-15S

INSTRUMENT: GC 31

D/T EXTRACTED: 2017-03-06 00:00

DATA FILE: /chem1/SVOA/GC_31/170307/b1703173017031730

ANALYZED BY: 944

D/T ANALYZED 2017-03-07 18:41

COMMENT:

COMPOUND	% REC	% REC CL	STATUS	QUALIFIERS
Decachlorobiphenyl	80	24-168	PASS	
2,4,5,6-Tetrachloro-m-Xylene	65	25-145	PASS	

8 CLIENT SAMPLE NUMBER : D-DU1-S-SG-07-25S

INSTRUMENT: GC 31

D/T EXTRACTED: 2017-03-06 00:00

DATA FILE: /chem1/SVOA/GC_31/170307/b1703173117031731

ANALYZED BY: 944

D/T ANALYZED 2017-03-07 19:00

COMMENT:

COMPOUND	% REC	% REC CL	STATUS	QUALIFIERS
Decachlorobiphenyl	75	24-168	PASS	
2,4,5,6-Tetrachloro-m-Xylene	62	25-145	PASS	

SURROGATE RECOVERIES FOR METHOD: EPA 8082

WORK ORDER: 17-03-0335

BATCH ID:

LCS/MB: 170306L05MS: 170306S05EXTRACTION: EPA 3545REVIEWED BY:D/T REVIEWED: # 11 CLIENT SAMPLE NUMBER : D-DU1-S-SG-08-15SINSTRUMENT: GC 31D/T EXTRACTED: 2017-03-06 00:00DATA FILE: /chem1/SVOA/GC_31/170307/b1703173217031732ANALYZED BY: 944D/T ANALYZED 2017-03-07 19:19COMMENT:

<u>COMPOUND</u>	<u>% REC</u>	<u>% REC CL</u>	<u>STATUS</u>	<u>QUALIFIERS</u>
Decachlorobiphenyl	78	24-168	PASS	
2,4,5,6-Tetrachloro-m-Xylene	63	25-145	PASS	

12 CLIENT SAMPLE NUMBER : D-DU1-S-SG-08-25SINSTRUMENT: GC 31D/T EXTRACTED: 2017-03-06 00:00DATA FILE: /chem1/SVOA/GC_31/170307/b1703173317031733ANALYZED BY: 944D/T ANALYZED 2017-03-07 19:38COMMENT:

<u>COMPOUND</u>	<u>% REC</u>	<u>% REC CL</u>	<u>STATUS</u>	<u>QUALIFIERS</u>
Decachlorobiphenyl	76	24-168	PASS	
2,4,5,6-Tetrachloro-m-Xylene	57	25-145	PASS	

15 CLIENT SAMPLE NUMBER : D-DU1-S-SG-09-15SINSTRUMENT: GC 31D/T EXTRACTED: 2017-03-06 00:00DATA FILE: /chem1/SVOA/GC_31/170307/b1703173417031734ANALYZED BY: 944D/T ANALYZED 2017-03-07 19:57COMMENT:

<u>COMPOUND</u>	<u>% REC</u>	<u>% REC CL</u>	<u>STATUS</u>	<u>QUALIFIERS</u>
Decachlorobiphenyl	77	24-168	PASS	
2,4,5,6-Tetrachloro-m-Xylene	58	25-145	PASS	

16 CLIENT SAMPLE NUMBER : D-DU1-S-SG-09-25SINSTRUMENT: GC 31D/T EXTRACTED: 2017-03-06 00:00DATA FILE: /chem1/SVOA/GC_31/170307/b1703173517031735ANALYZED BY: 944D/T ANALYZED 2017-03-07 20:16COMMENT:

<u>COMPOUND</u>	<u>% REC</u>	<u>% REC CL</u>	<u>STATUS</u>	<u>QUALIFIERS</u>
Decachlorobiphenyl	78	24-168	PASS	
2,4,5,6-Tetrachloro-m-Xylene	71	25-145	PASS	

SURROGATE RECOVERIES FOR METHOD: EPA 8082

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WORK ORDER: 17-03-0335

BATCH ID:

LCS/MB: 170306L05**MS:**

EXTRACTION: EPA 3545

REVIEWED BY: 

D/T REVIEWED:

MB **CLIENT SAMPLE NUMBER: Method Blank**

INSTRUMENT: GC 31

D/T EXTRACTED: 2017-03-06 00:00

DATA FILE: /chem1/SVOA/GC_31/170307/b1703070217030702

ANALYZED BY: 944

D/T ANALYZED 2017-03-07 09:57

COMMENT:

COMPOUND	% REC	% REC CL	STATUS	QUALIFIERS
Decachlorobiphenyl	76	24-168	PASS	
2,4,5,6-Tetrachloro-m-Xylene	67	25-145	PASS	

LCS **CLIENT SAMPLE NUMBER: Lab Control Sample**

INSTRUMENT: GC 31

D/T EXTRACTED: 2017-03-06 00:00

DATA FILE: /chem1/SVOA/GC_31/170307/b1703070317030703

ANALYZED BY: 944

D/T ANALYZED 2017-03-07 10:16

COMMENT:

COMPOUND	% REC	% REC CL	STATUS	QUALIFIERS
Decachlorobiphenyl	76	24-168	PASS	
2,4,5,6-Tetrachloro-m-Xylene	72	25-145	PASS	

MS **CLIENT SAMPLE NUMBER: Matrix Spike**

INSTRUMENT: GC 31

D/T EXTRACTED: 2017-03-06 00:00

DATA FILE: /chem1/SVOA/GC_31/170307/b1703070417030704

ANALYZED BY: 944

D/T ANALYZED 2017-03-07 10:34

COMMENT:

COMPOUND	% REC	% REC CL	STATUS	QUALIFIERS
Decachlorobiphenyl	70	24-168	PASS	
2,4,5,6-Tetrachloro-m-Xylene	52	25-145	PASS	

MSD **CLIENT SAMPLE NUMBER: Matrix Spike Duplicate**

INSTRUMENT: GC 31

D/T EXTRACTED: 2017-03-06 00:00

DATA FILE: /chem1/SVOA/GC_31/170307/b1703070517030705

ANALYZED BY: 944

D/T ANALYZED 2017-03-07 10:53

COMMENT:

COMPOUND	% REC	% REC CL	STATUS	QUALIFIERS
Decachlorobiphenyl	84	24-168	PASS	
2,4,5,6-Tetrachloro-m-Xylene	59	25-145	PASS	

Data File: /chem1/SVOA/GC_31.i/170307.b/b17030702.d
 Report Date: 07-Mar-2017 10:21

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Eurofins Calscience

EPA8082/A PCB analysis

Data file : /chem1/SVOA/GC_31.i/170307.b/b17030702.d
 Lab Smp Id:
 Inj Date : 07-MAR-2017 09:57
 Operator : 944 Inst ID: GC_31.i
 Smp Info : MB 170306L05
 Misc Info :
 Comment : Rtx-CLPesticide II
 Method : /chem1/SVOA/GC_31.i/170307.b/b8082-n2.m
 Meth Date : 07-Mar-2017 10:11 src3 Quant Type: ESTD
 Cal Date : 04-MAR-2017 13:13 Cal File: b17030410.d
 Als bottle: 2 QC Sample: BLANK
 Dil Factor: 1.00000
 Integrator: HP Genie Compound Sublist: all.sub
 Target Version: 3.50
 Processing Host: US26TAR4

Concentration Formula: Amt * DF * *vf/vi * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
vf	1.00000	Final extract volume(mL)
vi	1.00000	Initial sample volume(L)

Cpnd Variable Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS	
					ON-COLUMN (ppb)	FINAL (ug)
\$ 1 2,4,5,6-Tetrachloro-m-xylene	5.033	5.026	0.007	8097038922	67.0845	67.1
M 2 Aroclor-1016				Compound Not Detected.		
3 Aroclor 1016 (1)				Compound Not Detected.		
4 Aroclor 1016 (2)				Compound Not Detected.		
5 Aroclor 1016 (3)				Compound Not Detected.		
6 Aroclor 1016 (4)				Compound Not Detected.		
7 Aroclor 1016 (5)				Compound Not Detected.		
M 8 Aroclor-1260				Compound Not Detected.		
9 Aroclor 1260 (1)				Compound Not Detected.		
10 Aroclor 1260 (2)				Compound Not Detected.		
11 Aroclor 1260 (3)				Compound Not Detected.		
12 Aroclor 1260 (4)				Compound Not Detected.		
13 Aroclor 1260 (5)				Compound Not Detected.		
M 14 Aroclor-1221				Compound Not Detected.		
15 Aroclor 1221 (1)				Compound Not Detected.		

Data File: /chem1/SVOA/GC_31.i/170307.b/b17030702.d
Report Date: 07-Mar-2017 10:21

Page 2

Compounds	RT	EXP	RT	DLT	RT	RESPONSE	CONCENTRATIONS	
							ON-COLUMN (ppb)	FINAL (uG)
=====	==	=====	=====	=====	=====	=====	=====	=====
16 Aroclor 1221 (2)						Compound Not Detected.		
17 Aroclor 1221 (3)						Compound Not Detected.		
18 Aroclor 1221 (4)						Compound Not Detected.		
19 Aroclor 1221 (5)						Compound Not Detected.		
M 20 Aroclor-1232						Compound Not Detected.		
21 Aroclor 1232 (1)						Compound Not Detected.		
22 Aroclor 1232 (2)						Compound Not Detected.		
23 Aroclor 1232 (3)						Compound Not Detected.		
24 Aroclor 1232 (4)						Compound Not Detected.		
25 Aroclor 1232 (5)						Compound Not Detected.		
M 26 Aroclor-1242						Compound Not Detected.		
27 Aroclor 1242 (1)						Compound Not Detected.		
28 Aroclor 1242 (2)						Compound Not Detected.		
29 Aroclor 1242 (3)						Compound Not Detected.		
30 Aroclor 1242 (4)						Compound Not Detected.		
31 Aroclor 1242 (5)						Compound Not Detected.		
M 32 Aroclor-1248						Compound Not Detected.		
33 Aroclor 1248 (1)						Compound Not Detected.		
34 Aroclor 1248 (2)						Compound Not Detected.		
35 Aroclor 1248 (3)						Compound Not Detected.		
36 Aroclor 1248 (4)						Compound Not Detected.		
37 Aroclor 1248 (5)						Compound Not Detected.		
M 38 Aroclor-1254						Compound Not Detected.		
39 Aroclor 1254 (1)						Compound Not Detected.		
40 Aroclor 1254 (2)						Compound Not Detected.		
41 Aroclor 1254 (3)						Compound Not Detected.		
42 Aroclor 1254 (4)						Compound Not Detected.		
43 Aroclor 1254 (5)						Compound Not Detected.		
M 44 Aroclor-1262						Compound Not Detected.		
45 Aroclor 1262 (1)						Compound Not Detected.		
46 Aroclor 1262 (2)						Compound Not Detected.		
47 Aroclor 1262 (3)						Compound Not Detected.		
48 Aroclor 1262 (4)						Compound Not Detected.		
49 Aroclor 1262 (5)						Compound Not Detected.		
M 50 Aroclor-1268						Compound Not Detected.		
51 Aroclor 1268 (1)						Compound Not Detected.		
52 Aroclor 1268 (2)						Compound Not Detected.		
53 Aroclor 1268 (3)						Compound Not Detected.		
54 Aroclor 1268 (4)						Compound Not Detected.		
55 Aroclor 1268 (5)						Compound Not Detected.		
\$ 56 Decachlorobiphenyl	11.684	11.682	0.002	10687107036	75.7556	75.8		

Page 1

Data File: /chem1/SVDA/GC_31.i/170307.b/b17030702.d

Date : 07-MAR-2017 09:57

Client ID:

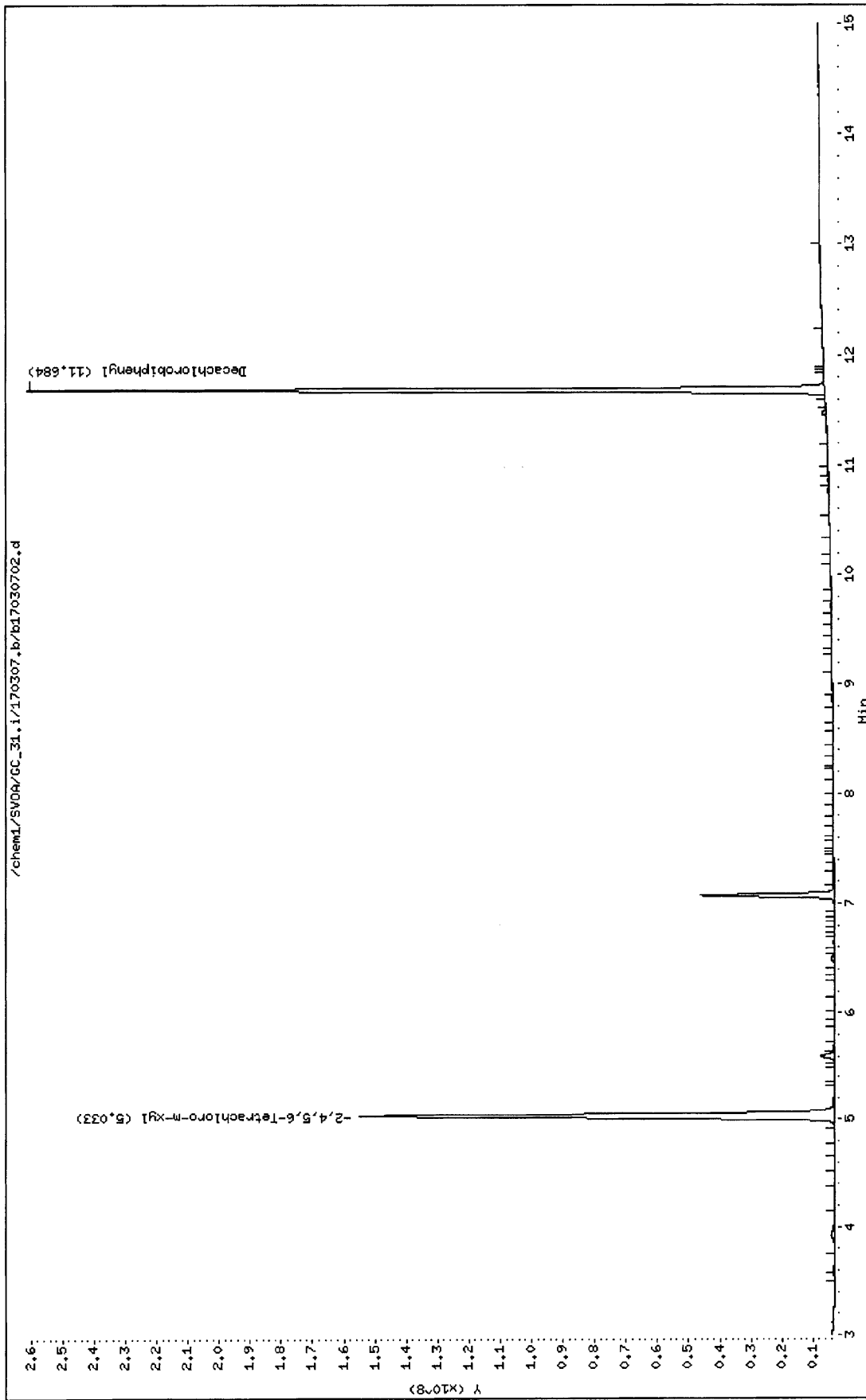
Sample Info: HB 170306L05

Instrument: GC_31.i

Operator: 944

Column diameter: 2.00

Column phase:



Data File: /chem1/SVOA/GC_31.i/170307.b/b17030703.d
 Report Date: 07-Mar-2017 10:38

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Eurofins Calscience

EPA8082/A PCB analysis

Data file : /chem1/SVOA/GC_31.i/170307.b/b17030703.d
 Lab Smp Id:
 Inj Date : 07-MAR-2017 10:16
 Operator : 944 Inst ID: GC_31.i
 Smp Info : LCS 170306L05
 Misc Info :
 Comment : Rtx-CLPesticide II
 Method : /chem1/SVOA/GC_31.i/170307.b/b8082-n2.m
 Meth Date : 07-Mar-2017 10:11 src3 Quant Type: ESTD
 Cal Date : 04-MAR-2017 13:13 Cal File: b17030410.d
 Als bottle: 3 QC Sample: LCS
 Dil Factor: 1.00000
 Integrator: HP Genie Compound Sublist: p1016_1260.sub
 Target Version: 3.50
 Processing Host: US26TAR4

Concentration Formula: Amt * DF * *vf/vi * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
vf	1.00000	Final extract volume(mL)
vi	1.00000	Initial sample volume(L)

Cpnd Variable Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS	
					ON-COLUMN (ppb)	FINAL (ug)
\$ 1 2,4,5,6-Tetrachloro-m-xylene	5.028	5.026	0.002	8756468481	72.5479	72.5
M 2 Aroclor-1016				3116987187	177.336	177
3 Aroclor 1016 (1)	5.556	5.553	0.003	310730387	178.064	178
4 Aroclor 1016 (2)	6.039	6.039	0.000	576848798	180.229	180
5 Aroclor 1016 (3)	6.648	6.646	0.002	1309386824	175.736	176
6 Aroclor 1016 (4)	6.816	6.815	0.001	570562798	178.716	179
7 Aroclor 1016 (5)	6.895	6.893	0.002	349458380	175.818	176
M 8 Aroclor-1260				4588506317	178.128	178
9 Aroclor 1260 (1)	9.070	9.071	-0.001	1597063496	188.100	188
10 Aroclor 1260 (2)	9.517	9.517	0.000	1108206877	172.472	172
11 Aroclor 1260 (3)	9.797	9.798	-0.001	940793281	174.142	174
12 Aroclor 1260 (4)	10.869	10.870	-0.001	309046741	170.303	170
13 Aroclor 1260 (5)	11.154	11.155	-0.001	633395922	174.657	175
\$ 56 Decachlorobiphenyl	11.681	11.682	-0.001	10782602083	76.4325	76.4

Page 1

Data File: /chem1/SV04/GC_31.i/170307.b/b17030703.d

Date : 07-MAR-2017 10:16

Client ID:

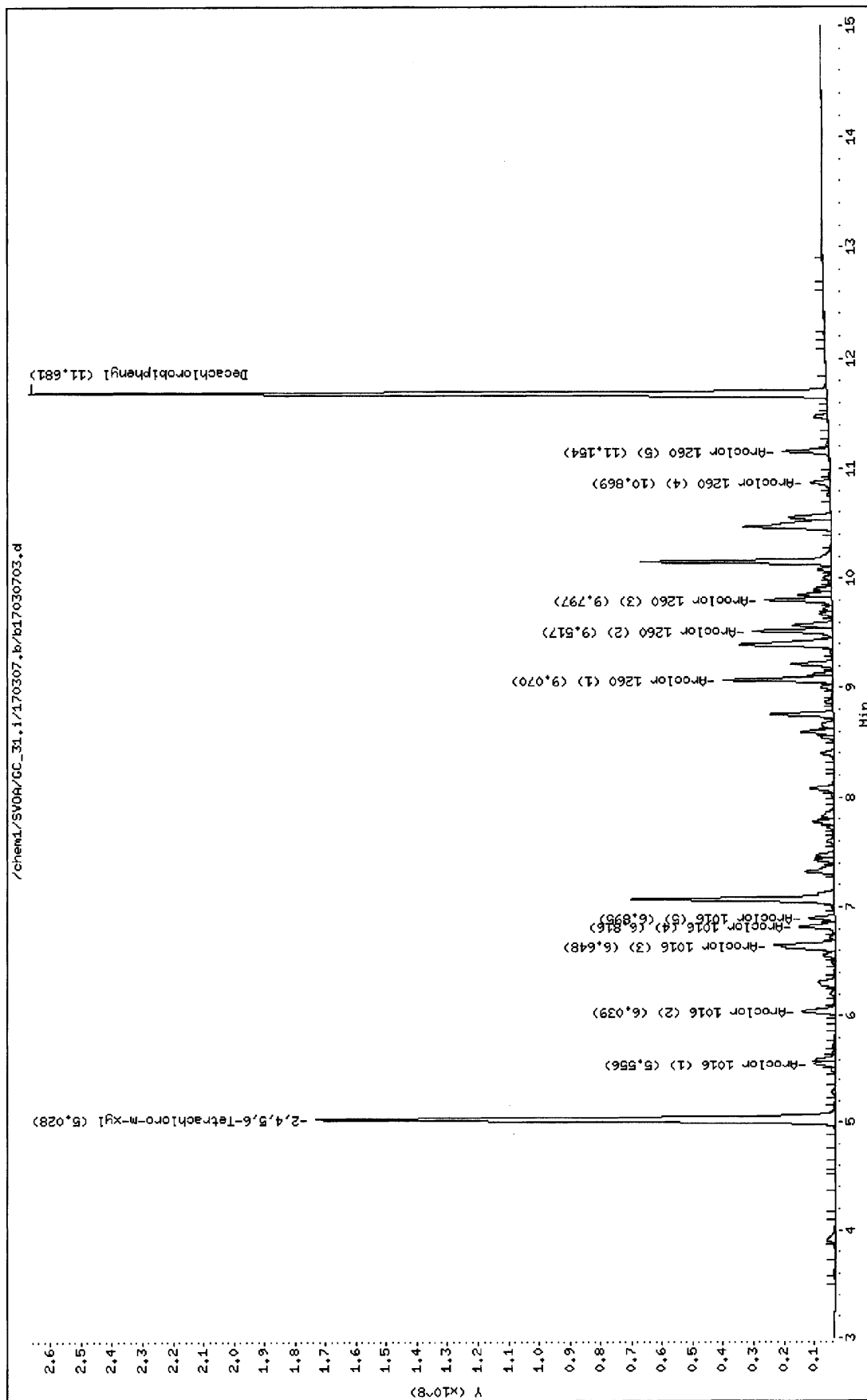
Sample Info: LCS 170306L05

Instrument: GC_31.i

Operator: 944

Column diameter: 2.00

Column phase:



Data File: /chem1/SVOA/GC_31.i/170307.b/b17030704.d
 Report Date: 07-Mar-2017 11:04

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Eurofins Calscience

EPA8082/A PCB analysis

Data file : /chem1/SVOA/GC_31.i/170307.b/b17030704.d
 Lab Smp Id:
 Inj Date : 07-MAR-2017 10:34
 Operator : 944 Inst ID: GC_31.i
 Smp Info : MS 17-03-0341-1
 Misc Info :
 Comment : Rtx-CLPesticide II
 Method : /chem1/SVOA/GC_31.i/170307.b/b8082-n2.m
 Meth Date : 07-Mar-2017 10:11 src3 Quant Type: ESTD
 Cal Date : 04-MAR-2017 13:13 Cal File: b17030410.d
 Als bottle: 4 QC Sample: MS
 Dil Factor: 1.00000
 Integrator: HP Genie Compound Sublist: p1016_1260.sub
 Target Version: 3.50
 Processing Host: US26TAR4

Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable

Local Compound Variable

		CONCENTRATIONS				
		ON-COLUMN			FINAL	
Compounds	RT	EXP RT	DLT RT	RESPONSE	(ppb)	(ug/Kg)
=====	==	=====	=====	=====	=====	=====
\$ 1 2,4,5,6-Tetrachloro-m-xylene	5.032	5.026	0.006	6263723005	51.8954	51.9
M 2 Aroclor-1016				2364131829	134.503	134
3 Aroclor 1016 (1)	5.561	5.553	0.008	220412092	126.307	126
4 Aroclor 1016 (2)	6.044	6.039	0.005	434244414	135.674	136
5 Aroclor 1016 (3)	6.649	6.646	0.003	991898999	133.125	133
6 Aroclor 1016 (4)	6.818	6.815	0.003	439747744	137.741	138
7 Aroclor 1016 (5)	6.896	6.893	0.003	277828580	139.780	140
M 8 Aroclor-1260				4192670095	162.761	163
9 Aroclor 1260 (1)	9.071	9.071	0.000	1427182588	168.092	168
10 Aroclor 1260 (2)	9.517	9.517	0.000	1010016322	157.190	157
11 Aroclor 1260 (3)	9.799	9.798	0.001	874518581	161.874	162
12 Aroclor 1260 (4)	10.870	10.870	0.000	292191181	161.015	161
13 Aroclor 1260 (5)	11.155	11.155	0.000	588761423	162.349	162
\$ 56 Decachlorobiphenyl	11.683	11.682	0.001	9917684398	70.3016	70.3

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Data File: /chem1/SV00A/GC_31.i/170307.b/b17030704.d

Date: 07-MAR-2017 10:34

Client ID:

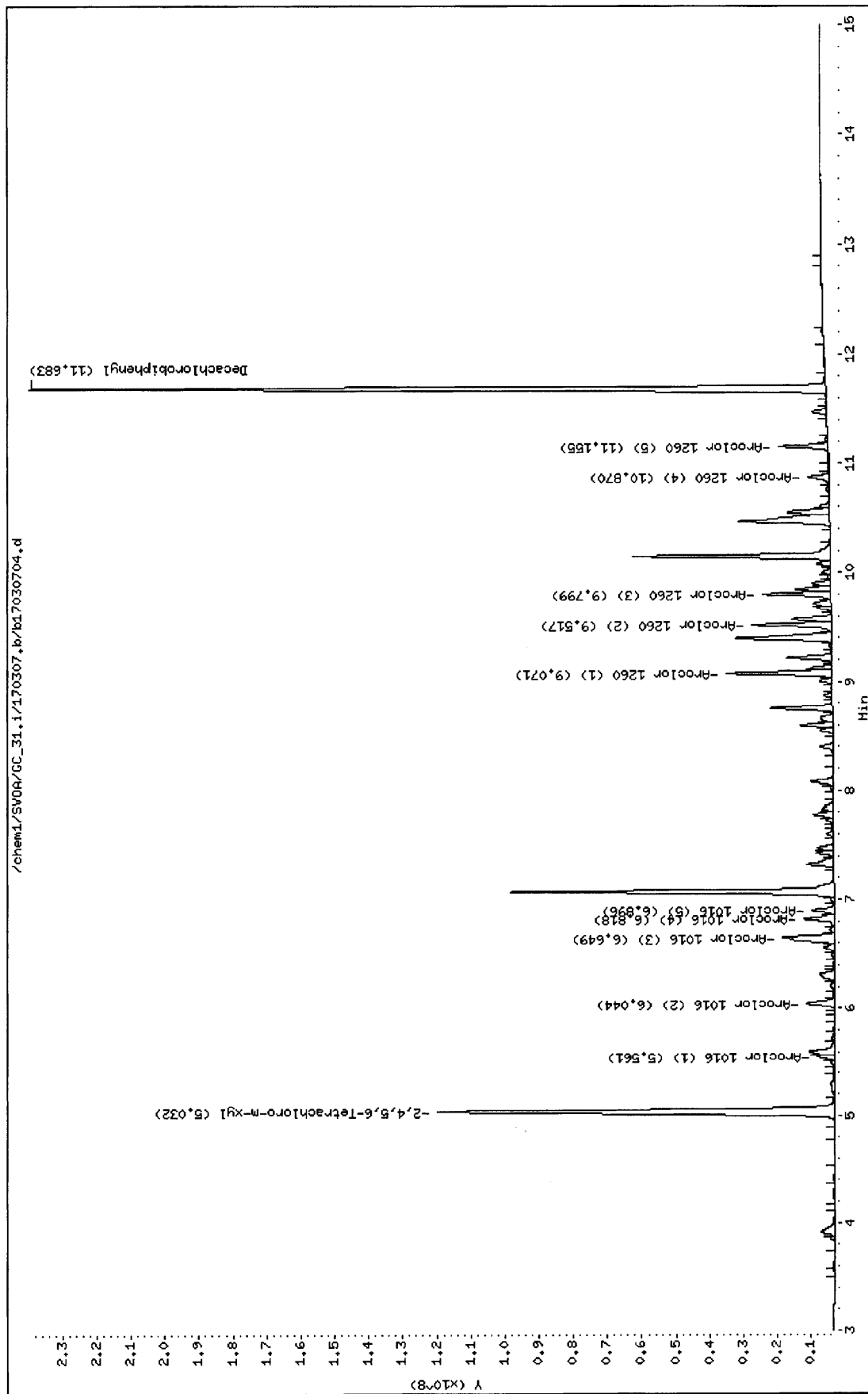
Sample Info: HS 17-03-0341-1

Instrument: GC_31.i

Operator: 944

Column diameter: 2.00

Column phase:



Data File: /chem1/SVOA/GC_31.i/170307.b/b17030705.d
 Report Date: 07-Mar-2017 11:17

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Eurofins Calscience

EPA8082/A PCB analysis

Data file : /chem1/SVOA/GC_31.i/170307.b/b17030705.d
 Lab Smp Id:
 Inj Date : 07-MAR-2017 10:53
 Operator : 944 Inst ID: GC_31.i
 Smp Info : MSD 17-03-0341-1
 Misc Info :
 Comment : Rtx-CLPesticide II
 Method : /chem1/SVOA/GC_31.i/170307.b/b8082-n2.m
 Meth Date : 07-Mar-2017 10:11 src3 Quant Type: ESTD
 Cal Date : 04-MAR-2017 13:13 Cal File: b17030410.d
 Als bottle: 5 QC Sample: MSD
 Dil Factor: 1.00000
 Integrator: HP Genie Compound Sublist: p1016_1260.sub
 Target Version: 3.50
 Processing Host: US26TAR4

Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable

Local Compound Variable

		CONCENTRATIONS				
		ON-COLUMN			FINAL	
Compounds	RT	EXP RT	DLT RT	RESPONSE	(ppb)	(ug/Kg)
=====	==	=====	=====	=====	=====	=====
\$ 1 2,4,5,6-Tetrachloro-m-xylene	5.027	5.026	0.001	7121409789	59.0014	59.0
M 2 Aroclor-1016				2684586414	152.735	153
3 Aroclor 1016 (1)	5.555	5.553	0.002	253164806	145.076	145
4 Aroclor 1016 (2)	6.038	6.039	-0.001	489163465	152.833	153
5 Aroclor 1016 (3)	6.646	6.646	0.000	1131946854	151.921	152
6 Aroclor 1016 (4)	6.815	6.815	0.000	498624949	156.183	156
7 Aroclor 1016 (5)	6.894	6.893	0.001	311686340	156.815	157
M 8 Aroclor-1260				4796409802	186.199	186
9 Aroclor 1260 (1)	9.070	9.071	-0.001	1623821794	191.252	191
10 Aroclor 1260 (2)	9.516	9.517	-0.001	1155987513	179.908	180
11 Aroclor 1260 (3)	9.797	9.798	-0.001	991229890	183.477	183
12 Aroclor 1260 (4)	10.868	10.870	-0.002	335806288	185.049	185
13 Aroclor 1260 (5)	11.154	11.155	-0.001	689564317	190.145	190
\$ 56 Decachlorobiphenyl	11.682	11.682	0.000	11784765068	83.5364	83.5

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Data File: /chem1/SV04/GC_31.i/170307.b/b17030705.d

Date: 07-MAR-2017 10:53

Client ID:

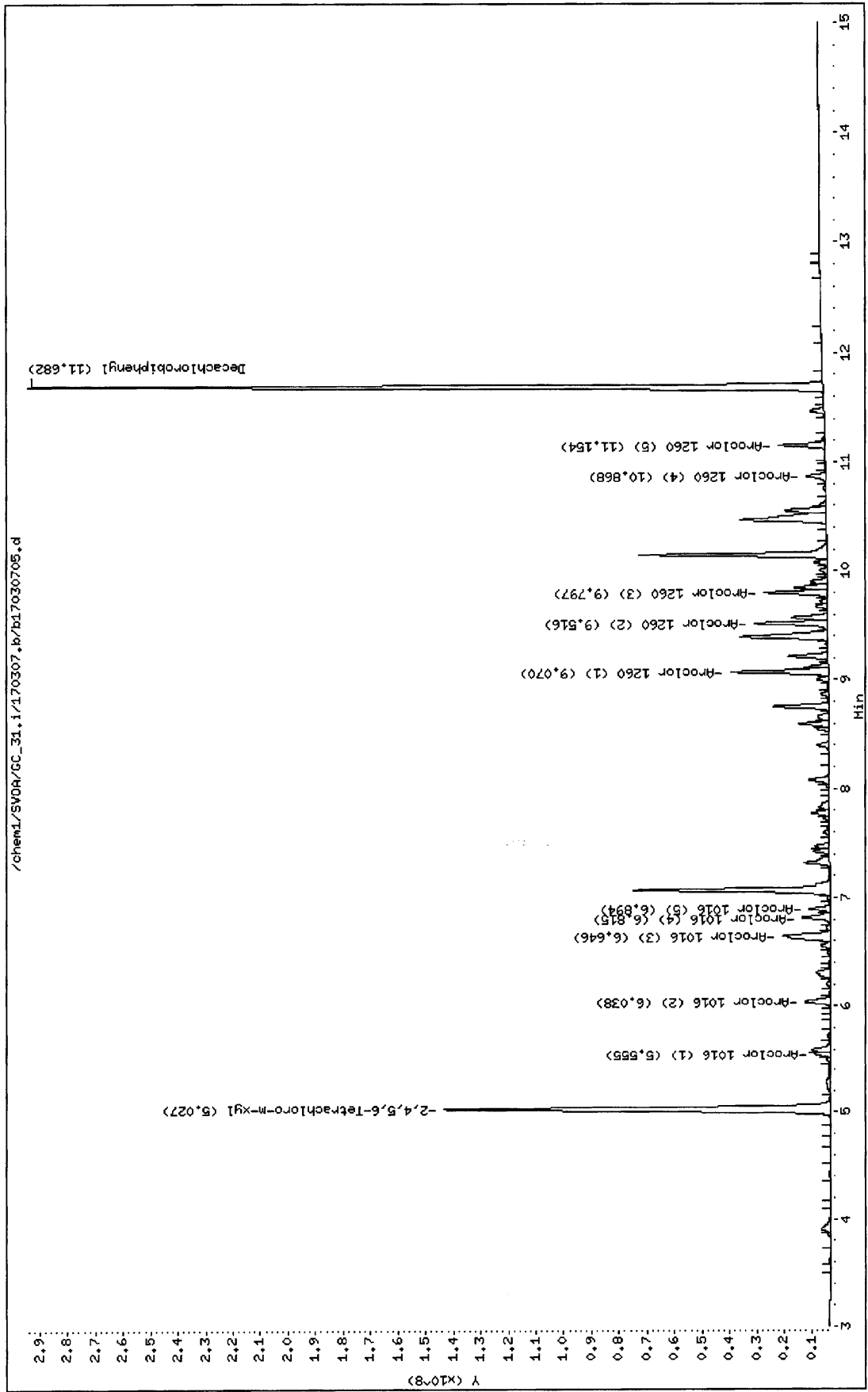
Sample Info: MSD 17-03-0341-1

Instrument: GC_31.i

Operator: 944

Column diameter: 2.00

Column phase:



Data File: /chem1/SVOA/GC_31.i/170307.b/b17030706.d
 Report Date: 07-Mar-2017 13:38

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Eurofins Calscience

EPA8082/A PCB analysis

Data file : /chem1/SVOA/GC_31.i/170307.b/b17030706.d
 Lab Smp Id:
 Inj Date : 07-MAR-2017 11:09
 Operator : 944 Inst ID: GC_31.i
 Smp Info : 17-03-0341-1
 Misc Info :
 Comment : Rtx-CLPesticide II
 Method : /chem1/SVOA/GC_31.i/170307.b/b8082-n2.m
 Meth Date : 07-Mar-2017 10:11 src3 Quant Type: ESTD
 Cal Date : 04-MAR-2017 13:13 Cal File: b17030410.d
 Als bottle: 6
 Dil Factor: 1.00000
 Integrator: HP Genie Compound Sublist: all.sub
 Target Version: 3.50
 Processing Host: US26TAR4

Concentration Formula: Amt * DF * *vf/vi * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
vf	1.00000	Final extract volume(mL)
vi	1.00000	Initial sample volume(L)

Cpnd Variable Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS	
					ON-COLUMN (ppb)	FINAL (ug)
\$ 1 2,4,5,6-Tetrachloro-m-xylene	5.045	5.026	0.019	7429275744	61.5521	61.6
M 2 Aroclor-1016				Compound Not Detected.		
3 Aroclor 1016 (1)				Compound Not Detected.		
4 Aroclor 1016 (2)				Compound Not Detected.		
5 Aroclor 1016 (3)				Compound Not Detected.		
6 Aroclor 1016 (4)				Compound Not Detected.		
7 Aroclor 1016 (5)				Compound Not Detected.		
M 8 Aroclor-1260				Compound Not Detected.		
9 Aroclor 1260 (1)				Compound Not Detected.		
10 Aroclor 1260 (2)				Compound Not Detected.		
11 Aroclor 1260 (3)				Compound Not Detected.		
12 Aroclor 1260 (4)				Compound Not Detected.		
13 Aroclor 1260 (5)				Compound Not Detected.		
M 14 Aroclor-1221				Compound Not Detected.		
15 Aroclor 1221 (1)				Compound Not Detected.		

Data File: /chem1/SVOA/GC_31.i/170307.b/b17030706.d
 Report Date: 07-Mar-2017 13:38

Page 2

Compounds	RT	EXP	RT	DLT	RT	RESPONSE	CONCENTRATIONS	
							ON-COLUMN	FINAL
							(ppb)	(uG)
=====	==	=====	=====		=====	=====	=====	=====
16 Aroclor 1221 (2)					Compound Not Detected.			
17 Aroclor 1221 (3)					Compound Not Detected.			
18 Aroclor 1221 (4)					Compound Not Detected.			
19 Aroclor 1221 (5)					Compound Not Detected.			
M 20 Aroclor-1232					Compound Not Detected.			
21 Aroclor 1232 (1)					Compound Not Detected.			
22 Aroclor 1232 (2)					Compound Not Detected.			
23 Aroclor 1232 (3)					Compound Not Detected.			
24 Aroclor 1232 (4)					Compound Not Detected.			
25 Aroclor 1232 (5)					Compound Not Detected.			
M 26 Aroclor-1242					Compound Not Detected.			
27 Aroclor 1242 (1)					Compound Not Detected.			
28 Aroclor 1242 (2)					Compound Not Detected.			
29 Aroclor 1242 (3)					Compound Not Detected.			
30 Aroclor 1242 (4)					Compound Not Detected.			
31 Aroclor 1242 (5)					Compound Not Detected.			
M 32 Aroclor-1248					Compound Not Detected.			
33 Aroclor 1248 (1)					Compound Not Detected.			
34 Aroclor 1248 (2)					Compound Not Detected.			
35 Aroclor 1248 (3)					Compound Not Detected.			
36 Aroclor 1248 (4)					Compound Not Detected.			
37 Aroclor 1248 (5)					Compound Not Detected.			
M 38 Aroclor-1254					Compound Not Detected.			
39 Aroclor 1254 (1)					Compound Not Detected.			
40 Aroclor 1254 (2)					Compound Not Detected.			
41 Aroclor 1254 (3)					Compound Not Detected.			
42 Aroclor 1254 (4)					Compound Not Detected.			
43 Aroclor 1254 (5)					Compound Not Detected.			
M 44 Aroclor-1262					Compound Not Detected.			
45 Aroclor 1262 (1)					Compound Not Detected.			
46 Aroclor 1262 (2)					Compound Not Detected.			
47 Aroclor 1262 (3)					Compound Not Detected.			
48 Aroclor 1262 (4)					Compound Not Detected.			
49 Aroclor 1262 (5)					Compound Not Detected.			
M 50 Aroclor-1268					Compound Not Detected.			
51 Aroclor 1268 (1)					Compound Not Detected.			
52 Aroclor 1268 (2)					Compound Not Detected.			
53 Aroclor 1268 (3)					Compound Not Detected.			
54 Aroclor 1268 (4)					Compound Not Detected.			
55 Aroclor 1268 (5)					Compound Not Detected.			
\$ 56 Decachlorobiphenyl	11.681	11.682	-0.001	10279527792		72.8665		72.9

Page 1

Data File: /chem1/SV00A/GC_31.i/170307.b/b17030706.d

Date : 07-MAR-2017 11:09

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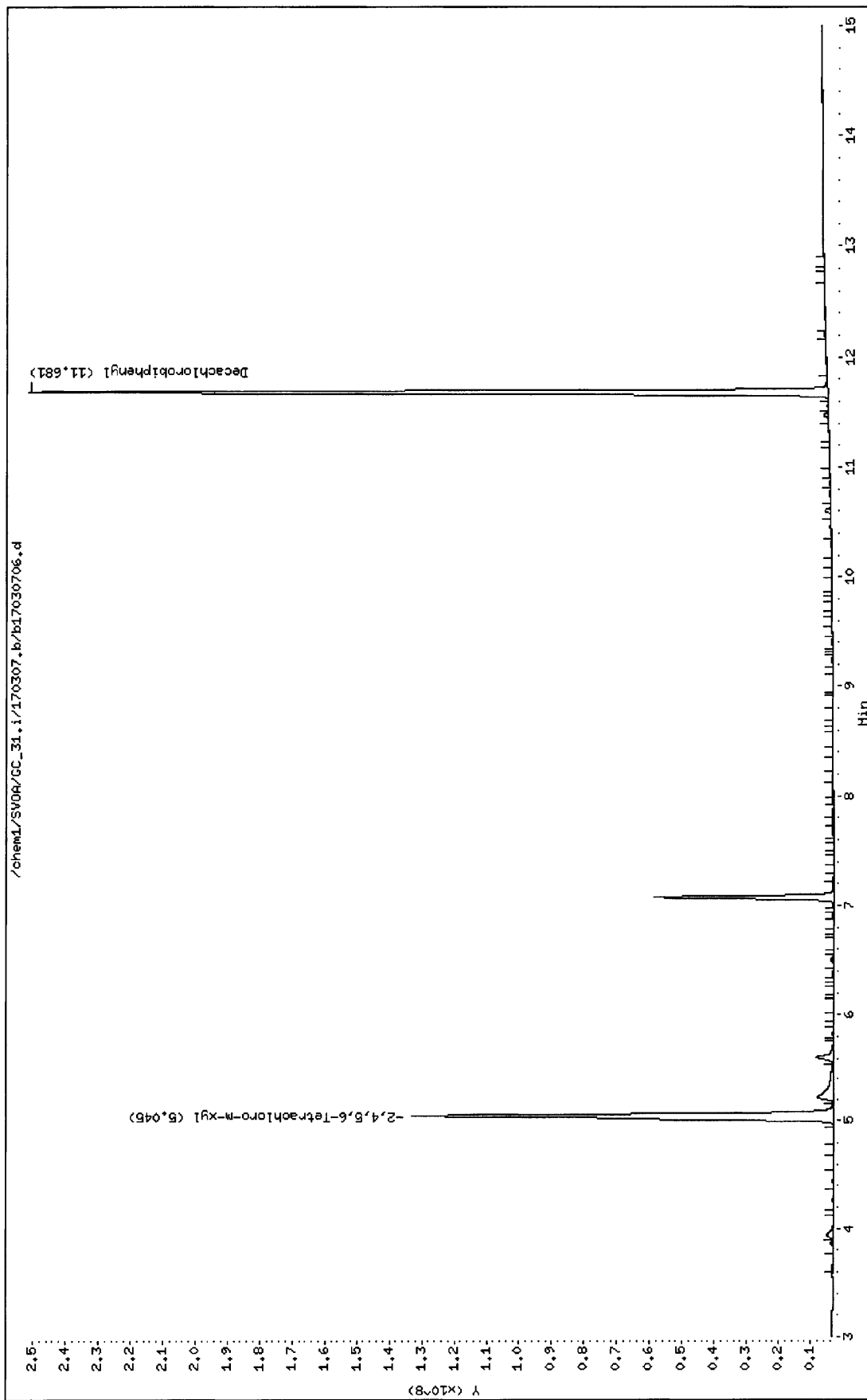
Sample Info: 17-03-0341-1

Instrument: GC_31.i

Operator: 944

Column diameter: 2.00

Column phase:



EPA METHOD 8082 PCB

Continuing Calibration

CONTINUING CALIBRATION VERIFICATION QUALITY CONTROL SHEET
FOR METHOD: EPA 8082

CCV WORK ORDER: 099-12-532-9395-5154

BATCH ID:

170304I001

170307A008

GC 31

INITIAL:

CCV:

INSTRUMENT:

DATA FILE:

/chem1/SVOA/GC_31/170307/b1703070117030701

ANALYZED BY: 944

D/T ANALYZED:

INITIAL:

CCV:

REVIEWED BY:

D/T REVIEWED:

2017-03-04 10:22

2017-03-07 09:39

27

2017-03-07 17:53

COMPOUND NAME	TYPE	CALIB MODEL	MIN RF	AVG RF	CCV RF	AMOUNT	CCV CONC	CCV %D	CCV %D CL	STATUS
Aroclor-1016	C	Avg Resp	0.00	17576749.207	16904676.708			4	0-15	PASS
Aroclor-1260	C	Avg Resp	0.00	25759605.728	25292849.338			2	0-15	PASS

MIN RF: Method Specified Minimum Response Factor

Data File: /chem1/SVOA/GC_31.i/170307.b/b17030701.d
 Report Date: 03/07/2017 10:11

Eurofins CalScience
 Calibration Verification Report

Instrument ID: GC_31.i Injection Date and Time: 07-MAR-2017 09:39
 Sample Name: PCB CCV P021517I Initial Calibration Date(s): 20-FEB-2017 04-MAR-2017
 Sublist used: p1016_1260.sub Initial Calibration Time(s): 15:04 13:13
 Method used: /chem1/SVOA/GC_31.i/170307.b/b8082-n2.m

Target Compounds	ICAL RRF or Amount	ICV RRF	Min. RRF	%D / %Drift	Max%D /Drift	Curve Type
=====						
Aroclor-1016	17576749.207	16904676.707	0.01	4	15	Averaged
Aroclor 1016 (1)	1745051.275	1675839.188	0.01	4	15	Averaged
Aroclor 1016 (2)	3200644.184	3079321.832	0.01	4	15	Averaged
Aroclor 1016 (3)	7450869.197	7193427.403	0.01	3	15	Averaged
Aroclor 1016 (4)	3192573.193	3053682.232	0.01	4	15	Averaged
Aroclor 1016 (5)	1987611.359	1902406.052	0.01	4	15	Averaged
Aroclor 1260 (4)	1814685.680	1741482.696	0.01	4	15	Averaged
Aroclor-1260	25759605.727	25292849.338	0.01	2	15	Averaged
Aroclor 1260 (5)	3626519.827	3505314.912	0.01	3	15	Averaged
Aroclor 1260 (1)	8490491.306	8378971.554	0.01	1	15	Averaged
Aroclor 1260 (2)	6425445.977	6351761.439	0.01	1	15	Averaged
Aroclor 1260 (3)	5402462.938	5315318.737	0.01	2	15	Averaged
=====						
Surrogate Standards	ICAL RRF or Amount	ICV RRF	Min. RRF	%D / %Drift	Max%D /Drift	Curve Type
=====						
2,4,5,6-Tetrachloro-m-xylene	120699078.000	117753911.847	0.01	2	15	Averaged
Decachlorobiphenyl	141073480.845	136968407.583	0.01	3	15	Averaged

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Data File: /chem1/SVOA/GC_31.i/170307.b/b17030701.d
 Report Date: 07-Mar-2017 10:11

Page 1

Eurofins Calscience

EPA8082/A PCB analysis

Data file : /chem1/SVOA/GC_31.i/170307.b/b17030701.d
 Lab Smp Id:
 Inj Date : 07-MAR-2017 09:39
 Operator : 944 Inst ID: GC_31.i
 Smp Info : PCB CCV P021517I
 Misc Info :
 Comment : Rtx-CLPesticide II
 Method : /chem1/SVOA/GC_31.i/170307.b/b8082-n2.m
 Meth Date : 07-Mar-2017 10:11 src3 Quant Type: ESTD
 Cal Date : 04-MAR-2017 13:13 Cal File: b17030410.d
 Als bottle: 1 Continuing Calibration Sample
 Dil Factor: 1.00000
 Integrator: HP Genie Compound Sublist: p1016_1260.sub
 Target Version: 3.50
 Processing Host: US26TAR4

Concentration Formula: Amt * DF * *vf/vi * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
vf	1.00000	Final extract volume(mL)
vi	1.00000	Initial sample volume(L)

Cpnd Variable Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS	
					CAL-AMT (ppb)	ON-COL (ppb)
\$ 1 2,4,5,6-Tetrachloro-m-xylene	5.026	5.026	0.000	11775391185	100.000	97.6
M 2 Aroclor-1016				8452338354	500.000	481
3 Aroclor 1016 (1)	5.553	5.553	0.000	837919594	500.000	480
4 Aroclor 1016 (2)	6.039	6.039	0.000	1539660916	500.000	481
5 Aroclor 1016 (3)	6.646	6.646	0.000	3596713702	500.000	483
6 Aroclor 1016 (4)	6.815	6.815	0.000	1526841116	500.000	478
7 Aroclor 1016 (5)	6.893	6.893	0.000	951203026	500.000	478
M 8 Aroclor-1260				12646424669	500.000	491
9 Aroclor 1260 (1)	9.071	9.071	0.000	4189485777	500.000	493
10 Aroclor 1260 (2)	9.517	9.517	0.000	3175880719	500.000	494
11 Aroclor 1260 (3)	9.798	9.798	0.000	2657659368	500.000	492
12 Aroclor 1260 (4)	10.870	10.870	0.000	870741348	500.000	480
13 Aroclor 1260 (5)	11.155	11.155	0.000	1752657456	500.000	483
\$ 56 Decachlorobiphenyl	11.682	11.682	0.000	13696840758	100.000	97.1

Page 1

Data File: /chem1/SV00A/GC_31.i/170307.b/b17030701.d

Date : 07-MAR-2017 09:39

Client ID:

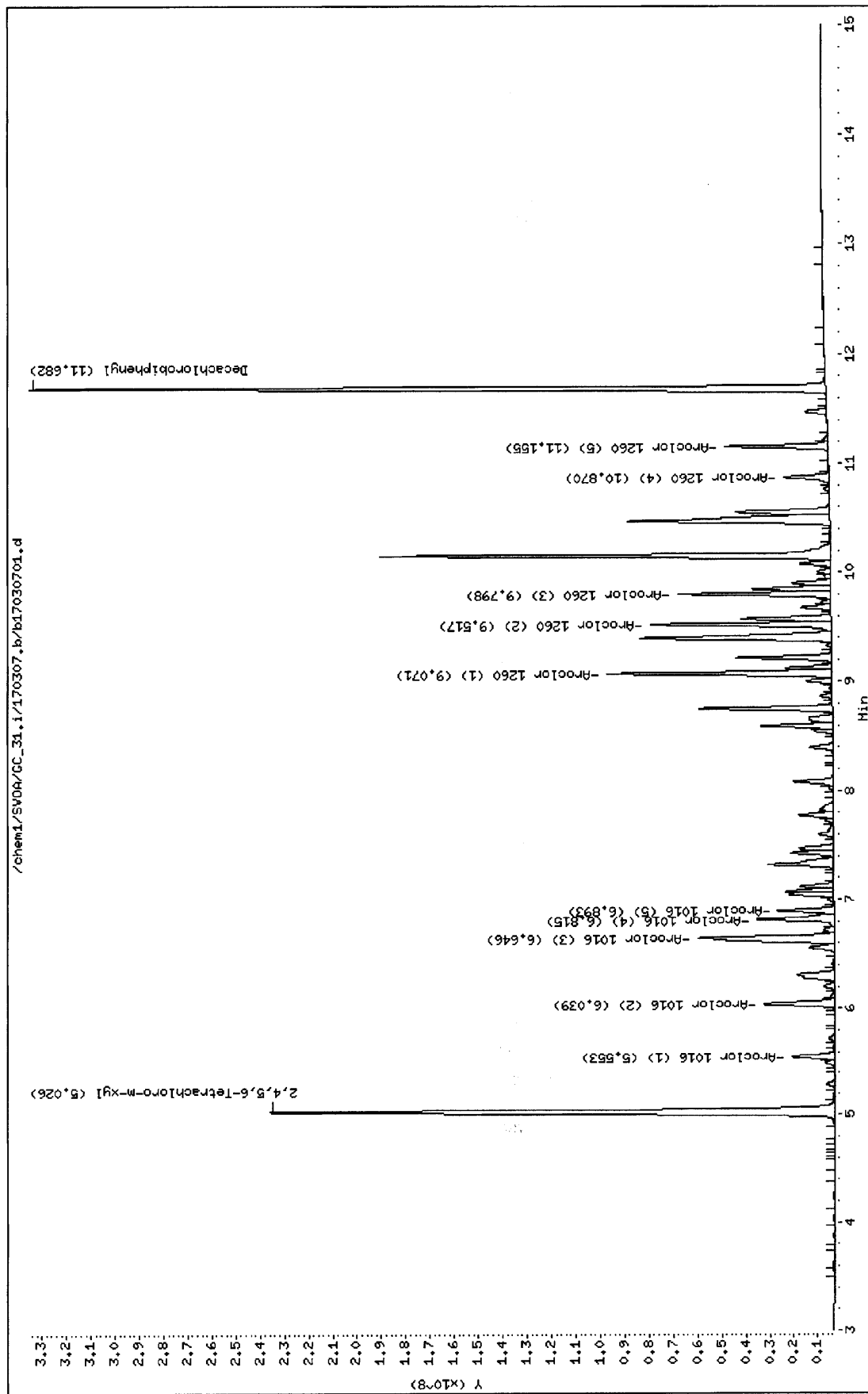
Sample Info: PCB CCV P0215171

Instrument: GC_31.i

Operator: 944

Column diameter: 2.00

Column phase:



CCV ASSOCIATION SUMMARY FOR METHOD: EPA 8082

BATCH ID: 170307A009
INSTRUMENT: GC 31

ANALYZED BY: 944

WORK ORDER: 099-12-532
MATRIX: Water

REVIEWED BY: 27
D/T REVIEWED: 2017-03-07 17:54

<u>CEL</u> <u>SAMPLE #</u>	<u>CLIENT SAMPLE ID</u>	<u>D/T ANALYZED</u>	<u>DATA FILE</u>
9397	Daily Calibration	2017-03-07 15:36	/chem1/SVOA/GC_31/170307/b1703172017031720

WORK ORDER: 17-03-0335
MATRIX: Soil

REVIEWED BY:
D/T REVIEWED:

<u>CEL</u> <u>SAMPLE #</u>	<u>CLIENT SAMPLE ID</u>	<u>D/T ANALYZED</u>	<u>DATA FILE</u>
3	D-DU1-S-SG-06-15S	2017-03-07 18:03	/chem1/SVOA/GC_31/170307/b1703172817031728
4	D-DU1-S-SG-06-25S	2017-03-07 18:22	/chem1/SVOA/GC_31/170307/b1703172917031729
7	D-DU1-S-SG-07-15S	2017-03-07 18:41	/chem1/SVOA/GC_31/170307/b1703173017031730
8	D-DU1-S-SG-07-25S	2017-03-07 19:00	/chem1/SVOA/GC_31/170307/b1703173117031731
11	D-DU1-S-SG-08-15S	2017-03-07 19:19	/chem1/SVOA/GC_31/170307/b1703173217031732
12	D-DU1-S-SG-08-25S	2017-03-07 19:38	/chem1/SVOA/GC_31/170307/b1703173317031733
15	D-DU1-S-SG-09-15S	2017-03-07 19:57	/chem1/SVOA/GC_31/170307/b1703173417031734
16	D-DU1-S-SG-09-25S	2017-03-07 20:16	/chem1/SVOA/GC_31/170307/b1703173517031735

CONTINUING CALIBRATION VERIFICATION QUALITY CONTROL SHEET
FOR METHOD: EPA 8082

CCV WORK ORDER: 099-12-532-9397-5154

BATCH ID:

INITIAL: 170304I001
CCV: 170307A009
INSTRUMENT: GC 31

ANALYZED BY: 944

D/T ANALYZED:

INITIAL: 2017-03-04 10:22
CCV: 2017-03-07 15:36
REVIEWED BY: 27
D/T REVIEWED: 2017-03-07 17:54

DATA FILE: /chem1/SVOA/GC_31/170307/b1703172017031720

COMPOUND NAME	TYPE	CALIB MODEL	MIN RF	AVG RF	CCV RF	AMOUNT	CCV CONC	CCV %D	CCV %D CL	STATUS
Aroclor-1016	C	Avg Resp	0.00	17576749.207	16811974.256			4	0-15	PASS
Aroclor-1260	C	Avg Resp	0.00	25759605.728	24900951.424			3	0-15	PASS

MIN RF: Method Specified Minimum Response Factor



Data File: /chem1/SVOA/GC_31.i/170307.b/b17031720.d
 Report Date: 03/07/2017 15:59

Eurofins CalScience
 Calibration Verification Report

Instrument ID: GC_31.i Injection Date and Time: 07-MAR-2017 15:36
 Sample Name: PCB CCV P021517I Initial Calibration Date(s): 20-FEB-2017 04-MAR-2017
 Sublist used: pl016_1260.sub Initial Calibration Time(s): 15:04 13:13
 Method used: /chem1/SVOA/GC_31.i/170307.b/b8082-n2.m

Target Compounds	ICAL RRF or Amount	ICV RRF	Min. RRF	%D / %Drift	Max%D /Drift	Curve Type
=====						
Aroclor-1016	17576749.207	16811974.255	0.01	4	15	Averaged
Aroclor 1016 (1)	1745051.275	1651449.952	0.01	5	15	Averaged
Aroclor 1016 (2)	3200644.184	3051927.658	0.01	5	15	Averaged
Aroclor 1016 (3)	7450869.197	7168739.011	0.01	4	15	Averaged
Aroclor 1016 (4)	3192573.193	3043356.996	0.01	5	15	Averaged
Aroclor 1016 (5)	1987611.359	1896500.638	0.01	5	15	Averaged
Aroclor 1260 (4)	1814685.680	1778357.362	0.01	2	15	Averaged
Aroclor-1260	25759605.727	24900951.425	0.01	3	15	Averaged
Aroclor 1260 (5)	3626519.827	3506698.410	0.01	3	15	Averaged
Aroclor 1260 (1)	8490491.306	8199346.788	0.01	3	15	Averaged
Aroclor 1260 (2)	6425445.977	6238263.553	0.01	3	15	Averaged
Aroclor 1260 (3)	5402462.938	5178285.312	0.01	4	15	Averaged
=====						
Surrogate Standards	ICAL RRF or Amount	ICV RRF	Min. RRF	%D / %Drift	Max%D /Drift	Curve Type
=====						
2,4,5,6-Tetrachloro-m-xylene	120699078.000	117135110.060	0.01	3	15	Averaged
Decachlorobiphenyl	141073480.845	133777284.402	0.01	5	15	Averaged

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Data File: /chem1/SVOA/GC_31.i/170307.b/b17031720.d
 Report Date: 07-Mar-2017 15:59

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Eurofins Calscience

EPA8082/A PCB analysis

Data file : /chem1/SVOA/GC_31.i/170307.b/b17031720.d
 Lab Smp Id:
 Inj Date : 07-MAR-2017 15:36
 Operator : 944 Inst ID: GC_31.i
 Smp Info : PCB CCV P021517I
 Misc Info :
 Comment : Rtx-CLPesticide II
 Method : /chem1/SVOA/GC_31.i/170307.b/b8082-n2.m
 Meth Date : 07-Mar-2017 15:59 src3 Quant Type: ESTD
 Cal Date : 04-MAR-2017 13:13 Cal File: b17030410.d
 Als bottle: 20 Continuing Calibration Sample
 Dil Factor: 1.00000
 Integrator: HP Genie Compound Sublist: p1016_1260.sub
 Target Version: 3.50
 Processing Host: US26TAR4

Concentration Formula: Amt * DF * *vf/vi * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
vf	1.00000	Final extract volume(mL)
vi	1.00000	Initial sample volume(L)

Cpnd Variable Local Compound Variable

		AMOUNTS					
		RT	EXP RT	DLT RT	RESPONSE	CAL-AMT (ppb)	ON-COL (ppb)
Compounds		==	=====	=====	=====	=====	=====
\$ 1	2,4,5,6-Tetrachloro-m-xylene	5.027	5.027	0.000	11713511006	100.000	97.0
M 2	Aroclor-1016				8405987128	500.000	478
	3 Aroclor 1016 (1)	5.553	5.553	0.000	825724976	500.000	473
	4 Aroclor 1016 (2)	6.039	6.039	0.000	1525963829	500.000	477
	5 Aroclor 1016 (3)	6.645	6.645	0.000	3584369506	500.000	481
	6 Aroclor 1016 (4)	6.814	6.814	0.000	1521678498	500.000	477
	7 Aroclor 1016 (5)	6.893	6.893	0.000	948250319	500.000	477
M 8	Aroclor-1260				12450475712	500.000	483
	9 Aroclor 1260 (1)	9.069	9.069	0.000	4099673394	500.000	483
	10 Aroclor 1260 (2)	9.515	9.515	0.000	3119131776	500.000	485
	11 Aroclor 1260 (3)	9.796	9.796	0.000	2589142656	500.000	479
	12 Aroclor 1260 (4)	10.868	10.868	0.000	889178681	500.000	490
	13 Aroclor 1260 (5)	11.154	11.154	0.000	1753349205	500.000	483
\$ 56	Decachlorobiphenyl	11.682	11.682	0.000	13377728440	100.000	94.8

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Data File: /chem1/SV04/GC_31.i/170307.b/b17031720.d

Date : 07-MAR-2017 15:36

Client ID:

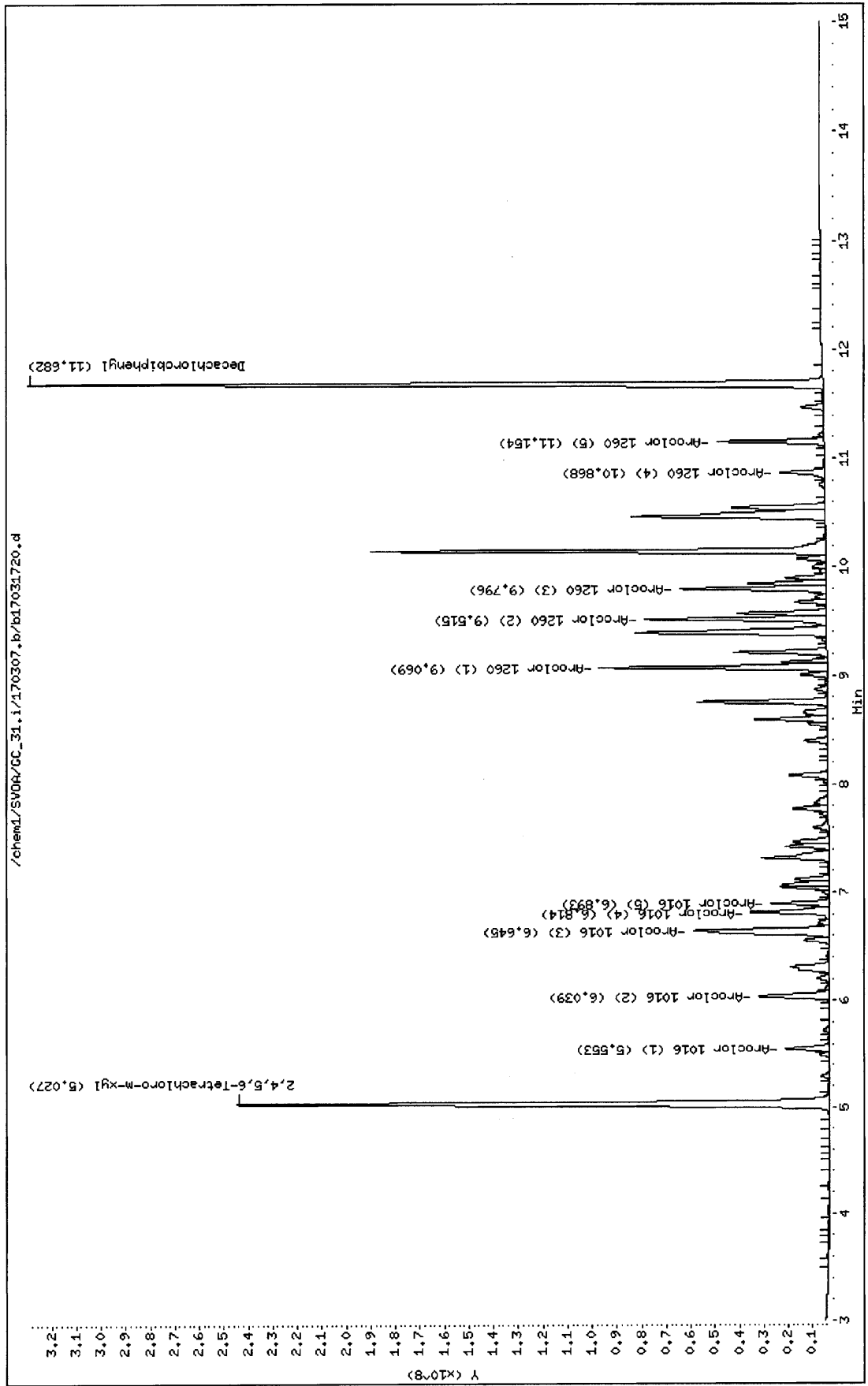
Sample Info: PCB CCV P0215171

Instrument: GC_31.i

Operator: 944

Column diameter: 2.00

Column phase:



CONTINUING CALIBRATION VERIFICATION QUALITY CONTROL SHEET
FOR METHOD: EPA 8082

CCV WORK ORDER: 099-12-532-9398-5154

BATCH ID:

170304I001

170307A010

GC 31

INITIAL:

CCV:

INSTRUMENT:

ANALYZED BY: 944

D/T ANALYZED:

INITIAL:

CCV:

REVIEWED BY:

D/T REVIEWED:

2017-03-04 10:22

2017-03-07 20:54

-1

DATA FILE: /chem1/SVOA/GC_31/170307/b1703173717031737

COMPOUND NAME	TYPE	CALIB MODEL	MIN RF	AVG RF	CCV RF	AMOUNT	CCV CONC	CCV %D	CCV %D CL	STATUS
Aroclor-1016	C	Avg Resp	0.00	17576749.207	17345161.102			1	0-15	PASS
Aroclor-1260	C	Avg Resp	0.00	25759605.728	26061978.462			-1	0-15	PASS

MIN RF: Method Specified Minimum Response Factor

Data File: /chem1/SVOA/GC_31.i/170307.b/b17031737.d
 Report Date: 03/08/2017 10:13

Eurofins CalScience
 Calibration Verification Report

Instrument ID: GC_31.i Injection Date and Time: 07-MAR-2017 20:54
 Sample Name: PCB CCV P021517I Initial Calibration Date(s): 20-FEB-2017 04-MAR-2017
 Sublist used: p1016_1260.sub Initial Calibration Time(s): 15:04 13:13
 Method used: /chem1/SVOA/GC_31.i/170307.b/b8082-n2.m

Target Compounds	ICAL RRF or Amount	ICV RRF	Min. RRF	%D / %Drift	Max%D /Drift	Curve Type
=====						
Aroclor-1016	17576749.207	17345161.102	0.01	1	15	Averaged
Aroclor 1016 (1)	1745051.275	1705042.840	0.01	2	15	Averaged
Aroclor 1016 (2)	3200644.184	3147323.080	0.01	2	15	Averaged
Aroclor 1016 (3)	7450869.197	7395278.408	0.01	1	15	Averaged
Aroclor 1016 (4)	3192573.193	3141050.750	0.01	2	15	Averaged
Aroclor 1016 (5)	1987611.359	1956466.024	0.01	2	15	Averaged
Aroclor 1260 (4)	1814685.680	1817209.270	0.01	0	15	Averaged
Aroclor-1260	25759605.727	26061978.462	0.01	-1	15	Averaged
Aroclor 1260 (5)	3626519.827	3681627.284	0.01	-2	15	Averaged
Aroclor 1260 (1)	8490491.306	8582484.882	0.01	-1	15	Averaged
Aroclor 1260 (2)	6425445.977	6516833.760	0.01	-1	15	Averaged
Aroclor 1260 (3)	5402462.938	5463823.266	0.01	-1	15	Averaged
=====						
Surrogate Standards	ICAL RRF or Amount	ICV RRF	Min. RRF	%D / %Drift	Max%D /Drift	Curve Type
=====						
2,4,5,6-Tetrachloro-m-xylene	120699078.000	120581466.699	0.01	0	15	Averaged
Decachlorobiphenyl	141073480.845	141420644.235	0.01	0	15	Averaged

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Data File: /chem1/SVOA/GC_31.i/170307.b/b17031737.d
 Report Date: 08-Mar-2017 09:20

Page 1

Eurofins Calscience

EPA8082/A PCB analysis

Data file : /chem1/SVOA/GC_31.i/170307.b/b17031737.d
 Lab Smp Id:
 Inj Date : 07-MAR-2017 20:54
 Operator : 944 Inst ID: GC_31.i
 Smp Info : PCB CCV P021517I
 Misc Info :
 Comment : Rtx-CLPesticide II
 Method : /chem1/SVOA/GC_31.i/170307.b/b8082-n2.m
 Meth Date : 08-Mar-2017 09:20 src3 Quant Type: ESTD
 Cal Date : 04-MAR-2017 13:13 Cal File: b17030410.d
 Als bottle: 37 Continuing Calibration Sample
 Dil Factor: 1.00000
 Integrator: HP Genie Compound Sublist: p1016_1260.sub
 Target Version: 3.50
 Processing Host: US26TAR4

Concentration Formula: Amt * DF * *vf/vi * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
vf	1.00000	Final extract volume(mL)
vi	1.00000	Initial sample volume(L)

Cpnd Variable Local Compound Variable

		AMOUNTS					
		RT	EXP RT	DLT RT	RESPONSE	CAL-AMT (ppb)	ON-COL (ppb)
Compounds							
\$	1 2,4,5,6-Tetrachloro-m-xylene	5.027	5.027	0.000	12058146670	100.000	99.9
M	2 Aroclor-1016				8672580551	500.000	493
	3 Aroclor 1016 (1)	5.554	5.554	0.000	852521420	500.000	488
	4 Aroclor 1016 (2)	6.041	6.041	0.000	1573661540	500.000	492
	5 Aroclor 1016 (3)	6.647	6.647	0.000	3697639204	500.000	496
	6 Aroclor 1016 (4)	6.815	6.815	0.000	1570525375	500.000	492
	7 Aroclor 1016 (5)	6.894	6.894	0.000	978233012	500.000	492
M	8 Aroclor-1260				13030989231	500.000	506
	9 Aroclor 1260 (1)	9.070	9.070	0.000	4291242441	500.000	505
	10 Aroclor 1260 (2)	9.517	9.517	0.000	3258416880	500.000	507
	11 Aroclor 1260 (3)	9.798	9.798	0.000	2731911633	500.000	506
	12 Aroclor 1260 (4)	10.871	10.871	0.000	908604635	500.000	501
	13 Aroclor 1260 (5)	11.155	11.155	0.000	1840813642	500.000	508
\$	56 Decachlorobiphenyl	11.683	11.683	0.000	14142064423	100.000	100

Page 1

Data File: /chem1/SV04/GC_31.i/170307.b/b17031737.d

Date : 07-MAR-2017 20:54

Client ID:

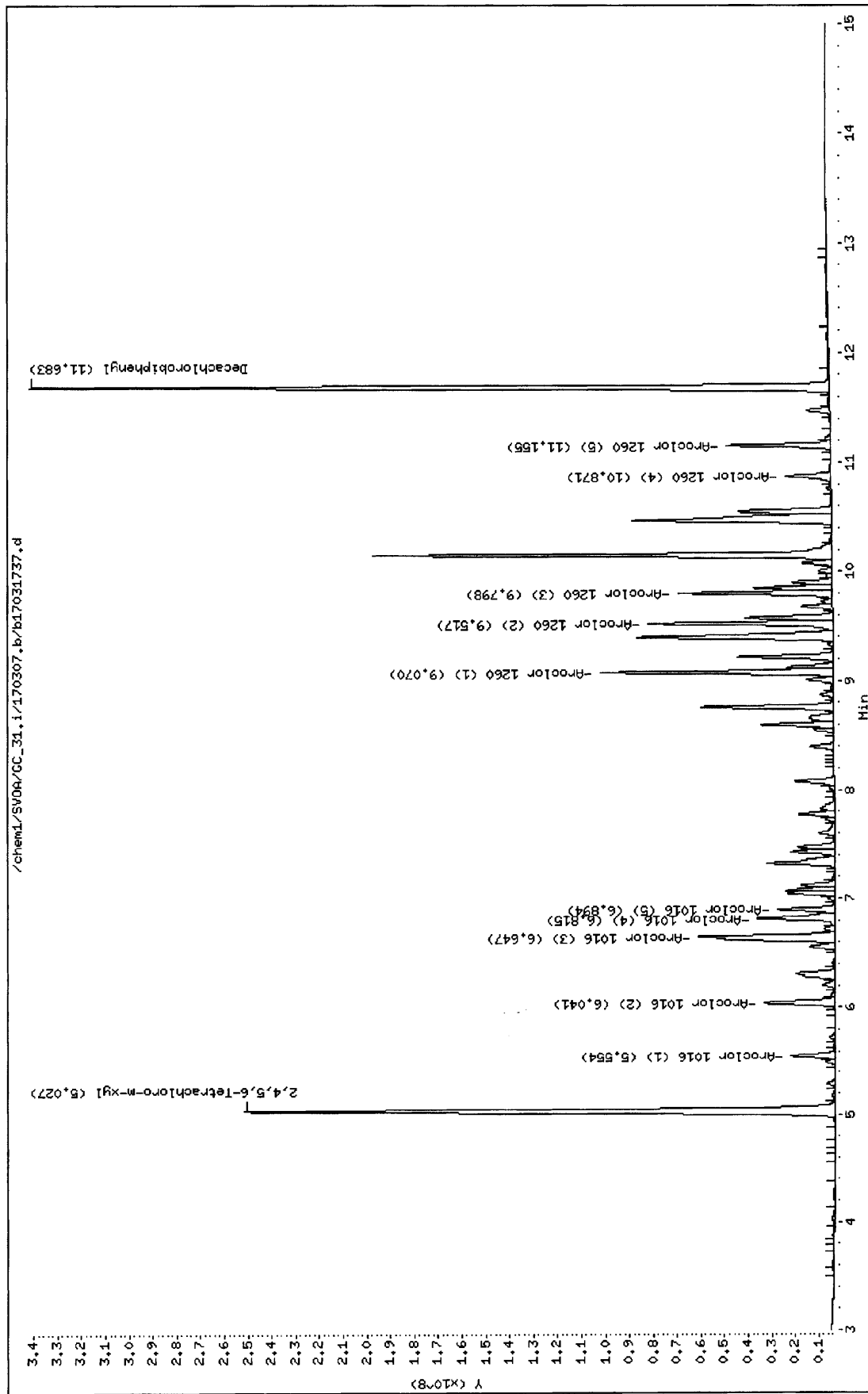
Sample Info: PCB CCV P0215171

Instrument: GC_31.i

Operator: 944

Column diameter: 2.00

Column phase:



EPA METHOD 8082 PCB

Run Logs

Sequence Table (Front Injector):

Method and Injection Info Part:

Line	Location	SampleName	Method	Inj	SampleType	InjVolume	DataFile
====	=====	=====	=====	===	=====	=====	=====
1	Vial 100	IB S007-42-09	8082-N2	1	Sample		17030400
2	Vial 1	ICAL-1 P021517F	8082-N2	1	Sample		17030401
3	Vial 2	ICAL-2 P021517E	8082-N2	1	Sample		17030402
4	Vial 3	ICAL-3 P021517D	8082-N2	1	Sample	AP25	17030403
5	Vial 4	ICAL-4 P021517C	8082-N2	1	Sample		17030404
6	Vial 5	ICAL-5 P021517B	8082-N2	1	Sample		17030405
7	Vial 6	ICV 500 P021517H	8082-N2	1	Sample		17030406
8	Vial 7	1221/54 P120616M	8082-N2	1	Sample		17030407
9	Vial 8	1232/62 P120616N	8082-N2	1	Sample		17030408
10	Vial 9	1248/68 P120616O	8082-N2	1	Sample		17030409
11	Vial 10	1242 P120616P	8082-N2	1	Sample		17030410
12	Vial 11	17-03-0171-1 100	8082-N2	1	Sample		17030411
13	Vial 12	PCB CCV P021517I	8082-N2	1	Sample		17030412

Sequence Table (Back Injector):

No entries - empty table!

Sequence Table (Front Injector):

Method and Injection Info Part:

Line	Location	SampleName	Method	Inj	SampleType	InjVolume	DataFile
====	=====	=====	=====	===	=====	=====	=====
1	Vial 100	IB S007-42-09	8082-N2	1	Sample		17030700
2	Vial 1	PCB CCV P021517I	8082-N2	1	Sample	A008	17030701
3	Vial 2	MB 170306L05	8082-N2	1	Sample		17030702
4	Vial 3	LCS 170306L05	8082-N2	1	Sample		17030703
5	Vial 4	MS 17-03-0341-1	8082-N2	1	Sample		17030704
6	Vial 5	MSD 17-03-0341-1	8082-N2	1	Sample		17030705
7	Vial 6	17-03-0341-1	8082-N2	1	Sample		17030706
8	Vial 7	17-03-0341-2	8082-N2	1	Sample		17030707
9	Vial 8	17-03-0391-1	8082-N2	1	Sample		17030708
10	Vial 9	17-03-0391-2	8082-N2	1	Sample		17030709
11	Vial 10	17-03-0391-3	8082-N2	1	Sample		17030710
12	Vial 11	17-03-0391-4	8082-N2	1	Sample		17030711
13	Vial 12	17-03-0391-5	8082-N2	1	Sample		17030712
14	Vial 13	17-03-0391-6	8082-N2	1	Sample		17030713
15	Vial 14	17-02-2480-5	8082-N2	1	Sample		17030714
16	Vial 15	MB 170302L02	8082-N2	1	Sample		17031715
17	Vial 16	LCS 170302L02	8082-N2	1	Sample		17031716
18	Vial 17	LCSD 170302L02	8082-N2	1	Sample		17031717
19	Vial 18	17-02-2482-2	8082-N2	1	Sample		17031718
20	Vial 19	17-02-2482-3	8082-N2	1	Sample	A009	17031719
21	Vial 20	PCB CCV P021517I	8082-N2	1	Sample		17031720
22	Vial 21	MB 170302L05	8082-N2	1	Sample		17031721
23	Vial 22	TO-4 MDL-V 50PPB	8082-N2	1	Sample		17031722
24	Vial 23	17-02-0013-5	8082-N2	1	Sample		17031723
25	Vial 24	LCS 170302L05	8082-N2	1	Sample		17031724
26	Vial 25	LCSD 170302L05	8082-N2	1	Sample		17031725
27	Vial 26	17-03-0336-3	8082-N2	1	Sample		17031726
28	Vial 27	17-03-0336-4	8082-N2	1	Sample		17031727
29	Vial 28	17-03-0335-3	8082-N2	1	Sample		17031728
30	Vial 29	17-03-0335-4	8082-N2	1	Sample		17031729
31	Vial 30	17-03-0335-7	8082-N2	1	Sample		17031730
32	Vial 31	17-03-0335-8	8082-N2	1	Sample		17031731
33	Vial 32	17-03-0335-11	8082-N2	1	Sample		17031732
34	Vial 33	17-03-0335-12	8082-N2	1	Sample		17031733
35	Vial 34	17-03-0335-15	8082-N2	1	Sample		17031734
36	Vial 35	17-03-0335-16	8082-N2	1	Sample		17031735
37	Vial 36	S07-57-14/15/16	8082-N2	1	Sample		17031736
38	Vial 37	PCB CCV P021517I	8082-N2	1	Sample	A010	17031737

Sequence Table (Back Injector):

No entries - empty table!



EPA METHOD 8082 PCB

Preparation Logs

Analysis Method (EPA Method): ☐ 608 ☐ 8081 ☒ 8082 ☐ 8141 ☐ 8310 ☐ TO-13 ☐ TO-4				
☐ 8270 (☐ Soil ☐ Soil SIM SUPER ☐ PAH ☐ SIM PAH ☐ SIM Pest ☐ SIM PCB cong. ☐ SIM FL)				
Extraction Method (EPA Method): ☐ 3510 ☐ 3520 ☐ 3540 ☐ 3541 ☒ 3545 ☐ 3550 ☐ 3580				
Analyst ID#: Measuring Sample- 1104 Start Extraction- 6/10/17 Blow Down- 11/1084 Clean Up- 11/1084				
Matrix: ☒ Soil ☐ Aqueous ☐ Oil ☐ Wipe ☐ Filter ☐ Tissue ☐ Air				
Balance ID#: S3 Filter ID#: S07-17-17 ASE ID#: 7 Soxtherm ID#: Orbit Shaker ID#: Sonicator ID#:				
Ext. Start Date/Time: 03/06/17 9:00 Ext. End Date/Time: 03/06/17 12:00				
Sand or Wipe ID#: S07-19-19		Drying Agent: ☒ Na ₂ SO ₄ ☒ Diatomaceous Earth		
		Drying Agent(s) ID#: S07-44-18 / S07-22-03		
Surrogate Std ID# & Volume Added (mL): S101316A 0.5				
Spike Std ID# & Volume Added (mL): S020317A 0.5		Spike Added to: ☒ LCS ☐ LCSD ☒ MS ☒ MSD		
Extraction Solvent: ☐ MeCl ₂ ☒ 1:1 Hexane-Acetone ☐ 1:1 MeCl ₂ -Acetone ☐ 9:1 Hexane-Diethyl-ether ☐ Acetonitrile				
Extraction Solvent ID#: S07-44-07 / S07-44-08 Exchange Solvent (☒ Hexane ☐ Acetonitrile) ID#: S07-44-07				
Clean Up Start Date & Time: 3-7-17 16:00 Clean Up End Date & Time: 3-7-17 16:45				
Clean Up: ☐ 3620 Florisil ☐ 3630 SGC ☐ 3660 Sulfur ☒ 3665 Acid ☐ Other				Cartridge ID#:
Clean Up Reagent ID#: S07-52-12				Cartridge Conditioning Column Pre-Elution Reagent ID#:
MB/LCS/MS Batch #:		Sample W (g) / V (mL)		
170306205				
Cel ID#:	Initial	Final	Clean Up Performed	Comments
MB	20.0	10	☒	
LCS	20.0	10	☒	
LCSD	NA	—	☐	
MS 17-03-0341-1A	20.0	10	☒	
MSD -1A	20.0	10	☒	
-1A	20.0	10	☒	
-2A	20.0	10	☒	
17-02-2480-5B	20.1	10	☒	dirty sample
17-03-0335-3A	20.0	10	☒	
-4A	20.1	10	☒	
-7A	20.1	10	☒	
-8A	20.2	10	☒	
-11A	20.1	10	☒	
-12A	20.0	10	☒	
-15A	20.0	10	☒	
-16A	20.1	10	☒	
17-03-0336-3A	20.1	10	☒	
-4A	20.1	10	☒	
			☐	
			☐	
			☐	
			☐	
			☐	
			☐	
			☐	

Peer Reviewed by: 785

Peer Reviewed Date: 3-7-17

Revision Date: 10/20/16

EPA METHOD 8270C PAHSIM

RAW DATA

EPA METHOD 8270C PAHSIM

Initial Calibration

INITIAL CALIBRATION QUALITY CONTROL SUMMARY

FOR METHOD: EPA 8270C SIM PAHS

ICAL WORK ORDER: 099-06-009-4954-4741
ICAL BATCH ID: 170227I004
INSTRUMENT: GC/MS EEE

ANALYZED BY: 907
ICAL D/T ANALYZED: 2017-02-27 13:53
REVIEWED BY: 262
D/T REVIEWED: 2017-02-28 12:33

COMPOUND	COMP. TYPE	CALIB. MODEL	1	2	3	4	5	6	7	8	9	Avg. RF	MIN. RF	%RSD CL	%RSD CL	R or R ² CL	R or R ² CL	STATUS
Naphthalene		Avg RF	1.161	1.034	1.156	1.162	1.105					1.124	0.00	5	0-15	4.921		PASS
2-Methylnaphthalene		Avg RF	0.715	0.692	0.768	0.778	0.735					0.737	0.00	5	0-15	4.871		PASS
1-Methylnaphthalene		Avg RF	0.720	0.649	0.713	0.743	0.702					0.706	0.00	5	0-15	4.964		PASS
Acenaphthylene		Avg RF	2.746	2.504	2.738	2.771	2.563					2.664	0.00	5	0-15	4.569		PASS
Acenaphthene	C	Avg RF	1.623	1.467	1.624	1.607	1.496					1.563	0.00	5	0-15	4.843		PASS
Fluorene		Avg RF	1.860	1.709	1.866	1.803	1.640					1.776	0.00	6	0-15	5.557		PASS
Phenanthrene		Avg RF	1.124	1.008	1.113	1.108	1.031					1.077	0.00	5	0-15	4.926		PASS
Anthracene		Avg RF	1.150	1.050	1.040	1.172	1.086					1.099	0.00	5	0-15	5.359		PASS
Fluoranthene	C	Avg RF	1.354	1.267	1.410	1.430	1.308					1.354	0.00	5	0-15	5.036		PASS
Pyrene		Avg RF	1.519	1.415	1.549	1.578	1.476					1.507	0.00	4	0-15	4.250		PASS
Benzo (a) Anthracene		Avg RF	1.425	1.200	1.321	1.356	1.303					1.321	0.00	6	0-15	6.204		PASS
Chrysene		Avg RF	1.307	1.168	1.292	1.295	1.221					1.257	0.00	5	0-15	4.775		PASS
Benzo (k) Fluoranthene		Avg RF	1.503	1.317	1.474	1.428	1.328					1.410	0.00	6	0-15	5.978		PASS
Benzo (b) Fluoranthene		Avg RF	1.197	1.138	1.356	1.314	1.301					1.261	0.00	7	0-15	7.179		PASS
Benzo (a) Pyrene	C	Avg RF	1.274	1.171	1.312	1.331	1.259					1.269	0.00	5	0-15	4.884		PASS
Indeno (1,2,3-c,d) Pyrene		Avg RF	1.321	1.186	1.396	1.373	1.344					1.324	0.00	6	0-15	6.206		PASS
Dibenz (a,h) Anthracene		Avg RF	0.978	0.932	1.086	1.050	0.989					1.007	0.00	6	0-15	6.054		PASS
Benzo (g,h,i) Perylene		Avg RF	1.187	1.018	1.169	1.173	1.111					1.132	0.00	6	0-15	6.192		PASS

Data Files:

LR - E: Linear Regression (Equal Weight)
Avg RF: Average Response Factor

LR - IC: Linear Regression (Inverse Concentration Weight)
QR - E: Quadratic Regression (Equal Weight)

LR - ISC: Linear Regression (Inverse Square Concentration Weight)

[Return to Contents](#)

INITIAL CALIBRATION QUALITY CONTROL SUMMARY

FOR METHOD: EPA 8270C SIM PAHS

ICAL WORK ORDER: 099-06-009-4954-4741
ICAL BATCH ID: 170227I004
INSTRUMENT: GC/MS EEE

ANALYZED BY: 907
ICAL D/T ANALYZED: 2017-02-27 13:53
REVIEWED BY: 262
D/T REVIEWED: 2017-02-28 12:33

LEVEL #	D/T ANALYZED	DATA FILE
1	2017-02-27 13:53	Z:\GCMS_EEE\GCMS_EEE_data\2017\170227\27feb011.d\27feb011.ir
2	2017-02-27 13:33	Z:\GCMS_EEE\GCMS_EEE_data\2017\170227\27feb010.d\27feb010.ir
3	2017-02-27 13:12	Z:\GCMS_EEE\GCMS_EEE_data\2017\170227\27feb009.d\27feb009.ir
4	2017-02-27 12:52	Z:\GCMS_EEE\GCMS_EEE_data\2017\170227\27feb008.d\27feb008.ir
5	2017-02-27 12:32	Z:\GCMS_EEE\GCMS_EEE_data\2017\170227\27feb007.d\27feb007.ir

LR - E: Linear Regression (Equal Weight)
Avg RF: Average Response Factor

LR - IC: Linear Regression (Inverse Concentration Weight)
QR - E: Quadratic Regression (Equal Weight)

LR - ISC: Linear Regression (Inverse Square Concentration Weight)

INITIAL CALIBRATION VERIFICATION QUALITY CONTROL SHEET
FOR METHOD: EPA 8270C SIM PAHS

ICV WORK ORDER: 099-06-009-4954-4741
INITIAL BATCH ID: 1702271004
INSTRUMENT: GC/MS EEE

ANALYZED BY: 907
D/T ANALYZED: 2017-02-27 13:53
INITIAL: 2017-02-27 14:13
ICV: 262
REVIEWED BY: 2017-02-28 12:33
D/T REVIEWED:

DATA FILE: Z:\GCMS_EEE\GCMS_EEE_data\2017\170227\27feb012.d\27feb012.rr

COMPOUND	COMP TYPE	CALIB MODEL	MIN RF	AVG RF	ICV RF	AMOUNT	ICV	ICV %D	ICV %D CL	STATUS
Naphthalene	Avg Resp		0.00	1.124	1.212			-8	0-20	PASS
2-Methylnaphthalene	Avg Resp		0.00	0.737	0.876			-19	0-20	PASS
1-Methylnaphthalene	Avg Resp		0.00	0.706	0.775			-10	0-20	PASS
Acenaphthylene	Avg Resp		0.00	2.664	2.879			-8	0-20	PASS
Acenaphthene	C Avg Resp		0.00	1.563	1.734			-11	0-20	PASS
Fluorene	Avg Resp		0.00	1.776	1.956			-10	0-20	PASS
Phenanthrene	Avg Resp		0.00	1.077	1.234			-15	0-20	PASS
Anthracene	Avg Resp		0.00	1.099	1.215			-11	0-20	PASS
Fluoranthene	C Avg Resp		0.00	1.354	1.509			-11	0-20	PASS
Pyrene	Avg Resp		0.00	1.507	1.627			-8	0-20	PASS
Benzo (a) Anthracene	Avg Resp		0.00	1.321	1.385			-5	0-20	PASS
Chrysene	Avg Resp		0.00	1.257	1.317			-5	0-20	PASS
Benzo (k) Fluoranthene	Avg Resp		0.00	1.410	1.529			-8	0-20	PASS
Benzo (b) Fluoranthene	Avg Resp		0.00	1.261	1.360			-8	0-20	PASS
Benzo (a) Pyrene	C Avg Resp		0.00	1.269	1.347			-6	0-20	PASS
Indeno (1,2,3-c,d) Pyrene	Avg Resp		0.00	1.324	1.436			-8	0-20	PASS
Dibenz (a,h) Anthracene	Avg Resp		0.00	1.007	1.122			-11	0-20	PASS
Benzo (g,h,i) Perylene	Avg Resp		0.00	1.132	1.264			-12	0-20	PASS

MIN RF: Method Specified Minimum Response Factor

Report Date : 27-Feb-2017 16:18

Page 1

Eurofins Calscience

INITIAL CALIBRATION DATA

Start Cal Date : 03-JAN-2017 11:59
 End Cal Date : 27-FEB-2017 13:53
 Quant Method : ISTD
 Origin : Disabled
 Target Version : 3.50
 Integrator : HP RTE
 Method file : /chem/SVOA/GCMS_EEE.i/170227.b/simpah-extra.m
 Cal Date : 27-Feb-2017 15:02 ev7p
 Curve Type : Average

Calibration File Names:

Level 1: /chem/SVOA/GCMS_EEE.i/170227.b/27feb011.d
 Level 2: /chem/SVOA/GCMS_EEE.i/170227.b/27feb010.d
 Level 3: /chem/SVOA/GCMS_EEE.i/170227.b/27feb009.d
 Level 4: /chem/SVOA/GCMS_EEE.i/170227.b/27feb008.d
 Level 5: /chem/SVOA/GCMS_EEE.i/170227.b/27feb007.d

Compound	0.10000	0.50000	1.000	2.000	5.000	RRF	% RSD
Level 1	Level 2	Level 3	Level 4	Level 5			
4 Naphthalene	1.16060	1.03437	1.15585	1.16235	1.10472	1.12358	5
5 2-Methylnaphthalene	0.71460	0.69156	0.76755	0.77768	0.73512	0.73730	5
6 1-Methylnaphthalene	0.72009	0.64896	0.71287	0.74335	0.70230	0.70551	5
8 Biphenyl	2.51017	2.26941	2.42702	2.28126	2.07295	2.31216	7
9 2,6-Dimethylnaphthalene	1.70500	1.56246	1.69427	1.67041	1.51900	1.63023	5
10 Acenaphthylene	2.74568	2.50416	2.73776	2.77077	2.56295	2.66426	5
12 Acenaphthene	1.62275	1.46707	1.62435	1.60675	1.49606	1.56340	5
13 Dibenzofuran	2.43048	2.19728	2.44209	2.40665	2.23068	2.34144	5
14 1,6,7-Trimethylnaphthalene	1.62611	1.51675	1.65589	1.61472	1.45670	1.57403	5
15 Fluorene	1.86024	1.70856	1.86647	1.80300	1.64039	1.77573	6
16 Dibenzothiophene	5.20555	4.57190	5.11178	4.97228	4.52376	4.87705	6
18 Phenanthrene	1.12374	1.00818	1.11277	1.10821	1.03140	1.07686	5
19 Anthracene	1.14957	1.04991	1.04047	1.17190	1.08562	1.09950	5
20 1-Methylphenanthrene	1.11715	1.02723	1.16454	1.18394	1.11231	1.12103	5
21 Fluoranthene	1.35420	1.26743	1.41012	1.43046	1.30803	1.35405	5
22 Pyrene	1.51861	1.41454	1.54925	1.57756	1.47595	1.50718	4
24 Benzo (a) Anthracene	1.42489	1.20046	1.32145	1.35601	1.30300	1.32116	6
26 Chrysene	1.30735	1.16809	1.29175	1.29509	1.22088	1.25663	5
27 Benzo (b) Fluoranthene	1.19695	1.13765	1.35637	1.31351	1.30123	1.26114	7
28 Benzo (k) Fluoranthene	1.50287	1.31717	1.47447	1.42831	1.32819	1.41020	6
29 Benzo (e) pyrene	1.62836	1.47499	1.67952	1.63693	1.53270	1.59050	5
30 Benzo (a) Pyrene	1.27370	1.17100	1.31200	1.33066	1.25914	1.26930	5

Report Date : 27-Feb-2017 16:18

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Eurofins Calscience

INITIAL CALIBRATION DATA

Start Cal Date : 03-JAN-2017 11:59
 End Cal Date : 27-FEB-2017 13:53
 Quant Method : ISTD
 Origin : Disabled
 Target Version : 3.50
 Integrator : HP RTE
 Method file : /chem/SVOA/GCMS_EEE.i/170227.b/simpah-extra.m
 Cal Date : 27-Feb-2017 15:02 ev7p
 Curve Type : Average

	0.10000	0.50000	1.000	2.000	5.000	RRF	% RSD
Compound	Level 1	Level 2	Level 3	Level 4	Level 5		
32 Perylene	1.64806	1.47245	1.60780	1.58707	1.50527	1.56413	5
33 Indeno (1,2,3-c,d) Pyrene	1.32067	1.18629	1.39631	1.37297	1.34409	1.32407	6
34 Dibenzo (a,h) Anthracene	0.97767	0.93206	1.08578	1.04985	0.98851	1.00678	6
35 Benzo (g,h,i) Perylene	1.18741	1.01772	1.16911	1.17286	1.11053	1.13153	6
\$ 2 Nitrobenzene-d5	0.32072	0.32937	0.37763	0.36445	0.37358	0.35315	7
\$ 7 2-Fluorobiphenyl	2.08313	1.78793	1.90483	1.76644	1.55098	1.81866	11
\$ 23 p-Terphenyl-d14	0.78316	0.73887	0.81919	0.83063	0.79133	0.79264	5

Report Date : 27-Feb-2017 16:18

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Eurofins Calscience

INITIAL CALIBRATION DATA

Start Cal Date : 03-JAN-2017 11:59
End Cal Date : 27-FEB-2017 13:53
Quant Method : ISTD
Origin : Disabled
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/SVOA/GCMS_EEE.i/170227.b/simpah-extra.m
Cal Date : 27-Feb-2017 15:02 ev7p
Curve Type : Average

Average %RSD Results.	
=====	
Calculated Average %RSD =	5.65492
Maximum Average %RSD =	15.00000
* Passed Average %RSD Test.	

