

Chain of Custody



Wet Chemistry

Total Suspended Solids Analysis

Sample Raw Data

ALPHA ANALYTICAL LABS
WET CHEMISTRY DEPARTMENT
TOTAL SUSPENDED SOLIDS

Last Change 3/4/13
File tss.xlt

2540D (PPB)

2540D

Get Samples

Save to LIMS

METHODS

Sample Number: Oven C **Product:** TSS-2540
In104 15:45 **Analyte:** Solids, Total Suspended
Client: Out 23:06 **Analysis Date:** 7/5/2016 14:20
In 0:09 **Technician:** SG
Analysis: T S S Out 2:00 **Work group:** WG910187
Method: SM 2540D **RDL:** 5.0 mg/l

3

Sample Number	Symbol	Tare Weight (gm)	Sample Volume (ml)	Net Weight(1) (gm)	Net Weight(2) (gm)	Net Weight(3) (gm)	Net Weight(4) (gm)	RDL MULT.	RESULT mg/l
BLANK	WG910187-1	324	0.4348	1000	0.4335	0.4335			0.00
DUP	WG910187-2	325	0.4325	1010	0.4451	0.4448			12.18
	L1620347-01	326	0.4341	1020	0.4495	0.4492			14.80
	L1620423-01	327	0.4352	1100	0.4355	0.4355			0.27
	L1620423-02	328	0.4336	1010	0.4849	0.4846			50.50
	L1620423-03	329	0.4338	1030	0.4410	0.4408			6.80
	L1620423-04	330	0.4346	1030	0.4590	0.4588			23.50
	L1620423-05	331	0.4329	1010	0.4440	0.4438			10.79
	L1620423-06	332	0.4339	1000	0.4449	0.4447			10.80
	L1620423-07	333	0.4349	1010	0.4417	0.4415			6.53
	L1620423-08	334	0.4292	1000	0.4396	0.4393			10.10
	L1620495-01	335	0.4301	150	0.4665	0.4661		6	240.00
	DUP-TARE:			0.44480	0.43250	0.01230			27652.88
	Sample-TARE:			0.44470	0.43390	0.01080			24286.04
	DUP weight (g) on the filter:					0.01230			
	Sample weight (g) on the filter:					0.01080			
	Ave weight (g) on the filter:					0.01155			
	DUP%:					106.5			
	Sample%:					93.5			

Work Group

ALPHA ANALYTICAL LABORATORIES, INC.

Alpha WORK GROUP REPORT (wk02)

Jul 10 2016, 11:21 am

Work Group: WG910187 for Department: 7 Wet Chemistry

Created: 05-JUL-16 Due: Operator: SG

Sample	Client ID	C Product	Matrix	Stat	UA	HOLD	DUE	PR	Location
L1620347-01	OUTFALL-1	S TSS-2540	WATER	DONE	U	0706	0708	S0	Plastic-A1
L1620423-01	OV-02_062916_SW_10	S TSS-2540	WATER	DONE	U	0706	0711	S0	Plastic-A1
L1620423-02	WQ161B-C_062916_SW_1	S TSS-2540	WATER	DONE	U	0706	0711	S0	Plastic-A1
L1620423-03	WQ2-C_063016_SW_10	S TSS-2540	WATER	DONE	U	0707	0711	S0	Plastic-A1
L1620423-04	WQ3-L_062916_SW_10	S TSS-2540	WATER	DONE	U	0706	0711	S0	Plastic-A1
L1620423-05	ES-15_062916_SW_10	S TSS-2540	WATER	DONE	U	0706	0711	S0	Plastic-A1
L1620423-06	WQ-ECH_062916_SW_10	S TSS-2540	WATER	DONE	U	0706	0711	S0	Plastic-A1
L1620423-07	WQ-FPT_062916_SW_10	S TSS-2540	WATER	DONE	U	0706	0711	S0	Plastic-A1
L1620423-08	WQ-ECH_062916_SW_10	S TSS-2540	WATER	DONE	U	0706	0711	S0	Plastic-A1
L1620495-01	OUTFALL 2	S TSS-2540	WATER	DONE	U	0706	0711	S0	Plastic-A1
WG910187-1	Laboratory Method Bl	S TSS-2540	WATER	DONE	U				
WG910187-2	Duplicate Sample	S TSS-2540	WATER	DONE	U				

Comments:

WG910187-2 L1620423-06

Organic Carbon Analysis

Sequence Logs

DATE: TUE 070516		STOCK STDS ID INFO:			WORKING STDS ID INFO:				
ANALYST: JD		LOT #'s:			LOT #'s:				
CURVE INFO:		2000 PPM CURVE SLN: TUC-050916-C			2 PPM ICV: TUC-070516-ICV				
CURVE IN USE: 050916 TUC-3		2000 PPM ICV/LCS/SPK SLN: TUC-050916-W			2 PPM LCS: TUC-070516-LCS				
		4000 PPM IC CK STD SLN: TUC-060216-			4 PPM SPK: TUC-070516-SPK				
		ZC400			10 PPM IC CK STD: TUC-070516-ZC				
POSITION	SAMPLE	DIL X	PH	COMMENTS	POSITION	SAMPLE	DIL X	PH	COMMENTS
1	DE				27	20423-GMS	1		
2	ICV 2ppm				28	-GMS	2		
3	TCM PCB				29	CCV 2ppm			
4	mb				30	CCB			
5	LCS 2ppm								
6									
7	20423.1	2	2						
8	2	2	2						
9	3	2	2	See 070516					
10	4	2	2						
11	5	2	2						
12	6	2	2						
13	7	2	2						
14	8	2	2						
15	CCV 2ppm								
16	CCB 0705								
17	20423.1 X3	1	2						
18	5	1	2						
19	5	1	2						
20	6	1	2						
21	7	1	2						
22	8	1	2						
23	-06ppm	1	2						
24	-06ppm	1	2						
25	CCV 2ppm								
26	CCB								

Sample Raw Data

ALPHA ANALYTICAL LABS
BACTERIA DEPARTMENT
 DISSOLVED ORGANIC CARBON

Last Change 03/4/13 GFF File TOC/DOC.xlt

Sample Number: _____
 Client: _____
 Analysis: **DOC**
 TOC Instrument ID: 3
 Method: EPA-9060

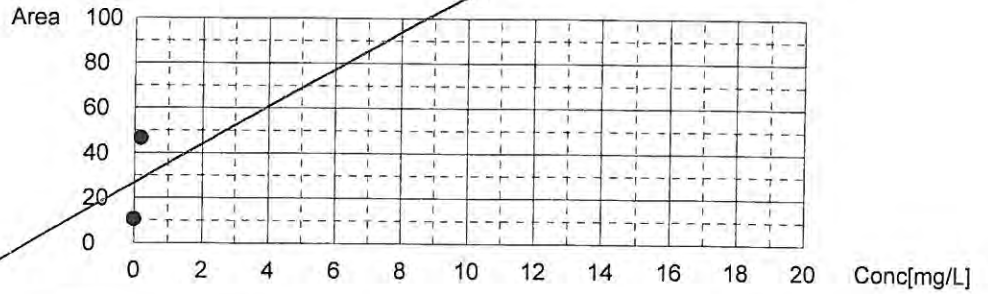
Product: **DOC-9060**
 Analyte: **Dissolved Organic Carbon,**
 Analysis Date: 7/5/2016 8:26
 Technician: dw
 Work group: wg910195
 MDL: 1.0 mg/l
 Page Number:
 Preparation Date: 7/5/2016 8:26

LCS Conc. (ppm):
 Spike Conc(ppm):

	Sample Number	COMMENTS	MDL Multiplier	RESULT mg/L	
DUP	WG910195-3		1	0.25	L1620423-06
	L1620423-01	docs ff	2	4.66	
	L1620423-02		2	3.89	
	L1620423-03		1	0.76	
	L1620423-04		1	0.41	
	L1620423-05		1	0.27	
	L1620423-06		1	0.22	
	L1620423-07		1	0.34	
	L1620423-08		1	0.24	
BLANK	WG910195-1		1	0.02	
		Sample	Spike	Spike	
		Comments	Result	Conc	Result % Rec
MS	WG910195-4		0	8	2.11 26
LCS	WG910195-2		2	2.03	102

L16204

Slope: 7632
 Intercept: -548.4
 r^2 : 0.848361
 r : 0.921065
 Zero Shift: No



Cal. Curve

Sample Name: 05092016 toc-3 curve
 Sample ID:
 Cal. Curve: 05092016 toc-3.2016_05_09_09_55_51.cal
 Status: Completed

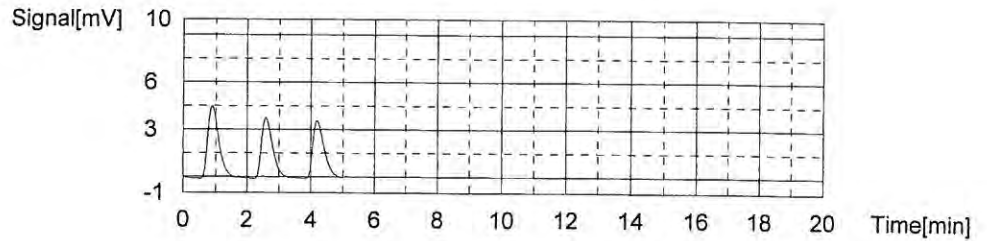
**TOC-3
 curve
 050916**

Type	Anal.
Standard	NPOC

Conc: 0.000mg/L

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	11.55	2500uL	1	*****	E	5/9/2016 10:04:29 AM
2	9.448	2500uL	1	*****		5/9/2016 10:09:05 AM
3	9.120	2500uL	1	*****		5/9/2016 10:13:42 AM

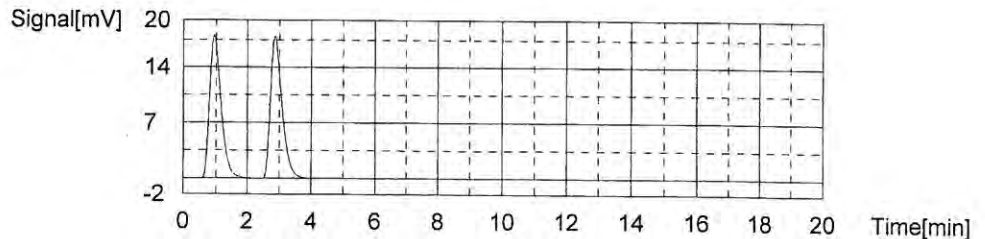
Acid Add: 3.000%
 Sp. Time: 180.0sec
 Mean Area: 9.284



Conc: 0.2000mg/L

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	46.87	2500uL	1	*****		5/9/2016 10:24:17 AM
2	46.35	2500uL	1	*****		5/9/2016 10:28:33 AM

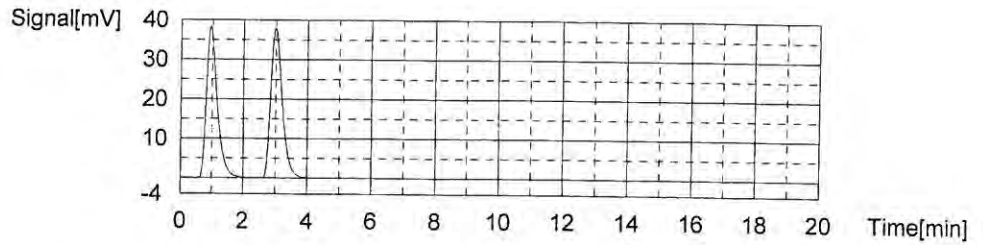
Acid Add: 3.000%
 Sp. Time: 180.0sec
 Mean Area: 46.61



Conc: 0.5000mg/L

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	98.92	2500uL	1	*****		5/9/2016 10:39:31 AM
2	96.85	2500uL	1	*****		5/9/2016 10:43:42 AM

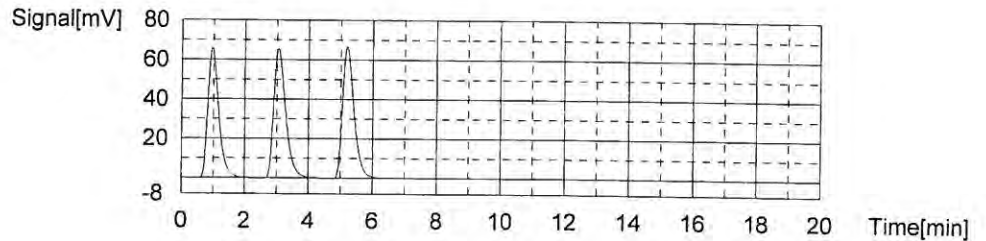
Acid Add. 3.000%
 Sp. Time 180.0sec
 Mean Area 97.89



Conc: 1.000mg/L

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	168.5	2500uL	1	*****		5/9/2016 10:54:43 AM
2	174.4	2500uL	1	*****	E	5/9/2016 10:59:04 AM
3	171.1	2500uL	1	*****		5/9/2016 11:03:17 AM

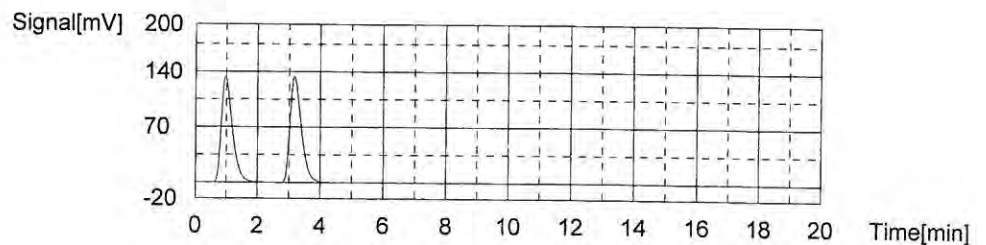
Acid Add. 3.000%
 Sp. Time 180.0sec
 Mean Area 169.8



Conc: 2.000mg/L

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	346.8	2500uL	1	*****		5/9/2016 11:14:09 AM
2	349.8	2500uL	1	*****		5/9/2016 11:18:27 AM

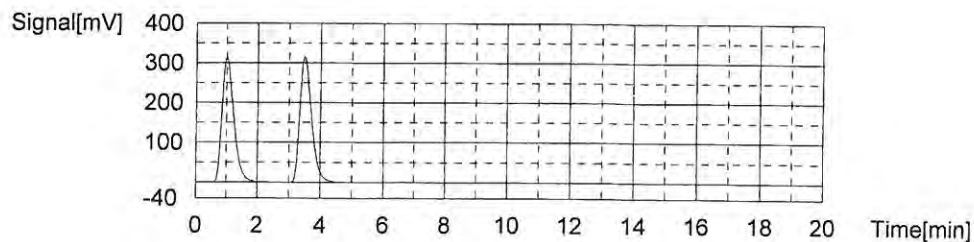
Acid Add. 3.000%
 Sp. Time 180.0sec
 Mean Area 348.3



Conc: 5.000mg/L

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	850.0	2500uL	1	*****		5/9/2016 11:29:52 AM
2	841.4	2500uL	1	*****		5/9/2016 11:34:29 AM

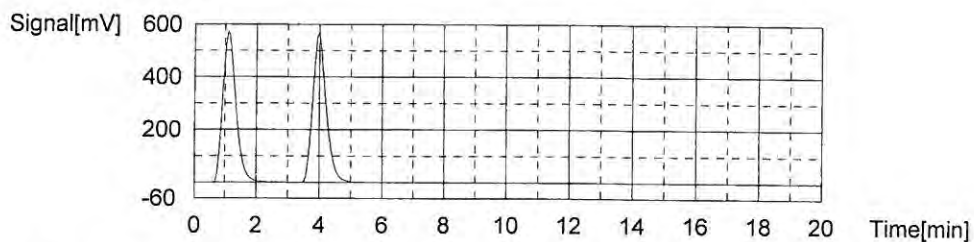
Acid Add. 3.000%
Sp. Time 180.0sec
Mean Area 845.7



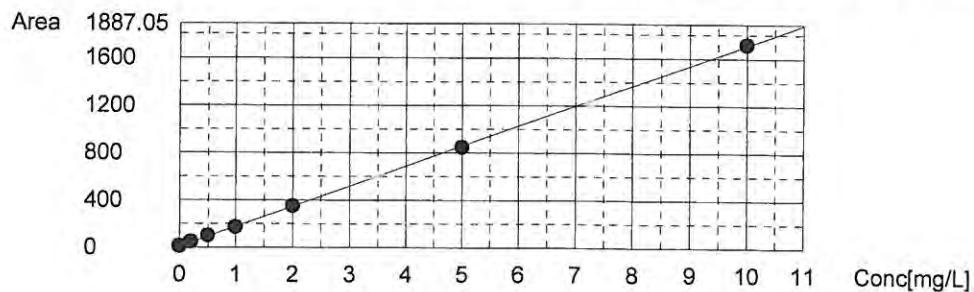
Conc: 10.00mg/L

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	1710	2500uL	1	*****		5/9/2016 11:46:16 AM
2	1721	2500uL	1	*****		5/9/2016 11:52:21 AM

Acid Add. 3.000%
Sp. Time 180.0sec
Mean Area 1716



Slope: 170.2
Intercept 7.247
 r^2 0.999863
 r 0.999932
Zero Shift No



Instr. Information

System TOC-VW
Detector Wet Chemical

Sample

Sample Name: di
Sample ID:
Origin: toc-3 4 reps method.met
Status Completed
Chk. Result

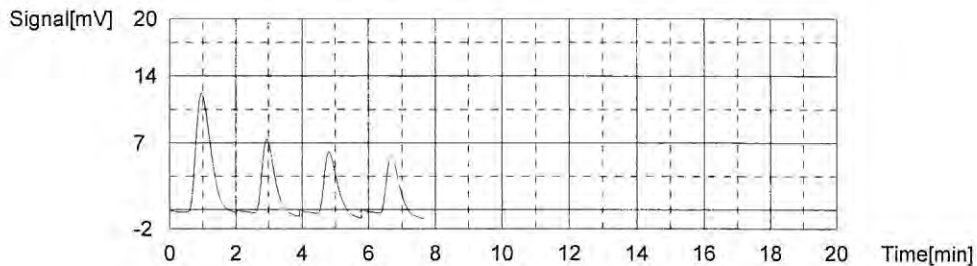
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:0.09891mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	39.46	0.1893mg/L	2500uL	1		05092016 toc-3.2016_05_09_09	7/5/2016 7:36:13 AM
2	21.49	0.08370mg/L	2500uL	1		05092016 toc-3.2016_05_09_09	7/5/2016 7:40:21 AM
3	18.29	0.06489mg/L	2500uL	1		05092016 toc-3.2016_05_09_09	7/5/2016 7:44:37 AM
4	17.08	0.05778mg/L	2500uL	1		05092016 toc-3.2016_05_09_09	7/5/2016 7:48:54 AM

Mean Area 24.08
Mean Conc. 0.09891mg/l



Sample

Sample Name: ic ck std 10ppm
Sample ID:
Origin: toc-3 4 reps method.met
Status Completed
Chk. Result

Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:0.1356mg/L

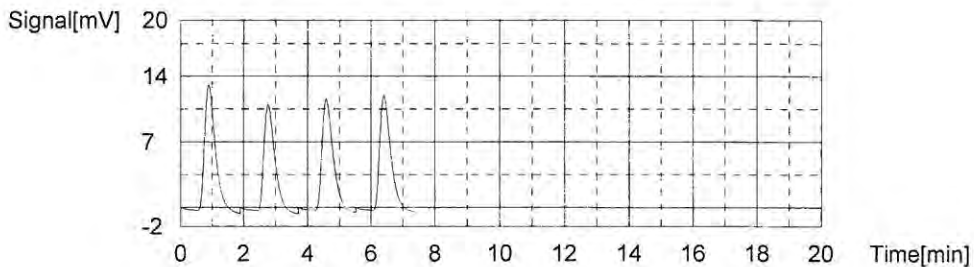


1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	33.56	0.1546mg/L	2500uL	1		05092016 toc-3.2016_05_09_09	7/5/2016 7:59:42 AM
2	27.63	0.1198mg/L	2500uL	1		05092016 toc-3.2016_05_09_09	7/5/2016 8:04:53 AM
3	29.49	0.1307mg/L	2500uL	1		05092016 toc-3.2016_05_09_09	7/5/2016 8:10:30 AM
4	30.59	0.1372mg/L	2500uL	1		05092016 toc-3.2016_05_09_09	7/5/2016 8:15:41 AM

Mean Area 30.32
 Mean Conc. 0.1356mg/L



Sample

Sample Name: icv 2ppm
 Sample ID:
 Origin: toc-3 4 reps method.met
 Status Completed
 Chk. Result

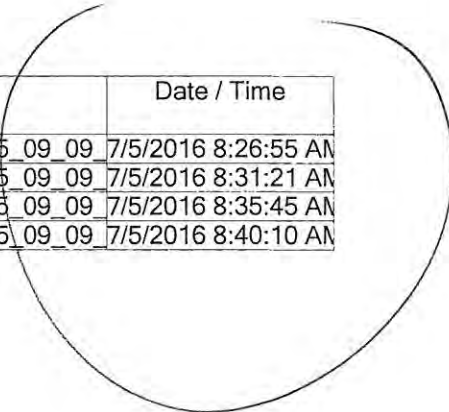
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:2.065mg/L



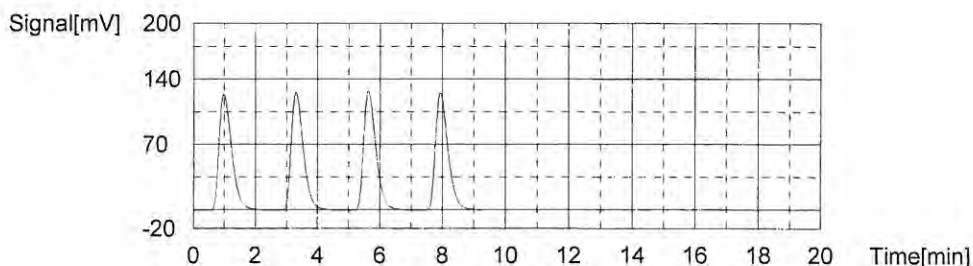
1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	361.7	2.083mg/L	2500uL	1		05092016 toc-3.2016_05_09_09	7/5/2016 8:26:55 AM
2	356.1	2.050mg/L	2500uL	1		05092016 toc-3.2016_05_09_09	7/5/2016 8:31:21 AM
3	357.1	2.056mg/L	2500uL	1		05092016 toc-3.2016_05_09_09	7/5/2016 8:35:45 AM
4	359.7	2.071mg/L	2500uL	1		05092016 toc-3.2016_05_09_09	7/5/2016 8:40:10 AM



Mean Area 358.7
Mean Conc. 2.065mg/L



Sample

Sample Name: icb
Sample ID:
Origin: toc-3 4 reps method.met
Status: Completed
Chk. Result

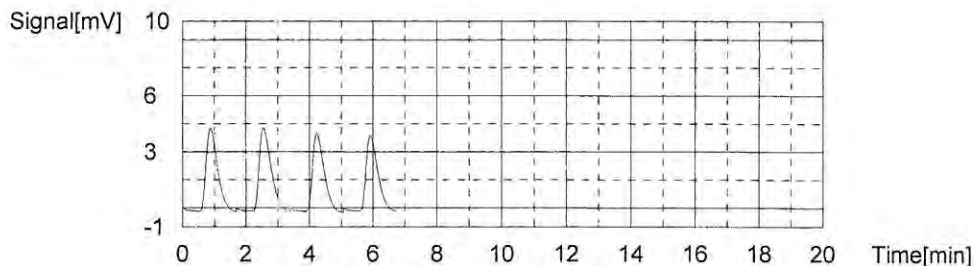
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:0.02288mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	11.66	0.02593mg/L	2500uL	1		05092016 toc-3.2016_05_09_09	7/5/2016 8:50:46 AM
2	11.70	0.02617mg/L	2500uL	1		05092016 toc-3.2016_05_09_09	7/5/2016 8:55:28 AM
3	10.79	0.02082mg/L	2500uL	1		05092016 toc-3.2016_05_09_09	7/5/2016 9:00:04 AM
4	10.41	0.01859mg/L	2500uL	1		05092016 toc-3.2016_05_09_09	7/5/2016 9:04:39 AM

Mean Area 11.14
Mean Conc. 0.02288mg/l



Sample

Sample Name: mb
 Sample ID:
 Origin: toc-3 4 reps method.met
 Status: Completed
 Chk. Result

Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:0.02341mg/L

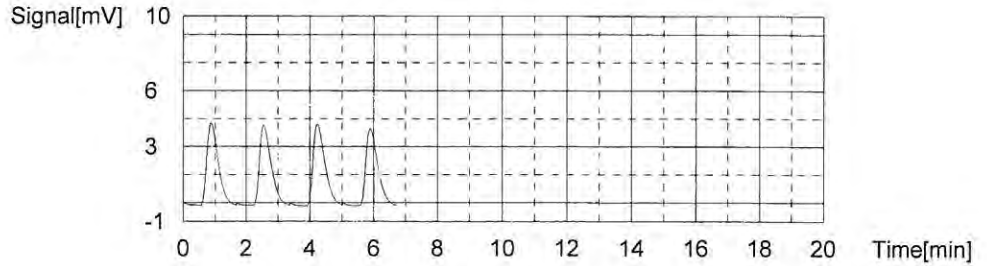
0.02

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	11.49	0.02493mg/L	2500uL	1		05092016 toc-3.2016_05_09_09	7/5/2016 9:15:15 AM
2	11.23	0.02341mg/L	2500uL	1		05092016 toc-3.2016_05_09_09	7/5/2016 9:19:52 AM
3	11.35	0.02411mg/L	2500uL	1		05092016 toc-3.2016_05_09_09	7/5/2016 9:24:25 AM
4	10.85	0.02117mg/L	2500uL	1		05092016 toc-3.2016_05_09_09	7/5/2016 9:29:03 AM

Mean Area 11.23
 Mean Conc. 0.02341mg/L



Sample

Sample Name: lcs 2ppm
 Sample ID:
 Origin: toc-3 4 reps method.met
 Status: Completed
 Chk. Result

Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:2.025mg/L

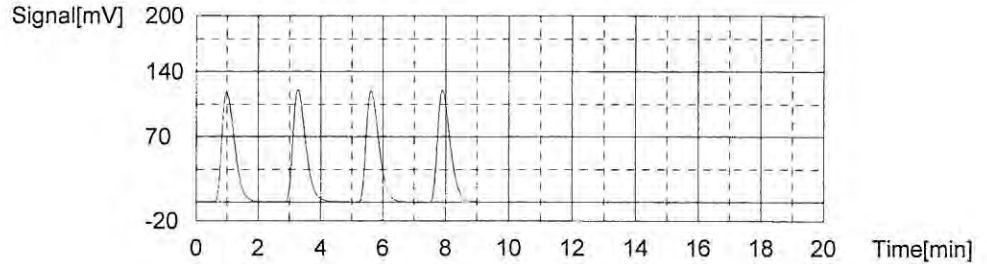
2.03

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	349.6	2.012mg/L	2500uL	1		05092016 toc-3.2016_05_09_09	7/5/2016 9:40:15 AM
2	353.7	2.036mg/L	2500uL	1		05092016 toc-3.2016_05_09_09	7/5/2016 9:44:42 AM
3	352.0	2.026mg/L	2500uL	1		05092016 toc-3.2016_05_09_09	7/5/2016 9:49:13 AM
4	352.4	2.028mg/L	2500uL	1		05092016 toc-3.2016_05_09_09	7/5/2016 9:53:39 AM

Mean Area 351.9
 Mean Conc. 2.025mg/L



Sample

Sample Name: 20423-01 2x
 Sample ID:
 Origin: toc-3 4 reps method.met
 Status: Completed
 Chk. Result

Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:2.332mg/L

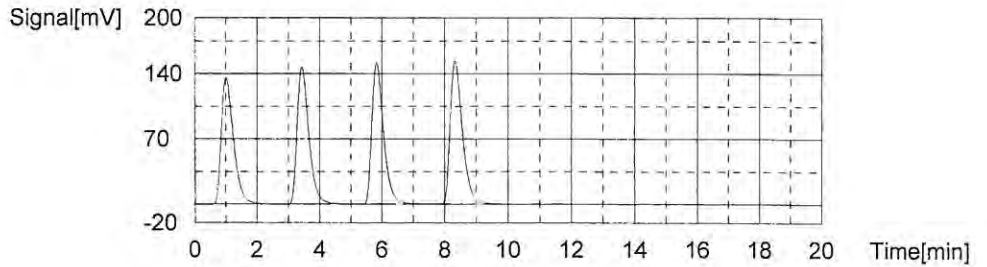
1. Det

Anal.: NPOC

*466
24*

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	383.7	2.212mg/L	2500uL	1		05092016 toc-3.2016_05_09_09	7/5/2016 10:17:47 A
2	394.7	2.277mg/L	2500uL	1		05092016 toc-3.2016_05_09_09	7/5/2016 10:22:17 A
3	411.1	2.373mg/L	2500uL	1		05092016 toc-3.2016_05_09_09	7/5/2016 10:26:53 A
4	426.6	2.464mg/L	2500uL	1		05092016 toc-3.2016_05_09_09	7/5/2016 10:31:26 A

Mean Area 404.0
 Mean Conc. 2.332mg/L



Sample

Sample Name: 20423-02 2x
 Sample ID:
 Origin: toc-3 4 reps method.met
 Status: Completed
 Chk. Result

Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:1.945mg/L

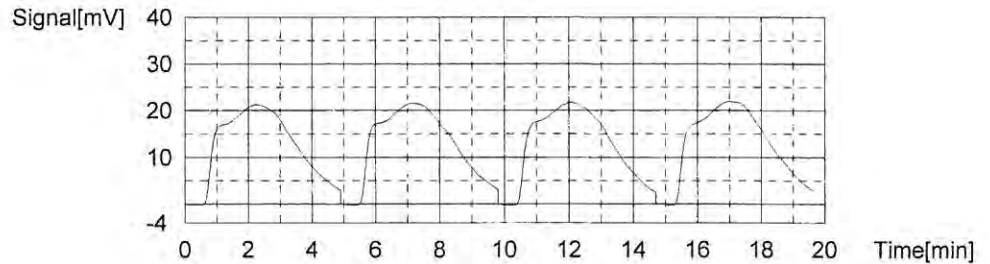
3.89
 ✓

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	325.4	1.870mg/L	2500uL	1		05092016 toc-3.2016_05_09_09	7/5/2016 10:45:15 A
2	338.0	1.944mg/L	2500uL	1		05092016 toc-3.2016_05_09_09	7/5/2016 10:52:38 A
3	343.5	1.976mg/L	2500uL	1		05092016 toc-3.2016_05_09_09	7/5/2016 11:00:37 A
4	346.0	1.991mg/L	2500uL	1		05092016 toc-3.2016_05_09_09	7/5/2016 11:07:59 A

Mean Area 338.2
 Mean Conc. 1.945mg/L



Sample

Sample Name: 20423-03 2x
 Sample ID:
 Origin: toc-3 4 reps method.met
 Status: Completed
 Chk. Result

Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:0.5299mg/L

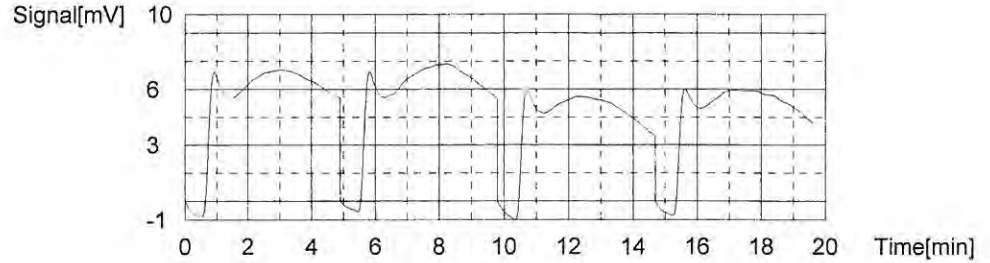
1.06
 ✓

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	99.40	0.5415mg/L	2500uL	1		05092016 toc-3.2016_05_09_09	7/5/2016 11:21:48 A
2	102.6	0.5603mg/L	2500uL	1		05092016 toc-3.2016_05_09_09	7/5/2016 11:28:48 A
3	93.68	0.5079mg/L	2500uL	1		05092016 toc-3.2016_05_09_09	7/5/2016 11:35:49 A
4	93.99	0.5097mg/L	2500uL	1		05092016 toc-3.2016_05_09_09	7/5/2016 11:43:51 A

Mean Area 97.42
 Mean Conc. 0.5299mg/L



Sample

Sample Name: 20423-04 2x
 Sample ID:
 Origin: toc-3 4 reps method.met
 Status: Completed
 Chk. Result

Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:0.2507mg/L

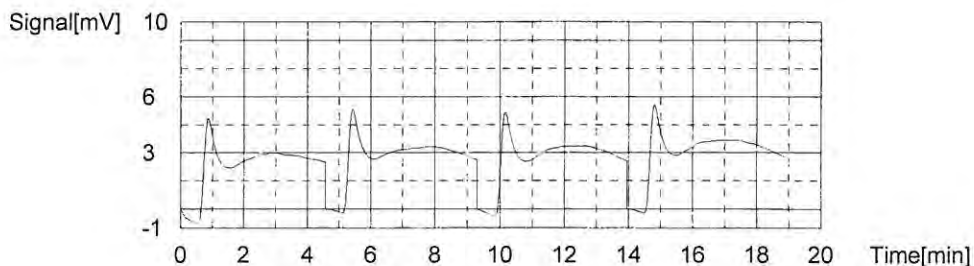
1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	45.88	0.2270mg/L	2500uL	1		05092016 toc-3.2016_05_09_09	7/5/2016 11:57:20 A
2	48.78	0.2441mg/L	2500uL	1		05092016 toc-3.2016_05_09_09	7/5/2016 12:04:10 P
3	50.24	0.2526mg/L	2500uL	1		05092016 toc-3.2016_05_09_09	7/5/2016 12:10:55 P
4	54.74	0.2791mg/L	2500uL	1		05092016 toc-3.2016_05_09_09	7/5/2016 12:17:55 P

Handwritten note:
 0.50
 24

Mean Area 49.91
Mean Conc. 0.2507mg/L



Sample

Sample Name: 20423-05 2x
Sample ID:
Origin: toc-3 4 reps method.met
Status: Completed
Chk. Result

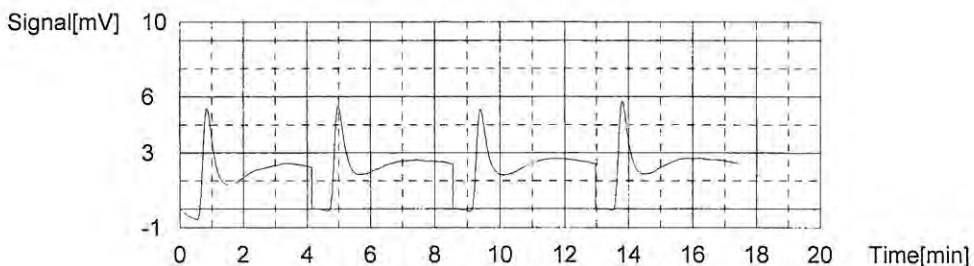
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:0.1447mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	29.81	0.1326mg/L	2500uL	1		05092016 toc-3.2016_05_09_09	7/5/2016 12:30:58 P
2	31.79	0.1442mg/L	2500uL	1		05092016 toc-3.2016_05_09_09	7/5/2016 12:37:29 P
3	32.57	0.1488mg/L	2500uL	1		05092016 toc-3.2016_05_09_09	7/5/2016 12:44:00 P
4	33.35	0.1534mg/L	2500uL	1		05092016 toc-3.2016_05_09_09	7/5/2016 12:50:32 P

Mean Area 31.88
Mean Conc. 0.1447mg/L



Sample

0.29
2+

Sample Name: 20423-06 2x
 Sample ID:
 Origin: toc-3 4 reps method.met
 Status: Completed
 Chk. Result

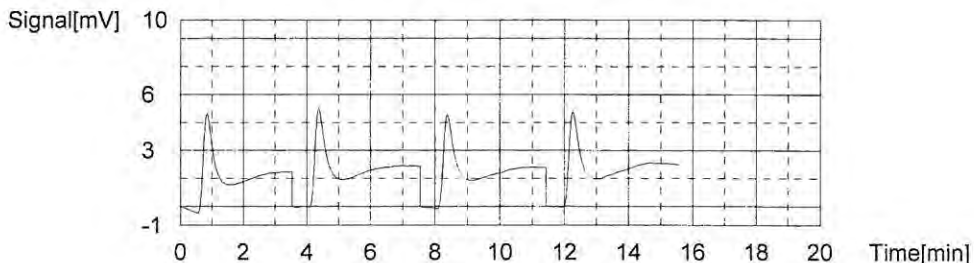
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:0.08469mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	19.02	0.06918mg/L	2500uL	1		05092016 toc-3.2016_05_09_09	7/5/2016 1:02:59 PM
2	22.47	0.08945mg/L	2500uL	1		05092016 toc-3.2016_05_09_09	7/5/2016 1:09:05 PM
3	21.28	0.08246mg/L	2500uL	1		05092016 toc-3.2016_05_09_09	7/5/2016 1:15:04 PM
4	23.87	0.09768mg/L	2500uL	1		05092016 toc-3.2016_05_09_09	7/5/2016 1:21:19 PM

Mean Area 21.66
 Mean Conc. 0.08469mg/L



0.17
2

Sample

Sample Name: 20423-07 2x
 Sample ID:
 Origin: toc-3 4 reps method.met
 Status: Completed
 Chk. Result

Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:0.2110mg/L

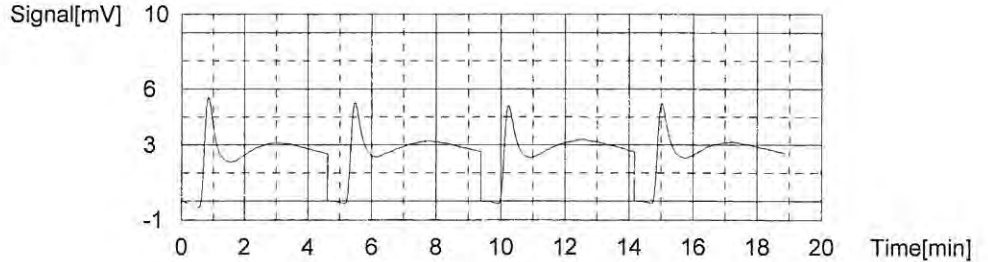
1. Det

Anal.: NPOC

0.42
2

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	42.89	0.2094mg/L	2500uL	1		05092016 toc-3.2016_05_09_09	7/5/2016 1:34:51 PM
2	43.66	0.2140mg/L	2500uL	1		05092016 toc-3.2016_05_09_09	7/5/2016 1:41:43 PM
3	43.97	0.2158mg/L	2500uL	1		05092016 toc-3.2016_05_09_09	7/5/2016 1:48:36 PM
4	42.13	0.2050mg/L	2500uL	1		05092016 toc-3.2016_05_09_09	7/5/2016 1:55:22 PM

Mean Area 43.16
 Mean Conc. 0.2110mg/L



Sample

Sample Name: 20423-08 2x
 Sample ID:
 Origin: toc-3 4 reps method.met
 Status: Completed
 Chk. Result

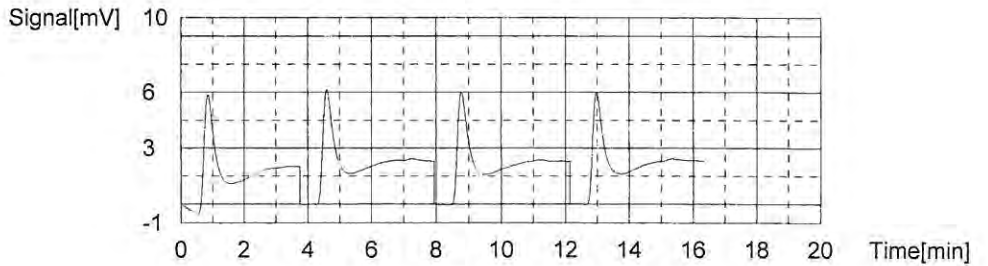
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:0.1127mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	23.32	0.09445mg/L	2500uL	1		05092016 toc-3.2016_05_09_09	7/5/2016 2:08:02 PM
2	27.87	0.1212mg/L	2500uL	1		05092016 toc-3.2016_05_09_09	7/5/2016 2:14:19 PM
3	26.99	0.1160mg/L	2500uL	1		05092016 toc-3.2016_05_09_09	7/5/2016 2:20:37 PM
4	27.55	0.1193mg/L	2500uL	1		05092016 toc-3.2016_05_09_09	7/5/2016 2:26:55 PM

Mean Area 26.43
 Mean Conc. 0.1127mg/L



Handwritten note: 0.23
 20

Sample

Sample Name: ccv 2ppm
 Sample ID:
 Origin: toc-3 4 reps method.met
 Status: Completed
 Chk. Result

Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:1.959mg/L

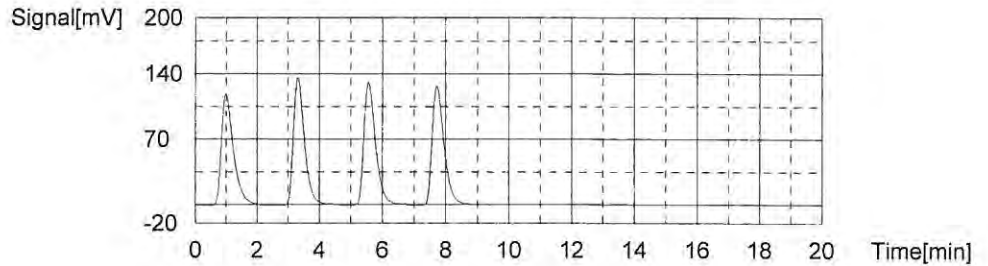


1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	336.0	1.932mg/L	2500uL	1		05092016 toc-3.2016_05_09_09	7/5/2016 3:04:11 PM
2	343.9	1.978mg/L	2500uL	1		05092016 toc-3.2016_05_09_09	7/5/2016 3:08:32 PM
3	340.9	1.961mg/L	2500uL	1		05092016 toc-3.2016_05_09_09	7/5/2016 3:12:47 PM
4	341.9	1.966mg/L	2500uL	1		05092016 toc-3.2016_05_09_09	7/5/2016 3:17:14 PM

Mean Area 340.7
 Mean Conc. 1.959mg/L



Sample

Sample Name: ccb
 Sample ID:
 Origin: toc-3 4 reps method.met
 Status: Completed
 Chk. Result

Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:0.01121mg/L

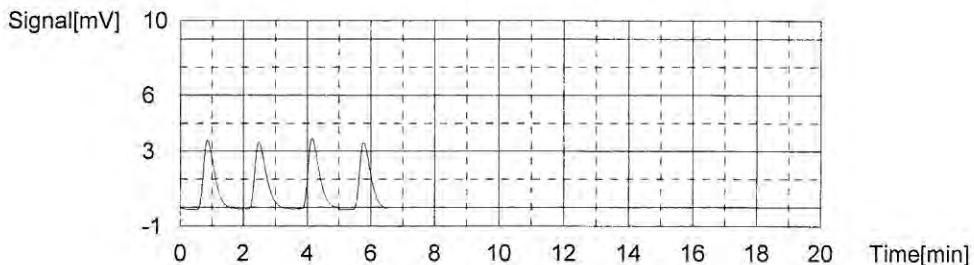


1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	9.355	0.01239mg/L	2500uL	1		05092016 toc-3.2016_05_09_09	7/5/2016 3:27:48 PM
2	9.093	0.01085mg/L	2500uL	1		05092016 toc-3.2016_05_09_09	7/5/2016 3:32:22 PM
3	9.400	0.01265mg/L	2500uL	1		05092016 toc-3.2016_05_09_09	7/5/2016 3:36:53 PM
4	8.771	0.00896mg/L	2500uL	1		05092016 toc-3.2016_05_09_09	7/5/2016 3:41:22 PM

Mean Area 9.155
 Mean Conc. 0.01121mg/L



Sample

Sample Name: 20423-03 1x
 Sample ID:
 Origin: toc-3 4 reps method.met
 Status: Completed
 Chk. Result

Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:0.7610mg/L

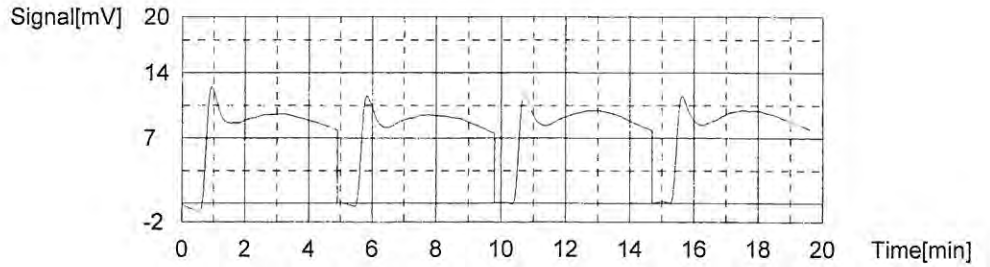
0.76
 17

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	142.8	0.7965mg/L	2500uL	1		05092016 toc-3.2016_05_09_09	7/5/2016 3:55:13 PM
2	135.7	0.7548mg/L	2500uL	1		05092016 toc-3.2016_05_09_09	7/5/2016 4:03:12 PM
3	134.7	0.7489mg/L	2500uL	1		05092016 toc-3.2016_05_09_09	7/5/2016 4:11:14 PM
4	133.8	0.7436mg/L	2500uL	1		05092016 toc-3.2016_05_09_09	7/5/2016 4:19:18 PM

Mean Area 136.8
Mean Conc. 0.7610mg/L



Sample

Sample Name: 20423-04 1x
Sample ID:
Origin: toc-3 4 reps method.met
Status Completed
Chk. Result

Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:0.4068mg/L

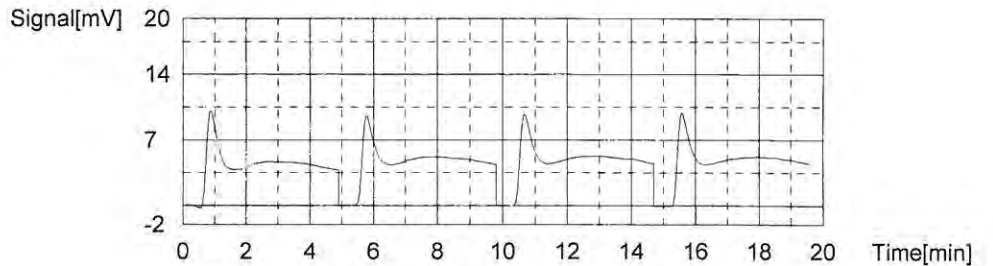
0.41
67

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	75.11	0.3988mg/L	2500uL	1		05092016 toc-3.2016_05_09_09	7/5/2016 4:33:08 PM
2	76.00	0.4040mg/L	2500uL	1		05092016 toc-3.2016_05_09_09	7/5/2016 4:40:07 PM
3	77.04	0.4101mg/L	2500uL	1		05092016 toc-3.2016_05_09_09	7/5/2016 4:47:08 PM
4	77.76	0.4143mg/L	2500uL	1		05092016 toc-3.2016_05_09_09	7/5/2016 4:54:08 PM

Mean Area 76.48
Mean Conc. 0.4068mg/L



Sample

Sample Name: 20423-05 1x
 Sample ID:
 Origin: toc-3 4 reps method.met
 Status: Completed
 Chk. Result

Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:0.2650mg/L

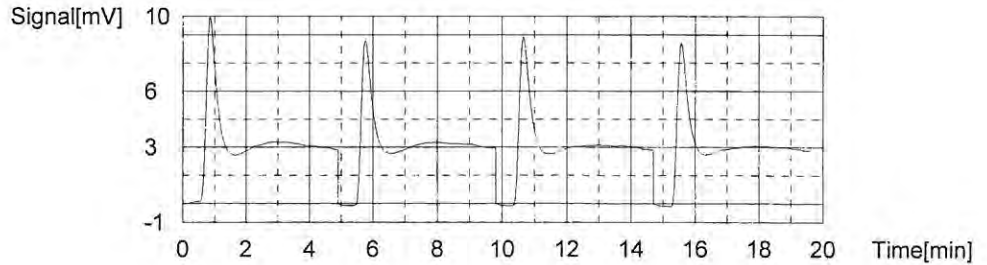
0.27
 6+

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	52.94	0.2685mg/L	2500uL	1		05092016 toc-3.2016_05_09_09	7/5/2016 5:07:56 PM
2	52.56	0.2663mg/L	2500uL	1		05092016 toc-3.2016_05_09_09	7/5/2016 5:14:57 PM
3	52.32	0.2649mg/L	2500uL	1		05092016 toc-3.2016_05_09_09	7/5/2016 5:21:57 PM
4	51.58	0.2605mg/L	2500uL	1		05092016 toc-3.2016_05_09_09	7/5/2016 5:28:57 PM

Mean Area 52.35
 Mean Conc. 0.2650mg/L



Sample

Sample Name: 20423-06 1x
 Sample ID:
 Origin: toc-3 4 reps method.met
 Status: Completed
 Chk. Result

Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:0.2225mg/L

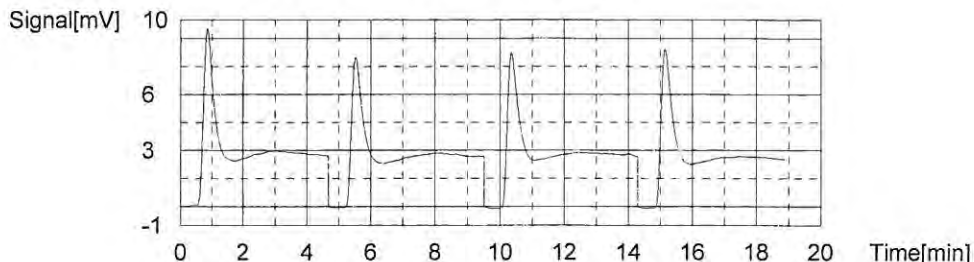
0.22
 6+

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	46.43	0.2302mg/L	2500uL	1		05092016 toc-3.2016_05_09_09	7/5/2016 5:42:32 PM
2	43.66	0.2140mg/L	2500uL	1		05092016 toc-3.2016_05_09_09	7/5/2016 5:49:28 PM
3	47.28	0.2352mg/L	2500uL	1		05092016 toc-3.2016_05_09_09	7/5/2016 5:56:21 PM
4	43.06	0.2104mg/L	2500uL	1		05092016 toc-3.2016_05_09_09	7/5/2016 6:03:02 PM

Mean Area 45.11
 Mean Conc. 0.2225mg/L



Sample

Sample Name: 20423-07 1x
 Sample ID:
 Origin: toc-3 4 reps method.met
 Status: Completed
 Chk. Result

Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:0.3352mg/L

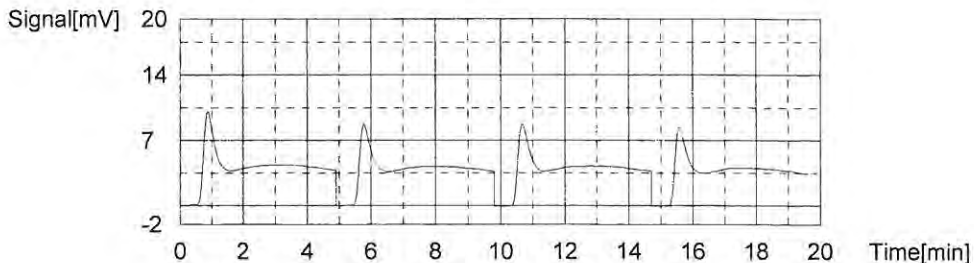
0.34
 4

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	66.59	0.3487mg/L	2500uL	1		05092016 toc-3.2016_05_09_09	7/5/2016 6:16:52 PM
2	63.59	0.3311mg/L	2500uL	1		05092016 toc-3.2016_05_09_09	7/5/2016 6:23:52 PM
3	63.99	0.3334mg/L	2500uL	1		05092016 toc-3.2016_05_09_09	7/5/2016 6:30:52 PM
4	62.96	0.3274mg/L	2500uL	1		05092016 toc-3.2016_05_09_09	7/5/2016 6:37:52 PM

Mean Area 64.28
 Mean Conc. 0.3352mg/L



Sample

Sample Name: 20423-08 1x
 Sample ID:
 Origin: toc-3 4 reps method.met
 Status: Completed
 Chk. Result

0.24
1x

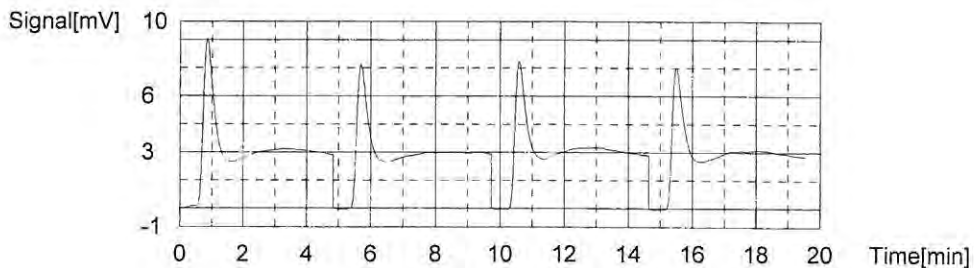
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:0.2403mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	48.67	0.2434mg/L	2500uL	1		05092016 toc-3.2016_05_09_09	7/5/2016 6:51:37 PM
2	44.81	0.2207mg/L	2500uL	1		05092016 toc-3.2016_05_09_09	7/5/2016 6:58:37 PM
3	50.98	0.2570mg/L	2500uL	1		05092016 toc-3.2016_05_09_09	7/5/2016 7:05:37 PM
4	48.08	0.2399mg/L	2500uL	1		05092016 toc-3.2016_05_09_09	7/5/2016 7:12:37 PM

Mean Area 48.14
 Mean Conc. 0.2403mg/L



Sample

Sample Name: 20423-06 dup
 Sample ID:
 Origin: toc-3 4 reps method.met
 Status: Completed
 Chk. Result

Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:0.2537mg/L

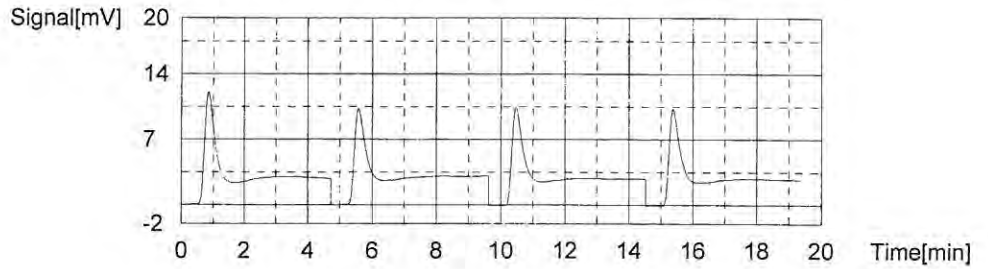
0.25
1x

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	51.94	0.2626mg/L	2500uL	1		05092016 toc-3.2016_05_09_09	7/5/2016 7:51:22 PM
2	49.03	0.2455mg/L	2500uL	1		05092016 toc-3.2016_05_09_09	7/5/2016 7:58:22 PM
3	50.91	0.2566mg/L	2500uL	1		05092016 toc-3.2016_05_09_09	7/5/2016 8:05:22 PM
4	49.83	0.2502mg/L	2500uL	1		05092016 toc-3.2016_05_09_09	7/5/2016 8:12:17 PM

Mean Area 50.43
 Mean Conc. 0.2537mg/L



Sample

Sample Name: 20423-06 ms
 Sample ID:
 Origin: toc-3 4 reps method.met
 Status: Completed
 Chk. Result

Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:0.5474mg/L

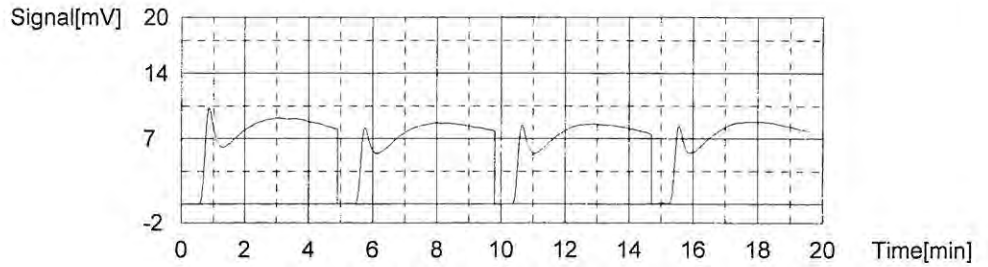
1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	109.0	0.5979mg/L	2500uL	1		05092016 toc-3.2016_05_09_09	7/5/2016 8:26:06 PM
2	96.31	0.5233mg/L	2500uL	1		05092016 toc-3.2016_05_09_09	7/5/2016 8:34:11 PM
3	97.72	0.5316mg/L	2500uL	1		05092016 toc-3.2016_05_09_09	7/5/2016 8:41:11 PM
4	98.56	0.5366mg/L	2500uL	1		05092016 toc-3.2016_05_09_09	7/5/2016 8:49:17 PM

(Handwritten note: 0.55 IT)

Mean Area 100.4
Mean Conc. 0.5474mg/L



Sample

Sample Name: ccv 2ppm
Sample ID:
Origin: toc-3 4 reps method.met
Status Completed
Chk. Result

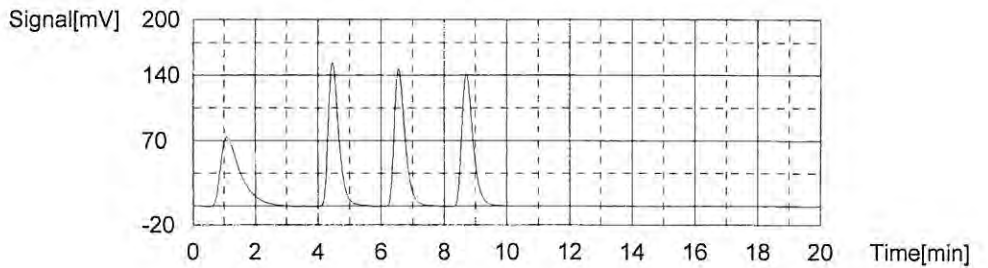
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:2.048mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	343.5	1.976mg/L	2500uL	1		05092016 toc-3.2016_05_09_09	7/5/2016 9:01:43 PM
2	360.8	2.078mg/L	2500uL	1		05092016 toc-3.2016_05_09_09	7/5/2016 9:05:54 PM
3	359.6	2.070mg/L	2500uL	1		05092016 toc-3.2016_05_09_09	7/5/2016 9:10:15 PM
4	359.3	2.069mg/L	2500uL	1		05092016 toc-3.2016_05_09_09	7/5/2016 9:14:36 PM

Mean Area 355.8
Mean Conc. 2.048mg/L



Sample

Sample Name: ccb
 Sample ID:
 Origin: toc-3 4 reps method.met
 Status Completed
 Chk. Result

Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:0.01936mg/L

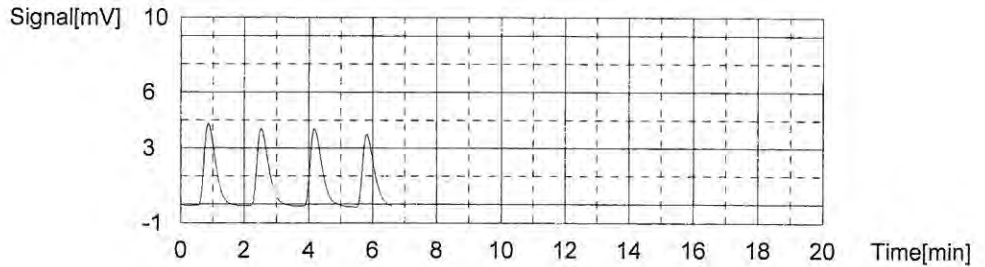
J

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	11.21	0.02329mg/L	2500uL	1		05092016 toc-3.2016_05_09_09	7/5/2016 9:25:12 PM
2	10.49	0.01906mg/L	2500uL	1		05092016 toc-3.2016_05_09_09	7/5/2016 9:29:48 PM
3	10.51	0.01917mg/L	2500uL	1		05092016 toc-3.2016_05_09_09	7/5/2016 9:34:22 PM
4	9.957	0.01593mg/L	2500uL	1		05092016 toc-3.2016_05_09_09	7/5/2016 9:38:58 PM

Mean Area 10.54
 Mean Conc. 0.01936mg/L



Sample

Sample Name: 20423-6 ms conf
 Sample ID:
 Origin: toc-3 4 reps method.met
 Status Completed
 Chk. Result

Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:0.5470mg/L

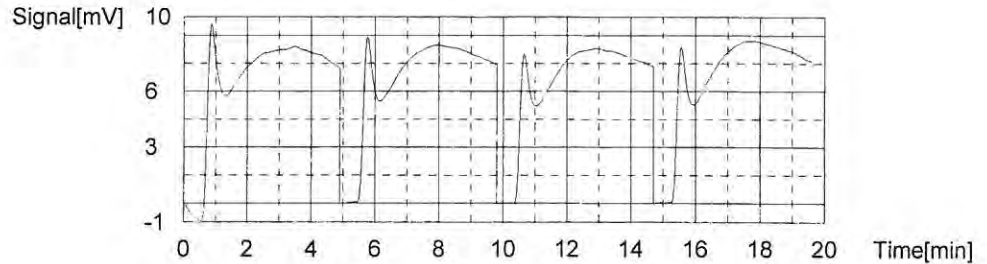
(Handwritten note: 0.535 1x)

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	112.0	0.6155mg/L	2500uL	1		05092016 toc-3.2016_05_09_09	7/5/2016 10:12:12 P
2	97.95	0.5330mg/L	2500uL	1		05092016 toc-3.2016_05_09_09	7/5/2016 10:20:14 P
3	93.59	0.5074mg/L	2500uL	1		05092016 toc-3.2016_05_09_09	7/5/2016 10:28:18 P
4	97.81	0.5322mg/L	2500uL	1		05092016 toc-3.2016_05_09_09	7/5/2016 10:36:23 P

Mean Area 100.3
 Mean Conc. 0.5470mg/L



Sample

Sample Name: 20423-6 ms 2x
 Sample ID:
 Origin: toc-3 4 reps method.met
 Status: Completed
 Chk. Result

Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:1.055mg/L

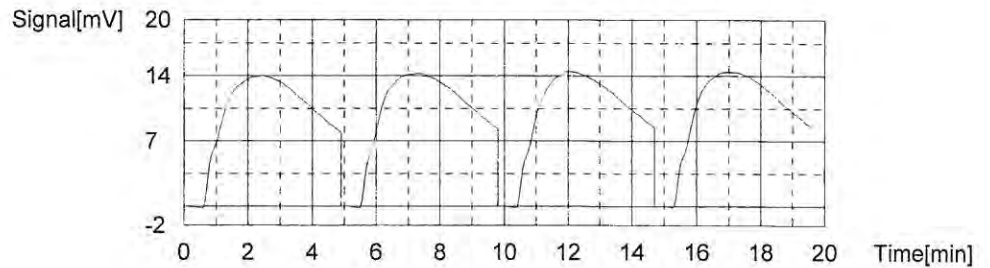
2-11
24

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	184.5	1.042mg/L	2500uL	1		05092016 toc-3.2016_05_09_09	7/5/2016 10:50:23 P
2	188.7	1.066mg/L	2500uL	1		05092016 toc-3.2016_05_09_09	7/5/2016 10:58:28 P
3	185.3	1.046mg/L	2500uL	1		05092016 toc-3.2016_05_09_09	7/5/2016 11:06:32 P
4	188.9	1.067mg/L	2500uL	1		05092016 toc-3.2016_05_09_09	7/5/2016 11:14:40 P

Mean Area 186.8
 Mean Conc. 1.055mg/L



Sample

Sample Name: ccv 2ppm
 Sample ID:
 Origin: toc-3 4 reps method.met
 Status: Completed
 Chk. Result

Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:2.061mg/L

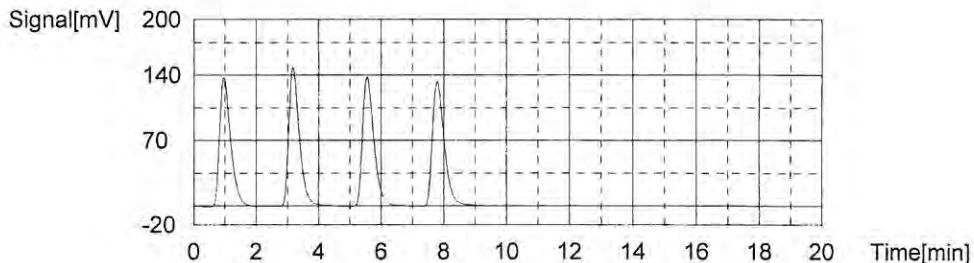


1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	353.2	2.033mg/L	2500uL	1		05092016 toc-3.2016_05_09_09	7/5/2016 11:25:50 P
2	361.0	2.079mg/L	2500uL	1		05092016 toc-3.2016_05_09_09	7/5/2016 11:30:18 P
3	358.0	2.061mg/L	2500uL	1		05092016 toc-3.2016_05_09_09	7/5/2016 11:34:38 P
4	359.6	2.070mg/L	2500uL	1		05092016 toc-3.2016_05_09_09	7/5/2016 11:39:11 P

Mean Area 358.0
 Mean Conc. 2.061mg/L



Sample

Sample Name: ccb
 Sample ID:
 Origin: toc-3 4 reps method.met
 Status: Completed
 Chk. Result

Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:0.03317mg/L

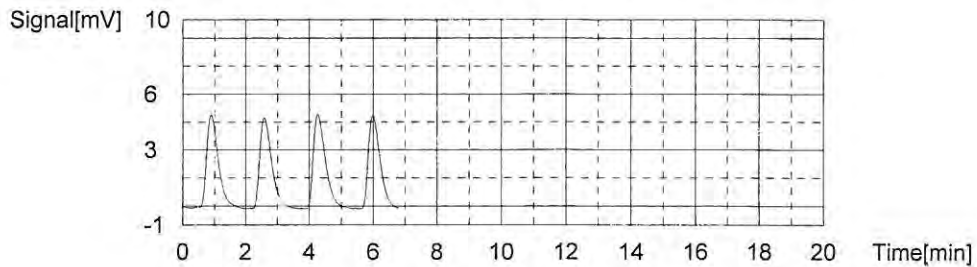


1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	12.81	0.03269mg/L	2500uL	1		05092016 toc-3.2016_05_09_09	7/5/2016 11:49:50 P
2	12.61	0.03151mg/L	2500uL	1		05092016 toc-3.2016_05_09_09	7/5/2016 11:54:26 P
3	13.25	0.03528mg/L	2500uL	1		05092016 toc-3.2016_05_09_09	7/5/2016 11:59:02 P
4	12.90	0.03322mg/L	2500uL	1		05092016 toc-3.2016_05_09_09	7/6/2016 12:03:37 A

Mean Area 12.89
Mean Conc. 0.03317mg/l



Work Group

ALPHA ANALYTICAL LABORATORIES, INC.

Alpha WORK GROUP REPORT (wk02)

Jul 10 2016, 11:20 am

Work Group: WG910195 for Department: 7 Wet Chemistry

Created: 05-JUL-16 Due: Operator: dw

Sample	Client ID	C Product	Matrix	Stat	UA	HOLD	DUE	PR	Location
L1620423-01	OV-02_062916_SW_10	S DOC-9060	WATER	DONE	U	0727	0711	S0	Vial-D
L1620423-02	WQ161B-C_062916_SW_1	S DOC-9060	WATER	DONE	U	0727	0711	S0	Vial-D
L1620423-03	WQ2-C_063016_SW_10	S DOC-9060	WATER	DONE	U	0728	0711	S0	Vial-D
L1620423-04	WQ3-L_062916_SW_10	S DOC-9060	WATER	DONE	U	0727	0711	S0	Vial-D
L1620423-05	ES-15_062916_SW_10	S DOC-9060	WATER	DONE	U	0727	0711	S0	Vial-D
L1620423-06	WQ-ECH_062916_SW_10	S DOC-9060	WATER	DONE	U	0727	0711	S0	Vial-D
L1620423-07	WQ-FPT_062916_SW_10	S DOC-9060	WATER	DONE	U	0727	0711	S0	Vial-D
L1620423-08	WQ-ECH_062916_SW_10_	S DOC-9060	WATER	DONE	U	0727	0711	S0	Vial-D
WG910195-1	Laboratory Method Bl	S DOC-9060	WATER	DONE	U				
WG910195-2	Laboratory Control S	S DOC-9060	WATER	DONE	U				
WG910195-3	Duplicate Sample	S DOC-9060	WATER	DONE	U				
WG910195-4	Matrix Spike	S DOC-9060	WATER	DONE	U				

Comments:

WG910195-3 L1620423-06
 WG910195-4 L1620423-06

Alpha Report





ANALYTICAL REPORT

Lab Number:	L1620423
Client:	AMEC Foster Wheeler E & I, Inc. 511 Congress Street P.O. Box 7050 Portland, ME 04112-7050
ATTN:	Rod Pendleton
Phone:	(207) 828-3692
Project Name:	PENOBSCOT RIVER ESTUARY
Project Number:	3616166052
Report Date:	07/07/16

The original project report/data package is held by Alpha Analytical. This report/data package is paginated and should be reproduced only in its entirety. Alpha Analytical holds no responsibility for results and/or data that are not consistent with the original.

Certifications & Approvals: MA (M-MA086), NY (11148), CT (PH-0574), NH (2003), NJ NELAP (MA935), RI (LAO00065), ME (MA00086), PA (68-03671), VA (460195), MD (348), IL (200077), NC (666), TX (T104704476), DOD (L2217), USDA (Permit #P-330-11-00240).

Eight Walkup Drive, Westborough, MA 01581-1019
508-898-9220 (Fax) 508-898-9193 800-624-9220 - www.alphalab.com



Project Name: PENOBSCOT RIVER ESTUARY
Project Number: 3616166052

Lab Number: L1620423
Report Date: 07/07/16

Alpha Sample ID	Client ID	Matrix	Sample Location	Collection Date/Time	Receive Date
L1620423-01	OV-02_062916_SW_10	WATER	PENOBSCOT RIVER	06/29/16 15:00	07/01/16
L1620423-02	WQ161B-C_062916_SW_10	WATER	PENOBSCOT RIVER	06/29/16 10:40	07/01/16
L1620423-03	WQ2-C_063016_SW_10	WATER	PENOBSCOT RIVER	06/30/16 09:00	07/01/16
L1620423-04	WQ3-L_062916_SW_10	WATER	PENOBSCOT RIVER	06/29/16 09:35	07/01/16
L1620423-05	ES-15_062916_SW_10	WATER	PENOBSCOT RIVER	06/29/16 09:00	07/01/16
L1620423-06	WQ-ECH_062916_SW_10	WATER	PENOBSCOT RIVER	06/29/16 07:45	07/01/16
L1620423-07	WQ-FPT_062916_SW_10	WATER	PENOBSCOT RIVER	06/29/16 08:25	07/01/16
L1620423-08	WQ- ECH_062916_SW_10_DUP	WATER	PENOBSCOT RIVER	06/29/16 07:45	07/01/16

Project Name: PENOBSCOT RIVER ESTUARY
Project Number: 3616166052

Lab Number: L1620423
Report Date: 07/07/16

Case Narrative

The samples were received in accordance with the Chain of Custody and no significant deviations were encountered during the preparation or analysis unless otherwise noted. Sample Receipt, Container Information, and the Chain of Custody are located at the back of the report.

Results contained within this report relate only to the samples submitted under this Alpha Lab Number and meet NELAP requirements for all NELAP accredited parameters unless otherwise noted in the following narrative. The data presented in this report is organized by parameter (i.e. VOC, SVOC, etc.). Sample specific Quality Control data (i.e. Surrogate Spike Recovery) is reported at the end of the target analyte list for each individual sample, followed by the Laboratory Batch Quality Control at the end of each parameter. Tentatively Identified Compounds (TICs), if requested, are reported for compounds identified to be present and are not part of the method/program Target Compound List, even if only a subset of the TCL are being reported. If a sample was re-analyzed or re-extracted due to a required quality control corrective action and if both sets of data are reported, the Laboratory ID of the re-analysis or re-extraction is designated with an "R" or "RE", respectively. When multiple Batch Quality Control elements are reported (e.g. more than one LCS), the associated samples for each element are noted in the grey shaded header line of each data table. Any Laboratory Batch, Sample Specific % recovery or RPD value that is outside the listed Acceptance Criteria is bolded in the report. All specific QC information is also incorporated in the Data Usability format of our Data Merger tool where it can be reviewed along with any associated usability implications. Soil/sediments, solids and tissues are reported on a dry weight basis unless otherwise noted. Definitions of all data qualifiers and acronyms used in this report are provided in the Glossary located at the back of the report.

In reference to questions H (CAM) or 4 (RCP) when "NO" is checked, the performance criteria for CAM and RCP methods allow for some quality control failures to occur and still be within method compliance. In these instances the specific failure is not narrated but noted in the associated QC table. The information is also incorporated in the Data Usability format of our Data Merger tool where it can be reviewed along with any associated usability implications.

Please see the associated ADEx data file for a comparison of laboratory reporting limits that were achieved with the regulatory Numerical Standards requested on the Chain of Custody.

HOLD POLICY

For samples submitted on hold, Alpha's policy is to hold samples (with the exception of Air canisters) free of charge for 21 calendar days from the date the project is completed. After 21 calendar days, we will dispose of all samples submitted including those put on hold unless you have contacted your Client Service Representative and made arrangements for Alpha to continue to hold the samples. Air canisters will be disposed after 3 business days from the date the project is completed.

Please contact Client Services at 800-624-9220 with any questions.

Project Name: PENOBSCOT RIVER ESTUARY
Project Number: 3616166052

Lab Number: L1620423
Report Date: 07/07/16

Case Narrative (continued)

Report Submission

All non-detect (ND) or estimated concentrations (J-qualified) have been quantitated to the limit noted in the MDL column.


Dissolved Organic Carbon

The samples were field filtered; a filter blank was not received.

The WG910195-4 MS recovery (26%), performed on L1620423-06, is outside the acceptance criteria; however, the associated LCS recovery is within criteria. No further action was taken.

I, the undersigned, attest under the pains and penalties of perjury that, to the best of my knowledge and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete. This certificate of analysis is not complete unless this page accompanies any and all pages of this report.

Authorized Signature:

 Michelle M. Morris

Title: Technical Director/Representative

Date: 07/07/16

INORGANICS & MISCELLANEOUS

Project Name: PENOBSHOT RIVER ESTUARY

Lab Number: L1620423

Project Number: 3616166052

Report Date: 07/07/16

SAMPLE RESULTS

Lab ID: L1620423-01
 Client ID: OV-02_062916_SW_10
 Sample Location: PENOBSHOT RIVER
 Matrix: Water

Date Collected: 06/29/16 15:00
 Date Received: 07/01/16
 Field Prep: Field Filtered (DOC)

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total Suspended	ND		mg/l	5.0	NA	1	-	07/05/16 14:20	121,2540D	SG
Dissolved Organic Carbon	4.7		mg/l	2.0	0.08	2	07/05/16 08:26	07/05/16 08:26	1,9060A	DW



Project Name: PENOBSCOT RIVER ESTUARY
Project Number: 3616166052

Lab Number: L1620423
Report Date: 07/07/16

SAMPLE RESULTS

Lab ID: L1620423-02
Client ID: WQ161B-C_062916_SW_10
Sample Location: PENOBSCOT RIVER
Matrix: Water

Date Collected: 06/29/16 10:40
Date Received: 07/01/16
Field Prep: Field Filtered (DOC)

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total Suspended	50.		mg/l	5.0	NA	1	-	07/05/16 14:20	121,2540D	SG
Dissolved Organic Carbon	3.9		mg/l	2.0	0.08	2	07/05/16 08:26	07/05/16 08:26	1,9060A	DW



Project Name: PENOBSCOT RIVER ESTUARY
Project Number: 3616166052

Lab Number: L1620423
Report Date: 07/07/16

SAMPLE RESULTS

Lab ID: L1620423-03
Client ID: WQ2-C_063016_SW_10
Sample Location: PENOBSCOT RIVER
Matrix: Water

Date Collected: 06/30/16 09:00
Date Received: 07/01/16
Field Prep: Field Filtered (DOC)

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total Suspended	6.8		mg/l	5.0	NA	1	-	07/05/16 14:20	121,2540D	SG
Dissolved Organic Carbon	0.76	J	mg/l	1.0	0.04	1	07/05/16 08:26	07/05/16 08:26	1,9060A	DW



Project Name: PENOBSCOT RIVER ESTUARY
Project Number: 3616166052

Lab Number: L1620423
Report Date: 07/07/16

SAMPLE RESULTS

Lab ID: L1620423-04
Client ID: WQ3-L_062916_SW_10
Sample Location: PENOBSCOT RIVER
Matrix: Water

Date Collected: 06/29/16 09:35
Date Received: 07/01/16
Field Prep: Field Filtered (DOC)

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total Suspended	24.		mg/l	5.0	NA	1	-	07/05/16 14:20	121,2540D	SG
Dissolved Organic Carbon	0.41	J	mg/l	1.0	0.04	1	07/05/16 08:26	07/05/16 08:26	1,9060A	DW



Project Name: PENOBSCOT RIVER ESTUARY
Project Number: 3616166052

Lab Number: L1620423
Report Date: 07/07/16

SAMPLE RESULTS

Lab ID: L1620423-05
Client ID: ES-15_062916_SW_10
Sample Location: PENOBSCOT RIVER
Matrix: Water

Date Collected: 06/29/16 09:00
Date Received: 07/01/16
Field Prep: Field Filtered (DOC)

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total Suspended	11.		mg/l	5.0	NA	1	-	07/05/16 14:20	121,2540D	SG
Dissolved Organic Carbon	0.27	J	mg/l	1.0	0.04	1	07/05/16 08:26	07/05/16 08:26	1,9060A	DW



Project Name: PENOBSCOT RIVER ESTUARY
Project Number: 3616166052

Lab Number: L1620423
Report Date: 07/07/16

SAMPLE RESULTS

Lab ID: L1620423-06
Client ID: WQ-ECH_062916_SW_10
Sample Location: PENOBSCOT RIVER
Matrix: Water

Date Collected: 06/29/16 07:45
Date Received: 07/01/16
Field Prep: Field Filtered (DOC)

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total Suspended	11.		mg/l	5.0	NA	1	-	07/05/16 14:20	121,2540D	SG
Dissolved Organic Carbon	0.22	J	mg/l	1.0	0.04	1	07/05/16 08:26	07/05/16 08:26	1,9060A	DW



Project Name: PENOBSCOT RIVER ESTUARY
Project Number: 3616166052

Lab Number: L1620423
Report Date: 07/07/16

SAMPLE RESULTS

Lab ID: L1620423-07
Client ID: WQ-FPT_062916_SW_10
Sample Location: PENOBSCOT RIVER
Matrix: Water

Date Collected: 06/29/16 08:25
Date Received: 07/01/16
Field Prep: Field Filtered (DOC)

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total Suspended	6.5		mg/l	5.0	NA	1	-	07/05/16 14:20	121,2540D	SG
Dissolved Organic Carbon	0.34	J	mg/l	1.0	0.04	1	07/05/16 08:26	07/05/16 08:26	1,9060A	DW



Project Name: PENOBSCOT RIVER ESTUARY
Project Number: 3616166052

Lab Number: L1620423
Report Date: 07/07/16

SAMPLE RESULTS

Lab ID: L1620423-08
Client ID: WQ-ECH_062916_SW_10_DUP
Sample Location: PENOBSCOT RIVER
Matrix: Water

Date Collected: 06/29/16 07:45
Date Received: 07/01/16
Field Prep: Field Filtered (DOC)

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total Suspended	10.		mg/l	5.0	NA	1	-	07/05/16 14:20	121,2540D	SG
Dissolved Organic Carbon	0.24	J	mg/l	1.0	0.04	1	07/05/16 08:26	07/05/16 08:26	1,9060A	DW



Project Name: PENOBSCOT RIVER ESTUARY

Lab Number: L1620423

Project Number: 3616166052

Report Date: 07/07/16

Method Blank Analysis
Batch Quality Control

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab for sample(s): 01-08 Batch: WG910187-1										
Solids, Total Suspended	ND		mg/l	5.0	NA	1	-	07/05/16 14:20	121,2540D	SG
General Chemistry - Westborough Lab for sample(s): 01-08 Batch: WG910195-1										
Dissolved Organic Carbon	ND		mg/l	1.0	0.04	1	07/05/16 08:26	07/05/16 08:26	1,9060A	DW

Lab Control Sample Analysis

Batch Quality Control

Project Name: PENOBSCOT RIVER ESTUARY

Lab Number: L1620423

Project Number: 3616166052

Report Date: 07/07/16

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 01-08 Batch: WG910195-2								
Dissolved Organic Carbon	102		-		90-110	-		

Matrix Spike Analysis
Batch Quality Control

Project Name: PENOBSCOT RIVER ESTUARY

Lab Number: L1620423

Project Number: 3616166052

Report Date: 07/07/16

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	MSD Qual	MSD Found	MSD %Recovery	MSD Qual	Recovery Limits	RPD	RPD Qual	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 01-08 QC Batch ID: WG910195-4 QC Sample: L1620423-06 Client ID: WQ-ECH_062916_SW_10												
Dissolved Organic Carbon	0.22J	8	2.1	26	Q	-	-		79-120	-		20

Lab Duplicate Analysis Batch Quality Control

Project Name: PENOBSCOT RIVER ESTUARY

Project Number: 3616166052

Lab Number: L1620423

Report Date: 07/07/16

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 01-08 QC Batch ID: WG910187-2 QC Sample: L1620423-06 Client ID: WQ-ECH_062916_SW_10						
Solids, Total Suspended	11.	12	mg/l	9		29
General Chemistry - Westborough Lab Associated sample(s): 01-08 QC Batch ID: WG910195-3 QC Sample: L1620423-06 Client ID: WQ-ECH_062916_SW_10						
Dissolved Organic Carbon	0.22J	0.25J	mg/l	NC		20



Project Name: PENOBSCOT RIVER ESTUARY
Project Number: 3616166052

Lab Number: L1620423
Report Date: 07/07/16

Sample Receipt and Container Information

Were project specific reporting limits specified? YES

Cooler Information Custody Seal

Cooler

A Absent

Container Information

Container ID	Container Type	Cooler	pH	Temp deg C	Pres	Seal	Analysis(*)
L1620423-01A	Vial H2SO4 preserved	A	N/A	4.1	Y	Absent	DOC-9060(28)
L1620423-01B	Vial H2SO4 preserved	A	N/A	4.1	Y	Absent	DOC-9060(28)
L1620423-01C	Plastic 950ml unpreserved	A	7	4.1	Y	Absent	TSS-2540(7)
L1620423-02A	Vial H2SO4 preserved	A	N/A	4.1	Y	Absent	DOC-9060(28)
L1620423-02B	Vial H2SO4 preserved	A	N/A	4.1	Y	Absent	DOC-9060(28)
L1620423-02C	Plastic 950ml unpreserved	A	7	4.1	Y	Absent	TSS-2540(7)
L1620423-03A	Vial H2SO4 preserved	A	N/A	4.1	Y	Absent	DOC-9060(28)
L1620423-03B	Vial H2SO4 preserved	A	N/A	4.1	Y	Absent	DOC-9060(28)
L1620423-03C	Plastic 950ml unpreserved	A	7	4.1	Y	Absent	TSS-2540(7)
L1620423-04A	Vial H2SO4 preserved	A	N/A	4.1	Y	Absent	DOC-9060(28)
L1620423-04B	Vial H2SO4 preserved	A	N/A	4.1	Y	Absent	DOC-9060(28)
L1620423-04C	Plastic 950ml unpreserved	A	7	4.1	Y	Absent	TSS-2540(7)
L1620423-05A	Vial H2SO4 preserved	A	N/A	4.1	Y	Absent	DOC-9060(28)
L1620423-05B	Vial H2SO4 preserved	A	N/A	4.1	Y	Absent	DOC-9060(28)
L1620423-05C	Plastic 950ml unpreserved	A	7	4.1	Y	Absent	TSS-2540(7)
L1620423-06A	Vial H2SO4 preserved	A	N/A	4.1	Y	Absent	DOC-9060(28)
L1620423-06A1	Vial H2SO4 preserved	A	N/A	4.1	Y	Absent	DOC-9060(28)
L1620423-06A2	Vial H2SO4 preserved	A	N/A	4.1	Y	Absent	DOC-9060(28)
L1620423-06B	Vial H2SO4 preserved	A	N/A	4.1	Y	Absent	DOC-9060(28)
L1620423-06B1	Vial H2SO4 preserved	A	N/A	4.1	Y	Absent	DOC-9060(28)
L1620423-06B2	Vial H2SO4 preserved	A	N/A	4.1	Y	Absent	DOC-9060(28)
L1620423-06C	Plastic 950ml unpreserved	A	7	4.1	Y	Absent	TSS-2540(7)
L1620423-06C1	Plastic 950ml unpreserved	A	7	4.1	Y	Absent	TSS-2540(7)
L1620423-06C2	Plastic 950ml unpreserved	A	7	4.1	Y	Absent	TSS-2540(7)
L1620423-07A	Vial H2SO4 preserved	A	N/A	4.1	Y	Absent	DOC-9060(28)
L1620423-07B	Vial H2SO4 preserved	A	N/A	4.1	Y	Absent	DOC-9060(28)
L1620423-07C	Plastic 950ml unpreserved	A	7	4.1	Y	Absent	TSS-2540(7)
L1620423-08A	Vial H2SO4 preserved	A	N/A	4.1	Y	Absent	DOC-9060(28)
L1620423-08B	Vial H2SO4 preserved	A	N/A	4.1	Y	Absent	DOC-9060(28)

*Values in parentheses indicate holding time in days



Project Name: PENOBSCOT RIVER ESTUARY**Lab Number:** L1620423**Project Number:** 3616166052**Report Date:** 07/07/16**Container Information**

Container ID	Container Type	Cooler	pH	Temp deg C	Pres	Seal	Analysis(*)
L1620423-08C	Plastic 950ml unpreserved	A	7	4.1	Y	Absent	TSS-2540(7)

*Values in parentheses indicate holding time in days

Project Name: PENOBSCOT RIVER ESTUARY
Project Number: 3616166052

Lab Number: L1620423
Report Date: 07/07/16

GLOSSARY

Acronyms

EDL	- Estimated Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The EDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. The use of EDLs is specific to the analysis of PAHs using Solid-Phase Microextraction (SPME).
EPA	- Environmental Protection Agency.
LCS	- Laboratory Control Sample: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
LCSD	- Laboratory Control Sample Duplicate: Refer to LCS.
LFB	- Laboratory Fortified Blank: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
MDL	- Method Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The MDL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
MS	- Matrix Spike Sample: A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analyte concentration is available.
MSD	- Matrix Spike Sample Duplicate: Refer to MS.
NA	- Not Applicable.
NC	- Not Calculated: Term is utilized when one or more of the results utilized in the calculation are non-detect at the parameter's reporting unit.
NDPA/DPA	- N-Nitrosodiphenylamine/Diphenylamine.
NI	- Not Ignitable.
NP	- Non-Plastic: Term is utilized for the analysis of Atterberg Limits in soil.
RL	- Reporting Limit: The value at which an instrument can accurately measure an analyte at a specific concentration. The RL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
RPD	- Relative Percent Difference: The results from matrix and/or matrix spike duplicates are primarily designed to assess the precision of analytical results in a given matrix and are expressed as relative percent difference (RPD). Values which are less than five times the reporting limit for any individual parameter are evaluated by utilizing the absolute difference between the values; although the RPD value will be provided in the report.
SRM	- Standard Reference Material: A reference sample of a known or certified value that is of the same or similar matrix as the associated field samples.
STLP	- Semi-dynamic Tank Leaching Procedure per EPA Method 1315.
TIC	- Tentatively Identified Compound: A compound that has been identified to be present and is not part of the target compound list (TCL) for the method and/or program. All TICs are qualitatively identified and reported as estimated concentrations.

Footnotes

- 1 - The reference for this analyte should be considered modified since this analyte is absent from the target analyte list of the original method.

Terms

Total: With respect to Organic analyses, a 'Total' result is defined as the summation of results for individual isomers or Aroclors. If a 'Total' result is requested, the results of its individual components will also be reported. This is applicable to 'Total' results for methods 8260, 8081 and 8082.

Analytical Method: Both the document from which the method originates and the analytical reference method. (Example: EPA 8260B is shown as 1,8260B.) The codes for the reference method documents are provided in the References section of the Addendum.

Data Qualifiers

- A** - Spectra identified as "Aldol Condensation Product".
- B** - The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For MCP-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank. For NJ-Air-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte above the reporting limit. For NJ-related projects (excluding Air), flag only applies to associated field samples that have detectable concentrations of the analyte, which was detected above the reporting limit in the associated method blank or above five times the

Report Format: DU Report with 'J' Qualifiers



Project Name: PENOBSCOT RIVER ESTUARY
Project Number: 3616166052

Lab Number: L1620423
Report Date: 07/07/16

Data Qualifiers

- reporting limit for common lab contaminants (Phthalates, Acetone, Methylene Chloride, 2-Butanone).
- C** - Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses.
 - D** - Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.
 - E** - Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.
 - G** - The concentration may be biased high due to matrix interferences (i.e. co-elution) with non-target compound(s). The result should be considered estimated.
 - H** - The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.
 - I** - The lower value for the two columns has been reported due to obvious interference.
 - M** - Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.
 - NJ** - Presumptive evidence of compound. This represents an estimated concentration for Tentatively Identified Compounds (TICs), where the identification is based on a mass spectral library search.
 - P** - The RPD between the results for the two columns exceeds the method-specified criteria.
 - Q** - The quality control sample exceeds the associated acceptance criteria. For DOD-related projects, LCS and/or Continuing Calibration Standard exceedences are also qualified on all associated sample results. Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when the sample concentrations are less than 5x the RL. (Metals only.)
 - R** - Analytical results are from sample re-analysis.
 - RE** - Analytical results are from sample re-extraction.
 - S** - Analytical results are from modified screening analysis.
 - J** - Estimated value. The Target analyte concentration is below the quantitation limit (RL), but above the Method Detection Limit (MDL) or Estimated Detection Limit (EDL) for SPME-related analyses. This represents an estimated concentration for Tentatively Identified Compounds (TICs).
 - ND** - Not detected at the method detection limit (MDL) for the sample, or estimated detection limit (EDL) for SPME-related analyses.

Report Format: DU Report with 'J' Qualifiers



Project Name: PENOBSCOT RIVER ESTUARY
Project Number: 3616166052

Lab Number: L1620423
Report Date: 07/07/16

REFERENCES

- 1 Test Methods for Evaluating Solid Waste: Physical/Chemical Methods. EPA SW-846. Third Edition. Updates I - IV, 2007.
- 121 Standard Methods for the Examination of Water and Wastewater. APHA-AWWA-WEF. Standard Methods Online.

LIMITATION OF LIABILITIES

Alpha Analytical performs services with reasonable care and diligence normal to the analytical testing laboratory industry. In the event of an error, the sole and exclusive responsibility of Alpha Analytical shall be to re-perform the work at it's own expense. In no event shall Alpha Analytical be held liable for any incidental, consequential or special damages, including but not limited to, damages in any way connected with the use of, interpretation of, information or analysis provided by Alpha Analytical.

We strongly urge our clients to comply with EPA protocol regarding sample volume, preservation, cooling, containers, sampling procedures, holding time and splitting of samples in the field.



Certification Information

The following analytes are not included in our Primary NELAP Scope of Accreditation:

Westborough Facility

EPA 524.2: 1,2-Dibromo-3-chloropropane, 1,2-Dibromoethane, m/p-xylene, o-xylene
EPA 624: 2-Butanone (MEK), 1,4-Dioxane, tert-Amylmethyl Ether, tert-Butyl Alcohol, m/p-xylene, o-xylene
EPA 625: Aniline, Benzoic Acid, Benzyl Alcohol, 4-Chloroaniline, 3-Methylphenol, 4-Methylphenol.
EPA 1010A: NPW: Ignitability
EPA 6010C: NPW: Strontium; SCM: Strontium
EPA 8151A: NPW: 2,4-DB, Dicamba, Dichloroprop, MCPA, MCPP; SCM: 2,4-DB, Dichloroprop, MCPA, MCPP
EPA 8260C: NPW: 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene, Azobenzene, Isopropanol; SCM: Iodomethane (methyl iodide), Methyl methacrylate (soil); 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene.
EPA 8270D: NPW: Pentachloronitrobenzene, 1-Methylnaphthalene, Dimethylnaphthalene, 1,4-Diphenylhydrazine; SCM: Pentachloronitrobenzene, 1-Methylnaphthalene, Dimethylnaphthalene, 1,4-Diphenylhydrazine.
EPA 9010: NPW: Amenable Cyanide Distillation, Total Cyanide Distillation
EPA 9038: NPW: Sulfate
EPA 9050A: NPW: Specific Conductance
EPA 9056: NPW: Chloride, Nitrate, Sulfate
EPA 9065: NPW: Phenols
EPA 9251: NPW: Chloride
SM3500: NPW: Ferrous Iron
SM4500: NPW: Amenable Cyanide, Dissolved Oxygen; SCM: Total Phosphorus, TKN, NO₂, NO₃.
SM5310C: DW: Dissolved Organic Carbon

Mansfield Facility

EPA 8270D: NPW: Biphenyl; SCM: Biphenyl, Caprolactam
EPA 8270D-SIM Isotope Dilution: SCM: 1,4-Dioxane
SM 2540D: TSS
SM2540G: SCM: Percent Solids
EPA 1631E: SCM: Mercury
EPA 7474: SCM: Mercury
EPA 8081B: NPW and SCM: Mirex, Hexachlorobenzene.
EPA 8082A: NPW: PCB: 1, 5, 31, 87,101, 110, 141, 151, 153, 180, 183, 187.
EPA 8270-SIM: NPW and SCM: Alkylated PAHs.
EPA TO-15: Halothane, 2,4,4-Trimethyl-2-pentene, 2,4,4-Trimethyl-1-pentene, Thiophene, 2-Methylthiophene, 3-Methylthiophene, 2-Ethylthiophene, 1,2,3-Trimethylbenzene, Indan, Indene, 1,2,4,5-Tetramethylbenzene, Benzothiophene, 1-Methylnaphthalene, n-Butylbenzene, n-Propylbenzene, sec-Butylbenzene, tert-Butylbenzene.
Biological Tissue Matrix: **8270D-SIM; 3050B; 3051A; 7471B; 8081B; 8082A; 6020A:** Lead; **8270D:** bis(2-ethylhexyl)phthalate, Butylbenzylphthalate, Diethyl phthalate, Dimethyl phthalate, Di-n-butyl phthalate, Di-n-octyl phthalate, Fluoranthene, Pentachlorophenol.

The following analytes are included in our Massachusetts DEP Scope of Accreditation, Westborough Facility:

Drinking Water

EPA 200.8: Sb,As,Ba,Be,Cd,Cr,Cu,Pb,Ni,Se,Tl; **EPA 200.7:** Ba,Be,Ca,Cd,Cr,Cu,Na; **EPA 245.1:** Mercury;
EPA 300.0: Nitrate-N, Fluoride, Sulfate; **EPA 353.2:** Nitrate-N, Nitrite-N; **SM4500NO3-F:** Nitrate-N, Nitrite-N; **SM4500F-C, SM4500CN-CE, EPA 180.1, SM2130B, SM4500CI-D, SM2320B, SM2540C, SM4500H-B**
EPA 332: Perchlorate.
Microbiology: **SM9215B; SM9223-P/A, SM9223B-Colilert-QT, Enterolert-QT.**

Non-Potable Water

EPA 200.8: Al,Sb,As,Be,Cd,Cr,Cu,Pb,Mn,Ni,Se,Ag,Tl,Zn;
EPA 200.7: Al,Sb,As,Be,Cd,Ca,Cr,Co,Cu,Fe,Pb,Mg,Mn,Mo,Ni,K,Se,Ag,Na,Sr,Ti,Tl,V,Zn;
EPA 245.1, SM4500H,B, EPA 120.1, SM2510B, SM2540C, SM2340B, SM2320B, SM4500CL-E, SM4500F-BC, SM426C, SM4500NH3-BH, EPA 350.1: Ammonia-N, **LACHAT 10-107-06-1-B:** Ammonia-N, **SM4500NO3-F,**
EPA 353.2: Nitrate-N, **SM4500NH3-BC-NES, EPA 351.1, SM4500P-E, SM4500P-B, E, SM5220D, EPA 410.4, SM5210B, SM5310C, SM4500CL-D, EPA 1664, SM14 510AC, EPA 420.1, SM4500-CN-CE, SM2540D.**
EPA 624: Volatile Halocarbons & Aromatics,
EPA 608: Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT, Endosulfan I, Endosulfan II, Endosulfan sulfate, Endrin, Endrin Aldehyde, Heptachlor, Heptachlor Epoxide, PCBs
EPA 625: SVOC (Acid/Base/Neutral Extractables), **EPA 600/4-81-045:** PCB-Oil.
Microbiology: **SM9223B-Colilert-QT; Enterolert-QT, SM9222D-MF.**

For a complete listing of analytes and methods, please contact your Alpha Project Manager.



CHAIN OF CUSTODY

PAGE 1 OF 1

Date Rec'd in Lab: 7/1/16

ALPHA Job #: L1620423

8 Walkup Drive Westboro, MA 01581 Tel: 508-898-9220
 320 Forbes Blvd Mansfield, MA 02048 Tel: 508-822-9300

Project Information

Project Name: PENOBSCOT RIVER

Project Location: PENOBSCOT RIVER

Project #: 36161616052

Project Manager: ROD PENDLETON

ALPHA Quote #:

Report Information - Data Deliverables

ADEX EMAIL

Billing Information

Same as Client info PO #:

Client Information

Client: AMEC FOSTER WHEELER

Address: 511 CONGRESS ST STE. 200 PORTLAND ME 04101

Phone: (207) 775-5401

Email: rod.pendleton@amec.fw.com

Turn-Around Time

Standard RUSH (only confirmed if pre-approved)

Date Due:

Regulatory Requirements & Project Information Requirements

Yes No MA MCP Analytical Methods Yes No CT RCP Analytical Methods
 Yes No Matrix Spike Required on this SDG? (Required for MCP Inorganics)
 Yes No GW1 Standards (Info Required for Metals & EPH with Targets)
 Yes No NPDES RGP
 Other State /Fed Program _____ Criteria _____

Additional Project Information:

CONTACT DENISE KING w/ QUESTIONS: (978) 692-9090
 AIRBILL: 8094 0561 9706

ANALYSIS		SAMPLE INFO	TOTAL # BOTTLES
VOC: <input type="checkbox"/> 8260 <input type="checkbox"/> 624 <input type="checkbox"/> 524.2	SVOC: <input type="checkbox"/> ABN <input type="checkbox"/> PAH			Filtration ☒ Field ☐ Lab to do
METALS: <input type="checkbox"/> MCP 13 <input type="checkbox"/> MCP 14 <input type="checkbox"/> RCP 15	METALS: <input type="checkbox"/> RCRA5 <input type="checkbox"/> RCRA8	Preservation <input type="checkbox"/> Lab to do	
EPH: <input type="checkbox"/> Ranges & Targets <input type="checkbox"/> Ranges Only	VPH: <input type="checkbox"/> Ranges & Targets <input type="checkbox"/> Ranges Only		
TPH: <input type="checkbox"/> Quant Only <input type="checkbox"/> Fingerprint			
DOC 90160 (2x40 mL glass)			
TSS 24500 (1L plastic)			
Sample Comments			

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection		Sample Matrix	Sampler Initials	ANALYSIS										SAMPLE INFO	TOTAL # BOTTLES				
		Date	Time			VOC	SVOC	METALS	METALS	EPH	VPH	PCB	TPH	DOC	TSS			Sample Comments			
20423-01	01-02-1629116-SW-10	6/29/16	1500	SW	KB													2	1	3	
02	WQ1b-c_0629116-SW-10	6/29/16	1040															2	1	3	
03	WQ2-c_0630116-SW-10	6/30/16	0900															2	1	3	
04	WQ3-L_0629116-SW-10	6/29/16	0935															2	1	3	
05	ES-15_0629116-SW-10		0900															2	1	3	
06	WQ-ECH_0629116-SW-10		0745															2	1	3	
07	WQ-FPT_0629116-SW-10		0825															2	1	3	
08	WQ-ECH_0629116-SW-10-DUP		0745															2	1	3	
-06	WQ-ECH_0629116-SW-10-MS																	2	1	3	MATRIX SPIKE
-06	WQ-ECH_0629116-SW-10-MD																	2	1	3	MATRIX SPIKE DUP
						Container Type										AP		30			
						Preservative										DA					

- Container Type**
 P= Plastic
 A= Amber glass
 V= Vial
 G= Glass
 B= Bacteria cup
 C= Cube
 O= Other
 E= Encore
 D= BOD Bottle
- Preservative**
 A= None
 B= HCl
 C= HNO₃
 D= H₂SO₄
 E= NaOH
 F= MeOH
 G= NaHSO₄
 H= Na₂S₂O₃
 I= Ascorbic Acid
 J= NH₄Cl
 K= Zn Acetate
 O= Other

Relinquished By: <u>Julia Palazzo</u>	Date/Time <u>6/30/16 1130</u>	Received By: <u>[Signature]</u>	Date/Time <u>7/1/16</u>	All samples submitted are subject to Alpha's Terms and Conditions. See reverse side. FORM NO 01-01 (rev 12-Mar-2012)



Frontier Global Sciences

11720 Northcreek Pkwy N, Suite 400
Bothell, WA 98011
425.686.1996 Phone
425.686.3096 Fax

16 December 2016

Rod Pendleton
AMEC Foster Wheeler
511 Congress Street
Portland, ME 04101

RE: Penobscot Seawater Total And Diss Hg and MMHg

Enclosed are the analytical results for samples received by Eurofins Frontier Global Sciences. All quality control measurements are within established control limits and there were no analytical difficulties encountered with the exception of those listed in the case narrative section of this report.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

A handwritten signature in black ink that reads "Amy Goodall".

Amy Goodall
Project Manager



AMEC Foster Wheeler
511 Congress Street
Portland ME, 04101

Project: Penobscot Seawater Total And Diss Hg and MMHg
Project Number: 3616166052
Project Manager: Rod Pendleton

Reported:
16-Dec-16 16:15

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
OV-02_071816_SW_10	1607586-01	Water	18-Jul-16 07:45	21-Jul-16 09:25
OV-02_071816_SW_10 Dissolved	1607586-02	Water	18-Jul-16 07:45	21-Jul-16 09:25
WQ1b-c_071816_SW_10	1607586-03	Water	18-Jul-16 16:30	21-Jul-16 09:25
WQ1b-c_071816_SW_10 Dissolved	1607586-04	Water	18-Jul-16 16:30	21-Jul-16 09:25
WQ2-c_071816_SW_10	1607586-05	Water	18-Jul-16 15:15	21-Jul-16 09:25
WQ2-c_071816_SW_10 Dissolved	1607586-06	Water	18-Jul-16 15:15	21-Jul-16 09:25
WQ3-L_071816_SW_10	1607586-07	Water	18-Jul-16 14:00	21-Jul-16 09:25
WQ3-L_071816_SW_10 Dissolved	1607586-08	Water	18-Jul-16 14:00	21-Jul-16 09:25
ES-15_071816_SW_10	1607586-09	Water	18-Jul-16 13:15	21-Jul-16 09:25
ES-15_071816_SW_10 Dissolved	1607586-10	Water	18-Jul-16 13:15	21-Jul-16 09:25
WQ-ECH_071816_SW_10	1607586-11	Water	18-Jul-16 12:00	21-Jul-16 09:25
WQ-ECH_071816_SW_10 Dissolved	1607586-12	Water	18-Jul-16 12:00	21-Jul-16 09:25
WQ-ECH_071816_SW_10_DUP	1607586-13	Water	18-Jul-16 12:00	21-Jul-16 09:25
WQ-ECH_071816_SW_10_DUP Dissolved	1607586-14	Water	18-Jul-16 12:00	21-Jul-16 09:25
WQ-FPT_071816_SW_10	1607586-19	Water	18-Jul-16 11:00	21-Jul-16 09:25
WQ-FPT_071816_SW_10 Dissolved	1607586-20	Water	18-Jul-16 11:00	21-Jul-16 09:25
EB_071916_SW_QC Dissolved	1607586-21	Water	18-Jul-16 12:15	21-Jul-16 09:25

Eurofins Frontier Global Sciences, Inc.

The results in this report only apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Amy Goodall, Project Manager

AMEC Foster Wheeler
511 Congress Street
Portland ME, 04101Project: Penobscot Seawater Total And Diss Hg and MMHg
Project Number: 3616166052
Project Manager: Rod PendletonReported:
16-Dec-16 16:15

REVISED REPORT (12/16/16)

Report was revised per client request. The first four digits were removed from the sample IDs for all samples.

SAMPLE RECEIPT

Samples were received at Eurofins Frontier Global Sciences (EFGS) on 7/21/2016 9:25:00 AM. The samples were received intact, on-ice within a sealed cooler at 7.8 degrees Celsius.

SAMPLE PREPARATION AND ANALYSIS

Samples were prepared and analyzed for total mercury by flow injection atomic fluorescence spectrometry (FI-AFS) in accordance with EPA 1631E.

Samples were prepared and analyzed for methyl mercury by cold vapor gas chromatography atomic fluorescence spectrometry (CV-GC-AFS) in accordance with EPA 1630 (EFGS-070).

ANALYTICAL AND QUALITY CONTROL ISSUES

Per the client request, samples 1607586-11 and 1607586-12 were used as the source QC for the MS/MSD.

There were no analytical issues with the total mercury analysis. These samples were prepped in two batches; F608240 and F608263. Both 1607586-11 and 1607586-12 were prepped in batch F608240. These were analyzed in two sequences; 6H10008 and 6H11005.

There were some analytical issues with the initial prep of the Methyl Mercury samples, and they had to be reprepped. The Methyl Mercury batches were F608139, F608200, F608251, and F608273. Due to failing high BS/BSD in F608139 and F608200, only the non-detect samples were reported. Sample 1607586-11 was used as the source QC in batch F608200. The unreportable samples were reprepped in batches F608251 and F608273. The source QC samples for these two batches were 1607586-08 and 1607586-12 respectfully. The methyl mercury samples were analyzed in sequences; 6H03012, 6H08006, 6H11011, and 6H12011.

Method blanks were prepared for every preparation to assess possible blank contribution from the sample preparation procedure. The method blanks were carried through the entire analytical procedure. All blanks fell within the established acceptance criteria with the exception of any items narrated above or flagged and described in the notes and definitions section of the report.

Liquid spikes, certified reference material (CRM) or a quality control samples (QCS) were prepared for every preparation as a measure of

Eurofins Frontier Global Sciences, Inc.



The results in this report only apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Amy Goodall, Project Manager



AMEC Foster Wheeler
511 Congress Street
Portland ME, 04101

Project: Penobscot Seawater Total And Diss Hg and MMHg
Project Number: 3616166052
Project Manager: Rod Pendleton

Reported:
16-Dec-16 16:15

accuracy. All liquid spikes, CRMs and/or QCS samples fell within the established acceptance criteria with the exception of any items narrated above or flagged and described in the notes and definitions section of the report.

As an additional measure of the accuracy of the methods used and to check for matrix interference, matrix spikes (MS) and matrix spike duplicates (MSD) were digested and analyzed. All of the matrix spike recoveries fell within the established acceptance criteria with the exception of any items flagged and described in the notes and definitions section of the report.

A reasonable measure of the precision of the analytical methods is the relative percent difference (RPD) between a matrix spike recovery and a matrix spike duplicate recovery and between laboratory control sample recovery and laboratory control sample duplicate recoveries. All of the relative percent differences established acceptance criteria with the exception of any items flagged and described in the notes and definitions section of the report.

Sample Receipt Checklist

EFGS Work Order: 1607586

Client: AMEC Foster Wheeler

Date & Time Received: 7/21/16 9:25 Date Labeled: 7/21/16 Labeled By: CSJ

Project: _____

Received By: LM Label Verified By: LM

of Coolers Received: 2 Samples Arrived By: Shipping Service _____ Courier _____ Hand _____ Other (Specify: _____)

Coolant: None/Ambient Loose Ice Gel Ice Dry Ice Coolant Required: Y N Temp Blank Used: Y N for Cooler(s): _____

Notify Project Manager if packages/coolers are received without coolant or with thawed coolant and at a temperature in excess of 6°C. PM notified: Y/N

Cooler Information:	Y/N/NA	Comments
The coolers do not appear to be tampered with:	Y	
Custody Seals are present and intact:	Y	
Custody seals signed:	Y	

TID:	CF:	Date/time:	By:
<u>43150</u>	<u>+0.3 °C</u>	<u>7/21/16 9:25</u>	<u>LM</u>
Cooler 1: <u>3.5 °C</u>	w/CF: <u>3.8 °C</u>	Cooler 4: _____ °C	w/CF: _____ °C
Cooler 2: <u>7.5 °C</u>	w/CF: <u>7.8 °C</u>	Cooler 5: _____ °C	w/CF: _____ °C
Cooler 3: _____ °C	w/CF: _____ °C	Cooler 6: _____ °C	w/CF: _____ °C

Chain of Custody:	Y/N/NA	Comments
Sample ID/Description:	Y	
Date and time of collection:	Y	
Sampled by:	N	
Preservation type:		
Requested analyses:		
Required signatures:		
Internal COC required:		

Sample Condition/Integrity:	Y/N/NA	Comments
Sample containers intact/present:	Y	
Sample labels are present and legible:	Y	
Sample ID on container/bag matches COC:	Y	
Correct sample containers used:	Y	
Samples received within holding times:	Y	
Sample volume sufficient for requested analyses:	Y	
Correct preservative used for requested analyses:	Y	

Anomalies/Non-conformances (attach additional pages if needed):

1607586

Chain Of Custody/Analysis Request Form

USDC - Penobscot River

Lab: Eurofins

AMEC, Suite 200, 511 Congress Street, Portland, ME

Tech Lead - Louise Venne
Work# 770-421-3461

Proj Chemist - Denise King
508-789-1738


AMEC Job Number = 3616166052

Samp #	Sample Date	Sample Time	Field Sample ID	QC Code	Qty Total	Qty Each	Bottle Size and Material	Preservative	Media	Method	Fraction
1523	7/18/2016	7:45	OV-02_071816_SW_10		4						
				FS	1	250 mL	BS Glass	H2SO4/4 deg C	SW	Dissolved MeHg (1630)	D
				FS	1	250 mL	PETG	4 deg C	SW	Dissolved Hg (1631e)	D
				FS	1	250 mL	PETG	4 deg C	SW	Total Hg (1631e)	T
				FS	1	250 mL	BS Glass	H2SO4/4 deg C	SW	Total MeHg (1630)	T
1524	7/18/2016	16:30	WQ1b-c_071816_SW_10		4						
				FS	1	250 mL	PETG	4 deg C	SW	Total Hg (1631e)	T
				FS	1	250 mL	BS Glass	H2SO4/4 deg C	SW	Dissolved MeHg (1630)	D
				FS	1	250 mL	PETG	4 deg C	SW	Dissolved Hg (1631e)	D
				FS	1	250 mL	BS Glass	H2SO4/4 deg C	SW	Total MeHg (1630)	T
1525	7/18/2016	15:15	WQ2-c_071816_SW_10		4						
				FS	1	250 mL	BS Glass	H2SO4/4 deg C	SW	Dissolved MeHg (1630)	D
				FS	1	250 mL	PETG	4 deg C	SW	Dissolved Hg (1631e)	D
				FS	1	250 mL	BS Glass	H2SO4/4 deg C	SW	Total MeHg (1630)	T
				FS	1	250 mL	PETG	4 deg C	SW	Total Hg (1631e)	T

Wednesday, July 20, 2016

Yes Seal
1: 3.8°C 2: 7.8°C

Paul LX
Cooled: 8094 0561 9680 2: 7836 2778 6571


Lats Mattet
EPCS
7/21/16 9:25

Page 1 of 4

1607586

<i>Samp #</i>	<i>Sample Date</i>	<i>Sample Time</i>	<i>Field Sample ID</i>	<i>QC Code</i>	<i>Qty Total</i>	<i>Qty Each</i>	<i>Bottle Size and Material</i>	<i>Preservative</i>	<i>Media Method</i>	<i>Fraction</i>	
1526	7/18/2016	14:00	WQ3-L_071816_SW_10		4						
				FS	1	250 mL	PETG	4 deg C	SW	Dissolved Hg (1631e)	D
				FS	1	250 mL	BS Glass	H2SO4/4 deg C	SW	Dissolved MeHg (1630)	D
				FS	1	250 mL	BS Glass	H2SO4/4 deg C	SW	Total MeHg (1630)	T
				FS	1	250 mL	PETG	4 deg C	SW	Total Hg (1631e)	T
1527	7/18/2016	13:15	ES-15_071816_SW_10		4						
				FS	1	250 mL	BS Glass	H2SO4/4 deg C	SW	Dissolved MeHg (1630)	D
				FS	1	250 mL	PETG	4 deg C	SW	Dissolved Hg (1631e)	D
				FS	1	250 mL	PETG	4 deg C	SW	Total Hg (1631e)	T
				FS	1	250 mL	BS Glass	H2SO4/4 deg C	SW	Total MeHg (1630)	T
1528	7/18/2016	12:00	WQ-ECH_071816_SW_10		4						
				FS	1	250 mL	BS Glass	H2SO4/4 deg C	SW	Dissolved MeHg (1630)	D
				FS	1	250 mL	BS Glass	H2SO4/4 deg C	SW	Total MeHg (1630)	T
				FS	1	250 mL	PETG	4 deg C	SW	Total Hg (1631e)	T
				FS	1	250 mL	PETG	4 deg C	SW	Dissolved Hg (1631e)	D
1529	7/18/2016	12:00	WQ-ECH_071816_SW_10_DUP		4						
				FD	1	250 mL	PETG	4 deg C	SW	Dissolved Hg (1631e)	D
				FD	1	250 mL	BS Glass	H2SO4/4 deg C	SW	Total MeHg (1630)	T
				FD	1	250 mL	BS Glass	H2SO4/4 deg C	SW	Dissolved MeHg (1630)	D
				FD	1	250 mL	PETG	4 deg C	SW	Total Hg (1631e)	T

Wednesday, July 20, 2016

Page 2 of 4

1607586

Samp #	Sample Date	Sample Time	Field Sample ID	QC Code	Qty Total	Qty Each	Bottle Size and Material	Preservative	Media Method	Fraction
1530	7/18/2016	12:00	WQ-ECH_071816_SW_10_MS		4					
				MS	1	250 mL	PETG	4 deg C	SW Total Hg (1631e)	T
				MS	1	250 mL	BS Glass	H2SO4/4 deg C	SW Dissolved MeHg (1630)	D
				MS	1	250 mL	PETG	4 deg C	SW Dissolved Hg (1631e)	D
				MS	1	250 mL	BS Glass	H2SO4/4 deg C	SW Total MeHg (1630)	T
1531	7/18/2016	12:00	WQ-ECH_071816_SW_10_MD		4					
				MSD	1	250 mL	BS Glass	H2SO4/4 deg C	SW Total MeHg (1630)	T
				MSD	1	250 mL	PETG	4 deg C	SW Total Hg (1631e)	T
				MSD	1	250 mL	BS Glass	H2SO4/4 deg C	SW Dissolved MeHg (1630)	D
				MSD	1	250 mL	PETG	4 deg C	SW Dissolved Hg (1631e)	D
1532	7/18/2016	11:00	WQ-FPT_071816_SW_10		4					
				FS	1	250 mL	PETG	4 deg C	SW Total Hg (1631e)	T
				FS	1	250 mL	BS Glass	H2SO4/4 deg C	SW Dissolved MeHg (1630)	D
				FS	1	250 mL	PETG	4 deg C	SW Dissolved Hg (1631e)	D
				FS	1	250 mL	BS Glass	H2SO4/4 deg C	SW Total MeHg (1630)	T
1533	7/19/2016	12:15	EB_071916_SW_QC		2					
				EB	1	250 mL	PETG	4 deg C	BW Dissolved Hg (1631e)	D
				EB	1	250 mL	BS Glass	H2SO4/4 deg C	BW Dissolved MeHg (1630)	D

EXTRA VOLUME FOR
MATRIX SPIKE

EXTRA VOLUME FOR
MSD.

