

Anatek Labs, Inc.

1282 Alturas Drive - Moscow, ID 83843 - (208) 883-2839 - Fax (208) 8829246 - email moscow@anateklabs.com
504 E Sprague Ste. D - Spokane, WA 99202 - (509) 838-3999 - fax (509) 838-4433 - email spokane@anateklabs.com

Client: Cardno - Hawaii
Address: 737 Bishop St., Ste. 3050
Honolulu, HI 96813
Attn: Benjamin Berridge

Work Order: WAI0678
Project: ADC Water Quality Monitoring
Reported: 5/10/2021 12:55

Case Narrative

<u>Laboratory ID</u>	<u>Sample Name</u>
WAI0678-01	DW-1/WW-1
WAI0678-02	DW-2
WAI0678-03	DW-3
WAI0678-04	WW-2
WAI0678-05	WW-3
WAI0678-06	E-1
WAI0678-07	E-2
WAI0678-08	E-2 DUP
WAI0678-09	E-2 BLANK
WAI0678-10	I-1
WAI0678-11	W-1
WAI0678-12	W-2
WAI0678-13	W-3
WAI0678-14	U-2/WW-5
WAI0678-15	U-3/WW-4
WAI0678-16	D-2
WAI0678-17	D-3
WAI0678-18	D-4
WAI0678-19	D-5
WAI0678-20	D-6
WAI0678-21	D-7
WAI0678-22	D-8
WAI0678-23	WW-3
WAI0678-24	E-1
WAI0678-25	E-2
WAI0678-26	E-2 DUP

QA/QC Checks

<u>Parameters</u>	<u>Yes/No</u>	<u>Deviations</u>
Sample Holding Time Valid?	N	See Comments Section
Surrogate Recoveries Valid?	Y	NA
QC Sample(s) Recoveries Valid?	Y	NA
Method Blank(s) Valid?	Y	NA

Comments

1. Holding time Requirements

The Glyphosate for sample location E-2 was analyzed past holding time. The sample was inadvertently missed when the rest of the samples were extracted.

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2. Calibration Requirements

No problems encountered.

3. Surrogate Recovery Requirements

No problems encountered.

4. QC Sample (LSC/MS/MSD) Recovery Requirements

No problems were encountered.

5. Method Blank Requirements

The method blanks were non-detect for all analytes. No problems encountered.

7. Internal Standard(s) Response Requirements

No problems encountered.

8. Comments

I certify that this data package is in compliance with the terms and conditions of the contract.

Release of the data contained in this data package has been authorized by the Laboratory Manager or his designee.

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Analytical Results Report

Sample Location: DW-1/WW-1
Lab/Sample Number: WAI0678-01 Collect Date: 09/14/20 14:40
Date Received: 09/17/20 10:05 Collected By:
Matrix: Water

Analyte	Result	Units	MDL	PQL	Analyzed	Analyst	Method	Qualifier
Inorganics								
TSS	26.0	mg/L	1.00	1.00	9/21/20 11:00	BAS	EPA 160.2	
Metals by ICP-MS								
Arsenic	0.00292	mg/L	0.0000600	0.00100	9/22/20 13:01	TRC	EPA 200.8	
Mercury								
Mercury	<0.006	ug/L	0.00600	0.100	9/30/20 16:19	TRC	EPA 245.1	
Semivolatiles								
Diesel	0.659	mg/L	0.0520	0.0800	9/21/20 22:34	ARC	NWTPH-HCID	* T10
Gasoline	<0.160	mg/L	0.160	0.400	9/21/20 22:34	ARC	NWTPH-HCID	*
Lube Oil	1.13	mg/L	0.0460	0.0800	9/21/20 22:34	ARC	NWTPH-HCID	* T10
Mineral Oil	<0.160	mg/L	0.160	0.400	9/21/20 22:34	ARC	NWTPH-HCID	*
Surrogate: n-Hexacosane	92.0%		50-150		9/21/20 22:34	ARC	NWTPH-HCID	

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Analytical Results Report

(Continued)

Sample Location: DW-2
Lab/Sample Number: WAI0678-02 Collect Date: 09/14/20 12:11
Date Received: 09/17/20 10:05 Collected By:
Matrix: Water

Analyte	Result	Units	MDL	PQL	Analyzed	Analyst	Method	Qualifier
Inorganics								
TSS	27.0	mg/L	1.00	1.00	9/21/20 11:00	BAS	EPA 160.2	
Metals by ICP-MS								
Arsenic	0.00141	mg/L	0.0000600	0.00100	9/22/20 13:03	TRC	EPA 200.8	
Mercury								
Mercury	0.00720	ug/L	0.00600	0.100	9/30/20 16:22	TRC	EPA 245.1	J
Semivolatiles								
Diesel	0.454	mg/L	0.0520	0.0800	9/21/20 23:30	ARC	NWTPH-HCID	* T10
Gasoline	<0.160	mg/L	0.160	0.400	9/21/20 23:30	ARC	NWTPH-HCID	*
Lube Oil	0.993	mg/L	0.0460	0.0800	9/21/20 23:30	ARC	NWTPH-HCID	* T10
Mineral Oil	<0.160	mg/L	0.160	0.400	9/21/20 23:30	ARC	NWTPH-HCID	*
Surrogate: n-Hexacosane	79.4%		50-150		9/21/20 23:30	ARC	NWTPH-HCID	

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Analytical Results Report

(Continued)

Sample Location: DW-3
Lab/Sample Number: WAI0678-03 Collect Date: 09/14/20 13:04
Date Received: 09/17/20 10:05 Collected By:
Matrix: Water

Analyte	Result	Units	MDL	PQL	Analyzed	Analyst	Method	Qualifier
Inorganics								
TSS	14.0	mg/L	1.00	1.00	9/21/20 11:00	BAS	EPA 160.2	
Metals by ICP-MS								
Arsenic	0.000973	mg/L	0.0000600	0.00100	9/22/20 13:06	TRC	EPA 200.8	J
Mercury								
Mercury	<0.006	ug/L	0.00600	0.100	9/30/20 16:24	TRC	EPA 245.1	
Semivolatiles								
Diesel	0.515	mg/L	0.0520	0.0800	9/22/20 0:26	ARC	NWTPH-HCID	* T10
Gasoline	<0.160	mg/L	0.160	0.400	9/22/20 0:26	ARC	NWTPH-HCID	*
Lube Oil	1.02	mg/L	0.0460	0.0800	9/22/20 0:26	ARC	NWTPH-HCID	* T10
Mineral Oil	<0.160	mg/L	0.160	0.400	9/22/20 0:26	ARC	NWTPH-HCID	*
Surrogate: n-Hexacosane	88.4%		50-150		9/22/20 0:26	ARC	NWTPH-HCID	

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Analytical Results Report

(Continued)

Sample Location: WW-2
Lab/Sample Number: WAI0678-04 Collect Date: 09/14/20 15:45
Date Received: 09/17/20 10:05 Collected By:
Matrix: Water

Analyte	Result	Units	MDL	PQL	Analyzed	Analyst	Method	Qualifier
Inorganics								
TSS	27.0	mg/L	1.00	1.00	9/21/20 11:00	BAS	EPA 160.2	
Metals by ICP-MS								
Arsenic	0.00127	mg/L	0.0000600	0.00100	9/22/20 13:09	TRC	EPA 200.8	
Mercury								
Mercury	0.00920	ug/L	0.00600	0.100	9/30/20 16:26	TRC	EPA 245.1	J
Semivolatiles								
Diesel	<0.0520	mg/L	0.0520	0.0800	9/22/20 1:21	ARC	NWTPH-HCID	*
Gasoline	<0.160	mg/L	0.160	0.400	9/22/20 1:21	ARC	NWTPH-HCID	*
Lube Oil	<0.0460	mg/L	0.0460	0.0800	9/22/20 1:21	ARC	NWTPH-HCID	*
Mineral Oil	<0.160	mg/L	0.160	0.400	9/22/20 1:21	ARC	NWTPH-HCID	*
Surrogate: n-Hexacosane	93.6%		50-150		9/22/20 1:21	ARC	NWTPH-HCID	

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Analytical Results Report

(Continued)

Sample Location: WW-3
Lab/Sample Number: WAI0678-05 Collect Date: 09/14/20 15:25
Date Received: 09/17/20 10:05 Collected By:
Matrix: Water

Analyte	Result	Units	MDL	PQL	Analyzed	Analyst	Method	Qualifier
Inorganics								
TSS	17.0	mg/L	1.00	1.00	9/21/20 11:00	BAS	EPA 160.2	
Metals by ICP-MS								
Arsenic	0.00165	mg/L	0.0000600	0.00100	9/22/20 13:12	TRC	EPA 200.8	
Mercury								
Mercury	<0.006	ug/L	0.00600	0.100	9/30/20 16:28	TRC	EPA 245.1	
Semivolatiles								
Glyphosate	<1.00	ug/L	1.00	5.00	9/23/20 11:59	MER	EPA 547	*
Atrazine	<0.0500	ug/L	0.0500	0.100	9/28/20 22:38	TGT	EPA 625.1	*
Chlorpyrifos	<0.0500	ug/L	0.0500	0.100	9/28/20 22:38	TGT	EPA 625.1	*
Metolachlor	<0.0500	ug/L	0.0500	0.100	9/28/20 22:38	TGT	EPA 625.1	*
<i>Surrogate: Terphenyl-d14</i>	<i>90.9%</i>		<i>25-135</i>		<i>9/28/20 22:38</i>	<i>TGT</i>	<i>EPA 625.1</i>	
Diesel	<0.0520	mg/L	0.0520	0.0800	9/29/20 0:42	ARC	NWTPH-HCID	*
Gasoline	<0.160	mg/L	0.160	0.400	9/29/20 0:42	ARC	NWTPH-HCID	*
Lube Oil	<0.0460	mg/L	0.0460	0.0800	9/29/20 0:42	ARC	NWTPH-HCID	*
Mineral Oil	<0.160	mg/L	0.160	0.400	9/29/20 0:42	ARC	NWTPH-HCID	*
<i>Surrogate: n-Hexacosane</i>	<i>96.0%</i>		<i>50-150</i>		<i>9/29/20 0:42</i>	<i>ARC</i>	<i>NWTPH-HCID</i>	

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Analytical Results Report

(Continued)

Sample Location: E-1
Lab/Sample Number: WAI0678-06 Collect Date: 09/14/20 11:10
Date Received: 09/17/20 10:05 Collected By:
Matrix: Water

Analyte	Result	Units	MDL	PQL	Analyzed	Analyst	Method	Qualifier
Inorganics								
TSS	172	mg/L	1.00	1.00	9/21/20 11:00	BAS	EPA 160.2	
Metals by ICP-MS								
Arsenic	0.00268	mg/L	0.0000600	0.00100	9/23/20 13:08	TRC	EPA 200.8	
Mercury								
Mercury	<0.006	ug/L	0.00600	0.100	9/30/20 16:31	TRC	EPA 245.1	
Semivolatiles								
Glyphosate	<1.00	ug/L	1.00	5.00	9/23/20 12:06	MER	EPA 547	*
Atrazine	<0.0500	ug/L	0.0500	0.100	9/28/20 23:05	TGT	EPA 625.1	*
Chlorpyrifos	<0.0500	ug/L	0.0500	0.100	9/28/20 23:05	TGT	EPA 625.1	*
Metolachlor	<0.0500	ug/L	0.0500	0.100	9/28/20 23:05	TGT	EPA 625.1	*
<i>Surrogate: Terphenyl-d14</i>	<i>88.6%</i>		<i>25-135</i>		<i>9/28/20 23:05</i>	<i>TGT</i>	<i>EPA 625.1</i>	
Diesel	0.734	mg/L	0.0520	0.0800	9/29/20 2:32	ARC	NWTPH-HCID	* T10
Gasoline	<0.160	mg/L	0.160	0.400	9/29/20 2:32	ARC	NWTPH-HCID	*
Lube Oil	1.37	mg/L	0.0460	0.0800	9/29/20 2:32	ARC	NWTPH-HCID	* T10
Mineral Oil	<0.160	mg/L	0.160	0.400	9/29/20 2:32	ARC	NWTPH-HCID	*
<i>Surrogate: n-Hexacosane</i>	<i>93.3%</i>		<i>50-150</i>		<i>9/29/20 2:32</i>	<i>ARC</i>	<i>NWTPH-HCID</i>	

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Analytical Results Report

(Continued)

Sample Location: E-2
Lab/Sample Number: WAI0678-07 Collect Date: 09/14/20 09:48
Date Received: 09/17/20 10:05 Collected By:
Matrix: Water

Analyte	Result	Units	MDL	PQL	Analyzed	Analyst	Method	Qualifier
Inorganics								
TSS	91.0	mg/L	1.00	1.00	9/21/20 11:00	BAS	EPA 160.2	
Metals by ICP-MS								
Arsenic	0.00774	mg/L	0.0000600	0.00100	9/23/20 13:10	TRC	EPA 200.8	
Mercury								
Mercury	<0.006	ug/L	0.00600	0.100	9/30/20 16:33	TRC	EPA 245.1	
Semivolatiles								
Glyphosate	<1.00	ug/L	1.00	5.00	10/28/20 11:41	MER	EPA 547	* H1
Atrazine	<0.0500	ug/L	0.0500	0.100	9/28/20 23:32	TGT	EPA 625.1	*
Chlorpyrifos	<0.0500	ug/L	0.0500	0.100	9/28/20 23:32	TGT	EPA 625.1	*
Metolachlor	<0..0500	ug/L	0.0500	0.100	9/28/20 23:32	TGT	EPA 625.1	*
<i>Surrogate: Terphenyl-d14</i>	<i>95.4%</i>		<i>25-135</i>		<i>9/28/20 23:32</i>	<i>TGT</i>	<i>EPA 625.1</i>	
Diesel	0.835	mg/L	0.0520	0.0800	9/29/20 3:27	ARC	NWTPH-HCID	* T10
Gasoline	<0.160	mg/L	0.160	0.400	9/29/20 3:27	ARC	NWTPH-HCID	*
Lube Oil	1.31	mg/L	0.0460	0.0800	9/29/20 3:27	ARC	NWTPH-HCID	* T10
Mineral Oil	<0.160	mg/L	0.160	0.400	9/29/20 3:27	ARC	NWTPH-HCID	*
<i>Surrogate: n-Hexacosane</i>	<i>91.8%</i>		<i>50-150</i>		<i>9/29/20 3:27</i>	<i>ARC</i>	<i>NWTPH-HCID</i>	

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Analytical Results Report (Continued)

Sample Location: E-2 DUP
Lab/Sample Number: WAI0678-08 Collect Date: 09/14/20 09:48
Date Received: 09/17/20 10:05 Collected By:
Matrix: Water

Analyte	Result	Units	MDL	PQL	Analyzed	Analyst	Method	Qualifier
Inorganics								
TSS	100	mg/L	1.00	1.00	9/21/20 11:00	BAS	EPA 160.2	
Metals by ICP-MS								
Arsenic	0.00804	mg/L	0.0000600	0.00100	9/23/20 13:18	TRC	EPA 200.8	
Mercury								
Mercury	<0.006	ug/L	0.00600	0.100	9/30/20 16:40	TRC	EPA 245.1	
Semivolatiles								
Glyphosate	<1.00	ug/L	1.00	5.00	9/23/20 12:19	MER	EPA 547	*
Atrazine	0.0600	ug/L	0.0500	0.100	9/29/20 0:00	TGT	EPA 625.1	*
Chlorpyrifos	<0.0500	ug/L	0.0500	0.100	9/29/20 0:00	TGT	EPA 625.1	*
Metolachlor	<0.0500	ug/L	0.0500	0.100	9/29/20 0:00	TGT	EPA 625.1	*
<i>Surrogate: Terphenyl-d14</i>	<i>98.0%</i>		<i>25-135</i>		<i>9/29/20 0:00</i>	<i>TGT</i>	<i>EPA 625.1</i>	
Diesel	<0.0520	mg/L	0.0520	0.0800	9/29/20 4:22	ARC	NWTPH-HCID	*
Gasoline	<0.160	mg/L	0.160	0.400	9/29/20 4:22	ARC	NWTPH-HCID	*
Lube Oil	<0.0460	mg/L	0.0460	0.0800	9/29/20 4:22	ARC	NWTPH-HCID	*
Mineral Oil	<0.160	mg/L	0.160	0.400	9/29/20 4:22	ARC	NWTPH-HCID	*
<i>Surrogate: n-Hexacosane</i>	<i>90.4%</i>		<i>50-150</i>		<i>9/29/20 4:22</i>	<i>ARC</i>	<i>NWTPH-HCID</i>	

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Analytical Results Report

(Continued)

Sample Location: E-2 BLANK
Lab/Sample Number: WAI0678-09 Collect Date: 09/14/20 09:48
Date Received: 09/17/20 10:05 Collected By:
Matrix: Water

Analyte	Result	Units	MDL	PQL	Analyzed	Analyst	Method	Qualifier
Inorganics								
TSS	<1.00	mg/L	1.00	1.00	9/21/20 11:00	BAS	EPA 160.2	
Metals by ICP-MS								
Arsenic	0.000141	mg/L	0.0000600	0.00100	9/23/20 13:06	TRC	EPA 200.8	J
Mercury								
Mercury	<0.006	ug/L	0.00600	0.100	9/30/20 16:42	TRC	EPA 245.1	
Semivolatiles								
Glyphosate	<1.00	ug/L	1.00	5.00	9/23/20 12:26	MER	EPA 547	*
Atrazine	<0.0500	ug/L	0.0500	0.100	9/28/20 22:10	TGT	EPA 625.1	*
Chlorpyrifos	<0.0500	ug/L	0.0500	0.100	9/28/20 22:10	TGT	EPA 625.1	*
Metolachlor	<0.0500	ug/L	0.0500	0.100	9/28/20 22:10	TGT	EPA 625.1	*
<i>Surrogate: Terphenyl-d14</i>	<i>96.3%</i>		<i>25-135</i>		<i>9/28/20 22:10</i>	<i>TGT</i>	<i>EPA 625.1</i>	
Diesel	<0.0520	mg/L	0.0520	0.0800	9/22/20 2:17	ARC	NWTPH-HCID	*
Gasoline	<0.160	mg/L	0.160	0.400	9/22/20 2:17	ARC	NWTPH-HCID	*
Lube Oil	<0.0460	mg/L	0.0460	0.0800	9/22/20 2:17	ARC	NWTPH-HCID	*
Mineral Oil	<0.160	mg/L	0.160	0.400	9/22/20 2:17	ARC	NWTPH-HCID	*
<i>Surrogate: n-Hexacosane</i>	<i>94.6%</i>		<i>50-150</i>		<i>9/22/20 2:17</i>	<i>ARC</i>	<i>NWTPH-HCID</i>	

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Analytical Results Report

(Continued)

Sample Location: I-1
Lab/Sample Number: WAI0678-10 Collect Date: 09/14/20 15:00
Date Received: 09/17/20 10:05 Collected By:
Matrix: Water

Analyte	Result	Units	MDL	PQL	Analyzed	Analyst	Method	Qualifier
Inorganics								
TSS	13.0	mg/L	1.00	1.00	9/21/20 11:00	BAS	EPA 160.2	
Metals by ICP-MS								
Arsenic	0.000926	mg/L	0.0000600	0.00100	9/22/20 13:31	TRC	EPA 200.8	J
Mercury								
Mercury	<0.006	ug/L	0.00600	0.100	9/30/20 16:44	TRC	EPA 245.1	
Semivolatiles								
Diesel	<0.0520	mg/L	0.0520	0.0800	9/29/20 5:16	ARC	NWTPH-HCID	*
Gasoline	<0.160	mg/L	0.160	0.400	9/29/20 5:16	ARC	NWTPH-HCID	*
Lube Oil	<0.0460	mg/L	0.0460	0.0800	9/29/20 5:16	ARC	NWTPH-HCID	*
Mineral Oil	<0.160	mg/L	0.160	0.400	9/29/20 5:16	ARC	NWTPH-HCID	*
Surrogate: n-Hexacosane	84.7%		50-150		9/29/20 5:16	ARC	NWTPH-HCID	

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Analytical Results Report

(Continued)

Sample Location: W-1
Lab/Sample Number: WAI0678-11 Collect Date: 09/14/20 11:04
Date Received: 09/17/20 10:05 Collected By:
Matrix: Water

Analyte	Result	Units	MDL	PQL	Analyzed	Analyst	Method	Qualifier
Inorganics								
TSS	<1.00	mg/L	1.00	1.00	9/21/20 11:00	BAS	EPA 160.2	
Metals by ICP-MS								
Arsenic	0.000851	mg/L	0.0000600	0.00100	9/22/20 13:45	TRC	EPA 200.8	J
Mercury								
Mercury	<0.006	ug/L	0.00600	0.100	9/30/20 16:51	TRC	EPA 245.1	
Semivolatiles								
Diesel	<0.0520	mg/L	0.0520	0.0800	9/29/20 10:47	ARC	NWTPH-HCID	*
Gasoline	0.258	mg/L	0.160	0.400	9/29/20 10:47	ARC	NWTPH-HCID	*
Lube Oil	<0.0460	mg/L	0.0460	0.0800	9/29/20 10:47	ARC	NWTPH-HCID	*
Mineral Oil	<0.160	mg/L	0.160	0.400	9/29/20 10:47	ARC	NWTPH-HCID	*
Surrogate: n-Hexacosane	90.2%		50-150		9/29/20 10:47	ARC	NWTPH-HCID	

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Analytical Results Report

(Continued)

Sample Location: W-2
Lab/Sample Number: WAI0678-12 Collect Date: 09/14/20 11:39
Date Received: 09/17/20 10:05 Collected By:
Matrix: Water

Analyte	Result	Units	MDL	PQL	Analyzed	Analyst	Method	Qualifier
Inorganics								
TSS	4.00	mg/L	1.00	1.00	9/21/20 11:00	BAS	EPA 160.2	
Metals by ICP-MS								
Arsenic	0.00137	mg/L	0.0000600	0.00100	9/22/20 13:48	TRC	EPA 200.8	
Mercury								
Mercury	0.0456	ug/L	0.00600	0.100	9/30/20 16:53	TRC	EPA 245.1	J
Semivolatiles								
Diesel	0.655	mg/L	0.0520	0.0800	9/29/20 13:35	ARC	NWTPH-HCID	* T10
Gasoline	<0.160	mg/L	0.160	0.400	9/29/20 13:35	ARC	NWTPH-HCID	*
Lube Oil	1.07	mg/L	0.0460	0.0800	9/29/20 13:35	ARC	NWTPH-HCID	* T10
Mineral Oil	<0.160	mg/L	0.160	0.400	9/29/20 13:35	ARC	NWTPH-HCID	*
Surrogate: n-Hexacosane	87.6%		50-150		9/29/20 13:35	ARC	NWTPH-HCID	

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Analytical Results Report

(Continued)

Sample Location: W-3
Lab/Sample Number: WAI0678-13 Collect Date: 09/14/20 13:43
Date Received: 09/17/20 10:05 Collected By:
Matrix: Water

Analyte	Result	Units	MDL	PQL	Analyzed	Analyst	Method	Qualifier
Inorganics								
TSS	4.00	mg/L	1.00	1.00	9/21/20 11:00	BAS	EPA 160.2	
Metals by ICP-MS								
Arsenic	0.000969	mg/L	0.0000600	0.00100	9/22/20 13:51	TRC	EPA 200.8	J
Mercury								
Mercury	0.0100	ug/L	0.00600	0.100	9/30/20 16:56	TRC	EPA 245.1	J
Semivolatiles								
Diesel	0.623	mg/L	0.0520	0.0800	9/29/20 14:31	ARC	NWTPH-HCID	* T10
Gasoline	<0.160	mg/L	0.160	0.400	9/29/20 14:31	ARC	NWTPH-HCID	*
Lube Oil	0.934	mg/L	0.0460	0.0800	9/29/20 14:31	ARC	NWTPH-HCID	* T10
Mineral Oil	<0.160	mg/L	0.160	0.400	9/29/20 14:31	ARC	NWTPH-HCID	*
Surrogate: n-Hexacosane	91.2%		50-150		9/29/20 14:31	ARC	NWTPH-HCID	

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Analytical Results Report

(Continued)

Sample Location: U-2/WW-5
Lab/Sample Number: WAI0678-14 Collect Date: 09/14/20 11:30
Date Received: 09/17/20 10:05 Collected By:
Matrix: Water

Analyte	Result	Units	MDL	PQL	Analyzed	Analyst	Method	Qualifier
Inorganics								
TSS	8.00	mg/L	1.00	1.00	9/21/20 11:00	BAS	EPA 160.2	
Metals by ICP-MS								
Arsenic	0.00103	mg/L	0.0000600	0.00100	9/22/20 13:53	TRC	EPA 200.8	
Mercury								
Mercury	0.0100	ug/L	0.00600	0.100	9/30/20 16:58	TRC	EPA 245.1	J
Semivolatiles								
Diesel	0.619	mg/L	0.0520	0.0800	9/29/20 15:27	ARC	NWTPH-HCID	* T10
Gasoline	<0.160	mg/L	0.160	0.400	9/29/20 15:27	ARC	NWTPH-HCID	*
Lube Oil	0.985	mg/L	0.0460	0.0800	9/29/20 15:27	ARC	NWTPH-HCID	* T10
Mineral Oil	<0.160	mg/L	0.160	0.400	9/29/20 15:27	ARC	NWTPH-HCID	*
Surrogate: n-Hexacosane	85.6%		50-150		9/29/20 15:27	ARC	NWTPH-HCID	

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Analytical Results Report

(Continued)

Sample Location: U-3/WW-4
Lab/Sample Number: WAI0678-15 Collect Date: 09/14/20 12:30
Date Received: 09/17/20 10:05 Collected By:
Matrix: Water

Analyte	Result	Units	MDL	PQL	Analyzed	Analyst	Method	Qualifier
Inorganics								
TSS	14.0	mg/L	1.00	1.00	9/21/20 11:00	BAS	EPA 160.2	
Metals by ICP-MS								
Arsenic	0.000958	mg/L	0.0000600	0.00100	9/22/20 13:56	TRC	EPA 200.8	J
Mercury								
Mercury	<0.006	ug/L	0.00600	0.100	9/30/20 17:05	TRC	EPA 245.1	
Semivolatiles								
Diesel	<0.0520	mg/L	0.0520	0.0800	9/29/20 16:22	ARC	NWTPH-HCID	*
Gasoline	<0.160	mg/L	0.160	0.400	9/29/20 16:22	ARC	NWTPH-HCID	*
Lube Oil	<0.0460	mg/L	0.0460	0.0800	9/29/20 16:22	ARC	NWTPH-HCID	*
Mineral Oil	<0.160	mg/L	0.160	0.400	9/29/20 16:22	ARC	NWTPH-HCID	*
Surrogate: n-Hexacosane	93.0%		50-150		9/29/20 16:22	ARC	NWTPH-HCID	

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Analytical Results Report

(Continued)

Sample Location: D-2
Lab/Sample Number: WAI0678-16 Collect Date: 09/14/20 09:25
Date Received: 09/17/20 10:05 Collected By:
Matrix: Water

Analyte	Result	Units	MDL	PQL	Analyzed	Analyst	Method	Qualifier
Inorganics								
TSS	91.0	mg/L	1.00	1.00	9/21/20 11:00	BAS	EPA 160.2	
Metals by ICP-MS								
Arsenic	0.00904	mg/L	0.0000600	0.00100	9/23/20 13:20	TRC	EPA 200.8	
Mercury								
Mercury	0.00960	ug/L	0.00600	0.100	9/30/20 17:07	TRC	EPA 245.1	J
Semivolatiles								
Diesel	0.569	mg/L	0.0520	0.0800	9/29/20 17:18	ARC	NWTPH-HCID	* T10
Gasoline	<0.160	mg/L	0.160	0.400	9/29/20 17:18	ARC	NWTPH-HCID	*
Lube Oil	0.795	mg/L	0.0460	0.0800	9/29/20 17:18	ARC	NWTPH-HCID	* T10
Mineral Oil	<0.160	mg/L	0.160	0.400	9/29/20 17:18	ARC	NWTPH-HCID	*
Surrogate: n-Hexacosane	90.5%		50-150		9/29/20 17:18	ARC	NWTPH-HCID	

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Analytical Results Report

(Continued)

Sample Location: D-3
Lab/Sample Number: WAI0678-17 Collect Date: 09/14/20 12:35
Date Received: 09/17/20 10:05 Collected By:
Matrix: Water

Analyte	Result	Units	MDL	PQL	Analyzed	Analyst	Method	Qualifier
Inorganics								
TSS	20.0	mg/L	1.00	1.00	9/21/20 11:00	BAS	EPA 160.2	
Metals by ICP-MS								
Arsenic	0.00213	mg/L	0.0000600	0.00100	9/22/20 14:10	TRC	EPA 200.8	
Mercury								
Mercury	0.0121	ug/L	0.00600	0.100	9/30/20 17:09	TRC	EPA 245.1	J
Semivolatiles								
Diesel	0.600	mg/L	0.0520	0.0800	9/29/20 18:14	ARC	NWTPH-HCID	* T10
Gasoline	<0.160	mg/L	0.160	0.400	9/29/20 18:14	ARC	NWTPH-HCID	*
Lube Oil	0.774	mg/L	0.0460	0.0800	9/29/20 18:14	ARC	NWTPH-HCID	* T10
Mineral Oil	<0.160	mg/L	0.160	0.400	9/29/20 18:14	ARC	NWTPH-HCID	*
Surrogate: n-Hexacosane	88.9%		50-150		9/29/20 18:14	ARC	NWTPH-HCID	

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Analytical Results Report

(Continued)

Sample Location: D-4
Lab/Sample Number: WAI0678-18 Collect Date: 09/14/20 13:26
Date Received: 09/17/20 10:05 Collected By:
Matrix: Water

Analyte	Result	Units	MDL	PQL	Analyzed	Analyst	Method	Qualifier
Inorganics								
TSS	15.0	mg/L	1.00	1.00	9/21/20 11:00	BAS	EPA 160.2	
Metals by ICP-MS								
Arsenic	0.00253	mg/L	0.0000600	0.00100	9/22/20 14:12	TRC	EPA 200.8	
Mercury								
Mercury	0.0266	ug/L	0.00600	0.100	9/30/20 17:12	TRC	EPA 245.1	J
Semivolatiles								
Diesel	0.465	mg/L	0.0520	0.0800	9/29/20 19:10	ARC	NWTPH-HCID	* T10
Gasoline	<0.160	mg/L	0.160	0.400	9/29/20 19:10	ARC	NWTPH-HCID	*
Lube Oil	0.825	mg/L	0.0460	0.0800	9/29/20 19:10	ARC	NWTPH-HCID	* T10
Mineral Oil	<0.160	mg/L	0.160	0.400	9/29/20 19:10	ARC	NWTPH-HCID	*
Surrogate: n-Hexacosane	92.2%		50-150		9/29/20 19:10	ARC	NWTPH-HCID	

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Analytical Results Report

(Continued)

Sample Location: D-5
Lab/Sample Number: WAI0678-19 Collect Date: 09/14/20 13:47
Date Received: 09/17/20 10:05 Collected By:
Matrix: Water

Analyte	Result	Units	MDL	PQL	Analyzed	Analyst	Method	Qualifier
Inorganics								
TSS	9.00	mg/L	1.00	1.00	9/21/20 11:00	BAS	EPA 160.2	
Metals by ICP-MS								
Arsenic	0.00318	mg/L	0.0000600	0.00100	9/22/20 15:05	TRC	EPA 200.8	
Mercury								
Mercury	0.0400	ug/L	0.00600	0.100	9/30/20 17:14	TRC	EPA 245.1	J
Semivolatiles								
Diesel	<0.0520	mg/L	0.0520	0.0800	9/29/20 21:57	ARC	NWTPH-HCID	*
Gasoline	<0.160	mg/L	0.160	0.400	9/29/20 21:57	ARC	NWTPH-HCID	*
Lube Oil	<0.0460	mg/L	0.0460	0.0800	9/29/20 21:57	ARC	NWTPH-HCID	*
Mineral Oil	<0.160	mg/L	0.160	0.400	9/29/20 21:57	ARC	NWTPH-HCID	*
Surrogate: n-Hexacosane	92.6%		50-150		9/29/20 21:57	ARC	NWTPH-HCID	

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Analytical Results Report

(Continued)

Sample Location: D-6
Lab/Sample Number: WAI0678-20 Collect Date: 09/14/20 13:20
Date Received: 09/17/20 10:05 Collected By:
Matrix: Water

Analyte	Result	Units	MDL	PQL	Analyzed	Analyst	Method	Qualifier
Inorganics								
TSS	33.0	mg/L	1.00	1.00	9/21/20 11:00	BAS	EPA 160.2	
Metals by ICP-MS								
Arsenic	0.00263	mg/L	0.0000600	0.00100	9/22/20 14:15	TRC	EPA 200.8	
Mercury								
Mercury	0.170	ug/L	0.00600	0.100	9/30/20 17:16	TRC	EPA 245.1	
Semivolatiles								
Diesel	0.478	mg/L	0.0520	0.0800	9/29/20 23:47	ARC	NWTPH-HCID	* T10
Gasoline	<0.160	mg/L	0.160	0.400	9/29/20 23:47	ARC	NWTPH-HCID	*
Lube Oil	0.598	mg/L	0.0460	0.0800	9/29/20 23:47	ARC	NWTPH-HCID	* T10
Mineral Oil	<0.160	mg/L	0.160	0.400	9/29/20 23:47	ARC	NWTPH-HCID	*
Surrogate: n-Hexacosane	87.7%		50-150		9/29/20 23:47	ARC	NWTPH-HCID	

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Analytical Results Report

(Continued)

Sample Location: D-7
Lab/Sample Number: WAI0678-21 Collect Date: 09/14/20 14:15
Date Received: 09/17/20 10:05 Collected By:
Matrix: Water

Analyte	Result	Units	MDL	PQL	Analyzed	Analyst	Method	Qualifier
Inorganics								
TSS	8.00	mg/L	1.00	1.00	9/21/20 11:00	BAS	EPA 160.2	
Metals by ICP-MS								
Arsenic	0.00142	mg/L	0.0000600	0.00100	9/22/20 14:18	TRC	EPA 200.8	
Mercury								
Mercury	0.0466	ug/L	0.00600	0.100	9/30/20 17:23	TRC	EPA 245.1	J
Semivolatiles								
Diesel	0.463	mg/L	0.0520	0.0800	9/30/20 6:10	ARC	NWTPH-HCID	* T10
Gasoline	<0.160	mg/L	0.160	0.400	9/30/20 6:10	ARC	NWTPH-HCID	*
Lube Oil	0.702	mg/L	0.0460	0.0800	9/30/20 6:10	ARC	NWTPH-HCID	* T10
Mineral Oil	<0.160	mg/L	0.160	0.400	9/30/20 6:10	ARC	NWTPH-HCID	*
Surrogate: n-Hexacosane	90.7%		50-150		9/30/20 6:10	ARC	NWTPH-HCID	

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Analytical Results Report

(Continued)

Sample Location: D-8
Lab/Sample Number: WAI0678-22 Collect Date: 09/14/20 14:15
Date Received: 09/17/20 10:05 Collected By:
Matrix: Water

Analyte	Result	Units	MDL	PQL	Analyzed	Analyst	Method	Qualifier
Inorganics								
TSS	12.0	mg/L	1.00	1.00	9/21/20 11:00	BAS	EPA 160.2	
Metals by ICP-MS								
Arsenic	0.00482	mg/L	0.0000600	0.00100	9/22/20 14:32	TRC	EPA 200.8	
Mercury								
Mercury	0.0801	ug/L	0.00600	0.100	9/30/20 17:25	TRC	EPA 245.1	J
Semivolatiles								
Diesel	0.492	mg/L	0.0520	0.0800	9/30/20 7:04	ARC	NWTPH-HCID	* T10
Gasoline	<0.160	mg/L	0.160	0.400	9/30/20 7:04	ARC	NWTPH-HCID	*
Lube Oil	0.650	mg/L	0.0460	0.0800	9/30/20 7:04	ARC	NWTPH-HCID	* T10
Mineral Oil	<0.160	mg/L	0.160	0.400	9/30/20 7:04	ARC	NWTPH-HCID	*
Surrogate: n-Hexacosane	93.0%		50-150		9/30/20 7:04	ARC	NWTPH-HCID	

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Analytical Results Report

(Continued)

Sample Location: WW-3
Lab/Sample Number: WAI0678-23 Collect Date: 09/14/20 15:25
Date Received: 09/17/20 10:05 Collected By:
Matrix: Soil

Analyte	Result	Units	MDL	PQL	Analyzed	Analyst	Method	Qualifier
Inorganics								
% Solids	79.7	%	0.100	0.100	10/30/20 9:31	TGT	SM 2540 G	
Semivolatiles								
Glyphosate	<0.274	mg/kg dry	0.274	0.548	9/23/20 15:15	MER	EPA 8321B	*
Atrazine	<10.0	mg/kg dry	0.0100	0.0200	9/29/20 18:01	TGT	EPA 625.1	*
Chlorpyrifos	<10.0	mg/kg dry	0.0100	0.0200	9/29/20 18:01	TGT	EPA 625.1	*
Metolachlor	<10.0	mg/kg dry	0.0100	0.0200	9/29/20 18:01	TGT	EPA 625.1	*
Surrogate: Terphenyl-d14	66.4%		25-135		9/29/20 18:01	TGT	EPA 625.1	

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Analytical Results Report

(Continued)

Sample Location: E-1
Lab/Sample Number: WAI0678-24 Collect Date: 09/14/20 11:10
Date Received: 09/17/20 10:05 Collected By:
Matrix: Soil

Analyte	Result	Units	MDL	PQL	Analyzed	Analyst	Method	Qualifier
Inorganics								
% Solids	78.3	%	0.100	0.100	10/30/20 9:31	TGT	SM 2540 G	
Semivolatiles								
Glyphosate	<0.281	mg/kg dry	0.281	0.562	9/23/20 15:22	MER	EPA 8321B	*
Atrazine	<10.0	mg/kg dry	0.0100	0.0200	9/29/20 18:28	TGT	EPA 625.1	*
Chlorpyrifos	<10.0	mg/kg dry	0.0100	0.0200	9/29/20 18:28	TGT	EPA 625.1	*
Metolachlor	<10.0	mg/kg dry	0.0100	0.0200	9/29/20 18:28	TGT	EPA 625.1	*
Surrogate: Terphenyl-d14	62.5%		25-135		9/29/20 18:28	TGT	EPA 625.1	

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Analytical Results Report

(Continued)

Sample Location: E-2
Lab/Sample Number: WAI0678-25 Collect Date: 09/14/20 09:48
Date Received: 09/17/20 10:05 Collected By:
Matrix: Soil

Analyte	Result	Units	MDL	PQL	Analyzed	Analyst	Method	Qualifier
Inorganics								
% Solids	81.5	%	0.100	0.100	10/30/20 9:31	TGT	SM 2540 G	
Semivolatiles								
Glyphosate	<0.275	mg/kg dry	0.292	0.583	9/23/20 15:28	MER	EPA 8321B	*
Atrazine	<10.0	mg/kg dry	0.0100	0.0200	9/29/20 18:54	TGT	EPA 625.1	*
Chlorpyrifos	<10.0	mg/kg dry	0.0100	0.0200	9/29/20 18:54	TGT	EPA 625.1	*
Metolachlor	<10.0	mg/kg dry	0.0100	0.0200	9/29/20 18:54	TGT	EPA 625.1	*
Surrogate: Terphenyl-d14	69.9%		25-135		9/29/20 18:54	TGT	EPA 625.1	

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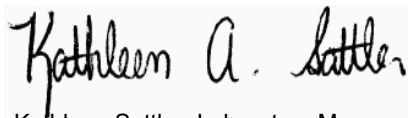
Analytical Results Report

(Continued)

Sample Location: E-2 DUP
Lab/Sample Number: WAI0678-26 Collect Date: 09/14/20 09:48
Date Received: 09/17/20 10:05 Collected By:
Matrix: Soil

Analyte	Result	Units	MDL	PQL	Analyzed	Analyst	Method	Qualifier
Inorganics								
% Solids	81.6	%	0.100	0.100	10/30/20 9:31	TGT	SM 2540 G	
Semivolatiles								
Glyphosate	<0.275	mg/kg dry	0.275	0.550	9/23/20 15:49	MER	EPA 8321B	*
Atrazine	<10.0	mg/kg dry	0.0100	0.0200	9/29/20 19:21	TGT	EPA 625.1	*
Chlorpyrifos	<10.0	mg/kg dry	0.0100	0.0200	9/29/20 19:21	TGT	EPA 625.1	*
Metolachlor	<10.0	mg/kg dry	0.0100	0.0200	9/29/20 19:21	TGT	EPA 625.1	*
Surrogate: Terphenyl-d14	72.5%		25-135		9/29/20 19:21	TGT	EPA 625.1	

Authorized Signature,



Kathleen Sattler, Laboratory Manager

H1	Sample analysis performed past holding time.
J	The reported value is between the laboratory method detection limit and the laboratory practical quantitation limit.
T10	Non-target analyte in diesel and lube oil range, tentatively identified as heavy fuel oil.
PQL	Practical Quantitation Limit
ND	Not Detected
MDL	Method Detection Limit
Dry	Sample results reported on a dry weight basis
*	Not a state-certified analyte
RPD	Relative Percent Difference
%REC	Percent Recovery
Source	Sample that was spiked or duplicated.

This report shall not be reproduced except in full, without the written approval of the laboratory
The results reported related only to the samples indicated.

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Certifications

Code	Description	Facility	Number
W WA DOE	Washington Department of Ecology	Anatek-Spokane, WA	C585
W FLDOH	Florida Department of Health (NELAC)	Anatek-Spokane, WA	E871099

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Quality Control Data

Inorganics

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: BAK0159 - W Filtration										
Blank (BAK0159-BLK1)					Prepared & Analyzed: 9/21/2020					
TSS	ND		1.00	mg/L						
Blank (BAK0159-BLK2)					Prepared & Analyzed: 9/21/2020					
TSS	ND		1.00	mg/L						
Blank (BAK0159-BLK3)					Prepared & Analyzed: 9/21/2020					
TSS	ND		1.00	mg/L						
LCS (BAK0159-BS1)					Prepared & Analyzed: 9/21/2020					
TSS	103			mg/L	100		103	90-110		
LCS (BAK0159-BS2)					Prepared & Analyzed: 9/21/2020					
TSS	103			mg/L	100		103	90-110		
LCS Dup (BAK0159-BSD1)					Prepared & Analyzed: 9/21/2020					
TSS	101			mg/L	100		101	90-110	1.96	10
LCS Dup (BAK0159-BSD2)					Prepared & Analyzed: 9/21/2020					
TSS	100			mg/L	100		100	90-110	2.96	10
Matrix Spike (BAK0159-MS1)					Prepared & Analyzed: 9/21/2020					
TSS	96.0		2.00	mg/L	100	<1.00	96.0	80-120		
Matrix Spike (BAK0159-MS2)					Prepared & Analyzed: 9/21/2020					
TSS	108		2.00	mg/L	100	12.0	96.0	80-120		
Matrix Spike Dup (BAK0159-MSD1)					Prepared & Analyzed: 9/21/2020					
TSS	96.0		2.00	mg/L	100	<1.00	96.0	80-120	0.00	20

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Quality Control Data (Continued)

Inorganics (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: BAK0159 - W Filtration (Continued)										
Matrix Spike Dup (BAK0159-MSD2)			Source: WAI0678-22			Prepared & Analyzed: 9/21/2020				
TSS	112		2.00	mg/L	100	12.0	100	80-120	3.64	20

Quality Control Data (Continued)

Metals by ICP-MS

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: BAI0580 - W 3010 Digest										
Blank (BAI0580-BLK1)					Prepared: 9/21/2020 Analyzed: 9/22/2020					
Arsenic	ND		0.00100	mg/L						
Blank (BAI0580-BLK2)					Prepared: 9/21/2020 Analyzed: 9/23/2020					
Arsenic	0.0000930	J	0.00100	mg/L						
LCS (BAI0580-BS1)					Prepared: 9/21/2020 Analyzed: 9/22/2020					
Arsenic	0.0499		0.00100	mg/L	0.0500		99.8	85-115		
LCS (BAI0580-BS2)					Prepared: 9/21/2020 Analyzed: 9/22/2020					
Arsenic	0.0506		0.00100	mg/L	0.0500		101	85-115		
Matrix Spike (BAI0580-MS1)					Prepared: 9/21/2020 Analyzed: 9/23/2020					
Arsenic	0.0611		0.00100	mg/L	0.0500	0.00774	107	70-130		
Matrix Spike (BAI0580-MS2)					Prepared: 9/21/2020 Analyzed: 9/22/2020					
Arsenic	0.0502		0.00100	mg/L	0.0500	0.000958	98.4	70-130		
Matrix Spike (BAI0580-MS3)					Prepared: 9/21/2020 Analyzed: 9/22/2020					
Arsenic	0.0563		0.00100	mg/L	0.0500	0.00482	103	70-130		
Matrix Spike Dup (BAI0580-MSD1)					Prepared: 9/21/2020 Analyzed: 9/23/2020					
Arsenic	0.0612		0.00100	mg/L	0.0500	0.00774	107	70-130	0.188	20
Matrix Spike Dup (BAI0580-MSD2)					Prepared: 9/21/2020 Analyzed: 9/22/2020					
Arsenic	0.0499		0.00100	mg/L	0.0500	0.000958	97.9	70-130	0.544	20
Matrix Spike Dup (BAI0580-MSD3)					Prepared: 9/21/2020 Analyzed: 9/22/2020					
Arsenic	0.0532		0.00100	mg/L	0.0500	0.00482	96.8	70-130	5.57	20

Quality Control Data (Continued)

Mercury

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: BAI0749 - W 245.1 Digest										
Blank (BAI0749-BLK1)										
Prepared: 9/25/2020 Analyzed: 9/30/2020										

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Quality Control Data (Continued)

Mercury (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: BAI0749 - W 245.1 Digest (Continued)										
Blank (BAI0749-BLK1)					Prepared: 9/25/2020 Analyzed: 9/30/2020					
Mercury	ND		0.100	ug/L						
Blank (BAI0749-BLK2)					Prepared: 9/25/2020 Analyzed: 9/30/2020					
Mercury	ND		0.100	ug/L						
LCS (BAI0749-BS1)					Prepared: 9/25/2020 Analyzed: 9/30/2020					
Mercury	1.89		0.100	ug/L	2.00		94.6	85-115		
LCS (BAI0749-BS2)					Prepared: 9/25/2020 Analyzed: 9/30/2020					
Mercury	1.89		0.100	ug/L	2.00		94.6	85-115		
Matrix Spike (BAI0749-MS1)					Source: WAI0678-07 Prepared: 9/25/2020 Analyzed: 9/30/2020					
Mercury	1.74		0.100	ug/L	2.00	<0.006	87.2	70-130		
Matrix Spike (BAI0749-MS2)					Source: WAI0678-14 Prepared: 9/25/2020 Analyzed: 9/30/2020					
Mercury	2.18		0.100	ug/L	2.00	0.0100	108	70-130		
Matrix Spike (BAI0749-MS3)					Source: WAI0919-01 Prepared: 9/25/2020 Analyzed: 9/30/2020					
Mercury	8.68		0.500	ug/L	10.0	0.0390	86.4	70-130		
Matrix Spike Dup (BAI0749-MSD1)					Source: WAI0678-07 Prepared: 9/25/2020 Analyzed: 9/30/2020					
Mercury	1.75		0.100	ug/L	2.00	<0.006	87.3	70-130	0.115	20
Matrix Spike Dup (BAI0749-MSD2)					Source: WAI0678-14 Prepared: 9/25/2020 Analyzed: 9/30/2020					
Mercury	2.24		0.100	ug/L	2.00	0.0100	111	70-130	2.81	20
Matrix Spike Dup (BAI0749-MSD3)					Source: WAI0919-01 Prepared: 9/25/2020 Analyzed: 9/30/2020					
Mercury	8.70		0.500	ug/L	10.0	0.0390	86.6	70-130	0.230	20

Quality Control Data (Continued)

Semivolatiles

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: BAI0581 - W TPH-Dx										
Blank (BAI0581-BLK1)					Prepared & Analyzed: 9/21/2020					
Lube Oil	ND		0.0800	mg/L						
Mineral Oil	ND		0.160	mg/L						
Gasoline	ND		0.160	mg/L						
Diesel	ND		0.0800	mg/L						
Surrogate: n-Hexacosane			41.9	mg/L	50.0		83.8	50-150		
LCS (BAI0581-BS1)					Prepared & Analyzed: 9/21/2020					
Diesel	0.956		0.0800	mg/L	1.00		95.6	0-200		
Surrogate: n-Hexacosane			47.2	mg/L	50.0		94.4	50-150		
Duplicate (BAI0581-DUP1)					Source: WAI0678-09 Prepared: 9/21/2020 Analyzed: 9/22/2020					

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Quality Control Data (Continued)

Semivolatiles (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: BAI0581 - W TPH-Dx (Continued)										
Duplicate (BAI0581-DUP1)		Source: WAI0678-09		Prepared: 9/21/2020 Analyzed: 9/22/2020						
Lube Oil	ND		0.0800	mg/L		<0.0460				200
Mineral Oil	ND		0.160	mg/L		<0.160				200
Gasoline	ND		0.160	mg/L		<0.160				200
Diesel	ND		0.0800	mg/L		<0.0520				200
<i>Surrogate: n-Hexacosane</i>			<i>48.0</i>	<i>mg/L</i>	<i>50.0</i>		<i>96.0</i>	<i>50-150</i>		

Batch: BAI0613 - SVOC Water

Blank (BAI0613-BLK1)

Prepared: 9/20/2020 Analyzed: 9/28/2020

Atrazine	ND		0.100	ug/L						
Chlorpyrifos	ND		0.100	ug/L						
Metolachlor	ND		0.100	ug/L						
<i>Surrogate: Terphenyl-d14</i>			<i>30.0</i>	<i>ug/L</i>	<i>25.8</i>		<i>116</i>	<i>25-135</i>		

LCS (BAI0613-BS1)

Prepared: 9/20/2020 Analyzed: 9/28/2020

Atrazine	4.87		0.100	ug/L	5.00		97.4	60-125		
Chlorpyrifos	5.16		0.100	ug/L	5.00		103	50-125		
Metolachlor	4.64		0.100	ug/L	5.00		92.8	60-125		
<i>Surrogate: Terphenyl-d14</i>			<i>23.8</i>	<i>ug/L</i>	<i>25.8</i>		<i>92.3</i>	<i>25-135</i>		

LCS Dup (BAI0613-BSD1)

Prepared: 9/20/2020 Analyzed: 9/28/2020

Atrazine	5.40		0.100	ug/L	5.00		108	60-125	10.3	20
Chlorpyrifos	5.22		0.100	ug/L	5.00		104	50-125	1.16	20
Metolachlor	4.57		0.100	ug/L	5.00		91.4	60-125	1.52	20
<i>Surrogate: Terphenyl-d14</i>			<i>22.9</i>	<i>ug/L</i>	<i>25.8</i>		<i>89.0</i>	<i>25-135</i>		

Matrix Spike (BAI0613-MS1)

Source: WAI0678-07

Prepared: 9/20/2020 Analyzed: 9/29/2020

Chlorpyrifos	5.07		0.100	ug/L	5.00	<0.0500	101	40-140		
Atrazine	4.63		0.100	ug/L	5.00	<0.0500	92.6	40-140		
Metolachlor	4.50		0.100	ug/L	5.00	<0.0500	90.0	40-140		
<i>Surrogate: Terphenyl-d14</i>			<i>22.3</i>	<i>ug/L</i>	<i>25.8</i>		<i>86.6</i>	<i>60-130</i>		

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Quality Control Data (Continued)

Semivolatiles (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
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Batch: BAI0613 - SVOC Water (Continued)

Matrix Spike Dup (BAI0613-MSD1)

Source: WAI0678-07

Prepared: 9/20/2020 Analyzed: 9/29/2020

Chlorpyrifos	4.93		0.100	ug/L	5.00	<0.0500	98.6	40-140	2.80	20
Metolachlor	4.36		0.100	ug/L	5.00	<0.0500	87.2	40-140	3.16	20
Atrazine	4.65		0.100	ug/L	5.00	<0.0500	93.0	40-140	0.431	20
Surrogate: Terphenyl-d14			23.0	ug/L	25.8		89.2	60-130		

Batch: BAI0644 - Glyphosate

Blank (BAI0644-BLK1)

Prepared: 9/22/2020 Analyzed: 9/23/2020

Glyphosate	ND		5.00	ug/L						
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LCS (BAI0644-BS1)

Prepared: 9/22/2020 Analyzed: 9/23/2020

Glyphosate	45.7		5.00	ug/L	50.0		91.4	70-130		
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Matrix Spike (BAI0644-MS1)

Source: WAI0678-05

Prepared: 9/22/2020 Analyzed: 9/23/2020

Glyphosate	45.6		5.00	ug/L	50.0	<1.00	91.2	70-130		
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Matrix Spike Dup (BAI0644-MSD1)

Source: WAI0678-05

Prepared: 9/22/2020 Analyzed: 9/23/2020

Glyphosate	45.0		5.00	ug/L	50.0	<1.00	90.0	70-130	1.32	25
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Batch: BAI0646 - Glyphosate

Blank (BAI0646-BLK1)

Prepared: 9/22/2020 Analyzed: 9/23/2020

Glyphosate	ND		0.0600	mg/kg wet						
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LCS (BAI0646-BS1)

Prepared: 9/22/2020 Analyzed: 9/23/2020

Glyphosate	0.463		0.0600	mg/kg wet	0.500		92.6	70-130		
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Quality Control Data (Continued)

Semivolatiles (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
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Batch: BAI0646 - Glyphosate (Continued)

Matrix Spike (BAI0646-MS2)

Source: WAI0678-25

Prepared: 9/22/2020 Analyzed: 9/23/2020

Glyphosate	4.42		0.583	mg/kg dry	4.86	<0.275	91.0	70-130		
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Matrix Spike Dup (BAI0646-MSD2)

Source: WAI0678-25

Prepared: 9/22/2020 Analyzed: 9/23/2020

Glyphosate	4.18		0.583	mg/kg dry	4.86	<0.275	86.0	70-130	5.65	25
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Batch: BAI0662 - W TPH-Dx

Blank (BAI0662-BLK1)

Prepared: 9/23/2020 Analyzed: 9/28/2020

Lube Oil	ND		0.0800	mg/L						
Mineral Oil	ND		0.160	mg/L						
Gasoline	ND		0.160	mg/L						
Diesel	ND		0.0800	mg/L						

Surrogate: n-Hexacosane			45.2	mg/L	50.0		90.4	50-150		
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LCS (BAI0662-BS1)

Prepared: 9/23/2020 Analyzed: 9/28/2020

Diesel	1.02		0.0800	mg/L	1.00		102	0-200		
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Surrogate: n-Hexacosane			46.0	mg/L	50.0		92.0	50-150		
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Duplicate (BAI0662-DUP1)

Source: WAI0678-06

Prepared: 9/23/2020 Analyzed: 9/29/2020

Lube Oil	1.35		0.0800	mg/L	1.37				1.54	200
Mineral Oil	ND		0.160	mg/L	<0.160					200
Gasoline	ND		0.160	mg/L	<0.160					200
Diesel	0.712		0.0800	mg/L	0.734				3.08	200

Surrogate: n-Hexacosane			46.9	mg/L	50.0		93.8	50-150		
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Matrix Spike (BAI0662-MS1)

Source: WAI0678-11

Prepared: 9/23/2020 Analyzed: 9/29/2020

Diesel	1.08		0.0800	mg/L	1.00	<0.0520	108	0-200		
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Surrogate: n-Hexacosane			46.0	mg/L	50.0		91.9	50-150		
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Quality Control Data (Continued)

Semivolatiles (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
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Batch: BAI0662 - W TPH-Dx (Continued)

Matrix Spike Dup (BAI0662-MSD1)

Source: WAI0678-11

Prepared: 9/23/2020 Analyzed: 9/29/2020

Diesel	1.09		0.0800	mg/L	1.00	<0.0520	109	0-200	0.747	200
Surrogate: n-Hexacosane			47.2	mg/L	50.0		94.4	50-150		

Batch: BAI0745 - W TPH-Dx

Blank (BAI0745-BLK1)

Prepared: 9/25/2020 Analyzed: 9/29/2020

Lube Oil	ND		0.0800	mg/L						
Mineral Oil	ND		0.160	mg/L						
Gasoline	ND		0.160	mg/L						
Diesel	ND		0.0800	mg/L						
Surrogate: n-Hexacosane			44.7	mg/L	50.0		89.4	50-150		

LCS (BAI0745-BS1)

Prepared: 9/25/2020 Analyzed: 9/29/2020

Diesel	0.947		0.0800	mg/L	1.00		94.7	0-200		
Surrogate: n-Hexacosane			44.9	mg/L	50.0		89.9	50-150		

Batch: BAI0844 - SVOC Solid

Blank (BAI0844-BLK1)

Prepared: 9/28/2020 Analyzed: 9/29/2020

n-Octadecane	ND		0.100	mg/kg wet						
Metolachlor	ND		0.0200	mg/kg wet						
Chlorpyrifos	ND		0.0200	mg/kg wet						
Atrazine	ND		0.0200	mg/kg wet						
Surrogate: Terphenyl-d14			2.98	mg/kg wet	5.15		57.9	25-135		

LCS (BAI0844-BS1)

Prepared: 9/28/2020 Analyzed: 9/29/2020

Atrazine	0.500		0.0200	mg/kg wet	0.500		100	60-125		
Chlorpyrifos	0.488		0.0200	mg/kg wet	0.500		97.6	30-140		
Metolachlor	0.460		0.0200	mg/kg wet	0.500		92.0	60-125		
Surrogate: Terphenyl-d14			3.37	mg/kg wet	5.15		65.4	25-135		

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Quality Control Data (Continued)

Semivolatiles (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC Limits	RPD	RPD Limit
Batch: BAI0844 - SVOC Solid (Continued)									
Matrix Spike (BAI0844-MS1)		Source: WAI0678-25		Prepared: 9/28/2020 Analyzed: 9/29/2020					
Metolachlor	0.474		0.0200	mg/kg dry	0.613	<10.0	77.2	40-130	
Chlorpyrifos	0.515		0.0200	mg/kg dry	0.613	<10.0	84.0	40-130	
Atrazine	0.437		0.0200	mg/kg dry	0.613	<10.0	71.2	40-130	
<i>Surrogate: Terphenyl-d14</i>			4.10	mg/kg dry	6.32		64.9	50-130	
Matrix Spike Dup (BAI0844-MSD1)		Source: WAI0678-25		Prepared: 9/28/2020 Analyzed: 9/29/2020					
Metolachlor	0.427		0.0200	mg/kg dry	0.613	<10.0	69.6	40-130	10.4
Chlorpyrifos	0.464		0.0200	mg/kg dry	0.613	<10.0	75.6	40-130	10.5
Atrazine	0.385		0.0200	mg/kg dry	0.613	<10.0	62.8	40-130	12.5
<i>Surrogate: Terphenyl-d14</i>			4.13	mg/kg dry	6.32		65.4	50-130	
Batch: BAJ0831 - Glyphosate									
Blank (BAJ0831-BLK1)		Prepared: 10/22/2020 Analyzed: 10/28/2020							
Glyphosate	ND		5.00	ug/L					
LCS (BAJ0831-BS1)		Prepared: 10/22/2020 Analyzed: 10/28/2020							
Glyphosate	43.5		5.00	ug/L	50.0		87.0	70-130	
Matrix Spike (BAJ0831-MS1)		Source: WAI0678-07		Prepared: 10/22/2020 Analyzed: 10/28/2020					
Glyphosate	52.9		5.00	ug/L	50.0	<1.00	106	70-130	
Matrix Spike Dup (BAJ0831-MSD1)		Source: WAI0678-07		Prepared: 10/22/2020 Analyzed: 10/28/2020					
Glyphosate	46.3		5.00	ug/L	50.0	<1.00	92.6	70-130	13.3



Chain of Custody Record

1282 Alturas Drive, Moscow ID 83843 (208) 883-2839 FAX 882-9246
504 E Sprague Ste D, Spokane WA 99202 (509) 838-3999 FAX 838-4433

Anatek
Log-In #

WAI0678



Due: 10/01/20

Turn Around

Please refer to our

<http://www.anateklabs.com/services/guidelines/reporting.asp>

☒ Normal ☐ *All rush order requests must be prior approved. ☐ Phone
☐ Next Day* ☐ Mail
☐ 2nd Day* ☐ Fax
☐ Other* ☐ Email

Company Name: **Cardno-GS**
Address: **737 Bishop St Suite 3050**
City: **Honolulu** State: **HI** Zip: **96813**
Phone: **(808) 476-0067**
Fax:

Project Manager: **Benjamin Berridge**
Project Name & #: **ADC Water Quality Monitoring**
Email Address: **benjamin.berridge@cardno-gs.com**
Purchase Order #:
Sampler Name & phone:

Provide Sample Description

List Analyses Requested

Note Special Instructions/Comments

Lab ID	Sample Identification	Sampling Date/Time	Matrix	Preservative:		TSS EPA 160.2	TPH HCLD - SW 846 MOD 8015	**TPH GRO SW 846 MOD 8015	Arsenic EPA 200.8	Mercury EPA 245.1	Pesticides EPA 625 SIM	Glyphosate EPA 547	Pesticides Sed. EPA 827D	Glyphosate Sed. EPA 8321B
				# of Containers	Sample Volume									
1	DW-1/WW-1	9/14/20 14:40	W	5		X	X		X	X				
2	DW-2	9/14/20 12:11	W	5		X	X		X	X				
3	DW-3	9/14/20 13:04	W	5		X	X		X	X				
4	WW-2	9/14 15:45	W	5		X	X		X	X				
5	WW-3	9/14 15:25	W & S	10		X	X		X	X	X	X	X	X
6	E-1	9/14 11:10	W & S	10		X	X		X	X	X	X	X	X
7	E-2	9/14 09:48	W & S	10		X	X		X	X	X	X	X	X
8	E-2 DUP	9/14 09:48	W & S	10		X	X		X	X	X	X	X	X
9	E-2 BLANK	9/14 09:48	W	7		X	X		X	X	X	X		
10	E-2 MS/MSD	9/14 09:48	W & S	14		X	X		X	X	X	X	X	X
11	I-1	9/14 15:00	W	5		X	X		X	X				
12	W-1	9/14 11:04	W	5		X	X		X	X				

****Please do not conduct TPH GRO analysis until Cardno confirms it should be run.**

SWBS

E1 - no Nathio bottle recd - lab pres off pres
E2 BLANK - No HCL DX bottle recd - lab pres one IL amber

Inspection Checklist

Received Intact? ☒ Y ☐ N
Labels & Chains Agree? ☒ Y ☒ N
Containers Sealed? ☒ Y ☐ N
VOC Head Space? ☒ Y ☒ N

F/c/i

Temperature (°C): See below

Preservative: HCL 2002747 <2, 2001139 <2, 2001203

HND3-2000994 <2, 2002280 <2

Date & Time: 9-18-20 1700

Inspected By: W/ky

Printed Name	Signature	Company	Date	Time
Relinquished by				
Received by	Wendy DZ	Anatek	9/17/20	1005
Relinquished by				
Received by				
Relinquished by				
Received by				

Form COC01.00 - Eff 1 Mar 2015

Samples submitted to Anatek Labs may be subcontracted to other accredited labs if necessary. This message serves as notice of this possibility. Sub-contracted analyses will be clearly noted on the analytical report.

cooler 1 - 4.0°C 4 - 5.4°C 7 - 2.3°C
2 - 8.9°C 5 - 4.4°C
3 - 2.9°C 6 - 4.4°C W/IR1

Nathio 2001177

Page 1 of 2



Chain of Custody Record

1282 Alturas Drive, Moscow ID 83843 (208) 883-2839 FAX 882-9246
504 E Sprague Ste D, Spokane WA 99202 (509) 838-3999 FAX 838-4433

Anatek
Log-In #

WAI0678



Due: 10/01/20

Company Name: Cardno-GS				Project Manager: Benjamin Berridge				Turn Arou			
Address: 737 Bishop St Suite 3050				Project Name & #: ADC Water Quality Monitoring				Please refer to our: http://www.anateklabs.com/services/guidelines/reporting.asp			
City: Honolulu		State: HI		Zip: 96813		Email Address: benjamin.berridge@cardno-gs.com				☒ Normal ☐ Next Day* ☐ 2nd Day* ☐ Other*	
Phone: (808) 476-0067				Purchase Order #:				☐ All rush order requests must be prior approved. ☐ Phone ☐ Mail ☐ Fax ☒ Email			
Fax:				Sampler Name & phone:							

Provide Sample Description				List Analyses Requested								Note Special Instructions/Comments		
Lab ID	Sample Identification	Sampling Date/Time	Matrix	# of Containers	Sample Volume	TSS EPA 160.2	TPH HCLD - SW 846 MOD 8015	**TPH GRO SW846M8015	Arsenic EPA 200.8	Mercury EPA 245.1				
12	W-2	9/14/20 11:39	W	5		X	X		X	X				
13	W-3	9/14/20 13:43	W	5		X	X		X	X				
14	W-4	9/14/20 13:43	W	5		X	X		X	X				
15	U-2/WW-5	9/14 11:30	W	5		X	X		X	X				
16	U-3/WW-4	9/14 12:30	W	5		X	X		X	X				
17	D-2	9/14 09:25	W	5		X	X		X	X				
18	D-3	9/14 12:35	W	5		X	X		X	X				
19	D-4	9/14 13:26	W	5		X	X		X	X				
20	D-5	9/14 13:47	W	5		X	X		X	X				
21	D-6	9/14 13:20	W	5		X	X		X	X				
22	D-7	9/14 14:15	W	5		X	X		X	X				
	D-8	9/14 14:15	W	5		X	X		X	X				

Note Special Instructions/Comments:
**Please do not conduct TPH GRO analysis until Cardno confirms it should be run.
HCID then GRO per Cardno per Pete hum 9/17/2020
9/17/2020
approval

Inspection Checklist			
Received Intact?	Y	N	
Labels & Chains Agree?	Y	N	
Containers Sealed?	Y	N	
VOC Head Space?	Y	N	

	Printed Name	Signature	Company	Date	Time
Relinquished by	Ben Berridge	<i>[Signature]</i>	Cardno	9/14/20	14:00
Received by	Wendy Oz	<i>[Signature]</i>	Anatek	9/17/20	1005
Relinquished by					
Received by					
Relinquished by					
Received by					

Temperature (°C): 4.0 IR1
Preservative: F/Cl
Date & Time: all pg 1
Inspected By: [Signature]

Sequence Name: T:\Data1\MSD4\SEQUENCES\2020\092820.s

Comment:

Operator: TGT

Data Path: T:\DATA1\MSD4\2020\SEP\28\

Instrument Control Pre-Seq Cmd:

Data Analysis Pre-Seq Cmd:

Instrument Control Post-Seq Cmd:

Data Analysis Post-Seq Cmd:

Method Sections To Run

(X) Full Method

() Reprocessing Only

Sequence Barcode Options

(X) On Mismatch, Inject Anyway

() On Mismatch, Don't Inject

() Barcode Disabled

Line	Sample Name/Misc Info
1) Sample	4 ----- CARDSIM RT
2) Sample	3 ----- SVOCT1 SYS CHECK
3) Sample	4 ----- CARDSIM 20 PPM ICAL
4) Sample	5 ----- CARDSIM 10 PPM ICAL
5) Sample	6 ----- CARDSIM 5 PPM ICAL
6) Sample	7 ----- CARDSIM 2.5 PPM ICAL
7) Sample	8 ----- CARDSIM 1 PPM ICAL
8) Sample	9 ----- CARDSIM 0.5 PPM ICAL
9) Sample	10 ----- CARDSIM 0.1 PPM ICAL
10) Sample	11 ----- CARDSIM BAI0613-BS1
11) Sample	12 ----- CARDSIM BAI0613-BSD1
12) Sample	13 ----- CARDSIM BAI0613-BLK1
13) Sample	14 ----- CARDSIM WAI0678-09
14) Sample	15 ----- CARDSIM WAI0678-05
15) Sample	16 ----- CARDSIM WAI0678-06
16) Sample	17 ----- CARDSIM WAI0678-07
17) Sample	18 ----- CARDSIM WAI0678-08
18) Sample	19 ----- CARDSIM BAI0613-MS1
19) Sample	20 ----- CARDSIM BAI0613-MSD1



Anatek Labs, Inc

1282 Alturas Drive
Moscow, ID 83843

1,4-Dioxane Cal. Standard Prep. Form

Method: EPA 625.1/8270D

IS/Surrogate Standards

Standard	Reagent ID	Expiration	Concentration (ppm)
CLP B/N Surrogate	2002553	2/22	1000
CLP Internal Standard	2002814	3/21	2000

Target Compound Standards

Standard	Reagent ID	Expiration	Concentration (ppm)
Chlorpyrifos	2003215	6/25/23	1000
Metolachlor	2003216	3/5/23	1000
Atrazine	2003218	11/21/24	1000

Calibration Dilution Template

Desired Concentration (ppm)	Stock Concentration (ppm)	uL Standard Added	Final Volume (uL)
20	1000	20	1000
10	1000	10	1000
5	1000	5	1000
2.5	1000	2.5	1000
1.0	1000	1.0	1000
0.5	1000	0.5	1000
0.1	1000	0.1	1000

Calibration made from target compound standards in the table. 25 uL of surrogate and 10 uL of IS stock added to each standard point. Dilutions were made in MeCl₂.

Analyst Initials: 

Form CS06.00 – Eff 9 Mar 2015

Date of Preparation: ⁸9/28/20 by TGT

Page 1 of 1

Response Factor Report MSD4

Method Path : T:\Data1\MSD4\METHODS\2020\
Method File : Cardno928.m
Title : EPA 8270D - GC MSD4
Last Update : Tue Sep 29 08:55:38 2020
Response Via : Initial Calibration

Calibration Files

20 =00401003.D 10 =00501004.D 5 =00601005.D 2.5 =00701006.D 1 =00801007.D 0.5 =00901008.D
0.1 =01001009.D

	Compound	20	10	5	2.5	1	0.5	0.1	Avg	%RSD
1) I	Dichlorobenzene-d5	-----ISTD-----								
2) S	2-Fluorobiphenyl	1.931	1.905	1.955	1.910	1.944	1.902	1.771	1.903	3.23
3) I	Acenaphthene-d10	-----ISTD-----								
4)	Atrazine	0.397	0.374	0.359	0.320	0.304	0.263	0.242	0.323	17.88
5) I	Phenanthrene-d10	-----ISTD-----								
6)	Metolachlor	0.695	0.673	0.643	0.581	0.525	0.472	0.410	0.571	18.75
7)	Chlorpyrifos	0.165	0.154	0.145	0.132	0.122	0.113	0.100	0.133	17.57
8) I	Chrysene-d12	-----ISTD-----								
9) S	Terphenyl-d14	1.417	1.393	1.381	1.381	1.347	1.405	1.209	1.362	5.22

(#) = Out of Range

PREPARATION BENCH SHEET

Print Date/Time: 09/21/2020 3:13

Organics

BAI0613

Matrix: Water

Prepared using: SVOC - SVOC Wat

Analyses

SVOC 625 MISC

Spiking Solution(s)

2002195 8270 Spike 100ppm
2003078 Cardno Spk

Surrogate Solution(s)

2001129 CLP Acid Surrogate Std 2000 ppm
2002553 CLP B/N 1000

Lab Number	Sample and Source ID	Date Due	Extract by	Prepared	Initial (mL)	Final (mL)	ul Spike	ul Surrogate	Extraction Comments
BAI0613-BLK1	Blank			9/21/2020 3:07:00PM	1000	1		25	
BAI0613-BS1	LCS			9/21/2020 3:07:00PM	1000	1	50	25	
BAI0613-BSD1	LCS Dup			9/21/2020 3:07:00PM	1000	1	50	25	
BAI0613-MS1	Matrix Spike [WAI0678-07]			9/21/2020 3:07:00PM	1000	1	50	25	
BAI0613-MSD1	Matrix Spike Dup [WAI0678-07]			9/21/2020 3:07:00PM	1000	1	50	25	
WAI0678-05	WW-3	09/29/2020	09/21/2020	9/21/2020 3:07:00PM	1000	1		25	
WAI0678-06	E-1	09/29/2020	09/21/2020	9/21/2020 3:07:00PM	1000	1		25	
WAI0678-07	E-2	09/29/2020	09/21/2020	9/21/2020 3:07:00PM	1000	1		25	
WAI0678-08	E-2 DUP	09/29/2020	09/21/2020	9/21/2020 3:07:00PM	1000	1		25	
WAI0678-09	E-2 BLANK	09/29/2020	09/21/2020	9/21/2020 3:07:00PM	1000	1		25	

BAL-04 TurboVap01

Reagents

Standard	Description	LotNum
2000515	MeCl2	58347
2001293	H2SO4	2019052978
2001338	Na2SO4 muffled	2019052978
2001342	pH paper	60775
2002704	NaOH 5N 625/8270	SX0590-3

Batch Comments:

Analyst:

Date

Run Date:

Date

PREPARATION BENCH SHEET

Organics

BAI0613

(Continued)

Print Date/Time: 09/21/2020 3:13

Page 44 of 284

Matrix: Water

Analyses

SVOC 625 MISC

Acidic start/stop time: 3PM- 8AM

Basic start/stop time: 8AM-3PM

Instrument: 7890/5975 GCMS

Ext. Method: 3520C liq-liq/Waste Dilution/Microextr

TurboVap: 01

Balance: 04

I.S M520-06 2000ppm EXP 3/21

Spiking Solution(s)

2002195	8270 Spike 100ppm
2003078	Cardno Spk

Surrogate Solution(s)

2001129	CLP Acid Surrogate Std 2000 ppm
2002553	CLP B/N 1000

Analyst: _____

Date _____

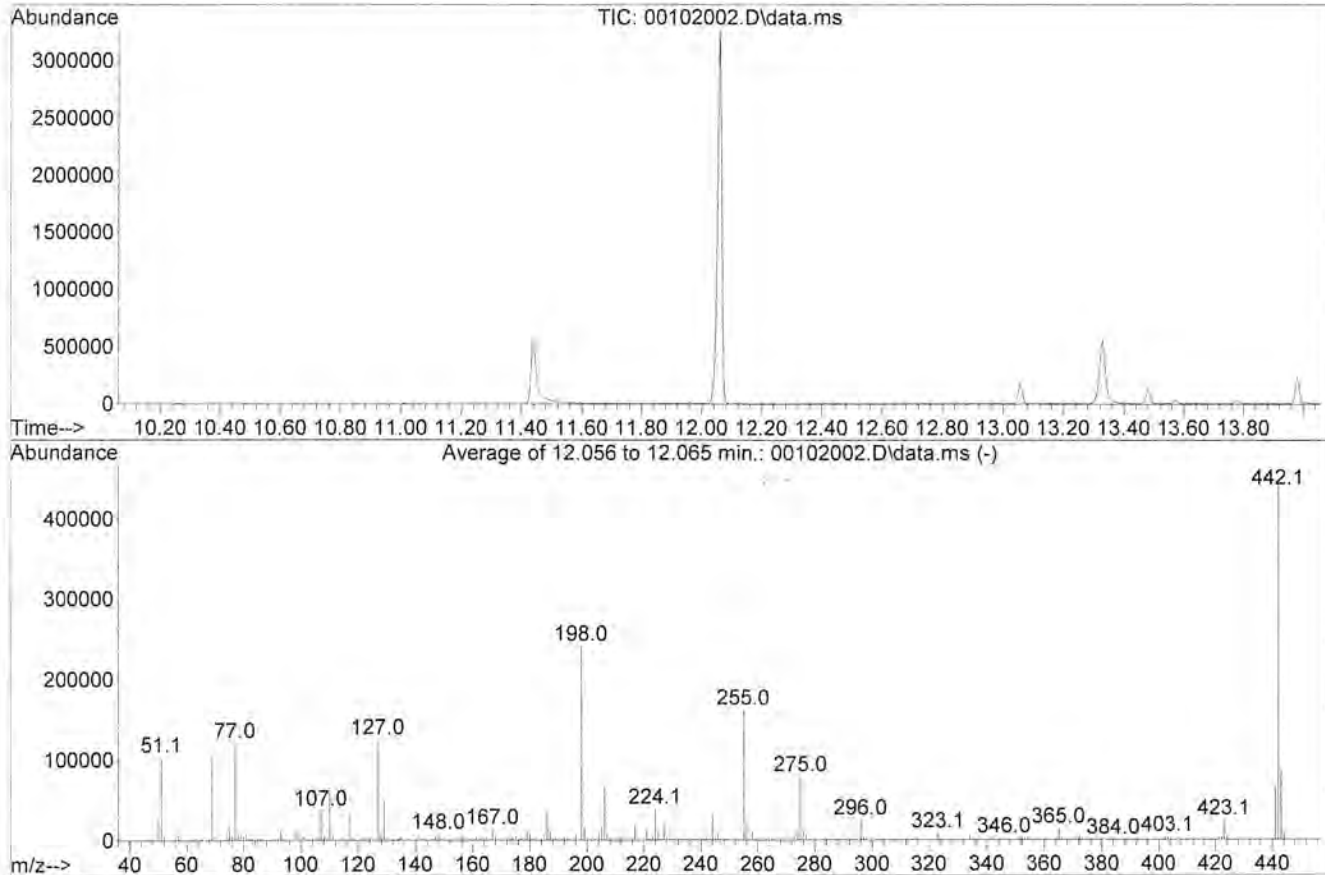
Run Date: _____

Date _____

Data Path : T:\Data1\MSD4\2020\SEP\28\
 Data File : 00102002.D
 Acq On : 28 Sep 2020 1:34 pm
 Operator : TGT
 Sample : SYS CHECK
 Misc :
 ALS Vial : 1 Sample Multiplier: 1

Integration File: events.e

Method : T:\Data1\MSD4\METHODS\2020\Cardno928.m
 Title : EPA 8270D - GC MSD4
 Last Update : Tue Sep 29 08:55:38 2020



AutoFind: Scans 1901, 1902, 1903; Background Corrected with Scan 1891

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	10	80	42.8	103405	PASS
68	69	0.00	2	1.9	2016	PASS
69	198	0.00	100	43.4	104841	PASS
70	69	0.00	2	0.6	614	PASS
127	198	25	75	51.9	125443	PASS
197	198	0.00	1	0.0	0	PASS
198	198	100	100	100.0	241835	PASS
199	198	5	9	6.7	16134	PASS
275	198	10	60	32.7	79080	PASS
365	198	0.00	100	5.9	14277	PASS
441	443	0.01	100	75.2	65709	PASS
442	198	39	200	184.2	445355	PASS
443	442	15	24	19.6	87365	PASS

Data Path : T:\Data1\MSD4\2020\SEP\28\
Data File : 00401003.D
Acq On : 28 Sep 2020 5:36 pm
Operator : TGT
Sample : 20 PPM ICAL
Misc :
ALS Vial : 4 Sample Multiplier: 1

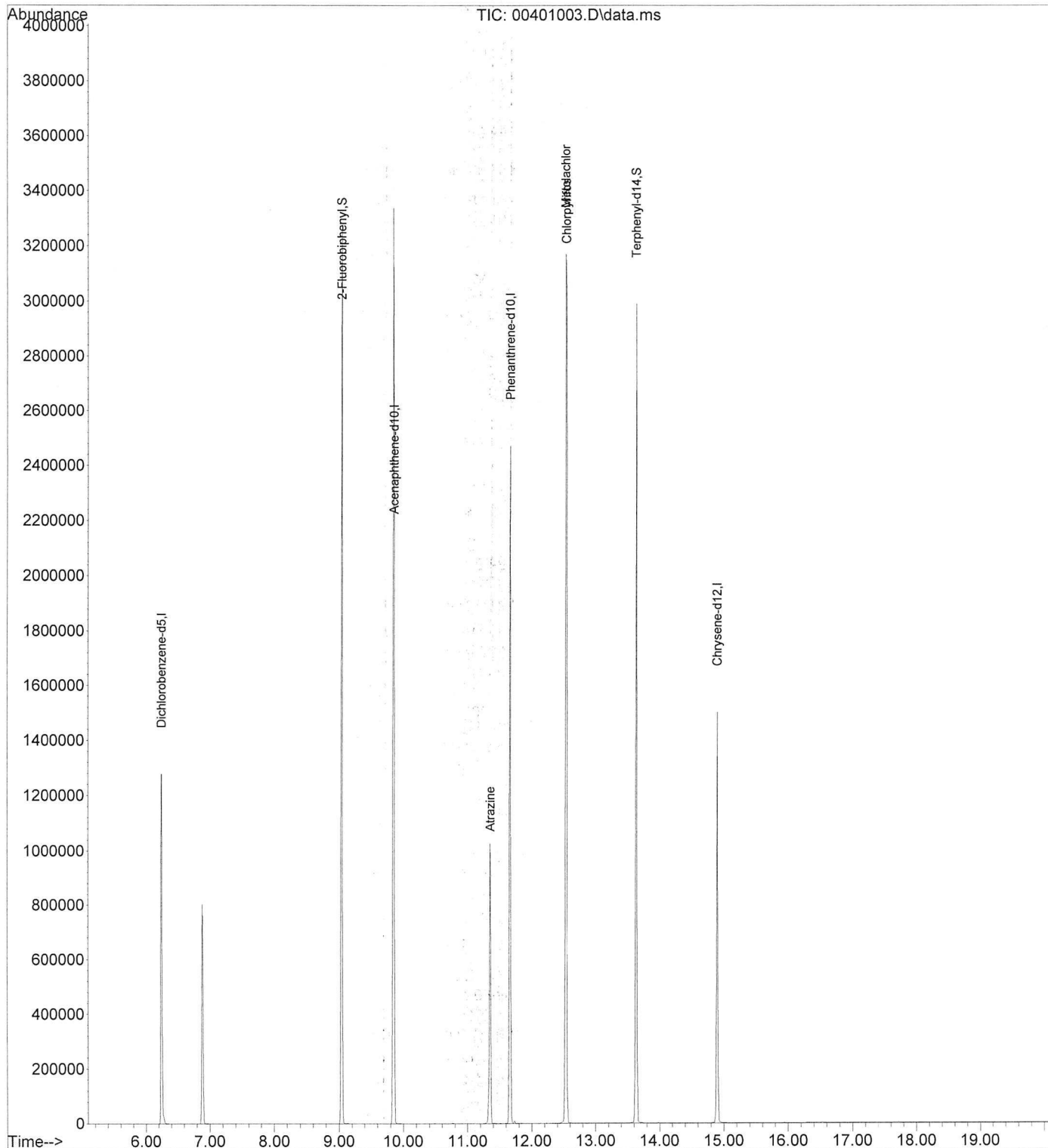
Quant Time: Sep 30 09:26:35 2020
Quant Method : T:\Data1\MSD4\METHODS\2020\Cardno928.m
Quant Title : EPA 8270D - GC MSD4
QLast Update : Wed Sep 30 09:26:34 2020
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Dichlorobenzene-d5	6.249	150	15442858	20.00	ppm	0.00
3) Acenaphthene-d10	9.856	164	20000222	20.00	ppm	# 0.00
5) Phenanthrene-d10	11.672	188	31090540	20.00	ppm	# 0.00
8) Chrysene-d12	14.904	240	15831024	20.00	ppm	# 0.00
System Monitoring Compounds						
2) 2-Fluorobiphenyl	9.050	172	37274860	25.37	ppm	0.00
9) Terphenyl-d14	13.643	244	28030510	26.00	ppm	0.00
Spiked Amount	25.000		Recovery	=	104.00%	
Target Compounds						
4) Atrazine	11.360	200	7909521	19.92	ppm	Qvalue 92
6) Metolachlor	12.543	162	21527940	19.90	ppm	# 72
7) Chlorpyrifos	12.553	197	5113618	19.88	ppm	# 79

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : T:\Data1\MSD4\2020\SEP\28\
Data File : 00401003.D
Acq On : 28 Sep 2020 5:36 pm
Operator : TGT
Sample : 20 PPM ICAL
Misc :
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Sep 30 09:26:35 2020
Quant Method : T:\Data1\MSD4\METHODS\2020\Cardno928.m
Quant Title : EPA 8270D - GC MSD4
QLast Update : Wed Sep 30 09:26:34 2020
Response via : Initial Calibration



Data Path : T:\Data1\MSD4\2020\SEP\28\
Data File : 00501004.D
Acq On : 28 Sep 2020 6:04 pm
Operator : TGT
Sample : 10 PPM ICAL
Misc :
ALS Vial : 5 Sample Multiplier: 1

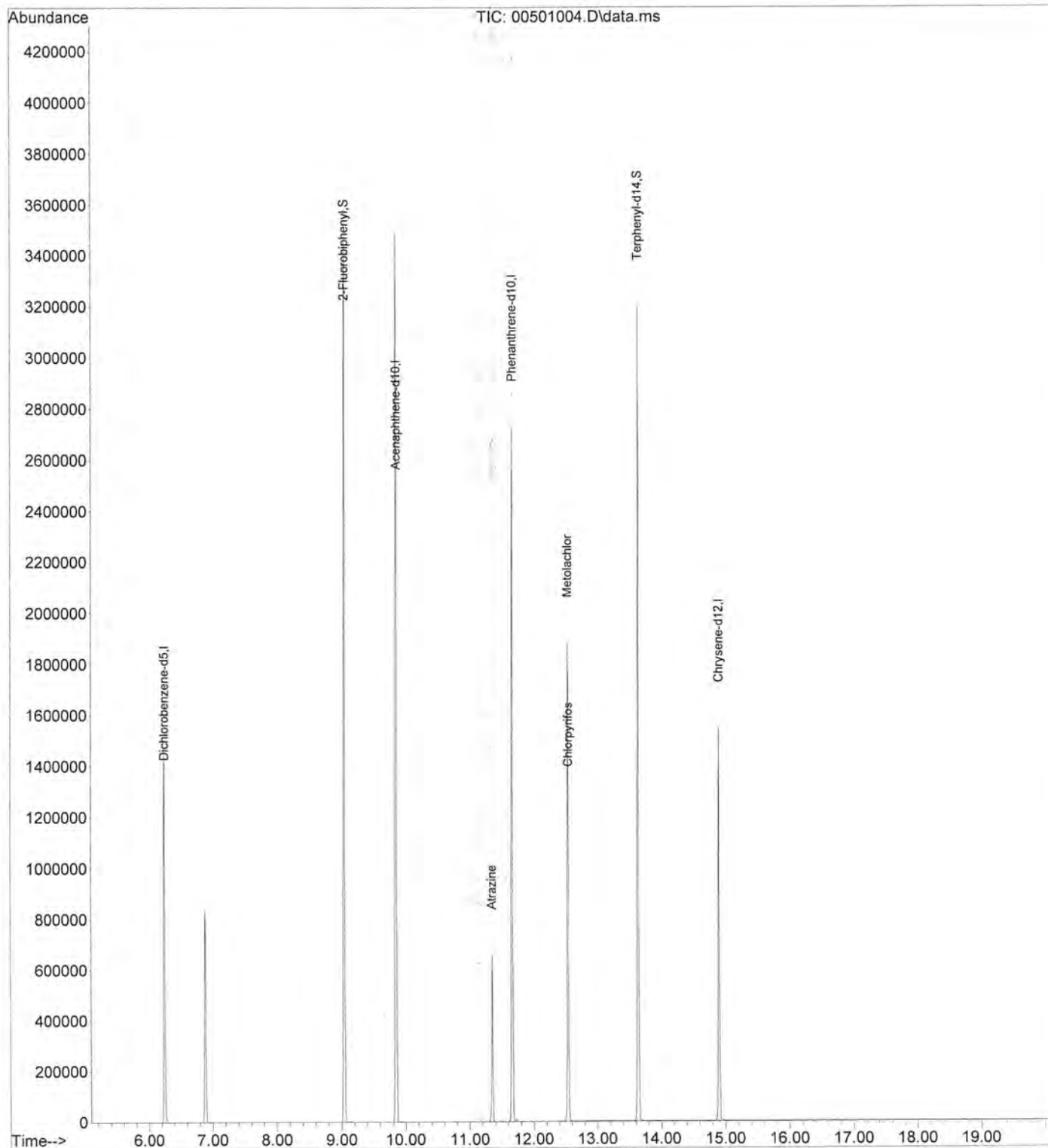
Quant Time: Sep 30 09:26:42 2020
Quant Method : T:\Data1\MSD4\METHODS\2020\Cardno928.m
Quant Title : EPA 8270D - GC MSD4
QLast Update : Tue Sep 29 08:55:38 2020
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Dichlorobenzene-d5	6.248	150	16251504	20.00	ppm	0.00
3) Acenaphthene-d10	9.857	164	20897856	20.00	ppm	# 0.00
5) Phenanthrene-d10	11.673	188	32174835	20.00	ppm	# 0.00
8) Chrysene-d12	14.904	240	16648008	20.00	ppm	# 0.00
System Monitoring Compounds						
2) 2-Fluorobiphenyl	9.051	172	38704241	25.04	ppm	0.00
9) Terphenyl-d14	13.643	244	28970669	25.56	ppm	0.00
Spiked Amount	25.000		Recovery	=	102.24%	
Target Compounds						
4) Atrazine	11.356	200	3884979	9.98	ppm	Qvalue 92
6) Metolachlor	12.543	162	10781660	10.11	ppm	# 78
7) Chlorpyrifos	12.552	197	2461074	10.04	ppm	# 78

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : T:\Data1\MSD4\2020\SEP\28\
Data File : 00501004.D
Acq On : 28 Sep 2020 6:04 pm
Operator : TGT
Sample : 10 PPM ICAL
Misc :
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Sep 30 09:26:42 2020
Quant Method : T:\Data1\MSD4\METHODS\2020\Cardno928.m
Quant Title : EPA 8270D - GC MSD4
QLast Update : Tue Sep 29 08:55:38 2020
Response via : Initial Calibration



Data Path : T:\Data1\MSD4\2020\SEP\28\
Data File : 00601005.D
Acq On : 28 Sep 2020 6:31 pm
Operator : TGT
Sample : 5 PPM ICAL
Misc :
ALS Vial : 6 Sample Multiplier: 1

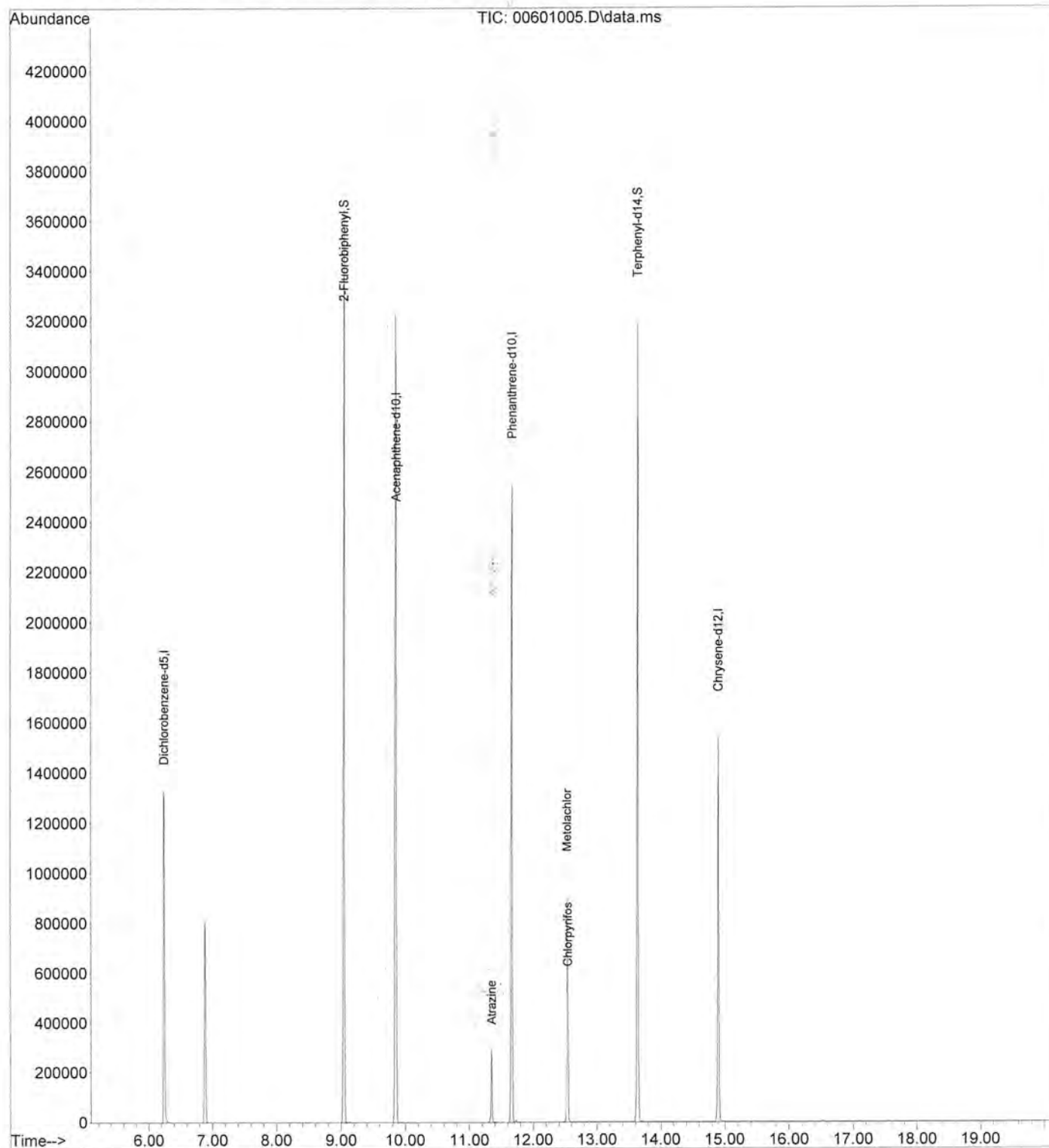
Quant Time: Sep 30 09:26:49 2020
Quant Method : T:\Data1\MSD4\METHODS\2020\Cardno928.m
Quant Title : EPA 8270D - GC MSD4
QLast Update : Tue Sep 29 08:55:38 2020
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Dichlorobenzene-d5	6.249	150	15403079	20.00	ppm	0.00
3) Acenaphthene-d10	9.857	164	19754125	20.00	ppm	# 0.00
5) Phenanthrene-d10	11.672	188	30407116	20.00	ppm	# 0.00
8) Chrysene-d12	14.904	240	16412075	20.00	ppm	# 0.00
System Monitoring Compounds						
2) 2-Fluorobiphenyl	9.051	172	37640811	25.69	ppm	0.00
9) Terphenyl-d14	13.643	244	28326505	25.35	ppm	0.00
Spiked Amount	25.000		Recovery	=	101.40%	
Target Compounds						
4) Atrazine	11.352	200	1771940	5.03	ppm	Qvalue 93
6) Metolachlor	12.542	162	4885917	4.98	ppm	# 79
7) Chlorpyrifos	12.550	197	1105465	5.00	ppm	# 76

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : T:\Data1\MSD4\2020\SEP\28\
Data File : 00601005.D
Acq On : 28 Sep 2020 6:31 pm
Operator : TGT
Sample : 5 PPM ICAL
Misc :
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Sep 30 09:26:49 2020
Quant Method : T:\Data1\MSD4\METHODS\2020\Cardno928.m
Quant Title : EPA 8270D - GC MSD4
QLast Update : Tue Sep 29 08:55:38 2020
Response via : Initial Calibration



Data Path : T:\Data1\MSD4\2020\SEP\28\
Data File : 00701006.D
Acq On : 28 Sep 2020 6:58 pm
Operator : TGT
Sample : 2.5 PPM ICAL
Misc :
ALS Vial : 7 Sample Multiplier: 1

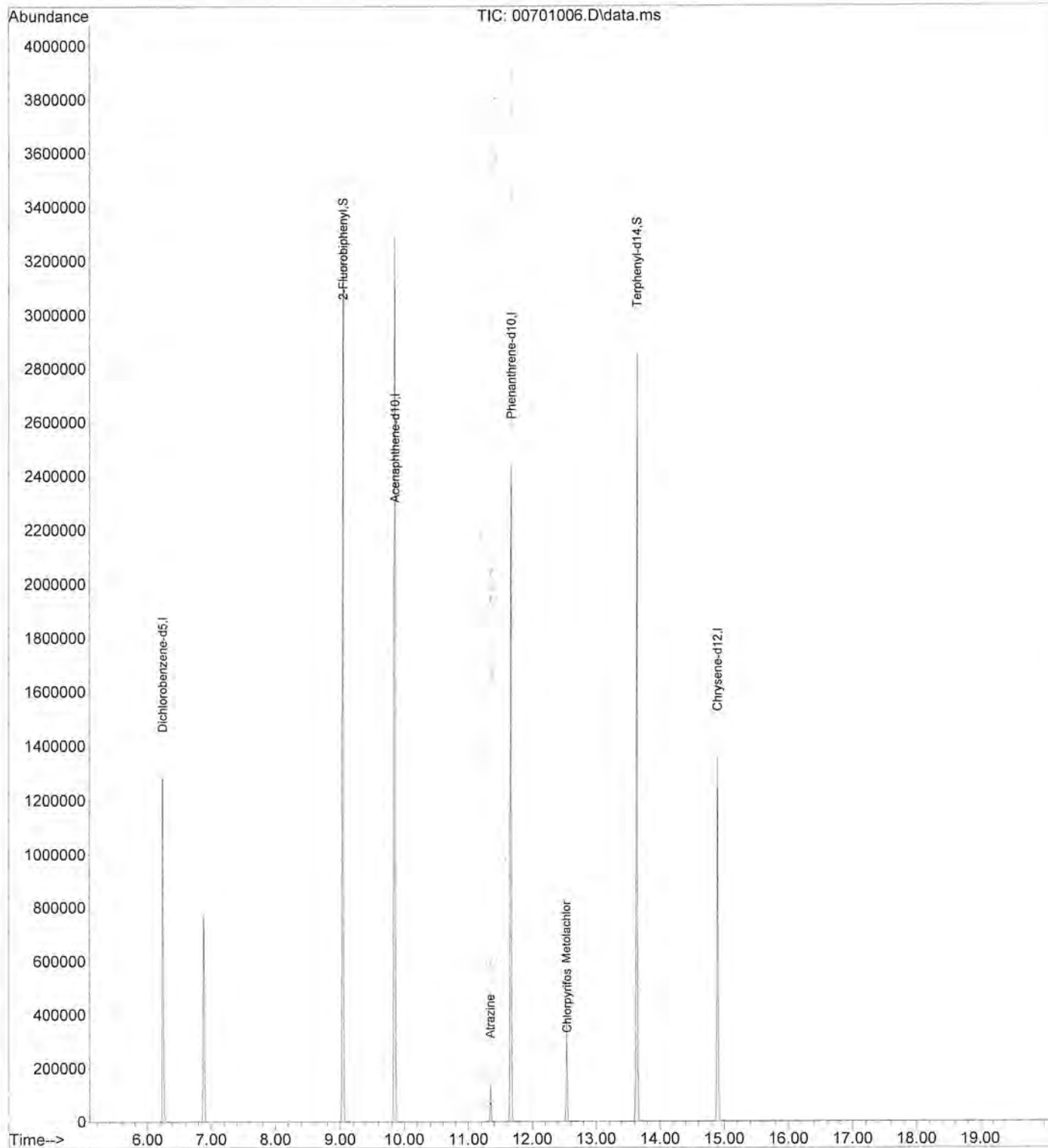
Quant Time: Sep 30 09:26:56 2020
Quant Method : T:\Data1\MSD4\METHODS\2020\Cardno928.m
Quant Title : EPA 8270D - GC MSD4
QLast Update : Tue Sep 29 08:55:38 2020
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev (Min)
Internal Standards						
1) Dichlorobenzene-d5	6.249	150	15268123	20.00	ppm	0.00
3) Acenaphthene-d10	9.856	164	19701363	20.00	ppm	# 0.00
5) Phenanthrene-d10	11.672	188	29969093	20.00	ppm	# 0.00
8) Chrysene-d12	14.903	240	15341337	20.00	ppm	# 0.00
System Monitoring Compounds						
2) 2-Fluorobiphenyl	9.050	172	36453717	25.10	ppm	0.00
9) Terphenyl-d14	13.643	244	26480398	25.35	ppm	0.00
Spiked Amount	25.000		Recovery	=	101.40%	
Target Compounds						
4) Atrazine	11.349	200	787791	2.35	ppm	Qvalue 93
6) Metolachlor	12.541	162	2177199	2.28	ppm	# 81
7) Chlorpyrifos	12.547	197	494348	2.32	ppm	# 75

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : T:\Data1\MSD4\2020\SEP\28\
Data File : 00701006.D
Acq On : 28 Sep 2020 6:58 pm
Operator : TGT
Sample : 2.5 PPM ICAL
Misc :
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Sep 30 09:26:56 2020
Quant Method : T:\Data1\MSD4\METHODS\2020\Cardno928.m
Quant Title : EPA 8270D - GC MSD4
QLast Update : Tue Sep 29 08:55:38 2020
Response via : Initial Calibration



Data Path : T:\Data1\MSD4\2020\SEP\28\
Data File : 00801007.D
Acq On : 28 Sep 2020 7:25 pm
Operator : TGT
Sample : 1 PPM ICAL
Misc :
ALS Vial : 8 Sample Multiplier: 1

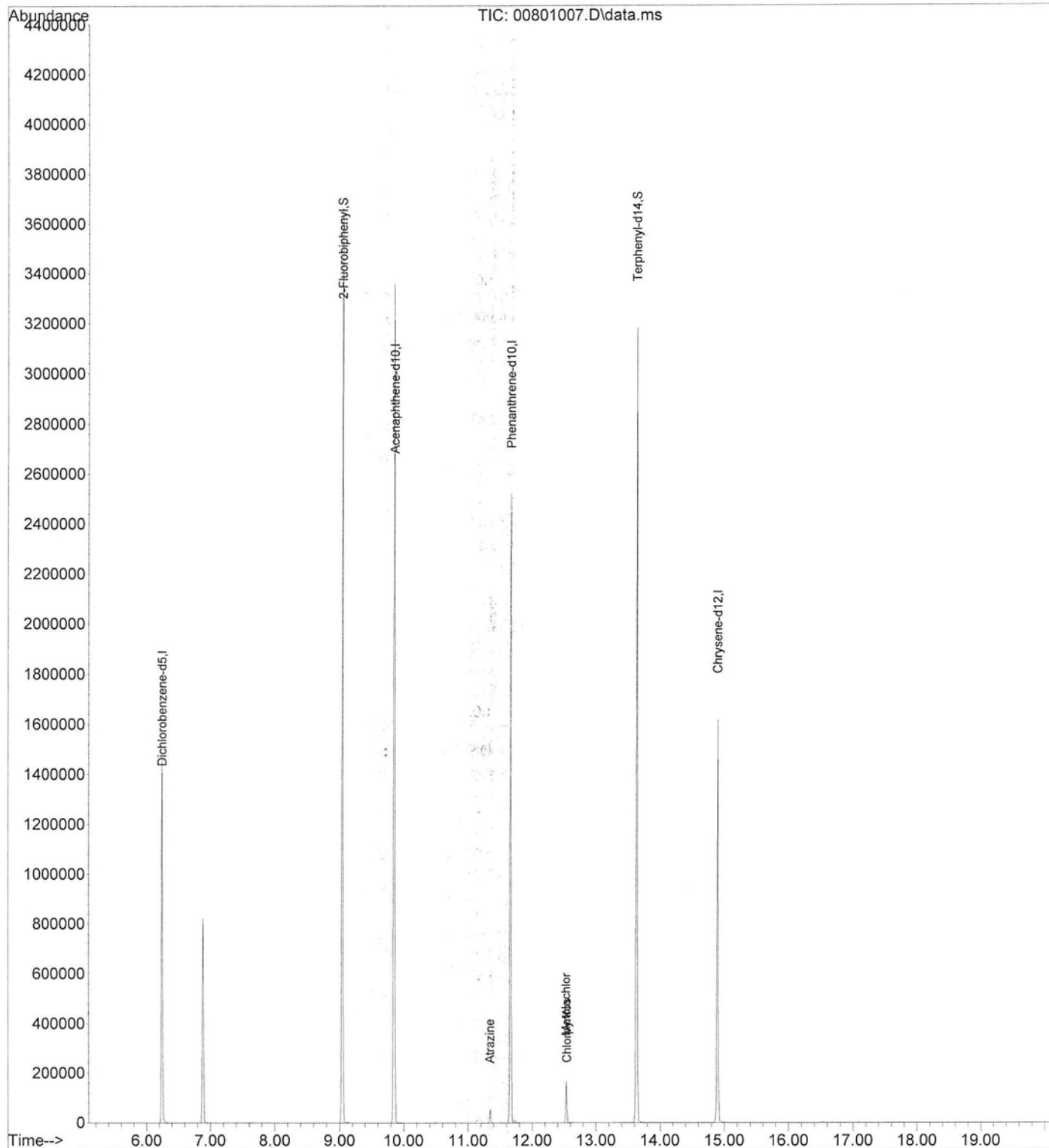
Quant Time: Sep 30 09:28:27 2020
Quant Method : T:\Data1\MSD4\METHODS\2020\Cardno928.m
Quant Title : EPA 8270D - GC MSD4
QLast Update : Wed Sep 30 09:28:01 2020
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Dichlorobenzene-d5	6.248	150	15830720	20.00	ppm	0.00
3) Acenaphthene-d10	9.857	164	20412917	20.00	ppm	# 0.00
5) Phenanthrene-d10	11.671	188	31374509	20.00	ppm	# 0.00
8) Chrysene-d12	14.904	240	17463306	20.00	ppm	# 0.00
System Monitoring Compounds						
2) 2-Fluorobiphenyl	9.051	172	38460875	25.54	ppm	0.00
9) Terphenyl-d14	13.643	244	29403190	24.73	ppm	0.00
Spiked Amount	25.000		Recovery	=	98.92%	
Target Compounds						
4) Atrazine	11.349	200	309539	0.88	ppm	Qvalue 93
6) Metolachlor	12.541	162	823982	0.83	ppm	# 79
7) Chlorpyrifos	12.546	197	191787	0.87	ppm	# 73