Data File: /chem/SVOA/GCMS_EEE.i/170227.b/27feb012.d
 Report Date: 02/27/2017 15:07

Eurofins CalScience
 Calibration Verification Report

Instrument ID: GCMS_EEE.i Injection Date and Time: 27-FEB-2017 14:13
 Sample Name: ICV S010317I 1PPM Initial Calibration Date(s): 03-JAN-2017 27-FEB-2017
 Sublist used: all.sub Initial Calibration Time(s): 11:59 13:53
 Method used: /chem/SVOA/GCMS_EEE.i/170227.b/simpah-extra.m

Target Compounds	ICAL RRF or Amount	ICV RRF	Min. RRF	%D / %Drift	Max%D /Drift	Curve Type
=====						
Naphthalene	1.124	1.212	0.00	-8	20	Averaged
2-Methylnaphthalene	0.737	0.876	0.00	-19	20	Averaged
1-Methylnaphthalene	0.706	0.775	0.00	-10	20	Averaged
Acenaphthylene	2.664	2.879	0.00	-8	20	Averaged
Acenaphthene	1.563	1.734	0.00	-11	20	Averaged
Fluorene	1.776	1.956	0.00	-10	20	Averaged
Phenanthrene	1.077	1.234	0.00	-15	20	Averaged
Anthracene	1.099	1.215	0.00	-11	20	Averaged
Fluoranthene	1.354	1.509	0.00	-11	20	Averaged
Pyrene	1.507	1.627	0.00	-8	20	Averaged
Benzo (a) Anthracene	1.321	1.385	0.00	-5	20	Averaged
Chrysene	1.257	1.317	0.00	-5	20	Averaged
Benzo (b) Fluoranthene	1.261	1.360	0.00	-8	20	Averaged
Benzo (k) Fluoranthene	1.410	1.529	0.00	-8	20	Averaged
Benzo (a) Pyrene	1.269	1.347	0.00	-6	20	Averaged
Indeno (1,2,3-c,d) Pyrene	1.324	1.436	0.00	-8	20	Averaged
Dibenz (a,h) Anthracene	1.007	1.122	0.00	-11	20	Averaged
Benzo (g,h,i) Perylene	1.132	1.264	0.00	-12	20	Averaged
Biphenyl	2.312	2.141	0.00	7	20	Averaged
2,6-Dimethylnaphthalene	1.630	1.510	0.00	7	20	Averaged
1,6,7-Trimethylnaphthalene	1.574	1.412	0.00	10	20	Averaged
Dibenzothiofene	4.877	4.552	0.00	7	20	Averaged
1-Methylphenanthrene	1.121	1.011	0.00	10	20	Averaged
Benzo (e) pyrene	1.590	1.450	0.00	9	20	Averaged
Perylene	1.564	1.396	0.00	11	20	Averaged
Dibenzofuran	2.341	2.597	0.00	-11	20	Averaged
=====						
Surrogate Standards	ICAL RRF or Amount	ICV RRF	Min. RRF	%D / %Drift	Max%D /Drift	Curve Type
=====						
Nitrobenzene-d5	0.353	0.402	0.00	-14	20	Averaged
2-Fluorobiphenyl	1.819	2.130	0.00	-17	20	Averaged
p-Terphenyl-d14	0.793	0.930	0.00	-17	20	Averaged

Quant Report

Target Revision 3.5

Data File: /chem/SVOA/GCMS_EEE.i/170227.b/27feb011.d Instrument ID: GCMS_EEE.i
 Injection date and time: 27-FEB-2017 13:53 Analyst ID: 907

Method used: /chem/SVOA/GCMS_EEE.i/170227.b/simpah-extra.m Sublist used: all
 Calibration date and time: 27-FEB-2017 15:01
 Date, time and analyst ID of latest file update: 27-Feb-2017 15:01 ev7p

Sample Name: ICAL-5 S010317H 0.1PPM Misc Info: S101716B 10UL
 Response via Initial Calibration

		I.S.			On-Column	
Compounds		Ref.	RT	QIon	Amount	DEV (Min)
					(mg/L)	
=====		=====	=====	=====	=====	=====
Internal Standards						
1)*1,4-Dichlorobenzene-d4		(1)	3.418	152	206085	5.000 0.00
3)*Naphthalene-d8		(2)	4.659	136	565141	5.000 0.00
11)*Acenaphthene-d10		(3)	6.544	164	253489	5.000 0.00
17)*Phenanthrene-d10		(4)	8.143	188	874980	5.000 0.00
31)*Perylene-d12		(6)	12.835	264	733530	5.000 0.00
25)*Chrysene-d12		(5)	11.065	240	809920	5.000 0.00
System Monitoring Compounds						
2)\$Nitrobenzene-d5		(2)	3.978	82	3625	0.091 -0.01
SpikedAmount 0.100		Recovery =		0.000		
7)\$2-Fluorobiphenyl		(3)	5.839	172	10561	0.115 0.00
SpikedAmount 0.100		Recovery =		0.000		
23)\$p-Terphenyl-d14		(5)	9.941	244	12686	0.099 0.00
SpikedAmount 0.100		Recovery =		0.000		
Target Compounds						
						QValue
4) Naphthalene		(2)	4.680	128	13118	0.103 99
5) 2-Methylnaphthalene		(2)	5.411	142	8077	0.097 99
6) 1-Methylnaphthalene		(2)	5.523	142	8139	0.102 98
10) Acenaphthylene		(3)	6.377	152	13920	0.103 97
12) Acenaphthene		(3)	6.580	153	8227	0.104 98
15) Fluorene		(3)	7.132	166	9431	0.105 100
18) Phenanthrene		(4)	8.166	178	19665	0.104 98
19) Anthracene		(4)	8.219	178	20117	0.105 97
21) Fluoranthene		(4)	9.479	202	23698	0.100 98
22) Pyrene		(5)	9.719	202	24599	0.101 99
24) Benzo (a) Anthracene		(5)	11.049	228	23081	0.108 97
26) Chrysene		(5)	11.092	228	21177	0.104 99
27) Benzo (b) Fluoranthene		(6)	12.378	252	17560	0.095 72
28) Benzo (k) Fluoranthene		(6)	12.404	252	22048	0.107 89
30) Benzo (a) Pyrene		(6)	12.770	252	18686	0.100 93
33) Indeno (1,2,3-c,d) Pyrene		(6)	14.088	276	19375	0.100 84
34) Dibenz (a,h) Anthracene		(6)	14.113	278	14343	0.097 100
35) Benzo (g,h,i) Perylene		(6)	14.363	276	17420	0.105 96
8) Biphenyl		(3)	5.928	154	12726	0.109 99
9) 2,6-Dimethylnaphthalene		(3)	6.087	156	8644	0.105 98
14) 1,6,7-Trimethylnaphthalene		(3)	7.009	170	8244	0.103 97
16) Dibenzothiophene		(3)	8.032	184	26391	0.107 99

* = Compound is an internal standard.

\$ = Compound is a surrogate standard.

Quant Report

Target Revision 3.5

Data File: /chem/SVOA/GCMS_EEE.i/170227.b/27feb011.d Instrument ID: GCMS_EEE.i
Injection date and time: 27-FEB-2017 13:53 Analyst ID: 907

Method used: /chem/SVOA/GCMS_EEE.i/170227.b/simpah-extra.m Sublist used: all
Calibration date and time: 27-FEB-2017 15:01
Date, time and analyst ID of latest file update: 27-Feb-2017 15:01 ev7p

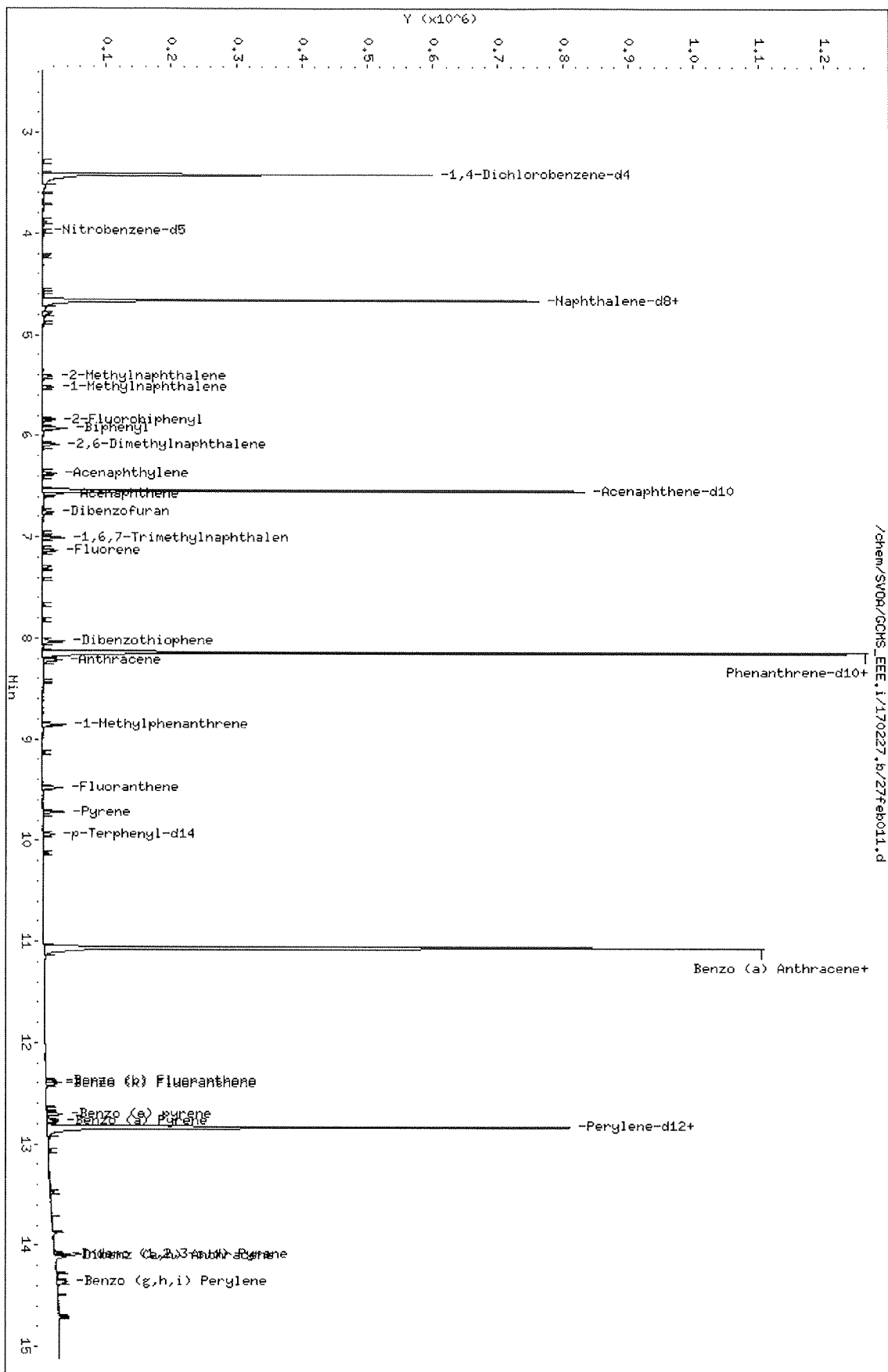
Sample Name: ICAL-5 S010317H 0.1PPM Misc Info: S101716B 10UL
Response via Initial Calibration

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (mg/L)	QValue
20) 1-Methylphenanthrene	(5)	8.858	192	18096	0.100	100
29) Benzo (e) pyrene	(6)	12.707	252	23889	0.102	98
32) Perylene	(6)	12.865	252	24178	0.105	99
13) Dibenzofuran	(3)	6.758	168	12322	0.104	99

page 2 of 2

Data File: /chem/SV09/GCHS_EEE.i/170227.b/27Feb011.d
 Date : 27-FEB-2017 13:53
 Client ID:
 Sample Info: ICAL-5 S010317H 0.1PPM
 Column Phase: J&W DB-SMS

Instrument: GCHS_EEE.i
 Operator: 907
 Column diameter: 0.18



Quant Report

Target Revision 3.5

Data File: /chem/SVOA/GCMS_EEE.i/170227.b/27feb010.d Instrument ID: GCMS_EEE.i
 Injection date and time: 27-FEB-2017 13:33 Analyst ID: 907

Method used: /chem/SVOA/GCMS_EEE.i/170227.b/simpah-extra.m Sublist used: all
 Calibration date and time: 27-FEB-2017 15:01
 Date, time and analyst ID of latest file update: 27-Feb-2017 15:01 ev7p

Sample Name: ICAL-4 S010317G 0.5PPM Misc Info: S101716B 10UL
 Response via Initial Calibration

		I.S.			On-Column	
Compounds		Ref.	RT	QIon	Amount	DEV (Min)
					(mg/L)	
=====		=====	=====	=====	=====	=====
Internal Standards						
1)*1,4-Dichlorobenzene-d4		(1)	3.418	152	216707	5.000 0.00
3)*Naphthalene-d8		(2)	4.660	136	589450	5.000 0.00
11)*Acenaphthene-d10		(3)	6.546	164	263853	5.000 0.00
17)*Phenanthrene-d10		(4)	8.143	188	900989	5.000 0.00
31)*Perylene-d12		(6)	12.838	264	773030	5.000 0.00
25)*Chrysene-d12		(5)	11.065	240	848326	5.000 0.00
System Monitoring Compounds						
2)\$Nitrobenzene-d5		(2)	3.972	82	19415	0.485 0.00
SpikedAmount 0.500		Recovery =	0.000			
7)\$2-Fluorobiphenyl		(3)	5.837	172	47175	0.492 0.00
SpikedAmount 0.500		Recovery =	0.000			
23)\$p-Terphenyl-d14		(5)	9.940	244	62680	0.466 0.00
SpikedAmount 0.500		Recovery =	0.000			
Target Compounds						QValue
4) Naphthalene		(2)	4.679	128	60971	0.460 99
5) 2-Methylnaphthalene		(2)	5.410	142	40764	0.469 98
6) 1-Methylnaphthalene		(2)	5.523	142	38253	0.460 100
10) Acenaphthylene		(3)	6.377	152	66073	0.470 99
12) Acenaphthene		(3)	6.580	153	38709	0.469 100
15) Fluorene		(3)	7.131	166	45081	0.481 100
18) Phenanthrene		(4)	8.168	178	90836	0.468 99
19) Anthracene		(4)	8.218	178	94596	0.477 100
21) Fluoranthene		(4)	9.479	202	114194	0.468 99
22) Pyrene		(5)	9.718	202	119999	0.469 100
24) Benzo (a) Anthracene		(5)	11.049	228	101838	0.454 99
26) Chrysene		(5)	11.093	228	99092	0.465 99
27) Benzo (b) Fluoranthene		(6)	12.376	252	87944	0.451 99
28) Benzo (k) Fluoranthene		(6)	12.406	252	101821	0.467 98
30) Benzo (a) Pyrene		(6)	12.767	252	90522	0.461 99
33) Indeno (1,2,3-c,d) Pyrene		(6)	14.083	276	91704	0.448 98
34) Dibenz (a,h) Anthracene		(6)	14.111	278	72051	0.464 98
35) Benzo (g,h,i) Perylene		(6)	14.361	276	78673	0.453 99
8) Biphenyl		(3)	5.925	154	59879	0.491 99
9) 2,6-Dimethylnaphthalene		(3)	6.087	156	41226	0.484 100
14) 1,6,7-Trimethylnaphthalene		(3)	7.009	170	40020	0.482 100
16) Dibenzothiophene		(3)	8.033	184	120631	0.469 100

* = Compound is an internal standard.

\$ = Compound is a surrogate standard.

Quant Report

Target Revision 3.5

Data File: /chem/SVOA/GCMS_EEE.i/170227.b/27feb010.d Instrument ID: GCMS_EEE.i
Injection date and time: 27-FEB-2017 13:33 Analyst ID: 907

Method used: /chem/SVOA/GCMS_EEE.i/170227.b/simpah-extra.m Sublist used: all
Calibration date and time: 27-FEB-2017 15:01
Date, time and analyst ID of latest file update: 27-Feb-2017 15:01 ev7p

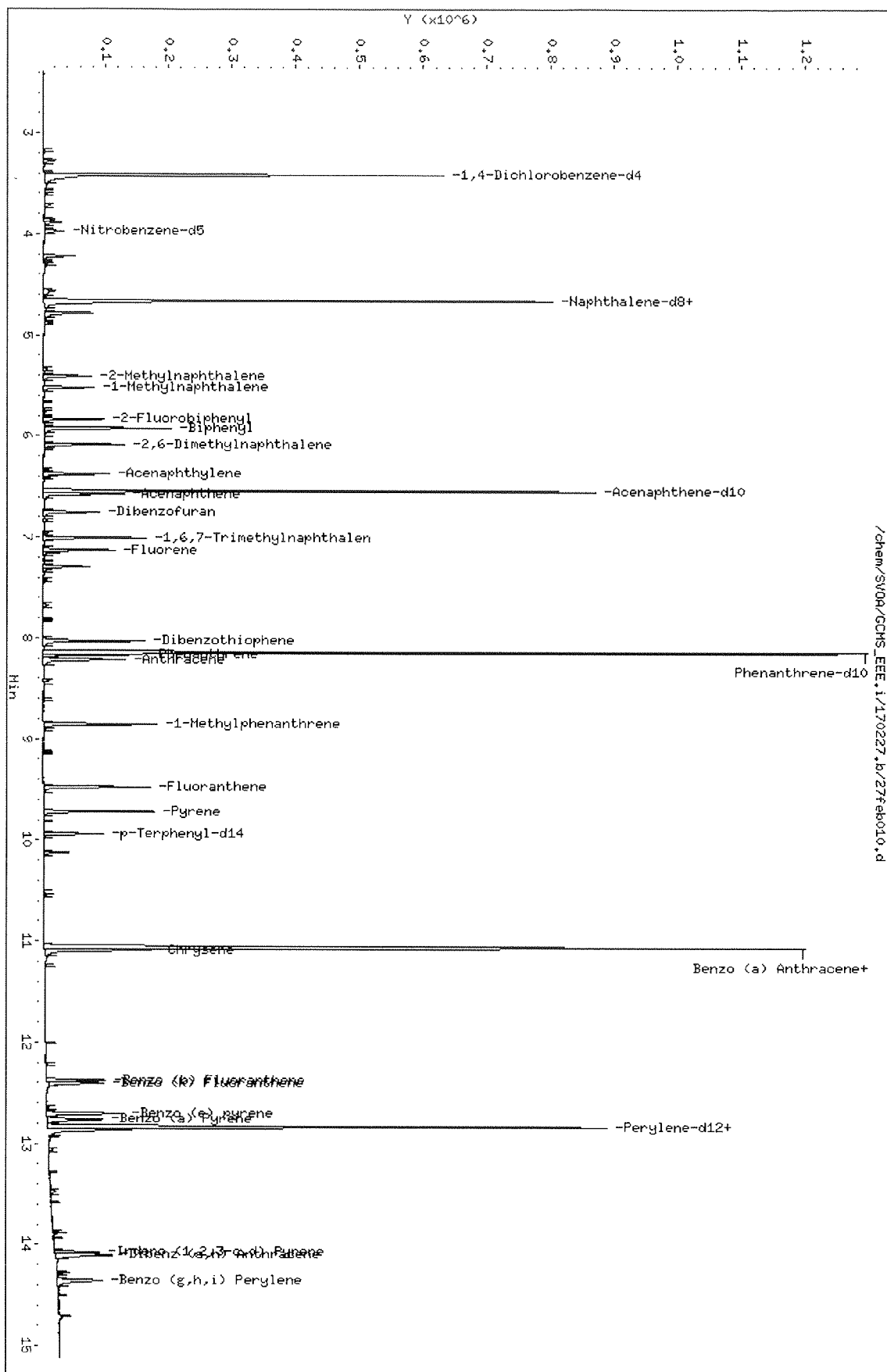
Sample Name: ICAL-4 S010317G 0.5PPM Misc Info: S101716B 10UL
Response via Initial Calibration

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (mg/L)	QValue
20) 1-Methylphenanthrene	(5)	8.859	192	87143	0.458	99
29) Benzo (e) pyrene	(6)	12.706	252	114021	0.464	100
32) Perylene	(6)	12.868	252	113825	0.471	99
13) Dibenzofuran	(3)	6.755	168	57976	0.469	99

page 2 of 2

Data File: /chem/SV09/GCHS_EEE.i/170227.b/27Feb010.d
 Date : 27-FEB-2017 13:33
 Client ID:
 Sample Info: ICAL-4 S010317G 0.5PPM
 Column Phase: J&M DB-SMS

Instrument: GCHS_EEE.i
 Operator: 907
 Column diameter: 0.18



Quant Report

Target Revision 3.5

Data File: /chem/SVOA/GCMS_EEE.i/170227.b/27feb009.d Instrument ID: GCMS_EEE.i
 Injection date and time: 27-FEB-2017 13:12 Analyst ID: 907

Method used: /chem/SVOA/GCMS_EEE.i/170227.b/simpah-extra.m Sublist used: all
 Calibration date and time: 27-FEB-2017 15:01
 Date, time and analyst ID of latest file update: 27-Feb-2017 15:01 ev7p

Sample Name: ICAL-3 S010317F 1PPM Misc Info: S101716B 10UL
 Response via Initial Calibration

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (mg/L)	DEV (Min)
=====	=====	=====	=====	=====	=====	=====
Internal Standards						
1)*1,4-Dichlorobenzene-d4	(1)	3.419	152	230068	5.000	0.00
3)*Naphthalene-d8	(2)	4.660	136	612745	5.000	0.00
11)*Acenaphthene-d10	(3)	6.545	164	273032	5.000	0.00
17)*Phenanthrene-d10	(4)	8.143	188	925068	5.000	0.00
31)*Perylene-d12	(6)	12.838	264	785261	5.000	0.00
25)*Chrysene-d12	(5)	11.067	240	878502	5.000	0.00
System Monitoring Compounds						
2)\$Nitrobenzene-d5	(2)	3.972	82	46278	1.147	0.00
SpikedAmount 1.000	Recovery =	0.000				
7)\$2-Fluorobiphenyl	(3)	5.837	172	104016	1.047	0.00
SpikedAmount 1.000	Recovery =	0.000				
23)\$p-Terphenyl-d14	(5)	9.939	244	143932	1.035	0.00
SpikedAmount 1.000	Recovery =	0.000				
Target Compounds						QValue
4) Naphthalene	(2)	4.680	128	141648	1.027	100
5) 2-Methylnaphthalene	(2)	5.408	142	94063	1.040	100
6) 1-Methylnaphthalene	(2)	5.521	142	87362	1.010	100
10) Acenaphthylene	(3)	6.377	152	149499	1.027	100
12) Acenaphthene	(3)	6.578	153	88700	1.039	100
15) Fluorene	(3)	7.129	166	101921	1.051	100
18) Phenanthrene	(4)	8.166	178	205878	1.033	100
19) Anthracene	(4)	8.218	178	192501	0.946	100
21) Fluoranthene	(4)	9.477	202	260892	1.041	100
22) Pyrene	(5)	9.718	202	272203	1.029	100
24) Benzo (a) Anthracene	(5)	11.049	228	232180	1.001	100
26) Chrysene	(5)	11.095	228	226961	1.028	100
27) Benzo (b) Fluoranthene	(6)	12.375	252	213021	1.075	100
28) Benzo (k) Fluoranthene	(6)	12.404	252	231568	1.050	100
30) Benzo (a) Pyrene	(6)	12.769	252	206052	1.033	100
33) Indeno (1,2,3-c,d) Pyrene	(6)	14.083	276	219293	1.054	100
34) Dibenzo (a,h) Anthracene	(6)	14.109	278	170524	1.081	100
35) Benzo (g,h,i) Perylene	(6)	14.361	276	183611	1.039	100
8) Biphenyl	(3)	5.925	154	132531	1.055	100
9) 2,6-Dimethylnaphthalene	(3)	6.087	156	92518	1.049	100
14) 1,6,7-Trimethylnaphthalene	(3)	7.009	170	90422	1.052	100
16) Dibenzothiophene	(3)	8.032	184	279136	1.048	100

* = Compound is an internal standard.

\$ = Compound is a surrogate standard.

Quant Report

Target Revision 3.5

Data File: /chem/SVOA/GCMS_EEE.i/170227.b/27feb009.d Instrument ID: GCMS_EEE.i
Injection date and time: 27-FEB-2017 13:12 Analyst ID: 907

Method used: /chem/SVOA/GCMS_EEE.i/170227.b/simpah-extra.m Sublist used: all
Calibration date and time: 27-FEB-2017 15:01
Date, time and analyst ID of latest file update: 27-Feb-2017 15:01 ev7p

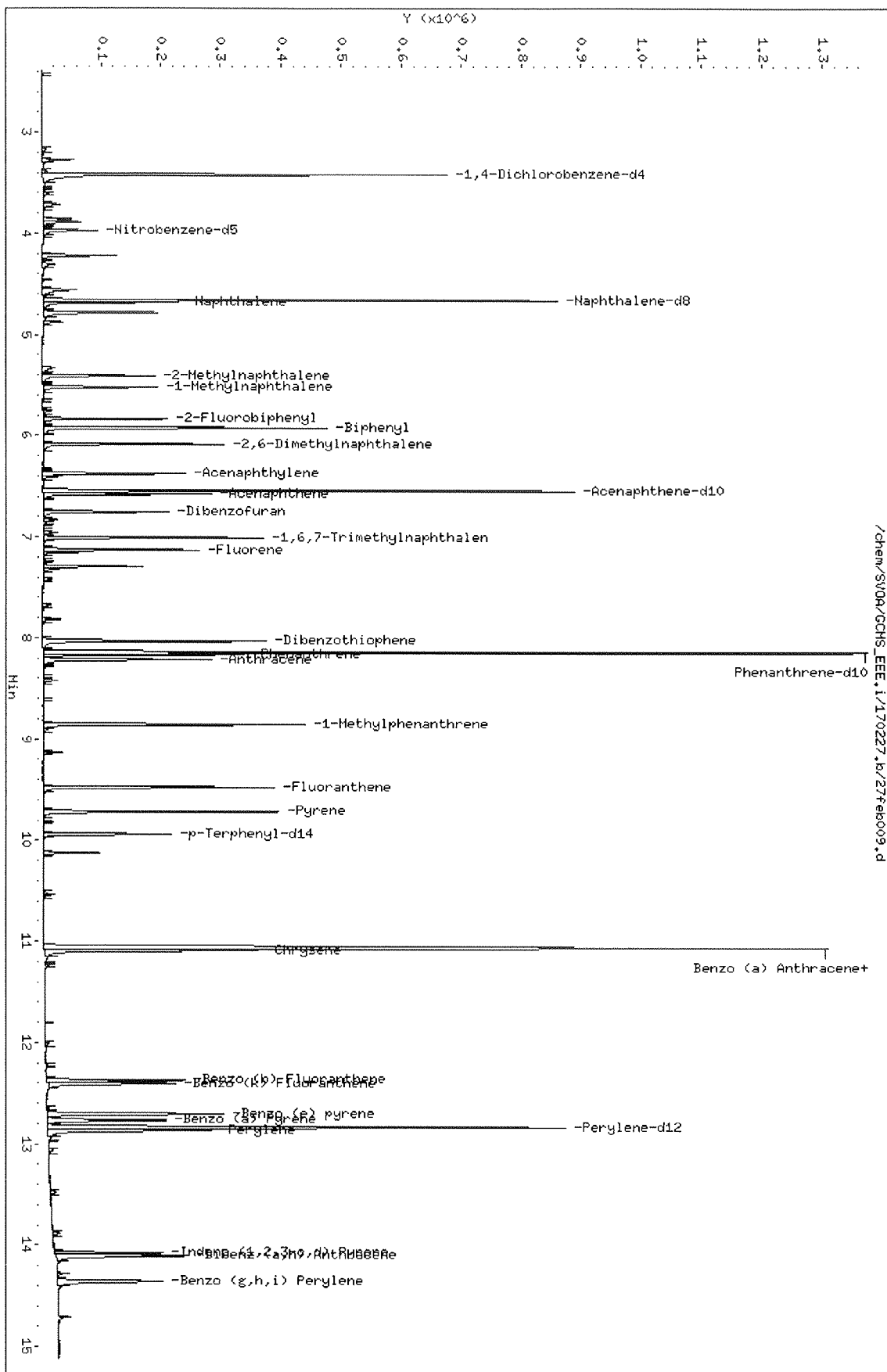
Sample Name: ICAL-3 S010317F 1PPM Misc Info: S101716B 10UL
Response via Initial Calibration

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (mg/L)	QValue
20) 1-Methylphenanthrene	(5)	8.857	192	204610	1.039	100
29) Benzo (e) pyrene	(6)	12.706	252	263772	1.056	100
32) Perylene	(6)	12.868	252	252508	1.028	100
13) Dibenzofuran	(3)	6.755	168	133354	1.043	100

page 2 of 2

Data File: /chem/SV09/GCHS_EEE.i/170227.b/27feb009.d
 Date : 27-FEB-2017 13:12
 Client ID:
 Sample Info: ICAL-3 S010317F 1PPH
 Column Phase: J&W DB-SMS

Instrument: GCHS_EEE.i
 Operator: 907
 Column diameter: 0.18



Quant Report

Target Revision 3.5

Data File: /chem/SVOA/GCMS_EEE.i/170227.b/27feb008.d Instrument ID: GCMS_EEE.i
 Injection date and time: 27-FEB-2017 12:52 Analyst ID: 907

Method used: /chem/SVOA/GCMS_EEE.i/170227.b/simpah-extra.m Sublist used: all
 Calibration date and time: 27-FEB-2017 15:01
 Date, time and analyst ID of latest file update: 27-Feb-2017 15:01 ev7p

Sample Name: ICAL-2 S010317E 2PPM Misc Info: S101716B 10UL
 Response via Initial Calibration

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (mg/L)	DEV(Min)
=====	=====	=====	=====	=====	=====	=====
Internal Standards						
1)*1,4-Dichlorobenzene-d4	(1)	3.418	152	215700	5.000	0.00
3)*Naphthalene-d8	(2)	4.660	136	561704	5.000	0.00
11)*Acenaphthene-d10	(3)	6.545	164	260827	5.000	0.00
17)*Phenanthrene-d10	(4)	8.143	188	876334	5.000	0.00
31)*Perylene-d12	(6)	12.840	264	754495	5.000	0.00
25)*Chrysene-d12	(5)	11.067	240	821276	5.000	0.00
System Monitoring Compounds						
2)\$Nitrobenzene-d5	(2)	3.970	82	81885	2.255	0.00
SpikedAmount 2.000	Recovery =	0.000				
7)\$2-Fluorobiphenyl	(3)	5.837	172	184294	1.941	0.00
SpikedAmount 2.000	Recovery =	0.000				
23)\$p-Terphenyl-d14	(5)	9.939	244	272870	2.096	0.00
SpikedAmount 2.000	Recovery =	0.000				
Target Compounds						QValue
4) Naphthalene	(2)	4.680	128	261158	2.066	99
5) 2-Methylnaphthalene	(2)	5.409	142	174731	2.107	100
6) 1-Methylnaphthalene	(2)	5.521	142	167016	2.106	99
10) Acenaphthylene	(3)	6.377	152	289077	2.079	100
12) Acenaphthene	(3)	6.579	153	167634	2.056	100
15) Fluorene	(3)	7.130	166	188108	2.030	100
18) Phenanthrene	(4)	8.168	178	388466	2.058	100
19) Anthracene	(4)	8.216	178	410792	2.124	99
21) Fluoranthene	(4)	9.477	202	501423	2.111	99
22) Pyrene	(5)	9.717	202	518246	2.095	100
24) Benzo (a) Anthracene	(5)	11.048	228	445464	2.055	100
26) Chrysene	(5)	11.095	228	425452	2.061	100
27) Benzo (b) Fluoranthene	(6)	12.376	252	396414	2.082	100
28) Benzo (k) Fluoranthene	(6)	12.404	252	431062	2.026	99
30) Benzo (a) Pyrene	(6)	12.767	252	401592	2.101	99
33) Indeno (1,2,3-c,d) Pyrene	(6)	14.081	276	414360	2.073	96
34) Dibenzo (a,h) Anthracene	(6)	14.108	278	316844	2.091	98
35) Benzo (g,h,i) Perylene	(6)	14.359	276	353968	2.086	100
8) Biphenyl	(3)	5.926	154	238006	1.983	99
9) 2,6-Dimethylnaphthalene	(3)	6.086	156	174275	2.067	100
14) 1,6,7-Trimethylnaphthalene	(3)	7.010	170	168465	2.051	100
16) Dibenzothiophene	(3)	8.030	184	518762	2.038	100

* = Compound is an internal standard.

\$ = Compound is a surrogate standard.

Quant Report

Target Revision 3.5

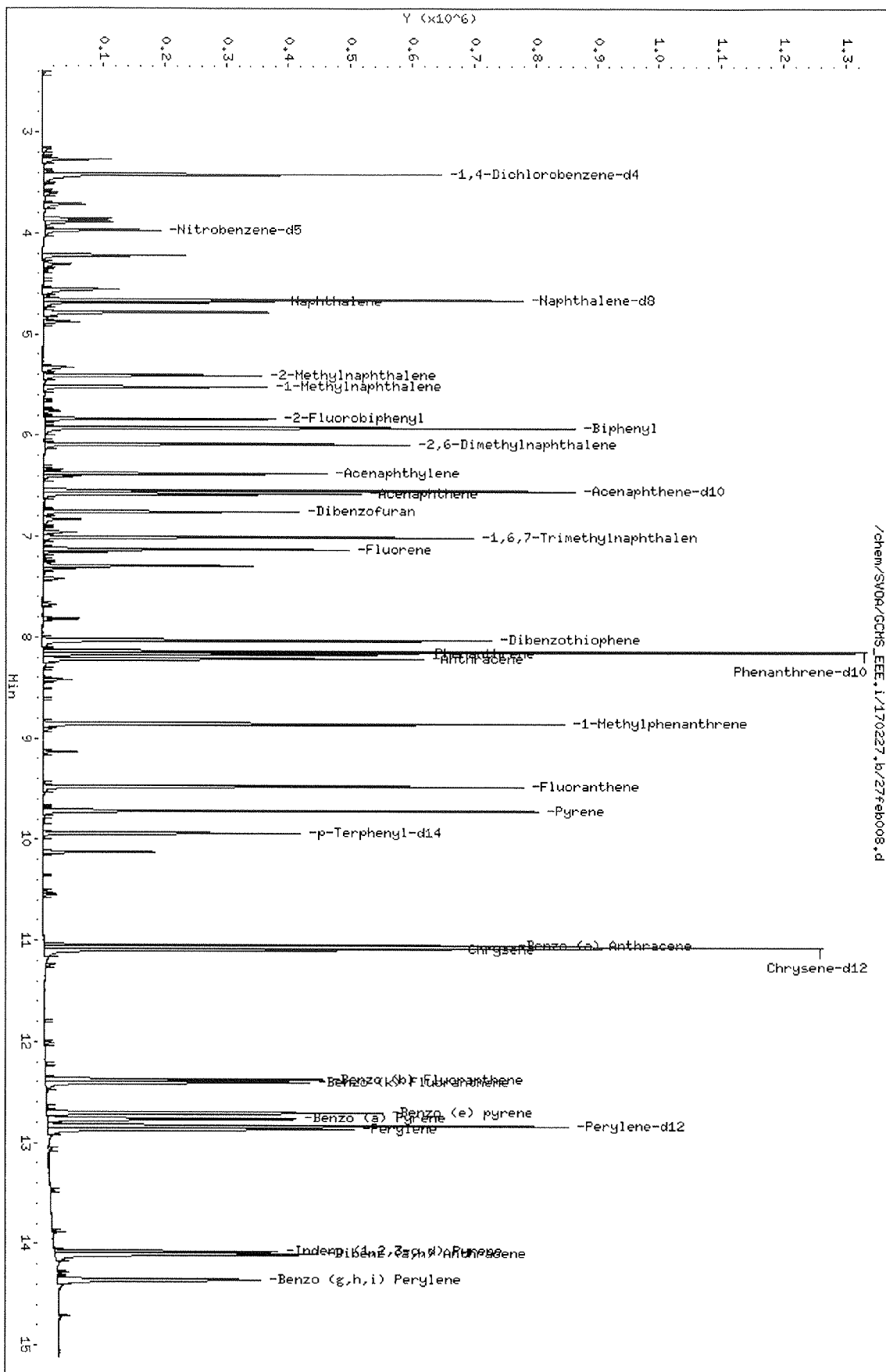
Data File: /chem/SVOA/GCMS_EEE.i/170227.b/27feb008.d Instrument ID: GCMS_EEE.i
Injection date and time: 27-FEB-2017 12:52 Analyst ID: 907

Method used: /chem/SVOA/GCMS_EEE.i/170227.b/simpah-extra.m Sublist used: all
Calibration date and time: 27-FEB-2017 15:01
Date, time and analyst ID of latest file update: 27-Feb-2017 15:01 ev7p

Sample Name: ICAL-2 S010317E 2PPM Misc Info: S101716B 10UL
Response via Initial Calibration

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (mg/L)	QValue
20) 1-Methylphenanthrene	(5)	8.857	192	388935	2.112	99
29) Benzo (e) pyrene	(6)	12.707	252	494023	2.058	100
32) Perylene	(6)	12.869	252	478974	2.032	99
13) Dibenzofuran	(3)	6.755	168	251088	2.054	99

page 2 of 2



Data File: /chem/SV08/GCHS_EEE.i/170227.b/27Feb008.d
 Date : 27-FEB-2017 12:52
 Client ID:
 Sample Info: ICAL-2 S010317E 2PPH
 Column Phase: J&M DB-SMS

Instrument: GCHS_EEE.i
 Operator: 907
 Column diameter: 0.18

Quant Report

Target Revision 3.5

Data File: /chem/SVOA/GCMS_EEE.i/170227.b/27feb007.d Instrument ID: GCMS_EEE.i
 Injection date and time: 27-FEB-2017 12:32 Analyst ID: 907

Method used: /chem/SVOA/GCMS_EEE.i/170227.b/simpah-extra.m Sublist used: all
 Calibration date and time: 27-FEB-2017 15:01
 Date, time and analyst ID of latest file update: 27-Feb-2017 15:01 ev7p

Sample Name: ICAL-1 S010317D 5PPM Misc Info: S101716B 10UL
 Response via Initial Calibration

Compounds	On-Column					DEV (Min)
	I.S. Ref.	RT	QIon	Area	Amount (mg/L)	
=====	=====	=====	=====	=====	=====	=====
Internal Standards						
1)*1,4-Dichlorobenzene-d4	(1)	3.418	152	203304	5.000	0.00
3)*Naphthalene-d8	(2)	4.661	136	512055	5.000	0.00
11)*Acenaphthene-d10	(3)	6.547	164	246018	5.000	0.00
17)*Phenanthrene-d10	(4)	8.146	188	825922	5.000	0.00
31)*Perylene-d12	(6)	12.841	264	717617	5.000	0.00
25)*Chrysene-d12	(5)	11.068	240	757875	5.000	0.00
System Monitoring Compounds						
2)\$Nitrobenzene-d5	(2)	3.970	82	191291	5.715	0.00
SpikedAmount 5.000	Recovery =	0.000				
7)\$2-Fluorobiphenyl	(3)	5.838	172	381570	4.260	0.00
SpikedAmount 5.000	Recovery =	0.000				
23)\$p-Terphenyl-d14	(5)	9.941	244	599733	4.992	0.00
SpikedAmount 5.000	Recovery =	0.000				
Target Compounds						QValue
4) Naphthalene	(2)	4.681	128	565679	4.909	99
5) 2-Methylnaphthalene	(2)	5.409	142	376424	4.980	98
6) 1-Methylnaphthalene	(2)	5.523	142	359617	4.976	99
10) Acenaphthylene	(3)	6.378	152	630533	4.806	99
12) Acenaphthene	(3)	6.581	153	368058	4.784	100
15) Fluorene	(3)	7.130	166	403566	4.613	99
18) Phenanthrene	(4)	8.169	178	851856	4.787	99
19) Anthracene	(4)	8.217	178	896640	4.919	99
21) Fluoranthene	(4)	9.479	202	1080334	4.831	100
22) Pyrene	(5)	9.717	202	1118587	4.899	99
24) Benzo (a) Anthracene	(5)	11.050	228	987510	4.935	100
26) Chrysene	(5)	11.096	228	925277	4.856	99
27) Benzo (b) Fluoranthene	(6)	12.379	252	933784	5.158	99
28) Benzo (k) Fluoranthene	(6)	12.409	252	953133	4.686	100
30) Benzo (a) Pyrene	(6)	12.772	252	903580	4.971	99
33) Indeno (1,2,3-c,d) Pyrene	(6)	14.084	276	964541	5.075	77
34) Dibenz (a,h) Anthracene	(6)	14.113	278	709374	4.923	99
35) Benzo (g,h,i) Perylene	(6)	14.366	276	796935	4.938	100
8) Biphenyl	(3)	5.926	154	509983	4.495	100
9) 2,6-Dimethylnaphthalene	(3)	6.088	156	373702	4.699	98
14) 1,6,7-Trimethylnaphthalene	(3)	7.011	170	358375	4.632	100
16) Dibenzothiophene	(3)	8.032	184	1112926	4.634	100

* = Compound is an internal standard.

\$ = Compound is a surrogate standard.

Quant Report

Target Revision 3.5

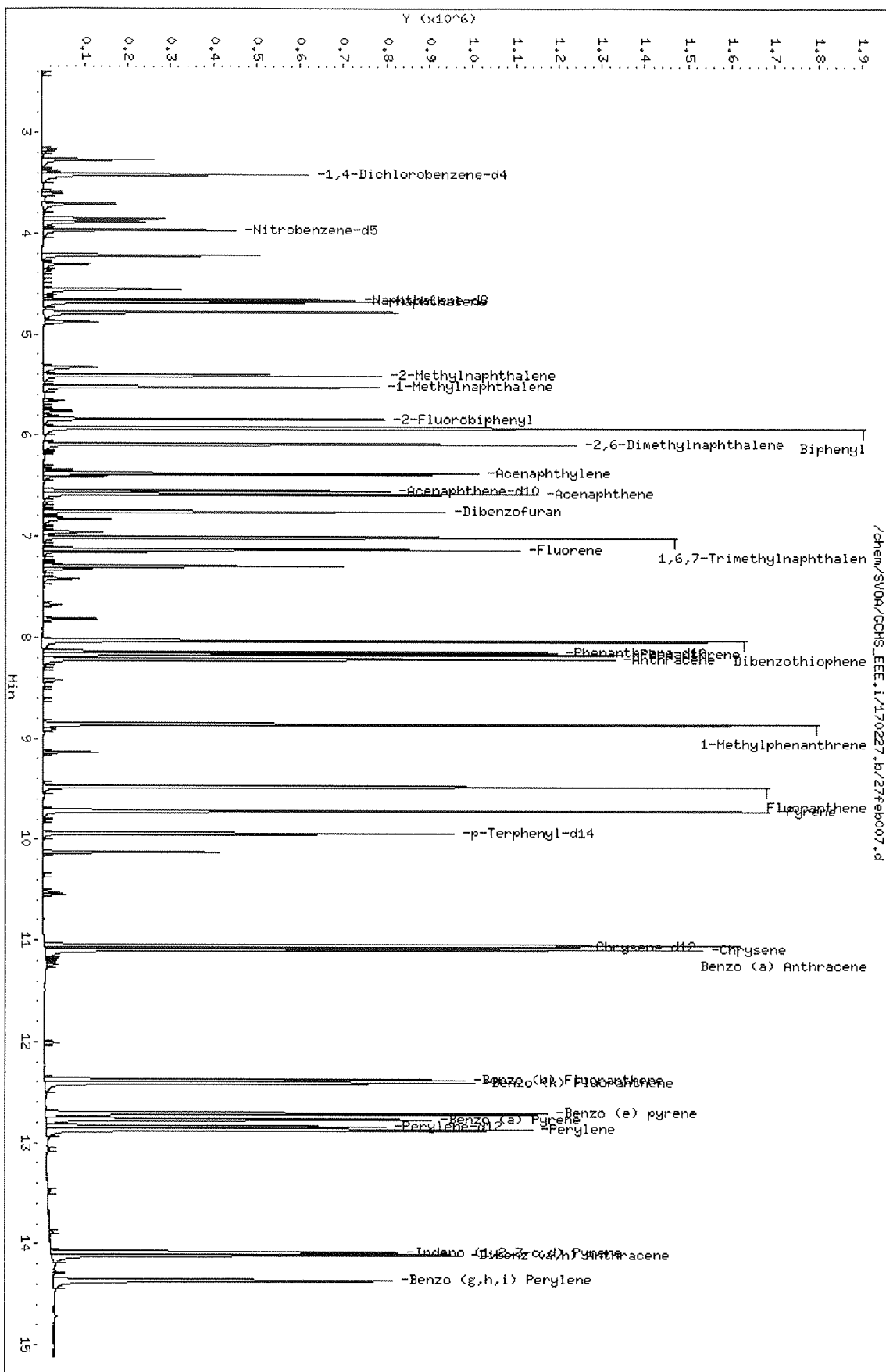
Data File: /chem/SVOA/GCMS_EEE.i/170227.b/27feb007.d Instrument ID: GCMS_EEE.i
Injection date and time: 27-FEB-2017 12:32 Analyst ID: 907

Method used: /chem/SVOA/GCMS_EEE.i/170227.b/simpah-extra.m Sublist used: all
Calibration date and time: 27-FEB-2017 15:01
Date, time and analyst ID of latest file update: 27-Feb-2017 15:01 ev7p

Sample Name: ICAL-1 S010317D 5PPM Misc Info: S101716B 10UL
Response via Initial Calibration

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (mg/L)	QValue
20) 1-Methylphenanthrene	(5)	8.860	192	842995	4.959	99
29) Benzo (e) pyrene	(6)	12.712	252	1099892	4.817	100
32) Perylene	(6)	12.874	252	1080207	4.816	100
13) Dibenzofuran	(3)	6.755	168	548787	4.760	99

page 2 of 2



Data File: /chem/SV09/GCHS_EEE.i/170227.b/27feb007.d
 Date : 27-FEB-2017 12:32
 Client ID:
 Sample Info: ICAL-1 S010317D SPPH
 Column Phase: J&M DB-SMS

Instrument: GCHS_EEE.i
 Operator: 907
 Column diameter: 0.18

Quant Report

Target Revision 3.5

Data File: /chem/SVOA/GCMS_EEE.i/170227.b/27feb012.d Instrument ID: GCMS_EEE.i
 Injection date and time: 27-FEB-2017 14:13 Analyst ID: 907

Method used: /chem/SVOA/GCMS_EEE.i/170227.b/simpah-extra.m Sublist used: all
 Calibration date and time: 27-FEB-2017 15:02
 Date, time and analyst ID of latest file update: 27-Feb-2017 15:02 ev7p

Sample Name: ICV S010317I 1PPM Misc Info: S101716B 10UL
 Response via Initial Calibration

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (mg/L)	DEV (Min)
=====	=====	=====	=====	=====	=====	=====
Internal Standards						
1)*1,4-Dichlorobenzene-d4	(1)	3.422	152	189620	5.000	0.00
3)*Naphthalene-d8	(2)	4.657	136	508161	5.000	0.00
11)*Acenaphthene-d10	(3)	6.545	164	231974	5.000	0.00
17)*Phenanthrene-d10	(4)	8.143	188	785443	5.000	0.00
31)*Perylene-d12	(6)	12.838	264	689322	5.000	0.00
25)*Chrysene-d12	(5)	11.067	240	751334	5.000	0.00
System Monitoring Compounds						
2)\$Nitrobenzene-d5	(2)	3.969	82	40842	1.138	0.00
SpikedAmount 1.000	Recovery =	0.000				
7)\$2-Fluorobiphenyl	(3)	5.836	172	98833	1.171	0.00
SpikedAmount 1.000	Recovery =	0.000				
23)\$p-Terphenyl-d14	(5)	9.939	244	139680	1.173	0.00
SpikedAmount 1.000	Recovery =	0.000				
Target Compounds						
						QValue
4) Naphthalene	(2)	4.679	128	123130	1.078	100
5) 2-Methylnaphthalene	(2)	5.408	142	89012	1.188	100
6) 1-Methylnaphthalene	(2)	5.521	142	78793	1.099	100
10) Acenaphthylene	(3)	6.377	152	133592	1.081	100
12) Acenaphthene	(3)	6.578	153	80456	1.109	100
15) Fluorene	(3)	7.129	166	90737	1.101	100
18) Phenanthrene	(4)	8.168	178	193855	1.146	100
19) Anthracene	(4)	8.216	178	190932	1.105	100
21) Fluoranthene	(4)	9.477	202	236998	1.114	100
22) Pyrene	(5)	9.716	202	244518	1.080	100
24) Benzo (a) Anthracene	(5)	11.048	228	208186	1.049	100
26) Chrysene	(5)	11.093	228	197958	1.048	100
27) Benzo (b) Fluoranthene	(6)	12.374	252	187486	1.078	100
28) Benzo (k) Fluoranthene	(6)	12.404	252	210797	1.084	100
30) Benzo (a) Pyrene	(6)	12.768	252	185684	1.061	100
33) Indeno (1,2,3-c,d) Pyrene	(6)	14.080	276	198035	1.085	100
34) Dibenz (a,h) Anthracene	(6)	14.108	278	154658	1.114	100
35) Benzo (g,h,i) Perylene	(6)	14.359	276	174291	1.117	100
8) Biphenyl	(3)	5.925	154	99316	0.926	100
9) 2,6-Dimethylnaphthalene	(3)	6.085	156	70047	0.926	100
14) 1,6,7-Trimethylnaphthalene	(3)	7.009	170	65487	0.897	100
16) Dibenzothiophene	(3)	8.032	184	211188	0.933	100

* = Compound is an internal standard.

\$ = Compound is a surrogate standard.