1607588

Samp #	Sample Date	Sample Time	Field Sample ID	QC Code	Qty Total	Qty Each	Bottle Size and Material	Preservative	Media Method	Fraction
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QC Codes: FS = Field Sample, EB = Equipment Rinsate Blank, MS - Matrix Spike, MSD = Matrix Spike Duplicate

Relinquished: Julie Paley Date: 7 / 20 / 2016 Time: 1719

Received: [Signature] Date: 7 / 21 / 16 Time: 9:25

- AIRBILL#: 8094 0561 9680

- TWO COOLERS



AMEC Foster Wheeler
511 Congress Street
Portland ME, 04101

Project: Penobscot Seawater Total And Diss Hg and MMHg
Project Number: 3616166052
Project Manager: Rod Pendleton

Reported:
16-Dec-16 16:15

OV-02_071816_SW_10
1607586-01

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
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Sample Preparation: EFGS-013 Methyl Hg Distillation for Water

Methyl Mercury (as Mercury)	0.141	0.026	0.050	ng/L	1.25	F608251	09-Aug-16	6H11011	11-Aug-16	EPA 1630/FGS-070	
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Sample Preparation: EPA 1631E BrCl Oxidation

Mercury	1.68	0.08	0.50	ng/L	1	F608240	21-Jul-16	6H10008	09-Aug-16	EPA 1631E	
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Amy Goodall, Project Manager



AMEC Foster Wheeler
511 Congress Street
Portland ME, 04101

Project: Penobscot Seawater Total And Diss Hg and MMHg
Project Number: 3616166052
Project Manager: Rod Pendleton

Reported:
16-Dec-16 16:15

**OV-02_071816_SW_10 Dissolved
1607586-02**

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
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Sample Preparation: EFGS-013 Methyl Hg Distillation for Water

Methyl Mercury (as Mercury)	0.107	0.026	0.050	ng/L	1.25	F608251	09-Aug-16	6H11011	11-Aug-16	EPA 1630/FGS-070	
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Sample Preparation: EPA 1631E BrCl Oxidation

Mercury	1.26	0.08	0.50	ng/L	1	F608240	21-Jul-16	6H10008	09-Aug-16	EPA 1631E	
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Amy Goodall, Project Manager



AMEC Foster Wheeler
511 Congress Street
Portland ME, 04101

Project: Penobscot Seawater Total And Diss Hg and MMHg
Project Number: 3616166052
Project Manager: Rod Pendleton

Reported:
16-Dec-16 16:15

WQ1b-c_071816_SW_10
1607586-03

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
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Sample Preparation: EFGS-013 Methyl Hg Distillation for Water

Methyl Mercury (as Mercury)	0.259	0.026	0.050	ng/L	1.25	F608251	09-Aug-16	6H11011	11-Aug-16	EPA 1630/FGS-070	
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Sample Preparation: EPA 1631E BrCl Oxidation

Mercury	5.86	0.08	0.50	ng/L	1	F608240	21-Jul-16	6H10008	09-Aug-16	EPA 1631E	
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Amy Goodall, Project Manager



AMEC Foster Wheeler
511 Congress Street
Portland ME, 04101

Project: Penobscot Seawater Total And Diss Hg and MMHg
Project Number: 3616166052
Project Manager: Rod Pendleton

Reported:
16-Dec-16 16:15

**WQ1b-c_071816_SW_10 Dissolved
1607586-04**

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
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Sample Preparation: EFGS-013 Methyl Hg Distillation for Water

Methyl Mercury (as Mercury)	0.116	0.026	0.050	ng/L	1.25	F608273	11-Aug-16	6H12011	12-Aug-16	EPA 1630/FGS-070	
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Sample Preparation: EPA 1631E BrCl Oxidation

Mercury	1.16	0.08	0.50	ng/L	1	F608240	21-Jul-16	6H10008	09-Aug-16	EPA 1631E	
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Amy Goodall, Project Manager



AMEC Foster Wheeler
511 Congress Street
Portland ME, 04101

Project: Penobscot Seawater Total And Diss Hg and MMHg
Project Number: 3616166052
Project Manager: Rod Pendleton

Reported:
16-Dec-16 16:15

WQ2-c_071816_SW_10
1607586-05

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
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Sample Preparation: EFGS-013 Methyl Hg Distillation for Water

Methyl Mercury (as Mercury)	0.360	0.026	0.050	ng/L	1.25	F608251	09-Aug-16	6H11011	11-Aug-16	EPA 1630/FGS-070	
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Sample Preparation: EPA 1631E BrCl Oxidation

Mercury	16.1	0.08	0.50	ng/L	1	F608240	21-Jul-16	6H10008	09-Aug-16	EPA 1631E	
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Amy Goodall, Project Manager



AMEC Foster Wheeler
511 Congress Street
Portland ME, 04101

Project: Penobscot Seawater Total And Diss Hg and MMHg
Project Number: 3616166052
Project Manager: Rod Pendleton

Reported:
16-Dec-16 16:15

WQ2-c_071816_SW_10 Dissolved
1607586-06

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
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Sample Preparation: EFGS-013 Methyl Hg Distillation for Water

Methyl Mercury (as Mercury)	0.142	0.026	0.050	ng/L	1.25	F608251	09-Aug-16	6H11011	11-Aug-16	EPA 1630/FGS-070	
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Sample Preparation: EPA 1631E BrCl Oxidation

Mercury	8.71	0.08	0.50	ng/L	1	F608240	21-Jul-16	6H10008	09-Aug-16	EPA 1631E	
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Amy Goodall, Project Manager



AMEC Foster Wheeler
511 Congress Street
Portland ME, 04101

Project: Penobscot Seawater Total And Diss Hg and MMHg
Project Number: 3616166052
Project Manager: Rod Pendleton

Reported:
16-Dec-16 16:15

WQ3-L_071816_SW_10
1607586-07

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
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Sample Preparation: EFGS-013 Methyl Hg Distillation for Water

Methyl Mercury (as Mercury)	0.132	0.026	0.050	ng/L	1.25	F608251	09-Aug-16	6H11011	11-Aug-16	EPA 1630/FGS-070	
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Sample Preparation: EPA 1631E BrCl Oxidation

Mercury	8.05	0.08	0.50	ng/L	1	F608240	21-Jul-16	6H10008	09-Aug-16	EPA 1631E	
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Amy Goodall, Project Manager



AMEC Foster Wheeler
511 Congress Street
Portland ME, 04101

Project: Penobscot Seawater Total And Diss Hg and MMHg
Project Number: 3616166052
Project Manager: Rod Pendleton

Reported:
16-Dec-16 16:15

**WQ3-L_071816_SW_10 Dissolved
1607586-08**

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
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Sample Preparation: EFGS-013 Methyl Hg Distillation for Water

Methyl Mercury (as Mercury)	ND	0.026	0.050	ng/L	1.25	F608251	09-Aug-16	6H11011	11-Aug-16	EPA 1630/FGS-070	U
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Sample Preparation: EPA 1631E BrCl Oxidation

Mercury	1.20	0.08	0.50	ng/L	1	F608240	21-Jul-16	6H10008	09-Aug-16	EPA 1631E	
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Amy Goodall, Project Manager



AMEC Foster Wheeler
511 Congress Street
Portland ME, 04101

Project: Penobscot Seawater Total And Diss Hg and MMHg
Project Number: 3616166052
Project Manager: Rod Pendleton

Reported:
16-Dec-16 16:15

ES-15_071816_SW_10
1607586-09

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
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Sample Preparation: EFGS-013 Methyl Hg Distillation for Water

Methyl Mercury (as Mercury)	0.043	0.026	0.050	ng/L	1.25	F608251	09-Aug-16	6H11011	11-Aug-16	EPA 1630/FGS-070	J
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Sample Preparation: EPA 1631E BrCl Oxidation

Mercury	1.72	0.08	0.50	ng/L	1	F608240	21-Jul-16	6H10008	09-Aug-16	EPA 1631E	
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Amy Goodall, Project Manager



AMEC Foster Wheeler
511 Congress Street
Portland ME, 04101

Project: Penobscot Seawater Total And Diss Hg and MMHg
Project Number: 3616166052
Project Manager: Rod Pendleton

Reported:
16-Dec-16 16:15

**ES-15_071816_SW_10 Dissolved
1607586-10**

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
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Sample Preparation: EFGS-013 Methyl Hg Distillation for Water

Methyl Mercury (as Mercury)	0.047	0.026	0.050	ng/L	1.25	F608200	04-Aug-16	6H08006	05-Aug-16	EPA 1630/FGS-070	J
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Sample Preparation: EPA 1631E BrCl Oxidation

Mercury	0.63	0.08	0.50	ng/L	1	F608240	21-Jul-16	6H10008	09-Aug-16	EPA 1631E	
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Amy Goodall, Project Manager



AMEC Foster Wheeler
511 Congress Street
Portland ME, 04101

Project: Penobscot Seawater Total And Diss Hg and MMHg
Project Number: 3616166052
Project Manager: Rod Pendleton

Reported:
16-Dec-16 16:15

WQ-ECH_071816_SW_10
1607586-11

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
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Sample Preparation: EFGS-013 Methyl Hg Distillation for Water

Methyl Mercury (as Mercury)	0.067	0.026	0.050	ng/L	1.25	F608251	09-Aug-16	6H11011	11-Aug-16	EPA 1630/FGS-070	
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Sample Preparation: EPA 1631E BrCl Oxidation

Mercury	2.55	0.08	0.50	ng/L	1	F608240	21-Jul-16	6H10008	09-Aug-16	EPA 1631E	
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Amy Goodall, Project Manager



AMEC Foster Wheeler
511 Congress Street
Portland ME, 04101

Project: Penobscot Seawater Total And Diss Hg and MMHg
Project Number: 3616166052
Project Manager: Rod Pendleton

Reported:
16-Dec-16 16:15

**WQ-ECH_071816_SW_10 Dissolved
1607586-12**

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
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Sample Preparation: EFGS-013 Methyl Hg Distillation for Water

Methyl Mercury (as Mercury)	ND	0.026	0.050	ng/L	1.25	F608273	11-Aug-16	6H12011	12-Aug-16	EPA 1630/FGS-070	U
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Sample Preparation: EPA 1631E BrCl Oxidation

Mercury	0.58	0.08	0.50	ng/L	1	F608240	21-Jul-16	6H10008	09-Aug-16	EPA 1631E	
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Amy Goodall, Project Manager



AMEC Foster Wheeler
511 Congress Street
Portland ME, 04101

Project: Penobscot Seawater Total And Diss Hg and MMHg
Project Number: 3616166052
Project Manager: Rod Pendleton

Reported:
16-Dec-16 16:15

WQ-ECH_071816_SW_10_DUP
1607586-13

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
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Sample Preparation: EFGS-013 Methyl Hg Distillation for Water

Methyl Mercury (as Mercury)	0.071	0.026	0.050	ng/L	1.25	F608251	09-Aug-16	6H11011	11-Aug-16	EPA 1630/FGS-070	
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Sample Preparation: EPA 1631E BrCl Oxidation

Mercury	2.59	0.08	0.50	ng/L	1	F608240	21-Jul-16	6H10008	09-Aug-16	EPA 1631E	
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Amy Goodall, Project Manager



AMEC Foster Wheeler
511 Congress Street
Portland ME, 04101

Project: Penobscot Seawater Total And Diss Hg and MMHg
Project Number: 3616166052
Project Manager: Rod Pendleton

Reported:
16-Dec-16 16:15

**WQ-ECH_071816_SW_10_DUP Dissolved
1607586-14**

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
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Sample Preparation: EFGS-013 Methyl Hg Distillation for Water

Methyl Mercury (as Mercury)	ND	0.026	0.050	ng/L	1.25	F608251	09-Aug-16	6H11011	11-Aug-16	EPA 1630/FGS-070	U
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Sample Preparation: EPA 1631E BrCl Oxidation

Mercury	0.58	0.08	0.50	ng/L	1	F608240	21-Jul-16	6H10008	09-Aug-16	EPA 1631E	
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Amy Goodall, Project Manager



AMEC Foster Wheeler
511 Congress Street
Portland ME, 04101

Project: Penobscot Seawater Total And Diss Hg and MMHg
Project Number: 3616166052
Project Manager: Rod Pendleton

Reported:
16-Dec-16 16:15

WQ-FPT_071816_SW_10
1607586-19

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
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Sample Preparation: EFGS-013 Methyl Hg Distillation for Water

Methyl Mercury (as Mercury)	0.035	0.026	0.050	ng/L	1.25	F608273	11-Aug-16	6H12011	12-Aug-16	EPA 1630/FGS-070	J
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Sample Preparation: EPA 1631E BrCl Oxidation

Mercury	1.44	0.08	0.50	ng/L	1	F608263	21-Jul-16	6H11005	11-Aug-16	EPA 1631E	
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Amy Goodall, Project Manager



AMEC Foster Wheeler
511 Congress Street
Portland ME, 04101

Project: Penobscot Seawater Total And Diss Hg and MMHg
Project Number: 3616166052
Project Manager: Rod Pendleton

Reported:
16-Dec-16 16:15

**WQ-FPT_071816_SW_10 Dissolved
1607586-20**

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
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Sample Preparation: EFGS-013 Methyl Hg Distillation for Water

Methyl Mercury (as Mercury)	ND	0.026	0.050	ng/L	1.25	F608273	11-Aug-16	6H12011	12-Aug-16	EPA 1630/FGS-070	U
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Sample Preparation: EPA 1631E BrCl Oxidation

Mercury	0.50	0.08	0.50	ng/L	1	F608263	21-Jul-16	6H11005	11-Aug-16	EPA 1631E	
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Amy Goodall, Project Manager



AMEC Foster Wheeler
511 Congress Street
Portland ME, 04101

Project: Penobscot Seawater Total And Diss Hg and MMHg
Project Number: 3616166052
Project Manager: Rod Pendleton

Reported:
16-Dec-16 16:15

**EB_071916_SW_QC Dissolved
1607586-21**

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
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Sample Preparation: EFGS-013 Methyl Hg Distillation for Water

Methyl Mercury (as Mercury)	ND	0.026	0.050	ng/L	1.25	F608273	11-Aug-16	6H12011	12-Aug-16	EPA 1630/FGS-070	U
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Sample Preparation: EPA 1631E BrCl Oxidation

Mercury	ND	0.08	0.50	ng/L	1	F608263	21-Jul-16	6H11005	11-Aug-16	EPA 1631E	U
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Amy Goodall, Project Manager



AMEC Foster Wheeler
511 Congress Street
Portland ME, 04101

Project: Penobscot Seawater Total And Diss Hg and MMHg
Project Number: 3616166052
Project Manager: Rod Pendleton

Reported:
16-Dec-16 16:15

Quality Control Data

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 6H03012 - F608139											
Cal Standard (6H03012-CAL1)					Prepared & Analyzed: 03-Aug-16						
Methyl Mercury (as Mercury)	0.041	-		ng/L	0.050050		81.7				
Cal Standard (6H03012-CAL2)					Prepared & Analyzed: 03-Aug-16						
Methyl Mercury (as Mercury)	0.197	-		ng/L	0.20020		98.2				
Cal Standard (6H03012-CAL3)					Prepared & Analyzed: 03-Aug-16						
Methyl Mercury (as Mercury)	1.044	-		ng/L	1.0010		104				
Cal Standard (6H03012-CAL4)					Prepared & Analyzed: 03-Aug-16						
Methyl Mercury (as Mercury)	2.304	-		ng/L	2.0020		115				
Cal Standard (6H03012-CAL5)					Prepared & Analyzed: 03-Aug-16						
Methyl Mercury (as Mercury)	4.015	-		ng/L	4.0040		100				
Calibration Blank (6H03012-CCB1)					Prepared & Analyzed: 03-Aug-16						
Methyl Mercury (as Mercury)	0.018	-		ng/L							
Calibration Blank (6H03012-CCB2)					Prepared & Analyzed: 03-Aug-16						
Methyl Mercury (as Mercury)	0.001	-		ng/L							
Calibration Blank (6H03012-CCB3)					Prepared & Analyzed: 03-Aug-16						
Methyl Mercury (as Mercury)	-0.001	-		ng/L							U
Calibration Check (6H03012-CCV1)					Prepared & Analyzed: 03-Aug-16						
Methyl Mercury (as Mercury)	0.538	-		ng/L	0.50049		107	67-133			
Calibration Check (6H03012-CCV2)					Prepared & Analyzed: 03-Aug-16						
Methyl Mercury (as Mercury)	0.546	-		ng/L	0.50049		109	67-133			

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Amy Goodall, Project Manager

AMEC Foster Wheeler
511 Congress Street
Portland ME, 04101

Project: Penobscot Seawater Total And Diss Hg and MMHg
Project Number: 3616166052
Project Manager: Rod Pendleton

Reported:
16-Dec-16 16:15

Quality Control Data

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 6H03012 - F608139

Calibration Check (6H03012-CCV3)

Prepared & Analyzed: 03-Aug-16

Methyl Mercury (as Mercury)	0.620	-		ng/L	0.50049		124	67-133			
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Instrument Blank (6H03012-IBL1)

Prepared & Analyzed: 03-Aug-16

Methyl Mercury (as Mercury)	ND	0.021	0.040	ng/L							U
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Initial Cal Blank (6H03012-ICB1)

Prepared & Analyzed: 03-Aug-16

Methyl Mercury (as Mercury)	0.012	-		ng/L							
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Initial Cal Check (6H03012-ICV1)

Prepared & Analyzed: 03-Aug-16

Methyl Mercury (as Mercury)	0.553	-		ng/L	0.50049		110	67-133			
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Batch 6H08006 - F608200

Cal Standard (6H08006-CAL1)

Prepared & Analyzed: 05-Aug-16

Methyl Mercury (as Mercury)	0.049	-		ng/L	0.050050		98.7				
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Cal Standard (6H08006-CAL2)

Prepared & Analyzed: 05-Aug-16

Methyl Mercury (as Mercury)	0.193	-		ng/L	0.20020		96.3				
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Cal Standard (6H08006-CAL3)

Prepared & Analyzed: 05-Aug-16

Methyl Mercury (as Mercury)	1.133	-		ng/L	1.0010		113				
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Cal Standard (6H08006-CAL4)

Prepared & Analyzed: 05-Aug-16

Methyl Mercury (as Mercury)	1.989	-		ng/L	2.0020		99.4				
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Cal Standard (6H08006-CAL5)

Prepared & Analyzed: 05-Aug-16

Methyl Mercury (as Mercury)	3.683	-		ng/L	4.0040		92.0				
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Amy Goodall, Project Manager



AMEC Foster Wheeler
511 Congress Street
Portland ME, 04101

Project: Penobscot Seawater Total And Diss Hg and MMHg
Project Number: 3616166052
Project Manager: Rod Pendleton

Reported:
16-Dec-16 16:15

Quality Control Data

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 6H08006 - F608200											
Calibration Blank (6H08006-CCB1) Prepared & Analyzed: 05-Aug-16											
Methyl Mercury (as Mercury)	0.009	-		ng/L							
Calibration Blank (6H08006-CCB2) Prepared & Analyzed: 05-Aug-16											
Methyl Mercury (as Mercury)	0.006	-		ng/L							
Calibration Blank (6H08006-CCB3) Prepared & Analyzed: 05-Aug-16											
Methyl Mercury (as Mercury)	0.007	-		ng/L							
Calibration Blank (6H08006-CCB4) Prepared & Analyzed: 05-Aug-16											
Methyl Mercury (as Mercury)	0.002	-		ng/L							
Calibration Blank (6H08006-CCB5) Prepared & Analyzed: 05-Aug-16											
Methyl Mercury (as Mercury)	0.005	-		ng/L							
Calibration Blank (6H08006-CCB6) Prepared & Analyzed: 05-Aug-16											
Methyl Mercury (as Mercury)	0.014	-		ng/L							
Calibration Blank (6H08006-CCB7) Prepared & Analyzed: 05-Aug-16											
Methyl Mercury (as Mercury)	0.0002	-		ng/L							
Calibration Blank (6H08006-CCB8) Prepared: 05-Aug-16 Analyzed: 06-Aug-16											
Methyl Mercury (as Mercury)	-0.0002	-		ng/L							U
Calibration Check (6H08006-CCV1) Prepared & Analyzed: 05-Aug-16											
Methyl Mercury (as Mercury)	0.652	-		ng/L	0.50049		130	67-133			
Calibration Check (6H08006-CCV2) Prepared & Analyzed: 05-Aug-16											
Methyl Mercury (as Mercury)	0.583	-		ng/L	0.50049		116	67-133			

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AMEC Foster Wheeler
511 Congress Street
Portland ME, 04101

Project: Penobscot Seawater Total And Diss Hg and MMHg
Project Number: 3616166052
Project Manager: Rod Pendleton

Reported:
16-Dec-16 16:15

Quality Control Data

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 6H08006 - F608200

Calibration Check (6H08006-CCV3) Prepared & Analyzed: 05-Aug-16

Methyl Mercury (as Mercury)	0.549	-		ng/L	0.50049		110	67-133			
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Calibration Check (6H08006-CCV4) Prepared & Analyzed: 05-Aug-16

Methyl Mercury (as Mercury)	0.523	-		ng/L	0.50049		105	67-133			
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Calibration Check (6H08006-CCV5) Prepared & Analyzed: 05-Aug-16

Methyl Mercury (as Mercury)	0.426	-		ng/L	0.50049		85.0	67-133			
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Calibration Check (6H08006-CCV6) Prepared & Analyzed: 05-Aug-16

Methyl Mercury (as Mercury)	0.477	-		ng/L	0.50049		95.4	67-133			
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Calibration Check (6H08006-CCV7) Prepared & Analyzed: 05-Aug-16

Methyl Mercury (as Mercury)	0.485	-		ng/L	0.50049		96.9	67-133			
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Calibration Check (6H08006-CCV8) Prepared: 05-Aug-16 Analyzed: 06-Aug-16

Methyl Mercury (as Mercury)	0.526	-		ng/L	0.50049		105	67-133			
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Instrument Blank (6H08006-IBL1) Prepared & Analyzed: 05-Aug-16

Methyl Mercury (as Mercury)	ND	0.021	0.040	ng/L							U
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Initial Cal Blank (6H08006-ICB1) Prepared & Analyzed: 05-Aug-16

Methyl Mercury (as Mercury)	0.015	-		ng/L							
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Initial Cal Check (6H08006-ICV1) Prepared & Analyzed: 05-Aug-16

Methyl Mercury (as Mercury)	0.616	-		ng/L	0.50049		123	67-133			
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Batch 6H10008 - F608240

Cal Standard (6H10008-CAL1) Prepared & Analyzed: 09-Aug-16

Mercury	0.51	-		ng/L	0.50100		103				
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Amy Goodall, Project Manager



AMEC Foster Wheeler
511 Congress Street
Portland ME, 04101

Project: Penobscot Seawater Total And Diss Hg and MMHg
Project Number: 3616166052
Project Manager: Rod Pendleton

Reported:
16-Dec-16 16:15

Quality Control Data

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 6H10008 - F608240											
Cal Standard (6H10008-CAL2)					Prepared & Analyzed: 09-Aug-16						
Mercury	1.05	-		ng/L	1.0020		105				
Cal Standard (6H10008-CAL3)					Prepared & Analyzed: 09-Aug-16						
Mercury	4.88	-		ng/L	5.0100		97.3				
Cal Standard (6H10008-CAL4)					Prepared & Analyzed: 09-Aug-16						
Mercury	19.46	-		ng/L	20.040		97.1				
Cal Standard (6H10008-CAL5)					Prepared & Analyzed: 09-Aug-16						
Mercury	38.89	-		ng/L	40.080		97.0				
Calibration Blank (6H10008-CCB1)					Prepared & Analyzed: 09-Aug-16						
Mercury	0.07	-		ng/L							
Calibration Blank (6H10008-CCB2)					Prepared & Analyzed: 09-Aug-16						
Mercury	0.04	-		ng/L							
Calibration Blank (6H10008-CCB3)					Prepared & Analyzed: 09-Aug-16						
Mercury	0.02	-		ng/L							
Calibration Blank (6H10008-CCB4)					Prepared & Analyzed: 09-Aug-16						
Mercury	0.09	-		ng/L							
Calibration Blank (6H10008-CCB5)					Prepared & Analyzed: 09-Aug-16						
Mercury	0.08	-		ng/L							
Calibration Blank (6H10008-CCB6)					Prepared & Analyzed: 09-Aug-16						
Mercury	0.11	-		ng/L							

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511 Congress Street
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Project: Penobscot Seawater Total And Diss Hg and MMHg
Project Number: 3616166052
Project Manager: Rod Pendleton

Reported:
16-Dec-16 16:15

Quality Control Data

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 6H10008 - F608240											
Calibration Blank (6H10008-CCB7) Prepared & Analyzed: 09-Aug-16											
Mercury	0.06	-		ng/L							
Calibration Blank (6H10008-CCB8) Prepared & Analyzed: 09-Aug-16											
Mercury	0.04	-		ng/L							
Calibration Blank (6H10008-CCB9) Prepared & Analyzed: 09-Aug-16											
Mercury	0.04	-		ng/L							
Calibration Blank (6H10008-CCBA) Prepared & Analyzed: 09-Aug-16											
Mercury	0.22	-		ng/L							
Calibration Check (6H10008-CCV1) Prepared & Analyzed: 09-Aug-16											
Mercury	5.24	-		ng/L	5.0000		105	77-123			
Calibration Check (6H10008-CCV2) Prepared & Analyzed: 09-Aug-16											
Mercury	5.13	-		ng/L	5.0000		103	77-123			
Calibration Check (6H10008-CCV3) Prepared & Analyzed: 09-Aug-16											
Mercury	5.27	-		ng/L	5.0000		105	77-123			
Calibration Check (6H10008-CCV4) Prepared & Analyzed: 09-Aug-16											
Mercury	4.99	-		ng/L	5.0000		99.9	77-123			
Calibration Check (6H10008-CCV5) Prepared & Analyzed: 09-Aug-16											
Mercury	5.04	-		ng/L	5.0000		101	77-123			
Calibration Check (6H10008-CCV6) Prepared & Analyzed: 09-Aug-16											
Mercury	5.09	-		ng/L	5.0000		102	77-123			

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Amy Goodall, Project Manager



AMEC Foster Wheeler
511 Congress Street
Portland ME, 04101

Project: Penobscot Seawater Total And Diss Hg and MMHg
Project Number: 3616166052
Project Manager: Rod Pendleton

Reported:
16-Dec-16 16:15

Quality Control Data

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 6H10008 - F608240

Calibration Check (6H10008-CCV7) Prepared & Analyzed: 09-Aug-16

Mercury	5.20	-		ng/L	5.0000		104	77-123			
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Calibration Check (6H10008-CCV8) Prepared & Analyzed: 09-Aug-16

Mercury	5.07	-		ng/L	5.0000		101	77-123			
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Calibration Check (6H10008-CCV9) Prepared & Analyzed: 09-Aug-16

Mercury	4.99	-		ng/L	5.0000		99.8	77-123			
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Calibration Check (6H10008-CCVA) Prepared & Analyzed: 09-Aug-16

Mercury	5.25	-		ng/L	5.0000		105	77-123			
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Instrument Blank (6H10008-IBL1) Prepared & Analyzed: 09-Aug-16

Mercury	ND	0.08	0.50	ng/L							U
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Instrument Blank (6H10008-IBL2) Prepared & Analyzed: 09-Aug-16

Mercury	ND	0.08	0.50	ng/L							U
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Instrument Blank (6H10008-IBL3) Prepared & Analyzed: 09-Aug-16

Mercury	ND	0.08	0.50	ng/L							U
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Initial Cal Check (6H10008-ICV1) Prepared & Analyzed: 09-Aug-16

Mercury	5.27	-		ng/L	5.0000		105	77-123			
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Batch 6H11005 - F608263

Cal Standard (6H11005-CAL1) Prepared: 10-Aug-16 Analyzed: 11-Aug-16

Mercury	0.50	-		ng/L	0.50100		99.6				
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Amy Goodall, Project Manager



AMEC Foster Wheeler 511 Congress Street Portland ME, 04101	Project: Penobscot Seawater Total And Diss Hg and MMHg Project Number: 3616166052 Project Manager: Rod Pendleton	Reported: 16-Dec-16 16:15
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Quality Control Data

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 6H11005 - F608263											
Cal Standard (6H11005-CAL2)					Prepared: 10-Aug-16 Analyzed: 11-Aug-16						
Mercury	1.02	-		ng/L	1.0020		102				
Cal Standard (6H11005-CAL3)					Prepared: 10-Aug-16 Analyzed: 11-Aug-16						
Mercury	4.95	-		ng/L	5.0100		98.9				
Cal Standard (6H11005-CAL4)					Prepared: 10-Aug-16 Analyzed: 11-Aug-16						
Mercury	19.82	-		ng/L	20.040		98.9				
Cal Standard (6H11005-CAL5)					Prepared: 10-Aug-16 Analyzed: 11-Aug-16						
Mercury	39.82	-		ng/L	40.080		99.3				
Calibration Blank (6H11005-CCB1)					Prepared: 10-Aug-16 Analyzed: 11-Aug-16						
Mercury	-0.01	-		ng/L							U
Calibration Blank (6H11005-CCB2)					Prepared: 10-Aug-16 Analyzed: 11-Aug-16						
Mercury	-0.006	-		ng/L							U
Calibration Blank (6H11005-CCB3)					Prepared: 10-Aug-16 Analyzed: 11-Aug-16						
Mercury	0.12	-		ng/L							
Calibration Blank (6H11005-CCB5)					Prepared: 10-Aug-16 Analyzed: 11-Aug-16						
Mercury	0.53	-		ng/L							
Calibration Check (6H11005-CCV1)					Prepared: 10-Aug-16 Analyzed: 11-Aug-16						
Mercury	5.24	-		ng/L	5.0000		105	77-123			
Calibration Check (6H11005-CCV2)					Prepared: 10-Aug-16 Analyzed: 11-Aug-16						
Mercury	5.43	-		ng/L	5.0000		109	77-123			

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AMEC Foster Wheeler
511 Congress Street
Portland ME, 04101

Project: Penobscot Seawater Total And Diss Hg and MMHg
Project Number: 3616166052
Project Manager: Rod Pendleton

Reported:
16-Dec-16 16:15

Quality Control Data

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 6H11005 - F608263

Calibration Check (6H11005-CCV3)					Prepared: 10-Aug-16 Analyzed: 11-Aug-16						
Mercury	5.64	-		ng/L	5.0000		113	77-123			
Instrument Blank (6H11005-IBL1)					Prepared: 10-Aug-16 Analyzed: 11-Aug-16						
Mercury	ND	0.08	0.50	ng/L							U
Instrument Blank (6H11005-IBL2)					Prepared: 10-Aug-16 Analyzed: 11-Aug-16						
Mercury	ND	0.08	0.50	ng/L							U
Instrument Blank (6H11005-IBL3)					Prepared: 10-Aug-16 Analyzed: 11-Aug-16						
Mercury	ND	0.08	0.50	ng/L							U
Initial Cal Check (6H11005-ICV1)					Prepared: 10-Aug-16 Analyzed: 11-Aug-16						
Mercury	5.42	-		ng/L	5.0000		108	77-123			

Batch 6H11011 - F608251

Cal Standard (6H11011-CAL1)					Prepared & Analyzed: 11-Aug-16						
Methyl Mercury (as Mercury)	0.052	-		ng/L	0.050050		104				
Cal Standard (6H11011-CAL2)					Prepared & Analyzed: 11-Aug-16						
Methyl Mercury (as Mercury)	0.178	-		ng/L	0.20020		89.0				
Cal Standard (6H11011-CAL3)					Prepared & Analyzed: 11-Aug-16						
Methyl Mercury (as Mercury)	1.008	-		ng/L	1.0010		101				
Cal Standard (6H11011-CAL4)					Prepared & Analyzed: 11-Aug-16						
Methyl Mercury (as Mercury)	2.032	-		ng/L	2.0020		101				

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Amy Goodall, Project Manager

AMEC Foster Wheeler
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Project: Penobscot Seawater Total And Diss Hg and MMHg
Project Number: 3616166052
Project Manager: Rod Pendleton

Reported:
16-Dec-16 16:15

Quality Control Data

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 6H11011 - F608251											
Cal Standard (6H11011-CAL5)					Prepared & Analyzed: 11-Aug-16						
Methyl Mercury (as Mercury)	4.164	-		ng/L	4.0040		104				
Calibration Blank (6H11011-CCB1)					Prepared & Analyzed: 11-Aug-16						
Methyl Mercury (as Mercury)	0.005	-		ng/L							
Calibration Blank (6H11011-CCB2)					Prepared & Analyzed: 11-Aug-16						
Methyl Mercury (as Mercury)	0.0002	-		ng/L							
Calibration Blank (6H11011-CCB3)					Prepared & Analyzed: 11-Aug-16						
Methyl Mercury (as Mercury)	0.003	-		ng/L							
Calibration Check (6H11011-CCV1)					Prepared & Analyzed: 11-Aug-16						
Methyl Mercury (as Mercury)	0.365	-		ng/L	0.50049		73.0	67-133			
Calibration Check (6H11011-CCV2)					Prepared & Analyzed: 11-Aug-16						
Methyl Mercury (as Mercury)	0.364	-		ng/L	0.50049		72.6	67-133			
Calibration Check (6H11011-CCV3)					Prepared & Analyzed: 11-Aug-16						
Methyl Mercury (as Mercury)	0.340	-		ng/L	0.50049		67.9	67-133			
Instrument Blank (6H11011-IBL1)					Prepared & Analyzed: 11-Aug-16						
Methyl Mercury (as Mercury)	ND	0.021	0.040	ng/L							U
Initial Cal Blank (6H11011-ICB1)					Prepared & Analyzed: 11-Aug-16						
Methyl Mercury (as Mercury)	0.016	-		ng/L							
Initial Cal Check (6H11011-ICV1)					Prepared & Analyzed: 11-Aug-16						
Methyl Mercury (as Mercury)	0.539	-		ng/L	0.50049		108	67-133			

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Amy Goodall, Project Manager

AMEC Foster Wheeler
511 Congress Street
Portland ME, 04101

Project: Penobscot Seawater Total And Diss Hg and MMHg
Project Number: 3616166052
Project Manager: Rod Pendleton

Reported:
16-Dec-16 16:15

Quality Control Data

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 6H12011 - F608273

Cal Standard (6H12011-CAL1)						Prepared & Analyzed: 12-Aug-16					
Methyl Mercury (as Mercury)	0.049	-		ng/L	0.050050		97.4				
Cal Standard (6H12011-CAL2)						Prepared & Analyzed: 12-Aug-16					
Methyl Mercury (as Mercury)	0.211	-		ng/L	0.20020		105				
Cal Standard (6H12011-CAL3)						Prepared & Analyzed: 12-Aug-16					
Methyl Mercury (as Mercury)	0.829	-		ng/L	1.0010		82.8				
Cal Standard (6H12011-CAL4)						Prepared & Analyzed: 12-Aug-16					
Methyl Mercury (as Mercury)	1.982	-		ng/L	2.0020		99.0				
Cal Standard (6H12011-CAL5)						Prepared & Analyzed: 12-Aug-16					
Methyl Mercury (as Mercury)	4.602	-		ng/L	4.0040		115				
Calibration Blank (6H12011-CCB1)						Prepared & Analyzed: 12-Aug-16					
Methyl Mercury (as Mercury)	0.005	-		ng/L							
Calibration Blank (6H12011-CCB2)						Prepared & Analyzed: 12-Aug-16					
Methyl Mercury (as Mercury)	0.001	-		ng/L							
Calibration Blank (6H12011-CCB3)						Prepared & Analyzed: 12-Aug-16					
Methyl Mercury (as Mercury)	0.002	-		ng/L							
Calibration Blank (6H12011-CCB4)						Prepared & Analyzed: 12-Aug-16					
Methyl Mercury (as Mercury)	0.005	-		ng/L							
Calibration Blank (6H12011-CCB5)						Prepared & Analyzed: 12-Aug-16					
Methyl Mercury (as Mercury)	0.001	-		ng/L							

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 Portland ME, 04101

Project: Penobscot Seawater Total And Diss Hg and MMHg
 Project Number: 3616166052
 Project Manager: Rod Pendleton

Reported:
 16-Dec-16 16:15

Quality Control Data

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 6H12011 - F608273											
Calibration Blank (6H12011-CCB6) Prepared & Analyzed: 12-Aug-16											
Methyl Mercury (as Mercury)	0.001	-		ng/L							
Calibration Check (6H12011-CCV1) Prepared & Analyzed: 12-Aug-16											
Methyl Mercury (as Mercury)	0.449	-		ng/L	0.50049		89.8	67-133			
Calibration Check (6H12011-CCV2) Prepared & Analyzed: 12-Aug-16											
Methyl Mercury (as Mercury)	0.599	-		ng/L	0.50049		120	67-133			
Calibration Check (6H12011-CCV3) Prepared & Analyzed: 12-Aug-16											
Methyl Mercury (as Mercury)	0.515	-		ng/L	0.50049		103	67-133			
Calibration Check (6H12011-CCV5) Prepared & Analyzed: 12-Aug-16											
Methyl Mercury (as Mercury)	0.621	-		ng/L	0.50049		124	67-133			
Calibration Check (6H12011-CCV6) Prepared & Analyzed: 12-Aug-16											
Methyl Mercury (as Mercury)	0.619	-		ng/L	0.50049		124	67-133			
Calibration Check (6H12011-CCV7) Prepared & Analyzed: 12-Aug-16											
Methyl Mercury (as Mercury)	0.440	-		ng/L	0.50049		87.9	67-133			
Calibration Check (6H12011-CCV8) Prepared & Analyzed: 12-Aug-16											
Methyl Mercury (as Mercury)	0.479	-		ng/L	0.50049		95.7	67-133			
Instrument Blank (6H12011-IBL1) Prepared & Analyzed: 12-Aug-16											
Methyl Mercury (as Mercury)	ND	0.021	0.040	ng/L							U
Initial Cal Blank (6H12011-ICB1) Prepared & Analyzed: 12-Aug-16											
Methyl Mercury (as Mercury)	0.008	-		ng/L							

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Project: Penobscot Seawater Total And Diss Hg and MMHg
Project Number: 3616166052
Project Manager: Rod Pendleton

Reported:
16-Dec-16 16:15

Quality Control Data

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 6H12011 - F608273											
Initial Cal Check (6H12011-ICV1)					Prepared & Analyzed: 12-Aug-16						
Methyl Mercury (as Mercury)	0.500	-		ng/L	0.50049		99.9	67-133			
Batch F608139 - EFGS-013 Methyl Hg Distillation for Water											
Blank (F608139-BLK1)					Prepared: 02-Aug-16 Analyzed: 03-Aug-16						
Methyl Mercury (as Mercury)	ND	0.026	0.050	ng/L							U
Blank (F608139-BLK2)					Prepared: 02-Aug-16 Analyzed: 03-Aug-16						
Methyl Mercury (as Mercury)	ND	0.026	0.050	ng/L							U
Blank (F608139-BLK3)					Prepared: 02-Aug-16 Analyzed: 03-Aug-16						
Methyl Mercury (as Mercury)	ND	0.026	0.050	ng/L							U
LCS (F608139-BS1)					Prepared: 02-Aug-16 Analyzed: 03-Aug-16						
Methyl Mercury (as Mercury)	1.835	0.026	0.050	ng/L	1.0010		183	70-130			QM-12
LCS Dup (F608139-BSD1)					Prepared: 02-Aug-16 Analyzed: 03-Aug-16						
Methyl Mercury (as Mercury)	1.799	0.026	0.050	ng/L	1.0010		180	70-130	1.98	25	QM-12
Duplicate (F608139-DUP1)					Source: 1607339-01 Prepared: 02-Aug-16 Analyzed: 03-Aug-16						
Methyl Mercury (as Mercury)	0.156	0.026	0.050	ng/L		0.123			23.9	35	
Matrix Spike (F608139-MS1)					Source: 1607159-01 Prepared: 02-Aug-16 Analyzed: 03-Aug-16						
Methyl Mercury (as Mercury)	0.657	0.026	0.050	ng/L	1.0010	ND	65.7	65-130			
Matrix Spike (F608139-MS2)					Source: 1607380-03 Prepared: 02-Aug-16 Analyzed: 03-Aug-16						
Methyl Mercury (as Mercury)	2.143	0.026	0.050	ng/L	1.0010	0.154	199	65-130			QM-07

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Project: Penobscot Seawater Total And Diss Hg and MMHg
Project Number: 3616166052
Project Manager: Rod Pendleton

Reported:
16-Dec-16 16:15

Quality Control Data

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch F608139 - EFGS-013 Methyl Hg Distillation for Water

Matrix Spike Dup (F608139-MSD1)		Source: 1607159-01			Prepared: 02-Aug-16 Analyzed: 03-Aug-16						
Methyl Mercury (as Mercury)	0.604	0.026	0.050	ng/L	1.0010	ND	60.3	65-130	8.49	35	QM-07
Matrix Spike Dup (F608139-MSD2)		Source: 1607380-03			Prepared: 02-Aug-16 Analyzed: 03-Aug-16						
Methyl Mercury (as Mercury)	1.821	0.026	0.050	ng/L	1.0010	0.154	167	65-130	16.2	35	QM-07

Batch F608200 - EFGS-013 Methyl Hg Distillation for Water

Blank (F608200-BLK1)					Prepared: 04-Aug-16 Analyzed: 05-Aug-16						
Methyl Mercury (as Mercury)	ND	0.026	0.050	ng/L							U
Blank (F608200-BLK2)					Prepared: 04-Aug-16 Analyzed: 05-Aug-16						
Methyl Mercury (as Mercury)	ND	0.026	0.050	ng/L							U
Blank (F608200-BLK3)					Prepared: 04-Aug-16 Analyzed: 05-Aug-16						
Methyl Mercury (as Mercury)	ND	0.026	0.050	ng/L							U

Batch F608240 - EPA 1631E BrCl Oxidation

Blank (F608240-BLK1)					Prepared & Analyzed: 09-Aug-16						
Mercury	ND	0.08	0.50	ng/L							U
Blank (F608240-BLK2)					Prepared & Analyzed: 09-Aug-16						
Mercury	ND	0.08	0.50	ng/L							U
Blank (F608240-BLK3)					Prepared & Analyzed: 09-Aug-16						
Mercury	ND	0.08	0.50	ng/L							U

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Amy Goodall, Project Manager

AMEC Foster Wheeler
511 Congress Street
Portland ME, 04101

Project: Penobscot Seawater Total And Diss Hg and MMHg
Project Number: 3616166052
Project Manager: Rod Pendleton

Reported:
16-Dec-16 16:15

Quality Control Data

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch F608240 - EPA 1631E BrCl Oxidation

Blank (F608240-BLK4)				Prepared & Analyzed: 09-Aug-16							
Mercury	0.25	0.09	0.52	ng/L							J
LCS (F608240-BS1)				Prepared & Analyzed: 09-Aug-16							
Mercury	14.69	0.08	0.50	ng/L	15.679		93.7	80-120			
LCS Dup (F608240-BSD1)				Prepared & Analyzed: 09-Aug-16							
Mercury	14.94	0.08	0.50	ng/L	15.679		95.3	80-120	1.66	24	
Duplicate (F608240-DUP1)				Source: 1607586-05 Prepared & Analyzed: 09-Aug-16							
Mercury	16.00	0.08	0.50	ng/L		16.12			0.805	24	
Matrix Spike (F608240-MS1)				Source: 1607586-11 Prepared & Analyzed: 09-Aug-16							
Mercury	11.66	0.08	0.50	ng/L	10.120	2.55	90.0	71-125			
Matrix Spike (F608240-MS2)				Source: 1607586-12 Prepared & Analyzed: 09-Aug-16							
Mercury	2.94	0.08	0.50	ng/L	2.5300	0.58	93.4	71-125			
Matrix Spike Dup (F608240-MSD1)				Source: 1607586-11 Prepared & Analyzed: 09-Aug-16							
Mercury	11.89	0.08	0.50	ng/L	10.120	2.55	92.4	71-125	1.98	24	
Matrix Spike Dup (F608240-MSD2)				Source: 1607586-12 Prepared & Analyzed: 09-Aug-16							
Mercury	2.93	0.08	0.50	ng/L	2.5300	0.58	92.7	71-125	0.588	24	

Batch F608251 - EFGS-013 Methyl Hg Distillation for Water

Blank (F608251-BLK1)				Prepared: 09-Aug-16 Analyzed: 11-Aug-16							
Methyl Mercury (as Mercury)	ND	0.026	0.050	ng/L							U

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511 Congress Street
Portland ME, 04101

Project: Penobscot Seawater Total And Diss Hg and MMHg
Project Number: 3616166052
Project Manager: Rod Pendleton

Reported:
16-Dec-16 16:15

Quality Control Data

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch F608251 - EFGS-013 Methyl Hg Distillation for Water

Blank (F608251-BLK2)					Prepared: 09-Aug-16 Analyzed: 11-Aug-16						
Methyl Mercury (as Mercury)	ND	0.026	0.050	ng/L							U
Blank (F608251-BLK3)					Prepared: 09-Aug-16 Analyzed: 11-Aug-16						
Methyl Mercury (as Mercury)	ND	0.026	0.050	ng/L							U
LCS (F608251-BS1)					Prepared: 09-Aug-16 Analyzed: 11-Aug-16						
Methyl Mercury (as Mercury)	0.916	0.026	0.050	ng/L	1.0010		91.5	70-130			
LCS Dup (F608251-BSD1)					Prepared: 09-Aug-16 Analyzed: 11-Aug-16						
Methyl Mercury (as Mercury)	0.967	0.026	0.050	ng/L	1.0010		96.6	70-130	5.44	25	
Duplicate (F608251-DUP1)					Source: 1607380-09RE2 Prepared: 09-Aug-16 Analyzed: 11-Aug-16						
Methyl Mercury (as Mercury)	0.461	0.026	0.050	ng/L		0.180			87.8	35	QR-07
Matrix Spike (F608251-MS1)					Source: 1607380-13RE2 Prepared: 09-Aug-16 Analyzed: 11-Aug-16						
Methyl Mercury (as Mercury)	1.473	0.026	0.050	ng/L	1.0010	0.395	108	65-130			
Matrix Spike (F608251-MS2)					Source: 1607586-08RE1 Prepared: 09-Aug-16 Analyzed: 11-Aug-16						
Methyl Mercury (as Mercury)	0.838	0.026	0.050	ng/L	1.0010	ND	83.7	65-130			
Matrix Spike Dup (F608251-MSD1)					Source: 1607380-13RE2 Prepared: 09-Aug-16 Analyzed: 11-Aug-16						
Methyl Mercury (as Mercury)	1.629	0.026	0.050	ng/L	1.0010	0.395	123	65-130	10.1	35	
Matrix Spike Dup (F608251-MSD2)					Source: 1607586-08RE1 Prepared: 09-Aug-16 Analyzed: 11-Aug-16						
Methyl Mercury (as Mercury)	1.137	0.026	0.050	ng/L	1.0010	ND	114	65-130	30.3	35	

Batch F608263 - EPA 1631E BrCl Oxidation

Blank (F608263-BLK1)					Prepared: 10-Aug-16 Analyzed: 11-Aug-16						
Mercury	ND	0.08	0.50	ng/L							U

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Amy Goodall, Project Manager

AMEC Foster Wheeler
511 Congress Street
Portland ME, 04101

Project: Penobscot Seawater Total And Diss Hg and MMHg
Project Number: 3616166052
Project Manager: Rod Pendleton

Reported:
16-Dec-16 16:15

Quality Control Data

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch F608263 - EPA 1631E BrCl Oxidation

Blank (F608263-BLK2)					Prepared: 10-Aug-16 Analyzed: 11-Aug-16						
Mercury	ND	0.08	0.50	ng/L							U
Blank (F608263-BLK3)					Prepared: 10-Aug-16 Analyzed: 11-Aug-16						
Mercury	ND	0.08	0.50	ng/L							U
Blank (F608263-BLK4)					Prepared: 10-Aug-16 Analyzed: 11-Aug-16						
Mercury	ND	0.08	0.50	ng/L							U
LCS (F608263-BS1)					Prepared: 10-Aug-16 Analyzed: 11-Aug-16						
Mercury	15.32	0.08	0.50	ng/L	15.679		97.7	80-120			
LCS Dup (F608263-BSD1)					Prepared: 10-Aug-16 Analyzed: 11-Aug-16						
Mercury	15.53	0.08	0.50	ng/L	15.679		99.1	80-120	1.42	24	
Matrix Spike (F608263-MS1)					Source: 1607542-06 Prepared: 10-Aug-16 Analyzed: 11-Aug-16						
Mercury	6.52	0.08	0.50	ng/L	5.0601	1.17	106	71-125			
Matrix Spike (F608263-MS2)					Source: 1607805-02 Prepared: 10-Aug-16 Analyzed: 11-Aug-16						
Mercury	7.16	0.08	0.50	ng/L	5.0601	1.81	106	71-125			
Matrix Spike Dup (F608263-MSD1)					Source: 1607542-06 Prepared: 10-Aug-16 Analyzed: 11-Aug-16						
Mercury	6.47	0.08	0.50	ng/L	5.0601	1.17	105	71-125	0.744	24	
Matrix Spike Dup (F608263-MSD2)					Source: 1607805-02 Prepared: 10-Aug-16 Analyzed: 11-Aug-16						
Mercury	7.29	0.08	0.50	ng/L	5.0601	1.81	108	71-125	1.77	24	

Batch F608273 - EFGS-013 Methyl Hg Distillation for Water

Blank (F608273-BLK1)					Prepared: 11-Aug-16 Analyzed: 12-Aug-16						
Methyl Mercury (as Mercury)	ND	0.026	0.050	ng/L							U

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Project: Penobscot Seawater Total And Diss Hg and MMHg
Project Number: 3616166052
Project Manager: Rod Pendleton

Reported:
16-Dec-16 16:15

Quality Control Data

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch F608273 - EFGS-013 Methyl Hg Distillation for Water

Blank (F608273-BLK2)					Prepared: 11-Aug-16 Analyzed: 12-Aug-16						
Methyl Mercury (as Mercury)	ND	0.026	0.050	ng/L							U
Blank (F608273-BLK3)					Prepared: 11-Aug-16 Analyzed: 12-Aug-16						
Methyl Mercury (as Mercury)	ND	0.026	0.050	ng/L							U
LCS (F608273-BS1)					Prepared: 11-Aug-16 Analyzed: 12-Aug-16						
Methyl Mercury (as Mercury)	0.704	0.026	0.050	ng/L	1.0010		70.3	70-130			
LCS Dup (F608273-BSD1)					Prepared: 11-Aug-16 Analyzed: 12-Aug-16						
Methyl Mercury (as Mercury)	0.968	0.026	0.050	ng/L	1.0010		96.7	70-130	31.6	25	QR-06
Duplicate (F608273-DUP1)					Source: 1607542-01 Prepared: 11-Aug-16 Analyzed: 12-Aug-16						
Methyl Mercury (as Mercury)	0.151	0.026	0.050	ng/L		0.051			98.7	35	QR-07
Matrix Spike (F608273-MS1)					Source: 1607586-12 Prepared: 11-Aug-16 Analyzed: 12-Aug-16						
Methyl Mercury (as Mercury)	1.006	0.026	0.050	ng/L	1.0010	ND	101	65-130			
Matrix Spike (F608273-MS2)					Source: 1607772-01 Prepared: 11-Aug-16 Analyzed: 12-Aug-16						
Methyl Mercury (as Mercury)	0.347	0.026	0.050	ng/L	1.0010	0.029	31.7	65-130			QM-07
Matrix Spike Dup (F608273-MSD1)					Source: 1607586-12 Prepared: 11-Aug-16 Analyzed: 12-Aug-16						
Methyl Mercury (as Mercury)	0.713	0.026	0.050	ng/L	1.0010	ND	71.2	65-130	34.1	35	
Matrix Spike Dup (F608273-MSD2)					Source: 1607772-01 Prepared: 11-Aug-16 Analyzed: 12-Aug-16						
Methyl Mercury (as Mercury)	0.277	0.026	0.050	ng/L	1.0010	0.029	24.8	65-130	22.3	35	QM-07

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AMEC Foster Wheeler
511 Congress Street
Portland ME, 04101Project: Penobscot Seawater Total And Diss Hg and MMHg
Project Number: 3616166052
Project Manager: Rod Pendleton**Reported:**
16-Dec-16 16:15**Notes and Definitions**

- U Analyte was not detected and is reported as less than the LOD or as defined by the client. The LOD has been adjusted for any dilution or concentration of the sample.
- QR-07 The RPD/RSD value for the matrix duplicate/triplicate was outside of acceptance limits. Batch QC acceptable based on MS/MSD and/or LCS/LCSD RPD values within control limits.
- QR-06 The RPD value for the LCS/LCSD was outside of acceptance limits. Batch QC acceptable based on MS/MSD, and where applicable, matrix duplicate RPD value(s) within control limits.
- QM-12 Continuing calibration verification (CCV) and/or blank spike/blank spike duplicate (BS/BSD) recoveries above upper control limits. All reported sample concentrations were below the reporting limit.
- QM-07 The spike recovery was outside control limits for the MS and/or MSD. The batch was accepted based on LCS and LCSD recoveries within control limits and, when analysis permits, acceptable AS/ASD.
- J The result is an estimated concentration.
- FB This blank is a filtration blank. Data is reported for informational purposes only.
- DET Analyte DETECTED
- ND Analyte NOT DETECTED at or above the reporting limit
- NR Not Reported
- dry Sample results reported on a dry weight basis
- RPD Relative Percent Difference



Analysis Datasheet for Total Mercury

Date of Analysis: August 09, 2016

Analyst: BC

Instrument #: Hg2600-3

Units ng/L

LIMS Sequence #: 6H10008, 6H10009

Calibration Statistics:

LabNumber	n	True Val	Area	Uncorrected Response Factor	Corrected Peak Height	Corrected Response Factor	% Recovery
SEQ-CAL1	1	0.50 ng/L	64.73 units	129.46	51.76 units	103.53	102.8 %Rec
SEQ-CAL2	1	1.00 ng/L	118.77 units	118.77	105.80 units	105.80	105.1 %Rec
SEQ-CAL3	1	5.00 ng/L	503.93 units	100.79	490.96 units	98.19	97.5 %Rec
SEQ-CAL4	1	20.00 ng/L	1971.74 units	98.59	1958.77 units	97.94	97.3 %Rec
SEQ-CAL5	1	40.00 ng/L	3927.58 units	98.19	3914.61 units	97.87	97.2 %Rec
SEQ-CAL6	0						
SEQ-CAL7	0						
SEQ-CAL8	0						
SEQ-CAL9	0						

Corr. Mean RF **Corr. St Dev RF** **Corr. RSD CF** **Uncorr. Mean RF**
 100.67 +/- 3.74 3.7% RSD 109.16

Blanks:

LabNumber	n	Mean	Std Dev	Mean (ng/L)	Std Dev (ng/L)
SEQ-IBL	3	12.97 units	±3.36	0.12 ng/L	±0.03

Preparation Blanks

Sample Type	Batch ID	n	Mean	Std Dev
BLK	1	3	0.014 ng/L	±0.047
BLK	2	1	0.235 ng/L	
BLK	3	3	9.215 ng/L	±6.528
BLK	4	3	18.119 ng/L	±3.701
BLK	5	0	0.000 ng/L	
BLK	6	0	0.000 ng/L	

Instrument	Analyst	Sample Type	LabNumber	Dilution	Analyzed	FileID	RunEnd	Uncorrected Response	Batch ID	No PB Correction?	RESP	InitialResult	FinalResult	InitialUnits	Comments
Hg2600-3	BC	CAL	SEQ-IBL1	1	8/9/2016 8:10:26	47268-1.RAW	8:10:26 AM	9.93			-3.0	-0.030	-0.030	ng/L	
Hg2600-3	BC	CAL	SEQ-IBL2	1	8/9/2016 8:14:34	47269-1.RAW	8:14:34 AM	12.39			-0.6	-0.006	-0.006	ng/L	
Hg2600-3	BC	CAL	SEQ-IBL3	1	8/9/2016 8:18:43	47270-1.RAW	8:18:43 AM	16.58			3.6	0.036	0.036	ng/L	
Hg2600-3	BC	CAL	SEQ-CAL1	1	8/9/2016 8:22:51	47271-1.RAW	8:22:51 AM	64.73			51.8	0.514	0.514	ng/L	
Hg2600-3	BC	CAL	SEQ-CAL2	1	8/9/2016 8:27:00	47272-1.RAW	8:27:00 AM	118.77			105.8	1.051	1.051	ng/L	
Hg2600-3	BC	CAL	SEQ-CAL3	1	8/9/2016 8:31:08	47273-1.RAW	8:31:08 AM	503.93			491.0	4.877	4.877	ng/L	
Hg2600-3	BC	CAL	SEQ-CAL4	1	8/9/2016 8:35:16	47274-1.RAW	8:35:16 AM	1971.74			1958.8	19.458	19.458	ng/L	
Hg2600-3	BC	CAL	SEQ-CAL5	1	8/9/2016 8:39:25	47275-1.RAW	8:39:25 AM	3927.58			3914.6	38.887	38.887	ng/L	
Hg2600-3	BC	CAL	SEQ-ICV1	1	8/9/2016 8:43:33	47276-1.RAW	8:43:33 AM	543.92			531.0	5.274	5.274	ng/L	
Hg2600-3	BC	BLK	F608240-BLK1	1	8/9/2016 8:50:02	47277-1.RAW	8:50:02 AM	19.24	1		6.3	0.062	0.062	ng/L	
Hg2600-3	BC	BLK	F608240-BLK2	1	8/9/2016 8:54:11	47278-1.RAW	8:54:11 AM	14.01	1		1.0	0.010	0.010	ng/L	
Hg2600-3	BC	BLK	F608240-BLK3	1	8/9/2016 8:58:19	47279-1.RAW	8:58:19 AM	9.82	1		-3.1	-0.031	-0.031	ng/L	
Hg2600-3	BC	SAM	F608240-BS1	1	8/9/2016 9:02:28	47280-1.RAW	9:02:28 AM	1478.83	1		1465.9	14.548	14.548	ng/L	
Hg2600-3	BC	SAM	F608240-BSD1	1	8/9/2016 9:06:36	47281-1.RAW	9:06:36 AM	1503.39	1		1490.4	14.792	14.792	ng/L	
Hg2600-3	BC	BLK	F608240-BLK4	1	8/9/2016 9:10:44	47282-1.RAW	9:10:44 AM	36.67	2		23.7	0.235	0.235	ng/L	
Hg2600-3	BC	SAM	1607586-01	1	8/9/2016 9:14:53	47283-1.RAW	9:14:53 AM	181.48	1		168.5	1.660	1.660	ng/L	
Hg2600-3	BC	SAM	1607586-02	1	8/9/2016 9:19:01	47284-1.RAW	9:19:01 AM	139.65	1		126.7	1.245	1.245	ng/L	
Hg2600-3	BC	SAM	1607586-03	1	8/9/2016 9:23:10	47285-1.RAW	9:23:10 AM	598.89	1		585.9	5.807	5.807	ng/L	
Hg2600-3	BC	SAM	1607586-04	1	8/9/2016 9:27:18	47286-1.RAW	9:27:18 AM	129.49	1		116.5	1.144	1.144	ng/L	
Hg2600-3	BC	CAL	SEQ-CCV1	1	8/9/2016 9:31:27	47287-1.RAW	9:31:27 AM	540.44			527.5	5.240	5.240	ng/L	
Hg2600-3	BC	CAL	SEQ-CCB1	1	8/9/2016 9:35:35	47288-1.RAW	9:35:35 AM	19.54			6.6	0.065	0.065	ng/L	
Hg2600-3	BC	SAM	1607586-05	1	8/9/2016 9:39:43	47289-1.RAW	9:39:43 AM	1621.51	1		1608.5	15.965	15.965	ng/L	
Hg2600-3	BC	SAM	1607586-06	1	8/9/2016 9:44:26	47290-1.RAW	9:44:26 AM	882.19	1		869.2	8.621	8.621	ng/L	
Hg2600-3	BC	SAM	1607586-07	1	8/9/2016 9:48:34	47291-1.RAW	9:48:34 AM	817.16	1		804.2	7.975	7.975	ng/L	
Hg2600-3	BC	SAM	1607586-08	1	8/9/2016 9:52:42	47292-1.RAW	9:52:42 AM	133.71	1		120.7	1.186	1.186	ng/L	
Hg2600-3	BC	SAM	1607586-09	1	8/9/2016 9:56:51	47293-1.RAW	9:56:51 AM	186.14	1		173.2	1.706	1.706	ng/L	
Hg2600-3	BC	SAM	1607586-10	1	8/9/2016 10:00:59	47294-1.RAW	10:00:59 AM	77.06	1		64.1	0.623	0.623	ng/L	
Hg2600-3	BC	SAM	1607586-11	1	8/9/2016 10:05:08	47295-1.RAW	10:05:08 AM	268.12	1		255.2	2.521	2.521	ng/L	
Hg2600-3	BC	SAM	1607586-12	1	8/9/2016 10:09:16	47296-1.RAW	10:09:16 AM	72.26	1		59.3	0.575	0.575	ng/L	
Hg2600-3	BC	SAM	1607586-13	1	8/9/2016 10:13:24	47297-1.RAW	10:13:24 AM	272.40	1		259.4	2.563	2.563	ng/L	
Hg2600-3	BC	SAM	1607586-14	1	8/9/2016 10:17:33	47298-1.RAW	10:17:33 AM	72.12	1		59.2	0.574	0.574	ng/L	
Hg2600-3	BC	CAL	SEQ-CCV2	1	8/9/2016 10:21:41	47299-1.RAW	10:21:41 AM	529.68			516.7	5.133	5.133	ng/L	
Hg2600-3	BC	CAL	SEQ-CCB2	1	8/9/2016 10:25:50	47300-1.RAW	10:25:50 AM	16.64			3.7	0.036	0.036	ng/L	
Hg2600-3	BC	SAM	1608183-01	1	8/9/2016 10:29:58	47301-1.RAW	10:29:58 AM	426.28	1		413.3	4.092	4.092	ng/L	
Hg2600-3	BC	SAM	1608183-02	1	8/9/2016 10:34:07	47302-1.RAW	10:34:07 AM	12.14	1		-0.8	-0.022	-0.022	ng/L	
Hg2600-3	BC	SAM	1608183-03	1	8/9/2016 10:38:15	47303-1.RAW	10:38:15 AM	466.38	1		453.4	4.490	4.490	ng/L	
Hg2600-3	BC	SAM	WS	1	8/9/2016 10:42:23	47304-1.RAW	10:42:23 AM	1415.64			1402.7	Error	#VALUE!	ng/L	
Hg2600-3	BC	SAM	WS	10	8/9/2016 10:46:32	47305-1.RAW	10:46:32 AM	1454.51			1441.5	Error	#VALUE!	ng/L	
Hg2600-3	BC	SAM	WS	1	8/9/2016 10:50:40	47306-1.RAW	10:50:40 AM	30.74			17.8	Error	#VALUE!	ng/L	
Hg2600-3	BC	SAM	1608183-04	1	8/9/2016 10:55:57	47307-1.RAW	10:55:57 AM	12.55	1		-0.4	-0.018	-0.018	ng/L	
Hg2600-3	BC	SAM	1608183-05	10	8/9/2016 11:00:05	47308-1.RAW	11:00:05 AM	2703.49	2		2690.5	26.704	26.704	ng/L	
Hg2600-3	BC	SAM	1608183-06	1	8/9/2016 11:04:14	47309-1.RAW	11:04:14 AM	21.13	1		8.2	0.067	0.067	ng/L	
Hg2600-3	BC	SAM	F608240-DUP1	1	8/9/2016 11:08:22	47310-1.RAW	11:08:22 AM	1608.62	1		1595.7	15.837	15.837	ng/L	
Hg2600-3	BC	CAL	SEQ-CCV3	1	8/9/2016 11:12:30	47311-1.RAW	11:12:30 AM	543.59			530.6	5.271	5.271	ng/L	
Hg2600-3	BC	CAL	SEQ-CCB3	1	8/9/2016 11:16:39	47312-1.RAW	11:16:39 AM	14.48			1.5	0.015	0.015	ng/L	
Hg2600-3	BC	SAM	F608240-MS1	1	8/9/2016 11:20:47	47313-1.RAW	11:20:47 AM	1176.41	1		1163.4	11.544	11.544	ng/L	
Hg2600-3	BC	SAM	F608240-MSD1	1	8/9/2016 11:24:56	47314-1.RAW	11:24:56 AM	1199.65	1		1186.7	11.775	11.775	ng/L	
Hg2600-3	BC	SAM	F608240-MS2	1	8/9/2016 11:29:04	47315-1.RAW	11:29:04 AM	307.81	1		294.8	2.915	2.915	ng/L	
Hg2600-3	BC	SAM	F608240-MSD2	1	8/9/2016 11:33:13	47316-1.RAW	11:33:13 AM	306.09	1		293.1	2.898	2.898	ng/L	
Hg2600-3	BC	BLK	F608230-BLK1	100	8/9/2016 11:46:20	47317-1.RAW	11:46:20 AM	29.80	3		16.8	0.167	16.722	ng/L	
Hg2600-3	BC	BLK	F608230-BLK2	100	8/9/2016 11:50:28	47318-1.RAW	11:50:28 AM	17.87	3		4.9	0.049	4.871	ng/L	
Hg2600-3	BC	BLK	F608230-BLK3	100	8/9/2016 11:54:37	47319-1.RAW	11:54:37 AM	19.06	3		6.1	0.061	6.053	ng/L	
Hg2600-3	BC	SAM	F608230-BS1	500	8/9/2016 11:58:45	47320-1.RAW	11:58:45 AM	910.51	3		897.5	8.898	4448.840	ng/L	
Hg2600-3	BC	SAM	F608230-BSD1	500	8/9/2016 12:02:54	47321-1.RAW	12:02:54 PM	946.81	3		933.8	9.258	4629.141	ng/L	
Hg2600-3	BC	SAM	1608143-01	100	8/9/2016 12:07:02	47322-1.RAW	12:07:02 PM	2065.31	3		2052.3	20.296	2029.563	ng/L	
Hg2600-3	BC	CAL	SEQ-CCV4	1	8/9/2016 12:11:10	47323-1.RAW	12:11:10 PM	515.70			502.7	4.994	4.994	ng/L	
Hg2600-3	BC	CAL	SEQ-CCB4	1	8/9/2016 12:15:19	47324-1.RAW	12:15:19 PM	22.11			9.1	0.091	0.091	ng/L	

Instrument	Analyst	Sample		Dilution	Analyzed	FileID	RunEnd	Uncorrected Response	Batch ID	No PB Correction?	RESP	InitialResult	FinalResult	InitialUnits	Comments
		Type	LabNumber												
Hg2600-3	BC	SAM	F608224-MSD2	2500	8/9/2016 16:59:17	47390-1.RAW	4:59:17 PM	2689.89	4		2676.9	26.585	66462.645	ng/L	
Hg2600-3	BC	SAM	1608154-04RE1C	2500	8/9/2016 17:03:25	47391-1.RAW	5:03:25 PM	3442.07	4		3429.1	34.057	85142.860	ng/L	
Hg2600-3	BC	SAM	1608154-09RE1C	200	8/9/2016 17:07:34	47392-1.RAW	5:07:34 PM	2138.25	4		2125.3	21.022	4204.354	ng/L	
Hg2600-3	BC	SAM	1608154-13RE1C	200	8/9/2016 17:11:42	47393-1.RAW	5:11:42 PM	2023.96	4		2011.0	19.886	3977.284	ng/L	
Hg2600-3	BC	CAL	SEQ-CCVA	1	8/9/2016 17:15:51	47394-1.RAW	5:15:51 PM	541.28			528.3	5.248	5.248	ng/L	
Hg2600-3	BC	CAL	SEQ-CCBA	1	8/9/2016 17:19:59	47395-1.RAW	5:19:59 PM	35.59			22.6	0.225	0.225	ng/L	

TotalMercury EPA1631
 Operat BC
 Works THg2601
 Method #####
 R: 1
 R²: 1
 BlankS_i 12.969
 CalibFa 100.66
 Status:
 Descr THg26003-160809-1
 Conc = (Area-12.96
 QC Warnings:4/QC E
 Run Date: 8/9/2016
 Run Time: 0:00:00
 Blank SD: 3.36305
 Blank RSD%: 25.93168
 CF SD: 3.73792
 CF RSD%: 3.71331

Sample/ID	Location	Rinse	Dilute	Blank	Conc (ppt)	MB%	FinalConc	Rec%	QA	RawData	RunEnd	Peak (Raw)	Control (etf)	Flags	RunCount	Comment
Clean				0.00	1.04					47263-1.RAW	7:51:01	104.78	Clean	OK	1	
clean				0.00	0.02					47264-1.RAW	7:53:52	1.74	Clean	OK	1	
ws				12.97	0.00					47265-1.RAW	7:58:01	12.05	Sample	OK	1	
ws				12.97	0.00					47266-1.RAW	8:02:09	8.77	Sample	OK	1	
ws				12.97	0.00					47267-1.RAW	8:06:17	8.31	Sample	OK	1	
SEQ-IBL1	A1		1	0.00	0.10					47268-1.RAW	8:10:26	9.93	Sample	OK	1	
SEQ-IBL2	A2		1	0.00	0.12					47269-1.RAW	8:14:34	12.39	Sample	OK	1	
SEQ-IBL3	A3		1	0.00	0.16					47270-1.RAW	8:18:43	16.58	Sample	OK	1	
SEQ-CAL1	A4		1	12.97	0.51			102.84		47271-1.RAW	8:22:51	64.73	Sample	OK	1	
SEQ-CAL2	A5		1	12.97	1.05			105.10		47272-1.RAW	8:27:00	118.77	Sample	OK	1	
SEQ-CAL3	A6		1	12.97	4.88			97.55		47273-1.RAW	8:31:08	503.93	Sample	OK	1	
SEQ-CAL4	A7		1	12.97	19.46			97.29		47274-1.RAW	8:35:16	1971.74	Sample	OK	1	
SEQ-CAL5	A8		1	12.97	38.89			97.22		47275-1.RAW	8:39:25	3927.58	Sample	OK	1	
SEQ-ICV1	A9		1	12.97	5.27			105.49		47276-1.RAW	8:43:33	543.92	Sample	OK	1	
F608240-BLK1	A10		1	12.97	0.06					47277-1.RAW	8:50:02	19.24	Sample	OK	1	
F608240-BLK2	A11		1	12.97	0.01					47278-1.RAW	8:54:11	14.01	Sample	OK	1	
F608240-BLK3	A12		1	12.97	0.00					47279-1.RAW	8:58:19	9.82	Sample	OK	1	
F608240-BS1	B1		1	12.97	14.56					47280-1.RAW	9:02:28	1478.83	Sample	OK	1	
F608240-BSD1	B2		1	12.97	14.81					47281-1.RAW	9:06:36	1503.39	Sample	OK	1	
F608240-BLK4	B3		1	12.97	0.24					47282-1.RAW	9:10:44	36.67	Sample	OK	1	
1607586-01	B4		1	12.97	1.67					47283-1.RAW	9:14:53	181.48	Sample	OK	1	
1607586-02	B5		1	12.97	1.26					47284-1.RAW	9:19:01	139.65	Sample	OK	1	
1607586-03	B6		1	12.97	5.82					47285-1.RAW	9:23:10	598.89	Sample	OK	1	
1607586-04	B7		1	12.97	1.16					47286-1.RAW	9:27:18	129.49	Sample	OK	1	
SEQ-CCV1	B8		1	12.97	5.24			104.80		47287-1.RAW	9:31:27	540.44	Sample	OK	1	
SEQ-CCB1	B9		1	12.97	0.07			0.00		47288-1.RAW	9:35:35	19.54	Sample	OK	1	
1607586-05	B10		1	12.97	15.98					47289-1.RAW	9:39:43	1621.51	Sample	OK	1	
1607586-06	B11		1	12.97	8.64					47290-1.RAW	9:44:26	882.19	Sample	OK	1	
1607586-07	B12		1	12.97	7.99					47291-1.RAW	9:48:34	817.16	Sample	OK	1	
1607586-08	C1		1	12.97	1.20					47292-1.RAW	9:52:42	133.71	Sample	OK	1	
1607586-09	C2		1	12.97	1.72					47293-1.RAW	9:56:51	186.14	Sample	OK	1	
1607586-10	C3		1	12.97	0.64					47294-1.RAW	10:00:59	77.06	Sample	OK	1	
1607586-11	C4		1	12.97	2.53					47295-1.RAW	10:05:08	268.12	Sample	OK	1	
1607586-12	C5		1	12.97	0.59					47296-1.RAW	10:09:16	72.26	Sample	OK	1	
1607586-13	C6		1	12.97	2.58					47297-1.RAW	10:13:24	272.40	Sample	OK	1	
1607586-14	C7		1	12.97	0.59					47298-1.RAW	10:17:33	72.12	Sample	OK	1	
SEQ-CCV2	C8		1	12.97	5.13			102.66		47299-1.RAW	10:21:41	529.68	Sample	OK	1	
SEQ-CCB2	C9		1	12.97	0.04			0.00		47300-1.RAW	10:25:50	16.64	Sample	OK	1	
1608183-01	C10		1	12.97	4.11					47301-1.RAW	10:29:58	426.28	Sample	OK	1	
1608183-02	C11		1	12.97	0.00					47302-1.RAW	10:34:07	12.14	Sample	OK	1	
1608183-03	C12		1	12.97	4.50					47303-1.RAW	10:38:15	466.38	Sample	OK	1	
WS	B1		1	12.97	13.93					47304-1.RAW	10:42:23	1415.64	Sample	OK	1	WRONG LOCATION
WS	B2		10	12.97	143.21					47305-1.RAW	10:46:32	1454.51	Sample	OK	1	WRONG LOCATION
WS	B3		1	12.97	0.18					47306-1.RAW	10:50:40	30.74	Sample	OK	1	WRONG LOCATION
1608183-04	D1		1	12.97	0.00					47307-1.RAW	10:55:57	12.55	Sample	OK	1	
1608183-05	D2		10	12.97	267.28					47308-1.RAW	11:00:05	2703.49	Sample	OK	1	
1608183-06	D3		1	12.97	0.08					47309-1.RAW	11:04:14	21.13	Sample	OK	1	
F608240-DUP1	D4		1	12.97	15.85					47310-1.RAW	11:08:22	1608.62	Sample	OK	1	
SEQ-CCV3	D5		1	12.97	5.27			105.43		47311-1.RAW	11:12:30	543.59	Sample	OK	1	

SEQ-CCB3	D6	1	12.97	0.01	0.00	47312-1.RAW	11:16:39	14.48	Sample	OK	1
F608240-MS1	D7	1	12.97	11.56	1138.72	47313-1.RAW	11:20:47	1176.41	Sample	OK	1
F608240-MSD1	D8	1	12.97	11.79		47314-1.RAW	11:24:56	1199.65	Sample	OK	1
F608240-MS2	D9	1	12.97	2.93	21.24	47315-1.RAW	11:29:04	307.81	Sample	OK	1
F608240-MSD2	D10	1	12.97	2.91		47316-1.RAW	11:33:13	306.09	Sample	OK	1
F608230-BLK1	D11	100	12.97	16.72		47317-1.RAW	11:46:20	29.80	Sample	OK	1
F608230-BLK2	D12	100	12.97	4.87		47318-1.RAW	11:50:28	17.87	Sample	OK	1
F608230-BLK3	A1	100	12.97	6.05		47319-1.RAW	11:54:37	19.06	Sample	OK	1
F608230-BS1	A2	500	12.97	4458.15		47320-1.RAW	11:58:45	910.51	Sample	OK	1
F608230-BSD1	A3	500	12.97	4638.49		47321-1.RAW	12:02:54	946.81	Sample	OK	1
1608143-01	A4	100	12.97	2038.83		47322-1.RAW	12:07:02	2065.31	Sample	OK	1
SEQ-CCV4	A5	1	12.97	4.99	99.88	47323-1.RAW	12:11:10	515.70	Sample	OK	1
SEQ-CCB4	A6	1	12.97	0.09	0.00	47324-1.RAW	12:15:19	22.11	Sample	OK	1
1608143-02	A7	100	12.97	9092.66		47325-1.RAW	12:19:27	9165.87	Sample	FB	1
1608143-03	A8	100	12.97	10525.13		47326-1.RAW	12:23:36	10607.83	Sample	FB	1
1608143-04	A9	100	12.97	2594.52		47327-1.RAW	12:27:44	2624.68	Sample	OK	1
1608143-05	A10	100	12.97	37.69		47328-1.RAW	12:31:53	50.91	Sample	OK	1
1608143-02RE1	A11	500	12.97	9476.39		47329-1.RAW	12:41:36	1920.80	Sample	OK	1
1608143-03RE1	A12	500	12.97	10432.34		47330-1.RAW	12:45:44	2113.26	Sample	OK	1
1608143-04RE1	B1	100	12.97	2646.60		47331-1.RAW	12:49:52	2677.10	Sample	OK	1
1608143-01B	B2	100	12.97	36.90		47332-1.RAW	12:54:01	50.11	Sample	OK	1
1608143-02B	B3	100	12.97	24.09		47333-1.RAW	12:58:09	37.22	Sample	OK	1
1608143-03B	B4	100	12.97	23.09		47334-1.RAW	13:02:18	36.21	Sample	OK	1
SEQ-CCV5	B5	1	12.97	5.04	100.73	47335-1.RAW	13:06:26	519.97	Sample	OK	1
SEQ-CCB5	B6	1	12.97	0.08	0.00	47336-1.RAW	13:10:35	21.44	Sample	OK	1
1608143-04B	B7	100	12.97	12.97		47337-1.RAW	13:14:43	26.02	Sample	OK	1
1608143-05B	B8	100	12.97	19.07		47338-1.RAW	13:18:51	32.16	Sample	OK	1
F608230-DUP1	B9	100	12.97	2038.12		47339-1.RAW	13:23:00	2064.59	Sample	OK	1
F608230-MS1	B10	500	12.97	6805.10	333.73	47340-1.RAW	13:27:08	1383.01	Sample	OK	1
F608230-MSD1	B11	500	12.97	6822.36		47341-1.RAW	13:31:17	1386.48	Sample	OK	1
F608224-BLK1	B12	100	12.97	22.39		47342-1.RAW	13:37:40	35.50	Sample	OK	1
F608224-BLK2	C1	100	12.97	15.75		47343-1.RAW	13:41:49	28.83	Sample	OK	1
F608224-BLK3	C2	100	12.97	16.22		47344-1.RAW	13:45:57	29.29	Sample	OK	1
F608224-BS1	C3	500	12.97	1762.18		47345-1.RAW	13:50:06	367.74	Sample	OK	1
F608224-BSD1	C4	500	12.97	1812.83		47346-1.RAW	13:54:14	377.94	Sample	OK	1
SEQ-CCV6	C5	1	12.97	5.09	101.83	47347-1.RAW	13:58:22	525.48	Sample	OK	1
SEQ-CCB6	C6	1	12.97	0.11	0.00	47348-1.RAW	14:02:31	23.87	Sample	OK	1
1608154-01	C7	2500	12.97	30283.16		47349-1.RAW	14:06:39	1232.32	Sample	OK	1
1608154-07	C8	2500	12.97	3142.68		47350-1.RAW	14:10:48	139.51	Sample	OK	1
1608154-11	C9	2500	12.97	308.44		47351-1.RAW	14:14:56	25.39	Sample	OK	1
1608154-02	C10	2500	12.97	21364.76		47352-1.RAW	14:21:56	873.22	Sample	OK	1
1608154-03	C11	2500	12.97	27482.67		47353-1.RAW	14:26:04	1119.56	Sample	OK	1
1608154-04	C12	2500	12.97	21108.80		47354-1.RAW	14:30:13	862.92	Sample	OK	1
1608154-05	D1	2500	12.97	16568.70		47355-1.RAW	14:34:21	680.11	Sample	OK	1
1608154-06	D2	2500	12.97	242.32		47356-1.RAW	14:38:30	22.73	Sample	OK	1
1608154-08	D3	1000	12.97	1852.09		47357-1.RAW	14:42:38	199.40	Sample	OK	1
1608154-09	D4	1000	12.97	6394.41		47358-1.RAW	14:46:46	656.65	Sample	OK	1
SEQ-CCV7	D5	1	12.97	5.20	104.09	47359-1.RAW	14:50:55	536.87	Sample	OK	1
SEQ-CCB7	D6	1	12.97	0.06	0.00	47360-1.RAW	14:55:03	19.33	Sample	OK	1
1608154-10	D7	1000	12.97	4483.25		47361-1.RAW	14:59:12	464.26	Sample	OK	1
1608154-11RE1	D8	100	12.97	58.49		47362-1.RAW	15:03:20	71.85	Sample	OK	1
1608154-12	D9	100	12.97	39.59		47363-1.RAW	15:07:28	52.82	Sample	OK	1
1608154-13	D10	100	12.97	41.21		47364-1.RAW	15:11:37	54.46	Sample	OK	1
1608154-06RE1	D11	100	12.97	16.37		47365-1.RAW	15:15:45	29.44	Sample	OK	1

1608154-01B	D12	100	12.97	19.71		47366-1.RAW	15:19:54	32.81	Sample	OK	1
1608154-02B	A1	100	12.97	17.02		47367-1.RAW	15:24:02	30.10	Sample	OK	1
1608154-03B	A2	100	12.97	22.45		47368-1.RAW	15:28:10	35.57	Sample	OK	1
1608154-04B	A3	100	12.97	11.19		47369-1.RAW	15:32:19	24.23	Sample	OK	1
1608154-05B	A4	100	12.97	14.68		47370-1.RAW	15:36:28	27.75	Sample	OK	1
SEQ-CCV8	A5	1	12.97	5.07	101.40	47371-1.RAW	15:40:37	523.35	Sample	OK	1
SEQ-CCB8	A6	1	12.97	0.04	0.00	47372-1.RAW	15:44:45	17.30	Sample	OK	1
1608154-06B	A7	100	12.97	20.11		47373-1.RAW	15:48:54	33.21	Sample	OK	1
1608154-07B	A8	100	12.97	44.43		47374-1.RAW	15:53:02	57.69	Sample	OK	1
1608154-08B	A9	100	12.97	26.44		47375-1.RAW	15:57:11	39.58	Sample	OK	1
1608154-09B	A10	100	12.97	6.71		47376-1.RAW	16:01:19	19.73	Sample	OK	1
1608154-10B	A11	100	12.97	22.01		47377-1.RAW	16:05:28	35.13	Sample	OK	1
1608154-11B	A12	100	12.97	10.78		47378-1.RAW	16:09:36	23.82	Sample	OK	1
1608154-12B	B1	100	12.97	13.27		47379-1.RAW	16:13:44	26.32	Sample	OK	1
1608154-13B	B2	100	12.97	13.85		47380-1.RAW	16:17:53	26.91	Sample	OK	1
1608154-04C	B3	5000	12.97	75740.50		47381-1.RAW	16:22:01	1537.82	Sample	OK	1
1608154-09C	B4	500	12.97	3325.87		47382-1.RAW	16:26:10	682.55	Sample	OK	1
SEQ-CCV9	B5	1	12.97	4.99	99.85	47383-1.RAW	16:30:18	515.53	Sample	OK	1
SEQ-CCB9	B6	1	12.97	0.04	0.00	47384-1.RAW	16:34:26	16.53	Sample	OK	1
1608154-13C	B7	500	12.97	3079.37		47385-1.RAW	16:38:35	632.92	Sample	OK	1
F608224-DUP1	B8	2500	12.97	22831.52		47386-1.RAW	16:42:43	932.28	Sample	OK	1
F608224-MS1	B9	2500	12.97	71775.30	314.36	47387-1.RAW	16:46:52	2903.00	Sample	OK	1
F608224-MSD1	B10	2500	12.97	70261.52		47388-1.RAW	16:51:00	2842.05	Sample	OK	1
F608224-MS2	B11	2500	12.97	65540.41	93.28	47389-1.RAW	16:55:09	2651.96	Sample	OK	1
F608224-MSD2	B12	2500	12.97	66482.58		47390-1.RAW	16:59:17	2689.89	Sample	OK	1
1608154-04RE1C	C3	2500	12.97	85163.37		47391-1.RAW	17:03:25	3442.07	Sample	OK	1
1608154-09RE1C	C4	200	12.97	4222.59		47392-1.RAW	17:07:34	2138.25	Sample	OK	1
1608154-13RE1C	C5	200	12.97	3995.51		47393-1.RAW	17:11:42	2023.96	Sample	OK	1
SEQ-CCVA	C1	1	12.97	5.25		47394-1.RAW	17:15:51	541.28	Sample	OK	1
SEQ-CCBA	C2	1	12.97	0.22		47395-1.RAW	17:19:59	35.59	Sample	OK	1

Failing Data Report - 6H10008

Sample ID	Analysis	Result	MRL	Dup Result	Source Result	True Value	Units	% Rec.	Rec. LCL	Rec. UCL	RPD	RPD Limit	Over Cal	Failure	Qualifier
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Be King 8/10/16
Analyst Reviewed By Date

[Signature] 8-10-16
Peer Reviewed By Date

Failing Data Report - 6H10009

Sample ID	Analysis	Result	MRL	Dup Result	Source Result	True Value	Units	% Rec.	Rec. LCL	Rec. UCL	RPD	RPD Limit	Over Cal	Failure	Qualifier
1608143-02	Hg_FSTM_TRAP_A	363.33	2.00				ng/Trap						FAIL-OVER	PASS	E
1608143-03	Hg_FSTM_TRAP_A	420.62	2.00				ng/Trap						FAIL-OVER	PASS	E


 Analyst Reviewed By _____
 Date 8/10/16


 Peer Reviewed By _____
 Date 8-10-16

ANALYSIS SEQUENCE

6H10008

Instrument: Hg2600-3

Calibration ID: UNASSIGNED

Analyzed: 8/9/2016

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
6H10008-IBL1	QC	1			
6H10008-IBL2	QC	2			
6H10008-IBL3	QC	3			
6H10008-CAL1	QC	4	1603274		
6H10008-CAL2	QC	5	1603275		
6H10008-CAL3	QC	6	1603276		
6H10008-CAL4	QC	7	1603277		
6H10008-CAL5	QC	8	1603278		
6H10008-ICV1	QC	9	1603625		
F608240-BLK1	QC	10			
F608240-BLK2	QC	11			
F608240-BLK3	QC	12			
F608240-BS1	QC	13			
F608240-BSD1	QC	14			
F608240-BLK4	QC	15			
1607586-01	Hg-CVAFS-W-1631	16			Scan all data - Level IV
1607586-02	Hg-CVAFS-W-1631	17			Scan all data - Level IV
1607586-03	Hg-CVAFS-W-1631	18			Scan all data - Level IV
1607586-04	Hg-CVAFS-W-1631	19			Scan all data - Level IV
6H10008-CCV1	QC	20	1603625		
6H10008-CCB1	QC	21			
1607586-05	Hg-CVAFS-W-1631	22			Scan all data - Level IV
1607586-06	Hg-CVAFS-W-1631	23			Scan all data - Level IV
1607586-07	Hg-CVAFS-W-1631	24			Scan all data - Level IV
1607586-08	Hg-CVAFS-W-1631	25			Scan all data - Level IV
1607586-09	Hg-CVAFS-W-1631	26			Scan all data - Level IV
1607586-10	Hg-CVAFS-W-1631	27			Scan all data - Level IV
1607586-11	Hg-CVAFS-W-1631	28			Scan all data - Level IV
1607586-12	Hg-CVAFS-W-1631	29			Scan all data - Level IV
1607586-13	Hg-CVAFS-W-1631	30			Scan all data - Level IV
1607586-14	Hg-CVAFS-W-1631	31			Scan all data - Level IV
6H10008-CCV2	QC	32	1603625		
6H10008-CCB2	QC	33			
1608183-01	Hg-CVAFS-W-1631	34			
1608183-02	Hg-CVAFS-W-1631	35			

Due Date: 8/10/2016

ANALYSIS SEQUENCE

6H10008

Instrument: Hg2600-3

Calibration ID: UNASSIGNED

Analyzed: 8/9/2016

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
1608183-03	Hg-CVAFS-W-1631	36			
1608183-04	Hg-CVAFS-W-1631	37			
1608183-05	Hg-CVAFS-W-1631	38			
1608183-06	Hg-CVAFS-W-1631	39			
F608240-DUP1	QC	40			
6H10008-CCV3	QC	41	1603625		
6H10008-CCB3	QC	42			
F608240-MS1	QC	43			
F608240-MSD1	QC	44			
F608240-MS2	QC	45			
F608240-MSD2	QC	46			
6H10008-CCV4	QC	47	1603625		
6H10008-CCB4	QC	48			
6H10008-CCV5	QC	49	1603625		
6H10008-CCB5	QC	50			
6H10008-CCV6	QC	51	1603625		
6H10008-CCB6	QC	52			
6H10008-CCV7	QC	53	1603625		
6H10008-CCB7	QC	54			
6H10008-CCV8	QC	55	1603625		
6H10008-CCB8	QC	56			
6H10008-CCV9	QC	57	1603625		
6H10008-CCB9	QC	58			
6H10008-CCVA	QC	59	1603625		
6H10008-CCBA	QC	60			

[Signature] 8/10/16
 Samples Loaded By _____ Date

loaded 8/09/16

[Signature] 8/10/16
 Data Processed By _____ Date

loaded 8/09/16

Due Date: 8/10/2016

ANALYSIS SEQUENCE

6H10009

Instrument: Hg2600-3

Calibration ID: UNASSIGNED

Analyzed: 8/9/2016

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
6H10009-IBL1	QC	1			
6H10009-IBL2	QC	2			
6H10009-IBL3	QC	3			
6H10009-CAL1	QC	4	1603274		
6H10009-CAL2	QC	5	1603275		
6H10009-CAL3	QC	6	1603276		
6H10009-CAL4	QC	7	1603277		
6H10009-CAL5	QC	8	1603278		
6H10009-ICV1	QC	9	1603625		
6H10009-CCV1	QC	10	1603625		
6H10009-CCB1	QC	11			
6H10009-CCV2	QC	12	1603625		
6H10009-CCB2	QC	13			
6H10009-CCV3	QC	14	1603625		
6H10009-CCB3	QC	15			
F608230-BLK1	QC	16			
F608230-BLK2	QC	17			
F608230-BLK3	QC	18			
F608230-BS1	QC	19			
F608230-BSD1	QC	20			
1608143-01	Hg_FSTM_TRAP_A	21			
6H10009-CCV4	QC	22	1603625		
6H10009-CCB4	QC	23			
1608143-02	Hg_FSTM_TRAP_A	24			
1608143-03	Hg_FSTM_TRAP_A	25			
1608143-04	Hg_FSTM_TRAP_A	26			
1608143-05	Hg_FSTM_TRAP_A	27			
1608143-02RE1	Hg_FSTM_TRAP_A	28			Added 8/10/2016 by BC
1608143-03RE1	Hg_FSTM_TRAP_A	29			Added 8/10/2016 by BC
1608143-04RE1	Hg_FSTM_TRAP_A	30			Added 8/10/2016 by BC
6H10009-CCV5	QC	31	1603625		
6H10009-CCB5	QC	32			
F608230-DUP1	QC	33			
F608230-MS1	QC	34			
F608230-MSD1	QC	35			

Due Date: 8/11/2016

ANALYSIS SEQUENCE

6H10009

Instrument: Hg2600-3

Calibration ID: UNASSIGNED

Analyzed: 8/9/2016

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
F608224-BLK1	QC	36			
F608224-BLK2	QC	37			
F608224-BLK3	QC	38			
F608224-BS1	QC	39			
F608224-BSD1	QC	40			
6H10009-CCV6	QC	41	1603625		
6H10009-CCB6	QC	42			
1608154-01	Hg_FSTM_TRAP_A	43			
1608154-07	Hg_FSTM_TRAP_A	44			
1608154-11	Hg_FSTM_TRAP_A	45			
1608154-02	Hg_FSTM_TRAP_A	46			
1608154-03	Hg_FSTM_TRAP_A	47			
1608154-04	Hg_FSTM_TRAP_A	48			
1608154-05	Hg_FSTM_TRAP_A	49			
1608154-06	Hg_FSTM_TRAP_A	50			
1608154-08	Hg_FSTM_TRAP_A	51			
1608154-09	Hg_FSTM_TRAP_A	52			
6H10009-CCV7	QC	53	1603625		
6H10009-CCB7	QC	54			
1608154-10	Hg_FSTM_TRAP_A	55			
1608154-11RE1	Hg_FSTM_TRAP_A	56			Added 8/10/2016 by BC
1608154-12	Hg_FSTM_TRAP_A	57			
1608154-13	Hg_FSTM_TRAP_A	58			
1608154-06RE1	Hg_FSTM_TRAP_A	59			Added 8/10/2016 by BC
6H10009-CCV8	QC	60	1603625		
6H10009-CCB8	QC	61			
6H10009-CCV9	QC	62	1603625		
6H10009-CCB9	QC	63			
F608224-DUP1	QC	64			
F608224-MS1	QC	65			
F608224-MSD1	QC	66			
F608224-MS2	QC	67			
F608224-MSD2	QC	68			
6H10009-CCVA	QC	69	1603625		
6H10009-CCBA	QC	70			

Due Date: 8/11/2016

ANALYSIS SEQUENCE

6H10009

Instrument: Hg2600-3

Calibration ID: UNASSIGNED

Analyzed: 8/9/2016

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
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Prelis 8/10/16
Samples Loaded By Date

loaded 8/09/16

Prelis 8/10/16
Data Processed By Date

PREPARATION BENCH SHEET

F608240

Eurofins Frontier Global Sciences, Inc.

Matrix: Water

Prepared using: AFS - EPA 1631E BrCl Oxidation

Prepared: 8/9/2016

Lab Number	Sample ID and Source Sample	Initial (mL)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F608240-BLK1	Blank	100	101					
F608240-BLK2	Blank	100	101					
F608240-BLK3	Blank	100	101					
F608240-BLK4	Blank	100	105					Added 8/10/2016 by BC
F608240-BS1	LCS	50	50.5	1505246	100			
F608240-BSD1	LCS Dup	50	50.5	1505246	100			
F608240-DUP1	Duplicate [1607586-05]	100	101					
F608240-MS1	Matrix Spike [1607586-11]	49.50495	50	1603190	50			[Spk] 100mL->101mL; 101mL->101mL; Spiked 50mL
F608240-MS2	Matrix Spike [1607586-12]	49.50495	50	1603212	125			[Spk] 100mL->101mL; 101mL->101mL; Spiked 50mL
F608240-MSD1	Matrix Spike Dup [1607586-11]	49.50495	50	1603190	50			[Spk] 100mL->101mL; 101mL->101mL; Spiked 50mL
F608240-MSD2	Matrix Spike Dup [1607586-12]	49.50495	50	1603212	125			[Spk] 100mL->101mL; 101mL->101mL; Spiked 50mL

<u>Standard ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>	<u>Reagent ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>
1505246	Nist 1641D 200X	20-Aug-16 00:00	1602941	25% Hydroxylamine-HCl working solution	03-Dec-16 00:00
1603190	THg 10ng/mL Calibration Standard	15-Sep-16 00:00	1603825	0.2 N BRCL JULY 2016	11-Jan-17 00:00
1603212	THg 1ng/mL Calibration Standard	16-Sep-16 00:00	1603826	THg Dilute 1% BrCl	12-Dec-16 00:00
			1603827	THg Washstation (0.5% BrCl)	03-Dec-16 00:00
			1604289	3% SnCl2 THg reductant	22-Jan-17 00:00

PREPARATION BENCH SHEET

F608240

Eurofins Frontier Global Sciences, Inc.

Matrix: Water

Prepared using: AFS - EPA 1631E BrCl Oxidation

Prepared: 8/9/2016

Lab Number	Sample ID	Initial (mL)	Final (mL)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1607586-01	1523 OV-02_071816_SW_10	100	101	-	-	-	Scan all data - Level IV	
1607586-02	1523 OV-02_071816_SW_10 Dissolved	100	101	-	-	-	Scan all data - Level IV	
1607586-03	1524 WQ1b-c_071816_SW_10	100	101	-	-	-	Scan all data - Level IV	
1607586-04	1524 WQ1b-c_071816_SW_10 Dissolved	100	101	-	-	-	Scan all data - Level IV	
1607586-05	1525 WQ2-c_071816_SW_10	100	101	-	-	-	Scan all data - Level IV	
1607586-06	1525 WQ2-c_071816_SW_10 Dissolved	100	101	-	-	-	Scan all data - Level IV	
1607586-07	1526 WQ3-L_071816_SW_10	100	101	-	-	-	Scan all data - Level IV	
1607586-08	1526 WQ3-L_071816_SW_10 Dissolved	100	101	-	-	-	Scan all data - Level IV	
1607586-09	1527 ES-15_071816_SW_10	100	101	-	-	-	Scan all data - Level IV	
1607586-10	1527 ES-15_071816_SW_10 Dissolved	100	101	-	-	-	Scan all data - Level IV	
1607586-11	1528 WQ-ECH_071816_SW_10	100	101	QC	-	-	MS/MSD Scan all data - Level IV	
1607586-12	1528 WQ-ECH_071816_SW_10 Dissolved	100	101	QC	-	-	MS/MSD Scan all data - Level IV	
1607586-13	1529 WQ-ECH_071816_SW_10_DUP	100	101	-	-	-	Scan all data - Level IV	
1607586-14	1529 WQ-ECH_071816_SW_10_DUP Dissolved	100	101	-	-	-	Scan all data - Level IV	
1608183-01	Lagoons	100	101	-	-	-		
1608183-02	Lagoons Field Blank	100	101	-	-	-		
1608183-03	Clarifier	100	101	-	-	-		
1608183-04	Clarifier Field Blank	100	101	-	-	-		
1608183-05	A149	100	105	-	-	-		

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Date: 8/10/2016

PREPARATION BENCH SHEET

F608240

Eurofins Frontier Global Sciences, Inc.

Matrix: Water

Prepared using: AFS - EPA 1631E BrCl Oxidation

Prepared: 8/9/2016

1608183-06	A149 Blank	100	101	-	-	-		
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PREPARATION BENCH SHEET

F608230

Eurofins Frontier Global Sciences, Inc.

Matrix: Air

Prepared using: AFS - EFGS-009 FSTM Trap Nitric/Sulfuric Digestion

Prepared: 8/8/2016

Lab Number	Sample ID and Source Sample	Initial (Trap)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F608230-BLK1	Blank	1	40					
F608230-BLK2	Blank	1	40					
F608230-BLK3	Blank	1	40					
F608230-BS1	LCS	1	40	1603188	200			
F608230-BSD1	LCS Dup	1	40	1603188	200			
F608230-DUP1	Duplicate [1608143-01]	1	40					
F608230-MS1	Matrix Spike [1608143-01]	0.0025	0.1	1603190	50			[Spk] 1Trap->40mL; 20mL->20mL; Spiked 0.1mL
F608230-MSD1	Matrix Spike Dup [1608143-01]	0.0025	0.1	1603190	50			[Spk] 1Trap->40mL; 20mL->20mL; Spiked 0.1mL

<u>Standard ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>	<u>Reagent ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>
1603188	THg 1,000ng/mL Primary Spiking Standard	15-Dec-16 00:00	1602941	25% Hydroxylamine-HCl working solution	03-Dec-16 00:00
1603190	THg 10ng/mL Calibration Standard	15-Sep-16 00:00	1603826	THg Dilute 1% BrCl	12-Dec-16 00:00
			1603827	THg Washstation (0.5% BrCl)	03-Dec-16 00:00
			1604289	3% SnCl2 THg reductant	22-Jan-17 00:00
			1604327	70/30 Digestion Acid	31-Jan-17 00:00
			1604328	5% BrCl	11-Jan-17 00:00

PREPARATION BENCH SHEET

F608230

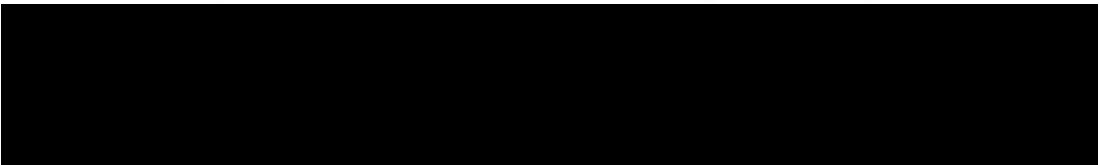
Eurofins Frontier Global Sciences, Inc.

Matrix: Air

Prepared using: AFS - EFGS-009 FSTM Trap Nitric/Sulfuric Digestion

Prepared: 8/8/2016

Lab Number	Sample ID	Initial (Trap)	Final (mL)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1608143-01	NE-1	1	40	-	-	-		
1608143-02	CN-2	1	40	-	-	-		
1608143-02RE1	CN-2	1	40	-	-	-	Added 8/10/2016 by BC	Added 8/10/2016 by BC
1608143-03	CN-D-3	1	40	-	-	-		
1608143-03RE1	CN-D-3	1	40	-	-	-	Added 8/10/2016 by BC	Added 8/10/2016 by BC
1608143-04	SW-4	1	40	-	-	-		
1608143-04RE1	SW-4	1	40	-	-	-	Added 8/10/2016 by BC	Added 8/10/2016 by BC
1608143-05	NW-0-5	1	40	-	-	-		



PREPARATION BENCH SHEET

F608224

Eurofins Frontier Global Sciences, Inc.

Matrix: Air

Prepared using: AFS - EFGS-009 FSTM Trap Nitric/Sulfuric Digestion

Prepared: 8/8/2016

Lab Number	Sample ID and Source Sample	Initial (Trap)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F608224-BLK1	Blank	1	100					
F608224-BLK2	Blank	1	100					
F608224-BLK3	Blank	1	100					
F608224-BS1	LCS	1	100	1603188	200			
F608224-BSD1	LCS Dup	1	100	1603188	200			
F608224-DUP1	Duplicate [1608154-02]	1	100					
F608224-MS1	Matrix Spike [1608154-02]	0.0002	0.02	1603190	100			[Spk] 1Trap->100mL; 20mL->20mL; Spiked 0.02mL
F608224-MS2	Matrix Spike [1608154-05]	0.0002	0.02	1603190	100			[Spk] 1Trap->100mL; 20mL->20mL; Spiked 0.02mL
F608224-MSD1	Matrix Spike Dup [1608154-02]	0.0002	0.02	1603190	100			[Spk] 1Trap->100mL; 20mL->20mL; Spiked 0.02mL
F608224-MSD2	Matrix Spike Dup [1608154-05]	0.0002	0.02	1603190	100			[Spk] 1Trap->100mL; 20mL->20mL; Spiked 0.02mL

<u>Standard ID(s):</u>	<u>Description:</u>
1603188	THg 1,000ng/mL Primary Spiking Standard
1603190	THg 10ng/mL Calibration Standard

<u>Expiration:</u>
15-Dec-16 00:00
15-Sep-16 00:00

<u>Reagent ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>
1602941	25% Hydroxylamine-HCl working solution	03-Dec-16 00:00
1603826	THg Dilute 1% BrCl	12-Dec-16 00:00
1603827	THg Washstation (0.5% BrCl)	03-Dec-16 00:00
1604289	3% SnCl2 THg reductant	22-Jan-17 00:00
1604327	70/30 Digestion Acid	31-Jan-17 00:00
1604418	5% BrCl	11-Jan-17 00:00

PREPARATION BENCH SHEET

F608224

Eurofins Frontier Global Sciences, Inc.

Matrix: Air

Prepared using: AFS - EFGS-009 FSTM Trap Nitric/Sulfuric Digestion

Prepared: 8/8/2016

Lab Number	Sample ID	Initial (Trap)	Final (mL)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1608154-01	SS002838-01 EFGS05518 Digestion Line 2 Heater 1	1	100	-	-	-		
1608154-02	SS002838-02 EFGS07551 Digestion Line 2 Heater 1	1	100	-	-	-		
1608154-03	SS002838-03 EFGS07502 Digestion Line 2 Heater 1	1	100	-	-	-		
1608154-04	SS002838-04 EFGS07470 Digestion Line 2 Heater 1	1	100	-	-	-		
1608154-04RE1	SS002838-04 EFGS07470 Digestion Line 2 Heater 1	1	100	-	-	-	Added 8/10/2016 by BC	Added 8/10/2016 by BC
1608154-05	SS002838-05 EFGS05080 Digestion Line 2 Heater 1	1	100	-	-	-	BatchQC	Added for BatchQC in: F608224
1608154-06	SS002838-06 EFGS07459 Digestion Line 2 Heater 1	1	100	-	-	-		
1608154-06RE1	SS002838-06 EFGS07459 Digestion Line 2 Heater 1	1	100	-	-	-	Added 8/10/2016 by BC	Added 8/10/2016 by BC
1608154-07	SS002838-07 EFGS05044 Evaporation Vacuum Pump Line 3	1	100	-	-	-		
1608154-08	SS002838-08 EFGS07590 Evaporation Vacuum Pump Line 3	1	100	-	-	-		
1608154-09	SS002838-09 EFGS03378 Evaporation Vacuum Pump Line 3	1	100	-	-	-		
1608154-09RE1	SS002838-09 EFGS03378 Evaporation Vacuum Pump Line 3	1	100	-	-	-	Added 8/10/2016 by BC	Added 8/10/2016 by BC
1608154-10	SS002838-10 EFGS07471 Evaporation Vacuum Pump Line 3	1	100	-	-	-		
1608154-11	SS002838-11 EFGS05102 Calciner 10] Oiler Fired	1	100	-	-	-		
1608154-11RE1	SS002838-11 EFGS05102 Calciner 10] Oiler Fired	1	100	-	-	-	Added 8/10/2016 by BC	Added 8/10/2016 by BC
1608154-12	SS002838-12 EFGS05075 Calciner 10 - Oiler Fired	1	100	-	-	-		
1608154-13	SS002838-13 EFGS05063 Calciner 10 - Oiler Fired	1	100	-	-	-		
154-13RE1	SS002838-13 EFGS05063 Calciner 10 - Oiler Fired	1	100	-	-	-	Added 8/10/2016 by BC	Added 8/10/2016 by BC

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Date: 8/11/2016

PREPARATION BENCH SHEET

F608224

Eurofins Frontier Global Sciences, Inc.

Matrix: Air

Prepared using: AFS - EFGS-009 FSTM Trap Nitric/Sulfuric Digestion

Prepared: 8/8/2016



PREPARATION BENCH SHEET

BC 84-16
2600-3

F608240

Eurofins Frontier Global Sciences, Inc.

8/9/16

Prepared: 8/8/2016

Matrix: Water

Prepared using: AFS - EPA 1631E BrCl Oxidation

Lab Number	Sample ID and Source Sample	Initial (mL)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F608240-BLK1	Blank	100	101					1X
F608240-BLK2	Blank	100	101					1X
F608240-BLK3	Blank	100	101					1X
F608240-BS1	LCS	100	101	1505246	100			1X
F608240-BSD1	LCS Dup	100	101	1505246	100			1X
F608240-DUP1	Duplicate 1607586-05	100	101					1X
F608240-MS1	Matrix Spike [1607586-11]	100	101	1603190	50			1X
F608240-MS2	Matrix Spike [1607586-12]	100	101	1603212	125			1X
F608240-MSD1	Matrix Spike Dup [1607586-11]	100	101	1603190	50			1X
F608240-MSD2	Matrix Spike Dup [1607586-12]	100	101	1603212	125			1X

Standard ID(s): Description:

Expiration:

BLK 4 5%

1X

1603825
1604289
~~1604~~
1603826
1603827
1602941

PREPARATION BENCH SHEET

BC 8-4-16

2600-3

F608240

Eurofins Frontier Global Sciences, Inc.

Matrix: Water

Prepared using: AFS - EPA 1631E BrCl Oxidation

Prepared: 8/8/2016
8/9/16

Lab Number	Sample ID	Initial (mL)	Final (mL)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1607586-01	1523 OV-02_071816_SW_10	100	101	-	-	-	Scan all data - Level IV IX	
1607586-02	1523 OV-02_071816_SW_10 Dissolved	100	101	-	-	-	Scan all data - Level IV IX	
1607586-03	1524 WQ1b-c_071816_SW_10	100	101	-	-	-	Scan all data - Level IV IX	
1607586-04	1524 WQ1b-c_071816_SW_10 Dissolved	100	101	-	-	-	Scan all data - Level IV IXX	
1607586-05	1525 WQ2-c_071816_SW_10	100	101	-	-	-	Scan all data - Level IV IX	
1607586-06	1525 WQ2-c_071816_SW_10 Dissolved	100	101	-	-	-	Scan all data - Level IV IX	
1607586-07	1526 WQ3-L_071816_SW_10	100	101	-	-	-	Scan all data - Level IV IX	
1607586-08	1526 WQ3-L_071816_SW_10 Dissolved	100	101	-	-	-	Scan all data - Level IV IX	
1607586-09	1527 ES-15_071816_SW_10	100	101	-	-	-	Scan all data - Level IV IX	
1607586-10	1527 ES-15_071816_SW_10 Dissolved	100	101	-	-	-	Scan all data - Level IV IX	
1607586-11	1528 WQ-ECH_071816_SW_10	100	101	QC	-	-	MS/MSD Scan all data - Level IV IX	
1607586-12	1528 WQ-ECH_071816_SW_10 Dissolved	100	101	QC	-	-	MS/MSD Scan all data - Level IV IX	
1607586-13	1529 WQ-ECH_071816_SW_10_DUP	100	101	-	-	-	Scan all data - Level IV IX	
1607586-14	1529 WQ-ECH_071816_SW_10_DUP Dissolved	100	101	-	-	-	Scan all data - Level IV IX	
1608183-01	Lagoons	100	101	-	-	-		
1608183-02	Lagoons Field Blank	100	101	-	-	-		
1608183-03	Clarifier	100	101	-	-	-		
1608183-04	Clarifier Field Blank	100	101	-	-	-		
1608183-05	A149	100	101	-	-	-		

SS18

SS33

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Print Date: 8/10/2016

PREPARATION BENCH SHEET

BC 8-9-6
2600-3

F608240

Eurofins Frontier Global Sciences, Inc.

Matrix: Water

Prepared using: AFS - EPA 1631E BrCl Oxidation

8/9/16
Prepared: 8/8/2016

1608183-06	A149 Blank	100	101	-	-	-	IX	
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SS33



Total Mercury Preservation Logbook

Initial preservation and/or verification

Technician: LSM Date: 7/21/16 Time Completed: 17:45

Work Orders: 1607586

Additional preservation and/or verification (as needed)

Technician: _____ Date: _____ Time Completed: _____
 Technician: _____ Date: _____ Time Completed: _____

BrCl LIMS ID: 1603196
 Pipette SN: MU32229
 Cal. Date: 7/8/16

Sample ID	Sample Volume (mL)	Reagent added (mL)	Oxidized? Y/N	Additional preservation (as needed)		
				Oxidized? Y/N	Reagent added (mL)	Oxidized? Y/N
1607586-01A	300	3.00	Y			
1607586-02A	300	3.00	Y			
1607586-03A	300	3.00	Y			
1607586-04A	300	3.00	Y			
1607586-05A	300	3.00	Y			
1607586-06A	300	3.00	Y			
1607586-07A	300	3.00	Y			
1607586-08A	300	3.00	Y			
1607586-09A	300	3.00	Y			
1607586-10A	300	3.00	Y			
1607586-11A	300	3.00	Y			
1607586-12A	300	3.00	Y			
1607586-13A	300	3.00	Y			
1607586-14A	300	3.00	Y			
1607586-15A	300	3.00	Y			
1607586-16A	300	3.00	Y			
1607586-17A	300	3.00	Y			
1607586-18A	300	3.00	Y			
1607586-19A	300	3.00	Y			
1607586-20A	300	3.00	Y			
1607586-21A	300	3.00	Y			
LSM 7/21/16						

Oxidation with BrCl is confirmed by a yellow color change of the sample and/or a purple color change in KI starch paper.

Comments: _____

Total Mercury Preservation Logbook

Initial preservation and/or verification

Technician: CSP Date: 8/5/16 Time Completed: 1550

Work Orders: 1608183

Additional preservation and/or verification (as needed)

Technician: _____ Date: _____ Time Completed: _____

BrCl LIMS ID: _____

Technician: _____ Date: _____ Time Completed: _____

Pipette SN: _____

Cal. Date: _____

Sample ID	Sample Volume (mL)	Reagent added (mL)	Oxidized? Y/N	Additional preservation (as needed)		
				Oxidized? Y/N	Reagent added (mL)	Oxidized? Y/N
1608183-01A	300	3.00	y			
1608183-02A	300	3.00	y			
1608183-03A	300	3.00	y			
1608183-04A	300	3.00	y			
1608183-05A	300	15.00	y			
1608183-06A	300	3.00	y			
<div style="font-size: 2em; font-family: cursive;">CSP</div> <div style="font-size: 2em; font-family: cursive;">8/5/16</div>						

Oxidation with BrCl is confirmed by a yellow color change of the sample and/or a purple color change in KI starch paper.

Comments: _____

PREPARATION BENCH SHEET

BC 89-16
2600-3

F608230

Eurofins Frontier Global Sciences, Inc.

Matrix: Air

Prepared using: AFS - EFGS-009 FSTM Trap Nitric/Sulfuric Digestion

Prepared: 8/8/2016

Lab Number	Sample ID and Source Sample	Initial (Trap)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F608230-BLK1	Blank	1	40					100x
F608230-BLK2	Blank	1	40					100x
F608230-BLK3	Blank	1	40					100x
F608230-BS1	LCS	1	40	1603188	200			500x
F608230-BSD1	LCS Dup	1	40	1603188	200			500x
F608230-DUP1	Duplicate 1608143-01	1	40					50 100x
F608230-MS1	Matrix Spike 1608143-01	1	40	1603190		50		500x
F608230-MSD1	Matrix Spike Dup 1608143-01	1	40	1603190		50		500x

<u>Standard ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>	<u>Reagent ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>
1603188	THg 1,000ng/mL Primary Spiking Standard	15-Dec-16 00:00	1604327	70/30 Digestion Acid	31-Jan-17 00:00
			1604328	5% BrCl	11-Jan-17 00:00

1603826
1603827
1602941
1604289

PREPARATION BENCH SHEET

BLB-9-16
2600-3

F608230

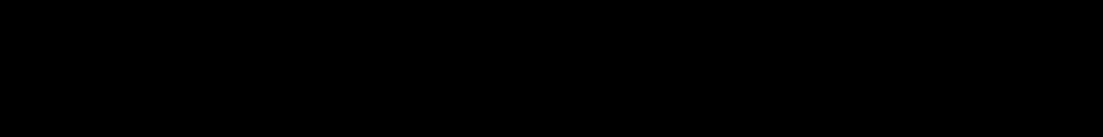
Eurofins Frontier Global Sciences, Inc.

Matrix: Air

Prepared using: AFS - EFGS-009 FSTM Trap Nitric/Sulfuric Digestion

Prepared: 8/8/2016

Lab Number	Sample ID	Initial (Trap)	Final (mL)	A Sample Comments	B Analysis Comments
1608143-01	NE-1	1	40	No 100X	100X
1608143-02	CN-2	1	40	No 100X → 500X	100X
1608143-03	CN-D-3	1	40	No 100X → 500X	100X
1608143-04	SW-4	1	40	No 100X → 100X	100X
1608143-05	NW-0-5	1	40	No 100X	100X



Trap Digestions

Name: CLC Date: 8/18/16 Batch ID: F608230
 Work Order(s): 1608143 Analysis: Total Hg Other _____
 Sample Matrix: FSTM KCl PHg Plug Other _____
 Prep: 70/30 Digestion, 2 hr. @ ~55°C (EFAFS-T-AFS-SOP2985)
 start time: 1235, start temp (°C): 55.0 (raw) 54.6 (w/ CF)
 end time: 1437, end temp (°C): 61.0 (raw) 60.6 (w/ CF) Timer? Yes No
 5% BrCl Oxidation (EFGS-031) start time: _____ (allow samples to sit for at least 4 hr before analysis)
 Other _____

Sample ID Number	Digest vol. (mL)
F608230-BLK1	40
F608230-BLK2	40
F608230-BLK3	40
F608230-BS1	40
F608230-BSD1	40
1608143-01A NNQ4170	40
1608143-01B	40
1608143-02A NNQ4155	40
1608143-02B	40
1608143-03A NNQ4173	40
1608143-03B	40
1608143-04A NNQ4166	40
1608143-04B	40 40
1608143-05A NNQ4167	40
1608143-05B	40

Spike ID: 1603188
 Spike Amount (µL): 200
 Spike Witness: AMB 8/18/16
 BrCl ID: 1604328
 70/30: 1604327
 Other: NA
 Thermometer: 13698
 Dispensers: 02K27494
 8/18/16 04N73497
 Other NA

Pipette ID: M411607
 Cal. Date: 8/13/16
 Vials and Jars lot# 0DDb4557
 Loader Mass Verification: Y
 Trap Material Lot#: 1603214

Comments:

CLC 8/18/16

PREPARATION BENCH SHEET

BC 8-9-16

2600-3

F608224

Eurofins Frontier Global Sciences, Inc.

Matrix: Air

Prepared using: AFS - EFGS-009 FSTM Trap Nitric/Sulfuric Digestion

Prepared: 8/8/2016

Lab Number	Sample ID and Source Sample	Initial (Trap)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F608224-BLK1	Blank	1	100					100X
F608224-BLK2	Blank	1	100					100X
F608224-BLK3	Blank	1	100					100X
F608224-BS1	LCS	1	100	1603188	200			500X
F608224-BSD1	LCS Dup	1	100	1603188	200			500X
F608224-DUP1	Duplicate 1608154-02	1	100					2500X
F608224-MS1	Matrix Spike 1608154-02	1	100	1603190	100			2500X
F608224-MS2	Matrix Spike 1608154-05	1	100	1603190	100			2500X
F608224-MSD1	Matrix Spike Dup 1608154-02	1	100	1603190	100			2500X
F608224-MSD2	Matrix Spike Dup 1608154-05	1	100	1603190	100			2500X

Standard ID(s): 1603188
 Description: THg 1,000ng/mL Primary Spiking Standard

Expiration: 15-Dec-16 00:00

Reagent ID(s): 1604327, 1604418
 Description: 70/30 Digestion Acid, 5% BrCl

Expiration: 31-Jan-17 00:00, 11-Jan-17 00:00

1604284
 1603826
 1603827
 1602941

PREPARATION BENCH SHEET

BC 8-9-16

2600-3

F608224

Eurofins Frontier Global Sciences, Inc.

Matrix: Air

Prepared using: AFS - EFGS-009 FSTM Trap Nitric/Sulfuric Digestion

Prepared: 8/8/2016

Lab Number	Sample ID	Initial (Trap)	Final (mL)	A Sample Comments	B	C Analysis Comments
1608154-01	SS002838-01 EFGS05518 Digestion Line 2 Heater 1	1	100	No 2500x	100x	
1608154-02	SS002838-02 EFGS07551 Digestion Line 2 Heater 1	1	100	No 2500x	100x	
1608154-03	SS002838-03 EFGS07502 Digestion Line 2 Heater 1	1	100	No 2500x	100x	
1608154-04	SS002838-04 EFGS07470 Digestion Line 2 Heater 1	1	100	No 2500x	100x	500x → 2500x
1608154-05	SS002838-05 EFGS05080 Digestion Line 2 Heater 1	1	100	No 2500x	100x	12
1608154-06	SS002838-06 EFGS07459 Digestion Line 2 Heater 1	1	100	No 2500x → 100x	100x	8/9/16
1608154-07	SS002838-07 EFGS05044 Evaporation Vacuum Pump Lin	1	100	No 2500x	100x	
1608154-08	SS002838-08 EFGS07590 Evaporation Vacuum Pump Lin	1	100	No 1000x	100x	
1608154-09	SS002838-09 EFGS03378 Evaporation Vacuum Pump Lin	1	100	No 1000x	100x	500x → 200x
1608154-10	SS002838-10 EFGS07471 Evaporation Vacuum Pump Lin	1	100	No 1000x	100x	12 8/9/16
1608154-11	SS002838-11 EFGS05102 Calciner 10] Oiler Fired	1	100	No 2500x → 100x	100x	
1608154-12	SS002838-12 EFGS05075 Calciner 10 - Oiler Fired	1	100	No 100x -	100x	
1608154-13	SS002838-13 EFGS05063 Calciner 10 - Oiler Fired	1	20	No 100x	100x	500x → 200x

12
8/9/16

Name: AMB Date: 8/8/16 Batch ID: F608224
 Work Order(s): 1608154 Analysis: Total Hg Other _____
 Sample Matrix: FSTM KCl Phg Plug Other _____
 Prep: 70/30 Digestion, 2 hr. @ ~55°C (EFAFS-T-AFS-SOP2985)
 start time: 1350, start temp (°C): 58.0 (raw) 57.8 (w/ CF)
 end time: 1545, end temp (°C): 64.0 (raw) 63.8 (w/ CF) Timer? Yes No
 5% BrCl Oxidation (EFGS-031) start time: _____ (allow samples to sit for at least 4 hr before analysis)
 Other _____

Sample ID Number	Digest vol. (mL)	
F608224-BLK1	100	
F608224-BLK2	100	Spike ID: <u>1603188</u>
F608224-BLK3	100	Spike Amount (µL): <u>200</u>
F608224-BL1	100	Spike Witness: <u>BC 8-8-16</u>
F608224-BL1	100	
1608154-01A	100	BrCl ID: <u>1604418</u>
^{AMB 8/8/16} 1608154-01B	100	70/30: <u>1604327</u>
1608154-02A	100	Other: <u>N/A</u>
1608154-02B	100	
1608154-03A	100	Thermometer: <u>14575</u>
1608154-03B	100	Dispensers: 02K27494 <input checked="" type="checkbox"/>
1608154-04A	100	04N73497 <input checked="" type="checkbox"/>
1608154-04B	100	Other <u>N/A</u>
1608154-04C	100	
1608154-05A	100	Pipette ID: <u>MU11607</u>
1608154-05B	100	Cal. Date: <u>8/3/16</u>
1608154-06A	100	Vials and Jars lot# <u>00064654</u>
1608154-06B	100	Loader Mass Verification: <u>Y</u>
1608154-07A	100	Trap Material Lot#: <u>1603214</u>
1608154-07B	100	
1608154-08A	100	Comments:
1608154-08B	100	<u>1608154-04: C bed</u>
1608154-09A	100	<u>spiked @ 10,000 ng.</u>
1608154-09B	100	<u>1608154-09: C bed</u>
1608154-09C	100	<u>spiked @ 500 ng.</u>
1608154-10A	100	
1608154-10B	100	<u>1608154-13: C bed</u>
1608154-11A	100	<u>spiked @ 500 ng.</u>
1608154-11B	100	
1608154-12A	100	
1608154-12B	100	
1608154-13A	100	
1608154-13B	100	
1608154-13C	100	

AMB 8/8/16 AMB
8-8-16

Peer Review Check List for THg by 2600 CV-AFS (FGS-121) 2016 Rev 1 (04/1/2016)

Analyst:	BC	Sequence(s) #:	6H10008, 6H10008-6H10009 Data 8-10-16
Reviewer:		Dataset ID(s):	THg26003-160809-1
Date:	8/10/2016	WO (s) #:	Various
Batch #(s):	F608240, F608230, F608224		

• Select the correct preparation method.

Analyte	Prep Method	Matrix	
<input checked="" type="checkbox"/> THg	EFAFS-T-AFS-SOP2985	FSTM Trap 70:30 Digest	Air/Gas
<input type="checkbox"/> THg	EFAFS-T-AFS-SOP2807	Modified Cold Aqua Regia	Sed/Soil
<input type="checkbox"/> THg	EFAFS-T-AFS-SOP2821	Shared Bomb- HF/HNO3/HCl Digest	Sed/Soil
<input type="checkbox"/> THg	EFTM-T-TM-SOP2825	Nitric Acid Oven Bomb	Sed/Soil
<input type="checkbox"/> THg	EFAFS-T-AFS-SOP2795	70:30 Digest	Tissue
<input type="checkbox"/> THg	EFAFS-T-AFS-SOP2800	KCl Trap BrCl Oxidation	Air/Gas
<input type="checkbox"/> THg	EFTM-T-TM-SOP2837	Shared Nitric	Tissue
<input checked="" type="checkbox"/> THg	EFSR-P-SP-SOP2796	BrCl Oxidation	Water
<input type="checkbox"/> Hg0	NA	NA	Water
<input type="checkbox"/> Inorg Hg	NA	NA	Water

Analyst Initials: BCReviewer Initials: DMW

1. Compare SampleID with Benchsheet/Sequence/Raw Data (Have all samples been imported?) YES NO
2. Check for transcription errors from Excel spreadsheet (or Prep Benchsheet)/Raw data YES NO
- (a) On raw data (instrument print-out), does correct file (dataset ID#) name appear in description? YES NO
Naming convention: THg26001-yymmdd-1 or THg26002-yymmdd-1
- (b) Check 5% of transcription from Instrument print-out and Excel file YES NO
Compare the "Dilute" and "Peak (raw)" columns to "Dilution" and "Uncorrected Result" in Excel
- (c) Check standards & reagents in sequence & bench sheet for correct usage (expiries). YES NO N/A
- (d) Check and compare masses (review prep benchsheet) YES NO N/A
- (e) Check & compare initial & final volumes YES NO N/A
- (f) Do aliquots and dilutions written on benchsheet match those in Excel? YES NO N/A
50 ml / aliquot = Excel dilution value
- (g) Is the sequence #, analyst, date, and instrument # on the QC page? YES NO
- (h) Is the analysis status correct? (analyzed/initial review/reviewed) YES NO
- (i) Original prep bench sheet added to data package? YES NO
- (j) Benchsheet prep date MUST match actual prep date (check if re-shot vs re-extract) YES NO
3. High QA? WO#(s)/Client(s): _____ YES NO
4. Client specific QC? (if Yes, refer to Project Notes/LIMS) YES NO
- (a) Have the QC requirements been met for all WO#s? YES NO
- (b) Prep blanks corrections/assigned properly YES NO
- 5a. 20 or fewer samples in batch? YES NO
- (i) 3 PBs, 1 LCS(or BS), 1 LCSD(or BSD), 1 DUP/Batch 1 MS/MSD (or AS/ASD)/10 samples? YES NO
- (ii) 1 CCV and 1 CCB every 10 analytical runs? YES NO

Peer Review Check List for THg by 2600 CV-AFS (FGS-121) 2016 Rev 1 (04/1/2016)

Analyst:	BC	Sequence(s) #:	6H10008, 6H10008 - 6H10009 DMU 8/10/16
Reviewer:	0	Dataset ID(s):	THg26003-160809-1
Date:	8/10/2016	WO (s) #:	Various
Batch #(s):	F608240, F608230, F608224		0

Analyst Initials

BC

Reviewer Initials

DMU

5b. Has the B/C section data been uploaded?

 YES
 NO
 N/A

QA/QC Data Checked

6. RSD CF ($\leq 15\%$)
 PASS
 FAIL

Comments:

7. The calibration curve included a minimum of 5 Standards

 YES
 NO

Comments:

8. 1st Calibration Standard % Recoveries EPA 1631E (75-125%)

 PASS
 FAIL

9. ICV and CCV % Recoveries EPA 1631E (77-123%)

 PASS
 FAIL

Comments:

10. Do all calibration points pass acceptance criteria?

 YES
 NO

Comments:

11. Are qualifiers consistent with the data review flowcharts?

 YES
 NO
 N/A

Comments:

12. Explain any items on the failed data report from Element

Comments:

13. Are the individual Preparation Blanks $< PQL$ or $< 2.2xMDL$ for WI (refer to appropriate prep method PQL list)
 PASS
 FAIL

(a) If not $< PQL$ or $< 2.2xMDL$ for WI, note which PB(s) are above control limit:(b) Is the mean PB $< PQL$ or $< 2.2xMDL$ for WI (for appropriate qualification)?
 YES
 NO

(c) Was a BrCl Blank analyzed for each preservation level?

 YES
 NO
 N/A

(d) Are Preparation Blanks summarized on QC page?

 YES
 NO

14. Filtration Blank Prepared (if yes, use FB qualifier)

 YES
 NO

(a) Filtration Blank prep date same as associated samples' prep date

 YES
 NO
 N/A

(b) Filtration Blank absolute value $< PQL$ or $< 2.2xMDL$ for WI
 YES
 NO
 N/A

15. IBLs (3 minimum) individually < 0.50 ng/L, mean < 0.25 ng/L and STD of 0.10 ng/L?
 PASS
 FAIL

Comments:

16. CCBs individually < 0.50 ng/L or $2.2 \times MDL$ for WI?
 PASS
 FAIL

Comments:

17. Have Total Solids been applied? (If NO, please ensure that they are done or nearly done)

 YES
 NO
 N/A

18. Is the correct 'Source' designated for MD/MS/MSD?

 YES
 NO

19. For digested preps: was there a spike witness signature & date on the prep bench sheet?

 YES
 NO
 N/A

Peer Review Check List for THg by 2600 CV-AFS (FGS-121) 2016 Rev 1 (04/1/2016)

Analyst:	BC	Sequence(s) #:	6H10008, 6H40008 <i>6H10009 DAN 8/10/16</i>
Reviewer:	0	Dataset ID(s):	THg26003-160809-1
Date:	8/10/2016	WO (s) #:	Various
Batch #(s):	F608240, F608230, F608224		0

Analyst Initials BC Reviewer Initials DAN

20. MS/MSD Spiked at least 1-5 X ambient or 5x MRL (whichever is higher) ? YES NO
- Comments: _____
21. Are all samples within instrument calibration range? (or at minimum dilution size) PASS FAIL
- Comments: _____
22. Are the samples run at the correct dilution level for the method? YES NO
- Comments: _____
23. Dissolved < Total (if applicable) YES NO N/A
- Comments: _____
24. Effluent < Influent (visually confirm if needed) YES NO N/A
- Comments: _____
25. Are re-runs noted with reason? YES NO N/A
- Comments: _____
26. FSTM Datasets: Check to ensure the 'Response' & 'Initial Result' columns match in both the Excel dataset & LIMS for the FSTM A (in sequence) & B/C (in batch) traps? YES NO N/A
- Comments: _____
27. Is the B trap <5% A Traps YES NO N/A
- Comments: _____
28. Are spiked trap recoveries 75-125% of true value? YES NO N/A
- Comments: _____
29. Have non-reportable samples been imported into LIMS and clicked to non-reportable? YES NO N/A
- Comments: _____
30. Have re-extracts been created for non-reportable samples? YES NO N/A
31. Are there any HIGH QA projects within the data? If so, place data package in QA office before scanning. YES NO N/A
32. Does the data set need scanning? YES NO N/A
33. Does the dataset have an LOQ/LOQ or DOC? YES NO N/A
34. Water samples: has the preservation log been included in dataset for final volume verification? YES NO N/A
35. Water samples-is the final volume correct in the sequence? YES NO N/A
- Files located at: \\Cuprum\gen_admin\Quality Assurance\Training Master\DOCs**
36. Date of analyst IDOC/CDOC: 8-10-16 12/15/15 12/17/15 IDOC/CDOC within last 12 months? YES NO
37. Date of analyst's SOP reading for method: D4 issue corr check Current SOP revision read? YES NO
38. Date of LOD: 6/14/16 6/23/16 LOD within last 3 months? YES NO
39. Date of LOQ: 6/14/16 6/23/16 LOQ within last 3 months? YES NO

Data can not be reported without a current IDOC/CDOC, LOD or LOQ.