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : T:\Data1\MSD4\2020\SEP\28\
Data File : 00801007.D
Acq On : 28 Sep 2020 7:25 pm
Operator : TGT
Sample : 1 PPM ICAL
Misc :
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Sep 30 09:28:27 2020
Quant Method : T:\Data1\MSD4\METHODS\2020\Cardno928.m
Quant Title : EPA 8270D - GC MSD4
QLast Update : Wed Sep 30 09:28:01 2020
Response via : Initial Calibration



Data Path : T:\Data1\MSD4\2020\SEP\28\
Data File : 00901008.D
Acq On : 28 Sep 2020 7:53 pm
Operator : TGT
Sample : 0.5 PPM ICAL
Misc :
ALS Vial : 9 Sample Multiplier: 1

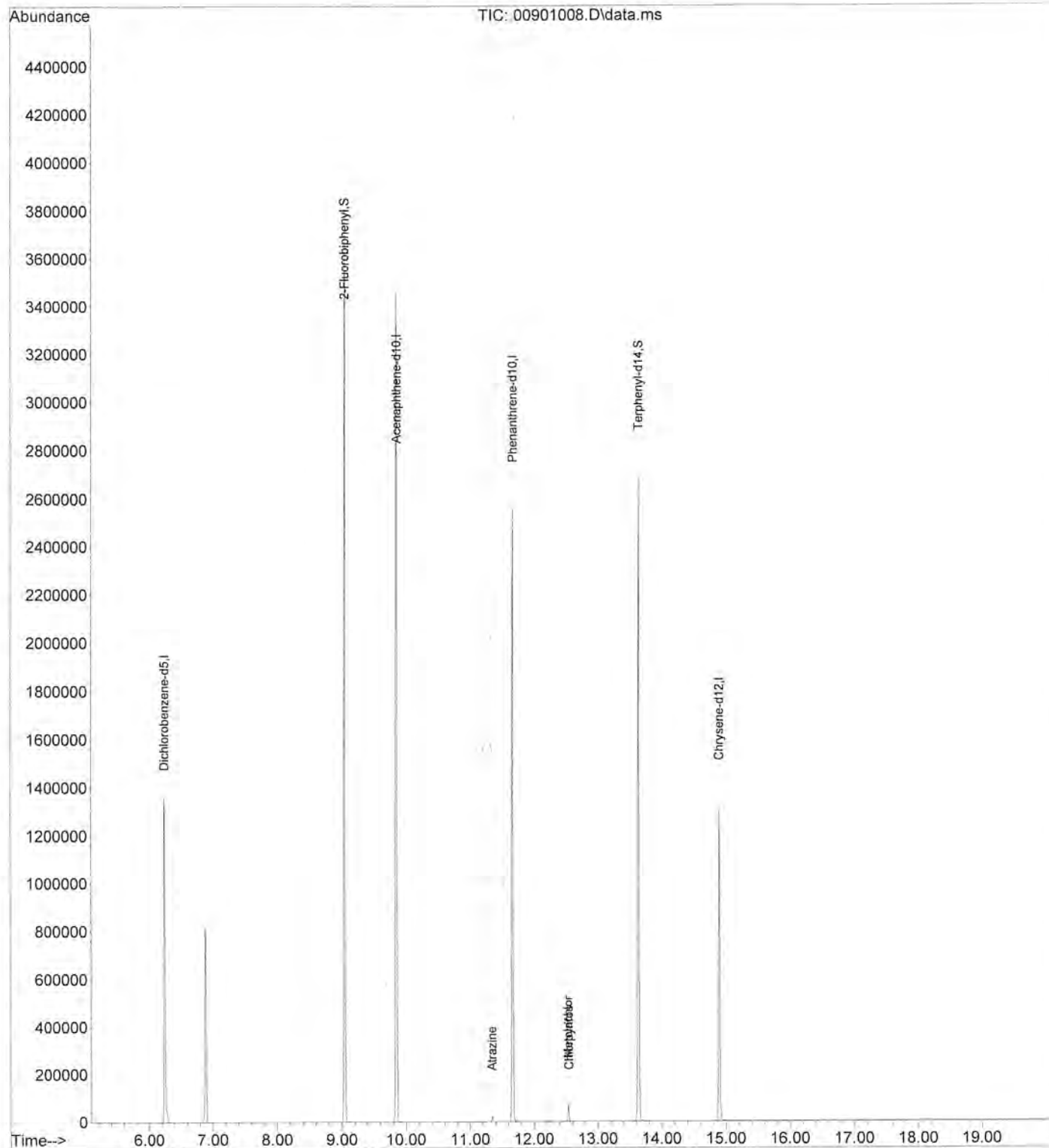
Quant Time: Sep 30 09:28:18 2020
Quant Method : T:\Data1\MSD4\METHODS\2020\Cardno928.m
Quant Title : EPA 8270D - GC MSD4
QLast Update : Wed Sep 30 09:28:01 2020
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Dichlorobenzene-d5	6.249	150	16371770	20.00	ppm	0.00
3) Acenaphthene-d10	9.857	164	21021417	20.00	ppm	# 0.00
5) Phenanthrene-d10	11.672	188	31281093	20.00	ppm	# 0.00
8) Chrysene-d12	14.903	240	15204162	20.00	ppm	# 0.00
System Monitoring Compounds						
2) 2-Fluorobiphenyl	9.051	172	38919051	24.99	ppm	0.00
9) Terphenyl-d14	13.643	244	26707944	25.80	ppm	0.00
Spiked Amount	25.000		Recovery	=	103.20%	
Target Compounds						
4) Atrazine	11.349	200	138161	0.38	ppm	Qvalue 93
6) Metolachlor	12.540	162	369258	0.37	ppm	# 79
7) Chlorpyrifos	12.546	197	88123	0.40	ppm	# 74

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : T:\Data1\MSD4\2020\SEP\28\
Data File : 00901008.D
Acq On : 28 Sep 2020 7:53 pm
Operator : TGT
Sample : 0.5 PPM ICAL
Misc :
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Sep 30 09:28:18 2020
Quant Method : T:\Data1\MSD4\METHODS\2020\Cardno928.m
Quant Title : EPA 8270D - GC MSD4
QLast Update : Wed Sep 30 09:28:01 2020
Response via : Initial Calibration



Data Path : T:\Data1\MSD4\2020\SEP\28\
 Data File : 01001009.D
 Acq On : 28 Sep 2020 8:20 pm
 Operator : TGT
 Sample : 0.1 PPM ICAL
 Misc :
 ALS Vial : 10 Sample Multiplier: 1

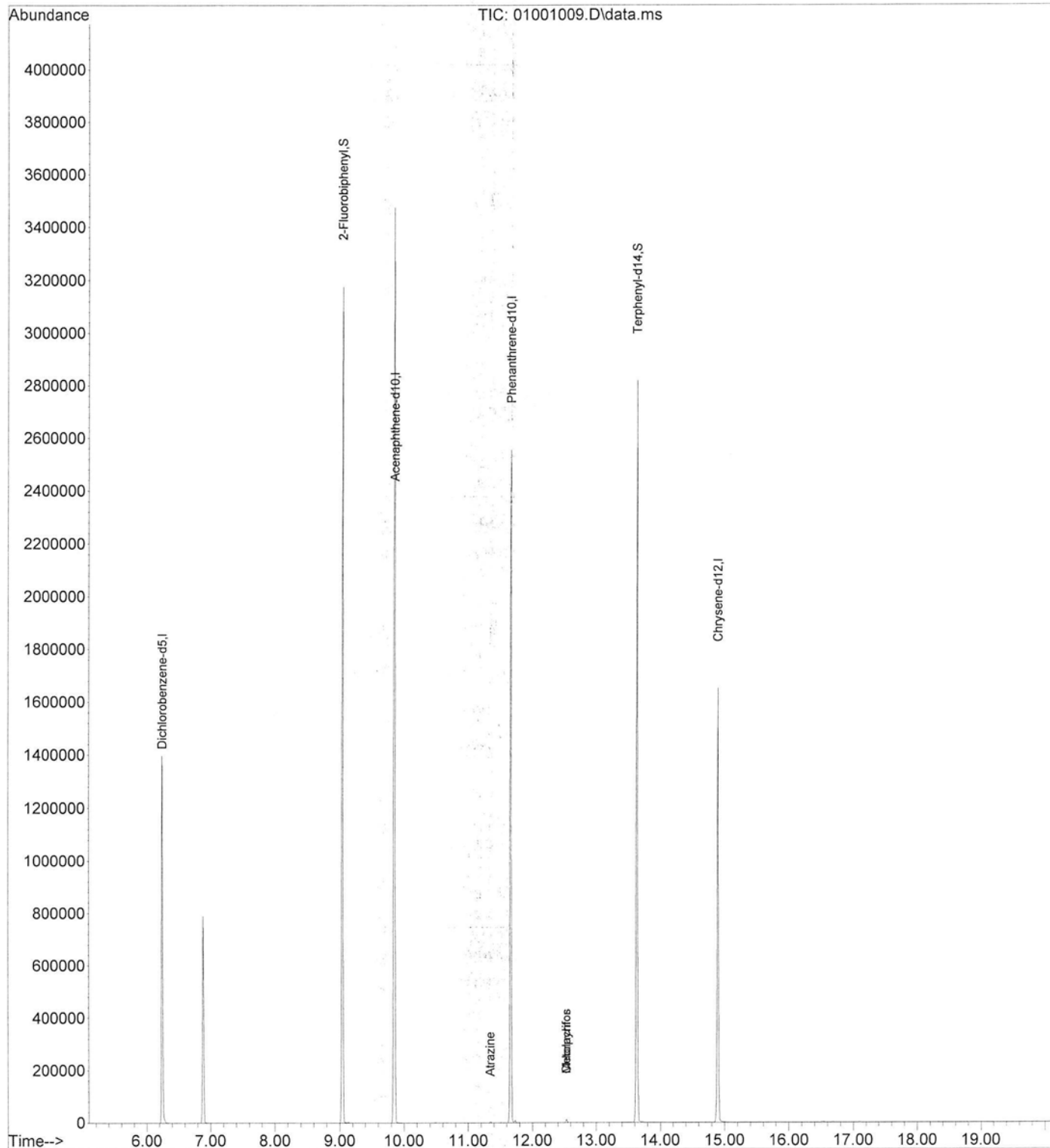
Quant Time: Sep 30 09:28:02 2020
 Quant Method : T:\Data1\MSD4\METHODS\2020\Cardno928.m
 Quant Title : EPA 8270D - GC MSD4
 QLast Update : Wed Sep 30 09:28:01 2020
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev (Min)
Internal Standards						
1) Dichlorobenzene-d5	6.249	150	15822632	20.00	ppm	0.00
3) Acenaphthene-d10	9.857	164	20627276	20.00	ppm	# 0.00
5) Phenanthrene-d10	11.671	188	32240644	20.00	ppm	# 0.00
8) Chrysene-d12	14.903	240	18445645	20.00	ppm	# 0.00
System Monitoring Compounds						
2) 2-Fluorobiphenyl	9.049	172	35022582	23.27	ppm	0.00
9) Terphenyl-d14	13.643	244	27871961	22.19	ppm	0.00
Spiked Amount	25.000		Recovery	=	88.76%	
Target Compounds						
4) Atrazine	11.348	200	25055	0.07	ppm	# 74
6) Metolachlor	12.540	162	66090	0.07	ppm	# 82
7) Chlorpyrifos	12.537	197	15923m	0.07	ppm	

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : T:\Data1\MSD4\2020\SEP\28\
Data File : 01001009.D
Acq On : 28 Sep 2020 8:20 pm
Operator : TGT
Sample : 0.1 PPM ICAL
Misc :
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Sep 30 09:28:02 2020
Quant Method : T:\Data1\MSD4\METHODS\2020\Cardno928.m
Quant Title : EPA 8270D - GC MSD4
QLast Update : Wed Sep 30 09:28:01 2020
Response via : Initial Calibration



Data Path : T:\Data1\MSD4\2020\SEP\28\
Data File : 01101010.D
Acq On : 28 Sep 2020 8:48 pm
Operator : TGT
Sample : BAI0613-BS1
Misc :
ALS Vial : 11 Sample Multiplier: 1

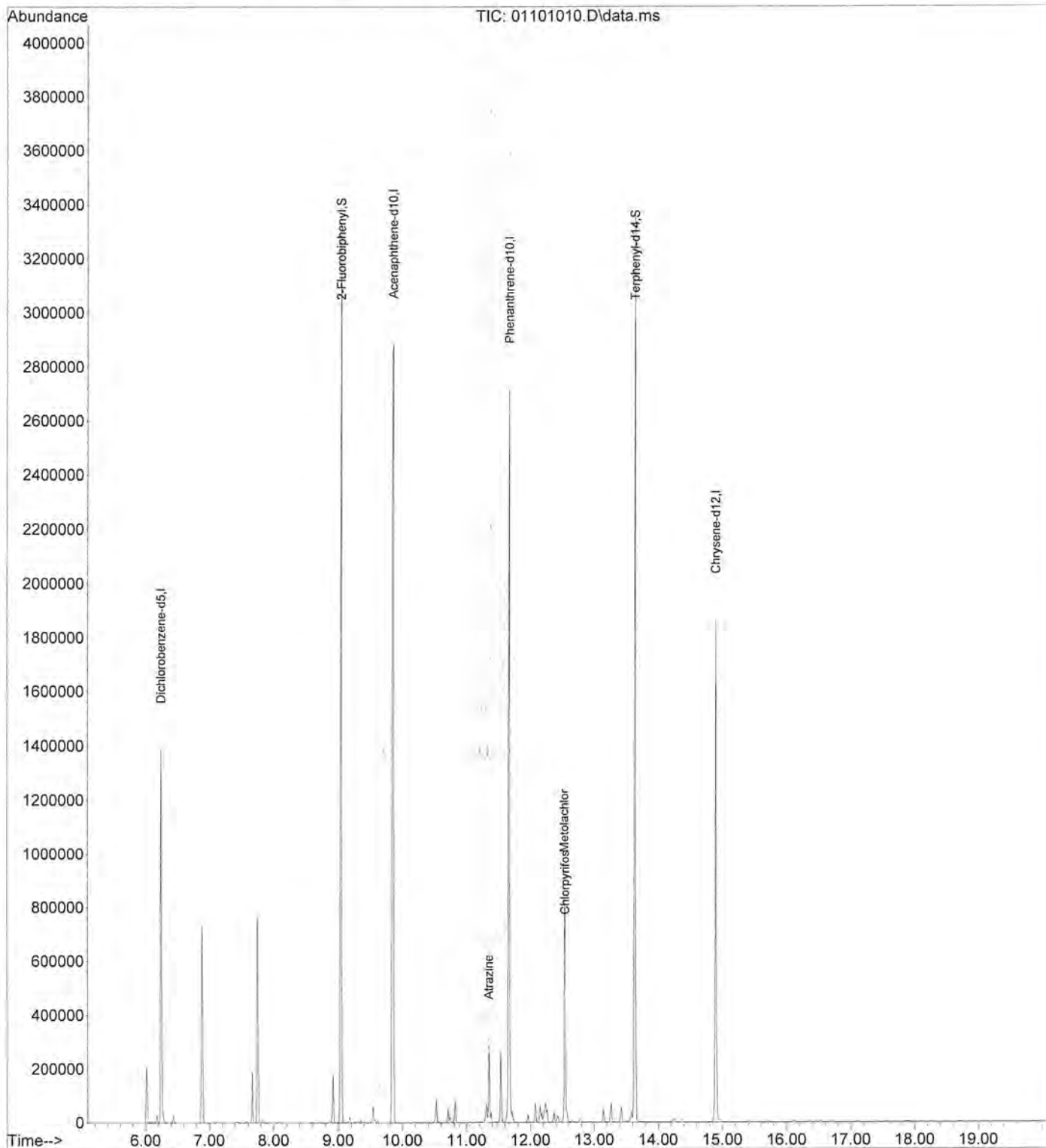
Quant Time: Sep 29 08:55:52 2020
Quant Method : T:\Data1\MSD4\METHODS\2020\Cardno928.m
Quant Title : EPA 8270D - GC MSD4
QLast Update : Tue Sep 29 08:55:38 2020
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Dichlorobenzene-d5	6.251	150	15720946	20.00	ppm	0.00
3) Acenaphthene-d10	9.859	164	20152569	20.00	ppm	# 0.00
5) Phenanthrene-d10	11.674	188	32356870	20.00	ppm	# 0.00
8) Chrysene-d12	14.905	240	18655295	20.00	ppm	# 0.00
System Monitoring Compounds						
2) 2-Fluorobiphenyl	9.051	172	36004080	24.08	ppm	0.00
9) Terphenyl-d14	13.643	244	30212672	23.78	ppm	0.00
Spiked Amount	25.000		Recovery	=	95.12%	
Target Compounds						
4) Atrazine	11.358	200	1746906	4.87	ppm	# 76
6) Metolachlor	12.543	162	4839752	4.64	ppm	# 72
7) Chlorpyrifos	12.551	197	1216142	5.16	ppm	# 20

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : T:\Data1\MSD4\2020\SEP\28\
Data File : 01101010.D
Acq On : 28 Sep 2020 8:48 pm
Operator : TGT
Sample : BAI0613-BS1
Misc :
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Sep 29 08:55:52 2020
Quant Method : T:\Data1\MSD4\METHODS\2020\Cardno928.m
Quant Title : EPA 8270D - GC MSD4
QLast Update : Tue Sep 29 08:55:38 2020
Response via : Initial Calibration



Data Path : T:\Data1\MSD4\2020\SEP\28\
Data File : 01201011.D
Acq On : 28 Sep 2020 9:15 pm
Operator : TGT
Sample : BAI0613-BSD1
Misc :
ALS Vial : 12 Sample Multiplier: 1

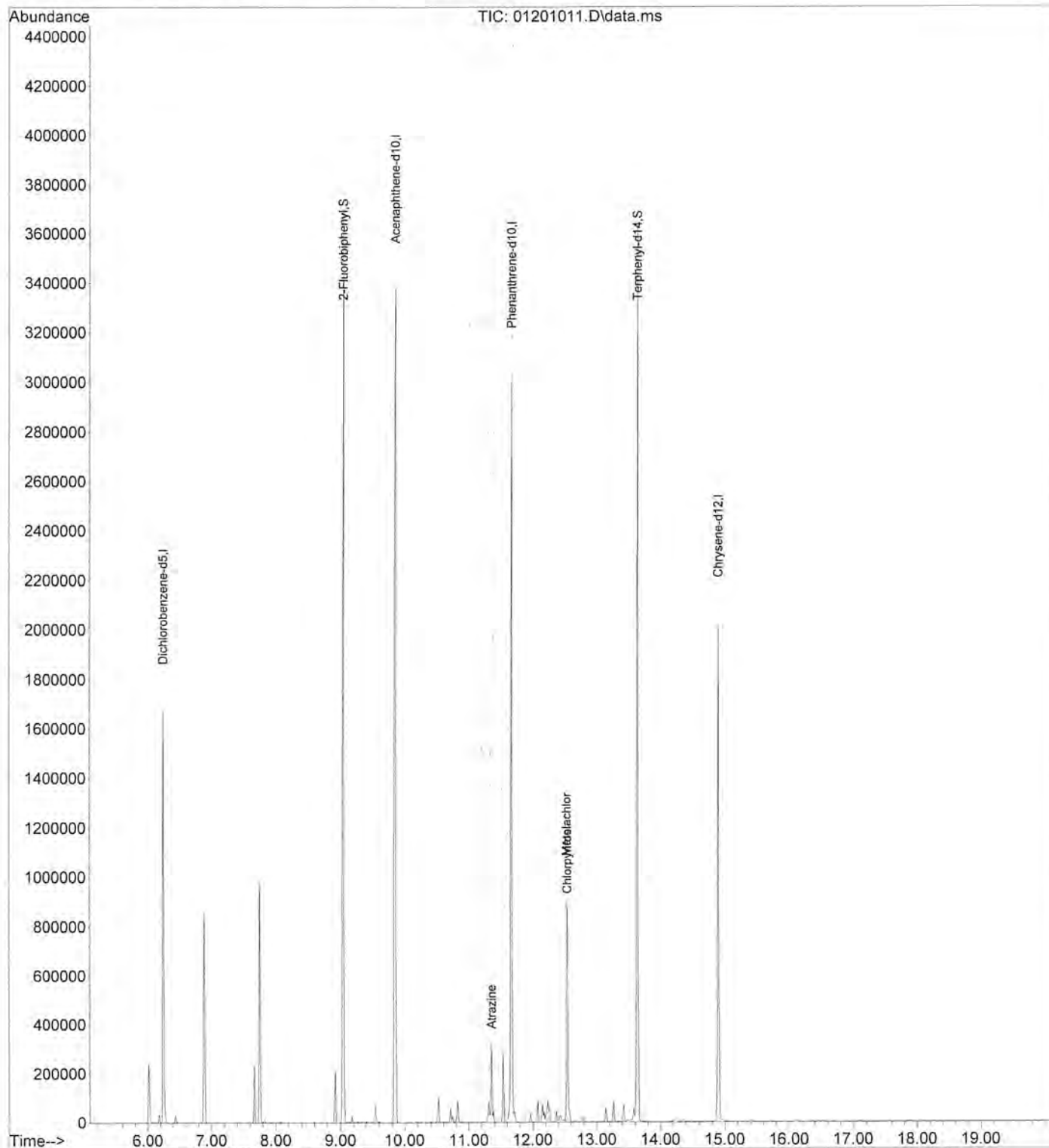
Quant Time: Sep 29 08:56:00 2020
Quant Method : T:\Data1\MSD4\METHODS\2020\Cardno928.m
Quant Title : EPA 8270D - GC MSD4
QLast Update : Tue Sep 29 08:55:38 2020
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Dichlorobenzene-d5	6.252	150	18176056	20.00	ppm	0.00
3) Acenaphthene-d10	9.860	164	22975452	20.00	ppm	# 0.00
5) Phenanthrene-d10	11.675	188	37224500	20.00	ppm	# 0.00
8) Chrysene-d12	14.906	240	21690321	20.00	ppm	# 0.00
System Monitoring Compounds						
2) 2-Fluorobiphenyl	9.052	172	41599903	24.06	ppm	0.00
9) Terphenyl-d14	13.644	244	33863452	22.93	ppm	0.00
Spiked Amount	25.000		Recovery	=	91.72%	
Target Compounds						
4) Atrazine	11.359	200	2223133	5.40	ppm	# 78
6) Metolachlor	12.543	162	5484654	4.57	ppm	# 74
7) Chlorpyrifos	12.552	197	1417623	5.22	ppm	# 21

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : T:\Data1\MSD4\2020\SEP\28\
Data File : 01201011.D
Acq On : 28 Sep 2020 9:15 pm
Operator : TGT
Sample : BAI0613-BSD1
Misc :
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Sep 29 08:56:00 2020
Quant Method : T:\Data1\MSD4\METHODS\2020\Cardno928.m
Quant Title : EPA 8270D - GC MSD4
QLast Update : Tue Sep 29 08:55:38 2020
Response via : Initial Calibration



Data Path : T:\Data1\MSD4\2020\SEP\28\
Data File : 01301012.D
Acq On : 28 Sep 2020 9:43 pm
Operator : TGT
Sample : BAI0613-BLK1
Misc :
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Sep 29 08:56:08 2020
Quant Method : T:\Data1\MSD4\METHODS\2020\Cardno928.m
Quant Title : EPA 8270D - GC MSD4
QLast Update : Tue Sep 29 08:55:38 2020
Response via : Initial Calibration

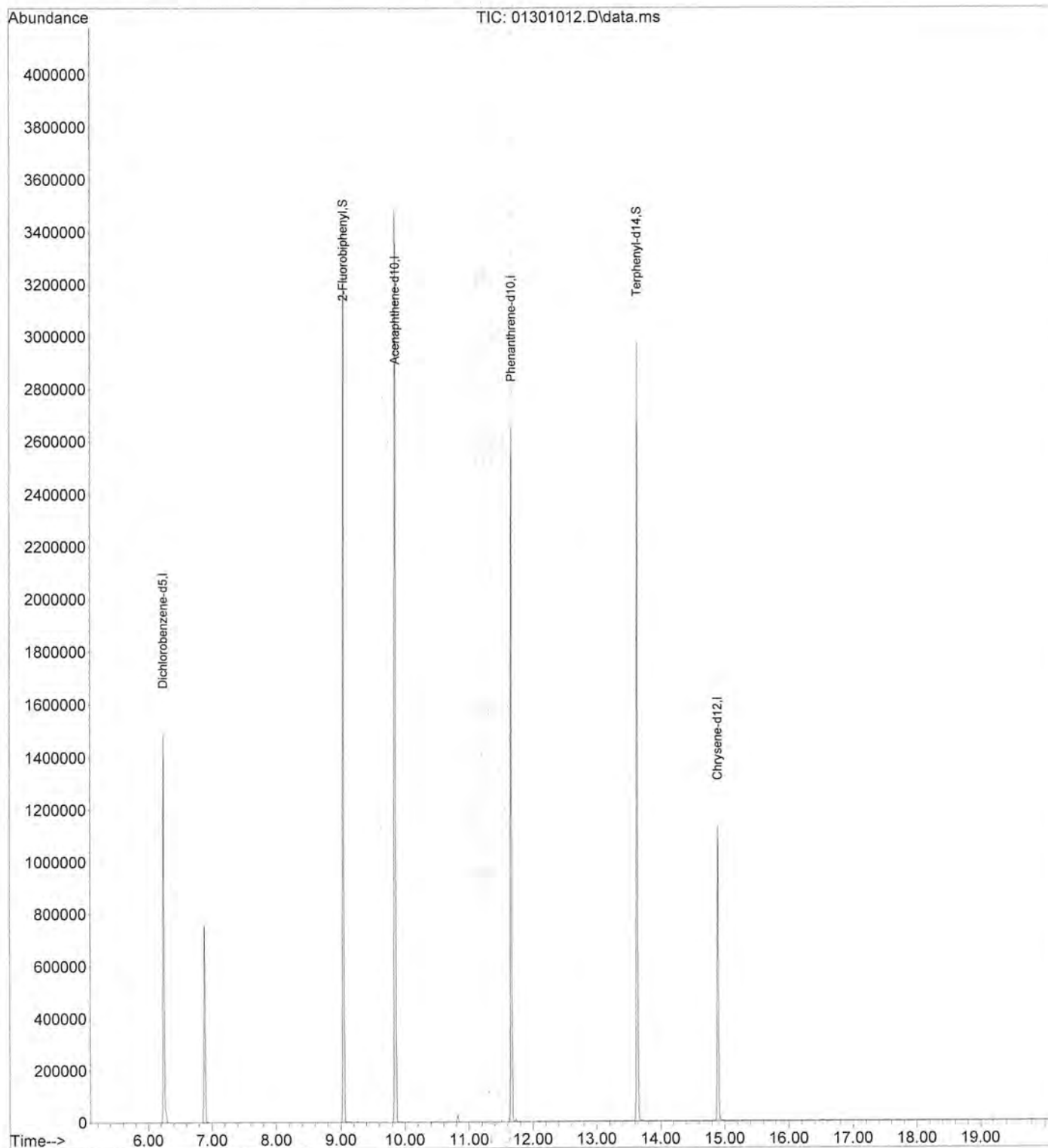
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Dichlorobenzene-d5	6.251	150	16336794	20.00	ppm	0.00
3) Acenaphthene-d10	9.857	164	20937417	20.00	ppm	# 0.00
5) Phenanthrene-d10	11.672	188	31092727	20.00	ppm	# 0.00
8) Chrysene-d12	14.902	240	13585980	20.00	ppm	# 0.00
System Monitoring Compounds						
2) 2-Fluorobiphenyl	9.051	172	35100165	22.59	ppm	0.00
9) Terphenyl-d14	13.643	244	27731940	29.98	ppm	0.00
Spiked Amount	25.000			Recovery	=	119.92%

Target Compounds	Qvalue
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(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : T:\Data1\MSD4\2020\SEP\28\
Data File : 01301012.D
Acq On : 28 Sep 2020 9:43 pm
Operator : TGT
Sample : BAI0613-BLK1
Misc :
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Sep 29 08:56:08 2020
Quant Method : T:\Data1\MSD4\METHODS\2020\Cardno928.m
Quant Title : EPA 8270D - GC MSD4
QLast Update : Tue Sep 29 08:55:38 2020
Response via : Initial Calibration



Data Path : T:\Data1\MSD4\2020\SEP\28\
Data File : 01401013.D
Acq On : 28 Sep 2020 10:10 pm
Operator : TGT
Sample : WAI0678-09
Misc :
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Sep 29 08:56:17 2020
Quant Method : T:\Data1\MSD4\METHODS\2020\Cardno928.m
Quant Title : EPA 8270D - GC MSD4
QLast Update : Tue Sep 29 08:55:38 2020
Response via : Initial Calibration

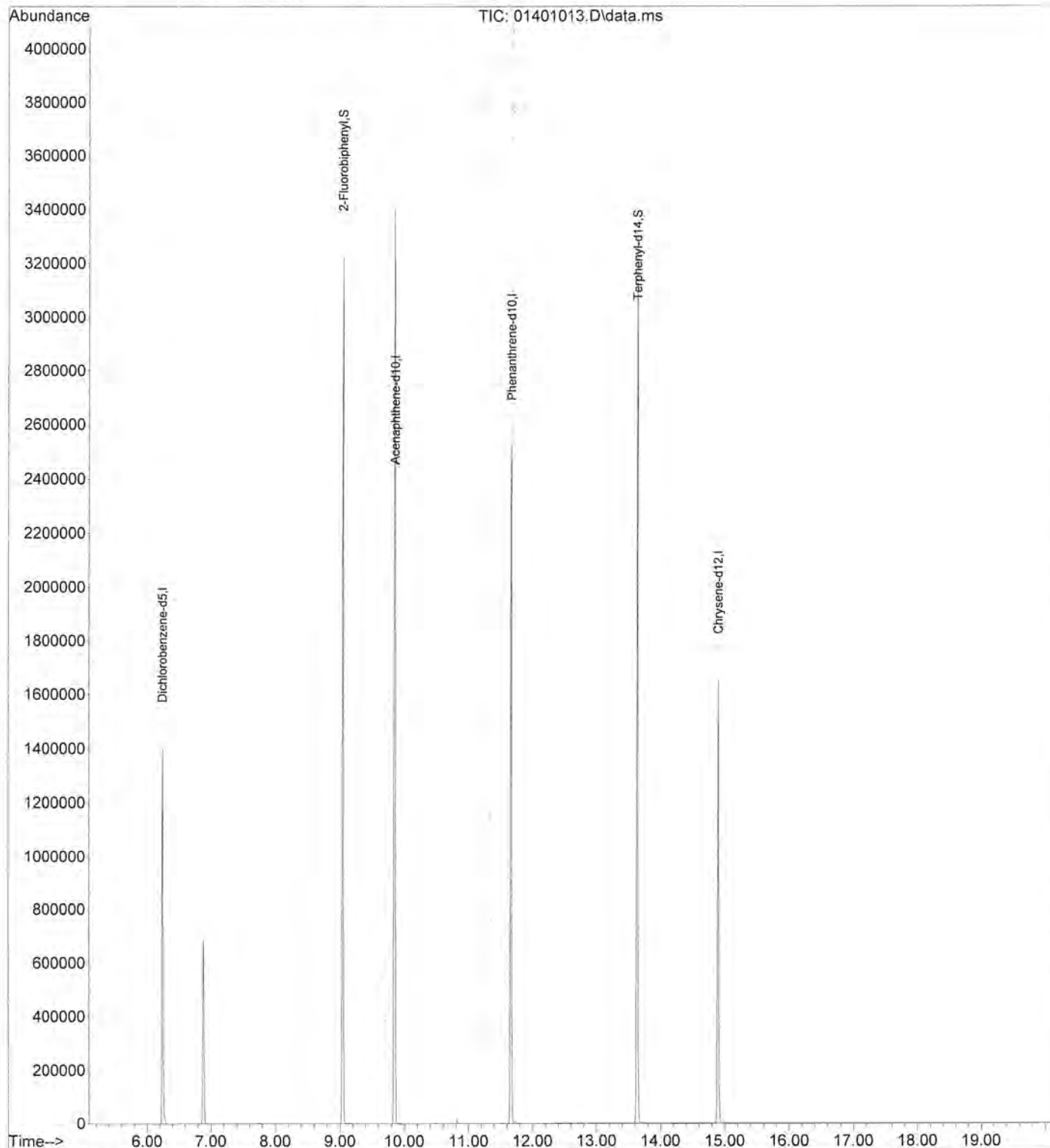
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Dichlorobenzene-d5	6.251	150	14885818	20.00	ppm	0.00
3) Acenaphthene-d10	9.857	164	19769119	20.00	ppm	# 0.00
5) Phenanthrene-d10	11.671	188	31246064	20.00	ppm	# 0.00
8) Chrysene-d12	14.904	240	17648843	20.00	ppm	# 0.00
System Monitoring Compounds						
2) 2-Fluorobiphenyl	9.050	172	33530420	23.68	ppm	0.00
9) Terphenyl-d14	13.643	244	29806276	24.80	ppm	0.00
Spiked Amount	25.000		Recovery	=	99.20%	

Target Compounds	Qvalue
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(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : T:\Data1\MSD4\2020\SEP\28\
Data File : 01401013.D
Acq On : 28 Sep 2020 10:10 pm
Operator : TGT
Sample : WAI0678-09
Misc :
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Sep 29 08:56:17 2020
Quant Method : T:\Data1\MSD4\METHODS\2020\Cardno928.m
Quant Title : EPA 8270D - GC MSD4
QLast Update : Tue Sep 29 08:55:38 2020
Response via : Initial Calibration



Data Path : T:\Data1\MSD4\2020\SEP\28\
Data File : 01501014.D
Acq On : 28 Sep 2020 10:38 pm
Operator : TGT
Sample : WAI0678-05
Misc :
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Sep 29 08:56:25 2020
Quant Method : T:\Data1\MSD4\METHODS\2020\Cardno928.m
Quant Title : EPA 8270D - GC MSD4
QLast Update : Tue Sep 29 08:55:38 2020
Response via : Initial Calibration

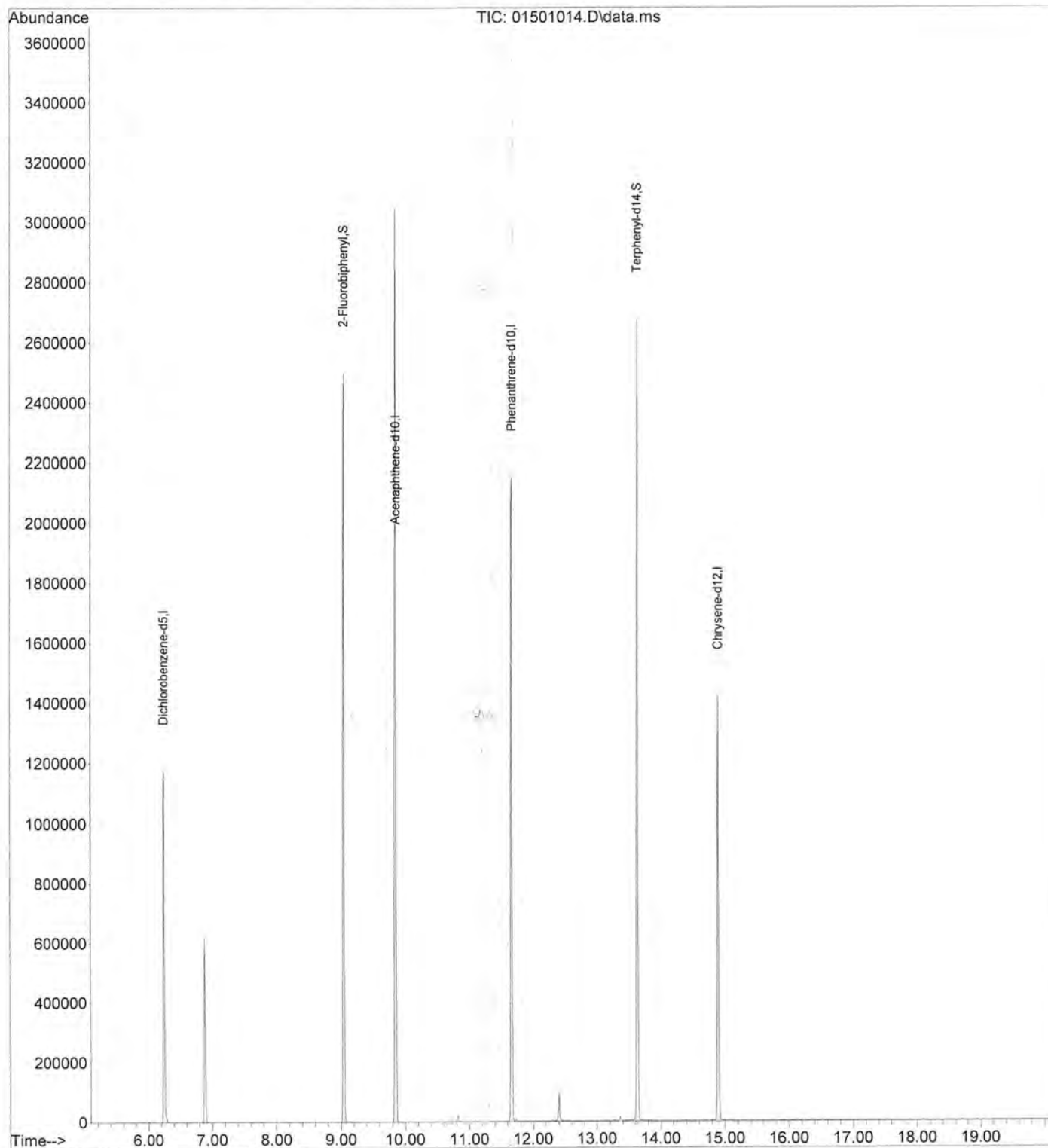
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Dichlorobenzene-d5	6.250	150	13388350	20.00	ppm	0.00
3) Acenaphthene-d10	9.856	164	17705274	20.00	ppm	# 0.00
5) Phenanthrene-d10	11.671	188	27723731	20.00	ppm	# 0.00
8) Chrysene-d12	14.903	240	15980578	20.00	ppm	# 0.00
System Monitoring Compounds						
2) 2-Fluorobiphenyl	9.049	172	28206831	22.15	ppm	0.00
9) Terphenyl-d14	13.643	244	25475204	23.41	ppm	0.00
Spiked Amount	25.000		Recovery	=	93.64%	

Target Compounds	Qvalue
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(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : T:\Data1\MSD4\2020\SEP\28\
Data File : 01501014.D
Acq On : 28 Sep 2020 10:38 pm
Operator : TGT
Sample : WAI0678-05
Misc :
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Sep 29 08:56:25 2020
Quant Method : T:\Data1\MSD4\METHODS\2020\Cardno928.m
Quant Title : EPA 8270D - GC MSD4
QLast Update : Tue Sep 29 08:55:38 2020
Response via : Initial Calibration



Data Path : T:\Data1\MSD4\2020\SEP\28\
Data File : 01601015.D
Acq On : 28 Sep 2020 11:05 pm
Operator : TGT
Sample : WAI0678-06
Misc :
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Sep 29 08:57:04 2020
Quant Method : T:\Data1\MSD4\METHODS\2020\Cardno928.m
Quant Title : EPA 8270D - GC MSD4
QLast Update : Tue Sep 29 08:55:38 2020
Response via : Initial Calibration

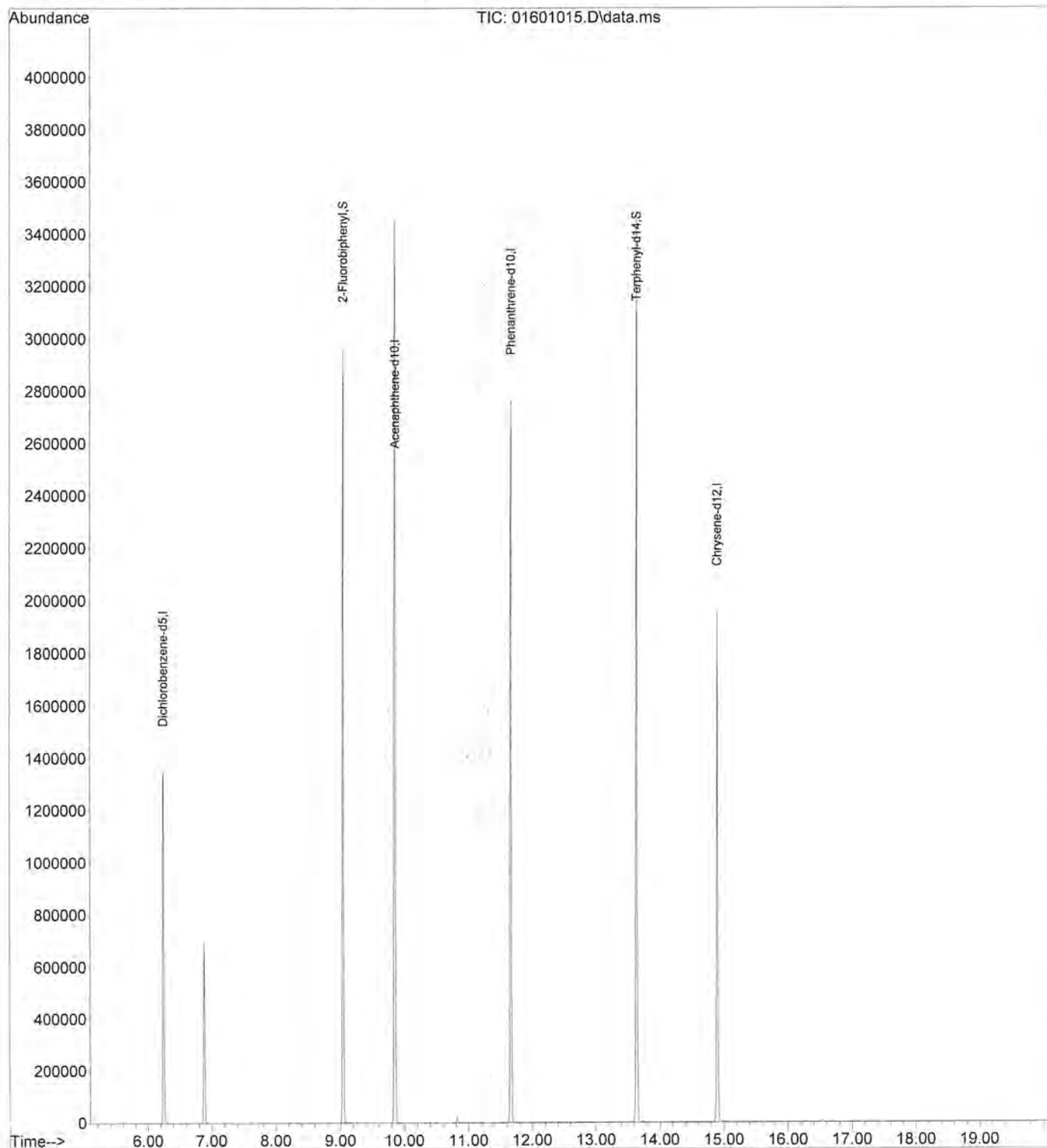
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Dichlorobenzene-d5	6.250	150	15712719	20.00	ppm	0.00
3) Acenaphthene-d10	9.857	164	20771841	20.00	ppm	# 0.00
5) Phenanthrene-d10	11.672	188	33295771	20.00	ppm	# 0.00
8) Chrysene-d12	14.904	240	20340984	20.00	ppm	# 0.00
System Monitoring Compounds						
2) 2-Fluorobiphenyl	9.050	172	32001030	21.41	ppm	0.00
9) Terphenyl-d14	13.643	244	31586150	22.81	ppm	0.00
Spiked Amount	25.000		Recovery	=	91.24%	

Target Compounds	Qvalue
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(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : T:\Data1\MSD4\2020\SEP\28\
Data File : 01601015.D
Acq On : 28 Sep 2020 11:05 pm
Operator : TGT
Sample : WAI0678-06
Misc :
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Sep 29 08:57:04 2020
Quant Method : T:\Data1\MSD4\METHODS\2020\Cardno928.m
Quant Title : EPA 8270D - GC MSD4
QLast Update : Tue Sep 29 08:55:38 2020
Response via : Initial Calibration



Data Path : T:\Data1\MSD4\2020\SEP\28\
Data File : 01701016.D
Acq On : 28 Sep 2020 11:32 pm
Operator : TGT
Sample : WAI0678-07
Misc :
ALS Vial : 17 Sample Multiplier: 1

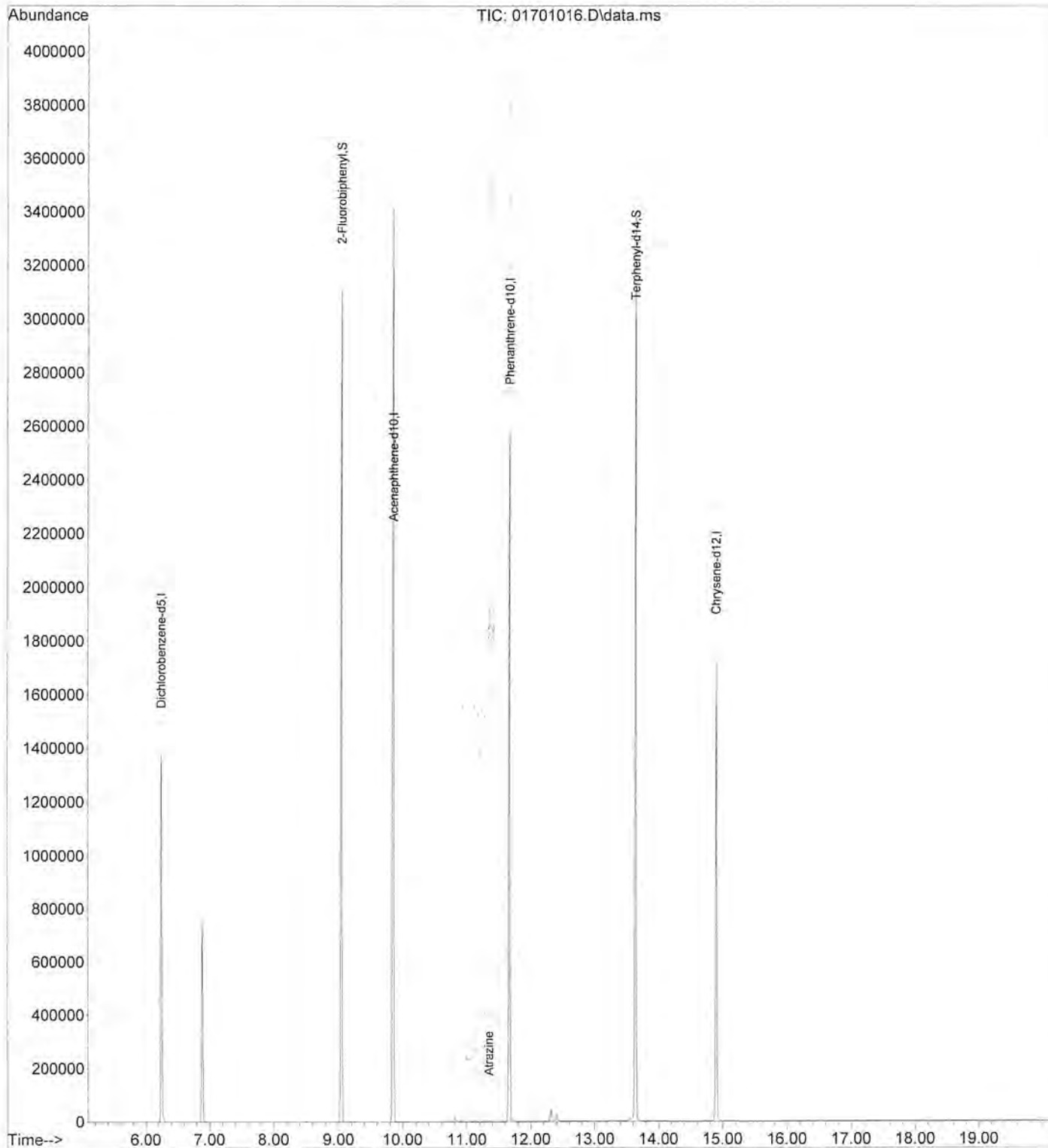
Quant Time: Sep 30 09:28:38 2020
Quant Method : T:\Data1\MSD4\METHODS\2020\Cardno928.m
Quant Title : EPA 8270D - GC MSD4
QLast Update : Wed Sep 30 09:28:01 2020
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Dichlorobenzene-d5	6.250	150	15564559	20.00	ppm	0.00
3) Acenaphthene-d10	9.856	164	20500275	20.00	ppm	# 0.00
5) Phenanthrene-d10	11.672	188	31883102	20.00	ppm	# 0.00
8) Chrysene-d12	14.904	240	18479530	20.00	ppm	# 0.00
System Monitoring Compounds						
2) 2-Fluorobiphenyl	9.050	172	34897383	23.57	ppm	0.00
9) Terphenyl-d14	13.643	244	30920795	24.57	ppm	0.00
Spiked Amount	25.000		Recovery	=	98.28%	
Target Compounds						
4) Atrazine	11.347	200	12305m	0.03	ppm	Qvalue

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : T:\Data1\MSD4\2020\SEP\28\
Data File : 01701016.D
Acq On : 28 Sep 2020 11:32 pm
Operator : TGT
Sample : WAI0678-07
Misc :
ALS Vial : 17 Sample Multiplier: 1

Quant Time: Sep 30 09:28:38 2020
Quant Method : T:\Data1\MSD4\METHODS\2020\Cardno928.m
Quant Title : EPA 8270D - GC MSD4
QLast Update : Wed Sep 30 09:28:01 2020
Response via : Initial Calibration



Data Path : T:\Data1\MSD4\2020\SEP\28\
Data File : 01801017.D
Acq On : 29 Sep 2020 12:00 am
Operator : TGT
Sample : WAI0678-08
Misc :
ALS Vial : 18 Sample Multiplier: 1

Quant Time: Sep 30 09:28:52 2020
Quant Method : T:\Data1\MSD4\METHODS\2020\Cardno928.m
Quant Title : EPA 8270D - GC MSD4
QLast Update : Wed Sep 30 09:28:01 2020
Response via : Initial Calibration

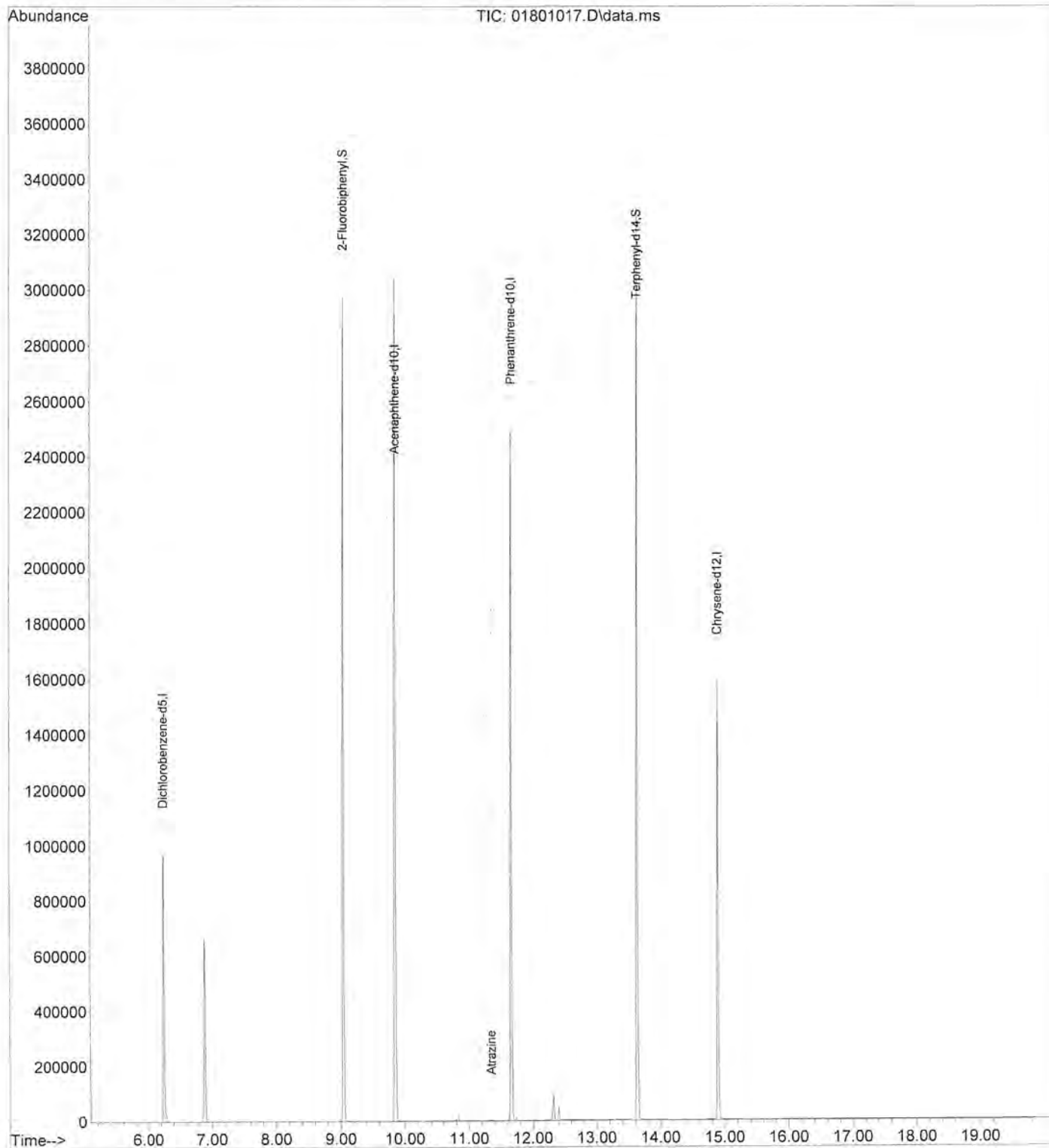
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

Internal Standards						
1) Dichlorobenzene-d5	6.250	150	11453389	20.00	ppm	0.00
3) Acenaphthene-d10	9.857	164	18617886	20.00	ppm	# 0.00
5) Phenanthrene-d10	11.672	188	29984587	20.00	ppm	# 0.00
8) Chrysene-d12	14.903	240	16975680	20.00	ppm	# 0.00
System Monitoring Compounds						
2) 2-Fluorobiphenyl	9.050	172	32775138	30.08	ppm	0.00
9) Terphenyl-d14	13.643	244	29160955	25.23	ppm	0.00
Spiked Amount	25.000		Recovery	=	100.92%	
Target Compounds						
4) Atrazine	11.355	200	18697m	0.06	ppm	Qvalue

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : T:\Data1\MSD4\2020\SEP\28\
Data File : 01801017.D
Acq On : 29 Sep 2020 12:00 am
Operator : TGT
Sample : WAI0678-08
Misc :
ALS Vial : 18 Sample Multiplier: 1

Quant Time: Sep 30 09:28:52 2020
Quant Method : T:\Data1\MSD4\METHODS\2020\Cardno928.m
Quant Title : EPA 8270D - GC MSD4
QLast Update : Wed Sep 30 09:28:01 2020
Response via : Initial Calibration



Data Path : T:\Data1\MSD4\2020\SEP\28\
Data File : 01901018.D
Acq On : 29 Sep 2020 12:27 am
Operator : TGT
Sample : BAI0613-MS1
Misc :
ALS Vial : 19 Sample Multiplier: 1

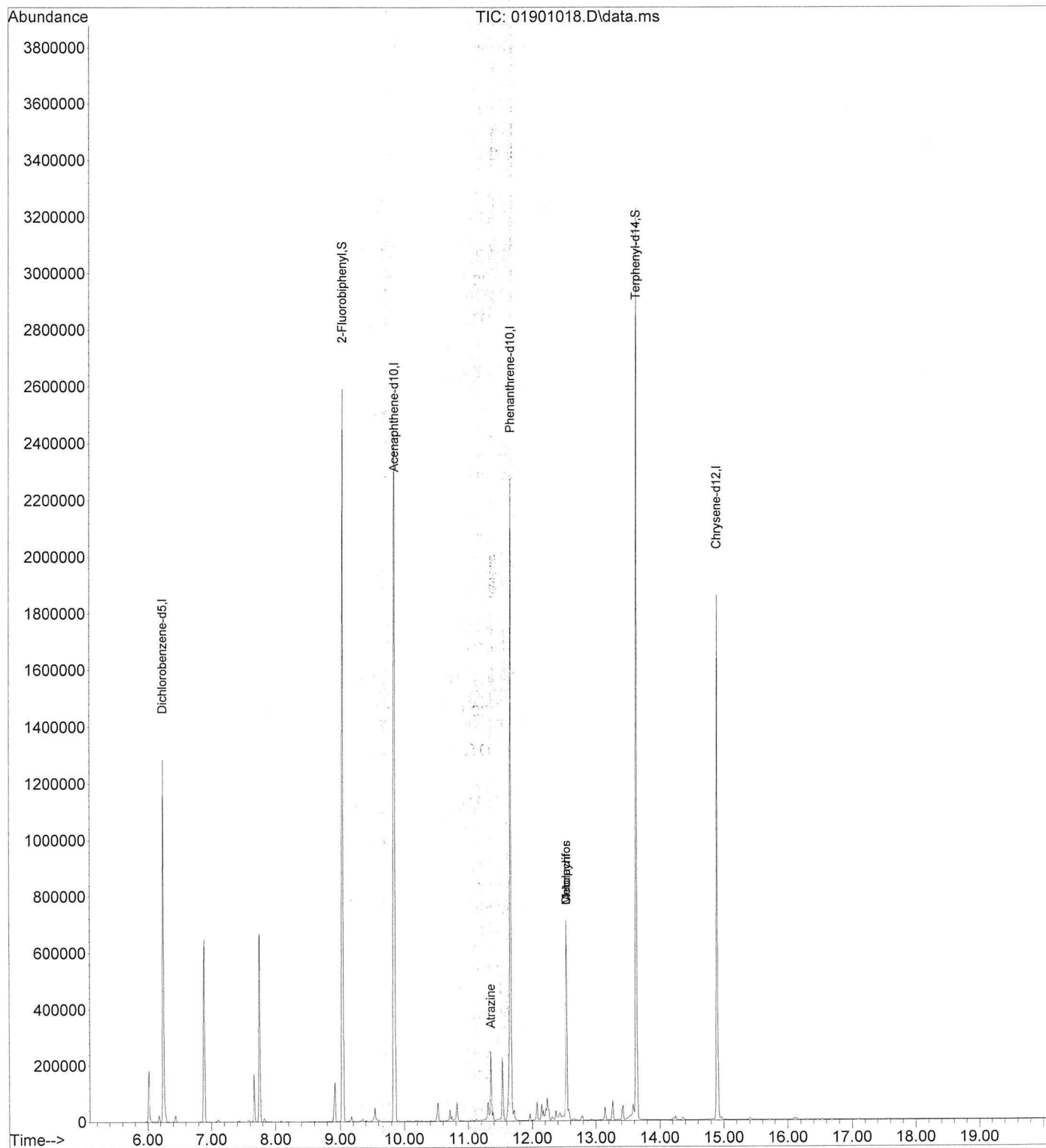
Quant Time: Sep 29 08:57:51 2020
Quant Method : T:\Data1\MSD4\METHODS\2020\Cardno928.m
Quant Title : EPA 8270D - GC MSD4
QLast Update : Tue Sep 29 08:55:38 2020
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Dichlorobenzene-d5	6.253	150	14084289	20.00	ppm	0.00
3) Acenaphthene-d10	9.858	164	18316987	20.00	ppm	# 0.00
5) Phenanthrene-d10	11.673	188	29663984	20.00	ppm	# 0.00
8) Chrysene-d12	14.905	240	19160681	20.00	ppm	# 0.00
System Monitoring Compounds						
2) 2-Fluorobiphenyl	9.051	172	31378144	23.42	ppm	0.00
9) Terphenyl-d14	13.643	244	29088328	22.30	ppm	0.00
Spiked Amount	25.000		Recovery	=	89.20%	
Target Compounds						
4) Atrazine	11.360	200	1528722	4.70	ppm	# 79
6) Metolachlor	12.543	162	4296820	4.50	ppm	# 74
7) Chlorpyrifos	12.552	197	1096082	5.07	ppm	# 27

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : T:\Data1\MSD4\2020\SEP\28\
Data File : 01901018.D
Acq On : 29 Sep 2020 12:27 am
Operator : TGT
Sample : BAI0613-MS1
Misc :
ALS Vial : 19 Sample Multiplier: 1

Quant Time: Sep 29 08:57:51 2020
Quant Method : T:\Data1\MSD4\METHODS\2020\Cardno928.m
Quant Title : EPA 8270D - GC MSD4
QLast Update : Tue Sep 29 08:55:38 2020
Response via : Initial Calibration



Data Path : T:\Data1\MSD4\2020\SEP\28\
Data File : 02001019.D
Acq On : 29 Sep 2020 12:55 am
Operator : TGT
Sample : BAI0613-MSD1
Misc :
ALS Vial : 20 Sample Multiplier: 1

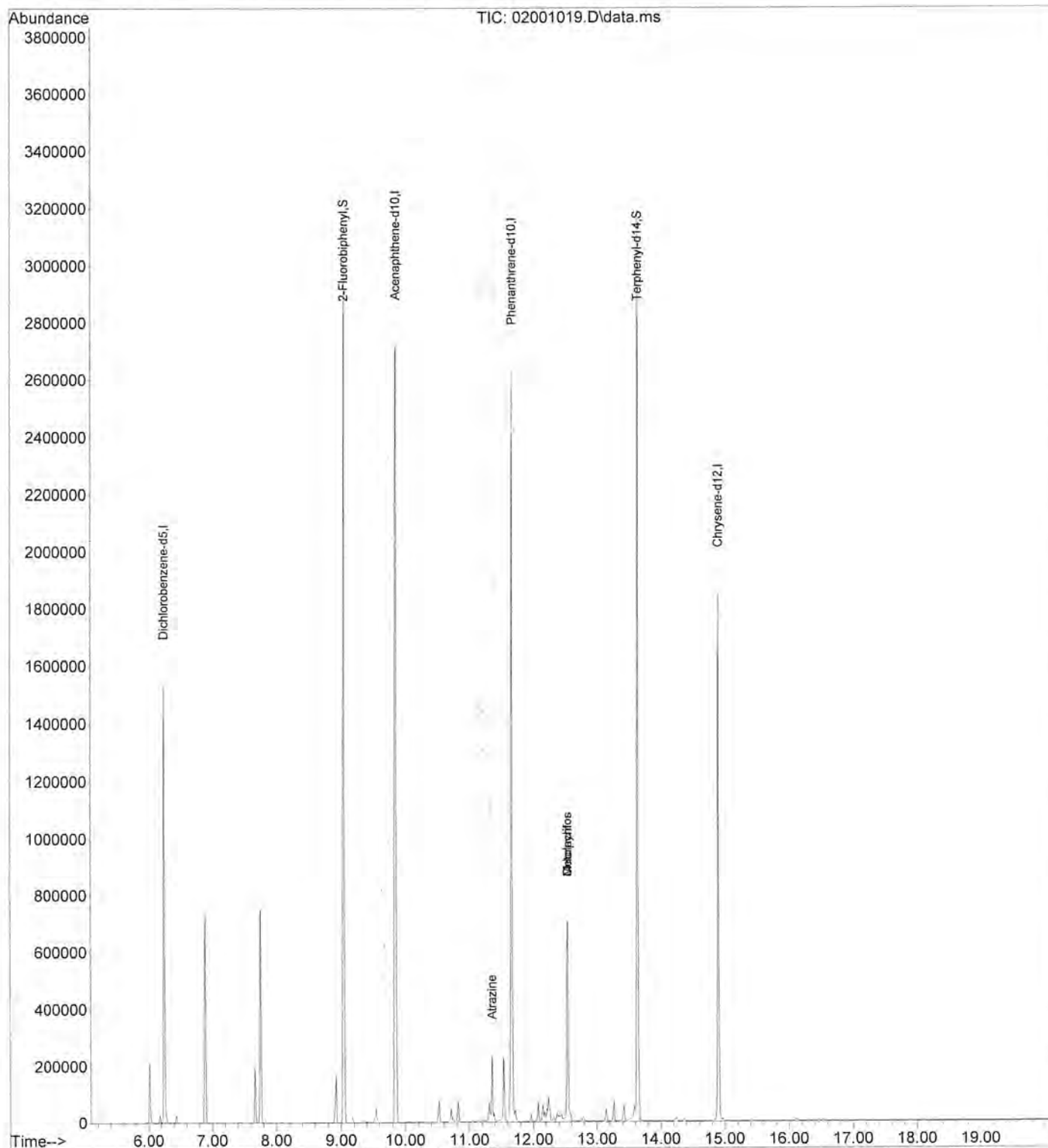
Quant Time: Sep 29 08:57:58 2020
Quant Method : T:\Data1\MSD4\METHODS\2020\Cardno928.m
Quant Title : EPA 8270D - GC MSD4
QLast Update : Tue Sep 29 08:55:38 2020
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev (Min)
Internal Standards						
1) Dichlorobenzene-d5	6.252	150	16680627	20.00	ppm	0.00
3) Acenaphthene-d10	9.859	164	21015485	20.00	ppm	# 0.00
5) Phenanthrene-d10	11.674	188	33161785	20.00	ppm	# 0.00
8) Chrysene-d12	14.905	240	19075008	20.00	ppm	# 0.00
System Monitoring Compounds						
2) 2-Fluorobiphenyl	9.051	172	36160841	22.79	ppm	0.00
9) Terphenyl-d14	13.644	244	29820115	22.96	ppm	0.00
Spiked Amount	25.000		Recovery	=	91.84%	
Target Compounds						
4) Atrazine	11.361	200	1736168	4.65	ppm	# 71
6) Metolachlor	12.544	162	4652261	4.36	ppm	# 74
7) Chlorpyrifos	12.553	197	1187913	4.93	ppm	# 27

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : T:\Data1\MSD4\2020\SEP\28\
Data File : 02001019.D
Acq On : 29 Sep 2020 12:55 am
Operator : TGT
Sample : BAI0613-MSD1
Misc :
ALS Vial : 20 Sample Multiplier: 1

Quant Time: Sep 29 08:57:58 2020
Quant Method : T:\Data1\MSD4\METHODS\2020\Cardno928.m
Quant Title : EPA 8270D - GC MSD4
QLast Update : Tue Sep 29 08:55:38 2020
Response via : Initial Calibration



Sequence Name: T:\Data1\MSD4\SEQUENCES\2020\092920.s

Comment:

Operator: TGT

Data Path: T:\DATA1\MSD4\2020\SEP\29\

Instrument Control Pre-Seq Cmd:

Data Analysis Pre-Seq Cmd:

Instrument Control Post-Seq Cmd:

Data Analysis Post-Seq Cmd:

Method Sections To Run

(X) Full Method

() Reprocessing Only

Sequence Barcode Options

(X) On Mismatch, Inject Anyway

() On Mismatch, Don't Inject

() Barcode Disabled

```
-----
Line      Sample Name/Misc Info
1) Sample      2 ----- SVOCT1   SYS CHECK
2) Sample      3 ----- CARDSIM  20 PPM ICAL
3) Sample      4 ----- CARDSIM  10 PPM ICAL
4) Sample      5 ----- CARDSIM   5 PPM ICAL
5) Sample      6 ----- CARDSIM  2.5 PPM ICAL
6) Sample      7 ----- CARDSIM   1 PPM ICAL
7) Sample      8 ----- CARDSIM  0.5 PPM ICAL
8) Sample      9 ----- CARDSIM  0.1 PPM ICAL
9) Sample     11 ----- CARDSIM  BAI0844-BS1
10) Sample     12 ----- CARDSIM  BAI0844-BLK1
11) Sample     13 ----- CARDSIM  WAI0678-23
12) Sample     14 ----- CARDSIM  WAI0678-24
13) Sample     15 ----- CARDSIM  WAI0678-25
14) Sample     16 ----- CARDSIM  WAI0678-26
15) Sample     17 ----- CARDSIM  WAI0844-MS1
16) Sample     18 ----- CARDSIM  WAI0844MSD1
```



Anatek Labs, Inc

1282 Alturas Drive
Moscow, ID 83843

1,4-Dioxane Cal. Standard Prep. Form

Method: EPA 625.1/8270D

IS/Surrogate Standards

Standard	Reagent ID	Expiration	Concentration (ppm)
CLP B/N Surrogate	2002553	2/22	1000
CLP Internal Standard	2002814	3/21	2000

Target Compound Standards

Standard	Reagent ID	Expiration	Concentration (ppm)
Chlorpyrifos	2003215	6/25/23	1000
Metolachlor	2003216	3/5/23	1000
Atrazine	2003218	11/21/24	1000

Calibration Dilution Template

Desired Concentration (ppm)	Stock Concentration (ppm)	uL Standard Added	Final Volume (uL)
20	1000	20	1000
10	1000	10	1000
5	1000	5	1000
2.5	1000	2.5	1000
1.0	1000	1.0	1000
0.5	1000	0.5	1000
0.1	1000	0.1	1000

Calibration made from target compound standards in the table. 25 uL of surrogate and 10 uL of IS stock added to each standard point. Dilutions were made in MeCl₂.

Analyst Initials: 
Form CS06.00 – Eff 9 Mar 2015

Date of Preparation: ⁸9/28/20 by TGT

Page 1 of 1

Response Factor Report MSD4

Method Path : T:\Data1\MSD4\METHODS\2020\
Method File : Cardno928.m
Title : EPA 8270D - GC MSD4
Last Update : Wed Sep 30 09:28:01 2020
Response Via : Initial Calibration

Calibration Files

20 =00301002.D 10 =00401003.D 5 =00501004.D 2.5 =00601005.D 1 =00701006.D 0.5 =00801007.D
0.1 =00901008.D

	Compound	20	10	5	2.5	1	0.5	0.1	Avg	%RSD
1) I	Dichlorobenzene-d5	-----ISTD-----								
2) S	2-Fluorobiphenyl	1.947	1.897	1.982	1.914	1.898	1.911	1.768	1.902	3.51
3) I	Acenaphthene-d10	-----ISTD-----								
4)	Atrazine	0.391	0.357	0.339	0.280	0.236	0.222	0.205	0.290	25.25
5) I	Phenanthrene-d10	-----ISTD-----								
6)	Metolachlor	0.704	0.635	0.614	0.543	0.452	0.405	0.340	0.527	25.21
7)	Chlorpyrifos	0.160	0.149	0.144	0.129	0.114	0.107	0.084	0.127	21.17
8) I	Chrysene-d12	-----ISTD-----								
9) S	Terphenyl-d14	1.539	1.476	1.520	1.466	1.489	1.481	1.288	1.466	5.64

(#) = Out of Range

PREPARATION BENCH SHEET

Print Date/Time: 09/29/2020 3:2

Organics

BAI0844

Page 83 of 284

Matrix: Solid

Prepared using: SVOC - SVOC Solid

Analyses

SVOC 625 MISC

Spiking Solution(s)

2003078 Cardno Spk

Surrogate Solution(s)

2002553 CLP B/N 1000

Lab Number	Sample and Source ID	Date Due	Extract by	Prepared	Initial (g)	Final (mL)	ul Spike	ul Surrogate	Extraction Comments
BAI0844-BLK1	Blank			9/28/2020 9:21:00AM	5	1		25	
BAI0844-BS1	LCS			9/28/2020 9:21:00AM	5	1	50	25	
BAI0844-BSD1	LCS Dup			9/28/2020 9:21:00AM	5	1	50	25	Not done on
BAI0844-MS1	Matrix Spike [WAI0678-25]			9/28/2020 9:21:00AM	5	1	50	25	
BAI0844-MSD1	Matrix Spike Dup [WAI0678-25]			9/28/2020 9:21:00AM	5	1	50	25	
WAI0678-23	WW-3	09/29/2020	09/28/2020	9/28/2020 9:21:00AM	5	1		25	
WAI0678-24	E-1	09/29/2020	09/28/2020	9/28/2020 9:21:00AM	5	1		25	
WAI0678-25	E-2	09/29/2020	09/28/2020	9/28/2020 9:21:00AM	5	1		25	
WAI0678-26	E-2 DUP	09/29/2020	09/28/2020	9/28/2020 9:21:00AM	5	1		25	

BAL-04

Turkump 02
ASR-04

Reagents

Standard	Description	LotNum
2002237	Hydromatrix	6474479-04
2002631	Acetone	60045
2002701	Dichloromethane	60164
2002755	Na2SO4 muffled	2019031295

Analyst:

Date

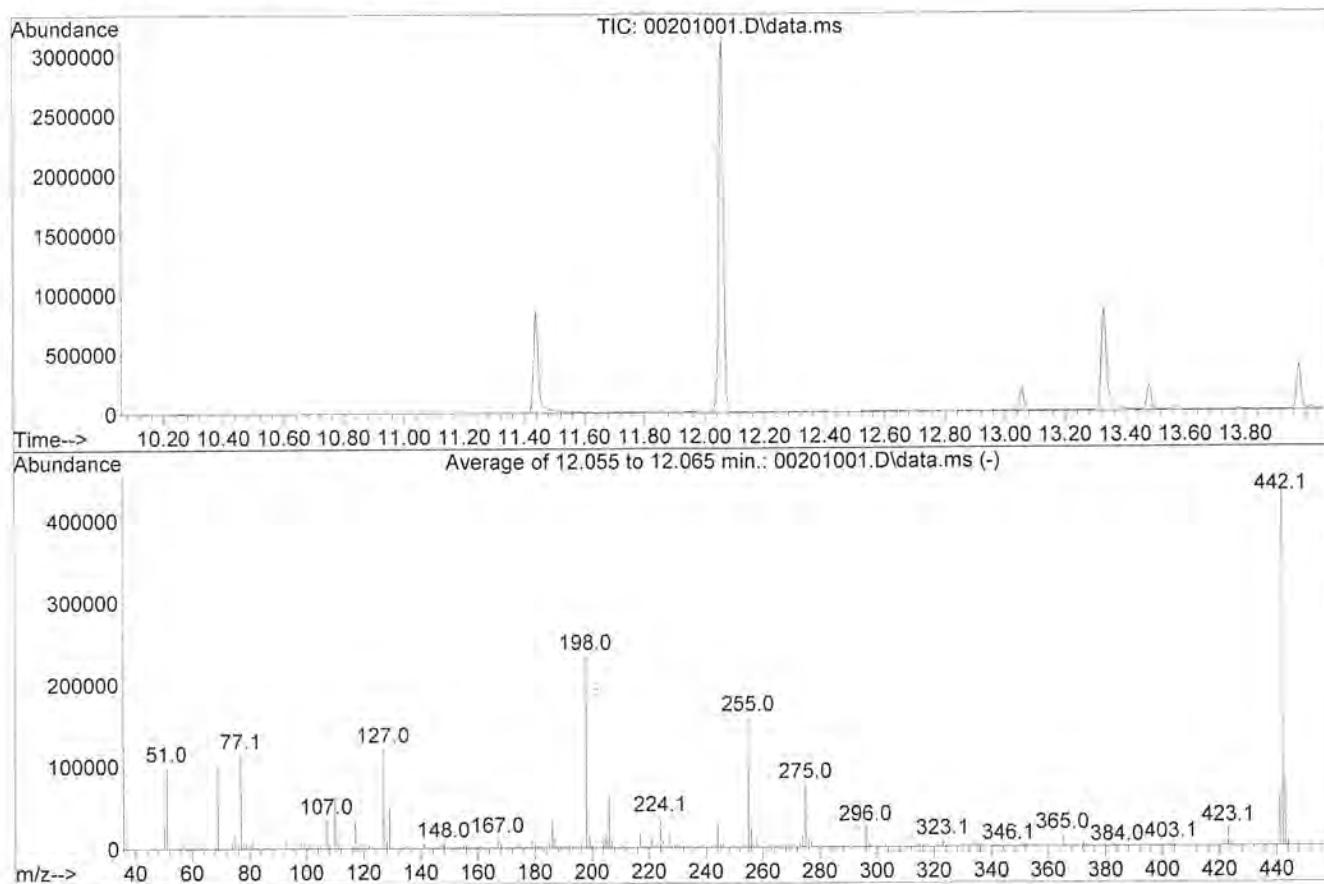
Run Date:

Date

Data Path : T:\Data1\MSD4\2020\SEP\29\
 Data File : 00201001.D
 Acq On : 29 Sep 2020 1:29 pm
 Operator : TGT
 Sample : SYS CHECK
 Misc :
 ALS Vial : 2 Sample Multiplier: 1

Integration File: events.e

Method : T:\Data1\MSD4\METHODS\2020\Cardno928.m
 Title : EPA 8270D - GC MSD4
 Last Update : Wed Sep 30 09:28:01 2020



AutoFind: Scans 1901, 1902, 1903; Background Corrected with Scan 1891

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	10	80	42.6	100357	PASS
68	69	0.00	2	1.9	1915	PASS
69	198	0.00	100	42.8	100754	PASS
70	69	0.00	2	0.6	590	PASS
127	198	25	75	52.0	122443	PASS
197	198	0.00	1	0.0	0	PASS
198	198	100	100	100.0	235456	PASS
199	198	5	9	6.7	15664	PASS
275	198	10	60	32.9	77416	PASS
365	198	0.00	100	6.3	14939	PASS
441	443	0.01	100	76.1	63957	PASS
442	198	39	200	184.5	434325	PASS
443	442	15	24	19.4	84053	PASS

Data Path : T:\Data1\MSD4\2020\SEP\29\
Data File : 00301002.D
Acq On : 29 Sep 2020 1:56 pm
Operator : TGT
Sample : 20 PPM ICAL
Misc :
ALS Vial : 3 Sample Multiplier: 1

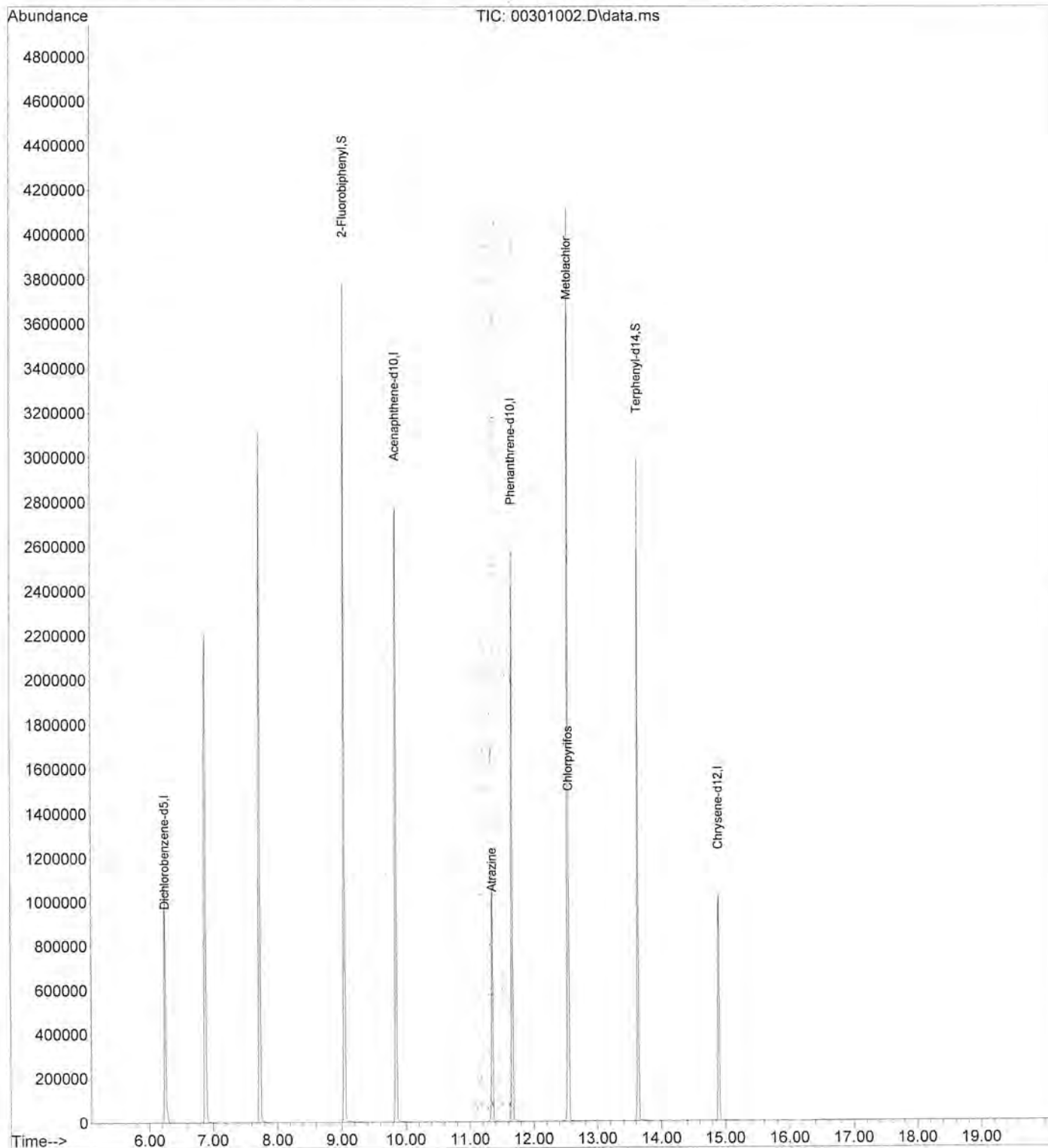
Quant Time: Sep 30 09:52:48 2020
Quant Method : T:\Data1\MSD4\METHODS\2020\Cardno928.m
Quant Title : EPA 8270D - GC MSD4
QLast Update : Wed Sep 30 09:28:01 2020
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Dichlorobenzene-d5	6.250	150	14439940	20.00	ppm	0.00
3) Acenaphthene-d10	9.855	164	18936204	20.00	ppm	# 0.00
5) Phenanthrene-d10	11.671	188	29171173	20.00	ppm	# 0.00
8) Chrysene-d12	14.902	240	13554675	20.00	ppm	# 0.00
System Monitoring Compounds						
2) 2-Fluorobiphenyl	9.049	172	35150650	25.59	ppm	0.00
9) Terphenyl-d14	13.643	244	26075044	28.25	ppm	0.00
Spiked Amount	25.000		Recovery	=	113.00%	
Target Compounds						Qvalue
4) Atrazine	11.359	200	7408474	19.72	ppm	92
6) Metolachlor	12.543	162	20531317	20.20	ppm	# 75
7) Chlorpyrifos	12.549	197	4667587	19.41	ppm	# 77

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : T:\Data1\MSD4\2020\SEP\29\
Data File : 00301002.D
Acq On : 29 Sep 2020 1:56 pm
Operator : TGT
Sample : 20 PPM ICAL
Misc :
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Sep 30 09:52:48 2020
Quant Method : T:\Data1\MSD4\METHODS\2020\Cardno928.m
Quant Title : EPA 8270D - GC MSD4
QLast Update : Wed Sep 30 09:28:01 2020
Response via : Initial Calibration



Data Path : T:\Data1\MSD4\2020\SEP\29\
Data File : 00401003.D
Acq On : 29 Sep 2020 2:23 pm
Operator : TGT
Sample : 10 PPM ICAL
Misc :
ALS Vial : 4 Sample Multiplier: 1

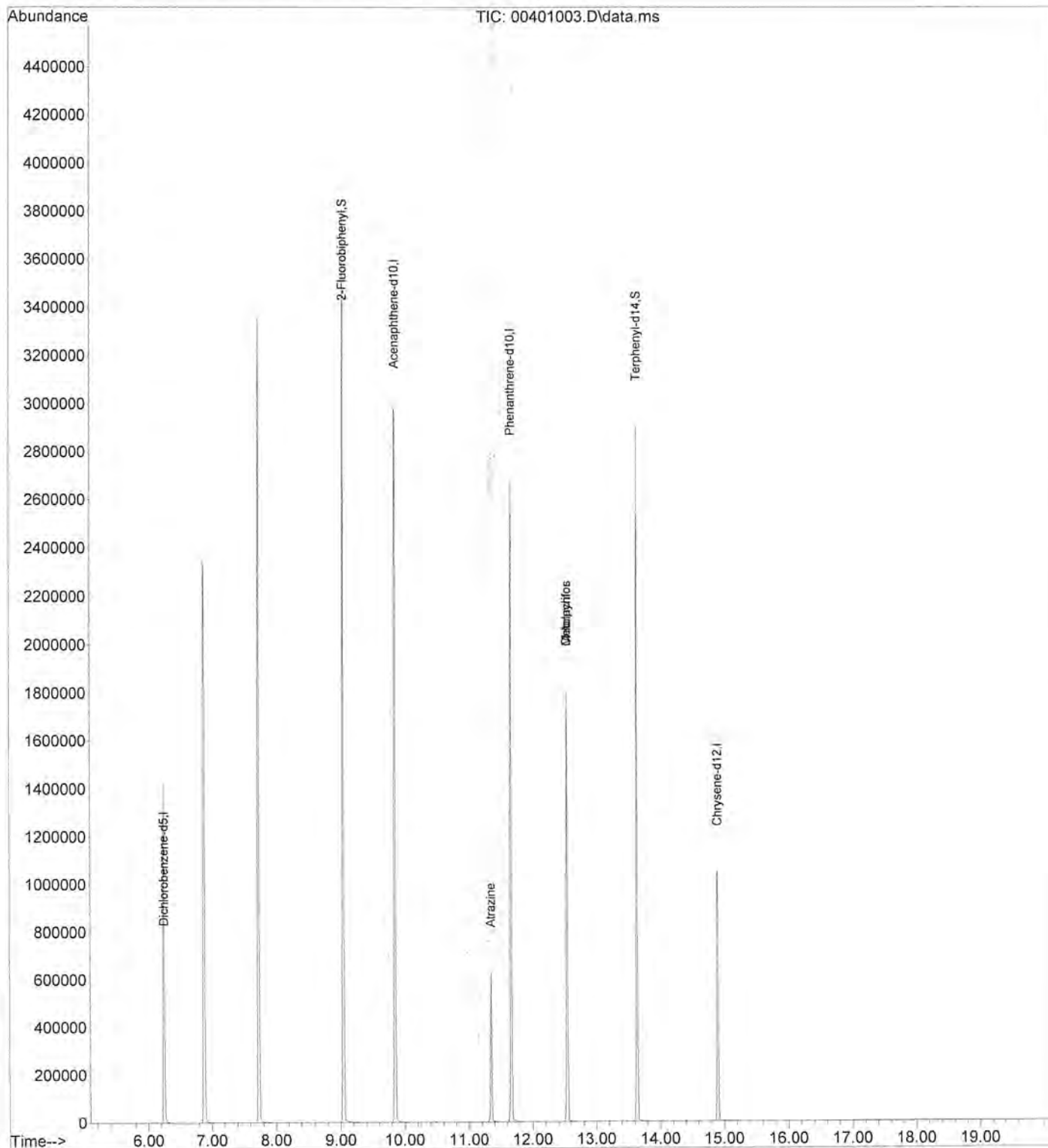
Quant Time: Sep 30 09:53:03 2020
Quant Method : T:\Data1\MSD4\METHODS\2020\Cardno928.m
Quant Title : EPA 8270D - GC MSD4
QLast Update : Wed Sep 30 09:28:01 2020
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev (Min)
Internal Standards						
1) Dichlorobenzene-d5	6.249	150	15474108	20.00	ppm	0.00
3) Acenaphthene-d10	9.856	164	20260451	20.00	ppm	# 0.00
5) Phenanthrene-d10	11.670	188	30922351	20.00	ppm	# 0.00
8) Chrysene-d12	14.902	240	14397015	20.00	ppm	# 0.00
System Monitoring Compounds						
2) 2-Fluorobiphenyl	9.049	172	36697736	24.90	ppm	0.00
9) Terphenyl-d14	13.643	244	26569966	26.76	ppm	0.00
Spiked Amount	25.000		Recovery	= 107.04%		
Target Compounds						Qvalue
4) Atrazine	11.355	200	3615405	9.68	ppm	93
6) Metolachlor	12.539	162	9813635	9.58	ppm	# 77
7) Chlorpyrifos	12.548	197	2304020	9.85	ppm	# 75

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : T:\Data1\MSD4\2020\SEP\29\
Data File : 00401003.D
Acq On : 29 Sep 2020 2:23 pm
Operator : TGT
Sample : 10 PPM ICAL
Misc :
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Sep 30 09:53:03 2020
Quant Method : T:\Data1\MSD4\METHODS\2020\Cardno928.m
Quant Title : EPA 8270D - GC MSD4
QLast Update : Wed Sep 30 09:28:01 2020
Response via : Initial Calibration



Data Path : T:\Data1\MSD4\2020\SEP\29\
Data File : 00501004.D
Acq On : 29 Sep 2020 2:50 pm
Operator : TGT
Sample : 5 PPM ICAL
Misc :
ALS Vial : 5 Sample Multiplier: 1

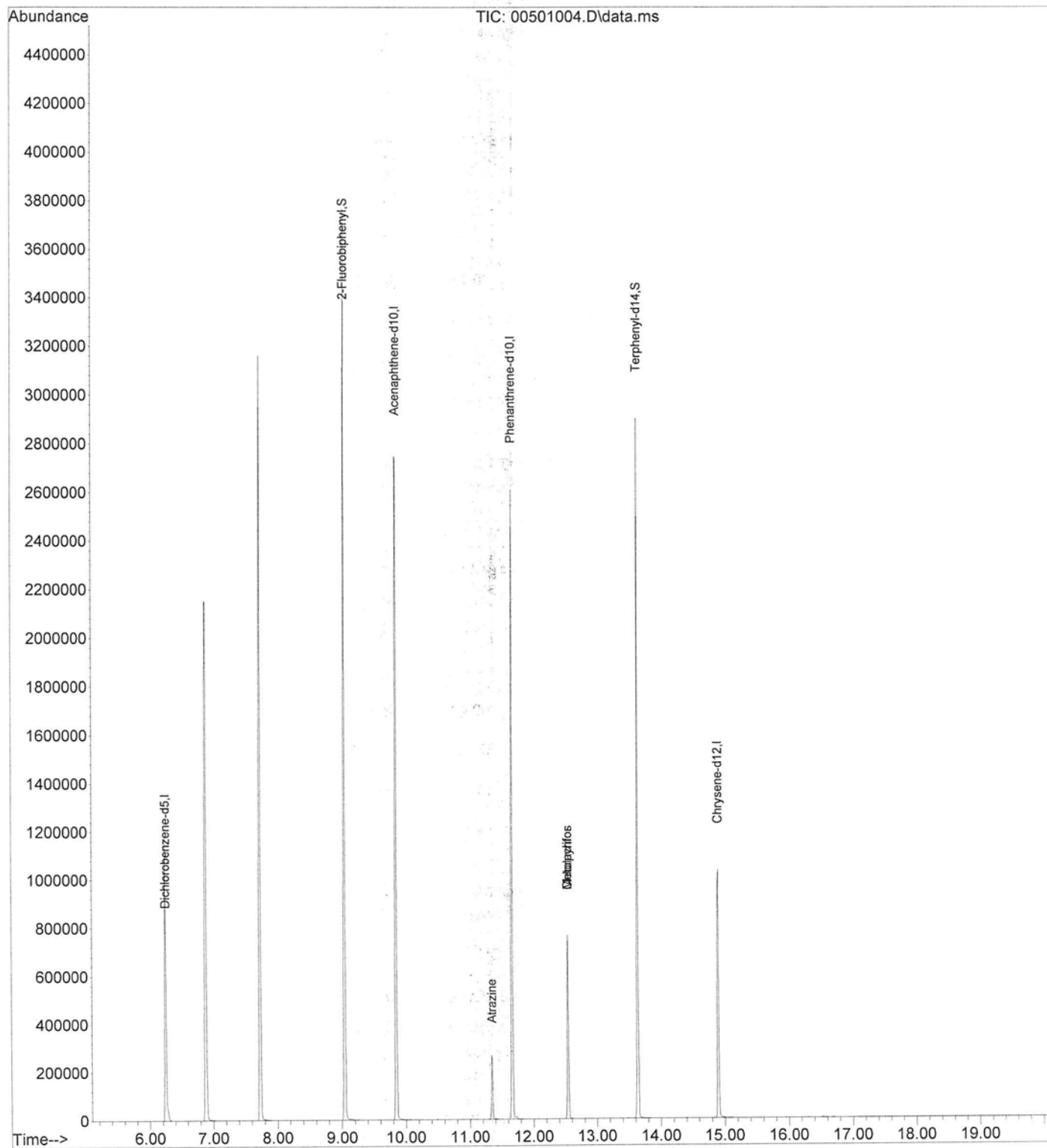
Quant Time: Sep 30 09:53:19 2020
Quant Method : T:\Data1\MSD4\METHODS\2020\Cardno928.m
Quant Title : EPA 8270D - GC MSD4
QLast Update : Wed Sep 30 09:28:01 2020
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Dichlorobenzene-d5	6.249	150	14311517	20.00	ppm	0.00
3) Acenaphthene-d10	9.855	164	18720449	20.00	ppm	# 0.00
5) Phenanthrene-d10	11.671	188	28988160	20.00	ppm	# 0.00
8) Chrysene-d12	14.902	240	13599466	20.00	ppm	# 0.00
System Monitoring Compounds						
2) 2-Fluorobiphenyl	9.049	172	35461775	26.03	ppm	0.00
9) Terphenyl-d14	13.643	244	25837345	27.31	ppm	0.00
Spiked Amount	25.000		Recovery	=	109.24%	
Target Compounds						Qvalue
4) Atrazine	11.352	200	1587383	4.93	ppm	100
6) Metolachlor	12.539	162	4446674	5.01	ppm	97
7) Chlorpyrifos	12.548	197	1046011	5.05	ppm	98

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : T:\Data1\MSD4\2020\SEP\29\
Data File : 00501004.D
Acq On : 29 Sep 2020 2:50 pm
Operator : TGT
Sample : 5 PPM ICAL
Misc :
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Sep 30 09:53:19 2020
Quant Method : T:\Data1\MSD4\METHODS\2020\Cardno928.m
Quant Title : EPA 8270D - GC MSD4
QLast Update : Wed Sep 30 09:28:01 2020
Response via : Initial Calibration



Data Path : T:\Data1\MSD4\2020\SEP\29\
Data File : 00601005.D
Acq On : 29 Sep 2020 3:18 pm
Operator : TGT
Sample : 2.5 PPM ICAL
Misc :
ALS Vial : 6 Sample Multiplier: 1

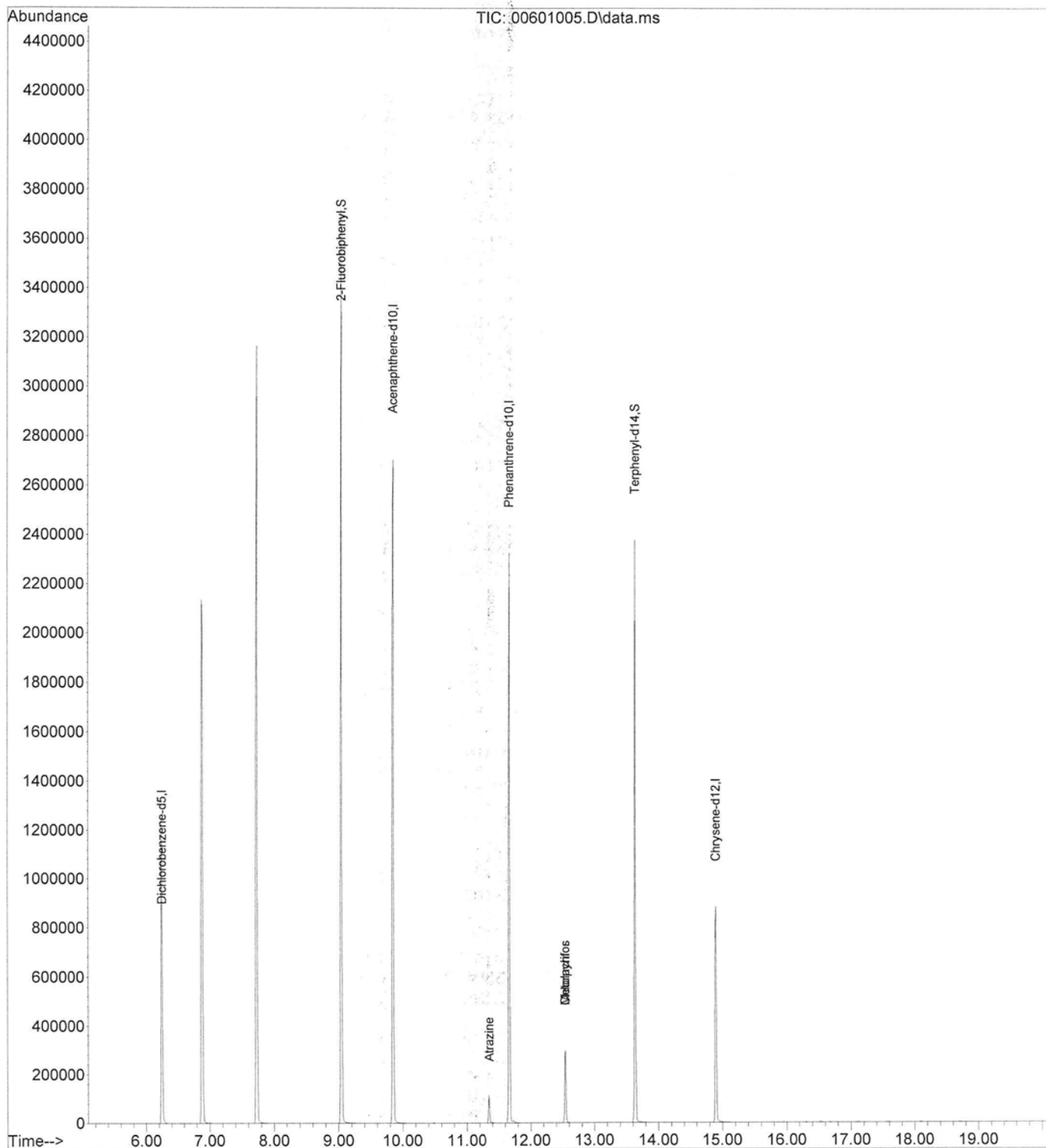
Quant Time: Sep 30 09:53:32 2020
Quant Method : T:\Data1\MSD4\METHODS\2020\Cardno928.m
Quant Title : EPA 8270D - GC MSD4
QLast Update : Wed Sep 30 09:28:01 2020
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Dichlorobenzene-d5	6.249	150	14214759	20.00	ppm	0.00
3) Acenaphthene-d10	9.856	164	18038794	20.00	ppm	# 0.00
5) Phenanthrene-d10	11.671	188	26020497	20.00	ppm	# 0.00
8) Chrysene-d12	14.903	240	11392768	20.00	ppm	# 0.00
System Monitoring Compounds						
2) 2-Fluorobiphenyl	9.049	172	34001996	25.08	ppm	0.00
9) Terphenyl-d14	13.643	244	20883879	25.98	ppm	0.00
Spiked Amount	25.000		Recovery	= 103.92%		
Target Compounds						Qvalue
4) Atrazine	11.350	200	630853	2.13	ppm	100
6) Metolachlor	12.539	162	1765427	2.32	ppm	98
7) Chlorpyrifos	12.548	197	418392	2.31	ppm	99

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : T:\Data1\MSD4\2020\SEP\29\
Data File : 00601005.D
Acq On : 29 Sep 2020 3:18 pm
Operator : TGT
Sample : 2.5 PPM ICAL
Misc :
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Sep 30 09:53:32 2020
Quant Method : T:\Data1\MSD4\METHODS\2020\Cardno928.m
Quant Title : EPA 8270D - GC MSD4
QLast Update : Wed Sep 30 09:28:01 2020
Response via : Initial Calibration



Data Path : T:\Data1\MSD4\2020\SEP\29\
Data File : 00701006.D
Acq On : 29 Sep 2020 3:45 pm
Operator : TGT
Sample : 1 PPM ICAL
Misc :
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Sep 30 09:53:45 2020
Quant Method : T:\Data1\MSD4\METHODS\2020\Cardno928.m
Quant Title : EPA 8270D - GC MSD4
QLast Update : Wed Sep 30 09:28:01 2020
Response via : Initial Calibration