Quant Report

Target Revision 3.5

Data File: /chem/SVOA/GCMS_EEE.i/170227.b/27feb012.d Instrument ID: GCMS_EEE.i
Injection date and time: 27-FEB-2017 14:13 Analyst ID: 907

Method used: /chem/SVOA/GCMS_EEE.i/170227.b/simpah-extra.m Sublist used: all
Calibration date and time: 27-FEB-2017 15:02
Date, time and analyst ID of latest file update: 27-Feb-2017 15:02 ev7p

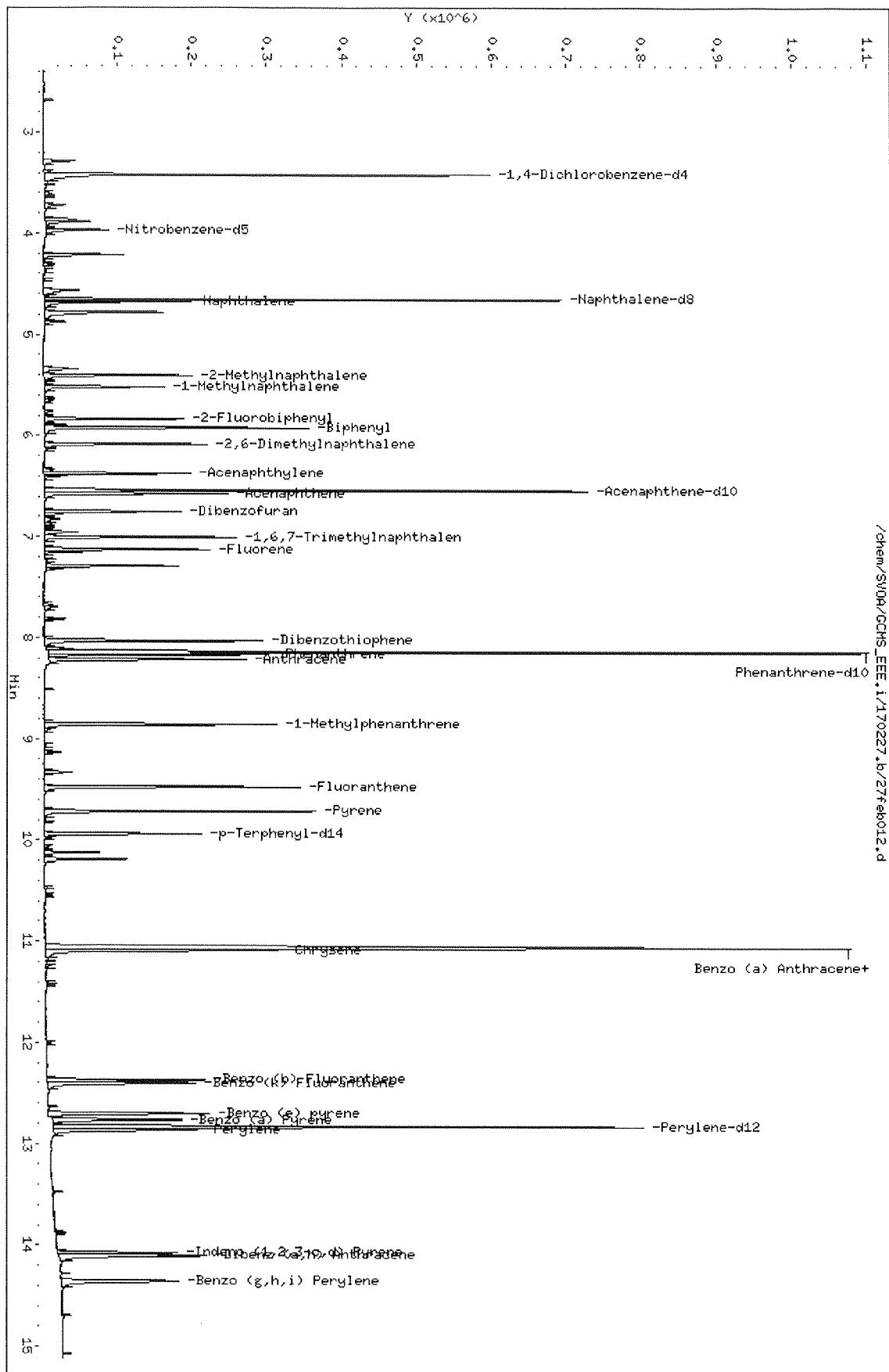
Sample Name: ICV S010317I 1PPM Misc Info: S101716B 10UL
Response via Initial Calibration

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (mg/L)	QValue
20) 1-Methylphenanthrene	(5)	8.857	192	151961	0.902	100
29) Benzo (e) pyrene	(6)	12.704	252	199865	0.911	100
32) Perylene	(6)	12.868	252	192454	0.892	100
13) Dibenzofuran	(3)	6.755	168	120503	1.109	100

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Data File: /chem/SV00A/GCHS_EEE.i/170227.b/27feb012.d
 Date : 27-FEB-2017 14:13
 Client ID:
 Sample Info: ICV S0103171 1PPH
 Column phase: J&W DB-SMS

Instrument: GCHS_EEE.i
 Operator: 907
 Column diameter: 0.18



EPA METHOD 8270C PAHSIM

Sample Data

RAW DATA SHEET FOR METHOD: EPA 8270C SIM PAHs

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WORK ORDER: 17-03-0335
INSTRUMENT: GC/MS EEE
EXTRACTION: EPA 3545
D/T EXTRACTED: 2017-03-06 00:00

ANALYZED BY: 907
D/T ANALYZED: 2017-03-07 14:17
REVIEWED BY: 262
D/T REVIEWED: 2017-03-07 15:10

DATA FILE: Z:\GCMS_EEE\GCMS_EEE_data\2017\170307\07mar010.d\07mar010.rr

3 **CLIENT SAMPLE NUMBER:** D-DU1-S-SG-06-15S

LCS/MB BATCH: 170306L10 **SAMPLE VOLUME / WEIGHT:** DEFAULT: 20.00 g / ACTUAL: 20.10 g
MS/MSD BATCH: 170306S10 **FINAL VOLUME / WEIGHT:** DEFAULT: 2.00 ml / ACTUAL: 2.00 ml
UNITS: mg/kg **ADJUSTMENT RATIO TO PF:** 1.00

COMMENT:

<u>COMPOUND</u>	<u>ON COL CONC</u>	<u>DF</u>	<u>CONC</u>	<u>RL</u>	<u>QUAL</u>
Naphthalene	0.000	1.00	ND	0.010	
2-Methylnaphthalene	0.000	1.00	ND	0.010	
1-Methylnaphthalene	0.000	1.00	ND	0.010	
Acenaphthylene	0.000	1.00	ND	0.010	
Acenaphthene	0.000	1.00	ND	0.010	
Fluorene	0.000	1.00	ND	0.010	
Phenanthrene	0.000	1.00	ND	0.010	
Anthracene	0.000	1.00	ND	0.010	
Fluoranthene	0.000	1.00	ND	0.010	
Pyrene	0.000	1.00	ND	0.010	
Benzo (a) Anthracene	0.000	1.00	ND	0.010	
Chrysene	0.000	1.00	ND	0.010	
Benzo (k) Fluoranthene	0.000	1.00	ND	0.010	
Benzo (b) Fluoranthene	0.000	1.00	ND	0.010	
Benzo (a) Pyrene	0.000	1.00	ND	0.010	
Indeno (1,2,3-c,d) Pyrene	0.000	1.00	ND	0.010	
Dibenz (a,h) Anthracene	0.000	1.00	ND	0.010	
Benzo (g,h,i) Perylene	0.000	1.00	ND	0.010	

Quant Report

Target Revision 3.5

Data File: /chem/SVOA/GCMS_EEE.i/170307.b/07mar010.d Instrument ID: GCMS_EEE.i
 Injection date and time: 07-MAR-2017 14:17 Analyst ID: 907

Method used: /chem/SVOA/GCMS_EEE.i/170307.b/simpah-extra.m Sublist used: all
 Calibration date and time: 07-MAR-2017 10:52
 Date, time and analyst ID of latest file update: 07-Mar-2017 14:39 ev7p

Sample Name: 17-03-0335-3 Misc Info: S101716B 10UL
 Response via Initial Calibration

		I.S.			On-Column	
Compounds		Ref.	RT	QIon	Amount	DEV (Min)
					(mg/L)	
=====		=====	=====	=====	=====	=====
Internal Standards						
1)*1,4-Dichlorobenzene-d4		(1)	3.369	152	249188	5.000 -0.01
3)*Naphthalene-d8		(2)	4.601	136	703775	5.000 0.00
11)*Acenaphthene-d10		(3)	6.486	164	360476	5.000 0.00
17)*Phenanthrene-d10		(4)	8.084	188	1136303	5.000 0.00
31)*Perylene-d12		(6)	12.759	264	1051686	5.000 0.00
25)*Chrysene-d12		(5)	11.002	240	1134176	5.000 0.00
System Monitoring Compounds						
2)\$Nitrobenzene-d5		(2)	3.920	82	44149	0.888 0.00
SpikedAmount 1.000		Recovery =		88.818		
7)\$2-Fluorobiphenyl		(3)	5.782	172	103060	0.786 0.00
SpikedAmount 1.000		Recovery =		78.602		
23)\$p-Terphenyl-d14		(5)	9.880	244	169207	0.941 0.00
SpikedAmount 1.000		Recovery =		94.110		
Target Compounds						
						QValue
4) Naphthalene		(2)	0.000		0	N.D.
5) 2-Methylnaphthalene		(2)	0.000		0	N.D.
6) 1-Methylnaphthalene		(2)	0.000		0	N.D.
10) Acenaphthylene		(3)	0.000		0	N.D.
12) Acenaphthene		(3)	0.000		0	N.D.
15) Fluorene		(3)	0.000		0	N.D.
18) Phenanthrene		(4)	0.000		0	N.D.
19) Anthracene		(4)	0.000		0	N.D.
21) Fluoranthene		(4)	0.000		0	N.D.
22) Pyrene		(5)	0.000		0	N.D.
24) Benzo (a) Anthracene		(5)	0.000		0D	N.D.
26) Chrysene		(5)	0.000		0D	N.D.
27) Benzo (b) Fluoranthene		(6)	0.000		0	N.D.
28) Benzo (k) Fluoranthene		(6)	0.000		0	N.D.
30) Benzo (a) Pyrene		(6)	0.000		0	N.D.
33) Indeno (1,2,3-c,d) Pyrene		(6)	0.000		0	N.D.
34) Dibenz (a,h) Anthracene		(6)	0.000		0	N.D.
35) Benzo (g,h,i) Perylene		(6)	0.000		0	N.D.
8) Biphenyl		(3)	0.000		0	N.D.
9) 2,6-Dimethylnaphthalene		(3)	0.000		0	N.D.
14) 1,6,7-Trimethylnaphthalene		(3)	0.000		0	N.D.
16) Dibenzothiophene		(3)	0.000		0	N.D.

D = Compound was deleted.

* = Compound is an internal standard.

\$ = Compound is a surrogate standard.

Quant Report

Target Revision 3.5

Data File: /chem/SVOA/GCMS_EEE.i/170307.b/07mar010.d Instrument ID: GCMS_EEE.i
Injection date and time: 07-MAR-2017 14:17 Analyst ID: 907

Method used: /chem/SVOA/GCMS_EEE.i/170307.b/simpah-extra.m Sublist used: all
Calibration date and time: 07-MAR-2017 10:52
Date, time and analyst ID of latest file update: 07-Mar-2017 14:39 ev7p

Sample Name: 17-03-0335-3 Misc Info: S101716B 10UL
Response via Initial Calibration

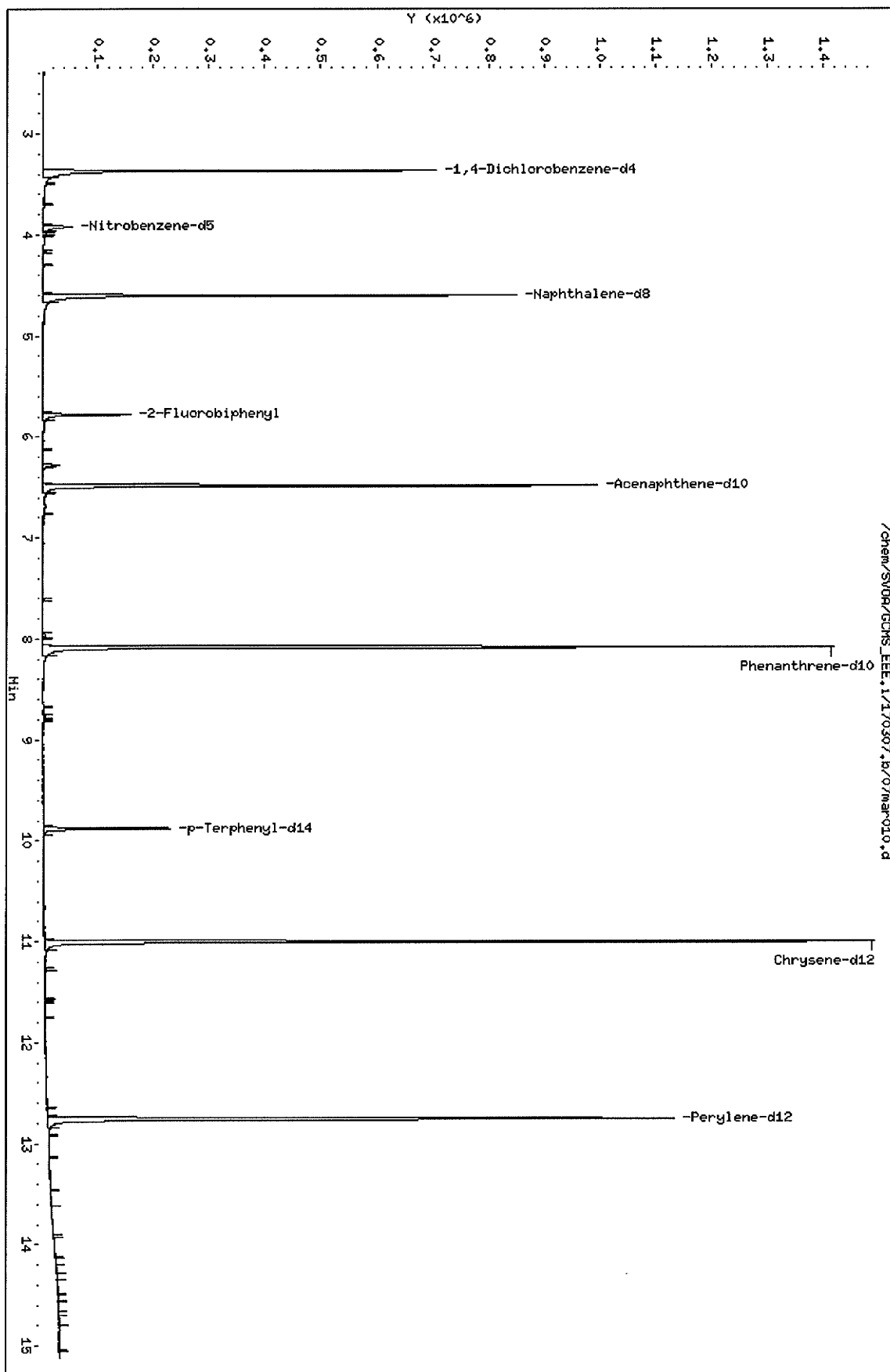
Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (mg/L)	QValue
=====	=====	=====	=====	=====	=====	=====
20) 1-Methylphenanthrene	(5)	0.000		0	N.D.	
29) Benzo (e) pyrene	(6)	0.000		0	N.D.	
32) Perylene	(6)	0.000		0D	N.D.	
13) Dibenzofuran	(3)	0.000		0	N.D.	

D = Compound was deleted.

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Data File: /chem/SV0A/GCHS_EEE.i/170307.b/07mar010.d
 Date : 07-Mar-2017 14:17
 Client ID:
 Sample Info: 17-03-0335-3
 Column Phase: J&W DB-SMS

Instrument: GCHS_EEE.i
 Operator: 907
 Column diameter: 0.18



RAW DATA SHEET FOR METHOD: EPA 8270C SIM PAHs

WORK ORDER: 17-03-0335
INSTRUMENT: GC/MS EEE
EXTRACTION: EPA 3545
D/T EXTRACTED: 2017-03-06 00:00

ANALYZED BY: 907
D/T ANALYZED: 2017-03-07 14:57
REVIEWED BY:
D/T REVIEWED:

DATA FILE: Z:\GCMS_EEE\GCMS_EEE_data\2017\170307\07mar012.d\07mar012.rr

4 **CLIENT SAMPLE NUMBER: D-DU1-S-SG-06-25S**

LCS/MB BATCH: 170306L10	SAMPLE VOLUME / WEIGHT: DEFAULT: 20.00 g / ACTUAL: 20.10 g	
MS/MSD BATCH: 170306S10	FINAL VOLUME / WEIGHT: DEFAULT: 2.00 ml / ACTUAL: 2.00 ml	
UNITS: mg/kg	ADJUSTMENT RATIO TO PF: 1.00	

COMMENT:

<u>COMPOUND</u>	<u>ON COL CONC</u>	<u>DF</u>	<u>CONC</u>	<u>RL</u>	<u>QUAL</u>
Naphthalene	0.000	1.00	ND	0.010	
2-Methylnaphthalene	0.000	1.00	ND	0.010	
1-Methylnaphthalene	0.000	1.00	ND	0.010	
Acenaphthylene	0.000	1.00	ND	0.010	
Acenaphthene	0.000	1.00	ND	0.010	
Fluorene	0.000	1.00	ND	0.010	
Phenanthrene	0.000	1.00	ND	0.010	
Anthracene	0.000	1.00	ND	0.010	
Fluoranthene	0.000	1.00	ND	0.010	
Pyrene	0.000	1.00	ND	0.010	
Benzo (a) Anthracene	0.000	1.00	ND	0.010	
Chrysene	0.000	1.00	ND	0.010	
Benzo (k) Fluoranthene	0.000	1.00	ND	0.010	
Benzo (b) Fluoranthene	0.000	1.00	ND	0.010	
Benzo (a) Pyrene	0.000	1.00	ND	0.010	
Indeno (1,2,3-c,d) Pyrene	0.000	1.00	ND	0.010	
Dibenz (a,h) Anthracene	0.000	1.00	ND	0.010	
Benzo (g,h,i) Perylene	0.000	1.00	ND	0.010	

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Quant Report

Target Revision 3.5

Data File: /chem/SVOA/GCMS_EEE.i/170307.b/07mar012.d Instrument ID: GCMS_EEE.i
 Injection date and time: 07-MAR-2017 14:57 Analyst ID: 907

Method used: /chem/SVOA/GCMS_EEE.i/170307.b/simpah-extra.m Sublist used: all
 Calibration date and time: 07-MAR-2017 10:52
 Date, time and analyst ID of latest file update: 07-Mar-2017 16:31 ev7p

Sample Name: 17-03-0335-4 Misc Info: S101716B 10UL
 Response via Initial Calibration

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (mg/L)	DEV (Min)
=====	=====	=====	=====	=====	=====	=====
Internal Standards						
1)*1,4-Dichlorobenzene-d4	(1)	3.368	152	261952	5.000	-0.01
3)*Naphthalene-d8	(2)	4.601	136	734379	5.000	0.00
11)*Acenaphthene-d10	(3)	6.486	164	371979	5.000	0.00
17)*Phenanthrene-d10	(4)	8.083	188	1168375	5.000	0.00
31)*Perylene-d12	(6)	12.760	264	1078841	5.000	0.00
25)*Chrysene-d12	(5)	11.002	240	1148608	5.000	0.00
System Monitoring Compounds						
2)\$Nitrobenzene-d5	(2)	3.918	82	56976	1.098	0.00
SpikedAmount 1.000	Recovery = 109.848					
7)\$2-Fluorobiphenyl	(3)	5.780	172	118325	0.875	0.00
SpikedAmount 1.000	Recovery = 87.453					
23)\$p-Terphenyl-d14	(5)	9.880	244	164664	0.904	0.00
SpikedAmount 1.000	Recovery = 90.432					
Target Compounds						
4) Naphthalene	(2)	0.000		0	N.D.	QValue
5) 2-Methylnaphthalene	(2)	0.000		0	N.D.	
6) 1-Methylnaphthalene	(2)	0.000		0	N.D.	
10) Acenaphthylene	(3)	0.000		0	N.D.	
12) Acenaphthene	(3)	0.000		0	N.D.	
15) Fluorene	(3)	0.000		0	N.D.	
18) Phenanthrene	(4)	0.000		0	N.D.	
19) Anthracene	(4)	0.000		0	N.D.	
21) Fluoranthene	(4)	0.000		0	N.D.	
22) Pyrene	(5)	0.000		0	N.D.	
24) Benzo (a) Anthracene	(5)	0.000		0D	N.D.	
26) Chrysene	(5)	0.000		0D	N.D.	
27) Benzo (b) Fluoranthene	(6)	0.000		0	N.D.	
28) Benzo (k) Fluoranthene	(6)	0.000		0	N.D.	
30) Benzo (a) Pyrene	(6)	0.000		0	N.D.	
33) Indeno (1,2,3-c,d) Pyrene	(6)	0.000		0	N.D.	
34) Dibenz (a,h) Anthracene	(6)	0.000		0	N.D.	
35) Benzo (g,h,i) Perylene	(6)	0.000		0	N.D.	
8) Biphenyl	(3)	0.000		0	N.D.	
9) 2,6-Dimethylnaphthalene	(3)	0.000		0	N.D.	
14) 1,6,7-Trimethylnaphthalene	(3)	0.000		0	N.D.	
16) Dibenzothiophene	(3)	0.000		0	N.D.	

D = Compound was deleted.

* = Compound is an internal standard.

\$ = Compound is a surrogate standard.

Quant Report

Target Revision 3.5

Data File: /chem/SVOA/GCMS_EEE.i/170307.b/07mar012.d Instrument ID: GCMS_EEE.i
 Injection date and time: 07-MAR-2017 14:57 Analyst ID: 907

Method used: /chem/SVOA/GCMS_EEE.i/170307.b/simpah-extra.m Sublist used: all
 Calibration date and time: 07-MAR-2017 10:52
 Date, time and analyst ID of latest file update: 07-Mar-2017 16:31 ev7p

Sample Name: 17-03-0335-4 Misc Info: S101716B 10UL
 Response via Initial Calibration

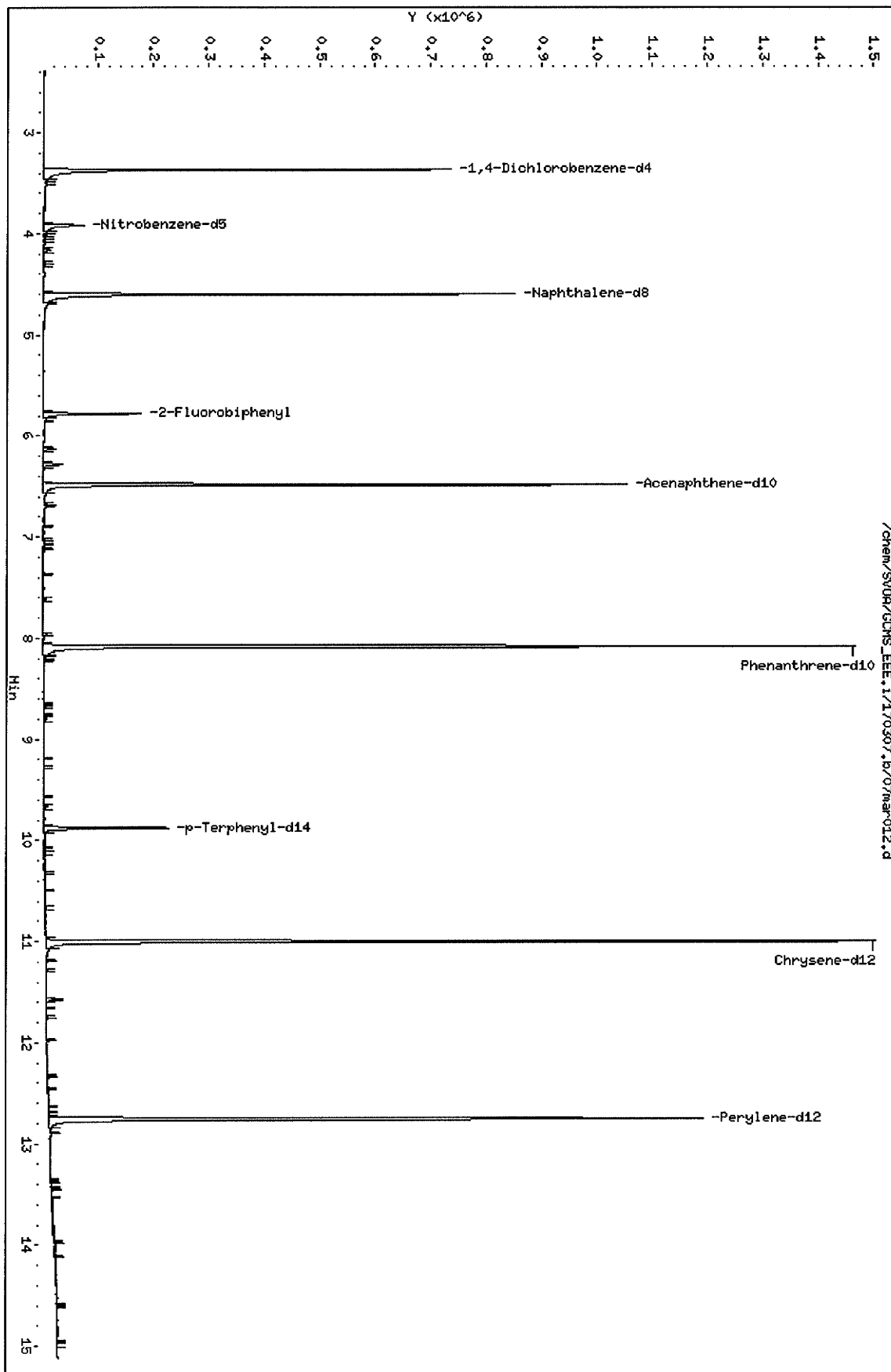
Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (mg/L)	QValue
20) 1-Methylphenanthrene	(5)	0.000		0	N.D.	
29) Benzo (e) pyrene	(6)	0.000		0	N.D.	
32) Perylene	(6)	0.000		0D	N.D.	
13) Dibenzofuran	(3)	0.000		0	N.D.	

D = Compound was deleted.

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Data File: /chem/SV04/GCHS_EEE.i/170307.b/07mar012.d
 Date : 07-MAR-2017 14:57
 Client ID:
 Sample Info: 17-03-0335-4
 Column Phase: J&W DB-SHS

Instrument: GCHS_EEE.i
 Operator: 907
 Column diameter: 0.18



RAW DATA SHEET FOR METHOD: EPA 8270C SIM PAHs

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WORK ORDER: 17-03-0335
INSTRUMENT: GC/MS EEE
EXTRACTION: EPA 3545
D/T EXTRACTED: 2017-03-06 00:00

ANALYZED BY: 907
D/T ANALYZED: 2017-03-07 15:17
REVIEWED BY:
D/T REVIEWED:

DATA FILE: Z:\GCMS_EEE\GCMS_EEE_data\2017\170307\07mar013.d\07mar013.rr

7 **CLIENT SAMPLE NUMBER:** D-DU1-S-SG-07-15S

LCS/MB BATCH: 170306L10	SAMPLE VOLUME / WEIGHT: DEFAULT: 20.00 g / ACTUAL: 20.00 g
MS/MSD BATCH: 170306S10	FINAL VOLUME / WEIGHT: DEFAULT: 2.00 ml / ACTUAL: 2.00 ml
UNITS: mg/kg	ADJUSTMENT RATIO TO PF: 1.00

COMMENT:

<u>COMPOUND</u>	<u>ON COL CONC</u>	<u>DF</u>	<u>CONC</u>	<u>RL</u>	<u>QUAL</u>
Naphthalene	0.000	1.00	ND	0.010	
2-Methylnaphthalene	0.000	1.00	ND	0.010	
1-Methylnaphthalene	0.000	1.00	ND	0.010	
Acenaphthylene	0.000	1.00	ND	0.010	
Acenaphthene	0.000	1.00	ND	0.010	
Fluorene	0.000	1.00	ND	0.010	
Phenanthrene	0.0100	1.00	ND	0.010	
Anthracene	0.000	1.00	ND	0.010	
Fluoranthene	0.000	1.00	ND	0.010	
Pyrene	0.000	1.00	ND	0.010	
Benzo (a) Anthracene	0.000	1.00	ND	0.010	
Chrysene	0.000	1.00	ND	0.010	
Benzo (k) Fluoranthene	0.000	1.00	ND	0.010	
Benzo (b) Fluoranthene	0.000	1.00	ND	0.010	
Benzo (a) Pyrene	0.000	1.00	ND	0.010	
Indeno (1,2,3-c,d) Pyrene	0.000	1.00	ND	0.010	
Dibenz (a,h) Anthracene	0.000	1.00	ND	0.010	
Benzo (g,h,i) Perylene	0.000	1.00	ND	0.010	

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Quant Report

Target Revision 3.5

Data File: /chem/SVOA/GCMS_EEE.i/170307.b/07mar013.d Instrument ID: GCMS_EEE.i
 Injection date and time: 07-MAR-2017 15:17 Analyst ID: 907

Method used: /chem/SVOA/GCMS_EEE.i/170307.b/simpah-extra.m Sublist used: all
 Calibration date and time: 07-MAR-2017 10:52
 Date, time and analyst ID of latest file update: 07-Mar-2017 16:32 ev7p

Sample Name: 17-03-0335-7 Misc Info: S101716B 10UL
 Response via Initial Calibration

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (mg/L)	DEV (Min)
=====	=====	=====	=====	=====	=====	=====
Internal Standards						
1)*1,4-Dichlorobenzene-d4	(1)	3.365	152	252242	5.000	0.00
3)*Naphthalene-d8	(2)	4.602	136	733967	5.000	0.00
11)*Acenaphthene-d10	(3)	6.487	164	368673	5.000	0.00
17)*Phenanthrene-d10	(4)	8.083	188	1174153	5.000	0.00
31)*Perylene-d12	(6)	12.760	264	1077413	5.000	0.00
25)*Chrysene-d12	(5)	11.002	240	1164469	5.000	0.00
System Monitoring Compounds						
2)\$Nitrobenzene-d5	(2)	3.919	82	36700	0.708	0.00
SpikedAmount 1.000	Recovery =		70.795			
7)\$2-Fluorobiphenyl	(3)	5.782	172	96076	0.716	0.00
SpikedAmount 1.000	Recovery =		71.646			
23)\$p-Terphenyl-d14	(5)	9.881	244	162806	0.882	0.00
SpikedAmount 1.000	Recovery =		88.194			
Target Compounds						
						QValue
4) Naphthalene	(2)	0.000		0	N.D.	
5) 2-Methylnaphthalene	(2)	0.000		0	N.D.	
6) 1-Methylnaphthalene	(2)	0.000		0	N.D.	
10) Acenaphthylene	(3)	0.000		0	N.D.	
12) Acenaphthene	(3)	0.000		0	N.D.	
15) Fluorene	(3)	0.000		0	N.D.	
18) Phenanthrene	(4)	8.110	178	2540	0.010	86
19) Anthracene	(4)	0.000		0D	N.D.	
21) Fluoranthene	(4)	0.000		0	N.D.	
22) Pyrene	(5)	0.000		0	N.D.	
24) Benzo (a) Anthracene	(5)	0.000		0D	N.D.	
26) Chrysene	(5)	0.000		0D	N.D.	
27) Benzo (b) Fluoranthene	(6)	0.000		0	N.D.	
28) Benzo (k) Fluoranthene	(6)	0.000		0	N.D.	
30) Benzo (a) Pyrene	(6)	0.000		0	N.D.	
33) Indeno (1,2,3-c,d) Pyrene	(6)	0.000		0	N.D.	
34) Dibenz (a,h) Anthracene	(6)	0.000		0	N.D.	
35) Benzo (g,h,i) Perylene	(6)	0.000		0	N.D.	
8) Biphenyl	(3)	0.000		0	N.D.	
9) 2,6-Dimethylnaphthalene	(3)	0.000		0	N.D.	
14) 1,6,7-Trimethylnaphthalene	(3)	0.000		0	N.D.	
16) Dibenzothiophene	(3)	0.000		0	N.D.	

D = Compound was deleted.

* = Compound is an internal standard.

\$ = Compound is a surrogate standard.

Quant Report

Target Revision 3.5

Data File: /chem/SVOA/GCMS_EEE.i/170307.b/07mar013.d Instrument ID: GCMS_EEE.i
Injection date and time: 07-MAR-2017 15:17 Analyst ID: 907

Method used: /chem/SVOA/GCMS_EEE.i/170307.b/simpah-extra.m Sublist used: all
Calibration date and time: 07-MAR-2017 10:52
Date, time and analyst ID of latest file update: 07-Mar-2017 16:32 ev7p

Sample Name: 17-03-0335-7 Misc Info: S101716B 10UL
Response via Initial Calibration

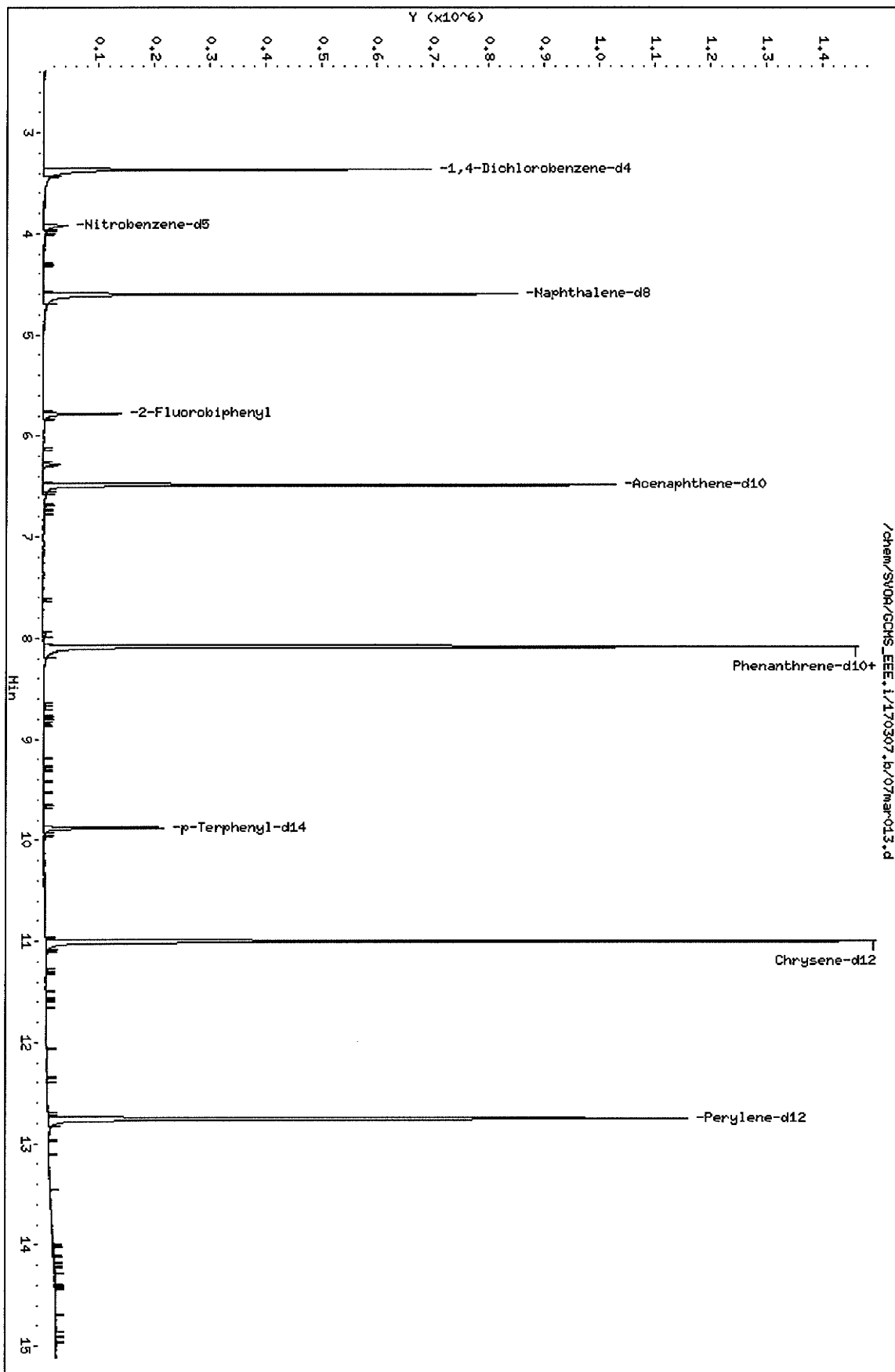
Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (mg/L)	QValue
=====	=====	=====	=====	=====	=====	=====
20) 1-Methylphenanthrene	(5)	0.000		0	N.D.	
29) Benzo (e) pyrene	(6)	0.000		0	N.D.	
32) Perylene	(6)	0.000		0D	N.D.	
13) Dibenzofuran	(3)	0.000		0	N.D.	

D = Compound was deleted.

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Data File: /chem/SV0A/GCHS_EEE.i/170307.b/07mar013.d
 Date : 07-MAR-2017 15:17
 Client ID:
 Sample Info: 17-03-0335-7
 Column Phase: 3M DB-SMS

Instrument: GCHS_EEE.i
 Operator: 907
 Column diameter: 0.18



RAW DATA SHEET FOR METHOD: EPA 8270C SIM PAHs

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WORK ORDER: 17-03-0335
INSTRUMENT: GC/MS EEE
EXTRACTION : EPA 3545
D/T EXTRACTED: 2017-03-06 00:00

ANALYZED BY: 907
D/T ANALYZED: 2017-03-07 15:38
REVIEWED BY:
D/T REVIEWED:

DATA FILE: Z:\GCMS_EEE\GCMS_EEE_data\2017\170307\07mar014.d\07mar014.rr

8 **CLIENT SAMPLE NUMBER: D-DU1-S-SG-07-25S**

LCS/MB BATCH: 170306L10 **SAMPLE VOLUME / WEIGHT:** DEFAULT: 20.00 g / ACTUAL: 20.20 g
MS/MSD BATCH: 170306S10 **FINAL VOLUME / WEIGHT:** DEFAULT: 2.00 ml / ACTUAL: 2.00 ml
UNITS: mg/kg **ADJUSTMENT RATIO TO PF:** 0.99

COMMENT:

<u>COMPOUND</u>	<u>ON COL CONC</u>	<u>DF</u>	<u>CONC</u>	<u>RL</u>	<u>QUAL</u>
Naphthalene	0.0108	1.00	ND	0.0099	
2-Methylnaphthalene	0.000	1.00	ND	0.0099	
1-Methylnaphthalene	0.000	1.00	ND	0.0099	
Acenaphthylene	0.000	1.00	ND	0.0099	
Acenaphthene	0.000	1.00	ND	0.0099	
Fluorene	0.000	1.00	ND	0.0099	
Phenanthrene	0.000	1.00	ND	0.0099	
Anthracene	0.000	1.00	ND	0.0099	
Fluoranthene	0.000	1.00	ND	0.0099	
Pyrene	0.0112	1.00	ND	0.0099	
Benzo (a) Anthracene	0.000	1.00	ND	0.0099	
Chrysene	0.000	1.00	ND	0.0099	
Benzo (k) Fluoranthene	0.000	1.00	ND	0.0099	
Benzo (b) Fluoranthene	0.000	1.00	ND	0.0099	
Benzo (a) Pyrene	0.000	1.00	ND	0.0099	
Indeno (1,2,3-c,d) Pyrene	0.000	1.00	ND	0.0099	
Dibenz (a,h) Anthracene	0.000	1.00	ND	0.0099	
Benzo (g,h,i) Perylene	0.000	1.00	ND	0.0099	

Quant Report

Target Revision 3.5

Data File: /chem/SVOA/GCMS_EEE.i/170307.b/07mar014.d Instrument ID: GCMS_EEE.i
 Injection date and time: 07-MAR-2017 15:38 Analyst ID: 907

Method used: /chem/SVOA/GCMS_EEE.i/170307.b/simpah-extra.m Sublist used: all
 Calibration date and time: 07-MAR-2017 10:52
 Date, time and analyst ID of latest file update: 07-Mar-2017 16:32 ev7p

Sample Name: 17-03-0335-8 Misc Info: S101716B 10UL
 Response via Initial Calibration

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (mg/L)	DEV (Min)
=====	=====	=====	=====	=====	=====	=====
Internal Standards						
1)*1,4-Dichlorobenzene-d4	(1)	3.367	152	265102	5.000	0.00
3)*Naphthalene-d8	(2)	4.601	136	733278	5.000	0.00
11)*Acenaphthene-d10	(3)	6.487	164	376678	5.000	0.00
17)*Phenanthrene-d10	(4)	8.083	188	1191863	5.000	0.00
31)*Perylene-d12	(6)	12.760	264	1100252	5.000	0.00
25)*Chrysene-d12	(5)	11.002	240	1171930	5.000	0.00
System Monitoring Compounds						
2)\$Nitrobenzene-d5	(2)	3.919	82	42389	0.818	0.00
SpikedAmount 1.000	Recovery =		81.847			
7)\$2-Fluorobiphenyl	(3)	5.782	172	100910	0.737	0.00
SpikedAmount 1.000	Recovery =		73.652			
23)\$p-Terphenyl-d14	(5)	9.880	244	165015	0.888	0.00
SpikedAmount 1.000	Recovery =		88.821			
Target Compounds						QValue
4) Naphthalene	(2)	4.620	128	1780	0.011	95
5) 2-Methylnaphthalene	(2)	0.000		0	N.D.	
6) 1-Methylnaphthalene	(2)	0.000		0	N.D.	
10) Acenaphthylene	(3)	0.000		0	N.D.	
12) Acenaphthene	(3)	0.000		0	N.D.	
15) Fluorene	(3)	0.000		0	N.D.	
18) Phenanthrene	(4)	0.000		0	N.D.	
19) Anthracene	(4)	0.000		0	N.D.	
21) Fluoranthene	(4)	0.000		0	N.D.	
22) Pyrene	(5)	9.659	202	3952	0.011	84
24) Benzo (a) Anthracene	(5)	0.000		0D	N.D.	
26) Chrysene	(5)	0.000		0D	N.D.	
27) Benzo (b) Fluoranthene	(6)	0.000		0	N.D.	
28) Benzo (k) Fluoranthene	(6)	0.000		0	N.D.	
30) Benzo (a) Pyrene	(6)	0.000		0	N.D.	
33) Indeno (1,2,3-c,d) Pyrene	(6)	0.000		0	N.D.	
34) Dibenz (a,h) Anthracene	(6)	0.000		0	N.D.	
35) Benzo (g,h,i) Perylene	(6)	0.000		0	N.D.	
8) Biphenyl	(3)	0.000		0	N.D.	
9) 2,6-Dimethylnaphthalene	(3)	0.000		0	N.D.	
14) 1,6,7-Trimethylnaphthalene	(3)	0.000		0	N.D.	
16) Dibenzothiophene	(3)	0.000		0	N.D.	

D = Compound was deleted.

* = Compound is an internal standard.

\$ = Compound is a surrogate standard.

Quant Report

Target Revision 3.5

Data File: /chem/SVOA/GCMS_EEE.i/170307.b/07mar014.d Instrument ID: GCMS_EEE.i
Injection date and time: 07-MAR-2017 15:38 Analyst ID: 907

Method used: /chem/SVOA/GCMS_EEE.i/170307.b/simpah-extra.m Sublist used: all
Calibration date and time: 07-MAR-2017 10:52
Date, time and analyst ID of latest file update: 07-Mar-2017 16:32 ev7p

Sample Name: 17-03-0335-8 Misc Info: S101716B 10UL
Response via Initial Calibration

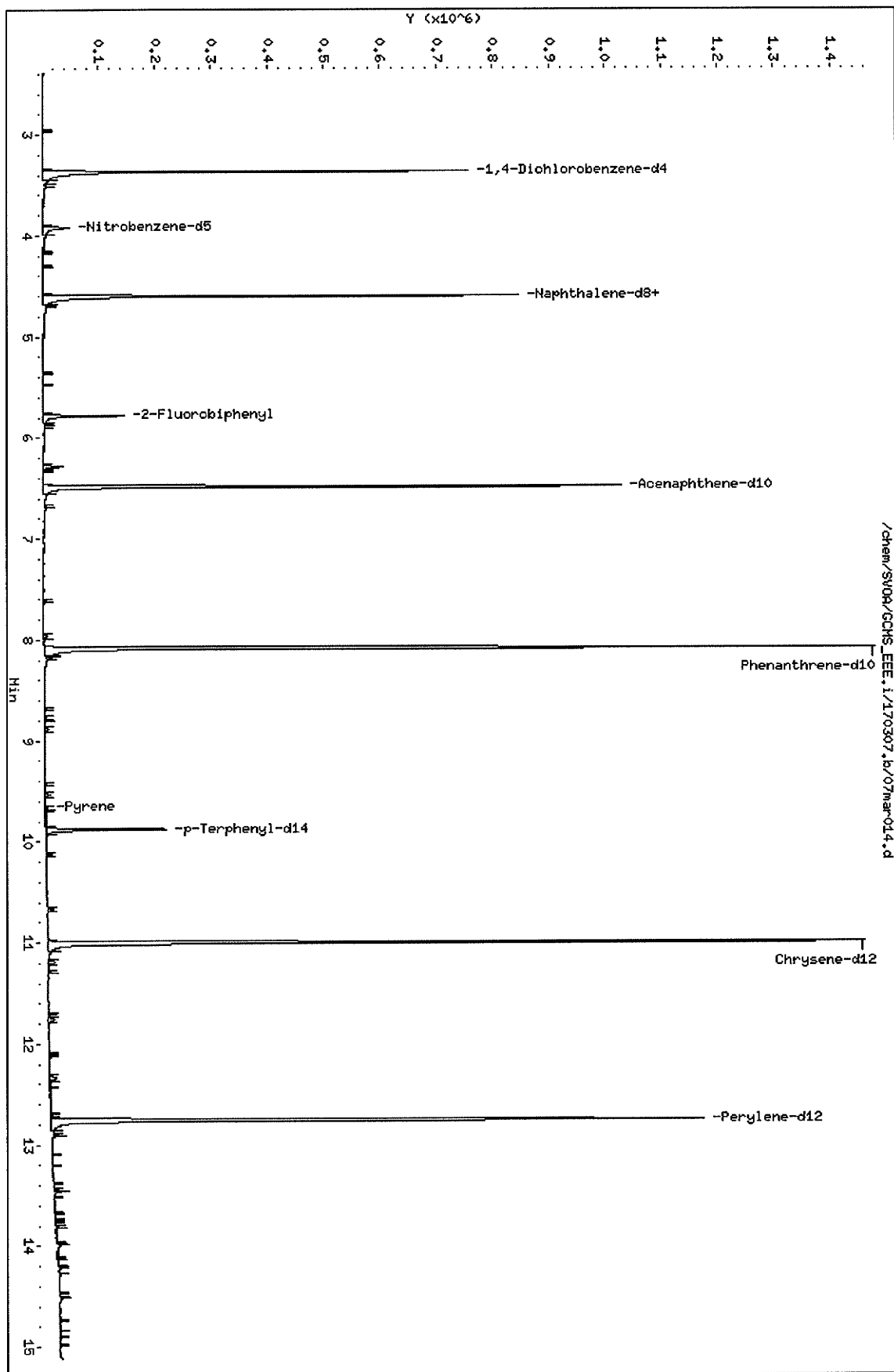
Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (mg/L)	QValue
=====	=====	=====	=====	=====	=====	=====
20) 1-Methylphenanthrene	(5)	0.000		0	N.D.	
29) Benzo (e) pyrene	(6)	0.000		0	N.D.	
32) Perylene	(6)	0.000		0D	N.D.	
13) Dibenzofuran	(3)	0.000		0	N.D.	

D = Compound was deleted.

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Data File: /chem/SV04/GCHS_EEE.i/170307.b/07mar04.d
 Date : 07-Mar-2017 15:38
 Client ID:
 Sample Info: 17-03-0335-8
 Column Phase: J&W DB-5MS

Instrument: GCHS_EEE.i
 Operator: 907
 Column diameter: 0.18



RAW DATA SHEET FOR METHOD: EPA 8270C SIM PAHs

WORK ORDER: 17-03-0335
INSTRUMENT: GC/MS EEE
EXTRACTION: EPA 3545
D/T EXTRACTED: 2017-03-06 00:00

ANALYZED BY: 907
D/T ANALYZED: 2017-03-07 15:58
REVIEWED BY:
D/T REVIEWED:

DATA FILE: Z:\GCMS_EEE\GCMS_EEE_data\2017\170307\07mar015.d\07mar015.rr

11 **CLIENT SAMPLE NUMBER: D-DU1-S-SG-08-15S**

LCS/MB BATCH: 170306L10	SAMPLE VOLUME / WEIGHT: DEFAULT: 20.00 g / ACTUAL: 20.10 g	
MS/MSD BATCH: 170306S10	FINAL VOLUME / WEIGHT: DEFAULT: 2.00 ml / ACTUAL: 2.00 ml	
UNITS: mg/kg	ADJUSTMENT RATIO TO PF: 1.00	

COMMENT:

<u>COMPOUND</u>	<u>ON COL CONC</u>	<u>DF</u>	<u>CONC</u>	<u>RL</u>	<u>QUAL</u>
Naphthalene	0.000	1.00	ND	0.010	
2-Methylnaphthalene	0.000	1.00	ND	0.010	
1-Methylnaphthalene	0.000	1.00	ND	0.010	
Acenaphthylene	0.000	1.00	ND	0.010	
Acenaphthene	0.000	1.00	ND	0.010	
Fluorene	0.000	1.00	ND	0.010	
Phenanthrene	0.000	1.00	ND	0.010	
Anthracene	0.000	1.00	ND	0.010	
Fluoranthene	0.000	1.00	ND	0.010	
Pyrene	0.000	1.00	ND	0.010	
Benzo (a) Anthracene	0.000	1.00	ND	0.010	
Chrysene	0.000	1.00	ND	0.010	
Benzo (k) Fluoranthene	0.000	1.00	ND	0.010	
Benzo (b) Fluoranthene	0.000	1.00	ND	0.010	
Benzo (a) Pyrene	0.000	1.00	ND	0.010	
Indeno (1,2,3-c,d) Pyrene	0.000	1.00	ND	0.010	
Dibenz (a,h) Anthracene	0.000	1.00	ND	0.010	
Benzo (g,h,i) Perylene	0.000	1.00	ND	0.010	

Return to Contents

Quant Report

Target Revision 3.5

Data File: /chem/SVOA/GCMS_EEE.i/170307.b/07mar015.d Instrument ID: GCMS_EEE.i
 Injection date and time: 07-MAR-2017 15:58 Analyst ID: 907

Method used: /chem/SVOA/GCMS_EEE.i/170307.b/simpah-extra.m Sublist used: all
 Calibration date and time: 07-MAR-2017 10:52
 Date, time and analyst ID of latest file update: 07-Mar-2017 16:41 ev7p

Sample Name: 17-03-0335-11 Misc Info: S101716B 10UL
 Response via Initial Calibration

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (mg/L)	DEV(Min)
=====	=====	=====	=====	=====	=====	=====
Internal Standards						
1)*1,4-Dichlorobenzene-d4	(1)	3.369	152	262469	5.000	-0.01
3)*Naphthalene-d8	(2)	4.601	136	733592	5.000	0.00
11)*Acenaphthene-d10	(3)	6.486	164	378043	5.000	0.00
17)*Phenanthrene-d10	(4)	8.084	188	1194212	5.000	0.00
31)*Perylene-d12	(6)	12.757	264	1097956	5.000	0.01
25)*Chrysene-d12	(5)	11.001	240	1182795	5.000	0.00
System Monitoring Compounds						
2)\$Nitrobenzene-d5	(2)	3.918	82	45845	0.885	0.00
SpikedAmount 0.500	Recovery = 176.963					
7)\$2-Fluorobiphenyl	(3)	5.782	172	108773	0.791	0.00
SpikedAmount 0.500	Recovery = 158.208					
23)\$p-Terphenyl-d14	(5)	9.880	244	175544	0.936	0.00
SpikedAmount 0.500	Recovery = 187.242					
Target Compounds						QValue
4) Naphthalene	(2)	0.000		0		N.D.
5) 2-Methylnaphthalene	(2)	0.000		0		N.D.
6) 1-Methylnaphthalene	(2)	0.000		0		N.D.
10) Acenaphthylene	(3)	0.000		0		N.D.
12) Acenaphthene	(3)	0.000		0		N.D.
15) Fluorene	(3)	0.000		0		N.D.
18) Phenanthrene	(4)	0.000		0		N.D.
19) Anthracene	(4)	0.000		0		N.D.
21) Fluoranthene	(4)	0.000		0		N.D.
22) Pyrene	(5)	0.000		0		N.D.
24) Benzo (a) Anthracene	(5)	0.000		0D		N.D.
26) Chrysene	(5)	0.000		0D		N.D.
27) Benzo (b) Fluoranthene	(6)	0.000		0		N.D.
28) Benzo (k) Fluoranthene	(6)	0.000		0		N.D.
30) Benzo (a) Pyrene	(6)	0.000		0		N.D.
33) Indeno (1,2,3-c,d) Pyrene	(6)	0.000		0		N.D.
34) Dibenz (a,h) Anthracene	(6)	0.000		0		N.D.
35) Benzo (g,h,i) Perylene	(6)	0.000		0		N.D.
8) Biphenyl	(3)	0.000		0		N.D.
9) 2,6-Dimethylnaphthalene	(3)	0.000		0		N.D.
14) 1,6,7-Trimethylnaphthalene	(3)	0.000		0		N.D.
16) Dibenzothiophene	(3)	0.000		0		N.D.

