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Supplemental Report 1

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

WORK ORDER NUMBER: 17-03-0445

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

Approved for release on 04/28/2017 by:
Stephen Nowak
Project Manager

ResultLink

Email your PM

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Client Project Name: Burbank Airport / 9836002041
Work Order Number: 17-03-0445

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Work Order Narrative

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Condition Upon Receipt:

Samples were received under Chain-of-Custody (COC) on 03/06/17. They were assigned to Work Order 17-03-0445.

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.

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Sample Summary

Client:	Andersen Environmental	Work Order:	17-03-0445
	5261 West Imperial Highway	Project Name:	Burbank Airport / 9836002041
	Los Angeles, CA 90045-6231	PO Number:	
		Date/Time Received:	03/06/17 17:19
		Number of Containers:	15
Attn:	Brian Martasin		

Sample Identification	Lab Number	Collection Date and Time	Number of Containers	Matrix
B-DU3-S-SG-09-3S	17-03-0445-1	03/06/17 10:25	1	Solid
B-DU3-S-SG-09-8S	17-03-0445-2	03/06/17 10:40	1	Solid
B-DU3-S-SG-09-15S	17-03-0445-3	03/06/17 10:48	1	Solid
B-DU3-S-SG-09-25S	17-03-0445-4	03/06/17 11:00	1	Solid
B-DU3-S-SG-10-3S	17-03-0445-5	03/06/17 12:15	1	Solid
B-DU3-S-SG-10-8S	17-03-0445-6	03/06/17 12:22	1	Solid
B-DU3-S-SG-10-15S	17-03-0445-7	03/06/17 12:32	1	Solid
B-DU3-S-SG-10-25S	17-03-0445-8	03/06/17 12:42	1	Solid
B-DU3-S-07-0.6	17-03-0445-9	03/06/17 13:17	1	Solid
B-DU3-S-07-3	17-03-0445-10	03/06/17 13:17	1	Solid
B-DU3-S-07-8	17-03-0445-11	03/06/17 13:20	1	Solid
B-DU3-S-07-15	17-03-0445-12	03/06/17 13:30	1	Solid
B-DU3-S-08-3	17-03-0445-13	03/06/17 13:40	1	Solid
B-DU3-S-08-8	17-03-0445-14	03/06/17 13:45	1	Solid
B-DU3-S-08-15	17-03-0445-15	03/06/17 13:50	1	Solid

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Detections Summary

Client:	Andersen Environmental	Work Order:	17-03-0445
	5261 West Imperial Highway	Project Name:	Burbank Airport / 9836002041
	Los Angeles, CA 90045-6231	Received:	03/06/17
Attn:	Brian Martasin		

Client SampleID

Analyte	Result	Qualifiers	RL	Units	Method	Extraction
B-DU3-S-SG-09-15S (17-03-0445-3)						
Moisture	5.4		0.10	%	ASTM D-2216 (M)	N/A
Barium	54.6		0.529	mg/kg	EPA 6010B	EPA 3050B
Chromium	3.54		0.264	mg/kg	EPA 6010B	EPA 3050B
Cobalt	3.82		0.264	mg/kg	EPA 6010B	EPA 3050B
Copper	5.81		0.529	mg/kg	EPA 6010B	EPA 3050B
Lead	1.25		0.529	mg/kg	EPA 6010B	EPA 3050B
Nickel	3.26		0.264	mg/kg	EPA 6010B	EPA 3050B
Vanadium	12.2		0.264	mg/kg	EPA 6010B	EPA 3050B
Zinc	19.0		1.06	mg/kg	EPA 6010B	EPA 3050B
B-DU3-S-SG-09-25S (17-03-0445-4)						
Moisture	5.5		0.10	%	ASTM D-2216 (M)	N/A
Arsenic	0.802		0.767	mg/kg	EPA 6010B	EPA 3050B
Barium	57.6		0.511	mg/kg	EPA 6010B	EPA 3050B
Chromium	3.35		0.256	mg/kg	EPA 6010B	EPA 3050B
Cobalt	3.78		0.256	mg/kg	EPA 6010B	EPA 3050B
Copper	5.85		0.511	mg/kg	EPA 6010B	EPA 3050B
Lead	1.39		0.511	mg/kg	EPA 6010B	EPA 3050B
Nickel	3.29		0.256	mg/kg	EPA 6010B	EPA 3050B
Vanadium	11.3		0.256	mg/kg	EPA 6010B	EPA 3050B
Zinc	17.7		1.02	mg/kg	EPA 6010B	EPA 3050B
B-DU3-S-SG-10-15S (17-03-0445-7)						
Moisture	6.5		0.10	%	ASTM D-2216 (M)	N/A
Arsenic	1.11		0.790	mg/kg	EPA 6010B	EPA 3050B
Barium	47.0		0.527	mg/kg	EPA 6010B	EPA 3050B
Chromium	3.30		0.263	mg/kg	EPA 6010B	EPA 3050B
Cobalt	3.84		0.263	mg/kg	EPA 6010B	EPA 3050B
Copper	5.89		0.527	mg/kg	EPA 6010B	EPA 3050B
Lead	1.24		0.527	mg/kg	EPA 6010B	EPA 3050B
Nickel	3.06		0.263	mg/kg	EPA 6010B	EPA 3050B
Vanadium	11.5		0.263	mg/kg	EPA 6010B	EPA 3050B
Zinc	17.9		1.05	mg/kg	EPA 6010B	EPA 3050B

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* MDL is shown

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Detections Summary

Client:	Andersen Environmental	Work Order:	17-03-0445
	5261 West Imperial Highway	Project Name:	Burbank Airport / 9836002041
	Los Angeles, CA 90045-6231	Received:	03/06/17
Attn:	Brian Martasin		Page 2 of 2

Client SampleID

Analyte	Result	Qualifiers	RL	Units	Method	Extraction
B-DU3-S-SG-10-25S (17-03-0445-8)						
Moisture	5.6		0.10	%	ASTM D-2216 (M)	N/A
Arsenic	1.08		0.768	mg/kg	EPA 6010B	EPA 3050B
Barium	52.3		0.512	mg/kg	EPA 6010B	EPA 3050B
Chromium	3.80		0.256	mg/kg	EPA 6010B	EPA 3050B
Cobalt	3.74		0.256	mg/kg	EPA 6010B	EPA 3050B
Copper	5.66		0.512	mg/kg	EPA 6010B	EPA 3050B
Lead	1.29		0.512	mg/kg	EPA 6010B	EPA 3050B
Nickel	3.41		0.256	mg/kg	EPA 6010B	EPA 3050B
Vanadium	12.0		0.256	mg/kg	EPA 6010B	EPA 3050B
Zinc	17.1		1.02	mg/kg	EPA 6010B	EPA 3050B
B-DU3-S-07-0.6 (17-03-0445-9)						
Moisture	4.6		0.10	%	ASTM D-2216 (M)	N/A

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

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* MDL is shown

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Analytical Report

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

Date Received: 03/06/17
Work Order: 17-03-0445
Preparation: N/A
Method: ASTM D-2216 (M)
Units: %

Project: Burbank Airport / 9836002041

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
B-DU3-S-SG-09-15S	**17-03-0445-3-A**	**03/06/17 10:48**	**Solid**	**N/A**	**03/07/17**	**03/07/17 21:00**	**H0307MOIB4**

Parameter	Result	RL	DF	Qualifiers
Moisture	5.4	0.10	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
B-DU3-S-SG-09-25S	**17-03-0445-4-A**	**03/06/17 11:00**	**Solid**	**N/A**	**03/07/17**	**03/07/17 21:00**	**H0307MOIB4**

Parameter	Result	RL	DF	Qualifiers
Moisture	5.5	0.10	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
B-DU3-S-SG-10-15S	**17-03-0445-7-A**	**03/06/17 12:32**	**Solid**	**N/A**	**03/07/17**	**03/07/17 21:00**	**H0307MOIB4**

Parameter	Result	RL	DF	Qualifiers
Moisture	6.5	0.10	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
B-DU3-S-SG-10-25S	**17-03-0445-8-A**	**03/06/17 12:42**	**Solid**	**N/A**	**03/07/17**	**03/07/17 21:00**	**H0307MOIB4**

Parameter	Result	RL	DF	Qualifiers
Moisture	5.6	0.10	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
B-DU3-S-07-0.6	**17-03-0445-9-A**	**03/06/17 13:17**	**Solid**	**N/A**	**03/07/17**	**03/07/17 21:00**	**H0307MOIB4**

Parameter	Result	RL	DF	Qualifiers
Moisture	4.6	0.10	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	**099-05-014-6729**	**N/A**	**Solid**	**N/A**	**03/07/17**	**03/07/17 21:00**	**H0307MOIB4**

Parameter	Result	RL	DF	Qualifiers
Moisture	ND	0.10	1.00	

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

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Analytical Report

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

Date Received: 03/06/17
Work Order: 17-03-0445
Preparation: EPA 3550B
Method: EPA 8015B (M)
Units: mg/kg

Project: Burbank Airport / 9836002041

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
B-DU3-S-SG-09-15S	**17-03-0445-3-A**	**03/06/17 10:48**	**Solid**	**GC 49**	**03/07/17**	**03/08/17 13:59**	**170307B07A**

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.

Parameter	Result	RL	DF	Qualifiers
TPH as Diesel	ND	5.2	1.00	
TPH as Motor Oil	ND	5.2	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
n-Octacosane	90	61-145	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
B-DU3-S-SG-09-25S	**17-03-0445-4-A**	**03/06/17 11:00**	**Solid**	**GC 49**	**03/07/17**	**03/08/17 14:20**	**170307B07A**

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.

Parameter	Result	RL	DF	Qualifiers
TPH as Diesel	ND	5.2	1.00	
TPH as Motor Oil	ND	5.2	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
n-Octacosane	96	61-145	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
B-DU3-S-SG-10-15S	**17-03-0445-7-A**	**03/06/17 12:32**	**Solid**	**GC 49**	**03/07/17**	**03/08/17 14:40**	**170307B07A**

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.

Parameter	Result	RL	DF	Qualifiers
TPH as Diesel	ND	5.3	1.00	
TPH as Motor Oil	ND	5.3	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
n-Octacosane	89	61-145	

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

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Analytical Report

Andersen Environmental		Date Received:	03/06/17
5261 West Imperial Highway		Work Order:	17-03-0445
Los Angeles, CA 90045-6231		Preparation:	EPA 3550B
		Method:	EPA 8015B (M)
		Units:	mg/kg
Project: Burbank Airport / 9836002041			Page 2 of 2

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
B-DU3-S-SG-10-25S	**17-03-0445-8-A**	**03/06/17 12:42**	**Solid**	**GC 49**	**03/07/17**	**03/08/17 15:01**	**170307B07A**

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.

Parameter	Result	RL	DF	Qualifiers
TPH as Diesel	ND	5.2	1.00	
TPH as Motor Oil	ND	5.2	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
n-Octacosane	100	61-145	

Method Blank	099-14-353-5	N/A	Solid	GC 49	03/07/17	03/08/17 10:52	170307B07A

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

Parameter	Result	RL	DF	Qualifiers
TPH as Diesel	ND	5.0	1.00	
TPH as Motor Oil	ND	5.0	1.00	

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

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Analytical Report

Andersen Environmental		Date Received:	03/06/17
5261 West Imperial Highway		Work Order:	17-03-0445
Los Angeles, CA 90045-6231		Preparation:	EPA 3050B
		Method:	EPA 6010B
		Units:	mg/kg
Project: Burbank Airport / 9836002041			Page 1 of 5

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
B-DU3-S-SG-09-15S	**17-03-0445-3-A**	**03/06/17 10:48**	**Solid**	**ICP 7300**	**03/09/17**	**03/10/17 12:02**	**170309L04**

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

Parameter	Result	RL	DF	Qualifiers
Antimony	ND	0.793	1.00	
Arsenic	ND	0.793	1.00	
Barium	54.6	0.529	1.00	
Beryllium	ND	0.264	1.00	
Cadmium	ND	0.529	1.00	
Chromium	3.54	0.264	1.00	
Cobalt	3.82	0.264	1.00	
Copper	5.81	0.529	1.00	
Lead	1.25	0.529	1.00	
Molybdenum	ND	0.264	1.00	
Nickel	3.26	0.264	1.00	
Selenium	ND	0.793	1.00	
Silver	ND	0.264	1.00	
Thallium	ND	0.793	1.00	
Vanadium	12.2	0.264	1.00	
Zinc	19.0	1.06	1.00	

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

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Analytical Report

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

Date Received: 03/06/17
Work Order: 17-03-0445
Preparation: EPA 3050B
Method: EPA 6010B
Units: mg/kg

Project: Burbank Airport / 9836002041

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
B-DU3-S-SG-09-25S	**17-03-0445-4-A**	**03/06/17 11:00**	**Solid**	**ICP 7300**	**03/09/17**	**03/10/17 12:04**	**170309L04**

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

Parameter	Result	RL	DF	Qualifiers
Antimony	ND	0.767	0.966	
Arsenic	0.802	0.767	0.966	
Barium	57.6	0.511	0.966	
Beryllium	ND	0.256	0.966	
Cadmium	ND	0.511	0.966	
Chromium	3.35	0.256	0.966	
Cobalt	3.78	0.256	0.966	
Copper	5.85	0.511	0.966	
Lead	1.39	0.511	0.966	
Molybdenum	ND	0.256	0.966	
Nickel	3.29	0.256	0.966	
Selenium	ND	0.767	0.966	
Silver	ND	0.256	0.966	
Thallium	ND	0.767	0.966	
Vanadium	11.3	0.256	0.966	
Zinc	17.7	1.02	0.966	

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

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Analytical Report

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

Date Received: 03/06/17
Work Order: 17-03-0445
Preparation: EPA 3050B
Method: EPA 6010B
Units: mg/kg

Project: Burbank Airport / 9836002041

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
B-DU3-S-SG-10-15S	**17-03-0445-7-A**	**03/06/17 12:32**	**Solid**	**ICP 7300**	**03/09/17**	**03/10/17 12:05**	**170309L04**

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

Parameter	Result	RL	DF	Qualifiers
Antimony	ND	0.790	0.985	
Arsenic	1.11	0.790	0.985	
Barium	47.0	0.527	0.985	
Beryllium	ND	0.263	0.985	
Cadmium	ND	0.527	0.985	
Chromium	3.30	0.263	0.985	
Cobalt	3.84	0.263	0.985	
Copper	5.89	0.527	0.985	
Lead	1.24	0.527	0.985	
Molybdenum	ND	0.263	0.985	
Nickel	3.06	0.263	0.985	
Selenium	ND	0.790	0.985	
Silver	ND	0.263	0.985	
Thallium	ND	0.790	0.985	
Vanadium	11.5	0.263	0.985	
Zinc	17.9	1.05	0.985	

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

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Analytical Report

Andersen Environmental		Date Received:	03/06/17
5261 West Imperial Highway		Work Order:	17-03-0445
Los Angeles, CA 90045-6231		Preparation:	EPA 3050B
		Method:	EPA 6010B
		Units:	mg/kg
Project: Burbank Airport / 9836002041			Page 4 of 5

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
B-DU3-S-SG-10-25S	**17-03-0445-8-A**	**03/06/17 12:42**	**Solid**	**ICP 7300**	**03/09/17**	**03/10/17 12:06**	**170309L04**

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

Parameter	Result	RL	DF	Qualifiers
Antimony	ND	0.768	0.966	
Arsenic	1.08	0.768	0.966	
Barium	52.3	0.512	0.966	
Beryllium	ND	0.256	0.966	
Cadmium	ND	0.512	0.966	
Chromium	3.80	0.256	0.966	
Cobalt	3.74	0.256	0.966	
Copper	5.66	0.512	0.966	
Lead	1.29	0.512	0.966	
Molybdenum	ND	0.256	0.966	
Nickel	3.41	0.256	0.966	
Selenium	ND	0.768	0.966	
Silver	ND	0.256	0.966	
Thallium	ND	0.768	0.966	
Vanadium	12.0	0.256	0.966	
Zinc	17.1	1.02	0.966	

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

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Analytical Report

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

Date Received: 03/06/17
Work Order: 17-03-0445
Preparation: EPA 3050B
Method: EPA 6010B
Units: mg/kg

Project: Burbank Airport / 9836002041

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	**097-01-002-24426**	**N/A**	**Solid**	**ICP 7300**	**03/09/17**	**03/10/17 11:51**	**170309L04**

Parameter	Result	RL	DF	Qualifiers
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.

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Analytical Report

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

Project: Burbank Airport / 9836002041

Date Received: 03/06/17
Work Order: 17-03-0445
Preparation: EPA 7471A Total
Method: EPA 7471A
Units: mg/kg

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
B-DU3-S-SG-09-15S	**17-03-0445-3-A**	**03/06/17 10:48**	**Solid**	**Mercury 08**	**03/09/17**	**03/09/17 14:06**	**170309L01**

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

Parameter	Result	RL	DF	Qualifiers
Mercury	ND	0.0852	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
B-DU3-S-SG-09-25S	**17-03-0445-4-A**	**03/06/17 11:00**	**Solid**	**Mercury 08**	**03/09/17**	**03/09/17 14:08**	**170309L01**

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

Parameter	Result	RL	DF	Qualifiers
Mercury	ND	0.0867	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
B-DU3-S-SG-10-15S	**17-03-0445-7-A**	**03/06/17 12:32**	**Solid**	**Mercury 08**	**03/09/17**	**03/09/17 14:11**	**170309L01**

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

Parameter	Result	RL	DF	Qualifiers
Mercury	ND	0.0863	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
B-DU3-S-SG-10-25S	**17-03-0445-8-A**	**03/06/17 12:42**	**Solid**	**Mercury 08**	**03/09/17**	**03/09/17 14:13**	**170309L01**

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

Parameter	Result	RL	DF	Qualifiers
Mercury	ND	0.0883	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	**099-16-272-2865**	**N/A**	**Solid**	**Mercury 08**	**03/09/17**	**03/09/17 13:39**	**170309L01**

Parameter	Result	RL	DF	Qualifiers
Mercury	ND	0.0833	1.00	

Return to Contents

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

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Analytical Report

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

Date Received: 03/06/17
Work Order: 17-03-0445
Preparation: EPA 3545
Method: EPA 8081A
Units: ug/kg

Project: Burbank Airport / 9836002041

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
B-DU3-S-07-0.6	**17-03-0445-9-A**	**03/06/17 13:17**	**Solid**	**GC 41**	**03/07/17**	**03/08/17 13:14**	**170307L07**

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

Parameter	Result	RL	DF	Qualifiers
Aldrin	ND	5.2	1.00	
Alpha-BHC	ND	10	1.00	
Beta-BHC	ND	5.2	1.00	
Chlordane	ND	52	1.00	
4,4'-DDD	ND	5.2	1.00	
4,4'-DDE	ND	5.2	1.00	
4,4'-DDT	ND	5.2	1.00	
Delta-BHC	ND	10	1.00	
Dieldrin	ND	5.2	1.00	
Endosulfan I	ND	5.2	1.00	
Endosulfan II	ND	5.2	1.00	
Endosulfan Sulfate	ND	5.2	1.00	
Endrin	ND	5.2	1.00	
Endrin Aldehyde	ND	5.2	1.00	
Endrin Ketone	ND	5.2	1.00	
Gamma-BHC	ND	5.2	1.00	
Heptachlor	ND	5.2	1.00	
Heptachlor Epoxide	ND	10	1.00	
Methoxychlor	ND	5.2	1.00	
Toxaphene	ND	100	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Decachlorobiphenyl	138	24-168	
2,4,5,6-Tetrachloro-m-Xylene	72	25-145	

Return to Contents

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

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Analytical Report

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

Date Received: 03/06/17
Work Order: 17-03-0445
Preparation: EPA 3545
Method: EPA 8081A
Units: ug/kg

Project: Burbank Airport / 9836002041

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	**099-12-537-2628**	**N/A**	**Solid**	**GC 41**	**03/07/17**	**03/08/17 11:28**	**170307L07**

Parameter	Result	RL	DF	Qualifiers
Aldrin	ND	5.0	1.00	
Alpha-BHC	ND	10	1.00	
Beta-BHC	ND	5.0	1.00	
Chlordane	ND	50	1.00	
4,4'-DDD	ND	5.0	1.00	
4,4'-DDE	ND	5.0	1.00	
4,4'-DDT	ND	5.0	1.00	
Delta-BHC	ND	10	1.00	
Dieldrin	ND	5.0	1.00	
Endosulfan I	ND	5.0	1.00	
Endosulfan II	ND	5.0	1.00	
Endosulfan Sulfate	ND	5.0	1.00	
Endrin	ND	5.0	1.00	
Endrin Aldehyde	ND	5.0	1.00	
Endrin Ketone	ND	5.0	1.00	
Gamma-BHC	ND	5.0	1.00	
Heptachlor	ND	5.0	1.00	
Heptachlor Epoxide	ND	10	1.00	
Methoxychlor	ND	5.0	1.00	
Toxaphene	ND	100	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Decachlorobiphenyl	90	24-168	
2,4,5,6-Tetrachloro-m-Xylene	64	25-145	

Return to Contents

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

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Analytical Report

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

Date Received: 03/06/17
Work Order: 17-03-0445
Preparation: EPA 3545
Method: EPA 8082
Units: ug/kg

Project: Burbank Airport / 9836002041

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
B-DU3-S-SG-09-15S	**17-03-0445-3-A**	**03/06/17 10:48**	**Solid**	**GC 31**	**03/07/17**	**03/08/17 12:30**	**170307L08**

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

Parameter	Result	RL	DF	Qualifiers
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	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Decachlorobiphenyl	84	24-168	
2,4,5,6-Tetrachloro-m-Xylene	66	25-145	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
B-DU3-S-SG-09-25S	**17-03-0445-4-A**	**03/06/17 11:00**	**Solid**	**GC 31**	**03/07/17**	**03/08/17 12:49**	**170307L08**

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

Parameter	Result	RL	DF	Qualifiers
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	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Decachlorobiphenyl	81	24-168	
2,4,5,6-Tetrachloro-m-Xylene	66	25-145	

Return to Contents

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

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Analytical Report

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

Date Received: 03/06/17
Work Order: 17-03-0445
Preparation: EPA 3545
Method: EPA 8082
Units: ug/kg

Project: Burbank Airport / 9836002041

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
B-DU3-S-SG-10-15S	**17-03-0445-7-A**	**03/06/17 12:32**	**Solid**	**GC 31**	**03/07/17**	**03/08/17 13:08**	**170307L08**

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

Parameter	Result	RL	DF	Qualifiers
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	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Decachlorobiphenyl	83	24-168	
2,4,5,6-Tetrachloro-m-Xylene	64	25-145	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
B-DU3-S-SG-10-25S	**17-03-0445-8-A**	**03/06/17 12:42**	**Solid**	**GC 31**	**03/07/17**	**03/08/17 13:27**	**170307L08**

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

Parameter	Result	RL	DF	Qualifiers
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	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Decachlorobiphenyl	81	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.

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Analytical Report

Andersen Environmental		Date Received:	03/06/17
5261 West Imperial Highway		Work Order:	17-03-0445
Los Angeles, CA 90045-6231		Preparation:	EPA 3545
		Method:	EPA 8082
		Units:	ug/kg
Project: Burbank Airport / 9836002041			Page 3 of 3

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	**099-12-535-4078**	**N/A**	**Solid**	**GC 31**	**03/07/17**	**03/08/17 10:00**	**170307L08**

Parameter	Result	RL	DF	Qualifiers
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	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Decachlorobiphenyl	77	24-168	
2,4,5,6-Tetrachloro-m-Xylene	61	25-145	

Return to Contents

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

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Analytical Report

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

Date Received: 03/06/17
Work Order: 17-03-0445
Preparation: EPA 3545
Method: EPA 8270C SIM PAHs
Units: mg/kg

Project: Burbank Airport / 9836002041

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
B-DU3-S-SG-09-15S	**17-03-0445-3-A**	**03/06/17 10:48**	**Solid**	**GC/MS EEE**	**03/07/17**	**03/08/17 15:15**	**170307L05**

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

Parameter	Result	RL	DF	Qualifiers
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	

Surrogate	Rec. (%)	Control Limits	Qualifiers
2-Fluorobiphenyl	77	13-127	
Nitrobenzene-d5	90	17-137	
p-Terphenyl-d14	91	4-160	

Return to Contents

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

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Analytical Report

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

Date Received: 03/06/17
Work Order: 17-03-0445
Preparation: EPA 3545
Method: EPA 8270C SIM PAHs
Units: mg/kg

Project: Burbank Airport / 9836002041

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
B-DU3-S-SG-09-25S	**17-03-0445-4-A**	**03/06/17 11:00**	**Solid**	**GC/MS EEE**	**03/07/17**	**03/08/17 15:35**	**170307L05**

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

Parameter	Result	RL	DF	Qualifiers
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	

Surrogate	Rec. (%)	Control Limits	Qualifiers
2-Fluorobiphenyl	72	13-127	
Nitrobenzene-d5	90	17-137	
p-Terphenyl-d14	87	4-160	

Return to Contents

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

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Analytical Report

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

Date Received: 03/06/17
Work Order: 17-03-0445
Preparation: EPA 3545
Method: EPA 8270C SIM PAHs
Units: mg/kg

Project: Burbank Airport / 9836002041

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
B-DU3-S-SG-10-15S	**17-03-0445-7-A**	**03/06/17 12:32**	**Solid**	**GC/MS EEE**	**03/07/17**	**03/08/17 15:56**	**170307L05**

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

Parameter	Result	RL	DF	Qualifiers
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	

Surrogate	Rec. (%)	Control Limits	Qualifiers
2-Fluorobiphenyl	73	13-127	
Nitrobenzene-d5	82	17-137	
p-Terphenyl-d14	91	4-160	

Return to Contents

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

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Analytical Report

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

Date Received: 03/06/17
Work Order: 17-03-0445
Preparation: EPA 3545
Method: EPA 8270C SIM PAHs
Units: mg/kg

Project: Burbank Airport / 9836002041

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
B-DU3-S-SG-10-25S	**17-03-0445-8-A**	**03/06/17 12:42**	**Solid**	**GC/MS EEE**	**03/07/17**	**03/08/17 16:16**	**170307L05**

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

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	70	13-127	
Nitrobenzene-d5	86	17-137	
p-Terphenyl-d14	87	4-160	

Return to Contents

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

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Analytical Report

Andersen Environmental		Date Received:	03/06/17
5261 West Imperial Highway		Work Order:	17-03-0445
Los Angeles, CA 90045-6231		Preparation:	EPA 3545
		Method:	EPA 8270C SIM PAHs
		Units:	mg/kg
Project: Burbank Airport / 9836002041			Page 5 of 5

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	**099-14-035-378**	**N/A**	**Solid**	**GC/MS EEE**	**03/07/17**	**03/08/17 11:53**	**170307L05**

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	60	13-127	
Nitrobenzene-d5	75	17-137	
p-Terphenyl-d14	78	4-160	

Return to Contents

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

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Quality Control - Spike/Spike Duplicate

Andersen Environmental		Date Received:	03/06/17
5261 West Imperial Highway		Work Order:	17-03-0445
Los Angeles, CA 90045-6231		Preparation:	EPA 3550B
		Method:	EPA 8015B (M)
Project: Burbank Airport / 9836002041			Page 1 of 6

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
17-03-0433-3	**Sample**	**Solid**	**GC 49**	**03/07/17**	**03/08/17 19:09**	**170307S07**
17-03-0433-3	**Matrix Spike**	**Solid**	**GC 49**	**03/07/17**	**03/08/17 11:34**	**170307S07**
17-03-0433-3	**Matrix Spike Duplicate**	**Solid**	**GC 49**	**03/07/17**	**03/08/17 11:55**	**170307S07**

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	361.8	90	359.2	90	64-130	1	0-15	

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RPD: Relative Percent Difference. CL: Control Limits

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Quality Control - Spike/Spike Duplicate

Andersen Environmental		Date Received:	03/06/17
5261 West Imperial Highway		Work Order:	17-03-0445
Los Angeles, CA 90045-6231		Preparation:	EPA 3050B
		Method:	EPA 6010B
Project: Burbank Airport / 9836002041			Page 2 of 6

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
17-03-0444-3	**Sample**	**Solid**	**ICP 7300**	**03/09/17**	**03/10/17 11:54**	**170309S04**
17-03-0444-3	**Matrix Spike**	**Solid**	**ICP 7300**	**03/09/17**	**03/10/17 11:55**	**170309S04**
17-03-0444-3	**Matrix Spike Duplicate**	**Solid**	**ICP 7300**	**03/09/17**	**03/10/17 11:56**	**170309S04**

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Antimony	ND	25.00	12.35	49	12.37	49	50-115	0	0-20	3
Arsenic	ND	25.00	23.77	95	24.70	99	75-125	4	0-20	
Barium	50.13	25.00	69.83	79	69.24	76	75-125	1	0-20	
Beryllium	ND	25.00	25.08	100	25.57	102	75-125	2	0-20	
Cadmium	ND	25.00	24.00	96	23.88	96	75-125	0	0-20	
Chromium	3.844	25.00	27.79	96	27.71	95	75-125	0	0-20	
Cobalt	3.977	25.00	27.90	96	27.78	95	75-125	0	0-20	
Copper	5.667	25.00	30.99	101	30.41	99	75-125	2	0-20	
Lead	1.333	25.00	25.48	97	25.65	97	75-125	1	0-20	
Molybdenum	ND	25.00	23.97	96	23.80	95	75-125	1	0-20	
Nickel	3.650	25.00	27.29	95	27.38	95	75-125	0	0-20	
Selenium	ND	25.00	23.19	93	24.31	97	75-125	5	0-20	
Silver	ND	12.50	12.08	97	11.68	93	75-125	3	0-20	
Thallium	ND	25.00	23.24	93	23.51	94	75-125	1	0-20	
Vanadium	12.12	25.00	34.87	91	34.30	89	75-125	2	0-20	
Zinc	18.42	25.00	39.77	85	41.69	93	75-125	5	0-20	

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RPD: Relative Percent Difference. CL: Control Limits

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Quality Control - Spike/Spike Duplicate

Andersen Environmental		Date Received:	03/06/17
5261 West Imperial Highway		Work Order:	17-03-0445
Los Angeles, CA 90045-6231		Preparation:	EPA 7471A Total
		Method:	EPA 7471A
Project: Burbank Airport / 9836002041			Page 3 of 6

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
17-03-0444-3	**Sample**	**Solid**	**Mercury 08**	**03/09/17**	**03/09/17 13:43**	**170309S01**
17-03-0444-3	**Matrix Spike**	**Solid**	**Mercury 08**	**03/09/17**	**03/09/17 13:46**	**170309S01**
17-03-0444-3	**Matrix Spike Duplicate**	**Solid**	**Mercury 08**	**03/09/17**	**03/09/17 13:48**	**170309S01**

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Mercury	ND	0.8350	0.7803	93	0.7523	90	71-137	4	0-14	

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RPD: Relative Percent Difference. CL: Control Limits

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Quality Control - Spike/Spike Duplicate

Andersen Environmental		Date Received:	03/06/17
5261 West Imperial Highway		Work Order:	17-03-0445
Los Angeles, CA 90045-6231		Preparation:	EPA 3545
		Method:	EPA 8081A
Project: Burbank Airport / 9836002041			Page 4 of 6

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
B-DU3-S-07-0.6	**Sample**	**Solid**	**GC 41**	**03/07/17**	**03/08/17 13:14**	**170307S07**
B-DU3-S-07-0.6	**Matrix Spike**	**Solid**	**GC 41**	**03/07/17**	**03/08/17 14:00**	**170307S07**
B-DU3-S-07-0.6	**Matrix Spike Duplicate**	**Solid**	**GC 41**	**03/07/17**	**03/08/17 14:15**	**170307S07**

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Aldrin	ND	25.00	18.09	72	18.90	76	50-135	4	0-25	
Alpha-BHC	ND	25.00	17.22	69	16.94	68	50-135	2	0-25	
Beta-BHC	ND	25.00	11.82	47	17.14	69	50-135	37	0-25	3,4
4,4'-DDD	ND	25.00	21.07	84	23.32	93	50-135	10	0-25	
4,4'-DDE	ND	25.00	20.27	81	20.65	83	50-135	2	0-25	
4,4'-DDT	ND	25.00	20.69	83	16.99	68	50-135	20	0-25	
Delta-BHC	ND	25.00	13.85	55	14.22	57	50-135	3	0-25	
Dieldrin	ND	25.00	23.34	93	23.95	96	50-135	3	0-25	
Endosulfan I	ND	25.00	21.33	85	21.33	85	50-135	0	0-25	
Endosulfan II	ND	25.00	23.30	93	24.15	97	50-135	4	0-25	
Endosulfan Sulfate	ND	25.00	17.51	70	18.08	72	50-135	3	0-25	
Endrin	ND	25.00	22.62	90	23.80	95	50-135	5	0-25	
Endrin Aldehyde	ND	25.00	14.72	59	13.60	54	50-135	8	0-25	
Gamma-BHC	ND	25.00	16.50	66	17.23	69	50-135	4	0-25	
Heptachlor	ND	25.00	19.05	76	18.39	74	50-135	4	0-25	
Heptachlor Epoxide	ND	25.00	20.65	83	20.53	82	50-135	1	0-25	
Methoxychlor	ND	25.00	21.00	84	19.36	77	50-135	8	0-25	

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RPD: Relative Percent Difference. CL: Control Limits

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Quality Control - Spike/Spike Duplicate

Andersen Environmental		Date Received:	03/06/17
5261 West Imperial Highway		Work Order:	17-03-0445
Los Angeles, CA 90045-6231		Preparation:	EPA 3545
		Method:	EPA 8082
Project: Burbank Airport / 9836002041			Page 5 of 6

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
17-03-0444-3	**Sample**	**Solid**	**GC 31**	**03/07/17**	**03/08/17 11:14**	**170307S08**
17-03-0444-3	**Matrix Spike**	**Solid**	**GC 31**	**03/07/17**	**03/08/17 10:36**	**170307S08**
17-03-0444-3	**Matrix Spike Duplicate**	**Solid**	**GC 31**	**03/07/17**	**03/08/17 10:55**	**170307S08**

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Aroclor-1016	ND	100.0	78.50	78	76.00	76	50-135	3	0-20	
Aroclor-1260	ND	100.0	89.00	89	87.50	88	50-135	2	0-20	

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RPD: Relative Percent Difference. CL: Control Limits

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Quality Control - Spike/Spike Duplicate

Andersen Environmental		Date Received:	03/06/17
5261 West Imperial Highway		Work Order:	17-03-0445
Los Angeles, CA 90045-6231		Preparation:	EPA 3545
		Method:	EPA 8270C SIM PAHs
Project: Burbank Airport / 9836002041			Page 6 of 6

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
17-03-0444-3	**Sample**	**Solid**	**GC/MS EEE**	**03/07/17**	**03/08/17 13:34**	**170307S05**
17-03-0444-3	**Matrix Spike**	**Solid**	**GC/MS EEE**	**03/07/17**	**03/08/17 12:53**	**170307S05**
17-03-0444-3	**Matrix Spike Duplicate**	**Solid**	**GC/MS EEE**	**03/07/17**	**03/08/17 13:14**	**170307S05**

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Naphthalene	ND	0.1000	0.08533	85	0.07464	75	20-150	13	0-33	
2-Methylnaphthalene	ND	0.1000	0.1051	105	0.09390	94	29-137	11	0-31	
1-Methylnaphthalene	ND	0.1000	0.09459	95	0.08224	82	34-136	14	0-29	
Acenaphthylene	ND	0.1000	0.07808	78	0.06960	70	29-131	11	0-32	
Acenaphthene	ND	0.1000	0.08025	80	0.07146	71	29-137	12	0-28	
Fluorene	ND	0.1000	0.08115	81	0.07459	75	36-132	8	0-27	
Phenanthrene	ND	0.1000	0.08652	87	0.08289	83	20-144	4	0-27	
Anthracene	ND	0.1000	0.08961	90	0.08628	86	26-134	4	0-27	
Fluoranthene	ND	0.1000	0.09277	93	0.09187	92	20-151	1	0-26	
Pyrene	ND	0.1000	0.08626	86	0.08730	87	20-150	1	0-32	
Benzo (a) Anthracene	ND	0.1000	0.08648	86	0.08518	85	24-150	2	0-24	
Chrysene	ND	0.1000	0.09055	91	0.08980	90	25-145	1	0-28	
Benzo (k) Fluoranthene	ND	0.1000	0.09669	97	0.08787	88	28-148	10	0-26	
Benzo (b) Fluoranthene	ND	0.1000	0.08993	90	0.08945	89	21-153	1	0-26	
Benzo (a) Pyrene	ND	0.1000	0.09519	95	0.09195	92	29-149	3	0-22	
Indeno (1,2,3-c,d) Pyrene	ND	0.1000	0.09523	95	0.09358	94	20-154	2	0-25	
Dibenz (a,h) Anthracene	ND	0.1000	0.1007	101	0.09612	96	20-132	5	0-26	
Benzo (g,h,i) Perylene	ND	0.1000	0.1018	102	0.09834	98	20-148	3	0-27	

RPD: Relative Percent Difference. CL: Control Limits

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Quality Control - Sample Duplicate

Andersen Environmental		Date Received:	03/06/17
5261 West Imperial Highway		Work Order:	17-03-0445
Los Angeles, CA 90045-6231		Preparation:	N/A
		Method:	ASTM D-2216 (M)
Project: Burbank Airport / 9836002041			Page 1 of 1

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	Duplicate Batch Number
17-03-0425-4	**Sample**	**Solid**	**N/A**	**03/07/17 00:00**	**03/07/17 21:00**	**H0307MOID4**
17-03-0425-4	**Sample Duplicate**	**Solid**	**N/A**	**03/07/17 00:00**	**03/07/17 21:00**	**H0307MOID4**

Parameter	Sample Conc.	DUP Conc.	RPD	RPD CL	Qualifiers
Moisture	19.60	20.10	3	0-10	

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RPD: Relative Percent Difference. CL: Control Limits

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Quality Control - LCS

Andersen Environmental		Date Received:	03/06/17
5261 West Imperial Highway		Work Order:	17-03-0445
Los Angeles, CA 90045-6231		Preparation:	EPA 3550B
		Method:	EPA 8015B (M)
Project: Burbank Airport / 9836002041			Page 1 of 6

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number
099-14-353-5	**LCS**	**Solid**	**GC 49**	**03/07/17**	**03/08/17 11:12**	**170307B07A**

Parameter	Spike Added	Conc. Recovered	LCS %Rec.	%Rec. CL	Qualifiers
TPH as Diesel	400.0	377.9	94	61-145	

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RPD: Relative Percent Difference. CL: Control Limits

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Quality Control - LCS

Andersen Environmental		Date Received:	03/06/17
5261 West Imperial Highway		Work Order:	17-03-0445
Los Angeles, CA 90045-6231		Preparation:	EPA 3050B
		Method:	EPA 6010B
Project: Burbank Airport / 9836002041			Page 2 of 6

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number
097-01-002-24426	**LCS**	**Solid**	**ICP 7300**	**03/09/17**	**03/10/17 11:52**	**170309L04**

Parameter	Spike Added	Conc. Recovered	LCS %Rec.	%Rec. CL	ME CL	Qualifiers
Antimony	25.00	23.32	93	80-120	73-127	
Arsenic	25.00	22.65	91	80-120	73-127	
Barium	25.00	26.06	104	80-120	73-127	
Beryllium	25.00	23.70	95	80-120	73-127	
Cadmium	25.00	24.32	97	80-120	73-127	
Chromium	25.00	24.87	99	80-120	73-127	
Cobalt	25.00	25.55	102	80-120	73-127	
Copper	25.00	25.54	102	80-120	73-127	
Lead	25.00	24.29	97	80-120	73-127	
Molybdenum	25.00	23.77	95	80-120	73-127	
Nickel	25.00	25.74	103	80-120	73-127	
Selenium	25.00	22.50	90	80-120	73-127	
Silver	12.50	12.07	97	80-120	73-127	
Thallium	25.00	23.91	96	80-120	73-127	
Vanadium	25.00	23.57	94	80-120	73-127	
Zinc	25.00	23.55	94	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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RPD: Relative Percent Difference. CL: Control Limits

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Quality Control - LCS

Andersen Environmental		Date Received:	03/06/17
5261 West Imperial Highway		Work Order:	17-03-0445
Los Angeles, CA 90045-6231		Preparation:	EPA 7471A Total
		Method:	EPA 7471A
Project: Burbank Airport / 9836002041			Page 3 of 6

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number
099-16-272-2865	**LCS**	**Solid**	**Mercury 08**	**03/09/17**	**03/09/17 13:41**	**170309L01**

Parameter	Spike Added	Conc. Recovered	LCS %Rec.	%Rec. CL	Qualifiers
Mercury	0.8350	0.8195	98	85-121	

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RPD: Relative Percent Difference. CL: Control Limits

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Quality Control - LCS

Andersen Environmental		Date Received:	03/06/17
5261 West Imperial Highway		Work Order:	17-03-0445
Los Angeles, CA 90045-6231		Preparation:	EPA 3545
		Method:	EPA 8081A
Project: Burbank Airport / 9836002041			Page 4 of 6

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number
099-12-537-2628	**LCS**	**Solid**	**GC 41**	**03/07/17**	**03/08/17 11:13**	**170307L07**

Parameter	Spike Added	Conc. Recovered	LCS %Rec.	%Rec. CL	ME CL	Qualifiers
Aldrin	25.00	19.22	77	50-135	36-149	
Alpha-BHC	25.00	19.02	76	50-135	36-149	
Beta-BHC	25.00	18.88	76	50-135	36-149	
4,4'-DDD	25.00	19.73	79	50-135	36-149	
4,4'-DDE	25.00	19.29	77	50-135	36-149	
4,4'-DDT	25.00	18.95	76	50-135	36-149	
Delta-BHC	25.00	18.93	76	50-135	36-149	
Dieldrin	25.00	19.56	78	50-135	36-149	
Endosulfan I	25.00	19.78	79	50-135	36-149	
Endosulfan II	25.00	19.66	79	50-135	36-149	
Endosulfan Sulfate	25.00	19.46	78	50-135	36-149	
Endrin	25.00	21.71	87	50-135	36-149	
Endrin Aldehyde	25.00	18.83	75	50-135	36-149	
Gamma-BHC	25.00	18.99	76	50-135	36-149	
Heptachlor	25.00	19.03	76	50-135	36-149	
Heptachlor Epoxide	25.00	19.11	76	50-135	36-149	
Methoxychlor	25.00	18.15	73	50-135	36-149	

Total number of LCS compounds: 17
Total number of ME compounds: 0
Total number of ME compounds allowed: 1
LCS ME CL validation result: Pass

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RPD: Relative Percent Difference. CL: Control Limits

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Quality Control - LCS

Andersen Environmental		Date Received:	03/06/17
5261 West Imperial Highway		Work Order:	17-03-0445
Los Angeles, CA 90045-6231		Preparation:	EPA 3545
		Method:	EPA 8082
Project: Burbank Airport / 9836002041			Page 5 of 6

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number
099-12-535-4078	**LCS**	**Solid**	**GC 31**	**03/07/17**	**03/08/17 10:19**	**170307L08**

Parameter	Spike Added	Conc. Recovered	LCS %Rec.	%Rec. CL	Qualifiers
Aroclor-1016	100.0	97.00	97	50-135	
Aroclor-1260	100.0	93.00	93	50-135	

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RPD: Relative Percent Difference. CL: Control Limits

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Quality Control - LCS

Andersen Environmental		Date Received:	03/06/17
5261 West Imperial Highway		Work Order:	17-03-0445
Los Angeles, CA 90045-6231		Preparation:	EPA 3545
		Method:	EPA 8270C SIM PAHs
Project: Burbank Airport / 9836002041			Page 6 of 6

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number
099-14-035-378	**LCS**	**Solid**	**GC/MS EEE**	**03/07/17**	**03/08/17 12:13**	**170307L05**

Parameter	Spike Added	Conc. Recovered	LCS %Rec.	%Rec. CL	ME CL	Qualifiers
Naphthalene	0.1000	0.06929	69	51-129	38-142	
2-Methylnaphthalene	0.1000	0.08369	84	50-127	37-140	
1-Methylnaphthalene	0.1000	0.07526	75	54-132	41-145	
Acenaphthylene	0.1000	0.06331	63	50-123	38-135	
Acenaphthene	0.1000	0.06293	63	53-125	41-137	
Fluorene	0.1000	0.06525	65	55-127	43-139	
Phenanthrene	0.1000	0.07027	70	50-122	38-134	
Anthracene	0.1000	0.07328	73	50-132	36-146	
Fluoranthene	0.1000	0.07448	74	55-127	43-139	
Pyrene	0.1000	0.07171	72	50-134	36-148	
Benzo (a) Anthracene	0.1000	0.07257	73	50-133	36-147	
Chrysene	0.1000	0.07965	80	51-129	38-142	
Benzo (k) Fluoranthene	0.1000	0.08602	86	49-150	32-167	
Benzo (b) Fluoranthene	0.1000	0.07858	79	50-142	35-157	
Benzo (a) Pyrene	0.1000	0.08146	81	50-134	36-148	
Indeno (1,2,3-c,d) Pyrene	0.1000	0.08425	84	50-148	34-164	
Dibenz (a,h) Anthracene	0.1000	0.08856	89	50-133	36-147	
Benzo (g,h,i) Perylene	0.1000	0.08810	88	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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RPD: Relative Percent Difference. CL: Control Limits

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Sample Analysis Summary Report

Work Order: 17-03-0445 Page 1 of 1

Method	Extraction	Chemist ID	Instrument	Analytical Location
ASTM D-2216 (M)	N/A	1009	N/A	1
EPA 6010B	EPA 3050B	771	ICP 7300	1
EPA 7471A	EPA 7471A Total	868	Mercury 08	1
EPA 8015B (M)	EPA 3550B	972	GC 49	1
EPA 8081A	EPA 3545	669	GC 41	1
EPA 8082	EPA 3545	944	GC 31	1
EPA 8270C SIM PAHs	EPA 3545	907	GC/MS EEE	1

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Glossary of Terms and Qualifiers

Work Order: 17-03-0445 Page 1 of 1

Qualifiers	Definition
*	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.

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Chain-of-Custody Record

Analytical Laboratory:	Calscience	Job # 9836002041
Project Name:	Burbank Airport	NA
Project Address:	2627 N. Hollywood Way, Burbank	
Project Manager:	B. Martasin	
Sampled by:	G. Baader	
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Phone/Email:	Robert Cheung, 510-529-5948, RCheung@Geosyntec.com	

17-03-0445

Number	Sample ID	Lab ID	Type: Grab	Type: Discrete	Matrix: Water	Matrix: Soil	Matrix: Vapor	Matrix: Other	Preservative: Cold (4° C)	Preservative: HNO3	Preservative: NaHSO4	Preservative: HCl	Sampling Information: Date	Sampling Information: Time	Method: OCPs, EPA Method 8081A	Method: PAHs, EPA Method 8270C SIM	Method: Metals, EPA Method 6010B/7471A	Method: Lead, EPA Method 6010B	Method: Arsenic, EPA Method 6010B	Method: STLC Lead EPA Method	Method: TCLP Lead EPA Method	Method: PCBs, EPA Method 8082	Method: TPH full chain, EPA Method 8015M	Method: TPHd, TPHmo, EPA Method 8015M	Method: Composite	Method: Hold	Container: 4- or 8-ounce Glass	Container: 250-ml Poly Bottle	Container: EZ Draw (EPA 5035)	Container: Acetate Liner	Container: 1-l Amber Bottle	Turnaround Time: 24 hours	Turnaround Time: 48 hours	Turnaround Time: Normal
1	B-DH3-S-5609-35			X		X			X				3/6/17	10:25		X	X					X		X		X			X				X
2	-85			X		X			X					10:40												X			X				
3	-155			X		X			X					10:48		X	X					X		X					X				X
4	-255			X		X			X					11:00		X	X					X		X					X				X
5	B-DH3-S-5610-35			X		X			X					12:15											X				X				
6	-85			X		X			X					12:22											X				X				
7	-155			X		X			X					12:32		X	X					X		X					X				X
8	-255			X		X			X					12:42		X	X					X		X					X				X
9	B-DH3-S-07-0.6			X		X			X					13:17	X														X				X
10	-3			X		X			X					13:17												X			X				
11	-8			X		X			X					13:20												X			X				
12	-15			X		X			X					13:30												X			X				
13	B-DH3S-08-3			X		X			X					13:40												X			X				
14	-8			X		X			X					13:45												X			X				
15	-15			X		X			X					13:50												X			X				
16																																		
17																																		
18																																		
19																																		
20																																		

Relinquished by	Date	Time	Received by	Date	Time
[signature] Aly Eer	3/6/17	1430	Aly Eer	3/6/17	1430
Aly Eer	3/6/17	1719	[signature]	3/6/17	1719

Remarks

Sample condition (circle): Chilled Intact

Hold 3'+5' samples until all B-DH3 samples received for 15H composites.

Hold remaining 15' samples (after extraction) for additional 15H composites as needed.

Take Sample from end of line unless otherwise indicated on COC

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WORK ORDER NUMBER: 17-03- 0445

SAMPLE RECEIPT CHECKLIST

COOLER 1 OF 1

CLIENT: EFI GLOBAL

DATE: 03 / 6 / 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): 3.7 °C (w/ CF): 3.7 °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: AM 678

CUSTODY SEAL:

Cooler ☑ Present and Intact ☐ Present but Not Intact ☐ Not Present ☐ N/A Checked by: 678

Sample(s) ☐ Present and Intact ☐ Present but Not Intact ☑ Not Present ☐ N/A Checked by: 1053

SAMPLE CONDITION:	Yes	No	N/A
Chain-of-Custody (COC) document(s) received with samples	☑	☐	☐
COC document(s) received complete	☑	☐	☐
☐ 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	☑	☐	☐
Sample container label(s) consistent with COC	☑	☐	☐
Sample container(s) intact and in good condition	☑	☐	☐
Proper containers for analyses requested	☑	☐	☐
Sufficient volume/mass for analyses requested	☑	☐	☐
Samples received within holding time	☑	☐	☐
Aqueous samples for certain analyses received within 15-minute holding time			
☐ pH ☐ Residual Chlorine ☐ Dissolved Sulfide ☐ Dissolved Oxygen	☐	☐	☑
Proper preservation chemical(s) noted on COC and/or sample container	☐	☐	☑
Unpreserved aqueous sample(s) received for certain analyses			
☐ Volatile Organics ☐ Total Metals ☐ Dissolved Metals			
Container(s) for certain analysis free of headspace	☐	☐	☑
☐ 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	☐	☐	☑

CONTAINER TYPE: (Trip Blank Lot Number: _____)

Aqueous: ☐ VOA ☐ VOA**h** ☐ VOA**na$_2$** ☐ 100PJ ☐ 100PJ**na$_2$** ☐ 125AGB ☐ 125AGB**h** ☐ 125AGB**p** ☐ 125PB

☐ 125PB**znna** ☐ 250AGB ☐ 250CGB ☐ 250CGB**s** ☐ 250PB ☐ 250PB**n** ☐ 500AGB ☐ 500AGJ ☐ 500AGJ**s**

☐ 500PB ☐ 1AGB ☐ 1AGB**na$_2$** ☐ 1AGB**s** ☐ 1PB ☐ 1PB**na** ☐ _____ ☐ _____ ☐ _____ ☐ _____

Solid: ☐ 4ozCGJ ☐ 8ozCGJ ☐ 16ozCGJ ☑ Sleeve (2) ☐ 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** = HNO_3, **na** = NaOH, **na$_2$** = $Na_2S_2O_3$, **p** = H_3PO_4, **s** = H_2SO_4, **u** = ultra-pure, **x** = Na_2SO_3+$NaHSO_4.H_2O$, **znna** = Zn $(CH_3CO_2)_2$ + NaOH

Labeled/Checked by: 1053

Reviewed by: 679

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Case Narrative

Client Project Name: Burbank Airport / 9836002041
Work Order Number: 17-03-0445

CONDITION UPON RECEIPT:

Eurofins Calscience, Inc. received (15) solid samples on March 6th, 2017. A total of (15) containers were received in good condition and at a temperature of 3.7°C, which was within the recommended temperature of 0°C – 6°C.

Client Sample ID	Lab Sample ID	Date & Time Sampled	Date & Time Received
B-DU3-S-SG-09-3S	17-03-0445-1	03/06/17 10:25	03/06/17 17:19
B-DU3-S-SG-09-8S	17-03-0445-2	03/06/17 10:40	03/06/17 17:19
B-DU3-S-SG-09-15S	17-03-0445-3	03/06/17 10:48	03/06/17 17:19
B-DU3-S-SG-09-25S	17-03-0445-4	03/06/17 11:00	03/06/17 17:19
B-DU3-S-SG-10-3S	17-03-0445-5	03/06/17 12:15	03/06/17 17:19
B-DU3-S-SG-10-8S	17-03-0445-6	03/06/17 12:22	03/06/17 17:19
B-DU3-S-SG-10-15S	17-03-0445-7	03/06/17 12:32	03/06/17 17:19
B-DU3-S-SG-10-25S	17-03-0445-8	03/06/17 12:42	03/06/17 17:19
B-DU3-S-07-0.6	17-03-0445-9	03/06/17 13:17	03/06/17 17:19
B-DU3-S-07-3	17-03-0445-10	03/06/17 13:17	03/06/17 17:19
B-DU3-S-07-8	17-03-0445-11	03/06/17 13:20	03/06/17 17:19
B-DU3-S-07-15	17-03-0445-12	03/06/17 13:30	03/06/17 17:19
B-DU3-S-08-3	17-03-0445-13	03/06/17 13:40	03/06/17 17:19
B-DU3-S-08-8	17-03-0445-14	03/06/17 13:45	03/06/17 17:19
B-DU3-S-08-15	17-03-0445-15	03/06/17 13:50	03/06/17 17:19

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 8081A Organochlorine Pesticides (Solid)
- EPA 8082 PCB Aroclors (Solid)
- EPA 8270C SIM PAHs (Solid)

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Case Narrative

Client Project Name: Burbank Airport / 9836002041
Work Order Number: 17-03-0445

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

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, and -9 were analyzed for % Moisture by ASTM D-2216 (M). The samples were prepared and analyzed on 03/07/17 in batch #s H0307MOIB4 / H0307MOID4.

Balance Calibration/Verification:

All values were within acceptance criteria.

Sample and QC:

The method blank was non-detect. A non-client sample was used as the sample duplicate for quality control; refer to the sample duplicate summary form for the further information.

EPA 6010B Title 22 Metals (Solid):

Samples -3, -4, -7, and -8 were analyzed for Metals by EPA 6010B. The samples were prepared on 03/09/17 and analyzed on 03/10/17 in batch #s 170309L04 / 170309S04 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.

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Case Narrative

Client Project Name: Burbank Airport / 9836002041
Work Order Number: 17-03-0445

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.

A sample from a different work order was used for the MS/MSD. All values were within acceptance criteria for project-specific analytes except the MS/MSD % recoveries for Antimony, which were below the method control limit.

EPA 7471A Mercury (Solid):

Samples -3, -4, -7, and -8 were analyzed for Mercury by EPA 7471A. The samples were prepared and analyzed on 03/09/17 in batch #s 170309L01 / 170309S01 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:

A sample from a different work order was used for the MS/MSD. The method blank was non-detect; the LCS and MS/MSD were within acceptance criteria.

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

Samples -3, -4, -7, and -8 were analyzed for Diesel and Motor Oil Ranges by EPA 8015B (M). The samples were prepared on 03/07/17 and analyzed on 03/08/17 in batch #s 170307B07A / 170307S07 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.

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Case Narrative

Client Project Name: Burbank Airport / 9836002041
Work Order Number: 17-03-0445

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:

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 8081A Organochlorine Pesticides (Solid):

Sample -9 was analyzed for Organochlorine Pesticides by EPA 8081A. The sample was prepared on 03/07/17 and analyzed on 03/08/17 in batch #s 170307L07 / 170307S07 on GC 41.

Initial Calibration and Initial Calibration Verification:

- *Pesticides ICAL on 02/02/17 on GC 41*: The ICAL was within the 20% RSD acceptance criteria and the ICV was within the 15% D acceptance criteria for Pesticides on both columns.
- *Chlordane ICAL on 02/02/17 on GC 41*: The ICAL was within the 20% RSD acceptance criteria and the ICV was within the 15% D acceptance criteria for Chlordane on primary column.
- *Toxaphene ICAL on 02/02/17 on GC 41*: The ICAL was within the 20% RSD acceptance criteria and the ICV was within the 15% D acceptance criteria for Toxaphene on primary column.

Breakdown Standards:

DDT and Endrin were within the 15% breakdown criteria in the associated degradation standards.

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.

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Case Narrative

Client Project Name: Burbank Airport / 9836002041
Work Order Number: 17-03-0445

Sample -9 was used for the MS/MSD. All values were within acceptance criteria except the MS % recovery and RPD for Beta-BHC, which were out of range.

EPA 8082 PCB Aroclors (Solid):

Samples -3, -4, -7, and -8 were analyzed for Polychlorinated Biphenyls Aroclors by EPA 8082. The samples were prepared on 03/07/17 and analyzed on 03/08/17 in batch #s 170307L08 / 170307S08 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. 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:

A sample from a different work order 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 8270C SIM PAHs (Solid):

Samples -3, -4, -7, and -8 were analyzed for Polynuclear Aromatic Hydrocarbons by EPA 8270C SIM. The samples were prepared on 03/07/17 and analyzed on 03/08/17 in batch #s 170307L05 / 170307S05 on GC/MS EEE.

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.

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Case Narrative

Client Project Name: Burbank Airport / 9836002041
Work Order Number: 17-03-0445

Sample and QC:

A sample from a different work order 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.

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ASTM D-2216 (M)

Moisture Content

(Solid)

RAW DATA

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

WORK ORDER:	**17-03-0445**	ANALYZED BY:	1,009
INSTRUMENT:	N/A	D/T ANALYZED:	2017-03-07 21:00
EXTRACTION :	N/A	REVIEWED BY:	1,009
D/T EXTRACTED:	2017-03-07 00:00	D/T REVIEWED:	2017-03-09 16:20

DATA FILE: NONE

 # 3 **CLIENT SAMPLE NUMBER: B-DU3-S-SG-09-15S**

LCS/MB BATCH:	H0307MOIB4	SAMPLE VOLUME / WEIGHT:	DEFAULT: 1.00 g
MS/MSD BATCH:	H0307MOID4	FINAL VOLUME / WEIGHT:	DEFAULT: 1.00 ml
UNITS:	%	ADJUSTMENT RATIO TO PF:	1.00

COMMENT:

COMPOUND	ON COL CONC	DF	CONC	RL	QUAL
Moisture	5.40	1.00	5.40	0.10	

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

WORK ORDER:	**17-03-0445**	ANALYZED BY:	1,009
INSTRUMENT:	N/A	D/T ANALYZED:	2017-03-07 21:00
EXTRACTION :	N/A	REVIEWED BY:	1,009
D/T EXTRACTED:	2017-03-07 00:00	D/T REVIEWED:	2017-03-09 16:20

DATA FILE: NONE

 # 4 **CLIENT SAMPLE NUMBER: B-DU3-S-SG-09-25S**

LCS/MB BATCH:	H0307MOIB4	SAMPLE VOLUME / WEIGHT:	DEFAULT: 1.00 g
MS/MSD BATCH:	H0307MOID4	FINAL VOLUME / WEIGHT:	DEFAULT: 1.00 ml
UNITS:	%	ADJUSTMENT RATIO TO PF:	1.00

COMMENT:

COMPOUND	ON COL CONC	DF	CONC	RL	QUAL
Moisture	5.50	1.00	5.50	0.10	

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

WORK ORDER:	**17-03-0445**	ANALYZED BY:	1,009
INSTRUMENT:	N/A	D/T ANALYZED:	2017-03-07 21:00
EXTRACTION :	N/A	REVIEWED BY:	1,009
D/T EXTRACTED:	2017-03-07 00:00	D/T REVIEWED:	2017-03-09 16:20
DATA FILE:	NONE		

 # 7 **CLIENT SAMPLE NUMBER: B-DU3-S-SG-10-15S**

LCS/MB BATCH:	H0307MOIB4	SAMPLE VOLUME / WEIGHT:	DEFAULT: 1.00 g
MS/MSD BATCH:	H0307MOID4	FINAL VOLUME / WEIGHT:	DEFAULT: 1.00 ml
UNITS:	%	ADJUSTMENT RATIO TO PF:	1.00

COMMENT:

COMPOUND	ON COL CONC	DF	CONC	RL	QUAL
Moisture	6.50	1.00	6.50	0.10	

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

WORK ORDER:	**17-03-0445**	ANALYZED BY:	1,009
INSTRUMENT:	N/A	D/T ANALYZED:	2017-03-07 21:00
EXTRACTION :	N/A	REVIEWED BY:	1,009
D/T EXTRACTED:	2017-03-07 00:00	D/T REVIEWED:	2017-03-09 16:20

DATA FILE: NONE

 # 8 **CLIENT SAMPLE NUMBER: B-DU3-S-SG-10-25S**

LCS/MB BATCH:	H0307MOIB4	SAMPLE VOLUME / WEIGHT:	DEFAULT: 1.00 g
MS/MSD BATCH:	H0307MOID4	FINAL VOLUME / WEIGHT:	DEFAULT: 1.00 ml
UNITS:	%	ADJUSTMENT RATIO TO PF:	1.00

COMMENT:

COMPOUND	ON COL CONC	DF	CONC	RL	QUAL
Moisture	5.60	1.00	5.60	0.10	

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

WORK ORDER:	**17-03-0445**	ANALYZED BY:	1,009
INSTRUMENT:	N/A	D/T ANALYZED:	2017-03-07 21:00
EXTRACTION :	N/A	REVIEWED BY:	1,009
D/T EXTRACTED:	2017-03-07 00:00	D/T REVIEWED:	2017-03-09 16:20

DATA FILE: NONE

 # 9 **CLIENT SAMPLE NUMBER: B-DU3-S-07-0.6**

LCS/MB BATCH:	H0307MOIB4	SAMPLE VOLUME / WEIGHT:	DEFAULT: 1.00 g
MS/MSD BATCH:	H0307MOID4	FINAL VOLUME / WEIGHT:	DEFAULT: 1.00 ml
UNITS:	%	ADJUSTMENT RATIO TO PF:	1.00

COMMENT:

COMPOUND	ON COL CONC	DF	CONC	RL	QUAL
Moisture	4.60	1.00	4.60	0.10	

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METHOD BLANK ASSOCIATION SUMMARY
FOR METHOD: ASTM D-2216 (M)

MB SAMPLE ID: **099-05-014-6729**
MB BATCH ID: H0307MOIB4
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 16:20
MATRIX: Soil

DATA FILE: NONE

CLIENT WORK ORDER: 17-03-0445

S#	RUN TYPE	CLIENT SAMPLE ID	D/T ANALYZED	DATA FILE
3		B-DU3-S-SG-09-15S	2017-03-07 21:00	NONE
4		B-DU3-S-SG-09-25S	2017-03-07 21:00	NONE
7		B-DU3-S-SG-10-15S	2017-03-07 21:00	NONE
8		B-DU3-S-SG-10-25S	2017-03-07 21:00	NONE
9		B-DU3-S-07-0.6	2017-03-07 21:00	NONE

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

WORK ORDER:	**099-05-014**	ANALYZED BY:	1,009
INSTRUMENT:	N/A	D/T ANALYZED:	2017-03-07 21:00
EXTRACTION :	N/A	REVIEWED BY:	1,009
D/T EXTRACTED:	2017-03-07 00:00	D/T REVIEWED:	2017-03-09 16:20

DATA FILE: NONE

 # MB **CLIENT SAMPLE NUMBER: Method Blank**

LCS/MB BATCH:	H0307MOIB4	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	

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

DUP SAMPLE ID: **17-03-0425-4**
DUP BATCH : H0307MOID4
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 16:20

COMPOUND	SAMPLE CONC	DUP CONC	% RPD	CONTROL LIMIT	STATUS	QUALIFIERS
Moisture	19.60	20.10	3	0-10	PASS	

Data Files:

TYPE	DATA FILE	DATA FILE PATH
SDP	NONE	

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Moisture Content Raw Data Logbook

METHOD	MATRIX	DATE	ANALYST(S)	BATCH NUMBER
ASTM D2216(M)	☑ Solid ☐ Sediment ☐ Other	Preparation: 3/7/17	1050 / 1009	MB: H0307 MOI BM 4 1009
		Analysis: ↓	↓	Sample Duplicate: ↓ DM 4 3/9/17

CEL ID #	MASS (g) DISH	DRY DISH	MOISTURE	% MOISTURE	RL (%)	COMMENTS	ALUMINUM DISH SUPPLY ID
MB	1.87	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 17-03-0425-4A	19.6	3	0 – 10	☑ IO 07	☑ TSS IO7A CF: -2	Start: 103	Start: 1300
Duplicate ↓	20.1			☐ IO 08	☐ TSS IO8A CF:	End: 103	End: 2100
Instructions: CEL ID consists of Work Order Number and Container ID				☐	☐ CF:		

CEL ID #	MASS (g) DISH	DISH + SAMPLE (as-received)	SAMPLE (as-received)	DISH + SAMPLE (oven-dried)	MOISTURE	% MOISTURE WET-BASED	% MOISTURE DRY-BASED	BALANCE ID #	RL (%)	QUAL	COMMENTS
Duplicate 17-03-0425-4A	1.88	12.27	10.39	10.18	2.09	20.1		63	0.10		
17-03-0425-1A	1.87	12.22	10.35	10.01	2.21	21.4		↓	↓		
-2A	1.87	12.41	10.54	11.73	0.68	6.5					
-3A	1.86	12.29	10.43	11.33	0.96	9.2					
-4A	1.89	12.12	10.23	10.11	2.01	19.6					
-5A	1.86	12.96	11.10	11.67	1.29	11.6					
-6A	1.87	12.76	10.89	11.94	0.82	7.5					
-7A	1.86	12.24	10.38	11.65	0.59	5.7					
17-03-0444-3A	1.88	12.46	10.58	11.89	0.57	5.4					
-4A	1.89	12.99	11.10	12.53	0.46	4.1					
-7A	1.88	12.29	10.41	11.41	0.88	8.5					
-8A	1.86	12.83	10.97	12.26	0.57	5.2					
-15A	1.85	12.20	10.35	11.29	0.91	8.8					
17-03-0445-3A	1.85	12.48	10.63	11.91	0.57	5.4					
-4A	1.88	12.35	10.47	11.77	0.58	5.5					
-7A	1.89	12.90	11.01	12.18	0.72	6.5					
-8A	1.90	12.11	10.21	11.54	0.57	5.6					
-9A	1.88	12.85	10.97	12.35	0.50	4.6					
17-03-0336-3A	1.88	12.55	10.67	12.10	0.45	4.2					
-4A	1.86	12.06	10.20	11.71	0.35	3.4		✓	✓		

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	BATCH TIME Time (24 Hr): 2100 Initials: 1050/1009
☐ EPA 160.1	☐ EPA 1311	☐ SM 2549 D	☐ Other	TDS/TSS/VS/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		COMMENTS
Solid	Preparation: 03/07/17	1050/1009	MB: H0307 MOI B#4	1009 3/9/17 LCS/LCSD: NA	
	Analysis: ↳	↳	Sample Duplicate: ↳ DS 4	Sample Duplicate or MS/MSD: NA	

ECI ID #	OVEN ID #	CONTAINER + RESIDUE (OVEN-DRIED) CYCLE 1 MASS (g)	CYCLE 1 TIME IN	CYCLE 1 TIME OUT	CYCLE 2 MASS (g)	CYCLE 2 TIME IN	CYCLE 2 TIME OUT	CYCLE 3 MASS (g)	CYCLE 3 TIME IN	CYCLE 3 TIME OUT	FINAL MASS CHANGE WITHIN LIMITS	BALANCE ID #	COMMENTS
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 17-03-0425-4A	10-07	10.18	1400	1800	10.18	1900	2000				(Y) N	63	
17-03-0425-1A	↓	10.01	↓	↓	10.01	↓	↓				(Y) N	↓	
2A		11.73			11.73						(Y) N		
3A		11.33			11.33						(Y) N		
4A		10.11			10.11						(Y) N		
5A		11.67			11.67						(Y) N		
6A		11.94			11.94						(Y) N		
✓ 7A		11.65			11.65						(Y) N		
17-03-0444-3A		11.89			11.89						(Y) N		
4A		12.53			12.53						(Y) N		
7A		11.41			11.41						(Y) N		
8A		12.26			12.26						(Y) N		
✓ 15A		11.29			11.29						(Y) N		
17-03-0445-3A		11.91			11.91						(Y) N		
4A		11.77			11.77						(Y) N		
7A		12.18			12.18						(Y) N		
8A		11.54			11.54						(Y) N		
✓ 9A		12.35			12.35						(Y) N		
17-03-0336-3A		12.10			12.10						(Y) N		
↳ 4A	✓	11.71	✓	✓	11.71	✓	✓				(Y) N	✓	

BALANCE CALIBRATION CHECK LOG

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Date performed: 3/7/17 Initials: \|\|\|

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	Y N	IO Lab
	100	100.00	98.00 - 102.00	Y N	
	500	498.98	498.00 - 502.00	Y N	
62	0.002	.0020	0.00180 - 0.00220	Y N	IO Lab
	1	.9996	0.99900 - 1.00100	Y N	
	100	99.9962	99.90000 - 100.10000	Y N	
26	1	1.00	0.98 - 1.02	Y N	IO Lab
	100	99.99	98.00 - 102.00	Y N	
55	1	.98	0.98 - 1.02	Y N	IO Lab
	100	99.96	98.00 - 102.00	Y N	
	500	499.83	498.00 - 502.00	Y N	
11	1	.99	0.98 - 1.02	Y N	IO Lab
	100	100.00	98.00 - 102.00	Y N	
66	0.002	.0020	0.00180 - 0.00220	Y N	Metals
	1	.9996	0.99900 - 1.00100	Y N	
	100	100.0004	99.90000 - 100.10000	Y N	
53	0.1	.10	0.09 - 0.11	Y N	Extractions
	1	1.00	0.98 - 1.02	Y N	
	100	99.98	98.00 - 102.00	Y N	
	500	499.93	498 - 502	Y N	
~~20~~ 70	1	1.00	0.98 - 1.02	Y N	Extractions
	100	99.83	98.00 - 102.00	Y N	
	500	499.18	498.00 - 502.00	Y N	
57	100	100.0	98.0-102.0	Y N	Extractions
	1000	1000.0	998.0-1002.0	Y N	
	2000	1999.9	1998.0-2002.0	Y N	
52	0.002	.0020	0.0018 - 0.0022	Y N	Extractions
	1	.9996	0.9990 - 1.0010	Y N	
	100	99.9967	99.9000 - 100.1000	Y N	
71	0.002	.0019	0.0018 - 0.0022	Y N	BOD Room
	1	.9993	0.9990 - 1.0010	Y N	
	100	99.9962	99.9000 - 100.1000	Y N	
63	0.1	.10	0.09 - 0.11	Y N	BOD Room
	100	99.99	98.00 - 102.00	Y N	
64	1	.99	0.98 - 1.02	Y N	Metals Clean Room
	10	10.01	9.8 - 10.2	Y N	
	100	100.00	98.00 - 102.00	Y N	
72	0.002	.0020	0.0018 - 0.0022	Y N	Oil & Grease Room
	1	.9995	0.9990 - 1.0010	Y N	
	100	100.0011	99.9000 - 100.1000	Y N	
30	1	1.00	0.98 - 1.02	Y N	Oil & Grease Room
	100	100.00	98.00 - 102.00	Y N	

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EPA 8015B (M)

Diesel + Motor Oil

RAW DATA

Return to Contents

EPA 8015B (M)

Diesel + Motor Oil

INITIAL CALIBRATION

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

ICAL WORK ORDER: 099-14-354-23-5901
ICAL BATCH ID: 170306I006
INSTRUMENT: GC 49

ANALYZED BY: 972
ICAL D/T ANALYZED: 2017-03-06 16:25
REVIEWED BY: 1,027
D/T REVIEWED: 2017-03-09 14:39

COMPOUND	COMP. TYPE	CALIB. MODEL	1	2	3	4	5	6	7	8	9	Avg. RF	Min. RF	%RSD	%RSD CL	R or R^2	R or R^2 CL	STATUS
TPH as Diesel	C	Avg RF	1,245.677	912.737	918.784	901.660	906.221					977.016	0.00	15	0-20			PASS

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

LR - E: Linear Regression (Equal Weight) LR - IC: Linear Regression (Inverse Concentration Weight) LR - ISC: Linear Regression (Inverse Square Concentration Weight)
Avg RF: Average Response Factor QR - E: Quadratic Regression (Equal Weight)

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

ICV WORK ORDER: **099-14-354-23-5901**
INITIAL BATCH: 170306I006
INSTRUMENT: GC 49

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

ANALYZED BY: 972
D/T ANALYZED:
INITIAL: 2017-03-06 16:25
ICV: 2017-03-06 18:09
REVIEWED BY: 1,027
D/T REVIEWED: 2017-03-09 14:39

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

Compound	5.000 Level 1	200.000 Level 2	400.000 Level 3	800.000 Level 4	1600.000 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

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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

Compound	5.000 Level 1	200.000 Level 2	400.000 Level 3	800.000 Level 4	1600.000 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

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Report Date : 06-Mar-2017 19:11 Page 8

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

Compound	5.000 Level 1	200.000 Level 2	400.000 Level 3	800.000 Level 4	1600.000 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_Disel 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

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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
Sample Name: ICV D400 C28 50 L102516G
Sublist used: CCV_D-DRO.sub
Method used: /chem1/SVOA/GC_49.i/170306.b/8015d.m

Injection Date and Time: 06-MAR-2017 18:09
Initial Calibration Date(s): 09-NOV-2016 06-MAR-2017
Initial Calibration Time(s): 21:15 19:52

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

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 Inst ID: GC_49.i
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 Quant Type: ESTD
Cal Date : 25-JAN-2017 00:58 Cal File: 17012441.d
Als bottle: 14 Calibration Sample, Level: 1
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

					AMOUNTS	
					CAL-AMT	ON-COL
Compounds	RT	EXP RT	DLT RT	RESPONSE	(ppm)	(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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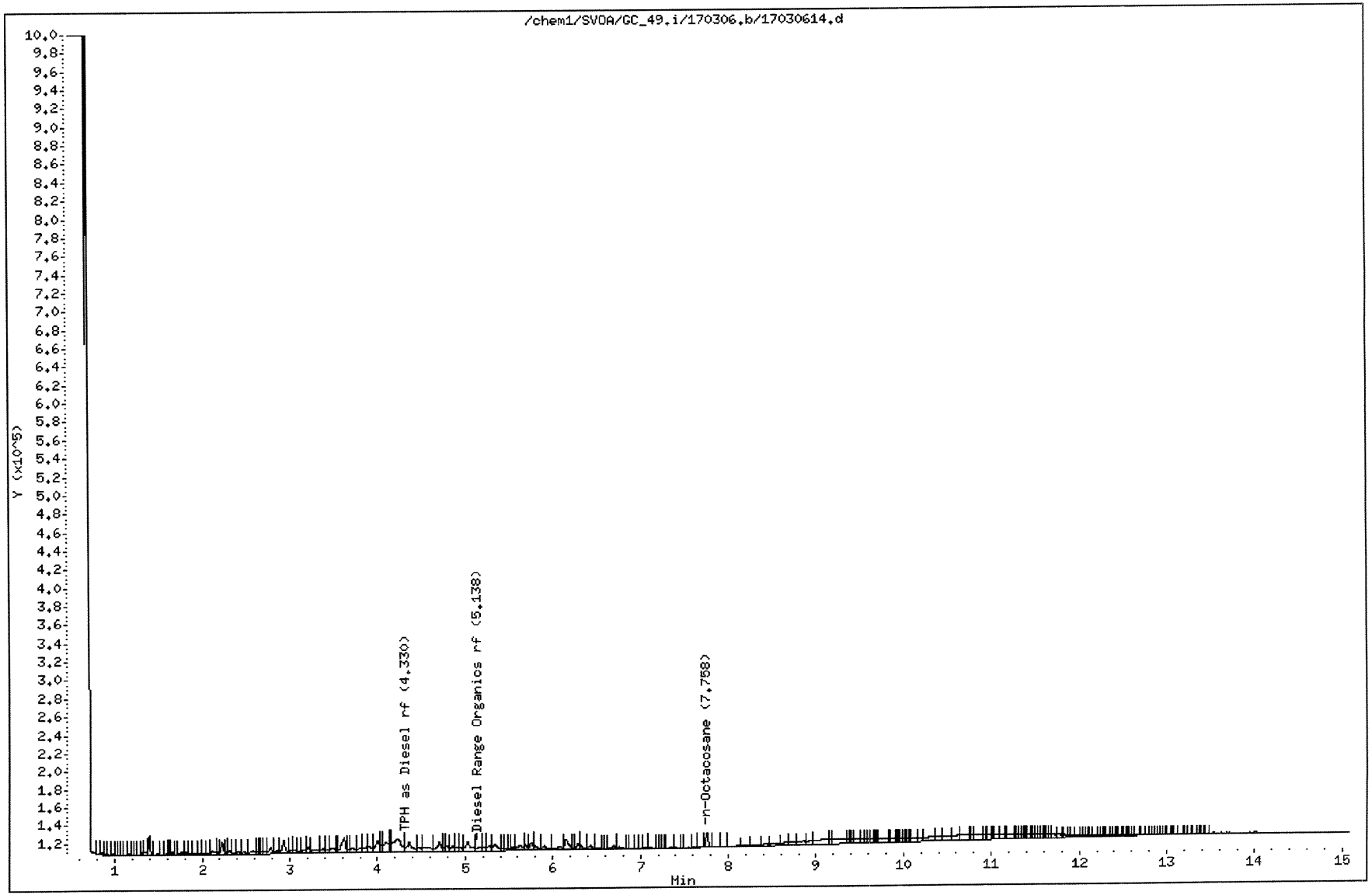
Data File: /chem1/SVOA/GC_49.i/170306.b/17030614.d
Date : 06-MAR-2017 16:25
Client ID:
Sample Info: ICAL D5 C28 0.625 L102516B

Instrument: GC_49.i

Operator: 682
Column diameter: 2.00

Column phase:



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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

					AMOUNTS	
					CAL-AMT	ON-COL
Compounds	RT	EXP RT	DLT RT	RESPONSE	(ppm)	(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

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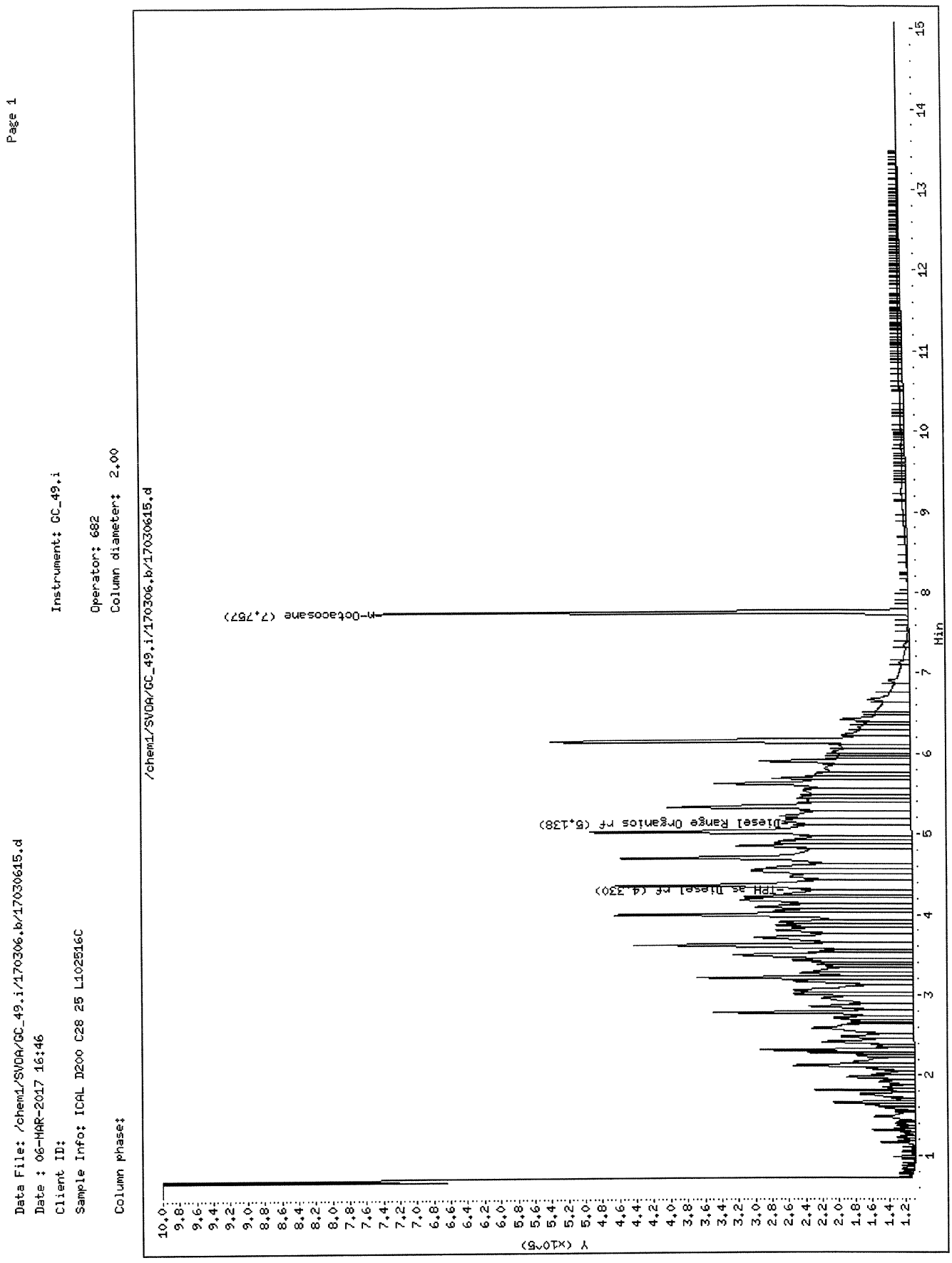

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Data File: /chem1/SVOA/GC_49.i/170306.b/17030616.d
Report Date: 07-Mar-2017 10:17

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 Inst ID: GC_49.i
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 Quant Type: ESTD
Cal Date : 25-JAN-2017 01:41 Cal File: 17012443.d
Als bottle: 16 Calibration Sample, Level: 3
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

					AMOUNTS	
					CAL-AMT	ON-COL
Compounds	RT	EXP RT	DLT RT	RESPONSE	(ppm)	(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

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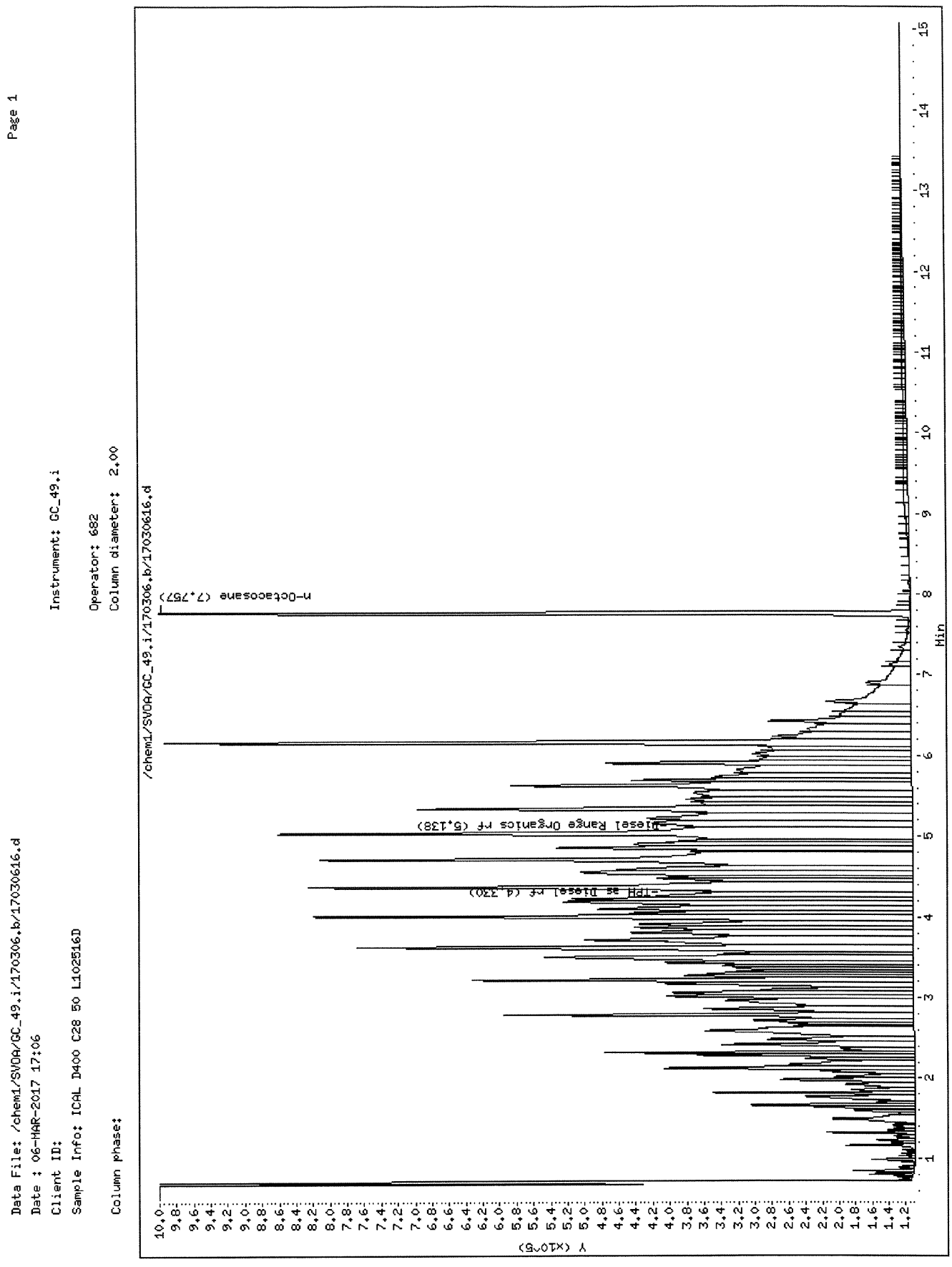

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Eurofins Calscience

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 Inst ID: GC_49.i
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 Quant Type: ESTD
Cal Date : 25-JAN-2017 02:02 Cal File: 17012444.d
Als bottle: 17 Calibration Sample, Level: 4
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

					AMOUNTS	
					CAL-AMT	ON-COL
Compounds	RT	EXP RT	DLT RT	RESPONSE	(ppm)	(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

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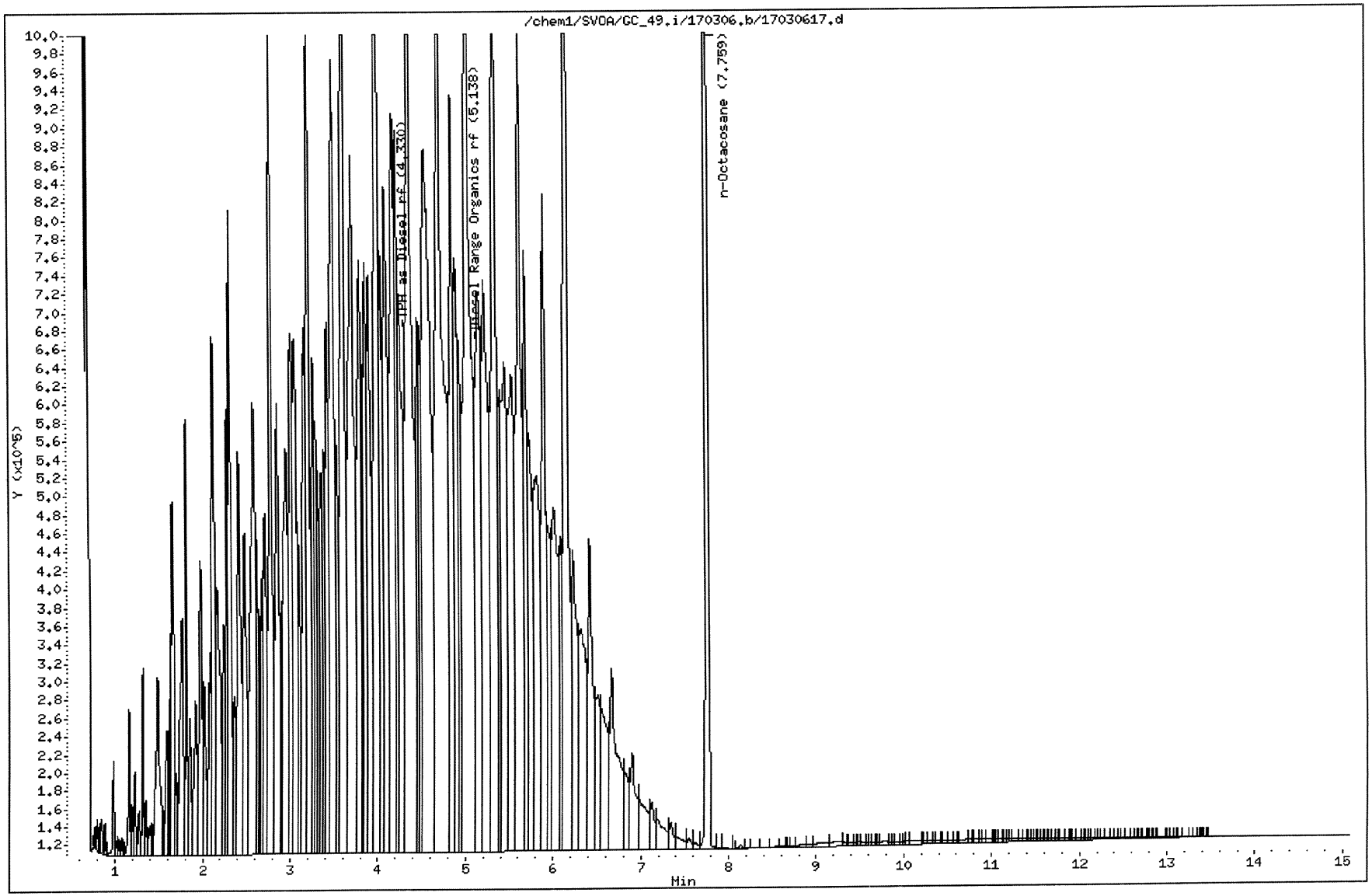
Data File: /chem1/SVOA/GC_49.i/170306.b/17030617.d
Date : 06-MAR-2017 17:27
Client ID:
Sample Info: ICAL D800 C28 100 L102516E

Instrument: GC_49.i

Operator: 682
Column diameter: 2.00

Column phase:



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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

					AMOUNTS	
					CAL-AMT	ON-COL
Compounds	RT	EXP RT	DLT RT	RESPONSE	(ppm)	(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

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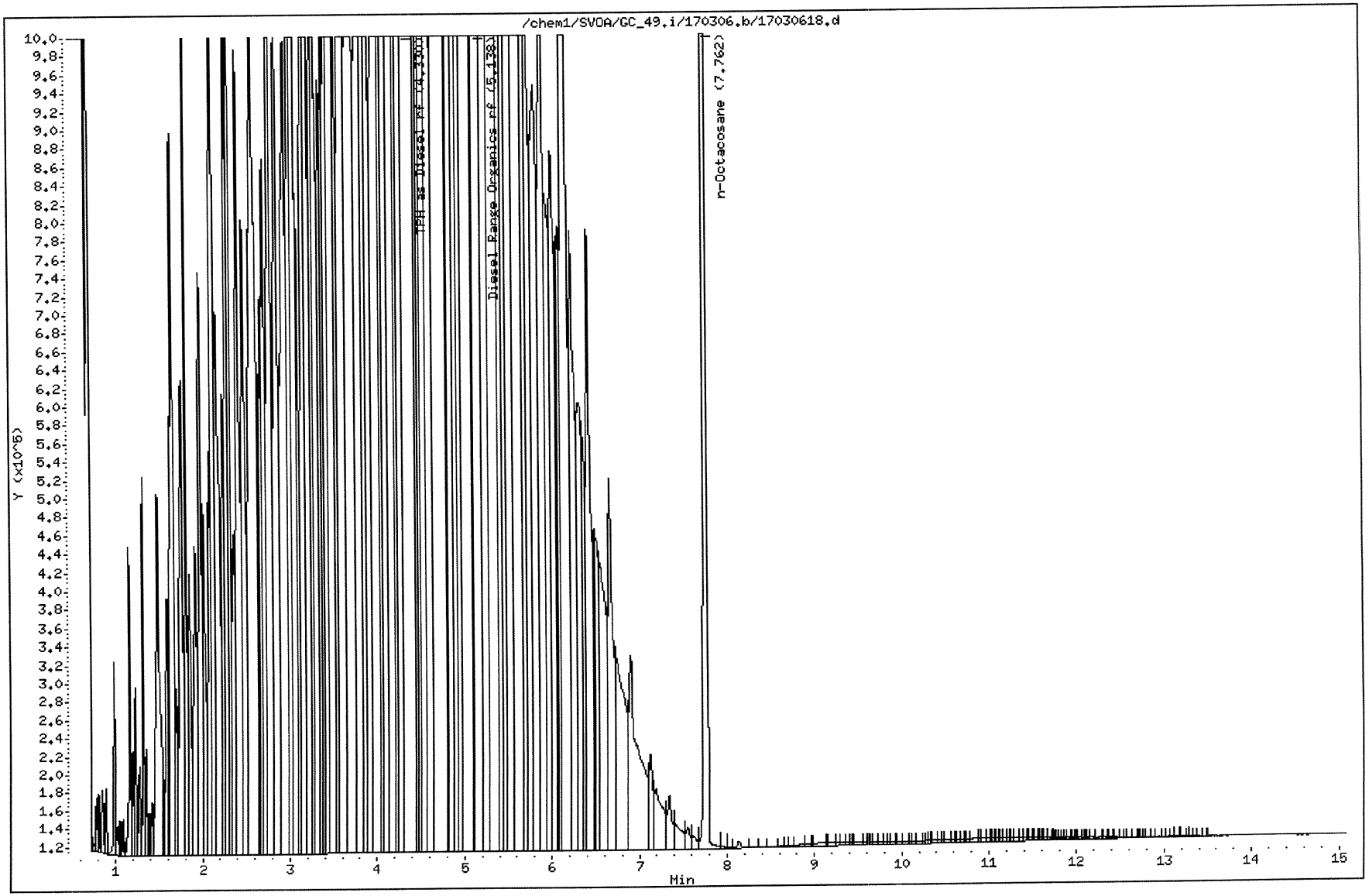
Data File: /chem1/SVOA/GC_49.i/170306.b/17030618.d
Date : 06-MAR-2017 17:48
Client ID:
Sample Info: ICAL D1600 C28 200 L102516F

Instrument: GC_49.i

Operator: 682
Column diameter: 2.00

Column phase:



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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 Inst ID: GC_49.i
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 Quant Type: ESTD
Cal Date : 25-JAN-2017 02:23 Cal File: 17012445.d
Als bottle: 19 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

					AMOUNTS	
					CAL-AMT	ON-COL
Compounds	RT	EXP RT	DLT RT	RESPONSE	(ppm)	(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

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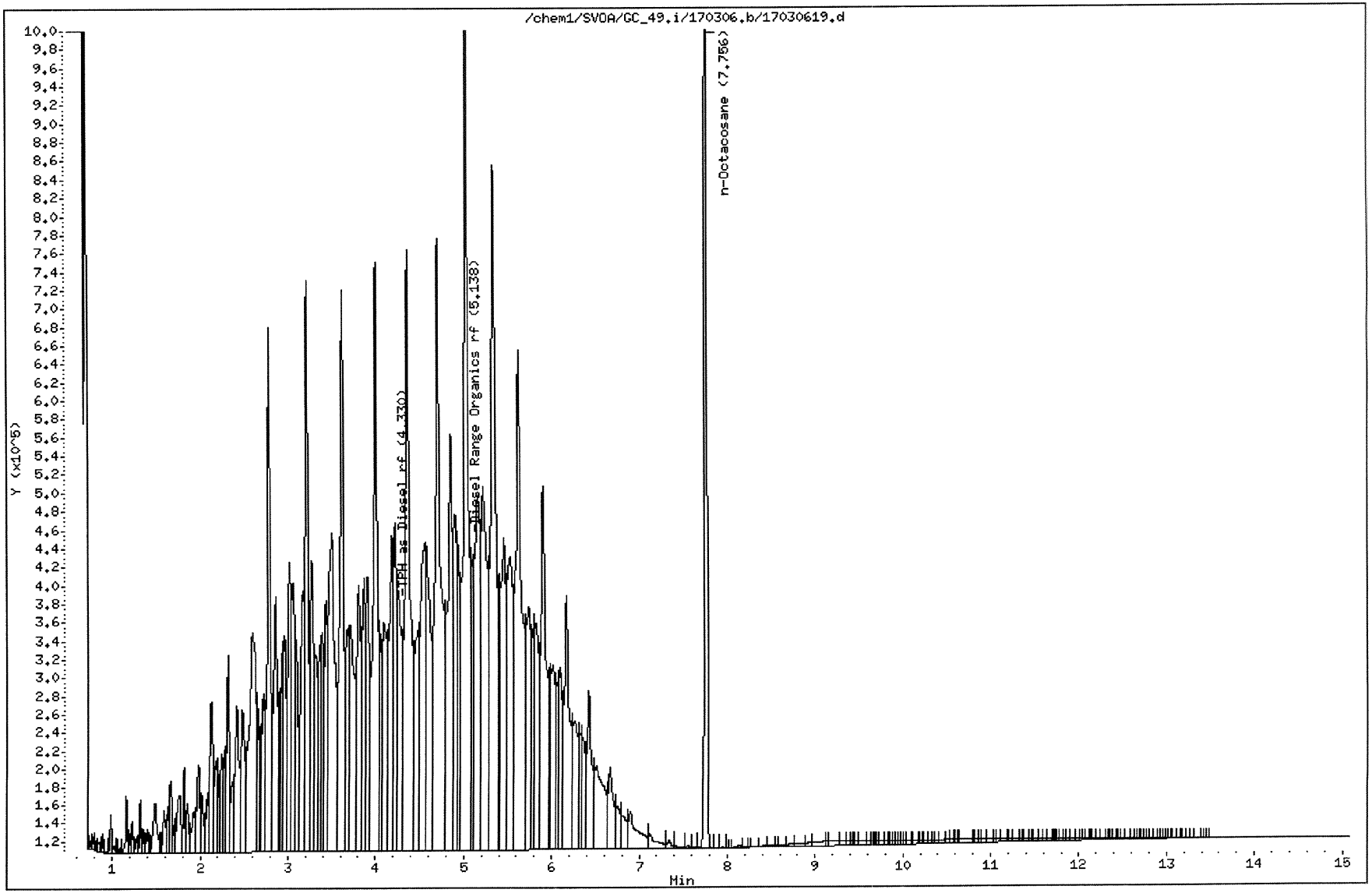
Data File: /chem1/SVOA/GC_49.i/170306.b/17030619.d
Date : 06-MAR-2017 18:09
Client ID:
Sample Info: ICV D400 C28 50 L102516G

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_49/170306/17030602.d
Page Number :
Operator : 682
Instrument : GC 49
Sample Name : C6-C44 L110816A
Acquired on : 06 MAR 17 12:07
Report Created on: 07-MAR-17 10:23
Software Revision: Target 3.50

Vial Number : Vial 2
Injection Number : 2
Sequence Line : 0
Instrument Method: 8015d.m
Compound Sublist : all

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-Dotricacontane
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

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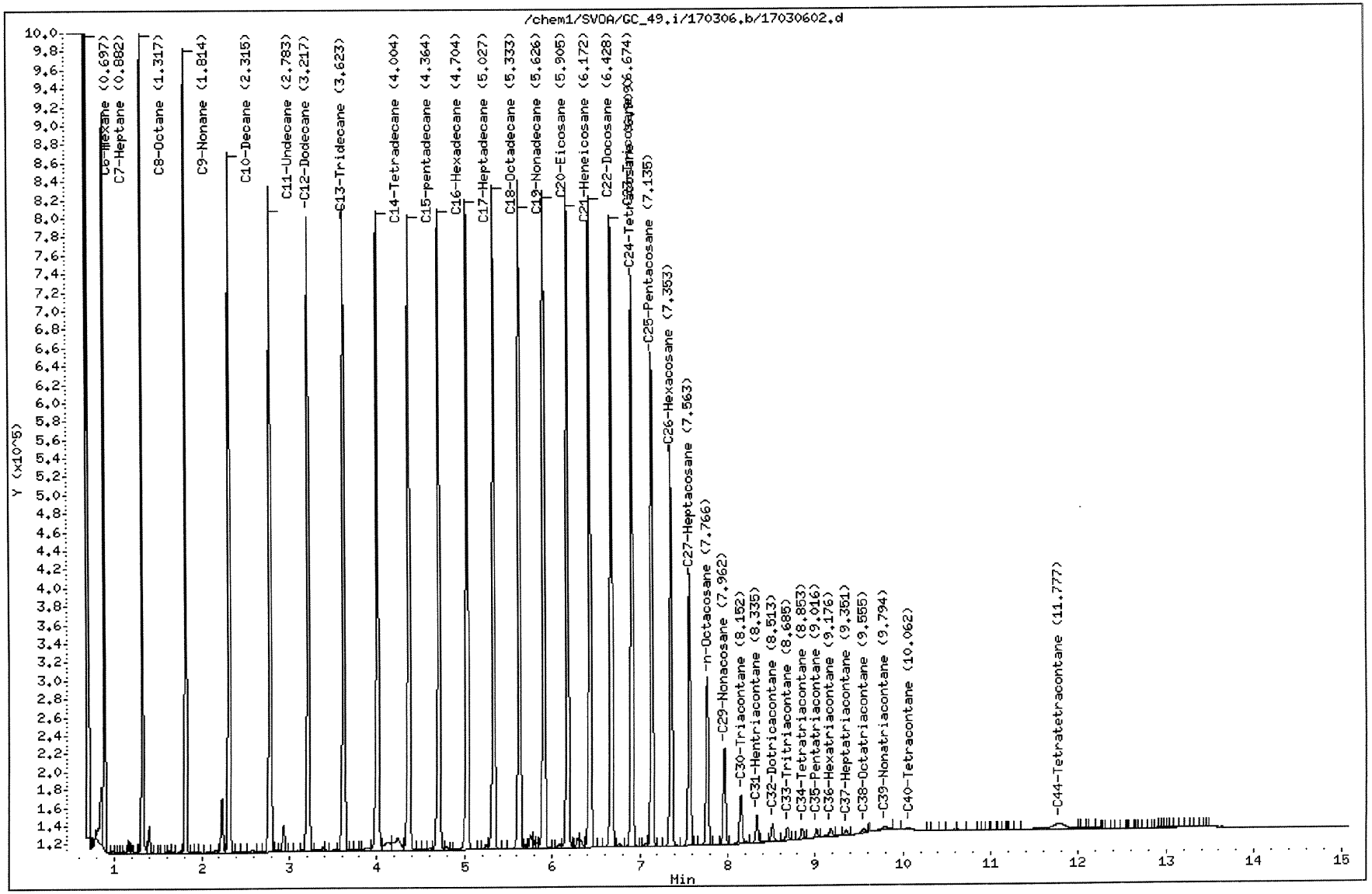
Data File: /chem1/SVOA/GC_49.i/170306.b/17030602.d
Date : 06-MAR-2017 12:07
Client ID:
Sample Info: C6-C44 L110816A

Instrument: GC_49.i

Operator: 682
Column diameter: 2.00

Column phase:



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EPA 8015B (M)

Diesel + Motor Oil

SAMPLE DATA

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

WORK ORDER:	**17-03-0445**	ANALYZED BY:	972
INSTRUMENT:	GC 49	D/T ANALYZED:	2017-03-08 13:59
EXTRACTION :	EPA 3550B	REVIEWED BY:	
D/T EXTRACTED:	2017-03-07 00:00	D/T REVIEWED:	

DATA FILE: T:\GC_49\GC_49_data\2017\170308\17030814.d\Report.txt17030814

 # 3 **CLIENT SAMPLE NUMBER: B-DU3-S-SG-09-15S**

LCS/MB BATCH:	170307B07A	SAMPLE VOLUME / WEIGHT:	DEFAULT: 10.00 g / ACTUAL: 10.20 g
MS/MSD BATCH:	170307S07	FINAL VOLUME / WEIGHT:	DEFAULT: 10.00 ml / ACTUAL: 10.00 ml
UNITS:	mg/kg	ADJUSTMENT RATIO TO PF:	0.98

COMMENT:

COMPOUND	ON COL CONC	DF	CONC	RL	QUAL
TPH as Diesel	0.970	1.00	ND	4.9	
TPH as Motor Oil	0.270	1.00	ND	4.9	

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

Data File Name    : /chem1/SVOA/GC_49/170308/17030814.d
Page Number       :
Operator          : 682                          Vial Number      : Vial 14
Instrument        : GC 49                        Injection Number : 14
Sample Name       : 17-03-0445-3                 Sequence Line    : 0
                                                 Instrument Method: 8015d.m
Acquired on       : 08 MAR 17  13:59
Report Created on: 10-MAR-17  12:01              Compound Sublist : all
Software Revision: Target 3.50

Sig. 1 in  /chem1/SVOA/GC_49.i/170308.b/17030814.d
```

RT Range	Exp RT	DLT RT	Response	ppm	Compound
7.752	7.850	0.098	10491803.00	45.17	n-Octacosane
2.312- 7.946			948793.01	0.97	TPH as Diesel
5.021-11.760			264465.34	0.27	TPH as Motor Oil

End of File

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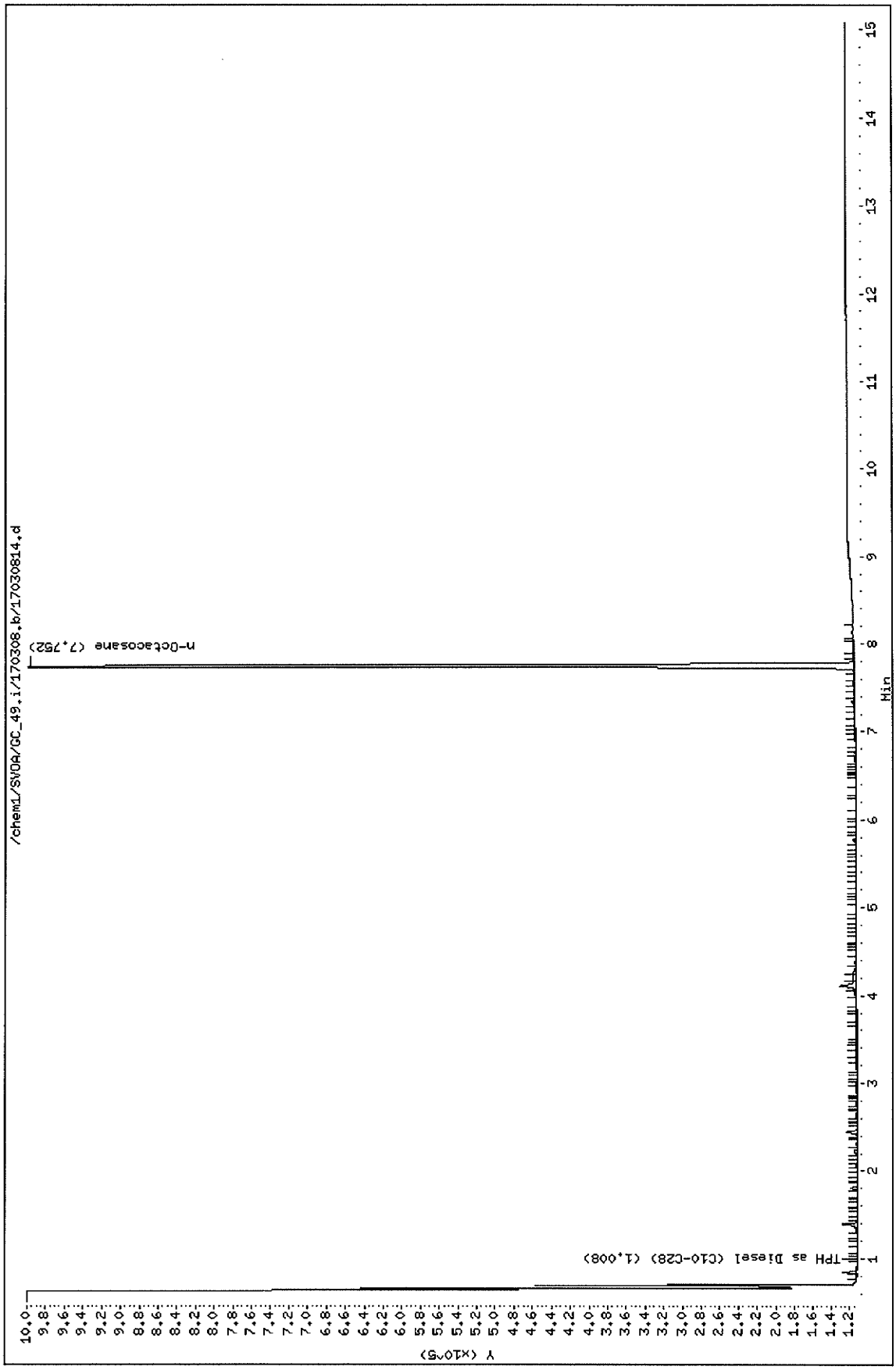
Data File: /chem1/SVOA/GC_49.i/170308.b/17030814.d
Date : 08-MAR-2017 13:59
Client ID:
Sample Info: 17-03-0445-3

Column phase:

Instrument: GC_49.i

Operator: 682
Column diameter: 2.00

Page 1



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

WORK ORDER:	**17-03-0445**	ANALYZED BY:	972
INSTRUMENT:	GC 49	D/T ANALYZED:	2017-03-08 14:20
EXTRACTION :	EPA 3550B	REVIEWED BY:	
D/T EXTRACTED:	2017-03-07 00:00	D/T REVIEWED:	

DATA FILE: T:\GC_49\GC_49_data\2017\170308\17030815.d\Report.txt17030815

 # 4 **CLIENT SAMPLE NUMBER: B-DU3-S-SG-09-25S**

LCS/MB BATCH:	170307B07A	SAMPLE VOLUME / WEIGHT:	DEFAULT: 10.00 g / ACTUAL: 10.20 g
MS/MSD BATCH:	170307S07	FINAL VOLUME / WEIGHT:	DEFAULT: 10.00 ml / ACTUAL: 10.00 ml
UNITS:	mg/kg	ADJUSTMENT RATIO TO PF:	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	0.300	1.00	ND	4.9	

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

Data File Name    : /chem1/SVOA/GC_49/170308/17030815.d
Page Number       :
Operator          : 682                          Vial Number      : Vial 15
Instrument        : GC 49                        Injection Number : 15
Sample Name       : 17-03-0445-4                 Sequence Line    : 0
                                                 Instrument Method: 8015d.m
Acquired on       : 08 MAR 17  14:20
Report Created on: 10-MAR-17  12:02              Compound Sublist : all
Software Revision: Target 3.50

Sig. 1 in  /chem1/SVOA/GC_49.i/170308.b/17030815.d
```

RT Range	Exp RT	DLT RT	Response	ppm	Compound
7.752	7.850	0.098	11156452.00	48.03	n-Octacosane
2.312- 7.946			1284813.80	1.32	TPH as Diesel
5.021-11.760			288333.84	0.30	TPH as Motor Oil

End of File

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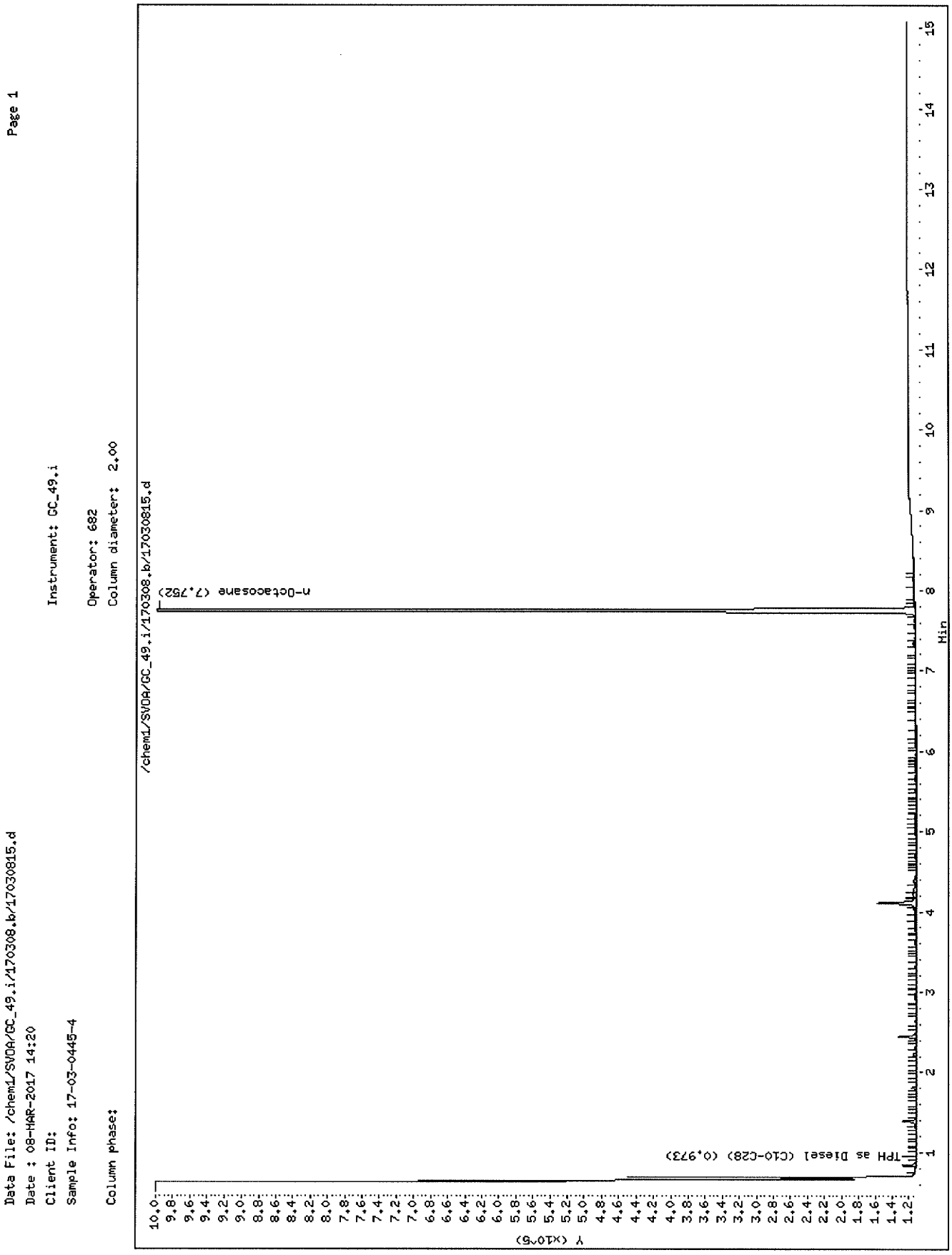

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RAW DATA SHEET
FOR METHOD: EPA 8015B (M)

WORK ORDER:	**17-03-0445**	ANALYZED BY:	972
INSTRUMENT:	GC 49	D/T ANALYZED:	2017-03-08 14:40
EXTRACTION :	EPA 3550B	REVIEWED BY:	
D/T EXTRACTED:	2017-03-07 00:00	D/T REVIEWED:	

DATA FILE: T:\GC_49\GC_49_data\2017\170308\17030816.d\Report.txt17030816

 # 7 **CLIENT SAMPLE NUMBER: B-DU3-S-SG-10-15S**

LCS/MB BATCH:	170307B07A	SAMPLE VOLUME / WEIGHT:	DEFAULT: 10.00 g / ACTUAL: 10.10 g
MS/MSD BATCH:	170307S07	FINAL VOLUME / WEIGHT:	DEFAULT: 10.00 ml / ACTUAL: 10.00 ml
UNITS:	mg/kg	ADJUSTMENT RATIO TO PF:	0.99

COMMENT:

COMPOUND	ON COL CONC	DF	CONC	RL	QUAL
TPH as Diesel	0.890	1.00	ND	5.0	
TPH as Motor Oil	0.260	1.00	ND	5.0	

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

Data File Name    : /chem1/SVOA/GC_49/170308/17030816.d
Page Number       :
Operator          : 682                          Vial Number      : Vial 16
Instrument        : GC 49                        Injection Number : 16
Sample Name       : 17-03-0445-7                 Sequence Line    : 0
                                                 Instrument Method: 8015d.m
Acquired on       : 08 MAR 17  14:40
Report Created on: 10-MAR-17  12:02              Compound Sublist : all
Software Revision: Target 3.50

Sig. 1 in  /chem1/SVOA/GC_49.i/170308.b/17030816.d
RT Range      Exp RT    DLT RT    Response           ppm               Compound
|-------------|---------|---------|------------------|---------------|---------------------|
        7.754     7.850     0.096        10352126.00           44.57  n-Octacosane
 2.312- 7.946                              867084.97            0.89  TPH as Diesel
 5.021-11.760                              256221.76            0.26  TPH as Motor Oil
End of File
```

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Data File: /chem1/SVOA/GC_49.i/170308.b/17030816.d

Date : 08-MAR-2017 14:40

Client ID:

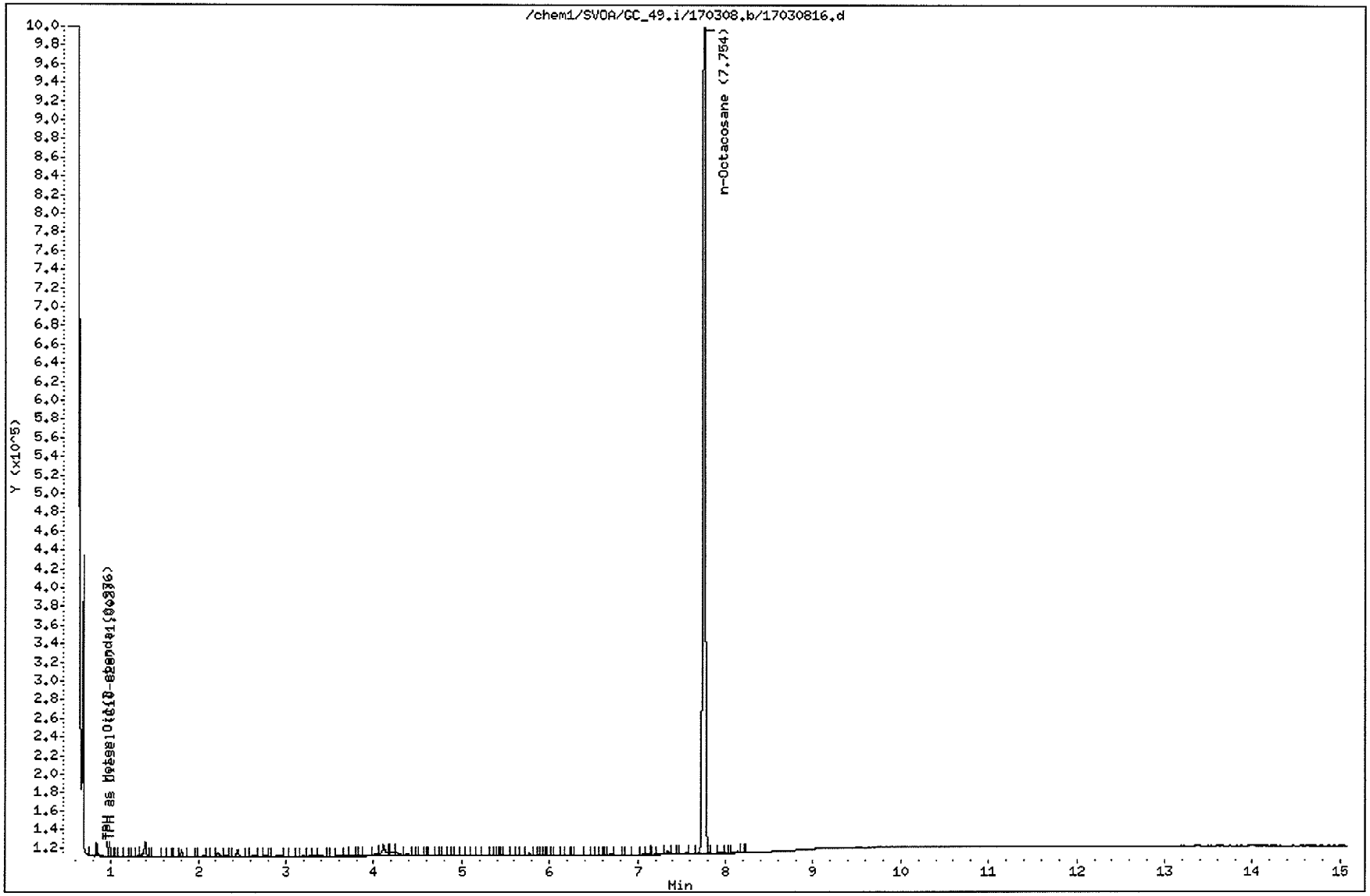
Sample Info: 17-03-0445-7

Column phase:

Instrument: GC_49.i

Operator: 682

Column diameter: 2.00



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

WORK ORDER:	**17-03-0445**	ANALYZED BY:	972
INSTRUMENT:	GC 49	D/T ANALYZED:	2017-03-08 15:01
EXTRACTION :	EPA 3550B	REVIEWED BY:	
D/T EXTRACTED:	2017-03-07 00:00	D/T REVIEWED:	

DATA FILE: T:\GC_49\GC_49_data\2017\170308\17030817.d\Report.txt17030817

 # 8 **CLIENT SAMPLE NUMBER: B-DU3-S-SG-10-25S**

LCS/MB BATCH:	170307B07A	SAMPLE VOLUME / WEIGHT:	DEFAULT: 10.00 g / ACTUAL: 10.20 g
MS/MSD BATCH:	170307S07	FINAL VOLUME / WEIGHT:	DEFAULT: 10.00 ml / ACTUAL: 10.00 ml
UNITS:	mg/kg	ADJUSTMENT RATIO TO PF:	0.98

COMMENT:

COMPOUND	ON COL CONC	DF	CONC	RL	QUAL
TPH as Diesel	0.850	1.00	ND	4.9	
TPH as Motor Oil	0.240	1.00	ND	4.9	

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

Data File Name    : /chem1/SVOA/GC_49/170308/17030817.d
Page Number       :
Operator          : 682                          Vial Number      : Vial 17
Instrument        : GC 49                        Injection Number : 17
Sample Name       : 17-03-0445-8                 Sequence Line    : 0
                                                 Instrument Method: 8015d.m
Acquired on       : 08 MAR 17  15:01
Report Created on: 10-MAR-17  12:03              Compound Sublist : all
Software Revision: Target 3.50

Sig. 1 in  /chem1/SVOA/GC_49.i/170308.b/17030817.d
RT Range       Exp RT    DLT RT    Response            ppm                Compound
|-------------|---------|---------|-------------------|---------------|---------------------|
        7.754     7.850     0.096        11562761.00           49.78  n-Octacosane
 2.312- 7.946                              834952.79            0.85  TPH as Diesel
 5.021-11.760                              233816.19            0.24  TPH as Motor Oil
End of File
```

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Data File: /chem1/SVOA/GC_49.i/170308.b/17030817.d

Date : 08-MAR-2017 15:01

Client ID:

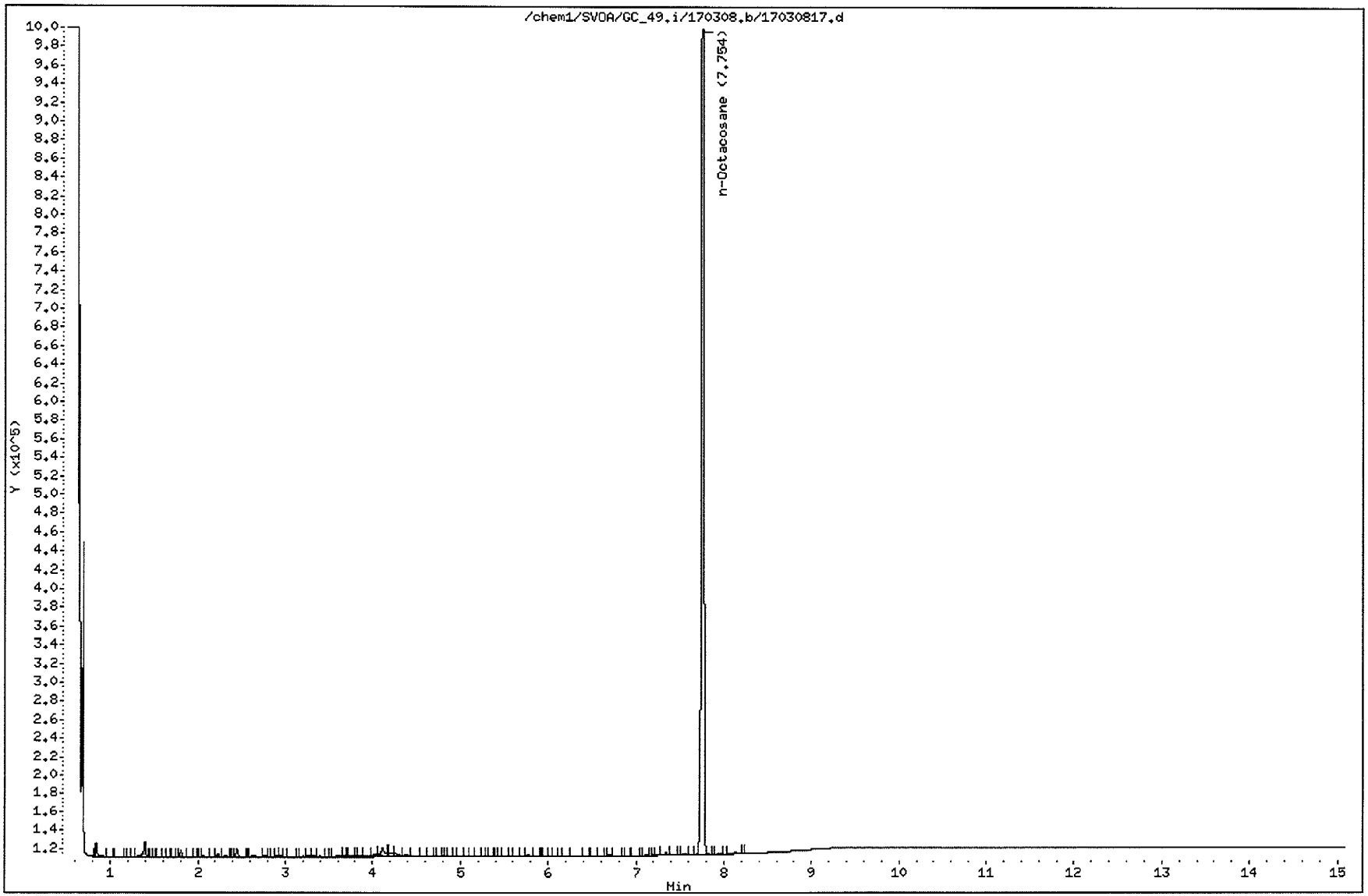
Sample Info: 17-03-0445-8

Column phase:

Instrument: GC_49.i

Operator: 682

Column diameter: 2.00



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EPA 8015B (M)

Diesel + Motor Oil

QUALITY CONTROL

Method Blank
LCS/LCSD
MS/MSD

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

MB SAMPLE ID:	**099-14-353-5**	ANALYZED BY:	972
MB BATCH ID:	170307B07A	D/T ANALYZED:	2017-03-08 10:52
INSTRUMENT:	GC 49	REVIEWED BY:	
EXTRACTION:	EPA 3550B	D/T REVIEWED:	
D/T EXTRACTED:	2017-03-07 00:00	MATRIX:	Soil

DATA FILE: T:\GC_49\GC_49_data\2017\170308\17030805.d\Report.txt17030805

CLIENT WORK ORDER: 17-03-0445

S#	RUN TYPE	CLIENT SAMPLE ID	D/T ANALYZED	DATA FILE
3		B-DU3-S-SG-09-15S	2017-03-08 13:59	T:\GC_49\GC_49_data\2017\170308\17030814.d\Report.txt17030814
4		B-DU3-S-SG-09-25S	2017-03-08 14:20	T:\GC_49\GC_49_data\2017\170308\17030815.d\Report.txt17030815
7		B-DU3-S-SG-10-15S	2017-03-08 14:40	T:\GC_49\GC_49_data\2017\170308\17030816.d\Report.txt17030816
8		B-DU3-S-SG-10-25S	2017-03-08 15:01	T:\GC_49\GC_49_data\2017\170308\17030817.d\Report.txt17030817

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

WORK ORDER:	**099-14-353**	ANALYZED BY:	972
INSTRUMENT:	GC 49	D/T ANALYZED:	2017-03-08 10:52
EXTRACTION :	EPA 3550B	REVIEWED BY:	
D/T EXTRACTED:	2017-03-07 00:00	D/T REVIEWED:	VM

DATA FILE: T:\GC_49\GC_49_data\2017\170308\17030805.d\Report.txt17030805

 # MB **CLIENT SAMPLE NUMBER: Method Blank**

LCS/MB BATCH:	170307B07A	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:

COMPOUND	ON COL CONC	DF	CONC	RL	QUAL
TPH as Diesel	0.580	1.00	ND	5.0	
TPH as Motor Oil	0.170	1.00	ND	5.0	

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

LCS SAMPLE ID:	**099-14-353- 5**	EXTRACTION :	EPA 3550B	ANALYZED BY:	972
LCS/MB BATCH ID:	170307B07A	D/T EXTRACTED:	2017-03-07 00:00	D/T ANALYZED:	2017-03-08 11:12
INSTRUMENT:	GC 49			REVIEWED BY:	
				D/T REVIEWED:	

DATA FILE: T:\GC_49\GC_49_data\2017\170308\17030806.d\Report.txt17030806

COMPOUND NAME	CONC ADDED	CONC REC	%RECOVERY	%REC CONTROL LIMIT	STATUS	QUALIFIERS
TPH as Diesel	400.0	377.9	94	61-145	PASS	

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

SPIKED SAMPLE ID: **17-03-0433-3**
MS/MSD BATCH: 170307S07
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 19:09
MS: 2017-03-08 11:34
MSD: 2017-03-08 11:55
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	361.8	90	359.2	90	64-130	1	0-15	PASS	

Data Files:

TYPE	DATA FILE	DATA FILE PATH
MS	17030807	T:\GC_49\GC_49_data\2017\170308\17030807.d\Report.txt
MSD	17030808	T:\GC_49\GC_49_data\2017\170308\17030808.d\Report.txt

SURROGATE RECOVERIES
FOR METHOD: EPA 8015B (M)

WORK ORDER: 17-03-0445
BATCH ID:
LCS/MB: 170307B07A
MS: 170307S07
EXTRACTION : EPA 3550B

REVIEWED BY:
D/T REVIEWED:

 # 3 CLIENT SAMPLE NUMBER : B-DU3-S-SG-09-15S

INSTRUMENT: GC 49 ANALYZED BY: 972
D/T EXTRACTED: 2017-03-07 00:00 D/T ANALYZED 2017-03-08 13:59
DATA FILE: T:\GC_49\GC_49_data\2017\170308\17030814.d\Report.txt17030814

COMMENT:

COMPOUND	% REC	% REC CL	STATUS	QUALIFIERS
n-Octacosane	90	61-145	PASS	

 # 4 CLIENT SAMPLE NUMBER : B-DU3-S-SG-09-25S

INSTRUMENT: GC 49 ANALYZED BY: 972
D/T EXTRACTED: 2017-03-07 00:00 D/T ANALYZED 2017-03-08 14:20
DATA FILE: T:\GC_49\GC_49_data\2017\170308\17030815.d\Report.txt17030815

COMMENT:

COMPOUND	% REC	% REC CL	STATUS	QUALIFIERS
n-Octacosane	96	61-145	PASS	

 # 7 CLIENT SAMPLE NUMBER : B-DU3-S-SG-10-15S

INSTRUMENT: GC 49 ANALYZED BY: 972
D/T EXTRACTED: 2017-03-07 00:00 D/T ANALYZED 2017-03-08 14:40
DATA FILE: T:\GC_49\GC_49_data\2017\170308\17030816.d\Report.txt17030816

COMMENT:

COMPOUND	% REC	% REC CL	STATUS	QUALIFIERS
n-Octacosane	89	61-145	PASS	

 # 8 CLIENT SAMPLE NUMBER : B-DU3-S-SG-10-25S

INSTRUMENT: GC 49 ANALYZED BY: 972
D/T EXTRACTED: 2017-03-07 00:00 D/T ANALYZED 2017-03-08 15:01
DATA FILE: T:\GC_49\GC_49_data\2017\170308\17030817.d\Report.txt17030817

COMMENT:

COMPOUND	% REC	% REC CL	STATUS	QUALIFIERS
n-Octacosane	100	61-145	PASS	

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SURROGATE RECOVERIES
FOR METHOD: EPA 8015B (M)

WORK ORDER: 17-03-0445
BATCH ID:
LCS/MB: 170307B07A
MS:
EXTRACTION : EPA 3550B

REVIEWED BY:
D/T REVIEWED:

 # MB **CLIENT SAMPLE NUMBER : Method Blank**

INSTRUMENT: GC 49
D/T EXTRACTED: 2017-03-07 00:00
DATA FILE: T:\GC_49\GC_49_data\2017\170308\17030805.d\Report.txt17030805

ANALYZED BY: 972
D/T ANALYZED 2017-03-08 10:52

COMMENT:

COMPOUND	% REC	% REC CL	STATUS	QUALIFIERS
n-Octacosane	97	61-145	PASS	

 # LCS **CLIENT SAMPLE NUMBER : Lab Control Sample**

INSTRUMENT: GC 49
D/T EXTRACTED: 2017-03-07 00:00
DATA FILE: T:\GC_49\GC_49_data\2017\170308\17030806.d\Report.txt17030806

ANALYZED BY: 972
D/T ANALYZED 2017-03-08 11:12

COMMENT:

COMPOUND	% REC	% REC CL	STATUS	QUALIFIERS
n-Octacosane	103	61-145	PASS	

 # MS **CLIENT SAMPLE NUMBER : Matrix Spike**

INSTRUMENT: GC 49
D/T EXTRACTED: 2017-03-07 00:00
DATA FILE: T:\GC_49\GC_49_data\2017\170308\17030807.d\Report.txt17030807

ANALYZED BY: 972
D/T ANALYZED 2017-03-08 11:34

COMMENT:

COMPOUND	% REC	% REC CL	STATUS	QUALIFIERS
n-Octacosane	110	61-145	PASS	

 # MSD **CLIENT SAMPLE NUMBER : Matrix Spike Duplicate**

INSTRUMENT: GC 49
D/T EXTRACTED: 2017-03-07 00:00
DATA FILE: T:\GC_49\GC_49_data\2017\170308\17030808.d\Report.txt17030808

ANALYZED BY: 972
D/T ANALYZED 2017-03-08 11:55

COMMENT:

COMPOUND	% REC	% REC CL	STATUS	QUALIFIERS
n-Octacosane	88	61-145	PASS	

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

Data File Name    : /chem1/SVOA/GC_49/170308/17030805.d
Page Number       :
Operator          : 682                          Vial Number      : Vial 5
Instrument        : GC 49                        Injection Number : 5
Sample Name       : MB 17030707                  Sequence Line    : 0
                                                 Instrument Method: 8015d.m
Acquired on       : 08 MAR 17  10:52
Report Created on: 10-MAR-17  12:53              Compound Sublist : all
Software Revision: Target 3.50

Sig. 1 in  /chem1/SVOA/GC_49.i/170308.b/17030805.d
```

RT Range	Exp RT	DLT RT	Response	ppm	Compound
2.312- 7.946			389209.72	0.40	TPH as Diesel
5.021-11.760			168369.90	0.17	TPH as Motor Oil
7.752	7.850	0.098	11296188.00	48.64	n-Octacosane
0.688- 0.873			0.00	0.00	C6
0.873- 1.312			9862.48	0.01	C7
1.312- 1.809			128654.40	0.13	C8
1.809- 2.780			67669.09	0.07	C9-C10
2.780- 3.619			35514.16	0.04	C11-C12
3.619- 4.359			117504.81	0.12	C13-C14
4.359- 5.021			34777.99	0.04	C15-C16
5.021- 5.619			31956.83	0.03	C17-C18
5.619- 6.163			40121.62	0.04	C19-C20
6.163- 6.662			16225.22	0.02	C21-C22
6.662- 7.122			22762.50	0.02	C23-C24
7.122- 7.946			57303.73	0.06	C25-C28
7.946- 8.667			0.00	0.00	C29-C32
8.667- 9.330			0.00	0.00	C33-C36
9.330-10.048			0.00	0.00	C37-C40
10.048-11.760			0.00	0.00	C41-C44
0.688-11.760			562352.83	0.58	TPH as Diesel
0.688-11.760			562352.83	0.58	C6-C44 Total

End of File

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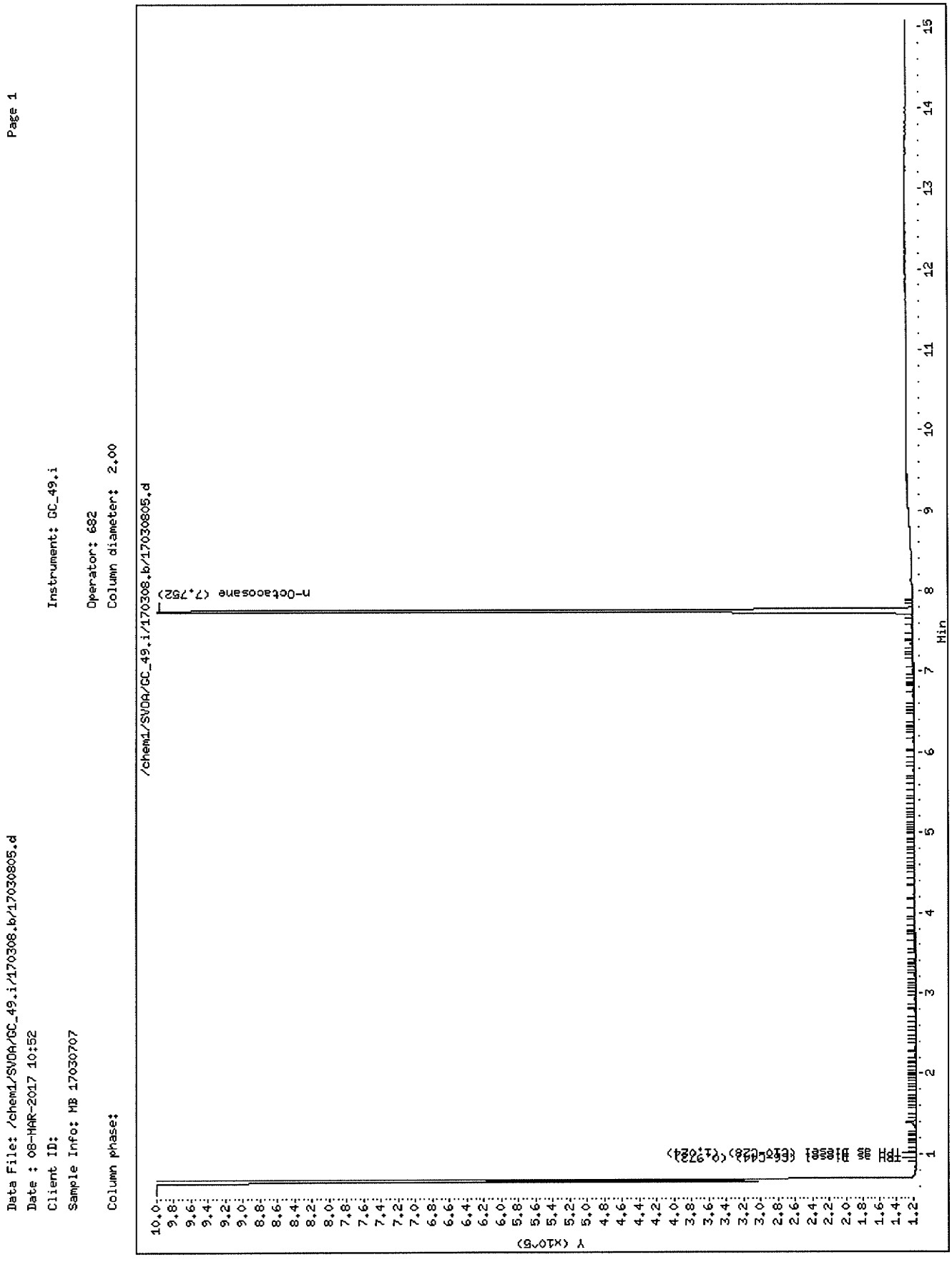

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================================================================================
                          External Standard Report
================================================================================

Data File Name    : /chem1/SVOA/GC_49/170308/17030806.d
Page Number       :
Operator          : 682                          Vial Number      : Vial 6
Instrument        : GC 49                        Injection Number : 6
Sample Name       : LCS 17030707                 Sequence Line    : 0
                                                 Instrument Method: 8015d.m
Acquired on       : 08 MAR 17  11:12
Report Created on: 09-MAR-17  18:50              Compound Sublist : all
Software Revision: Target 3.50

Sig. 1 in  /chem1/SVOA/GC_49.i/170308.b/17030806.d
RT Range      Exp RT    DLT RT    Response           ppm              Compound
|-------------|---------|---------|------------------|--------------|--------------------|
        7.753     7.850     0.097        11977610.00          51.57  n-Octacosane
 0.688- 7.946                          369183088.43         377.87  TPH as Diesel
 2.312- 7.946                          352834478.70         395.62  Diesel Range Organics
End of File
```

Return to Contents

Data File: /chem1/SVOA/GC_49.i/170308.b/17030806.d

Page 1

Date : 08-MAR-2017 11:12

Client ID:

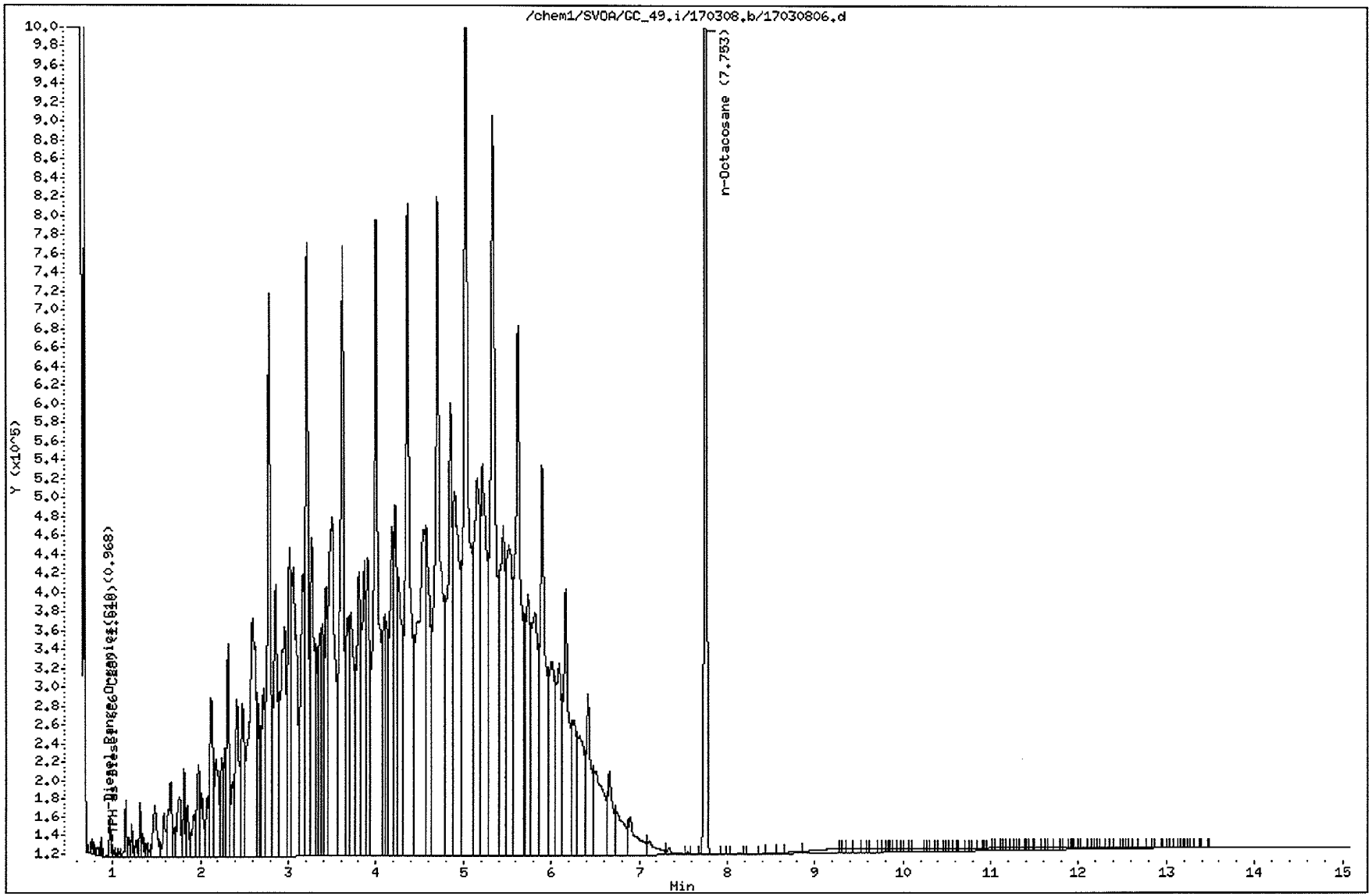
Instrument: GC_49.i

Sample Info: LCS 17030707

Operator: 682

Column phase:

Column diameter: 2.00



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

Data File Name    : /chem1/SVOA/GC_49/170308/17030807.d
Page Number       :
Operator          : 682                          Vial Number      : Vial 7
Instrument        : GC 49                        Injection Number : 7
Sample Name       : MS 17-03-0433-3              Sequence Line    : 0
                                                 Instrument Method: 8015d.m
Acquired on       : 08 MAR 17  11:34
Report Created on: 09-MAR-17  18:50              Compound Sublist : all
Software Revision: Target 3.50

Sig. 1 in  /chem1/SVOA/GC_49.i/170308.b/17030807.d
```

RT Range	Exp RT	DLT RT	Response	ppm	Compound
7.754	7.850	0.096	12749114.00	54.89	n-Octacosane
0.688- 0.873			358720.39	0.37	C6
0.873- 1.312			1245979.74	1.28	C7
1.312- 1.809			4253271.34	4.35	C8
1.809- 2.780			28326898.13	28.99	C9-C10
2.780- 3.619			71239796.56	72.92	C11-C12
3.619- 4.359			52575975.77	53.81	C13-C14
4.359- 5.021			62260302.99	63.72	C15-C16
5.021- 5.619			68616571.27	70.23	C17-C18
5.619- 6.163			41209456.03	42.18	C19-C20
6.163- 6.662			17984126.53	18.41	C21-C22
6.662- 7.122			4964180.03	5.08	C23-C24
7.122- 7.946			448946.63	0.46	C25-C28
7.946- 8.667			0.00	0.00	C29-C32
8.667- 9.330			0.00	0.00	C33-C36
9.330-10.048			0.00	0.00	C37-C40
10.048-11.760			0.00	0.00	C41-C44
0.688-11.760			353484225.41	361.80	TPH as Diesel
0.688-11.760			353484225.41	361.80	C6-C44 Total

```
End of File
```

Return to Contents

Data File: /chem1/SVOA/GC_49.i/170308.b/17030807.d

Page 1

Date : 08-MAR-2017 11:34

Client ID:

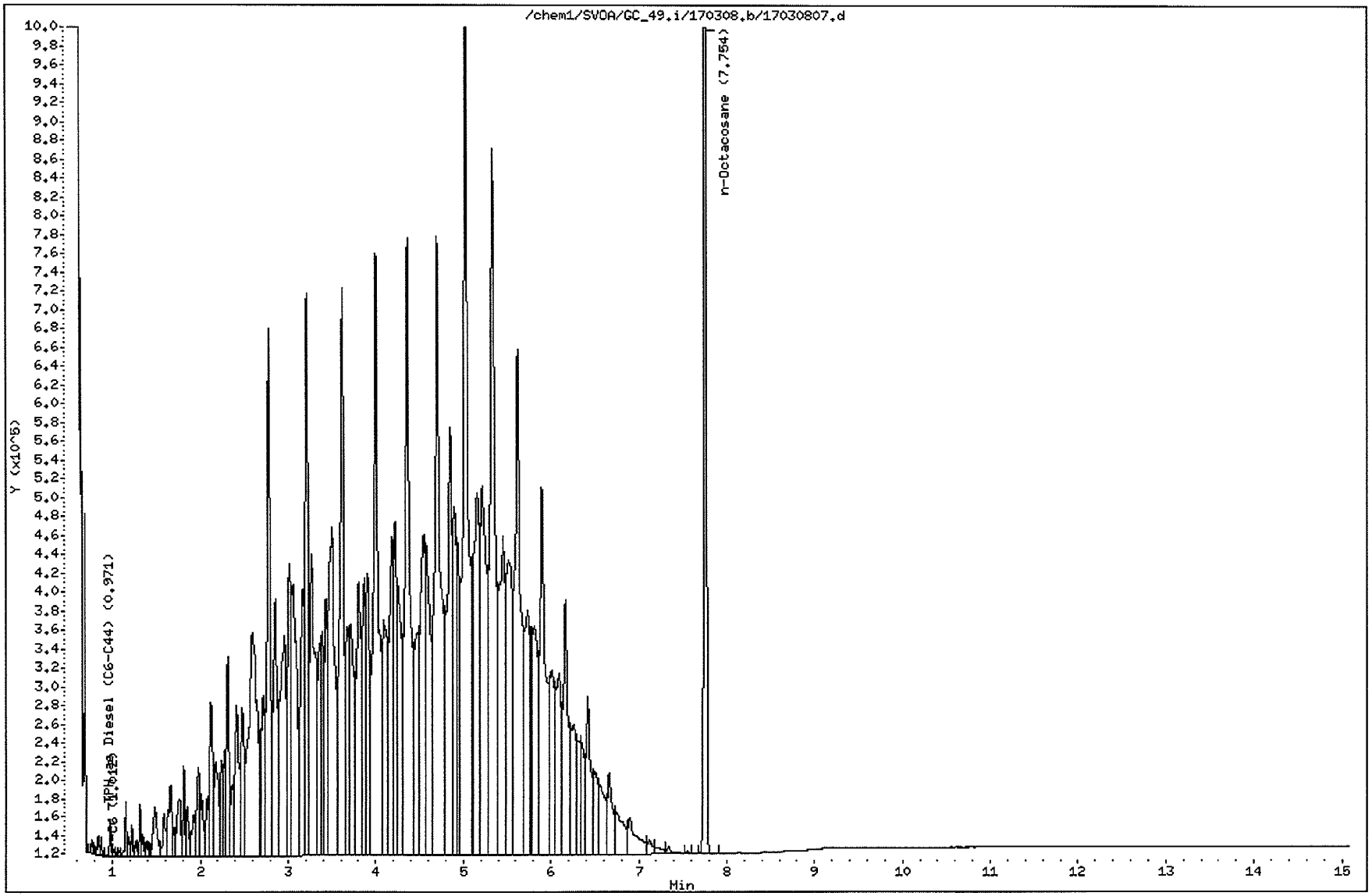
Instrument: GC_49.i

Sample Info: MS 17-03-0433-3

Operator: 682

Column phase:

Column diameter: 2.00



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

Data File Name    : /chem1/SVOA/GC_49/170308/17030808.d
Page Number       :
Operator          : 682                          Vial Number      : Vial 8
Instrument        : GC 49                        Injection Number : 8
Sample Name       : MSD 17-03-0433-3             Sequence Line    : 0
                                                 Instrument Method: 8015d.m
Acquired on       : 08 MAR 17  11:55
Report Created on: 09-MAR-17  18:50              Compound Sublist : all
Software Revision: Target 3.50

Sig. 1 in  /chem1/SVOA/GC_49.i/170308.b/17030808.d
```

RT Range	Exp RT	DLT RT	Response	ppm	Compound
7.753	7.850	0.097	10216422.00	43.99	n-Octacosane
0.688- 0.873			359212.08	0.37	C6
0.873- 1.312			1586845.21	1.62	C7
1.312- 1.809			3865528.67	3.96	C8
1.809- 2.780			28121294.87	28.78	C9-C10
2.780- 3.619			61519251.48	62.97	C11-C12
3.619- 4.359			61746740.92	63.20	C13-C14
4.359- 5.021			63423435.59	64.92	C15-C16
5.021- 5.619			66663086.69	68.23	C17-C18
5.619- 6.163			40858901.11	41.82	C19-C20
6.163- 6.662			17705479.77	18.12	C21-C22
6.662- 7.122			4964204.13	5.08	C23-C24
7.122- 7.946			180529.25	0.18	C25-C28
7.946- 8.667			0.00	0.00	C29-C32
8.667- 9.330			0.00	0.00	C33-C36
9.330-10.048			0.00	0.00	C37-C40
10.048-11.760			0.00	0.00	C41-C44
0.688-11.760			350994509.78	359.25	TPH as Diesel
0.688-11.760			350994509.78	359.25	C6-C44 Total

```
End of File
```

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Data File: /chem1/SVOA/GC_49.i/170308.b/17030808.d

Page 1

Date : 08-MAR-2017 11:55

Client ID:

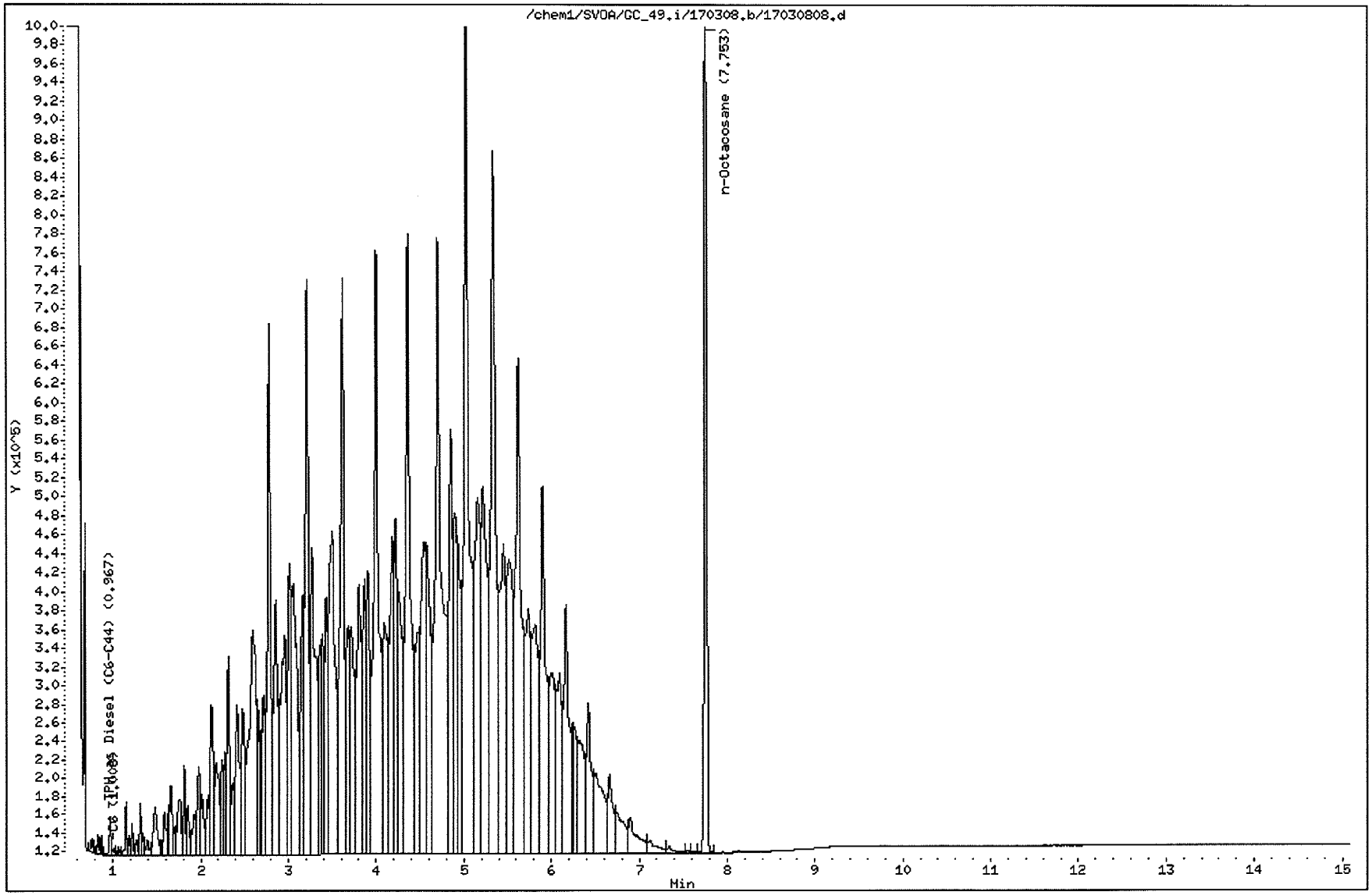
Instrument: GC_49.i

Sample Info: MSD 17-03-0433-3

Operator: 682

Column phase:

Column diameter: 2.00



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External Standard Report

Data File Name : /chem1/SVOA/GC_49/170308/17030829.d
Page Number :
Operator : 682
Instrument : GC 49
Sample Name : 17-03-0433-3

Acquired on : 08 MAR 17 19:09
Report Created on: 10-MAR-17 12:01
Software Revision: Target 3.50

Vial Number : Vial 29
Injection Number : 29
Sequence Line : 0
Instrument Method: 8015d.m

Compound Sublist : all

Sig. 1 in /chem1/SVOA/GC_49.i/170308.b/17030829.d

RT Range	Exp RT	DLT RT	Response	ppm	Compound
7.754	7.850	0.096	12390706.00	53.35	n-Octacosane
0.688- 0.873			41809.12	0.04	C6
0.873- 1.312			10156.21	0.01	C7
1.312- 1.809			188999.37	0.19	C8
1.809- 2.780			95501.84	0.10	C9-C10
2.780- 3.619			66270.74	0.07	C11-C12
3.619- 4.359			280831.27	0.29	C13-C14
4.359- 5.021			61213.42	0.06	C15-C16
5.021- 5.619			46814.14	0.05	C17-C18
5.619- 6.163			36715.78	0.04	C19-C20
6.163- 6.662			24030.49	0.02	C21-C22
6.662- 7.122			30784.38	0.03	C23-C24
7.122- 7.946			73018.26	0.07	C25-C28
7.946- 8.667			0.00	0.00	C29-C32
8.667- 9.330			0.00	0.00	C33-C36
9.330-10.048			0.00	0.00	C37-C40
10.048-11.760			0.00	0.00	C41-C44
0.688-11.760			956145.02	0.98	TPH as Diesel
0.688-11.760			956145.02	0.98	C6-C44 Total

End of File

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Data File: /chem1/SVOA/GC_49.i/170308.b/17030829.d

Page 1

Date : 08-MAR-2017 19:09

Client ID:

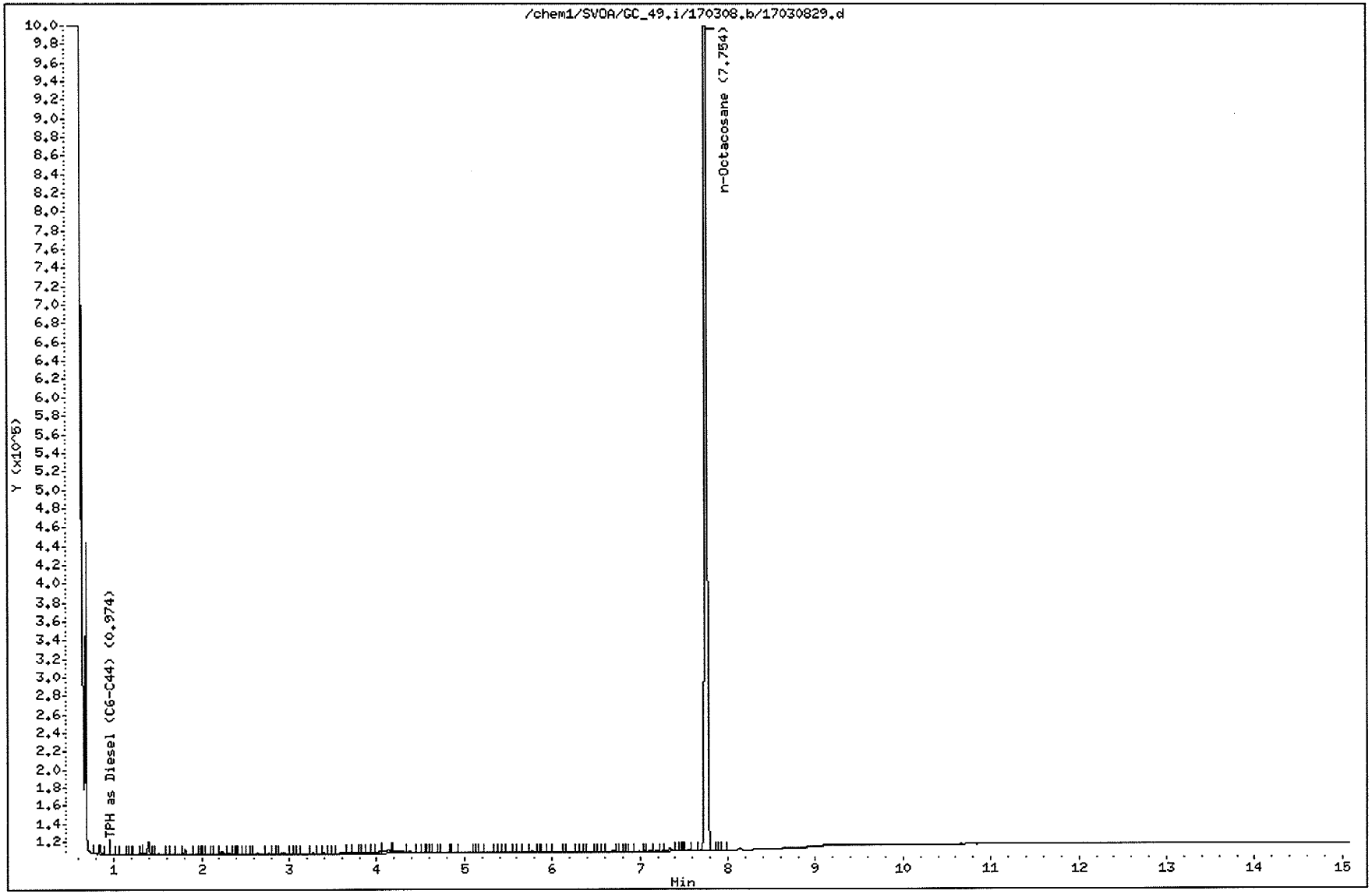
Instrument: GC_49.i

Sample Info: 17-03-0433-3

Operator: 682

Column phase:

Column diameter: 2.00



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EPA 8015B (M)

Diesel + Motor Oil

CONTINUING CALIBRATION

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

BATCH ID: **170308A078** ANALYZED BY: 972
INSTRUMENT: GC 49

WORK ORDER: **099-14-354** REVIEWED BY: 27
MATRIX: Water D/T REVIEWED: 2017-03-10 13:03

CEL SAMPLE #	CLIENT SAMPLE ID	D/T ANALYZED	DATA FILE
26	Daily Calibration	2017-03-08 10:11	T:\GC_49\GC_49_data\2017\170308\17030804.d\Report.txt17030804

WORK ORDER: **17-03-0445** REVIEWED BY: 27
MATRIX: Soil D/T REVIEWED: 2017-03-10 13:17

CEL SAMPLE #	CLIENT SAMPLE ID	D/T ANALYZED	DATA FILE
3	B-DU3-S-SG-09-15S	2017-03-08 13:59	T:\GC_49\GC_49_data\2017\170308\17030814.d\Report.txt17030814
4	B-DU3-S-SG-09-25S	2017-03-08 14:20	T:\GC_49\GC_49_data\2017\170308\17030815.d\Report.txt17030815
7	B-DU3-S-SG-10-15S	2017-03-08 14:40	T:\GC_49\GC_49_data\2017\170308\17030816.d\Report.txt17030816
8	B-DU3-S-SG-10-25S	2017-03-08 15:01	T:\GC_49\GC_49_data\2017\170308\17030817.d\Report.txt17030817

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

CCV WORK ORDER: **099-14-354-26-5901**
BATCH ID:
INITIAL: 170306I006
CCV: 170308A078
INSTRUMENT: GC 49

DATA FILE: T:\GC_49\GC_49_data\2017\170308\17030804.d\Report.txt17030804

ANALYZED BY: 972
D/T ANALYZED:
INITIAL: 2017-03-06 16:25
CCV: 2017-03-08 10:11
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	876.015			10	0-20	PASS

MIN RF: Method Specified Minimum Response Factor

Data File: /chem1/SVOA/GC_49.i/170308.b/17030804.d
Report Date: 03/09/2017 18:49

Eurofins CalScience
Calibration Verification Report

Instrument ID: GC_49.i
Sample Name: CCV D400 C28 50 L102516D
Sublist used: CCV_D-DRO.sub
Method used: /chem1/SVOA/GC_49.i/170308.b/8015d.m

Injection Date and Time: 08-MAR-2017 10:11
Initial Calibration Date(s): 09-NOV-2016 06-MAR-2017
Initial Calibration Time(s): 21:15 19:52

Target Compounds	ICAL RRF or Amount	ICV RRF	Min. RRF	%D / %Drift	Max%D/Drift	Curve Type
Diesel Range Organics	891855.748	803777.478	0.00	10	15	Averaged
TPH as Diesel	977015.903	876014.960	0.00	10	15	Averaged
Surrogate Standards	**ICAL RRF or Amount**	**ICV RRF**	**Min. RRF**	**%D / %Drift**	**Max%D/Drift**	**Curve Type**
n-Octacosane	232259.309	228439.820	0.00	2	20	Averaged

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Data File: /chem1/SVOA/GC_49.i/170308.b/17030804.d Page 1
Report Date: 09-Mar-2017 18:21

Eurofins Calscience

EPA 8015B(M)

Data file : /chem1/SVOA/GC_49.i/170308.b/17030804.d
Lab Smp Id:
Inj Date : 08-MAR-2017 10:11
Operator : 682 Inst ID: GC_49.i
Smp Info : CCV D400 C28 50 L102516D
Misc Info :
Comment :
Method : /chem1/SVOA/GC_49.i/170308.b/8015d.m
Meth Date : 09-Mar-2017 18:13 d2ef Quant Type: ESTD
Cal Date : 25-JAN-2017 02:23 Cal File: 17012445.d
Als bottle: 3 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

					AMOUNTS	
					CAL-AMT	ON-COL
Compounds	RT	EXP RT	DLT RT	RESPONSE	(ppm)	(ppm)
S 14 TPH as Diesel	0.688-7.946			350405984	400.000	358.649
S 26 Diesel Range Organics	2.312-7.946			321510991	400.000	360.496
$ 92 n-Octacosane	7.752	7.753	-0.001	11421991	50.0000	49.177

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Data File: /chem1/SVOA/GC_49.i/170308.b/17030804.d

Date : 08-MAR-2017 10:11

Client ID:

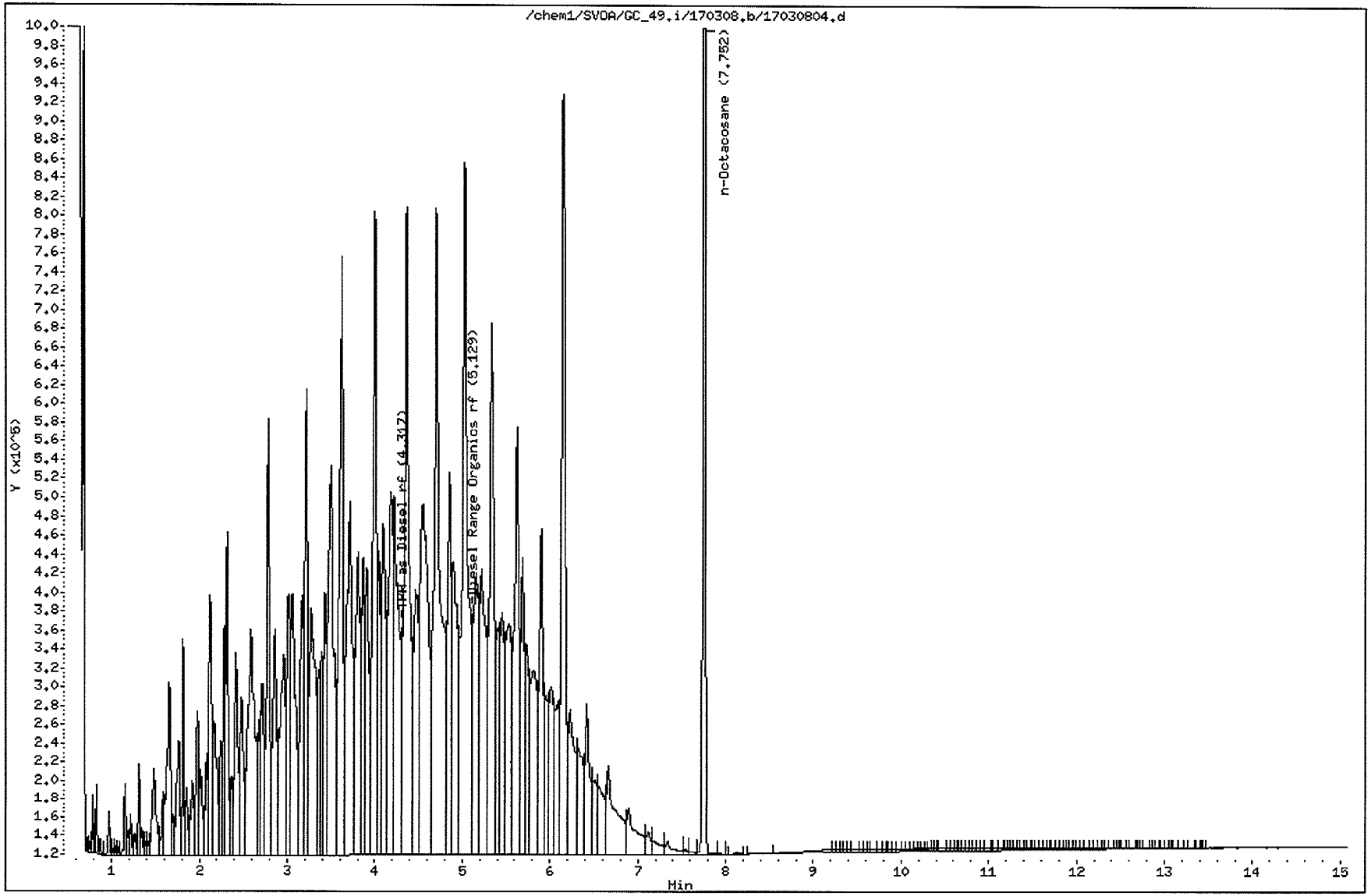
Sample Info: CCV D400 C28 50 L102516D

Column phase:

Instrument: GC_49.i

Operator: 682

Column diameter: 2.00



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Data File: /chem1/SVOA/GC_49.i/170308.b/17030820.d
Report Date: 03/09/2017 18:51

Eurofins CalScience
Calibration Verification Report

Instrument ID: GC_49.i
Sample Name: CCV D400 C28 50 L102516D
Sublist used: CCV_D-DRO.sub
Method used: /chem1/SVOA/GC_49.i/170308.b/8015d.m

Injection Date and Time: 08-MAR-2017 16:03
Initial Calibration Date(s): 09-NOV-2016 06-MAR-2017
Initial Calibration Time(s): 21:15 19:52

Target Compounds	ICAL RRF or Amount	ICV RRF	Min. RRF	%D / %Drift	Max%D /Drift	Curve Type
Diesel Range Organics	891855.748	829373.433	0.00	7	15	Averaged
TPH as Diesel	977015.903	904416.225	0.00	7	15	Averaged
Surrogate Standards	**ICAL RRF or Amount**	**ICV RRF**	**Min. RRF**	**%D / %Drift**	**Max%D /Drift**	**Curve Type**
n-Octacosane	232259.309	208725.700	0.00	10	20	Averaged

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Data File: /chem1/SVOA/GC_49.i/170308.b/17030820.d Page 1
Report Date: 09-Mar-2017 18:41

Eurofins Calscience

EPA 8015B(M)

Data file : /chem1/SVOA/GC_49.i/170308.b/17030820.d
Lab Smp Id:
Inj Date : 08-MAR-2017 16:03
Operator : 682 Inst ID: GC_49.i
Smp Info : CCV D400 C28 50 L102516D
Misc Info :
Comment :
Method : /chem1/SVOA/GC_49.i/170308.b/8015d.m
Meth Date : 09-Mar-2017 18:21 d2ef Quant Type: ESTD
Cal Date : 25-JAN-2017 02:23 Cal File: 17012445.d
Als bottle: 20 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

					AMOUNTS	
					CAL-AMT	ON-COL
Compounds	RT	EXP RT	DLT RT	RESPONSE	(ppm)	(ppm)
S 14 TPH as Diesel	0.688-7.946			361766490	400.000	370.276
S 26 Diesel Range Organics	2.312-7.946			331749373	400.000	371.976
$ 92 n-Octacosane	7.753	7.752	0.001	10436285	50.0000	44.933

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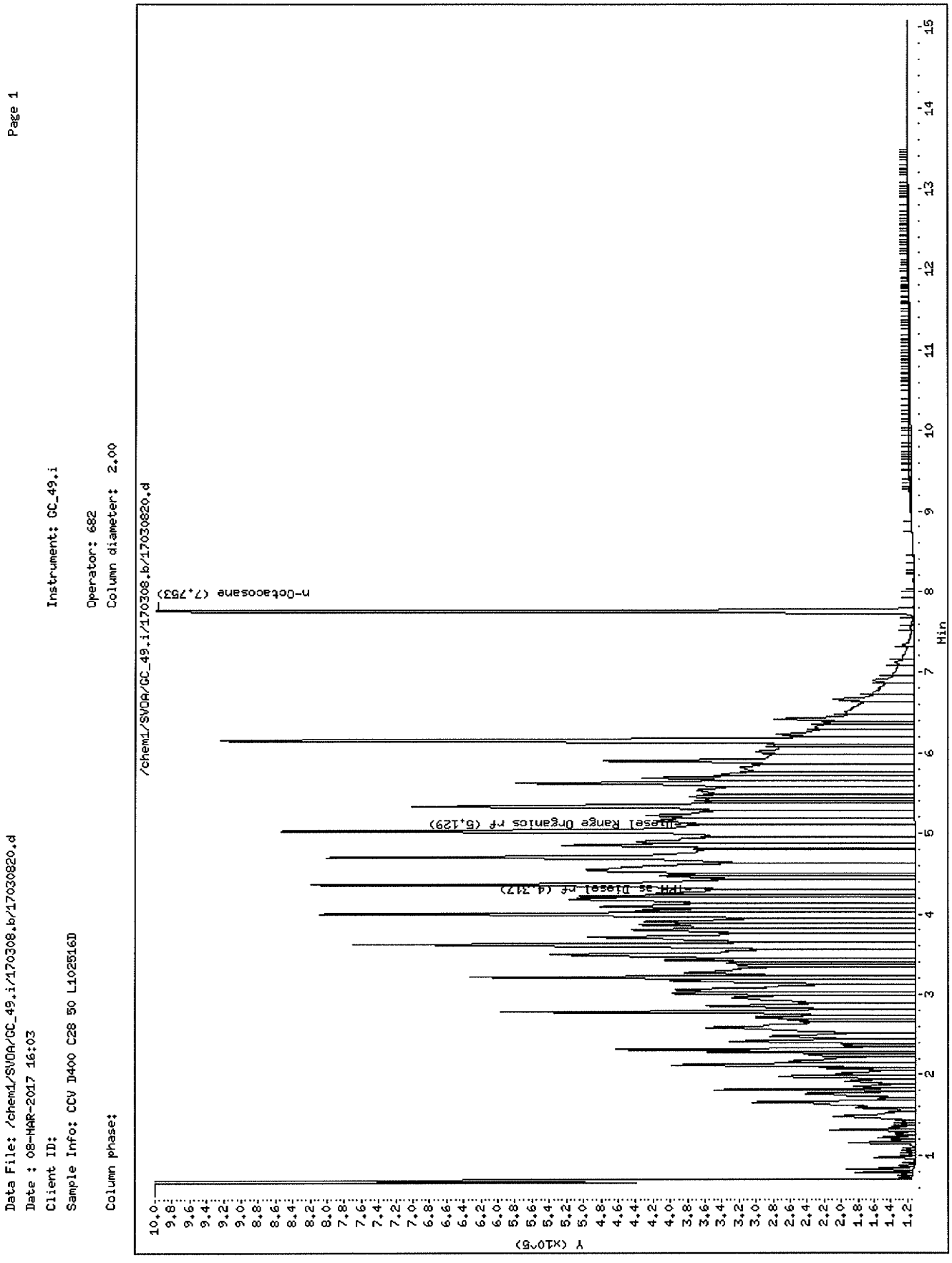

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Data File: /chem1/SVOA/GC_49.i/170308.b/17030831.d
Report Date: 03/10/2017 12:08

Eurofins CalScience
Calibration Verification Report

Instrument ID: GC_49.i
Sample Name: CCV D400 C28 50 L102516D
Sublist used: CCV_D-DRO.sub
Method used: /chem1/SVOA/GC_49.i/170308.b/8015d.m

Injection Date and Time: 08-MAR-2017 20:12
Initial Calibration Date(s): 09-NOV-2016 06-MAR-2017
Initial Calibration Time(s): 21:15 19:52

Target Compounds	ICAL RRF or Amount	ICV RRF	Min. RRF	%D / %Drift	Max%D /Drift	Curve Type
Diesel Range Organics	891855.748	831630.650	0.00	7	15	Averaged
TPH as Diesel	977015.903	906117.238	0.00	7	15	Averaged
Surrogate Standards	**ICAL RRF or Amount**	**ICV RRF**	**Min. RRF**	**%D / %Drift**	**Max%D /Drift**	**Curve Type**
n-Octacosane	232259.309	240393.020	0.00	-4	20	Averaged

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Data File: /chem1/SVOA/GC_49.i/170308.b/17030831.d Page 1
Report Date: 09-Mar-2017 12:10

Eurofins Calscience

EPA 8015B(M)

Data file : /chem1/SVOA/GC_49.i/170308.b/17030831.d
Lab Smp Id:
Inj Date : 08-MAR-2017 20:12
Operator : 682 Inst ID: GC_49.i
Smp Info : CCV D400 C28 50 L102516D
Misc Info :
Comment :
Method : /chem1/SVOA/GC_49.i/170308.b/8015d.m
Meth Date : 09-Mar-2017 12:10 d2ef Quant Type: ESTD
Cal Date : 25-JAN-2017 02:23 Cal File: 17012445.d
Als bottle: 31 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

					AMOUNTS	
					CAL-AMT	ON-COL
Compounds	RT	EXP RT	DLT RT	RESPONSE	(ppm)	(ppm)
==========	==	======	======	========	=======	=======
S 14 TPH as Diesel	0.687-7.948			362446895	400.000	370.973
S 26 Diesel Range Organics	2.312-7.948			332652260	400.000	372.988
$ 92 n-Octacosane	7.754	7.754	0.000	12019651	50.0000	51.751

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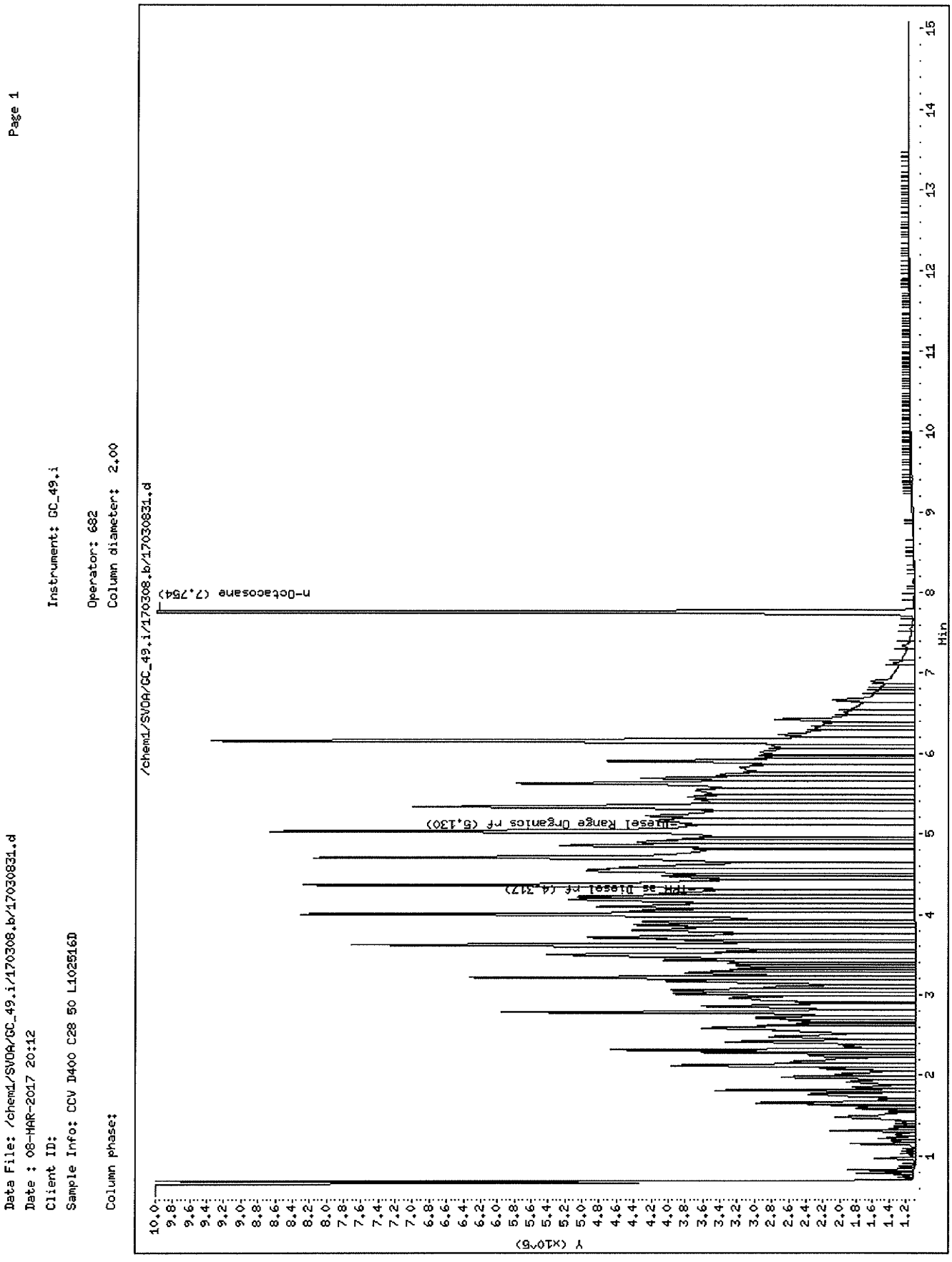

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External Standard Report

Data File Name : /chem1/SVOA/GC_49/170308/17030802.d
Page Number :
Operator : 682
Instrument : GC 49
Sample Name : C6-C44 L110816A
Acquired on : 08 MAR 17 09:50
Report Created on: 09-MAR-17 18:49
Software Revision: Target 3.50

Vial Number : Vial 1
Injection Number : 1
Sequence Line : 0
Instrument Method: 8015d.m

Compound Sublist : all

Sig. 1 in /chem1/SVOA/GC_49.i/170308.b/17030802.d

RT Range	Exp RT	DLT RT	Response	ppm	Compound
0.688	7.850	7.162	1935403.00	0.00	C6-Hexane
0.873	7.850	6.977	3993918.00	0.00	C7-Heptane
1.312	7.850	6.538	8032041.00	0.00	C8-Octane
1.809	7.850	6.041	6650009.00	0.00	C9-Nonane
2.312	7.850	5.538	7207160.00	0.00	C10-Decane
2.780	7.850	5.070	7405319.00	0.00	C11-Undecane
3.214	7.850	4.636	7406412.00	0.00	C12-Dodecane
3.619	7.850	4.231	7955099.00	0.00	C13-Tridecane
4.000	7.850	3.850	7407678.00	0.00	C14-Tetradecane
4.359	7.850	3.491	7428917.00	0.00	C15-pentadecane
4.699	7.850	3.151	7458783.00	0.00	C16-Hexadecane
5.021	7.850	2.829	7584667.00	0.00	C17-Heptadecane
5.327	7.850	2.523	7783085.00	0.00	C18-Octadecane
5.619	7.850	2.231	7761019.00	0.00	C19-Nonadecane
5.897	7.850	1.953	7887111.00	0.00	C20-Eicosane
6.163	7.850	1.687	7842716.00	0.00	C21-Heneicosane
6.418	7.850	1.432	7810689.00	0.00	C22-Docosane
6.662	7.850	1.188	7329090.00	0.00	C23-Tricosane
6.896	7.850	0.954	6657730.00	0.00	C24-Tetracosane
7.122	7.850	0.728	5613476.00	0.00	C25-Pentacosane
7.339	7.850	0.511	4427903.00	0.00	C26-Hexacosane
7.549	7.850	0.301	2967329.00	0.00	C27-Heptacosane
7.751	7.850	0.099	1908368.00	8.22	n-Octacosane
7.946	7.850	-0.096	1082845.00	0.00	C29-Nonacosane
8.135	7.850	-0.285	605599.00	0.00	C30-Triacontane
8.318	7.850	-0.468	347687.00	0.00	C31-Hentriacontane
8.495	7.850	-0.645	236450.00	0.00	C32-Dotricacontane
8.667	7.850	-0.817	183690.00	0.00	C33-Tritriacontane
8.834	7.850	-0.984	154208.00	0.00	C34-Tetratriacontane
8.996	7.850	-1.146	128930.00	0.00	C35-Pentatriacontane
9.155	7.850	-1.305	138798.00	0.00	C36-Hexatriacontane
9.330	7.850	-1.480	130553.00	0.00	C37-Heptatriacontane
9.533	7.850	-1.683	107335.00	0.00	C38-Octatriacontane
9.771	7.850	-1.921	85143.00	0.00	C39-Nonatriacontane
10.048	7.850	-2.198	86576.00	0.00	C40-Tetracontane
11.760	7.850	-3.910	506183.00	0.00	C44-Tetratetracontane

End of File

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EPA 8015B (M)

Diesel + Motor Oil

RUN LOGS

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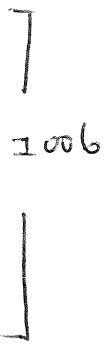
Line	Vial	File	Name	Method	InjVolume	Acquired
1	1	17030600	BLK	8015D		06-Mar-17, 11:25:13
2	1	17030601	BLK	8015D		06-Mar-17, 11:45:48
3	2	17030602	C6-C44 L110816A	8015D		06-Mar-17, 12:07:03
4	4	17030604	CCV D400 C28 50 L102516D	8015D		06-Mar-17, 12:28:22
5	5	17030605	ICAL MO25 L030317B	8015D		06-Mar-17, 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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Sequence: C:\CHEM32\1\SEQUENCE\170308.S
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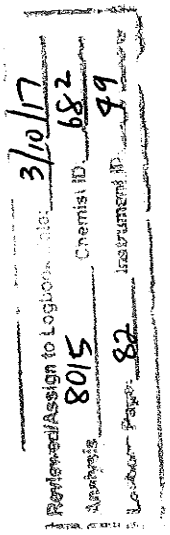
Line	Vial	File	Name	Method	InjVolume	Acquired
1	1	17030800	BLK	8015D		08-Mar-17, 09:08:18
2	1	17030801	BLK	8015D		08-Mar-17, 09:29:05
3	2	17030802	C6-C44 L110816A	8015D		08-Mar-17, 09:50:10
4	3	17030804	CCV D400 C28 50 L102516D	8015D		08-Mar-17, 10:11:08
5	4	17030803	CCV MO400 L030317D	8015D		08-Mar-17, 10:31:41
6	5	17030805	MB 17030707	8015D		08-Mar-17, 10:52:06
7	6	17030806	LCS 17030707	8015D		08-Mar-17, 11:12:58
8	7	17030807	MS 17-03-0433-3	8015D		08-Mar-17, 11:34:10
9	8	17030808	MSD 17-03-0433-3	8015D		08-Mar-17, 11:55:24
10	9	17030809	17-03-0341-1	8015D		08-Mar-17, 12:16:13
11	10	17030810	17-03-0341-2	8015D		08-Mar-17, 12:36:36
12	11	17030811	17-03-0341-3	8015D		08-Mar-17, 12:56:58
13	12	17030812	17-03-0341-4	8015D		08-Mar-17, 13:39:23
14	14	17030814	17-03-0445-3	8015D		08-Mar-17, 13:59:46
15	15	17030815	17-03-0445-4	8015D		08-Mar-17, 14:20:10
16	16	17030816	17-03-0445-7	8015D		08-Mar-17, 14:40:39
17	17	17030817	17-03-0445-8	8015D		08-Mar-17, 15:01:06
18	18	17030818	17-03-0141-27	8015D		08-Mar-17, 15:22:08
19	19	17030819	17-03-0141-28	8015D		08-Mar-17, 15:43:00
20	20	17030820	CCV D400 C28 50 L102516D	8015D		08-Mar-17, 16:03:24
21	21	17030821	17-03-0141-29	8015D		08-Mar-17, 16:23:47
22	22	17030822	17-03-0141-30	8015D		08-Mar-17, 16:44:43
23	23	17030823	17-03-0141-31	8015D		08-Mar-17, 17:05:55
24	24	17030824	17-03-0420-1	8015D		08-Mar-17, 17:26:30
25	25	17030825	17-03-0420-2	8015D		08-Mar-17, 17:47:06
26	26	17030826	17-03-0420-3	8015D		08-Mar-17, 18:07:50
27	27	17030827	17-03-0433-1	8015D		08-Mar-17, 18:29:00
28	28	17030828	17-03-0433-2	8015D		08-Mar-17, 18:49:37
29	29	17030829	17-03-0433-3	8015D		08-Mar-17, 19:09:56
30	30	17030830	17-03-0433-4	8015D		08-Mar-17, 19:31:00
31	2	1703080201	C6-C44 L110816A	8015D		08-Mar-17, 19:51:47
32	31	17030831	CCV D400 C28 50 L102516D	8015D		08-Mar-17, 20:12:17



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EPA 8015B (M)

Diesel + Motor Oil

PREPARATION LOGS

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Analysis Method (EPA Method): ☒ TPH 8015 ☐ NWTPH 8015

Extraction Method (EPA Method): ☐ 3510 ☐ 3511 ☒ 3550

Analyst ID#: Measuring Sample- 889 Start Extraction- 1108 Blow Down- Clean Up-

Matrix: ☒ Solid ☐ Aqueous ☐ Oil ☐ Wipe / Filter Balance ID#: 16 Sand or Filter ID#: L6-19-20

Extraction Start Date & Time: 03/07/2017 18:15 Extractions End Date & Time: 03/07/2017 ~~15~~ 1105 03/07 20:00

Drying Agent & ID#: ☒ Na_2SO_4 L6-23-20 Spike Added to: ☒ LCS ☐ LCSD ☒ MS ☒ MSD

Surrogate Std ID# & Volume Added (mL): L011717A 0.5

Spike Std ID# & Volume Added (mL): ☒ D: L102416B 0.2 ☐ MO:

☐ ☐ ☐

Extraction Solvent & ID#: ☒ $MeCl_2$ 507-55-01 Elution Solvent ID# & Volume (mL): 10

Reverse Surrogate ID#: & Volume Added (mL):

Clean Up Start Date & Time: Clean Up End Date & Time:

SGC Clean Up: ☐ 1. CEL 0.5g ☐ 2. 3630 - 2g ☐ 3. 3630 – 10g SPE Cartridge ID#:

Clean Up Solvent ID#: Silica Gel ID#:

QC Batch #: 17030707 / Cel ID#:	Test Analyte	Sample W (g) / V (mL) Initial	Final	SCG Clean Up	Comments
MB	DTMO/CC	10.0	10.0	☐ NA ☐ 1 ☐ 2 ☐ 3	
LCS	↓	10.0	↓	☐ NA ☐ 1 ☐ 2 ☐ 3	
MS 17-03-0433-3A	↓	10.0	↓	☐ NA ☐ 1 ☐ 2 ☐ 3	
MSD ↓ -3 ↓	↓	10.0	↓	☐ NA ☐ 1 ☐ 2 ☐ 3	
17-03-0441-27A	DTMO	10.1	↓	☐ NA ☐ 1 ☐ 2 ☐ 3	
-28	↓	9.99	↓	☐ NA ☐ 1 ☐ 2 ☐ 3	
-29	↓	10.2	↓	☐ NA ☐ 1 ☐ 2 ☐ 3	
-30	↓	10.0	↓	☐ NA ☐ 1 ☐ 2 ☐ 3	
-31 ↓	↓	10.1	↓	☐ NA ☐ 1 ☐ 2 ☐ 3	
17-03-0445-3A	↓	10.2	↓	☐ NA ☐ 1 ☐ 2 ☐ 3	
-4	↓	10.2	↓	☐ NA ☐ 1 ☐ 2 ☐ 3	
-7	↓	10.1	↓	☐ NA ☐ 1 ☐ 2 ☐ 3	
-8 ↓	↓	10.2	↓	☐ NA ☐ 1 ☐ 2 ☐ 3	
17-03-0341-1A	CC	10.1	↓	☐ NA ☐ 1 ☐ 2 ☐ 3	
-2	↓	10.2	↓	☐ NA ☐ 1 ☐ 2 ☐ 3	
-3	↓	9.99	↓	☐ NA ☐ 1 ☐ 2 ☐ 3	
-4 ↓	↓	10.0	↓	☐ NA ☐ 1 ☐ 2 ☐ 3	
17-03-0433-1A	↓	10.2	↓	☐ NA ☐ 1 ☐ 2 ☐ 3	
-2	↓	10.1	↓	☐ NA ☐ 1 ☐ 2 ☐ 3	
-3	↓	10.0	↓	☐ NA ☐ 1 ☐ 2 ☐ 3	
-4 ↓	↓	10.2	↓	☐ NA ☐ 1 ☐ 2 ☐ 3	
17-03-0420-1A	↓	10.2	↓	☐ NA ☐ 1 ☐ 2 ☐ 3	
-2	↓	10.0	↓	☐ NA ☐ 1 ☐ 2 ☐ 3	
-3 ↓	↓	10.1	↓	☐ NA ☐ 1 ☐ 2 ☐ 3	
				☐ NA ☐ 1 ☐ 2 ☐ 3	
				☐ NA ☐ 1 ☐ 2 ☐ 3	
				☐ NA ☐ 1 ☐ 2 ☐ 3	
				☐ NA ☐ 1 ☐ 2 ☐ 3	
				☐ NA ☐ 1 ☐ 2 ☐ 3	
				☐ NA ☐ 1 ☐ 2 ☐ 3	

Peer Reviewed by: GTZ Peer Reviewed Date: 3/7/17 Revision Date: 10/24/16

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EPA 6010B ICP Metals

(Solid)

RAW DATA

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EPA 6010B ICP Metals

(Solid)

Initial Calibration

ICV/ICB
CCV/CCB
ICSA/B

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Calscience Environmental Laboratories, Inc.

EPA Method 6010B

Initial Calibration Verification

ACCREDITED IN ACCORDANCE WITH nelac

Work Order No: 17-03-0445

Instrument ID: ICP 7300

Concentration Unit: mg/L

Analyte Name	Initial Calibration Verification				
	True	ICV-1		Control Limit	Comment
		Observed	%D		
Silver	0.500000	0.487894	2	+/-10	
Arsenic	5.000000	5.060136	-1	+/-10	
Barium	1.000000	0.990799	1	+/-10	
Beryllium	0.500000	0.489386	2	+/-10	
Cadmium	1.500000	1.451200	3	+/-10	
Cobalt	1.000000	1.030699	-3	+/-10	
Chromium	0.400000	0.389593	3	+/-10	
Copper	1.000000	0.978362	2	+/-10	
Molybdenum	2.500000	2.505211	0	+/-10	
Nickel	0.400000	0.422622	-6	+/-10	
Lead	5.000000	4.878334	2	+/-10	
Antimony	2.000000	1.997865	0	+/-10	
Selenium	2.000000	2.026030	-1	+/-10	
Thallium	2.000000	2.025303	-1	+/-10	
Vanadium	1.000000	0.964884	4	+/-10	
Zinc	1.500000	1.457251	3	+/-10	

Report Time: 3/10/2017 12:40:26 PM

ICV-1 File: ICV-M072816C Analysis Time: 3/10/2017 9:44:59 AM

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

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Calscience Environmental Laboratories, Inc.

EPA Method 6010B

Initial Calibration Blank

Work Order No: 17-03-0445

Instrument ID: ICP 7300

Concentration Unit: mg/L

	Initial Calibration Blank		
Analyte	ICB-1	RL	Comment
Silver	-0.000490	0.005000	
Arsenic	-0.002446	0.010000	
Barium	0.000342	0.010000	
Beryllium	0.000105	0.010000	
Cadmium	0.000810	0.010000	
Cobalt	-0.000395	0.010000	
Chromium	0.000036	0.010000	
Copper	0.000440	0.010000	
Molybdenum	0.003356	0.010000	
Nickel	0.001080	0.010000	
Lead	0.000581	0.010000	
Antimony	0.000071	0.015000	
Selenium	-0.001999	0.015000	
Thallium	0.006256	0.015000	
Vanadium	-0.001191	0.010000	
Zinc	-0.000346	0.010000	

Report Time: 3/10/2017 12:40:26 PM

ICB-1 File: ICB-R12091601 Analysis Time: 3/10/2017 9:46:06 AM

01/22/2014 Revision

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Calscience Environmental Laboratories, Inc.

EPA Method 6010B

Interference Check

Work Order No: 17-03-0445

Instrument ID: ICP 7300

Concentration Unit: mg/L

Analyte	Interference Check						
	ICS-A-1		ICS-AB-1				
	Observed	Control Limit	True	Observed	%D	Control Limit	Comment
Silver	0.000196	0.005000	0.300000	0.299818	0	+/-20	
Arsenic	0.007893	0.010000	1.000000	1.003800	0	+/-20	
Barium	0.002687	0.010000	0.300000	0.299486	0	+/-20	
Beryllium	-0.000027	0.010000	0.100000	0.102412	-2	+/-20	
Cadmium	0.002560	0.010000	0.300000	0.285245	5	+/-20	
Cobalt	-0.000859	0.010000	0.300000	0.291953	3	+/-20	
Chromium	-0.002451	0.010000	0.300000	0.294596	2	+/-20	
Copper	-0.000923	0.010000	0.300000	0.303233	-1	+/-20	
Molybdenum	0.001785	0.010000	0.300000	0.300470	0	+/-20	
Nickel	0.001382	0.010000	0.300000	0.306464	-2	+/-20	
Lead	-0.003314	0.010000	1.000000	0.948435	5	+/-20	
Antimony	-0.006464	0.015000	1.000000	0.961717	4	+/-20	
Selenium	-0.011826	0.015000	0.500000	0.479212	4	+/-20	
Thallium	-0.008526	0.015000	1.000000	0.995702	0	+/-20	
Vanadium	0.001313	0.010000	0.300000	0.292510	2	+/-20	
Zinc	-0.000034	0.010000	0.300000	0.284398	5	+/-20	

Report Time: 3/10/2017 12:40:26 PM

ICS-A-1 File: ICS_A - M110116B Analysis Time: 3/10/2017 9:49:16 AM

ICS-AB-1 File: ICS_AB - M110116A Analysis Time: 3/10/2017 9:50:39 AM

01/22/2014 Revision

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Calscience Environmental Laboratories, Inc.

EPA Method 6010B

Initial Calibration Verification

Work Order No: 17-03-0445

Instrument ID: ICP 7300

Concentration Unit: mg/L

Analyte Name	Initial Calibration Verification				
	True	ICV-2		Control Limit	Comment
		Observed	%D		
Silver	0.500000	0.502124	0	+/-10	
Arsenic	5.000000	5.012322	0	+/-10	
Barium	1.000000	1.045154	-5	+/-10	
Beryllium	0.500000	0.509550	-2	+/-10	
Cadmium	1.500000	1.489975	1	+/-10	
Cobalt	1.000000	1.054274	-5	+/-10	
Chromium	0.400000	0.404550	-1	+/-10	
Copper	1.000000	1.017240	-2	+/-10	
Molybdenum	2.500000	2.503493	0	+/-10	
Nickel	0.400000	0.424560	-6	+/-10	
Lead	5.000000	5.045191	-1	+/-10	
Antimony	2.000000	2.051112	-3	+/-10	
Selenium	2.000000	2.017922	-1	+/-10	
Thallium	2.000000	2.015770	-1	+/-10	
Vanadium	1.000000	0.993143	1	+/-10	
Zinc	1.500000	1.506470	0	+/-10	

Report Time: 3/10/2017 12:40:26 PM

ICV-2 File: ICV-M072816C Analysis Time: 3/10/2017 11:11:31 AM

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

01/22/2014 Revision

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Calscience Environmental Laboratories, Inc.

EPA Method 6010B

Initial Calibration Blank

ACCREDITED IN ACCORDANCE WITH nelac

Work Order No: 17-03-0445

Instrument ID: ICP 7300

Concentration Unit: mg/L

	Initial Calibration Blank		
Analyte	ICB-2	RL	Comment
Silver	0.001523	0.005000	
Arsenic	0.001591	0.010000	
Barium	0.000598	0.010000	
Beryllium	0.000155	0.010000	
Cadmium	0.000781	0.010000	
Cobalt	0.000572	0.010000	
Chromium	0.000460	0.010000	
Copper	0.000336	0.010000	
Molybdenum	0.004845	0.010000	
Nickel	-0.000109	0.010000	
Lead	0.005743	0.010000	
Antimony	0.010019	0.015000	
Selenium	0.008780	0.015000	
Thallium	0.009357	0.015000	
Vanadium	-0.000432	0.010000	
Zinc	-0.004808	0.010000	

Report Time: 3/10/2017 12:40:26 PM

ICB-2 File: ICB-R12091601 Analysis Time: 3/10/2017 11:12:41 AM

01/22/2014 Revision

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Calscience Environmental Laboratories, Inc.

EPA Method 6010B

Continuing Calibration Verification

ACCREDITED IN ACCORDANCE WITH ilac

Work Order No: 17-03-0445

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	0.379914	-1	0.368994	2	+/-10	
Arsenic	3.750000	3.774609	-1	3.748607	0	+/-10	
Barium	7.500000	8.067197	-8	7.782175	-4	+/-10	
Beryllium	0.562500	0.596263	-6	0.576914	-3	+/-10	
Cadmium	0.750000	0.752456	0	0.735849	2	+/-10	
Cobalt	1.875000	1.939739	-3	1.866232	0	+/-10	
Chromium	0.600000	0.607722	-1	0.594324	1	+/-10	
Copper	0.937500	0.965974	-3	0.929286	1	+/-10	
Molybdenum	0.600000	0.619009	-3	0.608980	-2	+/-10	
Nickel	0.600000	0.627019	-4	0.617328	-3	+/-10	
Lead	3.750000	3.751988	0	3.733632	0	+/-10	
Antimony	4.500000	4.713040	-5	4.556965	-1	+/-10	
Selenium	1.500000	1.518095	-1	1.507988	-1	+/-10	
Thallium	1.500000	1.551108	-3	1.541032	-3	+/-10	
Vanadium	1.875000	1.910826	-2	1.858396	1	+/-10	
Zinc	2.500000	2.516205	-1	2.403268	4	+/-10	

Report Time: 3/10/2017 12:40:26 PM

CCV-1 File: CCV= STD3x0.5 Analysis Time: 3/10/2017 11:28:20 AM

CCV-2 File: CCV= STD3x0.5 Analysis Time: 3/10/2017 12:00:34 PM

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

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Calscience Environmental Laboratories, Inc.

EPA Method 6010B

Continuing Calibration Blank

ACCREDITED IN ACCORDANCE WITH nelac

Work Order No: 17-03-0445

Instrument ID: ICP 7300

Concentration Unit: mg/L

	Continuing Calibration Blank			
Analyte	CCB-1	CCB-2	RL	Qualifier
Silver	0.000037	0.001446	0.005000	
Arsenic	-0.002109	-0.001174	0.010000	
Barium	0.003987	0.002432	0.010000	
Beryllium	0.000292	0.000190	0.010000	
Cadmium	0.000652	0.000235	0.010000	
Cobalt	0.001128	0.001176	0.010000	
Chromium	0.000857	0.000341	0.010000	
Copper	-0.002234	-0.004279	0.010000	
Molybdenum	-0.000132	0.000469	0.010000	
Nickel	0.001698	0.000936	0.010000	
Lead	0.002258	0.000220	0.010000	
Antimony	0.002202	0.010223	0.015000	
Selenium	0.002247	-0.000994	0.015000	
Thallium	0.005607	0.004428	0.015000	
Vanadium	0.001686	0.000919	0.010000	
Zinc	-0.017505	-0.029102	0.010000	

Report Time: 3/10/2017 12:40:26 PM

CCB-1 File: CCB-R12091601 Analysis Time: 3/10/2017 11:29:26 AM

CCB-2 File: CCB-R12091601 Analysis Time: 3/10/2017 12:01:40 PM

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Calscience Environmental Laboratories, Inc.

EPA Method 6010B

Continuing Calibration Verification

Work Order No: 17-03-0445

Instrument ID: ICP 7300

Concentration Unit: mg/L

Analyte	Continuing Calibration Verification						
		CCV-3				Control	
	True	Observed	%D	Observed	%D	Limit	Comment
Silver	0.375000	0.366106	2			+/-10	
Arsenic	3.750000	3.580246	5			+/-10	
Barium	7.500000	7.699556	-3			+/-10	
Beryllium	0.562500	0.568188	-1			+/-10	
Cadmium	0.750000	0.725246	3			+/-10	
Cobalt	1.875000	1.864564	1			+/-10	
Chromium	0.600000	0.585248	2			+/-10	
Copper	0.937500	0.917982	2			+/-10	
Molybdenum	0.600000	0.591635	1			+/-10	
Nickel	0.600000	0.592186	1			+/-10	
Lead	3.750000	3.574781	5			+/-10	
Antimony	4.500000	4.383542	3			+/-10	
Selenium	1.500000	1.427076	5			+/-10	
Thallium	1.500000	1.491895	1			+/-10	
Vanadium	1.875000	1.820753	3			+/-10	
Zinc	2.500000	2.359094	6			+/-10	

Report Time: 3/10/2017 12:40:26 PM

CCV-3 File: CCV= STD3x0.5 Analysis Time: 3/10/2017 12:13:40 PM

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

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Calscience Environmental Laboratories, Inc.

EPA Method 6010B

Continuing Calibration Blank

ACCREDITED IN ACCORDANCE WITH nelac

Work Order No: 17-03-0445

Instrument ID: ICP 7300

Concentration Unit: mg/L

	Continuing Calibration Blank			
Analyte	CCB-3		RL	Qualifier
Silver	0.000971		0.005000	
Arsenic	0.001774		0.010000	
Barium	0.001720		0.010000	
Beryllium	0.000135		0.010000	
Cadmium	0.000188		0.010000	
Cobalt	0.000490		0.010000	
Chromium	0.000522		0.010000	
Copper	-0.005788		0.010000	
Molybdenum	-0.001172		0.010000	
Nickel	0.000572		0.010000	
Lead	-0.001890		0.010000	
Antimony	-0.007189		0.015000	
Selenium	-0.005384		0.015000	
Thallium	-0.002850		0.015000	
Vanadium	0.002203		0.010000	
Zinc	-0.029961		0.010000	

Report Time: 3/10/2017 1:07:46 PM

CCB-3 File: CCB-R12091601 Analysis Time: 3/10/2017 12:15:44 PM

01/22/2014 Revision

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Analysis Begun

Start Time: 3/10/2017 9:41:51 AM
Logged In Analyst: Oscar Gomez 935
Spectrometer: Optima 7300 DV, S/N 77c8120401
Plasma On Time: 3/10/2017 9:34:34 AM
Technique: ICP Continuous
Autosampler: ESI

Sample Information File: C:\Documents and Settings\All Users\PerkinElmer\ICP\Data\Sample Information\17031001.sif
Batch ID:
Results Data Set: 170310C1
Results Library: W:\pe\7300\Results\results.mdb

Sequence No.: 1
Sample ID: Cal blankR12091601_935
Analyst:
Initial Sample Wt:
Dilution:
Wash Time:
Autosampler Location: 1
Date Collected: 3/10/2017 9:42:03 AM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:
User canceled analysis.

Analysis Begun

Start Time: 3/10/2017 9:42:29 AM
Logged In Analyst: Oscar Gomez 935
Spectrometer: Optima 7300 DV, S/N 77c8120401
Plasma On Time: 3/10/2017 9:34:34 AM
Technique: ICP Continuous
Autosampler: ESI

Sample Information File: C:\Documents and Settings\All Users\PerkinElmer\ICP\Data\Sample Information\17031001.sif
Batch ID:
Results Data Set: 170310C1
Results Library: W:\pe\7300\Results\results.mdb

Sequence No.: 1
Sample ID: Cal blankR12091601_935
Analyst:
Initial Sample Wt:
Dilution:
Wash Time:
Autosampler Location: 1
Date Collected: 3/10/2017 9:42:38 AM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Mean Data: Cal blankR12091601_935

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Tb 384	58437.4	144.59	0.25%	100.0	%
Tb 350	91072.2	65.47	0.07%	100.0	%
Ag 328.068*†	-759.8	141.42	18.61%	[0.00]	mg/L
Al 308.215*†	-1577.2	21.57	1.37%	[0.00]	mg/L
As 188.979†	-1.4	1.47	108.67%	[0.00]	mg/L
As 193.696*†	3.3	2.01	61.47%	[0.00]	mg/L
B 249.677*†	-903.3	31.49	3.49%	[0.00]	mg/L
Ba 233.527*†	-283.5	9.68	3.42%	[0.00]	mg/L
Be 313.042*†	-656.7	108.42	16.51%	[0.00]	mg/L
Ca 317.933*†	3.9	7.09	182.83%	[0.00]	mg/L
Cd 226.502*†	-11.2	7.43	66.42%	[0.00]	mg/L
Cd 228.802†	0.9	3.04	325.31%	[0.00]	mg/L
Co 228.616*†	-67.1	7.72	11.49%	[0.00]	mg/L
Cr 267.716*†	378.4	4.95	1.31%	[0.00]	mg/L
Cu 324.752*†	1567.1	167.99	10.72%	[0.00]	mg/L
Fe 273.955*†	-282.8	23.45	8.29%	[0.00]	mg/L
K 766.490*†	756.5	13.99	1.85%	[0.00]	mg/L
Mg 279.077*†	-6751.4	175.46	2.60%	[0.00]	mg/L
Mn 257.610*†	-149.4	24.08	16.11%	[0.00]	mg/L
Mo 202.031*†	-36.5	1.98	5.43%	[0.00]	mg/L
Na 589.592*†	664.4	82.25	12.38%	[0.00]	mg/L
Ni 231.604*†	-72.1	16.79	23.27%	[0.00]	mg/L
P 213.617*†	-135.7	29.49	21.74%	[0.00]	mg/L
P 214.914†	-32.7	2.01	6.15%	[0.00]	mg/L

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Pb 220.353*†	-29.9	2.43	8.13%	[0.00]	mg/L
Sb 206.836†	21.4	11.12	52.00%	[0.00]	mg/L
Sb 217.582*†	-7.2	1.43	19.77%	[0.00]	mg/L
Se 196.026*†	8.8	5.37	61.00%	[0.00]	mg/L
Si 251.611*†	1579.5	25.45	1.61%	[0.00]	mg/L
Sn 189.927*†	-87.6	3.58	4.08%	[0.00]	mg/L
Sn 242.170†	-366.9	1.37	0.37%	[0.00]	mg/L
Sr 407.771*†	72.5	3.11	4.30%	[0.00]	mg/L
Ti 334.940†	20185.1	270.84	1.34%	[0.00]	mg/L
Ti 336.121*†	-933.0	109.06	11.69%	[0.00]	mg/L
Tl 190.801*†	-11.4	5.52	48.22%	[0.00]	mg/L
V 292.402*†	235.8	5.29	2.24%	[0.00]	mg/L
Zn 206.200*†	-63.6	8.33	13.09%	[0.00]	mg/L
Zn 213.857*†	182.5	0.59	0.33%	[0.00]	mg/L

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User canceled analysis.

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Analysis Begun

Start Time: 3/10/2017 9:43:48 AM
Logged In Analyst: Oscar Gomez 935
Spectrometer: Optima 7300 DV, S/N 77c8120401

Plasma On Time: 3/10/2017 9:34:34 AM
Technique: ICP Continuous
Autosampler: ESI

Sample Information File: C:\Documents and Settings\All Users\PerkinElmer\ICP\Data\Sample Information\17031001.sif
Batch ID:
Results Data Set: 170310C1
Results Library: W:\pe\7300\Results\results.mdb

==========

Sequence No.: 2
Sample ID: STD3-M111116A_935_ICP7300
Analyst:
Initial Sample Wt:
Dilution:
Wash Time:

Autosampler Location: 2
Date Collected: 3/10/2017 9:43:52 AM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Mean Data: STD3-M111116A_935_ICP7300

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Tb 384	52180.0	355.27	0.68%	89.29	%
Tb 350	83933.7	285.41	0.34%	92.16	%
Ag 328.068*†	109233.0	492.92	0.45%	[0.75]	mg/L
Al 308.215*†	369232.5	380.66	0.10%	[27.0]	mg/L
As 188.979†	10851.1	84.33	0.78%	[7.50]	mg/L
As 193.696*†	7573.5	53.18	0.70%	[7.50]	mg/L
B 249.677*†	279901.1	1618.43	0.58%	[7.50]	mg/L
Ba 233.527*†	1684515.8	25600.43	1.52%	[15.0]	mg/L
Be 313.042*†	3101658.4	30164.67	0.97%	[1.125]	mg/L
Ca 317.933*†	80825.2	2197.22	2.72%	[60.0]	mg/L
Cd 226.502*†	82963.0	247.49	0.30%	[1.50]	mg/L
Cd 228.802†	42672.9	314.98	0.74%	[1.50]	mg/L
Co 228.616*†	75982.6	164.26	0.22%	[3.75]	mg/L
Cr 267.716*†	101102.9	174.14	0.17%	[1.20]	mg/L
Cu 324.752*†	364247.1	1180.88	0.32%	[1.875]	mg/L
Fe 273.955*†	130735.2	78.83	0.06%	[7.50]	mg/L
K 766.490*†	118286.6	2159.98	1.83%	[54.0]	mg/L
Mg 279.077*†	205260.3	399.60	0.19%	[15.0]	mg/L
Mn 257.610*†	722715.6	711.28	0.10%	[1.50]	mg/L
Mo 202.031*†	8151.7	19.22	0.24%	[1.20]	mg/L
Na 589.592*†	231444.0	2892.13	1.25%	[72.0]	mg/L
Ni 231.604*†	20986.4	140.16	0.67%	[1.20]	mg/L
P 213.617*†	16710.9	90.02	0.54%	[12.0]	mg/L
P 214.914†	10423.1	71.26	0.68%	[12.0]	mg/L
Pb 220.353*†	42953.8	57.36	0.13%	[7.50]	mg/L
Sb 206.836†	12234.1	63.96	0.52%	[9.0]	mg/L
Sb 217.582*†	12338.7	127.72	1.04%	[9.0]	mg/L
Se 196.026*†	4466.3	26.73	0.60%	[3.0]	mg/L
Si 251.611*†	369241.4	4782.38	1.30%	[12.0]	mg/L
Sn 189.927*†	25338.4	130.04	0.51%	[6.0]	mg/L
Sn 242.170†	7675.2	2.18	0.03%	[6.0]	mg/L
Sr 407.771*†	140616.6	1891.24	1.34%	[0.60]	mg/L
Ti 334.940†	757481.0	10827.32	1.43%	[1.20]	mg/L
Ti 336.121*†	539428.5	166.49	0.03%	[1.20]	mg/L
Tl 190.801*†	3925.1	32.21	0.82%	[3.0]	mg/L
V 292.402*†	388788.9	1434.94	0.37%	[3.75]	mg/L
Zn 206.200*†	146812.9	44.44	0.03%	[5.0]	mg/L
Zn 213.857*†	259746.9	69.51	0.03%	[5.0]	mg/L

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Sequence No.: 3
Sample ID: ICV-M072816C
Analyst: 771 icp 7300
Initial Sample Wt:
Dilution:
Wash Time: 20

Autosampler Location: 10
Date Collected: 3/10/2017 9:44:59 AM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:
Auto Dilution Factor: 1

Mean Data: ICV-M072816C

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Tb 384	51043.6	87.35	%	1.341				1.54%
Tb 350	81304.4	89.27	%	0.750				0.84%
Ag 328.068*†	71058.8	0.4879	mg/L	0.00250	0.4879	mg/L	0.00250	0.51%
QC value within limits for Ag 328.068* Recovery = 97.58%								
Al 308.215*†	55423.2	4.053	mg/L	0.0131	4.053	mg/L	0.0131	0.32%
QC value within limits for Al 308.215* Recovery = 101.32%								
As 188.979†	7345.2	5.077	mg/L	0.0302	5.077	mg/L	0.0302	0.60%
QC value within limits for As 188.979 Recovery = 101.54%								
As 193.696*†	5109.7	5.060	mg/L	0.0361	5.060	mg/L	0.0361	0.71%
QC value within limits for As 193.696* Recovery = 101.20%								
B 249.677*†	89184.4	2.390	mg/L	0.0233	2.390	mg/L	0.0233	0.97%
QC value within limits for B 249.677* Recovery = 95.59%								
Ba 233.527*†	111267.8	0.9908	mg/L	0.00052	0.9908	mg/L	0.00052	0.05%
QC value within limits for Ba 233.527* Recovery = 99.08%								
Be 313.042*†	1349253.0	0.4894	mg/L	0.00188	0.4894	mg/L	0.00188	0.38%
QC value within limits for Be 313.042* Recovery = 97.88%								
Ca 317.933*†	26120.0	19.39	mg/L	0.251	19.39	mg/L	0.251	1.29%
QC value within limits for Ca 317.933* Recovery = 96.95%								
Cd 226.502*†	80263.9	1.451	mg/L	0.0020	1.451	mg/L	0.0020	0.14%
QC value within limits for Cd 226.502* Recovery = 96.75%								
Cd 228.802†	41701.1	1.466	mg/L	0.0049	1.466	mg/L	0.0049	0.33%
Co 228.616*†	20884.0	1.031	mg/L	0.0052	1.031	mg/L	0.0052	0.51%
QC value within limits for Co 228.616* Recovery = 103.07%								
Cr 267.716*†	32824.2	0.3896	mg/L	0.00016	0.3896	mg/L	0.00016	0.04%
QC value within limits for Cr 267.716* Recovery = 97.40%								
Cu 324.752*†	190061.6	0.9784	mg/L	0.00304	0.9784	mg/L	0.00304	0.31%
QC value within limits for Cu 324.752* Recovery = 97.84%								
Fe 273.955*†	1724010.0	98.90	mg/L	0.079	98.90	mg/L	0.079	0.08%
QC value within limits for Fe 273.955* Recovery = 98.90%								
K 766.490*†	17525.0	8.000	mg/L	0.1967	8.000	mg/L	0.1967	2.46%
QC value within limits for K 766.490* Recovery = 100.01%								
Mg 279.077*†	131064.8	9.578	mg/L	0.0208	9.578	mg/L	0.0208	0.22%
QC value within limits for Mg 279.077* Recovery = 95.78%								
Mn 257.610*†	471110.7	0.9778	mg/L	0.00028	0.9778	mg/L	0.00028	0.03%
QC value within limits for Mn 257.610* Recovery = 97.78%								
Mo 202.031*†	17018.2	2.505	mg/L	0.0134	2.505	mg/L	0.0134	0.54%
QC value within limits for Mo 202.031* Recovery = 100.21%								
Na 589.592*†	176748.7	54.98	mg/L	0.606	54.98	mg/L	0.606	1.10%
QC value within limits for Na 589.592* Recovery = 101.82%								
Ni 231.604*†	7391.1	0.4226	mg/L	0.00044	0.4226	mg/L	0.00044	0.10%
QC value within limits for Ni 231.604* Recovery = 105.66%								
P 213.617*†	6832.0	4.906	mg/L	0.0002	4.906	mg/L	0.0002	0.00%
QC value within limits for P 213.617* Recovery = 98.12%								
P 214.914†	4416.2	5.084	mg/L	0.0373	5.084	mg/L	0.0373	0.73%
Pb 220.353*†	27939.1	4.878	mg/L	0.0097	4.878	mg/L	0.0097	0.20%
QC value within limits for Pb 220.353* Recovery = 97.57%								
Sb 206.836†	2708.8	1.993	mg/L	0.0056	1.993	mg/L	0.0056	0.28%
QC value within limits for Sb 206.836 Recovery = 99.64%								
Sb 217.582*†	2739.0	1.998	mg/L	0.0124	1.998	mg/L	0.0124	0.62%
QC value within limits for Sb 217.582* Recovery = 99.89%								
Se 196.026*†	3016.3	2.026	mg/L	0.0093	2.026	mg/L	0.0093	0.46%
QC value within limits for Se 196.026* Recovery = 101.30%								
Si 251.611*†	275233.1	8.945	mg/L	0.0887	8.945	mg/L	0.0887	0.99%
QC value less than the lower limit for Si 251.611* Recovery = 89.45%								
Sn 189.927*†	10915.2	2.585	mg/L	0.0199	2.585	mg/L	0.0199	0.77%
QC value within limits for Sn 189.927* Recovery = 103.39%								
Sn 242.170†	3643.7	2.848	mg/L	0.0145	2.848	mg/L	0.0145	0.51%
Sr 407.771*†	46418.6	0.1981	mg/L	0.00310	0.1981	mg/L	0.00310	1.56%
QC value within limits for Sr 407.771* Recovery = 99.03%								

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Ti 334.940†	3015149.1	4.777 mg/L	0.0003	4.777 mg/L	0.0003	0.01%
Ti 336.121*†	2122977.4	4.723 mg/L	0.0023	4.723 mg/L	0.0023	0.05%
QC value within limits for Ti 336.121* Recovery = 94.45%						
Tl 190.801*†	2649.9	2.025 mg/L	0.0246	2.025 mg/L	0.0246	1.21%
QC value within limits for Tl 190.801* Recovery = 101.27%						
V 292.402*†	100204.5	0.9649 mg/L	0.01011	0.9649 mg/L	0.01011	1.05%
QC value within limits for V 292.402* Recovery = 96.49%						
Zn 206.200*†	42788.6	1.457 mg/L	0.0091	1.457 mg/L	0.0091	0.63%
QC value within limits for Zn 206.200* Recovery = 97.15%						
Zn 213.857*†	77061.3	1.475 mg/L	0.0070	1.475 mg/L	0.0070	0.47%
QC value within limits for Zn 213.857* Recovery = 98.34%						

QC Failed. Continue with analysis.

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Sequence No.: 4
Sample ID: ICB-R12091601
Analyst: 771 icp 7300
Initial Sample Wt:
Dilution:
Wash Time: 20

Autosampler Location: 1
Date Collected: 3/10/2017 9:46:06 AM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:
Auto Dilution Factor: 1

Mean Data: ICB-R12091601

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Tb 384	57533.7	98.45	%	2.581				2.62%
Tb 350	89147.8	97.89	%	1.989				2.03%
Ag 328.068*†	-71.3	-0.0005	mg/L	0.00040	-0.0005	mg/L	0.00040	81.48%
Al 308.215*†	-54.8	-0.0040	mg/L	0.00432	-0.0040	mg/L	0.00432	107.88%
As 188.979†	7.2	0.0050	mg/L	0.00115	0.0050	mg/L	0.00115	22.97%
As 193.696*†	-2.5	-0.0024	mg/L	0.00716	-0.0024	mg/L	0.00716	292.64%
QC value within limits for As 193.696* Recovery = Not calculated								
B 249.677*†	1322.9	0.0354	mg/L	0.00196	0.0354	mg/L	0.00196	5.54%
QC value greater than the upper limit for B 249.677* Recovery = Not calculated								
Ba 233.527*†	38.4	0.0003	mg/L	0.00005	0.0003	mg/L	0.00005	14.83%
Be 313.042*†	288.7	0.0001	mg/L	0.00003	0.0001	mg/L	0.00003	23.90%
Ca 317.933*†	9.4	0.0070	mg/L	0.00013	0.0070	mg/L	0.00013	1.82%
Cd 226.502*†	44.8	0.0008	mg/L	0.00002	0.0008	mg/L	0.00002	2.31%
Cd 228.802†	31.0	0.0011	mg/L	0.00008	0.0011	mg/L	0.00008	7.05%
Co 228.616*†	-8.0	-0.0004	mg/L	0.00008	-0.0004	mg/L	0.00008	19.11%
Cr 267.716*†	3.1	0.0000	mg/L	0.00090	0.0000	mg/L	0.00090	>999.9%
Cu 324.752*†	85.5	0.0004	mg/L	0.00005	0.0004	mg/L	0.00005	11.99%
Fe 273.955*†	621.3	0.0356	mg/L	0.00590	0.0356	mg/L	0.00590	16.56%
K 766.490*†	313.1	0.1430	mg/L	0.01269	0.1430	mg/L	0.01269	8.88%
Mg 279.077*†	277.2	0.0203	mg/L	0.01642	0.0203	mg/L	0.01642	81.06%
Mn 257.610*†	105.1	0.0002	mg/L	0.00003	0.0002	mg/L	0.00003	13.09%
Mo 202.031*†	22.8	0.0034	mg/L	0.00050	0.0034	mg/L	0.00050	14.99%
Na 589.592*†	60.2	0.0187	mg/L	0.02180	0.0187	mg/L	0.02180	116.31%
Ni 231.604*†	18.9	0.0011	mg/L	0.00003	0.0011	mg/L	0.00003	3.15%
P 213.617*†	10.1	0.0073	mg/L	0.02156	0.0073	mg/L	0.02156	296.40%
P 214.914†	-6.4	-0.0073	mg/L	0.00367	-0.0073	mg/L	0.00367	50.01%
Pb 220.353*†	3.3	0.0006	mg/L	0.00071	0.0006	mg/L	0.00071	122.79%
QC value within limits for Pb 220.353* Recovery = Not calculated								
Sb 206.836†	1.8	0.0013	mg/L	0.00825	0.0013	mg/L	0.00825	618.75%
Sb 217.582*†	0.1	0.0001	mg/L	0.00011	0.0001	mg/L	0.00011	152.40%
QC value within limits for Sb 217.582* Recovery = Not calculated								
Se 196.026*†	-3.0	-0.0020	mg/L	0.00010	-0.0020	mg/L	0.00010	5.09%
QC value within limits for Se 196.026* Recovery = Not calculated								
Si 251.611*†	377.0	0.0123	mg/L	0.00120	0.0123	mg/L	0.00120	9.81%
QC value greater than the upper limit for Si 251.611* Recovery = Not calculated								
Sn 189.927*†	42.5	0.0101	mg/L	0.00708	0.0101	mg/L	0.00708	70.38%
Sn 242.170†	32.6	0.0255	mg/L	0.01412	0.0255	mg/L	0.01412	55.49%
Sr 407.771*†	-3.2	-0.0000	mg/L	0.00002	-0.0000	mg/L	0.00002	147.22%
Ti 334.940†	1819.1	0.0029	mg/L	0.00044	0.0029	mg/L	0.00044	15.22%
Ti 336.121*†	1279.4	0.0028	mg/L	0.00004	0.0028	mg/L	0.00004	1.23%
Tl 190.801*†	8.2	0.0063	mg/L	0.00067	0.0063	mg/L	0.00067	10.72%
QC value within limits for Tl 190.801* Recovery = Not calculated								
V 292.402*†	-123.4	-0.0012	mg/L	0.00051	-0.0012	mg/L	0.00051	43.11%
Zn 206.200*†	-10.2	-0.0003	mg/L	0.00020	-0.0003	mg/L	0.00020	57.00%
Zn 213.857*†	12.9	0.0002	mg/L	0.00032	0.0002	mg/L	0.00032	132.75%
QC Failed. Retry.								

Sequence No.: 5
Sample ID: ICB-R12091601
Analyst: 771 icp 7300
Initial Sample Wt:
Dilution:
Wash Time: 20

10^2
3/10/17

Autosampler Location: 1
Date Collected: 3/10/2017 9:47:02 AM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:
Auto Dilution Factor: 1

Mean Data: ICB-R12091601

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD

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Sequence No.: 7
Sample ID: ICS_A - M110116B
Analyst: 771 icp 7300
Initial Sample Wt:
Dilution:
Wash Time: 15

Autosampler Location: 8
Date Collected: 3/10/2017 9:49:16 AM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:
Auto Dilution Factor: 1

Mean Data: ICS_A - M110116B

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Tb 384	51181.9	87.58	%	1.929				2.20%
Tb 350	82044.3	90.09	%	2.258				2.51%
Ag 328.068*†	28.6	0.0002	mg/L	0.00121	0.0002	mg/L	0.00121	618.95%
Al 308.215*†	325269.9	23.79	mg/L	1.161	23.79	mg/L	1.161	4.88%
As 188.979†	22.1	0.0153	mg/L	0.00190	0.0153	mg/L	0.00190	12.48%
As 193.696*†	8.0	0.0079	mg/L	0.00888	0.0079	mg/L	0.00888	112.52%
B 249.677*†	405.1	0.0109	mg/L	0.00048	0.0109	mg/L	0.00048	4.40%
Ba 233.527*†	301.8	0.0027	mg/L	0.00018	0.0027	mg/L	0.00018	6.68%
Be 313.042*†	-75.4	-0.0000	mg/L	0.00005	-0.0000	mg/L	0.00005	191.65%
Ca 317.933*†	159354.2	118.3	mg/L	1.30	118.3	mg/L	1.30	1.10%
Cd 226.502*†	141.6	0.0026	mg/L	0.00001	0.0026	mg/L	0.00001	0.49%
Cd 228.802†	1.1	0.0000	mg/L	0.00020	0.0000	mg/L	0.00020	491.91%
Co 228.616*†	-17.4	-0.0009	mg/L	0.00045	-0.0009	mg/L	0.00045	52.53%
Cr 267.716*†	-206.5	-0.0025	mg/L	0.00173	-0.0025	mg/L	0.00173	70.46%
Cu 324.752*†	-179.3	-0.0009	mg/L	0.00112	-0.0009	mg/L	0.00112	120.94%
Fe 273.955*†	1585124.3	90.94	mg/L	4.686	90.94	mg/L	4.686	5.15%
K 766.490*†	228.3	0.1042	mg/L	0.09762	0.1042	mg/L	0.09762	93.66%
Mg 279.077*†	765127.5	55.91	mg/L	3.119	55.91	mg/L	3.119	5.58%
Mn 257.610*†	87.6	0.0002	mg/L	0.00014	0.0002	mg/L	0.00014	74.76%
Mo 202.031*†	12.1	0.0018	mg/L	0.00010	0.0018	mg/L	0.00010	5.37%
Na 589.592*†	67139.7	20.89	mg/L	0.245	20.89	mg/L	0.245	1.17%
Ni 231.604*†	24.2	0.0014	mg/L	0.00031	0.0014	mg/L	0.00031	22.32%
P 213.617*†	-190.4	-0.1367	mg/L	0.01064	-0.1367	mg/L	0.01064	7.78%
P 214.914†	32.1	0.0370	mg/L	0.00542	0.0370	mg/L	0.00542	14.66%
Pb 220.353*†	-19.0	-0.0033	mg/L	0.00010	-0.0033	mg/L	0.00010	3.03%
Sb 206.836†	7.3	0.0054	mg/L	0.00157	0.0054	mg/L	0.00157	29.39%
Sb 217.582*†	-8.9	-0.0065	mg/L	0.00874	-0.0065	mg/L	0.00874	135.21%
Se 196.026*†	-17.6	-0.0118	mg/L	0.00032	-0.0118	mg/L	0.00032	2.70%
Si 251.611*†	340.5	0.0111	mg/L	0.00004	0.0111	mg/L	0.00004	0.34%
Sn 189.927*†	22.6	0.0054	mg/L	0.00476	0.0054	mg/L	0.00476	88.92%
Sn 242.170†	314.4	0.2458	mg/L	0.01497	0.2458	mg/L	0.01497	6.09%
Sr 407.771*†	782.1	0.0033	mg/L	0.00003	0.0033	mg/L	0.00003	0.97%
Ti 334.940†	-1512.3	-0.0024	mg/L	0.00013	-0.0024	mg/L	0.00013	5.29%
Ti 336.121*†	-713.7	-0.0016	mg/L	0.00033	-0.0016	mg/L	0.00033	20.62%
Tl 190.801*†	-11.2	-0.0085	mg/L	0.02272	-0.0085	mg/L	0.02272	266.52%
V 292.402*†	290.7	0.0013	mg/L	0.00058	0.0013	mg/L	0.00058	44.47%
Zn 206.200*†	-1.0	-0.0000	mg/L	0.00076	-0.0000	mg/L	0.00076	>999.9%
Zn 213.857*†	237.2	-0.0030	mg/L	0.00007	-0.0030	mg/L	0.00007	2.39%

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User canceled analysis.

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Analysis Begun

Start Time: 3/10/2017 9:50:36 AM
Logged In Analyst: Oscar Gomez 935
Spectrometer: Optima 7300 DV, S/N 77c8120401
Plasma On Time: 3/10/2017 9:34:34 AM
Technique: ICP Continuous
Autosampler: ESI

Sample Information File: C:\Documents and Settings\All Users\PerkinElmer\ICP\Data\Sample Information\17031001.sif
Batch ID:
Results Data Set: 170310C1
Results Library: W:\pe\7300\Results\results.mdb

==========

Sequence No.: 8
Sample ID: ICS_AB - M110116A
Analyst: 771 icp 7300
Initial Sample Wt:
Dilution:
Wash Time:
Autosampler Location: 9
Date Collected: 3/10/2017 9:50:39 AM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Mean Data: ICS_AB - M110116A

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Tb 384	50495.2	86.41	%	0.696				0.81%
Tb 350	80969.0	88.91	%	0.913				1.03%
Ag 328.068*†	43666.7	0.2998	mg/L	0.00090	0.2998	mg/L	0.00090	0.30%
Al 308.215*†	327872.5	23.98	mg/L	0.173	23.98	mg/L	0.173	0.72%
As 188.979†	1466.6	1.014	mg/L	0.0070	1.014	mg/L	0.0070	0.69%
As 193.696*†	1013.6	1.004	mg/L	0.0102	1.004	mg/L	0.0102	1.02%
B 249.677*†	17238.6	0.4619	mg/L	0.00314	0.4619	mg/L	0.00314	0.68%
Ba 233.527*†	33632.6	0.2995	mg/L	0.00277	0.2995	mg/L	0.00277	0.92%
Be 313.042*†	282352.7	0.1024	mg/L	0.00057	0.1024	mg/L	0.00057	0.56%
Ca 317.933*†	162882.0	120.9	mg/L	3.24	120.9	mg/L	3.24	2.68%
Cd 226.502*†	15776.5	0.2852	mg/L	0.00278	0.2852	mg/L	0.00278	0.97%
Cd 228.802†	8213.9	0.2887	mg/L	0.00298	0.2887	mg/L	0.00298	1.03%
Co 228.616*†	5915.5	0.2920	mg/L	0.00299	0.2920	mg/L	0.00299	1.03%
Cr 267.716*†	24820.4	0.2946	mg/L	0.00350	0.2946	mg/L	0.00350	1.19%
Cu 324.752*†	58907.6	0.3032	mg/L	0.00010	0.3032	mg/L	0.00010	0.03%
Fe 273.955*†	1600554.8	91.82	mg/L	0.763	91.82	mg/L	0.763	0.83%
K 766.490*†	47789.7	21.82	mg/L	0.713	21.82	mg/L	0.713	3.27%
Mg 279.077*†	766560.2	56.02	mg/L	0.772	56.02	mg/L	0.772	1.38%
Mn 257.610*†	94373.4	0.1959	mg/L	0.00162	0.1959	mg/L	0.00162	0.83%
Mo 202.031*†	2041.1	0.3005	mg/L	0.00326	0.3005	mg/L	0.00326	1.09%
Na 589.592*†	68439.6	21.29	mg/L	0.557	21.29	mg/L	0.557	2.61%
Ni 231.604*†	5359.6	0.3065	mg/L	0.00352	0.3065	mg/L	0.00352	1.15%
P 213.617*†	-137.4	-0.0987	mg/L	0.01484	-0.0987	mg/L	0.01484	15.04%
P 214.914†	46.2	0.0532	mg/L	0.00138	0.0532	mg/L	0.00138	2.59%
Pb 220.353*†	5431.9	0.9484	mg/L	0.01086	0.9484	mg/L	0.01086	1.14%
Sb 206.836†	1307.9	0.9622	mg/L	0.00321	0.9622	mg/L	0.00321	0.33%
Sb 217.582*†	1318.5	0.9617	mg/L	0.00338	0.9617	mg/L	0.00338	0.35%
Se 196.026*†	713.4	0.4792	mg/L	0.00022	0.4792	mg/L	0.00022	0.05%
Si 251.611*†	6134.4	0.1994	mg/L	0.00413	0.1994	mg/L	0.00413	2.07%
Sn 189.927*†	-1.9	-0.0004	mg/L	0.00196	-0.0004	mg/L	0.00196	439.22%
Sn 242.170†	359.6	0.2811	mg/L	0.00856	0.2811	mg/L	0.00856	3.04%
Sr 407.771*†	590.7	0.0025	mg/L	0.00004	0.0025	mg/L	0.00004	1.62%
Ti 334.940†	623686.9	0.9880	mg/L	0.00657	0.9880	mg/L	0.00657	0.67%
Ti 336.121*†	437259.4	0.9727	mg/L	0.00291	0.9727	mg/L	0.00291	0.30%
Tl 190.801*†	1302.8	0.9957	mg/L	0.02486	0.9957	mg/L	0.02486	2.50%
V 292.402*†	30482.7	0.2925	mg/L	0.00183	0.2925	mg/L	0.00183	0.62%
Zn 206.200*†	8350.7	0.2844	mg/L	0.00101	0.2844	mg/L	0.00101	0.35%
Zn 213.857*†	15211.4	0.2852	mg/L	0.00275	0.2852	mg/L	0.00275	0.96%

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Analysis Begun

Start Time: 3/10/2017 11:08:42 AM
Logged In Analyst: Oscar Gomez 935
Spectrometer: Optima 7300 DV, S/N 77c8120401
Plasma On Time: 3/10/2017 10:23:43 AM
Technique: ICP Continuous
Autosampler: ESI

Sample Information File: C:\Documents and Settings\All Users\PerkinElmer\ICP\Data\Sample Information\17031001.sif
Batch ID:
Results Data Set: 170310C1
Results Library: W:\pe\7300\Results\results.mdb

Sequence No.: 1
Sample ID: Cal blankR12091601_935
Analyst:
Initial Sample Wt:
Dilution:
Wash Time:
Autosampler Location: 1
Date Collected: 3/10/2017 11:09:00 AM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Mean Data: Cal blankR12091601_935

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Tb 384	60643.2	65.17	0.11%	100.0	%
Tb 350	94023.9	321.05	0.34%	100.0	%
Ag 328.068*†	-956.2	169.07	17.68%	[0.00]	mg/L
Al 308.215*†	-1823.5	53.40	2.93%	[0.00]	mg/L
As 188.979†	-4.5	4.95	111.10%	[0.00]	mg/L
As 193.696*†	0.4	4.80	>999.9%	[0.00]	mg/L
B 249.677*†	-664.2	6.78	1.02%	[0.00]	mg/L
Ba 233.527*†	-268.9	19.65	7.31%	[0.00]	mg/L
Be 313.042*†	-647.4	75.56	11.67%	[0.00]	mg/L
Ca 317.933*†	6.8	9.48	139.39%	[0.00]	mg/L
Cd 226.502*†	21.2	5.99	28.26%	[0.00]	mg/L
Cd 228.802†	7.4	8.56	115.53%	[0.00]	mg/L
Co 228.616*†	-76.7	6.40	8.35%	[0.00]	mg/L
Cr 267.716*†	329.9	29.36	8.90%	[0.00]	mg/L
Cu 324.752*†	3343.3	171.13	5.12%	[0.00]	mg/L
Fe 273.955*†	-270.9	14.05	5.19%	[0.00]	mg/L
K 766.490*†	786.1	235.21	29.92%	[0.00]	mg/L
Mg 279.077*†	-6526.9	128.62	1.97%	[0.00]	mg/L
Mn 257.610*†	-169.0	35.17	20.81%	[0.00]	mg/L
Mo 202.031*†	-35.1	0.29	0.81%	[0.00]	mg/L
Na 589.592*†	909.7	8.00	0.88%	[0.00]	mg/L
Ni 231.604*†	-66.4	2.65	3.99%	[0.00]	mg/L
P 213.617*†	-117.1	16.00	13.66%	[0.00]	mg/L
P 214.914†	-28.9	2.45	8.48%	[0.00]	mg/L
Pb 220.353*†	-0.9	9.26	>999.9%	[0.00]	mg/L
Sb 206.836†	19.9	4.63	23.30%	[0.00]	mg/L
Sb 217.582*†	-8.7	1.78	20.44%	[0.00]	mg/L
Se 196.026*†	3.9	9.01	230.58%	[0.00]	mg/L
Si 251.611*†	1036.6	14.09	1.36%	[0.00]	mg/L
Sn 189.927*†	-80.3	13.20	16.44%	[0.00]	mg/L
Sn 242.170†	-330.7	18.90	5.72%	[0.00]	mg/L
Sr 407.771*†	71.0	1.07	1.50%	[0.00]	mg/L
Ti 334.940†	20925.4	117.55	0.56%	[0.00]	mg/L
Ti 336.121*†	-1108.6	61.90	5.58%	[0.00]	mg/L
Tl 190.801*†	-8.6	1.55	18.05%	[0.00]	mg/L
V 292.402*†	118.7	161.55	136.08%	[0.00]	mg/L
Zn 206.200*†	1431.4	39.61	2.77%	[0.00]	mg/L
Zn 213.857*†	2848.1	2.95	0.10%	[0.00]	mg/L

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Sequence No.: 2
Sample ID: STD3-M111116A_935_ICP7300
Analyst:
Initial Sample Wt:
Dilution:
Wash Time: 15

Autosampler Location: 2
Date Collected: 3/10/2017 11:10:21 AM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:
Auto Dilution Factor: 1

Mean Data: STD3-M111116A_935_ICP7300

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Tb 384	53490.9	168.36	0.31%	88.21	%
Tb 350	85408.9	477.78	0.56%	90.84	%
Ag 328.068*†	107812.4	581.57	0.54%	[0.75]	mg/L
Al 308.215*†	358300.6	225.08	0.06%	[27.0]	mg/L
As 188.979†	10606.2	45.93	0.43%	[7.50]	mg/L
As 193.696*†	7424.8	25.33	0.34%	[7.50]	mg/L
B 249.677*†	262423.9	3494.29	1.33%	[7.50]	mg/L
Ba 233.527*†	1617132.5	21690.13	1.34%	[15.0]	mg/L
Be 313.042*†	2997567.0	41662.71	1.39%	[1.125]	mg/L
Ca 317.933*†	83767.1	1787.58	2.13%	[60.0]	mg/L
Cd 226.502*†	81210.3	100.98	0.12%	[1.50]	mg/L
Cd 228.802†	42145.2	549.03	1.30%	[1.50]	mg/L
Co 228.616*†	74206.4	350.16	0.47%	[3.75]	mg/L
Cr 267.716*†	100811.4	205.57	0.20%	[1.20]	mg/L
Cu 324.752*†	354560.4	857.64	0.24%	[1.875]	mg/L
Fe 273.955*†	126877.4	573.82	0.45%	[7.50]	mg/L
K 766.490*†	125321.6	1922.68	1.53%	[54.0]	mg/L
Mg 279.077*†	198413.3	1103.82	0.56%	[15.0]	mg/L
Mn 257.610*†	710274.2	2249.24	0.32%	[1.50]	mg/L
Mo 202.031*†	8122.8	36.38	0.45%	[1.20]	mg/L
Na 589.592*†	250703.5	3479.48	1.39%	[72.0]	mg/L
Ni 231.604*†	20480.1	91.14	0.45%	[1.20]	mg/L
P 213.617*†	15741.0	35.38	0.22%	[12.0]	mg/L
P 214.914†	10075.9	53.36	0.53%	[12.0]	mg/L
Pb 220.353*†	41808.8	67.32	0.16%	[7.50]	mg/L
Sb 206.836†	11814.7	87.01	0.74%	[9.0]	mg/L
Sb 217.582*†	11932.3	45.82	0.38%	[9.0]	mg/L
Se 196.026*†	4341.9	31.36	0.72%	[3.0]	mg/L
Si 251.611*†	342767.1	4190.43	1.22%	[12.0]	mg/L
Sn 189.927*†	24604.7	141.27	0.57%	[6.0]	mg/L
Sn 242.170†	7506.4	49.22	0.66%	[6.0]	mg/L
Sr 407.771*†	151490.5	2630.47	1.74%	[0.60]	mg/L
Ti 334.940†	729377.2	8534.07	1.17%	[1.20]	mg/L
Ti 336.121*†	530219.2	1464.17	0.28%	[1.20]	mg/L
Tl 190.801*†	3890.2	23.50	0.60%	[3.0]	mg/L
V 292.402*†	386781.0	1066.74	0.28%	[3.75]	mg/L
Zn 206.200*†	139507.1	494.55	0.35%	[5.0]	mg/L
Zn 213.857*†	253878.1	408.53	0.16%	[5.0]	mg/L

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Sequence No.: 3
Sample ID: ICV-M072816C
Analyst: 771 icp 7300
Initial Sample Wt:
Dilution:
Wash Time: 20

Autosampler Location: 10
Date Collected: 3/10/2017 11:11:31 AM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:
Auto Dilution Factor: 1

Mean Data: ICV-M072816C

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Tb 384	52706.0	86.91	%	1.276				1.47%
Tb 350	84851.4	90.24	%	0.820				0.91%
Ag 328.068*†	72180.2	0.5021	mg/L	0.00405	0.5021	mg/L	0.00405	0.81%
QC value within limits for Ag 328.068* Recovery = 100.42%								
Al 308.215*†	55590.4	4.189	mg/L	0.0175	4.189	mg/L	0.0175	0.42%
QC value within limits for Al 308.215* Recovery = 104.73%								
As 188.979†	7089.0	5.013	mg/L	0.0571	5.013	mg/L	0.0571	1.14%
QC value within limits for As 188.979 Recovery = 100.26%								
As 193.696*†	4962.1	5.012	mg/L	0.0639	5.012	mg/L	0.0639	1.27%
QC value within limits for As 193.696* Recovery = 100.25%								
B 249.677*†	88523.2	2.530	mg/L	0.0286	2.530	mg/L	0.0286	1.13%
QC value within limits for B 249.677* Recovery = 101.20%								
Ba 233.527*†	112676.8	1.045	mg/L	0.0007	1.045	mg/L	0.0007	0.07%
QC value within limits for Ba 233.527* Recovery = 104.52%								
Be 313.042*†	1357697.4	0.5095	mg/L	0.00299	0.5095	mg/L	0.00299	0.59%
QC value within limits for Be 313.042* Recovery = 101.91%								
Ca 317.933*†	28609.4	20.49	mg/L	0.540	20.49	mg/L	0.540	2.64%
QC value within limits for Ca 317.933* Recovery = 102.46%								
Cd 226.502*†	80667.5	1.490	mg/L	0.0120	1.490	mg/L	0.0120	0.80%
QC value within limits for Cd 226.502* Recovery = 99.33%								
Cd 228.802†	42273.3	1.505	mg/L	0.0004	1.505	mg/L	0.0004	0.02%
Co 228.616*†	20862.4	1.054	mg/L	0.0069	1.054	mg/L	0.0069	0.65%
QC value within limits for Co 228.616* Recovery = 105.43%								
Cr 267.716*†	33986.0	0.4045	mg/L	0.00252	0.4045	mg/L	0.00252	0.62%
QC value within limits for Cr 267.716* Recovery = 101.14%								
Cu 324.752*†	192358.9	1.017	mg/L	0.0008	1.017	mg/L	0.0008	0.07%
QC value within limits for Cu 324.752* Recovery = 101.72%								
Fe 273.955*†	1738500.0	102.8	mg/L	0.26	102.8	mg/L	0.26	0.25%
QC value within limits for Fe 273.955* Recovery = 102.77%								
K 766.490*†	19340.8	8.334	mg/L	0.2344	8.334	mg/L	0.2344	2.81%
QC value within limits for K 766.490* Recovery = 104.17%								
Mg 279.077*†	130783.1	9.887	mg/L	0.0460	9.887	mg/L	0.0460	0.47%
QC value within limits for Mg 279.077* Recovery = 98.87%								
Mn 257.610*†	474935.4	1.003	mg/L	0.0029	1.003	mg/L	0.0029	0.29%
QC value within limits for Mn 257.610* Recovery = 100.30%								
Mo 202.031*†	16946.2	2.503	mg/L	0.0200	2.503	mg/L	0.0200	0.80%
QC value within limits for Mo 202.031* Recovery = 100.14%								
Na 589.592*†	198480.2	57.00	mg/L	1.175	57.00	mg/L	1.175	2.06%
QC value within limits for Na 589.592* Recovery = 105.56%								
Ni 231.604*†	7245.9	0.4246	mg/L	0.00217	0.4246	mg/L	0.00217	0.51%
QC value within limits for Ni 231.604* Recovery = 106.14%								
P 213.617*†	6393.2	4.874	mg/L	0.0344	4.874	mg/L	0.0344	0.71%
QC value within limits for P 213.617* Recovery = 97.48%								
P 214.914†	4262.0	5.076	mg/L	0.0344	5.076	mg/L	0.0344	0.68%
Pb 220.353*†	28124.5	5.045	mg/L	0.0751	5.045	mg/L	0.0751	1.49%
QC value within limits for Pb 220.353* Recovery = 100.90%								
Sb 206.836†	2668.6	2.033	mg/L	0.0210	2.033	mg/L	0.0210	1.03%
QC value within limits for Sb 206.836 Recovery = 101.64%								
Sb 217.582*†	2719.4	2.051	mg/L	0.0181	2.051	mg/L	0.0181	0.88%
QC value within limits for Sb 217.582* Recovery = 102.56%								
Se 196.026*†	2920.5	2.018	mg/L	0.0278	2.018	mg/L	0.0278	1.38%
QC value within limits for Se 196.026* Recovery = 100.90%								
Si 251.611*†	275061.3	9.630	mg/L	0.0424	9.630	mg/L	0.0424	0.44%
QC value within limits for Si 251.611* Recovery = 96.30%								
Sn 189.927*†	10538.5	2.570	mg/L	0.0295	2.570	mg/L	0.0295	1.15%
QC value within limits for Sn 189.927* Recovery = 102.79%								
Sn 242.170†	3564.0	2.849	mg/L	0.0053	2.849	mg/L	0.0053	0.19%
Sr 407.771*†	52840.7	0.2093	mg/L	0.00453	0.2093	mg/L	0.00453	2.16%
QC value within limits for Sr 407.771* Recovery = 104.64%								

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Ti 334.940†	3051233.8	5.020 mg/L	0.0022	5.020 mg/L	0.0022	0.04%
Ti 336.121*†	2161690.8	4.892 mg/L	0.0036	4.892 mg/L	0.0036	0.07%
QC value within limits for Ti 336.121* Recovery = 97.85%						
Tl 190.801*†	2613.9	2.016 mg/L	0.0234	2.016 mg/L	0.0234	1.16%
QC value within limits for Tl 190.801* Recovery = 100.79%						
V 292.402*†	102608.2	0.9931 mg/L	0.00307	0.9931 mg/L	0.00307	0.31%
QC value within limits for V 292.402* Recovery = 99.31%						
Zn 206.200*†	42032.7	1.506 mg/L	0.0119	1.506 mg/L	0.0119	0.79%
QC value within limits for Zn 206.200* Recovery = 100.43%						
Zn 213.857*†	77692.8	1.522 mg/L	0.0067	1.522 mg/L	0.0067	0.44%
QC value within limits for Zn 213.857* Recovery = 101.44%						

All analyte(s) passed QC.

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Sequence No.: 4
Sample ID: ICB-R12091601
Analyst: 771 icp 7300
Initial Sample Wt:
Dilution:
Wash Time: 20

Autosampler Location: 1
Date Collected: 3/10/2017 11:12:41 AM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:
Auto Dilution Factor: 1

Mean Data: ICB-R12091601

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Tb 384	57922.9	95.51	%	2.029				2.12%
Tb 350	89550.9	95.24	%	2.260				2.37%
Ag 328.068*†	218.9	0.0015	mg/L	0.00045	0.0015	mg/L	0.00045	29.74%
Al 308.215*†	-0.4	-0.0000	mg/L	0.00095	-0.0000	mg/L	0.00095	>999.9%
As 188.979†	8.5	0.0060	mg/L	0.00246	0.0060	mg/L	0.00246	41.00%
As 193.696*†	1.6	0.0016	mg/L	0.01225	0.0016	mg/L	0.01225	770.01%
QC value within limits for As 193.696* Recovery = Not calculated								
B 249.677*†	2434.6	0.0696	mg/L	0.00372	0.0696	mg/L	0.00372	5.34%
QC value greater than the upper limit for B 249.677* Recovery = Not calculated								
Ba 233.527*†	64.5	0.0006	mg/L	0.00020	0.0006	mg/L	0.00020	32.67%
Be 313.042*†	412.3	0.0002	mg/L	0.00000	0.0002	mg/L	0.00000	2.69%
Ca 317.933*†	8.9	0.0064	mg/L	0.00380	0.0064	mg/L	0.00380	59.82%
Cd 226.502*†	42.3	0.0008	mg/L	0.00016	0.0008	mg/L	0.00016	20.40%
Cd 228.802†	28.6	0.0010	mg/L	0.00005	0.0010	mg/L	0.00005	5.10%
Co 228.616*†	11.3	0.0006	mg/L	0.00002	0.0006	mg/L	0.00002	3.31%
Cr 267.716*†	38.7	0.0005	mg/L	0.00021	0.0005	mg/L	0.00021	45.59%
Cu 324.752*†	63.6	0.0003	mg/L	0.00110	0.0003	mg/L	0.00110	326.44%
Fe 273.955*†	806.7	0.0477	mg/L	0.00705	0.0477	mg/L	0.00705	14.78%
K 766.490*†	116.2	0.0501	mg/L	0.00527	0.0501	mg/L	0.00527	10.51%
Mg 279.077*†	-48.0	-0.0036	mg/L	0.00631	-0.0036	mg/L	0.00631	173.84%
Mn 257.610*†	169.8	0.0004	mg/L	0.00002	0.0004	mg/L	0.00002	5.95%
Mo 202.031*†	32.8	0.0048	mg/L	0.00054	0.0048	mg/L	0.00054	11.23%
Na 589.592*†	79.5	0.0228	mg/L	0.02469	0.0228	mg/L	0.02469	108.11%
Ni 231.604*†	-1.9	-0.0001	mg/L	0.00074	-0.0001	mg/L	0.00074	676.25%
P 213.617*†	8.8	0.0067	mg/L	0.01567	0.0067	mg/L	0.01567	234.60%
P 214.914†	0.7	0.0008	mg/L	0.00721	0.0008	mg/L	0.00721	906.35%
Pb 220.353*†	32.0	0.0057	mg/L	0.00012	0.0057	mg/L	0.00012	2.01%
QC value within limits for Pb 220.353* Recovery = Not calculated								
Sb 206.836†	0.0	0.0000	mg/L	0.00223	0.0000	mg/L	0.00223	>999.9%
Sb 217.582*†	13.3	0.0100	mg/L	0.00015	0.0100	mg/L	0.00015	1.48%
QC value within limits for Sb 217.582* Recovery = Not calculated								
Se 196.026*†	12.7	0.0088	mg/L	0.00854	0.0088	mg/L	0.00854	97.21%
QC value within limits for Se 196.026* Recovery = Not calculated								
Si 251.611*†	455.9	0.0160	mg/L	0.00011	0.0160	mg/L	0.00011	0.67%
QC value greater than the upper limit for Si 251.611* Recovery = Not calculated								
Sn 189.927*†	11.5	0.0028	mg/L	0.00265	0.0028	mg/L	0.00265	94.67%
Sn 242.170†	-4.1	-0.0033	mg/L	0.02004	-0.0033	mg/L	0.02004	616.39%
Sr 407.771*†	21.0	0.0001	mg/L	0.00001	0.0001	mg/L	0.00001	14.42%
Ti 334.940†	2334.7	0.0038	mg/L	0.00078	0.0038	mg/L	0.00078	20.27%
Ti 336.121*†	1913.5	0.0043	mg/L	0.00032	0.0043	mg/L	0.00032	7.29%
Tl 190.801*†	12.1	0.0094	mg/L	0.00878	0.0094	mg/L	0.00878	93.88%
QC value within limits for Tl 190.801* Recovery = Not calculated								
V 292.402*†	-44.5	-0.0004	mg/L	0.00050	-0.0004	mg/L	0.00050	115.48%
Zn 206.200*†	-134.1	-0.0048	mg/L	0.00130	-0.0048	mg/L	0.00130	27.14%
Zn 213.857*†	-203.8	-0.0040	mg/L	0.00169	-0.0040	mg/L	0.00169	41.99%

QC Failed. Retry.

Sequence No.: 5
Sample ID: ICB-R12091601
Analyst: 771 icp 7300
Initial Sample Wt:
Dilution:
Wash Time: 20

1012 3/10/17

Autosampler Location: 1
Date Collected: 3/10/2017 11:13:40 AM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:
Auto Dilution Factor: 1

Mean Data: ICB-R12091601

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD

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Sequence No.: 5
Sample ID: CCV= STD3x0.5
Analyst: 771 icp 7300
Initial Sample Wt:
Dilution:
Wash Time: 15

Autosampler Location: 3
Date Collected: 3/10/2017 11:28:20 AM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:
Auto Dilution Factor: 1

Mean Data: CCV= STD3x0.5

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Tb 384	54660.7	90.13	%	1.695				1.88%
Tb 350	87123.6	92.66	%	1.218				1.31%
Ag 328.068*†	54612.5	0.3799	mg/L	0.00016	0.3799	mg/L	0.00016	0.04%
QC value within limits for Ag 328.068* Recovery = 101.31%								
Al 308.215*†	185415.1	13.97	mg/L	0.021	13.97	mg/L	0.021	0.15%
QC value within limits for Al 308.215* Recovery = 103.50%								
As 188.979†	5378.0	3.803	mg/L	0.0279	3.803	mg/L	0.0279	0.73%
QC value within limits for As 188.979 Recovery = 101.41%								
As 193.696*†	3736.8	3.775	mg/L	0.0307	3.775	mg/L	0.0307	0.81%
QC value within limits for As 193.696* Recovery = 100.66%								
B 249.677*†	131963.8	3.771	mg/L	0.0059	3.771	mg/L	0.0059	0.16%
QC value within limits for B 249.677* Recovery = 100.57%								
Ba 233.527*†	869715.0	8.067	mg/L	0.0016	8.067	mg/L	0.0016	0.02%
QC value within limits for Ba 233.527* Recovery = 107.56%								
Be 313.042*†	1588744.6	0.5963	mg/L	0.00340	0.5963	mg/L	0.00340	0.57%
QC value within limits for Be 313.042* Recovery = 106.00%								
Ca 317.933*†	43762.1	31.35	mg/L	0.869	31.35	mg/L	0.869	2.77%
QC value within limits for Ca 317.933* Recovery = 104.49%								
Cd 226.502*†	40738.1	0.7525	mg/L	0.00329	0.7525	mg/L	0.00329	0.44%
QC value within limits for Cd 226.502* Recovery = 100.33%								
Cd 228.802†	21197.6	0.7544	mg/L	0.00147	0.7544	mg/L	0.00147	0.19%
Co 228.616*†	38384.3	1.940	mg/L	0.0003	1.940	mg/L	0.0003	0.01%
QC value within limits for Co 228.616* Recovery = 103.45%								
Cr 267.716*†	51054.4	0.6077	mg/L	0.00202	0.6077	mg/L	0.00202	0.33%
QC value within limits for Cr 267.716* Recovery = 101.29%								
Cu 324.752*†	182664.5	0.9660	mg/L	0.00095	0.9660	mg/L	0.00095	0.10%
QC value within limits for Cu 324.752* Recovery = 103.04%								
Fe 273.955*†	65312.7	3.861	mg/L	0.0020	3.861	mg/L	0.0020	0.05%
QC value within limits for Fe 273.955* Recovery = 102.95%								
K 766.490*†	65281.2	28.13	mg/L	0.764	28.13	mg/L	0.764	2.71%
QC value within limits for K 766.490* Recovery = 104.18%								
Mg 279.077*†	101421.4	7.667	mg/L	0.0186	7.667	mg/L	0.0186	0.24%
QC value within limits for Mg 279.077* Recovery = 102.23%								
Mn 257.610*†	362866.2	0.7663	mg/L	0.00136	0.7663	mg/L	0.00136	0.18%
QC value within limits for Mn 257.610* Recovery = 102.18%								
Mo 202.031*†	4190.1	0.6190	mg/L	0.00275	0.6190	mg/L	0.00275	0.44%
QC value within limits for Mo 202.031* Recovery = 103.17%								
Na 589.592*†	131320.4	37.71	mg/L	1.088	37.71	mg/L	1.088	2.89%
QC value within limits for Na 589.592* Recovery = 104.76%								
Ni 231.604*†	10701.2	0.6270	mg/L	0.00582	0.6270	mg/L	0.00582	0.93%
QC value within limits for Ni 231.604* Recovery = 104.50%								
P 213.617*†	8044.3	6.132	mg/L	0.0656	6.132	mg/L	0.0656	1.07%
QC value within limits for P 213.617* Recovery = 102.21%								
P 214.914†	5138.0	6.119	mg/L	0.0391	6.119	mg/L	0.0391	0.64%
Pb 220.353*†	20915.5	3.752	mg/L	0.0155	3.752	mg/L	0.0155	0.41%
QC value within limits for Pb 220.353* Recovery = 100.05%								
Sb 206.836†	6190.9	4.716	mg/L	0.0237	4.716	mg/L	0.0237	0.50%
QC value within limits for Sb 206.836 Recovery = 104.80%								
Sb 217.582*†	6248.6	4.713	mg/L	0.0547	4.713	mg/L	0.0547	1.16%
QC value within limits for Sb 217.582* Recovery = 104.73%								
Se 196.026*†	2197.1	1.518	mg/L	0.0029	1.518	mg/L	0.0029	0.19%
QC value within limits for Se 196.026* Recovery = 101.21%								
Si 251.611*†	175371.5	6.140	mg/L	0.0428	6.140	mg/L	0.0428	0.70%
QC value within limits for Si 251.611* Recovery = 102.33%								
Sn 189.927*†	12721.9	3.102	mg/L	0.0103	3.102	mg/L	0.0103	0.33%
QC value within limits for Sn 189.927* Recovery = 103.41%								
Sn 242.170†	3867.0	3.091	mg/L	0.0028	3.091	mg/L	0.0028	0.09%
Sr 407.771*†	79009.9	0.3129	mg/L	0.00869	0.3129	mg/L	0.00869	2.78%
QC value within limits for Sr 407.771* Recovery = 104.31%								

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Ti 334.940†	389307.1	0.6405	mg/L	0.00035	0.6405	mg/L	0.00035	0.05%
Ti 336.121*†	273496.5	0.6190	mg/L	0.00157	0.6190	mg/L	0.00157	0.25%
QC value within limits for Ti 336.121* Recovery = 103.16%								
Tl 190.801*†	2011.4	1.551	mg/L	0.0123	1.551	mg/L	0.0123	0.79%
QC value within limits for Tl 190.801* Recovery = 103.41%								
V 292.402*†	197092.2	1.911	mg/L	0.0009	1.911	mg/L	0.0009	0.05%
QC value within limits for V 292.402* Recovery = 101.91%								
Zn 206.200*†	70205.7	2.516	mg/L	0.0021	2.516	mg/L	0.0021	0.08%
QC value within limits for Zn 206.200* Recovery = 100.65%								
Zn 213.857*†	127926.8	2.519	mg/L	0.0062	2.519	mg/L	0.0062	0.24%
QC value within limits for Zn 213.857* Recovery = 100.77%								

All analyte(s) passed QC.

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Sequence No.: 6
Sample ID: CCB-R12091601
Analyst: 771 icp 7300
Initial Sample Wt:
Dilution:
Wash Time: 15

Autosampler Location: 1
Date Collected: 3/10/2017 11:29:26 AM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:
Auto Dilution Factor: 1

Mean Data: CCB-R12091601

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Tb 384	60159.8	99.20	%	2.222				2.24%
Tb 350	94551.4	100.6	%	1.21				1.21%
Ag 328.068*†	5.3	0.0000	mg/L	0.00073	0.0000	mg/L	0.00073	>999.9%
QC value within limits for Ag 328.068*			Recovery = Not calculated					
Al 308.215*†	40.8	0.0031	mg/L	0.00760	0.0031	mg/L	0.00760	247.00%
As 188.979†	17.9	0.0126	mg/L	0.00460	0.0126	mg/L	0.00460	36.36%
As 193.696*†	-2.1	-0.0021	mg/L	0.00621	-0.0021	mg/L	0.00621	294.30%
QC value within limits for As 193.696*			Recovery = Not calculated					
B 249.677*†	2015.5	0.0576	mg/L	0.00104	0.0576	mg/L	0.00104	1.81%
Ba 233.527*†	429.8	0.0040	mg/L	0.00075	0.0040	mg/L	0.00075	18.88%
Be 313.042*†	779.0	0.0003	mg/L	0.00000	0.0003	mg/L	0.00000	0.96%
Ca 317.933*†	15.0	0.0108	mg/L	0.00024	0.0108	mg/L	0.00024	2.27%
Cd 226.502*†	35.3	0.0007	mg/L	0.00014	0.0007	mg/L	0.00014	21.33%
Cd 228.802†	9.1	0.0003	mg/L	0.00031	0.0003	mg/L	0.00031	96.03%
Co 228.616*†	22.3	0.0011	mg/L	0.00044	0.0011	mg/L	0.00044	38.72%
Cr 267.716*†	72.0	0.0009	mg/L	0.00024	0.0009	mg/L	0.00024	28.54%
Cu 324.752*†	-422.4	-0.0022	mg/L	0.00054	-0.0022	mg/L	0.00054	24.31%
Fe 273.955*†	53.4	0.0032	mg/L	0.00053	0.0032	mg/L	0.00053	16.83%
K 766.490*†	-47.5	-0.0205	mg/L	0.09838	-0.0205	mg/L	0.09838	480.92%
Mg 279.077*†	185.5	0.0140	mg/L	0.01716	0.0140	mg/L	0.01716	122.39%
Mn 257.610*†	179.1	0.0004	mg/L	0.00001	0.0004	mg/L	0.00001	3.78%
Mo 202.031*†	-0.9	-0.0001	mg/L	0.00033	-0.0001	mg/L	0.00033	250.04%
Na 589.592*†	-67.4	-0.0194	mg/L	0.04485	-0.0194	mg/L	0.04485	231.69%
Ni 231.604*†	29.0	0.0017	mg/L	0.00056	0.0017	mg/L	0.00056	32.80%
P 213.617*†	3.3	0.0025	mg/L	0.00491	0.0025	mg/L	0.00491	194.10%
P 214.914†	8.7	0.0104	mg/L	0.00592	0.0104	mg/L	0.00592	56.91%
Pb 220.353*†	12.6	0.0023	mg/L	0.00203	0.0023	mg/L	0.00203	90.08%
Sb 206.836†	11.5	0.0087	mg/L	0.00111	0.0087	mg/L	0.00111	12.67%
Sb 217.582*†	2.9	0.0022	mg/L	0.00030	0.0022	mg/L	0.00030	13.49%
QC value within limits for Sb 217.582*			Recovery = Not calculated					
Se 196.026*†	3.3	0.0022	mg/L	0.01158	0.0022	mg/L	0.01158	515.47%
QC value within limits for Se 196.026*			Recovery = Not calculated					
Si 251.611*†	306.3	0.0107	mg/L	0.00092	0.0107	mg/L	0.00092	8.57%
Sn 189.927*†	25.3	0.0062	mg/L	0.00038	0.0062	mg/L	0.00038	6.18%
Sn 242.170†	-34.3	-0.0275	mg/L	0.01126	-0.0275	mg/L	0.01126	41.00%
Sr 407.771*†	17.6	0.0001	mg/L	0.00004	0.0001	mg/L	0.00004	56.84%
Ti 334.940†	72.9	0.0001	mg/L	0.00003	0.0001	mg/L	0.00003	27.73%
Ti 336.121*†	218.8	0.0005	mg/L	0.00062	0.0005	mg/L	0.00062	124.37%
Tl 190.801*†	7.3	0.0056	mg/L	0.00098	0.0056	mg/L	0.00098	17.52%
V 292.402*†	173.8	0.0017	mg/L	0.00032	0.0017	mg/L	0.00032	19.25%
Zn 206.200*†	-488.4	-0.0175	mg/L	0.00082	-0.0175	mg/L	0.00082	4.69%
QC value within limits for Zn 206.200*			Recovery = Not calculated					
Zn 213.857*†	-907.5	-0.0179	mg/L	0.00087	-0.0179	mg/L	0.00087	4.87%
QC value within limits for Zn 213.857*			Recovery = Not calculated					

All analyte(s) passed QC.

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Sequence No.: 11
Sample ID: CCV= STD3x0.5
Analyst: 771 icp 7300
Initial Sample Wt:
Dilution:
Wash Time: 15

Autosampler Location: 3
Date Collected: 3/10/2017 12:00:34 PM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:
Auto Dilution Factor: 1

Mean Data: CCV= STD3x0.5

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Tb 384	55058.9	90.79	%	1.614				1.78%
Tb 350	87066.3	92.60	%	2.279				2.46%
Ag 328.068*†	53042.9	0.3690	mg/L	0.00289	0.3690	mg/L	0.00289	0.78%
QC value within limits for Ag 328.068* Recovery = 98.40%								
Al 308.215*†	180137.1	13.57	mg/L	0.065	13.57	mg/L	0.065	0.48%
QC value within limits for Al 308.215* Recovery = 100.55%								
As 188.979†	5344.7	3.779	mg/L	0.1026	3.779	mg/L	0.1026	2.72%
QC value within limits for As 188.979 Recovery = 100.78%								
As 193.696*†	3711.0	3.749	mg/L	0.0995	3.749	mg/L	0.0995	2.66%
QC value within limits for As 193.696* Recovery = 99.96%								
B 249.677*†	126719.3	3.622	mg/L	0.0171	3.622	mg/L	0.0171	0.47%
QC value within limits for B 249.677* Recovery = 96.58%								
Ba 233.527*†	838987.2	7.782	mg/L	0.0601	7.782	mg/L	0.0601	0.77%
QC value within limits for Ba 233.527* Recovery = 103.76%								
Be 313.042*†	1537190.7	0.5769	mg/L	0.00258	0.5769	mg/L	0.00258	0.45%
QC value within limits for Be 313.042* Recovery = 102.56%								
Ca 317.933*†	42608.3	30.52	mg/L	1.893	30.52	mg/L	1.893	6.20%
QC value within limits for Ca 317.933* Recovery = 101.73%								
Cd 226.502*†	39839.0	0.7358	mg/L	0.00645	0.7358	mg/L	0.00645	0.88%
QC value within limits for Cd 226.502* Recovery = 98.11%								
Cd 228.802†	21228.7	0.7556	mg/L	0.02119	0.7556	mg/L	0.02119	2.80%
Co 228.616*†	36929.7	1.866	mg/L	0.0118	1.866	mg/L	0.0118	0.63%
QC value within limits for Co 228.616* Recovery = 99.53%								
Cr 267.716*†	49928.8	0.5943	mg/L	0.00230	0.5943	mg/L	0.00230	0.39%
QC value within limits for Cr 267.716* Recovery = 99.05%								
Cu 324.752*†	175727.0	0.9293	mg/L	0.00554	0.9293	mg/L	0.00554	0.60%
QC value within limits for Cu 324.752* Recovery = 99.12%								
Fe 273.955*†	63553.2	3.757	mg/L	0.0301	3.757	mg/L	0.0301	0.80%
QC value within limits for Fe 273.955* Recovery = 100.18%								
K 766.490*†	64614.9	27.84	mg/L	1.556	27.84	mg/L	1.556	5.59%
QC value within limits for K 766.490* Recovery = 103.12%								
Mg 279.077*†	98156.0	7.421	mg/L	0.1080	7.421	mg/L	0.1080	1.45%
QC value within limits for Mg 279.077* Recovery = 98.94%								
Mn 257.610*†	352564.4	0.7446	mg/L	0.00515	0.7446	mg/L	0.00515	0.69%
QC value within limits for Mn 257.610* Recovery = 99.28%								
Mo 202.031*†	4122.2	0.6090	mg/L	0.01321	0.6090	mg/L	0.01321	2.17%
QC value within limits for Mo 202.031* Recovery = 101.50%								
Na 589.592*†	130567.3	37.50	mg/L	1.995	37.50	mg/L	1.995	5.32%
QC value within limits for Na 589.592* Recovery = 104.16%								
Ni 231.604*†	10535.8	0.6173	mg/L	0.01348	0.6173	mg/L	0.01348	2.18%
QC value within limits for Ni 231.604* Recovery = 102.89%								
P 213.617*†	7845.4	5.981	mg/L	0.1211	5.981	mg/L	0.1211	2.02%
QC value within limits for P 213.617* Recovery = 99.68%								
P 214.914†	5045.6	6.009	mg/L	0.1795	6.009	mg/L	0.1795	2.99%
Pb 220.353*†	20813.2	3.734	mg/L	0.0897	3.734	mg/L	0.0897	2.40%
QC value within limits for Pb 220.353* Recovery = 99.56%								
Sb 206.836†	5988.4	4.562	mg/L	0.1249	4.562	mg/L	0.1249	2.74%
QC value within limits for Sb 206.836 Recovery = 101.37%								
Sb 217.582*†	6041.7	4.557	mg/L	0.0983	4.557	mg/L	0.0983	2.16%
QC value within limits for Sb 217.582* Recovery = 101.27%								
Se 196.026*†	2182.5	1.508	mg/L	0.0391	1.508	mg/L	0.0391	2.59%
QC value within limits for Se 196.026* Recovery = 100.53%								
Si 251.611*†	170058.7	5.954	mg/L	0.0082	5.954	mg/L	0.0082	0.14%
QC value within limits for Si 251.611* Recovery = 99.23%								
Sn 189.927*†	12486.1	3.045	mg/L	0.0785	3.045	mg/L	0.0785	2.58%
QC value within limits for Sn 189.927* Recovery = 101.49%								
Sn 242.170†	3793.4	3.032	mg/L	0.1061	3.032	mg/L	0.1061	3.50%
Sr 407.771*†	78247.5	0.3099	mg/L	0.01663	0.3099	mg/L	0.01663	5.37%
QC value within limits for Sr 407.771* Recovery = 103.30%								

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Ti 334.940†	382117.8	0.6287	mg/L	0.00276	0.6287	mg/L	0.00276	0.44%
Ti 336.121*†	268755.3	0.6083	mg/L	0.00337	0.6083	mg/L	0.00337	0.55%
QC value within limits for Ti 336.121* Recovery = 101.38%								
Tl 190.801*†	1998.3	1.541	mg/L	0.0388	1.541	mg/L	0.0388	2.52%
QC value within limits for Tl 190.801* Recovery = 102.74%								
V 292.402*†	191684.3	1.858	mg/L	0.0073	1.858	mg/L	0.0073	0.39%
QC value within limits for V 292.402* Recovery = 99.11%								
Zn 206.200*†	67054.6	2.403	mg/L	0.0311	2.403	mg/L	0.0311	1.29%
QC value within limits for Zn 206.200* Recovery = 96.13%								

All analyte(s) passed QC.

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Sequence No.: 12
Sample ID: CCB-R12091601
Analyst: 771 icp 7300
Initial Sample Wt:
Dilution:
Wash Time: 15

Autosampler Location: 1
Date Collected: 3/10/2017 12:01:40 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	60796.8	100.3	%	2.84				2.83%
Tb 350	94307.8	100.3	%	2.40				2.39%
Ag 328.068*†	207.8	0.0014	mg/L	0.00062	0.0014	mg/L	0.00062	42.91%
Al 308.215*†	208.4	0.0157	mg/L	0.00250	0.0157	mg/L	0.00250	15.91%
As 188.979†	7.4	0.0053	mg/L	0.00144	0.0053	mg/L	0.00144	27.37%
As 193.696*†	-1.2	-0.0012	mg/L	0.00524	-0.0012	mg/L	0.00524	446.11%
QC value within limits for As 193.696*		Recovery =		Not calculated				
B 249.677*†	1691.4	0.0483	mg/L	0.00447	0.0483	mg/L	0.00447	9.24%
Ba 233.527*†	262.2	0.0024	mg/L	0.00038	0.0024	mg/L	0.00038	15.74%
Be 313.042*†	506.3	0.0002	mg/L	0.00001	0.0002	mg/L	0.00001	4.33%
Ca 317.933*†	17.9	0.0128	mg/L	0.00128	0.0128	mg/L	0.00128	9.98%
Cd 226.502*†	12.7	0.0002	mg/L	0.00014	0.0002	mg/L	0.00014	59.08%
Cd 228.802†	15.9	0.0006	mg/L	0.00005	0.0006	mg/L	0.00005	9.09%
Co 228.616*†	23.3	0.0012	mg/L	0.00019	0.0012	mg/L	0.00019	15.98%
Cr 267.716*†	28.6	0.0003	mg/L	0.00050	0.0003	mg/L	0.00050	147.65%
Cu 324.752*†	-809.2	-0.0043	mg/L	0.00019	-0.0043	mg/L	0.00019	4.38%
Fe 273.955*†	104.6	0.0062	mg/L	0.00236	0.0062	mg/L	0.00236	38.19%
K 766.490*†	40.2	0.0173	mg/L	0.01759	0.0173	mg/L	0.01759	101.53%
Mg 279.077*†	164.0	0.0124	mg/L	0.00195	0.0124	mg/L	0.00195	15.72%
Mn 257.610*†	139.6	0.0003	mg/L	0.00001	0.0003	mg/L	0.00001	4.59%
Mo 202.031*†	3.2	0.0005	mg/L	0.00056	0.0005	mg/L	0.00056	119.59%
Na 589.592*†	-328.9	-0.0945	mg/L	0.02166	-0.0945	mg/L	0.02166	22.94%
Ni 231.604*†	16.0	0.0009	mg/L	0.00118	0.0009	mg/L	0.00118	125.87%
P 213.617*†	-8.6	-0.0065	mg/L	0.01222	-0.0065	mg/L	0.01222	186.78%
P 214.914†	4.8	0.0057	mg/L	0.01059	0.0057	mg/L	0.01059	185.40%
Pb 220.353*†	1.2	0.0002	mg/L	0.00209	0.0002	mg/L	0.00209	949.51%
Sb 206.836†	9.0	0.0068	mg/L	0.00369	0.0068	mg/L	0.00369	53.95%
Sb 217.582*†	13.6	0.0102	mg/L	0.00273	0.0102	mg/L	0.00273	26.72%
QC value within limits for Sb 217.582*		Recovery =		Not calculated				
Se 196.026*†	-1.4	-0.0010	mg/L	0.00092	-0.0010	mg/L	0.00092	92.74%
QC value within limits for Se 196.026*		Recovery =		Not calculated				
Si 251.611*†	509.4	0.0178	mg/L	0.00029	0.0178	mg/L	0.00029	1.64%
Sn 189.927*†	19.2	0.0047	mg/L	0.00220	0.0047	mg/L	0.00220	46.92%
Sn 242.170†	-1.3	-0.0011	mg/L	0.02622	-0.0011	mg/L	0.02622	>999.9%
Sr 407.771*†	24.9	0.0001	mg/L	0.00001	0.0001	mg/L	0.00001	7.63%
Ti 334.940†	690.9	0.0011	mg/L	0.00014	0.0011	mg/L	0.00014	12.41%
Ti 336.121*†	612.7	0.0014	mg/L	0.00013	0.0014	mg/L	0.00013	9.56%
Tl 190.801*†	5.7	0.0044	mg/L	0.00182	0.0044	mg/L	0.00182	41.07%
QC value within limits for Tl 190.801*		Recovery =		Not calculated				
V 292.402*†	94.8	0.0009	mg/L	0.00050	0.0009	mg/L	0.00050	53.92%
Zn 206.200*†	-812.0	-0.0291	mg/L	0.00026	-0.0291	mg/L	0.00026	0.90%
QC value within limits for Zn 206.200*		Recovery =		Not calculated				

All analyte(s) passed QC.

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Sequence No.: 23
Sample ID: CCV= STD3x0.5
Analyst: 771 icp 7300
Initial Sample Wt:
Dilution:
Wash Time: 15

Autosampler Location: 3
Date Collected: 3/10/2017 12:13:40 PM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:
Auto Dilution Factor: 1

Mean Data: CCV= STD3x0.5

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Tb 384	54476.1	89.83	%	0.442				0.49%
Tb 350	87282.2	92.83	%	0.911				0.98%
Ag 328.068*†	52627.7	0.3661	mg/L	0.00353	0.3661	mg/L	0.00353	0.96%
QC value within limits for Ag 328.068* Recovery = 97.63%								
Al 308.215*†	179896.2	13.56	mg/L	0.044	13.56	mg/L	0.044	0.33%
QC value within limits for Al 308.215* Recovery = 100.42%								
As 188.979†	5089.2	3.599	mg/L	0.0508	3.599	mg/L	0.0508	1.41%
QC value within limits for As 188.979 Recovery = 95.97%								
As 193.696*†	3544.4	3.580	mg/L	0.0614	3.580	mg/L	0.0614	1.72%
QC value within limits for As 193.696* Recovery = 95.47%								
B 249.677*†	125012.7	3.573	mg/L	0.0629	3.573	mg/L	0.0629	1.76%
QC value within limits for B 249.677* Recovery = 95.28%								
Ba 233.527*†	830080.2	7.700	mg/L	0.0444	7.700	mg/L	0.0444	0.58%
QC value within limits for Ba 233.527* Recovery = 102.66%								
Be 313.042*†	1513940.3	0.5682	mg/L	0.00896	0.5682	mg/L	0.00896	1.58%
QC value within limits for Be 313.042* Recovery = 101.01%								
Ca 317.933*†	40394.3	28.93	mg/L	0.062	28.93	mg/L	0.062	0.21%
QC value within limits for Ca 317.933* Recovery = 96.44%								
Cd 226.502*†	39264.9	0.7252	mg/L	0.00737	0.7252	mg/L	0.00737	1.02%
QC value within limits for Cd 226.502* Recovery = 96.70%								
Cd 228.802†	20415.7	0.7266	mg/L	0.00993	0.7266	mg/L	0.00993	1.37%
Co 228.616*†	36896.7	1.865	mg/L	0.0088	1.865	mg/L	0.0088	0.47%
QC value within limits for Co 228.616* Recovery = 99.44%								
Cr 267.716*†	49166.4	0.5852	mg/L	0.00240	0.5852	mg/L	0.00240	0.41%
QC value within limits for Cr 267.716* Recovery = 97.54%								
Cu 324.752*†	173589.4	0.9180	mg/L	0.00674	0.9180	mg/L	0.00674	0.73%
QC value within limits for Cu 324.752* Recovery = 97.92%								
Fe 273.955*†	64162.0	3.793	mg/L	0.0225	3.793	mg/L	0.0225	0.59%
QC value within limits for Fe 273.955* Recovery = 101.14%								
K 766.490*†	61678.0	26.58	mg/L	0.052	26.58	mg/L	0.052	0.20%
QC value within limits for K 766.490* Recovery = 98.43%								
Mg 279.077*†	97309.0	7.357	mg/L	0.0622	7.357	mg/L	0.0622	0.85%
QC value within limits for Mg 279.077* Recovery = 98.09%								
Mn 257.610*†	348926.9	0.7369	mg/L	0.00360	0.7369	mg/L	0.00360	0.49%
QC value within limits for Mn 257.610* Recovery = 98.25%								
Mo 202.031*†	4004.8	0.5916	mg/L	0.00622	0.5916	mg/L	0.00622	1.05%
QC value within limits for Mo 202.031* Recovery = 98.61%								
Na 589.592*†	125647.0	36.08	mg/L	0.157	36.08	mg/L	0.157	0.43%
QC value within limits for Na 589.592* Recovery = 100.24%								
Ni 231.604*†	10106.7	0.5922	mg/L	0.00257	0.5922	mg/L	0.00257	0.43%
QC value within limits for Ni 231.604* Recovery = 98.70%								
P 213.617*†	7453.4	5.682	mg/L	0.0896	5.682	mg/L	0.0896	1.58%
QC value within limits for P 213.617* Recovery = 94.70%								
P 214.914†	4840.5	5.765	mg/L	0.0840	5.765	mg/L	0.0840	1.46%
Pb 220.353*†	19927.7	3.575	mg/L	0.0430	3.575	mg/L	0.0430	1.20%
QC value within limits for Pb 220.353* Recovery = 95.33%								
Sb 206.836†	5745.7	4.377	mg/L	0.0549	4.377	mg/L	0.0549	1.25%
QC value within limits for Sb 206.836 Recovery = 97.26%								
Sb 217.582*†	5811.7	4.384	mg/L	0.0621	4.384	mg/L	0.0621	1.42%
QC value within limits for Sb 217.582* Recovery = 97.41%								
Se 196.026*†	2065.4	1.427	mg/L	0.0207	1.427	mg/L	0.0207	1.45%
QC value within limits for Se 196.026* Recovery = 95.14%								
Si 251.611*†	167642.5	5.869	mg/L	0.0802	5.869	mg/L	0.0802	1.37%
QC value within limits for Si 251.611* Recovery = 97.82%								
Sn 189.927*†	11921.8	2.907	mg/L	0.0420	2.907	mg/L	0.0420	1.44%
QC value within limits for Sn 189.927* Recovery = 96.91%								
Sn 242.170†	3660.3	2.926	mg/L	0.0571	2.926	mg/L	0.0571	1.95%
Sr 407.771*†	75374.5	0.2985	mg/L	0.00028	0.2985	mg/L	0.00028	0.10%
QC value within limits for Sr 407.771* Recovery = 99.51%								

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Ti 334.940†	375201.1	0.6173	mg/L	0.00342	0.6173	mg/L	0.00342	0.55%
Ti 336.121*†	264460.2	0.5985	mg/L	0.00372	0.5985	mg/L	0.00372	0.62%
QC value within limits for Ti 336.121* Recovery = 99.76%								
Tl 190.801*†	1934.6	1.492	mg/L	0.0091	1.492	mg/L	0.0091	0.61%
QC value within limits for Tl 190.801* Recovery = 99.46%								
V 292.402*†	187801.8	1.821	mg/L	0.0197	1.821	mg/L	0.0197	1.08%
QC value within limits for V 292.402* Recovery = 97.11%								
Zn 206.200*†	65822.1	2.359	mg/L	0.0208	2.359	mg/L	0.0208	0.88%
QC value within limits for Zn 206.200* Recovery = 94.36%								

All analyte(s) passed QC.