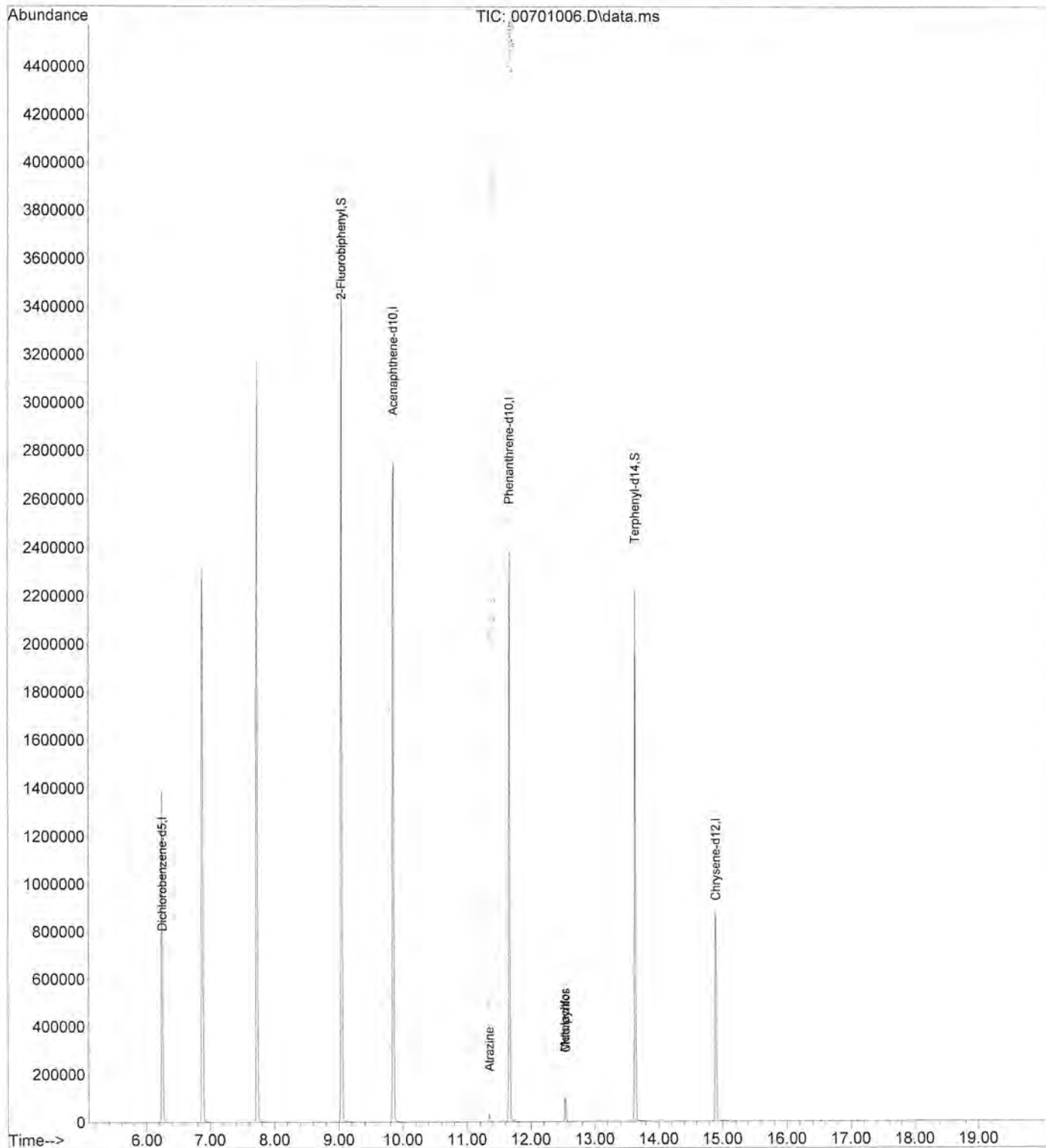
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

Internal Standards						
1) Dichlorobenzene-d5	6.249	150	14861693	20.00	ppm	0.00
3) Acenaphthene-d10	9.856	164	18638600	20.00	ppm	# 0.00
5) Phenanthrene-d10	11.670	188	26803163	20.00	ppm	# 0.00
8) Chrysene-d12	14.901	240	11243185	20.00	ppm	# 0.00
System Monitoring Compounds						
2) 2-Fluorobiphenyl	9.049	172	35251720	24.86	ppm	0.00
9) Terphenyl-d14	13.643	244	20922701	26.15	ppm	0.00
Spiked Amount	25.000		Recovery	=	104.60%	
Target Compounds						
4) Atrazine	11.350	200	219849	0.74	ppm	Qvalue 99
6) Metolachlor	12.538	162	605471	0.79	ppm	99
7) Chlorpyrifos	12.547	197	152642	0.83	ppm	100

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : T:\Data1\MSD4\2020\SEP\29\
Data File : 00701006.D
Acq On : 29 Sep 2020 3:45 pm
Operator : TGT
Sample : 1 PPM ICAL
Misc :
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Sep 30 09:53:45 2020
Quant Method : T:\Data1\MSD4\METHODS\2020\Cardno928.m
Quant Title : EPA 8270D - GC MSD4
QLast Update : Wed Sep 30 09:28:01 2020
Response via : Initial Calibration



Data Path : T:\Data1\MSD4\2020\SEP\29\
Data File : 00801007.D
Acq On : 29 Sep 2020 4:12 pm
Operator : TGT
Sample : 0.5 PPM ICAL
Misc :
ALS Vial : 8 Sample Multiplier: 1

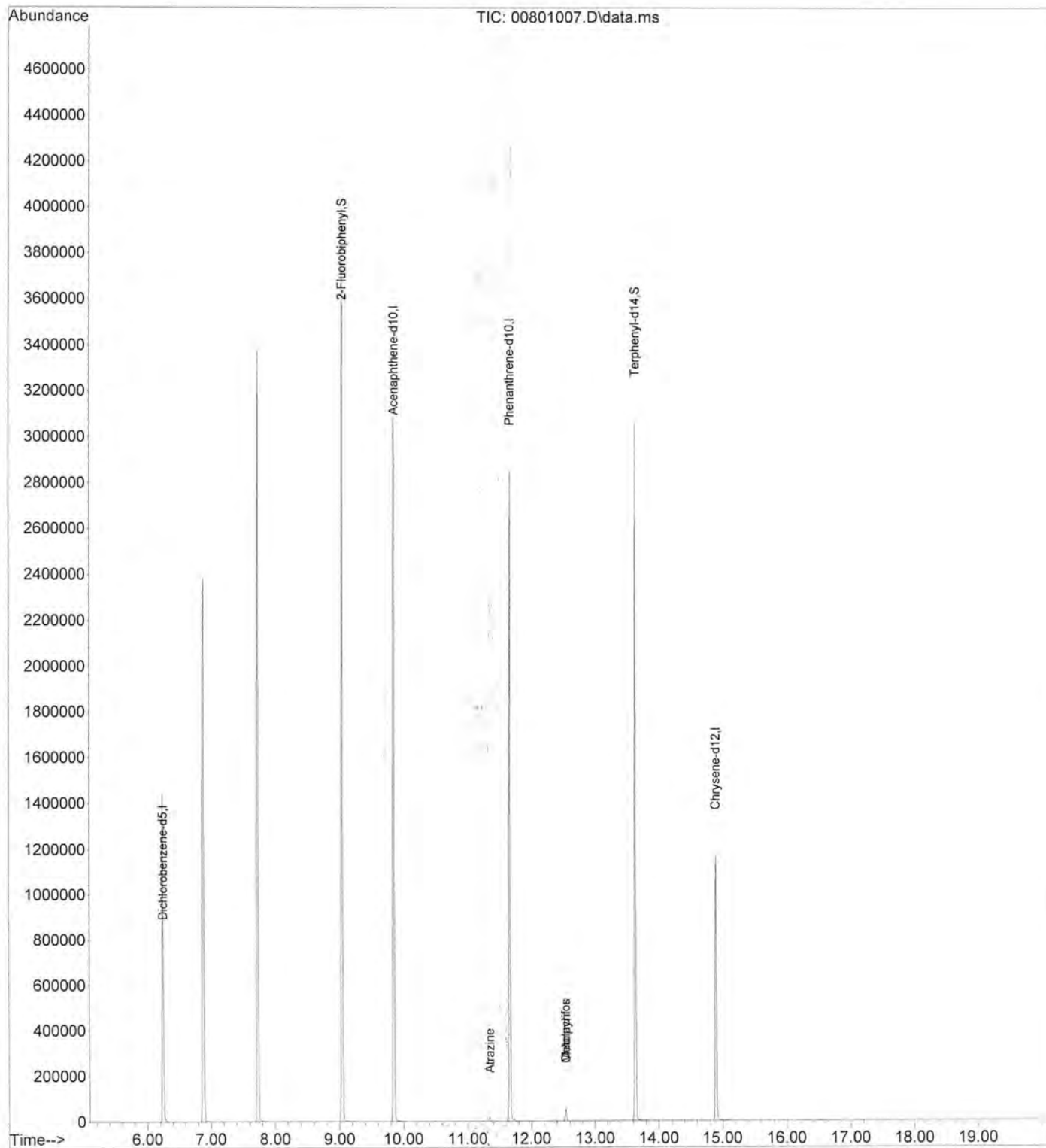
Quant Time: Sep 30 09:53:59 2020
Quant Method : T:\Data1\MSD4\METHODS\2020\Cardno928.m
Quant Title : EPA 8270D - GC MSD4
QLast Update : Wed Sep 30 09:28:01 2020
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev (Min)
Internal Standards						
1) Dichlorobenzene-d5	6.249	150	15766729	20.00	ppm	0.00
3) Acenaphthene-d10	9.855	164	20578392	20.00	ppm	# 0.00
5) Phenanthrene-d10	11.671	188	31009408	20.00	ppm	# 0.00
8) Chrysene-d12	14.904	240	14504651	20.00	ppm	# 0.00
System Monitoring Compounds						
2) 2-Fluorobiphenyl	9.049	172	37658064	25.12	ppm	0.00
9) Terphenyl-d14	13.643	244	26859655	25.66	ppm	0.00
Spiked Amount	25.000		Recovery	=	102.64%	
Target Compounds						
4) Atrazine	11.350	200	113977	0.35	ppm	Qvalue 99
6) Metolachlor	12.538	162	314276	0.36	ppm	99
7) Chlorpyrifos	12.548	197	82774	0.39	ppm	100

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : T:\Data1\MSD4\2020\SEP\29\
Data File : 00801007.D
Acq On : 29 Sep 2020 4:12 pm
Operator : TGT
Sample : 0.5 PPM ICAL
Misc :
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Sep 30 09:53:59 2020
Quant Method : T:\Data1\MSD4\METHODS\2020\Cardno928.m
Quant Title : EPA 8270D - GC MSD4
QLast Update : Wed Sep 30 09:28:01 2020
Response via : Initial Calibration



Data Path : T:\Data1\MSD4\2020\SEP\29\
 Data File : 00901008.D
 Acq On : 29 Sep 2020 4:39 pm
 Operator : TGT
 Sample : 0.1 PPM ICAL
 Misc :
 ALS Vial : 9 Sample Multiplier: 1

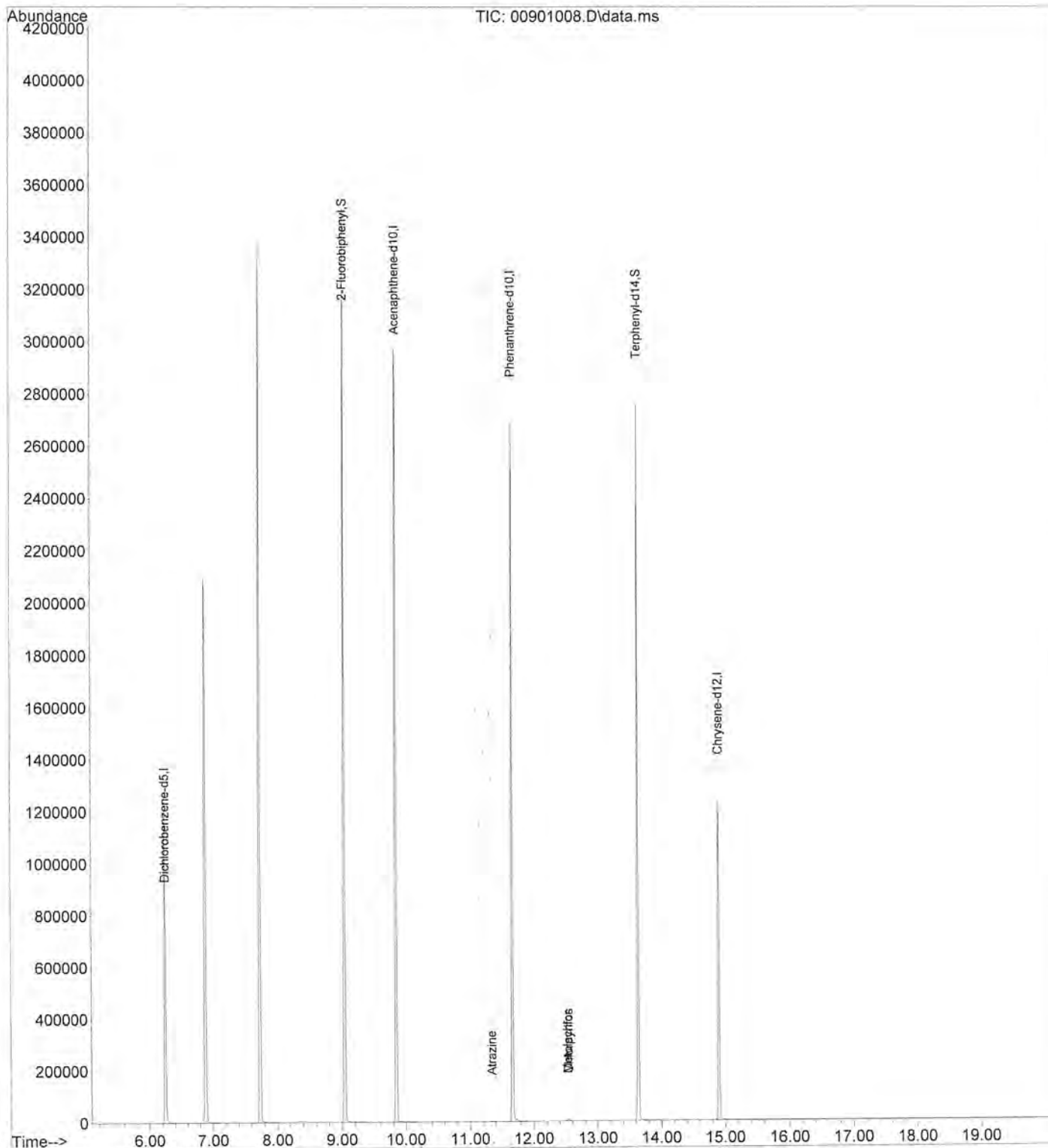
Quant Time: Sep 30 09:54:12 2020
 Quant Method : T:\Data1\MSD4\METHODS\2020\Cardno928.m
 Quant Title : EPA 8270D - GC MSD4
 QLast Update : Wed Sep 30 09:28:01 2020
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev (Min)
Internal Standards						
1) Dichlorobenzene-d5	6.249	150	14901990	20.00	ppm	0.00
3) Acenaphthene-d10	9.855	164	19623285	20.00	ppm	# 0.00
5) Phenanthrene-d10	11.671	188	29991641	20.00	ppm	# 0.00
8) Chrysene-d12	14.904	240	15117191	20.00	ppm	# 0.00
System Monitoring Compounds						
2) 2-Fluorobiphenyl	9.049	172	32927153	23.22	ppm	0.00
9) Terphenyl-d14	13.643	244	24330045	22.13	ppm	0.00
Spiked Amount	25.000		Recovery	=	88.52%	
Target Compounds						
4) Atrazine	11.345	200	20072m	0.07	ppm	Qvalue
6) Metolachlor	12.533	162	50971m	0.06	ppm	
7) Chlorpyrifos	12.548	197	12581	0.06	ppm	# 55

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : T:\Data1\MSD4\2020\SEP\29\
Data File : 00901008.D
Acq On : 29 Sep 2020 4:39 pm
Operator : TGT
Sample : 0.1 PPM ICAL
Misc :
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Sep 30 09:54:12 2020
Quant Method : T:\Data1\MSD4\METHODS\2020\Cardno928.m
Quant Title : EPA 8270D - GC MSD4
QLast Update : Wed Sep 30 09:28:01 2020
Response via : Initial Calibration



Data Path : T:\Data1\MSD4\2020\SEP\29\
Data File : 01101009.D
Acq On : 29 Sep 2020 5:07 pm
Operator : TGT
Sample : BAI0844-BS1
Misc :
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Sep 30 09:57:03 2020
Quant Method : T:\Data1\MSD4\METHODS\2020\Cardno928.m
Quant Title : EPA 8270D - GC MSD4
QLast Update : Wed Sep 30 09:28:01 2020
Response via : Initial Calibration

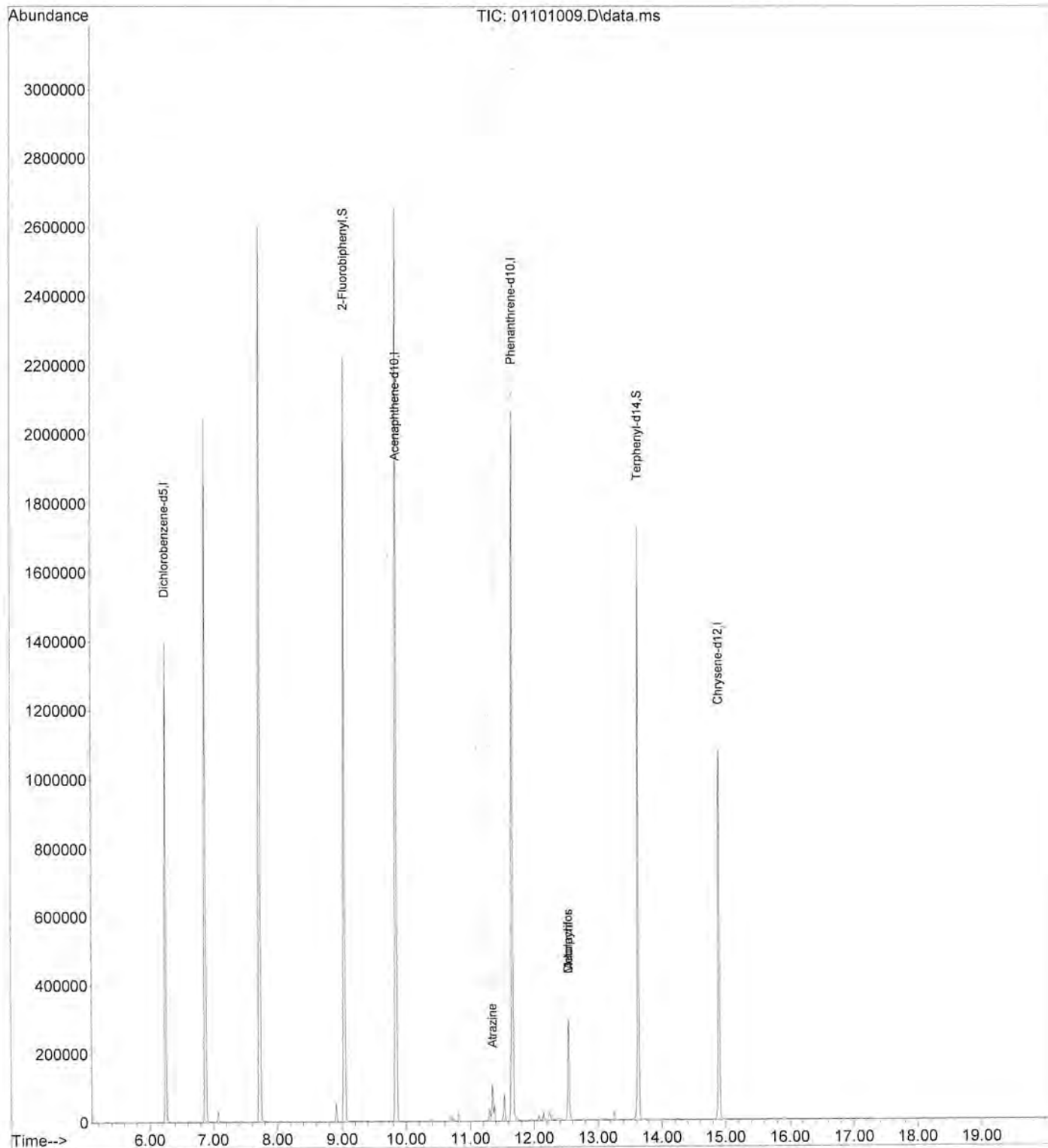
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

Internal Standards						
1) Dichlorobenzene-d5	6.256	150	14446076	20.00	ppm	0.00
3) Acenaphthene-d10	9.852	164	18017828	20.00	ppm	# 0.00
5) Phenanthrene-d10	11.669	188	27494357	20.00	ppm	# 0.00
8) Chrysene-d12	14.903	240	14075693	20.00	ppm	# 0.00
System Monitoring Compounds						
2) 2-Fluorobiphenyl	9.047	172	23590110	17.17	ppm	0.00
9) Terphenyl-d14	13.642	244	17372231	16.84	ppm	0.00
Spiked Amount	25.000		Recovery	=	67.36%	
Target Compounds						
4) Atrazine	11.351	200	726508	2.50	ppm	Qvalue # 89
6) Metolachlor	12.539	162	1834071	2.30	ppm	100
7) Chlorpyrifos	12.547	197	466646	2.44	ppm	97

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : T:\Data1\MSD4\2020\SEP\29\
Data File : 01101009.D
Acq On : 29 Sep 2020 5:07 pm
Operator : TGT
Sample : BAI0844-BS1
Misc :
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Sep 30 09:57:03 2020
Quant Method : T:\Data1\MSD4\METHODS\2020\Cardno928.m
Quant Title : EPA 8270D - GC MSD4
QLast Update : Wed Sep 30 09:28:01 2020
Response via : Initial Calibration



Data Path : T:\Data1\MSD4\2020\SEP\29\
Data File : 01201010.D
Acq On : 29 Sep 2020 5:34 pm
Operator : TGT
Sample : BAI0844-BLK1
Misc :
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Sep 30 09:57:12 2020
Quant Method : T:\Data1\MSD4\METHODS\2020\Cardno928.m
Quant Title : EPA 8270D - GC MSD4
QLast Update : Wed Sep 30 09:28:01 2020
Response via : Initial Calibration

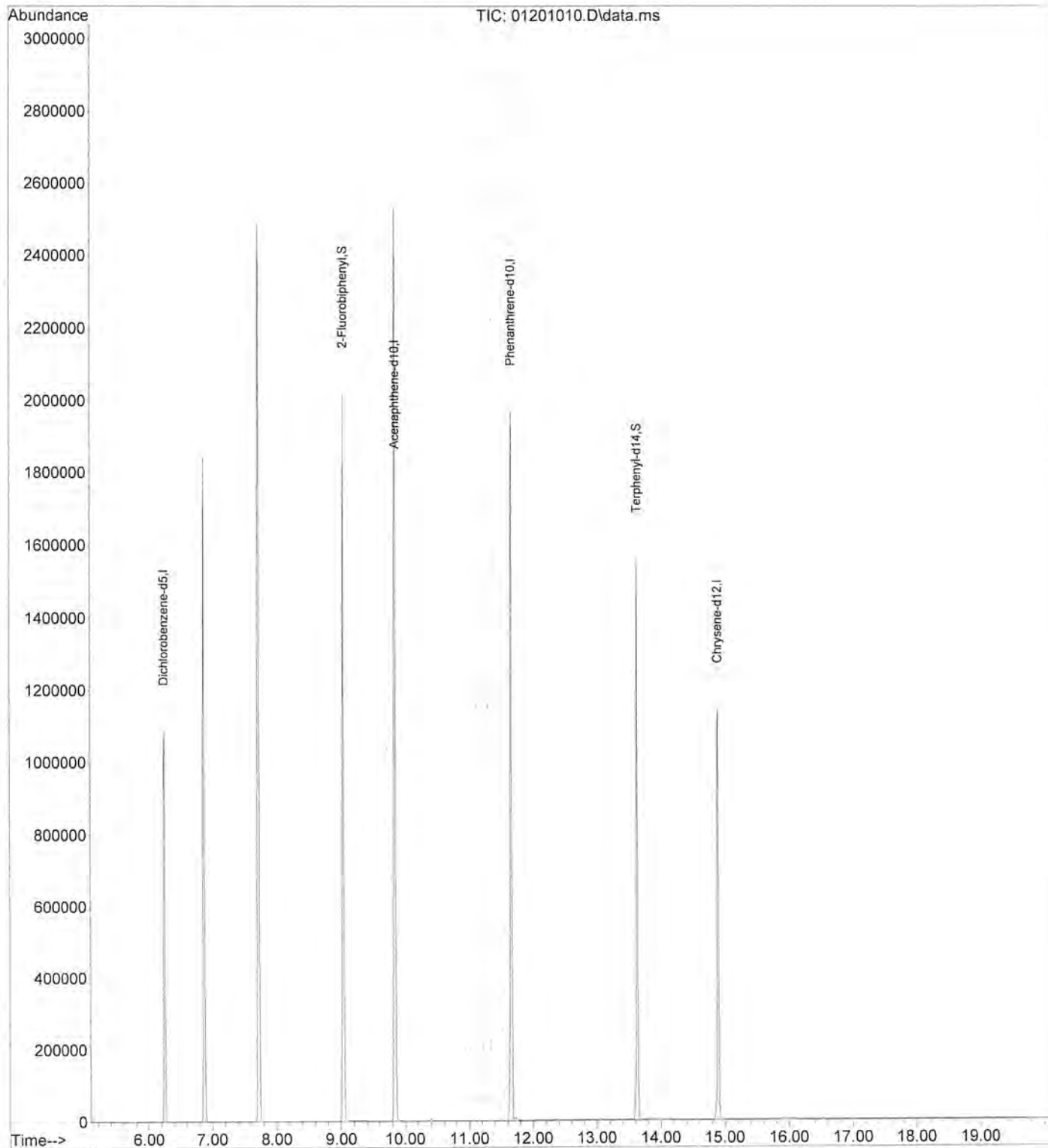
Compound	R.T.	QIon	Response	Conc	Units	Dev (Min)
Internal Standards						
1) Dichlorobenzene-d5	6.254	150	14324333	20.00	ppm	0.00
3) Acenaphthene-d10	9.852	164	18686328	20.00	ppm	# 0.00
5) Phenanthrene-d10	11.669	188	28273403	20.00	ppm	# 0.00
8) Chrysene-d12	14.902	240	15691708	20.00	ppm	# 0.00
System Monitoring Compounds						
2) 2-Fluorobiphenyl	9.047	172	23491825	17.24	ppm	0.00
9) Terphenyl-d14	13.641	244	17140959	14.91	ppm	0.00
Spiked Amount	25.000		Recovery	=	59.64%	

Target Compounds	Qvalue
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(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : T:\Data1\MSD4\2020\SEP\29\
Data File : 01201010.D
Acq On : 29 Sep 2020 5:34 pm
Operator : TGT
Sample : BAI0844-BLK1
Misc :
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Sep 30 09:57:12 2020
Quant Method : T:\Data1\MSD4\METHODS\2020\Cardno928.m
Quant Title : EPA 8270D - GC MSD4
QLast Update : Wed Sep 30 09:28:01 2020
Response via : Initial Calibration



Data Path : T:\Data1\MSD4\2020\SEP\29\
Data File : 01301011.D
Acq On : 29 Sep 2020 6:01 pm
Operator : TGT
Sample : WAI0678-23
Misc :
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Sep 30 09:57:22 2020
Quant Method : T:\Data1\MSD4\METHODS\2020\Cardno928.m
Quant Title : EPA 8270D - GC MSD4
QLast Update : Wed Sep 30 09:28:01 2020
Response via : Initial Calibration

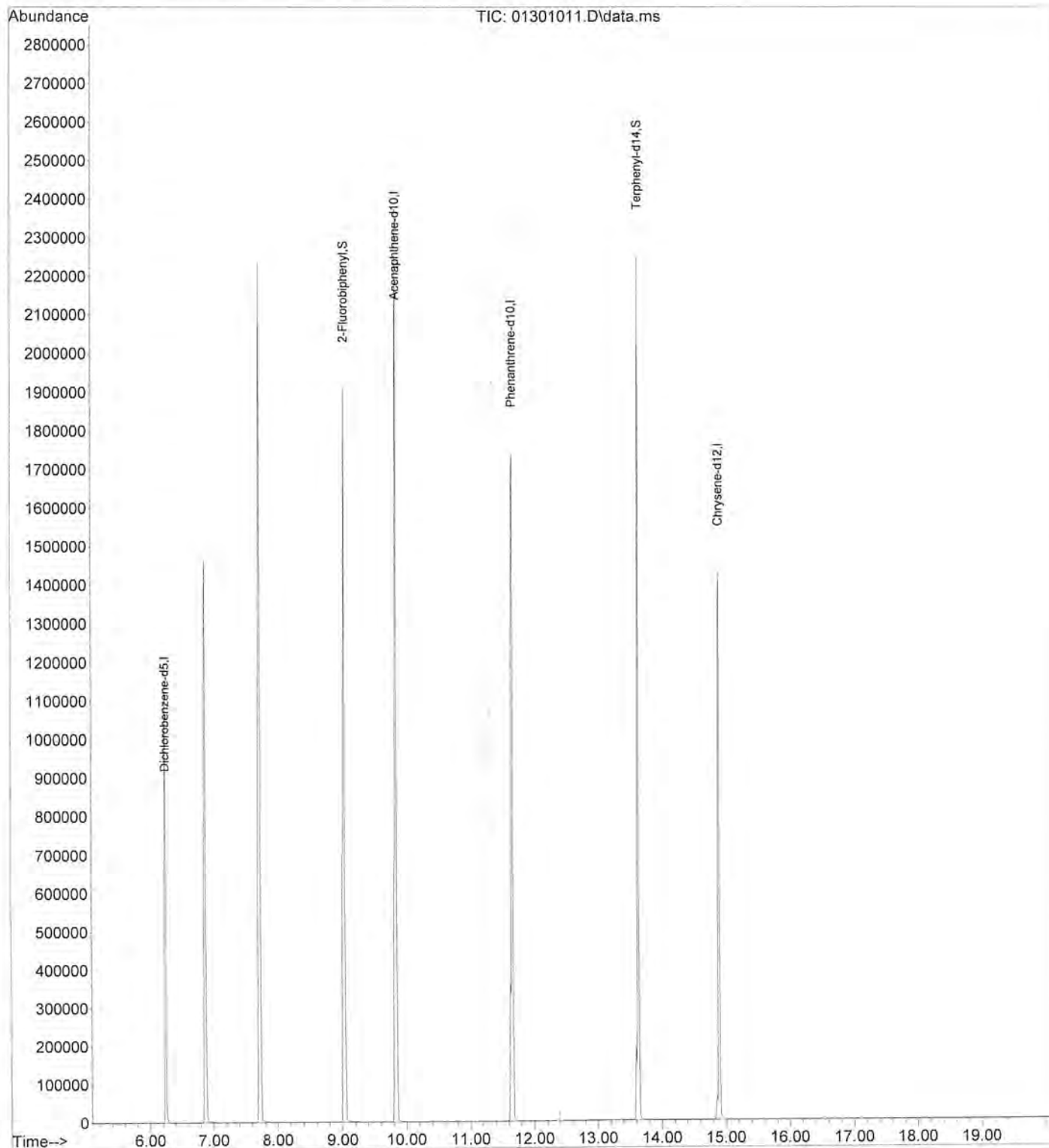
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Dichlorobenzene-d5	6.250	150	14083867	20.00	ppm	0.00
3) Acenaphthene-d10	9.851	164	18554427	20.00	ppm	# 0.00
5) Phenanthrene-d10	11.668	188	28896487	20.00	ppm	# 0.00
8) Chrysene-d12	14.903	240	19093542	20.00	ppm	# 0.00
System Monitoring Compounds						
2) 2-Fluorobiphenyl	9.046	172	27543595	20.56	ppm	0.00
9) Terphenyl-d14	13.642	244	23942509	17.11	ppm	0.00
Spiked Amount	25.000			Recovery	=	68.44%

Target Compounds	Qvalue
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(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : T:\Data1\MSD4\2020\SEP\29\
Data File : 01301011.D
Acq On : 29 Sep 2020 6:01 pm
Operator : TGT
Sample : WAI0678-23
Misc :
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Sep 30 09:57:22 2020
Quant Method : T:\Data1\MSD4\METHODS\2020\Cardno928.m
Quant Title : EPA 8270D - GC MSD4
QLast Update : Wed Sep 30 09:28:01 2020
Response via : Initial Calibration



Data Path : T:\Data1\MSD4\2020\SEP\29\
Data File : 01401012.D
Acq On : 29 Sep 2020 6:28 pm
Operator : TGT
Sample : WAI0678-24
Misc :
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Sep 30 09:57:32 2020
Quant Method : T:\Data1\MSD4\METHODS\2020\Cardno928.m
Quant Title : EPA 8270D - GC MSD4
QLast Update : Wed Sep 30 09:28:01 2020
Response via : Initial Calibration

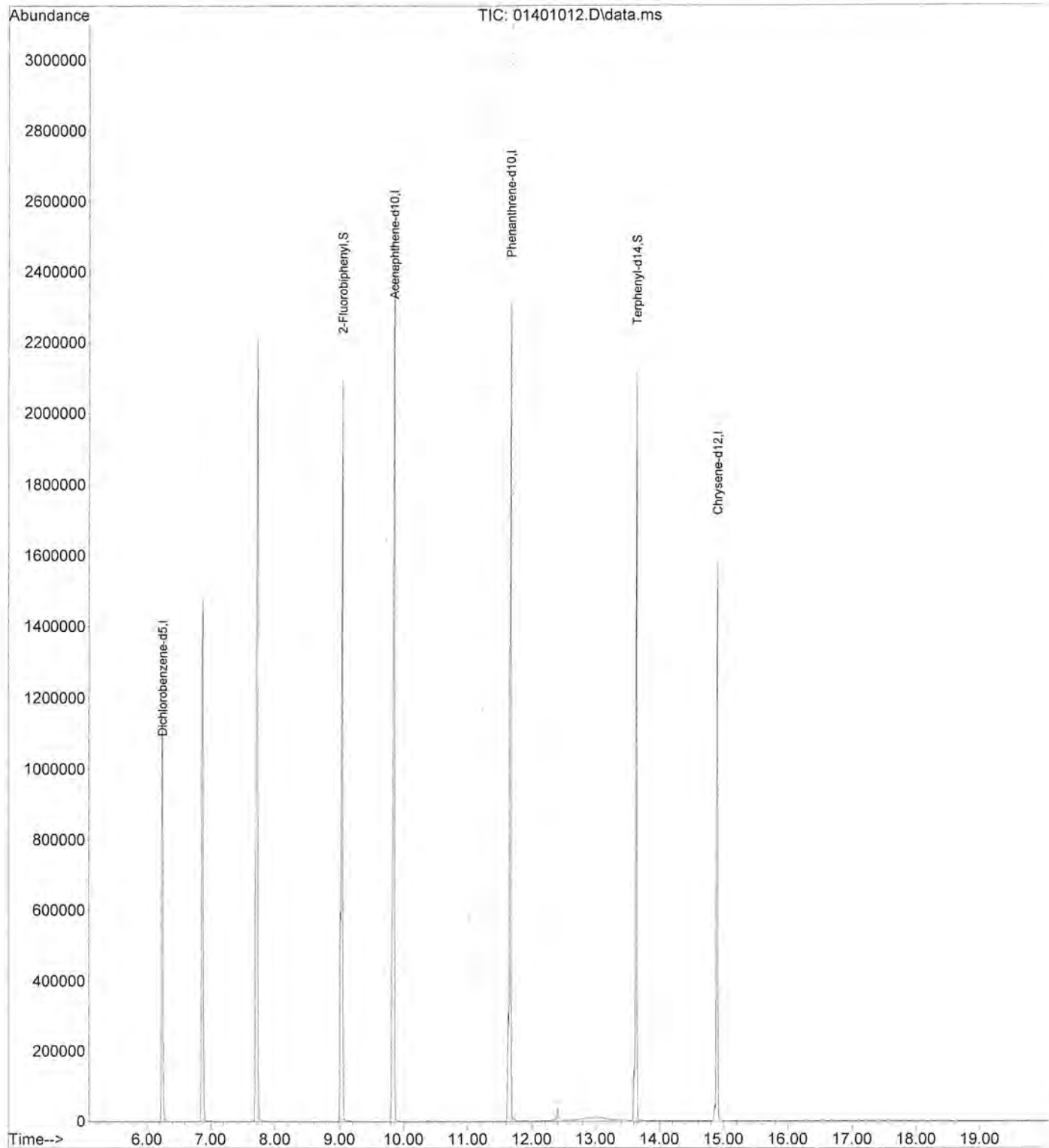
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Dichlorobenzene-d5	6.251	150	14800873	20.00	ppm	0.00
3) Acenaphthene-d10	9.852	164	19411752	20.00	ppm	# 0.00
5) Phenanthrene-d10	11.670	188	30733233	20.00	ppm	# 0.00
8) Chrysene-d12	14.904	240	18781242	20.00	ppm	# 0.00
System Monitoring Compounds						
2) 2-Fluorobiphenyl	9.047	172	26691395	18.96	ppm	0.00
9) Terphenyl-d14	13.642	244	22165349	16.10	ppm	0.00
Spiked Amount	25.000		Recovery	=	64.40%	

Target Compounds	Qvalue
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(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : T:\Data1\MSD4\2020\SEP\29\
Data File : 01401012.D
Acq On : 29 Sep 2020 6:28 pm
Operator : TGT
Sample : WAI0678-24
Misc :
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Sep 30 09:57:32 2020
Quant Method : T:\Data1\MSD4\METHODS\2020\Cardno928.m
Quant Title : EPA 8270D - GC MSD4
QLast Update : Wed Sep 30 09:28:01 2020
Response via : Initial Calibration



Data Path : T:\Data1\MSD4\2020\SEP\29\
Data File : 01501013.D
Acq On : 29 Sep 2020 6:54 pm
Operator : TGT
Sample : WAI0678-25
Misc :
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Sep 30 09:57:39 2020
Quant Method : T:\Data1\MSD4\METHODS\2020\Cardno928.m
Quant Title : EPA 8270D - GC MSD4
QLast Update : Wed Sep 30 09:28:01 2020
Response via : Initial Calibration

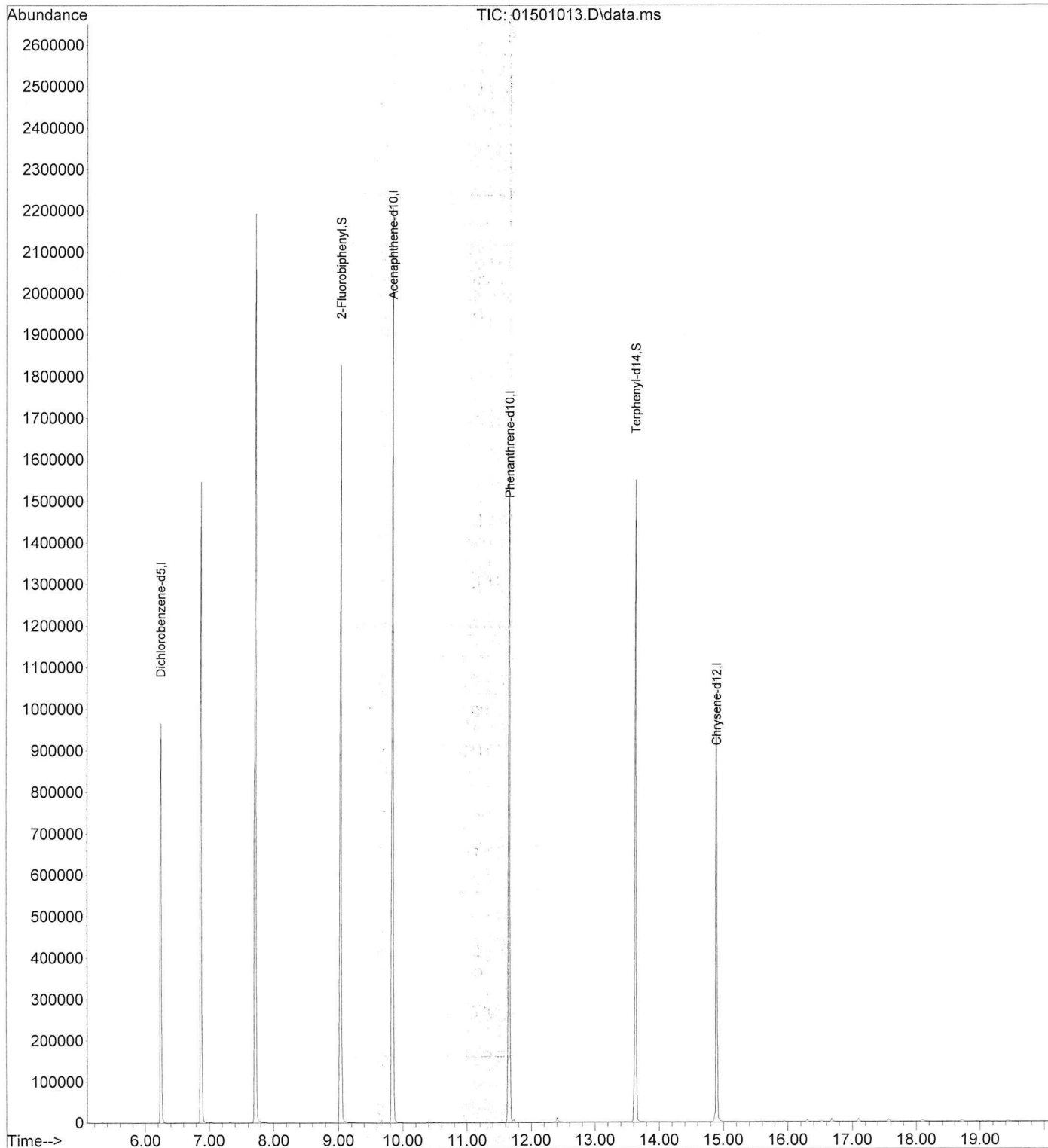
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Dichlorobenzene-d5	6.254	150	11699827	20.00	ppm	0.00
3) Acenaphthene-d10	9.850	164	15226397	20.00	ppm	# 0.00
5) Phenanthrene-d10	11.667	188	23230100	20.00	ppm	# 0.00
8) Chrysene-d12	14.900	240	12999870	20.00	ppm	# 0.00
System Monitoring Compounds						
2) 2-Fluorobiphenyl	9.045	172	22340258	20.07	ppm	0.00
9) Terphenyl-d14	13.641	244	17143343	18.00	ppm	0.00
Spiked Amount	25.000		Recovery	=	72.00%	

Target Compounds	Qvalue
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(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : T:\Data1\MSD4\2020\SEP\29\
Data File : 01501013.D
Acq On : 29 Sep 2020 6:54 pm
Operator : TGT
Sample : WAI0678-25
Misc :
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Sep 30 09:57:39 2020
Quant Method : T:\Data1\MSD4\METHODS\2020\Cardno928.m
Quant Title : EPA 8270D - GC MSD4
QLast Update : Wed Sep 30 09:28:01 2020
Response via : Initial Calibration



Data Path : T:\Data1\MSD4\2020\SEP\29\
Data File : 01601014.D
Acq On : 29 Sep 2020 7:21 pm
Operator : TGT
Sample : WAI0678-26
Misc :
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Sep 30 09:57:47 2020
Quant Method : T:\Data1\MSD4\METHODS\2020\Cardno928.m
Quant Title : EPA 8270D - GC MSD4
QLast Update : Wed Sep 30 09:28:01 2020
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

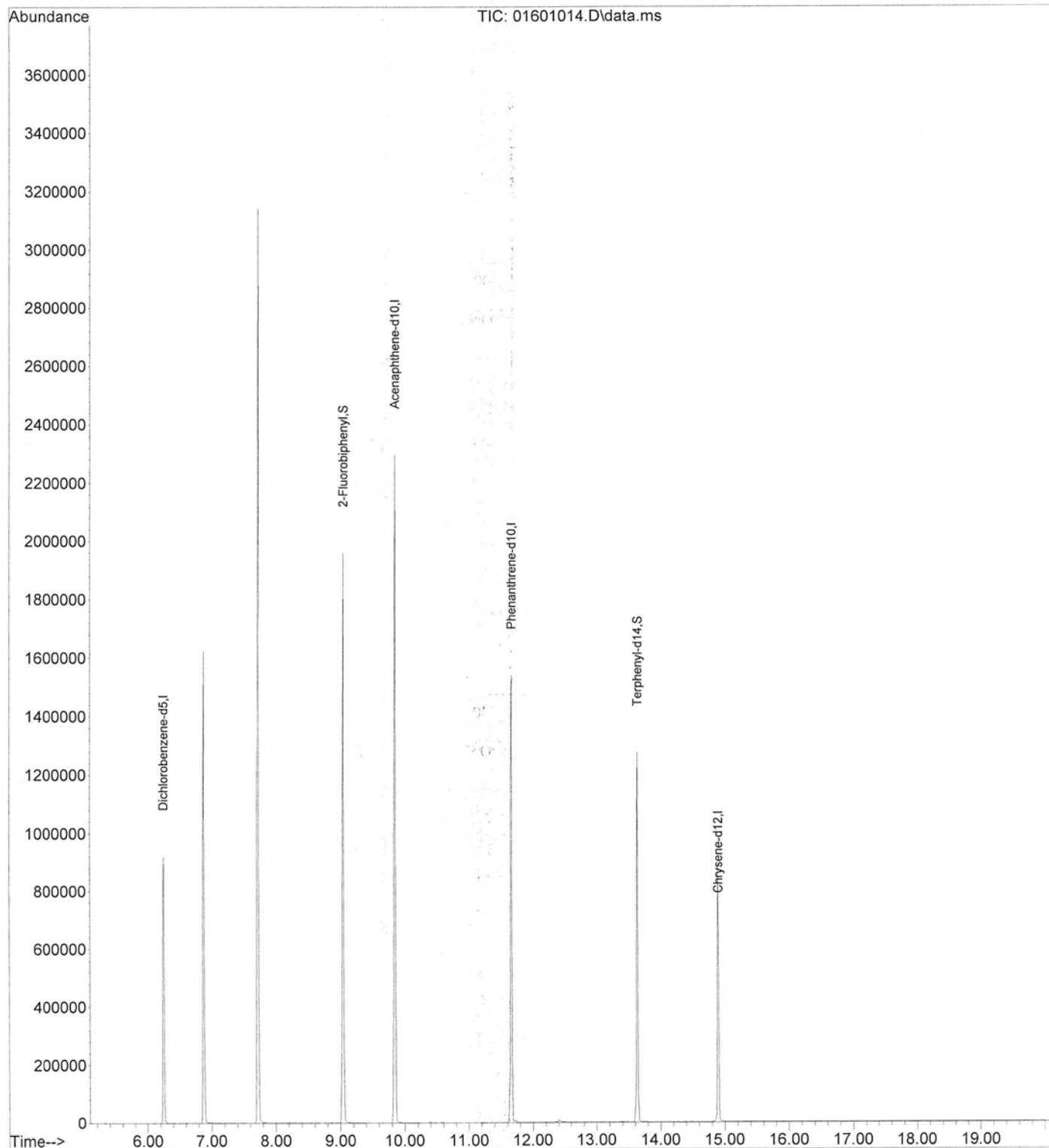
Internal Standards						
1) Dichlorobenzene-d5	6.254	150	11518036	20.00	ppm	0.00
3) Acenaphthene-d10	9.851	164	14709930	20.00	ppm	# 0.00
5) Phenanthrene-d10	11.668	188	21714706	20.00	ppm	# 0.00
8) Chrysene-d12	14.900	240	10706660	20.00	ppm	# 0.00
System Monitoring Compounds						
2) 2-Fluorobiphenyl	9.046	172	22281291	20.34	ppm	0.00
9) Terphenyl-d14	13.641	244	14640194	18.66	ppm	0.00
Spiked Amount	25.000					
			Recovery	=	74.64%	

Target Compounds	Qvalue

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : T:\Data1\MSD4\2020\SEP\29\
Data File : 01601014.D
Acq On : 29 Sep 2020 7:21 pm
Operator : TGT
Sample : WAI0678-26
Misc :
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Sep 30 09:57:47 2020
Quant Method : T:\Data1\MSD4\METHODS\2020\Cardno928.m
Quant Title : EPA 8270D - GC MSD4
QLast Update : Wed Sep 30 09:28:01 2020
Response via : Initial Calibration



Data Path : T:\Data1\MSD4\2020\SEP\29\
Data File : 01701015.D
Acq On : 29 Sep 2020 7:48 pm
Operator : TGT
Sample : WAI0844-MS1
Misc :
ALS Vial : 17 Sample Multiplier: 1

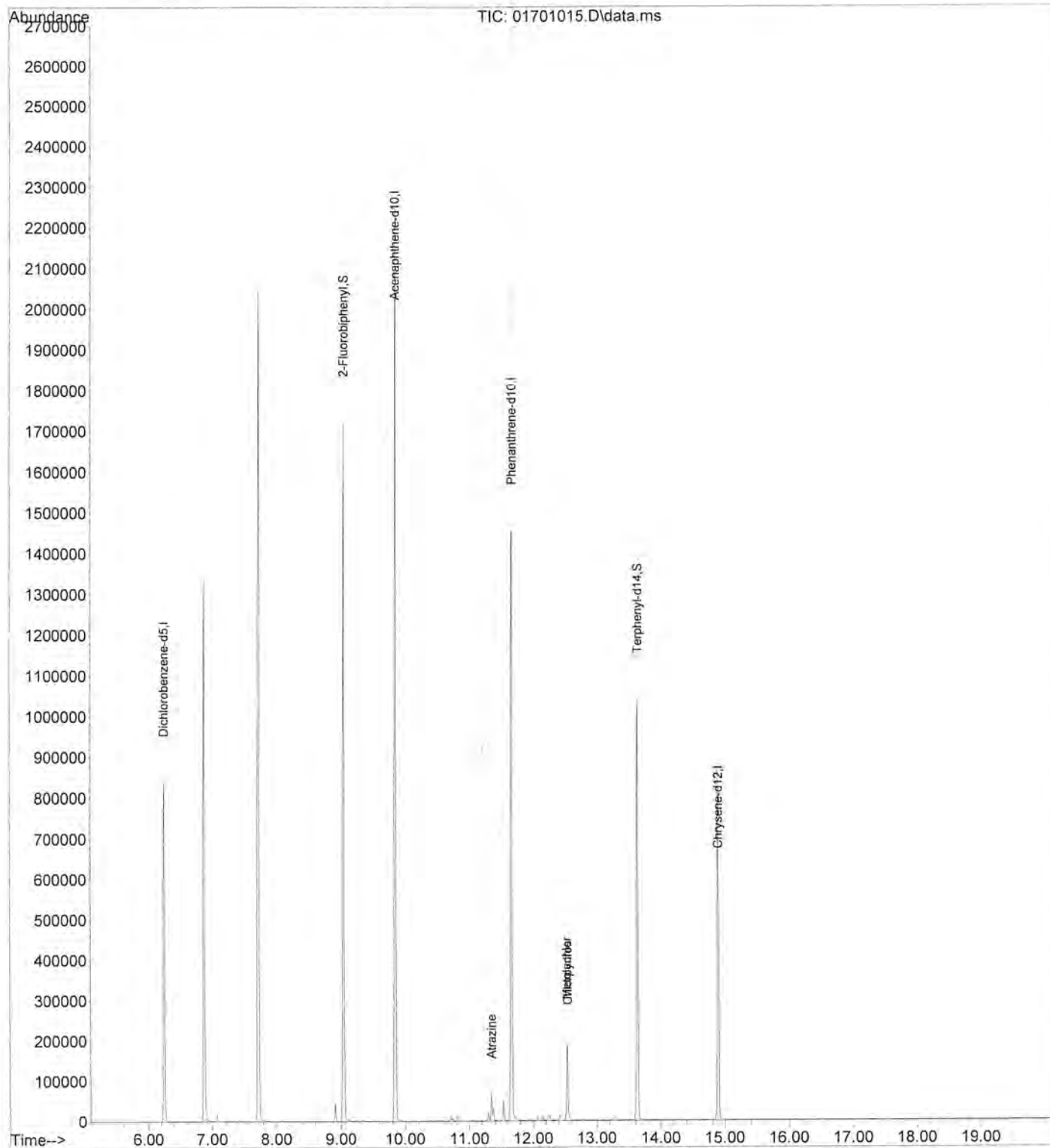
Quant Time: Sep 30 09:57:57 2020
Quant Method : T:\Data1\MSD4\METHODS\2020\Cardno928.m
Quant Title : EPA 8270D - GC MSD4
QLast Update : Wed Sep 30 09:28:01 2020
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev (Min)
Internal Standards						
1) Dichlorobenzene-d5	6.254	150	10664391	20.00	ppm	0.00
3) Acenaphthene-d10	9.851	164	13780921	20.00	ppm	# 0.00
5) Phenanthrene-d10	11.668	188	20694500	20.00	ppm	# 0.00
8) Chrysene-d12	14.899	240	10297123	20.00	ppm	# 0.00
System Monitoring Compounds						
2) 2-Fluorobiphenyl	9.046	172	18005508	17.75	ppm	0.00
9) Terphenyl-d14	13.639	244	12602650	16.70	ppm	0.00
Spiked Amount	25.000		Recovery	=	66.80%	
Target Compounds						
4) Atrazine	11.350	200	392090	1.78	ppm	# 84
6) Metolachlor	12.538	162	1151998	1.93	ppm	99
7) Chlorpyrifos	12.547	197	301253	2.10	ppm	97

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : T:\Data1\MSD4\2020\SEP\29\
Data File : 01701015.D
Acq On : 29 Sep 2020 7:48 pm
Operator : TGT
Sample : WAI0844-MS1
Misc :
ALS Vial : 17 Sample Multiplier: 1

Quant Time: Sep 30 09:57:57 2020
Quant Method : T:\Data1\MSD4\METHODS\2020\Cardno928.m
Quant Title : EPA 8270D - GC MSD4
QLast Update : Wed Sep 30 09:28:01 2020
Response via : Initial Calibration



Data Path : T:\Data1\MSD4\2020\SEP\29\
 Data File : 01801016.D
 Acq On : 29 Sep 2020 8:16 pm
 Operator : TGT
 Sample : WAI0844MSD1
 Misc :
 ALS Vial : 18 Sample Multiplier: 1

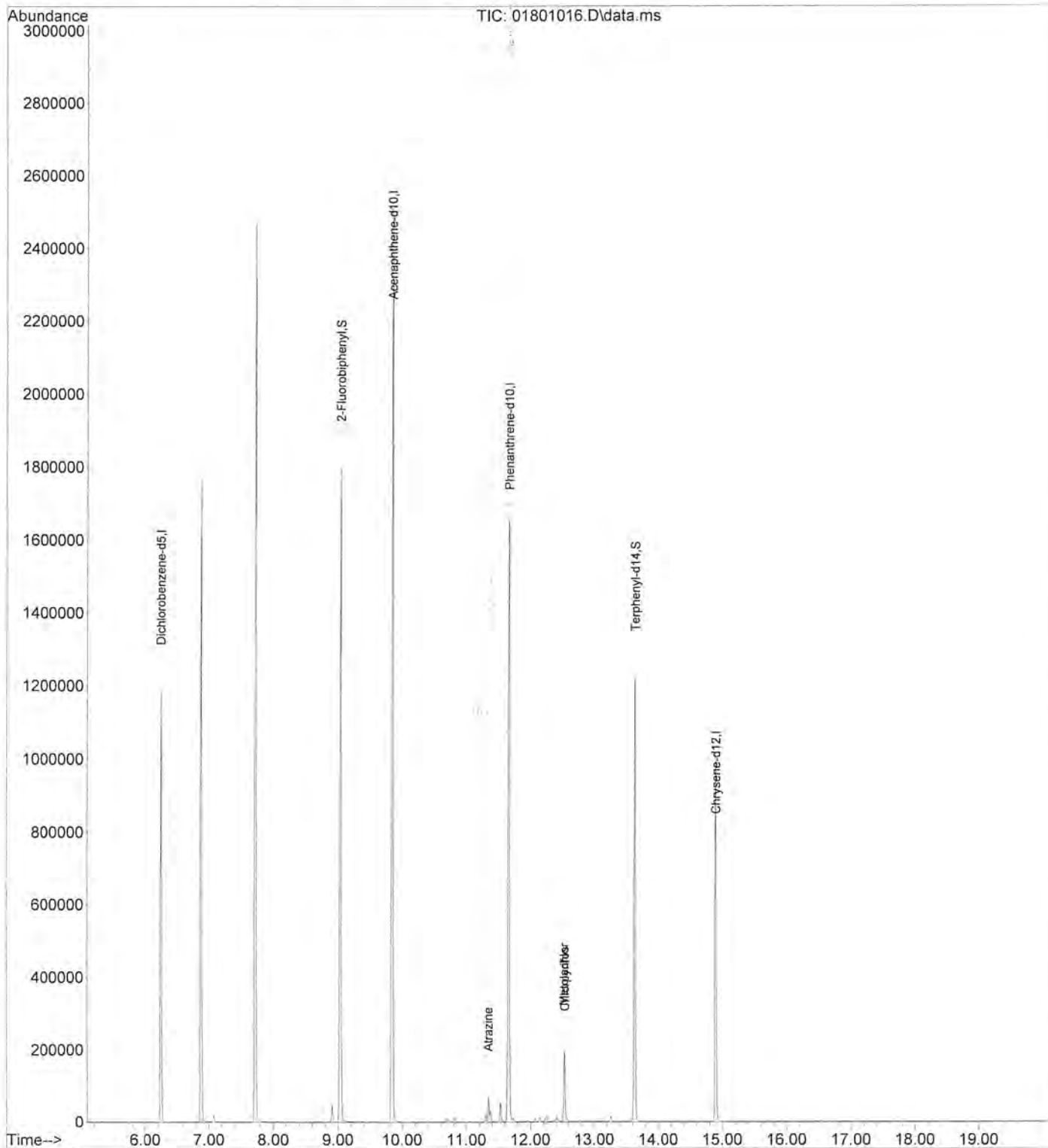
Quant Time: Sep 30 09:58:06 2020
 Quant Method : T:\Data1\MSD4\METHODS\2020\Cardno928.m
 Quant Title : EPA 8270D - GC MSD4
 QLast Update : Wed Sep 30 09:28:01 2020
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev (Min)
Internal Standards						
1) Dichlorobenzene-d5	6.256	150	12617873	20.00	ppm	0.00
3) Acenaphthene-d10	9.851	164	16085600	20.00	ppm	# 0.00
5) Phenanthrene-d10	11.668	188	23985572	20.00	ppm	# 0.00
8) Chrysene-d12	14.900	240	12216470	20.00	ppm	# 0.00
System Monitoring Compounds						
2) 2-Fluorobiphenyl	9.045	172	21839276	18.20	ppm	0.00
9) Terphenyl-d14	13.639	244	15066397	16.83	ppm	0.00
Spiked Amount	25.000		Recovery	=	67.32%	
Target Compounds						
4) Atrazine	11.350	200	402715	1.57	ppm	# 83
6) Metolachlor	12.538	162	1198675	1.74	ppm	99
7) Chlorpyrifos	12.546	197	313740	1.89	ppm	97

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : T:\Data1\MSD4\2020\SEP\29\
Data File : 01801016.D
Acq On : 29 Sep 2020 8:16 pm
Operator : TGT
Sample : WAI0844MSD1
Misc :
ALS Vial : 18 Sample Multiplier: 1

Quant Time: Sep 30 09:58:06 2020
Quant Method : T:\Data1\MSD4\METHODS\2020\Cardno928.m
Quant Title : EPA 8270D - GC MSD4
QLast Update : Wed Sep 30 09:28:01 2020
Response via : Initial Calibration



Methods: 8270C / EPA 6850 / EPA 8321B

Instrument: LC-MS-MS

Ext. Method: EPA 3535 SPE/ Liq-Solid microextraction and derivatization

Internal Standard (IS)	Solution #	Concentration (ppm)
Glyphosate- ¹³ C ₂	M441-01	10
Matrix Spiking Info (MS/MSD)	Solution #	Concentration (ppm)
Glyphosate / AMPA	2002203	25/50

Standard or Sample # (Glyphosate / AMPA)	Reaction volume	Water	Fmoc (mL)	Extract/Buffer (mL)	IS (μL)	Cal Std or Spike (μL)	Final Mult
250 ppb / 500 ppb	2 ml	0.75	0.5	0.75	10	20	
125 ppb / 250 ppb	2 ml	0.75	0.5	0.75	10	10	
50 ppb / 100 ppb	2 ml	0.75	0.5	0.75	10	4	
25 ppb / 50 ppb	2 ml	0.75	0.5	0.75	10	2	
12.5 ppb / 25 ppb	2 ml	0.75	0.5	0.75	10	1	
6.25 ppb/12.5 ppb	2 ml	0.75	0.5	0.75	10	0.5	
BAI0646-BLK1	2 ml	0.75	0.5	0.75	10	0	
BAI0646-BS1	2 ml	0.75	0.5	0.75	10	4	
MAI0350-01	2 ml	0.75	0.5	0.25/0.50	10	0	
BAI0646-MS1	2 ml	0.75	0.5	0.25/0.50	10	4	
BAI0646-MSD1	2 ml	0.75	0.5	0.25/0.50	10	4	
MAI0350-02	2 ml	0.75	0.5	0.25/0.50	10	0	
MAI0350-03	2 ml	0.75	0.5	0.25/0.50	10	0	
MAI0350-04	2 ml	0.75	0.5	0.25/0.50	10	0	
MAI0350-05	2 ml	0.75	0.5	0.25/0.50	10	0	
MAI0350-06	2 ml	0.75	0.5	0.25/0.50	10	0	
MAI0350-07	2 ml	0.75	0.5	0.25/0.50	10	0	
MAI0350-08	2 ml	0.75	0.5	0.25/0.50	10	0	
MAI0350-09	2 ml	0.75	0.5	0.25/0.50	10	0	
MAI0350-10	2 ml	0.75	0.5	0.25/0.50	10	0	
MAI0350-11	2 ml	0.75	0.5	0.25/0.50	10	0	
MAI0350-12	2 ml	0.75	0.5	0.25/0.50	10	0	
MAI0350-13	2 ml	0.75	0.5	0.25/0.50	10	0	
MAI0350-14	2 ml	0.75	0.5	0.25/0.50	10	0	
MAI0350-15	2 ml	0.75	0.5	0.25/0.50	10	0	
MAI0350-16	2 ml	0.75	0.5	0.25/0.50	10	0	
WAI0678-23	2 ml	0.75	0.5	0.25/0.50	10	0	
WAI0678-24	2 ml	0.75	0.5	0.25/0.50	10	0	
WAI0678-25	2 ml	0.75	0.5	0.25/0.50	10	0	
BAI0646-MS2	2 ml	0.75	0.5	0.25/0.50	10	4	
BAI0646-MSD2	2 ml	0.75	0.5	0.25/0.50	10	4	
WAI0678-26	2 ml	0.75	0.5	0.25/0.50	10	0	

*Sample

Sample extracts were transferred to 5 ml test tubes (stds and samples plus reagents)

Prepped samples were heated overnight at 40°C in a water bath.

Derivatized samples were diluted into well plate for analysis as follows
(100 µL 2% phosphoric acid / 700 µL water / 200 µL derivatized extract)

Reagents

FMOC – 5 mg/mL in ACN; 2% Phosphoric Acid; Buffer – 5 % Sodium Tetraborate

Sample Extraction/Homogenizer information

	Sample #	Weight (g)	Buffer amount	MULT
1	MAI0350-01	16.9	100	
2	MAI0350-02	15.7		
3	MAI0350-03	16.4		
4	MAI0350-04	16.8		
9	MAI0350-05	14.5		
10	MAI0350-06	16.0		
11	MAI0350-07	18.8		
12	MAI0350-08	17.6		
5	MAI0350-09	17.4		
6	MAI0350-10	17.1		
7	MAI0350-11	16.5		
8	MAI0350-12	17.6		
13	MAI0350-13	15.3		
14	MAI0350-14	13.1		
15	MAI0350-15	14.2		
16	MAI0350-16	13.6		
17	WAI0678-23	11.0		
18	WAI0678-24	10.9		
19	WAI0678-25	10.1		
20	WAI0678-26	10.7		

PREPARATION BENCH SHEET

Organics

Print Date/Time: 09/22/2020 1:05 pm

BAI0644

Matrix: Water

Prepared using: SVOC - Glyphosate

Analyses Glyphosate	Spiking Solution(s) 2003117 Gly/AMPA 25/50 ppm	Surrogate Solution(s)
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Lab Number	Source ID	ResCl	pH	Prepared	Initial (mL)	Final (mL)	ul Spike 1	ul Surr 1	ul Spike 2	ul Surr 2	Extraction Comments
BAI0644-BLK1	-			9/22/20 12:43							
BAI0644-BS1	-			9/22/20 12:43			4				
BAI0644-MS1	WAI0678-07			9/22/20 12:43			4				
BAI0644-MSD1	WAI0678-07			9/22/20 12:43			4				
WAI0678-05				9/22/20 12:42							
WAI0678-06				9/22/20 12:42							
WAI0678-07				9/22/20 12:42							
WAI0678-08				9/22/20 12:42							
WAI0678-09				9/22/20 12:42							

Analytical Run Date: _____

Support Equipment:

Reagents		
Standard	Description	LotNum

PREPARATION BENCH SHEET

Print Date/Time: 10/12/2020 10:37 am

Organics

BAI0646

Matrix: Solid

Prepared using: SVOC - Glyphosate

Analyses
Glyphosate Soil

Spiking Solution(s)
2003117 Gly/AMPA 25/50 ppm

Surrogate Solution(s)

Lab Number	Source ID	ResCl	pH	Prepared	Initial (g)	Final (mL)	ul Spike 1	ul Surr 1	ul Spike 2	ul Surr 2	Extraction Comments
BAI0646-BLK1	-			9/22/20 13:09							
BAI0646-BS1	-			9/22/20 13:09			200				
BAI0646-MS1	MAI0350-01			9/22/20 13:09			1600				
BAI0646-MS2	WAI0678-25			9/22/20 13:09			1600				
BAI0646-MSD1	MAI0350-01			9/22/20 13:09			1600				
BAI0646-MSD2	WAI0678-25			9/22/20 13:09			1600				
MAI0350-01				9/22/20 13:09							
MAI0350-02				9/22/20 13:09							
MAI0350-03				9/22/20 13:09							
MAI0350-04				9/22/20 13:09							
MAI0350-05				9/22/20 13:09							
MAI0350-06				9/22/20 13:09							
MAI0350-07				9/22/20 13:09							
MAI0350-08				9/22/20 13:09							
MAI0350-09				9/22/20 13:09							
MAI0350-10				9/22/20 13:09							
MAI0350-11				9/22/20 13:09							
MAI0350-12				9/22/20 13:09							
MAI0350-13				9/22/20 13:09							
MAI0350-14				9/22/20 13:09							
MAI0350-15				9/22/20 13:09							
MAI0350-16				9/22/20 13:09							
WAI0678-23				9/22/20 13:09							
WAI0678-24				9/22/20 13:09							

PREPARATION BENCH SHEET

Organics

Print Date/Time: 10/12/2020 10:37 am

BAI0646

(Continued)

Matrix: Solid

Prepared using: SVOC - Glyphosate

Analyses

Glyphosate Soil

Spiking Solution(s)

2003117 Gly/AMPA 25/50 ppm

Surrogate Solution(s)

Lab Number	Source ID	ResCl	pH	Prepared	Initial (g)	Final (mL)	ul Spike 1	ul Surr 1	ul Spike 2	ul Surr 2	Extraction Comments
WAI0678-25				9/22/20 13:09							
WAI0678-26				9/22/20 13:09							

Analytical Run Date: _____

Support Equipment: _____

Reagents

<u>Standard</u>	<u>Description</u>	<u>LotNum</u>
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	Sample Name	Sample Type	Acquisition Date	File Name	Dilution Factor	Analyte Peak Name	Analyte Peak Area (counts)	Analyte Concentration (na/mL)	IS Peak Area (counts)	Calculated Concentration (na/mL)	Accuracy (%)
1	250/500 ppb gly	Standard	9/23/2020 10:45	092320_gly\Da	1.00	Glyphosate	2.03e+006	250.	4.76e+005	253.	101.
2	250/500 ppb gly	Standard	9/23/2020 10:45	092320_gly\Da	1.00	Glyphosate1	7.80e+005	250.	4.76e+005	252.	101.
3	250/500 ppb gly	Standard	9/23/2020 10:45	092320_gly\Da	1.00	AMPA	1.67e+006	500.	4.76e+005	502.	100.
4	250/500 ppb gly	Standard	9/23/2020 10:45	092320_gly\Da	1.00	AMPA1	6.28e+005	500.	4.76e+005	502.	100.
5	125/250 ppb gly	Standard	9/23/2020 10:52	092320_gly\Da	1.00	Glyphosate	1.24e+006	125.	5.70e+005	118.	94.7
6	125/250 ppb gly	Standard	9/23/2020 10:52	092320_gly\Da	1.00	Glyphosate1	4.77e+005	125.	5.70e+005	121.	97.1
7	125/250 ppb gly	Standard	9/23/2020 10:52	092320_gly\Da	1.00	AMPA	8.94e+005	250.	5.70e+005	242.	96.8
8	125/250 ppb gly	Standard	9/23/2020 10:52	092320_gly\Da	1.00	AMPA1	3.30e+005	250.	5.70e+005	243.	97.0
9	50/100 ppb gly a	Standard	9/23/2020 10:58	092320_gly\Da	1.00	Glyphosate	5.85e+005	50.0	5.66e+005	53.8	108.
10	50/100 ppb gly a	Standard	9/23/2020 10:58	092320_gly\Da	1.00	Glyphosate1	2.08e+005	50.0	5.66e+005	51.4	103.
11	50/100 ppb gly a	Standard	9/23/2020 10:58	092320_gly\Da	1.00	AMPA	3.78e+005	100.	5.66e+005	106.	106.
12	50/100 ppb gly a	Standard	9/23/2020 10:58	092320_gly\Da	1.00	AMPA1	1.39e+005	100.	5.66e+005	107.	107.
13	25/50 ppb gly am	Standard	9/23/2020 11:05	092320_gly\Da	1.00	Glyphosate	2.64e+005	25.0	5.26e+005	25.2	101.
14	25/50 ppb gly am	Standard	9/23/2020 11:05	092320_gly\Da	1.00	Glyphosate1	1.02e+005	25.0	5.26e+005	26.1	105.
15	25/50 ppb gly am	Standard	9/23/2020 11:05	092320_gly\Da	1.00	AMPA	1.65e+005	50.0	5.26e+005	49.6	99.2
16	25/50 ppb gly am	Standard	9/23/2020 11:05	092320_gly\Da	1.00	AMPA1	5.84e+004	50.0	5.26e+005	48.3	96.6
17	12.5/25 ppb gly a	Standard	9/23/2020 11:12	092320_gly\Da	1.00	Glyphosate	1.85e+005	12.5	7.06e+005	12.6	101.
18	12.5/25 ppb gly a	Standard	9/23/2020 11:12	092320_gly\Da	1.00	Glyphosate1	6.73e+004	12.5	7.06e+005	12.2	97.7
19	12.5/25 ppb gly a	Standard	9/23/2020 11:12	092320_gly\Da	1.00	AMPA	1.16e+005	25.0	7.06e+005	24.8	99.0
20	12.5/25 ppb gly a	Standard	9/23/2020 11:12	092320_gly\Da	1.00	AMPA1	4.22e+004	25.0	7.06e+005	24.9	99.7
21	6.25/12.5 ppb gly	Standard	9/23/2020 11:19	092320_gly\Da	1.00	Glyphosate	9.60e+004	6.25	7.22e+005	5.91	94.6
22	6.25/12.5 ppb gly	Standard	9/23/2020 11:19	092320_gly\Da	1.00	Glyphosate1	3.75e+004	6.25	7.22e+005	6.08	97.2
23	6.25/12.5 ppb gly	Standard	9/23/2020 11:19	092320_gly\Da	1.00	AMPA	6.46e+004	12.5	7.22e+005	12.3	98.0
24	6.25/12.5 ppb gly	Standard	9/23/2020 11:19	092320_gly\Da	1.00	AMPA1	2.37e+004	12.5	7.22e+005	12.4	99.0
25	RINSE	Quality Cont	9/23/2020 11:25	092320_gly\Da	1.00	Glyphosate	4.45e+003	0.00	7.41e+005	< 0	N/A
26	RINSE	Quality Cont	9/23/2020 11:25	092320_gly\Da	1.00	Glyphosate1	0.00e+000	0.00	7.41e+005	No Peak	N/A
27	RINSE	Quality Cont	9/23/2020 11:25	092320_gly\Da	1.00	AMPA	0.00e+000	0.00	7.41e+005	No Peak	N/A
28	RINSE	Quality Cont	9/23/2020 11:25	092320_gly\Da	1.00	AMPA1	0.00e+000	0.00	7.41e+005	No Peak	N/A
	BAI0644-BLK1	Quality Cont	9/23/2020 11:32	092320_gly\Da	1.00	Glyphosate	0.00e+000	0.00	7.64e+005	No Peak	N/A
	BAI0644-BLK1	Quality Cont	9/23/2020 11:32	092320_gly\Da	1.00	Glyphosate1	0.00e+000	0.00	7.64e+005	No Peak	N/A

	Sample Name	Sample Type	Acquisition Date	File Name	Dilution Factor	Analyte Peak Name	Analyte Peak Area (counts)	Analyte Concentration (ng/mL)	IS Peak Area (counts)	Calculated Concentration (ng/mL)	Accuracy (%)
31	BAI0644-BLK1	Quality Cont	9/23/2020 11:32	092320_gly\Da	1.00	AMPA	0.00e+000	0.00	7.64e+005	No Peak	N/A
32	BAI0644-BLK1	Quality Cont	9/23/2020 11:32	092320_gly\Da	1.00	AMPA1	0.00e+000	0.00	7.64e+005	No Peak	N/A
33	BAI0644-BS1	Quality Cont	9/23/2020 11:39	092320_gly\Da	1.00	Glyphosate	5.65e+005	50.0	6.39e+005	45.7	91.3
34	BAI0644-BS1	Quality Cont	9/23/2020 11:39	092320_gly\Da	1.00	Glyphosate1	2.12e+005	50.0	6.39e+005	46.1	92.2
35	BAI0644-BS1	Quality Cont	9/23/2020 11:39	092320_gly\Da	1.00	AMPA	3.83e+005	100.	6.39e+005	95.6	95.6
36	BAI0644-BS1	Quality Cont	9/23/2020 11:39	092320_gly\Da	1.00	AMPA1	1.41e+005	100.	6.39e+005	96.7	96.7
37	BAI0644-MS1	Quality Cont	9/23/2020 11:46	092320_gly\Da	1.00	Glyphosate	1.37e+005	50.0	1.55e+005	45.6	91.2
38	BAI0644-MS1	Quality Cont	9/23/2020 11:46	092320_gly\Da	1.00	Glyphosate1	4.97e+004	50.0	1.55e+005	44.4	88.8
39	BAI0644-MS1	Quality Cont	9/23/2020 11:46	092320_gly\Da	1.00	AMPA	1.40e+005	100.	1.55e+005	143.	143.
40	BAI0644-MS1	Quality Cont	9/23/2020 11:46	092320_gly\Da	1.00	AMPA1	5.17e+004	100.	1.55e+005	145.	145.
41	BAI0644-MSD1	Quality Cont	9/23/2020 11:52	092320_gly\Da	1.00	Glyphosate	1.34e+005	50.0	1.54e+005	45.0	90.0
42	BAI0644-MSD1	Quality Cont	9/23/2020 11:52	092320_gly\Da	1.00	Glyphosate1	5.12e+004	50.0	1.54e+005	46.2	92.3
43	BAI0644-MSD1	Quality Cont	9/23/2020 11:52	092320_gly\Da	1.00	AMPA	1.34e+005	100.	1.54e+005	138.	138.
44	BAI0644-MSD1	Quality Cont	9/23/2020 11:52	092320_gly\Da	1.00	AMPA1	4.90e+004	100.	1.54e+005	138.	138.
45	WAI0678-05	Unknown	9/23/2020 11:59	092320_gly\Da	1.00	Glyphosate	0.00e+000	N/A	1.31e+005	No Peak	N/A
46	WAI0678-05	Unknown	9/23/2020 11:59	092320_gly\Da	1.00	Glyphosate1	0.00e+000	N/A	1.31e+005	No Peak	N/A
47	WAI0678-05	Unknown	9/23/2020 11:59	092320_gly\Da	1.00	AMPA	0.00e+000	N/A	1.31e+005	No Peak	N/A
48	WAI0678-05	Unknown	9/23/2020 11:59	092320_gly\Da	1.00	AMPA1	0.00e+000	N/A	1.31e+005	No Peak	N/A
49	WAI0678-06	Unknown	9/23/2020 12:06	092320_gly\Da	1.00	Glyphosate	5.99e+002	N/A	5.13e+004	< 0	N/A
50	WAI0678-06	Unknown	9/23/2020 12:06	092320_gly\Da	1.00	Glyphosate1	0.00e+000	N/A	5.13e+004	No Peak	N/A
51	WAI0678-06	Unknown	9/23/2020 12:06	092320_gly\Da	1.00	AMPA	0.00e+000	N/A	5.13e+004	No Peak	N/A
52	WAI0678-06	Unknown	9/23/2020 12:06	092320_gly\Da	1.00	AMPA1	0.00e+000	N/A	5.13e+004	No Peak	N/A
53	WAI0678-08	Unknown	9/23/2020 12:19	092320_gly\Da	1.00	Glyphosate	0.00e+000	N/A	3.51e+004	No Peak	N/A
54	WAI0678-08	Unknown	9/23/2020 12:19	092320_gly\Da	1.00	Glyphosate1	0.00e+000	N/A	3.51e+004	No Peak	N/A
55	WAI0678-08	Unknown	9/23/2020 12:19	092320_gly\Da	1.00	AMPA	0.00e+000	N/A	3.51e+004	No Peak	N/A
56	WAI0678-08	Unknown	9/23/2020 12:19	092320_gly\Da	1.00	AMPA1	0.00e+000	N/A	3.51e+004	No Peak	N/A
57	WAI0678-09	Unknown	9/23/2020 12:26	092320_gly\Da	1.00	Glyphosate	0.00e+000	N/A	5.46e+005	No Peak	N/A
58	WAI0678-09	Unknown	9/23/2020 12:26	092320_gly\Da	1.00	Glyphosate1	0.00e+000	N/A	5.46e+005	No Peak	N/A
59	WAI0678-09	Unknown	9/23/2020 12:26	092320_gly\Da	1.00	AMPA	0.00e+000	N/A	5.46e+005	No Peak	N/A
60	WAI0678-09	Unknown	9/23/2020 12:26	092320_gly\Da	1.00	AMPA1	0.00e+000	N/A	5.46e+005	No Peak	N/A

	Sample Name	Sample Type	Acquisition Date	File Name	Dilution Factor	Analyte Peak Name	Analyte Peak Area (counts)	Analyte Concentration (na/mL)	IS Peak Area (counts)	Calculated Concentration (na/mL)	Accuracy (%)
61	CCV 25/50 ppb	Quality Cont	9/23/2020 12:33	092320_gly\Da	1.00	Glyphosate	2.38e+005	25.0	5.38e+005	22.1	88.4
62	CCV 25/50 ppb	Quality Cont	9/23/2020 12:33	092320_gly\Da	1.00	Glyphosate1	8.75e+004	25.0	5.38e+005	21.8	87.1
63	CCV 25/50 ppb	Quality Cont	9/23/2020 12:33	092320_gly\Da	1.00	AMPA	1.61e+005	50.0	5.38e+005	47.0	93.9
64	CCV 25/50 ppb	Quality Cont	9/23/2020 12:33	092320_gly\Da	1.00	AMPA1	5.58e+004	50.0	5.38e+005	45.0	90.0
65	BAI0646-BLK1	Unknown	9/23/2020 12:40	092320_gly\Da	1.00	Glyphosate	5.87e+003	N/A	6.33e+005	< 0	N/A
66	BAI0646-BLK1	Unknown	9/23/2020 12:40	092320_gly\Da	1.00	Glyphosate1	0.00e+000	N/A	6.33e+005	No Peak	N/A
67	BAI0646-BLK1	Unknown	9/23/2020 12:40	092320_gly\Da	1.00	AMPA	0.00e+000	N/A	6.33e+005	No Peak	N/A
68	BAI0646-BLK1	Unknown	9/23/2020 12:40	092320_gly\Da	1.00	AMPA1	0.00e+000	N/A	6.33e+005	No Peak	N/A
69	BAI0646-BS1	Quality Cont	9/23/2020 12:46	092320_gly\Da	1.00	Glyphosate	6.04e+005	50.0	6.74e+005	46.3	92.6
70	BAI0646-BS1	Quality Cont	9/23/2020 12:46	092320_gly\Da	1.00	Glyphosate1	2.23e+005	50.0	6.74e+005	46.1	92.1
71	BAI0646-BS1	Quality Cont	9/23/2020 12:46	092320_gly\Da	1.00	AMPA	3.99e+005	100.	6.74e+005	94.4	94.4
72	BAI0646-BS1	Quality Cont	9/23/2020 12:46	092320_gly\Da	1.00	AMPA1	1.47e+005	100.	6.74e+005	95.9	95.9
73	MAI0350-01	Unknown	9/23/2020 12:53	092320_gly\Da	1.00	Glyphosate	5.86e+004	N/A	3.60e+005	7.47	N/A
74	MAI0350-01	Unknown	9/23/2020 12:53	092320_gly\Da	1.00	Glyphosate1	1.67e+004	N/A	3.60e+005	5.30	N/A
75	MAI0350-01	Unknown	9/23/2020 12:53	092320_gly\Da	1.00	AMPA	3.86e+003	N/A	3.60e+005	< 0	N/A
76	MAI0350-01	Unknown	9/23/2020 12:53	092320_gly\Da	1.00	AMPA1	0.00e+000	N/A	3.60e+005	No Peak	N/A
77	BAI0646-MS1	Quality Cont	9/23/2020 1:00:	092320_gly\Da	1.00	Glyphosate	4.01e+005	50.0	3.98e+005	52.4	105.
78	BAI0646-MS1	Quality Cont	9/23/2020 1:00:	092320_gly\Da	1.00	Glyphosate1	1.50e+005	50.0	3.98e+005	52.7	105.
79	BAI0646-MS1	Quality Cont	9/23/2020 1:00:	092320_gly\Da	1.00	AMPA	1.71e+005	100.	3.98e+005	68.2	68.2
80	BAI0646-MS1	Quality Cont	9/23/2020 1:00:	092320_gly\Da	1.00	AMPA1	6.09e+004	100.	3.98e+005	67.2	67.2
81	BAI0646-MSD1	Quality Cont	9/23/2020 1:07:	092320_gly\Da	1.00	Glyphosate	3.69e+005	50.0	3.67e+005	52.2	104.
82	BAI0646-MSD1	Quality Cont	9/23/2020 1:07:	092320_gly\Da	1.00	Glyphosate1	1.31e+005	50.0	3.67e+005	49.8	99.6
83	BAI0646-MSD1	Quality Cont	9/23/2020 1:07:	092320_gly\Da	1.00	AMPA	1.61e+005	100.	3.67e+005	69.8	69.8
84	BAI0646-MSD1	Quality Cont	9/23/2020 1:07:	092320_gly\Da	1.00	AMPA1	5.96e+004	100.	3.67e+005	71.2	71.2
85	MAI0350-02	Unknown	9/23/2020 1:14:	092320_gly\Da	1.00	Glyphosate	5.96e+004	N/A	4.49e+005	5.90	N/A
86	MAI0350-02	Unknown	9/23/2020 1:14:	092320_gly\Da	1.00	Glyphosate1	1.86e+004	N/A	4.49e+005	4.61	N/A
87	MAI0350-02	Unknown	9/23/2020 1:14:	092320_gly\Da	1.00	AMPA	5.92e+003	N/A	4.49e+005	< 0	N/A
88	MAI0350-02	Unknown	9/23/2020 1:14:	092320_gly\Da	1.00	AMPA1	1.13e+003	N/A	4.49e+005	< 0	N/A
89	MAI0350-03	Unknown	9/23/2020 1:20:	092320_gly\Da	1.00	Glyphosate	1.77e+004	N/A	4.62e+005	1.03	N/A
90	MAI0350-03	Unknown	9/23/2020 1:20:	092320_gly\Da	1.00	Glyphosate1	4.18e+003	N/A	4.62e+005	0.0604	N/A

	Sample Name	Sample Type	Acquisition Date	File Name	Dilution Factor	Analyte Peak Name	Analyte Peak Area (counts)	Analyte Concentration (na/mL)	IS Peak Area (counts)	Calculated Concentration (na/mL)	Accuracy (%)
91	MAI0350-03	Unknown	9/23/2020 1:20:	092320_gly\Da	1.00	AMPA	4.53e+003	N/A	4.62e+005	< 0	N/A
92	MAI0350-03	Unknown	9/23/2020 1:20:	092320_gly\Da	1.00	AMPA1	0.00e+000	N/A	4.62e+005	No Peak	N/A
93	MAI0350-04	Unknown	9/23/2020 1:27:	092320_gly\Da	1.00	Glyphosate	1.21e+004	N/A	4.09e+005	0.583	N/A
94	MAI0350-04	Unknown	9/23/2020 1:27:	092320_gly\Da	1.00	Glyphosate1	2.10e+003	N/A	4.09e+005	< 0	N/A
95	MAI0350-04	Unknown	9/23/2020 1:27:	092320_gly\Da	1.00	AMPA	0.00e+000	N/A	4.09e+005	No Peak	N/A
96	MAI0350-04	Unknown	9/23/2020 1:27:	092320_gly\Da	1.00	AMPA1	0.00e+000	N/A	4.09e+005	No Peak	N/A
97	MAI0350-05	Unknown	9/23/2020 1:34:	092320_gly\Da	1.00	Glyphosate	1.38e+003	N/A	8.22e+004	< 0	N/A
98	MAI0350-05	Unknown	9/23/2020 1:34:	092320_gly\Da	1.00	Glyphosate1	0.00e+000	N/A	8.22e+004	No Peak	N/A
99	MAI0350-05	Unknown	9/23/2020 1:34:	092320_gly\Da	1.00	AMPA	0.00e+000	N/A	8.22e+004	No Peak	N/A
100	MAI0350-05	Unknown	9/23/2020 1:34:	092320_gly\Da	1.00	AMPA1	0.00e+000	N/A	8.22e+004	No Peak	N/A
101	MAI0350-06	Unknown	9/23/2020 1:41:	092320_gly\Da	1.00	Glyphosate	8.60e+002	N/A	4.84e+004	< 0	N/A
102	MAI0350-06	Unknown	9/23/2020 1:41:	092320_gly\Da	1.00	Glyphosate1	2.36e+002	N/A	4.84e+004	< 0	N/A
103	MAI0350-06	Unknown	9/23/2020 1:41:	092320_gly\Da	1.00	AMPA	0.00e+000	N/A	4.84e+004	No Peak	N/A
104	MAI0350-06	Unknown	9/23/2020 1:41:	092320_gly\Da	1.00	AMPA1	0.00e+000	N/A	4.84e+004	No Peak	N/A
105	MAI0350-07	Unknown	9/23/2020 1:47:	092320_gly\Da	1.00	Glyphosate	4.77e+002	N/A	4.67e+004	< 0	N/A
106	MAI0350-07	Unknown	9/23/2020 1:47:	092320_gly\Da	1.00	Glyphosate1	0.00e+000	N/A	4.67e+004	No Peak	N/A
107	MAI0350-07	Unknown	9/23/2020 1:47:	092320_gly\Da	1.00	AMPA	0.00e+000	N/A	4.67e+004	No Peak	N/A
108	MAI0350-07	Unknown	9/23/2020 1:47:	092320_gly\Da	1.00	AMPA1	0.00e+000	N/A	4.67e+004	No Peak	N/A
109	MAI0350-08	Unknown	9/23/2020 2:14:	092320_gly\Da	1.00	Glyphosate	1.62e+002	N/A	5.59e+004	< 0	N/A
110	MAI0350-08	Unknown	9/23/2020 2:14:	092320_gly\Da	1.00	Glyphosate1	0.00e+000	N/A	5.59e+004	No Peak	N/A
111	MAI0350-08	Unknown	9/23/2020 2:14:	092320_gly\Da	1.00	AMPA	0.00e+000	N/A	5.59e+004	No Peak	N/A
112	MAI0350-08	Unknown	9/23/2020 2:14:	092320_gly\Da	1.00	AMPA1	0.00e+000	N/A	5.59e+004	No Peak	N/A
113	MAI0350-09	Unknown	9/23/2020 2:21:	092320_gly\Da	1.00	Glyphosate	4.93e+003	N/A	3.12e+005	< 0	N/A
114	MAI0350-09	Unknown	9/23/2020 2:21:	092320_gly\Da	1.00	Glyphosate1	0.00e+000	N/A	3.12e+005	No Peak	N/A
115	MAI0350-09	Unknown	9/23/2020 2:21:	092320_gly\Da	1.00	AMPA	0.00e+000	N/A	3.12e+005	No Peak	N/A
116	MAI0350-09	Unknown	9/23/2020 2:21:	092320_gly\Da	1.00	AMPA1	0.00e+000	N/A	3.12e+005	No Peak	N/A
117	MAI0350-10	Unknown	9/23/2020 2:28:	092320_gly\Da	1.00	Glyphosate	8.52e+003	N/A	3.22e+005	0.424	N/A
118	MAI0350-10	Unknown	9/23/2020 2:28:	092320_gly\Da	1.00	Glyphosate1	2.29e+003	N/A	3.22e+005	< 0	N/A
	MAI0350-10	Unknown	9/23/2020 2:28:	092320_gly\Da	1.00	AMPA	0.00e+000	N/A	3.22e+005	No Peak	N/A
	MAI0350-10	Unknown	9/23/2020 2:28:	092320_gly\Da	1.00	AMPA1	0.00e+000	N/A	3.22e+005	No Peak	N/A

	Sample Name	Sample Type	Acquisition Date	File Name	Dilution Factor	Analyte Peak Name	Analyte Peak Area (counts)	Analyte Concentration (na/mL)	IS Peak Area (counts)	Calculated Concentration (na/mL)	Accuracy (%)
121	MAI0350-11	Unknown	9/23/2020 2:35:	092320_gly\Da	1.00	Glyphosate	9.13e+003	N/A	4.28e+005	0.159	N/A
122	MAI0350-11	Unknown	9/23/2020 2:35:	092320_gly\Da	1.00	Glyphosate1	0.00e+000	N/A	4.28e+005	No Peak	N/A
123	MAI0350-11	Unknown	9/23/2020 2:35:	092320_gly\Da	1.00	AMPA	0.00e+000	N/A	4.28e+005	No Peak	N/A
124	MAI0350-11	Unknown	9/23/2020 2:35:	092320_gly\Da	1.00	AMPA1	0.00e+000	N/A	4.28e+005	No Peak	N/A
125	MAI0350-12	Unknown	9/23/2020 2:41:	092320_gly\Da	1.00	Glyphosate	7.87e+003	N/A	3.97e+005	0.0829	N/A
126	MAI0350-12	Unknown	9/23/2020 2:41:	092320_gly\Da	1.00	Glyphosate1	0.00e+000	N/A	3.97e+005	No Peak	N/A
127	MAI0350-12	Unknown	9/23/2020 2:41:	092320_gly\Da	1.00	AMPA	0.00e+000	N/A	3.97e+005	No Peak	N/A
128	MAI0350-12	Unknown	9/23/2020 2:41:	092320_gly\Da	1.00	AMPA1	0.00e+000	N/A	3.97e+005	No Peak	N/A
129	MAI0350-13	Unknown	9/23/2020 2:48:	092320_gly\Da	1.00	Glyphosate	9.28e+002	N/A	2.40e+005	< 0	N/A
130	MAI0350-13	Unknown	9/23/2020 2:48:	092320_gly\Da	1.00	Glyphosate1	0.00e+000	N/A	2.40e+005	No Peak	N/A
131	MAI0350-13	Unknown	9/23/2020 2:48:	092320_gly\Da	1.00	AMPA	0.00e+000	N/A	2.40e+005	No Peak	N/A
132	MAI0350-13	Unknown	9/23/2020 2:48:	092320_gly\Da	1.00	AMPA1	0.00e+000	N/A	2.40e+005	No Peak	N/A
133	MAI0350-14	Unknown	9/23/2020 2:55:	092320_gly\Da	1.00	Glyphosate	8.08e+002	N/A	1.39e+005	< 0	N/A
134	MAI0350-14	Unknown	9/23/2020 2:55:	092320_gly\Da	1.00	Glyphosate1	3.42e+003	N/A	1.39e+005	2.24	N/A
135	MAI0350-14	Unknown	9/23/2020 2:55:	092320_gly\Da	1.00	AMPA	0.00e+000	N/A	1.39e+005	No Peak	N/A
136	MAI0350-14	Unknown	9/23/2020 2:55:	092320_gly\Da	1.00	AMPA1	0.00e+000	N/A	1.39e+005	No Peak	N/A
137	MAI0350-15	Unknown	9/23/2020 3:02:	092320_gly\Da	1.00	Glyphosate	9.26e+002	N/A	8.09e+004	< 0	N/A
138	MAI0350-15	Unknown	9/23/2020 3:02:	092320_gly\Da	1.00	Glyphosate1	0.00e+000	N/A	8.09e+004	No Peak	N/A
139	MAI0350-15	Unknown	9/23/2020 3:02:	092320_gly\Da	1.00	AMPA	0.00e+000	N/A	8.09e+004	No Peak	N/A
140	MAI0350-15	Unknown	9/23/2020 3:02:	092320_gly\Da	1.00	AMPA1	0.00e+000	N/A	8.09e+004	No Peak	N/A
141	MAI0350-16	Unknown	9/23/2020 3:08:	092320_gly\Da	1.00	Glyphosate	3.28e+002	N/A	1.51e+005	< 0	N/A
142	MAI0350-16	Unknown	9/23/2020 3:08:	092320_gly\Da	1.00	Glyphosate1	0.00e+000	N/A	1.51e+005	No Peak	N/A
143	MAI0350-16	Unknown	9/23/2020 3:08:	092320_gly\Da	1.00	AMPA	0.00e+000	N/A	1.51e+005	No Peak	N/A
144	MAI0350-16	Unknown	9/23/2020 3:08:	092320_gly\Da	1.00	AMPA1	0.00e+000	N/A	1.51e+005	No Peak	N/A
145	WAI0678-23	Unknown	9/23/2020 3:15:	092320_gly\Da	1.00	Glyphosate	0.00e+000	N/A	5.35e+005	No Peak	N/A
146	WAI0678-23	Unknown	9/23/2020 3:15:	092320_gly\Da	1.00	Glyphosate1	0.00e+000	N/A	5.35e+005	No Peak	N/A
147	WAI0678-23	Unknown	9/23/2020 3:15:	092320_gly\Da	1.00	AMPA	0.00e+000	N/A	5.35e+005	No Peak	N/A
148	WAI0678-23	Unknown	9/23/2020 3:15:	092320_gly\Da	1.00	AMPA1	0.00e+000	N/A	5.35e+005	No Peak	N/A
	WAI0678-24	Unknown	9/23/2020 3:22:	092320_gly\Da	1.00	Glyphosate	5.04e+003	N/A	4.35e+005	< 0	N/A
	WAI0678-24	Unknown	9/23/2020 3:22:	092320_gly\Da	1.00	Glyphosate1	0.00e+000	N/A	4.35e+005	No Peak	N/A

	Sample Name	Sample Type	Acquisition Date	File Name	Dilution Factor	Analyte Peak Name	Analyte Peak Area (counts)	Analyte Concentration (ng/mL)	IS Peak Area (counts)	Calculated Concentration (ng/mL)	Accuracy (%)
151	WAI0678-24	Unknown	9/23/2020 3:22:	092320_gly\Da	1.00	AMPA	0.00e+000	N/A	4.35e+005	No Peak	N/A
152	WAI0678-24	Unknown	9/23/2020 3:22:	092320_gly\Da	1.00	AMPA1	0.00e+000	N/A	4.35e+005	No Peak	N/A
153	WAI0678-25	Unknown	9/23/2020 3:28:	092320_gly\Da	1.00	Glyphosate	0.00e+000	N/A	5.23e+005	No Peak	N/A
154	WAI0678-25	Unknown	9/23/2020 3:28:	092320_gly\Da	1.00	Glyphosate1	0.00e+000	N/A	5.23e+005	No Peak	N/A
155	WAI0678-25	Unknown	9/23/2020 3:28:	092320_gly\Da	1.00	AMPA	0.00e+000	N/A	5.23e+005	No Peak	N/A
156	WAI0678-25	Unknown	9/23/2020 3:28:	092320_gly\Da	1.00	AMPA1	0.00e+000	N/A	5.23e+005	No Peak	N/A
157	BAI0646-MS2	Quality Cont	9/23/2020 3:35:	092320_gly\Da	1.00	Glyphosate	4.74e+005	50.0	5.39e+005	45.5	90.9
158	BAI0646-MS2	Quality Cont	9/23/2020 3:35:	092320_gly\Da	1.00	Glyphosate1	1.76e+005	50.0	5.39e+005	45.3	90.5
159	BAI0646-MS2	Quality Cont	9/23/2020 3:35:	092320_gly\Da	1.00	AMPA	2.99e+005	100.	5.39e+005	88.4	88.4
160	BAI0646-MS2	Quality Cont	9/23/2020 3:35:	092320_gly\Da	1.00	AMPA1	1.13e+005	100.	5.39e+005	91.6	91.6
161	BAI0646-MSD1	Quality Cont	9/23/2020 3:42:	092320_gly\Da	1.00	Glyphosate	4.51e+005	50.0	5.41e+005	43.0	86.0
162	BAI0646-MSD1	Quality Cont	9/23/2020 3:42:	092320_gly\Da	1.00	Glyphosate1	1.75e+005	50.0	5.41e+005	45.0	90.0
163	BAI0646-MSD1	Quality Cont	9/23/2020 3:42:	092320_gly\Da	1.00	AMPA	2.98e+005	100.	5.41e+005	87.8	87.8
164	BAI0646-MSD1	Quality Cont	9/23/2020 3:42:	092320_gly\Da	1.00	AMPA1	1.08e+005	100.	5.41e+005	87.8	87.8
165	WAI0678-26	Unknown	9/23/2020 3:49:	092320_gly\Da	1.00	Glyphosate	2.42e+003	N/A	5.41e+005	< 0	N/A
166	WAI0678-26	Unknown	9/23/2020 3:49:	092320_gly\Da	1.00	Glyphosate1	0.00e+000	N/A	5.41e+005	No Peak	N/A
167	WAI0678-26	Unknown	9/23/2020 3:49:	092320_gly\Da	1.00	AMPA	0.00e+000	N/A	5.41e+005	No Peak	N/A
168	WAI0678-26	Unknown	9/23/2020 3:49:	092320_gly\Da	1.00	AMPA1	0.00e+000	N/A	5.41e+005	No Peak	N/A
169	CCV 25/50 ppb	Quality Cont	9/23/2020 3:56:	092320_gly\Da	1.00	Glyphosate	2.60e+005	25.0	5.52e+005	23.6	94.3
170	CCV 25/50 ppb	Quality Cont	9/23/2020 3:56:	092320_gly\Da	1.00	Glyphosate1	9.74e+004	25.0	5.52e+005	23.7	94.9
171	CCV 25/50 ppb	Quality Cont	9/23/2020 3:56:	092320_gly\Da	1.00	AMPA	1.78e+005	50.0	5.52e+005	50.7	101.
172	CCV 25/50 ppb	Quality Cont	9/23/2020 3:56:	092320_gly\Da	1.00	AMPA1	6.55e+004	50.0	5.52e+005	51.7	103.