D = Compound was deleted.

* = Compound is an internal standard.

\$ = Compound is a surrogate standard.

Quant Report

Target Revision 3.5

Data File: /chem/SVOA/GCMS_EEE.i/170307.b/07mar015.d Instrument ID: GCMS_EEE.i
 Injection date and time: 07-MAR-2017 15:58 Analyst ID: 907

Method used: /chem/SVOA/GCMS_EEE.i/170307.b/simpah-extra.m Sublist used: all
 Calibration date and time: 07-MAR-2017 10:52
 Date, time and analyst ID of latest file update: 07-Mar-2017 16:41 ev7p

Sample Name: 17-03-0335-11 Misc Info: S101716B 10UL
 Response via Initial Calibration

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (mg/L)	QValue
=====	=====	=====	=====	=====	=====	=====
20) 1-Methylphenanthrene	(5)	0.000		0	N.D.	
29) Benzo (e) pyrene	(6)	0.000		0	N.D.	
32) Perylene	(6)	0.000		0D	N.D.	
13) Dibenzofuran	(3)	0.000		0	N.D.	

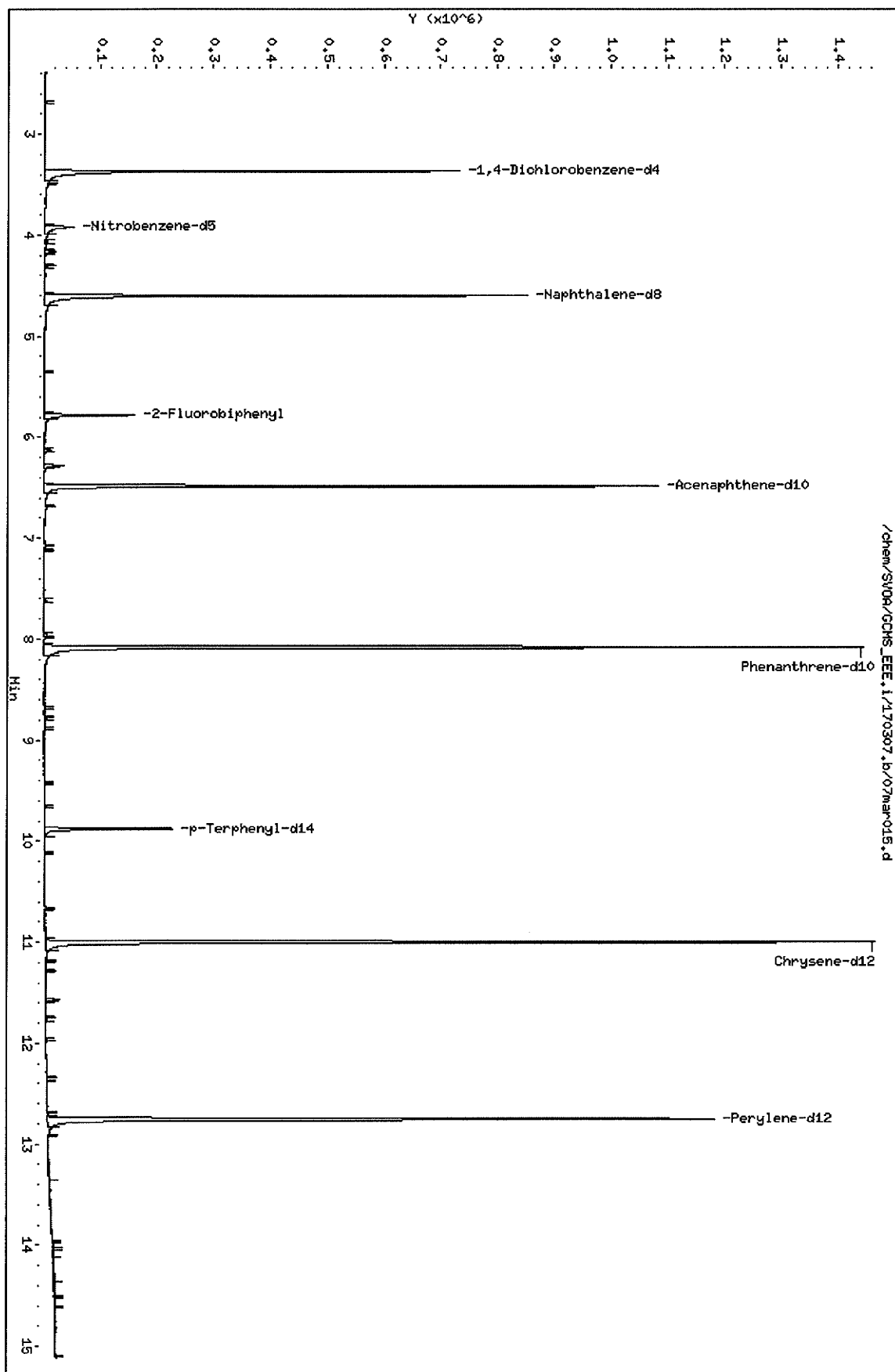
D = Compound was deleted.

page 2 of 2

Data File: /chem/SV04/GCHS_EEE.i/170307.b/07mar015.d
Date : 07-MAR-2017 15:58
Client ID:
Sample Info: 17-03-0335-11
Volume Injected (uL): 0.5
Column Phase: J&W DB-SMS

Instrument: GCHS_EEE.i
Operator: 907
Column diameter: 0.18

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RAW DATA SHEET FOR METHOD: EPA 8270C SIM PAHs

WORK ORDER: 17-03-0335
INSTRUMENT: GC/MS EEE
EXTRACTION: EPA 3545
D/T EXTRACTED: 2017-03-06 00:00

ANALYZED BY: 907
D/T ANALYZED: 2017-03-07 16:18
REVIEWED BY:
D/T REVIEWED:

DATA FILE: Z:\GCMS_EEE\GCMS_EEE_data\2017\170307\07mar016.d\07mar016.rr

12 **CLIENT SAMPLE NUMBER: D-DU1-S-SG-08-25S**

LCS/MB BATCH: 170306L10 **SAMPLE VOLUME / WEIGHT:** DEFAULT: 20.00 g / ACTUAL: 20.00 g
MS/MSD BATCH: 170306S10 **FINAL VOLUME / WEIGHT:** DEFAULT: 2.00 ml / ACTUAL: 2.00 ml
UNITS: mg/kg **ADJUSTMENT RATIO TO PF:** 1.00

COMMENT:

<u>COMPOUND</u>	<u>ON COL CONC</u>	<u>DF</u>	<u>CONC</u>	<u>RL</u>	<u>QUAL</u>
Naphthalene	0.000	1.00	ND	0.010	
2-Methylnaphthalene	0.000	1.00	ND	0.010	
1-Methylnaphthalene	0.000	1.00	ND	0.010	
Acenaphthylene	0.000	1.00	ND	0.010	
Acenaphthene	0.000	1.00	ND	0.010	
Fluorene	0.000	1.00	ND	0.010	
Phenanthrene	0.000	1.00	ND	0.010	
Anthracene	0.000	1.00	ND	0.010	
Fluoranthene	0.000	1.00	ND	0.010	
Pyrene	0.000	1.00	ND	0.010	
Benzo (a) Anthracene	0.000	1.00	ND	0.010	
Chrysene	0.000	1.00	ND	0.010	
Benzo (k) Fluoranthene	0.000	1.00	ND	0.010	
Benzo (b) Fluoranthene	0.000	1.00	ND	0.010	
Benzo (a) Pyrene	0.000	1.00	ND	0.010	
Indeno (1,2,3-c,d) Pyrene	0.000	1.00	ND	0.010	
Dibenz (a,h) Anthracene	0.000	1.00	ND	0.010	
Benzo (g,h,i) Perylene	0.000	1.00	ND	0.010	

Quant Report

Target Revision 3.5

Data File: /chem/SVOA/GCMS_EEE.i/170307.b/07mar016.d Instrument ID: GCMS_EEE.i
 Injection date and time: 07-MAR-2017 16:18 Analyst ID: 907

Method used: /chem/SVOA/GCMS_EEE.i/170307.b/simpah-extra.m Sublist used: all
 Calibration date and time: 07-MAR-2017 10:52
 Date, time and analyst ID of latest file update: 07-Mar-2017 16:42 ev7p

Sample Name: 17-03-0335-12 Misc Info: S101716B 10UL
 Response via Initial Calibration

		I.S.			On-Column	
Compounds		Ref.	RT	QIon	Amount	DEV (Min)
=====		=====	=====	=====	(mg/L)	=====
Internal Standards						
1)*1,4-Dichlorobenzene-d4		(1)	3.368	152	258888	5.000 -0.01
3)*Naphthalene-d8		(2)	4.602	136	717054	5.000 0.00
11)*Acenaphthene-d10		(3)	6.486	164	367685	5.000 0.00
17)*Phenanthrene-d10		(4)	8.083	188	1165860	5.000 0.00
31)*Perylene-d12		(6)	12.758	264	1051029	5.000 0.01
25)*Chrysene-d12		(5)	11.000	240	1151980	5.000 0.00
System Monitoring Compounds						
2)\$Nitrobenzene-d5		(2)	3.921	82	43357	0.856 0.00
SpikedAmount 1.000		Recovery =		85.610		
7)\$2-Fluorobiphenyl		(3)	5.782	172	99429	0.743 0.00
SpikedAmount 1.000		Recovery =		74.346		
23)\$p-Terphenyl-d14		(5)	9.880	244	161162	0.882 0.00
SpikedAmount 1.000		Recovery =		88.250		
Target Compounds						QValue
4) Naphthalene		(2)	0.000		0	N.D.
5) 2-Methylnaphthalene		(2)	0.000		0	N.D.
6) 1-Methylnaphthalene		(2)	0.000		0	N.D.
10) Acenaphthylene		(3)	0.000		0	N.D.
12) Acenaphthene		(3)	0.000		0	N.D.
15) Fluorene		(3)	0.000		0	N.D.
18) Phenanthrene		(4)	0.000		0	N.D.
19) Anthracene		(4)	0.000		0	N.D.
21) Fluoranthene		(4)	0.000		0	N.D.
22) Pyrene		(5)	0.000		0	N.D.
24) Benzo (a) Anthracene		(5)	0.000		0D	N.D.
26) Chrysene		(5)	0.000		0D	N.D.
27) Benzo (b) Fluoranthene		(6)	0.000		0	N.D.
28) Benzo (k) Fluoranthene		(6)	0.000		0	N.D.
30) Benzo (a) Pyrene		(6)	0.000		0	N.D.
33) Indeno (1,2,3-c,d) Pyrene		(6)	0.000		0	N.D.
34) Dibenz (a,h) Anthracene		(6)	0.000		0	N.D.
35) Benzo (g,h,i) Perylene		(6)	0.000		0	N.D.
8) Biphenyl		(3)	0.000		0	N.D.
9) 2,6-Dimethylnaphthalene		(3)	0.000		0	N.D.
14) 1,6,7-Trimethylnaphthalene		(3)	0.000		0	N.D.
16) Dibenzothiophene		(3)	0.000		0	N.D.

D = Compound was deleted.

* = Compound is an internal standard.

\$ = Compound is a surrogate standard.

Quant Report

Target Revision 3.5

Data File: /chem/SVOA/GCMS_EEE.i/170307.b/07mar016.d Instrument ID: GCMS_EEE.i
Injection date and time: 07-MAR-2017 16:18 Analyst ID: 907

Method used: /chem/SVOA/GCMS_EEE.i/170307.b/simpah-extra.m Sublist used: all
Calibration date and time: 07-MAR-2017 10:52
Date, time and analyst ID of latest file update: 07-Mar-2017 16:42 ev7p

Sample Name: 17-03-0335-12 Misc Info: S101716B 10UL
Response via Initial Calibration

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (mg/L)	QValue
20) 1-Methylphenanthrene	(5)	0.000		0	N.D.	
29) Benzo (e) pyrene	(6)	0.000		0	N.D.	
32) Perylene	(6)	0.000		0D	N.D.	
13) Dibenzofuran	(3)	0.000		0	N.D.	

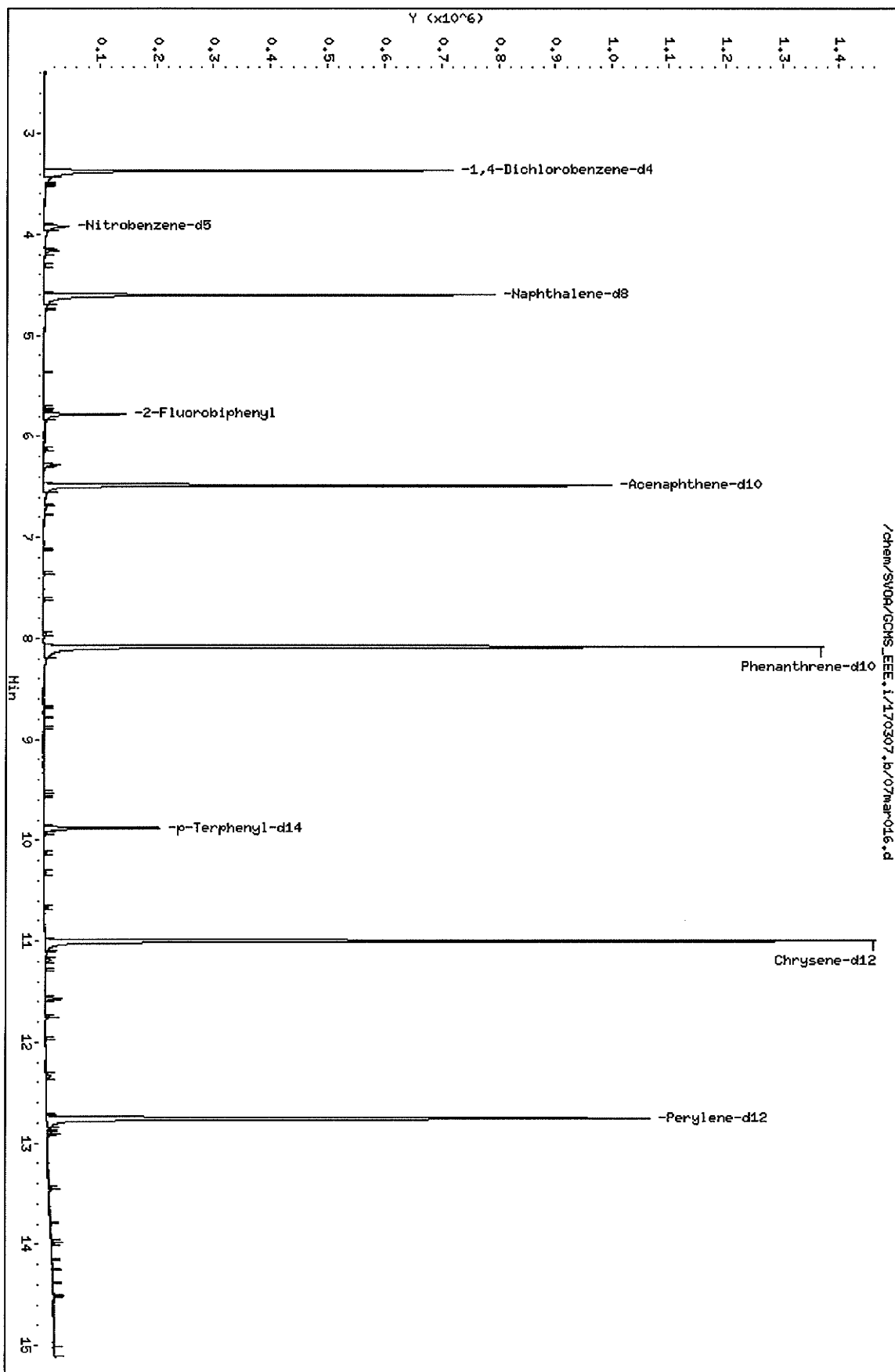
D = Compound was deleted.

page 2 of 2

Data File: /chem/SV0A/GCHS_EEE.i/170307.b/07mar016.d
Date : 07-MAR-2017 16:18
Client ID:
Sample Info: 17-03-0335-12

Column Phase: 3M DB-SMS

Instrument: GCHS_EEE.i
Operator: 907
Column diameter: 0.18



RAW DATA SHEET FOR METHOD: EPA 8270C SIM PAHs

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WORK ORDER: 17-03-0335
INSTRUMENT: GC/MS EEE
EXTRACTION: EPA 3545
D/T EXTRACTED: 2017-03-06 00:00

ANALYZED BY: 907
D/T ANALYZED: 2017-03-07 16:38
REVIEWED BY:
D/T REVIEWED:

DATA FILE: Z:\GCMS_EEE\GCMS_EEE_data\2017\170307\07mar017.d\07mar017.rr

15 **CLIENT SAMPLE NUMBER:** D-DU1-S-SG-09-15S

LCS/MB BATCH: 170306L10 **SAMPLE VOLUME / WEIGHT:** DEFAULT: 20.00 g / ACTUAL: 20.10 g
MS/MSD BATCH: 170306S10 **FINAL VOLUME / WEIGHT:** DEFAULT: 2.00 ml / ACTUAL: 2.00 ml
UNITS: mg/kg **ADJUSTMENT RATIO TO PF:** 1.00

COMMENT:

<u>COMPOUND</u>	<u>ON COL CONC</u>	<u>DF</u>	<u>CONC</u>	<u>RL</u>	<u>QUAL</u>
Naphthalene	0.000	1.00	ND	0.010	
2-Methylnaphthalene	0.000	1.00	ND	0.010	
1-Methylnaphthalene	0.000	1.00	ND	0.010	
Acenaphthylene	0.000	1.00	ND	0.010	
Acenaphthene	0.000	1.00	ND	0.010	
Fluorene	0.000	1.00	ND	0.010	
Phenanthrene	0.000	1.00	ND	0.010	
Anthracene	0.000	1.00	ND	0.010	
Fluoranthene	0.000	1.00	ND	0.010	
Pyrene	0.000	1.00	ND	0.010	
Benzo (a) Anthracene	0.000	1.00	ND	0.010	
Chrysene	0.000	1.00	ND	0.010	
Benzo (k) Fluoranthene	0.000	1.00	ND	0.010	
Benzo (b) Fluoranthene	0.000	1.00	ND	0.010	
Benzo (a) Pyrene	0.000	1.00	ND	0.010	
Indeno (1,2,3-c,d) Pyrene	0.000	1.00	ND	0.010	
Dibenz (a,h) Anthracene	0.000	1.00	ND	0.010	
Benzo (g,h,i) Perylene	0.000	1.00	ND	0.010	

Return to Contents

Quant Report

Target Revision 3.5

Data File: /chem/SVOA/GCMS_EEE.i/170307.b/07mar017.d Instrument ID: GCMS_EEE.i
 Injection date and time: 07-MAR-2017 16:38 Analyst ID: 907

Method used: /chem/SVOA/GCMS_EEE.i/170307.b/simpah-extra.m Sublist used: all
 Calibration date and time: 07-MAR-2017 10:52
 Date, time and analyst ID of latest file update: 07-Mar-2017 17:27 ev7p

Sample Name: 17-03-0335-15 Misc Info: S101716B 10UL
 Response via Initial Calibration

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (mg/L)	DEV(Min)
=====	=====	=====	=====	=====	=====	=====
Internal Standards						
1)*1,4-Dichlorobenzene-d4	(1)	3.368	152	247744	5.000	-0.01
3)*Naphthalene-d8	(2)	4.601	136	692393	5.000	0.00
11)*Acenaphthene-d10	(3)	6.486	164	352551	5.000	0.00
17)*Phenanthrene-d10	(4)	8.084	188	1132380	5.000	0.00
31)*Perylene-d12	(6)	12.759	264	1009337	5.000	0.00
25)*Chrysene-d12	(5)	11.001	240	1106452	5.000	0.00
System Monitoring Compounds						
2)\$Nitrobenzene-d5	(2)	3.919	82	45911	0.939	0.00
SpikedAmount 1.000	Recovery =	93.881				
7)\$2-Fluorobiphenyl	(3)	5.782	172	107831	0.841	0.00
SpikedAmount 1.000	Recovery =	84.090				
23)\$p-Terphenyl-d14	(5)	9.881	244	169481	0.966	0.00
SpikedAmount 1.000	Recovery =	96.624				
Target Compounds						
					QValue	
4) Naphthalene	(2)	0.000		0	N.D.	
5) 2-Methylnaphthalene	(2)	0.000		0	N.D.	
6) 1-Methylnaphthalene	(2)	0.000		0	N.D.	
10) Acenaphthylene	(3)	0.000		0	N.D.	
12) Acenaphthene	(3)	0.000		0	N.D.	
15) Fluorene	(3)	0.000		0	N.D.	
18) Phenanthrene	(4)	0.000		0	N.D.	
19) Anthracene	(4)	0.000		0	N.D.	
21) Fluoranthene	(4)	0.000		0	N.D.	
22) Pyrene	(5)	0.000		0	N.D.	
24) Benzo (a) Anthracene	(5)	0.000		0D	N.D.	
26) Chrysene	(5)	0.000		0D	N.D.	
27) Benzo (b) Fluoranthene	(6)	0.000		0	N.D.	
28) Benzo (k) Fluoranthene	(6)	0.000		0	N.D.	
30) Benzo (a) Pyrene	(6)	0.000		0	N.D.	
33) Indeno (1,2,3-c,d) Pyrene	(6)	0.000		0	N.D.	
34) Dibenz (a,h) Anthracene	(6)	0.000		0	N.D.	
35) Benzo (g,h,i) Perylene	(6)	0.000		0	N.D.	
8) Biphenyl	(3)	0.000		0	N.D.	
9) 2,6-Dimethylnaphthalene	(3)	0.000		0	N.D.	
14) 1,6,7-Trimethylnaphthalene	(3)	0.000		0	N.D.	
16) Dibenzothiophene	(3)	0.000		0	N.D.	

D = Compound was deleted.

* = Compound is an internal standard.

\$ = Compound is a surrogate standard.

Quant Report

Target Revision 3.5

Data File: /chem/SVOA/GCMS_EEE.i/170307.b/07mar017.d Instrument ID: GCMS_EEE.i
Injection date and time: 07-MAR-2017 16:38 Analyst ID: 907

Method used: /chem/SVOA/GCMS_EEE.i/170307.b/simpah-extra.m Sublist used: all
Calibration date and time: 07-MAR-2017 10:52
Date, time and analyst ID of latest file update: 07-Mar-2017 17:27 ev7p

Sample Name: 17-03-0335-15 Misc Info: S101716B 10UL
Response via Initial Calibration

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (mg/L)	QValue
=====	=====	=====	=====	=====	=====	=====
20) 1-Methylphenanthrene	(5)	0.000		0	N.D.	
29) Benzo (e) pyrene	(6)	0.000		0	N.D.	
32) Perylene	(6)	0.000		0D	N.D.	
13) Dibenzofuran	(3)	0.000		0	N.D.	

D = Compound was deleted.

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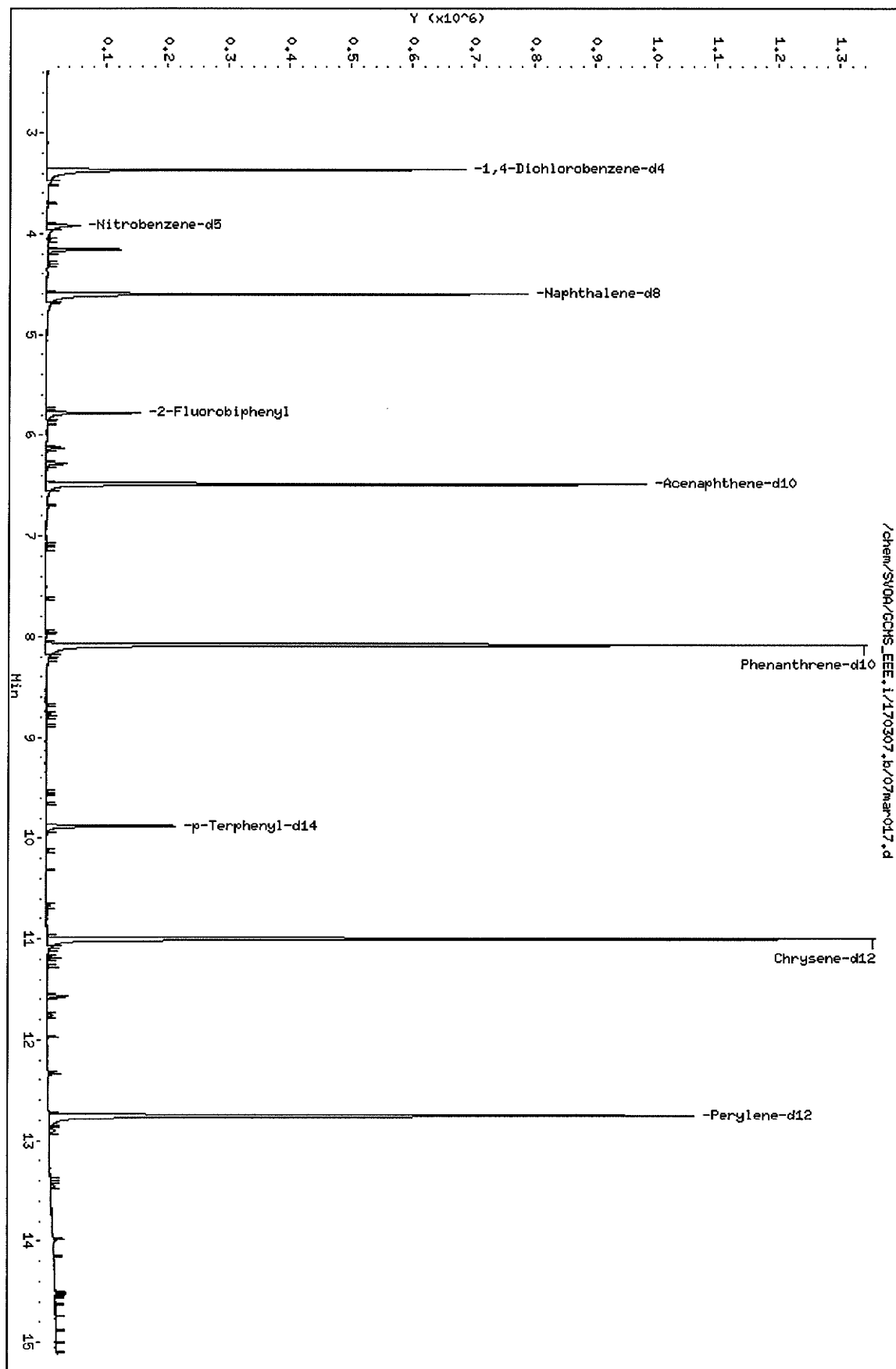
Data File: /chem/SV0A/GCHS_EEE.i/170307.b/07mar017.d
Date : 07-MAR-2017 16:38
Client ID:
Sample Info: 17-03-0335-15

Column Phase: J&W DB-5MS

Instrument: GCHS_EEE.i

Operator: 907

Column diameter: 0.18



RAW DATA SHEET FOR METHOD: EPA 8270C SIM PAHs

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WORK ORDER: 17-03-0335
INSTRUMENT: GC/MS EEE
EXTRACTION: EPA 3545
D/T EXTRACTED: 2017-03-06 00:00

ANALYZED BY: 907
D/T ANALYZED: 2017-03-07 16:58
REVIEWED BY:
D/T REVIEWED:

DATA FILE: Z:\GCMS_EEE\GCMS_EEE_data\2017\170307\07mar018.d\07mar018.rr

16 **CLIENT SAMPLE NUMBER:** D-DU1-S-SG-09-25S

LCS/MB BATCH: 170306L10 **SAMPLE VOLUME / WEIGHT:** DEFAULT: 20.00 g / ACTUAL: 20.10 g
MS/MSD BATCH: 170306S10 **FINAL VOLUME / WEIGHT:** DEFAULT: 2.00 ml / ACTUAL: 2.00 ml
UNITS: mg/kg **ADJUSTMENT RATIO TO PF:** 1.00

COMMENT:

<u>COMPOUND</u>	<u>ON COL CONC</u>	<u>DF</u>	<u>CONC</u>	<u>RL</u>	<u>QUAL</u>
Naphthalene	0.000	1.00	ND	0.010	
2-Methylnaphthalene	0.000	1.00	ND	0.010	
1-Methylnaphthalene	0.000	1.00	ND	0.010	
Acenaphthylene	0.000	1.00	ND	0.010	
Acenaphthene	0.000	1.00	ND	0.010	
Fluorene	0.000	1.00	ND	0.010	
Phenanthrene	0.0105	1.00	ND	0.010	
Anthracene	0.000	1.00	ND	0.010	
Fluoranthene	0.000	1.00	ND	0.010	
Pyrene	0.0271	1.00	ND	0.010	
Benzo (a) Anthracene	0.000	1.00	ND	0.010	
Chrysene	0.000	1.00	ND	0.010	
Benzo (k) Fluoranthene	0.000	1.00	ND	0.010	
Benzo (b) Fluoranthene	0.000	1.00	ND	0.010	
Benzo (a) Pyrene	0.000	1.00	ND	0.010	
Indeno (1,2,3-c,d) Pyrene	0.000	1.00	ND	0.010	
Dibenz (a,h) Anthracene	0.000	1.00	ND	0.010	
Benzo (g,h,i) Perylene	0.000	1.00	ND	0.010	

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Quant Report

Target Revision 3.5

Data File: /chem/SVOA/GCMS_EEE.i/170307.b/07mar018.d Instrument ID: GCMS_EEE.i
 Injection date and time: 07-MAR-2017 16:58 Analyst ID: 907

Method used: /chem/SVOA/GCMS_EEE.i/170307.b/simpah-extra.m Sublist used: all
 Calibration date and time: 07-MAR-2017 10:52
 Date, time and analyst ID of latest file update: 07-Mar-2017 17:27 ev7p

Sample Name: 17-03-0335-16 Misc Info: S101716B 10UL
 Response via Initial Calibration

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (mg/L)	DEV(Min)
=====	=====	=====	=====	=====	=====	=====
Internal Standards						
1)*1,4-Dichlorobenzene-d4	(1)	3.367	152	249833	5.000	0.00
3)*Naphthalene-d8	(2)	4.601	136	714826	5.000	0.00
11)*Acenaphthene-d10	(3)	6.486	164	353105	5.000	0.00
17)*Phenanthrene-d10	(4)	8.082	188	1151499	5.000	0.00
31)*Perylene-d12	(6)	12.759	264	1040328	5.000	0.00
25)*Chrysene-d12	(5)	11.002	240	1124155	5.000	0.00
System Monitoring Compounds						
2)\$Nitrobenzene-d5	(2)	3.921	82	43610	0.864	0.00
SpikedAmount 1.000	Recovery =	86.378				
7)\$2-Fluorobiphenyl	(3)	5.782	172	96047	0.748	0.00
SpikedAmount 1.000	Recovery =	74.782				
23)\$p-Terphenyl-d14	(5)	9.881	244	158302	0.888	0.00
SpikedAmount 1.000	Recovery =	88.830				
Target Compounds						
					QValue	
4) Naphthalene	(2)	0.000		0	N.D.	
5) 2-Methylnaphthalene	(2)	0.000		0	N.D.	
6) 1-Methylnaphthalene	(2)	0.000		0	N.D.	
10) Acenaphthylene	(3)	0.000		0	N.D.	
12) Acenaphthene	(3)	0.000		0	N.D.	
15) Fluorene	(3)	0.000		0	N.D.	
18) Phenanthrene	(4)	8.107	178	2606	0.011	89
19) Anthracene	(4)	0.000		0D	N.D.	
21) Fluoranthene	(4)	0.000		0	N.D.	
22) Pyrene	(5)	9.661	202	9187	0.027	93
24) Benzo (a) Anthracene	(5)	0.000		0D	N.D.	
26) Chrysene	(5)	0.000		0D	N.D.	
27) Benzo (b) Fluoranthene	(6)	0.000		0	N.D.	
28) Benzo (k) Fluoranthene	(6)	0.000		0	N.D.	
30) Benzo (a) Pyrene	(6)	0.000		0	N.D.	
33) Indeno (1,2,3-c,d) Pyrene	(6)	0.000		0	N.D.	
34) Dibenz (a,h) Anthracene	(6)	0.000		0	N.D.	
35) Benzo (g,h,i) Perylene	(6)	0.000		0	N.D.	
8) Biphenyl	(3)	0.000		0	N.D.	
9) 2,6-Dimethylnaphthalene	(3)	0.000		0	N.D.	
14) 1,6,7-Trimethylnaphthalene	(3)	0.000		0	N.D.	
16) Dibenzothiophene	(3)	0.000		0	N.D.	

D = Compound was deleted.

* = Compound is an internal standard.

\$ = Compound is a surrogate standard.

Quant Report

Target Revision 3.5

Data File: /chem/SVOA/GCMS_EEE.i/170307.b/07mar018.d Instrument ID: GCMS_EEE.i
Injection date and time: 07-MAR-2017 16:58 Analyst ID: 907

Method used: /chem/SVOA/GCMS_EEE.i/170307.b/simpah-extra.m Sublist used: all
Calibration date and time: 07-MAR-2017 10:52
Date, time and analyst ID of latest file update: 07-Mar-2017 17:27 ev7p

Sample Name: 17-03-0335-16 Misc Info: S101716B 10UL
Response via Initial Calibration

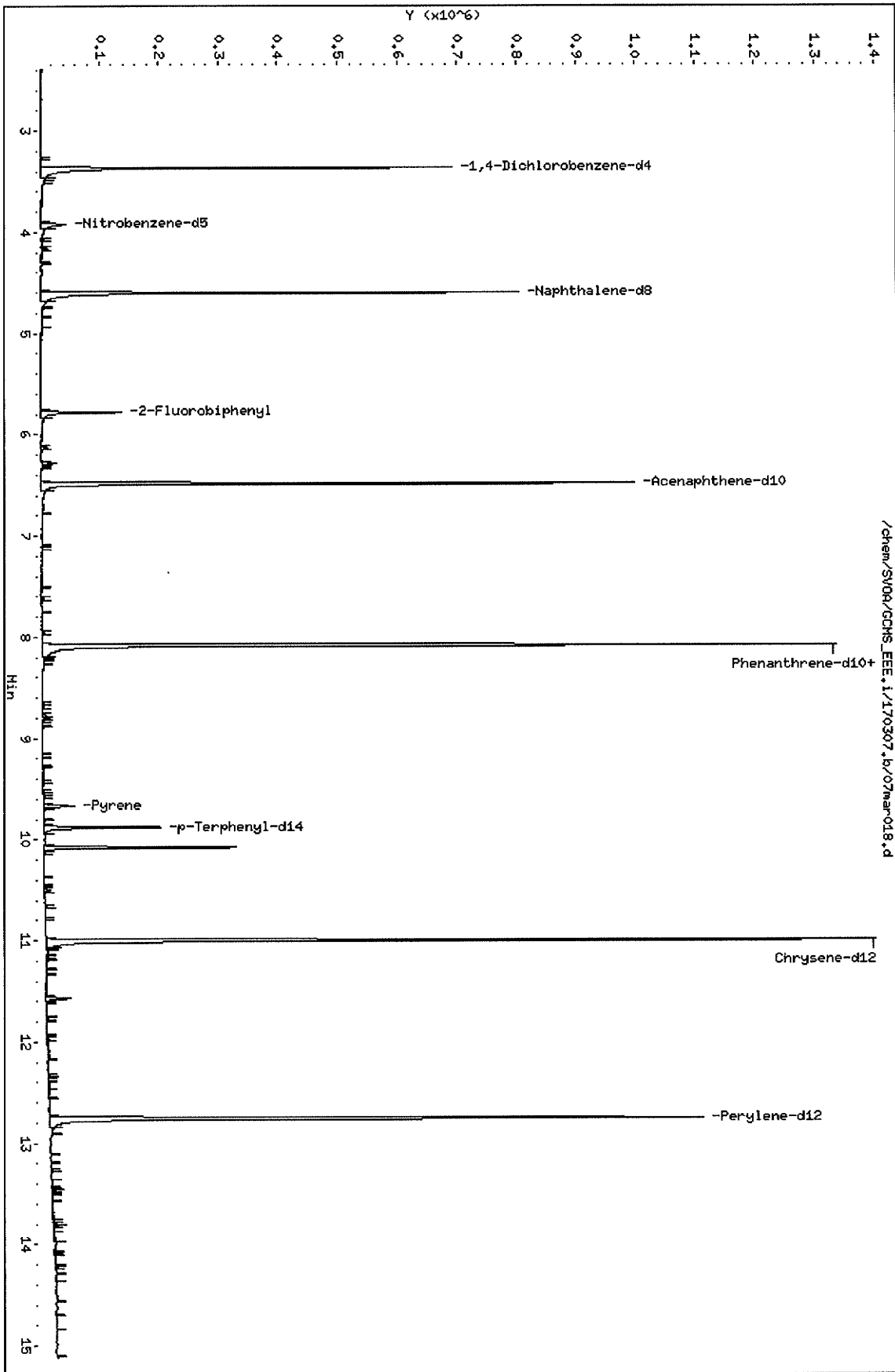
Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (mg/L)	QValue
=====	=====	=====	=====	=====	=====	=====
20) 1-Methylphenanthrene	(5)	0.000		0	N.D.	
29) Benzo (e) pyrene	(6)	0.000		0	N.D.	
32) Perylene	(6)	0.000		0D	N.D.	
13) Dibenzofuran	(3)	0.000		0	N.D.	

D = Compound was deleted.

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Data File: /chem/SV09/GCHS_EEE.i/170307.b/07mar018.d
Date : 07-Mar-2017 16:58
Client ID:
Sample Info: 17-03-0335-16
Column Phase: J&M DB-SMS

Instrument: GCHS_EEE.i
Operator: 907
Column diameter: 0.18



EPA METHOD 8270C PAHSIM

Quality Control

Method Blank LCS/LCSD MS/MSD

METHOD BLANK ASSOCIATION SUMMARY
FOR METHOD: EPA 8270C SIM PAHs

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MB SAMPLE ID: 099-14-035-377
MB BATCH ID: 170306L10
INSTRUMENT: GC/MS EEE
EXTRACTION: EPA 3545
D/T EXTRACTED: 2017-03-06 00:00

ANALYZED BY: 907
D/T ANALYZED: 2017-03-07 10:49
REVIEWED BY: 262
D/T REVIEWED: 2017-03-07 15:10
MATRIX: Soil

DATA FILE: Z:\GCMS_EEE\GCMS_EEE_data\2017\170307\07mar003.d\07mar003.rr

CLIENT WORK ORDER: 17-03-0335

<u>S#</u>	<u>RUN TYPE</u>	<u>CLIENT SAMPLE ID</u>	<u>D/T ANALYZED</u>	<u>DATA FILE</u>
3	D-DU1-S-SG-06-15S		2017-03-07 14:17	Z:\GCMS_EEE\GCMS_EEE_data\2017\170307\07mar010.d\07mar010.rr
4	D-DU1-S-SG-06-25S		2017-03-07 14:57	Z:\GCMS_EEE\GCMS_EEE_data\2017\170307\07mar012.d\07mar012.rr
7	D-DU1-S-SG-07-15S		2017-03-07 15:17	Z:\GCMS_EEE\GCMS_EEE_data\2017\170307\07mar013.d\07mar013.rr
8	D-DU1-S-SG-07-25S		2017-03-07 15:38	Z:\GCMS_EEE\GCMS_EEE_data\2017\170307\07mar014.d\07mar014.rr
11	D-DU1-S-SG-08-15S		2017-03-07 15:58	Z:\GCMS_EEE\GCMS_EEE_data\2017\170307\07mar015.d\07mar015.rr
12	D-DU1-S-SG-08-25S		2017-03-07 16:18	Z:\GCMS_EEE\GCMS_EEE_data\2017\170307\07mar016.d\07mar016.rr
15	D-DU1-S-SG-09-15S		2017-03-07 16:38	Z:\GCMS_EEE\GCMS_EEE_data\2017\170307\07mar017.d\07mar017.rr
16	D-DU1-S-SG-09-25S		2017-03-07 16:58	Z:\GCMS_EEE\GCMS_EEE_data\2017\170307\07mar018.d\07mar018.rr

RAW DATA SHEET FOR METHOD: EPA 8270C SIM PAHs

WORK ORDER: 099-14-035
INSTRUMENT: GC/MS EEE
EXTRACTION : EPA 3545
D/T EXTRACTED: 2017-03-06 00:00

ANALYZED BY: 907
D/T ANALYZED: 2017-03-07 10:49
REVIEWED BY: 262
D/T REVIEWED: 2017-03-07 15:10

DATA FILE: Z:\GCMS_EEE\GCMS_EEE_data\2017\170307\07mar003.d\07mar003.rr

MB **CLIENT SAMPLE NUMBER:** Method Blank

LCS/MB BATCH: 170306L10 **SAMPLE VOLUME / WEIGHT:** DEFAULT: 20.00 g / ACTUAL: 20.00 g
MS/MSD BATCH: **FINAL VOLUME / WEIGHT:** DEFAULT: 2.00 ml / ACTUAL: 2.00 ml
UNITS: mg/kg **ADJUSTMENT RATIO TO PF:** 1.00

COMMENT:

COMPOUND	ON COL CONC	DF	CONC	RL	QUAL
Naphthalene	0.000	1.00	ND	0.010	
2-Methylnaphthalene	0.000	1.00	ND	0.010	
1-Methylnaphthalene	0.000	1.00	ND	0.010	
Acenaphthylene	0.000	1.00	ND	0.010	
Acenaphthene	0.000	1.00	ND	0.010	
Fluorene	0.000	1.00	ND	0.010	
Phenanthrene	0.000	1.00	ND	0.010	
Anthracene	0.000	1.00	ND	0.010	
Fluoranthene	0.000	1.00	ND	0.010	
Pyrene	0.000	1.00	ND	0.010	
Benzo (a) Anthracene	0.000	1.00	ND	0.010	
Chrysene	0.000	1.00	ND	0.010	
Benzo (k) Fluoranthene	0.000	1.00	ND	0.010	
Benzo (b) Fluoranthene	0.000	1.00	ND	0.010	
Benzo (a) Pyrene	0.000	1.00	ND	0.010	
Indeno (1,2,3-c,d) Pyrene	0.000	1.00	ND	0.010	
Dibenz (a,h) Anthracene	0.000	1.00	ND	0.010	
Benzo (g,h,i) Perylene	0.000	1.00	ND	0.010	

LCS QUALITY CONTROL SHEET FOR METHOD: EPA 8270C SIM PAHs

LCS SAMPLE ID: 099-14-035-377
LCS/MB BATCH ID: 170306L10
INSTRUMENT: GC/MS EEE

EXTRACTION: EPA 3545
D/T EXTRACTED: 2017-03-06 00:00

ANALYZED BY: 907
D/T ANALYZED: 2017-03-07 11:09
REVIEWED BY: 262
D/T REVIEWED: 2017-03-07 15:10

DATA FILE: Z:\GCMS_EEE\GCMS_EEE_data\2017\170307\07mar004.d\07mar004.rr

COMPOUND	CONC	CONC REC	%REC	%REC CL	ME CL	STATUS	QUALIFIERS
Naphthalene	0.1000	0.09332	93	51-129	38-142	PASS	
2-Methylnaphthalene	0.1000	0.1080	108	50-127	37-140	PASS	
1-Methylnaphthalene	0.1000	0.1019	102	54-132	41-145	PASS	
Acenaphthylene	0.1000	0.08533	85	50-123	38-135	PASS	
Acenaphthene	0.1000	0.08642	86	53-125	41-137	PASS	
Fluorene	0.1000	0.08738	87	55-127	43-139	PASS	
Phenanthrene	0.1000	0.09564	96	50-122	38-134	PASS	
Anthracene	0.1000	0.09771	98	50-132	36-146	PASS	
Fluoranthene	0.1000	0.09986	100	55-127	43-139	PASS	
Pyrene	0.1000	0.09302	93	50-134	36-148	PASS	
Benzo (a) Anthracene	0.1000	0.09672	97	50-133	36-147	PASS	
Chrysene	0.1000	0.09393	94	51-129	38-142	PASS	
Benzo (k) Fluoranthene	0.1000	0.1008	101	49-150	32-167	PASS	
Benzo (b) Fluoranthene	0.1000	0.1044	104	50-142	35-157	PASS	
Benzo (a) Pyrene	0.1000	0.1030	103	50-134	36-148	PASS	
Indeno (1,2,3-c,d) Pyrene	0.1000	0.1078	108	50-148	34-164	PASS	
Dibenz (a,h) Anthracene	0.1000	0.1095	110	50-133	36-147	PASS	
Benzo (g,h,i) Perylene	0.1000	0.1129	113	50-130	37-143	PASS	

Total number of LCS compounds: 18
Total number of ME compounds: 0
Total number of ME compounds allowed: 1
LCS ME CL validation result: Pass

MATRIX SPIKE / MATRIX SPIKE DUPLICATE QUALITY CONTROL SHEET

FOR METHOD: EPA 8270C SIM PAHS

SPIKED SAMPLE ID: 17-03-0335-3
MS/MSD BATCH: 170306S10
INSTRUMENTS:
SAMPLE: GC/MS EEE
MS: GC/MS EEE
MSD: GC/MS EEE

EXTRACTION: EPA 3545
D/T EXTRACTED:
SAMPLE: 2017-03-06 00:00
MS: 2017-03-06 00:00
MSD: 2017-03-06 00:00

ANALYZED BY: 907
D/T ANALYZED:
SAMPLE: 2017-03-07 14:17
MS: 2017-03-07 13:37
MSD: 2017-03-07 13:56
REVIEWED BY: 262
D/T REVIEWED: 2017-03-07 15:10

COMMENT:

COMPOUND NAME	SAMPLE	INITIAL	FINAL	MS CONC	% MS.REC	MSD CONC	% MSD.REC	% REC CL	RPD	RPD CL	STATUS	QUALIFIERS
Naphthalene	ND	1.000	0.1000	0.07824	78	0.07935	79	20-150	1	0-33	PASS	
2-Methylnaphthalene	ND	1.000	0.1000	0.08935	89	0.09361	94	29-137	5	0-31	PASS	
1-Methylnaphthalene	ND	1.000	0.1000	0.07897	79	0.08532	85	34-136	8	0-29	PASS	
Acenaphthylene	ND	1.000	0.1000	0.07172	72	0.07478	75	29-131	4	0-32	PASS	
Acenaphthene	ND	1.000	0.1000	0.07304	73	0.07507	75	29-137	3	0-28	PASS	
Fluorene	ND	1.000	0.1000	0.07346	73	0.07788	78	36-132	6	0-27	PASS	
Phenanthrene	ND	1.000	0.1000	0.08062	81	0.08486	85	20-144	5	0-27	PASS	
Anthracene	ND	1.000	0.1000	0.08123	81	0.08461	85	26-134	4	0-27	PASS	
Fluoranthene	ND	1.000	0.1000	0.08556	86	0.08960	90	20-151	5	0-26	PASS	
Pyrene	ND	1.000	0.1000	0.08020	80	0.08337	83	20-150	4	0-32	PASS	
Benzo (a) Anthracene	ND	1.000	0.1000	0.08354	84	0.08669	87	24-150	4	0-24	PASS	
Chrysene	ND	1.000	0.1000	0.08213	82	0.08458	85	25-145	3	0-28	PASS	
Benzo (k) Fluoranthene	ND	1.000	0.1000	0.08425	84	0.08750	88	28-148	4	0-26	PASS	
Benzo (b) Fluoranthene	ND	1.000	0.1000	0.08427	84	0.09110	91	21-153	8	0-26	PASS	
Benzo (a) Pyrene	ND	1.000	0.1000	0.08726	87	0.09022	90	29-149	3	0-22	PASS	
Indeno (1,2,3-c,d) Pyrene	ND	1.000	0.1000	0.09109	91	0.09352	94	20-154	3	0-25	PASS	
Dibenz (a,h) Anthracene	ND	1.000	0.1000	0.09278	93	0.09727	97	20-132	5	0-26	PASS	
Benzo (g,h,i) Perylene	ND	1.000	0.1000	0.09490	95	0.09644	96	20-148	2	0-27	PASS	

Data Files:

TYPE	DATA FILE	DATA FILE PATH
MS	07mar008.rr	Z:\GCMS_EEE\GCMS_EEE_data\2017\170307\07mar008.d\
MSD	07mar009.rr	Z:\GCMS_EEE\GCMS_EEE_data\2017\170307\07mar009.d\

SURROGATE RECOVERIES FOR METHOD: EPA 8270C SIM PAHs

WORK ORDER: 17-03-0335

BATCH ID:

LCS/MB: 170306L10

MS: 170306S10

EXTRACTION: EPA 3545

REVIEWED BY: 262

D/T REVIEWED: 2017-03-07 15:10

3 CLIENT SAMPLE NUMBER : D-DU1-S-SG-06-15S

INSTRUMENT: GC/MS EEE

D/T EXTRACTED: 2017-03-06 00:00

DATA FILE: Z:\GCMS_EEE\GCMS_EEE_data\2017\170307\07mar010.d\07mar010.rr

ANALYZED BY: 907

D/T ANALYZED 2017-03-07 14:17

COMMENT:

COMPOUND	% REC	% REC CL	STATUS	QUALIFIERS
2-Fluorobiphenyl	79	13-127	PASS	
Nitrobenzene-d5	89	17-137	PASS	
p-Terphenyl-d14	94	4-160	PASS	