Peer Review Check List for THg by 2600 CV-AFS (FGS-121) 2016 Rev 1 (04/1/2016)

Analyst:	BC	Sequence(s) #:	6H10008, 6H10008 <i>6H10009 DMW 8/10/16</i>
Reviewer:	0	Dataset ID(s):	THg26003-160809-1
Date:	8/10/2016	WO (s) #:	Various
Batch #(s):	F608240, F608230, F608224		0

40. Peer Reviewer's comments (use Peer Review Checklist Additional Comments form if necessary):

BC DMW

Additional Page (s)? YES

Analysis Datasheet for Total Mercury

Date of Analysis: August 11, 2016

Analyst: BC

Instrument #: Hg2600-3

Units ng/L

LIMS Sequence #: 6H11005

Calibration Statistics:

LabNumber	n	True Val	Area	Uncorrected Response Factor	Corrected Peak Height	Corrected Response Factor	% Recovery
SEQ-CAL1	1	0.50 ng/L	57.20 units	114.39	45.28 units	90.56	99.8 %Rec
SEQ-CAL2	1	1.00 ng/L	104.81 units	104.81	92.89 units	92.89	102.4 %Rec
SEQ-CAL3	1	5.00 ng/L	461.27 units	92.25	449.36 units	89.87	99.1 %Rec
SEQ-CAL4	1	20.00 ng/L	1809.88 units	90.49	1797.96 units	89.90	99.1 %Rec
SEQ-CAL5	1	40.00 ng/L	3623.13 units	90.58	3611.21 units	90.28	99.5 %Rec
SEQ-CAL6	0						
SEQ-CAL7	0						
SEQ-CAL8	0						
SEQ-CAL9	0						

Corr. Mean RF 90.70 Corr. St Dev RF +/- 1.26 Corr. RSD CF 1.4% RSD Uncorr. Mean RF 98.51

Blanks:

LabNumber	n	Mean	Std Dev	Mean (ng/L)	Std Dev (ng/L)
SEQ-IBL	3	11.92 units	±4.86	0.12 ng/L	±0.05

Preparation Blanks

Sample Type	Batch ID	n	Mean	Std Dev
BLK	1	3	0.014 ng/L	±0.040
BLK	2	1	-0.013 ng/L	
BLK	3	0	0.000 ng/L	
BLK	4	0	0.000 ng/L	
BLK	5	0	0.000 ng/L	
BLK	6	0	0.000 ng/L	

QUALITY ASSURANCE
PEER - REVIEWED
INITIALS: DMW 8-11-16

Instrument	Analyst	Sample Type	LabNumber	Dilution	Analyzed	FileID	RunEnd	Uncorrected Response	Batch ID	No PB Correction?	RESP	InitialResult	FinalResult	InitialUnits	Comments
Hg2600-3	BC	CAL	SEQ-IBL1	1	8/11/2016 8:06:36	47401-1.RAW	8:06:36 AM	16.87			5.0	0.055	0.055	ng/L	
Hg2600-3	BC	CAL	SEQ-IBL2	1	8/11/2016 8:10:45	47402-1.RAW	8:10:45 AM	11.72			-0.2	-0.002	-0.002	ng/L	
Hg2600-3	BC	CAL	SEQ-IBL3	1	8/11/2016 8:14:53	47403-1.RAW	8:14:53 AM	7.16			-4.8	-0.052	-0.052	ng/L	
Hg2600-3	BC	CAL	SEQ-CAL1	1	8/11/2016 8:19:01	47404-1.RAW	8:19:01 AM	57.20			45.3	0.499	0.499	ng/L	
Hg2600-3	BC	CAL	SEQ-CAL2	1	8/11/2016 8:23:10	47405-1.RAW	8:23:10 AM	104.81			92.9	1.024	1.024	ng/L	
Hg2600-3	BC	CAL	SEQ-CAL3	1	8/11/2016 8:27:18	47406-1.RAW	8:27:18 AM	461.27			449.4	4.954	4.954	ng/L	
Hg2600-3	BC	CAL	SEQ-CAL4	1	8/11/2016 8:31:27	47407-1.RAW	8:31:27 AM	1809.88			1798.0	19.823	19.823	ng/L	
Hg2600-3	BC	CAL	SEQ-CAL5	1	8/11/2016 8:35:35	47408-1.RAW	8:35:35 AM	3623.13			3611.2	39.815	39.815	ng/L	
Hg2600-3	BC	CAL	SEQ-ICV1	1	8/11/2016 8:39:44	47409-1.RAW	8:39:44 AM	503.23			491.3	5.417	5.417	ng/L	
Hg2600-3	BC	BLK	F608263-BLK1	1	8/11/2016 8:48:42	47410-1.RAW	8:48:42 AM	16.96	1		5.0	0.056	0.056	ng/L	
Hg2600-3	BC	BLK	F608263-BLK2	1	8/11/2016 8:52:50	47411-1.RAW	8:52:50 AM	9.75	1		-2.2	-0.024	-0.024	ng/L	
Hg2600-3	BC	BLK	F608263-BLK3	1	8/11/2016 8:56:59	47412-1.RAW	8:56:59 AM	12.80	1		0.9	0.010	0.010	ng/L	
Hg2600-3	BC	BLK	F608263-BLK4	1	8/11/2016 9:01:07	47413-1.RAW	9:01:07 AM	10.75	2		-1.2	-0.013	-0.013	ng/L	
Hg2600-3	BC	SAM	F608263-BS1	1	8/11/2016 9:05:15	47414-1.RAW	9:05:15 AM	1388.49	1		1376.6	15.163	15.163	ng/L	
Hg2600-3	BC	SAM	F608263-BSD1	1	8/11/2016 9:09:24	47415-1.RAW	9:09:24 AM	1408.12	1		1396.2	15.380	15.380	ng/L	
Hg2600-3	BC	SAM	1607542-01	1	8/11/2016 9:13:32	47416-1.RAW	9:13:32 AM	80.27	1		68.4	0.740	0.740	ng/L	
Hg2600-3	BC	SAM	1607542-02	1	8/11/2016 9:17:41	47417-1.RAW	9:17:41 AM	32.16	1		20.2	0.209	0.209	ng/L	
Hg2600-3	BC	SAM	1607542-03	1	8/11/2016 9:21:49	47418-1.RAW	9:21:49 AM	70.81	1		58.9	0.636	0.636	ng/L	
Hg2600-3	BC	SAM	1607542-04	1	8/11/2016 9:25:58	47419-1.RAW	9:25:58 AM	68.15	1		56.2	0.606	0.606	ng/L	
Hg2600-3	BC	CAL	SEQ-CCV1	1	8/11/2016 9:30:06	47420-1.RAW	9:30:06 AM	487.07			475.2	5.239	5.239	ng/L	
Hg2600-3	BC	CAL	SEQ-CCB1	1	8/11/2016 9:34:14	47421-1.RAW	9:34:14 AM	10.59			-1.3	-0.015	-0.015	ng/L	
Hg2600-3	BC	SAM	1607542-05	1	8/11/2016 9:38:23	47422-1.RAW	9:38:23 AM	97.04	1		85.1	0.925	0.925	ng/L	
Hg2600-3	BC	SAM	1607542-06	1	8/11/2016 9:42:31	47423-1.RAW	9:42:31 AM	117.97	1		106.1	1.156	1.156	ng/L	
Hg2600-3	BC	SAM	1607542-07	1	8/11/2016 9:46:40	47424-1.RAW	9:46:40 AM	15.99	1		4.1	0.031	0.031	ng/L	
Hg2600-3	BC	SAM	1607542-09	1	8/11/2016 9:50:48	47425-1.RAW	9:50:48 AM	7.42	1		-4.5	-0.063	-0.063	ng/L	
Hg2600-3	BC	SAM	1607586-19	1	8/11/2016 9:54:56	47426-1.RAW	9:54:56 AM	142.24	1		130.3	1.423	1.423	ng/L	
Hg2600-3	BC	SAM	1607586-20	1	8/11/2016 9:59:05	47427-1.RAW	9:59:05 AM	58.46	1		46.5	0.499	0.499	ng/L	
Hg2600-3	BC	SAM	1607586-21	1	8/11/2016 10:03:13	47428-1.RAW	10:03:13 AM	14.74	1		2.8	0.017	0.017	ng/L	
Hg2600-3	BC	SAM	1607805-01	10	8/11/2016 10:07:22	47429-1.RAW	10:07:22 AM	195.88	2		184.0	2.030	20.295	ng/L	
Hg2600-3	BC	SAM	1607805-02	1	8/11/2016 10:11:30	47430-1.RAW	10:11:30 AM	176.11	1		164.2	1.797	1.797	ng/L	
Hg2600-3	BC	SAM	1608038-01	1	8/11/2016 10:15:38	47431-1.RAW	10:15:38 AM	24.97	1		13.1	0.130	0.130	ng/L	
Hg2600-3	BC	CAL	SEQ-CCV2	1	8/11/2016 10:19:47	47432-1.RAW	10:19:47 AM	504.12			492.2	5.427	5.427	ng/L	
Hg2600-3	BC	CAL	SEQ-CCB2	1	8/11/2016 10:23:55	47433-1.RAW	10:23:55 AM	11.34			-0.6	-0.006	-0.006	ng/L	
Hg2600-3	BC	SAM	1608109-01	1	8/11/2016 10:28:04	47434-1.RAW	10:28:04 AM	23.42	1		11.5	0.113	0.113	ng/L	
Hg2600-3	BC	SAM	1608109-03	1	8/11/2016 10:32:12	47435-1.RAW	10:32:12 AM	646.58	1		634.7	6.984	6.984	ng/L	
Hg2600-3	BC	SAM	1608109-05	1	8/11/2016 10:36:21	47436-1.RAW	10:36:21 AM	357.89	1		346.0	3.801	3.801	ng/L	
Hg2600-3	BC	SAM	1608109-07	1	8/11/2016 10:40:29	47437-1.RAW	10:40:29 AM	21.87	1		10.0	0.096	0.096	ng/L	
Hg2600-3	BC	SAM	1608109-09	1	8/11/2016 10:44:37	47438-1.RAW	10:44:37 AM	276.68	1		264.8	2.905	2.905	ng/L	
Hg2600-3	BC	SAM	1608109-11	1	8/11/2016 10:48:46	47439-1.RAW	10:48:46 AM	258.35	1		246.4	2.703	2.703	ng/L	
Hg2600-3	BC	SAM	F608263-MS1	1	8/11/2016 10:52:54	47440-1.RAW	10:52:54 AM	598.26	1		586.3	6.451	6.451	ng/L	
Hg2600-3	BC	SAM	F608263-MSD1	1	8/11/2016 10:57:03	47441-1.RAW	10:57:03 AM	593.92	1		582.0	6.403	6.403	ng/L	
Hg2600-3	BC	SAM	F608263-MS2	1	8/11/2016 11:01:11	47442-1.RAW	11:01:11 AM	656.47	1		644.6	7.093	7.093	ng/L	
Hg2600-3	BC	SAM	F608263-MSD2	1	8/11/2016 11:05:19	47443-1.RAW	11:05:19 AM	667.95	1		656.0	7.219	7.219	ng/L	
Hg2600-3	BC	CAL	SEQ-CCV3	1	8/11/2016 11:09:28	47444-1.RAW	11:09:28 AM	523.03			511.1	5.635	5.635	ng/L	
Hg2600-3	BC	CAL	SEQ-CCB3	1	8/11/2016 11:13:36	47445-1.RAW	11:13:36 AM	22.54			10.6	0.117	0.117	ng/L	
Hg2600-3	BC	SAM	F608263-DUP1	1	8/11/2016 11:17:45	47446-1.RAW	11:17:45 AM	80.30	1		68.4	0.740	0.740	ng/L	
Hg2600-3	BC	BLK	F608233-BLK1	100	8/11/2016 11:21:53	47447-1.RAW	11:21:53 AM	19.11		x	7.2	0.079	7.933	ng/L	
Hg2600-3	BC	BLK	F608233-BLK2	100	8/11/2016 11:26:01	47448-1.RAW	11:26:01 AM	20.22		x	8.3	0.092	9.158	ng/L	
Hg2600-3	BC	BLK	F608233-BLK3	100	8/11/2016 11:30:10	47449-1.RAW	11:30:10 AM	15.99		x	4.1	0.045	4.491	ng/L	
Hg2600-3	BC	SAM	F608233-BS1	500	8/11/2016 11:34:18	47450-1.RAW	11:34:18 AM	383.99		x	372.1	4.102	2051.143	ng/L	
Hg2600-3	BC	SAM	F608233-BSD1	500	8/11/2016 11:38:27	47451-1.RAW	11:38:27 AM	382.54		x	370.6	4.086	2043.148	ng/L	
Hg2600-3	BC	SAM	1608154-14	100	8/11/2016 11:42:35	47452-1.RAW	11:42:35 AM	54.28		x	42.4	0.467	46.707	ng/L	
Hg2600-3	BC	SAM	1608154-15	2500	8/11/2016 11:46:44	47453-1.RAW	11:46:44 AM	129030.53		x	129018.6	1422.482	3556205.197	ng/L	
Hg2600-3	BC	SAM	WS	1	8/11/2016 11:56:28	47454-1.RAW	11:56:28 AM	198.79		x	186.9	2.060	2.060	ng/L	
Hg2600-3	BC	SAM	CLEAN	1	8/11/2016 12:00:49	47455-1.RAW	12:00:49 PM	26.87		x	15.0	0.165	0.165	ng/L	
Hg2600-3	BC	SAM	WS	1	8/11/2016 12:04:58	47456-1.RAW	12:04:58 PM	71.60		x	59.7	0.658	0.658	ng/L	
Hg2600-3	BC	SAM	WS	1	8/11/2016 12:09:06	47457-1.RAW	12:09:06 PM	46.09		x	34.2	0.377	0.377	ng/L	

Instrument	Analyst	Sample Type	LabNumber	Dilution	Analyzed	FileID	RunEnd	Uncorrected Response	Batch ID	No PB Correction?	RESP	InitialResult	FinalResult	InitialUnits	Comments
Hg2600-3	BC	SAM	WS	1	8/11/2016 12:13:15	47458-1.RAW	12:13:15 PM	38.76		x	26.8	0.296	0.296	ng/L	
Hg2600-3	BC	SAM	WS	1	8/11/2016 12:17:23	47459-1.RAW	12:17:23 PM	40.74		x	28.8	0.318	0.318	ng/L	
Hg2600-3	BC	SAM	WS	1	8/11/2016 12:21:31	47460-1.RAW	12:21:31 PM	39.50		x	27.6	0.304	0.304	ng/L	
Hg2600-3	BC	SAM	WS	1	8/11/2016 12:25:40	47461-1.RAW	12:25:40 PM	32.14		x	20.2	0.223	0.223	ng/L	
Hg2600-3	BC	SAM	1608154-21	2500	8/11/2016 12:29:48	47462-1.RAW	12:29:48 PM	154193.54		x	154181.6	1699.914	4249785.980	ng/L	
Hg2600-3	BC	SAM	1608154-25	2500	8/11/2016 12:39:32	47463-1.RAW	12:39:32 PM	460.10		x	448.2	4.941	12353.617	ng/L	
Hg2600-3	BC	CAL	SEQ-CCV4 -	1	8/11/2016 12:43:41	47464-1.RAW -	12:43:41 PM -	633.00			621.1	6.848	6.848	ng/L	
Hg2600-3	BC	CAL	SEQ-CCB4 -	1	8/11/2016 12:47:49	47465-1.RAW -	12:47:49 PM -	96.17			84.3	0.929	0.929	ng/L	
Hg2600-3	BC	SAM	ws	1	8/11/2016 12:56:38	47467-1.RAW	12:56:38 PM	418.23		x	406.3	4.480	4.480	ng/L	
Hg2600-3	BC	SAM	ws	1	8/11/2016 13:00:46	47468-1.RAW	1:00:46 PM	62.89		x	51.0	0.562	0.562	ng/L	
Hg2600-3	BC	SAM	WS	1	8/11/2016 13:04:55	47469-1.RAW	1:04:55 PM	55.64784167		x	43.7	0.482	0.482	ng/L	
Hg2600-3	BC	SAM	WS	1	8/11/2016 13:09:03	47470-1.RAW	1:09:03 PM	54.05		x	42.1	0.465	0.465	ng/L	
Hg2600-3	BC	CAL	SEQ-CCV5 -	1	8/11/2016 13:13:11	47471-1.RAW -	1:13:11 PM -	547.63			535.7	5.906	5.906	ng/L	
Hg2600-3	BC	CAL	SEQ-CCB5 -	1	8/11/2016 13:17:20	47472-1.RAW -	1:17:20 PM -	59.91			48.0	0.529	0.529	ng/L	

TotalMercury EPA1631
 Operati BC
 Worksh THg2600
 Method #####
 R: 1
 R²:
 Descr THg26003-160810-1

BlankS 11.917
 Calib Eqn: 90.7
 Status:

Conc = (Area-11.917) / 1
 QC Warnings:5/QC E
 Run Date: 8/10/2016
 Run Time: 15:10:50
 Blank SD: 4.859873844
 Blank RSD%: 40.78232244
 CF SD: 1.257107378
 CF RSD%: 1.386011407

Sample/ID	Location Rinse	Dilute	Blank	Conc (ppt)	MB%	FinalConc	Rec%	QA	RawData	RunEnd	Peak (Raw)	Control (ef)	Flags	RunCount
clean			0.00	1.23					47396-1.RAW	7:47:11	111.21	Clean	OK	1
clean									47397-1.RAW	7:50:03	0.00	Clean	NP	1
ws			11.92	0.00					47398-1.RAW	7:54:11	10.02	Sample	OK	1
ws			11.92	0.00					47399-1.RAW	7:58:19	6.26	Sample	OK	1
ws			11.92	0.00					47400-1.RAW	8:02:28	7.48	Sample	OK	1
SEQ-IBL1	A1	1	0.00	0.19					47401-1.RAW	8:06:36	16.87	Sample	OK	1
SEQ-IBL2	A2	1	0.00	0.13					47402-1.RAW	8:10:45	11.72	Sample	OK	1
SEQ-IBL3	A3	1	0.00	0.08					47403-1.RAW	8:14:53	7.16	Sample	OK	1
SEQ-CAL1	A4	1	11.92	0.50			99.84		47404-1.RAW	8:19:01	57.20	Sample	OK	1
SEQ-CAL2	A5	1	11.92	1.02			102.41		47405-1.RAW	8:23:10	104.81	Sample	OK	1
SEQ-CAL3	A6	1	11.92	4.95			99.09		47406-1.RAW	8:27:18	461.27	Sample	OK	1
SEQ-CAL4	A7	1	11.92	19.82			99.12		47407-1.RAW	8:31:27	1809.88	Sample	OK	1
SEQ-CAL5	A8	1	11.92	39.82			99.54		47408-1.RAW	8:35:35	3623.13	Sample	FB	1
SEQ-ICV1	A9	1	11.92	5.42			108.34		47409-1.RAW	8:39:44	503.23	Sample	OK	1
F608263-BLK1	A10	1	11.92	0.06					47410-1.RAW	8:48:42	16.96	Sample	OK	1
F608263-BLK2	A11	1	11.92	0.00					47411-1.RAW	8:52:50	9.75	Sample	OK	1
F608263-BLK3	A12	1	11.92	0.01					47412-1.RAW	8:56:59	12.80	Sample	OK	1
F608263-BLK4	B1	1	11.92	0.00					47413-1.RAW	9:01:07	10.75	Sample	OK	1
F608263-BS1	B2	1	11.92	15.18					47414-1.RAW	9:05:15	1388.49	Sample	OK	1
F608263-BSD1	B3	1	11.92	15.39					47415-1.RAW	9:09:24	1408.12	Sample	OK	1
1607542-01	B4	1	11.92	0.75					47416-1.RAW	9:13:32	80.27	Sample	OK	1
1607542-02	B5	1	11.92	0.22					47417-1.RAW	9:17:41	32.16	Sample	OK	1
1607542-03	B6	1	11.92	0.65					47418-1.RAW	9:21:49	70.81	Sample	OK	1
1607542-04	B7	1	11.92	0.62					47419-1.RAW	9:25:58	68.15	Sample	OK	1
SEQ-CCV1	B8	1	11.92	5.24			104.77		47420-1.RAW	9:30:06	487.07	Sample	OK	1
SEQ-CCB1	B9	1	11.92	0.00			0.00		47421-1.RAW	9:34:14	10.59	Sample	OK	1
1607542-05	B10	1	11.92	0.94					47422-1.RAW	9:38:23	97.04	Sample	OK	1
1607542-06	B11	1	11.92	1.17					47423-1.RAW	9:42:31	117.97	Sample	OK	1
1607542-07	B12	1	11.92	0.04					47424-1.RAW	9:46:40	15.99	Sample	OK	1
1607542-09	C1	1	11.92	0.00					47425-1.RAW	9:50:48	7.42	Sample	OK	1
1607586-19	C2	1	11.92	1.44					47426-1.RAW	9:54:56	142.24	Sample	OK	1
1607586-20	C3	1	11.92	0.51					47427-1.RAW	9:59:05	58.46	Sample	OK	1
1607586-21	C4	1	11.92	0.03					47428-1.RAW	10:03:13	14.74	Sample	OK	1
1607805-01	C5	10	11.92	20.28					47429-1.RAW	10:07:22	195.88	Sample	OK	1
1607805-02	C6	1	11.92	1.81					47430-1.RAW	10:11:30	176.11	Sample	OK	1
1608038-01	C7	1	11.92	0.14					47431-1.RAW	10:15:38	24.97	Sample	OK	1
SEQ-CCV2	C8	1	11.92	5.43			108.54		47432-1.RAW	10:19:47	504.12	Sample	OK	1
SEQ-CCB2	C9	1	11.92	0.00			0.00		47433-1.RAW	10:23:55	11.34	Sample	OK	1
1608109-01	C10	1	11.92	0.13					47434-1.RAW	10:28:04	23.42	Sample	OK	1
1608109-03	C11	1	11.92	7.00					47435-1.RAW	10:32:12	646.58	Sample	OK	1
1608109-05	C12	1	11.92	3.81					47436-1.RAW	10:36:21	357.89	Sample	OK	1
1608109-07	D1	1	11.92	0.11					47437-1.RAW	10:40:29	21.87	Sample	OK	1
1608109-09	D2	1	11.92	2.92					47438-1.RAW	10:44:37	276.68	Sample	OK	1
1608109-11	D3	1	11.92	2.72					47439-1.RAW	10:48:46	258.35	Sample	OK	1
F608263-MS1	D4	1	11.92	6.46			173.92		47440-1.RAW	10:52:54	598.26	Sample	OK	1

F608263-MSD1	D5	1	11.92	6.42		47441-1.RAW	10:57:03	593.92	Sample	OK	1
F608263-MS2	D6	1	11.92	7.11	84.43	47442-1.RAW	11:01:11	656.47	Sample	OK	1
F608263-MSD2	D7	1	11.92	7.23		47443-1.RAW	11:05:19	667.95	Sample	OK	1
SEQ-CCV3	D8	1	11.92	5.64	112.70	47444-1.RAW	11:09:28	523.03	Sample	OK	1
SEQ-CCB3	D9	1	11.92	0.12	0.00	47445-1.RAW	11:13:36	22.54	Sample	OK	1
F608263-DUP1	D10	1	11.92	0.75		47446-1.RAW	11:17:45	80.30	Sample	OK	1
F608233-BLK1	D11	100	11.92	7.93		47447-1.RAW	11:21:53	19.11	Sample	OK	1
F608233-BLK2	D12	100	11.92	9.16		47448-1.RAW	11:26:01	20.22	Sample	OK	1
F608233-BLK3	A1	100	11.92	4.49		47449-1.RAW	11:30:10	15.99	Sample	OK	1
F608233-BS1	A2	500	11.92	2051.14		47450-1.RAW	11:34:18	383.99	Sample	OK	1
F608233-BSD1	A3	500	11.92	2043.15		47451-1.RAW	11:38:27	382.54	Sample	OK	1
1608154-14	A4	100	11.92	46.71		47452-1.RAW	11:42:35	54.28	Sample	OK	1
1608154-15	A5	2500	11.92	3556205.20		47453-1.RAW	11:46:44	129030.53	Sample	OLFB	1
WS			11.92	2.06		47454-1.RAW	11:56:28	198.79	Sample	OK	1
CLEAN			0.00	0.30		47455-1.RAW	12:00:49	26.87	Clean	OK	1
WS			11.92	0.66		47456-1.RAW	12:04:58	71.60	Sample	OK	1
WS			11.92	0.38		47457-1.RAW	12:09:06	46.09	Sample	OK	1
WS			11.92	0.30		47458-1.RAW	12:13:15	38.76	Sample	OK	1
WS			11.92	0.32		47459-1.RAW	12:17:23	40.74	Sample	OK	1
WS			11.92	0.30		47460-1.RAW	12:21:31	39.50	Sample	OK	1
WS			11.92	0.22		47461-1.RAW	12:25:40	32.14	Sample	OK	1
1608154-21	A6	2500	11.92	4249785.98		47462-1.RAW	12:29:48	154193.54	Sample	OLFB	1
1608154-25	A7	2500	11.92	12353.62		47463-1.RAW	12:39:32	460.10	Sample	OK	1
SEQ-CCV4	A8	1	11.92	6.85	136.95	47464-1.RAW	12:43:41	633.00	Sample	OK	1
SEQ-CCB4	A9	1	11.92	0.93	0.00	47465-1.RAW	12:47:49	96.17	Sample	OK	1
ws			11.92	4.48		47467-1.RAW	12:56:38	418.23		OK	1
ws			11.92	0.56		47468-1.RAW	13:00:46	62.89	Sample	OK	1
WS			11.92	0.48		47469-1.RAW	13:04:55	55.65	Sample	OK	1
WS			11.92	0.46		47470-1.RAW	13:09:03	54.05	Sample	OK	1
SEQ-CCV5	C1	1	11.92	5.91	118.13	47471-1.RAW	13:13:11	547.63	Sample	OK	1
SEQ-CCB6	C2	1	11.92	0.53	0.00	47472-1.RAW	13:17:20	59.91	Sample	OK	1
1608154-15RE1	A10	1E+06	11.92	4181110.18		47466-2.RAW	13:24:03	315.30	Sample	OK	1
1608154-16	A11	1E+06	11.92	1581794.68		47473-1.RAW	13:28:12	126.69	Sample	OK	1
1608154-17	A12	1E+06	11.92	2779216.58		47474-1.RAW	13:32:20	213.58	Sample	OK	1
1608154-18	B1	1E+06	11.92	1696374.50		47475-1.RAW	13:36:28	135.01	Sample	OK	1
1608154-19	B2	1E+06	11.92	1209469.63		47476-1.RAW	13:40:37	99.68	Sample	OK	1
1608154-20	B3	1E+06	11.92	374885.02		47477-1.RAW	13:44:45	39.12	Sample	OK	1
CLEAN						47478-1.RAW	13:47:37	0.00	Clean	NP	1
CLEAN			0.00	0.17		47479-1.RAW	13:50:28	15.39	Clean	OK	1
CLEAN			0.00	0.20		47480-1.RAW	13:53:19	18.48	Clean	OK	1
WS			11.92	0.36		47481-1.RAW	13:57:28	44.23	Sample	OK	1
WS			11.92	0.22		47482-1.RAW	14:01:36	31.59	Sample	OK	1
WS			11.92	0.21		47483-1.RAW	14:05:45	31.22	Sample	OK	1
WS			11.92	3.80		47484-1.RAW	14:09:53	356.51	Sample	OK	1
CLEAN						47485-1.RAW	14:12:44	0.00	Clean	NP	1
WS			11.92	0.05		47486-1.RAW	14:16:53	16.46	Sample	OK	1
WS			11.92	0.60		47487-1.RAW	14:21:01	66.74	Sample	OK	1
WS			11.92	0.30		47488-1.RAW	14:25:10	39.41	Sample	OK	1
WS			11.92	0.20		47489-1.RAW	14:29:18	30.51	Sample	OK	1
WS			11.92	0.27		47490-1.RAW	14:33:26	36.67	Sample	OK	1

SEQ-CCB5
DHW
8-11-16

WS	11.92	0.25	47491-1.RAW	14:37:35	34.51	Sample	OK	1
WS	11.92	0.29	47492-1.RAW	14:41:43	38.07	Sample	OK	1
WS	11.92	0.33	47493-1.RAW	14:45:52	42.14	Sample	OK	1
WS	11.92	0.37	47494-1.RAW	14:50:00	45.63	Sample	OK	1
WS	11.92	0.28	47495-1.RAW	14:54:09	37.58	Sample	OK	1
WS	11.92	0.31	47496-1.RAW	14:58:17	39.95	Sample	OK	1
jk			47497-1.RAW	15:13:42	3.97	Clean	OK	1
Clean			47498-1.RAW	15:16:33	0.00	Clean	NP	1
Clean			47499-1.RAW	15:19:25	0.00	Clean	NP	1
Clean			47500-1.RAW	15:22:16	14270.57	Clean	FB	1
Clean			47501-1.RAW	15:25:07	0.00	Clean	NP	1
Clean			47502-1.RAW	15:27:59	24.27	Clean	OK	1
Clean			47503-1.RAW	15:30:50	247.41	Clean	OK	1
Clean			47504-1.RAW	15:33:41	0.00	Clean	NP	1

Failing Data Report - 6H11005

Sample ID	Analysis	Result	MRL	Dup Result	Source Result	True Value	Units	% Rec.	Rec. LCL	Rec. UCL	RPD	RPD Limit	Over Cal	Failure	Qualifier
6H11005-CCV4	Hg-CVAFS-W-1631	6.85	0.495			5.0000	ng/L	137	77.00	123.00			PASS-OVER	FAIL-CCV	re run
6H11005-CCB4	Hg-CVAFS-W-1631	0.93	0.495				ng/L						PASS-OVER	FAIL-CCB	re run
6H11005-CCB5	Hg-CVAFS-W-1631	0.53	0.495				ng/L						PASS-OVER	FAIL-CCB	failed


 Analyst Reviewed By _____

 Date _____


 Peer Reviewed By _____

 Date _____

ANALYSIS SEQUENCE

6H11005

Instrument: Hg2600-3

Calibration ID: UNASSIGNED

Analyzed: 8/10/2016

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
6H11005-IBL1	QC	1			
6H11005-IBL2	QC	2			
6H11005-IBL3	QC	3			
6H11005-CAL1	QC	4	1603274		
6H11005-CAL2	QC	5	1603275		
6H11005-CAL3	QC	6	1603276		
6H11005-CAL4	QC	7	1603277		
6H11005-CAL5	QC	8	1603278		
6H11005-ICV1	QC	9	1603625		
F608263-BLK1	QC	10			
F608263-BLK2	QC	11			
F608263-BLK3	QC	12			
F608263-BLK4	QC	13			
F608263-BS1	QC	14			
F608263-BSD1	QC	15			
1607542-01	Hg-CVAFS-W-1631	16			Scan all data for level IV report
1607542-02	Hg-CVAFS-W-1631	17			Scan all data for level IV report
1607542-03	Hg-CVAFS-W-1631	18			Scan all data for level IV report
1607542-04	Hg-CVAFS-W-1631	19			Scan all data for level IV report
6H11005-CCV1	QC	20	1603625		
6H11005-CCB1	QC	21			
1607542-05	Hg-CVAFS-W-1631	22			Scan all data for level IV report
1607542-06	Hg-CVAFS-W-1631	23			Scan all data for level IV report
1607542-07	Hg-CVAFS-W-1631	24			Scan all data for level IV report
1607542-09	Hg-CVAFS-W-1631	25			Scan all data for level IV report
1607586-19	Hg-CVAFS-W-1631	26			Scan all data - Level IV
1607586-20	Hg-CVAFS-W-1631	27			Scan all data - Level IV
1607586-21	Hg-CVAFS-W-1631	28			Scan all data - Level IV
1607805-01	Hg-CVAFS-W-1631	29			Scan all data - Level IV
1607805-02	Hg-CVAFS-W-1631	30			Scan all data - Level IV
1608038-01	Hg-CVAFS-W-1631	31			Do not oven samples (CCV 90-110%, CCB <), <1/2 PQL
6H11005-CCV2	QC	32	1603625		
6H11005-CCB2	QC	33			
1608109-01	Hg-CVAFS-W-1631	34			
1608109-03	Hg-CVAFS-W-1631	35			

Due Date: 8/11/2016

ANALYSIS SEQUENCE

6H11005

Instrument: Hg2600-3

Calibration ID: UNASSIGNED

Analyzed: 8/10/2016

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
1608109-05	Hg-CVAFS-W-1631	36			
1608109-07	Hg-CVAFS-W-1631	37			
1608109-09	Hg-CVAFS-W-1631	38			
1608109-11	Hg-CVAFS-W-1631	39			
F608263-MS1	QC	40			
F608263-MSD1	QC	41			
F608263-MS2	QC	42			
F608263-MSD2	QC	43			
6H11005-CCV3	QC	44	1603625		
6H11005-CCB3	QC	45			
F608263-DUP1	QC	46			
6H11005-CCV4	QC	47	1603625		
6H11005-CCB4	QC	48			
6H11005-CCV5	QC	49	1603625		
6H11005-CCB5	QC	50			

[Signature] 8/11/16
 Samples Loaded By Date

[Signature] 8/11/16
 Data Processed By Date

109322 8/10/16

Due Date: 8/11/2016

PREPARATION BENCH SHEET

F608263

Eurofins Frontier Global Sciences, Inc.

Matrix: Water

Prepared using: AFS - EPA 1631E BrCl Oxidation

Prepared: 8/10/2016

Lab Number	Sample ID and Source Sample	Initial (mL)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F608263-BLK1	Blank	100	101					Source:1607542-08
F608263-BLK2	Blank	100	101					Source:1607542-08
F608263-BLK3	Blank	100	101					Source:1607542-08
F608263-BLK4	Blank	100	102					
F608263-BS1	LCS	50	50.5	1505246	100			
F608263-BSD1	LCS Dup	50	50.5	1505246	100			
F608263-DUP1	Duplicate [1607542-01]	100	101					
F608263-MS1	Matrix Spike [1607542-06]	49.50495	50	1603190	25			[Spk] 100mL->101mL; 101mL->101mL; Spiked 50mL
F608263-MS2	Matrix Spike [1607805-02]	49.50495	50	1603190	25			[Spk] 100mL->101mL; 101mL->101mL; Spiked 50mL
F608263-MSD1	Matrix Spike Dup [1607542-06]	49.50495	50	1603190	25			[Spk] 100mL->101mL; 101mL->101mL; Spiked 50mL
F608263-MSD2	Matrix Spike Dup [1607805-02]	49.50495	50	1603190	25			[Spk] 100mL->101mL; 101mL->101mL; Spiked 50mL

Standard ID(s):

Description:

Expiration:

1505246

Nist 1641D 200X

20-Aug-16 00:00

1603190

THg 10ng/mL Calibration Standard

15-Sep-16 00:00

PREPARATION BENCH SHEET

F608263

Eurofins Frontier Global Sciences, Inc.

Matrix: Water

Prepared using: AFS - EPA 1631E BrCl Oxidation

Prepared: 8/10/2016

Lab Number	Sample ID	Initial (mL)	Final (mL)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1607542-01	OL-2434-01	100	101	-	-	-	Scan all data for level IV report	
1607542-02	OL-2434-01 Dissolved	100	101	-	-	-	Scan all data for level IV report	
1607542-03	OL-2434-02	100	101	-	-	-	Scan all data for level IV report	
1607542-04	OL-2434-03	100	101	-	-	-	Scan all data for level IV report	
1607542-05	OL-2434-04	100	101	-	-	-	Scan all data for level IV report	
1607542-06	OL-2434-05	100	101	-	-	-	Scan all data for level IV report	
1607542-07	OL-2434-06	100	101	-	-	-	Scan all data for level IV report	
1607542-09	Laboratory Filter Blank	100	101	-	-	-	Scan all data for level IV report	
1607586-19	1532 WQ-FPT_071816_SW_10	100	101	-	-	-	Scan all data - Level IV	
1607586-20	1532 WQ-FPT_071816_SW_10 Dissolved	100	101	-	-	-	Scan all data - Level IV	
1607586-21	1533 EB_071916_SW_QC Dissolved	100	101	-	-	-	Scan all data - Level IV	
1607805-01	ADD-02_072216_SW_10	100	102	-	-	-	Scan all data - Level IV	
1607805-02	ADD-02_072216_SW_10 Dissolved	100	101	-	-	-	Scan all data - Level IV	
1608038-01	August 2016 Monthly Water ICPMS Sink 1	100	101	-	-	-	Do not oven samples (CCV 90-110%, t	
1608109-01	C141742 003 Blank	100	101	-	-	-		
1608109-03	C142057 003	100	101	-	-	-		
1608109-05	C142063 003 DUP	100	101	-	-	-		
1608109-07	C142061 001 Blank	100	101	-	-	-		
1608109-09	C141746 001	100	101	-	-	-		

PREPARATION BENCH SHEET

F608263

Eurofins Frontier Global Sciences, Inc.

Matrix: Water

Prepared using: AFS - EPA 1631E BrCl Oxidation

Prepared: 8/10/2016

1608109-11	Bottle 1 001 DUP	100	101	-	-	-		
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PREPARATION BENCH SHEET

F608263

Eurofins Frontier Global Sciences, Inc.

Matrix: Water

Prepared using: AFS - EPA 1631E BrCl Oxidation

Prepared: 8/10/2016

Lab Number	Sample ID and Source Sample	Initial (mL)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F608263-BLK1	Blank	100	101					IV
F608263-BLK2	Blank	100	101					IX
F608263-BLK3	Blank	100	101					IX
F608263-BS1	LCS	100	101	1505246	100			IX
F608263-BSD1	LCS Dup	100	101	1505246	100			IX
F608263-DUP1	Duplicate 1608542-01	100	101					IX
F608263-MS1	Matrix Spike 1608542-06	100	101	1603140	25			IX
F608263-MS2	Matrix Spike 1607805-02	100	101	1603140	25			IX
F608263-MSD1	Matrix Spike Dup 1608542-06	100	101	1603140	25			IX
F608263-MSD2	Matrix Spike Dup 1608205	100	101	1603140	25			X

1607805-02

Standard ID(s): Description:

Expiration:

Blk 4 2% 100 102 IX

1602941
1603825
1603826
1603827
1604289

PREPARATION BENCH SHEET

F608263

Eurofins Frontier Global Sciences, Inc.

Matrix: Water

Prepared using: AFS - EPA 1631E BrCl Oxidation

Prepared: 8/10/2016

Lab Number	Sample ID	Initial (mL)	Final (mL)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1607542-01	OL-2434-01	100	101	-	-	-	Scan all data for level IV report IX	
1607542-02	OL-2434-01 Dissolved	100	101	-	-	-	Scan all data for level IV report IX	
1607542-03	OL-2434-02	100	101	-	-	-	Scan all data for level IV report IX	
1607542-04	OL-2434-03	100	101	-	-	-	Scan all data for level IV report IX	
1607542-05	OL-2434-04	100	101	-	-	-	Scan all data for level IV report IX	
1607542-06	OL-2434-05	100	101	-	-	-	Scan all data for level IV report IX	
1607542-07	OL-2434-06	100	101	-	-	-	Scan all data for level IV report IX	
1607542-09	Laboratory Filter Blank	100	101	-	-	-	Scan all data for level IV report IX	
1607586-19	1532 WQ-FPT_071816_SW_10	100	101	-	-	-	Scan all data - Level IV IX	
1607586-20	1532 WQ-FPT_071816_SW_10 Dissolved	100	101	-	-	-	Scan all data - Level IV IX	
1607586-21	1533 EB_071916_SW_QC Dissolved	100	101	-	-	-	Scan all data - Level IV IX	
1607805-01	ADD-02_072216_SW_10	100	101	-	-	-	Scan all data - Level IV IX	
1607805-02	ADD-02_072216_SW_10 Dissolved	100	101	-	-	-	Scan all data - Level IV IX	
1608038-01	August 2016 Monthly Water ICPMS Sink 1	100	101	-	-	-	Do not oven samples (CCV 90-110%, t IX	
1608109-01	C141742 003 Blank	100	101	-	-	-	IX	
1608109-03	C142057 003	100	101	-	-	-	IX	
1608109-05	C142063 003 DUP	100	101	-	-	-	IX	
1608109-07	C142061 001 Blank	100	101	-	-	-	IX	
1608109-09	C141746 001	100	101	-	-	-	IX	

SS16

SS17

SS17

SS18

SS33

Page 96 of 463

Date: 8/11/2016

PREPARATION BENCH SHEET

F608263

Eurofins Frontier Global Sciences, Inc.

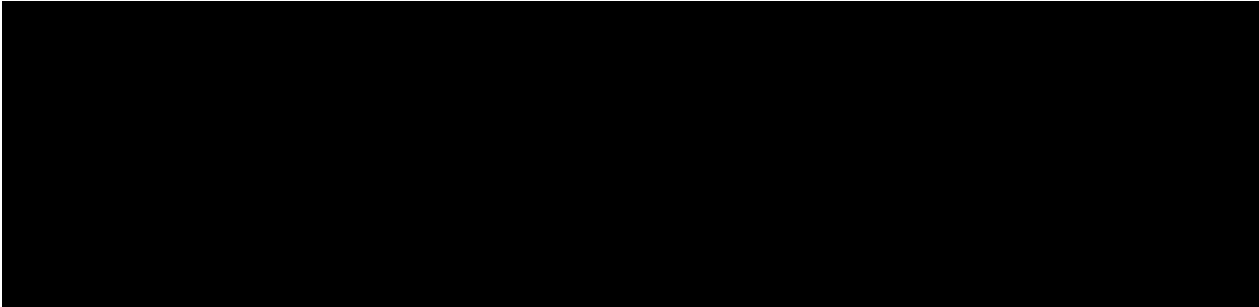
Matrix: Water

Prepared using: AFS - EPA 1631E BrCl Oxidation

Prepared: 8/10/2016

1608109-11	Bottle 1 001 DUP	100	101	-	-	-	ix	
------------	------------------	-----	-----	---	---	---	----	--

SS33



Total Mercury Preservation Logbook

Initial preservation and/or verification

Technician: LMM Date: 7/20/16 Time Completed: 16.50

Work Orders: 1607537, 1607538
1607539, 1607540, 1607542
1607544

Additional preservation and/or verification (as needed)

Technician: _____ Date: _____ Time Completed: _____

BrCl LIMS ID: 1603196

Technician: _____ Date: _____ Time Completed: _____

Pipette SN: MU32229

Cal. Date: 7/8/16

Sample ID	Sample Volume (mL)	Reagent added (mL)	Oxidized? Y/N	Additional preservation (as needed)		
				Oxidized? Y/N	Reagent added (mL)	Oxidized? Y/N
1607537-01A	300	3.00	Y			
1607537-02A	300	3.00	Y			
1607537-03A	300	3.00	Y			
1607538-01A	300	3.00	Y			
1607538-02A	300	3.00	Y			
1607538-03A	300	3.00	Y			
1607539-01A	300	3.00	Y			
1607539-02A	300	3.00	Y			
1607539-03A	300	3.00	Y			
1607539-04A	300	3.00	Y			
1607539-05A	300	15.00	Y			
1607539-06A	300	3.00	Y			
1607540-01A	255	2.55	Y			
1607542-01A	170	1.70	Y			
1607542-02A	150	1.50	Y			
1607542-03A	300	3.00	Y			
1607542-04A	300	3.00	Y			
1607542-05A	300	3.00	Y			
1607542-06A	300	3.00	Y			
1607542-07A	300	3.00	Y			
1607542-08A	300	3.00	Y			
1607542-09A	300	3.00	Y			
1607544-01A	300	3.00	Y			
1607544-02A	300	3.00	Y			
1607544-03A	300	3.00	Y			
1607544-04A	300	3.00	Y			

Oxidation with BrCl is confirmed by a yellow color change of the sample and/or a purple color change in KI starch paper.

Comments: _____

Reviewed
2/21

Total Mercury Preservation Logbook

Initial preservation and/or verification

Technician: LM Date: 7/21/16 Time Completed: 17:45

Work Orders: 1607586

Additional preservation and/or verification (as needed)

Technician: _____ Date: _____ Time Completed: _____

Technician: _____ Date: _____ Time Completed: _____

BrCl LIMS ID: 1603196

Pipette SN: MU32229

Cal. Date: 7/19/16

Sample ID	Sample Volume (mL)	Reagent added (mL)	Oxidized? Y/N	Additional preservation (as needed)		
				Oxidized? Y/N	Reagent added (mL)	Oxidized? Y/N
1607586-01A	300	3.00	Y			
1607586-02A	300	3.00	Y			
1607586-03A	300	3.00	Y			
1607586-04A	300	3.00	Y			
1607586-05A	300	3.00	Y			
1607586-06A	300	3.00	Y			
1607586-07A	300	3.00	Y			
1607586-08A	300	3.00	Y			
1607586-09A	300	3.00	Y			
1607586-10A	300	3.00	Y			
1607586-11A	300	3.00	Y			
1607586-12A	300	3.00	Y			
1607586-13A	300	3.00	Y			
1607586-14A	300	3.00	Y			
1607586-15A	300	3.00	Y			
1607586-16A	300	3.00	Y			
1607586-17A	300	3.00	Y			
1607586-18A	300	3.00	Y			
1607586-19A	300	3.00	Y			
1607586-20A	300	3.00	Y			
1607586-21A	300	3.00	Y			
LM 7/21/16						

Oxidation with BrCl is confirmed by a yellow color change of the sample and/or a purple color change in KI starch paper.

Comments: _____

Reviewed

Total Mercury Preservation Logbook

Initial preservation and/or verification

Technician: CSP Date: 7/27/16 Time Completed: 1715

Work Orders: 1607799, 1607803

~~CSP 1607803~~ 1607805
7/27/16

Additional preservation and/or verification (as needed)

Technician: _____ Date: _____ Time Completed: _____

Technician: _____ Date: _____ Time Completed: _____

BrCl LIMS ID: 1603126

Pipette SN: MU32229

Cal. Date: 7/18/16

Sample ID	Sample Volume (mL)	Reagent added (mL)	Oxidized? Y/N	Additional preservation (as needed)		
				Oxidized? Y/N	Reagent added (mL)	Oxidized? Y/N
1607799-01 A	300	3.00	y			
1607799-02 A	300	3.00	y			
1607799-03 A	300	3.00	y			
1607799-04 A	300	3.00	y			
1607799-05 A	300	15.00	y			
1607799-06 A	300	3.00	y			
1607803-01 A	300	3.00	y			
1607803-02 A	300	3.00	y			
1607803-03 A	300	3.00	y			
1607803-04 A	300	3.00	y			
1607803-05 A	300	3.00	y			
1607803-06 A	300	3.00	y			
1607803-07 A	300	3.00	y			
1607805-01 A	300	3.00 + 3.00	y			
1607805-02 A	300	3.00	y			
CSP 7/21/16						

Oxidation with BrCl is confirmed by a yellow color change of the sample and/or a purple color change in KI starch paper.

Comments: _____

Reviewed

7/29/16 on

Total Mercury Preservation Logbook

Initial preservation and/or verification

Technician: LIM Date: 8/1/16 Time Completed: 16:35

Work Orders: 1608034
1608038

Additional preservation and/or verification (as needed)

Technician: _____ Date: _____ Time Completed: _____
Technician: _____ Date: _____ Time Completed: _____

BrCl LIMS ID: 1603196
Pipette SN: MU32229
Cal. Date: 7/29/16

Sample ID	Sample Volume (mL)	Reagent added (mL)	Oxidized? Y/N	Additional preservation (as needed)		
				Oxidized? Y/N	Reagent added (mL)	Oxidized? Y/N
1608034-01A	300	3.00	Y			
1608034-02A	300	3.00	Y			
1608034-03A	300	3.00	Y			
1608038-01A	260	2.60	Y			
<div style="border: 1px solid black; width: 100%; height: 100%; transform: rotate(45deg); opacity: 0.5;"></div> <p>LIM 8/1/16</p>						

Oxidation with BrCl is confirmed by a yellow color change of the sample and/or a purple color change in KI starch paper.

Comments: _____

Reviewed
8/2/16

Total Mercury Preservation Logbook

Initial preservation and/or verification

Technician: CSB Date: 8/3/16 Time Completed: 1750

Work Orders: 1608109, 1608114
1608113, 1608108, 1608071

Additional preservation and/or verification (as needed)

Technician: _____ Date: _____ Time Completed: _____
Technician: _____ Date: _____ Time Completed: _____

BrCl LIMS ID: ~~MU3222A~~ 1603196
1603825
Pipette SN: MU32229
Cal. Date: 7/29/16

Sample ID	Sample Volume (mL)	Reagent added (mL)	Oxidized? Y/N	Additional preservation (as needed)		
				Oxidized? Y/N	Reagent added (mL)	Oxidized? Y/N
1608109-01A	600	6.00	y			
1608109-03A	600	6.00	y			
1608109-05A	600	6.00	y			
1608109-07A	600	6.00	y			
1608109-09A	600	6.00	y			
1608109-11A	600	6.00	y			
1608113-01A	170	1.70	y			
1608113-02A	150	1.50	y			
1608113-03A	300	3.00	y			
1608113-04A	300	3.00	y			
1608113-05A	170	1.70	y			
1608113-06A	160	1.60	y			
1608113-07A	300	3.00	y			
1608113-08A	300	3.00	y			
1608113-09A	300	3.00	y			
1608113-10A	300	3.00	y			
1608108-01A	300	3.00	y			
1608108-02A	3.00 ^{CSB 8/3/16} 300	3.00	y			
1608108-03A	3.00 ^{CSB 8/3/16} 300	3.00	y			
1608108-05A	300	15.00	y			
1608108-04A	3.00 ^{CSB 8/3/16} 300	3.00	y			
1608108-06A	3.00 ^{CSB 8/3/16} 300	3.00	y			
1608071-12	150	1.50	y			
1608071-13	150	1.50	y			
1608071-14	150	1.50	y			
1608114-01B	10	10.00	y			

Oxidation with BrCl is confirmed by a yellow color change of the sample and/or a purple color change in KI starch paper.

Comments: * 50/50 BrCl using BrCl 1603825 - sample spiked in temperature

Peer Review Check List for THg by 2600 CV-AFS (FGS-121) 2016 Rev 1 (04/1/2016)

Analyst:	BC	Sequence(s) #:	6H11005
Reviewer:		Dataset ID(s):	THg26003-160810-1
Date:	8/11/2016	WO (s) #:	1607542, 1607586, 1607805, 1608038, 1608109
Batch #(s):	F608263		

• Select the correct preparation method.

Analyte	Prep Method		Matrix
<input type="checkbox"/> THg	EFAFS-T-AFS-SOP2985	FSTM Trap 70:30 Digest	Air/Gas
<input type="checkbox"/> THg	EFAFS-T-AFS-SOP2807	Modified Cold Aqua Regia	Sed/Soil
<input type="checkbox"/> THg	EFAFS-T-AFS-SOP2821	Shared Bomb- HF/HNO ₃ /HCl Digest	Sed/Soil
<input type="checkbox"/> THg	EFTM-T-TM-SOP2825	Nitric Acid Oven Bomb	Sed/Soil
<input type="checkbox"/> THg	EFAFS-T-AFS-SOP2795	70:30 Digest	Tissue
<input type="checkbox"/> THg	EFAFS-T-AFS-SOP2800	KCl Trap BrCl Oxidation	Air/Gas
<input type="checkbox"/> THg	EFTM-T-TM-SOP2837	Shared Nitric	Tissue
<input checked="" type="checkbox"/> THg	EFSR-P-SP-SOP2796	BrCl Oxidation	Water
<input type="checkbox"/> Hg ₀	NA	NA	Water
<input type="checkbox"/> Inorg Hg	NA	NA	Water

Analyst Initials: BC Reviewer Initials: DMW

- | | | | | |
|---|---|--|---|-------------------------------------|
| 1. Compare SampleID with Benchsheet/Sequence/Raw Data (Have all samples been imported?) | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> | |
| 2. Check for transcription errors from Excel spreadsheet (or Prep Benchsheet)/Raw data | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> | |
| (a) On raw data (instrument print-out), does correct file (dataset ID#) name appear in description?
Naming convention: THg26001-yymmdd-1 or THg26002-yymmdd-1 | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> | |
| (b) Check 5% of transcription from Instrument print-out and Excel file
Compare the "Dilute" and "Peak (raw)" columns to "Dilution" and "Uncorrected Result" in Excel | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> | |
| (c) Check standards & reagents in sequence & bench sheet for correct usage (expiries). | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input type="checkbox"/> N/A | <input checked="" type="checkbox"/> |
| (d) Check and compare masses (review prep benchsheet) | <input type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> N/A | <input checked="" type="checkbox"/> |
| (e) Check & compare initial & final volumes | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input type="checkbox"/> N/A | <input checked="" type="checkbox"/> |
| (f) Do aliquots and dilutions written on benchsheet match those in Excel?
50 ml / aliquot = Excel dilution value | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input type="checkbox"/> N/A | <input checked="" type="checkbox"/> |
| (g) Is the sequence #, analyst, date, and instrument # on the QC page? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | | <input checked="" type="checkbox"/> |
| (h) Is the analysis status correct? (analyzed/initial review/reviewed) | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | | <input checked="" type="checkbox"/> |
| (i) Original prep bench sheet added to data package? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | | <input checked="" type="checkbox"/> |
| (j) Benchsheet prep date MUST match actual prep date (check if re-shot vs re-extract) | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | | <input checked="" type="checkbox"/> |
| 3. High QA? WO#(s)/Client(s): _____ | <input type="checkbox"/> YES | <input checked="" type="checkbox"/> NO | | <input checked="" type="checkbox"/> |
| 4. Client specific QC? (if Yes, refer to Project Notes/LIMS) | <input type="checkbox"/> YES | <input checked="" type="checkbox"/> NO | | <input checked="" type="checkbox"/> |
| (a) Have the QC requirements been met for all WO#s? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | | <input checked="" type="checkbox"/> |
| (b) Prep blanks corrections/assigned properly | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | | <input checked="" type="checkbox"/> |
| 5a. 20 or fewer samples in batch? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | | <input checked="" type="checkbox"/> |
| (i) 3 PBs, 1 LCS(or BS), 1 LCSD(or BSD), 1 DUP/Batch 1 MS/MSD (or AS/ASD)/10 samples? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | | <input checked="" type="checkbox"/> |
| (ii) 1 CCV and 1 CCB every 10 analytical runs? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | | <input checked="" type="checkbox"/> |

Peer Review Check List for THg by 2600 CV-AFS (FGS-121) 2016 Rev 1 (04/1/2016)

Analyst:	BC	Sequence(s) #:	6H11005
Reviewer:	0	Dataset ID(s):	THg26003-160810-1
Date:	8/11/2016	WO (s) #:	1607542, 1607586, 1607805, 1608038, 1608109
Batch #(s):	F608263		0

Analyst Initials BC Reviewer Initials DMW

- 5b. Has the B/C section data been uploaded? YES NO N/A
- QA/QC Data Checked**
6. RSD CF (≤ 15%) PASS FAIL
 Comments: _____
7. The calibration curve included a minimum of 5 Standards YES NO
 Comments: _____
8. 1st Calibration Standard % Recoveries EPA 1631E (75-125%) PASS FAIL
9. ICV and CCV % Recoveries EPA 1631E (77-123%) PASS FAIL
 Comments: _____
10. Do all calibration points pass acceptance criteria? YES NO
 Comments: _____
11. Are qualifiers consistent with the data review flowcharts? YES NO N/A
 Comments: _____
12. Explain any items on the failed data report from Element
 Comments: Closing CCV/CCB Failed, Dup not reportable
13. Are the individual Preparation Blanks < PQL or <2.2xMDL for WI (refer to appropriate prep method PQL list) PASS FAIL
 (a) If not < PQL or <2.2xMDL for WI, note which PB(s) are above control limit:
 (b) Is the mean PB < PQL or <2.2xMDL for WI (for appropriate qualification)? YES NO
 (c) Was a BrCl Blank analyzed for each preservation level? YES NO N/A
 (d) Are Preparation Blanks summarized on QC page? YES NO
14. Filtration Blank Prepared (if yes, use FB qualifier) YES NO
 (a) Filtration Blank prep date same as associated samples' prep date YES NO N/A
 (b) Filtration Blank absolute value < PQL or <2.2xMDL for WI YES NO N/A
15. IBLs (3 minimum) individually < 0.50 ng/L, mean < 0.25 ng/L and STD of 0.10 ng/L? PASS FAIL
 Comments: _____
16. CCBs individually < 0.50 ng/L or 2.2 x MDL for WI? PASS FAIL
 Comments: _____
17. Have Total Solids been applied? (If NO, please ensure that they are done or nearly done) YES NO N/A
18. Is the correct 'Source' designated for MD/MS/MSD? YES NO
19. For digested preps: was there a spike witness signature & date on the prep bench sheet? YES NO N/A

Peer Review Check List for THg by 2600 CV-AFS (FGS-121) 2016 Rev 1 (04/1/2016)

Analyst: BC	Sequence(s) #: 6H11005
Reviewer: 0	Dataset ID(s): THg26003-160810-1
Date: 8/11/2016	WO (s) #: 1607542, 1607586, 1607805, 1608038, 1608109
Batch #(s): F608263	0

Analyst Initials BC **Reviewer Initials** DMW

- | | | | |
|--|--|-------------------------------|---|
| 20. MS/MSD Spiked at least 1-5 X ambient or 5x MRL (whichever is higher) ? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> |
| Comments: _____ | | | |
| 21. Are all samples within instrument calibration range? (or at minimum dilution size) | <input checked="" type="checkbox"/> PASS | <input type="checkbox"/> FAIL | <input checked="" type="checkbox"/> |
| Comments: _____ | | | |
| 22. Are the samples run at the correct dilution level for the method? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> |
| Comments: _____ | | | |
| 23. Dissolved < Total (if applicable) | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input type="checkbox"/> N/A <input checked="" type="checkbox"/> |
| Comments: _____ | | | |
| 24. Effluent < Influent (visually confirm if needed) | <input type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> N/A <input checked="" type="checkbox"/> |
| Comments: _____ | | | |
| 25. Are re-runs noted with reason? | <input type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> N/A <input checked="" type="checkbox"/> |
| Comments: _____ | | | |
| 26. FSTM Datasets: Check to ensure the 'Response' & 'Initial Result' columns match in both the Excel dataset & LIMS for the FSTM A (in sequence) & B/C (in batch) traps? | <input type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> N/A <input checked="" type="checkbox"/> |
| Comments: _____ | | | |
| 27. Is the B trap <5% A Traps | <input type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> N/A <input checked="" type="checkbox"/> |
| Comments: _____ | | | |
| 28. Are spiked trap recoveries 75-125% of true value? | <input type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> N/A <input checked="" type="checkbox"/> |
| Comments: _____ | | | |
| 29. Have non-reportable samples been imported into LIMS and clicked to non-reportable? | <input type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> N/A <input checked="" type="checkbox"/> |
| Comments: _____ | | | |
| 30. Have re-extracts been created for non-reportable samples? | <input type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> N/A <input checked="" type="checkbox"/> |
| 31. Are there any HIGH QA projects within the data? If so, place data package in QA office before scanning. | <input type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> N/A <input checked="" type="checkbox"/> |
| 32. Does the data set need scanning? | <input checked="" type="checkbox"/> YES | | <input type="checkbox"/> N/A <input checked="" type="checkbox"/> |
| 33. Does the dataset have an LOQ/LOQ or DOC? | <input type="checkbox"/> YES | | <input checked="" type="checkbox"/> N/A <input checked="" type="checkbox"/> |
| 34. Water samples: has the preservation log been included in dataset for final volume verification? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input type="checkbox"/> N/A <input checked="" type="checkbox"/> |
| 35. Water samples-is the final volume correct in the sequence? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input type="checkbox"/> N/A <input checked="" type="checkbox"/> |

Files located at: \\Cuprum\gen_admin\Quality Assurance\Training Master\DOCs

- | | | | | |
|---|----------------------------------|---|-----------------------------|-------------------------------------|
| 36. Date of analyst IDOC/CDOC: <u>12/17/15</u> | IDOC/CDOC within last 12 months? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> |
| 37. Date of analyst's SOP reading for method: <u>D4 ISSUE CRT CHECK</u> | Current SOP revision read? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> |
| 38. Date of LOD: <u>6/14/16</u> | LOD within last 3 months? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> |
| 39. Date of LOQ: <u>6/14/16</u> | LOQ within last 3 months? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> |

Data can not be reported without a current IDOC/CDOC, LOD or LOQ.

Peer Review Check List for THg by 2600 CV-AFS (FGS-121) 2016 Rev 1 (04/1/2016)

Analyst: <u>BC</u>	Sequence(s) #: <u>6H11005</u>
Reviewer: <u>0</u>	Dataset ID(s): <u>THg26003-160810-1</u>
Date: <u>8/11/2016</u>	WO (s) #: <u>1607542, 1607586, 1607805, 1608038, 1608109</u>
Batch #(s): <u>F608263</u>	<u>0</u>

40. Peer Reviewer's comments (use Peer Review Checklist Additional Comments form if necessary):

DMW

<p>NO DUP available for Batch, The instrument was spiked from a trap sample in the same bracket which caused the WV/CAB to fail. BC 8/11/16</p>	

Additional Page (s)? YES



Frontier Global Sciences

MMHg27001-160803-1 WATERS

Analysis Datasheet for Methyl Mercury in Waters

Date of Analysis: August 03, 2016

Instrument #: Hg2700-1

LIMS Sequence #: 6H03012

Analyst: JRH

Units ng/L

Calibration Statistics:

LabNumber	n	True Val	Area	Uncorrected Response Factor	Corrected Peak Height	Corrected Response Factor	% Recovery
SEQ-CAL1	1	0.05 ng/L	15.08 units	301.58	13.95 units	279.01	81.8 %Rec
SEQ-CAL2	1	0.20 ng/L	68.16 units	340.79	67.03 units	335.15	98.3 %Rec
SEQ-CAL3	1	1.00 ng/L	357.13 units	357.13	356.01 units	356.01	104.4 %Rec
SEQ-CAL4	1	2.00 ng/L	787.18 units	393.59	786.05 units	393.02	115.2 %Rec
SEQ-CAL5	1	4.00 ng/L	1370.51 units	342.63	1369.38 units	342.35	100.4 %Rec
SEQ-CAL6	0						
SEQ-CAL7	0						
SEQ-CAL8	0						
SEQ-CAL9	0						

Corr. Mean RF	Corr. St Dev RF	Corr. RSD CF	Uncorr. Mean RF	Eff Factor
341.11	+/- 41.26	12.1% RSD	347.14	0.8046

MDN Only

SEQ-CAL1
 SEQ-CAL2
 SEQ-CAL3
 SEQ-CAL4
 SEQ-CAL5
 SEQ-CAL6 NA
 SEQ-CAL7 NA
 SEQ-CAL8 NA
 SEQ-CAL9 NA
 SEQ-ICV/CCV
 Acetate Buffer
 Ethylating Agent

Blanks:

LabNumber	n	Mean	Std Dev	Mean (ng/L)	Std Dev (ng/L)
SEQ-IBL	1	1.13 units		0.00 ng/L	#VALUE!

Preparation Blanks

Sample Type	Batch ID	n	Mean	Std Dev
BLK	1	3	0.019 ng/L	±0.002
BLK	2	0	0.000 ng/L	
BLK	3	0	0.000 ng/L	
BLK	4	0	0.000 ng/L	
BLK	5	0	0.000 ng/L	

QUALITY ASSURANCE

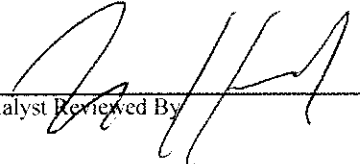
PEER - REVIEWED

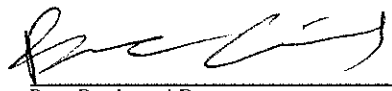
INITIALS: BC 8-4-16

Instrument	Analyst	Sample		LabNumber	Dilution	Analyzed	FileID	Run End	Uncorrected Response	Batch ID	No PB		InitialResult	FinalResult	InitialUnits	Comments
		Type									Correction?	RESP				
Hq2700-1	JRH	CAL	SEQ-IBL1		1	8/3/16 12:52	13854-1.RAW	12:52:50	1.128551136			0.0	0.000	0.000	ng/L	
Hq2700-1	JRH	CAL	SEQ-CAL1		1	8/3/16 13:03	13855-1.RAW	13:03:21	15.07907197			14.0	0.041	0.041	ng/L	
Hq2700-1	JRH	CAL	SEQ-CAL2		1	8/3/16 13:13	13856-1.RAW	13:13:51	68.15767045			67.0	0.197	0.197	ng/L	
Hq2700-1	JRH	CAL	SEQ-CAL3		1	8/3/16 13:24	13857-1.RAW	13:24:22	357.1339015			356.0	1.044	1.044	ng/L	
Hq2700-1	JRH	CAL	SEQ-CAL4		1	8/3/16 13:34	13858-1.RAW	13:34:53	787.1754261			786.0	2.304	2.304	ng/L	
Hq2700-1	JRH	CAL	SEQ-CAL5		1	8/3/16 13:45	13859-1.RAW	13:45:23	1370.511032			1369.4	4.015	4.015	ng/L	
Hq2700-1	JRH	CAL	SEQ-ICV1		1	8/3/16 13:55	13860-1.RAW	13:55:54	189.7349432			188.6	0.553	0.553	ng/L	
Hq2700-1	JRH	CAL	SEQ-ICB1		1	8/3/16 14:06	13861-1.RAW	14:06:25	5.064962121			3.9	0.012	0.012	ng/L	
Hq2700-1	JRH	BLK	F608139-BLK1		1.25	8/3/16 14:16	13862-1.RAW	14:16:55	4.969152462	1		3.8	0.014	0.017	ng/L	
Hq2700-1	JRH	BLK	F608139-BLK2		1.25	8/3/16 14:27	13863-1.RAW	14:27:26	5.104592803	1		4.0	0.014	0.018	ng/L	
Hq2700-1	JRH	BLK	F608139-BLK3		1.25	8/3/16 14:37	13864-1.RAW	14:37:57	5.687973485	1		4.6	0.017	0.021	ng/L	
Hq2700-1	JRH	SAM	F608139-BS1		1.25	8/3/16 14:48	13865-1.RAW	14:48:27	458.6229167	1		457.5	1.652	2.065	ng/L	
Hq2700-1	JRH	SAM	F608139-RSD1		1.25	8/3/16 14:58	13866-1.RAW	14:58:58	449.7125237	1		448.6	1.619	2.024	ng/L	
Hq2700-1	JRH	SAM	F608139-DUP1		1.25	8/3/16 15:09	13867-1.RAW	15:09:29	43.78709754	1		42.7	0.140	0.175	ng/L	
Hq2700-1	JRH	SAM	F608139-MS1		1.25	8/3/16 15:20	13868-1.RAW	15:20:00	167.6531723	1		166.5	0.592	0.740	ng/L	
Hq2700-1	JRH	SAM	F608139-MSD1		1.25	8/3/16 15:30	13869-1.RAW	15:30:31	154.4326468	1		153.3	0.544	0.679	ng/L	
Hq2700-1	JRH	SAM	F608139-MS2		1.25	8/3/16 15:41	13870-1.RAW	15:41:02	534.4974432	1		533.4	1.928	2.410	ng/L	
Hq2700-1	JRH	SAM	F608139-MSD2		1.25	8/3/16 15:51	13871-1.RAW	15:51:33	455.1388494	1		454.0	1.639	2.049	ng/L	
Hq2700-1	JRH	CAL	SEQ-CCV1		1	8/3/16 16:02	13872-1.RAW	16:02:04	184.5484138	1		183.4	0.538	0.538	ng/L	
Hq2700-1	JRH	CAL	SEQ-CCB1		1	8/3/16 16:12	13873-1.RAW	16:12:34	7.367779356	1		6.2	0.018	0.018	ng/L	
Hq2700-1	JRH	SAM	1607159-01		1.25	8/3/16 16:23	13874-1.RAW	16:23:05	6.483712121	1		5.4	0.004	0.006	ng/L	
Hq2700-1	JRH	SAM	1607339-01		1.25	8/3/16 16:33	13875-1.RAW	16:33:36	35.54535985	1		34.4	0.110	0.138	ng/L	
Hq2700-1	JRH	SAM	1607339-02		1.25	8/3/16 16:44	13876-1.RAW	16:44:06	33.54441288	1		32.4	0.103	0.129	ng/L	
Hq2700-1	JRH	SAM	1607339-03		1.25	8/3/16 16:54	13877-1.RAW	16:54:37	9.0234375	1		7.9	0.014	0.017	ng/L	
Hq2700-1	JRH	SAM	1607339-04		1.25	8/3/16 17:05	13878-1.RAW	17:05:08	10.39086174	1		9.3	0.019	0.023	ng/L	
Hq2700-1	JRH	SAM	1607339-05		1.25	8/3/16 17:15	13879-1.RAW	17:15:38	5.738944129	1		4.6	0.002	0.002	ng/L	
Hq2700-1	JRH	SAM	1607339-06		1.25	8/3/16 17:26	13880-1.RAW	17:26:09	11.08967803	1		10.0	0.021	0.027	ng/L	
Hq2700-1	JRH	SAM	1607380-01		1.25	8/3/16 17:36	13881-1.RAW	17:36:40	33.30004735	1		32.2	0.102	0.128	ng/L	
Hq2700-1	JRH	SAM	1607380-03		1.25	8/3/16 17:47	13882-1.RAW	17:47:10	43.33660038	1		42.2	0.139	0.173	ng/L	
Hq2700-1	JRH	SAM	1607380-05		1.25	8/3/16 17:57	13883-1.RAW	17:57:41	55.21661932	1		54.1	0.182	0.228	ng/L	
Hq2700-1	JRH	CAL	SEQ-CCV2		1	8/3/16 18:08	13884-1.RAW	18:08:12	187.5310843	1		186.4	0.546	0.546	ng/L	
Hq2700-1	JRH	CAL	SEQ-CCB2		1	8/3/16 18:18	13885-1.RAW	18:18:42	1.635369318	1		0.5	0.001	0.001	ng/L	
Hq2700-1	JRH	SAM	1607380-07		1.25	8/3/16 18:29	13886-1.RAW	18:29:13	72.11335227	1		71.0	0.244	0.305	ng/L	
Hq2700-1	JRH	SAM	1607380-09		1.25	8/3/16 18:39	13887-1.RAW	18:39:44	212.2560133	1		211.1	0.754	0.943	ng/L	
Hq2700-1	JRH	SAM	1607380-11		1.25	8/3/16 18:50	13888-1.RAW	18:50:14	7.321117424	1		6.2	0.008	0.009	ng/L	
Hq2700-1	JRH	SAM	1607380-13		1.25	8/3/16 19:00	13889-1.RAW	19:00:45	260.697017	1		259.6	0.931	1.163	ng/L	
Hq2700-1	JRH	SAM	1607586-01		1.25	8/3/16 19:11	13890-1.RAW	19:11:16	93.24045928	1		92.1	0.321	0.401	ng/L	
Hq2700-1	JRH	SAM	1607586-02		1.25	8/3/16 19:21	13891-1.RAW	19:21:46	83.7273911	1		82.6	0.286	0.357	ng/L	
Hq2700-1	JRH	SAM	1607586-03		1.25	8/3/16 19:32	13892-1.RAW	19:32:17	102.3475379	1		101.2	0.354	0.442	ng/L	
Hq2700-1	JRH	SAM	1607586-04		1.25	8/3/16 19:42	13893-1.RAW	19:42:48	60.40610795	1		59.3	0.201	0.251	ng/L	
Hq2700-1	JRH	SAM	1607586-05		1.25	8/3/16 19:53	13894-1.RAW	19:53:18	175.4268466	1		174.3	0.620	0.775	ng/L	
Hq2700-1	JRH	SAM	1607586-06		1.25	8/3/16 20:03	13895-1.RAW	20:03:49	67.17642045	1		66.0	0.226	0.282	ng/L	
Hq2700-1	JRH	CAL	SEQ-CCV3		1	8/3/16 20:14	13896-1.RAW	20:14:20	212.7756155	1		211.6	0.620	0.620	ng/L	
Hq2700-1	JRH	CAL	SEQ-CCB3		1	8/3/16 20:24	13897-1.RAW	20:24:51	0.732244318	1		-0.4	-0.001	-0.001	ng/L	

Failing Data Report - 6H03012

Sample ID	Analysis	Result	MRL	Dup Result	Source Result	True Value	Units	% Rec.	Rec. LCL	Rec. UCL	RPD	RPD Limit	Over Cal	Failure	Qualifier
F608139-BS1	MHg-CVAFS-W-Dist	1.835	0.050			1.0010	ng/L	183	70.00	130.00			PASS-OVER	FAIL-BS	QM-12
F608139-BSD1	MHg-CVAFS-W-Dist	1.799	0.050	1.835		1.0010	ng/L	180	70.00	130.00	1.98	25.00	PASS-OVER	FAIL-BSD (Rec.)	QM-12
F608139-MSD1	MHg-CVAFS-W-Dist	0.604	0.050	0.657	ND	1.0010	ng/L	60.3	65.00	130.00	8.49	35.00	PASS-OVER	FAIL-MSD (Rec.)	QM-07
F608139-MS2	MHg-CVAFS-W-Dist	2.143	0.050		0.154	1.0010	ng/L	199	65.00	130.00			PASS-OVER	FAIL-MS	QM-07
F608139-MSD2	MHg-CVAFS-W-Dist	1.821	0.050	2.143	0.154	1.0010	ng/L	167	65.00	130.00	16.2	35.00	PASS-OVER	FAIL-MSD (Rec.)	QM-07


 Analyst Reviewed By _____ Date 8/4/16


 Peer Reviewed By _____ Date 8/4/16

ANALYSIS SEQUENCE

6H03012

Instrument: Hg2700-1

Calibration ID: UNASSIGNED

Analyzed: 8/3/2016

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
6H03012-IBL1	QC	1			
6H03012-CAL1	QC	2	1604163		
6H03012-CAL2	QC	3	1604164		
6H03012-CAL3	QC	4	1604165		
6H03012-CAL4	QC	5	1604166		
6H03012-CAL5	QC	6	1604167		
6H03012-ICV1	QC	7	1603001		
6H03012-ICB1	QC	8			
F608139-BLK1	QC	9			
F608139-BLK2	QC	10			
F608139-BLK3	QC	11			
F608139-BS1	QC	12			
F608139-BSD1	QC	13			
F608139-DUP1	QC	14			
F608139-MS1	QC	15			
F608139-MSD1	QC	16			
F608139-MS2	QC	17			
F608139-MSD2	QC	18			
6H03012-CCV1	QC	19	1603001		
6H03012-CCB1	QC	20			
1607159-01	MHg-CVAFS-W-Dist	21			
1607339-01	MHg-CVAFS-W-Dist	22			Scan all data for level IV report
1607339-02	MHg-CVAFS-W-Dist	23			Scan all data for level IV report
1607339-03	MHg-CVAFS-W-Dist	24			Scan all data for level IV report
1607339-04	MHg-CVAFS-W-Dist	25			Scan all data for level IV report
1607339-05	MHg-CVAFS-W-Dist	26			Scan all data for level IV report
1607339-06	MHg-CVAFS-W-Dist	27			Scan all data for level IV report
1607380-01	MHg-CVAFS-W-Dist	28			Scan all data for level IV report
1607380-03	MHg-CVAFS-W-Dist	29			Scan all data for level IV report
1607380-05	MHg-CVAFS-W-Dist	30			Scan all data for level IV report
6H03012-CCV2	QC	31	1603001		
6H03012-CCB2	QC	32			
1607380-07	MHg-CVAFS-W-Dist	33			Scan all data for level IV report
1607380-09	MHg-CVAFS-W-Dist	34			Scan all data for level IV report
1607380-11	MHg-CVAFS-W-Dist	35			Scan all data for level IV report

Due Date: 8/4/2016

ANALYSIS SEQUENCE

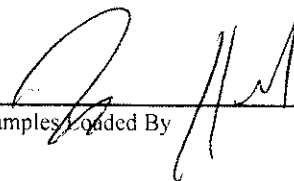
6H03012

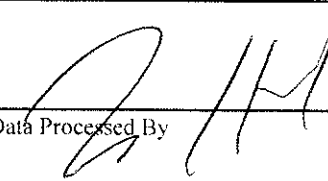
Instrument: Hg2700-1

Calibration ID: UNASSIGNED

Analyzed: 8/3/2016

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
1607380-13	MHg-CVAFS-W-Dist	36			Scan all data for level IV report
1607586-01	MHg-CVAFS-W-Dist	37			Scan all data - Level IV
1607586-02	MHg-CVAFS-W-Dist	38			Scan all data - Level IV
1607586-03	MHg-CVAFS-W-Dist	39			Scan all data - Level IV
1607586-04	MHg-CVAFS-W-Dist	40			Scan all data - Level IV
1607586-05	MHg-CVAFS-W-Dist	41			Scan all data - Level IV
1607586-06	MHg-CVAFS-W-Dist	42			Scan all data - Level IV
6H03012-CCV3	QC	43	1603001		
6H03012-CCB3	QC	44			


 Samples Loaded By _____ Date 8/4/16
loaded 8/3/16 JH


 Data Processed By _____ Date 8/4/16

Due Date: 8/4/2016

PREPARATION BENCH SHEET

F608139

Eurofins Frontier Global Sciences, Inc.

Matrix: Water

Prepared using: Hg Aquatic/Solids - EFGS-013 Methyl Hg Distillation for Water

Prepared: 8/2/2016

Lab Number	Sample ID and Source Sample	Initial (mL)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F608139-BLK1	Blank	45	40					
F608139-BLK2	Blank	45	40					
F608139-BLK3	Blank	45	40					
F608139-BS1	Blank Spike	45	40	1603908	45			
F608139-BSD1	Blank Spike Dup	45	40	1603908	45			
F608139-DUP1	Duplicate [1607339-01]	45	40					
F608139-MS1	Matrix Spike [1607159-01]	45	40	1603908	45			
F608139-MS2	Matrix Spike [1607380-03]	45	40	1603908	45			
F608139-MSD1	Matrix Spike Dup [1607159-01]	45	40	1603908	45			
F608139-MSD2	Matrix Spike Dup [1607380-03]	45	40	1603908	45			

<u>Standard ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>	<u>Reagent ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>
1603908	MHg New Primary 1.0 ng/mL CAL	19-Oct-16 00:00	1602604	Acetate Buffer	15-Nov-16 00:00
			1602944	Ethylating Agent (For Methyl Mercury Analysis)	30-Nov-16 00:00
			1604260	APDC	29-Jan-17 00:00
			1604261	0.5% Distillation Dilute (Made Daily)	
			1604286	2.5% Ascorbic Acid	10-Aug-16 00:00

PREPARATION BENCH SHEET

F608139

Eurofins Frontier Global Sciences, Inc.

Matrix: Water

Prepared using: Hg Aquatic/Solids - EFGS-013 Methyl Hg Distillation for Water

Prepared: 8/2/2016

Lab Number	Sample ID	Initial (mL)	Final (mL)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1607159-01	EFF-001 Grab	45	40	QC	-	-	MS/MSD	
1607339-01	OL-2431-01	45	40	-	-	-	Scan all data for level IV report	
1607339-02	OL-2431-02	45	40	-	-	-	Scan all data for level IV report	
1607339-03	OL-2431-03	45	40	-	-	-	Scan all data for level IV report	
1607339-04	OL-2431-04	45	40	-	-	-	Scan all data for level IV report	
1607339-05	OL-2431-05	45	40	-	-	-	Scan all data for level IV report	
1607339-06	OL-2431-06	45	40	-	-	-	Scan all data for level IV report	
1607380-01	NMC-5240-00	45	40	-	-	-	Scan all data for level IV report	
1607380-03	NMC-5240-01	45	40	QC	-	-	MS/MSD Scan all data for level IV report	
1607380-05	NMC-5240-02	45	40	-	-	-	Scan all data for level IV report	
1607380-07	NMC-5240-03	45	40	-	-	-	Scan all data for level IV report	
1607380-09	NMC-5240-04	45	40	-	-	-	Scan all data for level IV report	
1607380-11	NMC-5240-05	45	40	-	-	-	Scan all data for level IV report	
1607380-13	NMC-5240-06	45	40	-	-	-	Scan all data for level IV report	
1607586-01	1523 OV-02_071816_SW_10	45	40	-	-	-	Scan all data - Level IV	
1607586-02	1523 OV-02_071816_SW_10 Dissolved	45	40	-	-	-	Scan all data - Level IV	
1607586-03	1524 WQ1b-c_071816_SW_10	45	40	-	-	-	Scan all data - Level IV	
1607586-04	1524 WQ1b-c_071816_SW_10 Dissolved	45	40	-	-	-	Scan all data - Level IV	
1607586-05	1525 WQ2-c_071816_SW_10	45	40	-	-	-	Scan all data - Level IV	

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PREPARATION BENCH SHEET

F608139

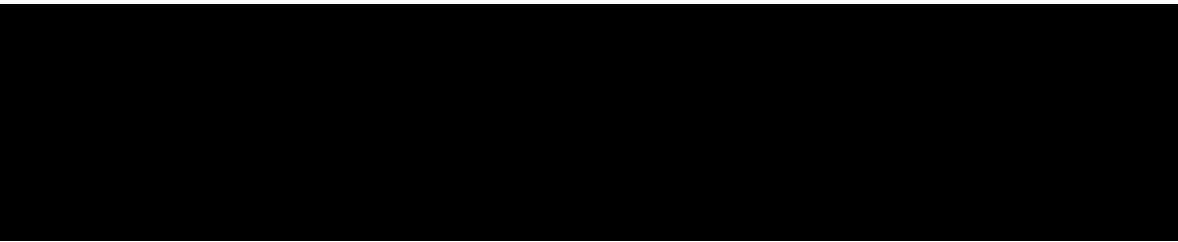
Eurofins Frontier Global Sciences, Inc.

Matrix: Water

Prepared using: Hg Aquatic/Solids - EFGS-013 Methyl Hg Distillation for Water

Prepared: 8/2/2016

1607586-06	1525 WQ2-c_071816_SW_10 Dissolved	45	40	-	-	-	Scan all data - Level IV	
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PREPARATION BENCH SHEET

8/3/16 OH 27007

F608139

Eurofins Frontier Global Sciences, Inc.

Matrix: Water

Prepared using: Hg Aquatic/Solids - EFGS-013 Methyl Hg Distillation for Water

6403012

Prepared: 8/2/2016

Lab Number	Sample ID and Source Sample	Initial (mL)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F608139-BLK1	Blank	45	40					1.25
F608139-BLK2	Blank	45	40					1.25
F608139-BLK3	Blank	45	40					1.25
F608139-BS1	Blank Spike	45	40	1603908	45			1.25
F608139-BSD1	Blank Spike Dup	45	40	1603908	45			1.25
F608139-DUP1	Duplicate [1607339-01]	45	40					1.25
F608139-MS1	Matrix Spike [1607159-01]	45	40	1603908	45			1.25
F608139-MS2	Matrix Spike [1607380-03]	45	40	1603908	45			1.25
F608139-MSD1	Matrix Spike Dup [1607159-01]	45	40	1603908	45			1.25
F608139-MSD2	Matrix Spike Dup [1607380-03]	45	40	1603908	45			1.25

Standard ID(s): 1603908
 Description: MHg New Primary 1.0 ng/mL CAL

Expiration: 19-Oct-16 00:00

Reagent ID(s): 1604260, 1604261
 Description: APDC, 0.5% Distillation Dilute (Made Daily)

Expiration: 29-Jan-17 00:00

1602944
 1602604
 1604286

PREPARATION BENCH SHEET

F608139

Eurofins Frontier Global Sciences, Inc.

Matrix: Water

Prepared using: Hg Aquatic/Solids - EFGS-013 Methyl Hg Distillation for Water

Prepared: 8/2/2016

Lab Number	Sample ID	Initial (mL)	Final (mL)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1607159-01	EFF-001 Grab	45	40	QC	-	-	MS/MSD	1.25
1607339-01	OL-2431-01	45	40	-	-	-	Scan all data for level IV report	1.25
1607339-02	OL-2431-02	45	40	-	-	-	Scan all data for level IV report	1.25
1607339-03	OL-2431-03	45	40	-	-	-	Scan all data for level IV report	1.25
1607339-04	OL-2431-04	45	40	-	-	-	Scan all data for level IV report	1.25
1607339-05	OL-2431-05	45	40	-	-	-	Scan all data for level IV report	1.25
1607339-06	OL-2431-06	45	40	-	-	-	Scan all data for level IV report	1.25
1607380-01	NMC-5240-00	45	40	-	-	-	Scan all data for level IV report	1.25
1607380-03	NMC-5240-01	45	40	QC	-	-	MS/MSD Scan all data for level IV report	1.25
1607380-05	NMC-5240-02	45	40	-	-	-	Scan all data for level IV report	1.25
1607380-07	NMC-5240-03	45	40	-	-	-	Scan all data for level IV report	1.25
1607380-09	NMC-5240-04	45	40	-	-	-	Scan all data for level IV report	1.25
1607380-11	NMC-5240-05	45	40	-	-	-	Scan all data for level IV report	1.25
1607380-13	NMC-5240-06	45	40	-	-	-	Scan all data for level IV report	1.25
1607586-01	1523 OV-02_071816_SW_10	45	40	-	-	-	Scan all data - Level IV	1.25
1607586-02	1523 OV-02_071816_SW_10 Dissolved	45	40	-	-	-	Scan all data - Level IV	1.25
1607586-03	1524 WQ1b-c_071816_SW_10	45	40	-	-	-	Scan all data - Level IV	1.25
1607586-04	1524 WQ1b-c_071816_SW_10 Dissolved	45	40	-	-	-	Scan all data - Level IV	1.25
1607586-05	1525 WQ2-c_071816_SW_10	45	40	-	-	-	Scan all data - Level IV	1.25

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Date: 8/4/2016

PREPARATION BENCH SHEET

F608139

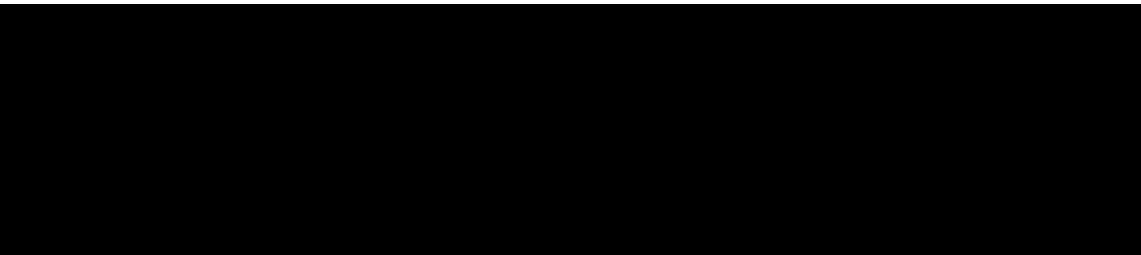
Eurofins Frontier Global Sciences, Inc.

Matrix: Water

Prepared using: Hg Aquatic/Solids - EFGS-013 Methyl Hg Distillation for Water

Prepared: 8/2/2016

1607586-06	1525 WQ2-c_071816_SW_10 Dissolved	45	40	-	-	-	Scan all data - Level IV	1-25
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Methyl Mercury Distillations (EPA 1630)

Name: Dupl Date: 8-2-16 Batch #: F608139 Sample Matrix: Water
 WO#: 1607159, 1607339, 1607380, 1607542, 1607586

The pH of the preserved sample must be documented before an aliquot is removed for preparation.

Digest #	Sample ID Number	Preserved pH	Sample Size (mL)	Final pH (≥3)
Blk1	F608139 Blank1	1.0	45	3.0
Blk2	F608139 Blank2	1.0	45	3.0
Blk3	F608139 Blank3	1.0	45	3.0
BS	F608139 BS	1.0	45	3.0
BS0	F608139 BS0	1.0	45	3.0
Dupl	F608139 Dupl	1.0	45	4.0
MS1	F608139 MS1	1.0	45	4.0
MS01	F608139 MS01	1.0	45	4.0
MS2	F608139 MS2	1.0	45	4.0
MS02	F608139 MS02	1.0	45	4.0
1	1607159-01 B	1.0	45	4.0
2	1607339-01 B	1.0	45	4.0
3	1607339-02 B	1.0	45	4.0
4	1607339-03 B	1.0	45	4.0
5	1607339-04 B	1.0	45	4.0
6	1607339-05 B	1.0	45	4.0
7	1607339-06 B	1.0	45	4.0
8	1607380-01 B	1.0	45	4.0
9	1607380-03 B	1.0	45	4.0
10	1607380-05 B	1.0	45	4.0
11	1607380-07 B	1.0	45	4.0
12	1607380-09 B	1.0	45	4.0
13	1607380-11 B	1.0	45	4.0
14	1607380-13 B	1.0	45	4.0
15	1607586-01 B	1.0	45	5.0
16	1607586-02 B	1.0	45	4.0
17	1607586-03 B	1.0	45	4.0
18	1607586-04 B	1.0	45	4.0
19	1607586-05 B	1.0	45	4.0
20	1607586-06 B	1.0	45	4.0

Spike ID: 1603908
 Spike Amount: 45 µL
 Spike Witness: DM 8-2-16

Balance #: 2
 Calibrated? Yes No
 Pipette #: CJ17087
 Cal. Date: 8/2/16

Pipette #: N27707
 Cal. Date: 7/29/16
 Pipette #: W24486
 Cal. Date: 7/29/16

APDC ID: 1604260
 HCI ID: 1604261

Temperature: No set range as the temp. may be changed to keep flow rate of ≥10 mL per hour. Temperature is recorded for informational purposes only.

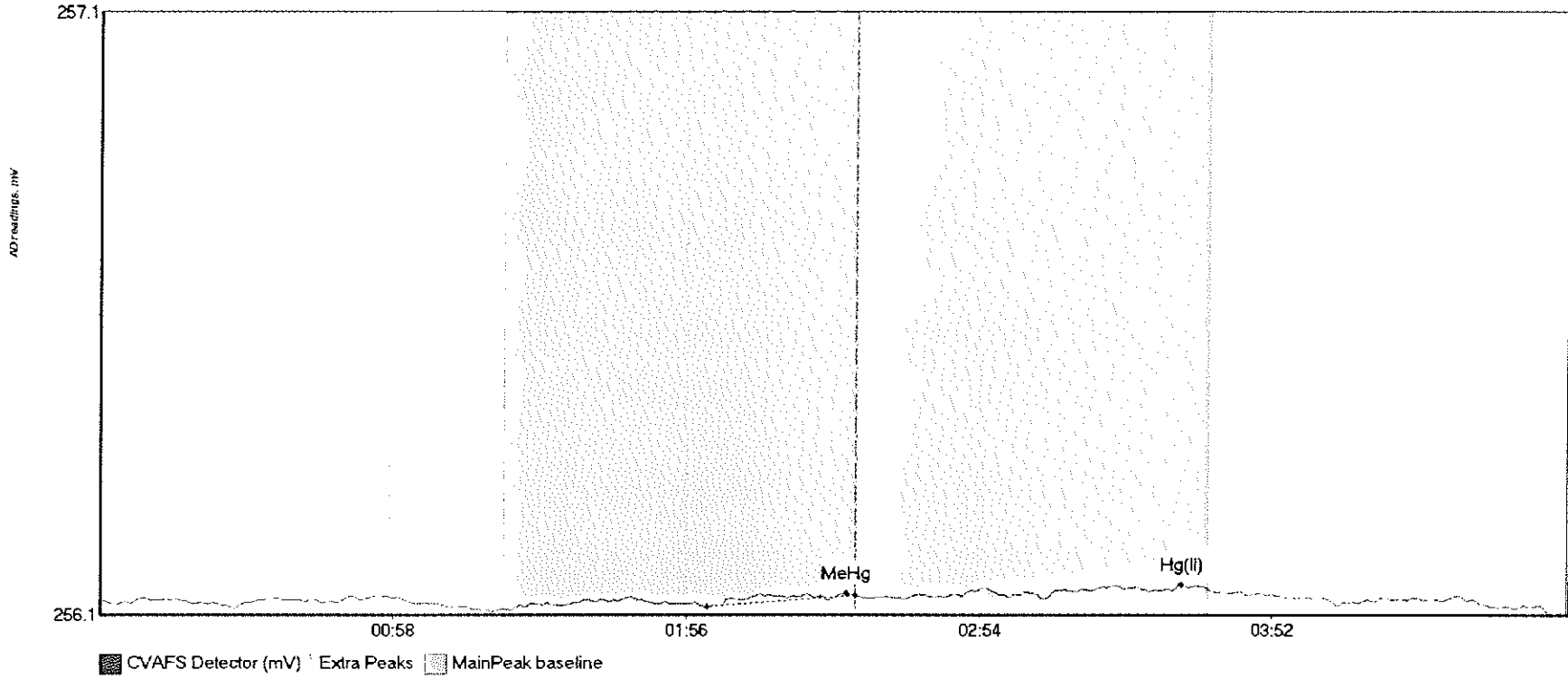
Unit 1: 120.9
 Unit 2: 122.
 Unit 3: 120.5
 Unit 4: 120.4
 Unit 5: 122.
 Unit 6: 122.

Comments:
Dupl 1607339-01
MS1 MS01
1607159-01

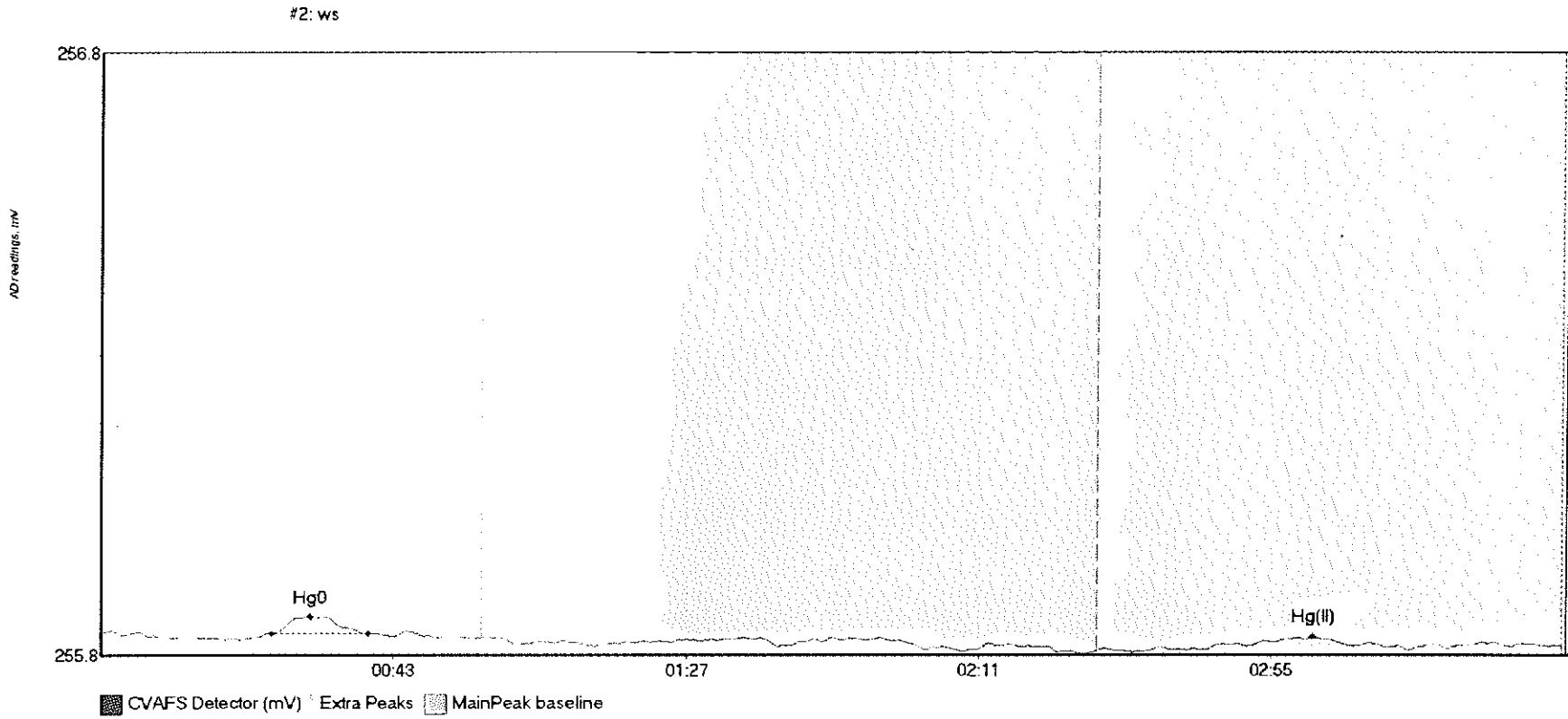
MS2 MS02
1607380-03

P-276 MS

#1: Clean

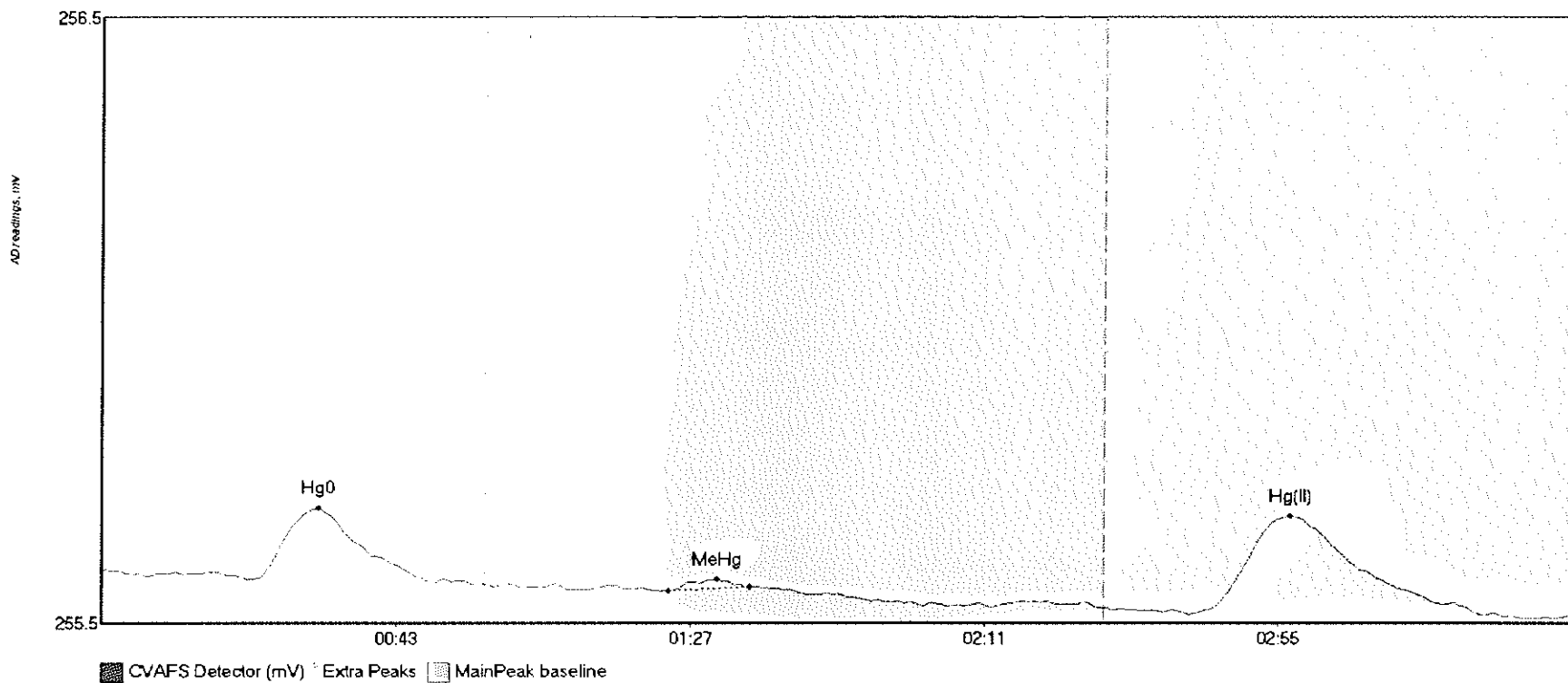


Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
Clean MeHg	1.748	120.6	149.9	256.14	256.16	148.2	0.022	OK	256.1481	0.00	-0.02	
Clean Hg(II)	2.454	187.5	219.8	256.15	256.17	214.9	0.025	CT	256.1481	0.00	-0.02	



Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
ws Hg0	2.356	25.7	40.3	255.84	255.84	31.6	0.028	OK	255.8396	0.00	-0.02	
ws Hg(II)	2.132	166.4	188.3	255.81	255.82	182.3	0.021	OK	255.8396	0.00	-0.02	

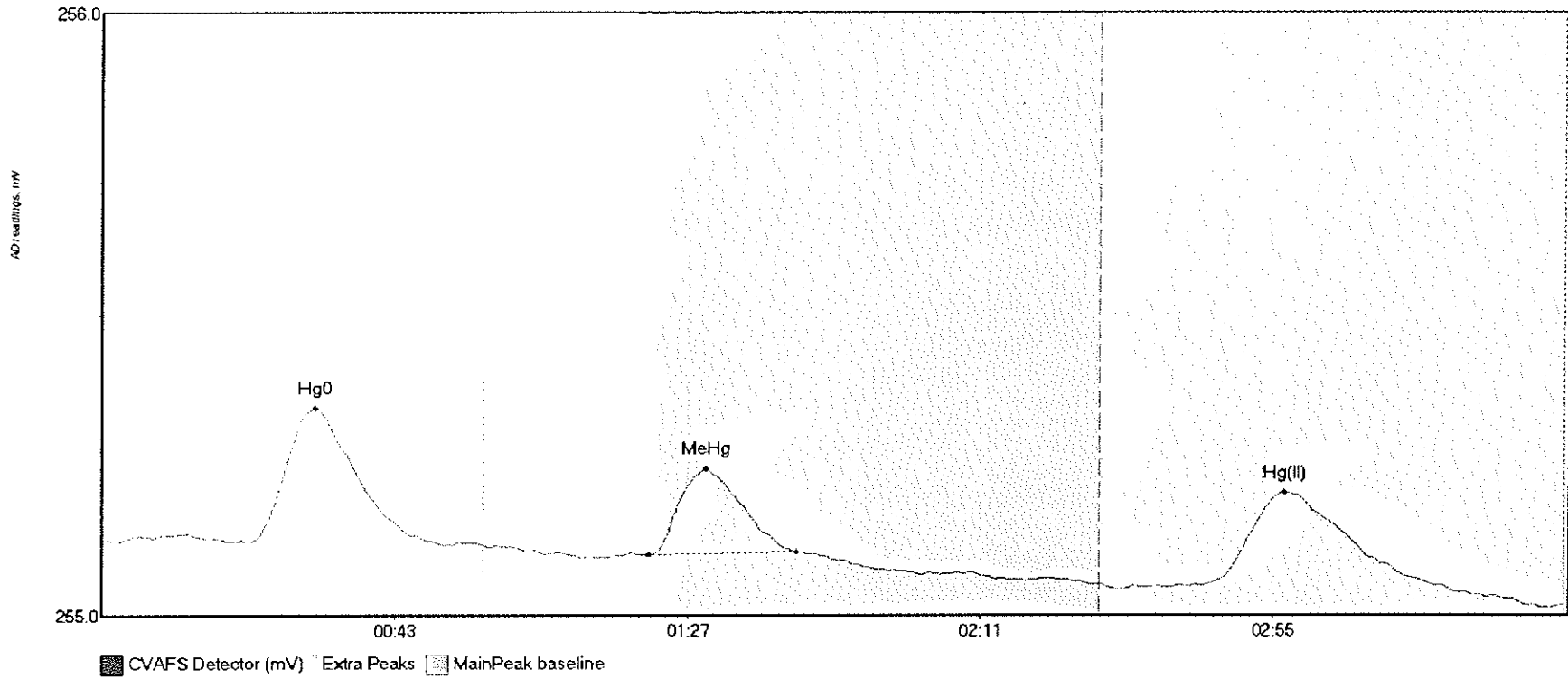
#3: SEQ-IBL1



✓

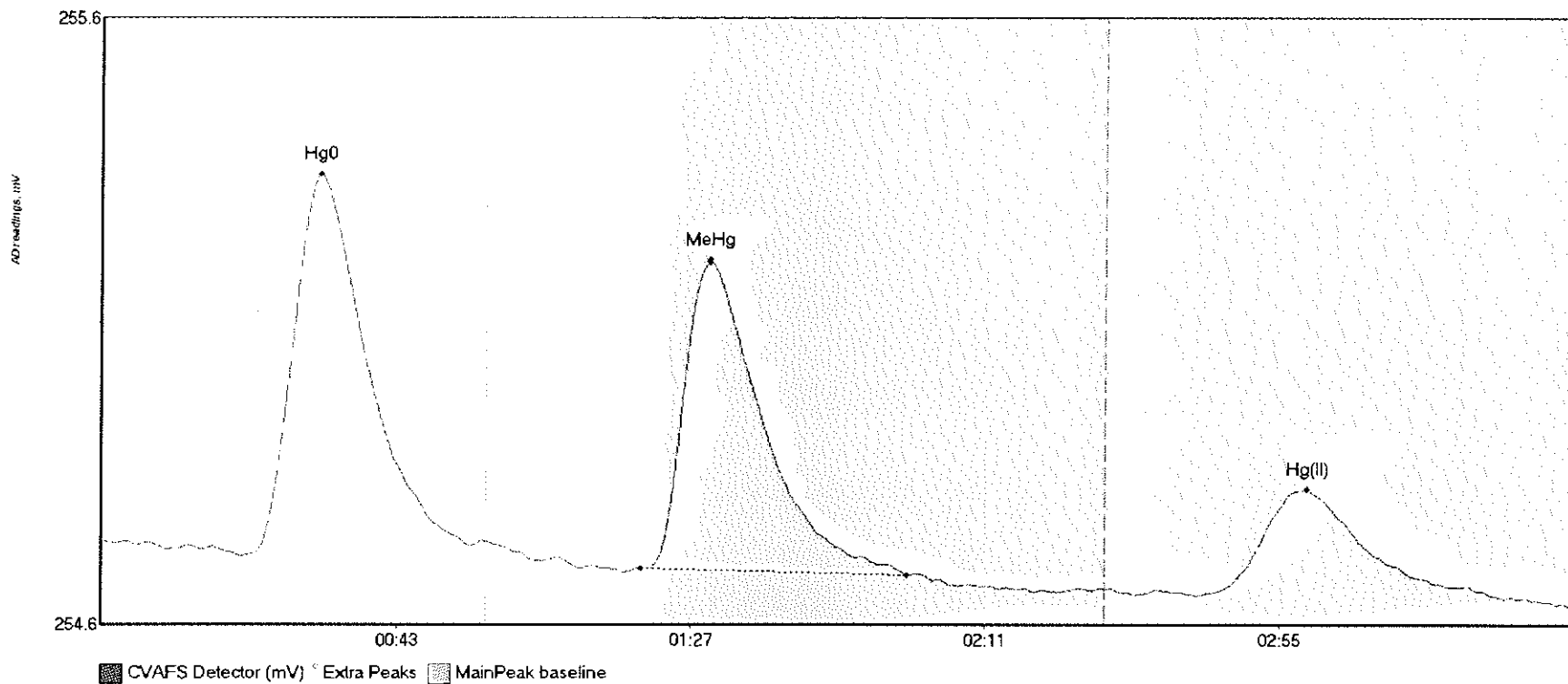
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
SEQ-IBL1 Hg0	15.053	22.6	49.5	255.53	255.53	32.3	0.117	OK	255.5483	0.00	-0.08	
SEQ-IBL1 MeHg	1.129	84.8	96.9	255.51	255.52	92.0	0.019	OK	255.5483	0.00	-0.08	
SEQ-IBL1 Hg(II)	27.295	163.3	203.5	255.48	255.49	177.9	0.162	OK	255.5483	0.00	-0.08	

#4: SEQ-CAL1



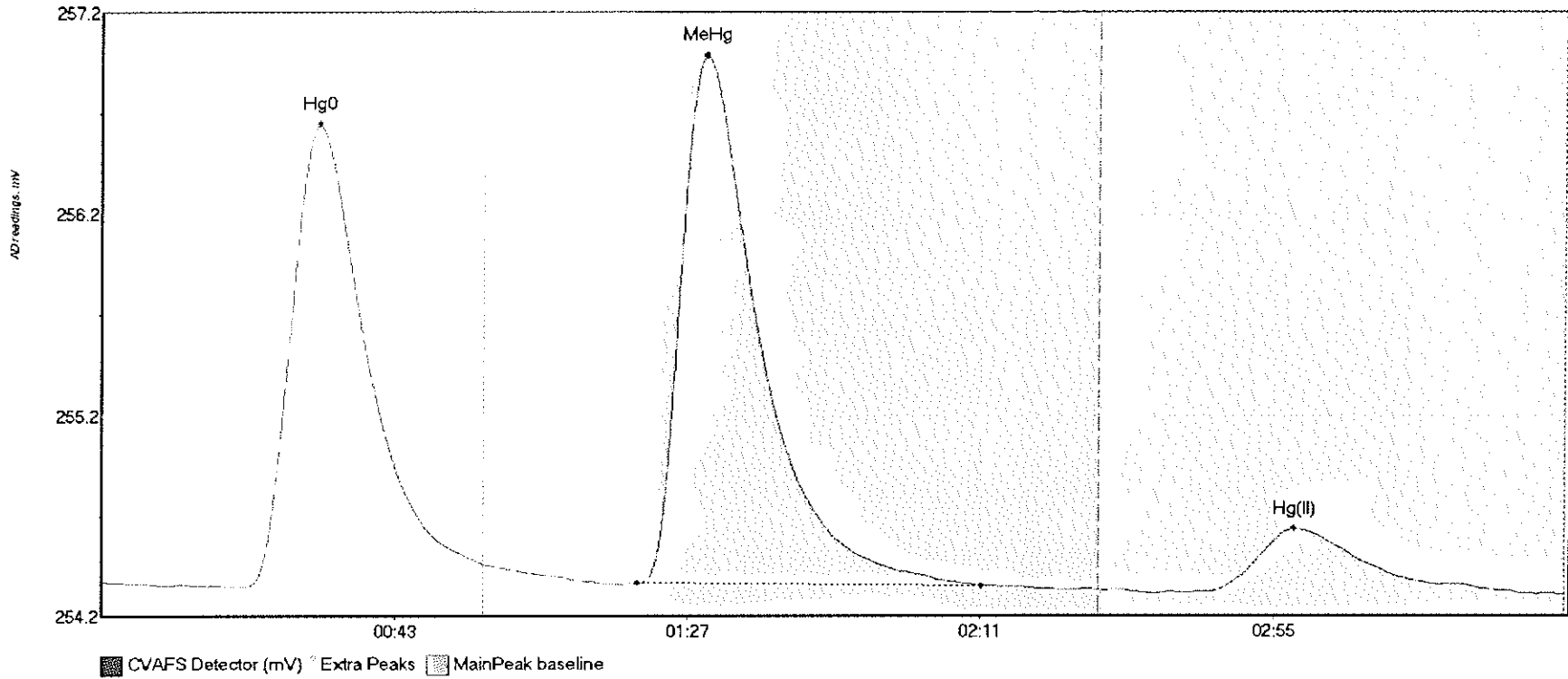
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
SEQ-CAL1 Hg0	25.824	22.0	49.1	255.16	255.16	32.0	0.223	OK	255.1644	0.00	-0.11	
SEQ-CAL1 MeHg	15.079	82.1	104.4	255.14	255.14	90.7	0.143	OK	255.1644	0.00	-0.11	
SEQ-CAL1 Hg(II)	23.931	166.4	200.6	255.09	255.09	177.7	0.152	OK	255.1644	0.00	-0.11	

#5: SEQ-CAL2



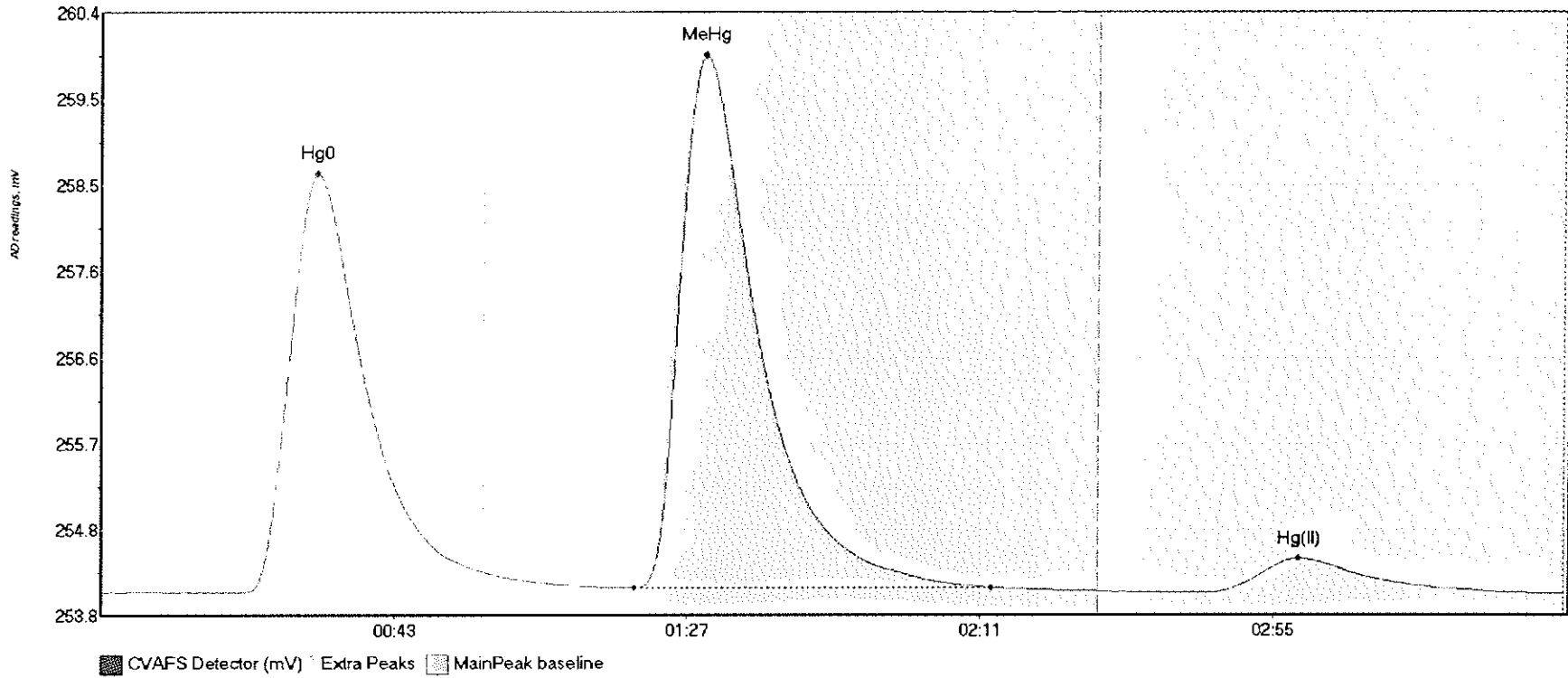
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
SEQ-CAL2 Hg0	78.306	20.7	55.3	254.76	254.78	32.4	0.629	OK	254.7881	0.00	-0.11	
SEQ-CAL2 MeHg	68.158	80.6	120.3	254.74	254.73	90.8	0.506	OK	254.7881	0.00	-0.11	
SEQ-CAL2 Hg(II)	26.200	165.4	201.6	254.70	254.71	180.2	0.171	OK	254.7881	0.00	-0.11	

#6: SEQ-CAL3



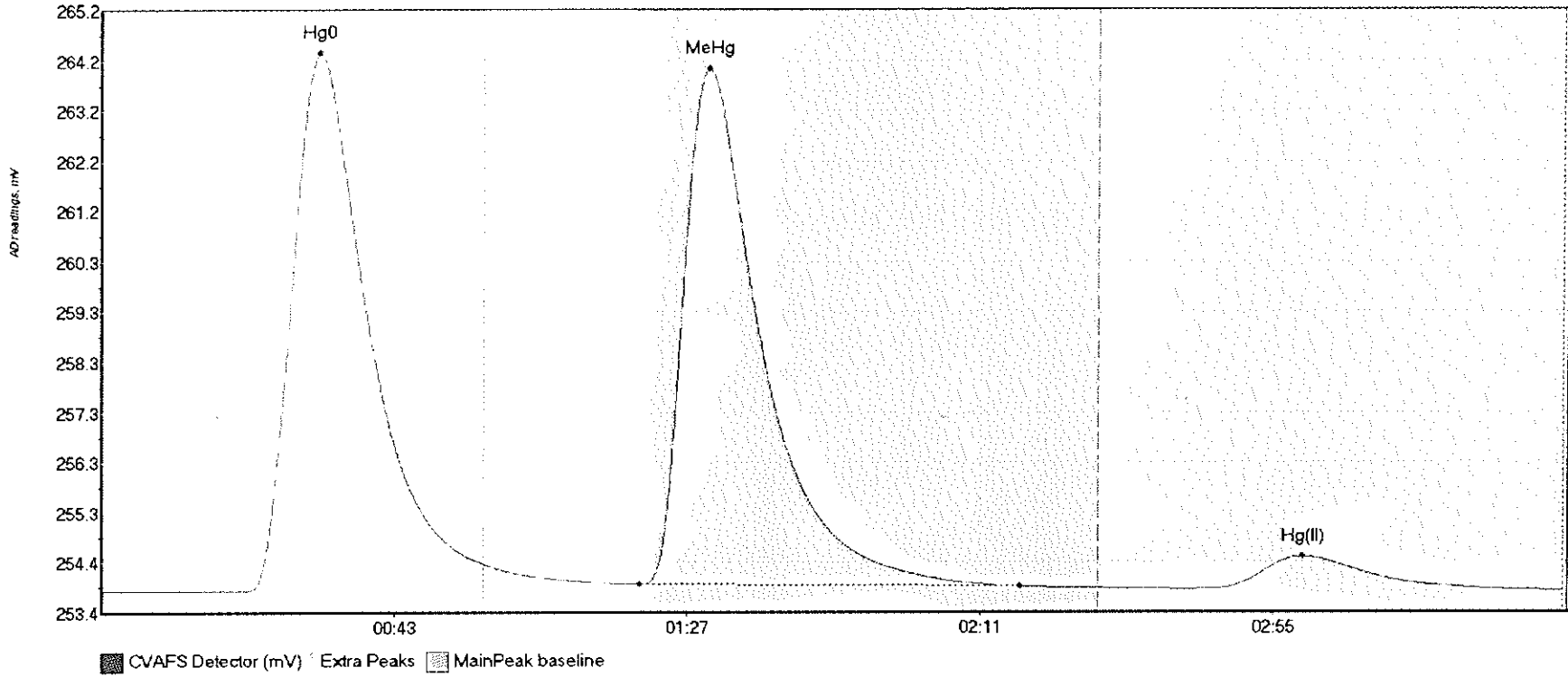
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
SEQ-CAL3 Hg0	286.936	21.8	57.5	254.39	254.50	32.7	2.295	CT	254.4138	0.00	-0.06	
SEQ-CAL3 MeHg	357.134	80.6	132.2	254.41	254.40	90.8	2.623	OK	254.4138	0.00	-0.06	
SEQ-CAL3 Hg(II)	53.216	166.6	209.8	254.37	254.37	179.1	0.310	OK	254.4138	0.00	-0.06	

#7: SEQ-CAL4



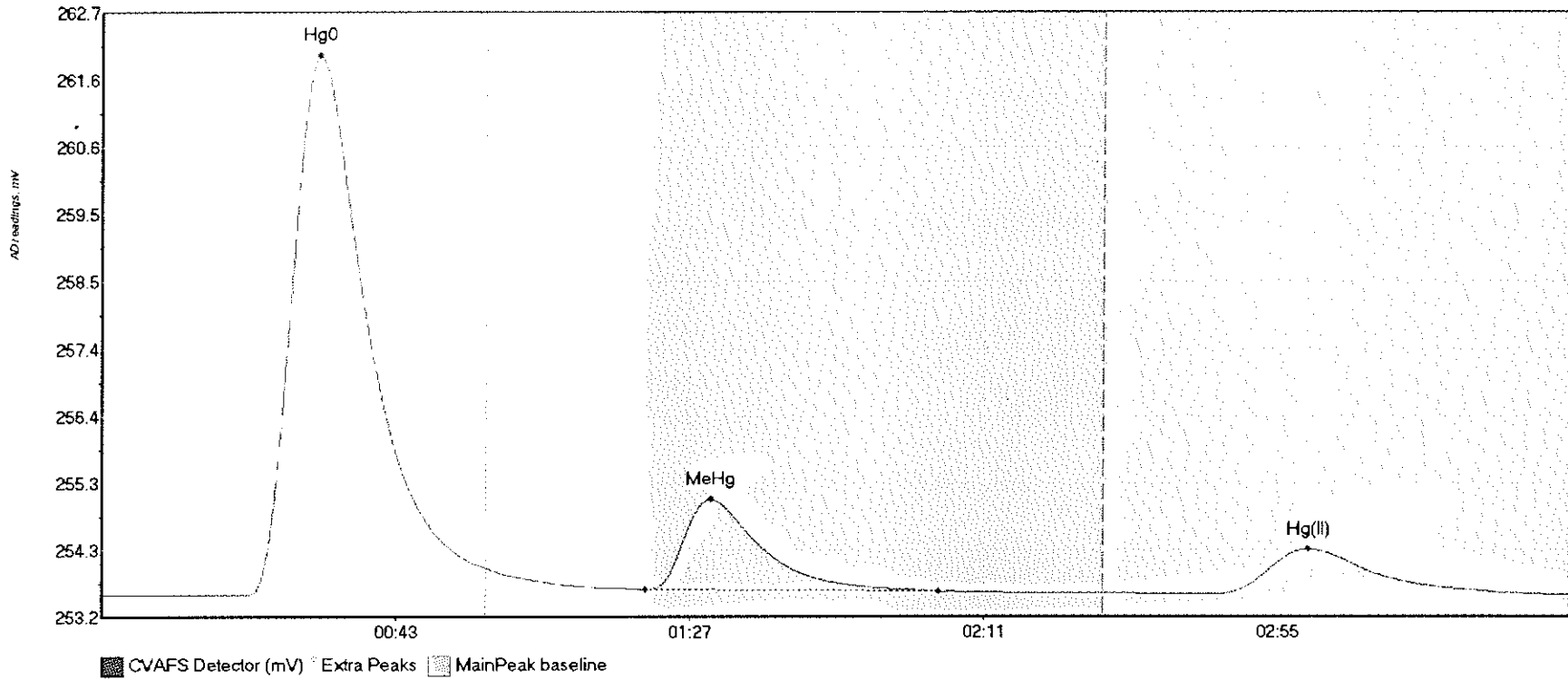
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
SEQ-CAL4 Hg0	568.464	20.3	57.5	254.08	254.30	32.5	4.561	CT	254.0813	0.00	-0.01	
SEQ-CAL4 MeHg	787.175	80.2	133.7	254.13	254.13	90.8	5.799	OK	254.0813	0.00	-0.01	
SEQ-CAL4 Hg(II)	64.185	166.2	210.0	254.08	254.09	179.9	0.367	OK	254.0813	0.00	-0.01	

#8: SEQ-CAL5



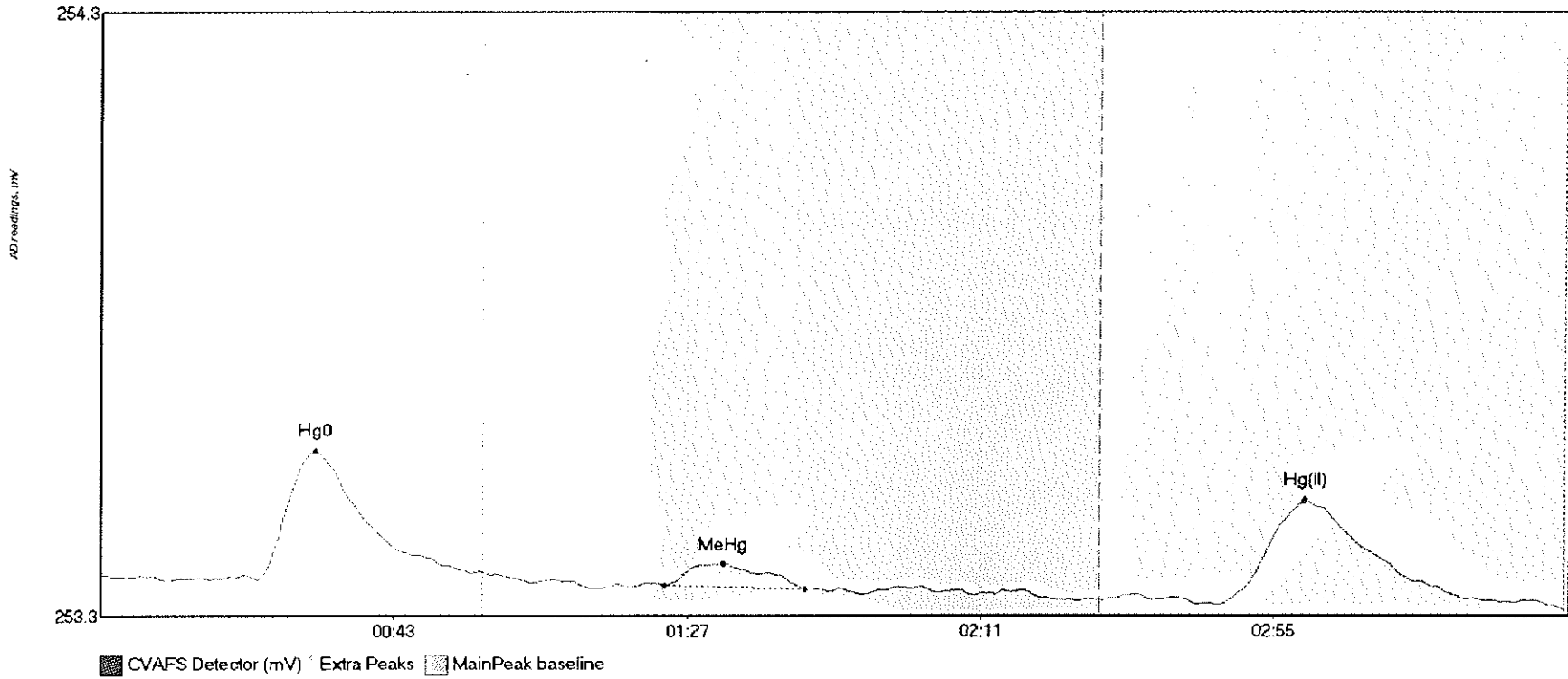
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BiDev	BiShift	Comment
SEQ-CAL5 Hg0	1316.227	21.7	57.5	253.80	254.32	32.9	10.541	CT	253.8055	0.00	-0.01	
SEQ-CAL5 MeHg	1370.511	80.9	138.0	253.93	253.89	91.3	10.103	OK	253.8055	0.00	-0.01	
SEQ-CAL5 Hg(II)	108.164	166.0	209.4	253.83	253.84	180.5	0.636	OK	253.8055	0.00	-0.01	

#8: SEQ-ICV1



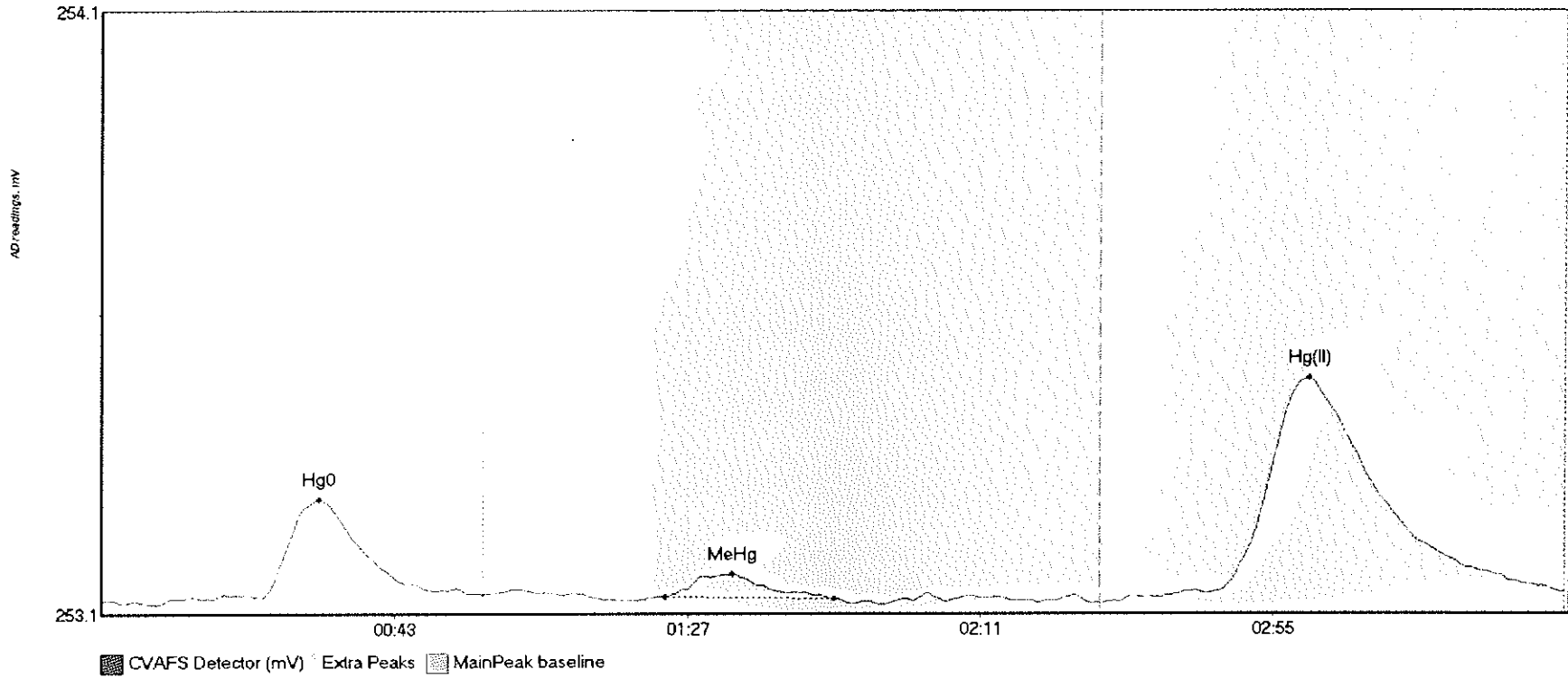
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
SEQ-ICV1 Hg0	1063.043	20.7	57.5	253.54	253.95	32.6	8.459	CT	253.5486	0.00	-0.01	
SEQ-ICV1 MeHg	189.735	81.3	125.2	253.62	253.60	91.2	1.418	OK	253.5486	0.00	-0.01	
SEQ-ICV1 Hg(II)	121.832	166.6	211.7	253.55	253.57	180.6	0.704	OK	253.5486	0.00	-0.01	