PREPARATION BENCH SHEET

Print Date/Time: 10/28/2020 4:06 pm

Organics

BAJ0831

Matrix: Water

Prepared using: SVOC - Glyphosate

Analyses

Glyphosate

Spiking Solution(s)

2003117 Gly/AMPA 25/50 ppm

Surrogate Solution(s)

Lab Number	Source ID	ResCl	pH	Prepared	Initial (mL)	Final (mL)	ul Spike 1	ul Surr 1	ul Spike 2	ul Surr 2	Extraction Comments
BAJ0831-BLK1	-			10/22/20 9:00							
BAJ0831-BS1	-			10/22/20 9:00			20				
BAJ0831-MS1	WAI0678-07			10/22/20 9:00			20				
BAJ0831-MSD1	WAI0678-07			10/22/20 9:00			20				
WAI0678-07				10/22/20 9:00							

Analytical Run Date: _____

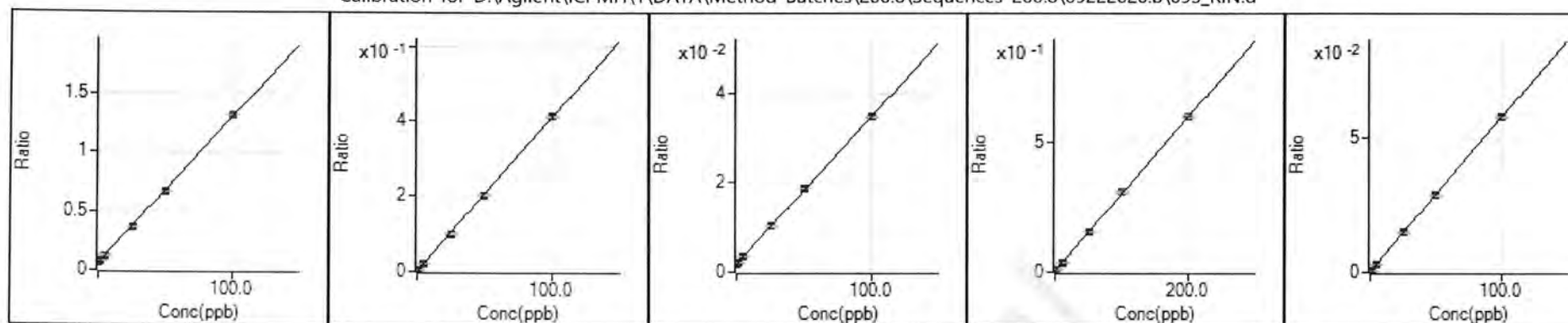
Support Equipment:

Reagents

<u>Standard</u>	<u>Description</u>	<u>LotNum</u>
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	Sample Name	Sample Type	Acquisition Date	File Name	Dilution Factor	Analyte Peak Name	Analyte Peak Area (counts)	Analyte Concentration (na/)	IS Peak Area (counts)	Calculated Concentration (na/mL)	Accuracy (%)
1	250/500 ppb gly	Standard	10/28/2020 10:40:2	102820_gly\	1.00	Glyphosate	4.98e+005	250.	1.76e+004	257.	103.
2	250/500 ppb gly	Standard	10/28/2020 10:40:2	102820_gly\	1.00	Glyphosate1	1.73e+005	250.	1.76e+004	256.	102.
3	250/500 ppb gly	Standard	10/28/2020 10:40:2	102820_gly\	1.00	AMPA	4.58e+005	500.	1.76e+004	503.	101.
4	250/500 ppb gly	Standard	10/28/2020 10:40:2	102820_gly\	1.00	AMPA1	1.72e+005	500.	1.76e+004	503.	101.
5	125/250 ppb gly	Standard	10/28/2020 10:47:0	102820_gly\	1.00	Glyphosate	2.61e+005	125.	1.79e+004	112.	89.8
6	125/250 ppb gly	Standard	10/28/2020 10:47:0	102820_gly\	1.00	Glyphosate1	1.02e+005	125.	1.79e+004	117.	93.9
7	125/250 ppb gly	Standard	10/28/2020 10:47:0	102820_gly\	1.00	AMPA	2.13e+005	250.	1.79e+004	242.	96.9
8	125/250 ppb gly	Standard	10/28/2020 10:47:0	102820_gly\	1.00	AMPA1	8.26e+004	250.	1.79e+004	244.	97.4
9	50/100 ppb gly a	Standard	10/28/2020 10:53:5	102820_gly\	1.00	Glyphosate	1.27e+005	50.0	1.70e+004	53.6	107.
10	50/100 ppb gly a	Standard	10/28/2020 10:53:5	102820_gly\	1.00	Glyphosate1	4.74e+004	50.0	1.70e+004	52.3	105.
11	50/100 ppb gly a	Standard	10/28/2020 10:53:5	102820_gly\	1.00	AMPA	8.56e+004	100.	1.70e+004	104.	104.
12	50/100 ppb gly a	Standard	10/28/2020 10:53:5	102820_gly\	1.00	AMPA1	3.21e+004	100.	1.70e+004	100.	100.
13	25/50 ppb gly a	Standard	10/28/2020 11:00:4	102820_gly\	1.00	Glyphosate	6.77e+004	25.0	1.61e+004	28.7	115.
14	25/50 ppb gly a	Standard	10/28/2020 11:00:4	102820_gly\	1.00	Glyphosate1	2.40e+004	25.0	1.61e+004	26.7	107.
15	25/50 ppb gly a	Standard	10/28/2020 11:00:4	102820_gly\	1.00	AMPA	4.19e+004	50.0	1.61e+004	52.6	105.
16	25/50 ppb gly a	Standard	10/28/2020 11:00:4	102820_gly\	1.00	AMPA1	1.67e+004	50.0	1.61e+004	54.1	108.
17	12.5/25 ppb gly	Standard	10/28/2020 11:07:2	102820_gly\	1.00	Glyphosate	3.86e+004	12.5	1.90e+004	12.7	102.
18	12.5/25 ppb gly	Standard	10/28/2020 11:07:2	102820_gly\	1.00	Glyphosate1	1.39e+004	12.5	1.90e+004	12.6	101.
19	12.5/25 ppb gly	Standard	10/28/2020 11:07:2	102820_gly\	1.00	AMPA	2.39e+004	25.0	1.90e+004	23.3	93.1
20	12.5/25 ppb gly	Standard	10/28/2020 11:07:2	102820_gly\	1.00	AMPA1	9.66e+003	25.0	1.90e+004	25.3	101.
21	6.25/12.5 ppb gl	Standard	10/28/2020 11:14:1	102820_gly\	1.00	Glyphosate	1.93e+004	6.25	1.94e+004	5.25	84.0
22	6.25/12.5 ppb gl	Standard	10/28/2020 11:14:1	102820_gly\	1.00	Glyphosate1	6.84e+003	6.25	1.94e+004	5.75	92.0
23	6.25/12.5 ppb gl	Standard	10/28/2020 11:14:1	102820_gly\	1.00	AMPA	1.48e+004	12.5	1.94e+004	12.5	99.9
24	6.25/12.5 ppb gl	Standard	10/28/2020 11:14:1	102820_gly\	1.00	AMPA1	4.97e+003	12.5	1.94e+004	11.5	92.1
25	RINSE	Quality Con	10/28/2020 11:20:5	102820_gly\	1.00	Glyphosate	0.00e+000	0.00	1.63e+004	No Peak	N/A
26	RINSE	Quality Con	10/28/2020 11:20:5	102820_gly\	1.00	Glyphosate1	0.00e+000	0.00	1.63e+004	No Peak	N/A
27	RINSE	Quality Con	10/28/2020 11:20:5	102820_gly\	1.00	AMPA	0.00e+000	0.00	1.63e+004	No Peak	N/A
28	RINSE	Quality Con	10/28/2020 11:20:5	102820_gly\	1.00	AMPA1	0.00e+000	0.00	1.63e+004	No Peak	N/A
	MB	Quality Con	10/28/2020 11:27:4	102820_gly\	1.00	Glyphosate	0.00e+000	0.00	1.79e+004	No Peak	N/A
	MB	Quality Con	10/28/2020 11:27:4	102820_gly\	1.00	Glyphosate1	0.00e+000	0.00	1.79e+004	No Peak	N/A

	Sample Name	Sample Type	Acquisition Date	File Name	Dilution Factor	Analyte Peak Name	Analyte Peak Area (counts)	Analyte Concentration (ng/	IS Peak Area (counts)	Calculated Concentration (ng/mL)	Accuracy (%)
31	MB	Quality Con	10/28/2020 11:27:4	102820_gly\	1.00	AMPA	0.00e+000	0.00	1.79e+004	No Peak	N/A
32	MB	Quality Con	10/28/2020 11:27:4	102820_gly\	1.00	AMPA1	0.00e+000	0.00	1.79e+004	No Peak	N/A
33	LFB	Quality Con	10/28/2020 11:34:2	102820_gly\	1.00	Glyphosate	1.32e+005	50.0	2.15e+004	43.5	87.1
34	LFB	Quality Con	10/28/2020 11:34:2	102820_gly\	1.00	Glyphosate1	5.42e+004	50.0	2.15e+004	46.9	93.8
35	LFB	Quality Con	10/28/2020 11:34:2	102820_gly\	1.00	AMPA	9.30e+004	100.	2.15e+004	89.4	89.4
36	LFB	Quality Con	10/28/2020 11:34:2	102820_gly\	1.00	AMPA1	3.60e+004	100.	2.15e+004	88.8	88.8
37	WAI0678-07	Quality Con	10/28/2020 11:41:1	102820_gly\	1.00	Glyphosate	0.00e+000	0.00	2.05e+004	No Peak	N/A
38	WAI0678-07	Quality Con	10/28/2020 11:41:1	102820_gly\	1.00	Glyphosate1	0.00e+000	0.00	2.05e+004	No Peak	N/A
39	WAI0678-07	Quality Con	10/28/2020 11:41:1	102820_gly\	1.00	AMPA	0.00e+000	0.00	2.05e+004	No Peak	N/A
40	WAI0678-07	Quality Con	10/28/2020 11:41:1	102820_gly\	1.00	AMPA1	0.00e+000	0.00	2.05e+004	No Peak	N/A
41	WAI0678-07MS	Quality Con	10/28/2020 11:47:5	102820_gly\	1.00	Glyphosate	1.60e+005	50.0	2.17e+004	52.9	106.
42	WAI0678-07MS	Quality Con	10/28/2020 11:47:5	102820_gly\	1.00	Glyphosate1	5.59e+004	50.0	2.17e+004	47.8	95.5
43	WAI0678-07MS	Quality Con	10/28/2020 11:47:5	102820_gly\	1.00	AMPA	9.77e+004	100.	2.17e+004	92.8	92.8
44	WAI0678-07MS	Quality Con	10/28/2020 11:47:5	102820_gly\	1.00	AMPA1	3.83e+004	100.	2.17e+004	93.3	93.3
45	WAI0678-07MS	Quality Con	10/28/2020 11:54:4	102820_gly\	1.00	Glyphosate	1.56e+005	50.0	2.39e+004	46.3	92.5
46	WAI0678-07MS	Quality Con	10/28/2020 11:54:4	102820_gly\	1.00	Glyphosate1	6.60e+004	50.0	2.39e+004	51.5	103.
47	WAI0678-07MS	Quality Con	10/28/2020 11:54:4	102820_gly\	1.00	AMPA	1.08e+005	100.	2.39e+004	93.6	93.6
48	WAI0678-07MS	Quality Con	10/28/2020 11:54:4	102820_gly\	1.00	AMPA1	3.92e+004	100.	2.39e+004	86.7	86.7
49	25/50 ppb gly a	Quality Con	10/28/2020 12:01:3	102820_gly\	1.00	Glyphosate	7.46e+004	25.0	2.19e+004	22.7	90.8
50	25/50 ppb gly a	Quality Con	10/28/2020 12:01:3	102820_gly\	1.00	Glyphosate1	3.01e+004	25.0	2.19e+004	24.5	97.9
51	25/50 ppb gly a	Quality Con	10/28/2020 12:01:3	102820_gly\	1.00	AMPA	5.09e+004	50.0	2.19e+004	46.4	92.8
52	25/50 ppb gly a	Quality Con	10/28/2020 12:01:3	102820_gly\	1.00	AMPA1	1.97e+004	50.0	2.19e+004	46.6	93.2



7 Li [No Gas] / ISTD: 6 Li

$$y = 1.235E-2 x + 6.291E-2$$

R 0.9998

DL 0.2823

BEC 5.094

9 Be [No Gas] / ISTD: 6 Li

$$y = 4.105E-3 x + 3.063E-5$$

R 0.9999

DL 0.01115

BEC 0.007461

11 B [No Gas] / ISTD: 45 Sc

$$y = 3.311E-4 x + 1.773E-3$$

R 0.9999

DL 0.1588

BEC 5.355

27 Al [No Gas] / ISTD: 45 Sc

$$y = 2.986E-3 x + 6.980E-3$$

R 0.9999

DL 0.09835

BEC 2.338

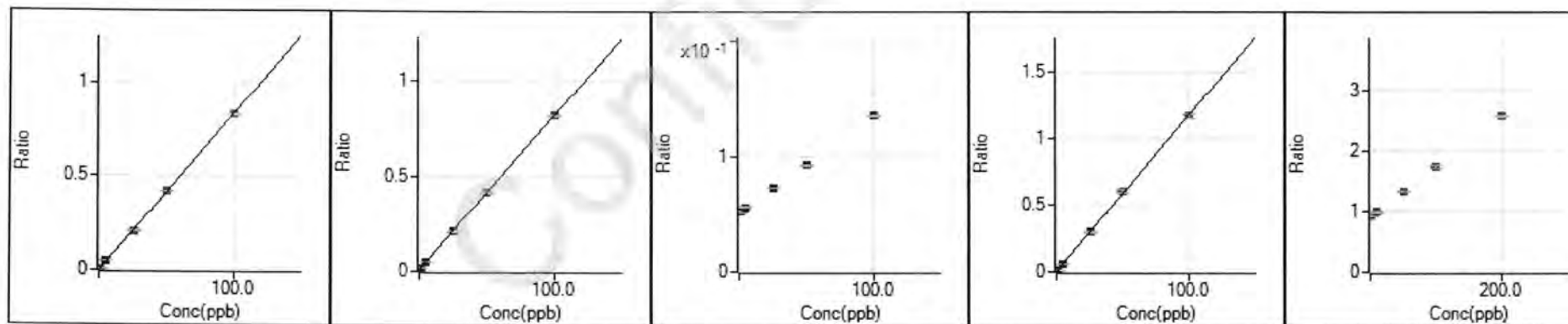
47 Ti [No Gas] / ISTD: 72 Ge

$$y = 5.784E-4 x + 5.778E-5$$

R 1.0000

DL 0.02624

BEC 0.0999



51 V [No Gas] / ISTD: 72 Ge

$$y = 8.354E-3 x - 1.549E-3$$

R 1.0000

DL 0.4918

BEC -0.1854

52 Cr [No Gas] / ISTD: 72 Ge

$$y = 8.132E-3 x + 7.290E-3$$

R 1.0000

DL 0.05193

BEC 0.8964

53 Cr [No Gas] / ISTD: 72 Ge

Excluded

R

DL

BEC

55 Mn [No Gas] / ISTD: 72 Ge

$$y = 1.176E-2 x + 3.877E-3$$

R 0.9999

DL 0.03037

BEC 0.3297

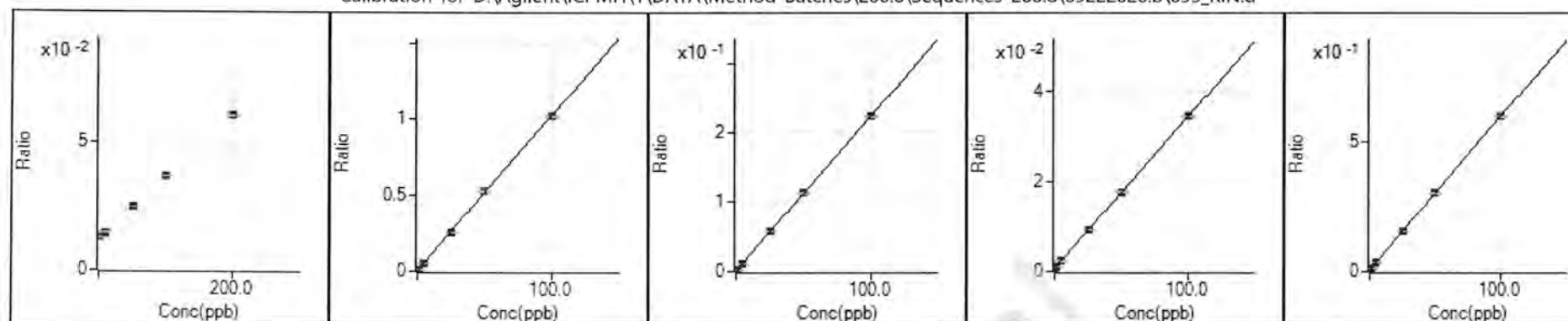
56 Fe [No Gas] / ISTD: 72 Ge

Excluded

R

DL

BEC



57 Fe [No Gas] / ISTD: 72 Ge

Excluded

R

DL

BEC

59 Co [No Gas] / ISTD: 72 Ge

 $y = 1.025E-2 x + 6.533E-5$

R 0.9999

DL 0.001134

BEC 0.006377

60 Ni [No Gas] / ISTD: 72 Ge

 $y = 2.238E-3 x + 7.754E-4$

R 1.0000

DL 0.02465

BEC 0.3465

62 Ni [No Gas] / ISTD: 72 Ge

 $y = 3.388E-4 x + 6.717E-4$

R 1.0000

DL 0.1921

BEC 1.982

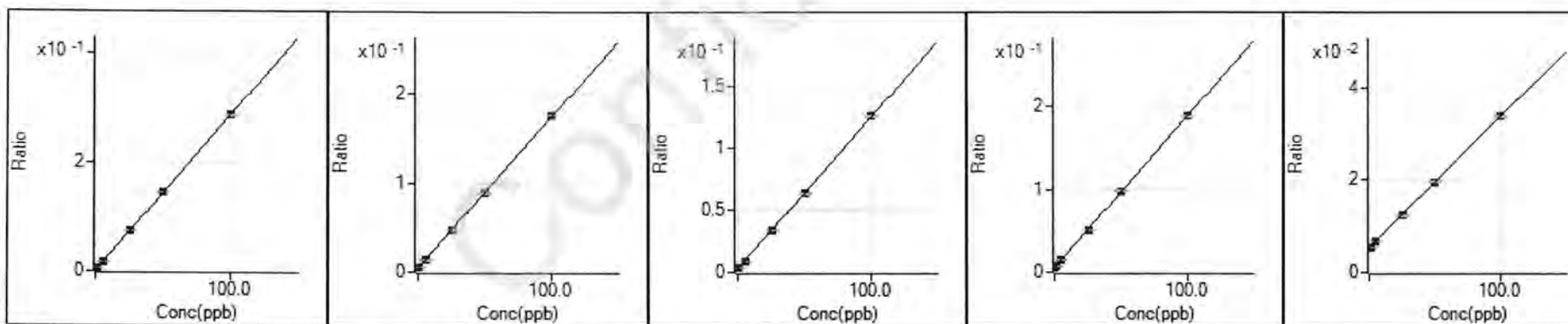
63 Cu [No Gas] / ISTD: 72 Ge

 $y = 5.918E-3 x + 4.919E-3$

R 1.0000

DL 0.01827

BEC 0.8311



65 Cu [No Gas] / ISTD: 72 Ge

 $y = 2.848E-3 x + 2.245E-3$

R 1.0000

DL 0.02212

BEC 0.7881

66 Zn [No Gas] / ISTD: 72 Ge

 $y = 1.698E-3 x + 4.712E-3$

R 0.9999

DL 0.07535

BEC 2.775

68 Zn [No Gas] / ISTD: 72 Ge

 $y = 1.224E-3 x + 3.411E-3$

R 0.9999

DL 0.1239

BEC 2.787

75 As [No Gas] / ISTD: 72 Ge

 $y = 1.841E-3 x + 5.218E-3$

R 1.0000

DL 0.2281

BEC 2.834

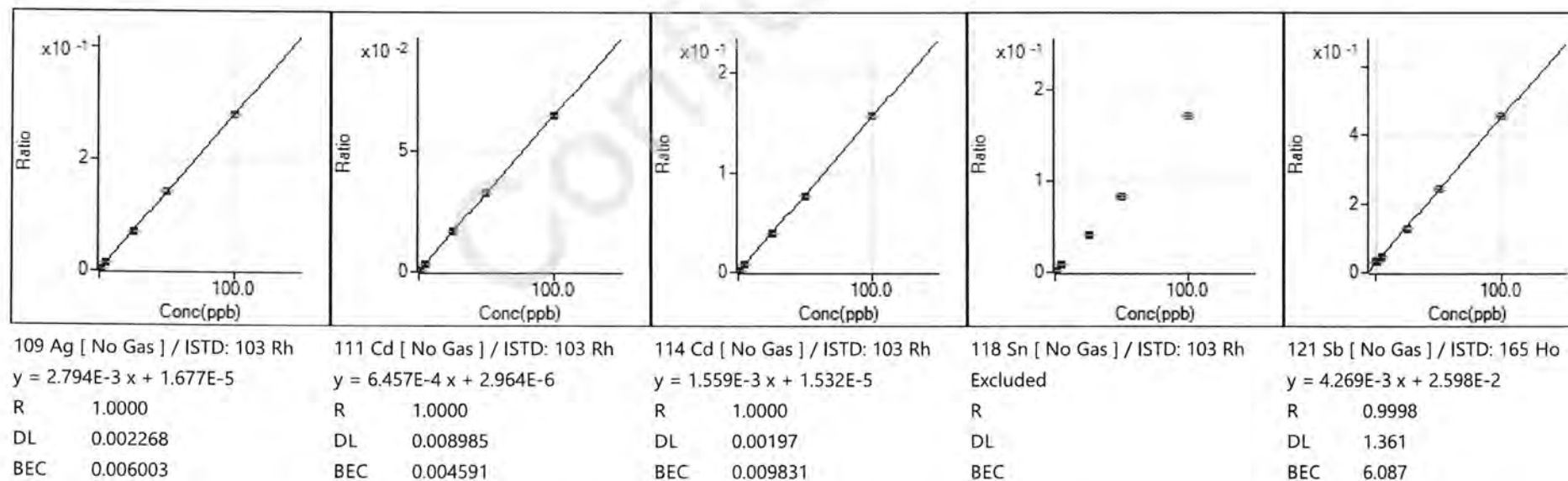
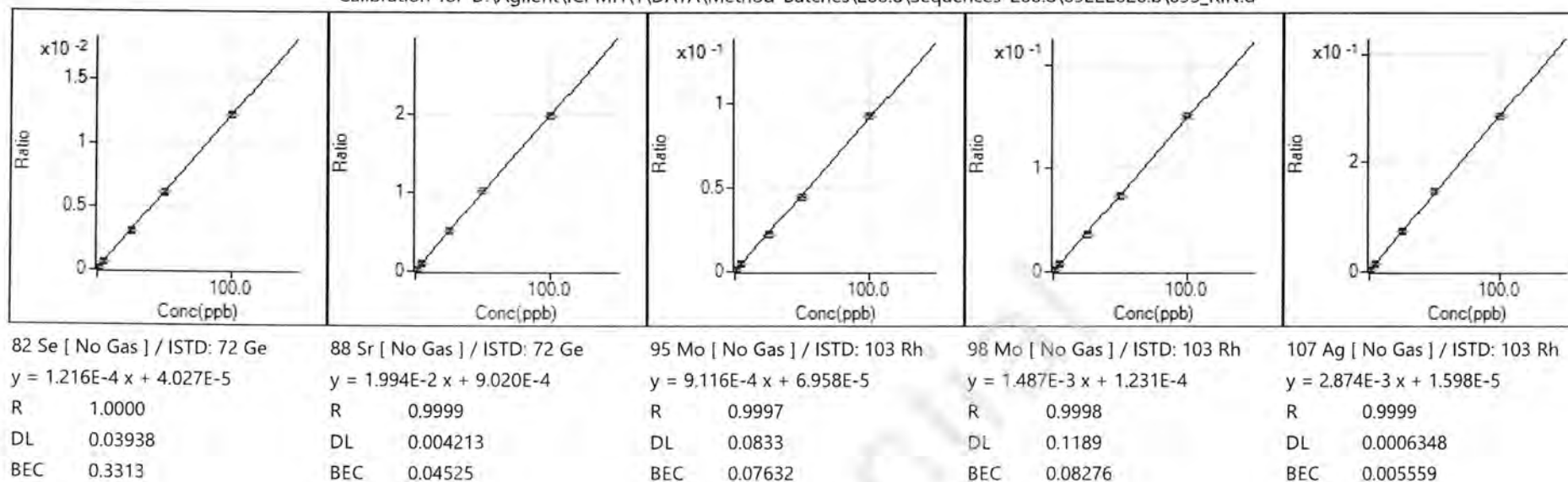
78 Se [No Gas] / ISTD: 72 Ge

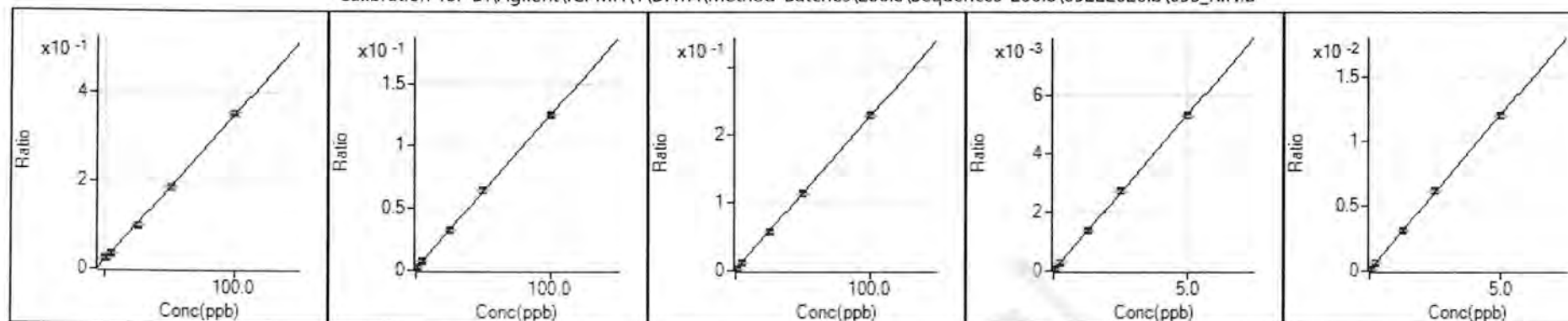
 $y = 2.858E-4 x + 5.210E-3$

R 1.0000

DL 0.4779

BEC 18.23





123 Sb [No Gas] / ISTD: 165 Ho
 $y = 3.293\text{E-}3 x + 1.994\text{E-}2$

R 0.9999

DL 1.292

BEC 6.055

135 Ba [No Gas] / ISTD: 165 Ho
 $y = 1.243\text{E-}3 x + 5.662\text{E-}4$

R 0.9999

DL 0.03954

BEC 0.4555

137 Ba [No Gas] / ISTD: 165 Ho
 $y = 2.265\text{E-}3 x + 1.023\text{E-}3$

R 0.9999

DL 0.04863

BEC 0.4517

201 Hg [No Gas] / ISTD: 165 Ho
 $y = 1.063\text{E-}3 x + 5.333\text{E-}6$

R 0.9999

DL 0.002225

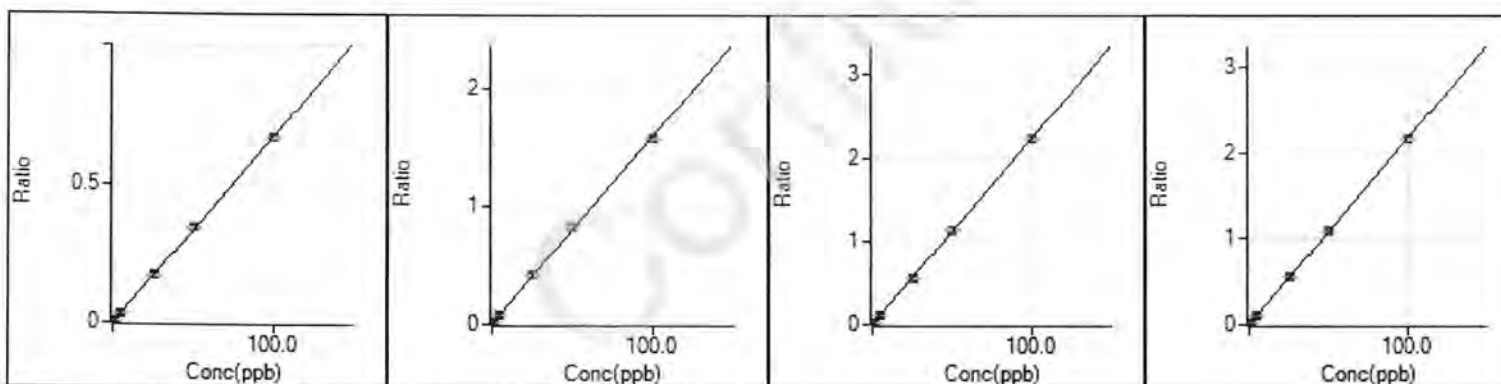
BEC 0.005019

202 Hg [No Gas] / ISTD: 165 Ho
 $y = 2.413\text{E-}3 x + 1.329\text{E-}5$

R 0.9999

DL 0.002604

BEC 0.005508



203 Tl [No Gas] / ISTD: 165 Ho
 $y = 6.723\text{E-}3 x + 2.535\text{E-}5$

R 0.9999

DL 0.001045

BEC 0.003771

205 Tl [No Gas] / ISTD: 165 Ho
 $y = 1.586\text{E-}2 x + 5.892\text{E-}5$

R 0.9997

DL 0.001569

BEC 0.003715

208 Pb [No Gas] / ISTD: 165 Ho
 $y = 2.232\text{E-}2 x + 7.489\text{E-}4$

R 1.0000

DL 0.004058

BEC 0.03355

238 U [No Gas] / ISTD: 165 Ho
 $y = 2.167\text{E-}2 x + 4.305\text{E-}5$

R 0.9999

DL 0.0001306

BEC 0.001987

Sample Report

Sample Name bai0580-blk1
File Name 056_Blk.d
Data Path Name D:\Agilent\ICPMH\1\DATA\Method Batches\200.8\Sequences 200.8\09222020.b
Acq Time 2020-09-22 12:52:50
Sample Type Blank
Total Dilution 1.0000
Comment ---
ISTD Ref FileName 003CALB.d
Sample QC Pass/Fail Fail
ISTD QC Pass/Fail Pass
Operator TRC

QC Analyte Table

Mass	Name	Conc.	Tune	Raw Conc.	ISTD	CPS RSD	LDR	QC Flag
7	Li	<0.000	No Gas	-0.01	6	1.7	0.5	
9	Be	0.001	No Gas	0.001	6	70.9	0.04	
11	B	<0.000	No Gas	-1.006	45	2.8	1.54	
27	Al	4.915	No Gas	4.915	45	1.7	1.76	>DL*2.2
47	Ti	0.040	No Gas	0.04	72	23.2	0.16	
51	V	<0.000	No Gas	-0.011	72	-72.9	0.23	
52	Cr	0.593	No Gas	0.593	72	1.7	0.04	>DL*2.2
55	Mn	<0.000	No Gas	-0.003	72	0.9	0.3	
59	Co	<0.000	No Gas	0	72	15.3	0.04	
60	Ni	<0.000	No Gas	-0.269	72	7.4	0.28	
62	Ni	<0.000	No Gas	-1.173	72	7.6	0.28	
63	Cu	<0.000	No Gas	-0.701	72	2.3	0.42	
65	Cu	<0.000	No Gas	-0.655	72	4.9	0.42	
66	Zn	<0.000	No Gas	-1.981	72	0.5	0.15	
68	Zn	<0.000	No Gas	-1.962	72	0.8	0.15	
75	As	<0.000	No Gas	-0.247	72	10.1	0.48	
78	Se	<0.000	No Gas	-0.358	72	0.5	0.17	
82	Se	0.063	No Gas	0.063	72	10.0	0.17	
88	Sr	0.010	No Gas	0.01	72	2.7	0.05	
95	Mo	0.254	No Gas	0.254	103	40.2	0.08	>DL*2.2
98	Mo	0.254	No Gas	0.254	103	39.5	0.08	>DL*2.2
107	Ag	0.017	No Gas	0.017	103	51.6	0.1	
109	Ag	0.019	No Gas	0.019	103	55.4	0.1	
111	Cd	<0.000	No Gas	-0.007	103	-213.9	0.05	
114	Cd	<0.000	No Gas	-0.006	103	66.4	0.05	
121	Sb	<0.000	No Gas	-0.379	165	8.5	0.48	
123	Sb	<0.000	No Gas	-0.311	165	8.6	0.48	
135	Ba	<0.000	No Gas	-0.031	165	4.2	0.03	
137	Ba	<0.000	No Gas	-0.049	165	1.8	0.03	
201	Hg	0.009	No Gas	0.009	165	7.3	0.004	>DL*2.2
202	Hg	0.008	No Gas	0.008	165	3.2	0.004	
203	Tl	<0.000	No Gas	-0.001	165	15.9	0.05	
205	Tl	<0.000	No Gas	-0.001	165	7.3	0.05	



Sample Report

Mass	Name	Conc.	Tune	Raw Conc.	ISTD	CPS RSD	LDR	QC Flag
208	Pb	<0.000	No Gas	-0.018	165	15.1	0.12	
238	U	0.007	No Gas	0.007	165	45.1	0.04	

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	ISTD Recovery %	ISTD Ref CPS
Li	6	No Gas	610557.14	0.5	93.6	652534.513333333
Sc	45	No Gas	3967399.00	1.5	92.2	4301289.33333333
Ge	72	No Gas	2991643.25	0.5	92.5	3232628.25
Rh	103	No Gas	12131505.00	1.7	95.3	12725208.3333333
Ho	165	No Gas	5741906.67	1.5	96.3	5963621



Sample Report

Sample Name bai0580-mr1
File Name 057LICV.d
Data Path Name D:\Agilent\ICPMH\1\DATA\Method Batches\200.8\Sequences 200.8\09222020.b
Acq Time 2020-09-22 12:55:45
Sample Type LLICV
Total Dilution 1.0000
Comment ---
ISTD Ref FileName 003CALB.d
Sample QC Pass/Fail Fail
ISTD QC Pass/Fail Pass
Operator TRC

QC Analyte Table

Mass	Name	Conc.	Tune	Raw Conc.	ISTD	CPS RSD	LDR	QC Flag
7	Li	0.974	No Gas	0.974	6	2.3	1	
9	Be	1.016	No Gas	1.016	6	4.0	1	
11	B	<0.000	No Gas	-1.752	45	0.7	1	> +/- 50%
27	Al	1.180	No Gas	1.18	45	0.7	2	
47	Ti	<0.000	No Gas	-0.002	72	25.2	1	> +/- 50%
51	V	1.039	No Gas	1.039	72	7.1	1	
52	Cr	1.256	No Gas	1.256	72	0.9	1	
55	Mn	0.905	No Gas	0.905	72	1.3	1	
59	Co	1.060	No Gas	1.06	72	1.1	1	
60	Ni	0.793	No Gas	0.793	72	1.9	1	
62	Ni	<0.000	No Gas	-0.094	72	5.0	1	> +/- 50%
63	Cu	0.549	No Gas	0.549	72	1.1	1	
65	Cu	0.590	No Gas	0.59	72	1.3	1	
66	Zn	0.436	No Gas	0.436	72	0.4	1	> +/- 50%
68	Zn	0.448	No Gas	0.448	72	0.2	1	> +/- 50%
75	As	1.164	No Gas	1.164	72	9.7	1	
78	Se	1.024	No Gas	1.024	72	0.2	1	
82	Se	1.087	No Gas	1.087	72	1.5	1	
88	Sr	1.074	No Gas	1.074	72	0.9	1	
95	Mo	0.154	No Gas	0.154	103	37.8	1	> +/- 50%
98	Mo	0.149	No Gas	0.149	103	40.0	1	> +/- 50%
107	Ag	1.105	No Gas	1.105	103	1.4	1	
109	Ag	1.091	No Gas	1.091	103	1.5	1	
111	Cd	1.092	No Gas	1.092	103	2.6	1	
114	Cd	1.077	No Gas	1.077	103	1.1	1	
121	Sb	<0.000	No Gas	-3.254	165	6.2	1	> +/- 50%
123	Sb	<0.000	No Gas	-3.206	165	6.4	1	> +/- 50%
135	Ba	1.064	No Gas	1.064	165	0.1	1	
137	Ba	1.032	No Gas	1.032	165	0.6	1	
201	Hg	0.007	No Gas	0.007	165	4.2	0.05	> +/- 50%
202	Hg	0.006	No Gas	0.006	165	8.6	0.05	> +/- 50%
203	Tl	1.069	No Gas	1.069	165	0.6	1	
205	Tl	1.085	No Gas	1.085	165	0.8	1	

Sample Report

Mass	Name	Conc.	Tune	Raw Conc.	ISTD	CPS RSD	LDR	QC Flag
208	Pb	1.016	No Gas	1.016	165	1.4	1	
238	U	0.898	No Gas	0.898	165	1.6	1	

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	ISTD Recovery %	ISTD Ref CPS
Li	6	No Gas	634934.70	2.0	97.3	652534.513333333
Sc	45	No Gas	4218992.25	3.7	98.1	4301289.33333333
Ge	72	No Gas	3059728.50	3.9	94.7	3232628.25
Rh	103	No Gas	12144650.33	1.6	95.4	12725208.3333333
Ho	165	No Gas	5683328.83	2.3	95.3	5963621



Sample Report

Sample Name bai0580-bs1
File Name 058_LCS.d
Data Path Name D:\Agilent\ICPMH\1\DATA\Method Batches\200.8\Sequences 200.8\09222020.b
Acq Time 2020-09-22 12:58:33
Sample Type LCS
Total Dilution 1.0000
Comment ---
ISTD Ref FileName 003CALB.d
Sample QC Pass/Fail Fail
ISTD QC Pass/Fail Pass
Operator TRC

QC Analyte Table

Mass	Name	Conc.	Tune	Raw Conc.	ISTD	CPS RSD	LDR	QC Flag
7	Li	47.626	No Gas	47.626	6	1.7	50	
9	Be	45.340	No Gas	45.34	6	1.7	50	
11	B	<0.000	No Gas	-1.585	45	1.3	50	> +/- 10%
27	Al	56.644	No Gas	56.644	45	4.0	100	> +/- 10%
47	Ti	0.067	No Gas	0.067	72	15.4	50	> +/- 10%
51	V	53.478	No Gas	53.478	72	1.2	50	
52	Cr	54.591	No Gas	54.591	72	1.4	50	
55	Mn	55.325	No Gas	55.325	72	0.6	50	
59	Co	53.169	No Gas	53.169	72	1.9	50	
60	Ni	51.606	No Gas	51.606	72	1.2	50	
62	Ni	50.491	No Gas	50.491	72	2.1	50	
63	Cu	49.018	No Gas	49.018	72	1.2	50	
65	Cu	49.570	No Gas	49.57	72	0.9	50	
66	Zn	50.740	No Gas	50.74	72	1.1	50	
68	Zn	50.647	No Gas	50.647	72	0.9	50	
75	As	49.900	No Gas	49.9	72	0.7	50	
78	Se	47.755	No Gas	47.755	72	0.8	50	
82	Se	47.338	No Gas	47.338	72	0.7	50	
88	Sr	51.509	No Gas	51.509	72	1.8	50	
95	Mo	0.125	No Gas	0.125	103	31.8	50	> +/- 10%
98	Mo	0.123	No Gas	0.123	103	31.2	50	> +/- 10%
107	Ag	51.275	No Gas	51.275	103	2.2	50	
109	Ag	50.786	No Gas	50.786	103	3.0	50	
111	Cd	50.305	No Gas	50.305	103	0.3	50	
114	Cd	49.154	No Gas	49.154	103	0.5	50	
121	Sb	<0.000	No Gas	-4.635	165	4.5	50	> +/- 10%
123	Sb	<0.000	No Gas	-4.584	165	2.7	50	> +/- 10%
135	Ba	53.299	No Gas	53.299	165	0.5	50	
137	Ba	51.092	No Gas	51.092	165	0.7	50	
201	Hg	0.026	No Gas	0.026	165	5.4	2.5	> +/- 10%
202	Hg	0.025	No Gas	0.025	165	7.7	2.5	> +/- 10%
203	Tl	51.980	No Gas	51.98	165	0.6	50	
205	Tl	52.102	No Gas	52.102	165	1.8	50	



Sample Report

Mass	Name	Conc.	Tune	Raw Conc.	ISTD	CPS RSD	LDR	QC Flag
208	Pb	50.179	No Gas	50.179	165	0.5	50	
238	U	41.082	No Gas	41.082	165	2.6	50	> +/- 10%

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	ISTD Recovery %	ISTD Ref CPS
Li	6	No Gas	751794.14	2.6	115.2	652534.513333333
Sc	45	No Gas	4767139.17	0.5	110.8	4301289.33333333
Ge	72	No Gas	3351078.00	2.0	103.7	3232628.25
Rh	103	No Gas	12897717.00	2.0	101.4	12725208.3333333
Ho	165	No Gas	5775236.00	0.6	96.8	5963621



Sample Report

Sample Name wai0678-01
File Name 059SMPL.d
Data Path Name D:\Agilent\ICPMH\1\DATA\Method Batches\200.8\Sequences 200.8\09222020.b
Acq Time 2020-09-22 13:01:16
Sample Type Sample
Total Dilution 1.0000
Comment —
ISTD Ref FileName 003CALB.d
Sample QC Pass/Fail Fail
ISTD QC Pass/Fail Pass
Operator TRC

QC Analyte Table

Mass	Name	Conc.	Tune	Raw Conc.	ISTD	CPS RSD	LDR	QC Flag
7	Li	10.326	No Gas	10.326	6	6.5	100	
9	Be	0.008	No Gas	0.008	6	20.0	200	
11	B	513.638	No Gas	513.638	45	6.8	1000	
27	Al	178.853	No Gas	178.853	45	7.3	4000	
47	Ti	15.631	No Gas	15.631	72	7.3	1000	
51	V	13.425	No Gas	13.425	72	10.6	1000	
52	Cr	4.070	No Gas	4.07	72	9.6	1000	
55	Mn	131.909	No Gas	131.909	72	4.7	1000	
59	Co	1.604	No Gas	1.604	72	5.7	1000	
60	Ni	6.223	No Gas	6.223	72	6.2	1000	
62	Ni	7.120	No Gas	7.12	72	27.3	1000	
63	Cu	12.052	No Gas	12.052	72	3.4	1000	
65	Cu	0.969	No Gas	0.969	72	6.4	1000	
66	Zn	2.975	No Gas	2.975	72	5.1	1000	
68	Zn	2.560	No Gas	2.56	72	4.5	1000	
75	As	2.919	No Gas	2.919	72	9.3	1000	
78	Se	3.202	No Gas	3.202	72	4.2	1000	
82	Se	27.402	No Gas	27.402	72	6.2	1000	
88	Sr	2218.888	No Gas	2218.888	72	3.1	1000	>LDR
95	Mo	1.457	No Gas	1.457	103	5.6	1000	
98	Mo	1.389	No Gas	1.389	103	6.3	1000	
107	Ag	0.037	No Gas	0.037	103	21.0	200	
109	Ag	0.031	No Gas	0.031	103	18.4	500	
111	Cd	1.652	No Gas	1.652	103	5.7	1000	
114	Cd	3.488	No Gas	3.488	103	5.6	1000	
121	Sb	1.427	No Gas	1.427	165	6.6	1000	
123	Sb	1.513	No Gas	1.513	165	6.0	1000	
135	Ba	21.964	No Gas	21.964	165	1.5	1000	
137	Ba	21.102	No Gas	21.102	165	0.7	1000	
201	Hg	0.008	No Gas	0.008	165	2.4	50	
202	Hg	0.008	No Gas	0.008	165	7.5	50	
203	Tl	0.006	No Gas	0.006	165	5.7	1000	
205	Tl	0.008	No Gas	0.008	165	3.7	1000	



Sample Report

Mass	Name	Conc.	Tune	Raw Conc.	ISTD	CPS RSD	LDR	QC Flag
208	Pb	0.012	No Gas	0.012	165	2.4	1000	
238	U	0.279	No Gas	0.279	165	2.4	1000	

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	ISTD Recovery %	ISTD Ref CPS
Li	6	No Gas	789783.70	7.8	121.0	652534.513333333
Sc	45	No Gas	4911809.17	6.9	114.2	4301289.333333333
Ge	72	No Gas	3084613.92	4.0	95.4	3232628.25
Rh	103	No Gas	10556876.33	2.2	83.0	12725208.33333333
Ho	165	No Gas	4784446.83	0.2	80.2	5963621



Sample Report

Sample Name wai0678-02
File Name 060SMPL.d
Data Path Name D:\Agilent\ICPMH\1\DATA\Method Batches\200.8\Sequences 200.8\09222020.b
Acq Time 2020-09-22 13:03:58
Sample Type Sample
Total Dilution 1.0000
Comment ---
ISTD Ref FileName 003CALB.d
Sample QC Pass/Fail Pass
ISTD QC Pass/Fail Fail
Operator TRC

QC Analyte Table

Mass	Name	Conc.	Tune	Raw Conc.	ISTD	CPS RSD	LDR	QC Flag
7	Li	0.997	No Gas	0.997	6	3.8	100	
9	Be	0.010	No Gas	0.01	6	5.0	200	
11	B	108.636	No Gas	108.636	45	1.9	1000	
27	Al	583.120	No Gas	583.12	45	2.5	4000	
47	Ti	69.088	No Gas	69.088	72	2.4	1000	
51	V	46.802	No Gas	46.802	72	3.0	1000	
52	Cr	12.362	No Gas	12.362	72	2.6	1000	
55	Mn	48.647	No Gas	48.647	72	1.4	1000	
59	Co	1.040	No Gas	1.04	72	3.3	1000	
60	Ni	3.860	No Gas	3.86	72	2.2	1000	
62	Ni	2.832	No Gas	2.832	72	0.6	1000	
63	Cu	2.381	No Gas	2.381	72	1.5	1000	
65	Cu	1.534	No Gas	1.534	72	2.1	1000	
66	Zn	0.731	No Gas	0.731	72	0.8	1000	
68	Zn	0.900	No Gas	0.9	72	0.4	1000	
75	As	1.409	No Gas	1.409	72	14.6	1000	
78	Se	1.712	No Gas	1.712	72	1.6	1000	
82	Se	2.405	No Gas	2.405	72	1.7	1000	
88	Sr	141.343	No Gas	141.343	72	1.4	1000	
95	Mo	0.379	No Gas	0.379	103	8.6	1000	
98	Mo	0.365	No Gas	0.365	103	10.3	1000	
107	Ag	0.011	No Gas	0.011	103	39.4	200	
109	Ag	0.009	No Gas	0.009	103	43.9	500	
111	Cd	0.112	No Gas	0.112	103	10.7	1000	
114	Cd	0.232	No Gas	0.232	103	5.3	1000	
121	Sb	<0.000	No Gas	-0.193	165	2.7	1000	
123	Sb	<0.000	No Gas	-0.15	165	2.8	1000	
135	Ba	6.193	No Gas	6.193	165	1.0	1000	
137	Ba	5.966	No Gas	5.966	165	1.2	1000	
201	Hg	0.012	No Gas	0.012	165	10.1	50	
202	Hg	0.011	No Gas	0.011	165	8.4	50	
203	Tl	0.001	No Gas	0.001	165	17.6	1000	
205	Tl	0.001	No Gas	0.001	165	7.1	1000	



Sample Report

Mass	Name	Conc.	Tune	Raw Conc.	ISTD	CPS RSD	LDR	QC Flag
208	Pb	0.174	No Gas	0.174	165	1.8	1000	
238	U	0.045	No Gas	0.045	165	5.7	1000	

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	ISTD Recovery %	ISTD Ref CPS
Li	6	No Gas	921549.57	0.9	141.2	652534.513333333
Sc	45	No Gas	5662306.00	1.2	131.6	4301289.33333333
Ge	72	No Gas	3483927.58	2.2	107.8	3232628.25
Rh	103	No Gas	12452553.33	1.0	97.9	12725208.3333333
Ho	165	No Gas	5594327.50	2.0	93.8	5963621



Sample Report

Sample Name wai0678-03
File Name 061SMPL.d
Data Path Name D:\Agilent\ICPMH\1\DATA\Method Batches\200.8\Sequences 200.8\09222020.b
Acq Time 2020-09-22 13:06:45
Sample Type Sample
Total Dilution 1.0000
Comment ---
ISTD Ref FileName 003CALB.d
Sample QC Pass/Fail Pass
ISTD QC Pass/Fail Fail
Operator TRC

QC Analyte Table

Mass	Name	Conc.	Tune	Raw Conc.	ISTD	CPS RSD	LDR	QC Flag
7	Li	0.751	No Gas	0.751	6	0.9	100	
9	Be	0.004	No Gas	0.004	6	13.1	200	
11	B	98.623	No Gas	98.623	45	0.4	1000	
27	Al	257.422	No Gas	257.422	45	0.3	4000	
47	Ti	31.063	No Gas	31.063	72	5.8	1000	
51	V	41.529	No Gas	41.529	72	0.7	1000	
52	Cr	6.957	No Gas	6.957	72	0.3	1000	
55	Mn	40.637	No Gas	40.637	72	1.5	1000	
59	Co	0.522	No Gas	0.522	72	0.5	1000	
60	Ni	2.042	No Gas	2.042	72	3.6	1000	
62	Ni	0.936	No Gas	0.936	72	2.3	1000	
63	Cu	1.219	No Gas	1.219	72	1.5	1000	
65	Cu	0.379	No Gas	0.379	72	0.7	1000	
66	Zn	<0.000	No Gas	-0.791	72	1.0	1000	
68	Zn	<0.000	No Gas	-0.834	72	1.3	1000	
75	As	0.973	No Gas	0.973	72	4.3	1000	
78	Se	1.236	No Gas	1.236	72	1.2	1000	
82	Se	2.591	No Gas	2.591	72	2.7	1000	
88	Sr	142.161	No Gas	142.161	72	1.3	1000	
95	Mo	0.365	No Gas	0.365	103	10.1	1000	
98	Mo	0.360	No Gas	0.36	103	9.6	1000	
107	Ag	0.006	No Gas	0.006	103	45.0	200	
109	Ag	0.004	No Gas	0.004	103	60.5	500	
111	Cd	0.097	No Gas	0.097	103	6.0	1000	
114	Cd	0.210	No Gas	0.21	103	1.1	1000	
121	Sb	<0.000	No Gas	-1.698	165	2.2	1000	
123	Sb	<0.000	No Gas	-1.631	165	2.1	1000	
135	Ba	5.552	No Gas	5.552	165	0.6	1000	
137	Ba	5.410	No Gas	5.41	165	1.3	1000	
201	Hg	0.006	No Gas	0.006	165	8.4	50	
202	Hg	0.008	No Gas	0.008	165	7.5	50	
203	Tl	<0.000	No Gas	-0.001	165	39.0	1000	
205	Tl	<0.000	No Gas	-0.001	165	23.8	1000	



Sample Report

Mass	Name	Conc.	Tune	Raw Conc.	ISTD	CPS RSD	LDR	QC Flag
208	Pb	0.042	No Gas	0.042	165	1.5	1000	
238	U	0.035	No Gas	0.035	165	0.3	1000	

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	ISTD Recovery %	ISTD Ref CPS
Li	6	No Gas	856079.53	2.5	131.2	652534.513333333
Sc	45	No Gas	5318602.83	1.5	123.7	4301289.33333333
Ge	72	No Gas	3384184.67	1.3	104.7	3232628.25
Rh	103	No Gas	12163176.33	0.8	95.6	12725208.3333333
Ho	165	No Gas	5602387.00	0.7	93.9	5963621



Sample Report

Sample Name wai0678-04
File Name 062SMPL.d
Data Path Name D:\Agilent\ICPMH\1\DATA\Method Batches\200.8\Sequences 200.8\09222020.b
Acq Time 2020-09-22 13:09:28
Sample Type Sample
Total Dilution 1.0000
Comment ---
ISTD Ref FileName 003CALB.d
Sample QC Pass/Fail Fail
ISTD QC Pass/Fail Fail
Operator TRC

QC Analyte Table

Mass	Name	Conc.	Tune	Raw Conc.	ISTD	CPS RSD	LDR	QC Flag
7	Li	12.703	No Gas	12.703	6	3.4	100	
9	Be	<0.000	No Gas	-0.001	6	62.4	200	
11	B	495.501	No Gas	495.501	45	3.0	1000	
27	Al	228.296	No Gas	228.296	45	2.1	4000	
47	Ti	27.589	No Gas	27.589	72	11.9	1000	
51	V	36.735	No Gas	36.735	72	0.3	1000	
52	Cr	4.539	No Gas	4.539	72	3.1	1000	
55	Mn	26.708	No Gas	26.708	72	3.0	1000	
59	Co	0.762	No Gas	0.762	72	3.0	1000	
60	Ni	2.759	No Gas	2.759	72	4.8	1000	
62	Ni	1.573	No Gas	1.573	72	3.6	1000	
63	Cu	9.172	No Gas	9.172	72	1.7	1000	
65	Cu	0.669	No Gas	0.669	72	3.0	1000	
66	Zn	<0.000	No Gas	-0.784	72	2.0	1000	
68	Zn	<0.000	No Gas	-1.015	72	1.6	1000	
75	As	1.272	No Gas	1.272	72	3.4	1000	
78	Se	3.099	No Gas	3.099	72	1.5	1000	
82	Se	19.794	No Gas	19.794	72	0.7	1000	
88	Sr	1707.595	No Gas	1707.595	72	0.6	1000	>LDR
95	Mo	1.315	No Gas	1.315	103	3.2	1000	
98	Mo	1.299	No Gas	1.299	103	2.0	1000	
107	Ag	0.009	No Gas	0.009	103	55.1	200	
109	Ag	0.008	No Gas	0.008	103	56.7	500	
111	Cd	1.272	No Gas	1.272	103	3.1	1000	
114	Cd	2.687	No Gas	2.687	103	3.0	1000	
121	Sb	<0.000	No Gas	-0.645	165	5.3	1000	
123	Sb	<0.000	No Gas	-0.563	165	5.4	1000	
135	Ba	8.065	No Gas	8.065	165	0.7	1000	
137	Ba	7.736	No Gas	7.736	165	1.4	1000	
201	Hg	0.006	No Gas	0.006	165	10.5	50	
202	Hg	0.006	No Gas	0.006	165	4.8	50	
203	Tl	<0.000	No Gas	-0.001	165	26.3	1000	
205	Tl	<0.000	No Gas	-0.001	165	11.2	1000	



Sample Report

Mass	Name	Conc.	Tune	Raw Conc.	ISTD	CPS RSD	LDR	QC Flag
208	Pb	0.014	No Gas	0.014	165	4.9	1000	
238	U	0.281	No Gas	0.281	165	3.9	1000	

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	ISTD Recovery %	ISTD Ref CPS
Li	6	No Gas	815744.42	3.5	125.0	652534.513333333
Sc	45	No Gas	5084139.33	2.4	118.2	4301289.33333333
Ge	72	No Gas	3134223.67	1.2	97.0	3232628.25
Rh	103	No Gas	10784569.00	0.6	84.7	12725208.3333333
Ho	165	No Gas	4961012.33	1.0	83.2	5963621



Sample Report

Sample Name wai0678-05
File Name 063SMPL.d
Data Path Name D:\Agilent\ICPMH\1\DATA\Method Batches\200.8\Sequences 200.8\09222020.b
Acq Time 2020-09-22 13:12:18
Sample Type Sample
Total Dilution 1.0000
Comment —
ISTD Ref FileName 003CALB.d
Sample QC Pass/Fail Fail
ISTD QC Pass/Fail Fail
Operator TRC

QC Analyte Table

Mass	Name	Conc.	Tune	Raw Conc.	ISTD	CPS RSD	LDR	QC Flag
7	Li	7.420	No Gas	7.42	6	1.3	100	
9	Be	<0.000	No Gas	-0.002	6	36.7	200	
11	B	373.116	No Gas	373.116	45	0.3	1000	
27	Al	183.562	No Gas	183.562	45	1.1	4000	
47	Ti	18.754	No Gas	18.754	72	4.8	1000	
51	V	29.028	No Gas	29.028	72	1.8	1000	
52	Cr	3.613	No Gas	3.613	72	1.6	1000	
55	Mn	14.231	No Gas	14.231	72	0.9	1000	
59	Co	0.612	No Gas	0.612	72	1.9	1000	
60	Ni	3.447	No Gas	3.447	72	2.7	1000	
62	Ni	2.455	No Gas	2.455	72	9.0	1000	
63	Cu	6.839	No Gas	6.839	72	1.5	1000	
65	Cu	0.860	No Gas	0.86	72	2.4	1000	
66	Zn	<0.000	No Gas	-0.035	72	1.3	1000	
68	Zn	<0.000	No Gas	-0.178	72	1.5	1000	
75	As	1.654	No Gas	1.654	72	12.3	1000	
78	Se	2.347	No Gas	2.347	72	1.1	1000	
82	Se	14.457	No Gas	14.457	72	0.9	1000	
88	Sr	1203.842	No Gas	1203.842	72	0.2	1000	>LDR
95	Mo	1.222	No Gas	1.222	103	2.4	1000	
98	Mo	1.160	No Gas	1.16	103	2.6	1000	
107	Ag	0.007	No Gas	0.007	103	47.0	200	
109	Ag	0.004	No Gas	0.004	103	71.6	500	
111	Cd	0.901	No Gas	0.901	103	2.8	1000	
114	Cd	1.897	No Gas	1.897	103	2.5	1000	
121	Sb	<0.000	No Gas	-1.102	165	4.9	1000	
123	Sb	<0.000	No Gas	-1.015	165	4.9	1000	
135	Ba	9.302	No Gas	9.302	165	0.7	1000	
137	Ba	8.949	No Gas	8.949	165	0.9	1000	
201	Hg	0.006	No Gas	0.006	165	6.1	50	
202	Hg	0.006	No Gas	0.006	165	3.1	50	
203	Tl	<0.000	No Gas	-0.001	165	23.4	1000	
205	Tl	<0.000	No Gas	-0.001	165	11.7	1000	



Sample Report

Mass	Name	Conc.	Tune	Raw Conc.	ISTD	CPS RSD	LDR	QC Flag
208	Pb	0.014	No Gas	0.014	165	2.4	1000	
238	U	0.280	No Gas	0.28	165	1.2	1000	

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	ISTD Recovery %	ISTD Ref CPS
Li	6	No Gas	877201.75	2.1	134.4	652534.513333333
Sc	45	No Gas	5445245.50	1.8	126.6	4301289.33333333
Ge	72	No Gas	3339324.58	1.4	103.3	3232628.25
Rh	103	No Gas	11407445.33	1.0	89.6	12725208.3333333
Ho	165	No Gas	5168055.17	3.2	86.7	5963621



Sample Report

Sample Name wai0678-10
File Name 070SMPL.d
Data Path Name D:\Agilent\ICPMH\1\DATA\Method Batches\200.8\Sequences 200.8\09222020.b
Acq Time 2020-09-22 13:31:32
Sample Type Sample
Total Dilution 1.0000
Comment —
ISTD Ref FileName 003CALB.d
Sample QC Pass/Fail Pass
ISTD QC Pass/Fail Fail
Operator TRC

QC Analyte Table

Mass	Name	Conc.	Tune	Raw Conc.	ISTD	CPS RSD	LDR	QC Flag
7	Li	<0.000	No Gas	-0.133	6	0.9	100	
9	Be	0.001	No Gas	0.001	6	17.6	200	
11	B	29.258	No Gas	29.258	45	2.6	1000	
27	Al	260.073	No Gas	260.073	45	1.5	4000	
47	Ti	33.964	No Gas	33.964	72	0.5	1000	
51	V	9.574	No Gas	9.574	72	13.7	1000	
52	Cr	4.705	No Gas	4.705	72	1.0	1000	
55	Mn	10.869	No Gas	10.869	72	0.9	1000	
59	Co	0.470	No Gas	0.47	72	0.5	1000	
60	Ni	1.533	No Gas	1.533	72	3.2	1000	
62	Ni	106.689	No Gas	106.689	72	7.6	1000	
63	Cu	4.964	No Gas	4.964	72	7.4	1000	
65	Cu	0.310	No Gas	0.31	72	3.2	1000	
66	Zn	<0.000	No Gas	-0.99	72	0.8	1000	
68	Zn	<0.000	No Gas	-0.918	72	0.3	1000	
75	As	0.926	No Gas	0.926	72	10.2	1000	
78	Se	3.598	No Gas	3.598	72	2.0	1000	
82	Se	0.902	No Gas	0.902	72	3.2	1000	
88	Sr	33.012	No Gas	33.012	72	3.2	1000	
95	Mo	0.080	No Gas	0.08	103	17.3	1000	
98	Mo	0.069	No Gas	0.069	103	21.0	1000	
107	Ag	0.005	No Gas	0.005	103	9.9	200	
109	Ag	0.005	No Gas	0.005	103	21.0	500	
111	Cd	0.030	No Gas	0.03	103	12.3	1000	
114	Cd	0.064	No Gas	0.064	103	6.8	1000	
121	Sb	<0.000	No Gas	-2.164	165	0.9	1000	
123	Sb	<0.000	No Gas	-2.11	165	0.9	1000	
135	Ba	3.123	No Gas	3.123	165	1.2	1000	
137	Ba	2.996	No Gas	2.996	165	0.3	1000	
201	Hg	0.006	No Gas	0.006	165	13.7	50	
202	Hg	0.005	No Gas	0.005	165	0.2	50	
203	Tl	<0.000	No Gas	-0.001	165	7.8	1000	
205	Tl	<0.000	No Gas	0	165	8.7	1000	



Sample Report

Mass	Name	Conc.	Tune	Raw Conc.	ISTD	CPS RSD	LDR	QC Flag
208	Pb	<0.000	No Gas	-0.007	165	2.1	1000	
238	U	0.006	No Gas	0.006	165	11.1	1000	

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	ISTD Recovery %	ISTD Ref CPS
Li	6	No Gas	787586.86	2.3	120.7	652534.513333333
Sc	45	No Gas	5383633.83	1.3	125.2	4301289.33333333
Ge	72	No Gas	3596540.92	2.2	111.3	3232628.25
Rh	103	No Gas	13030903.33	1.7	102.4	12725208.3333333
Ho	165	No Gas	5505520.83	1.2	92.3	5963621



Sample Report

Sample Name wai0678-11
File Name 075SMPL.d
Data Path Name D:\Agilent\ICPMH\1\DATA\Method Batches\200.8\Sequences 200.8\09222020.b
Acq Time 2020-09-22 13:45:24
Sample Type Sample
Total Dilution 1.0000
Comment —
ISTD Ref FileName 003CALB.d
Sample QC Pass/Fail Pass
ISTD QC Pass/Fail Pass
Operator TRC

QC Analyte Table

Mass	Name	Conc.	Tune	Raw Conc.	ISTD	CPS RSD	LDR	QC Flag
7	Li	0.529	No Gas	0.529	6	1.5	100	
9	Be	<0.000	No Gas	-0.002	6	71.0	200	
11	B	106.960	No Gas	106.96	45	0.8	1000	
27	Al	1.927	No Gas	1.927	45	1.5	4000	
47	Ti	4.157	No Gas	4.157	72	5.5	1000	
51	V	38.896	No Gas	38.896	72	3.4	1000	
52	Cr	13.033	No Gas	13.033	72	1.0	1000	
55	Mn	<0.000	No Gas	-0.06	72	1.5	1000	
59	Co	0.035	No Gas	0.035	72	2.6	1000	
60	Ni	0.609	No Gas	0.609	72	1.0	1000	
62	Ni	50.028	No Gas	50.028	72	7.8	1000	
63	Cu	2.749	No Gas	2.749	72	6.6	1000	
65	Cu	0.281	No Gas	0.281	72	2.3	1000	
66	Zn	<0.000	No Gas	-1.051	72	0.4	1000	
68	Zn	<0.000	No Gas	-0.84	72	1.2	1000	
75	As	0.851	No Gas	0.851	72	2.2	1000	
78	Se	3.490	No Gas	3.49	72	1.2	1000	
82	Se	1.087	No Gas	1.087	72	4.4	1000	
88	Sr	77.338	No Gas	77.338	72	0.9	1000	
95	Mo	0.354	No Gas	0.354	103	20.4	1000	
98	Mo	0.340	No Gas	0.34	103	20.5	1000	
107	Ag	0.015	No Gas	0.015	103	8.9	200	
109	Ag	0.012	No Gas	0.012	103	18.8	500	
111	Cd	0.046	No Gas	0.046	103	27.6	1000	
114	Cd	0.100	No Gas	0.1	103	20.1	1000	
121	Sb	<0.000	No Gas	-1.347	165	6.3	1000	
123	Sb	<0.000	No Gas	-1.269	165	6.9	1000	
135	Ba	3.168	No Gas	3.168	165	1.2	1000	
137	Ba	3.059	No Gas	3.059	165	0.8	1000	
201	Hg	0.008	No Gas	0.008	165	4.5	50	
202	Hg	0.009	No Gas	0.009	165	5.9	50	
203	Tl	<0.000	No Gas	-0.001	165	14.4	1000	
205	Tl	<0.000	No Gas	-0.001	165	10.7	1000	



Sample Report

Mass	Name	Conc.	Tune	Raw Conc.	ISTD	CPS RSD	LDR	QC Flag
208	Pb	0.034	No Gas	0.034	165	1.2	1000	
238	U	0.016	No Gas	0.016	165	15.4	1000	

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	ISTD Recovery %	ISTD Ref CPS
Li	6	No Gas	732007.92	2.8	112.2	652534.513333333
Sc	45	No Gas	4870036.50	3.7	113.2	4301289.33333333
Ge	72	No Gas	3213770.42	0.4	99.4	3232628.25
Rh	103	No Gas	11542228.33	0.5	90.7	12725208.3333333
Ho	165	No Gas	5304074.33	2.7	88.9	5963621



Sample Report

Sample Name wai0678-12
File Name 076SMPL.d
Data Path Name D:\Agilent\ICPMH\1\DATA\Method Batches\200.8\Sequences 200.8\09222020.b
Acq Time 2020-09-22 13:48:09
Sample Type Sample
Total Dilution 1.0000
Comment —
ISTD Ref FileName 003CALB.d
Sample QC Pass/Fail Pass
ISTD QC Pass/Fail Pass
Operator TRC

QC Analyte Table

Mass	Name	Conc.	Tune	Raw Conc.	ISTD	CPS RSD	LDR	QC Flag
7	Li	0.599	No Gas	0.599	6	0.3	100	
9	Be	<0.000	No Gas	-0.005	6	49.5	200	
11	B	103.699	No Gas	103.699	45	0.5	1000	
27	Al	2.122	No Gas	2.122	45	1.1	4000	
47	Ti	4.017	No Gas	4.017	72	5.8	1000	
51	V	47.490	No Gas	47.49	72	0.8	1000	
52	Cr	8.964	No Gas	8.964	72	0.9	1000	
55	Mn	<0.000	No Gas	-0.013	72	1.8	1000	
59	Co	0.039	No Gas	0.039	72	4.3	1000	
60	Ni	0.748	No Gas	0.748	72	0.8	1000	
62	Ni	37.060	No Gas	37.06	72	7.9	1000	
63	Cu	4.084	No Gas	4.084	72	2.4	1000	
65	Cu	2.101	No Gas	2.101	72	0.5	1000	
66	Zn	2.498	No Gas	2.498	72	0.7	1000	
68	Zn	2.628	No Gas	2.628	72	0.6	1000	
75	As	1.374	No Gas	1.374	72	2.5	1000	
78	Se	3.821	No Gas	3.821	72	1.0	1000	
82	Se	1.268	No Gas	1.268	72	4.2	1000	
88	Sr	88.897	No Gas	88.897	72	1.1	1000	
95	Mo	0.398	No Gas	0.398	103	9.4	1000	
98	Mo	0.401	No Gas	0.401	103	9.7	1000	
107	Ag	0.007	No Gas	0.007	103	6.0	200	
109	Ag	0.007	No Gas	0.007	103	4.0	500	
111	Cd	0.067	No Gas	0.067	103	8.3	1000	
114	Cd	0.138	No Gas	0.138	103	4.9	1000	
121	Sb	<0.000	No Gas	-2.031	165	5.2	1000	
123	Sb	<0.000	No Gas	-2	165	5.6	1000	
135	Ba	4.191	No Gas	4.191	165	0.7	1000	
137	Ba	4.051	No Gas	4.051	165	1.3	1000	
201	Hg	0.007	No Gas	0.007	165	6.5	50	
202	Hg	0.008	No Gas	0.008	165	10.7	50	
203	Tl	<0.000	No Gas	-0.001	165	22.5	1000	
205	Tl	<0.000	No Gas	-0.002	165	21.6	1000	



Sample Report

Mass	Name	Conc.	Tune	Raw Conc.	ISTD	CPS RSD	LDR	QC Flag
208	Pb	0.535	No Gas	0.535	165	0.5	1000	
238	U	0.027	No Gas	0.027	165	1.4	1000	

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	ISTD Recovery %	ISTD Ref CPS
Li	6	No Gas	709774.21	1.3	108.8	652534.513333333
Sc	45	No Gas	4777242.50	2.3	111.1	4301289.33333333
Ge	72	No Gas	3136769.50	0.5	97.0	3232628.25
Rh	103	No Gas	11449908.67	0.2	90.0	12725208.3333333
Ho	165	No Gas	5326481.17	0.4	89.3	5963621



Sample Report

Sample Name wai0678-13
File Name 077SMPL.d
Data Path Name D:\Agilent\CPMH\1\DATA\Method Batches\200.8\Sequences 200.8\09222020.b
Acq Time 2020-09-22 13:51:01
Sample Type Sample
Total Dilution 1.0000
Comment ---
ISTD Ref FileName 003CALB.d
Sample QC Pass/Fail Pass
ISTD QC Pass/Fail Pass
Operator TRC

QC Analyte Table

Mass	Name	Conc.	Tune	Raw Conc.	ISTD	CPS RSD	LDR	QC Flag
7	Li	0.595	No Gas	0.595	6	0.3	100	
9	Be	<0.000	No Gas	-0.006	6	124.9	200	
11	B	35.965	No Gas	35.965	45	0.7	1000	
27	Al	1.747	No Gas	1.747	45	1.1	4000	
47	Ti	3.320	No Gas	3.32	72	3.1	1000	
51	V	35.793	No Gas	35.793	72	5.4	1000	
52	Cr	6.678	No Gas	6.678	72	0.2	1000	
55	Mn	<0.000	No Gas	-0.093	72	1.5	1000	
59	Co	0.042	No Gas	0.042	72	1.6	1000	
60	Ni	0.277	No Gas	0.277	72	1.6	1000	
62	Ni	26.579	No Gas	26.579	72	5.6	1000	
63	Cu	1.351	No Gas	1.351	72	2.7	1000	
65	Cu	0.170	No Gas	0.17	72	1.9	1000	
66	Zn	<0.000	No Gas	-0.986	72	0.5	1000	
68	Zn	<0.000	No Gas	-0.82	72	1.0	1000	
75	As	0.969	No Gas	0.969	72	13.4	1000	
78	Se	3.131	No Gas	3.131	72	1.3	1000	
82	Se	0.868	No Gas	0.868	72	1.3	1000	
88	Sr	79.356	No Gas	79.356	72	1.7	1000	
95	Mo	0.253	No Gas	0.253	103	11.8	1000	
98	Mo	0.249	No Gas	0.249	103	8.7	1000	
107	Ag	0.007	No Gas	0.007	103	5.6	200	
109	Ag	0.005	No Gas	0.005	103	6.4	500	
111	Cd	0.055	No Gas	0.055	103	15.2	1000	
114	Cd	0.114	No Gas	0.114	103	12.0	1000	
121	Sb	<0.000	No Gas	-2.654	165	4.4	1000	
123	Sb	<0.000	No Gas	-2.586	165	4.9	1000	
135	Ba	4.718	No Gas	4.718	165	0.4	1000	
137	Ba	4.594	No Gas	4.594	165	0.5	1000	
201	Hg	0.005	No Gas	0.005	165	4.2	50	
202	Hg	0.005	No Gas	0.005	165	3.1	50	
203	Tl	<0.000	No Gas	-0.002	165	49.5	1000	
205	Tl	<0.000	No Gas	-0.002	165	13.6	1000	



Sample Report

Mass	Name	Conc.	Tune	Raw Conc.	ISTD	CPS RSD	LDR	QC Flag
208	Pb	<0.000	No Gas	-0.011	165	3.1	1000	
238	U	0.032	No Gas	0.032	165	2.6	1000	

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	ISTD Recovery %	ISTD Ref CPS
Li	6	No Gas	713195.80	0.6	109.3	652534.513333333
Sc	45	No Gas	4678114.83	2.9	108.8	4301289.33333333
Ge	72	No Gas	3164955.58	1.3	97.9	3232628.25
Rh	103	No Gas	11394154.67	1.8	89.5	12725208.3333333
Ho	165	No Gas	5372375.50	1.6	90.1	5963621



Sample Report

Sample Name wai0678-14
File Name 078SMPL.d
Data Path Name D:\Agilent\ICPMH\1\DATA\Method Batches\200.8\Sequences 200.8\09222020.b
Acq Time 2020-09-22 13:53:46
Sample Type Sample
Total Dilution 1.0000
Comment ---
ISTD Ref FileName 003CALB.d
Sample QC Pass/Fail Pass
ISTD QC Pass/Fail Pass
Operator TRC

QC Analyte Table

Mass	Name	Conc.	Tune	Raw Conc.	ISTD	CPS RSD	LDR	QC Flag
7	Li	0.271	No Gas	0.271	6	1.1	100	
9	Be	<0.000	No Gas	-0.004	6	66.7	200	
11	B	18.480	No Gas	18.48	45	0.5	1000	
27	Al	101.642	No Gas	101.642	45	13.1	4000	
47	Ti	9.877	No Gas	9.877	72	11.1	1000	
51	V	6.517	No Gas	6.517	72	23.1	1000	
52	Cr	2.518	No Gas	2.518	72	3.3	1000	
55	Mn	28.070	No Gas	28.07	72	0.3	1000	
59	Co	0.551	No Gas	0.551	72	1.1	1000	
60	Ni	1.722	No Gas	1.722	72	1.3	1000	
62	Ni	24.720	No Gas	24.72	72	1.2	1000	
63	Cu	1.296	No Gas	1.296	72	1.5	1000	
65	Cu	0.390	No Gas	0.39	72	1.9	1000	
66	Zn	<0.000	No Gas	-1.383	72	0.6	1000	
68	Zn	<0.000	No Gas	-1.277	72	0.7	1000	
75	As	1.032	No Gas	1.032	72	13.5	1000	
78	Se	2.686	No Gas	2.686	72	1.0	1000	
82	Se	0.463	No Gas	0.463	72	7.3	1000	
88	Sr	32.841	No Gas	32.841	72	0.8	1000	
95	Mo	0.064	No Gas	0.064	103	16.4	1000	
98	Mo	0.055	No Gas	0.055	103	21.6	1000	
107	Ag	0.005	No Gas	0.005	103	5.1	200	
109	Ag	0.006	No Gas	0.006	103	3.2	500	
111	Cd	0.028	No Gas	0.028	103	8.3	1000	
114	Cd	0.055	No Gas	0.055	103	5.8	1000	
121	Sb	<0.000	No Gas	-2.848	165	3.9	1000	
123	Sb	<0.000	No Gas	-2.793	165	4.3	1000	
135	Ba	3.312	No Gas	3.312	165	0.9	1000	
137	Ba	3.214	No Gas	3.214	165	1.0	1000	
201	Hg	0.005	No Gas	0.005	165	6.0	50	
202	Hg	0.005	No Gas	0.005	165	6.6	50	
203	Tl	<0.000	No Gas	0	165	12.4	1000	
205	Tl	<0.000	No Gas	-0.001	165	3.9	1000	



Sample Report

Mass	Name	Conc.	Tune	Raw Conc.	ISTD	CPS RSD	LDR	QC Flag
208	Pb	<0.000	No Gas	-0.014	165	4.1	1000	
238	U	0.004	No Gas	0.004	165	3.2	1000	

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	ISTD Recovery %	ISTD Ref CPS
Li	6	No Gas	745149.20	2.2	114.2	652534.513333333
Sc	45	No Gas	4583816.67	1.5	106.6	4301289.333333333
Ge	72	No Gas	3154611.00	1.1	97.6	3232628.25
Rh	103	No Gas	11884176.67	0.7	93.4	12725208.3333333
Ho	165	No Gas	5413256.83	0.7	90.8	5963621



Sample Report

Sample Name wai0678-15
File Name 079_ARF.d
Data Path Name D:\Agilent\ICPMH\1\DATA\Method Batches\200.8\Sequences 200.8\09222020.b
Acq Time 2020-09-22 13:56:36
Sample Type AllRef
Total Dilution 1.0000
Comment ---
ISTD Ref FileName 003CALB.d
Sample QC Pass/Fail Pass
ISTD QC Pass/Fail Pass
Operator TRC

QC Analyte Table

Mass	Name	Conc.	Tune	Raw Conc.	ISTD	CPS RSD	LDR	QC Flag
7	Li	0.575	No Gas	0.575	6	1.0	100	
9	Be	0.012	No Gas	0.012	6	20.0	200	
11	B	17.838	No Gas	17.838	45	1.6	1000	
27	Al	893.058	No Gas	893.058	45	0.5	4000	
47	Ti	90.165	No Gas	90.165	72	1.3	1000	
51	V	7.971	No Gas	7.971	72	9.5	1000	
52	Cr	9.647	No Gas	9.647	72	0.8	1000	
55	Mn	70.029	No Gas	70.029	72	1.1	1000	
59	Co	2.068	No Gas	2.068	72	0.6	1000	
60	Ni	5.777	No Gas	5.777	72	0.9	1000	
62	Ni	28.701	No Gas	28.701	72	1.5	1000	
63	Cu	3.110	No Gas	3.11	72	1.8	1000	
65	Cu	2.231	No Gas	2.231	72	1.3	1000	
66	Zn	<0.000	No Gas	-0.131	72	0.7	1000	
68	Zn	0.008	No Gas	0.008	72	0.4	1000	
75	As	0.958	No Gas	0.958	72	11.1	1000	
78	Se	2.541	No Gas	2.541	72	0.7	1000	
82	Se	0.399	No Gas	0.399	72	3.9	1000	
88	Sr	33.923	No Gas	33.923	72	2.5	1000	
95	Mo	0.056	No Gas	0.056	103	23.0	1000	
98	Mo	0.045	No Gas	0.045	103	21.1	1000	
107	Ag	0.015	No Gas	0.015	103	17.3	200	
109	Ag	0.011	No Gas	0.011	103	23.7	500	
111	Cd	0.042	No Gas	0.042	103	25.5	1000	
114	Cd	0.070	No Gas	0.07	103	12.8	1000	
121	Sb	<0.000	No Gas	-2.757	165	3.4	1000	
123	Sb	<0.000	No Gas	-2.702	165	4.2	1000	
135	Ba	4.604	No Gas	4.604	165	0.8	1000	
137	Ba	4.424	No Gas	4.424	165	1.8	1000	
201	Hg	0.006	No Gas	0.006	165	13.1	50	
202	Hg	0.005	No Gas	0.005	165	8.9	50	
203	Tl	<0.000	No Gas	0	165	28.6	1000	
205	Tl	<0.000	No Gas	0	165	2.4	1000	



Sample Report

Mass	Name	Conc.	Tune	Raw Conc.	ISTD	CPS RSD	LDR	QC Flag
208	Pb	0.043	No Gas	0.043	185	0.5	1000	
238	U	0.007	No Gas	0.007	185	4.3	1000	

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	ISTD Recovery %	ISTD Ref CPS
Li	6	No Gas	735651.59	3.0	112.7	652534.513333333
Sc	45	No Gas	4565208.17	1.3	106.1	4301289.33333333
Ge	72	No Gas	3147446.17	1.8	97.4	3232628.25
Rh	103	No Gas	11901894.00	0.8	93.5	12725208.3333333
Ho	165	No Gas	5376459.33	0.9	90.2	5963621



Sample Report

Sample Name bai0580-ms2
File Name 080_LFM.d
Data Path Name D:\Agilent\ICPMH\1\DATA\Method Batches\200.8\Sequences 200.8\09222020.b
Acq Time 2020-09-22 13:59:16
Sample Type LFM
Total Dilution 1.0000
Comment ---
ISTD Ref FileName 003CALB.d
Sample QC Pass/Fail Fail
ISTD QC Pass/Fail Pass
Operator TRC

QC Analyte Table

Mass	Name	Conc.	Tune	Raw Conc.	ISTD	CPS RSD	LDR	QC Flag
7	Li	45.776	No Gas	45.776	6	1.1	100	
9	Be	42.389	No Gas	42.389	6	0.4	100	
11	B	17.677	No Gas	17.677	45	1.1	100	> +/- 25%
27	Al	961.305	No Gas	961.305	45	2.3	100	> +/- 25%
47	Ti	92.187	No Gas	92.187	72	1.2	100	> +/- 25%
51	V	40.095	No Gas	40.095	72	3.3	100	> +/- 25%
52	Cr	65.719	No Gas	65.719	72	1.7	100	
55	Mn	125.229	No Gas	125.229	72	0.9	100	
59	Co	54.654	No Gas	54.654	72	0.8	100	
60	Ni	57.097	No Gas	57.097	72	0.6	100	
62	Ni	81.377	No Gas	81.377	72	1.5	100	
63	Cu	52.393	No Gas	52.393	72	0.8	100	
65	Cu	51.908	No Gas	51.908	72	0.7	100	
66	Zn	49.367	No Gas	49.367	72	0.6	100	
68	Zn	49.160	No Gas	49.16	72	0.2	100	
75	As	50.156	No Gas	50.156	72	0.1	100	
78	Se	50.464	No Gas	50.464	72	0.3	100	
82	Se	47.576	No Gas	47.576	72	0.8	100	
88	Sr	84.900	No Gas	84.9	72	0.8	100	
95	Mo	0.058	No Gas	0.058	103	18.4	100	> +/- 25%
98	Mo	0.051	No Gas	0.051	103	11.6	100	> +/- 25%
107	Ag	52.491	No Gas	52.491	103	0.3	100	
109	Ag	51.899	No Gas	51.899	103	0.3	100	
111	Cd	50.103	No Gas	50.103	103	0.1	100	
114	Cd	49.147	No Gas	49.147	103	0.5	100	
121	Sb	<0.000	No Gas	-2.827	165	3.4	100	> +/- 25%
123	Sb	<0.000	No Gas	-2.769	165	3.4	100	> +/- 25%
135	Ba	59.071	No Gas	59.071	165	0.2	100	
137	Ba	57.017	No Gas	57.017	165	0.4	100	
201	Hg	0.006	No Gas	0.006	165	12.3	100	> +/- 25%
202	Hg	0.007	No Gas	0.007	165	3.2	100	> +/- 25%
203	Tl	50.116	No Gas	50.116	165	1.7	100	
205	Tl	50.285	No Gas	50.285	165	0.9	100	



Sample Report

Mass	Name	Conc.	Tune	Raw Conc.	ISTD	CPS RSD	LDR	QC Flag
208	Pb	49.224	No Gas	49.224	165	0.9	100	
238	U	44.068	No Gas	44.068	165	1.2	100	

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	ISTD Recovery %	ISTD Ref CPS
Li	6	No Gas	714510.62	1.9	109.5	652534.513333333
Sc	45	No Gas	4493185.33	0.8	104.5	4301289.33333333
Ge	72	No Gas	3127652.58	1.4	96.8	3232628.25
Rh	103	No Gas	11898628.33	0.7	93.5	12725208.3333333
Ho	165	No Gas	5363570.50	1.2	89.9	5963621



Sample Report

Sample Name bai0580-msd2
File Name 081LFMD.d
Data Path Name D:\Agilent\ICPMH\1\DATA\Method Batches\200.8\Sequences 200.8\09222020.b
Acq Time 2020-09-22 14:01:54
Sample Type LFMDup
Total Dilution 1.0000
Comment ---
ISTD Ref FileName 003CALB.d
Sample QC Pass/Fail Pass
ISTD QC Pass/Fail Pass
Operator TRC

QC Analyte Table

Mass	Name	Conc.	Tune	Raw Conc.	ISTD	CPS RSD	LDR	QC Flag
7	Li	44.352	No Gas	44.352	6	1.5	20	
9	Be	41.108	No Gas	41.108	6	1.3	20	
11	B	16.126	No Gas	16.126	45	0.2	20	
27	Al	1039.679	No Gas	1039.679	45	2.0	20	
47	Ti	96.167	No Gas	96.167	72	0.2	20	
51	V	43.018	No Gas	43.018	72	5.9	20	
52	Cr	64.399	No Gas	64.399	72	2.5	20	
55	Mn	122.385	No Gas	122.385	72	2.3	20	
59	Co	54.862	No Gas	54.862	72	0.7	20	
60	Ni	57.256	No Gas	57.256	72	0.5	20	
62	Ni	79.978	No Gas	79.978	72	1.1	20	
63	Cu	51.848	No Gas	51.848	72	0.4	20	
65	Cu	51.671	No Gas	51.671	72	0.8	20	
66	Zn	49.099	No Gas	49.099	72	0.7	20	
68	Zn	49.019	No Gas	49.019	72	0.8	20	
75	As	49.884	No Gas	49.884	72	1.3	20	
78	Se	50.993	No Gas	50.993	72	1.3	20	
82	Se	47.655	No Gas	47.655	72	1.5	20	
88	Sr	85.013	No Gas	85.013	72	1.2	20	
95	Mo	0.060	No Gas	0.06	103	15.9	20	
98	Mo	0.050	No Gas	0.05	103	19.5	20	
107	Ag	49.911	No Gas	49.911	103	1.3	20	
109	Ag	49.734	No Gas	49.734	103	0.4	20	
111	Cd	48.978	No Gas	48.978	103	1.1	20	
114	Cd	47.857	No Gas	47.857	103	0.4	20	
121	Sb	<0.000	No Gas	-2.859	165	3.5	20	
123	Sb	<0.000	No Gas	-2.808	165	3.5	20	
135	Ba	57.743	No Gas	57.743	165	0.3	20	
137	Ba	55.795	No Gas	55.795	165	0.5	20	
201	Hg	0.007	No Gas	0.007	165	7.0	20	
202	Hg	0.006	No Gas	0.006	165	9.9	20	
203	Tl	48.978	No Gas	48.978	165	0.6	20	
205	Tl	49.817	No Gas	49.817	165	0.8	20	



Sample Report

Mass	Name	Conc.	Tune	Raw Conc.	ISTD	CPS RSD	LDR	QC Flag
208	Pb	48.007	No Gas	48.007	165	0.3	20	
238	U	42.189	No Gas	42.189	165	1.1	20	

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	ISTD Recovery %	ISTD Ref CPS
Li	6	No Gas	725147.26	0.8	111.1	652534.513333333
Sc	45	No Gas	4518341.33	2.8	105.0	4301289.33333333
Ge	72	No Gas	3091537.08	1.0	95.6	3232628.25
Rh	103	No Gas	11970109.67	1.7	94.1	12725208.3333333
Ho	165	No Gas	5392340.83	0.9	90.4	5963621



Sample Report

Sample Name wai0678-17
File Name 084SMPL.d
Data Path Name D:\Agilent\CPMH\1\DATA\Method Batches\200.8\Sequences 200.8\09222020.b
Acq Time 2020-09-22 14:10:01
Sample Type Sample
Total Dilution 1.0000
Comment ---
ISTD Ref FileName 003CALB.d
Sample QC Pass/Fail Pass
ISTD QC Pass/Fail Pass
Operator TRC

QC Analyte Table

Mass	Name	Conc.	Tune	Raw Conc.	ISTD	CPS RSD	LDR	QC Flag
7	Li	1.215	No Gas	1.215	6	0.4	100	
9	Be	0.004	No Gas	0.004	6	25.0	200	
11	B	111.727	No Gas	111.727	45	0.8	1000	
27	Al	378.309	No Gas	378.309	45	1.4	4000	
47	Ti	42.438	No Gas	42.438	72	1.9	1000	
51	V	44.841	No Gas	44.841	72	2.2	1000	
52	Cr	9.057	No Gas	9.057	72	2.4	1000	
55	Mn	40.709	No Gas	40.709	72	1.9	1000	
59	Co	0.671	No Gas	0.671	72	2.3	1000	
60	Ni	2.734	No Gas	2.734	72	0.5	1000	
62	Ni	129.916	No Gas	129.916	72	14.9	1000	
63	Cu	6.884	No Gas	6.884	72	11.5	1000	
65	Cu	0.813	No Gas	0.813	72	0.8	1000	
66	Zn	0.013	No Gas	0.013	72	1.9	1000	
68	Zn	0.129	No Gas	0.129	72	0.2	1000	
75	As	2.133	No Gas	2.133	72	9.2	1000	
78	Se	7.318	No Gas	7.318	72	2.2	1000	
82	Se	2.472	No Gas	2.472	72	1.7	1000	
88	Sr	146.930	No Gas	146.93	72	0.8	1000	
95	Mo	0.315	No Gas	0.315	103	8.5	1000	
98	Mo	0.302	No Gas	0.302	103	5.3	1000	
107	Ag	0.010	No Gas	0.01	103	9.0	200	
109	Ag	0.009	No Gas	0.009	103	11.9	500	
111	Cd	0.103	No Gas	0.103	103	17.1	1000	
114	Cd	0.208	No Gas	0.208	103	13.1	1000	
121	Sb	<0.000	No Gas	-2.554	165	2.6	1000	
123	Sb	<0.000	No Gas	-2.498	165	2.8	1000	
135	Ba	5.941	No Gas	5.941	165	1.7	1000	
137	Ba	5.746	No Gas	5.746	165	2.7	1000	
201	Hg	0.007	No Gas	0.007	165	17.3	50	
202	Hg	0.006	No Gas	0.006	165	6.4	50	
203	Tl	<0.000	No Gas	-0.001	165	16.7	1000	
205	Tl	<0.000	No Gas	0	165	5.8	1000	



Sample Report

Mass	Name	Conc.	Tune	Raw Conc.	ISTD	CPS RSD	LDR	QC Flag
208	Pb	0.090	No Gas	0.09	165	1.8	1000	
238	U	0.044	No Gas	0.044	165	8.7	1000	

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	ISTD Recovery %	ISTD Ref CPS
Li	6	No Gas	569450.48	1.2	87.3	652534.513333333
Sc	45	No Gas	4095264.17	1.0	95.2	4301289.33333333
Ge	72	No Gas	2774950.08	1.6	85.8	3232628.25
Rh	103	No Gas	10049862.33	1.5	79.0	12725208.3333333
Ho	165	No Gas	4800004.17	1.3	80.5	5963621



Sample Report

Sample Name wai0678-18
File Name 085SMPL.d
Data Path Name D:\Agilent\ICPMH\1\DATA\Method Batches\200.8\Sequences 200.8\09222020.b
Acq Time 2020-09-22 14:12:53
Sample Type Sample
Total Dilution 1.0000
Comment —
ISTD Ref FileName 003CALB.d
Sample QC Pass/Fail Pass
ISTD QC Pass/Fail Pass
Operator TRC

QC Analyte Table

Mass	Name	Conc.	Tune	Raw Conc.	ISTD	CPS RSD	LDR	QC Flag
7	Li	1.346	No Gas	1.346	6	0.9	100	
9	Be	0.001	No Gas	0.001	6	36.5	200	
11	B	112.390	No Gas	112.39	45	1.5	1000	
27	Al	339.384	No Gas	339.384	45	1.4	4000	
47	Ti	42.069	No Gas	42.069	72	7.0	1000	
51	V	43.419	No Gas	43.419	72	5.0	1000	
52	Cr	7.481	No Gas	7.481	72	0.3	1000	
55	Mn	14.525	No Gas	14.525	72	0.2	1000	
59	Co	0.476	No Gas	0.476	72	2.0	1000	
60	Ni	2.254	No Gas	2.254	72	1.4	1000	
62	Ni	84.120	No Gas	84.12	72	9.1	1000	
63	Cu	5.247	No Gas	5.247	72	5.4	1000	
65	Cu	1.076	No Gas	1.076	72	1.2	1000	
66	Zn	0.177	No Gas	0.177	72	0.4	1000	
68	Zn	0.338	No Gas	0.338	72	1.2	1000	
75	As	2.532	No Gas	2.532	72	4.7	1000	
78	Se	6.303	No Gas	6.303	72	0.6	1000	
82	Se	2.594	No Gas	2.594	72	2.8	1000	
88	Sr	154.303	No Gas	154.303	72	0.3	1000	
95	Mo	0.303	No Gas	0.303	103	8.3	1000	
98	Mo	0.301	No Gas	0.301	103	5.3	1000	
107	Ag	0.006	No Gas	0.006	103	20.7	200	
109	Ag	0.004	No Gas	0.004	103	11.9	500	
111	Cd	0.113	No Gas	0.113	103	6.6	1000	
114	Cd	0.236	No Gas	0.236	103	1.7	1000	
121	Sb	<0.000	No Gas	-2.672	165	2.2	1000	
123	Sb	<0.000	No Gas	-2.626	165	2.2	1000	
135	Ba	5.834	No Gas	5.834	165	1.7	1000	
137	Ba	5.672	No Gas	5.672	165	0.8	1000	
201	Hg	0.005	No Gas	0.005	165	11.1	50	
202	Hg	0.006	No Gas	0.006	165	4.9	50	
203	Tl	0.000	No Gas	0	165	8.3	1000	
205	Tl	<0.000	No Gas	0	165	12.8	1000	



Sample Report

Mass	Name	Conc.	Tune	Raw Conc.	ISTD	CPS RSD	LDR	QC Flag
208	Pb	0.052	No Gas	0.052	165	1.6	1000	
238	U	0.031	No Gas	0.031	165	0.6	1000	

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	ISTD Recovery %	ISTD Ref CPS
Li	6	No Gas	584547.20	1.6	89.6	652534.513333333
Sc	45	No Gas	4127736.92	0.7	96.0	4301289.33333333
Ge	72	No Gas	2765943.67	0.8	85.6	3232628.25
Rh	103	No Gas	10215228.33	1.2	80.3	12725208.3333333
Ho	165	No Gas	4761564.33	2.0	79.8	5963621



Sample Report

Sample Name wai0678-19
File Name 104SMPL.d
Data Path Name D:\Agilent\ICPMH\1\DATA\Method Batches\200.8\Sequences 200.8\09222020.b
Acq Time 2020-09-22 15:05:19
Sample Type Sample
Total Dilution 1.0000
Comment ---
ISTD Ref FileName 003CALB.d
Sample QC Pass/Fail Pass
ISTD QC Pass/Fail Pass
Operator TRC

QC Analyte Table

Mass	Name	Conc.	Tune	Raw Conc.	ISTD	CPS RSD	LDR	QC Flag
7	Li	0.762	No Gas	0.762	6	1.9	100	
9	Be	0.010	No Gas	0.01	6	9.1	200	
11	B	107.842	No Gas	107.842	45	2.3	1000	
27	Al	174.077	No Gas	174.077	45	21.2	4000	
47	Ti	16.412	No Gas	16.412	72	10.7	1000	
51	V	36.055	No Gas	36.055	72	0.9	1000	
52	Cr	2.385	No Gas	2.385	72	4.3	1000	
55	Mn	16.451	No Gas	16.451	72	1.8	1000	
59	Co	0.382	No Gas	0.382	72	0.7	1000	
60	Ni	1.609	No Gas	1.609	72	9.4	1000	
62	Ni	589.152	No Gas	589.152	72	14.1	1000	
63	Cu	27.559	No Gas	27.559	72	12.6	1000	
65	Cu	0.313	No Gas	0.313	72	7.7	1000	
66	Zn	<0.000	No Gas	-1.286	72	7.1	1000	
68	Zn	<0.000	No Gas	-1.362	72	2.8	1000	
75	As	3.184	No Gas	3.184	72	4.7	1000	
78	Se	11.786	No Gas	11.786	72	5.9	1000	
82	Se	4.283	No Gas	4.283	72	6.2	1000	
88	Sr	163.247	No Gas	163.247	72	2.6	1000	
95	Mo	0.203	No Gas	0.203	103	3.4	1000	
98	Mo	0.174	No Gas	0.174	103	6.4	1000	
107	Ag	0.002	No Gas	0.002	103	14.0	200	
109	Ag	0.001	No Gas	0.001	103	12.9	500	
111	Cd	0.127	No Gas	0.127	103	7.3	1000	
114	Cd	0.265	No Gas	0.265	103	5.8	1000	
121	Sb	<0.000	No Gas	-5.195	165	6.6	1000	
123	Sb	<0.000	No Gas	-5.154	165	7.6	1000	
135	Ba	6.117	No Gas	6.117	165	2.7	1000	
137	Ba	5.816	No Gas	5.816	165	0.9	1000	
201	Hg	0.004	No Gas	0.004	165	12.8	50	
202	Hg	0.003	No Gas	0.003	165	6.7	50	
203	Tl	0.000	No Gas	0	165	14.8	1000	
205	Tl	0.000	No Gas	0	165	1.7	1000	



Sample Report

Mass	Name	Conc.	Tune	Raw Conc.	ISTD	CPS RSD	LDR	QC Flag
208	Pb	0.006	No Gas	0.006	165	3.8	1000	
238	U	0.039	No Gas	0.039	165	1.7	1000	

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	ISTD Recovery %	ISTD Ref CPS
Li	6	No Gas	511530.79	1.6	78.4	652534.513333333
Sc	45	No Gas	4101393.00	3.7	95.4	4301289.33333333
Ge	72	No Gas	2937072.42	1.3	90.9	3232628.25
Rh	103	No Gas	10585479.00	2.0	83.2	12725208.3333333
Ho	165	No Gas	4873091.50	1.3	81.7	5963621



Sample Report

Sample Name wai0678-20
File Name 086SMPL.d
Data Path Name D:\Agilent\ICPMH\1\DATA\Method Baiches\200.8\Sequences 200.8\09222020.b
Acq Time 2020-09-22 14:15:38
Sample Type Sample
Total Dilution 1.0000
Comment ---
ISTD Ref FileName 003CALB.d
Sample QC Pass/Fail Fail
ISTD QC Pass/Fail Pass
Operator TRC

QC Analyte Table

Mass	Name	Conc.	Tune	Raw Conc.	ISTD	CPS RSD	LDR	QC Flag
7	Li	4.052	No Gas	4.052	6	1.2	100	
9	Be	0.017	No Gas	0.017	6	19.7	200	
11	B	172.004	No Gas	172.004	45	0.8	1000	
27	Al	736.547	No Gas	736.547	45	0.4	4000	
47	Ti	75.951	No Gas	75.951	72	4.8	1000	
51	V	21.961	No Gas	21.961	72	5.0	1000	
52	Cr	8.995	No Gas	8.995	72	0.9	1000	
55	Mn	84.076	No Gas	84.076	72	1.8	1000	
59	Co	1.817	No Gas	1.817	72	1.0	1000	
60	Ni	7.111	No Gas	7.111	72	1.1	1000	
62	Ni	99.959	No Gas	99.959	72	1.9	1000	
63	Cu	10.429	No Gas	10.429	72	1.6	1000	
65	Cu	1.743	No Gas	1.743	72	1.2	1000	
66	Zn	0.205	No Gas	0.205	72	0.7	1000	
68	Zn	0.136	No Gas	0.136	72	0.5	1000	
75	As	2.632	No Gas	2.632	72	4.1	1000	
78	Se	6.083	No Gas	6.083	72	0.5	1000	
82	Se	11.486	No Gas	11.486	72	2.0	1000	
88	Sr	1624.770	No Gas	1624.77	72	0.8	1000	>LDR
95	Mo	0.621	No Gas	0.621	103	4.1	1000	
98	Mo	0.603	No Gas	0.603	103	2.9	1000	
107	Ag	0.009	No Gas	0.009	103	14.9	200	
109	Ag	0.006	No Gas	0.006	103	9.6	500	
111	Cd	1.212	No Gas	1.212	103	1.6	1000	
114	Cd	2.526	No Gas	2.526	103	2.3	1000	
121	Sb	<0.000	No Gas	-2.757	165	2.4	1000	
123	Sb	<0.000	No Gas	-2.717	165	2.6	1000	
135	Ba	20.380	No Gas	20.38	165	1.1	1000	
137	Ba	19.697	No Gas	19.697	165	0.5	1000	
201	Hg	0.007	No Gas	0.007	165	9.2	50	
202	Hg	0.006	No Gas	0.006	165	2.4	50	
203	Tl	0.003	No Gas	0.003	165	5.9	1000	
205	Tl	0.003	No Gas	0.003	165	9.7	1000	



Sample Report

Mass	Name	Conc.	Tune	Raw Conc.	ISTD	CPS RSD	LDR	QC Flag
208	Pb	0.046	No Gas	0.046	165	3.4	1000	
238	U	0.154	No Gas	0.154	165	0.9	1000	

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	ISTD Recovery %	ISTD Ref CPS
Li	6	No Gas	551272.04	0.8	84.5	652534.513333333
Sc	45	No Gas	3918070.33	0.3	91.1	4301289.33333333
Ge	72	No Gas	2650814.75	0.6	82.0	3232628.25
Rh	103	No Gas	9479526.67	1.2	74.5	12725208.3333333
Ho	165	No Gas	4645856.33	0.5	77.9	5963621



Sample Report

Sample Name wal0678-21
File Name 087SMPL.d
Data Path Name D:\Agilent\ICPMH\1\DATA\Method Batches\200.8\Sequences 200.8\09222020.b
Acq Time 2020-09-22 14:18:26
Sample Type Sample
Total Dilution 1.0000
Comment ---
ISTD Ref FileName 003CALB.d
Sample QC Pass/Fail Pass
ISTD QC Pass/Fail Pass
Operator TRC

QC Analyte Table

Mass	Name	Conc.	Tune	Raw Conc.	ISTD	CPS RSD	LDR	QC Flag
7	Li	1.796	No Gas	1.796	6	0.9	100	
9	Be	0.017	No Gas	0.017	6	11.8	200	
11	B	82.781	No Gas	82.781	45	0.7	1000	
27	Al	983.998	No Gas	983.998	45	2.0	4000	
47	Ti	89.071	No Gas	89.071	72	1.1	1000	
51	V	7.946	No Gas	7.946	72	7.4	1000	
52	Cr	11.402	No Gas	11.402	72	0.4	1000	
55	Mn	69.244	No Gas	69.244	72	1.5	1000	
59	Co	1.648	No Gas	1.648	72	0.6	1000	
60	Ni	7.631	No Gas	7.631	72	0.3	1000	
62	Ni	66.661	No Gas	66.661	72	1.1	1000	
63	Cu	6.275	No Gas	6.275	72	0.3	1000	
65	Cu	2.286	No Gas	2.286	72	0.4	1000	
66	Zn	0.588	No Gas	0.588	72	0.5	1000	
68	Zn	0.542	No Gas	0.542	72	0.1	1000	
75	As	1.422	No Gas	1.422	72	6.0	1000	
78	Se	4.806	No Gas	4.806	72	0.5	1000	
82	Se	4.824	No Gas	4.824	72	2.1	1000	
88	Sr	425.646	No Gas	425.646	72	0.1	1000	
95	Mo	0.199	No Gas	0.199	103	2.3	1000	
98	Mo	0.183	No Gas	0.183	103	5.3	1000	
107	Ag	0.008	No Gas	0.008	103	7.9	200	
109	Ag	0.006	No Gas	0.006	103	15.6	500	
111	Cd	0.327	No Gas	0.327	103	5.8	1000	
114	Cd	0.670	No Gas	0.67	103	6.6	1000	
121	Sb	<0.000	No Gas	-3.118	165	4.0	1000	
123	Sb	<0.000	No Gas	-3.055	165	3.2	1000	
135	Ba	5.875	No Gas	5.875	165	1.1	1000	
137	Ba	5.720	No Gas	5.72	165	0.4	1000	
201	Hg	0.006	No Gas	0.006	165	3.3	50	
202	Hg	0.007	No Gas	0.007	165	1.2	50	
203	Tl	0.002	No Gas	0.002	165	8.8	1000	
205	Tl	0.002	No Gas	0.002	165	7.7	1000	



Sample Report

Mass	Name	Conc.	Tune	Raw Conc.	ISTD	CPS RSD	LDR	QC Flag
208	Pb	0.068	No Gas	0.068	165	0.8	1000	
238	U	0.044	No Gas	0.044	165	2.2	1000	

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	ISTD Recovery %	ISTD Ref CPS
Li	6	No Gas	590164.77	0.9	90.4	652534.513333333
Sc	45	No Gas	4020856.50	0.8	93.5	4301289.33333333
Ge	72	No Gas	2758054.42	1.1	85.3	3232628.25
Rh	103	No Gas	9945766.00	0.2	78.2	12725208.3333333
Ho	165	No Gas	4832393.83	0.5	81.0	5963621



Sample Report

Sample Name wai0678-22
File Name 092_ARF.d
Data Path Name D:\Agilent\ICPMH\1\DATA\Method Batches\200.8\Sequences 200.8\09222020.b
Acq Time 2020-09-22 14:32:13
Sample Type AllRef
Total Dilution 1.0000
Comment ---
ISTD Ref FileName 003CALB.d
Sample QC Pass/Fail Pass
ISTD QC Pass/Fail Pass
Operator TRC

QC Analyte Table

Mass	Name	Conc.	Tune	Raw Conc.	ISTD	CPS RSD	LDR	QC Flag
7	Li	1.270	No Gas	1.27	6	1.3	100	
9	Be	0.006	No Gas	0.006	6	27.0	200	
11	B	58.305	No Gas	58.305	45	0.7	1000	
27	Al	302.572	No Gas	302.572	45	3.0	4000	
47	Ti	27.159	No Gas	27.159	72	1.7	1000	
51	V	17.044	No Gas	17.044	72	7.1	1000	
52	Cr	6.387	No Gas	6.387	72	2.2	1000	
55	Mn	78.382	No Gas	78.382	72	1.2	1000	
59	Co	0.994	No Gas	0.994	72	2.4	1000	
60	Ni	6.420	No Gas	6.42	72	0.8	1000	
62	Ni	34.790	No Gas	34.79	72	5.4	1000	
63	Cu	2.518	No Gas	2.518	72	1.7	1000	
65	Cu	0.714	No Gas	0.714	72	1.6	1000	
66	Zn	1.463	No Gas	1.463	72	0.4	1000	
68	Zn	1.488	No Gas	1.488	72	0.4	1000	
75	As	4.822	No Gas	4.822	72	1.1	1000	
78	Se	5.268	No Gas	5.268	72	1.3	1000	
82	Se	3.323	No Gas	3.323	72	0.6	1000	
88	Sr	553.347	No Gas	553.347	72	1.8	1000	
95	Mo	0.459	No Gas	0.459	103	10.1	1000	
98	Mo	0.465	No Gas	0.465	103	13.4	1000	
107	Ag	0.002	No Gas	0.002	103	6.7	200	
109	Ag	0.002	No Gas	0.002	103	2.3	500	
111	Cd	0.391	No Gas	0.391	103	5.0	1000	
114	Cd	0.822	No Gas	0.822	103	3.9	1000	
121	Sb	<0.000	No Gas	-2.356	165	7.7	1000	
123	Sb	<0.000	No Gas	-2.276	165	6.3	1000	
135	Ba	5.204	No Gas	5.204	165	0.5	1000	
137	Ba	5.016	No Gas	5.016	165	0.6	1000	
201	Hg	0.010	No Gas	0.01	165	11.5	50	
202	Hg	0.009	No Gas	0.009	165	7.1	50	
203	Tl	0.001	No Gas	0.001	165	6.0	1000	
205	Tl	0.001	No Gas	0.001	165	9.5	1000	



Sample Report

Mass	Name	Conc.	Tune	Raw Conc.	ISTD	CPS RSD	LDR	QC Flag
208	Pb	0.030	No Gas	0.03	165	1.9	1000	
238	U	0.207	No Gas	0.207	165	1.1	1000	

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	ISTD Recovery %	ISTD Ref CPS
Li	6	No Gas	576446.84	0.9	88.3	652534.513333333
Sc	45	No Gas	4004949.08	0.7	93.1	4301289.33333333
Ge	72	No Gas	2691720.17	0.7	83.3	3232628.25
Rh	103	No Gas	10066636.33	0.6	79.1	12725208.3333333
Ho	165	No Gas	4836499.17	0.5	81.1	5963621