4 CLIENT SAMPLE NUMBER : D-DU1-S-SG-06-25S

INSTRUMENT: GC/MS EEE

D/T EXTRACTED: 2017-03-06 00:00

DATA FILE: Z:\GCMS_EEE\GCMS_EEE_data\2017\170307\07mar012.d\07mar012.rr

ANALYZED BY: 907

D/T ANALYZED 2017-03-07 14:57

COMMENT:

COMPOUND	% REC	% REC CL	STATUS	QUALIFIERS
p-Terphenyl-d14	90	4-160	PASS	
Nitrobenzene-d5	110	17-137	PASS	
2-Fluorobiphenyl	87	13-127	PASS	

7 CLIENT SAMPLE NUMBER : D-DU1-S-SG-07-15S

INSTRUMENT: GC/MS EEE

D/T EXTRACTED: 2017-03-06 00:00

DATA FILE: Z:\GCMS_EEE\GCMS_EEE_data\2017\170307\07mar013.d\07mar013.rr

ANALYZED BY: 907

D/T ANALYZED 2017-03-07 15:17

COMMENT:

COMPOUND	% REC	% REC CL	STATUS	QUALIFIERS
2-Fluorobiphenyl	72	13-127	PASS	
Nitrobenzene-d5	71	17-137	PASS	
p-Terphenyl-d14	88	4-160	PASS	

SURROGATE RECOVERIES FOR METHOD: EPA 8270C SIM PAHs

WORK ORDER: 17-03-0335

BATCH ID:

LCS/MB: 170306L10**MS:** 170306S10

EXTRACTION: EPA 3545

REVIEWED BY:

D/T REVIEWED:

8 **CLIENT SAMPLE NUMBER : D-DU1-S-SG-07-25S**

INSTRUMENT: GC/MS EEE

D/T EXTRACTED: 2017-03-06 00:00

DATA FILE: Z:\GCMS_EEE\GCMS_EEE_data\2017\170307\07mar014.d\07mar014.rr

ANALYZED BY: 907

D/T ANALYZED 2017-03-07 15:38

COMMENT:

COMPOUND	% REC	% REC CL	STATUS	QUALIFIERS
p-Terphenyl-d14	89	4-160	PASS	
2-Fluorobiphenyl	74	13-127	PASS	
Nitrobenzene-d5	82	17-137	PASS	

11 **CLIENT SAMPLE NUMBER : D-DU1-S-SG-08-15S**

INSTRUMENT: GC/MS EEE

D/T EXTRACTED: 2017-03-06 00:00

DATA FILE: Z:\GCMS_EEE\GCMS_EEE_data\2017\170307\07mar015.d\07mar015.rr

ANALYZED BY: 907

D/T ANALYZED 2017-03-07 15:58

COMMENT:

COMPOUND	% REC	% REC CL	STATUS	QUALIFIERS
2-Fluorobiphenyl	79	13-127	PASS	
Nitrobenzene-d5	88	17-137	PASS	
p-Terphenyl-d14	94	4-160	PASS	

12 **CLIENT SAMPLE NUMBER : D-DU1-S-SG-08-25S**

INSTRUMENT: GC/MS EEE

D/T EXTRACTED: 2017-03-06 00:00

DATA FILE: Z:\GCMS_EEE\GCMS_EEE_data\2017\170307\07mar016.d\07mar016.rr

ANALYZED BY: 907

D/T ANALYZED 2017-03-07 16:18

COMMENT:

COMPOUND	% REC	% REC CL	STATUS	QUALIFIERS
2-Fluorobiphenyl	74	13-127	PASS	
p-Terphenyl-d14	88	4-160	PASS	
Nitrobenzene-d5	86	17-137	PASS	

15 **CLIENT SAMPLE NUMBER : D-DU1-S-SG-09-15S**

INSTRUMENT: GC/MS EEE

D/T EXTRACTED: 2017-03-06 00:00

DATA FILE: Z:\GCMS_EEE\GCMS_EEE_data\2017\170307\07mar017.d\07mar017.rr

ANALYZED BY: 907

D/T ANALYZED 2017-03-07 16:38

COMMENT:

COMPOUND	% REC	% REC CL	STATUS	QUALIFIERS
p-Terphenyl-d14	97	4-160	PASS	
Nitrobenzene-d5	94	17-137	PASS	
2-Fluorobiphenyl	84	13-127	PASS	

SURROGATE RECOVERIES FOR METHOD: EPA 8270C SIM PAHs

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WORK ORDER: 17-03-0335
BATCH ID:
LCS/MB: 170306L10
MS: 170306S10
EXTRACTION: EPA 3545

REVIEWED BY:
D/T REVIEWED:

16 CLIENT SAMPLE NUMBER: D-DU1-S-SG-09-25S

INSTRUMENT: GC/MS EEE ANALYZED BY: 907
D/T EXTRACTED: 2017-03-06 00:00 D/T ANALYZED 2017-03-07 16:58
DATA FILE: Z:\GCMS_EEE\GCMS_EEE_data\2017\170307\07mar018.d\07mar018.rr

COMMENT:

COMPOUND	% REC	% REC CL	STATUS	QUALIFIERS
2-Fluorobiphenyl	75	13-127	PASS	
Nitrobenzene-d5	86	17-137	PASS	
p-Terphenyl-d14	89	4-160	PASS	

MB CLIENT SAMPLE NUMBER: Method Blank

INSTRUMENT: GC/MS EEE ANALYZED BY: 907
D/T EXTRACTED: 2017-03-06 00:00 D/T ANALYZED 2017-03-07 10:49
DATA FILE: Z:\GCMS_EEE\GCMS_EEE_data\2017\170307\07mar003.d\07mar003.rr

COMMENT:

COMPOUND	% REC	% REC CL	STATUS	QUALIFIERS
2-Fluorobiphenyl	81	13-127	PASS	
Nitrobenzene-d5	88	17-137	PASS	
p-Terphenyl-d14	96	4-160	PASS	

LCS CLIENT SAMPLE NUMBER: Lab Control Sample

INSTRUMENT: GC/MS EEE ANALYZED BY: 907
D/T EXTRACTED: 2017-03-06 00:00 D/T ANALYZED 2017-03-07 11:09
DATA FILE: Z:\GCMS_EEE\GCMS_EEE_data\2017\170307\07mar004.d\07mar004.rr

COMMENT:

COMPOUND	% REC	% REC CL	STATUS	QUALIFIERS
p-Terphenyl-d14	97	4-160	PASS	
Nitrobenzene-d5	92	17-137	PASS	
2-Fluorobiphenyl	84	13-127	PASS	

MS CLIENT SAMPLE NUMBER: Matrix Spike

INSTRUMENT: GC/MS EEE ANALYZED BY: 907
D/T EXTRACTED: 2017-03-06 00:00 D/T ANALYZED 2017-03-07 13:37
DATA FILE: Z:\GCMS_EEE\GCMS_EEE_data\2017\170307\07mar008.d\07mar008.rr

COMMENT:

COMPOUND	% REC	% REC CL	STATUS	QUALIFIERS
p-Terphenyl-d14	86	4-160	PASS	
Nitrobenzene-d5	79	17-137	PASS	
2-Fluorobiphenyl	74	13-127	PASS	

**SURROGATE RECOVERIES
FOR METHOD: EPA 8270C SIM PAHs**

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WORK ORDER: 17-03-0335

BATCH ID:

LCS/MB:

MS: **170306S10**

EXTRACTION: EPA 3545

REVIEWED BY: 262

D/T REVIEWED: 2017-03-07 15:10

MSD **CLIENT SAMPLE NUMBER : Matrix Spike Duplicate**

INSTRUMENT: GC/MS EEE

ANALYZED BY: 907

D/T EXTRACTED: 2017-03-06 00:00

D/T ANALYZED 2017-03-07 13:56

DATA FILE: Z:\GCMS_EEE\GCMS_EEE_data\2017\170307\07mar009.d\07mar009.rr

COMMENT:

<u>COMPOUND</u>	<u>% REC</u>	<u>% REC CL</u>	<u>STATUS</u>	<u>QUALIFIERS</u>
2-Fluorobiphenyl	78	13-127	PASS	
Nitrobenzene-d5	85	17-137	PASS	
p-Terphenyl-d14	99	4-160	PASS	

Quant Report

Target Revision 3.5

Data File: /chem/SVOA/GCMS_EEE.i/170307.b/07mar003.d Instrument ID: GCMS_EEE.i
 Injection date and time: 07-MAR-2017 10:49 Analyst ID: 907

Method used: /chem/SVOA/GCMS_EEE.i/170307.b/simpah-extra.m Sublist used: all
 Calibration date and time: 07-MAR-2017 10:52
 Date, time and analyst ID of latest file update: 07-Mar-2017 13:39 ev7p

Sample Name: MB 170306 L10 Misc Info: S101716B 10UL
 Response via Initial Calibration

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (mg/L)	DEV (Min)
=====	=====	=====	=====	=====	=====	=====
Internal Standards						
1)*1,4-Dichlorobenzene-d4	(1)	3.369	152	252996	5.000	-0.01
3)*Naphthalene-d8	(2)	4.602	136	713698	5.000	0.00
11)*Acenaphthene-d10	(3)	6.487	164	367591	5.000	0.00
17)*Phenanthrene-d10	(4)	8.084	188	1150963	5.000	0.00
31)*Perylene-d12	(6)	12.760	264	1058408	5.000	0.00
25)*Chrysene-d12	(5)	11.002	240	1128739	5.000	0.00
System Monitoring Compounds						
2)\$Nitrobenzene-d5	(2)	3.920	82	44164	0.876	0.00
SpikedAmount 1.000	Recovery =	87.613				
7)\$2-Fluorobiphenyl	(3)	5.781	172	107673	0.805	0.00
SpikedAmount 1.000	Recovery =	80.531				
23)\$p-Terphenyl-d14	(5)	9.880	244	171353	0.958	0.00
SpikedAmount 1.000	Recovery =	95.762				
Target Compounds						
						QValue
4) Naphthalene	(2)	0.000		0	N.D.	
5) 2-Methylnaphthalene	(2)	0.000		0	N.D.	
6) 1-Methylnaphthalene	(2)	0.000		0	N.D.	
10) Acenaphthylene	(3)	0.000		0	N.D.	
12) Acenaphthene	(3)	0.000		0	N.D.	
15) Fluorene	(3)	0.000		0	N.D.	
18) Phenanthrene	(4)	0.000		0	N.D.	
19) Anthracene	(4)	0.000		0	N.D.	
21) Fluoranthene	(4)	0.000		0	N.D.	
22) Pyrene	(5)	0.000		0	N.D.	
24) Benzo (a) Anthracene	(5)	0.000		0D	N.D.	
26) Chrysene	(5)	0.000		0D	N.D.	
27) Benzo (b) Fluoranthene	(6)	0.000		0	N.D.	
28) Benzo (k) Fluoranthene	(6)	0.000		0	N.D.	
30) Benzo (a) Pyrene	(6)	0.000		0	N.D.	
33) Indeno (1,2,3-c,d) Pyrene	(6)	0.000		0	N.D.	
34) Dibenz (a,h) Anthracene	(6)	0.000		0	N.D.	
35) Benzo (g,h,i) Perylene	(6)	0.000		0	N.D.	
8) Biphenyl	(3)	0.000		0	N.D.	
9) 2,6-Dimethylnaphthalene	(3)	0.000		0	N.D.	
14) 1,6,7-Trimethylnaphthalene	(3)	0.000		0	N.D.	
16) Dibenzothiophene	(3)	0.000		0	N.D.	

D = Compound was deleted.

* = Compound is an internal standard.

\$ = Compound is a surrogate standard.

Quant Report

Target Revision 3.5

Data File: /chem/SVOA/GCMS_EEE.i/170307.b/07mar003.d Instrument ID: GCMS_EEE.i
Injection date and time: 07-MAR-2017 10:49 Analyst ID: 907

Method used: /chem/SVOA/GCMS_EEE.i/170307.b/simpah-extra.m Sublist used: all
Calibration date and time: 07-MAR-2017 10:52
Date, time and analyst ID of latest file update: 07-Mar-2017 13:39 ev7p

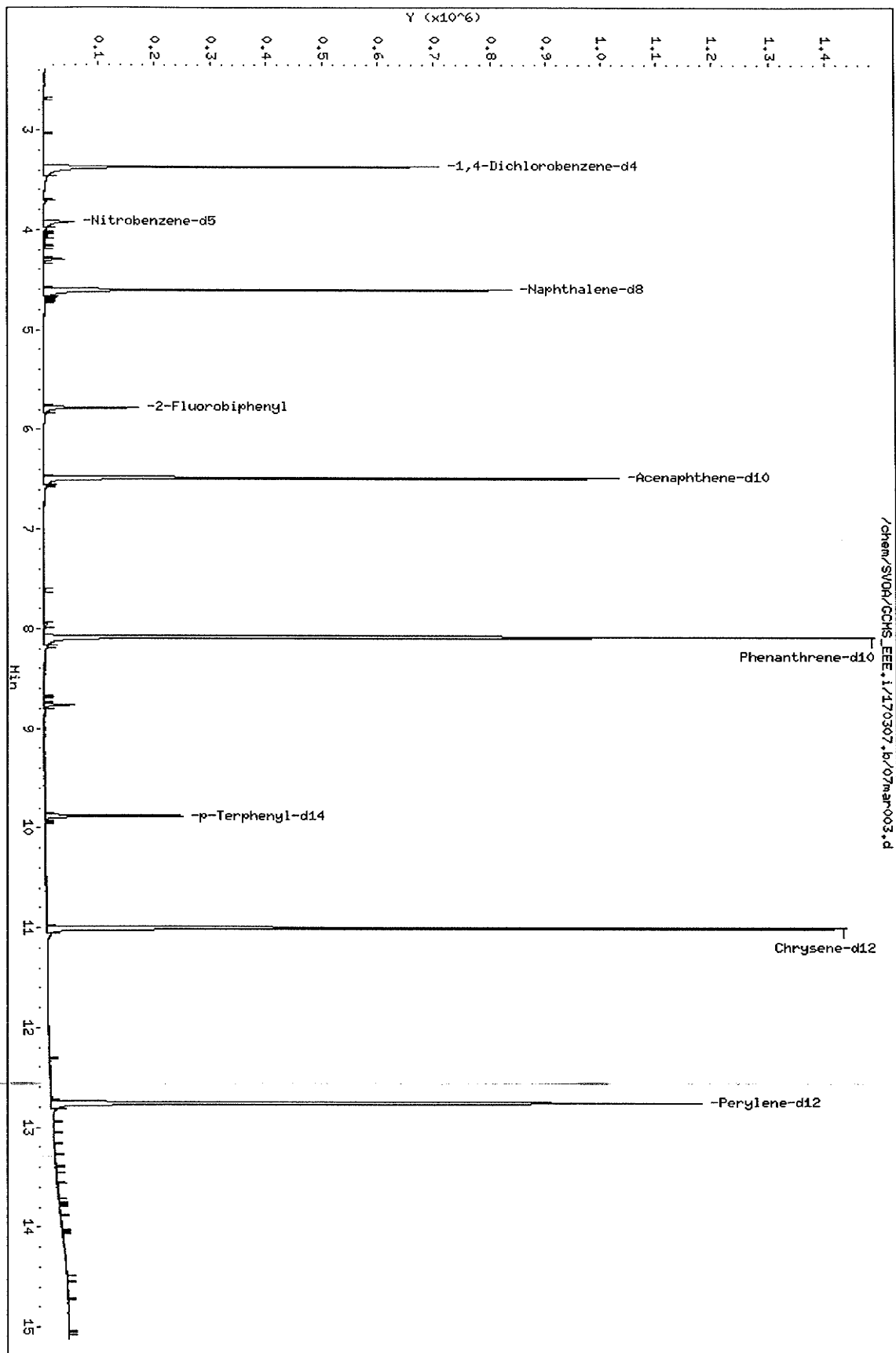
Sample Name: MB 170306 L10
Response via Initial Calibration

Misc Info: S101716B 10UL

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (mg/L)	QValue
=====	=====	=====	=====	=====	=====	=====
20) 1-Methylphenanthrene	(5)	0.000		0	N.D.	
29) Benzo (e) pyrene	(6)	0.000		0	N.D.	
32) Perylene	(6)	0.000		0D	N.D.	
13) Dibenzofuran	(3)	0.000		0	N.D.	

D = Compound was deleted.

page 2 of 2



Data File: /chem/SV0A/GCHS_EEE.i/170307.b/07mar003.d
Date: 07-MAR-2017 10:49
Client ID:
Sample Info: MB 170306 L10
Column phase: J&W DB-5MS

Instrument: GCHS_EEE.i
Operator: 907
Column diameter: 0.18

Quant Report

Target Revision 3.5

Data File: /chem/SVOA/GCMS_EEE.i/170307.b/07mar004.d Instrument ID: GCMS_EEE.i
 Injection date and time: 07-MAR-2017 11:09 Analyst ID: 907

Method used: /chem/SVOA/GCMS_EEE.i/170307.b/simpah-extra.m Sublist used: all
 Calibration date and time: 07-MAR-2017 10:52
 Date, time and analyst ID of latest file update: 07-Mar-2017 11:31 Unknown

Sample Name: LCS 170306 L10 Misc Info: S101716B 10UL
 Response via Initial Calibration

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (mg/L)	DEV(Min)
=====	=====	=====	=====	=====	=====	=====
Internal Standards						
1)*1,4-Dichlorobenzene-d4	(1)	3.368	152	232664	5.000	-0.01
3)*Naphthalene-d8	(2)	4.602	136	628644	5.000	0.00
11)*Acenaphthene-d10	(3)	6.487	164	330975	5.000	0.00
17)*Phenanthrene-d10	(4)	8.083	188	994156	5.000	0.00
31)*Perylene-d12	(6)	12.760	264	941437	5.000	0.00
25)*Chrysene-d12	(5)	11.002	240	1000851	5.000	0.00
System Monitoring Compounds						
2)\$Nitrobenzene-d5	(2)	3.915	82	40998	0.923	0.00
SpikedAmount 1.000	Recovery =			92.337		
7)\$2-Fluorobiphenyl	(3)	5.780	172	100874	0.838	0.00
SpikedAmount 1.000	Recovery =			83.792		
23)\$p-Terphenyl-d14	(5)	9.880	244	153850	0.970	0.00
SpikedAmount 1.000	Recovery =			96.967		
Target Compounds						QValue
4) Naphthalene	(2)	4.622	128	131828	0.933	99
5) 2-Methylnaphthalene	(2)	5.353	142	100165	1.081	100
6) 1-Methylnaphthalene	(2)	5.463	142	90418	1.019	98
10) Acenaphthylene	(3)	6.319	152	150485	0.853	99
12) Acenaphthene	(3)	6.520	153	89433	0.864	99
15) Fluorene	(3)	7.071	166	102705	0.874	100
18) Phenanthrene	(4)	8.107	178	204775	0.956	99
19) Anthracene	(4)	8.158	178	213607	0.977	100
21) Fluoranthene	(4)	9.416	202	268858	0.999	100
22) Pyrene	(5)	9.654	202	280640	0.930	100
24) Benzo (a) Anthracene	(5)	10.985	228	255780	0.967	100
26) Chrysene	(5)	11.030	228	236284	0.939	100
27) Benzo (b) Fluoranthene	(6)	12.300	252	247857	1.044	99
28) Benzo (k) Fluoranthene	(6)	12.328	252	267561	1.008	98
30) Benzo (a) Pyrene	(6)	12.691	252	246045	1.030	98
33) Indeno (1,2,3-c,d) Pyrene	(6)	14.003	276	268721	1.078	91
34) Dibenz (a,h) Anthracene	(6)	14.028	278	207635	1.095	98
35) Benzo (g,h,i) Perylene	(6)	14.276	276	240529	1.129	99
8) Biphenyl	(3)	5.868	154	126122	0.824	99
9) 2,6-Dimethylnaphthalene	(3)	6.030	156	88850	0.823	100
14) 1,6,7-Trimethylnaphthalene	(3)	6.950	170	88392	0.848	99
16) Dibenzothiophene	(3)	7.973	184	260124	0.806	100

* = Compound is an internal standard.

\$ = Compound is a surrogate standard.

Quant Report

Target Revision 3.5

Data File: /chem/SVOA/GCMS_EEE.i/170307.b/07mar004.d Instrument ID: GCMS_EEE.i
Injection date and time: 07-MAR-2017 11:09 Analyst ID: 907

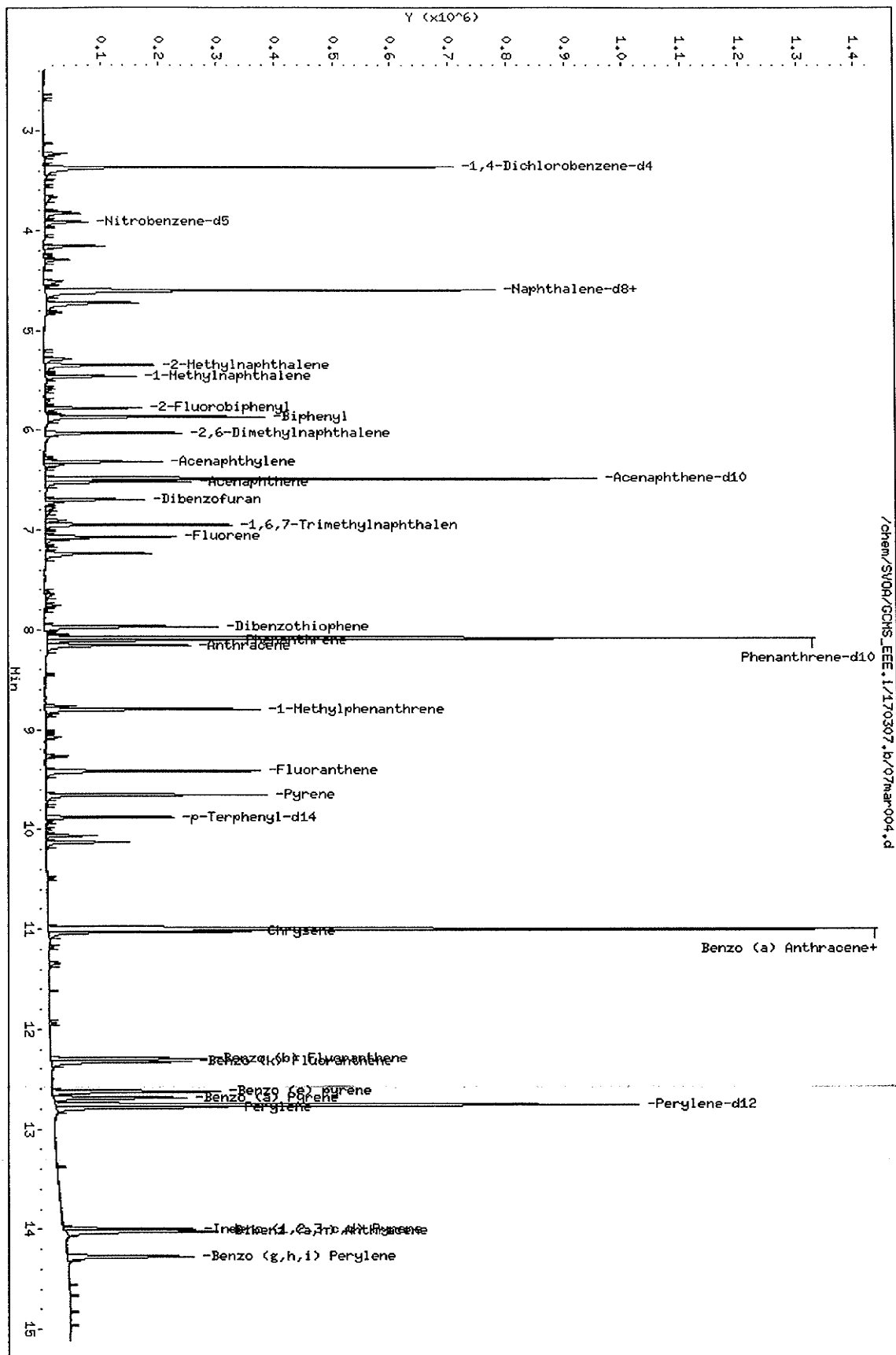
Method used: /chem/SVOA/GCMS_EEE.i/170307.b/simpah-extra.m Sublist used: all
Calibration date and time: 07-MAR-2017 10:52
Date, time and analyst ID of latest file update: 07-Mar-2017 11:31 Unknown

Sample Name: LCS 170306 L10
Response via Initial Calibration

Misc Info: S101716B 10UL

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (mg/L)	QValue
20) 1-Methylphenanthrene	(5)	8.799	192	194984	0.869	99
29) Benzo (e) pyrene	(6)	12.628	252	289234	0.966	100
32) Perylene	(6)	12.788	252	275435	0.935	99
13) Dibenzofuran	(3)	6.697	168	137373	0.886	100

page 2 of 2



Quant Report

Target Revision 3.5

Data File: /chem/SVOA/GCMS_EEE.i/170307.b/07mar008.d Instrument ID: GCMS_EEE.i
 Injection date and time: 07-MAR-2017 13:37 Analyst ID: 907

Method used: /chem/SVOA/GCMS_EEE.i/170307.b/simpah-extra.m Sublist used: all
 Calibration date and time: 07-MAR-2017 10:52
 Date, time and analyst ID of latest file update: 07-Mar-2017 13:59 Unknown

Sample Name: 17-03-0335-3 MS Misc Info: S101716B 10UL
 Response via Initial Calibration

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (mg/L)	DEV(Min)
=====	=====	=====	=====	=====	=====	=====
Internal Standards						
1)*1,4-Dichlorobenzene-d4	(1)	3.367	152	270630	5.000	0.00
3)*Naphthalene-d8	(2)	4.602	136	701008	5.000	0.00
11)*Acenaphthene-d10	(3)	6.489	164	350097	5.000	0.00
17)*Phenanthrene-d10	(4)	8.086	188	1083947	5.000	0.00
31)*Perylene-d12	(6)	12.768	264	1030523	5.000	0.00
25)*Chrysene-d12	(5)	11.008	240	1088533	5.000	0.00
System Monitoring Compounds						
2)\$Nitrobenzene-d5	(2)	3.916	82	38912	0.786	0.00
SpikedAmount 1.000	Recovery =			78.593		
7)\$2-Fluorobiphenyl	(3)	5.782	172	93974	0.738	0.00
SpikedAmount 1.000	Recovery =			73.797		
23)\$p-Terphenyl-d14	(5)	9.884	244	147639	0.856	0.00
SpikedAmount 1.000	Recovery =			85.557		
Target Compounds						
						QValue
4) Naphthalene	(2)	4.623	128	123247	0.782	100
5) 2-Methylnaphthalene	(2)	5.353	142	92357	0.893	99
6) 1-Methylnaphthalene	(2)	5.466	142	78115	0.790	98
10) Acenaphthylene	(3)	6.319	152	133792	0.717	99
12) Acenaphthene	(3)	6.521	153	79960	0.730	99
15) Fluorene	(3)	7.072	166	91333	0.735	100
18) Phenanthrene	(4)	8.111	178	188199	0.806	100
19) Anthracene	(4)	8.161	178	193618	0.812	99
21) Fluoranthene	(4)	9.421	202	251170	0.856	100
22) Pyrene	(5)	9.661	202	263144	0.802	100
24) Benzo (a) Anthracene	(5)	10.992	228	240270	0.835	99
26) Chrysene	(5)	11.035	228	224696	0.821	100
27) Benzo (b) Fluoranthene	(6)	12.308	252	219034	0.843	98
28) Benzo (k) Fluoranthene	(6)	12.338	252	244884	0.843	94
30) Benzo (a) Pyrene	(6)	12.699	252	228280	0.873	100
33) Indeno (1,2,3-c,d) Pyrene	(6)	14.011	276	248582	0.911	99
34) Dibenz (a,h) Anthracene	(6)	14.038	278	192520	0.928	98
35) Benzo (g,h,i) Perylene	(6)	14.286	276	221330	0.949	99
8) Biphenyl	(3)	5.871	154	112091	0.692	100
9) 2,6-Dimethylnaphthalene	(3)	6.030	156	79817	0.699	100
14) 1,6,7-Trimethylnaphthalene	(3)	6.952	170	77431	0.703	99
16) Dibenzothiophene	(3)	7.974	184	238387	0.698	100

* = Compound is an internal standard.

\$ = Compound is a surrogate standard.

Quant Report

Target Revision 3.5

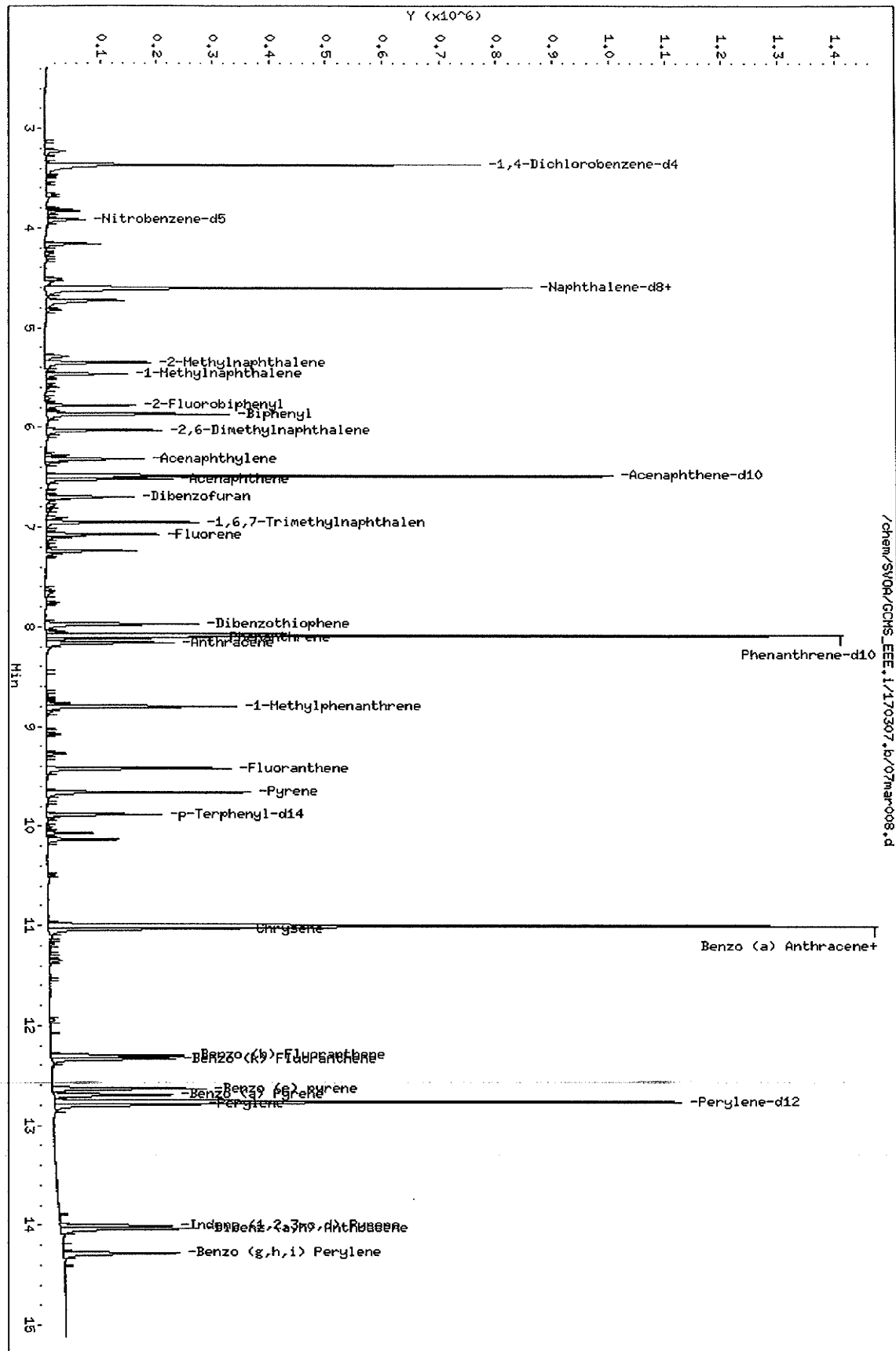
Data File: /chem/SVOA/GCMS_EEE.i/170307.b/07mar008.d Instrument ID: GCMS_EEE.i
Injection date and time: 07-MAR-2017 13:37 Analyst ID: 907

Method used: /chem/SVOA/GCMS_EEE.i/170307.b/simpah-extra.m Sublist used: all
Calibration date and time: 07-MAR-2017 10:52
Date, time and analyst ID of latest file update: 07-Mar-2017 13:59 Unknown

Sample Name: 17-03-0335-3 MS Misc Info: S101716B 10UL
Response via Initial Calibration

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (mg/L)	QValue
20) 1-Methylphenanthrene	(5)	8.802	192	181783	0.745	100
29) Benzo (e) pyrene	(6)	12.636	252	265648	0.810	100
32) Perylene	(6)	12.798	252	257412	0.798	100
13) Dibenzofuran	(3)	6.700	168	122914	0.750	99

page 2 of 2



Data File: /chem/SV04/GCHS_EEE.i/170307.b/07mar008.d
 Date : 07-Mar-2017 13:37
 Client ID:
 Sample Info: 17-03-0335-3 HS
 Column phase: 3M DB-6MS

Instrument: GCHS_EEE.i
 Operator: 907
 Column diameter: 0.18

Quant Report

Target Revision 3.5

Data File: /chem/SVOA/GCMS_EEE.i/170307.b/07mar009.d Instrument ID: GCMS_EEE.i
 Injection date and time: 07-MAR-2017 13:56 Analyst ID: 907

Method used: /chem/SVOA/GCMS_EEE.i/170307.b/simpah-extra.m Sublist used: all
 Calibration date and time: 07-MAR-2017 10:52
 Date, time and analyst ID of latest file update: 07-Mar-2017 14:18 Unknown

Sample Name: 17-03-0335-3 MSD Misc Info: S101716B 10UL
 Response via Initial Calibration

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (mg/L)	DEV (Min)
=====	=====	=====	=====	=====	=====	=====
Internal Standards						
1) *1,4-Dichlorobenzene-d4	(1)	3.367	152	247706	5.000	0.00
3) *Naphthalene-d8	(2)	4.602	136	686330	5.000	0.00
11) *Acenaphthene-d10	(3)	6.487	164	351876	5.000	0.00
17) *Phenanthrene-d10	(4)	8.084	188	1085770	5.000	0.00
31) *Perylene-d12	(6)	12.762	264	1034654	5.000	0.00
25) *Chrysene-d12	(5)	11.004	240	1086707	5.000	0.00
System Monitoring Compounds						
2) \$Nitrobenzene-d5	(2)	3.917	82	41087	0.848	0.00
SpikedAmount 1.000	Recovery =	84.759				
7) \$2-Fluorobiphenyl	(3)	5.781	172	100011	0.781	0.00
SpikedAmount 1.000	Recovery =	78.141				
23) \$p-Terphenyl-d14	(5)	9.880	244	169748	0.985	0.00
SpikedAmount 1.000	Recovery =	98.535				
Target Compounds						
						QValue
4) Naphthalene	(2)	4.622	128	122376	0.793	100
5) 2-Methylnaphthalene	(2)	5.353	142	94740	0.936	99
6) 1-Methylnaphthalene	(2)	5.465	142	82627	0.853	99
10) Acenaphthylene	(3)	6.319	152	140202	0.748	100
12) Acenaphthene	(3)	6.520	153	82592	0.751	100
15) Fluorene	(3)	7.071	166	97327	0.779	100
18) Phenanthrene	(4)	8.107	178	198451	0.849	99
19) Anthracene	(4)	8.160	178	202004	0.846	99
21) Fluoranthene	(4)	9.416	202	263462	0.896	99
22) Pyrene	(5)	9.655	202	273107	0.834	99
24) Benzo (a) Anthracene	(5)	10.986	228	248919	0.867	100
26) Chrysene	(5)	11.030	228	231010	0.846	100
27) Benzo (b) Fluoranthene	(6)	12.302	252	237740	0.911	99
28) Benzo (k) Fluoranthene	(6)	12.330	252	255342	0.875	99
30) Benzo (a) Pyrene	(6)	12.692	252	236960	0.902	98
33) Indeno (1,2,3-c,d) Pyrene	(6)	14.004	276	256242	0.935	87
34) Dibenz (a,h) Anthracene	(6)	14.030	278	202655	0.973	96
35) Benzo (g,h,i) Perylene	(6)	14.278	276	225804	0.964	99
8) Biphenyl	(3)	5.870	154	116792	0.718	100
9) 2,6-Dimethylnaphthalene	(3)	6.030	156	82119	0.716	99
14) 1,6,7-Trimethylnaphthalene	(3)	6.951	170	82686	0.746	99
16) Dibenzothiophene	(3)	7.973	184	249149	0.726	100

* = Compound is an internal standard.

\$ = Compound is a surrogate standard.

Quant Report

Target Revision 3.5

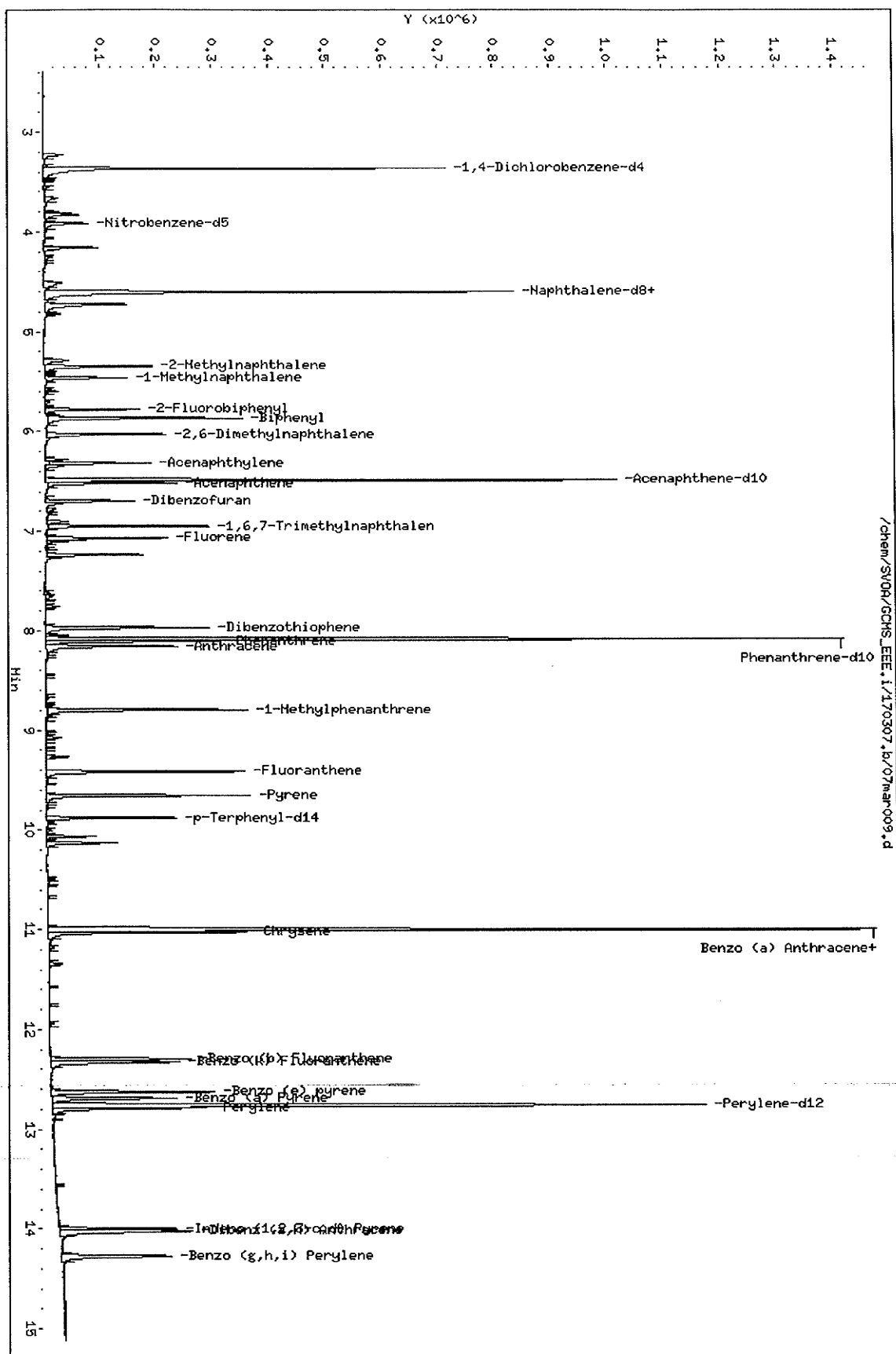
Data File: /chem/SVOA/GCMS_EEE.i/170307.b/07mar009.d Instrument ID: GCMS_EEE.i
Injection date and time: 07-MAR-2017 13:56 Analyst ID: 907

Method used: /chem/SVOA/GCMS_EEE.i/170307.b/simpah-extra.m Sublist used: all
Calibration date and time: 07-MAR-2017 10:52
Date, time and analyst ID of latest file update: 07-Mar-2017 14:18 Unknown

Sample Name: 17-03-0335-3 MSD Misc Info: S101716B 10UL
Response via Initial Calibration

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (mg/L)	QValue
=====	=====	=====	=====	=====	=====	=====
20) 1-Methylphenanthrene	(5)	8.799	192	189053	0.776	99
29) Benzo (e) pyrene	(6)	12.630	252	275234	0.836	100
32) Perylene	(6)	12.790	252	265330	0.820	99
13) Dibenzofuran	(3)	6.698	168	126743	0.769	98

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Data File: /chem/SV04/GCHS_EEE.i/170307.b/07mar009.d
 Date: 07-MAR-2017 13:56
 Client ID:
 Sample Info: 17-03-0335-3 MSD
 Column phase: J&W DB-5MS

Instrument: GCHS_EEE.i
 Operator: 907
 Column diameter: 0.18

EPA METHOD 8270C PAHSIM

Continuing Calibration

CCV ASSOCIATION SUMMARY FOR METHOD: EPA 8270C SIM PAHs

BATCH ID: 170307A015
INSTRUMENT: GC/MS EEE

ANALYZED BY: 907

WORK ORDER: 099-06-009
MATRIX: Water

REVIEWED BY: 262
D/T REVIEWED: 2017-03-07 15:10

<u>CEL SAMPLE #</u>	<u>CLIENT SAMPLE ID</u>	<u>D/T ANALYZED</u>	<u>DATA FILE</u>
4971	Daily Calibration	2017-03-07 10:28	Z:\GCMS_EEE\GCMS_EEE_data\2017\170307\07mar002.d\07mar002.r

WORK ORDER: 17-03-0335
MATRIX: Soil

REVIEWED BY: 262
D/T REVIEWED: 2017-03-07 15:10

<u>CEL SAMPLE #</u>	<u>CLIENT SAMPLE ID</u>	<u>D/T ANALYZED</u>	<u>DATA FILE</u>
3	D-DU1-S-SG-06-15S	2017-03-07 14:17	Z:\GCMS_EEE\GCMS_EEE_data\2017\170307\07mar010.d\07mar010.r
3	D-DU1-S-SG-06-15S	2017-03-07 13:37	Z:\GCMS_EEE\GCMS_EEE_data\2017\170307\07mar008.d\07mar008.r
3	D-DU1-S-SG-06-15S	2017-03-07 13:56	Z:\GCMS_EEE\GCMS_EEE_data\2017\170307\07mar009.d\07mar009.r
4	D-DU1-S-SG-06-25S	2017-03-07 14:57	Z:\GCMS_EEE\GCMS_EEE_data\2017\170307\07mar012.d\07mar012.r
7	D-DU1-S-SG-07-15S	2017-03-07 15:17	Z:\GCMS_EEE\GCMS_EEE_data\2017\170307\07mar013.d\07mar013.r
8	D-DU1-S-SG-07-25S	2017-03-07 15:38	Z:\GCMS_EEE\GCMS_EEE_data\2017\170307\07mar014.d\07mar014.r
11	D-DU1-S-SG-08-15S	2017-03-07 15:58	Z:\GCMS_EEE\GCMS_EEE_data\2017\170307\07mar015.d\07mar015.r
12	D-DU1-S-SG-08-25S	2017-03-07 16:18	Z:\GCMS_EEE\GCMS_EEE_data\2017\170307\07mar016.d\07mar016.r
15	D-DU1-S-SG-09-15S	2017-03-07 16:38	Z:\GCMS_EEE\GCMS_EEE_data\2017\170307\07mar017.d\07mar017.r
16	D-DU1-S-SG-09-25S	2017-03-07 16:58	Z:\GCMS_EEE\GCMS_EEE_data\2017\170307\07mar018.d\07mar018.r

CONTINUING CALIBRATION VERIFICATION QUALITY CONTROL SHEET

FOR METHOD: EPA 8270C SIM PAHS

CCV WORK ORDER: 099-06-009-4971-4741
INSTRUMENT: GC/MS EEE
BATCH ID: 1702271004
INITIAL: 170307A015
CCV:

ANALYZED BY: 907
D/T ANALYZED:
INITIAL: 2017-02-27 13:53
CCV: 2017-03-07 10:28
REVIEWED BY: 262
D/T REVIEWED: 2017-03-07 15:10

Data File: Z:\GCMS_EEE\GCMS_EEE_data\2017\170307\07mar002.d\07mar002.rr

COMPOUND	TYPE	CALIB MODEL	MIN RF	AVG RF	CCV RF	AMOUNT	CCV CONC	CCV %D	CCV %D CL	STATUS
Naphthalene	Avg Resp		0.00	1.124	1.175			-5	0-20	PASS
2-Methylnaphthalene	Avg Resp		0.00	0.737	0.808			-10	0-20	PASS
1-Methylnaphthalene	Avg Resp		0.00	0.706	0.772			-9	0-20	PASS
Acenaphthylene	Avg Resp		0.00	2.664	2.895			-9	0-20	PASS
Acenaphthene	C Avg Resp		0.00	1.563	1.654			-6	0-20	PASS
Fluorene	Avg Resp		0.00	1.776	1.960			-10	0-20	PASS
Phenanthrene	Avg Resp		0.00	1.077	1.128			-5	0-20	PASS
Anthracene	Avg Resp		0.00	1.099	1.076			2	0-20	PASS
Fluoranthene	C Avg Resp		0.00	1.354	1.532			-13	0-20	PASS
Pyrene	Avg Resp		0.00	1.507	1.601			-6	0-20	PASS
Benzo (a) Anthracene	Avg Resp		0.00	1.321	1.405			-6	0-20	PASS
Chrysene	Avg Resp		0.00	1.257	1.350			-7	0-20	PASS
Benzo (k) Fluoranthene	Avg Resp		0.00	1.410	1.590			-13	0-20	PASS
Benzo (b) Fluoranthene	Avg Resp		0.00	1.261	1.430			-13	0-20	PASS
Benzo (a) Pyrene	C Avg Resp		0.00	1.269	1.374			-8	0-20	PASS
Indeno (1,2,3-c,d) Pyrene	Avg Resp		0.00	1.324	1.584			-20	0-20	PASS
Dibenz (a,h) Anthracene	Avg Resp		0.00	1.007	1.166			-16	0-20	PASS
Benzo (g,h,i) Perylene	Avg Resp		0.00	1.132	1.321			-17	0-20	PASS

MIN RF: Method Specified Minimum Response Factor

INTERNAL STANDARD COMPOUNDS AREA REPORT Page 442 of 471

FOR METHOD: EPA 8270C SIM PAHs

ICAL BATCH ID: 170227I004

CCV BATCH ID: 170307A015

ICAL MIDPOINT

SAMPLE ID: 099-06-009-4954

D/T ANALYZED: 2017-02-27 13:12

DATA FILE: Z:\GCMS_EEE\GCMS_EEE_data\2017\170227\27feb009.d\27feb009.rr

COMPOUND	AREA	RETENTION TIME
1,4-Dichlorobenzene-d4	230068	3.42
Naphthalene-d8	612745	4.66
Acenaphthene-d10	273032	6.55
Phenanthrene-d10	925068	8.14
Chrysene-d12	878502	11.07
Perylene-d12	785261	12.84

ICV

SAMPLE ID 099-06-009-4954

D/T ANALYZED: 2017-02-27 14:13

DATA FILE: Z:\GCMS_EEE\GCMS_EEE_data\2017\170227\27feb012.d\27feb012.rr

COMPOUND	AREA	LOWER AREA LIMIT	UPPER AREA LIMIT	RETENTION TIME	STATUS
1,4-Dichlorobenzene-d4	189620	115034	460136	3.42	PASS
Naphthalene-d8	508161	306372	1225490	4.66	PASS
Acenaphthene-d10	231974	136516	546064	6.55	PASS
Phenanthrene-d10	785443	462534	1850136	8.14	PASS
Chrysene-d12	751334	439251	1757004	11.07	PASS
Perylene-d12	689322	392630	1570522	12.84	PASS

CCV

SAMPLE ID 099-06-009-4971

D/T ANALYZED: 2017-03-07 10:28

DATA FILE: Z:\GCMS_EEE\GCMS_EEE_data\2017\170307\07mar002.d\07mar002.rr

COMPOUND	AREA	LOWER AREA LIMIT	UPPER AREA LIMIT	RETENTION TIME	STATUS
1,4-Dichlorobenzene-d4	234582	115034	460136	3.36	PASS
Naphthalene-d8	653040	306372	1225490	4.60	PASS
Acenaphthene-d10	297083	136516	546064	6.49	PASS
Phenanthrene-d10	980515	462534	1850136	8.09	PASS
Chrysene-d12	974576	439251	1757004	11.00	PASS
Perylene-d12	911775	392630	1570522	12.76	PASS