#10: SEQ-ICB1



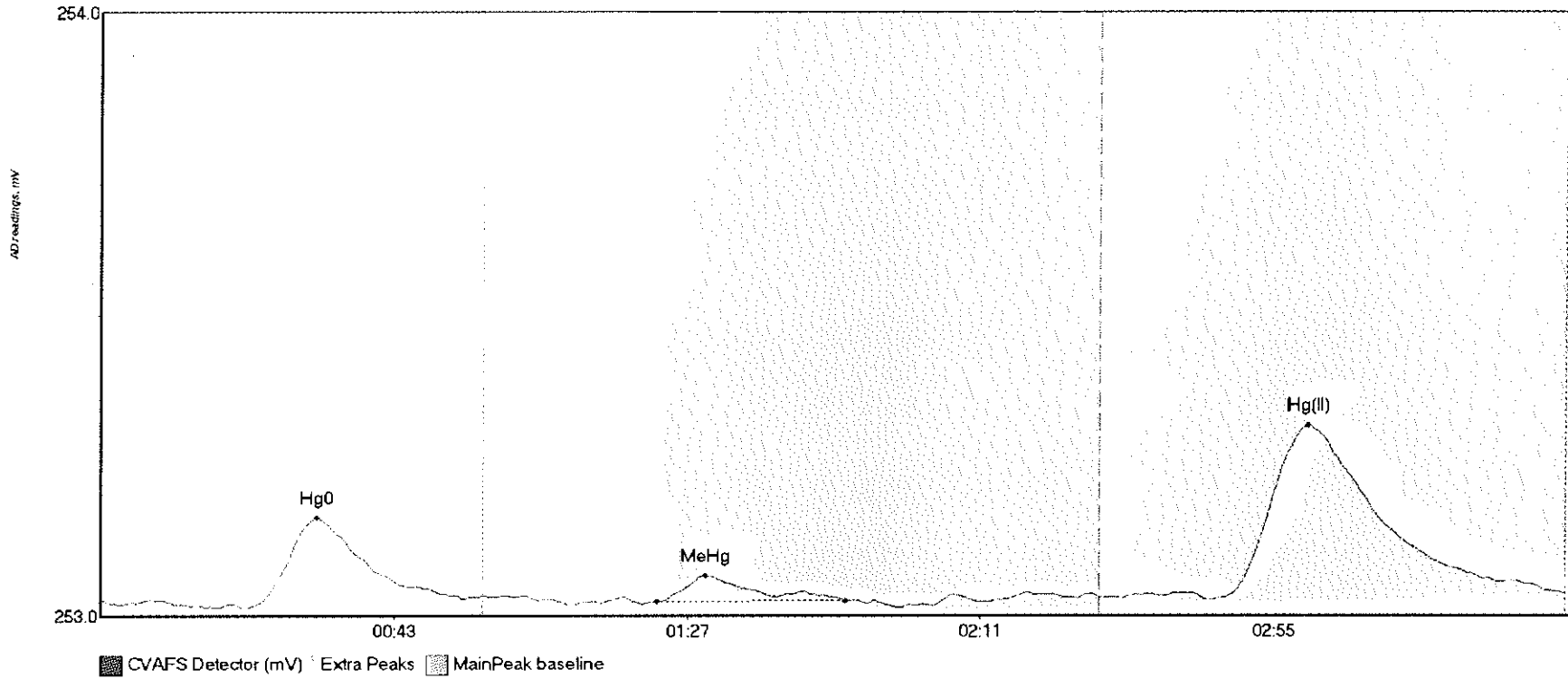
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
SEQ-ICB1 Hg0	26.779	23.7	55.6	253.33	253.34	32.3	0.213	OK	253.3372	0.00	-0.06	
SEQ-ICB1 MeHg	5.065	84.6	105.9	253.32	253.31	93.5	0.036	OK	253.3372	0.00	-0.06	
SEQ-ICB1 Hg(II)	27.620	168.0	204.8	253.29	253.30	180.7	0.172	OK	253.3372	0.00	-0.06	

#11: F608139-BLK1



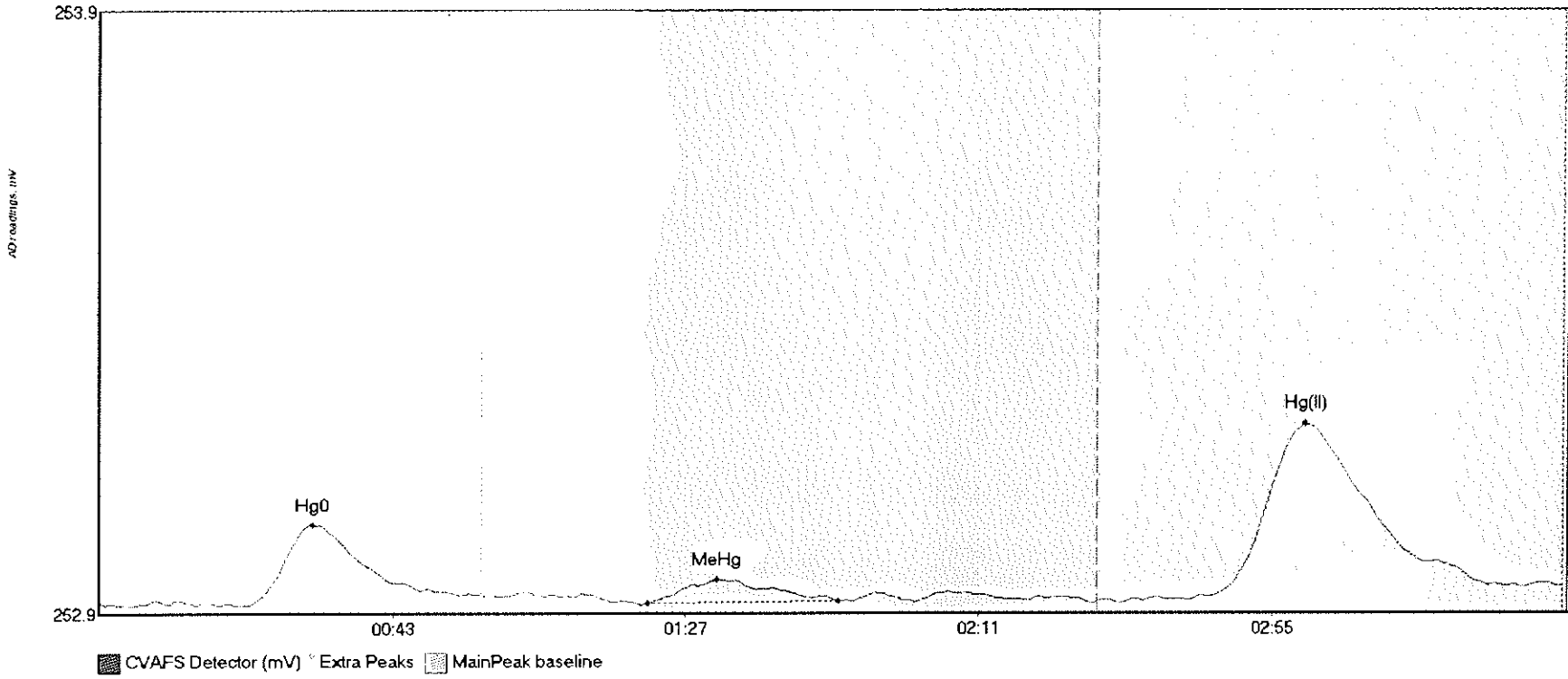
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BiDev	BiShift	Comment
F608139-BLK1 Hg	19.885	23.8	57.2	253.15	253.16	32.6	0.163	OK	253.1468	0.00	0.01	
F608139-BLK1 Me	4.969	84.6	110.0	253.15	253.15	94.7	0.039	OK	253.1468	0.00	0.01	
F608139-BLK1 Hg	70.581	152.7	219.5	253.14	253.16	181.4	0.370	OK	253.1468	0.00	0.01	

#12: F608139-BLK2



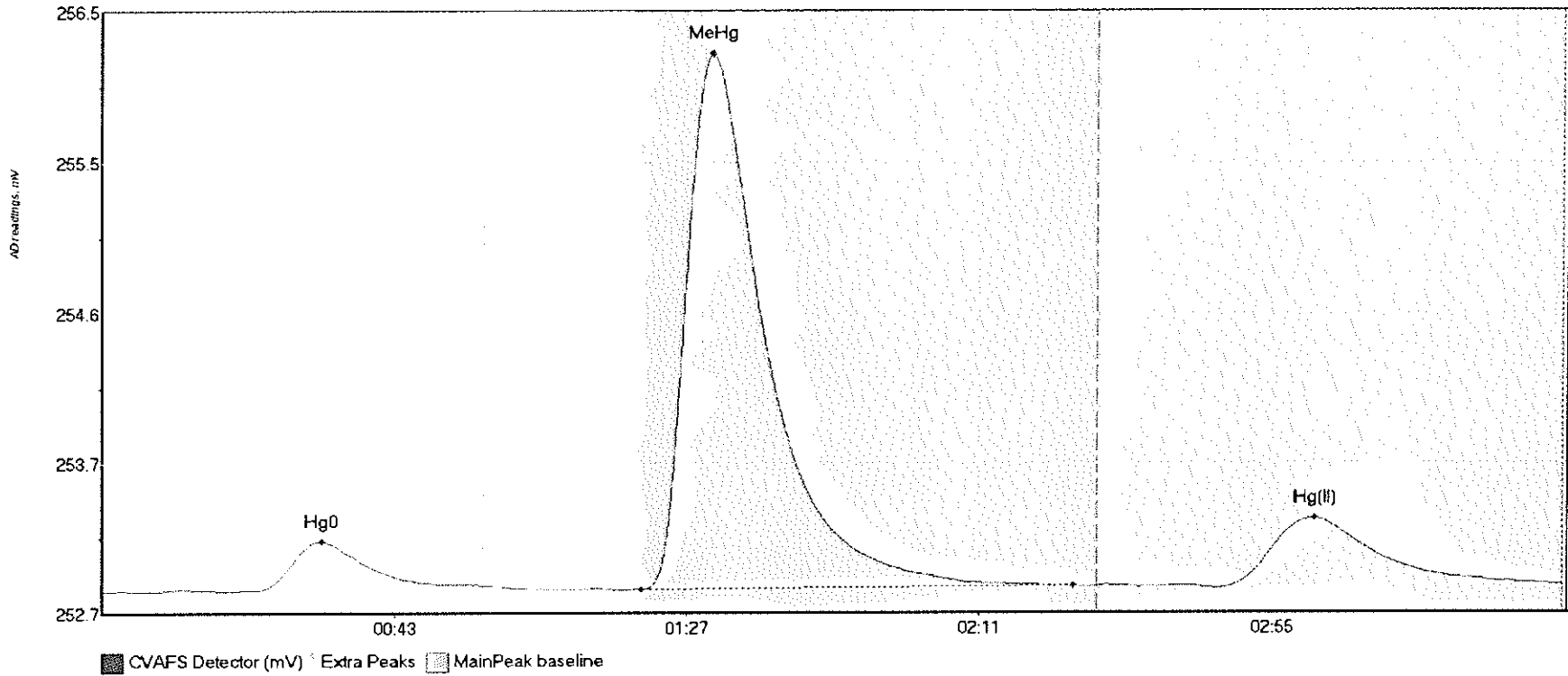
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
F608139-BLK2 Hg	18.629	21.6	54.5	253.03	253.05	32.5	0.151	OK	253.0427	0.00	0.01	
F608139-BLK2 Me	5.105	83.5	111.8	253.04	253.04	90.7	0.043	OK	253.0427	0.00	0.01	
F608139-BLK2 Hg	52.128	168.6	219.8	253.05	253.06	181.2	0.284	CT	253.0427	0.00	0.01	

#13: F608139-BLK3



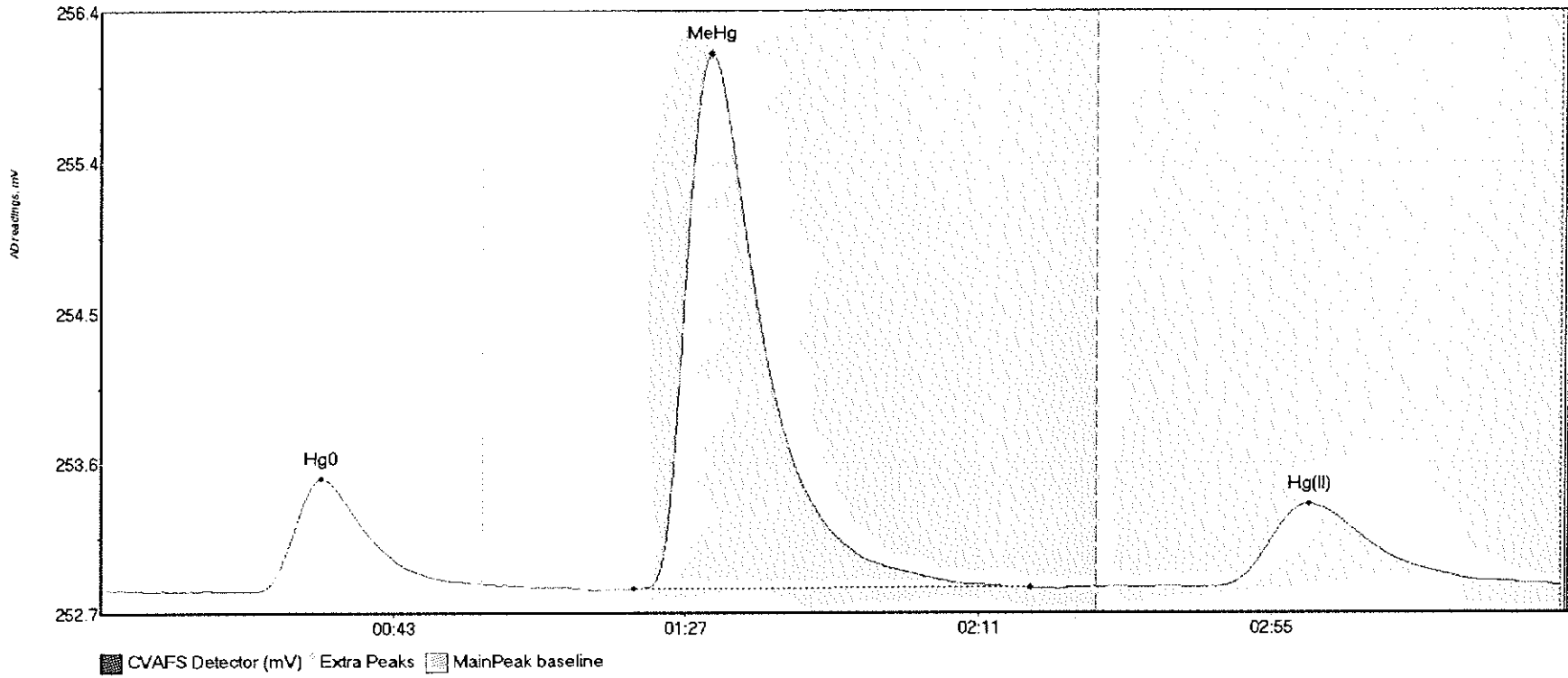
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
F608139-BLK3 Hg	16.947	22.2	57.5	252.94	252.95	32.0	0.134	CP	252.9411	0.00	0.03	
F608139-BLK3 Me	5.688	82.5	110.9	252.94	252.94	92.7	0.039	OK	252.9411	0.00	0.03	
F608139-BLK3 Hg	50.452	163.6	213.9	252.95	252.97	181.1	0.292	OK	252.9411	0.00	0.03	

#14: F608139-BS1



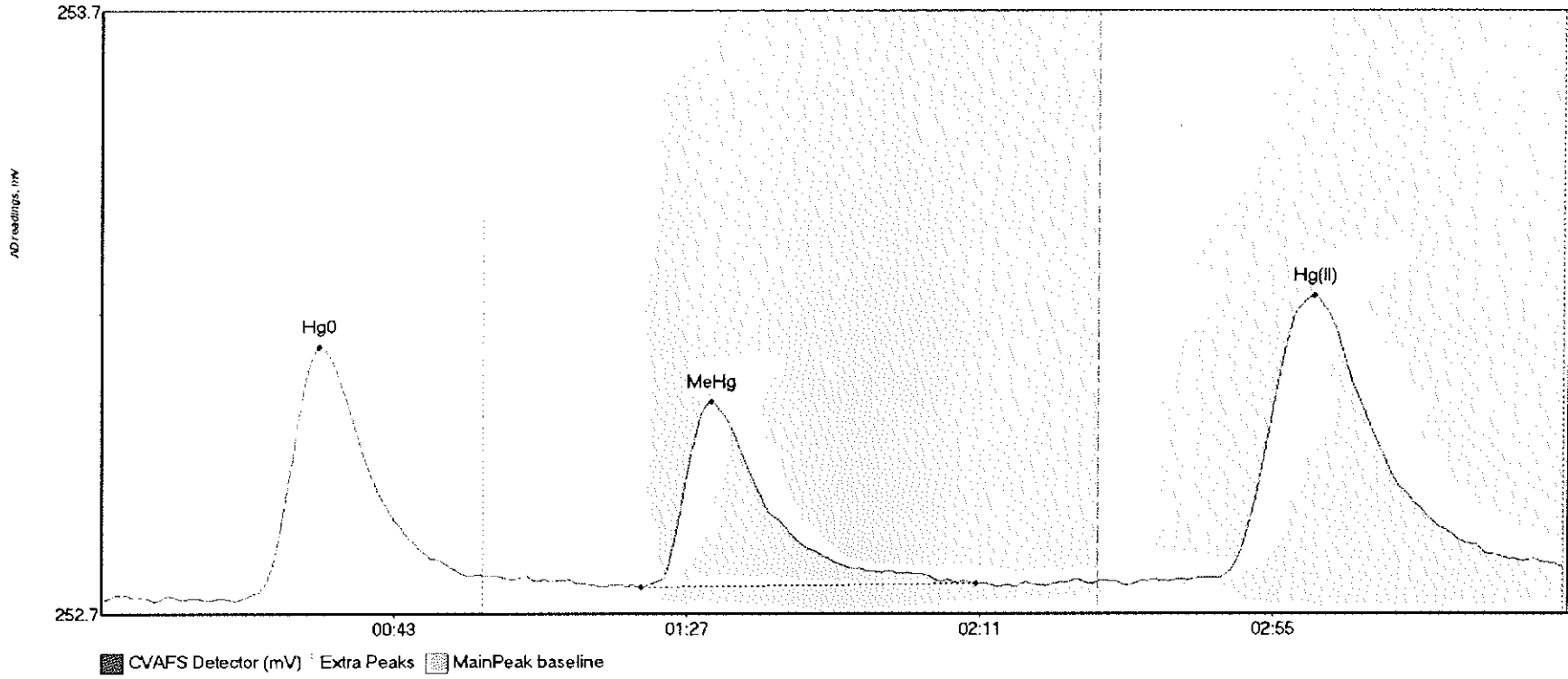
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
F608139-BS1 Hg0	36.706	22.8	57.5	252.85	252.88	33.1	0.308	CT	252.8486	0.00	0.04	
F608139-BS1 MeH	458.623	81.3	146.3	252.86	252.88	91.9	3.347	OK	252.8486	0.00	0.04	
F608139-BS1 Hg(	77.373	168.1	219.8	252.87	252.89	182.5	0.434	CT	252.8486	0.00	0.04	

#15: F608139-BSD1



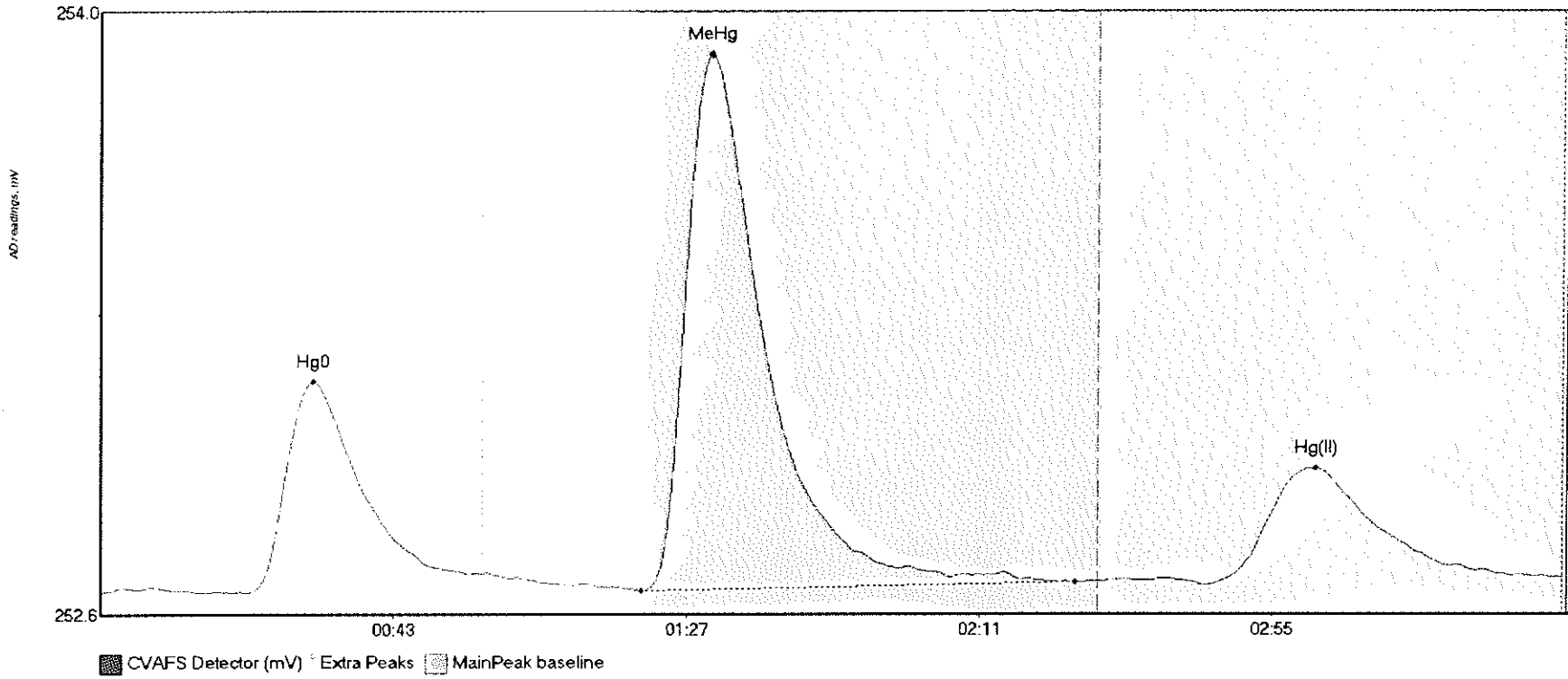
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
F608139-BSD1 Hg	83.778	22.8	57.5	252.79	252.83	33.2	0.697	CT	252.7996	0.00	0.02	
F608139-BSD1 Me	449.713	80.1	139.9	252.80	252.81	91.9	3.302	OK	252.7996	0.00	0.02	
F608139-BSD1 Hg	92.440	167.8	219.7	252.81	252.82	181.7	0.511	OK	252.7996	0.00	0.02	

#16: F608139-DUP1



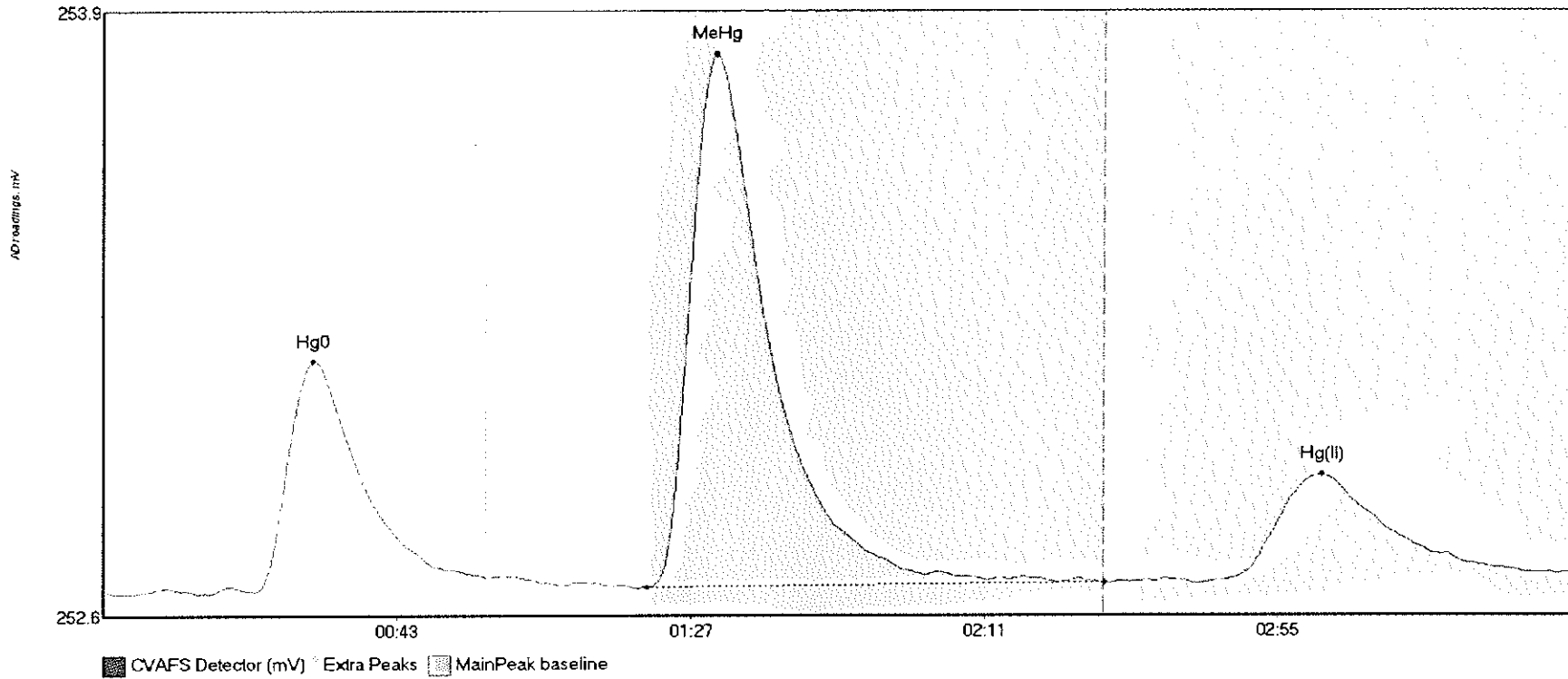
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
F608139-DUP1 Hg	52.451	26.2	55.5	252.71	252.76	32.9	0.422	OK	252.7172	0.00	0.06	
F608139-DUP1 Me	43.787	81.2	131.4	252.74	252.74	91.8	0.309	OK	252.7172	0.00	0.06	
F608139-DUP1 Hg	83.414	167.7	219.8	252.75	252.77	182.2	0.468	CT	252.7172	0.00	0.06	

#17: F608139-MS1



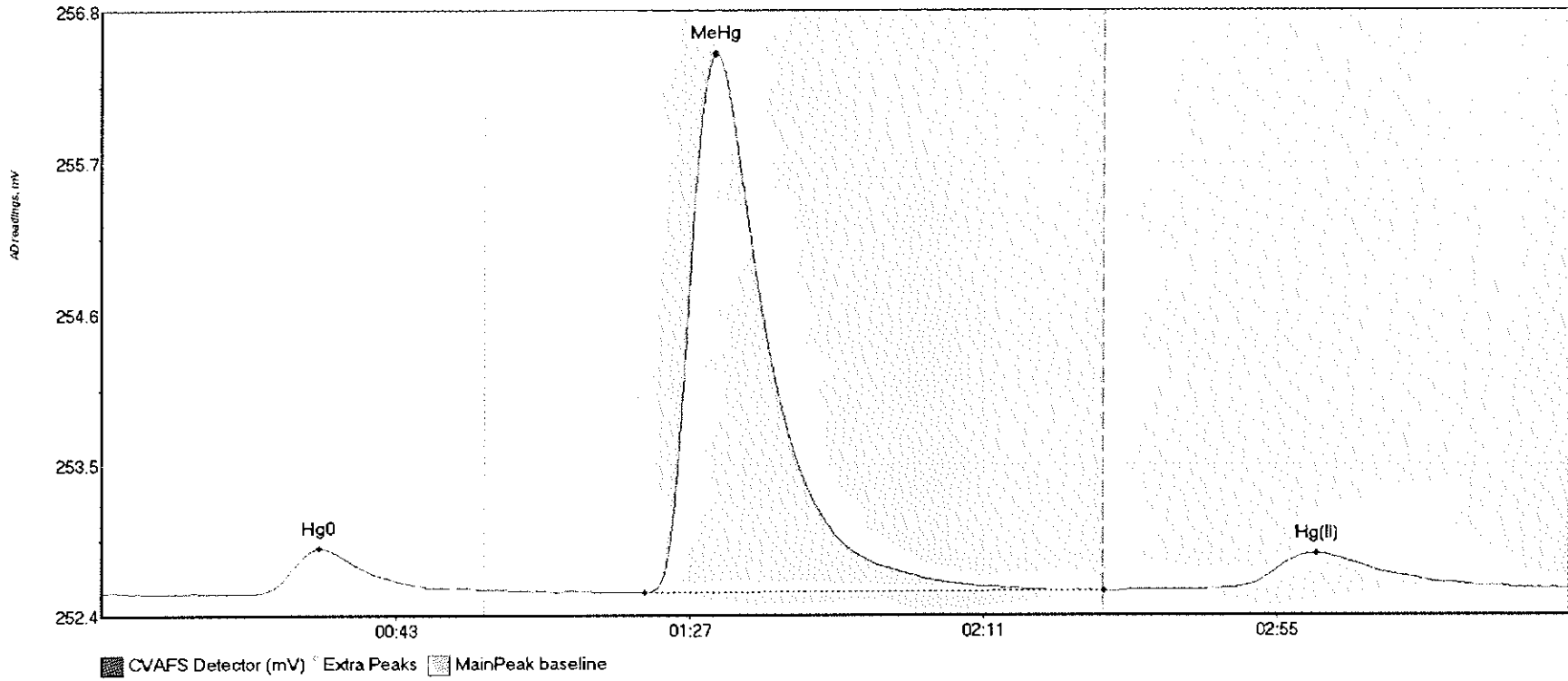
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
F608139-MS1 Hg0	57.733	22.1	55.4	252.68	252.73	31.8	0.477	OK	252.6856	0.00	0.03	
F608139-MS1 MeH	167.653	81.1	146.4	252.69	252.71	91.8	1.207	OK	252.6856	0.00	0.03	
F608139-MS1 Hg(	47.555	167.2	219.6	252.70	252.72	182.6	0.260	OK	252.6856	0.00	0.03	

#18: F608139-MSD1



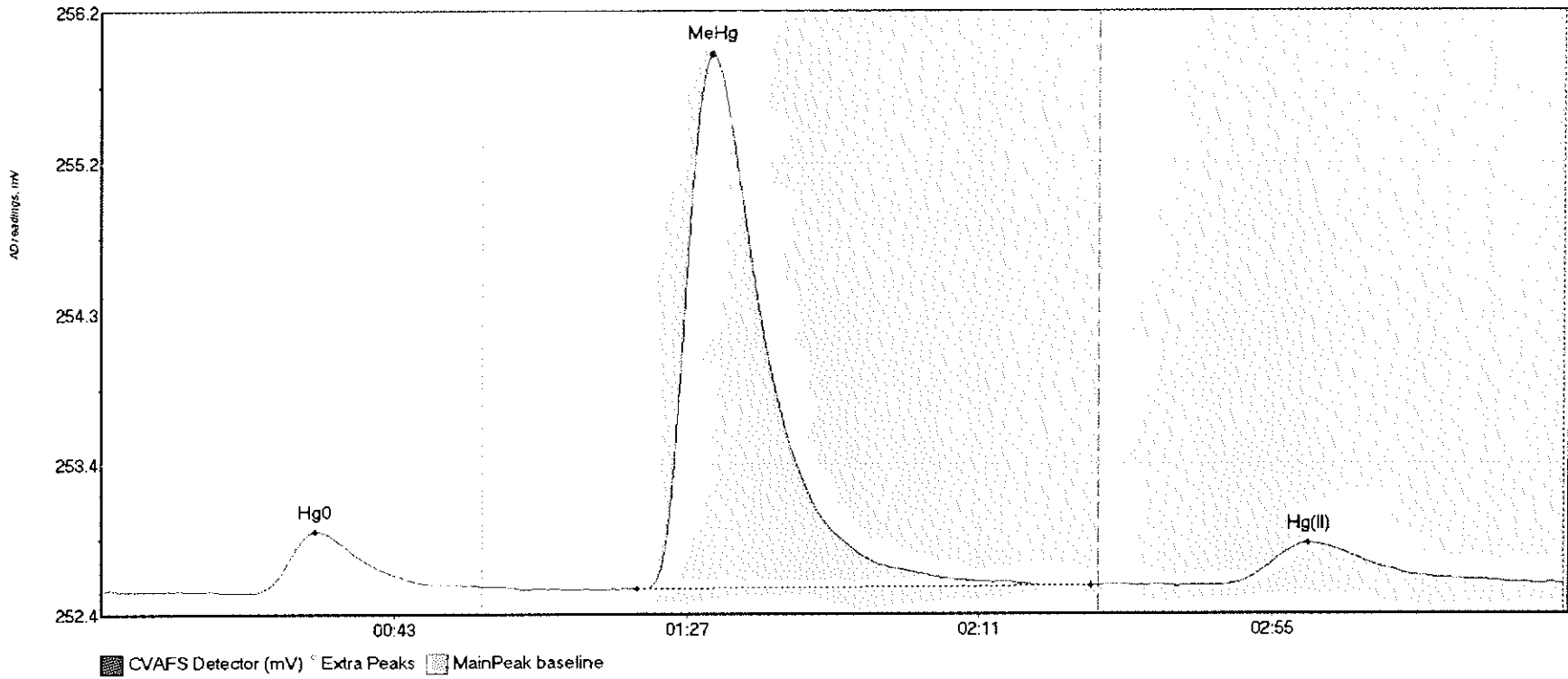
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
F608139-MSD1 Hg	59.002	22.7	57.5	252.65	252.68	31.5	0.485	CT	252.6504	0.00	0.04	
F608139-MSD1 Me	154.433	81.4	150.0	252.66	252.67	91.8	1.120	CT	252.6504	0.00	0.04	
F608139-MSD1 Hg	41.536	164.5	217.8	252.67	252.69	182.6	0.228	OK	252.6504	0.00	0.04	

#19: F608139-MS2



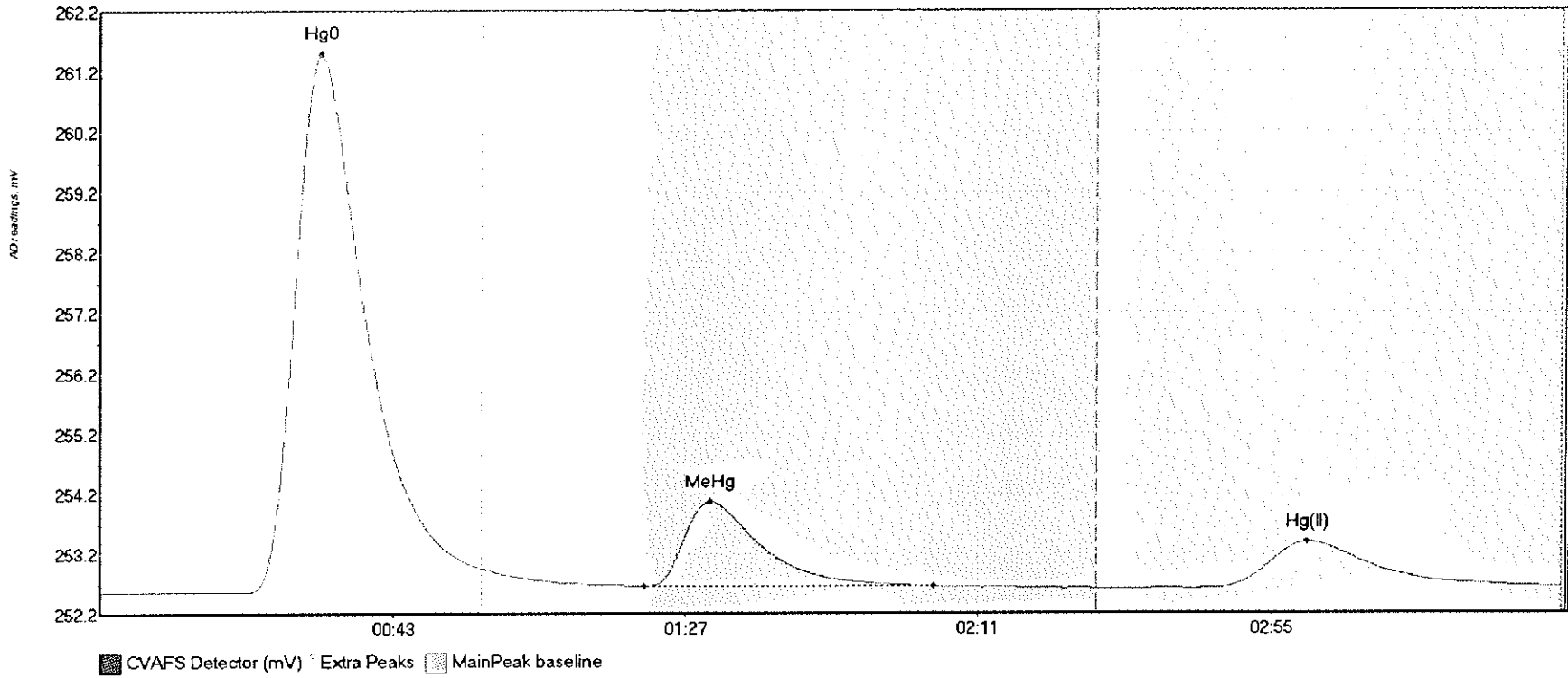
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
F608139-MS2 Hg0	39.848	22.2	57.5	252.60	252.63	32.5	0.329	CT	252.6140	0.00	0.03	
F608139-MS2 MeH	534.497	81.3	150.0	252.61	252.62	91.8	3.904	CT	252.6140	0.00	0.03	
F608139-MS2 Hg(	51.596	151.8	219.8	252.62	252.64	182.1	0.273	CT	252.6140	0.00	0.03	

#20: F608139-MSD2



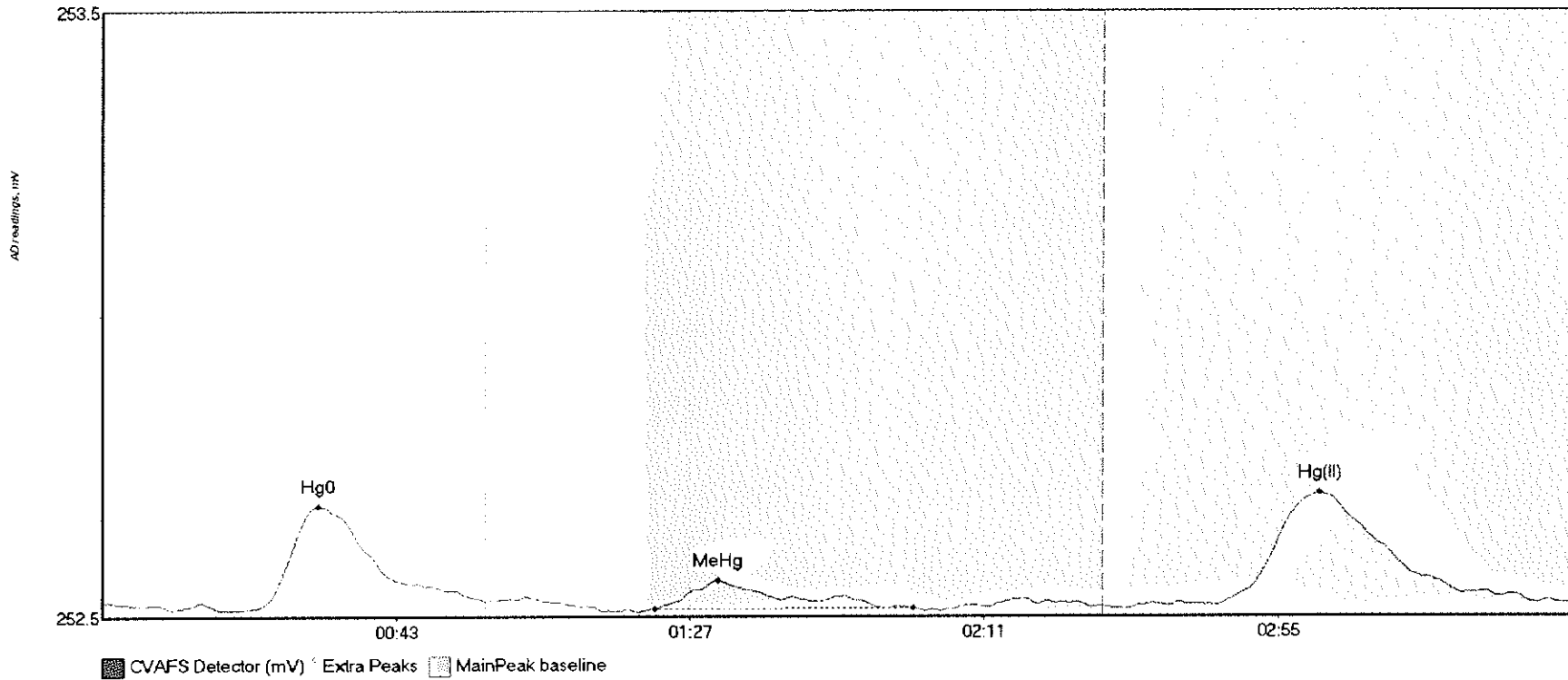
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
F608139-MSD2 Hg	46.117	22.8	57.5	252.57	252.61	32.1	0.379	CT	252.5852	0.00	0.04	
F608139-MSD2 Me	455.139	80.6	148.8	252.59	252.61	91.8	3.327	OK	252.5852	0.00	0.04	
F608139-MSD2 Hg	45.737	167.6	216.3	252.61	252.63	181.5	0.261	OK	252.5852	0.00	0.04	

#21: SEQ-CCV1



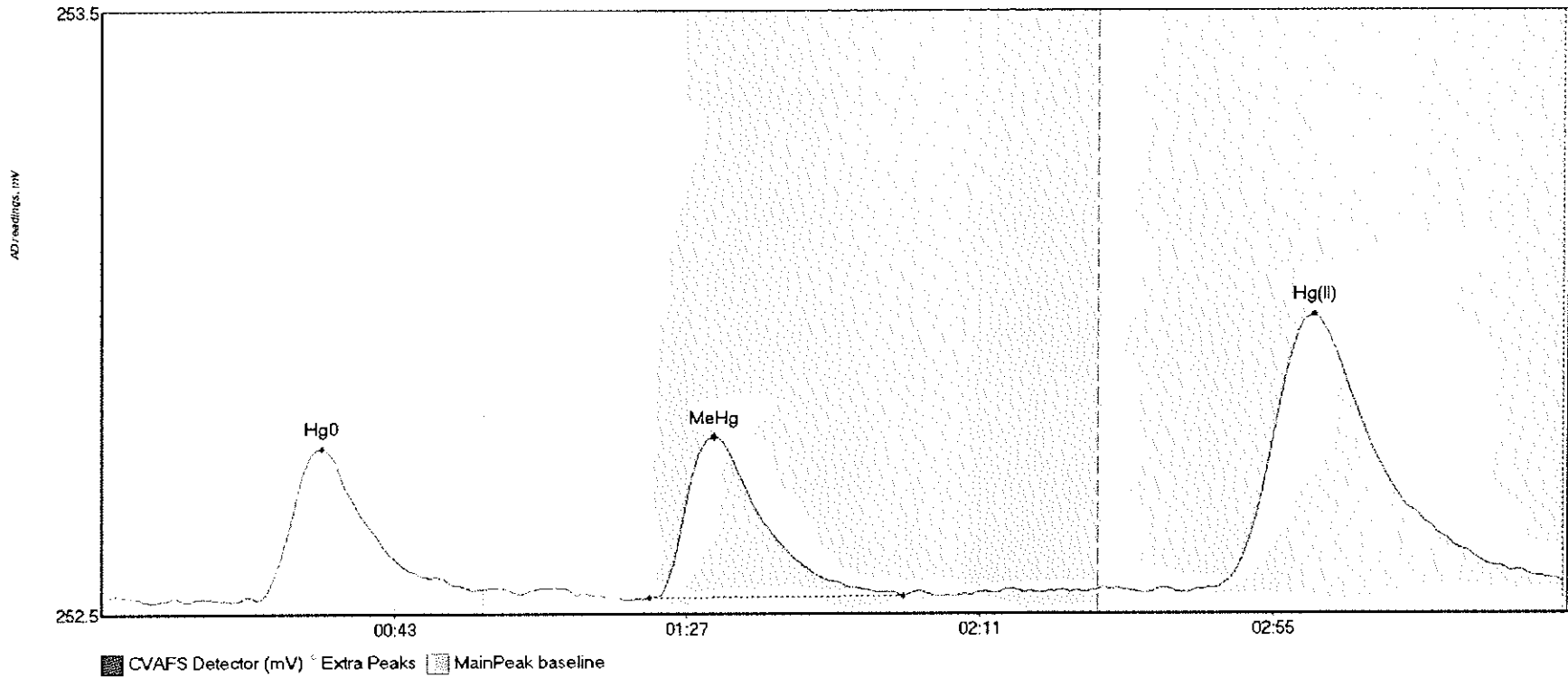
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
SEQ-CCV1 Hg0	1051.617	22.1	57.5	252.56	252.94	33.1	8.889	CT	252.5606	0.00	0.08	
SEQ-CCV1 MeHg	184.548	81.9	125.5	252.65	252.65	91.8	1.394	OK	252.5606	0.00	0.08	
SEQ-CCV1 Hg(II)	133.824	165.1	217.6	252.62	252.64	181.5	0.764	OK	252.5606	0.00	0.08	

#22: SEQ-CCB1



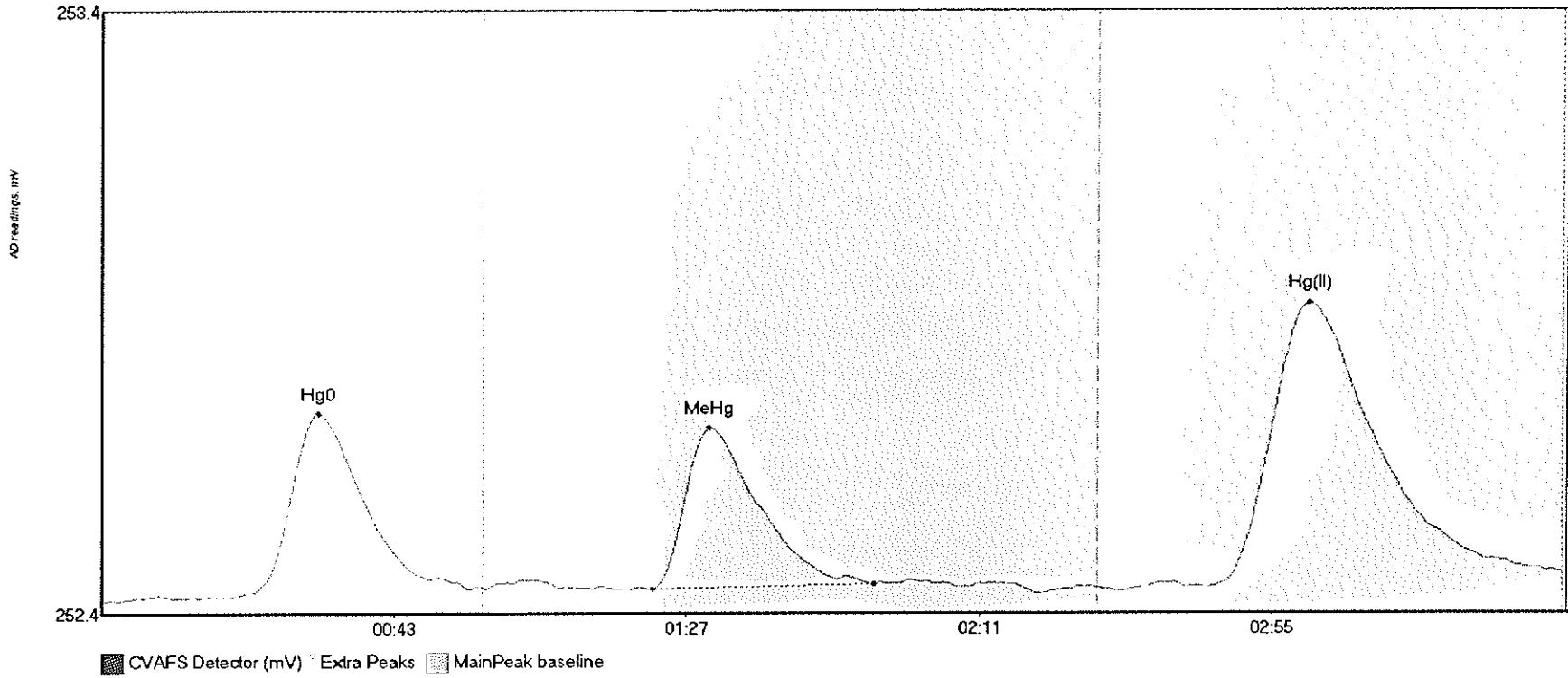
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
SEQ-CCB1 Hg0	22.157	22.2	56.8	252.54	252.55	32.4	0.170	OK	252.5469	0.00	0.00	
SEQ-CCB1 MeHg	7.368	82.9	121.5	252.54	252.54	92.2	0.046	OK	252.5469	0.00	0.00	
SEQ-CCB1 Hg(II)	34.539	166.6	218.8	252.54	252.54	182.2	0.186	OK	252.5469	0.00	0.00	

#24: 1607339-01



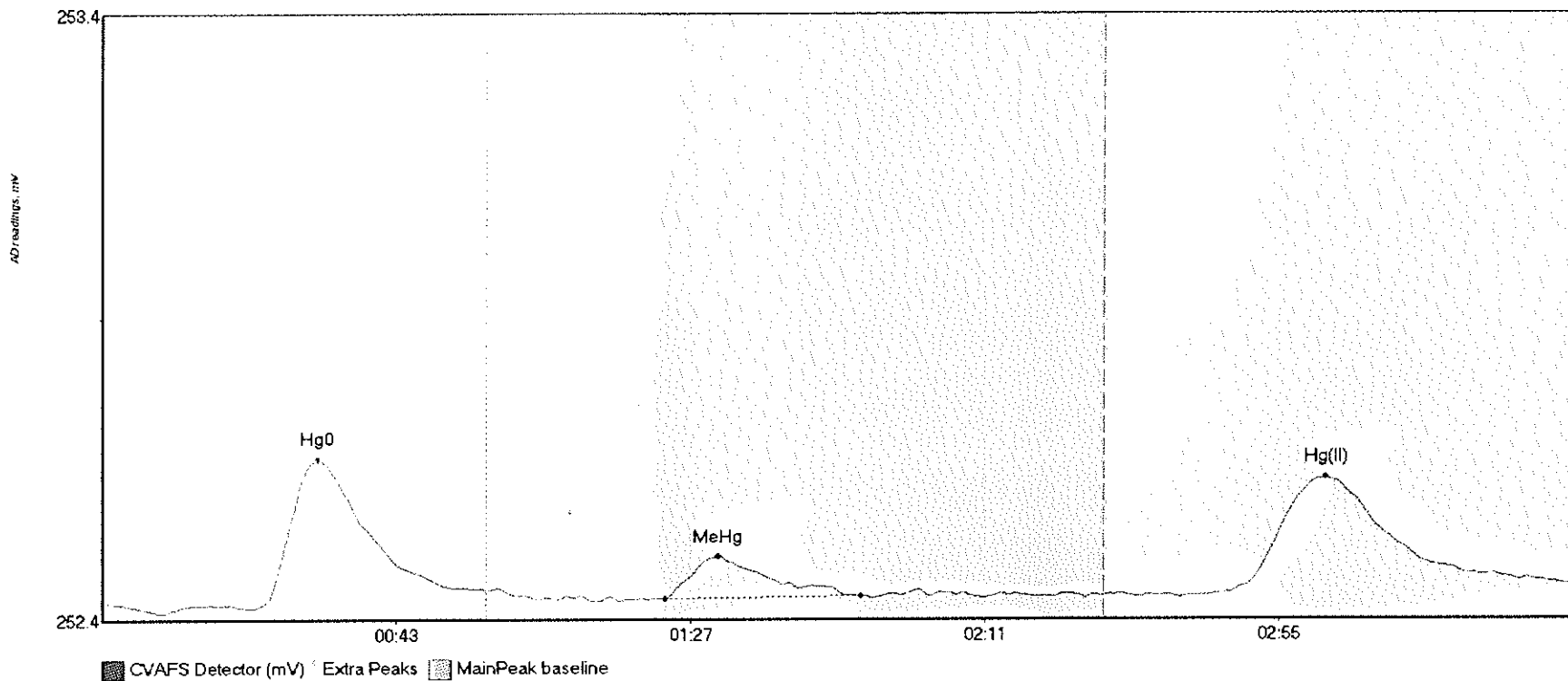
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1607339-01 Hg0	30.735	23.6	55.7	252.48	252.49	33.1	0.251	OK	252.4807	0.00	0.03	
1607339-01 MeHg	35.545	82.4	120.4	252.48	252.48	92.2	0.270	OK	252.4807	0.00	0.03	
1607339-01 Hg(II)	82.460	167.2	219.8	252.50	252.51	182.2	0.454	CT	252.4807	0.00	0.03	

#25: 1607339-02



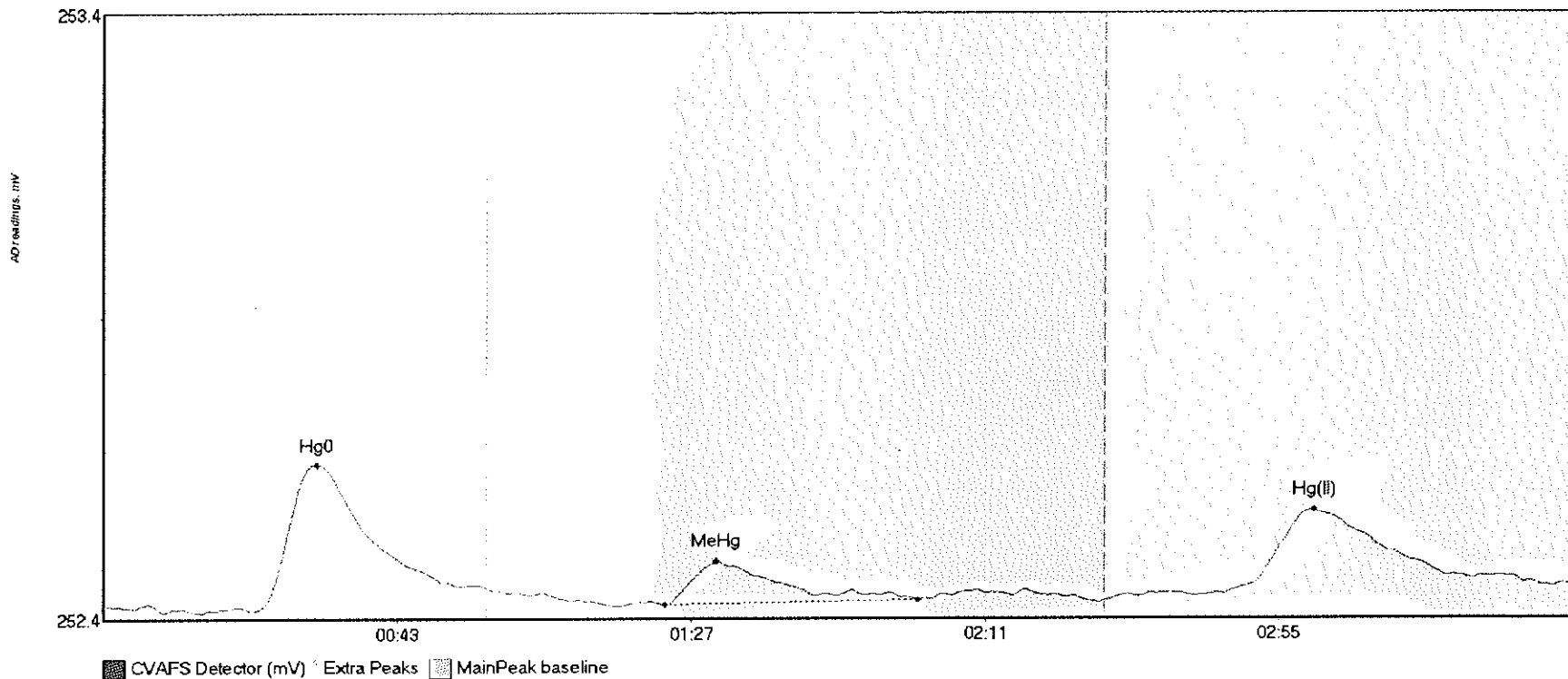
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1607339-02 Hg0	37.091	11.3	55.3	252.44	252.46	32.7	0.309	OK	252.4394	0.00	0.05	
1607339-02 MeHg	33.544	83.0	116.1	252.46	252.47	91.5	0.268	OK	252.4394	0.00	0.05	
1607339-02 Hg(I)	83.229	166.8	219.5	252.46	252.49	181.6	0.471	OK	252.4394	0.00	0.05	

#26: 1607339-03



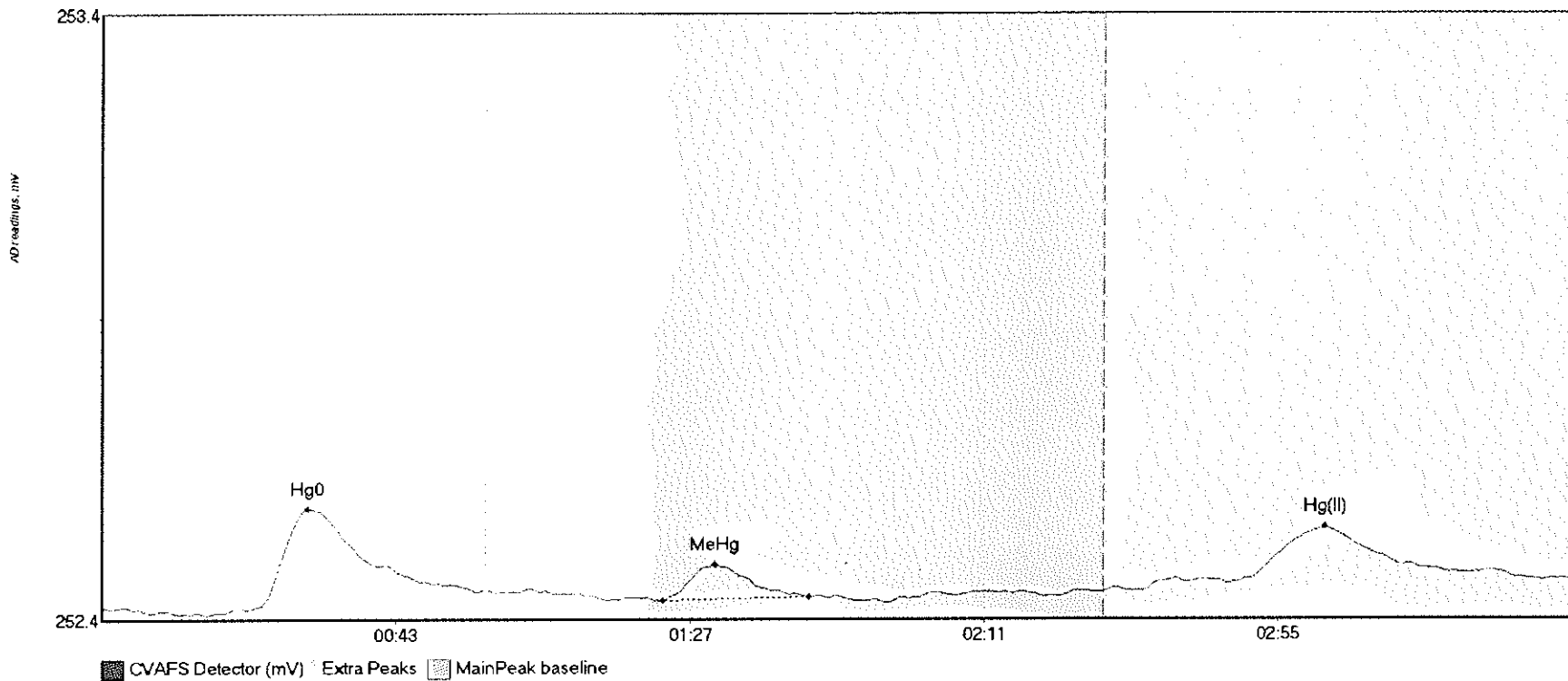
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1607339-03 Hg0	30.380	22.4	57.4	252.44	252.47	32.3	0.245	OK	252.4464	0.00	0.03	
1607339-03 MeHg	9.023	84.2	113.5	252.45	252.46	92.2	0.071	OK	252.4464	0.00	0.03	
1607339-03 Hg(I)	34.156	168.7	219.2	252.46	252.48	183.0	0.189	OK	252.4464	0.00	0.03	

#27: 1607339-04



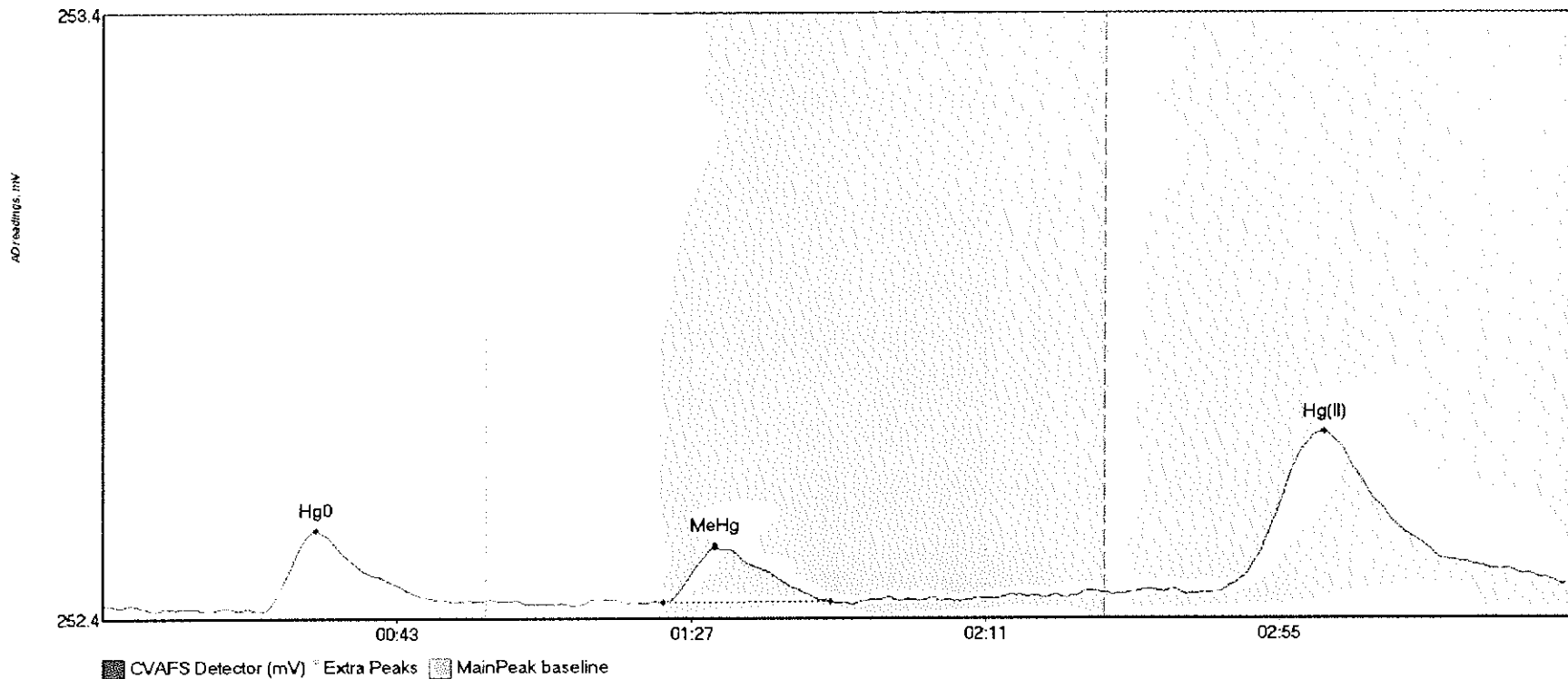
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1607339-04 Hg0	30.929	22.4	57.5	252.44	252.48	32.0	0.243	CT	252.4496	0.00	0.04	
1607339-04 MeHg	10.391	84.0	121.9	252.45	252.46	91.8	0.071	OK	252.4496	0.00	0.04	
1607339-04 Hg(I)	25.979	155.0	217.1	252.47	252.48	181.3	0.142	OK	252.4496	0.00	0.04	

#28: 1607339-05



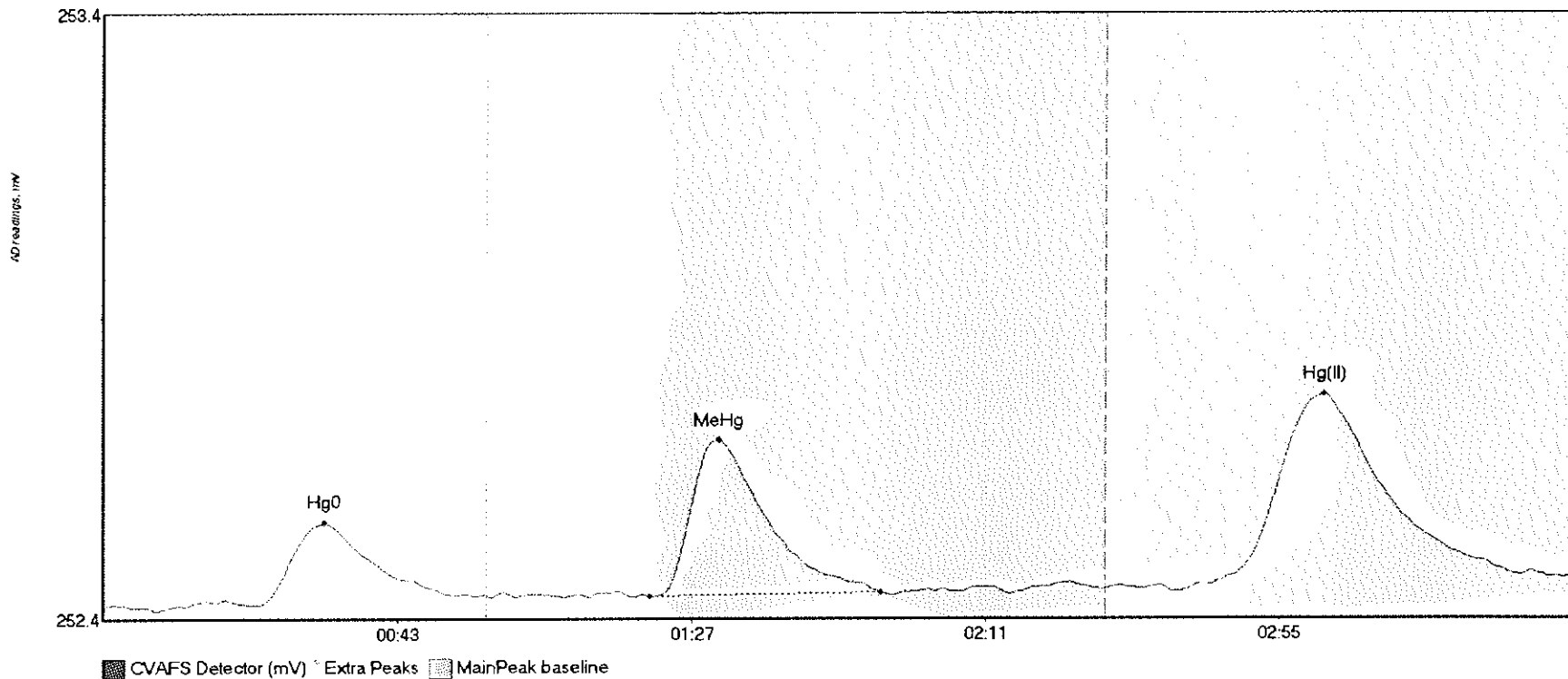
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1607339-05 Hg0	21.110	23.2	56.2	252.45	252.47	30.9	0.163	OK	252.4454	0.00	0.05	
1607339-05 MeHg	5.739	83.9	105.9	252.46	252.46	91.7	0.058	OK	252.4454	0.00	0.05	
1607339-05 Hg(I	19.911	155.3	215.9	252.47	252.49	183.0	0.105	OK	252.4454	0.00	0.05	

#29: 1607339-06



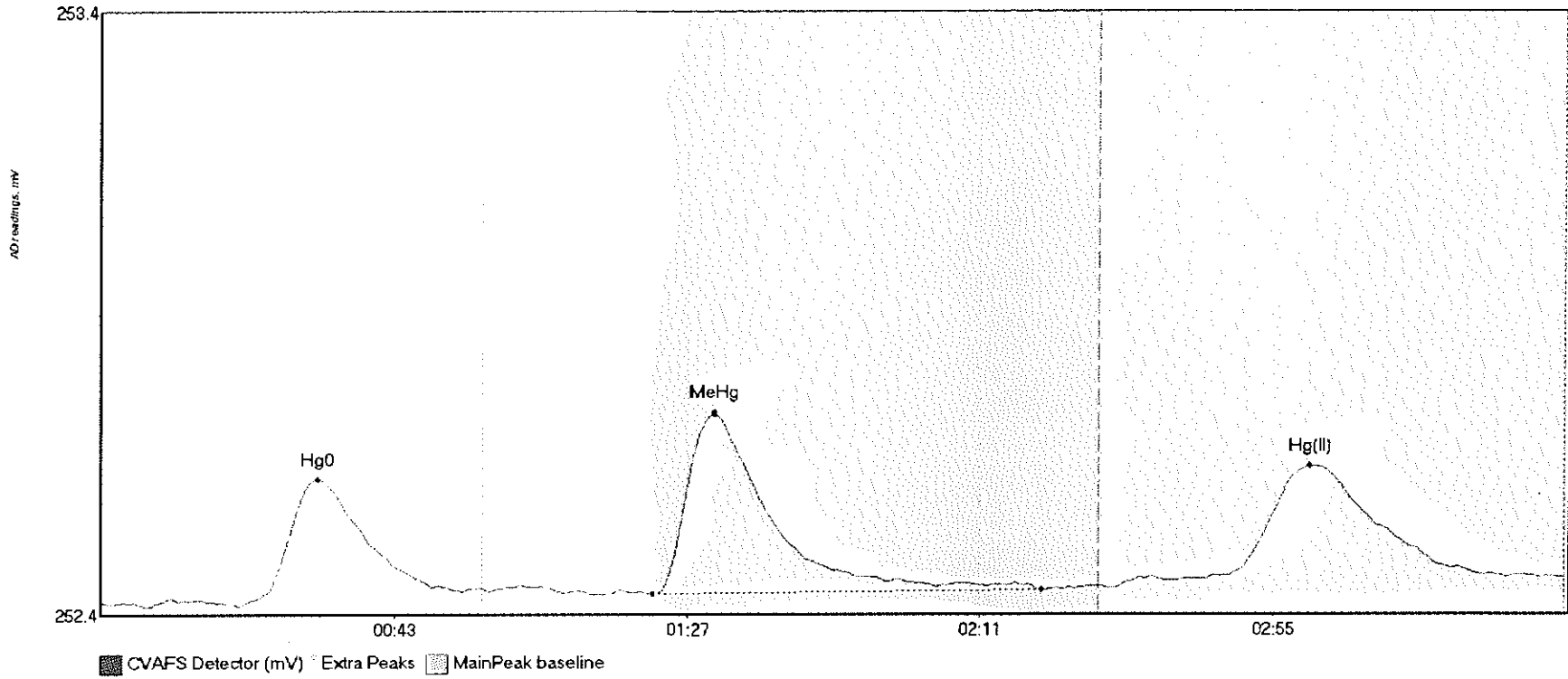
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1607339-06 Hg0	15.433	24.0	52.5	252.44	252.45	31.8	0.134	OK	252.4464	0.00	0.04	
1607339-06 MeHg	11.090	83.8	109.0	252.45	252.45	91.6	0.090	OK	252.4464	0.00	0.04	
1607339-06 Hg(I)	49.304	167.2	218.6	252.47	252.48	182.8	0.265	OK	252.4464	0.00	0.04	

#30: 1607380-01



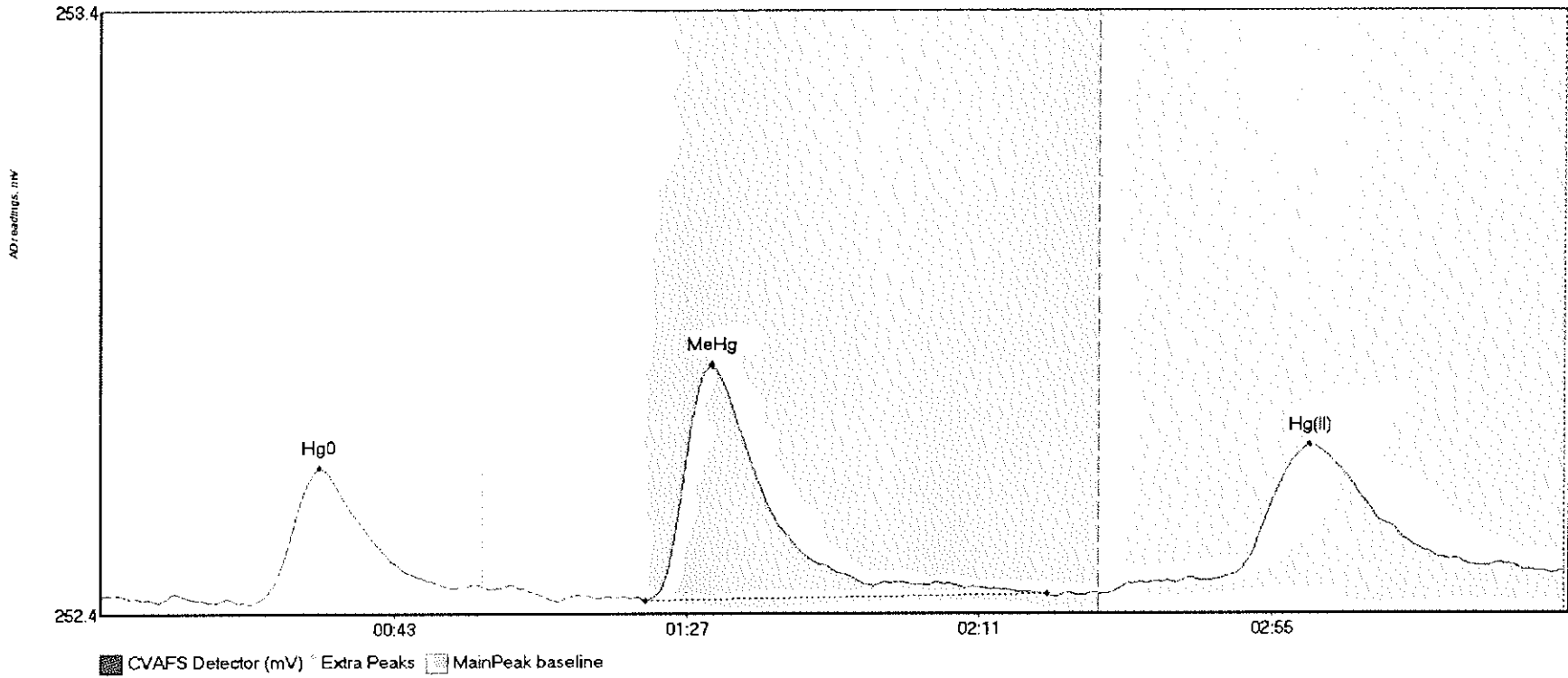
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1607380-01 Hg0	17.589	22.7	55.9	252.44	252.45	33.0	0.135	OK	252.4377	0.00	0.05	
1607380-01 MeHg	33.300	81.8	116.3	252.45	252.46	92.0	0.260	OK	252.4377	0.00	0.05	
1607380-01 Hg(I)	59.307	161.6	219.8	252.46	252.48	182.7	0.324	CT	252.4377	0.00	0.05	

#31: 1607380-03



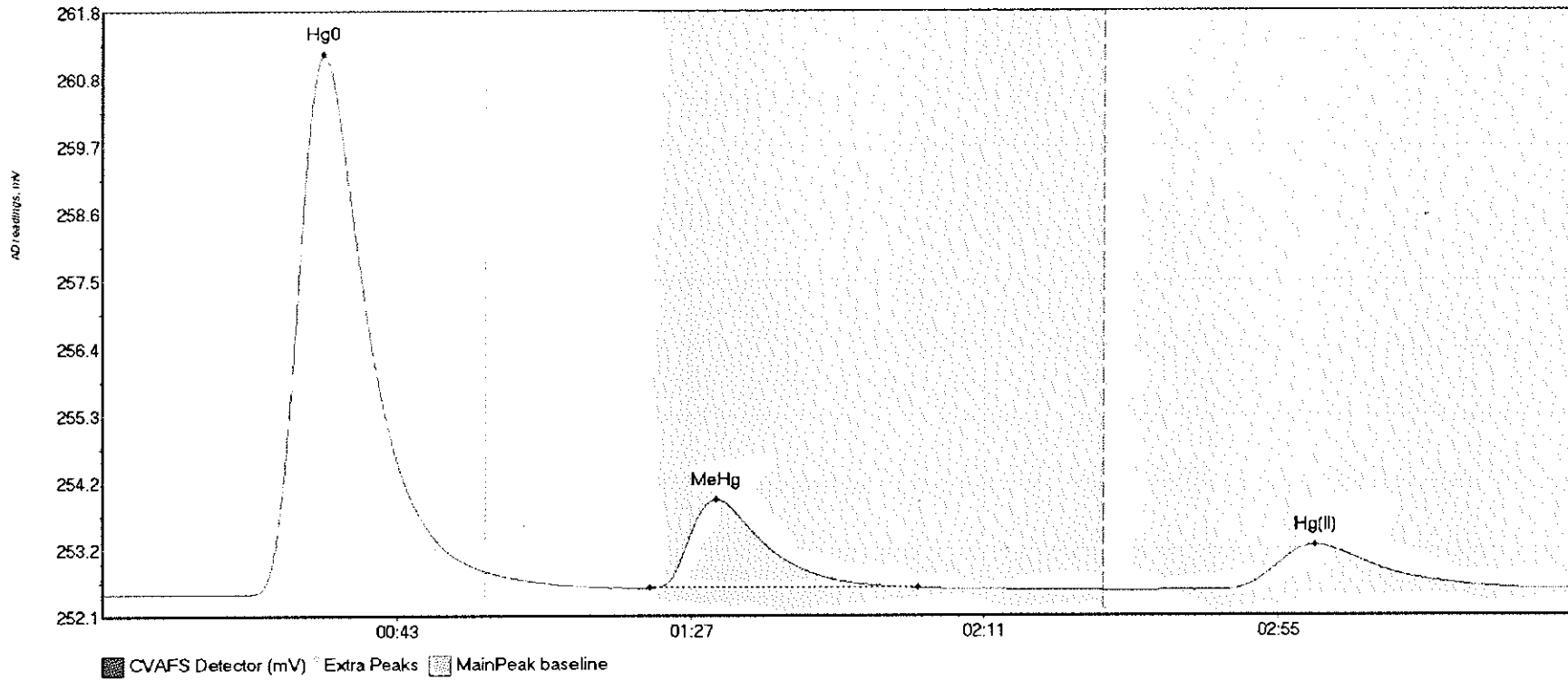
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BiDev	BiShift	Comment
1607380-03 Hg0	26.012	20.8	54.1	252.43	252.45	32.4	0.211	OK	252.4347	0.00	0.04	
1607380-03 MeHg	43.337	82.8	141.3	252.45	252.46	92.0	0.299	OK	252.4347	0.00	0.04	
1607380-03 Hg(I)	38.383	152.1	219.3	252.46	252.48	181.6	0.203	OK	252.4347	0.00	0.04	

#32: 1607380-05



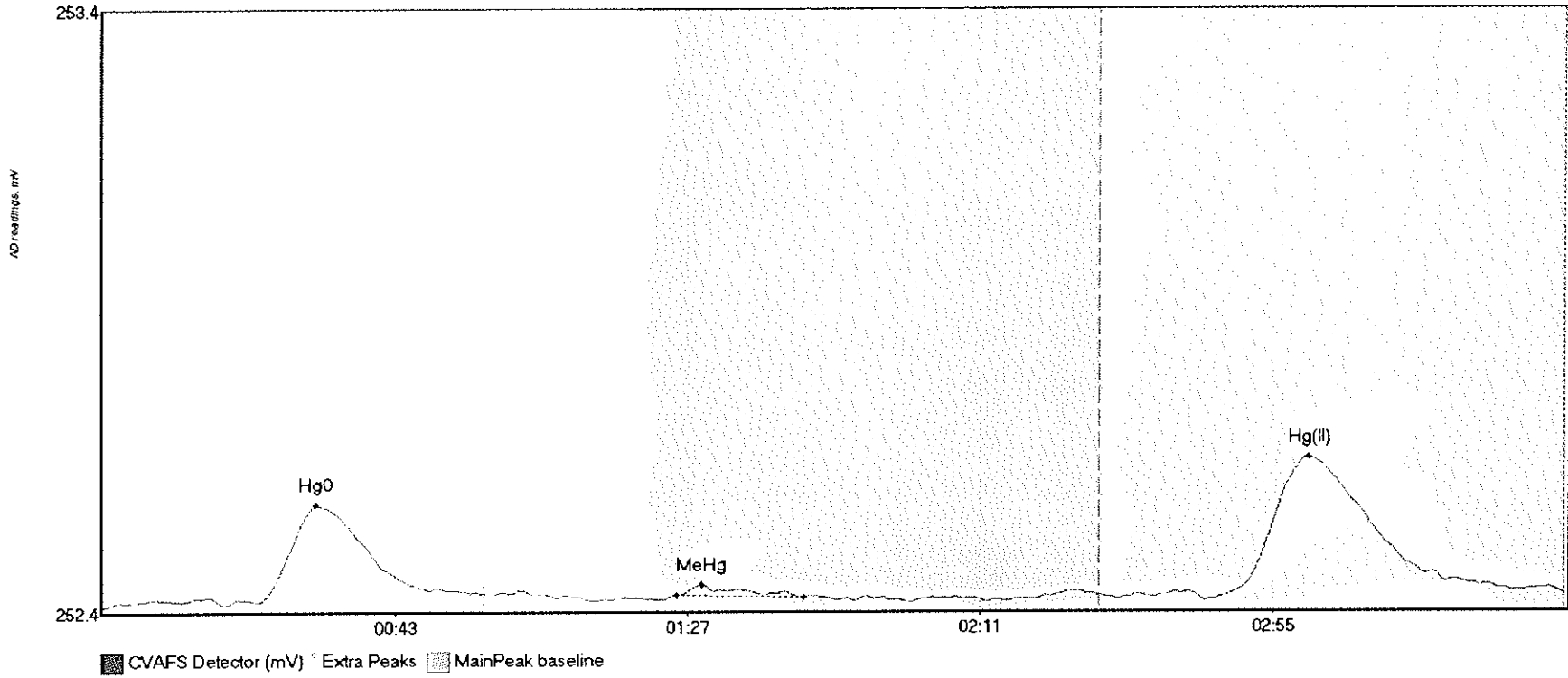
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BiDev	BiShift	Comment
1607380-05 Hg0	26.226	22.4	53.0	252.42	252.45	32.7	0.227	OK	252.4408	0.00	0.04	
1607380-05 MeHg	55.217	81.9	142.2	252.43	252.44	91.7	0.390	OK	252.4408	0.00	0.04	
1607380-05 Hg(I)	45.666	151.1	217.9	252.44	252.48	181.8	0.248	OK	252.4408	0.00	0.04	

#33: SEQ-CCV2



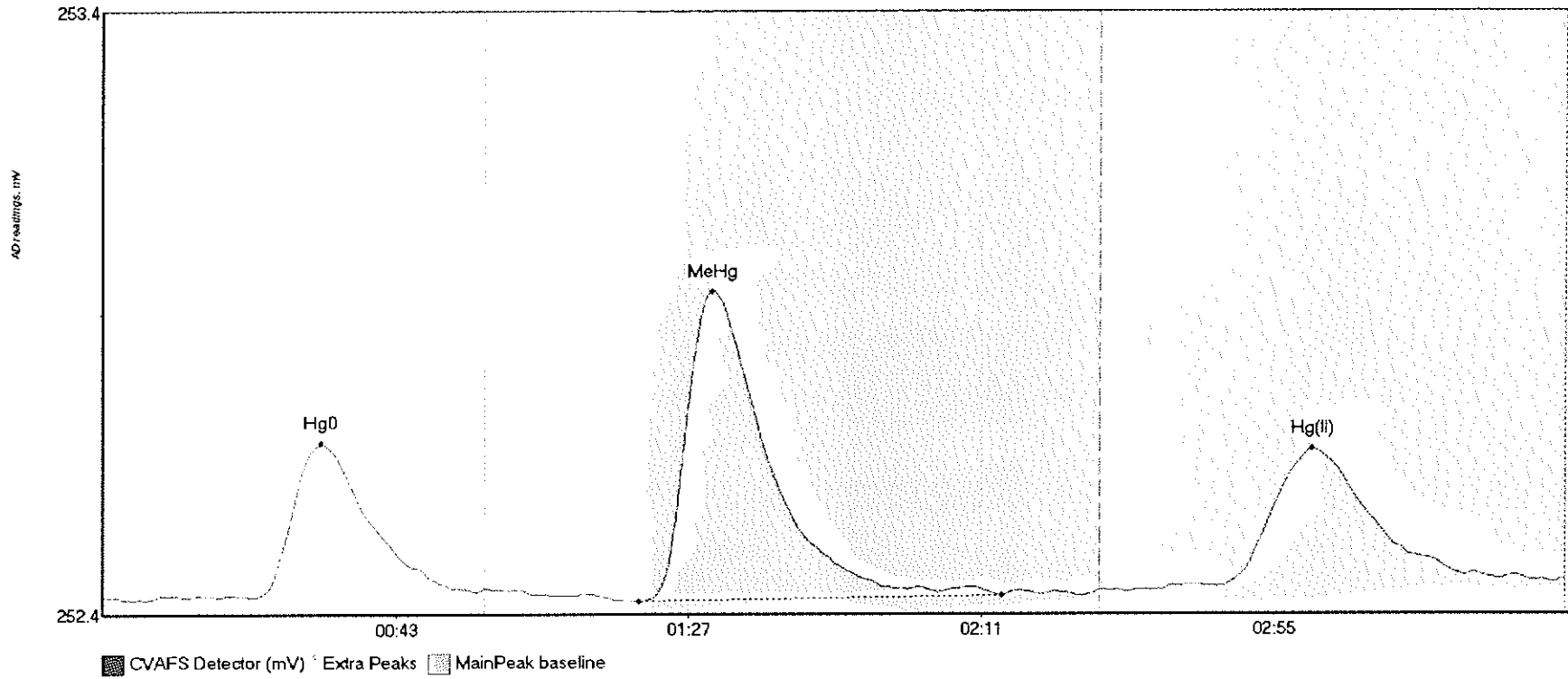
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
SEQ-CCV2 Hg0	1027.144	20.4	57.5	252.43	252.79	32.9	8.708	CT	252.4348	0.00	0.07	
SEQ-CCV2 MeHg	187.531	81.9	122.1	252.53	252.53	91.7	1.427	OK	252.4348	0.00	0.07	
SEQ-CCV2 Hg(II)	128.790	164.5	219.8	252.49	252.50	181.6	0.724	CT	252.4348	0.00	0.07	

#34: SEQ-CCB2



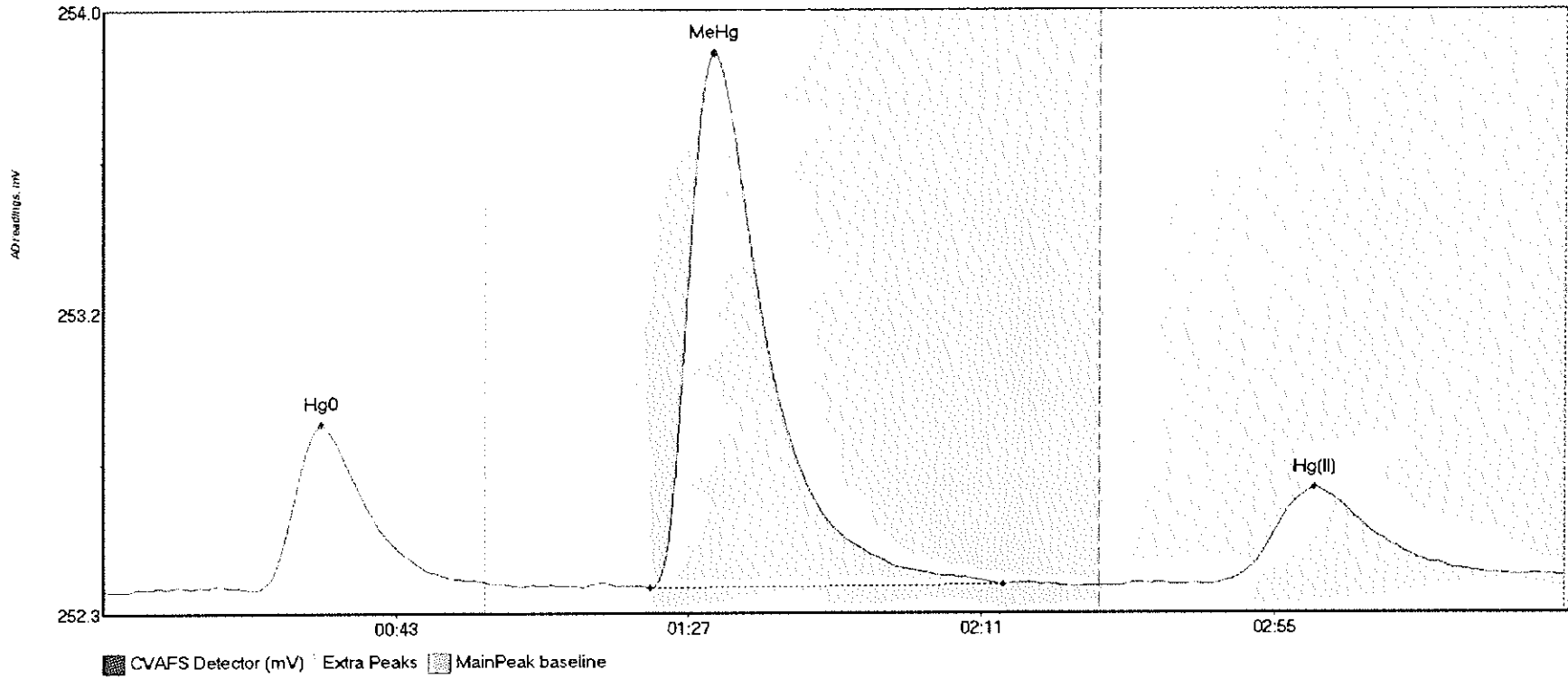
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
SEQ-CCB2 Hg0	20.625	18.6	57.5	252.40	252.42	32.2	0.166	CT	252.3968	0.00	0.02	
SEQ-CCB2 MeHg	1.635	86.5	105.4	252.41	252.41	90.1	0.018	OK	252.3968	0.00	0.02	
SEQ-CCB2 Hg(II)	40.360	167.2	219.8	252.41	252.42	181.5	0.235	CT	252.3968	0.00	0.02	

#35: 1607380-07



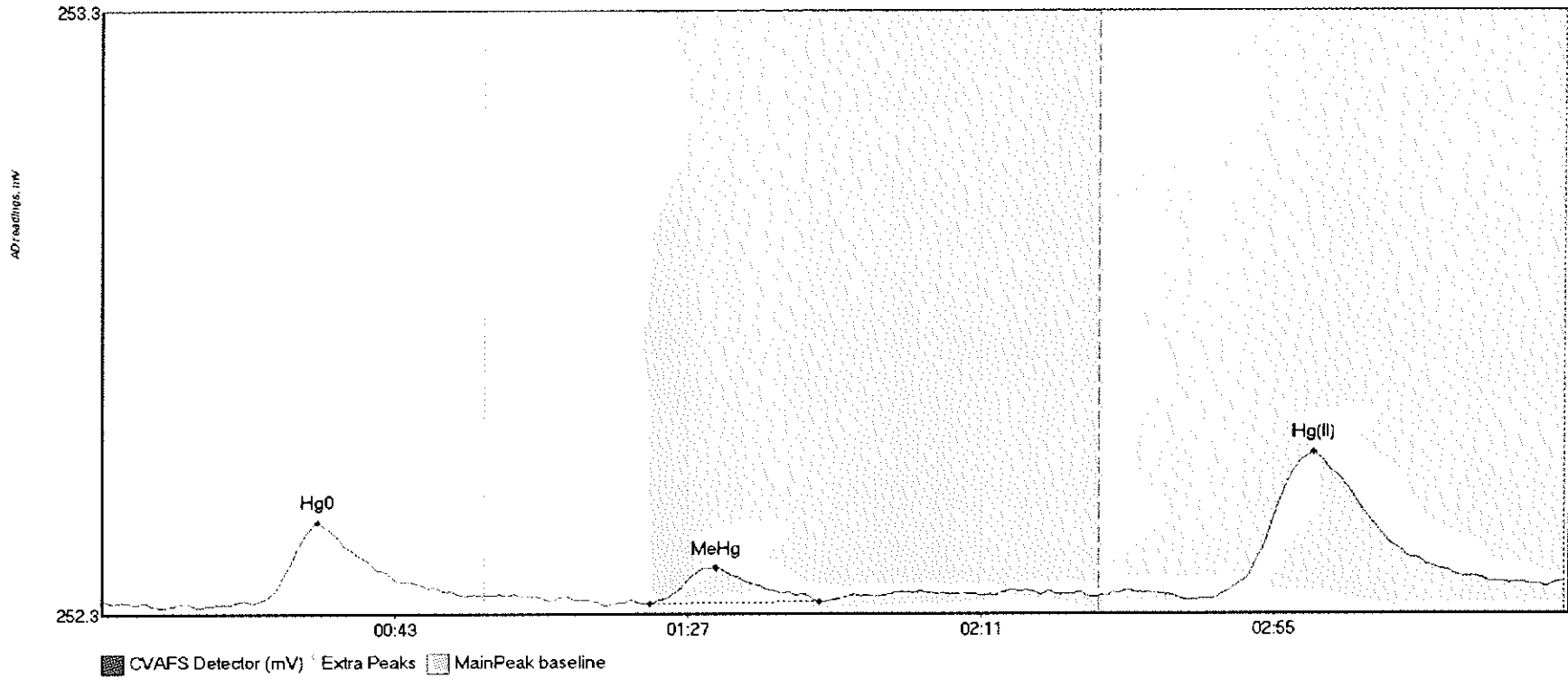
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1607380-07 Hg0	32.677	22.7	56.0	252.38	252.39	32.7	0.256	OK	252.3864	0.00	0.03	
1607380-07 MeHg	72.113	80.6	135.1	252.38	252.39	91.6	0.516	OK	252.3864	0.00	0.03	
1607380-07 Hg(I)	39.890	159.2	217.8	252.40	252.41	181.8	0.233	OK	252.3864	0.00	0.03	

#36: 1607380-09



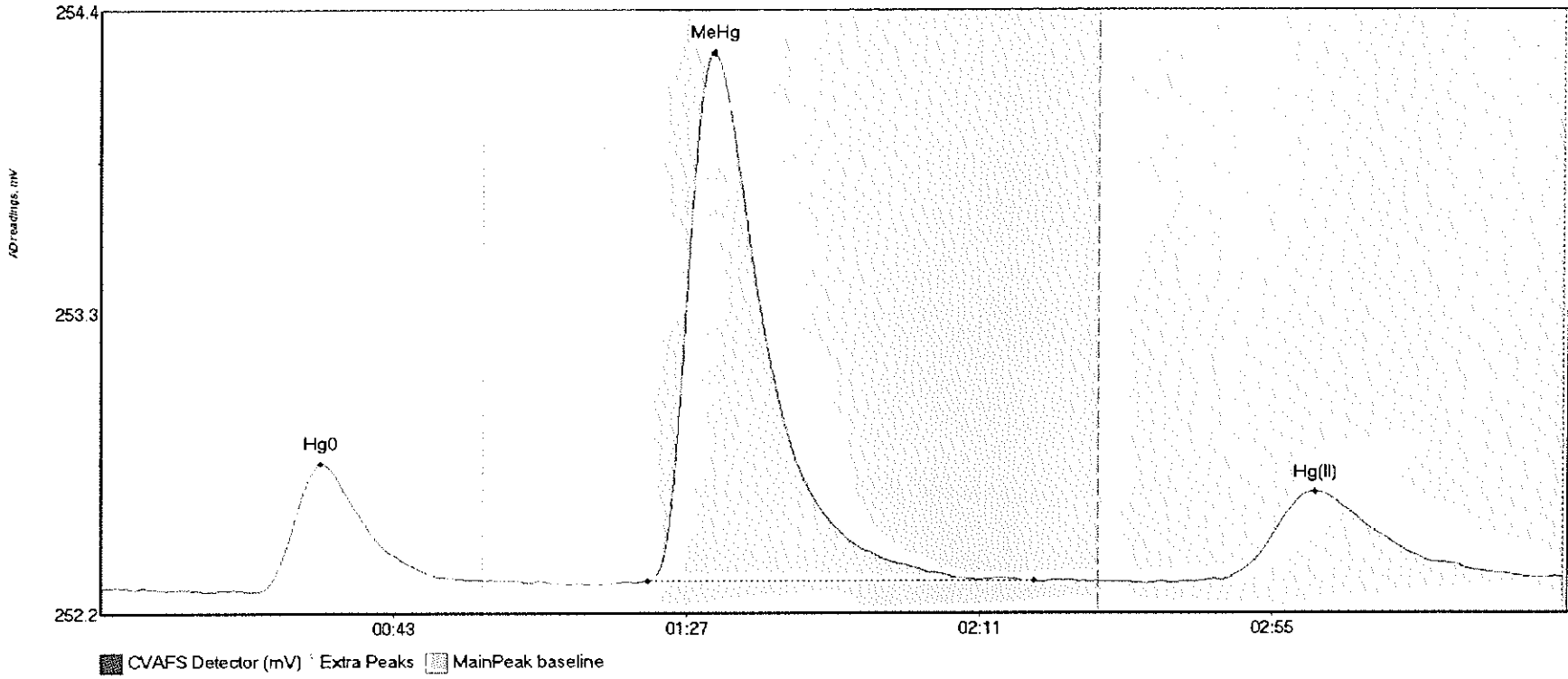
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1607380-09 Hg0	57.368	22.8	57.5	252.35	252.38	32.8	0.482	CT	252.3508	0.00	0.04	
1607380-09 MeHg	212.256	82.3	135.3	252.36	252.37	91.8	1.560	OK	252.3508	0.00	0.04	
1607380-09 Hg(II)	48.553	166.5	219.8	252.37	252.39	182.0	0.281	CT	252.3508	0.00	0.04	

#37: 1607380-11



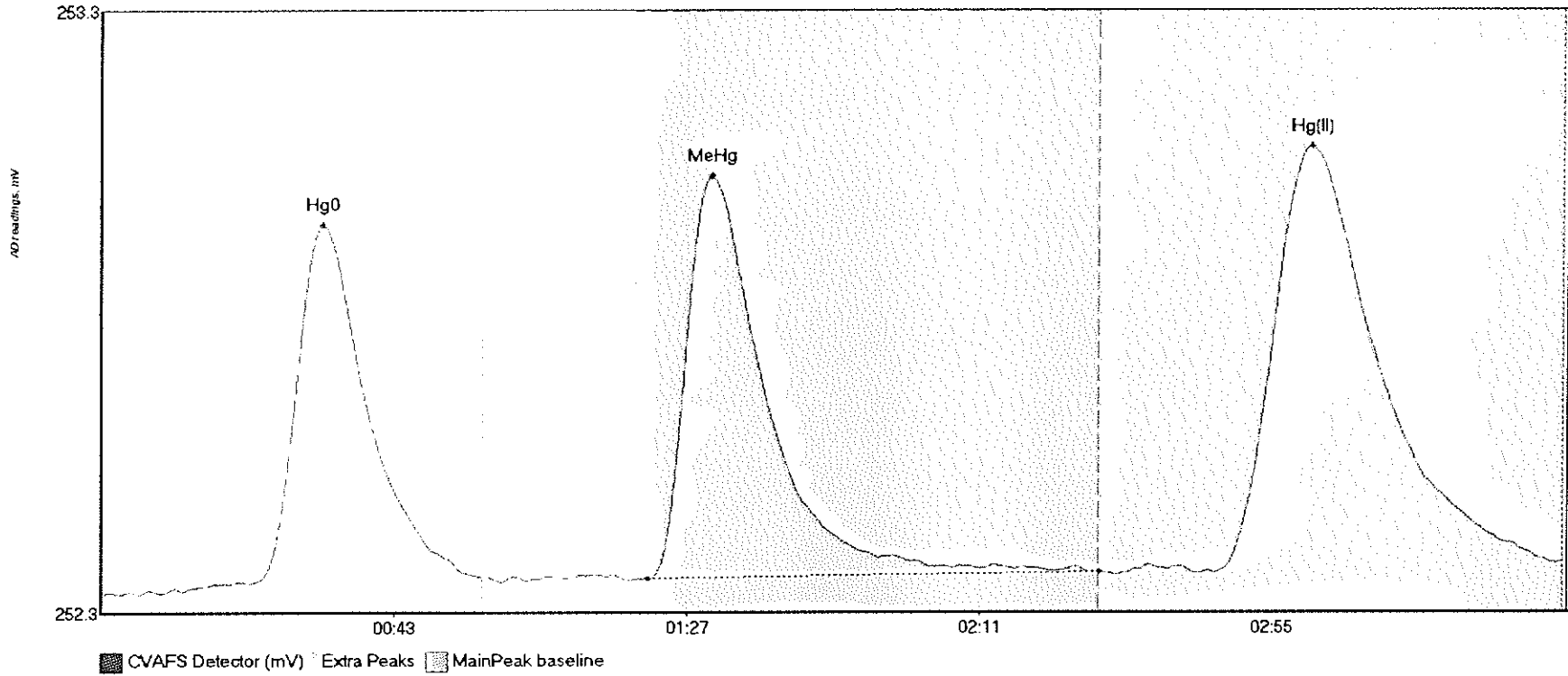
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1607380-11 Hg0	16.466	22.7	57.0	252.34	252.35	32.4	0.133	OK	252.3390	0.00	0.03	
1607380-11 MeHg	7.321	82.3	107.8	252.33	252.34	92.3	0.062	OK	252.3390	0.00	0.03	
1607380-11 Hg(I	41.119	166.7	217.1	252.34	252.36	182.1	0.241	OK	252.3390	0.00	0.03	

#38: 1607380-13



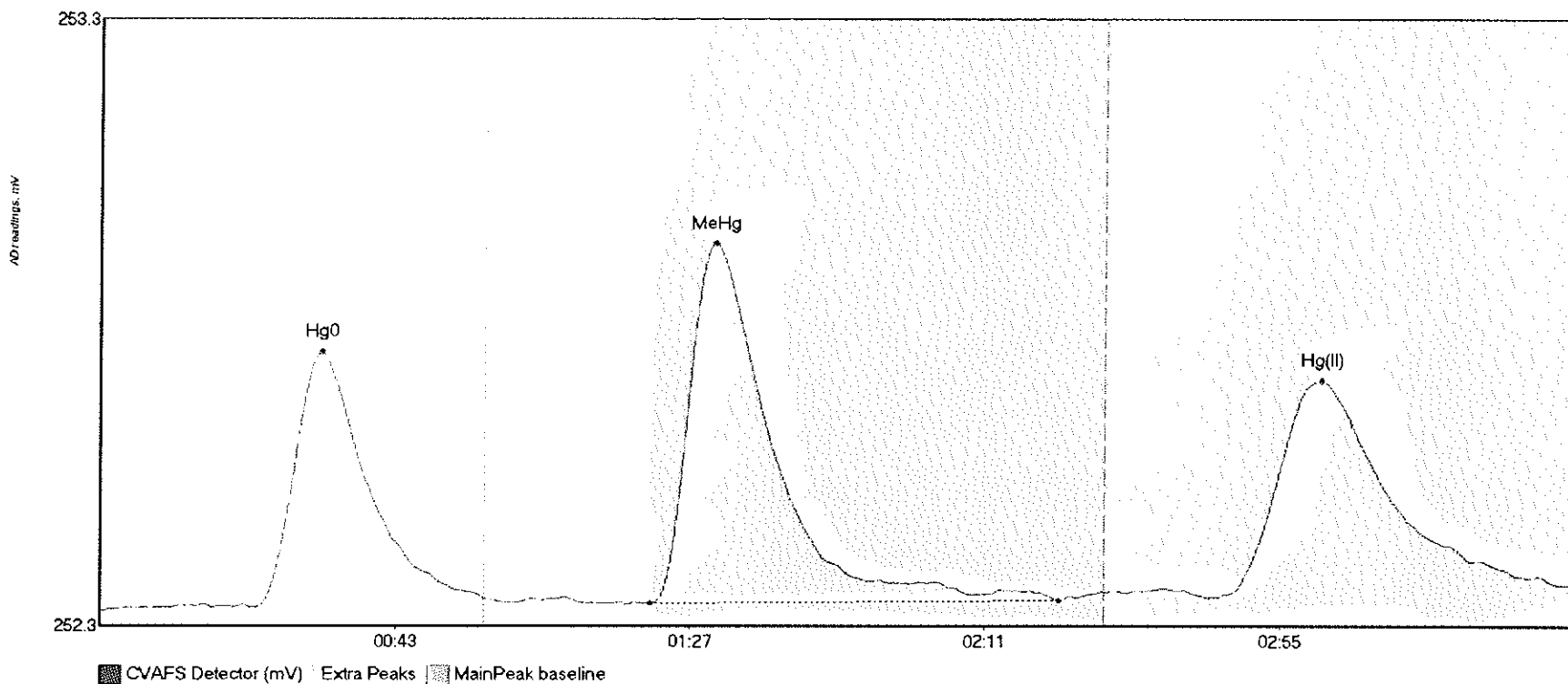
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1607380-13 Hg0	54.089	23.9	57.5	252.32	252.36	33.2	0.463	CT	252.3290	0.00	0.04	
1607380-13 MeHg	260.697	82.2	140.2	252.35	252.35	92.1	1.916	OK	252.3290	0.00	0.04	
1607380-13 Hg(I	60.132	164.6	216.5	252.35	252.36	182.4	0.326	OK	252.3290	0.00	0.04	

#39: 1607586-01



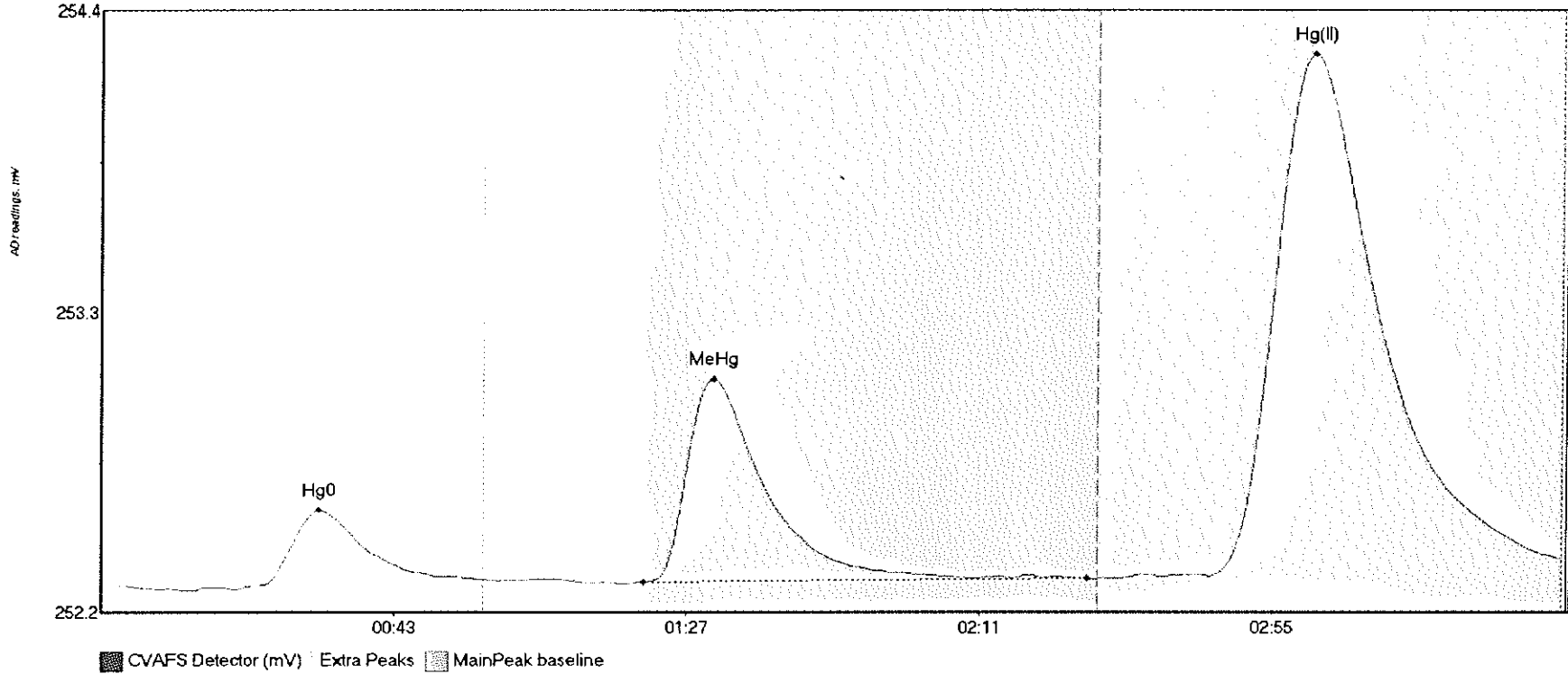
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1607586-01 Hg0	74.706	12.2	57.5	252.31	252.34	33.1	0.608	CT	252.3109	0.00	0.05	
1607586-01 MeHg	93.240	82.2	150.0	252.33	252.35	91.7	0.669	CT	252.3109	0.00	0.05	
1607586-01 Hg(I)	128.523	167.3	218.8	252.35	252.36	182.0	0.708	OK	252.3109	0.00	0.05	

#40: 1607586-02



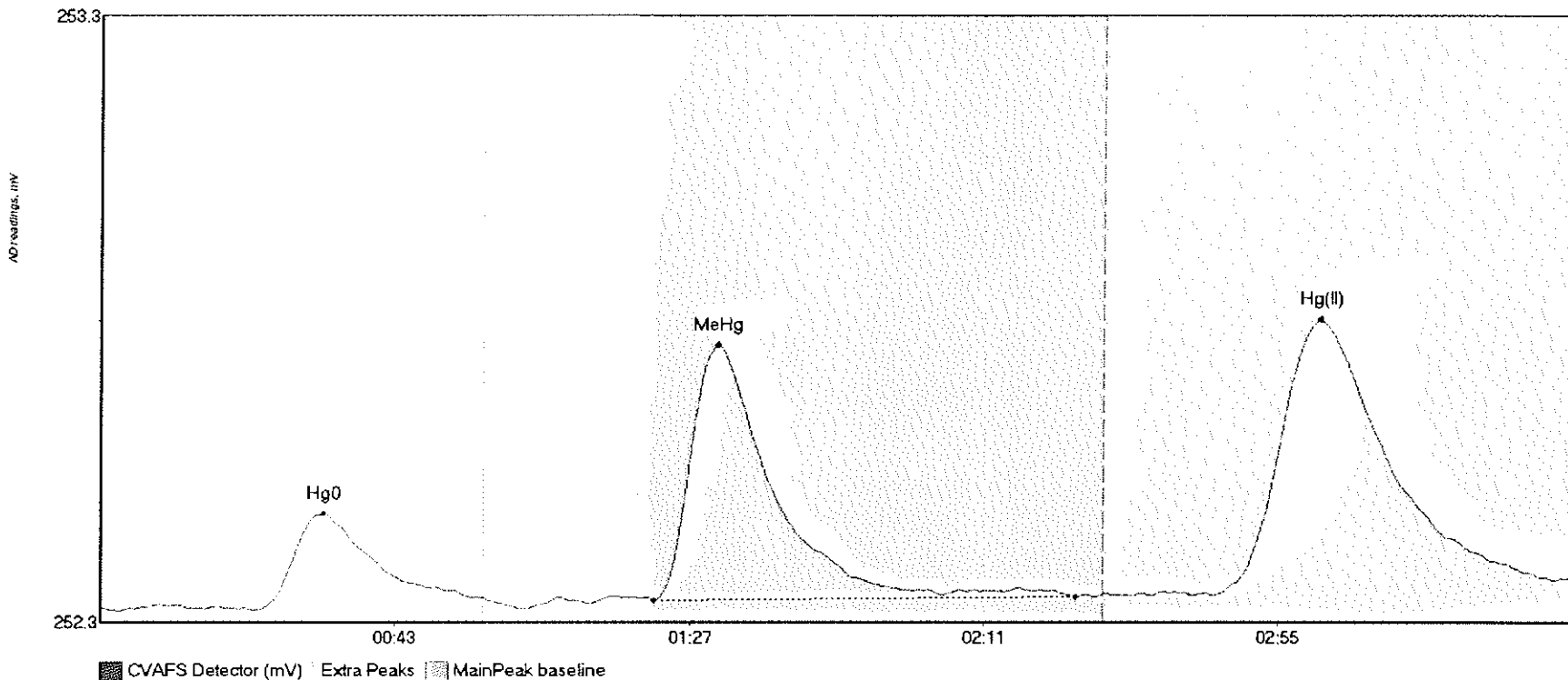
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BiDev	BiShift	Comment
1607586-02 Hg0	51.054	2.3	57.5	252.31	252.33	33.0	0.424	CT	252.3123	0.00	0.04	
1607586-02 MeHg	83.727	82.2	143.2	252.33	252.33	91.7	0.594	OK	252.3123	0.00	0.04	
1607586-02 Hg(I	64.629	168.0	217.9	252.34	252.35	182.2	0.353	OK	252.3123	0.00	0.04	

#41: 1607586-03



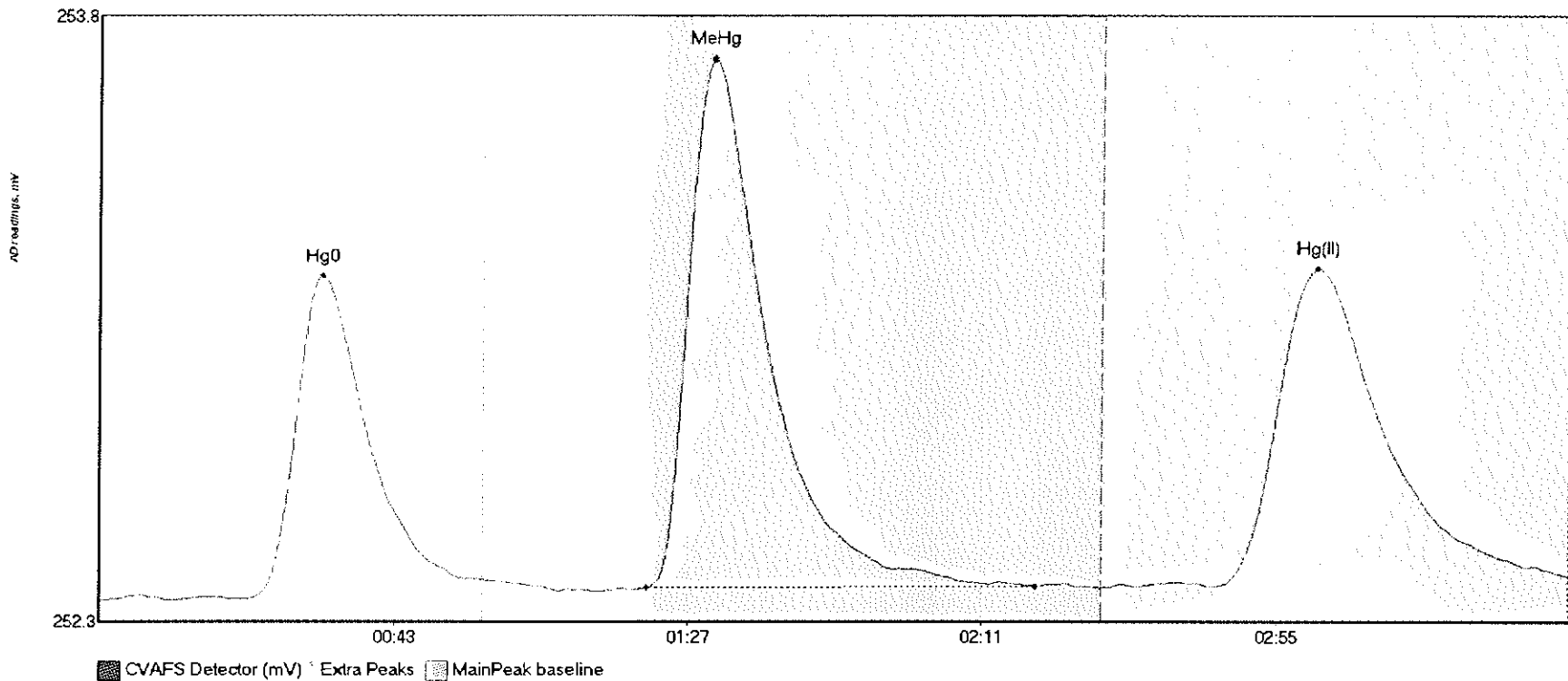
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1607586-03 Hg0	34.387	20.1	57.5	252.30	252.34	32.8	0.289	CT	252.3139	0.00	0.10	
1607586-03 MeHg	102.348	81.6	148.3	252.33	252.34	92.1	0.742	OK	252.3139	0.00	0.10	
1607586-03 Hg(I	338.468	159.5	219.7	252.35	252.42	182.3	1.904	OK	252.3139	0.00	0.10	

#42: 1607586-04



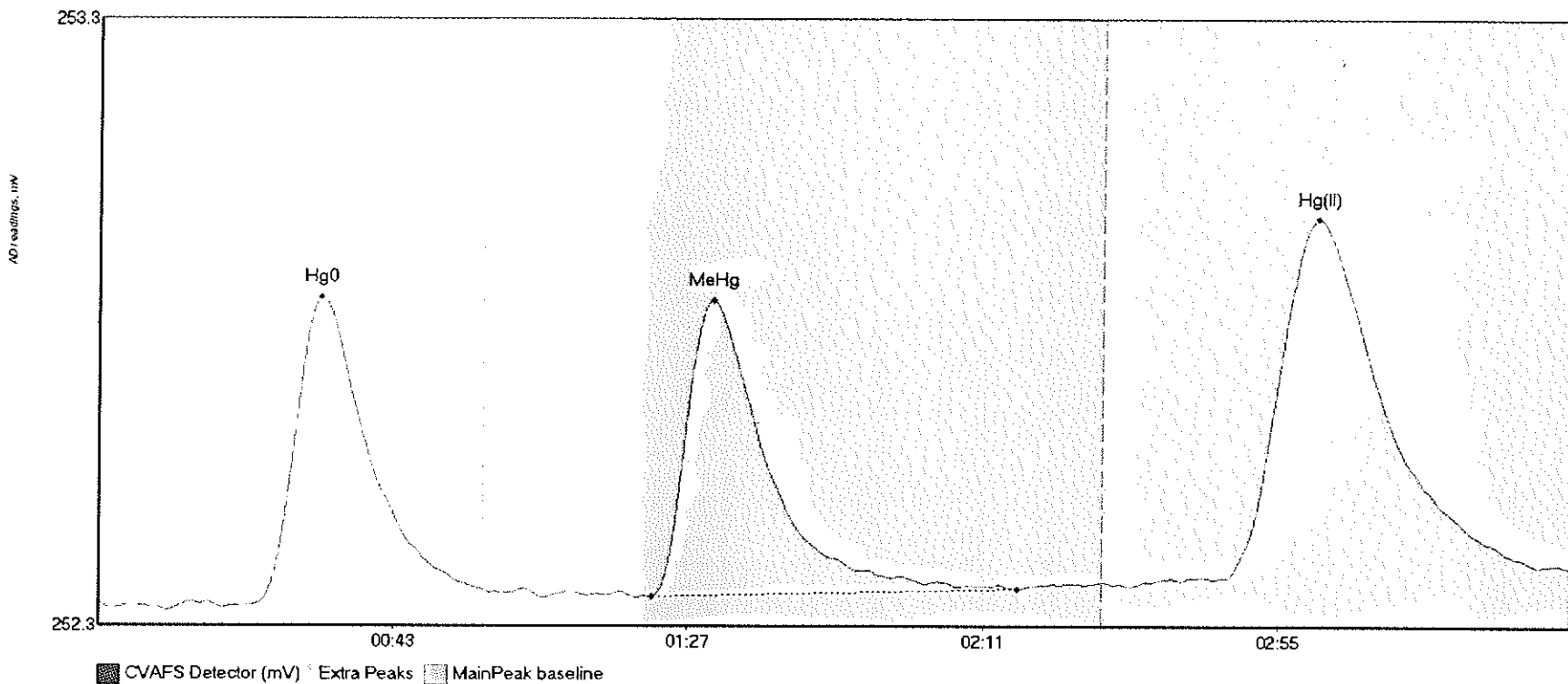
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1607586-04 Hg0	20.275	23.7	57.5	252.32	252.33	33.4	0.158	CT	252.3179	0.00	0.05	
1607586-04 MeHg	60.406	82.7	145.8	252.33	252.34	92.2	0.421	OK	252.3179	0.00	0.05	
1607586-04 Hg(I)	81.561	166.4	217.3	252.34	252.36	182.3	0.454	OK	252.3179	0.00	0.05	

#43: 1607586-05



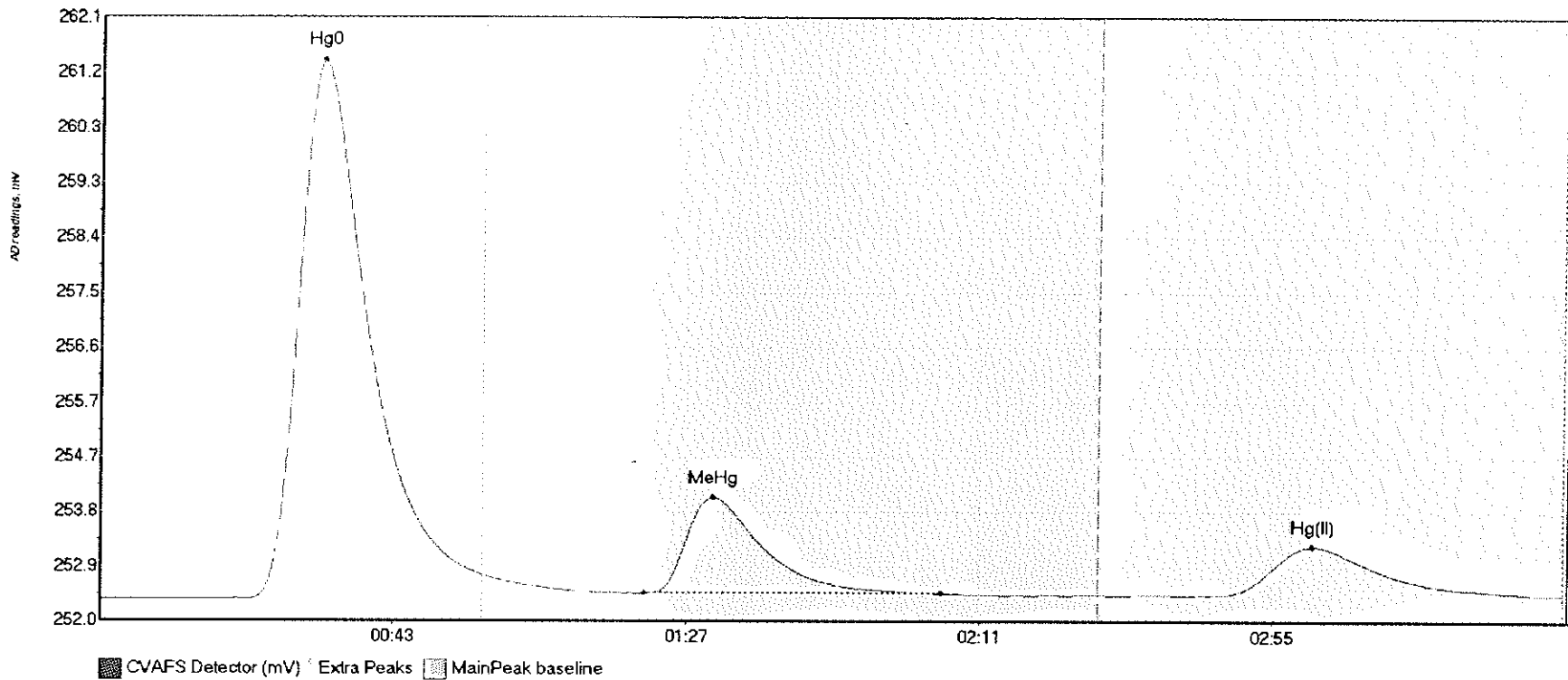
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1607586-05 Hg0	92.944	22.0	57.5	252.34	252.39	33.1	0.788	CT	252.3418	0.00	0.06	
1607586-05 MeHg	175.427	81.9	140.0	252.37	252.37	91.8	1.288	OK	252.3418	0.00	0.06	
1607586-05 Hg(I	139.469	167.1	219.6	252.37	252.40	182.1	0.775	OK	252.3418	0.00	0.06	

#44: 1607586-06



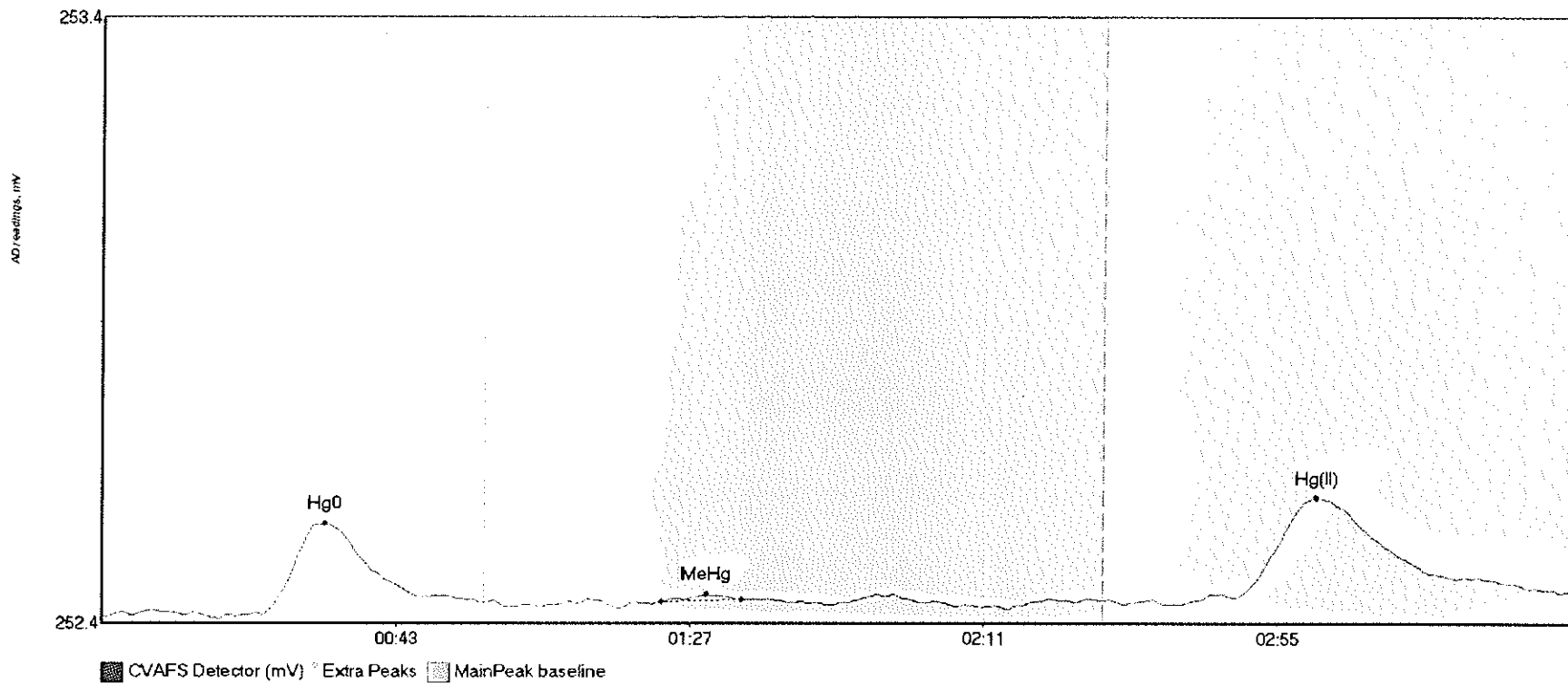
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1607586-06 Hg0	61.824	22.6	57.5	252.35	252.38	33.2	0.508	CT	252.3521	0.00	0.06	
1607586-06 MeHg	67.176	82.7	137.2	252.37	252.38	91.7	0.499	OK	252.3521	0.00	0.06	
1607586-06 Hg(I	104.738	161.5	219.8	252.39	252.41	181.8	0.597	CT	252.3521	0.00	0.06	

#45: SEQ-CCV3



Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BiDev	BiShift	Comment
SEQ-CCV3 Hg0	1048.573	16.3	57.5	252.35	252.76	33.4	9.028	CT	252.3531	0.00	0.06	
SEQ-CCV3 MeHg	212.776	81.7	126.3	252.46	252.45	92.0	1.608	OK	252.3531	0.00	0.08	
SEQ-CCV3 Hg(II)	147.221	167.7	219.8	252.43	252.43	182.1	0.819	CT	252.3531	0.00	0.08	

#46: SEQ-CCB3



Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
SEQ-CCB3 Hg0	18.687	23.9	57.0	252.38	252.39	33.3	0.150	OK	252.3713	0.00	0.04	
SEQ-CCB3 MeHg	0.732	83.8	95.7	252.40	252.40	90.4	0.013	OK	252.3713	0.00	0.04	
SEQ-CCB3 Hg(I)	30.784	169.5	218.4	252.40	252.41	181.8	0.166	OK	252.3713	0.00	0.04	

Peer Review Check List for MHg for CV-GC-AFS (FGS-070) 2015 Rev 5 (08/06/2015)

Analyst: JEANNE HARREL	Sequence #: 6H03012
Reviewer: <i>[Signature]</i> 8/4/16	Dataset ID #: MMHg27001-160803-1 WATERS
Date: 8/4/16	WO #: XXXXXXXXXX
Batch #(s): F608139	Client(s): XXXXXXXXXX

• Select the correct preparation method.