Sample Report

Sample Name bai0580-ms3
File Name 093_LFM.d
Data Path Name D:\Agilent\ICPMH\1\DATA\Method Batches\200.8\Sequences 200.8\09222020.b
Acq Time 2020-09-22 14:35:05
Sample Type LFM
Total Dilution 1.0000
Comment ---
ISTD Ref FileName 003CALB.d
Sample QC Pass/Fail Fail
ISTD QC Pass/Fail Pass
Operator TRC

QC Analyte Table

Mass	Name	Conc.	Tune	Raw Conc.	ISTD	CPS RSD	LDR	QC Flag
7	Li	51.803	No Gas	51.803	6	0.9	100	
9	Be	48.286	No Gas	48.286	6	1.2	100	
11	B	58.073	No Gas	58.073	45	0.8	100	> +/- 25%
27	Al	348.308	No Gas	348.308	45	1.9	100	> +/- 25%
47	Ti	28.028	No Gas	28.028	72	3.5	100	> +/- 25%
51	V	71.517	No Gas	71.517	72	3.5	100	
52	Cr	63.122	No Gas	63.122	72	1.4	100	
55	Mn	133.485	No Gas	133.485	72	2.0	100	
59	Co	53.265	No Gas	53.265	72	1.2	100	
60	Ni	56.767	No Gas	56.767	72	1.0	100	
62	Ni	79.947	No Gas	79.947	72	1.9	100	
63	Cu	50.752	No Gas	50.752	72	0.3	100	
65	Cu	49.502	No Gas	49.502	72	0.5	100	
66	Zn	51.630	No Gas	51.63	72	0.8	100	
68	Zn	51.421	No Gas	51.421	72	0.3	100	
75	As	56.257	No Gas	56.257	72	1.3	100	
78	Se	55.651	No Gas	55.651	72	1.6	100	
82	Se	53.581	No Gas	53.581	72	1.1	100	
88	Sr	617.111	No Gas	617.111	72	0.6	100	> +/- 25%
95	Mo	0.425	No Gas	0.425	103	9.4	100	> +/- 25%
98	Mo	0.417	No Gas	0.417	103	9.5	100	> +/- 25%
107	Ag	52.727	No Gas	52.727	103	0.4	100	
109	Ag	53.122	No Gas	53.122	103	0.9	100	
111	Cd	53.373	No Gas	53.373	103	0.6	100	
114	Cd	52.799	No Gas	52.799	103	0.3	100	
121	Sb	<0.000	No Gas	-2.69	165	5.9	100	> +/- 25%
123	Sb	<0.000	No Gas	-2.638	165	5.9	100	> +/- 25%
135	Ba	60.220	No Gas	60.22	165	0.5	100	
137	Ba	58.045	No Gas	58.045	165	0.3	100	
201	Hg	0.009	No Gas	0.009	165	5.4	100	> +/- 25%
202	Hg	0.008	No Gas	0.008	165	6.2	100	> +/- 25%
203	Tl	52.287	No Gas	52.287	165	1.9	100	
205	Tl	52.604	No Gas	52.604	165	0.6	100	



Sample Report

Mass	Name	Conc.	Tune	Raw Conc.	ISTD	CPS RSD	LDR	QC Flag
208	Pb	49.685	No Gas	49.685	165	0.2	100	
238	U	39.506	No Gas	39.506	165	2.3	100	

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	ISTD Recovery %	ISTD Ref CPS
Li	6	No Gas	548808.91	0.2	84.1	652534.513333333
Sc	45	No Gas	3939567.75	1.9	91.6	4301289.33333333
Ge	72	No Gas	2644877.58	1.7	81.8	3232628.25
Rh	103	No Gas	9970585.33	1.0	78.4	12725208.3333333
Ho	165	No Gas	4852856.17	1.6	81.4	5963621



Sample Report

Sample Name bai0580-msd3
File Name 094LFMD.d
Data Path Name D:\Agilent\ICPMH\1\DATA\Method Batches\200.8\Sequences 200.8\09222020.b
Acq Time 2020-09-22 14:37:42
Sample Type LFMDup
Total Dilution 1.0000
Comment ---
ISTD Ref FileName 003CALB.d
Sample QC Pass/Fail Pass
ISTD QC Pass/Fail Pass
Operator TRC

QC Analyte Table

Mass	Name	Conc.	Tune	Raw Conc.	ISTD	CPS RSD	LDR	QC Flag
7	Li	49.427	No Gas	49.427	6	0.6	20	
9	Be	45.708	No Gas	45.708	6	1.0	20	
11	B	55.435	No Gas	55.435	45	0.9	20	
27	Al	360.213	No Gas	360.213	45	1.8	20	
47	Ti	28.047	No Gas	28.047	72	3.6	20	
51	V	66.783	No Gas	66.783	72	3.0	20	
52	Cr	59.503	No Gas	59.503	72	2.0	20	
55	Mn	124.819	No Gas	124.819	72	0.9	20	
59	Co	49.666	No Gas	49.666	72	2.2	20	
60	Ni	53.411	No Gas	53.411	72	0.3	20	
62	Ni	71.395	No Gas	71.395	72	1.4	20	
63	Cu	47.153	No Gas	47.153	72	0.7	20	
65	Cu	46.002	No Gas	46.002	72	0.4	20	
66	Zn	48.154	No Gas	48.154	72	0.7	20	
68	Zn	48.080	No Gas	48.08	72	0.8	20	
75	As	53.207	No Gas	53.207	72	1.1	20	
78	Se	51.463	No Gas	51.463	72	1.1	20	
82	Se	50.171	No Gas	50.171	72	1.0	20	
88	Sr	571.243	No Gas	571.243	72	0.7	20	
95	Mo	0.378	No Gas	0.378	103	8.6	20	
98	Mo	0.363	No Gas	0.363	103	8.7	20	
107	Ag	51.939	No Gas	51.939	103	2.0	20	
109	Ag	51.269	No Gas	51.269	103	0.6	20	
111	Cd	51.533	No Gas	51.533	103	0.7	20	
114	Cd	51.164	No Gas	51.164	103	0.7	20	
121	Sb	<0.000	No Gas	-3.046	165	5.9	20	
123	Sb	<0.000	No Gas	-2.966	165	5.8	20	
135	Ba	58.062	No Gas	58.062	165	0.4	20	
137	Ba	56.063	No Gas	56.063	165	0.6	20	
201	Hg	0.007	No Gas	0.007	165	11.4	20	
202	Hg	0.007	No Gas	0.007	165	6.5	20	
203	Tl	51.521	No Gas	51.521	165	0.1	20	
205	Tl	51.618	No Gas	51.618	165	0.5	20	



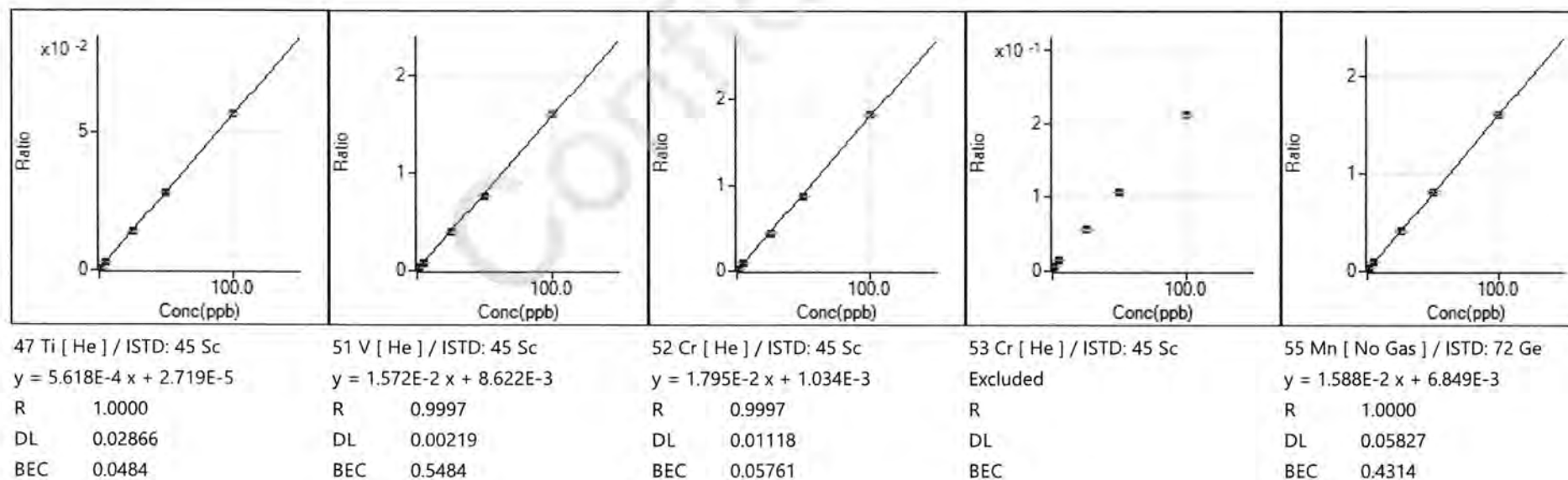
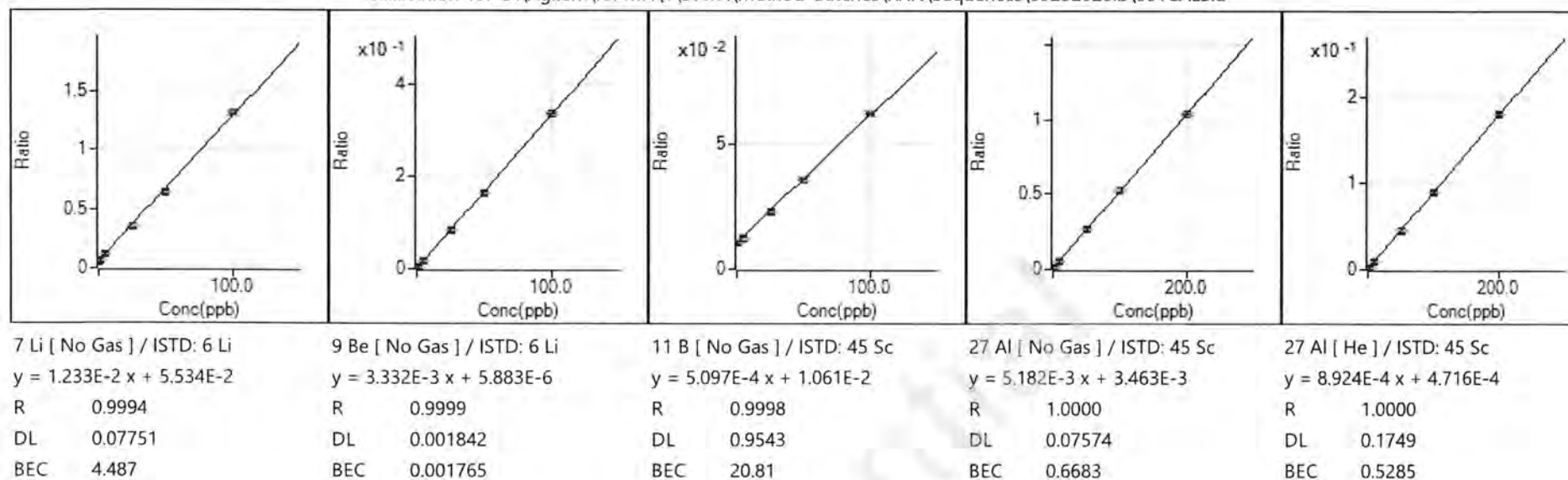
Sample Report

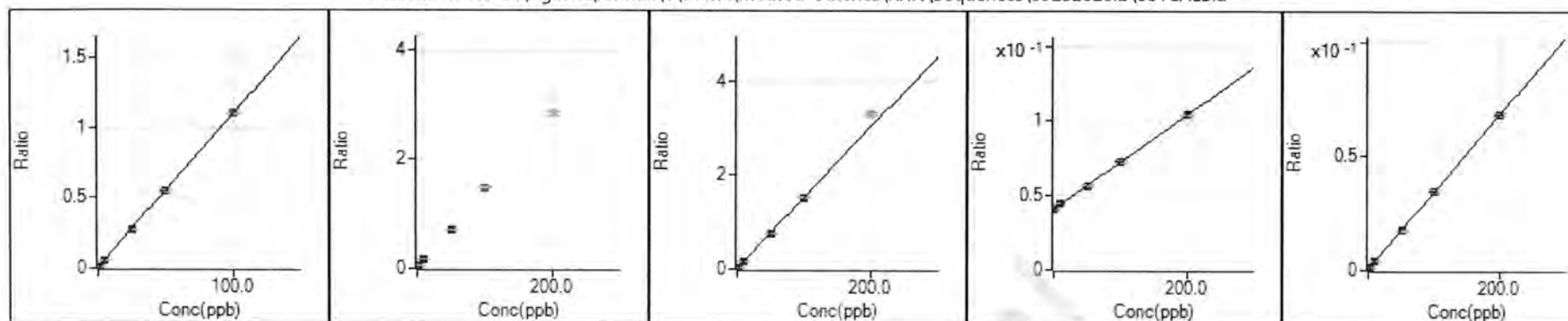
Mass	Name	Conc.	Tune	Raw Conc.	ISTD	CPS RSD	LDR	QC Flag
208	Pb	48.466	No Gas	48.466	165	1.0	20	
238	U	38.717	No Gas	38.717	165	3.2	20	

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	ISTD Recovery %	ISTD Ref CPS
Li	6	No Gas	553556.90	0.3	84.8	652534.513333333
Sc	45	No Gas	3892333.17	1.5	90.5	4301289.33333333
Ge	72	No Gas	2713737.75	1.2	83.9	3232628.25
Rh	103	No Gas	9961514.00	1.0	78.3	12725208.3333333
Ho	165	No Gas	4859414.00	1.0	81.5	5963621







55 Mn [He] / ISTD: 72 Ge

$$y = 1.101E-2 x + 6.867E-4$$

R 1.0000

DL 0.01976

BEC 0.06235

56 Fe [He] / ISTD: 72 Ge

Excluded

R

DL

BEC

56 Fe [HEHe] / ISTD: 72 Ge

$$y = 1.506E-2 x + 1.215E-2$$

R 1.0000

DL 0.03754

BEC 0.807

57 Fe [No Gas] / ISTD: 72 Ge

$$y = 3.183E-4 x + 4.024E-2$$

R 0.9999

DL 9.155

BEC 126.4

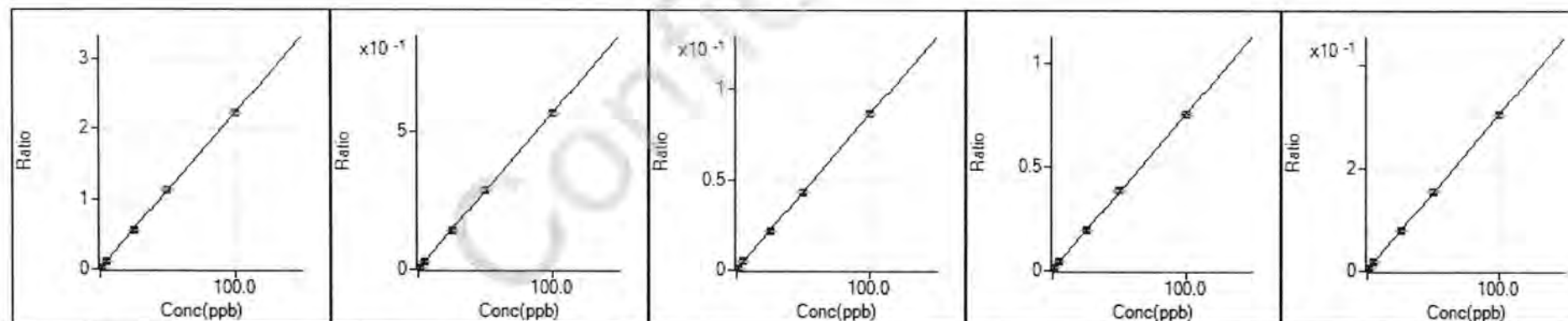
57 Fe [He] / ISTD: 72 Ge

$$y = 3.386E-4 x + 5.185E-4$$

R 1.0000

DL 0.14

BEC 1.532



59 Co [He] / ISTD: 72 Ge

$$y = 2.224E-2 x + 3.341E-5$$

R 0.9999

DL 0.001824

BEC 0.001502

60 Ni [He] / ISTD: 72 Ge

$$y = 5.658E-3 x + 3.744E-4$$

R 1.0000

DL 0.01832

BEC 0.06618

62 Ni [He] / ISTD: 72 Ge

$$y = 8.623E-4 x + 1.149E-4$$

R 1.0000

DL 0.0531

BEC 0.1332

65 Cu [He] / ISTD: 72 Ge

$$y = 7.550E-3 x + 1.836E-3$$

R 0.9999

DL 0.02215

BEC 0.2432

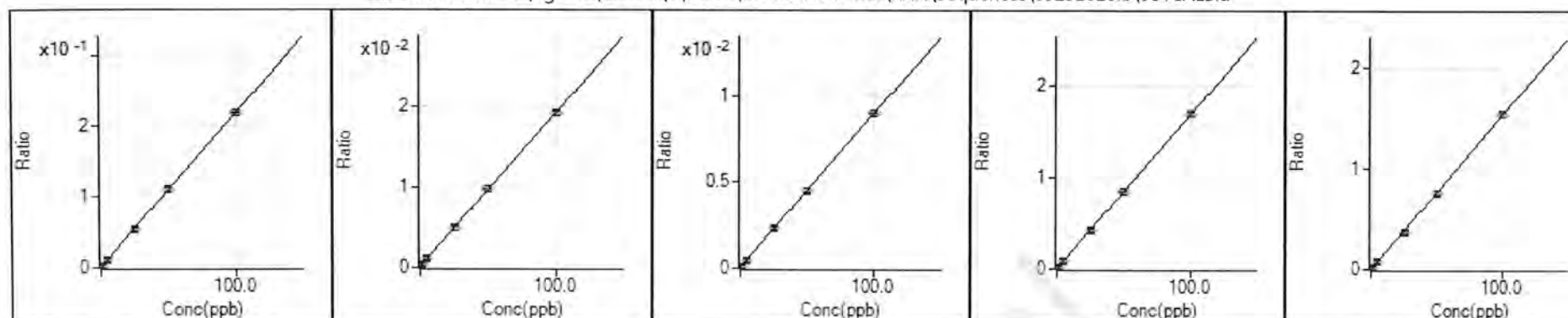
66 Zn [He] / ISTD: 72 Ge

$$y = 3.017E-3 x + 2.412E-3$$

R 1.0000

DL 0.02166

BEC 0.7995



75 As [He] / ISTD: 72 Ge

$$y = 2.195E-3 x + 2.604E-4$$

R 1.0000

DL 0.02751

BEC 0.1187

78 Se [He] / ISTD: 72 Ge

$$y = 1.916E-4 x + 1.039E-4$$

R 1.0000

DL 0.2089

BEC 0.5421

82 Se [He] / ISTD: 72 Ge

$$y = 8.931E-5 x + 3.268E-5$$

R 1.0000

DL 0.1384

BEC 0.3659

88 Sr [No Gas] / ISTD: 72 Ge

$$y = 1.689E-2 x + 2.192E-4$$

R 1.0000

DL 0.002727

BEC 0.01298

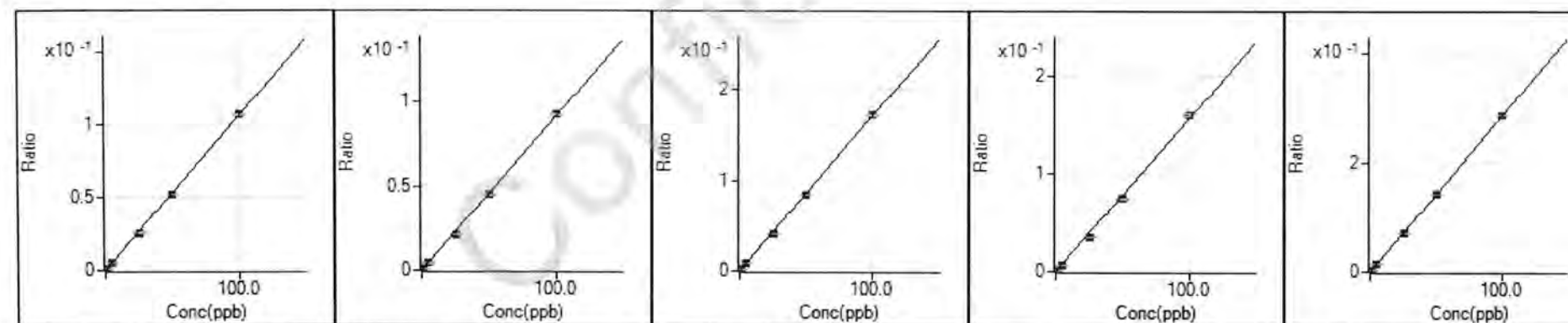
88 Sr [He] / ISTD: 72 Ge

$$y = 1.530E-2 x + 1.854E-4$$

R 0.9999

DL 0.00405

BEC 0.01212



95 Mo [No Gas] / ISTD: 103 Rh

$$y = 1.066E-3 x + 6.903E-6$$

R 0.9999

DL 0.005765

BEC 0.006475

95 Mo [He] / ISTD: 103 Rh

$$y = 9.138E-4 x + 6.582E-6$$

R 0.9997

DL 0.009921

BEC 0.007203

98 Mo [No Gas] / ISTD: 103 Rh

$$y = 1.716E-3 x + 5.778E-6$$

R 0.9999

DL 0.005339

BEC 0.003368

98 Mo [He] / ISTD: 103 Rh

$$y = 1.562E-3 x + 1.161E-5$$

R 0.9992

DL 0.005135

BEC 0.007433

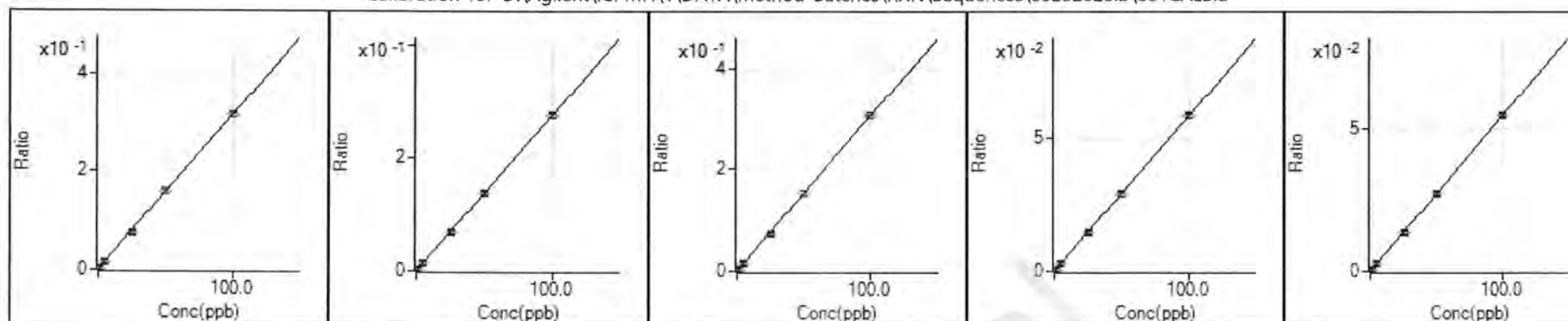
107 Ag [No Gas] / ISTD: 103 Rh

$$y = 2.850E-3 x + 1.904E-5$$

R 1.0000

DL 0.001266

BEC 0.006679



107 Ag [He] / ISTD: 103 Rh

$$y = 3.156E-3 x + 7.614E-6$$

R 0.9999

DL 0.001178

BEC 0.002413

109 Ag [No Gas] / ISTD: 103 Rh

$$y = 2.746E-3 x + 1.868E-5$$

R 1.0000

DL 0.001745

BEC 0.006801

109 Ag [He] / ISTD: 103 Rh

$$y = 3.066E-3 x + 7.737E-6$$

R 1.0000

DL 0.001316

BEC 0.002524

111 Cd [No Gas] / ISTD: 103 Rh

$$y = 5.847E-4 x - 7.997E-6$$

R 1.0000

DL 0.02295

BEC -0.01368

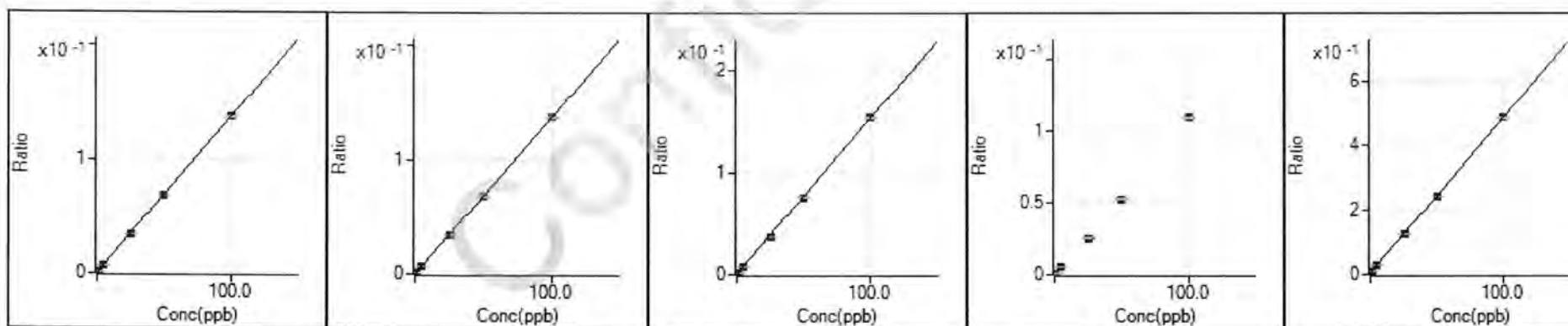
111 Cd [He] / ISTD: 103 Rh

$$y = 5.466E-4 x + 1.277E-6$$

R 1.0000

DL 0.0006128

BEC 0.002337



114 Cd [No Gas] / ISTD: 103 Rh

$$y = 1.371E-3 x - 3.652E-6$$

R 1.0000

DL 0.006863

BEC -0.002663

114 Cd [He] / ISTD: 103 Rh

$$y = 1.366E-3 x + 1.018E-5$$

R 1.0000

DL 0.001499

BEC 0.007452

118 Sn [No Gas] / ISTD: 103 Rh

$$y = 1.527E-3 x + 4.294E-4$$

R 0.9999

DL 0.04945

BEC 0.2811

118 Sn [He] / ISTD: 103 Rh

Excluded

R

DL

BEC

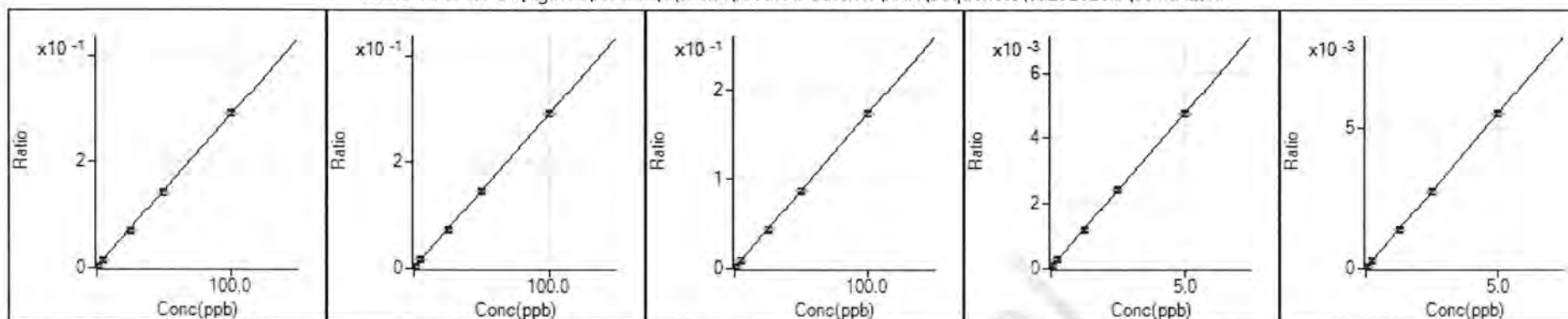
123 Sb [No Gas] / ISTD: 165 Ho

$$y = 4.802E-3 x + 6.001E-3$$

R 1.0000

DL 0.2275

BEC 1.25



123 Sb [He] / ISTD: 165 Ho

$$y = 2.870E-3 x + 9.707E-4$$

R 0.9998

DL 0.0808

BEC 0.3383

137 Ba [No Gas] / ISTD: 165 Ho

$$y = 2.901E-3 x + 1.108E-3$$

R 1.0000

DL 0.03671

BEC 0.3821

137 Ba [He] / ISTD: 165 Ho

$$y = 1.734E-3 x + 6.991E-4$$

R 1.0000

DL 0.06457

BEC 0.4031

201 Hg [No Gas] / ISTD: 165 Ho

$$y = 9.491E-4 x + 2.037E-5$$

R 0.9999

DL 0.0124

BEC 0.02146

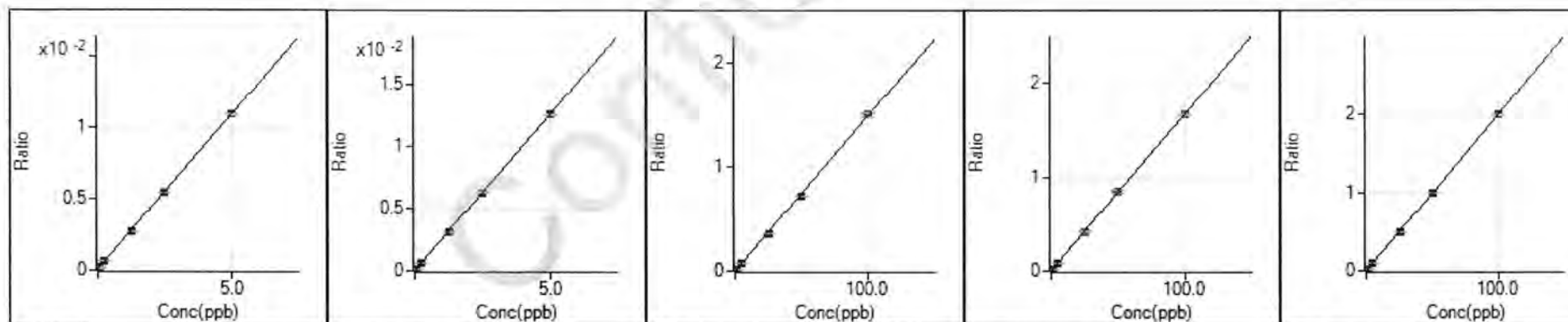
201 Hg [He] / ISTD: 165 Ho

$$y = 1.107E-3 x + 3.960E-6$$

R 1.0000

DL 0.001835

BEC 0.003577



202 Hg [No Gas] / ISTD: 165 Ho

$$y = 2.177E-3 x + 3.919E-5$$

R 1.0000

DL 0.0115

BEC 0.018

202 Hg [He] / ISTD: 165 Ho

$$y = 2.519E-3 x + 1.233E-5$$

R 1.0000

DL 0.002004

BEC 0.004894

205 Tl [No Gas] / ISTD: 165 Ho

$$y = 1.492E-2 x + 1.093E-4$$

R 0.9998

DL 0.005171

BEC 0.007324

205 Tl [He] / ISTD: 165 Ho

$$y = 1.673E-2 x + 4.812E-5$$

R 1.0000

DL 0.0005417

BEC 0.002877

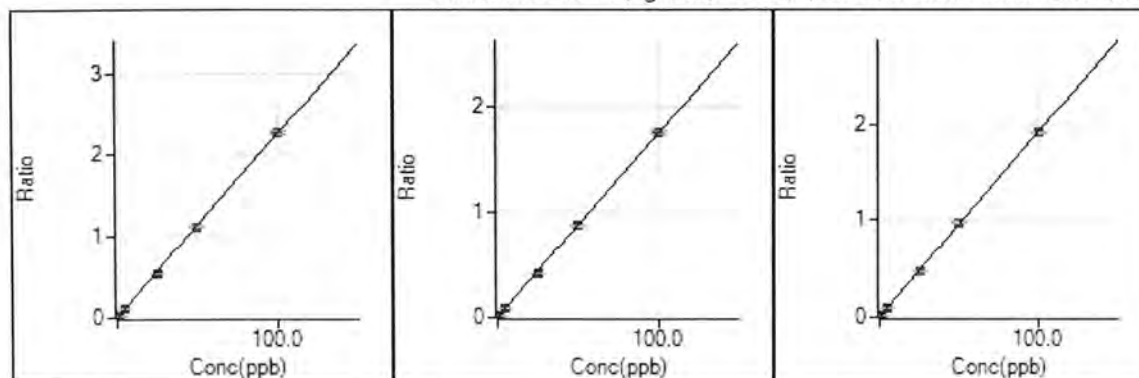
208 Pb [No Gas] / ISTD: 165 Ho

$$y = 1.990E-2 x + 9.449E-4$$

R 1.0000

DL 0.01684

BEC 0.04747



208 Pb [He] / ISTD: 165 Ho

$$y = 2.255E-2 x + 5.484E-4$$

R 0.9999

DL 0.0025

BEC 0.02432

238 U [No Gas] / ISTD: 165 Ho

$$y = 1.746E-2 x + 1.611E-5$$

R 0.9999

DL 0.0006862

BEC 0.0009227

238 U [He] / ISTD: 165 Ho

$$y = 1.924E-2 x + 1.285E-5$$

R 0.9999

DL 0.0003565

BEC 0.0006681

Sample Report

Sample Name bai0580-blk1
File Name 042_Blk.d
Data Path Name D:\Agilent\ICPMH1\DATA\Method Batches\RXN\Sequences\09232020.b
Acq Time 2020-09-23 12:59:18
Sample Type Blank
Total Dilution 1.0000
Comment —
ISTD Ref FileName 003CALB.d
Sample QC Pass/Fail Pass
ISTD QC Pass/Fail Pass
Operator TRC

QC Analyte Table

Mass	Name	Conc.	Tune	Raw Conc.	ISTD	CPS RSD	LDR	QC Flag
7	Li	0.288	No Gas	0.288	6	1.4	0.5	
75	As	0.069	He	0.069	72	6.0	0.06	
208	Pb	<0.000	No Gas	-0.027	165	21.2	0.04	
208	Pb	<0.000	He	-0.018	165	11.9	0.04	
238	U	0.001	No Gas	0.001	165	27.1	0.05	
238	U	0.001	He	0.001	165	23.3	0.05	

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	ISTD Recovery %	ISTD Ref CPS
Li	6	No Gas	938010.53	2.2	99.3	944793.686666667
Sc	45	No Gas	2343599.75	2.2	102.3	2290421.33333333
Sc	45	He	871238.77	1.4	97.0	897959.786666667
Ge	72	No Gas	1118973.17	1.4	102.6	1090208.79333333
Ge	72	He	1090633.88	4.5	99.0	1101426.41333333
Ge	72	HEHe	418721.00	0.7	97.4	429886.483333333
Rh	103	No Gas	3171162.25	1.1	98.8	3210064.33333333
Rh	103	He	8363489.39	2.3	97.1	8609522.71333333
Ho	165	No Gas	894288.69	0.7	92.6	965587.67
Ho	165	He	2983677.73	3.1	98.6	3025901.54666667



Sample Report

Sample Name bai0580-mr11
File Name 043LICV.d
Data Path Name D:\Agilent\ICPMH1\DATA\Method Batches\RKN\Sequences\09232020.b
Acq Time 2020-09-23 13:01:37
Sample Type LLICV
Total Dilution 1.0000
Comment ---
ISTD Ref FileName 003CALB.d
Sample QC Pass/Fail Fail
ISTD QC Pass/Fail Pass
Operator TRC

QC Analyte Table

Mass	Name	Conc.	Tune	Raw Conc.	ISTD	CPS RSD	LDR	QC Flag
7	Li	1.207	No Gas	1.207	6	0.6	1	
75	As	1.006	He	1.006	72	1.7	1	
208	Pb	0.433	No Gas	0.433	165	4.9	1	> +/- 50%
208	Pb	0.430	He	0.43	165	1.3	1	> +/- 50%
238	U	0.527	No Gas	0.527	165	0.5	1	
238	U	0.537	He	0.537	165	2.8	1	

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	ISTD Recovery %	ISTD Ref CPS
Li	6	No Gas	948445.82	1.6	100.4	944793.686666667
Sc	45	No Gas	2371987.33	1.6	103.6	2290421.333333333
Sc	45	He	900380.88	3.4	100.3	897959.786666667
Ge	72	No Gas	1148209.13	1.0	105.3	1090208.793333333
Ge	72	He	1134106.79	5.8	103.0	1101426.413333333
Ge	72	HEHe	428689.87	0.2	99.7	429886.483333333
Rh	103	No Gas	3255123.92	1.1	101.4	3210064.333333333
Rh	103	He	8524327.72	3.3	99.0	8609522.713333333
Ho	165	No Gas	915728.23	0.8	94.8	965587.67
Ho	165	He	3026504.39	4.2	100.0	3025901.546666667



Sample Report

Sample Name bai0580-bs1
File Name 044_LCS.d
Data Path Name D:\Agilent\ICPMH\1\DATA\Method Batches\RXN\Sequences\09232020.b
Acq Time 2020-09-23 13:03:56
Sample Type LCS
Total Dilution 1.0000
Comment ---
ISTD Ref FileName 003CALB.d
Sample QC Pass/Fail Fail
ISTD QC Pass/Fail Pass
Operator TRC

QC Analyte Table

Mass	Name	Conc.	Tune	Raw Conc.	ISTD	CPS RSD	LDR	QC Flag
7	Li	48.332	No Gas	48.332	6	3.0	50	
75	As	50.813	He	50.813	72	0.5	50	
208	Pb	23.048	No Gas	23.048	165	1.5	50	> +/- 10%
208	Pb	22.654	He	22.654	165	1.1	50	> +/- 10%
238	U	25.760	No Gas	25.76	165	3.2	50	> +/- 10%
238	U	28.609	He	28.609	165	0.5	50	> +/- 10%

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	ISTD Recovery %	ISTD Ref CPS
Li	6	No Gas	930821.74	1.4	98.5	944793.686666667
Sc	45	No Gas	2370495.00	0.7	103.5	2290421.333333333
Sc	45	He	874990.09	1.6	97.4	897959.786666667
Ge	72	No Gas	1140914.21	1.9	104.7	1090208.793333333
Ge	72	He	1097829.85	6.1	99.7	1101426.413333333
Ge	72	HEHe	421296.56	0.7	98.0	429886.483333333
Rh	103	No Gas	3231850.00	1.8	100.7	3210064.333333333
Rh	103	He	8412708.28	2.2	97.7	8609522.713333333
Ho	165	No Gas	895054.35	0.7	92.7	965587.67
Ho	165	He	2989685.51	3.7	98.8	3025901.546666667



Sample Report

Sample Name wai0678-06
File Name 046SMPL.d
Data Path Name D:\Agilent\ICPMH\1\DATA\Method Batches\RXN\Sequences\09232020.b
Acq Time 2020-09-23 13:08:40
Sample Type Sample
Total Dilution 1.0000
Comment ---
ISTD Ref FileName 003CALB.d
Sample QC Pass/Fail Pass
ISTD QC Pass/Fail Fail
Operator TRC

QC Analyte Table

Mass	Name	Conc.	Tune	Raw Conc.	ISTD	CPS RSD	LDR	QC Flag
7	Li	72.110	No Gas	72.11	6	2.0	100	
75	As	2.659	He	2.659	72	5.6	1000	
208	Pb	0.046	No Gas	0.046	165	4.5	1000	
208	Pb	0.007	He	0.007	165	1.6	1000	
238	U	0.076	No Gas	0.076	165	4.2	1000	
238	U	0.069	He	0.069	165	2.4	1000	

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	ISTD Recovery %	ISTD Ref CPS
Li	6	No Gas	718640.81	1.9	76.1	944793.686666667
Sc	45	No Gas	2096914.71	1.2	91.6	2290421.33333333
Sc	45	He	714299.97	4.8	79.5	897959.786666667
Ge	72	No Gas	1013572.56	2.9	93.0	1090208.79333333
Ge	72	He	688797.99	3.4	62.5	1101426.41333333
Ge	72	HEHe	295912.96	0.5	68.8	429886.483333333
Rh	103	No Gas	2368062.50	1.5	73.8	3210064.33333333
Rh	103	He	4212190.53	2.9	48.9	8609522.71333333
Ho	165	No Gas	693234.23	1.9	71.8	965587.67
Ho	165	He	1498560.25	3.0	49.5	3025901.54666667



Sample Report

Sample Name wai0678-07
File Name 047_ARF.d
Data Path Name D:\Agilent\ICPMH\1\DATA\Method Batches\RXN\Sequences\09232020.b
Acq Time 2020-09-23 13:10:58
Sample Type AllRef
Total Dilution 1.0000
Comment ---
ISTD Ref FileName 003CALB.d
Sample QC Pass/Fail Pass
ISTD QC Pass/Fail Fail
Operator TRC

QC Analyte Table

Mass	Name	Conc.	Tune	Raw Conc.	ISTD	CPS RSD	LDR	QC Flag
7	Li	79.185	No Gas	79.185	6	2.8	100	
75	As	7.724	He	7.724	72	3.1	1000	
208	Pb	<0.000	No Gas	-0.003	165	17.3	1000	
208	Pb	<0.000	He	-0.002	165	7.4	1000	
238	U	0.643	No Gas	0.643	165	4.3	1000	
238	U	0.612	He	0.612	165	0.5	1000	

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	ISTD Recovery %	ISTD Ref CPS
Li	6	No Gas	550727.10	4.1	68.9	944793.68666667
Sc	45	No Gas	2273485.00	1.1	99.3	2290421.33333333
Sc	45	He	781532.66	6.1	87.0	897959.78666667
Ge	72	No Gas	959149.42	0.6	88.0	1090208.79333333
Ge	72	He	769712.35	5.3	69.9	1101426.41333333
Ge	72	HEHe	324504.00	1.2	75.5	429886.48333333
Rh	103	No Gas	2377706.50	0.7	74.1	3210064.33333333
Rh	103	He	4638431.48	4.1	53.9	8609522.71333333
Ho	165	No Gas	632726.07	0.8	65.5	965587.67
Ho	165	He	1553444.87	4.5	51.3	3025901.54666667



Sample Report

Sample Name bai0580-ms1
File Name 048_LFM.d
Data Path Name D:\Agilent\ICPMH1\DATA\Method Batches\R\XN\Sequences\09232020.b
Acq Time 2020-09-23 13:13:24
Sample Type LFM
Total Dilution 1.0000
Comment —
ISTD Ref FileName 003CALB.d
Sample QC Pass/Fail Fail
ISTD QC Pass/Fail Fail
Operator TRC

QC Analyte Table

Mass	Name	Conc.	Tune	Raw Conc.	ISTD	CPS RSD	LDR	QC Flag
7	Li	140.235	No Gas	140.235	6	2.8	100	
75	As	61.099	He	61.099	72	2.8	100	
208	Pb	18.306	No Gas	18.306	165	1.0	100	> +/- 25%
208	Pb	17.315	He	17.315	165	1.9	100	> +/- 25%
238	U	22.566	No Gas	22.566	165	1.7	100	> +/- 25%
238	U	22.007	He	22.007	165	2.0	100	> +/- 25%

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	ISTD Recovery %	ISTD Ref CPS
Li	6	No Gas	554133.17	2.7	58.7	944793.686666667
Sc	45	No Gas	2286816.25	3.1	99.8	2290421.333333333
Sc	45	He	784671.88	6.1	87.4	897959.786666667
Ge	72	No Gas	959317.23	0.5	88.0	1090208.793333333
Ge	72	He	779486.71	5.2	70.8	1101426.413333333
Ge	72	HEHe	325066.00	1.9	75.6	429886.483333333
Rh	103	No Gas	2315632.42	0.9	72.1	3210064.333333333
Rh	103	He	4582004.82	3.9	53.2	8609522.713333333
Ho	165	No Gas	599242.65	1.9	62.1	965587.67
Ho	165	He	1499427.58	3.8	49.6	3025901.546666667



Sample Report

Sample Name bai0580-msd1
File Name 049LFMD.d
Data Path Name D:\Agilent\ICPMH\1\DATA\Method Batches\RXN\Sequences\09232020.b
Acq Time 2020-09-23 13:15:42
Sample Type LFMDup
Total Dilution 1.0000
Comment ---
ISTD Ref FileName 003CALB.d
Sample QC Pass/Fail Pass
ISTD QC Pass/Fail Fail
Operator TRC

QC Analyte Table

Mass	Name	Conc.	Tune	Raw Conc.	ISTD	CPS RSD	LDR	QC Flag
7	Li	135.084	No Gas	135.084	6	1.3	20	
75	As	61.215	He	61.215	72	2.0	20	
208	Pb	18.108	No Gas	18.108	165	0.8	20	
208	Pb	16.522	He	16.522	165	0.4	20	
238	U	22.353	No Gas	22.353	165	1.2	20	
238	U	21.507	He	21.507	165	0.9	20	

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	ISTD Recovery %	ISTD Ref CPS
Li	6	No Gas	532986.58	2.7	56.4	944793.686666667
Sc	45	No Gas	2367787.08	2.8	103.4	2290421.333333333
Sc	45	He	897273.59	2.7	99.9	897959.786666667
Ge	72	No Gas	974818.46	0.4	89.4	1090208.793333333
Ge	72	He	887924.93	2.7	80.6	1101426.413333333
Ge	72	HEHe	368436.39	0.6	85.7	429886.483333333
Rh	103	No Gas	2357276.83	2.9	73.4	3210064.333333333
Rh	103	He	5173019.10	2.4	60.1	8609522.713333333
Ho	165	No Gas	601918.48	1.6	62.3	965587.67
Ho	165	He	1687420.28	2.8	55.8	3025901.546666667



Sample Report

Sample Name wai0678-08
File Name 050SMPL.d
Data Path Name D:\Agilent\ICPMH\1\DATA\Method Batches\RXN\Sequences\09232020.b
Acq Time 2020-09-23 13:18:01
Sample Type Sample
Total Dilution 1.0000
Comment ---
ISTD Ref FileName 003CALB.d
Sample QC Pass/Fail Pass
ISTD QC Pass/Fail Fail
Operator TRC

QC Analyte Table

Mass	Name	Conc.	Tune	Raw Conc.	ISTD	CPS RSD	LDR	QC Flag
7	Li	77.490	No Gas	77.49	6	0.8	100	
75	As	8.019	He	8.019	72	1.2	1000	
208	Pb	<0.000	No Gas	-0.011	165	8.7	1000	
208	Pb	<0.000	He	-0.003	165	2.4	1000	
238	U	0.635	No Gas	0.635	165	1.2	1000	
238	U	0.616	He	0.616	165	0.7	1000	

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	ISTD Recovery %	ISTD Ref CPS
Li	6	No Gas	570150.54	2.3	60.3	944793.686666667
Sc	45	No Gas	2503881.25	3.1	109.3	2290421.33333333
Sc	45	He	878298.02	2.4	97.8	897959.786666667
Ge	72	No Gas	1037332.17	1.4	95.1	1090208.79333333
Ge	72	He	870438.80	2.2	79.0	1101426.41333333
Ge	72	HEHe	356973.75	1.1	83.0	429886.483333333
Rh	103	No Gas	2404344.67	1.1	74.9	3210064.33333333
Rh	103	He	5025770.08	1.3	58.4	8609522.71333333
Ho	165	No Gas	604608.60	0.7	62.6	965587.67
Ho	165	He	1609621.01	2.4	53.2	3025901.54666667



Sample Report

Sample Name wai0678-09
File Name 045SMPL.d
Data Path Name D:\Agilent\ICPMH\1\DATA\Method Batches\RXN\Sequences\09232020.b
Acq Time 2020-09-23 13:06:21
Sample Type Sample
Total Dilution 1.0000
Comment ---
ISTD Ref FileName 003CALB.d
Sample QC Pass/Fail Pass
ISTD QC Pass/Fail Pass
Operator TRC

QC Analyte Table

Mass	Name	Conc.	Tune	Raw Conc.	ISTD	CPS RSD	LDR	QC Flag
7	Li	0.359	No Gas	0.359	6	0.8	100	
75	As	0.117	He	0.117	72	7.5	1000	
208	Pb	<0.000	No Gas	-0.018	165	18.9	1000	
208	Pb	<0.000	He	-0.011	165	14.6	1000	
238	U	0.014	No Gas	0.014	165	2.9	1000	
238	U	0.016	He	0.016	165	9.4	1000	

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	ISTD Recovery %	ISTD Ref CPS
Li	6	No Gas	920971.86	2.3	97.5	944793.686666667
Sc	45	No Gas	2347624.00	1.4	102.5	2290421.33333333
Sc	45	He	877100.33	2.3	97.7	897959.786666667
Ge	72	No Gas	1119412.29	0.6	102.7	1090208.79333333
Ge	72	He	1107952.94	6.2	100.6	1101426.41333333
Ge	72	HEHe	426901.71	0.7	99.3	429886.483333333
Rh	103	No Gas	3137082.17	1.8	97.7	3210064.33333333
Rh	103	He	8528089.38	2.8	99.1	8609522.71333333
Ho	165	No Gas	883179.33	0.0	91.5	965587.67
Ho	165	He	2978632.38	1.2	98.4	3025901.54666667



Sample Report

Sample Name wai0678-16-01
File Name 051SMPL.d
Data Path Name D:\Agilent\ICPMH\1\DATA\Method Batches\RXN\Sequences\09232020.b
Acq Time 2020-09-23 13:20:26
Sample Type Sample
Total Dilution 1.0000
Comment ---
ISTD Ref FileName 003CALB.d
Sample QC Pass/Fail Pass
ISTD QC Pass/Fail Fail
Operator TRC

QC Analyte Table

Mass	Name	Conc.	Tune	Raw Conc.	ISTD	CPS RSD	LDR	QC Flag
7	Li	70.617	No Gas	70.817	6	1.3	100	
75	As	9.015	He	9.015	72	1.5	1000	
208	Pb	0.013	No Gas	0.013	165	22.9	1000	
208	Pb	0.019	He	0.019	165	6.9	1000	
238	U	0.608	No Gas	0.608	165	2.3	1000	
238	U	0.588	He	0.588	165	1.9	1000	

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	ISTD Recovery %	ISTD Ref CPS
Li	6	No Gas	556993.63	2.9	59.0	944793.686666667
Sc	45	No Gas	2435603.58	3.7	106.3	2290421.33333333
Sc	45	He	913305.97	5.0	101.7	897959.786666667
Ge	72	No Gas	1033001.54	2.5	94.8	1090208.79333333
Ge	72	He	898596.54	3.0	81.6	1101426.41333333
Ge	72	HEHe	365819.92	1.4	85.1	429886.483333333
Rh	103	No Gas	2393569.17	1.0	74.6	3210064.33333333
Rh	103	He	5126593.27	2.2	59.5	8609522.71333333
Ho	165	No Gas	607404.50	0.2	62.9	965587.67
Ho	165	He	1677031.63	3.0	55.4	3025901.54666667



Report Generated By Teledyne CETAC QuickTrace

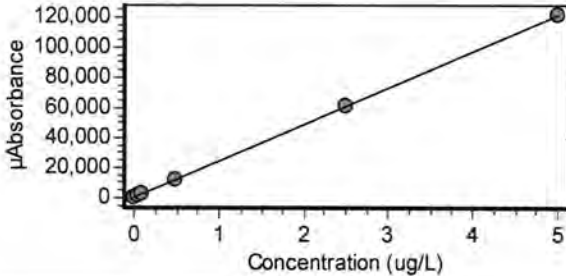
Analyst: Mercury

Worksheet file: C:\Users\Public\Documents\Teledyne CETAC\QuickTrace\Worksheets\09302020.wszf

Creation Date: 9/30/2020 3:35:11 PM

Comment:

Results

Sample Name	Type	Date/Time	Conc (ug/L)	µAbs	%RSD	Residual	Flags	% Recovery
Calibration Blank	STD	09/30/20 03:40:39 pm	0.0000	-168	7.83	-12.16		N/A
Replicates				-177.7	-150.2	-178.0	-165.5	
Standard #1 (0.05 ppb)	STD	09/30/20 03:42:55 pm	0.0500	1209	2.51	-5.37		N/A
Replicates				1243.2	1225.1	1187.9	1179.1	
Standard #2 (0.1 ppb)	STD	09/30/20 03:45:12 pm	0.1000	2592	2.25	1.68		N/A
Replicates				2617.1	2648.1	2589.7	2511.9	
Standard #3 (0.5 ppb)	STD	09/30/20 03:47:29 pm	0.5000	12157	1.71	-3.72		N/A
Replicates				12315.6	12282.5	12171.4	11859.3	
Standard #4 (2.5 ppb)	STD	09/30/20 03:49:47 pm	2.5000	61659	1.17	38.35		N/A
Replicates				62419.6	62054.8	61354.3	60805.8	
Standard #5 (5 ppb)	STD	09/30/20 03:52:04 pm	5.0000	120876	1.45	-18.78		N/A
Replicates				122247.9	122045.3	120783.1	118426.6	
Calibration								
Equation:	$A = 126.912 + 24240.830C$							
R2:	0.99990							
SEE:	544.3406							
Flags:								
								
CCV (95-105%)	CCV	09/30/20 04:00:06 pm	2.6440	64226	2.63			105.77
Replicates				65458.5	65447.0	64118.8	61879.0	
CCB	CCB	09/30/20 04:02:22 pm	-0.0144	-222	2.42			N/A
Replicates				-233.8	-216.4	-224.1	-215.6	
ICV	ICV	09/30/20 04:04:37 pm	0.0116	408	6.60		Q	0.58
Replicates				432.0	388.1	410.1	400.7	
ICV	ICV	09/30/20 04:10:27 pm	1.7320	42103	1.98			86.58
Replicates				42943.6	42545.6	41882.0	41040.0	
blank	MB	09/30/20 04:12:43 pm	1.5570	37868	1.93		Z	N/A
Replicates				38598.6	38271.9	37659.9	36942.7	
blank	MB	09/30/20 04:15:16 pm	-0.0093	-99	3.37			N/A
Replicates				-94.8	-94.6	-97.0	-110.5	
lcs	LCS	09/30/20 04:17:32 pm	1.8930	46007	3.00			94.63
Replicates				47455.6	46690.7	45585.7	44293.9	

Sample Name		Type	Date/Time	Conc (ug/L)	µAbs	%RSD	Residual	Flags	% Recovery
wai0687-01		UNK	09/30/20 04:19:49 pm	0.0006	140	93.83			N/A
Replicates	155.4	143.1	138.1	124.9					
wai0687-02		UNK	09/30/20 04:22:05 pm	0.0072	301	11.24			N/A
Replicates	318.7	313.1	274.7	299.3					
wai0687-03		UNK	09/30/20 04:24:22 pm	0.0045	235	6.96			N/A
Replicates	238.0	239.6	223.7	238.6					
waio0687-04		UNK	09/30/20 04:26:38 pm	0.0092	349	6.10			N/A
Replicates	368.6	337.8	347.6	342.7					
wai0687-05		UNK	09/30/20 04:28:55 pm	0.0048	243	19.29			N/A
Replicates	259.2	264.6	221.1	226.0					
wai0687-06		UNK	09/30/20 04:31:12 pm	-0.0010	103	42.55			N/A
Replicates	114.8	104.5	103.7	90.4					
wai0687-07		UNK	09/30/20 04:33:30 pm	0.0036	214	25.30			N/A
Replicates	224.4	237.6	204.7	187.7					
ms		UNK	09/30/20 04:35:47 pm	1.7460	42461	2.39			N/A
Replicates	43535.6	42958.9	42143.2	41207.4					
msd		UNK	09/30/20 04:38:04 pm	1.7440	42397	3.09			N/A
Replicates	43789.6	43041.7	41956.0	40798.9					
wai0687-08		UNK	09/30/20 04:40:20 pm	-0.0027	61	25.04			N/A
Replicates	77.3	67.4	59.3	38.2					
wai0687-09		UNK	09/30/20 04:42:36 pm	-0.0044	21	18.84			N/A
Replicates	34.4	23.5	34.4	-7.7					
wai0687-10		UNK	09/30/20 04:44:53 pm	0.0024	184	11.82			N/A
Replicates	191.4	179.4	188.1	177.4					
CCV (95-105%)		CCV	09/30/20 04:47:10 pm	2.5200	61205	1.07			100.79
Replicates	61806.7	61573.2	61120.7	60319.9					
CCB		CCB	09/30/20 04:49:26 pm	-0.0098	-110	5.55			N/A
Replicates	-110.7	-91.8	-123.1	-113.9					
wai0687-11		UNK	09/30/20 04:51:42 pm	0.0022	180	37.43			N/A
Replicates	193.6	178.7	195.2	152.3					
wai0687-12		UNK	09/30/20 04:53:59 pm	0.0456	1232	2.74			N/A
Replicates	1269.6	1242.9	1215.9	1201.2					
wai0687-13		UNK	09/30/20 04:56:16 pm	0.0100	370	8.04			N/A
Replicates	383.9	388.6	359.0	348.0					
wai0687-14		UNK	09/30/20 04:58:32 pm	0.0100	368	5.78			N/A
Replicates	386.1	373.0	358.6	355.9					
ms2		UNK	09/30/20 05:00:49 pm	2.1760	52885	1.34			N/A
Replicates	53539.5	53281.4	52786.5	51931.9					
msd2		UNK	09/30/20 05:03:06 pm	2.2380	54389	1.64			N/A
Replicates	55218.4	54902.1	54223.5	53210.7					

Sample Name		Type	Date/Time	Conc (ug/L)	µAbs	%RSD	Residual	Flags	% Recovery
wai0687-15		UNK	09/30/20 05:05:23 pm	0.0008	147	91.65			N/A
Replicates	173.1	141.4	136.6	134.9					
wai0687-16		UNK	09/30/20 05:07:41 pm	0.0096	359	6.20			N/A
Replicates	378.5	359.1	345.7	351.2					
wai0687-17		UNK	09/30/20 05:09:58 pm	0.0121	419	4.95			N/A
Replicates	435.9	426.2	412.4	403.2					
wai0687-18		UNK	09/30/20 05:12:14 pm	0.0266	770	4.40			N/A
Replicates	789.6	799.0	752.6	740.4					
wai0687-19		UNK	09/30/20 05:14:30 pm	0.0400	1097	3.08			N/A
Replicates	1135.5	1096.0	1094.8	1062.5					
wai0687-20		UNK	09/30/20 05:16:46 pm	0.1701	4250	2.06			N/A
Replicates	4332.0	4304.1	4218.5	4145.3					
CCV (95-105%)		CCV	09/30/20 05:19:04 pm	2.5910	62929	1.44			103.63
Replicates	63823.2	63393.0	62750.8	61748.0					
CCB		CCB	09/30/20 05:21:20 pm	-0.0148	-231	5.46			N/A
Replicates	-215.5	-212.3	-248.4	-247.0					
wai0687-21		UNK	09/30/20 05:23:36 pm	0.0466	1257	3.30			N/A
Replicates	1302.9	1266.8	1242.3	1215.2					
wai0687-22		UNK	09/30/20 05:25:52 pm	0.0801	2068	2.81			N/A
Replicates	2098.4	2105.7	2078.7	1987.6					
wai0722-01		UNK	09/30/20 05:28:09 pm	0.2432	6023	2.74			N/A
Replicates	6192.5	6098.8	5983.1	5817.4					
wai0919-01		UNK	09/30/20 05:30:26 pm	0.0390	1073	3.19			N/A
Replicates	1093.3	1103.4	1050.6	1043.0					
ms3		UNK	09/30/20 05:32:43 pm	1.7350	42189	1.32			N/A
Replicates	42540.4	42598.2	42220.7	41394.9					
msd3		UNK	09/30/20 05:35:00 pm	1.7390	42293	0.70			N/A
Replicates	42423.6	42510.3	42375.8	41860.9					
CCV (95-105%)		CCV	09/30/20 05:37:17 pm	2.6900	65338	2.25			107.61
Replicates	66814.7	66119.8	64958.9	63458.6					
CCB		CCB	09/30/20 05:39:33 pm	-0.0099	-113	8.35			N/A
Replicates	-90.1	-108.3	-114.1	-138.5					

Notes

Analyst:

Lamp Current:

High Standard mirco Abs:

Data File : W:\HPCHEM\1\2020DATA\092120\SIG10012.D Vial: 6
Acq On : 21 Sep 2020 20:43 Operator: ARC
Sample : BAI0581-BLK1 Inst : HP G1530A
Misc : Multiplr: 1.00
IntFile : EVENTS1.E
Quant Time: Sep 22 08:15:00 2020 Quant Results File: 200916LOWDHT.RES

Quant Method : W:\HPCHEM\1...\200916LOWDHT.M (Chemstation Integrator)
Title :
Last Update : Mon Sep 21 09:52:02 2020
Response via : Initial Calibration
DataAcq Meth : DXHCID5.M

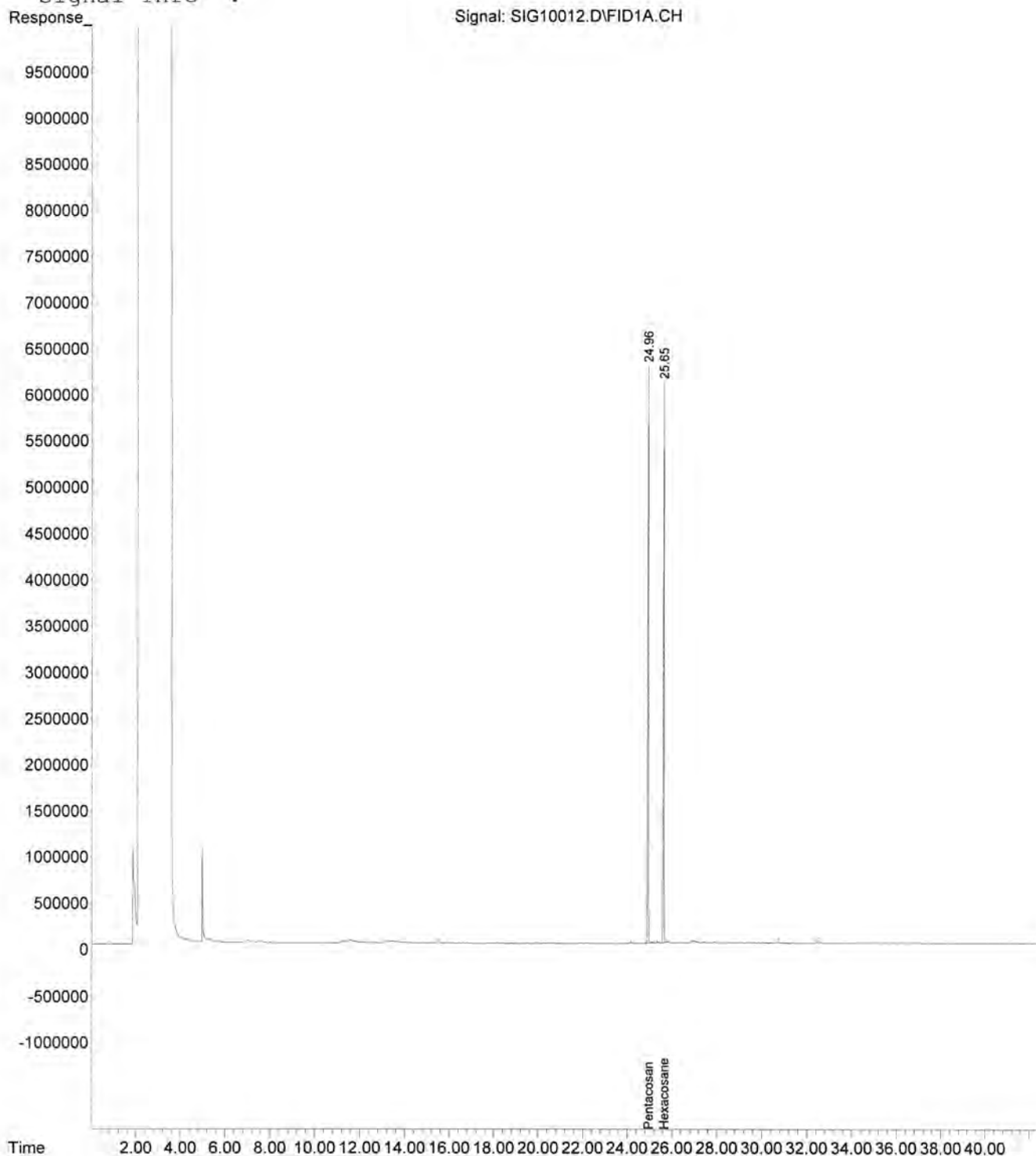
Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc	Units
Internal Standards				
1) I Pentacosane	24.96	144364877	50.000 ppm	m
System Monitoring Compounds				
2) S Hexacosane	25.65	123382096	41.920 ppm	m
Spiked Amount	50.000	Range	50 - 150	Recovery = 83.84%
Target Compounds				
3) H TPH Diesel (C12-C14)	0.00	0	N.D.	ppm
4) H TPHDX-Lube Oil (>C14)	0.00	0	N.D.	ppm
5) H Mineral Oil	0.00	0	N.D.	ppm
6) h HCID Gas (C7-C12)	0.00	0	N.D.	ppm
7) h HCID Diesel (C12-C14)	21.97	31233222	NoCal	ppm
8) h HCID Oil (>C14)	26.20	41142618	NoCal	ppm

Data File : W:\HPCHEM\1\2020DATA\092120\SIG10012.D Vial: 6
Acq On : 21 Sep 2020 20:43 Operator: ARC
Sample : BAI0581-BLK1 Inst : HP G1530A
Misc : Multiplr: 1.00
IntFile : EVENTS1.E
Quant Time: Sep 22 7:19 2020 Quant Results File: 200916LOWDHT.RES

Quant Method : W:\HPCHEM\1...\200916LOWDHT.M (Chemstation Integrator)
Title :
Last Update : Mon Sep 21 09:52:02 2020
Response via : Multiple Level Calibration
DataAcq Meth : DXHCID5.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : W:\HPCHEM\1\2020DATA\092120\SIG10013.D Vial: 7
 Acq On : 21 Sep 2020 21:39 Operator: ARC
 Sample : BAI0581-BS1 Inst : HP G1530A
 Misc : Multiplr: 1.00
 IntFile : EVENTS1.E
 Quant Time: Sep 22 08:15:01 2020 Quant Results File: 200916LOWDHT.RES

Quant Method : W:\HPCHEM\1...\200916LOWDHT.M (Chemstation Integrator)
 Title :
 Last Update : Mon Sep 21 09:52:02 2020
 Response via : Initial Calibration
 DataAcq Meth : DXHCID5.M

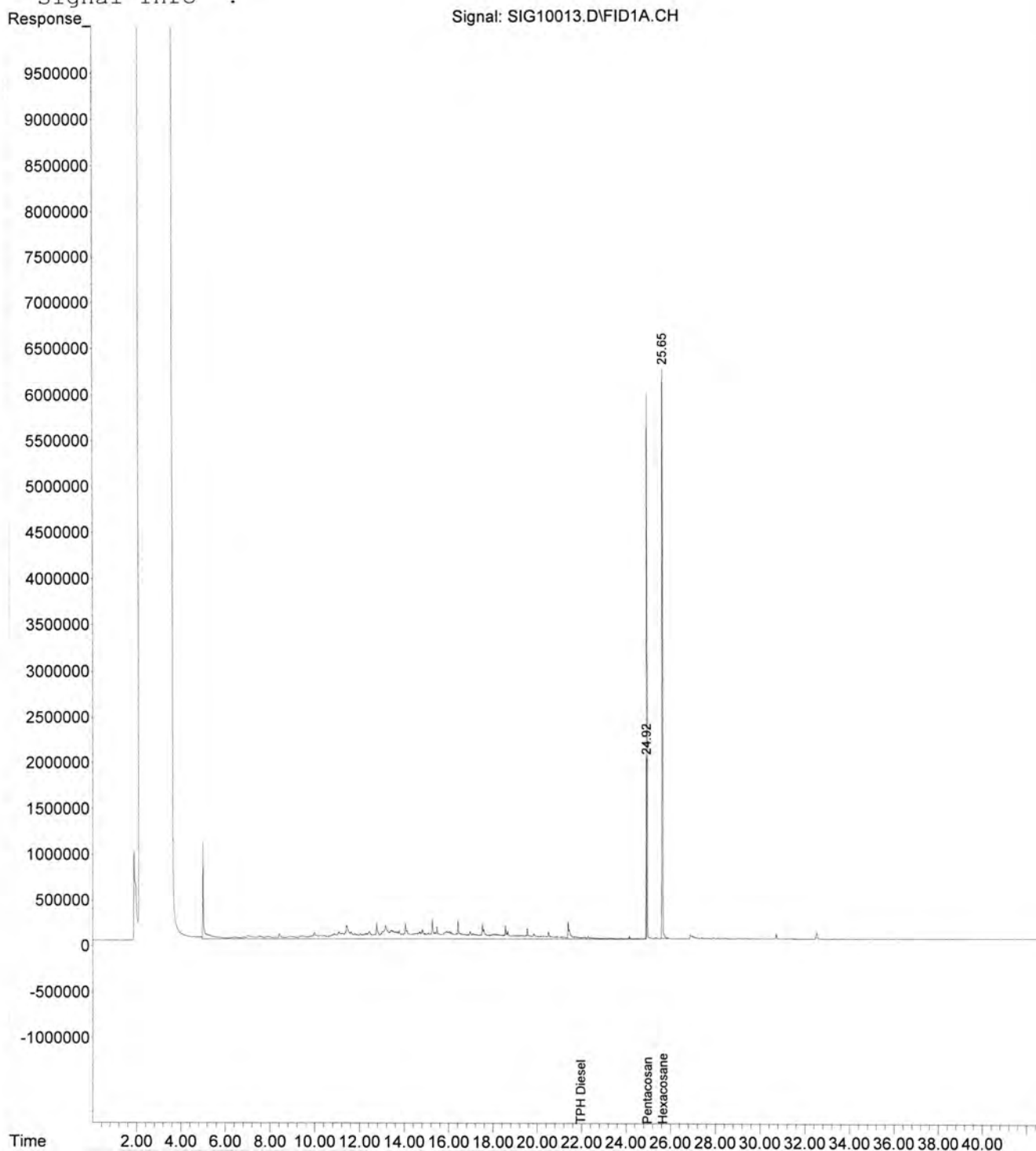
Volume Inj. :
 Signal Phase :
 Signal Info :

Compound	R.T.	Response	Conc	Units
Internal Standards				
1) I Pentacosane	24.96	131314368	50.000 ppm	m
System Monitoring Compounds				
2) S Hexacosane	25.65	126378509	47.206 ppm	m
Spiked Amount	50.000	Range	50 - 150	Recovery = 94.41%
Target Compounds				
3) H TPH Diesel (C12-C14)	21.97	463670059	239.075 ppm	
4) H TPHDX-Lube Oil (>C14)	0.00	0	N.D.	ppm
5) H Mineral Oil	0.00	0	N.D.	ppm
6) h HCID Gas (C7-C12)	0.00	0	N.D.	ppm
7) h HCID Diesel (C12-C14)	0.00	0	N.D.	ppm
8) h HCID Oil (>C14)	0.00	0	N.D.	ppm

Data File : W:\HPCHEM\1\2020DATA\092120\SIG10013.D Vial: 7
Acq On : 21 Sep 2020 21:39 Operator: ARC
Sample : BAI0581-BS1 Inst : HP G1530A
Misc : Multiplr: 1.00
IntFile : EVENTS1.E
Quant Time: Sep 22 10:30 2020 Quant Results File: 200916LOWDHT.RES

Quant Method : W:\HPCHEM\1...\200916LOWDHT.M (Chemstation Integrator)
Title :
Last Update : Mon Sep 21 09:52:02 2020
Response via : Multiple Level Calibration
DataAcq Meth : DXHCID5.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : W:\HPCHEM\1\2020DATA\092120\SIG10019.D Vial: 13
Acq On : 22 Sep 2020 3:13 Operator: ARC
Sample : BAI0581-DUP1 Inst : HP G1530A
Misc : Multiplr: 1.00
IntFile : EVENTS1.E
Quant Time: Sep 22 08:15:31 2020 Quant Results File: 200916LOWDHT.RES

Quant Method : W:\HPCHEM\1...\200916LOWDHT.M (Chemstation Integrator)
Title :
Last Update : Mon Sep 21 09:52:02 2020
Response via : Initial Calibration
DataAcq Meth : DXHCID5.M

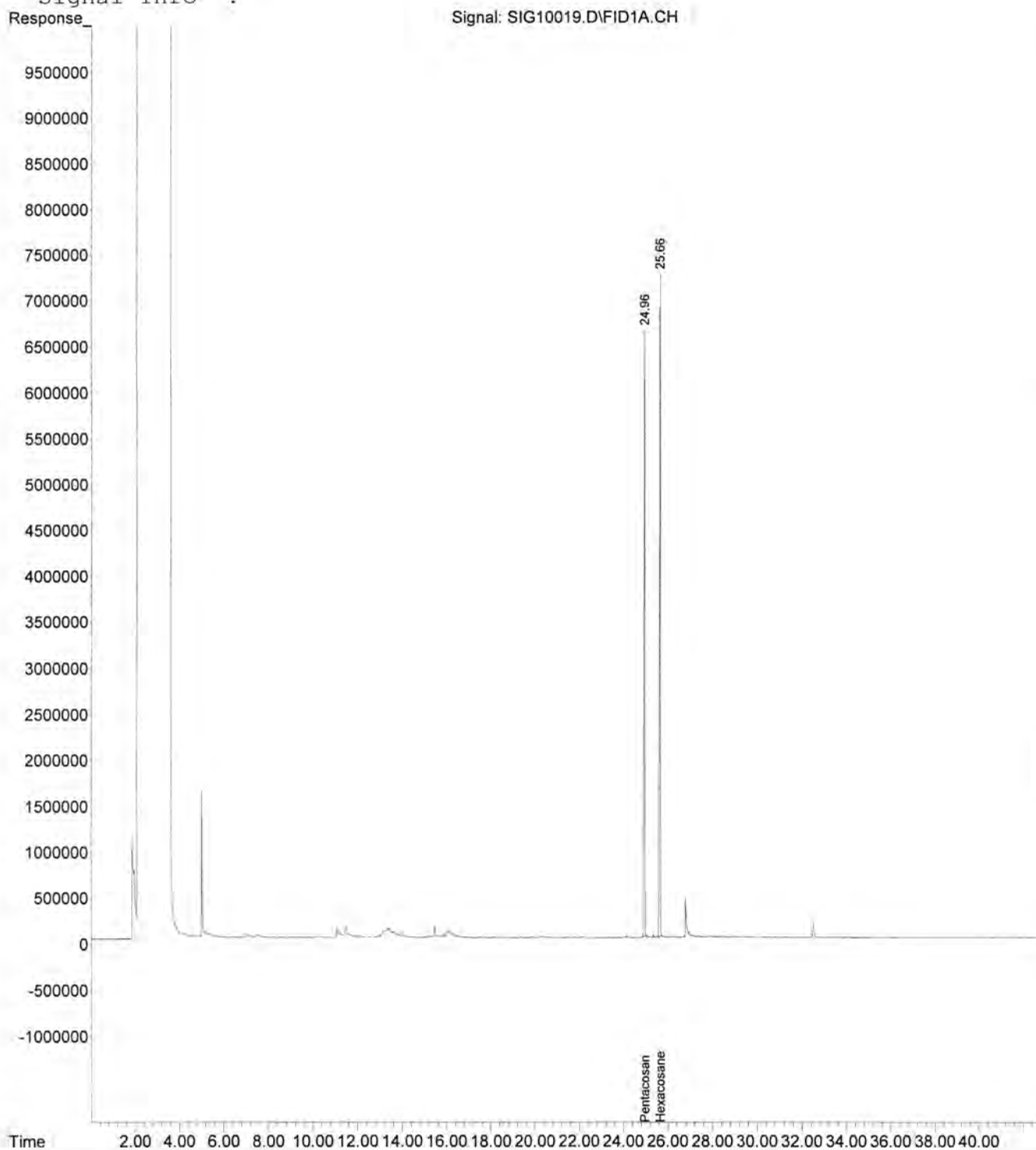
Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc	Units
Internal Standards				
1) I Pentacosane	24.96	164216221	50.000 ppm	m
System Monitoring Compounds				
2) S Hexacosane	25.66	160630872	47.979 ppm	m
Spiked Amount	50.000	Range	50 - 150	Recovery = 95.96%
Target Compounds				
3) H TPH Diesel (C12-C14)	0.00	0	N.D.	ppm
4) H TPHDX-Lube Oil (>C14)	0.00	0	N.D.	ppm
5) H Mineral Oil	0.00	0	N.D.	ppm
6) h HCID Gas (C7-C12)	0.00	0	N.D.	ppm
7) h HCID Diesel (C12-C14)	0.00	0	N.D.	ppm
8) h HCID Oil (>C14)	26.20	62460418	NoCal	ppm

Data File : W:\HPCHEM\1\2020DATA\092120\SIG10019.D Vial: 13
Acq On : 22 Sep 2020 3:13 Operator: ARC
Sample : BAI0581-DUP1 Inst : HP G1530A
Misc : Multiplr: 1.00
IntFile : EVENTS1.E
Quant Time: Sep 23 7:23 2020 Quant Results File: 200916LOWDHT.RES

Quant Method : W:\HPCHEM\1...\200916LOWDHT.M (Chemstation Integrator)
Title :
Last Update : Mon Sep 21 09:52:02 2020
Response via : Multiple Level Calibration
DataAcq Meth : DXHCID5.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : W:\HPCHEM\1\2020DATA\092120\SIG10014.D Vial: 8
 Acq On : 21 Sep 2020 22:34 Operator: ARC
 Sample : WAI0678-01 Inst : HP G1530A
 Misc : Multiplr: 1.00
 IntFile : EVENTS1.E
 Quant Time: Sep 22 08:15:14 2020 Quant Results File: 200916LOWDHT.RES

Quant Method : W:\HPCHEM\1...\200916LOWDHT.M (Chemstation Integrator)
 Title :
 Last Update : Mon Sep 21 09:52:02 2020
 Response via : Initial Calibration
 DataAcq Meth : DXHCID5.M

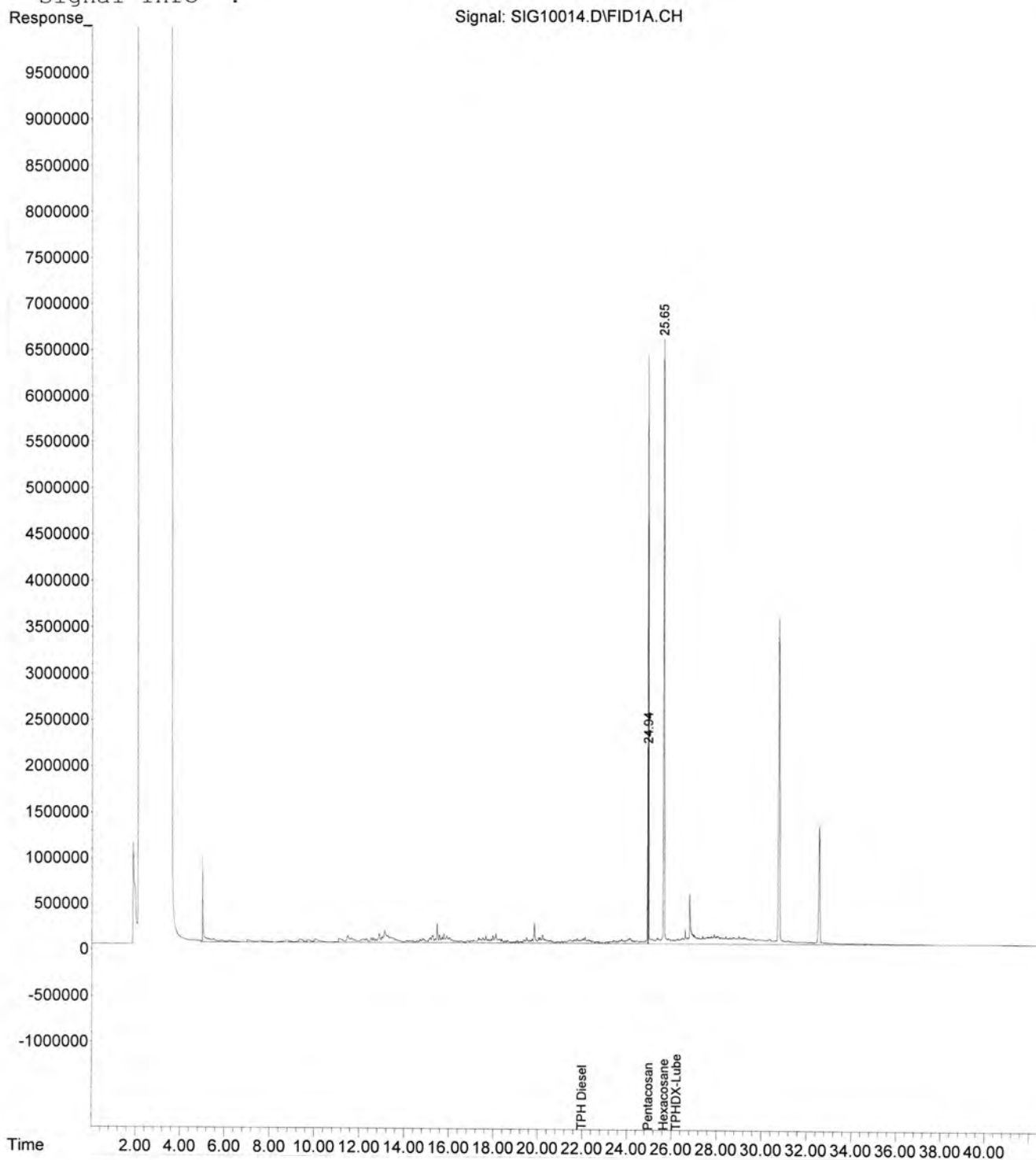
Volume Inj. :
 Signal Phase :
 Signal Info :

Compound	R.T.	Response	Conc	Units
Internal Standards				
1) I Pentacosane	24.96	152110499	50.000 ppm	m
System Monitoring Compounds				
2) S Hexacosane	25.65	142704316	46.016 ppm	m
Spiked Amount 50.000	Range 50 - 150	Recovery =	92.03%	
Target Compounds				
3) H TPH Diesel (C12-C14)	21.97	370361924	164.856 ppm	
4) H TPHDX-Lube Oil (>C14)	26.20	413796892	281.768 ppm	
5) H Mineral Oil	0.00	0	N.D.	ppm
6) h HCID Gas (C7-C12)	0.00	0	N.D.	ppm
7) h HCID Diesel (C12-C14)	21.97	213672416	NoCal	ppm
8) h HCID Oil (>C14)	26.20	342958859	NoCal	ppm

Data File : W:\HPCHEM\1\2020DATA\092120\SIG10014.D Vial: 8
Acq On : 21 Sep 2020 22:34 Operator: ARC
Sample : WAI0678-01 Inst : HP G1530A
Misc : Multiplr: 1.00
IntFile : EVENTS1.E
Quant Time: Sep 22 10:31 2020 Quant Results File: 200916LOWDHT.RES

Quant Method : W:\HPCHEM\1...\200916LOWDHT.M (Chemstation Integrator)
Title :
Last Update : Mon Sep 21 09:52:02 2020
Response via : Multiple Level Calibration
DataAcq Meth : DXHCID5.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : W:\HPCHEM\1\2020DATA\092120\SIG10015.D Vial: 9
 Acq On : 21 Sep 2020 23:30 Operator: ARC
 Sample : WAI0678-02 Inst : HP G1530A
 Misc : Multiplr: 1.00
 IntFile : EVENTS1.E
 Quant Time: Sep 22 08:15:15 2020 Quant Results File: 200916LOWDHT.RES

Quant Method : W:\HPCHEM\1...\200916LOWDHT.M (Chemstation Integrator)
 Title :
 Last Update : Mon Sep 21 09:52:02 2020
 Response via : Initial Calibration
 DataAcq Meth : DXHCID5.M

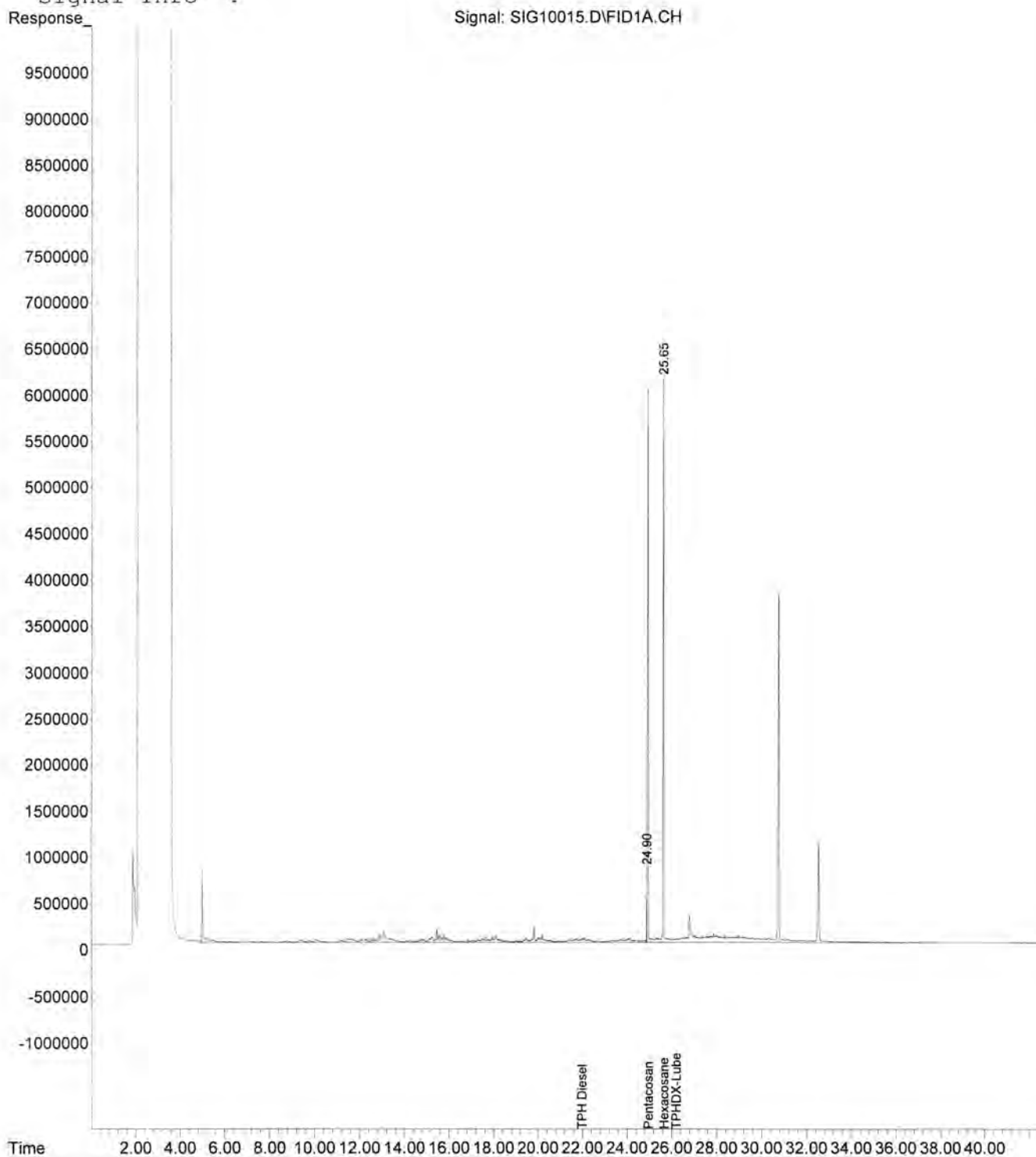
Volume Inj. :
 Signal Phase :
 Signal Info :

Compound	R.T.	Response	Conc	Units
Internal Standards				
1) I Pentacosane	24.96	146628080	50.000 ppm	m
System Monitoring Compounds				
2) S Hexacosane	25.65	118651155	39.691 ppm	m
Spiked Amount	50.000	Range 50 - 150	Recovery = 79.38%	
Target Compounds				
3) H TPH Diesel (C12-C14)	21.97	246024303	113.605 ppm	
4) H TPHDX-Lube Oil (>C14)	26.20	351379891	248.212 ppm	
5) H Mineral Oil	0.00	0	N.D.	ppm
6) h HCID Gas (C7-C12)	0.00	0	N.D.	ppm
7) h HCID Diesel (C12-C14)	22.02	2551064	NoCal	ppm
8) h HCID Oil (>C14)	26.20	10859539	NoCal	ppm

Data File : W:\HPCHEM\1\2020DATA\092120\SIG10015.D Vial: 9
Acq On : 21 Sep 2020 23:30 Operator: ARC
Sample : WAI0678-02 Inst : HP G1530A
Misc : Multiplr: 1.00
IntFile : EVENTS1.E
Quant Time: Sep 22 9:25 2020 Quant Results File: 200916LOWDHT.RES

Quant Method : W:\HPCHEM\1...\200916LOWDHT.M (Chemstation Integrator)
Title :
Last Update : Mon Sep 21 09:52:02 2020
Response via : Multiple Level Calibration
DataAcq Meth : DXHCID5.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : W:\HPCHEM\1\2020DATA\092120\SIG10016.D Vial: 10
Acq On : 22 Sep 2020 00:26 Operator: ARC
Sample : WAI0678-03 Inst : HP G1530A
Misc : Multiplr: 1.00
IntFile : EVENTS1.E
Quant Time: Sep 22 08:15:29 2020 Quant Results File: 200916LOWDHT.RES

Quant Method : W:\HPCHEM\1...\200916LOWDHT.M (Chemstation Integrator)
Title :
Last Update : Mon Sep 21 09:52:02 2020
Response via : Initial Calibration
DataAcq Meth : DXHCID5.M

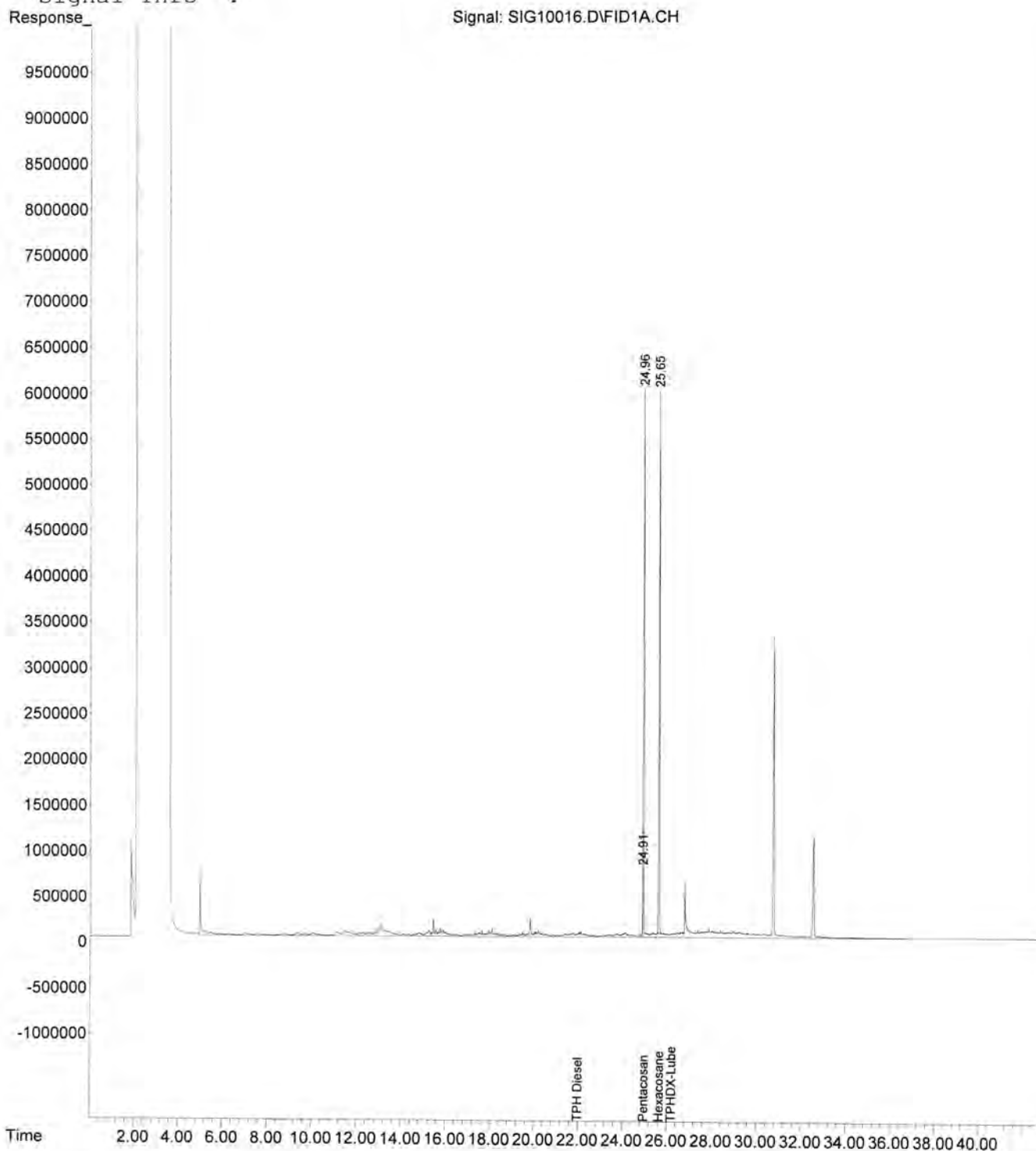
Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc	Units
Internal Standards				
1) I Pentacosane	24.96	141348248	50.000 ppm	m
System Monitoring Compounds				
2) S Hexacosane	25.65	127320291	44.182 ppm	m
Spiked Amount	50.000	Range	50 - 150	Recovery = 88.36%
Target Compounds				
3) H TPH Diesel (C12-C14)	21.97	269004749	128.857 ppm	
4) H TPHDX-Lube Oil (>C14)	26.20	348492540	255.368 ppm	
5) H Mineral Oil	0.00	0	N.D.	ppm
6) h HCID Gas (C7-C12)	0.00	0	N.D.	ppm
7) h HCID Diesel (C12-C14)	21.97	173592937	NoCal	ppm
8) h HCID Oil (>C14)	26.20	293386605	NoCal	ppm

Data File : W:\HPCHEM\1\2020DATA\092120\SIG10016.D Vial: 10
Acq On : 22 Sep 2020 00:26 Operator: ARC
Sample : WAI0678-03 Inst : HP G1530A
Misc : Multiplr: 1.00
IntFile : EVENTS1.E
Quant Time: Sep 22 9:27 2020 Quant Results File: 200916LOWDHT.RES

Quant Method : W:\HPCHEM\1...\200916LOWDHT.M (Chemstation Integrator)
Title :
Last Update : Mon Sep 21 09:52:02 2020
Response via : Multiple Level Calibration
DataAcq Meth : DXHCID5.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : W:\HPCHEM\1\2020DATA\092120\SIG10017.D Vial: 11
Acq On : 22 Sep 2020 1:21 Operator: ARC
Sample : WAI0678-04 Inst : HP G1530A
Misc : Multiplr: 1.00
IntFile : EVENTS1.E
Quant Time: Sep 22 08:15:30 2020 Quant Results File: 200916LOWDHT.RES

Quant Method : W:\HPCHEM\1...\200916LOWDHT.M (Chemstation Integrator)
Title :
Last Update : Mon Sep 21 09:52:02 2020
Response via : Initial Calibration
DataAcq Meth : DXHCID5.M

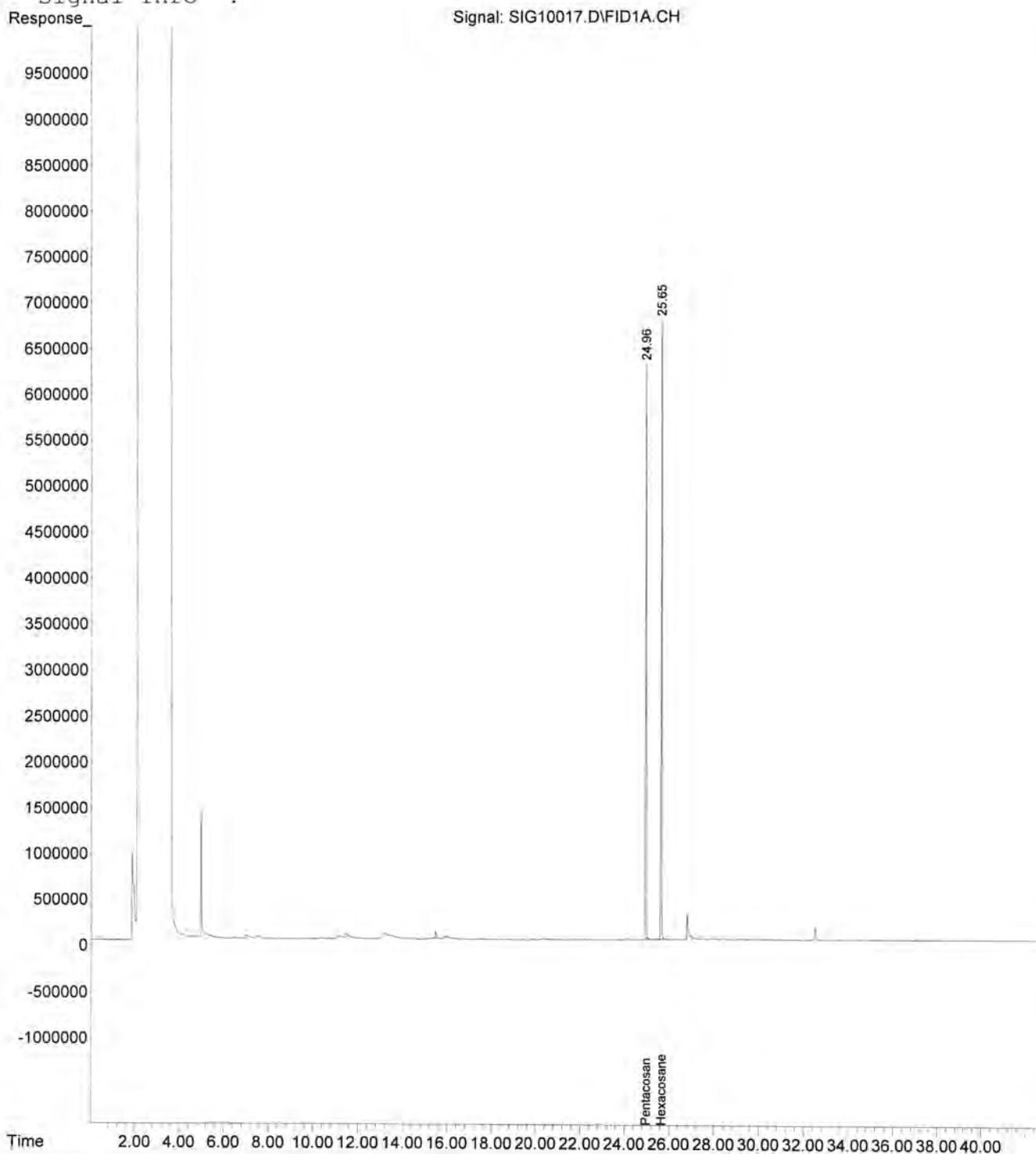
Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc	Units
Internal Standards				
1) I Pentacosane	24.96	152199867	50.000 ppm	m
System Monitoring Compounds				
2) S Hexacosane	25.65	145269294	46.816 ppm	m
Spiked Amount	50.000	Range	50 - 150	Recovery = 93.63%
Target Compounds				
3) H TPH Diesel (C12-C14)	0.00	0	N.D.	ppm
4) H TPHDX-Lube Oil (>C14)	0.00	0	N.D.	ppm
5) H Mineral Oil	0.00	0	N.D.	ppm
6) h HCID Gas (C7-C12)	0.00	0	N.D.	ppm
7) h HCID Diesel (C12-C14)	21.97	52463238	NoCal	ppm
8) h HCID Oil (>C14)	26.20	57110437	NoCal	ppm

Data File : W:\HPCHEM\1\2020DATA\092120\SIG10017.D Vial: 11
Acq On : 22 Sep 2020 1:21 Operator: ARC
Sample : WAI0678-04 Inst : HP G1530A
Misc : Multiplr: 1.00
IntFile : EVENTS1.E
Quant Time: Sep 23 7:22 2020 Quant Results File: 200916LOWDHT.RES

Quant Method : W:\HPCHEM\1...\200916LOWDHT.M (Chemstation Integrator)
Title :
Last Update : Mon Sep 21 09:52:02 2020
Response via : Multiple Level Calibration
DataAcq Meth : DXHCID5.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : W:\HPCHEM\1\2020DATA\092820\SIG10016.D Vial: 15
Acq On : 28 Sep 2020 23:46 Operator: ARC
Sample : BAI0662-BS1 Inst : HP G1530A
Misc : Multiplr: 1.00
IntFile : EVENTS1.E
Quant Time: Sep 29 08:35:35 2020 Quant Results File: 200925LOW.RES

Quant Method : W:\HPCHEM\1\METHODS\200925LOW.M (Chemstation Integrator)
Title :
Last Update : Mon Sep 28 10:04:15 2020
Response via : Initial Calibration
DataAcq Meth : DXHCID5.M

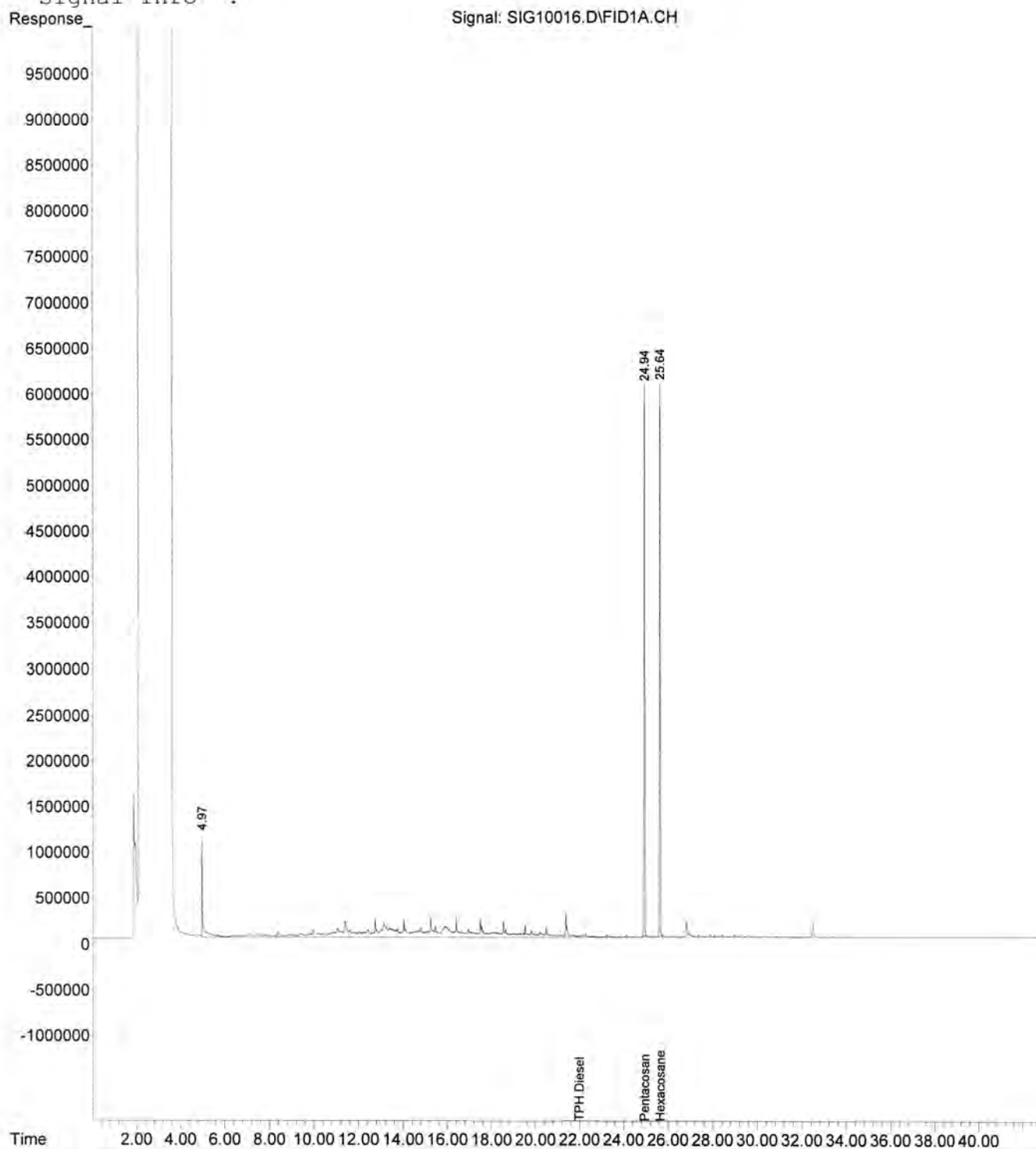
Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc	Units
Internal Standards				
1) I Pentacosane	24.94	146066154	50.000	ppm m
System Monitoring Compounds				
2) S Hexacosane	25.64	138758812	46.009	ppm m
Spiked Amount	50.000	Range	50 - 150	Recovery = 92.02%
Target Compounds				
3) H TPH Diesel (C12-C14)	21.97	477755174	255.432	ppm
4) H TPHDX-Lube Oil (>C14)	0.00	0	N.D.	ppm
5) H Mineral Oil	0.00	0	N.D.	ppm
6) h HCID Gas (C7-C12)	0.00	0	N.D.	ppm
7) h HCID Diesel (C12-C14)	0.00	0	N.D.	ppm
8) h HCID Oil (>C14)	0.00	0	N.D.	ppm