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Sequence No.: 24
Sample ID: CCB-R12091601
Analyst: 771 icp 7300
Initial Sample Wt:
Dilution:
Wash Time: 15

1012
3/10/17

Autosampler Location: 1
Date Collected: 3/10/2017 12:14:46 PM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:
Auto Dilution Factor: 1

Mean Data: CCB-R12091601

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Tb 384	58764.6	96.90	%	1.411				1.46%
Tb 350	90454.4	96.20	%	1.376				1.43%
Ag 328.068*†	288.4	0.0020	mg/L	0.00003	0.0020	mg/L	0.00003	1.32%
Al 308.215*†	161.6	0.0122	mg/L	0.00258	0.0122	mg/L	0.00258	21.16%
As 188.979†	11.5	0.0081	mg/L	0.00572	0.0081	mg/L	0.00572	70.47%
As 193.696*†	12.4	0.0125	mg/L	0.00484	0.0125	mg/L	0.00484	38.68%
QC value greater than the upper limit for As 193.696* Recovery = Not calculated								
B 249.677*†	1788.9	0.0511	mg/L	0.00344	0.0511	mg/L	0.00344	6.72%
Ba 233.527*†	391.3	0.0036	mg/L	0.00040	0.0036	mg/L	0.00040	11.05%
Be 313.042*†	596.4	0.0002	mg/L	0.00003	0.0002	mg/L	0.00003	12.42%
Ca 317.933*†	22.0	0.0158	mg/L	0.00393	0.0158	mg/L	0.00393	24.95%
Cd 226.502*†	15.7	0.0003	mg/L	0.00014	0.0003	mg/L	0.00014	46.49%
Cd 228.802†	30.4	0.0011	mg/L	0.00015	0.0011	mg/L	0.00015	13.94%
Co 228.616*†	13.6	0.0007	mg/L	0.00019	0.0007	mg/L	0.00019	27.10%
Cr 267.716*†	56.8	0.0007	mg/L	0.00013	0.0007	mg/L	0.00013	18.50%
Cu 324.752*†	-951.3	-0.0050	mg/L	0.00028	-0.0050	mg/L	0.00028	5.58%
Fe 273.955*†	172.2	0.0102	mg/L	0.00016	0.0102	mg/L	0.00016	1.57%
K 766.490*†	347.7	0.1498	mg/L	0.06480	0.1498	mg/L	0.06480	43.24%
Mg 279.077*†	85.5	0.0065	mg/L	0.01762	0.0065	mg/L	0.01762	272.76%
Mn 257.610*†	254.1	0.0005	mg/L	0.00005	0.0005	mg/L	0.00005	9.56%
Mo 202.031*†	10.0	0.0015	mg/L	0.00080	0.0015	mg/L	0.00080	54.11%
Na 589.592*†	-125.4	-0.0360	mg/L	0.00077	-0.0360	mg/L	0.00077	2.13%
Ni 231.604*†	18.5	0.0011	mg/L	0.00013	0.0011	mg/L	0.00013	12.29%
P 213.617*†	5.9	0.0045	mg/L	0.01362	0.0045	mg/L	0.01362	303.93%
P 214.914†	7.7	0.0091	mg/L	0.01057	0.0091	mg/L	0.01057	115.68%
Pb 220.353*†	1.4	0.0003	mg/L	0.00345	0.0003	mg/L	0.00345	>999.9%
Sb 206.836†	14.0	0.0107	mg/L	0.01039	0.0107	mg/L	0.01039	97.39%
Sb 217.582*†	13.3	0.0101	mg/L	0.00216	0.0101	mg/L	0.00216	21.45%
QC value within limits for Sb 217.582* Recovery = Not calculated								
Se 196.026*†	-0.7	-0.0005	mg/L	0.01318	-0.0005	mg/L	0.01318	>999.9%
QC value within limits for Se 196.026* Recovery = Not calculated								
Si 251.611*†	522.6	0.0183	mg/L	0.00071	0.0183	mg/L	0.00071	3.89%
Sn 189.927*†	22.6	0.0055	mg/L	0.00204	0.0055	mg/L	0.00204	37.04%
Sn 242.170†	-8.4	-0.0067	mg/L	0.00874	-0.0067	mg/L	0.00874	130.09%
Sr 407.771*†	37.8	0.0001	mg/L	0.00006	0.0001	mg/L	0.00006	38.60%
Ti 334.940†	184.2	0.0003	mg/L	0.00045	0.0003	mg/L	0.00045	149.42%
Ti 336.121*†	447.1	0.0010	mg/L	0.00073	0.0010	mg/L	0.00073	71.78%
Tl 190.801*†	6.0	0.0046	mg/L	0.00321	0.0046	mg/L	0.00321	69.18%
QC value within limits for Tl 190.801* Recovery = Not calculated								
V 292.402*†	-39.7	-0.0004	mg/L	0.00035	-0.0004	mg/L	0.00035	89.66%
Zn 206.200*†	-764.0	-0.0274	mg/L	0.00036	-0.0274	mg/L	0.00036	1.31%
QC value within limits for Zn 206.200* Recovery = Not calculated								

QC Failed. Retry.

Sequence No.: 25
Sample ID: CCB-R12091601
Analyst: 771 icp 7300
Initial Sample Wt:
Dilution:
Wash Time: 15

Autosampler Location: 1
Date Collected: 3/10/2017 12:15:44 PM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:
Auto Dilution Factor: 1

Mean Data: CCB-R12091601

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Tb 384	60144.8	99.18	%	0.608				0.61%
Tb 350	92894.6	98.80	%	0.818				0.83%
Ag 328.068*†	139.6	0.0010	mg/L	0.00014	0.0010	mg/L	0.00014	14.36%

Al 308.215*†	123.0	0.0093	mg/L	0.00253	0.0093	mg/L	0.00253	27.34%
As 188.979†	2.1	0.0015	mg/L	0.00454	0.0015	mg/L	0.00454	308.36%
As 193.696*†	1.8	0.0018	mg/L	0.00272	0.0018	mg/L	0.00272	153.30%
QC value within limits for As 193.696* Recovery = Not calculated								
B 249.677*†	901.2	0.0258	mg/L	0.00136	0.0258	mg/L	0.00136	5.29%
Ba 233.527*†	185.4	0.0017	mg/L	0.00001	0.0017	mg/L	0.00001	0.30%
Be 313.042*†	359.2	0.0001	mg/L	0.00000	0.0001	mg/L	0.00000	2.41%
Ca 317.933*†	23.3	0.0167	mg/L	0.00833	0.0167	mg/L	0.00833	49.96%
Cd 226.502*†	10.2	0.0002	mg/L	0.00014	0.0002	mg/L	0.00014	73.33%
Cd 228.802†	15.6	0.0006	mg/L	0.00023	0.0006	mg/L	0.00023	40.56%
Co 228.616*†	9.7	0.0005	mg/L	0.00127	0.0005	mg/L	0.00127	259.90%
Cr 267.716*†	43.8	0.0005	mg/L	0.00026	0.0005	mg/L	0.00026	49.67%
Cu 324.752*†	-1094.6	-0.0058	mg/L	0.00023	-0.0058	mg/L	0.00023	3.98%
Fe 273.955*†	159.9	0.0095	mg/L	0.00066	0.0095	mg/L	0.00066	6.97%
K 766.490*†	464.8	0.2003	mg/L	0.05223	0.2003	mg/L	0.05223	26.08%
Mg 279.077*†	342.4	0.0259	mg/L	0.00453	0.0259	mg/L	0.00453	17.49%
Mn 257.610*†	145.5	0.0003	mg/L	0.00003	0.0003	mg/L	0.00003	8.33%
Mo 202.031*†	-7.9	-0.0012	mg/L	0.00008	-0.0012	mg/L	0.00008	7.09%
Na 589.592*†	-276.9	-0.0795	mg/L	0.02858	-0.0795	mg/L	0.02858	35.94%
Ni 231.604*†	9.8	0.0006	mg/L	0.00035	0.0006	mg/L	0.00035	61.74%
P 213.617*†	6.1	0.0046	mg/L	0.00508	0.0046	mg/L	0.00508	109.85%
P 214.914†	2.1	0.0025	mg/L	0.00510	0.0025	mg/L	0.00510	201.32%
Pb 220.353*†	-10.5	-0.0019	mg/L	0.00241	-0.0019	mg/L	0.00241	127.56%
Sb 206.836†	0.7	0.0006	mg/L	0.00847	0.0006	mg/L	0.00847	>999.9%
Sb 217.582*†	-9.5	-0.0072	mg/L	0.00050	-0.0072	mg/L	0.00050	7.01%
QC value within limits for Sb 217.582* Recovery = Not calculated								
Se 196.026*†	-7.8	-0.0054	mg/L	0.01204	-0.0054	mg/L	0.01204	223.54%
QC value within limits for Se 196.026* Recovery = Not calculated								
Si 251.611*†	309.4	0.0108	mg/L	0.00039	0.0108	mg/L	0.00039	3.59%
Sn 189.927*†	8.5	0.0021	mg/L	0.00207	0.0021	mg/L	0.00207	99.51%
Sn 242.170†	-19.2	-0.0154	mg/L	0.00053	-0.0154	mg/L	0.00053	3.43%
Sr 407.771*†	33.6	0.0001	mg/L	0.00002	0.0001	mg/L	0.00002	12.98%
Ti 334.940†	104.3	0.0002	mg/L	0.00003	0.0002	mg/L	0.00003	16.64%
Ti 336.121*†	447.5	0.0010	mg/L	0.00009	0.0010	mg/L	0.00009	8.59%
Tl 190.801*†	-3.7	-0.0029	mg/L	0.00401	-0.0029	mg/L	0.00401	140.75%
QC value within limits for Tl 190.801* Recovery = Not calculated								
V 292.402*†	227.2	0.0022	mg/L	0.00074	0.0022	mg/L	0.00074	33.53%
Zn 206.200*†	-836.0	-0.0300	mg/L	0.00009	-0.0300	mg/L	0.00009	0.30%
QC value within limits for Zn 206.200* Recovery = Not calculated								

All analyte(s) passed QC.

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EPA 6010B ICP Metals

(Solid)

Sample Data

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RAW DATA SHEET
FOR METHOD: EPA 6010B

WORK ORDER: **17-03-0445**
INSTRUMENT: ICP 7300
EXTRACTION : EPA 3050B
D/T EXTRACTED: 2017-03-09 00:00

ANALYZED BY: 771
D/T ANALYZED: 2017-03-10 12:02
REVIEWED BY:
D/T REVIEWED:

DATA FILE: W:\ICP-DATA\170310C1\17-03-0445-3.icp

 # 3 **CLIENT SAMPLE NUMBER: B-DU3-S-SG-09-15S**

LCS/MB BATCH: 170309L04
MS/MSD BATCH: 170309S04
UNITS: mg/kg

SAMPLE VOLUME / WEIGHT: DEFAULT: 2.00 g / ACTUAL: 2.00 g
FINAL VOLUME / WEIGHT: DEFAULT: 100.00 ml / ACTUAL: 100.00 ml
ADJUSTMENT RATIO TO PF: 1.00

COMMENT:

COMPOUND	ON COL CONC	DF	CONC	RL	QUAL
Antimony	0.00680	1.00	ND	0.750	
Arsenic	0.00994	1.00	ND	0.750	
Barium	1.03	1.00	51.6	0.500	
Beryllium	0.00244	1.00	ND	0.250	
Cadmium	0.00396	1.00	ND	0.500	
Chromium	0.0669	1.00	3.35	0.250	
Cobalt	0.0722	1.00	3.61	0.250	
Copper	0.110	1.00	5.49	0.500	
Lead	0.0236	1.00	1.18	0.500	
Molybdenum	0.00123	1.00	ND	0.250	
Nickel	0.0617	1.00	3.09	0.250	
Selenium	-0.00230	1.00	ND	0.750	
Silver	-0.000196	1.00	ND	0.250	
Thallium	-0.00417	1.00	ND	0.750	
Vanadium	0.231	1.00	11.6	0.250	
Zinc	0.360	1.00	18.0	1.00	

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Sequence No.: 13
Sample ID: 17-03-0445-3
Analyst: 771 icp 7300
Initial Sample Wt: 2 g
Dilution:
Wash Time: 15

Autosampler Location: 125
Date Collected: 3/10/2017 12:02:54 PM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol: 100 mL
Auto Dilution Factor: 1

Mean Data: 17-03-0445-3

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Tb 384	48655.5	80.23	%	0.706				0.88%
Tb 350	86405.8	91.90	%	1.123				1.22%
Ag 328.068*†	-28.2	-0.0002	mg/L	0.00054	-0.0098	mg/kg	0.02676	272.93%
Al 308.215*†	1212801.8	91.39	mg/L	1.078	4570	mg/kg	53.89	1.18%
As 188.979†	39.5	0.0279	mg/L	0.00317	1.396	mg/kg	0.1586	11.36%
As 193.696*†	9.8	0.0099	mg/L	0.00140	0.4972	mg/kg	0.06989	14.06%
B 249.677*†	1180.8	0.0337	mg/L	0.00566	1.687	mg/kg	0.2832	16.78%
Ba 233.527*†	111323.3	1.033	mg/L	0.0019	51.63	mg/kg	0.096	0.19%
Be 313.042*†	6496.5	0.0024	mg/L	0.00004	0.1219	mg/kg	0.00176	1.44%
Ca 317.933*†	67043.2	48.02	mg/L	0.437	2401	mg/kg	21.86	0.91%
Cd 226.502*†	214.3	0.0040	mg/L	0.00008	0.1979	mg/kg	0.00403	2.04%
Cd 228.802†	17.1	0.0006	mg/L	0.00010	0.0305	mg/kg	0.00485	15.90%
Co 228.616*†	1428.7	0.0722	mg/L	0.00079	3.610	mg/kg	0.0397	1.10%
Cr 267.716*†	5621.4	0.0669	mg/L	0.00093	3.346	mg/kg	0.0464	1.39%
Cu 324.752*†	20769.7	0.1098	mg/L	0.00039	5.492	mg/kg	0.0196	0.36%
Fe 273.955*†	2172639.7	128.4	mg/L	1.42	6421	mg/kg	71.08	1.11%
K 766.490*†	56820.3	24.48	mg/L	0.418	1224	mg/kg	20.88	1.71%
Mg 279.077*†	613895.7	46.41	mg/L	0.152	2321	mg/kg	7.58	0.33%
Mn 257.610*†	1027152.7	2.169	mg/L	0.0286	108.5	mg/kg	1.43	1.32%
Mo 202.031*†	8.3	0.0012	mg/L	0.00091	0.0616	mg/kg	0.04567	74.13%
Na 589.592*†	9896.1	2.842	mg/L	0.0635	142.1	mg/kg	3.17	2.23%
Ni 231.604*†	1053.6	0.0617	mg/L	0.00218	3.087	mg/kg	0.1090	3.53%
P 213.617*†	10696.1	8.154	mg/L	0.1643	407.7	mg/kg	8.22	2.02%
P 214.914†	7149.4	8.515	mg/L	0.1679	425.7	mg/kg	8.39	1.97%
Pb 220.353*†	131.7	0.0236	mg/L	0.00625	1.181	mg/kg	0.3127	26.48%
Sb 206.836†	-0.2	-0.0001	mg/L	0.00234	-0.0059	mg/kg	0.11719	>999.9%
Sb 217.582*†	9.0	0.0068	mg/L	0.02088	0.3400	mg/kg	1.04388	307.00%
Se 196.026*†	-3.3	-0.0023	mg/L	0.00012	-0.1151	mg/kg	0.00600	5.21%
Si 251.611*†	277930.8	9.730	mg/L	0.0070	486.5	mg/kg	0.35	0.07%
Sn 189.927*†	-202.1	-0.0493	mg/L	0.00043	-2.464	mg/kg	0.0217	0.88%
Sn 242.170†	435.9	0.3484	mg/L	0.01580	17.42	mg/kg	0.790	4.54%
Sr 407.771*†	191533.9	0.7586	mg/L	0.01197	37.93	mg/kg	0.598	1.58%
Ti 334.940†	5911932.0	9.727	mg/L	0.1248	486.3	mg/kg	6.24	1.28%
Ti 336.121*†	4190789.7	9.485	mg/L	0.1161	474.2	mg/kg	5.81	1.22%
Tl 190.801*†	-5.4	-0.0042	mg/L	0.00432	-0.2085	mg/kg	0.21623	103.70%
V 292.402*†	24060.7	0.2312	mg/L	0.00415	11.56	mg/kg	0.207	1.80%
Zn 206.200*†	10055.8	0.3604	mg/L	0.00866	18.02	mg/kg	0.433	2.40%

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RAW DATA SHEET
FOR METHOD: EPA 6010B

WORK ORDER: **17-03-0445**
INSTRUMENT: ICP 7300
EXTRACTION : EPA 3050B
D/T EXTRACTED: 2017-03-09 00:00

ANALYZED BY: 771
D/T ANALYZED: 2017-03-10 12:04
REVIEWED BY:
D/T REVIEWED:

DATA FILE: W:\ICP-DATA\170310C1\17-03-0445-4.icp

 # 4 **CLIENT SAMPLE NUMBER: B-DU3-S-SG-09-25S**

LCS/MB BATCH: 170309L04
MS/MSD BATCH: 170309S04
UNITS: mg/kg

SAMPLE VOLUME / WEIGHT: DEFAULT: 2.00 g / ACTUAL: 2.00 g
FINAL VOLUME / WEIGHT: DEFAULT: 100.00 ml / ACTUAL: 100.00 ml
ADJUSTMENT RATIO TO PF: 1.00

COMMENT:

COMPOUND	ON COL CONC	DF	CONC	RL	QUAL
Antimony	-0.00527	0.966	ND	0.725	
Arsenic	0.0157	0.966	0.757	0.725	
Barium	1.13	0.966	54.4	0.483	
Beryllium	0.00247	0.966	ND	0.242	
Cadmium	0.00411	0.966	ND	0.483	
Chromium	0.0655	0.966	3.16	0.242	
Cobalt	0.0739	0.966	3.57	0.242	
Copper	0.115	0.966	5.53	0.483	
Lead	0.0272	0.966	1.31	0.483	
Molybdenum	-0.000906	0.966	ND	0.242	
Nickel	0.0643	0.966	3.11	0.242	
Selenium	-0.00924	0.966	ND	0.725	
Silver	0.00124	0.966	ND	0.242	
Thallium	-0.0110	0.966	ND	0.725	
Vanadium	0.220	0.966	10.6	0.242	
Zinc	0.347	0.966	16.7	0.966	

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Sequence No.: 14
Sample ID: 17-03-0445-4
Analyst: 771 icp 7300
Initial Sample Wt: 2.07 g
Dilution:
Wash Time: 15

Autosampler Location: 126
Date Collected: 3/10/2017 12:04:01 PM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol: 100 mL
Auto Dilution Factor: 1

Mean Data: 17-03-0445-4

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Tb 384	48229.4	79.53	%	2.531				3.18%
Tb 350	82084.6	87.30	%	2.735				3.13%
Ag 328.068*†	177.7	0.0012	mg/L	0.00082	0.0597	mg/kg	0.03970	66.48%
Al 308.215*†	1374711.8	103.6	mg/L	2.50	5004	mg/kg	120.83	2.41%
As 188.979†	39.1	0.0277	mg/L	0.00182	1.337	mg/kg	0.0881	6.59%
As 193.696*†	15.5	0.0157	mg/L	0.00292	0.7575	mg/kg	0.14095	18.61%
B 249.677*†	774.9	0.0221	mg/L	0.00103	1.070	mg/kg	0.0497	4.65%
Ba 233.527*†	121368.9	1.126	mg/L	0.0111	54.39	mg/kg	0.537	0.99%
Be 313.042*†	6568.5	0.0025	mg/L	0.00003	0.1191	mg/kg	0.00124	1.04%
Ca 317.933*†	78108.0	55.95	mg/L	2.092	2703	mg/kg	101.06	3.74%
Cd 226.502*†	222.3	0.0041	mg/L	0.00017	0.1983	mg/kg	0.00821	4.14%
Cd 228.802†	6.1	0.0002	mg/L	0.00028	0.0105	mg/kg	0.01342	127.41%
Co 228.616*†	1461.6	0.0739	mg/L	0.00188	3.568	mg/kg	0.0907	2.54%
Cr 267.716*†	5500.2	0.0655	mg/L	0.00145	3.163	mg/kg	0.0701	2.22%
Cu 324.752*†	21654.2	0.1145	mg/L	0.00280	5.532	mg/kg	0.1354	2.45%
Fe 273.955*†	2119508.7	125.3	mg/L	2.97	6053	mg/kg	143.51	2.37%
K 766.490*†	55381.3	23.86	mg/L	0.748	1153	mg/kg	36.11	3.13%
Mg 279.077*†	569655.4	43.07	mg/L	0.511	2080	mg/kg	24.67	1.19%
Mn 257.610*†	1046839.5	2.211	mg/L	0.0491	106.8	mg/kg	2.37	2.22%
Mo 202.031*†	-6.1	-0.0009	mg/L	0.00152	-0.0438	mg/kg	0.07361	168.21%
Na 589.592*†	20090.3	5.770	mg/L	0.1677	278.7	mg/kg	8.10	2.91%
Ni 231.604*†	1097.6	0.0643	mg/L	0.00167	3.107	mg/kg	0.0809	2.60%
P 213.617*†	10702.0	8.159	mg/L	0.1945	394.1	mg/kg	9.40	2.38%
P 214.914†	7120.2	8.480	mg/L	0.2227	409.7	mg/kg	10.76	2.63%
Pb 220.353*†	151.7	0.0272	mg/L	0.00074	1.315	mg/kg	0.0358	2.72%
Sb 206.836†	6.3	0.0048	mg/L	0.00811	0.2320	mg/kg	0.39160	168.79%
Sb 217.582*†	-7.0	-0.0053	mg/L	0.01124	-0.2544	mg/kg	0.54304	213.50%
Se 196.026*†	-13.4	-0.0092	mg/L	0.00123	-0.4465	mg/kg	0.05946	13.32%
Si 251.611*†	354325.7	12.40	mg/L	0.171	599.3	mg/kg	8.25	1.38%
Sn 189.927*†	-188.7	-0.0460	mg/L	0.00471	-2.222	mg/kg	0.2273	10.23%
Sn 242.170†	420.8	0.3364	mg/L	0.02619	16.25	mg/kg	1.265	7.78%
Sr 407.771*†	342221.6	1.355	mg/L	0.0411	65.48	mg/kg	1.985	3.03%
Ti 334.940†	5010167.9	8.243	mg/L	0.1815	398.2	mg/kg	8.77	2.20%
Ti 336.121*†	3552699.8	8.041	mg/L	0.1735	388.4	mg/kg	8.38	2.16%
Tl 190.801*†	-14.2	-0.0110	mg/L	0.00644	-0.5302	mg/kg	0.31095	58.65%
V 292.402*†	22925.0	0.2202	mg/L	0.00668	10.64	mg/kg	0.323	3.03%
Zn 206.200*†	9673.6	0.3467	mg/L	0.00977	16.75	mg/kg	0.472	2.82%

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RAW DATA SHEET
FOR METHOD: EPA 6010B

WORK ORDER: **17-03-0445**
INSTRUMENT: ICP 7300
EXTRACTION : EPA 3050B
D/T EXTRACTED: 2017-03-09 00:00

ANALYZED BY: 771
D/T ANALYZED: 2017-03-10 12:05
REVIEWED BY:
D/T REVIEWED:

DATA FILE: W:\ICP-DATA\170310C1\17-03-0445-7.icp

 # 7 **CLIENT SAMPLE NUMBER: B-DU3-S-SG-10-15S**

LCS/MB BATCH: 170309L04
MS/MSD BATCH: 170309S04
UNITS: mg/kg

SAMPLE VOLUME / WEIGHT: DEFAULT: 2.00 g / ACTUAL: 2.00 g
FINAL VOLUME / WEIGHT: DEFAULT: 100.00 ml / ACTUAL: 100.00 ml
ADJUSTMENT RATIO TO PF: 1.00

COMMENT:

COMPOUND	ON COL CONC	DF	CONC	RL	QUAL
Antimony	0.00405	0.985	ND	0.739	
Arsenic	0.0211	0.985	1.04	0.739	
Barium	0.893	0.985	44.0	0.493	
Beryllium	0.00248	0.985	ND	0.246	
Cadmium	0.00357	0.985	ND	0.493	
Chromium	0.0627	0.985	3.09	0.246	
Cobalt	0.0728	0.985	3.59	0.246	
Copper	0.112	0.985	5.51	0.493	
Lead	0.0236	0.985	1.16	0.493	
Molybdenum	0.0000181	0.985	ND	0.246	
Nickel	0.0581	0.985	2.86	0.246	
Selenium	0.00250	0.985	ND	0.739	
Silver	-0.000992	0.985	ND	0.246	
Thallium	-0.00911	0.985	ND	0.739	
Vanadium	0.219	0.985	10.8	0.246	
Zinc	0.341	0.985	16.8	0.985	

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Sequence No.: 15
Sample ID: 17-03-0445-7
Analyst: 771 icp 7300
Initial Sample Wt: 2.03 g
Dilution:
Wash Time: 15

Autosampler Location: 127
Date Collected: 3/10/2017 12:05:05 PM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol: 100 mL
Auto Dilution Factor: 1

Mean Data: 17-03-0445-7

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Tb 384	47135.0	77.73	%	0.723				0.93%
Tb 350	83410.8	88.71	%	0.341				0.38%
Ag 328.068*†	-142.6	-0.0010	mg/L	0.00260	-0.0489	mg/kg	0.12819	262.32%
Al 308.215*†	1227425.4	92.49	mg/L	0.297	4556	mg/kg	14.62	0.32%
As 188.979†	37.3	0.0264	mg/L	0.00610	1.300	mg/kg	0.3005	23.11%
As 193.696*†	20.9	0.0211	mg/L	0.00701	1.041	mg/kg	0.3453	33.19%
B 249.677*†	450.2	0.0129	mg/L	0.00727	0.6339	mg/kg	0.35832	56.53%
Ba 233.527*†	96267.1	0.8929	mg/L	0.00626	43.99	mg/kg	0.309	0.70%
Be 313.042*†	6612.6	0.0025	mg/L	0.00004	0.1223	mg/kg	0.00186	1.53%
Ca 317.933*†	68286.5	48.91	mg/L	0.178	2409	mg/kg	8.78	0.36%
Cd 226.502*†	193.2	0.0036	mg/L	0.00008	0.1758	mg/kg	0.00385	2.19%
Cd 228.802†	2.9	0.0001	mg/L	0.00012	0.0050	mg/kg	0.00595	118.26%
Co 228.616*†	1441.0	0.0728	mg/L	0.00026	3.587	mg/kg	0.0129	0.36%
Cr 267.716*†	5269.8	0.0627	mg/L	0.00016	3.090	mg/kg	0.0077	0.25%
Cu 324.752*†	21144.7	0.1118	mg/L	0.00071	5.508	mg/kg	0.0351	0.64%
Fe 273.955*†	2062162.3	121.9	mg/L	0.40	6005	mg/kg	19.46	0.32%
K 766.490*†	56418.5	24.31	mg/L	0.084	1198	mg/kg	4.12	0.34%
Mg 279.077*†	573508.5	43.36	mg/L	0.487	2136	mg/kg	23.97	1.12%
Mn 257.610*†	1063161.0	2.245	mg/L	0.0104	110.6	mg/kg	0.51	0.46%
Mo 202.031*†	0.1	0.0000	mg/L	0.00145	0.0009	mg/kg	0.07151	>999.9%
Na 589.592*†	8420.3	2.418	mg/L	0.0039	119.1	mg/kg	0.19	0.16%
Ni 231.604*†	992.2	0.0581	mg/L	0.00112	2.864	mg/kg	0.0553	1.93%
P 213.617*†	10456.2	7.971	mg/L	0.0428	392.7	mg/kg	2.11	0.54%
P 214.914†	6931.7	8.255	mg/L	0.0417	406.7	mg/kg	2.06	0.51%
Pb 220.353*†	131.4	0.0236	mg/L	0.00072	1.161	mg/kg	0.0356	3.07%
Sb 206.836†	-3.4	-0.0026	mg/L	0.00028	-0.1264	mg/kg	0.01358	10.74%
Sb 217.582*†	5.4	0.0040	mg/L	0.00924	0.1993	mg/kg	0.45509	228.34%
Se 196.026*†	3.6	0.0025	mg/L	0.01342	0.1233	mg/kg	0.66130	536.17%
Si 251.611*†	350603.9	12.27	mg/L	0.043	604.6	mg/kg	2.13	0.35%
Sn 189.927*†	-201.2	-0.0491	mg/L	0.00057	-2.417	mg/kg	0.0282	1.17%
Sn 242.170†	380.8	0.3043	mg/L	0.02926	14.99	mg/kg	1.442	9.62%
Sr 407.771*†	166651.9	0.6600	mg/L	0.00453	32.51	mg/kg	0.223	0.69%
Ti 334.940†	5512413.0	9.069	mg/L	0.0291	446.8	mg/kg	1.43	0.32%
Ti 336.121*†	3907681.5	8.844	mg/L	0.0271	435.7	mg/kg	1.33	0.31%
Tl 190.801*†	-11.8	-0.0091	mg/L	0.00085	-0.4487	mg/kg	0.04191	9.34%
V 292.402*†	22784.8	0.2189	mg/L	0.00109	10.78	mg/kg	0.054	0.50%
Zn 206.200*†	9501.8	0.3406	mg/L	0.00193	16.78	mg/kg	0.095	0.57%

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RAW DATA SHEET
FOR METHOD: EPA 6010B

WORK ORDER: **17-03-0445**
INSTRUMENT: ICP 7300
EXTRACTION : EPA 3050B
D/T EXTRACTED: 2017-03-09 00:00

ANALYZED BY: 771
D/T ANALYZED: 2017-03-10 12:06
REVIEWED BY:
D/T REVIEWED:

DATA FILE: W:\ICP-DATA\170310C1\17-03-0445-8.icp

 # 8 **CLIENT SAMPLE NUMBER: B-DU3-S-SG-10-25S**

LCS/MB BATCH: 170309L04
MS/MSD BATCH: 170309S04
UNITS: mg/kg

SAMPLE VOLUME / WEIGHT: DEFAULT: 2.00 g / ACTUAL: 2.00 g
FINAL VOLUME / WEIGHT: DEFAULT: 100.00 ml / ACTUAL: 100.00 ml
ADJUSTMENT RATIO TO PF: 1.00

COMMENT:

COMPOUND	ON COL CONC	DF	CONC	RL	QUAL
Antimony	0.000789	0.966	ND	0.725	
Arsenic	0.0212	0.966	1.02	0.725	
Barium	1.02	0.966	49.4	0.483	
Beryllium	0.00265	0.966	ND	0.242	
Cadmium	0.00395	0.966	ND	0.483	
Chromium	0.0742	0.966	3.59	0.242	
Cobalt	0.0731	0.966	3.53	0.242	
Copper	0.111	0.966	5.35	0.483	
Lead	0.0251	0.966	1.21	0.483	
Molybdenum	0.000234	0.966	ND	0.242	
Nickel	0.0667	0.966	3.22	0.242	
Selenium	-0.00132	0.966	ND	0.725	
Silver	-0.00147	0.966	ND	0.242	
Thallium	-0.0181	0.966	ND	0.725	
Vanadium	0.234	0.966	11.3	0.242	
Zinc	0.333	0.966	16.1	0.966	

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Sequence No.: 16
Sample ID: 17-03-0445-8
Analyst: 771 icp 7300
Initial Sample Wt: 2.07 g
Dilution:
Wash Time: 15

Autosampler Location: 128
Date Collected: 3/10/2017 12:06:09 PM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol: 100 mL
Auto Dilution Factor: 1

Mean Data: 17-03-0445-8

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Tb 384	49951.4	82.37	%	0.080				0.10%
Tb 350	86838.4	92.36	%	0.074				0.08%
Ag 328.068*†	-210.8	-0.0015	mg/L	0.00015	-0.0709	mg/kg	0.00714	10.08%
Al 308.215*†	1432230.2	107.9	mg/L	2.08	5214	mg/kg	100.49	1.93%
As 188.979†	45.0	0.0318	mg/L	0.00534	1.537	mg/kg	0.2578	16.77%
As 193.696*†	21.0	0.0212	mg/L	0.00288	1.023	mg/kg	0.1392	13.61%
B 249.677*†	348.8	0.0100	mg/L	0.00130	0.4815	mg/kg	0.06276	13.03%
Ba 233.527*†	110177.8	1.022	mg/L	0.0012	49.37	mg/kg	0.058	0.12%
Be 313.042*†	7064.6	0.0027	mg/L	0.00006	0.1281	mg/kg	0.00295	2.30%
Ca 317.933*†	69887.5	50.06	mg/L	1.294	2418	mg/kg	62.50	2.58%
Cd 226.502*†	213.6	0.0039	mg/L	0.00030	0.1906	mg/kg	0.01453	7.62%
Cd 228.802†	5.0	0.0002	mg/L	0.00028	0.0087	mg/kg	0.01374	158.27%
Co 228.616*†	1446.8	0.0731	mg/L	0.00030	3.532	mg/kg	0.0144	0.41%
Cr 267.716*†	6236.7	0.0742	mg/L	0.00016	3.586	mg/kg	0.0079	0.22%
Cu 324.752*†	20929.9	0.1107	mg/L	0.00193	5.347	mg/kg	0.0933	1.74%
Fe 273.955*†	2139981.2	126.5	mg/L	2.72	6111	mg/kg	131.58	2.15%
K 766.490*†	56971.9	24.55	mg/L	0.764	1186	mg/kg	36.91	3.11%
Mg 279.077*†	587098.8	44.38	mg/L	0.191	2144	mg/kg	9.24	0.43%
Mn 257.610*†	1066269.1	2.252	mg/L	0.0504	108.8	mg/kg	2.44	2.24%
Mo 202.031*†	1.6	0.0002	mg/L	0.00143	0.0113	mg/kg	0.06901	611.35%
Na 589.592*†	17448.5	5.011	mg/L	0.1067	242.1	mg/kg	5.15	2.13%
Ni 231.604*†	1138.2	0.0667	mg/L	0.00021	3.222	mg/kg	0.0102	0.32%
P 213.617*†	9121.4	6.954	mg/L	0.0006	335.9	mg/kg	0.03	0.01%
P 214.914†	6068.1	7.227	mg/L	0.0166	349.1	mg/kg	0.80	0.23%
Pb 220.353*†	140.0	0.0251	mg/L	0.00090	1.214	mg/kg	0.0437	3.60%
Sb 206.836†	-3.7	-0.0028	mg/L	0.00692	-0.1343	mg/kg	0.33446	248.98%
Sb 217.582*†	1.0	0.0008	mg/L	0.00742	0.0381	mg/kg	0.35868	940.64%
Se 196.026*†	-1.9	-0.0013	mg/L	0.00509	-0.0639	mg/kg	0.24601	385.01%
Si 251.611*†	420364.7	14.72	mg/L	0.337	710.9	mg/kg	16.27	2.29%
Sn 189.927*†	-207.7	-0.0507	mg/L	0.00166	-2.447	mg/kg	0.0802	3.28%
Sn 242.170†	397.4	0.3177	mg/L	0.00254	15.35	mg/kg	0.123	0.80%
Sr 407.771*†	189589.0	0.7509	mg/L	0.01683	36.28	mg/kg	0.813	2.24%
Ti 334.940†	5819875.9	9.575	mg/L	0.2008	462.6	mg/kg	9.70	2.10%
Ti 336.121*†	4128916.5	9.345	mg/L	0.1950	451.4	mg/kg	9.42	2.09%
Tl 190.801*†	-23.4	-0.0181	mg/L	0.00635	-0.8729	mg/kg	0.30666	35.13%
V 292.402*†	24375.2	0.2343	mg/L	0.00172	11.32	mg/kg	0.083	0.74%
Zn 206.200*†	9300.6	0.3333	mg/L	0.00193	16.10	mg/kg	0.093	0.58%

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EPA 6010B ICP Metals

(Solid)

Quality Control

Method Blank
LCS/LCSD
MS/MSD

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METHOD BLANK ASSOCIATION SUMMARY
FOR METHOD: EPA 6010B

MB SAMPLE ID: **097-01-002-24426**
MB BATCH ID: 170309L04
INSTRUMENT: ICP 7300
EXTRACTION: EPA 3050B
D/T EXTRACTED: 2017-03-09 00:00

ANALYZED BY: 771
D/T ANALYZED: 2017-03-10 11:51
REVIEWED BY: 309
D/T REVIEWED: 2017-03-13 08:52
MATRIX: Soil

DATA FILE: W:\ICP-DATA\170310C1\170309B04__36.icp

CLIENT WORK ORDER: 17-03-0445

S#	RUN TYPE	CLIENT SAMPLE ID	D/T ANALYZED	DATA FILE
3		B-DU3-S-SG-09-15S	2017-03-10 12:02	W:\ICP-DATA\170310C1\17-03-0445-3.icp
4		B-DU3-S-SG-09-25S	2017-03-10 12:04	W:\ICP-DATA\170310C1\17-03-0445-4.icp
7		B-DU3-S-SG-10-15S	2017-03-10 12:05	W:\ICP-DATA\170310C1\17-03-0445-7.icp
8		B-DU3-S-SG-10-25S	2017-03-10 12:06	W:\ICP-DATA\170310C1\17-03-0445-8.icp

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RAW DATA SHEET
FOR METHOD: EPA 6010B

WORK ORDER:	**097-01-002**	ANALYZED BY:	771
INSTRUMENT:	ICP 7300	D/T ANALYZED:	2017-03-10 11:51
EXTRACTION :	EPA 3050B	REVIEWED BY:	309
D/T EXTRACTED:	2017-03-09 00:00	D/T REVIEWED:	2017-03-13 08:52

DATA FILE: W:\ICP-DATA\170310C1\170309B04__36.icp

 # MB **CLIENT SAMPLE NUMBER: Method Blank**

LCS/MB BATCH:	170309L04	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:

COMPOUND	ON COL CONC	DF	CONC	RL	QUAL
Antimony	0.00566	0.966	ND	0.725	
Arsenic	-0.00705	0.966	ND	0.725	
Barium	0.000349	0.966	ND	0.483	
Beryllium	0.000207	0.966	ND	0.242	
Cadmium	0.000111	0.966	ND	0.483	
Chromium	0.000415	0.966	ND	0.242	
Cobalt	0.000607	0.966	ND	0.242	
Copper	-0.00374	0.966	ND	0.483	
Lead	0.00173	0.966	ND	0.483	
Molybdenum	0.000350	0.966	ND	0.242	
Nickel	0.000866	0.966	ND	0.242	
Selenium	0.0000936	0.966	ND	0.725	
Silver	0.000450	0.966	ND	0.242	
Thallium	0.00497	0.966	ND	0.725	
Vanadium	0.000305	0.966	ND	0.242	
Zinc	-0.0248	0.966	ND	0.966	

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LCS QUALITY CONTROL SHEET
FOR METHOD: EPA 6010B

LCS SAMPLE ID: **097-01-002-24426**
LCS/MB BATCH ID: 170309L04
INSTRUMENT: ICP 7300

EXTRACTION: EPA 3050B
D/T EXTRACTED: 2017-03-09 00:00

ANALYZED BY: 771
D/T ANALYZED: 2017-03-10 11:52
REVIEWED BY: 309
D/T REVIEWED: 2017-03-13 08:52

DATA FILE: W:\ICP-DATA\170310C1\170309L04__37.icp

COMPOUND	CONC	CONC REC	%REC	%REC CL	ME CL	STATUS	QUALIFIERS
Antimony	25.00	23.32	93	80-120	73-127	PASS	
Arsenic	25.00	22.65	91	80-120	73-127	PASS	
Barium	25.00	26.06	104	80-120	73-127	PASS	
Beryllium	25.00	23.70	95	80-120	73-127	PASS	
Cadmium	25.00	24.32	97	80-120	73-127	PASS	
Chromium	25.00	24.87	99	80-120	73-127	PASS	
Cobalt	25.00	25.55	102	80-120	73-127	PASS	
Copper	25.00	25.54	102	80-120	73-127	PASS	
Lead	25.00	24.29	97	80-120	73-127	PASS	
Molybdenum	25.00	23.77	95	80-120	73-127	PASS	
Nickel	25.00	25.74	103	80-120	73-127	PASS	
Phosphorus	25.00	24.00	96	80-120	73-127	PASS	
Selenium	25.00	22.50	90	80-120	73-127	PASS	
Silver	12.50	12.07	97	80-120	73-127	PASS	
Thallium	25.00	23.91	96	80-120	73-127	PASS	
Vanadium	25.00	23.57	94	80-120	73-127	PASS	
Zinc	25.00	23.55	94	80-120	73-127	PASS	
Aluminum	25.00	25.84	103	80-120	73-127	PASS	
Calcium	25.00	25.39	102	80-120	73-127	PASS	
Iron	25.00	25.34	101	80-120	73-127	PASS	
Magnesium	25.00	24.32	97	80-120	73-127	PASS	
Manganese	25.00	24.68	99	80-120	73-127	PASS	
Potassium	250.0	234.7	94	80-120	73-127	PASS	
Sodium	250.0	242.1	97	80-120	73-127	PASS	
Strontium	25.00	25.20	101	80-120	73-127	PASS	
Tin	25.00	23.79	95	80-120	73-127	PASS	
Titanium	25.00	24.20	97	80-120	73-127	PASS	
Boron	25.00	22.01	88	80-120	73-127	PASS	
Silicon	25.00	24.84	99	80-120	73-127	PASS	

Compounds listed in bold are required to be reported.

LCS QUALITY CONTROL SHEET
FOR METHOD: EPA 6010B

LCS SAMPLE ID:	**097-01-002-24426**	EXTRACTION:	EPA 3050B	ANALYZED BY:	771
LCS/MB BATCH ID:	170309L04	D/T EXTRACTED:	2017-03-09 00:00	D/T ANALYZED:	2017-03-10 11:52
INSTRUMENT:	ICP 7300			REVIEWED BY:	309
				D/T REVIEWED:	2017-03-13 08:52

DATA FILE: W:\ICP-DATA\170310C1\170309L04__37.icp

COMPOUND	CONC	CONC REC	%REC	%REC CL	ME CL	STATUS	QUALIFIERS

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: **17-03-0444-3**
MS/MSD BATCH: 170309S04
INSTRUMENTS:
SAMPLE: ICP 7300
MS: ICP 7300
MSD: ICP 7300

EXTRACTION: EPA 3050B
D/T EXTRACTED:
SAMPLE: 2017-03-09 00:00
MS: 2017-03-09 00:00
MSD: 2017-03-09 00:00

ANALYZED BY: 771
D/T ANALYZED:
SAMPLE: 2017-03-10 11:54
MS: 2017-03-10 11:55
MSD: 2017-03-10 11:56
REVIEWED BY: 309
D/T REVIEWED: 2017-03-13 08:52

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**	**12.35**	**49**	**12.37**	**49**	**50-115**	**0**	**0-20**	**FAIL**	**3G**
Arsenic	ND	0.5000	25.00	23.77	95	24.70	99	75-125	4	0-20	PASS	
Barium	50.13	0.5000	25.00	69.83	79	69.24	76	75-125	1	0-20	PASS	
Beryllium	ND	0.5000	25.00	25.08	100	25.57	102	75-125	2	0-20	PASS	
Cadmium	ND	0.5000	25.00	24.00	96	23.88	96	75-125	0	0-20	PASS	
Chromium	3.844	0.5000	25.00	27.79	96	27.71	95	75-125	0	0-20	PASS	
Cobalt	3.977	0.5000	25.00	27.90	96	27.78	95	75-125	0	0-20	PASS	
Copper	5.667	0.5000	25.00	30.99	101	30.41	99	75-125	2	0-20	PASS	
Lead	1.333	0.5000	25.00	25.48	97	25.65	97	75-125	1	0-20	PASS	
Molybdenum	ND	0.5000	25.00	23.97	96	23.80	95	75-125	1	0-20	PASS	
Nickel	3.650	0.5000	25.00	27.29	95	27.38	95	75-125	0	0-20	PASS	
Phosphorus	504.4	0.5000	25.00	482.6	4x	455.8	4x	75-125	4x	0-20	PASS	Q
Selenium	ND	0.5000	25.00	23.19	93	24.31	97	75-125	5	0-20	PASS	
Silver	ND	0.2500	12.50	12.08	97	11.68	93	75-125	3	0-20	PASS	
Thallium	ND	0.5000	25.00	23.24	93	23.51	94	75-125	1	0-20	PASS	
Vanadium	12.12	0.5000	25.00	34.87	91	34.30	89	75-125	2	0-20	PASS	
Zinc	18.42	0.5000	25.00	39.77	85	41.69	93	75-125	5	0-20	PASS	
Aluminum	4829	0.5000	25.00	4602	4x	4613	4x	75-125	4x	0-20	PASS	Q
Calcium	2704	0.5000	25.00	2409	4x	2260	4x	75-125	4x	0-20	PASS	Q
Iron	6613	0.5000	25.00	6145	4x	6096	4x	75-125	4x	0-20	PASS	Q
Magnesium	2270	0.5000	25.00	2160	4x	2130	4x	75-125	4x	0-20	PASS	Q
Manganese	116.3	0.5000	25.00	133.4	4x	132.6	4x	75-125	4x	0-20	PASS	Q
Potassium	1446	5.000	250.0	1471	4x	1445	4x	75-125	4x	0-20	PASS	Q
Sodium	169.3	5.000	250.0	407.3	95	360.3	76	75-125	12	0-20	PASS	
Strontium	**31.93**	**0.5000**	**25.00**	**47.68**	**63**	**51.05**	**76**	**75-125**	**7**	**0-20**	**FAIL**	**3G**
Tin	ND	0.5000	25.00	21.11	84	20.55	82	75-125	3	0-20	PASS	
Titanium	486.3	0.5000	25.00	485.7	4x	488.8	4x	75-125	4x	0-20	PASS	Q
Boron	ND	0.5000	25.00	23.22	93	23.10	92	75-125	1	0-20	PASS	

MATRIX SPIKE / MATRIX SPIKE DUPLICATE QUALITY CONTROL SHEET
FOR METHOD: EPA 6010B

SPIKED SAMPLE ID: **17-03-0444-3**
MS/MSD BATCH: 170309S04
INSTRUMENTS:
SAMPLE: ICP 7300
MS: ICP 7300
MSD: ICP 7300

EXTRACTION: EPA 3050B
D/T EXTRACTED:
SAMPLE: 2017-03-09 00:00
MS: 2017-03-09 00:00
MSD: 2017-03-09 00:00

ANALYZED BY: 771
D/T ANALYZED:
SAMPLE: 2017-03-10 11:54
MS: 2017-03-10 11:55
MSD: 2017-03-10 11:56
REVIEWED BY: 309
D/T REVIEWED: 2017-03-13 08:52

COMMENT:

COMPOUND NAME	SAMPLE	INITIAL	FINAL	MS CONC	% MS.REC	MSD CONC	% MSD.REC	% REC CL	RPD	RPD CL	STATUS	QUALIFIERS
Silicon	423.6	0.5000	25.00	549.1	4x	564.3	4x	75-125	4x	0-20	PASS	Q

Data Files:

TYPE	DATA FILE	DATA FILE PATH
MS	17-03-0444-3 ms.icp	W:\ICP-DATA\170310C1\
MSD	17-03-0444-3 msd.icp	W:\ICP-DATA\170310C1\

Sequence No.: 3
Sample ID: 170309B04
Analyst: 771 icp 7300
Initial Sample Wt: 2.07 g
Dilution:
Wash Time: 15

Autosampler Location: 117
Date Collected: 3/10/2017 11:51:38 AM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol: 100 mL
Auto Dilution Factor: 1

Mean Data: 170309B04

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Tb 384	59898.1	98.77	%	2.365				2.39%
Tb 350	92441.8	98.32	%	1.991				2.02%
Ag 328.068*†	64.8	0.0005	mg/L	0.00138	0.0218	mg/kg	0.06645	305.39%
Al 308.215*†	0.3	0.0000	mg/L	0.00432	0.0012	mg/kg	0.20851	>999.9%
As 188.979†	10.4	0.0074	mg/L	0.00796	0.3565	mg/kg	0.38434	107.81%
As 193.696*†	-7.0	-0.0071	mg/L	0.00532	-0.3406	mg/kg	0.25707	75.47%
B 249.677*†	280.3	0.0080	mg/L	0.00046	0.3871	mg/kg	0.02221	5.74%
Ba 233.527*†	37.6	0.0003	mg/L	0.00020	0.0169	mg/kg	0.00948	56.20%
Be 313.042*†	551.4	0.0002	mg/L	0.00001	0.0100	mg/kg	0.00044	4.44%
Ca 317.933*†	-1.8	-0.0013	mg/L	0.00045	-0.0627	mg/kg	0.02154	34.36%
Cd 226.502*†	6.0	0.0001	mg/L	0.00025	0.0054	mg/kg	0.01225	227.93%
Cd 228.802†	18.1	0.0006	mg/L	0.00013	0.0311	mg/kg	0.00616	19.83%
Co 228.616*†	12.0	0.0006	mg/L	0.00010	0.0293	mg/kg	0.00506	17.25%
Cr 267.716*†	34.9	0.0004	mg/L	0.00015	0.0201	mg/kg	0.00728	36.29%
Cu 324.752*†	-706.8	-0.0037	mg/L	0.00035	-0.1806	mg/kg	0.01673	9.26%
Fe 273.955*†	18.7	0.0011	mg/L	0.00130	0.0534	mg/kg	0.06272	117.45%
K 766.490*†	-199.9	-0.0861	mg/L	0.02955	-4.161	mg/kg	1.4276	34.31%
Mg 279.077*†	136.0	0.0103	mg/L	0.00514	0.4968	mg/kg	0.24832	49.99%
Mn 257.610*†	80.3	0.0002	mg/L	0.00002	0.0082	mg/kg	0.00082	9.97%
Mo 202.031*†	2.4	0.0003	mg/L	0.00084	0.0169	mg/kg	0.04058	240.21%
Na 589.592*†	-89.1	-0.0256	mg/L	0.05463	-1.236	mg/kg	2.6393	213.46%
Ni 231.604*†	14.8	0.0009	mg/L	0.00004	0.0418	mg/kg	0.00201	4.80%
P 213.617*†	6.6	0.0050	mg/L	0.00305	0.2435	mg/kg	0.14728	60.48%
P 214.914†	-4.0	-0.0047	mg/L	0.00404	-0.2288	mg/kg	0.19538	85.39%
Pb 220.353*†	9.7	0.0017	mg/L	0.00067	0.0837	mg/kg	0.03220	38.45%
Sb 206.836†	2.5	0.0019	mg/L	0.00795	0.0923	mg/kg	0.38408	415.96%
Sb 217.582*†	7.5	0.0057	mg/L	0.00373	0.2735	mg/kg	0.17999	65.80%
Se 196.026*†	0.1	0.0001	mg/L	0.00029	0.0045	mg/kg	0.01409	311.69%
Si 251.611*†	55.4	0.0019	mg/L	0.00059	0.0936	mg/kg	0.02837	30.31%
Sn 189.927*†	5.1	0.0013	mg/L	0.00160	0.0605	mg/kg	0.07719	127.65%
Sn 242.170†	-38.3	-0.0306	mg/L	0.01871	-1.480	mg/kg	0.9037	61.06%
Sr 407.771*†	39.7	0.0002	mg/L	0.00004	0.0076	mg/kg	0.00203	26.73%
Ti 334.940†	-67.8	-0.0001	mg/L	0.00057	-0.0054	mg/kg	0.02762	512.20%
Ti 336.121*†	229.0	0.0005	mg/L	0.00014	0.0250	mg/kg	0.00658	26.27%
Tl 190.801*†	6.4	0.0050	mg/L	0.00400	0.2403	mg/kg	0.19305	80.35%
V 292.402*†	31.5	0.0003	mg/L	0.00043	0.0147	mg/kg	0.02073	140.71%
Zn 206.200*†	-690.6	-0.0248	mg/L	0.00095	-1.196	mg/kg	0.0460	3.84%

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Sequence No.: 4
Sample ID: 170309L04
Analyst: 771 icp 7300
Initial Sample Wt: 2.06 g
Dilution:
Wash Time: 15

Autosampler Location: 118
Date Collected: 3/10/2017 11:52:53 AM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol: 100 mL
Auto Dilution Factor: 1

Mean Data: 170309L04

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Tb 384	57303.4	94.49	%	0.302				0.32%
Tb 350	89966.7	95.68	%	0.426				0.45%
Ag 328.068*†	35755.4	0.2487	mg/L	0.00074	12.07	mg/kg	0.036	0.30%
Al 308.215*†	7062.7	0.5322	mg/L	0.01028	25.84	mg/kg	0.499	1.93%
As 188.979†	672.0	0.4752	mg/L	0.00387	23.07	mg/kg	0.188	0.82%
As 193.696*†	461.9	0.4665	mg/L	0.00241	22.65	mg/kg	0.117	0.52%
B 249.677*†	15866.0	0.4534	mg/L	0.00022	22.01	mg/kg	0.011	0.05%
Ba 233.527*†	57870.1	0.5368	mg/L	0.00056	26.06	mg/kg	0.027	0.10%
Be 313.042*†	1300917.6	0.4882	mg/L	0.00463	23.70	mg/kg	0.225	0.95%
Ca 317.933*†	730.2	0.5230	mg/L	0.00919	25.39	mg/kg	0.446	1.76%
Cd 226.502*†	27119.1	0.5009	mg/L	0.00257	24.32	mg/kg	0.125	0.51%
Cd 228.802†	14032.2	0.4994	mg/L	0.00132	24.24	mg/kg	0.064	0.26%
Co 228.616*†	10415.3	0.5263	mg/L	0.00090	25.55	mg/kg	0.044	0.17%
Cr 267.716*†	43047.5	0.5124	mg/L	0.00233	24.87	mg/kg	0.113	0.45%
Cu 324.752*†	99497.1	0.5262	mg/L	0.00207	25.54	mg/kg	0.100	0.39%
Fe 273.955*†	8832.3	0.5221	mg/L	0.00291	25.34	mg/kg	0.141	0.56%
K 766.490*†	11221.3	4.835	mg/L	0.0980	234.7	mg/kg	4.76	2.03%
Mg 279.077*†	6626.4	0.5010	mg/L	0.00841	24.32	mg/kg	0.408	1.68%
Mn 257.610*†	240720.1	0.5084	mg/L	0.00140	24.68	mg/kg	0.068	0.28%
Mo 202.031*†	3314.7	0.4897	mg/L	0.00131	23.77	mg/kg	0.063	0.27%
Na 589.592*†	17368.6	4.988	mg/L	0.1437	242.1	mg/kg	6.97	2.88%
Ni 231.604*†	9047.9	0.5301	mg/L	0.00252	25.74	mg/kg	0.122	0.48%
P 213.617*†	648.5	0.4944	mg/L	0.01921	24.00	mg/kg	0.932	3.88%
P 214.914†	373.5	0.4449	mg/L	0.00370	21.60	mg/kg	0.180	0.83%
Pb 220.353*†	2789.9	0.5005	mg/L	0.00174	24.29	mg/kg	0.084	0.35%
Sb 206.836†	635.2	0.4838	mg/L	0.01388	23.49	mg/kg	0.674	2.87%
Sb 217.582*†	636.8	0.4803	mg/L	0.00348	23.32	mg/kg	0.169	0.73%
Se 196.026*†	670.9	0.4636	mg/L	0.00213	22.50	mg/kg	0.103	0.46%
Si 251.611*†	14613.7	0.5116	mg/L	0.00257	24.84	mg/kg	0.125	0.50%
Sn 189.927*†	2009.8	0.4901	mg/L	0.00071	23.79	mg/kg	0.034	0.14%
Sn 242.170†	589.2	0.4709	mg/L	0.01905	22.86	mg/kg	0.925	4.04%
Sr 407.771*†	131081.8	0.5192	mg/L	0.01230	25.20	mg/kg	0.597	2.37%
Ti 334.940†	311140.8	0.5119	mg/L	0.00196	24.85	mg/kg	0.095	0.38%
Ti 336.121*†	220241.6	0.4985	mg/L	0.00184	24.20	mg/kg	0.089	0.37%
Tl 190.801*†	638.8	0.4926	mg/L	0.00737	23.91	mg/kg	0.358	1.50%
V 292.402*†	50084.1	0.4856	mg/L	0.00093	23.57	mg/kg	0.045	0.19%
Zn 206.200*†	13533.0	0.4850	mg/L	0.00297	23.55	mg/kg	0.144	0.61%

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Sequence No.: 6
Sample ID: 17-03-0444-3 ms
Analyst: 771 icp 7300
Initial Sample Wt: 2.05 g
Dilution:
Wash Time: 15

Autosampler Location: 120
Date Collected: 3/10/2017 11:55:10 AM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol: 100 mL
Auto Dilution Factor: 1

Mean Data: 17-03-0444-3 ms

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Tb 384	45745.7	75.43	%	0.952				1.26%
Tb 350	82428.6	87.67	%	0.107				0.12%
Ag 328.068*†	35593.2	0.2476	mg/L	0.00285	12.08	mg/kg	0.139	1.15%
Al 308.215*†	1251875.4	94.34	mg/L	0.946	4602	mg/kg	46.17	1.00%
As 188.979†	733.0	0.5183	mg/L	0.00330	25.28	mg/kg	0.161	0.64%
As 193.696*†	482.4	0.4873	mg/L	0.00542	23.77	mg/kg	0.264	1.11%
B 249.677*†	16658.3	0.4761	mg/L	0.01059	23.22	mg/kg	0.516	2.22%
Ba 233.527*†	154322.8	1.431	mg/L	0.0123	69.83	mg/kg	0.601	0.86%
Be 313.042*†	1369964.6	0.5142	mg/L	0.00836	25.08	mg/kg	0.408	1.63%
Ca 317.933*†	68950.6	49.39	mg/L	0.512	2409	mg/kg	24.97	1.04%
Cd 226.502*†	26639.9	0.4921	mg/L	0.00465	24.00	mg/kg	0.227	0.95%
Cd 228.802†	13883.1	0.4941	mg/L	0.00022	24.10	mg/kg	0.011	0.05%
Co 228.616*†	11317.5	0.5719	mg/L	0.00002	27.90	mg/kg	0.001	0.00%
Cr 267.716*†	47855.2	0.5696	mg/L	0.00531	27.79	mg/kg	0.259	0.93%
Cu 324.752*†	120134.1	0.6353	mg/L	0.00111	30.99	mg/kg	0.054	0.17%
Fe 273.955*†	2131223.4	126.0	mg/L	1.37	6145	mg/kg	66.60	1.08%
K 766.490*†	69988.9	30.16	mg/L	0.265	1471	mg/kg	12.93	0.88%
Mg 279.077*†	585708.7	44.28	mg/L	0.428	2160	mg/kg	20.85	0.97%
Mn 257.610*†	1295229.2	2.735	mg/L	0.0358	133.4	mg/kg	1.75	1.31%
Mo 202.031*†	3325.8	0.4913	mg/L	0.00222	23.97	mg/kg	0.108	0.45%
Na 589.592*†	29075.1	8.350	mg/L	0.0552	407.3	mg/kg	2.69	0.66%
Ni 231.604*†	9548.3	0.5595	mg/L	0.00208	27.29	mg/kg	0.102	0.37%
P 213.617*†	12978.6	9.894	mg/L	0.0565	482.6	mg/kg	2.75	0.57%
P 214.914†	8578.8	10.22	mg/L	0.028	498.4	mg/kg	1.35	0.27%
Pb 220.353*†	2912.1	0.5224	mg/L	0.00026	25.48	mg/kg	0.013	0.05%
Sb 206.836†	336.2	0.2561	mg/L	0.00301	12.49	mg/kg	0.147	1.17%
Sb 217.582*†	335.7	0.2532	mg/L	0.00500	12.35	mg/kg	0.244	1.97%
Se 196.026*†	688.0	0.4754	mg/L	0.01072	23.19	mg/kg	0.523	2.26%
Si 251.611*†	321505.1	11.26	mg/L	0.021	549.1	mg/kg	1.03	0.19%
Sn 189.927*†	1774.7	0.4328	mg/L	0.00102	21.11	mg/kg	0.050	0.24%
Sn 242.170†	969.3	0.7748	mg/L	0.02581	37.79	mg/kg	1.259	3.33%
Sr 407.771*†	246809.0	0.9775	mg/L	0.00913	47.68	mg/kg	0.445	0.93%
Ti 334.940†	6206597.4	10.21	mg/L	0.124	498.1	mg/kg	6.05	1.21%
Ti 336.121*†	4399336.0	9.957	mg/L	0.1186	485.7	mg/kg	5.79	1.19%
Tl 190.801*†	617.7	0.4764	mg/L	0.00119	23.24	mg/kg	0.058	0.25%
V 292.402*†	73946.5	0.7149	mg/L	0.00867	34.87	mg/kg	0.423	1.21%
Zn 206.200*†	22748.2	0.8153	mg/L	0.00282	39.77	mg/kg	0.138	0.35%

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Sequence No.: 7
Sample ID: 17-03-0444-3 msd
Analyst: 771 icp 7300
Initial Sample Wt: 2 g
Dilution:
Wash Time: 15

Autosampler Location: 121
Date Collected: 3/10/2017 11:56:15 AM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol: 100 mL
Auto Dilution Factor: 1

Mean Data: 17-03-0444-3 msd

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Tb 384	48626.6	80.18	%	1.659				2.07%
Tb 350	84962.3	90.36	%	1.592				1.76%
Ag 328.068*†	33581.3	0.2336	mg/L	0.00136	11.68	mg/kg	0.068	0.58%
Al 308.215*†	1224274.9	92.26	mg/L	0.688	4613	mg/kg	34.38	0.75%
As 188.979†	710.5	0.5024	mg/L	0.01004	25.12	mg/kg	0.502	2.00%
As 193.696*†	489.1	0.4941	mg/L	0.00174	24.70	mg/kg	0.087	0.35%
B 249.677*†	16163.1	0.4619	mg/L	0.00850	23.10	mg/kg	0.425	1.84%
Ba 233.527*†	149304.3	1.385	mg/L	0.0026	69.24	mg/kg	0.129	0.19%
Be 313.042*†	1362788.0	0.5115	mg/L	0.00439	25.57	mg/kg	0.220	0.86%
Ca 317.933*†	63092.8	45.19	mg/L	0.468	2260	mg/kg	23.40	1.04%
Cd 226.502*†	25861.2	0.4777	mg/L	0.00531	23.88	mg/kg	0.266	1.11%
Cd 228.802†	13533.2	0.4817	mg/L	0.00536	24.08	mg/kg	0.268	1.11%
Co 228.616*†	10995.5	0.5557	mg/L	0.00731	27.78	mg/kg	0.366	1.32%
Cr 267.716*†	46552.7	0.5541	mg/L	0.00109	27.71	mg/kg	0.054	0.20%
Cu 324.752*†	115017.9	0.6082	mg/L	0.00068	30.41	mg/kg	0.034	0.11%
Fe 273.955*†	2062690.3	121.9	mg/L	1.08	6097	mg/kg	53.88	0.88%
K 766.490*†	67074.5	28.90	mg/L	0.238	1445	mg/kg	11.92	0.83%
Mg 279.077*†	563615.2	42.61	mg/L	0.426	2130	mg/kg	21.30	1.00%
Mn 257.610*†	1255703.5	2.652	mg/L	0.0204	132.6	mg/kg	1.02	0.77%
Mo 202.031*†	3221.9	0.4760	mg/L	0.00970	23.80	mg/kg	0.485	2.04%
Na 589.592*†	25093.0	7.207	mg/L	0.0974	360.3	mg/kg	4.87	1.35%
Ni 231.604*†	9346.1	0.5476	mg/L	0.00936	27.38	mg/kg	0.468	1.71%
P 213.617*†	11956.7	9.115	mg/L	0.1850	455.8	mg/kg	9.25	2.03%
P 214.914†	7906.3	9.416	mg/L	0.0934	470.8	mg/kg	4.67	0.99%
Pb 220.353*†	2859.7	0.5130	mg/L	0.00462	25.65	mg/kg	0.231	0.90%
Sb 206.836†	337.0	0.2567	mg/L	0.01796	12.84	mg/kg	0.898	7.00%
Sb 217.582*†	328.1	0.2475	mg/L	0.01179	12.37	mg/kg	0.590	4.76%
Se 196.026*†	703.6	0.4862	mg/L	0.00419	24.31	mg/kg	0.209	0.86%
Si 251.611*†	322348.0	11.29	mg/L	0.010	564.3	mg/kg	0.51	0.09%
Sn 189.927*†	1685.0	0.4109	mg/L	0.00519	20.55	mg/kg	0.260	1.26%
Sn 242.170†	971.8	0.7768	mg/L	0.05170	38.84	mg/kg	2.585	6.66%
Sr 407.771*†	257806.7	1.021	mg/L	0.0154	51.05	mg/kg	0.769	1.51%
Ti 334.940†	6099052.1	10.03	mg/L	0.102	501.7	mg/kg	5.08	1.01%
Ti 336.121*†	4319426.9	9.776	mg/L	0.1000	488.8	mg/kg	5.00	1.02%
Tl 190.801*†	609.7	0.4701	mg/L	0.00486	23.51	mg/kg	0.243	1.03%
V 292.402*†	70953.7	0.6859	mg/L	0.00182	34.30	mg/kg	0.091	0.27%
Zn 206.200*†	23266.1	0.8339	mg/L	0.01486	41.69	mg/kg	0.743	1.78%

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Sequence No.: 5
Sample ID: 17-03-0444-3
Analyst: 771 icp 7300
Initial Sample Wt: 2 g
Dilution:
Wash Time: 15

Autosampler Location: 119
Date Collected: 3/10/2017 11:54:08 AM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol: 100 mL
Auto Dilution Factor: 1

Mean Data: 17-03-0444-3

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Tb 384	42523.0	70.12	%	0.216				0.31%
Tb 350	81391.9	86.57	%	0.650				0.75%
Ag 328.068*†	-268.4	-0.0019	mg/L	0.00049	-0.0934	mg/kg	0.02443	26.16%
Al 308.215*†	1281758.3	96.59	mg/L	0.091	4829	mg/kg	4.56	0.09%
As 188.979†	53.3	0.0377	mg/L	0.00237	1.885	mg/kg	0.1187	6.30%
As 193.696*†	7.6	0.0077	mg/L	0.00199	0.3853	mg/kg	0.09932	25.78%
B 249.677*†	497.2	0.0142	mg/L	0.00233	0.7104	mg/kg	0.11664	16.42%
Ba 233.527*†	108084.2	1.003	mg/L	0.0052	50.13	mg/kg	0.259	0.52%
Be 313.042*†	7295.5	0.0027	mg/L	0.00006	0.1369	mg/kg	0.00283	2.07%
Ca 317.933*†	75509.2	54.09	mg/L	0.993	2704	mg/kg	49.67	1.84%
Cd 226.502*†	247.1	0.0046	mg/L	0.00007	0.2282	mg/kg	0.00361	1.58%
Cd 228.802†	24.2	0.0009	mg/L	0.00004	0.0430	mg/kg	0.00200	4.65%
Co 228.616*†	1573.8	0.0795	mg/L	0.00007	3.977	mg/kg	0.0037	0.09%
Cr 267.716*†	6458.3	0.0769	mg/L	0.00020	3.844	mg/kg	0.0100	0.26%
Cu 324.752*†	21432.0	0.1133	mg/L	0.00178	5.667	mg/kg	0.0891	1.57%
Fe 273.955*†	2237502.1	132.3	mg/L	0.16	6613	mg/kg	7.95	0.12%
K 766.490*†	67100.9	28.91	mg/L	0.276	1446	mg/kg	13.81	0.96%
Mg 279.077*†	600461.1	45.39	mg/L	0.165	2270	mg/kg	8.24	0.36%
Mn 257.610*†	1100984.3	2.325	mg/L	0.0035	116.3	mg/kg	0.18	0.15%
Mo 202.031*†	3.0	0.0004	mg/L	0.00110	0.0219	mg/kg	0.05518	252.07%
Na 589.592*†	11786.6	3.385	mg/L	0.0315	169.3	mg/kg	1.58	0.93%
Ni 231.604*†	1246.0	0.0730	mg/L	0.00089	3.650	mg/kg	0.0445	1.22%
P 213.617*†	13234.1	10.09	mg/L	0.136	504.4	mg/kg	6.82	1.35%
P 214.914†	8785.9	10.46	mg/L	0.113	523.2	mg/kg	5.65	1.08%
Pb 220.353*†	148.6	0.0267	mg/L	0.00359	1.333	mg/kg	0.1794	13.47%
Sb 206.836†	1.4	0.0010	mg/L	0.00441	0.0524	mg/kg	0.22063	421.35%
Sb 217.582*†	10.1	0.0076	mg/L	0.00882	0.3812	mg/kg	0.44099	115.69%
Se 196.026*†	-10.8	-0.0075	mg/L	0.00977	-0.3730	mg/kg	0.48866	131.02%
Si 251.611*†	242018.9	8.473	mg/L	0.0031	423.6	mg/kg	0.15	0.04%
Sn 189.927*†	-222.7	-0.0543	mg/L	0.00261	-2.715	mg/kg	0.1303	4.80%
Sn 242.170†	402.4	0.3217	mg/L	0.03077	16.08	mg/kg	1.538	9.57%
Sr 407.771*†	161243.5	0.6386	mg/L	0.00791	31.93	mg/kg	0.395	1.24%
Ti 334.940†	6050255.1	9.954	mg/L	0.0013	497.7	mg/kg	0.06	0.01%
Ti 336.121*†	4297283.0	9.726	mg/L	0.0038	486.3	mg/kg	0.19	0.04%
Tl 190.801*†	-8.8	-0.0068	mg/L	0.01580	-0.3399	mg/kg	0.79013	232.43%
V 292.402*†	25226.9	0.2424	mg/L	0.00217	12.12	mg/kg	0.109	0.90%
Zn 206.200*†	10277.9	0.3684	mg/L	0.00438	18.42	mg/kg	0.219	1.19%

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EPA 6010B ICP Metals

(Solid)

Run Logs

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170310C1

M006-032-05 0.050 ml

INT STD M120716A **PDS/PDSD** **10 ml**

R.B. R12091602 **M006-032-06 0.050 ml**

Carrier/wash sol R12091604/R12091603

No.	File Name	Date	Time	Analyst Name	A/S Location	
1	Cal blankR12091601_935	3/10/2017	9:42:38 AM	771 icp 7300	1	
2	STD3-M111116A_935_ICP7300	3/10/2017	9:43:52 AM	771 icp 7300	2	
3	ICV-M072816C	3/10/2017	9:44:59 AM	771 icp 7300	10	
4	ICB-R12091601	3/10/2017	9:46:06 AM	771 icp 7300	1	Y+B TRL
5	ICB-R12091601	3/10/2017	9:47:02 AM	771 icp 7300	1	
6	ICB-R12091601	3/10/2017	9:48:01 AM	771 icp 7300	1	
7	ICS_A - M110116B	3/10/2017	9:49:16 AM	771 icp 7300	8	
8	ICS_AB - M110116A	3/10/2017	9:50:39 AM	771 icp 7300	9	
9	CCV= STD3x0.5	3/10/2017	9:51:40 AM	771 icp 7300	3	
10	CCB-R12091601	3/10/2017	9:52:42 AM	771 icp 7300	1	
11	LLCV	3/10/2017	10:16:25 AM	771 icp 7300	101	Cd, Cu, K, Mg, Na, Pb, Sb, Sn, Tl, Zn out
12	LLCV	3/10/2017	10:20:16 AM	771 icp 7300	102	
13	17-03-0627-10x-4	3/10/2017	10:26:43 AM	771 icp 7300	301	
14	blank	3/10/2017	10:27:53 AM	771 icp 7300	6	
15	blank	3/10/2017	10:29:07 AM	771 icp 7300	7	
16	CCV= STD3x0.5	3/10/2017	10:30:21 AM	771 icp 7300	3	
17	CCB-R12091601	3/10/2017	10:31:24 AM	771 icp 7300	1	B, Cu, Pb, Zn TRL
18	CCB-R12091601	3/10/2017	10:32:23 AM	771 icp 7300	1	
19	Cal blankR12091601_935	3/10/2017	11:09:00 AM	771 icp 7300	1	
20	STD3-M111116A_935_ICP7300	3/10/2017	11:10:21 AM	771 icp 7300	2	
21	ICV-M072816C	3/10/2017	11:11:31 AM	771 icp 7300	10	
22	ICB-R12091601	3/10/2017	11:12:41 AM	771 icp 7300	1	
23	ICB-R12091601	3/10/2017	11:13:40 AM	771 icp 7300	1	
24	ICB-R12091601	3/10/2017	11:14:41 AM	771 icp 7300	1	

Reviewed/Assign to Logbook Date: 3/10/17
Analysis: 200.7/6010 Chemist ID: 1012
Logbook Page: 25 Instrument ID: ICP7

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No.	File Name	Date	Time	Analyst Name	A/S Location
25	ICB-R12091601	3/10/2017	11:15:42 AM	771 icp 7300	1
26	CCV= STD3x0.5	3/10/2017	11:16:59 AM	771 icp 7300	3
27	CCB-R12091601	3/10/2017	11:18:02 AM	771 icp 7300	1
28	LLCV	3/10/2017	11:21:42 AM	771 icp 7300	101
29	LLCV	3/10/2017	11:24:38 AM	771 icp 7300	102
30	170309-ba-3	3/10/2017	11:25:51 AM	771 icp 7300	402
31	170309-la-3	3/10/2017	11:27:06 AM	771 icp 7300	403
32	CCV= STD3x0.5	3/10/2017	11:28:20 AM	771 icp 7300	3
33	CCB-R12091601	3/10/2017	11:29:26 AM	771 icp 7300	1
34	170309b-02	3/10/2017	11:49:04 AM	771 icp 7300	159
35	170309-l-02	3/10/2017	11:50:25 AM	771 icp 7300	160
36	170309B04	3/10/2017	11:51:38 AM	771 icp 7300	117
37	170309L04	3/10/2017	11:52:53 AM	771 icp 7300	118
38	17-03-0444-3	3/10/2017	11:54:08 AM	771 icp 7300	119
39	17-03-0444-3 ms	3/10/2017	11:55:10 AM	771 icp 7300	120
40	17-03-0444-3 msd	3/10/2017	11:56:15 AM	771 icp 7300	121
41	17-03-0444-4	3/10/2017	11:57:19 AM	771 icp 7300	122
42	17-03-0444-7	3/10/2017	11:58:23 AM	771 icp 7300	123
43	17-03-0444-8	3/10/2017	11:59:29 AM	771 icp 7300	124
44	CCV= STD3x0.5	3/10/2017	12:00:34 PM	771 icp 7300	3
45	CCB-R12091601	3/10/2017	12:01:40 PM	771 icp 7300	1
46	17-03-0445-3	3/10/2017	12:02:54 PM	771 icp 7300	125
47	17-03-0445-4	3/10/2017	12:04:01 PM	771 icp 7300	126
48	17-03-0445-7	3/10/2017	12:05:05 PM	771 icp 7300	127
49	17-03-0445-8	3/10/2017	12:06:09 PM	771 icp 7300	128
50	17-03-0414-2	3/10/2017	12:07:13 PM	771 icp 7300	129
51	17-03-0414-4	3/10/2017	12:08:18 PM	771 icp 7300	130
52	17-03-0414-8	3/10/2017	12:09:23 PM	771 icp 7300	131
53	17-03-0414-12	3/10/2017	12:10:28 PM	771 icp 7300	132
54	17-03-0414-14	3/10/2017	12:11:33 PM	771 icp 7300	133
55	17-03-0414-18	3/10/2017	12:12:38 PM	771 icp 7300	134
56	CCV= STD3x0.5	3/10/2017	12:13:40 PM	771 icp 7300	3

As, Tl, Zn out

Reviewed/Assign to Logbook Date: 3/10/17
Analysis: 200.7/6010 Chemist ID: 1012
Logbook Page: 26 Instrument ID: ICP

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No.	File Name	Date	Time	Analyst Name	A/S Location
57	CCB-R12091601	3/10/2017	12:14:46 PM	771 icp 7300	1
58	CCB-R12091601	3/10/2017	12:15:44 PM	771 icp 7300	1
59	17-03-0420-1	3/10/2017	12:17:01 PM	771 icp 7300	135
60	17-03-0420-2	3/10/2017	12:18:06 PM	771 icp 7300	136
61	17-03-0420-3	3/10/2017	12:19:10 PM	771 icp 7300	137
62	17-03-0433-1	3/10/2017	12:20:15 PM	771 icp 7300	138
63	17-03-0433-2	3/10/2017	12:21:20 PM	771 icp 7300	139
64	17-03-0517-1	3/10/2017	12:22:22 PM	771 icp 7300	140
65	17-03-0443-3 ms	3/10/2017	12:23:23 PM	771 icp 7300	141
66	17-03-0443-3 msd	3/10/2017	12:24:28 PM	771 icp 7300	142
67	17-03-0443-1	3/10/2017	12:25:34 PM	771 icp 7300	143
68	17-03-0443-2	3/10/2017	12:26:30 PM	771 icp 7300	144
69	CCV= STD3x0.5	3/10/2017	12:27:37 PM	771 icp 7300	3
70	CCB-R12091601	3/10/2017	12:28:43 PM	771 icp 7300	1
71	17-03-0443-3	3/10/2017	12:29:57 PM	771 icp 7300	145
72	17-03-0443-4	3/10/2017	12:31:06 PM	771 icp 7300	146
73	17-03-0443-5	3/10/2017	12:32:11 PM	771 icp 7300	147
74	17-03-0443-6	3/10/2017	12:33:18 PM	771 icp 7300	148
75	17-03-0443-7	3/10/2017	12:34:23 PM	771 icp 7300	149
76	17-03-0443-8	3/10/2017	12:35:29 PM	771 icp 7300	150
77	17-03-0443-18	3/10/2017	12:36:34 PM	771 icp 7300	151
78	17-03-0443-19	3/10/2017	12:37:40 PM	771 icp 7300	152
79	17-03-0443-20	3/10/2017	12:38:45 PM	771 icp 7300	153
80	17-03-0661-1	3/10/2017	12:39:50 PM	771 icp 7300	154
81	CCV= STD3x0.5	3/10/2017	12:40:54 PM	771 icp 7300	3
82	CCB-R12091601	3/10/2017	12:42:00 PM	771 icp 7300	1
83	17-03-0661-2	3/10/2017	12:43:14 PM	771 icp 7300	155
84	17-03-0661-3	3/10/2017	12:44:17 PM	771 icp 7300	156
85	17-03-0661-4	3/10/2017	12:45:20 PM	771 icp 7300	157
86	17-03-0671-1	3/10/2017	12:46:22 PM	771 icp 7300	158
87	17-03-0746-1	3/10/2017	12:47:31 PM	771 icp 7300	309
88	17-03-0760-1	3/10/2017	12:48:34 PM	771 icp 7300	310

As, B TRL

Reviewed/Assign to Logbook Date: 3/10/17
Analysis: 200.7/6010 Chemist ID: 101578
Logbook Page: 27 Instrument ID: ICP

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EPA 6010B ICP Metals (Solid)

Preparation Logs

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Metals Sample Preparation Logbook (Solid / Other)

METHOD	MATRIX	EQUIPMENT ID #	REAGENT ID #	STANDARD ID #
☑ EPA 3050B	☑ Solid	Thermometer HP14 (CF -4.0 °C)	HNO_3 R0131701 20 mL	Spike 1 M022017 A
☐ EPA 200.7	☐ Other (Specify)	Block Digester 4	HCl R1230602 15 mL	Spike 2 M020617 C
☐ EPA 200.8		Pipetter / Dispenser P-072/D-027/D-028	H_2O_2 M006-040-13 3.0 mL	Spike 3

BATCH NUMBER	SUPPLY LOT #	BALANCE ID #	QUALITY SYSTEM MATRIX ID #	SAMPLE HANDLING
MS/MSD 170309-504	Tube / Container 170104	65	Teflon Chip M006-035-15	1 = Composite 2 = Subsample
(Specify)	Filter		(Specify)	3 = Homogenize 4 = None

DIGESTION										SAMPLE		SPIKE STANDARD		
	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)	INITIAL (g)	FINAL (mL)	1 (µL)	2 (µL)	3 (µL)
3/9/17	14:00	95	1080	15:30	95	1080	4	MS 17-03-0444-3A	metals	2.05	100	500	500	
								MSD		2.00				
								LCS 17-0309-L04		2.06				
								LCSD / MB -B04		2.07				
								17-03-0444-3A		2.00				
								-4A		2.00				
								-7A		2.03				
								-8A		2.05				
								17-03-0445-3A		2.00				
								-4A		2.07				
								-7A		2.03				
								-8A		2.07				
								17-03-0414-2A		2.08				
								-4A		2.07				
								-8A		2.06				
								-12A		2.05				
								-14A		2.03				
								-18A		2.09				
								17-03-0420-1A		2.03				
								-2A		2.08				
								-3A		2.00				
								17-03-0433-1A		2.05				
								-2A		2.09				
								17-03-0517-1A		2.03				

COMMENTS:

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EPA 7471A Mercury

(Solid)

RAW DATA

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EPA 7471A Mercury

(Solid)

Initial Calibration
ICV/ICB
CCV/CCB

Sample Data

Quality Control
Method Blank
LCS/LCSD
MS/MSD

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Calscience Environmental Laboratories, Inc.

EPA Method 7471A
Initial Calibration Verification

Work Order No.: 17-03-0445

Instrument ID: HG 8 (H)

Concentration Unit: µg/L Test Method: EPA 7471A

Analyte	Initial Calibration Verification			
	True	ICV-1 Observed	ICV-1 %D	Control Limit
Mercury	5.000000	4.538994	9	0 - 10

03/09/2017 18:54

ICV-1 File: ICV M030617B 03/09/2017 11:36:27 AM

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7440 Lincoln Way, Garden Grove, CA 92841-1427 • TEL:(714) 895-5494 • FAX:(714) 894-7501

Calscience Environmental Laboratories, Inc.

EPA Method 7471A
Continuing Calibration Verification

Work Order No.: 17-03-0445
Instrument ID: HG 8 (H)
Concentration Unit: µg/L
Test Method: EPA 7471A

	Continuing Calibration Verification							
		CCV-1		CCV-2		CCV-3		Control
Analyte	True	Observed	%D	Observed	%D	Observed	%D	Limit
Mercury	2.000000	2.336739	17	1.852383	7	1.854372	7	0 - 20

03/09/2017 18:54

CCV-1 File: CCV 0.2x10ppb 03/09/2017 01:30:22 PM
CCV-2 File: CCV 0.2x10ppb 03/09/2017 01:57:27 PM
CCV-3 File: CCV 0.2x10ppb 03/09/2017 02:24:42 PM

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Calscience Environmental Laboratories, Inc.

EPA Method 7471A
Initial and Continuing Calibration Blanks

Work Order No.: 17-03-0445
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	RL (No PF)
Mercury	0.045710	0.010652	0.012963	0.008475	0.500000

03/09/2017 18:55

ICB-1 File: ICB 03/09/2017 11:38:42 AM
CCB-1 File: CCB 03/09/2017 01:32:36 PM
CCB-2 File: CCB 03/09/2017 01:59:43 PM
CCB-3 File: CCB 03/09/2017 02:26:57 PM
Note: Preparation factor (PF) = 167 L/kg

Return to Contents

7440 Lincoln Way, Garden Grove, CA 92841-1427 • TEL:(714) 895-5494 • FAX:(714) 894-7501

RAW DATA SHEET
FOR METHOD: EPA 7471A

WORK ORDER:	**17-03-0445**	ANALYZED BY:	868
INSTRUMENT:	Mercury 08	D/T ANALYZED:	2017-03-09 14:06
EXTRACTION :	EPA 7471A Total	REVIEWED BY:	309
D/T EXTRACTED:	2017-03-09 00:00	D/T REVIEWED:	2017-03-09 18:36

DATA FILE: W:\MERCURY_DATA\FINAL\170309H1\17-03-0445-3.icp

 # 3 **CLIENT SAMPLE NUMBER: B-DU3-S-SG-09-15S**

LCS/MB BATCH:	170309L01	SAMPLE VOLUME / WEIGHT:	DEFAULT: 0.60 g / ACTUAL: 0.62 g
MS/MSD BATCH:	170309S01	FINAL VOLUME / WEIGHT:	DEFAULT: 100.00 ml
UNITS:	mg/kg	ADJUSTMENT RATIO TO PF:	0.97

COMMENT:

COMPOUND	ON COL CONC	DF	CONC	RL	QUAL
Mercury	0.000247	1.00	ND	0.0806	

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RAW DATA SHEET
FOR METHOD: EPA 7471A

WORK ORDER:	**17-03-0445**	ANALYZED BY:	868
INSTRUMENT:	Mercury 08	D/T ANALYZED:	2017-03-09 14:08
EXTRACTION :	EPA 7471A Total	REVIEWED BY:	309
D/T EXTRACTED:	2017-03-09 00:00	D/T REVIEWED:	2017-03-09 18:36

DATA FILE: W:\MERCURY_DATA\FINAL\170309H1\17-03-0445-4.icp

 # 4 **CLIENT SAMPLE NUMBER: B-DU3-S-SG-09-25S**

LCS/MB BATCH:	170309L01	SAMPLE VOLUME / WEIGHT:	DEFAULT: 0.60 g / ACTUAL: 0.61 g
MS/MSD BATCH:	170309S01	FINAL VOLUME / WEIGHT:	DEFAULT: 100.00 ml
UNITS:	mg/kg	ADJUSTMENT RATIO TO PF:	0.98

COMMENT:

COMPOUND	ON COL CONC	DF	CONC	RL	QUAL
Mercury	0.000220	1.00	ND	0.0820	

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RAW DATA SHEET
FOR METHOD: EPA 7471A

WORK ORDER:	**17-03-0445**	ANALYZED BY:	868
INSTRUMENT:	Mercury 08	D/T ANALYZED:	2017-03-09 14:11
EXTRACTION :	EPA 7471A Total	REVIEWED BY:	309
D/T EXTRACTED:	2017-03-09 00:00	D/T REVIEWED:	2017-03-09 18:36

DATA FILE: W:\MERCURY_DATA\FINAL\170309H1\17-03-0445-7.icp

 # 7 **CLIENT SAMPLE NUMBER: B-DU3-S-SG-10-15S**

LCS/MB BATCH:	170309L01	SAMPLE VOLUME / WEIGHT:	DEFAULT: 0.60 g / ACTUAL: 0.62 g
MS/MSD BATCH:	170309S01	FINAL VOLUME / WEIGHT:	DEFAULT: 100.00 ml
UNITS:	mg/kg	ADJUSTMENT RATIO TO PF:	0.97

COMMENT:

COMPOUND	ON COL CONC	DF	CONC	RL	QUAL
Mercury	0.000234	1.00	ND	0.0806	

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RAW DATA SHEET
FOR METHOD: EPA 7471A

WORK ORDER:	**17-03-0445**	ANALYZED BY:	868
INSTRUMENT:	Mercury 08	D/T ANALYZED:	2017-03-09 14:13
EXTRACTION :	EPA 7471A Total	REVIEWED BY:	309
D/T EXTRACTED:	2017-03-09 00:00	D/T REVIEWED:	2017-03-09 18:36

DATA FILE: W:\MERCURY_DATA\FINAL\170309H1\17-03-0445-8.icp

 # 8 **CLIENT SAMPLE NUMBER: B-DU3-S-SG-10-25S**

LCS/MB BATCH:	170309L01	SAMPLE VOLUME / WEIGHT:	DEFAULT: 0.60 g / ACTUAL: 0.60 g
MS/MSD BATCH:	170309S01	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	0.000210	1.00	ND	0.0833	

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METHOD BLANK ASSOCIATION SUMMARY
FOR METHOD: EPA 7471A

MB SAMPLE ID:	**099-16-272-2865**	ANALYZED BY:	868
MB BATCH ID:	170309L01	D/T ANALYZED:	2017-03-09 13:39
INSTRUMENT:	Mercury 08	REVIEWED BY:	309
EXTRACTION:	EPA 7471A Total	D/T REVIEWED:	2017-03-09 17:34
D/T EXTRACTED:	2017-03-09 00:00	MATRIX:	Soil

DATA FILE: W:\MERCURY_DATA\FINAL\170309H1\170309-B-01.icp

CLIENT WORK ORDER: 17-03-0445

S#	RUN TYPE	CLIENT SAMPLE ID	D/T ANALYZED	DATA FILE
3		B-DU3-S-SG-09-15S	2017-03-09 14:06	W:\MERCURY_DATA\FINAL\170309H1\17-03-0445-3.icp
4		B-DU3-S-SG-09-25S	2017-03-09 14:08	W:\MERCURY_DATA\FINAL\170309H1\17-03-0445-4.icp
7		B-DU3-S-SG-10-15S	2017-03-09 14:11	W:\MERCURY_DATA\FINAL\170309H1\17-03-0445-7.icp
8		B-DU3-S-SG-10-25S	2017-03-09 14:13	W:\MERCURY_DATA\FINAL\170309H1\17-03-0445-8.icp

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RAW DATA SHEET
FOR METHOD: EPA 7471A

WORK ORDER:	**099-16-272**	ANALYZED BY:	868
INSTRUMENT:	Mercury 08	D/T ANALYZED:	2017-03-09 13:39
EXTRACTION :	EPA 7471A Total	REVIEWED BY:	309
D/T EXTRACTED:	2017-03-09 00:00	D/T REVIEWED:	2017-03-09 17:34

DATA FILE: W:\MERCURY_DATA\FINAL\170309H1\170309-B-01.icp

 # MB **CLIENT SAMPLE NUMBER: Method Blank**

LCS/MB BATCH:	170309L01	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	0.0000192	1.00	ND	0.0833	

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LCS QUALITY CONTROL SHEET
FOR METHOD: EPA 7471A

LCS SAMPLE ID:	**099-16-272- 2865**	EXTRACTION :	EPA 7471A Total	ANALYZED BY:	868
LCS/MB BATCH ID:	170309L01	D/T EXTRACTED:	2017-03-09 00:00	D/T ANALYZED:	2017-03-09 13:41
INSTRUMENT:	Mercury 08			REVIEWED BY:	309
				D/T REVIEWED:	2017-03-09 17:34

DATA FILE: W:\MERCURY_DATA\FINAL\170309H1\170309-L-01.icp

COMPOUND NAME	CONC ADDED	CONC REC	%RECOVERY	%REC CONTROL LIMIT	STATUS	QUALIFIERS
Mercury	0.8350	0.8195	98	85-121	PASS	

MATRIX SPIKE / MATRIX SPIKE DUPLICATE QUALITY CONTROL SHEET
FOR METHOD: EPA 7471A

SPIKED SAMPLE ID: **17-03-0444-3**
MS/MSD BATCH: 170309S01
INSTRUMENTS:
SAMPLE: Mercury 08
MS: Mercury 08
MSD: Mercury 08

EXTRACTION: EPA 7471A Total
D/T EXTRACTED:
SAMPLE: 2017-03-09 00:00
MS: 2017-03-09 00:00
MSD: 2017-03-09 00:00

ANALYZED BY: 868
D/T ANALYZED:
SAMPLE: 2017-03-09 13:43
MS: 2017-03-09 13:46
MSD: 2017-03-09 13:48
REVIEWED BY: 309
D/T REVIEWED: 2017-03-09 17:36

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	0.7803	93	0.7523	90	71-137	4	0-14	PASS	

Data Files:

TYPE	DATA FILE	DATA FILE PATH
MS	17-03-0444-3 MS.icp	W:\MERCURY_DATA\FINAL\170309H1\
MSD	17-03-0444-3 MSD.icp	W:\MERCURY_DATA\FINAL\170309H1\

Analysis Begun

Logged In Analyst: US26_SVC_INSTRUMENT Technique: AA FIMS-MHS
Spectrometer: FIMS-400, S/N B050-9560 Autosampler: S10

Sample Information File: C:\Users\Public\PerkinElmer Syngistix\AA\Data\Sample Information\
170309H1.sifx
Batch ID:
Results Data Set: 170309H1
Results Library: U:\MERCURY_8\Data\Results\results.mdb

Sequence No.: 1 Autosampler Location: 1
Sample ID: Calib blank_868 Date Collected: 3/9/2017 11:09:49 AM
Analyst: 868 Data Type: Original
Initial Sample Wt: Initial Sample Vol:
Dilution: Sample Prep Vol:
Wash Time (before sample): 0 Auto Dilution Factor: 1

Replicate Data: Calib blank_868 Analyte: Hg 253.7

Repl #	SampleConc mg/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1		[0.00]	0.0000	-0.0022	0.0000	11:10:53 AM	Yes
2		[0.00]	0.0002	0.0014	0.0002	11:11:38 AM	Yes
Mean:		[0.00]	0.0001				
SD:		0.0000	0.0001				
%RSD:		0.00%	120.74				

Auto-zero performed.

Sequence No.: 2 Autosampler Location: 2
Sample ID: 0.025ppb 0.005x5ppb Date Collected: 3/9/2017 11:12:04 AM
Analyst: 868 Data Type: Original
Initial Sample Wt: Initial Sample Vol:
Dilution: Sample Prep Vol:
Wash Time (before sample): 0 Auto Dilution Factor: 1

Replicate Data: 0.025ppb 0.005x5ppb Analyte: Hg 253.7

Repl #	SampleConc mg/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1		[0.025]	0.0003	0.0038	0.0004	11:13:08 AM	Yes
2		[0.025]	0.0002	0.0029	0.0003	11:13:54 AM	Yes
Mean:		[0.025]	0.0003				
SD:		0.00000	0.0001				
%RSD:		0.00%	18.72				

Standard number 1 applied. [0.025]
Correlation Coef.: 1.000000 Slope: 0.01087 Intercept: 0.00000

Sequence No.: 3 Autosampler Location: 3
Sample ID: 0.10ppb M030617AX0.0001 Date Collected: 3/9/2017 11:14:19 AM
Analyst: 868 Data Type: Original
Initial Sample Wt: Initial Sample Vol:
Dilution: Sample Prep Vol:
Wash Time (before sample): 0 Auto Dilution Factor: 1

Replicate Data: 0.10ppb M030617AX0.0001 Analyte: Hg 253.7

Repl #	SampleConc mg/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1		[0.100]	0.0011	0.0065	0.0012	11:15:23 AM	Yes
2		[0.100]	0.0004	0.0030	0.0005	11:16:08 AM	Yes
Mean:		[0.100]	0.0008				
SD:		0.00000	0.0005				
%RSD:		0.00%	63.25				

Standard number 2 applied. [0.100]
Correlation Coef.: 0.992648 Slope: 0.00728 Intercept: 0.00004
User canceled analysis.

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Analysis Begun

Logged In Analyst: US26_SVC_INSTRUMENT Technique: AA FIMS-MHS
Spectrometer: FIMS-400, S/N B050-9560 Autosampler: S10

Sample Information File: C:\Users\Public\PerkinElmer Syngistix\AA\Data\Sample Information\
170309H1.sifx
Batch ID:
Results Data Set: 170309H1
Results Library: U:\MERCURY_8\Data\Results\results.mdb

Sequence No.: 3 Autosampler Location: 3
Sample ID: 0.10ppb M030617AX0.0001 Date Collected: 3/9/2017 11:17:04 AM
Analyst: 368 Data Type: Original
Initial Sample Wt: Initial Sample Vol:
Dilution: Sample Prep Vol:
Wash Time (before sample): 0 Auto Dilution Factor: 1

Replicate Data: 0.10ppb M030617AX0.0001 Analyte: Hg 253.7

Repl #	SampleConc mg/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1		[0.100]	0.0012	0.0065	0.0013	11:18:09 AM	Yes
2		[0.100]	0.0011	0.0056	0.0012	11:18:54 AM	Yes
Mean:		[0.100]	0.0011				
SD:		0.00000	0.0001				
%RSD:		0.00%	6.63				

Standard number 2 applied. [0.100]
Correlation Coef.: 0.999960 Slope: 0.01127 Intercept: -0.00000

Sequence No.: 4 Autosampler Location: 4
Sample ID: 1.00ppb M030617AX0.001 Date Collected: 3/9/2017 11:19:20 AM
Analyst: 368 Data Type: Original
Initial Sample Wt: Initial Sample Vol:
Dilution: Sample Prep Vol:
Wash Time (before sample): 0 Auto Dilution Factor: 1

Replicate Data: 1.00ppb M030617AX0.001 Analyte: Hg 253.7

Repl #	SampleConc mg/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1		[1.000]	0.0117	0.0560	0.0118	11:20:25 AM	Yes
2		[1.000]	0.0119	0.0612	0.0120	11:21:09 AM	Yes
Mean:		[1.000]	0.0118				
SD:		0.00000	0.0001				
%RSD:		0.00%	0.99				

Standard number 3 applied. [1.000]
Correlation Coef.: 0.999992 Slope: 0.01181 Intercept: -0.00003

Sequence No.: 5 Autosampler Location: 5
Sample ID: 2.00ppb M030617AX0.002 Date Collected: 3/9/2017 11:21:35 AM
Analyst: 368 Data Type: Original
Initial Sample Wt: Initial Sample Vol:
Dilution: Sample Prep Vol:
Wash Time (before sample): 0 Auto Dilution Factor: 1

Replicate Data: 2.00ppb M030617AX0.002 Analyte: Hg 253.7

Repl #	SampleConc mg/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1		[2.000]	0.0232	0.1092	0.0233	11:22:40 AM	Yes
2		[2.000]	0.0236	0.1166	0.0237	11:23:26 AM	Yes
Mean:		[2.000]	0.0234				
SD:		0.00000	0.0003				
%RSD:		0.00%	1.29				

Standard number 4 applied. [2.000]
Correlation Coef.: 0.999990 Slope: 0.01172 Intercept: -0.00001

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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: 3/9/2017 11:23:53 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 mg/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1		[5.000]	0.0614	0.2816	0.0615	11:24:56 AM	Yes
2		[5.000]	0.0618	0.2934	0.0619	11:25:40 AM	Yes
Mean:		[5.000]	0.0616				
SD:		0.00000	0.0003				
%RSD:		0.00%	0.46				

Standard number 5 applied. [5.000]
Correlation Coef.: 0.999786 Slope: 0.01230 Intercept: -0.00029

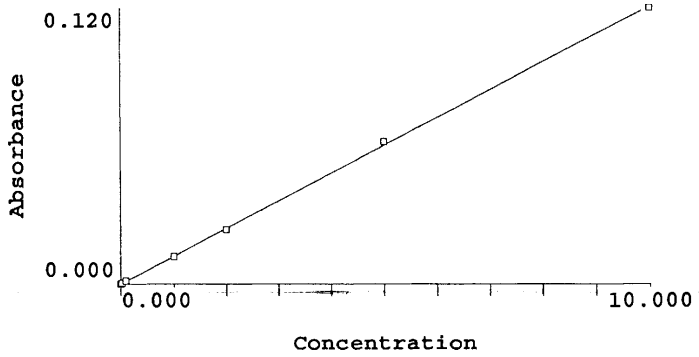
Sequence No.: 7
Sample ID: 10.0ppb M030617AX0.01
Analyst: 868
Initial Sample Wt:
Dilution:
Wash Time (before sample): 0

Autosampler Location: 7
Date Collected: 3/9/2017 11:26:06 AM
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 mg/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1		[10.00]	0.1200	0.5459	0.1201	11:27:10 AM	Yes
2		[10.00]	0.1197	0.5554	0.1198	11:27:55 AM	Yes
Mean:		[10.00]	0.1198				
SD:		0.0000	0.0002				
%RSD:		0.00%	0.19				

Standard number 6 applied. [10.00]
Correlation Coef.: 0.999883 Slope: 0.01204 Intercept: -0.00004



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	0.003274	0.00	120.74
0.025ppb 0.005x5ppb	0.0003	0.025	0.025830	0.00	18.72
0.10ppb M030617AX0.0001	0.0011	0.100	0.096653	0.00	6.63
1.00ppb M030617AX0.001	0.0118	1.000	0.981757	0.00	0.99
2.00ppb M030617AX0.002	0.0234	2.000	1.945612	0.00	1.29
5.00ppb M030617AX0.005	0.0616	5.000	5.118281	0.00	0.46
10.0ppb M030617AX0.01	0.1198	10.00	9.953593	0.00	0.19

Correlation Coef.: 0.999883 Slope: 0.01204 Intercept: -0.00004

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Analysis Begun

Logged In Analyst: US26_SVC_INSTRUMENT Technique: AA FIMS-MHS
Spectrometer: FIMS-400, S/N B050-9560 Autosampler: S10

Sample Information File: C:\Users\Public\PerkinElmer Syngistix\AA\Data\Sample Information\
170309H1.sifx
Batch ID:
Results Data Set: 170309H1
Results Library: U:\MERCURY_8\Data\Results\results.mdb

Sequence No.: 1 Autosampler Location: 8
Sample ID: ICV M030617B Date Collected: 3/9/2017 11:34:38 AM
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: ICV M030617B Analyte: Hg 253.7

Repl #	SampleConc mg/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.00456	4.56	0.0549	0.2473	0.0550	11:35:42 AM	Yes
2	0.00452	4.52	0.0544	0.2507	0.0545	11:36:27 AM	Yes
Mean:	0.00454	4.54	0.0546				
SD:	0.000031	0.031	0.0004				
%RSD:	0.68%	0.68%	0.68				

QC value within limits for Hg 253.7 Recovery = 90.78%
All analyte(s) passed QC.

Sequence No.: 2 Autosampler Location: 1
Sample ID: ICB Date Collected: 3/9/2017 11:36:53 AM
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: ICB Analyte: Hg 253.7

Repl #	SampleConc mg/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.000069	0.0691	0.0008	0.0082	0.0009	11:37:57 AM	Yes
2	0.000022	0.0223	0.0002	0.0034	0.0003	11:38:42 AM	Yes
Mean:	0.000046	0.0457	0.0005				
SD:	0.0000331	0.03310	0.0004				
%RSD:	72.41%	72.41%	78.00				

QC value within limits for Hg 253.7 Recovery = Not calculated
All analyte(s) passed QC.

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Analysis Begun

Logged In Analyst: US26_SVC_INSTRUMENT Technique: AA FIMS-MHS
Spectrometer: FIMS-400, S/N B050-9560 Autosampler: S10

Sample Information File: C:\Users\Public\PerkinElmer Syngistix\AA\Data\Sample Information\
170309H1.sifx
Batch ID:
Results Data Set: 170309H1
Results Library: U:\MERCURY_8\Data\Results\results.mdb

Sequence No.: 1 Autosampler Location: 5
Sample ID: CCV 0.2x10ppb Date Collected: 3/9/2017 1:28:32 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 mg/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.00295	2.95	0.0355	0.0972	0.0356	1:29:37 PM	Yes
2	0.00173	1.73	0.0207	0.0770	0.0208	1:30:22 PM	Yes
Mean:	0.00234	2.34	0.0281				
SD:	0.000864	0.864	0.0104				
%RSD:	36.99%	36.99%	37.05				

QC value within limits for Hg 253.7 Recovery = 116.84%
All analyte(s) passed QC.

Sequence No.: 2 Autosampler Location: 1
Sample ID: CCB Date Collected: 3/9/2017 1:30:48 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	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.000023	0.0227	0.0002	0.0009	0.0003	1:31:52 PM	Yes
2	-0.000001	-0.00142	-0.0001	-0.0004	0.0000	1:32:36 PM	Yes
Mean:	0.000011	0.0107	0.0001				
SD:	0.0000171	0.01708	0.0002				
%RSD:	160.33%	160.33%	231.48				

QC value within limits for Hg 253.7 Recovery = Not calculated
All analyte(s) passed QC.

Sequence No.: 3 Autosampler Location: 65
Sample ID: 17-02-2225-2 Date Collected: 3/9/2017 1:33:01 PM
Analyst: 868 HG-8 Data Type: Original
Initial Sample Wt: 1 g Initial Sample Vol:
Dilution: Sample Prep Vol: 100 mL
Wash Time (before sample): 0 Auto Dilution Factor: 1

Replicate Data: 17-02-2225-2 Analyte: Hg 253.7

Repl #	SampleConc mg/kg	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.0129	0.129	0.0015	0.0050	0.0016	1:34:05 PM	Yes
2	0.0118	0.118	0.0014	0.0053	0.0015	1:34:50 PM	Yes
Mean:	0.0124	0.124	0.0014				
SD:	0.00075	0.0075	0.0001				
%RSD:	6.05%	6.05%	6.21				

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Sequence No.: 4
Sample ID: 170307-L-01D
Analyst: 868 HG-8
Initial Sample Wt: 0.6 g
Dilution:
Wash Time (before sample): 0

Autosampler Location: 66
Date Collected: 3/9/2017 1:35:17 PM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol: 100 mL
Auto Dilution Factor: 1

Replicate Data: 170307-L-01D — Analyte: Hg 253.7

Repl #	SampleConc mg/kg	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.818	4.91	0.0591	0.2062	0.0592	1:36:21 PM	Yes
2	0.777	4.66	0.0561	0.1939	0.0562	1:37:06 PM	Yes
Mean:	0.798	4.79	0.0576				
SD:	0.0295	0.177	0.0021				
%RSD:	3.70%	3.70%	3.70				

Sequence No.: 5
Sample ID: 170309-B-02 1
Analyst: 868 HG-8
Initial Sample Wt: 0.6 g
Dilution:
Wash Time (before sample): 0

309
03/09/17

Autosampler Location: 43
Date Collected: 3/9/2017 1:37:32 PM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol: 100 mL
Auto Dilution Factor: 1

Replicate Data: 170309-B-02 1 — Analyte: Hg 253.7

Repl #	SampleConc mg/kg	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.00550	0.0330	0.0004	0.0035	0.0005	1:38:36 PM	Yes
2	0.000905	0.00543	0.0000	0.0014	0.0001	1:39:20 PM	Yes
Mean:	0.00320	0.0192	0.0002				
SD:	0.003249	0.01950	0.0002				
%RSD:	101.47%	101.47%	122.31				

Sequence No.: 6
Sample ID: 170309-L-02 1
Analyst: 868 HG-8
Initial Sample Wt: 0.6 g
Dilution:
Wash Time (before sample): 0

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Autosampler Location: 44
Date Collected: 3/9/2017 1:39:46 PM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol: 100 mL
Auto Dilution Factor: 1

Replicate Data: 170309-L-02 1 — Analyte: Hg 253.7

Repl #	SampleConc mg/kg	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.845	5.07	0.0610	0.2138	0.0611	1:40:50 PM	Yes
2	0.794	4.76	0.0573	0.1977	0.0574	1:41:35 PM	Yes
Mean:	0.820	4.92	0.0592				
SD:	0.0359	0.215	0.0026				
%RSD:	4.38%	4.38%	4.38				

Sequence No.: 7
Sample ID: 17-03-0444-3
Analyst: 868 HG-8
Initial Sample Wt: 0.62 g
Dilution:
Wash Time (before sample): 0

Autosampler Location: 45
Date Collected: 3/9/2017 1:42:01 PM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol: 100 mL
Auto Dilution Factor: 1

Replicate Data: 17-03-0444-3 — Analyte: Hg 253.7

Repl #	SampleConc mg/kg	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.0262	0.163	0.0019	0.0090	0.0020	1:43:05 PM	Yes
2	0.0233	0.145	0.0017	0.0075	0.0018	1:43:49 PM	Yes
Mean:	0.0248	0.154	0.0018				
SD:	0.00206	0.0128	0.0002				
%RSD:	8.31%	8.31%	8.49				

Return to Contents

Sequence No.: 8
Sample ID: 17-03-0444-3 MS
Analyst: 868 HG-8
Initial Sample Wt: 0.6 g
Dilution:
Wash Time (before sample): 0

Autosampler Location: 46
Date Collected: 3/9/2017 1:44:15 PM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol: 100 mL
Auto Dilution Factor: 1

Replicate Data: 17-03-0444-3 MS Analyte: Hg 253.7

Repl #	SampleConc mg/kg	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.796	4.78	0.0575	0.2036	0.0576	1:45:20 PM	Yes
2	0.764	4.59	0.0552	0.1912	0.0553	1:46:04 PM	Yes
Mean:	0.780	4.68	0.0563				
SD:	0.0224	0.134	0.0016				
%RSD:	2.87%	2.87%	2.87				

Sequence No.: 9
Sample ID: 17-03-0444-3 MSD
Analyst: 868 HG-8
Initial Sample Wt: 0.62 g
Dilution:
Wash Time (before sample): 0

Autosampler Location: 47
Date Collected: 3/9/2017 1:46:30 PM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol: 100 mL
Auto Dilution Factor: 1

Replicate Data: 17-03-0444-3 MSD Analyte: Hg 253.7

Repl #	SampleConc mg/kg	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.774	4.80	0.0577	0.2064	0.0578	1:47:34 PM	Yes
2	0.731	4.53	0.0545	0.1883	0.0546	1:48:19 PM	Yes
Mean:	0.752	4.66	0.0561				
SD:	0.0302	0.187	0.0023				
%RSD:	4.02%	4.02%	4.02				

Sequence No.: 10
Sample ID: 17-03-0444-4
Analyst: 868 HG-8
Initial Sample Wt: 0.6 g
Dilution:
Wash Time (before sample): 0

Autosampler Location: 48
Date Collected: 3/9/2017 1:48:46 PM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol: 100 mL
Auto Dilution Factor: 1

Replicate Data: 17-03-0444-4 Analyte: Hg 253.7

Repl #	SampleConc mg/kg	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.0297	0.178	0.0021	0.0090	0.0022	1:49:51 PM	Yes
2	0.0275	0.165	0.0019	0.0080	0.0020	1:50:36 PM	Yes
Mean:	0.0286	0.171	0.0020				
SD:	0.00152	0.0091	0.0001				
%RSD:	5.32%	5.32%	5.43				

Sequence No.: 11
Sample ID: 17-03-0444-7
Analyst: 868 HG-8
Initial Sample Wt: 0.62 g
Dilution:
Wash Time (before sample): 0

Autosampler Location: 49
Date Collected: 3/9/2017 1:51:02 PM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol: 100 mL
Auto Dilution Factor: 1

Replicate Data: 17-03-0444-7 Analyte: Hg 253.7

Repl #	SampleConc mg/kg	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.0314	0.195	0.0023	0.0085	0.0024	1:52:08 PM	Yes
2	0.0300	0.186	0.0022	0.0091	0.0023	1:52:52 PM	Yes
Mean:	0.0307	0.190	0.0023				
SD:	0.00096	0.0059	0.0001				
%RSD:	3.12%	3.12%	3.18				

Return to Contents

Sequence No.: 12
Sample ID: 17-03-0444-8
Analyst: 868 HG-8
Initial Sample Wt: 0.62 g
Dilution:
Wash Time (before sample): 0

Autosampler Location: 50
Date Collected: 3/9/2017 1:53:19 PM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol: 100 mL
Auto Dilution Factor: 1

Replicate Data: 17-03-0444-8 Analyte: Hg 253.7

Repl #	SampleConc mg/kg	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.0268	0.166	0.0020	0.0077	0.0021	1:54:25 PM	Yes
2	0.0265	0.164	0.0019	0.0079	0.0020	1:55:10 PM	Yes
Mean:	0.0266	0.165	0.0019				
SD:	0.00020	0.0012	0.0000				
%RSD:	0.75%	0.75%	0.76				

==========

Sequence No.: 13
Sample ID: CCV 0.2x10ppb
Analyst: 868 HG-8
Initial Sample Wt:
Dilution:
Wash Time (before sample): 0

Autosampler Location: 5
Date Collected: 3/9/2017 1:55:37 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 mg/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.00189	1.89	0.0227	0.0819	0.0228	1:56:42 PM	Yes
2	0.00181	1.81	0.0218	0.0780	0.0219	1:57:27 PM	Yes
Mean:	0.00185	1.85	0.0223				
SD:	0.000055	0.055	0.0007				
%RSD:	2.98%	2.98%	2.98				

QC value within limits for Hg 253.7 Recovery = 92.62%
All analyte(s) passed QC.

==========

Sequence No.: 14
Sample ID: CCB
Analyst: 868 HG-8
Initial Sample Wt:
Dilution:
Wash Time (before sample): 0

Autosampler Location: 1
Date Collected: 3/9/2017 1:57:55 PM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:
Auto Dilution Factor: 1.0000

Replicate Data: CCB Analyte: Hg 253.7

Repl #	SampleConc mg/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.000022	0.0220	0.0002	0.0020	0.0003	1:58:58 PM	Yes
2	0.000004	0.00393	0.0000	0.0008	0.0001	1:59:43 PM	Yes
Mean:	0.000013	0.0130	0.0001				
SD:	0.0000128	0.01278	0.0002				
%RSD:	98.60%	98.60%	131.92				

QC value within limits for Hg 253.7 Recovery = Not calculated
All analyte(s) passed QC.

==========

Sequence No.: 15
Sample ID: 17-03-0281-1
Analyst: 868 HG-8
Initial Sample Wt: 0.6 g
Dilution:
Wash Time (before sample): 0

Autosampler Location: 51
Date Collected: 3/9/2017 2:00:09 PM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol: 100 mL
Auto Dilution Factor: 1

Replicate Data: 17-03-0281-1 Analyte: Hg 253.7

Repl #	SampleConc mg/kg	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.0651	0.390	0.0047	0.0165	0.0048	2:01:13 PM	Yes
2	0.0626	0.376	0.0045	0.0161	0.0046	2:01:58 PM	Yes
Mean:	0.0638	0.383	0.0046				

Return to Contents

SD:	0.00174	0.0105	0.0001
%RSD:	2.73%	2.73%	2.75

Sequence No.: 16 **Autosampler Location: 52**
Sample ID: 17-03-0281-2 **Date Collected: 3/9/2017 2:02:25 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: 17-03-0281-2 **Analyte: Hg 253.7**

Repl #	SampleConc mg/kg	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.0631	0.385	0.0046	0.0169	0.0047	2:03:29 PM	Yes
2	0.0590	0.360	0.0043	0.0152	0.0044	2:04:14 PM	Yes
Mean:	0.0611	0.373	0.0044				
SD:	0.00289	0.0176	0.0002				
%RSD:	4.73%	4.73%	4.77				

Sequence No.: 17 **Autosampler Location: 53**
Sample ID: 17-03-0445-3 **Date Collected: 3/9/2017 2:04:41 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: 17-03-0445-3 **Analyte: Hg 253.7**

Repl #	SampleConc mg/kg	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.0411	0.255	0.0030	0.0102	0.0031	2:05:45 PM	Yes
2	0.0385	0.239	0.0028	0.0102	0.0029	2:06:30 PM	Yes
Mean:	0.0398	0.247	0.0029				
SD:	0.00178	0.0111	0.0001				
%RSD:	4.48%	4.48%	4.54				

Sequence No.: 18 **Autosampler Location: 54**
Sample ID: 17-03-0445-4 **Date Collected: 3/9/2017 2:06:56 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: 17-03-0445-4 **Analyte: Hg 253.7**

Repl #	SampleConc mg/kg	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.0371	0.226	0.0027	0.0094	0.0028	2:08:01 PM	Yes
2	0.0351	0.214	0.0025	0.0093	0.0026	2:08:46 PM	Yes
Mean:	0.0361	0.220	0.0026				
SD:	0.00141	0.0086	0.0001				
%RSD:	3.92%	3.92%	3.98				

Sequence No.: 19 **Autosampler Location: 55**
Sample ID: 17-03-0445-7 **Date Collected: 3/9/2017 2:09:12 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: 17-03-0445-7 **Analyte: Hg 253.7**

Repl #	SampleConc mg/kg	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.0386	0.239	0.0028	0.0096	0.0029	2:10:17 PM	Yes
2	0.0368	0.228	0.0027	0.0104	0.0028	2:11:02 PM	Yes
Mean:	0.0377	0.234	0.0028				

Return to Contents

SD:	0.00129	0.0080	0.0001
%RSD:	3.42%	3.42%	3.46

==========

Sequence No.: 20 Autosampler Location: 56
Sample ID: 17-03-0445-8 Date Collected: 3/9/2017 2:11:29 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: 17-03-0445-8 Analyte: Hg 253.7

Repl #	SampleConc mg/kg	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.0401	0.240	0.0029	0.0179	0.0030	2:12:33 PM	Yes
2	0.0301	0.180	0.0021	0.0078	0.0022	2:13:18 PM	Yes
Mean:	0.0351	0.210	0.0025				
SD:	0.00707	0.0424	0.0005				
%RSD:	20.17%	20.17%	20.49				

==========

Sequence No.: 21 Autosampler Location: 57
Sample ID: 17-03-0433-1 Date Collected: 3/9/2017 2:13:45 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: 17-03-0433-1 Analyte: Hg 253.7

Repl #	SampleConc mg/kg	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.0129	0.0798	0.0009	0.0028	0.0010	2:14:50 PM	Yes
2	0.0124	0.0769	0.0009	0.0032	0.0010	2:15:35 PM	Yes
Mean:	0.0126	0.0784	0.0009				
SD:	0.00033	0.00203	0.0000				
%RSD:	2.60%	2.60%	2.71				

==========

Sequence No.: 22 Autosampler Location: 58
Sample ID: 17-03-0433-2 Date Collected: 3/9/2017 2:16:02 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: 17-03-0433-2 Analyte: Hg 253.7

Repl #	SampleConc mg/kg	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.00873	0.0532	0.0006	0.0017	0.0007	2:17:07 PM	Yes
2	0.00805	0.0491	0.0006	0.0017	0.0006	2:17:52 PM	Yes
Mean:	0.00839	0.0512	0.0006				
SD:	0.000476	0.00291	0.0000				
%RSD:	5.68%	5.68%	6.07				

==========

Sequence No.: 23 Autosampler Location: 59
Sample ID: 17-03-0517-1 Date Collected: 3/9/2017 2:18:19 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: 17-03-0517-1 Analyte: Hg 253.7

Repl #	SampleConc mg/kg	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.0503	0.307	0.0037	0.0133	0.0038	2:19:24 PM	Yes
2	0.0496	0.303	0.0036	0.0024	0.0037	2:20:09 PM	Yes
Mean:	0.0500	0.305	0.0036				

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SD:	0.00048	0.0029	0.0000
%RSD:	0.96%	0.96%	0.97

==========

Sequence No.: 24 **Autosampler Location: 60**
Sample ID: 17-03-0346-1 **Date Collected: 3/9/2017 2:20:36 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: 17-03-0346-1 **Analyte: Hg 253.7**

Repl #	SampleConc mg/kg	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.0379	0.239	0.0028	0.0101	0.0029	2:21:41 PM	Yes
2	0.0358	0.225	0.0027	0.0097	0.0028	2:22:26 PM	Yes
Mean:	0.0368	0.232	0.0028				
SD:	0.00149	0.0094	0.0001				
%RSD:	4.04%	4.04%	4.10				

==========

Sequence No.: 25 **Autosampler Location: 5**
Sample ID: CCV 0.2x10ppb **Date Collected: 3/9/2017 2:22:53 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 mg/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.00191	1.91	0.0230	0.0810	0.0231	2:23:58 PM	Yes
2	0.00180	1.80	0.0216	0.0758	0.0217	2:24:42 PM	Yes
Mean:	0.00185	1.85	0.0223				
SD:	0.000082	0.082	0.0010				
%RSD:	4.40%	4.40%	4.41				

QC value within limits for Hg 253.7 Recovery = 92.72%
All analyte(s) passed QC.

==========

Sequence No.: 26 **Autosampler Location: 1**
Sample ID: CCB **Date Collected: 3/9/2017 2:25:09 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	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.000017	0.0174	0.0002	0.0020	0.0003	2:26:12 PM	Yes
2	-0.000000	-0.000420	-0.0000	-0.0000	0.0001	2:26:57 PM	Yes
Mean:	0.000008	0.00847	0.0001				
SD:	0.0000126	0.012578	0.0002				
%RSD:	148.43%	148.43%	241.87				

QC value within limits for Hg 253.7 Recovery = Not calculated
All analyte(s) passed QC.

==========

Sequence No.: 27 **Autosampler Location: 61**
Sample ID: 17-03-0347-1 **Date Collected: 3/9/2017 2:27:22 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: 17-03-0347-1 **Analyte: Hg 253.7**

Repl	SampleConc	StndConc	BlnkCorr	Peak	Peak	Time	Peak

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EPA 7471A Mercury (Solid)

Run Logs

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Sample ID	Analyst Name	Initial Sample Wt	Analyte Name	Date	Time	Conc (Calib)	Units (Calib)	Conc (Samp)	Units (Samp)	Corr Coef
Calib blank_868	868 HG-8		Hg 253.7	3/9/2017	11:11:38 AM		ug/L		mg/L	
0.025ppb 0.005x5ppb	868 HG-8		Hg 253.7	3/9/2017	11:13:54 AM		ug/L		mg/L	
0.10ppb M030617AX0.0001	868 HG-8		Hg 253.7	3/9/2017	11:16:08 AM		ug/L		mg/L	
0.10ppb M030617AX0.0001	868 HG-8		Hg 253.7	3/9/2017	11:18:54 AM		ug/L		mg/L	
1.00ppb M030617AX0.001	868 HG-8		Hg 253.7	3/9/2017	11:21:09 AM		ug/L		mg/L	
2.00ppb M030617AX0.002	868 HG-8		Hg 253.7	3/9/2017	11:23:26 AM		ug/L		mg/L	
5.00ppb M030617AX0.005	868 HG-8		Hg 253.7	3/9/2017	11:25:40 AM		ug/L		mg/L	
10.0ppb M030617AX0.01	868 HG-8		Hg 253.7	3/9/2017	11:27:55 AM		ug/L		mg/L	
ICV M030617B	868 HG-8		Hg 253.7	3/9/2017	11:36:27 AM	4.538994	ug/L	0.004539	mg/L	0.999883
ICB	868 HG-8		Hg 253.7	3/9/2017	11:38:42 AM	0.04571	ug/L	4.57E-05	mg/L	0.999883
CRQL 0.25	868 HG-8	0.6	Hg 253.7	3/9/2017	11:43:13 AM	0.271364	ug/L	0.045227	mg/kg	0.999883
CCV 0.2x10ppb	868 HG-8		Hg 253.7	3/9/2017	11:45:29 AM	1.885582	ug/L	0.001886	mg/L	0.999883
CCB	868 HG-8		Hg 253.7	3/9/2017	11:47:44 AM	0.028722	ug/L	2.87E-05	mg/L	0.999883
CCV 0.2x10ppb ✓	868 HG-8		Hg 253.7	3/9/2017	1:30:22 PM	2.336739	ug/L	0.002337	mg/L	0.999883
CCB	868 HG-8		Hg 253.7	3/9/2017	1:32:36 PM	0.010652	ug/L	1.07E-05	mg/L	0.999883
17-02-2225-2	868 HG-8	1	Hg 253.7	3/9/2017	1:34:50 PM	0.123658	ug/L	0.012366	mg/kg	0.999883
170307-L-01D	868 HG-8	0.6	Hg 253.7	3/9/2017	1:37:06 PM	4.785542	ug/L	0.79759	mg/kg	0.999883
170309-B-01 / 3/13/17	868 HG-8	0.6	Hg 253.7	3/9/2017	1:39:20 PM	0.019215	ug/L	0.003202	mg/kg	0.999883
170309-L-01 /	868 HG-8	0.6	Hg 253.7	3/9/2017	1:41:35 PM	4.91721	ug/L	0.819535	mg/kg	0.999883
17-03-0444-3	868 HG-8	0.62	Hg 253.7	3/9/2017	1:43:49 PM	0.153643	ug/L	0.024781	mg/kg	0.999883
17-03-0444-3 MS	868 HG-8	0.6	Hg 253.7	3/9/2017	1:46:04 PM	4.682006	ug/L	0.780334	mg/kg	0.999883
17-03-0444-3 MSD	868 HG-8	0.62	Hg 253.7	3/9/2017	1:48:19 PM	4.663979	ug/L	0.752255	mg/kg	0.999883
17-03-0444-4	868 HG-8	0.6	Hg 253.7	3/9/2017	1:50:36 PM	0.171498	ug/L	0.028583	mg/kg	0.999883
17-03-0444-7	868 HG-8	0.62	Hg 253.7	3/9/2017	1:52:52 PM	0.190474	ug/L	0.030722	mg/kg	0.999883
17-03-0444-8	868 HG-8	0.62	Hg 253.7	3/9/2017	1:55:10 PM	0.165133	ug/L	0.026634	mg/kg	0.999883

* time gap

Reviewed/Assign to Logbook Date: 03-09-17
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Sample ID	Analyst Name	Initial Sample Wt	Analyte Name	Date	Time	Conc (Calib)	Units (Calib)	Conc (Samp)	Units (Samp)	Corr Coef
CCV 0.2x10ppb	868 HG-8		Hg 253.7	3/9/2017	1:57:27 PM	1.852383	ug/L	0.001852	mg/L	0.999883
CCB	868 HG-8		Hg 253.7	3/9/2017	1:59:43 PM	0.012963	ug/L	1.30E-05	mg/L	0.999883
17-03-0281-1	868 HG-8	0.6	Hg 253.7	3/9/2017	2:01:58 PM	0.382963	ug/L	0.063827	mg/kg	0.999883
17-03-0281-2	868 HG-8	0.61	Hg 253.7	3/9/2017	2:04:14 PM	0.372593	ug/L	0.061081	mg/kg	0.999883
17-03-0445-3	868 HG-8	0.62	Hg 253.7	3/9/2017	2:06:30 PM	0.246707	ug/L	0.039791	mg/kg	0.999883
17-03-0445-4	868 HG-8	0.61	Hg 253.7	3/9/2017	2:08:46 PM	0.219924	ug/L	0.036053	mg/kg	0.999883
17-03-0445-7	868 HG-8	0.62	Hg 253.7	3/9/2017	2:11:02 PM	0.233628	ug/L	0.037682	mg/kg	0.999883
17-03-0445-8	868 HG-8	0.6	Hg 253.7	3/9/2017	2:13:18 PM	0.21036	ug/L	0.03506	mg/kg	0.999883
17-03-0433-1	868 HG-8	0.62	Hg 253.7	3/9/2017	2:15:35 PM	0.078357	ug/L	0.012638	mg/kg	0.999883
17-03-0433-2	868 HG-8	0.61	Hg 253.7	3/9/2017	2:17:52 PM	0.051169	ug/L	0.008388	mg/kg	0.999883
17-03-0517-1	868 HG-8	0.61	Hg 253.7	3/9/2017	2:20:09 PM	0.304925	ug/L	0.049988	mg/kg	0.999883
17-03-0346-1	868 HG-8	0.63	Hg 253.7	3/9/2017	2:22:26 PM	0.232123	ug/L	0.036845	mg/kg	0.999883
CCV 0.2x10ppb	868 HG-8		Hg 253.7	3/9/2017	2:24:42 PM	1.854372	ug/L	0.001854	mg/L	0.999883
CCB	868 HG-8		Hg 253.7	3/9/2017	2:26:57 PM	0.008475	ug/L	8.47E-06	mg/L	0.999883
17-03-0347-1	868 HG-8	0.61	Hg 253.7	3/9/2017	2:29:12 PM	0.219037	ug/L	0.035908	mg/kg	0.999883
17-03-0420-1	868 HG-8	0.61	Hg 253.7	3/9/2017	2:31:30 PM	0.281999	ug/L	0.046229	mg/kg	0.999883
17-03-0420-2	868 HG-8	0.57	Hg 253.7	3/9/2017	2:33:47 PM	0.409531	ug/L	0.071848	mg/kg	0.999883
17-03-0420-3	868 HG-8	0.6	Hg 253.7	3/9/2017	2:36:04 PM	0.358021	ug/L	0.05967	mg/kg	0.999883
CCV 0.2x10ppb	868 HG-8		Hg 253.7	3/9/2017	2:38:21 PM	1.865621	ug/L	0.001866	mg/L	0.999883
CCB	868 HG-8		Hg 253.7	3/9/2017	2:40:37 PM	0.010548	ug/L	1.05E-05	mg/L	0.999883
170309-B-02	868 HG-8	0.6	Hg 253.7	3/9/2017	3:44:08 PM	-0.00116	ug/L	-0.00019	mg/kg	0.999883
170309-L-02	868 HG-8	0.6	Hg 253.7	3/9/2017	3:46:25 PM	4.539875	ug/L	0.756646	mg/kg	0.999883
17-03-0627-1	868 HG-8	0.61	Hg 253.7	3/9/2017	3:48:41 PM	0.182362	ug/L	0.029895	mg/kg	0.999883
17-03-0627-1 MS	868 HG-8	0.62	Hg 253.7	3/9/2017	3:50:57 PM	4.316188	ug/L	0.696159	mg/kg	0.999883
17-03-0627-1 MSD	868 HG-8	0.59	Hg 253.7	3/9/2017	3:53:13 PM	5.511603	ug/L	0.93417	mg/kg	0.999883
17-03-0627-2	868 HG-8	0.61	Hg 253.7	3/9/2017	3:55:29 PM	0.908487	ug/L	0.148932	mg/kg	0.999883
17-03-0627-3	868 HG-8	0.6	Hg 253.7	3/9/2017	3:57:46 PM	0.192077	ug/L	0.032013	mg/kg	0.999883
17-03-0627-4	868 HG-8	0.6	Hg 253.7	3/9/2017	4:00:03 PM	0.133167	ug/L	0.022194	mg/kg	0.999883
17-03-0627-5	868 HG-8	0.61	Hg 253.7	3/9/2017	4:02:19 PM	1.363726	ug/L	0.223562	mg/kg	0.999883

Reviewed/Assign to Logbook Date: 03-09-17
Analysis Hg Chemist ID: 309
Logbook Page: 23 Instrument ID: Hg-8

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EPA 7471A Mercury (Solid)

Preparation Logs

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Mercury Sample Preparation Logbook (Solid / Other)

METHOD	MATRIX	EQUIPMENT ID #	REAGENT ID #	STANDARD ID #
☒ EPA 7471A ☐ EPA 7471B	☒ Solid ☐ Other (Specify) _____	Thermometer GT-04 (CF -2.0 °C) Block Digester 3 Pipetter / Dispenser P-07 1/X	Aqua Regia R042916G1 10 mL 5% $KMnO_4$ R100616G1 NaCl-H_3NO-HCl R102616G1 6 mL	Spike M030716A IC A ICV B

BATCH NUMBER	SUPPLY LOT #	BALANCE ID #	QUALITY SYSTEM MATRIX ID #	SAMPLE HANDLING
MS/MSD 170309-SG1 (Specify)	Tube / Container 146995 Filter	36	Teflon Chip MVG-35-15 (Specify)	1 = Composite 2 = Subsample 3 = Homogenize 4 = None

DIGESTION											
	START			END					SAMPLE		5% $KMNO_4$	SPIKE OR IC/ICV
DATE	TIME	TEMP W/O CF (°C)	PREP TECH ID #	TIME	TEMP W/O CF (°C)	PREP TECH ID #	SAMPLE HANDLING	ECI ID #	INITIAL (g)	FINAL (mL)	V (mL)	V (µL)
3/9/17	11:00	95	868	11:45	95	868	4	MS 17-03-0444-3A	0.60	100	15	500
								MSD 1	0.62			
								LCS 170309-L01	0.60			
								LCSD / MB 170309-B01	0.60			
								17-03-0444-3A	0.62			
								4	0.60			
								7	0.62			
								8	0.62			
								17-03-0281-1A	0.60			
								2A	0.61			
								17-03-0445-4A	0.61			
								3	0.62			
								7	0.62			
								8	0.60			
								17-03-0433-1A	0.62			
								2A	0.61			
								17-03-0617-1A	0.61			
								17-03-0346-1A	0.63			
								17-03-0347-1A	0.61			
								17-03-0490-1A	0.61			
								2	0.57			
								3	0.61			
								IC				
								ICV				
								CB				

COMMENTS: * D-013 | MO-043 | D-058

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EPA METHOD 8081A
Organochlorine Pesticides

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EPA METHOD 8081A
Organochlorine Pesticides

Initial Calibration

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INITIAL CALIBRATION QUALITY CONTROL SUMMARY
FOR METHOD: EPA 8081A

ICAL WORK ORDER: 099-12-528-6469-5152
ICAL BATCH ID: 1702021005
INSTRUMENT: GC 41

ANALYZED BY: 944
ICAL D/T ANALYZED: 2017-02-02 15:04
REVIEWED BY: 27
D/T REVIEWED: 2017-02-03 16:49

COMPOUND	COMP. TYPE	CALIB. MODEL	1	2	3	4	5	6	7	8	9	Avg. RF	Min. RF	%RSD	%RSD CL	R or R^2	R or R^2 CL	STATUS
Alpha-BHC	C	Avg RF	165,036,333	167,573,114	180,150,279	187,889,029	186,483,286					177,426,408	0.00	6	0-20			PASS
Gamma-BHC	C	Avg RF	150,365,010	151,028,291	161,797,091	169,053,210	167,245,235					159,897,767	0.00	6	0-20			PASS
Beta-BHC	C	Avg RF	62,814,105	60,977,966	63,797,163	65,871,627	64,788,645					63,649,901	0.00	3	0-20			PASS
Heptachlor	C	Avg RF	153,631,570	151,923,009	161,681,737	167,903,413	164,562,535					159,940,453	0.00	4	0-20			PASS
Delta-BHC	C	Avg RF	143,654,578	144,649,316	156,245,809	164,144,194	161,643,956					154,067,570	0.00	6	0-20			PASS
Aldrin	C	Avg RF	135,145,420	134,273,406	144,840,682	151,080,834	148,705,092					142,809,087	0.00	5	0-20			PASS
Heptachlor Epoxide	C	Avg RF	120,650,295	118,260,066	126,307,485	132,123,956	129,552,039					125,378,768	0.00	5	0-20			PASS
Endosulfan I	C	Avg RF	107,473,299	104,234,760	109,726,918	114,988,913	112,240,461					109,732,870	0.00	4	0-20			PASS
Dieldrin	C	Avg RF	115,466,310	114,003,285	124,144,217	131,940,461	128,765,142					122,863,883	0.00	6	0-20			PASS
4,4'-DDE	C	Avg RF	117,419,025	115,301,066	125,316,219	132,529,690	129,558,043					124,024,808	0.00	6	0-20			PASS
Endrin	C	Avg RF	100,098,697	97,483,122	103,645,949	110,286,577	105,511,873					103,405,244	0.00	5	0-20			PASS
Endrin Aldehyde	C	Avg RF	90,227,193	86,148,080	93,249,025	100,246,764	96,603,058					93,294,824	0.00	6	0-20			PASS
4,4'-DDD	C	Avg RF	96,910,319	95,212,957	104,114,143	111,252,229	107,839,024					103,065,735	0.00	7	0-20			PASS

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 QUALITY CONTROL SUMMARY
FOR METHOD: EPA 8081A

ICAL WORK ORDER: 099-12-528-6469-5152
ICAL BATCH ID: 170202I005
INSTRUMENT: GC 41

ANALYZED BY: 944
ICAL D/T ANALYZED: 2017-02-02 15:04
REVIEWED BY: 27
D/T REVIEWED: 2017-02-03 16:49

COMPOUND	COMP. TYPE	CALIB. MODEL	1	2	3	4	5	6	7	8	9	Avg. RF	Min. RF	%RSD	%RSD CL	R or R^2	R or R^2 CL	STATUS
Endosulfan II	C	Avg RF	87,331,583	84,620,802	86,922,196	91,997,484	88,491,958					87,872,805	0.00	3	0-20			PASS
4,4'-DDT	C	Avg RF	101,642,347	98,597,126	107,054,459	114,346,481	110,432,873					106,414,657	0.00	6	0-20			PASS
Endosulfan Sulfate	C	Avg RF	99,399,035	92,968,650	99,578,370	106,773,659	102,041,640					100,152,271	0.00	5	0-20			PASS
Methoxychlor	C	Avg RF	59,713,507	52,834,411	55,299,867	59,373,529	55,718,153					56,587,894	0.00	5	0-20			PASS
Chlordane	C	Avg RF	56,918,876	56,116,978	69,650,947	60,932,369	65,787,549					61,881,344	0.00	9	0-20			PASS
Toxaphene	C	Avg RF	21,730,953	23,412,112	25,948,599	22,073,335	23,468,162					23,326,632	0.00	7	0-20			PASS
Endrin Ketone	C	Avg RF	118,206,905	111,549,698	121,144,462	131,083,648	126,147,039					121,626,350	0.00	6	0-20			PASS

Data Files:

Level #	D/T Analyzed	Data File
1	2017-02-02 15:04	/chem1/SVOA/GC_41/170202/a1702022017020220
2	2017-02-02 15:19	/chem1/SVOA/GC_41/170202/a1702022117020221
3	2017-02-02 15:34	/chem1/SVOA/GC_41/170202/a1702022217020222
4	2017-02-02 15:49	/chem1/SVOA/GC_41/170202/a1702022317020223
5	2017-02-02 16:04	/chem1/SVOA/GC_41/170202/a1702022417020224

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 8081A

ICV WORK ORDER: **099-12-528-6469-5152**
INITIAL BATCH: 170202I005
INSTRUMENT: GC 41

DATA FILE: /chem1/SVOA/GC_41/170202/a1702022517020225

ANALYZED BY: 944
D/T ANALYZED:
INITIAL: 2017-02-02 15:04
ICV: 2017-02-02 16:19
REVIEWED BY: 27
D/T REVIEWED: 2017-02-03 16:49

COMPOUND NAME	COMP TYPE	CALIB MODEL	MIN RF	AVG RF	ICV RF	AMOUNT	ICV CONC	ICV %D	ICV %D CL	STATUS
Alpha-BHC	C	Avg Resp	0.00	177426408.136	174448948.875			2	0-15	PASS
Gamma-BHC	C	Avg Resp	0.00	159897767.428	151362738.800			5	0-15	PASS
Beta-BHC	C	Avg Resp	0.00	63649901.246	62474501.350			2	0-15	PASS
Heptachlor	C	Avg Resp	0.00	159940452.667	153216814.625			4	0-15	PASS
Delta-BHC	C	Avg Resp	0.00	154067570.449	155305901.575			-1	0-15	PASS
Aldrin	C	Avg Resp	0.00	142809086.859	149246274.675			-5	0-15	PASS
Heptachlor Epoxide	C	Avg Resp	0.00	125378768.220	132839842.500			-6	0-15	PASS
Endosulfan I	C	Avg Resp	0.00	109732870.303	115965555.875			-6	0-15	PASS
Dieldrin	C	Avg Resp	0.00	122863882.989	132007116.500			-7	0-15	PASS
4,4'-DDE	C	Avg Resp	0.00	124024808.220	125357992.900			-1	0-15	PASS
Endrin	C	Avg Resp	0.00	103405243.534	99723706.600			4	0-15	PASS
Endrin Aldehyde	C	Avg Resp	0.00	93294824.011	90842029.175			3	0-15	PASS
4,4'-DDD	C	Avg Resp	0.00	103065734.528	104196838.450			-1	0-15	PASS
Endosulfan II	C	Avg Resp	0.00	87872804.593	99025963.975			-13	0-15	PASS
4,4'-DDT	C	Avg Resp	0.00	106414657.377	109606413.100			-3	0-15	PASS
Endosulfan Sulfate	C	Avg Resp	0.00	100152270.931	101907104.050			-2	0-15	PASS
Methoxychlor	C	Avg Resp	0.00	56587893.544	54482732.525			4	0-15	PASS
Chlordane	C	Avg Resp	0.00	61881343.746	69929430.820			-13	0-15	PASS
Toxaphene	C	Avg Resp	0.00	23326632.087	23114421.585			1	0-15	PASS
Endrin Ketone	C	Avg Resp	0.00	121626350.390	128297506.475			-5	0-15	PASS

MIN RF: Method Specified Minimum Response Factor

Report Date : 03-Feb-2017 09:58 Page 1

Eurofins Calscience

INITIAL CALIBRATION DATA

Start Cal Date : 03-AUG-2016 11:20
End Cal Date : 02-FEB-2017 16:04
Quant Method : ESTD
Origin : Disabled
Target Version : 3.50
Integrator : HP Genie
Method file : /chem1/SVOA/GC_41.i/170202.b/a8081d.m
Cal Date : 03-Feb-2017 09:40 uj3k
Curve Type : Average

Calibration File Names:
Level 1: /chem1/SVOA/GC_41.i/170202.b/a17020220.d
Level 2: /chem1/SVOA/GC_41.i/170202.b/a17020221.d
Level 3: /chem1/SVOA/GC_41.i/170202.b/a17020222.d
Level 4: /chem1/SVOA/GC_41.i/170202.b/a17020223.d
Level 5: /chem1/SVOA/GC_41.i/170202.b/a17020224.d

Compound	10.000 Level 1	20.000 Level 2	40.000 Level 3	60.000 Level 4	80.000 Level 5	RRF	% RSD
2 Hexachlorobenzene	143433676	138939421	144368481	148479043	145746449	144193414	2
3 Alpha-BHC	165036333	167573114	180150279	187889029	186483286	177426408	6
4 Gamma-BHC	150365010	151028291	161797091	169053210	167245235	159897767	6
5 Beta-BHC	62814105	60977966	63797163	65871627	64788645	63649901	3
6 Delta-BHC	143654578	144649316	156245809	164144194	161643956	154067570	6
7 Heptachlor	153631569	151923009	161681737	167903413	164562535	159940453	4
8 Aldrin	135145420	134273406	144840682	151080834	148705092	142809087	5
9 4,4'-Dichlorobenzophenone	32859972	32194656	32109782	31921844	32768446	32370940	1
10 Oxychlordane	111469755	112665531	112226428	111976037	115463183	112760187	1
11 2,4'-DDE	78725925	79223200	79367935	79273359	80610023	79440089	1
12 Heptachlor Epoxide	120650295	118260066	126307485	132123956	129552039	125378768	5
13 Gamma Chlordane	124561321	122887995	132604217	139362515	136945933	131272396	6
14 Trans-Nonachlor	123598828	125618450	125884468	126752286	129098282	126190463	2
15 Alpha Chlordane	122026945	118108152	125943630	132066891	129219236	125472971	4
16 4,4'-DDE	117419025	115301066	125316219	132529690	129558043	124024808	6
17 Endosulfan I	107473299	104234760	109726918	114988913	112240461	109732870	4
18 2,4'-DDD	69176061	69195975	69846235	69295956	70663545	69635554	1
19 Dieldrin	115466309	114003285	124144217	131940461	128765142	122863883	6
20 2,4'-DDT	79313445	80148768	80952322	81271117	82921013	80921333	2
21 Endrin	100098697	97483122	103645949	110286577	105511873	103405244	5
22 Cis-Nonachlor	129614839	130889623	134014662	132911752	136189858	132724147	2
23 4,4'-DDD	96910319	95212957	104114143	111252229	107839024	103065735	7

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Report Date : 03-Feb-2017 09:58 Page 2

Eurofins Calscience

INITIAL CALIBRATION DATA

Start Cal Date : 03-AUG-2016 11:20
End Cal Date : 02-FEB-2017 16:04
Quant Method : ESTD
Origin : Disabled
Target Version : 3.50
Integrator : HP Genie
Method file : /chem1/SVOA/GC_41.i/170202.b/a8081d.m
Cal Date : 03-Feb-2017 09:40 uj3k
Curve Type : Average

	Compound	10.000 Level 1	20.000 Level 2	40.000 Level 3	60.000 Level 4	80.000 Level 5	___ RRF	% RSD
	24 Endosulfan II	87331583	84620802	86922196	91997484	88491958	87872805	3
	25 4,4'-DDT	101642347	98597126	107054459	114346481	110432873	106414657	6
	26 Endrin Aldehyde	90227193	86148080	93249025	100246764	96603058	93294824	6
	27 Methoxychlor	59713507	52834411	55299867	59373529	55718153	56587894	5
	28 Mirex	86289009	82064318	79951495	77780351	79918071	81200649	4
	29 Endosulfan Sulfate	99399035	92968650	99578370	106773659	102041640	100152271	5
	30 Endrin Ketone	118206905	111549698	121144462	131083648	126147039	121626350	6
M	32 Chlordane	56918876	56116978	69650947	60932369	65787549	61881344	9
	33 CHLD (1)	4941840	4933524	6315415	5426206	5668356	5457068	11
	34 CHLD (2)	6280689	5217125	6068216	5184943	5294548	5609104	9
	35 CHLD (3)	3350579	2978729	3545482	3114670	3310462	3259984	7
	36 CHLD (4)	16683663	17176069	21260663	18834846	20448702	18880789	11
	37 CHLD (5)	25662105	25811532	32461171	28371704	31065480	28674399	11
M	38 Toxaphene	21730953	23412112	25948599	22073335	23468162	23326632	7
	39 TOXAPHENE (1)	3726946	4067116	4456327	3844822	4006575	4020357	7
	40 TOXAPHENE (2)	6599766	7078239	7809991	6676676	7056348	7044204	7
	41 TOXAPHENE (3)	3472024	3745670	4159308	3448972	3800097	3725214	8
	42 TOXAPHENE (4)	3649803	3966929	4412329	3804025	4029062	3972429	7
	43 TOXAPHENE (5)	4282414	4554158	5110645	4298841	4576080	4564428	7
T	1 2,4,5,6-Tetrachloro-m-Xylene	105712526	102780530	106444345	108999205	108092507	106405823	2
T	31 Decachlorobiphenyl	99894422	90117072	96055999	104769372	99247084	98016790	6

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Data File: /chem1/SVOA/GC_41.i/170202.b/a17020207.d
Report Date: 02/03/2017 09:40

Eurofins CalScience
Calibration Verification Report

Instrument ID: GC_41.i
Sample Name: P-ICV P091716L 40PPB
Sublist used: PEST.sub
Method used: /chem1/SVOA/GC_41.i/170202.b/a8081d.m

Injection Date and Time: 02-FEB-2017 11:48
Initial Calibration Date(s): 03-AUG-2016 02-FEB-2017
Initial Calibration Time(s): 11:20 16:04

Target Compounds	ICAL RRF or Amount	ICV RRF	Min. RRF	%D / %Drift	Max%D/Drift	Curve Type
Hexachlorobenzene	144193414.101	139609295.071	0.00	3	15	Averaged
Alpha-BHC	177426408.133	174448948.876	0.00	2	15	Averaged
Gamma-BHC	159897767.428	151362738.790	0.00	5	15	Averaged
Beta-BHC	63649901.244	62474501.339	0.00	2	15	Averaged
Delta-BHC	154067570.451	155305901.571	0.00	-1	15	Averaged
Heptachlor	159940452.668	153216814.621	0.00	4	15	Averaged
Aldrin	142809086.857	149246274.680	0.00	-5	15	Averaged
Heptachlor Epoxide	125378768.217	132839842.499	0.00	-6	15	Averaged
Gamma Chlordane	131272395.996	134913618.909	0.00	-3	15	Averaged
Alpha Chlordane	125472971.042	126746572.875	0.00	-1	15	Averaged
4,4'-DDE	124024808.220	125357992.888	0.00	-1	15	Averaged
Endosulfan I	109732870.309	115965555.886	0.00	-6	15	Averaged
Dieldrin	122863882.984	132007116.501	0.00	-7	15	Averaged
Endrin	103405243.534	99723706.607	0.00	4	15	Averaged
4,4'-DDD	103065734.526	104196838.453	0.00	-1	15	Averaged
Endosulfan II	87872804.592	99025963.974	0.00	-13	15	Averaged
4,4'-DDT	106414657.376	109606413.099	0.00	-3	15	Averaged
Endrin Aldehyde	93294824.010	90842029.170	0.00	3	15	Averaged
Methoxychlor	56587893.544	54482732.525	0.00	4	15	Averaged
Endosulfan Sulfate	100152270.929	101907104.054	0.00	-2	15	Averaged
Endrin Ketone	121626350.395	128297506.471	0.00	-5	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	106405822.634	107273545.093	0.00	-1	15	Averaged
Decachlorobiphenyl	98016789.749	96733609.772	0.00	1	15	Averaged

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Data File: /chem1/SVOA/GC_41.i/170202.b/a17020213.d
Report Date: 02/03/2017 09:40

Eurofins CalScience
Calibration Verification Report

Instrument ID: GC_41.i
Sample Name: CH-ICVP091716V 500PPB
Sublist used: chlordane.sub
Method used: /chem1/SVOA/GC_41.i/170202.b/a8081d.m

Injection Date and Time: 02-FEB-2017 13:18
Initial Calibration Date(s): 03-AUG-2016 02-FEB-2017
Initial Calibration Time(s): 11:20 16:04

Target Compounds	ICAL RRF or Amount	ICV RRF	Min. RRF	%D / %Drift	Max%D/Drift	Curve Type
Chlordane	61881343.745	69929430.821	0.00	-13	15	Averaged
CHLD (1)	5457068.252	6193780.969	0.00	-14	15	Averaged
CHLD (2)	5609104.009	6010056.736	0.00	-7	15	Averaged
CHLD (3)	3259984.171	3575658.860	0.00	-10	15	Averaged
CHLD (4)	18880788.779	21528098.312	0.00	-14	15	Averaged
CHLD (5)	28674398.535	32621835.944	0.00	-14	15	Averaged

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Data File: /chem1/SVOA/GC_41.i/170202.b/a17020219.d
Report Date: 02/03/2017 09:40

Eurofins CalScience
Calibration Verification Report

Instrument ID: GC_41.i
Sample Name: TOX-ICV P091716DD 1000PPB
Sublist used: toxaphene.sub
Method used: /chem1/SVOA/GC_41.i/170202.b/a8081d.m

Injection Date and Time: 02-FEB-2017 14:49
Initial Calibration Date(s): 03-AUG-2016 02-FEB-2017
Initial Calibration Time(s): 11:20 16:04

Target Compounds	ICAL RRF or Amount	ICV RRF	Min. RRF	%D / %Drift	Max%D /Drift	Curve Type
Toxaphene	23326632.087	23114421.585	0.00	1	15	Averaged
TOXAPHENE (1)	4020356.963	3990258.018	0.00	1	15	Averaged
TOXAPHENE (2)	7044203.974	6984220.631	0.00	1	15	Averaged
TOXAPHENE (3)	3725214.127	3679972.925	0.00	1	15	Averaged
TOXAPHENE (4)	3972429.486	3958895.537	0.00	0	15	Averaged
TOXAPHENE (5)	4564427.536	4501074.474	0.00	1	15	Averaged

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Data File: /chem1/SVOA/GC_41.i/170202.b/a17020202.d Page 1
Report Date: 03-Feb-2017 09:32

Eurofins Calscience

Data file : /chem1/SVOA/GC_41.i/170202.b/a17020202.d
Lab Smp Id:
Inj Date : 02-FEB-2017 10:33
Operator : 669 Inst ID: GC_41.i
Smp Info : P-ICAL1 P091716E 10PPB
Misc Info :
Comment :
Method : /chem1/SVOA/GC_41.i/170202.b/a8081d.m
Meth Date : 02-Feb-2017 16:50 uhhn Quant Type: ESTD
Cal Date : 02-FEB-2017 15:04 Cal File: a17020220.d
Als bottle: 2 Calibration Sample, Level: 1
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: PEST.sub
Target Version: 3.50
Processing Host: US26TAR4

Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

						AMOUNTS	
						CAL-AMT	ON-COL
	Compounds	RT	EXP RT	DLT RT	RESPONSE	(ppb)	(ppb)
T	1 2,4,5,6-Tetrachloro-m-Xylene	2.845	2.823	0.022	2114250519	20.0000	19.869
	2 Hexachlorobenzene	3.176	3.176	0.000	1434336764	10.0000	9.947(a)
	3 Alpha-BHC	3.321	3.321	0.000	1650363331	10.0000	9.301(a)
	4 Gamma-BHC	3.610	3.611	-0.001	1503650103	10.0000	9.403(a)
	5 Beta-BHC	3.681	3.682	-0.001	628141047	10.0000	9.868(a)
	6 Delta-BHC	3.860	3.860	0.000	1436545782	10.0000	9.324(a)
	7 Heptachlor	4.074	4.074	0.000	1536315695	10.0000	9.605(a)
	8 Aldrin	4.384	4.384	0.000	1351454197	10.0000	9.463(a)
	12 Heptachlor Epoxide	4.992	4.992	0.000	1206502950	10.0000	9.622(a)
	13 Gamma Chlordane	5.117	5.117	0.000	1245613207	10.0000	9.488(a)
	15 Alpha Chlordane	5.249	5.249	0.000	1220269450	10.0000	9.725(a)
	16 4,4'-DDE	5.311	5.311	0.000	1174190245	10.0000	9.467(a)
	17 Endosulfan I	5.391	5.391	0.000	1074732989	10.0000	9.794(a)
	19 Dieldrin	5.626	5.625	0.001	1154663095	10.0000	9.397(a)
	21 Endrin	5.857	5.857	0.000	1000986972	10.0000	9.680(a)
	23 4,4'-DDD	5.901	5.901	0.000	969103192	10.0000	9.402(a)
	24 Endosulfan II	6.075	6.074	0.001	873315830	10.0000	9.938(a)
	25 4,4'-DDT	6.173	6.173	0.000	1016423471	10.0000	9.551(a)
	26 Endrin Aldehyde	6.475	6.474	0.001	902271928	10.0000	9.671(a)
	27 Methoxychlor	6.626	6.626	0.000	597135073	10.0000	10.552
	29 Endosulfan Sulfate	6.888	6.888	0.000	993990353	10.0000	9.924(a)

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					AMOUNTS	
					CAL-AMT	ON-COL
Compounds	RT	EXP RT	DLT RT	RESPONSE	(ppb)	(ppb)
30 Endrin Ketone	7.159	7.157	0.002	1182069049	10.0000	9.718(a)
T 31 Decachlorobiphenyl	8.065	8.071	-0.006	1997888433	20.0000	20.383

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).