Additional Comments:

Analyte	Prep Method	Matrix
<input checked="" type="checkbox"/> MHg	FGS-013 MHg Distillation	Water
<input type="checkbox"/> MHg	FGS-010 KOH/MeOH Digest	Tissue
<input type="checkbox"/> MHg	FGS-045 MeCl Extraction	Sed/Soil
<input type="checkbox"/> DMHg	FGS-098 (None Accredited method)	ALL

Analyst Initials: *JH*

Reviewer Initials: *BC*

- | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
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| <ol style="list-style-type: none"> 1. Compare Sample ID with Bench sheet/Sequence/Raw Data (Have all samples been imported?) 2. Check for transcription errors from Excel spreadsheet (or Prep Bench sheet)/Raw data <ul style="list-style-type: none"> (a) Reviewer: 100% of peak heights checked (b) Are there peak height errors? (c) Error on a sample: Do peak heights, responses, & initial results match corrected data? (d) Error on a Cal Pt, ICB/CCB, or PB: Has the data been reimported? (e) Check standards & reagents in sequence & bench sheet for correct usage (i.e. expiries). (f) Check and compare masses (review prep bench sheet) (g) Check and compare initial and final volumes (h) Do aliquots and dilutions written on benchsheet match those in Excel? (i) Is the pH>3.0 for all distilled samples? _____ (j) Is the sequence #, analyst, date, and instrument # on the QC page? (k) Is the analysis status correct? (analyzed/initial review/reviewed) (l) Original prep bench sheet added to data package? (m) Benchsheet prep date MUST match actual prep date (check if re-shot vs re-extract) 3. High QA? WO#(s)/Client(s): _____ 4. Client specific QC? (if Yes, refer to Project Notes/LIMS) <ul style="list-style-type: none"> (a) Have the QC requirements been met for all WO#s? 5. 20 or fewer samples in batch? _____ <ul style="list-style-type: none"> (a) 3 PBs, 1 LCS/LCSD (or BS/BSD), 2 MS/MSD/MD per batch? (b) 1 CCV and 1 CCB every 10 analytical runs? _____ <p>QA/QC Data Checked</p> <ol style="list-style-type: none"> 6. The calibration curve included a minimum of 5 Standards
Comments: _____ 7. 1st Calibration Standard % Recoveries (65-135%)
Comments: _____ 8. RSD CF (≤ 15%)
Comments: _____ | <table border="0" style="width:100%;"> <tr> <td><input checked="" type="checkbox"/> YES</td> <td><input type="checkbox"/> NO</td> <td><input checked="" type="checkbox"/></td> </tr> <tr> <td><input checked="" type="checkbox"/> YES</td> <td><input type="checkbox"/> NO</td> <td><input checked="" type="checkbox"/></td> </tr> <tr> <td><input checked="" type="checkbox"/> YES</td> <td><input type="checkbox"/> NO</td> <td><input checked="" type="checkbox"/></td> </tr> <tr> <td><input type="checkbox"/> YES</td> <td><input checked="" type="checkbox"/> NO</td> <td><input checked="" type="checkbox"/> N/A</td> </tr> <tr> <td><input type="checkbox"/> YES</td> <td><input type="checkbox"/> NO</td> <td><input checked="" type="checkbox"/> N/A</td> </tr> <tr> <td><input checked="" type="checkbox"/> YES</td> <td><input type="checkbox"/> NO</td> <td><input type="checkbox"/> N/A</td> </tr> <tr> <td><input checked="" type="checkbox"/> YES</td> <td><input type="checkbox"/> NO</td> <td><input type="checkbox"/> N/A</td> </tr> <tr> <td><input checked="" type="checkbox"/> YES</td> <td><input type="checkbox"/> NO</td> <td><input type="checkbox"/> N/A</td> </tr> <tr> <td><input checked="" type="checkbox"/> YES</td> <td><input type="checkbox"/> NO</td> <td><input type="checkbox"/> N/A</td> </tr> <tr> <td><input type="checkbox"/> YES</td> <td><input checked="" type="checkbox"/> NO</td> <td><input checked="" type="checkbox"/></td> </tr> <tr> <td><input checked="" type="checkbox"/> YES</td> <td><input type="checkbox"/> NO</td> <td><input checked="" type="checkbox"/></td> </tr> <tr> <td><input checked="" type="checkbox"/> YES</td> <td><input type="checkbox"/> NO</td> <td><input checked="" type="checkbox"/></td> </tr> <tr> <td><input checked="" type="checkbox"/> YES</td> <td><input type="checkbox"/> NO</td> <td><input checked="" type="checkbox"/></td> </tr> <tr> <td><input checked="" type="checkbox"/> PASS</td> <td><input type="checkbox"/> FAIL</td> <td><input type="checkbox"/> N/A</td> </tr> <tr> <td><input checked="" type="checkbox"/> PASS</td> <td><input type="checkbox"/> FAIL</td> <td><input type="checkbox"/> N/A</td> </tr> <tr> <td><input checked="" type="checkbox"/> PASS</td> <td><input type="checkbox"/> FAIL</td> <td><input checked="" type="checkbox"/></td> </tr> </table> | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> | <input type="checkbox"/> YES | <input checked="" type="checkbox"/> NO | <input checked="" type="checkbox"/> N/A | <input type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> N/A | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input type="checkbox"/> N/A | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input type="checkbox"/> N/A | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input type="checkbox"/> N/A | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input type="checkbox"/> N/A | <input type="checkbox"/> YES | <input checked="" type="checkbox"/> NO | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> PASS | <input type="checkbox"/> FAIL | <input type="checkbox"/> N/A | <input checked="" type="checkbox"/> PASS | <input type="checkbox"/> FAIL | <input type="checkbox"/> N/A | <input checked="" type="checkbox"/> PASS | <input type="checkbox"/> FAIL | <input checked="" type="checkbox"/> |
| <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <input type="checkbox"/> YES | <input checked="" type="checkbox"/> NO | <input checked="" type="checkbox"/> N/A | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <input type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> N/A | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input type="checkbox"/> N/A | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input type="checkbox"/> N/A | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input type="checkbox"/> N/A | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input type="checkbox"/> N/A | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <input type="checkbox"/> YES | <input checked="" type="checkbox"/> NO | <input checked="" type="checkbox"/> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <input checked="" type="checkbox"/> PASS | <input type="checkbox"/> FAIL | <input type="checkbox"/> N/A | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <input checked="" type="checkbox"/> PASS | <input type="checkbox"/> FAIL | <input type="checkbox"/> N/A | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <input checked="" type="checkbox"/> PASS | <input type="checkbox"/> FAIL | <input checked="" type="checkbox"/> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

Peer Review Check List for MHg for CV-GC-AFS (FGS-070) 2013 Rev 4 (08/22/2013)

Analyst: JEANNE HARREL	Sequence #: 6H03012
Reviewer: 0 <i>BC</i> 8/14/16	Dataset ID #: MMHg27001-160803-1 WATERS
Date: 8/4/2016	WO #: [REDACTED]
Batch #(s): F608139	Client(s): [REDACTED]

Analyst Initials: *JH*

Reviewer Initials: *BC*

- | | | | |
|--|--|--|---|
| 9. ICV % Recoveries 67-133% | <input checked="" type="checkbox"/> PASS | <input type="checkbox"/> FAIL | <input checked="" type="checkbox"/> |
| Comments: _____ | | | |
| 10. CCV % Recoveries 67-133% | <input checked="" type="checkbox"/> PASS | <input type="checkbox"/> FAIL | <input checked="" type="checkbox"/> |
| Comments: _____ | | | |
| 11. Are the absolute value of the ICB and CCBs < PQL? | <input checked="" type="checkbox"/> PASS | <input type="checkbox"/> FAIL | <input checked="" type="checkbox"/> |
| Comments: _____ | | | |
| 12. LCS/LCSD/CRM/BS/BSD % Recoveries (70-130%) | <input type="checkbox"/> PASS | <input checked="" type="checkbox"/> FAIL | <input checked="" type="checkbox"/> |
| Comments: <i>BS1/BSD1 failed high. QM-12 all reportable samples below reporting limit</i> | | | |
| 13. LCS/LCSD or BS/BSD RPD (< 25%) | <input checked="" type="checkbox"/> PASS | <input type="checkbox"/> FAIL | <input checked="" type="checkbox"/> |
| Comments: _____ | | | |
| 14. Water: Average of Preparation Blanks < 0.045 ng/L and standard deviation of 0.015 ng/L? | <input checked="" type="checkbox"/> PASS | <input type="checkbox"/> FAIL | <input type="checkbox"/> N/A <input checked="" type="checkbox"/> |
| Comments: _____ | | | |
| 15. Sediment/Tissue: Individually, are the Preparation Blanks < PQL for the matrix? | <input type="checkbox"/> PASS | <input type="checkbox"/> FAIL | <input checked="" type="checkbox"/> N/A <input checked="" type="checkbox"/> |
| Comments: _____ | <input type="checkbox"/> PASS | <input type="checkbox"/> FAIL | <input checked="" type="checkbox"/> |
| 16. Have Total Solids been applied? (If NO, please ensure that they are done or nearly done) | <input type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> N/A <input checked="" type="checkbox"/> |
| 17. Is the correct 'Source' designated for MD/MS/MSD? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> |
| 18. For digested preps: was there a spike witness signature & date on the prep bench sheet? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input type="checkbox"/> N/A <input checked="" type="checkbox"/> |
| 19. MD RPD/MT RSD(< 35%) | <input checked="" type="checkbox"/> PASS | <input type="checkbox"/> FAIL | <input checked="" type="checkbox"/> |
| Comments: _____ | | | |
| 20. Is there one set of MS/MSD per every 10 samples? | <input checked="" type="checkbox"/> PASS | <input type="checkbox"/> FAIL | <input checked="" type="checkbox"/> |
| Comments: _____ | | | |
| 21. MS/MSD RPD(< 35%) | <input checked="" type="checkbox"/> PASS | <input type="checkbox"/> FAIL | <input checked="" type="checkbox"/> |
| Comments: _____ | | | |
| 22. MS (AS) % Recoveries (65-130%) | <input type="checkbox"/> PASS | <input checked="" type="checkbox"/> FAIL | <input checked="" type="checkbox"/> |
| Comments: <i>MS2 failed high QM-07</i> | | | |
| 23. MSD (ASD) % Recoveries (65-130%) | <input type="checkbox"/> PASS | <input checked="" type="checkbox"/> FAIL | <input checked="" type="checkbox"/> |
| Comments: <i>MSD1 failed low, MSD2 failed high. QM-07</i> | | | |
| 24. Spiked 1-5X ambient or 1-5X PQL (whichever is higher) (from EPA 1630) | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> |
| 25. Are all samples within instrument calibration range (or at maximum aliquot size)? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> |
| Comments: _____ | | | |
| 26. For instrumental dilutions, is the dilution factor in excel correct? | <input checked="" type="checkbox"/> PASS | <input type="checkbox"/> NO | <input type="checkbox"/> N/A <input checked="" type="checkbox"/> |
| Is the sample volume, diluents, and final volume of the dilution noted on benchsheet? | <input checked="" type="checkbox"/> PASS | <input type="checkbox"/> NO | <input type="checkbox"/> N/A <input checked="" type="checkbox"/> |
| 27. Dissolved < Total metals (if applicable) | <input checked="" type="checkbox"/> PASS | <input type="checkbox"/> NO | <input type="checkbox"/> N/A <input checked="" type="checkbox"/> |
| Comments: _____ | | | |
| 28. Effluent < Influent metals (visually confirm if needed) | <input type="checkbox"/> PASS | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> N/A <input checked="" type="checkbox"/> |
| Comments: _____ | | | |

Peer Review Check List for MHg for CV-GC-AFS (FGS-070) 2013 Rev 4 (08/22/2013)

Analyst: JEANNE HARREL	Sequence #: 6H03012
Reviewer: D <i>[Signature]</i> 8/4/16	Dataset ID #: MMHg27001-160803-1 WATERS
Date: 8/4/2016	WO #: [REDACTED]
Batch #(s): F608139	Client(s): [REDACTED]

Analyst Initials: JH

Reviewer Initials: BC

- | | | | | |
|--|---|--|---|-------------------------------------|
| 29. Are re-runs noted with reason?
Comments: _____ | <input type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> N/A | <input checked="" type="checkbox"/> |
| 30. For failing QC (CCV, CCB, PB, BS/BSD, CAL):
Was a bubbler and trap test run before the analytical run continued?
Comments: _____ | <input type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> N/A | <input checked="" type="checkbox"/> |
| 31. Do re-run results compare to initial analysis (< 35% RPD)?
Comments: _____ | <input type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> N/A | <input checked="" type="checkbox"/> |
| 32. Are qualifiers consistent with the data review flowcharts?
Comments: _____ | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input type="checkbox"/> N/A | <input checked="" type="checkbox"/> |
| 33. Have non-reportable samples been imported into LIMS and clicked to non-reportable?
Comments: _____ | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input type="checkbox"/> N/A | <input checked="" type="checkbox"/> |
| 34. Have re-extracts been created for non-reportable samples? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input type="checkbox"/> N/A | <input checked="" type="checkbox"/> |
| 35. Narrations in MMO box in LIMS?
Comments: _____ | | | | |
| 36. Are there any HIGH QA projects within the data?
If so, place dataset to the QA office. | <input type="checkbox"/> YES | <input checked="" type="checkbox"/> NO | | |
| 37. Does the data set need scanning?
<u>Files located at: \\Cuprum\gen_admin\Quality Assurance\Training Master\DOCs</u> | <input checked="" type="checkbox"/> YES | | <input type="checkbox"/> N/A | <input checked="" type="checkbox"/> |
| 38. Date of analyst IDOC/CDOC: <u>1/15/2016</u> IDOC/CDOC within last 12 months? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | | <input checked="" type="checkbox"/> |
| 39. Date of analyst's SOP reading: <u>6/4/16 JP 8/4/16</u> Current SOP revision? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | | <input checked="" type="checkbox"/> |
| 40. Date of LOD: <u>7/7/2016</u> LOD within last 3 months (within 12 months for MDN)? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input type="checkbox"/> N/A | <input checked="" type="checkbox"/> |
| 41. Date of LOQ: <u>7/7/2016</u> LOQ within last 3 months (within 12 months for MDN)? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input type="checkbox"/> N/A | <input checked="" type="checkbox"/> |
| 42. If MDN samples, date of last MDL study: _____ | | | | |
| 43. MDL study within last 12 months?
Data can not be reported without a current IDOC/CDOC, LOD or LOQ. | <input type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> N/A | <input checked="" type="checkbox"/> |
| Additional Comments: _____ | <input type="checkbox"/> YES | <input checked="" type="checkbox"/> NO | | <input checked="" type="checkbox"/> |



Frontier Global Sciences

MMHg27001-160805-1 WATERS

Analysis Datasheet for Methyl Mercury in Waters

Date of Analysis: August 05, 2016

Instrument #: Hg2700-1

LIMS Sequence #: 6H08006

Analyst: DM2

Units ng/L

Calibration Statistics:

LabNumber	n	True Val	Area	Uncorrected Response Factor	Corrected Peak Height	Corrected Response Factor	% Recovery
SEQ-CAL1	1	0.05 ng/L	20.70 units	413.93	19.89 units	397.74	98.8 %Rec
SEQ-CAL2	1	0.20 ng/L	78.45 units	392.27	77.64 units	388.22	96.4 %Rec
SEQ-CAL3	1	1.00 ng/L	456.93 units	456.93	456.12 units	456.12	113.3 %Rec
SEQ-CAL4	1	2.00 ng/L	801.88 units	400.94	801.07 units	400.53	99.5 %Rec
SEQ-CAL5	1	4.00 ng/L	1483.68 units	370.92	1482.87 units	370.72	92.1 %Rec
SEQ-CAL6	0						
SEQ-CAL7	0						
SEQ-CAL8	0						
SEQ-CAL9	0						

Corr. Mean RF **Corr. St Dev RF** **Corr. RSD CF** **Uncorr. Mean RF** **Eff Factor**
 402.66 +/- 32.08 8.0% RSD 407.00 **0.8046**

Blanks:

LabNumber	n	Mean	Std Dev	Mean (ng/L)	Std Dev (ng/L)
SEQ-IBL	1	0.81 units		0.00 ng/L	#VALUE!

MDN Only

SEQ-CAL1
 SEQ-CAL2
 SEQ-CAL3
 SEQ-CAL4
 SEQ-CAL5
 SEQ-CAL6 NA
 SEQ-CAL7 NA
 SEQ-CAL8 NA
 SEQ-CAL9 NA
 SEQ-ICV/CCV
 Acetate Buffer
 Ethylating Agent

Preparation Blanks

Sample Type	Batch ID	n	Mean	Std Dev
BLK	1	3	0.007 ng/L	±0.007
BLK	2	0	0.000 ng/L	
BLK	3	0	0.000 ng/L	
BLK	4	0	0.000 ng/L	
BLK	5	0	0.000 ng/L	

QUALITY ASSURANCE

PEER - REVIEWED

INITIALS: DMW 8-9-16

Instrument	Analyst	Sample Type	LabNumber	Dilution	Analyzed	FileID	Run End	Uncorrected Response	Batch ID	No PB Correction?	RESP	InitialResult	FinalResult	InitialUnits	Comments
Hg2700-1	DM2	CAL	SEQ-IBL1	1	8/5/16 7:59	13922-1.RAW	7:59:27	0.81			0.0	0.000	0.000	ng/L	
Hg2700-1	DM2	CAL	SEQ-CAL1	1	8/5/16 8:09	13923-1.RAW	8:09:57	20.70			19.9	0.049	0.049	ng/L	
Hg2700-1	DM2	CAL	SEQ-CAL2	1	8/5/16 8:20	13924-1.RAW	8:20:28	78.45			77.6	0.193	0.193	ng/L	
Hg2700-1	DM2	CAL	SEQ-CAL3	1	8/5/16 8:30	13925-1.RAW	8:30:58	456.93			456.1	1.133	1.133	ng/L	
Hg2700-1	DM2	CAL	SEQ-CAL4	1	8/5/16 8:41	13926-1.RAW	8:41:29	801.88			801.1	1.989	1.989	ng/L	
Hg2700-1	DM2	CAL	SEQ-CAL5	1	8/5/16 8:52	13927-1.RAW	8:52:00	1483.68			1482.9	3.683	3.683	ng/L	
Hg2700-1	DM2	CAL	SEQ-ICV1	1	8/5/16 9:02	13928-1.RAW	9:02:30	248.88			248.1	0.616	0.616	ng/L	
Hg2700-1	DM2	CAL	SEQ-ICB1	1	8/5/16 9:13	13929-1.RAW	9:13:01	6.87			6.1	0.015	0.015	ng/L	
Hg2700-1	DM2	BLK	F607432-BLK7	500	8/5/16 9:23	13930-1.RAW	9:23:32	4.05		x	3.2	0.010	5.002	ng/L	
Hg2700-1	DM2	BLK	F607432-BLK8	500	8/5/16 9:34	13931-1.RAW	9:34:03	2.24		x	1.4	0.004	2.202	ng/L	
Hg2700-1	DM2	BLK	F607432-BLK9	500	8/5/16 9:44	13932-1.RAW	9:44:33	2.60		x	1.8	0.006	2.769	ng/L	
Hg2700-1	DM2	SAM	*F607432-BLKA	500	8/5/16 9:55	13933-1.RAW	9:55:04	3.20		x	2.4	0.007	3.687	ng/L	
Hg2700-1	DM2	SAM	*F607432-BLKB	500	8/5/16 10:05	13934-1.RAW	10:05:35	1.09		x	0.3	0.001	0.431	ng/L	
Hg2700-1	DM2	SAM	*F607432-BLKC	500	8/5/16 10:16	13935-1.RAW	10:16:05	0		x	-0.8	-0.002	-1.250	ng/L	
Hg2700-1	DM2	SAM	F607432-BS2	2000	8/5/16 10:26	13936-1.RAW	10:26:36	1180.48		x	1179.7	3.641	7282.314	ng/L	
Hg2700-1	DM2	SAM	F607432-BSD2	2000	8/5/16 10:37	13937-1.RAW	10:37:07	1332.96		x	1332.1	4.112	8223.560	ng/L	
Hg2700-1	DM2	SAM	1607541-01RE1	500	8/5/16 10:47	13938-1.RAW	10:47:37	37.89		x	37.1	0.114	57.224	ng/L	
Hg2700-1	DM2	SAM	1607655-01RE1	2500	8/5/16 10:58	13939-1.RAW	10:58:08	138.64		x	137.8	0.425	1063.595	ng/L	
Hg2700-1	DM2	CAL	SEQ-CCV1	1	8/5/16 11:08	13940-1.RAW	11:08:39	263.52			262.7	0.652	0.652	ng/L	
Hg2700-1	DM2	CAL	SEQ-CCB1	1	8/5/16 11:19	13941-1.RAW	11:19:09	4.42			3.6	0.009	0.009	ng/L	
Hg2700-1	DM2	SAM	F607432-BS3	2000	8/5/16 11:29	13942-1.RAW	11:29:40	1059.23		x	1058.4	3.267	6533.797	ng/L	
Hg2700-1	DM2	SAM	F607432-BSD3	2000	8/5/16 11:40	13943-1.RAW	11:40:11	1093.34		x	1092.5	3.372	6744.330	ng/L	
Hg2700-1	DM2	SAM	1607655-02RE1	2500	8/5/16 11:50	13944-1.RAW	11:50:42	190.32		x	189.5	0.585	1462.308	ng/L	
Hg2700-1	DM2	SAM	1607655-03RE1	2500	8/5/16 12:01	13945-1.RAW	12:01:13	167.26		x	166.5	0.514	1284.419	ng/L	
Hg2700-1	DM2	SAM	1607655-04RE1	2500	8/5/16 12:11	13946-1.RAW	12:11:43	184.35		x	183.5	0.567	1416.272	ng/L	
Hg2700-1	DM2	SAM	1607655-05RE1	2500	8/5/16 12:22	13947-1.RAW	12:22:14	104.26		x	103.4	0.319	798.234	ng/L	
Hg2700-1	DM2	SAM	1607723-01RE1	2500	8/5/16 12:32	13948-1.RAW	12:32:45	319.48		x	318.7	0.984	2458.975	ng/L	
Hg2700-1	DM2	SAM	1607723-02RE1	2500	8/5/16 12:43	13949-1.RAW	12:43:15	389.16		x	388.4	1.199	2996.687	ng/L	
Hg2700-1	DM2	SAM	1607723-03RE1	2500	8/5/16 12:53	13950-1.RAW	12:53:46	709.79		x	709.0	2.188	5470.814	ng/L	
Hg2700-1	DM2	SAM	1607723-04RE1	2500	8/5/16 13:04	13951-1.RAW	13:04:17	820.50		x	819.7	2.530	6325.095	ng/L	
Hg2700-1	DM2	CAL	SEQ-CCV2	1	8/5/16 13:14	13952-1.RAW	13:14:47	235.57			234.8	0.583	0.583	ng/L	
Hg2700-1	DM2	CAL	SEQ-CCB2	1	8/5/16 13:25	13953-1.RAW	13:25:18	3.29			2.5	0.006	0.006	ng/L	
Hg2700-1	DM2	SAM	1607723-05RE1	2500	8/5/16 13:35	13954-1.RAW	13:35:49	660.04		x	659.2	2.035	5086.913	ng/L	
Hg2700-1	DM2	SAM	1607723-06RE1	2500	8/5/16 13:46	13955-1.RAW	13:46:19	897.37		x	896.6	2.767	6918.289	ng/L	
Hg2700-1	DM2	SAM	1607723-05RE2	2500	8/5/16 13:56	13956-1.RAW	13:56:50	582.92		x	582.1	1.797	4491.816	ng/L	
Hg2700-1	DM2	SAM	1607723-06RE2	2500	8/5/16 14:07	13957-1.RAW	14:07:21	749.26		x	748.4	2.310	5775.342	ng/L	
Hg2700-1	DM2	SAM	1607800-01RE1	500	8/5/16 14:17	13958-1.RAW	14:17:51	8.03		x	7.2	0.022	11.146	ng/L	
Hg2700-1	DM2	SAM	F607432-DUP2	2500	8/5/16 14:28	13959-1.RAW	14:28:22	141.69		x	140.9	0.435	1087.099	ng/L	
Hg2700-1	DM2	SAM	F607432-MS3	2500	8/5/16 14:38	13960-1.RAW	14:38:53	270.11		x	269.3	0.831	2078.016	ng/L	
Hg2700-1	DM2	SAM	F607432-MSD3	2500	8/5/16 14:49	13961-1.RAW	14:49:23	266.70		x	265.9	0.821	2051.728	ng/L	
Hg2700-1	DM2	SAM	F607432-MS4	500	8/5/16 14:59	13962-1.RAW	14:59:54	456.87		x	456.1	1.408	703.839	ng/L	
Hg2700-1	DM2	SAM	F607432-MSD4	500	8/5/16 15:10	13963-1.RAW	15:10:25	443.09		x	442.3	1.365	682.568	ng/L	
Hg2700-1	DM2	CAL	SEQ-CCV3	1	8/5/16 15:20	13964-1.RAW	15:20:55	221.81			221.0	0.549	0.549	ng/L	
Hg2700-1	DM2	CAL	SEQ-CCB3	1	8/5/16 15:31	13965-1.RAW	15:31:26	3.49			2.7	0.007	0.007	ng/L	
Hg2700-1	DM2	CAL	SEQ-CCV4	1	8/5/16 15:56	13966-1.RAW	15:56:12	211.53			210.7	0.523	0.523	ng/L	
Hg2700-1	DM2	CAL	SEQ-CCB4	1	8/5/16 16:06	13967-1.RAW	16:06:42	1.52			0.7	0.002	0.002	ng/L	

Instrument	Analyst	Sample Type	LabNumber	Dilution	Analyzed	FileID	Run End	Uncorrected Response	Batch ID	No PB Correction?	RESP	InitialResult	FinalResult	InitialUnits	Comments
Hg2700-1	DM2	CAL	SEQ-CCV5	1	8/5/16 17:47	13968-1.RAW	17:47:33	172.19			171.4	0.426	0.426	ng/L	
Hg2700-1	DM2	CAL	SEQ-CCB5	1	8/5/16 17:58	13969-1.RAW	17:58:04	2.93			2.1	0.005	0.005	ng/L	
Hg2700-1	DM2	BLK	F608200-BLK1	1.25	8/5/16 18:08	13970-1.RAW	18:08:35	2.63	1		1.8	0.006	0.007	ng/L	
Hg2700-1	DM2	BLK	F608200-BLK2	1.25	8/5/16 18:19	13971-1.RAW	18:19:06	4.36	1		3.5	0.011	0.014	ng/L	
Hg2700-1	DM2	BLK	F608200-BLK3	1.25	8/5/16 18:29	13972-1.RAW	18:29:37	0.94	1		0.1	0.000	0.001	ng/L	
Hg2700-1	DM2	SAM	F608200-BS1	1.25	8/5/16 18:40	13973-1.RAW	18:40:08	539.04	1		538.2	1.656	2.070	ng/L	
Hg2700-1	DM2	SAM	F608200-BSD1	1.25	8/5/16 18:50	13974-1.RAW	18:50:39	455.44	1		454.6	1.398	1.747	ng/L	
Hg2700-1	DM2	SAM	F608200-DUP1	1.25	8/5/16 19:01	13975-1.RAW	19:01:10	47.42	1		46.6	0.138	0.173	ng/L	
Hg2700-1	DM2	SAM	F608200-MS1	1.25	8/5/16 19:11	13976-1.RAW	19:11:41	540.38	1		539.6	1.660	2.075	ng/L	
Hg2700-1	DM2	SAM	F608200-MSD1	1.25	8/5/16 19:22	13977-1.RAW	19:22:12	586.22	1		585.4	1.801	2.252	ng/L	
Hg2700-1	DM2	SAM	F608200-MS2	1.25	8/5/16 19:32	13978-1.RAW	19:32:42	596.43	1		595.6	1.833	2.291	ng/L	
Hg2700-1	DM2	SAM	F608200-MSD2	1.25	8/5/16 19:43	13979-1.RAW	19:43:13	576.30	1		575.5	1.771	2.213	ng/L	
Hg2700-1	DM2	CAL	SEQ-CCV6	1	8/5/16 19:53	13980-1.RAW	19:53:44	192.99			192.2	0.477	0.477	ng/L	
Hg2700-1	DM2	CAL	SEQ-CCB6	1	8/5/16 20:04	13981-1.RAW	20:04:15	6.60			5.8	0.014	0.014	ng/L	
Hg2700-1	DM2	SAM	1607339-01RE1	1.25	8/5/16 20:14	13982-1.RAW	20:14:46	34.59	1		33.8	0.099	0.123	ng/L	
Hg2700-1	DM2	SAM	1607339-02RE1	1.25	8/5/16 20:25	13983-1.RAW	20:25:17	33.02	1		32.2	0.094	0.117	ng/L	
Hg2700-1	DM2	SAM	1607380-01RE1	1.25	8/5/16 20:35	13984-1.RAW	20:35:48	37.75	1		36.9	0.108	0.135	ng/L	
Hg2700-1	DM2	SAM	1607380-03RE1	1.25	8/5/16 20:46	13985-1.RAW	20:46:19	30.74	1		29.9	0.087	0.108	ng/L	
Hg2700-1	DM2	SAM	1607380-05RE1	1.25	8/5/16 20:56	13986-1.RAW	20:56:50	55.02	1		54.2	0.162	0.202	ng/L	
Hg2700-1	DM2	SAM	1607380-07RE1	1.25	8/5/16 21:07	13987-1.RAW	21:07:22	74.29	1		73.5	0.221	0.276	ng/L	
Hg2700-1	DM2	SAM	1607380-09RE1	1.25	8/5/16 21:17	13988-1.RAW	21:17:53	226.27	1		225.5	0.690	0.863	ng/L	
Hg2700-1	DM2	SAM	1607380-13RE1	1.25	8/5/16 21:28	13989-1.RAW	21:28:24	287.45	1		286.6	0.879	1.099	ng/L	
Hg2700-1	DM2	SAM	1607586-01RE1	1.25	8/5/16 21:38	13990-1.RAW	21:38:55	94.12	1		93.3	0.282	0.353	ng/L	
Hg2700-1	DM2	SAM	1607586-02RE1	1.25	8/5/16 21:49	13991-1.RAW	21:49:26	71.50	1		70.7	0.213	0.266	ng/L	
Hg2700-1	DM2	CAL	SEQ-CCV7	1	8/5/16 21:59	13992-1.RAW	21:59:57	196.08			195.3	0.485	0.485	ng/L	
Hg2700-1	DM2	CAL	SEQ-CCB7	1	8/5/16 22:10	13993-1.RAW	22:10:28	0.88			0.1	0.000	0.000	ng/L	
Hg2700-1	DM2	SAM	1607586-03RE1	1.25	8/5/16 22:20	13994-1.RAW	22:20:59	103.06	1		102.3	0.310	0.387	ng/L	
Hg2700-1	DM2	SAM	1607586-04RE1	1.25	8/5/16 22:31	13995-1.RAW	22:31:30	60.04	1		59.2	0.177	0.221	ng/L	
Hg2700-1	DM2	SAM	1607586-05RE1	1.25	8/5/16 22:42	13996-1.RAW	22:42:01	212.64	1		211.8	0.648	0.810	ng/L	
Hg2700-1	DM2	SAM	1607586-06RE1	1.25	8/5/16 22:52	13997-1.RAW	22:52:32	80.27	1		79.5	0.240	0.299	ng/L	
Hg2700-1	DM2	SAM	1607586-07	1.25	8/5/16 23:03	13998-1.RAW	23:03:03	52.58	1		51.8	0.154	0.193	ng/L	
Hg2700-1	DM2	SAM	1607586-08	1.25	8/5/16 23:13	13999-1.RAW	23:13:35	20.82	1		20.0	0.056	0.070	ng/L	
Hg2700-1	DM2	SAM	1607586-09	1.25	8/5/16 23:24	14000-1.RAW	23:24:06	26.82	1		26.0	0.075	0.093	ng/L	
Hg2700-1	DM2	SAM	1607586-10	1.25	8/5/16 23:34	14001-1.RAW	23:34:37	16.26	1		15.5	0.042	0.053	ng/L	
Hg2700-1	DM2	SAM	1607586-11	1.25	8/5/16 23:45	14002-1.RAW	23:45:08	34.34	1		33.5	0.098	0.122	ng/L	
Hg2700-1	DM2	SAM	1607586-13	1.25	8/5/16 23:55	14003-1.RAW	23:55:39	30.17	1		29.4	0.085	0.106	ng/L	
Hg2700-1	DM2	CAL	SEQ-CCV8	1	8/6/16 0:06	14004-1.RAW	0:06:10	212.55			211.7	0.526	0.526	ng/L	
Hg2700-1	DM2	CAL	SEQ-CCB8	1	8/6/16 0:16	14005-1.RAW	0:16:41	0.73			-0.1	0.000	0.000	ng/L	



Frontier Global Sciences

MMHg27001-160805-1 WATERS

Analysis Datasheet for Methyl Mercury in Waters

Date of Analysis: August 05, 2016

Instrument #: Hg2700-1

LIMS Sequence #: 6H08006

Analyst: DM2

Units ng/L

Calibration Statistics:

LabNumber	n	True Val	Area	Uncorrected Response Factor	Corrected Peak Height	Corrected Response Factor	% Recovery
SEQ-CAL1	1	0.05 ng/L	20.70 units	413.93	19.89 units	397.74	98.8 %Rec
SEQ-CAL2	1	0.20 ng/L	78.45 units	392.27	77.64 units	388.22	96.4 %Rec
SEQ-CAL3	1	1.00 ng/L	456.93 units	456.93	456.12 units	456.12	113.3 %Rec
SEQ-CAL4	1	2.00 ng/L	801.88 units	400.94	801.07 units	400.53	99.5 %Rec
SEQ-CAL5	1	4.00 ng/L	1483.68 units	370.92	1482.87 units	370.72	92.1 %Rec
SEQ-CAL6	0						
SEQ-CAL7	0						
SEQ-CAL8	0						
SEQ-CAL9	0						

Corr. Mean RF **Corr. St Dev RF** **Corr. RSD CF** **Uncorr. Mean RF** **Eff Factor**
 402.66 +/- 32.08 8.0% RSD 407.00 **0.8046**

Blanks:

LabNumber	n	Mean	Std Dev	Mean (ng/L)	Std Dev (ng/L)
SEQ-IBL	1	0.81 units		0.00 ng/L	#VALUE!

Preparation Blanks

Sample Type	Batch ID	n	Mean	Std Dev
BLK	1	3	0.007 ng/L	±0.007
BLK	2	0	0.000 ng/L	
BLK	3	0	0.000 ng/L	
BLK	4	0	0.000 ng/L	
BLK	5	0	0.000 ng/L	

MDN Only

SEQ-CAL1
 SEQ-CAL2
 SEQ-CAL3
 SEQ-CAL4
 SEQ-CAL5
 SEQ-CAL6 NA
 SEQ-CAL7 NA
 SEQ-CAL8 NA
 SEQ-CAL9 NA
 SEQ-ICV/CCV
 Acetate Buffer
 Ethylating Agent

Instrument	Analyst	Sample Type	LabNumber	Dilution	Analyzed	FileID	Run End	Uncorrected Response	Batch ID	No PB Correction?	RESP	InitialResult	FinalResult	InitialUnits	Comments
Hg2700-1	DM2	CAL	SEQ-IBL1	1	8/5/16 7:59	13922-1.RAW	7:59:27	0.81			0.0	0.000	0.000	ng/L	
Hg2700-1	DM2	CAL	SEQ-CAL1	1	8/5/16 8:09	13923-1.RAW	8:09:57	20.70			19.9	0.049	0.049	ng/L	
Hg2700-1	DM2	CAL	SEQ-CAL2	1	8/5/16 8:20	13924-1.RAW	8:20:28	78.45			77.6	0.193	0.193	ng/L	
Hg2700-1	DM2	CAL	SEQ-CAL3	1	8/5/16 8:30	13925-1.RAW	8:30:58	456.93			456.1	1.133	1.133	ng/L	
Hg2700-1	DM2	CAL	SEQ-CAL4	1	8/5/16 8:41	13926-1.RAW	8:41:29	801.88			801.1	1.989	1.989	ng/L	
Hg2700-1	DM2	CAL	SEQ-CAL5	1	8/5/16 8:52	13927-1.RAW	8:52:00	1483.68			1482.9	3.683	3.683	ng/L	
Hg2700-1	DM2	CAL	SEQ-ICV1	1	8/5/16 9:02	13928-1.RAW	9:02:30	248.86			248.1	0.616	0.616	ng/L	
Hg2700-1	DM2	CAL	SEQ-ICB1	1	8/5/16 9:13	13929-1.RAW	9:13:01	6.87			6.1	0.015	0.015	ng/L	
Hg2700-1	DM2	BLK	F607432-BLK7	500	8/5/16 9:23	13930-1.RAW	9:23:32	4.05		x	3.2	0.010	5.002	ng/L	
Hg2700-1	DM2	BLK	F607432-BLK8	500	8/5/16 9:34	13931-1.RAW	9:34:03	2.24		x	1.4	0.004	2.202	ng/L	
Hg2700-1	DM2	BLK	F607432-BLK9	500	8/5/16 9:44	13932-1.RAW	9:44:33	2.60		x	1.8	0.006	2.769	ng/L	
Hg2700-1	DM2	SAM	*F607432-BLKA	500	8/5/16 9:55	13933-1.RAW	9:55:04	3.20		x	2.4	0.007	3.687	ng/L	
Hg2700-1	DM2	SAM	*F607432-BLKB	500	8/5/16 10:05	13934-1.RAW	10:05:35	1.09		x	0.3	0.001	0.431	ng/L	
Hg2700-1	DM2	SAM	*F607432-BLKC	500	8/5/16 10:16	13935-1.RAW	10:16:05	0.00		x	-0.8	-0.002	-1.250	ng/L	
Hg2700-1	DM2	SAM	F607432-BS2	2000	8/5/16 10:26	13936-1.RAW	10:26:36	1180.48		x	1179.7	3.641	7282.314	ng/L	
Hg2700-1	DM2	SAM	F607432-BSD2	2000	8/5/16 10:37	13937-1.RAW	10:37:07	1332.96		x	1332.1	4.112	8223.560	ng/L	
Hg2700-1	DM2	SAM	1607541-01RE1	500	8/5/16 10:47	13938-1.RAW	10:47:37	37.89		x	37.1	0.114	57.224	ng/L	
Hg2700-1	DM2	SAM	1607655-01RE1	2500	8/5/16 10:58	13939-1.RAW	10:58:08	138.64		x	137.8	0.425	1063.595	ng/L	
Hg2700-1	DM2	CAL	SEQ-CCV1	1	8/5/16 11:08	13940-1.RAW	11:08:39	263.52			262.7	0.652	0.652	ng/L	
Hg2700-1	DM2	CAL	SEQ-CCB1	1	8/5/16 11:19	13941-1.RAW	11:19:09	4.42			3.6	0.009	0.009	ng/L	
Hg2700-1	DM2	SAM	F607432-BS3	2000	8/5/16 11:29	13942-1.RAW	11:29:40	1059.23		x	1058.4	3.267	6533.797	ng/L	
Hg2700-1	DM2	SAM	F607432-BSD3	2000	8/5/16 11:40	13943-1.RAW	11:40:11	1093.34		x	1092.5	3.372	6744.330	ng/L	
Hg2700-1	DM2	SAM	1607655-02RE1	2500	8/5/16 11:50	13944-1.RAW	11:50:42	190.32		x	189.5	0.585	1462.308	ng/L	
Hg2700-1	DM2	SAM	1607655-03RE1	2500	8/5/16 12:01	13945-1.RAW	12:01:13	167.26		x	166.5	0.514	1264.419	ng/L	
Hg2700-1	DM2	SAM	1607655-04RE1	2500	8/5/16 12:11	13946-1.RAW	12:11:43	184.35		x	183.5	0.567	1416.272	ng/L	
Hg2700-1	DM2	SAM	1607655-05RE1	2500	8/5/16 12:22	13947-1.RAW	12:22:14	104.26		x	103.4	0.319	798.234	ng/L	
Hg2700-1	DM2	SAM	1607723-01RE1	2500	8/5/16 12:32	13948-1.RAW	12:32:45	319.48		x	318.7	0.984	2458.975	ng/L	
Hg2700-1	DM2	SAM	1607723-02RE1	2500	8/5/16 12:43	13949-1.RAW	12:43:15	389.16		x	388.4	1.199	2996.687	ng/L	
Hg2700-1	DM2	SAM	1607723-03RE1	2500	8/5/16 12:53	13950-1.RAW	12:53:46	709.79		x	709.0	2.188	5470.814	ng/L	
Hg2700-1	DM2	SAM	1607723-04RE1	2500	8/5/16 13:04	13951-1.RAW	13:04:17	820.50		x	819.7	2.530	6325.095	ng/L	
Hg2700-1	DM2	CAL	SEQ-CCV2	1	8/5/16 13:14	13952-1.RAW	13:14:47	235.57			234.8	0.583	0.583	ng/L	
Hg2700-1	DM2	CAL	SEQ-CCB2	1	8/5/16 13:25	13953-1.RAW	13:25:18	3.29			2.5	0.006	0.006	ng/L	
Hg2700-1	DM2	SAM	1607723-05RE1	2500	8/5/16 13:35	13954-1.RAW	13:35:49	660.04		x	659.2	2.035	5086.913	ng/L	
Hg2700-1	DM2	SAM	1607723-06RE1	2500	8/5/16 13:46	13955-1.RAW	13:46:19	897.37		x	896.6	2.767	6918.289	ng/L	
Hg2700-1	DM2	SAM	1607723-05RE2	2500	8/5/16 13:56	13956-1.RAW	13:56:50	582.92		x	582.1	1.797	4491.816	ng/L	
Hg2700-1	DM2	SAM	1607723-06RE2	2500	8/5/16 14:07	13957-1.RAW	14:07:21	749.26		x	748.4	2.310	5775.342	ng/L	
Hg2700-1	DM2	SAM	1607800-01RE1	500	8/5/16 14:17	13958-1.RAW	14:17:51	8.03		x	7.2	0.022	11.146	ng/L	
Hg2700-1	DM2	SAM	F607432-DUP2	2500	8/5/16 14:28	13959-1.RAW	14:28:22	141.69		x	140.9	0.435	1087.099	ng/L	
Hg2700-1	DM2	SAM	F607432-MS3	2500	8/5/16 14:38	13960-1.RAW	14:38:53	270.11		x	269.3	0.831	2078.016	ng/L	
Hg2700-1	DM2	SAM	F607432-MSD3	2500	8/5/16 14:49	13961-1.RAW	14:49:23	266.70		x	265.9	0.821	2051.728	ng/L	
Hg2700-1	DM2	SAM	F607432-MS4	500	8/5/16 14:59	13962-1.RAW	14:59:54	456.87		x	456.1	1.408	703.839	ng/L	
Hg2700-1	DM2	SAM	F607432-MSD4	500	8/5/16 15:10	13963-1.RAW	15:10:25	443.09		x	442.3	1.365	682.568	ng/L	
Hg2700-1	DM2	CAL	SEQ-CCV3	1	8/5/16 15:20	13964-1.RAW	15:20:55	221.81			221.0	0.549	0.549	ng/L	
Hg2700-1	DM2	CAL	SEQ-CCB3	1	8/5/16 15:31	13965-1.RAW	15:31:26	3.49			2.7	0.007	0.007	ng/L	
Hg2700-1	DM2	CAL	SEQ-CCV4	1	8/5/16 15:36	13966-1.RAW	15:36:12	211.53			210.7	0.523	0.523	ng/L	
Hg2700-1	DM2	CAL	SEQ-CCB4	1	8/5/16 16:06	13967-1.RAW	16:06:42	1.52			0.7	0.002	0.002	ng/L	

Instrument	Analyst	Sample Type	LabNumber	Dilution	Analyzed	FileID	Run End	Uncorrected Response	Batch ID	No PB Correction?	RESP	InitialResult	FinalResult	InitialUnits	Comments
Hg2700-1	DM2	CAL	SEQ-CCV5	1	8/5/16 17:47	13968-1.RAW	17:47:33	174.56			173.7	0.431	0.431	ng/L	
Hg2700-1	DM2	CAL	SEQ-CCB5	1	8/5/16 17:58	13969-1.RAW	17:58:04	2.93			2.1	0.005	0.005	ng/L	
Hg2700-1	DM2	BLK	F608200-BLK1	1.25	8/5/16 18:08	13970-1.RAW	18:08:35	2.63	1		1.8	0.006	0.007	ng/L	
Hg2700-1	DM2	BLK	F608200-BLK2	1.25	8/5/16 18:19	13971-1.RAW	18:19:06	4.36	1		3.5	0.011	0.014	ng/L	
Hg2700-1	DM2	BLK	F608200-BLK3	1.25	8/5/16 18:29	13972-1.RAW	18:29:37	0.94	1		0.1	0.000	0.001	ng/L	
Hg2700-1	DM2	SAM	F608200-BS1	1.25	8/5/16 18:40	13973-1.RAW	18:40:08	539.04	1		538.2	1.656	2.070	ng/L	
Hg2700-1	DM2	SAM	F608200-BSD1	1.25	8/5/16 18:50	13974-1.RAW	18:50:39	455.44	1		454.6	1.398	1.747	ng/L	
Hg2700-1	DM2	SAM	F608200-DUP1	1.25	8/5/16 19:01	13975-1.RAW	19:01:10	47.42	1		46.6	0.138	0.173	ng/L	
Hg2700-1	DM2	SAM	F608200-MS1	1.25	8/5/16 19:11	13976-1.RAW	19:11:41	540.38	1		539.6	1.660	2.075	ng/L	
Hg2700-1	DM2	SAM	F608200-MSD1	1.25	8/5/16 19:22	13977-1.RAW	19:22:12	586.22	1		585.4	1.801	2.252	ng/L	
Hg2700-1	DM2	SAM	F608200-MS2	1.25	8/5/16 19:32	13978-1.RAW	19:32:42	596.43	1		595.6	1.833	2.291	ng/L	
Hg2700-1	DM2	SAM	F608200-MSD2	1.25	8/5/16 19:43	13979-1.RAW	19:43:13	576.30	1		575.5	1.771	2.213	ng/L	
Hg2700-1	DM2	CAL	SEQ-CCV6	1	8/5/16 19:53	13980-1.RAW	19:53:44	189.32			188.5	0.468	0.468	ng/L	
Hg2700-1	DM2	CAL	SEQ-CCB6	1	8/5/16 20:04	13981-1.RAW	20:04:15	6.60			5.8	0.014	0.014	ng/L	
Hg2700-1	DM2	SAM	1607339-01RE1	1.25	8/5/16 20:14	13982-1.RAW	20:14:46	34.59	1		33.8	0.099	0.123	ng/L	
Hg2700-1	DM2	SAM	1607339-02RE1	1.25	8/5/16 20:25	13983-1.RAW	20:25:17	33.11	1		32.3	0.094	0.118	ng/L	
Hg2700-1	DM2	SAM	1607380-01RE1	1.25	8/5/16 20:35	13984-1.RAW	20:35:48	37.72	1		36.9	0.108	0.135	ng/L	
Hg2700-1	DM2	SAM	1607380-03RE1	1.25	8/5/16 20:46	13985-1.RAW	20:46:19	30.74	1		29.9	0.087	0.108	ng/L	
Hg2700-1	DM2	SAM	1607380-05RE1	1.25	8/5/16 20:56	13986-1.RAW	20:56:50	55.02	1		54.2	0.162	0.202	ng/L	
Hg2700-1	DM2	SAM	1607380-07RE1	1.25	8/5/16 21:07	13987-1.RAW	21:07:22	74.29	1		73.5	0.221	0.276	ng/L	
Hg2700-1	DM2	SAM	1607380-09RE1	1.25	8/5/16 21:17	13988-1.RAW	21:17:53	226.27	1		225.5	0.690	0.863	ng/L	
Hg2700-1	DM2	SAM	1607380-13RE1	1.25	8/5/16 21:28	13989-1.RAW	21:28:24	287.45	1		286.6	0.879	1.099	ng/L	
Hg2700-1	DM2	SAM	1607586-01RE1	1.25	8/5/16 21:38	13990-1.RAW	21:38:55	94.12	1		93.3	0.282	0.353	ng/L	
Hg2700-1	DM2	SAM	1607586-02RE1	1.25	8/5/16 21:49	13991-1.RAW	21:49:26	71.50	1		70.7	0.213	0.266	ng/L	
Hg2700-1	DM2	CAL	SEQ-CCV7	1	8/5/16 21:59	13992-1.RAW	21:59:57	196.08			195.3	0.485	0.485	ng/L	
Hg2700-1	DM2	CAL	SEQ-CCB7	1	8/5/16 22:10	13993-1.RAW	22:10:28	0.88			0.1	0.000	0.000	ng/L	
Hg2700-1	DM2	SAM	1607586-03RE1	1.25	8/5/16 22:20	13994-1.RAW	22:20:59	103.06	1		102.3	0.310	0.387	ng/L	
Hg2700-1	DM2	SAM	1607586-04RE1	1.25	8/5/16 22:31	13995-1.RAW	22:31:30	60.04	1		59.2	0.177	0.221	ng/L	
Hg2700-1	DM2	SAM	1607586-05RE1	1.25	8/5/16 22:42	13996-1.RAW	22:42:01	212.64	1		211.8	0.648	0.810	ng/L	
Hg2700-1	DM2	SAM	1607586-06RE1	1.25	8/5/16 22:52	13997-1.RAW	22:52:32	80.27	1		79.5	0.240	0.299	ng/L	
Hg2700-1	DM2	SAM	1607586-07	1.25	8/5/16 23:03	13998-1.RAW	23:03:03	52.59	1		51.8	0.154	0.193	ng/L	
Hg2700-1	DM2	SAM	1607586-08	1.25	8/5/16 23:13	13999-1.RAW	23:13:35	20.82	1		20.0	0.056	0.070	ng/L	
Hg2700-1	DM2	SAM	1607586-09	1.25	8/5/16 23:24	14000-1.RAW	23:24:06	26.82	1		26.0	0.075	0.093	ng/L	
Hg2700-1	DM2	SAM	1607586-10	1.25	8/5/16 23:34	14001-1.RAW	23:34:37	16.26	1		15.5	0.042	0.053	ng/L	
Hg2700-1	DM2	SAM	1607586-11	1.25	8/5/16 23:45	14002-1.RAW	23:45:08	34.34	1		33.5	0.098	0.122	ng/L	
Hg2700-1	DM2	SAM	1607586-13	1.25	8/5/16 23:55	14003-1.RAW	23:55:39	31.04	1		30.2	0.088	0.110	ng/L	
Hg2700-1	DM2	CAL	SEQ-CCV8	1	8/6/16 0:06	14004-1.RAW	0:06:10	212.55			211.7	0.526	0.526	ng/L	
Hg2700-1	DM2	CAL	SEQ-CCB8	1	8/6/16 0:16	14005-1.RAW	0:16:41	0.73			-0.1	0.000	0.000	ng/L	


1607586-07	B10	1.25	0.8099	0.1170662	0.160737436	0.1898721	13998-1.RAW	38.5212831	52.5820546	-	61.9736742	0 psample10	CT	:	
1607586-08	B11	1.25	0.8099	0.0365774	0.062119709	0.1812837	13999-1.RAW	-12.592661	20.6205439	-	59.2071023	0 psample10	OK	:	
1607586-09	B12	1.25	0.8099	0.0272262	0.080748596	0.2205461	14000-1.RAW	9.58335038	26.8215909	-	71.8547376	0 psample10	OK	:	
1607586-10	B13	1.25	0.8099	0.1425189	0.047967767	1.1125098	14001-1.RAW	-46.8465795	16.2618608	-	359.18413	0 psample10	CT	:	
1607586-11	B14	1.25	0.8099	0.0372492	0.104081798	0.2050969	14002-1.RAW	12.8290909	34.338589	-	66.678054	0 psample10	OK	:	
1607586-12	B15	1.25	0.8099	0.0238581	0.091150676	0.1606648	14003-1.RAW	8.49538352	30.1724905	-	59.0023201	0 psample10	OK	:	
SEQ-CCV8	B16	1	0.8099	2.2329052	0.525843414	0.4505674	14004-1.RAW	899.92006	212.548201	-	182.237258	0 psample10	CT	:	
SEQ-CC88	B17	1	0.8099	0.0442578	-0.00020061	0.091268	14005-1.RAW	0.1644	18.6309896	0.72916657	-	38.365625	0 psample10	OK	:
						105.30									
						0.00									

1607586-07	B10	1.25	0.8099	0.1170682	0.160740146	0.1898721	13998-1.RAW	23.63:03	38.5212831	52.5893703	61.9736742	0 psample10	CT	1
1607586-06	B11	1.25	0.8099	0.0365774	0.062119709	0.181247	13999-1.RAW	23.13:35	12.592661	20.8206435	59.195259	0 psample10	OK	1
1607586-09	B12	1.25	0.8099	0.0272262	0.080746596	0.2204395	14000-1.DAW	23:24:06	9.58035038	26.6715909	71.6203835	0 psample10	OK	1
1607586-10	B13	1.25	0.8099	0.1479189	0.047967767	1.1125098	14001-1.RAW	23.34:37	46.8465795	16.2618608	359.18413	0 psample10	CT	1
1607586-11	B14	1.25	0.8099	0.0372492	0.104083798	0.2050966	14002-1.RAW	23:45:08	12.8090909	34.338585	66.678054	0 psample10	OK	1
1607586-13	B15	1.25	0.8099	0.0238581	0.09382865	0.180648	14003-1.RAW	23:55:39	8.49538352	31.0350852	59.0023201	0 psample10	OK	1
SEQ-CCV8	B16	1	0.8099	2.2329052	0.525843414	0.4405674	14004-1.RAW	0:06:10	899.92066	212.548201	182.237258	0 psample10	CT	1
SEQ-CCB8	B17	1	0.8099	0.0442576	-0.00020061	0.0963869	14005-1.RAW	0:16:41	18.6309896	0.72910667	79.6214962	0 psample10	OK	1

Failing Data Report - 6H08006

Sample ID	Analysis	Result	MRL	Dup Result	Source Result	True Value	Units	% Rec.	Rec. LCL	Rec. UCL	RPD	RPD Limit	Over Cal	Failure	Qualifier
F608200-BS1	MHg-CVAFS-W-Dist	1.840	0.050			1.0010	ng/L	184	70.00	130.00			PASS-OVER	FAIL-BS	QM-12
F608200-BSD1	MHg-CVAFS-W-Dist	1.553	0.050	1.840		1.0010	ng/L	155	70.00	130.00	16.9	25.00	PASS-OVER	FAIL-BSD (Rec.)	QM-12
F608200-MS1	MHg-CVAFS-W-Dist	1.844	0.050		0.180	1.0010	ng/L	166	65.00	130.00			PASS-OVER	FAIL-MS	QM-07
F608200-MSD1	MHg-CVAFS-W-Dist	2.001	0.050	1.844	0.180	1.0010	ng/L	182	65.00	130.00	8.18	35.00	PASS-OVER	FAIL-MSD (Rec.)	QM-07
F608200-MS2	MHg-CVAFS-W-Dist	2.036	0.050		0.109	1.0010	ng/L	193	65.00	130.00			PASS-OVER	FAIL-MS	QM-07
F608200-MSD2	MHg-CVAFS-W-Dist	1.967	0.050	2.036	0.109	1.0010	ng/L	186	65.00	130.00	3.45	35.00	PASS-OVER	FAIL-MSD (Rec.)	QM-07


 Analyst Reviewed By _____
 Date 8/8/16


 Peer Reviewed By _____
 Date 8-9-16

ANALYSIS SEQUENCE

6H08006

Instrument: Hg2700-1

Calibration ID: UNASSIGNED

Analyzed: 8/5/2016

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
6H08006-IBL1	QC	1			
6H08006-CAL1	QC	2	1604163		
6H08006-CAL2	QC	3	1604164		
6H08006-CAL3	QC	4	1604165		
6H08006-CAL4	QC	5	1604166		
6H08006-CAL5	QC	6	1604167		
6H08006-ICV1	QC	7	1603001		
6H08006-ICB1	QC	8			
6H08006-CCV1	QC	9	1603001		
6H08006-CCB1	QC	10			
6H08006-CCV2	QC	11	1603001		
6H08006-CCB2	QC	12			
6H08006-CCV3	QC	13	1603001		
6H08006-CCB3	QC	14			
6H08006-CCV4	QC	15	1603001		
6H08006-CCB4	QC	16			
6H08006-CCV5	QC	17	1603001		
6H08006-CCB5	QC	18			
F608200-BLK1	QC	19			
F608200-BLK2	QC	20			
F608200-BLK3	QC	21			
F608200-BS1	QC	22			
F608200-BSD1	QC	23			
F608200-DUP1	QC	24			
F608200-MS1	QC	25			
F608200-MSD1	QC	26			
F608200-MS2	QC	27			
F608200-MSD2	QC	28			
6H08006-CCV6	QC	29	1603001		
6H08006-CCB6	QC	30			
1607339-01RE1	MHg-CVAFS-W-Dist	31			Re-extract added 8/4/2016 by JRH
1607339-02RE1	MHg-CVAFS-W-Dist	32			Re-extract added 8/4/2016 by JRH
1607380-01RE1	MHg-CVAFS-W-Dist	33			Re-extract added 8/4/2016 by JRH
1607380-03RE1	MHg-CVAFS-W-Dist	34			Re-extract added 8/4/2016 by JRH
1607380-05RE1	MHg-CVAFS-W-Dist	35			Re-extract added 8/4/2016 by JRH

Due Date: 8/10/2016

ANALYSIS SEQUENCE

6H08006

Instrument: Hg2700-1

Calibration ID: UNASSIGNED

Analyzed: 8/5/2016

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
1607380-07RE1	MHg-CVAFS-W-Dist	36			Re-extract added 8/4/2016 by JRH
1607380-09RE1	MHg-CVAFS-W-Dist	37			Re-extract added 8/4/2016 by JRH
1607380-13RE1	MHg-CVAFS-W-Dist	38			Re-extract added 8/4/2016 by JRH
1607586-01RE1	MHg-CVAFS-W-Dist	39			Re-extract added 8/4/2016 by JRH
1607586-02RE1	MHg-CVAFS-W-Dist	40			Re-extract added 8/4/2016 by JRH
6H08006-CCV7	QC	41	1603001		
6H08006-CCB7	QC	42			
1607586-03RE1	MHg-CVAFS-W-Dist	43			Re-extract added 8/4/2016 by JRH
1607586-04RE1	MHg-CVAFS-W-Dist	44			Re-extract added 8/4/2016 by JRH
1607586-05RE1	MHg-CVAFS-W-Dist	45			Re-extract added 8/4/2016 by JRH
1607586-06RE1	MHg-CVAFS-W-Dist	46			Re-extract added 8/4/2016 by JRH
1607586-07	MHg-CVAFS-W-Dist	47			Scan all data - Level IV
1607586-08	MHg-CVAFS-W-Dist	48			Scan all data - Level IV
1607586-09	MHg-CVAFS-W-Dist	49			Scan all data - Level IV
1607586-10	MHg-CVAFS-W-Dist	50			Scan all data - Level IV
1607586-11	MHg-CVAFS-W-Dist	51			Scan all data - Level IV
1607586-13	MHg-CVAFS-W-Dist	52			Scan all data - Level IV
6H08006-CCV8	QC	53	1603001		
6H08006-CCB8	QC	54			

Don Moran 8/5/16
 Samples Loaded By Date

Don Moran 8/5/16
 Data Processed By Date

Due Date: 8/10/2016

PREPARATION BENCH SHEET

F608200

Eurofins Frontier Global Sciences, Inc.

Matrix: Water

Prepared using: Hg Aquatic/Solids - EFGS-013 Methyl Hg Distillation for Water

Prepared: 8/4/2016

Lab Number	Sample ID and Source Sample	Initial (mL)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F608200-BLK1	Blank	45	40					
F608200-BLK2	Blank	45	40					
F608200-BLK3	Blank	45	40					
F608200-BS1	LCS	45	40	1603908	45			
F608200-BSD1	LCS Dup	45	40	1603908	45			
F608200-DUP1	Duplicate [1607380-01RE1]	45	40					
F608200-MS1	Matrix Spike [1607380-05RE1]	45	40	1603908	45			
F608200-MS2	Matrix Spike [1607586-11]	45	40	1603908	45			
F608200-MSD1	Matrix Spike Dup [1607380-05RE1]	45	40	1603908	45			
F608200-MSD2	Matrix Spike Dup [1607586-11]	45	40	1603908	45			

<u>Standard ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>	<u>Reagent ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>
1603908	MHg New Primary 1.0 ng/mL CAL	19-Oct-16 00:00	1602604	Acetate Buffer	15-Nov-16 00:00
			1603749	Ethylating Agent (For Methyl Mercury Analysis)	09-Jan-17 00:00
			1604260	APDC	29-Jan-17 00:00
			1604286	2.5% Ascorbic Acid	10-Aug-16 00:00
			1604330	0.5% Distillation Dilute (Made Daily)	05-Aug-16 00:00

PREPARATION BENCH SHEET

F608200

Eurofins Frontier Global Sciences, Inc.

Matrix: Water

Prepared using: Hg Aquatic/Solids - EFGS-013 Methyl Hg Distillation for Water

Prepared: 8/4/2016

Lab Number	Sample ID	Initial (mL)	Final (mL)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1607339-01RE1	OL-2431-01	45	40	-	-	-	Re-extract added 8/4/2016 by JRH	
1607339-02RE1	OL-2431-02	45	40	-	-	-	Re-extract added 8/4/2016 by JRH	
1607380-01RE1	NMC-5240-00	45	40	-	-	-	Re-extract added 8/4/2016 by JRH	
1607380-03RE1	NMC-5240-01	45	40	QC	-	-	MS/MSD Re-extract added 8/4/2016 by	
1607380-05RE1	NMC-5240-02	45	40	-	-	-	Re-extract added 8/4/2016 by JRH	
1607380-07RE1	NMC-5240-03	45	40	-	-	-	Re-extract added 8/4/2016 by JRH	
1607380-09RE1	NMC-5240-04	45	40	-	-	-	Re-extract added 8/4/2016 by JRH	
1607380-13RE1	NMC-5240-06	45	40	-	-	-	Re-extract added 8/4/2016 by JRH	
1607586-01RE1	1523 OV-02_071816_SW_10	45	40	-	-	-	Re-extract added 8/4/2016 by JRH	
1607586-02RE1	1523 OV-02_071816_SW_10 Dissolved	45	40	-	-	-	Re-extract added 8/4/2016 by JRH	
1607586-03RE1	1524 WQ1b-c_071816_SW_10	45	40	-	-	-	Re-extract added 8/4/2016 by JRH	
1607586-04RE1	1524 WQ1b-c_071816_SW_10 Dissolved	45	40	-	-	-	Re-extract added 8/4/2016 by JRH	
1607586-05RE1	1525 WQ2-c_071816_SW_10	45	40	-	-	-	Re-extract added 8/4/2016 by JRH	
1607586-06RE1	1525 WQ2-c_071816_SW_10 Dissolved	45	40	-	-	-	Re-extract added 8/4/2016 by JRH	
1607586-07	1526 WQ3-L_071816_SW_10	45	40	-	-	-	Scan all data - Level IV	
1607586-08	1526 WQ3-L_071816_SW_10 Dissolved	45	40	-	-	-	Scan all data - Level IV	
1607586-09	1527 ES-15_071816_SW_10	45	40	-	-	-	Scan all data - Level IV	
1607586-10	1527 ES-15_071816_SW_10 Dissolved	45	40	-	-	-	Scan all data - Level IV	
1607586-11	1528 WQ-ECH_071816_SW_10	45	40	QC	-	-	MS/MSD Scan all data - Level IV	

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Date: 8/10/2016

PREPARATION BENCH SHEET

F608200

Eurofins Frontier Global Sciences, Inc.

Matrix: Water

Prepared using: Hg Aquatic/Solids - EFGS-013 Methyl Hg Distillation for Water

Prepared: 8/4/2016

1607586-13	1529 WQ-ECH_071816_SW_10_DUP	45	40	-	-	-	Scan all data - Level IV	
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PREPARATION BENCH SHEET

2700-1
8/5/16 DM

F608200

Euofins Frontier Global Sciences, Inc.

Matrix: Water

Prepared using: Hg Aquatic/Solids - EFGS-013 Methyl Hg Distillation for Water

Prepared: 8/4/2016

Lab Number	Sample ID and Source Sample	Initial (mL)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F608200-BLK1	Blank	45	40					
F608200-BLK2	Blank	45	40					
F608200-BLK3	Blank	45	40					
F608200-BS1	LCS	45	40	1603908	45			
F608200-BSD1	LCS Dup	45	40	1603908	45			
F608200-DUP1	Duplicate [1607380-01RE1]	45	40					
F608200-MS1	Matrix Spike [1607380-05RE1]	45	40	1603908	45			
F608200-MS2	Matrix Spike [1607586-11]	45	40	1603908	45			
F608200-MSD1	Matrix Spike Dup [1607380-05RE1]	45	40	1603908	45			
F608200-MSD2	Matrix Spike Dup [1607586-11]	45	40	1603908	45			

Standard ID(s): 1603908
Description: MHg New Primary 1.0 ng/mL CAL

Expiration: 19-Oct-16 00:00

Reagent ID(s): 1604260, 1604330
Description: APDC, 0.5% Distillation Dilute (Made Daily)

Expiration: 29-Jan-17 00:00, 05-Aug-16 00:00

1602604
1604286
1603749

PREPARATION BENCH SHEET

2700-7
S/S/K DM

F608200

Eurofins Frontier Global Sciences, Inc.

Matrix: Water

Prepared using: Hg Aquatic/Solids - EFGS-013 Methyl Hg Distillation for Water

Prepared: 8/4/2016

Lab Number	Sample ID	Initial (mL)	Final (mL)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1607339-01RE1	OL-2431-01	45	40	-	-	-	Re-extract added 8/4/2016 by JRH	1.25X
1607339-02RE1	OL-2431-02	45	40	-	-	-	Re-extract added 8/4/2016 by JRH	1.25X
1607380-01RE1	NMC-5240-00	45	40	-	-	-	Re-extract added 8/4/2016 by JRH	1.25X
1607380-03RE1	NMC-5240-01	45	40	QC	-	-	MS/MSD Re-extract added 8/4/2016 by	1.25X
1607380-05RE1	NMC-5240-02	45	40	-	-	-	Re-extract added 8/4/2016 by JRH	1.25X
1607380-07RE1	NMC-5240-03	45	40	-	-	-	Re-extract added 8/4/2016 by JRH	1.25X
1607380-09RE1	NMC-5240-04	45	40	-	-	-	Re-extract added 8/4/2016 by JRH	1.25X
1607380-13RE1	NMC-5240-06	45	40	-	-	-	Re-extract added 8/4/2016 by JRH	1.25X
1607586-01RE1	1523 OV-02_071816_SW_10	45	40	-	-	-	Re-extract added 8/4/2016 by JRH	1.25X
1607586-02RE1	1523 OV-02_071816_SW_10 Dissolved	45	40	-	-	-	Re-extract added 8/4/2016 by JRH	1.25X
1607586-03RE1	1524 WQ1b-c_071816_SW_10	45	40	-	-	-	Re-extract added 8/4/2016 by JRH	1.25X
1607586-04RE1	1524 WQ1b-c_071816_SW_10 Dissolved	45	40	-	-	-	Re-extract added 8/4/2016 by JRH	1.25X
1607586-05RE1	1525 WQ2-c_071816_SW_10	45	40	-	-	-	Re-extract added 8/4/2016 by JRH	1.25X
1607586-06RE1	1525 WQ2-c_071816_SW_10 Dissolved	45	40	-	-	-	Re-extract added 8/4/2016 by JRH	1.25X
1607586-07	1526 WQ3-L_071816_SW_10	45	40	-	-	-	Scan all data - Level IV	1.25X
1607586-08	1526 WQ3-L_071816_SW_10 Dissolved	45	40	-	-	-	Scan all data - Level IV	1.25X
1607586-09	1527 ES-15_071816_SW_10	45	40	-	-	-	Scan all data - Level IV	1.25X
586-10	1527 ES-15_071816_SW_10 Dissolved	45	40	-	-	-	Scan all data - Level IV	1.25X
586-11	1528 WQ-ECH_071816_SW_10	45	40	QC	-	-	MS/MSD Scan all data - Level IV	1.25X

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Date: 8/10/2016

PREPARATION BENCH SHEET

2702-1
8/5/16 DM

F608200

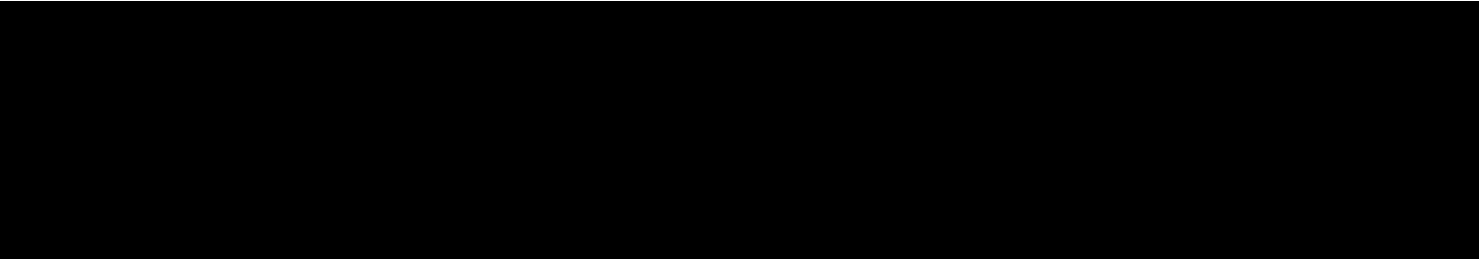
Eurofins Frontier Global Sciences, Inc.

Matrix: Water

Prepared using: Hg Aquatic/Solids - EFGS-013 Methyl Hg Distillation for Water

Prepared: 8/4/2016

1607586-13	1529 WQ-ECH_071816_SW_10_DUP	45	40	-	-	-	Scan all data - Level IV	1.25X
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Name: AMB Date: 8/4/16 Batch #: F608200 Sample Matrix: Water

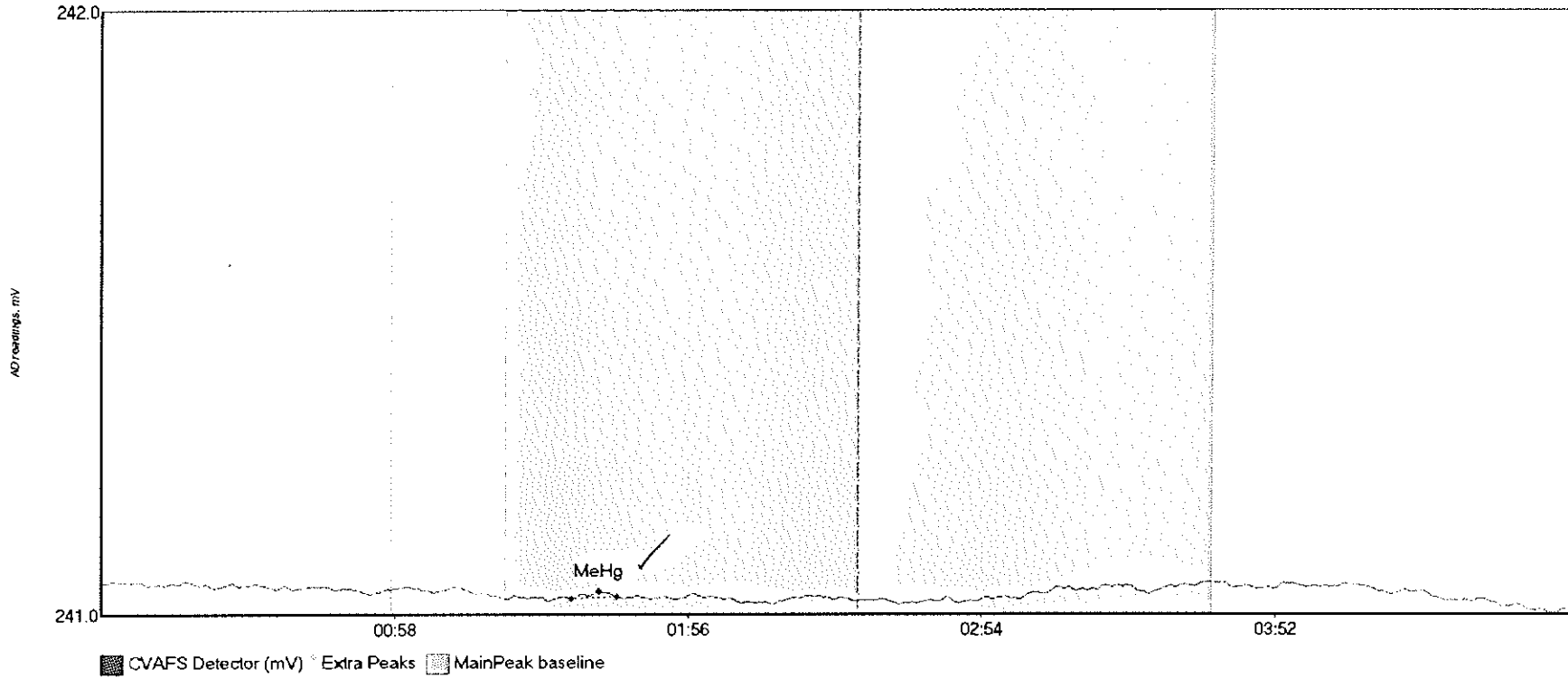
WO#: 1607339, 1607380, 1607586

The pH of the preserved sample must be documented before an aliquot is removed for preparation.

Digest #	Sample ID Number	Preserved pH	Sample Size (mL)	Final pH (≥3)
BLK1	F608200-BLK1	1.0	45.0	3.0
BLK2	F608200-BLK2	1.0	45.0	3.0
BLK3	F608200-BLK3	1.0	45.0	3.0
BSI	F608200-BSI	1.0	45.0	3.0
BSDI	F608200-BSDI	1.0	45.0	3.0
DUPI	F608200-DUPI	1.0	45.0	3.0
MSI	F608200-MSI	1.0	45.0	3.0
MSDI	F608200-MSDI	1.0	45.0	3.0
MS2	F608200-MS2	1.0	45.0	4.0
MSD2	F608200-MSD2	1.0	45.0	4.0
1	1607339-01REIB	1.0	45.0	4.0
2	1607339-02REIB	1.0	45.0	4.0
3	1607380-01REIB	1.0	45.0	3.0
4	1607380-03REIB	1.0	45.0	4.0
5	1607380-05REIB	1.0	45.0	3.0
6	1607380-07REIB	1.0	45.0	3.0
7	1607380-09REIB	1.0	45.0	3.0
8	1607380-13REIB	1.0	45.0	3.0
9	1607586-01REIB	1.0	45.0	4.0
10	1607586-02REIB	1.0	45.0	4.0
11	1607586-03REIB	1.0	45.0	3.0
12	1607586-04REIB	1.0	45.0	3.0
13	1607586-05REIB	1.0	45.0	3.0
14	1607586-06REIB	1.0	45.0	3.0
15	1607586-07B	1.0	45.0	3.0
16	1607586-08B	1.0	45.0	3.0
17	1607586-09B	1.0	45.0	3.0
18	1607586-10B	1.0	45.0	3.0
19	1607586-11B	1.0	45.0	4.0
20	1607586-13B	1.0	45.0	3.0
AMB 8/4/16				

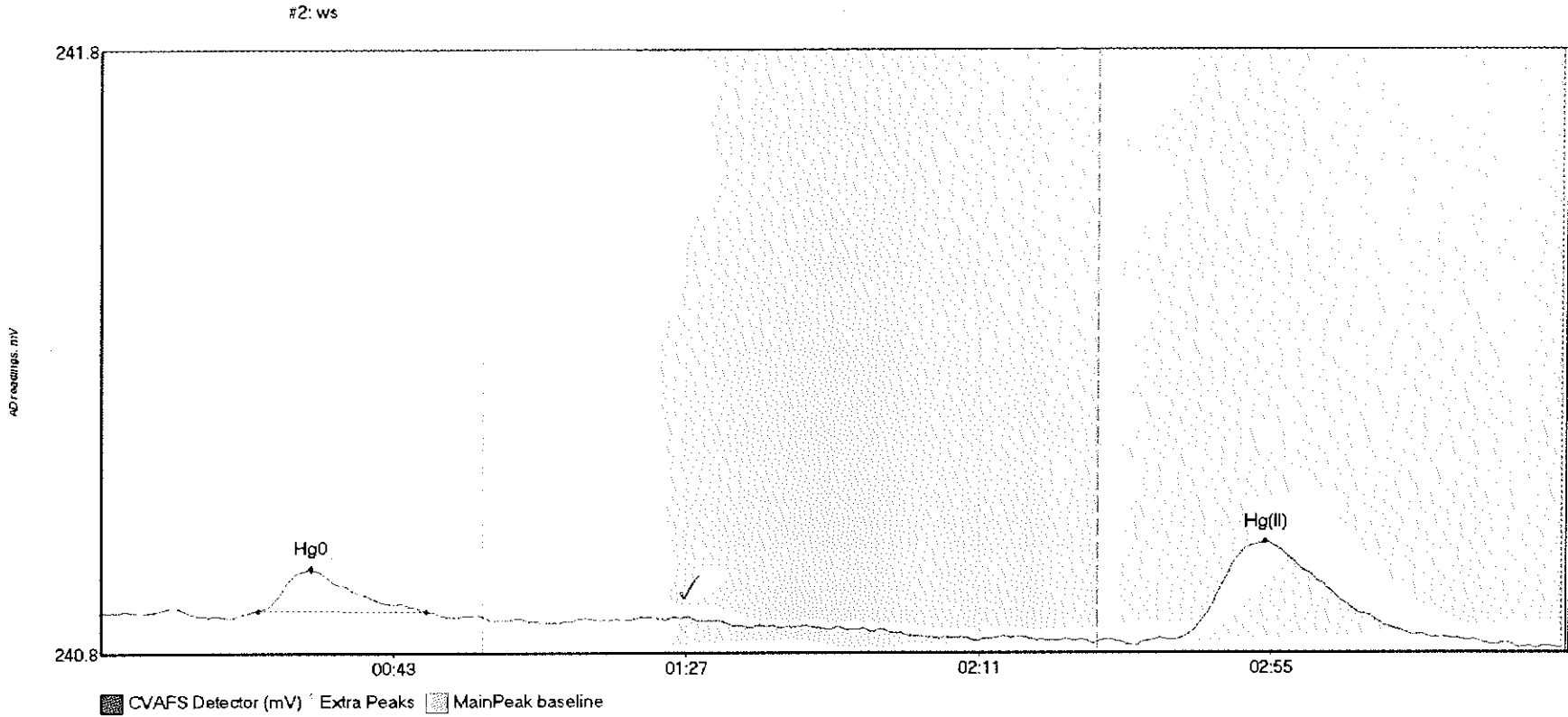
Spike ID: 1603908
 Spike Amount: 45 µL
 Spike Witness: JH
 Balance #: 2
 Calibrated? Yes No
 Pipette #: N27707
 Cal. Date: 8-2-16
 Pipette #: CJ17087
 Cal. Date: 8-2-16
 Pipette #: N/A
 Cal. Date: N/A
 APDC ID: 1604260
 HCI ID: 1604330
 Temperature: No set range as the temp. may be changed to keep flow rate of ≥10 mL per hour. Temperature is recorded for informational purposes only.
 Unit 1: 121.2 ^{AMB 8-4-16}
 Unit 2: ~~121.0~~ 121.0
 Unit 3: 120.6
 Unit 4: 120.2
 Unit 5: 122.0
 Unit 6: 122.0
 Comments:
 DUPI source:
1607380-01B
 MSI/MSDI source:
1607380-05REIB
 MS2/MSD2 source:
1607586-11B

#1: Clean



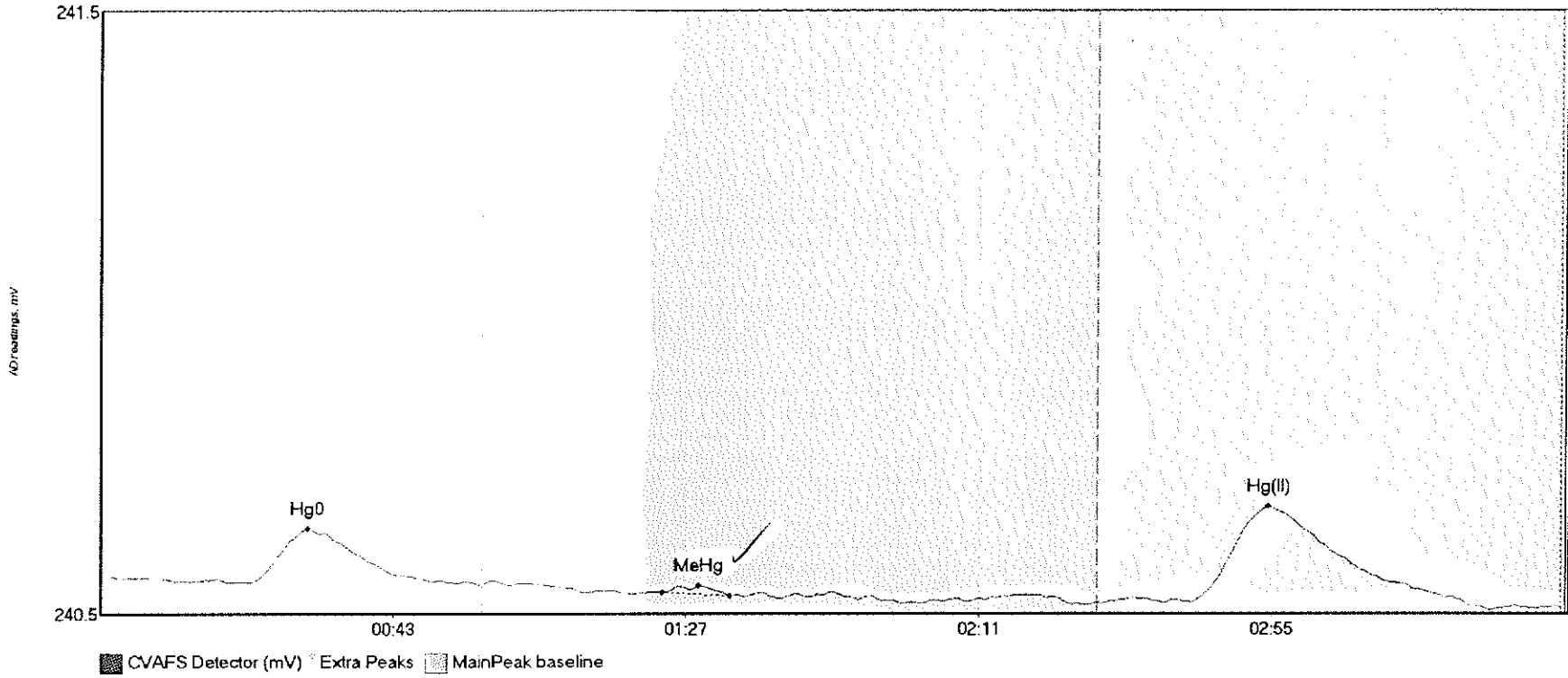
ALL PEAKS VERIFIED BY DMW 8/9/10

Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
Clean	0.465	93.2	102.3	241.04	241.05	98.8	0.012	OK	241.0678	0.00	-0.04	016



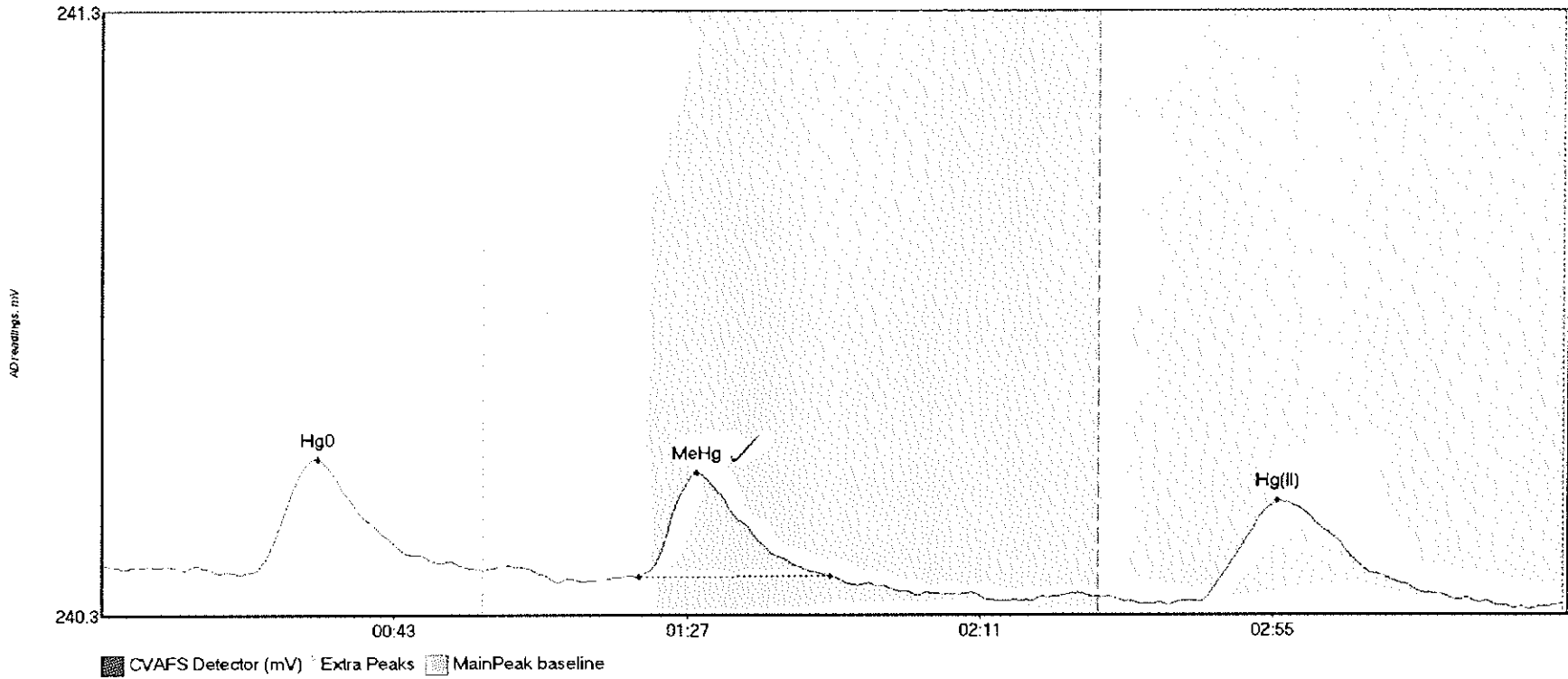
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
ws Hg0	7.915	23.7	48.9	240.85	240.84	31.7	0.068	OK	240.8435	0.00	-0.06	
ws Hg(II)	27.993	161.5	200.5	240.80	240.80	175.2	0.163	OK	240.8435	0.00	-0.06	016

#3: SEQ-IBL1



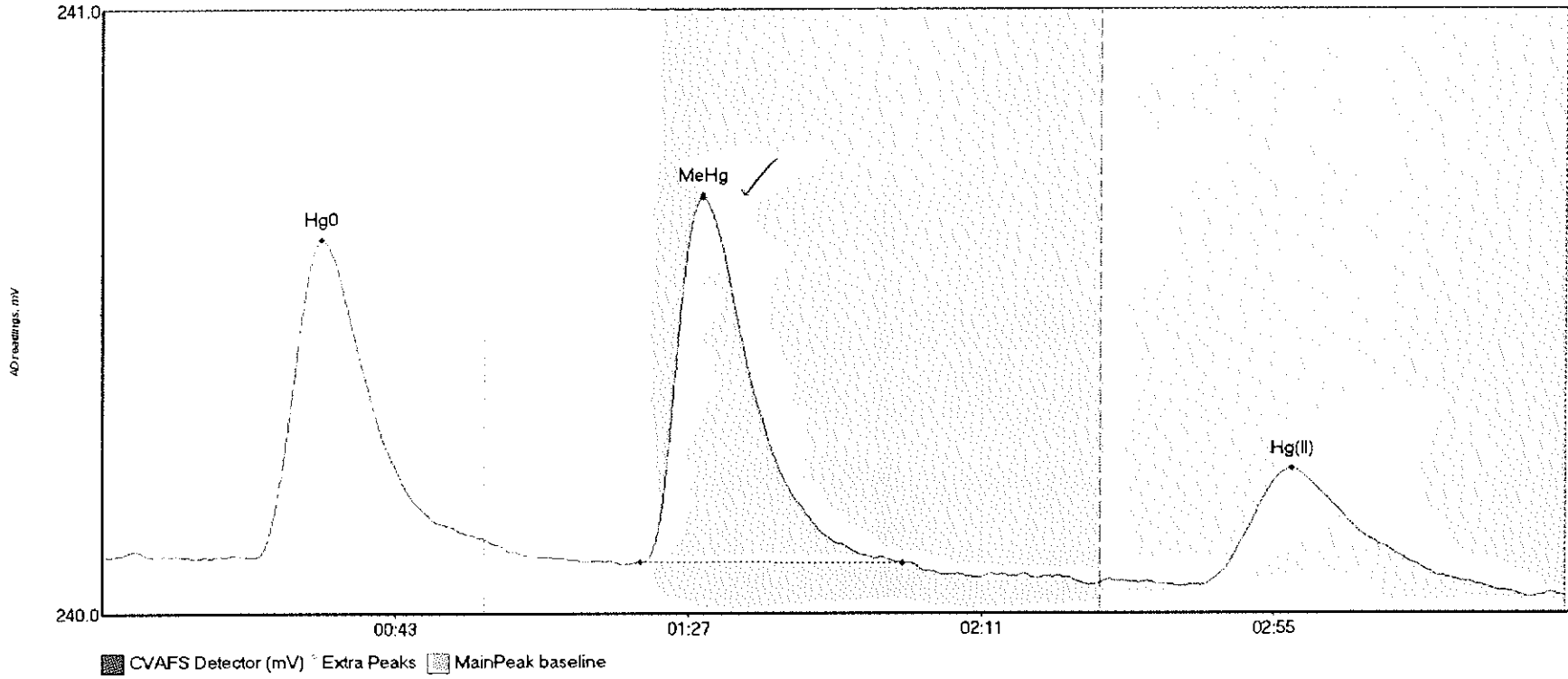
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
SEQ-IBL1 Hg0	9.493	22.6	44.2	240.59	240.61	31.2	0.089	OK	240.6055	0.00	-0.05	
SEQ-IBL1 MeHg	0.810	84.5	94.8	240.58	240.57	90.0	0.010	OK	240.6055	0.00	-0.05	
SEQ-IBL1 Hg(II)	29.090	164.2	206.2	240.56	240.56	175.6	0.158	OK	240.6055	0.00	-0.05	

#4: SEQ-CAL1



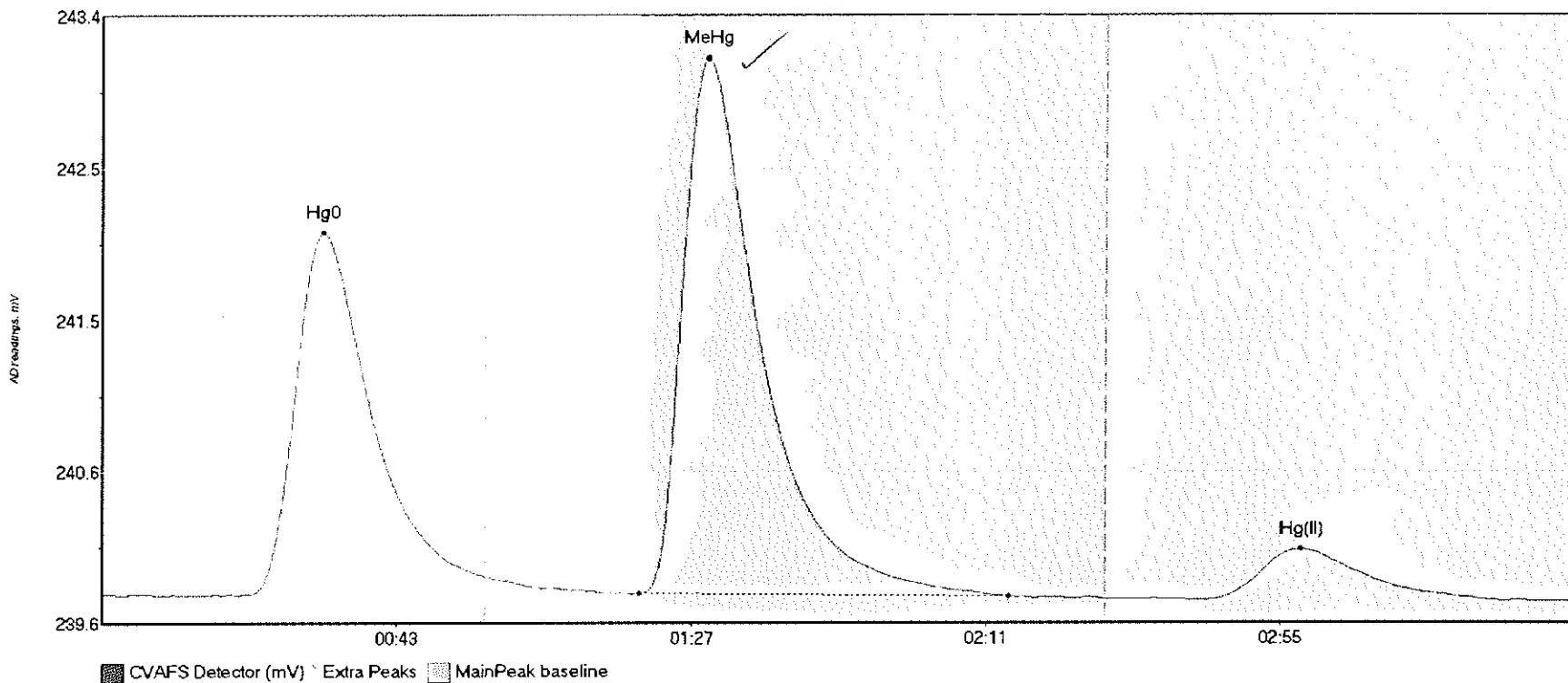
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
SEQ-CAL1 Hg0	22.411	22.4	51.1	240.34	240.36	32.6	0.189	OK	240.3554	0.00	-0.06	
SEQ-CAL1 MeHg	20.697	80.7	109.6	240.34	240.34	89.5	0.173	OK	240.3554	0.00	-0.06	
SEQ-CAL1 Hg(II)	26.675	165.2	200.3	240.30	240.31	176.8	0.166	OK	240.3554	0.00	-0.06	

#5: SEQ-CAL2



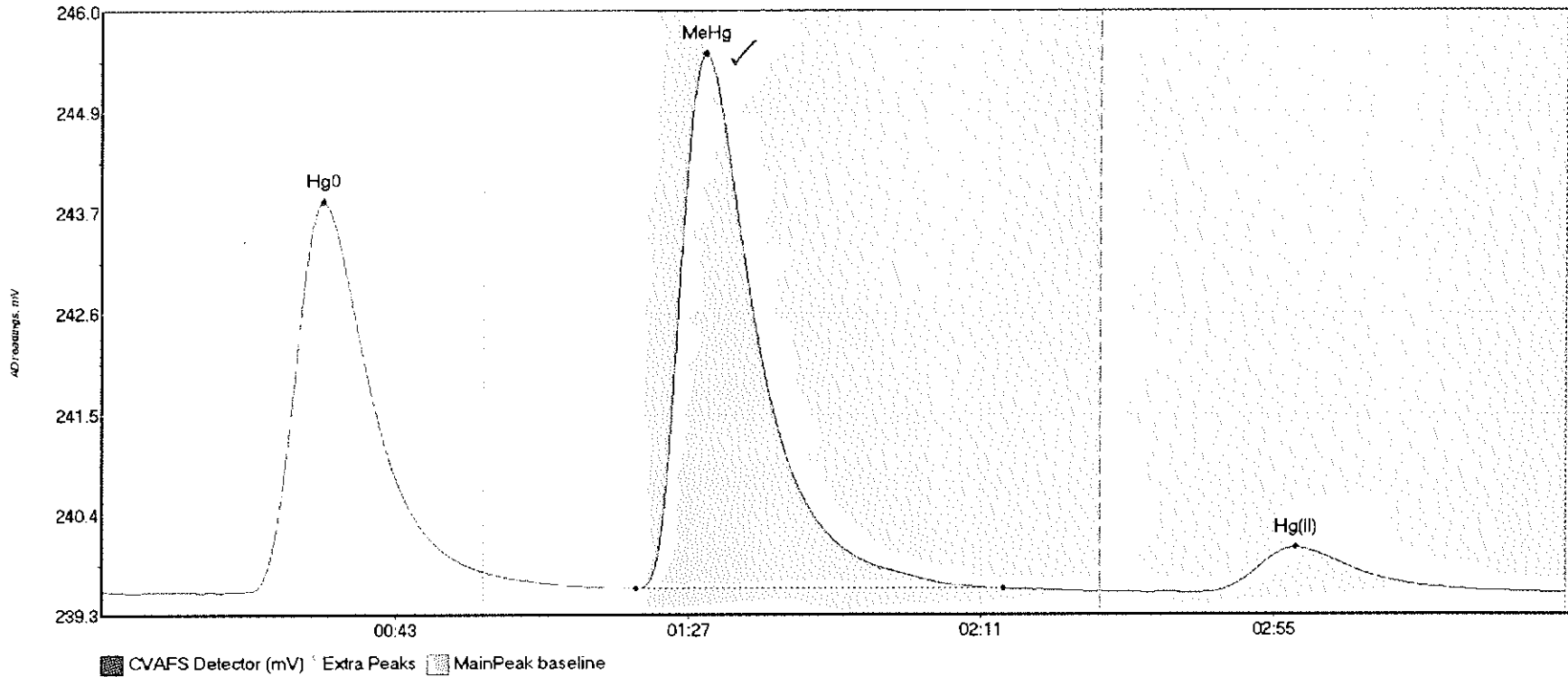
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	SlDev	SlShift	Comment
SEQ-CAL2 Hg0	66.147	22.8	57.5	240.07	240.10	32.9	0.526	CT	240.0687	0.00	-0.06	
SEQ-CAL2 MeHg	78.453	80.8	120.2	240.06	240.06	90.1	0.605	OK	240.0687	0.00	-0.06	
SEQ-CAL2 Hg(II)	32.644	165.0	204.3	240.02	240.03	178.8	0.194	OK	240.0687	0.00	-0.06	

#6: SEQ-CAL3



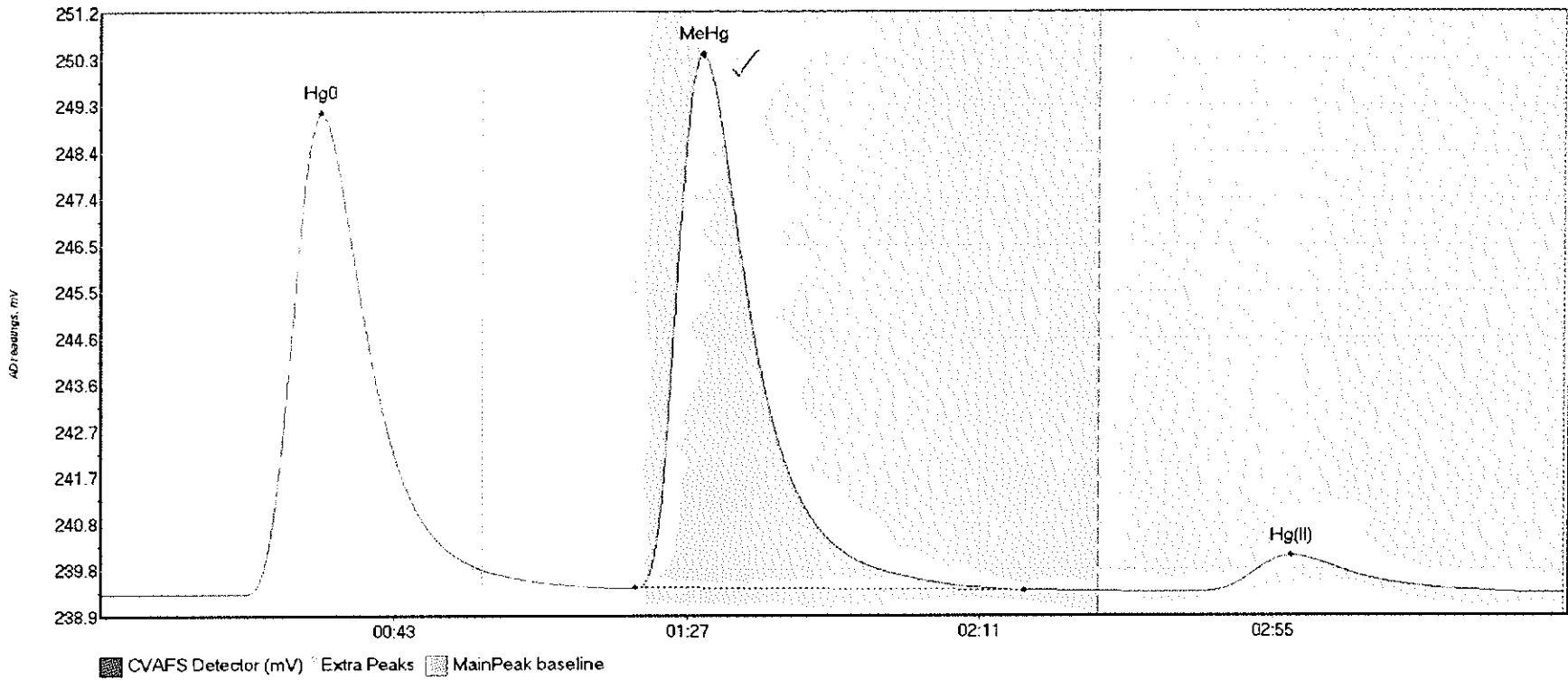
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BiDev	ElShift	Comment
SEQ-CAL3 Hg0	285.317	21.8	57.5	239.80	239.91	33.0	2.265	CT	239.7994	0.00	-0.04	
SEQ-CAL3 MeHg	456.927	80.1	135.4	239.80	239.79	90.4	3.345	OK	239.7994	0.00	-0.04	
SEQ-CAL3 Hg(II)	55.396	164.5	208.3	239.76	239.76	179.2	0.316	OK	239.7994	0.00	-0.04	

#7: SEQ-CAL4



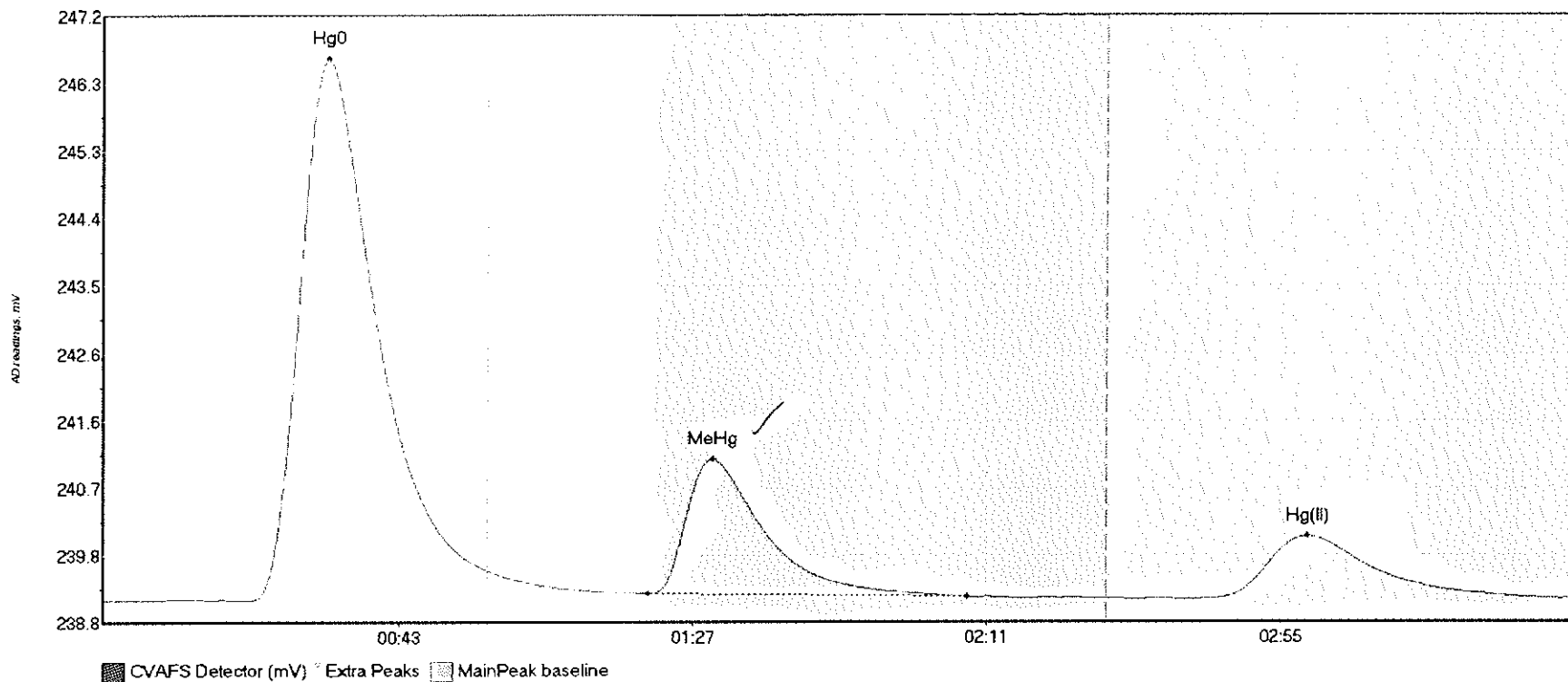
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
SEQ-CAL4 Hg0	547.723	20.5	57.5	239.55	239.76	33.1	4.317	CP	239.5502	0.00	-0.02	
SEQ-CAL4 MeHg	801.876	80.1	135.5	239.59	239.58	90.6	5.907	OK	239.5502	0.00	-0.02	
SEQ-CAL4 Hg(II)	82.309	164.7	208.1	239.54	239.55	179.3	0.497	OK	239.5502	0.00	-0.02	

#8: SEQ-CAL5



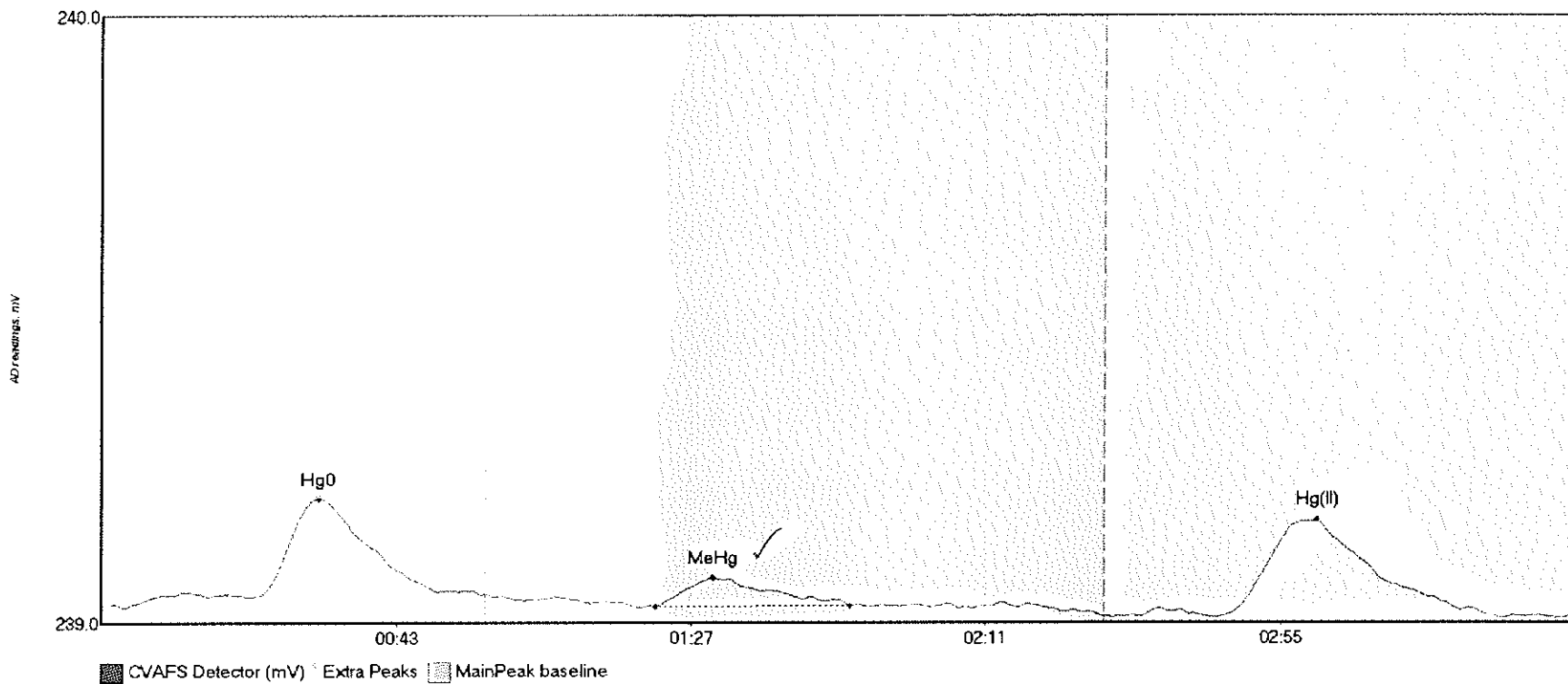
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
SEQ-CAL5 Hg0	1257.754	20.7	57.5	239.33	239.83	32.9	9.617	CT	239.3382	0.00	0.01	
SEQ-CAL5 MeHg	1483.677	80.1	138.7	239.46	239.41	90.3	10.864	OK	239.3382	0.00	0.01	
SEQ-CAL5 Hg(II)	133.834	164.9	216.6	239.38	239.36	178.9	0.734	OK	239.3382	0.00	0.01	

#9: SEQ-ICV1



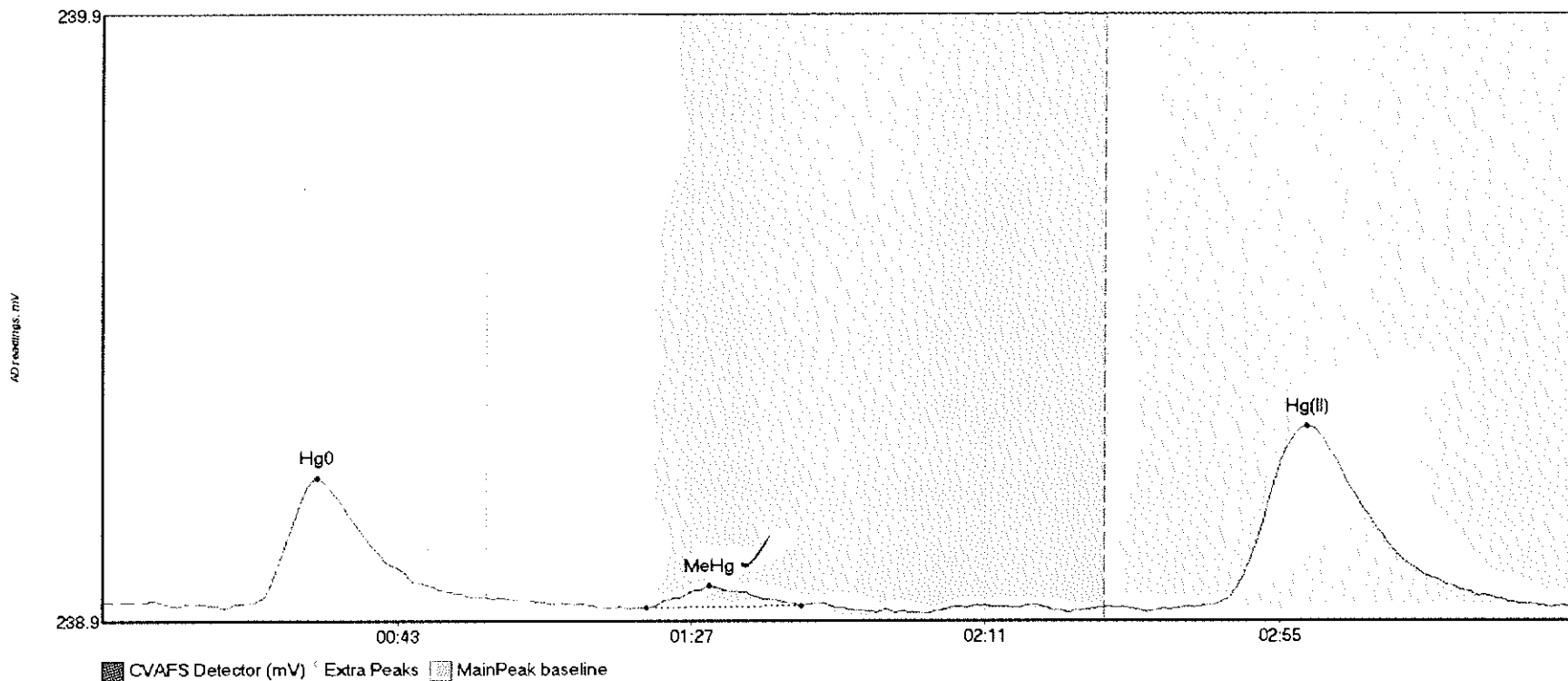
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
SEQ-ICV1 Hg0	943.958	21.2	57.5	239.15	239.55	33.4	7.442	CT	239.1480	0.00	0.03	
SEQ-ICV1 MeHg	248.882	81.4	129.1	239.24	239.20	91.0	1.850	OK	239.1480	0.00	0.03	
SEQ-ICV1 Hg(II)	156.860	163.3	216.6	239.17	239.17	180.1	0.865	OK	239.1480	0.00	0.03	

#10: SEQ-ICB1



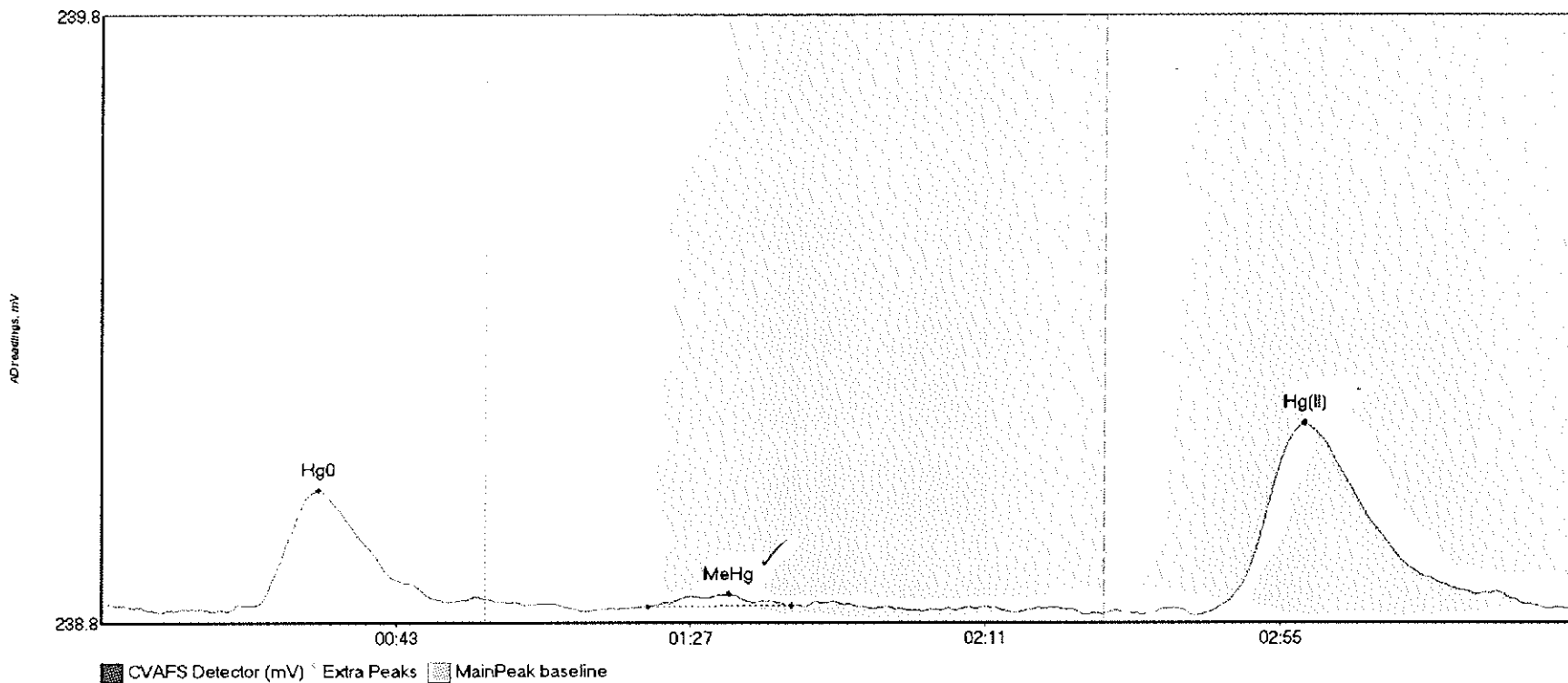
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
SEQ-ICB1 Hg0	23.979	5.2	56.8	239.00	239.02	32.3	0.175	OK	239.0020	0.00	-0.02	
SEQ-ICB1 MeHg	6.869	82.7	111.8	239.00	239.00	91.3	0.047	OK	239.0020	0.00	-0.02	
SEQ-ICB1 Hg(II)	27.736	166.6	207.2	238.98	238.98	181.4	0.160	OK	239.0020	0.00	-0.02	

#11: F607432-BLK7



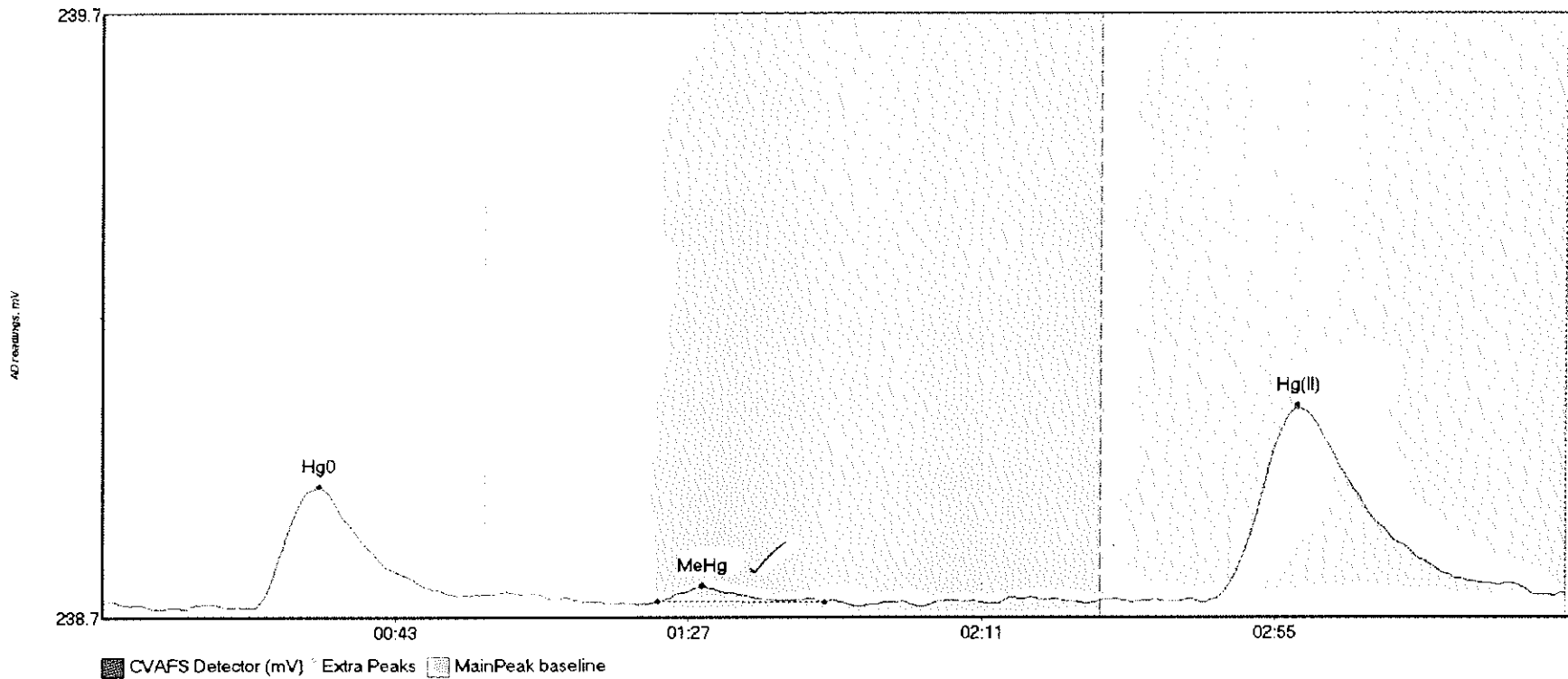
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BiDev	BiShift	Comment
F607432-BLK7 Hg	26.392	22.2	57.5	238.88	238.89	32.0	0.205	CT	238.8824	0.00	-0.01	
F607432-BLK7 Me	4.051	81.5	104.5	238.87	238.88	90.8	0.036	OK	238.8824	0.00	-0.01	
F607432-BLK7 Hg	51.091	166.2	212.8	238.88	238.88	180.0	0.295	OK	238.8824	0.00	-0.01	

#12: F607432-BLK8



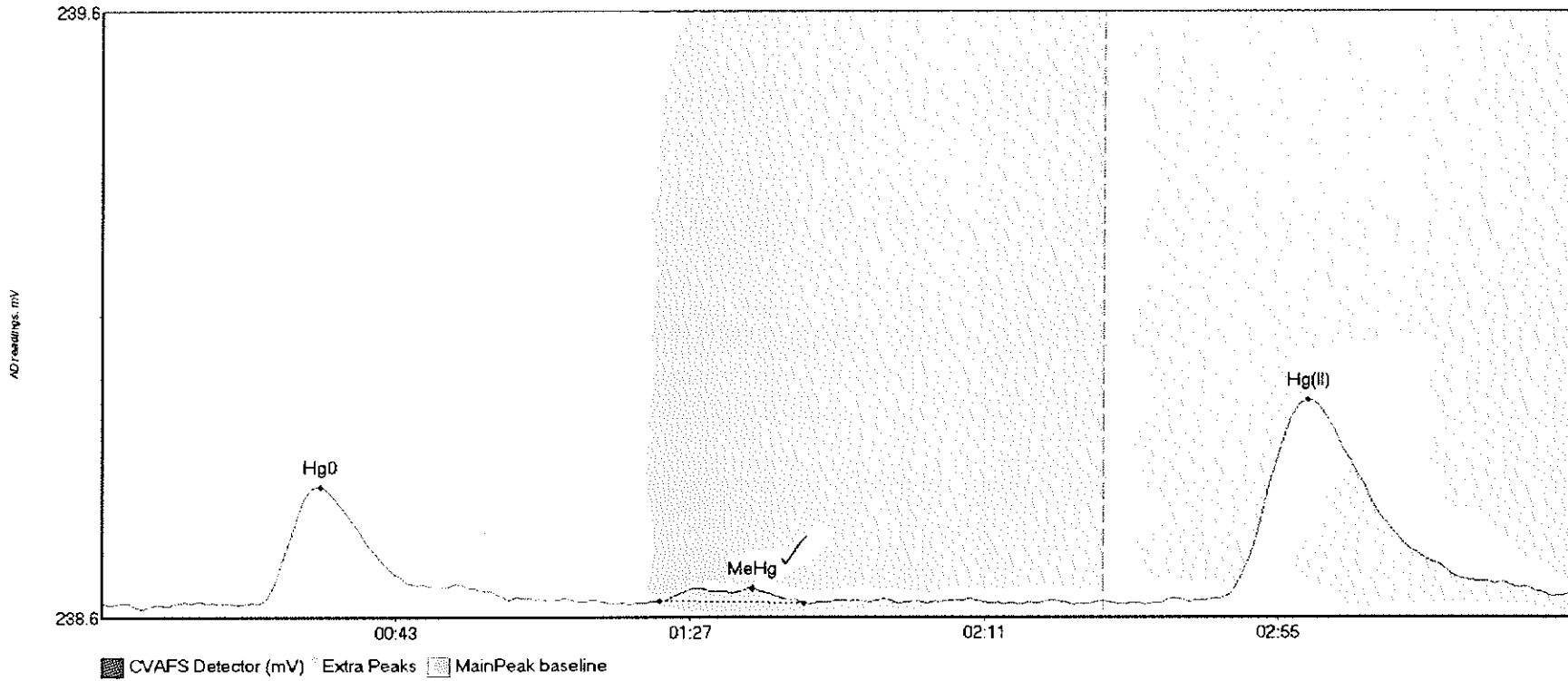
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
F607432-BLK8 Hg	23.665	22.7	51.2	238.78	238.79	32.5	0.190	OK	238.7864	0.00	-0.01	
F607432-BLK8 Me	2.237	81.7	103.0	238.78	238.78	93.8	0.021	OK	238.7864	0.00	-0.01	
F607432-BLK8 Hg	56.463	164.1	219.0	238.77	238.78	179.6	0.315	OK	238.7864	0.00	-0.01	