MB

SAMPLE ID 099-14-035-377

D/T ANALYZED: 2017-03-07 10:49

DATA FILE: Z:\GCMS_EEE\GCMS_EEE_data\2017\170307\07mar003.d\07mar003.rr

COMPOUND	AREA	LOWER AREA LIMIT	UPPER AREA LIMIT	RETENTION TIME	STATUS
1,4-Dichlorobenzene-d4	252996	117291	469164	3.37	PASS
Naphthalene-d8	713698	326520	1306080	4.60	PASS
Acenaphthene-d10	367591	148542	594166	6.49	PASS
Phenanthrene-d10	1150963	490258	1961030	8.08	PASS
Chrysene-d12	1128739	487288	1949152	11.00	PASS
Perylene-d12	1058408	455888	1823550	12.76	PASS

LCS**SAMPLE ID** 099-14-035-377**D/T ANALYZED:** 2017-03-07 11:09**DATA FILE:** Z:\GCMS_EEE\GCMS_EEE_data\2017\170307\07mar004.d\07mar004.rr

<u>COMPOUND</u>	<u>AREA</u>	<u>LOWER AREA LIMIT</u>	<u>UPPER AREA LIMIT</u>	<u>RETENTION TIME</u>	<u>STATUS</u>
1,4-Dichlorobenzene-d4	232664	117291	469164	3.37	PASS
Naphthalene-d8	628644	326520	1306080	4.60	PASS
Acenaphthene-d10	330975	148542	594166	6.49	PASS
Phenanthrene-d10	994156	490258	1961030	8.08	PASS
Chrysene-d12	1000851	487288	1949152	11.00	PASS
Perylene-d12	941437	455888	1823550	12.76	PASS

MS**SAMPLE ID** 17-03-0335-3**D/T ANALYZED:** 2017-03-07 13:37**DATA FILE:** Z:\GCMS_EEE\GCMS_EEE_data\2017\170307\07mar008.d\07mar008.rr

<u>COMPOUND</u>	<u>AREA</u>	<u>LOWER AREA LIMIT</u>	<u>UPPER AREA LIMIT</u>	<u>RETENTION TIME</u>	<u>STATUS</u>
1,4-Dichlorobenzene-d4	270630	117291	469164	3.37	PASS
Naphthalene-d8	701008	326520	1306080	4.60	PASS
Acenaphthene-d10	350097	148542	594166	6.49	PASS
Phenanthrene-d10	1083947	490258	1961030	8.09	PASS
Chrysene-d12	1088533	487288	1949152	11.01	PASS
Perylene-d12	1030523	455888	1823550	12.77	PASS

MSD**SAMPLE ID** 17-03-0335-3**D/T ANALYZED:** 2017-03-07 13:56**DATA FILE:** Z:\GCMS_EEE\GCMS_EEE_data\2017\170307\07mar009.d\07mar009.rr

<u>COMPOUND</u>	<u>AREA</u>	<u>LOWER AREA LIMIT</u>	<u>UPPER AREA LIMIT</u>	<u>RETENTION TIME</u>	<u>STATUS</u>
1,4-Dichlorobenzene-d4	247706	117291	469164	3.37	PASS
Naphthalene-d8	686330	326520	1306080	4.60	PASS
Acenaphthene-d10	351876	148542	594166	6.49	PASS
Phenanthrene-d10	1085770	490258	1961030	8.08	PASS
Chrysene-d12	1086707	487288	1949152	11.00	PASS
Perylene-d12	1034654	455888	1823550	12.76	PASS

CS**SAMPLE ID** 17-03-0335-3**D/T ANALYZED:** 2017-03-07 14:17**DATA FILE:** Z:\GCMS_EEE\GCMS_EEE_data\2017\170307\07mar010.d\07mar010.rr

<u>COMPOUND</u>	<u>AREA</u>	<u>LOWER AREA LIMIT</u>	<u>UPPER AREA LIMIT</u>	<u>RETENTION TIME</u>	<u>STATUS</u>
1,4-Dichlorobenzene-d4	249188	117291	469164	3.37	PASS
Naphthalene-d8	703775	326520	1306080	4.60	PASS
Acenaphthene-d10	360476	148542	594166	6.49	PASS
Phenanthrene-d10	1136303	490258	1961030	8.08	PASS
Chrysene-d12	1134176	487288	1949152	11.00	PASS
Perylene-d12	1051686	455888	1823550	12.76	PASS

CS**SAMPLE ID** 17-03-0335-4**D/T ANALYZED:** 2017-03-07 14:57**DATA FILE:** Z:\GCMS_EEE\GCMS_EEE_data\2017\170307\07mar012.d\07mar012.rr

<u>COMPOUND</u>	<u>AREA</u>	<u>LOWER AREA LIMIT</u>	<u>UPPER AREA LIMIT</u>	<u>RETENTION TIME</u>	<u>STATUS</u>
1,4-Dichlorobenzene-d4	261952	117291	469164	3.37	PASS
Naphthalene-d8	734379	326520	1306080	4.60	PASS
Acenaphthene-d10	371979	148542	594166	6.49	PASS
Phenanthrene-d10	1168375	490258	1961030	8.08	PASS
Chrysene-d12	1148608	487288	1949152	11.00	PASS
Perylene-d12	1078841	455888	1823550	12.76	PASS

CS**SAMPLE ID** 17-03-0335-7**D/T ANALYZED:** 2017-03-07 15:17**DATA FILE:** Z:\GCMS_EEE\GCMS_EEE_data\2017\170307\07mar013.d\07mar013.rr

<u>COMPOUND</u>	<u>AREA</u>	<u>LOWER AREA LIMIT</u>	<u>UPPER AREA LIMIT</u>	<u>RETENTION TIME</u>	<u>STATUS</u>
1,4-Dichlorobenzene-d4	252242	117291	469164	3.37	PASS
Naphthalene-d8	733967	326520	1306080	4.60	PASS
Acenaphthene-d10	368673	148542	594166	6.49	PASS
Phenanthrene-d10	1174153	490258	1961030	8.08	PASS
Chrysene-d12	1164469	487288	1949152	11.00	PASS
Perylene-d12	1077413	455888	1823550	12.76	PASS

CS**SAMPLE ID** 17-03-0335-8**D/T ANALYZED:** 2017-03-07 15:38**DATA FILE:** Z:\GCMS_EEE\GCMS_EEE_data\2017\170307\07mar014.d\07mar014.rr

<u>COMPOUND</u>	<u>AREA</u>	<u>LOWER AREA LIMIT</u>	<u>UPPER AREA LIMIT</u>	<u>RETENTION TIME</u>	<u>STATUS</u>
1,4-Dichlorobenzene-d4	265102	117291	469164	3.37	PASS
Naphthalene-d8	733278	326520	1306080	4.60	PASS
Acenaphthene-d10	376678	148542	594166	6.49	PASS
Phenanthrene-d10	1191863	490258	1961030	8.08	PASS
Chrysene-d12	1171930	487288	1949152	11.00	PASS
Perylene-d12	1100252	455888	1823550	12.76	PASS

CS**SAMPLE ID** 17-03-0335-11**D/T ANALYZED:** 2017-03-07 15:58**DATA FILE:** Z:\GCMS_EEE\GCMS_EEE_data\2017\170307\07mar015.d\07mar015.rr

<u>COMPOUND</u>	<u>AREA</u>	<u>LOWER AREA LIMIT</u>	<u>UPPER AREA LIMIT</u>	<u>RETENTION TIME</u>	<u>STATUS</u>
1,4-Dichlorobenzene-d4	262469	117291	469164	3.37	PASS
Naphthalene-d8	733592	326520	1306080	4.60	PASS
Acenaphthene-d10	378043	148542	594166	6.49	PASS
Phenanthrene-d10	1194212	490258	1961030	8.08	PASS
Chrysene-d12	1182795	487288	1949152	11.00	PASS
Perylene-d12	1097956	455888	1823550	12.76	PASS

CS

SAMPLE ID 17-03-0335-12

D/T ANALYZED: 2017-03-07 16:18

DATA FILE: Z:\GCMS_EEE\GCMS_EEE_data\2017\170307\07mar016.d\07mar016.rr

COMPOUND	AREA	LOWER AREA LIMIT	UPPER AREA LIMIT	RETENTION TIME	STATUS
1,4-Dichlorobenzene-d4	258888	117291	469164	3.37	PASS
Naphthalene-d8	717054	326520	1306080	4.60	PASS
Acenaphthene-d10	367685	148542	594166	6.49	PASS
Phenanthrene-d10	1165860	490258	1961030	8.08	PASS
Chrysene-d12	1151980	487288	1949152	11.00	PASS
Perylene-d12	1051029	455888	1823550	12.76	PASS

CS

SAMPLE ID 17-03-0335-15

D/T ANALYZED: 2017-03-07 16:38

DATA FILE: Z:\GCMS_EEE\GCMS_EEE_data\2017\170307\07mar017.d\07mar017.rr

COMPOUND	AREA	LOWER AREA LIMIT	UPPER AREA LIMIT	RETENTION TIME	STATUS
1,4-Dichlorobenzene-d4	247744	117291	469164	3.37	PASS
Naphthalene-d8	692393	326520	1306080	4.60	PASS
Acenaphthene-d10	352551	148542	594166	6.49	PASS
Phenanthrene-d10	1132380	490258	1961030	8.08	PASS
Chrysene-d12	1106452	487288	1949152	11.00	PASS
Perylene-d12	1009337	455888	1823550	12.76	PASS

CS

SAMPLE ID 17-03-0335-16

D/T ANALYZED: 2017-03-07 16:58

DATA FILE: Z:\GCMS_EEE\GCMS_EEE_data\2017\170307\07mar018.d\07mar018.rr

COMPOUND	AREA	LOWER AREA LIMIT	UPPER AREA LIMIT	RETENTION TIME	STATUS
1,4-Dichlorobenzene-d4	249833	117291	469164	3.37	PASS
Naphthalene-d8	714826	326520	1306080	4.60	PASS
Acenaphthene-d10	353105	148542	594166	6.49	PASS
Phenanthrene-d10	1151499	490258	1961030	8.08	PASS
Chrysene-d12	1124155	487288	1949152	11.00	PASS
Perylene-d12	1040328	455888	1823550	12.76	PASS

Notes:
For all samples including QC, all internal standard area responses must be within 50% to 200% of the mean area response in the initial calibration.

Data File: /chem/SVOA/GCMS_EEE.i/170307.b/07mar002.d
 Report Date: 03/07/2017 14:42

Eurofins CalScience
 Calibration Verification Report

Instrument ID: GCMS_EEE.i Injection Date and Time: 07-MAR-2017 10:28
 Sample Name: CCV S010317F 1PPM Initial Calibration Date(s): 03-JAN-2017 27-FEB-2017
 Sublist used: all.sub Initial Calibration Time(s): 11:59 13:53
 Method used: /chem/SVOA/GCMS_EEE.i/170307.b/simpah-extra.m

Target Compounds	ICAL RRF or Amount	ICV RRF	Min. RRF	%D / %Drift	Max%D /Drift	Curve Type
=====						
Naphthalene	1.124	1.175	0.00	-5	20	Averaged
2-Methylnaphthalene	0.737	0.808	0.00	-10	20	Averaged
1-Methylnaphthalene	0.706	0.772	0.00	-9	20	Averaged
Acenaphthylene	2.664	2.895	0.00	-9	20	Averaged
Acenaphthene	1.563	1.654	0.00	-6	20	Averaged
Fluorene	1.776	1.960	0.00	-10	20	Averaged
Phenanthrene	1.077	1.128	0.00	-5	20	Averaged
Anthracene	1.099	1.076	0.00	2	20	Averaged
Fluoranthene	1.354	1.532	0.00	-13	20	Averaged
Pyrene	1.507	1.601	0.00	-6	20	Averaged
Benzo (a) Anthracene	1.321	1.405	0.00	-6	20	Averaged
Chrysene	1.257	1.350	0.00	-7	20	Averaged
Benzo (b) Fluoranthene	1.261	1.430	0.00	-13	20	Averaged
Benzo (k) Fluoranthene	1.410	1.590	0.00	-13	20	Averaged
Benzo (a) Pyrene	1.269	1.374	0.00	-8	20	Averaged
Indeno (1,2,3-c,d) Pyrene	1.324	1.584	0.00	-20	20	Averaged
Dibenz (a,h) Anthracene	1.007	1.166	0.00	-16	20	Averaged
Benzo (g,h,i) Perylene	1.132	1.321	0.00	-17	20	Averaged
Biphenyl	2.312	2.516	0.00	-9	20	Averaged
2,6-Dimethylnaphthalene	1.630	1.780	0.00	-9	20	Averaged
1,6,7-Trimethylnaphthalene	1.574	1.787	0.00	-14	20	Averaged
Dibenzothiophene	4.877	5.117	0.00	-5	20	Averaged
1-Methylphenanthrene	1.121	1.180	0.00	-5	20	Averaged
Benzo (e) pyrene	1.590	1.756	0.00	-10	20	Averaged
Perylene	1.564	1.649	0.00	-5	20	Averaged
Dibenzofuran	2.341	2.581	0.00	-10	20	Averaged
=====						
Surrogate Standards	ICAL RRF or Amount	ICV RRF	Min. RRF	%D / %Drift	Max%D /Drift	Curve Type
=====						
Nitrobenzene-d5	0.353	0.357	0.00	-1	20	Averaged
2-Fluorobiphenyl	1.819	1.984	0.00	-9	20	Averaged
p-Terphenyl-d14	0.793	0.924	0.00	-17	20	Averaged

page 1

Quant Report

Target Revision 3.5

Data File: /chem/SVOA/GCMS_EEE.i/170307.b/07mar002.d Instrument ID: GCMS_EEE.i
 Injection date and time: 07-MAR-2017 10:28 Analyst ID: 907

Method used: /chem/SVOA/GCMS_EEE.i/170307.b/simpah-extra.m Sublist used: all
 Calibration date and time: 07-MAR-2017 10:52
 Date, time and analyst ID of latest file update: 07-Mar-2017 10:52 ev7p

Sample Name: CCV S010317F 1PPM Misc Info: 170307A015
 Response via Initial Calibration

Compounds	I.S.	RT	QIon	Area	On-Column	DEV (Min)
	Ref.				Amount (mg/L)	
=====						
Internal Standards						
1)*1,4-Dichlorobenzene-d4	(1)	3.363	152	234582	5.000	0.00
3)*Naphthalene-d8	(2)	4.604	136	653040	5.000	0.00
11)*Acenaphthene-d10	(3)	6.487	164	297083	5.000	0.00
17)*Phenanthrene-d10	(4)	8.085	188	980515	5.000	0.00
31)*Perylene-d12	(6)	12.763	264	911775	5.000	0.00
25)*Chrysene-d12	(5)	11.004	240	974576	5.000	0.00
System Monitoring Compounds						
2)\$Nitrobenzene-d5	(2)	3.918	82	46639	1.011	0.00
SpikedAmount 1.000	Recovery =	0.000				
7)\$2-Fluorobiphenyl	(3)	5.782	172	117894	1.091	0.00
SpikedAmount 1.000	Recovery =	0.000				
23)\$p-Terphenyl-d14	(5)	9.881	244	180039	1.165	0.00
SpikedAmount 1.000	Recovery =	0.000				
Target Compounds						
4) Naphthalene	(2)	4.623	128	153432	1.046	100
5) 2-Methylnaphthalene	(2)	5.353	142	105507	1.096	100
6) 1-Methylnaphthalene	(2)	5.468	142	100803	1.094	100
10) Acenaphthylene	(3)	6.320	152	172040	1.087	100
12) Acenaphthene	(3)	6.521	153	98304	1.058	100
15) Fluorene	(3)	7.072	166	116474	1.104	100
18) Phenanthrene	(4)	8.108	178	221275	1.048	100
19) Anthracene	(4)	8.160	178	210975	0.978	100
21) Fluoranthene	(4)	9.419	202	300462	1.132	100
22) Pyrene	(5)	9.656	202	312138	1.063	100
24) Benzo (a) Anthracene	(5)	10.987	228	273839	1.063	100
26) Chrysene	(5)	11.032	228	263228	1.075	100
27) Benzo (b) Fluoranthene	(6)	12.302	252	260683	1.134	100
28) Benzo (k) Fluoranthene	(6)	12.331	252	289926	1.127	100
30) Benzo (a) Pyrene	(6)	12.692	252	250487	1.082	100
33) Indeno (1,2,3-c,d) Pyrene	(6)	14.002	276	288885	1.196	100
34) Dibenz (a,h) Anthracene	(6)	14.030	278	212633	1.158	100
35) Benzo (g,h,i) Perylene	(6)	14.280	276	240960	1.168	100
8) Biphenyl	(3)	5.870	154	149465	1.088	100
9) 2,6-Dimethylnaphthalene	(3)	6.031	156	105781	1.092	100
14) 1,6,7-Trimethylnaphthalene	(3)	6.952	170	106181	1.135	100
16) Dibenzothiophene	(3)	7.973	184	304027	1.049	100

* = Compound is an internal standard.

\$ = Compound is a surrogate standard.

Quant Report

Target Revision 3.5

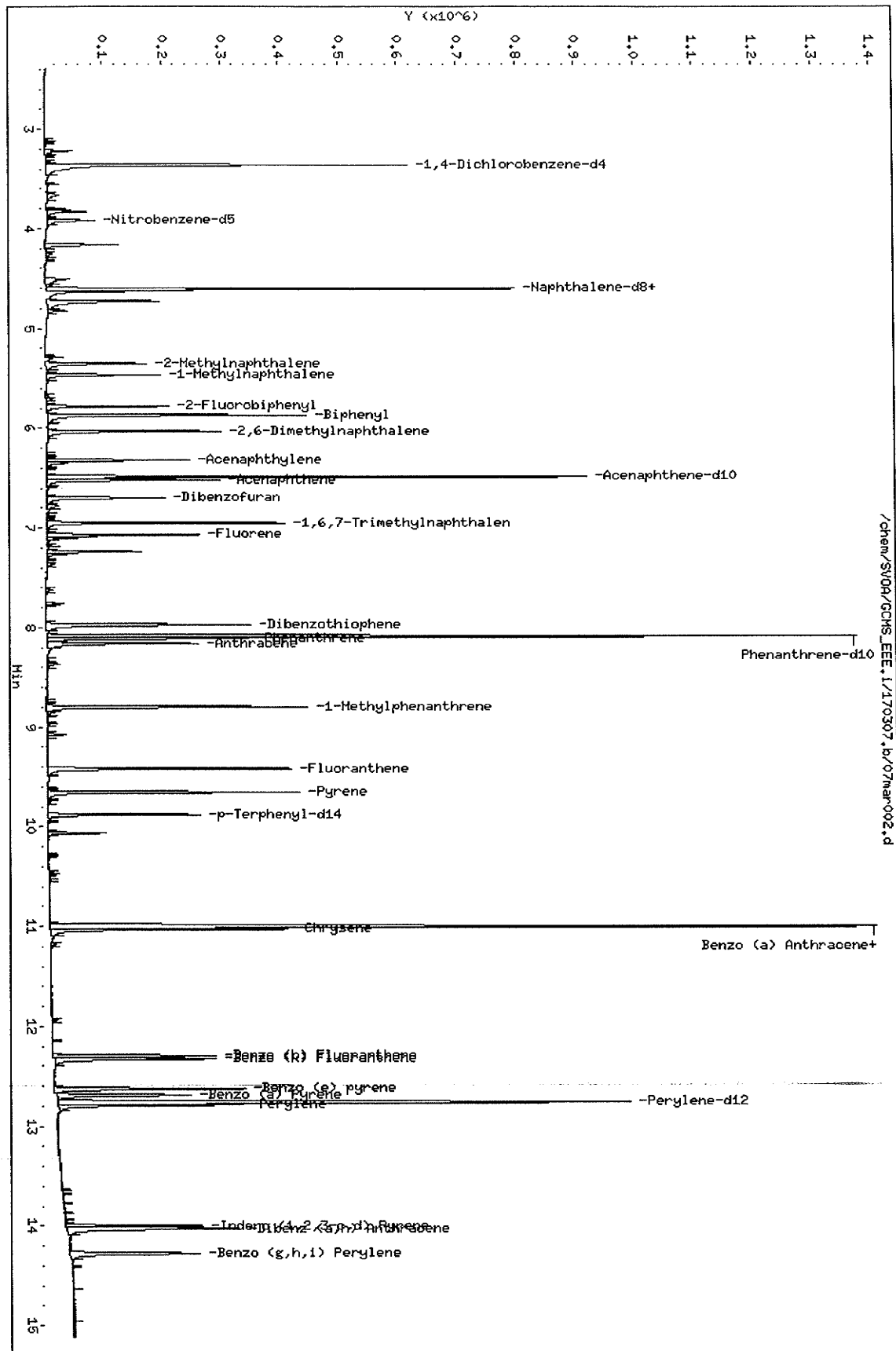
Data File: /chem/SVOA/GCMS_EEE.i/170307.b/07mar002.d Instrument ID: GCMS_EEE.i
Injection date and time: 07-MAR-2017 10:28 Analyst ID: 907

Method used: /chem/SVOA/GCMS_EEE.i/170307.b/simpah-extra.m Sublist used: all
Calibration date and time: 07-MAR-2017 10:52
Date, time and analyst ID of latest file update: 07-Mar-2017 10:52 ev7p

Sample Name: CCV S010317F 1PPM Misc Info: 170307A015
Response via Initial Calibration

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (mg/L)	QValue
20) 1-Methylphenanthrene	(5)	8.799	192	229962	1.052	100
29) Benzo (e) pyrene	(6)	12.631	252	320233	1.104	100
32) Perylene	(6)	12.792	252	300789	1.055	100
13) Dibenzofuran	(3)	6.698	168	153355	1.102	100

page 2 of 2



Data File: /chem/SV08/GCMS_EEE.i/170307.b/07mar002.d
 Date : 07-MAR-2017 10:28
 Client ID:
 Sample Info: CCV S010317F 1.PPM
 Column phase: J&W DB-5MS

Instrument: GCMS_EEE.i
 Operator: 907
 Column diameter: 0.18

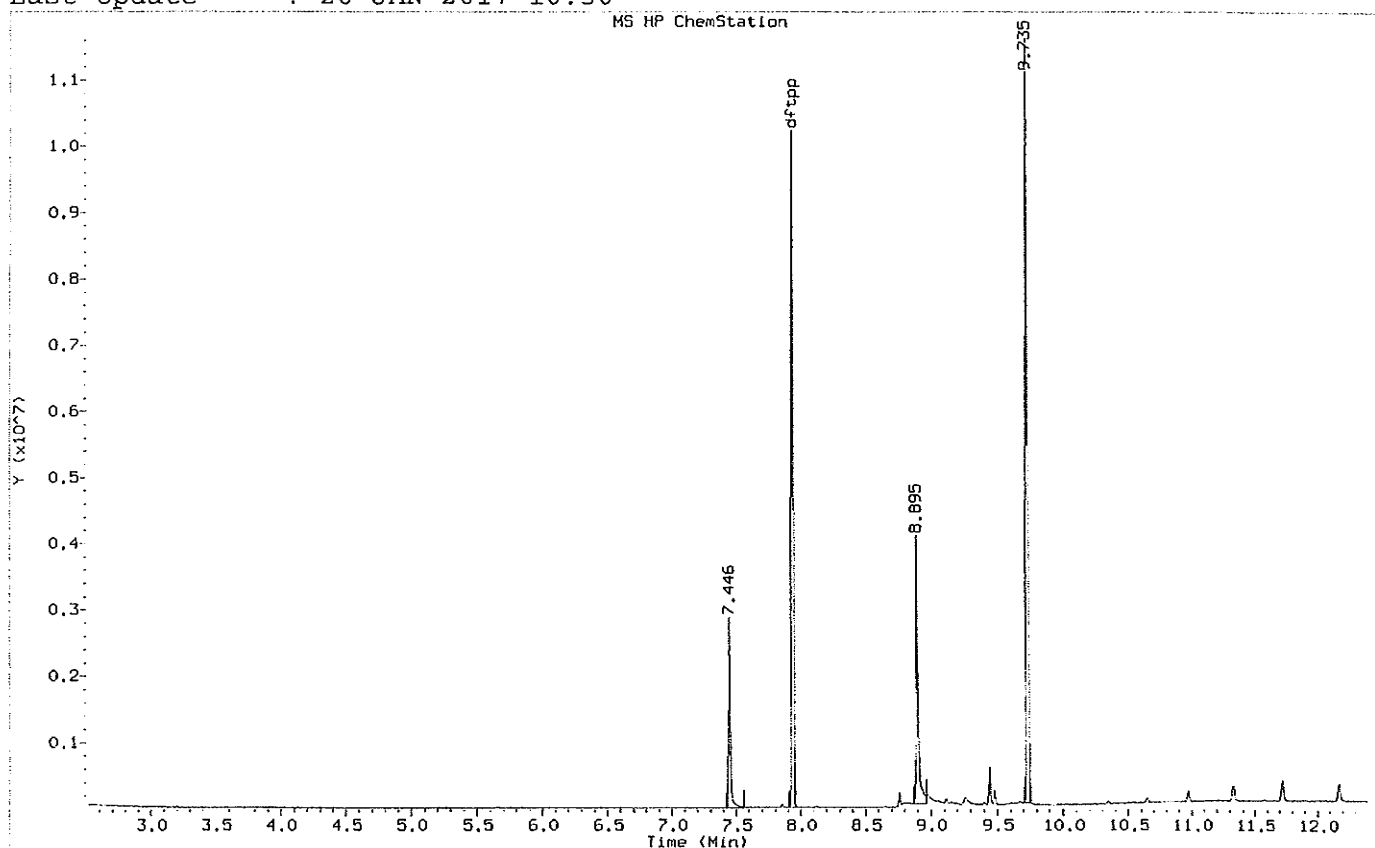
EPA METHOD 8270C PAHSIM

Tuning Reports

DFTPP TUNE/TAILING FACTOR/DEGRADATION SAMPLE AND GRAPHIC REPORT

Report Generated Time Mon Feb 27 11:45:38 2017

Data File : /chem/SVOA/GCMS_EEE.i/170227.b/27feb004.d
ALS Vial : 1
Acq on : 27-FEB-2017 11:26 Operator : 907
Sample : TUNE S101716A DFTPP Inst : GCMS_EEE
Misc : Multiplier : 1
Integrator Type : HP RTE
Last Update : 26-JAN-2017 10:50

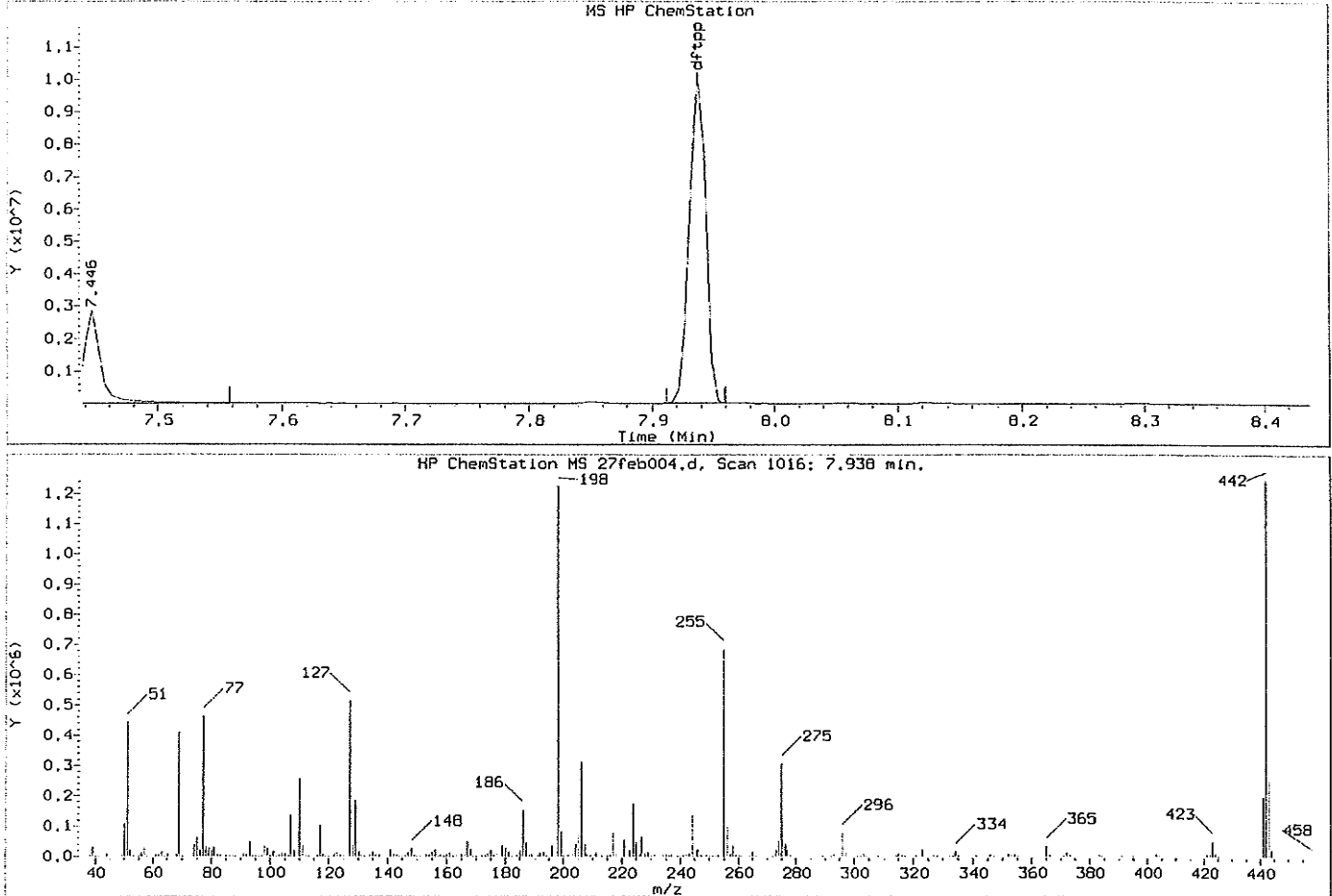


Tune *** PASSED ***
Pentachlorophenol Tailing *** PASSED ***
Benzidine Tailing *** PASSED ***
DDT degradation *** PASSED ***

Tuning Sample, /chem/SVOA/GCMS_EEE.i/170227.b/27feb004.d , *** PASSED ***

Report Generated Time Mon Feb 27 11:45:38 2017

Data File : /chem/SVOA/GCMS_EEE.i/170227.b/27feb004.d
 ALS Vial : 1
 Acq on : 27-FEB-2017 11:26 Operator : 907
 Sample : TUNE S101716A DFTPP Inst : GCMS_EEE
 Misc : Multiplier : 1
 Integrator Type : HP RTE
 Method : /chem/SVOA/GCMS_EEE.i/170227.b/dftpptune.m
 Last Update : 26-JAN-2017 10:50



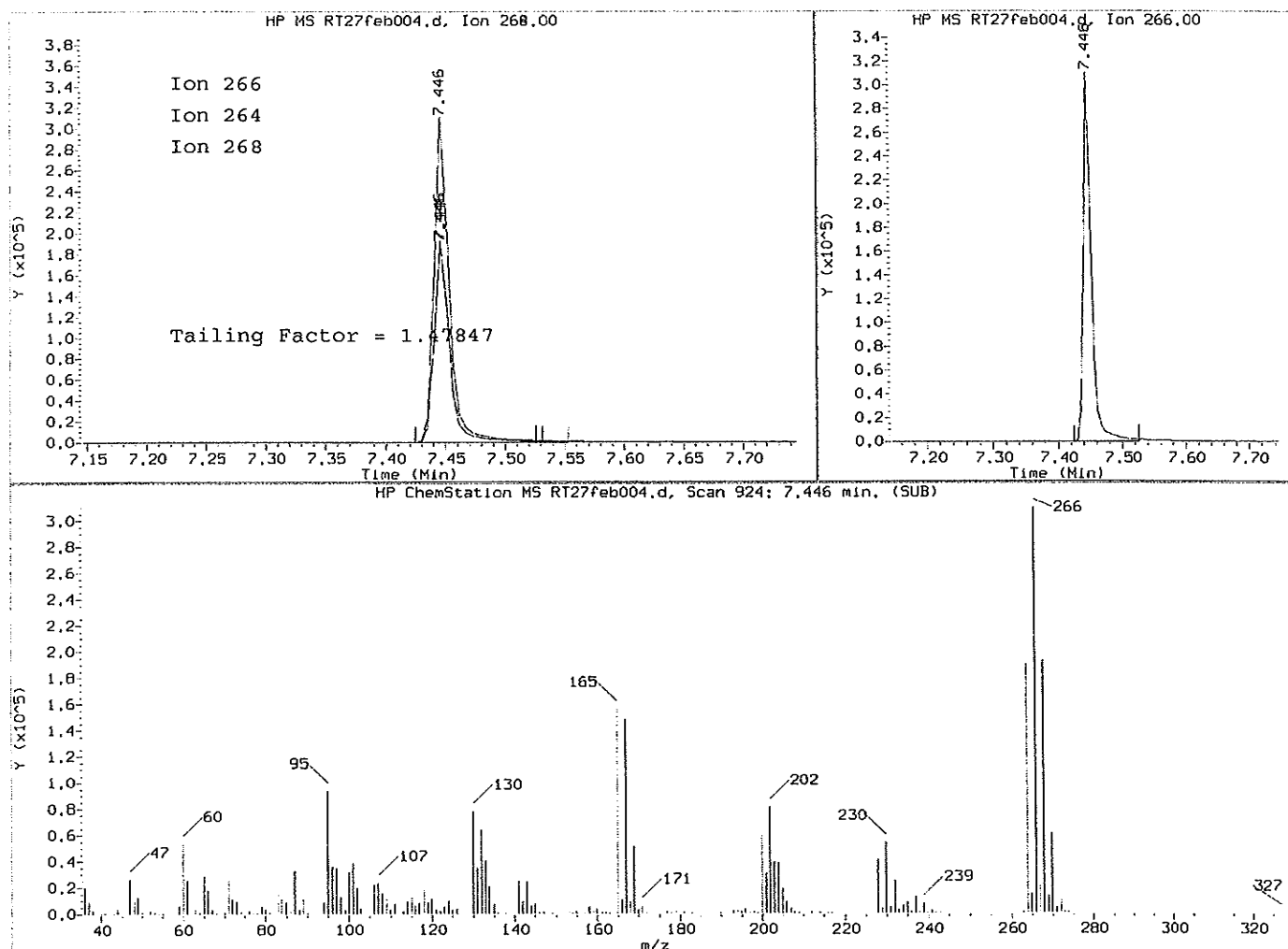
Spectrum: Avg. Scans 1015-1017 (7.94), Background Scan 1010

DFTPP Ion Abundance/Ratio Criteria Chart

Ion	Abundance Criteria	Base Peak	Response	Test
198	Base Peak, 100% relative abundance	100.00	966643	PASS
51	30 - 60% of mass 198	38.23	369561	PASS
68	Less than 2% of mass 69	1.63	5375	PASS
69	Less than mass 198	34.19	330533	PASS
70	Less than 2% of mass 69	0.53	1763	PASS
127	40 - 60% of mass 198	42.36	409429	PASS
197	0 - 1% of mass 198	0.15	1450	PASS
199	5 - 9% of mass 198	6.83	66048	PASS
275	10 - 30% of mass 198	24.73	239082	PASS
365	1 - 100% of mass 198	2.85	27549	PASS
441	Present, but less than mass 443	79.77	165266	PASS
442	40 - 200% of mass 198	106.21	1026666	PASS
443	17 - 23% of mass 442	20.18	207189	PASS

Report Generated Time Mon Feb 27 11:45:38 2017

Data File : /chem/SVOA/GCMS_EEE.i/170227.b/27feb004.d
 ALS Vial : 3
 Acq on : 27-FEB-2017 11:26 Operator : Tim Matthews
 Sample : TUNE S101716A DFTPP Inst : GCMS_EEE
 Misc : Multiplier : 1⁻
 Integrator Type : HP RTE
 Method : /chem/SVOA/GCMS_EEE.i/170227.b/27feb004.d/resolut.m
 Last Update : 27-FEB-2017 11:45



Pentachlorophenol

=====
 Exp. RT = 7.467
 Found RT = 7.446

Mass	Area	Ratio
266	273410	100.00
264	172232	62.99
268	172455	63.08

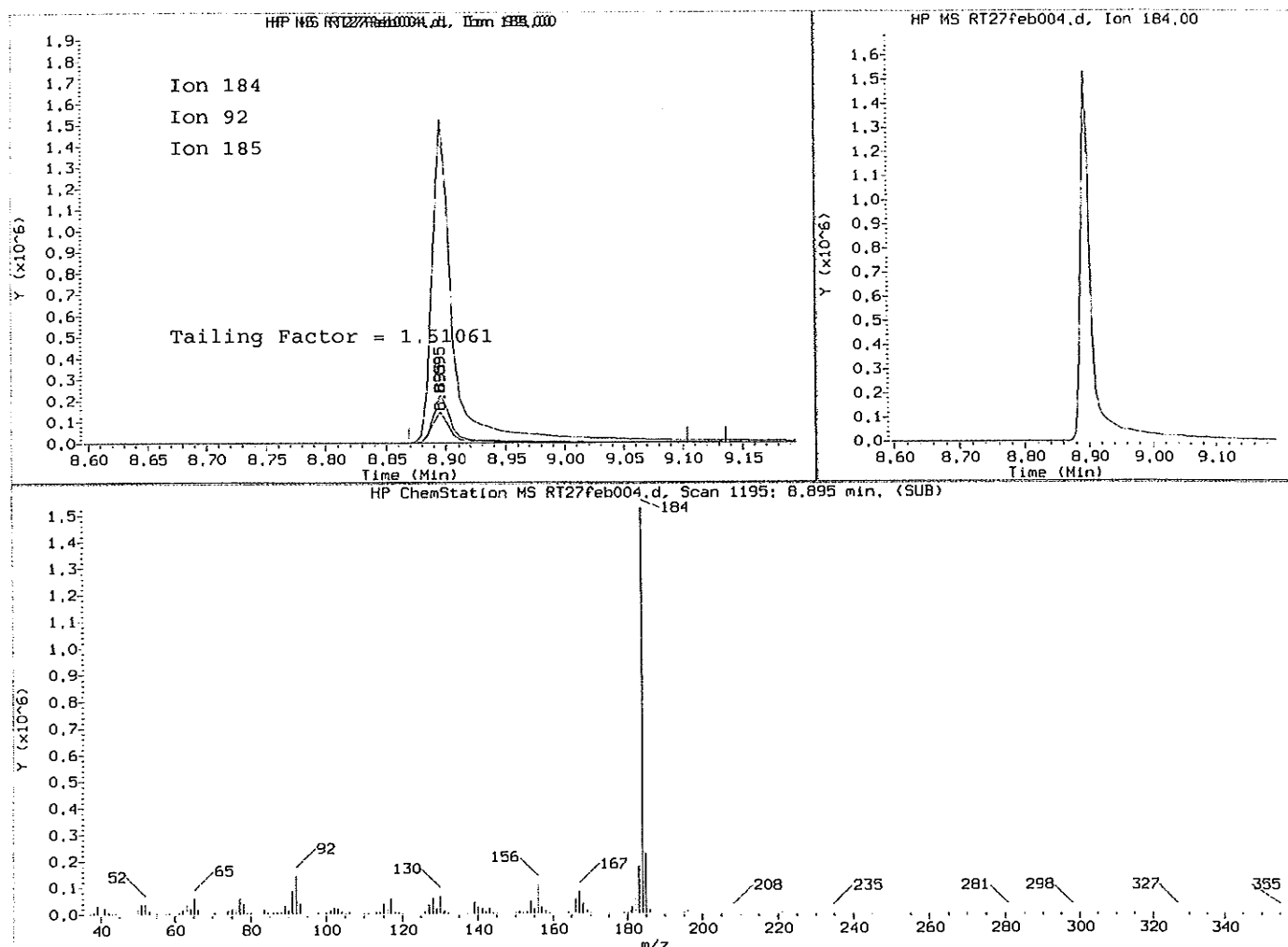
Peak baseline front width (sec) : 0.627
 Peak baseline tail width (sec) : 0.927
 Tail Factor = 0.927 / 0.627

Tailing factor for Pentachlorophenol OK

Tail Factor = 1.478 Maximum Allowed = 3.0

Report Generated Time Mon Feb 27 11:45:38 2017

Data File : /chem/SVOA/GCMS_EEE.i/170227.b/27feb004.d
 ALS Vial : 3
 Acq on : 27-FEB-2017 11:26 Operator : Tim Matthews
 Sample : TUNE S101716A DFTPP Inst : GCMS_EEE
 Misc : Multiplier : 1
 Integrator Type : HP RTE
 Method : /chem/SVOA/GCMS_EEE.i/170227.b/27feb004.d/resolut.m
 Last Update : 27-FEB-2017 11:45



Benzidine

=====

Exp. RT = 8.911

Found RT = 8.895

Mass	Area	Ratio
184	1948904	100.00
92	181785	9.33
185	273612	14.04

Peak baseline front width (sec) : 0.801

Peak baseline tail width (sec) : 1.210

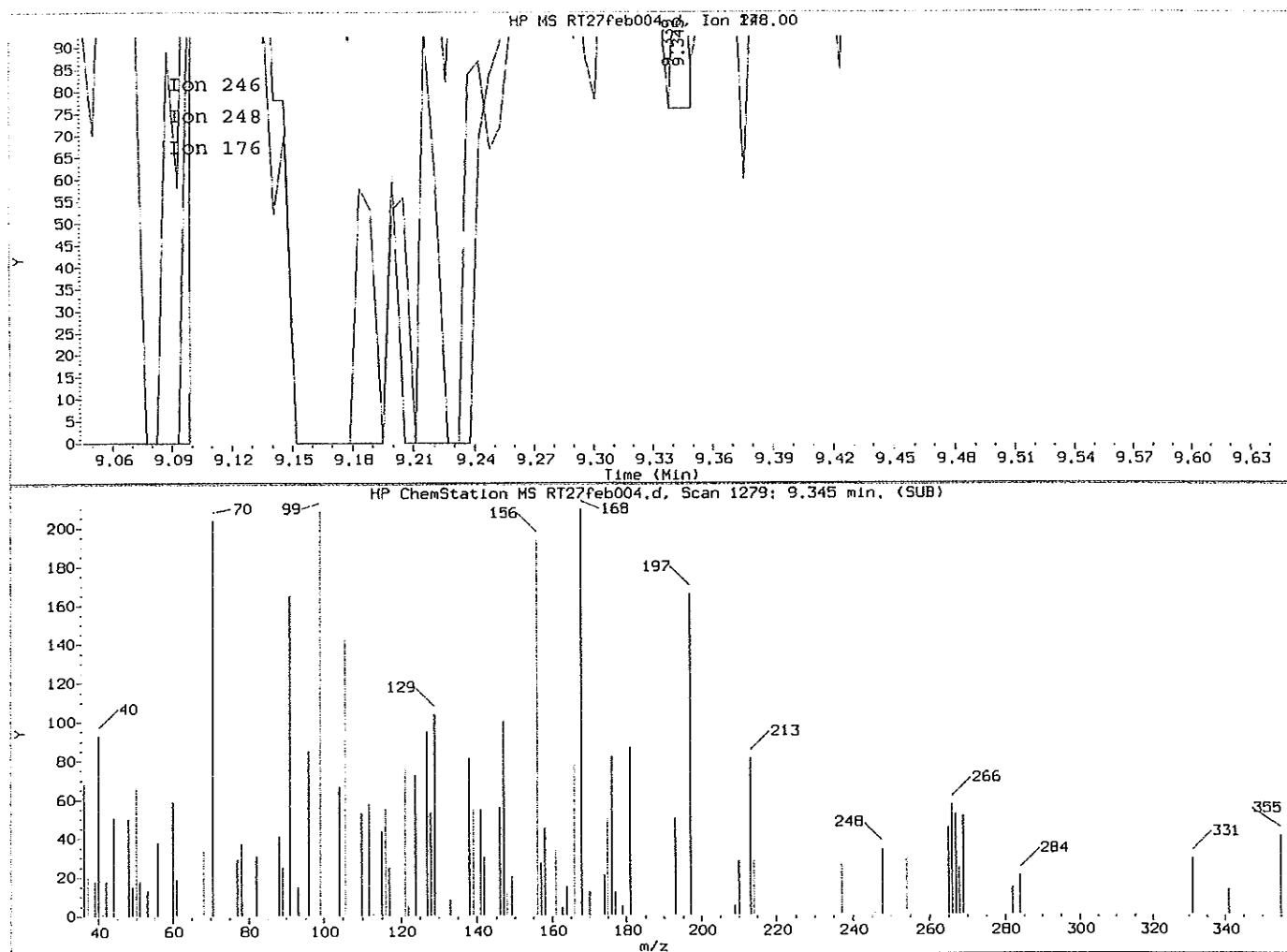
Tail Factor = 1.210 / 0.801

Tailing factor for Benzidine OK

Tail Factor = 1.511 Maximum Allowed = 3.0

Report Generated Time Mon Feb 27 11:45:38 2017

Data File : /chem/SVOA/GCMS_EEE.i/170227.b/27feb004.d
 ALS Vial : 3
 Acq on : 27-FEB-2017 11:26 Operator : Tim Matthews
 Sample : TUNE S101716A DFTPP Inst : GCMS_EEE
 Misc : Multiplier : 1
 Integrator Type : HP RTE
 Method : /chem/SVOA/GCMS_EEE.i/170227.b/27feb004.d/resolut.m
 Last Update : 27-FEB-2017 11:45



4,4'-DDE

=====

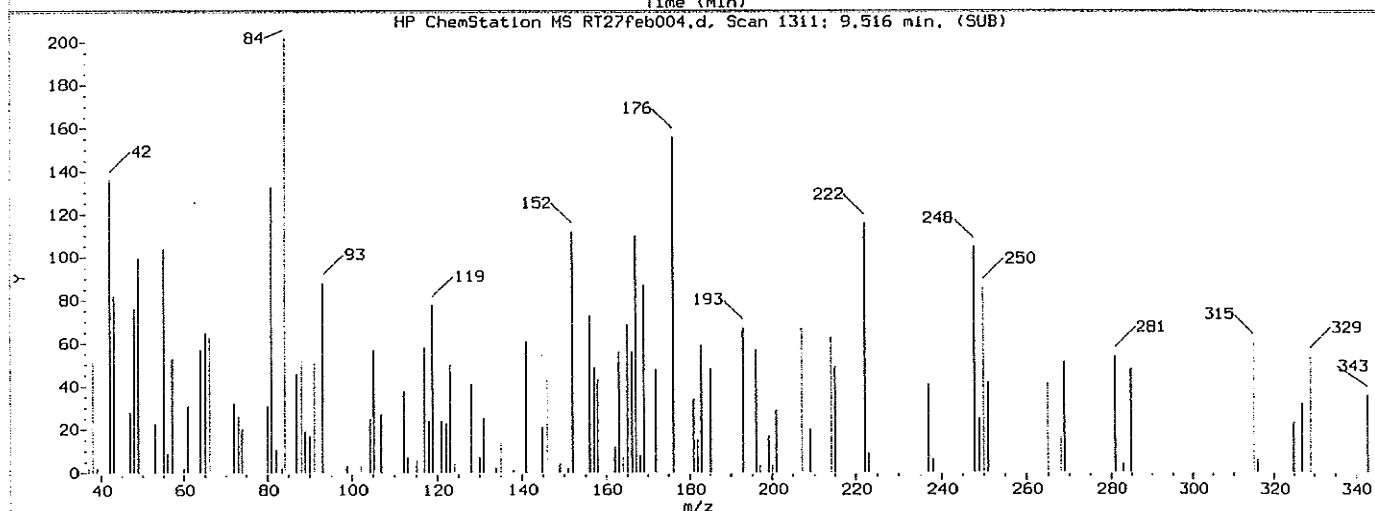
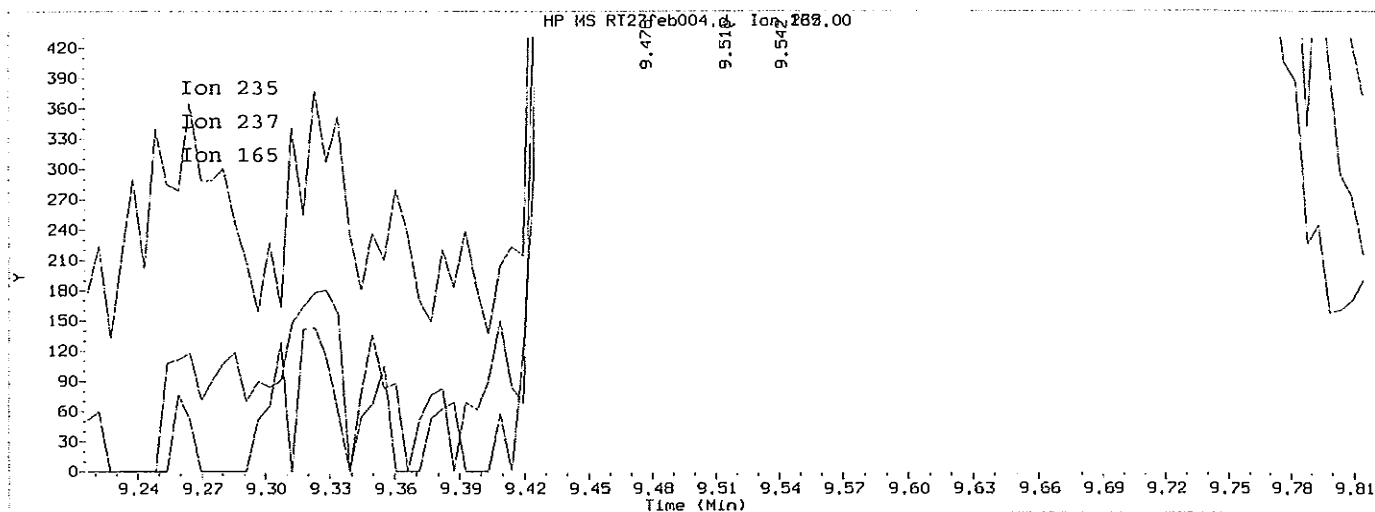
Exp. RT = 9.344