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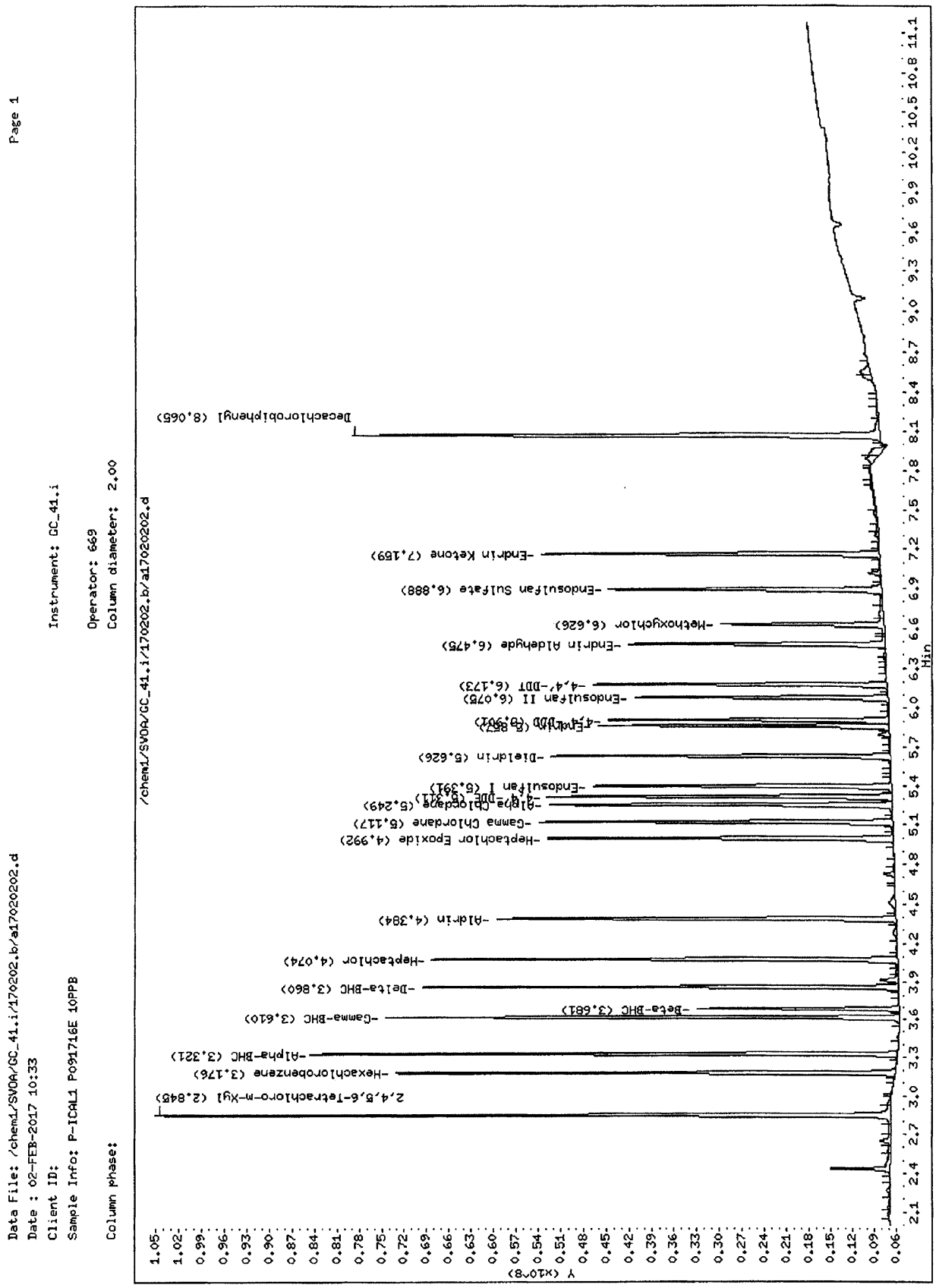

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Data File: /chem1/SVOA/GC_41.i/170202.b/a17020203.d Page 1
Report Date: 03-Feb-2017 09:32

Eurofins Calscience

Data file : /chem1/SVOA/GC_41.i/170202.b/a17020203.d
Lab Smp Id:
Inj Date : 02-FEB-2017 10:48
Operator : 669 Inst ID: GC_41.i
Smp Info : P-ICAL2 P091716F 20PPB
Misc Info :
Comment :
Method : /chem1/SVOA/GC_41.i/170202.b/a8081d.m
Meth Date : 02-Feb-2017 16:50 uhhn Quant Type: ESTD
Cal Date : 02-FEB-2017 15:19 Cal File: a17020221.d
Als bottle: 3 Calibration Sample, Level: 2
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: PEST.sub
Target Version: 3.50
Processing Host: US26TAR4

Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

						AMOUNTS	
	Compounds	RT	EXP RT	DLT RT	RESPONSE	CAL-AMT (ppb)	ON-COL (ppb)
T	1 2,4,5,6-Tetrachloro-m-Xylene	2.845	2.845	0.000	4111221204	40.0000	38.637
	2 Hexachlorobenzene	3.176	3.176	0.000	2778788423	20.0000	19.271
	3 Alpha-BHC	3.321	3.321	0.000	3351462285	20.0000	18.889
	4 Gamma-BHC	3.611	3.610	0.001	3020565820	20.0000	18.890
	5 Beta-BHC	3.682	3.681	0.001	1219559325	20.0000	19.160
	6 Delta-BHC	3.860	3.860	0.000	2892986314	20.0000	18.777
	7 Heptachlor	4.074	4.074	0.000	3038460177	20.0000	18.997
	8 Aldrin	4.384	4.384	0.000	2685468120	20.0000	18.804
	12 Heptachlor Epoxide	4.993	4.992	0.001	2365201326	20.0000	18.864
	13 Gamma Chlordane	5.117	5.117	0.000	2457759892	20.0000	18.722
	15 Alpha Chlordane	5.250	5.249	0.001	2362163045	20.0000	18.826
	16 4,4'-DDE	5.312	5.311	0.001	2306021316	20.0000	18.593
	17 Endosulfan I	5.391	5.391	0.000	2084695201	20.0000	18.997
	19 Dieldrin	5.626	5.626	0.000	2280065703	20.0000	18.557
	21 Endrin	5.857	5.857	0.000	1949662431	20.0000	18.854
	23 4,4'-DDD	5.901	5.901	0.000	1904259132	20.0000	18.476
	24 Endosulfan II	6.074	6.075	-0.001	1692416038	20.0000	19.259
	25 4,4'-DDT	6.173	6.173	0.000	1971942523	20.0000	18.530
	26 Endrin Aldehyde	6.475	6.475	0.000	1722961596	20.0000	18.467
	27 Methoxychlor	6.625	6.626	-0.001	1056688220	20.0000	18.673
	29 Endosulfan Sulfate	6.888	6.888	0.000	1859373002	20.0000	18.565

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Data File: /chem1/SVOA/GC_41.i/170202.b/a17020203.d Page 2
Report Date: 03-Feb-2017 09:32

					AMOUNTS	
					CAL-AMT	ON-COL
Compounds	RT	EXP RT	DLT RT	RESPONSE	(ppb)	(ppb)
30 Endrin Ketone	7.158	7.159	-0.001	2230993969	20.0000	18.343
T 31 Decachlorobiphenyl	8.065	8.065	0.000	3604682885	40.0000	36.776

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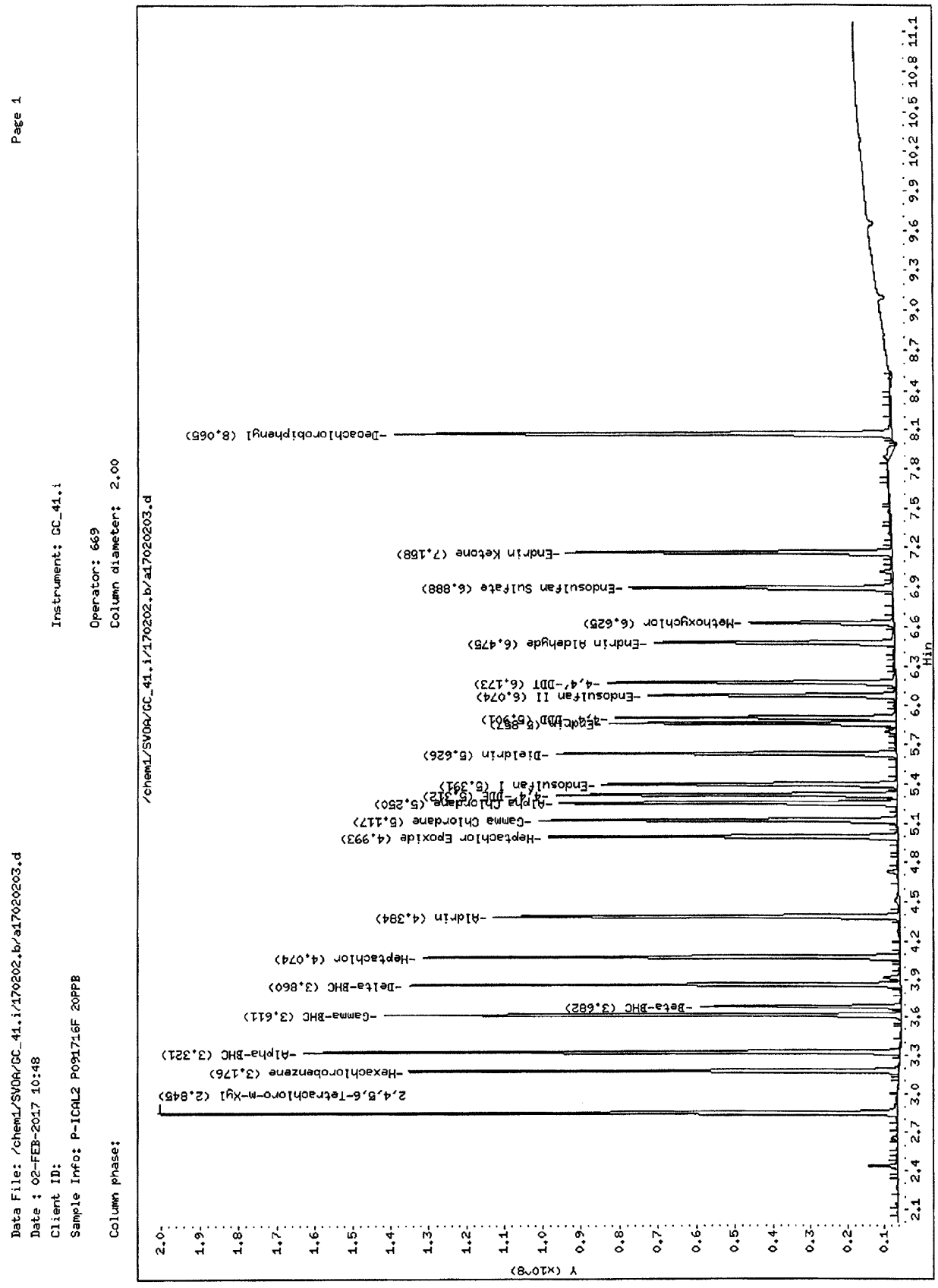

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Data File: /chem1/SVOA/GC_41.i/170202.b/a17020204.d Page 1
Report Date: 03-Feb-2017 09:32

Eurofins Calscience

Data file : /chem1/SVOA/GC_41.i/170202.b/a17020204.d
Lab Smp Id:
Inj Date : 02-FEB-2017 11:03
Operator : 669 Inst ID: GC_41.i
Smp Info : P-ICAL3 P091716G 40PPB
Misc Info :
Comment :
Method : /chem1/SVOA/GC_41.i/170202.b/a8081d.m
Meth Date : 02-Feb-2017 16:50 uhhn Quant Type: ESTD
Cal Date : 02-FEB-2017 15:34 Cal File: a17020222.d
Als bottle: 4 Calibration Sample, Level: 3
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: PEST.sub
Target Version: 3.50
Processing Host: US26TAR4

Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

						AMOUNTS	
						CAL-AMT	ON-COL
Compounds		RT	EXP RT	DLT RT	RESPONSE	(ppb)	(ppb)
T	1 2,4,5,6-Tetrachloro-m-Xylene	2.845	2.845	0.000	8515547602	80.0000	80.028
	2 Hexachlorobenzene	3.177	3.176	0.001	5774739239	40.0000	40.048
	3 Alpha-BHC	3.321	3.321	0.000	7206011151	40.0000	40.614
	4 Gamma-BHC	3.611	3.611	0.000	6471883639	40.0000	40.475
	5 Beta-BHC	3.682	3.682	0.000	2551886534	40.0000	40.092
	6 Delta-BHC	3.860	3.860	0.000	6249832351	40.0000	40.565
	7 Heptachlor	4.075	4.074	0.001	6467269491	40.0000	40.435
	8 Aldrin	4.385	4.384	0.001	5793627280	40.0000	40.569
	12 Heptachlor Epoxide	4.993	4.993	0.000	5052299418	40.0000	40.296
	13 Gamma Chlordane	5.118	5.117	0.001	5304168697	40.0000	40.405
	15 Alpha Chlordane	5.250	5.250	0.000	5037745218	40.0000	40.150
	16 4,4'-DDE	5.312	5.312	0.000	5012648747	40.0000	40.416
	17 Endosulfan I	5.392	5.391	0.001	4389076725	40.0000	39.997
	19 Dieldrin	5.626	5.626	0.000	4965768685	40.0000	40.416
	21 Endrin	5.858	5.857	0.001	4145837942	40.0000	40.093
	23 4,4'-DDD	5.901	5.901	0.000	4164565732	40.0000	40.406
	24 Endosulfan II	6.075	6.074	0.001	3476887850	40.0000	39.567
	25 4,4'-DDT	6.173	6.173	0.000	4282178379	40.0000	40.240
	26 Endrin Aldehyde	6.475	6.475	0.000	3729961012	40.0000	39.980
	27 Methoxychlor	6.626	6.625	0.001	2211994699	40.0000	39.089
	29 Endosulfan Sulfate	6.889	6.888	0.001	3983134787	40.0000	39.770

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					AMOUNTS	
					CAL-AMT	ON-COL
Compounds	RT	EXP RT	DLT RT	RESPONSE	(ppb)	(ppb)
30 Endrin Ketone	7.159	7.158	0.001	4845778483	40.0000	39.841
T 31 Decachlorobiphenyl	8.066	8.065	0.001	7684479943	80.0000	78.399

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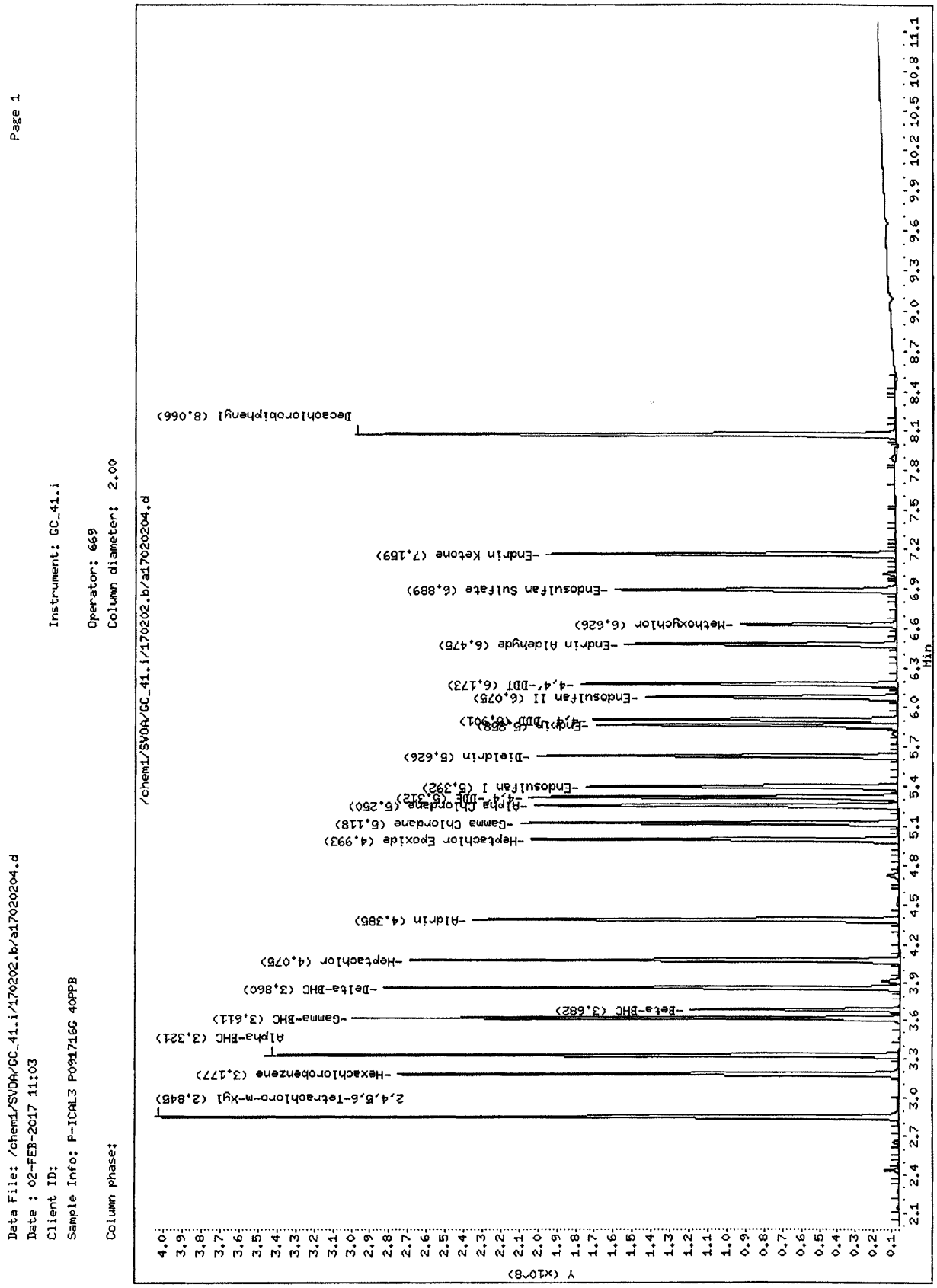

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Data File: /chem1/SVOA/GC_41.i/170202.b/a17020205.d Page 1
Report Date: 03-Feb-2017 09:32

Eurofins Calscience

Data file : /chem1/SVOA/GC_41.i/170202.b/a17020205.d
Lab Smp Id:
Inj Date : 02-FEB-2017 11:18
Operator : 669 Inst ID: GC_41.i
Smp Info : P-ICAL4 P091716H 60PPB
Misc Info :
Comment :
Method : /chem1/SVOA/GC_41.i/170202.b/a8081d.m
Meth Date : 02-Feb-2017 16:50 uhhn Quant Type: ESTD
Cal Date : 02-FEB-2017 15:49 Cal File: a17020223.d
Als bottle: 5 Calibration Sample, Level: 4
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: PEST.sub
Target Version: 3.50
Processing Host: US26TAR4

Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

						AMOUNTS	
						CAL-AMT	ON-COL
	Compounds	RT	EXP RT	DLT RT	RESPONSE	(ppb)	(ppb)
T	1 2,4,5,6-Tetrachloro-m-Xylene	2.846	2.845	0.001	13079904620	120.000	122.924
	2 Hexachlorobenzene	3.177	3.177	0.000	8908742580	60.0000	61.783
	3 Alpha-BHC	3.322	3.321	0.001	11273341729	60.0000	63.538
	4 Gamma-BHC	3.611	3.611	0.000	10143192601	60.0000	63.435
	5 Beta-BHC	3.682	3.682	0.000	3952297645	60.0000	62.094
	6 Delta-BHC	3.861	3.860	0.001	9848651615	60.0000	63.924
	7 Heptachlor	4.075	4.075	0.000	10074204759	60.0000	62.987
	8 Aldrin	4.385	4.385	0.000	9064850048	60.0000	63.475
	12 Heptachlor Epoxide	4.993	4.993	0.000	7927437336	60.0000	63.227
	13 Gamma Chlordane	5.118	5.118	0.000	8361750880	60.0000	63.697
	15 Alpha Chlordane	5.250	5.250	0.000	7924013478	60.0000	63.153
	16 4,4'-DDE	5.312	5.312	0.000	7951781370	60.0000	64.114
	17 Endosulfan I	5.392	5.392	0.000	6899334802	60.0000	62.873
	19 Dieldrin	5.626	5.626	0.000	7916427671	60.0000	64.432
	21 Endrin	5.857	5.858	-0.001	6617194640	60.0000	63.992
	23 4,4'-DDD	5.901	5.901	0.000	6675133752	60.0000	64.765
	24 Endosulfan II	6.074	6.075	-0.001	5519849056	60.0000	62.816
	25 4,4'-DDT	6.173	6.173	0.000	6860788883	60.0000	64.472
	26 Endrin Aldehyde	6.475	6.475	0.000	6014805844	60.0000	64.470
	27 Methoxychlor	6.626	6.626	0.000	3562411760	60.0000	62.953
	29 Endosulfan Sulfate	6.889	6.889	0.000	6406419568	60.0000	63.966

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					AMOUNTS	
					CAL-AMT	ON-COL
Compounds	RT	EXP RT	DLT RT	RESPONSE	(ppb)	(ppb)
30 Endrin Ketone	7.158	7.159	-0.001	7865018850	60.0000	64.665
T 31 Decachlorobiphenyl	8.066	8.066	0.000	12572324640	120.000	128.267

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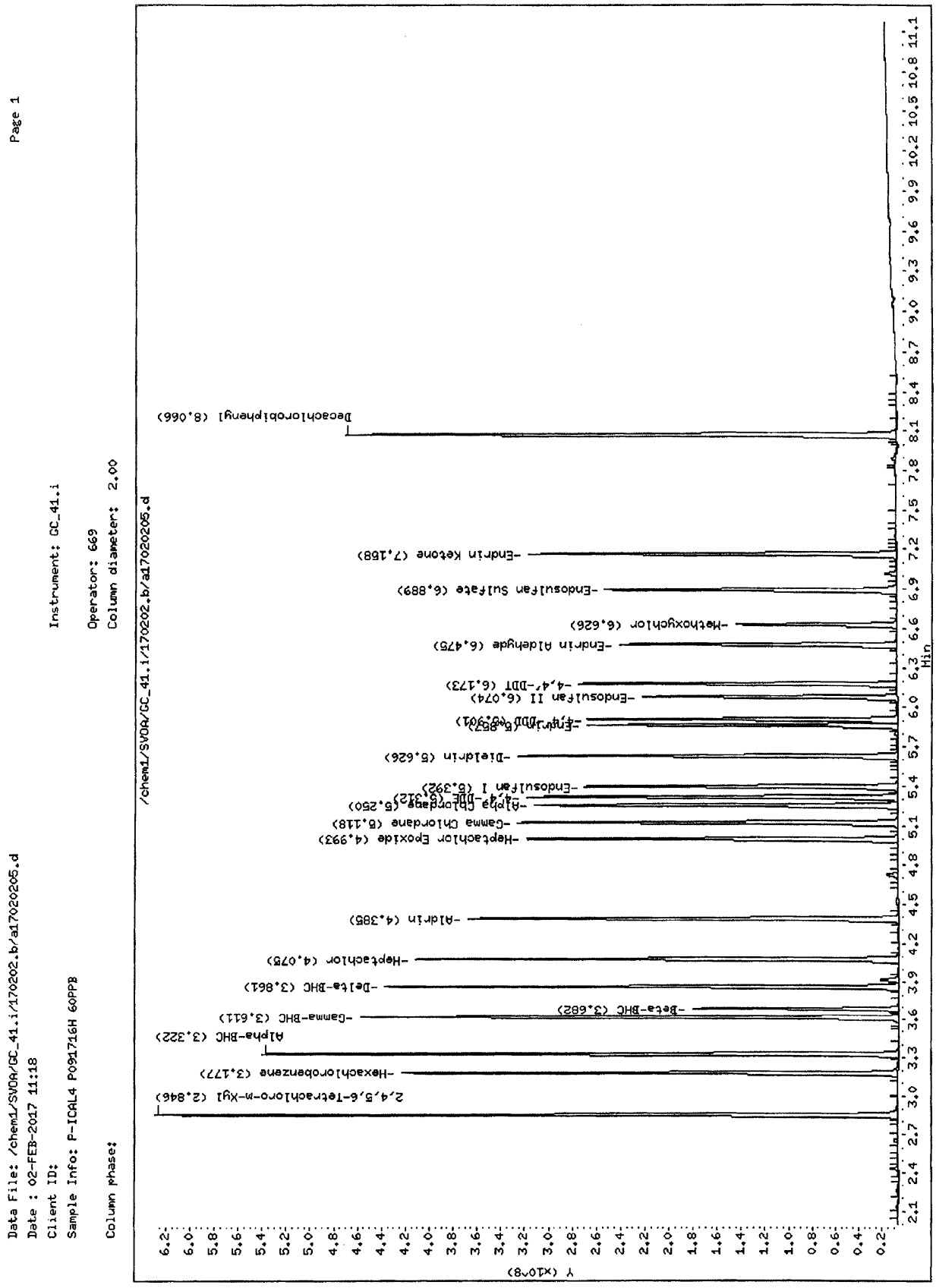

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Data File: /chem1/SVOA/GC_41.i/170202.b/a17020206.d Page 1
Report Date: 03-Feb-2017 09:32

Eurofins Calscience

Data file : /chem1/SVOA/GC_41.i/170202.b/a17020206.d
Lab Smp Id:
Inj Date : 02-FEB-2017 11:33
Operator : 669 Inst ID: GC_41.i
Smp Info : P-ICAL5 P091716J 80PPB
Misc Info :
Comment :
Method : /chem1/SVOA/GC_41.i/170202.b/a8081d.m
Meth Date : 02-Feb-2017 16:50 uhhn Quant Type: ESTD
Cal Date : 02-FEB-2017 16:04 Cal File: a17020224.d
Als bottle: 6 Calibration Sample, Level: 5
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: PEST.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 (ppb)	AMOUNTS ON-COL (ppb)
T	1 2,4,5,6-Tetrachloro-m-Xylene	2.846	2.846	0.000	17294801112	160.000	162.536
	2 Hexachlorobenzene	3.177	3.177	0.000	11659715917	80.0000	80.861
	3 Alpha-BHC	3.322	3.322	0.000	14918662859	80.0000	84.083
	4 Gamma-BHC	3.612	3.611	0.001	13379618788	80.0000	83.676
	5 Beta-BHC	3.683	3.682	0.001	5183091561	80.0000	81.431
	6 Delta-BHC	3.861	3.861	0.000	12931516479	80.0000	83.934
	7 Heptachlor	4.075	4.075	0.000	13165002805	80.0000	82.311
	8 Aldrin	4.385	4.385	0.000	11896407397	80.0000	83.302
	12 Heptachlor Epoxide	4.993	4.993	0.000	10364163100	80.0000	82.662
	13 Gamma Chlordane	5.118	5.118	0.000	10955674605	80.0000	83.457
	15 Alpha Chlordane	5.250	5.250	0.000	10337538894	80.0000	82.388
	16 4,4'-DDE	5.312	5.312	0.000	10364643410	80.0000	83.569
	17 Endosulfan I	5.392	5.392	0.000	8979236886	80.0000	81.828
	19 Dieldrin	5.626	5.626	0.000	10301211359	80.0000	83.842
	21 Endrin	5.857	5.857	0.000	8440949843	80.0000	81.629
	23 4,4'-DDD	5.901	5.901	0.000	8627121947	80.0000	83.705
	24 Endosulfan II	6.074	6.074	0.000	7079356604	80.0000	80.563
	25 4,4'-DDT	6.173	6.173	0.000	8834629822	80.0000	83.020
	26 Endrin Aldehyde	6.475	6.475	0.000	7728244647	80.0000	82.836
	27 Methoxychlor	6.626	6.626	0.000	4457452209	80.0000	78.770
	29 Endosulfan Sulfate	6.888	6.889	-0.001	8163331209	80.0000	81.509

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Data File: /chem1/SVOA/GC_41.i/170202.b/a17020206.d Page 2
Report Date: 03-Feb-2017 09:32

Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ppb)	AMOUNTS ON-COL (ppb)
30 Endrin Ketone	7.159	7.158	0.001	10091763122	80.0000	82.973
T 31 Decachlorobiphenyl	8.066	8.066	0.000	15879533390	160.000	162.008

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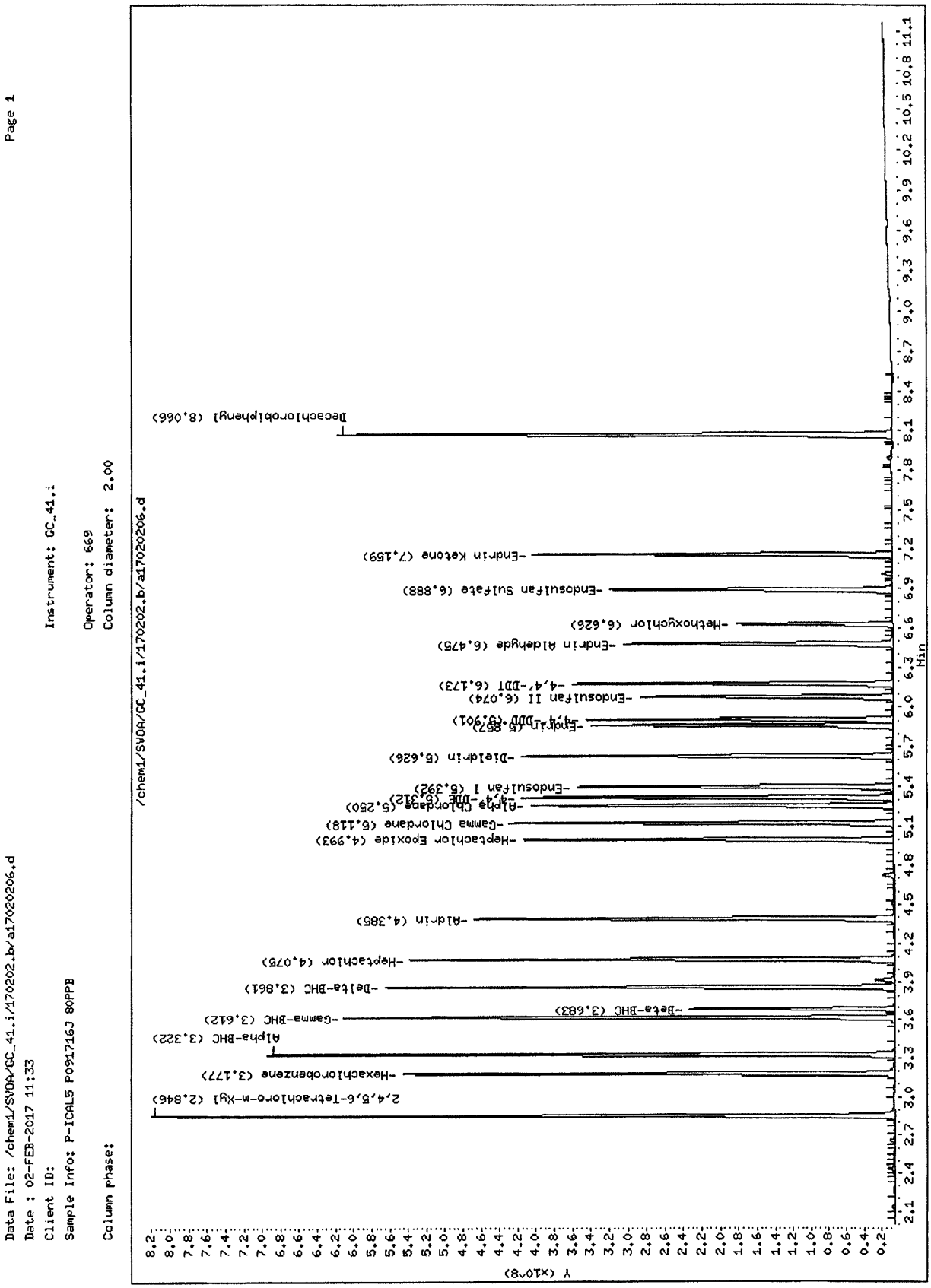

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Data File: /chem1/SVOA/GC_41.i/170202.b/a17020207.d Page 1
Report Date: 03-Feb-2017 09:32

Eurofins Calscience

Data file : /chem1/SVOA/GC_41.i/170202.b/a17020207.d
Lab Smp Id:
Inj Date : 02-FEB-2017 11:48
Operator : 669 Inst ID: GC_41.i
Smp Info : P-ICV P091716L 40PPB
Misc Info :
Comment :
Method : /chem1/SVOA/GC_41.i/170202.b/a8081d.m
Meth Date : 02-Feb-2017 16:50 uhhn Quant Type: ESTD
Cal Date : 02-FEB-2017 16:04 Cal File: a17020224.d
Als bottle: 7 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: PEST.sub
Target Version: 3.50
Processing Host: US26TAR4

Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

						AMOUNTS	
						CAL-AMT	ON-COL
Compounds		RT	EXP RT	DLT RT	RESPONSE	(ppb)	(ppb)
T	1 2,4,5,6-Tetrachloro-m-Xylene	2.845	2.846	-0.001	8581883607	80.0000	80.652
	2 Hexachlorobenzene	3.176	3.177	-0.001	5584371803	40.0000	38.728
	3 Alpha-BHC	3.321	3.322	-0.001	6977957955	40.0000	39.328
	4 Gamma-BHC	3.611	3.612	-0.001	6054509552	40.0000	37.864
	5 Beta-BHC	3.682	3.683	-0.001	2498980054	40.0000	39.261
	6 Delta-BHC	3.860	3.861	-0.001	6212236063	40.0000	40.321
	7 Heptachlor	4.074	4.075	-0.001	6128672585	40.0000	38.318
	8 Aldrin	4.384	4.385	-0.001	5969850987	40.0000	41.803
	12 Heptachlor Epoxide	4.992	4.993	-0.001	5313593700	40.0000	42.380
	13 Gamma Chlordane	5.117	5.118	-0.001	5396544756	40.0000	41.109
	15 Alpha Chlordane	5.249	5.250	-0.001	5069862915	40.0000	40.406
	16 4,4'-DDE	5.311	5.312	-0.001	5014319716	40.0000	40.429
	17 Endosulfan I	5.391	5.392	-0.001	4638622235	40.0000	42.271
	19 Dieldrin	5.625	5.626	-0.001	5280284660	40.0000	42.976
	21 Endrin	5.857	5.857	0.000	3988948264	40.0000	38.575
	23 4,4'-DDD	5.901	5.901	0.000	4167873538	40.0000	40.438
	24 Endosulfan II	6.074	6.074	0.000	3961038559	40.0000	45.076
	25 4,4'-DDT	6.173	6.173	0.000	4384256524	40.0000	41.199
	26 Endrin Aldehyde	6.474	6.475	-0.001	3633681167	40.0000	38.948
	27 Methoxychlor	6.626	6.626	0.000	2179309301	40.0000	38.511
	29 Endosulfan Sulfate	6.888	6.888	0.000	4076284162	40.0000	40.700

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Data File: /chem1/SVOA/GC_41.i/170202.b/a17020207.d Page 2
Report Date: 03-Feb-2017 09:32

					AMOUNTS	
					CAL-AMT	ON-COL
Compounds	RT	EXP RT	DLT RT	RESPONSE	(ppb)	(ppb)
30 Endrin Ketone	7.157	7.159	-0.002	5131900259	40.0000	42.193
T 31 Decachlorobiphenyl	8.065	8.066	-0.001	7738688782	80.0000	78.952

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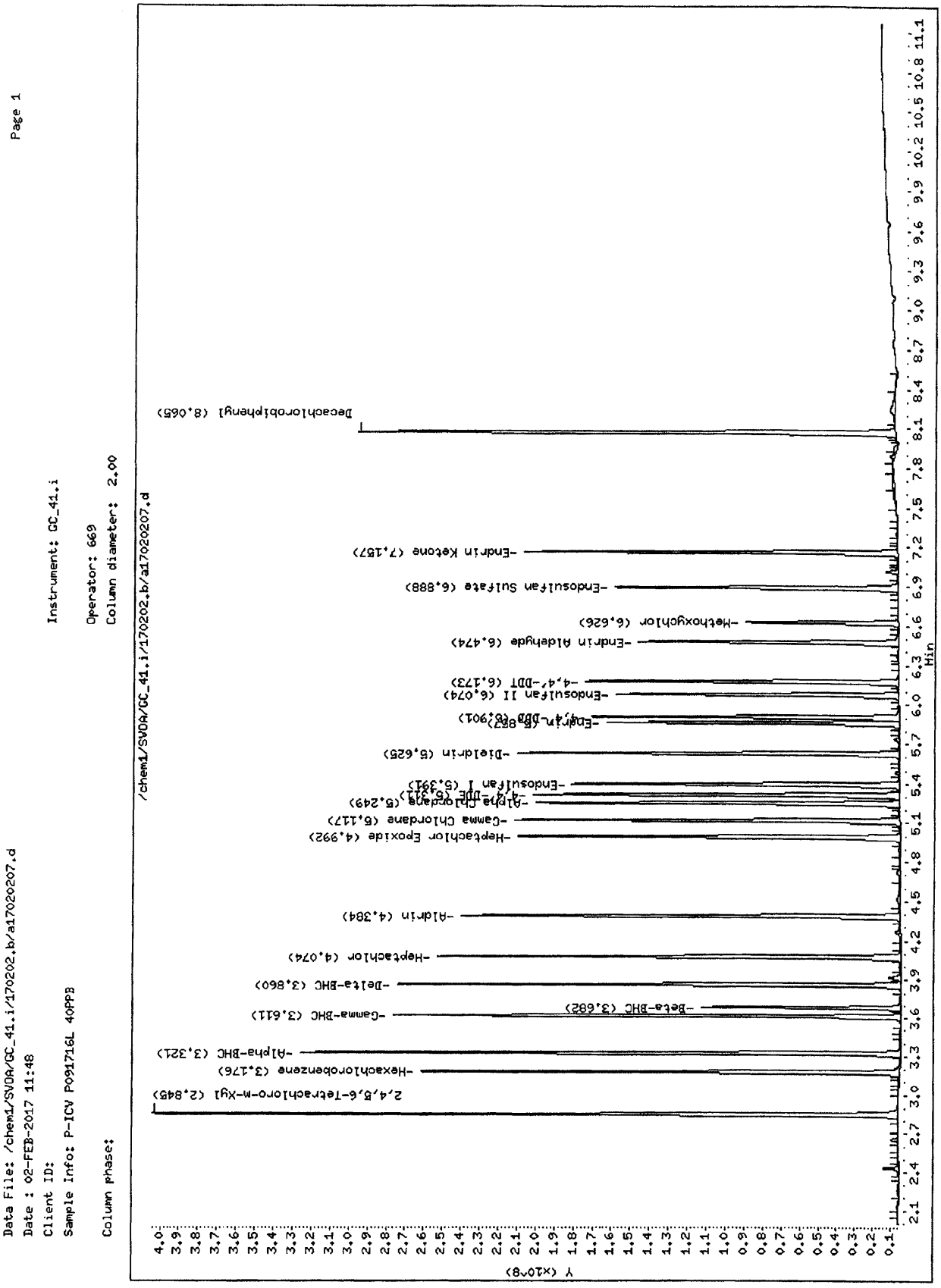

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Data File: /chem1/SVOA/GC_41.i/170202.b/a17020208.d Page 1
Report Date: 03-Feb-2017 09:33

Eurofins Calscience

Data file : /chem1/SVOA/GC_41.i/170202.b/a17020208.d
Lab Smp Id:
Inj Date : 02-FEB-2017 12:03
Operator : 669 Inst ID: GC_41.i
Smp Info : CH-ICAL1 P091716P 100PPB
Misc Info :
Comment :
Method : /chem1/SVOA/GC_41.i/170202.b/a8081d.m
Meth Date : 02-Feb-2017 16:50 uhhn Quant Type: ESTD
Cal Date : 02-FEB-2017 15:04 Cal File: a17020220.d
Als bottle: 8 Calibration Sample, Level: 1
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: chlordane.sub
Target Version: 3.50
Processing Host: US26TAR4

Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

					AMOUNTS	
					CAL-AMT	ON-COL
Compounds	RT	EXP RT	DLT RT	RESPONSE	(ppb)	(ppb)
M 32 Chlordane				5691887617	100.000	91.980(a)
33 CHLD (1)	3.993	3.994	-0.001	494184029	100.000	90.558
34 CHLD (2)	4.513	4.514	-0.001	628068859	100.000	111.973
35 CHLD (3)	4.925	4.925	0.000	335057901	100.000	102.778
36 CHLD (4)	5.117	5.117	0.000	1668366345	100.000	88.363
37 CHLD (5)	5.246	5.246	0.000	2566210483	100.000	89.494

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).

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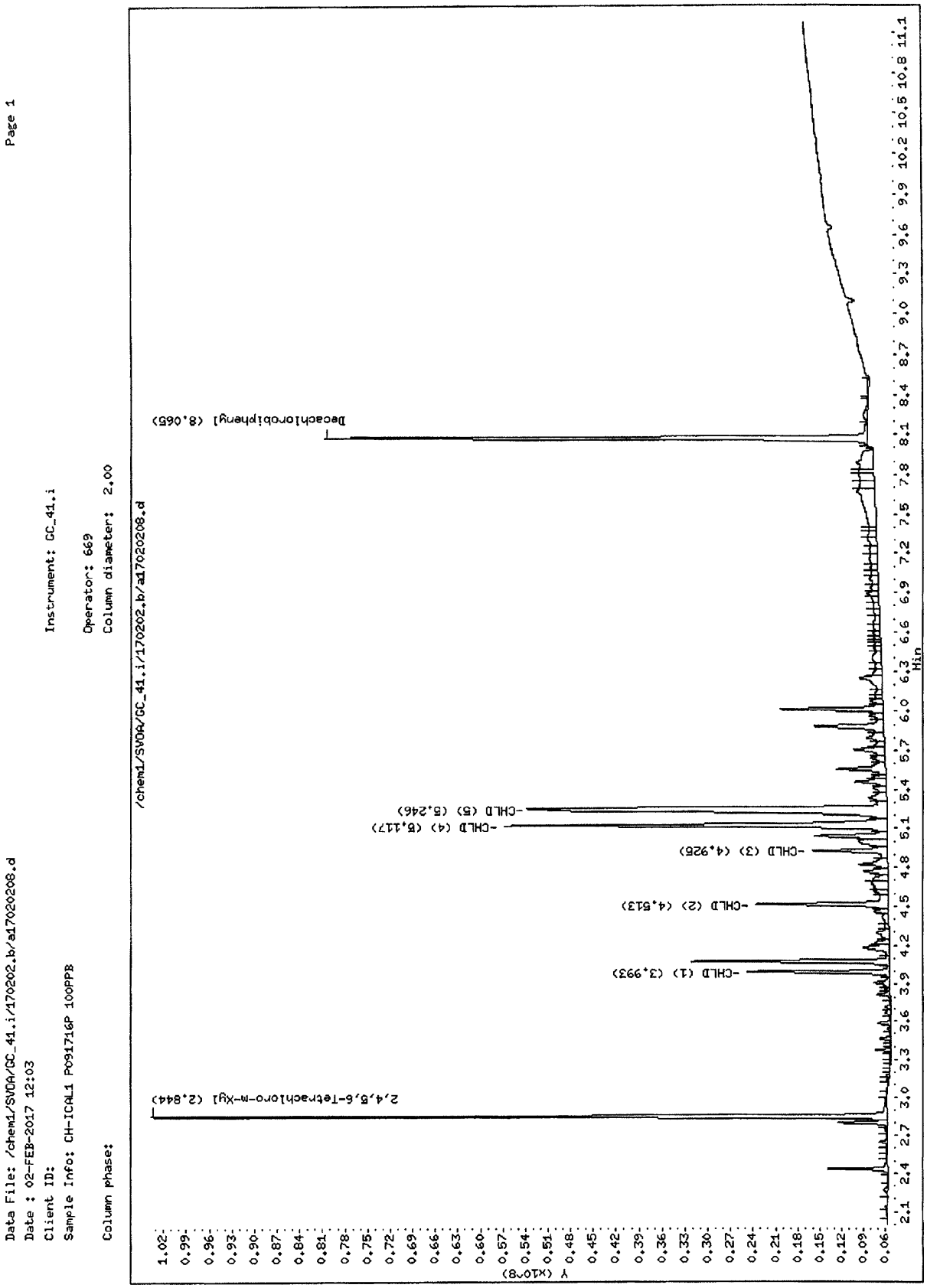

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Data File: /chem1/SVOA/GC_41.i/170202.b/a17020209.d Page 1
Report Date: 03-Feb-2017 09:33

Eurofins Calscience

Data file : /chem1/SVOA/GC_41.i/170202.b/a17020209.d
Lab Smp Id:
Inj Date : 02-FEB-2017 12:18
Operator : 669 Inst ID: GC_41.i
Smp Info : CH-ICAL2 P091716Q 250PPB
Misc Info :
Comment :
Method : /chem1/SVOA/GC_41.i/170202.b/a8081d.m
Meth Date : 02-Feb-2017 16:50 uhhn Quant Type: ESTD
Cal Date : 02-FEB-2017 15:19 Cal File: a17020221.d
Als bottle: 9 Calibration Sample, Level: 2
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: chlordane.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 (ppb)	AMOUNTS ON-COL (ppb)
M 32 Chlordane				14029244604	250.000	226.712
33 CHLD (1)	3.995	3.993	0.002	1233381079	250.000	226.015
34 CHLD (2)	4.514	4.513	0.001	1304281305	250.000	232.529
35 CHLD (3)	4.926	4.925	0.001	744682139	250.000	228.431
36 CHLD (4)	5.118	5.117	0.001	4294017186	250.000	227.427
37 CHLD (5)	5.246	5.246	0.000	6452882895	250.000	225.039

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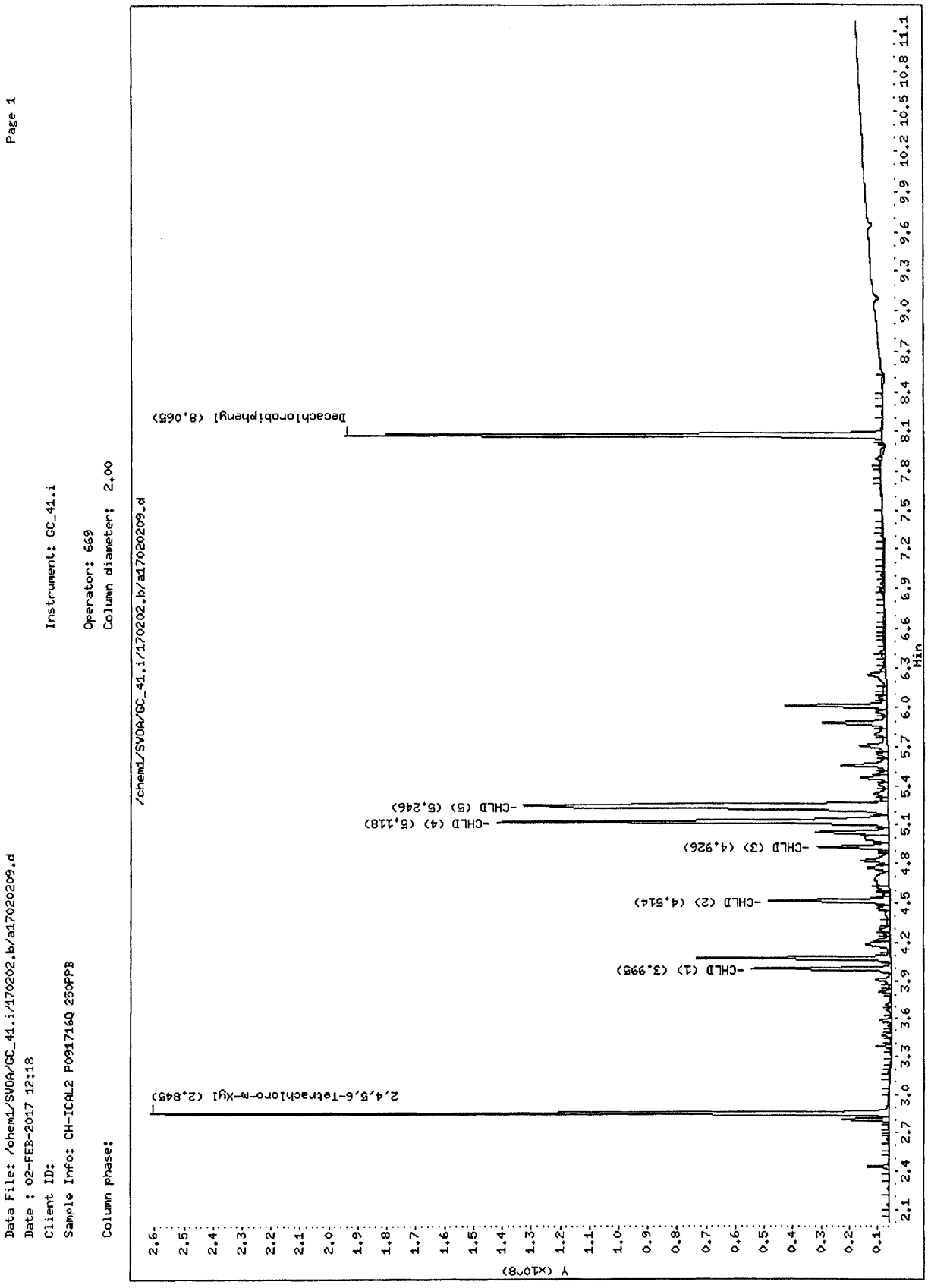

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Data File: /chem1/SVOA/GC_41.i/170202.b/a17020210.d Page 1
Report Date: 03-Feb-2017 09:33

Eurofins Calscience

Data file : /chem1/SVOA/GC_41.i/170202.b/a17020210.d
Lab Smp Id:
Inj Date : 02-FEB-2017 12:33
Operator : 669 Inst ID: GC_41.i
Smp Info : CH-ICAL3 P091716R 500PPB
Misc Info :
Comment :
Method : /chem1/SVOA/GC_41.i/170202.b/a8081d.m
Meth Date : 02-Feb-2017 16:50 uhhn Quant Type: ESTD
Cal Date : 02-FEB-2017 15:34 Cal File: a17020222.d
Als bottle: 10 Calibration Sample, Level: 3
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: chlordane.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 (ppb)	AMOUNTS ON-COL (ppb)
M 32 Chlordane				34825473319	500.000	562.778
33 CHLD (1)	3.994	3.995	-0.001	3157707335	500.000	578.645
34 CHLD (2)	4.514	4.514	0.000	3034107783	500.000	540.925
35 CHLD (3)	4.925	4.926	-0.001	1772740931	500.000	543.788
36 CHLD (4)	5.118	5.118	0.000	10630331527	500.000	563.023
37 CHLD (5)	5.246	5.246	0.000	16230585744	500.000	566.030

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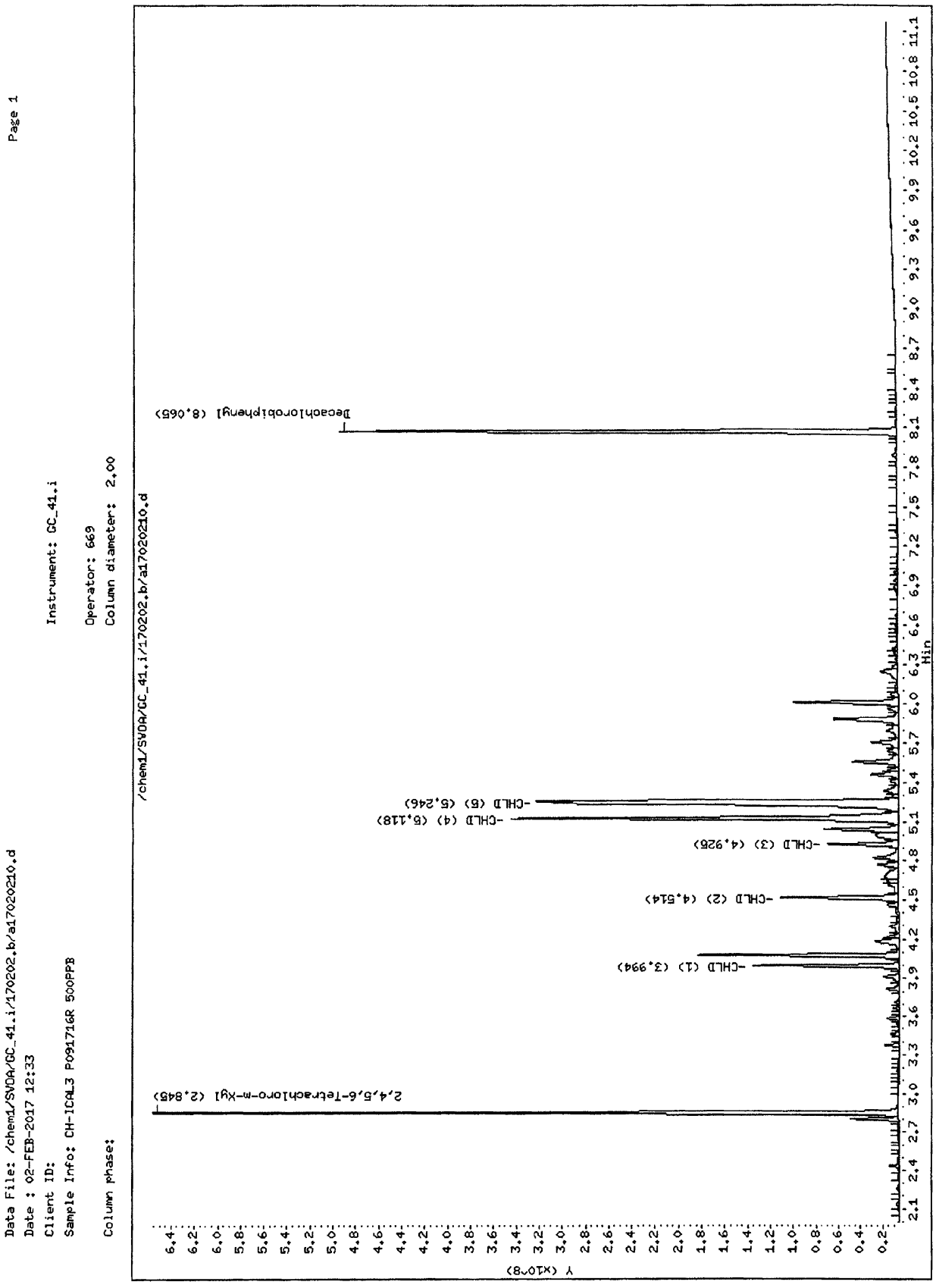

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Data File: /chem1/SVOA/GC_41.i/170202.b/a17020211.d Page 1
Report Date: 03-Feb-2017 09:33

Eurofins Calscience

Data file : /chem1/SVOA/GC_41.i/170202.b/a17020211.d
Lab Smp Id:
Inj Date : 02-FEB-2017 12:48
Operator : 669 Inst ID: GC_41.i
Smp Info : CH-ICAL4 P091716S 750PPB
Misc Info :
Comment :
Method : /chem1/SVOA/GC_41.i/170202.b/a8081d.m
Meth Date : 02-Feb-2017 16:50 uhhn Quant Type: ESTD
Cal Date : 02-FEB-2017 15:49 Cal File: a17020223.d
Als bottle: 11 Calibration Sample, Level: 4
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: chlordane.sub
Target Version: 3.50
Processing Host: US26TAR4

Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

					AMOUNTS	
					CAL-AMT	ON-COL
Compounds	RT	EXP RT	DLT RT	RESPONSE	(ppb)	(ppb)
M 32 Chlordane				45699276588	750.000	738.498
33 CHLD (1)	3.995	3.994	0.001	4069654174	750.000	745.758
34 CHLD (2)	4.514	4.514	0.000	3888707261	750.000	693.284
35 CHLD (3)	4.926	4.925	0.001	2336002126	750.000	716.568
36 CHLD (4)	5.118	5.118	0.000	14126134749	750.000	748.175
37 CHLD (5)	5.247	5.246	0.001	21278778279	750.000	742.082

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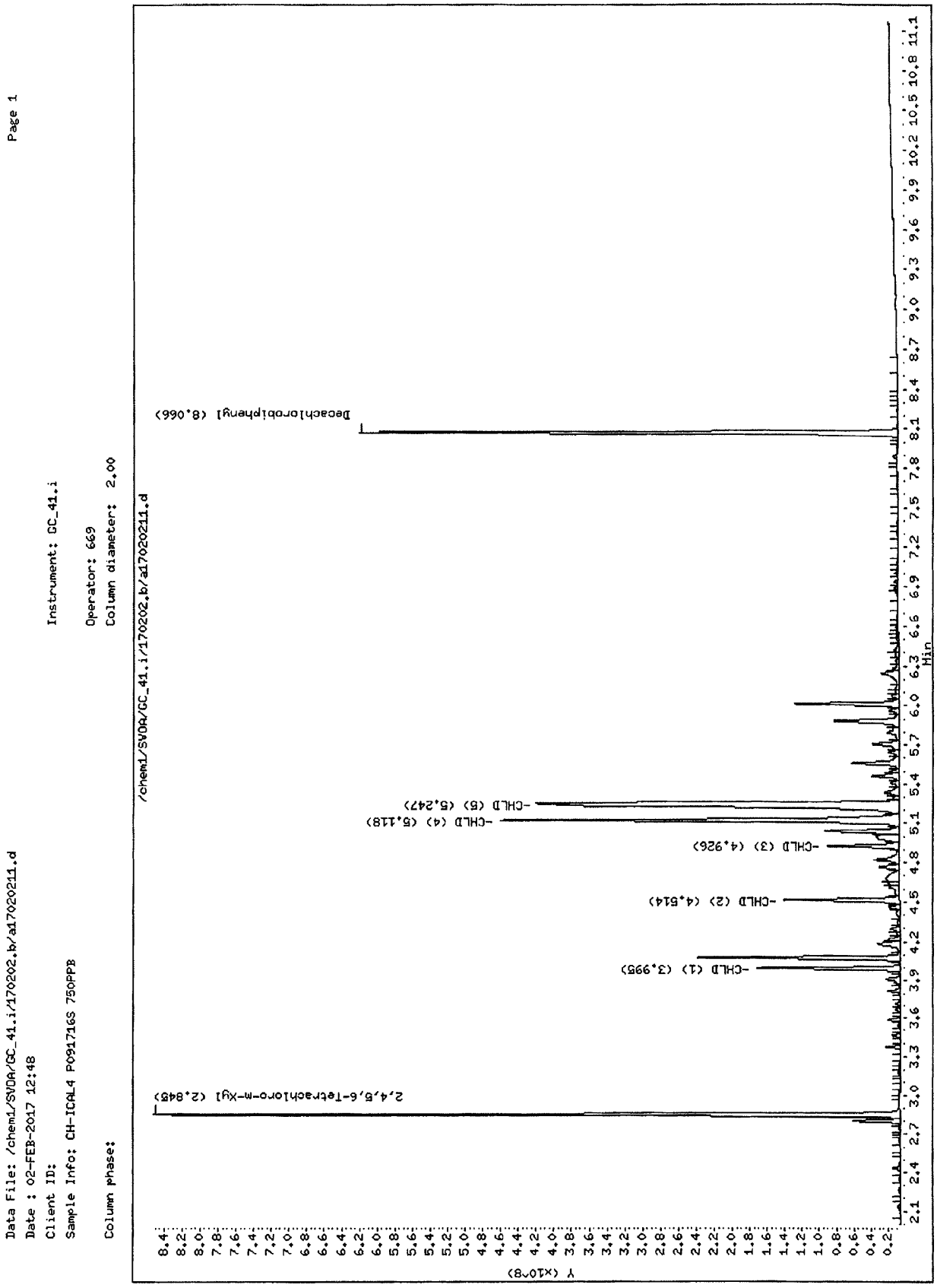

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Data File: /chem1/SVOA/GC_41.i/170202.b/a17020212.d Page 1
Report Date: 03-Feb-2017 09:33

Eurofins Calscience

Data file : /chem1/SVOA/GC_41.i/170202.b/a17020212.d
Lab Smp Id:
Inj Date : 02-FEB-2017 13:03
Operator : 669 Inst ID: GC_41.i
Smp Info : CH-ICAL5 P091716T 2000PPB
Misc Info :
Comment :
Method : /chem1/SVOA/GC_41.i/170202.b/a8081d.m
Meth Date : 02-Feb-2017 16:50 uhhn Quant Type: ESTD
Cal Date : 02-FEB-2017 16:04 Cal File: a17020224.d
Als bottle: 12 Calibration Sample, Level: 5
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: chlordane.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 (ppb)	ON-COL (ppb)
M 32 Chlordane				1315750097440	2000.00	2126.248(A)
33 CHLD (1)	3.995	3.995	0.000	11336712834	2000.00	2077.436(A)
34 CHLD (2)	4.514	4.514	0.000	10589095306	2000.00	1887.840
35 CHLD (3)	4.926	4.926	0.000	6620923848	2000.00	2030.968(A)
36 CHLD (4)	5.118	5.118	0.000	40897404634	2000.00	2166.085(A)
37 CHLD (5)	5.247	5.247	0.000	62130960818	2000.00	2166.774(A)

QC Flag Legend

A - Target compound detected but, quantitated amount exceeded maximum amount.

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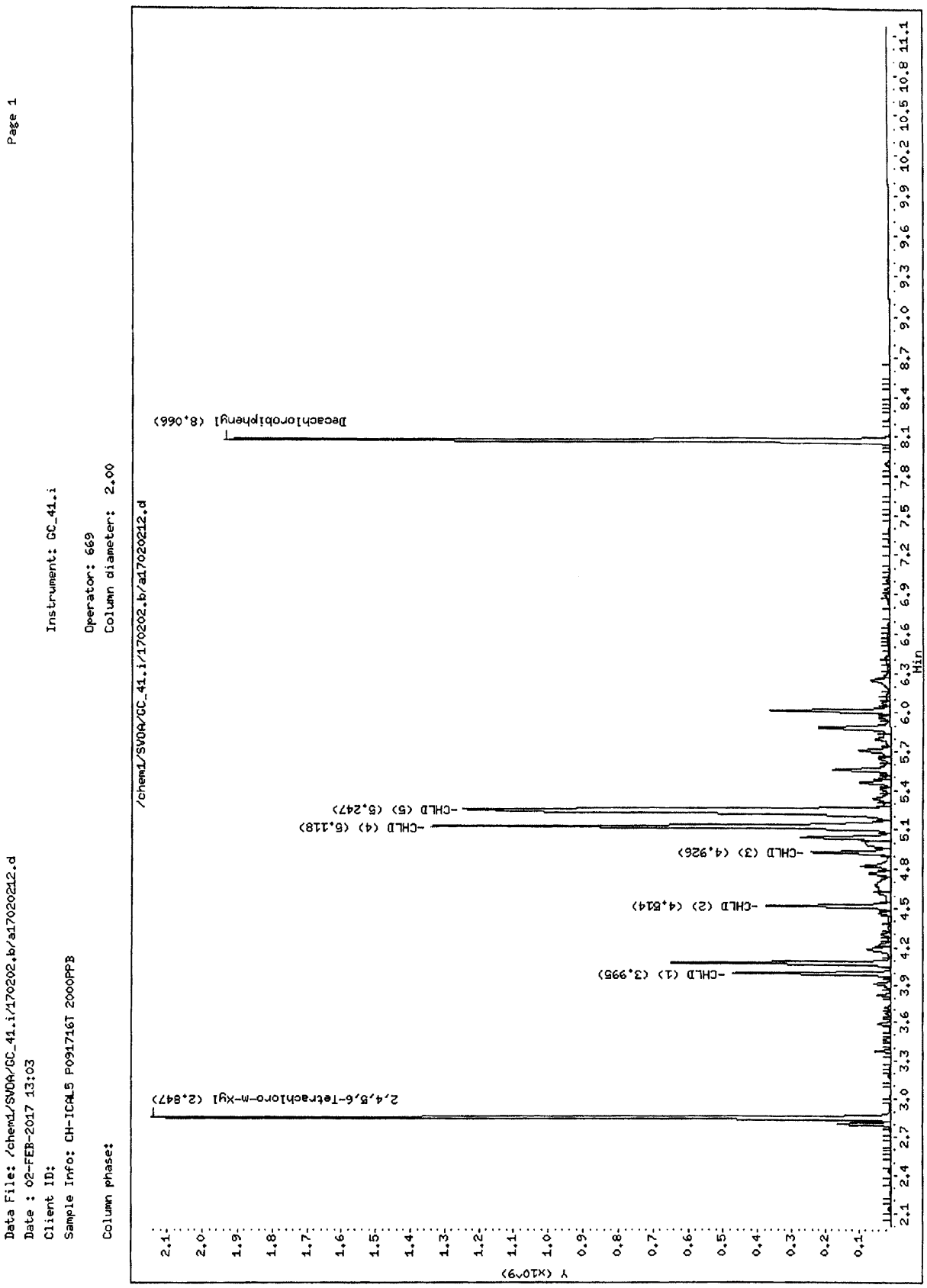

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Data File: /chem1/SVOA/GC_41.i/170202.b/a17020213.d Page 1
Report Date: 03-Feb-2017 09:33

Eurofins Calscience

Data file : /chem1/SVOA/GC_41.i/170202.b/a17020213.d
Lab Smp Id:
Inj Date : 02-FEB-2017 13:18
Operator : 669 Inst ID: GC_41.i
Smp Info : CH-ICVP091716V 500PPB
Misc Info :
Comment :
Method : /chem1/SVOA/GC_41.i/170202.b/a8081d.m
Meth Date : 02-Feb-2017 16:50 uhhn Quant Type: ESTD
Cal Date : 02-FEB-2017 16:04 Cal File: a17020224.d
Als bottle: 13 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: chlordane.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 (ppb)	ON-COL (ppb)
M 32 Chlordane				34964715410	500.000	565.028
33 CHLD (1)	3.994	3.995	-0.001	3096890484	500.000	567.500
34 CHLD (2)	4.514	4.514	0.000	3005028368	500.000	535.741
35 CHLD (3)	4.925	4.926	-0.001	1787829430	500.000	548.416
36 CHLD (4)	5.117	5.118	-0.001	10764049156	500.000	570.105
37 CHLD (5)	5.246	5.247	-0.001	16310917972	500.000	568.832

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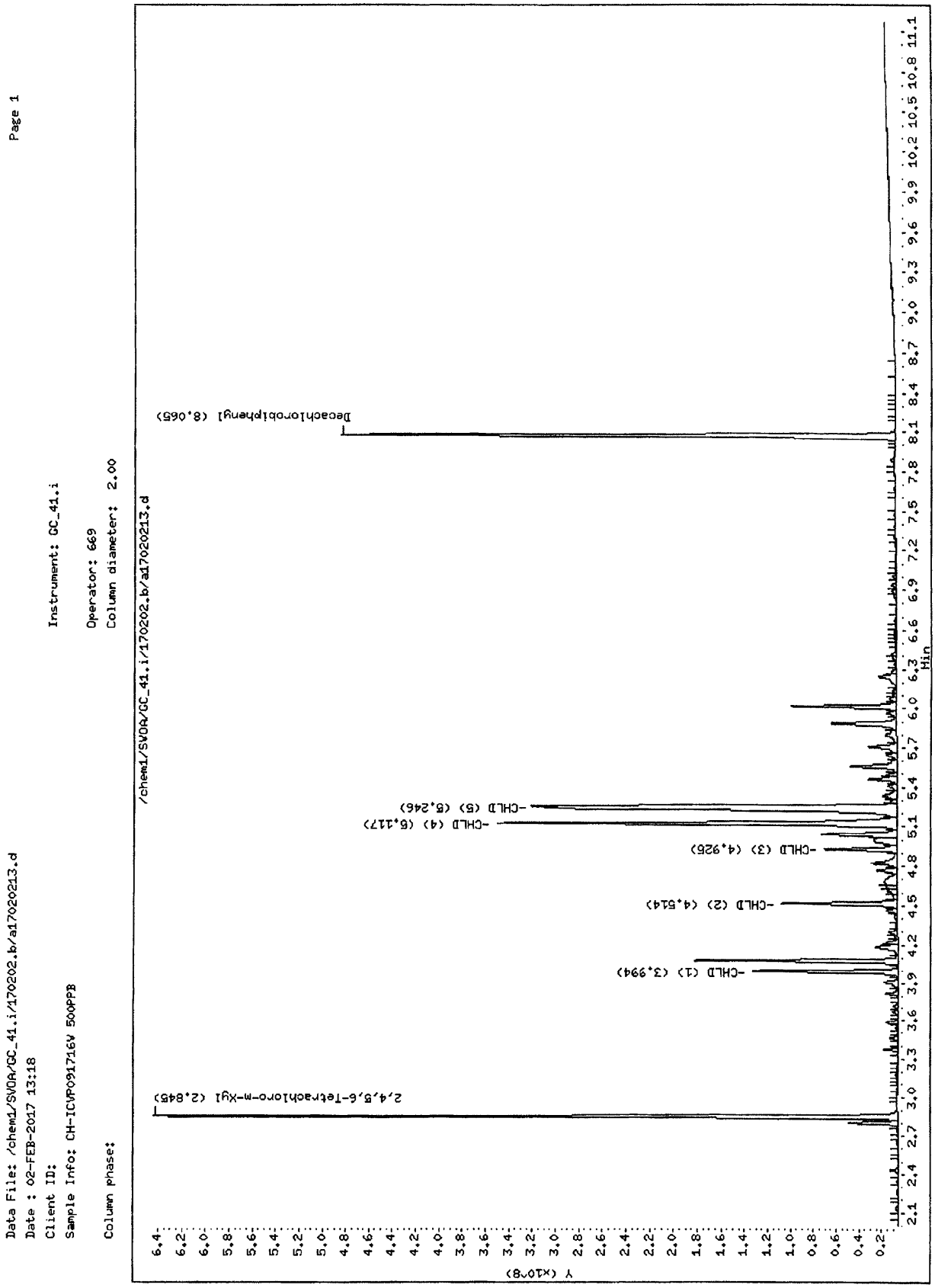

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Data File: /chem1/SVOA/GC_41.i/170202.b/a17020214.d Page 1
Report Date: 03-Feb-2017 09:33

Eurofins Calscience

Data file : /chem1/SVOA/GC_41.i/170202.b/a17020214.d
Lab Smp Id:
Inj Date : 02-FEB-2017 13:33
Operator : 669 Inst ID: GC_41.i
Smp Info : TOX-ICAL1 P091716X 200PPB
Misc Info :
Comment :
Method : /chem1/SVOA/GC_41.i/170202.b/a8081d.m
Meth Date : 02-Feb-2017 16:50 uhhn Quant Type: ESTD
Cal Date : 02-FEB-2017 15:04 Cal File: a17020220.d
Als bottle: 14 Calibration Sample, Level: 1
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: toxaphene.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 (ppb)	AMOUNTS ON-COL (ppb)
M 38 Toxaphene				4346190555	200.000	186.318(a)
39 TOXAPHENE (1)	5.779	5.777	0.002	745389154	200.000	185.403
40 TOXAPHENE (2)	6.179	6.176	0.003	1319953294	200.000	187.381
41 TOXAPHENE (3)	6.390	6.388	0.002	694404837	200.000	186.406
42 TOXAPHENE (4)	6.707	6.706	0.001	729960506	200.000	183.756
43 TOXAPHENE (5)	6.801	6.799	0.002	856482764	200.000	187.642

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).

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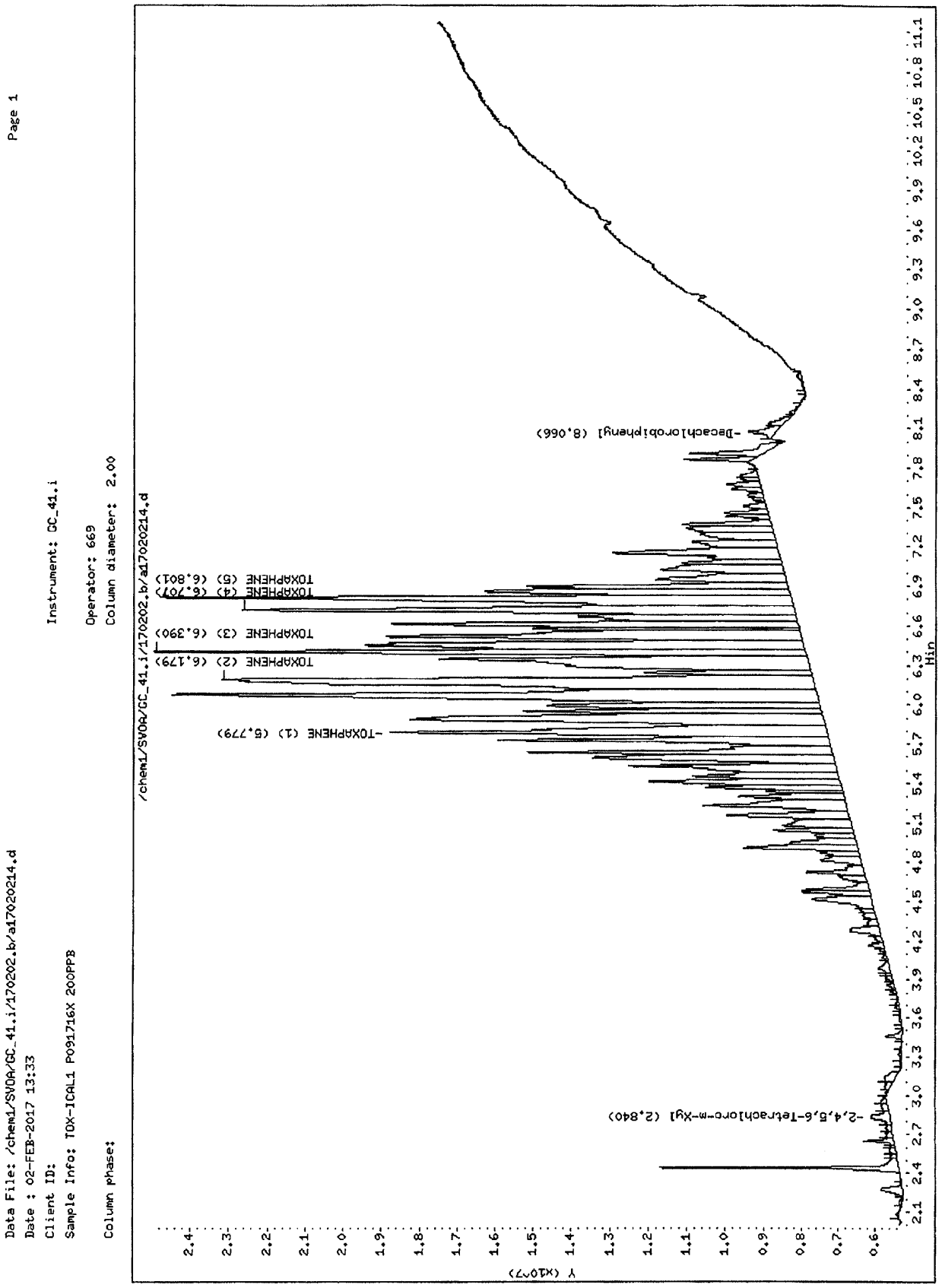

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Data File: /chem1/SVOA/GC_41.i/170202.b/a17020215.d Page 1
Report Date: 03-Feb-2017 09:33

Eurofins Calscience

Data file : /chem1/SVOA/GC_41.i/170202.b/a17020215.d
Lab Smp Id:
Inj Date : 02-FEB-2017 13:48
Operator : 669 Inst ID: GC_41.i
Smp Info : TOX-ICAL2 P091716Y 500PPB
Misc Info :
Comment :
Method : /chem1/SVOA/GC_41.i/170202.b/a8081d.m
Meth Date : 02-Feb-2017 16:50 uhhn Quant Type: ESTD
Cal Date : 02-FEB-2017 15:19 Cal File: a17020221.d
Als bottle: 15 Calibration Sample, Level: 2
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: toxaphene.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 (ppb)	AMOUNTS ON-COL (ppb)
M 38 Toxaphene				11706055752	500.000	501.832
39 TOXAPHENE (1)	5.778	5.779	-0.001	2033557934	500.000	505.815
40 TOXAPHENE (2)	6.178	6.179	-0.001	3539119291	500.000	502.415
41 TOXAPHENE (3)	6.390	6.390	0.000	1872835146	500.000	502.745
42 TOXAPHENE (4)	6.707	6.707	0.000	1983464567	500.000	499.307
43 TOXAPHENE (5)	6.800	6.801	-0.001	2277078814	500.000	498.875

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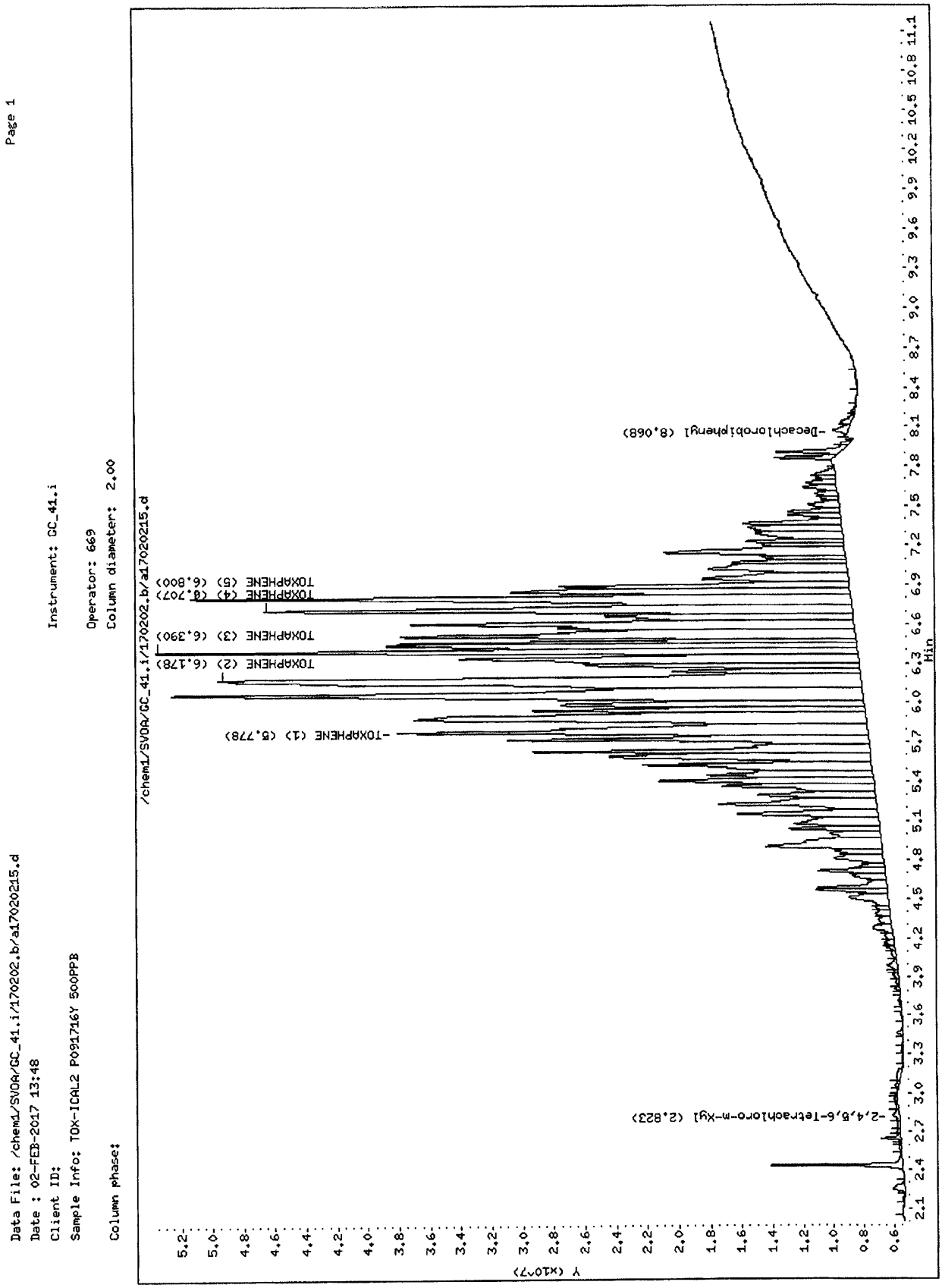

Data File: /chem1/SVOA/GC_41.i/170202.b/a17020216.d Page 1
Report Date: 03-Feb-2017 09:33

Eurofins Calscience

Data file : /chem1/SVOA/GC_41.i/170202.b/a17020216.d
Lab Smp Id:
Inj Date : 02-FEB-2017 14:04
Operator : 669 Inst ID: GC_41.i
Smp Info : TOX-ICAL3 P091716Z 1000PPB
Misc Info :
Comment :
Method : /chem1/SVOA/GC_41.i/170202.b/a8081d.m
Meth Date : 02-Feb-2017 16:50 uhhn Quant Type: ESTD
Cal Date : 02-FEB-2017 15:34 Cal File: a17020222.d
Als bottle: 16 Calibration Sample, Level: 3
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: toxaphene.sub
Target Version: 3.50
Processing Host: US26TAR4

Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

					AMOUNTS	
					CAL-AMT	ON-COL
Compounds	RT	EXP RT	DLT RT	RESPONSE	(ppb)	(ppb)
M 38 Toxaphene				25948599375	1000.00	1112.402
39 TOXAPHENE (1)	5.778	5.778	0.000	4456326602	1000.00	1108.440
40 TOXAPHENE (2)	6.179	6.178	0.001	7809990967	1000.00	1108.711
41 TOXAPHENE (3)	6.389	6.390	-0.001	4159308037	1000.00	1116.528
42 TOXAPHENE (4)	6.707	6.707	0.000	4412328694	1000.00	1110.738
43 TOXAPHENE (5)	6.800	6.800	0.000	5110645074	1000.00	1119.668

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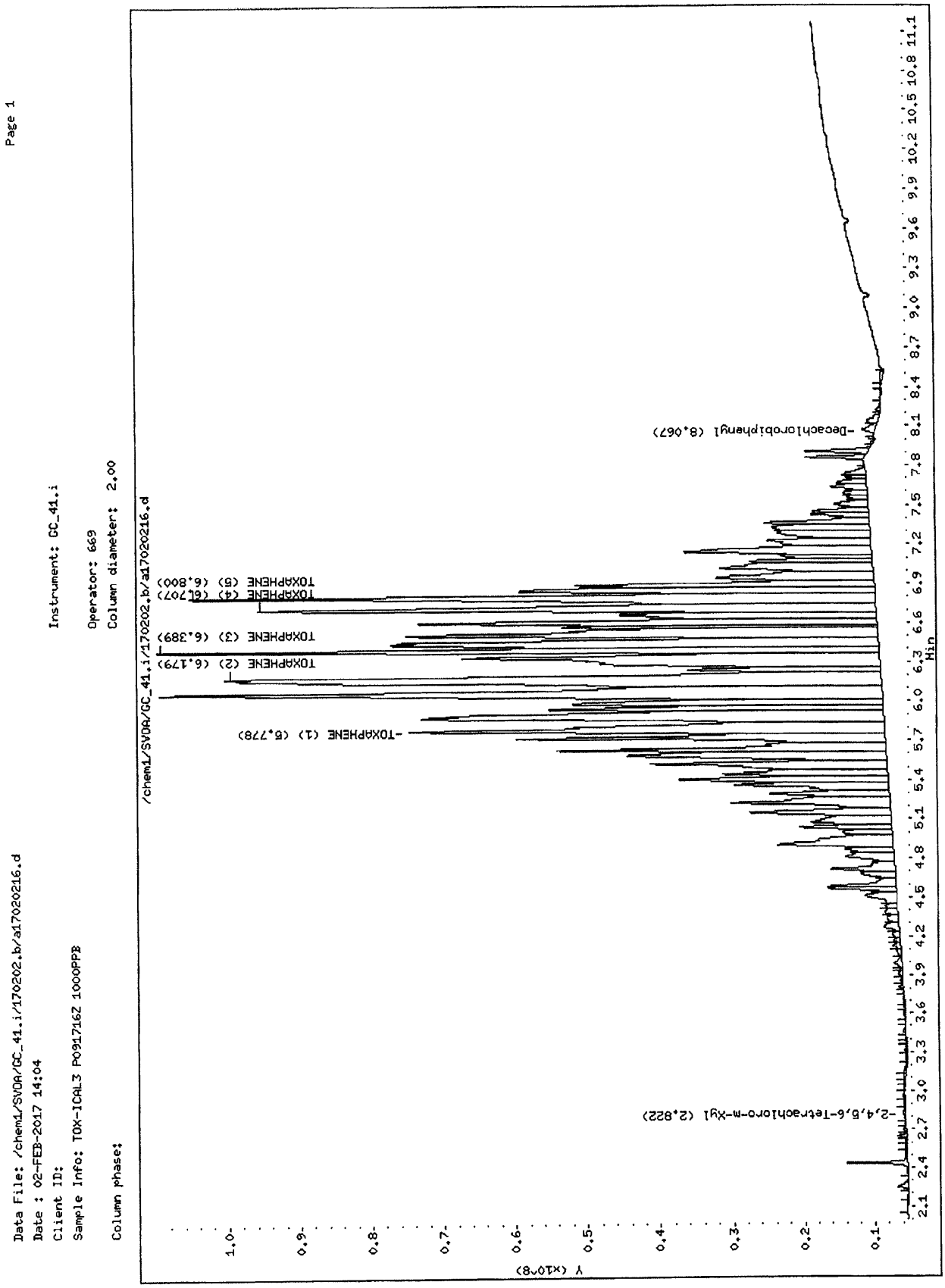

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Data File: /chem1/SVOA/GC_41.i/170202.b/a17020217.d Page 1
Report Date: 03-Feb-2017 09:33

Eurofins Calscience

Data file : /chem1/SVOA/GC_41.i/170202.b/a17020217.d
Lab Smp Id:
Inj Date : 02-FEB-2017 14:19
Operator : 669 Inst ID: GC_41.i
Smp Info : TOX-ICAL4 P091716AA 1500PPB
Misc Info :
Comment :
Method : /chem1/SVOA/GC_41.i/170202.b/a8081d.m
Meth Date : 02-Feb-2017 16:50 uhhn Quant Type: ESTD
Cal Date : 02-FEB-2017 15:49 Cal File: a17020223.d
Als bottle: 17 Calibration Sample, Level: 4
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: toxaphene.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 (ppb)	AMOUNTS ON-COL (ppb)
M 38 Toxaphene				33110002748	1500.00	1419.407
39 TOXAPHENE (1)	5.778	5.778	0.000	5767232586	1500.00	1434.507
40 TOXAPHENE (2)	6.179	6.179	0.000	10015014103	1500.00	1421.738
41 TOXAPHENE (3)	6.389	6.389	0.000	5173457271	1500.00	1388.767
42 TOXAPHENE (4)	6.707	6.707	0.000	5706037445	1500.00	1436.410
43 TOXAPHENE (5)	6.800	6.800	0.000	6448261342	1500.00	1412.720

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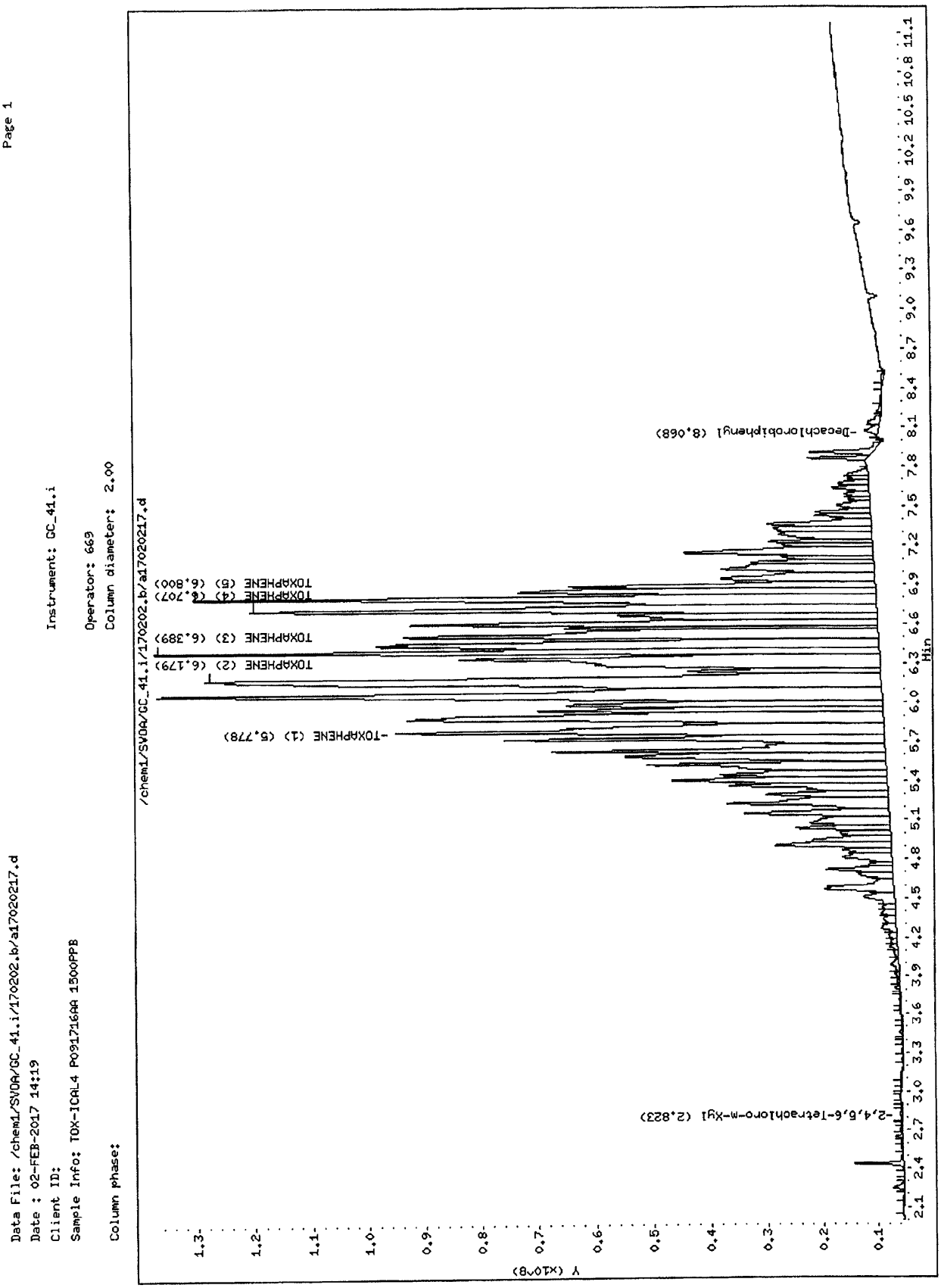

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Data File: /chem1/SVOA/GC_41.i/170202.b/a17020218.d Page 1
Report Date: 03-Feb-2017 09:33

Eurofins Calscience

Data file : /chem1/SVOA/GC_41.i/170202.b/a17020218.d
Lab Smp Id:
Inj Date : 02-FEB-2017 14:34
Operator : 669 Inst ID: GC_41.i
Smp Info : TOX-ICAL5 P091716BB 4000PPB
Misc Info :
Comment :
Method : /chem1/SVOA/GC_41.i/170202.b/a8081d.m
Meth Date : 02-Feb-2017 16:50 uhhn Quant Type: ESTD
Cal Date : 02-FEB-2017 16:04 Cal File: a17020224.d
Als bottle: 18 Calibration Sample, Level: 5
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: toxaphene.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 (ppb)	AMOUNTS ON-COL (ppb)
M 38 Toxaphene				93872646460	4000.00	4024.269(A)
39 TOXAPHENE (1)	5.778	5.778	0.000	16026299414	4000.00	3986.287
40 TOXAPHENE (2)	6.177	6.179	-0.002	28225391124	4000.00	4006.895(A)
41 TOXAPHENE (3)	6.389	6.389	0.000	15200386422	4000.00	4080.406(A)
42 TOXAPHENE (4)	6.706	6.707	-0.001	16116248438	4000.00	4057.025(A)
43 TOXAPHENE (5)	6.799	6.800	-0.001	18304321062	4000.00	4010.211(A)

QC Flag Legend

A - Target compound detected but, quantitated amount exceeded maximum amount.

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Data File: /chem1/SVOA/GC_41.i/170202.b/a17020218.d

Date : 02-FEB-2017 14:34

Client ID:

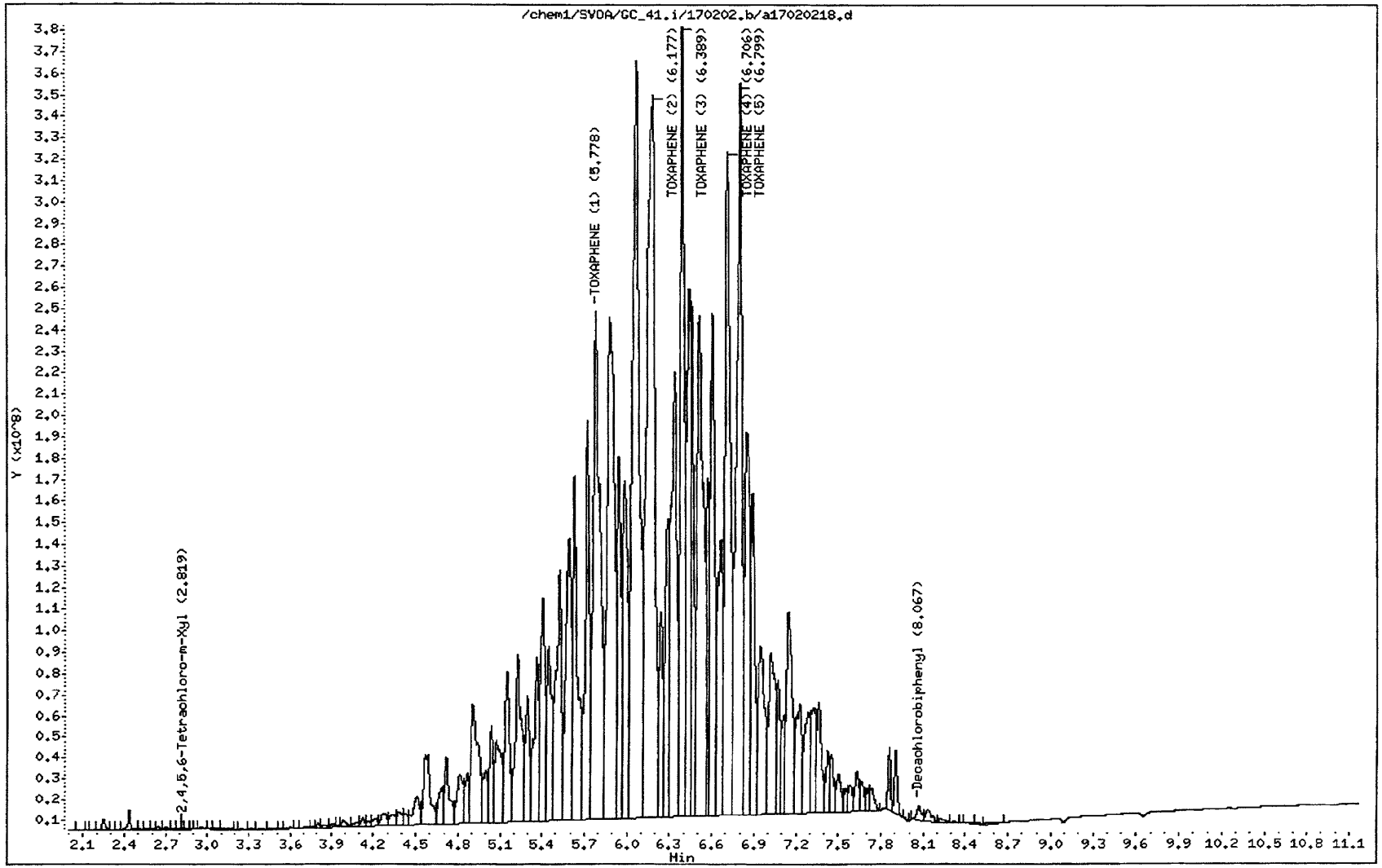
Sample Info: TOX-ICAL5 P091716BB 4000PPB

Column phase:

Instrument: GC_41.i

Operator: 669

Column diameter: 2.00



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Data File: /chem1/SVOA/GC_41.i/170202.b/a17020219.d Page 1
Report Date: 03-Feb-2017 09:33

Eurofins Calscience

Data file : /chem1/SVOA/GC_41.i/170202.b/a17020219.d
Lab Smp Id:
Inj Date : 02-FEB-2017 14:49
Operator : 669 Inst ID: GC_41.i
Smp Info : TOX-ICV P091716DD 1000PPB
Misc Info :
Comment :
Method : /chem1/SVOA/GC_41.i/170202.b/a8081d.m
Meth Date : 02-Feb-2017 16:50 uhhn Quant Type: ESTD
Cal Date : 02-FEB-2017 16:04 Cal File: a17020224.d
Als bottle: 19 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: toxaphene.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 (ppb)	AMOUNTS ON-COL (ppb)
M 38 Toxaphene				23114421585	1000.00	990.902
39 TOXAPHENE (1)	5.777	5.778	-0.001	3990258018	1000.00	992.513
40 TOXAPHENE (2)	6.176	6.177	-0.001	6984220631	1000.00	991.484
41 TOXAPHENE (3)	6.388	6.389	-0.001	3679972925	1000.00	987.855
42 TOXAPHENE (4)	6.706	6.706	0.000	3958895537	1000.00	996.593
43 TOXAPHENE (5)	6.799	6.799	0.000	4501074474	1000.00	986.120

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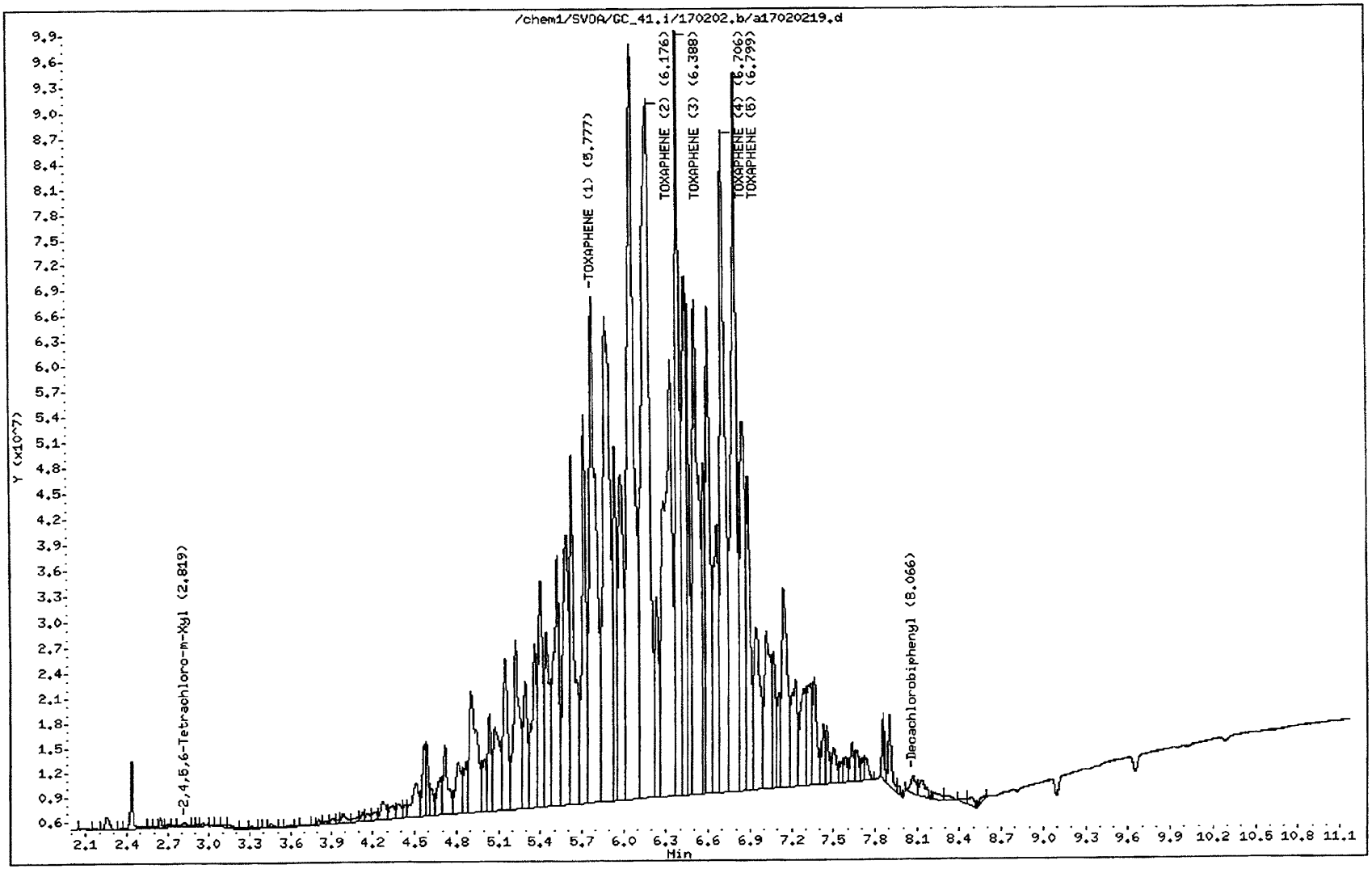
Data File: /chem1/SVOA/GC_41.i/170202.b/a17020219.d
Date : 02-FEB-2017 14:49
Client ID:
Sample Info: TOX-ICV P091716DD 1000PPB

Instrument: GC_41.i

Operator: 669
Column diameter: 2.00

Column phase:



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Report Date : 03-Feb-2017 10:09 Page 1

Eurofins Calscience

INITIAL CALIBRATION DATA

Start Cal Date : 03-AUG-2016 11:20
End Cal Date : 02-FEB-2017 16:04
Quant Method : ESTD
Origin : Disabled
Target Version : 3.50
Integrator : HP Genie
Method file : /chem1/SVOA/GC_41.i/170202.b/b8081d.m
Cal Date : 03-Feb-2017 10:09 uj3k
Curve Type : Average

Calibration File Names:
Level 1: /chem1/SVOA/GC_41.i/170202.b/b17020220.d
Level 2: /chem1/SVOA/GC_41.i/170202.b/b17020221.d
Level 3: /chem1/SVOA/GC_41.i/170202.b/b17020222.d
Level 4: /chem1/SVOA/GC_41.i/170202.b/b17020223.d
Level 5: /chem1/SVOA/GC_41.i/170202.b/b17020224.d

Compound	10.000 Level 1	20.000 Level 2	40.000 Level 3	60.000 Level 4	80.000 Level 5	RRF	% RSD
2 Hexachlorobenzene	119632767	117173349	121547055	124327861	122515376	121039282	2
3 Alpha-BHC	157263457	160100300	170939922	177305862	176207516	168363412	5
4 Gamma-BHC	143466918	143529395	152195655	158043362	156147862	150676639	5
5 Beta-BHC	60235362	58787242	61060268	62767477	61506938	60871458	2
6 Delta-BHC	137093632	138233028	148294812	154569292	152442825	146126718	6
7 Heptachlor	144887475	142547206	149576866	153873915	149778917	148132876	3
8 Aldrin	130177029	130495983	138514944	142733397	139762545	136336780	4
9 4,4'-Dichlorobenzophenone	21286335	20343889	19845939	19469841	19857661	20160733	3
10 Oxychlordane	109300656	110114532	109126761	108588617	109902016	109406516	1
11 Heptachlor Epoxide	115373697	111462817	118138635	122205763	119620219	117360226	4
12 2,4'-DDE	73398415	74146992	73834024	73052610	73943153	73675039	1
13 Gamma Chlordane	120026569	116754054	124990611	130711899	127529919	124002610	5
14 Trans-Nonachlor	117918040	119658755	119568783	118806138	121310116	119452366	1
15 Alpha Chlordane	116256012	112351553	119837592	125094611	122020360	119112025	4
16 Endosulfan I	105297926	99757101	104796648	108714311	105312515	104775700	3
17 4,4'-DDE	114626171	110413793	118464450	124725199	121339569	117913836	5
18 Dieldrin	114711580	110141440	118595466	124201441	120651305	117660246	5
19 2,4'-DDD	63889574	64847203	64980833	63522492	64693738	64386768	1
20 Endrin	97820582	92132620	96125014	101341948	96883170	96860667	3
21 2,4'-DDT	71485547	72011282	72787027	72651518	74250051	72637085	1
22 Cis-Nonachlor	122615697	123782018	123871035	120577382	125738231	123316873	2
23 4,4'-DDD	101888546	95335333	100879553	105032406	100145364	100656240	3

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Report Date : 03-Feb-2017 10:09 Page 2

Eurofins Calscience

INITIAL CALIBRATION DATA

Start Cal Date : 03-AUG-2016 11:20
End Cal Date : 02-FEB-2017 16:04
Quant Method : ESTD
Origin : Disabled
Target Version : 3.50
Integrator : HP Genie
Method file : /chem1/SVOA/GC_41.i/170202.b/b8081d.m
Cal Date : 03-Feb-2017 10:09 uj3k
Curve Type : Average

	Compound	10.000 Level 1	20.000 Level 2	40.000 Level 3	60.000 Level 4	80.000 Level 5	RRF	% RSD
	24 Endosulfan II	90114746	83617933	85066444	89013100	85176797	86597804	3
	25 4,4'-DDT	97201368	90451839	98017607	104343867	100383375	98079611	5
	26 Endrin Aldehyde	90762561	82786985	88195941	93248240	89882587	88975263	4
	27 Endosulfan Sulfate	106269312	88689381	93535130	99617740	95776575	96777627	7
	28 Mirex	82887525	79153690	74058068	71909167	73378661	76277422	6
	29 Methoxychlor	61979437	51618458	52035328	55901628	51877450	54682460	8
	30 Endrin Ketone	118086012	106467977	112946465	121841473	115387586	114945903	5
M	32 Chlordane	47203699	49077810	60481058	52449398	56479402	53138273	10
	33 CHLD (1)	4676846	4772215	6094154	5299310	6012112	5370928	12
	34 CHLD (2)	4368246	4293626	5152885	4464507	4549799	4565813	7
	35 CHLD (3)	14235011	15434612	18494420	16043131	17698784	16381192	10
	36 CHLD (4)	11891142	12253616	15352968	13314966	14149998	13392538	11
	37 CHLD (5)	12032453	12323741	15386631	13327483	14068708	13427803	10
M	38 Toxaphene	18236462	18728654	20637721	18187176	18256149	18809233	6
	39 TOXAPHENE (1)	2363366	2490444	2701824	2311755	2370510	2447580	6
	40 TOXAPHENE (2)	3072547	3274123	3576629	3062699	3176526	3232505	7
	41 TOXAPHENE (3)	6211053	5967143	6594635	6213916	5820697	6161489	5
	42 TOXAPHENE (4)	3454624	3700137	4085091	3483195	3620381	3668686	7
	43 TOXAPHENE (5)	3134872	3296807	3679542	3115610	3268035	3298973	7
$	1 2,4,5,6-Tetrachloro-m-Xylene	98478290	95398185	98874124	100930254	99131056	98562382	2
$	31 Decachlorobiphenyl	96754490	87029770	93193771	100781898	95553537	94662693	5

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Data File: /chem1/SVOA/GC_41.i/170202.b/b17020207.d
Report Date: 02/03/2017 09:40

Eurofins CalScience
Calibration Verification Report

Instrument ID: GC_41.i
Sample Name: P-ICV P091716L 40PPB
Sublist used: PEST.sub
Method used: /chem1/SVOA/GC_41.i/170202.b/b8081d.m

Injection Date and Time: 02-FEB-2017 11:48
Initial Calibration Date(s): 03-AUG-2016 02-FEB-2017
Initial Calibration Time(s): 11:20 16:04

Target Compounds	ICAL RRF or Amount	ICV RRF	Min. RRF	%D / %Drift	Max%D /Drift	Curve Type
Hexachlorobenzene	121039281.509	114717049.911	0.00	5	15	Averaged
Alpha-BHC	168363411.517	166023982.966	0.00	1	15	Averaged
Gamma-BHC	150676638.658	133636792.701	0.00	11	15	Averaged
Beta-BHC	60871457.585	58822788.763	0.00	3	15	Averaged
Delta-BHC	146126717.737	146907692.629	0.00	-1	15	Averaged
Heptachlor	148132875.736	142316498.840	0.00	4	15	Averaged
Aldrin	136336779.560	141327258.307	0.00	-4	15	Averaged
Heptachlor Epoxide	117360226.284	123764466.119	0.00	-5	15	Averaged
Gamma Chlordane	124002610.334	128489857.433	0.00	-4	15	Averaged
Alpha Chlordane	119112025.388	120852176.228	0.00	-1	15	Averaged
4,4'-DDE	117913836.141	118927505.388	0.00	-1	15	Averaged
Endosulfan I	104775700.255	110180329.252	0.00	-5	15	Averaged
Dieldrin	117660246.461	127436534.851	0.00	-8	15	Averaged
Endrin	96860666.867	94542641.044	0.00	2	15	Averaged
4,4'-DDD	100656240.271	98307498.677	0.00	2	15	Averaged
Endosulfan II	86597804.012	95718659.683	0.00	-11	15	Averaged
4,4'-DDT	98079611.041	100414412.700	0.00	-2	15	Averaged
Endrin Aldehyde	88975262.906	86968151.357	0.00	2	15	Averaged
Methoxychlor	54682460.163	51276328.703	0.00	6	15	Averaged
Endosulfan Sulfate	96777627.454	97353486.986	0.00	-1	15	Averaged
Endrin Ketone	114945902.551	120117552.964	0.00	-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	98562381.558	98673118.323	0.00	0	15	Averaged
Decachlorobiphenyl	94662693.353	95468524.225	0.00	-1	15	Averaged

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Data File: /chem1/SVOA/GC_41.i/170202.b/b17020202.d Page 1
Report Date: 03-Feb-2017 09:37

Eurofins Calscience

Data file : /chem1/SVOA/GC_41.i/170202.b/b17020202.d
Lab Smp Id:
Inj Date : 02-FEB-2017 10:33
Operator : 669 Inst ID: GC_41.i
Smp Info : P-ICAL1 P091716E 10PPB
Misc Info :
Comment :
Method : /chem1/SVOA/GC_41.i/170202.b/b8081d.m
Meth Date : 02-Feb-2017 16:53 uhhn Quant Type: ESTD
Cal Date : 02-FEB-2017 15:04 Cal File: b17020220.d
Als bottle: 2 Calibration Sample, Level: 1
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: PEST.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 (ppb)	ON-COL (ppb)
$ 1	2,4,5,6-Tetrachloro-m-Xylene	2.735	2.736	-0.001	1969565799	20.0000	19.982
2	Hexachlorobenzene	3.122	3.123	-0.001	1196327673	10.0000	9.883(a)
3	Alpha-BHC	3.240	3.241	-0.001	1572634573	10.0000	9.340(a)
4	Gamma-BHC	3.562	3.563	-0.001	1434669180	10.0000	9.521(a)
5	Beta-BHC	3.630	3.631	-0.001	602353622	10.0000	9.895(a)
6	Delta-BHC	3.917	3.919	-0.002	1370936319	10.0000	9.381(a)
7	Heptachlor	3.989	3.991	-0.002	1448874750	10.0000	9.780(a)
8	Aldrin	4.321	4.322	-0.001	1301770293	10.0000	9.548(a)
11	Heptachlor Epoxide	4.903	4.904	-0.001	1153736974	10.0000	9.830(a)
13	Gamma Chlordane	5.092	5.093	-0.001	1200265694	10.0000	9.679(a)
15	Alpha Chlordane	5.240	5.240	0.000	1162560119	10.0000	9.760(a)
16	Endosulfan I	5.301	5.302	-0.001	1052979263	10.0000	10.049
17	4,4'-DDE	5.402	5.403	-0.001	1146261707	10.0000	9.721(a)
18	Dieldrin	5.573	5.574	-0.001	1147115797	10.0000	9.749(a)
20	Endrin	5.875	5.875	0.000	978205820	10.0000	10.099
23	4,4'-DDD	5.974	5.974	0.000	1018885458	10.0000	10.122
24	Endosulfan II	6.080	6.081	-0.001	901147463	10.0000	10.406
25	4,4'-DDT	6.277	6.278	-0.001	972013676	10.0000	9.910(a)
26	Endrin Aldehyde	6.406	6.407	-0.001	907625609	10.0000	10.200
27	Endosulfan Sulfate	6.670	6.670	0.000	1062693120	10.0000	10.980
29	Methoxychlor	6.931	6.932	-0.001	619794365	10.0000	11.334

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Data File: /chem1/SVOA/GC_41.i/170202.b/b17020202.d Page 2
Report Date: 03-Feb-2017 09:37

Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ppb)	AMOUNTS ON-COL (ppb)
30 Endrin Ketone	7.177	7.177	0.000	1180860116	10.0000	10.273
$ 31 Decachlorobiphenyl	8.292	8.292	0.000	1935089794	20.0000	20.441

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).

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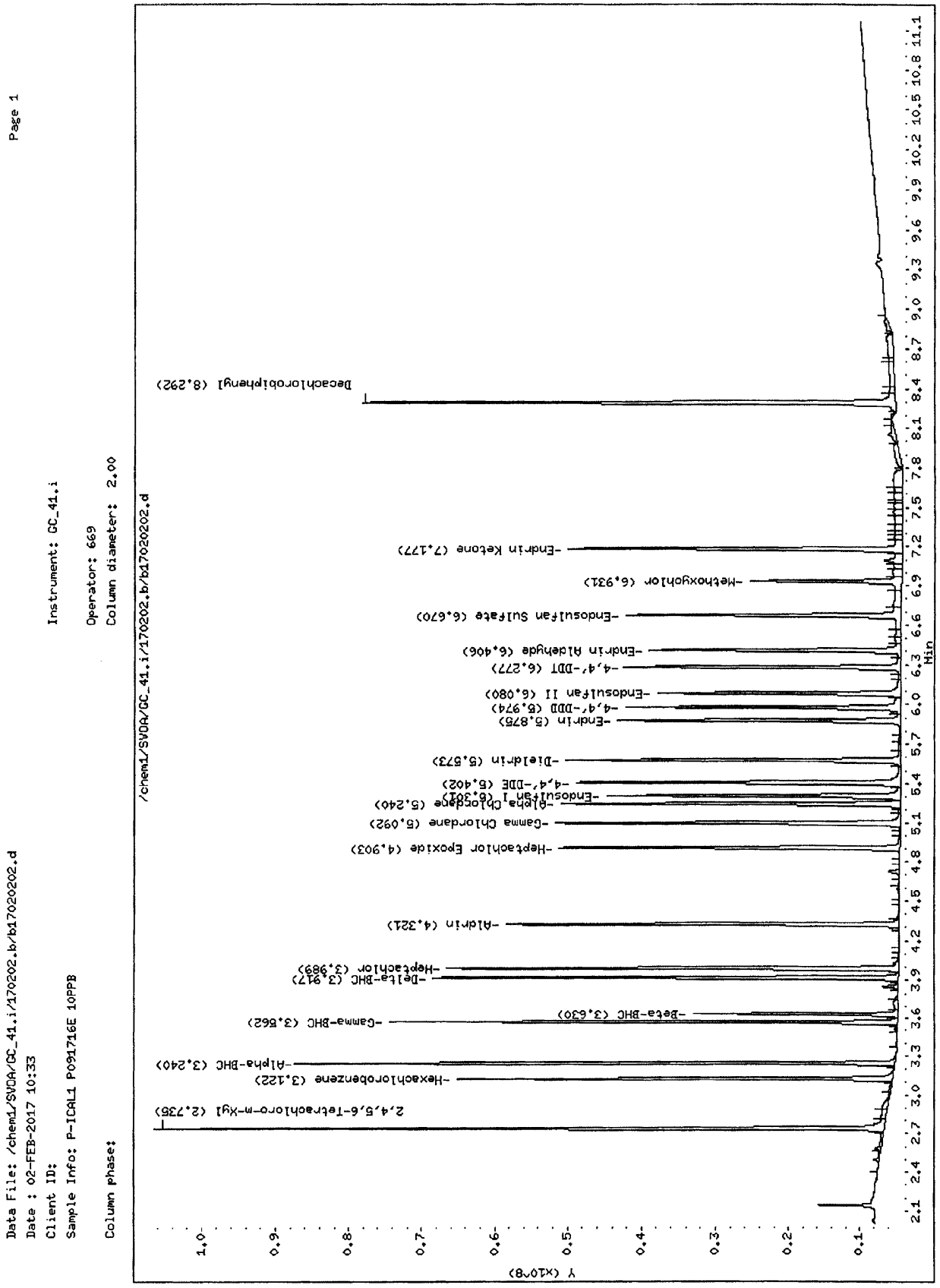

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Data File: /chem1/SVOA/GC_41.i/170202.b/b17020203.d Page 1
Report Date: 03-Feb-2017 09:37

Eurofins Calscience

Data file : /chem1/SVOA/GC_41.i/170202.b/b17020203.d
Lab Smp Id:
Inj Date : 02-FEB-2017 10:48
Operator : 669 Inst ID: GC_41.i
Smp Info : P-ICAL2 P091716F 20PPB
Misc Info :
Comment :
Method : /chem1/SVOA/GC_41.i/170202.b/b8081d.m
Meth Date : 02-Feb-2017 16:53 uhhn Quant Type: ESTD
Cal Date : 02-FEB-2017 15:19 Cal File: b17020221.d
Als bottle: 3 Calibration Sample, Level: 2
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: PEST.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 (ppb)	AMOUNTS ON-COL (ppb)
$ 1	2,4,5,6-Tetrachloro-m-Xylene	2.736	2.735	0.001	3815927384	40.0000	38.715
2	Hexachlorobenzene	3.123	3.122	0.001	2343466984	20.0000	19.361
3	Alpha-BHC	3.241	3.240	0.001	3202006009	20.0000	19.018
4	Gamma-BHC	3.563	3.562	0.001	2870587910	20.0000	19.051
5	Beta-BHC	3.631	3.630	0.001	1175744846	20.0000	19.315
6	Delta-BHC	3.919	3.917	0.002	2764660553	20.0000	18.919
7	Heptachlor	3.991	3.989	0.002	2850944114	20.0000	19.245
8	Aldrin	4.322	4.321	0.001	2609919659	20.0000	19.143
11	Heptachlor Epoxide	4.904	4.903	0.001	2229256344	20.0000	18.994
13	Gamma Chlordane	5.093	5.092	0.001	2335081081	20.0000	18.830
15	Alpha Chlordane	5.241	5.240	0.001	2247031052	20.0000	18.864
16	Endosulfan I	5.302	5.301	0.001	1995142016	20.0000	19.042
17	4,4'-DDE	5.403	5.402	0.001	2208275851	20.0000	18.727
18	Dieldrin	5.574	5.573	0.001	2202828806	20.0000	18.721
20	Endrin	5.875	5.875	0.000	1842652405	20.0000	19.023
23	4,4'-DDD	5.974	5.974	0.000	1906706656	20.0000	18.942
24	Endosulfan II	6.081	6.080	0.001	1672358663	20.0000	19.311
25	4,4'-DDT	6.278	6.277	0.001	1809036789	20.0000	18.444
26	Endrin Aldehyde	6.407	6.406	0.001	1655739700	20.0000	18.608
27	Endosulfan Sulfate	6.671	6.670	0.001	1773787619	20.0000	18.328
29	Methoxychlor	6.932	6.931	0.001	1032369154	20.0000	18.879

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Data File: /chem1/SVOA/GC_41.i/170202.b/b17020203.d Page 2
Report Date: 03-Feb-2017 09:37

Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ppb)	AMOUNTS ON-COL (ppb)
30 Endrin Ketone	7.178	7.177	0.001	2129359543	20.0000	18.524
$ 31 Decachlorobiphenyl	8.292	8.292	0.000	3481190799	40.0000	36.774

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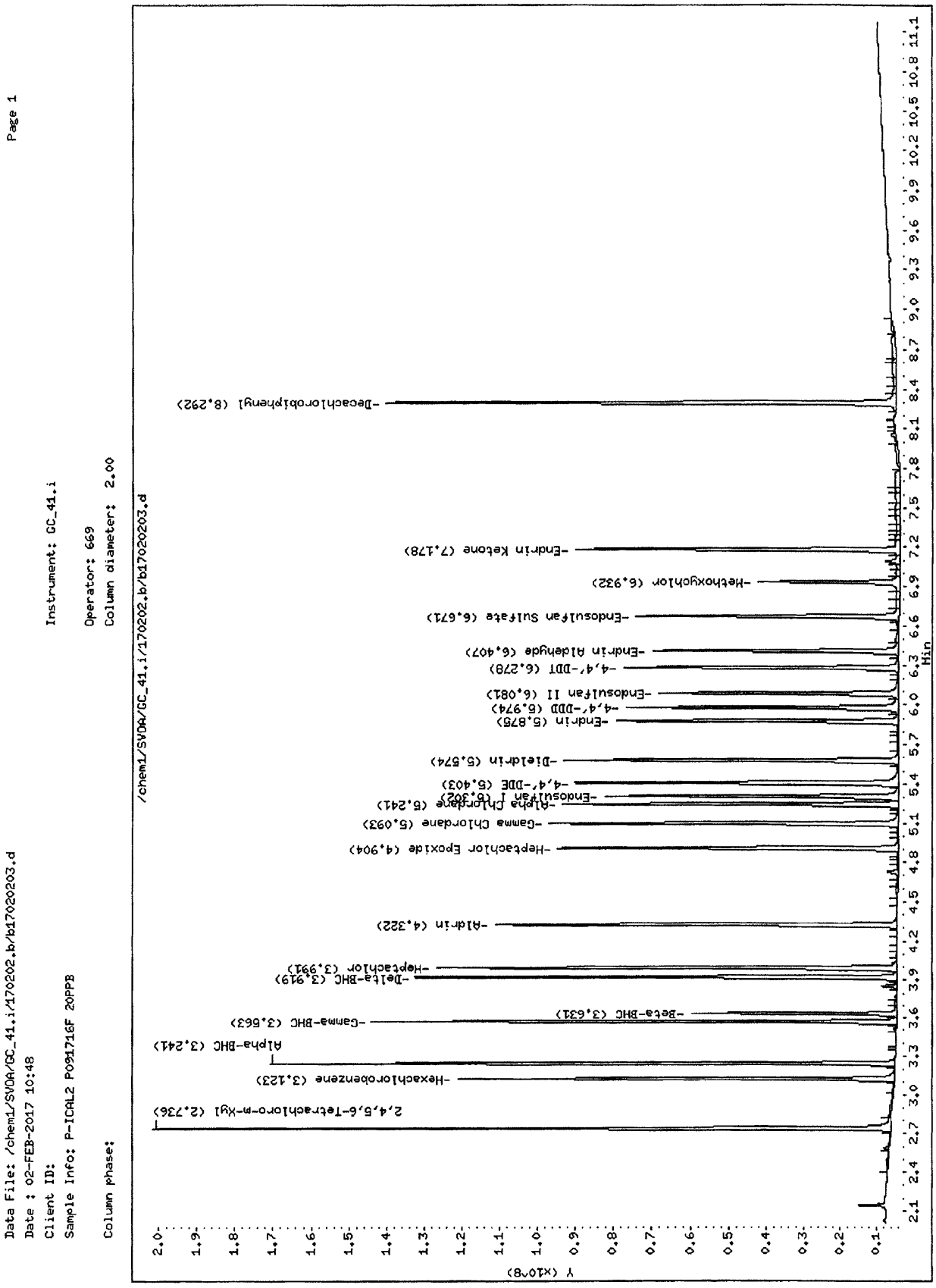

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Data File: /chem1/SVOA/GC_41.i/170202.b/b17020204.d Page 1
Report Date: 03-Feb-2017 09:37

Eurofins Calscience

Data file : /chem1/SVOA/GC_41.i/170202.b/b17020204.d
Lab Smp Id:
Inj Date : 02-FEB-2017 11:03
Operator : 669 Inst ID: GC_41.i
Smp Info : P-ICAL3 P091716G 40PPB
Misc Info :
Comment :
Method : /chem1/SVOA/GC_41.i/170202.b/b8081d.m
Meth Date : 02-Feb-2017 16:53 uhhn Quant Type: ESTD
Cal Date : 02-FEB-2017 15:34 Cal File: b17020222.d
Als bottle: 4 Calibration Sample, Level: 3
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: PEST.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 (ppb)	AMOUNTS ON-COL (ppb)
$ 1	2,4,5,6-Tetrachloro-m-Xylene	2.736	2.736	0.000	7909929880	80.0000	80.253
2	Hexachlorobenzene	3.123	3.123	0.000	4861882189	40.0000	40.167
3	Alpha-BHC	3.241	3.241	0.000	6837596887	40.0000	40.612
4	Gamma-BHC	3.563	3.563	0.000	6087826214	40.0000	40.403
5	Beta-BHC	3.631	3.631	0.000	2442410725	40.0000	40.124
6	Delta-BHC	3.919	3.919	0.000	5931792487	40.0000	40.593
7	Heptachlor	3.991	3.991	0.000	5983074637	40.0000	40.389
8	Aldrin	4.322	4.322	0.000	5540597741	40.0000	40.639
11	Heptachlor Epoxide	4.904	4.904	0.000	4725545416	40.0000	40.265
13	Gamma Chlordane	5.093	5.093	0.000	4999624446	40.0000	40.318
15	Alpha Chlordane	5.240	5.241	-0.001	4793503681	40.0000	40.243
16	Endosulfan I	5.302	5.302	0.000	4191865906	40.0000	40.007
17	4,4'-DDE	5.403	5.403	0.000	4738577993	40.0000	40.186
18	Dieldrin	5.574	5.574	0.000	4743818628	40.0000	40.317
20	Endrin	5.875	5.875	0.000	3845000566	40.0000	39.696
23	4,4'-DDD	5.974	5.974	0.000	4035182120	40.0000	40.088
24	Endosulfan II	6.081	6.081	0.000	3402657741	40.0000	39.292
25	4,4'-DDT	6.278	6.278	0.000	3920704270	40.0000	39.974
26	Endrin Aldehyde	6.406	6.407	-0.001	3527837650	40.0000	39.649
27	Endosulfan Sulfate	6.671	6.671	0.000	3741405187	40.0000	38.659
29	Methoxychlor	6.932	6.932	0.000	2081413122	40.0000	38.063

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Data File: /chem1/SVOA/GC_41.i/170202.b/b17020204.d Page 2
Report Date: 03-Feb-2017 09:37

Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ppb)	AMOUNTS ON-COL (ppb)
30 Endrin Ketone	7.178	7.178	0.000	4517858598	40.0000	39.304
$ 31 Decachlorobiphenyl	8.292	8.292	0.000	7455501698	80.0000	78.758

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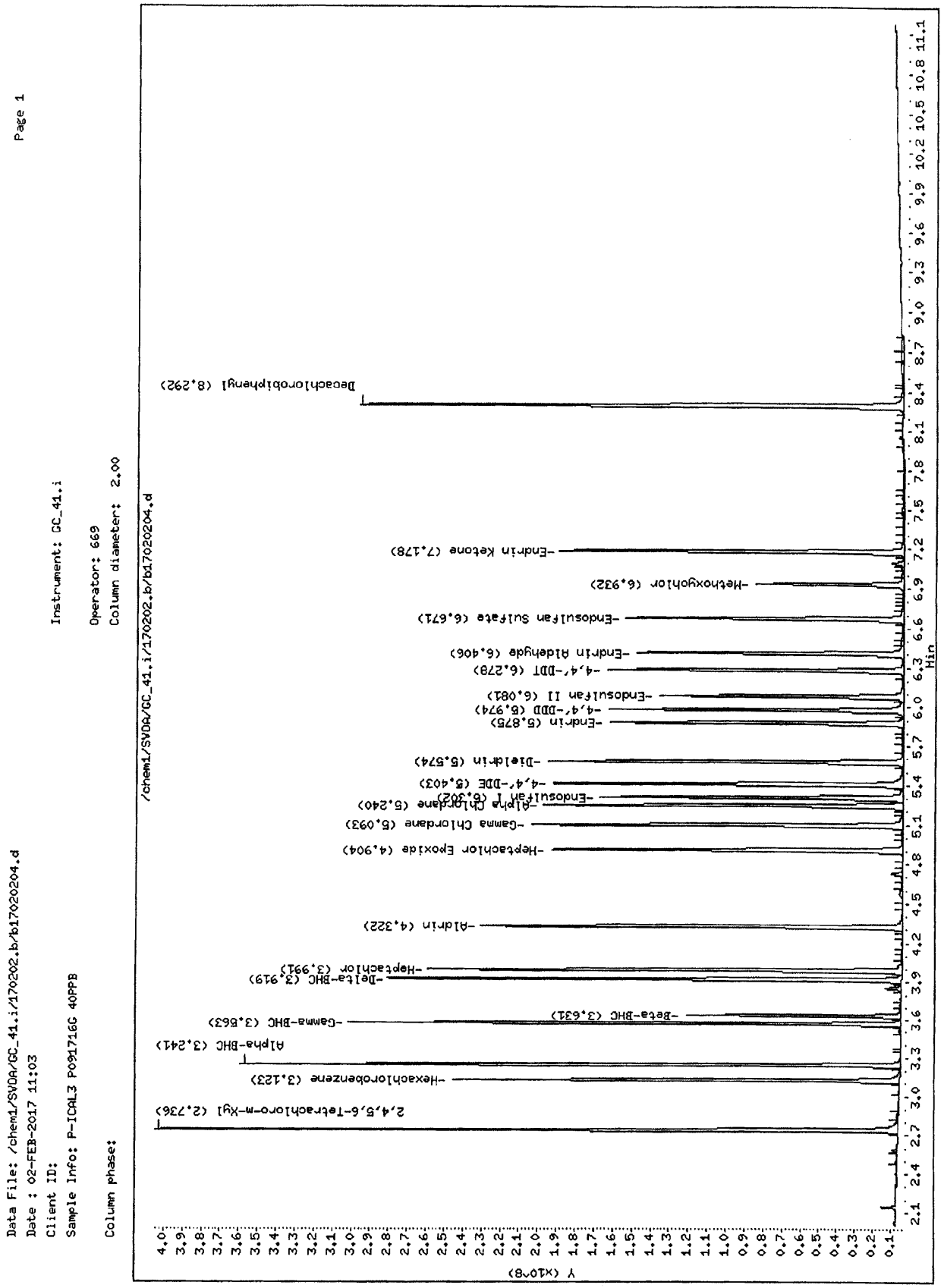

Data File: /chem1/SVOA/GC_41.i/170202.b/b17020205.d Page 1
Report Date: 03-Feb-2017 10:08

Eurofins Calscience

Data file : /chem1/SVOA/GC_41.i/170202.b/b17020205.d
Lab Smp Id:
Inj Date : 02-FEB-2017 11:18
Operator : 669 Inst ID: GC_41.i
Smp Info : P-ICAL4 P091716H 60PPB
Misc Info :
Comment :
Method : /chem1/SVOA/GC_41.i/170202.b/b8081d.m
Meth Date : 03-Feb-2017 10:08 uj3k Quant Type: ESTD
Cal Date : 02-FEB-2017 15:49 Cal File: b17020223.d
Als bottle: 5 Calibration Sample, Level: 4
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: PEST.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 (ppb)	AMOUNTS ON-COL (ppb)
$ 1 2,4,5,6-Tetrachloro-m-Xylene	2.737	2.737	0.000	12111630467	120.000	122.882
2 Hexachlorobenzene	3.123	3.123	0.000	7459671638	60.0000	61.630
3 Alpha-BHC	3.242	3.242	0.000	10638351710	60.0000	63.186
4 Gamma-BHC	3.564	3.564	0.000	9482601743	60.0000	62.933
5 Beta-BHC	3.631	3.631	0.000	3766048643	60.0000	61.868
6 Delta-BHC	3.920	3.920	0.000	9274157526	60.0000	63.466
7 Heptachlor	3.991	3.991	0.000	9232434882	60.0000	62.325
8 Aldrin	4.323	4.323	0.000	8564003821	60.0000	62.815
11 Heptachlor Epoxide	4.905	4.905	0.000	7332345774	60.0000	62.477
13 Gamma Chlordane	5.094	5.094	0.000	7842713911	60.0000	63.246
15 Alpha Chlordane	5.241	5.241	0.000	7505676652	60.0000	63.013
16 Endosulfan I	5.302	5.302	0.000	6522858662	60.0000	62.255
17 4,4'-DDE	5.404	5.404	0.000	7483511929	60.0000	63.465
18 Dieldrin	5.574	5.574	0.000	7452086489	60.0000	63.335
20 Endrin	5.875	5.875	0.000	6080516893	60.0000	62.775
23 4,4'-DDD	5.975	5.975	0.000	6301944368	60.0000	62.608
24 Endosulfan II	6.081	6.081	0.000	5340786022	60.0000	61.673
25 4,4'-DDT	6.279	6.279	0.000	6260632006	60.0000	63.832
26 Endrin Aldehyde	6.407	6.407	0.000	5594894430	60.0000	62.881
27 Endosulfan Sulfate	6.671	6.671	0.000	5977064395	60.0000	61.760
29 Methoxychlor	6.932	6.932	0.000	3354097706	60.0000	61.337

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Data File: /chem1/SVOA/GC_41.i/170202.b/b17020205.d Page 2
Report Date: 03-Feb-2017 10:08

Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ppb)	AMOUNTS ON-COL (ppb)
30 Endrin Ketone	7.178	7.178	0.000	7310488375	60.0000	63.599
$ 31 Decachlorobiphenyl	8.293	8.293	0.000	12093827815	120.000	127.757

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Data File: /chem1/SVOA/GC_41.i/170202.b/b17020205.d

Date : 02-FEB-2017 11:18

Client ID:

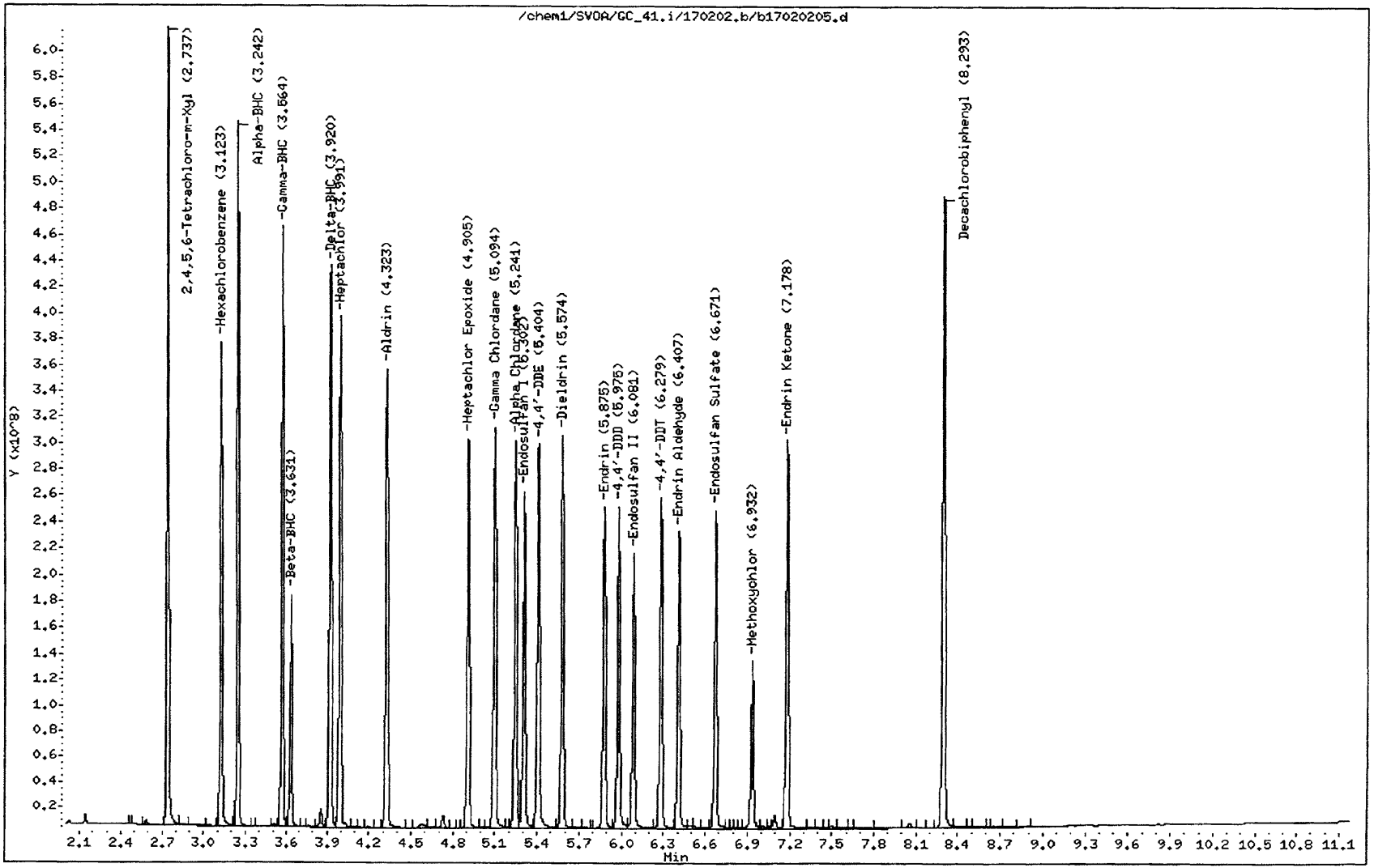
Sample Info: P-ICAL4 P091716H 60PPB

Column phase:

Instrument: GC_41.i

Operator: 669

Column diameter: 2.00



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Data File: /chem1/SVOA/GC_41.i/170202.b/b17020206.d Page 1
Report Date: 03-Feb-2017 09:37