#13: F607432-BLK9



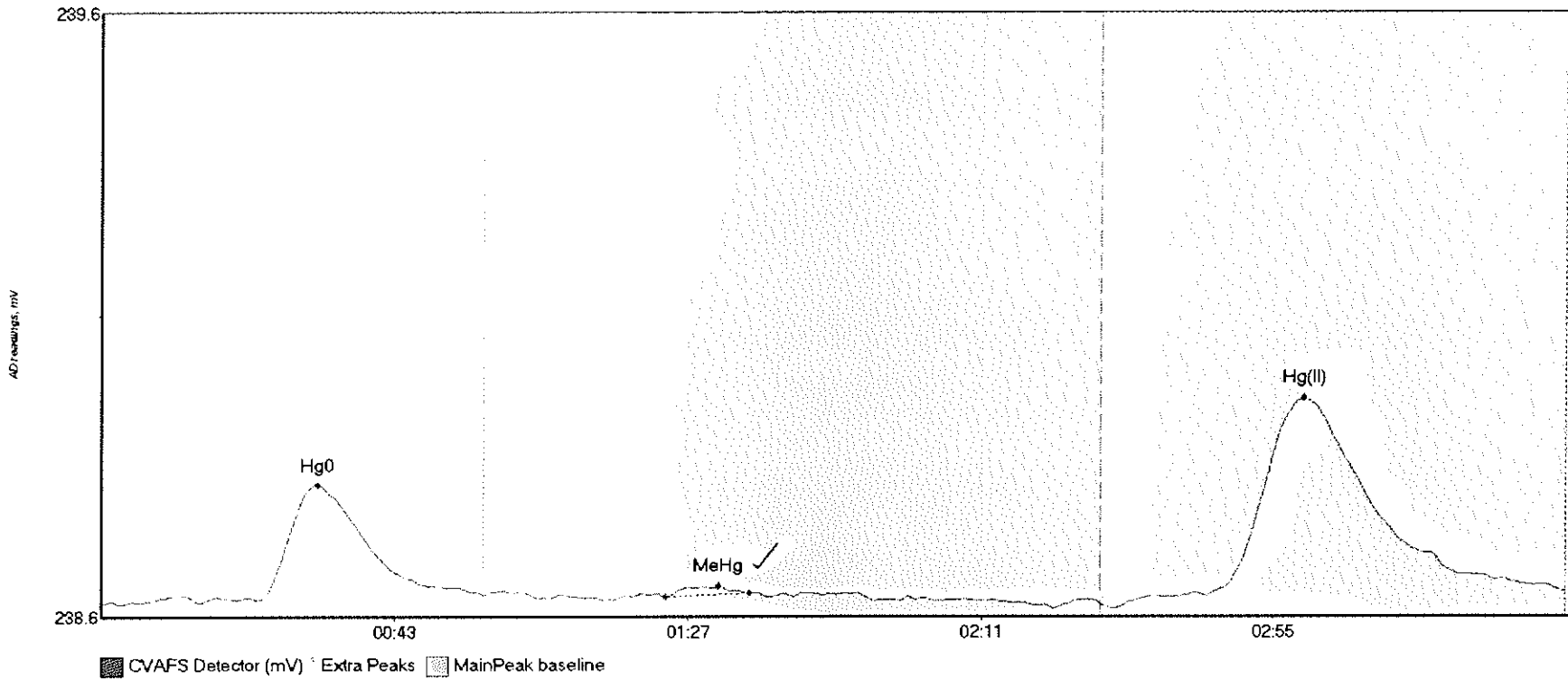
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BiDev	BlShift	Comment
F607432-BLK9 Hg	25.669	22.5	53.6	238.69	238.71	32.6	0.202	OK	238.7028	0.00	0.01	
F607432-BLK9 Me	2.604	83.5	108.5	238.70	238.70	90.2	0.025	OK	238.7028	0.00	0.01	
F607432-BLK9 Hg	56.578	166.8	218.0	238.71	238.71	179.5	0.318	OK	238.7028	0.00	0.01	

#14: *F607432-BLKA



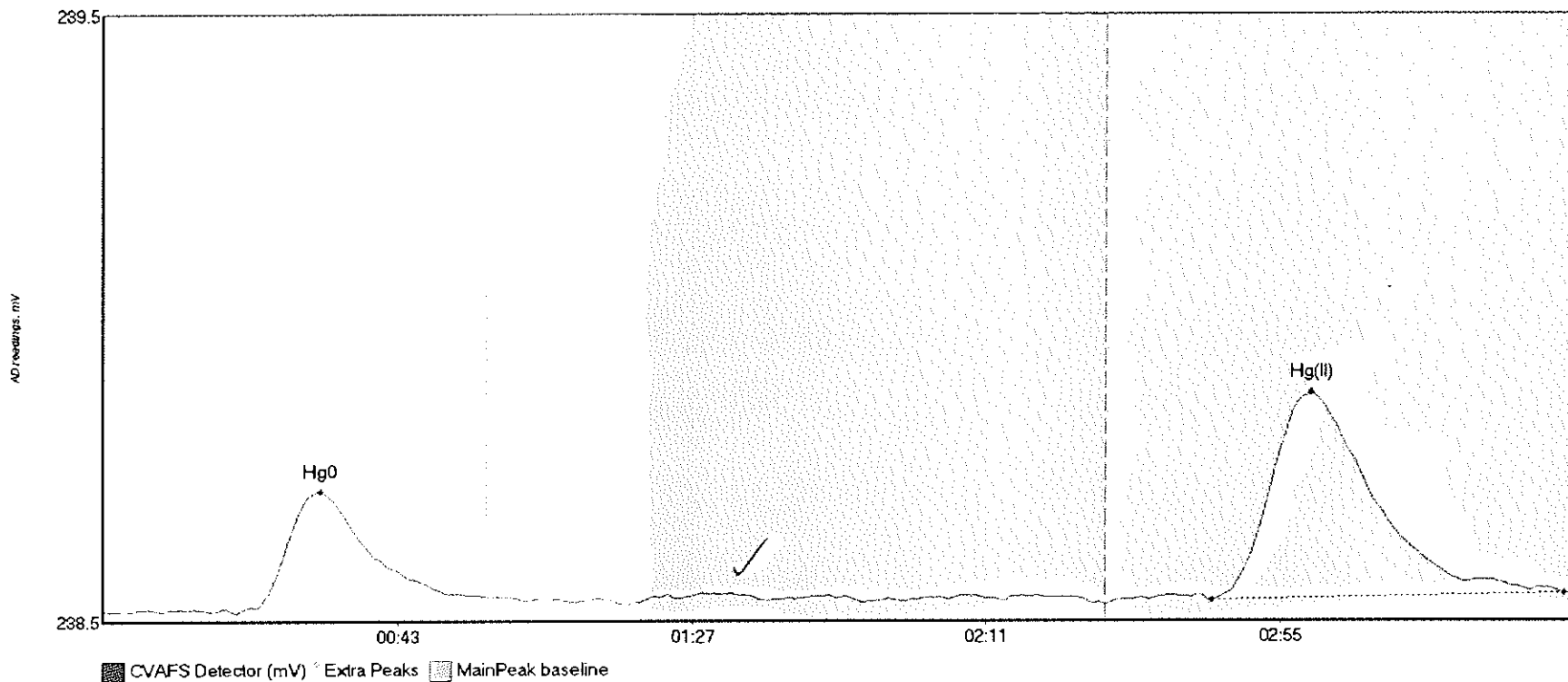
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
*F607432-BLKA H	23.638	23.4	57.5	238.63	238.66	32.7	0.193	CT	238.6357	0.00	0.02	
*F607432-BLKA M	3.199	83.4	105.2	238.64	238.64	97.4	0.022	OK	238.6357	0.00	0.02	
*F607432-BLKA H	59.358	165.2	217.2	238.64	238.65	180.4	0.332	OK	238.6357	0.00	0.02	

#15: *F607432-BLKB



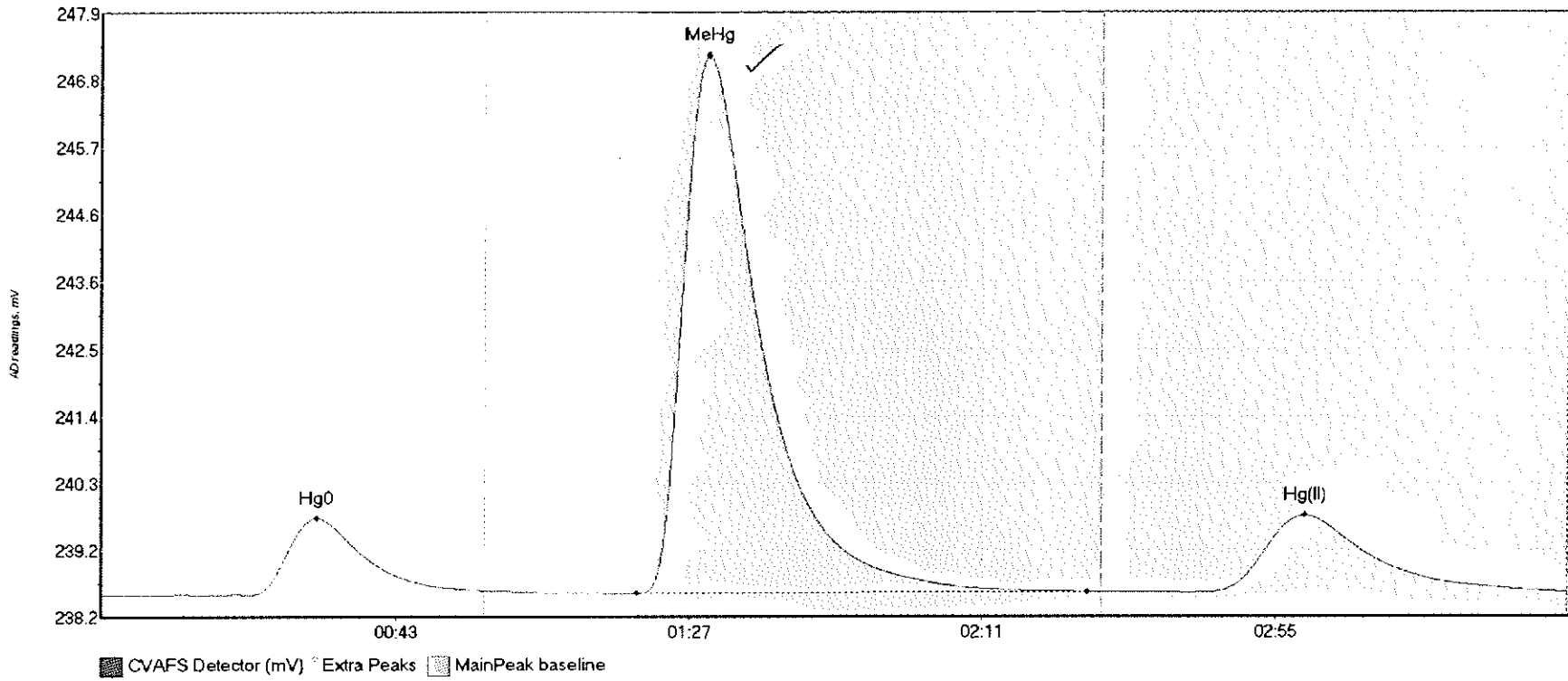
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
*F607432-BLKB H	25.110	14.6	57.4	238.59	238.60	32.4	0.196	OK	238.5855	0.00	0.02	
*F607432-BLKB M	1.089	84.6	97.3	238.60	238.60	92.6	0.017	OK	238.5855	0.00	0.02	
*F607432-BLKB H	65.450	152.1	219.8	238.58	238.61	180.6	0.348	CT	238.5855	0.00	0.02	

#16: *F607432-BLKC



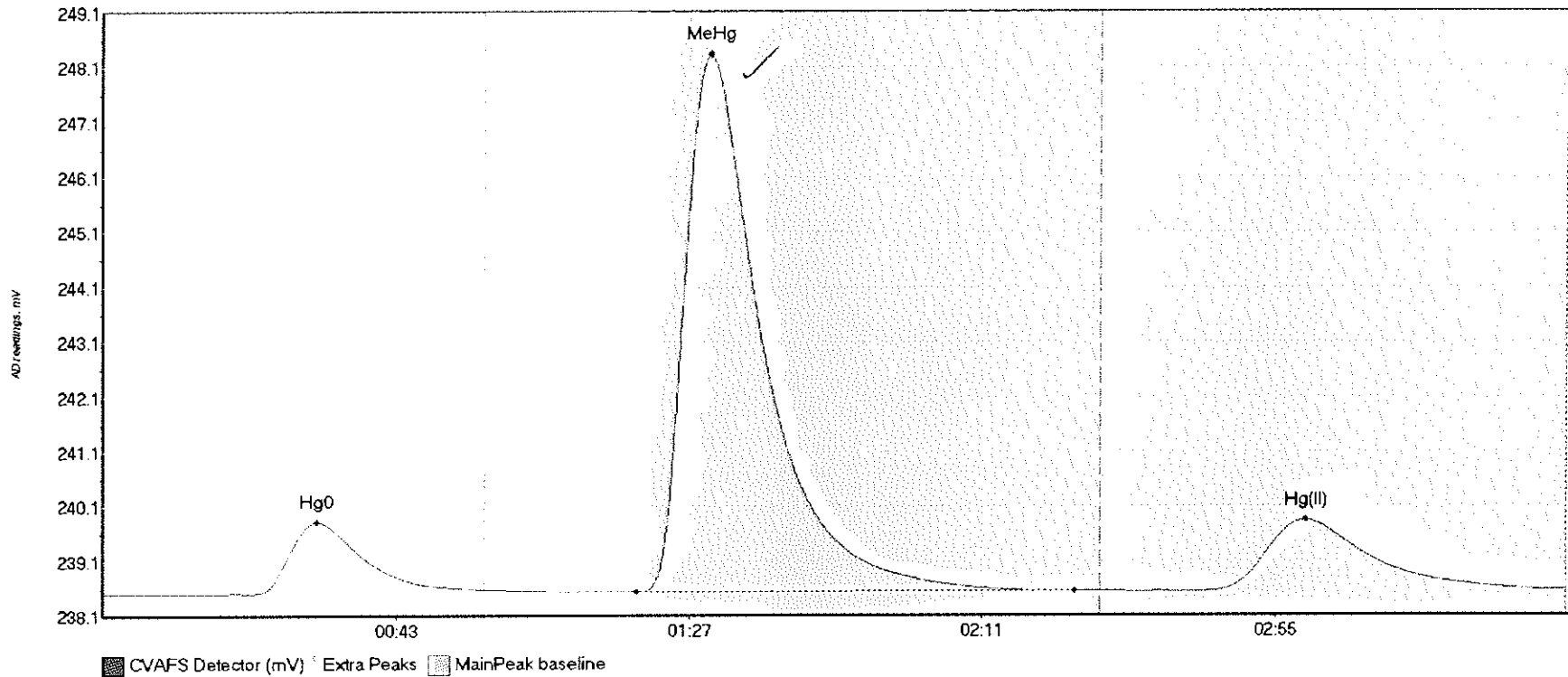
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BiDev	BiShift	Comment
*F607432-BLKC H	25.171	22.7	57.5	238.54	238.56	32.4	0.192	CT	238.5400	0.00	0.03	
*F607432-BLKC H	60.154	165.7	218.5	238.56	238.57	180.6	0.341	OK	238.5400	0.00	0.03	

#17: F607432-BS2



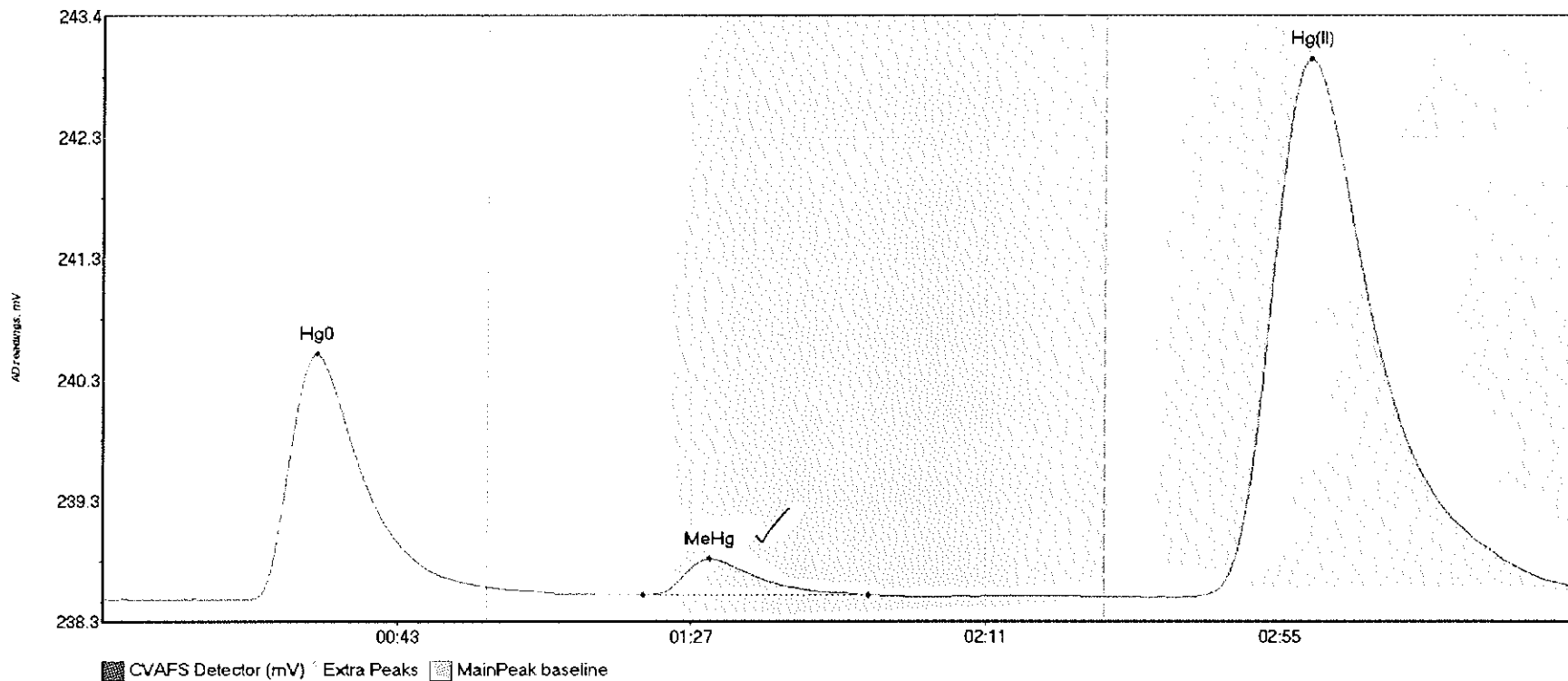
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
F607432-BS2 Hg0	152.115	6.1	57.5	238.51	238.58	32.1	1.240	CT	238.5068	0.00	0.06	
F607432-BS2 MeH	1180.485	80.1	147.8	238.53	238.56	90.9	8.657	OK	238.5068	0.00	0.06	
F607432-BS2 Hg(	223.154	164.5	218.4	238.55	238.57	180.4	1.240	OK	238.5068	0.00	0.06	

#18: F607432-BSD2



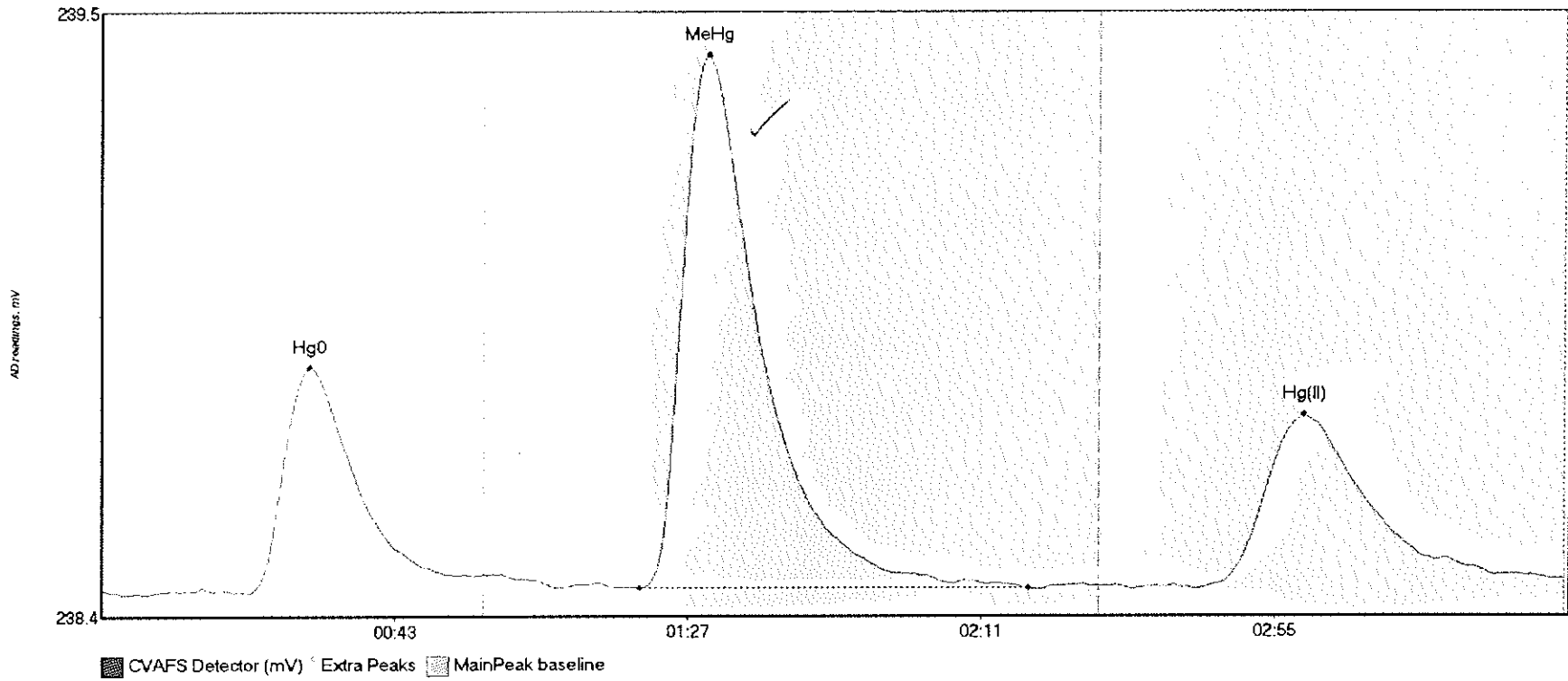
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
F607432-BSD2 Hg	157.427	14.1	57.5	238.49	238.56	32.2	1.322	CT	238.4830	0.00	0.07	
F607432-BSD2 Me	1332.959	80.1	146.0	238.52	238.54	91.1	9.833	OK	238.4830	0.00	0.07	
F607432-BSD2 Hg	233.233	164.1	219.8	238.52	238.55	180.6	1.305	CT	238.4830	0.00	0.07	

#19: 1607541-01RE1



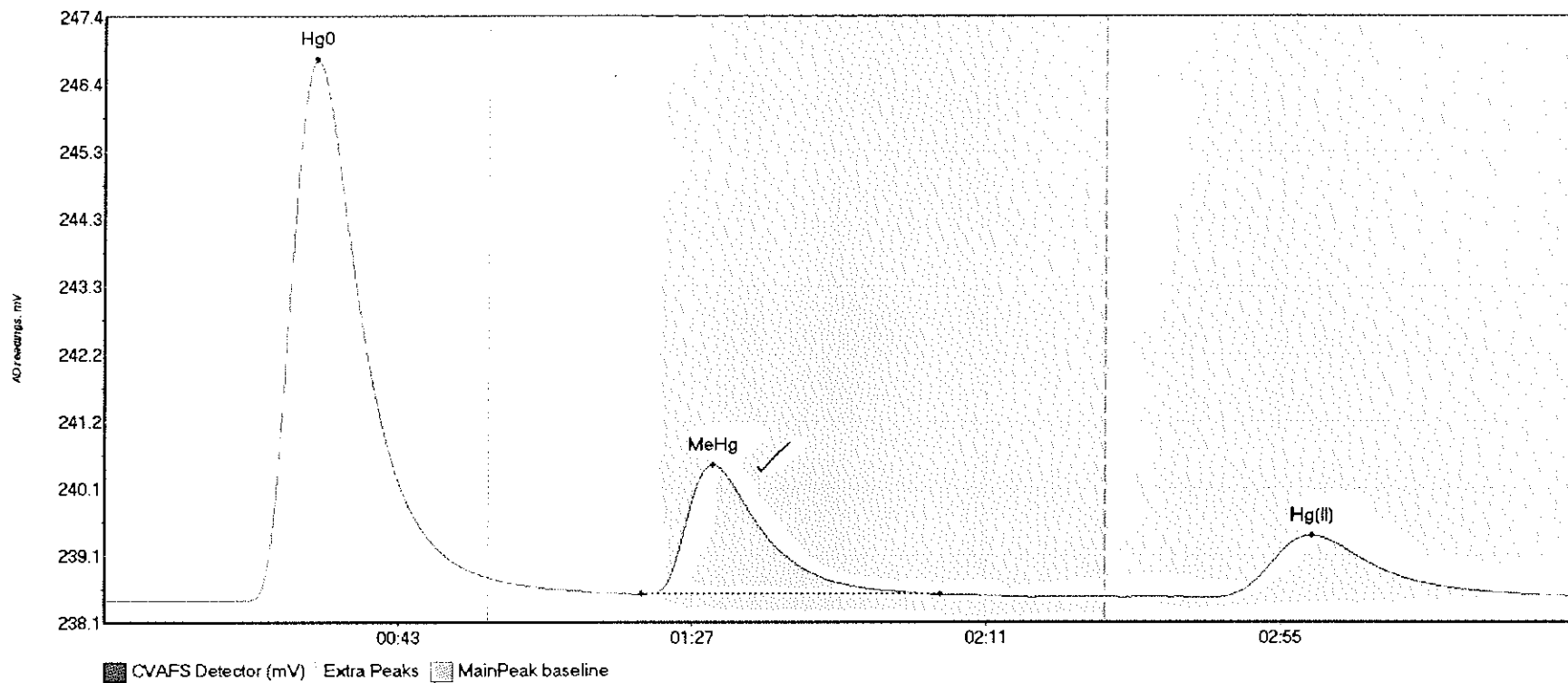
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1607541-01RE1 H	250.783	22.2	57.5	238.46	238.56	32.0	2.063	CT	238.4579	0.00	0.12	
1607541-01RE1 M	37.889	80.9	114.4	238.49	238.49	90.9	0.306	OK	238.4579	0.00	0.12	
1607541-01RE1 H	814.650	161.0	219.8	238.47	238.57	180.5	4.524	CT	238.4579	0.00	0.12	

#20: 1607655-01RE1



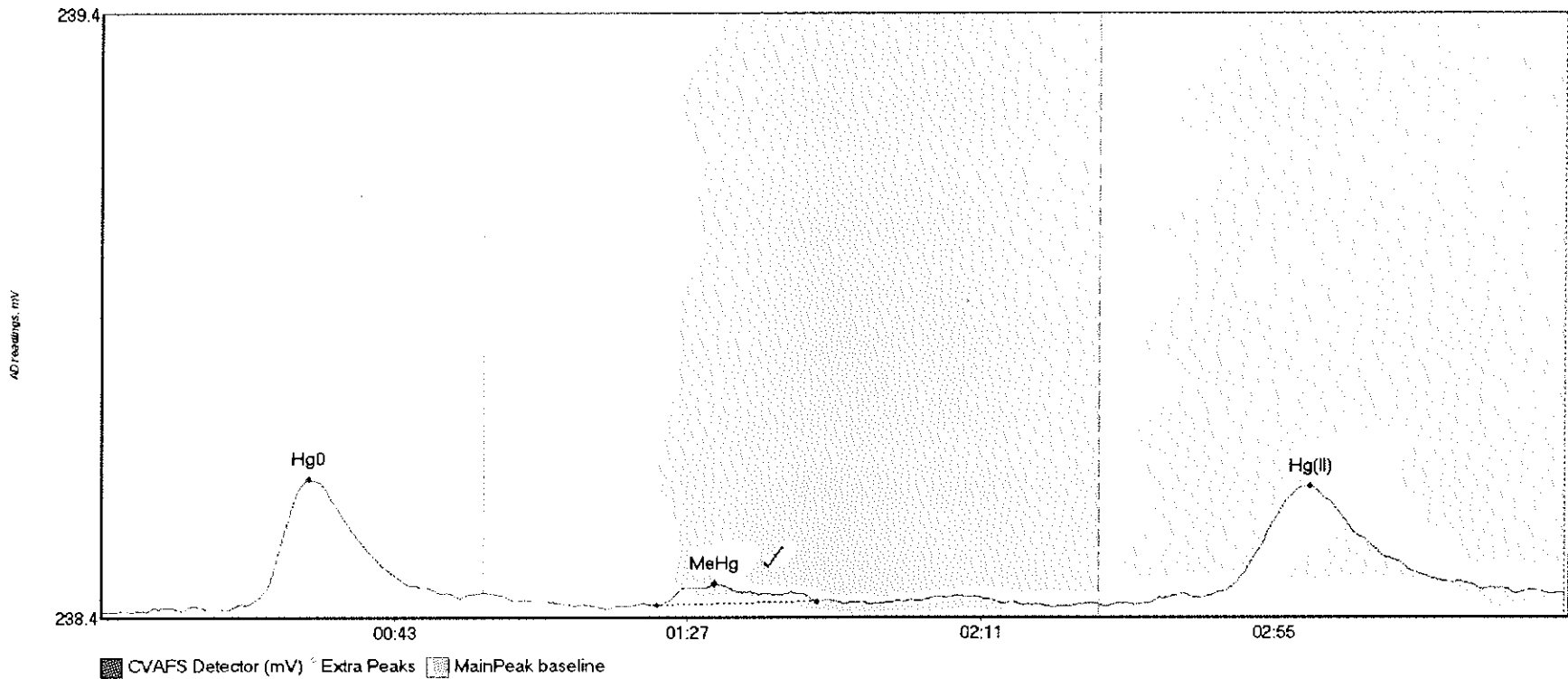
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1607655-01RE1 H	49.869	22.2	55.9	238.44	238.47	31.3	0.432	OK	238.4440	0.00	0.02	
1607655-01RE1 M	138.645	80.9	139.1	238.45	238.45	91.1	1.020	OK	238.4440	0.00	0.02	
1607655-01RE1 H	57.815	164.9	219.4	238.45	238.46	180.5	0.331	OK	238.4440	0.00	0.02	

#21: SEQ-CCV1



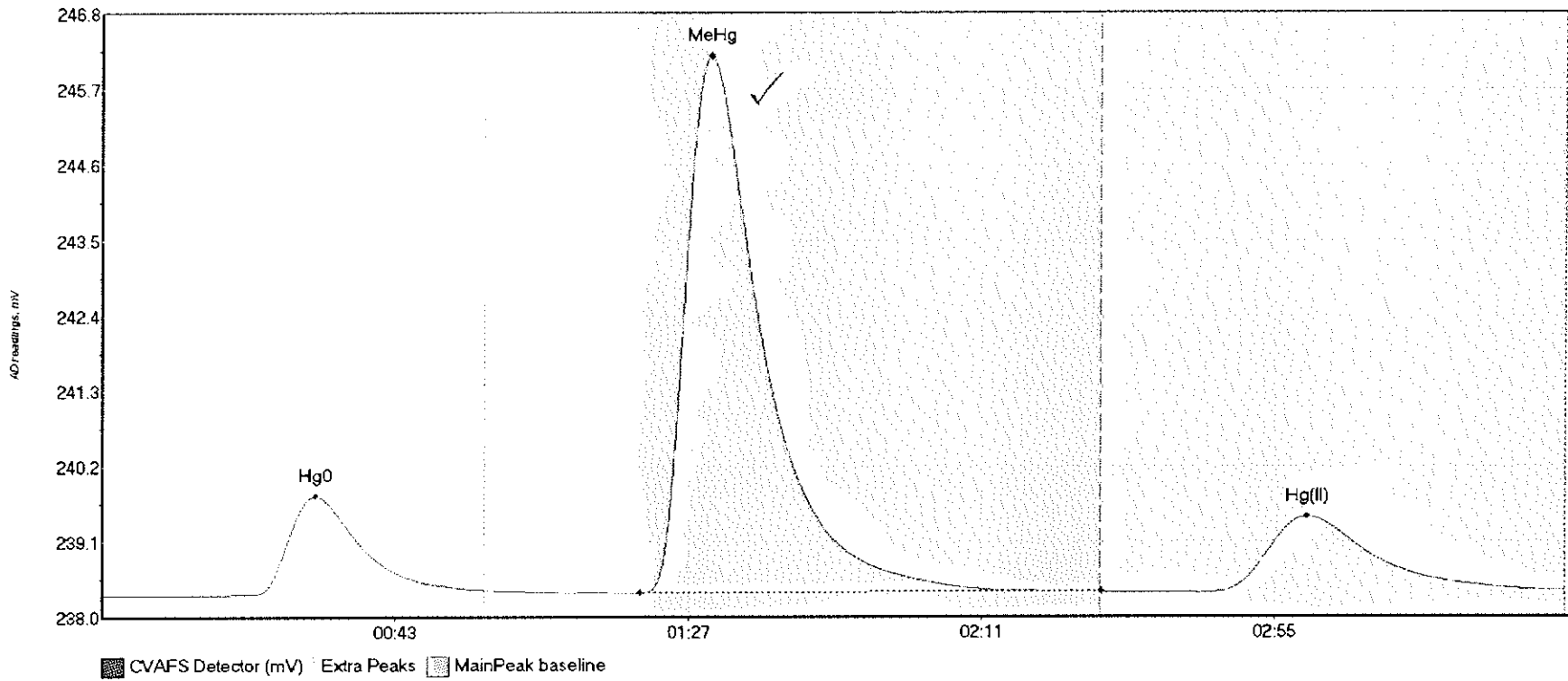
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
SEQ-CCV1 Hg0	1005.569	20.2	57.5	238.41	238.76	31.9	0.321	CT	238.4096	0.00	0.07	
SEQ-CCV1 MeHg	263.521	80.4	125.1	238.51	238.50	91.1	1.994	OK	238.4096	0.00	0.07	
SEQ-CCV1 Hg(II)	172.138	166.8	219.8	238.46	238.48	180.7	0.947	CT	238.4096	0.00	0.07	

#22: SEQ-CCB1



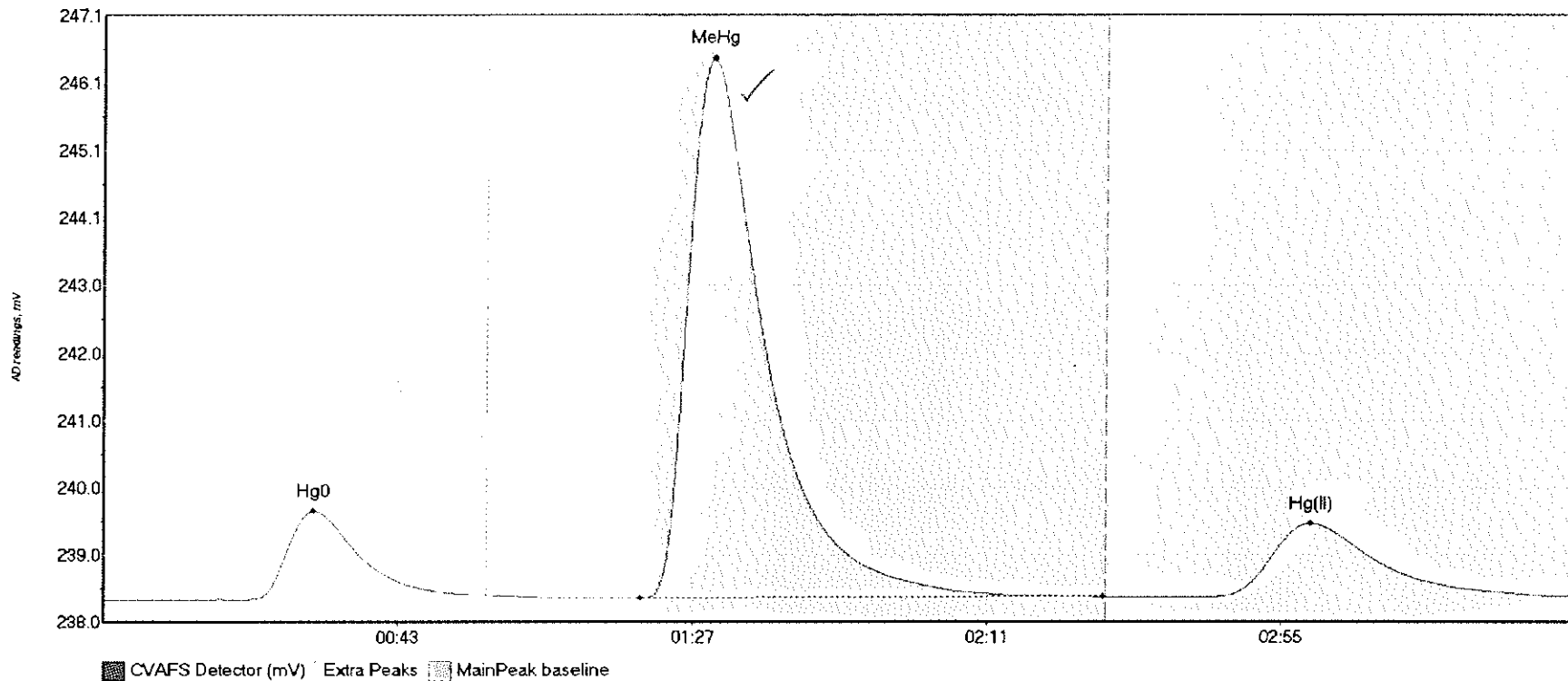
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	SlDev	SlShift	Comment
SEQ-CCB1 Hg0	27.042	19.0	53.7	238.39	238.41	31.2	0.216	OK	238.3831	0.00	0.03	
SEQ-CCB1 MeHg	4.421	83.5	107.4	238.39	238.40	92.2	0.034	OK	238.3831	0.00	0.03	
SEQ-CCB1 Hg(II)	35.365	157.5	217.9	238.40	238.41	181.5	0.193	OK	238.3831	0.00	0.03	

#23: F607432-BS3



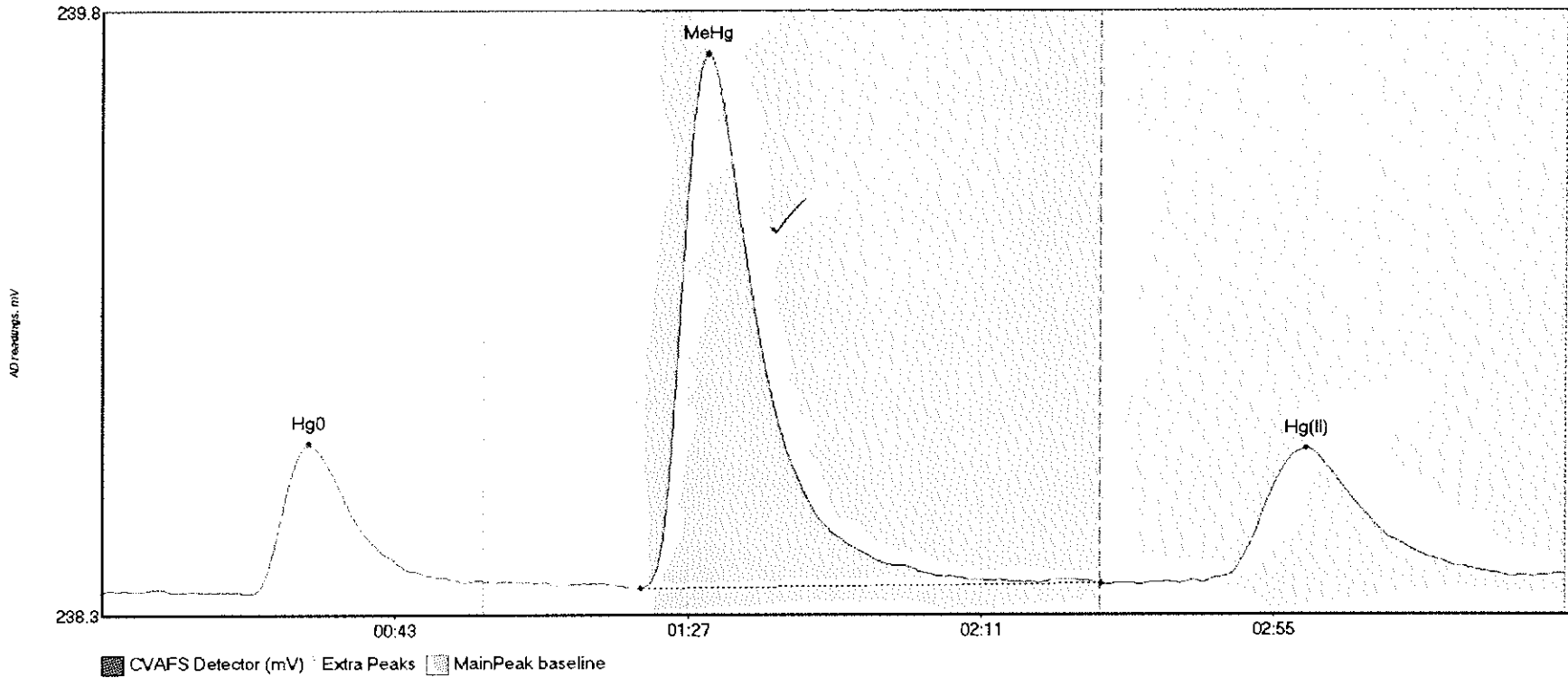
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
F607432-BS3 Hg0	172.325	18.3	57.5	238.37	238.44	32.1	1.441	CT	238.3716	0.00	0.06	
F607432-BS3 MeH	1059.231	80.7	150.0	238.40	238.42	91.4	7.811	CT	238.3716	0.00	0.06	
F607432-BS3 Hg(	196.437	166.1	219.0	238.41	238.43	180.9	1.104	OK	238.3716	0.00	0.06	

#24: F607432-BSD3



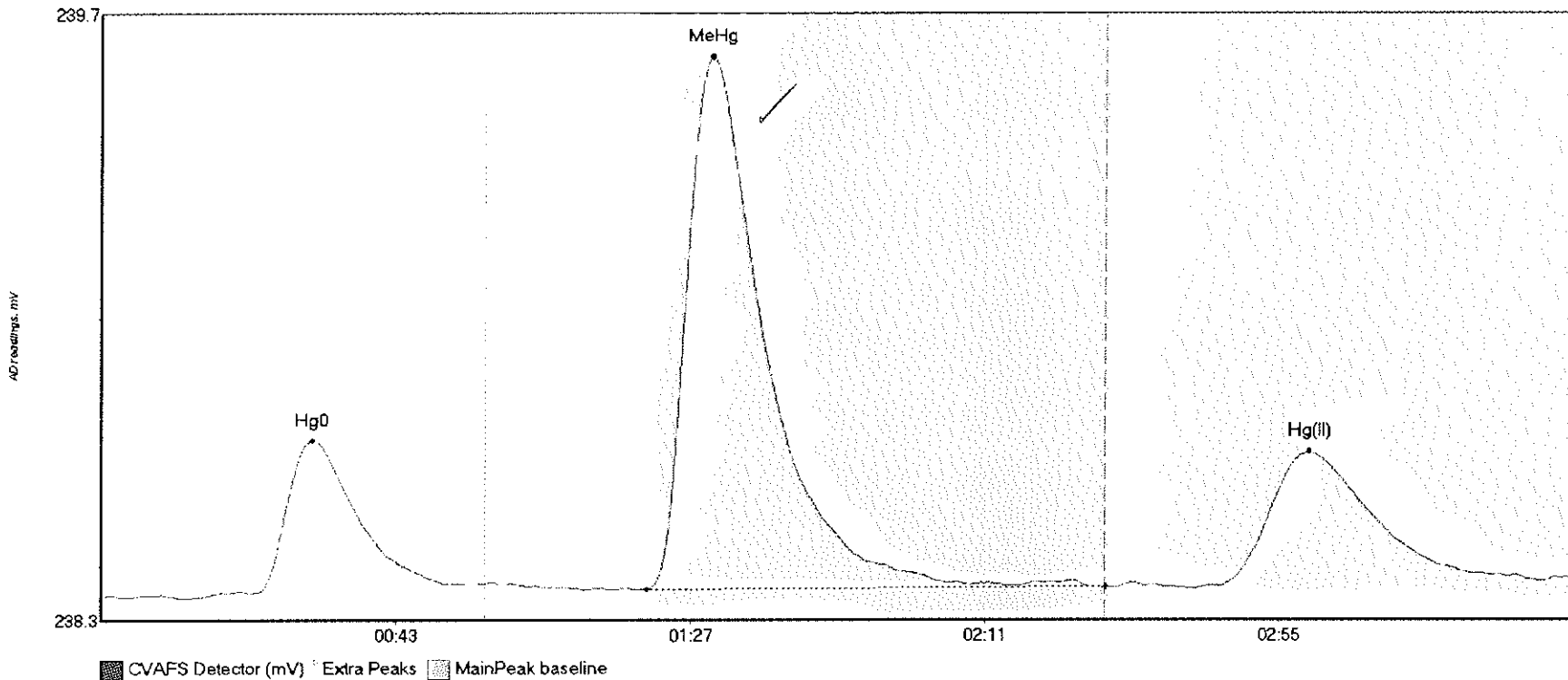
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
F607432-BSD3 Hg	159.123	20.4	57.5	238.35	238.41	31.5	1.331	CT	238.3438	0.00	0.06	
F607432-BSD3 Me	1093.336	80.1	149.4	238.37	238.39	91.1	8.051	OK	238.3438	0.00	0.06	
F607432-BSD3 Hg	196.116	165.9	219.8	238.39	238.40	180.5	1.099	CT	238.3438	0.00	0.06	

#25: 1607655-02RE1



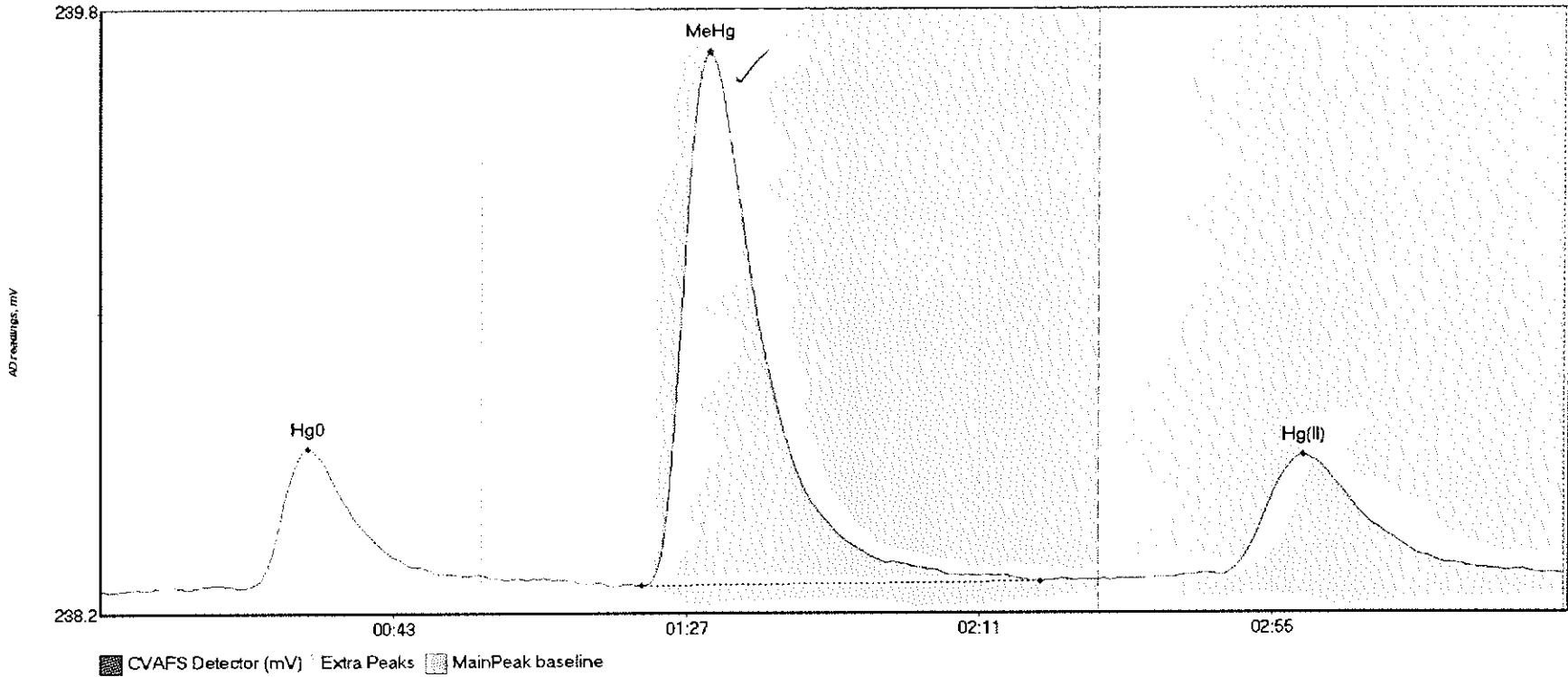
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1607655-02RE1 H	45.516	22.6	54.6	238.33	238.36	31.0	0.386	OK	238.3385	0.00	0.04	
1607655-02RE1 M	190.315	80.9	150.0	238.34	238.35	90.9	1.378	CT	238.3385	0.00	0.04	
1607655-02RE1 H	60.142	161.9	215.0	238.36	238.37	180.9	0.348	OK	238.3385	0.00	0.04	

#26: 1607655-03RE1



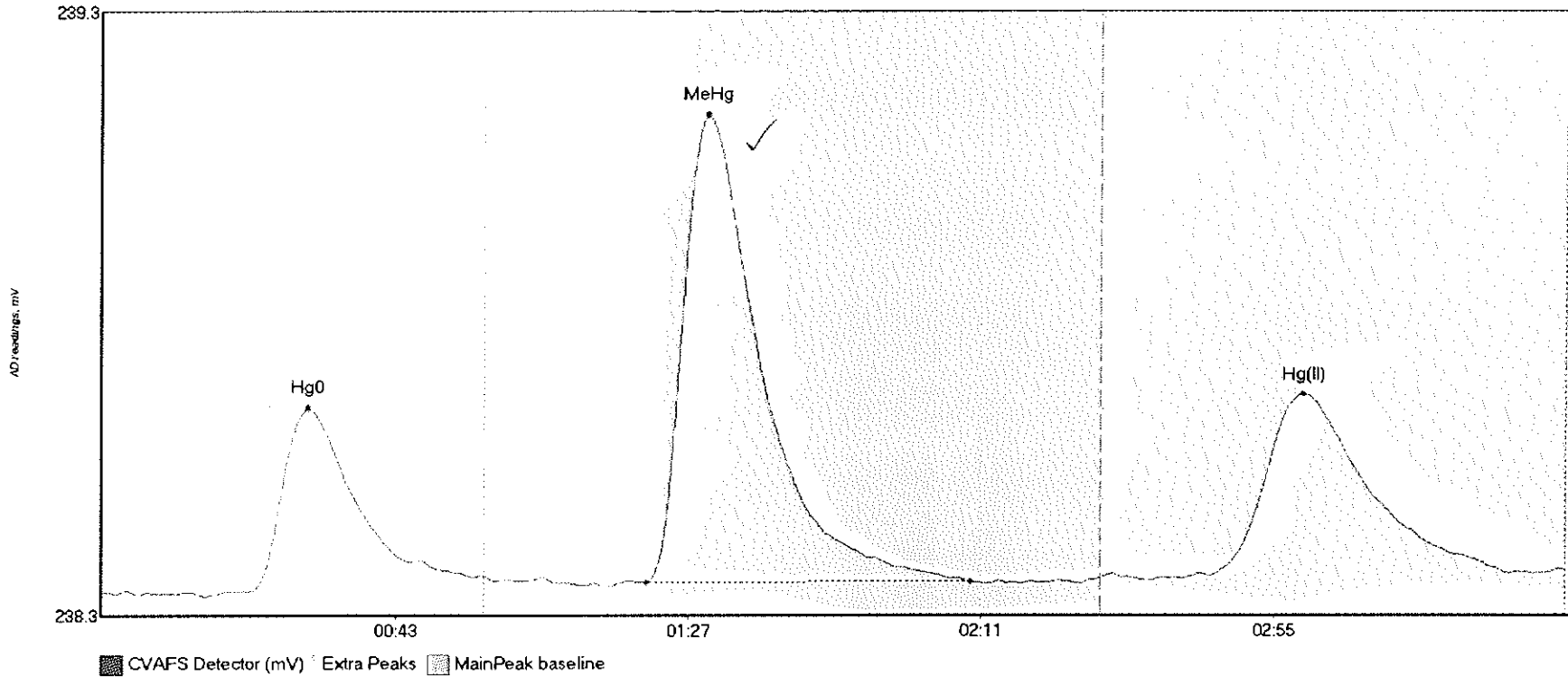
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BiDev	BiShift	Comment
1607655-03RE1 H	42.042	15.1	55.4	238.32	238.35	31.5	0.361	OK	238.3192	0.00	0.04	
1607655-03RE1 M	167.262	81.4	150.0	238.33	238.34	91.2	1.225	CT	238.3192	0.00	0.04	
1607655-03RE1 H	54.010	167.1	215.7	238.34	238.36	180.6	0.309	OK	238.3192	0.00	0.04	

#27: 1607655-04RE1



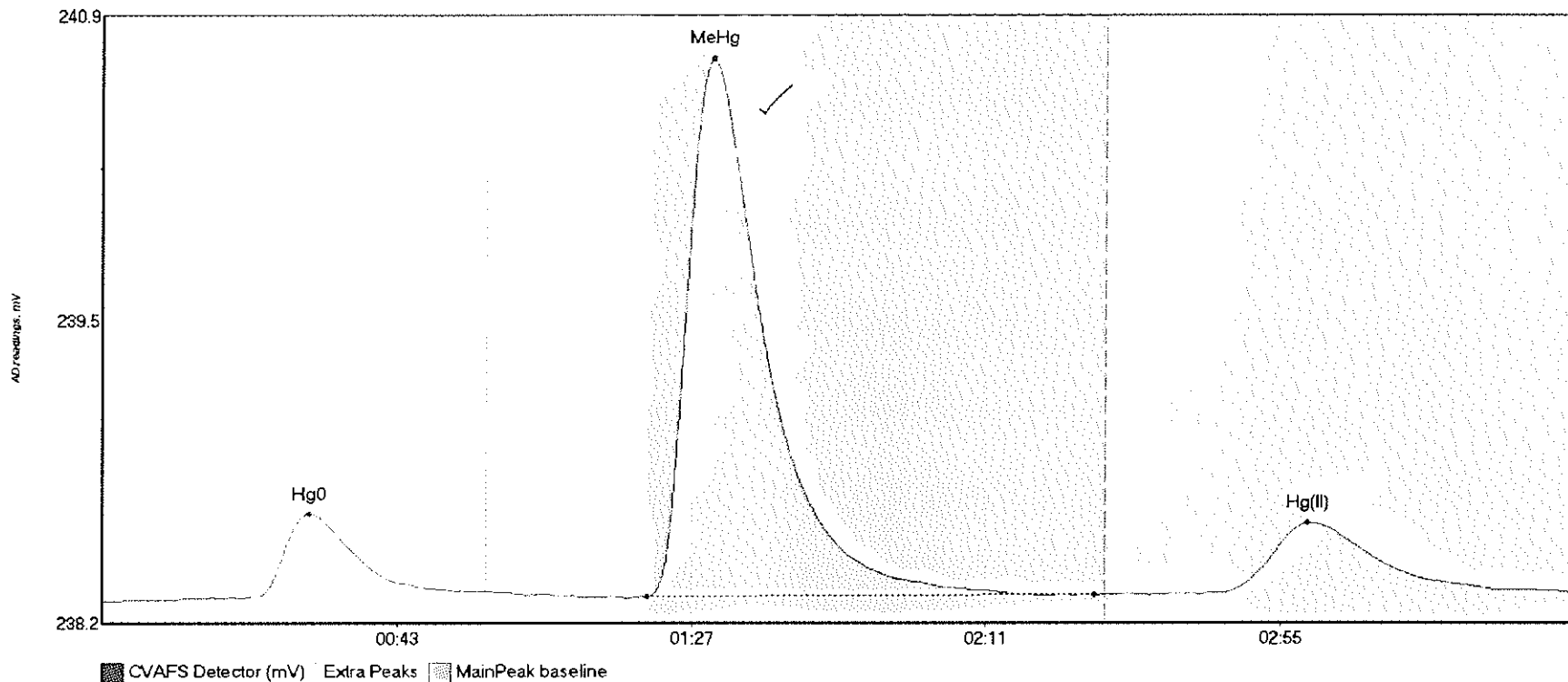
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1607655-04RE1 H	40.408	7.4	55.2	238.31	238.34	31.2	0.355	OK	238.3070	0.00	0.04	
1607655-04RE1 M	184.350	81.3	141.1	238.32	238.33	91.4	1.343	OK	238.3070	0.00	0.04	
1607655-04RE1 H	53.373	161.0	219.6	238.34	238.35	180.7	0.309	OK	238.3070	0.00	0.04	

#28: 1607655-05RE1



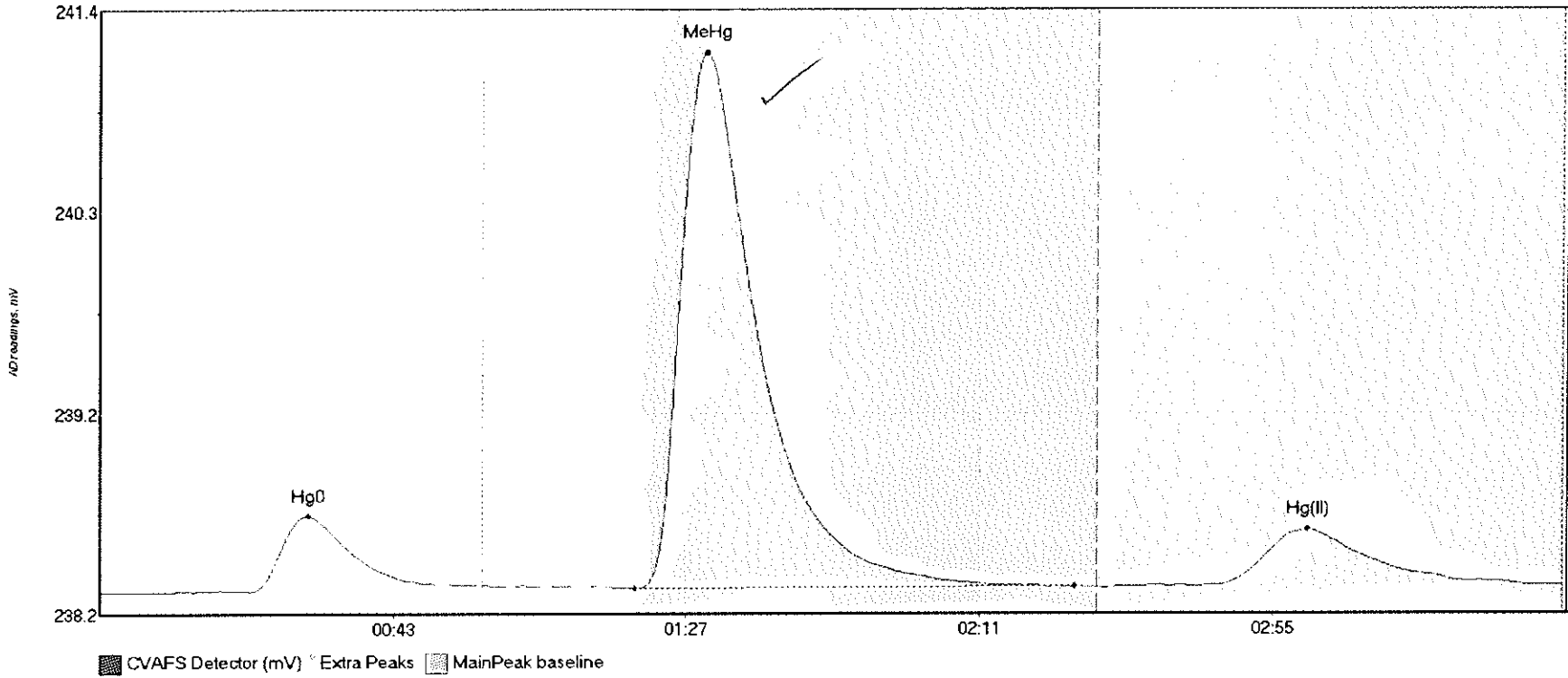
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	B1Dev	B1Shift	Comment
1607655-05RE1 H	36.406	21.9	55.7	238.31	238.33	30.9	0.302	OK	238.3041	0.00	0.04	
1607655-05RE1 M	104.256	91.8	130.5	238.32	238.32	90.9	0.773	OK	238.3041	0.00	0.04	
1607655-05RE1 H	52.688	166.4	211.5	238.33	238.34	180.4	0.301	OK	238.3041	0.00	0.04	

#29: 1607723-01RE1



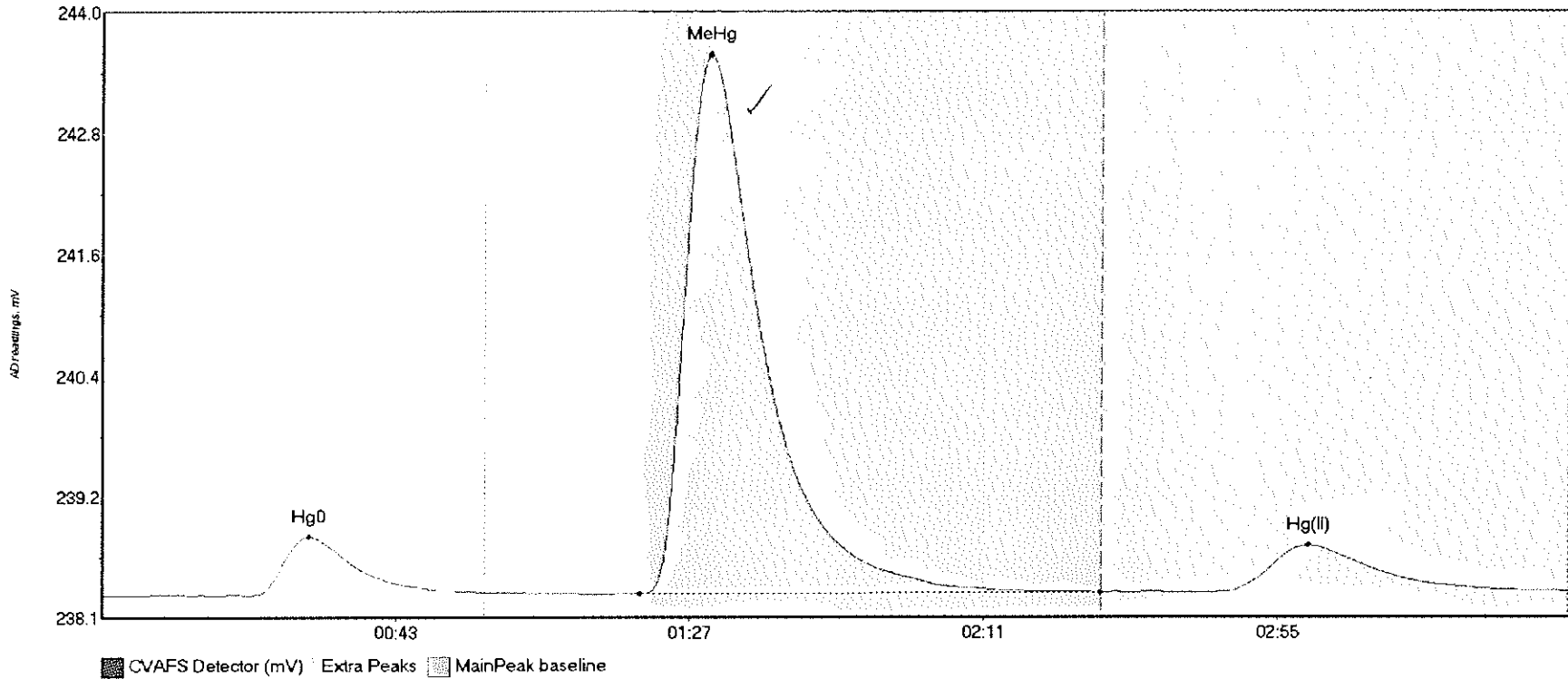
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1607723-01RE1 H	42.451	10.5	55.8	238.29	238.33	30.9	0.380	OK	238.2870	0.00	0.04	
1607723-01RE1 M	319.477	81.4	148.3	238.30	238.31	91.1	2.358	OK	238.2870	0.00	0.04	
1607723-01RE1 H	56.520	164.2	219.8	238.32	238.32	180.1	0.312	CT	238.2870	0.00	0.04	

#30: 1607723-02RE1



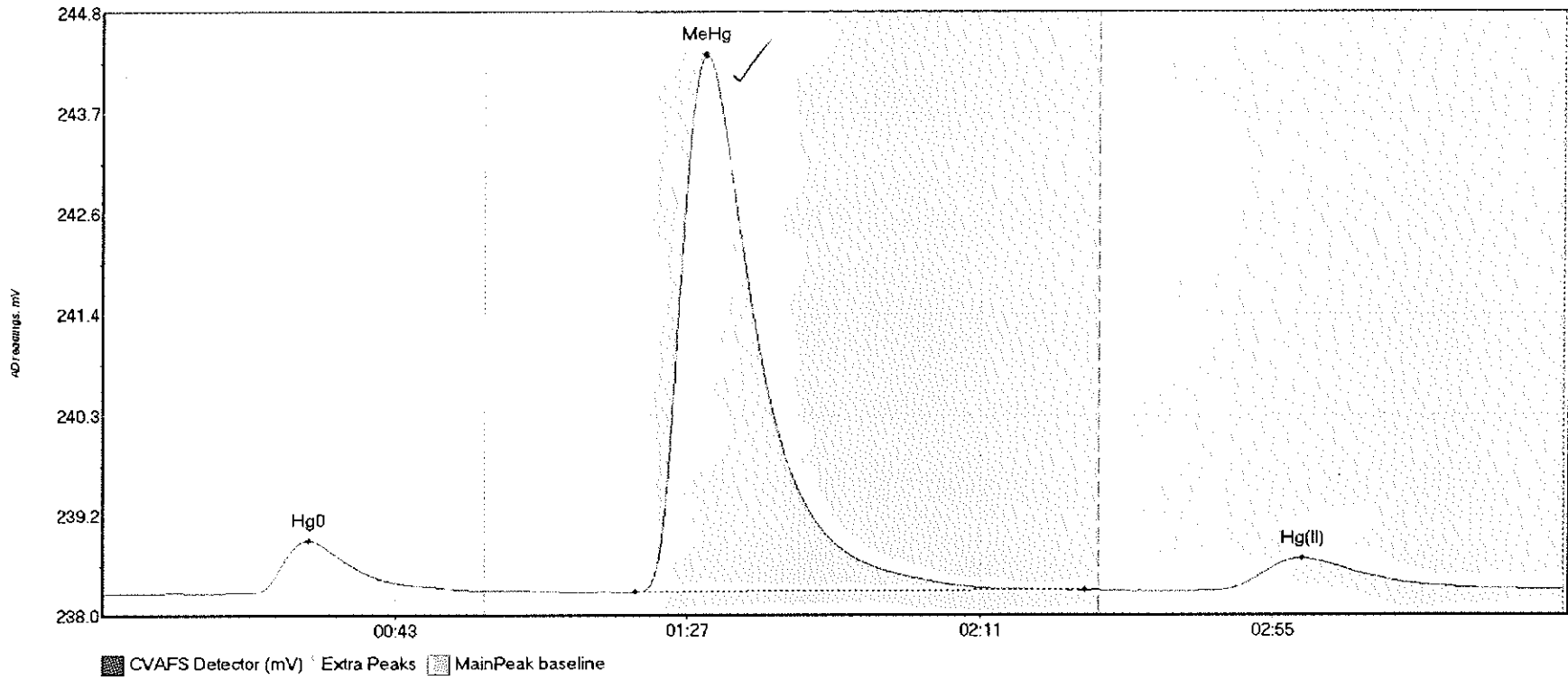
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1607723-02RE1 H	46.416	22.6	54.2	238.29	238.32	31.3	0.407	OK	238.2835	0.00	0.04	
1607723-02RE1 M	389.161	80.3	146.5	238.30	238.31	91.1	2.869	OK	238.2835	0.00	0.04	
1607723-02RE1 H	57.137	151.1	215.0	238.31	238.32	181.3	0.312	OK	238.2835	0.00	0.04	

#31: 1607723-03RE1



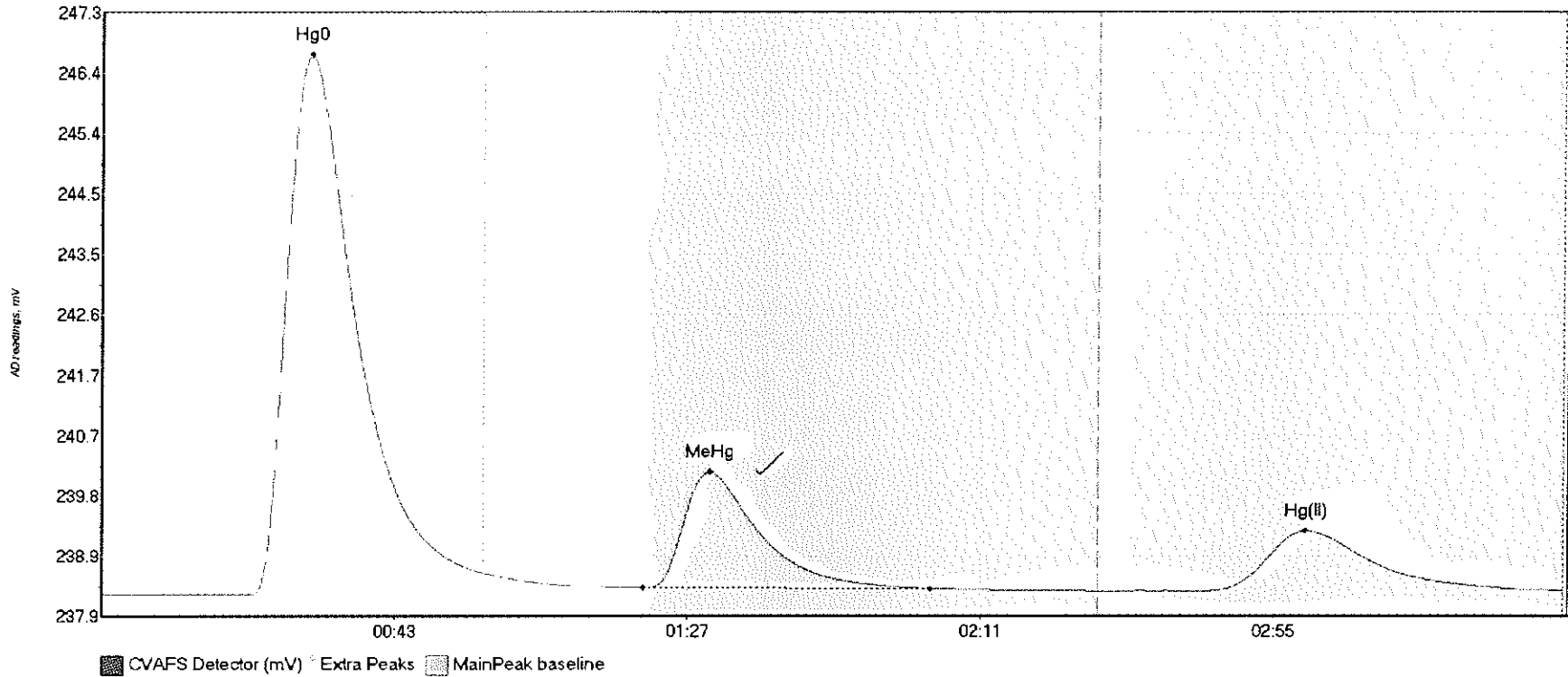
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1607723-03RE1 H	66.383	16.9	57.4	238.28	238.32	31.2	0.569	OK	238.2820	0.00	0.04	
1607723-03RE1 M	709.791	80.6	149.7	238.30	238.31	91.2	5.237	OK	238.2820	0.00	0.04	
1607723-03RE1 H	79.404	165.9	219.1	238.31	238.33	180.6	0.453	OK	238.2820	0.00	0.04	

#32: 1607723-04RE1



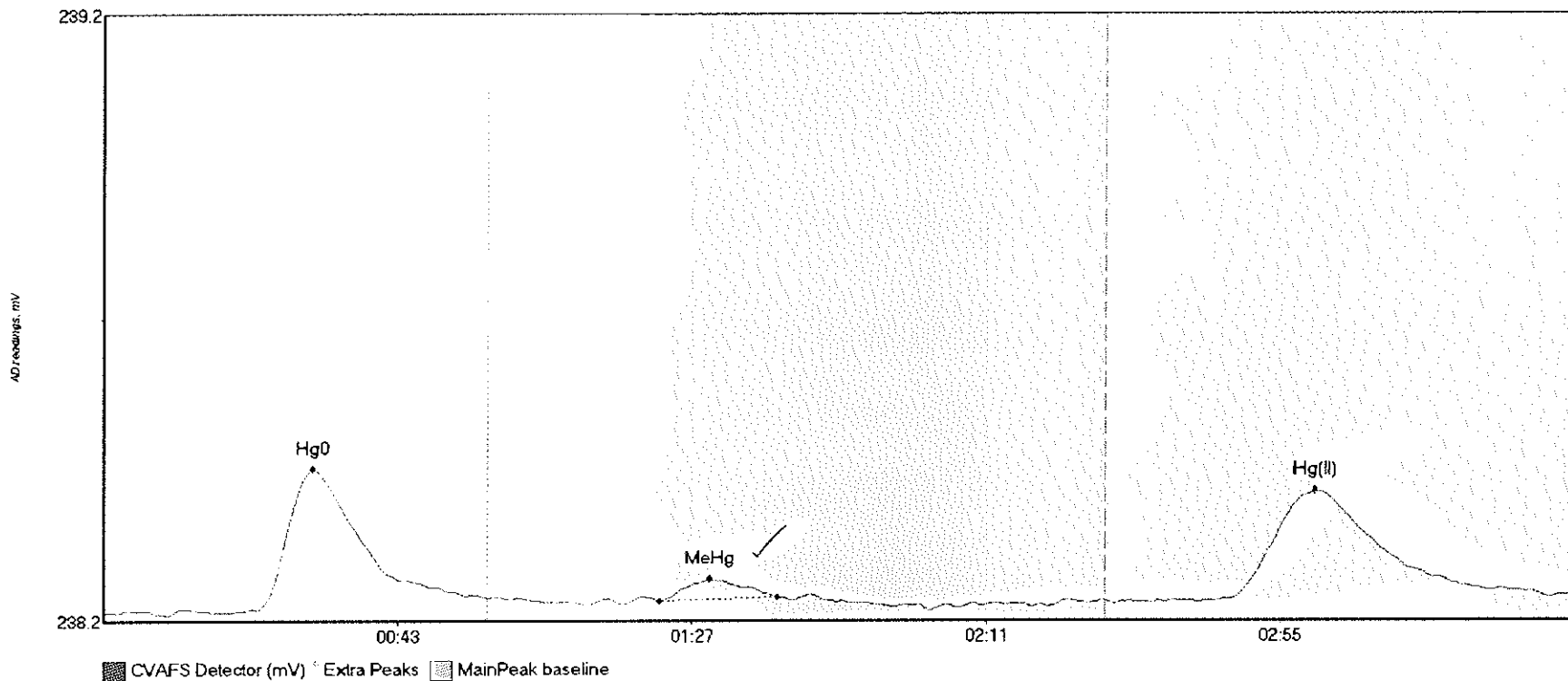
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1607723-04RE1 H	71.255	15.0	56.2	238.26	238.30	31.1	0.602	OK	238.2643	0.00	0.04	
1607723-04RE1 M	820.501	89.1	147.8	238.28	238.30	90.8	6.061	OK	238.2643	0.00	0.04	
1607723-04RE1 H	62.811	167.1	216.8	238.30	238.31	180.4	0.362	OK	238.2643	0.00	0.04	

#33: SEQ-CCV2



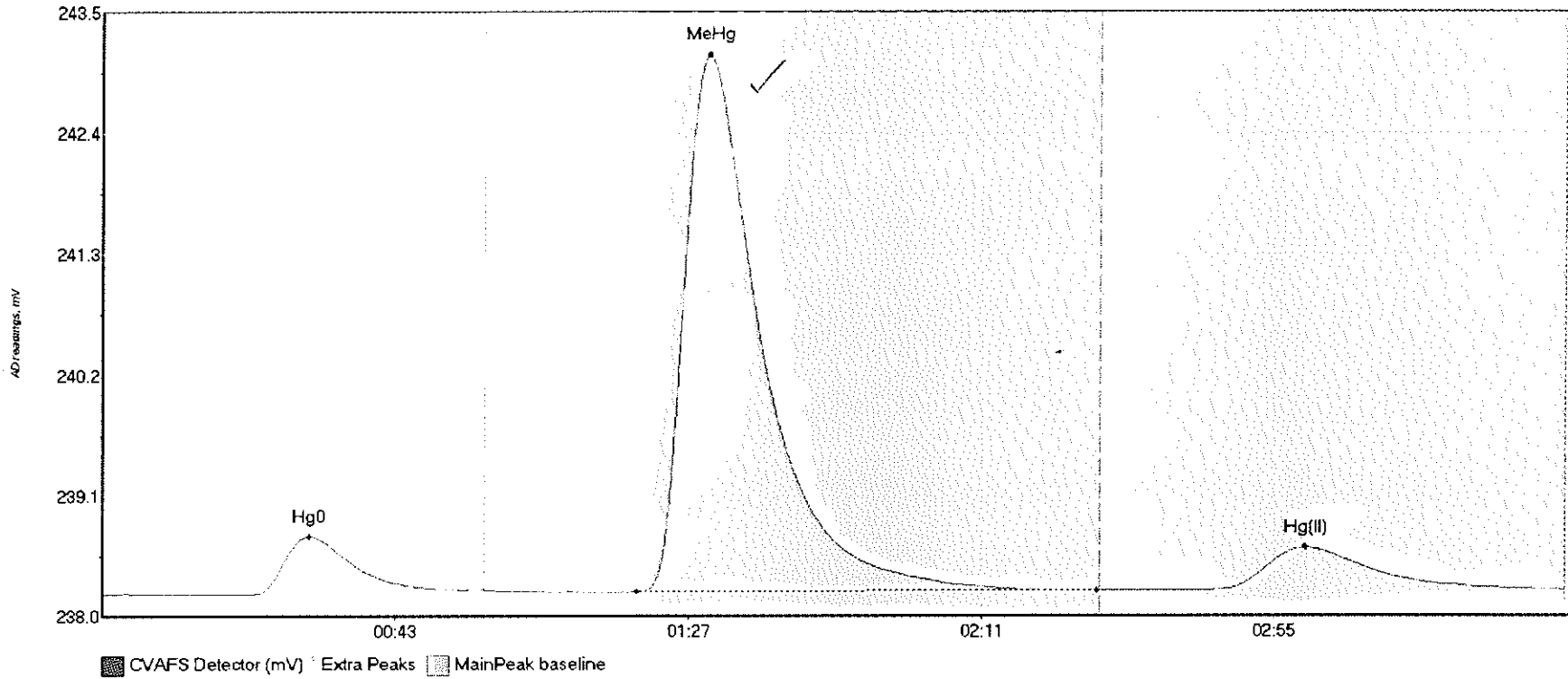
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BiDev	BlShift	Comment
SEQ-CCV2 Hg0	985.266	21.5	57.5	238.25	238.58	31.4	8.372	CT	238.2523	0.00	0.07	
SEQ-CCV2 MeHg	235.567	81.3	124.5	238.35	238.35	91.4	1.803	OK	238.2523	0.00	0.07	
SEQ-CCV2 Hg(II)	168.299	164.1	219.8	238.30	238.32	180.9	0.944	CT	238.2523	0.00	0.07	

#34: SEQ-CCB2



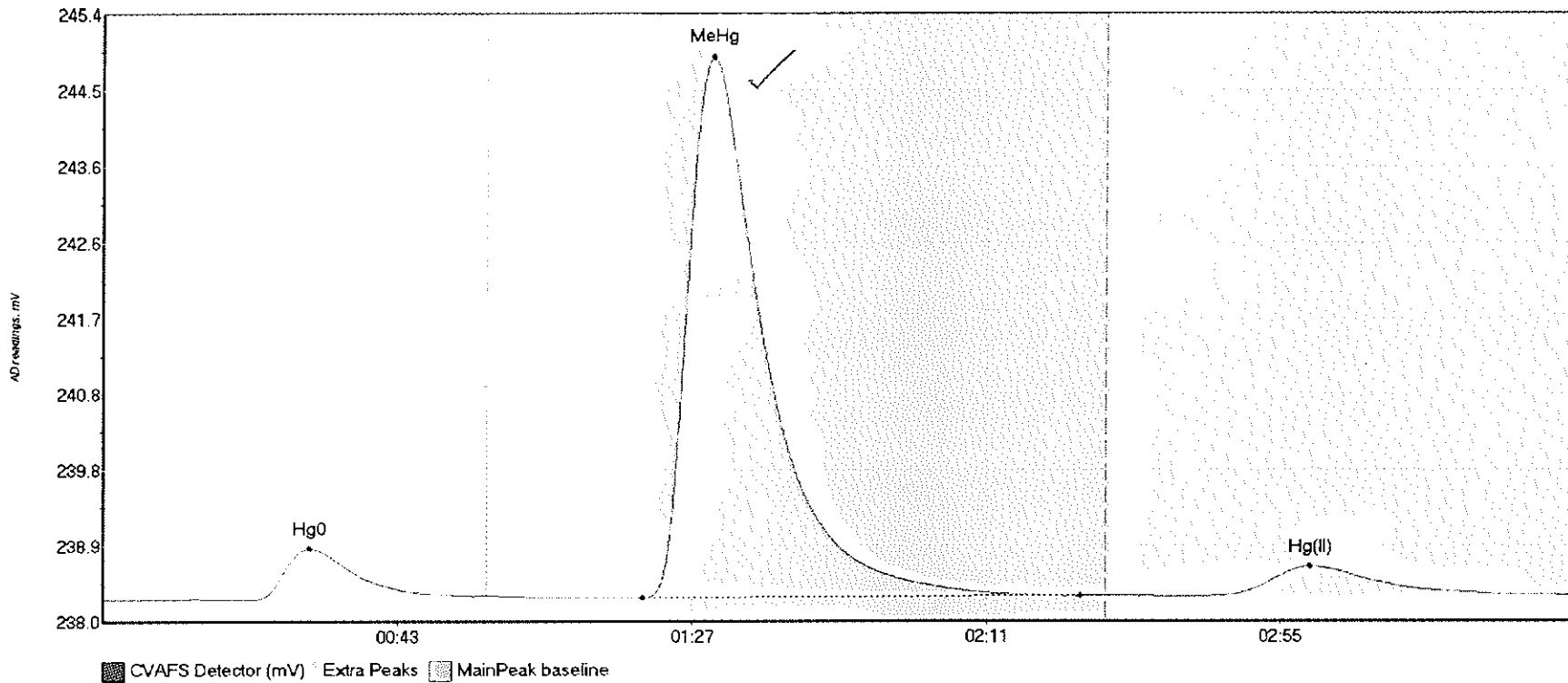
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
SEQ-CCB2 Hg0	27.722	23.0	57.5	238.25	238.27	31.4	0.233	CT	238.2457	0.00	0.03	
SEQ-CCB2 MeHg	3.287	83.1	100.9	238.26	238.27	90.7	0.036	OK	238.2457	0.00	0.03	
SEQ-CCB2 Hg(II)	31.692	168.5	216.2	238.27	238.27	181.2	0.177	OK	238.2457	0.00	0.03	

#35: 1607723-05RE1



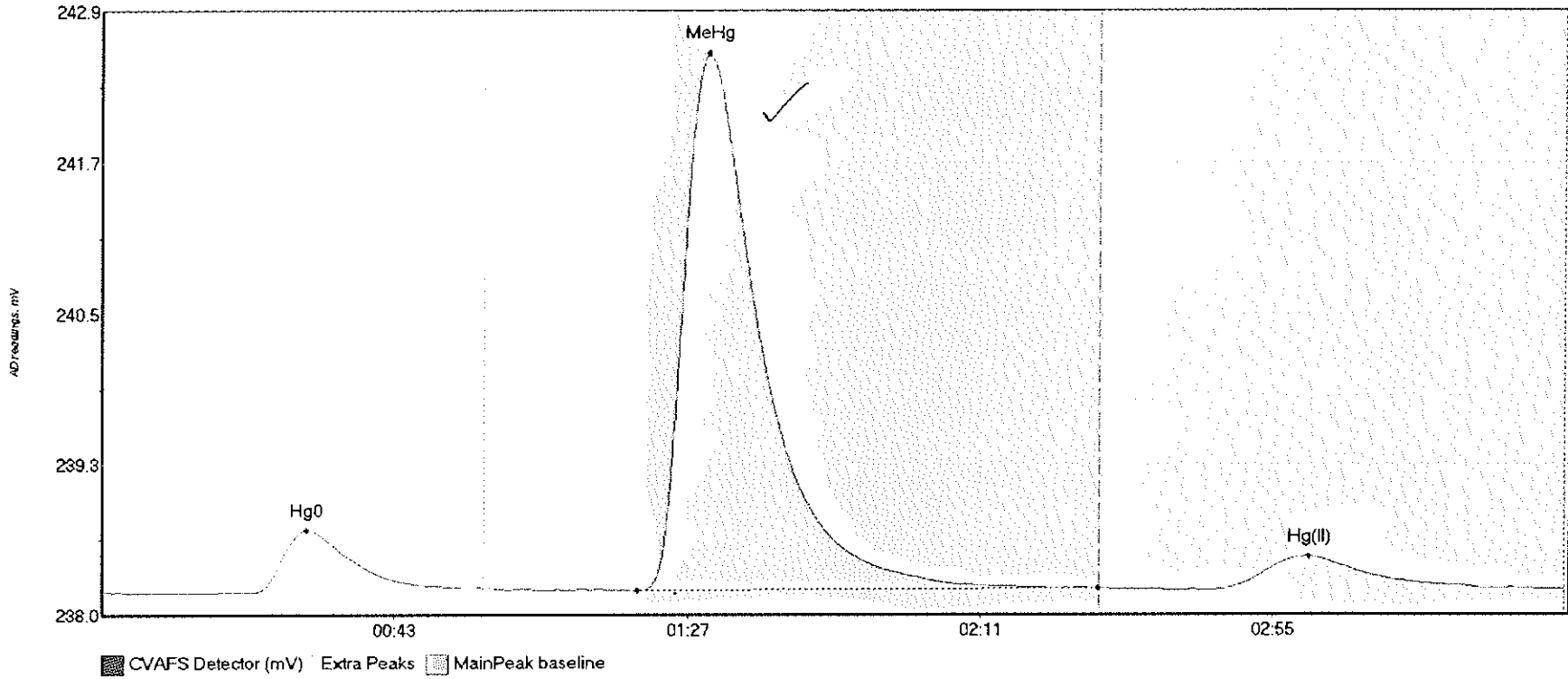
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1607723-05RE1 H	60.690	21.0	57.5	238.23	238.27	31.1	0.528	CT	238.2334	0.00	0.04	
1607723-05RE1 M	660.040	80.1	149.5	238.25	238.26	91.1	4.879	OK	238.2334	0.00	0.04	
1607723-05RE1 H	70.820	164.9	219.8	238.26	238.27	180.8	0.392	CT	238.2334	0.00	0.04	

#36: 1607723-06RE1



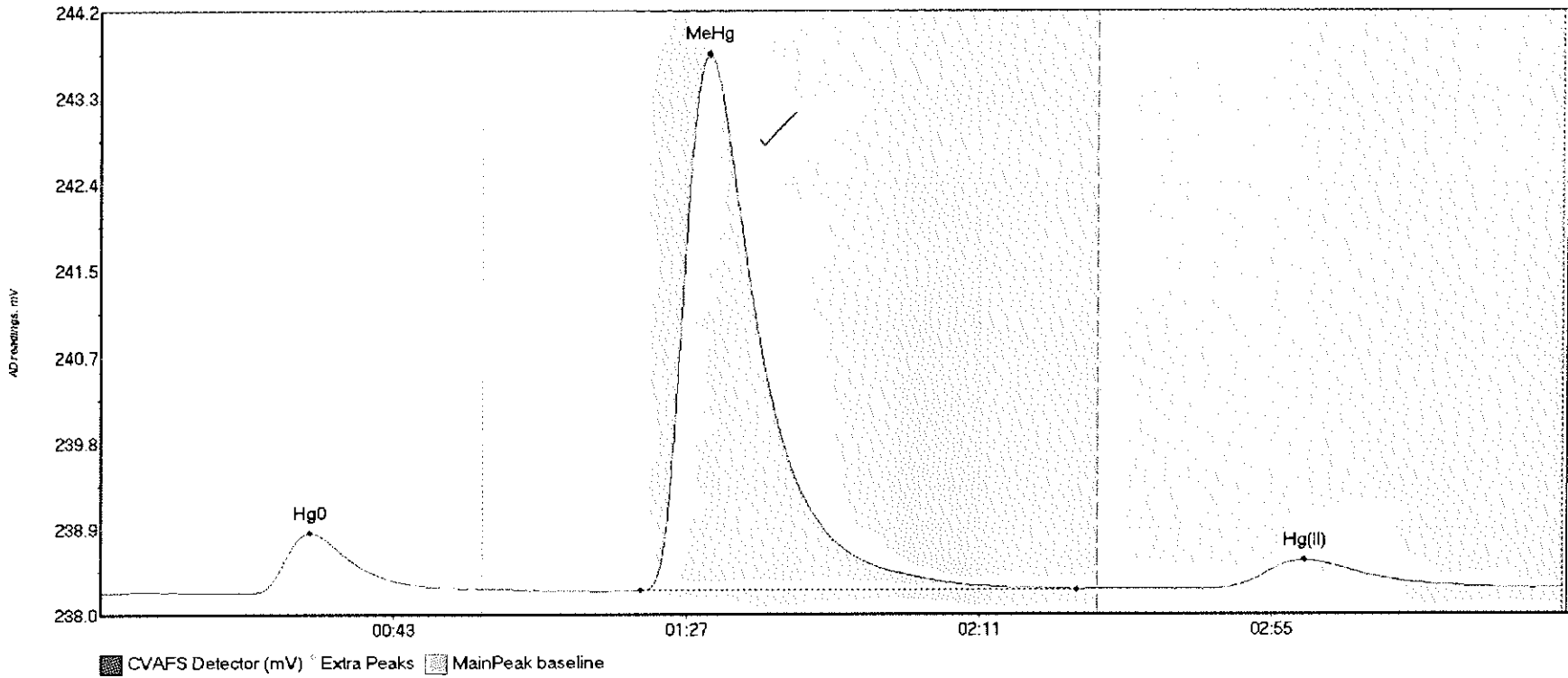
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1607723-06RE1 H	72.767	22.2	55.4	238.22	238.26	31.0	0.629	OK	238.2195	0.00	0.05	
1607723-06RE1 M	897.375	80.6	146.0	238.24	238.26	91.1	6.642	OK	238.2195	0.00	0.05	
1607723-06RE1 H	64.293	165.0	219.5	238.26	238.27	180.5	0.363	OK	238.2195	0.00	0.05	

#37: 1607723-05RE2



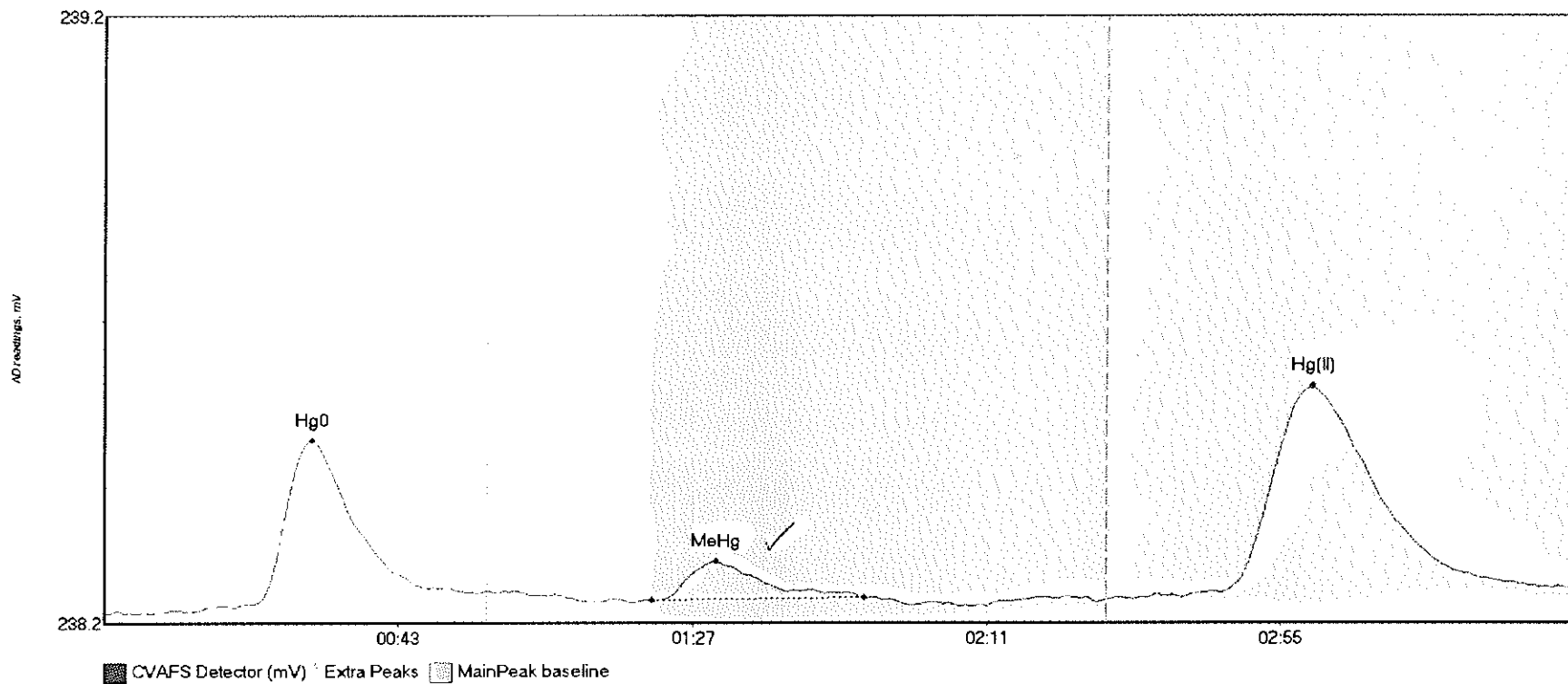
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BiDev	BiShift	Comment
1607723-05RE2 H	57.792	21.6	55.2	238.22	238.26	30.9	0.503	OK	238.2229	0.00	0.03	
1607723-05RE2 M	582.920	80.4	149.7	238.24	238.26	91.2	4.329	OK	238.2229	0.00	0.03	
1607723-05RE2 H	44.235	166.5	207.5	238.24	238.26	181.4	0.268	OK	238.2229	0.00	0.03	

#38: 1607723-06RE2



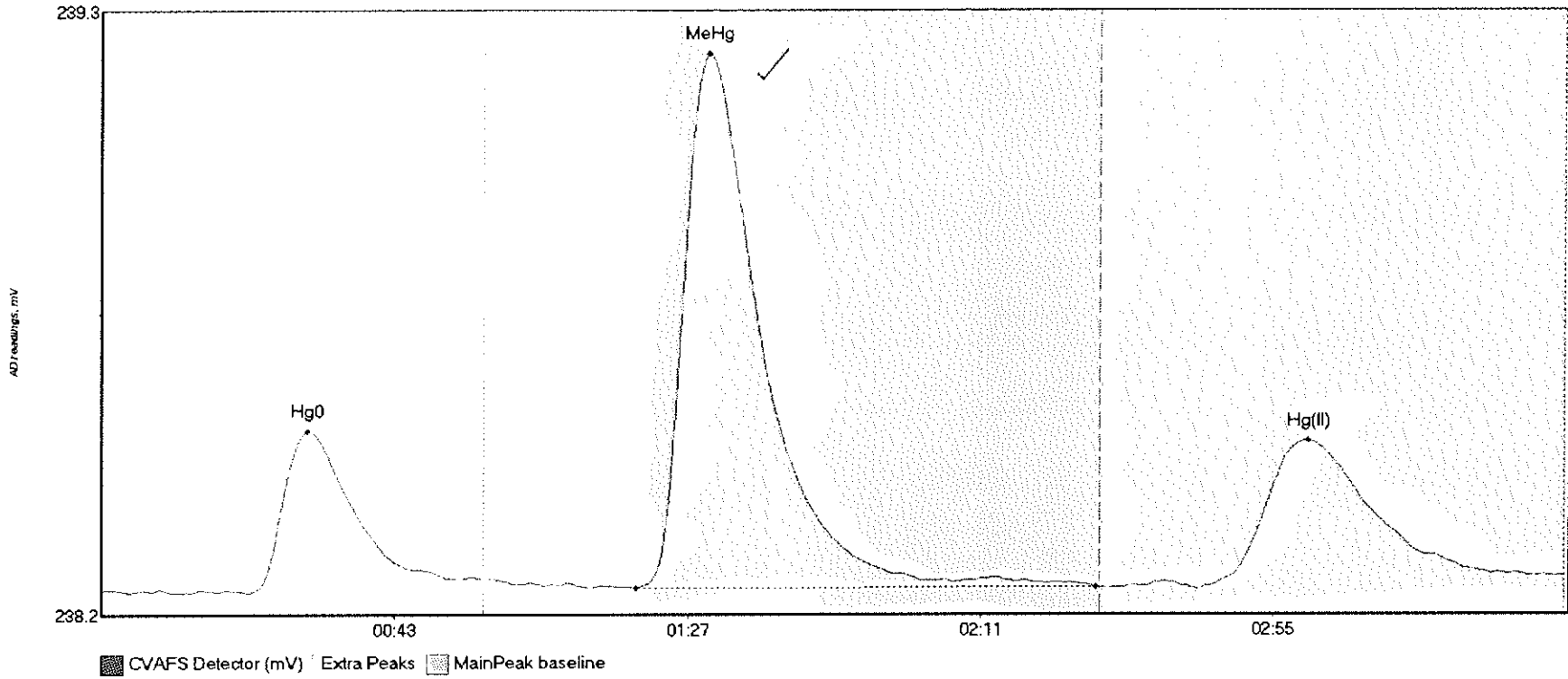
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1607723-06RE2 H	69.618	23.1	57.5	238.22	238.26	31.4	0.614	CT	238.2166	0.00	0.04	
1607723-06RE2 M	749.256	81.0	146.7	238.24	238.24	91.4	5.538	OK	238.2166	0.00	0.04	
1607723-06RE2 H	51.643	165.6	215.4	238.25	238.26	181.0	0.297	OK	238.2166	0.00	0.04	

#39: 1607800-01RE1



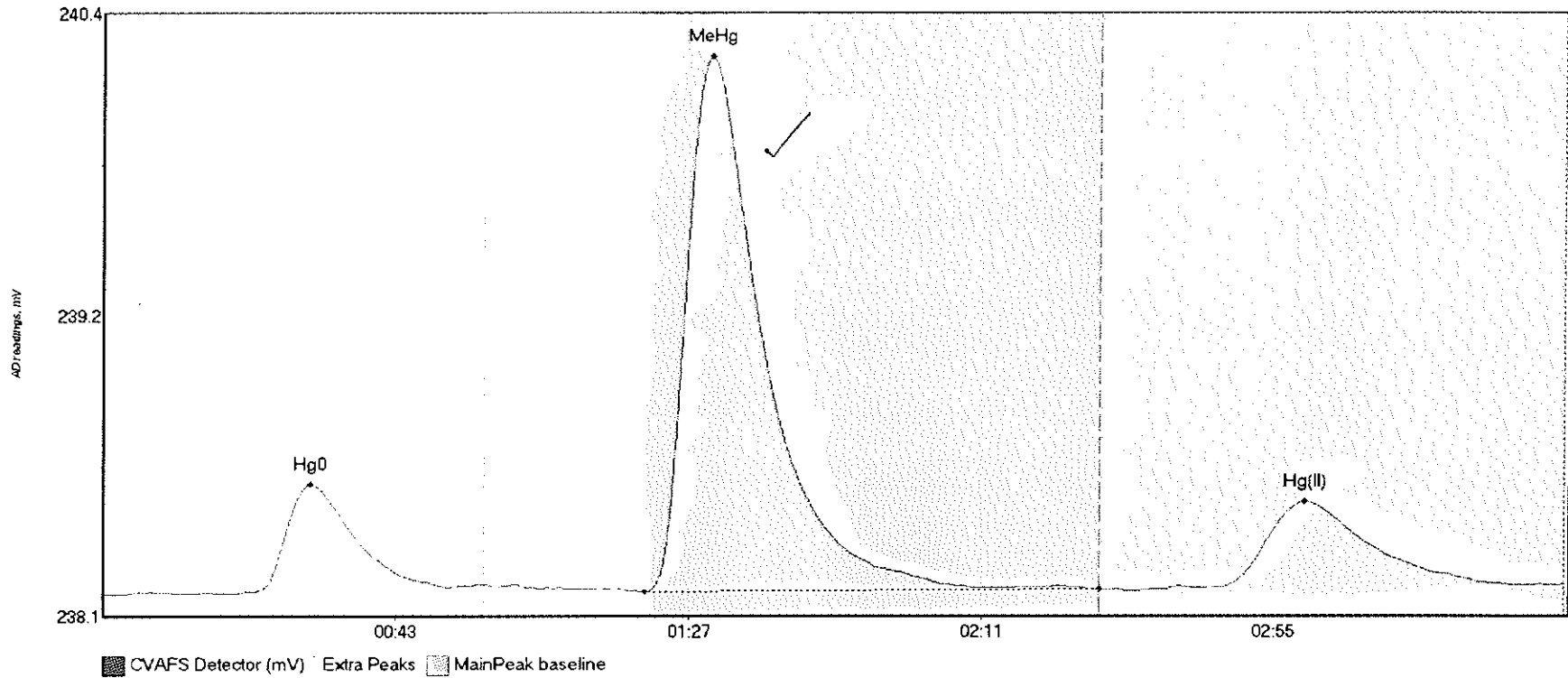
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1607800-01RE1 H	32.029	14.2	56.0	238.21	238.23	31.1	0.281	OK	238.2013	0.00	0.04	
1607800-01RE1 M	8.032	81.9	113.7	238.22	238.23	91.4	0.065	OK	238.2013	0.00	0.04	
1607800-01RE1 H	60.106	161.3	216.6	238.23	238.24	180.8	0.346	OK	238.2013	0.00	0.04	

#40: F607432-DUP2



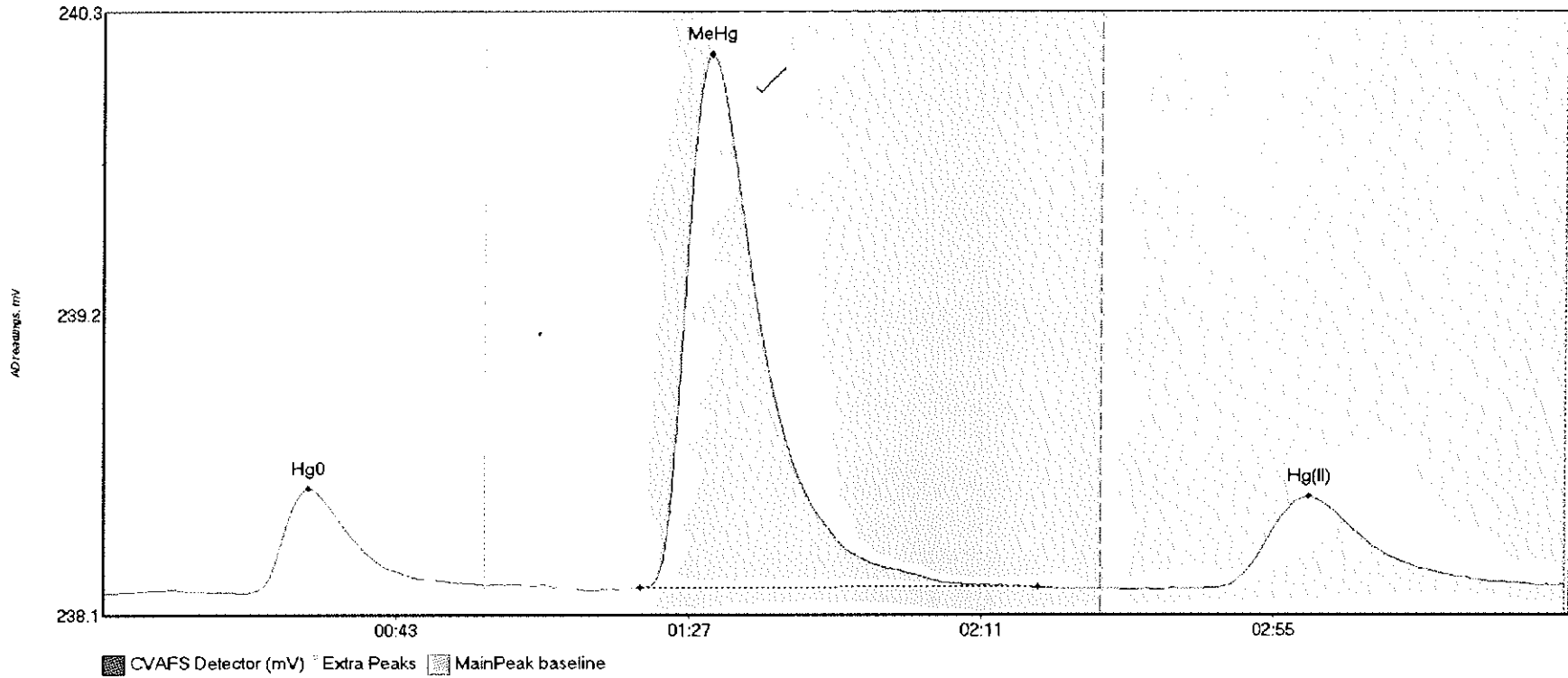
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
F607432-DUP2 Hg	35.819	22.3	53.6	238.20	238.23	31.0	0.311	OK	238.2063	0.00	0.03	
F607432-DUP2 Me	141.691	80.1	149.3	238.21	238.21	91.2	1.032	OK	238.2063	0.00	0.03	
F607432-DUP2 Hg	50.269	166.1	218.4	238.21	238.23	181.3	0.282	OK	238.2063	0.00	0.03	

#41: F607432-MS3



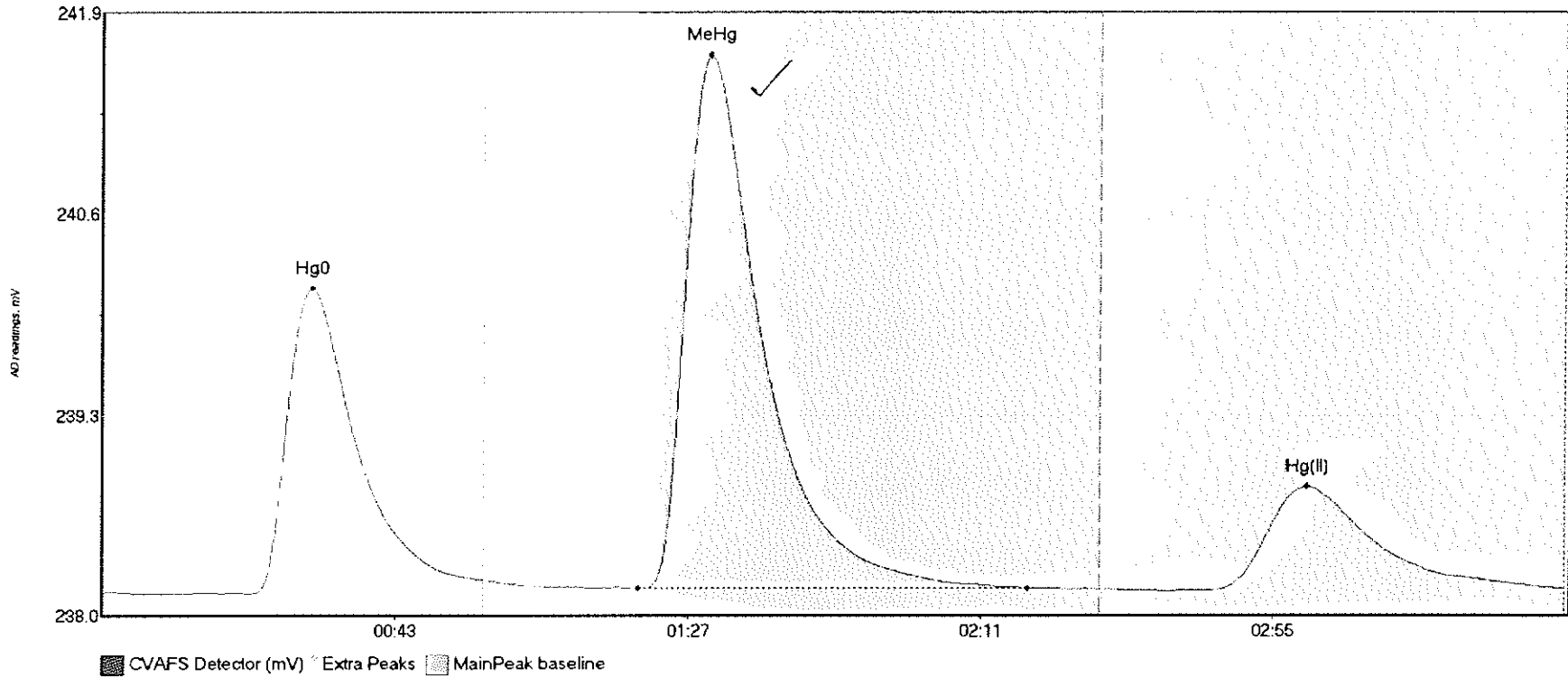
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
F607432-MS3 Hg0	46.393	19.8	52.1	238.20	238.22	31.2	0.406	OK	238.1903	0.00	0.04	
F607432-MS3 MeH	270.107	81.5	149.9	238.20	238.21	91.4	1.994	OK	238.1903	0.00	0.04	
F607432-MS3 Hg(I)	56.700	159.7	213.7	238.21	238.23	180.8	0.326	OK	238.1903	0.00	0.04	

#42: F607432-MSD3



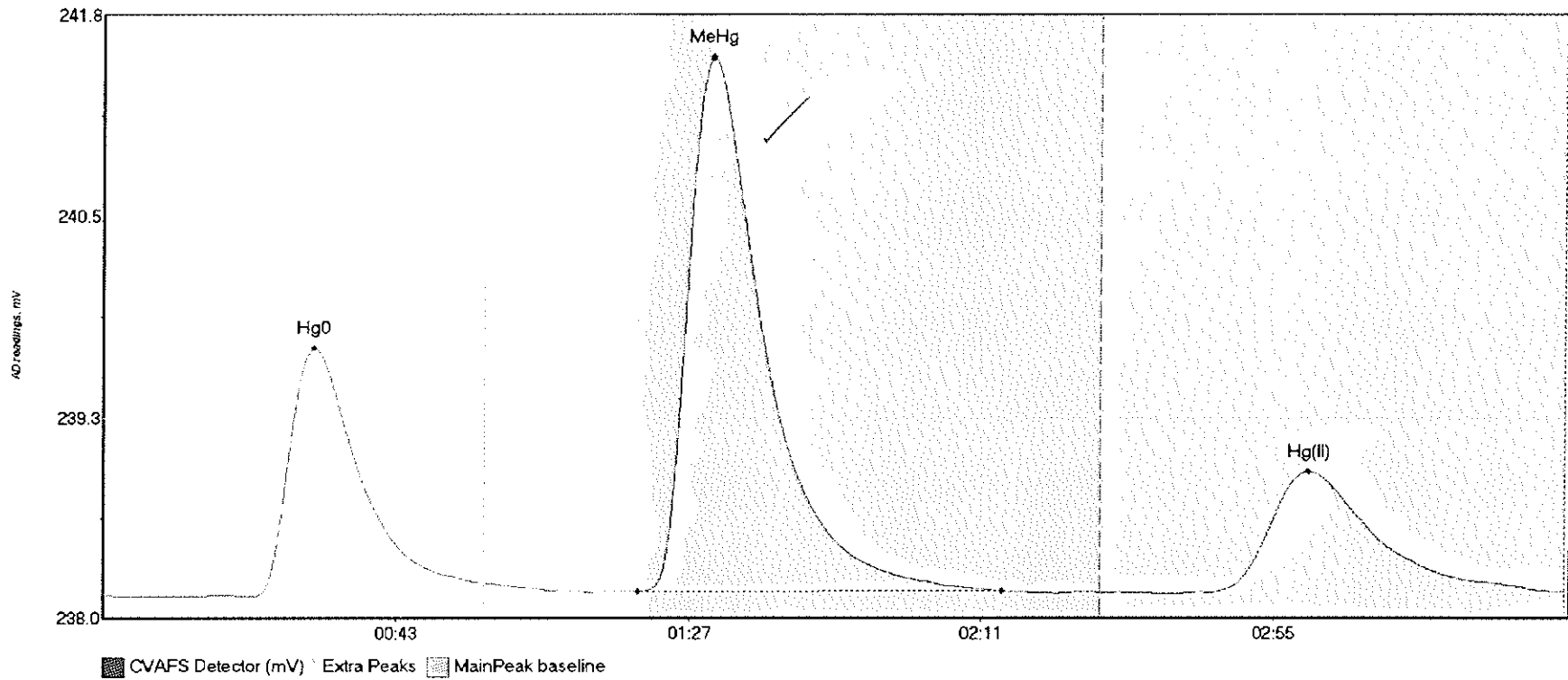
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
F607432-MSD3 Hg	45.575	21.2	57.5	238.18	238.21	30.9	0.389	CT	238.1799	0.00	0.03	
F607432-MSD3 Me	266.700	80.8	140.5	238.20	238.20	91.3	1.983	OK	238.1799	0.00	0.03	
F607432-MSD3 Hg	58.330	167.6	216.2	238.20	238.21	181.3	0.338	OK	238.1799	0.00	0.03	

#43: F607432-MS4



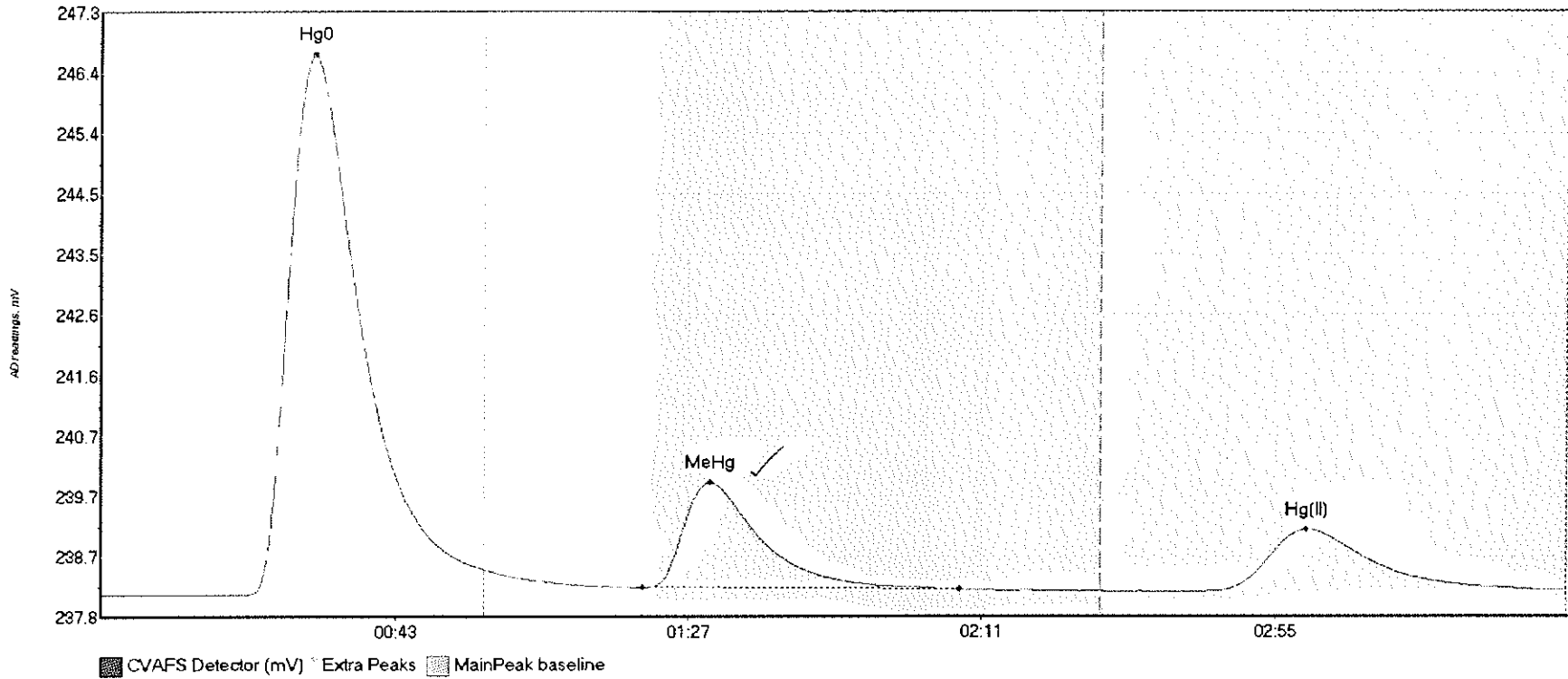
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
F607432-MS4 Hg0	227.436	22.1	57.5	238.16	238.25	31.4	1.948	CT	238.1720	0.00	0.03	
F607432-MS4 MeH	456.874	80.4	139.0	238.19	238.20	91.3	3.403	OK	238.1720	0.00	0.03	
F607432-MS4 Hg(I)	118.278	166.6	218.9	238.19	238.20	181.2	0.659	OK	238.1720	0.00	0.03	

#44: F607432-MSD4



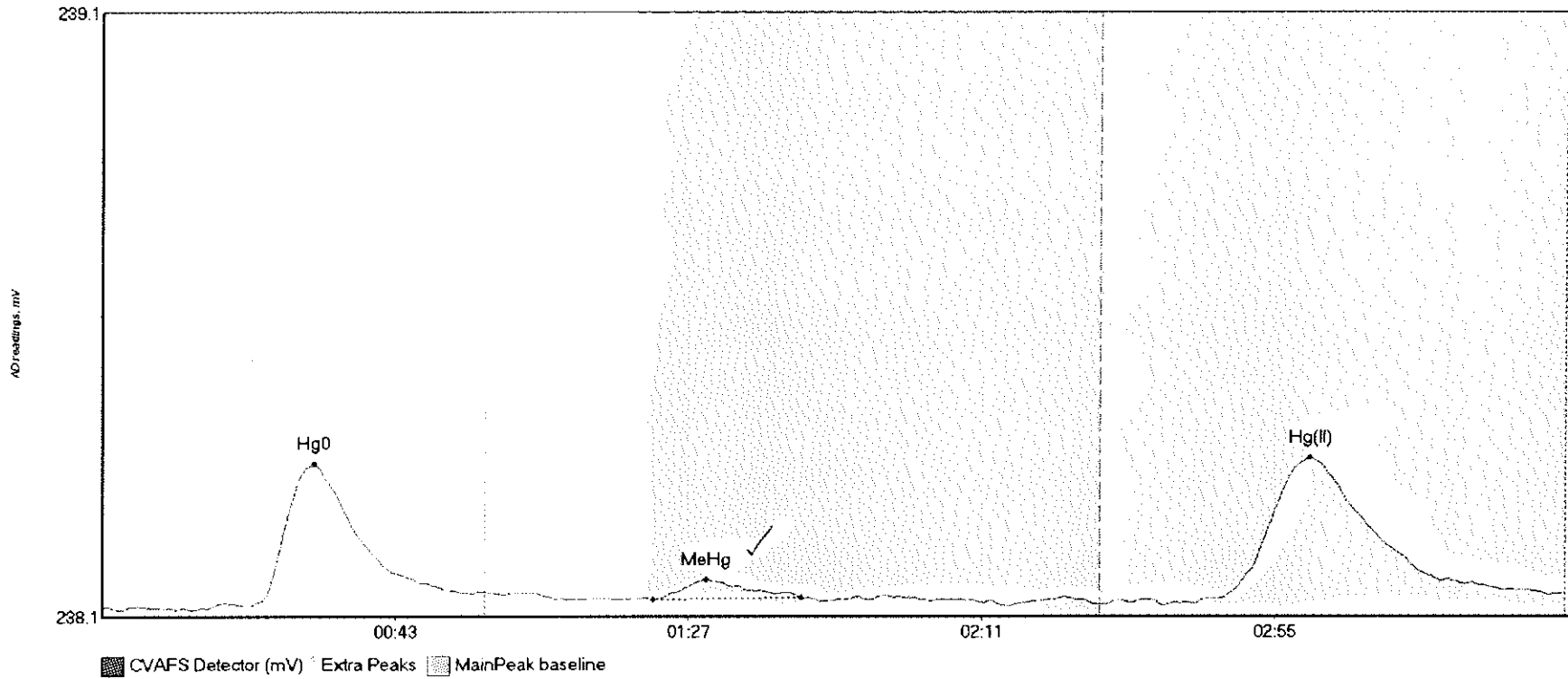
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
F607432-MSD4 Hg	181.141	22.4	57.5	238.15	238.23	31.6	1.543	CT	238.1560	0.00	0.02	
F607432-MSD4 Me	443.091	80.3	135.1	238.18	238.18	91.5	3.312	OK	238.1560	0.00	0.02	
F607432-MSD4 Hg	134.821	166.5	219.8	238.17	238.18	181.3	0.752	CT	238.1560	0.00	0.02	

#45: SEQ-CCV3



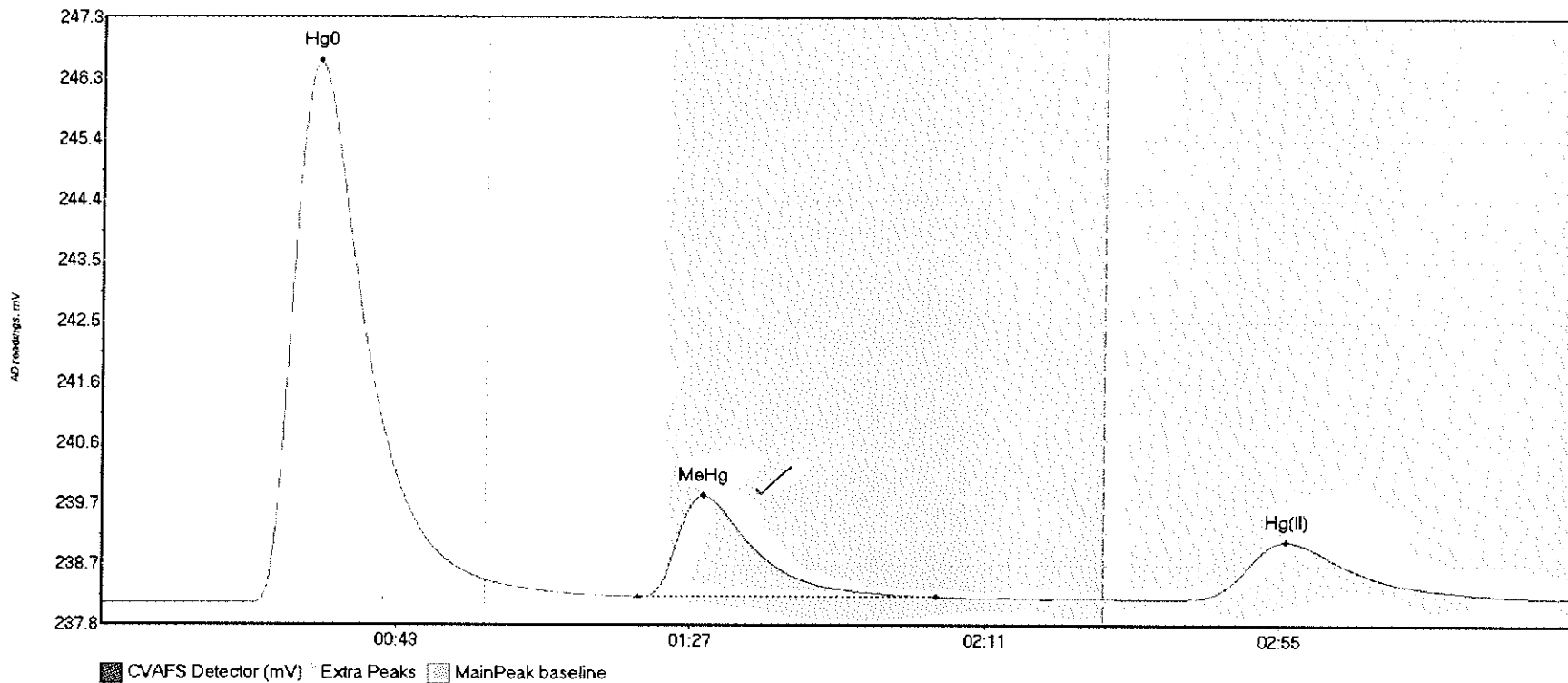
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
SEQ-CCV3 Hg0	1021.620	17.9	57.5	238.14	238.53	31.8	8.521	CT	238.1387	0.00	0.08	
SEQ-CCV3 MeHg	221.806	81.2	128.7	238.25	238.22	91.3	1.665	OK	238.1387	0.00	0.08	
SEQ-CCV3 Hg(II)	170.706	166.2	219.7	238.19	238.21	180.8	0.974	OK	238.1387	0.00	0.08	