Data File : W:\HPCHEM\1\2020DATA\092820\SIG10016.D Vial: 15
Acq On : 28 Sep 2020 23:46 Operator: ARC
Sample : BAI0662-BS1 Inst : HP G1530A
Misc : Multiplr: 1.00
IntFile : EVENTS1.E
Quant Time: Sep 29 7:40 2020 Quant Results File: 200925LOW.RES

Quant Method : W:\HPCHEM\1\METHODS\200925LOW.M (Chemstation Integrator)
Title :
Last Update : Mon Sep 28 10:04:15 2020
Response via : Multiple Level Calibration
DataAcq Meth : DXHCID5.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : W:\HPCHEM\1\2020DATA\092820\SIG10017.D Vial: 16
Acq On : 29 Sep 2020 00:42 Operator: ARC
Sample : WAI0678-05 Inst : HP G1530A
Misc : Multiplr: 1.00
IntFile : EVENTS1.E
Quant Time: Sep 29 08:35:36 2020 Quant Results File: 200925LOW.RES

Quant Method : W:\HPCHEM\1\METHODS\200925LOW.M (Chemstation Integrator)
Title :
Last Update : Mon Sep 28 10:04:15 2020
Response via : Initial Calibration
DataAcq Meth : DXHCID5.M

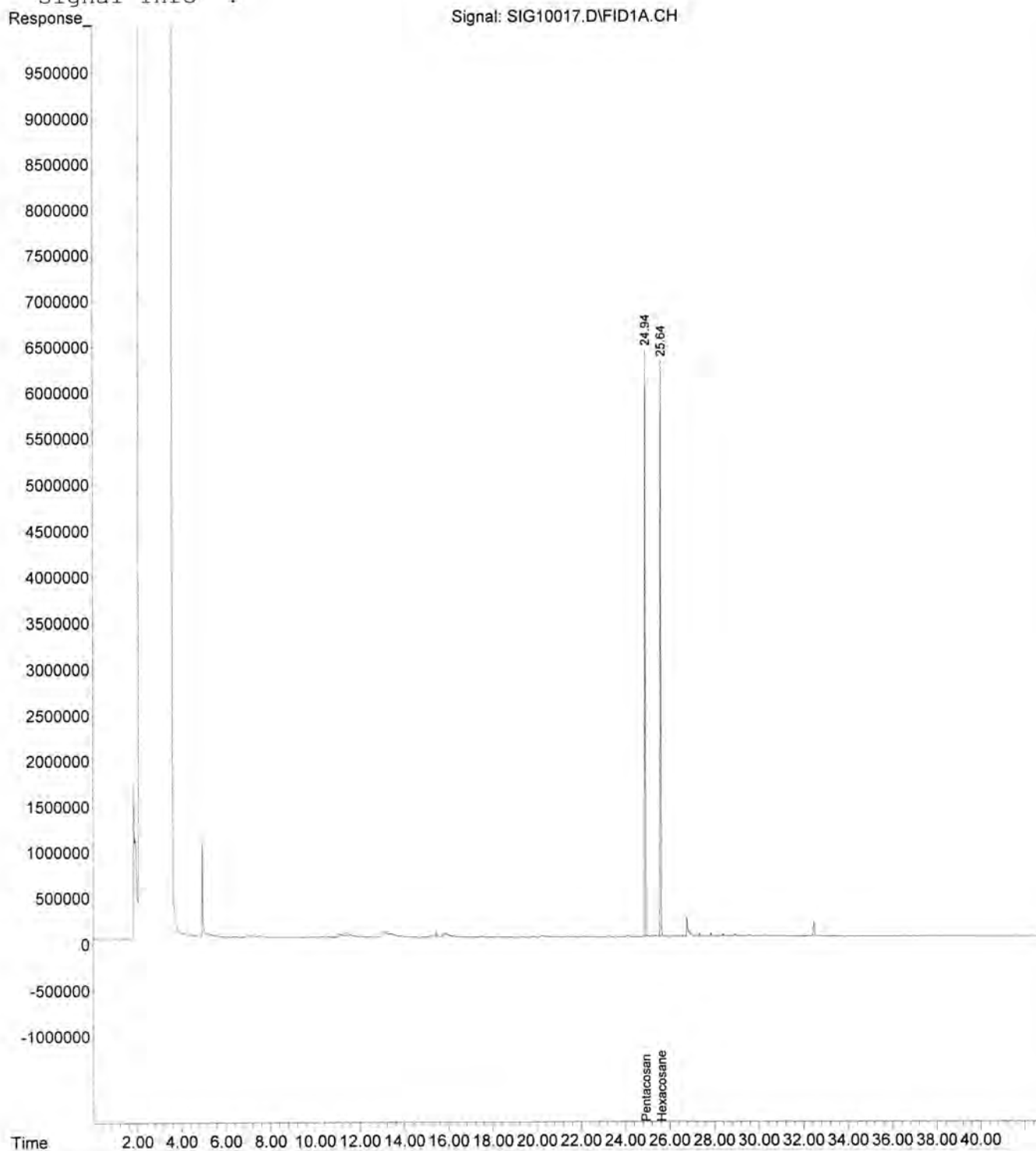
Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc	Units
Internal Standards				
1) I Pentacosane	24.94	136591265	50.000 ppm	m
System Monitoring Compounds				
2) S Hexacosane	25.64	135387846	48.005 ppm	m
Spiked Amount	50.000	Range	50 - 150	Recovery = 96.01%
Target Compounds				
3) H TPH Diesel (C12-C14)	0.00	0	N.D.	ppm
4) H TPHDX-Lube Oil (>C14)	0.00	0	N.D.	ppm
5) H Mineral Oil	0.00	0	N.D.	ppm
6) h HCID Gas (C7-C12)	0.00	0	N.D.	ppm
7) h HCID Diesel (C12-C14)	0.00	0	N.D.	ppm
8) h HCID Oil (>C14)	0.00	0	N.D.	ppm

Data File : W:\HPCHEM\1\2020DATA\092820\SIG10017.D Vial: 16
Acq On : 29 Sep 2020 00:42 Operator: ARC
Sample : WAI0678-05 Inst : HP G1530A
Misc : Multiplr: 1.00
IntFile : EVENTS1.E
Quant Time: Sep 29 7:40 2020 Quant Results File: 200925LOW.RES

Quant Method : W:\HPCHEM\1\METHODS\200925LOW.M (Chemstation Integrator)
Title :
Last Update : Mon Sep 28 10:04:15 2020
Response via : Multiple Level Calibration
DataAcq Meth : DXHCID5.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : W:\HPCHEM\1\2020DATA\092820\SIG10018.D Vial: 17
Acq On : 29 Sep 2020 1:37 Operator: ARC
Sample : BAI0662-DUP1 Inst : HP G1530A
Misc : Multiplr: 1.00
IntFile : EVENTS1.E
Quant Time: Sep 29 08:35:37 2020 Quant Results File: 200925LOW.RES

Quant Method : W:\HPCHEM\1\METHODS\200925LOW.M (Chemstation Integrator)
Title :
Last Update : Mon Sep 28 10:04:15 2020
Response via : Initial Calibration
DataAcq Meth : DXHCID5.M

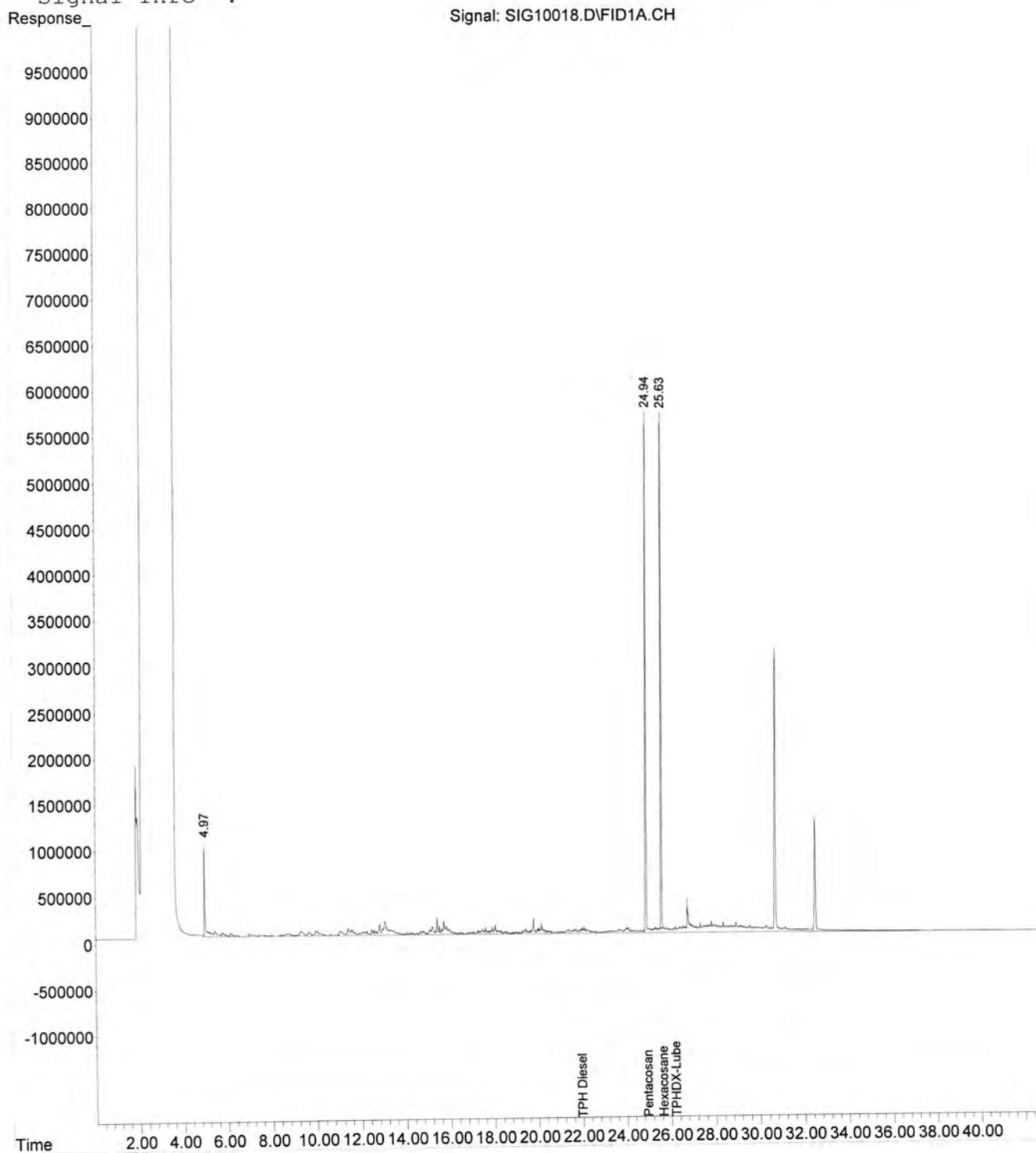
Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
Internal Standards			
1) I Pentacosane	24.94	127560050	50.000 ppm m
System Monitoring Compounds			
2) S Hexacosane	25.63	123482848	46.884 ppm m
Spiked Amount 50.000	Range 50 - 150	Recovery =	93.77%
Target Compounds			
3) H TPH Diesel (C12-C14)	21.97	290819809	178.045 ppm
4) H TPHDX-Lube Oil (>C14)	26.20	361578619	336.569 ppm
5) H Mineral Oil	0.00	0	N.D. ppm
6) h HCID Gas (C7-C12)	0.00	0	N.D. ppm
7) h HCID Diesel (C12-C14)	0.00	0	N.D. ppm
8) h HCID Oil (>C14)	0.00	0	N.D. ppm

Data File : W:\HPCHEM\1\2020DATA\092820\SIG10018.D Vial: 17
Acq On : 29 Sep 2020 1:37 Operator: ARC
Sample : BAI0662-DUP1 Inst : HP G1530A
Misc : Multiplr: 1.00
IntFile : EVENTS1.E
Quant Time: Sep 29 7:41 2020 Quant Results File: 200925LOW.RES

Quant Method : W:\HPCHEM\1\METHODS\200925LOW.M (Chemstation Integrator)
Title :
Last Update : Mon Sep 28 10:04:15 2020
Response via : Multiple Level Calibration
DataAcq Meth : DXHCID5.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : W:\HPCHEM\1\2020DATA\092820\SIG10019.D Vial: 18
 Acq On : 29 Sep 2020 2:32 Operator: ARC
 Sample : WAI0678-06 Inst : HP G1530A
 Misc : Multiplr: 1.00
 IntFile : EVENTS1.E
 Quant Time: Sep 29 08:35:38 2020 Quant Results File: 200925LOW.RES

Quant Method : W:\HPCHEM\1\METHODS\200925LOW.M (Chemstation Integrator)
 Title :
 Last Update : Mon Sep 28 10:04:15 2020
 Response via : Initial Calibration
 DataAcq Meth : DXHCID5.M

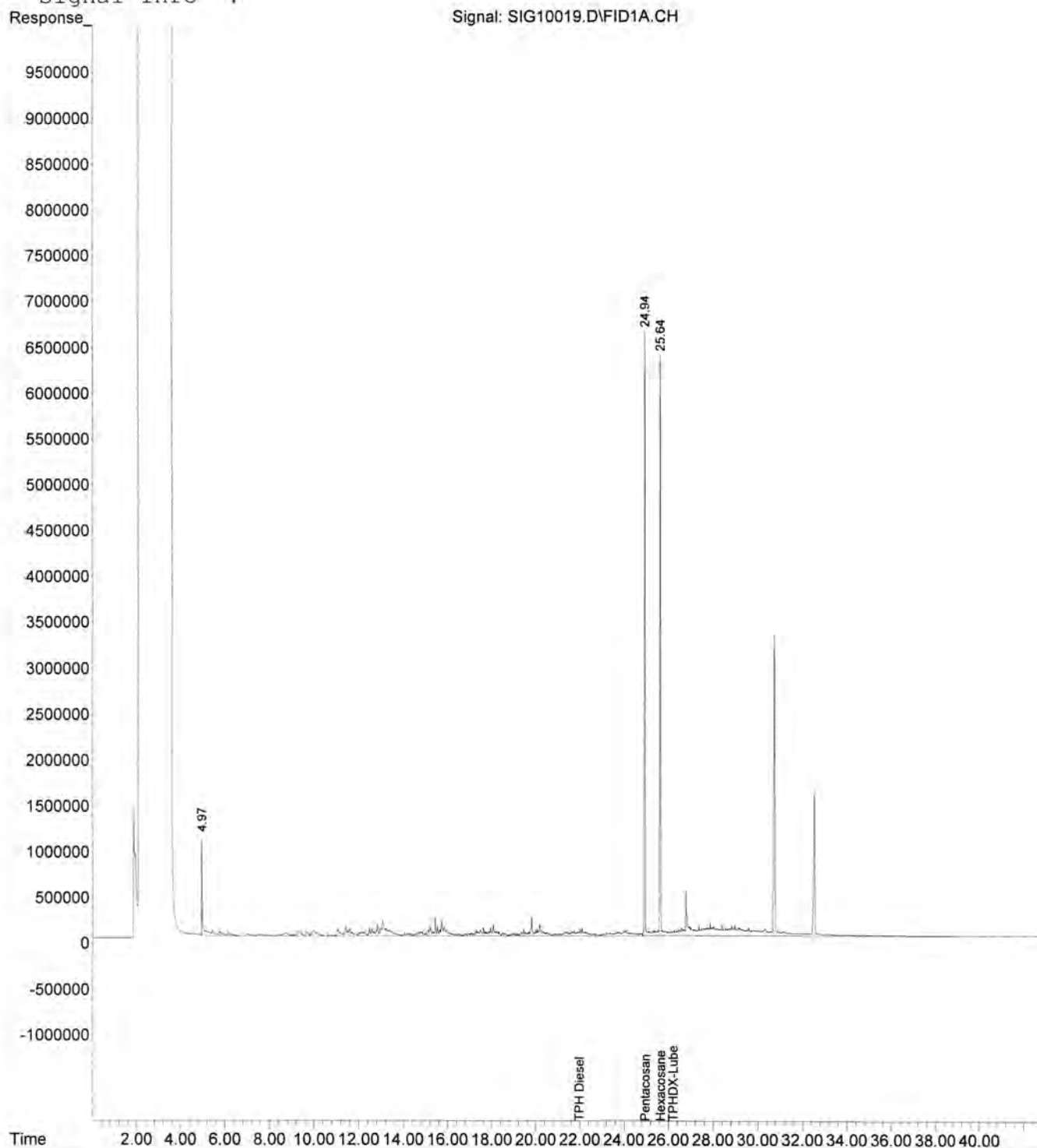
Volume Inj. :
 Signal Phase :
 Signal Info :

Compound	R.T.	Response	Conc	Units
Internal Standards				
1) I Pentacosane	24.94	147748035	50.000 ppm	m
System Monitoring Compounds				
2) S Hexacosane	25.64	142380772	46.673 ppm	m
Spiked Amount	50.000	Range	50 - 150	Recovery = 93.35%
Target Compounds				
3) H TPH Diesel (C12-C14)	21.97	347388370	183.617 ppm	
4) H TPHDX-Lube Oil (>C14)	26.20	425286160	341.780 ppm	
5) H Mineral Oil	0.00	0	N.D.	ppm
6) h HCID Gas (C7-C12)	0.00	0	N.D.	ppm
7) h HCID Diesel (C12-C14)	0.00	0	N.D.	ppm
8) h HCID Oil (>C14)	0.00	0	N.D.	ppm

Data File : W:\HPCHEM\1\2020DATA\092820\SIG10019.D Vial: 18
Acq On : 29 Sep 2020 2:32 Operator: ARC
Sample : WAI0678-06 Inst : HP G1530A
Misc : Multiplr: 1.00
IntFile : EVENTS1.E
Quant Time: Sep 29 7:41 2020 Quant Results File: 200925LOW.RES

Quant Method : W:\HPCHEM\1\METHODS\200925LOW.M (Chemstation Integrator)
Title :
Last Update : Mon Sep 28 10:04:15 2020
Response via : Multiple Level Calibration
DataAcq Meth : DXHCID5.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : W:\HPCHEM\1\2020DATA\092820\SIG10020.D Vial: 19
Acq On : 29 Sep 2020 3:27 Operator: ARC
Sample : WAI0678-07 Inst : HP G1530A
Misc : Multiplr: 1.00
IntFile : EVENTS1.E
Quant Time: Sep 29 08:35:39 2020 Quant Results File: 200925LOW.RES

Quant Method : W:\HPCHEM\1\METHODS\200925LOW.M (Chemstation Integrator)
Title :
Last Update : Mon Sep 28 10:04:15 2020
Response via : Initial Calibration
DataAcq Meth : DXHCID5.M

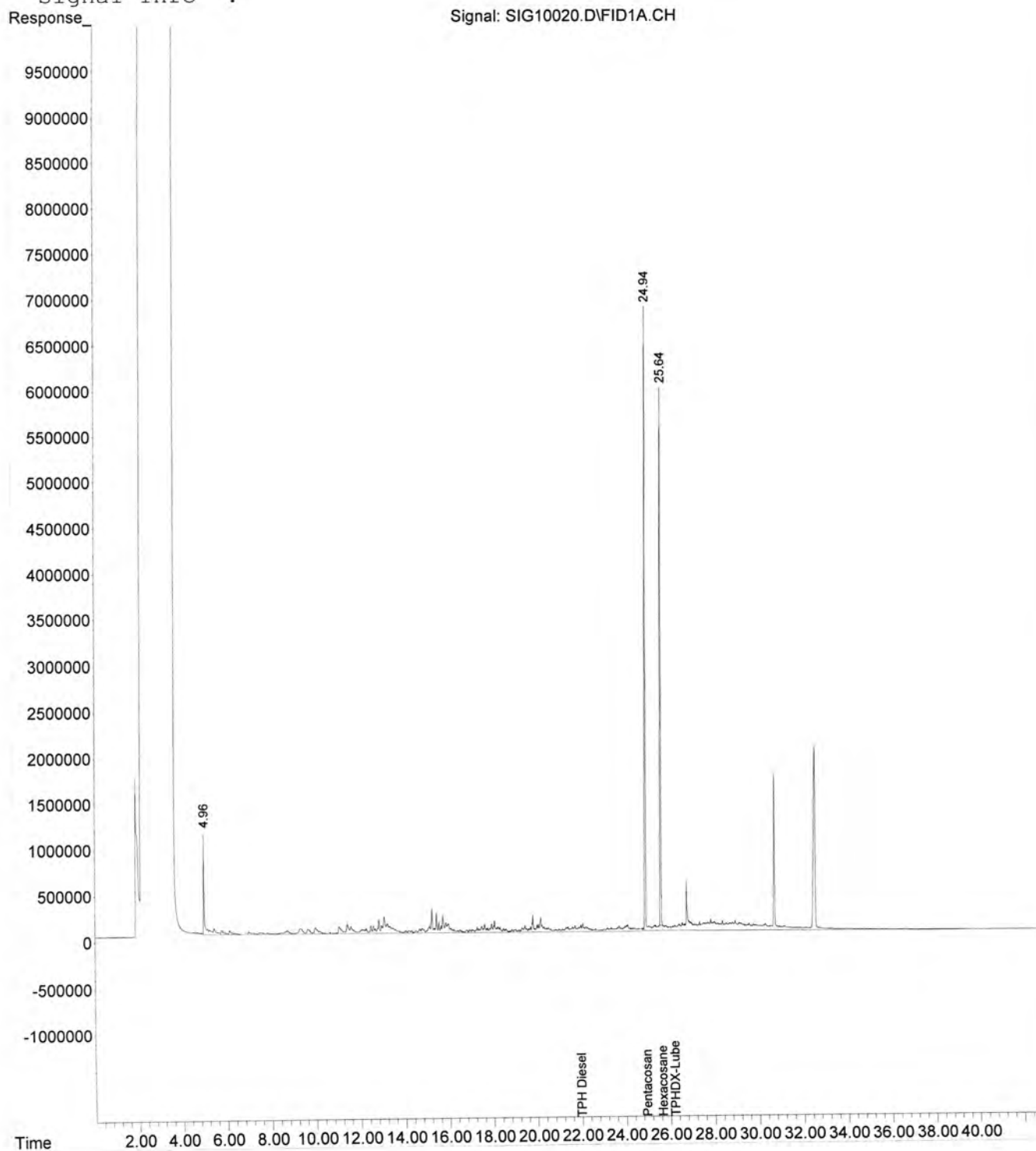
Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc	Units
Internal Standards				
1) I Pentacosane	24.94	147039808	50.000 ppm	m
System Monitoring Compounds				
2) S Hexacosane	25.64	139375317	45.907 ppm	m
Spiked Amount	50.000	Range	50 - 150	Recovery = 91.81%
Target Compounds				
3) H TPH Diesel (C12-C14)	21.97	392987284	208.720 ppm	
4) H TPHDX-Lube Oil (>C14)	26.20	405599393	327.528 ppm	
5) H Mineral Oil	0.00	0	N.D.	ppm
6) h HCID Gas (C7-C12)	0.00	0	N.D.	ppm
7) h HCID Diesel (C12-C14)	0.00	0	N.D.	ppm
8) h HCID Oil (>C14)	0.00	0	N.D.	ppm

Data File : W:\HPCHEM\1\2020DATA\092820\SIG10020.D Vial: 19
Acq On : 29 Sep 2020 3:27 Operator: ARC
Sample : WAI0678-07 Inst : HP G1530A
Misc : Multiplr: 1.00
IntFile : EVENTS1.E
Quant Time: Sep 29 7:42 2020 Quant Results File: 200925LOW.RES

Quant Method : W:\HPCHEM\1\METHODS\200925LOW.M (Chemstation Integrator)
Title :
Last Update : Mon Sep 28 10:04:15 2020
Response via : Multiple Level Calibration
DataAcq Meth : DXHCID5.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : W:\HPCHEM\1\2020DATA\092820\SIG10021.D Vial: 20
Acq On : 29 Sep 2020 4:22 Operator: ARC
Sample : WAI0678-08 Inst : HP G1530A
Misc : Multiplr: 1.00
IntFile : EVENTS1.E
Quant Time: Sep 29 08:35:40 2020 Quant Results File: 200925LOW.RES

Quant Method : W:\HPCHEM\1\METHODS\200925LOW.M (Chemstation Integrator)
Title :
Last Update : Mon Sep 28 10:04:15 2020
Response via : Initial Calibration
DataAcq Meth : DXHCID5.M

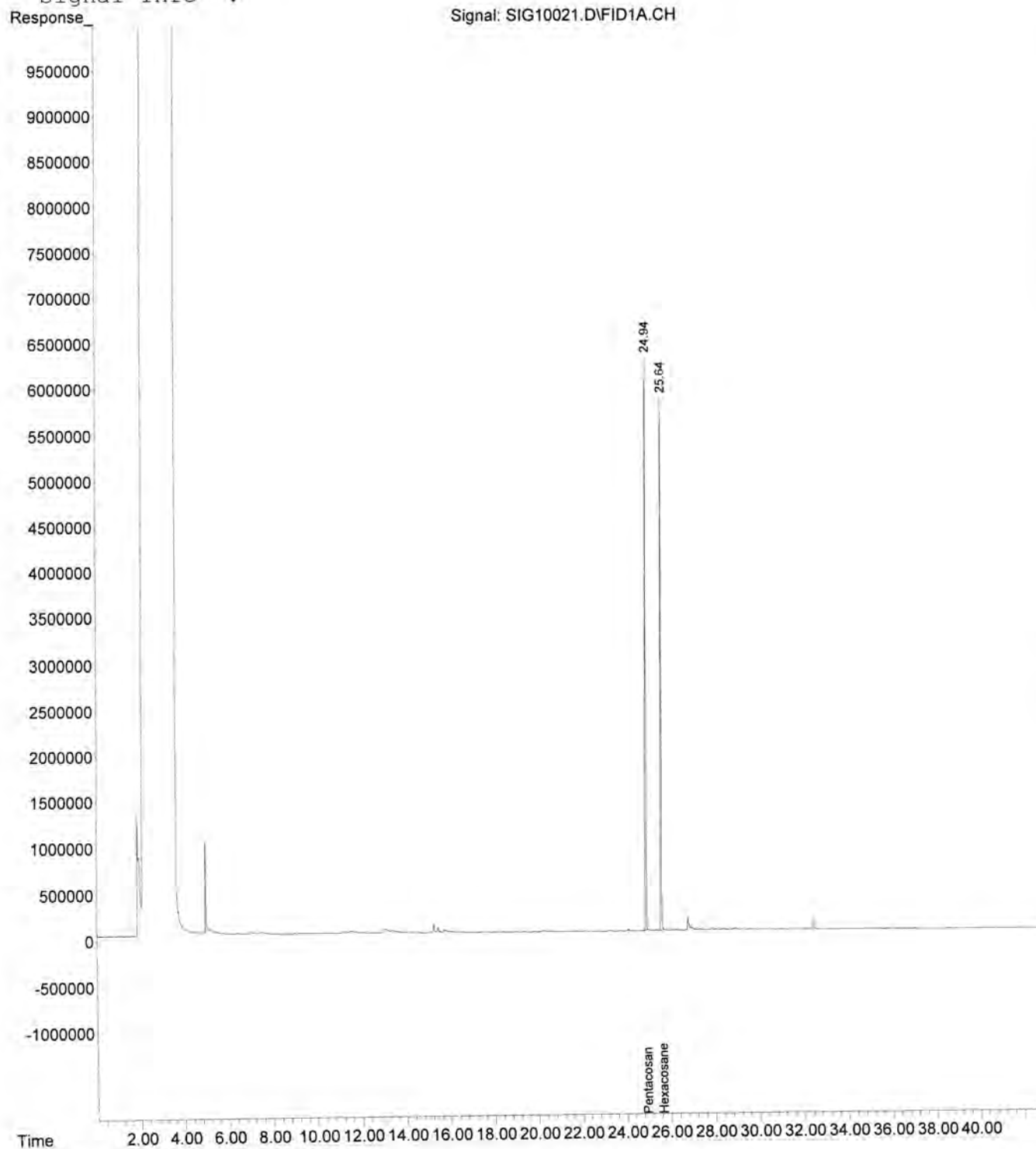
Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc	Units
Internal Standards				
1) I Pentacosane	24.94	145804672	50.000 ppm	m
System Monitoring Compounds				
2) S Hexacosane	25.64	136134161	45.220 ppm	m
Spiked Amount	50.000	Range	50 - 150	Recovery = 90.44%
Target Compounds				
3) H TPH Diesel (C12-C14)	0.00	0	N.D.	ppm
4) H TPHDX-Lube Oil (>C14)	0.00	0	N.D.	ppm
5) H Mineral Oil	0.00	0	N.D.	ppm
6) h HCID Gas (C7-C12)	0.00	0	N.D.	ppm
7) h HCID Diesel (C12-C14)	0.00	0	N.D.	ppm
8) h HCID Oil (>C14)	0.00	0	N.D.	ppm

Data File : W:\HPCHEM\1\2020DATA\092820\SIG10021.D Vial: 20
Acq On : 29 Sep 2020 4:22 Operator: ARC
Sample : WAI0678-08 Inst : HP G1530A
Misc : Multiplr: 1.00
IntFile : EVENTS1.E
Quant Time: Sep 30 7:30 2020 Quant Results File: 200925LOW.RES

Quant Method : W:\HPCHEM\1\METHODS\200925LOW.M (Chemstation Integrator)
Title :
Last Update : Mon Sep 28 10:04:15 2020
Response via : Multiple Level Calibration
DataAcq Meth : DXHCID5.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : W:\HPCHEM\1\2020DATA\092820\SIG10022.D Vial: 21
Acq On : 29 Sep 2020 5:16 Operator: ARC
Sample : WAI0678-10 Inst : HP G1530A
Misc : Multiplr: 1.00
IntFile : EVENTS1.E
Quant Time: Sep 29 08:35:41 2020 Quant Results File: 200925LOW.RES

Quant Method : W:\HPCHEM\1\METHODS\200925LOW.M (Chemstation Integrator)
Title :
Last Update : Mon Sep 28 10:04:15 2020
Response via : Initial Calibration
DataAcq Meth : DXHCID5.M

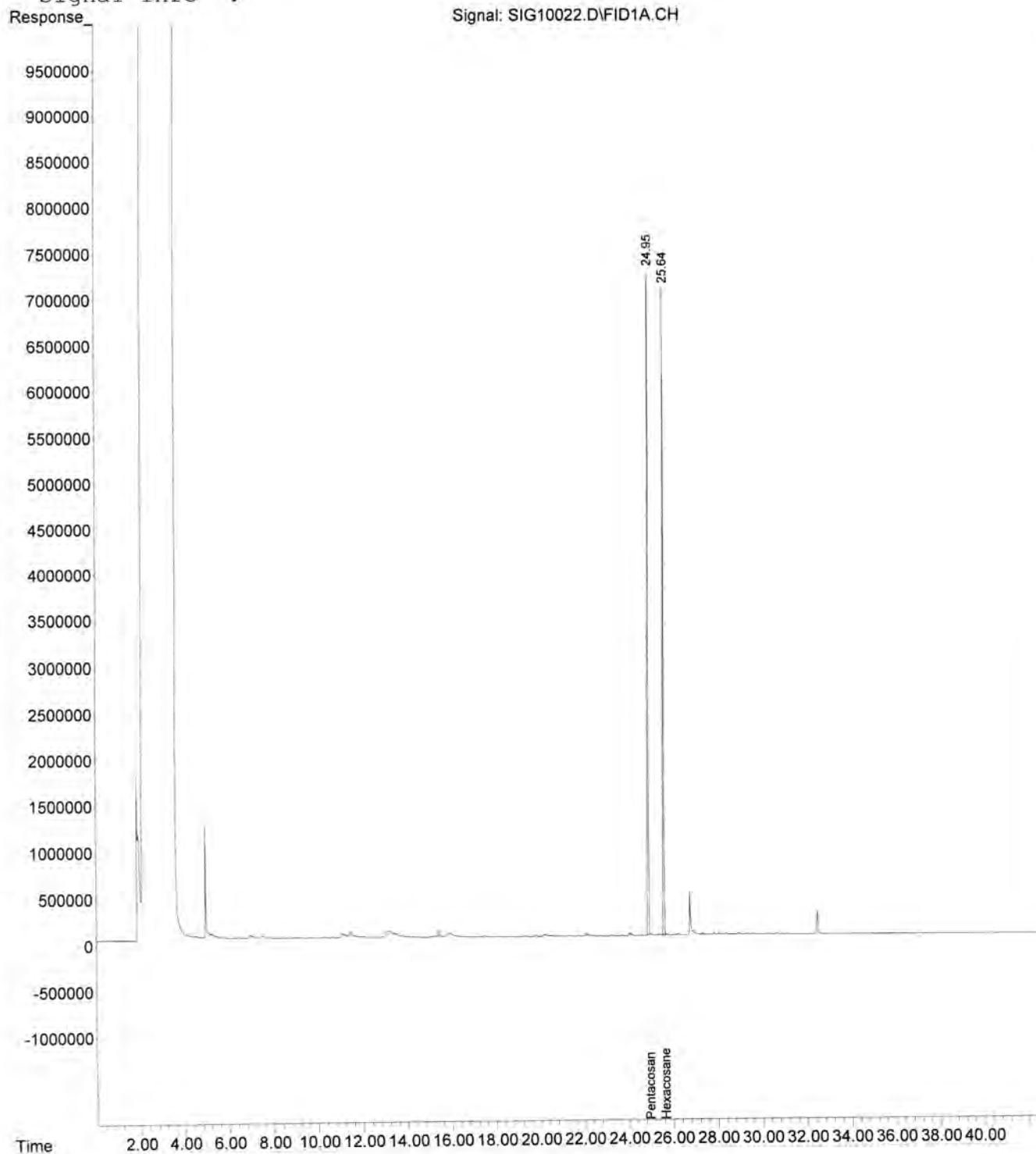
Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc	Units
Internal Standards				
1) I Pentacosane	24.95	179124732	50.000 ppm	m
System Monitoring Compounds				
2) S Hexacosane	25.64	156644346	42.354 ppm	m
Spiked Amount	50.000	Range	50 - 150	Recovery = 84.71%
Target Compounds				
3) H TPH Diesel (C12-C14)	0.00	0	N.D.	ppm
4) H TPHDX-Lube Oil (>C14)	0.00	0	N.D.	ppm
5) H Mineral Oil	0.00	0	N.D.	ppm
6) h HCID Gas (C7-C12)	0.00	0	N.D.	ppm
7) h HCID Diesel (C12-C14)	0.00	0	N.D.	ppm
8) h HCID Oil (>C14)	0.00	0	N.D.	ppm

Data File : W:\HPCHEM\1\2020DATA\092820\SIG10022.D Vial: 21
Acq On : 29 Sep 2020 5:16 Operator: ARC
Sample : WAI0678-10 Inst : HP G1530A
Misc : Multiplr: 1.00
IntFile : EVENTS1.E
Quant Time: Sep 29 7:43 2020 Quant Results File: 200925LOW.RES

Quant Method : W:\HPCHEM\1\METHODS\200925LOW.M (Chemstation Integrator)
Title :
Last Update : Mon Sep 28 10:04:15 2020
Response via : Multiple Level Calibration
DataAcq Meth : DXHCID5.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : W:\HPCHEM\1\2020DATA\092820\SIG10023.D Vial: 1
Acq On : 29 Sep 2020 6:11 Operator: ARC
Sample : Blank Inst : HP G1530A
Misc : Multiplr: 1.00
IntFile : EVENTS1.E
Quant Time: Sep 29 08:35:42 2020 Quant Results File: 200925LOW.RES

Quant Method : W:\HPCHEM\1\METHODS\200925LOW.M (Chemstation Integrator)
Title :
Last Update : Mon Sep 28 10:04:15 2020
Response via : Initial Calibration
DataAcq Meth : DXHCID5.M

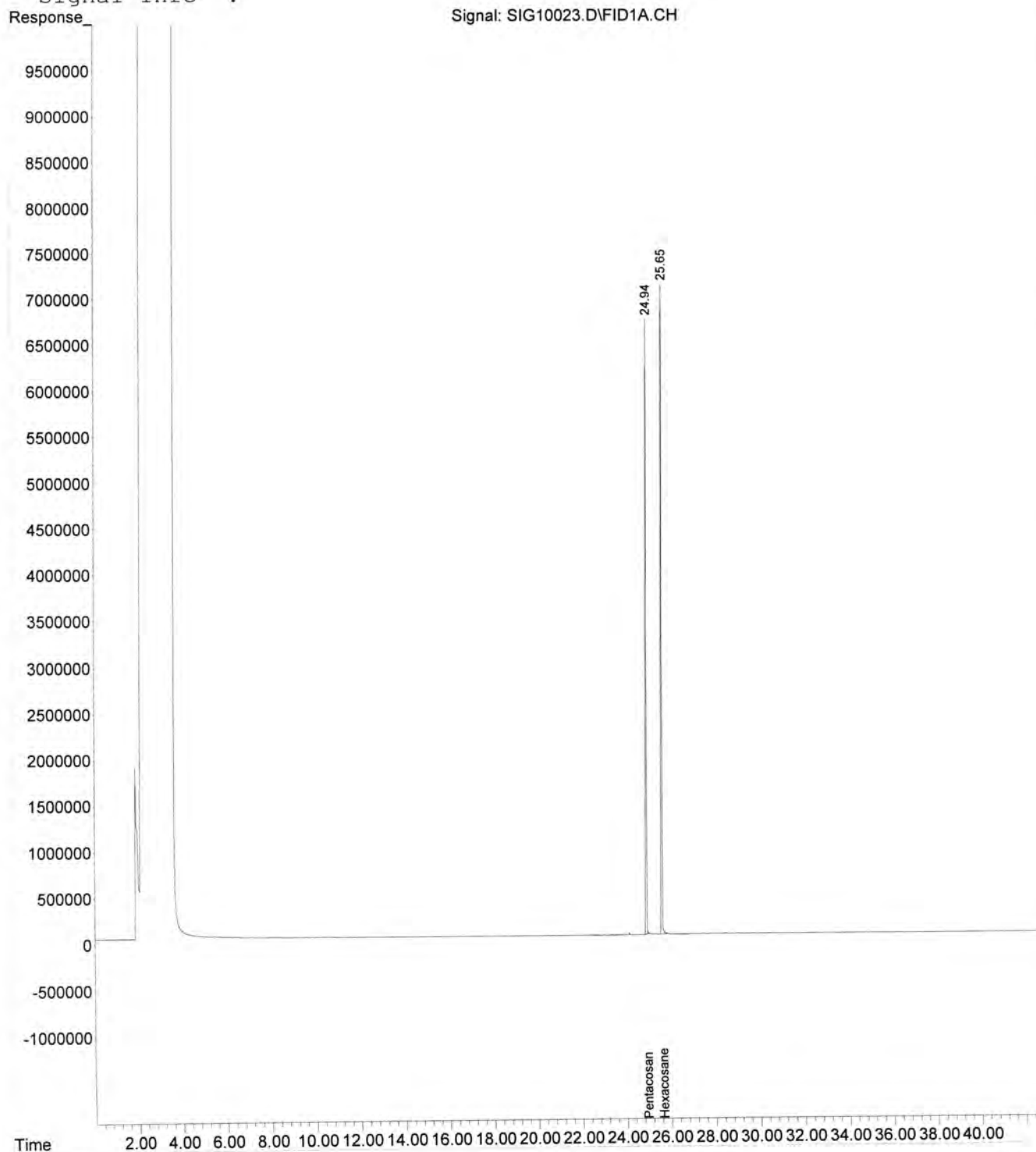
Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc	Units
Internal Standards				
1) I Pentacosane	24.94	171418963	50.000 ppm	m
System Monitoring Compounds				
2) S Hexacosane	25.65	169847779	47.988 ppm	m
Spiked Amount	50.000	Range	50 - 150	Recovery = 95.98%
Target Compounds				
3) H TPH Diesel (C12-C14)	0.00	0	N.D.	ppm
4) H TPHDX-Lube Oil (>C14)	0.00	0	N.D.	ppm
5) H Mineral Oil	0.00	0	N.D.	ppm
6) h HCID Gas (C7-C12)	0.00	0	N.D.	ppm
7) h HCID Diesel (C12-C14)	0.00	0	N.D.	ppm
8) h HCID Oil (>C14)	0.00	0	N.D.	ppm

Data File : W:\HPCHEM\1\2020DATA\092820\SIG10023.D Vial: 1
Acq On : 29 Sep 2020 6:11 Operator: ARC
Sample : Blank Inst : HP G1530A
Misc : Multiplr: 1.00
IntFile : EVENTS1.E
Quant Time: Sep 29 7:43 2020 Quant Results File: 200925LOW.RES

Quant Method : W:\HPCHEM\1\METHODS\200925LOW.M (Chemstation Integrator)
Title :
Last Update : Mon Sep 28 10:04:15 2020
Response via : Multiple Level Calibration
DataAcq Meth : DXHCID5.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : W:\HPCHEM\1\2020DATA\092820\SIG10028.D Vial: 22
 Acq On : 29 Sep 2020 10:47 Operator: ARC
 Sample : WAI0678-11 Inst : HP G1530A
 Misc : Multiplr: 1.00
 IntFile : EVENTS1.E
 Quant Time: Sep 29 11:45:13 2020 Quant Results File: 200925LOW.RES

Quant Method : W:\HPCHEM\1\METHODS\200925LOW.M (Chemstation Integrator)
 Title :
 Last Update : Mon Sep 28 10:04:15 2020
 Response via : Initial Calibration
 DataAcq Meth : DXHCID5.M

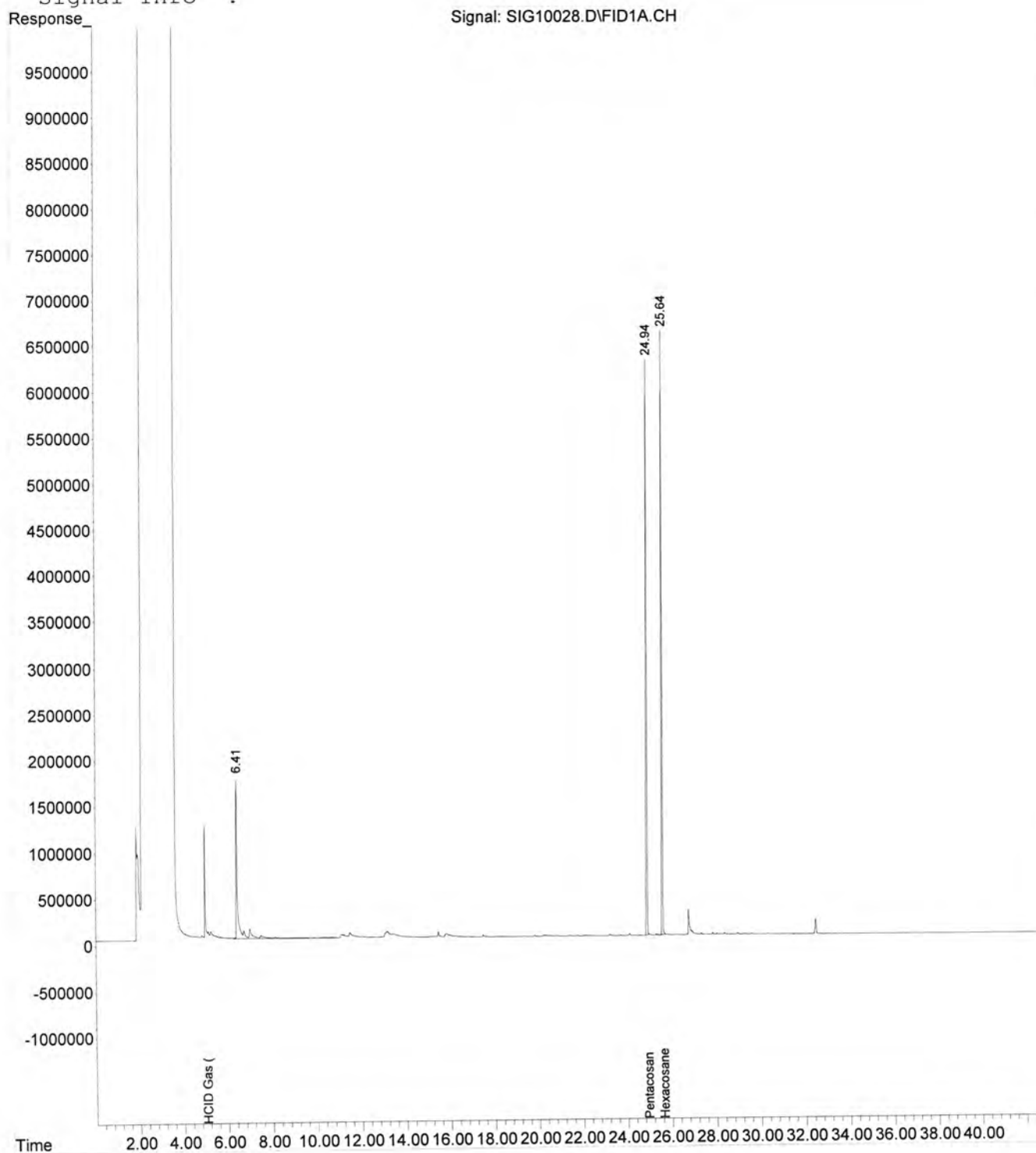
Volume Inj. :
 Signal Phase :
 Signal Info :

Compound	R.T.	Response	Conc Units
Internal Standards			
1) I Pentacosane	24.94	156507880	50.000 ppm m
System Monitoring Compounds			
2) S Hexacosane	25.64	145692394	45.085 ppm m
Spiked Amount 50.000	Range 50 - 150	Recovery =	90.17%
Target Compounds			
3) H TPH Diesel (C12-C14)	0.00	0	N.D. ppm
4) H TPHDX-Lube Oil (>C14)	0.00	0	N.D. ppm
5) H Mineral Oil	0.00	0	N.D. ppm
6) h HCID Gas (C7-C12)	5.05	82252049	64.600 ppm
7) h HCID Diesel (C12-C14)	0.00	0	N.D. ppm
8) h HCID Oil (>C14)	0.00	0	N.D. ppm

Data File : W:\HPCHEM\1\2020DATA\092820\SIG10028.D Vial: 22
Acq On : 29 Sep 2020 10:47 Operator: ARC
Sample : WAI0678-11 Inst : HP G1530A
Misc : Multiplr: 1.00
IntFile : EVENTS1.E
Quant Time: Sep 29 10:51 2020 Quant Results File: 200925LOW.RES

Quant Method : W:\HPCHEM\1\METHODS\200925LOW.M (Chemstation Integrator)
Title :
Last Update : Mon Sep 28 10:04:15 2020
Response via : Multiple Level Calibration
DataAcq Meth : DXHCID5.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : W:\HPCHEM\1\2020DATA\092820\SIG10029.D Vial: 23
 Acq On : 29 Sep 2020 11:43 Operator: ARC
 Sample : BAI0662-MS1 Inst : HP G1530A
 Misc : Multiplr: 1.00
 IntFile : EVENTS1.E
 Quant Time: Sep 29 12:29:23 2020 Quant Results File: 200925LOW.RES

Quant Method : W:\HPCHEM\1\METHODS\200925LOW.M (Chemstation Integrator)
 Title :
 Last Update : Mon Sep 28 10:04:15 2020
 Response via : Initial Calibration
 DataAcq Meth : DXHCID5.M

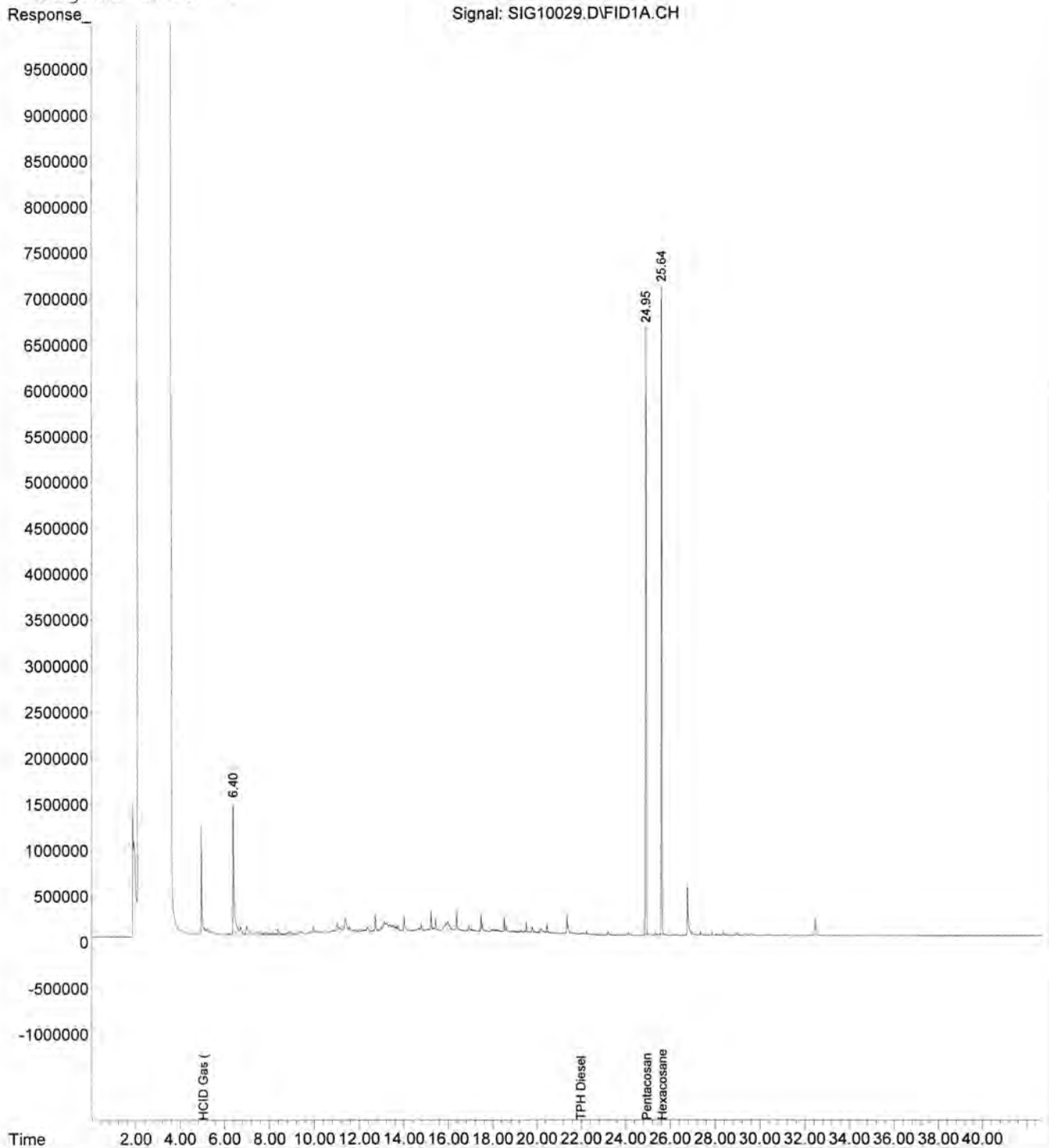
Volume Inj. :
 Signal Phase :
 Signal Info :

Compound	R.T.	Response	Conc Units
Internal Standards			
1) I Pentacosane	24.95	162272349	50.000 ppm m
System Monitoring Compounds			
2) S Hexacosane	25.64	153978514	45.957 ppm m
Spiked Amount 50.000 Range 50 - 150		Recovery =	91.91%
Target Compounds			
3) H TPH Diesel (C12-C14)	21.97	560388381	269.690 ppm
4) H TPHDX-Lube Oil (>C14)	0.00	0	N.D. ppm
5) H Mineral Oil	0.00	0	N.D. ppm
6) h HCID Gas (C7-C12)	5.05	83993397	63.625 ppm
7) h HCID Diesel (C12-C14)	0.00	0	N.D. ppm
8) h HCID Oil (>C14)	0.00	0	N.D. ppm

Data File : W:\HPCHEM\1\2020DATA\092820\SIG10029.D Vial: 23
Acq On : 29 Sep 2020 11:43 Operator: ARC
Sample : BAI0662-MS1 Inst : HP G1530A
Misc : Multiplr: 1.00
IntFile : EVENTS1.E
Quant Time: Sep 29 11:30 2020 Quant Results File: 200925LOW.RES

Quant Method : W:\HPCHEM\1\METHODS\200925LOW.M (Chemstation Integrator)
Title :
Last Update : Mon Sep 28 10:04:15 2020
Response via : Multiple Level Calibration
DataAcq Meth : DXHCID5.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : W:\HPCHEM\1\2020DATA\092820\SIG10030.D Vial: 24
Acq On : 29 Sep 2020 12:39 Operator: ARC
Sample : BAI0662-MSD1 Inst : HP G1530A
Misc : Multiplr: 1.00
IntFile : EVENTS1.E
Quant Time: Sep 29 13:28:48 2020 Quant Results File: 200925LOW.RES

Quant Method : W:\HPCHEM\1\METHODS\200925LOW.M (Chemstation Integrator)
Title :
Last Update : Mon Sep 28 10:04:15 2020
Response via : Initial Calibration
DataAcq Meth : DXHCID5.M

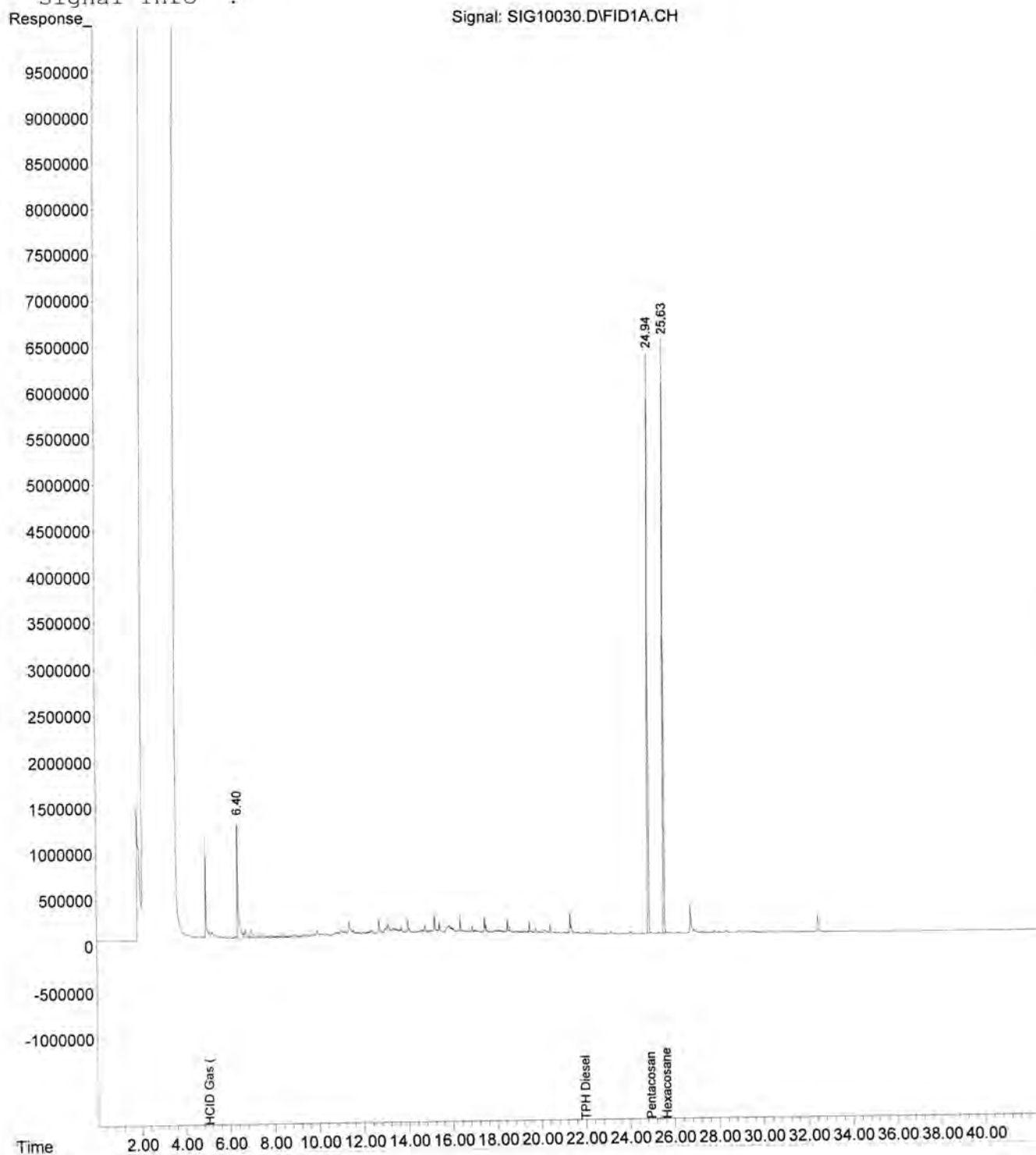
Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
Internal Standards			
1) I Pentacosane	24.94	138186564	50.000 ppm m
System Monitoring Compounds			
2) S Hexacosane	25.63	134605059	47.177 ppm m
Spiked Amount 50.000	Range 50 - 150	Recovery =	94.35%
Target Compounds			
3) H TPH Diesel (C12-C14)	21.97	480790636	271.713 ppm
4) H TPHDX-Lube Oil (>C14)	0.00	0	N.D. ppm
5) H Mineral Oil	0.00	0	N.D. ppm
6) h HCID Gas (C7-C12)	5.05	74238400	66.037 ppm
7) h HCID Diesel (C12-C14)	0.00	0	N.D. ppm
8) h HCID Oil (>C14)	0.00	0	N.D. ppm

Data File : W:\HPCHEM\1\2020DATA\092820\SIG10030.D Vial: 24
Acq On : 29 Sep 2020 12:39 Operator: ARC
Sample : BAI0662-MSD1 Inst : HP G1530A
Misc : Multiplr: 1.00
IntFile : EVENTS1.E
Quant Time: Sep 29 12:29 2020 Quant Results File: 200925LOW.RES

Quant Method : W:\HPCHEM\1\METHODS\200925LOW.M (Chemstation Integrator)
Title :
Last Update : Mon Sep 28 10:04:15 2020
Response via : Multiple Level Calibration
DataAcq Meth : DXHCID5.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : W:\HPCHEM\1\2020DATA\092820\SIG10031.D Vial: 25
Acq On : 29 Sep 2020 13:35 Operator: ARC
Sample : WAI0678-12 Inst : HP G1530A
Misc : Multiplr: 1.00
IntFile : EVENTS1.E
Quant Time: Sep 29 14:18:34 2020 Quant Results File: 200925LOW.RES

Quant Method : W:\HPCHEM\1\METHODS\200925LOW.M (Chemstation Integrator)
Title :
Last Update : Mon Sep 28 10:04:15 2020
Response via : Initial Calibration
DataAcq Meth : DXHCID5.M

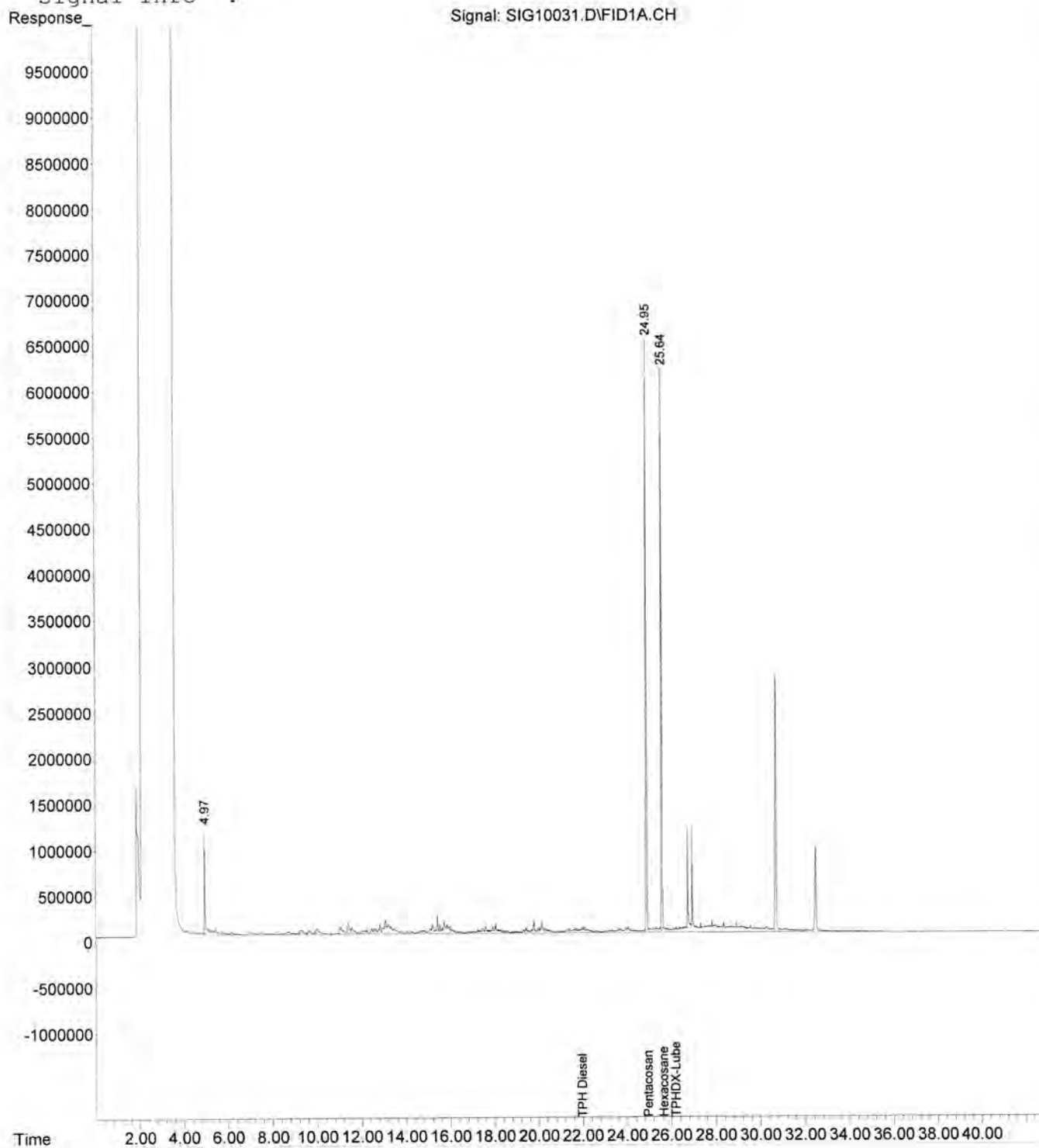
Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
Internal Standards			
1) I Pentacosane	24.95	153470965	50.000 ppm m
System Monitoring Compounds			
2) S Hexacosane	25.64	138859989	43.821 ppm m
Spiked Amount 50.000	Range 50 - 150	Recovery =	87.64%
Target Compounds			
3) H TPH Diesel (C12-C14)	21.97	321865751	163.783 ppm
4) H TPHDX-Lube Oil (>C14)	26.20	347254286	268.663 ppm
5) H Mineral Oil	0.00	0	N.D. ppm
6) h HCID Gas (C7-C12)	0.00	0	N.D. ppm
7) h HCID Diesel (C12-C14)	0.00	0	N.D. ppm
8) h HCID Oil (>C14)	0.00	0	N.D. ppm

Data File : W:\HPCHEM\1\2020DATA\092820\SIG10031.D Vial: 25
Acq On : 29 Sep 2020 13:35 Operator: ARC
Sample : WAI0678-12 Inst : HP G1530A
Misc : Multiplr: 1.00
IntFile : EVENTS1.E
Quant Time: Sep 29 13:19 2020 Quant Results File: 200925LOW.RES

Quant Method : W:\HPCHEM\1\METHODS\200925LOW.M (Chemstation Integrator)
Title :
Last Update : Mon Sep 28 10:04:15 2020
Response via : Multiple Level Calibration
DataAcq Meth : DXHCID5.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : W:\HPCHEM\1\2020DATA\092820\SIG10032.D Vial: 26
Acq On : 29 Sep 2020 14:31 Operator: ARC
Sample : WAI0678-13 Inst : HP G1530A
Misc : Multiplr: 1.00
IntFile : EVENTS1.E
Quant Time: Sep 29 15:23:40 2020 Quant Results File: 200925LOW.RES

Quant Method : W:\HPCHEM\1\METHODS\200925LOW.M (Chemstation Integrator)
Title :
Last Update : Mon Sep 28 10:04:15 2020
Response via : Initial Calibration
DataAcq Meth : DXHCID5.M

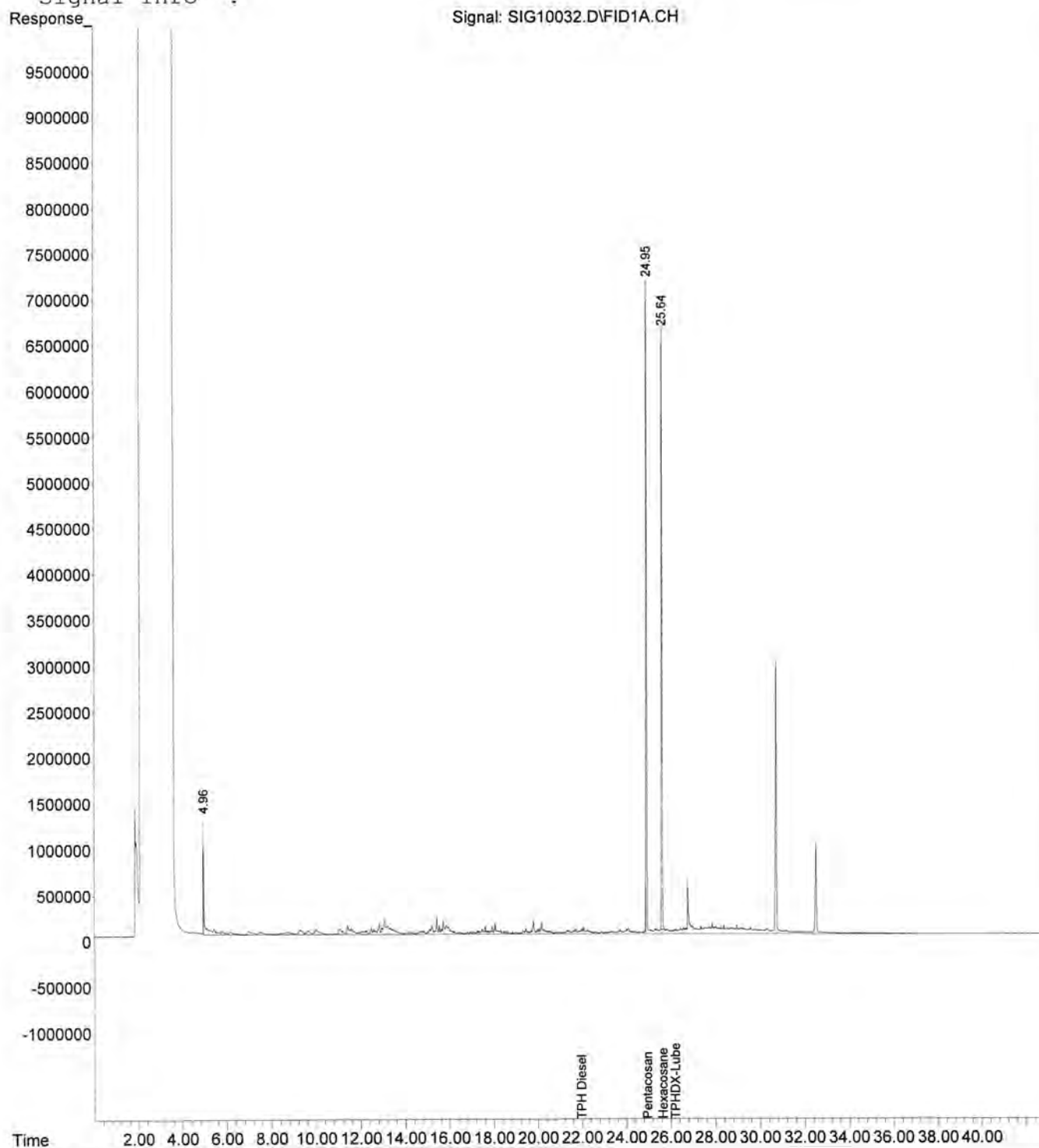
Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc	Units
Internal Standards				
1) I Pentacosane	24.95	163682431	50.000 ppm	m
System Monitoring Compounds				
2) S Hexacosane	25.64	154089233	45.593 ppm	m
Spiked Amount	50.000	Range	50 - 150	Recovery = 91.19%
Target Compounds				
3) H TPH Diesel (C12-C14)	21.97	326368931	155.714 ppm	
4) H TPHDX-Lube Oil (>C14)	26.20	322038661	233.611 ppm	
5) H Mineral Oil	0.00	0	N.D.	ppm
6) h HCID Gas (C7-C12)	0.00	0	N.D.	ppm
7) h HCID Diesel (C12-C14)	0.00	0	N.D.	ppm
8) h HCID Oil (>C14)	0.00	0	N.D.	ppm

Data File : W:\HPCHEM\1\2020DATA\092820\SIG10032.D Vial: 26
Acq On : 29 Sep 2020 14:31 Operator: ARC
Sample : WAI0678-13 Inst : HP G1530A
Misc : Multiplr: 1.00
IntFile : EVENTS1.E
Quant Time: Sep 29 14:24 2020 Quant Results File: 200925LOW.RES

Quant Method : W:\HPCHEM\1\METHODS\200925LOW.M (Chemstation Integrator)
Title :
Last Update : Mon Sep 28 10:04:15 2020
Response via : Multiple Level Calibration
DataAcq Meth : DXHCID5.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : W:\HPCHEM\1\2020DATA\092820\SIG10033.D Vial: 27
Acq On : 29 Sep 2020 15:27 Operator: ARC
Sample : WAI0678-14 Inst : HP G1530A
Misc : Multiplr: 1.00
IntFile : EVENTS1.E
Quant Time: Sep 29 16:20:22 2020 Quant Results File: 200925LOW.RES

Quant Method : W:\HPCHEM\1\METHODS\200925LOW.M (Chemstation Integrator)
Title :
Last Update : Mon Sep 28 10:04:15 2020
Response via : Initial Calibration
DataAcq Meth : DXHCID5.M

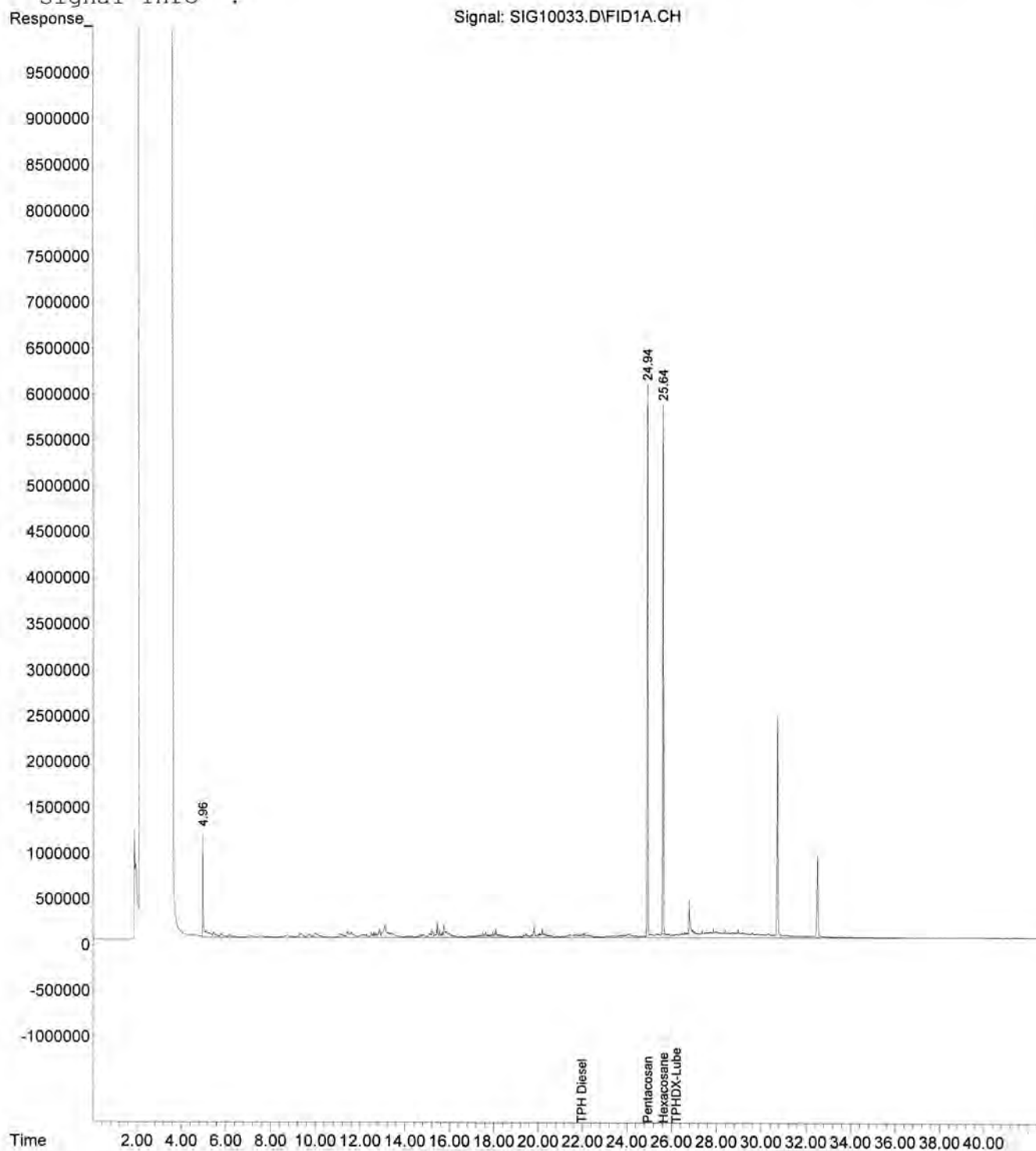
Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc	Units
Internal Standards				
1) I Pentacosane	24.94	138654792	50.000	ppm m
System Monitoring Compounds				
2) S Hexacosane	25.64	122496776	42.788	ppm m
Spiked Amount	50.000	Range	50 - 150	Recovery = 85.58%
Target Compounds				
3) H TPH Diesel (C12-C14)	21.97	274543154	154.631	ppm
4) H TPHDX-Lube Oil (>C14)	26.20	287544523	246.239	ppm
5) H Mineral Oil	0.00	0	N.D.	ppm
6) h HCID Gas (C7-C12)	0.00	0	N.D.	ppm
7) h HCID Diesel (C12-C14)	0.00	0	N.D.	ppm
8) h HCID Oil (>C14)	0.00	0	N.D.	ppm

Data File : W:\HPCHEM\1\2020DATA\092820\SIG10033.D Vial: 27
Acq On : 29 Sep 2020 15:27 Operator: ARC
Sample : WAI0678-14 Inst : HP G1530A
Misc : Multiplr: 1.00
IntFile : EVENTS1.E
Quant Time: Sep 29 15:21 2020 Quant Results File: 200925LOW.RES

Quant Method : W:\HPCHEM\1\METHODS\200925LOW.M (Chemstation Integrator)
Title :
Last Update : Mon Sep 28 10:04:15 2020
Response via : Multiple Level Calibration
DataAcq Meth : DXHCID5.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : W:\HPCHEM\1\2020DATA\092820\SIG10034.D Vial: 28
 Acq On : 29 Sep 2020 16:22 Operator: ARC
 Sample : WAI0678-15 Inst : HP G1530A
 Misc : Multiplr: 1.00
 IntFile : EVENTS1.E
 Quant Time: Sep 30 08:14:41 2020 Quant Results File: 200925LOW.RES

Quant Method : W:\HPCHEM\1\METHODS\200925LOW.M (Chemstation Integrator)
 Title :
 Last Update : Mon Sep 28 10:04:15 2020
 Response via : Initial Calibration
 DataAcq Meth : DXHCID5.M

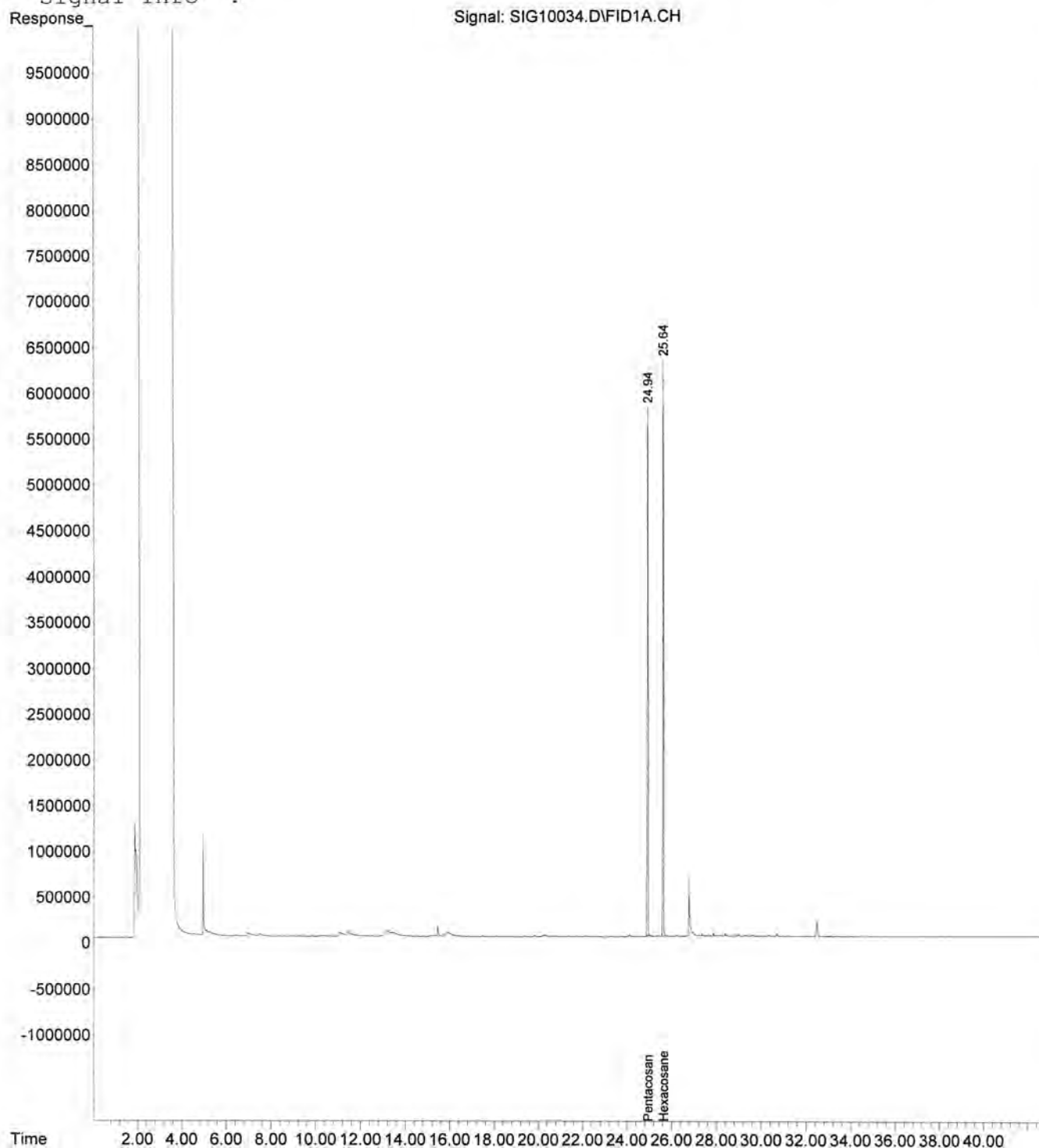
Volume Inj. :
 Signal Phase :
 Signal Info :

Compound	R.T.	Response	Conc	Units
Internal Standards				
1) I Pentacosane	24.94	138601805	50.000 ppm	m
System Monitoring Compounds				
2) S Hexacosane	25.64	133114370	46.514 ppm	m
Spiked Amount	50.000	Range	50 - 150	Recovery = 93.03%
Target Compounds				
3) H TPH Diesel (C12-C14)	0.00	0	N.D.	ppm
4) H TPHDX-Lube Oil (>C14)	0.00	0	N.D.	ppm
5) H Mineral Oil	0.00	0	N.D.	ppm
6) h HCID Gas (C7-C12)	0.00	0	N.D.	ppm
7) h HCID Diesel (C12-C14)	0.00	0	N.D.	ppm
8) h HCID Oil (>C14)	0.00	0	N.D.	ppm

Data File : W:\HPCHEM\1\2020DATA\092820\SIG10034.D Vial: 28
Acq On : 29 Sep 2020 16:22 Operator: ARC
Sample : WAI0678-15 Inst : HP G1530A
Misc : Multiplr: 1.00
IntFile : EVENTS1.E
Quant Time: Sep 30 7:16 2020 Quant Results File: 200925LOW.RES

Quant Method : W:\HPCHEM\1\METHODS\200925LOW.M (Chemstation Integrator)
Title :
Last Update : Mon Sep 28 10:04:15 2020
Response via : Multiple Level Calibration
DataAcq Meth : DXHCID5.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : W:\HPCHEM\1\2020DATA\092820\SIG10035.D Vial: 29
Acq On : 29 Sep 2020 17:18 Operator: ARC
Sample : WAI0678-16 Inst : HP G1530A
Misc : Multiplr: 1.00
IntFile : EVENTS1.E
Quant Time: Sep 30 08:14:55 2020 Quant Results File: 200925LOW.RES

Quant Method : W:\HPCHEM\1\METHODS\200925LOW.M (Chemstation Integrator)
Title :
Last Update : Mon Sep 28 10:04:15 2020
Response via : Initial Calibration
DataAcq Meth : DXHCID5.M

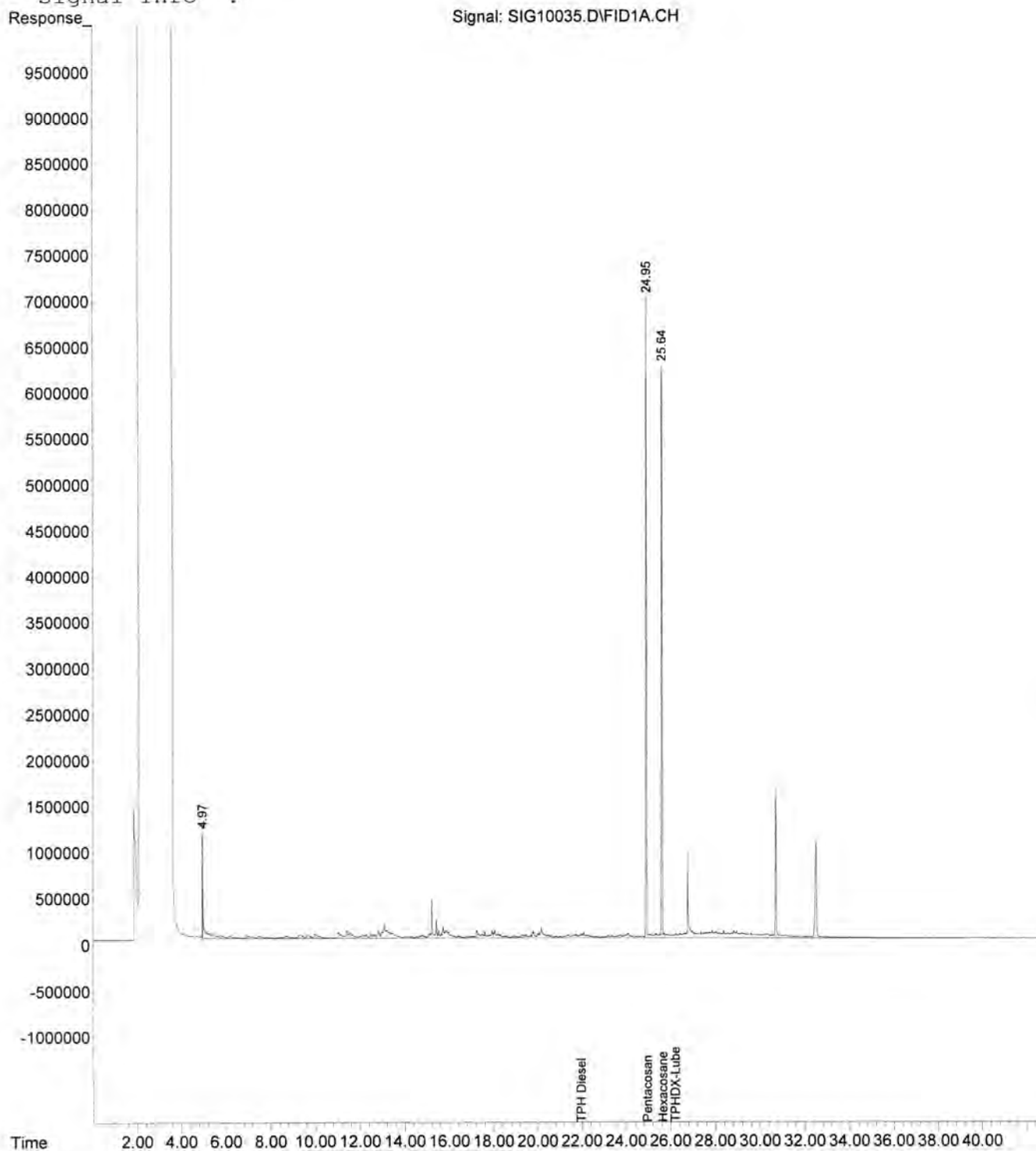
Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc	Units
Internal Standards				
1) I Pentacosane	24.95	162556080	50.000 ppm	m
System Monitoring Compounds				
2) S Hexacosane	25.64	151832291	45.237 ppm	m
Spiked Amount	50.000	Range	50 - 150	Recovery = 90.47%
Target Compounds				
3) H TPH Diesel (C12-C14)	21.97	295915683	142.162 ppm	
4) H TPHDX-Lube Oil (>C14)	26.20	272176493	198.808 ppm	
5) H Mineral Oil	0.00	0	N.D.	ppm
6) h HCID Gas (C7-C12)	0.00	0	N.D.	ppm
7) h HCID Diesel (C12-C14)	0.00	0	N.D.	ppm
8) h HCID Oil (>C14)	0.00	0	N.D.	ppm

Data File : W:\HPCHEM\1\2020DATA\092820\SIG10035.D Vial: 29
Acq On : 29 Sep 2020 17:18 Operator: ARC
Sample : WAI0678-16 Inst : HP G1530A
Misc : Multiplr: 1.00
IntFile : EVENTS1.E
Quant Time: Sep 30 7:17 2020 Quant Results File: 200925LOW.RES

Quant Method : W:\HPCHEM\1\METHODS\200925LOW.M (Chemstation Integrator)
Title :
Last Update : Mon Sep 28 10:04:15 2020
Response via : Multiple Level Calibration
DataAcq Meth : DXHCID5.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : W:\HPCHEM\1\2020DATA\092820\SIG10036.D Vial: 30
Acq On : 29 Sep 2020 18:14 Operator: ARC
Sample : WAI0678-17 Inst : HP G1530A
Misc : Multiplr: 1.00
IntFile : EVENTS1.E
Quant Time: Sep 30 08:14:56 2020 Quant Results File: 200925LOW.RES

Quant Method : W:\HPCHEM\1\METHODS\200925LOW.M (Chemstation Integrator)
Title :
Last Update : Mon Sep 28 10:04:15 2020
Response via : Initial Calibration
DataAcq Meth : DXHCID5.M

Volume Inj. :
Signal Phase :
Signal Info :

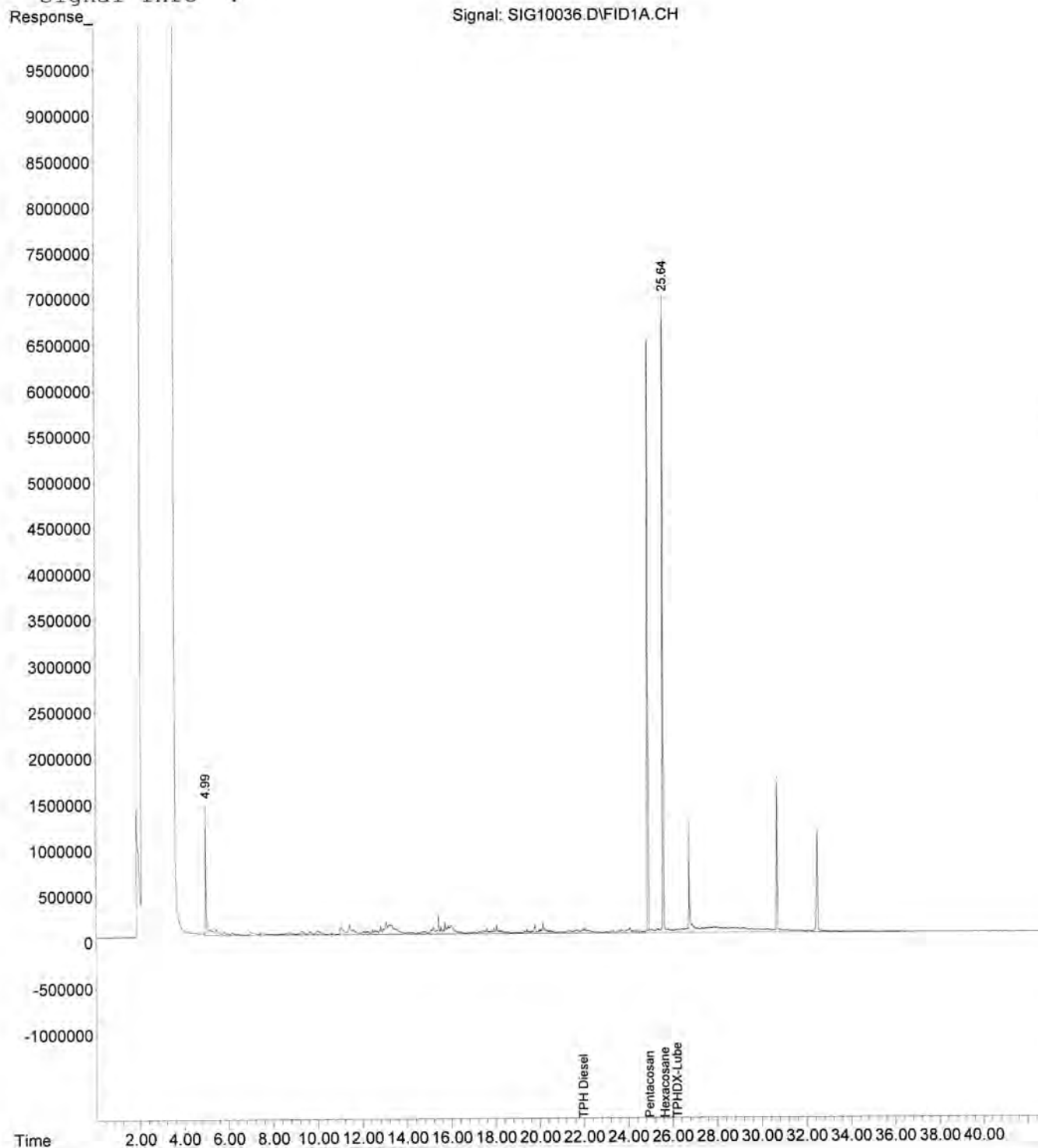
Compound	R.T.	Response	Conc Units
Internal Standards			
1) I Pentacosane	24.95	162129675	50.000 ppm m
System Monitoring Compounds			
2) S Hexacosane	25.64	148855006	44.467 ppm m
Spiked Amount	50.000	Range	50 - 150
		Recovery	= 88.93%
Target Compounds			
3) H TPH Diesel (C12-C14)	21.97	311332586	149.962 ppm
4) H TPHDX-Lube Oil (>C14)	26.20	264338007	193.590 ppm
5) H Mineral Oil	0.00	0	N.D. ppm
6) h HCID Gas (C7-C12)	0.00	0	N.D. ppm
7) h HCID Diesel (C12-C14)	0.00	0	N.D. ppm
8) h HCID Oil (>C14)	0.00	0	N.D. ppm

Data File : W:\HPCHEM\1\2020DATA\092820\SIG10036.D Vial: 30
Acq On : 29 Sep 2020 18:14 Operator: ARC
Sample : WAI0678-17 Inst : HP G1530A
Misc : Multiplr: 1.00
IntFile : EVENTS1.E
Quant Time: Sep 30 7:17 2020 Quant Results File: 200925LOW.RES

Quant Method : W:\HPCHEM\1\METHODS\200925LOW.M (Chemstation Integrator)
Title :
Last Update : Mon Sep 28 10:04:15 2020
Response via : Multiple Level Calibration
DataAcq Meth : DXHCID5.M

Volume Inj. :
Signal Phase :
Signal Info :

Signal: SIG10036.D\FID1A.CH



Data File : W:\HPCHEM\1\2020DATA\092820\SIG10037.D Vial: 31
Acq On : 29 Sep 2020 19:10 Operator: ARC
Sample : WAI0678-18 Inst : HP G1530A
Misc : Multiplr: 1.00
IntFile : EVENTS1.E
Quant Time: Sep 30 08:15:11 2020 Quant Results File: 200925LOW.RES

Quant Method : W:\HPCHEM\1\METHODS\200925LOW.M (Chemstation Integrator)
Title :
Last Update : Mon Sep 28 10:04:15 2020
Response via : Initial Calibration
DataAcq Meth : DXHCID5.M

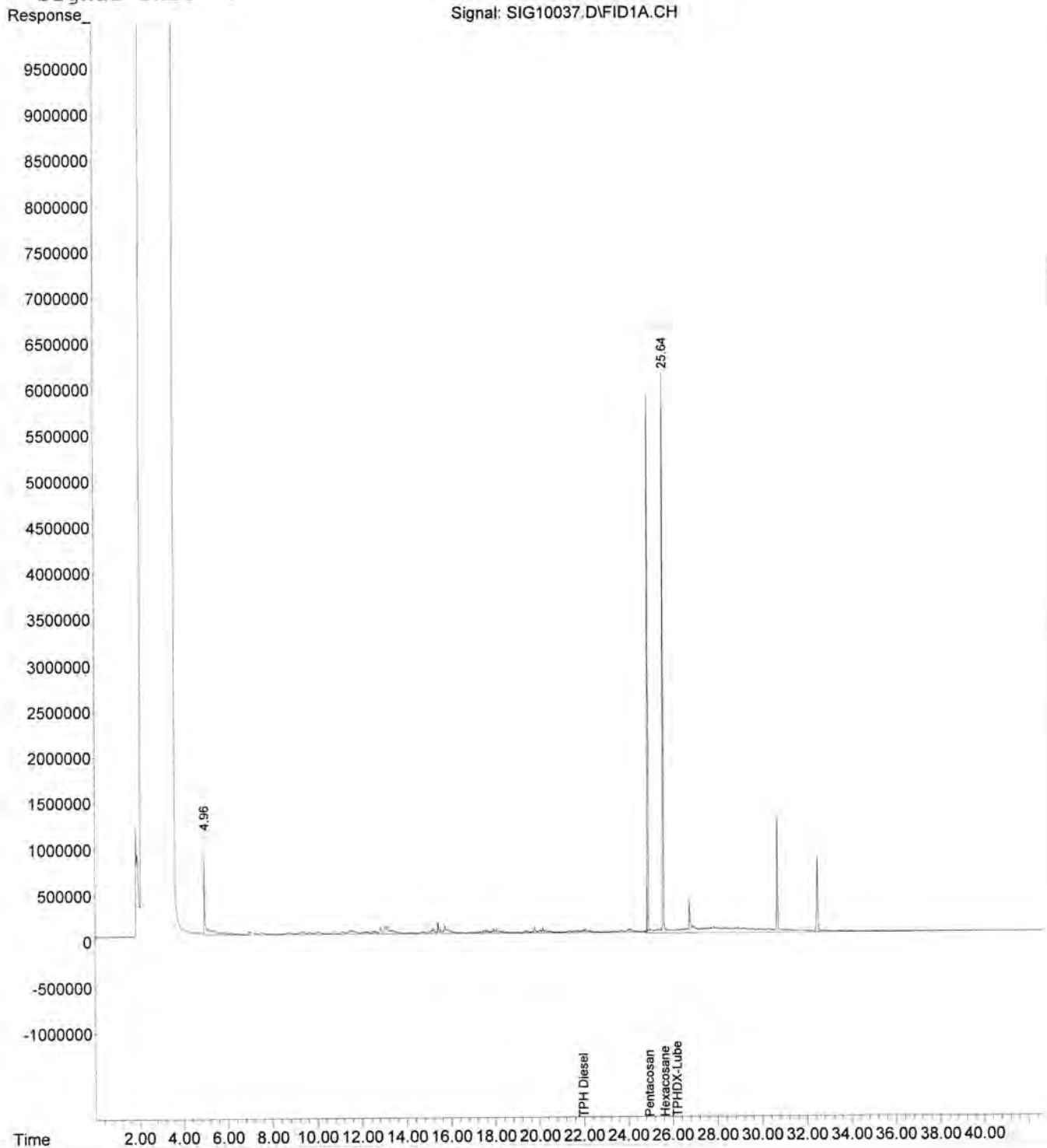
Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
Internal Standards			
1) I Pentacosane	24.94	136171536	50.000 ppm m
System Monitoring Compounds			
2) S Hexacosane	25.64	129624409	46.103 ppm m
Spiked Amount	50.000	Recovery	= 92.21%
Target Compounds			
3) H TPH Diesel (C12-C14)	21.97	202680372	116.237 ppm
4) H TPHDX-Lube Oil (>C14)	26.20	236458746	206.184 ppm
5) H Mineral Oil	0.00	0	N.D. ppm
6) h HCID Gas (C7-C12)	0.00	0	N.D. ppm
7) h HCID Diesel (C12-C14)	0.00	0	N.D. ppm
8) h HCID Oil (>C14)	0.00	0	N.D. ppm

Data File : W:\HPCHEM\1\2020DATA\092820\SIG10037.D Vial: 31
Acq On : 29 Sep 2020 19:10 Operator: ARC
Sample : WAI0678-18 Inst : HP G1530A
Misc : Multiplr: 1.00
IntFile : EVENTS1.E
Quant Time: Sep 30 7:18 2020 Quant Results File: 200925LOW.RES

Quant Method : W:\HPCHEM\1\METHODS\200925LOW.M (Chemstation Integrator)
Title :
Last Update : Mon Sep 28 10:04:15 2020
Response via : Multiple Level Calibration
DataAcq Meth : DXHCID5.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : W:\HPCHEM\1\2020DATA\092820\SIG10038.D Vial: 32
Acq On : 29 Sep 2020 20:06 Operator: ARC
Sample : BAI0745-BLK1 Inst : HP G1530A
Misc : Multiplr: 1.00
IntFile : EVENTS1.E
Quant Time: Sep 30 08:15:12 2020 Quant Results File: 200925LOW.RES

Quant Method : W:\HPCHEM\1\METHODS\200925LOW.M (Chemstation Integrator)
Title :
Last Update : Mon Sep 28 10:04:15 2020
Response via : Initial Calibration
DataAcq Meth : DXHCID5.M

Volume Inj. :
Signal Phase :
Signal Info :

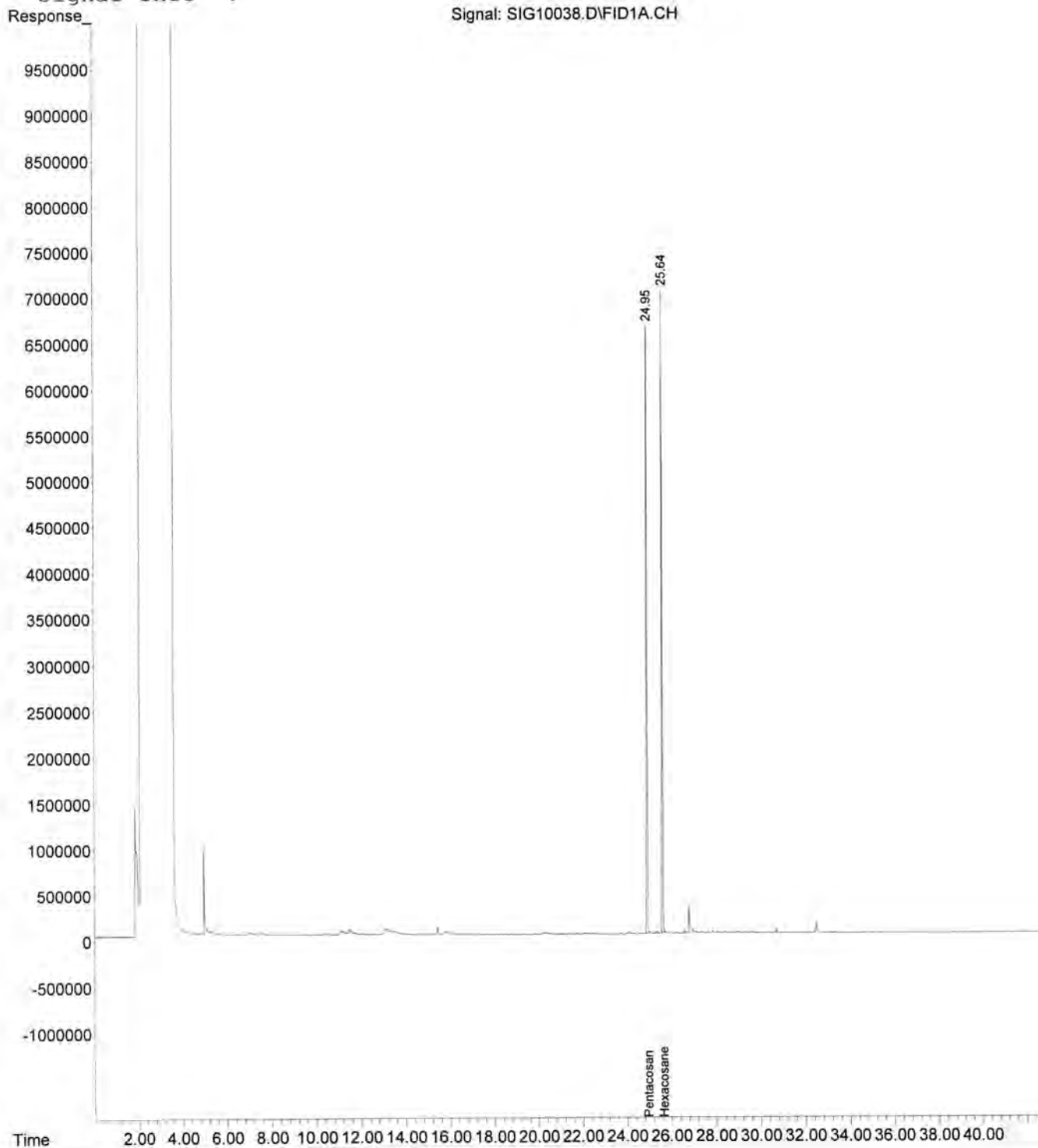
Compound	R.T.	Response	Conc	Units
Internal Standards				
1) I Pentacosane	24.95	165461275	50.000 ppm	m
System Monitoring Compounds				
2) S Hexacosane	25.64	152667425	44.687 ppm	m
Spiked Amount	50.000	Range	50 - 150	Recovery = 89.37%
Target Compounds				
3) H TPH Diesel (C12-C14)	0.00	0	N.D.	ppm
4) H TPHDX-Lube Oil (>C14)	0.00	0	N.D.	ppm
5) H Mineral Oil	0.00	0	N.D.	ppm
6) h HCID Gas (C7-C12)	0.00	0	N.D.	ppm
7) h HCID Diesel (C12-C14)	0.00	0	N.D.	ppm
8) h HCID Oil (>C14)	0.00	0	N.D.	ppm