Eurofins Calscience

Data file : /chem1/SVOA/GC_41.i/170202.b/b17020206.d
Lab Smp Id:
Inj Date : 02-FEB-2017 11:33
Operator : 669 Inst ID: GC_41.i
Smp Info : P-ICAL5 P091716J 80PPB
Misc Info :
Comment :
Method : /chem1/SVOA/GC_41.i/170202.b/b8081d.m
Meth Date : 02-Feb-2017 16:53 uhhn Quant Type: ESTD
Cal Date : 02-FEB-2017 16:04 Cal File: b17020224.d
Als bottle: 6 Calibration Sample, Level: 5
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: PEST.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 (ppb)	AMOUNTS ON-COL (ppb)
$ 1	2,4,5,6-Tetrachloro-m-Xylene	2.737	2.737	0.000	15860968934	160.000	160.923
2	Hexachlorobenzene	3.124	3.123	0.001	9801230053	80.0000	80.975
3	Alpha-BHC	3.242	3.242	0.000	14096601266	80.0000	83.727
4	Gamma-BHC	3.564	3.564	0.000	12491828965	80.0000	82.904
5	Beta-BHC	3.632	3.631	0.001	4920555033	80.0000	80.835
6	Delta-BHC	3.920	3.920	0.000	12195425990	80.0000	83.457
7	Heptachlor	3.991	3.991	0.000	11982313389	80.0000	80.888
8	Aldrin	4.323	4.323	0.000	11181003603	80.0000	82.010
11	Heptachlor Epoxide	4.905	4.905	0.000	9569617481	80.0000	81.540
13	Gamma Chlordane	5.094	5.094	0.000	10202393485	80.0000	82.275
15	Alpha Chlordane	5.241	5.241	0.000	9761628766	80.0000	81.953
16	Endosulfan I	5.303	5.302	0.001	8425001239	80.0000	80.409
17	4,4'-DDE	5.404	5.404	0.000	9707165504	80.0000	82.324
18	Dieldrin	5.574	5.574	0.000	9652104412	80.0000	82.033
20	Endrin	5.876	5.875	0.001	7750653577	80.0000	80.018
23	4,4'-DDD	5.975	5.975	0.000	8011629089	80.0000	79.593
24	Endosulfan II	6.081	6.081	0.000	6814143738	80.0000	78.687
25	4,4'-DDT	6.279	6.279	0.000	8030669971	80.0000	81.879
26	Endrin Aldehyde	6.407	6.407	0.000	7190606951	80.0000	80.815
27	Endosulfan Sulfate	6.671	6.671	0.000	7662125979	80.0000	79.172
29	Methoxychlor	6.933	6.932	0.001	4150196009	80.0000	75.896

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Data File: /chem1/SVOA/GC_41.i/170202.b/b17020206.d Page 2
Report Date: 03-Feb-2017 09:37

Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ppb)	AMOUNTS ON-COL (ppb)
30 Endrin Ketone	7.178	7.178	0.000	9231006892	80.0000	80.307
$ 31 Decachlorobiphenyl	8.293	8.293	0.000	15288565984	160.000	161.505

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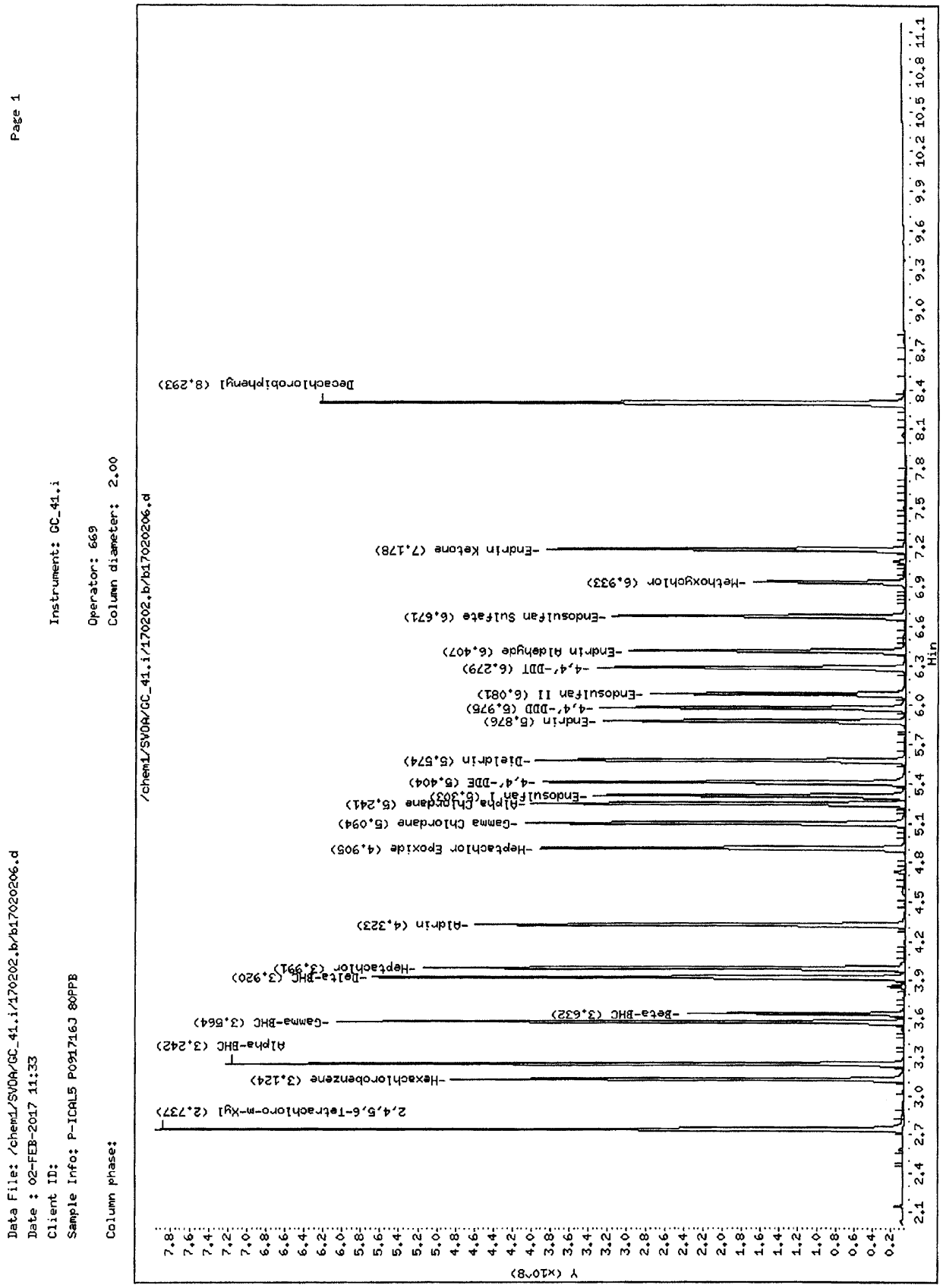

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Data File: /chem1/SVOA/GC_41.i/170202.b/b17020207.d Page 1
Report Date: 03-Feb-2017 09:37

Eurofins Calscience

Data file : /chem1/SVOA/GC_41.i/170202.b/b17020207.d
Lab Smp Id:
Inj Date : 02-FEB-2017 11:48
Operator : 669 Inst ID: GC_41.i
Smp Info : P-ICV P091716L 40PPB
Misc Info :
Comment :
Method : /chem1/SVOA/GC_41.i/170202.b/b8081d.m
Meth Date : 02-Feb-2017 16:53 uhhn Quant Type: ESTD
Cal Date : 02-FEB-2017 16:04 Cal File: b17020224.d
Als bottle: 7 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: PEST.sub
Target Version: 3.50
Processing Host: US26TAR4

Concentration Formula: Amt * DF * CpndVariable

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	2.736	2.737	-0.001	7893849466	80.0000	80.089
	2 Hexachlorobenzene	3.123	3.124	-0.001	4588681996	40.0000	37.910
	3 Alpha-BHC	3.241	3.242	-0.001	6640959319	40.0000	39.444
	4 Gamma-BHC	3.563	3.564	-0.001	5345471708	40.0000	35.476
	5 Beta-BHC	3.631	3.632	-0.001	2352911551	40.0000	38.653
	6 Delta-BHC	3.919	3.920	-0.001	5876307705	40.0000	40.213
	7 Heptachlor	3.991	3.991	0.000	5692659954	40.0000	38.429
	8 Aldrin	4.322	4.323	-0.001	5653090332	40.0000	41.464
	11 Heptachlor Epoxide	4.904	4.905	-0.001	4950578645	40.0000	42.182
	13 Gamma Chlordane	5.093	5.094	-0.001	5139594297	40.0000	41.447
	15 Alpha Chlordane	5.240	5.241	-0.001	4834087049	40.0000	40.584
	16 Endosulfan I	5.302	5.303	-0.001	4407213170	40.0000	42.063
	17 4,4'-DDE	5.403	5.404	-0.001	4757100216	40.0000	40.343
	18 Dieldrin	5.574	5.574	0.000	5097461394	40.0000	43.323
	20 Endrin	5.875	5.876	-0.001	3781705642	40.0000	39.042
	23 4,4'-DDD	5.974	5.975	-0.001	3932299947	40.0000	39.066
	24 Endosulfan II	6.081	6.081	0.000	3828746387	40.0000	44.212
	25 4,4'-DDT	6.278	6.279	-0.001	4016576508	40.0000	40.952
	26 Endrin Aldehyde	6.407	6.407	0.000	3478726054	40.0000	39.097
	27 Endosulfan Sulfate	6.670	6.671	-0.001	3894139479	40.0000	40.238
	29 Methoxychlor	6.932	6.933	-0.001	2051053148	40.0000	37.508

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Data File: /chem1/SVOA/GC_41.i/170202.b/b17020207.d Page 2
Report Date: 03-Feb-2017 09:37

Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ppb)	AMOUNTS ON-COL (ppb)
30 Endrin Ketone	7.177	7.178	-0.001	4804702119	40.0000	41.799
$ 31 Decachlorobiphenyl	8.292	8.293	-0.001	7637481938	80.0000	80.681

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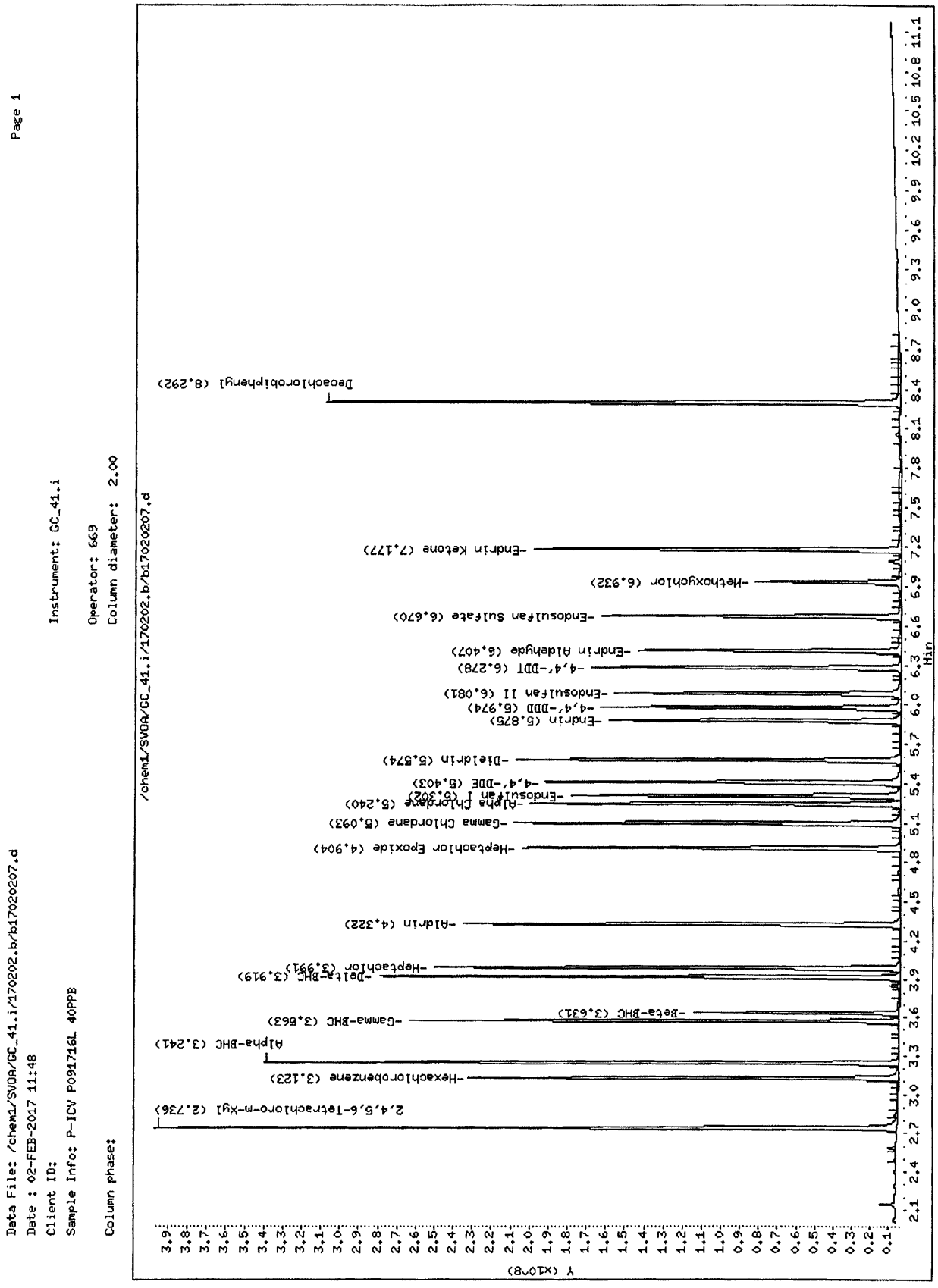

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EPA METHOD 8081A
Organochlorine Pesticides

DDT/Endrin Breakdown

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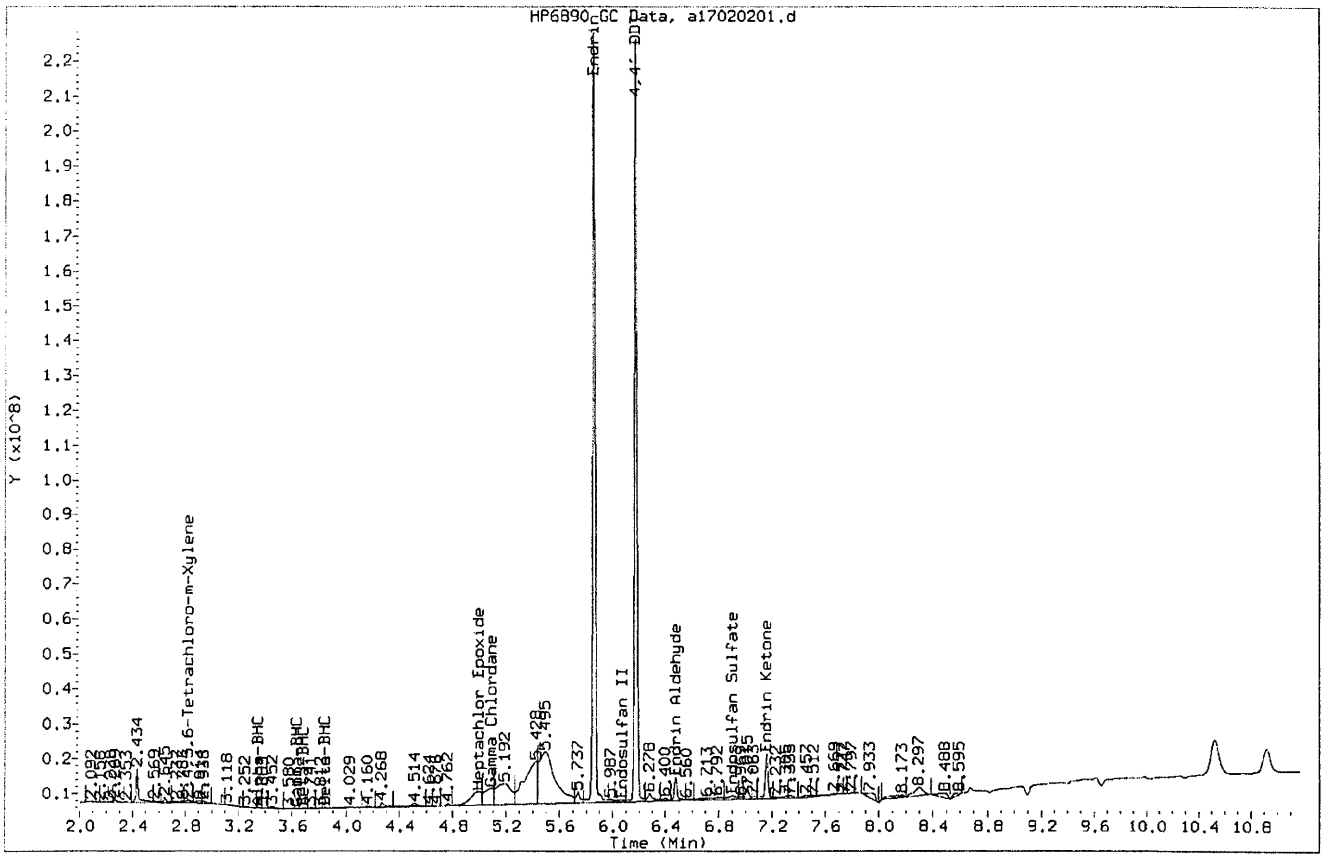
DFTPP TUNE/TAILING FACTOR/DEGRADATION SAMPLE AND GRAPHIC REPORT

Report Date: Fri Feb 3 09:32:12 2017

Datafile Analyzed: /chem1/SVOA/GC_41.i/170202.b/a17020201.d
Method Used: /chem1/SVOA/GC_41.i/170202.b/a8081d.m Inst: GC_41
Injection Date: 02-FEB-2017 10:18 Operator: 669
Sample Info: EVAL 50PPB P111616A
Misc Info:



DDT degradation *** PASSED ***
Endrin degradation *** PASSED ***
Tuning Sample, /chem1/SVOA/GC_41.i/170202.b/a17020201.d,*** PASSED ***

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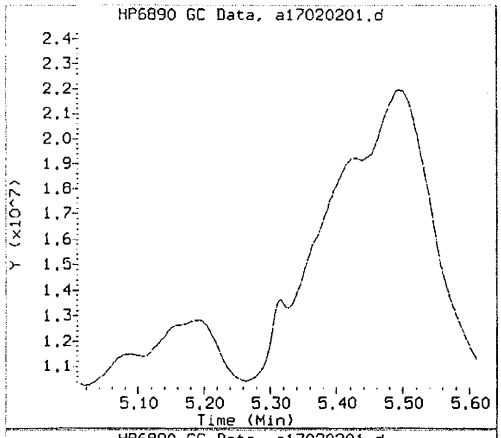
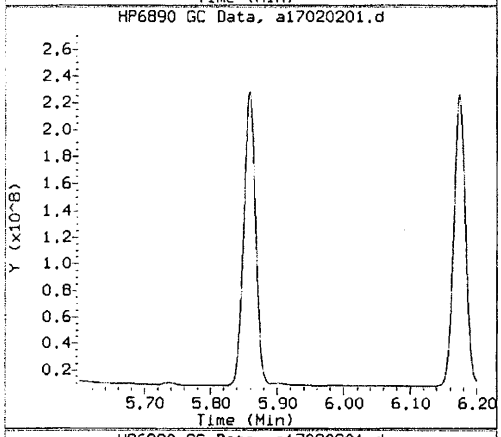
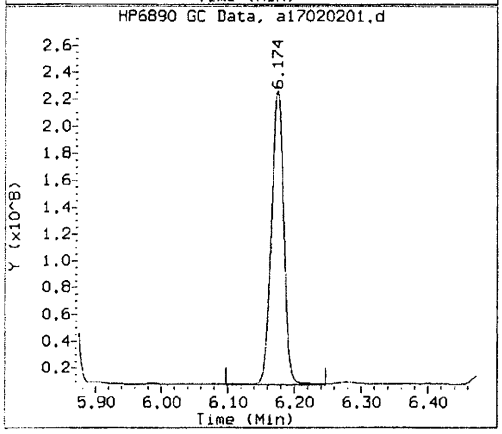


Compound: 4,4'-DDE
Quant Mass: 1
RT: 0.000
Area: 0



Compound: 4,4'-DDD
Quant Mass: 1
RT: 0.000
Area: 0



Compound: 4,4'-DDT
Quant Mass: 1
RT: 6.174
Area: 5523938153

DDT DEGRADATION BREAKDOWN ANALYSIS SUMMARY

Compound	Response	%Breakdown	Max Allowed	Test
4,4-DDT	5523938153			N/A
4,4-DDE	0	0.0	15.0	PASS
4,4-DDD	0	0.0	15.0	PASS
4,4-DDD + DDE	0	0.0	15.0	PASS

****
Resolution SAMPLE *** PASSED *** DDT BREAKDOWN TEST
****

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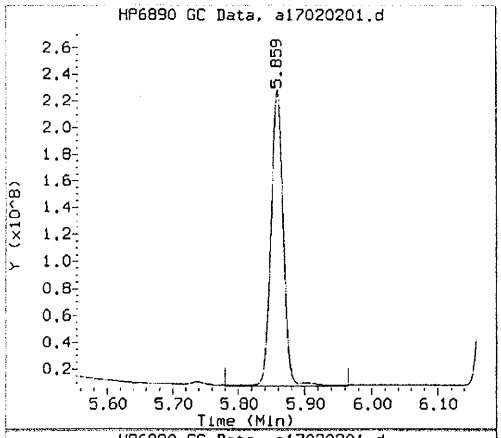
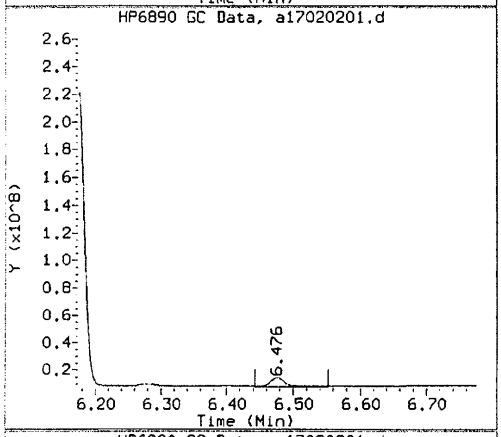
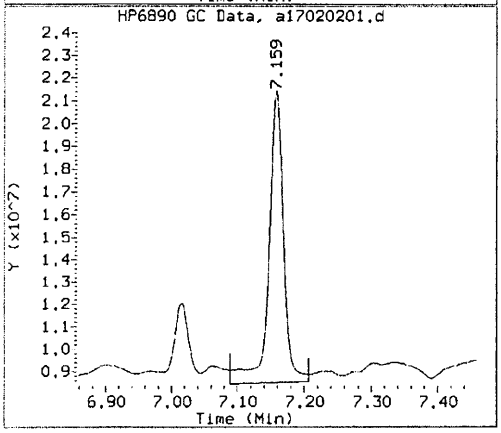


Compound: Endrin
Quant Mass: 1
RT: 5.859
Area: 5757229121



Compound: Endrin Aldehyde
Quant Mass: 1
RT: 6.476
Area: 222404939



Compound: Endrin Ketone
Quant Mass: 1
RT: 7.159
Area: 399937063

Endrin DEGRADATION BREAKDOWN ANALYSIS SUMMARY

Compound	Response	%Breakdown	Max Allowed	Test
Endrin	5757229121			N/A
E. Aldehyde	222404939	3.7	15.0	PASS
E. Ketone	399937063	6.5	15.0	PASS
Ketone+Aldehyde	622342002	9.8	15.0	PASS

****
Resolution SAMPLE *** PASSED *** Endrin BREAKDOWN TEST
****

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Data File: /chem1/SVOA/GC_41.i/170202.b/a17020201.d Page 1
Report Date: 03-Feb-2017 09:32

Eurofins Calscience

Data file : /chem1/SVOA/GC_41.i/170202.b/a17020201.d
Lab Smp Id:
Inj Date : 02-FEB-2017 10:18
Operator : 669 Inst ID: GC_41.i
Smp Info : EVAL 50PPB P111616A
Misc Info :
Comment :
Method : /chem1/SVOA/GC_41.i/170202.b/a8081d.m
Meth Date : 02-Feb-2017 16:50 uhhn Quant Type: ESTD
Cal Date : 02-FEB-2017 16:04 Cal File: a17020224.d
Als bottle: 1
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: PEST.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	CONCENTRATIONS ON-COLUMN (ppb)	FINAL (ppb)
T	1 2,4,5,6-Tetrachloro-m-Xylene	2.820	2.823	-0.003	53816454	0.50577	0.505(aR)
	2 Hexachlorobenzene	Compound Not Detected.					
	3 Alpha-BHC	3.348	3.321	0.027	1790308	0.01009	0.010(a)
	4 Gamma-BHC	3.637	3.611	0.026	1044449	0.00653	0.006(a)
	5 Beta-BHC	3.685	3.682	0.003	5403811	0.08490	0.084(a)
	6 Delta-BHC	3.841	3.860	-0.019	7071527	0.04590	0.045(a)
	7 Heptachlor	Compound Not Detected.					
	8 Aldrin	Compound Not Detected.					
	12 Heptachlor Epoxide	4.991	4.992	-0.001	475962868	3.79620	3.796(a)
	13 Gamma Chlordane	5.088	5.117	-0.029	449680979	3.42556	3.425(a)
	15 Alpha Chlordane	Compound Not Detected.					
	16 4,4'-DDE	Compound Not Detected.					
	17 Endosulfan I	Compound Not Detected.					
	19 Dieldrin	Compound Not Detected.					
	21 Endrin	5.859	5.857	0.002	5757229121	55.6764	55.676
	23 4,4'-DDD	Compound Not Detected.					
	24 Endosulfan II	6.073	6.074	-0.001	43886488	0.49943	0.499(a)
	25 4,4'-DDT	6.174	6.173	0.001	5523938153	51.9096	51.909
	26 Endrin Aldehyde	6.476	6.474	0.002	222404939	2.38389	2.383(a)
	27 Methoxychlor	Compound Not Detected.					
	29 Endosulfan Sulfate	6.903	6.888	0.015	97337194	0.97189	0.971(a)

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					CONCENTRATIONS	
					ON-COLUMN	FINAL
Compounds	RT	EXP RT	DLT RT	RESPONSE	(ppb)	(ppb)
30 Endrin Ketone	7.159	7.157	0.002	399937063	3.28824	3.288(a)
T 31 Decachlorobiphenyl	Compound Not Detected.					

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
R - Spike/Surrogate failed recovery limits.

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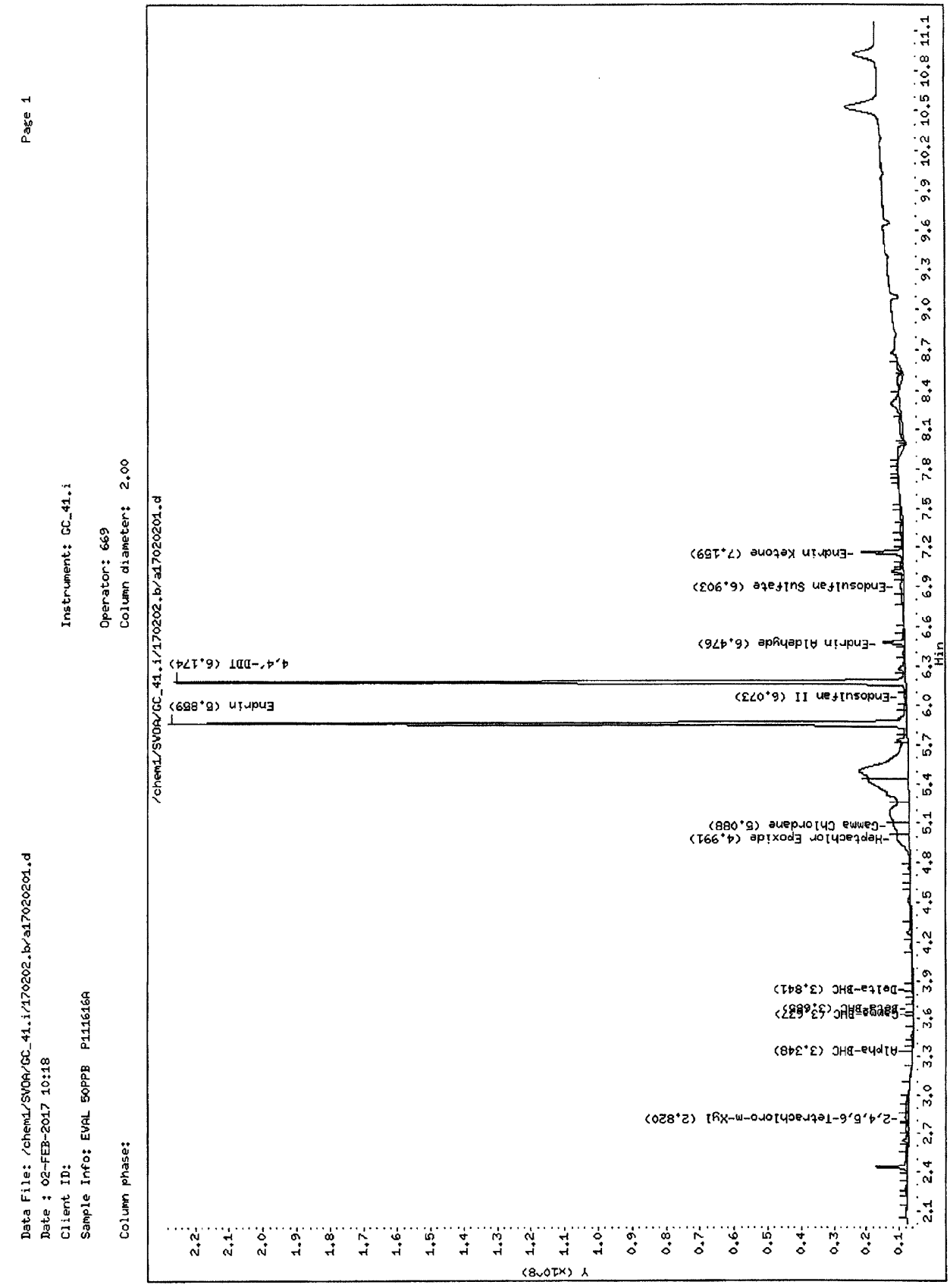

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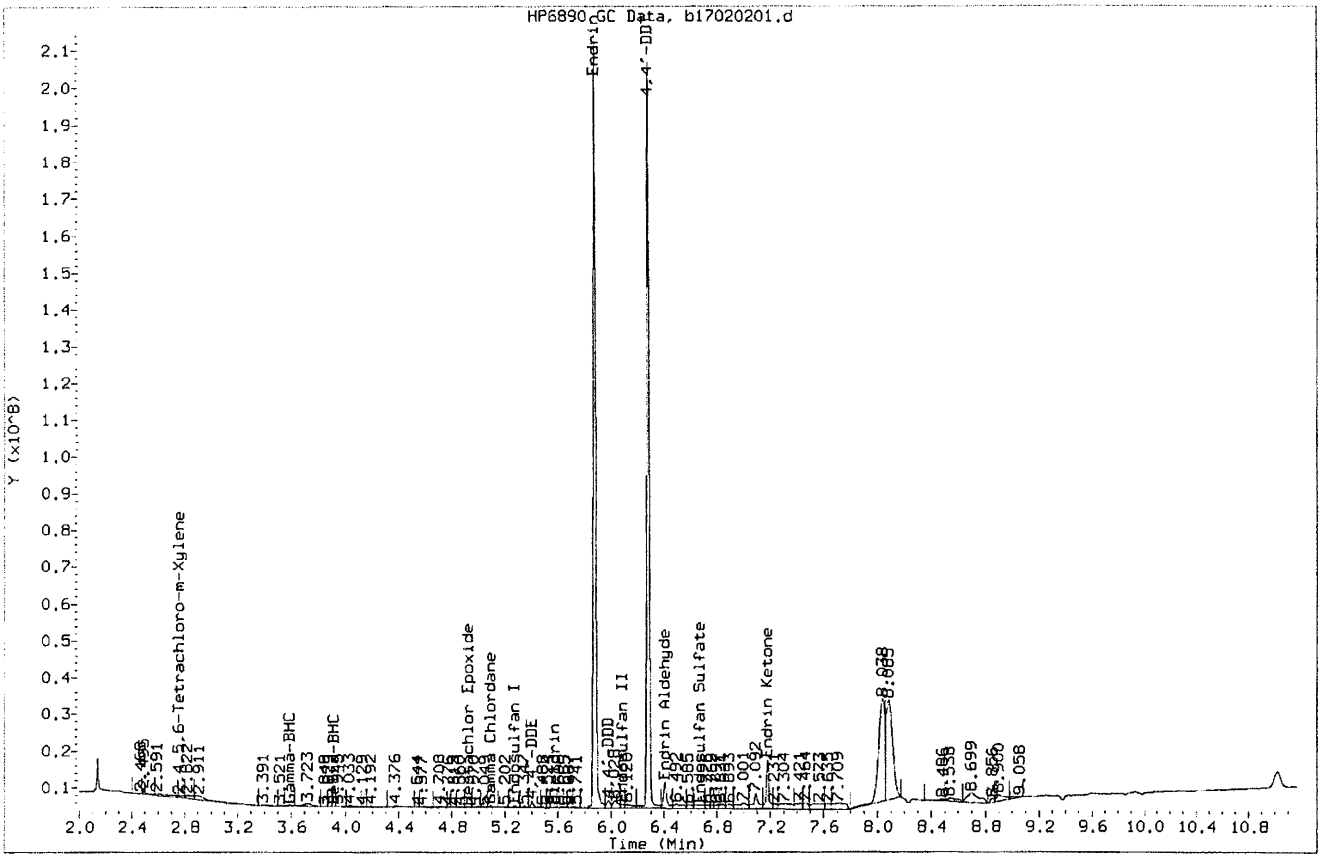
DFTPP TUNE/TAILING FACTOR/DEGRADATION SAMPLE AND GRAPHIC REPORT

Report Date: Fri Feb 3 10:04:00 2017

Datafile Analyzed: /chem1/SVOA/GC_41.i/170202.b/b17020201.d
Method Used: /chem1/SVOA/GC_41.i/170202.b/b8081d.m Inst: GC_41
Injection Date: 02-FEB-2017 10:18 Operator: 669
Sample Info: EVAL 50PPB P111616A
Misc Info:



DDT degradation *** PASSED ***
Endrin degradation *** PASSED ***
Tuning Sample, /chem1/SVOA/GC_41.i/170202.b/b17020201.d,*** PASSED ***

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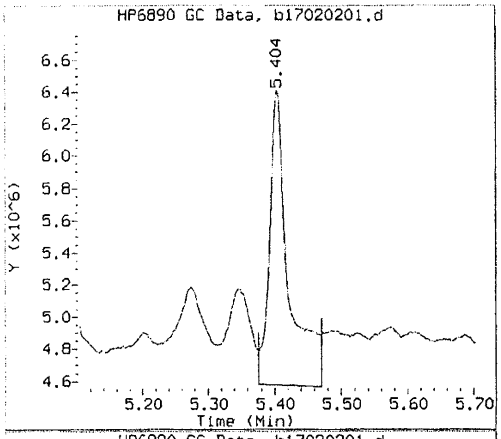
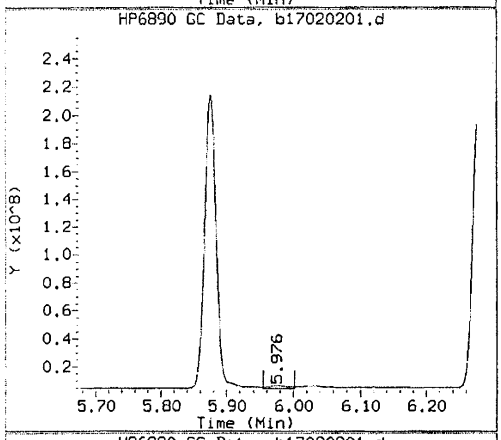
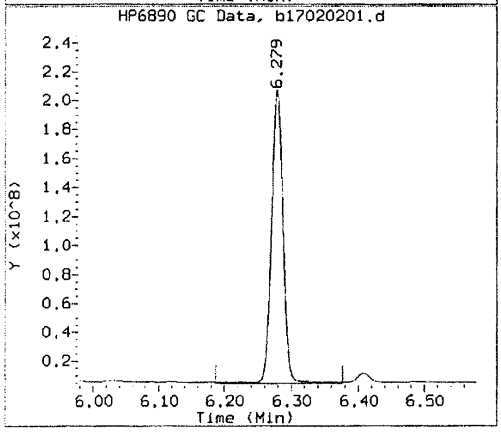


Compound: 4,4'-DDE
Quant Mass: 1
RT: 5.404
Area: 73750366



Compound: 4,4'-DDD
Quant Mass: 1
RT: 5.976
Area: 82957348



Compound: 4,4'-DDT
Quant Mass: 1
RT: 6.279
Area: 4970723962

DDT DEGRADATION BREAKDOWN ANALYSIS SUMMARY

Compound	Response	%Breakdown	Max Allowed	Test
4,4-DDT	4970723962			N/A
4,4-DDE	73750366	1.5	15.0	PASS
4,4-DDD	82957348	1.6	15.0	PASS
4,4-DDD + DDE	156707714	3.1	15.0	PASS

****
Resolution SAMPLE *** PASSED *** DDT BREAKDOWN TEST
****

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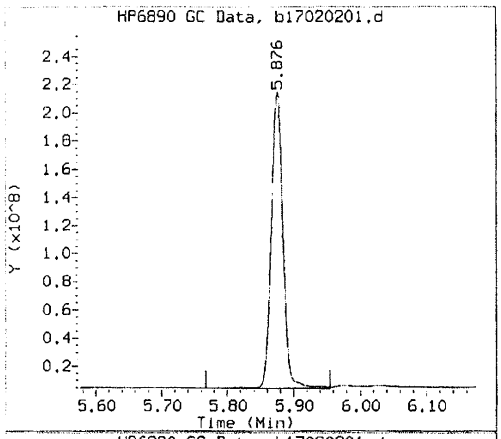
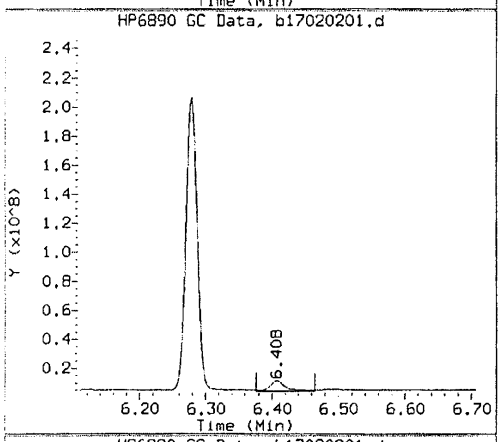
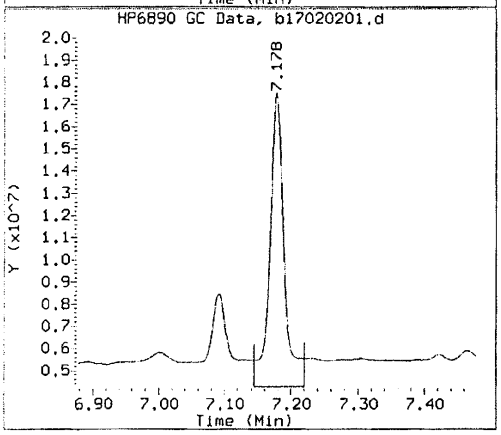


Compound: Endrin
Quant Mass: 1
RT: 5.876
Area: 5212212579



Compound: Endrin Aldehyde
Quant Mass: 1
RT: 6.408
Area: 249413850



Compound: Endrin Ketone
Quant Mass: 1
RT: 7.178
Area: 401278408

Endrin DEGRADATION BREAKDOWN ANALYSIS SUMMARY

Compound	Response	%Breakdown	Max Allowed	Test
Endrin	5212212579			N/A
E. Aldehyde	249413850	4.6	15.0	PASS
E. Ketone	401278408	7.1	15.0	PASS
Ketone+Aldehyde	650692258	11.1	15.0	PASS

****
Resolution SAMPLE *** PASSED *** Endrin BREAKDOWN TEST
****

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Data File: /chem1/SVOA/GC_41.i/170202.b/b17020201.d Page 1
Report Date: 03-Feb-2017 10:03

Eurofins Calscience

Data file : /chem1/SVOA/GC_41.i/170202.b/b17020201.d
Lab Smp Id:
Inj Date : 02-FEB-2017 10:18
Operator : 669 Inst ID: GC_41.i
Smp Info : EVAL 50PPB P111616A
Misc Info :
Comment :
Method : /chem1/SVOA/GC_41.i/170202.b/b8081d.m
Meth Date : 03-Feb-2017 09:39 uj3k Quant Type: ESTD
Cal Date : 02-FEB-2017 16:04 Cal File: b17020224.d
Als bottle: 1
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: PEST.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	CONCENTRATIONS ON-COLUMN (ppb)	FINAL (ppb)
$ 1	2,4,5,6-Tetrachloro-m-Xylene	2.757	2.736	0.021	36418025	0.36949	0.369(aR)
2	Hexachlorobenzene	Compound Not Detected.					
3	Alpha-BHC	Compound Not Detected.					
4	Gamma-BHC	3.589	3.563	0.026	19784041	0.13130	0.131(a)
5	Beta-BHC	Compound Not Detected.					
6	Delta-BHC	3.916	3.919	-0.003	1755390	0.01201	0.012(a)
7	Heptachlor	Compound Not Detected.					
8	Aldrin	Compound Not Detected.					
11	Heptachlor Epoxide	4.924	4.904	0.020	7350669	0.06263	0.062(a)
13	Gamma Chlordane	5.092	5.093	-0.001	26265008	0.21181	0.211(a)
15	Alpha Chlordane	Compound Not Detected.					
16	Endosulfan I	5.274	5.302	-0.028	39443795	0.37646	0.376(a)
17	4,4'-DDE	5.404	5.403	0.001	73750366	0.62546	0.625(a)
18	Dieldrin	5.573	5.574	-0.001	21224413	0.18039	0.180(a)
20	Endrin	5.876	5.875	0.001	5212212579	53.8114	53.811
23	4,4'-DDD	5.976	5.974	0.002	82957348	0.82416	0.824(a)
24	Endosulfan II	6.083	6.081	0.002	38477995	0.44433	0.444(a)
25	4,4'-DDT	6.279	6.278	0.001	4970723962	50.6805	50.680
26	Endrin Aldehyde	6.408	6.407	0.001	249413850	2.80318	2.803(a)
27	Endosulfan Sulfate	6.668	6.670	-0.002	94159209	0.97294	0.972(a)
29	Methoxychlor	Compound Not Detected.					

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Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ppb)	CONCENTRATIONS FINAL (ppb)
30 Endrin Ketone	7.178	7.177	0.001	401278408	3.49102	3.491(a)
$ 31 Decachlorobiphenyl	Compound Not Detected.					

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
R - Spike/Surrogate failed recovery limits.

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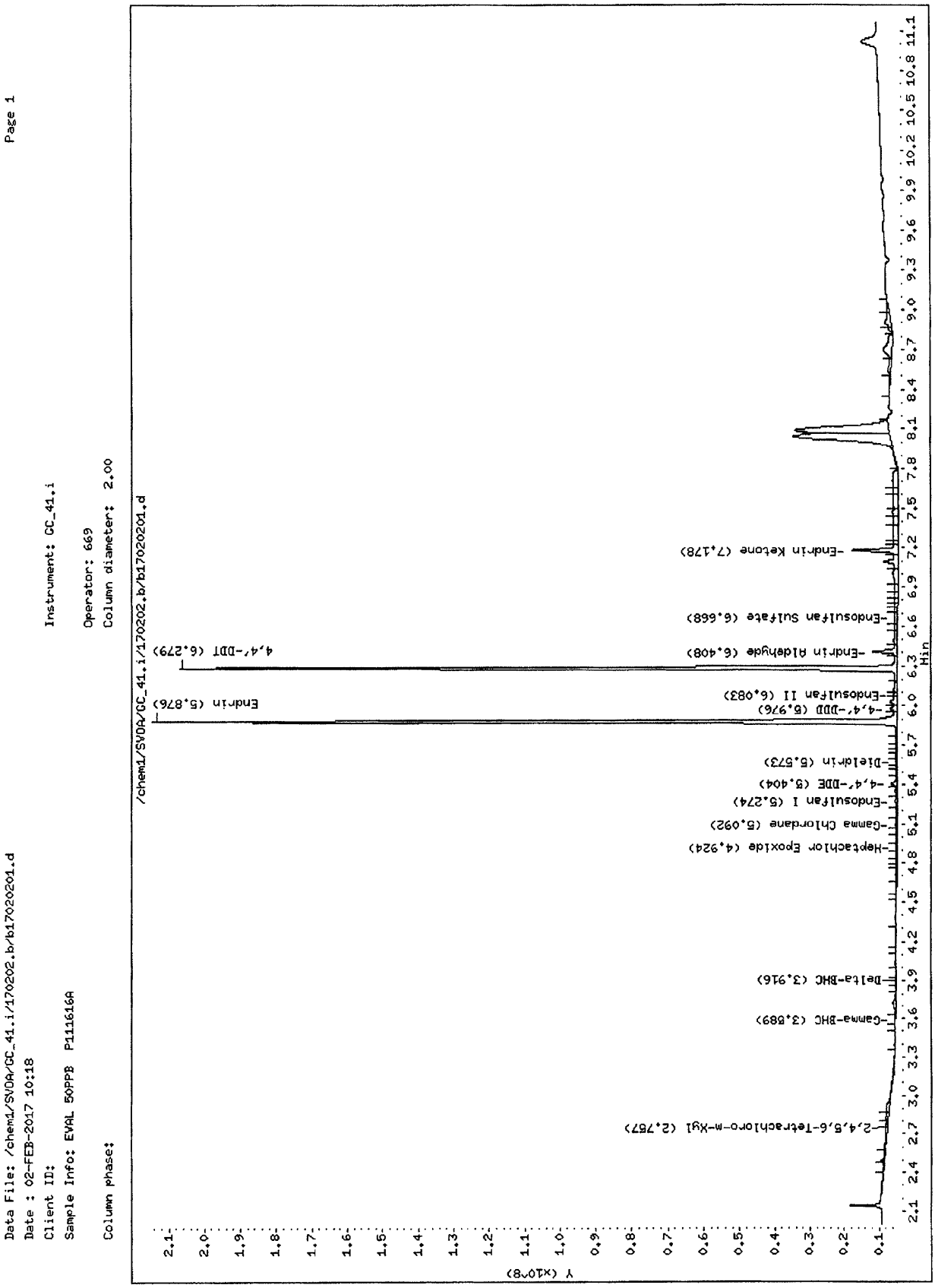

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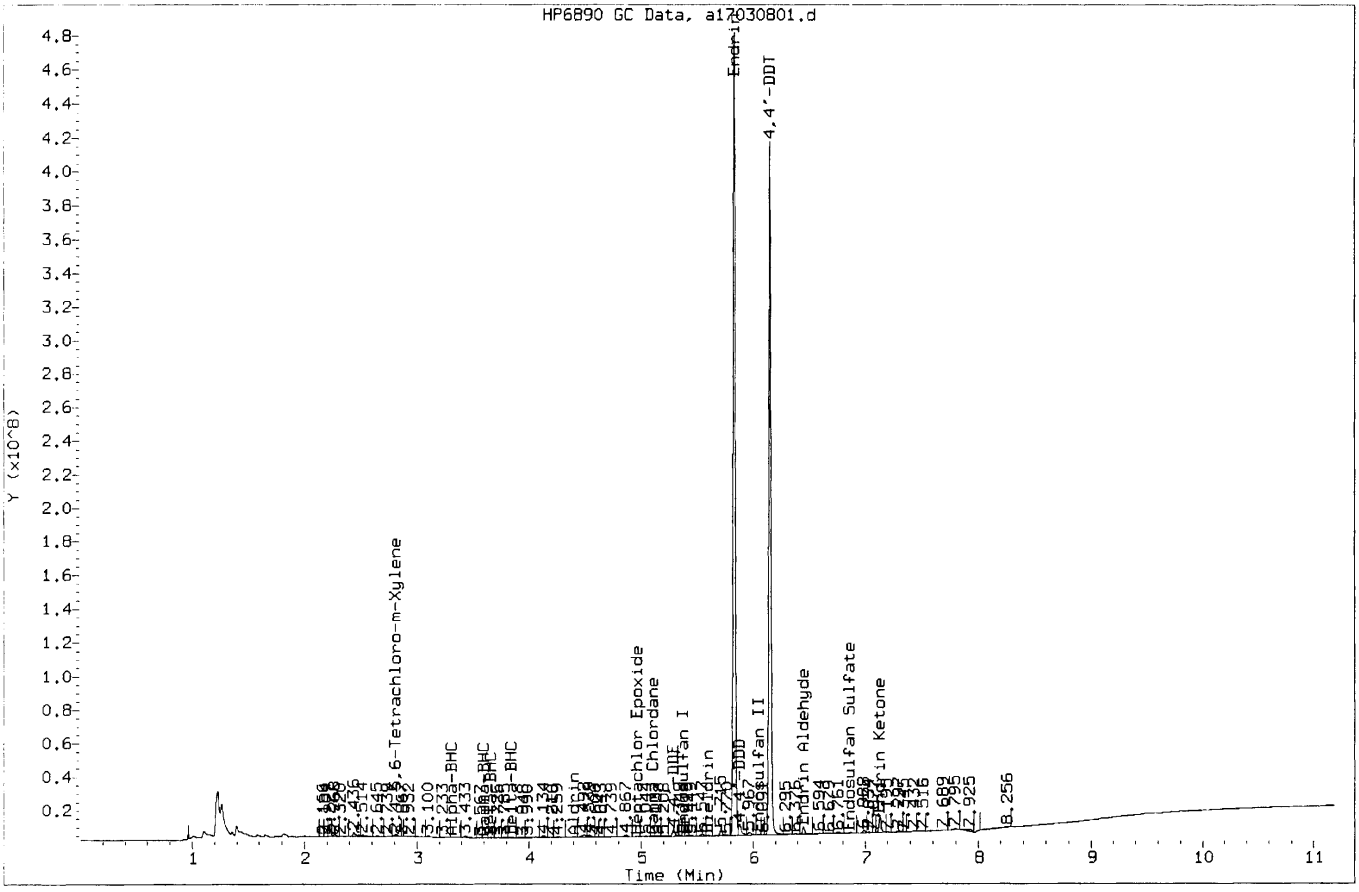
DFTPP TUNE/TAILING FACTOR/DEGRADATION SAMPLE AND GRAPHIC REPORT

Report Date: Wed Mar 8 10:31:17 2017

Datafile Analyzed: /chem1/SVOA/GC_41.i/170308.b/a17030801.d
Method Used: /chem1/SVOA/GC_41.i/170308.b/a8081d.m Inst: GC_41
Injection Date: 08-MAR-2017 10:13 Operator:
Sample Info: EVAL 50PPB P111616A
Misc Info:



DDT degradation *** PASSED ***
Endrin degradation *** PASSED ***
Tuning Sample, /chem1/SVOA/GC_41.i/170308.b/a17030801.d,*** PASSED ***

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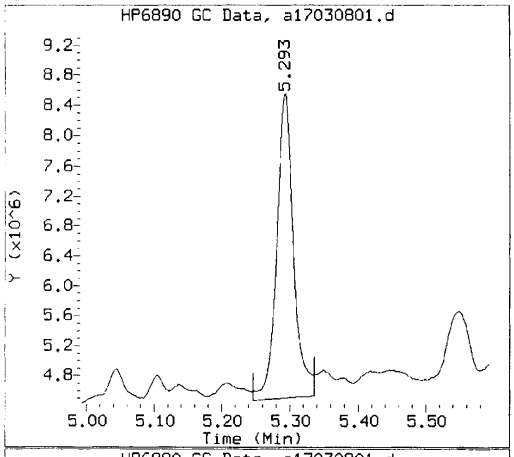
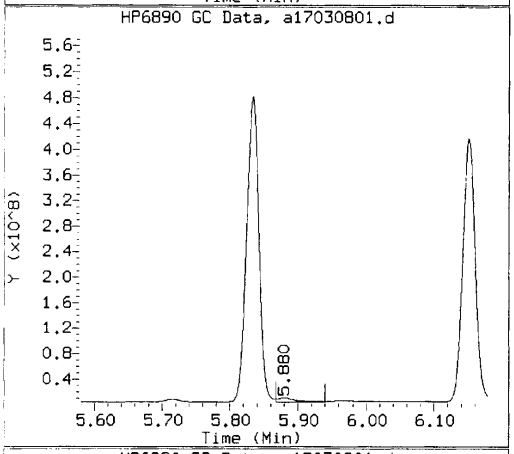
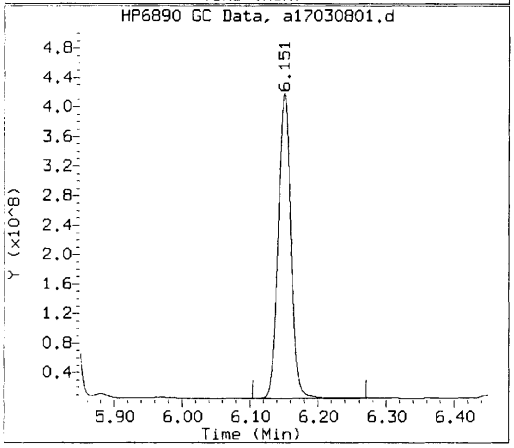


Compound: 4,4'-DDE
Quant Mass: 1
RT: 5.293
Area: 139955926



Compound: 4,4'-DDD
Quant Mass: 1
RT: 5.880
Area: 227865414



Compound: 4,4'-DDT
Quant Mass: 1
RT: 6.151
Area: 10759108228

DDT DEGRADATION BREAKDOWN ANALYSIS SUMMARY

Compound	Response	%Breakdown	Max Allowed	Test
4,4-DDT	10759108228			N/A
4,4-DDE	139955926	1.3	15.0	PASS
4,4-DDD	227865414	2.1	15.0	PASS
4,4-DDD + DDE	367821340	3.3	15.0	PASS

****
Resolution SAMPLE *** PASSED *** DDT BREAKDOWN TEST
****

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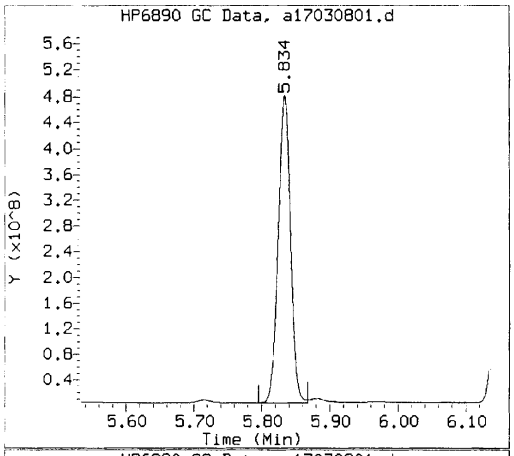
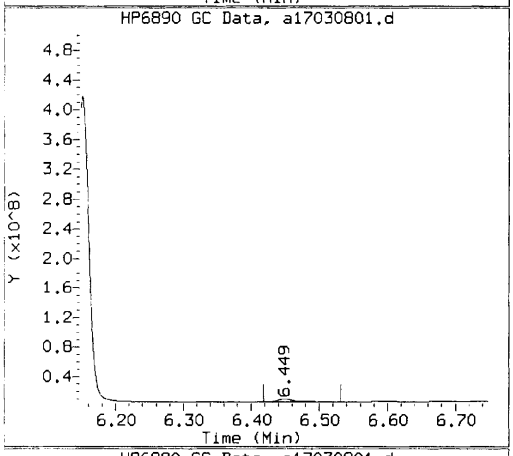
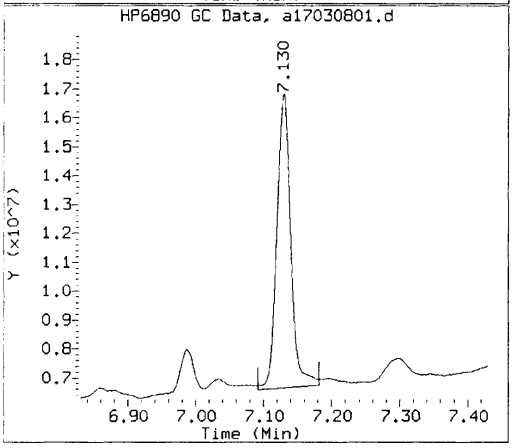


Compound: Endrin
Quant Mass: 1
RT: 5.834
Area: 12022953871



Compound: Endrin Aldehyde
Quant Mass: 1
RT: 6.449
Area: 122817220



Compound: Endrin Ketone
Quant Mass: 1
RT: 7.130
Area: 288714319

Endrin DEGRADATION BREAKDOWN ANALYSIS SUMMARY

Compound	Response	%Breakdown	Max Allowed	Test
Endrin	12022953871			N/A
E. Aldehyde	122817220	1.0	15.0	PASS
E. Ketone	288714319	2.3	15.0	PASS
Ketone+Aldehyde	411531539	3.3	15.0	PASS

****
Resolution SAMPLE *** PASSED *** Endrin BREAKDOWN TEST
****

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Data File: /chem1/SVOA/GC_41.i/170308.b/a17030801.d Page 1
Report Date: 08-Mar-2017 10:31

Eurofins Calscience

Data file : /chem1/SVOA/GC_41.i/170308.b/a17030801.d
Lab Smp Id:
Inj Date : 08-MAR-2017 10:13
Operator : Inst ID: GC_41.i
Smp Info : EVAL 50PPB P111616A
Misc Info :
Comment :
Method : /chem1/SVOA/GC_41.i/170308.b/a8081d.m
Meth Date : 03-Feb-2017 09:40 uj3k Quant Type: ESTD
Cal Date : 02-FEB-2017 16:04 Cal File: a17020224.d
Als bottle: 1
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: PEST.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)	(ppb)
T	1 2,4,5,6-Tetrachloro-m-Xylene	2.812	2.823	-0.011	53546470	0.50323	0.503(aR)
	2 Hexachlorobenzene	Compound Not Detected.					
	3 Alpha-BHC	3.311	3.321	-0.010	3528502	0.01989	0.019(a)
	4 Gamma-BHC	3.600	3.611	-0.011	1852455	0.01159	0.011(a)
	5 Beta-BHC	3.665	3.682	-0.017	18847152	0.29611	0.296(a)
	6 Delta-BHC	3.845	3.860	-0.015	17360226	0.11268	0.112(a)
	7 Heptachlor	Compound Not Detected.					
	8 Aldrin	4.402	4.384	0.018	32569894	0.22807	0.228(a)
	12 Heptachlor Epoxide	4.964	4.992	-0.028	13411666	0.10697	0.106(a)
	13 Gamma Chlordane	5.105	5.117	-0.012	14465722	0.11020	0.110(a)
	15 Alpha Chlordane	Compound Not Detected.					
	16 4,4'-DDE	5.293	5.311	-0.018	139955926	1.12845	1.128(a)
	17 Endosulfan I	5.377	5.391	-0.014	5015261	0.04570	0.045(a)
	19 Dieldrin	5.599	5.625	-0.026	10685545	0.08697	0.086(a)
	21 Endrin	5.834	5.857	-0.023	12022953871	116.270	116.270
	23 4,4'-DDD	5.880	5.901	-0.021	227865414	2.21087	2.210(a)
	24 Endosulfan II	6.050	6.074	-0.024	13277918	0.15110	0.151(a)
	25 4,4'-DDT	6.151	6.173	-0.022	10759108228	101.106	101.105
	26 Endrin Aldehyde	6.449	6.474	-0.025	122817220	1.31644	1.316(a)
	27 Methoxychlor	Compound Not Detected.					
	29 Endosulfan Sulfate	6.860	6.888	-0.028	26316133	0.26276	0.262(a)

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Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ppb)	CONCENTRATIONS FINAL (ppb)
30 Endrin Ketone	7.130	7.157	-0.027	288714319	2.37378	2.373(a)
T 31 Decachlorobiphenyl	Compound Not Detected.					

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
R - Spike/Surrogate failed recovery limits.

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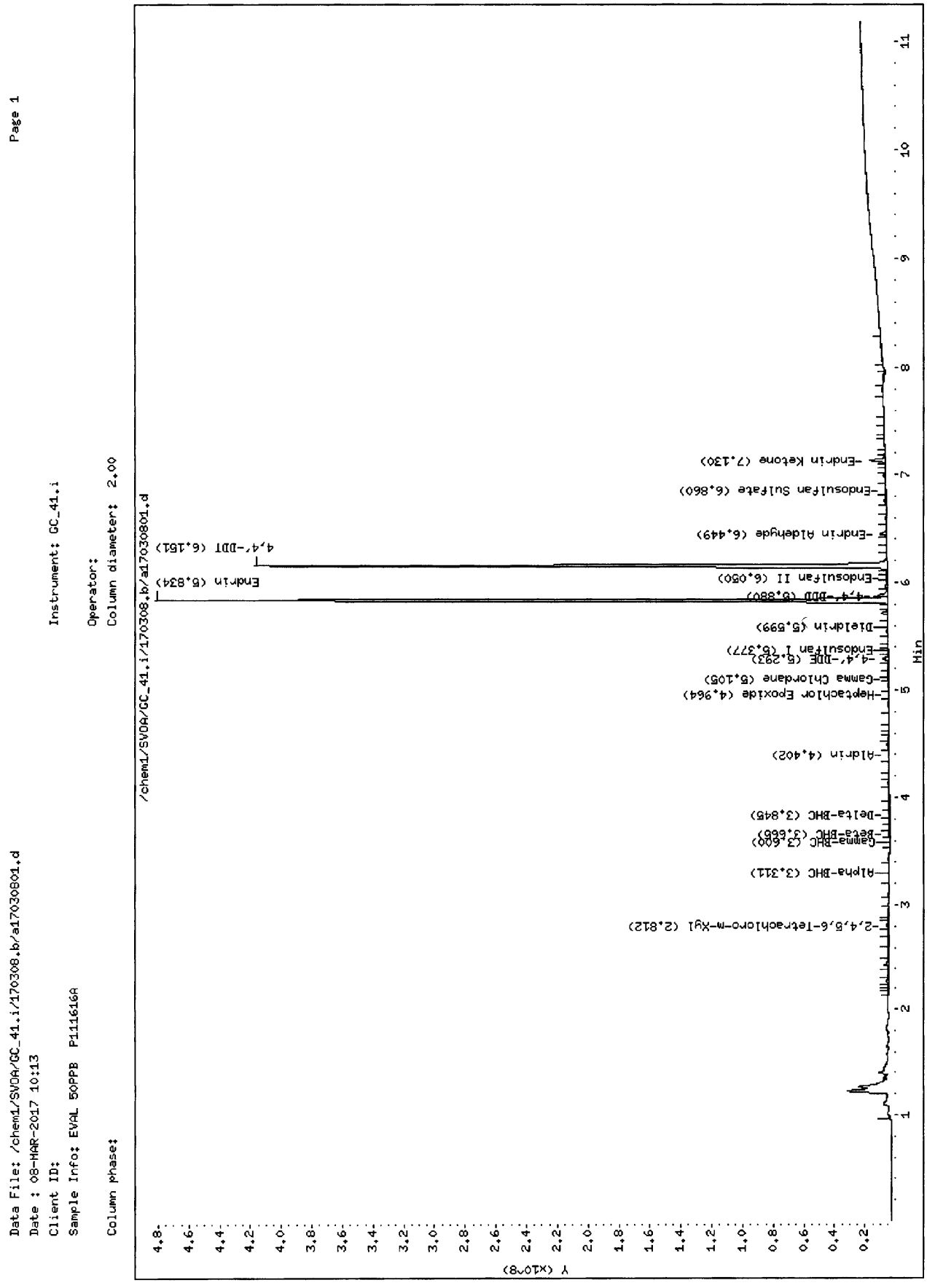

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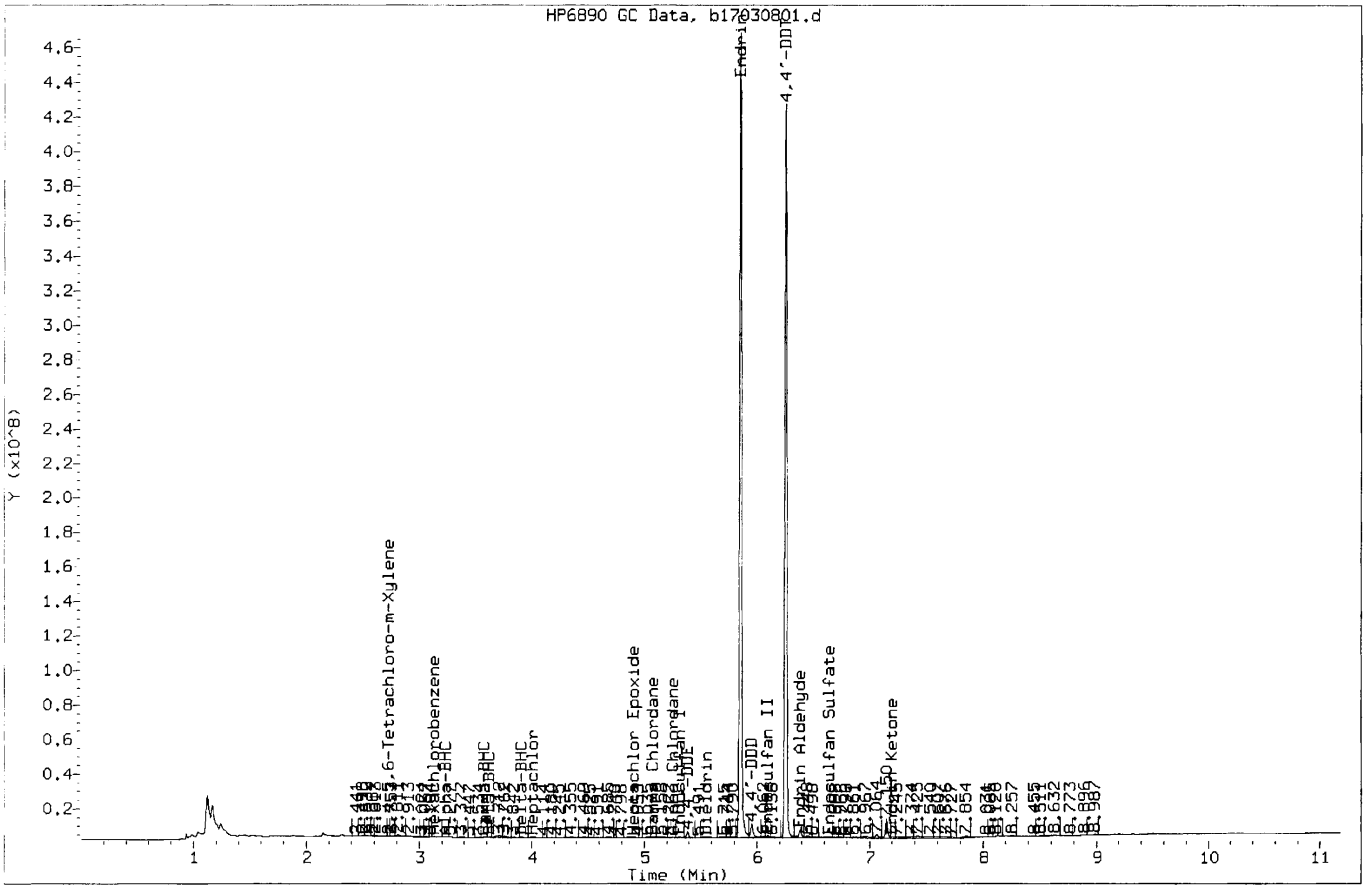
DFTPP TUNE/TAILING FACTOR/DEGRADATION SAMPLE AND GRAPHIC REPORT

Report Date: Wed Mar 8 10:31:20 2017

Datafile Analyzed: /chem1/SVOA/GC_41.i/170308.b/b17030801.d
Method Used: /chem1/SVOA/GC_41.i/170308.b/b8081d.m Inst: GC_41
Injection Date: 08-MAR-2017 10:13 Operator:
Sample Info: EVAL 50PPB P111616A
Misc Info:



DDT degradation *** PASSED ***
Endrin degradation *** PASSED ***
Tuning Sample, /chem1/SVOA/GC_41.i/170308.b/b17030801.d,*** PASSED ***

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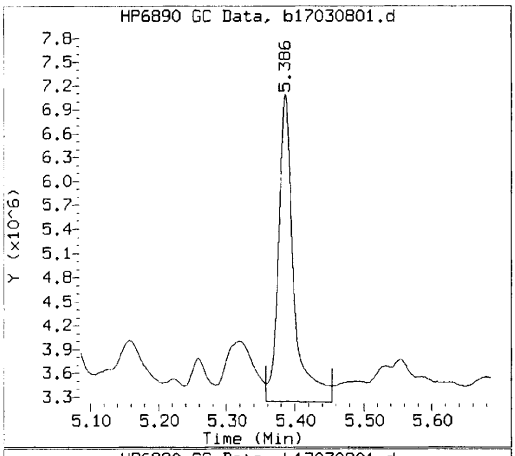
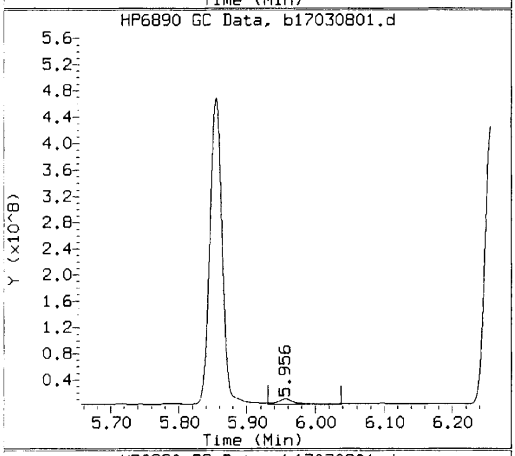
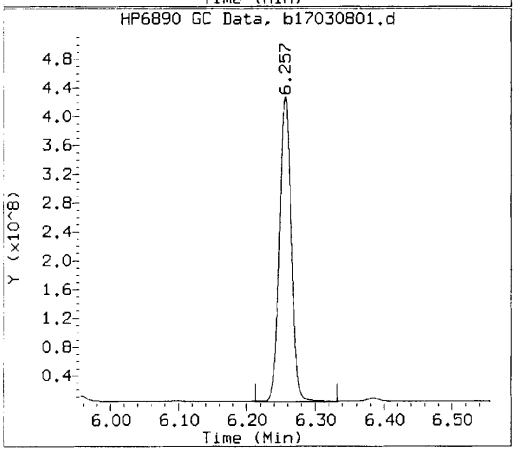


Compound: 4,4'-DDE
Quant Mass: 1
RT: 5.386
Area: 119595462



Compound: 4,4'-DDD
Quant Mass: 1
RT: 5.956
Area: 308604116



Compound: 4,4'-DDT
Quant Mass: 1
RT: 6.257
Area: 10285655633

DDT DEGRADATION BREAKDOWN ANALYSIS SUMMARY

Compound	Response	%Breakdown	Max Allowed	Test
4,4-DDT	10285655633			N/A
4,4-DDE	119595462	1.1	15.0	PASS
4,4-DDD	308604116	2.9	15.0	PASS
4,4-DDD + DDE	428199578	4.0	15.0	PASS

****
Resolution SAMPLE *** PASSED *** DDT BREAKDOWN TEST
****

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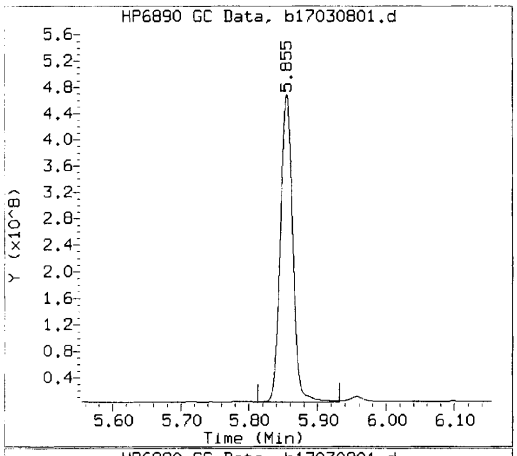
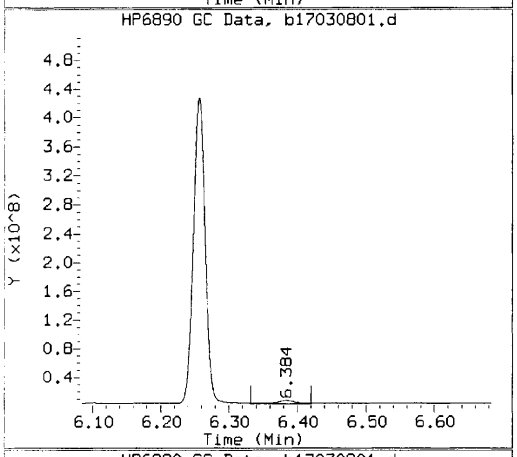
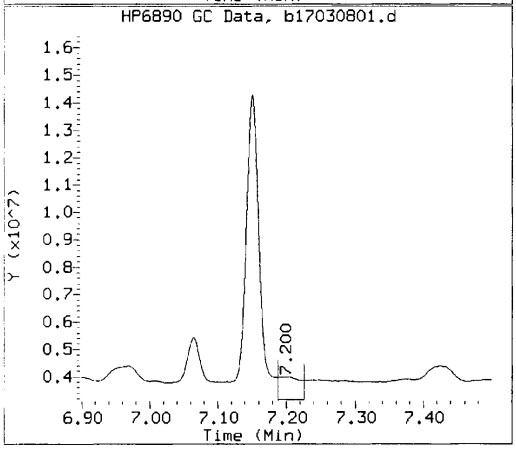


Compound: Endrin
Quant Mass: 1
RT: 5.855
Area: 11755353602



Compound: Endrin Aldehyde
Quant Mass: 1
RT: 6.384
Area: 202226564



Compound: Endrin Ketone
Quant Mass: 1
RT: 7.200
Area: 35412402

Endrin DEGRADATION BREAKDOWN ANALYSIS SUMMARY

Compound	Response	%Breakdown	Max Allowed	Test
Endrin	11755353602			N/A
E. Aldehyde	202226564	1.7	15.0	PASS
E. Ketone	35412402	0.3	15.0	PASS
Ketone+Aldehyde	237638966	2.0	15.0	PASS

****
Resolution SAMPLE *** PASSED *** Endrin BREAKDOWN TEST
****

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Data File: /chem1/SVOA/GC_41.i/170308.b/b17030801.d Page 1
Report Date: 08-Mar-2017 10:31

Eurofins Calscience

Data file : /chem1/SVOA/GC_41.i/170308.b/b17030801.d
Lab Smp Id:
Inj Date : 08-MAR-2017 10:13
Operator : Inst ID: GC_41.i
Smp Info : EVAL 50PPB P111616A
Misc Info :
Comment :
Method : /chem1/SVOA/GC_41.i/170308.b/b8081d.m
Meth Date : 03-Feb-2017 10:20 uj3k Quant Type: ESTD
Cal Date : 02-FEB-2017 16:04 Cal File: b17020224.d
Als bottle: 1
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: PEST.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	CONCENTRATIONS ON-COLUMN (ppb)	CONCENTRATIONS FINAL (ppb)
$ 1	2,4,5,6-Tetrachloro-m-Xylene	2.728	2.736	-0.008	9471409	0.09610	0.096(aR)
2	Hexachlorobenzene	3.133	3.123	0.010	20506818	0.16942	0.169(a)
3	Alpha-BHC	3.239	3.241	-0.002	7264989	0.04315	0.043(a)
4	Gamma-BHC	3.579	3.563	0.016	10566466	0.07013	0.070(a)
5	Beta-BHC	3.626	3.631	-0.005	13787922	0.22651	0.226(a)
6	Delta-BHC	3.909	3.919	-0.010	14410236	0.09861	0.098(a)
7	Heptachlor	4.011	3.991	0.020	35596293	0.24030	0.240(a)
8	Aldrin	Compound Not Detected.					
11	Heptachlor Epoxide	4.906	4.904	0.002	37791088	0.32201	0.322(a)
13	Gamma Chlordane	5.079	5.093	-0.014	30255101	0.24399	0.243(a)
15	Alpha Chlordane	5.259	5.240	0.019	18962364	0.15920	0.159(a)
16	Endosulfan I	5.318	5.302	0.016	44161957	0.42149	0.421(a)
17	4,4'-DDE	5.386	5.403	-0.017	119595462	1.01426	1.014(a)
18	Dieldrin	5.554	5.574	-0.020	58513909	0.49731	0.497(a)
20	Endrin	5.855	5.875	-0.020	11755353602	121.364	121.363
23	4,4'-DDD	5.956	5.974	-0.018	308604116	3.06592	3.065(a)
24	Endosulfan II	6.097	6.081	0.016	59172513	0.68330	0.683(a)
25	4,4'-DDT	6.257	6.278	-0.021	10285655633	104.870	104.870
26	Endrin Aldehyde	6.384	6.407	-0.023	202226564	2.27284	2.272(a)
27	Endosulfan Sulfate	6.645	6.670	-0.025	87135290	0.90037	0.900(a)
29	Methoxychlor	Compound Not Detected.					

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Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ppb)	CONCENTRATIONS FINAL (ppb)
30 Endrin Ketone	7.200	7.177	0.023	35412402	0.30808	0.308(a)
$ 31 Decachlorobiphenyl	Compound Not Detected.					

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
R - Spike/Surrogate failed recovery limits.

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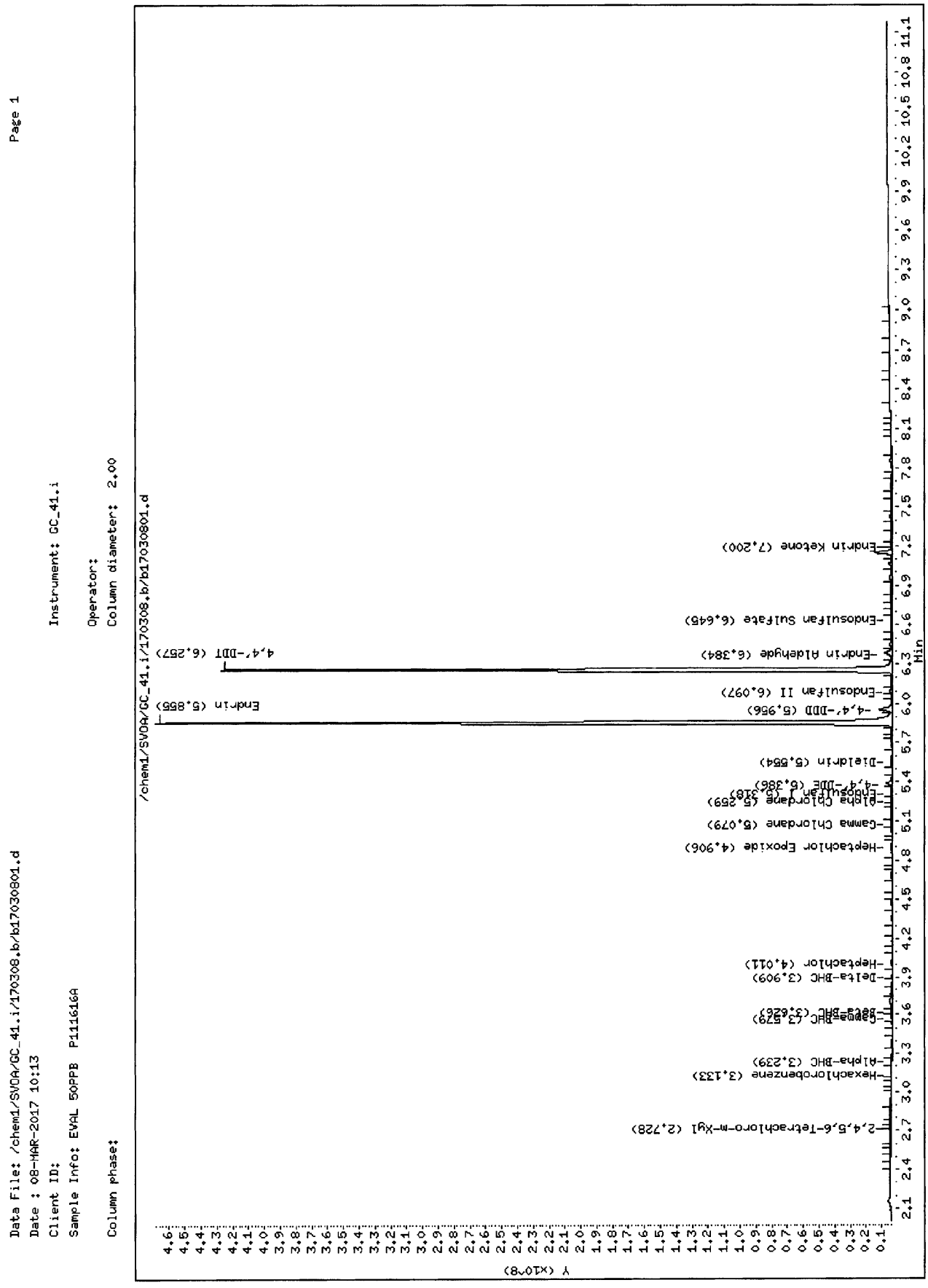

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EPA METHOD 8081A
Organochlorine Pesticides

Sample Data

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RAW DATA SHEET
FOR METHOD: EPA 8081A

WORK ORDER: **17-03-0445**
INSTRUMENT: GC 41
EXTRACTION : EPA 3545
D/T EXTRACTED: 2017-03-07 00:00

ANALYZED BY: 669
D/T ANALYZED: 2017-03-08 13:14
REVIEWED BY: 421
D/T REVIEWED: 2017-03-20 15:00

DATA FILE: /chem1/SVOA/GC_41/170308/a1703081317030813

9 **CLIENT SAMPLE NUMBER:** **B-DU3-S-07-0.6**

LCS/MB BATCH: 170307L07
MS/MSD BATCH: 170307S07
UNITS: ug/kg

SAMPLE VOLUME / WEIGHT: DEFAULT: 20.00 g / ACTUAL: 20.10 g
FINAL VOLUME / WEIGHT: DEFAULT: 10.00 ml / ACTUAL: 10.00 ml
ADJUSTMENT RATIO TO PF: 1.00

COMMENT:

COMPOUND NAME	ON COL CONC	CONC	DF	RL	QUAL	RPD	TYPE	CONF CONC
Aldrin	0.000	ND	1.00	5.0			2	ND
Alpha-BHC	0.000	ND	1.00	10			2	ND
Beta-BHC	0.000	ND	1.00	5.0			2	ND
Chlordane	0.000	ND	1.00	50			2	ND
4,4'-DDD	0.000	ND	1.00	5.0			2	ND
4,4'-DDE	1.08	ND	1.00	5.0			2	ND
4,4'-DDT	1.34	ND	1.00	5.0			2	ND
Delta-BHC	0.000	ND	1.00	10			2	ND
Dieldrin	0.000	ND	1.00	5.0			2	ND
Endosulfan I	0.000	ND	1.00	5.0			2	ND
Endosulfan II	0.000	ND	1.00	5.0			2	ND
Endosulfan Sulfate	0.000	ND	1.00	5.0			2	ND
Endrin	0.000	ND	1.00	5.0			2	ND
Endrin Aldehyde	0.000	ND	1.00	5.0			2	ND
Endrin Ketone	0.000	ND	1.00	5.0			2	ND
Gamma-BHC	0.000	ND	1.00	5.0			2	ND
Heptachlor	0.000	ND	1.00	5.0			2	ND
Heptachlor Epoxide	0.000	ND	1.00	10			2	ND
Methoxychlor	0.000	ND	1.00	5.0			2	ND
Toxaphene	0.000	ND	1.00	100			2	ND

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Data File: /chem1/SVOA/GC_41.i/170308.b/a17030813.d Page 1
Report Date: 08-Mar-2017 14:08

Eurofins Calscience

Data file : /chem1/SVOA/GC_41.i/170308.b/a17030813.d
Lab Smp Id:
Inj Date : 08-MAR-2017 13:14
Operator : Inst ID: GC_41.i
Smp Info : 17-03-0445-9
Misc Info :
Comment :
Method : /chem1/SVOA/GC_41.i/170308.b/a8081d.m
Meth Date : 08-Mar-2017 11:17 uhhn Quant Type: ESTD
Cal Date : 02-FEB-2017 16:04 Cal File: a17020224.d
Als bottle: 13
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: regpest.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)	(ppb)
T	1 2,4,5,6-Tetrachloro-m-Xylene	2.841	2.841	0.000	7690781213	72.2778	72.277
	2 Hexachlorobenzene	Compound Not Detected.					
	3 Alpha-BHC	Compound Not Detected.					
	4 Gamma-BHC	Compound Not Detected.					
	5 Beta-BHC	Compound Not Detected.					
	6 Delta-BHC	Compound Not Detected.					
	7 Heptachlor	Compound Not Detected.					
	8 Aldrin	Compound Not Detected.					
	12 Heptachlor Epoxide	Compound Not Detected.					
	13 Gamma Chlordane	Compound Not Detected.					
	15 Alpha Chlordane	Compound Not Detected.					
	16 4,4'-DDE	5.290	5.296	-0.006	133429553	1.07583	1.075(a)
	17 Endosulfan I	Compound Not Detected.					
	19 Dieldrin	Compound Not Detected.					
	21 Endrin	Compound Not Detected.					
	23 4,4'-DDD	Compound Not Detected.					
	24 Endosulfan II	Compound Not Detected.					
	25 4,4'-DDT	6.151	6.153	-0.002	142838926	1.34229	1.342(a)
	26 Endrin Aldehyde	Compound Not Detected.					
	27 Methoxychlor	Compound Not Detected.					
	29 Endosulfan Sulfate	Compound Not Detected.					

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Data File: /chem1/SVOA/GC_41.i/170308.b/a17030813.d Page 2
Report Date: 08-Mar-2017 14:08

	Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ppb)	CONCENTRATIONS FINAL (ppb)
	30 Endrin Ketone	Compound Not Detected.					
T	31 Decachlorobiphenyl	8.038	8.040	-0.002	13547635760	138.218	138.217(R)
M	32 Chlordane	Compound Not Detected.					
	33 CHLD (1)	Compound Not Detected.					
	34 CHLD (2)	Compound Not Detected.					
	35 CHLD (3)	Compound Not Detected.					
	36 CHLD (4)	Compound Not Detected.					
	37 CHLD (5)	Compound Not Detected.					
M	38 Toxaphene	Compound Not Detected.					
	39 TOXAPHENE (1)	Compound Not Detected.					
	40 TOXAPHENE (2)	Compound Not Detected.					
	41 TOXAPHENE (3)	Compound Not Detected.					
	42 TOXAPHENE (4)	Compound Not Detected.					
	43 TOXAPHENE (5)	Compound Not Detected.					

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
R - Spike/Surrogate failed recovery limits.

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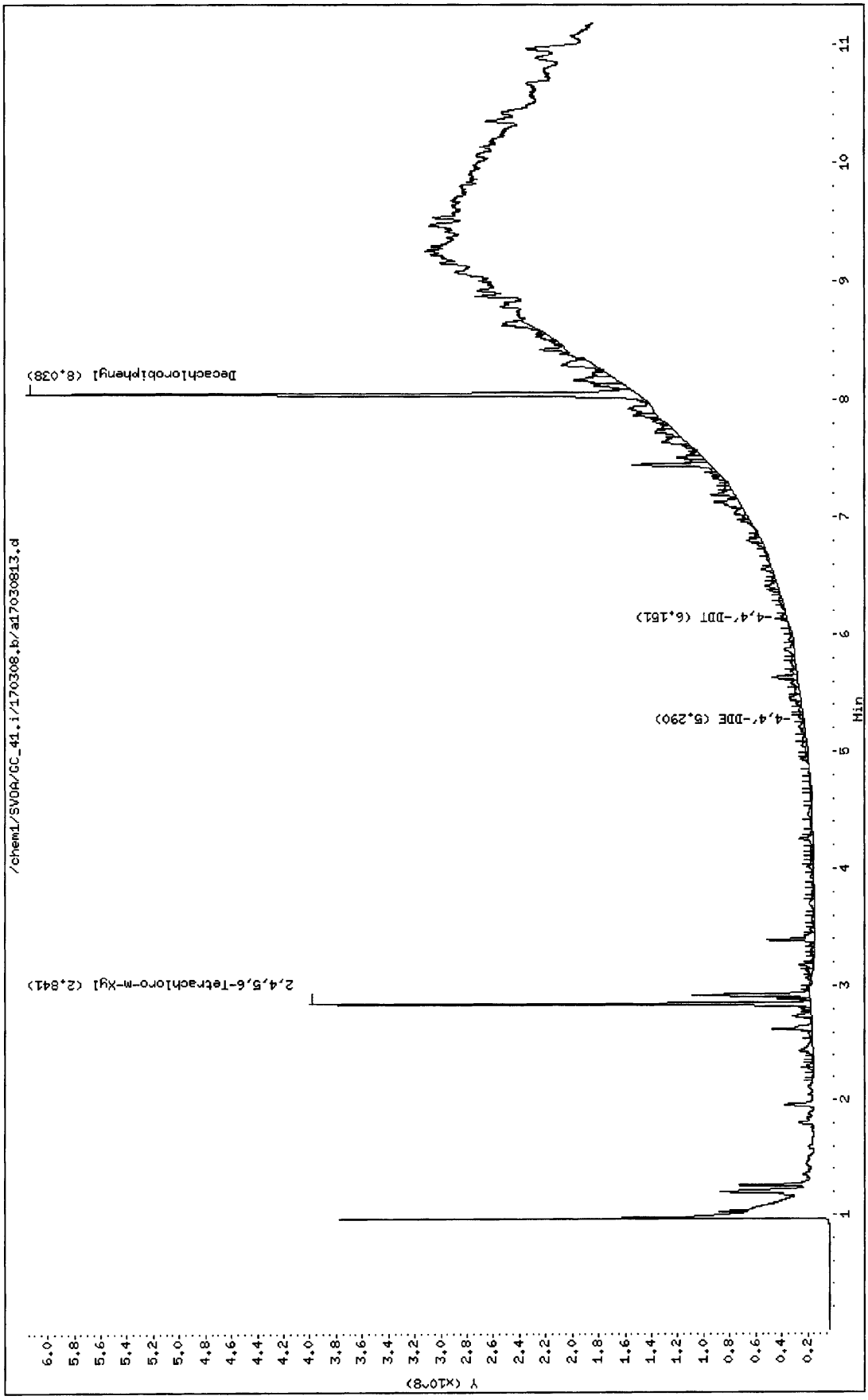
Data File: /chem1/SVOA/GC_41.i/170308.b/a17030813.d
Date : 08-MAR-2017 13:14
Client ID:
Sample Info: 17-03-0445-9

Column phase:

Instrument: GC_41.i

Operator:
Column diameter: 2.00



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Data File: /chem1/SVOA/GC_41.i/170308.b/b17030813.d Page 1
Report Date: 08-Mar-2017 14:28

Eurofins Calscience

Data file : /chem1/SVOA/GC_41.i/170308.b/b17030813.d
Lab Smp Id:
Inj Date : 08-MAR-2017 13:14
Operator : Inst ID: GC_41.i
Smp Info : 17-03-0445-9
Misc Info :
Comment :
Method : /chem1/SVOA/GC_41.i/170308.b/b8081d.m
Meth Date : 08-Mar-2017 11:18 uhhn Quant Type: ESTD
Cal Date : 02-FEB-2017 16:04 Cal File: b17020224.d
Als bottle: 13
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: regpest.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	CONCENTRATIONS ON-COLUMN (ppb)	CONCENTRATIONS FINAL (ppb)
$ 1 2,4,5,6-Tetrachloro-m-Xylene	2.734	2.734	0.000	7069774747	71.7289	71.728
2 Hexachlorobenzene	3.116	3.119	-0.003	23372418	0.19310	0.193(a)
3 Alpha-BHC	3.253	3.236	0.017	12872687	0.07646	0.076(a)
4 Gamma-BHC	3.542	3.557	-0.015	163008614	1.08184	1.081(a)
5 Beta-BHC	3.637	3.626	0.011	24414845	0.40109	0.401(a)
6 Delta-BHC	3.934	3.913	0.021	134822101	0.92264	0.922(a)
7 Heptachlor	3.962	3.983	-0.021	62660741	0.42300	0.423(a)
8 Aldrin	Compound Not Detected.					
11 Heptachlor Epoxide	4.883	4.892	-0.009	75681838	0.64487	0.644(a)
13 Gamma Chlordane	5.078	5.080	-0.002	325562356	2.62545	2.625(a)
15 Alpha Chlordane	5.222	5.226	-0.004	73766039	0.61930	0.619(a)
16 Endosulfan I	5.266	5.287	-0.021	92045595	0.87850	0.878(a)
17 4,4'-DDE	5.364	5.389	-0.025	113929798	0.96621	0.966(a)
18 Dieldrin	5.576	5.558	0.018	154452803	1.31270	1.312(a)
20 Endrin	5.844	5.857	-0.013	26220286	0.27070	0.270(a)
23 4,4'-DDD	5.961	5.957	0.004	40220848	0.39959	0.399(a)
24 Endosulfan II	6.059	6.062	-0.003	32460434	0.37484	0.374(a)
25 4,4'-DDT	6.261	6.259	0.002	289750721	2.95424	2.954(a)
26 Endrin Aldehyde	6.391	6.386	0.005	248528829	2.79324	2.793(a)
27 Endosulfan Sulfate	6.625	6.648	-0.023	106953157	1.10514	1.105(a)
29 Methoxychlor	6.923	6.908	0.015	34436580	0.62976	0.629(a)

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Data File: /chem1/SVOA/GC_41.i/170308.b/b17030813.d Page 2
Report Date: 08-Mar-2017 14:28

	Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ppb)	FINAL (ppb)
	30 Endrin Ketone	7.174	7.153	0.021	242865834	2.11287	2.112(a)
$	31 Decachlorobiphenyl	8.261	8.261	0.000	8860378352	93.5995	93.599
M	32 Chlordane				202063730	3.80260	3.802(a)
	33 CHLD (1)	Compound Not Detected.					
	34 CHLD (2)	4.459	4.469	-0.010	35796485	7.84011	7.840(a)
	35 CHLD (3)	Compound Not Detected.					
	36 CHLD (4)	5.168	5.186	-0.018	166267244	12.4149	12.414
	37 CHLD (5)	Compound Not Detected.					
M	38 Toxaphene				937167589	49.8249	~~49.824~~ ND
	39 TOXAPHENE (1)	5.530	5.552	-0.022	180490924	73.7426	73.742
	40 TOXAPHENE (2)	6.085	6.066	0.019	24325408	7.52525	7.525(a)
	41 TOXAPHENE (3)	6.131	6.161	-0.030	51698759	8.39063	8.390(a)
	42 TOXAPHENE (4)	6.430	6.410	0.020	247974586	67.5922	67.592
	43 TOXAPHENE (5)	6.881	6.898	-0.017	432677909	131.155	131.155

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).

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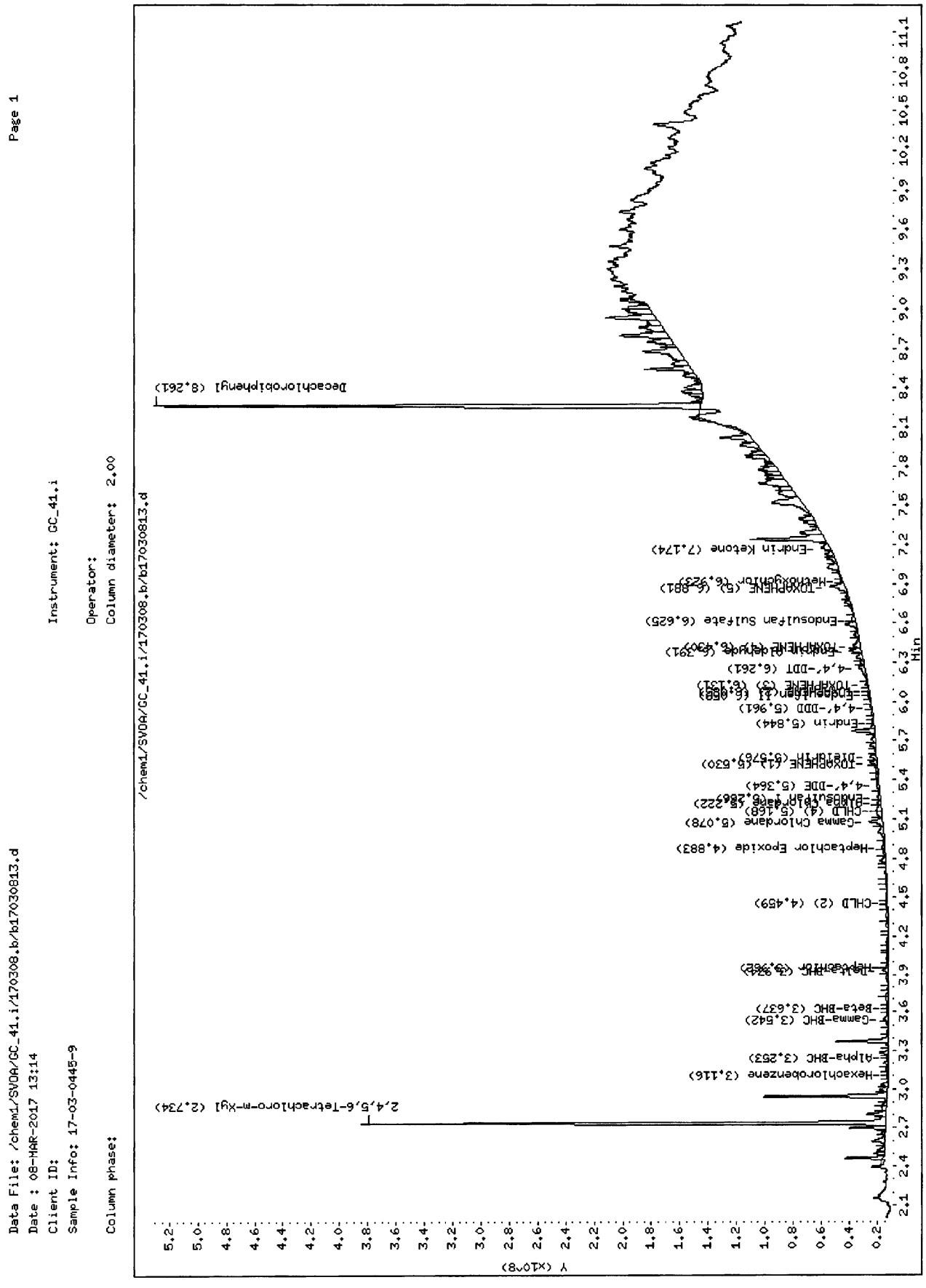

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EPA METHOD 8081A
Organochlorine Pesticides

Quality Control

Method Blank
LCS/LCSD
MS/MSD

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METHOD BLANK ASSOCIATION SUMMARY
FOR METHOD: EPA 8081A

MB SAMPLE ID:	**099-12-537-2628**	ANALYZED BY:	669
MB BATCH ID:	170307L07	D/T ANALYZED:	2017-03-08 11:28
INSTRUMENT:	GC 41	REVIEWED BY:	
EXTRACTION:	EPA 3545	D/T REVIEWED:	
D/T EXTRACTED:	2017-03-07 00:00	MATRIX:	Soil

DATA FILE: /chem1/SVOA/GC_41/170308/a1703080617030806

CLIENT WORK ORDER: 17-03-0445

S#	RUN TYPE	CLIENT SAMPLE ID	D/T ANALYZED	DATA FILE
9		B-DU3-S-07-0.6	2017-03-08 13:14	/chem1/SVOA/GC_41/170308/a1703081317030813

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RAW DATA SHEET
FOR METHOD: EPA 8081A

WORK ORDER: **099-12-537**
INSTRUMENT: GC 41
EXTRACTION : EPA 3545
D/T EXTRACTED: 2017-03-07 00:00

ANALYZED BY: 669
D/T ANALYZED: 2017-03-08 11:28
REVIEWED BY: M
D/T REVIEWED:

DATA FILE: /chem1/SVOA/GC_41/170308/a1703080617030806

MB **CLIENT SAMPLE NUMBER:** **Method Blank**

LCS/MB BATCH: 170307L07
MS/MSD BATCH:
UNITS: ug/kg

SAMPLE VOLUME / WEIGHT: DEFAULT: 1.00 / ACTUAL: 1.00
FINAL VOLUME / WEIGHT: DEFAULT: 1.00 ml / ACTUAL: 1.00 ml
ADJUSTMENT RATIO TO PF: 1.00

COMMENT:

COMPOUND NAME	ON COL CONC	CONC	DF	RL	QUAL	RPD	TYPE	CONF CONC
Aldrin	0.000	ND	1.00	5.0			2	ND
Alpha-BHC	0.00900	ND	1.00	10			2	ND
Beta-BHC	0.000	ND	1.00	5.0			2	ND
Chlordane	0.000	ND	1.00	50			2	ND
4,4'-DDD	0.163	ND	1.00	5.0			2	ND
4,4'-DDE	0.0950	ND	1.00	5.0			2	ND
4,4'-DDT	0.108	ND	1.00	5.0			2	ND
Delta-BHC	0.135	ND	1.00	10			2	ND
Dieldrin	0.0530	ND	1.00	5.0			2	ND
Endosulfan I	0.149	ND	1.00	5.0			2	ND
Endosulfan II	0.0270	ND	1.00	5.0			2	ND
Endosulfan Sulfate	0.162	ND	1.00	5.0			2	ND
Endrin	0.000	ND	1.00	5.0			2	ND
Endrin Aldehyde	0.258	ND	1.00	5.0			2	ND
Endrin Ketone	0.150	ND	1.00	5.0			2	ND
Gamma-BHC	0.0330	ND	1.00	5.0			2	ND
Heptachlor	0.0320	ND	1.00	5.0			2	ND
Heptachlor Epoxide	0.271	ND	1.00	10			2	ND
Methoxychlor	0.000	ND	1.00	5.0			2	ND
Toxaphene	0.000	ND	1.00	100			2	ND

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LCS QUALITY CONTROL SHEET
FOR METHOD: EPA 8081A

LCS SAMPLE ID: **099-12-537-2628**
LCS/MB BATCH ID: 170307L07
INSTRUMENT: GC 41

EXTRACTION: EPA 3545
D/T EXTRACTED: 2017-03-07 00:00

ANALYZED BY: 669
D/T ANALYZED: 2017-03-08 11:13
REVIEWED BY:
D/T REVIEWED:

DATA FILE: /chem1/SVOA/GC_41/170308/a1703080517030805

COMPOUND	CONC	CONC REC	%REC	%REC CL	ME CL	STATUS	QUALIFIERS
Alpha-BHC	25.00	19.02	76	50-135	36-149	PASS	
Gamma-BHC	25.00	18.99	76	50-135	36-149	PASS	
Beta-BHC	25.00	18.88	76	50-135	36-149	PASS	
Delta-BHC	25.00	18.93	76	50-135	36-149	PASS	
Heptachlor	25.00	19.03	76	50-135	36-149	PASS	
Aldrin	25.00	19.22	77	50-135	36-149	PASS	
Heptachlor Epoxide	25.00	19.11	76	50-135	36-149	PASS	
Gamma Chlordane	25.00	19.17	77	50-135	36-149	PASS	
Alpha Chlordane	25.00	19.32	77	50-135	36-149	PASS	
4,4'-DDE	25.00	19.29	77	50-135	36-149	PASS	
Endosulfan I	25.00	19.78	79	50-135	36-149	PASS	
Dieldrin	25.00	19.56	78	50-135	36-149	PASS	
Endrin	25.00	21.71	87	50-135	36-149	PASS	
4,4'-DDD	25.00	19.73	79	50-135	36-149	PASS	
Endosulfan II	25.00	19.66	79	50-135	36-149	PASS	
4,4'-DDT	25.00	18.95	76	50-135	36-149	PASS	
Endrin Aldehyde	25.00	18.83	75	50-135	36-149	PASS	
Methoxychlor	25.00	18.15	73	50-135	36-149	PASS	
Endosulfan Sulfate	25.00	19.46	78	50-135	36-149	PASS	

Total number of LCS compounds: 19
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 8081A

SPIKED SAMPLE ID: **17-03-0445-9**
MS/MSD BATCH: 170307S07
INSTRUMENTS:
SAMPLE: GC 41
MS: GC 41
MSD: GC 41

EXTRACTION: EPA 3545
D/T EXTRACTED:
SAMPLE: 2017-03-07 00:00
MS: 2017-03-07 00:00
MSD: 2017-03-07 00:00

ANALYZED BY: 669
D/T ANALYZED:
SAMPLE: 2017-03-08 13:14
MS: 2017-03-08 14:00
MSD: 2017-03-08 14:15
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
Alpha-BHC	ND	50.00	25.00	17.22	69	16.94	68	50-135	2	0-25	PASS	
Gamma-BHC	ND	50.00	25.00	16.50	66	17.23	69	50-135	4	0-25	PASS	
Beta-BHC	**ND**	**50.00**	**25.00**	**11.82**	**47**	**17.14**	**69**	**50-135**	**37**	**0-25**	**FAIL**	**3G4**
Delta-BHC	ND	50.00	25.00	13.85	55	14.22	57	50-135	3	0-25	PASS	
Heptachlor	ND	50.00	25.00	19.05	76	18.39	74	50-135	4	0-25	PASS	
Aldrin	ND	50.00	25.00	18.09	72	18.90	76	50-135	4	0-25	PASS	
Heptachlor Epoxide	ND	50.00	25.00	20.65	83	20.53	82	50-135	1	0-25	PASS	
Gamma Chlordane	ND	50.00	25.00	19.05	76	20.21	81	50-135	6	0-25	PASS	
Alpha Chlordane	ND	50.00	25.00	20.04	80	20.99	84	50-135	5	0-25	PASS	
4,4'-DDE	ND	50.00	25.00	20.27	81	20.65	83	50-135	2	0-25	PASS	
Endosulfan I	ND	50.00	25.00	21.33	85	21.33	85	50-135	0	0-25	PASS	
Dieldrin	ND	50.00	25.00	23.34	93	23.95	96	50-135	3	0-25	PASS	
Endrin	ND	50.00	25.00	22.62	90	23.80	95	50-135	5	0-25	PASS	
4,4'-DDD	ND	50.00	25.00	21.07	84	23.32	93	50-135	10	0-25	PASS	
Endosulfan II	ND	50.00	25.00	23.30	93	24.15	97	50-135	4	0-25	PASS	
4,4'-DDT	ND	50.00	25.00	20.69	83	16.99	68	50-135	20	0-25	PASS	
Endrin Aldehyde	ND	50.00	25.00	14.72	59	13.60	54	50-135	8	0-25	PASS	Y
Methoxychlor	ND	50.00	25.00	21.00	84	19.36	77	50-135	8	0-25	PASS	
Endosulfan Sulfate	ND	50.00	25.00	17.51	70	18.08	72	50-135	3	0-25	PASS	

Data Files:

TYPE	DATA FILE	DATA FILE PATH
MS	17030814	/chem1/SVOA/GC_41/170308/a17030814
MSD	17030815	/chem1/SVOA/GC_41/170308/a17030815

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SURROGATE RECOVERIES
FOR METHOD: EPA 8081A

WORK ORDER: 17-03-0445
BATCH ID:
LCS/MB: 170307L07
MS: 170307S07
EXTRACTION : EPA 3545

REVIEWED BY:
D/T REVIEWED:

 # 9 CLIENT SAMPLE NUMBER : B-DU3-S-07-0.6

INSTRUMENT: GC 41
D/T EXTRACTED: 2017-03-07 00:00
DATA FILE: /chem1/SVOA/GC_41/170308/a1703081317030813

ANALYZED BY: 669
D/T ANALYZED 2017-03-08 13:14

COMMENT:

COMPOUND	% REC	% REC CL	STATUS	QUALIFIERS
2,4,5,6-Tetrachloro-m-Xylene	72	25-145	PASS	
Decachlorobiphenyl	138	24-168	PASS	

 # MB CLIENT SAMPLE NUMBER : Method Blank

INSTRUMENT: GC 41
D/T EXTRACTED: 2017-03-07 00:00
DATA FILE: /chem1/SVOA/GC_41/170308/a1703080617030806

ANALYZED BY: 669
D/T ANALYZED 2017-03-08 11:28

COMMENT:

COMPOUND	% REC	% REC CL	STATUS	QUALIFIERS
2,4,5,6-Tetrachloro-m-Xylene	64	25-145	PASS	
Decachlorobiphenyl	90	24-168	PASS	

 # LCS CLIENT SAMPLE NUMBER : Lab Control Sample

INSTRUMENT: GC 41
D/T EXTRACTED: 2017-03-07 00:00
DATA FILE: /chem1/SVOA/GC_41/170308/a1703080517030805

ANALYZED BY: 669
D/T ANALYZED 2017-03-08 11:13

COMMENT:

COMPOUND	% REC	% REC CL	STATUS	QUALIFIERS
2,4,5,6-Tetrachloro-m-Xylene	74	25-145	PASS	
Decachlorobiphenyl	83	24-168	PASS	

 # MS CLIENT SAMPLE NUMBER : Matrix Spike

INSTRUMENT: GC 41
D/T EXTRACTED: 2017-03-07 00:00
DATA FILE: /chem1/SVOA/GC_41/170308/a1703081417030814

ANALYZED BY: 669
D/T ANALYZED 2017-03-08 14:00

COMMENT:

COMPOUND	% REC	% REC CL	STATUS	QUALIFIERS
2,4,5,6-Tetrachloro-m-Xylene	69	25-145	PASS	
Decachlorobiphenyl	134	24-168	PASS	

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SURROGATE RECOVERIES FOR METHOD: EPA 8081A

WORK ORDER: 17-03-0445
BATCH ID:
LCS/MB:
MS: **170307S07**
EXTRACTION : EPA 3545

REVIEWED BY:
D/T REVIEWED:

 # MSD **CLIENT SAMPLE NUMBER : Matrix Spike Duplicate**

INSTRUMENT: GC 41
D/T EXTRACTED: 2017-03-07 00:00
DATA FILE: /chem1/SVOA/GC_41/170308/a1703081517030815

ANALYZED BY: 669
D/T ANALYZED 2017-03-08 14:15

COMMENT:

COMPOUND	% REC	% REC CL	STATUS	QUALIFIERS
2,4,5,6-Tetrachloro-m-Xylene	67	25-145	PASS	
Decachlorobiphenyl	129	24-168	PASS	

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Data File: /chem1/SVOA/GC_41.i/170308.b/a17030806.d Page 1
Report Date: 08-Mar-2017 11:47

Eurofins Calscience

Data file : /chem1/SVOA/GC_41.i/170308.b/a17030806.d
Lab Smp Id:
Inj Date : 08-MAR-2017 11:28
Operator : Inst ID: GC_41.i
Smp Info : MB 170307L07
Misc Info :
Comment :
Method : /chem1/SVOA/GC_41.i/170308.b/a8081d.m
Meth Date : 08-Mar-2017 11:17 uhhn Quant Type: ESTD
Cal Date : 02-FEB-2017 16:04 Cal File: a17020224.d
Als bottle: 6
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: regpest.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	CONCENTRATIONS ON-COLUMN (ppb)	FINAL (ppb)
T 1	2,4,5,6-Tetrachloro-m-Xylene	2.847	2.841	0.006	6761503033	63.5445	63.544
2	Hexachlorobenzene	3.174	3.171	0.003	73177969	0.50750	0.507(a)
3	Alpha-BHC	3.307	3.314	-0.007	1606924	0.00906	0.009(a)
4	Gamma-BHC	3.613	3.601	0.012	5406331	0.03381	0.033(a)
5	Beta-BHC	Compound Not Detected.					
6	Delta-BHC	3.833	3.850	-0.017	20904031	0.13568	0.135(a)
7	Heptachlor	4.064	4.062	0.002	5268435	0.03294	0.032(a)
8	Aldrin	Compound Not Detected.					
12	Heptachlor Epoxide	4.963	4.975	-0.012	34026957	0.27139	0.271(a)
13	Gamma Chlordane	5.105	5.100	0.005	4579364	0.03488	0.034(a)
15	Alpha Chlordane	5.234	5.231	0.003	12050422	0.09604	0.096(a)
16	4,4'-DDE	5.307	5.296	0.011	11839771	0.09546	0.095(a)
17	Endosulfan I	5.358	5.372	-0.014	16389536	0.14936	0.149(a)
19	Dieldrin	5.613	5.606	0.007	6608979	0.05379	0.053(a)
21	Endrin	Compound Not Detected.					
23	4,4'-DDD	5.890	5.883	0.007	16861819	0.16360	0.163(a)
24	Endosulfan II	6.061	6.052	0.009	2453911	0.02793	0.027(a)
25	4,4'-DDT	6.135	6.153	-0.018	11495285	0.10802	0.108(a)
26	Endrin Aldehyde	6.456	6.450	0.006	24114013	0.25847	0.258(a)
27	Methoxychlor	Compound Not Detected.					
29	Endosulfan Sulfate	6.867	6.863	0.004	16304802	0.16280	0.162(a)

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	Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ppb)	CONCENTRATIONS FINAL (ppb)
	30 Endrin Ketone	7.135	7.132	0.003	18278263	0.15028	0.150(a)
T	31 Decachlorobiphenyl	8.042	8.040	0.002	8795865196	89.7384	89.738
M	32 Chlordane	Compound Not Detected.					
	33 CHLD (1)	Compound Not Detected.					
	34 CHLD (2)	Compound Not Detected.					
	35 CHLD (3)	Compound Not Detected.					
	36 CHLD (4)	Compound Not Detected.					
	37 CHLD (5)	Compound Not Detected.					
M	38 Toxaphene	Compound Not Detected.					
	39 TOXAPHENE (1)	Compound Not Detected.					
	40 TOXAPHENE (2)	Compound Not Detected.					
	41 TOXAPHENE (3)	Compound Not Detected.					
	42 TOXAPHENE (4)	Compound Not Detected.					
	43 TOXAPHENE (5)	Compound Not Detected.					

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).

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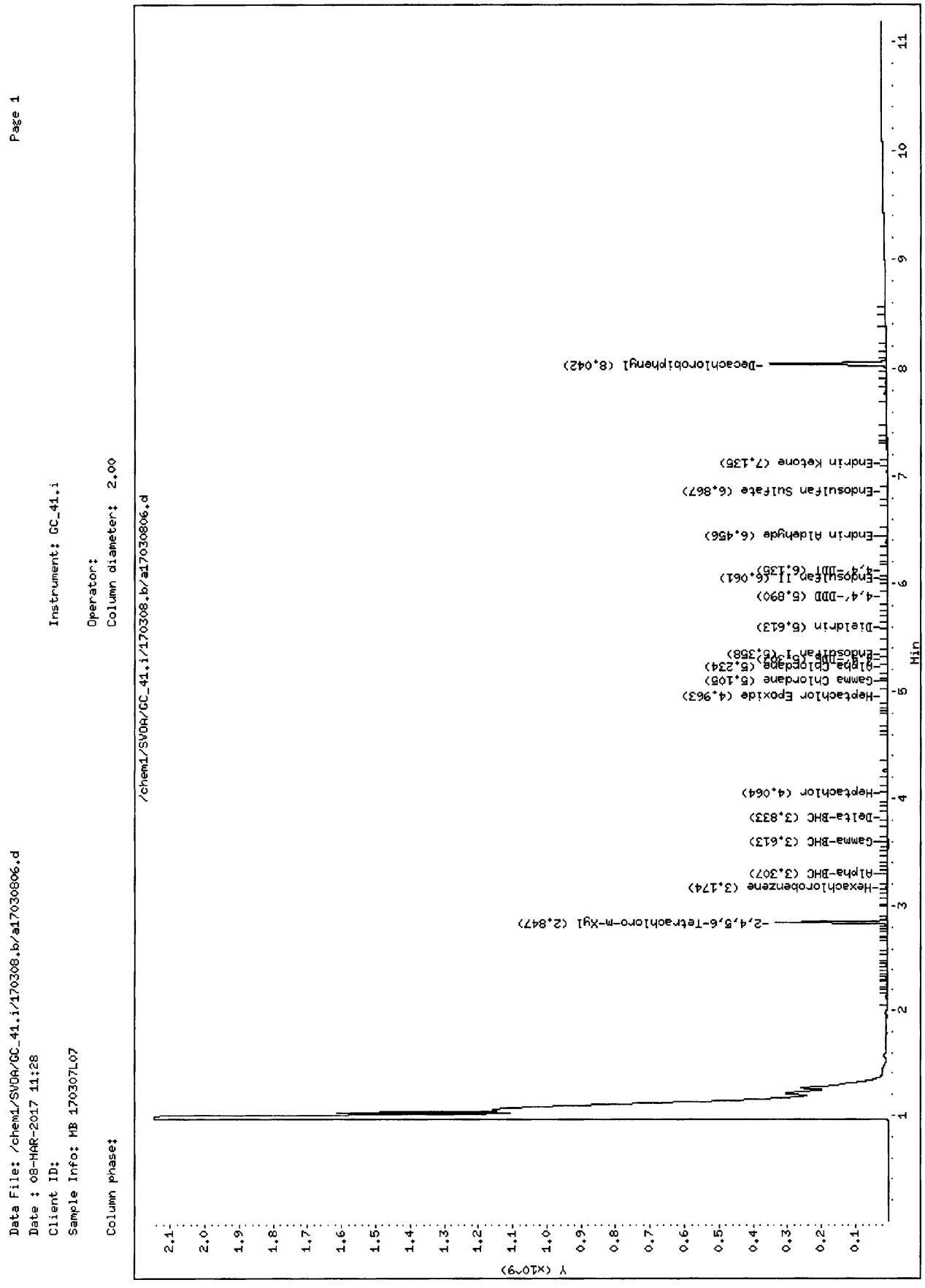

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Data File: /chem1/SVOA/GC_41.i/170308.b/b17030806.d Page 1
Report Date: 08-Mar-2017 11:48

Eurofins Calscience

Data file : /chem1/SVOA/GC_41.i/170308.b/b17030806.d
Lab Smp Id:
Inj Date : 08-MAR-2017 11:28
Operator : Inst ID: GC_41.i
Smp Info : MB 170307L07
Misc Info :
Comment :
Method : /chem1/SVOA/GC_41.i/170308.b/b8081d.m
Meth Date : 08-Mar-2017 11:18 uhhn Quant Type: ESTD
Cal Date : 02-FEB-2017 16:04 Cal File: b17020224.d
Als bottle: 6
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: regpest.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)	(ppb)
$	1 2,4,5,6-Tetrachloro-m-Xylene	2.735	2.734	0.001	6456287956	65.5046	65.504
	2 Hexachlorobenzene	3.123	3.119	0.004	10039364	0.08294	0.082(a)
	3 Alpha-BHC	3.247	3.236	0.011	6518998	0.03872	0.038(a)
	4 Gamma-BHC	3.585	3.557	0.028	25397839	0.16856	0.168(a)
	5 Beta-BHC	Compound Not Detected.					
	6 Delta-BHC	3.916	3.913	0.003	5749909	0.03935	0.039(a)
	7 Heptachlor	3.982	3.983	-0.001	6738011	0.04549	0.045(a)
	8 Aldrin	4.313	4.313	0.000	1707497	0.01252	0.012(a)
	11 Heptachlor Epoxide	4.908	4.892	0.016	22545960	0.19211	0.192(a)
	13 Gamma Chlordane	5.079	5.080	-0.001	189380279	1.52723	1.527(a)
	15 Alpha Chlordane	5.226	5.226	0.000	6106013	0.05126	0.051(a)
	16 Endosulfan I	5.267	5.287	-0.020	5595068	0.05340	0.053(a)
	17 4,4'-DDE	5.388	5.389	-0.001	7637334	0.06477	0.064(a)
	18 Dieldrin	Compound Not Detected.					
	20 Endrin	5.873	5.857	0.016	12644899	0.13055	0.130(a)
	23 4,4'-DDD	5.945	5.957	-0.012	45357722	0.45062	0.450(a)
	24 Endosulfan II	6.061	6.062	-0.001	13769664	0.15901	0.159(a)
	25 4,4'-DDT	6.260	6.259	0.001	13204763	0.13463	0.134(a)
	26 Endrin Aldehyde	6.396	6.386	0.010	277880614	3.12312	3.123(a)
	27 Endosulfan Sulfate	6.647	6.648	-0.001	18528215	0.19145	0.191(a)
	29 Methoxychlor	Compound Not Detected.					

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Data File: /chem1/SVOA/GC_41.i/170308.b/b17030806.d Page 2
Report Date: 08-Mar-2017 11:48

	Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ppb)	FINAL (ppb)
	30 Endrin Ketone	7.170	7.153	0.017	29627951	0.25776	0.257(a)
$	31 Decachlorobiphenyl	8.260	8.261	-0.001	7886150960	83.3079	83.307
M	32 Chlordane				12868606	0.24217	0.242(a)
	33 CHLD (1)	3.870	3.847	0.023	6902512	1.28516	1.285(a)
	34 CHLD (2)	4.448	4.469	-0.021	5966093	1.30669	1.306(a)
	35 CHLD (3)	Compound Not Detected.					
	36 CHLD (4)	Compound Not Detected.					
	37 CHLD (5)	Compound Not Detected.					
M	38 Toxaphene				27384753	1.45592	1.455(a)
	39 TOXAPHENE (1)	5.552	5.552	0.000	13766528	5.62455	5.624(a)
	40 TOXAPHENE (2)	Compound Not Detected.					
	41 TOXAPHENE (3)	6.135	6.161	-0.026	13618224	2.21022	2.210(a)
	42 TOXAPHENE (4)	Compound Not Detected.					
	43 TOXAPHENE (5)	Compound Not Detected.					

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).

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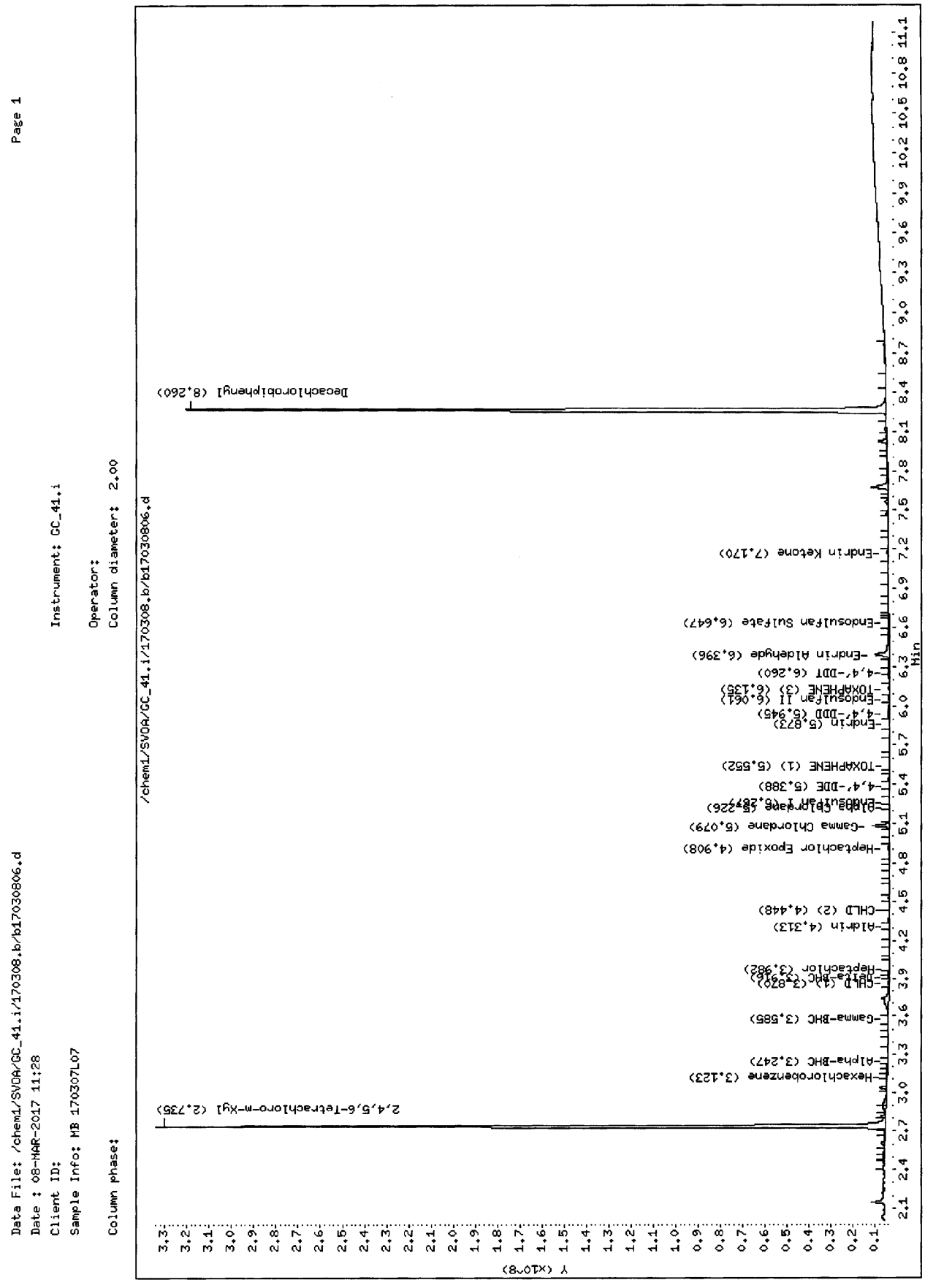

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Data File: /chem1/SVOA/GC_41.i/170308.b/a17030805.d Page 1
Report Date: 08-Mar-2017 11:34

Eurofins Calscience

Data file : /chem1/SVOA/GC_41.i/170308.b/a17030805.d
Lab Smp Id:
Inj Date : 08-MAR-2017 11:13
Operator : Inst ID: GC_41.i
Smp Info : LCS 170307L07
Misc Info :
Comment :
Method : /chem1/SVOA/GC_41.i/170308.b/a8081d.m
Meth Date : 08-Mar-2017 11:17 uhhn Quant Type: ESTD
Cal Date : 02-FEB-2017 16:04 Cal File: a17020224.d
Als bottle: 2
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: PEST.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)	(ppb)
T	1 2,4,5,6-Tetrachloro-m-Xylene	2.841	2.841	0.000	7886896654	74.1209	74.120
	2 Hexachlorobenzene	3.171	3.171	0.000	5512814991	38.2321	38.232
	3 Alpha-BHC	3.313	3.314	-0.001	6748292686	38.0343	38.034
	4 Gamma-BHC	3.600	3.601	-0.001	6074147779	37.9877	37.987
	5 Beta-BHC	3.672	3.672	0.000	2403664778	37.7638	37.763
	6 Delta-BHC	3.849	3.850	-0.001	5833315712	37.8621	37.862
	7 Heptachlor	4.061	4.062	-0.001	6085979573	38.0515	38.051
	8 Aldrin	4.369	4.370	-0.001	5488529742	38.4326	38.432
	12 Heptachlor Epoxide	4.974	4.975	-0.001	4791477155	38.2160	38.216
	13 Gamma Chlordane	5.099	5.100	-0.001	5034137079	38.3488	38.348
	15 Alpha Chlordane	5.231	5.231	0.000	4847312317	38.6323	38.632
	16 4,4'-DDE	5.296	5.296	0.000	4783965847	38.5727	38.572
	17 Endosulfan I	5.371	5.372	-0.001	4341092142	39.5605	39.560
	19 Dieldrin	5.605	5.606	-0.001	4805803190	39.1149	39.114
	21 Endrin	5.836	5.836	0.000	4489651562	43.4180	43.418
	23 4,4'-DDD	5.883	5.883	0.000	4066598225	39.4564	39.456
	24 Endosulfan II	6.052	6.052	0.000	3455414924	39.3229	39.322
	25 4,4'-DDT	6.153	6.153	0.000	4032804462	37.8971	37.897
	26 Endrin Aldehyde	6.451	6.450	0.001	3513459170	37.6597	37.659
	27 Methoxychlor	6.606	6.606	0.000	2054588128	36.3079	36.307
	29 Endosulfan Sulfate	6.863	6.863	0.000	3897602095	38.9168	38.916

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Data File: /chem1/SVOA/GC_41.i/170308.b/a17030805.d
Report Date: 08-Mar-2017 11:34

					CONCENTRATIONS	
					ON-COLUMN	FINAL
Compounds	RT	EXP RT	DLT RT	RESPONSE	(ppb)	(ppb)
30 Endrin Ketone	7.132	7.132	0.000	4428275192	36.4088	36.408
T 31 Decachlorobiphenyl	8.040	8.040	0.000	8097826613	82.6167	82.616

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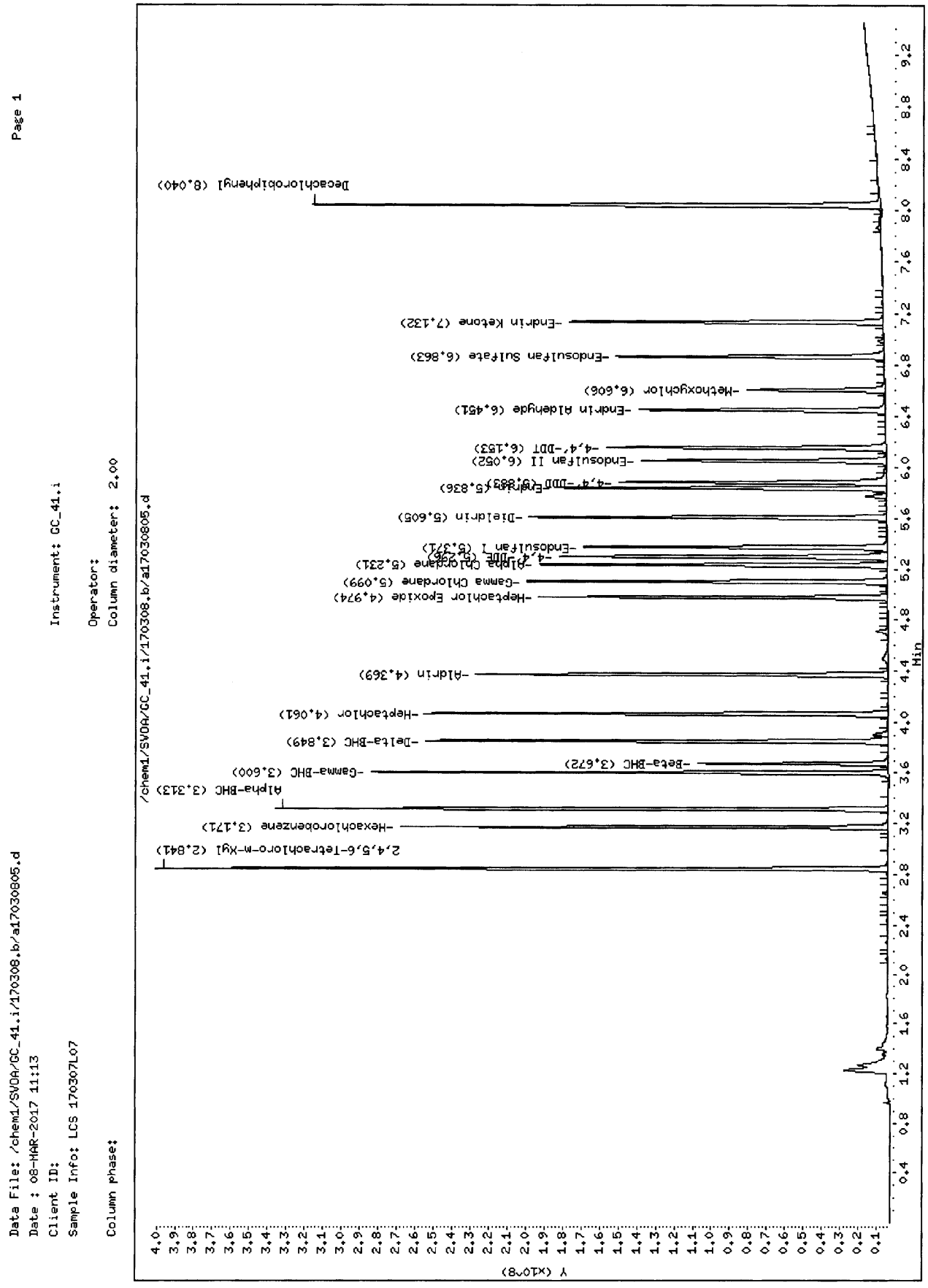

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Data File: /chem1/SVOA/GC_41.i/170308.b/b17030805.d Page 1
Report Date: 08-Mar-2017 11:34

Eurofins Calscience

Data file : /chem1/SVOA/GC_41.i/170308.b/b17030805.d
Lab Smp Id:
Inj Date : 08-MAR-2017 11:13
Operator : Inst ID: GC_41.i
Smp Info : LCS 170307L07
Misc Info :
Comment :
Method : /chem1/SVOA/GC_41.i/170308.b/b8081d.m
Meth Date : 08-Mar-2017 11:18 uhhn Quant Type: ESTD
Cal Date : 02-FEB-2017 16:04 Cal File: b17020224.d
Als bottle: 2
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: PEST.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	CONCENTRATIONS ON-COLUMN (ppb)	CONCENTRATIONS FINAL (ppb)
$ 1	2,4,5,6-Tetrachloro-m-Xylene	2.734	2.734	0.000	7485326801	75.9451	75.945
2	Hexachlorobenzene	3.119	3.119	0.000	4733282044	39.1053	39.105
3	Alpha-BHC	3.236	3.236	0.000	6520267423	38.7273	38.727
4	Gamma-BHC	3.557	3.557	0.000	5874079736	38.9847	38.984
5	Beta-BHC	3.626	3.626	0.000	2382013946	39.1319	39.131
6	Delta-BHC	3.913	3.913	0.000	5731459230	39.2225	39.222
7	Heptachlor	3.982	3.983	-0.001	5721195567	38.6221	38.622
8	Aldrin	4.313	4.313	0.000	5332518773	39.1128	39.112
11	Heptachlor Epoxide	4.892	4.892	0.000	4556980095	38.8290	38.828
13	Gamma Chlordane	5.080	5.080	0.000	4937986653	39.8216	39.821
15	Alpha Chlordane	5.226	5.226	0.000	4690393705	39.3780	39.378
16	Endosulfan I	5.287	5.287	0.000	4141786477	39.5300	39.530
17	4,4'-DDE	5.389	5.389	0.000	4667033624	39.5800	39.580
18	Dieldrin	5.558	5.558	0.000	4657388801	39.5834	39.583
20	Endrin	5.857	5.857	0.000	4266245690	44.0452	44.045
23	4,4'-DDD	5.958	5.957	0.001	4283020746	42.5510	42.550
24	Endosulfan II	6.063	6.062	0.001	3425486951	39.5563	39.556
25	4,4'-DDT	6.260	6.259	0.001	3778978867	38.5297	38.529
26	Endrin Aldehyde	6.386	6.386	0.000	3401480324	38.2295	38.229
27	Endosulfan Sulfate	6.649	6.648	0.001	3765512647	38.9089	38.908
29	Methoxychlor	6.909	6.908	0.001	2057730596	37.6305	37.630

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Data File: /chem1/SVOA/GC_41.i/170308.b/b17030805.d Page 2
Report Date: 08-Mar-2017 11:34

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ppb)	CONCENTRATIONS FINAL (ppb)
30 Endrin Ketone	7.153	7.153	0.000	4267794829	37.1287	37.128
$ 31 Decachlorobiphenyl	8.262	8.261	0.001	7229378442	76.3699	76.369

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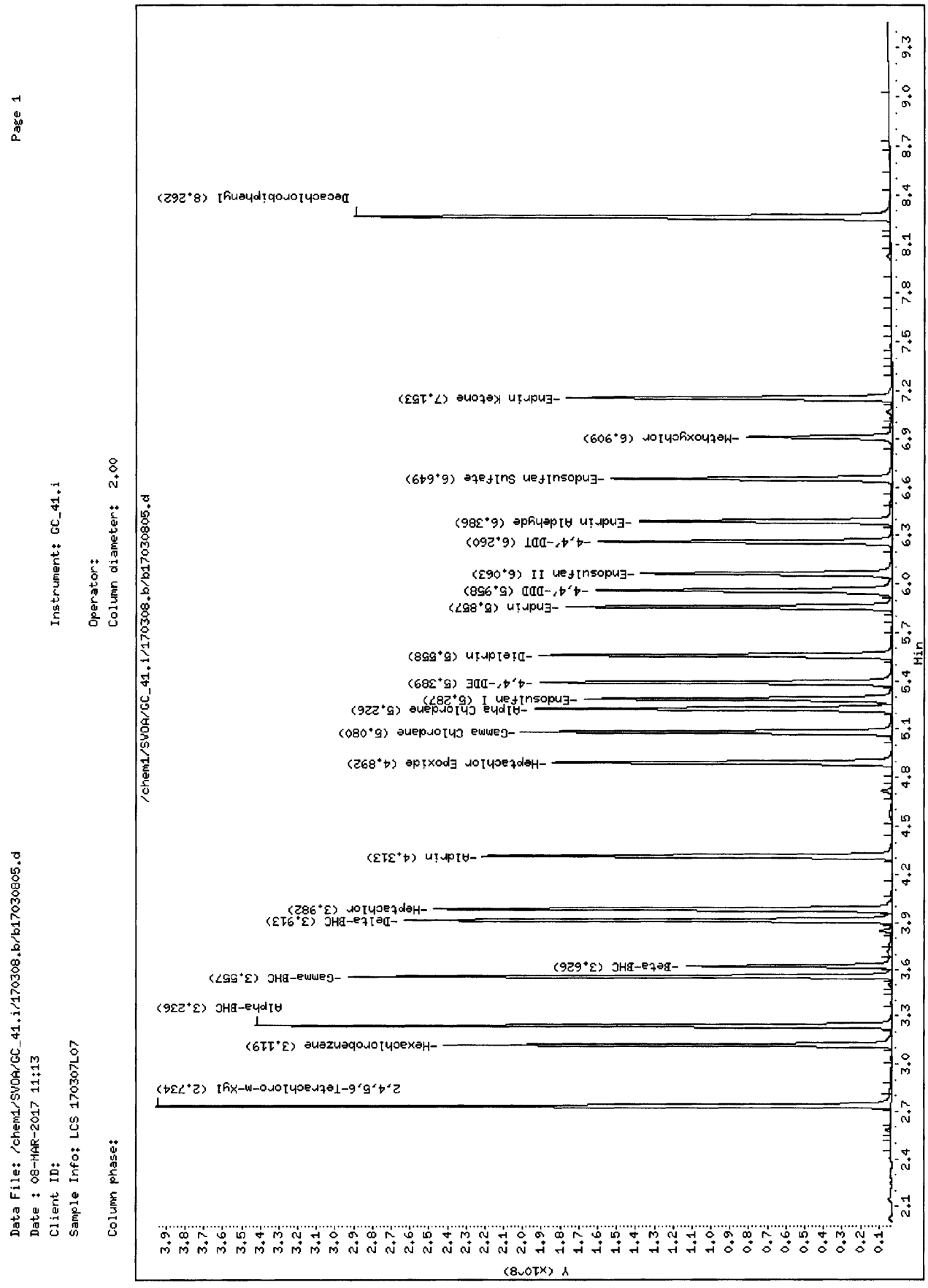

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Data File: /chem1/SVOA/GC_41.i/170308.b/a17030814.d Page 1
Report Date: 08-Mar-2017 14:18

Eurofins Calscience

Data file : /chem1/SVOA/GC_41.i/170308.b/a17030814.d
Lab Smp Id:
Inj Date : 08-MAR-2017 14:00
Operator : Inst ID: GC_41.i
Smp Info : MS 17-03-0445-9 17-0307S07
Misc Info :
Comment :
Method : /chem1/SVOA/GC_41.i/170308.b/a8081d.m
Meth Date : 08-Mar-2017 11:17 uhhn Quant Type: ESTD
Cal Date : 02-FEB-2017 16:04 Cal File: a17020224.d
Als bottle: 14
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: PEST.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)	(ppb)
T	1 2,4,5,6-Tetrachloro-m-Xylene	2.845	2.841	0.004	7382060896	69.3765	69.376
	2 Hexachlorobenzene	3.174	3.171	0.003	5295890045	36.7277	36.727
	3 Alpha-BHC	3.317	3.314	0.003	6108902557	34.4306	34.430
	4 Gamma-BHC	3.604	3.601	0.003	5275167811	32.9909	32.990
	5 Beta-BHC	3.677	3.672	0.005	1505149858	23.6473	23.647
	6 Delta-BHC	3.854	3.850	0.004	4268097846	27.7028	27.702
	7 Heptachlor	4.065	4.062	0.003	6092411559	38.0917	38.091
	8 Aldrin	4.373	4.370	0.003	5167101750	36.1819	36.181
	12 Heptachlor Epoxide	4.977	4.975	0.002	5178298670	41.3012	41.301
	13 Gamma Chlordane	5.101	5.100	0.001	5001687190	38.1016	38.101
	15 Alpha Chlordane	5.233	5.231	0.002	5028441028	40.0759	40.075
	16 4,4'-DDE	5.295	5.296	-0.001	5029114613	40.5493	40.549
	17 Endosulfan I	5.373	5.372	0.001	4680948457	42.6577	42.657
	19 Dieldrin	5.606	5.606	0.000	5735260822	46.6798	46.679
	21 Endrin	5.836	5.836	0.000	4677889897	45.2384	45.238
	23 4,4'-DDD	5.882	5.883	-0.001	4343594777	42.1439	42.143
	24 Endosulfan II	6.051	6.052	-0.001	4094099235	46.5912	46.591
	25 4,4'-DDT	6.153	6.153	0.000	4403881457	41.3842	41.384
	26 Endrin Aldehyde	6.450	6.450	0.000	2745769835	29.4311	29.431
	27 Methoxychlor	6.604	6.606	-0.002	2376669741	41.9996	41.999
	29 Endosulfan Sulfate	6.862	6.863	-0.001	3507097205	35.0177	35.017

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					CONCENTRATIONS	
					ON-COLUMN	FINAL
Compounds	RT	EXP RT	DLT RT	RESPONSE	(ppb)	(ppb)
30 Endrin Ketone	7.131	7.132	-0.001	5102564628	41.9528	41.952
T 31 Decachlorobiphenyl	8.041	8.040	0.001	13165378857	134.318	134.317(R)

QC Flag Legend

R - Spike/Surrogate failed recovery limits.