#46: SEQ-CCB3



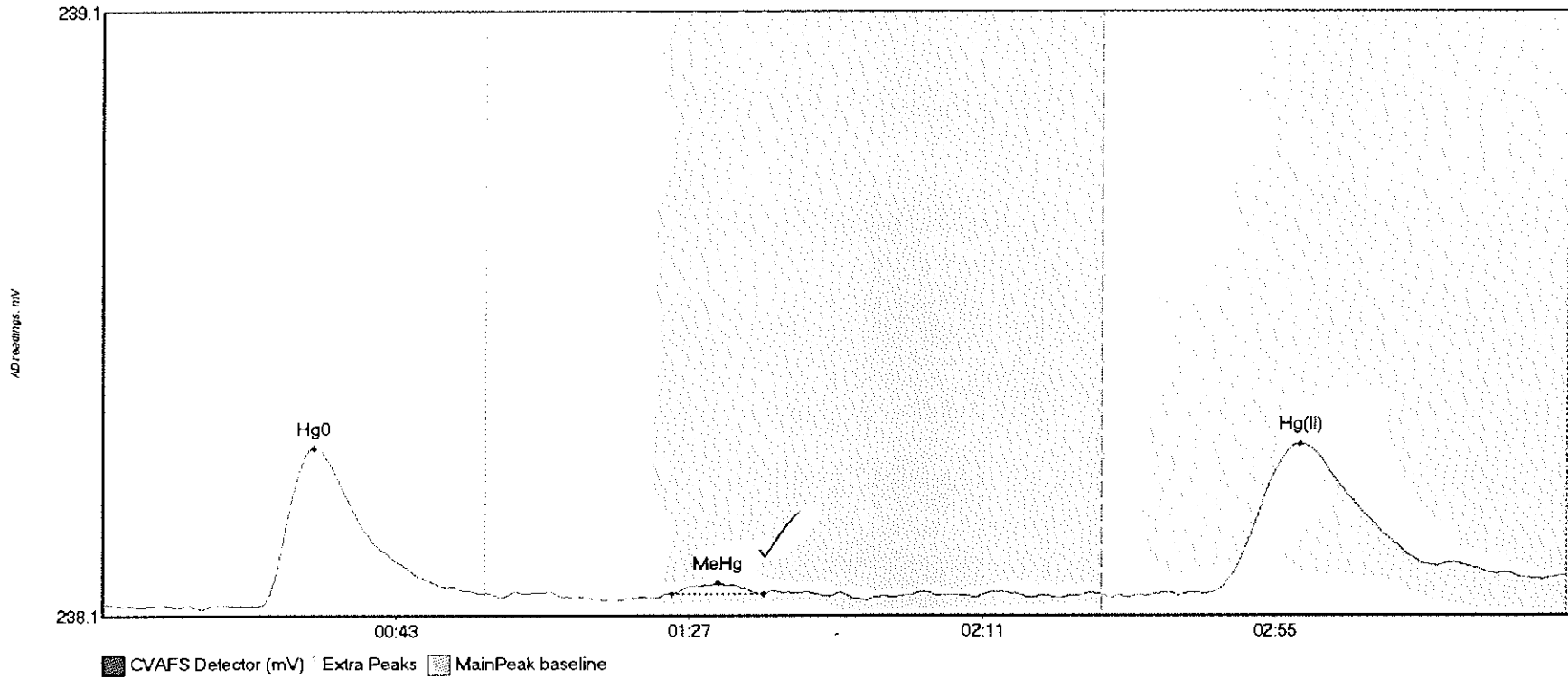
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
SEQ-CCB3 Hg0	27.674	22.1	55.5	238.13	238.15	31.8	0.234	OK	238.1270	0.00	0.02	
SEQ-CCB3 MeHg	3.485	82.8	104.9	238.14	238.14	90.7	0.033	OK	238.1270	0.00	0.02	
SEQ-CCB3 Hg (II)	41.840	164.0	217.5	238.13	238.15	181.3	0.241	OK	238.1270	0.00	0.02	

#47: SEQ-CCV4



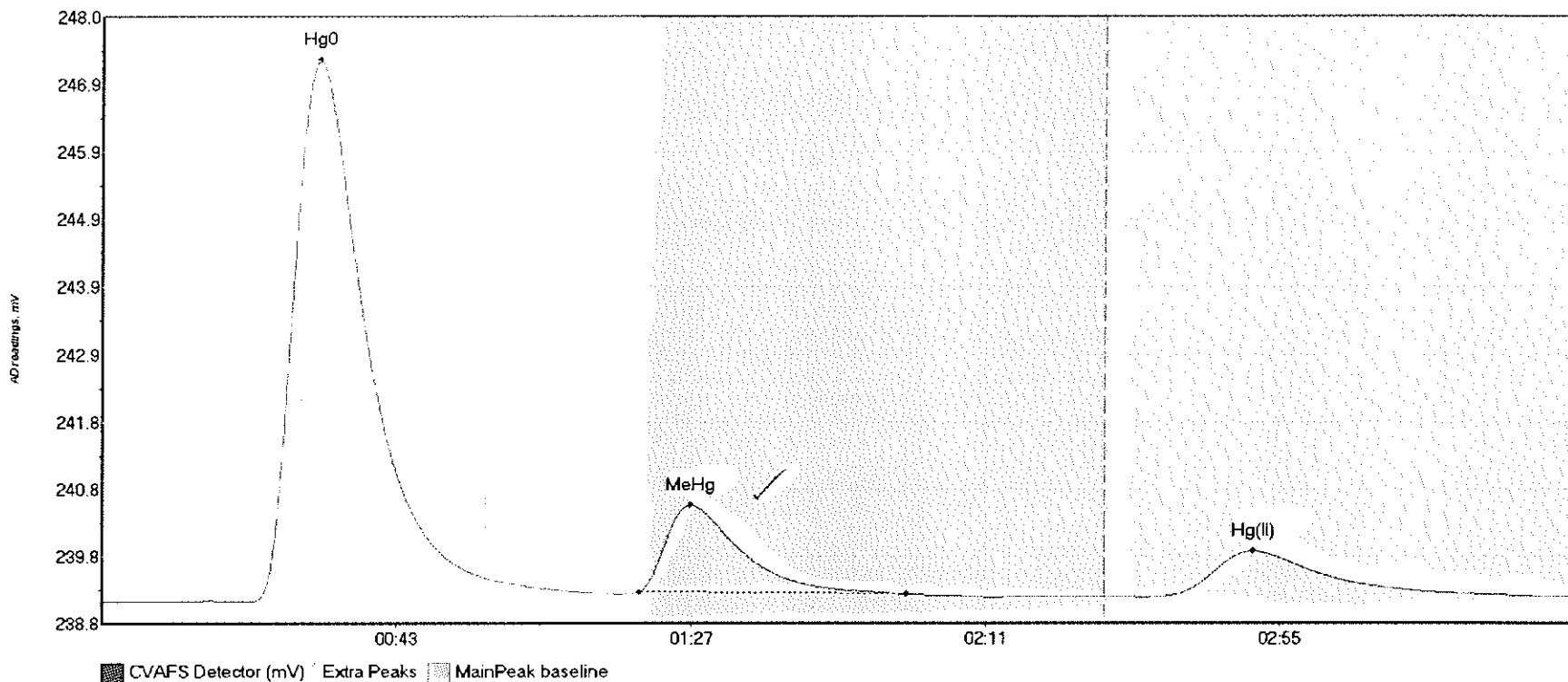
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
SEQ-CCV4 Hg0	1021.259	22.4	57.5	238.12	238.48	32.4	8.476	CT	238.1257	0.00	0.08	
SEQ-CCV4 MeHg	211.525	80.1	124.8	238.22	238.22	90.0	1.589	OK	238.1257	0.00	0.08	
SEQ-CCV4 Hg(II)	168.610	161.2	217.9	238.18	238.21	177.1	0.908	OK	238.1257	0.00	0.08	

#48: SEQ-CCB4



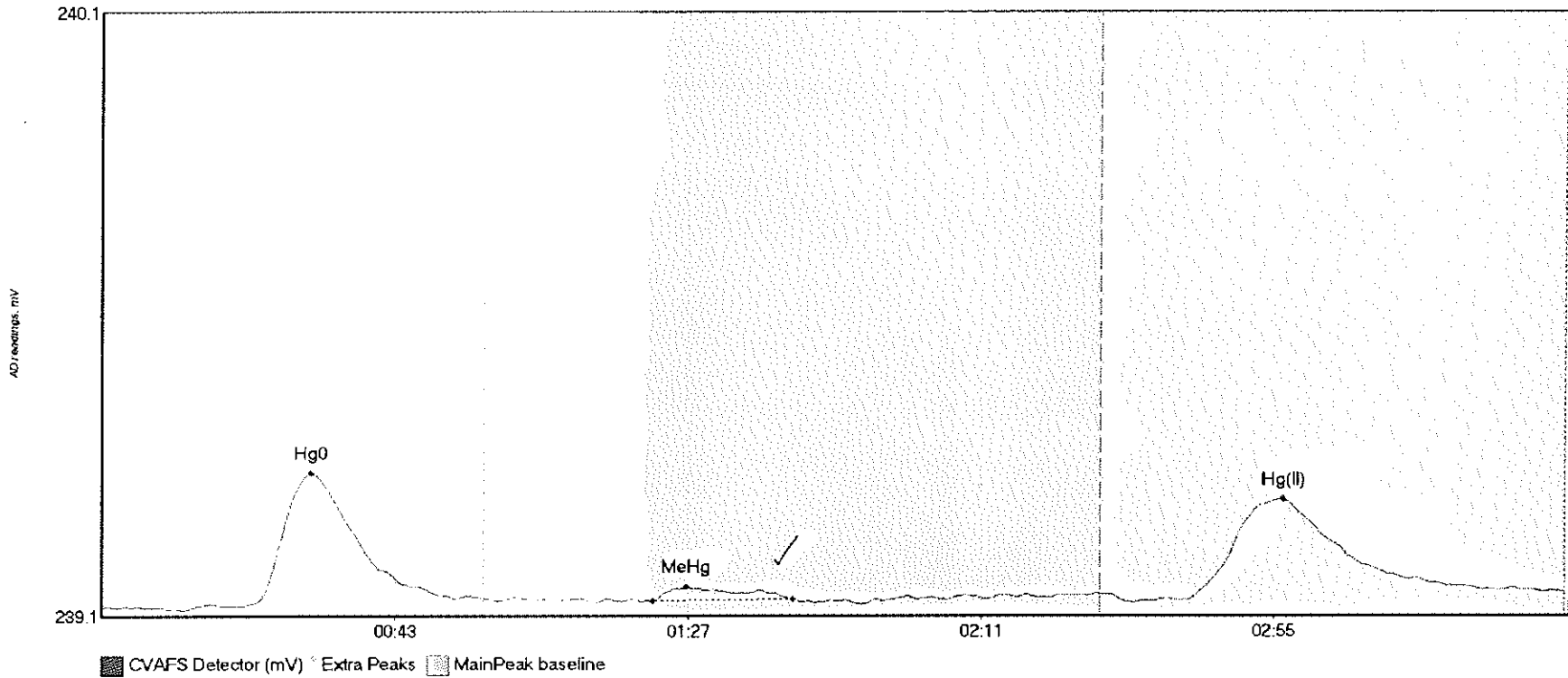
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BiDev	BlShift	Comment
SEQ-CCB4 Hg0	32.451	23.3	56.5	238.15	238.17	31.7	0.263	OK	238.1525	0.00	0.05	
SEQ-CCB4 MeHg	1.520	85.5	99.3	238.17	238.17	92.5	0.018	OK	238.1525	0.00	0.05	
SEQ-CCB4 Hg(II)	44.032	165.8	216.1	238.17	238.20	179.7	0.247	OK	238.1525	0.00	0.05	

#49: SEQ-CCV5



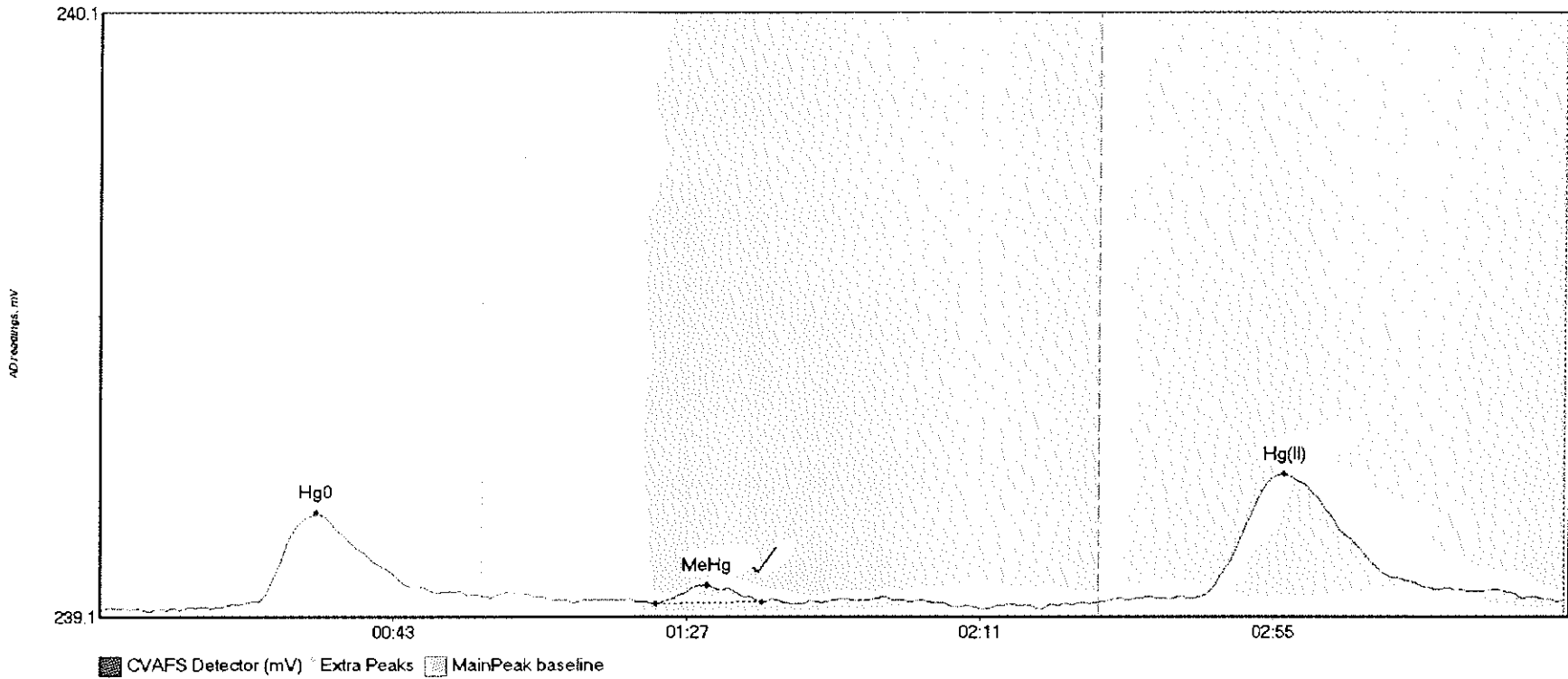
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
SEQ-CCV5 Hg0	977.622	11.9	57.5	239.13	239.47	32.4	8.179	CT	239.1212	0.00	0.07	
SEQ-CCV5 MeHg	172.191	80.1	120.2	239.26	239.23	87.9	1.316	OK	239.1212	0.00	0.07	
SEQ-CCV5 Hg(II)	136.242	155.8	219.7	239.19	239.19	172.1	0.693	OK	239.1212	0.00	0.07	

#50: SEQ-CCB5



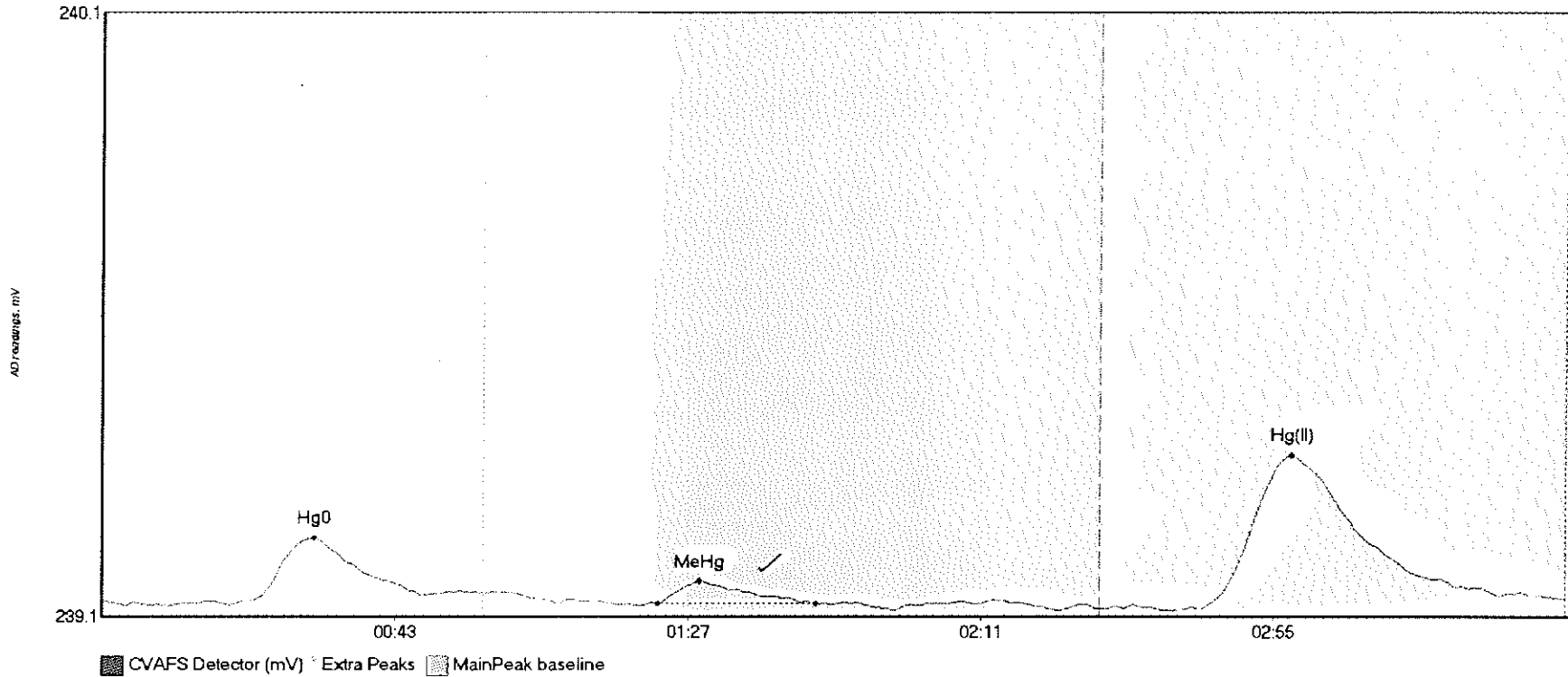
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
SEQ-CCB5 Hg0	26.436	21.2	53.1	239.14	239.16	31.4	0.222	OK	239.1416	0.00	0.03	
SEQ-CCB5 MeHg	2.933	82.7	103.9	239.15	239.15	87.8	0.024	OK	239.1416	0.00	0.03	
SEQ-CCB5 Hg(II)	30.721	162.8	217.0	239.15	239.17	177.4	0.168	OK	239.1416	0.00	0.03	

#51: F608200-BLK1



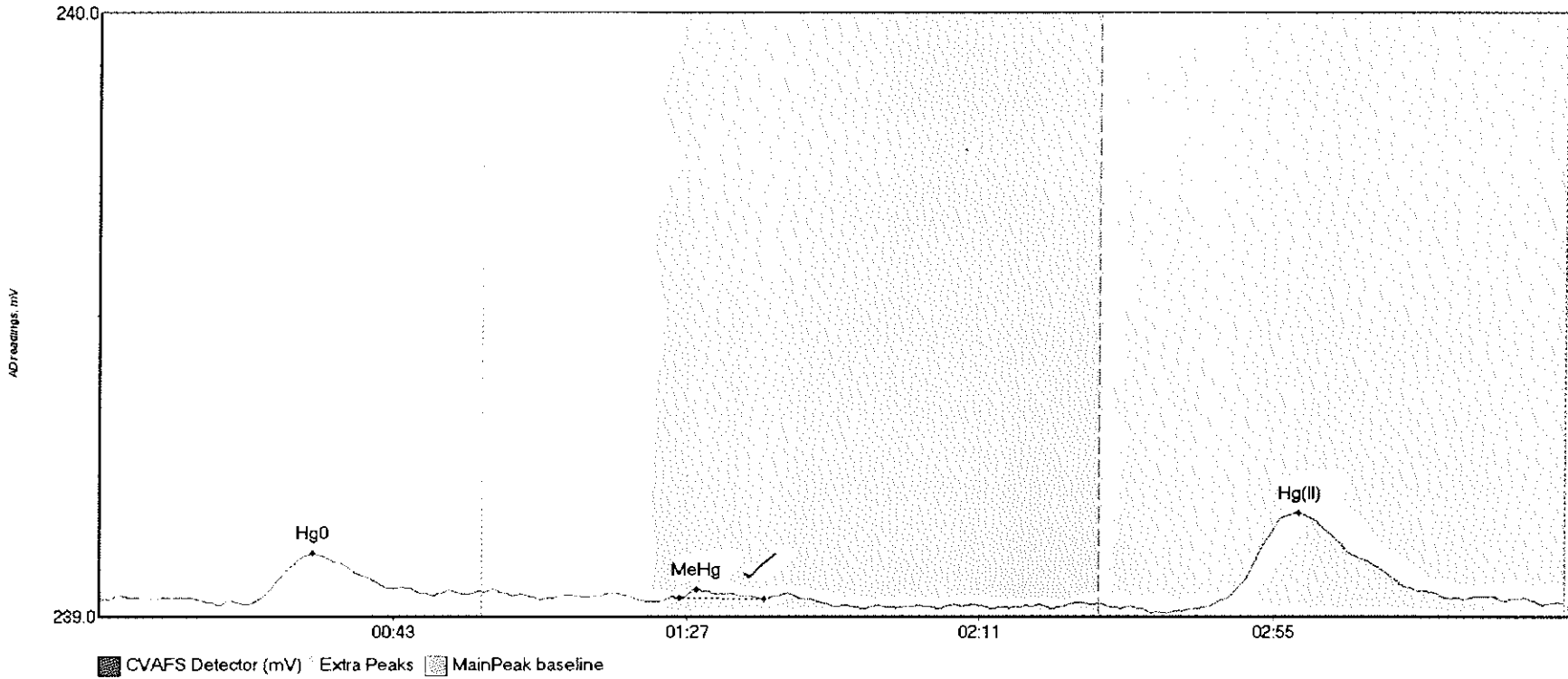
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
F608200-BLK1 Hg	20.962	18.2	57.5	239.13	239.15	32.3	0.155	CT	239.1308	0.00	0.01	
F608200-BLK1 Me	2.630	83.3	99.3	239.14	239.14	91.0	0.031	OK	239.1308	0.00	0.01	
F608200-BLK1 Hg	38.066	154.4	216.9	239.15	239.15	177.7	0.210	OK	239.1308	0.00	0.01	

#52: F608200-BLK2



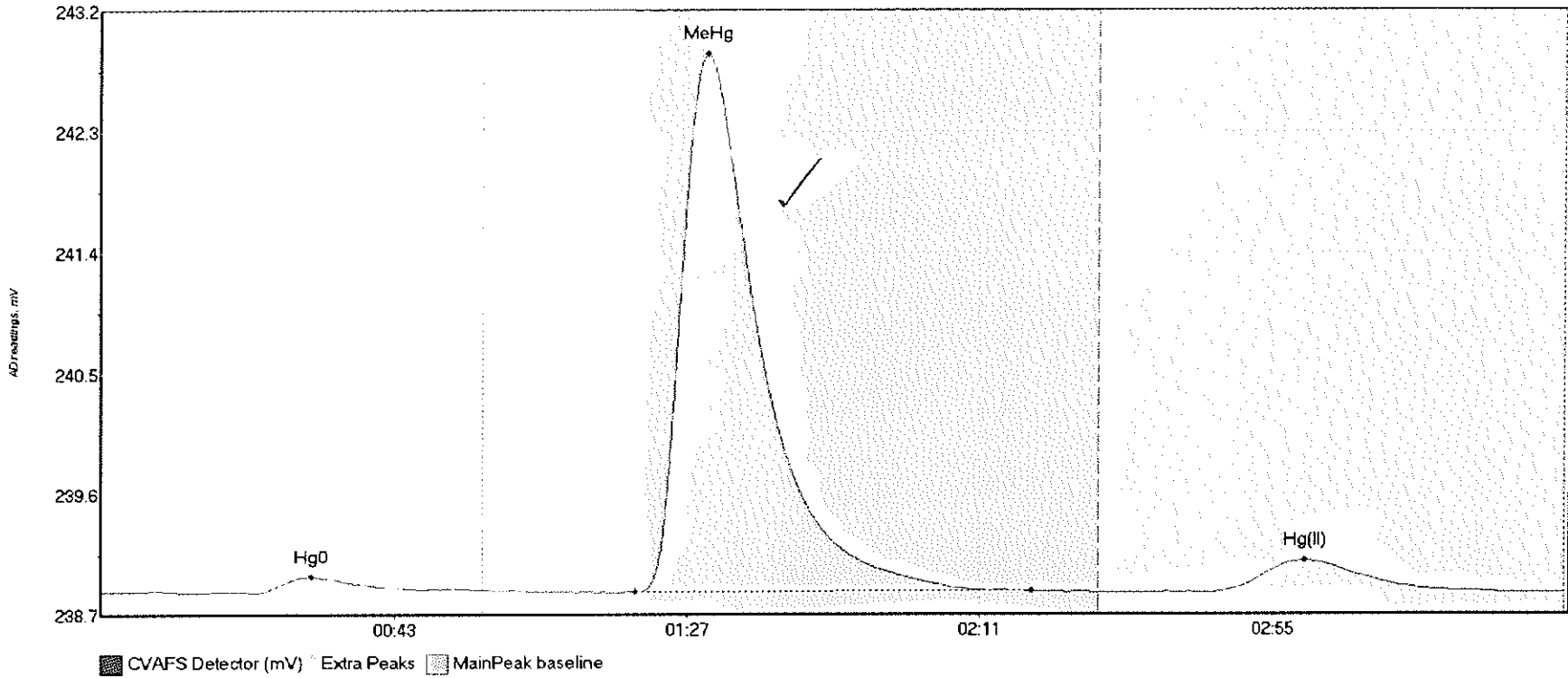
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
F608200-BLK2 Hg	12.452	22.5	48.0	239.09	239.10	31.8	0.104	OK	239.0895	0.00	0.01	
F608200-BLK2 Me	4.359	83.5	107.3	239.09	239.09	89.8	0.038	OK	239.0895	0.00	0.01	
F608200-BLK2 Hg	46.444	164.8	218.9	239.08	239.09	178.8	0.254	OK	239.0895	0.00	0.01	

#53: F608200-BLK3



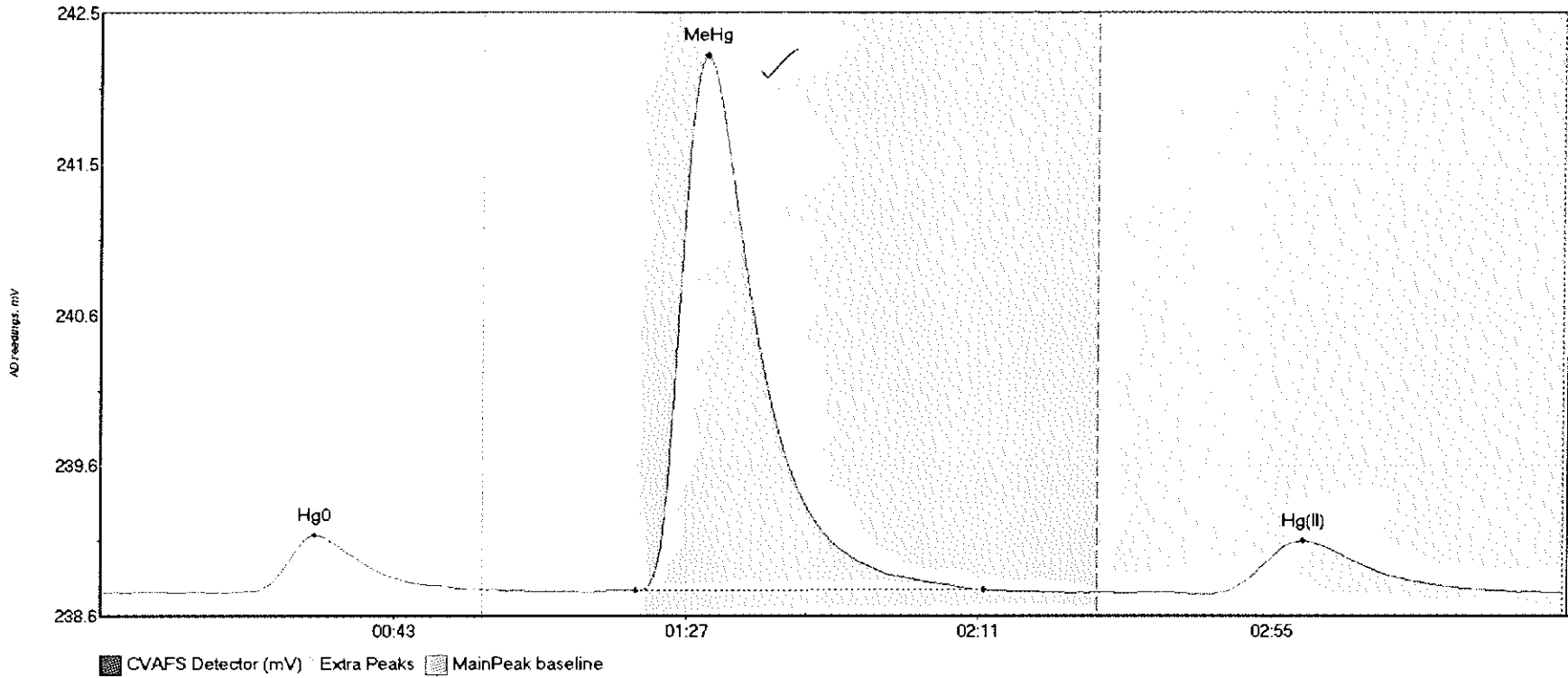
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
F608200-BLK3 Hg	10.245	22.5	49.9	239.00	239.01	31.9	0.083	OK	239.0064	0.00	-0.01	
F608200-BLK3 Me	0.945	86.9	99.6	239.01	239.01	89.4	0.013	OK	239.0064	0.00	-0.01	
F608200-BLK3 Hg	28.418	166.2	216.6	238.99	239.00	179.9	0.156	OK	239.0064	0.00	-0.01	

#54: F608200-BS1



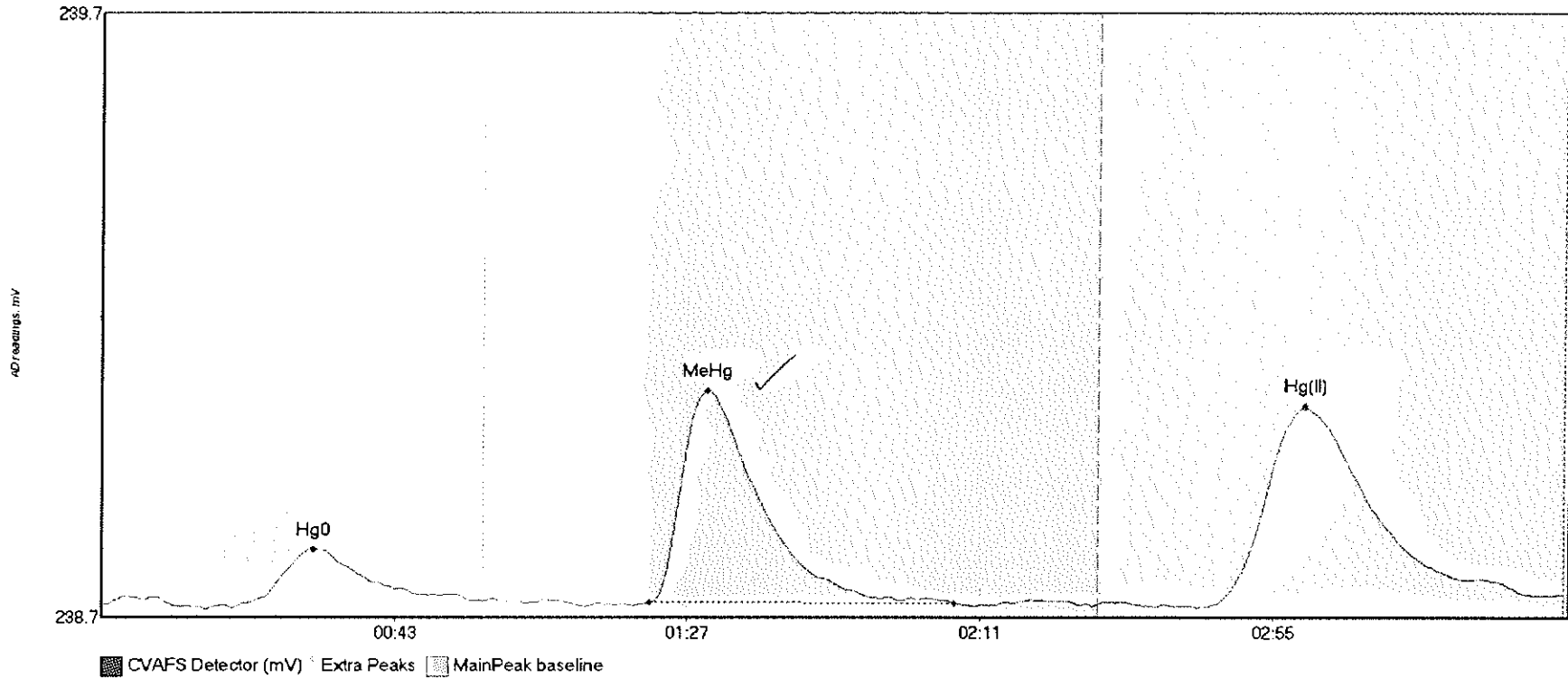
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	ElDev	BlShift	Comment
F608200-BS1 Hg0	14.647	23.1	57.1	238.90	238.91	31.6	0.118	OK	238.9032	0.00	-0.01	
F608200-BS1 MeH	539.036	80.3	139.9	238.90	238.91	91.0	3.990	OK	238.9032	0.00	-0.01	
F608200-BS1 Hg{	41.425	166.7	211.3	238.89	238.89	180.9	0.237	OK	238.9032	0.00	-0.01	

#55: F608200-BSD1



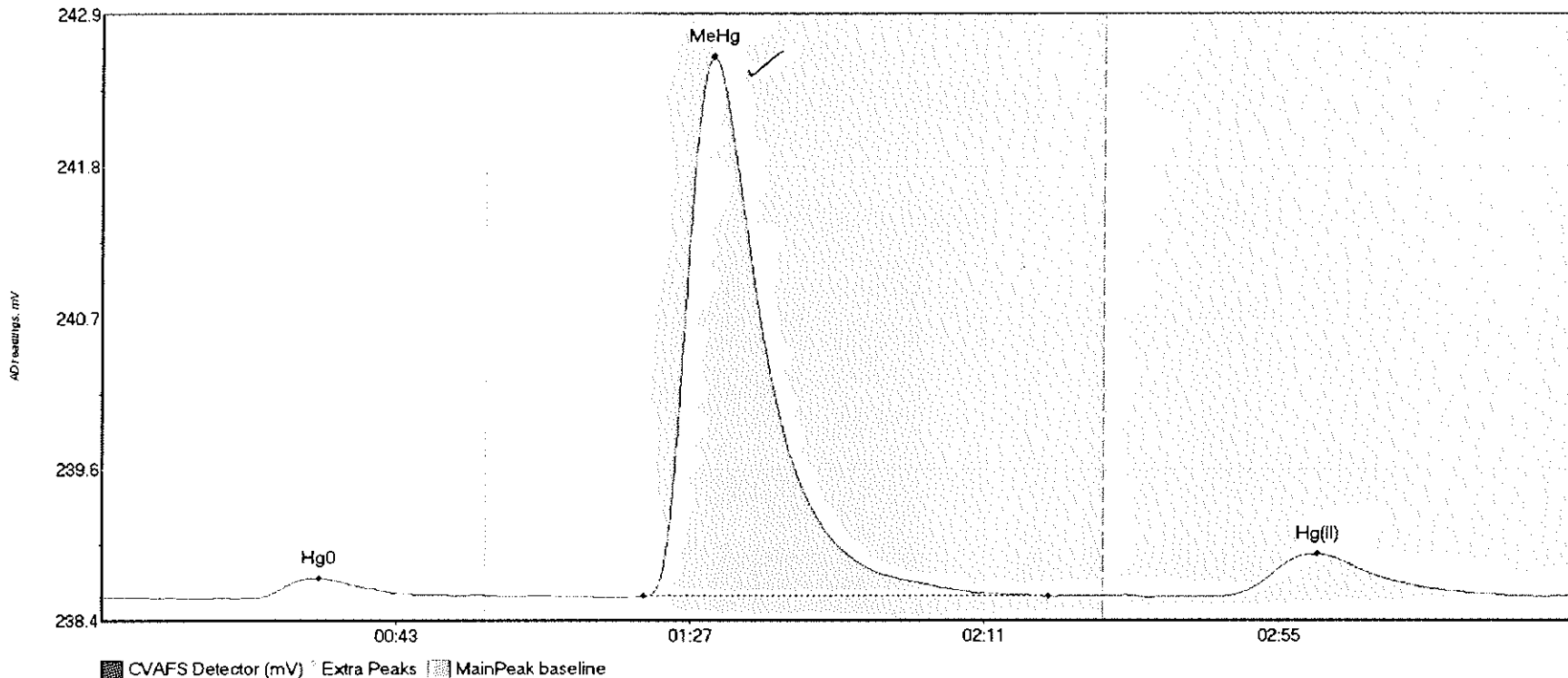
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BiDev	BiShift	Comment
F608200-BSD1 Hg	45.271	20.4	56.7	238.79	238.80	32.2	0.363	OK	238.7834	0.00	0.01	
F608200-BSD1 Me	455.438	80.5	132.9	238.80	238.80	91.0	3.399	OK	238.7834	0.00	0.01	
F608200-BSD1 Hg	59.862	166.4	213.3	238.77	238.79	160.8	0.340	OK	238.7834	0.00	0.01	

#56: F608200-DUP1



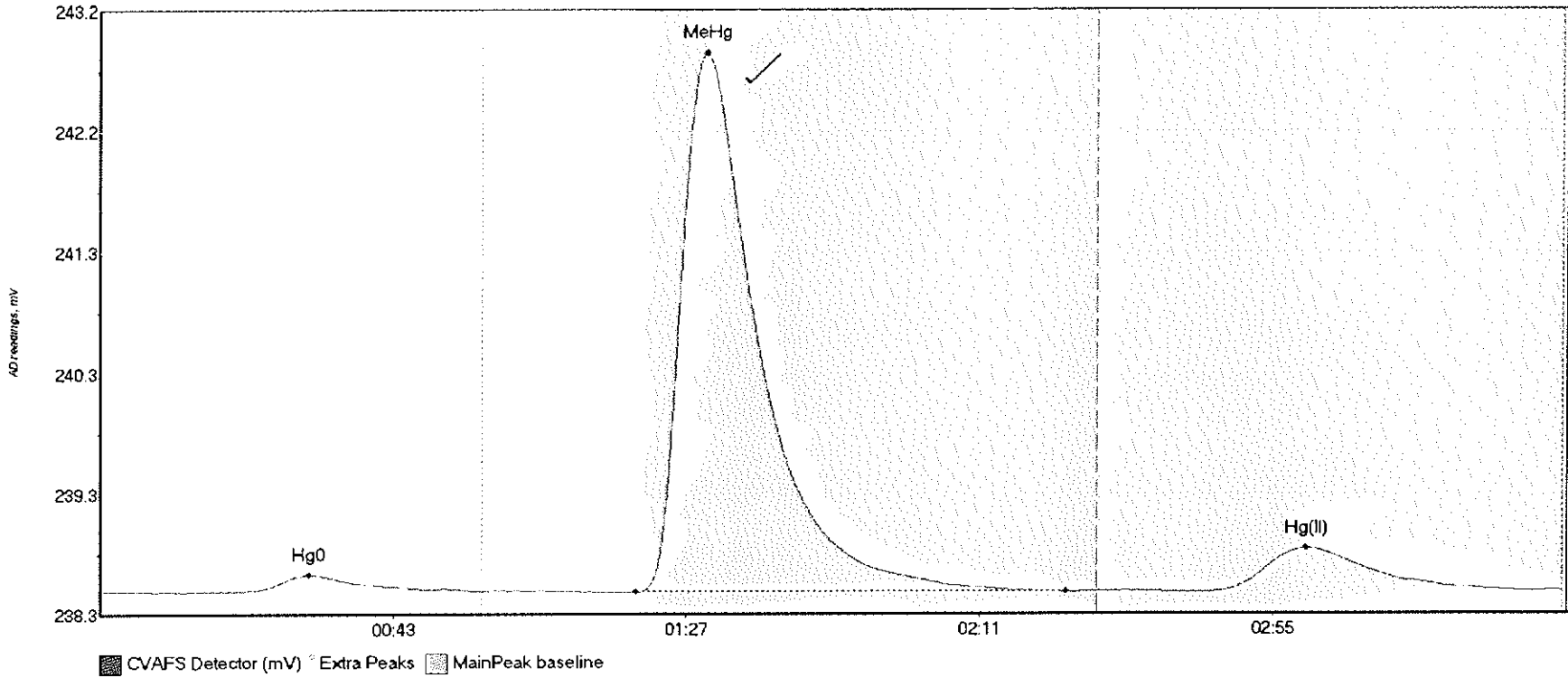
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	ElDev	ElShift	Comment
F608200-DUP1 Hg	13.271	19.8	56.0	238.68	238.69	31.8	0.098	OK	238.6845	0.00	0.02	
F608200-DUP1 Me	47.424	82.5	128.2	238.69	238.69	91.0	0.351	OK	238.6845	0.00	0.02	
F608200-DUP1 Hg	58.368	167.2	216.0	238.68	238.70	180.8	0.327	OK	238.6845	0.00	0.02	

#57: F608200-MS1



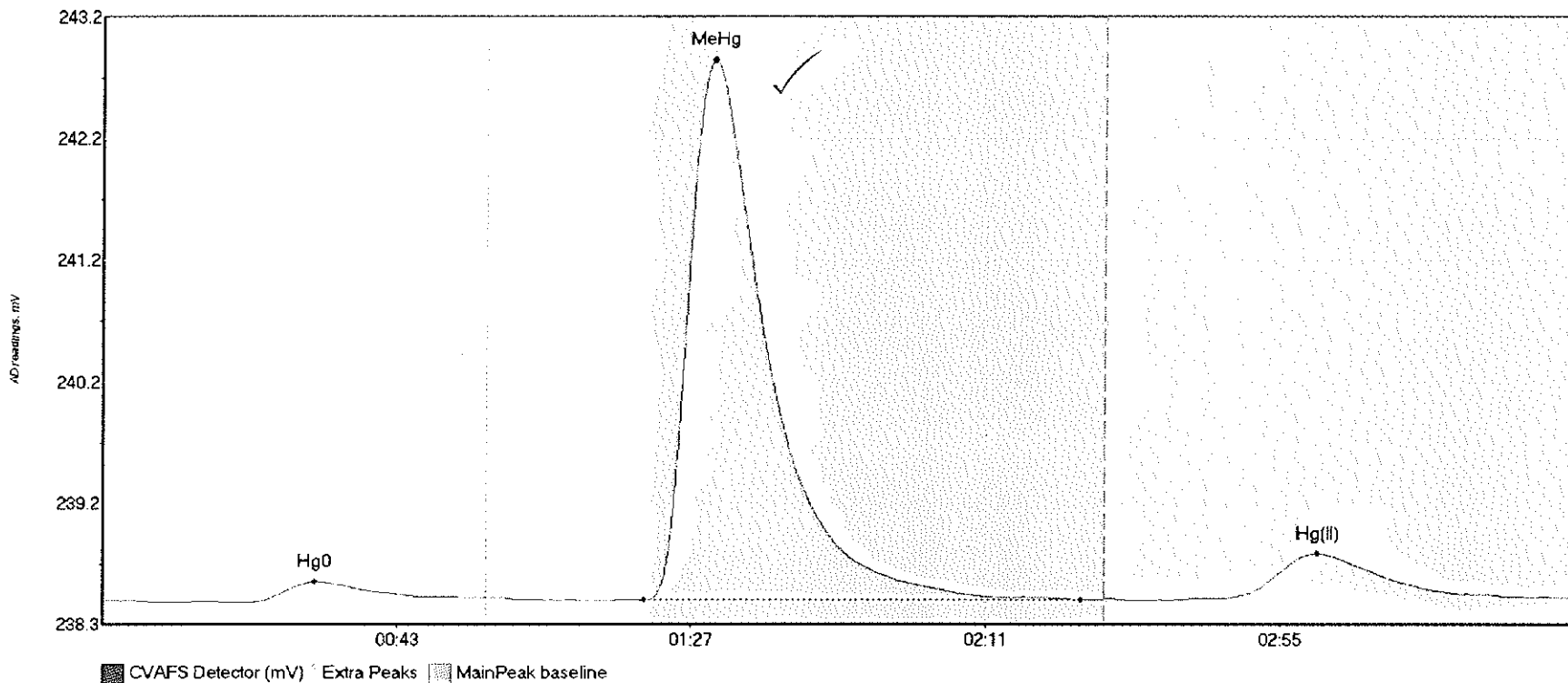
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BiDev	BiShift	Comment
F608200-MS1 Hg0	17.787	23.2	54.0	238.60	238.61	32.6	0.145	OK	238.5967	0.00	0.02	
F608200-MS1 MeH	540.381	81.2	141.8	238.60	238.60	91.3	4.009	OK	238.5967	0.00	0.02	
F608200-MS1 Hg(	55.624	167.3	211.4	238.60	238.61	181.7	0.318	OK	238.5967	0.00	0.02	

#58: F608200-MSD1



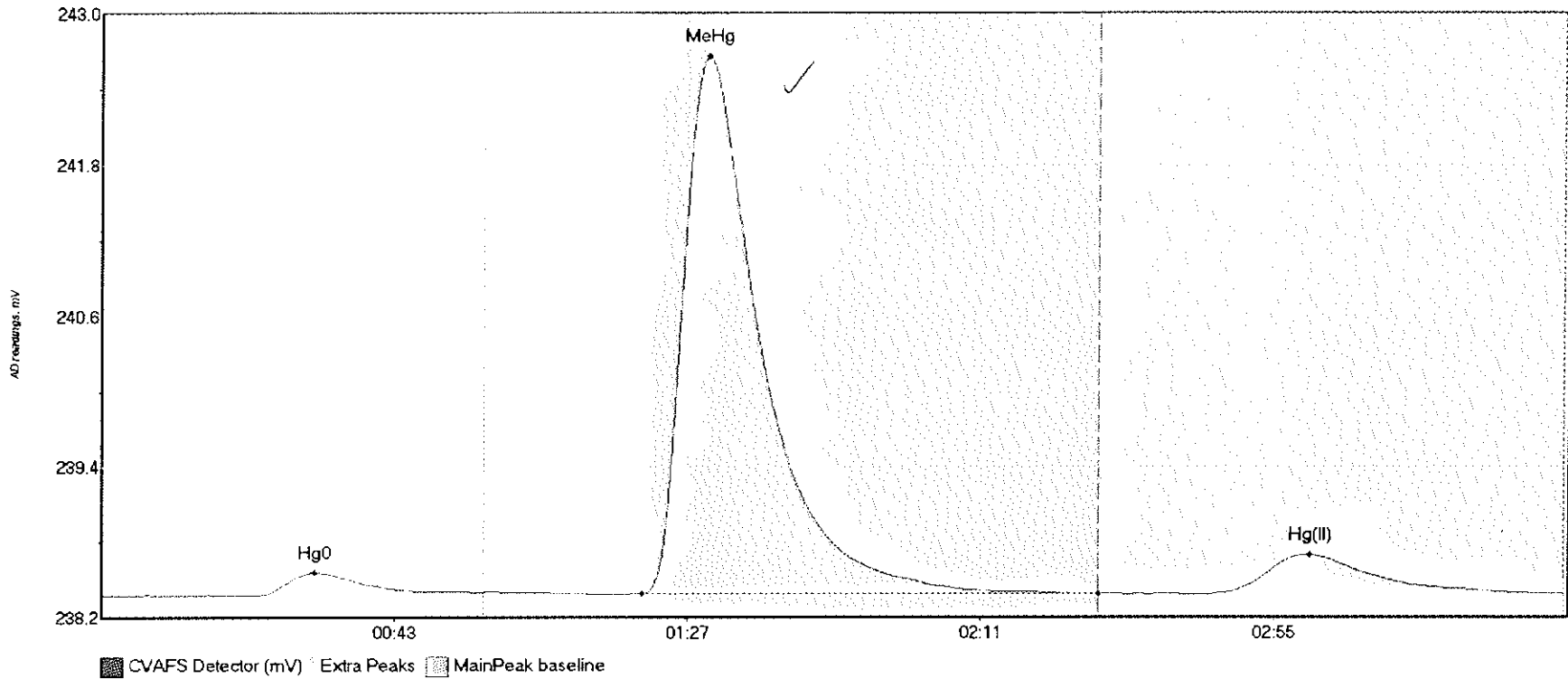
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
F608200-MSD1 Hg	17.155	21.5	56.3	238.52	238.52	31.4	0.129	OK	238.5148	0.00	0.01	
F608200-MSD1 Me	586.216	80.5	145.1	238.51	238.51	91.1	4.341	OK	238.5148	0.00	0.01	
F608200-MSD1 Hg	62.774	166.1	213.7	238.51	238.52	181.0	0.353	OK	238.5148	0.00	0.01	

#59: F608200-MS2



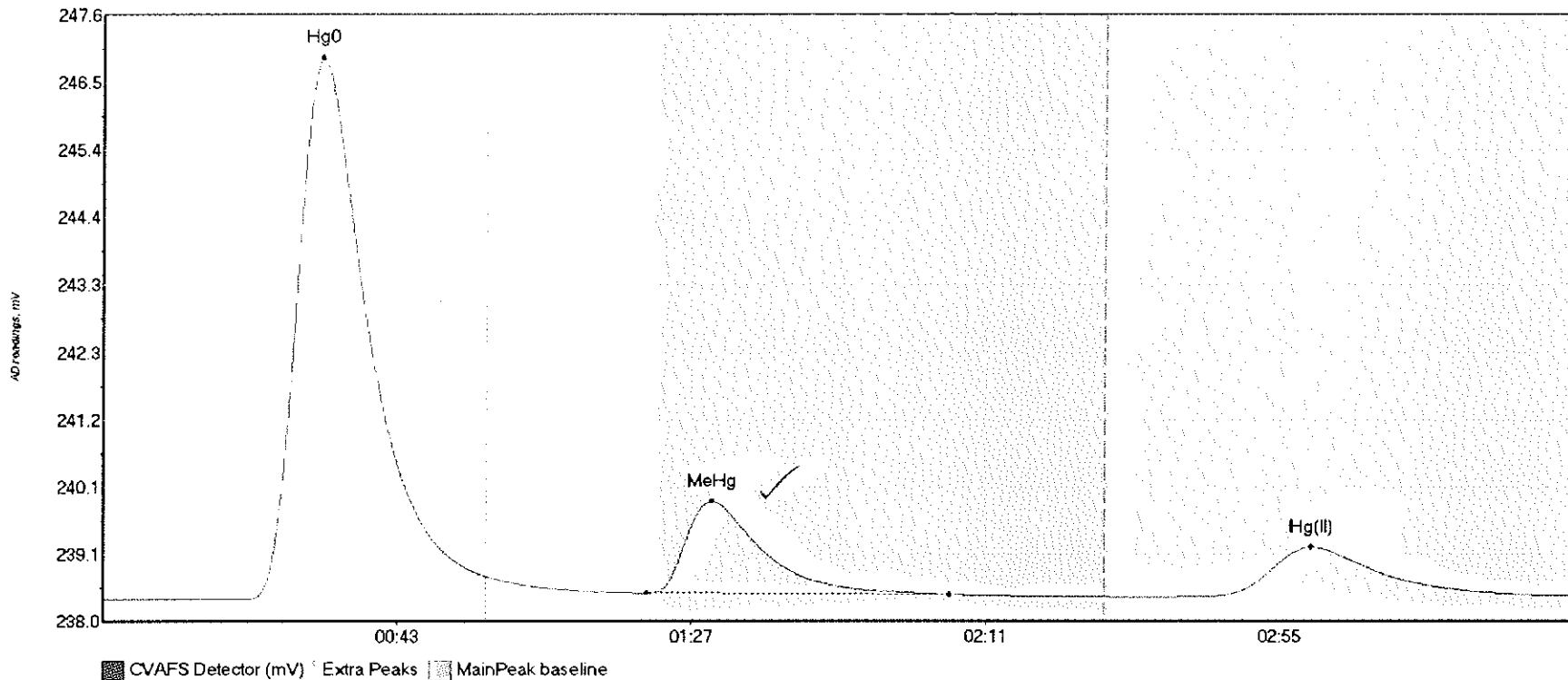
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BiDev	BlShift	Comment
F608200-MS2 Hg0	20.794	22.4	57.5	238.43	238.47	31.8	0.163	CT	238.4473	0.00	0.03	
F608200-MS2 MeH	596.427	81.0	146.3	238.45	238.45	91.4	4.372	OK	238.4473	0.00	0.03	
F608200-MS2 Hg(	61.922	166.7	214.1	238.46	238.47	181.6	0.363	OK	238.4473	0.00	0.03	

#60: F608200-MSD2



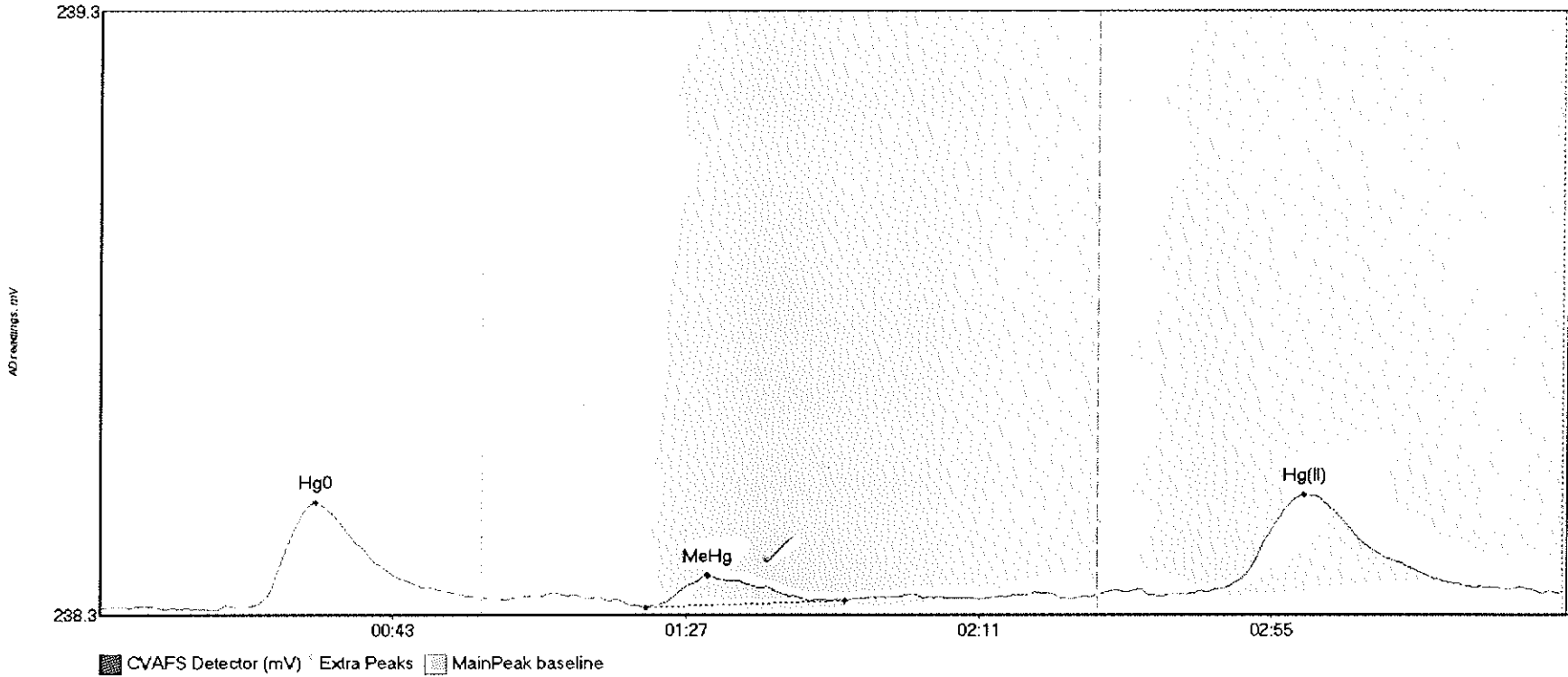
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
F608200-MSD2 Hg	21.614	22.9	56.4	238.40	238.42	32.1	0.180	OK	238.3946	0.00	0.01	
F608200-MSD2 Me	576.299	81.1	149.9	238.41	238.41	91.1	4.249	OK	238.3946	0.00	0.01	
F608200-MSD2 Hg	57.434	165.9	216.5	238.40	238.41	181.5	0.313	OK	238.3946	0.00	0.01	

#61: SEQ-CCV6



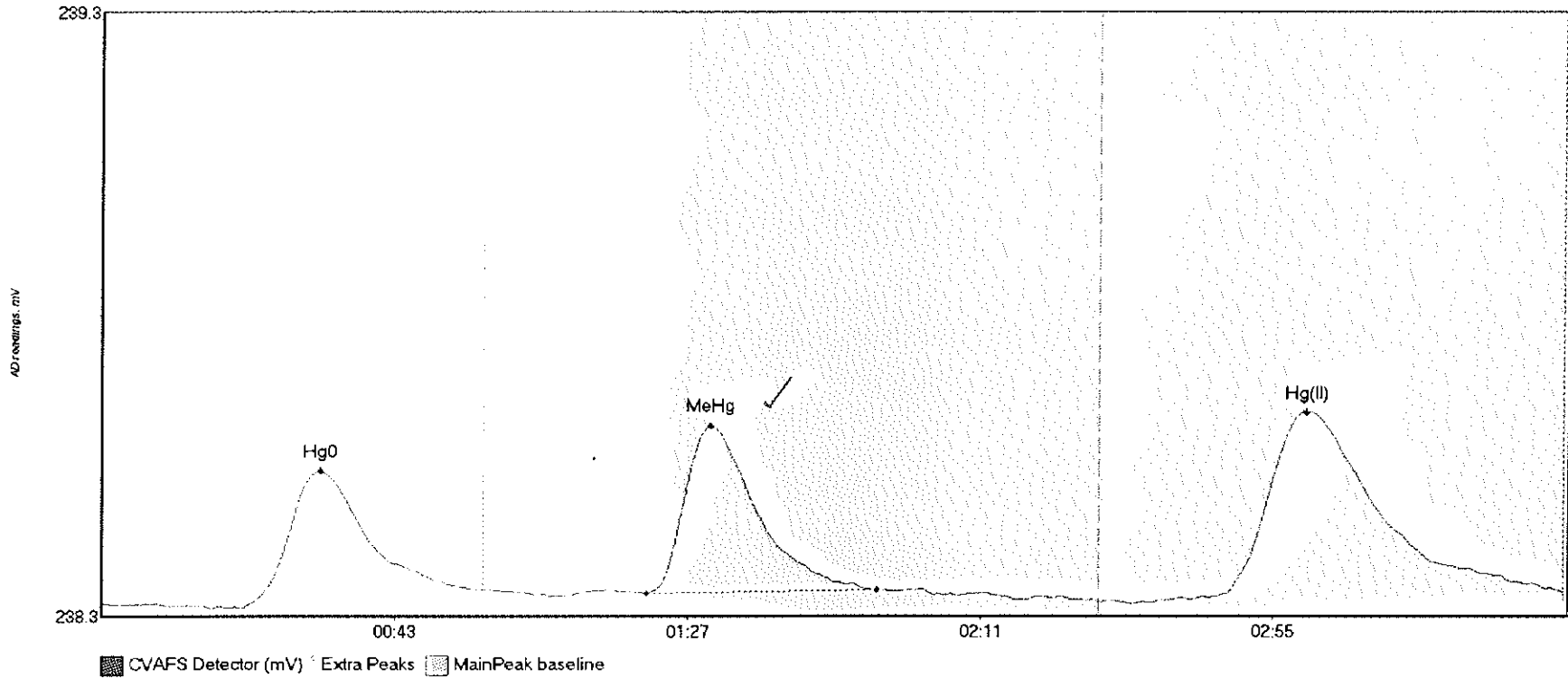
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
SEQ-CCV6 Hg0	1013.575	20.9	57.5	238.35	238.71	32.9	8.526	CT	238.3513	0.00	0.06	
SEQ-CCV6 MeHg	192.995	81.4	126.6	238.45	238.42	91.1	1.453	OK	238.3513	0.00	0.06	
SEQ-CCV6 Hg(II)	141.039	161.9	217.5	238.39	238.41	180.8	0.780	OK	238.3513	0.00	0.06	

#62: SEQ-CCB6



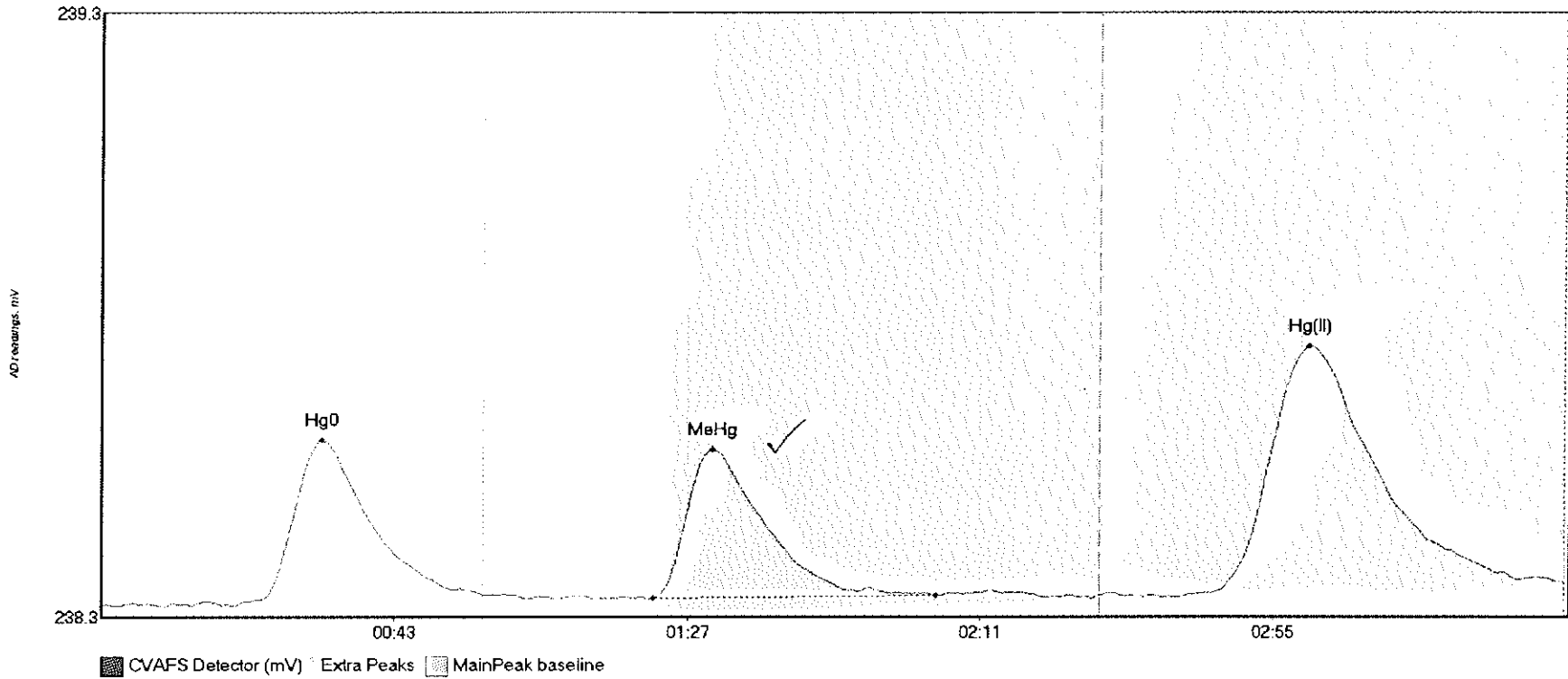
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
SEQ-CCB6 Hg0	22.212	23.1	57.2	238.33	238.34	32.5	0.171	OK	238.3259	0.00	0.03	
SEQ-CCB6 MeHg	6.597	82.0	111.9	238.33	238.34	91.3	0.054	OK	238.3259	0.00	0.03	
SEQ-CCB6 Hg(II)	28.580	166.7	216.6	238.35	238.35	180.9	0.161	OK	238.3259	0.00	0.03	

#63: 1607339-01RE1



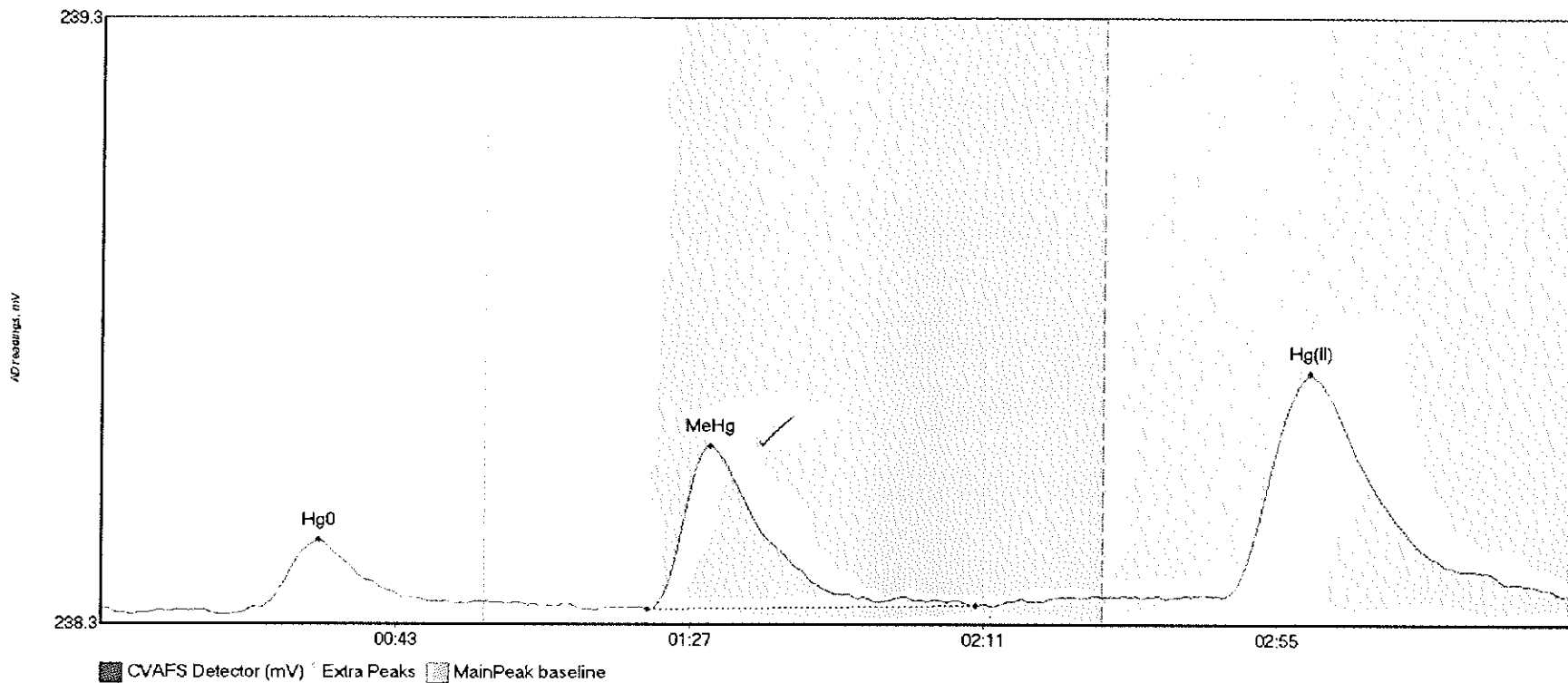
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	B1Dev	B1Shift	Comment
1607339-01RE1 H	29.130	21.0	56.2	238.31	238.34	32.9	0.229	OK	238.3165	0.00	0.02	
1607339-01RE1 M	34.590	81.9	116.6	238.33	238.34	91.4	0.277	OK	238.3165	0.00	0.02	
1607339-01RE1 H	57.485	163.9	219.8	238.32	238.34	181.0	0.311	CT	238.3165	0.00	0.02	

#64: 1607339-02RE1



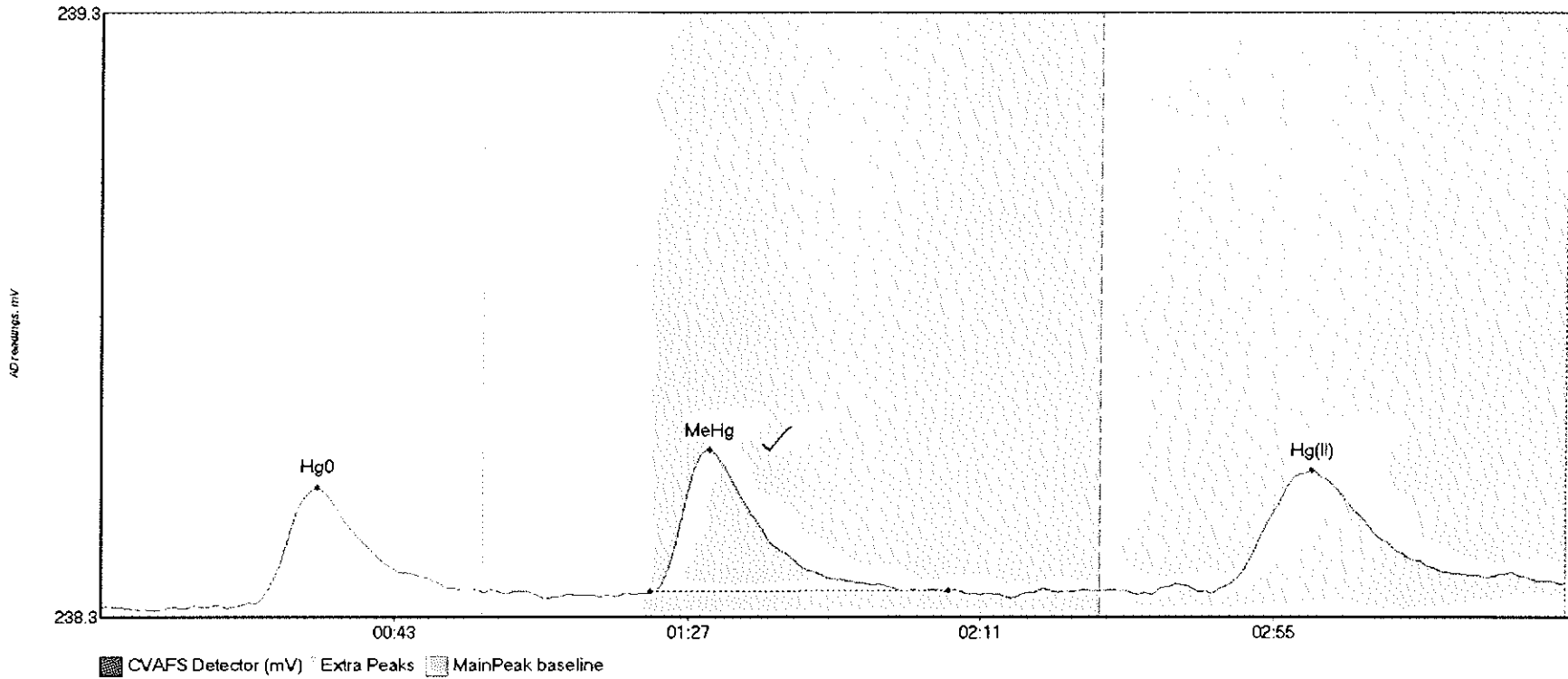
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1607339-02RE1 H	34.088	21.8	57.5	238.31	238.32	33.1	0.269	CT	238.3032	0.00	0.04	
1607339-02RE1 M	33.023	82.9	125.5	238.31	238.32	91.7	0.247	OK	238.3032	0.00	0.04	
1607339-02RE1 H	73.082	166.4	219.2	238.32	238.34	181.5	0.409	OK	238.3032	0.00	0.04	

#65: 1607380-01RE1



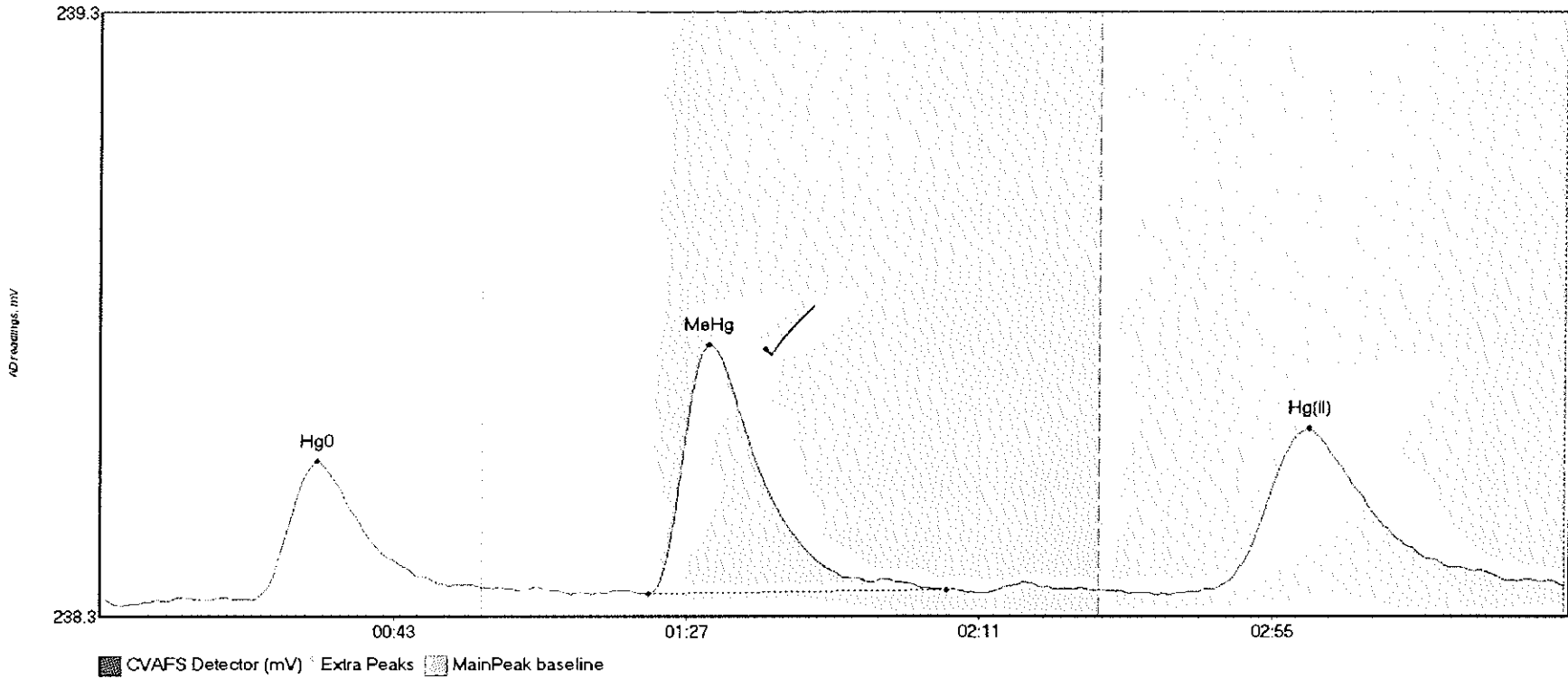
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1607380-01RE1 H	12.579	23.5	54.8	238.31	238.31	32.4	0.112	OK	238.3045	0.00	0.02	
1607380-01RE1 M	37.751	81.8	130.9	238.30	238.31	91.0	0.271	OK	238.3045	0.00	0.02	
1607380-01RE1 H	66.111	168.2	219.0	238.33	238.33	180.9	0.367	OK	238.3045	0.00	0.02	

#66: 1607380-03RE1



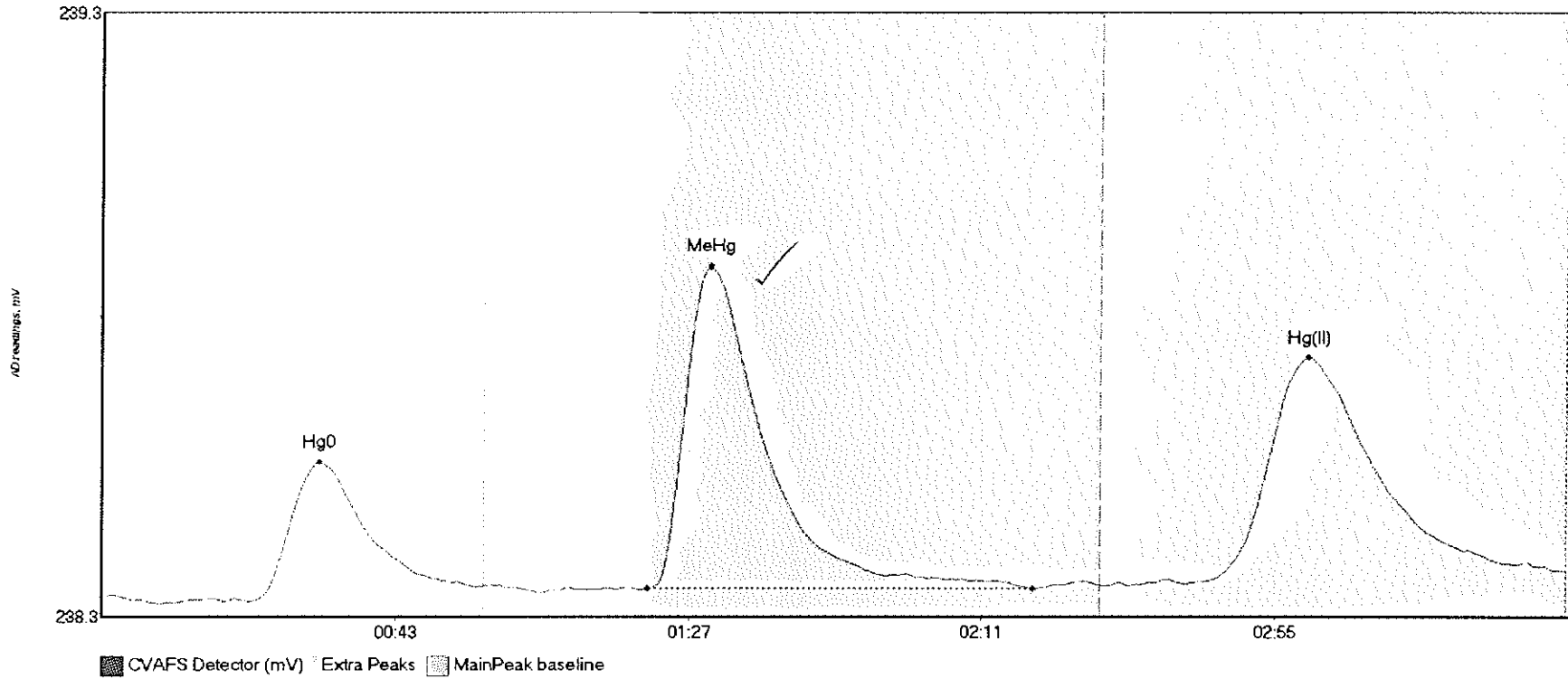
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1607380-03RE1 H	24.576	23.0	57.5	238.31	238.33	32.5	0.192	CT	238.3078	0.00	0.04	
1607380-03RE1 M	30.737	82.5	127.3	238.33	238.33	91.1	0.236	OK	238.3078	0.00	0.04	
1607380-03RE1 H	36.972	166.7	219.2	238.33	238.35	181.7	0.203	OK	238.3078	0.00	0.04	

#67: 1607380-05RE1



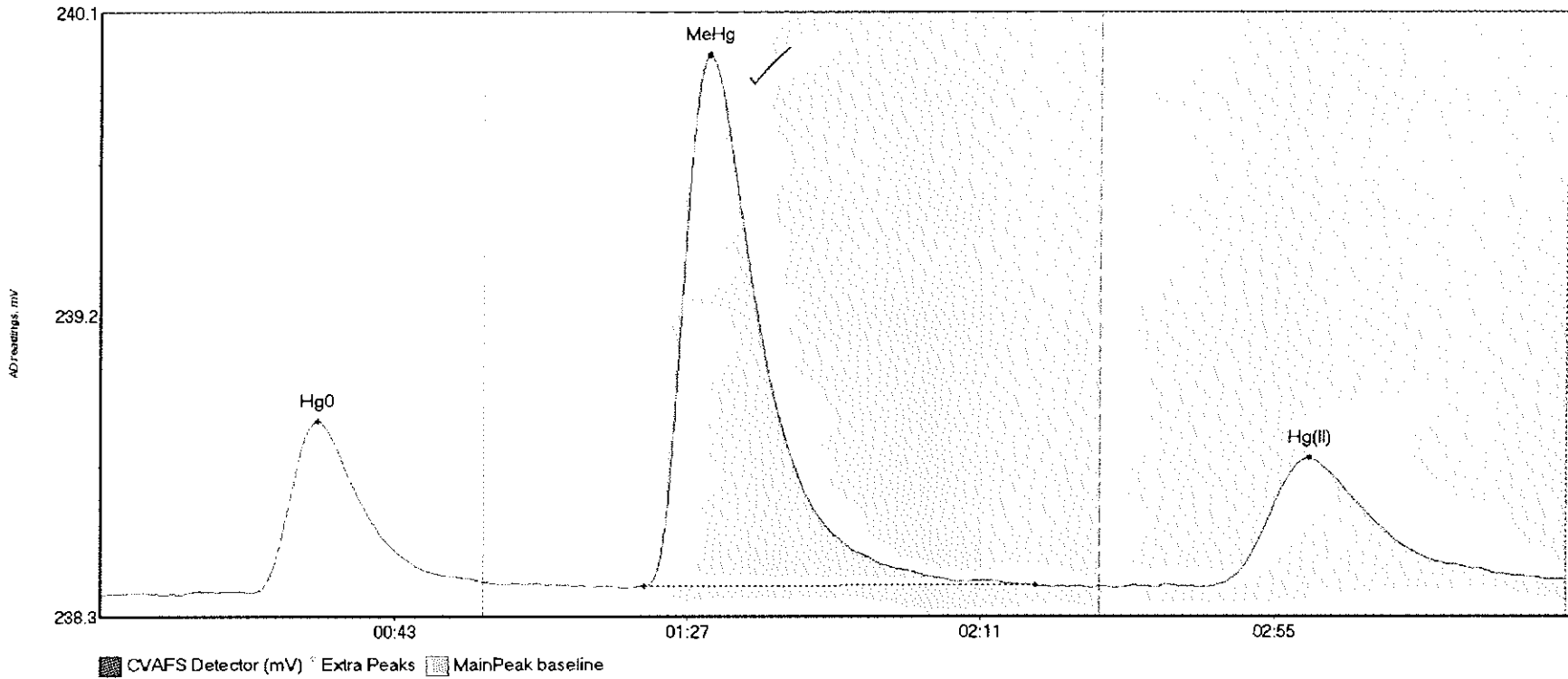
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1607380-05RE1 H	27.855	22.7	57.5	238.32	238.34	32.5	0.229	CT	238.3153	0.00	0.03	
1607380-05RE1 M	55.024	82.3	127.1	238.33	238.33	91.3	0.413	OK	238.3153	0.00	0.03	
1607380-05RE1 H	47.755	167.0	219.8	238.34	238.34	181.6	0.265	CT	238.3153	0.00	0.03	

#68: 1607380-07RE1



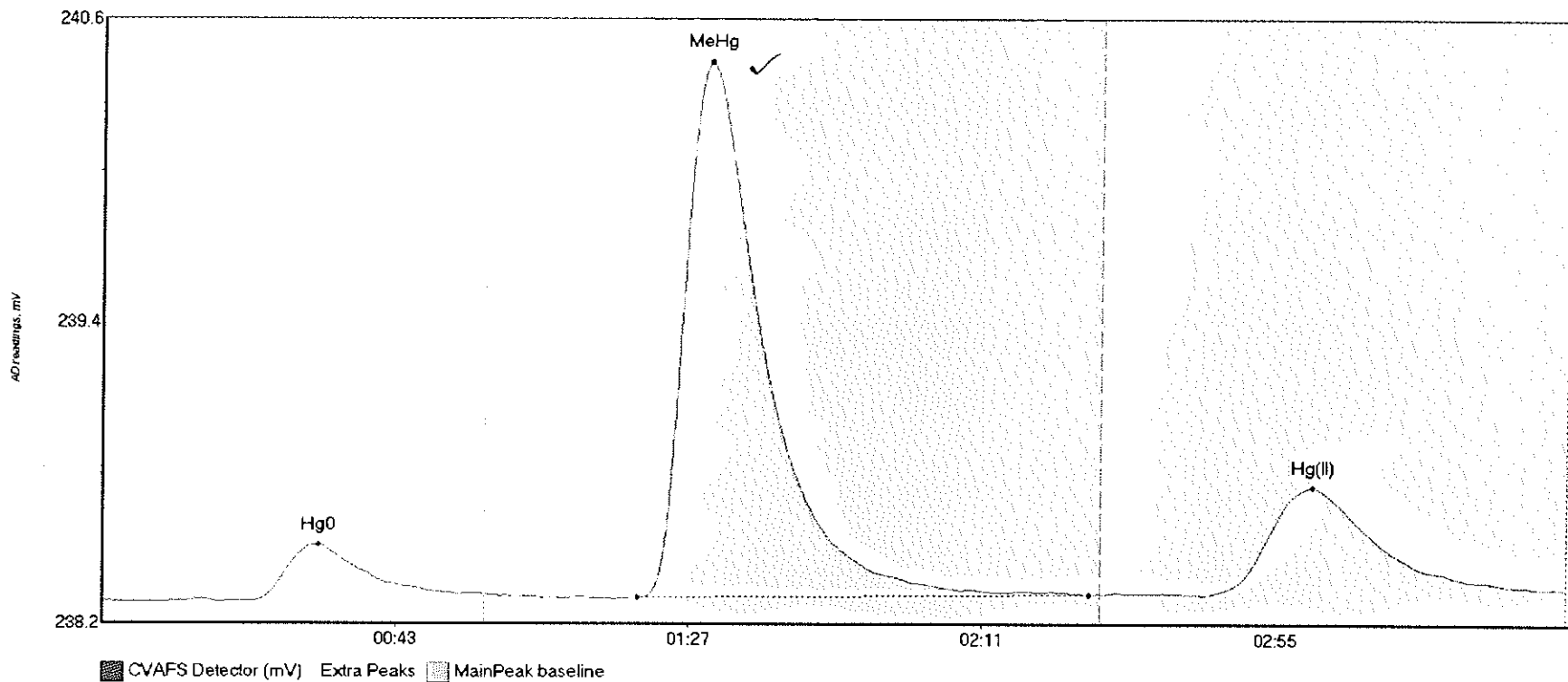
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1607380-07RE1 H	28.642	22.1	56.1	238.31	238.33	32.6	0.231	OK	238.3202	0.00	0.04	
1607380-07RE1 M	74.293	81.9	139.8	238.33	238.33	91.1	0.533	OK	238.3202	0.00	0.04	
1607380-07RE1 H	68.192	162.4	219.6	238.34	238.36	181.1	0.376	OK	238.3202	0.00	0.04	

#69: 1607380-09RE1



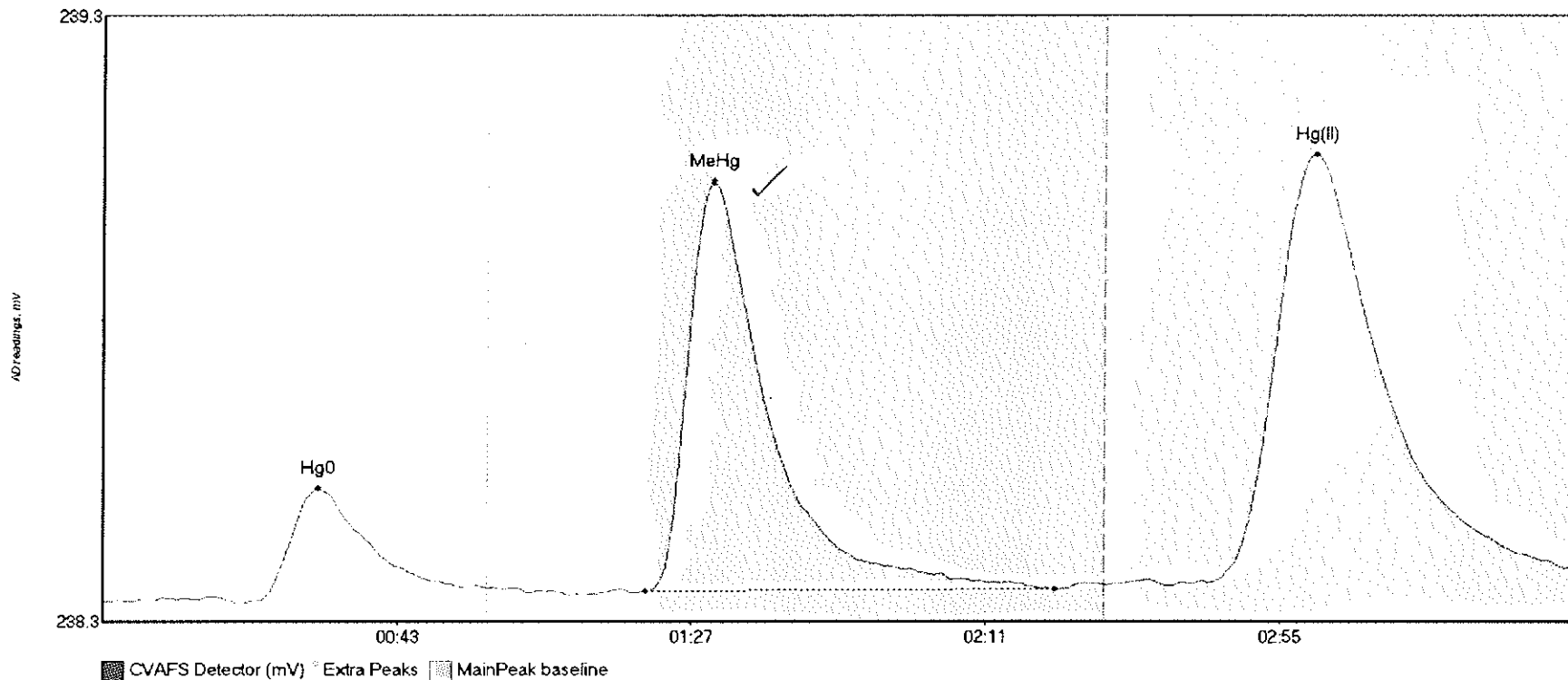
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1607380-09RE1 H	64.401	12.1	57.5	238.32	238.36	32.4	0.544	CT	238.3233	0.00	0.05	
1607380-09RE1 M	226.273	81.6	140.3	238.35	238.35	91.2	1.665	OK	238.3233	0.00	0.05	
1607380-09RE1 H	72.787	166.1	217.8	238.35	238.37	181.3	0.404	OK	238.3233	0.00	0.05	

#70: 1607380-13RE1



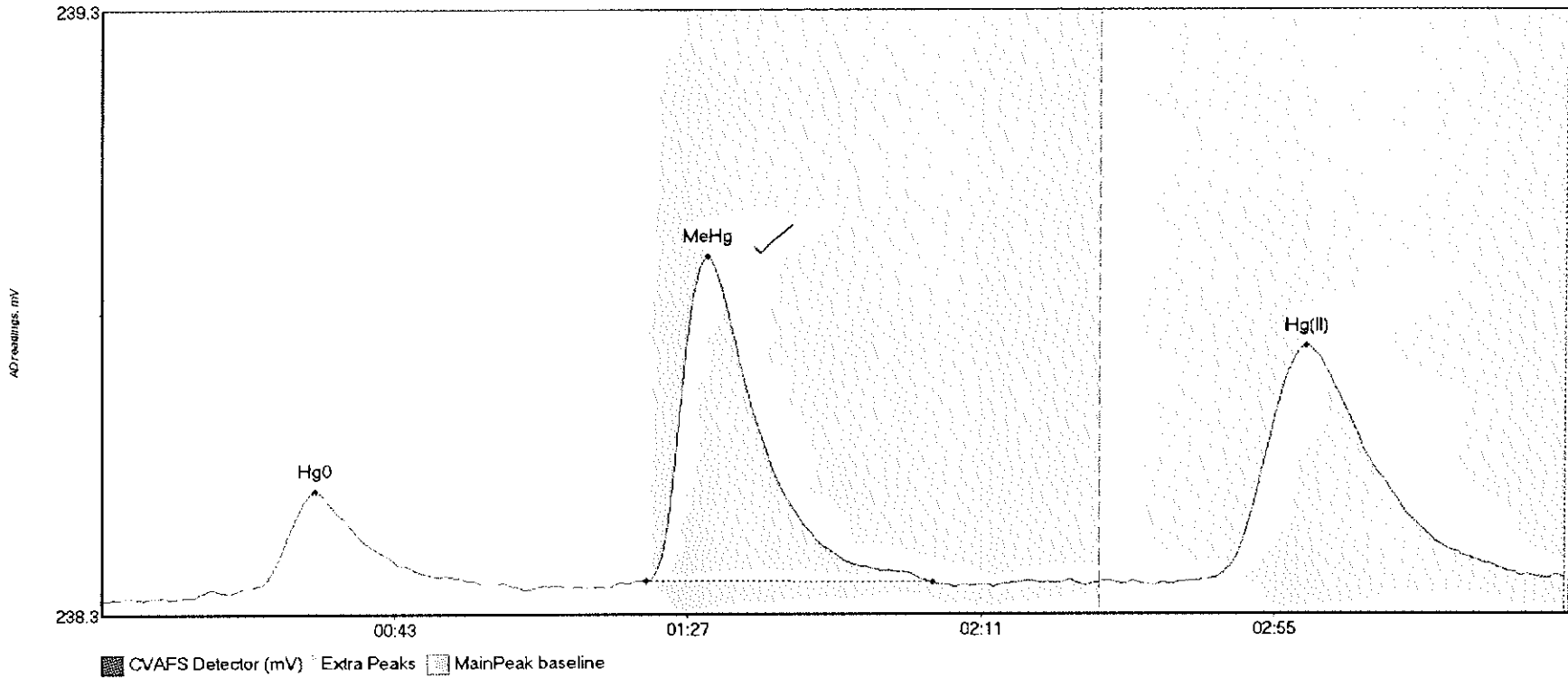
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1607380-13RE1 H	27.356	22.3	57.5	238.34	238.37	32.6	0.220	CP	238.3396	0.00	0.05	
1607380-13RE1 M	287.449	80.4	148.2	238.35	238.36	91.1	2.104	OK	238.3396	0.00	0.05	
1607380-13RE1 H	76.369	165.2	219.7	238.36	238.39	181.5	0.426	OK	238.3396	0.00	0.05	

#71: 1607586-01RE1



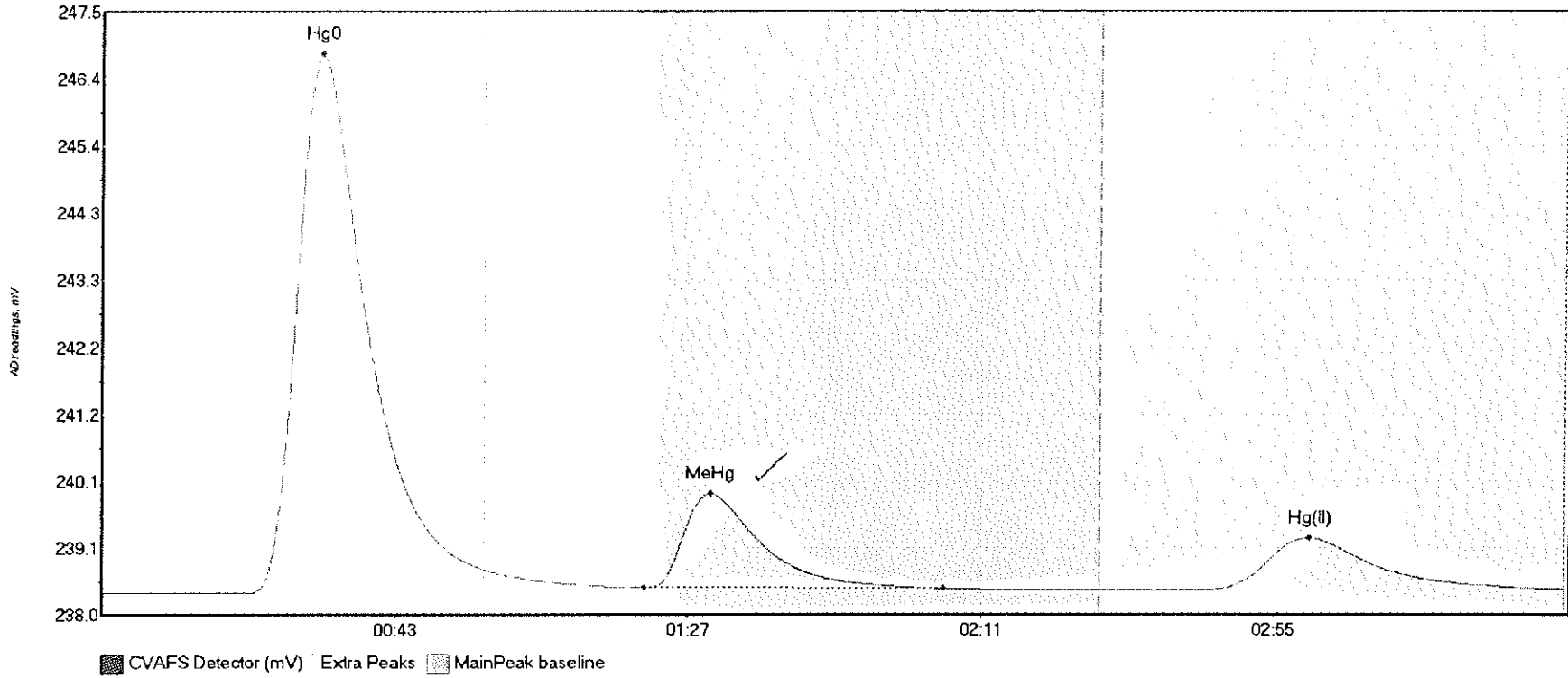
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1607586-01RE1 H	22.542	23.4	57.4	238.35	238.37	32.1	0.185	OK	238.3450	0.00	0.06	
1607586-01RE1 M	94.122	81.1	142.5	238.36	238.36	91.3	0.675	OK	238.3450	0.00	0.06	
1607586-01RE1 H	127.068	165.4	219.1	238.38	238.40	101.3	0.707	OK	238.3450	0.00	0.06	

#72: 1607586-02RE1



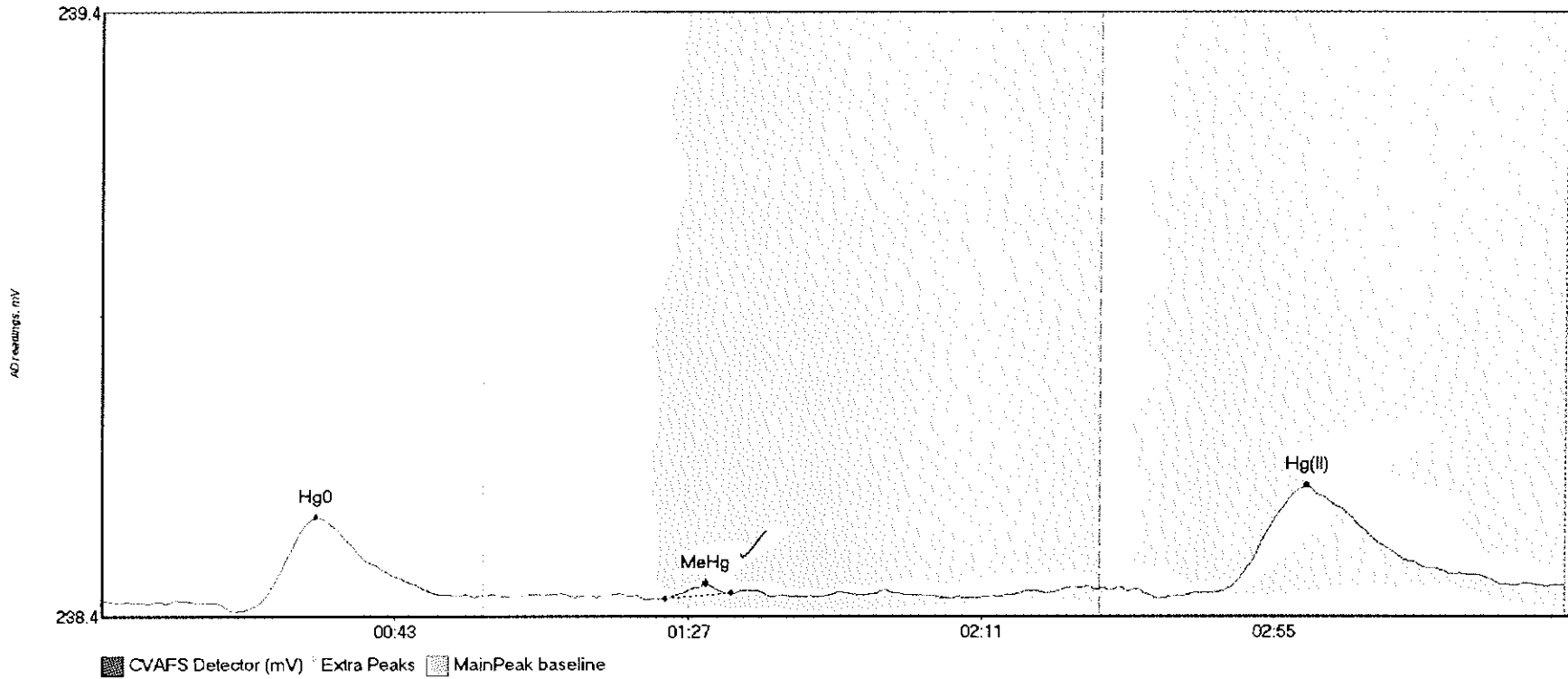
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1607586-02RE1 H	22.882	13.8	57.5	238.35	238.37	32.2	0.175	Cr	238.3485	0.00	0.04	
1607586-02RE1 M	71.496	81.9	124.8	238.38	238.38	91.0	0.537	OK	238.3485	0.00	0.04	
1607586-02RE1 H	69.803	167.0	217.3	238.38	238.39	180.7	0.385	OK	238.3485	0.00	0.04	

#73: SEQ-CCV7



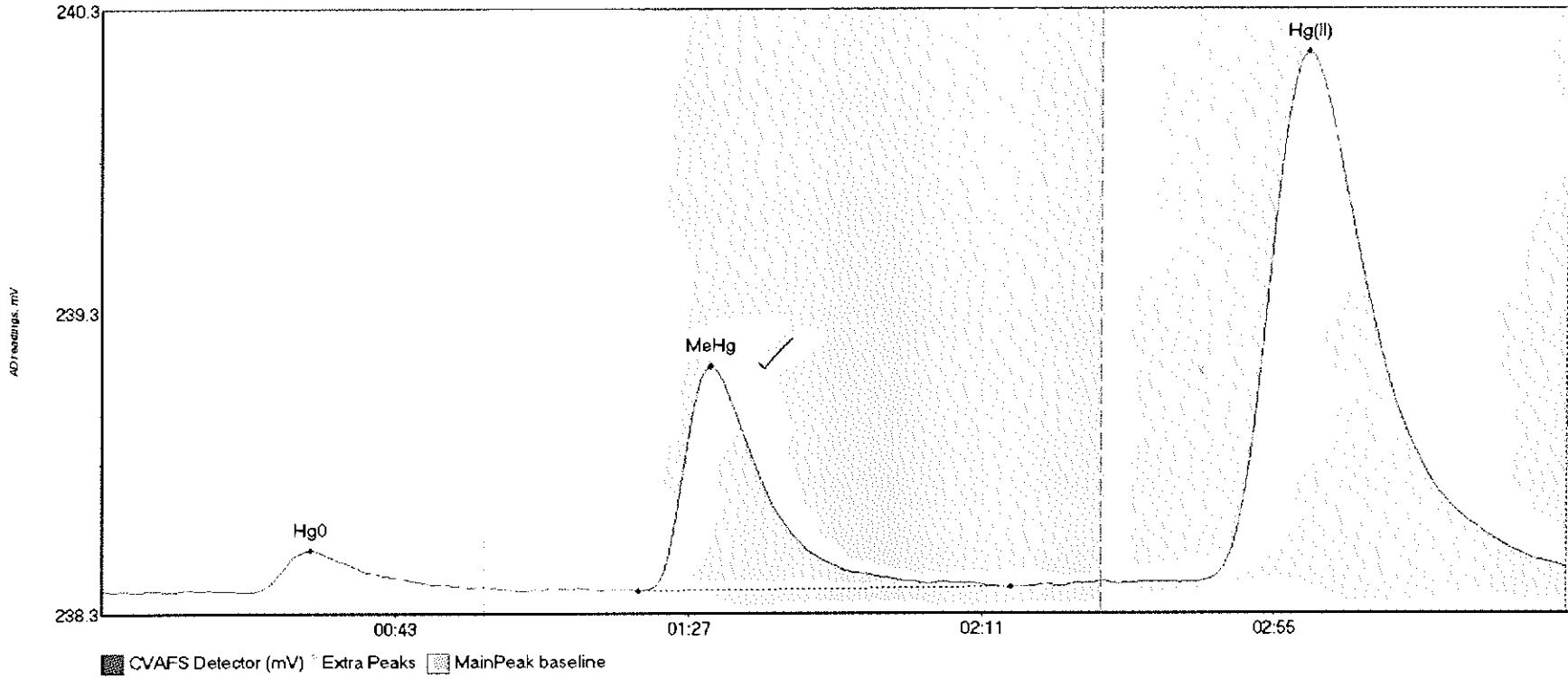
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
SEQ-CCV7 Hg0	991.457	21.6	57.5	238.36	238.72	33.1	8.442	CT	238.3670	0.00	0.07	
SEQ-CCV7 MeHg	196.085	81.4	126.3	238.45	238.43	91.4	1.476	OK	238.3670	0.00	0.07	
SEQ-CCV7 Hg(II)	144.767	166.1	217.4	238.42	238.43	181.5	0.868	OK	238.3670	0.00	0.07	

#74: SEQ-CCB7



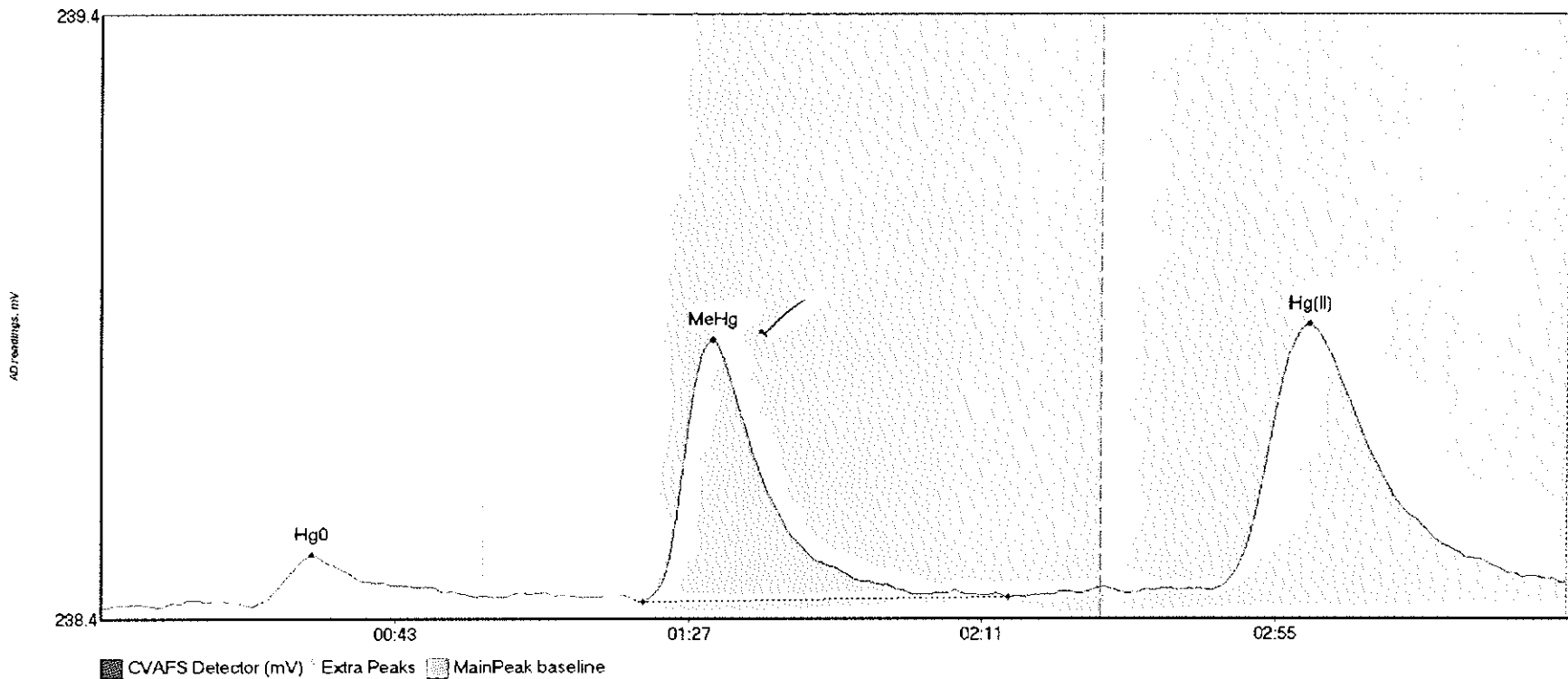
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BiDev	BiShift	Comment
SEQ-CCB7 Hg0	20.140	21.0	56.1	238.37	238.39	32.2	0.155	OK	238.3851	0.00	0.03	
SEQ-CCB7 MeHg	0.878	84.4	94.5	238.39	238.40	90.6	0.024	OK	238.3851	0.00	0.03	
SEQ-CCB7 Hg(II)	31.077	167.3	212.2	238.40	238.41	180.9	0.176	OK	238.3851	0.00	0.03	

#75: 1607586-03RE1



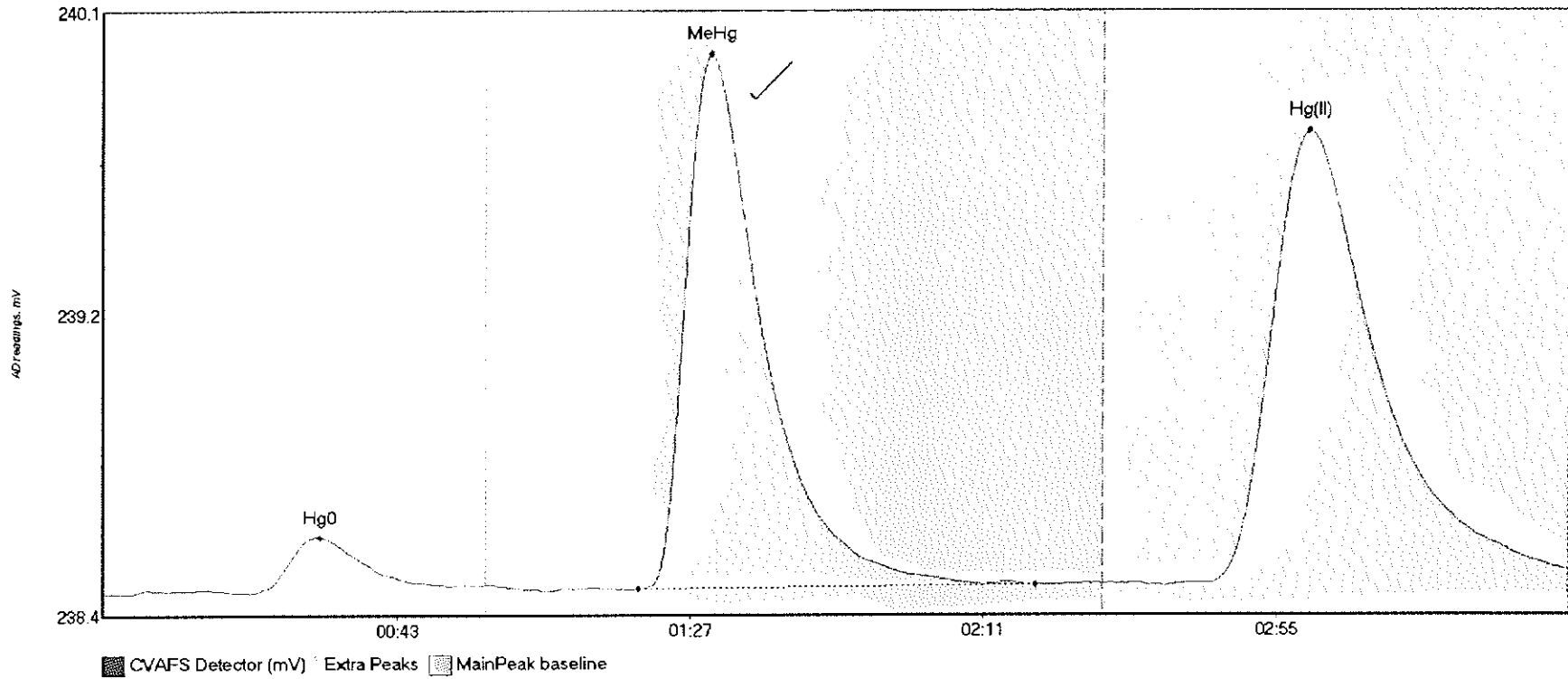
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1607586-03RE1 H	17.831	22.2	55.6	238.39	238.41	31.3	0.136	OK	238.3965	0.00	0.08	
1607586-03RE1 M	103.061	80.5	136.3	238.39	238.41	91.3	0.740	OK	238.3965	0.00	0.08	
1607586-03RE1 H	313.011	164.6	219.8	238.42	238.47	181.1	1.745	CT	238.3965	0.00	0.08	

#76: 1607586-04RE1



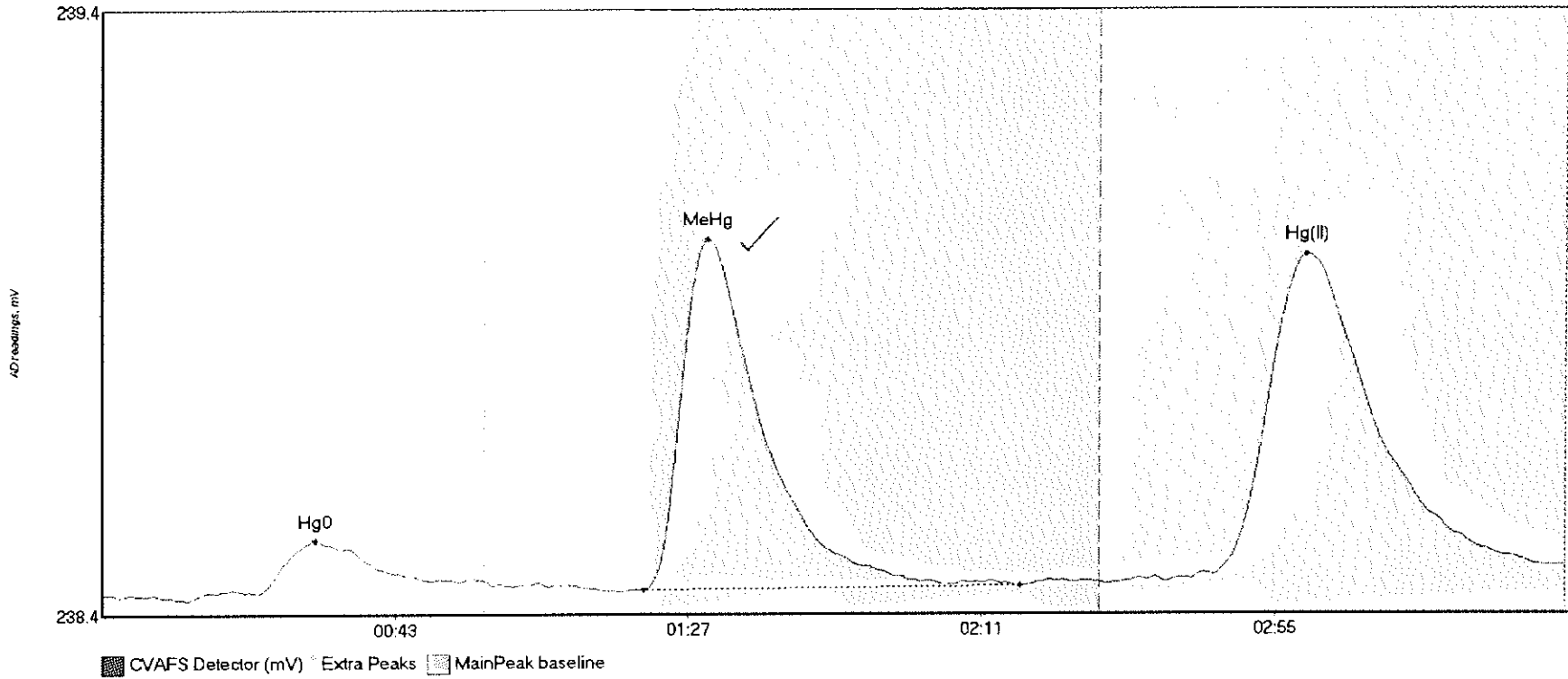
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1607586-04RE1 H	10.995	22.6	56.3	238.41	238.43	31.6	0.085	OK	238.4081	0.00	0.04	
1607586-04RE1 M	60.040	81.1	136.0	238.42	238.42	91.6	0.434	OK	238.4081	0.00	0.04	
1607586-04RE1 H	79.527	166.4	219.0	238.44	238.45	181.2	0.441	OK	238.4081	0.00	0.04	

#77: 1607586-05RE1



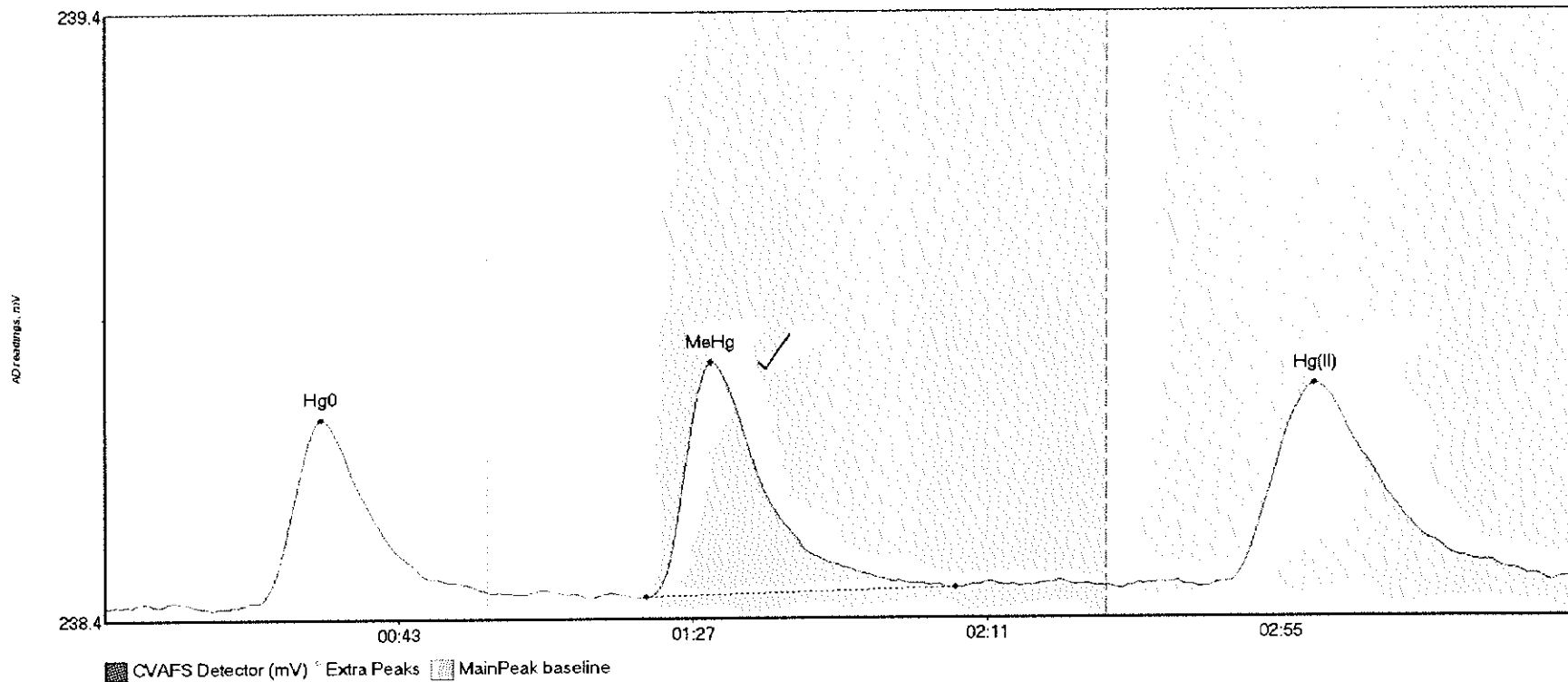
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1607586-05RE1 H	19.404	21.9	51.8	238.42	238.44	32.5	0.166	OK	238.4158	0.00	0.07	
1607586-05RE1 M	212.644	80.3	139.9	238.43	238.44	91.1	1.581	OK	238.4158	0.00	0.07	
1607586-05RE1 H	241.458	166.1	219.8	238.45	238.49	180.9	1.336	CT	238.4158	0.00	0.07	

#78: 1607586-06RE1



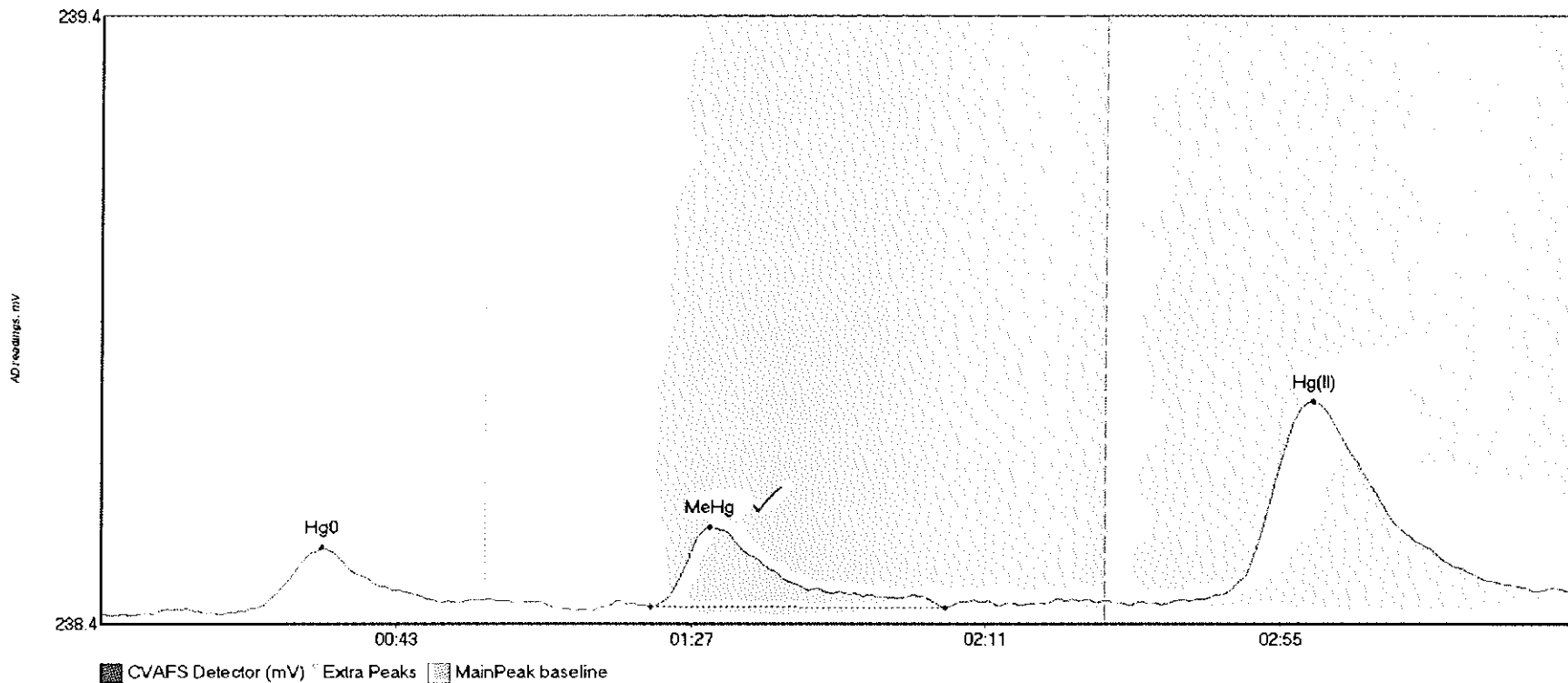
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1607586-06RE1 H	10.984	23.5	53.5	238.43	238.45	32.2	0.069	OK	238.4250	0.00	0.05	
1607586-06RE1 M	80.271	81.4	137.9	238.43	238.44	91.0	0.580	OK	238.4250	0.00	0.05	
1607586-06RE1 H	96.763	159.7	217.3	238.45	238.47	180.8	0.541	OK	238.4250	0.00	0.05	