Data File : W:\HPCHEM\1\2020DATA\092820\SIG10038.D Vial: 32
Acq On : 29 Sep 2020 20:06 Operator: ARC
Sample : BAI0745-BLK1 Inst : HP G1530A
Misc : Multiplr: 1.00
IntFile : EVENTS1.E
Quant Time: Sep 30 7:18 2020 Quant Results File: 200925LOW.RES

Quant Method : W:\HPCHEM\1\METHODS\200925LOW.M (Chemstation Integrator)
Title :
Last Update : Mon Sep 28 10:04:15 2020
Response via : Multiple Level Calibration
DataAcq Meth : DXHCID5.M

Volume Inj. :
Signal Phase :
Signal Info :

Signal: SIG10038.D\FID1A.CH



Data File : W:\HPCHEM\1\2020DATA\092820\SIG10039.D Vial: 33
Acq On : 29 Sep 2020 21:01 Operator: ARC
Sample : BAI0745-BS1 Inst : HP G1530A
Misc : Multiplr: 1.00
IntFile : EVENTS1.E
Quant Time: Sep 30 08:15:13 2020 Quant Results File: 200925LOW.RES

Quant Method : W:\HPCHEM\1\METHODS\200925LOW.M (Chemstation Integrator)
Title :
Last Update : Mon Sep 28 10:04:15 2020
Response via : Initial Calibration
DataAcq Meth : DXHCID5.M

Volume Inj. :
Signal Phase :
Signal Info :

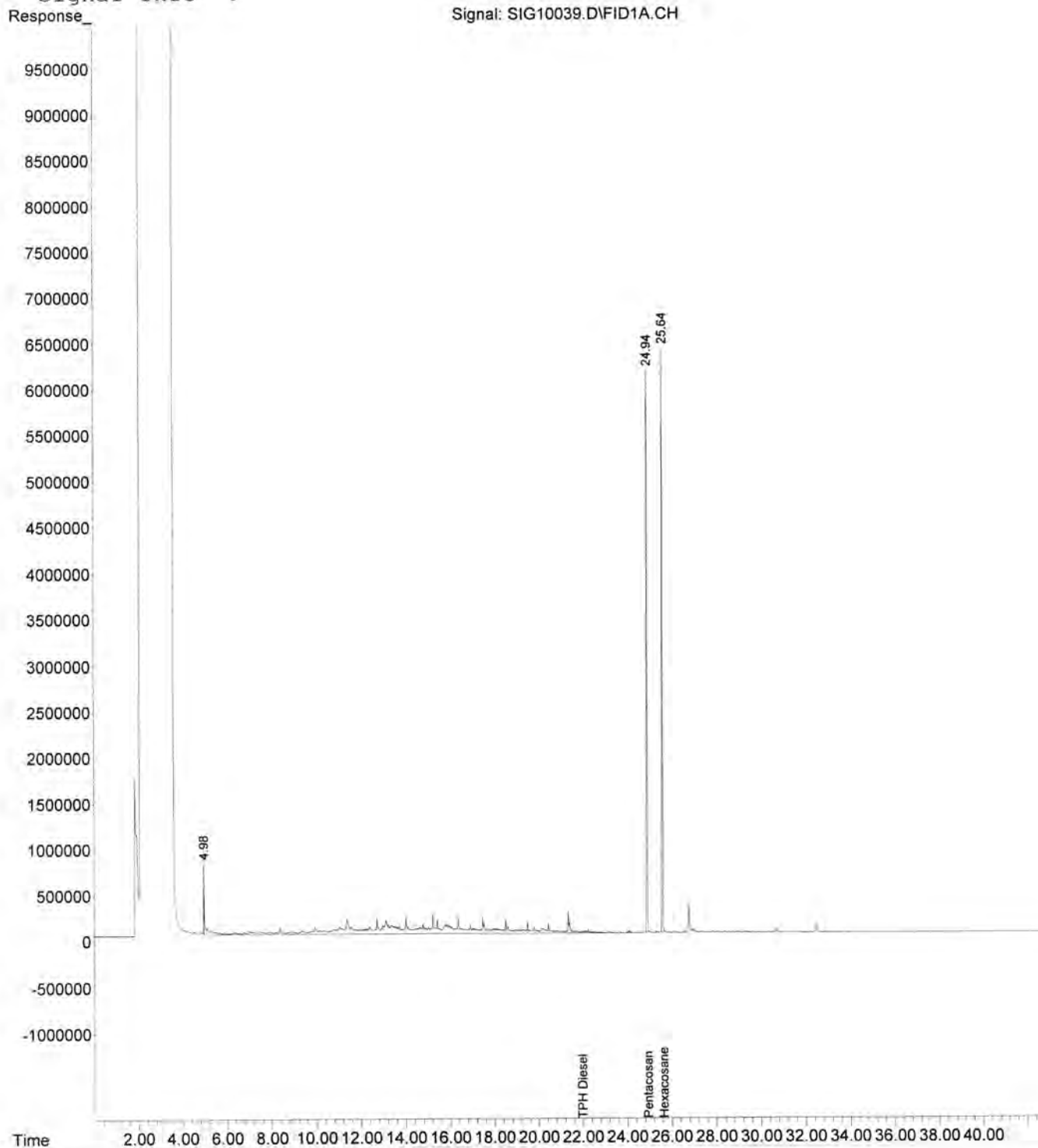
Compound	R.T.	Response	Conc Units
Internal Standards			
1) I Pentacosane	24.94	144913461	50.000 ppm m
System Monitoring Compounds			
2) S Hexacosane	25.64	134455657	44.937 ppm m
Spiked Amount	50.000	Range	50 - 150
		Recovery	= 89.87%
Target Compounds			
3) H TPH Diesel (C12-C14)	21.97	439264848	236.721 ppm
4) H TPHDX-Lube Oil (>C14)	0.00	0	N.D. ppm
5) H Mineral Oil	0.00	0	N.D. ppm
6) h HCID Gas (C7-C12)	0.00	0	N.D. ppm
7) h HCID Diesel (C12-C14)	0.00	0	N.D. ppm
8) h HCID Oil (>C14)	0.00	0	N.D. ppm

Data File : W:\HPCHEM\1\2020DATA\092820\SIG10039.D Vial: 33
Acq On : 29 Sep 2020 21:01 Operator: ARC
Sample : BAI0745-BS1 Inst : HP G1530A
Misc : Multiplr: 1.00
IntFile : EVENTS1.E
Quant Time: Sep 30 7:19 2020 Quant Results File: 200925LOW.RES

Quant Method : W:\HPCHEM\1\METHODS\200925LOW.M (Chemstation Integrator)
Title :
Last Update : Mon Sep 28 10:04:15 2020
Response via : Multiple Level Calibration
DataAcq Meth : DXHCID5.M

Volume Inj. :
Signal Phase :
Signal Info :

Signal: SIG10039.D\FID1A.CH



Data File : W:\HPCHEM\1\2020DATA\092820\SIG10040.D Vial: 34
Acq On : 29 Sep 2020 21:57 Operator: ARC
Sample : WAI0678-19 Inst : HP G1530A
Misc : Multiplr: 1.00
IntFile : EVENTS1.E
Quant Time: Sep 30 08:15:14 2020 Quant Results File: 200925LOW.RES

Quant Method : W:\HPCHEM\1\METHODS\200925LOW.M (Chemstation Integrator)
Title :
Last Update : Mon Sep 28 10:04:15 2020
Response via : Initial Calibration
DataAcq Meth : DXHCID5.M

Volume Inj. :
Signal Phase :
Signal Info :

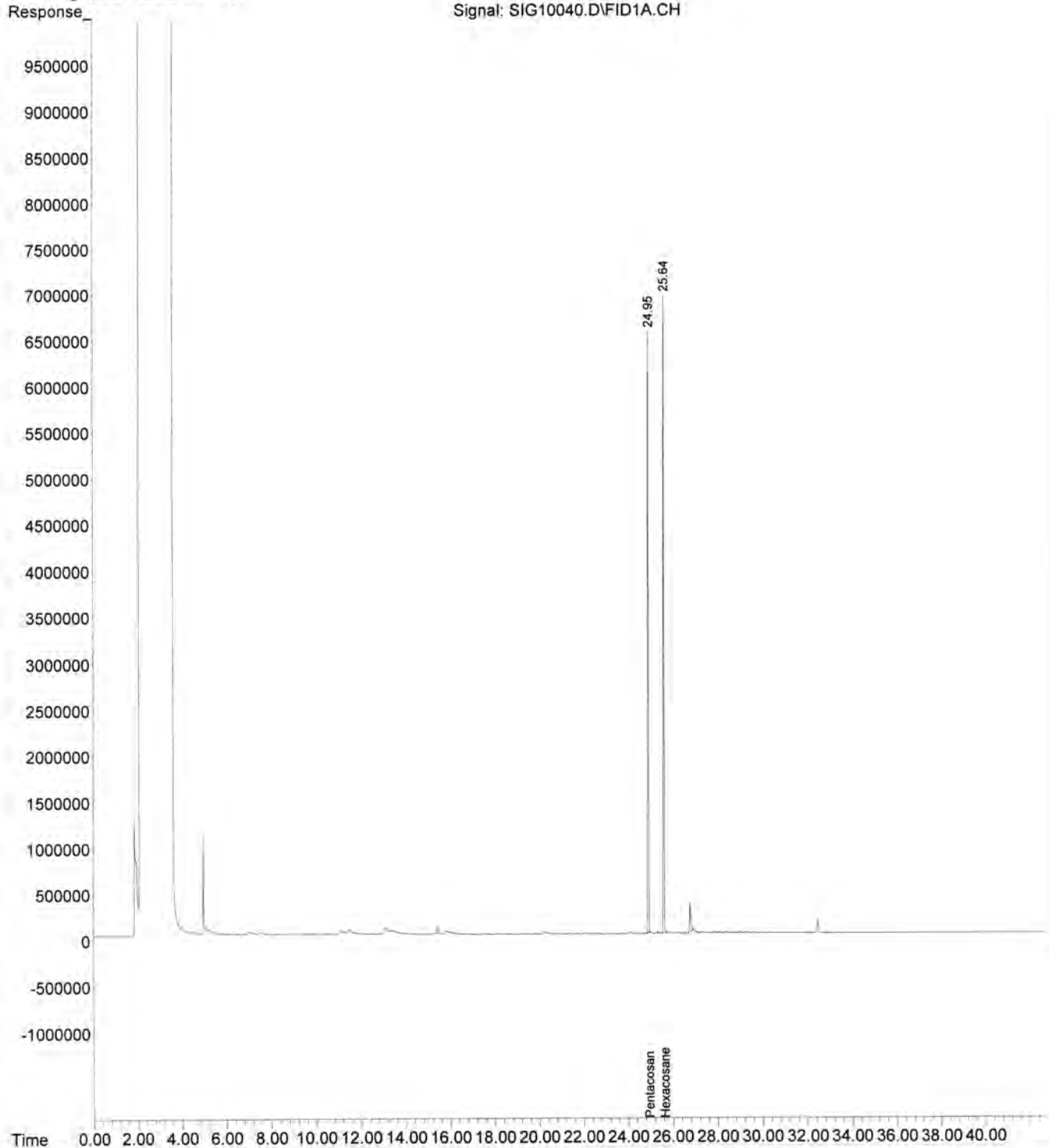
Compound	R.T.	Response	Conc Units
Internal Standards			
1) I Pentacosane	24.95	162318763	50.000 ppm m
System Monitoring Compounds			
2) S Hexacosane	25.64	155133834	46.288 ppm m
Spiked Amount	50.000	Range 50 - 150	Recovery = 92.58%
Target Compounds			
3) H TPH Diesel (C12-C14)	0.00	0	N.D. ppm
4) H TPHDX-Lube Oil (>C14)	0.00	0	N.D. ppm
5) H Mineral Oil	0.00	0	N.D. ppm
6) h HCID Gas (C7-C12)	0.00	0	N.D. ppm
7) h HCID Diesel (C12-C14)	0.00	0	N.D. ppm
8) h HCID Oil (>C14)	0.00	0	N.D. ppm

Data File : W:\HPCHEM\1\2020DATA\092820\SIG10040.D Vial: 34
Acq On : 29 Sep 2020 21:57 Operator: ARC
Sample : WAI0678-19 Inst : HP G1530A
Misc : Multiplr: 1.00
IntFile : EVENTS1.E
Quant Time: Sep 30 7:19 2020 Quant Results File: 200925LOW.RES

Quant Method : W:\HPCHEM\1\METHODS\200925LOW.M (Chemstation Integrator)
Title :
Last Update : Mon Sep 28 10:04:15 2020
Response via : Multiple Level Calibration
DataAcq Meth : DXHCID5.M

Volume Inj. :
Signal Phase :
Signal Info :

Signal: SIG10040.D\FID1A.CH



Data File : W:\HPCHEM\1\2020DATA\092820\SIG10041.D Vial: 35
Acq On : 29 Sep 2020 22:52 Operator: ARC
Sample : BAI0745-DUP1 Inst : HP G1530A
Misc : Multiplr: 1.00
IntFile : EVENTS1.E
Quant Time: Sep 30 08:15:26 2020 Quant Results File: 200925LOW.RES

Quant Method : W:\HPCHEM\1\METHODS\200925LOW.M (Chemstation Integrator)
Title :
Last Update : Mon Sep 28 10:04:15 2020
Response via : Initial Calibration
DataAcq Meth : DXHCID5.M

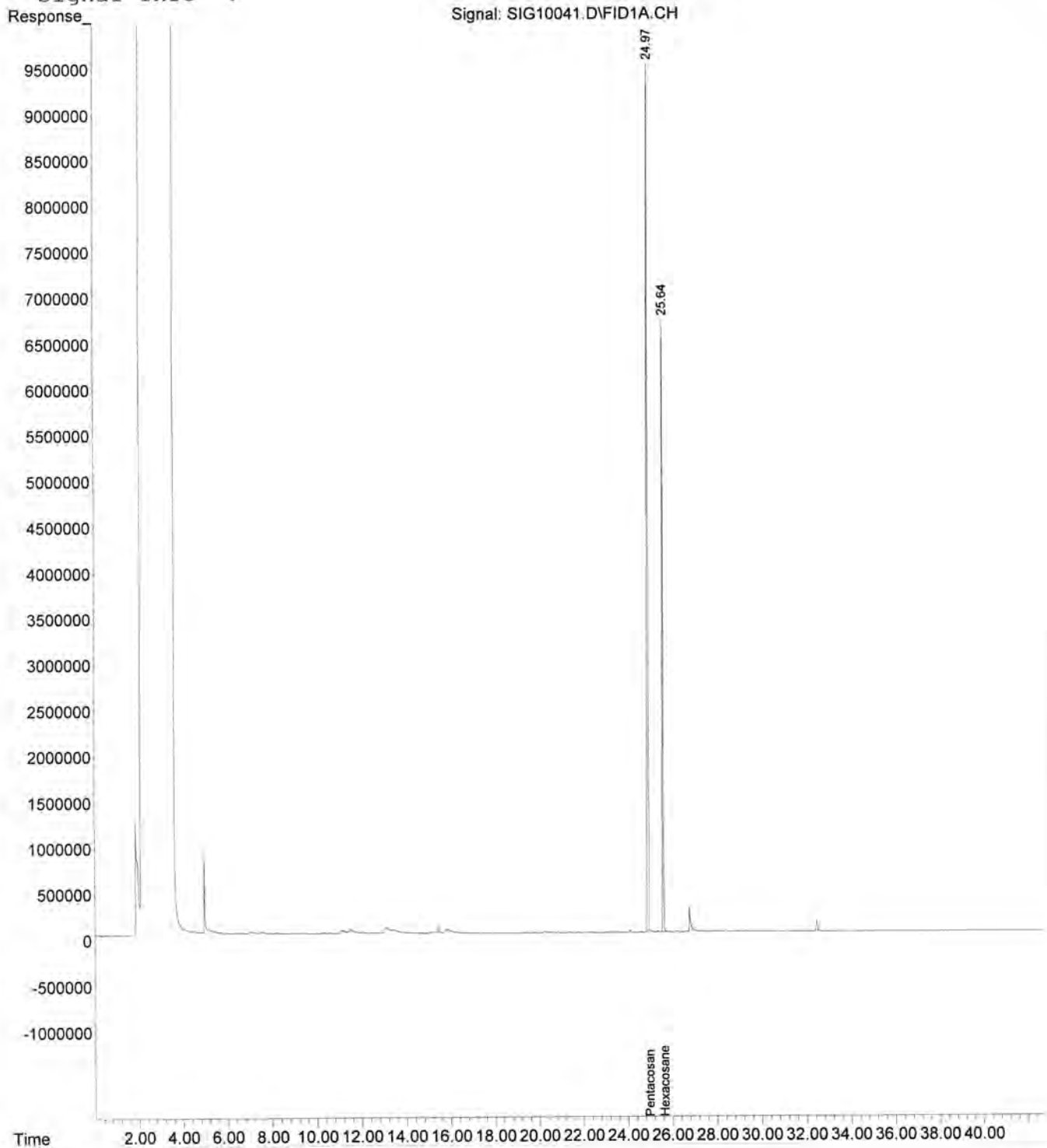
Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
Internal Standards			
1) I Pentacosane	24.97	297626343	50.000 ppm m
System Monitoring Compounds			
2) S Hexacosane	25.64	146217224	23.794 ppm m
Spiked Amount	50.000	Range	50 - 150
		Recovery	= 47.59%#
Target Compounds			
3) H TPH Diesel (C12-C14)	0.00	0	N.D. ppm
4) H TPHDX-Lube Oil (>C14)	0.00	0	N.D. ppm
5) H Mineral Oil	0.00	0	N.D. ppm
6) h HCID Gas (C7-C12)	0.00	0	N.D. ppm
7) h HCID Diesel (C12-C14)	0.00	0	N.D. ppm
8) h HCID Oil (>C14)	0.00	0	N.D. ppm

Data File : W:\HPCHEM\1\2020DATA\092820\SIG10041.D Vial: 35
Acq On : 29 Sep 2020 22:52 Operator: ARC
Sample : BAI0745-DUP1 Inst : HP G1530A
Misc : Multiplr: 1.00
IntFile : EVENTS1.E
Quant Time: Sep 30 7:20 2020 Quant Results File: 200925LOW.RES

Quant Method : W:\HPCHEM\1\METHODS\200925LOW.M (Chemstation Integrator)
Title :
Last Update : Mon Sep 28 10:04:15 2020
Response via : Multiple Level Calibration
DataAcq Meth : DXHCID5.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : W:\HPCHEM\1\2020DATA\092820\SIG10042.D Vial: 36
Acq On : 29 Sep 2020 23:47 Operator: ARC
Sample : WAI0678-20 Inst : HP G1530A
Misc : Multiplr: 1.00
IntFile : EVENTS1.E
Quant Time: Sep 30 08:15:27 2020 Quant Results File: 200925LOW.RES

Quant Method : W:\HPCHEM\1\METHODS\200925LOW.M (Chemstation Integrator)
Title :
Last Update : Mon Sep 28 10:04:15 2020
Response via : Initial Calibration
DataAcq Meth : DXHCID5.M

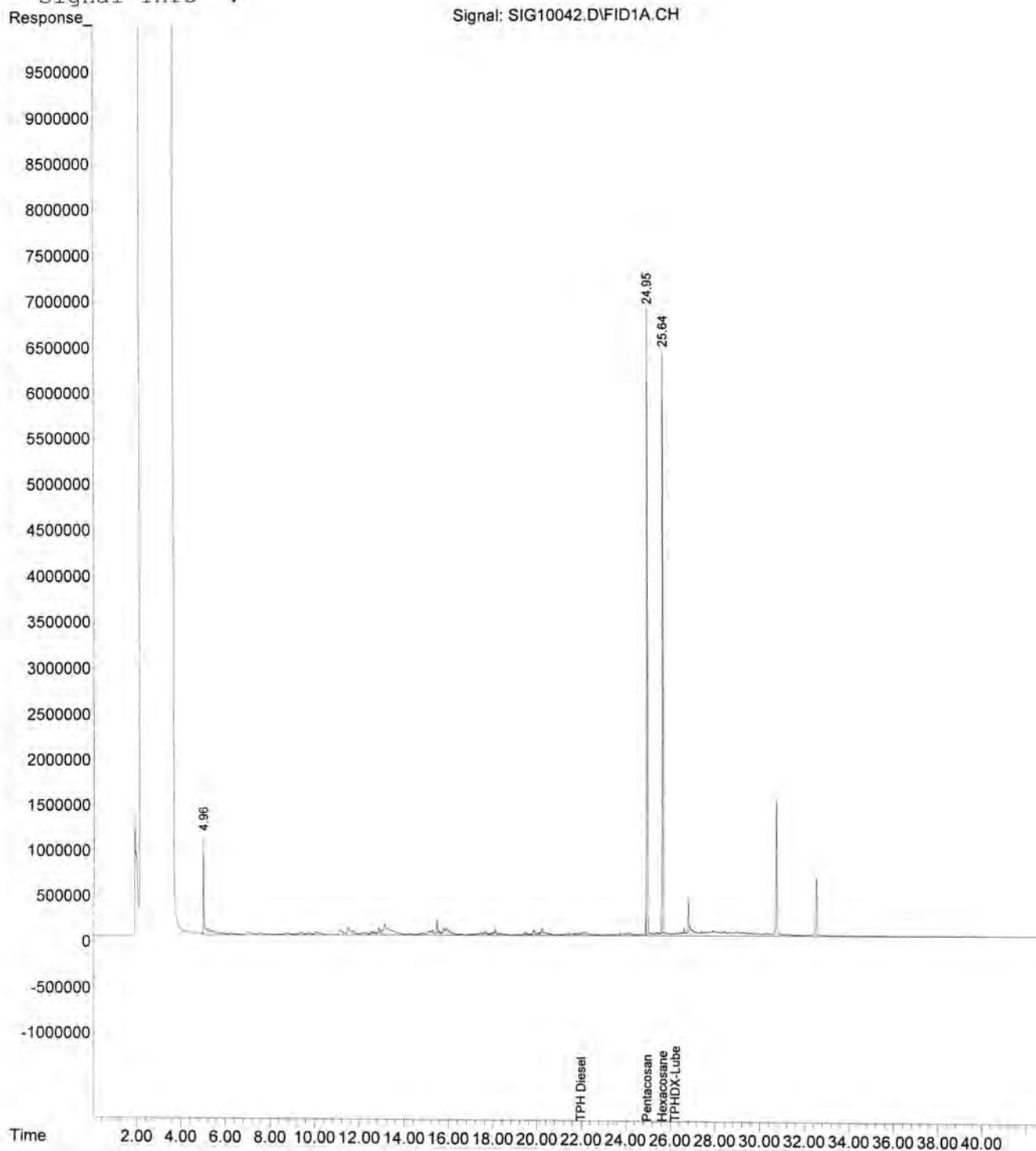
Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
Internal Standards			
1) I Pentacosane	24.95	156709459	50.000 ppm m
System Monitoring Compounds			
2) S Hexacosane	25.64	141850260	43.840 ppm m
Spiked Amount	50.000	Recovery	= 87.68%
Range 50 - 150			
Target Compounds			
3) H TPH Diesel (C12-C14)	21.97	239841735	119.522 ppm
4) H TPHDX-Lube Oil (>C14)	26.20	197277131	149.475 ppm
5) H Mineral Oil	0.00	0	N.D. ppm
6) h HCID Gas (C7-C12)	0.00	0	N.D. ppm
7) h HCID Diesel (C12-C14)	0.00	0	N.D. ppm
8) h HCID Oil (>C14)	0.00	0	N.D. ppm

Data File : W:\HPCHEM\1\2020DATA\092820\SIG10042.D Vial: 36
Acq On : 29 Sep 2020 23:47 Operator: ARC
Sample : WAI0678-20 Inst : HP G1530A
Misc : Multiplr: 1.00
IntFile : EVENTS1.E
Quant Time: Sep 30 7:21 2020 Quant Results File: 200925LOW.RES

Quant Method : W:\HPCHEM\1\METHODS\200925LOW.M (Chemstation Integrator)
Title :
Last Update : Mon Sep 28 10:04:15 2020
Response via : Multiple Level Calibration
DataAcq Meth : DXHCID5.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : W:\HPCHEM\1\2020DATA\092820\SIG10049.D Vial: 37
Acq On : 30 Sep 2020 6:10 Operator: ARC
Sample : WAI0678-21 Inst : HP G1530A
Misc : Multiplr: 1.00
IntFile : EVENTS1.E
Quant Time: Sep 30 08:15:58 2020 Quant Results File: 200925LOW.RES

Quant Method : W:\HPCHEM\1\METHODS\200925LOW.M (Chemstation Integrator)
Title :
Last Update : Mon Sep 28 10:04:15 2020
Response via : Initial Calibration
DataAcq Meth : DXHCID5.M

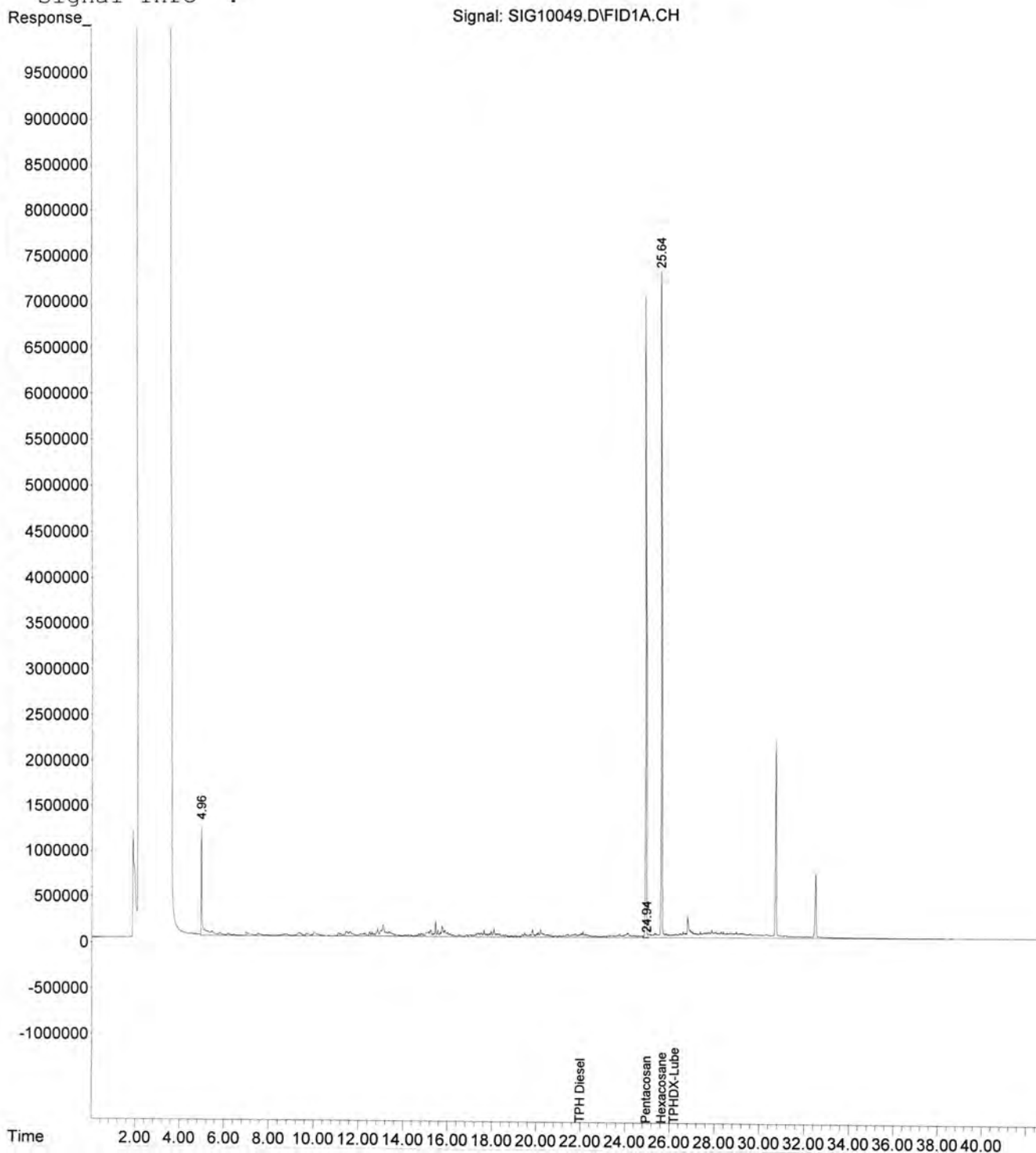
Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
Internal Standards			
1) I Pentacosane	24.94	174401255	50.000 ppm
System Monitoring Compounds			
2) S Hexacosane	25.64	163215739	45.326 ppm m
Spiked Amount	50.000	Recovery	= 90.65%
Range 50 - 150			
Target Compounds			
3) H TPH Diesel (C12-C14)	21.97	258766020	115.872 ppm
4) H TPHDX-Lube Oil (>C14)	26.20	257718773	175.462 ppm
5) H Mineral Oil	0.00	0	N.D. ppm
6) h HCID Gas (C7-C12)	0.00	0	N.D. ppm
7) h HCID Diesel (C12-C14)	0.00	0	N.D. ppm
8) h HCID Oil (>C14)	0.00	0	N.D. ppm

Data File : W:\HPCHEM\1\2020DATA\092820\SIG10049.D Vial: 37
Acq On : 30 Sep 2020 6:10 Operator: ARC
Sample : WAI0678-21 Inst : HP G1530A
Misc : Multiplr: 1.00
IntFile : EVENTS1.E
Quant Time: Sep 30 7:24 2020 Quant Results File: 200925LOW.RES

Quant Method : W:\HPCHEM\1\METHODS\200925LOW.M (Chemstation Integrator)
Title :
Last Update : Mon Sep 28 10:04:15 2020
Response via : Multiple Level Calibration
DataAcq Meth : DXHCID5.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : W:\HPCHEM\1\2020DATA\092820\SIG10050.D Vial: 38
Acq On : 30 Sep 2020 7:04 Operator: ARC
Sample : WAI0678-22 Inst : HP G1530A
Misc : Multiplr: 1.00
IntFile : EVENTS1.E
Quant Time: Sep 30 08:16:11 2020 Quant Results File: 200925LOW.RES

Quant Method : W:\HPCHEM\1\METHODS\200925LOW.M (Chemstation Integrator)
Title :
Last Update : Mon Sep 28 10:04:15 2020
Response via : Initial Calibration
DataAcq Meth : DXHCID5.M

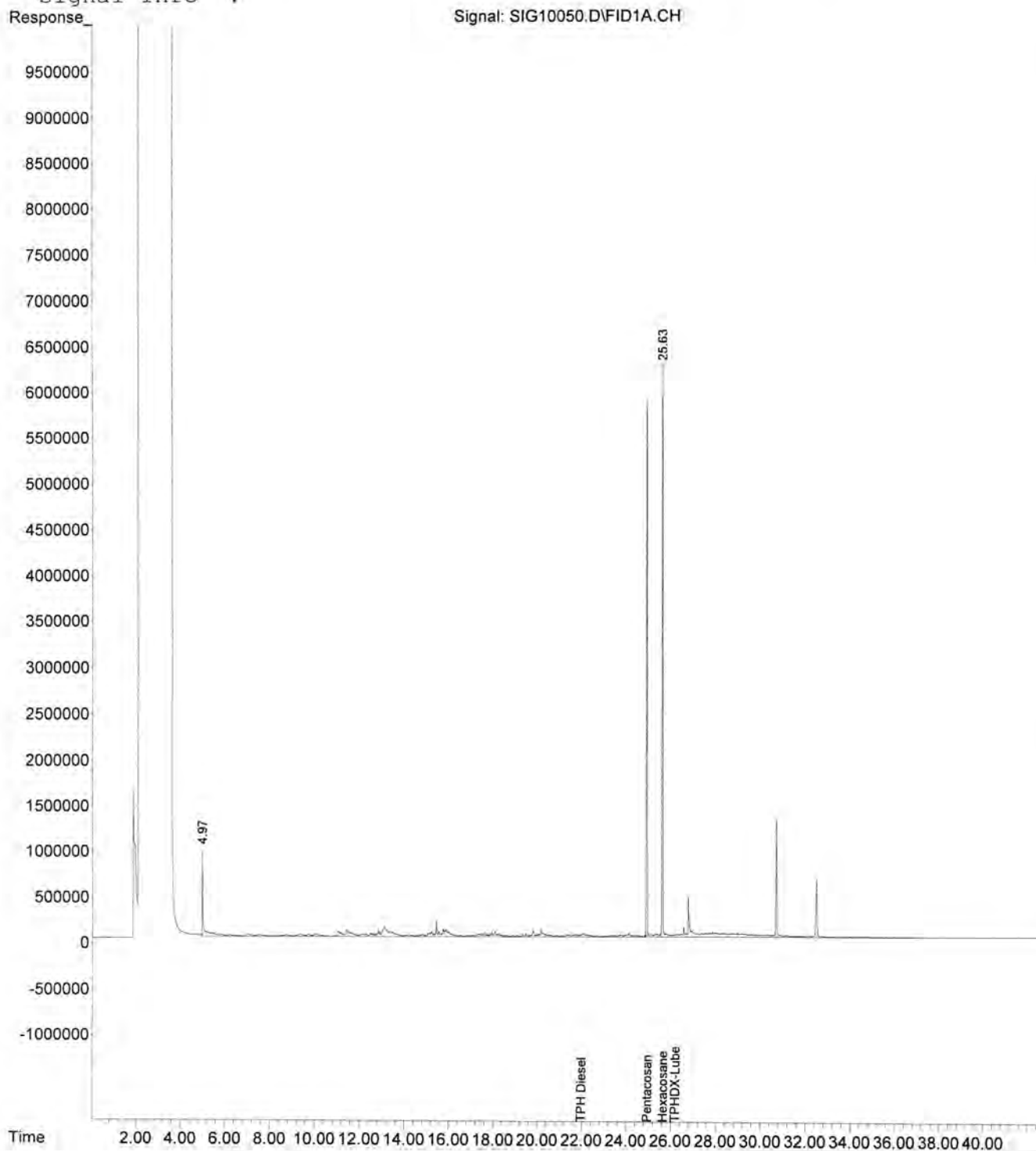
Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc	Units
Internal Standards				
1) I Pentacosane	24.94	140772973	50.000 ppm	m
System Monitoring Compounds				
2) S Hexacosane	25.63	135093718	46.478 ppm	m
Spiked Amount	50.000	Range	50 - 150	Recovery = 92.96%
Target Compounds				
3) H TPH Diesel (C12-C14)	21.97	221524214	122.891 ppm	
4) H TPHDX-Lube Oil (>C14)	26.20	192564557	162.422 ppm	
5) H Mineral Oil	0.00	0	N.D.	ppm
6) h HCID Gas (C7-C12)	0.00	0	N.D.	ppm
7) h HCID Diesel (C12-C14)	0.00	0	N.D.	ppm
8) h HCID Oil (>C14)	0.00	0	N.D.	ppm

Data File : W:\HPCHEM\1\2020DATA\092820\SIG10050.D Vial: 38
Acq On : 30 Sep 2020 7:04 Operator: ARC
Sample : WAI0678-22 Inst : HP G1530A
Misc : Multiplr: 1.00
IntFile : EVENTS1.E
Quant Time: Sep 30 7:25 2020 Quant Results File: 200925LOW.RES

Quant Method : W:\HPCHEM\1\METHODS\200925LOW.M (Chemstation Integrator)
Title :
Last Update : Mon Sep 28 10:04:15 2020
Response via : Multiple Level Calibration
DataAcq Meth : DXHCID5.M

Volume Inj. :
Signal Phase :
Signal Info :



TSS (S 2540D/EPA 160.2) - TS (SM 2540B)

Anatek Labs, Inc. Spokane

Sample	ID #	Temp	Filter Wt #1 (g)	Filter Wt #2 (g)	mLs used	Dry Weight #1	Dry Weight #2**	IResult (mg/L)	FResult (mg/L)	Date/time	Initials	QC Date & Initials	%
BLANK	55	1050	0.1156	0.1156	1000	0.1156	0.1156	<1	<1	9/21/20	BAS	9-22-2020	
100 ppm LFB	56		0.1165	0.11645	100	0.1268	0.1268	103	103	11:00		KA5	103
WAI0678-14	57		0.1148	0.1148	100	0.1156	0.1156	8	8				
-15	58		0.1153	0.1153	100	0.1167	0.1167	14	14				
-16	59		0.1151	0.1151	100	0.11243	0.11242	91	91				
-17	60		0.1154	0.1154	100	0.1174	0.1174	20	20				
-18	61		0.1163	0.1163	100	0.1178	0.1178	15	15				
-19	62		0.1162	0.1162	100	0.1171	0.1171	9	9				
-20	63		0.1146	0.1146	100	0.1179	0.1179	33	33				
-21	64		0.1146	0.1146	100	0.1154	0.1154	8	8				
-22	65		0.1151	0.1151	100	0.1163	0.1163	12	12				
WAI0697-01	66		0.1164	0.1164	100	0.1164	0.1164	<1	<1				
BLANK	67	1050	0.1159	0.1159	1000	0.1159	0.1159	<1	<1	9/21/20	BAS	9-22-2020	
100 ppm LFB	68		0.1152	0.1152	100	0.1253	0.1252	100	100	11:00		KA5	100
WAI0697-01 DUP	69		0.1149	0.1149	100	0.1149	0.1149	<1	<1				100
WAI0678-22 MS	70		0.1164	0.1164	50/50	0.1218	0.1218	54	108				96
MSD	71		0.1164	0.1164		0.1220	0.1220	56	112				100

**when 3 dry weights taken, calculate result using two closest weights.

QC REQUIREMENTS:

Blank <1ppm, LFB %Rec= 90-110%, MS/MSD %Rec= 80-120%

TSS Reagents	Std. #	Volume Used	Amount Spiked	Balance		Thermometer	Filter Lot
100ppm Cellulose TSS Soln.	2003079	100 mL	100 PPM	BAL-06		00627	2002097

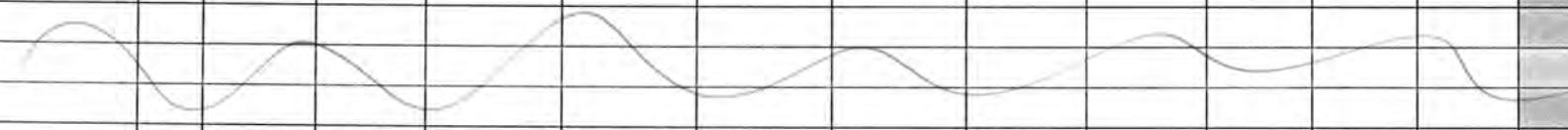
Comments:

BAK0159

control charts updated []

TSS (S 2540D/EPA 160.2) - TS (SM 2540B)

Anatek Labs, Inc. Spokane

Sample	ID #	Temp	Filter Wt #1 (g)	Filter Wt #2 (g)	mLs used	Dry Weight #1	Dry Weight #2**	IResult (mg/L)	FResult (mg/L)	Date/time	Initials	QC Date & Initials	%
BLANK	28	105°	0.1150	0.1150	1000	0.1150	0.1150	<1	<1	9/21/20	BAS	9-22-2020	
100 ppm LFB	29		0.1154	0.1154	100	0.1257	0.1257	103	103	11:00		KPS	103
WAT0668-02	34		0.1151	0.1151	100	0.1155	0.1155	4	4				
WAT0678-0#1	37		0.1154	0.1154	100	0.1180	0.1180	26	26				
-02	38		0.1151	0.1151	100	0.1178	0.1178	27	27				
-03	39		0.1150	0.1150	100	0.1164	0.1164	14	14				
-04	40		0.1155	0.1155	100	0.1182	0.1182	27	27				
-05	41		0.1161	0.1161	100	0.1178	0.1178	17	17				
-06	42		0.1159	0.1159	100	0.1331	0.1331	172	172				
-07	43		0.1149	0.1149	100	0.1240	0.1240	91	91				
-08	44		0.1150	0.1150	100	0.1250	0.1250	100	100				
-09	45		0.1158	0.1158	100	0.1158	0.1158	<1	<1				
-10	46		0.1161	0.1161	100	0.1174	0.1174	13	13				
-11	47		0.1147	0.1147	100	0.1147	0.1147	<1	<1				
-12	48		0.1153	0.1153	100	0.1157	0.1157	4	4				
-13	49		0.1144	0.1144	100	0.1148	0.1148	4	4				
													
BLANK	50	105°	0.1164	0.1164	1000	0.1164	0.1164	<1	<1	9/21/20	BAS	9-22-2020	
100 ppm LFB	51		0.1158	0.1158	100	0.1260	0.1259	101	101	11:00		KPS	101
WAT0668-02 DUP	52		0.1150	0.1150	100	0.1154	0.1154	4	4				100
WAT0678-09 MS	53		0.1146	0.1146	50/50	0.1194	0.1194	48	4896				96
MSD	54		0.1151	0.1151	1	0.1199	0.1199	48	4896				96

**when 3 dry weights taken, calculate result using two closest weights.

QC REQUIREMENTS:

Blank <1ppm, LFB %Rec= 90-110%, MS/MSD %Rec= 80-120%

TSS Reagents	Std. #	Volume Used	Amount Spiked	Balance		Thermometer	Filter Lot
100ppm Cellulose TSS Soln.	2003079	100 mL	100 PPM	BA1-06		00627	2002097

Comments:

BAK0159

control charts updated []

Methods: 8270C / EPA 6850 / EPA 8321B

Instrument: LC-MS-MS

Ext. Method: EPA 3535 SPE/ Liq-Solid microextraction and derivatization

Internal Standard (IS)	Solution #	Concentration (ppm)
Glyphosate- ¹³ C ₂	M441-01	10
Matrix Spiking Info (MS/MSD)	Solution #	Concentration (ppm)
Glyphosate / AMPA	2002203	25/50

Standard or Sample # (Glyphosate / AMPA)	Reaction volume	Water	FMOC (mL)	Extract/Buffer (mL)	IS (μL)	Cal Std or Spike (μl)	Final Mult
250 ppb / 500 ppb	2 ml	0.75	0.5	0.75	10	20	
125 ppb / 250 ppb	2 ml	0.75	0.5	0.75	10	10	
50 ppb / 100 ppb	2 ml	0.75	0.5	0.75	10	4	
25 ppb / 50 ppb	2 ml	0.75	0.5	0.75	10	2	
12.5 ppb / 25 ppb	2 ml	0.75	0.5	0.75	10	1	
6.25 ppb/12.5 ppb	2 ml	0.75	0.5	0.75	10	0.5	
BAI0646-BLK1	2 ml	0.75	0.5	0.75	10	0	
BAI0646-BS1	2 ml	0.75	0.5	0.75	10	4	
MAI0350-01	2 ml	0.75	0.5	0.25/0.50	10	0	
BAI0646-MS1	2 ml	0.75	0.5	0.25/0.50	10	4	
BAI0646-MSD1	2 ml	0.75	0.5	0.25/0.50	10	4	
MAI0350-02	2 ml	0.75	0.5	0.25/0.50	10	0	
MAI0350-03	2 ml	0.75	0.5	0.25/0.50	10	0	
MAI0350-04	2 ml	0.75	0.5	0.25/0.50	10	0	
MAI0350-05	2 ml	0.75	0.5	0.25/0.50	10	0	
MAI0350-06	2 ml	0.75	0.5	0.25/0.50	10	0	
MAI0350-07	2 ml	0.75	0.5	0.25/0.50	10	0	
MAI0350-08	2 ml	0.75	0.5	0.25/0.50	10	0	
MAI0350-09	2 ml	0.75	0.5	0.25/0.50	10	0	
MAI0350-10	2 ml	0.75	0.5	0.25/0.50	10	0	
MAI0350-11	2 ml	0.75	0.5	0.25/0.50	10	0	
MAI0350-12	2 ml	0.75	0.5	0.25/0.50	10	0	
MAI0350-13	2 ml	0.75	0.5	0.25/0.50	10	0	
MAI0350-14	2 ml	0.75	0.5	0.25/0.50	10	0	
MAI0350-15	2 ml	0.75	0.5	0.25/0.50	10	0	
MAI0350-16	2 ml	0.75	0.5	0.25/0.50	10	0	
WAI0678-23	2 ml	0.75	0.5	0.25/0.50	10	0	
WAI0678-24	2 ml	0.75	0.5	0.25/0.50	10	0	
WAI0678-25	2 ml	0.75	0.5	0.25/0.50	10	0	
BAI0646-MS2	2 ml	0.75	0.5	0.25/0.50	10	4	
BAI0646-MSD2	2 ml	0.75	0.5	0.25/0.50	10	4	
WAI0678-26	2 ml	0.75	0.5	0.25/0.50	10	0	

*Sample

Sample extracts were transferred to 5 ml test tubes (stds and samples plus reagents)
Prepped samples were heated overnight at 40°C in a water bath.

Derivatized samples were diluted into well plate for analysis as follows
(100 µL 2% phosphoric acid / 700 µL water / 200 µL derivatized extract)

Reagents

FMOc – 5 mg/mL in ACN; 2% Phosphoric Acid; Buffer – 5 % Sodium Tetraborate

Sample Extraction/Homogenizer information

	Sample #	Weight (g)	Buffer amount	MULT
1	MAI0350-01	16.9	100 ↓	
2	MAI0350-02	15.7		
3	MAI0350-03	16.4		
4	MAI0350-04	16.8		
9	MAI0350-05	14.5		
10	MAI0350-06	16.0		
11	MAI0350-07	18.8		
12	MAI0350-08	17.6		
5	MAI0350-09	17.4		
6	MAI0350-10	17.1		
7	MAI0350-11	16.5		
8	MAI0350-12	17.6		
13	MAI0350-13	15.3		
14	MAI0350-14	13.1		
15	MAI0350-15	14.2		
16	MAI0350-16	13.6		
17	WAI0678-23	11.0		
18	WAI0678-24	10.9		
19	WAI0678-25	10.1		
20	WAI0678-26	10.7		

PREPARATION BENCH SHEET

Print Date/Time: 09/22/2020 1:05 pm

Organics

BAI0644

Matrix: Water

Prepared using: SVOC - Glyphosate

Analyses
Glyphosate

Spiking Solution(s)
2003117 Gly/AMPA 25/50 ppm

Surrogate Solution(s)

Lab Number	Source ID	ResCl	pH	Prepared	Initial (mL)	Final (mL)	ul Spike 1	ul Surr 1	ul Spike 2	ul Surr 2	Extraction Comments
BAI0644-BLK1	-			9/22/20 12:43							
BAI0644-BS1	-			9/22/20 12:43			4				
BAI0644-MS1	WAI0678-07			9/22/20 12:43			4				
BAI0644-MSD1	WAI0678-07			9/22/20 12:43			4				
WAI0678-05				9/22/20 12:42							
WAI0678-06				9/22/20 12:42							
WAI0678-07				9/22/20 12:42							
WAI0678-08				9/22/20 12:42							
WAI0678-09				9/22/20 12:42							

Analytical Run Date: _____

Support Equipment:

Reagents		
Standard	Description	LotNum

PREPARATION BENCH SHEET

Print Date/Time: 10/12/2020 10:37 am

Organics

BAI0646

Matrix: Solid

Prepared using: SVOC - Glyphosate

Analyses

Glyphosate Soil

Spiking Solution(s)

2003117 Gly/AMPA 25/50 ppm

Surrogate Solution(s)

Lab Number	Source ID	ResCl	pH	Prepared	Initial (g)	Final (mL)	ul Spike 1	ul Surr 1	ul Spike 2	ul Surr 2	Extraction Comments
BAI0646-BLK1	-			9/22/20 13:09							
BAI0646-BS1	-			9/22/20 13:09			200				
BAI0646-MS1	MAI0350-01			9/22/20 13:09			1600				
BAI0646-MS2	WAI0678-25			9/22/20 13:09			1600				
BAI0646-MSD1	MAI0350-01			9/22/20 13:09			1600				
BAI0646-MSD2	WAI0678-25			9/22/20 13:09			1600				
MAI0350-01				9/22/20 13:09							
MAI0350-02				9/22/20 13:09							
MAI0350-03				9/22/20 13:09							
MAI0350-04				9/22/20 13:09							
MAI0350-05				9/22/20 13:09							
MAI0350-06				9/22/20 13:09							
MAI0350-07				9/22/20 13:09							
MAI0350-08				9/22/20 13:09							
MAI0350-09				9/22/20 13:09							
MAI0350-10				9/22/20 13:09							
MAI0350-11				9/22/20 13:09							
MAI0350-12				9/22/20 13:09							
MAI0350-13				9/22/20 13:09							
MAI0350-14				9/22/20 13:09							
MAI0350-15				9/22/20 13:09							
MAI0350-16				9/22/20 13:09							
WAI0678-23				9/22/20 13:09							
WAI0678-24				9/22/20 13:09							

PREPARATION BENCH SHEET

Print Date/Time: 10/12/2020 10:37 am

Organics

BAI0646

(Continued)

Matrix: Solid

Prepared using: SVOC - Glyphosate

Analyses

Glyphosate Soil

Spiking Solution(s)

2003117 Gly/AMPA 25/50 ppm

Surrogate Solution(s)

Lab Number	Source ID	ResCl	pH	Prepared	Initial (g)	Final (mL)	ul Spike 1	ul Surr 1	ul Spike 2	ul Surr 2	Extraction Comments
WAI0678-25				9/22/20 13:09							
WAI0678-26				9/22/20 13:09							

Analytical Run Date: _____

Support Equipment:

Reagents

Standard	Description	LotNum
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Sample Name	250/500 ppb gly	9/23/2020 10:45	092320_gly\Da	1.00	Glyphosate	2.03e+006	250.	4.76e+005	253.	101.
Sample Type	Standard	9/23/2020 10:45	092320_gly\Da	1.00	Glyphosate1	7.80e+005	250.	4.76e+005	252.	101.
Acquisition Date	250/500 ppb gly	9/23/2020 10:45	092320_gly\Da	1.00	AMPA	1.67e+006	500.	4.76e+005	502.	100.
File Name	250/500 ppb gly	9/23/2020 10:45	092320_gly\Da	1.00	AMPA1	6.28e+005	500.	4.76e+005	502.	100.
Dilution Factor	125/250 ppb gly	9/23/2020 10:52	092320_gly\Da	1.00	Glyphosate	1.24e+006	125.	5.70e+005	118.	94.7
Analyte Peak Name	125/250 ppb gly	9/23/2020 10:52	092320_gly\Da	1.00	Glyphosate1	4.77e+005	125.	5.70e+005	121.	97.1
Analyte Peak Area (counts)	125/250 ppb gly	9/23/2020 10:52	092320_gly\Da	1.00	AMPA	8.94e+005	250.	5.70e+005	242.	96.8
Analyte Concentration (ng/mL)	125/250 ppb gly	9/23/2020 10:52	092320_gly\Da	1.00	AMPA1	3.30e+005	250.	5.70e+005	243.	97.0
IS Peak Area (counts)	50/100 ppb gly a	9/23/2020 10:58	092320_gly\Da	1.00	Glyphosate	5.85e+005	50.0	5.66e+005	53.8	108.
Calculated Concentration (ng/mL)	50/100 ppb gly a	9/23/2020 10:58	092320_gly\Da	1.00	Glyphosate1	2.08e+005	50.0	5.66e+005	51.4	103.
Accuracy (%)	50/100 ppb gly a	9/23/2020 10:58	092320_gly\Da	1.00	AMPA	3.78e+005	100.	5.66e+005	106.	106.
	50/100 ppb gly a	9/23/2020 10:58	092320_gly\Da	1.00	AMPA1	1.39e+005	100.	5.66e+005	107.	107.
	25/50 ppb gly am	9/23/2020 11:05	092320_gly\Da	1.00	Glyphosate	2.64e+005	25.0	5.26e+005	25.2	101.
	25/50 ppb gly am	9/23/2020 11:05	092320_gly\Da	1.00	Glyphosate1	1.02e+005	25.0	5.26e+005	26.1	105.
	25/50 ppb gly am	9/23/2020 11:05	092320_gly\Da	1.00	AMPA	1.65e+005	50.0	5.26e+005	49.6	99.2
	25/50 ppb gly am	9/23/2020 11:05	092320_gly\Da	1.00	AMPA1	5.84e+004	50.0	5.26e+005	48.3	96.6
	12.5/25 ppb gly a	9/23/2020 11:12	092320_gly\Da	1.00	Glyphosate	1.85e+005	12.5	7.06e+005	12.6	101.
	12.5/25 ppb gly a	9/23/2020 11:12	092320_gly\Da	1.00	Glyphosate1	6.73e+004	12.5	7.06e+005	12.2	97.7
	12.5/25 ppb gly a	9/23/2020 11:12	092320_gly\Da	1.00	AMPA	1.16e+005	25.0	7.06e+005	24.8	99.0
	12.5/25 ppb gly a	9/23/2020 11:12	092320_gly\Da	1.00	AMPA1	4.22e+004	25.0	7.06e+005	24.9	99.7
	6.25/12.5 ppb gly	9/23/2020 11:19	092320_gly\Da	1.00	Glyphosate	9.60e+004	6.25	7.22e+005	5.91	94.6
	6.25/12.5 ppb gly	9/23/2020 11:19	092320_gly\Da	1.00	Glyphosate1	3.75e+004	6.25	7.22e+005	6.08	97.2
	6.25/12.5 ppb gly	9/23/2020 11:19	092320_gly\Da	1.00	AMPA	6.46e+004	12.5	7.22e+005	12.3	98.0
	6.25/12.5 ppb gly	9/23/2020 11:19	092320_gly\Da	1.00	AMPA1	2.37e+004	12.5	7.22e+005	12.4	99.0
	6.25/12.5 ppb gly	9/23/2020 11:25	092320_gly\Da	1.00	Glyphosate	4.45e+003	0.00	7.41e+005	< 0	N/A
	6.25/12.5 ppb gly	9/23/2020 11:25	092320_gly\Da	1.00	Glyphosate1	0.00e+000	0.00	7.41e+005	No Peak	N/A
	RINSE	9/23/2020 11:25	092320_gly\Da	1.00	AMPA	0.00e+000	0.00	7.41e+005	No Peak	N/A
	RINSE	9/23/2020 11:25	092320_gly\Da	1.00	AMPA1	0.00e+000	0.00	7.41e+005	No Peak	N/A
	RINSE	9/23/2020 11:32	092320_gly\Da	1.00	Glyphosate	0.00e+000	0.00	7.64e+005	No Peak	N/A
	RINSE	9/23/2020 11:32	092320_gly\Da	1.00	Glyphosate1	0.00e+000	0.00	7.64e+005	No Peak	N/A
	BA10644-BLK1	9/23/2020 11:32	092320_gly\Da	1.00	Glyphosate	0.00e+000	0.00	7.64e+005	No Peak	N/A
	BA10644-BLK1	9/23/2020 11:32	092320_gly\Da	1.00	Glyphosate1	0.00e+000	0.00	7.64e+005	No Peak	N/A

	Sample Name	Sample Type	Acquisition Date	File Name	Dilution Factor	Analyte Peak Name	Analyte Peak Area (counts)	Analyte Concentration (na/mL)	IS Peak Area (counts)	Calculated Concentration (na/mL)	Accuracy (%)
31	BAI0644-BLK1	Quality Cont	9/23/2020 11:32	092320_gly\Da	1.00	AMPA	0.00e+000	0.00	7.64e+005	No Peak	N/A
32	BAI0644-BLK1	Quality Cont	9/23/2020 11:32	092320_gly\Da	1.00	AMPA1	0.00e+000	0.00	7.64e+005	No Peak	N/A
33	BAI0644-BS1	Quality Cont	9/23/2020 11:39	092320_gly\Da	1.00	Glyphosate	5.65e+005	50.0	6.39e+005	45.7	91.3
34	BAI0644-BS1	Quality Cont	9/23/2020 11:39	092320_gly\Da	1.00	Glyphosate1	2.12e+005	50.0	6.39e+005	46.1	92.2
35	BAI0644-BS1	Quality Cont	9/23/2020 11:39	092320_gly\Da	1.00	AMPA	3.83e+005	100.	6.39e+005	95.6	95.6
36	BAI0644-BS1	Quality Cont	9/23/2020 11:39	092320_gly\Da	1.00	AMPA1	1.41e+005	100.	6.39e+005	96.7	96.7
37	BAI0644-MS1	Quality Cont	9/23/2020 11:46	092320_gly\Da	1.00	Glyphosate	1.37e+005	50.0	1.55e+005	45.6	91.2
38	BAI0644-MS1	Quality Cont	9/23/2020 11:46	092320_gly\Da	1.00	Glyphosate1	4.97e+004	50.0	1.55e+005	44.4	88.8
39	BAI0644-MS1	Quality Cont	9/23/2020 11:46	092320_gly\Da	1.00	AMPA	1.40e+005	100.	1.55e+005	143.	143.
40	BAI0644-MS1	Quality Cont	9/23/2020 11:46	092320_gly\Da	1.00	AMPA1	5.17e+004	100.	1.55e+005	145.	145.
41	BAI0644-MSD1	Quality Cont	9/23/2020 11:52	092320_gly\Da	1.00	Glyphosate	1.34e+005	50.0	1.54e+005	45.0	90.0
42	BAI0644-MSD1	Quality Cont	9/23/2020 11:52	092320_gly\Da	1.00	Glyphosate1	5.12e+004	50.0	1.54e+005	46.2	92.3
43	BAI0644-MSD1	Quality Cont	9/23/2020 11:52	092320_gly\Da	1.00	AMPA	1.34e+005	100.	1.54e+005	138.	138.
44	BAI0644-MSD1	Quality Cont	9/23/2020 11:52	092320_gly\Da	1.00	AMPA1	4.90e+004	100.	1.54e+005	138.	138.
45	WAI0678-05	Unknown	9/23/2020 11:59	092320_gly\Da	1.00	Glyphosate	0.00e+000	N/A	1.31e+005	No Peak	N/A
46	WAI0678-05	Unknown	9/23/2020 11:59	092320_gly\Da	1.00	Glyphosate1	0.00e+000	N/A	1.31e+005	No Peak	N/A
47	WAI0678-05	Unknown	9/23/2020 11:59	092320_gly\Da	1.00	AMPA	0.00e+000	N/A	1.31e+005	No Peak	N/A
48	WAI0678-05	Unknown	9/23/2020 11:59	092320_gly\Da	1.00	AMPA1	0.00e+000	N/A	1.31e+005	No Peak	N/A
49	WAI0678-06	Unknown	9/23/2020 12:06	092320_gly\Da	1.00	Glyphosate	5.99e+002	N/A	5.13e+004	< 0	N/A
50	WAI0678-06	Unknown	9/23/2020 12:06	092320_gly\Da	1.00	Glyphosate1	0.00e+000	N/A	5.13e+004	No Peak	N/A
51	WAI0678-06	Unknown	9/23/2020 12:06	092320_gly\Da	1.00	AMPA	0.00e+000	N/A	5.13e+004	No Peak	N/A
52	WAI0678-06	Unknown	9/23/2020 12:06	092320_gly\Da	1.00	AMPA1	0.00e+000	N/A	5.13e+004	No Peak	N/A
53	WAI0678-08	Unknown	9/23/2020 12:19	092320_gly\Da	1.00	Glyphosate	0.00e+000	N/A	3.51e+004	No Peak	N/A
54	WAI0678-08	Unknown	9/23/2020 12:19	092320_gly\Da	1.00	Glyphosate1	0.00e+000	N/A	3.51e+004	No Peak	N/A
55	WAI0678-08	Unknown	9/23/2020 12:19	092320_gly\Da	1.00	AMPA	0.00e+000	N/A	3.51e+004	No Peak	N/A
56	WAI0678-08	Unknown	9/23/2020 12:19	092320_gly\Da	1.00	AMPA1	0.00e+000	N/A	3.51e+004	No Peak	N/A
57	WAI0678-09	Unknown	9/23/2020 12:26	092320_gly\Da	1.00	Glyphosate	0.00e+000	N/A	5.46e+005	No Peak	N/A
58	WAI0678-09	Unknown	9/23/2020 12:26	092320_gly\Da	1.00	Glyphosate1	0.00e+000	N/A	5.46e+005	No Peak	N/A
59	WAI0678-09	Unknown	9/23/2020 12:26	092320_gly\Da	1.00	AMPA	0.00e+000	N/A	5.46e+005	No Peak	N/A
60	WAI0678-09	Unknown	9/23/2020 12:26	092320_gly\Da	1.00	AMPA1	0.00e+000	N/A	5.46e+005	No Peak	N/A

	Sample Name	Sample Type	Acquisition Date	File Name	Dilution Factor	Analyte Peak Name	Analyte Peak Area (counts)	Analyte Concentration (ng/mL)	IS Peak Area (counts)	Calculated Concentration (ng/mL)	Accuracy (%)
61	CCV 25/50 ppb	Quality Cont	9/23/2020 12:33	092320_gly\Da	1.00	Glyphosate	2.38e+005	25.0	5.38e+005	22.1	88.4
62	CCV 25/50 ppb	Quality Cont	9/23/2020 12:33	092320_gly\Da	1.00	Glyphosate1	8.75e+004	25.0	5.38e+005	21.8	87.1
63	CCV 25/50 ppb	Quality Cont	9/23/2020 12:33	092320_gly\Da	1.00	AMPA	1.61e+005	50.0	5.38e+005	47.0	93.9
64	CCV 25/50 ppb	Quality Cont	9/23/2020 12:33	092320_gly\Da	1.00	AMPA1	5.58e+004	50.0	5.38e+005	45.0	90.0
65	BAI0646-BLK1	Unknown	9/23/2020 12:40	092320_gly\Da	1.00	Glyphosate	5.87e+003	N/A	6.33e+005	< 0	N/A
66	BAI0646-BLK1	Unknown	9/23/2020 12:40	092320_gly\Da	1.00	Glyphosate1	0.00e+000	N/A	6.33e+005	No Peak	N/A
67	BAI0646-BLK1	Unknown	9/23/2020 12:40	092320_gly\Da	1.00	AMPA	0.00e+000	N/A	6.33e+005	No Peak	N/A
68	BAI0646-BLK1	Unknown	9/23/2020 12:40	092320_gly\Da	1.00	AMPA1	0.00e+000	N/A	6.33e+005	No Peak	N/A
69	BAI0646-BS1	Quality Cont	9/23/2020 12:46	092320_gly\Da	1.00	Glyphosate	6.04e+005	50.0	6.74e+005	46.3	92.6
70	BAI0646-BS1	Quality Cont	9/23/2020 12:46	092320_gly\Da	1.00	Glyphosate1	2.23e+005	50.0	6.74e+005	46.1	92.1
71	BAI0646-BS1	Quality Cont	9/23/2020 12:46	092320_gly\Da	1.00	AMPA	3.99e+005	100.	6.74e+005	94.4	94.4
72	BAI0646-BS1	Quality Cont	9/23/2020 12:46	092320_gly\Da	1.00	AMPA1	1.47e+005	100.	6.74e+005	95.9	95.9
73	MAI0350-01	Unknown	9/23/2020 12:53	092320_gly\Da	1.00	Glyphosate	5.86e+004	N/A	3.60e+005	7.47	N/A
74	MAI0350-01	Unknown	9/23/2020 12:53	092320_gly\Da	1.00	Glyphosate1	1.67e+004	N/A	3.60e+005	5.30	N/A
75	MAI0350-01	Unknown	9/23/2020 12:53	092320_gly\Da	1.00	AMPA	3.86e+003	N/A	3.60e+005	< 0	N/A
76	MAI0350-01	Unknown	9/23/2020 12:53	092320_gly\Da	1.00	AMPA1	0.00e+000	N/A	3.60e+005	No Peak	N/A
77	BAI0646-MS1	Quality Cont	9/23/2020 1:00:	092320_gly\Da	1.00	Glyphosate	4.01e+005	50.0	3.98e+005	52.4	105.
78	BAI0646-MS1	Quality Cont	9/23/2020 1:00:	092320_gly\Da	1.00	Glyphosate1	1.50e+005	50.0	3.98e+005	52.7	105.
79	BAI0646-MS1	Quality Cont	9/23/2020 1:00:	092320_gly\Da	1.00	AMPA	1.71e+005	100.	3.98e+005	68.2	68.2
80	BAI0646-MS1	Quality Cont	9/23/2020 1:00:	092320_gly\Da	1.00	AMPA1	6.09e+004	100.	3.98e+005	67.2	67.2
81	BAI0646-MSD1	Quality Cont	9/23/2020 1:07:	092320_gly\Da	1.00	Glyphosate	3.69e+005	50.0	3.67e+005	52.2	104.
82	BAI0646-MSD1	Quality Cont	9/23/2020 1:07:	092320_gly\Da	1.00	Glyphosate1	1.31e+005	50.0	3.67e+005	49.8	99.6
83	BAI0646-MSD1	Quality Cont	9/23/2020 1:07:	092320_gly\Da	1.00	AMPA	1.61e+005	100.	3.67e+005	69.8	69.8
84	BAI0646-MSD1	Quality Cont	9/23/2020 1:07:	092320_gly\Da	1.00	AMPA1	5.96e+004	100.	3.67e+005	71.2	71.2
85	MAI0350-02	Unknown	9/23/2020 1:14:	092320_gly\Da	1.00	Glyphosate	5.96e+004	N/A	4.49e+005	5.90	N/A
86	MAI0350-02	Unknown	9/23/2020 1:14:	092320_gly\Da	1.00	Glyphosate1	1.86e+004	N/A	4.49e+005	4.61	N/A
87	MAI0350-02	Unknown	9/23/2020 1:14:	092320_gly\Da	1.00	AMPA	5.92e+003	N/A	4.49e+005	< 0	N/A
88	MAI0350-02	Unknown	9/23/2020 1:14:	092320_gly\Da	1.00	AMPA1	1.13e+003	N/A	4.49e+005	< 0	N/A
89	MAI0350-03	Unknown	9/23/2020 1:20:	092320_gly\Da	1.00	Glyphosate	1.77e+004	N/A	4.62e+005	1.03	N/A
90	MAI0350-03	Unknown	9/23/2020 1:20:	092320_gly\Da	1.00	Glyphosate1	4.18e+003	N/A	4.62e+005	0.0604	N/A

	Sample Name	Sample Type	Acquisition Date	File Name	Dilution Factor	Analyte Peak Name	Analyte Peak Area (counts)	Analyte Concentration (ng/mL)	IS Peak Area (counts)	Calculated Concentration (ng/mL)	Accuracy (%)
91	MAI0350-03	Unknown	9/23/2020 1:20:	092320_gly\Da	1.00	AMPA	4.53e+003	N/A	4.62e+005	< 0	N/A
92	MAI0350-03	Unknown	9/23/2020 1:20:	092320_gly\Da	1.00	AMPA1	0.00e+000	N/A	4.62e+005	No Peak	N/A
93	MAI0350-04	Unknown	9/23/2020 1:27:	092320_gly\Da	1.00	Glyphosate	1.21e+004	N/A	4.09e+005	0.583	N/A
94	MAI0350-04	Unknown	9/23/2020 1:27:	092320_gly\Da	1.00	Glyphosate1	2.10e+003	N/A	4.09e+005	< 0	N/A
95	MAI0350-04	Unknown	9/23/2020 1:27:	092320_gly\Da	1.00	AMPA	0.00e+000	N/A	4.09e+005	No Peak	N/A
96	MAI0350-04	Unknown	9/23/2020 1:27:	092320_gly\Da	1.00	AMPA1	0.00e+000	N/A	4.09e+005	No Peak	N/A
97	MAI0350-05	Unknown	9/23/2020 1:34:	092320_gly\Da	1.00	Glyphosate	1.38e+003	N/A	8.22e+004	< 0	N/A
98	MAI0350-05	Unknown	9/23/2020 1:34:	092320_gly\Da	1.00	Glyphosate1	0.00e+000	N/A	8.22e+004	No Peak	N/A
99	MAI0350-05	Unknown	9/23/2020 1:34:	092320_gly\Da	1.00	AMPA	0.00e+000	N/A	8.22e+004	No Peak	N/A
100	MAI0350-05	Unknown	9/23/2020 1:34:	092320_gly\Da	1.00	AMPA1	0.00e+000	N/A	8.22e+004	No Peak	N/A
101	MAI0350-06	Unknown	9/23/2020 1:41:	092320_gly\Da	1.00	Glyphosate	8.60e+002	N/A	4.84e+004	< 0	N/A
102	MAI0350-06	Unknown	9/23/2020 1:41:	092320_gly\Da	1.00	Glyphosate1	2.36e+002	N/A	4.84e+004	< 0	N/A
103	MAI0350-06	Unknown	9/23/2020 1:41:	092320_gly\Da	1.00	AMPA	0.00e+000	N/A	4.84e+004	No Peak	N/A
104	MAI0350-06	Unknown	9/23/2020 1:41:	092320_gly\Da	1.00	AMPA1	0.00e+000	N/A	4.84e+004	No Peak	N/A
105	MAI0350-07	Unknown	9/23/2020 1:47:	092320_gly\Da	1.00	Glyphosate	4.77e+002	N/A	4.67e+004	< 0	N/A
106	MAI0350-07	Unknown	9/23/2020 1:47:	092320_gly\Da	1.00	Glyphosate1	0.00e+000	N/A	4.67e+004	No Peak	N/A
107	MAI0350-07	Unknown	9/23/2020 1:47:	092320_gly\Da	1.00	AMPA	0.00e+000	N/A	4.67e+004	No Peak	N/A
108	MAI0350-07	Unknown	9/23/2020 1:47:	092320_gly\Da	1.00	AMPA1	0.00e+000	N/A	4.67e+004	No Peak	N/A
109	MAI0350-08	Unknown	9/23/2020 2:14:	092320_gly\Da	1.00	Glyphosate	1.62e+002	N/A	5.59e+004	< 0	N/A
110	MAI0350-08	Unknown	9/23/2020 2:14:	092320_gly\Da	1.00	Glyphosate1	0.00e+000	N/A	5.59e+004	No Peak	N/A
111	MAI0350-08	Unknown	9/23/2020 2:14:	092320_gly\Da	1.00	AMPA	0.00e+000	N/A	5.59e+004	No Peak	N/A
112	MAI0350-08	Unknown	9/23/2020 2:14:	092320_gly\Da	1.00	AMPA1	0.00e+000	N/A	5.59e+004	No Peak	N/A
113	MAI0350-09	Unknown	9/23/2020 2:21:	092320_gly\Da	1.00	Glyphosate	4.93e+003	N/A	3.12e+005	< 0	N/A
114	MAI0350-09	Unknown	9/23/2020 2:21:	092320_gly\Da	1.00	Glyphosate1	0.00e+000	N/A	3.12e+005	No Peak	N/A
115	MAI0350-09	Unknown	9/23/2020 2:21:	092320_gly\Da	1.00	AMPA	0.00e+000	N/A	3.12e+005	No Peak	N/A
116	MAI0350-09	Unknown	9/23/2020 2:21:	092320_gly\Da	1.00	AMPA1	0.00e+000	N/A	3.12e+005	No Peak	N/A
117	MAI0350-10	Unknown	9/23/2020 2:28:	092320_gly\Da	1.00	Glyphosate	8.52e+003	N/A	3.22e+005	0.424	N/A
118	MAI0350-10	Unknown	9/23/2020 2:28:	092320_gly\Da	1.00	Glyphosate1	2.29e+003	N/A	3.22e+005	< 0	N/A
	MAI0350-10	Unknown	9/23/2020 2:28:	092320_gly\Da	1.00	AMPA	0.00e+000	N/A	3.22e+005	No Peak	N/A
	MAI0350-10	Unknown	9/23/2020 2:28:	092320_gly\Da	1.00	AMPA1	0.00e+000	N/A	3.22e+005	No Peak	N/A

Sample Name	Sample Type	Acquisition Date	File Name	Dilution Factor	Analyte Peak Name	Analyte Peak Area (counts)	Analyte Concentration (ng/mL)	IS Peak Area (counts)	Calculated Concentration (ng/mL)	Accuracy (%)
121 MAI0350-11	Unknown	9/23/2020 2:35:	092320_gly\Da	1.00	Glyphosate	9.13e+003	N/A	4.28e+005	0.159	N/A
122 MAI0350-11	Unknown	9/23/2020 2:35:	092320_gly\Da	1.00	Glyphosate1	0.00e+000	N/A	4.28e+005	No Peak	N/A
123 MAI0350-11	Unknown	9/23/2020 2:35:	092320_gly\Da	1.00	AMPA	0.00e+000	N/A	4.28e+005	No Peak	N/A
124 MAI0350-11	Unknown	9/23/2020 2:35:	092320_gly\Da	1.00	AMPA1	0.00e+000	N/A	4.28e+005	No Peak	N/A
125 MAI0350-12	Unknown	9/23/2020 2:41:	092320_gly\Da	1.00	Glyphosate	7.87e+003	N/A	3.97e+005	0.0829	N/A
126 MAI0350-12	Unknown	9/23/2020 2:41:	092320_gly\Da	1.00	Glyphosate1	0.00e+000	N/A	3.97e+005	No Peak	N/A
127 MAI0350-12	Unknown	9/23/2020 2:41:	092320_gly\Da	1.00	AMPA	0.00e+000	N/A	3.97e+005	No Peak	N/A
128 MAI0350-12	Unknown	9/23/2020 2:41:	092320_gly\Da	1.00	AMPA1	0.00e+000	N/A	3.97e+005	No Peak	N/A
129 MAI0350-13	Unknown	9/23/2020 2:48:	092320_gly\Da	1.00	Glyphosate	9.28e+002	N/A	2.40e+005	< 0	N/A
130 MAI0350-13	Unknown	9/23/2020 2:48:	092320_gly\Da	1.00	Glyphosate1	0.00e+000	N/A	2.40e+005	No Peak	N/A
131 MAI0350-13	Unknown	9/23/2020 2:48:	092320_gly\Da	1.00	AMPA	0.00e+000	N/A	2.40e+005	No Peak	N/A
132 MAI0350-13	Unknown	9/23/2020 2:48:	092320_gly\Da	1.00	AMPA1	0.00e+000	N/A	2.40e+005	No Peak	N/A
133 MAI0350-14	Unknown	9/23/2020 2:55:	092320_gly\Da	1.00	Glyphosate	8.08e+002	N/A	1.39e+005	< 0	N/A
134 MAI0350-14	Unknown	9/23/2020 2:55:	092320_gly\Da	1.00	Glyphosate1	3.42e+003	N/A	1.39e+005	2.24	N/A
135 MAI0350-14	Unknown	9/23/2020 2:55:	092320_gly\Da	1.00	AMPA	0.00e+000	N/A	1.39e+005	No Peak	N/A
136 MAI0350-14	Unknown	9/23/2020 2:55:	092320_gly\Da	1.00	AMPA1	0.00e+000	N/A	1.39e+005	No Peak	N/A
137 MAI0350-15	Unknown	9/23/2020 3:02:	092320_gly\Da	1.00	Glyphosate	9.26e+002	N/A	8.09e+004	< 0	N/A
138 MAI0350-15	Unknown	9/23/2020 3:02:	092320_gly\Da	1.00	Glyphosate1	0.00e+000	N/A	8.09e+004	No Peak	N/A
139 MAI0350-15	Unknown	9/23/2020 3:02:	092320_gly\Da	1.00	AMPA	0.00e+000	N/A	8.09e+004	No Peak	N/A
140 MAI0350-15	Unknown	9/23/2020 3:02:	092320_gly\Da	1.00	AMPA1	0.00e+000	N/A	8.09e+004	No Peak	N/A
141 MAI0350-16	Unknown	9/23/2020 3:08:	092320_gly\Da	1.00	Glyphosate	3.28e+002	N/A	1.51e+005	< 0	N/A
142 MAI0350-16	Unknown	9/23/2020 3:08:	092320_gly\Da	1.00	Glyphosate1	0.00e+000	N/A	1.51e+005	No Peak	N/A
143 MAI0350-16	Unknown	9/23/2020 3:08:	092320_gly\Da	1.00	AMPA	0.00e+000	N/A	1.51e+005	No Peak	N/A
144 MAI0350-16	Unknown	9/23/2020 3:08:	092320_gly\Da	1.00	AMPA1	0.00e+000	N/A	1.51e+005	No Peak	N/A
145 WAI0678-23	Unknown	9/23/2020 3:15:	092320_gly\Da	1.00	Glyphosate	0.00e+000	N/A	5.35e+005	No Peak	N/A
146 WAI0678-23	Unknown	9/23/2020 3:15:	092320_gly\Da	1.00	Glyphosate1	0.00e+000	N/A	5.35e+005	No Peak	N/A
147 WAI0678-23	Unknown	9/23/2020 3:15:	092320_gly\Da	1.00	AMPA	0.00e+000	N/A	5.35e+005	No Peak	N/A
148 WAI0678-23	Unknown	9/23/2020 3:15:	092320_gly\Da	1.00	AMPA1	0.00e+000	N/A	5.35e+005	No Peak	N/A
WAI0678-24	Unknown	9/23/2020 3:22:	092320_gly\Da	1.00	Glyphosate	5.04e+003	N/A	4.35e+005	< 0	N/A
WAI0678-24	Unknown	9/23/2020 3:22:	092320_gly\Da	1.00	Glyphosate1	0.00e+000	N/A	4.35e+005	No Peak	N/A

	Sample Name	Sample Type	Acquisition Date	File Name	Dilution Factor	Analyte Peak Name	Analyte Peak Area (counts)	Analyte Concentration (ng/mL)	IS Peak Area (counts)	Calculated Concentration (ng/mL)	Accuracy (%)
151	WAI0678-24	Unknown	9/23/2020 3:22:	092320_gly\Da	1.00	AMPA	0.00e+000	N/A	4.35e+005	No Peak	N/A
152	WAI0678-24	Unknown	9/23/2020 3:22:	092320_gly\Da	1.00	AMPA1	0.00e+000	N/A	4.35e+005	No Peak	N/A
153	WAI0678-25	Unknown	9/23/2020 3:28:	092320_gly\Da	1.00	Glyphosate	0.00e+000	N/A	5.23e+005	No Peak	N/A
154	WAI0678-25	Unknown	9/23/2020 3:28:	092320_gly\Da	1.00	Glyphosate1	0.00e+000	N/A	5.23e+005	No Peak	N/A
155	WAI0678-25	Unknown	9/23/2020 3:28:	092320_gly\Da	1.00	AMPA	0.00e+000	N/A	5.23e+005	No Peak	N/A
156	WAI0678-25	Unknown	9/23/2020 3:28:	092320_gly\Da	1.00	AMPA1	0.00e+000	N/A	5.23e+005	No Peak	N/A
157	BAI0646-MS2	Quality Cont	9/23/2020 3:35:	092320_gly\Da	1.00	Glyphosate	4.74e+005	50.0	5.39e+005	45.5	90.9
158	BAI0646-MS2	Quality Cont	9/23/2020 3:35:	092320_gly\Da	1.00	Glyphosate1	1.76e+005	50.0	5.39e+005	45.3	90.5
159	BAI0646-MS2	Quality Cont	9/23/2020 3:35:	092320_gly\Da	1.00	AMPA	2.99e+005	100.	5.39e+005	88.4	88.4
160	BAI0646-MS2	Quality Cont	9/23/2020 3:35:	092320_gly\Da	1.00	AMPA1	1.13e+005	100.	5.39e+005	91.6	91.6
161	BAI0646-MSD1	Quality Cont	9/23/2020 3:42:	092320_gly\Da	1.00	Glyphosate	4.51e+005	50.0	5.41e+005	43.0	86.0
162	BAI0646-MSD1	Quality Cont	9/23/2020 3:42:	092320_gly\Da	1.00	Glyphosate1	1.75e+005	50.0	5.41e+005	45.0	90.0
163	BAI0646-MSD1	Quality Cont	9/23/2020 3:42:	092320_gly\Da	1.00	AMPA	2.98e+005	100.	5.41e+005	87.8	87.8
164	BAI0646-MSD1	Quality Cont	9/23/2020 3:42:	092320_gly\Da	1.00	AMPA1	1.08e+005	100.	5.41e+005	87.8	87.8
165	WAI0678-26	Unknown	9/23/2020 3:49:	092320_gly\Da	1.00	Glyphosate	2.42e+003	N/A	5.41e+005	< 0	N/A
166	WAI0678-26	Unknown	9/23/2020 3:49:	092320_gly\Da	1.00	Glyphosate1	0.00e+000	N/A	5.41e+005	No Peak	N/A
167	WAI0678-26	Unknown	9/23/2020 3:49:	092320_gly\Da	1.00	AMPA	0.00e+000	N/A	5.41e+005	No Peak	N/A
168	WAI0678-26	Unknown	9/23/2020 3:49:	092320_gly\Da	1.00	AMPA1	0.00e+000	N/A	5.41e+005	No Peak	N/A
169	CCV 25/50 ppb	Quality Cont	9/23/2020 3:56:	092320_gly\Da	1.00	Glyphosate	2.60e+005	25.0	5.52e+005	23.6	94.3
170	CCV 25/50 ppb	Quality Cont	9/23/2020 3:56:	092320_gly\Da	1.00	Glyphosate1	9.74e+004	25.0	5.52e+005	23.7	94.9
171	CCV 25/50 ppb	Quality Cont	9/23/2020 3:56:	092320_gly\Da	1.00	AMPA	1.78e+005	50.0	5.52e+005	50.7	101.
172	CCV 25/50 ppb	Quality Cont	9/23/2020 3:56:	092320_gly\Da	1.00	AMPA1	6.55e+004	50.0	5.52e+005	51.7	103.

PREPARATION BENCH SHEET

Organics

Print Date/Time: 10/28/2020, 4:06 pm

BAJ0831

Matrix: Water

Prepared using: SVOC - Glyphosate

Analyses Glyphosate				Spiking Solution(s) 2003117 Gly/AMPA 25/50 ppm				Surrogate Solution(s)			
Lab Number	Source ID	ResCl	pH	Prepared	Initial (mL)	Final (mL)	ul Spike 1	ul Surr 1	ul Spike 2	ul Surr 2	Extraction Comments
BAJ0831-BLK1	-			10/22/20 9:00							
BAJ0831-BS1	-			10/22/20 9:00			20				
BAJ0831-MS1	WAI0678-07			10/22/20 9:00			20				
BAJ0831-MSD1	WAI0678-07			10/22/20 9:00			20				
WAI0678-07				10/22/20 9:00							

Analytical Run Date: _____

Support Equipment: _____

Reagents	Standard	Description	LotNum
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	Sample Name	Sample Type	Acquisition Date	File Name	Dilution Factor	Analyte Peak Name	Analyte Peak Area (counts)	Analyte Concentration (ng/mL)	IS Peak Area (counts)	Calculated Concentration (ng/mL)	Accuracy (%)
1	250/500 ppb gly	Standard	10/28/2020 10:40:2	102820_gly\	1.00	Glyphosate	4.98e+005	250.	1.76e+004	257.	103.
2	250/500 ppb gly	Standard	10/28/2020 10:40:2	102820_gly\	1.00	Glyphosate1	1.73e+005	250.	1.76e+004	256.	102.
3	250/500 ppb gly	Standard	10/28/2020 10:40:2	102820_gly\	1.00	AMPA	4.58e+005	500.	1.76e+004	503.	101.
4	250/500 ppb gly	Standard	10/28/2020 10:40:2	102820_gly\	1.00	AMPA1	1.72e+005	500.	1.76e+004	503.	101.
5	125/250 ppb gly	Standard	10/28/2020 10:47:0	102820_gly\	1.00	Glyphosate	2.61e+005	125.	1.79e+004	112.	89.8
6	125/250 ppb gly	Standard	10/28/2020 10:47:0	102820_gly\	1.00	Glyphosate1	1.02e+005	125.	1.79e+004	117.	93.9
7	125/250 ppb gly	Standard	10/28/2020 10:47:0	102820_gly\	1.00	AMPA	2.13e+005	250.	1.79e+004	242.	96.9
8	125/250 ppb gly	Standard	10/28/2020 10:47:0	102820_gly\	1.00	AMPA1	8.26e+004	250.	1.79e+004	244.	97.4
9	50/100 ppb gly a	Standard	10/28/2020 10:53:5	102820_gly\	1.00	Glyphosate	1.27e+005	50.0	1.70e+004	53.6	107.
10	50/100 ppb gly a	Standard	10/28/2020 10:53:5	102820_gly\	1.00	Glyphosate1	4.74e+004	50.0	1.70e+004	52.3	105.
11	50/100 ppb gly a	Standard	10/28/2020 10:53:5	102820_gly\	1.00	AMPA	8.56e+004	100.	1.70e+004	104.	104.
12	50/100 ppb gly a	Standard	10/28/2020 10:53:5	102820_gly\	1.00	AMPA1	3.21e+004	100.	1.70e+004	100.	100.
13	25/50 ppb gly a	Standard	10/28/2020 11:00:4	102820_gly\	1.00	Glyphosate	6.77e+004	25.0	1.61e+004	28.7	115.
14	25/50 ppb gly a	Standard	10/28/2020 11:00:4	102820_gly\	1.00	Glyphosate1	2.40e+004	25.0	1.61e+004	26.7	107.
15	25/50 ppb gly a	Standard	10/28/2020 11:00:4	102820_gly\	1.00	AMPA	4.19e+004	50.0	1.61e+004	52.6	105.
16	25/50 ppb gly a	Standard	10/28/2020 11:00:4	102820_gly\	1.00	AMPA1	1.67e+004	50.0	1.61e+004	54.1	108.
17	12.5/25 ppb gly	Standard	10/28/2020 11:07:2	102820_gly\	1.00	Glyphosate	3.86e+004	12.5	1.90e+004	12.7	102.
18	12.5/25 ppb gly	Standard	10/28/2020 11:07:2	102820_gly\	1.00	Glyphosate1	1.39e+004	12.5	1.90e+004	12.6	101.
19	12.5/25 ppb gly	Standard	10/28/2020 11:07:2	102820_gly\	1.00	AMPA	2.39e+004	25.0	1.90e+004	23.3	93.1
20	12.5/25 ppb gly	Standard	10/28/2020 11:07:2	102820_gly\	1.00	AMPA1	9.66e+003	25.0	1.90e+004	25.3	101.
21	6.25/12.5 ppb gl	Standard	10/28/2020 11:14:1	102820_gly\	1.00	Glyphosate	1.93e+004	6.25	1.94e+004	5.25	84.0
22	6.25/12.5 ppb gl	Standard	10/28/2020 11:14:1	102820_gly\	1.00	Glyphosate1	6.84e+003	6.25	1.94e+004	5.75	92.0
23	6.25/12.5 ppb gl	Standard	10/28/2020 11:14:1	102820_gly\	1.00	AMPA	1.48e+004	12.5	1.94e+004	12.5	99.9
24	6.25/12.5 ppb gl	Standard	10/28/2020 11:14:1	102820_gly\	1.00	AMPA1	4.97e+003	12.5	1.94e+004	11.5	92.1
25	RINSE	Quality Con	10/28/2020 11:20:5	102820_gly\	1.00	Glyphosate	0.00e+000	0.00	1.63e+004	No Peak	N/A
26	RINSE	Quality Con	10/28/2020 11:20:5	102820_gly\	1.00	Glyphosate1	0.00e+000	0.00	1.63e+004	No Peak	N/A
27	RINSE	Quality Con	10/28/2020 11:20:5	102820_gly\	1.00	AMPA	0.00e+000	0.00	1.63e+004	No Peak	N/A
28	RINSE	Quality Con	10/28/2020 11:20:5	102820_gly\	1.00	AMPA1	0.00e+000	0.00	1.63e+004	No Peak	N/A
29	MB	Quality Con	10/28/2020 11:27:4	102820_gly\	1.00	Glyphosate	0.00e+000	0.00	1.79e+004	No Peak	N/A
30	MB	Quality Con	10/28/2020 11:27:4	102820_gly\	1.00	Glyphosate1	0.00e+000	0.00	1.79e+004	No Peak	N/A

	Sample Name	Sample Type	Acquisition Date	File Name	Dilution Factor	Analyte Peak Name	Analyte Peak Area (counts)	Analyte Concentration (ng/mL)	IS Peak Area (counts)	Calculated Concentration (ng/mL)	Accuracy (%)
31	MB	Quality Con	10/28/2020 11:27:4	102820_gly\	1.00	AMPA	0.00e+000	0.00	1.79e+004	No Peak	N/A
32	MB	Quality Con	10/28/2020 11:27:4	102820_gly\	1.00	AMPA1	0.00e+000	0.00	1.79e+004	No Peak	N/A
33	LFB	Quality Con	10/28/2020 11:34:2	102820_gly\	1.00	Glyphosate	1.32e+005	50.0	2.15e+004	43.5	87.1
34	LFB	Quality Con	10/28/2020 11:34:2	102820_gly\	1.00	Glyphosate1	5.42e+004	50.0	2.15e+004	46.9	93.8
35	LFB	Quality Con	10/28/2020 11:34:2	102820_gly\	1.00	AMPA	9.30e+004	100.	2.15e+004	89.4	89.4
36	LFB	Quality Con	10/28/2020 11:34:2	102820_gly\	1.00	AMPA1	3.60e+004	100.	2.15e+004	88.8	88.8
37	WAI0678-07	Quality Con	10/28/2020 11:41:1	102820_gly\	1.00	Glyphosate	0.00e+000	0.00	2.05e+004	No Peak	N/A
38	WAI0678-07	Quality Con	10/28/2020 11:41:1	102820_gly\	1.00	Glyphosate1	0.00e+000	0.00	2.05e+004	No Peak	N/A
39	WAI0678-07	Quality Con	10/28/2020 11:41:1	102820_gly\	1.00	AMPA	0.00e+000	0.00	2.05e+004	No Peak	N/A
40	WAI0678-07	Quality Con	10/28/2020 11:41:1	102820_gly\	1.00	AMPA1	0.00e+000	0.00	2.05e+004	No Peak	N/A
41	WAI0678-07MS	Quality Con	10/28/2020 11:47:5	102820_gly\	1.00	Glyphosate	1.60e+005	50.0	2.17e+004	52.9	106.
42	WAI0678-07MS	Quality Con	10/28/2020 11:47:5	102820_gly\	1.00	Glyphosate1	5.59e+004	50.0	2.17e+004	47.8	95.5
43	WAI0678-07MS	Quality Con	10/28/2020 11:47:5	102820_gly\	1.00	AMPA	9.77e+004	100.	2.17e+004	92.8	92.8
44	WAI0678-07MS	Quality Con	10/28/2020 11:47:5	102820_gly\	1.00	AMPA1	3.83e+004	100.	2.17e+004	93.3	93.3
45	WAI0678-07MS	Quality Con	10/28/2020 11:54:4	102820_gly\	1.00	Glyphosate	1.56e+005	50.0	2.39e+004	46.3	92.5
46	WAI0678-07MS	Quality Con	10/28/2020 11:54:4	102820_gly\	1.00	Glyphosate1	6.60e+004	50.0	2.39e+004	51.5	103.
47	WAI0678-07MS	Quality Con	10/28/2020 11:54:4	102820_gly\	1.00	AMPA	1.08e+005	100.	2.39e+004	93.6	93.6
48	WAI0678-07MS	Quality Con	10/28/2020 11:54:4	102820_gly\	1.00	AMPA1	3.92e+004	100.	2.39e+004	86.7	86.7
49	25/50 ppb gly a	Quality Con	10/28/2020 12:01:3	102820_gly\	1.00	Glyphosate	7.46e+004	25.0	2.19e+004	22.7	90.8
50	25/50 ppb gly a	Quality Con	10/28/2020 12:01:3	102820_gly\	1.00	Glyphosate1	3.01e+004	25.0	2.19e+004	24.5	97.9
51	25/50 ppb gly a	Quality Con	10/28/2020 12:01:3	102820_gly\	1.00	AMPA	5.09e+004	50.0	2.19e+004	46.4	92.8
52	25/50 ppb gly a	Quality Con	10/28/2020 12:01:3	102820_gly\	1.00	AMPA1	1.97e+004	50.0	2.19e+004	46.6	93.2

Extraction Log Instructions: Fill out one line for each analysis. Determine the % solids by oven-drying about 5g of sample for 30 minutes. Allow to cool and weigh. Dry for an additional 10 minutes and re-weigh. Additional drying is necessary if successive weights differ by more than 1%.

$$\% \text{ Solids} = ((\text{dry soil} + \text{dish}) - (\text{dish})) / ((\text{wet soil} + \text{dish}) - (\text{dish})) * 100$$

Balance ID: BAL-04

Oven ID: 510-1996

Dish #	Sample ID#	Date	Dish wt	Dish + soil	After drying 1	After drying 2	% moisture	% solids	Analyst initials
AEZOL	MAJ0364-01	10/14/20	2.51	12.09	11.11	11.11		89.8	mym
	MAJ0364-01	10/14/20	2.60	33.95	25.28	25.28			RCP
	-02	✓	2.58	19.48	17.48	17.48			↓
	MAJ0364-01	10/20/20	2.55	6.20	5.55	5.55			BHP
	-02		2.64	7.70	6.92	6.92			↓
	-03		2.51	7.18	6.51	6.51			↓
	-04		2.59	7.26	6.72	6.72			↓
	-05		2.53	8.90	8.16	8.16			↓
	-06		2.67	8.51	7.72	7.72			↓
	612-01	✓	2.52	8.47	3.57	3.57			↓
MAJ0443-01	MAJ0443-01	10/22/20	2.52	14.33	13.84	13.84		95.8	mym
	-02	I	2.55	10.70	10.39	10.39		96.2	AL
MAJ0455-01	MAJ0455-01	10/28/20	2.54	14.78	7.19	7.19			mym
MAJ0478-23	MAJ0478-23	10/28/20	2.51	15.57	12.92			79.7	AL
	-24		2.65	21.75	17.6			78.3	↓
	-25		2.65	20.26	17.0			81.5	↓
	-26		2.61	21.10	17.9			81.6	↓
MAJ0810-01	MAJ0810-01	11/4/20	1.02	6.48	5.04	5.04			sr
	-02	↓	1.02	7.11	5.36	5.36			↓
	-03	↓	1.03	7.35	5.71	5.71			ALP
MAJ0745-01	MAJ0745-01	11/10/20	2.61	15.66	14.77	14.77			↓
	725-01		2.59	7.31	5.59	5.59			↓
MAJ0746-02	MAJ0746-02	11/10/20	2.80	28.70	22.27	22.27			↓
MAJ0746-03	MAJ0746-03	11/10/20	2.58	9.02		DNP			
MAJ0728-04	MAJ0728-04		2.47	8.78	5.06	5.06			
	-05		2.60	9.12	7.15	7.15			
	-06		2.67	8.16	4.68	4.68			
	752-01		2.66	11.40	3.74	3.74			
	756-01		2.57	9.12	9.00	9.00			
	741-01		2.50	15.20	2.69	2.69			
	745-01				BHP 11/10/20				
	746-01	ALP	2.57	24.59	17.70	17.70			
MAJ0745-03	MAJ0745-03	11/10/20							
854-01	854-01	✓	2.59	18.76	2.80	2.80			✓

Acute Toxicity Test Results for ADC Dry Weather Water Quality Monitoring

Monitoring Period: September 2020

Prepared for: Cardno
737 Bishop St., Suite 3050
Honolulu, HI 96734

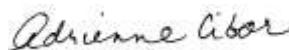
Testing Lab: Enthalpy Analytical
4340 Vandever Avenue
San Diego, CA 92120

Submitted: October 19, 2020

Data Quality Assurance:

- Enthalpy Analytical (formerly Nautilus Environmental) is accredited in accordance with NELAP by the State of Oregon Environmental Laboratory Accreditation Program (Certificate No. 4053). It is also certified by the State of California Department of Health Services Environmental Laboratory Accreditation Program (Certificate No. 1802) and the State of Washington Department of Ecology (Lab ID C552).
- All data have been reviewed and verified.
- All test results have met minimum test acceptability criteria under their respective EPA protocols, unless otherwise noted in this report.
- All results have met internal Quality Assurance Program requirements.

Data Verified by:



Introduction

Three samples were collected during a dry weather event for the ADC Kekaha Water Quality Monitoring. Samples were submitted by Cardno-GS. Testing was conducted at the Enthalpy Analytical Laboratory in San Diego, California using the Pacific topsmelt (*Atherinops affinis*), inland silverside (*Menidia beryllina*), and the mysid shrimp (*Americamysis bahia*) 96-hour acute survival test.

Materials and Methods

Sample Information

Client:	Cardno-GS
Project Name:	ADC Kekaha Water Quality Monitoring
Sample IDs:	DW-1/WW-1, WW-2, WW-3
Sample Collection Dates, Times ^a :	9/14/2020, 17:40 to 18:45
Sample Receipt Dates, Times ^b :	9/17/2020, 09:45
Sample Material:	Dry weather sample
Sampling Method:	Grab

^a Collection times adjusted to Pacific Daylight Time from Hawaii Standard Time.

^b Due to a shipping delay, the samples were in transit for two days (see QA section).

Acute Toxicity Test Methods

Testing was conducted in accordance with methods published in US Environmental Protection Agency (USEPA) guidance (2002). General test specifications that apply to all tests are summarized in Table 1. Species-specific test information is found in Tables 2 through 4.

Table 1. 96-hr Acute Survival Test Specifications - Applies to all Species Tested

Protocol Used:	Acute Manual (EPA/821/R-02/012), EPA 2002
Test Acceptability Criteria:	Control mean survival $\geq 90\%$
Test Concentration:	100% sample
Sample Manipulation:	Artificial salts (Instant Ocean®) were added to bring the salinity of the sample to 30 ± 1 parts per thousand (ppt)
Lab Control Water:	20- μ m filtered seawater (Source: Scripps Institution of Oceanography [SIO] Intake); diluted to 30 ppt with deionized water
Salt Control:	Salt Control – 30 ppt artificial saltwater (Instant Ocean®)

Table 2. Pacific Topsmelt 96-hr Acute Survival Test Specifications

Start Date, Time:	9/17/2020, 14:10
End Date, Time:	9/21/2020, 15:55
Test Organism:	<i>Atherinops affinis</i> (Pacific topsmelt)
Test Organism Source; Age:	Aquatic Biosystems (Ft. Collins, CO); 13 days

Table 3. Inland Silverside 96-hr Acute Survival Test Specifications

Start Date, Time:	9/17/2020, 14:15
End Date, Time:	9/21/2020, 14:11
Test Organism:	<i>Menidia beryllina</i> (inland silverside)
Test Organism Source; Age:	Aquatic research Organisms (Hampton, NH); 10 days

Table 4. Mysid Shrimp 96-hr Acute Survival Test Specifications

Start Date, Time:	9/17/2020, 14:20
End Date, Time:	9/21/2020, 13:55
Test Organism:	<i>Americamysis bahia</i> (mysid shrimp)
Test Organism Source; Age:	Aquatic Biosystems (Ft. Collins, CO); 5 days

Statistical Analysis

Statistical analyses were conducted using EPA flowchart specifications as outlined in the test guidance manual (USEPA 2002). Organism performance in the sample was compared to that observed in the concurrent artificial salt control. Results were used to calculate whether a statistically significant effect was observed between the control and sample result. Comprehensive Environmental Toxicity Information System™ (CETIS) software by Tidepool Scientific Software, version 1.8.7.20.

Results

No statistically significant effect was observed to any of the species tested for any of the three samples. A summary of results for each species type is presented in Tables 5 through 7. Raw datasheets and complete statistical summaries are provided in Appendix A. Sample receipt information is provided in Appendix B, and copies of the chain of custody forms are presented in Appendix C.

Table 5. Summary of Pacific Topsmelt 96-hr Acute Survival Results

Sample ID	Salt Control Result	100% Sample Result	Statistically Significant Effect? (Yes/No)	Percent Effect
DW-1/WW-1	100	100	No	0.0
WW-2	100	100	No	0.0
WW-3	100	100	No	0.0

Percent effect from control is calculated as: $((\text{mean response in lab control} - \text{mean response in undiluted sample}) / \text{mean response in lab control}) * 100$. A negative value results when organism performance in the sample is greater than that in the lab control.

Table 6. Summary of Inland Silverside 96-hr Acute Survival Results

Sample ID	Salt Control Result	100% Sample Result	Statistically Significant Effect? (Yes/No)	Percent Effect
DW-1/WW-1	95.0	100	No	-5.3
WW-2	95.0	100	No	-5.3
WW-3	95.0	100	No	-5.3

Percent effect from control is calculated as: $((\text{mean response in lab control} - \text{mean response in undiluted sample}) / \text{mean response in lab control}) * 100$. A negative value results when organism performance in the sample is greater than that in the lab control.

Table 7. Summary of Mysid Shrimp 96-hr Acute Survival Results

Sample ID	Salt Control Result	100% Sample Result	Statistically Significant Effect? (Yes/No)	Percent Effect
DW-1/WW-1	100	90.0	No	10
WW-2	100	90.0	No	10
WW-3	100	90.0	No	10

Percent effect from control is calculated as: $((\text{mean response in lab control} - \text{mean response in undiluted sample}) / \text{mean response in lab control}) * 100$. A negative value results when organism performance in the sample is greater than that in the lab control.

Quality Assurance

The samples were shipped on 9/15/20 by Fedex to arrive on 9/16 for testing. However, due to a delay by the shipping company, the samples were received on 9/17/20. Upon sample receipt, all three samples were in good condition on within the appropriate temperature range of 0-6 °C, and were therefore used for testing. The volume of sample received was sufficient to initiate all tests, but not for conducting a water renewal at 48 hours as described in the method. Therefore, all three tests were conducted as 96-hour static (i.e. no renewal). All water quality parameters remained within appropriate ranges throughout the tests. All tests were initiated within the maximum allowable holding time of 72 hours. Mean control responses met minimum acceptability criteria. Minor QA issues that were unlikely to have any bearing on the final test data, such as slight temperature deviations, are noted on the datasheets and a list of laboratory qualifier codes can be found in Appendix D.