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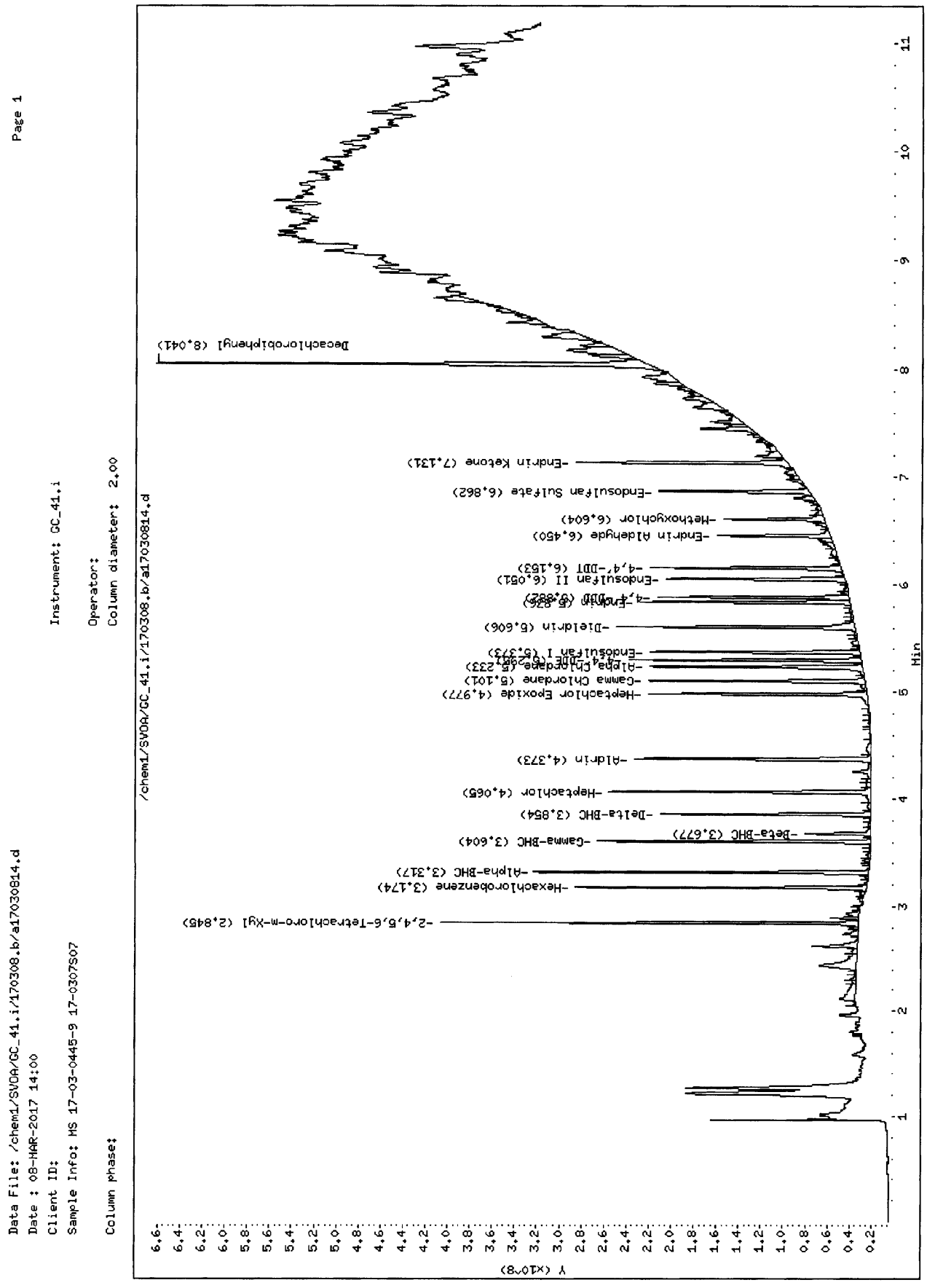

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Data File: /chem1/SVOA/GC_41.i/170308.b/b17030814.d Page 1
Report Date: 08-Mar-2017 14:18

Eurofins Calscience

Data file : /chem1/SVOA/GC_41.i/170308.b/b17030814.d
Lab Smp Id:
Inj Date : 08-MAR-2017 14:00
Operator : Inst ID: GC_41.i
Smp Info : MS 17-03-0445-9 17-0307S07
Misc Info :
Comment :
Method : /chem1/SVOA/GC_41.i/170308.b/b8081d.m
Meth Date : 08-Mar-2017 11:18 uhhn Quant Type: ESTD
Cal Date : 02-FEB-2017 16:04 Cal File: b17020224.d
Als bottle: 14
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: PEST.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	CONCENTRATIONS ON-COLUMN (ppb)	CONCENTRATIONS FINAL (ppb)
$ 1	2,4,5,6-Tetrachloro-m-Xylene	2.735	2.734	0.001	6899559594	70.0020	70.001
2	Hexachlorobenzene	3.120	3.119	0.001	4179981018	34.5341	34.534
3	Alpha-BHC	3.237	3.236	0.001	5469213837	32.4846	32.484
4	Gamma-BHC	3.558	3.557	0.001	4951980395	32.8650	32.864
5	Beta-BHC	3.628	3.626	0.002	1300607788	21.3665	21.366
6	Delta-BHC	3.914	3.913	0.001	3868066631	26.4706	26.470
7	Heptachlor	3.982	3.983	-0.001	4975448242	33.5877	33.587
8	Aldrin	4.313	4.313	0.000	4764327478	34.9453	34.945
11	Heptachlor Epoxide	4.891	4.892	-0.001	4344062103	37.0148	37.014
13	Gamma Chlordane	5.079	5.080	-0.001	4652462016	37.5191	37.519
15	Alpha Chlordane	5.225	5.226	-0.001	4211690995	35.3591	35.359
16	Endosulfan I	5.286	5.287	-0.001	4102128224	39.1515	39.151
17	4,4'-DDE	5.386	5.389	-0.003	4415999656	37.4511	37.451
18	Dieldrin	5.556	5.558	-0.002	4734604812	40.2396	40.239
20	Endrin	5.855	5.857	-0.002	3995379500	41.2487	41.248
23	4,4'-DDD	5.955	5.957	-0.002	3605324689	35.8182	35.818
24	Endosulfan II	6.059	6.062	-0.003	3620686706	41.8104	41.810
25	4,4'-DDT	6.257	6.259	-0.002	3782594849	38.5666	38.566
26	Endrin Aldehyde	6.383	6.386	-0.003	2587205165	29.0778	29.077
27	Endosulfan Sulfate	6.645	6.648	-0.003	2967330583	30.6613	30.661
29	Methoxychlor	6.906	6.908	-0.002	2417212210	44.2045	44.204

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Data File: /chem1/SVOA/GC_41.i/170308.b/b17030814.d Page 2
Report Date: 08-Mar-2017 14:18

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ppb)	CONCENTRATIONS FINAL (ppb)
30 Endrin Ketone	7.149	7.153	-0.004	4120482241	35.8471	35.847
$ 31 Decachlorobiphenyl	8.262	8.261	0.001	9322272313	98.4788	98.478

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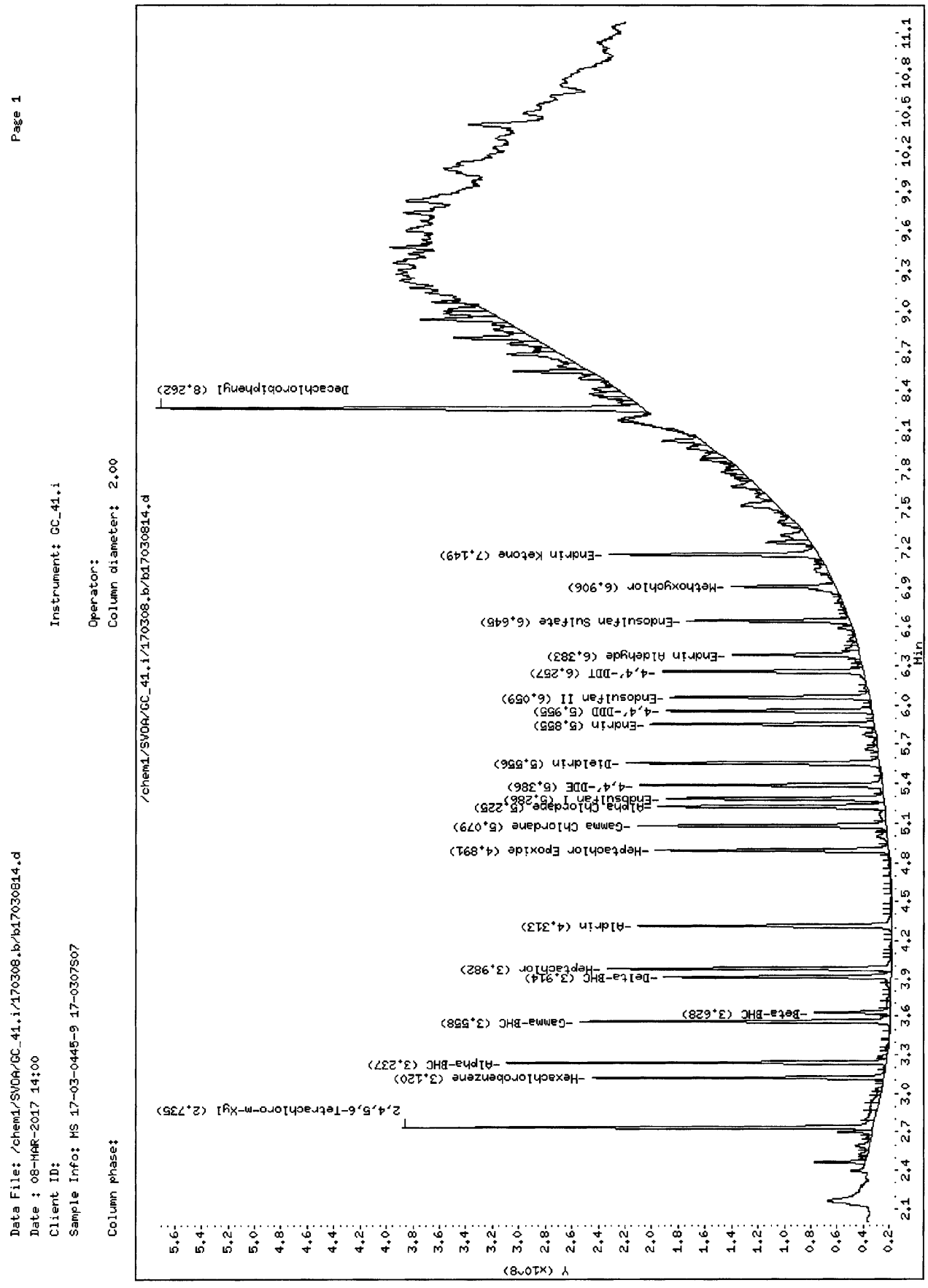

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Data File: /chem1/SVOA/GC_41.i/170308.b/a17030815.d Page 1
Report Date: 08-Mar-2017 14:33

Eurofins Calscience

Data file : /chem1/SVOA/GC_41.i/170308.b/a17030815.d
Lab Smp Id:
Inj Date : 08-MAR-2017 14:15
Operator : Inst ID: GC_41.i
Smp Info : MSD 17-03-0445-9 17-0307S07
Misc Info :
Comment :
Method : /chem1/SVOA/GC_41.i/170308.b/a8081d.m
Meth Date : 08-Mar-2017 11:17 uhhn Quant Type: ESTD
Cal Date : 02-FEB-2017 16:04 Cal File: a17020224.d
Als bottle: 15
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: PEST.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)	(ppb)
T	1 2,4,5,6-Tetrachloro-m-Xylene	2.841	2.841	0.000	7137253160	67.0758	67.075
	2 Hexachlorobenzene	3.170	3.171	-0.001	5185922243	35.9650	35.965
	3 Alpha-BHC	3.312	3.314	-0.002	6011625339	33.8824	33.882
	4 Gamma-BHC	3.599	3.601	-0.002	5509508384	34.4564	34.456
	5 Beta-BHC	3.672	3.672	0.000	2181721629	34.2769	34.276
	6 Delta-BHC	3.849	3.850	-0.001	4382938350	28.4482	28.448
	7 Heptachlor	4.059	4.062	-0.003	5882185254	36.7773	36.777
	8 Aldrin	4.367	4.370	-0.003	5397939188	37.7983	37.798
	12 Heptachlor Epoxide	4.972	4.975	-0.003	5148625438	41.0646	41.064
	13 Gamma Chlordane	5.096	5.100	-0.004	5306395764	40.4228	40.422
	15 Alpha Chlordane	5.228	5.231	-0.003	5266559801	41.9737	41.973
	16 4,4'-DDE	5.291	5.296	-0.005	5123163940	41.3076	41.307
	17 Endosulfan I	5.368	5.372	-0.004	4680322268	42.6520	42.651
	19 Dieldrin	5.602	5.606	-0.004	5885713415	47.9043	47.904
	21 Endrin	5.832	5.836	-0.004	4922730760	47.6062	47.606
	23 4,4'-DDD	5.878	5.883	-0.005	4807305280	46.6431	46.643
	24 Endosulfan II	6.047	6.052	-0.005	4244416823	48.3018	48.301
	25 4,4'-DDT	6.148	6.153	-0.005	3615122577	33.9720	33.972
	26 Endrin Aldehyde	6.446	6.450	-0.004	2536973596	27.1931	27.193
	27 Methoxychlor	6.600	6.606	-0.006	2191663587	38.7303	38.730
	29 Endosulfan Sulfate	6.858	6.863	-0.005	3620545429	36.1504	36.150

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Data File: /chem1/SVOA/GC_41.i/170308.b/a17030815.d Page 2
Report Date: 08-Mar-2017 14:33

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ppb)	CONCENTRATIONS FINAL (ppb)
30 Endrin Ketone	7.127	7.132	-0.005	4959134649	40.7735	40.773
T 31 Decachlorobiphenyl	8.039	8.040	-0.001	12664764288	129.210	129.210

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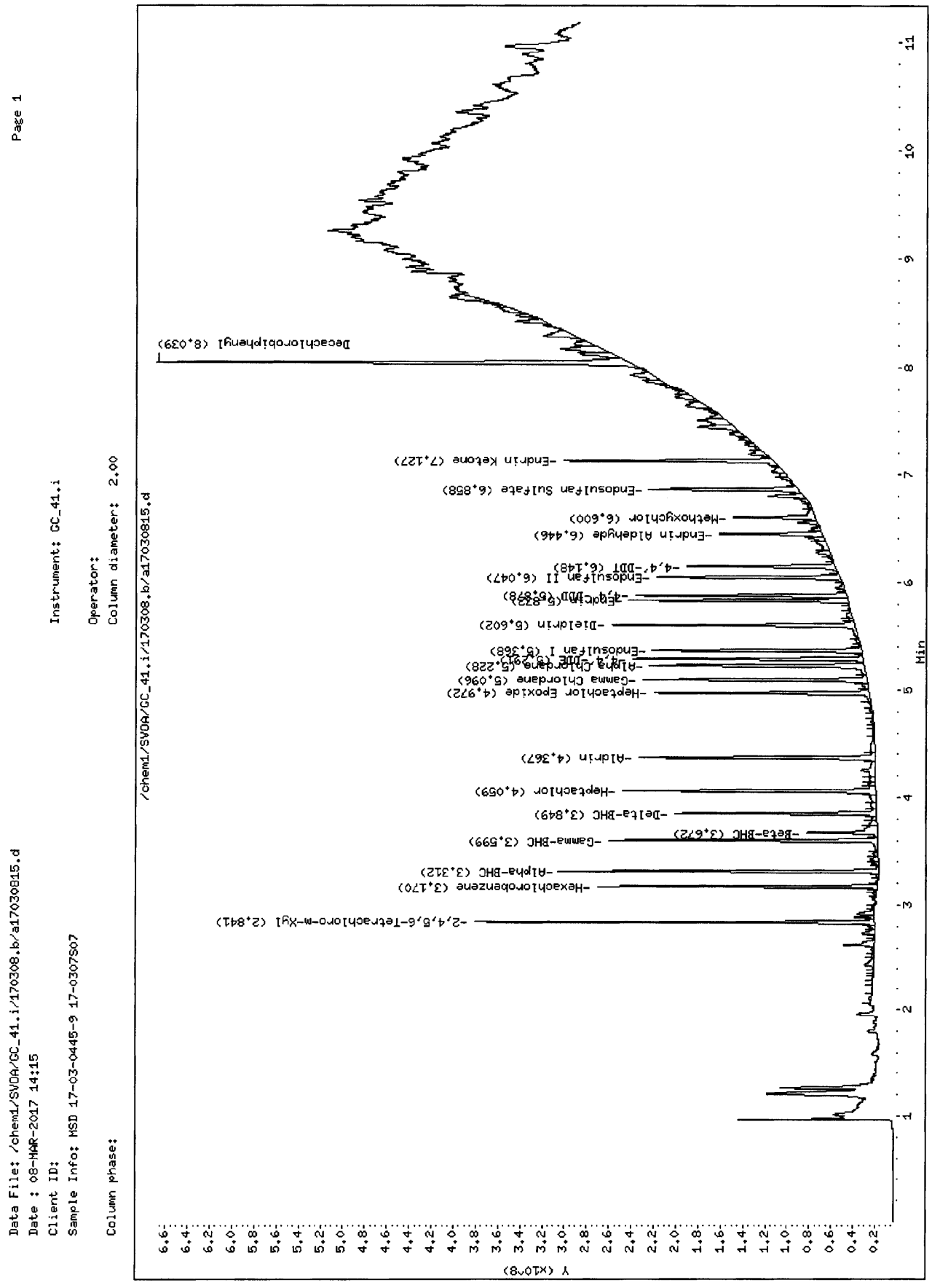

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Data File: /chem1/SVOA/GC_41.i/170308.b/b17030815.d Page 1
Report Date: 08-Mar-2017 14:39

Eurofins Calscience

Data file : /chem1/SVOA/GC_41.i/170308.b/b17030815.d
Lab Smp Id:
Inj Date : 08-MAR-2017 14:15
Operator : Inst ID: GC_41.i
Smp Info : MSD 17-03-0445-9 17-0307S07
Misc Info :
Comment :
Method : /chem1/SVOA/GC_41.i/170308.b/b8081d.m
Meth Date : 08-Mar-2017 11:18 uhhn Quant Type: ESTD
Cal Date : 02-FEB-2017 16:04 Cal File: b17020224.d
Als bottle: 15
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: PEST.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	CONCENTRATIONS ON-COLUMN (ppb)	CONCENTRATIONS FINAL (ppb)
$ 1	2,4,5,6-Tetrachloro-m-Xylene	2.734	2.734	0.000	6807062729	69.0635	69.063
2	Hexachlorobenzene	3.119	3.119	0.000	4072850997	33.6490	33.649
3	Alpha-BHC	3.235	3.236	-0.001	5367224383	31.8788	31.878
4	Gamma-BHC	3.556	3.557	-0.001	5359556929	35.5699	35.569
5	Beta-BHC	3.626	3.626	0.000	1402943895	23.0476	23.047
6	Delta-BHC	3.912	3.913	-0.001	4043330681	27.6700	27.670
7	Heptachlor	3.981	3.983	-0.002	4839734328	32.6716	32.671
8	Aldrin	4.311	4.313	-0.002	4841352958	35.5102	35.510
11	Heptachlor Epoxide	4.890	4.892	-0.002	4377483289	37.2995	37.299
13	Gamma Chlordane	5.078	5.080	-0.002	5084409494	41.0024	41.002
15	Alpha Chlordane	5.224	5.226	-0.002	4436931648	37.2501	37.250
16	Endosulfan I	5.284	5.287	-0.003	4319036897	41.2217	41.221
17	4,4'-DDE	5.386	5.389	-0.003	4523138449	38.3597	38.359
18	Dieldrin	5.555	5.558	-0.003	4857653050	41.2854	41.285
20	Endrin	5.854	5.857	-0.003	4492205711	46.3780	46.378
23	4,4'-DDD	5.955	5.957	-0.002	3874781366	38.4952	38.495
24	Endosulfan II	6.059	6.062	-0.003	3702956263	42.7604	42.760
25	4,4'-DDT	6.256	6.259	-0.003	3003951864	30.6277	30.627
26	Endrin Aldehyde	6.383	6.386	-0.003	3734592628	41.9734	41.973
27	Endosulfan Sulfate	6.645	6.648	-0.003	2858316425	29.5349	29.534
29	Methoxychlor	6.905	6.908	-0.003	2290926979	41.8951	41.895

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Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ppb)	CONCENTRATIONS FINAL (ppb)
30 Endrin Ketone	7.149	7.153	-0.004	3916986105	34.0768	34.076
$ 31 Decachlorobiphenyl	8.262	8.261	0.001	10536740331	111.308	111.308(R)

QC Flag Legend

R - Spike/Surrogate failed recovery limits.

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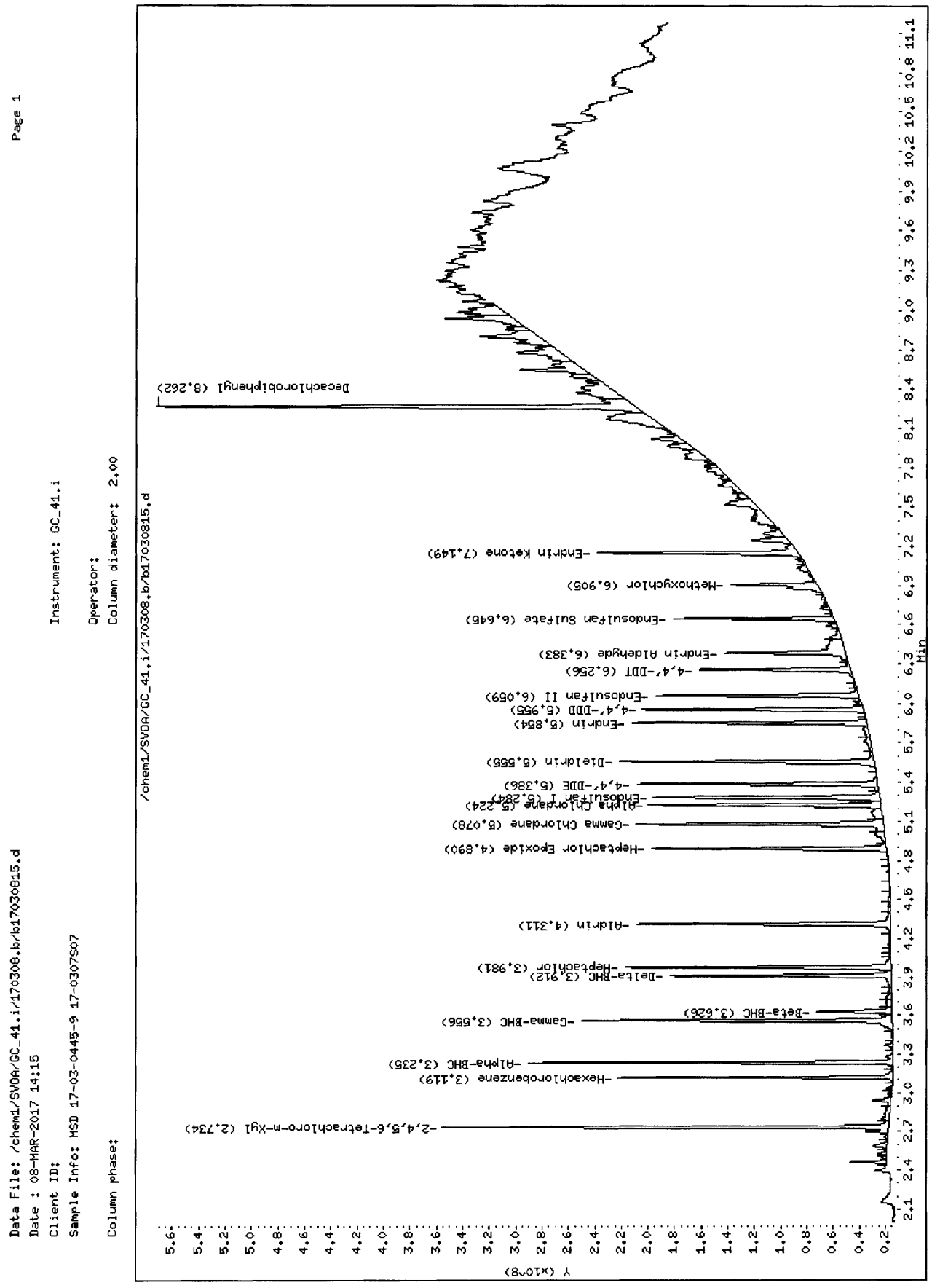

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EPA METHOD 8081A
Organochlorine Pesticides

Continuing Calibration

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CCV ASSOCIATION SUMMARY
FOR METHOD: EPA 8081A

BATCH ID: **170308A013** ANALYZED BY: 669
INSTRUMENT: GC 41

WORK ORDER: **099-12-528** REVIEWED BY:
MATRIX: Water D/T REVIEWED:

CEL SAMPLE #	CLIENT SAMPLE ID	D/T ANALYZED	DATA FILE
6535	Daily Calibration	2017-03-08 10:43	/chem1/SVOA/GC_41/170308/a1703080417030804

WORK ORDER: **17-03-0445** REVIEWED BY:
MATRIX: Soil D/T REVIEWED:

CEL SAMPLE #	CLIENT SAMPLE ID	D/T ANALYZED	DATA FILE
9	B-DU3-S-07-0.6	2017-03-08 14:00	/chem1/SVOA/GC_41/170308/a1703081417030814
9	B-DU3-S-07-0.6	2017-03-08 14:15	/chem1/SVOA/GC_41/170308/a1703081517030815
9	B-DU3-S-07-0.6	2017-03-08 13:14	/chem1/SVOA/GC_41/170308/a1703081317030813

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CONTINUING CALIBRATION VERIFICATION QUALITY CONTROL SHEET
FOR METHOD: EPA 8081A

CCV WORK ORDER: **099-12-528-6535-5152**
BATCH ID:
INITIAL: 170202I005
CCV: 170308A013
INSTRUMENT: GC 41

DATA FILE: /chem1/SVOA/GC_41/170308/a1703080417030804

ANALYZED BY: 669
D/T ANALYZED:
INITIAL: 2017-02-02 15:04
CCV: 2017-03-08 10:43
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
Alpha-BHC	C	Avg Resp	0.00	177426408.136	167753465.875			5	0-15	PASS
Gamma-BHC	C	Avg Resp	0.00	159897767.428	151081307.300			6	0-15	PASS
Beta-BHC	C	Avg Resp	0.00	63649901.246	59912451.550			6	0-15	PASS
Heptachlor	C	Avg Resp	0.00	159940452.667	151439819.825			5	0-15	PASS
Delta-BHC	C	Avg Resp	0.00	154067570.449	144952933.400			6	0-15	PASS
Aldrin	C	Avg Resp	0.00	142809086.859	136431908.450			4	0-15	PASS
Heptachlor Epoxide	C	Avg Resp	0.00	125378768.220	119092617.900			5	0-15	PASS
Endosulfan I	C	Avg Resp	0.00	109732870.303	107860326.700			2	0-15	PASS
Dieldrin	C	Avg Resp	0.00	122863882.989	119546100.675			3	0-15	PASS
4,4'-DDE	C	Avg Resp	0.00	124024808.220	119599231.850			4	0-15	PASS
Endrin	C	Avg Resp	0.00	103405243.534	112174163.850			-8	0-15	PASS
Endrin Aldehyde	C	Avg Resp	0.00	93294824.011	86934578.150			7	0-15	PASS
4,4'-DDD	C	Avg Resp	0.00	103065734.528	101146705.650			2	0-15	PASS
Endosulfan II	C	Avg Resp	0.00	87872804.593	85715548.200			2	0-15	PASS
4,4'-DDT	C	Avg Resp	0.00	106414657.377	100279461.225			6	0-15	PASS
Endosulfan Sulfate	C	Avg Resp	0.00	100152270.931	96887851.675			3	0-15	PASS
Methoxychlor	C	Avg Resp	0.00	56587893.544	51226789.150			9	0-15	PASS
Chlordane	C	Avg Resp	0.00	61881343.746	64090403.168			-4	0-15	PASS
Toxaphene	C	Avg Resp	0.00	23326632.087	23894244.239			-2	0-15	PASS
Endrin Ketone	C	Avg Resp	0.00	121626350.390	109653778.050			10	0-15	PASS

Data File: /chem1/SVOA/GC_41.i/170308.b/a17030802.d
Report Date: 03/08/2017 11:35

Eurofins CalScience
Calibration Verification Report

Instrument ID: GC_41.i
Sample Name: P-CCV 40PPB P111616B
Sublist used: PEST.sub
Method used: /chem1/SVOA/GC_41.i/170308.b/a8081d.m

Injection Date and Time: 08-MAR-2017 10:58
Initial Calibration Date(s): 03-AUG-2016 02-FEB-2017
Initial Calibration Time(s): 11:20 16:04

Target Compounds	ICAL RRF or Amount	ICV RRF	Min. RRF	%D / %Drift	Max%D /Drift	Curve Type
Hexachlorobenzene	144193414.101	137222163.711	0.00	5	15	Averaged
Alpha-BHC	177426408.133	167753465.863	0.00	5	15	Averaged
Gamma-BHC	159897767.428	151081307.289	0.00	6	15	Averaged
Beta-BHC	63649901.244	59912451.558	0.00	6	15	Averaged
Delta-BHC	154067570.451	144952933.402	0.00	6	15	Averaged
Heptachlor	159940452.668	151439819.835	0.00	5	15	Averaged
Aldrin	142809086.857	136431908.449	0.00	4	15	Averaged
Heptachlor Epoxide	125378768.217	119092617.910	0.00	5	15	Averaged
Gamma Chlordane	131272395.996	125237385.866	0.00	5	15	Averaged
Alpha Chlordane	125472971.042	120430691.005	0.00	4	15	Averaged
4,4'-DDE	124024808.220	119599231.846	0.00	4	15	Averaged
Endosulfan I	109732870.309	107860326.704	0.00	2	15	Averaged
Dieldrin	122863882.984	119546100.676	0.00	3	15	Averaged
Endrin	103405243.534	112174163.851	0.00	-8	15	Averaged
4,4'-DDD	103065734.526	101146705.649	0.00	2	15	Averaged
Endosulfan II	87872804.592	85715548.212	0.00	2	15	Averaged
4,4'-DDT	106414657.376	100279461.225	0.00	6	15	Averaged
Endrin Aldehyde	93294824.010	86934578.159	0.00	7	15	Averaged
Methoxychlor	56587893.544	51226789.162	0.00	9	15	Averaged
Endosulfan Sulfate	100152270.929	96887851.680	0.00	3	15	Averaged
Endrin Ketone	121626350.395	109653778.062	0.00	10	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	106405822.634	98731757.253	0.00	7	15	Averaged
Decachlorobiphenyl	98016789.749	100147116.029	0.00	-2	15	Averaged

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Data File: /chem1/SVOA/GC_41.i/170308.b/a17030802.d
Report Date: 08-Mar-2017 11:18

Eurofins Calscience

Data file : /chem1/SVOA/GC_41.i/170308.b/a17030802.d
Lab Smp Id:
Inj Date : 08-MAR-2017 10:58
Operator : Inst ID: GC_41.i
Smp Info : P-CCV 40PPB P111616B
Misc Info :
Comment :
Method : /chem1/SVOA/GC_41.i/170308.b/a8081d.m
Meth Date : 08-Mar-2017 11:17 uhhn Quant Type: ESTD
Cal Date : 02-FEB-2017 16:04 Cal File: a17020224.d
Als bottle: 2 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: PEST.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 (ppb)	ON-COL (ppb)
T	1 2,4,5,6-Tetrachloro-m-Xylene	2.841	2.841	0.000	7898540580	80.0000	74.230
	2 Hexachlorobenzene	3.171	3.171	0.000	5488886548	40.0000	38.066
	3 Alpha-BHC	3.314	3.314	0.000	6710138635	40.0000	37.819
	4 Gamma-BHC	3.601	3.601	0.000	6043252292	40.0000	37.794
	5 Beta-BHC	3.672	3.672	0.000	2396498062	40.0000	37.651
	6 Delta-BHC	3.850	3.850	0.000	5798117336	40.0000	37.633
	7 Heptachlor	4.062	4.062	0.000	6057592793	40.0000	37.874
	8 Aldrin	4.370	4.370	0.000	5457276338	40.0000	38.213
	12 Heptachlor Epoxide	4.975	4.975	0.000	4763704716	40.0000	37.994
	13 Gamma Chlordane	5.100	5.100	0.000	5009495435	40.0000	38.161
	15 Alpha Chlordane	5.231	5.231	0.000	4817227640	40.0000	38.392
	16 4,4'-DDE	5.296	5.296	0.000	4783969274	40.0000	38.572
	17 Endosulfan I	5.372	5.372	0.000	4314413068	40.0000	39.317
	19 Dieldrin	5.606	5.606	0.000	4781844027	40.0000	38.919
	21 Endrin	5.836	5.883	-0.047	4486966554	40.0000	43.392
	23 4,4'-DDD	5.883	5.901	-0.018	4045868226	0.00000	39.255
	24 Endosulfan II	6.052	6.052	0.000	3428621928	40.0000	39.018
	25 4,4'-DDT	6.153	6.153	0.000	4011178449	40.0000	37.693
	26 Endrin Aldehyde	6.450	6.450	0.000	3477383126	40.0000	37.273
	27 Methoxychlor	6.606	6.606	0.000	2049071566	40.0000	36.210
	29 Endosulfan Sulfate	6.863	6.863	0.000	3875514067	40.0000	38.696

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Data File: /chem1/SVOA/GC_41.i/170308.b/a17030802.d
Report Date: 08-Mar-2017 11:18

					AMOUNTS	
					CAL-AMT	ON-COL
	Compounds	RT	EXP RT	DLT RT	RESPONSE	(ppb)	(ppb)
	30 Endrin Ketone	7.132	7.132	0.000	4386151122	40.0000	36.062
T	31 Decachlorobiphenyl	8.040	8.071	-0.031	8011769282	0.00000	81.738

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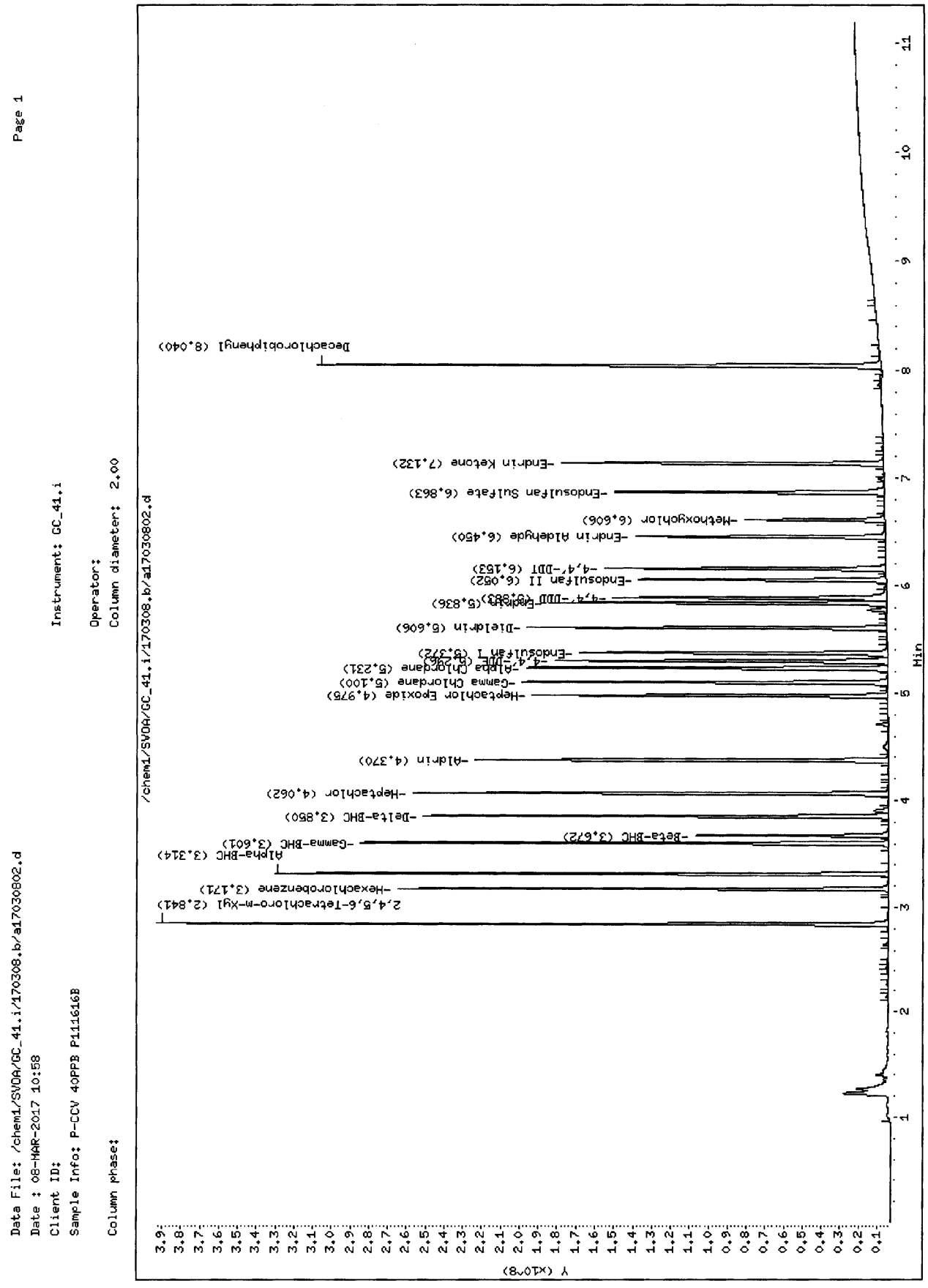

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Data File: /chem1/SVOA/GC_41.i/170308.b/b17030802.d
Report Date: 03/08/2017 11:35

Eurofins CalScience
Calibration Verification Report

Instrument ID: GC_41.i
Sample Name: P-CCV 40PPB P111616B
Sublist used: PEST.sub
Method used: /chem1/SVOA/GC_41.i/170308.b/b8081d.m

Injection Date and Time: 08-MAR-2017 10:58
Initial Calibration Date(s): 03-AUG-2016 02-FEB-2017
Initial Calibration Time(s): 11:20 16:04

Target Compounds	ICAL RRF or Amount	ICV RRF	Min. RRF	%D / %Drift	Max%D /Drift	Curve Type
Hexachlorobenzene	121039281.509	118025393.824	0.00	2	15	Averaged
Alpha-BHC	168363411.517	162534321.023	0.00	3	15	Averaged
Gamma-BHC	150676638.658	146179293.415	0.00	3	15	Averaged
Beta-BHC	60871457.585	59013657.004	0.00	3	15	Averaged
Delta-BHC	146126717.737	142405779.328	0.00	3	15	Averaged
Heptachlor	148132875.736	142606328.218	0.00	4	15	Averaged
Aldrin	136336779.560	132836389.145	0.00	3	15	Averaged
Heptachlor Epoxide	117360226.284	113531521.081	0.00	3	15	Averaged
Gamma Chlordane	124002610.334	122878331.057	0.00	1	15	Averaged
Alpha Chlordane	119112025.388	116803156.808	0.00	2	15	Averaged
4,4'-DDE	117913836.141	116240410.833	0.00	1	15	Averaged
Endosulfan I	104775700.255	103125854.241	0.00	2	15	Averaged
Dieldrin	117660246.461	115536869.817	0.00	2	15	Averaged
Endrin	96860666.867	107065743.187	0.00	-11	15	Averaged
4,4'-DDD	100656240.271	106159495.978	0.00	-5	15	Averaged
Endosulfan II	86597804.012	85536704.694	0.00	1	15	Averaged
4,4'-DDT	98079611.041	94410916.785	0.00	4	15	Averaged
Endrin Aldehyde	88975262.906	84810105.213	0.00	5	15	Averaged
Methoxychlor	54682460.163	51874504.589	0.00	5	15	Averaged
Endosulfan Sulfate	96777627.454	94403327.036	0.00	2	15	Averaged
Endrin Ketone	114945902.551	106320103.769	0.00	8	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	98562381.600	93698965.508	0.00	5	15	Averaged
Decachlorobiphenyl	94662693.353	90067263.771	0.00	5	15	Averaged

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Data File: /chem1/SVOA/GC_41.i/170308.b/b17030802.d Page 1
Report Date: 08-Mar-2017 11:18

Eurofins Calscience

Data file : /chem1/SVOA/GC_41.i/170308.b/b17030802.d
Lab Smp Id:
Inj Date : 08-MAR-2017 10:58
Operator : Inst ID: GC_41.i
Smp Info : P-CCV 40PPB P111616B
Misc Info :
Comment :
Method : /chem1/SVOA/GC_41.i/170308.b/b8081d.m
Meth Date : 08-Mar-2017 11:18 uhhn Quant Type: ESTD
Cal Date : 02-FEB-2017 16:04 Cal File: b17020224.d
Als bottle: 2 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: PEST.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 (ppb)	AMOUNTS ON-COL (ppb)
$ 1	2,4,5,6-Tetrachloro-m-Xylene	2.734	2.734	0.000	7495917241	80.0000	76.052
2	Hexachlorobenzene	3.119	3.119	0.000	4721015753	40.0000	39.003
3	Alpha-BHC	3.236	3.236	0.000	6501372841	40.0000	38.615
4	Gamma-BHC	3.557	3.557	0.000	5847171737	40.0000	38.806
5	Beta-BHC	3.626	3.626	0.000	2360546280	40.0000	38.779
6	Delta-BHC	3.913	3.913	0.000	5696231173	40.0000	38.981
7	Heptachlor	3.983	3.983	0.000	5704253129	40.0000	38.507
8	Aldrin	4.313	4.313	0.000	5313455566	40.0000	38.973
11	Heptachlor Epoxide	4.892	4.892	0.000	4541260843	40.0000	38.695
13	Gamma Chlordane	5.080	5.080	0.000	4915133242	40.0000	39.637
15	Alpha Chlordane	5.226	5.226	0.000	4672126272	40.0000	39.224
16	Endosulfan I	5.287	5.287	0.000	4125034170	40.0000	39.370
17	4,4'-DDE	5.389	5.389	0.000	4649616433	40.0000	39.432
18	Dieldrin	5.558	5.558	0.000	4621474793	40.0000	39.278
20	Endrin	5.857	5.857	0.000	4282629727	40.0000	44.214
23	4,4'-DDD	5.957	5.957	0.000	4246379839	40.0000	42.186
24	Endosulfan II	6.062	6.062	0.000	3421468188	40.0000	39.509
25	4,4'-DDT	6.259	6.259	0.000	3776436671	40.0000	38.503
26	Endrin Aldehyde	6.386	6.386	0.000	3392404209	40.0000	38.127
27	Endosulfan Sulfate	6.648	6.648	0.000	3776133081	40.0000	39.018
29	Methoxychlor	6.908	6.908	0.000	2074980184	40.0000	37.945

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Data File: /chem1/SVOA/GC_41.i/170308.b/b17030802.d Page 2
Report Date: 08-Mar-2017 11:18

Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ppb)	AMOUNTS ON-COL (ppb)
30 Endrin Ketone	7.153	7.153	0.000	4252804151	40.0000	36.998
$ 31 Decachlorobiphenyl	8.261	8.292	-0.031	7205381102	0.00000	76.116

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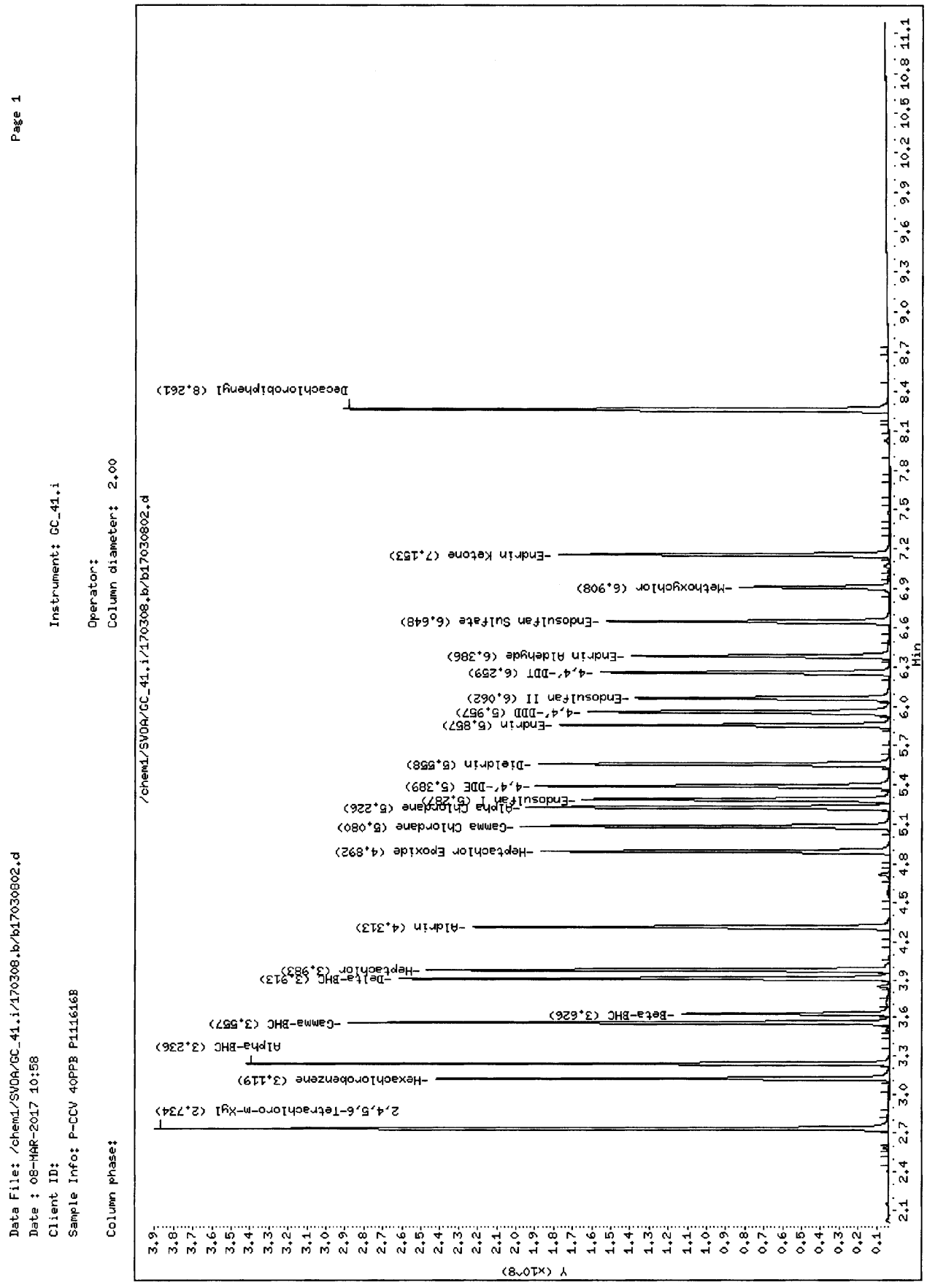

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Data File: /chem1/SVOA/GC_41.i/170308.b/a17030803.d
Report Date: 03/08/2017 11:39

Eurofins CalScience
Calibration Verification Report

Instrument ID: GC_41.i
Sample Name: CH-CCV 500PPB P111616D
Sublist used: chlordane.sub
Method used: /chem1/SVOA/GC_41.i/170308.b/a8081d.m

Injection Date and Time: 08-MAR-2017 10:28
Initial Calibration Date(s): 03-AUG-2016 02-FEB-2017
Initial Calibration Time(s): 11:20 16:04

Target Compounds	ICAL RRF or Amount	ICV RRF	Min. RRF	%D / %Drift	Max%D /Drift	Curve Type
Chlordane	61881343.745	64090403.167	0.00	-4	15	Averaged
CHLD (1)	5457068.252	5725533.455	0.00	-5	15	Averaged
CHLD (2)	5609104.009	5447505.327	0.00	3	15	Averaged
CHLD (3)	3259984.171	3229176.982	0.00	1	15	Averaged
CHLD (4)	18880788.779	19680886.628	0.00	-4	15	Averaged
CHLD (5)	28674398.535	30007300.773	0.00	-5	15	Averaged

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Data File: /chem1/SVOA/GC_41.i/170308.b/a17030803.d Page 1
Report Date: 08-Mar-2017 11:39

Eurofins Calscience

Data file : /chem1/SVOA/GC_41.i/170308.b/a17030803.d
Lab Smp Id:
Inj Date : 08-MAR-2017 10:28
Operator : Inst ID: GC_41.i
Smp Info : CH-CCV 500PPB P111616D
Misc Info :
Comment :
Method : /chem1/SVOA/GC_41.i/170308.b/a8081d.m
Meth Date : 08-Mar-2017 11:17 uhhn Quant Type: ESTD
Cal Date : 02-FEB-2017 16:04 Cal File: a17020224.d
Als bottle: 3 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: chlordane.sub
Target Version: 3.50
Processing Host: US26TAR4

Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

					AMOUNTS	
					CAL-AMT	ON-COL
Compounds	RT	EXP RT	DLT RT	RESPONSE	(ppb)	(ppb)
M 32 Chlordane				32045201584	500.000	517.849
33 CHLD (1)	3.981	3.981	0.000	2862766728	500.000	524.597
34 CHLD (2)	4.498	4.498	0.000	2723752663	500.000	485.594
35 CHLD (3)	4.908	4.908	0.000	1614588491	500.000	495.274
36 CHLD (4)	5.099	5.099	0.000	9840443314	500.000	521.188
37 CHLD (5)	5.228	5.275	-0.047	15003650386	500.000	523.242

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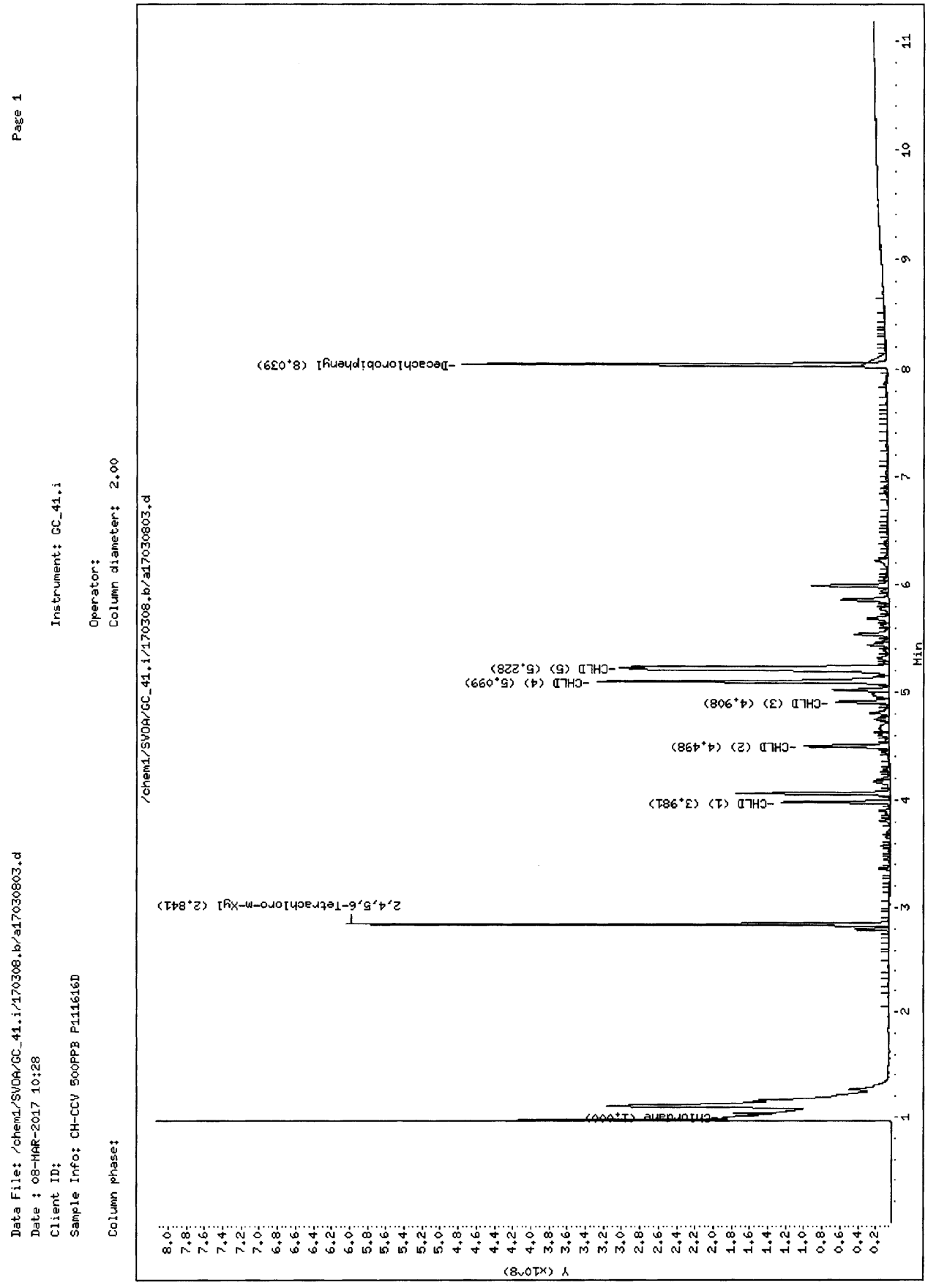

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Data File: /chem1/SVOA/GC_41.i/170308.b/a17030804.d
Report Date: 03/08/2017 11:35

Eurofins CalScience
Calibration Verification Report

Instrument ID: GC_41.i
Sample Name: T-CCV 1000PPB P111616E
Sublist used: toxaphene.sub
Method used: /chem1/SVOA/GC_41.i/170308.b/a8081d.m

Injection Date and Time: 08-MAR-2017 10:43
Initial Calibration Date(s): 03-AUG-2016 02-FEB-2017
Initial Calibration Time(s): 11:20 16:04

Target Compounds	ICAL RRF or Amount	ICV RRF	Min. RRF	%D / %Drift	Max%D /Drift	Curve Type
Toxaphene	23326632.087	23894244.239	0.00	-2	15	Averaged
TOXAPHENE (1)	4020356.963	4133642.472	0.00	-3	15	Averaged
TOXAPHENE (2)	7044203.974	7182506.847	0.00	-2	15	Averaged
TOXAPHENE (3)	3725214.127	3846620.706	0.00	-3	15	Averaged
TOXAPHENE (4)	3972429.486	4151334.881	0.00	-5	15	Averaged
TOXAPHENE (5)	4564427.536	4580139.333	0.00	0	15	Averaged

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Data File: /chem1/SVOA/GC_41.i/170308.b/a17030804.d Page 1
Report Date: 08-Mar-2017 11:03

Eurofins Calscience

Data file : /chem1/SVOA/GC_41.i/170308.b/a17030804.d
Lab Smp Id:
Inj Date : 08-MAR-2017 10:43
Operator : Inst ID: GC_41.i
Smp Info : T-CCV 1000PPB P111616E
Misc Info :
Comment :
Method : /chem1/SVOA/GC_41.i/170308.b/a8081d.m
Meth Date : 08-Mar-2017 11:03 uhhn Quant Type: ESTD
Cal Date : 02-FEB-2017 16:04 Cal File: a17020224.d
Als bottle: 4 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: toxaphene.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 (ppb)	AMOUNTS ON-COL (ppb)
M 38 Toxaphene				23894244239	1000.00	1024.333
39 TOXAPHENE (1)	5.757	5.757	0.000	4133642472	1000.00	1028.177
40 TOXAPHENE (2)	6.156	6.156	0.000	7182506847	1000.00	1019.633
41 TOXAPHENE (3)	6.367	6.367	0.000	3846620706	1000.00	1032.590
42 TOXAPHENE (4)	6.683	6.683	0.000	4151334881	1000.00	1045.036
43 TOXAPHENE (5)	6.776	6.776	0.000	4580139333	1000.00	1003.442

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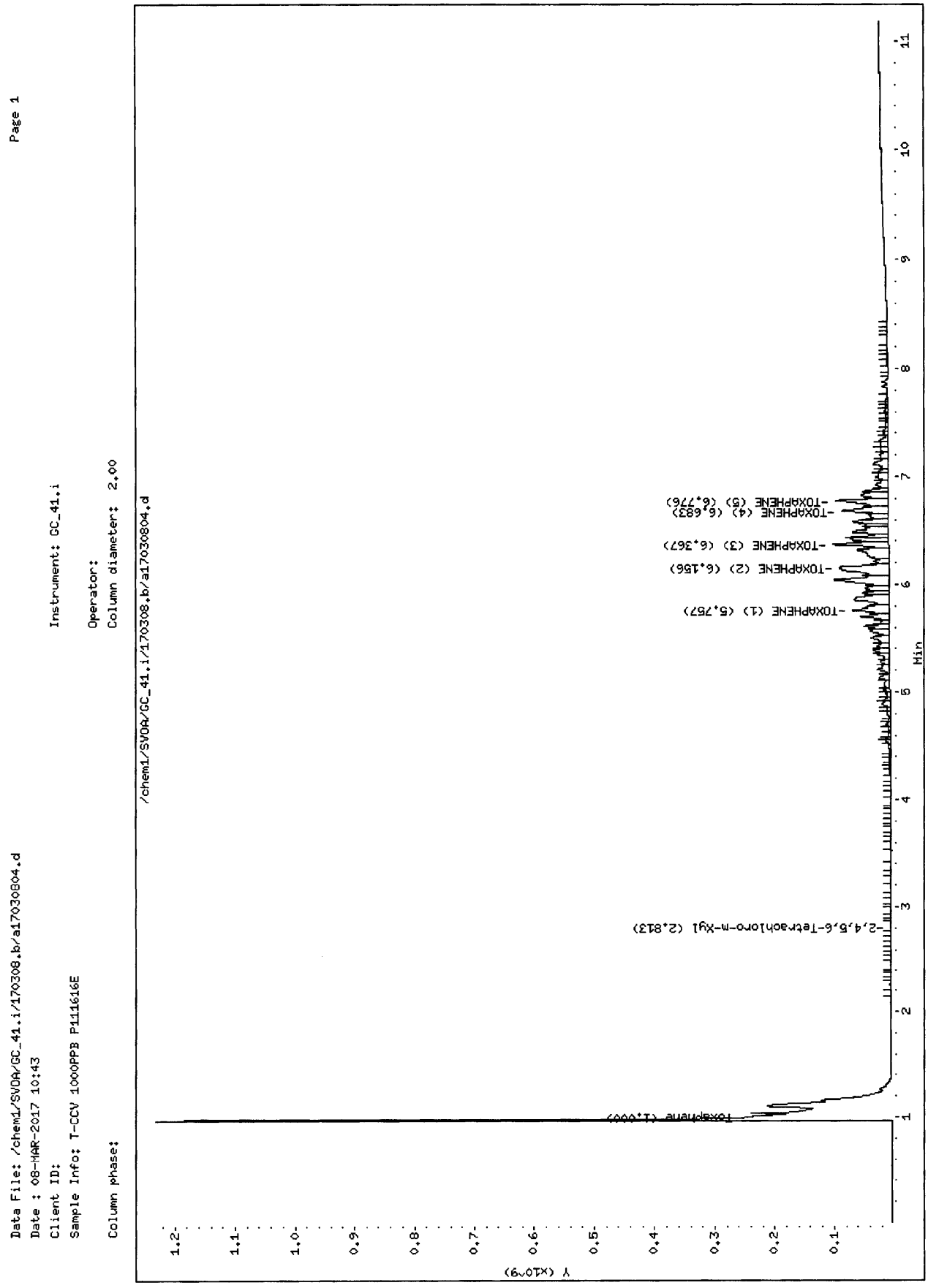

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CONTINUING CALIBRATION VERIFICATION QUALITY CONTROL SHEET
FOR METHOD: EPA 8081A

CCV WORK ORDER: **099-12-528-6541-5152**
BATCH ID:
INITIAL: 170202I005
CCV: 170308A015
INSTRUMENT: GC 41

DATA FILE: /chem1/SVOA/GC_41/170308/a1703083017030830

ANALYZED BY: 669
D/T ANALYZED:
INITIAL: 2017-02-02 15:04
CCV: 2017-03-08 18:16
REVIEWED BY: 27
D/T REVIEWED: 2017-03-09 09:44

COMPOUND NAME	TYPE	CALIB MODEL	MIN RF	AVG RF	CCV RF	AMOUNT	CCV CONC	CCV %D	CCV %D CL	STATUS
Alpha-BHC	C	Avg Resp	0.00	177426408.136	182242889.100			-3	0-15	PASS
Gamma-BHC	C	Avg Resp	0.00	159897767.428	164346257.775			-3	0-15	PASS
Beta-BHC	C	Avg Resp	0.00	63649901.246	64592648.800			-1	0-15	PASS
Heptachlor	C	Avg Resp	0.00	159940452.667	160098873.725			0	0-15	PASS
Delta-BHC	C	Avg Resp	0.00	154067570.449	159478278.925			-4	0-15	PASS
Aldrin	C	Avg Resp	0.00	142809086.859	148110549.725			-4	0-15	PASS
Heptachlor Epoxide	C	Avg Resp	0.00	125378768.220	128252715.475			-2	0-15	PASS
Endosulfan I	C	Avg Resp	0.00	109732870.303	115792916.775			-6	0-15	PASS
Dieldrin	C	Avg Resp	0.00	122863882.989	129755318.850			-6	0-15	PASS
4,4'-DDE	C	Avg Resp	0.00	124024808.220	129290359.650			-4	0-15	PASS
Endrin	C	Avg Resp	0.00	103405243.534	114479872.825			-11	0-15	PASS
Endrin Aldehyde	C	Avg Resp	0.00	93294824.011	92693568.775			1	0-15	PASS
4,4'-DDD	C	Avg Resp	0.00	103065734.528	112007560.275			-9	0-15	PASS
Endosulfan II	C	Avg Resp	0.00	87872804.593	92072761.100			-5	0-15	PASS
4,4'-DDT	C	Avg Resp	0.00	106414657.377	99580675.750			6	0-15	PASS
Endosulfan Sulfate	C	Avg Resp	0.00	100152270.931	102456941.475			-2	0-15	PASS
Methoxychlor	C	Avg Resp	0.00	56587893.544	50608028.450			11	0-15	PASS
Chlordane	C	Avg Resp	0.00	61881343.746	67613880.412			-9	0-15	PASS
Toxaphene	C	Avg Resp	0.00	23326632.087	25397848.666			-9	0-15	PASS
Endrin Ketone	C	Avg Resp	0.00	121626350.390	119999353.375			1	0-15	PASS

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Data File: /chem1/SVOA/GC_41.i/170308.b/a17030828.d
Report Date: 03/09/2017 09:20

Eurofins CalScience
Calibration Verification Report

Instrument ID: GC_41.i
Sample Name: P-CCV 40PPB P111616B
Sublist used: PEST.sub
Method used: /chem1/SVOA/GC_41.i/170308.b/a8081d.m

Injection Date and Time: 08-MAR-2017 17:48
Initial Calibration Date(s): 03-AUG-2016 02-FEB-2017
Initial Calibration Time(s): 11:20 16:04

Target Compounds	ICAL RRF or Amount	ICV RRF	Min. RRF	%D / %Drift	Max%D /Drift	Curve Type
Hexachlorobenzene	144193414.101	148967923.291	0.00	-3	15	Averaged
Alpha-BHC	177426408.133	182242889.111	0.00	-3	15	Averaged
Gamma-BHC	159897767.428	164346257.780	0.00	-3	15	Averaged
Beta-BHC	63649901.244	64592648.807	0.00	-1	15	Averaged
Delta-BHC	154067570.451	159478278.921	0.00	-4	15	Averaged
Heptachlor	159940452.668	160098873.723	0.00	0	15	Averaged
Aldrin	142809086.857	148110549.734	0.00	-4	15	Averaged
Heptachlor Epoxide	125378768.217	128252715.486	0.00	-2	15	Averaged
Gamma Chlordane	131272395.996	134984974.083	0.00	-3	15	Averaged
Alpha Chlordane	125472971.042	130052334.469	0.00	-4	15	Averaged
4,4'-DDE	124024808.220	129290359.644	0.00	-4	15	Averaged
Endosulfan I	109732870.309	115792916.763	0.00	-6	15	Averaged
Dieldrin	122863882.984	129755318.858	0.00	-6	15	Averaged
Endrin	103405243.534	114479872.822	0.00	-11	15	Averaged
4,4'-DDD	103065734.526	112007560.282	0.00	-9	15	Averaged
Endosulfan II	87872804.592	92072761.095	0.00	-5	15	Averaged
4,4'-DDT	106414657.376	99580675.745	0.00	6	15	Averaged
Endrin Aldehyde	93294824.010	92693568.771	0.00	1	15	Averaged
Methoxychlor	56587893.544	50608028.452	0.00	11	15	Averaged
Endosulfan Sulfate	100152270.929	102456941.481	0.00	-2	15	Averaged
Endrin Ketone	121626350.395	119999353.364	0.00	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	106405822.634	106434346.113	0.00	0	15	Averaged
Decachlorobiphenyl	98016789.749	106463450.591	0.00	-9	15	Averaged

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Data File: /chem1/SVOA/GC_41.i/170308.b/a17030828.d Page 1
Report Date: 09-Mar-2017 09:18

Eurofins Calscience

Data file : /chem1/SVOA/GC_41.i/170308.b/a17030828.d
Lab Smp Id:
Inj Date : 08-MAR-2017 17:48
Operator : Inst ID: GC_41.i
Smp Info : P-CCV 40PPB P111616B
Misc Info :
Comment :
Method : /chem1/SVOA/GC_41.i/170308.b/a8081d.m
Meth Date : 09-Mar-2017 09:18 uhhn Quant Type: ESTD
Cal Date : 02-FEB-2017 16:04 Cal File: a17020224.d
Als bottle: 2 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: PEST.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 (ppb)	ON-COL (ppb)
T	1 2,4,5,6-Tetrachloro-m-Xylene	2.842	2.842	0.000	8514747689	80.0000	80.021
	2 Hexachlorobenzene	3.172	3.172	0.000	5958716932	40.0000	41.324
	3 Alpha-BHC	3.315	3.315	0.000	7289715564	40.0000	41.085
	4 Gamma-BHC	3.603	3.603	0.000	6573850311	40.0000	41.112
	5 Beta-BHC	3.674	3.674	0.000	2583705952	40.0000	40.592
	6 Delta-BHC	3.852	3.852	0.000	6379131157	40.0000	41.404
	7 Heptachlor	4.063	4.063	0.000	6403954949	40.0000	40.039
	8 Aldrin	4.372	4.372	0.000	5924421989	40.0000	41.484
	12 Heptachlor Epoxide	4.977	4.977	0.000	5130108619	40.0000	40.916
	13 Gamma Chlordane	5.102	5.102	0.000	5399398963	40.0000	41.131
	15 Alpha Chlordane	5.233	5.233	0.000	5202093379	40.0000	41.459
	16 4,4'-DDE	5.298	5.298	0.000	5171614386	40.0000	41.698
	17 Endosulfan I	5.373	5.373	0.000	4631716671	40.0000	42.209
	19 Dieldrin	5.607	5.607	0.000	5190212754	40.0000	42.243
	21 Endrin	5.838	5.838	0.000	4579194913	40.0000	44.283
	23 4,4'-DDD	5.885	5.885	0.000	4480302411	40.0000	43.470
	24 Endosulfan II	6.054	6.054	0.000	3682910444	40.0000	41.911
	25 4,4'-DDT	6.155	6.155	0.000	3983227030	40.0000	37.431
	26 Endrin Aldehyde	6.452	6.452	0.000	3707742751	40.0000	39.742
	27 Methoxychlor	6.607	6.607	0.000	2024321138	40.0000	35.773
	29 Endosulfan Sulfate	6.864	6.864	0.000	4098277659	40.0000	40.920

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Data File: /chem1/SVOA/GC_41.i/170308.b/a17030828.d Page 2
Report Date: 09-Mar-2017 09:18

Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ppb)	AMOUNTS ON-COL (ppb)
30 Endrin Ketone	7.134	7.134	0.000	4799974135	40.0000	39.464
T 31 Decachlorobiphenyl	8.042	8.042	0.000	8517076047	80.0000	86.894

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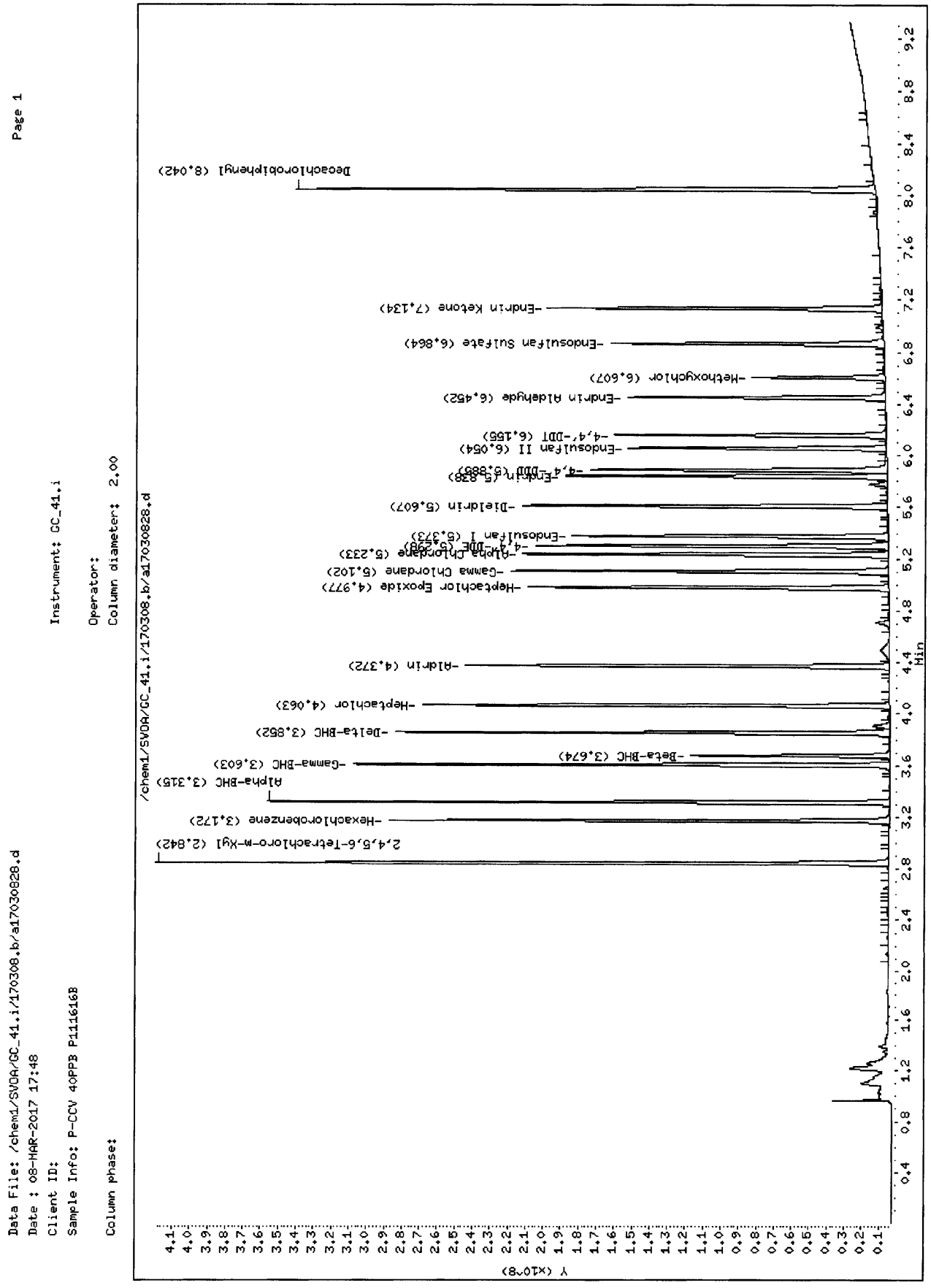

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Data File: /chem1/SVOA/GC_41.i/170308.b/b17030828.d
Report Date: 03/09/2017 09:20

Eurofins CalScience
Calibration Verification Report

Instrument ID: GC_41.i
Sample Name: P-CCV 40PPB P111616B
Sublist used: PEST.sub
Method used: /chem1/SVOA/GC_41.i/170308.b/b8081d.m

Injection Date and Time: 08-MAR-2017 17:48
Initial Calibration Date(s): 03-AUG-2016 02-FEB-2017
Initial Calibration Time(s): 11:20 16:04

Target Compounds	ICAL RRF or Amount	ICV RRF	Min. RRF	%D / %Drift	Max%D /Drift	Curve Type
Hexachlorobenzene	121039281.509	120986323.675	0.00	0	15	Averaged
Alpha-BHC	168363411.517	167185891.925	0.00	1	15	Averaged
Gamma-BHC	150676638.658	151019671.777	0.00	0	15	Averaged
Beta-BHC	60871457.585	61770317.775	0.00	-1	15	Averaged
Delta-BHC	146126717.737	147613044.720	0.00	-1	15	Averaged
Heptachlor	148132875.736	145675256.430	0.00	2	15	Averaged
Aldrin	136336779.560	137201515.591	0.00	-1	15	Averaged
Heptachlor Epoxide	117360226.284	117292288.430	0.00	0	15	Averaged
Gamma Chlordane	124002610.334	125410082.413	0.00	-1	15	Averaged
Alpha Chlordane	119112025.388	119716685.975	0.00	-1	15	Averaged
4,4'-DDE	117913836.141	119870690.662	0.00	-2	15	Averaged
Endosulfan I	104775700.255	106404818.697	0.00	-2	15	Averaged
Dieldrin	117660246.461	119110773.126	0.00	-1	15	Averaged
Endrin	96860666.867	104042789.330	0.00	-7	15	Averaged
4,4'-DDD	100656240.271	111206508.707	0.00	-10	15	Averaged
Endosulfan II	86597804.012	86328775.507	0.00	0	15	Averaged
4,4'-DDT	98079611.041	87475927.483	0.00	11	15	Averaged
Endrin Aldehyde	88975262.906	84829333.960	0.00	5	15	Averaged
Methoxychlor	54682460.163	47667878.350	0.00	13	15	Averaged
Endosulfan Sulfate	96777627.454	93339284.024	0.00	4	15	Averaged
Endrin Ketone	114945902.551	108272875.928	0.00	6	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	98562381.600	96611533.618	0.00	2	15	Averaged
Decachlorobiphenyl	94662693.353	91350269.128	0.00	3	15	Averaged

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Data File: /chem1/SVOA/GC_41.i/170308.b/b17030828.d Page 1
Report Date: 08-Mar-2017 18:03

Eurofins Calscience

Data file : /chem1/SVOA/GC_41.i/170308.b/b17030828.d
Lab Smp Id:
Inj Date : 08-MAR-2017 17:48
Operator : Inst ID: GC_41.i
Smp Info : P-CCV 40PPB P111616B
Misc Info :
Comment :
Method : /chem1/SVOA/GC_41.i/170308.b/b8081d.m
Meth Date : 08-Mar-2017 17:52 uhhn Quant Type: ESTD
Cal Date : 02-FEB-2017 16:04 Cal File: b17020224.d
Als bottle: 2
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: PEST.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)	(ppb)
$	1 2,4,5,6-Tetrachloro-m-Xylene	2.732	2.734	-0.002	7728922689	78.4166	78.416
	2 Hexachlorobenzene	3.117	3.119	-0.002	4839452947	39.9825	39.982
	3 Alpha-BHC	3.234	3.236	-0.002	6687435677	39.7202	39.720
	4 Gamma-BHC	3.555	3.557	-0.002	6040786871	40.0911	40.091
	5 Beta-BHC	3.625	3.626	-0.001	2470812711	40.5907	40.590
	6 Delta-BHC	3.911	3.913	-0.002	5904521789	40.4069	40.406
	7 Heptachlor	3.981	3.983	-0.002	5827010257	39.3364	39.336
	8 Aldrin	4.311	4.313	-0.002	5488060624	40.2537	40.253
	11 Heptachlor Epoxide	4.890	4.892	-0.002	4691691537	39.9768	39.976
	13 Gamma Chlordane	5.078	5.080	-0.002	5016403297	40.4540	40.454
	15 Alpha Chlordane	5.224	5.226	-0.002	4788667439	40.2031	40.203
	16 Endosulfan I	5.285	5.287	-0.002	4256192748	40.6219	40.621
	17 4,4'-DDE	5.387	5.389	-0.002	4794827626	40.6638	40.663
	18 Dieldrin	5.556	5.558	-0.002	4764430925	40.4931	40.493
	20 Endrin	5.855	5.857	-0.002	4161711573	42.9660	42.965
	23 4,4'-DDD	5.956	5.957	-0.001	4448260348	44.1926	44.192
	24 Endosulfan II	6.061	6.062	-0.001	3453151020	39.8757	39.875
	25 4,4'-DDT	6.258	6.259	-0.001	3499037099	35.6755	35.675
	26 Endrin Aldehyde	6.385	6.386	-0.001	3393173358	38.1361	38.136
	27 Endosulfan Sulfate	6.647	6.648	-0.001	3733571361	38.5789	38.578
	29 Methoxychlor	6.907	6.908	-0.001	1906715134	34.8689	34.868

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Data File: /chem1/SVOA/GC_41.i/170308.b/b17030828.d Page 2
Report Date: 08-Mar-2017 18:03

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ppb)	CONCENTRATIONS FINAL (ppb)
30 Endrin Ketone	7.151	7.153	-0.002	4330915037	37.6779	37.677
$ 31 Decachlorobiphenyl	8.261	8.261	0.000	7308021530	77.2007	77.200

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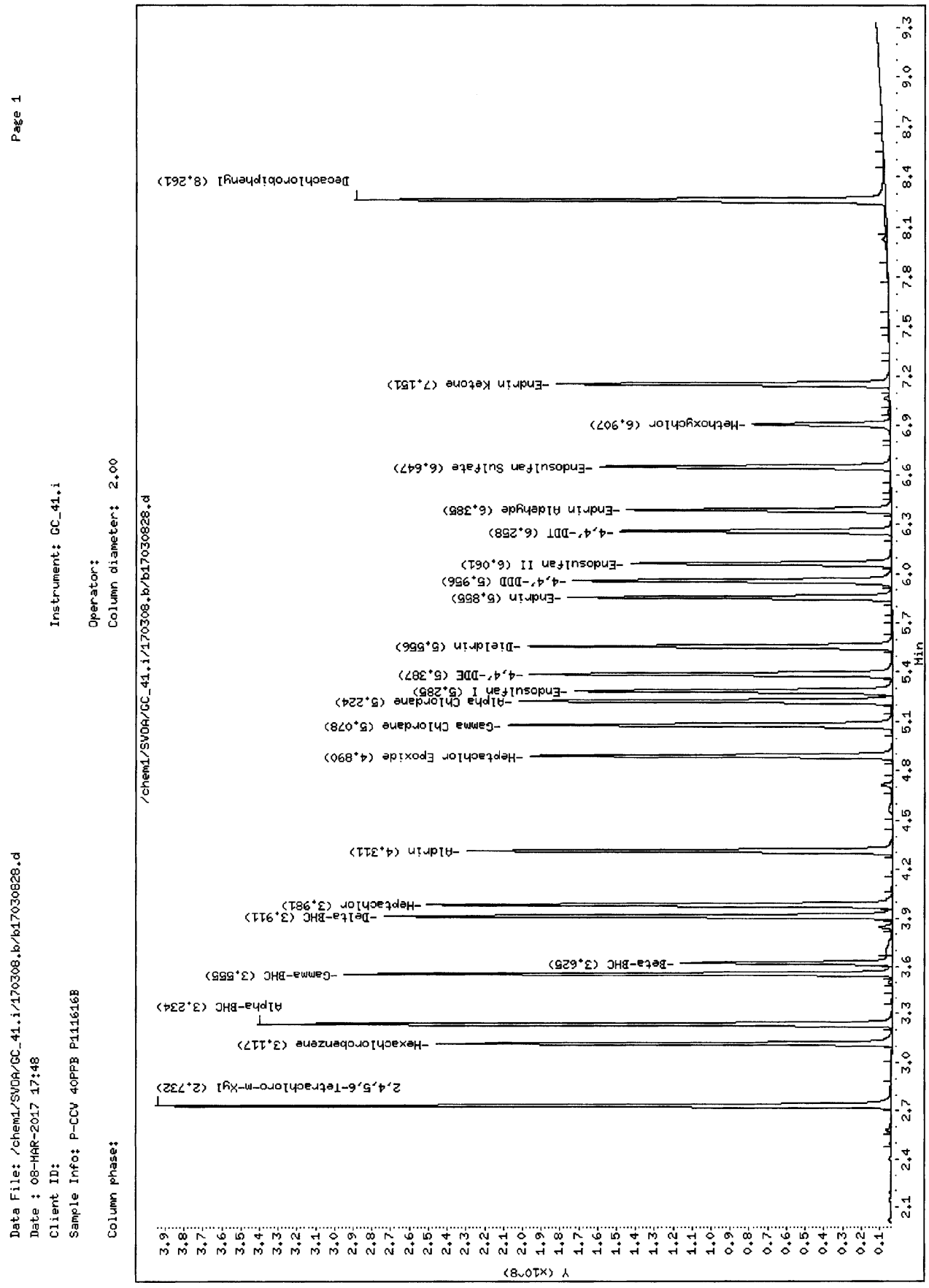

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Data File: /chem1/SVOA/GC_41.i/170308.b/a17030829.d
Report Date: 03/09/2017 09:20

Eurofins CalScience
Calibration Verification Report

Instrument ID: GC_41.i
Sample Name: CH-CCV 500PPB P111616D
Sublist used: chlordane.sub
Method used: /chem1/SVOA/GC_41.i/170308.b/a8081d.m

Injection Date and Time: 08-MAR-2017 18:01
Initial Calibration Date(s): 03-AUG-2016 02-FEB-2017
Initial Calibration Time(s): 11:20 16:04

Target Compounds	ICAL RRF or Amount	ICV RRF	Min. RRF	%D / %Drift	Max%D /Drift	Curve Type
Chlordane	61881343.745	67613880.412	0.00	-9	15	Averaged
CHLD (1)	5457068.252	6061510.166	0.00	-11	15	Averaged
CHLD (2)	5609104.009	5957640.393	0.00	-6	15	Averaged
CHLD (3)	3259984.171	3348252.868	0.00	-3	15	Averaged
CHLD (4)	18880788.779	20714923.299	0.00	-10	15	Averaged
CHLD (5)	28674398.535	31531553.685	0.00	-10	15	Averaged

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Data File: /chem1/SVOA/GC_41.i/170308.b/a17030829.d Page 1
Report Date: 09-Mar-2017 09:18

Eurofins Calscience

Data file : /chem1/SVOA/GC_41.i/170308.b/a17030829.d
Lab Smp Id:
Inj Date : 08-MAR-2017 18:01
Operator : Inst ID: GC_41.i
Smp Info : CH-CCV 500PPB P111616D
Misc Info :
Comment :
Method : /chem1/SVOA/GC_41.i/170308.b/a8081d.m
Meth Date : 09-Mar-2017 09:18 uhhn Quant Type: ESTD
Cal Date : 02-FEB-2017 16:04 Cal File: a17020224.d
Als bottle: 3 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: chlordane.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 (ppb)	AMOUNTS ON-COL (ppb)
M 32 Chlordane				33806940206	500.000	546.318
33 CHLD (1)	3.979	3.979	0.000	3030755083	500.000	555.381
34 CHLD (2)	4.496	4.496	0.000	2978820197	500.000	531.068
35 CHLD (3)	4.905	4.905	0.000	1674126434	500.000	513.538
36 CHLD (4)	5.097	5.097	0.000	10357461649	500.000	548.571
37 CHLD (5)	5.225	5.225	0.000	15765776843	500.000	549.820

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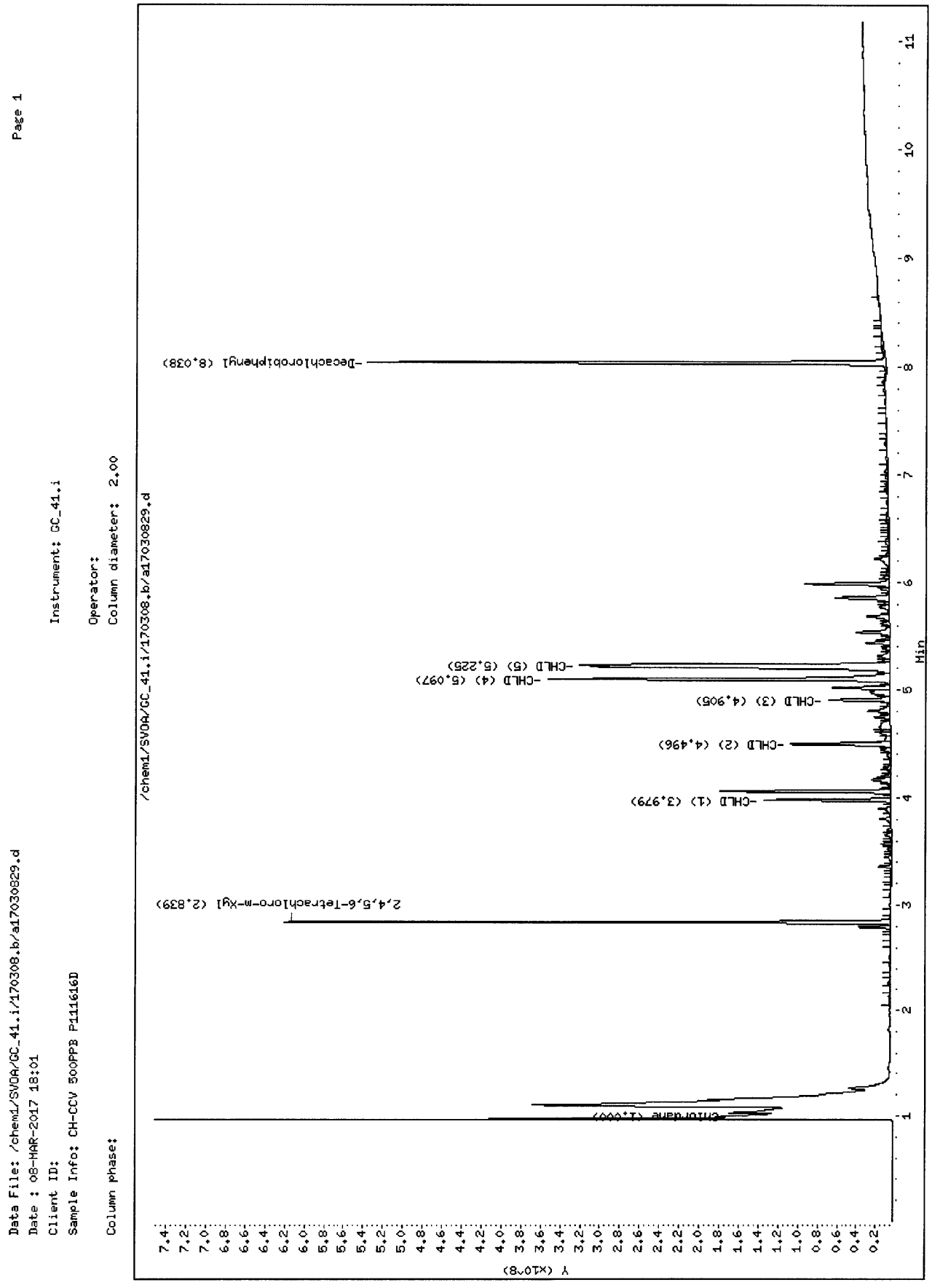

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Report Date: 03/09/2017 09:20

Eurofins CalScience
Calibration Verification Report

Instrument ID: GC_41.i
Sample Name: T-CCV 1000PPB P111616E
Sublist used: toxaphene.sub
Method used: /chem1/SVOA/GC_41.i/170308.b/a8081d.m

Injection Date and Time: 08-MAR-2017 18:16
Initial Calibration Date(s): 03-AUG-2016 02-FEB-2017
Initial Calibration Time(s): 11:20 16:04

Target Compounds	ICAL RRF or Amount	ICV RRF	Min. RRF	%D / %Drift	Max%D /Drift	Curve Type
Toxaphene	23326632.087	25397848.666	0.00	-9	15	Averaged
TOXAPHENE (1)	4020356.963	4458941.043	0.00	-11	15	Averaged
TOXAPHENE (2)	7044203.974	7714936.215	0.00	-10	15	Averaged
TOXAPHENE (3)	3725214.127	4121678.791	0.00	-11	15	Averaged
TOXAPHENE (4)	3972429.486	4264289.966	0.00	-7	15	Averaged
TOXAPHENE (5)	4564427.536	4838002.652	0.00	-6	15	Averaged

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Data File: /chem1/SVOA/GC_41.i/170308.b/a17030830.d Page 1
Report Date: 09-Mar-2017 09:18

Eurofins Calscience

Data file : /chem1/SVOA/GC_41.i/170308.b/a17030830.d
Lab Smp Id:
Inj Date : 08-MAR-2017 18:16
Operator : Inst ID: GC_41.i
Smp Info : T-CCV 1000PPB P111616E
Misc Info :
Comment :
Method : /chem1/SVOA/GC_41.i/170308.b/a8081d.m
Meth Date : 09-Mar-2017 09:18 uhhn Quant Type: ESTD
Cal Date : 02-FEB-2017 16:04 Cal File: a17020224.d
Als bottle: 4 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: toxaphene.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 (ppb)	AMOUNTS ON-COL (ppb)
M 38 Toxaphene				25397848666	1000.00	1088.791
39 TOXAPHENE (1)	5.750	5.750	0.000	4458941043	1000.00	1109.090
40 TOXAPHENE (2)	6.149	6.149	0.000	7714936215	1000.00	1095.217
41 TOXAPHENE (3)	6.361	6.361	0.000	4121678791	1000.00	1106.427
42 TOXAPHENE (4)	6.677	6.677	0.000	4264289966	1000.00	1073.471
43 TOXAPHENE (5)	6.771	6.771	0.000	4838002652	1000.00	1059.936

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Data File: /chem1/SVOA/GC_41.i/170308.b/a17030830.d

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Date : 08-MAR-2017 18:16

Client ID:

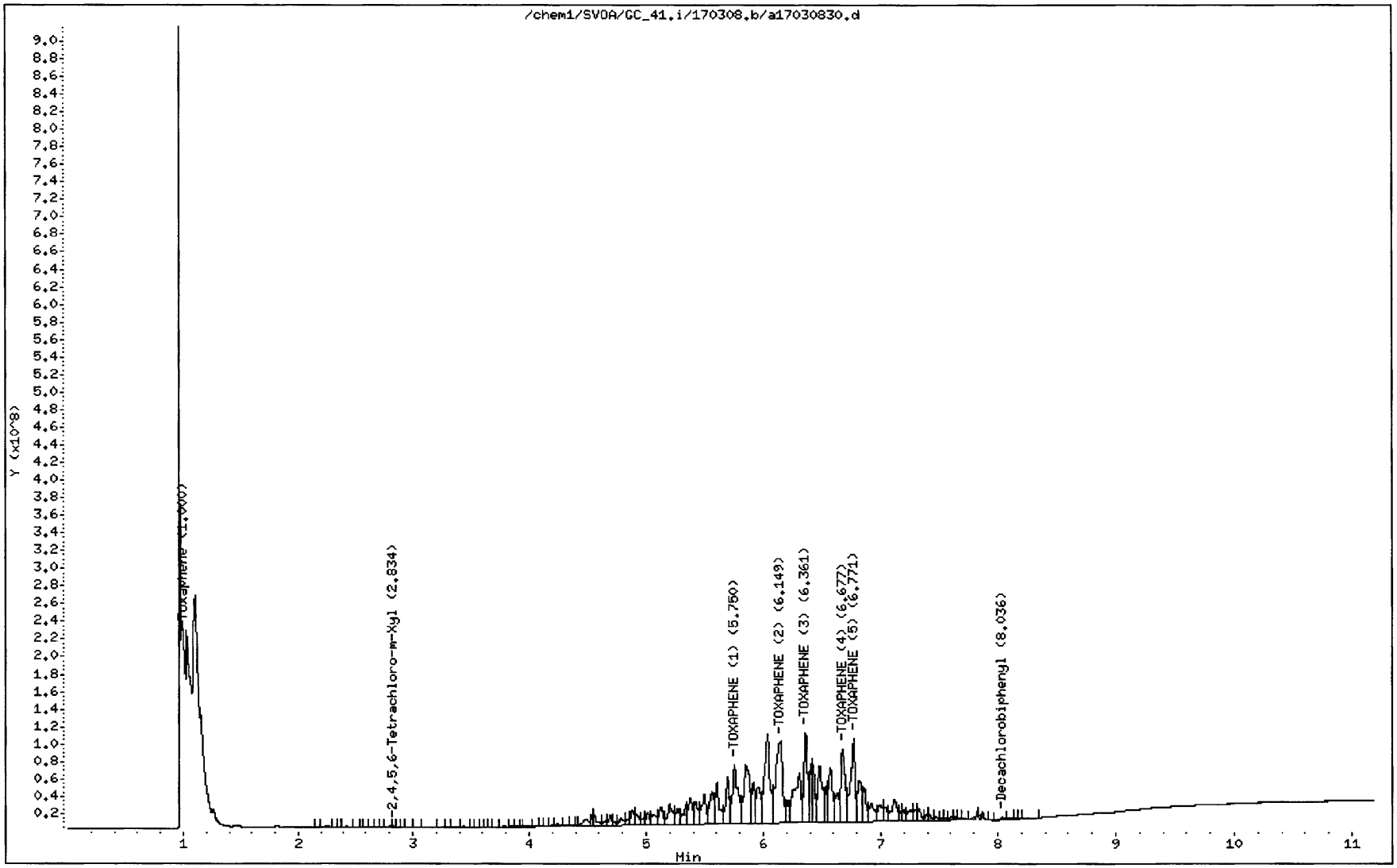
Instrument: GC_41.i

Sample Info: T-CCV 1000PPB P111616E

Operator:

Column phase:

Column diameter: 2.00



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EPA METHOD 8081A
Organochlorine Pesticides

Run Logs

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Sequence: C:\CHEM32\1\SEQUENCE\170202.S
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2	1	17020201	EVAL 50PPB P111616A	8081D		02-Feb-17, 10:18:25
3	2	17020202	P-ICAL1 P091716E 10PPB	8081D		02-Feb-17, 10:33:23
4	3	17020203	P-ICAL2 P091716F 20PPB	8081D		02-Feb-17, 10:48:23
5	4	17020204	P-ICAL3 P091716G 40PPB	8081D		02-Feb-17, 11:03:27
6	5	17020205	P-ICAL4 P091716H 60PPB	8081D		02-Feb-17, 11:18:34
7	6	17020206	P-ICAL5 P091716J 80PPB	8081D		02-Feb-17, 11:33:32
8	7	17020207	P-ICV P091716L 40PPB	8081D		02-Feb-17, 11:48:33
9	8	17020208	CH-ICAL1 P091716P 100PPB	8081D		02-Feb-17, 12:03:32
10	9	17020209	CH-ICAL2 P091716Q 250PPB	8081D		02-Feb-17, 12:18:41
11	10	17020210	CH-ICAL3 P091716R 500PPB	8081D		02-Feb-17, 12:33:44
12	11	17020211	CH-ICAL4 P091716S 750PPB	8081D		02-Feb-17, 12:48:46
13	12	17020212	CH-ICAL5 P091716T 2000PPB	8081D		02-Feb-17, 13:03:46
14	13	17020213	CH-ICVP091716V 500PPB	8081D		02-Feb-17, 13:18:54
15	14	17020214	TOX-ICAL1 P091716X 200PPB	8081D		02-Feb-17, 13:33:55
16	15	17020215	TOX-ICAL2 P091716Y 500PPB	8081D		02-Feb-17, 13:48:58
17	16	17020216	TOX-ICAL3 P091716Z 1000PPB	8081D		02-Feb-17, 14:04:00
18	17	17020217	TOX-ICAL4 P091716AA 1500PPB	8081D		02-Feb-17, 14:19:07
19	18	17020218	TOX-ICAL5 P091716BB 4000PPB	8081D		02-Feb-17, 14:34:07
20	19	17020219	TOX-ICV P091716DD 1000PPB	8081D		02-Feb-17, 14:49:08
21	20	17020220	ISOMER-ICAL1 P091716GG 10PPB	8081D		02-Feb-17, 15:04:09
22	21	17020221	ISOMER-ICAL2 P091716HH 20PPB	8081D		02-Feb-17, 15:19:15
23	22	17020222	ISOMER-ICAL3 P091716II 40PPB	8081D		02-Feb-17, 15:34:16
24	23	17020223	ISOMER-ICAL4 P091716JJ 60PPB	8081D		02-Feb-17, 15:49:17
25	24	17020224	ISOMER-ICAL5 P091716KK 80PPB	8081D		02-Feb-17, 16:04:16
26	25	17020225	ISOMER-ICV P112816D 40PPB	8081D		02-Feb-17, 16:19:26

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Sequence: W:\GC_41\SEQUENCE\170307.S
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2	1	17030801	EVAL 50PPB P111616A	8081D		08-Mar-17, 10:13:29
3	3	17030803	CH-CCV 500PPB P111616D	8081D		08-Mar-17, 10:28:36
4	4	17030804	T-CCV 1000PPB P111616E	8081D	A013	08-Mar-17, 10:43:37
5	2	17030802	P-CCV 40PPB P111616B	8081D		08-Mar-17, 10:58:38
6	5	17030805	LCS 170307L07	8081D		08-Mar-17, 11:13:39
7	6	17030806	MB 170307L07	8081D		08-Mar-17, 11:28:56
8	7	17030807	17-03-0520-1	8081D		08-Mar-17, 11:43:57
9	8	17030808	17-03-0520-2	8081D		08-Mar-17, 11:58:58
10	9	17030809	17-03-0520-3	8081D		08-Mar-17, 12:13:59
11	10	17030810	17-03-0520-4	8081D		08-Mar-17, 12:29:06
12	11	17030811	17-02-2480-5 RE) confirm	8081D		08-Mar-17, 12:44:07
13	12	17030812	17-02-2480-5 RE 5X	8081D		08-Mar-17, 12:59:08
14	13	17030813	17-03-0445-9	8081D		08-Mar-17, 13:14:08
15	14	17030814	MS 17-03-0445-9 17-0307S07	8081D		08-Mar-17, 14:00:53
16	15	17030815	MSD 17-03-0445-9 17-0307S07	8081D		08-Mar-17, 14:15:54
17	16	17030816	17-03-0444-15	8081D		08-Mar-17, 14:30:53
18	17	17030817	17-03-0254-1 5X	8081D		08-Mar-17, 14:45:41
19	18	17030818	S07-57--14/15/16	8081D		08-Mar-17, 15:00:49
20	19	17030819	17-03-0520-2 5X	8081D		08-Mar-17, 15:15:49
21	20	17030820	17-03-0520-3 5X	8081D		08-Mar-17, 15:30:50
22	21	17030821	ISOMER-CCV 40PPB P111616F	8081D	A014	08-Mar-17, 15:45:51
23	22	17030822	MB 170307L10;STLC	8081D		08-Mar-17, 16:00:48
24	23	17030823	17-03-0202-10;STLC	8081D		08-Mar-17, 16:15:48
25	25	17030825	LCS 170307L10;STLC	8081D		08-Mar-17, 16:47:57
26	24	17030824	MB 170308L02; TCLP	8081D		08-Mar-17, 17:03:05
27	2	17030826	P-CCV 40PPB P111616B →	8081D	high Endrin RB & ER	08-Mar-17, 17:18:06
28	21	17030827	ISOMER-CCV 40PPB P111616F	8081D		08-Mar-17, 17:33:07
29	2	17030828	P-CCV 40PPB P111616B	8081D		08-Mar-17, 17:48:14
30	3	17030829	CH-CCV 500PPB P111616D	8081D	A015	08-Mar-17, 18:01:19
31	4	17030830	T-CCV 1000PPB P111616E	8081D		08-Mar-17, 18:16:26
32	31	17030831	17-03-0202-10;TCLP	8081D		08-Mar-17, 18:31:26
33	32	17030832	LCS 170308L02;TCLP	8081D		08-Mar-17, 18:46:26
34	21	17030833	ISOMER-CCV 40PPB P111616F	8081D		08-Mar-17, 19:01:26
35	2	17030834	P-CCV 40PPB P111616B	8081D		08-Mar-17, 19:16:32
36	3	17030835	CH-CCV 500PPB P111616D	8081D		08-Mar-17, 19:31:30
37	4	17030836	T-CCV 1000PPB P111616E	8081D		08-Mar-17, 19:46:30

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EPA METHOD 8081A
Organochlorine Pesticides

Preparation Logs

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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- 610 Start Extraction- 610/787 Blow Down- 110/1084 Clean Up-

Matrix: ☑ Soil ☐ Aqueous ☐ Oil ☐ Wipe ☐ Filter ☐ Tissue ☐ Air

Balance ID#: 20 Filter ID#: 507-17-17 ASE ID#: 8 Soxtherm ID#: Orbit Shaker ID#: Sonicator ID#:

Ext. Start Date/Time: 03/07/17 8:45/17200 Ext. End Date/Time: 03/07/17 11:00/18220

Sand or Wipe ID#:	Drying Agent: ☑ Na_2SO_4 ☑ Diatomaceous Earth
507-19-19	Drying Agent(s) ID#: 507-44-18 / 507-22-03

Surrogate Std ID# & Volume Added (mL): S101316A 0.5

Spike Std ID# & Volume Added (mL): S101916B 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#: 507-44-07/507-44-08 Exchange Solvent (☑ Hexane ☐ Acetonitrile) ID#: 507-44-07

Clean Up Start Date & Time: Clean Up End Date & Time:

Clean Up: ☐ 3620 Florisil ☐ 3630 SGC ☐ 3660 Sulfur ☐ 3665 Acid ☐ Other Cartridge ID#:

Clean Up Reagent ID#: Cartridge Conditioning Column Pre-Elution Reagent ID#:

MB/LCS/MS Batch #: 1703072607

Cel ID#:	Sample W(g) / V (mL) Initial	Final	Clean Up Performed	Comments
MB	20.0	10	☐	
LCS	20.0	10	☐	
LCSD NA	—	—	☐	
MS 17-03-0445-9A	20.0	10	☐	
MSD -9A	20.0	10	☐	
-9A	20.1	10	☐	
17-03-0444-15A	20.0	10	☐	
17-03-0520-1A	20.0	10	☐	
2A	20.1	10	☐	
3A	20.0	10	☐	
4A	20.1	10	☐	
17-02-2480-5A	20.0	10	☐	
			☐	
			☐	
			☐	
			☐	
			☐	
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			☐	
			☐	

Peer Reviewed by: 785 Peer Reviewed Date: 3-7-17 Revision Date: 10/20/16

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EPA METHOD 8082
PCB

RAW DATA

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EPA METHOD 8082
PCB

Initial Calibration

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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	%RSD CL	R or R^2	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

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 8082

ICV WORK ORDER: 099-12-532-9393-5154
INITIAL BATCH: 170304I001
INSTRUMENT: GC 31

DATA FILE: /chem1/SVOA/GC_31/170304/b1703040617030406

ANALYZED BY: 1028
D/T ANALYZED:
INITIAL: 2017-03-04 10:22
ICV: 2017-03-04 11:57
REVIEWED BY: 27
D/T REVIEWED: 2017-03-06 17:02

COMPOUND NAME	COMP TYPE	CALIB MODEL	MIN RF	AVG RF	ICV RF	AMOUNT	ICV CONC	ICV %D	ICV %D CL	STATUS
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 Page 1

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 Level 1	250.000 Level 2	500.000 Level 3	750.000 Level 4	2000.000 Level 5	___ RRF	% RSD
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

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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 Arcolor 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 Arcolor 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

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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
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

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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
Maximun Average %RSD = 20.00000
* Passed Average %RSD Test.

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Eurofins CalScience
Calibration Verification Report

Instrument ID: GC_31.i
Sample Name: ICV 500 P021517H
Sublist used: p1016_1260.sub
Method used: /chem1/SVOA/GC_31.i/170304.b/b8082-n2.m

Injection Date and Time: 04-MAR-2017 11:57
Initial Calibration Date(s): 20-FEB-2017 04-MAR-2017
Initial Calibration Time(s): 15:04 11:38

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

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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

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QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).

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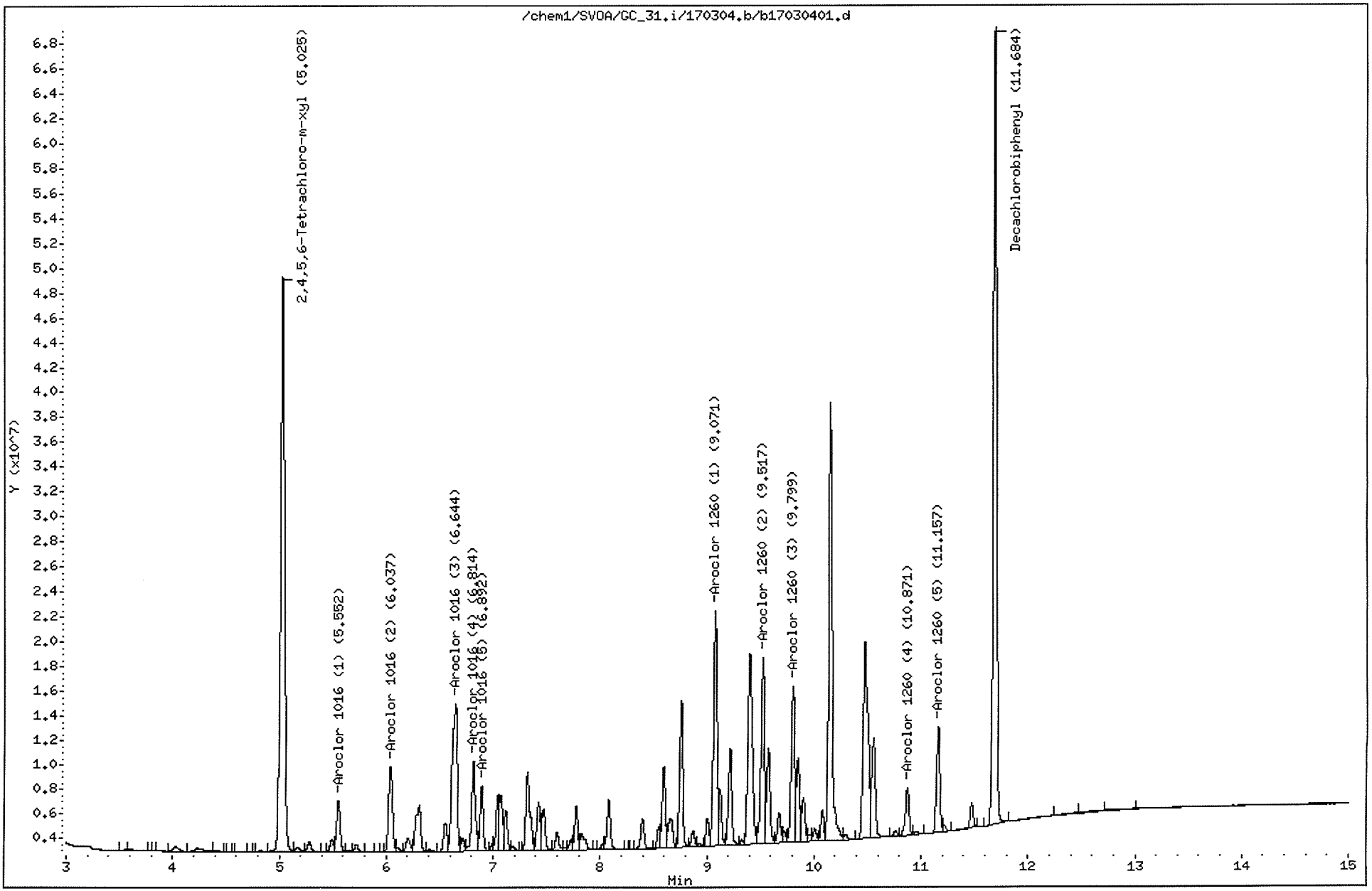
Data File: /chem1/SVOA/GC_31.i/170304.b/b17030401.d
Date : 04-MAR-2017 10:22
Client ID:
Sample Info: ICAL-1 P021517F

Instrument: GC_31.i
Operator: 944
Column diameter: 2.00

Column phase:



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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 Inst ID: GC_31.i
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 Quant Type: ESTD
Cal Date : 04-MAR-2017 10:41 Cal File: b17030402.d
Als bottle: 2 Calibration Sample, Level: 2
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)	AMOUNTS ON-COL (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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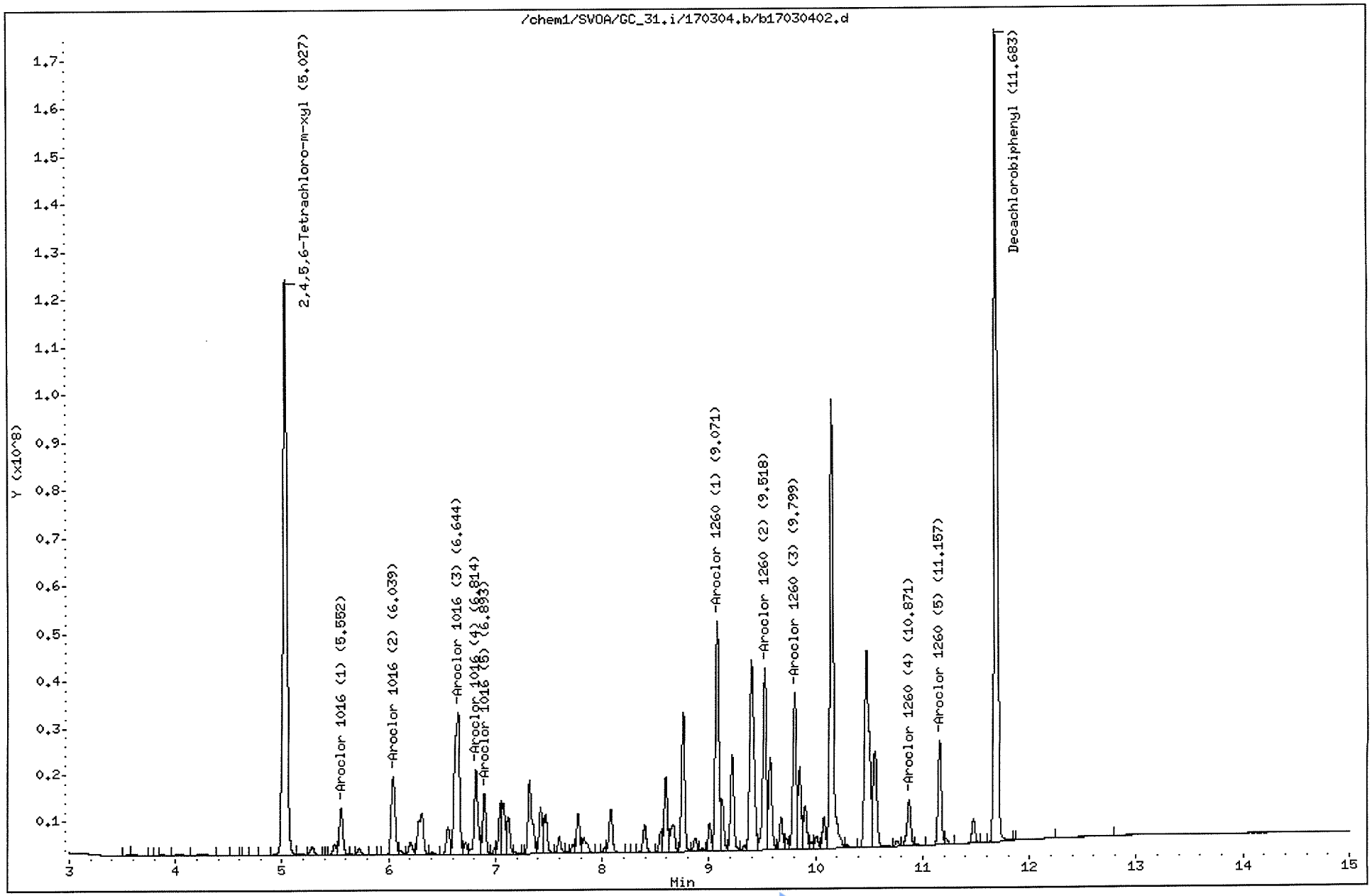
Data File: /chem1/SVOA/GC_31.i/170304.b/b17030402.d
Date : 04-MAR-2017 10:41
Client ID:
Sample Info: ICAL-2 P021517E

Instrument: GC_31.i

Operator: 944
Column diameter: 2.00

Column phase:



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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	
						CAL-AMT	ON-COL
	Compounds	RT	EXP RT	DLT RT	RESPONSE	(ppb)	(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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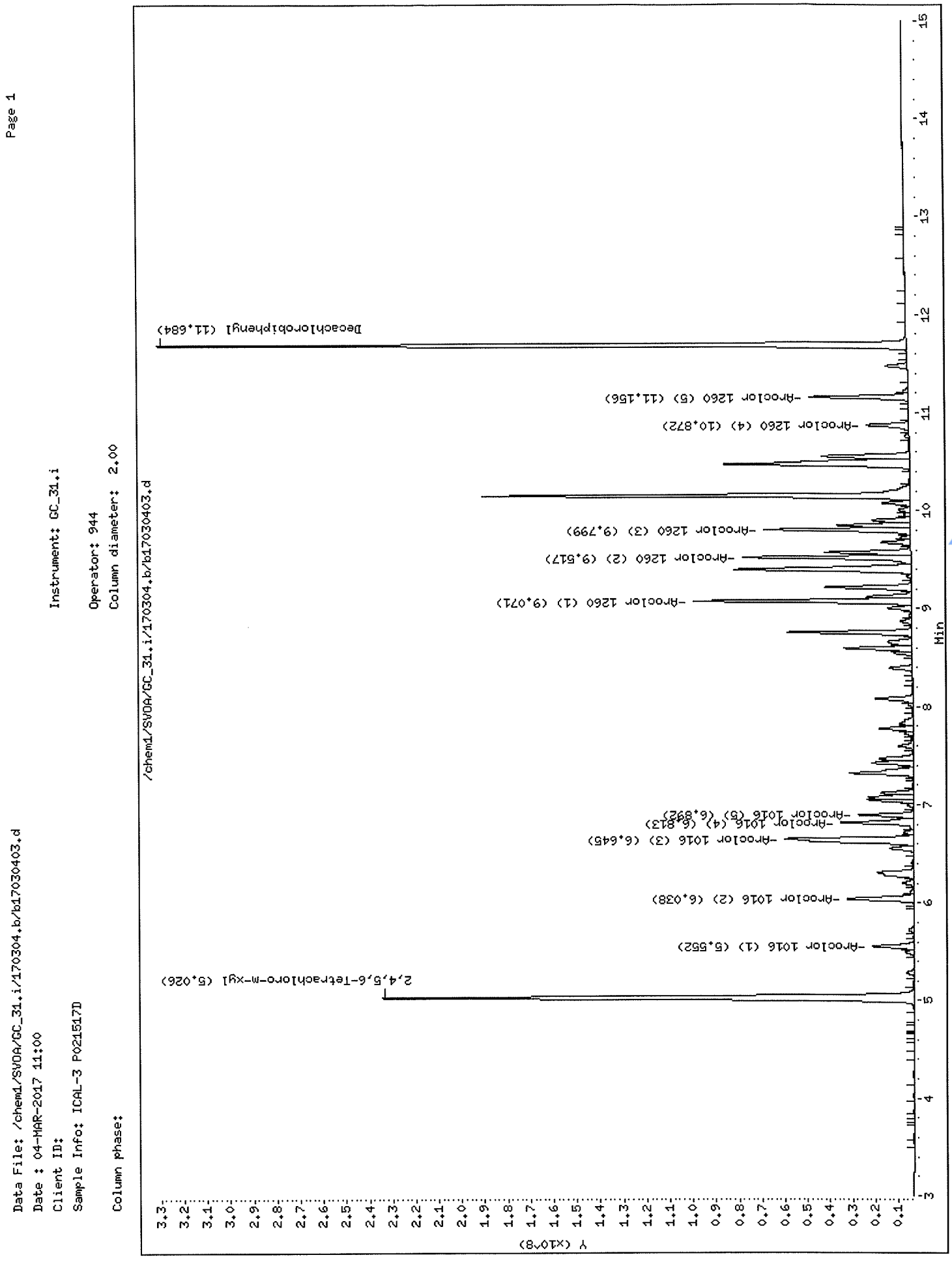

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EPA8082/A PCB analysis

Data file : /chem1/SVOA/GC_31.i/170304.b/b17030404.d
Lab Smp Id:
Inj Date : 04-MAR-2017 11:19
Operator : 944 Inst ID: GC_31.i
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 Quant Type: ESTD
Cal Date : 04-MAR-2017 11:19 Cal File: b17030404.d
Als bottle: 4 Calibration Sample, Level: 4
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	5.027	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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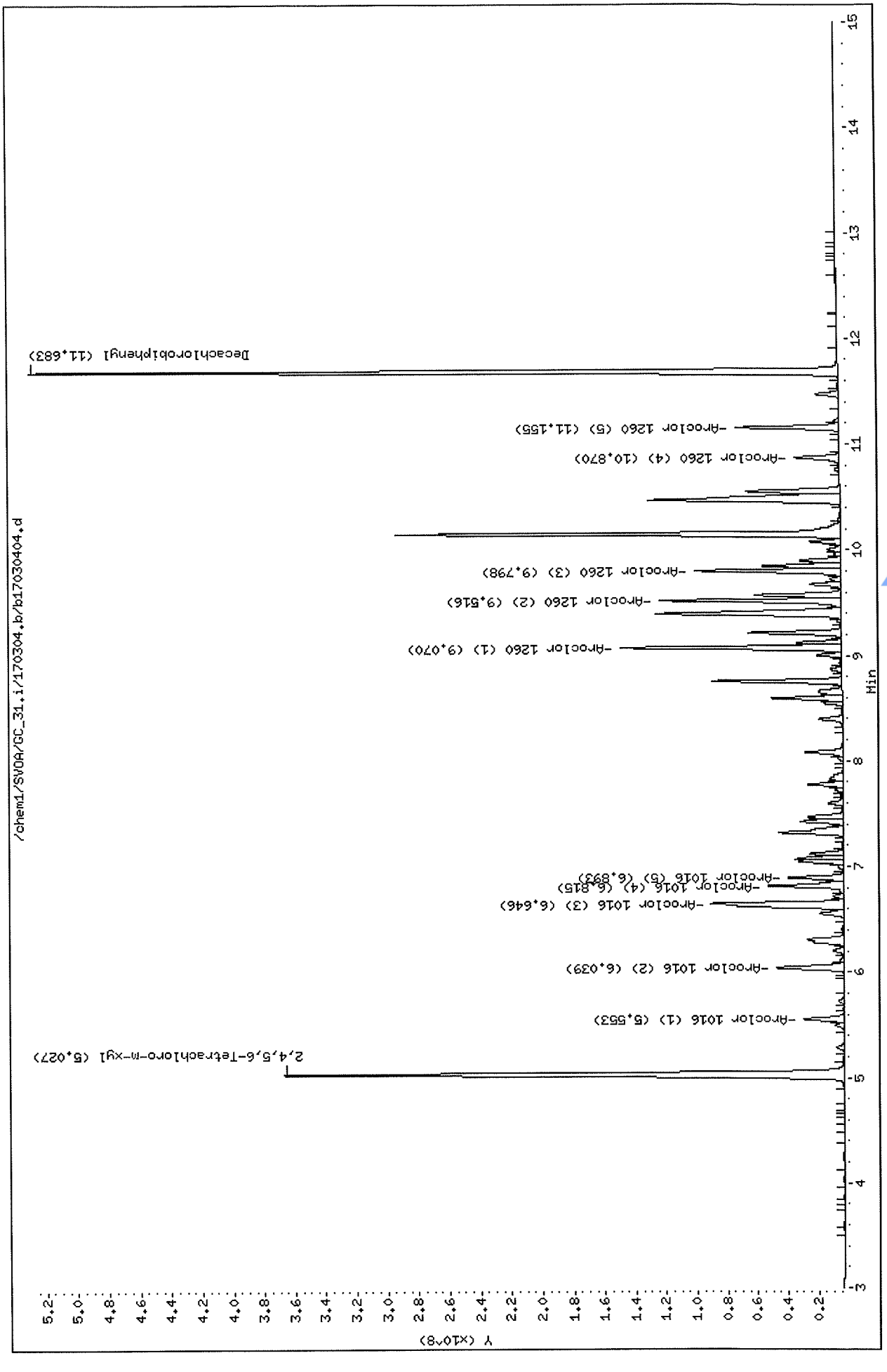
Data File: /chem1/SVOA/GC_31.i/170304.b/b17030404.d
Date : 04-MAR-2017 11:19
Client ID:
Sample Info: ICAL-4 P021517C

Column phase:

Instrument: GC_31.i

Operator: 944
Column diameter: 2.00



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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 Inst ID: GC_31.i
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 Quant Type: ESTD
Cal Date : 04-MAR-2017 11:38 Cal File: b17030405.d
Als bottle: 5 Calibration Sample, Level: 5
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)	AMOUNTS ON-COL (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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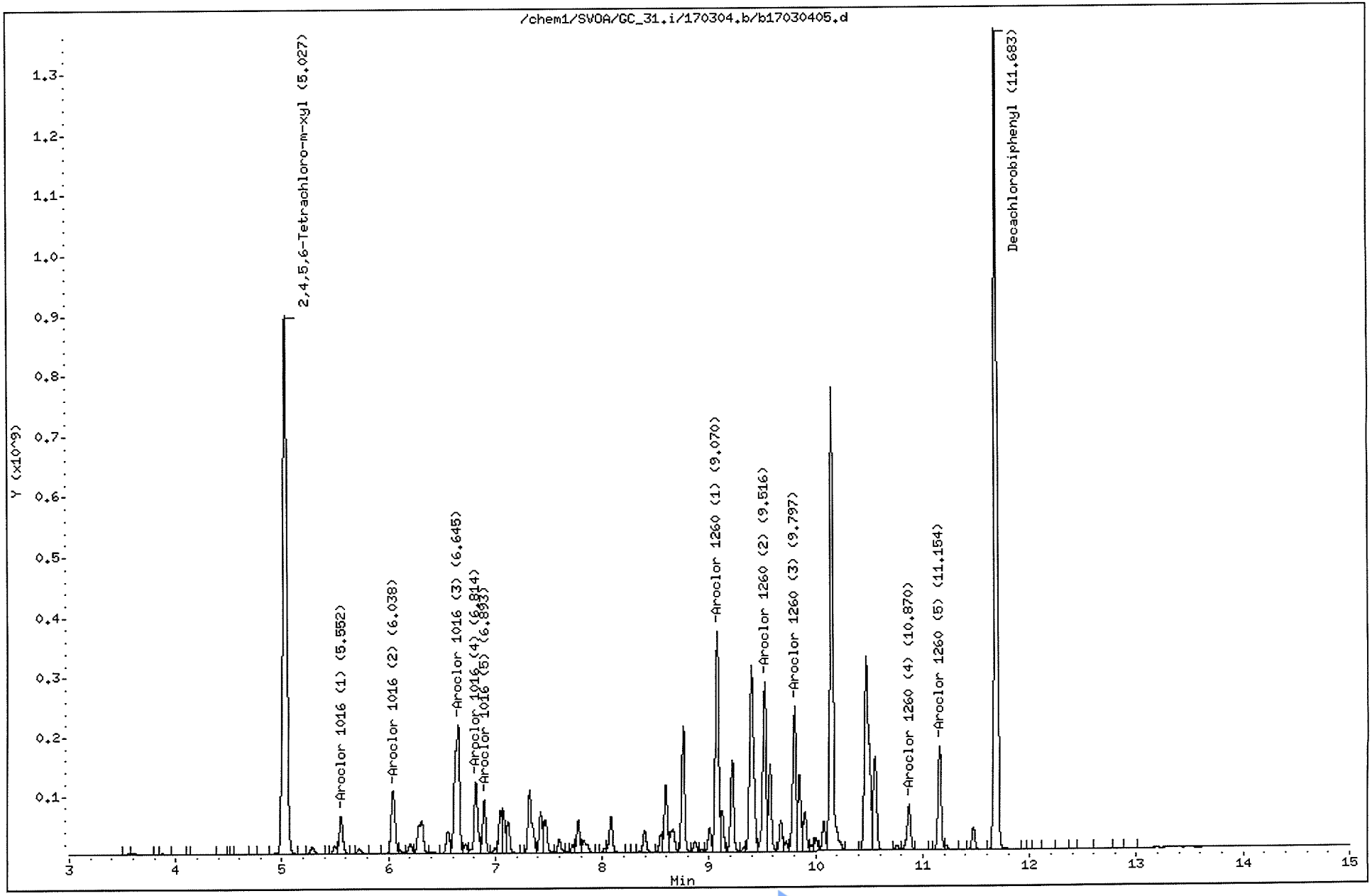
Data File: /chem1/SVOA/GC_31.i/170304.b/b17030405.d
Date : 04-MAR-2017 11:38
Client ID:
Sample Info: ICAL-5 P021517B

Instrument: GC_31.i

Operator: 944
Column diameter: 2.00

Column phase:



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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 Inst ID: GC_31.i
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 Quant Type: ESTD
Cal Date : 04-MAR-2017 11:38 Cal File: b17030405.d
Als bottle: 6 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)	AMOUNTS 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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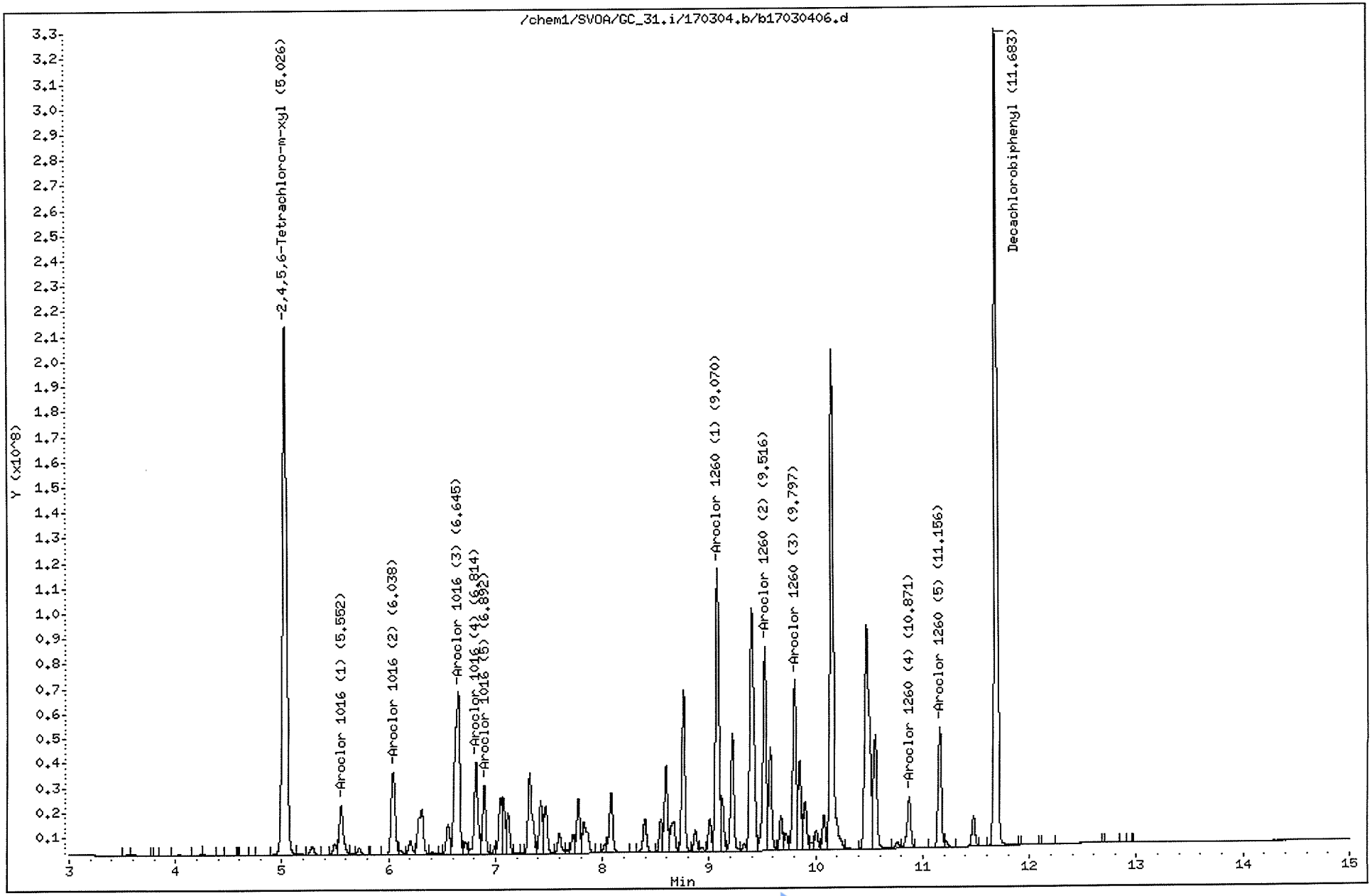
Data File: /chem1/SVOA/GC_31.i/170304.b/b17030406.d
Date : 04-MAR-2017 11:57
Client ID:
Sample Info: ICV 500 P021517H

Column phase:

Instrument: GC_31.i

Operator: 944
Column diameter: 2.00



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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 Inst ID: GC_31.i
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 Quant Type: ESTD
Cal Date : 20-FEB-2017 17:55 Cal File: b17022011.d
Als bottle: 7 Calibration Sample, Level: 3
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: p1221_1254.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)	AMOUNTS ON-COL (ppb)
M 14 Aroclor-1221				2984757077	500.000	500
15 Aroclor 1221 (1)	4.230	4.230	0.000	430443011	500.000	500
16 Aroclor 1221 (2)	5.283	5.283	0.000	584537488	500.000	500
17 Aroclor 1221 (3)	5.494	5.494	0.000	357560063	500.000	500
18 Aroclor 1221 (4)	5.551	5.551	0.000	1404598261	500.000	500
19 Aroclor 1221 (5)	6.207	6.207	0.000	207618254	500.000	500
M 38 Aroclor-1254				14485654714	500.000	500
39 Aroclor 1254 (1)	7.774	7.774	0.000	1771372509	500.000	500
40 Aroclor 1254 (2)	8.080	8.080	0.000	3581040483	500.000	500
41 Arcolor 1254 (3)	8.546	8.546	0.000	3879229685	500.000	500
42 Aroclor 1254 (4)	8.866	8.866	0.000	2955100925	500.000	500
43 Aroclor 1254 (5)	9.187	9.187	0.000	2298911112	500.000	500

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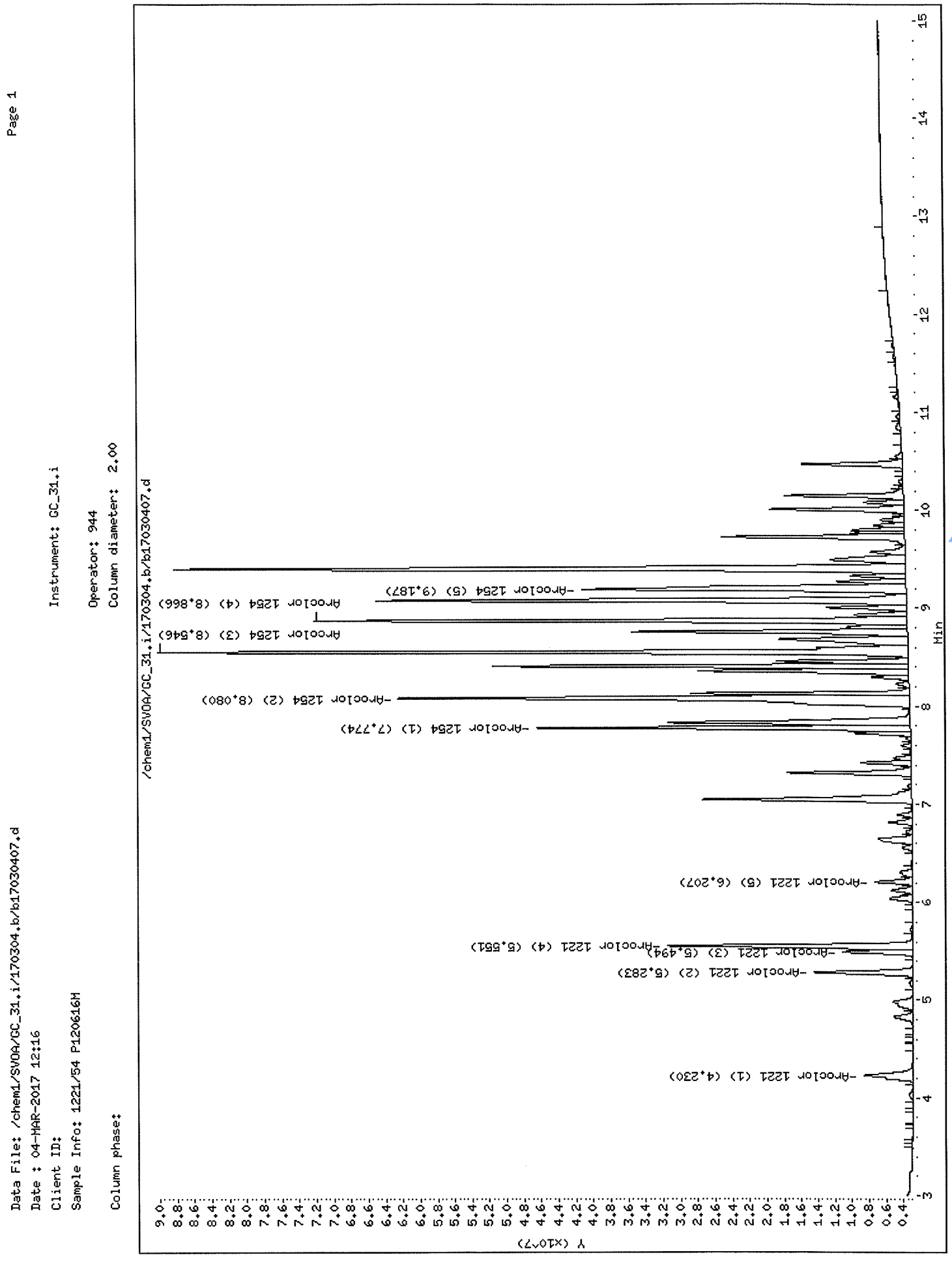
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Date : 04-MAR-2017 12:16
Client ID:
Sample Info: 1221/54 P120616M
Column phase:
Instrument: GC_31.i
Operator: 944
Column diameter: 2.00
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Aroclor 1221 (1) (4.230)
Aroclor 1221 (2) (5.283)
Aroclor 1221 (3) (5.494)
Aroclor 1221 (4) (5.551)
Aroclor 1221 (5) (6.207)
Aroclor 1254 (1) (7.774)
Aroclor 1254 (2) (8.080)
Aroclor 1254 (3) (8.546)
Aroclor 1254 (4) (8.866)
Aroclor 1254 (5) (9.187)
Y (x10^7)
Min
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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 Inst ID: GC_31.i
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 Quant Type: ESTD
Cal Date : 20-FEB-2017 17:55 Cal File: b17022011.d
Als bottle: 8 Calibration Sample, Level: 3
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: p1232_1262.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)
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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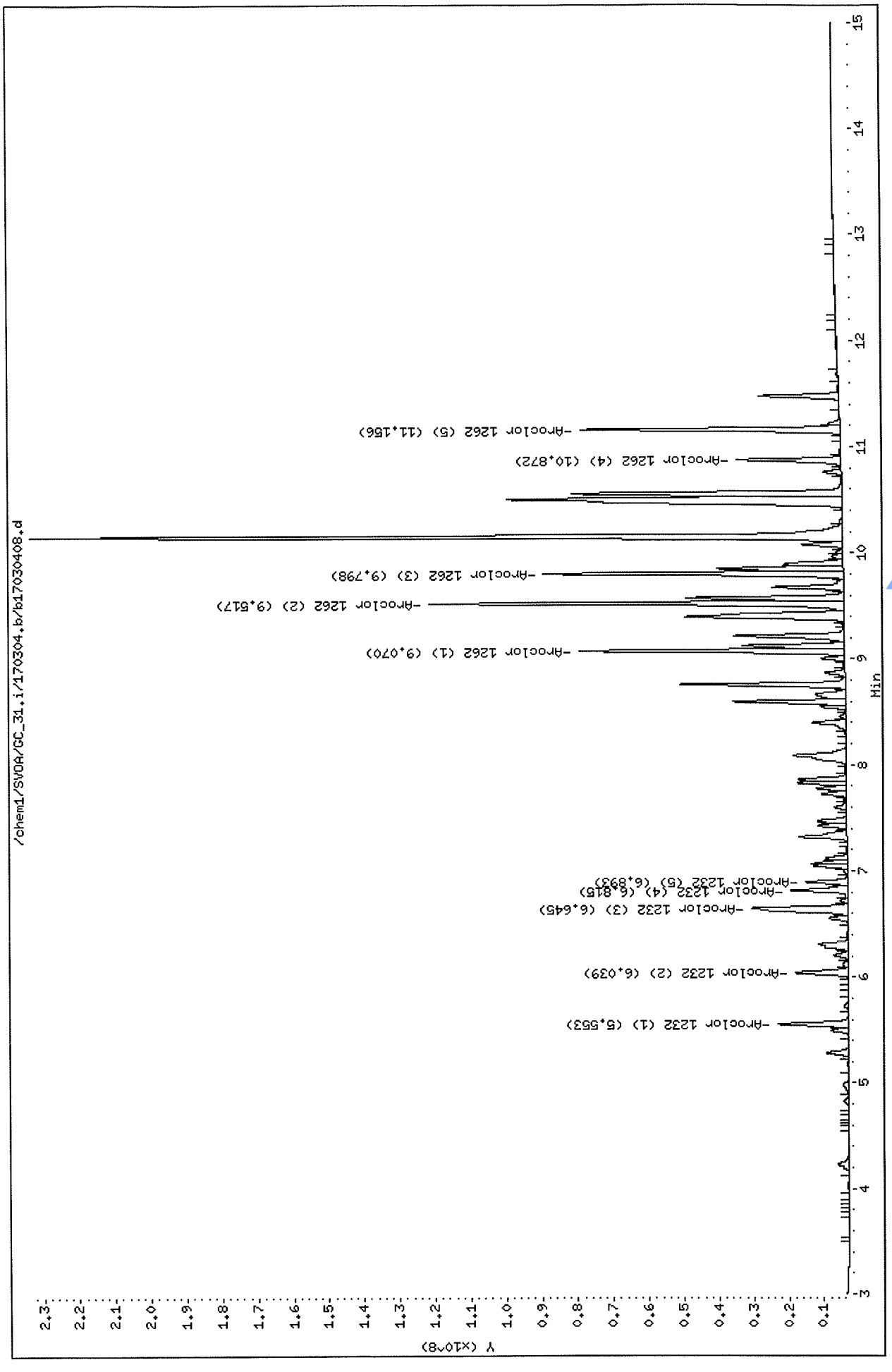
Data File: /chem1/SVOA/GC_31.i/170304.b/b17030408.d
Date : 04-MAR-2017 12:35
Client ID:
Sample Info: 1232/62 P120616N

Column phase:

Instrument: GC_31.i

Operator: 944
Column diameter: 2.00



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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 Inst ID: GC_31.i
Smp Info : 1248/68 P120616O
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 : 20-FEB-2017 17:55 Cal File: b17022011.d
Als bottle: 9 Calibration Sample, Level: 3
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: p1248_1268.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)
M 32 Aroclor-1248				6588259910	500.000	500
33 Aroclor 1248 (1)	6.643	6.643	0.000	1983342730	500.000	500
34 Arcolor 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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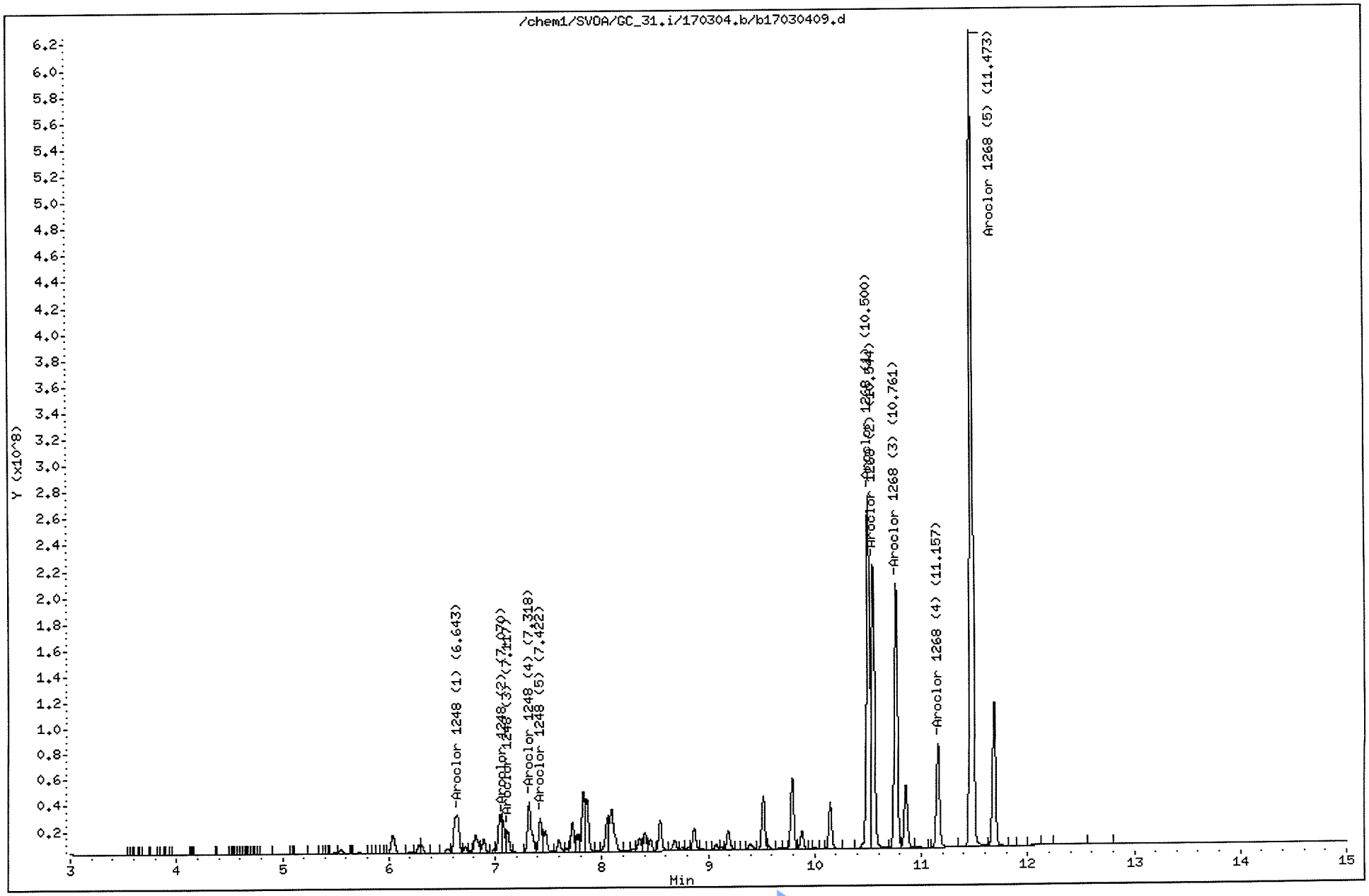
Data File: /chem1/SVOA/GC_31.i/170304.b/b17030409.d
Date : 04-MAR-2017 12:54
Client ID:
Sample Info: 1248/68 P1206160

Instrument: GC_31.i

Operator: 944
Column diameter: 2.00

Column phase:



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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

Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ppb)	AMOUNTS ON-COL (ppb)
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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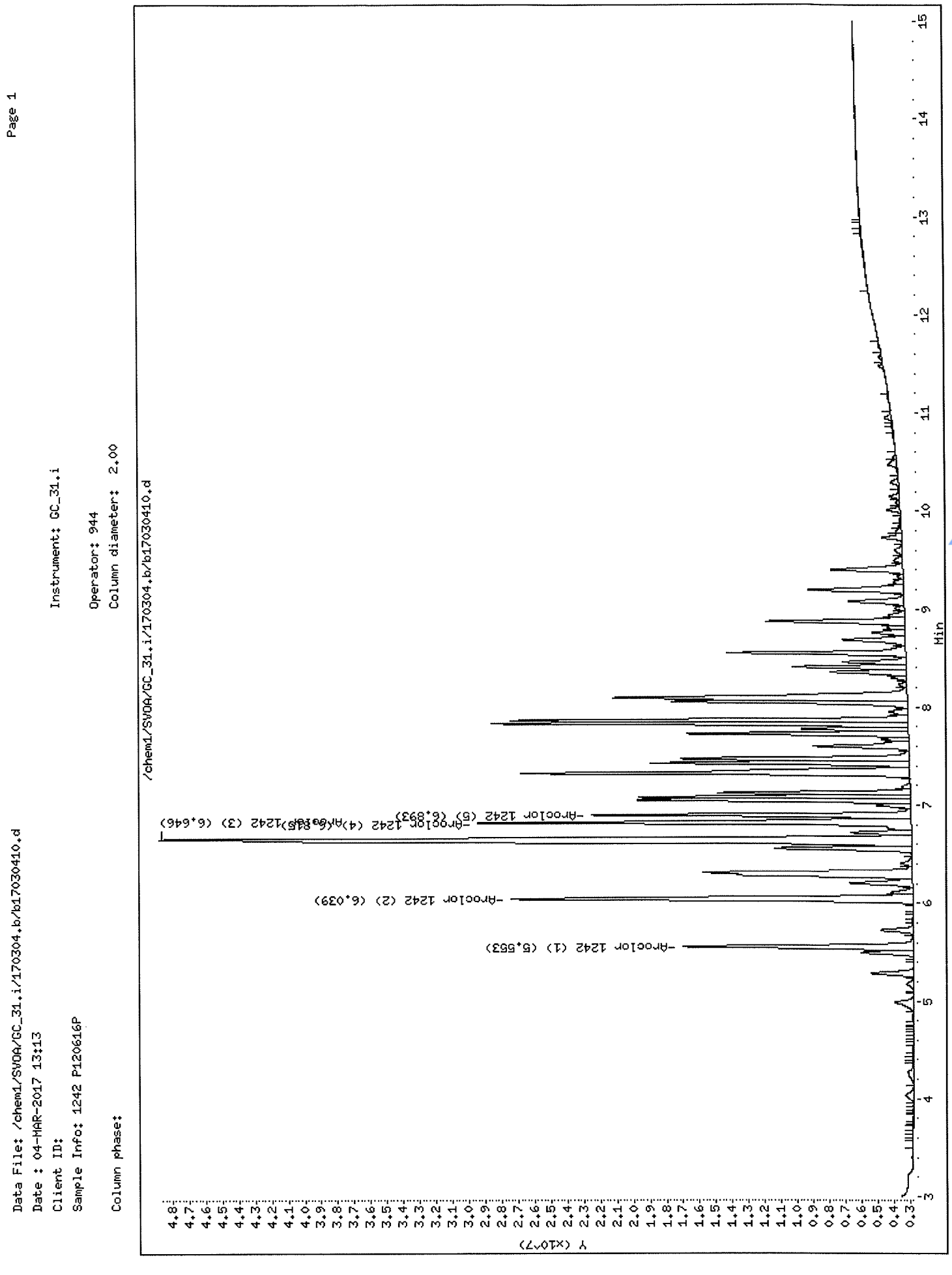

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EPA METHOD 8082
PCB

Sample Data

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RAW DATA SHEET
FOR METHOD: EPA 8082

WORK ORDER: **17-03-0445**
INSTRUMENT: GC 31
EXTRACTION : EPA 3545
D/T EXTRACTED: 2017-03-07 00:00

ANALYZED BY: 944
D/T ANALYZED: 2017-03-08 12:30
REVIEWED BY: 27
D/T REVIEWED: 2017-03-17 18:13

DATA FILE: /chem1/SVOA/GC_31/170308/b1703081017030810

 # 3 **CLIENT SAMPLE NUMBER: B-DU3-S-SG-09-15S**

LCS/MB BATCH: 170307L08
MS/MSD BATCH: 170307S08
UNITS: ug/kg

SAMPLE VOLUME / WEIGHT: DEFAULT: 20.00 g / ACTUAL: 20.10 g
FINAL VOLUME / WEIGHT: DEFAULT: 10.00 ml / ACTUAL: 10.00 ml
ADJUSTMENT RATIO TO PF: 1.00

COMMENT:

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/170308.b/b17030810.d Page 1
Report Date: 08-Mar-2017 15:03

Eurofins Calscience

EPA8082/A PCB analysis

Data file : /chem1/SVOA/GC_31.i/170308.b/b17030810.d
Lab Smp Id:
Inj Date : 08-MAR-2017 12:30
Operator : 944 Inst ID: GC_31.i
Smp Info : 17-03-0445-3
Misc Info :
Comment : Rtx-CLPesticide II
Method : /chem1/SVOA/GC_31.i/170308.b/b8082-n2.m
Meth Date : 08-Mar-2017 14:42 src3 Quant Type: ESTD
Cal Date : 04-MAR-2017 13:13 Cal File: b17030410.d
Als bottle: 10
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	
						ON-COLUMN	FINAL
	Compounds	RT	EXP RT	DLT RT	RESPONSE	(ppb)	(uG)
$	1 2,4,5,6-Tetrachloro-m-xylene	5.027	5.022	0.005	7912055789	65.5519	65.6
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.					