Found RT = 9.345

Mass	Area	Ratio
246	43	100.00
248	25	58.82
176	101	232.35

Report Generated Time Mon Feb 27 11:45:38 2017

Data File : /chem/SVOA/GCMS_EEE.i/170227.b/27feb004.d
 ALS Vial : 3
 Acq on : 27-FEB-2017 11:26 Operator : Tim Matthews
 Sample : TUNE S101716A DFTPP Inst : GCMS_EEE
 Misc : Multiplier : 1
 Integrator Type : HP RTE
 Method : /chem/SVOA/GCMS_EEE.i/170227.b/27feb004.d/resolut.m
 Last Update : 27-FEB-2017 11:45



4,4'-DDD

=====

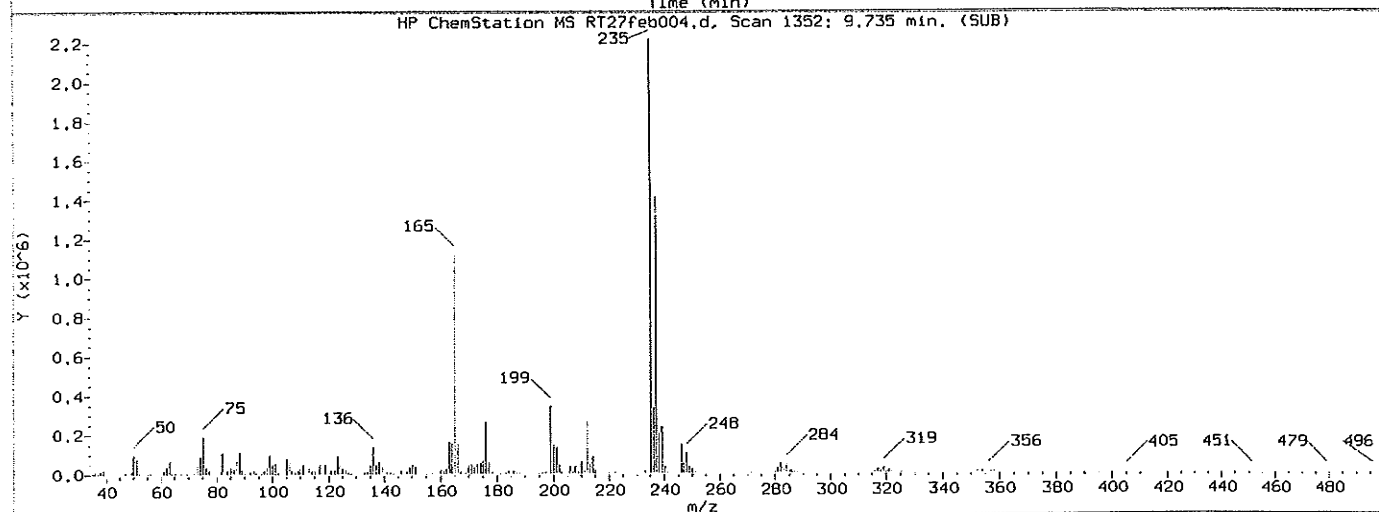
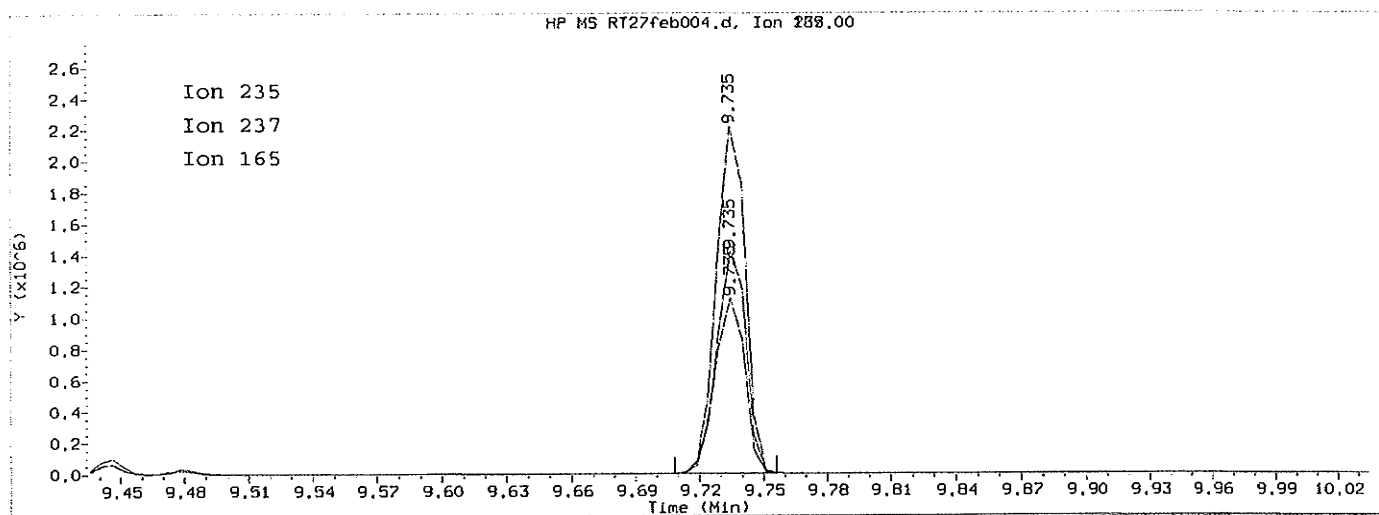
Exp. RT = 9.499

Found RT = 9.516

Mass	Area	Ratio
235	347	100.00
237	17275	4973.85
165	183	52.87

Report Generated Time Mon Feb 27 11:45:38 2017

Data File : /chem/SVOA/GCMS_EEE.i/170227.b/27feb004.d
 ALS Vial : 3
 Acq on : 27-FEB-2017 11:26 Operator : Tim Matthews
 Sample : TUNE S101716A DFTPP Inst : GCMS_EEE
 Misc : Multiplier : 1
 Integrator Type : HP RTE
 Method : /chem/SVOA/GCMS_EEE.i/170227.b/27feb004.d/resolut.m
 Last Update : 27-FEB-2017 11:45



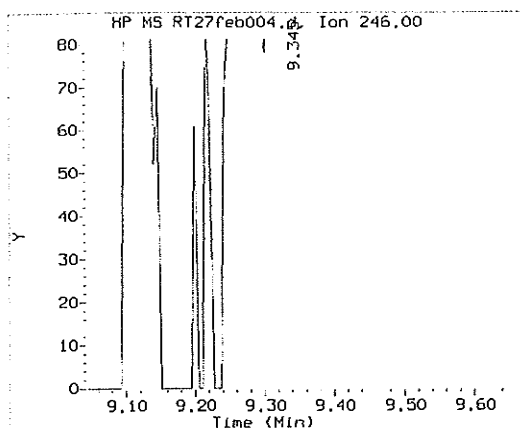
4,4'-DDT

=====

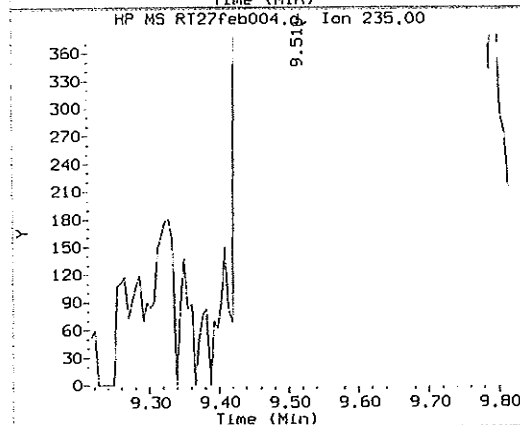
Exp. RT = 9.756

Found RT = 9.735

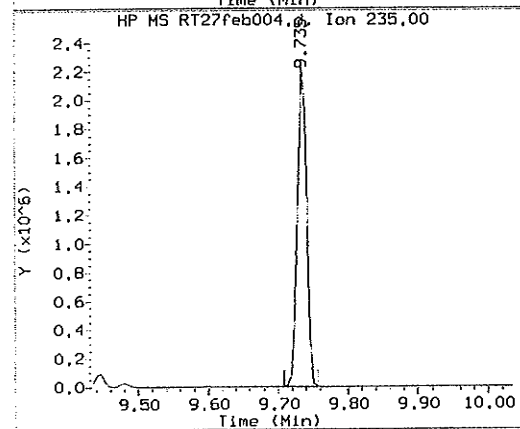
Mass	Area	Ratio
235	2098568	100.00
237	1342252	63.96
165	1084282	51.67



Compound: 4,4'-DDE
 Quant Mass: 246
 RT: 9.345
 Area: 43



Compound: 4,4'-DDD
 Quant Mass: 235
 RT: 9.516
 Area: 347



Compound: 4,4'-DDT
 Quant Mass: 235
 RT: 9.735
 Area: 2098568

DDT DEGRADATION BREAKDOWN ANALYSIS SUMMARY

Compound	Response	%Breakdown	Max Allowed	Test
4,4-DDT	2098568			N/A
4,4-DDE	43	0.00	20.0	PASS
4,4-DDD	347	0.02	20.0	PASS
4,4-DDD + DDE	390	0.0	20.0	PASS

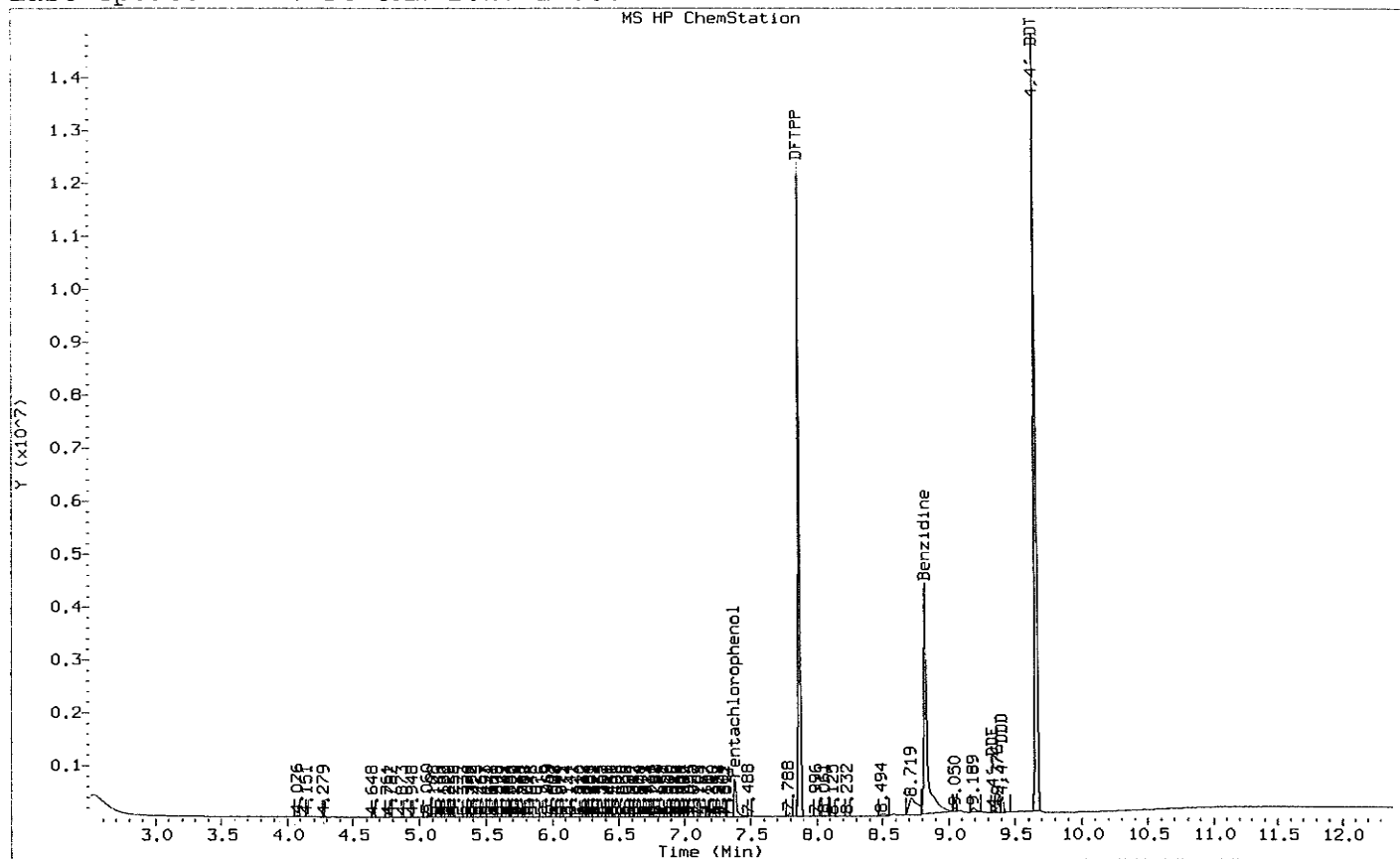
TUNE SAMPLE *** PASSED *** DDT BREAKDOWN TEST

```

Data File       : /chem/SVOA/GCMS_EEE.i/170307.b/07mar001.d
ALS Vial       : 21
Acq on         : 07-MAR-2017 10:08                      Opera
Sample         : TUNE S101716A DFTPP                    Inst
Misc           :                                         Multi
Integrator Type : HP RTE
Last Update    : 26-JAN-2017 10:50

```

```
Operator      : 907
Inst          : GCMS_EEE
Multiplier   : 1
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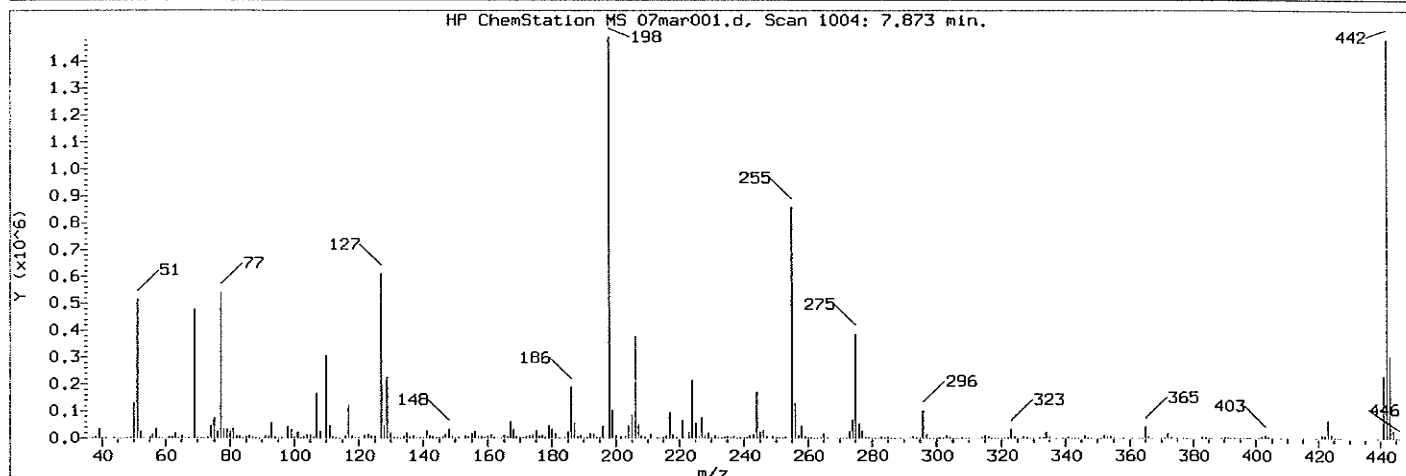
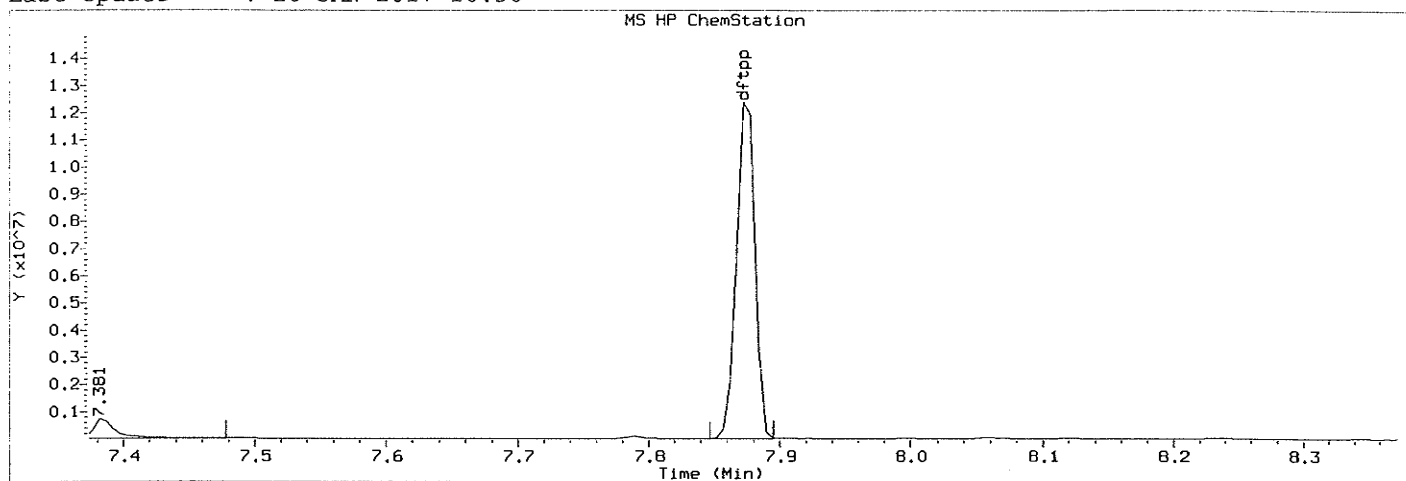


Tune	*** PASSED ***
Pentachlorophenol Tailing	*** PASSED ***
Benzidine Tailing	*** PASSED ***
DDT degradation	*** PASSED ***

Tuning Sample, /chem/SVOA/GCMS_EEE.i/170307.b/07mar001.d , *** PASSED ***

Report Generated Time Tue Mar 7 10:31:15 2017

Data File : /chem/SVOA/GCMS_EEE.i/170307.b/07mar001.d
 ALS Vial : 21
 Acq on : 07-MAR-2017 10:08 Operator : 907
 Sample : TUNE S101716A DFTPP Inst : GCMS_EEE
 Misc : Multiplier : 1
 Integrator Type : HP RTE
 Method : /chem/SVOA/GCMS_EEE.i/170307.b/dftpptune.m
 Last Update : 26-JAN-2017 10:50



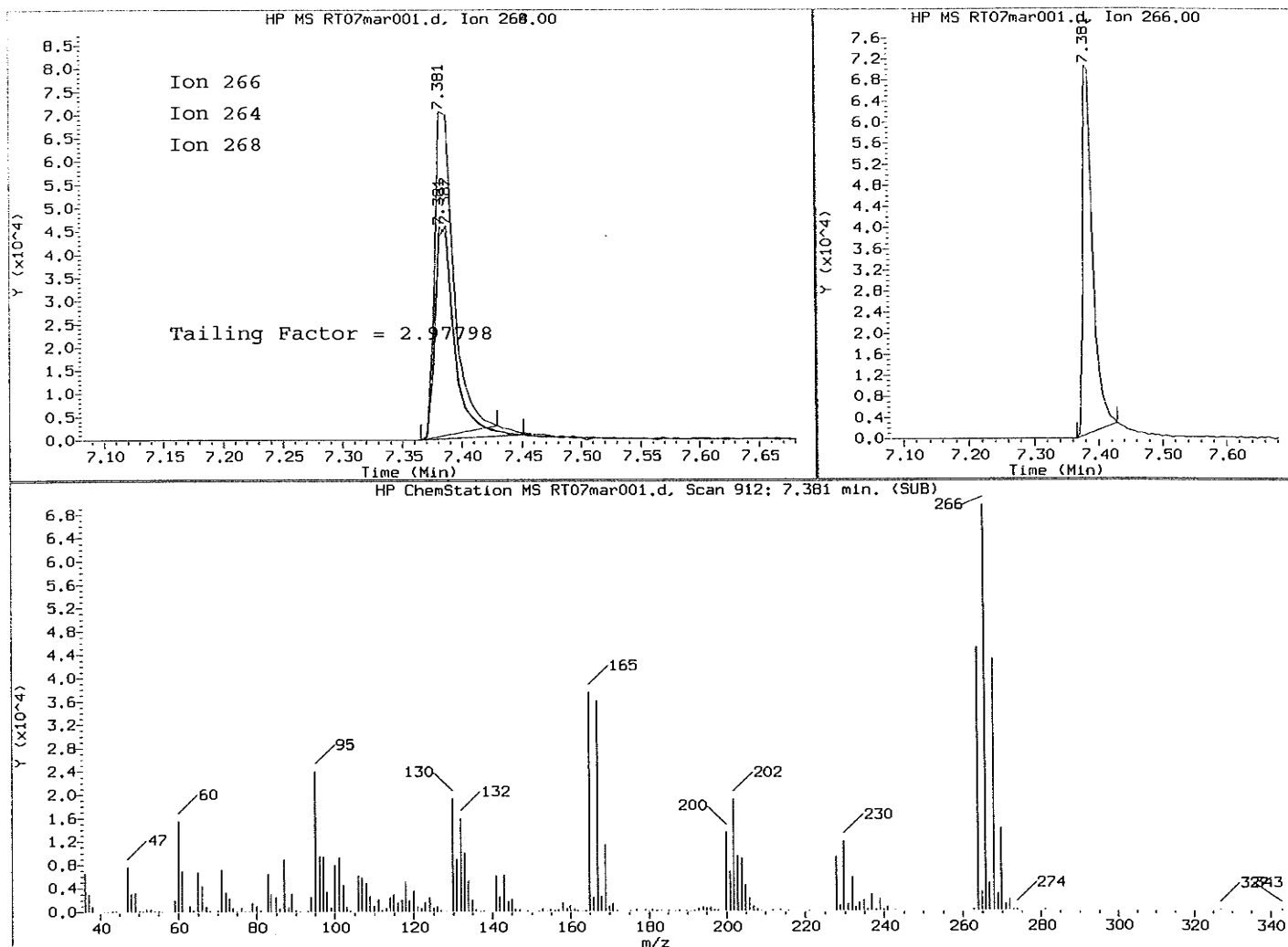
Spectrum: Avg. Scans 1003-1005 (7.87), Background Scan 998

DFTPP Ion Abundance/Ratio Criteria Chart

Ion	Abundance Criteria	Base Peak	Response	Test
198	Base Peak, 100% relative abundance	100.00	1222378	PASS
51	30 - 60% of mass 198	36.38	444711	PASS
68	Less than 2% of mass 69	0.97	3865	PASS
69	Less than mass 198	32.47	396902	PASS
70	Less than 2% of mass 69	0.49	1926	PASS
127	40 - 60% of mass 198	41.66	509226	PASS
197	0 - 1% of mass 198	0.00	0	PASS
199	5 - 9% of mass 198	6.88	84149	PASS
275	10 - 30% of mass 198	26.13	319445	PASS
365	1 - 100% of mass 198	3.05	37282	PASS
441	Present, but less than mass 443	80.15	218453	PASS
442	40 - 200% of mass 198	110.16	1346538	PASS
443	17 - 23% of mass 442	20.24	272549	PASS

Report Generated Time Tue Mar 7 10:31:15 2017

Data File : /chem/SVOA/GCMS_EEE.i/170307.b/07mar001.d
 ALS Vial : 3
 Acq on : 07-MAR-2017 10:08 Operator : Tim Matthews
 Sample : TUNE S101716A DFTTP Inst : GCMS_EEE
 Misc : Multiplier : 1
 Integrator Type : HP RTE
 Method : /chem/SVOA/GCMS_EEE.i/170307.b/07mar001.d/resolut.m
 Last Update : 07-MAR-2017 10:27



Pentachlorophenol

=====
 Exp. RT = 7.467
 Found RT = 7.381

Mass	Area	Ratio
266	77587	100.00
264	52060	67.10
268	51934	66.94

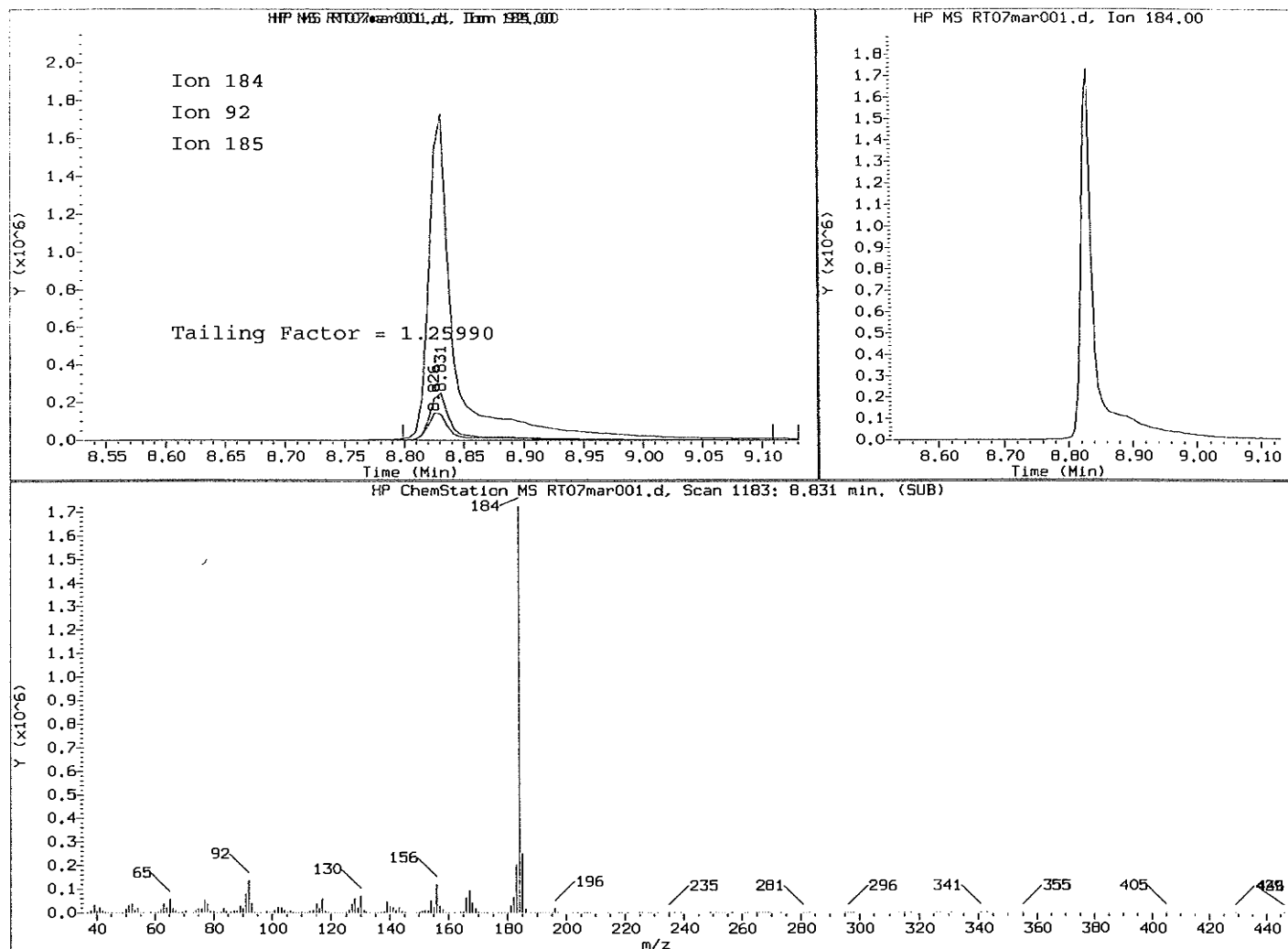
Peak baseline front width (sec) : 0.545
 Peak baseline tail width (sec) : 1.623
 Tail Factor = 1.623/ 0.545

Tailing factor for Pentachlorophenol OK

Tail Factor = 2.978 Maximum Allowed = 3.0

Report Generated Time Tue Mar 7 10:31:15 2017

Data File : /chem/SVOA/GCMS_EEE.i/170307.b/07mar001.d
 ALS Vial : 3
 Acq on : 07-MAR-2017 10:08 Operator : Tim Matthews
 Sample : TUNE S101716A DFTPP Inst : GCMS_EEE
 Misc : Multiplier : 1
 Integrator Type : HP RTE
 Method : /chem/SVOA/GCMS_EEE.i/170307.b/07mar001.d/resolut.m
 Last Update : 07-MAR-2017 10:27



Benzidine

=====

Exp. RT = 8.911

Found RT = 8.831

Mass	Area	Ratio
184	2580706	100.00
92	222523	8.62
185	365048	14.15

Peak baseline front width (sec) : 1.035

Peak baseline tail width (sec) : 1.304

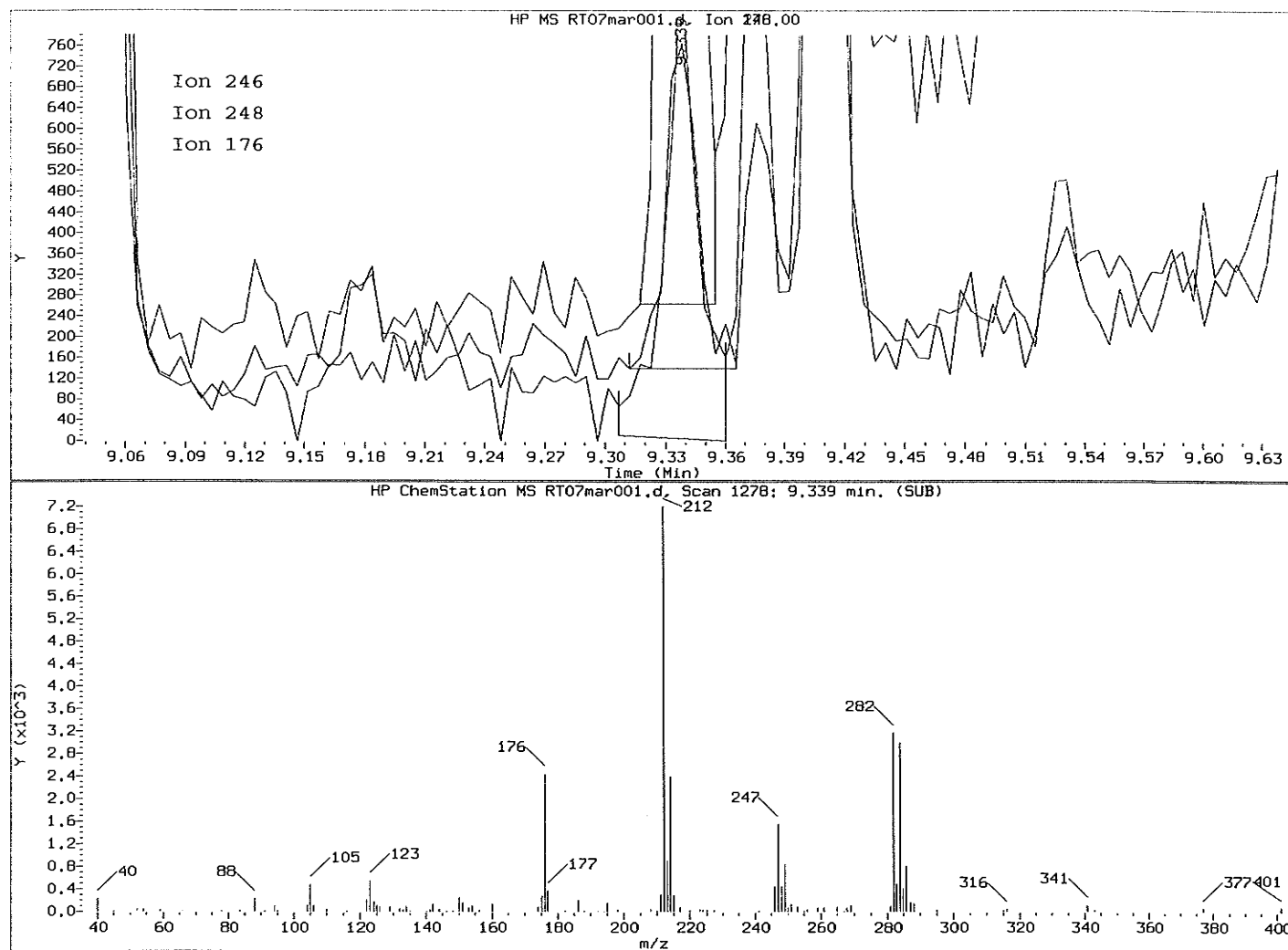
Tail Factor = 1.304/ 1.035

Tailing factor for Benzidine OK

Tail Factor = 1.260 Maximum Allowed = 3.0

Report Generated Time Tue Mar 7 10:31:15 2017

Data File : /chem/SVOA/GCMS_EEE.i/170307.b/07mar001.d
 ALS Vial : 3
 Acq on : 07-MAR-2017 10:08 Operator : Tim Matthews
 Sample : TUNE S101716A DFTPP Inst : GCMS_EEE
 Misc : Multiplier : 1
 Integrator Type : HP RTE
 Method : /chem/SVOA/GCMS_EEE.i/170307.b/07mar001.d/resolut.m
 Last Update : 07-MAR-2017 10:27



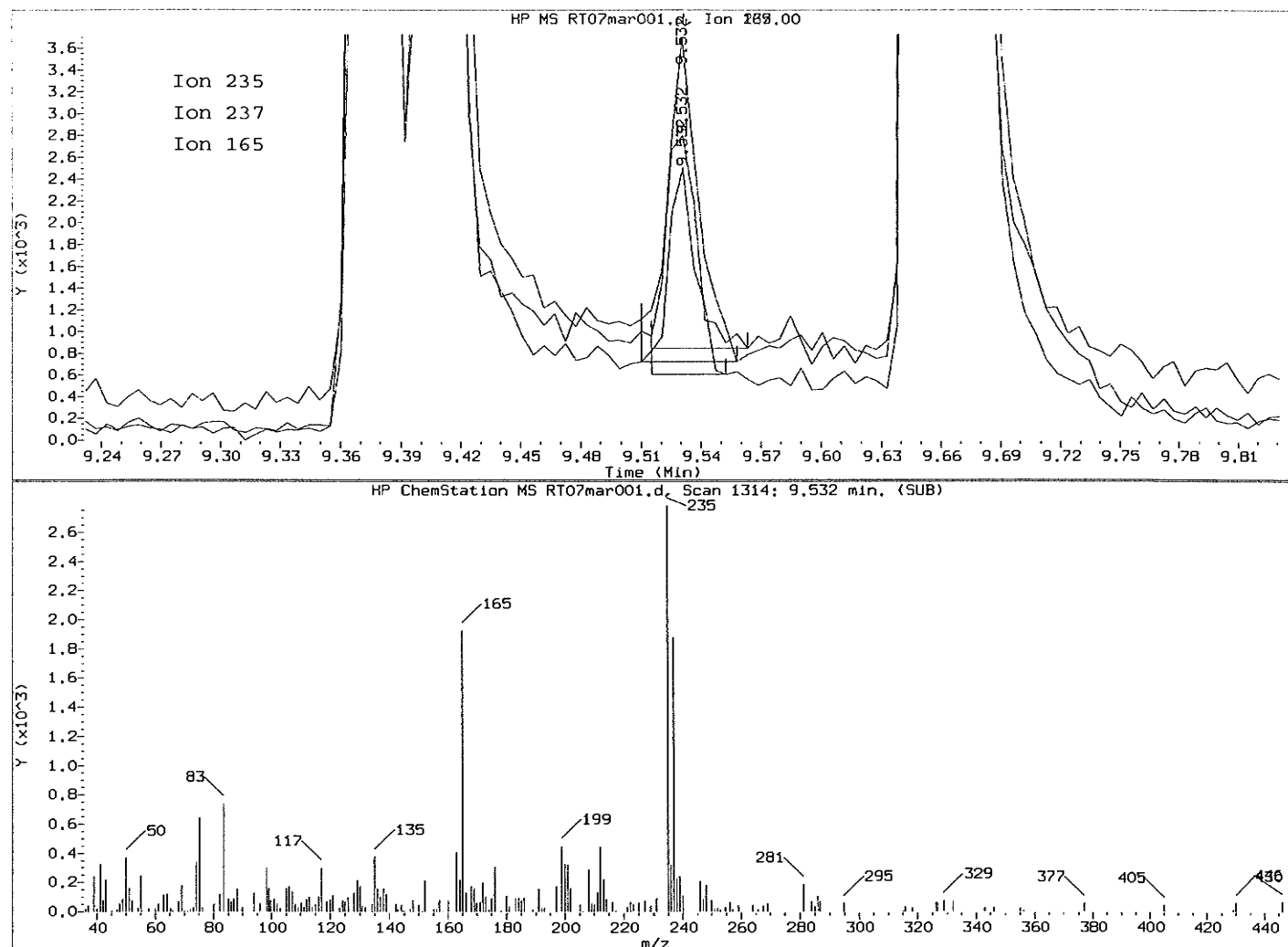
4,4'-DDE

=====
 Exp. RT = 9.344
 Found RT = 9.339

Mass	Area	Ratio
246	707	100.00
248	1078	152.50
176	4354	615.71

Report Generated Time Tue Mar 7 10:31:15 2017

Data File : /chem/SVOA/GCMS_EEE.i/170307.b/07mar001.d
 ALS Vial : 3
 Acq on : 07-MAR-2017 10:08 Operator : Tim Matthews
 Sample : TUNE S101716A DFTPP Inst : GCMS_EEE
 Misc : Multiplier : 1
 Integrator Type : HP RTE
 Method : /chem/SVOA/GCMS_EEE.i/170307.b/07mar001.d/resolut.m
 Last Update : 07-MAR-2017 10:27



4,4'-DDD

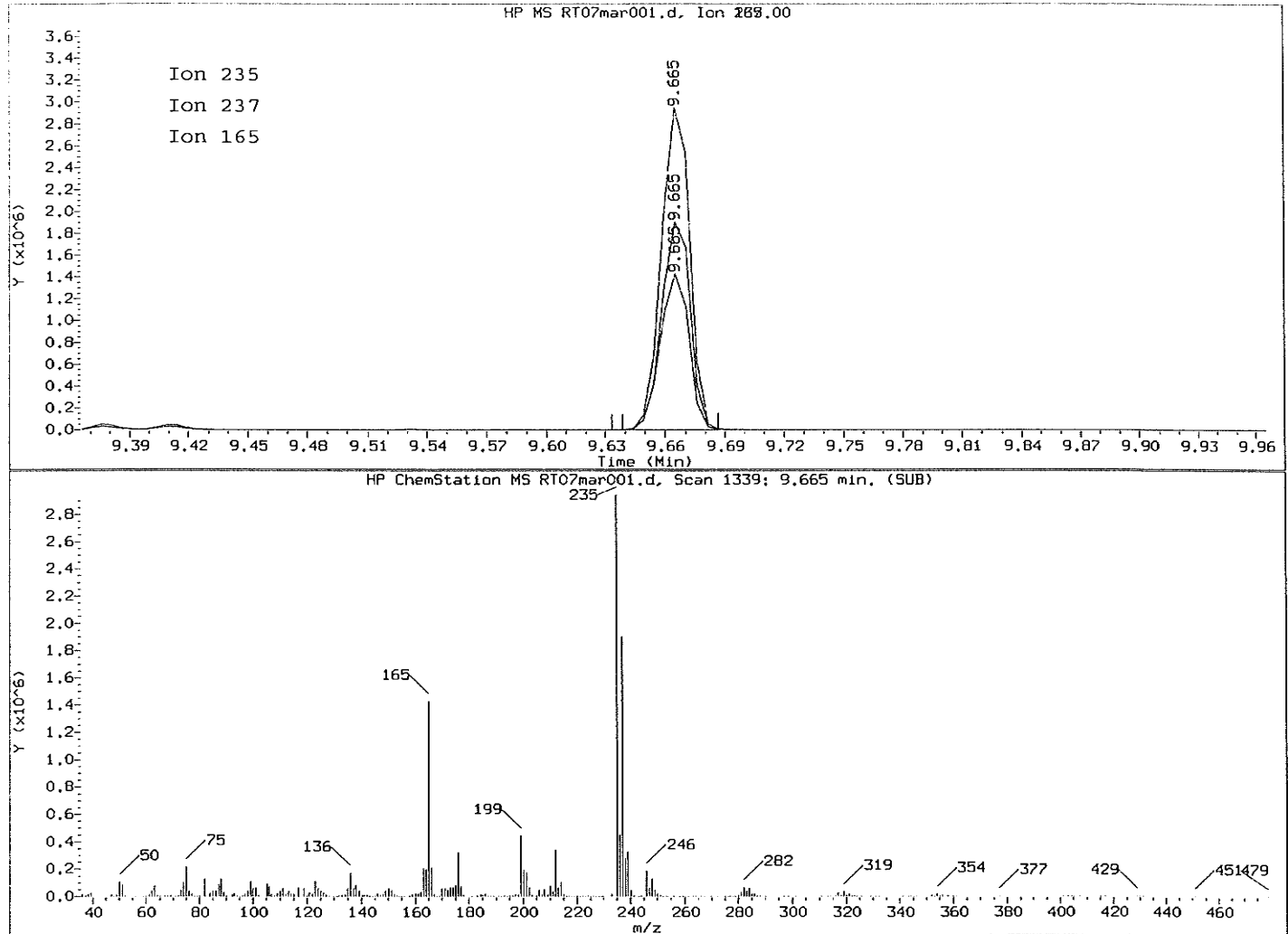
=====

Exp. RT = 9.499
 Found RT = 9.532

Mass	Area	Ratio
235	3401	100.00
237	1802	52.98
165	2100	61.74

Report Generated Time Tue Mar 7 10:31:15 2017

Data File : /chem/SVOA/GCMS_EEE.i/170307.b/07mar001.d
 ALS Vial : 3
 Acq on : 07-MAR-2017 10:08 Operator : Tim Matthews
 Sample : TUNE S101716A DFTPP Inst : GCMS_EEE
 Misc : Multiplier : 1
 Integrator Type : HP RTE
 Method : /chem/SVOA/GCMS_EEE.i/170307.b/07mar001.d/resolut.m
 Last Update : 07-MAR-2017 10:27



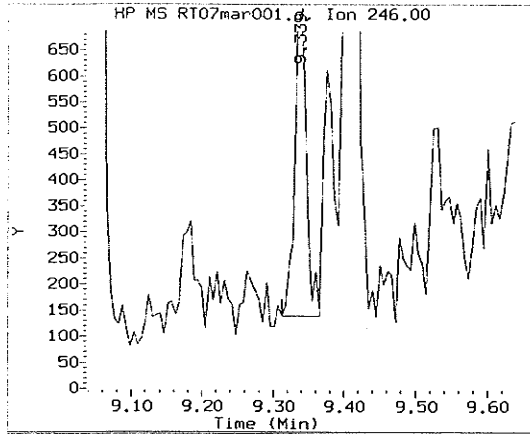
4,4'-DDT

=====

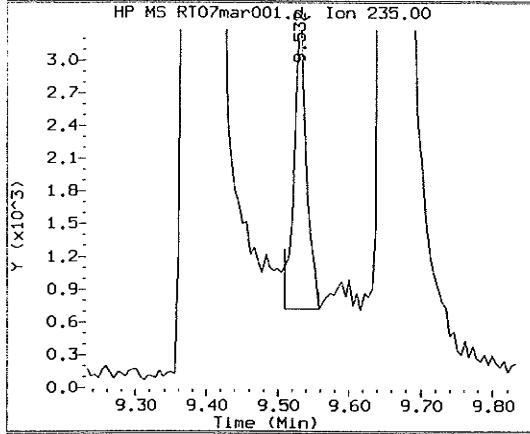
Exp. RT = 9.756

Found RT = 9.665

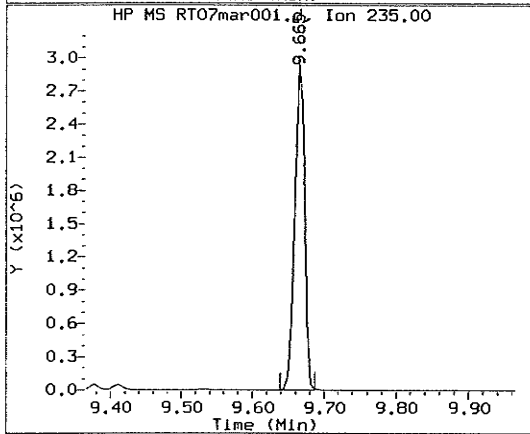
Mass	Area	Ratio
235	2888984	100.00
237	1880472	65.09
165	1421671	49.21



Compound: 4,4'-DDE
 Quant Mass: 246
 RT: 9.339
 Area: 707



Compound: 4,4'-DDD
 Quant Mass: 235
 RT: 9.532
 Area: 3401



Compound: 4,4'-DDT
 Quant Mass: 235
 RT: 9.665
 Area: 2888984

DDT DEGRADATION BREAKDOWN ANALYSIS SUMMARY

Compound	Response	%Breakdown	Max Allowed	Test
4,4-DDT	2888984			N/A
4,4-DDE	707	0.02	20.0	PASS
4,4-DDD	3401	0.12	20.0	PASS
4,4-DDD + DDE	4108	0.1	20.0	PASS

 TUNE SAMPLE *** PASSED *** DDT BREAKDOWN TEST

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Run Logs

Injection Log

Directory: W:\GCMS_EEE\GCMS_EEE_DATA\2017\170227

Line	Vial	FileName	Multiplier	SampleName	Misc Info	Injected
1	1	27feb001.d	1.	TUNE S101716A DFTPP		27 Feb 2017 09:48
2	2	27feb002.d	1.	CCV S010317F 1PPM	170227A003	27 Feb 2017 10:07
3	2	27feb003.d	1.	CCV S010317F 1PPM	170227A003	27 Feb 2017 10:37
4	1	27feb004.d	1.	TUNE S101716A DFTPP		27 Feb 2017 11:26
5	2	27feb005.d	1.	CCV S010317F 1PPM	170227A003	27 Feb 2017 11:46
6	3	27feb006.d	1.	BLANK	S101716B 10UL	27 Feb 2017 12:12
7	4	27feb007.d	1.	ICAL-1 S010317D 5PPM	170227I004	27 Feb 2017 12:32
8	5	27feb008.d	1.	ICAL-2 S010317E 2PPM		27 Feb 2017 12:52
9	6	27feb009.d	1.	ICAL-3 S010317F 1PPM		27 Feb 2017 13:12
10	7	27feb010.d	1.	ICAL-4 S010317G 0.5PPM		27 Feb 2017 13:33
11	8	27feb011.d	1.	ICAL-5 S010317H 0.1PPM		27 Feb 2017 13:53
12	9	27feb012.d	1.	ICV S010317I 1PPM		27 Feb 2017 14:13
13	10	27feb013.d	1.	CCV S010317F 1PPM	170227A034	27 Feb 2017 14:33
14	11	27feb014.d	1.	MB 170222 L03 RB	S101716B 10UL	27 Feb 2017 14:54
15	12	27feb015.d	1.	17-02-1560-2	S101716B 10UL	27 Feb 2017 15:14
16	13	27feb016.d	1.	17-02-1512-2 100X	S101716B 10UL	27 Feb 2017 15:34
17	14	27feb017.d	1.	17-02-1512-9 100X	S101716B 10UL	27 Feb 2017 15:54

Injection Log

Directory: W:\GCMS_EEE\GCMS_EEE_DATA\2017\170307

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Line	Vial	FileName	Multiplier	SampleName	Misc Info	Injected
1	21	07mar001.d	1.	TUNE S101716A DFTPP		7 Mar 2017 10:08
2	22	07mar002.d	1.	CCV S010317F 1PPM	170307A015	7 Mar 2017 10:28
3	23	07mar003.d	1.	MB 170306 L10	S101716B 10UL	7 Mar 2017 10:49
4	24	07mar004.d	1.	LCS 170306 L10	S101716B 10UL	7 Mar 2017 11:09
5	25	07mar005.d	1.	17-03-0428-1 MS	S101716B 10UL	7 Mar 2017 11:29
6	26	07mar006.d	1.	17-03-0428-1 MSD	S101716B 10UL	7 Mar 2017 11:50
7	27	07mar007.d	1.	S030717A TEST	S101716B 10UL	7 Mar 2017 12:10
8	28	07mar008.d	1.	17-03-0335-3 MS	S101716B 10UL	7 Mar 2017 13:37
9	29	07mar009.d	1.	17-03-0335-3 MSD	S101716B 10UL	7 Mar 2017 13:56
10	30	07mar010.d	1.	17-03-0335-3	S101716B 10UL	7 Mar 2017 14:17
11	40	07mar011.d	1.	17-03-0428-1	S101716B 10UL	7 Mar 2017 14:37
12	31	07mar012.d	1.	17-03-0335-4	S101716B 10UL	7 Mar 2017 14:57
13	32	07mar013.d	1.	17-03-0335-7	S101716B 10UL	7 Mar 2017 15:17
14	33	07mar014.d	1.	17-03-0335-8	S101716B 10UL	7 Mar 2017 15:38
15	34	07mar015.d	1.	17-03-0335-11	S101716B 10UL	7 Mar 2017 15:58
16	35	07mar016.d	1.	17-03-0335-12	S101716B 10UL	7 Mar 2017 16:18
17	36	07mar017.d	1.	17-03-0335-15	S101716B 10UL	7 Mar 2017 16:38
18	37	07mar018.d	1.	17-03-0335-16	S101716B 10UL	7 Mar 2017 16:58
19	38	07mar019.d	1.	17-03-0336-3	S101716B 10UL	7 Mar 2017 17:19
20	39	07mar020.d	1.	17-03-0336-4	S101716B 10UL	7 Mar 2017 17:39
21	41	07mar021.d	1.	S07-57-14/15	S101716B 10UL	7 Mar 2017 17:59


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Sample Preparation Logs

[illegible]