Reference Toxicant Testing

Results for reference toxicant testing used to monitor laboratory performance and test organism sensitivity are summarized in Table 8. The reference toxicant tests met all acceptability criteria. Additionally, the median effect concentration value was within two standard deviations of the historical mean, indicating typical organism sensitivity to copper. The control chart for the previous 20 reference toxicant tests is presented in Appendix E.

Table 8. Summary of 96-hr Acute Survival Reference Toxicant Test Results

Species	NOEC (µg/L copper)	LC ₅₀ (µg/L copper)	Historical LC ₅₀ ± 2 SD (µg/L copper)	CV (%)
Pacific Topsmelt	50	119	173 ± 121	35.1
Inland Silverside	100	172	186 ± 93.3	25.1
Mysid Shrimp	200	281	247 ± 74.9	15.2

NOEC = the highest concentration tested that results in no observed effect

LC₅₀ = concentration expected to cause a lethal effect to 50 percent of the test organisms

Historical LC₅₀ ± 2 SD = the mean LC₅₀ from the previous 20 tests performed by Enthalpy, plus or minus two standard deviations

CV = Coefficient of Variation

References

Tidepool Scientific Software. 2000-2013. CETIS Comprehensive Environmental Toxicity Information System Software, Version 1.8.7.20.

USEPA. 2002. Methods for Measuring the Acute Toxicity of Effluents and Receiving Waters to Freshwater and Marine Organisms, Fifth Edition (EPA/821/R-02/012). US EPA Office of Water, Washington, DC.

Appendix A

Raw Data and Statistical Summaries

CETIS Summary Report

Report Date: 23 Sep-20 11:36 (p 1 of 1)
Test Code: 2009-S122 | 14-3289-1528

Pacific Topsmelt 96-h Acute Survival Test						Nautilus Environmental (CA)					
Batch ID:	04-1407-6510	Test Type:	Survival (96h)	Lab Control Water	Analyst:	Diluted Natural Seawater Not Applicable 13d					
Start Date:	17 Sep-20 14:10	Protocol:	EPA/821/R-02-012 (2002)		Diluent:						
Ending Date:	21 Sep-20 15:55	Species:	Atherinops affinis		Brine:						
Duration:	4d 2h	Source:	Aquatic Biosystems, CO		Age:						
Sample ID:	01-3348-0041	Code:	20-1052	Client:	Cardno Hawaii						
Sample Date:	14 Sep-20 17:40	Material:	Effluent Sample	Project:	ADC Kekaha WQ Monitoring						
Receive Date:	17 Sep-20 09:45	Source:	Cardno Hawaii								
Sample Age:	69h (2.9 °C)	Station:	DW-1/WW-1								
Comparison Summary											
Analysis ID	Endpoint	NOEL	LOEL	TOEL	PMSD	TU	Method				
11-8087-5281	96h Survival Rate	100	>100	NA	NA	1	Wilcoxon Rank Sum Two-Sample Test				
96h Survival Rate Summary											
C-%	Control Type	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
0	Lab Control	4	1	1	1	1	1	0	0	0.0%	0.0%
0	Salt Control	4	1	1	1	1	1	0	0	0.0%	0.0%
100		4	1	1	1	1	1	0	0	0.0%	0.0%
96h Survival Rate Detail											
C-%	Control Type	Rep 1	Rep 2	Rep 3	Rep 4						
0	Lab Control	1	1	1	1						
0	Salt Control	1	1	1	1						
100		1	1	1	1						

@Q18 AC 10/3/20

CETIS Analytical Report

Report Date: 23 Sep-20 11:36 (p 1 of 1)
Test Code: 2009-S122 | 14-3289-1528

Pacific Topsmelt 96-h Acute Survival Test Nautilus Environmental (CA)

Analysis ID: 11-8087-5281 Endpoint: 96h Survival Rate CETIS Version: CETISv1.8.7
Analyzed: 23 Sep-20 11:34 Analysis: Nonparametric-Two Sample Official Results: Yes

Data Transform	Zeta	Alt Hyp	Trials	Seed	Test Result
Angular (Corrected)	NA	C > T	NA	NA	Passes 96h survival rate

Wilcoxon Rank Sum Two-Sample Test

Control	vs	C-%	Test Stat	Critical	Ties	DF	P-Value	P-Type	Decision(α:5%)
Salt Control		100	18	NA	1	6	1.0000	Exact	Non-Significant Effect

ANOVA Table

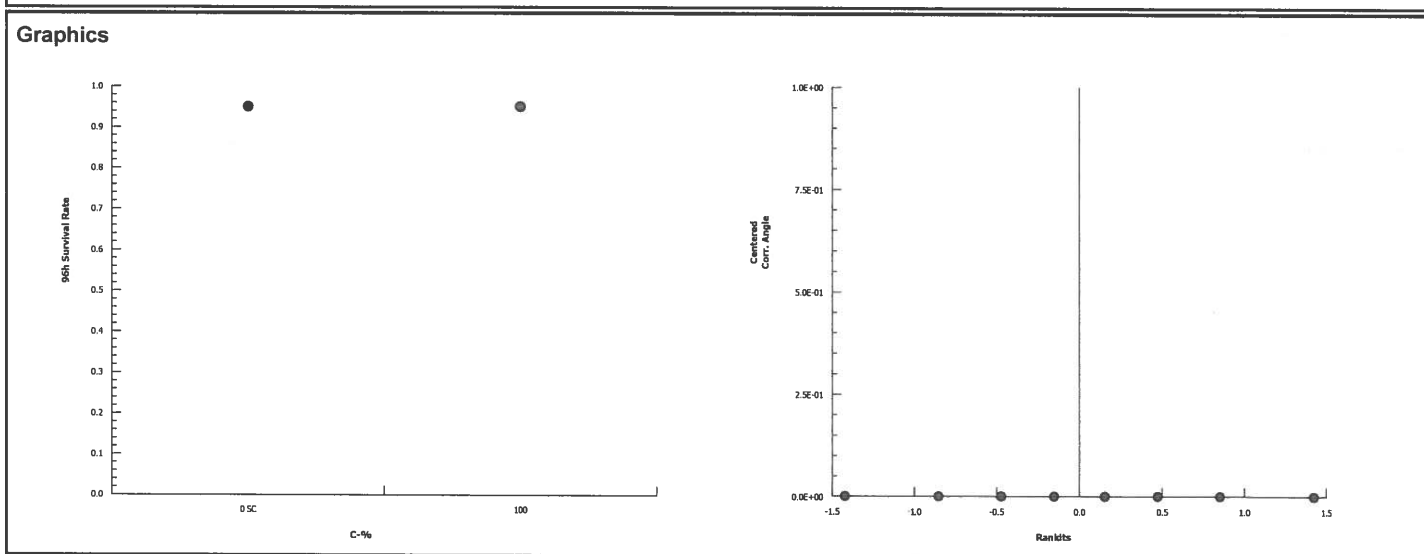
Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	0	0	1	65540	<0.0001	Significant Effect
Error	0	0	6			
Total	0		7			

96h Survival Rate Summary

C-%	Control Type	Count	Mean	95% LCL	95% UCL	Median	Min	Max	Std Err	CV%	%Effect
0	Salt Control	4	1	1	1	1	1	1	0	0.0%	0.0%
100		4	1	1	1	1	1	1	0	0.0%	0.0%

Angular (Corrected) Transformed Summary

C-%	Control Type	Count	Mean	95% LCL	95% UCL	Median	Min	Max	Std Err	CV%	%Effect
0	Salt Control	4	1.345	1.345	1.346	1.345	1.345	1.345	0	0.0%	0.0%
100		4	1.345	1.345	1.346	1.345	1.345	1.345	0	0.0%	0.0%



CETIS Summary Report

Report Date: 23 Sep-20 11:41 (p 1 of 1)
Test Code: 2009-S123 | 07-2053-4991

Pacific Topsmelt 96-h Acute Survival Test						Nautilus Environmental (CA)					
Batch ID:	03-9451-8274	Test Type:	Survival (96h)	Lab control water	Analyst:	Diluted Natural Seawater Brine: Not Applicable Age: 13d					
Start Date:	17 Sep-20 14:10	Protocol:	EPA/821/R-02-012 (2002)		Diluent:						
Ending Date:	21 Sep-20 15:55	Species:	Atherinops affinis		Brine:						
Duration:	4d 2h	Source:	Aquatic Biosystems, CO		Age:						
Sample ID:	00-6409-3091	Code:	20-1053	Client:	Cardno Hawaii						
Sample Date:	14 Sep-20 18:45	Material:	Effluent Sample	Project:	ADC Kekaha WQ Monitoring						
Receive Date:	17 Sep-20 09:45	Source:	Cardno Hawaii								
Sample Age:	67h (2.5 °C)	Station:	WW-2								
Comparison Summary											
Analysis ID	Endpoint	NOEL	LOEL	TOEL	PMSD	TU	Method				
04-0794-5089	96h Survival Rate	100	>100	NA	NA	1	Wilcoxon Rank Sum Two-Sample Test				
96h Survival Rate Summary											
C-%	Control Type	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
0	Lab Control	4	1	1	1	1	1	0	0	0.0%	0.0%
0	Salt Control	4	1	1	1	1	1	0	0	0.0%	0.0%
100		4	1	1	1	1	1	0	0	0.0%	0.0%
96h Survival Rate Detail											
C-%	Control Type	Rep 1	Rep 2	Rep 3	Rep 4						
0	Lab Control	1	1	1	1						
0	Salt Control	1	1	1	1						
100		1	1	1	1						

@Q18 AC10/3/20

CETIS Analytical Report

Report Date: 23 Sep-20 11:41 (p 1 of 1)
Test Code: 2009-S123 | 07-2053-4991

Pacific Topsmelt 96-h Acute Survival Test	Nautilus Environmental (CA)
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Analysis ID: 04-0794-5089	Endpoint: 96h Survival Rate	CETIS Version: CETISv1.8.7
Analyzed: 23 Sep-20 11:40	Analysis: Nonparametric-Two Sample	Official Results: Yes

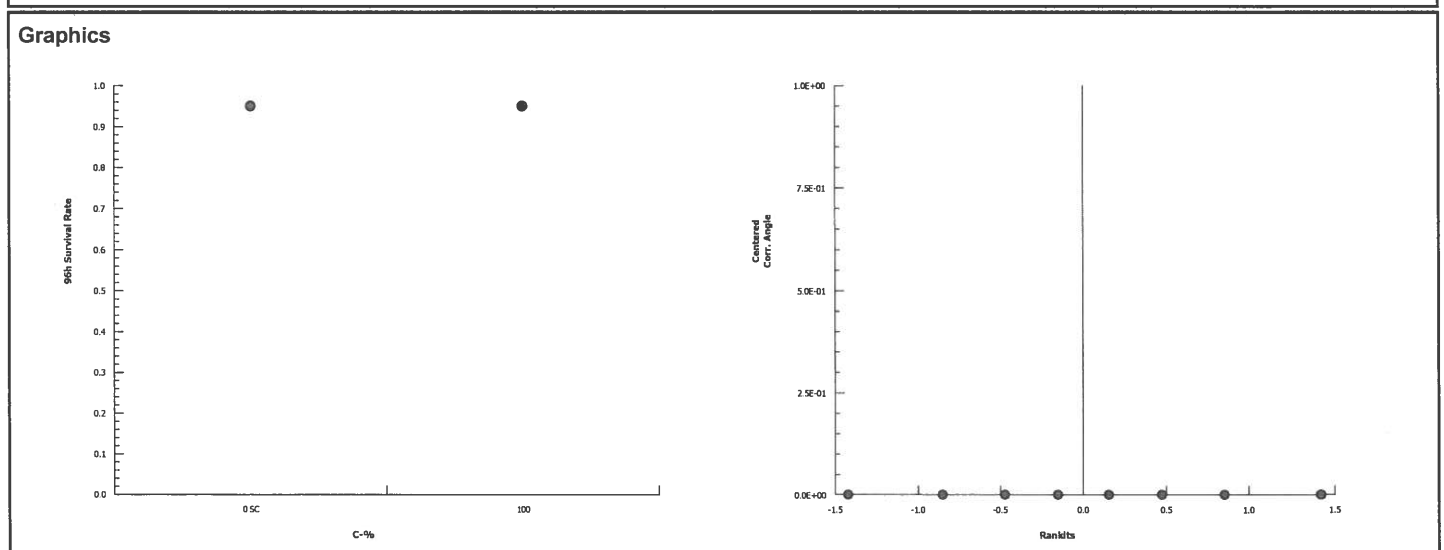
Data Transform	Zeta	Alt Hyp	Trials	Seed	Test Result
Angular (Corrected)	NA	C > T	NA	NA	Passes 96h survival rate

Wilcoxon Rank Sum Two-Sample Test									
Control	vs	C-%	Test Stat	Critical	Ties	DF	P-Value	P-Type	Decision(α:5%)
Salt Control		100	18	NA	1	6	1.0000	Exact	Non-Significant Effect

ANOVA Table						
Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	0	0	1	65540	<0.0001	Significant Effect
Error	0	0	6			
Total	0		7			

96h Survival Rate Summary											
C-%	Control Type	Count	Mean	95% LCL	95% UCL	Median	Min	Max	Std Err	CV%	%Effect
0	Salt Control	4	1	1	1	1	1	1	0	0.0%	0.0%
100		4	1	1	1	1	1	1	0	0.0%	0.0%

Angular (Corrected) Transformed Summary											
C-%	Control Type	Count	Mean	95% LCL	95% UCL	Median	Min	Max	Std Err	CV%	%Effect
0	Salt Control	4	1.345	1.345	1.346	1.345	1.345	1.345	0	0.0%	0.0%
100		4	1.345	1.345	1.346	1.345	1.345	1.345	0	0.0%	0.0%



CETIS Summary Report

Report Date: 23 Sep-20 11:44 (p 1 of 1)
Test Code: 2009-S124 | 14-9340-7099

Pacific Topsmelt 96-h Acute Survival Test						Nautilus Environmental (CA)					
Batch ID:	13-8199-8931	Test Type:	Survival (96h)	Analyst:	<i>lab control water</i> Diluted ^② Diluted Natural Seawater						
Start Date:	17 Sep-20 14:10	Protocol:	EPA/821/R-02-012 (2002)	Brine:	Not Applicable						
Ending Date:	21 Sep-20 15:55	Species:	Atherinops affinis	Age:	13d						
Duration:	4d 2h	Source:	Aquatic Biosystems, CO								
Sample ID:	19-5837-2373	Code:	20-1054	Client:	Cardno Hawaii						
Sample Date:	14 Sep-20 18:25	Material:	Effluent Sample	Project:	ADC Kekaha WQ Monitoring						
Receive Date:	17 Sep-20 09:45	Source:	Cardno Hawaii								
Sample Age:	68h (1.5 °C)	Station:	WW-3								
Comparison Summary											
Analysis ID	Endpoint	NOEL	LOEL	TOEL	PMSD	TU	Method				
11-8932-4035	96h Survival Rate	100	>100	NA	NA	1	Wilcoxon Rank Sum Two-Sample Test				
96h Survival Rate Summary											
C-%	Control Type	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
0	Lab Control	4	1	1	1	1	1	0	0	0.0%	0.0%
0	Salt Control	4	1	1	1	1	1	0	0	0.0%	0.0%
100		4	1	1	1	1	1	0	0	0.0%	0.0%
96h Survival Rate Detail											
C-%	Control Type	Rep 1	Rep 2	Rep 3	Rep 4						
0	Lab Control	1	1	1	1						
0	Salt Control	1	1	1	1						
100		1	1	1	1						

② Q18 AL10/3/20

CETIS Analytical Report

Report Date: 23 Sep-20 11:44 (p 1 of 1)
Test Code: 2009-S124 | 14-9340-7099

Pacific Topsmelt 96-h Acute Survival Test	Nautilus Environmental (CA)
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Analysis ID: 11-8932-4035	Endpoint: 96h Survival Rate	CETIS Version: CETISv1.8.7
Analyzed: 23 Sep-20 11:44	Analysis: Nonparametric-Two Sample	Official Results: Yes

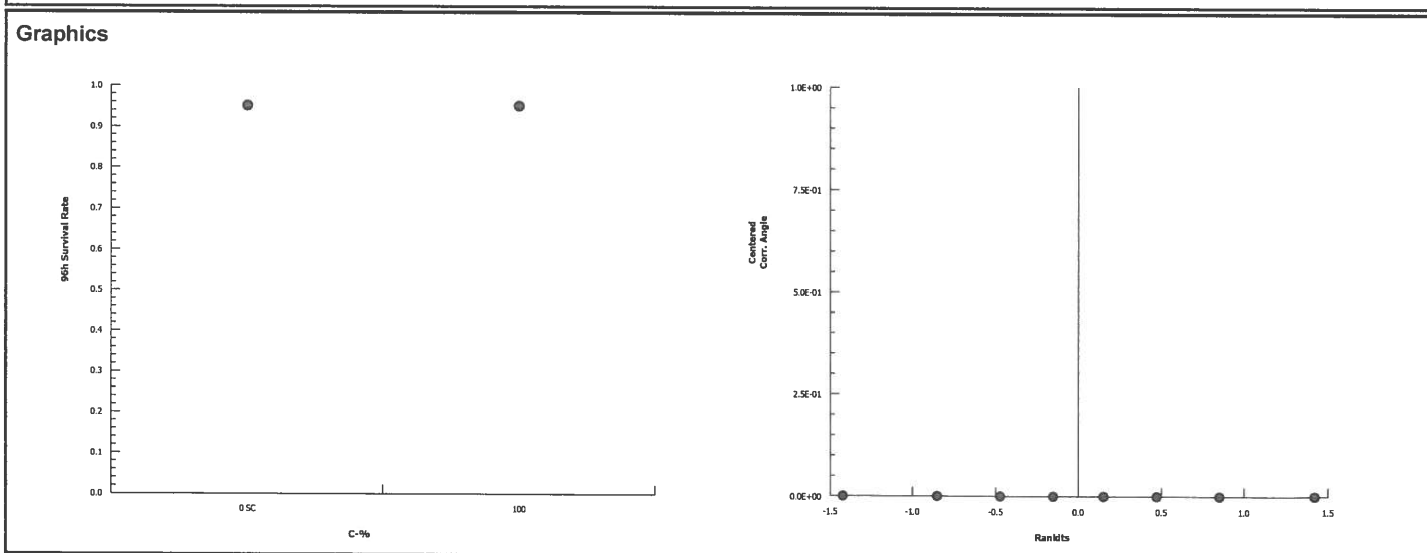
Data Transform	Zeta	Alt Hyp	Trials	Seed	Test Result
Angular (Corrected)	NA	C > T	NA	NA	Passes 96h survival rate

Wilcoxon Rank Sum Two-Sample Test									
Control	vs	C-%	Test Stat	Critical	Ties	DF	P-Value	P-Type	Decision(α:5%)
Salt Control		100	18	NA	1	6	1.0000	Exact	Non-Significant Effect

ANOVA Table						
Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	0	0	1	65540	<0.0001	Significant Effect
Error	0	0	6			
Total	0		7			

96h Survival Rate Summary											
C-%	Control Type	Count	Mean	95% LCL	95% UCL	Median	Min	Max	Std Err	CV%	%Effect
0	Salt Control	4	1	1	1	1	1	1	0	0.0%	0.0%
100		4	1	1	1	1	1	1	0	0.0%	0.0%

Angular (Corrected) Transformed Summary											
C-%	Control Type	Count	Mean	95% LCL	95% UCL	Median	Min	Max	Std Err	CV%	%Effect
0	Salt Control	4	1.345	1.345	1.346	1.345	1.345	1.345	0	0.0%	0.0%
100		4	1.345	1.345	1.346	1.345	1.345	1.345	0	0.0%	0.0%



Client: Cardno Hawaii

Test Species: A. affinis

Project: ADC Kekaha WQ Monitoring

Start Date/Time: 9/17/2020 1410

Sample Log-in No.: 20-1052, 20-1053, 20-1054 End Date/Time: 9/21/2020 1555

Test No.: 2009-S122 to S124

Tech Initials				
0	24	48	72	96
DM	NM	DM	KL	HH
RT	GH	DM	KL	GH
HH		Q10		

Counts:

Readings:

Dilutions made by:

Sample ID/ Concentration (%)	Rep	Number of Live Organisms					Salinity (ppt)					Temperature (°C)					Dissolved Oxygen (mg/L)					pH (units)				
		0	24	48	72	96	0	24	48	72	96	0	24	48	72	96	0	24	48	72	96	0	24	48	72	96
Lab Control	A	5	5	5	5	5	30.1	29.9	Q10	29.7	30.1	20.5	20.7	Q10	20.6	20.6	7.4	6.8	Q10	6.4	6.8	8.05	7.84	Q10	7.85	7.80
	B	5	5	5	5	5			29.9					20.8					6.4					7.86		
	C	5	5	5	5	5																				
	D	5	5	5	5	5																				
Salt Control	A	5	5	5	5	5	29.2	28.8	Q10	28.9	29.1	20.5	20.7	Q10	20.5	20.6	7.4	6.8	Q10	6.6	6.7	8.18	8.10	Q10	8.00	8.00
	B	5	5	5	5	5			29.0					20.7					6.5					7.95		
	C	5	5	5	5	5			29.0																	
	D	5	5	5	5	5																				
DW-1/WW-1 100%	A	5	5	5	5	5	30.1	30.1	Q10	30.0	30.5	20.1	20.5	Q10	20.5	20.5	7.5	6.3	Q10	6.0	6.3	8.03	8.11	Q10	8.21	8.17
	B	5	5	5	5	5			30.1					20.7					6.3					8.10		
	C	5	5	5	5	5																				
	D	5	5	5	5	5																				
WW-2 100%	A	5	5	5	5	5	30.0	29.7	Q10	29.5	29.6	20.2	20.6	Q10	20.6	20.6	7.6	6.4	Q10	6.2	6.4	7.96	8.15	Q10	8.25	8.20
	B	5	5	5	5	5			29.6					20.8					6.2					8.19		
	C	5	5	5	5	5																				
	D	5	5	5	5	5																				
WW-3 100%	A	5	5	5	5	5	29.9	29.9	Q10	29.9	29.8	20.2	20.7	Q10	20.6	20.6	7.6	6.3	Q10	6.3	6.4	8.01	8.16	Q10	8.29	8.25
	B	5	5	5	5	5			29.9					20.8					6.3					8.22		
	C	5	5	5	5	5																				
	D	5	5	5	5	5																				
	A																									
	B																									
	C																									
	D																									

Initial Counts QC'd by: ER

Initiated by: DM

Environmental Chamber: C

Animal Source/Date Received: ABS/9/16/20

Age at Initiation: 13 days

Animal Acclimation Qualifiers (circle all that apply):

Q22 / Q23 / Q24 / none

Comments:

i = initial reading in fresh test solution, f = final reading in test chamber prior to renewal

Organisms fed prior to initiation, circle one (y n) (y) A Q18 DM 9/19/20

QC Check:

ABS 9/21/2020

Final Review:

Feeding Times				
0	24	48	72	96
AM:	0800	0830	0840	0850
PM:	1710			

AC 10/3/20

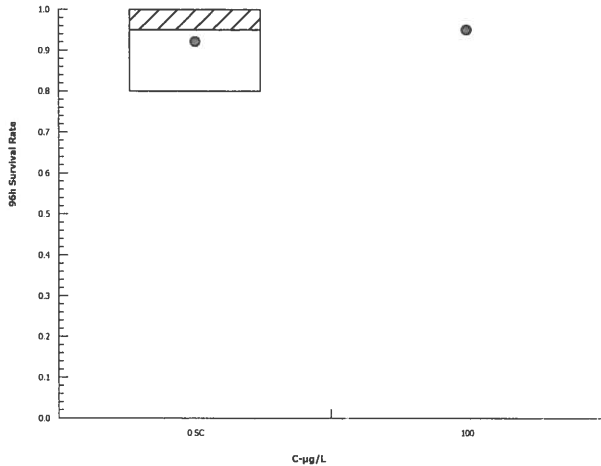
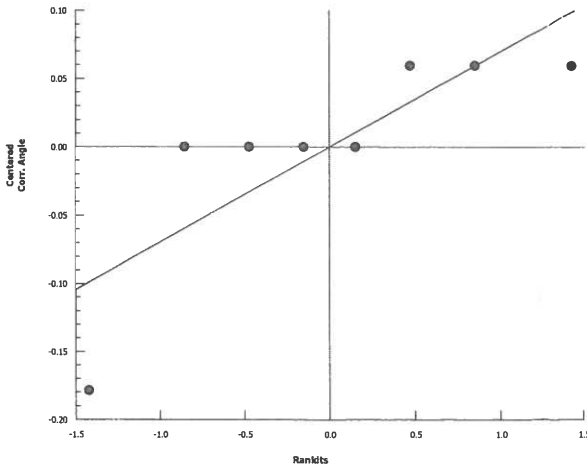
CETIS Summary Report

Report Date: 23 Sep-20 11:54 (p 1 of 1)
Test Code: 2009-S125 | 06-6648-9559

Inland Silverside 96-h Acute Survival Test							Nautilus Environmental (CA)				
Batch ID:	13-7372-8766	Test Type:	Survival (96h)				Analyst:	ALC/20			
Start Date:	17 Sep-20 14:15	Protocol:	EPA/821/R-02-012 (2002)				Diluent:	Diluted Natural Seawater N/A			
Ending Date:	21 Sep-20 14:11	Species:	Menidia beryllina				Brine:	Not Applicable			
Duration:	96h	Source:	Aquatic Research Organisms, NH				Age:	10			
Sample ID:	16-6760-6392	Code:	20-1052				Client:	Cardno Hawaii			
Sample Date:	14 Sep-20 17:40	Material:	Effluent Sample				Project:	ADC Kekaha WQ Monitoring			
Receive Date:	17 Sep-20 09:45	Source:	Cardno Hawaii								
Sample Age:	69h (2.9 °C)	Station:	DW-1/WW-1								
Comparison Summary											
Analysis ID	Endpoint	NOEL	LOEL	TOEL	PMSD	TU	Method				
03-2649-3806	96h Survival Rate	100	>100	NA	10.8%	1	Wilcoxon Rank Sum Two-Sample Test				
Test Acceptability											
Analysis ID	Endpoint	Attribute		Test Stat	TAC Limits		Overlap	Decision			
03-2649-3806	96h Survival Rate	Control Resp		0.95	0.9 - NL		Yes	Passes Acceptability Criteria			
96h Survival Rate Summary											
C-%	Control Type	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
0	Lab Control	4	0.95	0.7909	1	0.8	1	0.05	0.1	10.53%	0.0%
0	Salt Control	4	0.95	0.7909	1	0.8	1	0.05	0.1	10.53%	0.0%
100		4	1	1	1	1	1	0	0	0.0%	-5.26%
96h Survival Rate Detail											
C-%	Control Type	Rep 1	Rep 2	Rep 3	Rep 4						
0	Lab Control	1	1	1	0.8						
0	Salt Control	1	1	0.8	1						
100		1	1	1	1						

CETIS Analytical Report

Report Date: 23 Sep-20 11:53 (p 1 of 1)
Test Code: 2009-S125 | 06-6648-9559

Inland Silverside 96-h Acute Survival Test							Nautilus Environmental (CA)				
Analysis ID: 03-2649-3806		Endpoint: 96h Survival Rate		CETIS Version: CETISv1.8.7							
Analyzed: 23 Sep-20 11:53		Analysis: Nonparametric-Two Sample		Official Results: Yes							
Data Transform		Zeta	Alt Hyp	Trials	Seed	PMSD	Test Result				
Angular (Corrected)		NA	C > T	NA	NA	10.8%	Passes 96h survival rate				
Wilcoxon Rank Sum Two-Sample Test											
Control	vs	C-µg/L	Test Stat	Critical	Ties	DF	P-Value	P-Type	Decision(α:5%)		
Salt Control		100	20	NA	1	6	1.0000	Exact	Non-Significant Effect		
ANOVA Table											
Source	Sum Squares		Mean Square		DF	F Stat	P-Value	Decision(α:5%)			
Between	0.007088488		0.007088488		1	1	0.3559	Non-Significant Effect			
Error	0.04253092		0.007088488		6						
Total	0.04961941				7						
Distributional Tests											
Attribute	Test		Test Stat	Critical	P-Value	Decision(α:1%)					
Variances	Mod Levene Equality of Variance		1	13.75	0.3559	Equal Variances					
Variances	Levene Equality of Variance		9	13.75	0.0240	Equal Variances					
Distribution	Shapiro-Wilk W Normality		0.7065	0.6451	0.0027	Non-normal Distribution					
96h Survival Rate Summary											
C-µg/L	Control Type	Count	Mean	95% LCL	95% UCL	Median	Min	Max	Std Err	CV%	%Effect
0	Salt Control	4	0.95	0.7909	1	1	0.8	1	0.05	10.53%	0.0%
100		4	1	1	1	1	1	1	0	0.0%	-5.26%
Angular (Corrected) Transformed Summary											
C-µg/L	Control Type	Count	Mean	95% LCL	95% UCL	Median	Min	Max	Std Err	CV%	%Effect
0	Salt Control	4	1.286	1.096	1.475	1.345	1.107	1.345	0.05953	9.26%	0.0%
100		4	1.345	1.345	1.346	1.345	1.345	1.345	0	0.0%	-4.63%
Graphics											
 96h Survival Rate 0.95 0.9 0.8 0.7 0.6 0.5 0.4 0.3 0.2 0.1 0.0 0.5C 100 C-µg/L  Centroidal Corr. Angle 0.10 0.05 0.00 -0.05 -0.10 -0.15 -0.20 -1.5 -1.0 -0.5 0.0 0.5 1.0 1.5 Rankits											

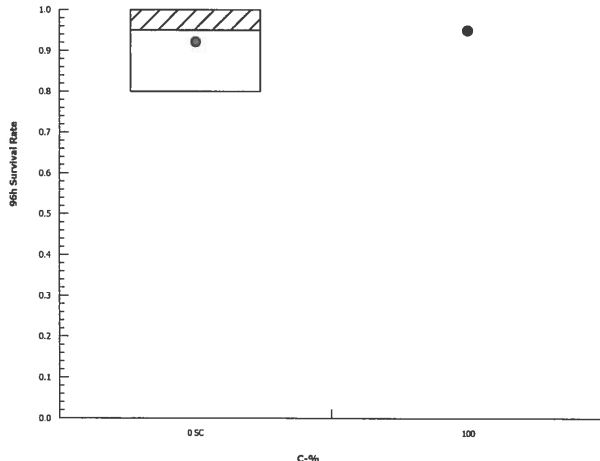
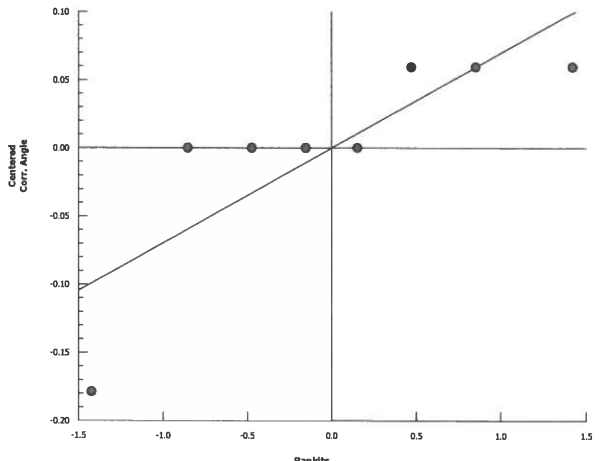
CETIS Summary Report

Report Date: 23 Sep-20 11:57 (p 1 of 1)
 Test Code: 2009-S126 | 08-8123-3194

Inland Silverside 96-h Acute Survival Test							Nautilus Environmental (CA)				
Batch ID:	21-4736-3988		Test Type:	Survival (96h)		Analyst:	Q18 AC 10/3/20				
Start Date:	17 Sep-20 14:15		Protocol:	EPA/821/R-02-012 (2002)		Diluent:	Diluted Natural Seawater N/A				
Ending Date:	21 Sep-20 14:11		Species:	Menidia beryllina		Brine:	Not Applicable				
Duration:	96h		Source:	Aquatic Research Organisms, NH		Age:	10d				
Sample ID:	13-4963-2418		Code:	20-1053		Client:	Cardno Hawaii				
Sample Date:	14 Sep-20 18:45		Material:	Effluent Sample		Project:	ADC Kekaha WQ Monitoring				
Receive Date:	17 Sep-20 09:45		Source:	Cardno Hawaii							
Sample Age:	68h (2.5 °C)		Station:	WW-2							
Comparison Summary											
Analysis ID	Endpoint	NOEL	LOEL	TOEL	PMSD	TU	Method				
17-1373-9488	96h Survival Rate	100	>100	NA	10.8%	1	Wilcoxon Rank Sum Two-Sample Test				
Test Acceptability											
Analysis ID	Endpoint	Attribute	Test Stat	TAC Limits	Overlap	Decision					
17-1373-9488	96h Survival Rate	Control Resp	0.95	0.9 - NL	Yes	Passes Acceptability Criteria					
96h Survival Rate Summary											
C-%	Control Type	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
0	Lab Control	4	0.95	0.7909	1	0.8	1	0.05	0.1	10.53%	0.0%
0	Salt Control	4	0.95	0.7909	1	0.8	1	0.05	0.1	10.53%	0.0%
100		4	1	1	1	1	1	0	0	0.0%	-5.26%
96h Survival Rate Detail											
C-%	Control Type	Rep 1	Rep 2	Rep 3	Rep 4						
0	Lab Control	1	1	1	0.8						
0	Salt Control	1	1	0.8	1						
100		1	1	1	1						

CETIS Analytical Report

Report Date: 23 Sep-20 11:57 (p 1 of 1)
Test Code: 2009-S126 | 08-8123-3194

Inland Silverside 96-h Acute Survival Test							Nautilus Environmental (CA)				
Analysis ID: 17-1373-9488		Endpoint: 96h Survival Rate		CETIS Version: CETISv1.8.7							
Analyzed: 23 Sep-20 11:57		Analysis: Nonparametric-Two Sample		Official Results: Yes							
Data Transform		Zeta	Alt Hyp	Trials	Seed	PMSD	Test Result				
Angular (Corrected)		NA	C > T	NA	NA	10.8%	Passes 96h survival rate				
Wilcoxon Rank Sum Two-Sample Test											
Control	vs	C-%	Test Stat	Critical	Ties	DF	P-Value	P-Type	Decision(α:5%)		
Salt Control		100	20	NA	1	6	1.0000	Exact	Non-Significant Effect		
ANOVA Table											
Source	Sum Squares		Mean Square		DF	F Stat	P-Value	Decision(α:5%)			
Between	0.007088488		0.007088488		1	1	0.3559	Non-Significant Effect			
Error	0.04253092		0.007088488		6						
Total	0.04961941				7						
Distributional Tests											
Attribute	Test		Test Stat	Critical	P-Value	Decision(α:1%)					
Variances	Mod Levene Equality of Variance		1	13.75	0.3559	Equal Variances					
Variances	Levene Equality of Variance		9	13.75	0.0240	Equal Variances					
Distribution	Shapiro-Wilk W Normality		0.7065	0.6451	0.0027	Non-normal Distribution					
96h Survival Rate Summary											
C-%	Control Type	Count	Mean	95% LCL	95% UCL	Median	Min	Max	Std Err	CV%	%Effect
0	Salt Control	4	0.95	0.7909	1	1	0.8	1	0.05	10.53%	0.0%
100		4	1	1	1	1	1	1	0	0.0%	-5.26%
Angular (Corrected) Transformed Summary											
C-%	Control Type	Count	Mean	95% LCL	95% UCL	Median	Min	Max	Std Err	CV%	%Effect
0	Salt Control	4	1.286	1.096	1.475	1.345	1.107	1.345	0.05953	9.26%	0.0%
100		4	1.345	1.345	1.346	1.345	1.345	1.345	0	0.0%	-4.63%
Graphics											
 											

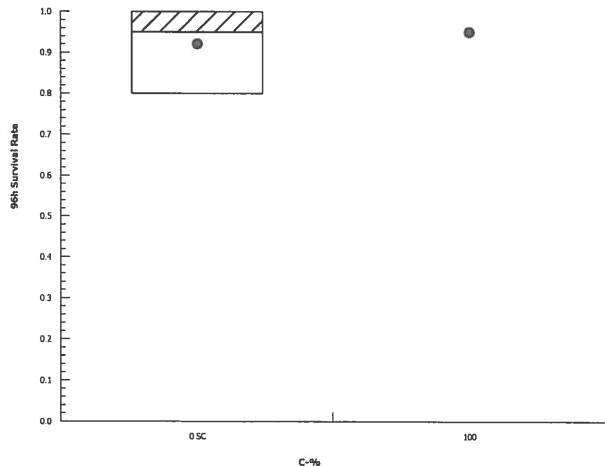
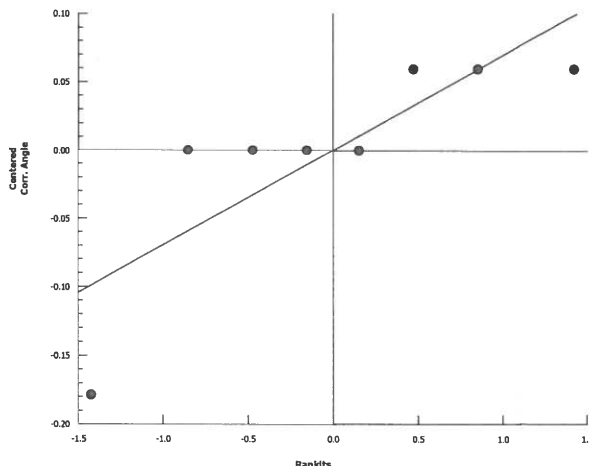
CETIS Summary Report

Report Date: 23 Sep-20 12:01 (p 1 of 1)
Test Code: 2009-S127 | 04-6472-9675

Inland Silverside 96-h Acute Survival Test						Nautilus Environmental (CA)					
Batch ID:	18-4739-5041	Test Type:	Survival (96h)	Analyst:	Q18 AC 10/3/20	Diluent:	Diluted Natural Seawater N/A	Brine:	Not Applicable	Age:	10d
Start Date:	17 Sep-20 14:15	Protocol:	EPA/821/R-02-012 (2002)	Client:	Cardno Hawaii	Project:	ADC Kekaha WQ Monitoring				
Ending Date:	21 Sep-20 14:11	Species:	Menidia beryllina								
Duration:	96h	Source:	Aquatic Research Organisms, NH								
Sample ID:	08-4312-4624	Code:	20-1054								
Sample Date:	14 Sep-20 18:25	Material:	Effluent Sample								
Receive Date:	17 Sep-20 09:45	Source:	Cardno Hawaii								
Sample Age:	68h (1.5 °C)	Station:	WW-3								
Comparison Summary											
Analysis ID	Endpoint	NOEL	LOEL	TOEL	PMSD	TU	Method				
15-6216-4706	96h Survival Rate	100	>100	NA	10.8%	1	Wilcoxon Rank Sum Two-Sample Test				
Test Acceptability											
Analysis ID	Endpoint	Attribute	Test Stat	TAC Limits	Overlap	Decision					
15-6216-4706	96h Survival Rate	Control Resp	0.95	0.9 - NL	Yes	Passes Acceptability Criteria					
96h Survival Rate Summary											
C-%	Control Type	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
0	Lab Control	4	0.95	0.7909	1	0.8	1	0.05	0.1	10.53%	0.0%
0	Salt Control	4	0.95	0.7909	1	0.8	1	0.05	0.1	10.53%	0.0%
100		4	1	1	1	1	1	0	0	0.0%	-5.26%
96h Survival Rate Detail											
C-%	Control Type	Rep 1	Rep 2	Rep 3	Rep 4						
0	Lab Control	1	1	1	0.8						
0	Salt Control	1	1	0.8	1						
100		1	1	1	1						

CETIS Analytical Report

Report Date: 23 Sep-20 12:01 (p 1 of 1)
Test Code: 2009-S127 | 04-6472-9675

Inland Silverside 96-h Acute Survival Test							Nautilus Environmental (CA)				
Analysis ID: 15-6216-4706		Endpoint: 96h Survival Rate			CETIS Version: CETISv1.8.7						
Analyzed: 23 Sep-20 12:01		Analysis: Nonparametric-Two Sample			Official Results: Yes						
Data Transform		Zeta	Alt Hyp	Trials	Seed		PMSD	Test Result			
Angular (Corrected)		NA	C > T	NA	NA		10.8%	Passes 96h survival rate			
Wilcoxon Rank Sum Two-Sample Test											
Control	vs	C-%	Test Stat	Critical	Ties	DF	P-Value	P-Type	Decision(α:5%)		
Salt Control		100	20	NA	1	6	1.0000	Exact	Non-Significant Effect		
ANOVA Table											
Source	Sum Squares		Mean Square		DF	F Stat	P-Value	Decision(α:5%)			
Between	0.007088488		0.007088488		1	1	0.3559	Non-Significant Effect			
Error	0.04253092		0.007088488		6						
Total	0.04961941				7						
Distributional Tests											
Attribute	Test		Test Stat	Critical	P-Value	Decision(α:1%)					
Variances	Mod Levene Equality of Variance		1	13.75	0.3559	Equal Variances					
Variances	Levene Equality of Variance		9	13.75	0.0240	Equal Variances					
Distribution	Shapiro-Wilk W Normality		0.7065	0.6451	0.0027	Non-normal Distribution					
96h Survival Rate Summary											
C-%	Control Type	Count	Mean	95% LCL	95% UCL	Median	Min	Max	Std Err	CV%	%Effect
0	Salt Control	4	0.95	0.7909	1	1	0.8	1	0.05	10.53%	0.0%
100		4	1	1	1	1	1	1	0	0.0%	-5.26%
Angular (Corrected) Transformed Summary											
C-%	Control Type	Count	Mean	95% LCL	95% UCL	Median	Min	Max	Std Err	CV%	%Effect
0	Salt Control	4	1.286	1.096	1.475	1.345	1.107	1.345	0.05953	9.26%	0.0%
100		4	1.345	1.345	1.346	1.345	1.345	1.345	0	0.0%	-4.63%
Graphics											
 											

Client: Cardno Hawaii

Test Species: M. beryllina

Project: ADC Kekaha WQ Monitoring

Start Date/Time: 9/17/2020 1415

Sample Log-in No.: 20-1052, 20-1053, 20-1054

End Date/Time: 9/21/2020 1411

Test No.: 2009-S122 to S124-①

2009-S125 to -S127

Tech Initials				
0	24	48	72	96
GP	NM	DM	PLGH	
RTGH		DM	PLGH	

Counts:

Readings:

Dilutions made by: HH

Concentration (%)	Rep	Number of Live Organisms					Salinity (ppt)					Temperature (°C)					Dissolved Oxygen (mg/L)					pH (units)				
		0	24	48	72	96	0	24	48	72	96	0	24	48	72	96	0	24	48	72	96	0	24	48	72	96
Lab Control	A	5	5	5	5	5	30.3	30.4	31.0	32.7	32.9	24.1	25.4	25.9	25.2	25.2	7.0	6.2	6.10	5.6	5.5	8.10	7.94	8.10	8.04	7.93
	B	5	5	5	5	5			31.3					25.2					5.7				8.02			
	C	5	5	5	5	5																				
	D	5	5	5	5	4																				
Salt Control	A	5	5	5	5	5	30.1	30.2	31.0	31.4	32.3	24.7	25.9	25.9	25.6	25.6	6.7	5.8	6.10	5.5	5.5	8.20	8.13	8.10	8.18	8.11
	B	5	5	5	5	5			30.7					25.7					5.5				8.09			
	C	5	5	4	4	4																				
	D	5	5	5	5	5																				
DW-1/WW-1	A	5	5	5	5	5	30.7	30.3	31.0	31.3	32.2	25.4	25.9	25.9	25.5	25.5	6.8	5.6	6.10	5.3	5.3	8.10	7.99	8.15	8.10	8.34
	B	5	5	5	5	5			30.7					25.9					5.5				8.20			
	C	5	5	5	5	5																				
	D	5	5	5	5	5																				
WW-2	A	5	5	5	5	5	30.3	29.8	31.0	30.5	31.0	26.0	26.0	25.9	25.6	25.5	6.8	5.6	6.10	5.4	5.4	8.10	7.91	8.14	8.10	8.37
	B	5	5	5	5	5			30.0					25.9					5.4				8.25			
	C	5	5	5	5	5																				
	D	5	5	5	5	5																				
WW-3	A	5	5	5	5	5	30.2	30.1	31.0	31.1	31.4	25.9	25.8	25.9	25.4	25.7	6.9	6.0	6.10	5.4	5.4	8.10	7.95	8.20	8.10	8.38
	B	5	5	5	5	5			30.4					25.8					5.5				8.28			
	C	5	5	5	5	5																				
	D	5	5	5	5	5																				
	A																									
	B																									
	C																									
	D																									

Initial Counts QC'd by: DM

Initiated by: GP

Environmental Chamber: A

Animal Source/Date Received: ARO/9/16/20

Age at Initiation: 10 days

Animal Acclimation Qualifiers (circle all that apply): Q22 / Q23 / Q24 / none

Comments:

i = initial reading in fresh test solution, f = final reading in test chamber prior to renewal

Organisms fed prior to initiation, circle one (y / n)

① ② ③ ④ ⑤ ⑥ ⑦ ⑧ ⑨ ⑩ ⑪ ⑫ ⑬ ⑭ ⑮ ⑯ ⑰ ⑱ ⑲ ⑳ ㉑ ㉒ ㉓ ㉔ ㉕ ㉖ ㉗ ㉘ ㉙ ㉚ ㉛ ㉜ ㉝ ㉞ ㉟ ㊱ ㊲ ㊳ ㊴ ㊵ ㊶ ㊷ ㊸ ㊹ ㊺ ㊻ ㊼ ㊽ ㊾ ㊿

Q21 Greater than 3.0°C shift while acclimating

AM: 0800 0830 0846 0850

PM: 1710

QC Check: At 9/21/2020

Final Review:

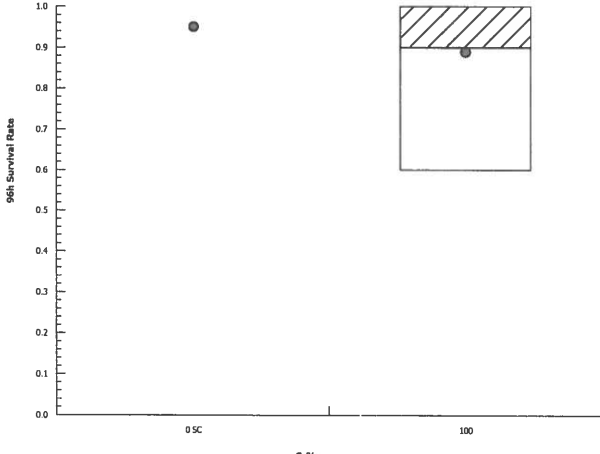
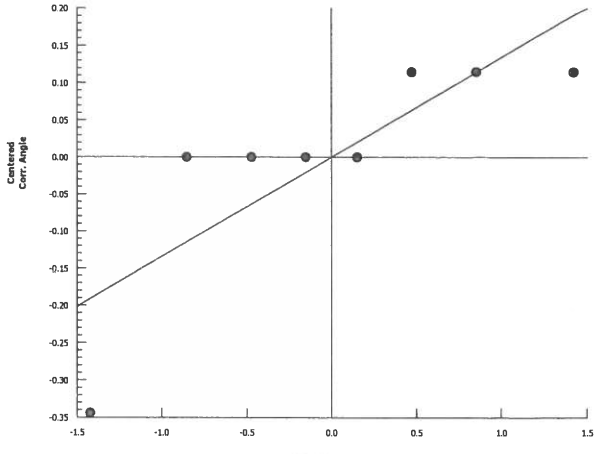
CETIS Summary Report

Report Date: 23 Sep-20 12:10 (p 1 of 1)
Test Code: 2009-S128 | 00-7515-2964

Mysid 96-h Acute Survival Test						Nautilus Environmental (CA)					
Batch ID:	16-9624-5113	Test Type:	Survival (96h)	Analyst:	018 AC 10/3/20						
Start Date:	17 Sep-20 14:20	Protocol:	EPA/821/R-02-012 (2002)	Diluent:	Diluted Natural Seawater N/A						
Ending Date:	21 Sep-20 13:55	Species:	Americamysis bahia	Brine:	Not Applicable						
Duration:	96h	Source:	Aquatic Biosystems, CO	Age:	5d						
Sample ID:	12-1310-7508	Code:	20-1052	Client:	Cardno Hawaii						
Sample Date:	14 Sep-20 17:40	Material:	Effluent Sample	Project:	ADC Kekaha WQ Monitoring						
Receive Date:	17 Sep-20 09:45	Source:	Cardno Hawaii								
Sample Age:	69h (2.9 °C)	Station:	DW-1/WW-1								
Comparison Summary											
Analysis ID	Endpoint	NOEL	LOEL	TOEL	PMSD	TU	Method				
20-3174-1887	96h Survival Rate	100	>100	NA	18.8%	1	Wilcoxon Rank Sum Two-Sample Test				
96h Survival Rate Summary											
C-%	Control Type	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
0	Lab Control	4	1	1	1	1	1	0	0	0.0%	0.0%
0	Salt Control	4	1	1	1	1	1	0	0	0.0%	0.0%
100		4	0.9	0.5818	1	0.6	1	0.1	0.2	22.22%	10.0%
96h Survival Rate Detail											
C-%	Control Type	Rep 1	Rep 2	Rep 3	Rep 4						
0	Lab Control	1	1	1	1						
0	Salt Control	1	1	1	1						
100		1	0.6	1	1						

CETIS Analytical Report

Report Date: 23 Sep-20 12:10 (p 1 of 1)
Test Code: 2009-S128 | 00-7515-2964

Mysid 96-h Acute Survival Test							Nautilus Environmental (CA)				
Analysis ID: 20-3174-1887		Endpoint: 96h Survival Rate		CETIS Version: CETISv1.8.7							
Analyzed: 23 Sep-20 12:08		Analysis: Nonparametric-Two Sample		Official Results: Yes							
Data Transform	Zeta	Alt Hyp	Trials	Seed	PMSD	Test Result					
Angular (Corrected)	NA	C > T	NA	NA	18.8%	Passes 96h survival rate					
Wilcoxon Rank Sum Two-Sample Test											
Control	vs	C-%	Test Stat	Critical	Ties	DF	P-Value	P-Type	Decision(α:5%)		
Salt Control		100	16	NA	1	6	0.5000	Exact	Non-Significant Effect		
ANOVA Table											
Source	Sum Squares		Mean Square		DF	F Stat	P-Value	Decision(α:5%)			
Between	0.02635875		0.02635875		1	1	0.3559	Non-Significant Effect			
Error	0.1581525		0.02635875		6						
Total	0.1845112				7						
Distributional Tests											
Attribute	Test		Test Stat	Critical	P-Value	Decision(α:1%)					
Variances	Mod Levene Equality of Variance		1	13.75	0.3559	Equal Variances					
Variances	Levene Equality of Variance		9	13.75	0.0240	Equal Variances					
Distribution	Shapiro-Wilk W Normality		0.7065	0.6451	0.0027	Non-normal Distribution					
96h Survival Rate Summary											
C-%	Control Type	Count	Mean	95% LCL	95% UCL	Median	Min	Max	Std Err	CV%	%Effect
0	Salt Control	4	1	1	1	1	1	1	0	0.0%	0.0%
100		4	0.9	0.5818	1	1	0.6	1	0.1	22.22%	10.0%
Angular (Corrected) Transformed Summary											
C-%	Control Type	Count	Mean	95% LCL	95% UCL	Median	Min	Max	Std Err	CV%	%Effect
0	Salt Control	4	1.345	1.345	1.346	1.345	1.345	1.345	0	0.0%	0.0%
100		4	1.23	0.8651	1.596	1.345	0.8861	1.345	0.1148	18.66%	8.53%
Graphics											
											

CETIS Summary Report

Report Date: 23 Sep-20 12:13 (p 1 of 1)
Test Code: 2009-S129 | 05-7573-7868

Mysid 96-h Acute Survival Test				Nautilus Environmental (CA)							
Batch ID:	03-1160-1167	Test Type:	Survival (96h)	Analyst:	Q18 AC 10/3/20						
Start Date:	17 Sep-20 14:20	Protocol:	EPA/821/R-02-012 (2002)	Diluent:	Diluted Natural Seawater N/A						
Ending Date:	21 Sep-20 13:55	Species:	Americamysis bahia	Brine:	Not Applicable						
Duration:	96h	Source:	Aquatic Biosystems, CO	Age:	5d						
Sample ID:	20-2302-1390	Code:	20-1053	Client:	Cardno Hawaii						
Sample Date:	14 Sep-20 18:45	Material:	Effluent Sample	Project:	ADC Kekaha WQ Monitoring						
Receive Date:	17 Sep-20 09:45	Source:	Cardno Hawaii								
Sample Age:	68h (2.5 °C)	Station:	WW-2								
Comparison Summary											
Analysis ID	Endpoint	NOEL	LOEL	TOEL	PMSD	TU	Method				
08-0222-0806	96h Survival Rate	100	>100	NA	12.4%	1	Equal Variance t Two-Sample Test				
96h Survival Rate Summary											
C-%	Control Type	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
0	Lab Control	4	1	1	1	1	1	0	0	0.0%	0.0%
0	Salt Control	4	1	1	1	1	1	0	0	0.0%	0.0%
100		4	0.9	0.7163	1	0.8	1	0.05774	0.1155	12.83%	10.0%
96h Survival Rate Detail											
C-%	Control Type	Rep 1	Rep 2	Rep 3	Rep 4						
0	Lab Control	1	1	1	1						
0	Salt Control	1	1	1	1						
100		0.8	0.8	1	1						

CETIS Analytical Report

Report Date: 23 Sep-20 12:13 (p 1 of 1)
Test Code: 2009-S129 | 05-7573-7868

Mysid 96-h Acute Survival Test					Nautilus Environmental (CA)	
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Analysis ID: 08-0222-0806	Endpoint: 96h Survival Rate	CETIS Version: CETISv1.8.7
Analyzed: 23 Sep-20 12:13	Analysis: Parametric-Two Sample	Official Results: Yes

Data Transform	Zeta	Alt Hyp	Trials	Seed	PMSD	Test Result
Angular (Corrected)	NA	C > T	NA	NA	12.4%	Passes 96h survival rate

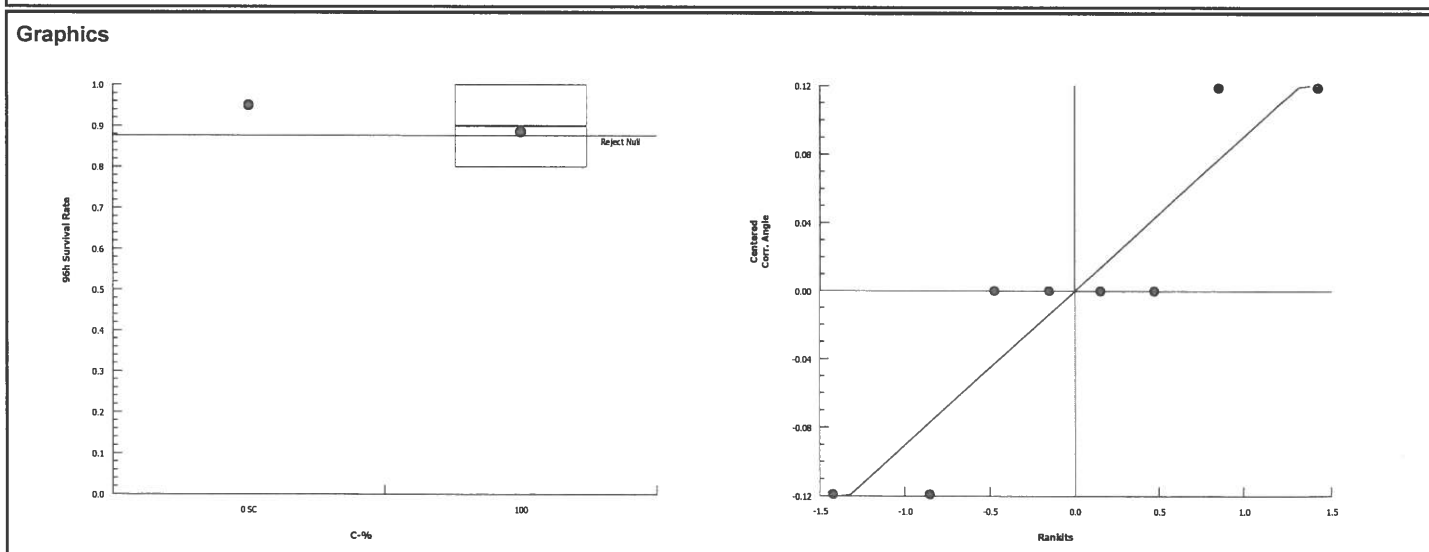
Equal Variance t Two-Sample Test									
Control	vs	C-%	Test Stat	Critical	MSD	DF	P-Value	P-Type	Decision(α:5%)
Salt Control		100	1.732	1.943	0.134	6	0.0670	CDF	Non-Significant Effect

ANOVA Table						
Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	0.02835395	0.02835395	1	3	0.1340	Non-Significant Effect
Error	0.0567079	0.009451317	6			
Total	0.08506185		7			

Distributional Tests						
Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)	
Distribution	Shapiro-Wilk W Normality	0.8489	0.6451	0.0929	Normal Distribution	

96h Survival Rate Summary											
C-%	Control Type	Count	Mean	95% LCL	95% UCL	Median	Min	Max	Std Err	CV%	%Effect
0	Salt Control	4	1	1	1	1	1	1	0	0.0%	0.0%
100		4	0.9	0.7163	1	0.9	0.8	1	0.05774	12.83%	10.0%

Angular (Corrected) Transformed Summary											
C-%	Control Type	Count	Mean	95% LCL	95% UCL	Median	Min	Max	Std Err	CV%	%Effect
0	Salt Control	4	1.345	1.345	1.346	1.345	1.345	1.345	0	0.0%	0.0%
100		4	1.226	1.007	1.445	1.226	1.107	1.345	0.06874	11.21%	8.85%



CETIS Summary Report

Report Date: 23 Sep-20 12:16 (p 1 of 1)
 Test Code: 2009-S130 | 11-0233-8342

Mysid 96-h Acute Survival Test				Nautilus Environmental (CA)							
Batch ID:	18-0832-4651	Test Type:	Survival (96h)	Analyst:	018 AC 10/3/20						
Start Date:	17 Sep-20 14:20	Protocol:	EPA/821/R-02-012 (2002)	Diluent:	Diluted Natural Seawater N/A						
Ending Date:	21 Sep-20 13:55	Species:	Americamysis bahia	Brine:	Not Applicable						
Duration:	96h	Source:	Aquatic Biosystems, CO	Age:	5d						
Sample ID:	02-8590-4100	Code:	20-1054	Client:	Cardno Hawaii						
Sample Date:	14 Sep-20 18:25	Material:	Effluent Sample	Project:	ADC Kekaha WQ Monitoring						
Receive Date:	17 Sep-20 09:45	Source:	Cardno Hawaii								
Sample Age:	68h (1.5 °C)	Station:	WW-3								
Comparison Summary											
Analysis ID	Endpoint	NOEL	LOEL	TOEL	PMSD	TU	Method				
05-3535-5257	96h Survival Rate	100	>100	NA	12.4%	1	Equal Variance t Two-Sample Test				
96h Survival Rate Summary											
C-%	Control Type	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
0	Lab Control	4	1	1	1	1	1	0	0	0.0%	0.0%
0	Salt Control	4	1	1	1	1	1	0	0	0.0%	0.0%
100		4	0.9	0.7163	1	0.8	1	0.05774	0.1155	12.83%	10.0%
96h Survival Rate Detail											
C-%	Control Type	Rep 1	Rep 2	Rep 3	Rep 4						
0	Lab Control	1	1	1	1						
0	Salt Control	1	1	1	1						
100		0.8	1	0.8	1						

CETIS Analytical Report

Report Date: 23 Sep-20 12:16 (p 1 of 1)
Test Code: 2009-S130 | 11-0233-8342

Mysid 96-h Acute Survival Test	Nautilus Environmental (CA)
--------------------------------	-----------------------------

Analysis ID: 05-3535-5257	Endpoint: 96h Survival Rate	CETIS Version: CETISv1.8.7
Analyzed: 23 Sep-20 12:16	Analysis: Parametric-Two Sample	Official Results: Yes

Data Transform	Zeta	Alt Hyp	Trials	Seed	PMSD	Test Result
Angular (Corrected)	NA	C > T	NA	NA	12.4%	Passes 96h survival rate

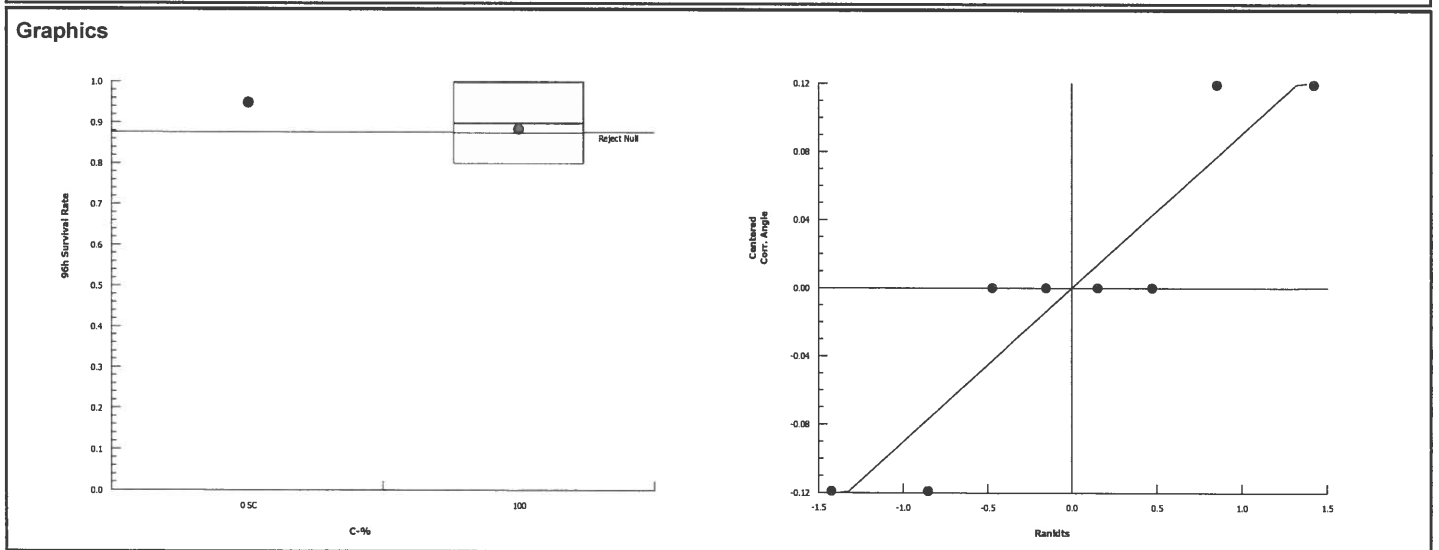
Equal Variance t Two-Sample Test									
Control	vs	C-%	Test Stat	Critical	MSD	DF	P-Value	P-Type	Decision(α:5%)
Salt Control		100	1.732	1.943	0.134	6	0.0670	CDF	Non-Significant Effect

ANOVA Table						
Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	0.02835395	0.02835395	1	3	0.1340	Non-Significant Effect
Error	0.0567079	0.009451317	6			
Total	0.08506185		7			

Distributional Tests						
Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)	
Distribution	Shapiro-Wilk W Normality	0.8489	0.6451	0.0929	Normal Distribution	

96h Survival Rate Summary											
C-%	Control Type	Count	Mean	95% LCL	95% UCL	Median	Min	Max	Std Err	CV%	%Effect
0	Salt Control	4	1	1	1	1	1	1	0	0.0%	0.0%
100		4	0.9	0.7163	1	0.9	0.8	1	0.05774	12.83%	10.0%

Angular (Corrected) Transformed Summary											
C-%	Control Type	Count	Mean	95% LCL	95% UCL	Median	Min	Max	Std Err	CV%	%Effect
0	Salt Control	4	1.345	1.345	1.346	1.345	1.345	1.345	0	0.0%	0.0%
100		4	1.226	1.007	1.445	1.226	1.107	1.345	0.06874	11.21%	8.85%



DM-001

& Test Organism Survival

Test Species: *A. bahia*

Start Date/Time: 9/17/2020 1420

Sample Log-in No.: 20-1052, 20-1053, 20-1054 End Date/Time: 9/21/2020 1355

Dilutions made by:

Tech Initials				
0	24	48	72	96
HH	NM	DM	KL	GH
RT	ST	DM	KL	GH
HH		AL		

Concentration (%)	Rep	Number of Live Organisms					Salinity (ppt)					Temperature (°C)					Dissolved Oxygen (mg/L)					pH (units)				
		0	24	48	72	96	0	24	48	72	96	0	24	48	72	96	0	24	48	72	96	0	24	48	72	96
Lab Control	A	5	5	5	5	5	30.5	30.4	31.0	31.0	31.5	24.1	25.7	26.0	25.4	25.5	7.1	6.3	6.0	5.8	5.2	8.09	7.95	8.10	8.01	7.88
	B	5	5	5	5	5			30.6					25.5					5.9					8.05		
	C	5	5	5	5	5																				
	D	5	5	5	5	5																				
Salt Control	A	5	5	5	5	5	30.2	30.1	31.0	30.4	30.0	24.8	25.9	26.0	25.7	25.8	6.7	6.0	6.0	5.5	5.2	8.24	8.12	8.10	8.14	8.07
	B	5	5	5	5	5			30.3					25.4					5.7					8.08		
	C	5	5	5	5	5																				
	D	5	5	5	5	5																				
DW-1/WW-1	A	5	5	5	5	5	30.3	30.1	31.0	30.4	30.5	25.3	25.9	26.0	25.7	25.9	6.9	5.9	6.0	5.3	5.1	7.99	8.13	8.10	8.31	8.14
100%	B	5	5	4	3	3			30.5					25.9					5.7					8.20		
	C	5	5	5	5	5			30.2																	
	D	5	5	5	5	5																				
WW-2	A	5	5	4	4	4	30.1	29.8	31.0	30.0	30.0	26.0	26.0	26.0	25.6	25.8	6.9	5.9	6.0	5.1	5.1	7.90	8.14	8.10	8.33	8.27
100%	B	5	5	4	4	4			29.9	29.9				25.9					5.6					8.24		
	C	5	5	5	5	5																				
	D	5	5	5	5	5																				
WW-3	A	5	5	5	4	4	30.5	29.9	31.0	30.6	31.1	26.0	26.0	26.0	25.3	25.5	6.9	5.7	6.0	5.8	5.8	7.97	8.17	8.10	8.38	8.31
100%	B	5	5	5	5	5			30.2					25.5					5.7					8.28		
	C	5	5	5	4	4																				
	D	5	5	5	5	5																				
	A																									
	B																									
	C																									
	D																									

Initiated by: HU

Environmental Chamber: A.

Age at Initiation: 5 days

Q22 / Q23 / Q24 / none

i = initial reading in fresh test solution, f = final reading in test chamber prior to renewal

Organisms fed prior to initiation, circle one (y) n) Q21 more than 3°C change

(A) Q18 bn 9/19/20 (C) Q18 bn 9/24/20 products of acclimation H1 9/17/20 AC10/3/20
 ACS 9/14/20 (B) Q18 KL 9/20/20 (E) Q18 KL 9/21/20 Final Review:

Final Review:

Appendix B

Sample Check-In Information

Client: Cardno Hawaii

Tests Performed: Acute Toxsmelt, Muriid, Mysid

Project: ADC Kekaha Water
Quality Monitoring

Test ID No.(s): 2009-S122 to S130

Sample ID:	1) DW-1/WW-1	2) WW-2	3) WW-3	4)
Log-in No. (20-xxxx):	1052	1053	1054	
Sample Collection Date & Time:	9/14/20 1750 ^{PPT}	9/14/20 1845 ^{PPT}	9/14/20 1825 ^{PPT}	
Sample Receipt Date & Time:	9/17/20 0945	9/17/20 0945	9/17/20 0945	
Number of Containers & Container Type:	1 4L cubi	1 4L cubi	1 4L cubi	
Approx. Total Volume Received (L):	~4L	~4L	~4L	
Check-in Temp (°C)	2.9	2.5	1.5	
Temperature OK? ¹	☒ Y ☐ N	☒ Y ☐ N	☒ Y ☐ N	☐ Y ☐ N
DO (mg/L)	8.8	8.9	9.0	
pH (units)	8.09	8.02	8.24	
Conductivity (µS/cm)	8650	6040	4720	
Salinity (ppt)	5.1	3.5	2.7	
Alkalinity (mg/L) ²	122	155	174	
Hardness (mg/L) ^{2,3}	—	—	579	
Total Chlorine (mg/L)	0.02	40.02	40.02	
Technician Initials	RT	RT	RT	

Freshwater Tests:

Control/Dilution Water Source: 8:2 Culligan Other: _____ Alkalinity: _____ Hardness: _____

Additional Control? ☐ Y ☐ N = _____ Alkalinity: _____ Hardness: _____

Marine Tests:

Control/Dilution Water Source: LAB SW ART SW Other: _____ Alkalinity: 162 Salinity: 30ppt

Additional Control? ☒ Y ☐ N = Lab Seawater Alkalinity: 108 Salinity: 30ppt

Sample Salted w/ artificial salt? ☒ Y ☐ N If yes, target ppt and source? 30ppt, Instant Ocean

Sample salted w/brine? ☐ Y ☒ N If yes, target ppt? _____

Notes ¹ Temperature for sample must be 0-6°C if received >24 hours past collection time.

² mg/L as CaCO₃, ³ Measured for freshwater samples only, NA = Not Applicable

Additional Comments Q&SPT 9/17/20

QC Check: EL 9/18/20

Sample Descriptions:

- 1) light yellow, clear, no odor, no debris
- 2) light yellow, clear, no odor, no debris
- 3) light yellow, clear, no odor, no debris
- 4)

COC Complete? ☒ Y ☐ N

Filtration? ☐ Y ☒ N

Initials: 1) _____ 2) _____ 3) _____ 4) _____

Pore Size: _____

Organisms _____ or _____ Debris

pH Adjustment? ☐ Y ☒ N

	1	2	3	4	5	6
Initial pH:						
Amount of HCl added:						
Final pH:						

Cl₂ Adjustment? ☐ Y ☒ N

	1	2	3	4	5	6
Initial Free Cl ₂ :						
STS added:						
Final Free Cl ₂ :						

Sample Aeration? ☐ Y ☒ N

	1	2	3	4	5	6
Initial D.O.						
Duration & Rate						
Final D.O.						

Subsamples For Additional Chemistry Required? ☒ Y ☐ N

NH₃ _____ Other _____

Tech Initials _____

Final Review: AC 10/3/20

Appendix C

Chain-of-Custody Form

Enthalpy Analytical - Environmental Toxicology

4340 Vandever Avenue
San Diego, CA 92120
Phone 858.587.7333
infoSD@enthalpy.com

Chain of Custody

Date 9/15/20 Page 1 of 1

Sample Collection By:							ANALYSES REQUIRED										Receipt Temperature (°C)
Report to:				Invoice To:			Same as Report to ☒			Enthalpy Matrix Codes: G = Grab C = Composite FW = Freshwater SW = Seawater Sed = Sediment STRM = Stormwater GW = Groundwater WW = Wastewater O = Other (specify) 96-hr Acute Survival 96-hr Acute Survival 96-hr Acute Survival							
Company				Company													
Address				Address													
City/State/Zip				City/State/Zip													
Contact				Contact													
Phone				Phone													
Email				Email													
SAMPLE ID	SAMPLE			MATRIX CODE	Container		COMMENTS										
	Date	Time	Type (G or C)	(FW, SW, Sed, STRM, GW, WW, O)	Type	Qty											
1 DW-1/WW-1 Toxicity	9/14/20	14:40	G	SW	2.5 Gal Plastic	1	Marine Species	X	X	X							29
2 WW-2 Toxicity	9/14/20	15:45	G	SW	2.5 Gal Plastic	1	Marine Species	X	X	X							25
3 WW-3 Toxicity	9/14/20	15:25	G	SW	2.5 Gal Plastic	1	Marine Species	X	X	X							15
4																	
5																	
6																	
7																	
8																	
9																	
10																	

PROJECT INFORMATION		SAMPLE RECEIPT		1) RELINQUISHED BY (CLIENT)		2) RECEIVED BY (COURIER)	
Project Name:	ADC Water Quality Monitoring	Total No. of Containers	3	(Signature)	(Time)	(Signature)	(Time)
PO No.:		Received Good Condition?	Y	(Printed Name)	(Date)	(Printed Name)	(Date)
Shipped Via:		Matches Test Schedule?	Y	(Company)		(Company)	

SPECIAL INSTRUCTIONS/COMMENTS:		3) RELINQUISHED BY (COURIER)		4) RECEIVED BY (LABORATORY)	
*received 1 gal plastic		(Signature)	(Time)	(Signature)	(Time)
		(Printed Name)	(Date)	(Printed Name)	(Date)
		(Company)		(Company)	(Log-in #s)

Additional costs may be required for sample disposal or storage. Payment net 30 unless otherwise contracted.
Shaded areas are for lab use only
Report turn-around-time varies depending on length of test; please inquire with your project manager.

Ⓟ Q8 RT 9/17/20

<http://enthalpy.com/environmental-toxicology-2/>

Appendix D

Qualifier Code Glossary

Glossary of Qualifier Codes:

- Q1 - Temperatures out of recommended range; corrective action taken and recorded in Test Temperature Correction Log
- Q2 - Temperatures out of recommended range; no action taken, test terminated same day
- Q3 - Sample aerated prior to initiation or renewal due to dissolved oxygen (D.O.) levels below 6.0 mg/L
- Q4 - Test aerated; D.O. levels dropped below 4.0 mg/L
- Q5 - Test initiated with aeration due to an anticipated drop in D.O.
- Q6 - Airline obstructed or fell out of replicate and replaced; drop in D.O. occurred
- Q7 - Salinity out of recommended range
- Q8 - Spilled test chamber/ Unable to recover test organism(s)
- Q9 - Inadequate sample volume remaining, 50% renewal performed
- Q10 - Inadequate sample volume remaining, no renewal performed
- Q11 - Sample out of holding time; refer to QA section of report
- Q12 - Replicate(s) not initiated; excluded from data analysis
- Q13 - Survival counts not recorded due to poor visibility or heavy debris
- Q14 - D.O. percent saturation was checked and was $\leq 110\%$
- Q15 - Did not meet minimum test acceptability criteria. Refer to QA section of report.
- Q16 - Percent minimum significant difference (PMSD) was below the lower bound limit for acceptability. This indicates that statistics may be over-sensitive in detecting a difference from the control due to low variability in the data set.
- Q17 - Percent minimum significant difference (PMSD) was above the upper bound limit for acceptability. This indicates that statistics may be under-sensitive in detecting a difference from the control due to high variability in the data set.
- Q18 - Incorrect Entry
- Q19 - Illegible Entry
- Q20 - Miscalculation
- Q21 - Other (provide reason in comments section)
- Q22 - Greater than 10% mortality observed upon receipt and/or in holding prior to test initiation. Organisms acclimated to test conditions at Nautilus and ultimately deemed fit to use for testing.
- Q23 - Test organisms received at a temperature greater than 3°C outside the recommended test temperature range. However, due to age-specific protocol requirements and/or sample holding time constraints, the organisms were used to initiate tests upon the day of arrival. Organisms were acclimated to the appropriate test conditions upon receipt and prior to test initiation.
- Q24 - Test organisms received at salinity greater than 3 ppt outside of the recommended test salinity range. However, due to age-specific protocol requirements and/or sample holding time constraints, the organisms were used to initiate tests upon the day of arrival. Organisms were acclimated to the appropriate test conditions upon receipt and prior to test initiation.

Appendix E

Reference Toxicant Test Control Charts

Pacific Topsmelt 96-h Acute Survival Test

Nautilus Environmental (CA)

Test Type: Survival (96h)

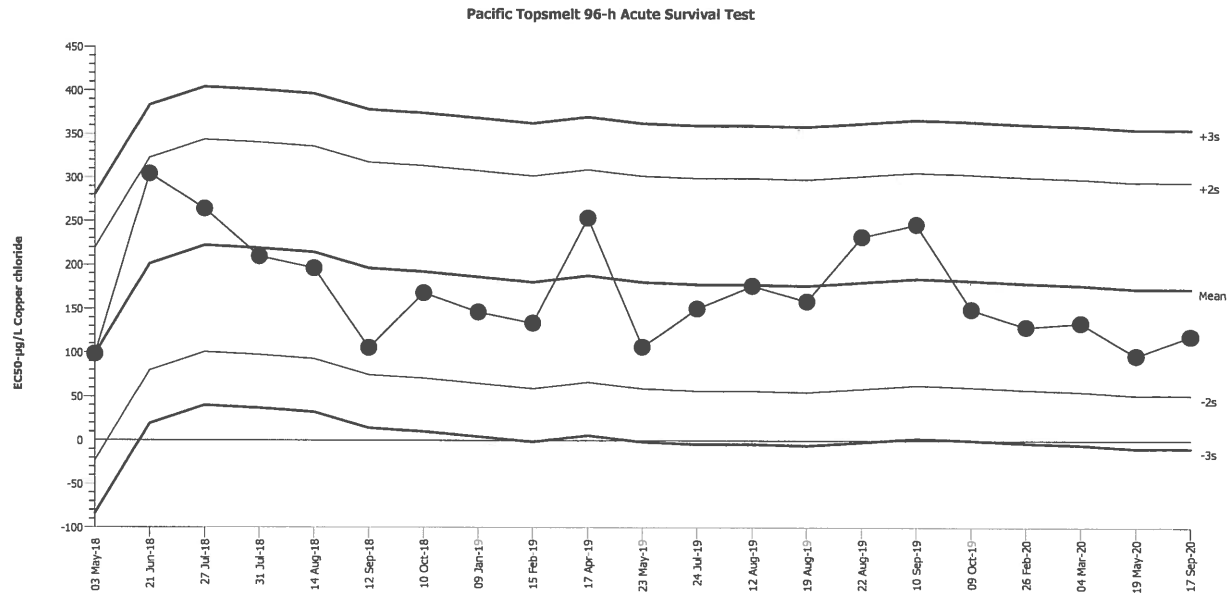
Organism: Atherinops affinis (Topsmelt)

Material: Copper chloride

Protocol: EPA/821/R-02-012 (2002)

Endpoint: 96h Survival Rate

Source: Reference Toxicant-REF



Mean: 173
Sigma: 60.68

Count: 20
CV: 35.10%

-2s Warning Limit: 51.66
+2s Warning Limit: 294.4

-3s Action Limit: -9.022
+3s Action Limit: 355.1

Quality Control Data

Point	Year	Month	Day	Time	QC Data	Delta	Sigma	Warning	Action	Test ID	Analysis ID
1	2018	May	3	11:30	98.19	-74.81	-1.233			10-2125-8586	19-5652-0046
2		Jun	21	17:15	304.1	131.1	2.16	(+)		01-0576-9762	09-0246-7639
3		Jul	27	15:45	263.9	90.9	1.498			14-8822-7369	11-4350-5971
4			31	16:30	209.6	36.59	0.603			19-5107-0005	20-6864-5330
5		Aug	14	16:00	196.4	23.38	0.3854			15-6494-9229	17-8173-7294
6		Sep	12	14:00	105.6	-67.38	-1.11			16-1211-7168	05-2683-6884
7		Oct	10	16:55	168.2	-4.821	-0.07945			03-4460-7421	02-8297-4115
8	2019	Jan	9	16:00	146.4	-26.59	-0.4382			16-8541-8400	01-0716-9806
9		Feb	15	16:10	134	-39	-0.6427			08-0425-5661	18-0762-3864
10		Apr	17	17:50	253.5	80.55	1.327			05-1475-1452	18-1058-7085
11		May	23	15:30	106.6	-66.37	-1.094			03-2154-6851	19-3512-2662
12		Jul	24	16:25	150.4	-22.59	-0.3723			02-4547-9337	03-4444-2456
13		Aug	12	16:15	176.5	3.473	0.05723			05-6999-0080	19-2452-0933
14			19	19:30	158.7	-14.26	-0.235			00-1616-6988	16-4823-3084
15			22	16:45	232	59.03	0.9727			14-6253-4066	09-6589-6472
16		Sep	10	11:15	246.2	73.23	1.207			01-3190-7470	00-5901-5932
17		Oct	9	15:40	149.6	-23.4	-0.3857			12-2483-9958	16-7314-6828
18	2020	Feb	26	15:20	129.7	-43.32	-0.7138			04-4275-3329	19-1366-8841
19		Mar	4	17:15	134.1	-38.92	-0.6414			09-0186-0501	09-2347-5750
20		May	19	17:20	96.59	-76.41	-1.259			09-8977-8612	01-6220-7123
21		Sep	17	14:25	118.9	-54.08	-0.8912			07-7701-0607	03-4458-7869

Inland Silverside 96-h Acute Survival Test

Nautilus Environmental (CA)

Test Type: Survival (96h)

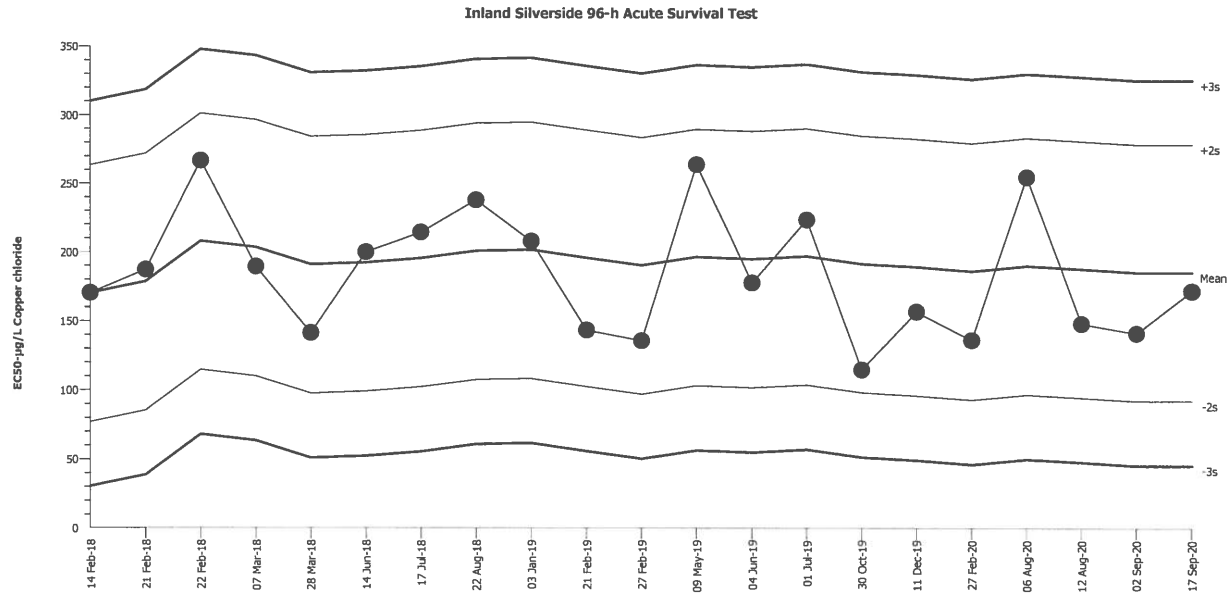
Organism: Menidia beryllina (Inland Silverside)

Material: Copper chloride

Protocol: EPA/821/R-02-012 (2002)

Endpoint: 96h Survival Rate

Source: Reference Toxicant-REF



Mean: 185.6

Count: 20

-2s Warning Limit: 92.34

-3s Action Limit: 45.7

Sigma: 46.64

CV: 25.10%

+2s Warning Limit: 278.9

+3s Action Limit: 325.5

Quality Control Data

Point	Year	Month	Day	Time	QC Data	Delta	Sigma	Warning	Action	Test ID	Analysis ID
1	2018	Feb	14	14:50	170.3	-15.33	-0.3286			14-7429-6310	14-6416-7425
2			21	12:25	187.2	1.578	0.03384			20-0148-6736	18-8740-2809
3			22	17:20	266.7	81.11	1.739			21-2244-9573	15-2512-9013
4		Mar	7	16:25	189.3	3.75	0.08039			06-3891-7579	03-5981-6406
5			28	17:15	141.4	-44.18	-0.9472			18-3798-9831	05-5342-2351
6		Jun	14	14:35	200	14.4	0.3087			01-9952-0614	00-3575-1747
7		Jul	17	14:30	214.4	28.75	0.6165			11-1445-3115	12-3693-5336
8		Aug	22	16:25	237.8	52.24	1.12			08-6172-7555	12-4329-0617
9	2019	Jan	3	16:50	207.9	22.25	0.4771			16-0506-4055	11-1190-1934
10		Feb	21	16:05	143.5	-42.12	-0.9031			10-4228-2556	08-7111-9529
11			27	16:25	135.8	-49.83	-1.068			14-0947-0420	00-4247-8099
12		May	9	19:10	263.9	78.3	1.679			03-9779-6453	09-3747-7536
13		Jun	4	14:50	177.8	-7.845	-0.1682			00-2136-1210	01-4264-5145
14		Jul	1	15:55	223.6	38.02	0.8151			04-4319-5710	17-4098-1084
15		Oct	30	14:45	114.9	-70.73	-1.517			05-0159-0485	07-6888-5964
16		Dec	11	16:30	156.9	-28.68	-0.615			11-0566-6524	14-4935-0865
17	2020	Feb	27	17:15	136.4	-49.24	-1.056			00-2639-4829	10-5059-8408
18		Aug	6	16:00	254.9	69.31	1.486			13-3377-6823	09-5433-0150
19			12	15:20	148.4	-37.24	-0.7985			02-5307-3356	11-5066-6205
20		Sep	2	15:25	141.4	-44.18	-0.9472			09-8373-9144	18-7650-2455
21			17	14:45	172	-13.64	-0.2925			07-8442-4358	02-9347-5784

Mysid 96-h Acute Survival Test

Nautilus Environmental (CA)

Test Type: Survival (96h)

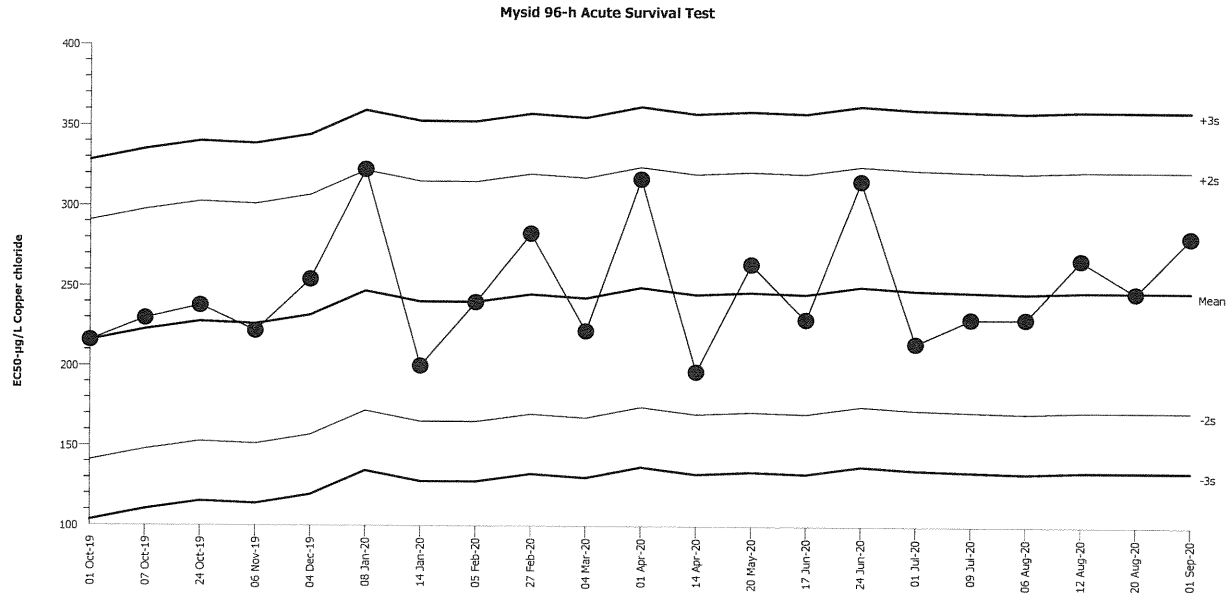
Organism: Americamysis bahia (Opossum Shri

Material: Copper chloride

Protocol: EPA/821/R-02-012 (2002)

Endpoint: 96h Survival Rate

Source: Reference Toxicant-REF



Mean: 246.8

Count: 20

-2s Warning Limit: 171.9

-3s Action Limit: 134.4

Sigma: 37.47

CV: 15.20%

+2s Warning Limit: 321.7

+3s Action Limit: 359.2

Quality Control Data

Point	Year	Month	Day	Time	QC Data	Delta	Sigma	Warning	Action	Test ID	Analysis ID
1	2019	Oct	1	16:15	215.9	-30.93	-0.8254			09-3105-4989	15-1890-0392
2			7	16:40	229.7	-17.06	-0.4553			01-4694-6675	21-1515-0056
3			24	16:05	237.8	-8.959	-0.2391			15-9416-8502	07-5114-5450
4		Nov	6	15:35	221.9	-24.89	-0.6642			08-8949-4438	11-4334-1344
5		Dec	4	16:10	254.2	7.433	0.1984			07-9043-7675	14-5867-9818
6	2020	Jan	8	15:00	322.6	75.78	2.022	(+)		08-0298-0108	00-6378-3307
7			14	17:10	200	-46.8	-1.249			09-3242-6322	15-8924-0479
8		Feb	5	15:10	239.9	-6.854	-0.1829			06-4700-0567	16-3509-2167
9			27	17:10	282.8	36.04	0.9619			16-4090-2608	06-8726-8298
10		Mar	4	16:40	221.9	-24.89	-0.6642			08-2404-4838	16-3243-0975
11		Apr	1	14:40	316.8	70.03	1.869			01-5241-6442	08-6803-0408
12			14	15:50	196.6	-50.24	-1.341			05-8944-6740	12-4161-6662
13		May	20	15:18	263.9	17.1	0.4564			17-7816-4145	16-8137-5941
14		Jun	17	17:00	229.4	-17.4	-0.4645			17-4088-0296	03-9150-0813
15			24	16:50	315.6	68.76	1.835			18-0749-6976	17-0667-6625
16		Jul	1	15:25	214.4	-32.45	-0.8659			18-2892-4402	15-7918-7101
17			9	17:20	229.7	-17.06	-0.4553			03-4895-5452	20-8273-1437
18		Aug	6	16:45	229.7	-17.06	-0.4553			12-3621-4083	04-5216-6972
19			12	15:00	266.7	19.91	0.5313			09-6865-4747	15-4661-4894
20			20	15:10	246.2	-0.5711	-0.01524			11-8933-3936	07-7149-7380
21		Sep	1	17:40	280.9	34.11	0.9105			15-1725-8445	02-3217-4494



AECOS, Inc.

45-939 Kamehameha Hwy, Suite 104 • Kaneohe, HI 96744

Telephone: (808) 234-7770 • Fax: (808) 234-7775 • aecos@aecos.com

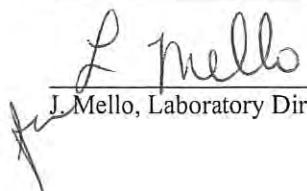
CLIENT: Cardno-GS
737 Bishop Street, Suite 3050
Honolulu HI 96813
ATTENTION: Benjamin Berridge
Benjamin.Berridge@cardno-gs.com

FILE No.: 1494
REPORT DATE: 09/17/2020
PAGE: 1 of 1

AECOS REPORT OF RESULTS

SAMPLE TYPE: water **AECOS LOG No.:** 40759
DATE SAMPLED: 09/14/2020 **DATE/TIME RECEIVED:** 09/15/2020 @0800
TEMP. CONTROL: 8.4 °C (*IR) **SAMPLER:** S. Howard
CHLORINE RESIDUAL: not provided by client **MATRIX:** water
DATE/TIME ANALYZED: 09/15/2020 @0916-0928 **ANALYST:** R. Knapstein

ANALYTE (UNITS)		Enterococcus (MPN/100ml)	Dilution Factor (10 ml / 100 ml)	Number of large positive wells	Number of small positive wells
SAMPLE ID ↓	METHOD →	SM9230D Enterolert	---	---	---
	TIME SAMPLED ↓				
DW-1 / WW-1	1440	10	10	1	0
DW-2	1211	520	10	28	8
DW-3	1304	220	10	18	0
WW-2	1545	20	10	2	0
WW-3	1525	10	10	1	0
E-1	1110	10	10	1	0
E-2	0948	150	10	12	1
E-2 Dup	0948	230	10	18	1
E-2 Blank	0948	<10	10	0	0
I-1	1500	<10	10	0	0
U-2 / WW-5	1130	170	10	13	2
U-3 / WW-4	1230	620	10	35	3
D-2	0925	300	10	19	5
D-3	1235	540	10	30	6
D-4	1326	1400	10	45	10
D-5	1347	340	10	24	2
D-6	1320	170	10	13	2
D-7	1415	300	10	21	3
D-8	1415	63	10	6	0


J. Mello, Laboratory Director



AECOS, Inc.

45-939 Kamehameha Highway Suite 104
Kaneohe, Oahu, HI 96744
Tel: (808) 234-7770 Fax: 234-7775

CHAIN OF CUSTODY FORM

PROJECT
FILE No.

LOG NUMBER

140759

CLIENT: Cardno-GS

ADDRESS: 737 Bishop St Suite 3050

Honolulu, HI 96813

CONTACT: Benjamin Berridge

benjamin.berridge@cardno-gs.com

PHONE No.: 808-476-0067

Purchase Order No.: _____

☐ RUSH

☐ SEE REVERSE

SPECIAL INSTRUCTIONS

SAMPLED

	DATE	TIME	SAMPLE TYPE	CONTAINER(S)	REQUESTED ANALYSES	PRESERVATION
1	9/14	1500	water	1 idexx	Enterococcus Idexx Enterolert	None
2			water	1 idexx	Enterococcus Idexx Enterolert	None
3	9/14	1130	water	1 idexx	Enterococcus Idexx Enterolert	None
4	9/14	1230	water	1 idexx	Enterococcus Idexx Enterolert	None
5	9/14	0925	water	1 idexx	Enterococcus Idexx Enterolert	None
6	9/14	1235	water	1 idexx	Enterococcus Idexx Enterolert	None
7	9/14	1326	water	1 idexx	Enterococcus Idexx Enterolert	None
8	9/14	1347	water	1 idexx	Enterococcus Idexx Enterolert	None
9	9/14	1320	water	1 idexx	Enterococcus Idexx Enterolert	None
10	9/14	1415	water	1 idexx	Enterococcus Idexx Enterolert	None

CLIENTS PROVIDING SAMPLES TO THE LABORATORY SHOULD COMPLETE AS MUCH OF THE ABOVE FORM AS POSSIBLE. NOTE NAME AND DATED SIGNATURE OF PERSON COLLECTING THE SAMPLE MUST BE ENTERED BELOW. INFORMATION REQUESTED IN SHADED BOXES ABOVE TO BE FILLED IN BY THE LABORATORY.

SAMPLED BY:	DATE 9/14	TIME 2025
PRINT NAME: SARAH HOWARD	DATE 9/15	TIME 0800
RELINQUISHED:		
SIGNATURE: [Signature]		
COMMENTS:		

RECEIVED BY:	DATE	TIME
SIGNATURE: [Signature]	DATE	TIME
RELINQUISHED:		
SIGNATURE: [Signature]		
PRECAUTIONS:		

RECEIVED FOR LABORATORY:	DATE	TIME
SIGNATURE: [Signature]	DATE 9/15	TIME 0800
RELINQUISHED:		
SIGNATURE: [Signature]		
DISPOSAL:		

USE (BLACK) INK

RETURN SAMPLE TO CLIENT ☐



AECOS, Inc.

45-939 Kamehameha Highway Suite 104

Kaneohe, Oahu, HI 96744

Tel: (808) 234-7770 Fax: 234-7775

CLIENT: Cardno-GS

ADDRESS: 737 Bishop St Suite 3050

Honolulu, HI 96813

CONTACT: Benjamin Berridge

benjamin.berridge@cardno-gs.com

PHONE No.: 808-476-0067

Purchase Order No.: []

CHAIN OF CUSTODY FORM

PROJECT

FILE No.

LOG NUMBER

140759 1

☐ RUSH

☐ SEE REVERSE

SPECIAL INSTRUCTIONS

SAMPLED

	☒ SAMPLE ID	DATE	TIME	SAMPLE TYPE	CONTAINER(S)	REQUESTED ANALYSES		PRESERVATION
						ENTEROCOCCUS	ENTEROLERT	
1	D-8	9/14	14:15	water	1 idexx	Enterococcus Idexx	Enterolert	None
2								
3								
4								
5								
6								
7								
8								
9								
10								

CLIENTS PROVIDING SAMPLES TO THE LABORATORY SHOULD COMPLETE AS MUCH OF THE ABOVE FORM AS POSSIBLE. NOTE NAME AND DATED SIGNATURE OF PERSON COLLECTING THE SAMPLE MUST BE ENTERED BELOW. INFORMATION REQUESTED IN SHADED BOXES ABOVE TO BE FILLED IN BY THE LABORATORY.

SAMPLED BY:

DATE 9/14

PRINT NAME

SARA HOWARD

RELINQUISHED:

DATE 9/15

SIGNATURE

[Signature]

COMMENTS

RECEIVED BY:

DATE

20

SIGNATURE

RELINQUISHED:

DATE

20

SIGNATURE

DATE

RECEIVED FOR LABORATORY:

DATE

9/15 2020

SIGNATURE

[Signature]

RELINQUISHED:

DATE

20

SIGNATURE

DATE

DISPOSAL:

RETURN SAMPLE TO CLIENT ☐

USE (BLACK) INK

Sample ID	Sample Date	Testing Date	Analyst	Method	Analyte	QT/2000 Lg Wells	QT/2000 Sm Wells	Volume	MPN	Lower	Upper
Negative Control	14/09/2020	15/09/2020	jpa	Enterolert	Enterococci	0	0	10	< 10.0	0.0	37.0
Positive Control	14/09/2020	15/09/2020	jpa	Enterolert	Enterococci	44	10	100	125.9	92.2	172.0
1-1	14/09/2020	15/09/2020	jpa	Enterolert	Enterococci	10	0	10	110.0	57.0	201.0
D-2	14/09/2020	15/09/2020	jpa	Enterolert	Enterococci	10	2	10	132.0	71.0	220.0
D-3	14/09/2020	15/09/2020	jpa	Enterolert	Enterococci	42	7	10	1017.0	725.0	1382.0
D-4	14/09/2020	15/09/2020	jpa	Enterolert	Enterococci	47	17	10	2064.0	1471.0	2831.0
D-5	14/09/2020	15/09/2020	jpa	Enterolert	Enterococci	30	3	10	487.0	338.0	680.0
D-6	14/09/2020	15/09/2020	jpa	Enterolert	Enterococci	10	1	10	121.0	65.0	211.0
D-7	14/09/2020	15/09/2020	jpa	Enterolert	Enterococci	37	5	10	733.0	522.0	1001.0
D-8	14/09/2020	15/09/2020	jpa	Enterolert	Enterococci	9	2	10	120.0	60.0	203.0
DW-1	14/09/2020	15/09/2020	jpa	Enterolert	Enterococci	4	1	10	52.0	18.0	108.0
DW-2	14/09/2020	15/09/2020	jpa	Enterolert	Enterococci	39	5	10	813.0	579.0	1114.0
DW-3	14/09/2020	15/09/2020	jpa	Enterolert	Enterococci	15	0	10	175.0	101.0	286.0
E-1	14/09/2020	15/09/2020	jpa	Enterolert	Enterococci	43	7	10	1081.0	770.0	1472.0
E-2	14/09/2020	15/09/2020	jpa	Enterolert	Enterococci	37	4	10	712.0	507.0	983.0
U-2/WW-5	14/09/2020	15/09/2020	jpa	Enterolert	Enterococci	12	8	10	228.0	149.0	342.0
U-3/WW-4	14/09/2020	15/09/2020	jpa	Enterolert	Enterococci	49	19	10	3255.0	2066.0	4981.0
WW-2	14/09/2020	15/09/2020	jpa	Enterolert	Enterococci	2	0	10	20.0	3.0	71.0
WW-3	14/09/2020	15/09/2020	jpa	Enterolert	Enterococci	3	0	10	31.0	7.0	89.0
Time In: 7:45 p.m. Time Out: 7:45 p.m. Temperature: 41oC Positive Control: https://www.idexx.com/en/water/resources/certificates-analysis-water/ https://static.idexx.com/files/coa/98-29002-00/200318.pdf *Enterococcus faecalis LOT 200211											

Sample		Testing	QT/2000 Lg		QT/2000 Sm						
Sample ID	Sample Date	Testing Date	Analyst	Method	Analyte	Wells	Wells	Volume	MPN	Lower	Upper
Negative Control	14/09/2020	16/09/2020	jpa	Enterolert	Enterococci	0	0	10	< 10.0	0.0	37.0
Positive Control	14/09/2020	16/09/2020	jpa	Enterolert	Enterococci	43	9	100	114.5	81.6	155.5
1-1	14/09/2020	16/09/2020	jpa	Enterolert	Enterococci	8	0	10	86.0	45.0	169.0
D-2	14/09/2020	16/09/2020	jpa	Enterolert	Enterococci	19	5	10	298.0	195.0	434.0
D-3	14/09/2020	16/09/2020	jpa	Enterolert	Enterococci	35	6	10	683.0	487.0	930.0
D-4	14/09/2020	16/09/2020	jpa	Enterolert	Enterococci	47	10	10	1607.0	1114.0	2264.0
D-5	14/09/2020	16/09/2020	jpa	Enterolert	Enterococci	20	2	10	275.0	175.0	412.0
D-6	14/09/2020	16/09/2020	jpa	Enterolert	Enterococci	23	1	10	313.0	205.0	460.0
D-7	14/09/2020	16/09/2020	jpa	Enterolert	Enterococci	36	3	10	657.0	455.0	903.0
D-8	14/09/2020	16/09/2020	jpa	Enterolert	Enterococci	14	0	10	257.0	168.0	377.0
DW-1/WW-9	14/09/2020	16/09/2020	jpa	Enterolert	Enterococci	0	0	10	< 10.0	0.0	37.0
DW-2	14/09/2020	16/09/2020	jpa	Enterolert	Enterococci	34	11	10	748.0	548.0	985.0
DW-3	14/09/2020	16/09/2020	jpa	Enterolert	Enterococci	19	2	10	259.0	164.0	391.0
E-1	14/09/2020	16/09/2020	jpa	Enterolert	Enterococci	27	1	10	389.0	262.0	559.0
E-2	14/09/2020	16/09/2020	jpa	Enterolert	Enterococci	15	0	10	175.0	101.0	286.0
U-2/WW-5	14/09/2020	16/09/2020	jpa	Enterolert	Enterococci	30	5	10	520.0	361.0	722.0
U-3/WW-4	14/09/2020	16/09/2020	jpa	Enterolert	Enterococci	49	18	10	3076.0	1953.0	4712.0
WW-2	14/09/2020	16/09/2020	jpa	Enterolert	Enterococci	2	0	10	20.0	3.0	71.0
WW-3	14/09/2020	16/09/2020	jpa	Enterolert	Enterococci	0	1	10	10.0	0.0	37.0
Time In:		9:15 a.m.									
Time Out (after 24 hrs):		9:15 a.m.									
Temperature:		41oC									
Positive Control:											
https://www.idexx.com/en/water/resources/certificates-analysis-water/											
https://static.idexx.com/files/coa/98-29002-00/200318.pdf											
*Enterococcus faecalis LOT 200211											