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Data File: /chem1/SVOA/GC_31.i/170308.b/b17030810.d Page 2
Report Date: 08-Mar-2017 15:03

	Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ppb)	CONCENTRATIONS 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 Arcolor 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 Arcolor 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	11.681	0.001	11791930023	83.5871	83.6

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Data File: /chem1/SVOA/GC_31.i/170308.b/b17030810.d

Page 1

Date : 08-MAR-2017 12:30

Client ID:

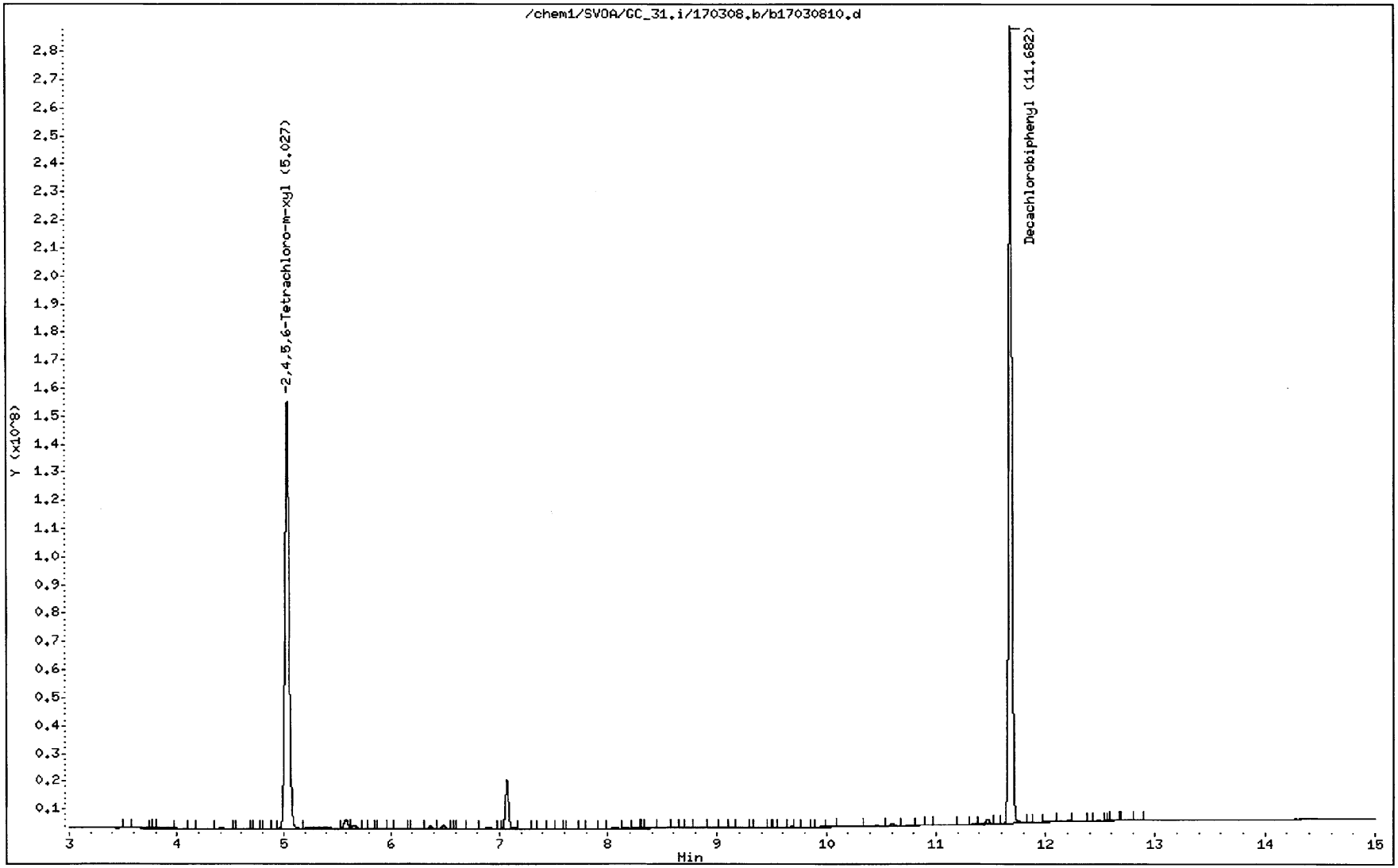
Instrument: GC_31.i

Sample Info: 17-03-0445-3

Operator: 944

Column phase:

Column diameter: 2.00



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RAW DATA SHEET
FOR METHOD: EPA 8082

WORK ORDER:	**17-03-0445**	ANALYZED BY:	944
INSTRUMENT:	GC 31	D/T ANALYZED:	2017-03-08 12:49
EXTRACTION :	EPA 3545	REVIEWED BY:	27
D/T EXTRACTED:	2017-03-07 00:00	D/T REVIEWED:	2017-03-17 18:13

DATA FILE: /chem1/SVOA/GC_31/170308/b1703081117030811

 # 4 **CLIENT SAMPLE NUMBER: B-DU3-S-SG-09-25S**

LCS/MB BATCH:	170307L08	SAMPLE VOLUME / WEIGHT:	DEFAULT: 20.00 g / ACTUAL: 20.10 g
MS/MSD BATCH:	170307S08	FINAL VOLUME / WEIGHT:	DEFAULT: 10.00 ml / ACTUAL: 10.00 ml
UNITS:	ug/kg	ADJUSTMENT RATIO TO PF:	1.00

COMMENT:

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/170308.b/b17030811.d Page 1
Report Date: 08-Mar-2017 15:03

Eurofins Calscience

EPA8082/A PCB analysis

Data file : /chem1/SVOA/GC_31.i/170308.b/b17030811.d
Lab Smp Id:
Inj Date : 08-MAR-2017 12:49
Operator : 944 Inst ID: GC_31.i
Smp Info : 17-03-0445-4
Misc Info :
Comment : Rtx-CLPesticide II
Method : /chem1/SVOA/GC_31.i/170308.b/b8082-n2.m
Meth Date : 08-Mar-2017 14:42 src3 Quant Type: ESTD
Cal Date : 04-MAR-2017 13:13 Cal File: b17030410.d
Als bottle: 11
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)	CONCENTRATIONS FINAL (uG)
$	1	2,4,5,6-Tetrachloro-m-xylene	5.027	5.022	0.005	7928978153	65.6921	65.7
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.					

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Data File: /chem1/SVOA/GC_31.i/170308.b/b17030811.d Page 2
Report Date: 08-Mar-2017 15:03

	Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ppb)	CONCENTRATIONS 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 Arcolor 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 Arcolor 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	11.681	0.000	11425532302	80.9899	81.0

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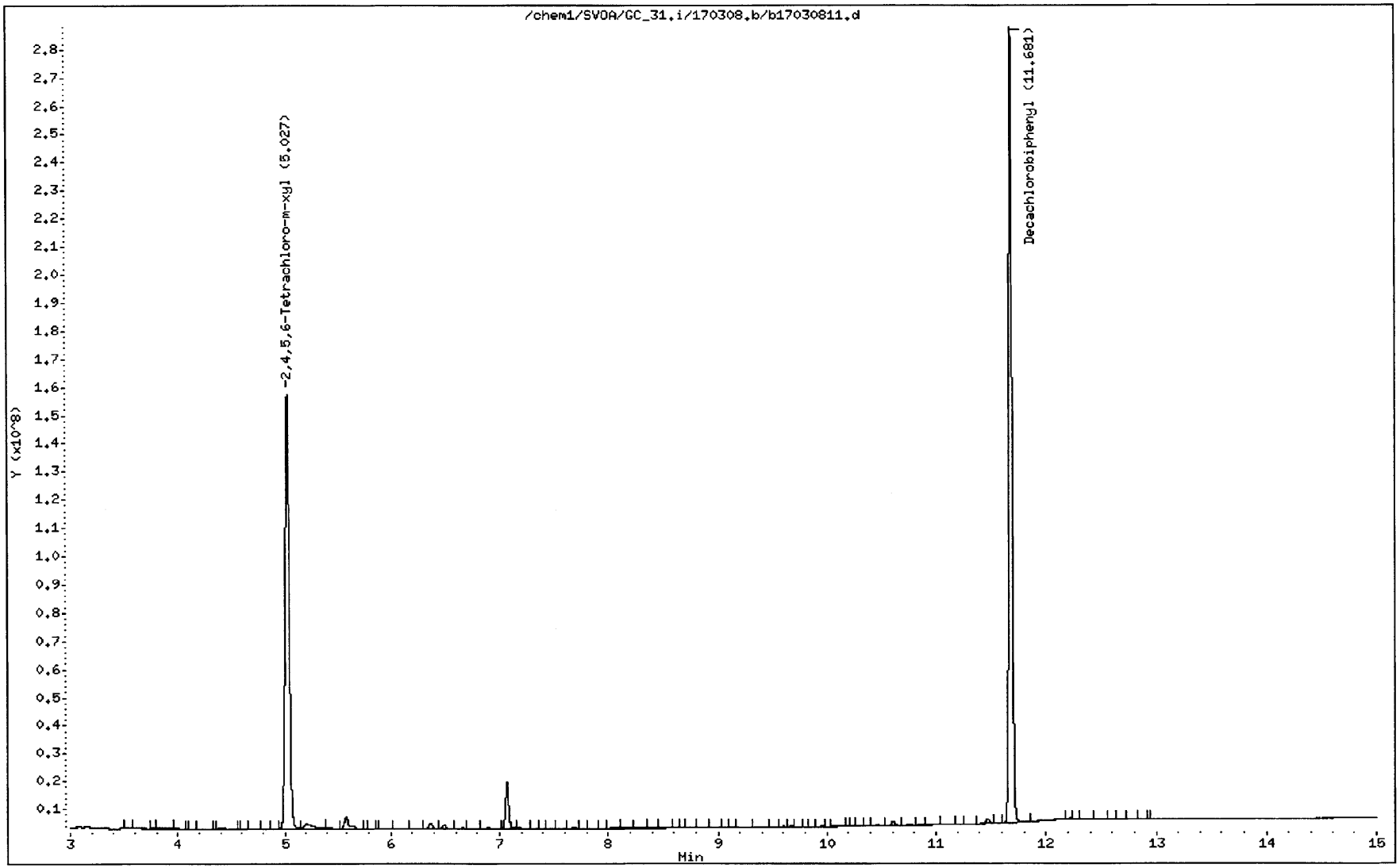
Data File: /chem1/SVOA/GC_31.i/170308.b/b17030811.d
Date : 08-MAR-2017 12:49
Client ID:
Sample Info: 17-03-0445-4

Instrument: GC_31.i
Operator: 944
Column diameter: 2.00

Column phase:



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RAW DATA SHEET
FOR METHOD: EPA 8082

WORK ORDER: **17-03-0445**
INSTRUMENT: GC 31
EXTRACTION : EPA 3545
D/T EXTRACTED: 2017-03-07 00:00

ANALYZED BY: 944
D/T ANALYZED: 2017-03-08 13:08
REVIEWED BY: 27
D/T REVIEWED: 2017-03-17 18:13

DATA FILE: /chem1/SVOA/GC_31/170308/b1703081217030812

 # 7 **CLIENT SAMPLE NUMBER: B-DU3-S-SG-10-15S**

LCS/MB BATCH: 170307L08
MS/MSD BATCH: 170307S08
UNITS: ug/kg

SAMPLE VOLUME / WEIGHT: DEFAULT: 20.00 g / ACTUAL: 20.00 g
FINAL VOLUME / WEIGHT: DEFAULT: 10.00 ml / ACTUAL: 10.00 ml
ADJUSTMENT RATIO TO PF: 1.00

COMMENT:

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/170308.b/b17030812.d Page 1
Report Date: 08-Mar-2017 15:03

Eurofins Calscience

EPA8082/A PCB analysis

Data file : /chem1/SVOA/GC_31.i/170308.b/b17030812.d
Lab Smp Id:
Inj Date : 08-MAR-2017 13:08
Operator : 944 Inst ID: GC_31.i
Smp Info : 17-03-0445-7
Misc Info :
Comment : Rtx-CLPesticide II
Method : /chem1/SVOA/GC_31.i/170308.b/b8082-n2.m
Meth Date : 08-Mar-2017 14:42 src3 Quant Type: ESTD
Cal Date : 04-MAR-2017 13:13 Cal File: b17030410.d
Als bottle: 12
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	
						ON-COLUMN	FINAL
	Compounds	RT	EXP RT	DLT RT	RESPONSE	(ppb)	(uG)
$	1 2,4,5,6-Tetrachloro-m-xylene	5.026	5.022	0.004	7692991425	63.7370	63.7
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.					

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Data File: /chem1/SVOA/GC_31.i/170308.b/b17030812.d Page 2
Report Date: 08-Mar-2017 15:03

	Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ppb)	CONCENTRATIONS 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 Arcolor 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 Arcolor 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	11.680	11.681	-0.001	11668892547	82.7150	82.7

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Data File: /chem1/SVOA/GC_31.i/170308.b/b17030812.d

Page 1

Date : 08-MAR-2017 13:08

Client ID:

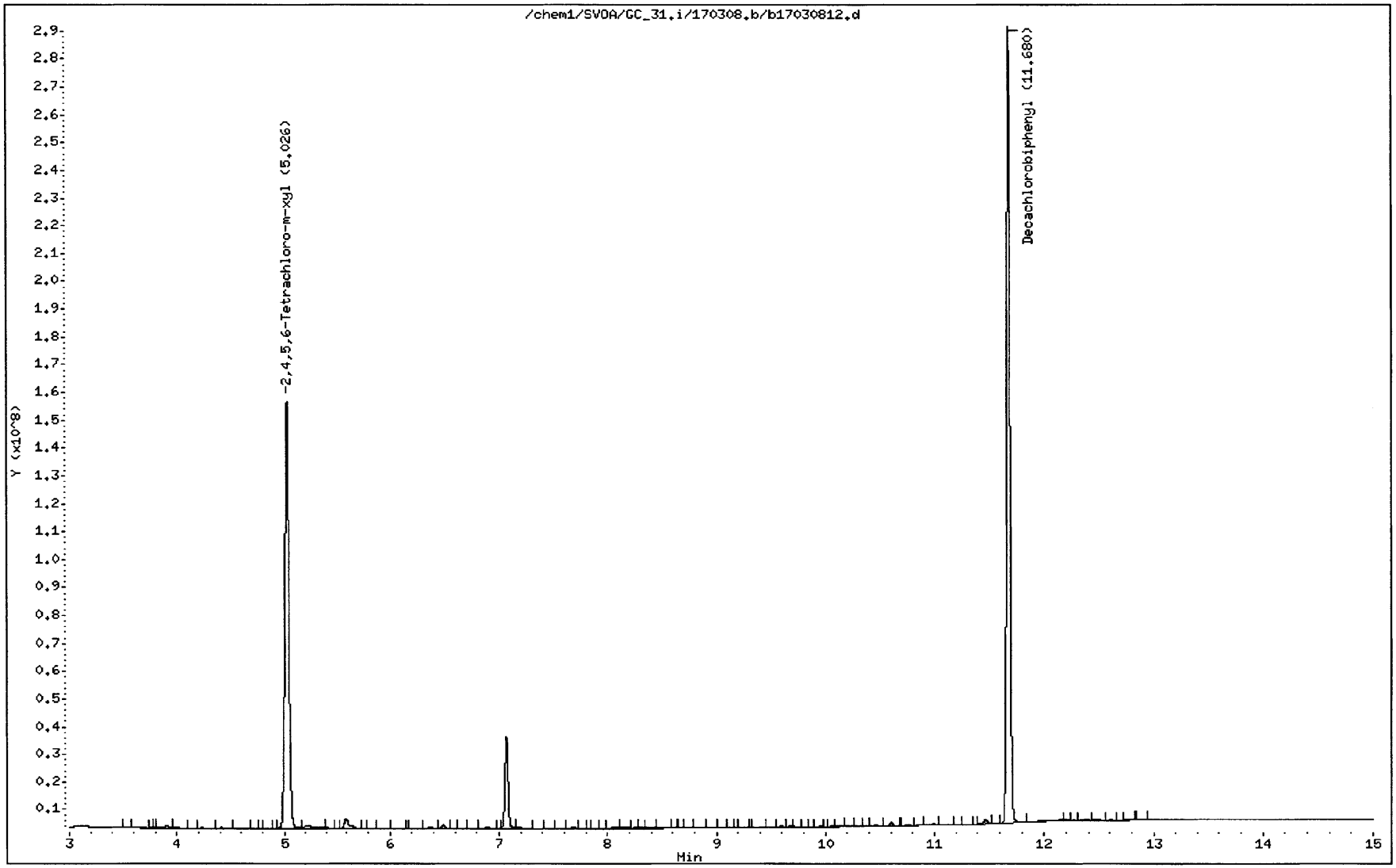
Instrument: GC_31.i

Sample Info: 17-03-0445-7

Operator: 944

Column phase:

Column diameter: 2.00



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RAW DATA SHEET
FOR METHOD: EPA 8082

WORK ORDER:	**17-03-0445**	ANALYZED BY:	944
INSTRUMENT:	GC 31	D/T ANALYZED:	2017-03-08 13:27
EXTRACTION :	EPA 3545	REVIEWED BY:	27
D/T EXTRACTED:	2017-03-07 00:00	D/T REVIEWED:	2017-03-17 18:13

DATA FILE: /chem1/SVOA/GC_31/170308/b1703081317030813

 # 8 **CLIENT SAMPLE NUMBER: B-DU3-S-SG-10-25S**

LCS/MB BATCH:	170307L08	SAMPLE VOLUME / WEIGHT:	DEFAULT: 20.00 g / ACTUAL: 20.10 g
MS/MSD BATCH:	170307S08	FINAL VOLUME / WEIGHT:	DEFAULT: 10.00 ml / ACTUAL: 10.00 ml
UNITS:	ug/kg	ADJUSTMENT RATIO TO PF:	1.00

COMMENT:

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/170308.b/b17030813.d Page 1
Report Date: 08-Mar-2017 15:03

Eurofins Calscience

EPA8082/A PCB analysis

Data file : /chem1/SVOA/GC_31.i/170308.b/b17030813.d
Lab Smp Id:
Inj Date : 08-MAR-2017 13:27
Operator : 944 Inst ID: GC_31.i
Smp Info : 17-03-0445-8
Misc Info :
Comment : Rtx-CLPesticide II
Method : /chem1/SVOA/GC_31.i/170308.b/b8082-n2.m
Meth Date : 08-Mar-2017 14:42 src3 Quant Type: ESTD
Cal Date : 04-MAR-2017 13:13 Cal File: b17030410.d
Als bottle: 13
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)	CONCENTRATIONS FINAL (uG)
$	1 2,4,5,6-Tetrachloro-m-xylene	5.026	5.022	0.004	8046768951	66.6680	66.7
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.					

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Data File: /chem1/SVOA/GC_31.i/170308.b/b17030813.d Page 2
Report Date: 08-Mar-2017 15:03

	Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ppb)	CONCENTRATIONS 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 Arcolor 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 Arcolor 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	11.680	11.681	-0.001	11474400440	81.3363	81.3

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Data File: /chem1/SVOA/GC_31.i/170308.b/b17030813.d

Page 1

Date : 08-MAR-2017 13:27

Client ID:

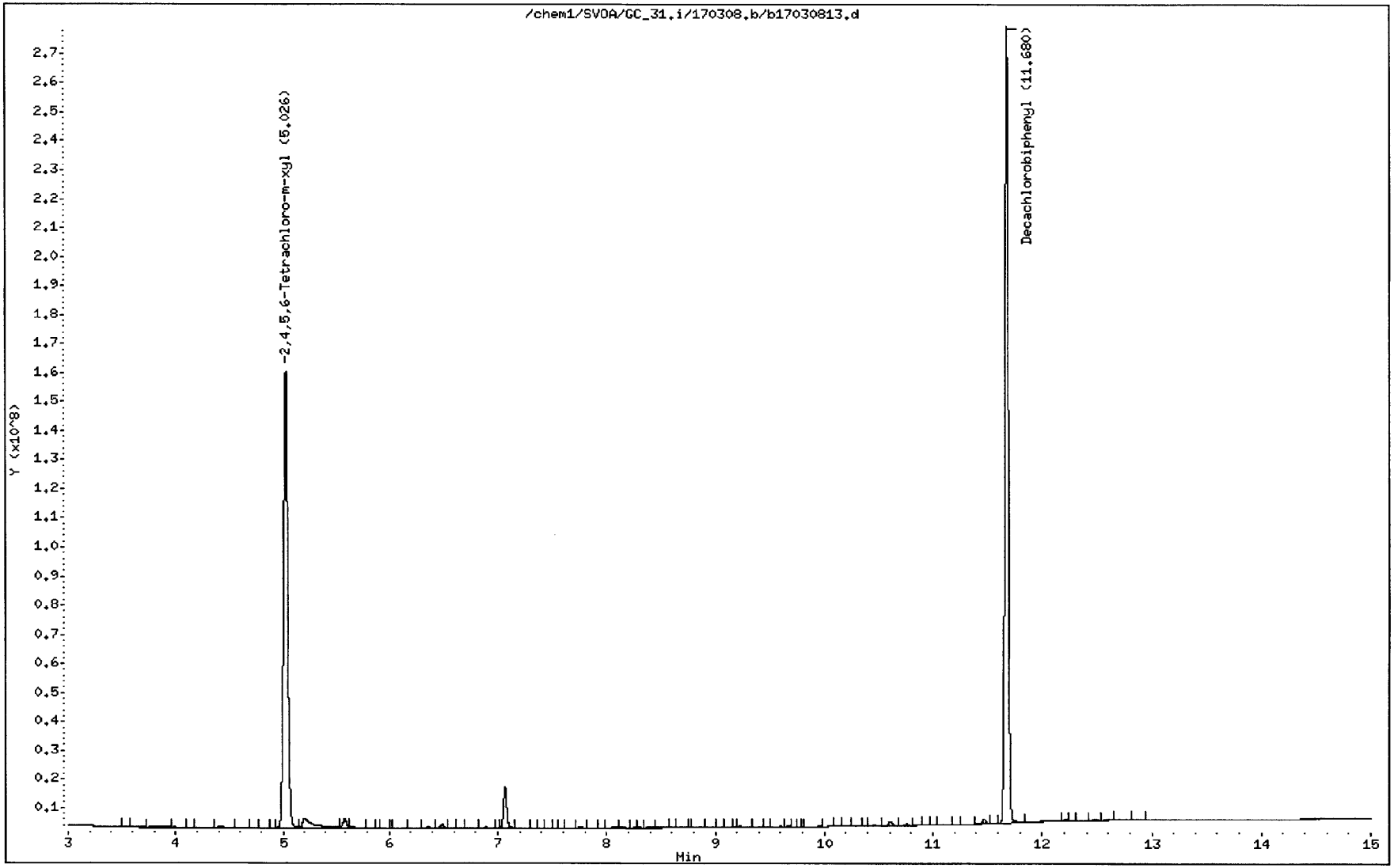
Instrument: GC_31.i

Sample Info: 17-03-0445-8

Operator: 944

Column phase:

Column diameter: 2.00



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EPA METHOD 8082
PCB

Quality Control

Method Blank
LCS/LCSD
MS/MSD

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METHOD BLANK ASSOCIATION SUMMARY
FOR METHOD: EPA 8082

MB SAMPLE ID:	**099-12-535-4078**	ANALYZED BY:	944
MB BATCH ID:	170307L08	D/T ANALYZED:	2017-03-08 10:00
INSTRUMENT:	GC 31	REVIEWED BY:	
EXTRACTION:	EPA 3545	D/T REVIEWED:	
D/T EXTRACTED:	2017-03-07 00:00	MATRIX:	Soil

DATA FILE: /chem1/SVOA/GC_31/170308/b1703080217030802

CLIENT WORK ORDER: 17-03-0445

S#	RUN TYPE	CLIENT SAMPLE ID	D/T ANALYZED	DATA FILE
3		B-DU3-S-SG-09-15S	2017-03-08 12:30	/chem1/SVOA/GC_31/170308/b1703081017030810
4		B-DU3-S-SG-09-25S	2017-03-08 12:49	/chem1/SVOA/GC_31/170308/b1703081117030811
7		B-DU3-S-SG-10-15S	2017-03-08 13:08	/chem1/SVOA/GC_31/170308/b1703081217030812
8		B-DU3-S-SG-10-25S	2017-03-08 13:27	/chem1/SVOA/GC_31/170308/b1703081317030813

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RAW DATA SHEET
FOR METHOD: EPA 8082

WORK ORDER:	**099-12-535**	ANALYZED BY:	944
INSTRUMENT:	GC 31	D/T ANALYZED:	2017-03-08 10:00
EXTRACTION :	EPA 3545	REVIEWED BY:	
D/T EXTRACTED:	2017-03-07 00:00	D/T REVIEWED:	

DATA FILE: /chem1/SVOA/GC_31/170308/b1703080217030802

 # MB **CLIENT SAMPLE NUMBER: Method Blank**

LCS/MB BATCH:	170307L08	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:

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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LCS QUALITY CONTROL SHEET
FOR METHOD: EPA 8082

LCS SAMPLE ID:	**099-12-535- 4078**	EXTRACTION :	EPA 3545	ANALYZED BY:	944
LCS/MB BATCH ID:	170307L08	D/T EXTRACTED:	2017-03-07 00:00	D/T ANALYZED:	2017-03-08 10:19
INSTRUMENT:	GC 31			REVIEWED BY:	
				D/T REVIEWED:	

DATA FILE: /chem1/SVOA/GC_31/170308/b1703080317030803

COMPOUND NAME	CONC ADDED	CONC REC	%RECOVERY	%REC CONTROL LIMIT	STATUS	QUALIFIERS
Aroclor-1016	100.0	97.00	97	50-135	PASS	
Aroclor-1260	100.0	93.00	93	50-135	PASS	

MATRIX SPIKE / MATRIX SPIKE DUPLICATE QUALITY CONTROL SHEET
FOR METHOD: EPA 8082

SPIKED SAMPLE ID: **17-03-0444-3**
MS/MSD BATCH: 170307S08
INSTRUMENTS:
SAMPLE: GC 31
MS: GC 31
MSD: GC 31

EXTRACTION: EPA 3545
D/T EXTRACTED:
SAMPLE: 2017-03-07 00:00
MS: 2017-03-07 00:00
MSD: 2017-03-07 00:00

ANALYZED BY: 944
D/T ANALYZED:
SAMPLE: 2017-03-08 11:14
MS: 2017-03-08 10:36
MSD: 2017-03-08 10:55
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
Aroclor-1016	ND	200.0	100.0	78.50	78	76.00	76	50-135	3	0-20	PASS	
Aroclor-1260	ND	200.0	100.0	89.00	89	87.50	88	50-135	2	0-20	PASS	

Data Files:

TYPE	DATA FILE	DATA FILE PATH
MS	17030804	/chem1/SVOA/GC_31/170308/b17030804
MSD	17030805	/chem1/SVOA/GC_31/170308/b17030805

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SURROGATE RECOVERIES
FOR METHOD: EPA 8082

WORK ORDER: 17-03-0445
BATCH ID:
LCS/MB: 170307L08
MS: 170307S08
EXTRACTION : EPA 3545

REVIEWED BY:
D/T REVIEWED:

3 CLIENT SAMPLE NUMBER : B-DU3-S-SG-09-15S

INSTRUMENT: GC 31
D/T EXTRACTED: 2017-03-07 00:00
DATA FILE: /chem1/SVOA/GC_31/170308/b1703081017030810

ANALYZED BY: 944
D/T ANALYZED 2017-03-08 12:30

COMMENT:

COMPOUND	% REC	% REC CL	STATUS	QUALIFIERS
Decachlorobiphenyl	84	24-168	PASS	
2,4,5,6-Tetrachloro-m-Xylene	66	25-145	PASS	

4 CLIENT SAMPLE NUMBER : B-DU3-S-SG-09-25S

INSTRUMENT: GC 31
D/T EXTRACTED: 2017-03-07 00:00
DATA FILE: /chem1/SVOA/GC_31/170308/b1703081117030811

ANALYZED BY: 944
D/T ANALYZED 2017-03-08 12:49

COMMENT:

COMPOUND	% REC	% REC CL	STATUS	QUALIFIERS
Decachlorobiphenyl	81	24-168	PASS	
2,4,5,6-Tetrachloro-m-Xylene	66	25-145	PASS	

7 CLIENT SAMPLE NUMBER : B-DU3-S-SG-10-15S

INSTRUMENT: GC 31
D/T EXTRACTED: 2017-03-07 00:00
DATA FILE: /chem1/SVOA/GC_31/170308/b1703081217030812

ANALYZED BY: 944
D/T ANALYZED 2017-03-08 13:08

COMMENT:

COMPOUND	% REC	% REC CL	STATUS	QUALIFIERS
Decachlorobiphenyl	83	24-168	PASS	
2,4,5,6-Tetrachloro-m-Xylene	64	25-145	PASS	

8 CLIENT SAMPLE NUMBER : B-DU3-S-SG-10-25S

INSTRUMENT: GC 31
D/T EXTRACTED: 2017-03-07 00:00
DATA FILE: /chem1/SVOA/GC_31/170308/b1703081317030813

ANALYZED BY: 944
D/T ANALYZED 2017-03-08 13:27

COMMENT:

COMPOUND	% REC	% REC CL	STATUS	QUALIFIERS
Decachlorobiphenyl	81	24-168	PASS	
2,4,5,6-Tetrachloro-m-Xylene	67	25-145	PASS	

SURROGATE RECOVERIES FOR METHOD: EPA 8082

WORK ORDER: 17-03-0445
BATCH ID:
LCS/MB: 170307L08
MS:
EXTRACTION : EPA 3545

REVIEWED BY:
D/T REVIEWED:

MB CLIENT SAMPLE NUMBER : Method Blank

INSTRUMENT: GC 31
D/T EXTRACTED: 2017-03-07 00:00
DATA FILE: /chem1/SVOA/GC_31/170308/b1703080217030802

ANALYZED BY: 944
D/T ANALYZED 2017-03-08 10:00

COMMENT:

COMPOUND	% REC	% REC CL	STATUS	QUALIFIERS
Decachlorobiphenyl	77	24-168	PASS	
2,4,5,6-Tetrachloro-m-Xylene	61	25-145	PASS	

LCS CLIENT SAMPLE NUMBER : Lab Control Sample

INSTRUMENT: GC 31
D/T EXTRACTED: 2017-03-07 00:00
DATA FILE: /chem1/SVOA/GC_31/170308/b1703080317030803

ANALYZED BY: 944
D/T ANALYZED 2017-03-08 10:19

COMMENT:

COMPOUND	% REC	% REC CL	STATUS	QUALIFIERS
Decachlorobiphenyl	80	24-168	PASS	
2,4,5,6-Tetrachloro-m-Xylene	76	25-145	PASS	

MS CLIENT SAMPLE NUMBER : Matrix Spike

INSTRUMENT: GC 31
D/T EXTRACTED: 2017-03-07 00:00
DATA FILE: /chem1/SVOA/GC_31/170308/b1703080417030804

ANALYZED BY: 944
D/T ANALYZED 2017-03-08 10:36

COMMENT:

COMPOUND	% REC	% REC CL	STATUS	QUALIFIERS
Decachlorobiphenyl	76	24-168	PASS	
2,4,5,6-Tetrachloro-m-Xylene	57	25-145	PASS	

MSD CLIENT SAMPLE NUMBER : Matrix Spike Duplicate

INSTRUMENT: GC 31
D/T EXTRACTED: 2017-03-07 00:00
DATA FILE: /chem1/SVOA/GC_31/170308/b1703080517030805

ANALYZED BY: 944
D/T ANALYZED 2017-03-08 10:55

COMMENT:

COMPOUND	% REC	% REC CL	STATUS	QUALIFIERS
Decachlorobiphenyl	77	24-168	PASS	
2,4,5,6-Tetrachloro-m-Xylene	54	25-145	PASS	

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Data File: /chem1/SVOA/GC_31.i/170308.b/b17030802.d Page 1
Report Date: 08-Mar-2017 14:44

Eurofins Calscience

EPA8082/A PCB analysis

Data file : /chem1/SVOA/GC_31.i/170308.b/b17030802.d
Lab Smp Id:
Inj Date : 08-MAR-2017 10:00
Operator : 944 Inst ID: GC_31.i
Smp Info : MB 170307L08
Misc Info :
Comment : Rtx-CLPesticide II
Method : /chem1/SVOA/GC_31.i/170308.b/b8082-n2.m
Meth Date : 08-Mar-2017 14:42 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

			CONCENTRATIONS	
			ON-COLUMN	FINAL
Compounds	RT	EXP RT DLT RT RESPONSE	(ppb)	(uG)
$ 1 2,4,5,6-Tetrachloro-m-xylene	5.024	5.022 0.002 7372235536	61.0795	61.1
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.			

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Data File: /chem1/SVOA/GC_31.i/170308.b/b17030802.d Page 2
Report Date: 08-Mar-2017 14:44

	Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ppb)	CONCENTRATIONS 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 Arcolor 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 Arcolor 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	11.680	11.681	-0.001	10873788335	77.0789	77.1

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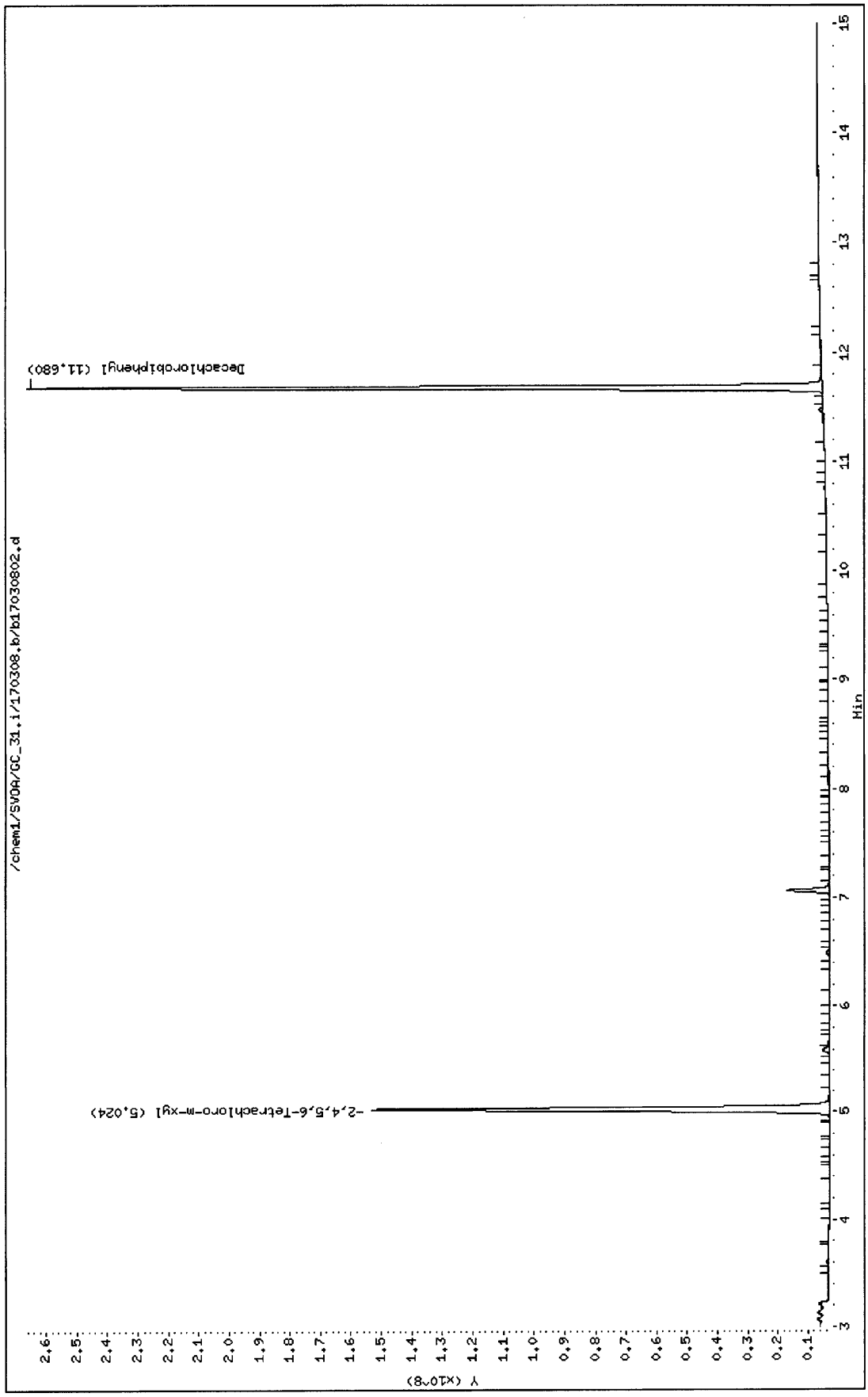
Data File: /chem1/SVOA/GC_31.i/170308.b/b17030802.d
Date : 08-MAR-2017 10:00
Client ID:
Sample Info: MB 170307L08

Column phase:

Instrument: GC_31.i

Operator: 944
Column diameter: 2.00



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Data File: /chem1/SVOA/GC_31.i/170308.b/b17030803.d Page 1
Report Date: 08-Mar-2017 14:44

Eurofins Calscience

EPA8082/A PCB analysis

Data file : /chem1/SVOA/GC_31.i/170308.b/b17030803.d
Lab Smp Id:
Inj Date : 08-MAR-2017 10:19
Operator : 944 Inst ID: GC_31.i
Smp Info : LCS 170307L08
Misc Info :
Comment : Rtx-CLPesticide II
Method : /chem1/SVOA/GC_31.i/170308.b/b8082-n2.m
Meth Date : 08-Mar-2017 14:42 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)	CONCENTRATIONS FINAL (uG)
$	1 2,4,5,6-Tetrachloro-m-xylene	5.025	5.022	0.003	9145373996	75.7700	75.8
M	2 Aroclor-1016				3403269429	193.623	194
	3 Aroclor 1016 (1)	5.552	5.548	0.004	445308572	255.184	255
	4 Aroclor 1016 (2)	6.037	6.035	0.002	607410348	189.778	190
	5 Aroclor 1016 (3)	6.644	6.641	0.003	1379655017	185.167	185
	6 Aroclor 1016 (4)	6.813	6.810	0.003	602569371	188.741	189
	7 Aroclor 1016 (5)	6.892	6.889	0.003	368326119	185.311	185
M	8 Aroclor-1260				4802318207	186.428	186
	9 Aroclor 1260 (1)	9.070	9.067	0.003	1673410850	197.092	197
	10 Aroclor 1260 (2)	9.516	9.513	0.003	1163932784	181.144	181
	11 Aroclor 1260 (3)	9.797	9.794	0.003	979486749	181.304	181
	12 Aroclor 1260 (4)	10.870	10.867	0.003	321104522	176.948	177
	13 Aroclor 1260 (5)	11.154	11.151	0.003	664383300	183.201	183
$	56 Decachlorobiphenyl	11.681	11.681	0.000	11211104802	79.4700	79.5

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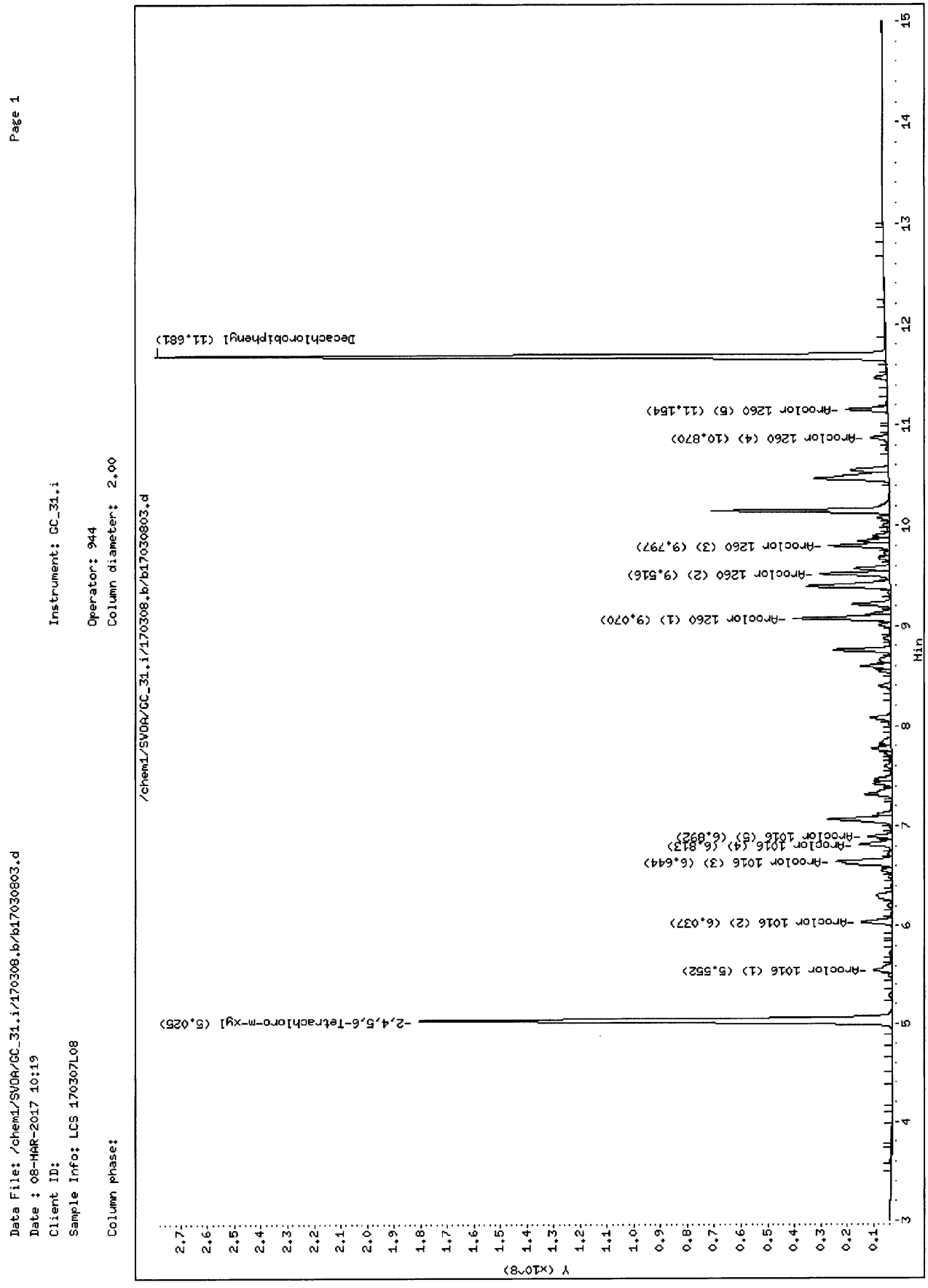

Data File: /chem1/SVOA/GC_31.i/170308.b/b17030804.d Page 1
Report Date: 08-Mar-2017 14:44

Eurofins Calscience

EPA8082/A PCB analysis

Data file : /chem1/SVOA/GC_31.i/170308.b/b17030804.d
Lab Smp Id:
Inj Date : 08-MAR-2017 10:36
Operator : 944 Inst ID: GC_31.i
Smp Info : MS 17-03-0444-3
Misc Info :
Comment : Rtx-CLPesticide II
Method : /chem1/SVOA/GC_31.i/170308.b/b8082-n2.m
Meth Date : 08-Mar-2017 14:42 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 * *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)	CONCENTRATIONS FINAL (uG)
$	1 2,4,5,6-Tetrachloro-m-xylene	5.045	5.022	0.023	6857000000	56.8107	56.8(R)
M	2 Aroclor-1016				2757100287	156.861	157
	3 Aroclor 1016 (1)	5.568	5.548	0.020	363381923	208.236	208
	4 Aroclor 1016 (2)	6.049	6.035	0.014	480772362	150.211	150
	5 Aroclor 1016 (3)	6.654	6.641	0.013	1114716272	149.609	150
	6 Aroclor 1016 (4)	6.822	6.810	0.012	489110430	153.203	153
	7 Aroclor 1016 (5)	6.901	6.889	0.012	309119298	155.523	156
M	8 Aroclor-1260				4580450081	177.815	178
	9 Aroclor 1260 (1)	9.073	9.067	0.006	1566423936	184.492	184
	10 Aroclor 1260 (2)	9.519	9.513	0.006	1105029243	171.977	172
	11 Aroclor 1260 (3)	9.800	9.794	0.006	945275437	174.971	175
	12 Aroclor 1260 (4)	10.871	10.867	0.004	318881412	175.723	176
	13 Aroclor 1260 (5)	11.157	11.151	0.006	644840050	177.812	178
$	56 Decachlorobiphenyl	11.683	11.681	0.002	10677147405	75.6850	75.7

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QC Flag Legend

R - Spike/Surrogate failed recovery limits.

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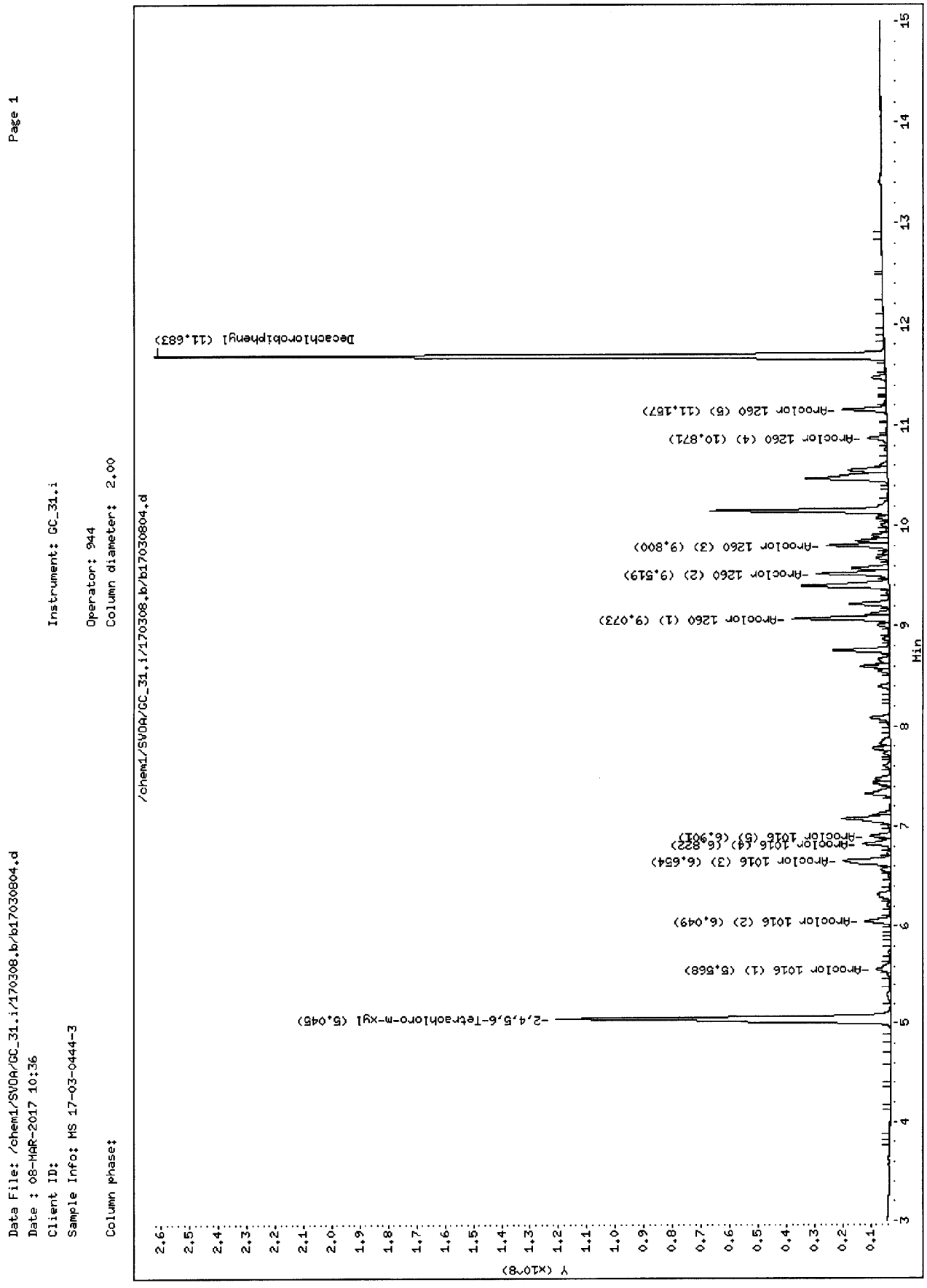

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Data File: /chem1/SVOA/GC_31.i/170308.b/b17030805.d Page 1
Report Date: 08-Mar-2017 14:44

Eurofins Calscience

EPA8082/A PCB analysis

Data file : /chem1/SVOA/GC_31.i/170308.b/b17030805.d
Lab Smp Id:
Inj Date : 08-MAR-2017 10:55
Operator : 944 Inst ID: GC_31.i
Smp Info : MSD 17-03-0444-3
Misc Info :
Comment : Rtx-CLPesticide II
Method : /chem1/SVOA/GC_31.i/170308.b/b8082-n2.m
Meth Date : 08-Mar-2017 14:42 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 * *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)	CONCENTRATIONS FINAL (uG)
$	1	2,4,5,6-Tetrachloro-m-xylene	5.027	5.022	0.005	6531921930	54.1174	54.1(R)
M	2	Aroclor-1016				2666259981	151.692	152
	3	Aroclor 1016 (1)	5.554	5.548	0.006	383197963	219.591	220
	4	Aroclor 1016 (2)	6.039	6.035	0.004	454349085	141.956	142
	5	Aroclor 1016 (3)	6.646	6.641	0.005	1069508925	143.541	144
	6	Aroclor 1016 (4)	6.815	6.810	0.005	458630313	143.655	144
	7	Aroclor 1016 (5)	6.894	6.889	0.005	300573693	151.224	151
M	8	Aroclor-1260				4512047845	175.160	175
	9	Aroclor 1260 (1)	9.070	9.067	0.003	1528411591	180.015	180
	10	Aroclor 1260 (2)	9.517	9.513	0.004	1085001336	168.860	169
	11	Aroclor 1260 (3)	9.797	9.794	0.003	927364189	171.656	172
	12	Aroclor 1260 (4)	10.869	10.867	0.002	319357257	175.985	176
	13	Aroclor 1260 (5)	11.155	11.151	0.004	651913470	179.763	180
$	56	Decachlorobiphenyl	11.682	11.681	0.001	10924235811	77.4365	77.4

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QC Flag Legend

R - Spike/Surrogate failed recovery limits.

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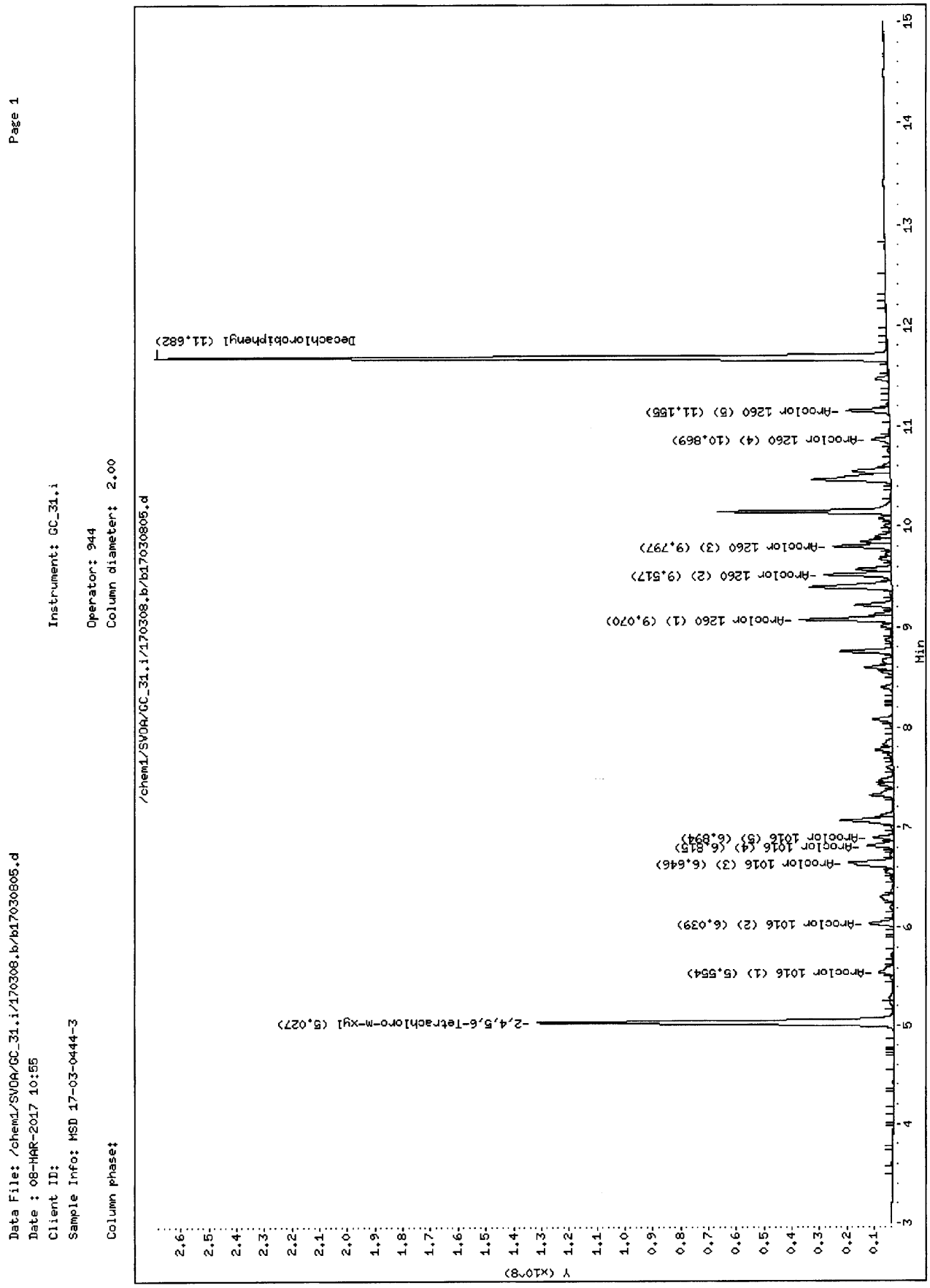

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Data File: /chem1/SVOA/GC_31.i/170308.b/b17030806.d Page 1
Report Date: 08-Mar-2017 15:02

Eurofins Calscience

EPA8082/A PCB analysis

Data file : /chem1/SVOA/GC_31.i/170308.b/b17030806.d
Lab Smp Id:
Inj Date : 08-MAR-2017 11:14
Operator : 944 Inst ID: GC_31.i
Smp Info : 17-03-0444-3
Misc Info :
Comment : Rtx-CLPesticide II
Method : /chem1/SVOA/GC_31.i/170308.b/b8082-n2.m
Meth Date : 08-Mar-2017 14:42 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)	CONCENTRATIONS FINAL (uG)
$	1 2,4,5,6-Tetrachloro-m-xylene	5.028	5.022	0.006	7748667956	64.1982	64.2
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.					

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Data File: /chem1/SVOA/GC_31.i/170308.b/b17030806.d Page 2
Report Date: 08-Mar-2017 15:02

						CONCENTRATIONS	
						ON-COLUMN	FINAL
	Compounds	RT	EXP RT	DLT RT	RESPONSE	(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 Arcolor 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 Arcolor 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	11.681	0.002	11303417104	80.1243	80.1

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Data File: /chem1/SVOA/GC_31.i/170308.b/b17030806.d

Page 1

Date : 08-MAR-2017 11:14

Client ID:

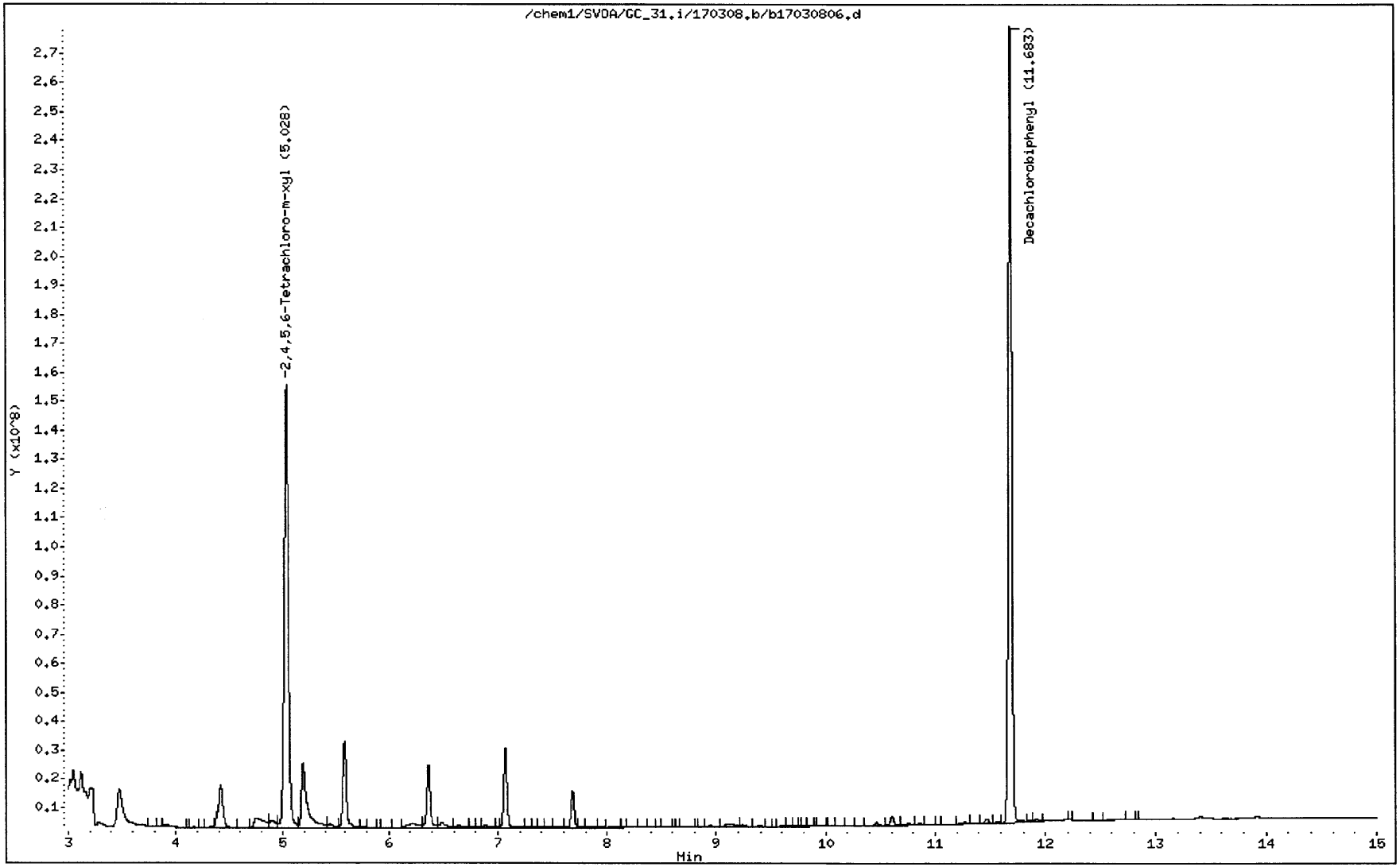
Instrument: GC_31.i

Sample Info: 17-03-0444-3

Operator: 944

Column phase:

Column diameter: 2.00



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EPA METHOD 8082
PCB

Continuing Calibration

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CCV ASSOCIATION SUMMARY
FOR METHOD: EPA 8082

BATCH ID: **170308A016** ANALYZED BY: 944
INSTRUMENT: GC 31

WORK ORDER: **099-12-532** REVIEWED BY:
MATRIX: Water D/T REVIEWED:

CEL SAMPLE #	CLIENT SAMPLE ID	D/T ANALYZED	DATA FILE
9400	Daily Calibration	2017-03-08 09:41	/chem1/SVOA/GC_31/170308/b1703080117030801

WORK ORDER: **17-03-0445** REVIEWED BY:
MATRIX: Soil D/T REVIEWED:

CEL SAMPLE #	CLIENT SAMPLE ID	D/T ANALYZED	DATA FILE
3	B-DU3-S-SG-09-15S	2017-03-08 12:30	/chem1/SVOA/GC_31/170308/b1703081017030810
4	B-DU3-S-SG-09-25S	2017-03-08 12:49	/chem1/SVOA/GC_31/170308/b1703081117030811
7	B-DU3-S-SG-10-15S	2017-03-08 13:08	/chem1/SVOA/GC_31/170308/b1703081217030812
8	B-DU3-S-SG-10-25S	2017-03-08 13:27	/chem1/SVOA/GC_31/170308/b1703081317030813

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CONTINUING CALIBRATION VERIFICATION QUALITY CONTROL SHEET
FOR METHOD: EPA 8082

CCV WORK ORDER: **099-12-532-9400-5154**
BATCH ID:
INITIAL: 170304I001
CCV: 170308A016
INSTRUMENT: GC 31

DATA FILE: /chem1/SVOA/GC_31/170308/b1703080117030801

ANALYZED BY: 944
D/T ANALYZED:
INITIAL: 2017-03-04 10:22
CCV: 2017-03-08 09:41
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
Aroclor-1016	C	Avg Resp	0.00	17576749.207	17210042.558			2	0-15	PASS
Aroclor-1260	C	Avg Resp	0.00	25759605.728	25773220.114			0	0-15	PASS

MIN RF: Method Specified Minimum Response Factor

Data File: /chem1/SVOA/GC_31.i/170308.b/b17030801.d
Report Date: 03/08/2017 14:45

Eurofins CalScience
Calibration Verification Report

Instrument ID: GC_31.i
Sample Name: PCB CCV P021517I
Sublist used: p1016_1260.sub
Method used: /chem1/SVOA/GC_31.i/170308.b/b8082-n2.m

Injection Date and Time: 08-MAR-2017 09:41
Initial Calibration Date(s): 20-FEB-2017 04-MAR-2017
Initial Calibration Time(s): 15:04 13:13

Target Compounds	ICAL RRF or Amount	ICV RRF	Min. RRF	%D / %Drift	Max%D /Drift	Curve Type
Aroclor-1016	17576749.207	17210042.558	0.01	2	15	Averaged
Aroclor 1016 (1)	1745051.275	1701041.096	0.01	3	15	Averaged
Aroclor 1016 (2)	3200644.184	3119818.516	0.01	3	15	Averaged
Aroclor 1016 (3)	7450869.197	7323348.992	0.01	2	15	Averaged
Aroclor 1016 (4)	3192573.193	3119545.986	0.01	2	15	Averaged
Aroclor 1016 (5)	1987611.359	1946287.964	0.01	2	15	Averaged
Aroclor 1260 (4)	1814685.680	1780548.630	0.01	2	15	Averaged
Aroclor-1260	25759605.727	25773220.113	0.01	0	15	Averaged
Aroclor 1260 (5)	3626519.827	3606595.922	0.01	1	15	Averaged
Aroclor 1260 (1)	8490491.306	8537830.806	0.01	-1	15	Averaged
Aroclor 1260 (2)	6425445.977	6446934.675	0.01	0	15	Averaged
Aroclor 1260 (3)	5402462.938	5401310.080	0.01	0	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	119152187.157	0.01	1	15	Averaged
Decachlorobiphenyl	141073480.845	139252754.002	0.01	1	15	Averaged

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Eurofins Calscience

EPA8082/A PCB analysis

Data file : /chem1/SVOA/GC_31.i/170308.b/b17030801.d
Lab Smp Id:
Inj Date : 08-MAR-2017 09:41
Operator : 944 Inst ID: GC_31.i
Smp Info : PCB CCV P021517I
Misc Info :
Comment : Rtx-CLPesticide II
Method : /chem1/SVOA/GC_31.i/170308.b/b8082-n2.m
Meth Date : 08-Mar-2017 14:42 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)	AMOUNTS ON-COL (ppb)
$	1 2,4,5,6-Tetrachloro-m-xylene	5.022	5.022	0.000	11915218716	100.000	98.7
M	2 Aroclor-1016				8605021279	500.000	490
	3 Aroclor 1016 (1)	5.548	5.548	0.000	850520548	500.000	487
	4 Aroclor 1016 (2)	6.035	6.035	0.000	1559909258	500.000	487
	5 Aroclor 1016 (3)	6.641	6.641	0.000	3661674496	500.000	491
	6 Aroclor 1016 (4)	6.810	6.810	0.000	1559772993	500.000	488
	7 Aroclor 1016 (5)	6.889	6.889	0.000	973143982	500.000	490
M	8 Aroclor-1260				12886610057	500.000	500
	9 Aroclor 1260 (1)	9.067	9.067	0.000	4268915403	500.000	503
	10 Aroclor 1260 (2)	9.513	9.513	0.000	3223467337	500.000	502
	11 Aroclor 1260 (3)	9.794	9.794	0.000	2700655040	500.000	500
	12 Aroclor 1260 (4)	10.867	10.867	0.000	890274315	500.000	490
	13 Aroclor 1260 (5)	11.151	11.151	0.000	1803297961	500.000	497
$	56 Decachlorobiphenyl	11.681	11.681	0.000	13925275400	100.000	98.7

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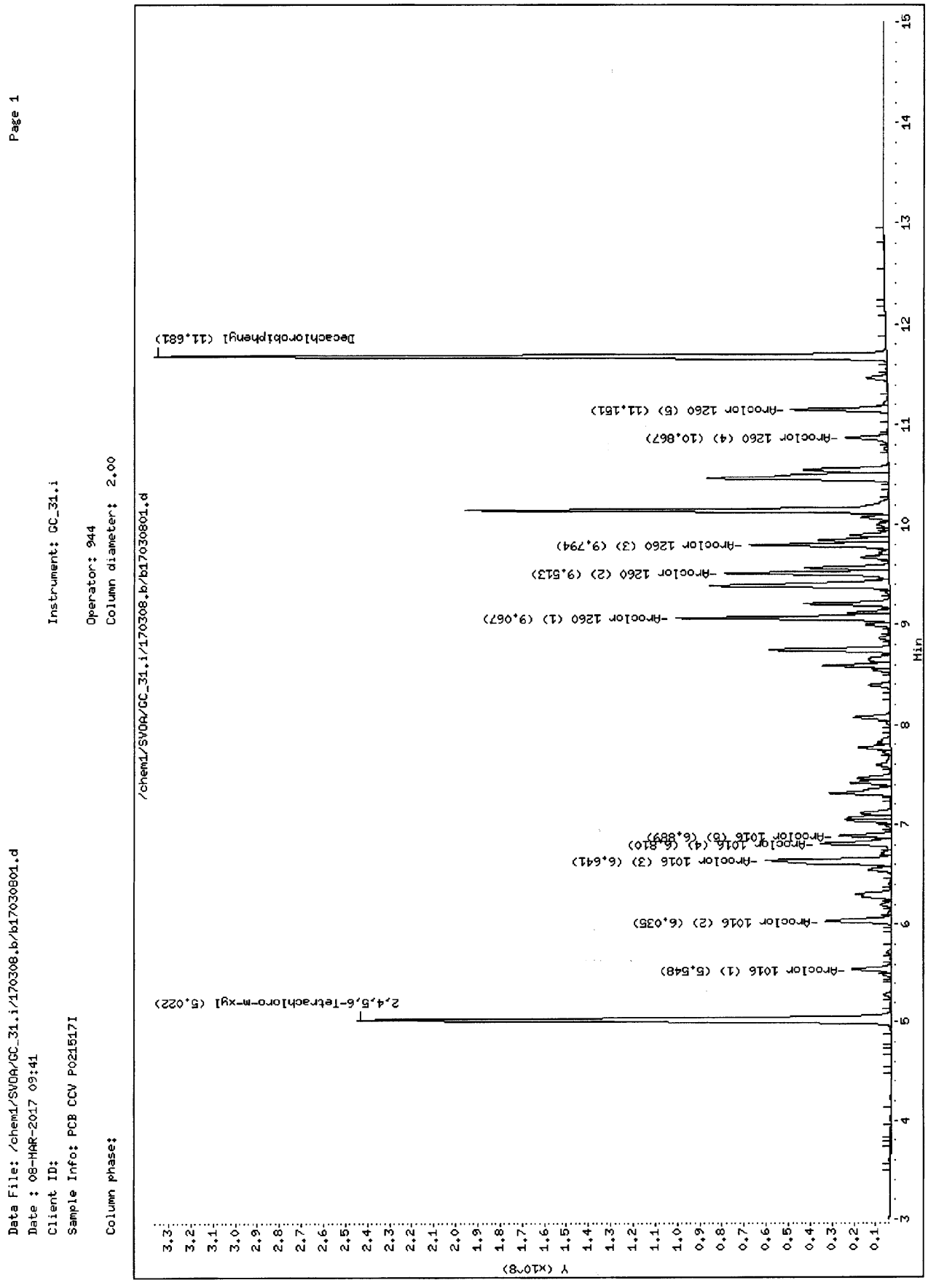

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CONTINUING CALIBRATION VERIFICATION QUALITY CONTROL SHEET
FOR METHOD: EPA 8082

CCV WORK ORDER: **099-12-532-9401-5154**
BATCH ID:
INITIAL: 170304I001
CCV: 170308A017
INSTRUMENT: GC 31

DATA FILE: /chem1/SVOA/GC_31/170308/b1703081917030819

ANALYZED BY: 944
D/T ANALYZED:
INITIAL: 2017-03-04 10:22
CCV: 2017-03-08 15:21
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
Aroclor-1016	C	Avg Resp	0.00	17576749.207	16008392.542			9	0-15	PASS
Aroclor-1260	C	Avg Resp	0.00	25759605.728	22221590.838			14	0-15	PASS

MIN RF: Method Specified Minimum Response Factor

Data File: /chem1/SVOA/GC_31.i/170308.b/b17030819.d
Report Date: 03/08/2017 15:50

Eurofins CalScience
Calibration Verification Report

Instrument ID: GC_31.i
Sample Name: PCB CCV P021517I
Sublist used: p1016_1260.sub
Method used: /chem1/SVOA/GC_31.i/170308.b/b8082-n2.m

Injection Date and Time: 08-MAR-2017 15:21
Initial Calibration Date(s): 20-FEB-2017 04-MAR-2017
Initial Calibration Time(s): 15:04 13:13

Target Compounds	ICAL RRF or Amount	ICV RRF	Min. RRF	%D / %Drift	Max%D /Drift	Curve Type
Aroclor-1016	17576749.207	16008392.541	0.01	9	15	Averaged
Aroclor 1016 (1)	1745051.275	1603961.950	0.01	8	15	Averaged
Aroclor 1016 (2)	3200644.184	2955930.942	0.01	8	15	Averaged
Aroclor 1016 (3)	7450869.197	6804235.641	0.01	9	15	Averaged
Aroclor 1016 (4)	3192573.193	2867728.882	0.01	10	15	Averaged
Aroclor 1016 (5)	1987611.359	1776535.126	0.01	11	15	Averaged
Aroclor 1260 (4)	1814685.680	1555934.850	0.01	14	15	Averaged
Aroclor-1260	25759605.727	22221590.839	0.01	14	15	Averaged
Aroclor 1260 (5)	3626519.827	3258783.230	0.01	10	15	Averaged
Aroclor 1260 (1)	8490491.306	7325750.728	0.01	14	15	Averaged
Aroclor 1260 (2)	6425445.977	5498880.282	0.01	14	15	Averaged
Aroclor 1260 (3)	5402462.938	4582241.749	0.01	15	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	115101879.436	0.01	5	15	Averaged
Decachlorobiphenyl	141073480.845	131190043.431	0.01	7	15	Averaged

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Data File: /chem1/SVOA/GC_31.i/170308.b/b17030819.d Page 1
Report Date: 08-Mar-2017 15:50

Eurofins Calscience

EPA8082/A PCB analysis

Data file : /chem1/SVOA/GC_31.i/170308.b/b17030819.d
Lab Smp Id:
Inj Date : 08-MAR-2017 15:21
Operator : 944 Inst ID: GC_31.i
Smp Info : PCB CCV P021517I
Misc Info :
Comment : Rtx-CLPesticide II
Method : /chem1/SVOA/GC_31.i/170308.b/b8082-n2.m
Meth Date : 08-Mar-2017 15:50 src3 Quant Type: ESTD
Cal Date : 04-MAR-2017 13:13 Cal File: b17030410.d
Als bottle: 19 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)	AMOUNTS ON-COL (ppb)
$	1	2,4,5,6-Tetrachloro-m-xylene	5.028	5.028	0.000	11510187944	100.000	95.4
M	2	Aroclor-1016				8004196271	500.000	455
	3	Aroclor 1016 (1)	5.554	5.554	0.000	801980975	500.000	460
	4	Aroclor 1016 (2)	6.039	6.039	0.000	1477965471	500.000	462
	5	Aroclor 1016 (3)	6.646	6.646	0.000	3402117821	500.000	457
	6	Aroclor 1016 (4)	6.815	6.815	0.000	1433864441	500.000	449
	7	Aroclor 1016 (5)	6.893	6.893	0.000	888267563	500.000	447
M	8	Aroclor-1260				11110795419	500.000	431
	9	Aroclor 1260 (1)	9.070	9.070	0.000	3662875364	500.000	431
	10	Aroclor 1260 (2)	9.516	9.516	0.000	2749440141	500.000	428
	11	Aroclor 1260 (3)	9.797	9.797	0.000	2291120874	500.000	424
	12	Aroclor 1260 (4)	10.870	10.870	0.000	777967425	500.000	429
	13	Aroclor 1260 (5)	11.154	11.154	0.000	1629391615	500.000	449
$	56	Decachlorobiphenyl	11.682	11.682	0.000	13119004343	100.000	93.0

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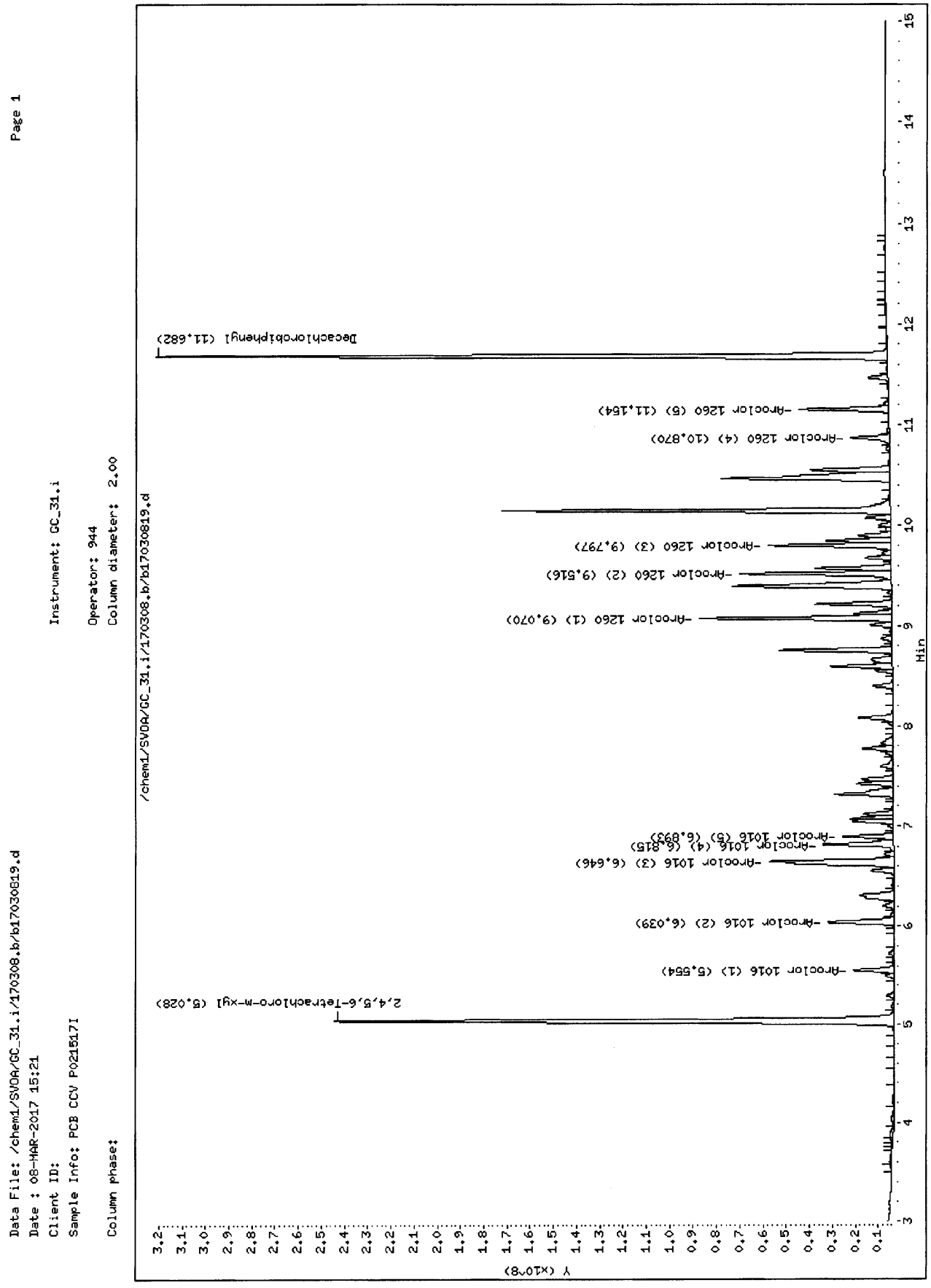

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EPA METHOD 8082
PCB

Run Logs

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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	A025	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!

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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		17030800
2	Vial 1	PCB CCV P021517I	8082-N2	1	Sample	A016	17030801
3	Vial 2	MB 170307L08	8082-N2	1	Sample		17030802
4	Vial 3	LCS 170307L08	8082-N2	1	Sample		17030803
5	Vial 4	MS 17-03-0444-3	8082-N2	1	Sample		17030804
6	Vial 5	MSD 17-03-0444-3	8082-N2	1	Sample		17030805
7	Vial 6	17-03-0444-3	8082-N2	1	Sample		17030806
8	Vial 7	17-03-0444-4	8082-N2	1	Sample		17030807
9	Vial 8	17-03-0444-7	8082-N2	1	Sample		17030808
10	Vial 9	17-03-0444-8	8082-N2	1	Sample		17030809
11	Vial 10	17-03-0445-3	8082-N2	1	Sample		17030810
12	Vial 11	17-03-0445-4	8082-N2	1	Sample		17030811
13	Vial 12	17-03-0445-7	8082-N2	1	Sample		17030812
14	Vial 13	17-03-0445-8	8082-N2	1	Sample		17030813
15	Vial 14	17-03-0433-1	8082-N2	1	Sample		17030814
16	Vial 15	17-03-0433-2	8082-N2	1	Sample		17030815
17	Vial 16	17-03-0131-7	8082-N2	1	Sample		17030816
18	Vial 17	17-03-0131-8	8082-N2	1	Sample		17030817
19	Vial 18	17-03-0131-9	8082-N2	1	Sample		17030818
20	Vial 19	PCB CCV P021517I	8082-N2	1	Sample	A017	17030819

Sequence Table (Back Injector):

No entries - empty table!

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EPA METHOD 8082
PCB

Preparation Logs

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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- 610 Start Extraction- 610 787 Blow Down- 1100 1084 Clean Up- 1100 1084

Matrix: ☑ Soil ☐ Aqueous ☐ Oil ☐ Wipe ☐ Filter ☐ Tissue ☐ Air

Balance ID#: 20 Filter ID#: 507-17-17 ASE ID#: 9 Soxtherm ID#: Orbit Shaker ID#: Sonicator ID#:

Ext. Start Date/Time: 03/07/17 9:00 Ext. End Date/Time: 03/07/17 13:00

Sand or Wipe ID#: 507-19-19

Drying Agent: ☑ Na_2SO_4 ☑ Diatomaceous Earth

Drying Agent(s) ID#: 507-44-18 / 507-22-03

Surrogate Std ID# & Volume Added (mL): S101316A 0.5

Spike Std ID# & Volume Added (mL): S02-0317-A 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#: 507-44-07 / 507-44-08 Exchange Solvent (☑ Hexane ☐ Acetonitrile) ID#: 507-44-07

Clean Up Start Date & Time: ~~3/3/17 1084~~ 3/7/17 19:00 Clean Up End Date & Time: 3/7/17 20:00

Clean Up: ☐ 3620 Florisil ☐ 3630 SGC ☐ 3660 Sulfur ☑ 3665 Acid ☐ Other Cartridge ID#:

Clean Up Reagent ID#: 507-52-12 Cartridge Conditioning Column Pre-Elution Reagent ID#:

MB/LCS/MS Batch #: 17030720B

Cel ID#:	Sample W (g) / V (mL) Initial	Final	Clean Up Performed	Comments
MB	20.0	10	☑	
LCS	20.0	10	☑	
LCSD NA	—	—	☐	
MS 17-03-0444-3A	20.0	10	☑	
MSD -3A	20.0	10	☑	
-3A	20.0	10	☑	
-4A	20.1	10	☑	
-7A	20.0	10	☑	
-8A	20.2	10	☑	
17-03-0445-3A	20.1	10	☑	
-4A	20.1	10	☑	
-7A	20.0	10	☑	
-8A	20.1	10	☑	
17-03-0433-1	20.0	10	☐	
" " 2	20.2	10	☐	
17-03-0131-7	20.0	10	☐	
" " 8	20.0	10	☐	
" " 9	20.0	10	☐	
			☐	
			☐	
			☐	
			☐	
			☐	
			☐	
			☐	

Peer Reviewed by: JS Peer Reviewed Date: 3-7-17 Revision Date: 10/20/16

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EPA METHOD 8270C
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EPA METHOD 8270C
PAHSIM

Initial Calibration

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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	%R SD CL	R or R^2	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)

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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.rr
2	2017-02-27 13:33	Z:\GCMS_EEE\GCMS_EEE_data\2017\170227\27feb010.d\27feb010.rr
3	2017-02-27 13:12	Z:\GCMS_EEE\GCMS_EEE_data\2017\170227\27feb009.d\27feb009.rr
4	2017-02-27 12:52	Z:\GCMS_EEE\GCMS_EEE_data\2017\170227\27feb008.d\27feb008.rr
5	2017-02-27 12:32	Z:\GCMS_EEE\GCMS_EEE_data\2017\170227\27feb007.d\27feb007.rr

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: 170227I004
INSTRUMENT: GC/MS EEE

DATA FILE: Z:\GCMS_EEE\GCMS_EEE_data\2017\170227\27feb012.d\27feb012.rr

ANALYZED BY: 907
D/T ANALYZED:
INITIAL: 2017-02-27 13:53
ICV: 2017-02-27 14:13
REVIEWED BY: 262
D/T REVIEWED: 2017-02-28 12:33

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 Level 1	0.50000 Level 2	1.000 Level 3	2.000 Level 4	5.000 Level 5	___ RRF	% RSD
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

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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

Compound	0.10000 Level 1	0.50000 Level 2	1.000 Level 3	2.000 Level 4	5.000 Level 5	RRF	% RSD
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 Dibenz (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

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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
Maximun Average %RSD = 15.00000
* Passed Average %RSD Test.

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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
Sample Name: ICV S010317I 1PPM
Sublist used: all.sub
Method used: /chem/SVOA/GCMS_EEE.i/170227.b/simpah-extra.m

Injection Date and Time: 27-FEB-2017 14:13
Initial Calibration Date(s): 03-JAN-2017 27-FEB-2017
Initial Calibration Time(s): 11:59 13:53

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
Dibenzothiophene	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

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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)	DEV(Min)
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.

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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

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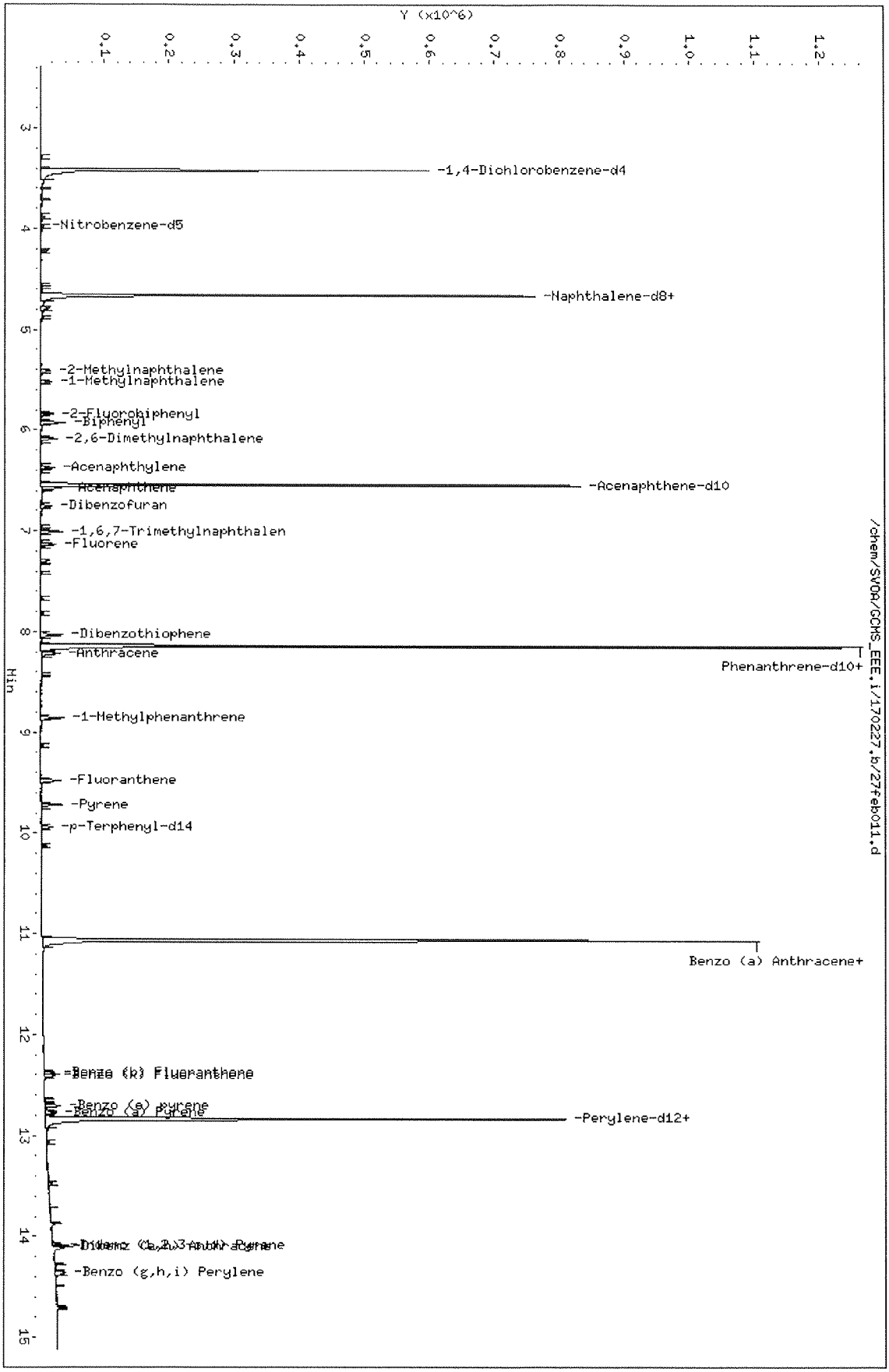

Data File: /chem/SVOA/GCMS_EEE.i/170227.b/27feb11.d
Date : 27-FEB-2017 13:53
Client ID:
Sample Info: ICAL-5 S010317H 0.1PPM

Column phase: J&W DB-5MS

Instrument: GCMS_EEE.i
Operator: 907
Column diameter: 0.18

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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)	DEV(Min)
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.

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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

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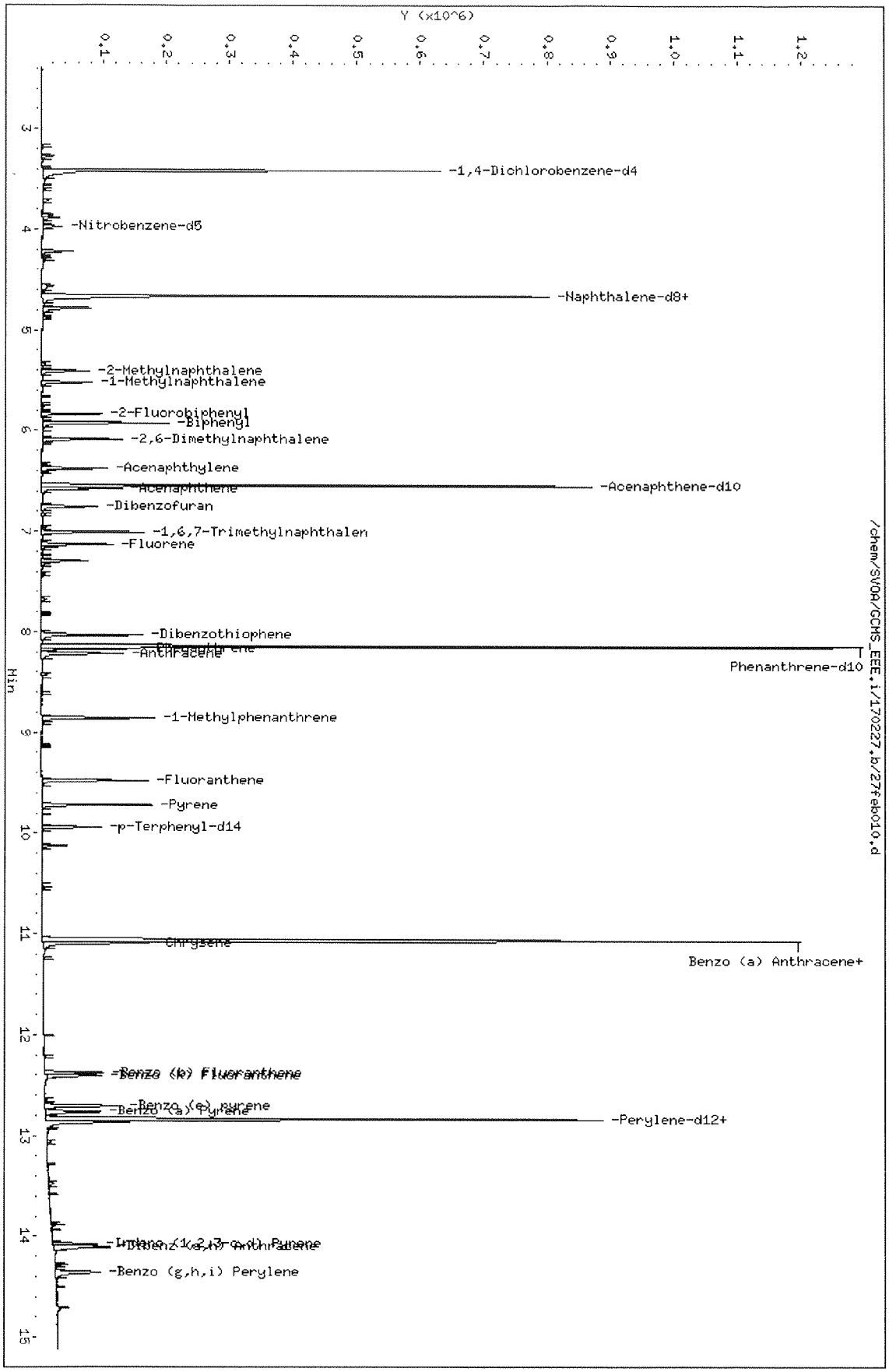

Data File: /chem/SVOA/GCMS_EEE.i/170227.b/27feb010.d
Date : 27-FEB-2017 13:33
Client ID:
Sample Info: ICAL-4 S0103170 0.5PPM

Column phase: J&W DB-5MS

Instrument: GCMS_EEE.i
Operator: 907
Column diameter: 0.18

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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) Dibenz (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.

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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

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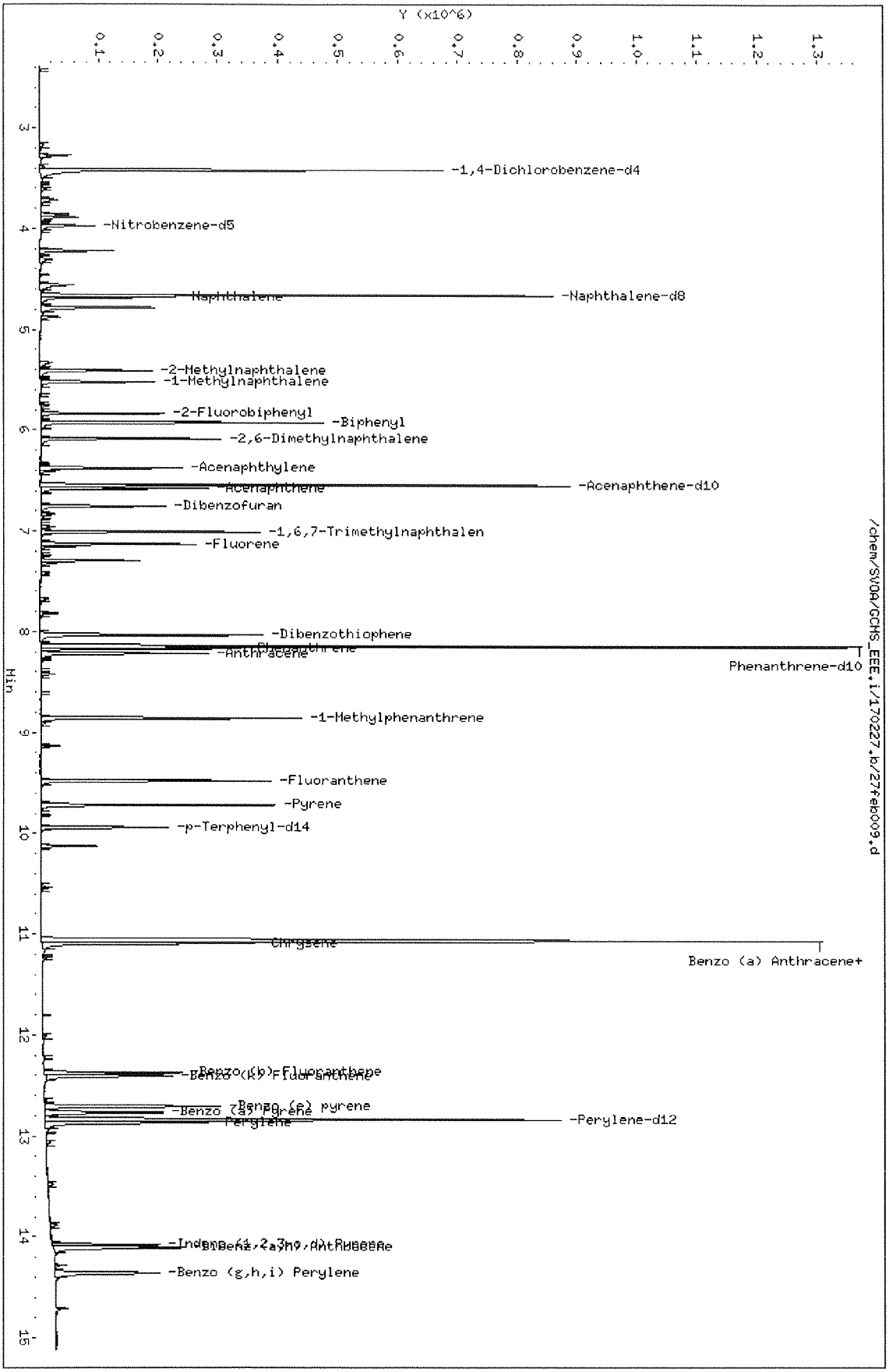

Data File: /chem/SVOA/GCMS_EEE.i/170227.b/27feb009.d
Date : 27-FEB-2017 13:12
Client ID:
Sample Info: ICAL-3 S010317F 1PPM
Column phase: J&W DB-5MS

Instrument: GCMS_EEE.i
Operator: 907
Column diameter: 0.18

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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) Dibenz (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.

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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

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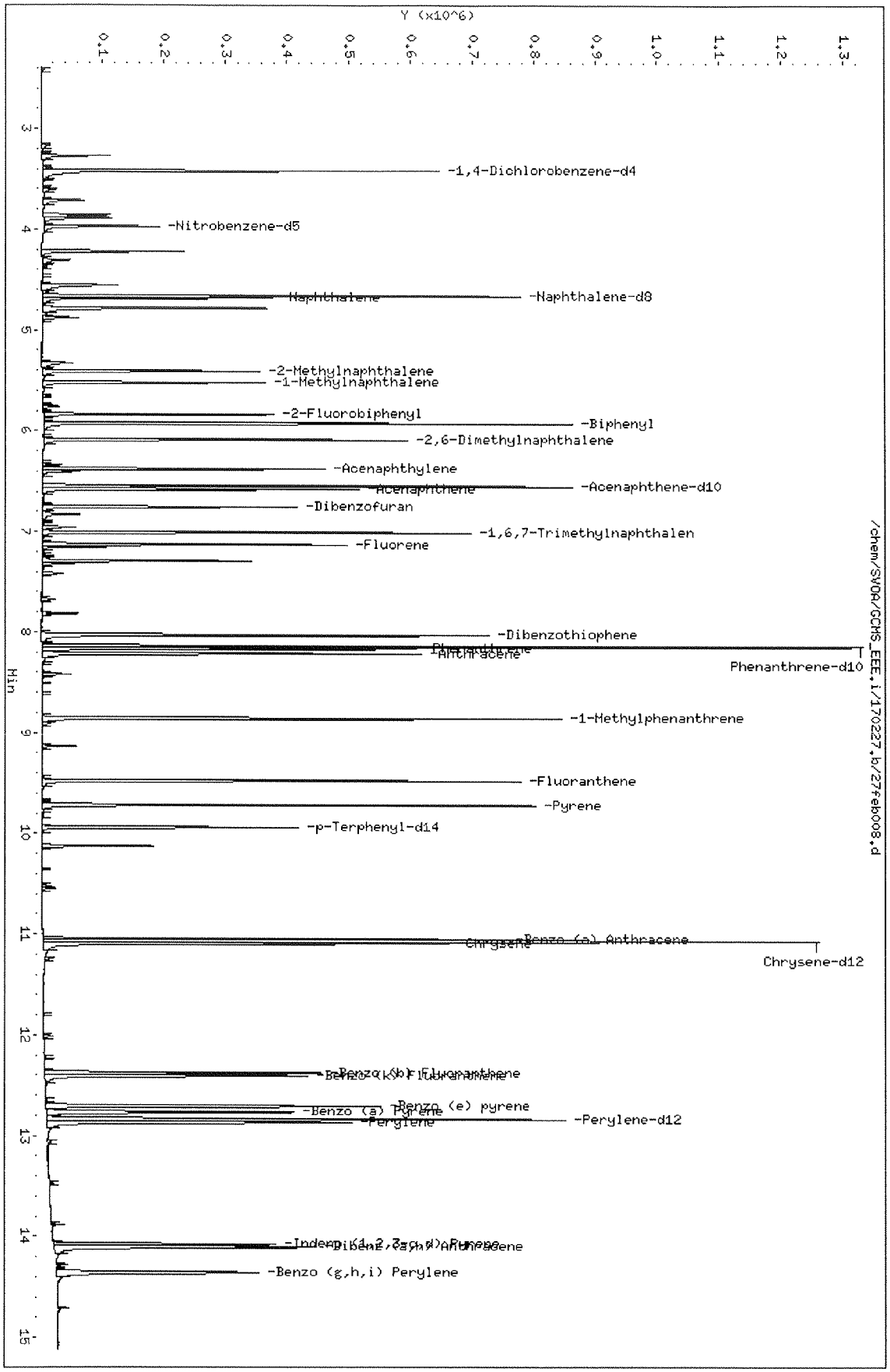

Data File: /chem/SVOA/GCMS_EEE.i/170227.b/27feb008.d
Date : 27-FEB-2017 12:52
Client ID:
Sample Info: ICAL-2 S0103I7E 2PPM
Column phase: J&W DB-5MS

Instrument: GCMS_EEE.i
Operator: 907
Column diameter: 0.18

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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)	DEV(Min)
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.

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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

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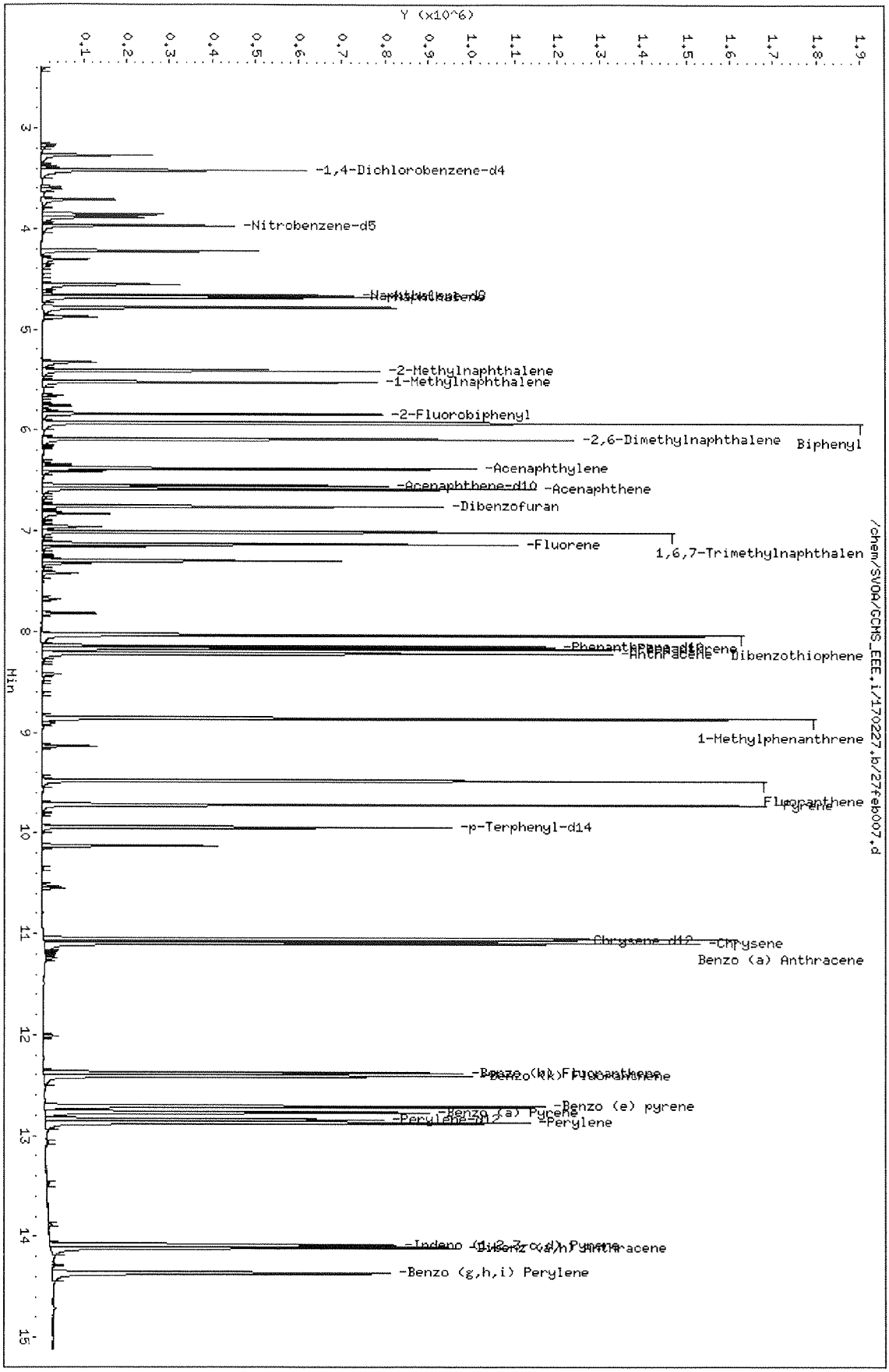

Data File: /chem/SVOA/GCMS_EEE.i/170227.b/27feb007.d
Date : 27-FEB-2017 12:32
Client ID:
Sample Info: ICAL-1 S0103317D 5PPM
Column phase: J&W DB-5MS

Instrument: GCMS_EEE.i
Operator: 907
Column diameter: 0.18

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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.

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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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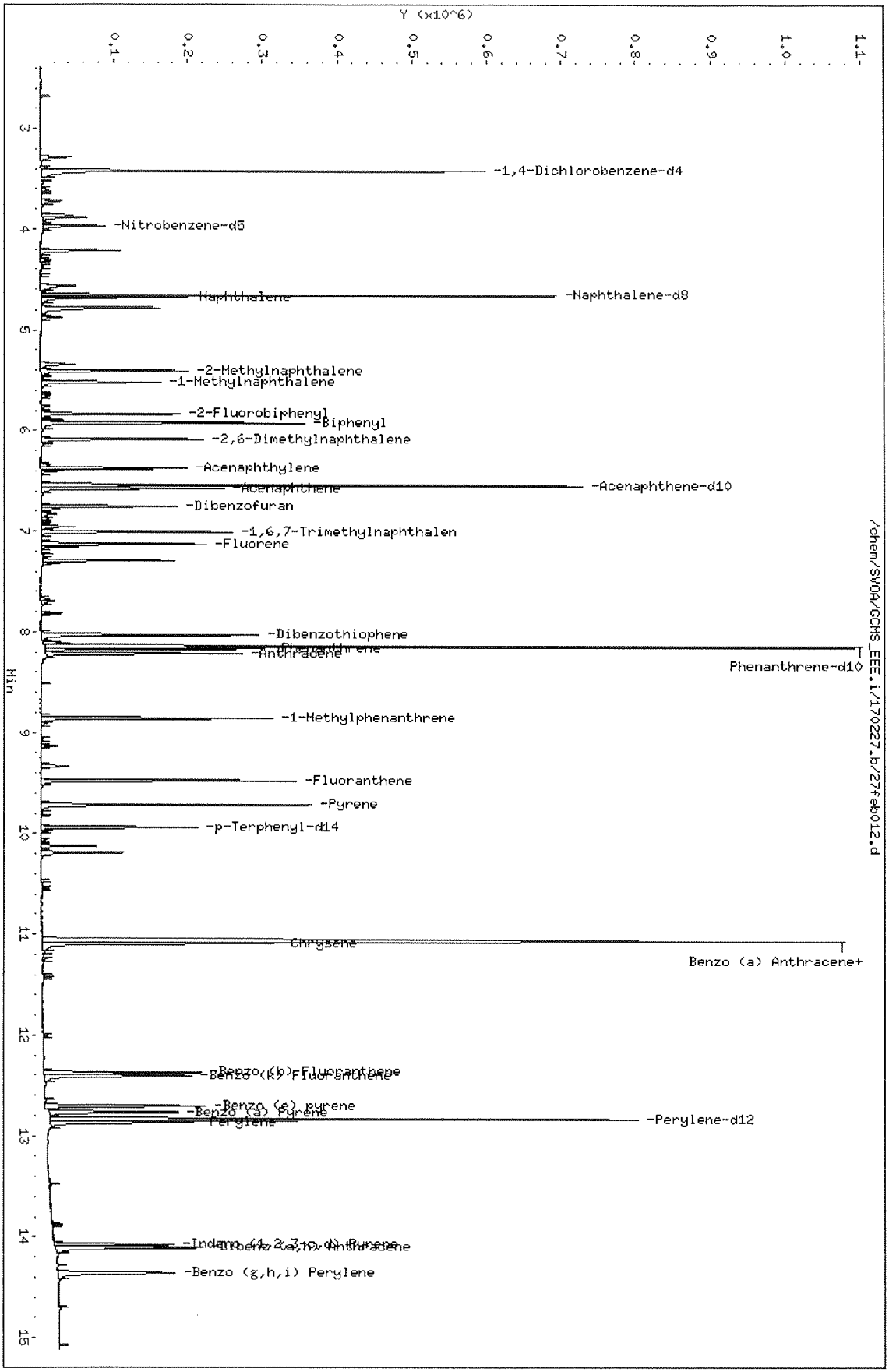

Data File: /chem/SVOA/GCMS_EEE.i/170227.b/27feb012.d
Date : 27-FEB-2017 14:13
Client ID:
Sample Info: ICV S0103171 1PPM
Column phase: J&W DB-5MS

Instrument: GCMS_EEE.i
Operator: 907
Column diameter: 0.18

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EPA METHOD 8270C
PAHSIM

Sample Data

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RAW DATA SHEET
FOR METHOD: EPA 8270C SIM PAHs

WORK ORDER:	**17-03-0445**	ANALYZED BY:	907
INSTRUMENT:	GC/MS EEE	D/T ANALYZED:	2017-03-08 15:15
EXTRACTION :	EPA 3545	REVIEWED BY:	
D/T EXTRACTED:	2017-03-07 00:00	D/T REVIEWED:	

DATA FILE: Z:\GCMS_EEE\GCMS_EEE_data\2017\170308\08mar017.d\08mar017.rr

 # 3 **CLIENT SAMPLE NUMBER: B-DU3-S-SG-09-15S**

LCS/MB BATCH:	170307L05	SAMPLE VOLUME / WEIGHT:	DEFAULT: 20.00 g / ACTUAL: 20.00 g
MS/MSD BATCH:	170307S05	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	

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Quant Report Target Revision 3.5

Data File: /chem/SVOA/GCMS_EEE.i/170308.b/08mar017.d Instrument ID: GCMS_EEE.i
Injection date and time: 08-MAR-2017 15:15 Analyst ID: 907

Method used: /chem/SVOA/GCMS_EEE.i/170308.b/simpah-extra.m Sublist used: all
Calibration date and time: 08-MAR-2017 10:43
Date, time and analyst ID of latest file update: 08-Mar-2017 16:22 ev7p

Sample Name: 17-03-0445-3 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)	3.355	152	255737	5.000	0.00
3)*Naphthalene-d8	(2)	4.588	136	717137	5.000	0.00
11)*Acenaphthene-d10	(3)	6.475	164	361512	5.000	0.00
17)*Phenanthrene-d10	(4)	8.072	188	1177570	5.000	0.00
31)*Perylene-d12	(6)	12.749	264	1023420	5.000	0.00
25)*Chrysene-d12	(5)	10.993	240	1110848	5.000	0.00
System Monitoring Compounds						
2)$Nitrobenzene-d5	(2)	3.907	82	45715	0.903	0.00
SpikedAmount 1.000	Recovery = 90.255					
7)$2-Fluorobiphenyl	(3)	5.771	172	100800	0.767	0.00
SpikedAmount 1.000	Recovery = 76.658					
23)$p-Terphenyl-d14	(5)	9.870	244	160824	0.913	0.00
SpikedAmount 1.000	Recovery = 91.326					
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.

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Quant Report Target Revision 3.5

Data File: /chem/SVOA/GCMS_EEE.i/170308.b/08mar017.d Instrument ID: GCMS_EEE.i
Injection date and time: 08-MAR-2017 15:15 Analyst ID: 907

Method used: /chem/SVOA/GCMS_EEE.i/170308.b/simpah-extra.m Sublist used: all
Calibration date and time: 08-MAR-2017 10:43
Date, time and analyst ID of latest file update: 08-Mar-2017 16:22 ev7p

Sample Name: 17-03-0445-3 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/SVOA/GCMS_EEE.i/170308.b/08mar017.d

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Date : 08-MAR-2017 15:15

Client ID:

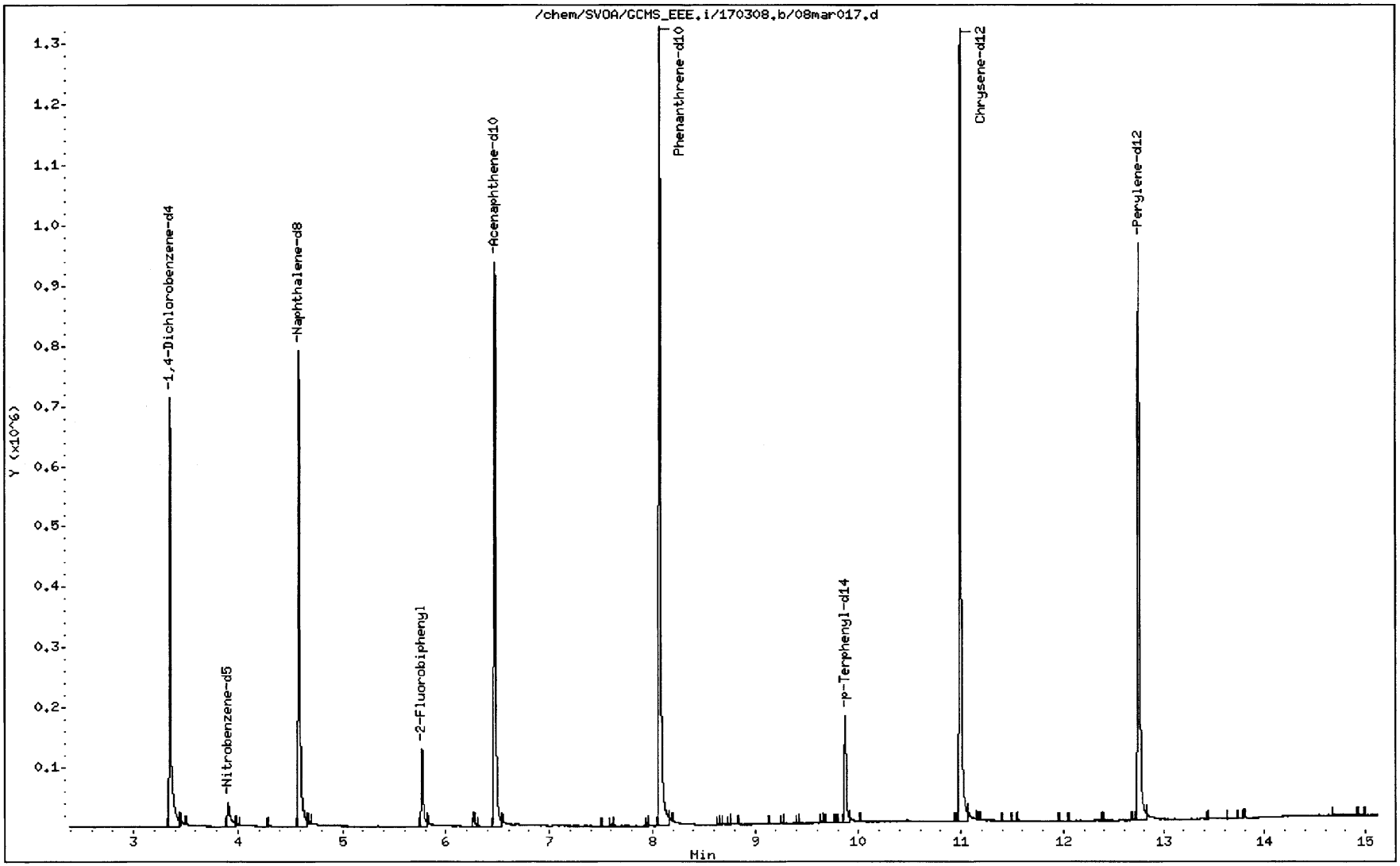
Instrument: GCMS_EEE.i

Sample Info: 17-03-0445-3

Operator: 907

Column phase: J&W DB-5MS

Column diameter: 0.18



RAW DATA SHEET
FOR METHOD: EPA 8270C SIM PAHs

WORK ORDER: **17-03-0445**
INSTRUMENT: GC/MS EEE
EXTRACTION : EPA 3545
D/T EXTRACTED: 2017-03-07 00:00

ANALYZED BY: 907
D/T ANALYZED: 2017-03-08 15:35
REVIEWED BY:
D/T REVIEWED:

DATA FILE: Z:\GCMS_EEE\GCMS_EEE_data\2017\170308\08mar018.d\08mar018.rr

 # 4 **CLIENT SAMPLE NUMBER: B-DU3-S-SG-09-25S**

LCS/MB BATCH: 170307L05
MS/MSD BATCH: 170307S05
UNITS: mg/kg

SAMPLE VOLUME / WEIGHT: DEFAULT: 20.00 g / ACTUAL: 20.00 g
FINAL VOLUME / WEIGHT: DEFAULT: 2.00 ml / ACTUAL: 2.00 ml
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	

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Quant Report Target Revision 3.5

Data File: /chem/SVOA/GCMS_EEE.i/170308.b/08mar018.d Instrument ID: GCMS_EEE.i
Injection date and time: 08-MAR-2017 15:35 Analyst ID: 907

Method used: /chem/SVOA/GCMS_EEE.i/170308.b/simpah-extra.m Sublist used: all
Calibration date and time: 08-MAR-2017 10:43
Date, time and analyst ID of latest file update: 08-Mar-2017 16:23 ev7p

Sample Name: 17-03-0445-4 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)	3.356	152	248092	5.000	-0.01
3)*Naphthalene-d8	(2)	4.588	136	681788	5.000	0.00
11)*Acenaphthene-d10	(3)	6.475	164	339176	5.000	0.00
17)*Phenanthrene-d10	(4)	8.072	188	1094598	5.000	0.00
31)*Perylene-d12	(6)	12.746	264	951954	5.000	0.00
25)*Chrysene-d12	(5)	10.992	240	1054034	5.000	0.00
System Monitoring Compounds						
2)$Nitrobenzene-d5	(2)	3.910	82	43569	0.905	0.00
SpikedAmount 1.000	Recovery = 90.479					
7)$2-Fluorobiphenyl	(3)	5.771	172	89359	0.724	0.00
SpikedAmount 1.000	Recovery = 72.432					
23)$p-Terphenyl-d14	(5)	9.873	244	145804	0.873	0.00
SpikedAmount 1.000	Recovery = 87.259					
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.

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Quant Report Target Revision 3.5

Data File: /chem/SVOA/GCMS_EEE.i/170308.b/08mar018.d Instrument ID: GCMS_EEE.i
Injection date and time: 08-MAR-2017 15:35 Analyst ID: 907

Method used: /chem/SVOA/GCMS_EEE.i/170308.b/simpah-extra.m Sublist used: all
Calibration date and time: 08-MAR-2017 10:43
Date, time and analyst ID of latest file update: 08-Mar-2017 16:23 ev7p

Sample Name: 17-03-0445-4 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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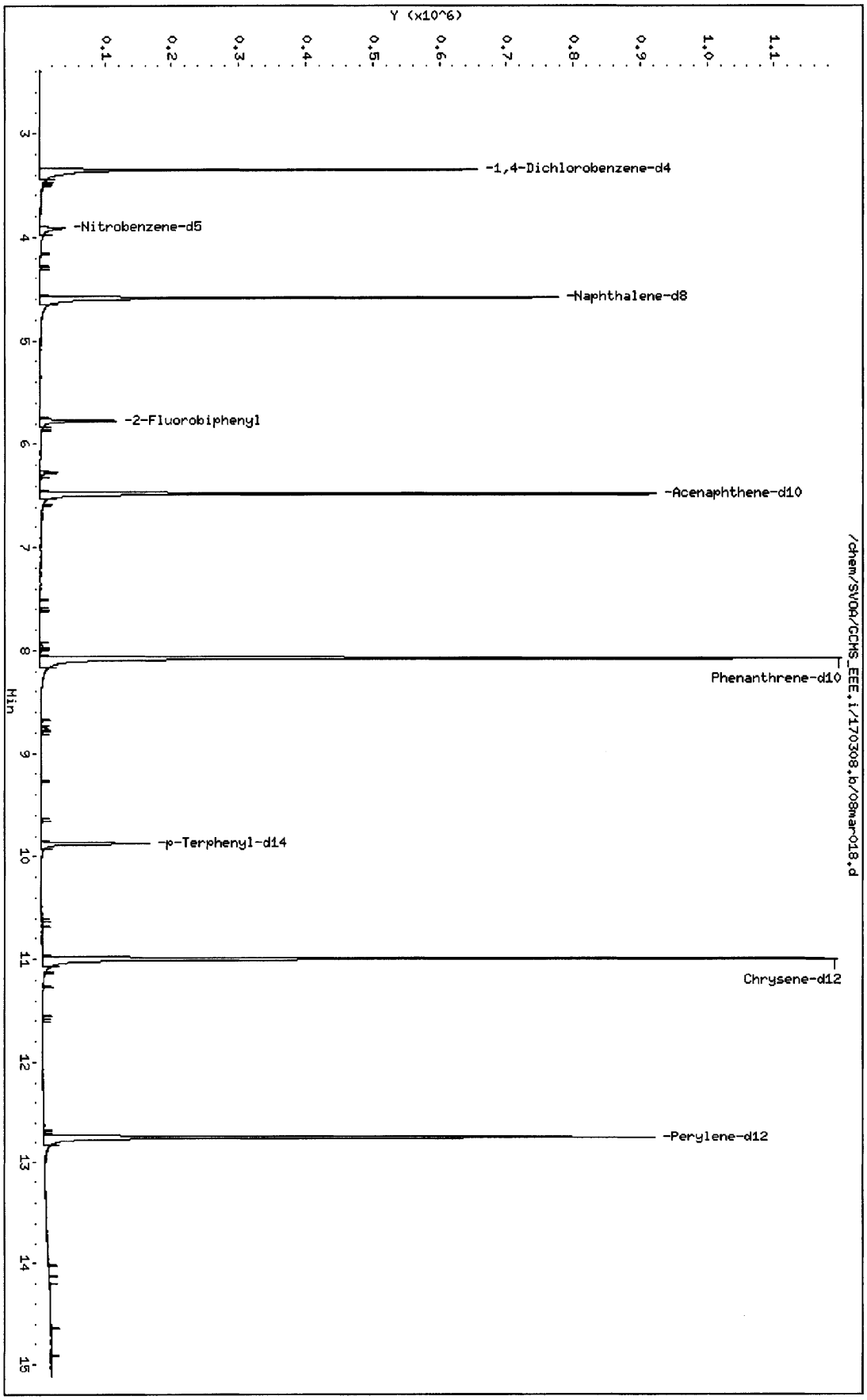

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RAW DATA SHEET
FOR METHOD: EPA 8270C SIM PAHs

WORK ORDER: **17-03-0445**
INSTRUMENT: GC/MS EEE
EXTRACTION : EPA 3545
D/T EXTRACTED: 2017-03-07 00:00

ANALYZED BY: 907
D/T ANALYZED: 2017-03-08 15:56
REVIEWED BY:
D/T REVIEWED:

DATA FILE: Z:\GCMS_EEE\GCMS_EEE_data\2017\170308\08mar019.d\08mar019.rr

 # 7 **CLIENT SAMPLE NUMBER: B-DU3-S-SG-10-15S**

LCS/MB BATCH: 170307L05
MS/MSD BATCH: 170307S05
UNITS: mg/kg

SAMPLE VOLUME / WEIGHT: DEFAULT: 20.00 g / ACTUAL: 20.10 g
FINAL VOLUME / WEIGHT: DEFAULT: 2.00 ml / ACTUAL: 2.00 ml
ADJUSTMENT RATIO TO PF: 1.00

COMMENT:

COMPOUND	ON COL CONC	DF	CONC	RL	QUAL
Naphthalene	0.0205	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/170308.b/08mar019.d Instrument ID: GCMS_EEE.i
Injection date and time: 08-MAR-2017 15:56 Analyst ID: 907

Method used: /chem/SVOA/GCMS_EEE.i/170308.b/simpah-extra.m Sublist used: all
Calibration date and time: 08-MAR-2017 10:43
Date, time and analyst ID of latest file update: 08-Mar-2017 16:23 ev7p

Sample Name: 17-03-0445-7 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)	3.356	152	258995	5.000	-0.01
3)*Naphthalene-d8	(2)	4.588	136	717792	5.000	0.00
11)*Acenaphthene-d10	(3)	6.475	164	360536	5.000	0.00
17)*Phenanthrene-d10	(4)	8.072	188	1158992	5.000	0.00
31)*Perylene-d12	(6)	12.744	264	985154	5.000	0.00
25)*Chrysene-d12	(5)	10.992	240	1089308	5.000	0.00
System Monitoring Compounds						
2)$Nitrobenzene-d5	(2)	3.908	82	41381	0.816	0.00
SpikedAmount 1.000	Recovery = 81.625					
7)$2-Fluorobiphenyl	(3)	5.771	172	96291	0.734	0.00
SpikedAmount 1.000	Recovery = 73.427					
23)$p-Terphenyl-d14	(5)	9.873	244	156747	0.908	0.00
SpikedAmount 1.000	Recovery = 90.771					
Target Compounds						QValue
4) Naphthalene	(2)	4.611	128	3304	0.020	92
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.

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Quant Report Target Revision 3.5

Data File: /chem/SVOA/GCMS_EEE.i/170308.b/08mar019.d Instrument ID: GCMS_EEE.i
Injection date and time: 08-MAR-2017 15:56 Analyst ID: 907

Method used: /chem/SVOA/GCMS_EEE.i/170308.b/simpah-extra.m Sublist used: all
Calibration date and time: 08-MAR-2017 10:43
Date, time and analyst ID of latest file update: 08-Mar-2017 16:23 ev7p

Sample Name: 17-03-0445-7 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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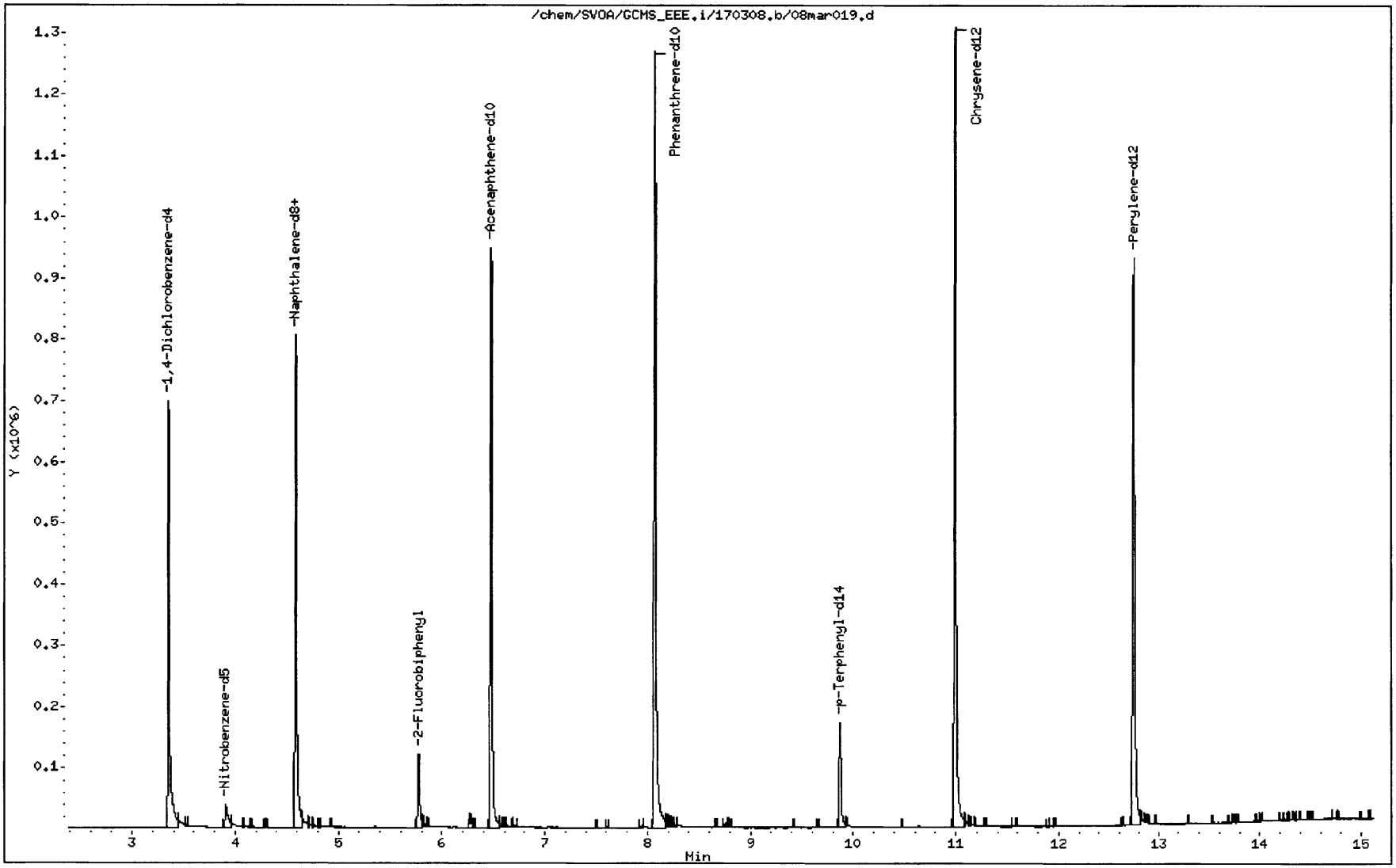
Data File: /chem/SVOA/GCMS_EEE.i/170308.b/08mar019.d
Date : 08-MAR-2017 15:56
Client ID:
Sample Info: 17-03-0445-7

Column phase: J&W DB-5MS

Instrument: GCMS_EEE.i

Operator: 907
Column diameter: 0.18



RAW DATA SHEET
FOR METHOD: EPA 8270C SIM PAHs

WORK ORDER:	**17-03-0445**	ANALYZED BY:	907
INSTRUMENT:	GC/MS EEE	D/T ANALYZED:	2017-03-08 16:16
EXTRACTION :	EPA 3545	REVIEWED BY:	
D/T EXTRACTED:	2017-03-07 00:00	D/T REVIEWED:	

DATA FILE: Z:\GCMS_EEE\GCMS_EEE_data\2017\170308\08mar020.d\08mar020.rr

 # 8 **CLIENT SAMPLE NUMBER: B-DU3-S-SG-10-25S**

LCS/MB BATCH:	170307L05	SAMPLE VOLUME / WEIGHT:	DEFAULT: 20.00 g / ACTUAL: 20.20 g
MS/MSD BATCH:	170307S05	FINAL VOLUME / WEIGHT:	DEFAULT: 2.00 ml / ACTUAL: 2.00 ml
UNITS:	mg/kg	ADJUSTMENT RATIO TO PF:	0.99

COMMENT:

COMPOUND	ON COL CONC	DF	CONC	RL	QUAL
Naphthalene	0.0313	1.00	ND	0.0099	
2-Methylnaphthalene	0.0120	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	0.0106	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	0.000	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	

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Quant Report Target Revision 3.5

Data File: /chem/SVOA/GCMS_EEE.i/170308.b/08mar020.d Instrument ID: GCMS_EEE.i
Injection date and time: 08-MAR-2017 16:16 Analyst ID: 907

Method used: /chem/SVOA/GCMS_EEE.i/170308.b/simpah-extra.m Sublist used: all
Calibration date and time: 08-MAR-2017 10:43
Date, time and analyst ID of latest file update: 08-Mar-2017 17:57 ev7p

Sample Name: 17-03-0445-8 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)	3.356	152	253610	5.000	-0.01
3)*Naphthalene-d8	(2)	4.590	136	682610	5.000	0.00
11)*Acenaphthene-d10	(3)	6.475	164	343461	5.000	0.00
17)*Phenanthrene-d10	(4)	8.072	188	1118429	5.000	0.00
31)*Perylene-d12	(6)	12.745	264	957130	5.000	0.00
25)*Chrysene-d12	(5)	10.992	240	1064033	5.000	0.00
System Monitoring Compounds						
2)$Nitrobenzene-d5	(2)	3.910	82	41648	0.864	0.00
SpikedAmount 1.000	Recovery = 86.385					
7)$2-Fluorobiphenyl	(3)	5.772	172	86936	0.696	0.00
SpikedAmount 1.000	Recovery = 69.589					
23)$p-Terphenyl-d14	(5)	9.873	244	146114	0.866	0.00
SpikedAmount 1.000	Recovery = 86.623					
Target Compounds						QValue
4) Naphthalene	(2)	4.609	128	4805	0.031	97
5) 2-Methylnaphthalene	(2)	5.347	142	1206	0.012	94
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)	7.065	166	1295	0.011	87
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.

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Quant Report Target Revision 3.5

Data File: /chem/SVOA/GCMS_EEE.i/170308.b/08mar020.d Instrument ID: GCMS_EEE.i
Injection date and time: 08-MAR-2017 16:16 Analyst ID: 907

Method used: /chem/SVOA/GCMS_EEE.i/170308.b/simpah-extra.m Sublist used: all
Calibration date and time: 08-MAR-2017 10:43
Date, time and analyst ID of latest file update: 08-Mar-2017 17:57 ev7p

Sample Name: 17-03-0445-8 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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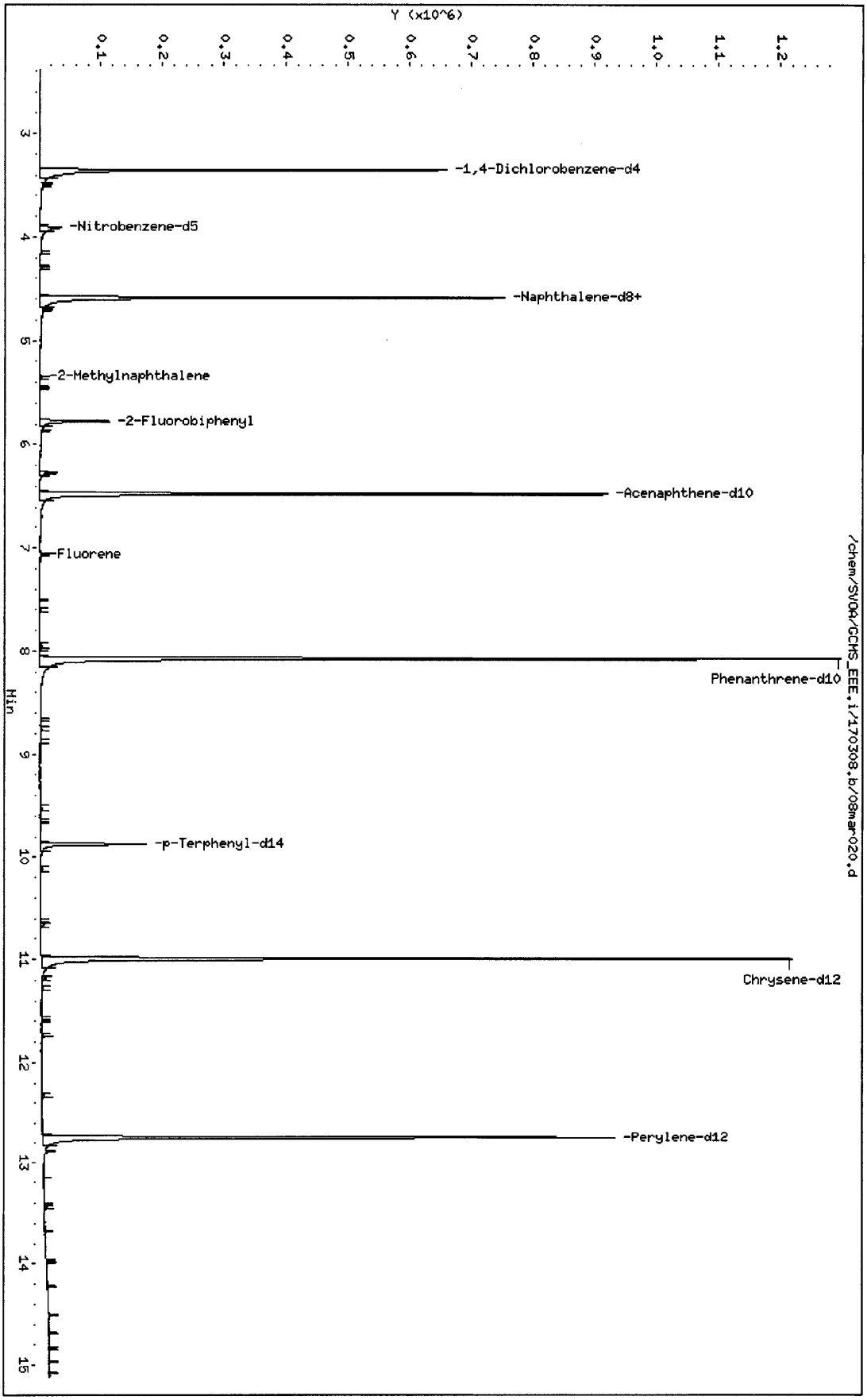

Data File: /chem/SVOA/GCMS_EEE.i/170308.b/08mar020.d
Date : 08-MAR-2017 16:16
Client ID:
Sample Info: 17-03-0445-8

Instrument: GCMS_EEE.i
Operator: 907
Column diameter: 0.18

Column phase: J&W DB-5MS

EPA METHOD 8270C
PAHSIM

Quality Control

Method Blank
LCS/LCSD
MS/MSD

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METHOD BLANK ASSOCIATION SUMMARY
FOR METHOD: EPA 8270C SIM PAHs

MB SAMPLE ID:	**099-14-035-378**	ANALYZED BY:	907
MB BATCH ID:	170307L05	D/T ANALYZED:	2017-03-08 11:53
INSTRUMENT:	GC/MS EEE	REVIEWED BY:	
EXTRACTION:	EPA 3545	D/T REVIEWED:	
D/T EXTRACTED:	2017-03-07 00:00	MATRIX:	Soil

DATA FILE: Z:\GCMS_EEE\GCMS_EEE_data\2017\170308\08mar007.d\08mar007.rr

CLIENT WORK ORDER: 17-03-0445

S#	RUN TYPE	CLIENT SAMPLE ID	D/T ANALYZED	DATA FILE
3		B-DU3-S-SG-09-15S	2017-03-08 15:15	Z:\GCMS_EEE\GCMS_EEE_data\2017\170308\08mar017.d\08mar017.rr
4		B-DU3-S-SG-09-25S	2017-03-08 15:35	Z:\GCMS_EEE\GCMS_EEE_data\2017\170308\08mar018.d\08mar018.rr
7		B-DU3-S-SG-10-15S	2017-03-08 15:56	Z:\GCMS_EEE\GCMS_EEE_data\2017\170308\08mar019.d\08mar019.rr
8		B-DU3-S-SG-10-25S	2017-03-08 16:16	Z:\GCMS_EEE\GCMS_EEE_data\2017\170308\08mar020.d\08mar020.rr

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RAW DATA SHEET
FOR METHOD: EPA 8270C SIM PAHs

WORK ORDER:	**099-14-035**	ANALYZED BY:	907
INSTRUMENT:	GC/MS EEE	D/T ANALYZED:	2017-03-08 11:53
EXTRACTION :	EPA 3545	REVIEWED BY:	
D/T EXTRACTED:	2017-03-07 00:00	D/T REVIEWED:	

DATA FILE: Z:\GCMS_EEE\GCMS_EEE_data\2017\170308\08mar007.d\08mar007.rr

 # MB **CLIENT SAMPLE NUMBER: Method Blank**

LCS/MB BATCH:	170307L05	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	

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LCS QUALITY CONTROL SHEET
FOR METHOD: EPA 8270C SIM PAHs

LCS SAMPLE ID: **099-14-035-378**
LCS/MB BATCH ID: 170307L05
INSTRUMENT: GC/MS EEE

EXTRACTION: EPA 3545
D/T EXTRACTED: 2017-03-07 00:00

ANALYZED BY: 907
D/T ANALYZED: 2017-03-08 12:13
REVIEWED BY:
D/T REVIEWED:

DATA FILE: Z:\GCMS_EEE\GCMS_EEE_data\2017\170308\08mar008.d\08mar008.rr

COMPOUND	CONC	CONC REC	%REC	%REC CL	ME CL	STATUS	QUALIFIERS
Naphthalene	0.1000	0.06929	69	51-129	38-142	PASS	
2-Methylnaphthalene	0.1000	0.08369	84	50-127	37-140	PASS	
1-Methylnaphthalene	0.1000	0.07526	75	54-132	41-145	PASS	
Acenaphthylene	0.1000	0.06331	63	50-123	38-135	PASS	
Acenaphthene	0.1000	0.06293	63	53-125	41-137	PASS	
Fluorene	0.1000	0.06525	65	55-127	43-139	PASS	
Phenanthrene	0.1000	0.07027	70	50-122	38-134	PASS	
Anthracene	0.1000	0.07328	73	50-132	36-146	PASS	
Fluoranthene	0.1000	0.07448	74	55-127	43-139	PASS	
Pyrene	0.1000	0.07171	72	50-134	36-148	PASS	
Benzo (a) Anthracene	0.1000	0.07257	73	50-133	36-147	PASS	
Chrysene	0.1000	0.07965	80	51-129	38-142	PASS	
Benzo (k) Fluoranthene	0.1000	0.08602	86	49-150	32-167	PASS	
Benzo (b) Fluoranthene	0.1000	0.07858	79	50-142	35-157	PASS	
Benzo (a) Pyrene	0.1000	0.08146	81	50-134	36-148	PASS	
Indeno (1,2,3-c,d) Pyrene	0.1000	0.08425	84	50-148	34-164	PASS	
Dibenz (a,h) Anthracene	0.1000	0.08856	89	50-133	36-147	PASS	
Benzo (g,h,i) Perylene	0.1000	0.08810	88	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

Compounds listed in bold are required to be reported.

MATRIX SPIKE / MATRIX SPIKE DUPLICATE QUALITY CONTROL SHEET
FOR METHOD: EPA 8270C SIM PAHs

SPIKED SAMPLE ID: **17-03-0444-3**
MS/MSD BATCH: 170307S05
INSTRUMENTS:
SAMPLE: GC/MS EEE
MS: GC/MS EEE
MSD: GC/MS EEE

EXTRACTION: EPA 3545
D/T EXTRACTED:
SAMPLE: 2017-03-07 00:00
MS: 2017-03-07 00:00
MSD: 2017-03-07 00:00

ANALYZED BY: 907
D/T ANALYZED:
SAMPLE: 2017-03-08 13:34
MS: 2017-03-08 12:53
MSD: 2017-03-08 13:14
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
Naphthalene	ND	1.000	0.1000	0.08533	85	0.07464	75	20-150	13	0-33	PASS	
2-Methylnaphthalene	ND	1.000	0.1000	0.1051	105	0.09390	94	29-137	11	0-31	PASS	
1-Methylnaphthalene	ND	1.000	0.1000	0.09459	95	0.08224	82	34-136	14	0-29	PASS	
Acenaphthylene	ND	1.000	0.1000	0.07808	78	0.06960	70	29-131	11	0-32	PASS	
Acenaphthene	ND	1.000	0.1000	0.08025	80	0.07146	71	29-137	12	0-28	PASS	
Fluorene	ND	1.000	0.1000	0.08115	81	0.07459	75	36-132	8	0-27	PASS	
Phenanthrene	ND	1.000	0.1000	0.08652	87	0.08289	83	20-144	4	0-27	PASS	
Anthracene	ND	1.000	0.1000	0.08961	90	0.08628	86	26-134	4	0-27	PASS	
Fluoranthene	ND	1.000	0.1000	0.09277	93	0.09187	92	20-151	1	0-26	PASS	
Pyrene	ND	1.000	0.1000	0.08626	86	0.08730	87	20-150	1	0-32	PASS	
Benzo (a) Anthracene	ND	1.000	0.1000	0.08648	86	0.08518	85	24-150	2	0-24	PASS	
Chrysene	ND	1.000	0.1000	0.09055	91	0.08980	90	25-145	1	0-28	PASS	
Benzo (k) Fluoranthene	ND	1.000	0.1000	0.09669	97	0.08787	88	28-148	10	0-26	PASS	
Benzo (b) Fluoranthene	ND	1.000	0.1000	0.08993	90	0.08945	89	21-153	1	0-26	PASS	
Benzo (a) Pyrene	ND	1.000	0.1000	0.09519	95	0.09195	92	29-149	3	0-22	PASS	
Indeno (1,2,3-c,d) Pyrene	ND	1.000	0.1000	0.09523	95	0.09358	94	20-154	2	0-25	PASS	
Dibenz (a,h) Anthracene	ND	1.000	0.1000	0.1007	101	0.09612	96	20-132	5	0-26	PASS	
Benzo (g,h,i) Perylene	ND	1.000	0.1000	0.1018	102	0.09834	98	20-148	3	0-27	PASS	

Data Files:

TYPE	DATA FILE	DATA FILE PATH
MS	08mar010.rr	Z:\GCMS_EEE\GCMS_EEE_data\2017\170308\08mar010.d\
MSD	08mar011.rr	Z:\GCMS_EEE\GCMS_EEE_data\2017\170308\08mar011.d\

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SURROGATE RECOVERIES
FOR METHOD: EPA 8270C SIM PAHs

WORK ORDER: 17-03-0445
BATCH ID:
LCS/MB: **170307L05**
MS: **170307S05**
EXTRACTION : EPA 3545

REVIEWED BY:
D/T REVIEWED:

3 CLIENT SAMPLE NUMBER : B-DU3-S-SG-09-15S

INSTRUMENT: GC/MS EEE
D/T EXTRACTED: 2017-03-07 00:00
DATA FILE: Z:\GCMS_EEE\GCMS_EEE_data\2017\170308\08mar017.d\08mar017.rr

ANALYZED BY: 907
D/T ANALYZED 2017-03-08 15:15

COMMENT:

COMPOUND	% REC	% REC CL	STATUS	QUALIFIERS
2-Fluorobiphenyl	77	13-127	PASS	
Nitrobenzene-d5	90	17-137	PASS	
p-Terphenyl-d14	91	4-160	PASS	

4 CLIENT SAMPLE NUMBER : B-DU3-S-SG-09-25S

INSTRUMENT: GC/MS EEE
D/T EXTRACTED: 2017-03-07 00:00
DATA FILE: Z:\GCMS_EEE\GCMS_EEE_data\2017\170308\08mar018.d\08mar018.rr

ANALYZED BY: 907
D/T ANALYZED 2017-03-08 15:35

COMMENT:

COMPOUND	% REC	% REC CL	STATUS	QUALIFIERS
p-Terphenyl-d14	87	4-160	PASS	
Nitrobenzene-d5	90	17-137	PASS	
2-Fluorobiphenyl	72	13-127	PASS	

7 CLIENT SAMPLE NUMBER : B-DU3-S-SG-10-15S

INSTRUMENT: GC/MS EEE
D/T EXTRACTED: 2017-03-07 00:00
DATA FILE: Z:\GCMS_EEE\GCMS_EEE_data\2017\170308\08mar019.d\08mar019.rr

ANALYZED BY: 907
D/T ANALYZED 2017-03-08 15:56

COMMENT:

COMPOUND	% REC	% REC CL	STATUS	QUALIFIERS
2-Fluorobiphenyl	73	13-127	PASS	
Nitrobenzene-d5	82	17-137	PASS	
p-Terphenyl-d14	91	4-160	PASS	

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SURROGATE RECOVERIES
FOR METHOD: EPA 8270C SIM PAHs

WORK ORDER: 17-03-0445
BATCH ID:
LCS/MB: 170307L05
MS: 170307S05
EXTRACTION : EPA 3545

REVIEWED BY:
D/T REVIEWED:

8 CLIENT SAMPLE NUMBER : B-DU3-S-SG-10-25S

INSTRUMENT: GC/MS EEE
D/T EXTRACTED: 2017-03-07 00:00
DATA FILE: Z:\GCMS_EEE\GCMS_EEE_data\2017\170308\08mar020.d\08mar020.rr

ANALYZED BY: 907
D/T ANALYZED 2017-03-08 16:16

COMMENT:

COMPOUND	% REC	% REC CL	STATUS	QUALIFIERS
p-Terphenyl-d14	87	4-160	PASS	
2-Fluorobiphenyl	70	13-127	PASS	
Nitrobenzene-d5	86	17-137	PASS	

MB CLIENT SAMPLE NUMBER : Method Blank

INSTRUMENT: GC/MS EEE
D/T EXTRACTED: 2017-03-07 00:00
DATA FILE: Z:\GCMS_EEE\GCMS_EEE_data\2017\170308\08mar007.d\08mar007.rr

ANALYZED BY: 907
D/T ANALYZED 2017-03-08 11:53

COMMENT:

COMPOUND	% REC	% REC CL	STATUS	QUALIFIERS
2-Fluorobiphenyl	60	13-127	PASS	
Nitrobenzene-d5	75	17-137	PASS	
p-Terphenyl-d14	78	4-160	PASS	

LCS CLIENT SAMPLE NUMBER : Lab Control Sample

INSTRUMENT: GC/MS EEE
D/T EXTRACTED: 2017-03-07 00:00
DATA FILE: Z:\GCMS_EEE\GCMS_EEE_data\2017\170308\08mar008.d\08mar008.rr

ANALYZED BY: 907
D/T ANALYZED 2017-03-08 12:13

COMMENT:

COMPOUND	% REC	% REC CL	STATUS	QUALIFIERS
p-Terphenyl-d14	76	4-160	PASS	
Nitrobenzene-d5	75	17-137	PASS	
2-Fluorobiphenyl	65	13-127	PASS	

MS CLIENT SAMPLE NUMBER : Matrix Spike

INSTRUMENT: GC/MS EEE
D/T EXTRACTED: 2017-03-07 00:00
DATA FILE: Z:\GCMS_EEE\GCMS_EEE_data\2017\170308\08mar010.d\08mar010.rr

ANALYZED BY: 907
D/T ANALYZED 2017-03-08 12:53

COMMENT:

COMPOUND	% REC	% REC CL	STATUS	QUALIFIERS
p-Terphenyl-d14	95	4-160	PASS	
Nitrobenzene-d5	85	17-137	PASS	
2-Fluorobiphenyl	78	13-127	PASS	

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SURROGATE RECOVERIES
FOR METHOD: EPA 8270C SIM PAHs

WORK ORDER: 17-03-0445
BATCH ID:
LCS/MB:
MS: **170307S05**
EXTRACTION : EPA 3545

REVIEWED BY:
D/T REVIEWED:

 # MSD **CLIENT SAMPLE NUMBER : Matrix Spike Duplicate**

INSTRUMENT: GC/MS EEE
ANALYZED BY: 907
D/T EXTRACTED: 2017-03-07 00:00
D/T ANALYZED 2017-03-08 13:14
DATA FILE: Z:\GCMS_EEE\GCMS_EEE_data\2017\170308\08mar011.d\08mar011.rr

COMMENT:

COMPOUND	% REC	% REC CL	STATUS	QUALIFIERS
2-Fluorobiphenyl	75	13-127	PASS	
Nitrobenzene-d5	83	17-137	PASS	
p-Terphenyl-d14	93	4-160	PASS	

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Quant Report Target Revision 3.5

Data File: /chem/SVOA/GCMS_EEE.i/170308.b/08mar007.d Instrument ID: GCMS_EEE.i
Injection date and time: 08-MAR-2017 11:53 Analyst ID: 907

Method used: /chem/SVOA/GCMS_EEE.i/170308.b/simpah-extra.m Sublist used: all
Calibration date and time: 08-MAR-2017 10:43
Date, time and analyst ID of latest file update: 08-Mar-2017 12:41 ev7p

Sample Name: MB 170307 L05 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)	3.351	152	242161	5.000	0.00
3)*Naphthalene-d8	(2)	4.589	136	674197	5.000	0.00
11)*Acenaphthene-d10	(3)	6.474	164	345099	5.000	0.00
17)*Phenanthrene-d10	(4)	8.072	188	1111117	5.000	0.00
31)*Perylene-d12	(6)	12.745	264	980746	5.000	0.00
25)*Chrysene-d12	(5)	10.990	240	1096491	5.000	0.00
System Monitoring Compounds						
2)$Nitrobenzene-d5	(2)	3.912	82	35622	0.748	-0.01
SpikedAmount 1.000	Recovery = 74.808					
7)$2-Fluorobiphenyl	(3)	5.773	172	75528	0.602	0.00
SpikedAmount 1.000	Recovery = 60.170					
23)$p-Terphenyl-d14	(5)	9.873	244	136075	0.783	0.00
SpikedAmount 1.000	Recovery = 78.283					
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.

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Quant Report Target Revision 3.5

Data File: /chem/SVOA/GCMS_EEE.i/170308.b/08mar007.d Instrument ID: GCMS_EEE.i
Injection date and time: 08-MAR-2017 11:53 Analyst ID: 907

Method used: /chem/SVOA/GCMS_EEE.i/170308.b/simpah-extra.m Sublist used: all
Calibration date and time: 08-MAR-2017 10:43
Date, time and analyst ID of latest file update: 08-Mar-2017 12:41 ev7p

Sample Name: MB 170307 L05 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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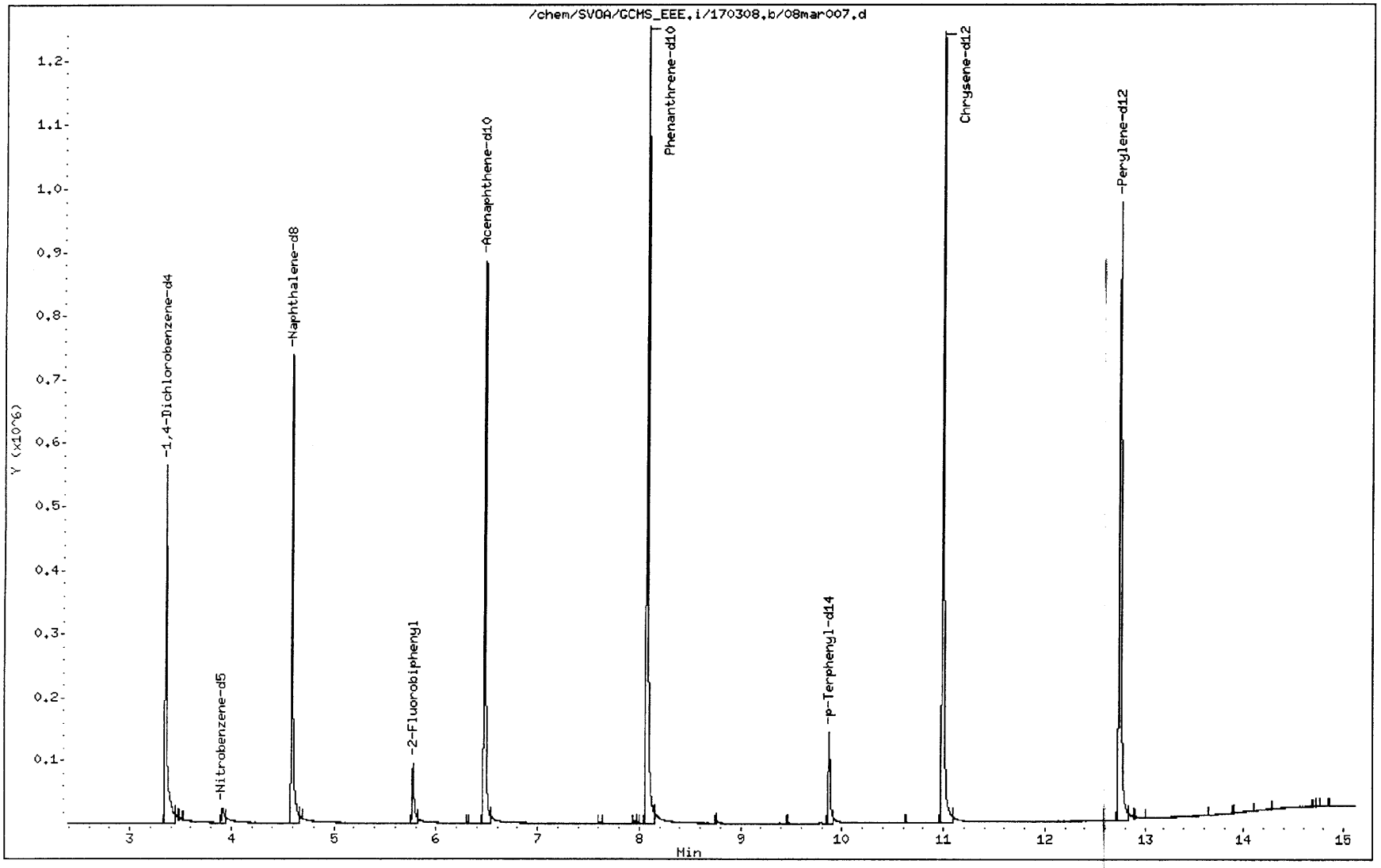
Data File: /chem/SVOA/GCMS_EEE.i/170308.b/08mar007.d
Date : 08-MAR-2017 11:53
Client ID:
Sample Info: MB 170307 L05

Column phase: J&W DB-5MS

Instrument: GCMS_EEE.i

Operator: 907
Column diameter: 0.18



Quant Report Target Revision 3.5

Data File: /chem/SVOA/GCMS_EEE.i/170308.b/08mar008.d Instrument ID: GCMS_EEE.i
Injection date and time: 08-MAR-2017 12:13 Analyst ID: 907

Method used: /chem/SVOA/GCMS_EEE.i/170308.b/simpah-extra.m Sublist used: all
Calibration date and time: 08-MAR-2017 10:43
Date, time and analyst ID of latest file update: 08-Mar-2017 12:41 ev7p

Sample Name: LCS 170307 L05 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)	3.352	152	268165	5.000	0.00
3)*Naphthalene-d8	(2)	4.590	136	710513	5.000	0.00
11)*Acenaphthene-d10	(3)	6.475	164	366535	5.000	0.00
17)*Phenanthrene-d10	(4)	8.072	188	1138398	5.000	0.00
31)*Perylene-d12	(6)	12.747	264	1025848	5.000	0.00
25)*Chrysene-d12	(5)	10.991	240	1118060	5.000	0.00
System Monitoring Compounds						
2)$Nitrobenzene-d5	(2)	3.907	82	37675	0.751	0.00
SpikedAmount 1.000	Recovery = 75.075					
7)$2-Fluorobiphenyl	(3)	5.769	172	86493	0.649	0.00
SpikedAmount 1.000	Recovery = 64.876					
23)$p-Terphenyl-d14	(5)	9.873	244	134152	0.757	0.00
SpikedAmount 1.000	Recovery = 75.688					
Target Compounds						QValue
4) Naphthalene	(2)	4.611	128	110626	0.693	99
5) 2-Methylnaphthalene	(2)	5.342	142	87684	0.837	95
6) 1-Methylnaphthalene	(2)	5.455	142	75450	0.753	95
10) Acenaphthylene	(3)	6.308	152	123648	0.633	99
12) Acenaphthene	(3)	6.509	153	72126	0.629	99
15) Fluorene	(3)	7.061	166	84933	0.652	99
18) Phenanthrene	(4)	8.097	178	172293	0.703	100
19) Anthracene	(4)	8.148	178	183451	0.733	99
21) Fluoranthene	(4)	9.406	202	229623	0.745	99
22) Pyrene	(5)	9.646	202	241680	0.717	99
24) Benzo (a) Anthracene	(5)	10.976	228	214391	0.726	100
26) Chrysene	(5)	11.019	228	223823	0.797	99
27) Benzo (b) Fluoranthene	(6)	12.287	252	203312	0.786	99
28) Benzo (k) Fluoranthene	(6)	12.315	252	248878	0.860	97
30) Benzo (a) Pyrene	(6)	12.678	252	212139	0.815	100
33) Indeno (1,2,3-c,d) Pyrene	(6)	13.992	276	228871	0.842	84
34) Dibenz (a,h) Anthracene	(6)	14.017	278	182923	0.886	98
35) Benzo (g,h,i) Perylene	(6)	14.264	276	204524	0.881	98
8) Biphenyl	(3)	5.859	154	102771	0.606	98
9) 2,6-Dimethylnaphthalene	(3)	6.019	156	69638	0.583	97
14) 1,6,7-Trimethylnaphthalene	(3)	6.941	170	71544	0.620	100
16) Dibenzothiophene	(3)	7.963	184	220998	0.618	100

* = Compound is an internal standard.
$ = Compound is a surrogate standard.

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Quant Report Target Revision 3.5

Data File: /chem/SVOA/GCMS_EEE.i/170308.b/08mar008.d Instrument ID: GCMS_EEE.i
Injection date and time: 08-MAR-2017 12:13 Analyst ID: 907

Method used: /chem/SVOA/GCMS_EEE.i/170308.b/simpah-extra.m Sublist used: all
Calibration date and time: 08-MAR-2017 10:43
Date, time and analyst ID of latest file update: 08-Mar-2017 12:41 ev7p

Sample Name: LCS 170307 L05 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)	8.787	192	155881	0.622	100
29) Benzo (e) pyrene	(6)	12.615	252	256014	0.785	99
32) Perylene	(6)	12.775	252	247474	0.771	98
13) Dibenzofuran	(3)	6.687	168	110486	0.644	99

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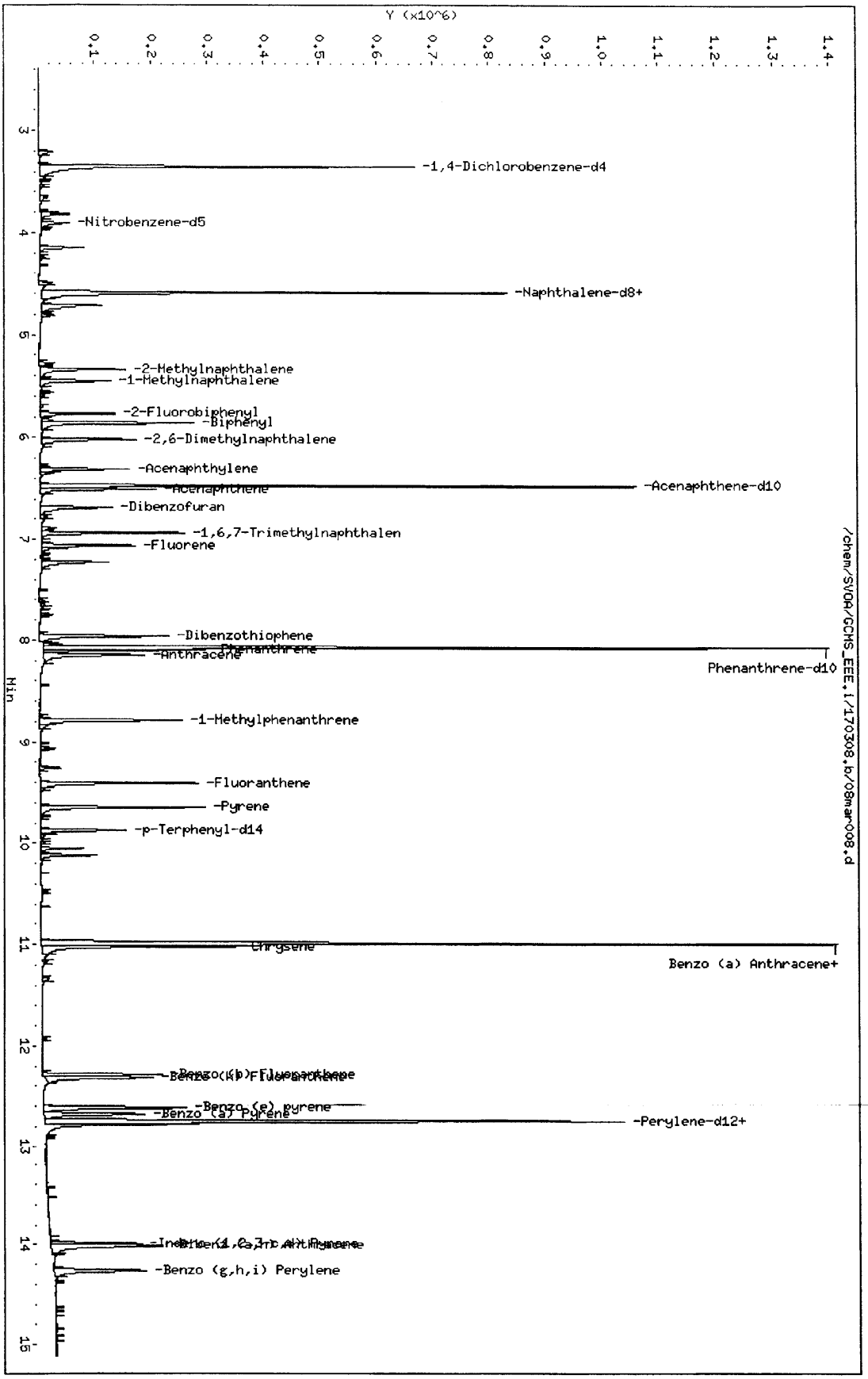

Quant Report Target Revision 3.5

Data File: /chem/SVOA/GCMS_EEE.i/170308.b/08mar010.d Instrument ID: GCMS_EEE.i
Injection date and time: 08-MAR-2017 12:53 Analyst ID: 907

Method used: /chem/SVOA/GCMS_EEE.i/170308.b/simpah-extra.m Sublist used: all
Calibration date and time: 08-MAR-2017 10:43
Date, time and analyst ID of latest file update: 08-Mar-2017 13:15 Unknown

Sample Name: 17-03-0444-3 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)	3.353	152	247931	5.000	0.00
3)*Naphthalene-d8	(2)	4.588	136	684922	5.000	0.00
11)*Acenaphthene-d10	(3)	6.475	164	352963	5.000	0.00
17)*Phenanthrene-d10	(4)	8.072	188	1110760	5.000	0.00
31)*Perylene-d12	(6)	12.745	264	977865	5.000	0.00
25)*Chrysene-d12	(5)	10.992	240	1091477	5.000	0.00
System Monitoring Compounds						
2)$Nitrobenzene-d5	(2)	3.904	82	40974	0.847	0.00
SpikedAmount 1.000	Recovery = 84.700					
7)$2-Fluorobiphenyl	(3)	5.769	172	100097	0.780	0.00
SpikedAmount 1.000	Recovery = 77.967					
23)$p-Terphenyl-d14	(5)	9.870	244	164296	0.950	0.00
SpikedAmount 1.000	Recovery = 94.953					
Target Compounds						QValue
4) Naphthalene	(2)	4.608	128	131337	0.853	100
5) 2-Methylnaphthalene	(2)	5.340	142	106128	1.051	99
6) 1-Methylnaphthalene	(2)	5.452	142	91416	0.946	97
10) Acenaphthylene	(3)	6.306	152	146853	0.781	99
12) Acenaphthene	(3)	6.509	153	88567	0.802	99
15) Fluorene	(3)	7.061	166	101730	0.812	100
18) Phenanthrene	(4)	8.097	178	206971	0.865	99
19) Anthracene	(4)	8.146	178	218879	0.896	99
21) Fluoranthene	(4)	9.406	202	279059	0.928	99
22) Pyrene	(5)	9.643	202	283791	0.863	99
24) Benzo (a) Anthracene	(5)	10.974	228	249398	0.865	100
26) Chrysene	(5)	11.020	228	248393	0.905	100
27) Benzo (b) Fluoranthene	(6)	12.287	252	221818	0.899	98
28) Benzo (k) Fluoranthene	(6)	12.317	252	266671	0.967	98
30) Benzo (a) Pyrene	(6)	12.678	252	236301	0.952	97
33) Indeno (1,2,3-c,d) Pyrene	(6)	13.990	276	246597	0.952	99
34) Dibenz (a,h) Anthracene	(6)	14.017	278	198215	1.007	97
35) Benzo (g,h,i) Perylene	(6)	14.263	276	225290	1.018	99
8) Biphenyl	(3)	5.857	154	123833	0.759	99
9) 2,6-Dimethylnaphthalene	(3)	6.019	156	87170	0.757	99
14) 1,6,7-Trimethylnaphthalene	(3)	6.939	170	84966	0.765	100
16) Dibenzothiophene	(3)	7.961	184	263134	0.764	99

* = Compound is an internal standard.
$ = Compound is a surrogate standard.

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Quant Report Target Revision 3.5

Data File: /chem/SVOA/GCMS_EEE.i/170308.b/08mar010.d Instrument ID: GCMS_EEE.i
Injection date and time: 08-MAR-2017 12:53 Analyst ID: 907

Method used: /chem/SVOA/GCMS_EEE.i/170308.b/simpah-extra.m Sublist used: all
Calibration date and time: 08-MAR-2017 10:43
Date, time and analyst ID of latest file update: 08-Mar-2017 13:15 Unknown

Sample Name: 17-03-0444-3 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)	8.787	192	197766	0.808	100
29) Benzo (e) pyrene	(6)	12.615	252	275261	0.885	99
32) Perylene	(6)	12.777	252	272984	0.892	99
13) Dibenzofuran	(3)	6.687	168	134638	0.815	98

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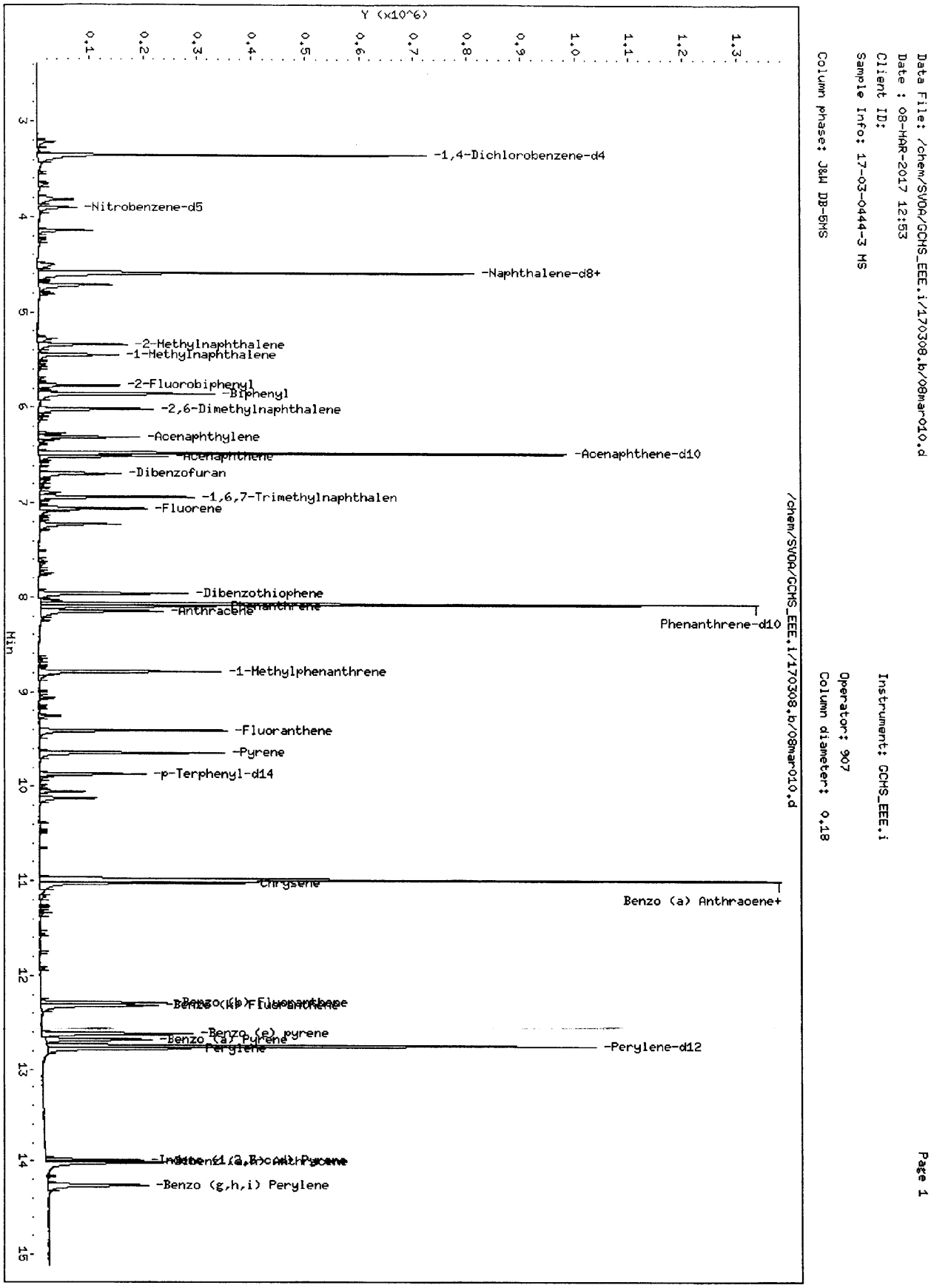

Data File: /chem/SVOA/GCMS_EEE.i/170308.b/08mar010.d
Date : 08-MAR-2017 12:53
Client ID:
Sample Info: 17-03-0444-3 MS
Column phase: J&W DB-5MS

Instrument: GCMS_EEE.i
Operator: 907
Column diameter: 0.18

Quant Report Target Revision 3.5

Data File: /chem/SVOA/GCMS_EEE.i/170308.b/08mar011.d Instrument ID: GCMS_EEE.i
Injection date and time: 08-MAR-2017 13:14 Analyst ID: 907

Method used: /chem/SVOA/GCMS_EEE.i/170308.b/simpah-extra.m Sublist used: all
Calibration date and time: 08-MAR-2017 10:43
Date, time and analyst ID of latest file update: 08-Mar-2017 13:36 Unknown

Sample Name: 17-03-0444-3 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)	3.353	152	251899	5.000	0.00
3)*Naphthalene-d8	(2)	4.589	136	706521	5.000	0.00
11)*Acenaphthene-d10	(3)	6.474	164	358700	5.000	0.00
17)*Phenanthrene-d10	(4)	8.074	188	1117798	5.000	0.00
31)*Perylene-d12	(6)	12.747	264	987601	5.000	0.00
25)*Chrysene-d12	(5)	10.992	240	1089127	5.000	0.00
System Monitoring Compounds						
2)$Nitrobenzene-d5	(2)	3.904	82	41462	0.831	0.00
SpikedAmount 1.000	Recovery = 83.089					
7)$2-Fluorobiphenyl	(3)	5.769	172	98279	0.753	0.00
SpikedAmount 1.000	Recovery = 75.326					
23)$p-Terphenyl-d14	(5)	9.871	244	160441	0.929	0.00
SpikedAmount 1.000	Recovery = 92.925					
Target Compounds						QValue
4) Naphthalene	(2)	4.609	128	118499	0.746	100
5) 2-Methylnaphthalene	(2)	5.340	142	97832	0.939	97
6) 1-Methylnaphthalene	(2)	5.452	142	81984	0.822	98
10) Acenaphthylene	(3)	6.306	152	133037	0.696	99
12) Acenaphthene	(3)	6.508	153	80153	0.715	99
15) Fluorene	(3)	7.061	166	95018	0.746	99
18) Phenanthrene	(4)	8.097	178	199545	0.829	99
19) Anthracene	(4)	8.148	178	212078	0.863	99
21) Fluoranthene	(4)	9.408	202	278097	0.919	100
22) Pyrene	(5)	9.645	202	286622	0.873	99
24) Benzo (a) Anthracene	(5)	10.976	228	245145	0.852	100
26) Chrysene	(5)	11.020	228	245799	0.898	99
27) Benzo (b) Fluoranthene	(6)	12.288	252	222827	0.895	98
28) Benzo (k) Fluoranthene	(6)	12.316	252	244759	0.879	99
30) Benzo (a) Pyrene	(6)	12.679	252	230522	0.919	97
33) Indeno (1,2,3-c,d) Pyrene	(6)	13.992	276	244738	0.936	89
34) Dibenz (a,h) Anthracene	(6)	14.018	278	191138	0.961	99
35) Benzo (g,h,i) Perylene	(6)	14.265	276	219779	0.983	99
8) Biphenyl	(3)	5.858	154	112178	0.676	99
9) 2,6-Dimethylnaphthalene	(3)	6.018	156	78668	0.673	99
14) 1,6,7-Trimethylnaphthalene	(3)	6.939	170	81900	0.725	98
16) Dibenzothiophene	(3)	7.961	184	246520	0.705	99

* = Compound is an internal standard.
$ = Compound is a surrogate standard.

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Quant Report Target Revision 3.5

Data File: /chem/SVOA/GCMS_EEE.i/170308.b/08mar011.d Instrument ID: GCMS_EEE.i
Injection date and time: 08-MAR-2017 13:14 Analyst ID: 907

Method used: /chem/SVOA/GCMS_EEE.i/170308.b/simpah-extra.m Sublist used: all
Calibration date and time: 08-MAR-2017 10:43
Date, time and analyst ID of latest file update: 08-Mar-2017 13:36 Unknown

Sample Name: 17-03-0444-3 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)	8.789	192	192690	0.789	99
29) Benzo (e) pyrene	(6)	12.616	252	273135	0.869	99
32) Perylene	(6)	12.778	252	259093	0.839	99
13) Dibenzofuran	(3)	6.687	168	125247	0.746	98

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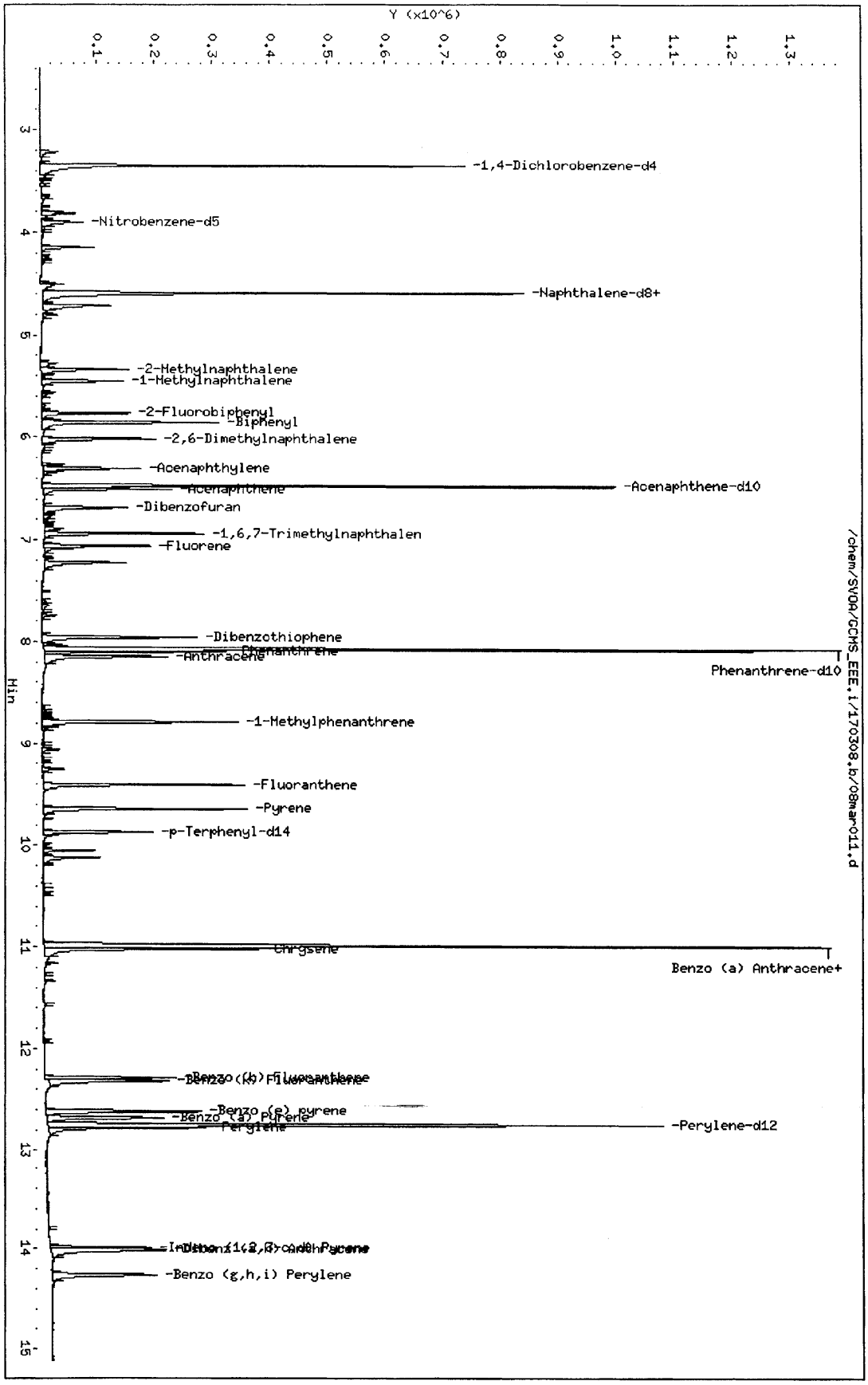

Data File: /chem/SVOA/GCMS_EEE.i/170308.b/08mar011.d
Date : 08-MAR-2017 13:14
Client ID:
Sample Info: 17-03-0444-3 MSD
Column phase: J&W DB-5MS

Instrument: GCMS_EEE.i
Operator: 907
Column diameter: 0.18

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Quant Report Target Revision 3.5

Data File: /chem/SVOA/GCMS_EEE.i/170308.b/08mar012.d Instrument ID: GCMS_EEE.i
Injection date and time: 08-MAR-2017 13:34 Analyst ID: 907

Method used: /chem/SVOA/GCMS_EEE.i/170308.b/simpah-extra.m Sublist used: all
Calibration date and time: 08-MAR-2017 10:43
Date, time and analyst ID of latest file update: 08-Mar-2017 14:39 ev7p

Sample Name: 17-03-0444-3 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)	3.354	152	244922	5.000	0.00
3)*Naphthalene-d8	(2)	4.589	136	708862	5.000	0.00
11)*Acenaphthene-d10	(3)	6.475	164	355830	5.000	0.00
17)*Phenanthrene-d10	(4)	8.074	188	1125715	5.000	0.00
31)*Perylene-d12	(6)	12.745	264	967244	5.000	0.00
25)*Chrysene-d12	(5)	10.992	240	1097433	5.000	0.00
System Monitoring Compounds						
2)$Nitrobenzene-d5	(2)	3.908	82	41873	0.836	0.00
SpikedAmount 1.000	Recovery = 83.635					
7)$2-Fluorobiphenyl	(3)	5.771	172	98671	0.762	0.00
SpikedAmount 1.000	Recovery = 76.237					
23)$p-Terphenyl-d14	(5)	9.871	244	166685	0.958	0.00
SpikedAmount 1.000	Recovery = 95.811					
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)	8.098	178	7533	0.031	98
19) Anthracene	(4)	8.155	178	5212	0.021	96
21) Fluoranthene	(4)	9.416	202	6784	0.022	93
22) Pyrene	(5)	9.651	202	6513	0.020	99
24) Benzo (a) Anthracene	(5)	10.976	228	7842	0.027	88
26) Chrysene	(5)	11.019	228	5770	0.021	97
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)	12.682	252	2960	0.012	62
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)	14.273	276	3003	0.014	61
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.	

* = Compound is an internal standard.
$ = Compound is a surrogate standard.

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Quant Report Target Revision 3.5

Data File: /chem/SVOA/GCMS_EEE.i/170308.b/08mar012.d Instrument ID: GCMS_EEE.i
Injection date and time: 08-MAR-2017 13:34 Analyst ID: 907

Method used: /chem/SVOA/GCMS_EEE.i/170308.b/simpah-extra.m Sublist used: all
Calibration date and time: 08-MAR-2017 10:43
Date, time and analyst ID of latest file update: 08-Mar-2017 14:39 ev7p

Sample Name: 17-03-0444-3 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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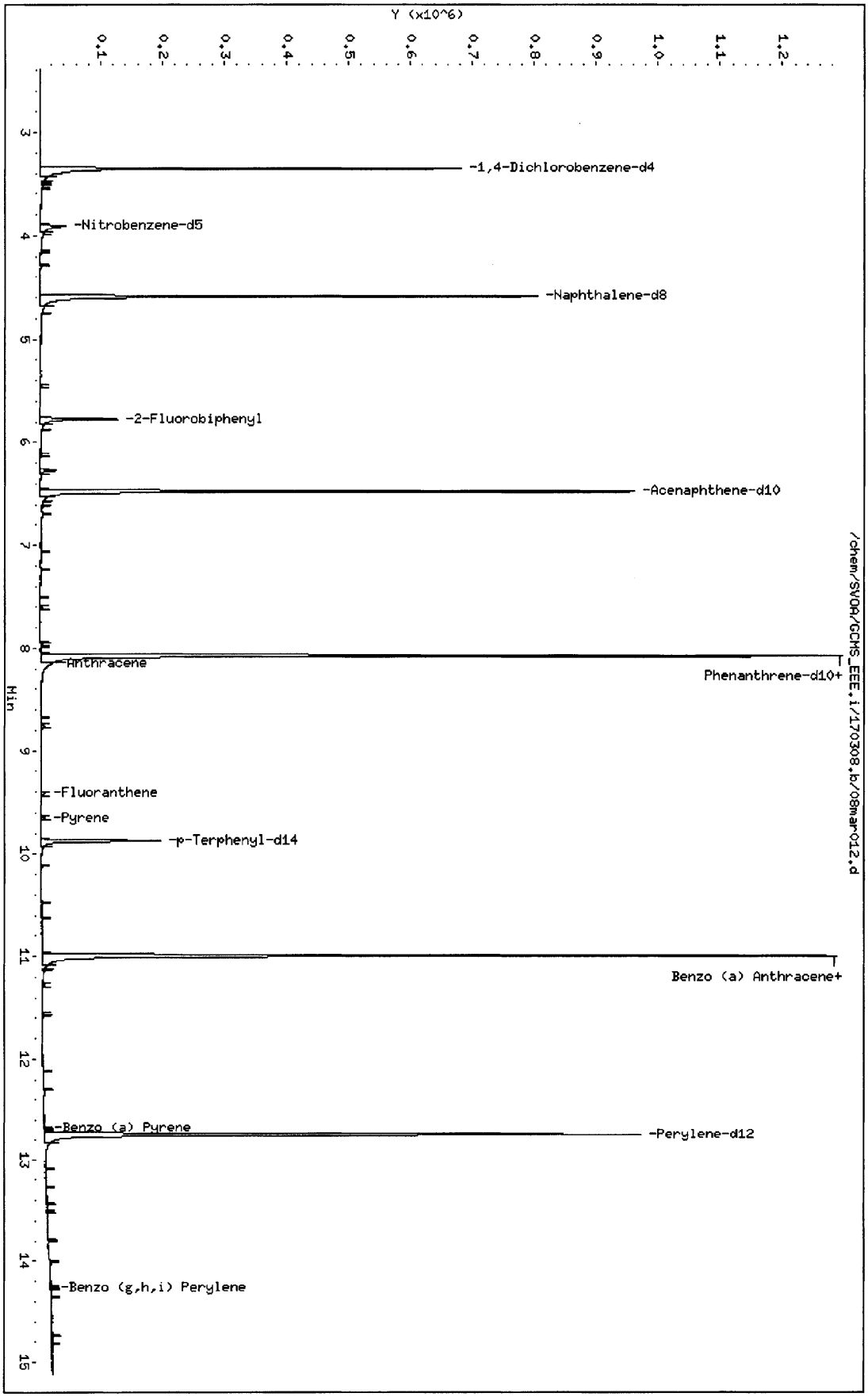

Data File: /chem/SVOA/GCMS_EEE.i/170308.b/08mar012.d
Date : 08-MAR-2017 13:34
Client ID:
Sample Info: 17-03-0444-3
Column phase: J&W DB-5MS

Instrument: GCMS_EEE.i
Operator: 907
Column diameter: 0.18

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EPA METHOD 8270C
PAHSIM

Continuing Calibration

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CCV ASSOCIATION SUMMARY
FOR METHOD: EPA 8270C SIM PAHs

BATCH ID: **170308A003** ANALYZED BY: 907
INSTRUMENT: GC/MS EEE

WORK ORDER: **099-06-009** REVIEWED BY:
MATRIX: Water D/T REVIEWED:

CEL SAMPLE #	CLIENT SAMPLE ID	D/T ANALYZED	DATA FILE
4972	Daily Calibration	2017-03-08 10:12	Z:\GCMS_EEE\GCMS_EEE_data\2017\170308\08mar002.d\08mar002.r

WORK ORDER: **17-03-0445** REVIEWED BY:
MATRIX: Soil D/T REVIEWED:

CEL SAMPLE #	CLIENT SAMPLE ID	D/T ANALYZED	DATA FILE
3	B-DU3-S-SG-09-15S	2017-03-08 15:15	Z:\GCMS_EEE\GCMS_EEE_data\2017\170308\08mar017.d\08mar017.r
4	B-DU3-S-SG-09-25S	2017-03-08 15:35	Z:\GCMS_EEE\GCMS_EEE_data\2017\170308\08mar018.d\08mar018.r
7	B-DU3-S-SG-10-15S	2017-03-08 15:56	Z:\GCMS_EEE\GCMS_EEE_data\2017\170308\08mar019.d\08mar019.r
8	B-DU3-S-SG-10-25S	2017-03-08 16:16	Z:\GCMS_EEE\GCMS_EEE_data\2017\170308\08mar020.d\08mar020.r

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CONTINUING CALIBRATION VERIFICATION QUALITY CONTROL SHEET
FOR METHOD: EPA 8270C SIM PAHs

CCV WORK ORDER:	**099-06-009-4972-4741**	ANALYZED BY:	907
INSTRUMENT:	GC/MS EEE	D/T ANALYZED:	
BATCH ID:		INITIAL:	2017-02-27 13:53
INITIAL:	170227I004	CCV:	2017-03-08 10:12
CCV:	170308A003	REVIEWED BY:	
		D/T REVIEWED:	

Data File: Z:\GCMS_EEE\GCMS_EEE_data\2017\170308\08mar002.d\08mar002.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	1.212			-8	0-20	PASS
2-Methylnaphthalene		Avg Resp	0.00	0.737	0.849			-15	0-20	PASS
1-Methylnaphthalene		Avg Resp	0.00	0.706	0.816			-16	0-20	PASS
Acenaphthylene		Avg Resp	0.00	2.664	2.880			-8	0-20	PASS
Acenaphthene	C	Avg Resp	0.00	1.563	1.677			-7	0-20	PASS
Fluorene		Avg Resp	0.00	1.776	1.937			-9	0-20	PASS
Phenanthrene		Avg Resp	0.00	1.077	1.109			-3	0-20	PASS
Anthracene		Avg Resp	0.00	1.099	1.100			0	0-20	PASS
Fluoranthene	C	Avg Resp	0.00	1.354	1.507			-11	0-20	PASS
Pyrene		Avg Resp	0.00	1.507	1.581			-5	0-20	PASS
Benzo (a) Anthracene		Avg Resp	0.00	1.321	1.337			-1	0-20	PASS
Chrysene		Avg Resp	0.00	1.257	1.386			-10	0-20	PASS
Benzo (k) Fluoranthene		Avg Resp	0.00	1.410	1.618			-15	0-20	PASS
Benzo (b) Fluoranthene		Avg Resp	0.00	1.261	1.394			-11	0-20	PASS
Benzo (a) Pyrene	C	Avg Resp	0.00	1.269	1.389			-9	0-20	PASS
Indeno (1,2,3-c,d) Pyrene		Avg Resp	0.00	1.324	1.557			-18	0-20	PASS
Dibenz (a,h) Anthracene		Avg Resp	0.00	1.007	1.177			-17	0-20	PASS
Benzo (g,h,i) Perylene		Avg Resp	0.00	1.132	1.302			-15	0-20	PASS

MIN RF: Method Specified Minimum Response Factor

INTERNAL STANDARD COMPOUNDS AREA REPORT
FOR METHOD: EPA 8270C SIM PAHs

ICAL BATCH ID: 170227I004 CCV BATCH ID: 170308A003

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 099-06-009-4972 D/T ANALYZED: 2017-03-08 10:12

DATA FILE: Z:\GCMS_EEE\GCMS_EEE_data\2017\170308\08mar002.d\08mar002.rr

COMPOUND	AREA	LOWER AREA LIMIT	UPPER AREA LIMIT	RETENTION TIME	STATUS
1,4-Dichlorobenzene-d4	234599	115034	460136	3.35	PASS
Naphthalene-d8	616202	306372	1225490	4.59	PASS
Acenaphthene-d10	283288	136516	546064	6.48	PASS
Phenanthrene-d10	956039	462534	1850136	8.07	PASS
Chrysene-d12	952968	439251	1757004	10.99	PASS
Perylene-d12	857636	392630	1570522	12.75	PASS

MB

SAMPLE ID 099-14-035-378 D/T ANALYZED: 2017-03-08 11:53

DATA FILE: Z:\GCMS_EEE\GCMS_EEE_data\2017\170308\08mar007.d\08mar007.rr

COMPOUND	AREA	LOWER AREA LIMIT	UPPER AREA LIMIT	RETENTION TIME	STATUS
1,4-Dichlorobenzene-d4	242161	117300	469198	3.35	PASS
Naphthalene-d8	674197	308101	1232404	4.59	PASS
Acenaphthene-d10	345099	141644	566576	6.47	PASS
Phenanthrene-d10	1111117	478020	1912078	8.07	PASS
Chrysene-d12	1096491	476484	1905936	10.99	PASS
Perylene-d12	980746	428818	1715272	12.75	PASS

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LCS

SAMPLE ID **099-14-035-378** D/T ANALYZED: 2017-03-08 12:13

DATA FILE: Z:\GCMS_EEE\GCMS_EEE_data\2017\170308\08mar008.d\08mar008.rr

COMPOUND	AREA	LOWER AREA LIMIT	UPPER AREA LIMIT	RETENTION TIME	STATUS
1,4-Dichlorobenzene-d4	268165	117300	469198	3.35	PASS
Naphthalene-d8	710513	308101	1232404	4.59	PASS
Acenaphthene-d10	366535	141644	566576	6.47	PASS
Phenanthrene-d10	1138398	478020	1912078	8.07	PASS
Chrysene-d12	1118060	476484	1905936	10.99	PASS
Perylene-d12	1025848	428818	1715272	12.75	PASS

MS

SAMPLE ID **17-03-0444-3** D/T ANALYZED: 2017-03-08 12:53

DATA FILE: Z:\GCMS_EEE\GCMS_EEE_data\2017\170308\08mar010.d\08mar010.rr

COMPOUND	AREA	LOWER AREA LIMIT	UPPER AREA LIMIT	RETENTION TIME	STATUS
1,4-Dichlorobenzene-d4	247931	117300	469198	3.35	PASS
Naphthalene-d8	684922	308101	1232404	4.59	PASS
Acenaphthene-d10	352963	141644	566576	6.47	PASS
Phenanthrene-d10	1110760	478020	1912078	8.07	PASS
Chrysene-d12	1091477	476484	1905936	10.99	PASS
Perylene-d12	977865	428818	1715272	12.75	PASS

MSD

SAMPLE ID **17-03-0444-3** D/T ANALYZED: 2017-03-08 13:14

DATA FILE: Z:\GCMS_EEE\GCMS_EEE_data\2017\170308\08mar011.d\08mar011.rr

COMPOUND	AREA	LOWER AREA LIMIT	UPPER AREA LIMIT	RETENTION TIME	STATUS
1,4-Dichlorobenzene-d4	251899	117300	469198	3.35	PASS
Naphthalene-d8	706521	308101	1232404	4.59	PASS
Acenaphthene-d10	358700	141644	566576	6.47	PASS
Phenanthrene-d10	1117798	478020	1912078	8.07	PASS
Chrysene-d12	1089127	476484	1905936	10.99	PASS
Perylene-d12	987601	428818	1715272	12.75	PASS

CS

SAMPLE ID **17-03-0445-3** D/T ANALYZED: 2017-03-08 15:15

DATA FILE: Z:\GCMS_EEE\GCMS_EEE_data\2017\170308\08mar017.d\08mar017.rr

COMPOUND	AREA	LOWER AREA LIMIT	UPPER AREA LIMIT	RETENTION TIME	STATUS
1,4-Dichlorobenzene-d4	255737	117300	469198	3.35	PASS
Naphthalene-d8	717137	308101	1232404	4.59	PASS
Acenaphthene-d10	361512	141644	566576	6.47	PASS
Phenanthrene-d10	1177570	478020	1912078	8.07	PASS
Chrysene-d12	1110848	476484	1905936	10.99	PASS
Perylene-d12	1023420	428818	1715272	12.75	PASS

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CS

SAMPLE ID **17-03-0445-4** D/T ANALYZED: 2017-03-08 15:35

DATA FILE: Z:\GCMS_EEE\GCMS_EEE_data\2017\170308\08mar018.d\08mar018.rr

COMPOUND	AREA	LOWER AREA LIMIT	UPPER AREA LIMIT	RETENTION TIME	STATUS
1,4-Dichlorobenzene-d4	248092	117300	469198	3.36	PASS
Naphthalene-d8	681788	308101	1232404	4.59	PASS
Acenaphthene-d10	339176	141644	566576	6.47	PASS
Phenanthrene-d10	1094598	478020	1912078	8.07	PASS
Chrysene-d12	1054034	476484	1905936	10.99	PASS
Perylene-d12	951954	428818	1715272	12.75	PASS

CS

SAMPLE ID **17-03-0445-7** D/T ANALYZED: 2017-03-08 15:56

DATA FILE: Z:\GCMS_EEE\GCMS_EEE_data\2017\170308\08mar019.d\08mar019.rr

COMPOUND	AREA	LOWER AREA LIMIT	UPPER AREA LIMIT	RETENTION TIME	STATUS
1,4-Dichlorobenzene-d4	258995	117300	469198	3.36	PASS
Naphthalene-d8	717792	308101	1232404	4.59	PASS
Acenaphthene-d10	360536	141644	566576	6.47	PASS
Phenanthrene-d10	1158992	478020	1912078	8.07	PASS
Chrysene-d12	1089308	476484	1905936	10.99	PASS
Perylene-d12	985154	428818	1715272	12.74	PASS

CS

SAMPLE ID **17-03-0445-8** D/T ANALYZED: 2017-03-08 16:16

DATA FILE: Z:\GCMS_EEE\GCMS_EEE_data\2017\170308\08mar020.d\08mar020.rr

COMPOUND	AREA	LOWER AREA LIMIT	UPPER AREA LIMIT	RETENTION TIME	STATUS
1,4-Dichlorobenzene-d4	253610	117300	469198	3.36	PASS
Naphthalene-d8	682610	308101	1232404	4.59	PASS
Acenaphthene-d10	343461	141644	566576	6.47	PASS
Phenanthrene-d10	1118429	478020	1912078	8.07	PASS
Chrysene-d12	1064033	476484	1905936	10.99	PASS
Perylene-d12	957130	428818	1715272	12.75	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.

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Data File: /chem/SVOA/GCMS_EEE.i/170308.b/08mar002.d
Report Date: 03/08/2017 13:24

Eurofins CalScience
Calibration Verification Report

Instrument ID: GCMS_EEE.i
Sample Name: CCV S010317F 1PPM
Sublist used: all.sub
Method used: /chem/SVOA/GCMS_EEE.i/170308.b/simpah-extra.m

Injection Date and Time: 08-MAR-2017 10:12
Initial Calibration Date(s): 03-JAN-2017 27-FEB-2017
Initial Calibration Time(s): 11:59 13:53

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	0.849	0.00	-15	20	Averaged
1-Methylnaphthalene	0.706	0.816	0.00	-16	20	Averaged
Acenaphthylene	2.664	2.880	0.00	-8	20	Averaged
Acenaphthene	1.563	1.677	0.00	-7	20	Averaged
Fluorene	1.776	1.937	0.00	-9	20	Averaged
Phenanthrene	1.077	1.109	0.00	-3	20	Averaged
Anthracene	1.099	1.100	0.00	0	20	Averaged
Fluoranthene	1.354	1.507	0.00	-11	20	Averaged
Pyrene	1.507	1.581	0.00	-5	20	Averaged
Benzo (a) Anthracene	1.321	1.337	0.00	-1	20	Averaged
Chrysene	1.257	1.386	0.00	-10	20	Averaged
Benzo (b) Fluoranthene	1.261	1.394	0.00	-11	20	Averaged
Benzo (k) Fluoranthene	1.410	1.618	0.00	-15	20	Averaged
Benzo (a) Pyrene	1.269	1.389	0.00	-9	20	Averaged
Indeno (1,2,3-c,d) Pyrene	1.324	1.557	0.00	-18	20	Averaged
Dibenz (a,h) Anthracene	1.007	1.177	0.00	-17	20	Averaged
Benzo (g,h,i) Perylene	1.132	1.302	0.00	-15	20	Averaged
Biphenyl	2.312	2.488	0.00	-8	20	Averaged
2,6-Dimethylnaphthalene	1.630	1.750	0.00	-7	20	Averaged
1,6,7-Trimethylnaphthalene	1.574	1.760	0.00	-12	20	Averaged
Dibenzothiophene	4.877	5.263	0.00	-8	20	Averaged
1-Methylphenanthrene	1.121	1.140	0.00	-2	20	Averaged
Benzo (e) pyrene	1.590	1.767	0.00	-11	20	Averaged
Perylene	1.564	1.666	0.00	-7	20	Averaged
Dibenzofuran	2.341	2.593	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	0.344	0.00	3	20	Averaged
2-Fluorobiphenyl	1.819	1.959	0.00	-8	20	Averaged
p-Terphenyl-d14	0.793	0.882	0.00	-11	20	Averaged

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Quant Report Target Revision 3.5

Data File: /chem/SVOA/GCMS_EEE.i/170308.b/08mar002.d Instrument ID: GCMS_EEE.i
Injection date and time: 08-MAR-2017 10:12 Analyst ID: 907

Method used: /chem/SVOA/GCMS_EEE.i/170308.b/simpah-extra.m Sublist used: all
Calibration date and time: 08-MAR-2017 10:43
Date, time and analyst ID of latest file update: 08-Mar-2017 10:43 ev7p

Sample Name: CCV S010317F 1PPM Misc Info: 170308A003
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)	3.350	152	234599	5.000	0.00
3)*Naphthalene-d8	(2)	4.591	136	616202	5.000	0.00
11)*Acenaphthene-d10	(3)	6.476	164	283288	5.000	0.00
17)*Phenanthrene-d10	(4)	8.074	188	956039	5.000	0.00
31)*Perylene-d12	(6)	12.745	264	857636	5.000	0.00
25)*Chrysene-d12	(5)	10.992	240	952968	5.000	0.00
System Monitoring Compounds						
2)$Nitrobenzene-d5	(2)	3.905	82	42454	0.975	0.00
SpikedAmount 1.000	Recovery =	0.000				
7)$2-Fluorobiphenyl	(3)	5.771	172	110978	1.077	0.00
SpikedAmount 1.000	Recovery =	0.000				
23)$p-Terphenyl-d14	(5)	9.871	244	168125	1.113	0.00
SpikedAmount 1.000	Recovery =	0.000				
Target Compounds						QValue
4) Naphthalene	(2)	4.610	128	149347	1.079	100
5) 2-Methylnaphthalene	(2)	5.341	142	104628	1.151	100
6) 1-Methylnaphthalene	(2)	5.453	142	100505	1.156	100
10) Acenaphthylene	(3)	6.309	152	163166	1.081	100
12) Acenaphthene	(3)	6.510	153	95031	1.073	100
15) Fluorene	(3)	7.062	166	109759	1.091	100
18) Phenanthrene	(4)	8.097	178	211978	1.029	100
19) Anthracene	(4)	8.150	178	210319	1.000	100
21) Fluoranthene	(4)	9.408	202	288086	1.113	100
22) Pyrene	(5)	9.646	202	301325	1.049	100
24) Benzo (a) Anthracene	(5)	10.976	228	254758	1.012	100
26) Chrysene	(5)	11.020	228	264177	1.103	100
27) Benzo (b) Fluoranthene	(6)	12.287	252	239139	1.105	100
28) Benzo (k) Fluoranthene	(6)	12.316	252	277463	1.147	100
30) Benzo (a) Pyrene	(6)	12.677	252	238297	1.095	100
33) Indeno (1,2,3-c,d) Pyrene	(6)	13.992	276	267075	1.176	100
34) Dibenz (a,h) Anthracene	(6)	14.015	278	201902	1.169	100
35) Benzo (g,h,i) Perylene	(6)	14.263	276	223412	1.151	100
8) Biphenyl	(3)	5.858	154	140977	1.076	100
9) 2,6-Dimethylnaphthalene	(3)	6.020	156	99160	1.074	100
14) 1,6,7-Trimethylnaphthalene	(3)	6.941	170	99743	1.118	100
16) Dibenzothiophene	(3)	7.963	184	298202	1.079	100

* = Compound is an internal standard.
$ = Compound is a surrogate standard.

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Quant Report Target Revision 3.5

Data File: /chem/SVOA/GCMS_EEE.i/170308.b/08mar002.d Instrument ID: GCMS_EEE.i
Injection date and time: 08-MAR-2017 10:12 Analyst ID: 907

Method used: /chem/SVOA/GCMS_EEE.i/170308.b/simpah-extra.m Sublist used: all
Calibration date and time: 08-MAR-2017 10:43
Date, time and analyst ID of latest file update: 08-Mar-2017 10:43 ev7p

Sample Name: CCV S010317F 1PPM Misc Info: 170308A003
Response via Initial Calibration

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (mg/L)	QValue
20) 1-Methylphenanthrene	(5)	8.789	192	217231	1.017	100
29) Benzo (e) pyrene	(6)	12.616	252	303102	1.111	100
32) Perylene	(6)	12.775	252	285815	1.065	100
13) Dibenzofuran	(3)	6.687	168	146904	1.107	100

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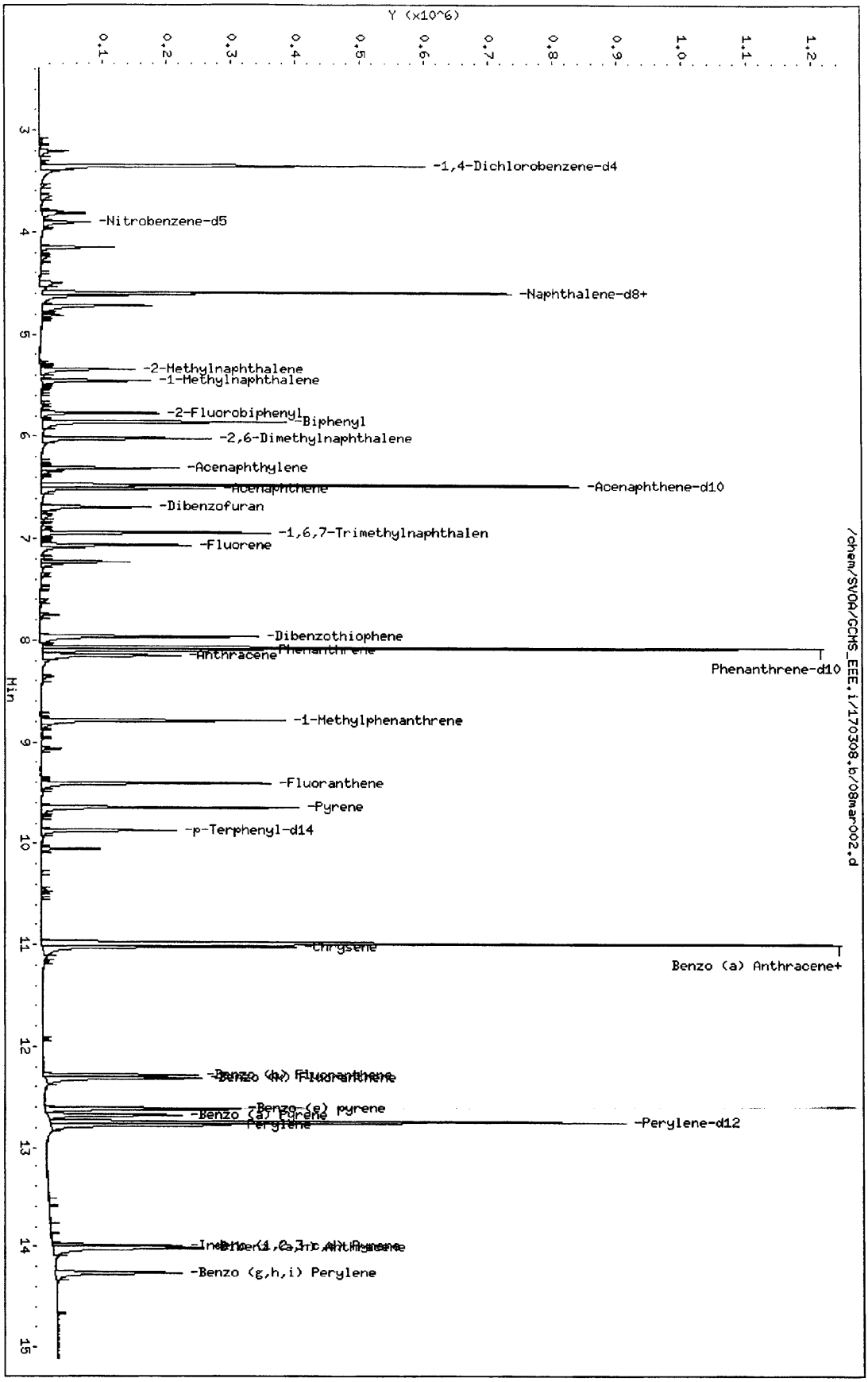

Data File: /chem/SVOA/GCMS_EEE.i/170308.b/08mar002.d
Date : 08-MAR-2017 10:12
Client ID:
Sample Info: CCV S010317F 1PPM
Column phase: J&W DB-5MS

Instrument: GCMS_EEE.i
Operator: 907
Column diameter: 0.18

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EPA METHOD 8270C
PAHSIM

Tuning Reports

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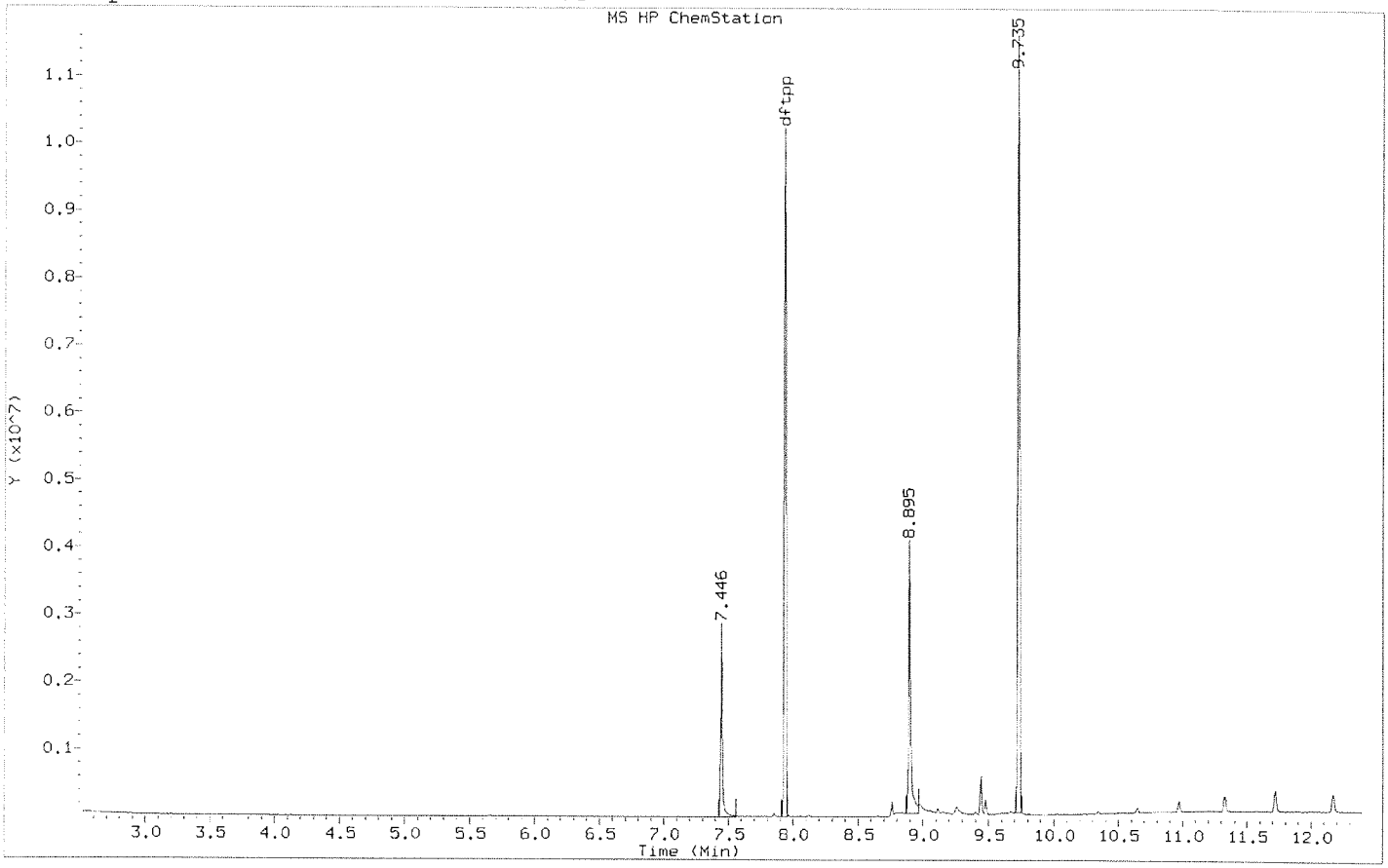
DFTPP TUNE/TAILING FACTOR/DEGRADATION SAMPLE AND GRAPHIC REPORT

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 ***

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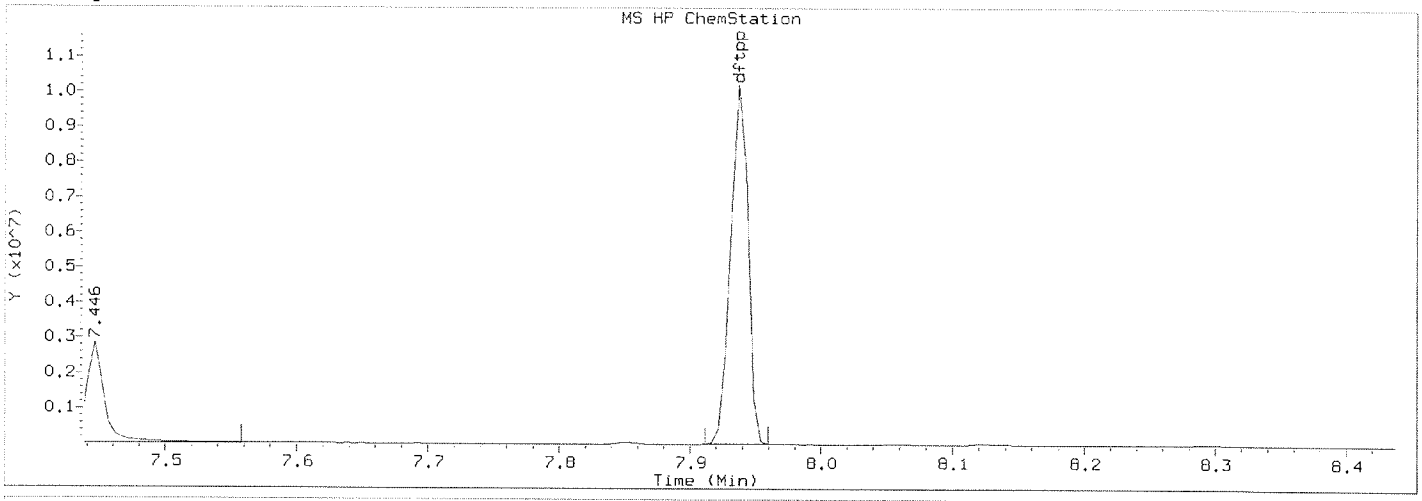
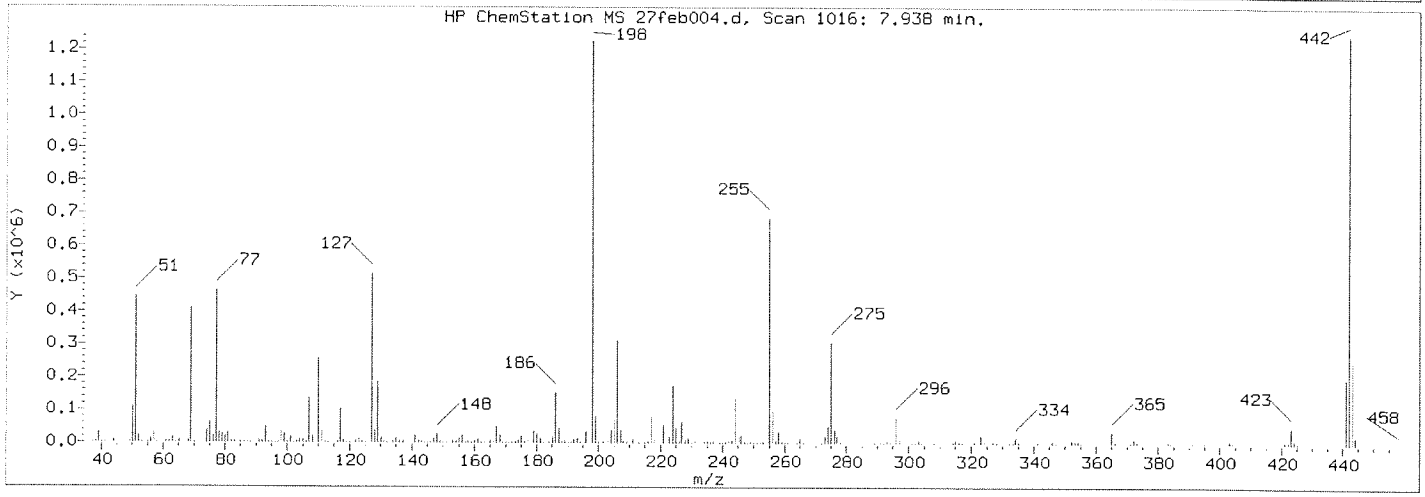
Report Generated Time Mon Feb 27 11:45:38 2017

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

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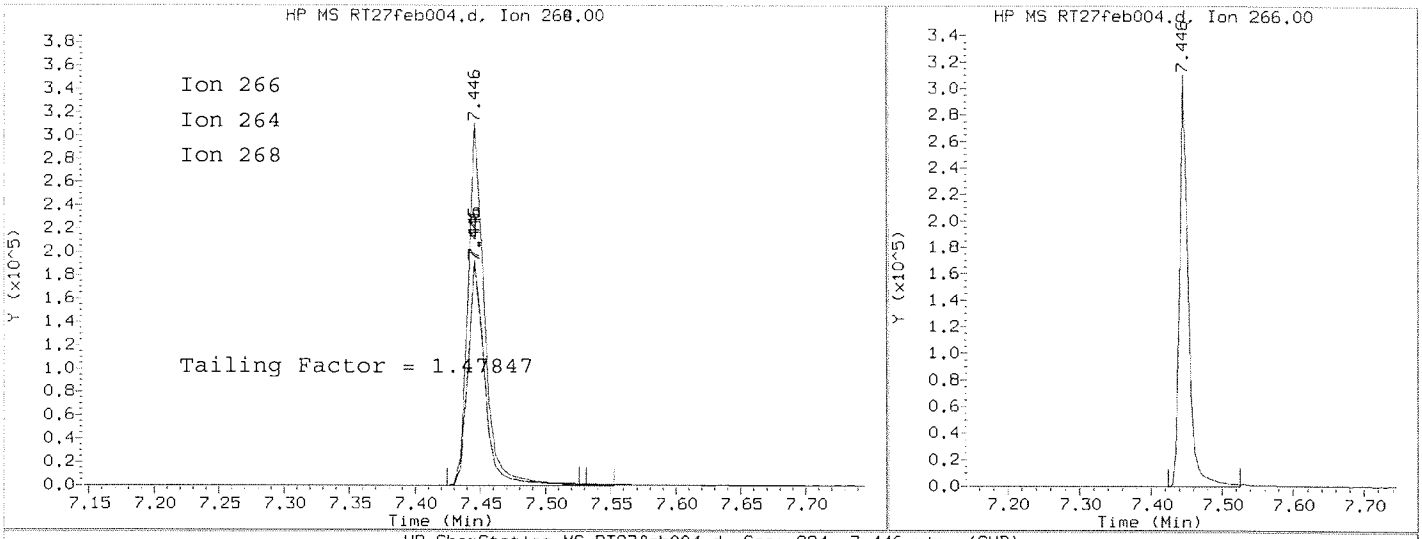
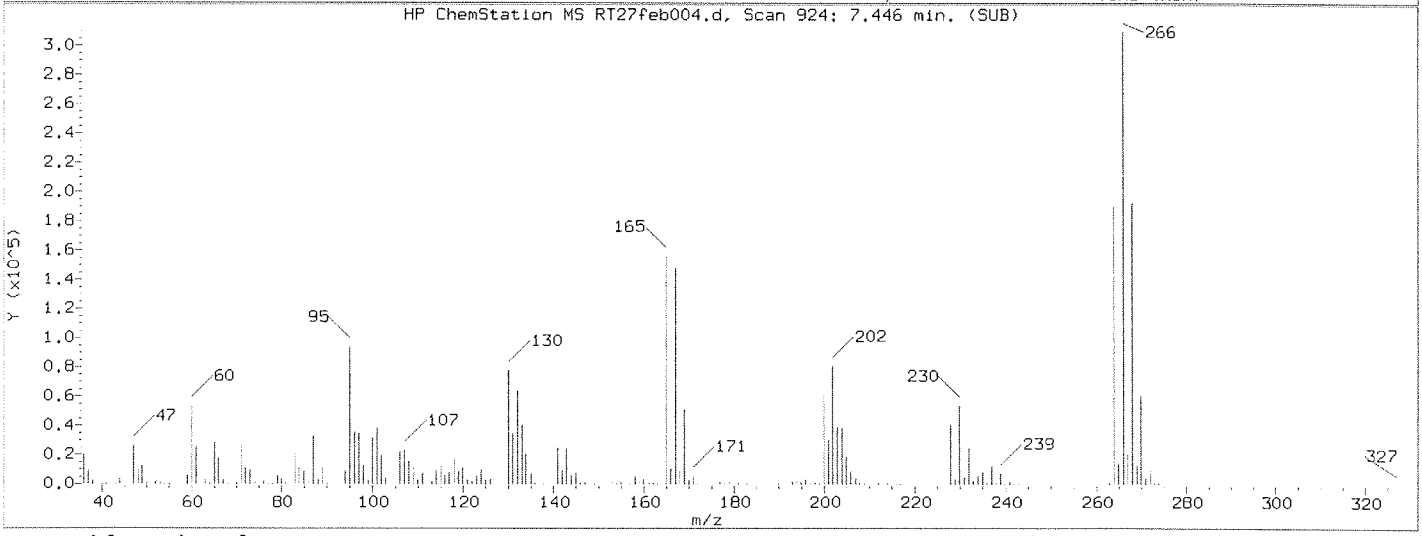
Report Generated Time Mon Feb 27 11:45:38 2017

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

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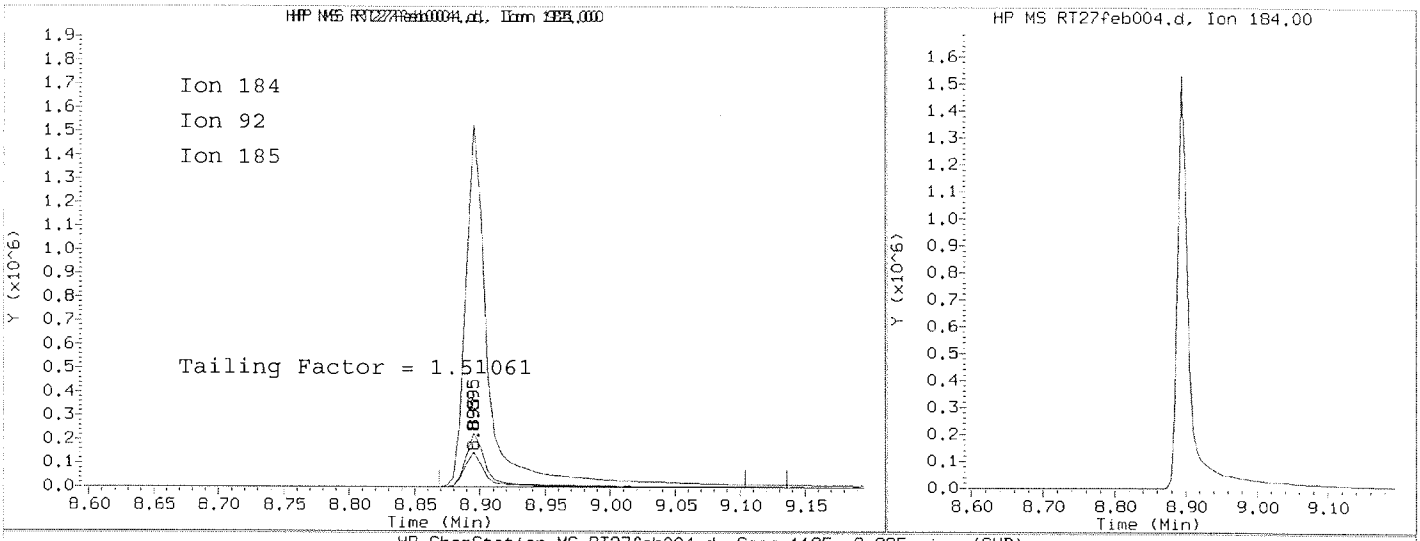
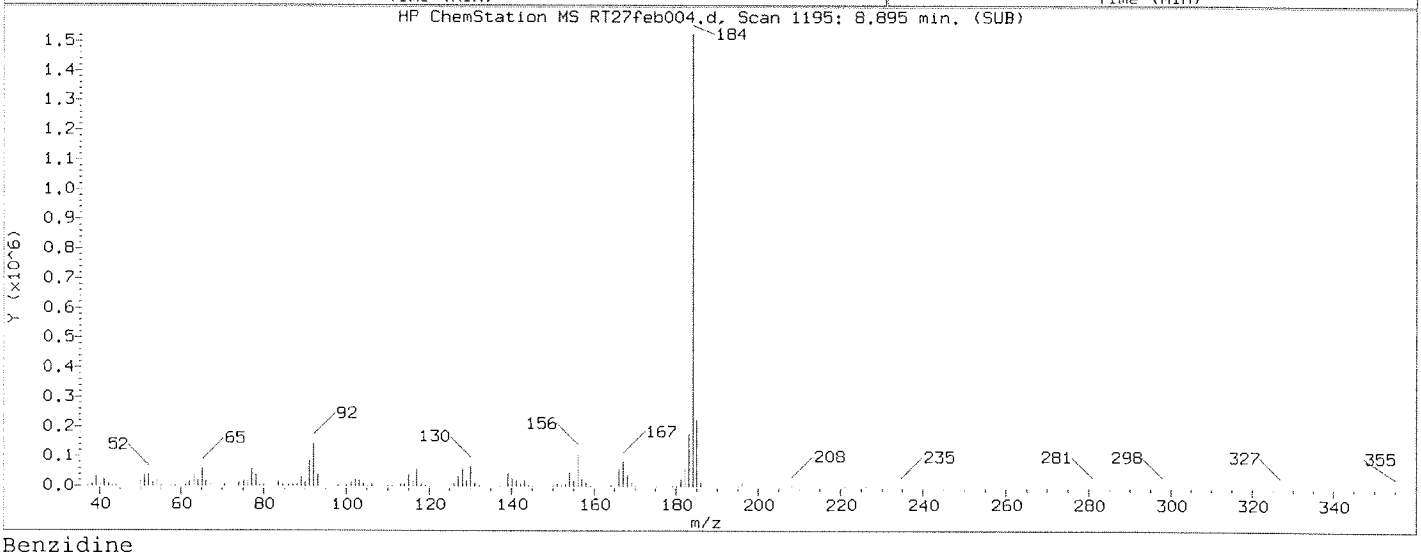
Report Generated Time Mon Feb 27 11:45:38 2017

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

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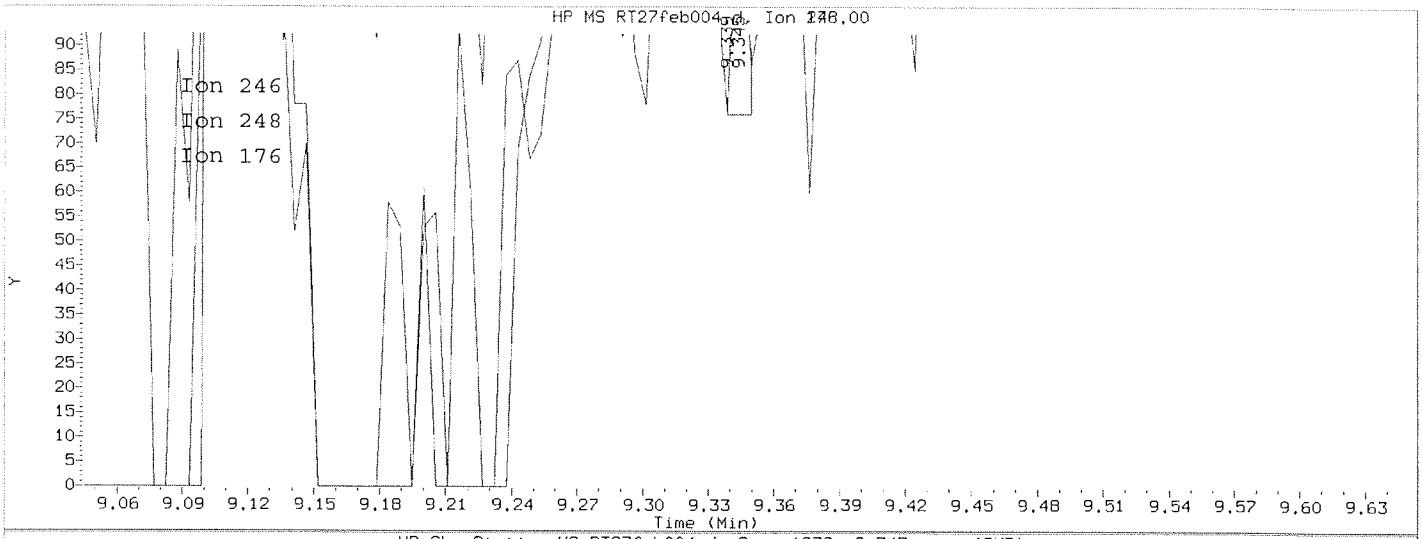
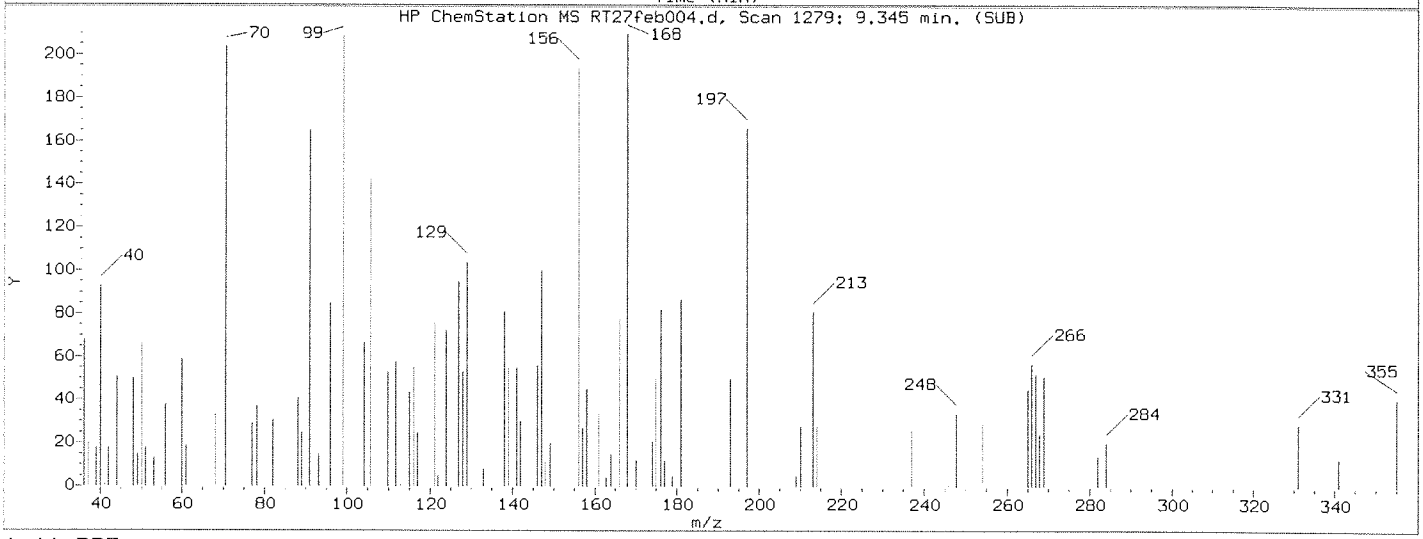
Report Generated Time Mon Feb 27 11:45:38 2017

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

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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
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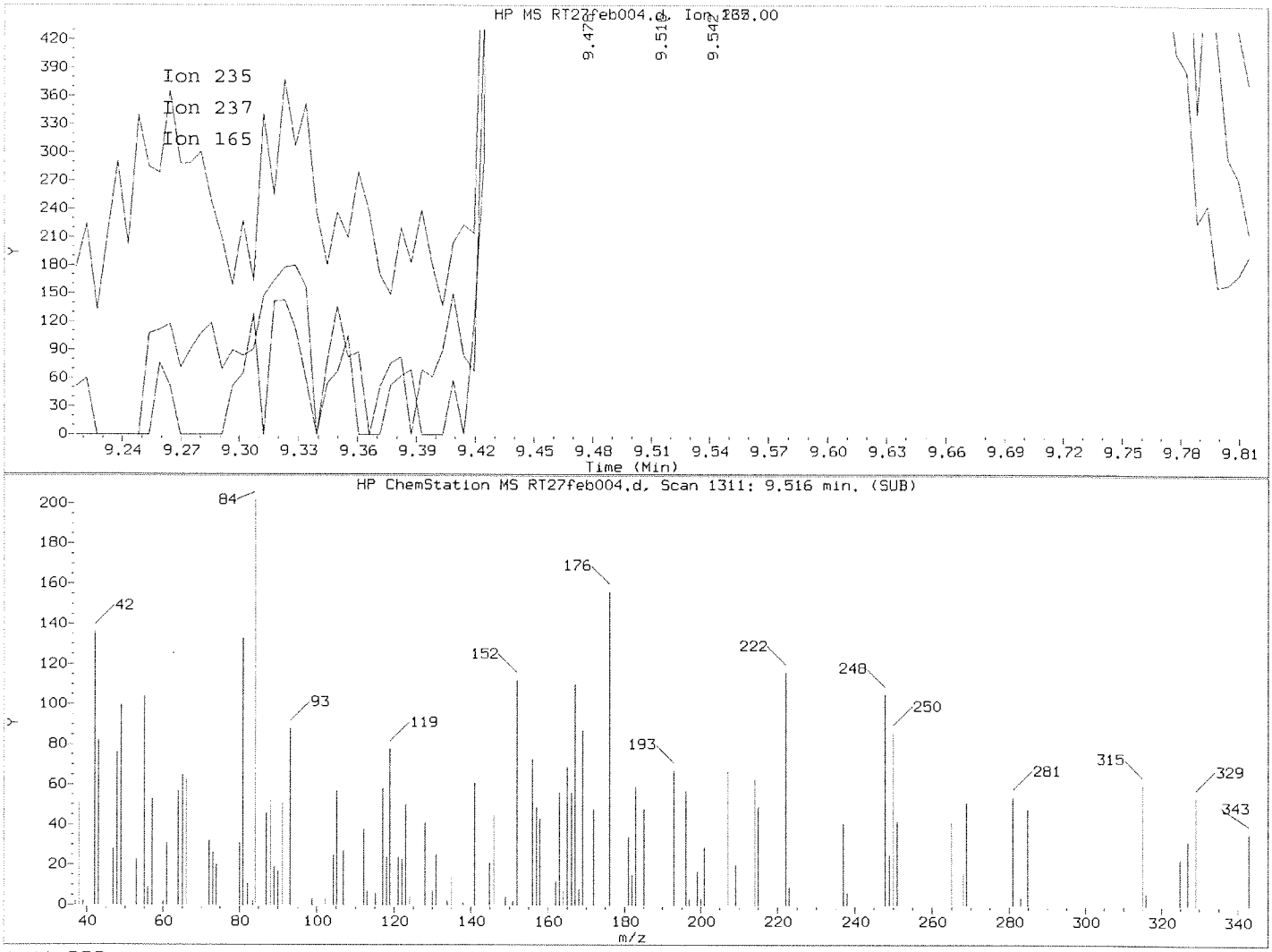

4,4'-DDD
========
Exp. RT = 9.499
Found RT = 9.516

Mass	Area	Ratio
235	347	100.00
237	17275	4973.85
165	183	52.87

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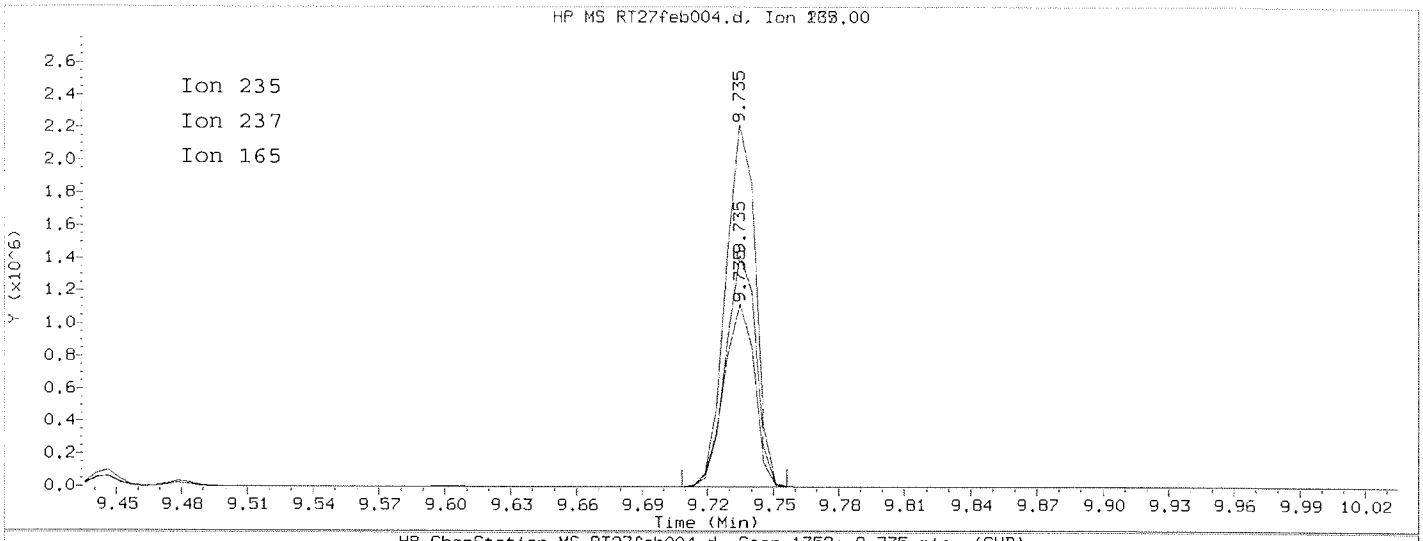
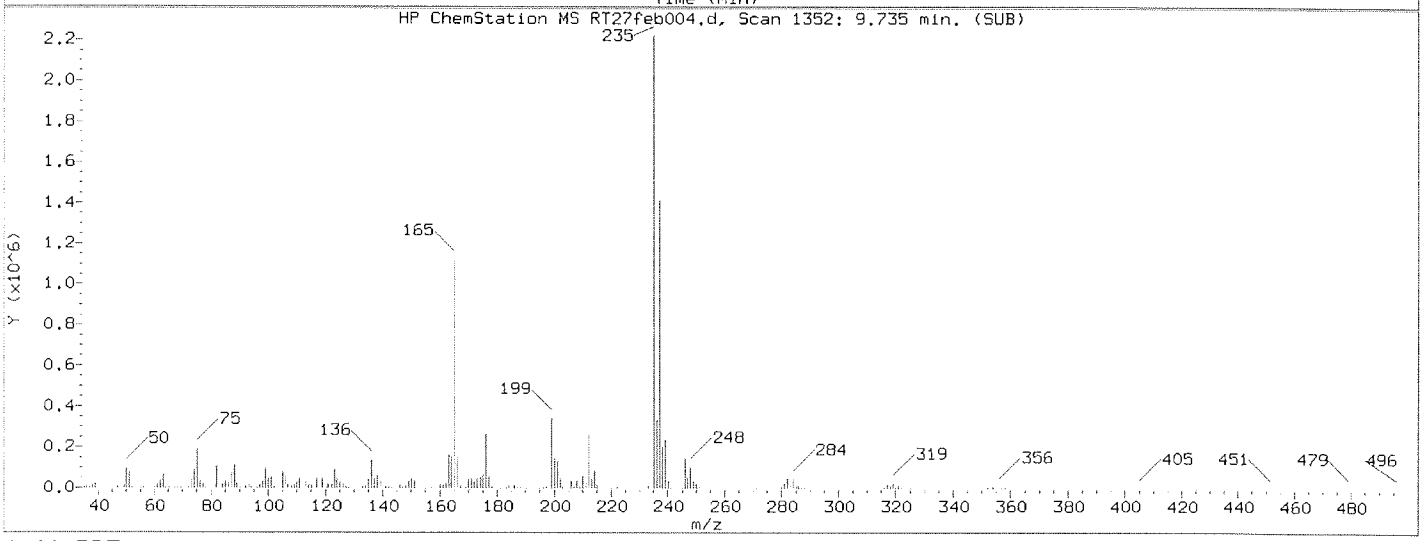
Report Generated Time Mon Feb 27 11:45:38 2017

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

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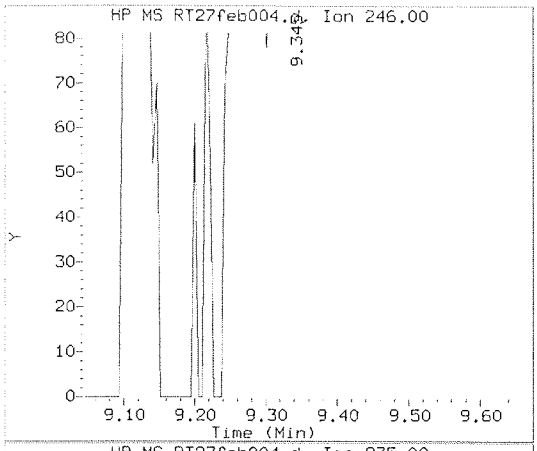
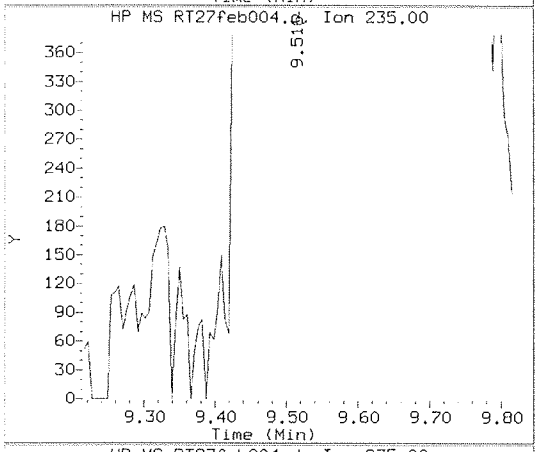
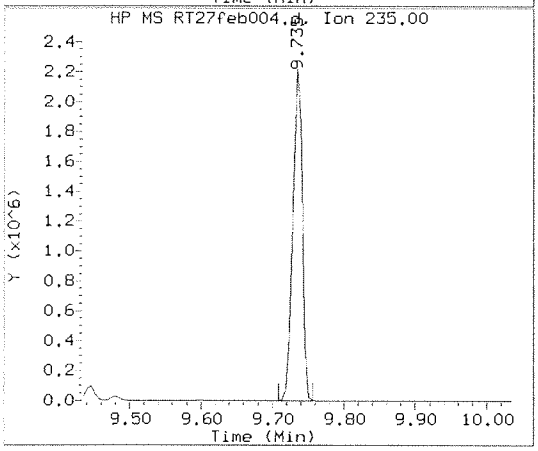


Compound: 4,4'-DDE
Quant Mass: 246
RT: 9.345
Area: 43



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
****

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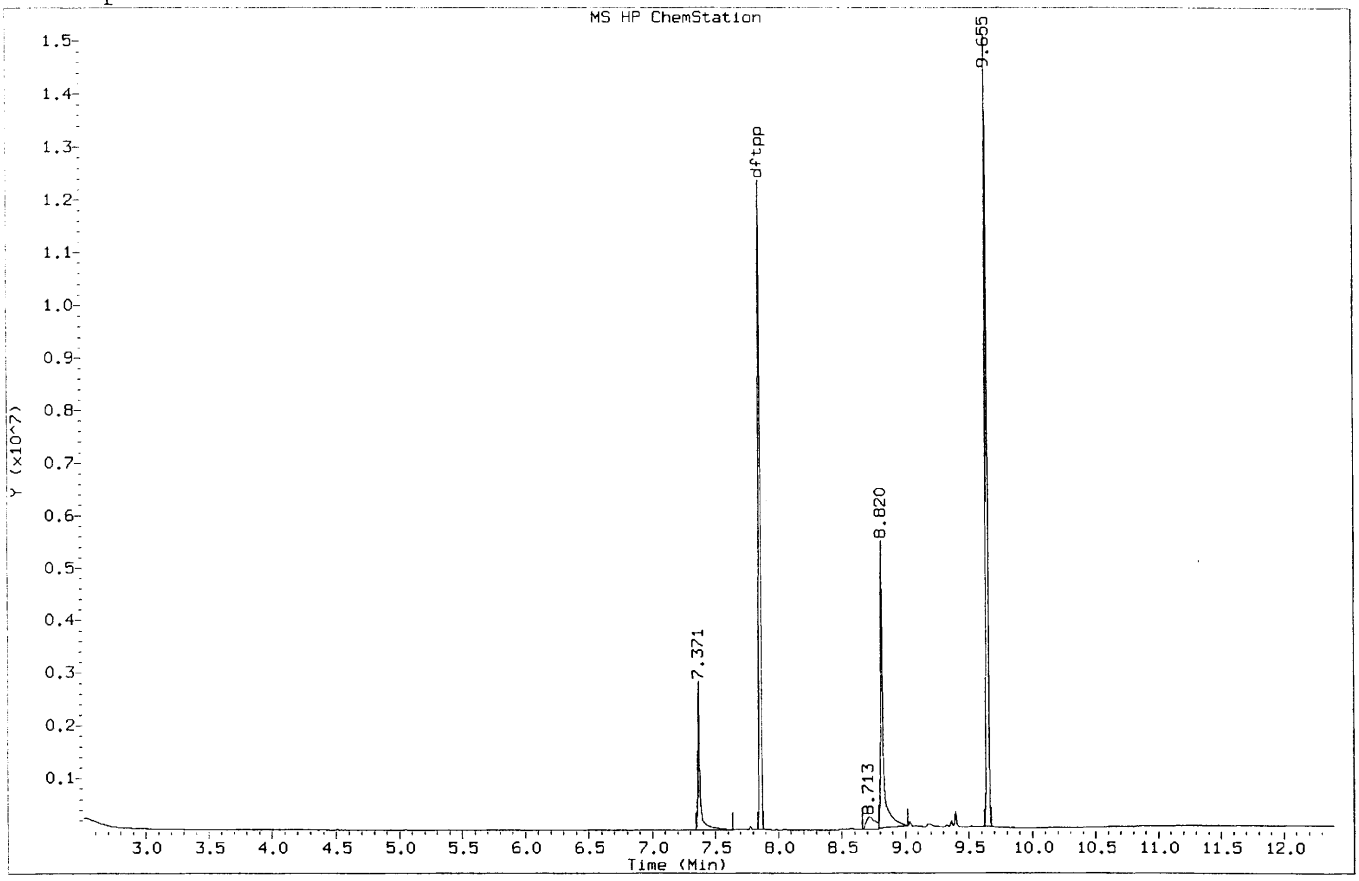
DFTPP TUNE/TAILING FACTOR/DEGRADATION SAMPLE AND GRAPHIC REPORT

Report Generated Time Wed Mar 8 10:11:11 2017

Data File : /chem/SVOA/GCMS_EEE.i/170308.b/08mar001.d
ALS Vial : 41
Acq on : 08-MAR-2017 09:52 Operator : 907
Sample : TUNE S101716A DFTPP Inst : GCMS_EEE
Misc : Multiplier : 1
Integrator Type : HP RTE
Last Update : 07-MAR-2017 10:28



Tune	*** PASSED ***
Pentachlorophenol Tailing	*** PASSED ***
Benzidine Tailing	*** PASSED ***
DDT degradation	*** PASSED ***

Tuning Sample, /chem/SVOA/GCMS_EEE.i/170308.b/08mar001.d ,* PASSED ***

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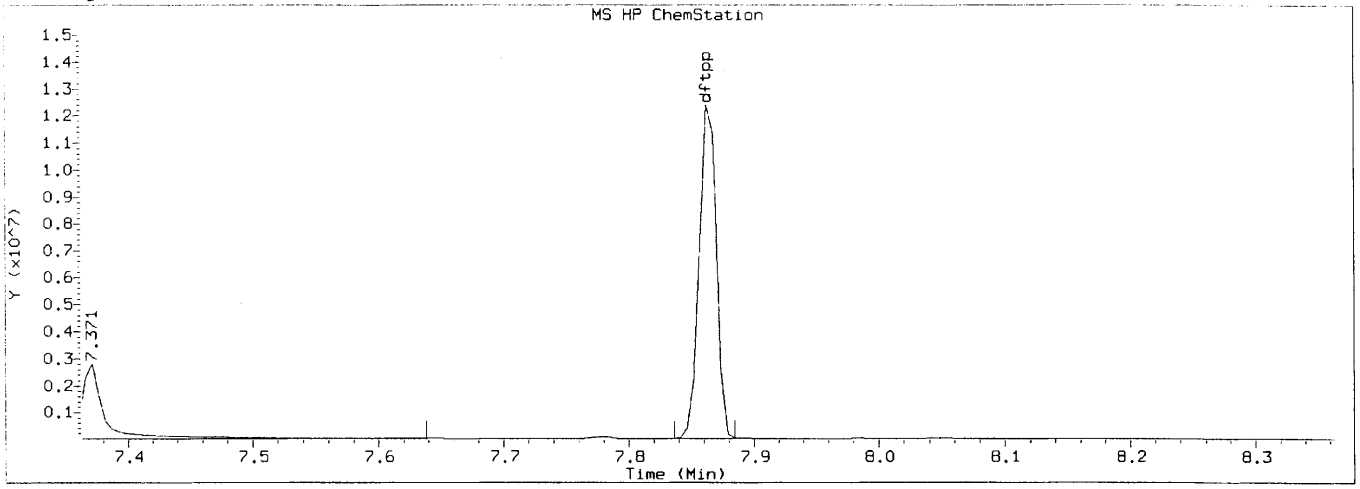
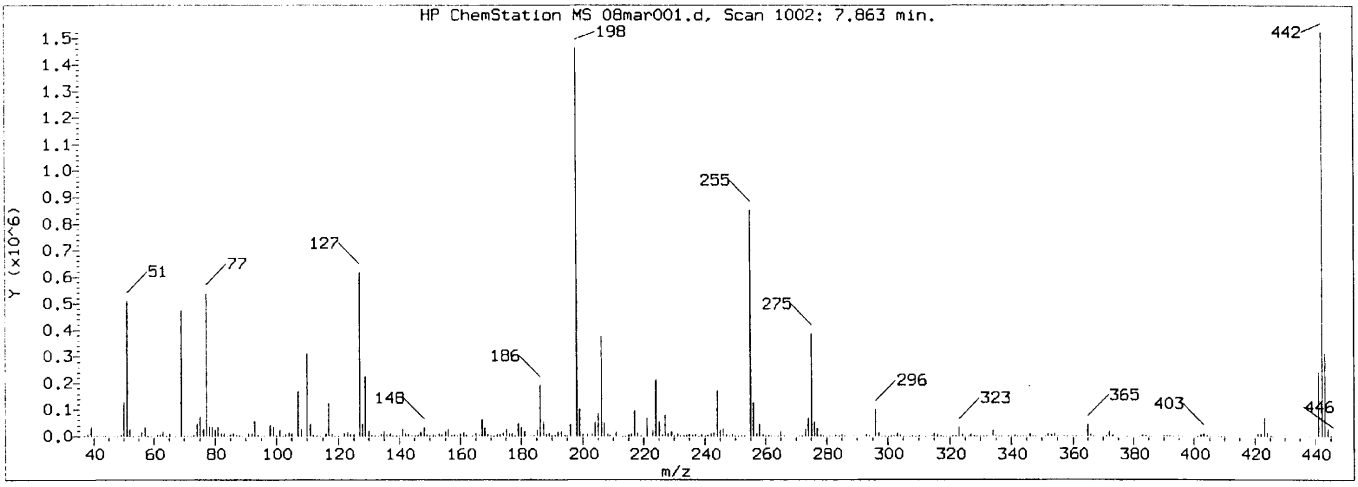
Report Generated Time Wed Mar 8 10:11:11 2017

Data File : /chem/SVOA/GCMS_EEE.i/170308.b/08mar001.d
ALS Vial : 41
Acq on : 08-MAR-2017 09:52 Operator : 907
Sample : TUNE S101716A DFTPP Inst : GCMS_EEE
Misc : Multiplier : 1
Integrator Type : HP RTE
Method : /chem/SVOA/GCMS_EEE.i/170308.b/dftpptune.m
Last Update : 07-MAR-2017 10:28





Spectrum: Avg. Scans 1001-1003 (7.86), Background Scan 996

DFTPP Ion Abundance/Ratio Criteria Chart

Ion	Abundance Criteria	Base Peak	Response	Test
198	Base Peak, 100% relative abundance	100.00	1197056	PASS
51	30 - 60% of mass 198	37.15	444728	PASS
68	Less than 2% of mass 69	0.90	3551	PASS
69	Less than mass 198	32.96	394490	PASS
70	Less than 2% of mass 69	0.50	1963	PASS
127	40 - 60% of mass 198	42.28	506090	PASS
197	0 - 1% of mass 198	0.12	1418	PASS
199	5 - 9% of mass 198	6.95	83154	PASS
275	10 - 30% of mass 198	25.93	310357	PASS
365	1 - 100% of mass 198	3.07	36741	PASS
441	Present, but less than mass 443	78.82	213154	PASS
442	40 - 200% of mass 198	112.48	1346496	PASS
443	17 - 23% of mass 442	20.09	270445	PASS

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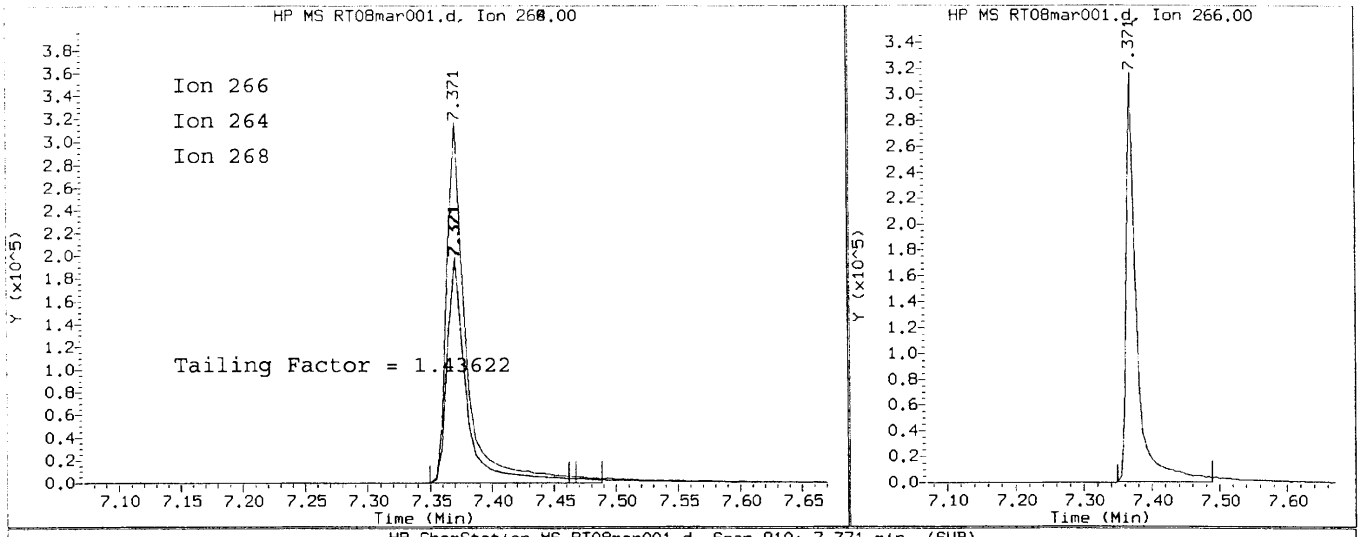
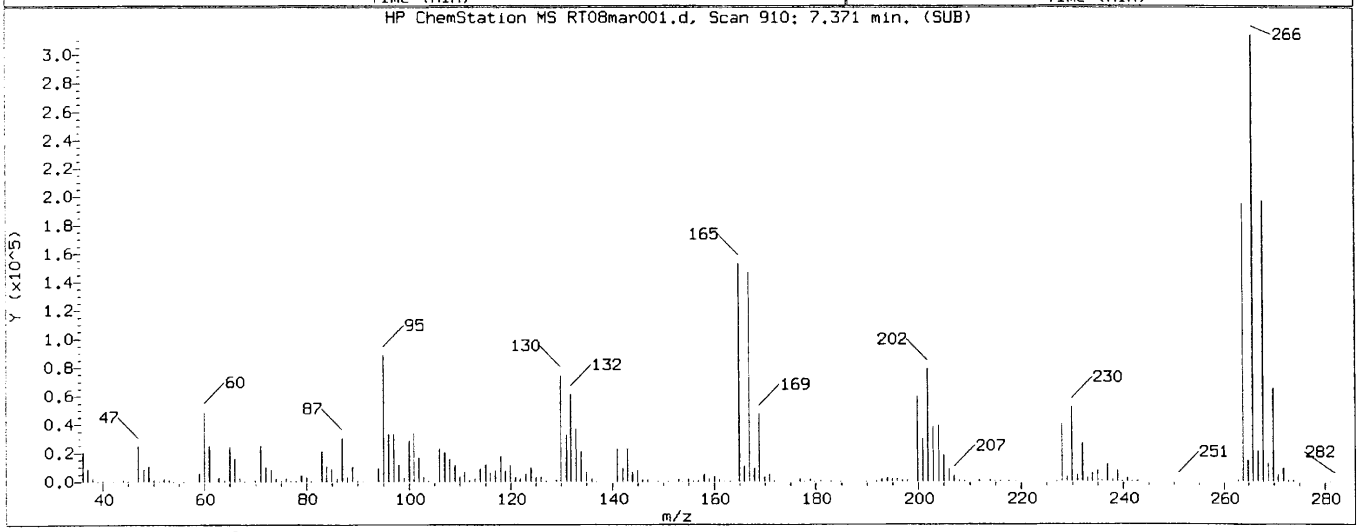
Report Generated Time Wed Mar 8 10:11:11 2017

Data File : /chem/SVOA/GCMS_EEE.i/170308.b/08mar001.d
ALS Vial : 3
Acq on : 08-MAR-2017 09:52 Operator : Tim Matthews
Sample : TUNE S101716A DFTPP Inst : GCMS_EEE
Misc : Multiplier : 1
Integrator Type : HP RTE
Method : /chem/SVOA/GCMS_EEE.i/170308.b/08mar001.d/resolut.m
Last Update : 08-MAR-2017 10:11





Pentachlorophenol
==========
Exp. RT = 7.467
Found RT = 7.371

Mass	Area	Ratio
266	344450	100.00
264	213737	62.05
268	214453	62.26

Peak baseline front width (sec) : 0.784
Peak baseline tail width (sec) : 1.126
Tail Factor = 1.126/ 0.784

Tailing factor for Pentachlorophenol OK

Tail Factor = 1.436 Maximum Allowed = 3.0

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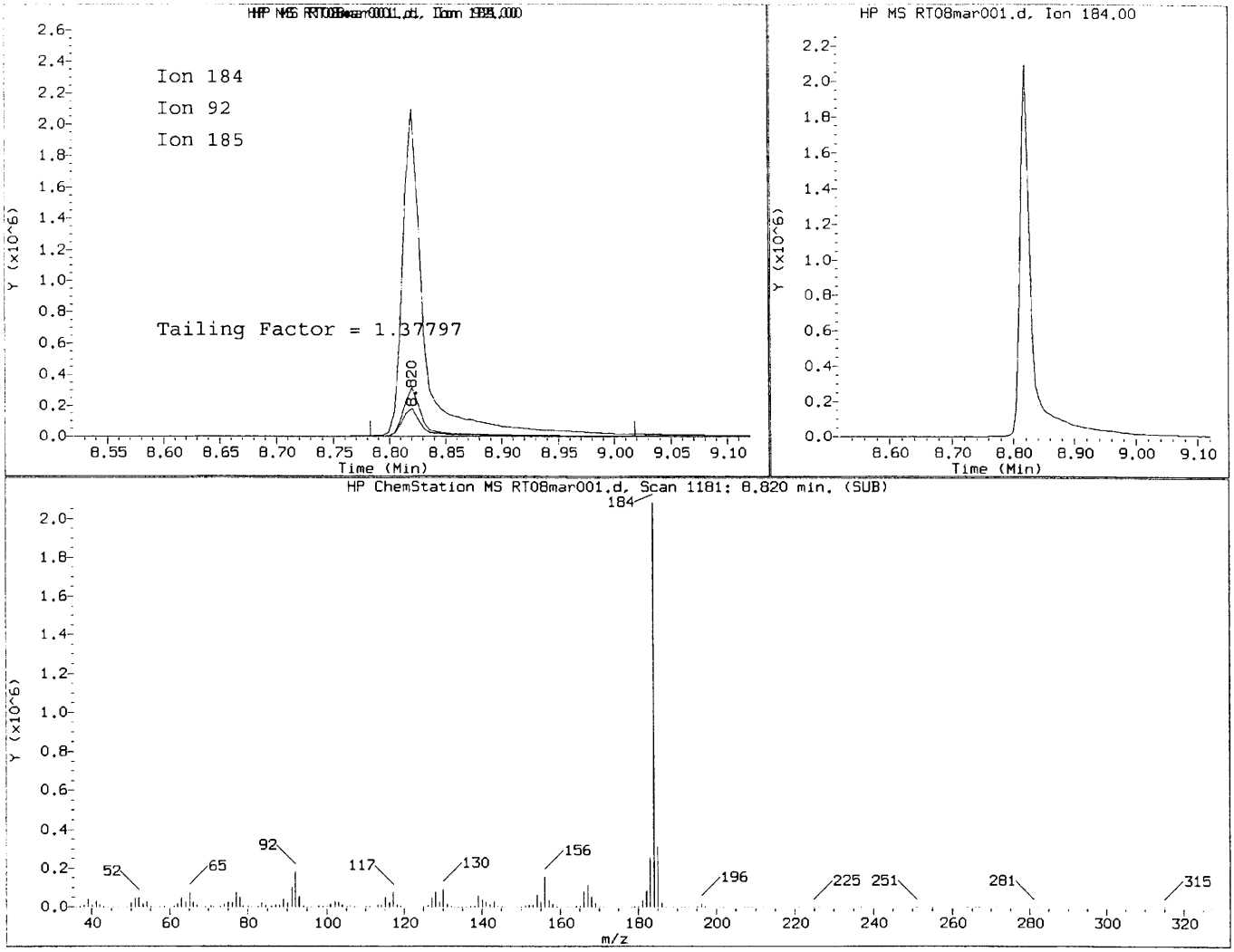
Report Generated Time Wed Mar 8 10:11:11 2017

Data File : /chem/SVOA/GCMS_EEE.i/170308.b/08mar001.d
ALS Vial : 3
Acq on : 08-MAR-2017 09:52 Operator : Tim Matthews
Sample : TUNE S101716A DFTPP Inst : GCMS_EEE
Misc : Multiplier : 1
Integrator Type : HP RTE
Method : /chem/SVOA/GCMS_EEE.i/170308.b/08mar001.d/resolut.m
Last Update : 08-MAR-2017 10:11



Benzidine
=========
Exp. RT = 8.911
Found RT = 8.820

Mass	Area	Ratio
184	2873759	100.00
92	250885	8.73
185	412799	14.36

Peak baseline front width (sec) : 0.926
Peak baseline tail width (sec) : 1.276
Tail Factor = 1.276/ 0.926

Tailing factor for Benzidine OK

Tail Factor = 1.378 Maximum Allowed = 3.0

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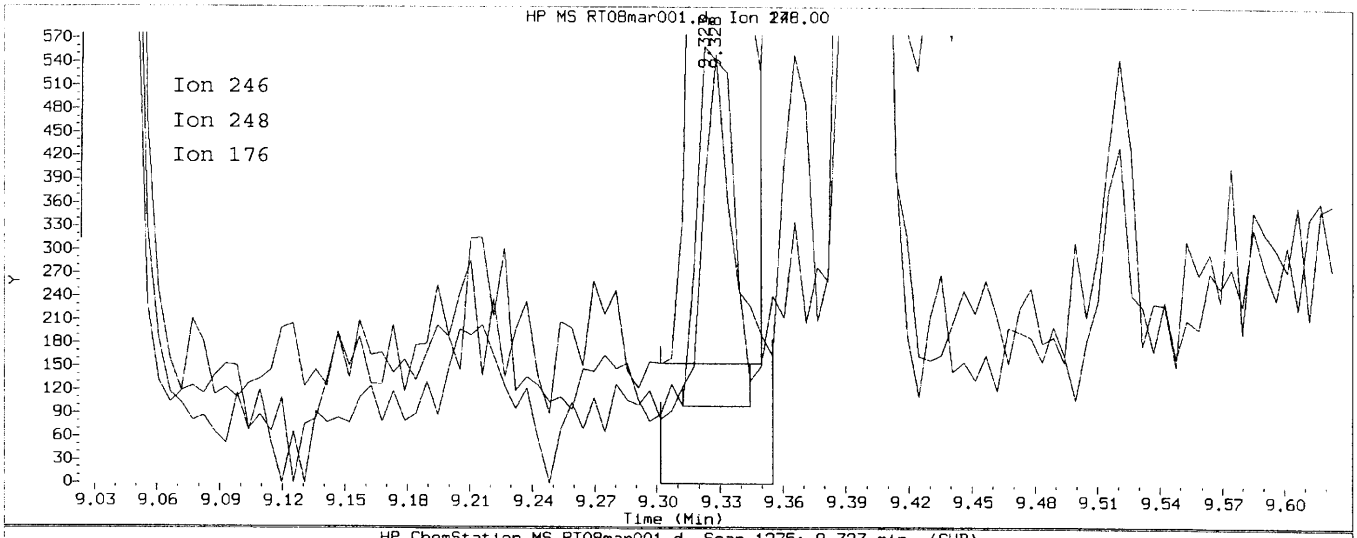
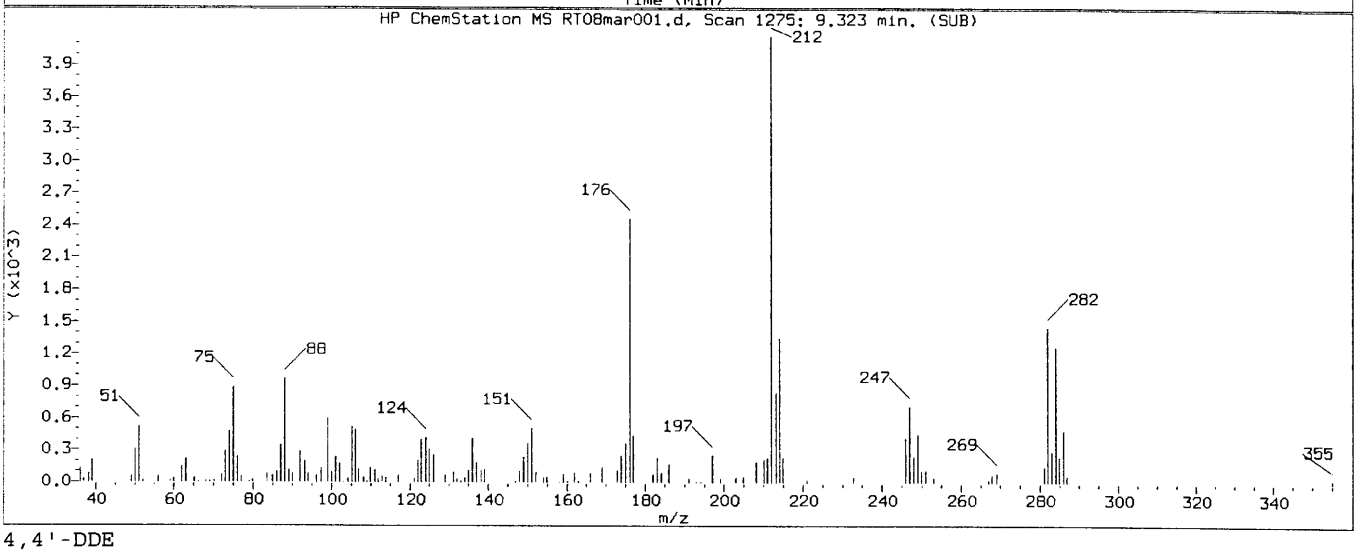
Report Generated Time Wed Mar 8 10:11:11 2017

Data File : /chem/SVOA/GCMS_EEE.i/170308.b/08mar001.d
ALS Vial : 3
Acq on : 08-MAR-2017 09:52 Operator : Tim Matthews
Sample : TUNE S101716A DFTPP Inst : GCMS_EEE
Misc : Multiplier : 1
Integrator Type : HP RTE
Method : /chem/SVOA/GCMS_EEE.i/170308.b/08mar001.d/resolut.m
Last Update : 08-MAR-2017 10:11





4,4'-DDE
========
Exp. RT = 9.344
Found RT = 9.323

Mass	Area	Ratio
246	542	100.00
248	830	153.05
176	3571	657.97

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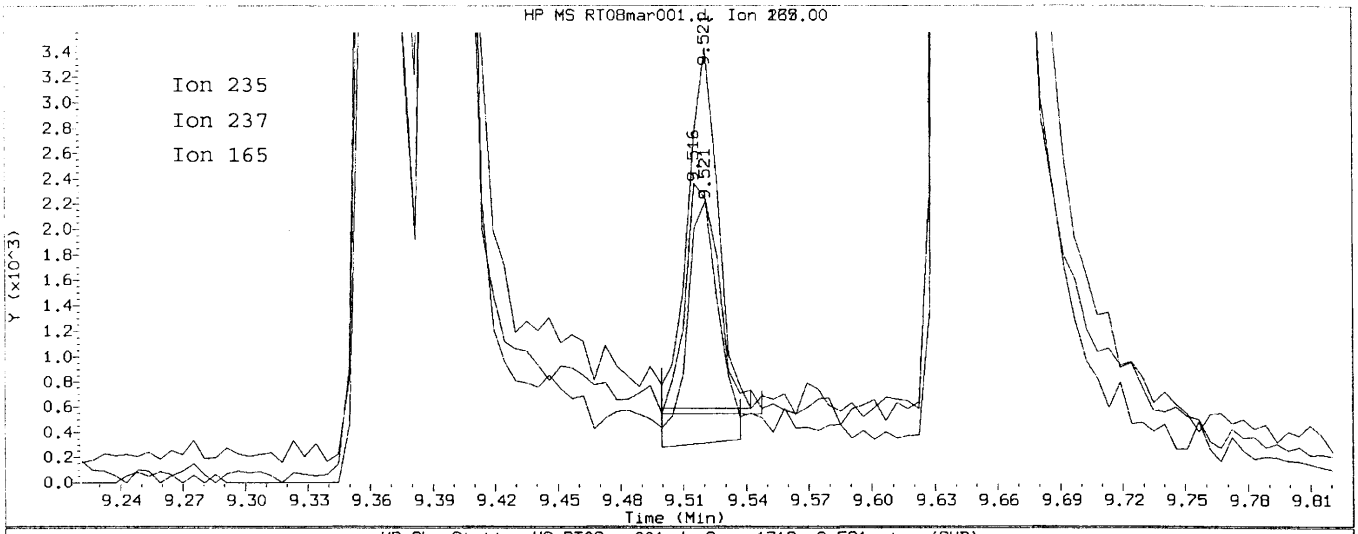
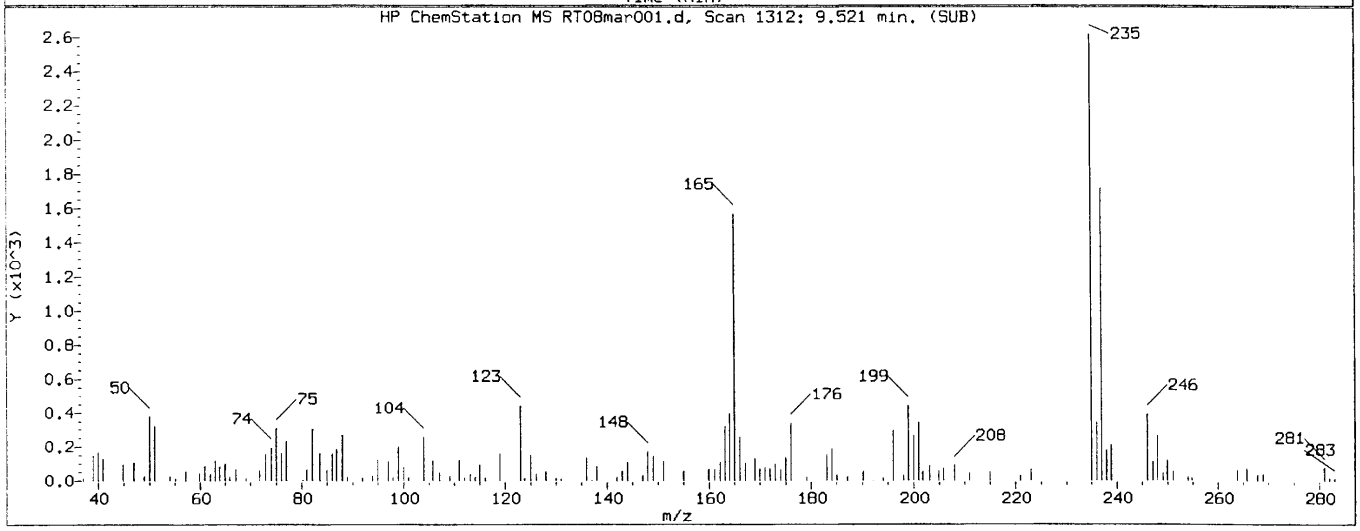
Report Generated Time Wed Mar 8 10:11:11 2017

Data File : /chem/SVOA/GCMS_EEE.i/170308.b/08mar001.d
ALS Vial : 3
Acq on : 08-MAR-2017 09:52 Operator : Tim Matthews
Sample : TUNE S101716A DFTPP Inst : GCMS_EEE
Misc : Multiplier : 1
Integrator Type : HP RTE
Method : /chem/SVOA/GCMS_EEE.i/170308.b/08mar001.d/resolut.m
Last Update : 08-MAR-2017 10:11





4,4'-DDD
========
Exp. RT = 9.499
Found RT = 9.521

Mass	Area	Ratio
235	2851	100.00
237	2042	71.64
165	2061	72.28

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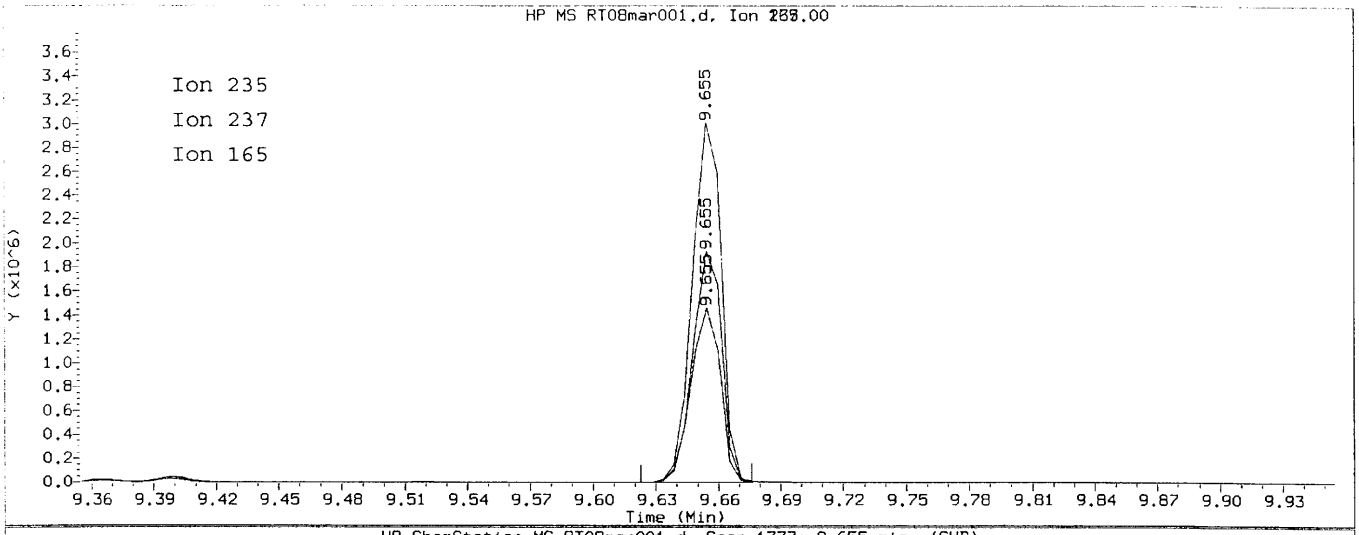
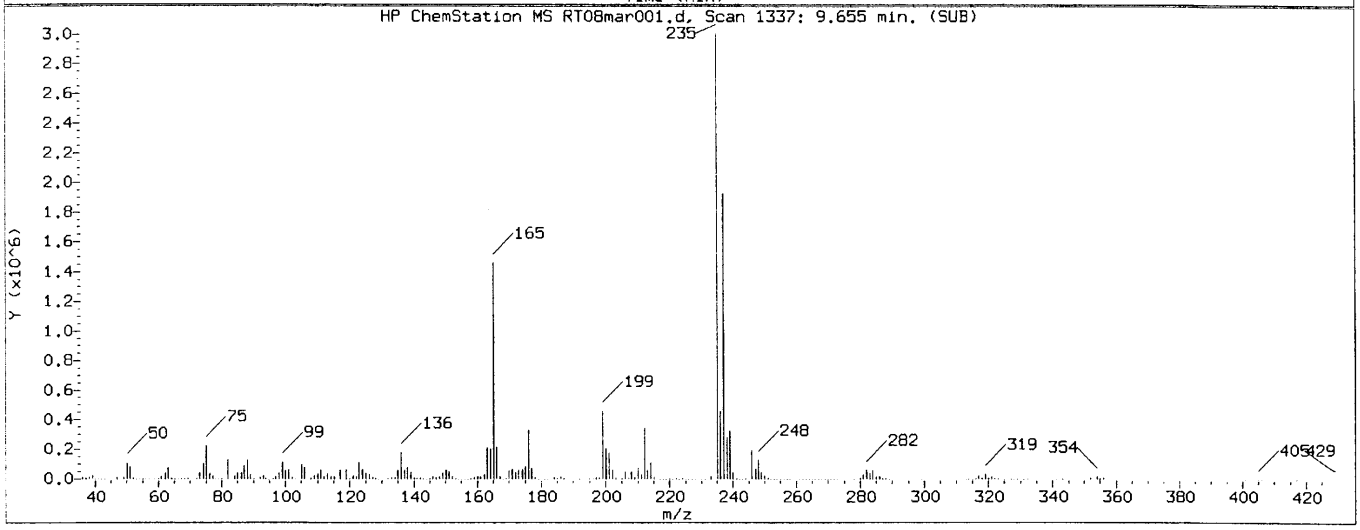
Report Generated Time Wed Mar 8 10:11:11 2017

Data File : /chem/SVOA/GCMS_EEE.i/170308.b/08mar001.d
ALS Vial : 3
Acq on : 08-MAR-2017 09:52 Operator : Tim Matthews
Sample : TUNE S101716A DFTPP Inst : GCMS_EEE
Misc : Multiplier : 1
Integrator Type : HP RTE
Method : /chem/SVOA/GCMS_EEE.i/170308.b/08mar001.d/resolut.m
Last Update : 08-MAR-2017 10:11





4,4'-DDT
========
Exp. RT = 9.756
Found RT = 9.655

Mass	Area	Ratio
235	2909903	100.00
237	1864058	64.06
165	1438712	49.44

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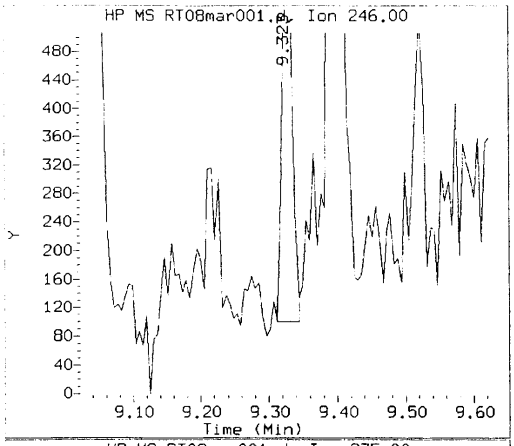
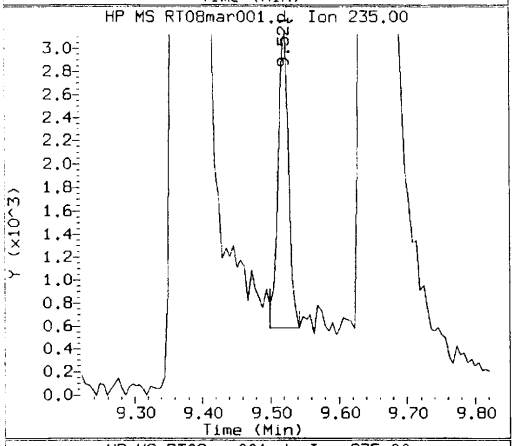
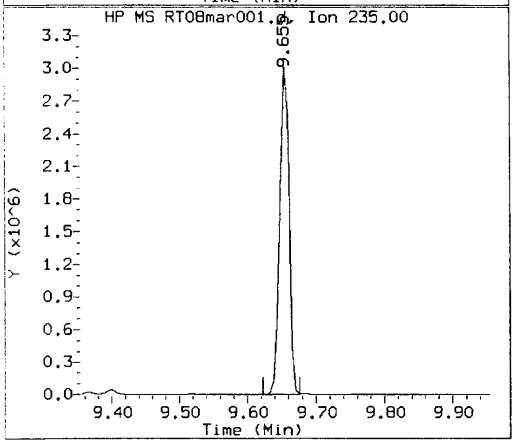


Compound: 4,4'-DDE
Quant Mass: 246
RT: 9.323
Area: 542



Compound: 4,4'-DDD
Quant Mass: 235
RT: 9.521
Area: 2851



Compound: 4,4'-DDT
Quant Mass: 235
RT: 9.655
Area: 2909903

DDT DEGRADATION BREAKDOWN ANALYSIS SUMMARY

Compound	Response	%Breakdown	Max Allowed	Test
4,4-DDT	2909903			N/A
4,4-DDE	542	0.02	20.0	PASS
4,4-DDD	2851	0.10	20.0	PASS
4,4-DDD + DDE	3393	0.1	20.0	PASS

****
TUNE SAMPLE *** PASSED *** DDT BREAKDOWN TEST
****

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EPA METHOD 8270C
PAHSIM

Run Logs

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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 } dev > 20%	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 — dev 7%	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

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Injection Log

Directory: W:\GCMS_EEE\GCMS_EEE_DATA\2017\170308

Line	Vial	FileName	Multiplier	SampleName	Misc Info	Injected
1	41	08mar001.d	1.	TUNE S101716A DFTPP		8 Mar 2017 09:52
2	42	08mar002.d	1.	CCV S010317F 1PPM	170308A003	8 Mar 2017 10:12
3	43	08mar003.d	1.	MB 170307 L09	S101716B 10UL	8 Mar 2017 10:32
4	44	08mar004.d	1.	LCS 170307 L09	S101716B 10UL	8 Mar 2017 10:52
5	45	08mar005.d	1.	LCSD 170307 L09	S101716B 10UL	8 Mar 2017 11:13
6	46	08mar006.d	1.	17-03-0091-1	S101716B 10UL	8 Mar 2017 11:33
7	47	08mar007.d	1.	MB 170307 L05	S101716B 10UL	8 Mar 2017 11:53
8	48	08mar008.d	1.	LCS 170307 L05	S101716B 10UL	8 Mar 2017 12:13
9	59	08mar009.d	1.	TEST	S101716B 10UL	8 Mar 2017 12:33
10	49	08mar010.d	1.	17-03-0444-3 MS	S101716B 10UL	8 Mar 2017 12:53
11	50	08mar011.d	1.	17-03-0444-3 MSD	S101716B 10UL	8 Mar 2017 13:14
12	51	08mar012.d	1.	17-03-0444-3	S101716B 10UL	8 Mar 2017 13:34
13	52	08mar013.d	1.	17-03-0444-4	S101716B 10UL	8 Mar 2017 13:54
14	53	08mar014.d	1.	17-03-0444-7	S101716B 10UL	8 Mar 2017 14:14
15	54	08mar015.d	1.	17-03-0444-8	S101716B 10UL	8 Mar 2017 14:35
16	60	08mar016.d	1.	17-02-0013-2 RB – confirmation	S101716B 10UL	8 Mar 2017 14:55
17	55	08mar017.d	1.	17-03-0445-3	S101716B 10UL	8 Mar 2017 15:15
18	56	08mar018.d	1.	17-03-0445-4	S101716B 10UL	8 Mar 2017 15:35
19	57	08mar019.d	1.	17-03-0445-7	S101716B 10UL	8 Mar 2017 15:56
20	58	08mar020.d	1.	17-03-0445-8	S101716B 10UL	8 Mar 2017 16:16
21	61	08mar021.d	1.	MB 170307 L15 – wrong bottle	S101716B 10UL	8 Mar 2017 16:36
22	62	08mar022.d	1.	LCS 170307 L15	S101716B 10UL	8 Mar 2017 16:56
23	63	08mar023.d	1.	LCSD 170307 L15	S101716B 10UL	8 Mar 2017 17:16
24	64	08mar024.d	1.	CEL 21 TEST	S101716B 10UL	8 Mar 2017 17:37
25	65	08mar025.d	1.	17-03-0255-1	S101716B 10UL	8 Mar 2017 17:57
26	66	08mar026.d	1.	17-03-0255-2	S101716B 10UL	8 Mar 2017 18:17
27	67	08mar027.d	1.	17-03-0255-3	S101716B 10UL	8 Mar 2017 18:37
28	68	08mar028.d	1.	17-03-0255-4	S101716B 10UL	8 Mar 2017 18:58
29	69	08mar029.d	1.	MB 170307 L15 RB	S101716B 10UL	8 Mar 2017 19:18

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EPA METHOD 8270C
PAHSIM

Sample Preparation Logs

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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- 610 Start Extraction- 610/787 Blow Down- 110/1084 Clean Up-

Matrix: ☑ Soil ☐ Aqueous ☐ Oil ☐ Wipe ☐ Filter ☐ Tissue ☐ Air

Balance ID#: 20 Filter ID#: S07-17-17 ASE ID#: 7 Soxtherm ID#: Orbit Shaker ID#: Sonicator ID#:

Ext. Start Date/Time: 03/07/17 8:00 Ext. End Date/Time: 03/07/17 11:30

Sand or Wipe ID#: S07-19-19

Drying Agent: ☑ Na_2SO_4 ☑ Diatomaceous Earth

Drying Agent(s) ID#: S07-44-18 / S07-22-03

Surrogate Std ID# & Volume Added (mL): S020117C 0.5

Spike Std ID# & Volume Added (mL): S100716A 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#: S07-55-01 / S07-44-08 Exchange Solvent (☐ Hexane ☐ Acetonitrile) ID#:

Clean Up Start Date & Time: Clean Up End Date & Time:

Clean Up: ☐ 3620 Florisil ☐ 3630 SGC ☐ 3660 Sulfur ☐ 3665 Acid ☐ Other Cartridge ID#:

Clean Up Reagent ID#: Cartridge Conditioning Column Pre-Elution Reagent ID#:

MB/LCS/MS Batch #: 170307L05

Cel ID#:	Sample W(g)/V(mL) Initial	Final	Clean Up Performed	Comments
MB	20.0	2	☐	
LCS	20.0	2	☐	
LCSD NA	—	—	☐	
MS 17-03-0444-3A	20.0	2	☐	
MSD -3A	20.0	2	☐	
-3A	20.1	2	☐	
-4A	20.1	2	☐	
-7A	20.0	2	☐	
-8A	20.1	2	☐	
17-03-0445-3A	20.0	2	☐	
-4A	20.0	2	☐	
-7A	20.1	2	☐	
-8A	20.2	2	☐	
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Peer Reviewed by: TST Peer Reviewed Date: 3-7-17 Revision Date: 10/20/16

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