#79: 1607586-07



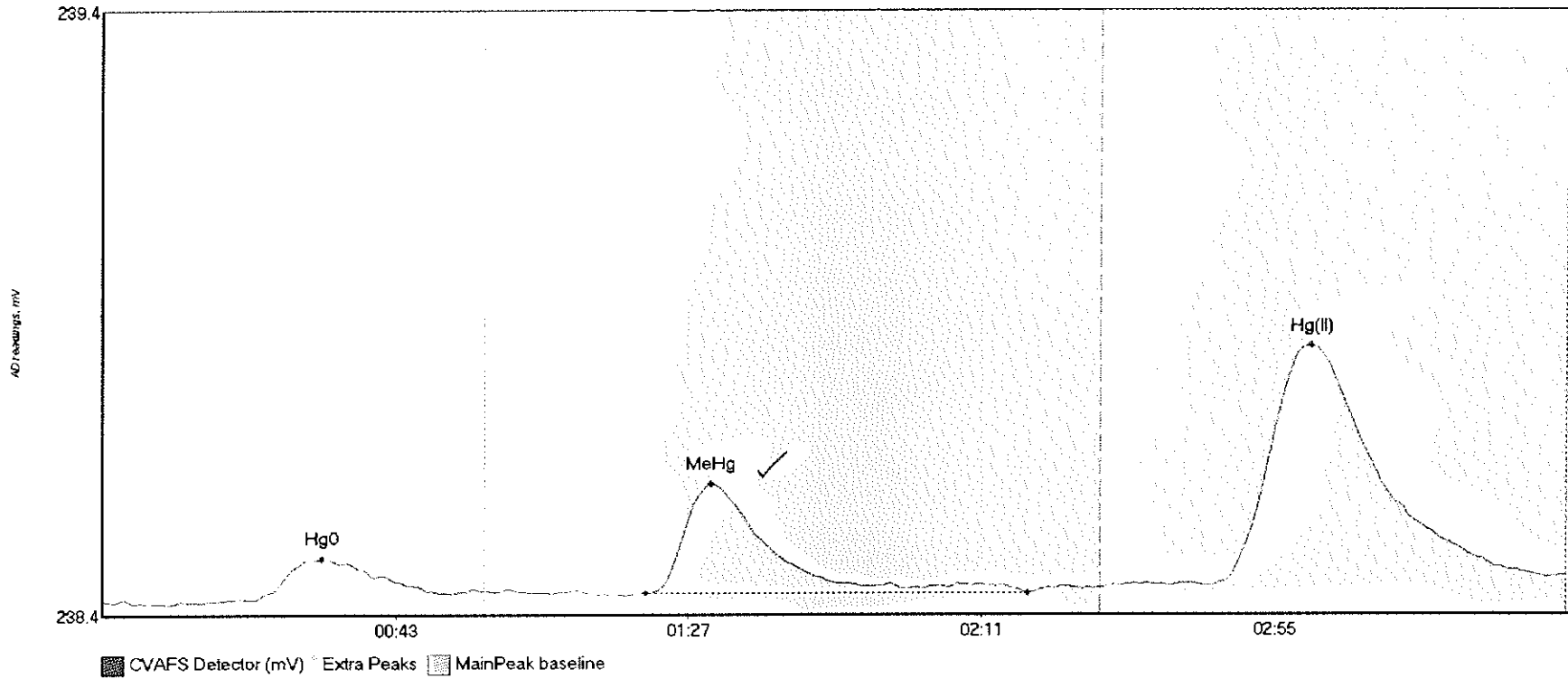
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1607586-07 Hg0	38.521	20.1	57.5	238.43	238.45	32.4	0.309	CT	238.4275	0.00	0.04	
1607586-07 MeHg	52.582	81.0	127.3	238.44	238.46	90.8	0.388	OK	238.4275	0.00	0.04	
1607586-07 Hg(II)	61.974	165.3	216.6	238.46	238.47	181.1	0.335	OK	238.4275	0.00	0.04	

#80: 1607586-08



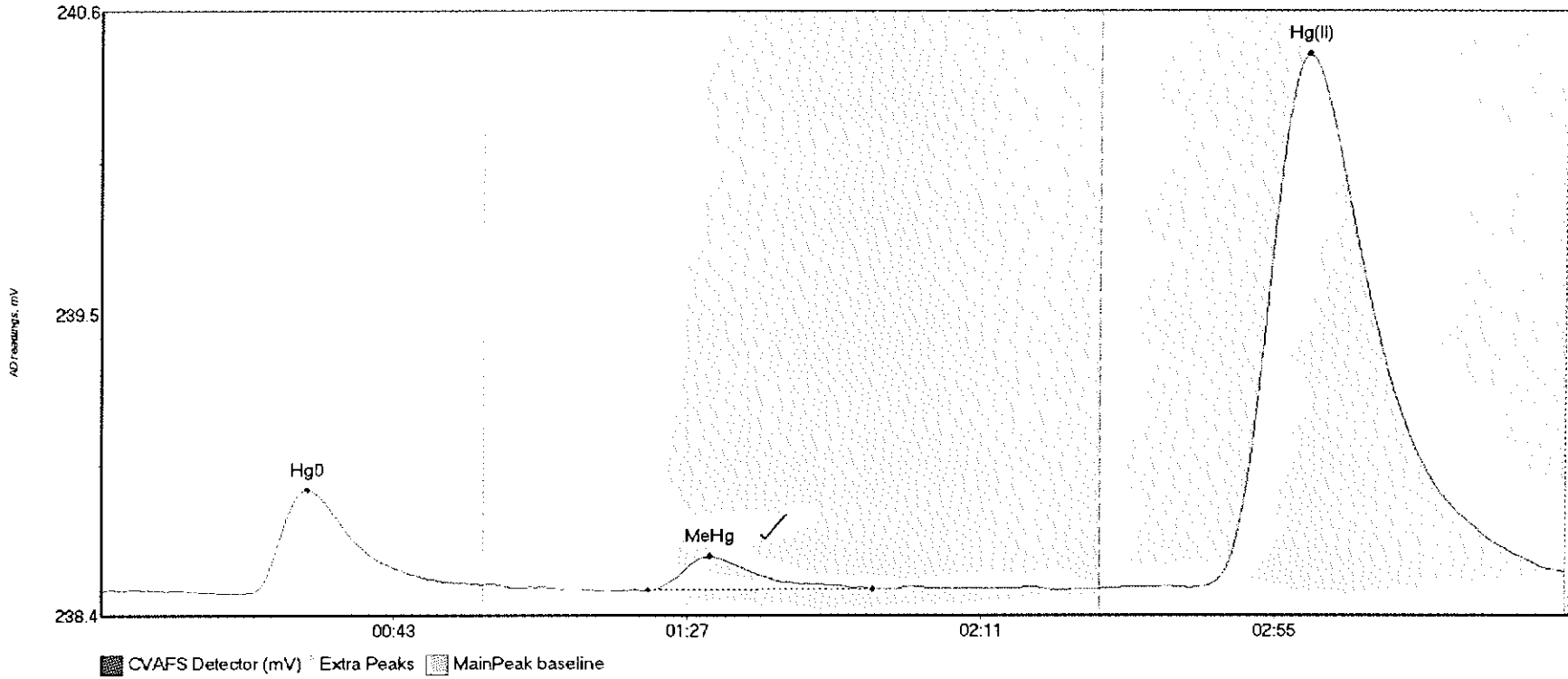
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1607586-08 Hg0	12.593	21.2	53.3	238.45	238.46	32.9	0.165	OK	238.4431	0.00	0.04	
1607586-08 MeHg	20.821	81.9	126.0	238.46	238.45	90.7	0.131	OK	238.4431	0.00	0.04	
1607586-08 Hg(II)	59.207	164.4	219.3	238.47	238.48	180.9	0.326	OK	238.4431	0.00	0.04	

#81: 1607586-09



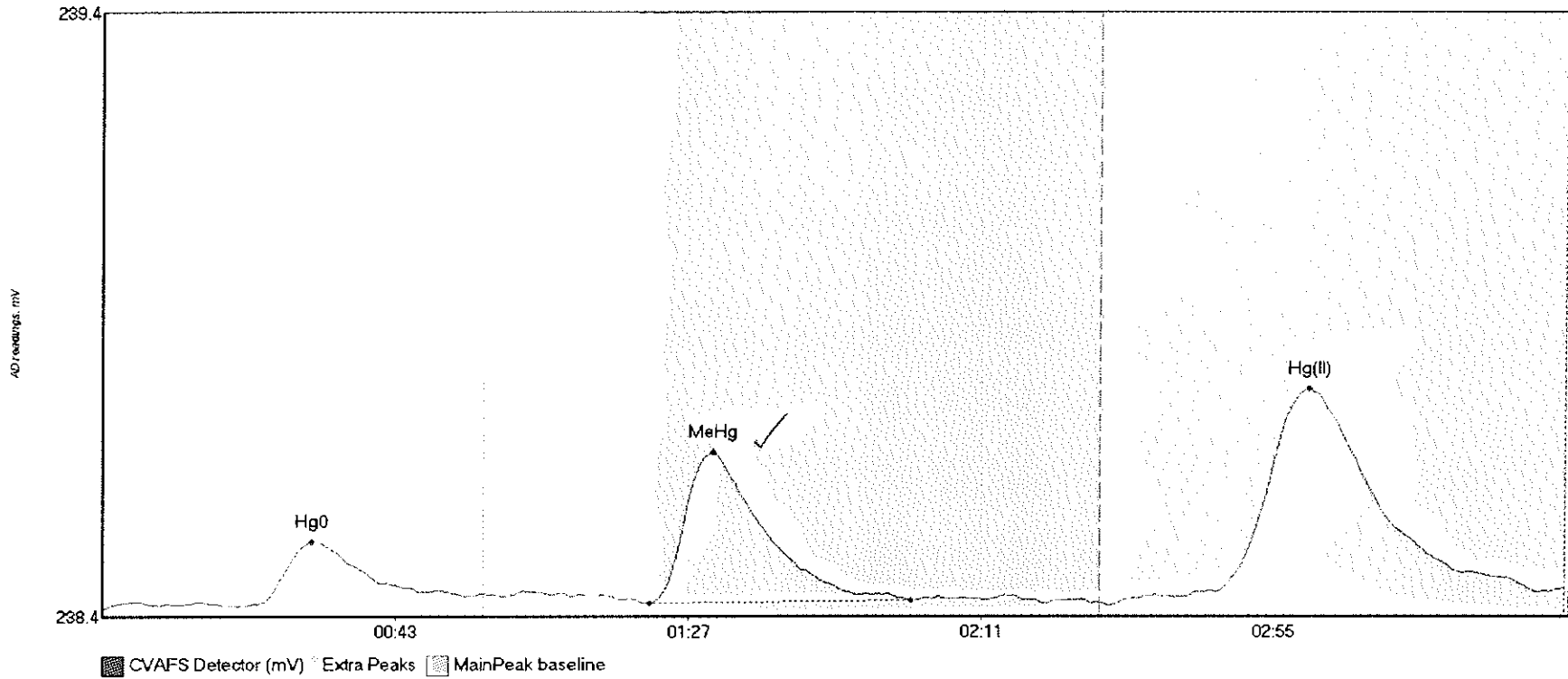
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1607586-09 Hg0	9.580	22.7	52.4	238.46	238.47	33.0	0.068	OK	238.4556	0.00	0.04	
1607586-09 MeHg	26.822	81.7	139.0	238.47	238.47	91.5	0.181	OK	238.4556	0.00	0.04	
1607586-09 Hg(I)	71.855	166.4	217.5	238.48	238.50	181.5	0.398	OK	238.4556	0.00	0.04	

#82: 1607586-10



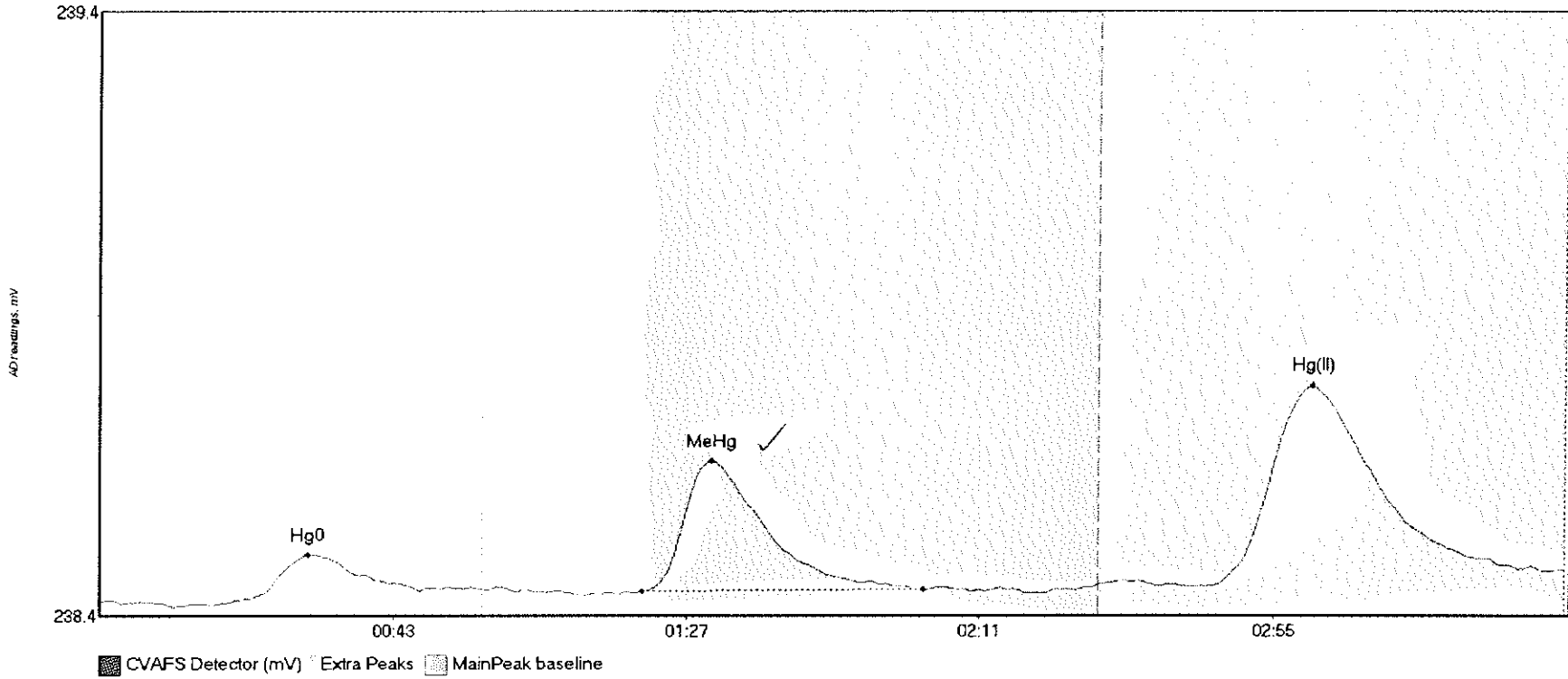
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1607586-10 Hg0	46.849	22.4	57.1	238.46	238.49	31.2	0.363	OK	238.4682	0.00	0.07	
1607586-10 MeHg	16.262	82.1	115.9	238.47	238.47	91.4	0.125	OK	238.4682	0.00	0.07	
1607586-10 Hg(I)	359.184	163.4	219.8	238.48	238.54	181.0	1.978	CT	238.4682	0.00	0.07	

#83: 1607586-11



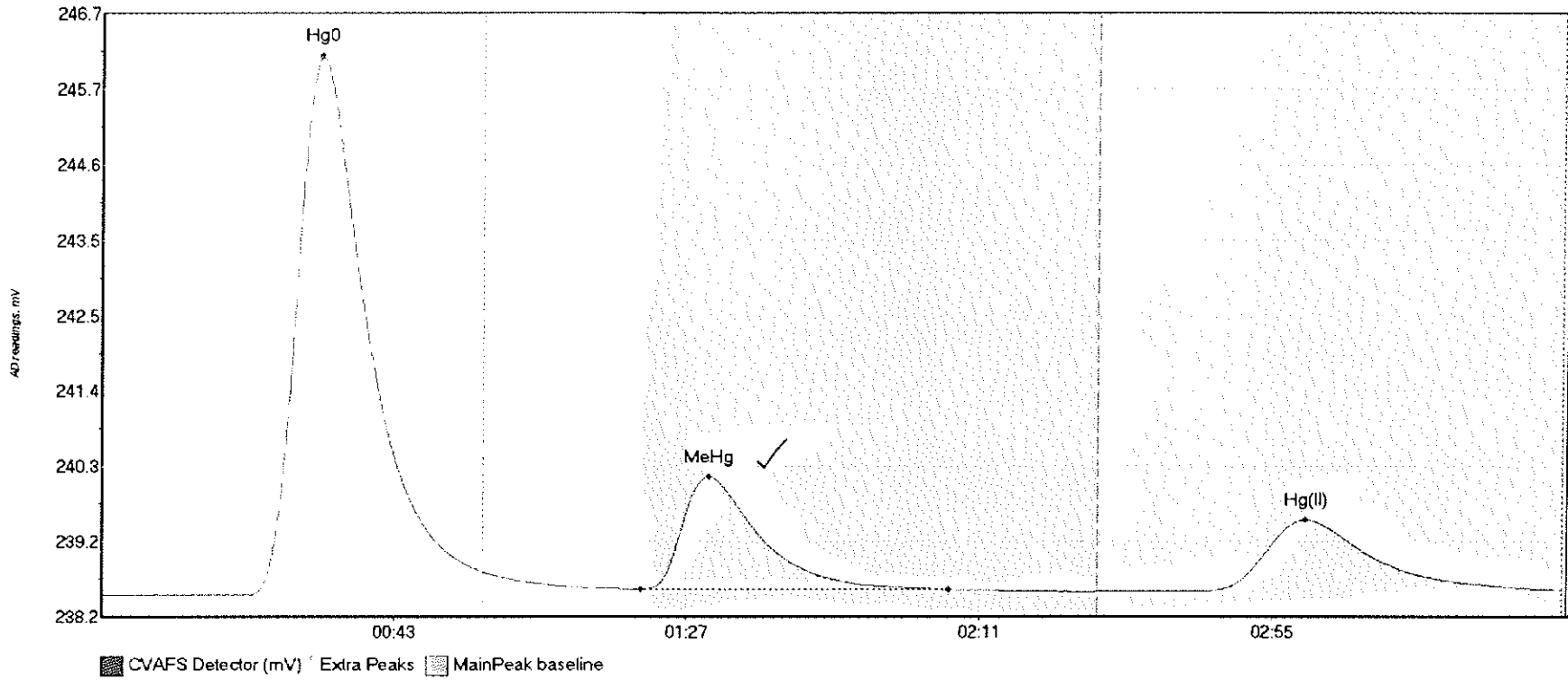
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	StDev	StShift	Comment
1607586-11 Hg0	12.809	23.2	54.6	238.47	238.48	31.4	0.103	OK	238.4633	0.00	0.03	
1607586-11 MeHg	34.339	82.1	121.6	238.47	238.47	91.7	0.251	OK	238.4633	0.00	0.03	
1607586-11 Hg(I)	66.878	151.2	215.8	238.47	238.49	181.3	0.359	OK	238.4633	0.00	0.03	

#84: 1607586-13



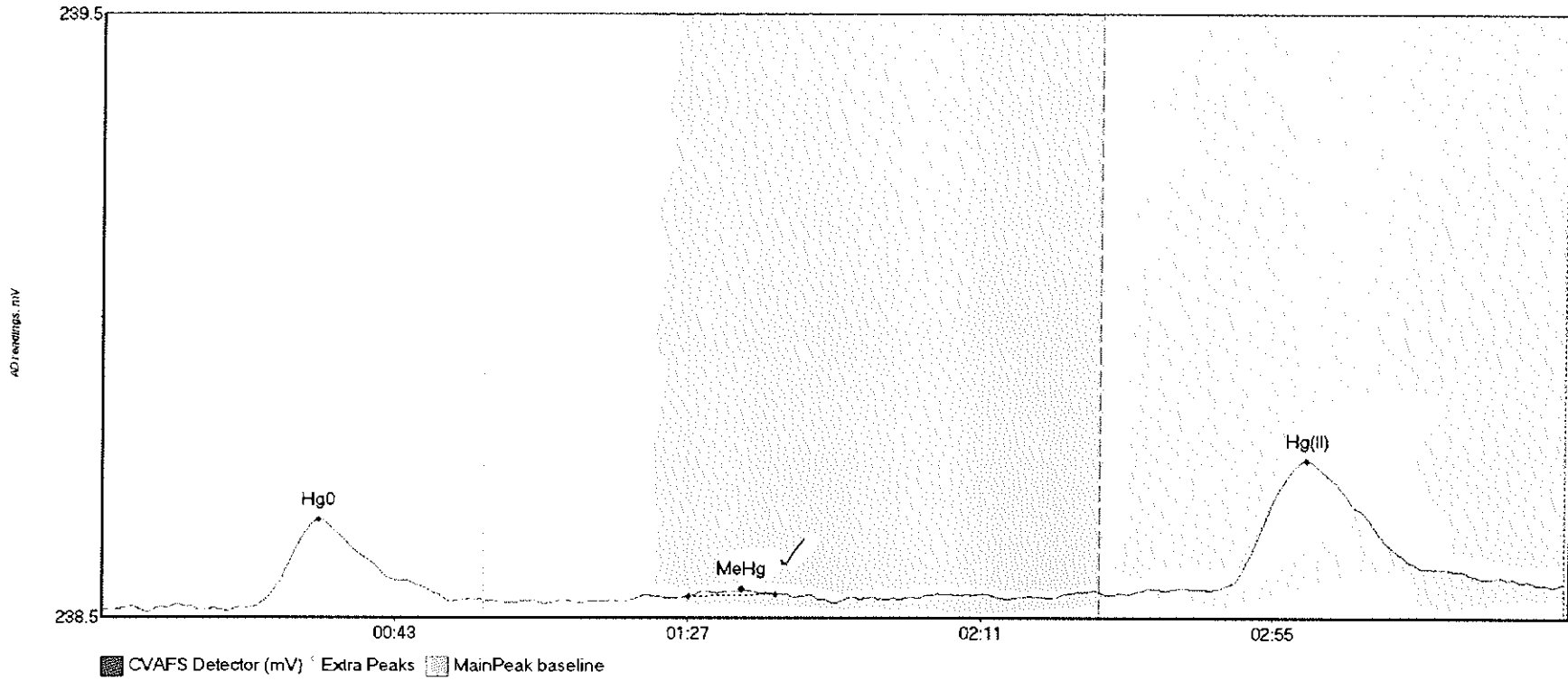
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1607586-13 Hg0	8.495	22.3	47.9	238.47	238.49	31.1	0.073	OK	238.4693	0.00	0.05	
1607586-13 MeHg	30.172	91.5	123.6	238.49	238.49	91.7	0.217	OK	238.4693	0.00	0.05	
1607586-13 Hg(I)	59.002	167.0	217.5	238.50	238.52	181.9	0.329	OK	238.4693	0.00	0.05	

#85: SEQ-CCV8



Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
SEQ-CCV8 Hg0	899.921	21.4	57.5	238.49	238.80	33.2	7.630	CT	238.4816	0.00	0.08	
SEQ-CCV8 MeHg	212.548	81.2	127.5	238.57	238.56	91.4	1.595	OK	238.4816	0.00	0.08	
SEQ-CCV8 Hg(II)	182.237	164.5	219.8	238.54	238.56	181.0	1.011	CT	238.4816	0.00	0.08	

#86: SEQ-CCB8



Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BiDev	BlShift	Comment
SEQ-CCB8 Hg0	18.631	23.0	52.6	238.50	238.51	32.6	0.145	OK	238.4932	0.00	0.04	
SEQ-CCB8 MeHg	0.729	88.2	101.3	238.51	238.52	96.1	0.011	OK	238.4932	0.00	0.04	
SEQ-CCB8 Hg(II)	38.366	156.2	218.3	238.52	238.53	181.0	0.217	OK	238.4932	0.00	0.04	

Peer Review Check List for MHg for CV-GC-AFS (FGS-070) 2015 Rev 5 (08/06/2015)

Analyst: DON MORAN	Sequence #: 6H08006
Reviewer: _____	Dataset ID #: MMHG27001-160805-1
Date: 8/8/16	WO #: _____
Batch #(s): F608200	Client(s): _____

• Select the correct preparation method.

Additional Comments:

Analyte	Prep Method	Matrix
<input checked="" type="checkbox"/> MHg	FGS-013 MHg Distillation	Water
<input type="checkbox"/> MHg	FGS-010 KOH/MeOH Digest	Tissue
<input type="checkbox"/> MHg	FGS-045 MeCl Extraction	Sed/Soil
<input type="checkbox"/> DMHg	FGS-098 (None Accredited method)	ALL

	Analyst Initials: <u>DM</u>		Reviewer Initials: <u>DMW</u>	
1. Compare Sample ID with Bench sheet/Sequence/Raw Data (Have all samples been imported?)	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> NO		<input type="checkbox"/>
2. Check for transcription errors from Excel spreadsheet (or Prep Bench sheet)/Raw data	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> NO		<input type="checkbox"/>
(a) Reviewer: 100% of peak heights checked	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> NO		<input checked="" type="checkbox"/>
(b) Are there peak height errors?	<input type="checkbox"/> YES	<input checked="" type="checkbox"/> NO		<input checked="" type="checkbox"/>
(c) Error on a sample: Do peak heights, responses, & initial results match corrected data?	<input type="checkbox"/> YES	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> N/A	<input checked="" type="checkbox"/>
(d) Error on a Cal Pt, ICB/CCB, or PB: Has the data been reimported?	<input type="checkbox"/> YES	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> N/A	<input checked="" type="checkbox"/>
(e) Check standards & reagents in sequence & bench sheet for correct usage (i.e. expiries).	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> NO	<input type="checkbox"/> N/A	<input checked="" type="checkbox"/>
(f) Check and compare masses (review prep bench sheet)	<input type="checkbox"/> YES	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> N/A	<input checked="" type="checkbox"/>
(g) Check and compare initial and final volumes	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> NO	<input type="checkbox"/> N/A	<input checked="" type="checkbox"/>
(h) Do aliquots and dilutions written on benchsheet match those in Excel?	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> NO	<input type="checkbox"/> N/A	<input checked="" type="checkbox"/>
(i) Is the pH>3.0 for all distilled samples? _____	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> NO	<input type="checkbox"/> N/A	<input checked="" type="checkbox"/>
(j) Is the sequence #, analyst, date, and instrument # on the QC page?	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> NO		<input checked="" type="checkbox"/>
(k) Is the analysis status correct? (analyzed/initial review/reviewed)	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> NO		<input checked="" type="checkbox"/>
(l) Original prep bench sheet added to data package?	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> NO		<input checked="" type="checkbox"/>
(m) Benchsheet prep date MUST match actual prep date (check if re-shot vs re-extract)	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> NO		<input checked="" type="checkbox"/>
3. High QA? WO#(s)/Client(s): _____	<input type="checkbox"/> YES	<input checked="" type="checkbox"/> NO		<input checked="" type="checkbox"/>
4. Client specific QC? (if Yes, refer to Project Notes/LIMS)	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> NO		<input checked="" type="checkbox"/>
(a) Have the QC requirements been met for all WO#s?	<input type="checkbox"/> YES	<input checked="" type="checkbox"/> NO		<input checked="" type="checkbox"/>
5. 20 or fewer samples in batch? _____	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> NO		<input checked="" type="checkbox"/>
(a) 3 PBs, 1 LCS/LCSD (or BS/BSD), 2 MS/MSD/MD per batch?	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> NO		<input checked="" type="checkbox"/>
(b) 1 CCV and 1 CCB every 10 analytical runs? _____	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> NO		<input checked="" type="checkbox"/>
QA/QC Data Checked				
6. The calibration curve included a minimum of 5 Standards	<input checked="" type="checkbox"/> PASS	<input type="checkbox"/> FAIL	<input type="checkbox"/> N/A	<input checked="" type="checkbox"/>
Comments: _____				
7. 1st Calibration Standard % Recoveries (65-135%)	<input checked="" type="checkbox"/> PASS	<input type="checkbox"/> FAIL	<input type="checkbox"/> N/A	<input checked="" type="checkbox"/>
Comments: _____				
8. RSD CF (≤ 15%)	<input checked="" type="checkbox"/> PASS	<input type="checkbox"/> FAIL		<input checked="" type="checkbox"/>
Comments: _____				

Peer Review Check List for MHg for CV-GC-AFS (FGS-070) 2013 Rev 4 (08/22/2013)

Analyst:	DON MORAN	Sequence #:	6H08006
Reviewer:	0	Dataset ID #:	MMHG27001-160805-1
Date:	8/8/2016	WO #:	[REDACTED]
Batch #(s):	F608200	Client(s):	[REDACTED]

Analyst Initials: DM **Reviewer Initials:** DMW

- | | | | |
|--|--|--|---|
| 9. ICV % Recoveries 67-133% | <input checked="" type="checkbox"/> PASS | <input type="checkbox"/> FAIL | <input checked="" type="checkbox"/> |
| Comments: _____ | | | |
| 10. CCV % Recoveries 67-133% | <input checked="" type="checkbox"/> PASS | <input type="checkbox"/> FAIL | <input checked="" type="checkbox"/> |
| Comments: _____ | | | |
| 11. Are the absolute value of the ICB and CCBs < PQL? | <input checked="" type="checkbox"/> PASS | <input type="checkbox"/> FAIL | <input checked="" type="checkbox"/> |
| Comments: _____ | | | |
| 12. LCS/LCSD/CRM/BS/BSD % Recoveries (70-130%) | <input type="checkbox"/> PASS | <input checked="" type="checkbox"/> FAIL | <input checked="" type="checkbox"/> |
| Comments: F608200-BS1, BSD1 FAILED. HIGH RECOVERY | | | |
| 13. LCS/LCSD or BS/BSD RPD (< 25%) | <input checked="" type="checkbox"/> PASS | <input type="checkbox"/> FAIL | <input checked="" type="checkbox"/> |
| Comments: _____ | | | |
| 14. Water: Average of Preparation Blanks < 0.045 ng/L and standard deviation of 0.015 ng/L? | <input checked="" type="checkbox"/> PASS | <input type="checkbox"/> FAIL | <input type="checkbox"/> N/A <input checked="" type="checkbox"/> |
| Comments: _____ | | | |
| 15. Sediment/Tissue: Individually, are the Preparation Blanks < PQL for the matrix? | <input type="checkbox"/> PASS | <input type="checkbox"/> FAIL | <input checked="" type="checkbox"/> N/A <input checked="" type="checkbox"/> |
| Comments: _____ | <input type="checkbox"/> PASS | <input type="checkbox"/> FAIL | <input type="checkbox"/> |
| 16. Have Total Solids been applied? (If NO, please ensure that they are done or nearly done) | <input type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> N/A <input checked="" type="checkbox"/> |
| 17. Is the correct 'Source' designated for MD/MS/MSD? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> |
| 18. For digested preps: was there a spike witness signature & date on the prep bench sheet? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input type="checkbox"/> N/A <input checked="" type="checkbox"/> |
| 19. MD RPD/MT RSD (< 35%) | <input checked="" type="checkbox"/> PASS | <input type="checkbox"/> FAIL | <input checked="" type="checkbox"/> |
| Comments: _____ | | | |
| 20. Is there one set of MS/MSD per every 10 samples? | <input checked="" type="checkbox"/> PASS | <input type="checkbox"/> FAIL | <input checked="" type="checkbox"/> |
| Comments: _____ | | | |
| 21. MS/MSD RPD (< 35%) | <input checked="" type="checkbox"/> PASS | <input type="checkbox"/> FAIL | <input checked="" type="checkbox"/> |
| Comments: _____ | | | |
| 22. MS (AS) % Recoveries (65-130%) | <input type="checkbox"/> PASS | <input checked="" type="checkbox"/> FAIL | <input checked="" type="checkbox"/> |
| Comments: F608200-MS1, MS2 FAILED. HIGH RECOVERY | | | |
| 23. MSD (ASD) % Recoveries (65-130%) | <input type="checkbox"/> PASS | <input checked="" type="checkbox"/> FAIL | <input checked="" type="checkbox"/> |
| Comments: F608200-MSD1, MSD2 FAILED. HIGH RECOVERY | | | |
| 24. Spiked 1-5X ambient or 1-5X PQL (whichever is higher) (from EPA 1630) | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> |
| 25. Are all samples within instrument calibration range (or at maximum aliquot size)? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> |
| Comments: _____ | | | |
| 26. For instrumental dilutions, is the dilution factor in excel correct? | <input checked="" type="checkbox"/> PASS | <input type="checkbox"/> NO | <input type="checkbox"/> N/A <input checked="" type="checkbox"/> |
| Is the sample volume, diluents, and final volume of the dilution noted on benchsheet? | <input checked="" type="checkbox"/> PASS | <input type="checkbox"/> NO | <input type="checkbox"/> N/A <input checked="" type="checkbox"/> |
| 27. Dissolved < Total metals (if applicable) | <input checked="" type="checkbox"/> PASS | <input type="checkbox"/> NO | <input type="checkbox"/> N/A <input checked="" type="checkbox"/> |
| Comments: _____ | | | |
| 28. Effluent < Influent metals (visually confirm if needed) | <input type="checkbox"/> PASS | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> N/A <input checked="" type="checkbox"/> |
| Comments: _____ | | | |

Peer Review Check List for MHg for CV-GC-AFS (FGS-070) 2013 Rev 4 (08/22/2013)

Analyst: DON MORAN	Sequence #: 6H08006	
Reviewer: 0	Dataset ID #: MMHG27001-160805-1	
Date: 8/8/2016	WO #: [REDACTED]	
Batch #(s): F608200	Client(s): [REDACTED]	

Analyst Initials: DM **Reviewer Initials:** DMW

29. Are re-runs noted with reason? YES NO N/A
 Comments: _____
30. For failing QC (CCV, CCB, PB, BS/BSD, CAL): YES NO N/A
 Was a bubbler and trap test run before the analytical run continued?
 Comments: _____
31. Do re-run results compare to initial analysis (< 35% RPD)? YES NO N/A
 Comments: _____
32. Are qualifiers consistent with the data review flowcharts? YES NO N/A
 Comments: _____
33. Have non-reportable samples been imported into LIMS and clicked to non-reportable? YES NO N/A
 Comments: _____
34. Have re-extracts been created for non-reportable samples? YES NO N/A
35. Narrations in MMO box in LIMS?
 Comments: _____
36. Are there any HIGH QA projects within the data? YES NO
 If so, place dataset to the QA office.
37. Does the data set need scanning? YES N/A

Files located at: \\Cuprum\gen_admin\Quality Assurance\Training Master\DOCs

38. Date of analyst IDOC/CDOC: 7/9/2015 IDOC/CDOC within last 12 months? YES NO
39. Date of analyst's SOP reading: 5/23/2016 Current SOP revision? YES NO
40. Date of LOD: 6/16/2016 LOD within last 3 months (within 12 months for MDN)? YES NO N/A
41. Date of LOQ: 6/16/2016 LOQ within last 3 months (within 12 months for MDN)? YES NO N/A
42. If MDN samples, date of last MDL study: _____
43. MDL study within last 12 months? YES NO N/A

Data can not be reported without a current IDOC/CDOC, LOD or LOQ.

Additional Comments: YES NO

ORIGINAL DATASHEET HAD INCORRECT VALUE IN "UNCORRECTED RESPONSE" COLUMN.
 CORRECT VALUES PASTED AND RE-IMPORTED INTO ELEMENT. DMW 8/9/16



Frontier Global Sciences

MMHg27001-160811-1

Analysis Datasheet for Methyl Mercury in Waters

Date of Analysis: August 11, 2016

Instrument #: Hg2700-1

LIMS Sequence #: 6H11011

Analyst: RN

Units ng/L

Calibration Statistics:

LabNumber	n	True Val	Area	Uncorrected Response Factor	Corrected Peak Height	Corrected Response Factor	% Recovery
SEQ-CAL1	1	0.05 ng/L	36.30 units	726.00	35.26 units	705.20	104.5 %Rec
SEQ-CAL2	1	0.20 ng/L	121.35 units	606.73	120.31 units	601.53	89.1 %Rec
SEQ-CAL3	1	1.00 ng/L	681.23 units	681.23	680.19 units	680.19	100.8 %Rec
SEQ-CAL4	1	2.00 ng/L	1372.63 units	686.31	1371.59 units	685.79	101.6 %Rec
SEQ-CAL5	1	4.00 ng/L	2812.06 units	703.02	2811.02 units	702.76	104.1 %Rec
SEQ-CAL6	0						
SEQ-CAL7	0						
SEQ-CAL8	0						
SEQ-CAL9	0						

Corr. Mean RF 675.10
Corr. St Dev RF +/- 42.50
Corr. RSD CF 6.3% RSD
Uncorr. Mean RF 680.66
Eff Factor 0.8046

Blanks:

LabNumber	n	Mean	Std Dev	Mean (ng/L)	Std Dev (ng/L)
SEQ-IBL	1	1.04 units		0.00 ng/L	#VALUE!

Preparation Blanks

Sample Type	Batch ID	n	Mean	Std Dev
BLK	1	3	0.010 ng/L	±0.004
BLK	2	0	0.000 ng/L	
BLK	3	0	0.000 ng/L	
BLK	4	0	0.000 ng/L	
BLK	5	0	0.000 ng/L	

MDN Only

SEQ-CAL1
SEQ-CAL2
SEQ-CAL3
SEQ-CAL4
SEQ-CAL5
SEQ-CAL6 NA
SEQ-CAL7 NA
SEQ-CAL8 NA
SEQ-CAL9 NA
SEQ-ICV/CCV
Acetate Buffer
Ethylating Agent

QUALITY ASSURANCE
PEER - REVIEWED
INITIALS: JP 8/11/16

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Instrument	Analyst	Sample		Dilution	Analyzed	FileID	Run End	Uncorrected Response	Batch ID	No PB		InitialResult	FinalResult	InitialUnits	Comments	
		Type	LabNumber							Correction?	RESP					
Hq2700-1	RN	CAL	SEQ-IBL1	1	8/11/16 7:54	14206-1.RAW	7:54	1.04				0.0	0.000	0.000	ng/L	
Hq2700-1	RN	CAL	SEQ-CAL1	1	8/11/16 8:05	14207-1.RAW	8:05	36.30				35.3	0.052	0.052	ng/L	
Hq2700-1	RN	CAL	SEQ-CAL2	1	8/11/16 8:15	14208-1.RAW	8:15	121.35				120.3	0.178	0.178	ng/L	
Hq2700-1	RN	CAL	SEQ-CAL3	1	8/11/16 8:26	14209-1.RAW	8:26	681.23				680.2	1.008	1.008	ng/L	
Hq2700-1	RN	CAL	SEQ-CAL4	1	8/11/16 8:36	14210-1.RAW	8:36	1372.63				1371.6	2.032	2.032	ng/L	
Hq2700-1	RN	CAL	SEQ-CAL5	1	8/11/16 8:47	14211-1.RAW	8:47	2812.06				2811.0	4.164	4.164	ng/L	
Hq2700-1	RN	CAL	SEQ-1CV1	1	8/11/16 8:57	14212-1.RAW	8:57	364.96				363.9	0.539	0.539	ng/L	
Hq2700-1	RN	CAL	SEQ-1CB1	1	8/11/16 9:08	14213-1.RAW	9:08	11.81				10.8	0.016	0.016	ng/L	
Hq2700-1	RN	BLK	F608251-BLK1	1.25	8/11/16 9:18	14214-1.RAW	9:18	6.92	1			5.9	0.011	0.014	ng/L	
Hq2700-1	RN	BLK	F608251-BLK2	1.25	8/11/16 9:29	14215-1.RAW	9:29	6.07	1			5.0	0.009	0.012	ng/L	
Hq2700-1	RN	BLK	F608251-BLK3	1.25	8/11/16 9:40	14216-1.RAW	9:40	3.34	1			2.3	0.004	0.005	ng/L	
Hq2700-1	RN	SAM	F608251-BS1	1.25	8/11/16 9:50	14217-1.RAW	9:50	453.32	1			452.3	0.825	1.031	ng/L	
Hq2700-1	RN	SAM	F608251-BSD1	1.25	8/11/16 10:01	14218-1.RAW	10:01	478.36	1			477.3	0.871	1.088	ng/L	
Hq2700-1	RN	SAM	F608251-DUP1	1.25	8/11/16 10:11	14219-1.RAW	10:11	230.69	1			229.7	0.415	0.518	ng/L	
Hq2700-1	RN	SAM	F608251-MS1	1.25	8/11/16 10:22	14220-1.RAW	10:22	725.78	1			724.7	1.326	1.658	ng/L	
Hq2700-1	RN	SAM	F608251-MSD1	1.25	8/11/16 10:32	14221-1.RAW	10:32	802.01	1			801.0	1.466	1.833	ng/L	
Hq2700-1	RN	SAM	F608251-MS2	1.25	8/11/16 10:43	14222-1.RAW	10:43	415.03	1			414.0	0.754	0.943	ng/L	
Hq2700-1	RN	SAM	F608251-MSD2	1.25	8/11/16 10:53	14223-1.RAW	10:53	561.21	1			560.2	1.023	1.279	ng/L	
Hq2700-1	RN	CAL	SEQ-CCV1	1	8/11/16 11:04	14224-1.RAW	11:04	247.59	1			246.6	0.365	0.365	ng/L	
Hq2700-1	RN	CAL	SEQ-CCB1	1	8/11/16 11:14	14225-1.RAW	11:14	4.69				3.7	0.005	0.005	ng/L	
Hq2700-1	RN	SAM	1607339-01RE2	1.25	8/11/16 11:25	14226-1.RAW	11:25	19.45	1			18.4	0.026	0.032	ng/L	
Hq2700-1	RN	SAM	1607339-02RE2	1.25	8/11/16 11:35	14227-1.RAW	11:35	13.27	1			12.2	0.014	0.018	ng/L	
Hq2700-1	RN	SAM	1607380-01RE2	1.25	8/11/16 11:46	14228-1.RAW	11:46	30.39	1			29.4	0.046	0.057	ng/L	
Hq2700-1	RN	SAM	1607380-03RE2	1.25	8/11/16 11:56	14229-1.RAW	11:56	24.25	1			23.2	0.035	0.043	ng/L	
Hq2700-1	RN	SAM	1607380-05RE2	1.25	8/11/16 12:07	14230-1.RAW	12:07	37.66	1			36.6	0.059	0.074	ng/L	
Hq2700-1	RN	SAM	1607380-07RE2	1.25	8/11/16 12:17	14231-1.RAW	12:17	54.24	1			53.2	0.090	0.112	ng/L	
Hq2700-1	RN	SAM	1607380-09RE2	1.25	8/11/16 12:28	14232-1.RAW	12:28	93.26	1			92.2	0.162	0.202	ng/L	
Hq2700-1	RN	SAM	1607380-13RE2	1.25	8/11/16 12:38	14233-1.RAW	12:38	198.70	1			197.7	0.356	0.445	ng/L	
Hq2700-1	RN	SAM	1607586-01RE2	1.25	8/11/16 12:49	14234-1.RAW	12:49	74.42	1			73.4	0.127	0.159	ng/L	
Hq2700-1	RN	SAM	1607586-02RE2	1.25	8/11/16 12:59	14235-1.RAW	12:59	57.61	1			56.6	0.096	0.120	ng/L	
Hq2700-1	RN	CAL	SEQ-CCV2	1	8/11/16 13:10	14236-1.RAW	13:10	246.50				245.5	0.364	0.364	ng/L	
Hq2700-1	RN	CAL	SEQ-CCB2	1	8/11/16 13:20	14237-1.RAW	13:20	1.20				0.2	0.000	0.000	ng/L	
Hq2700-1	RN	SAM	1607586-03RE2	1.25	8/11/16 13:31	14238-1.RAW	13:31	131.90	1			130.9	0.233	0.291	ng/L	
Hq2700-1	RN	SAM	1607586-04RE2	1.25	8/11/16 13:41	14239-1.RAW	13:41	61.13	1			60.1	0.103	0.128	ng/L	
Hq2700-1	RN	SAM	1607586-05RE2	1.25	8/11/16 13:52	14240-1.RAW	13:52	181.22	1			180.2	0.324	0.404	ng/L	
Hq2700-1	RN	SAM	1607586-06RE2	1.25	8/11/16 14:02	14241-1.RAW	14:02	74.79	1			73.7	0.128	0.160	ng/L	
Hq2700-1	RN	SAM	1607586-07RE1	1.25	8/11/16 14:13	14242-1.RAW	14:13	70.21	1			69.2	0.119	0.149	ng/L	
Hq2700-1	RN	SAM	1607586-08RE1	1.25	8/11/16 14:23	14243-1.RAW	14:23	17.90	1			16.9	0.023	0.029	ng/L	
Hq2700-1	RN	SAM	1607586-09RE1	1.25	8/11/16 14:34	14244-1.RAW	14:34	26.23	1			25.2	0.038	0.048	ng/L	
Hq2700-1	RN	SAM	1607586-11RE1	1.25	8/11/16 14:44	14245-1.RAW	14:44	38.34	1			37.3	0.061	0.076	ng/L	
Hq2700-1	RN	SAM	1607586-13RE1	1.25	8/11/16 14:55	14246-1.RAW	14:55	40.38	1			39.3	0.064	0.080	ng/L	
Hq2700-1	RN	SAM	1607586-14	1.25	8/11/16 15:05	14247-1.RAW	15:05	10.41	1			9.4	0.009	0.011	ng/L	
Hq2700-1	RN	CAL	SEQ-CCV3	1	8/11/16 15:16	14248-1.RAW	15:16	230.51	1			229.5	0.340	0.340	ng/L	
Hq2700-1	RN	CAL	SEQ-CCB3	1	8/11/16 15:26	14249-1.RAW	15:26	2.89				1.9	0.003	0.003	ng/L	

MethylMercury EPA1630 Operat RN BlankS 1.0397 Calib Eqn: Conc = (Area-1.040) / 675.0
 Workst MHg270 CalibFa 675.1 Status: OK, 1 Warnings Run Date: ##### Blank SD: 0
 Method 2010-01 R: 0.9999 R²: 0.999820023 Run Time: 7:28:20 Blank RSD: 0
 Descrpt MHg27001-160811-1 CalibAnalyt MeHg CF SD: 42.49575578
 CF RSD%: 6.294781436

Sample/ID	Location	Rinse	Dilute	Blank	ConcHg0(µ)	ConcMeHg(ppb)	ConcHg2(µ)	ConcPrHg(µ)	Rec%	QA	RawData	RunEnd	PeakHg0 (Raw)	PeakMeHg (R)	PeakHg2(Raw)	PeakPrHg(Raw)	Control (etf)	Flags	RunCount
Clean				0		0.00330509													
ws	A1			1.0397	0.010472	0.000267078	0.068258										cleandry	OK	1
SEQ-1BL1	A2		1	0	0.015825	0.001540117	0.064961						14204-1.RAW	0	2.23125	0			
SEQ-CAL1	A3		1	1.0397	0.024794	0.052229741	0.057106	104.46					14205-1.RAW	8.10901989	1.22002841	47.120258	0	psample10	CT
SEQ-CAL2	A4		1	1.0397	0.061104	0.178206396	0.066925	89.10					14206-1.RAW	10.683286	1.03972538	43.8547348	0	psample10	OK
SEQ-CAL3	A5		1	1.0397	0.13487	1.007553423	0.088805	100.76					14207-1.RAW	17.7781723	36.2997633	39.5915009	0	psample10	OK
SEQ-CAL4	A6		1	1.0397	0.284985	2.031692719	0.140089	101.58					14208-1.RAW	42.2906723	121.345975	46.2206676	0	psample10	CT
SEQ-CAL5	A7		1	1.0397	0.596192	4.163893666	0.228817	104.10					14209-1.RAW	92.0895833	681.23402	60.9915009	0	psample10	CT
SEQ-ICV1	A8		1	1.0397	1.03023	0.539067601	0.3113	107.95					14210-1.RAW	193.431804	1372.62536	95.6133049	0	psample10	CT
SEQ-ICB1	A9		1	1.0397	0.040361	0.015955596	0.064981	0.00					14211-1.RAW	403.525748	2812.06359	155.512855	0	psample10	CT
F608251-BLK1	A10		1.25	1.0397	0.035428	0.01088989	0.0846						14212-1.RAW	696.542686	364.961577	211.196492	0	psample10	CT
F608251-BLK2	A11		1.25	1.0397	0.027800	0.00931367	0.088378						14213-1.RAW	28.2870265	11.8112689	44.9079072	0	psample10	OK
F608251-BLK3	A12		1.25	1.0397	0.024663	0.004267514	0.071793						14214-1.RAW	20.1733665	6.92109375	46.7303977	0	psample10	OK
F608251-BS1	A13		1.25	1.0397	0.036268	0.837438147	0.086925						14215-1.RAW	16.058428	6.06981534	48.7706439	0	psample10	OK
F608251-BSD1	A14		1.25	1.0397	0.033223	0.883801964	0.088738						14216-1.RAW	14.3597064	3.34450758	39.8132576	0	psample10	OK
F608251-DUP1	A15		1.25	1.0397	0.082213	0.425225374	0.129074						14217-1.RAW	20.6271135	453.319981	47.9856061	0	psample10	CT
F608251-MS1	A16		1.25	1.0397	0.138502	1.341921093	0.126826	134.19					14218-1.RAW	18.982538	478.359967	48.9647964	0	psample10	CT
F608251-MSD1	A17		1.25	1.0397	0.075517	1.483069855	0.106297	38.33					14219-1.RAW	45.4411458	230.69375	70.7496686	0	psample10	CT
F608251-MS2	A18		1.25	1.0397	0.120111	0.766536055	0.232037						14220-1.RAW	75.8415483	725.779119	69.5352273	0	psample10	CT
F608251-MSD2	A19		1.25	1.0397	0.051627	1.037206428	0.106894	73.13					14221-1.RAW	41.8247159	802.01018	58.4484375	0	psample10	OK
SEQ-CCV1	A20		1	1.0397	1.324794	0.365211077	0.224631	0.00					14222-1.RAW	65.9088383	415.027462	126.357306	0	psample10	CT
SEQ-CCB1	A21		1	1.0397	0.037217	0.005406646	0.05581						14223-1.RAW	28.9219667	561.210038	58.7706858	0	psample10	CT
1607339-01RE2	B1		1.25	1.0397	0.036817	0.034079097	0.02829						14224-1.RAW	895.401887	247.591903	152.686718	0	psample10	CT
1607339-02RE2	B2		1.25	1.0397	0.032144	0.022641971	0.036707						14225-1.RAW	26.1648201	4.68972538	38.7169508	0	psample10	OK
1607380-01RE2	B3		1.25	1.0397	0.029591	0.054350164	0.024666						14226-1.RAW	20.9235559	19.4450284	16.3185606	0	psample10	CT
1607380-03RE2	B4		1.25	1.0397	0.029168	0.042980719	0.021129						14227-1.RAW	18.3997633	13.2681108	20.8643939	0	psample10	OK
1607380-05RE2	B5		1.25	1.0397	0.041978	0.067799361	0.01306						14228-1.RAW	17.0209754	30.3929451	14.3615057	0	psample10	OK
1607380-07RE2	B6		1.25	1.0397	0.022783	0.098506274	0.021712						14229-1.RAW	16.7927083	24.2525805	12.4511837	0	psample10	OK
1607380-09RE2	B7		1.25	1.0397	0.036846	0.17074906	0.023939						14230-1.RAW	23.7108428	37.6565341	8.09303977	0	psample10	CT
1607380-13RE2	B8		1.25	1.0397	0.038891	0.365984888	0.045842						14231-1.RAW	13.3443419	54.2406013	12.7660511	0	psample10	OK
1607586-01RE2	B9		1.25	1.0397	0.106411	0.13587348	0.148326						14232-1.RAW	20.939465	93.257197	13.9684896	0	psample10	OK
1607586-02RE2	B10		1.25	1.0397	0.063997	0.104740929	0.094103						14233-1.RAW	22.0438447	198.699384	25.7980114	0	psample10	OK
SEQ-CCV2	B11		1	1.0397	1.238675	0.363600508	0.213213	72.81					14234-1.RAW	58.509688	74.421733	81.1468823	0	psample10	CT
SEQ-CCB2	B12		1	1.0397	0.048014	0.000235657	0.051075	0.00					14235-1.RAW	35.6029356	57.6077888	51.8622633	0	psample10	CT
1607586-03RE2	B13		1.25	1.0397	0.141237	0.242299822	0.975294						14236-1.RAW	837.262792	246.504616	144.978826	0	psample10	CT
1607586-04RE2	B14		1.25	1.0397	0.160488	0.111263536	0.959115						14237-1.RAW	33.4540246	1.19881629	35.5205019	0	psample10	OK
1607586-05RE2	B15		1.25	1.0397	0.135686	0.333615093	0.468607						14238-1.RAW	77.3183475	131.900047	527.772866	0	psample10	CT
1607586-06RE2	B16		1.25	1.0397	0.068163	0.136652046	0.288816						14239-1.RAW	87.7153806	61.1304924	519.034965	0	psample10	CT
1607586-07RE1	B17		1.25	1.0397	0.042155	0.12806905	0.210667						14240-1.RAW	74.3207087	181.217235	254.123027	0	psample10	CT
1607586-08RE1	B18		1.25	1.0397	0.020866	0.031218862	0.092543						14241-1.RAW	37.8526752	74.7882102	157.022057	0	psample10	CT
1607586-09RE1	B19		1.25	1.0397	0.020836	0.046634324	0.091642						14242-1.RAW	23.8066761	70.2067472	114.815664	0	psample10	CT
1607586-11RE1	B20		1.25	1.0397	0.02437	0.069066281	0.130163						14243-1.RAW	12.3087496	17.9002841	51.0200284	0	psample10	OK
1607586-13RE1	B21		1.25	1.0397	0.025777	0.072844465	0.138796						14244-1.RAW	12.292661	26.2258049	50.533428	0	psample10	OK
1607586-14	C1		1.25	1.0397	0.018515	0.017355248	0.109946						14245-1.RAW	14.20116	38.340767	71.3378948	0	psample10	CT
SEQ-CCV3	C2		1	1.0397	1.515397	0.339913502	0.251029	68.07					14246-1.RAW	14.9611742	40.3812737	75.999858	0	psample10	OK
SEQ-CCB3	C3		1	1.0397	0.035248	0.002741688	0.062877	0.00					14247-1.RAW	11.0391098	10.4128788	60.4187973	0	psample10	OK
													14248-1.RAW	1024.07664	230.513636	170.508172	0	psample10	CT
													14249-1.RAW				0	psample10	CT

Failing Data Report - 6H11011

Sample ID	Analysis	Result	MRL	Dup Result	Source Result	True Value	Units	% Rec.	Rec. LCL	Rec. UCL	RPD	RPD Limit	Over Cal	Failure	Qualifier
F608251-DUP1	MHg-CVAFS-W-Dist	0.461	0.050	0.180	0.180		ng/L				87.8	35.00	PASS-OVER	FAIL-DUP	QR-07

Analyst Reviewed By NA Date 8/11/16

Peer Reviewed By [Signature] Date 8/11/16

ANALYSIS SEQUENCE

6H11011

Instrument: Hg2700-1

Calibration ID: UNASSIGNED

Analyzed: 8/11/2016

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
6H11011-IBL1	QC	1			
6H11011-CAL1	QC	2	1604163		
6H11011-CAL2	QC	3	1604164		
6H11011-CAL3	QC	4	1604165		
6H11011-CAL4	QC	5	1604166		
6H11011-CAL5	QC	6	1604167		
6H11011-ICV1	QC	7	1603001		
6H11011-ICB1	QC	8			
F608251-BLK1	QC	9			
F608251-BLK2	QC	10			
F608251-BLK3	QC	11			
F608251-BS1	QC	12			
F608251-BSD1	QC	13			
F608251-DUP1	QC	14			
F608251-MS1	QC	15			
F608251-MSD1	QC	16			
F608251-MS2	QC	17			
F608251-MSD2	QC	18			
6H11011-CCV1	QC	19	1603001		
6H11011-CCB1	QC	20			
1607339-01RE2	MHg-CVAFS-W-Dist	21			From F608200 by RN on 09-Aug-16
1607339-02RE2	MHg-CVAFS-W-Dist	22			From F608200 by RN on 09-Aug-16
1607380-01RE2	MHg-CVAFS-W-Dist	23			From F608200 by RN on 09-Aug-16
1607380-03RE2	MHg-CVAFS-W-Dist	24			From F608200 by RN on 09-Aug-16
1607380-05RE2	MHg-CVAFS-W-Dist	25			From F608200 by RN on 09-Aug-16
1607380-07RE2	MHg-CVAFS-W-Dist	26			From F608200 by RN on 09-Aug-16
1607380-09RE2	MHg-CVAFS-W-Dist	27			From F608200 by RN on 09-Aug-16
1607380-13RE2	MHg-CVAFS-W-Dist	28			From F608200 by RN on 09-Aug-16
1607586-01RE2	MHg-CVAFS-W-Dist	29			From F608200 by RN on 09-Aug-16
1607586-02RE2	MHg-CVAFS-W-Dist	30			From F608200 by RN on 09-Aug-16
6H11011-CCV2	QC	31	1603001		
6H11011-CCB2	QC	32			
1607586-03RE2	MHg-CVAFS-W-Dist	33			From F608200 by RN on 09-Aug-16
1607586-04RE2	MHg-CVAFS-W-Dist	34			From F608200 by RN on 09-Aug-16
1607586-05RE2	MHg-CVAFS-W-Dist	35			From F608200 by RN on 09-Aug-16

Due Date: 8/10/2016

ANALYSIS SEQUENCE

6H11011

Instrument: Hg2700-1

Calibration ID: UNASSIGNED

Analyzed: 8/11/2016

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
1607586-06RE2	MHg-CVAFS-W-Dist	36			From F608200 by RN on 09-Aug-16
1607586-07RE1	MHg-CVAFS-W-Dist	37			From F608200 by RN on 09-Aug-16
1607586-08RE1	MHg-CVAFS-W-Dist	38			From F608200 by RN on 09-Aug-16
1607586-09RE1	MHg-CVAFS-W-Dist	39			From F608200 by RN on 09-Aug-16
1607586-11RE1	MHg-CVAFS-W-Dist	40			From F608200 by RN on 09-Aug-16
1607586-13RE1	MHg-CVAFS-W-Dist	41			From F608200 by RN on 09-Aug-16
1607586-14	MHg-CVAFS-W-Dist	42			Scan all data - Level IV
6H11011-CCV3	QC	43	1603001		
6H11011-CCB3	QC	44			



 Samples Loaded By _____ Date 8/11/16



 Data Processed By _____ Date 8/11/16

Due Date: 8/10/2016

PREPARATION BENCH SHEET

F608251

Eurofins Frontier Global Sciences, Inc.

Matrix: Water

Prepared using: Hg Aquatic/Solids - EFGS-013 Methyl Hg Distillation for Water

Prepared: 8/9/2016

Lab Number	Sample ID and Source Sample	Initial (mL)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F608251-BLK1	Blank	45	40					
F608251-BLK2	Blank	45	40					
F608251-BLK3	Blank	45	40					
F608251-BS1	LCS	45	40	1603908	45			
F608251-BSD1	LCS Dup	45	40	1603908	45			
F608251-DUP1	Duplicate [1607380-09RE2]	45	40					
F608251-MS1	Matrix Spike [1607380-13RE2]	45	40	1603908	45			
F608251-MS2	Matrix Spike [1607586-08RE1]	45	40	1603908	45			
F608251-MSD1	Matrix Spike Dup [1607380-13RE2]	45	40	1603908	45			
F608251-MSD2	Matrix Spike Dup [1607586-08RE1]	45	40	1603908	45			

Standard ID(s): 1603908
Description: MHg New Primary 1.0 ng/mL CAL

Expiration: 19-Oct-16 00:00

<u>Reagent ID(s):</u>	<u>Description:</u>
1602604	Acetate Buffer
1603749	Ethylating Agent (For Methyl Mercury Analysis)
1604432	APDC
1604445	0.5% Distillation Dilute (Made Daily)
1604518	2.5% Ascorbic Acid

Expiration:
 15-Nov-16 00:00
 09-Jan-17 00:00
 17-Aug-16 00:00
 10-Aug-16 00:00
 19-Aug-16 00:00

PREPARATION BENCH SHEET

F608251

Eurofins Frontier Global Sciences, Inc.

Matrix: Water

Prepared using: Hg Aquatic/Solids - EFGS-013 Methyl Hg Distillation for Water

Prepared: 8/9/2016

Lab Number	Sample ID	Initial (mL)	Final (mL)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1607339-01RE2	OL-2431-01	45	40	-	-	-	From F608200 by RN on 09-Aug-16	From F608200 by RN on 09-Aug-16
1607339-02RE2	OL-2431-02	45	40	-	-	-	From F608200 by RN on 09-Aug-16	From F608200 by RN on 09-Aug-16
1607380-01RE2	NMC-5240-00	45	40	-	-	-	From F608200 by RN on 09-Aug-16	From F608200 by RN on 09-Aug-16
1607380-03RE2	NMC-5240-01	45	40	QC	-	-	MS/MSD From F608200 by RN on 09-	From F608200 by RN on 09-Aug-16
1607380-05RE2	NMC-5240-02	45	40	-	-	-	From F608200 by RN on 09-Aug-16	From F608200 by RN on 09-Aug-16
1607380-07RE2	NMC-5240-03	45	40	-	-	-	From F608200 by RN on 09-Aug-16	From F608200 by RN on 09-Aug-16
1607380-09RE2	NMC-5240-04	45	40	-	-	-	From F608200 by RN on 09-Aug-16	From F608200 by RN on 09-Aug-16
1607380-13RE2	NMC-5240-06	45	40	-	-	-	From F608200 by RN on 09-Aug-16	From F608200 by RN on 09-Aug-16
1607586-01RE2	1523 OV-02_071816_SW_10	45	40	-	-	-	From F608200 by RN on 09-Aug-16	From F608200 by RN on 09-Aug-16
1607586-02RE2	1523 OV-02_071816_SW_10 Dissolved	45	40	-	-	-	From F608200 by RN on 09-Aug-16	From F608200 by RN on 09-Aug-16
1607586-03RE2	1524 WQ1b-c_071816_SW_10	45	40	-	-	-	From F608200 by RN on 09-Aug-16	From F608200 by RN on 09-Aug-16
1607586-04RE2	1524 WQ1b-c_071816_SW_10 Dissolved	45	40	-	-	-	From F608200 by RN on 09-Aug-16	From F608200 by RN on 09-Aug-16
1607586-05RE2	1525 WQ2-c_071816_SW_10	45	40	-	-	-	From F608200 by RN on 09-Aug-16	From F608200 by RN on 09-Aug-16
1607586-06RE2	1525 WQ2-c_071816_SW_10 Dissolved	45	40	-	-	-	From F608200 by RN on 09-Aug-16	From F608200 by RN on 09-Aug-16
1607586-07RE1	1526 WQ3-L_071816_SW_10	45	40	-	-	-	From F608200 by RN on 09-Aug-16	From F608200 by RN on 09-Aug-16
1607586-08RE1	1526 WQ3-L_071816_SW_10 Dissolved	45	40	-	-	-	From F608200 by RN on 09-Aug-16	From F608200 by RN on 09-Aug-16
1607586-09RE1	1527 ES-15_071816_SW_10	45	40	-	-	-	From F608200 by RN on 09-Aug-16	From F608200 by RN on 09-Aug-16
586-11RE1	1528 WQ-ECH_071816_SW_10	45	40	QC	-	-	MS/MSD From F608200 by RN on 09-	From F608200 by RN on 09-Aug-16
586-13RE1	1529 WQ-ECH_071816_SW_10_DUP	45	40	-	-	-	From F608200 by RN on 09-Aug-16	From F608200 by RN on 09-Aug-16

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Date: 8/10/2016

PREPARATION BENCH SHEET

F608251

Eurofins Frontier Global Sciences, Inc.

Matrix: Water

Prepared using: Hg Aquatic/Solids - EFGS-013 Methyl Hg Distillation for Water

Prepared: 8/9/2016

1607586-14	1529 WQ-ECH_071816_SW_10_DUP Dissolved	45	40	-	-	-	Scan all data - Level IV	
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PREPARATION BENCH SHEET

W 8/11/16 2700)

GH11011

F608251

Eurofins Frontier Global Sciences, Inc.

Matrix: Water

Prepared using: Hg Aquatic/Solids - EFGS-013 Methyl Hg Distillation for Water

Prepared: 8/9/2016

Lab Number	Sample ID and Source Sample	Initial (mL)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F608251-BLK1	Blank	45	40					1.25x
F608251-BLK2	Blank	45	40					1.25x
F608251-BLK3	Blank	45	40					1.25x
F608251-BS1	LCS	45	40	1603908	45			1.25x
F608251-BSD1	LCS Dup	45	40	1603908	45			1.25x
F608251-DUP1	Duplicate [1607380-09RE2]	45	40					1.25x
F608251-MS1	Matrix Spike [1607380-13RE2]	45	40	1603908	45			1.25x
F608251-MS2	Matrix Spike [1607586-08RE1]	45	40	1603908	45			1.25x
F608251-MSD1	Matrix Spike Dup [1607380-13RE2]	45	40	1603908	45			1.25x
F608251-MSD2	Matrix Spike Dup [1607586-08RE1]	45	40	1603908	45			1.25x

<u>Standard ID(s):</u> 1603908	<u>Description:</u> MHg New Primary 1.0 ng/mL CAL	<u>Expiration:</u> 19-Oct-16 00:00	<u>Reagent ID(s):</u> 1604432 1604445	<u>Description:</u> APDC 0.5% Distillation Dilute (Made Daily)	<u>Expiration:</u> 17-Aug-16 00:00 10-Aug-16 00:00
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PREPARATION BENCH SHEET

RW 8/11/16

F608251

Eurofins Frontier Global Sciences, Inc.

Matrix: Water

Prepared using: Hg Aquatic/Solids - EFGS-013 Methyl Hg Distillation for Water

Prepared: 8/9/2016

Lab Number	Sample ID	Initial (mL)	Final (mL)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1607339-01RE2	OL-2431-01	45	40	-	-	-	From F608200 by RN on 09-Aug-16	From F608200 by RN on 09-Aug-16 1.25x
1607339-02RE2	OL-2431-02	45	40	-	-	-	From F608200 by RN on 09-Aug-16	From F608200 by RN on 09-Aug-16 1.25x
1607380-01RE2	NMC-5240-00	45	40	-	-	-	From F608200 by RN on 09-Aug-16	From F608200 by RN on 09-Aug-16 1.25x
1607380-03RE2	NMC-5240-01	45	40	QC	-	-	MS/MSD From F608200 by RN on 09-	From F608200 by RN on 09-Aug-16 1.25x
1607380-05RE2	NMC-5240-02	45	40	-	-	-	From F608200 by RN on 09-Aug-16	From F608200 by RN on 09-Aug-16 1.25x
1607380-07RE2	NMC-5240-03	45	40	-	-	-	From F608200 by RN on 09-Aug-16	From F608200 by RN on 09-Aug-16 1.25x
1607380-09RE2	NMC-5240-04	45	40	-	-	-	From F608200 by RN on 09-Aug-16	From F608200 by RN on 09-Aug-16 1.25x
1607380-13RE2	NMC-5240-06	45	40	-	-	-	From F608200 by RN on 09-Aug-16	From F608200 by RN on 09-Aug-16 1.25x
1607586-01RE2	1523 OV-02_071816_SW_10	45	40	-	-	-	From F608200 by RN on 09-Aug-16	From F608200 by RN on 09-Aug-16 1.25x
1607586-02RE2	1523 OV-02_071816_SW_10 Dissolved	45	40	-	-	-	From F608200 by RN on 09-Aug-16	From F608200 by RN on 09-Aug-16 1.25x
1607586-03RE2	1524 WQ1b-c_071816_SW_10	45	40	-	-	-	From F608200 by RN on 09-Aug-16	From F608200 by RN on 09-Aug-16 1.25x
1607586-04RE2	1524 WQ1b-c_071816_SW_10 Dissolved	45	40	-	-	-	From F608200 by RN on 09-Aug-16	From F608200 by RN on 09-Aug-16 1.25x
1607586-05RE2	1525 WQ2-c_071816_SW_10	45	40	-	-	-	From F608200 by RN on 09-Aug-16	From F608200 by RN on 09-Aug-16 1.25x
1607586-06RE2	1525 WQ2-c_071816_SW_10 Dissolved	45	40	-	-	-	From F608200 by RN on 09-Aug-16	From F608200 by RN on 09-Aug-16 1.25x
1607586-07RE1	1526 WQ3-L_071816_SW_10	45	40	-	-	-	From F608200 by RN on 09-Aug-16	From F608200 by RN on 09-Aug-16 1.25x
1607586-08RE1	1526 WQ3-L_071816_SW_10 Dissolved	45	40	-	-	-	From F608200 by RN on 09-Aug-16	From F608200 by RN on 09-Aug-16 1.25x
1607586-09RE1	1527 ES-15_071816_SW_10	45	40	-	-	-	From F608200 by RN on 09-Aug-16	From F608200 by RN on 09-Aug-16 1.25x
7586-11RE1	1528 WQ-ECH_071816_SW_10	45	40	QC	-	-	MS/MSD From F608200 by RN on 09-	From F608200 by RN on 09-Aug-16 1.25x
7586-13RE1	1529 WQ-ECH_071816_SW_10_DUP	45	40	-	-	-	From F608200 by RN on 09-Aug-16	From F608200 by RN on 09-Aug-16 1.25x

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Date: 8/10/2016

to 8/11/16

PREPARATION BENCH SHEET

F608251

Eurofins Frontier Global Sciences, Inc.

Matrix: Water

Prepared using: Hg Aquatic/Solids - EFGS-013 Methyl Hg Distillation for Water

Prepared: 8/9/2016

1607586-14	1529 WQ-ECH_071816_SW_10_DUP Dissolved	45	40	-	-	-	Scan all data - Level IV	1.2 Sec
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Methyl Mercury Distillations (EPA 1630)

Name: AMB Date: 8/9/16 Batch #: F608251 Sample Matrix: Water
 WO#: 1607339, 1607380, 1607586

The pH of the preserved sample must be documented before an aliquot is removed for preparation.

Digest #	Sample ID Number	Preserved pH	Sample Size (mL)	Final pH (≥3)
BLK1	F608251-BLK1	1.0	45	3.0
BLK2	F608251-BLK2	1.0	45	3.0
BLK3	F608251-BLK3	1.0	45	3.0
BS1	F608251-BS1	1.0	45	3.0
BSD1	F608251-BSD1	1.0	45	3.0
DUPI	F608251-DUPI	1.0	45	3.0
MS1	F608251-MS1	1.0	45	3.0
MSD1	F608251-MSD1	1.0	45	3.0
MS2	F608251-MS2	1.0	45	4.0
MSD2	F608251-MSD2	1.0	45	4.0
1	1607339-01RE2B	1.0	45	4.0
2	1607339-02RE2B	1.0	45	4.0
3	1607380-01RE2B	1.0	45	4.0
4	1607380-03RE2B	1.0	45	3.0
5	1607380-05RE2B	1.0	45	4.0
6	1607380-07RE2B	1.0	45	4.0
7	1607380-09RE2B	1.0	45	3.0
8	1607380-13RE2B	1.0	45	4.0
9	1607586-01RE2B	1.0	45	4.0
10	1607586-02RE2B	1.0	45	4.0
11	1607586-03RE2B	1.0	45	3.0
12	1607586-04RE2B	1.0	45	3.0
13	1607586-05RE2B	1.0	45	3.0
14	1607586-06RE2B	1.0	45	3.0
15	1607586-07RE2B	1.0	45	3.0
16	1607586-08RE1B	1.0	45	3.0
17	1607586-09RE1B	1.0	45	3.0
18	1607586-11RE1B	1.0	45	3.0
19	1607586-13RE1B	1.0	45	3.0
20	1607586-14RE1B	1.0	45	3.0

Spike ID: 1603908
 Spike Amount: 45 µL
 Spike Witness: lv 8/9/16
 Balance #: 2 8/9/16
 Calibrated? Yes No
 Pipette #: N27707
 Cal. Date: 8-9-16
 Pipette #: N/A
 Cal. Date: N/A
 Pipette #: N/A
 Cal. Date: N/A
 APDC ID: 1604432
 HCl ID: 1604330 AMB 8-9-16
1604445
 Temperature: No set range as the temp. may be changed to keep flow rate of ≥10 mL per hour. Temperature is recorded for informational purposes only.
 Unit 1: 121.1
 Unit 2: 122.0
 Unit 3: 120.7
 Unit 4: 121.0
 Unit 5: 122.0
 Unit 6: 122.0
 Comments:
 DUPI SOURCE:
1607380-09B
 MSI/MSDI SOURCE:
1607380-11B
AMB 8-9-16
 MS2/MSD2 SOURCE:
1607586-08B
 Sample
1607586-04RE2B

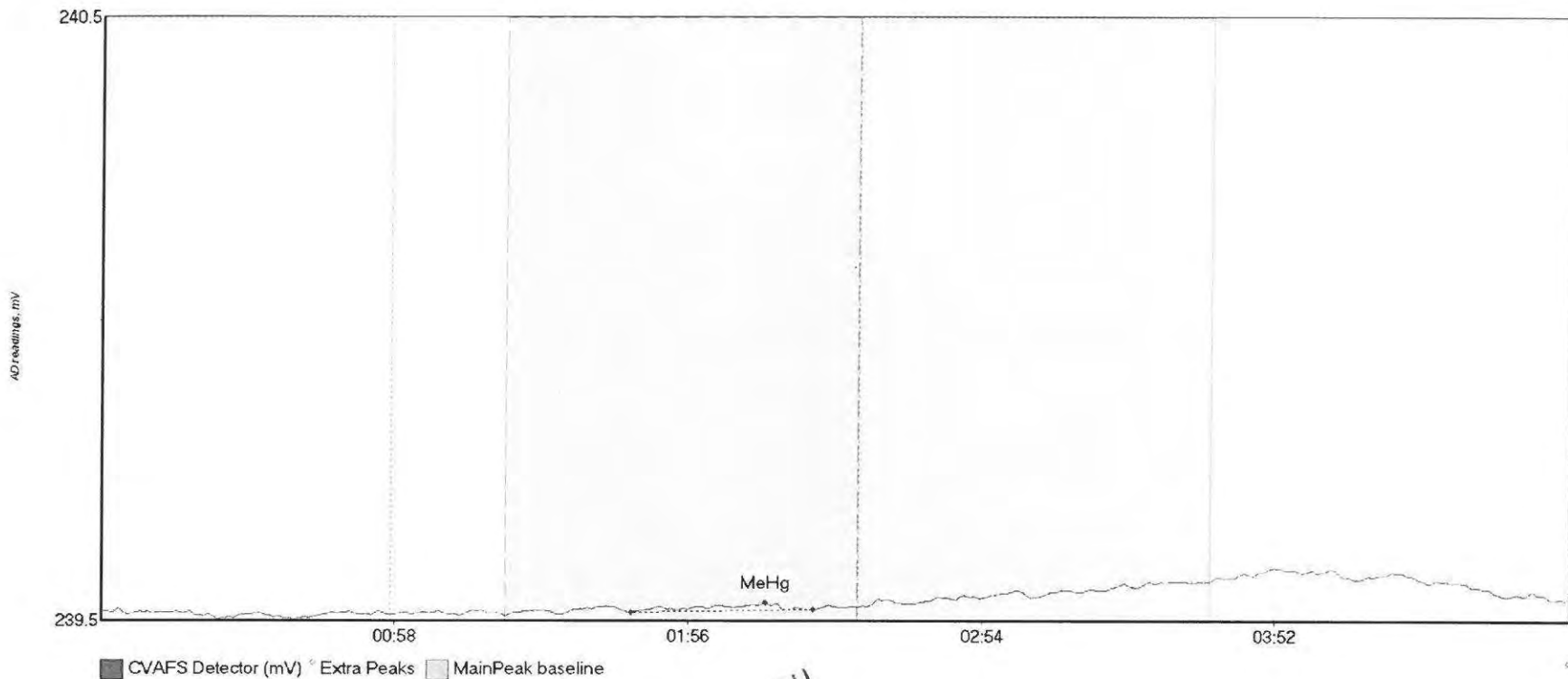


AMB 8-9-16

Verified Duyen 8-10-16

The distillation vial must have had a leak - a

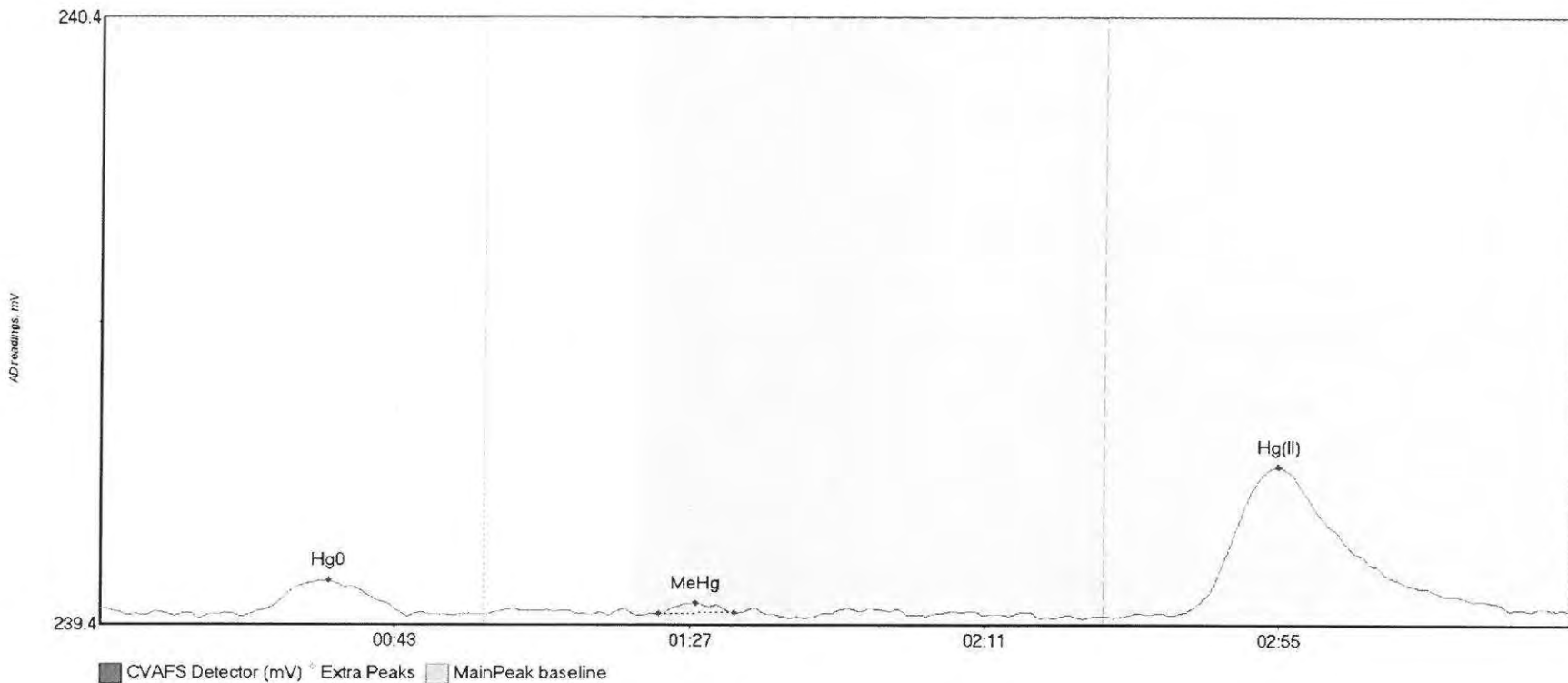
#1: Clean



JH

Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
Clean	2.231	105.2	141.3	239.55	239.55	131.7	0.016	OK	239.5490	0.00	0.02	016

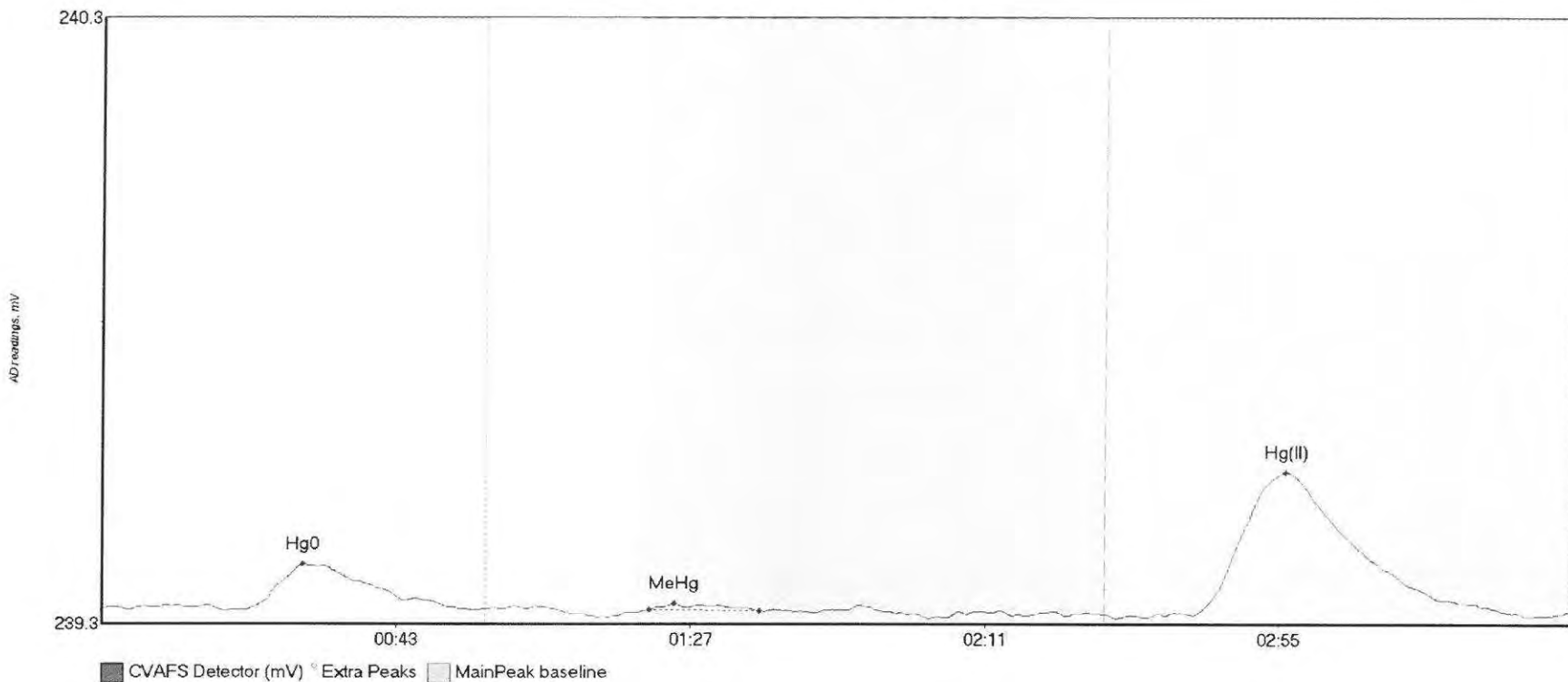
#2: ws



017

Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
ws Hg0	8.109	21.3	45.9	239.43	239.43	34.2	0.059	OK	239.4442	0.00	0.00	
ws MeHg	1.220	83.3	94.8	239.44	239.44	88.9	0.018	OK	239.4442	0.00	0.00	
ws Hg(II)	47.120	160.5	219.8	239.43	239.44	175.9	0.245	CT	239.4442	0.00	0.00	

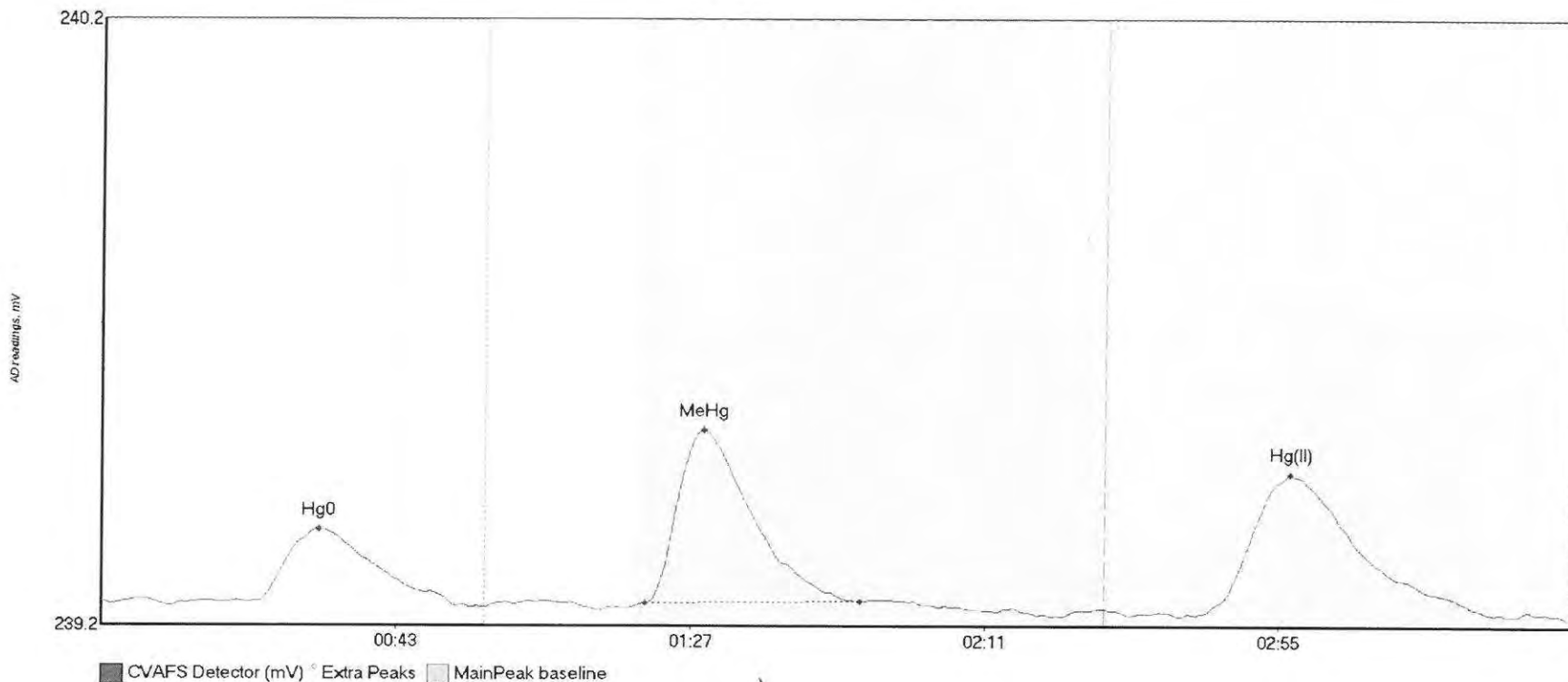
#3: SEQ-IBL1



CH

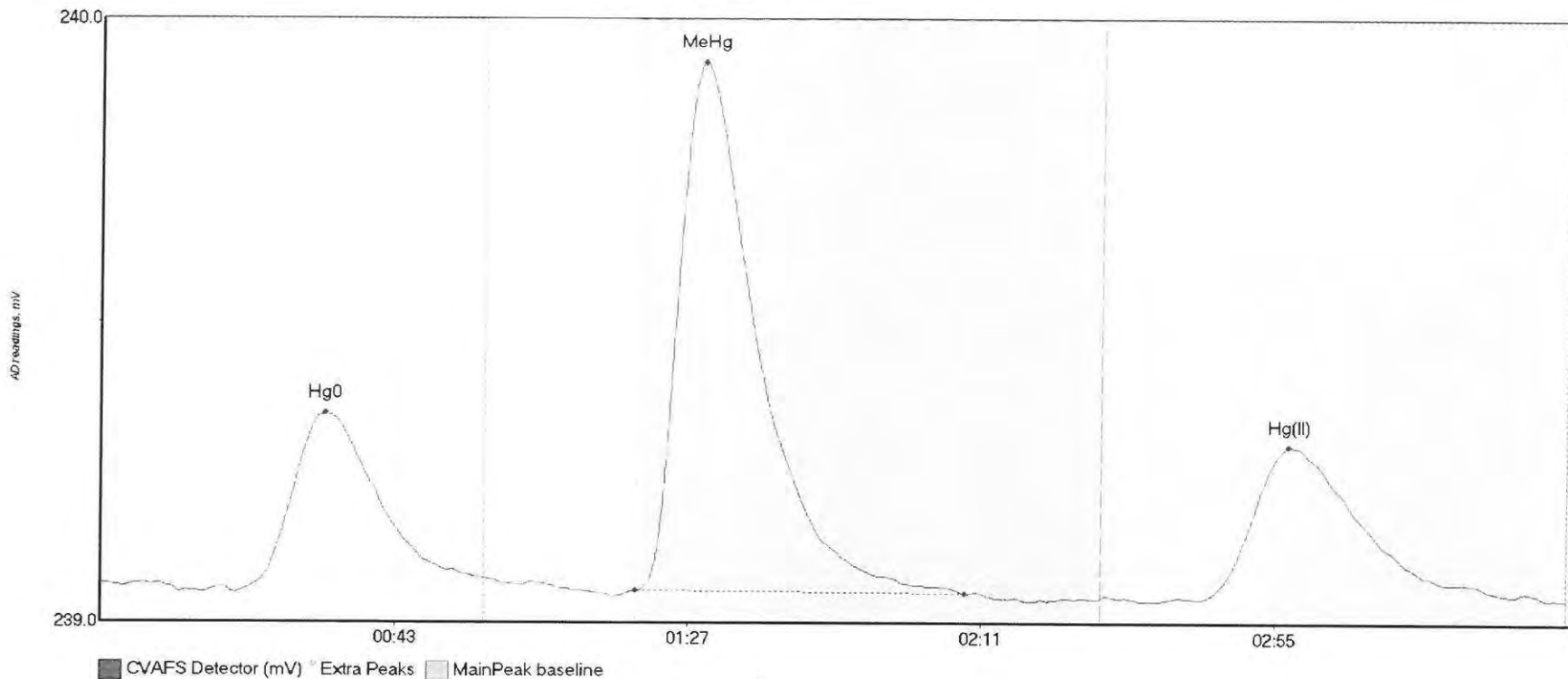
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	B1Dev	B1Shift	Comment
SEQ-IBL1 Hg0	10.683	21.5	51.8	239.33	239.34	30.2	0.075	OK	239.3374	0.00	-0.01	
SEQ-IBL1 MeHg	1.040	81.9	98.3	239.33	239.33	85.6	0.011	OK	239.3374	0.00	-0.01	
SEQ-IBL1 Hg(II)	43.855	163.3	210.5	239.33	239.33	177.1	0.236	OK	239.3374	0.00	-0.01	

#4: SEQ-CAL1



Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
SEQ-CAL1 Hg0	17.778	23.4	52.9	239.22	239.21	32.4	0.119	OK	239.2142	0.00	-0.03	
SEQ-CAL1 MeHg	36.300	81.1	113.4	239.21	239.21	89.9	0.287	OK	239.2142	0.00	-0.03	
SEQ-CAL1 Hg(II)	39.592	164.8	205.6	239.20	239.20	177.7	0.229	OK	239.2142	0.00	-0.03	

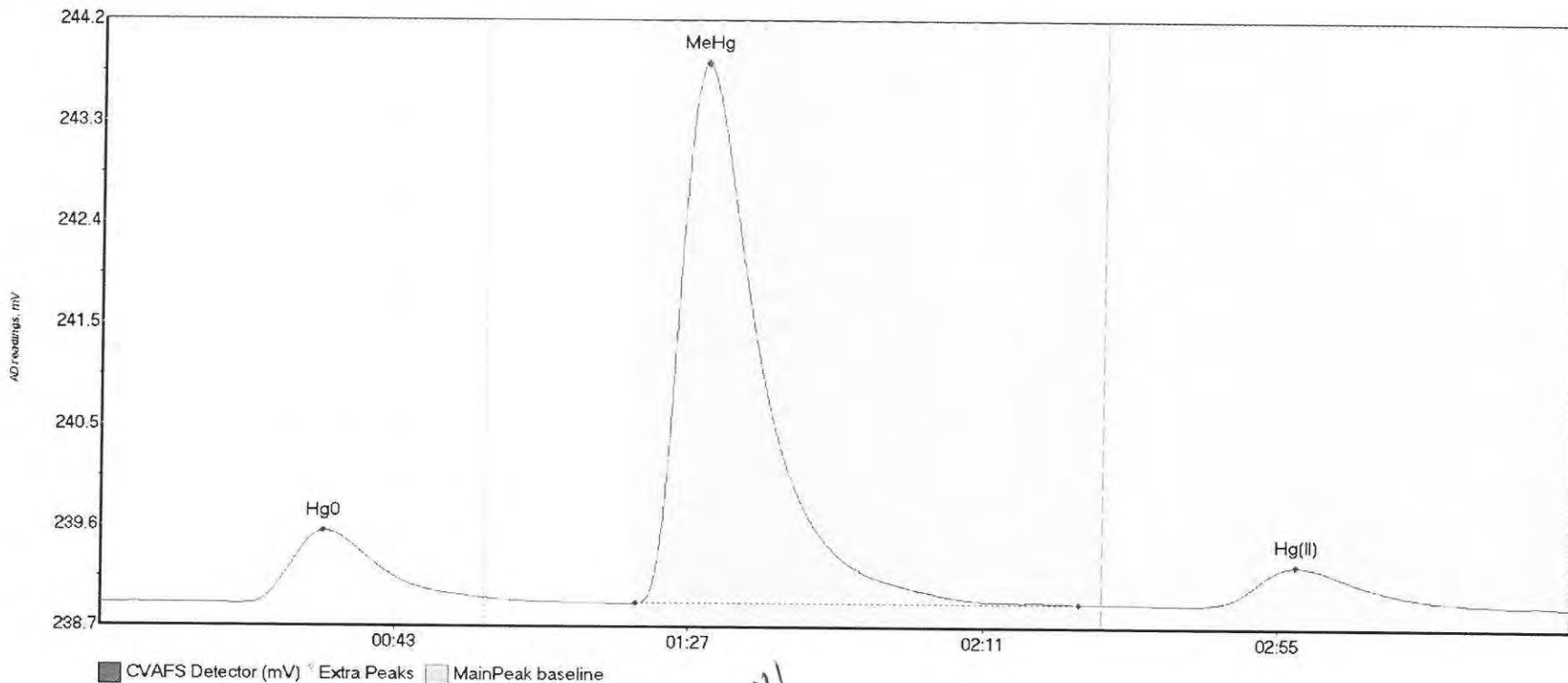
#5: SEQ-CAL2



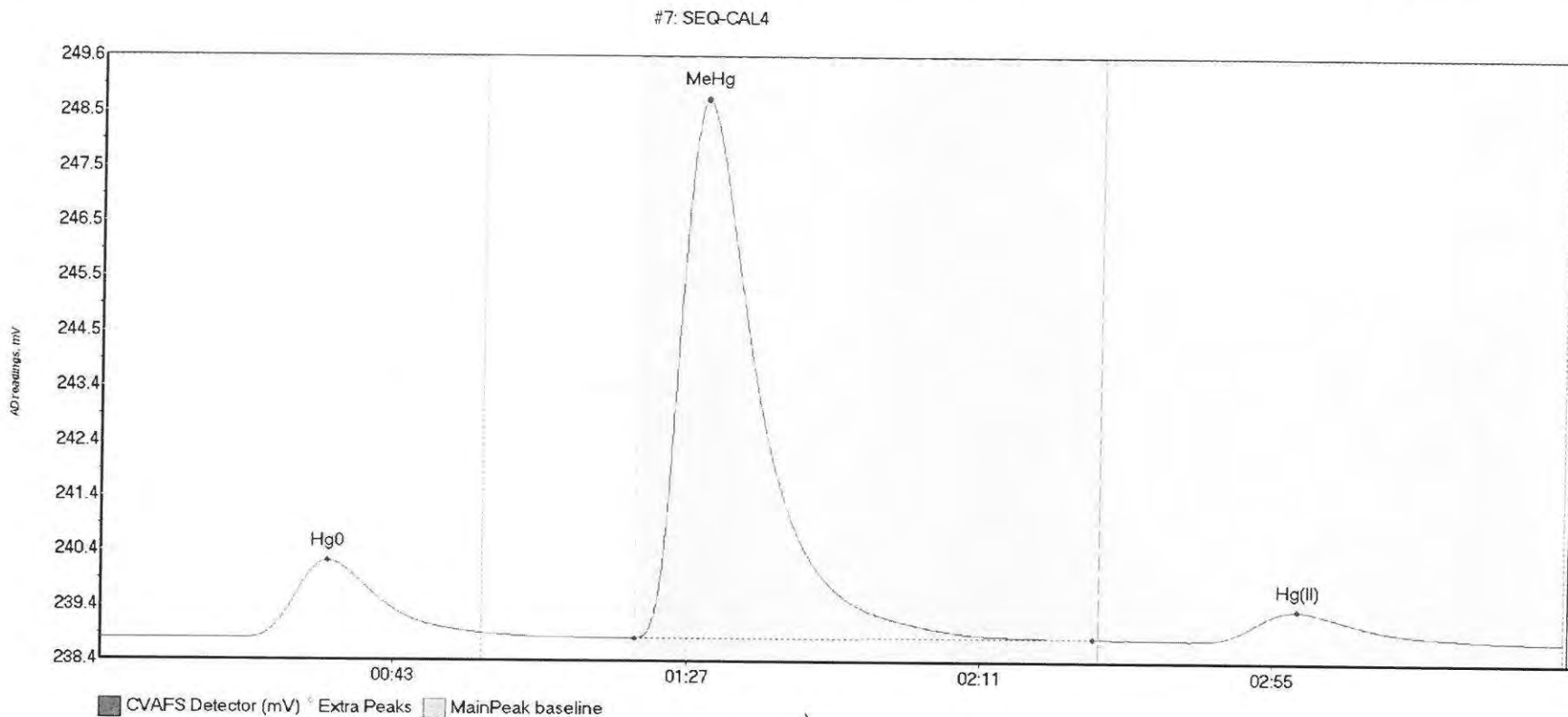
CH

Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
SEQ-CAL2 Hg0	42.291	19.9	57.5	239.07	239.09	33.5	0.305	CT	239.0819	0.00	-0.03	
SEQ-CAL2 MeHg	121.346	80.2	129.6	239.07	239.07	90.2	0.898	OK	239.0819	0.00	-0.03	
SEQ-CAL2 Hg(II)	46.221	164.7	209.9	239.06	239.07	178.1	0.261	OK	239.0819	0.00	-0.03	

#6: SEQ-CAL3

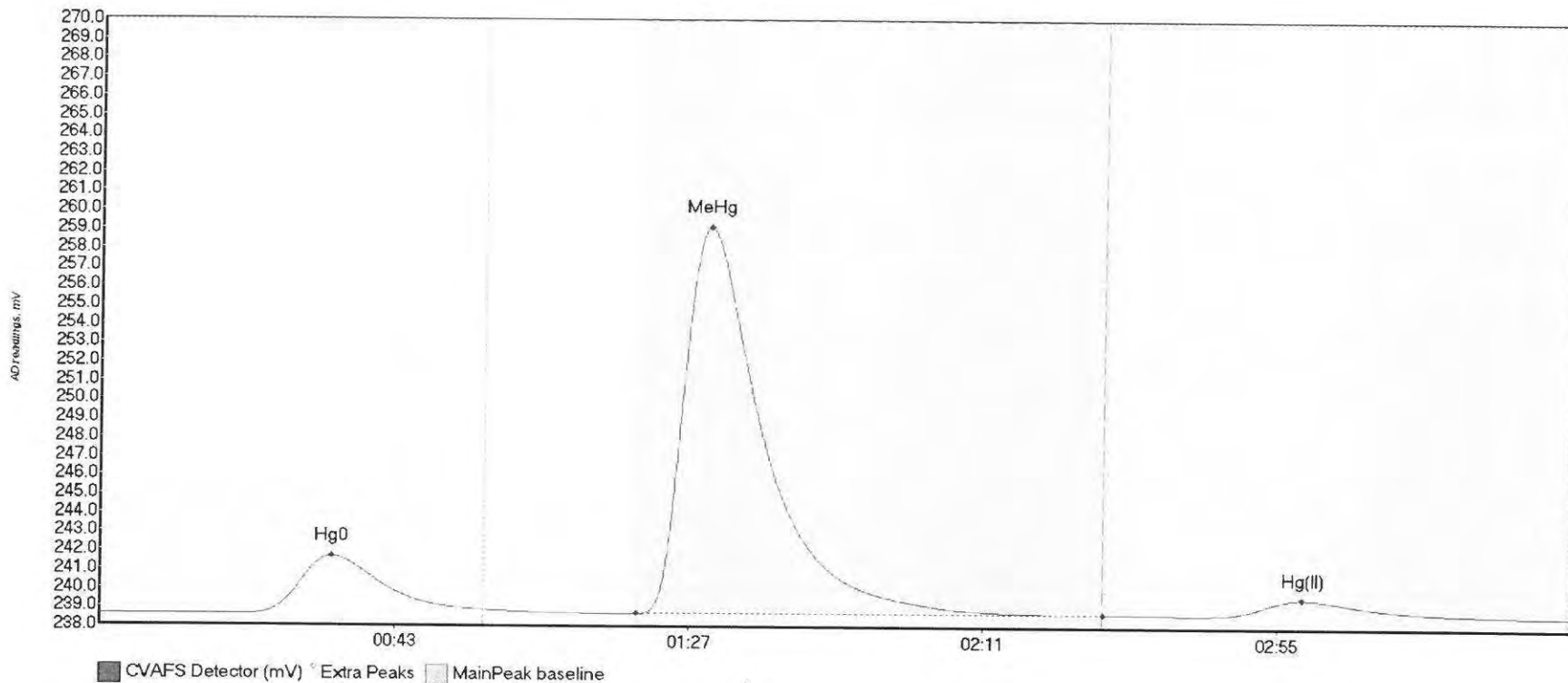


Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	B1Dev	B1Shift	Comment
SEQ-CAL3 Hg0	92.090	21.2	57.5	238.91	238.96	33.5	0.665	CT	238.9127	0.00	-0.01	
SEQ-CAL3 MeHg	681.234	80.1	146.5	238.91	238.92	90.3	4.928	OK	238.9127	0.00	-0.01	
SEQ-CAL3 Hg(II)	60.992	164.7	206.9	238.92	238.93	178.7	0.358	OK	238.9127	0.00	-0.01	



Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
SEQ-CAL4 Hg0	193.432	18.4	57.5	238.76	238.86	34.1	1.434	CT	238.7621	0.00	0.00	
SEQ-CAL4 MeHg	1372.625	80.1	149.1	238.78	238.80	90.5	9.974	OK	238.7621	0.00	0.00	
SEQ-CAL4 Hg(II)	95.613	165.2	209.5	238.77	238.79	179.8	0.556	OK	238.7621	0.00	0.00	

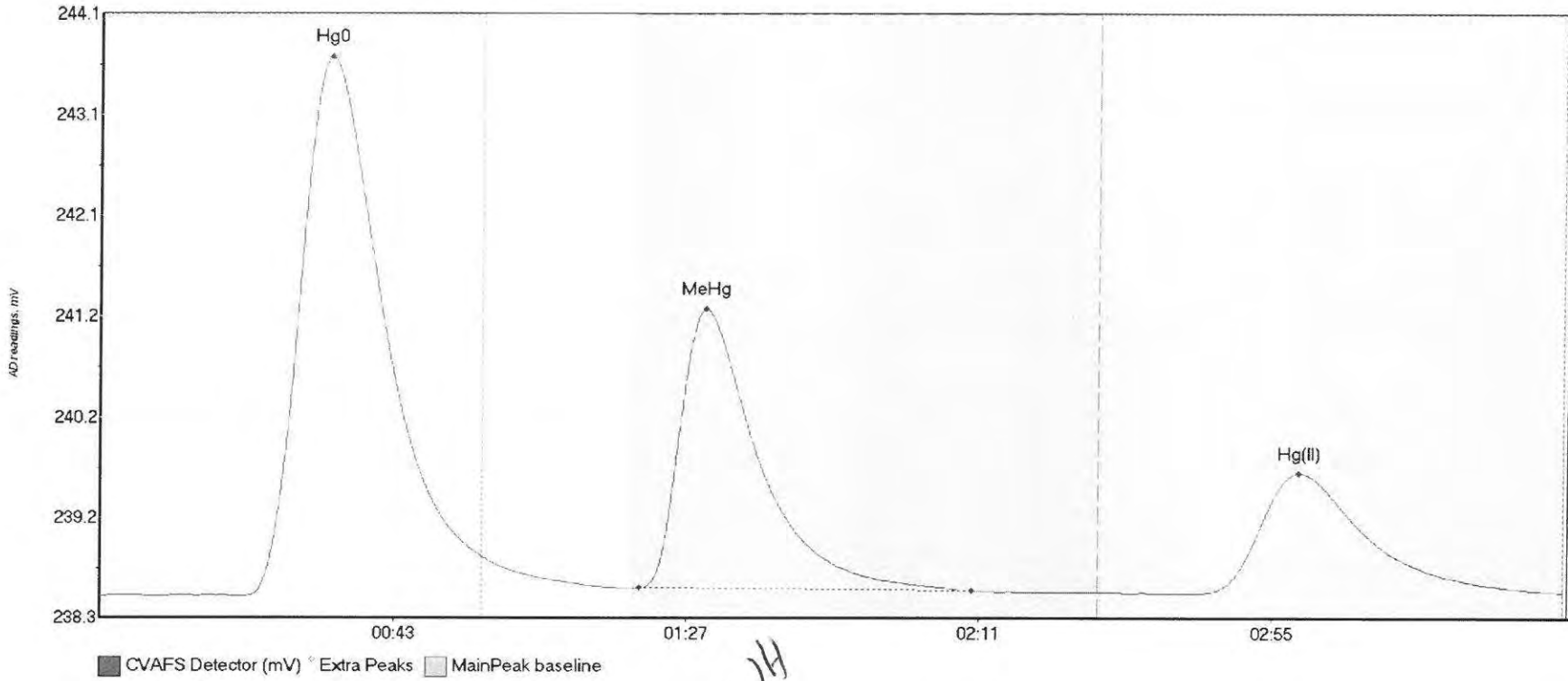
#8: SEQ-CAL5



OK

Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
SEQ-CAL5 Hg0	403.526	20.3	57.5	238.62	238.85	34.5	3.056	CT	238.6297	0.00	0.03	
SEQ-CAL5 MeHg	2812.064	80.1	150.0	238.66	238.70	90.9	20.419	CT	238.6297	0.00	0.03	
SEQ-CAL5 Hg(II)	155.513	166.0	215.2	238.68	238.67	179.9	0.866	OK	238.6297	0.00	0.03	

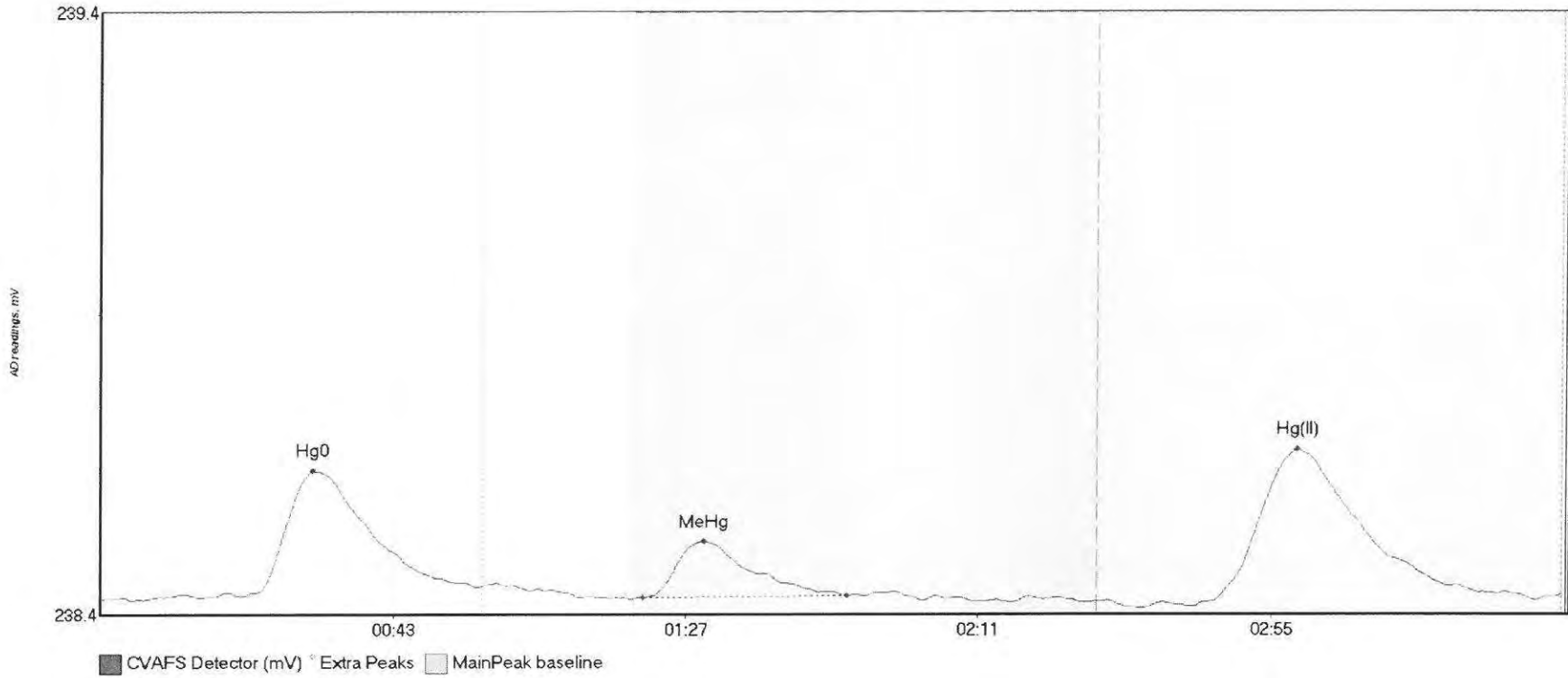
#9: SEQ-ICV1



JH

Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	B1Dev	B1Shift	Comment
SEQ-ICV1 Hg0	696.543	21.2	57.5	238.49	238.87	34.5	5.166	CT	238.4910	0.00	0.04	
SEQ-ICV1 MeHg	364.962	81.0	131.0	238.57	238.54	90.9	2.680	OK	238.4910	0.00	0.04	
SEQ-ICV1 Hg(II)	211.196	164.8	219.8	238.52	238.53	180.1	1.156	CT	238.4910	0.00	0.04	

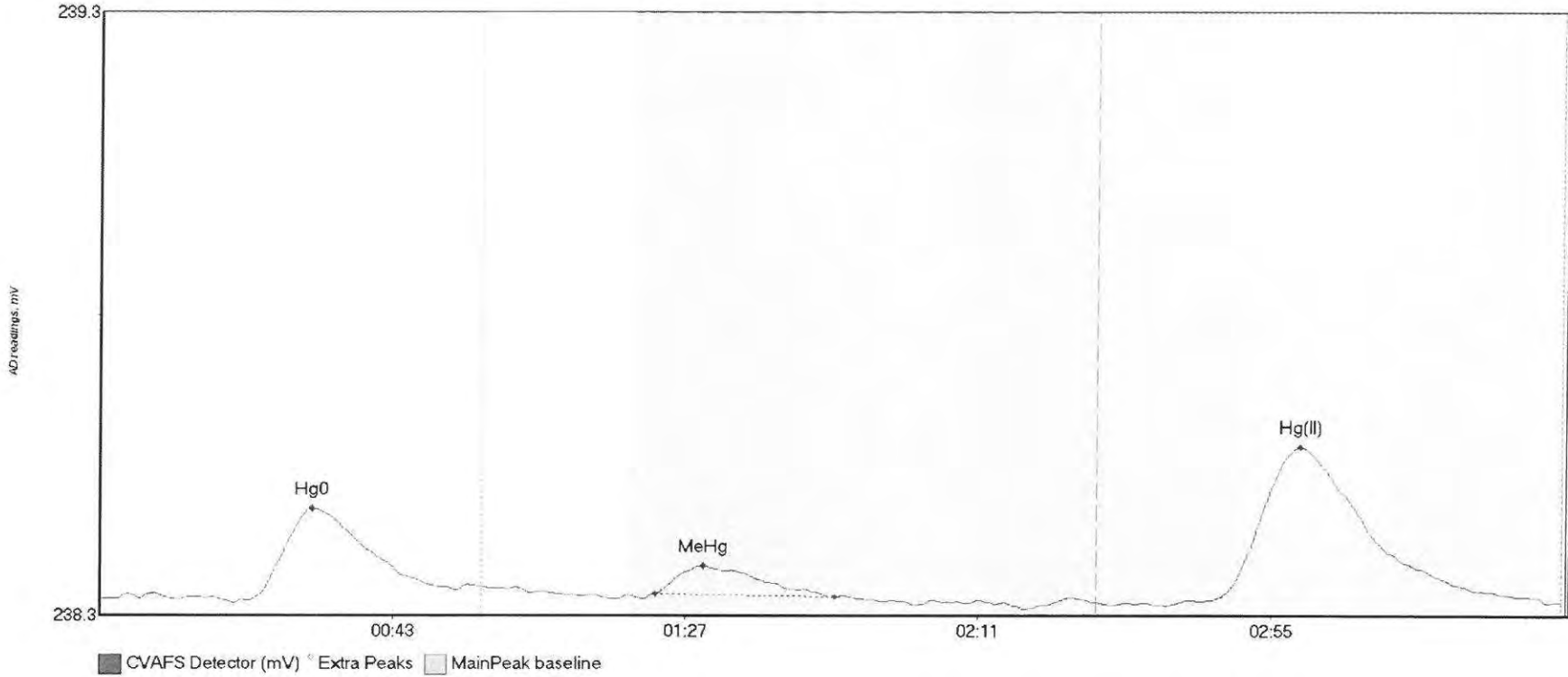
#10: SEQ-ICB1



JH

Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
SEQ-ICB1 Hg0	28.287	21.2	56.5	238.40	238.42	31.9	0.208	OK	238.3957	0.00	0.01	
SEQ-ICB1 MeHg	11.811	81.6	112.1	238.40	238.40	90.8	0.094	OK	238.3957	0.00	0.01	
SEQ-ICB1 Hg(II)	44.908	166.9	216.0	238.39	238.39	179.9	0.253	OK	238.3957	0.00	0.01	

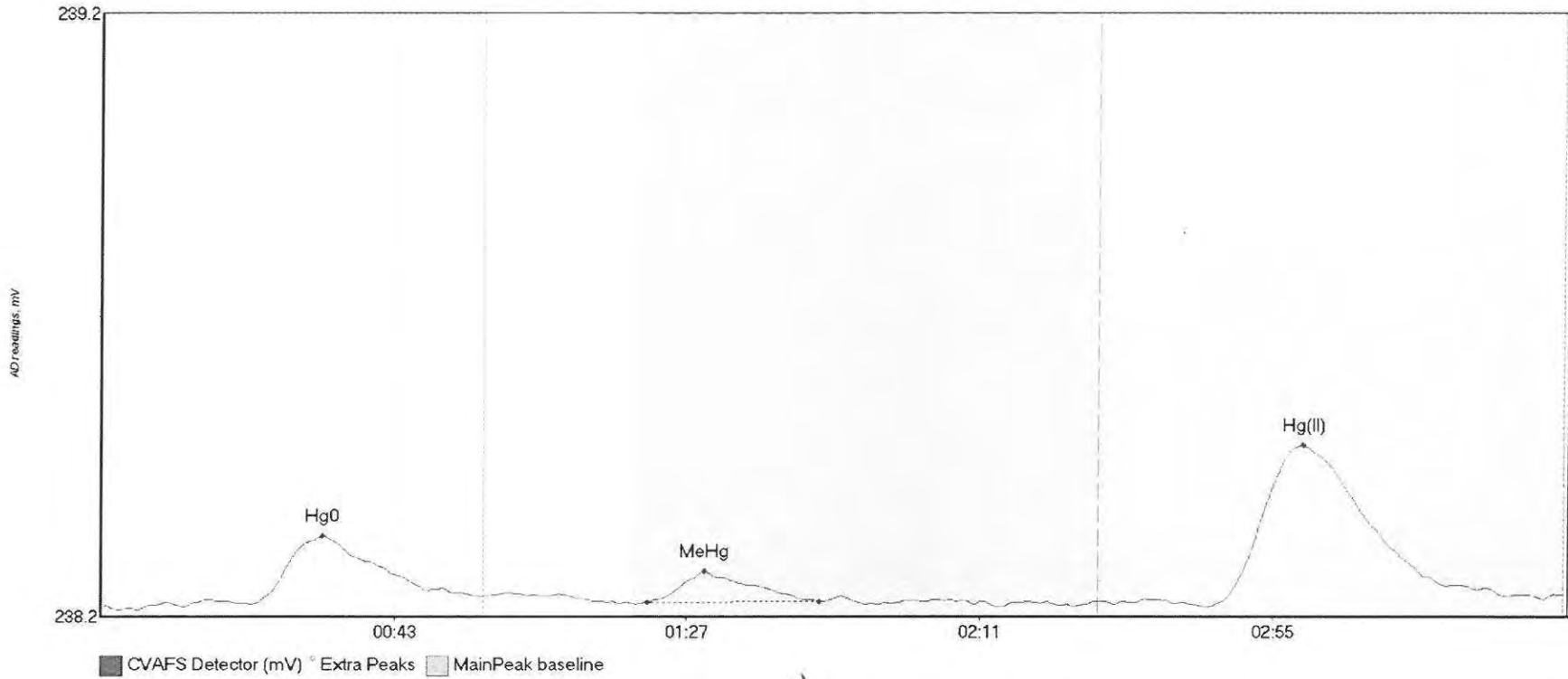
#11: F608251-BLK1



214

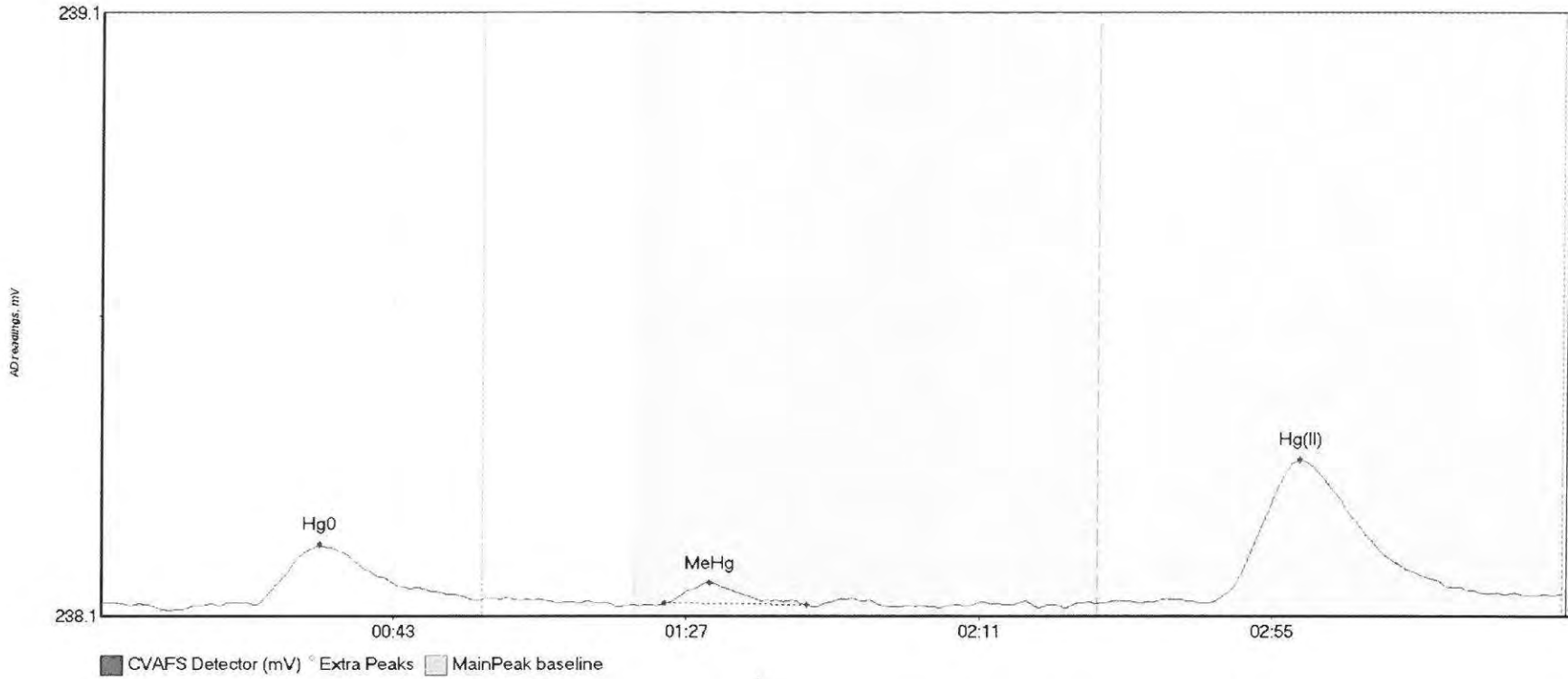
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	B1Dev	B1Shift	Comment
F608251-BLK1 Hg	20.173	22.5	53.7	238.30	238.32	32.0	0.154	OK	238.3038	0.00	-0.01	
F608251-BLK1 Me	6.921	83.6	110.4	238.31	238.31	90.7	0.048	OK	238.3038	0.00	-0.01	
F608251-BLK1 Hg	46.730	166.7	218.0	238.30	238.30	180.3	0.256	OK	238.3038	0.00	-0.01	

#12: F608251-BLK2



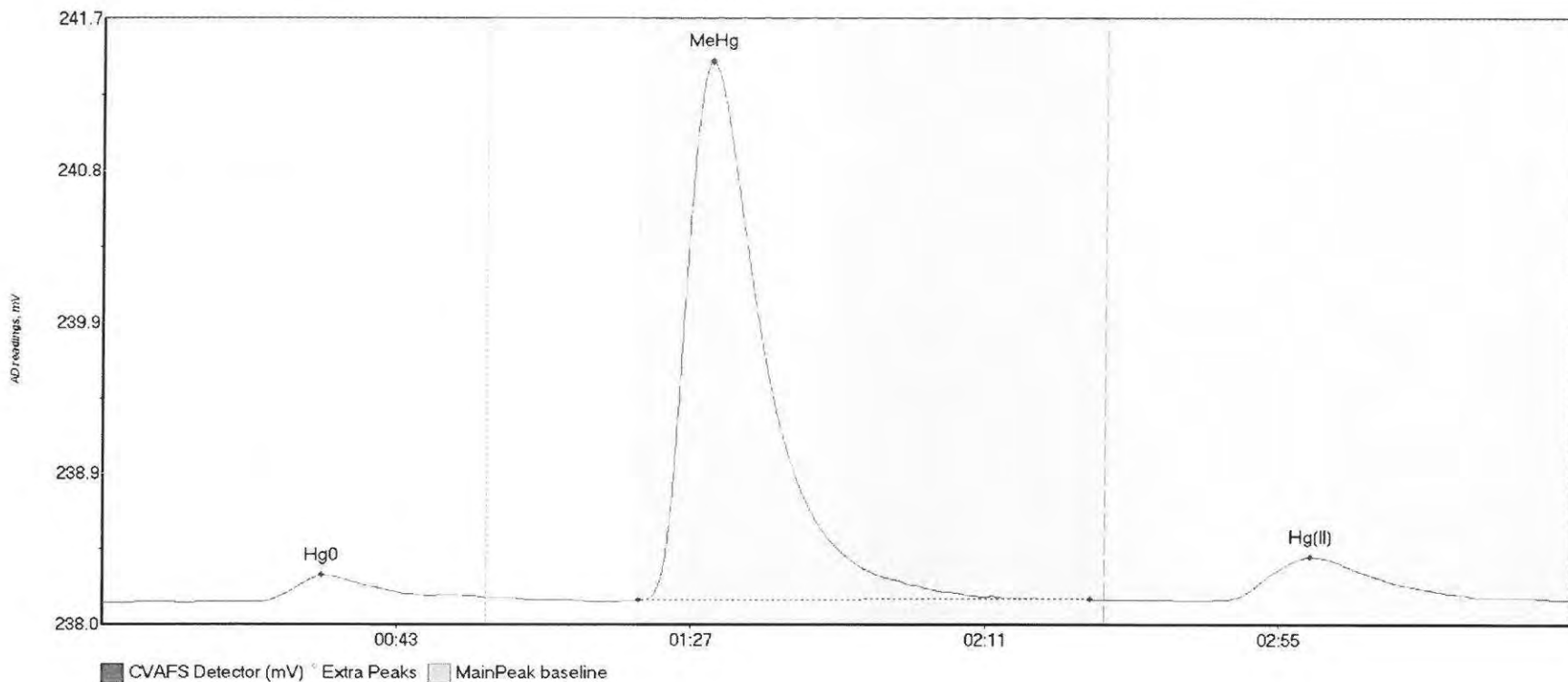
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
F608251-BLK2 Hg	16.058	22.6	56.9	238.22	238.24	33.3	0.113	OK	238.2219	0.00	0.02	
F608251-BLK2 Me	6.070	82.1	107.9	238.23	238.23	90.8	0.052	OK	238.2219	0.00	0.02	
F608251-BLK2 Hg	48.771	166.4	216.9	238.22	238.23	180.6	0.268	OK	238.2219	0.00	0.02	

#13: F608251-BLK3



Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
F608251-BLK3 Hg	14.360	23.4	56.5	238.17	238.18	33.0	0.098	OK	238.1717	0.00	0.01	
F608251-BLK3 Me	3.345	84.7	106.1	238.17	238.17	91.6	0.034	OK	238.1717	0.00	0.01	
F608251-BLK3 Hg	39.813	166.9	218.6	238.17	238.18	180.2	0.236	OK	238.1717	0.00	0.01	

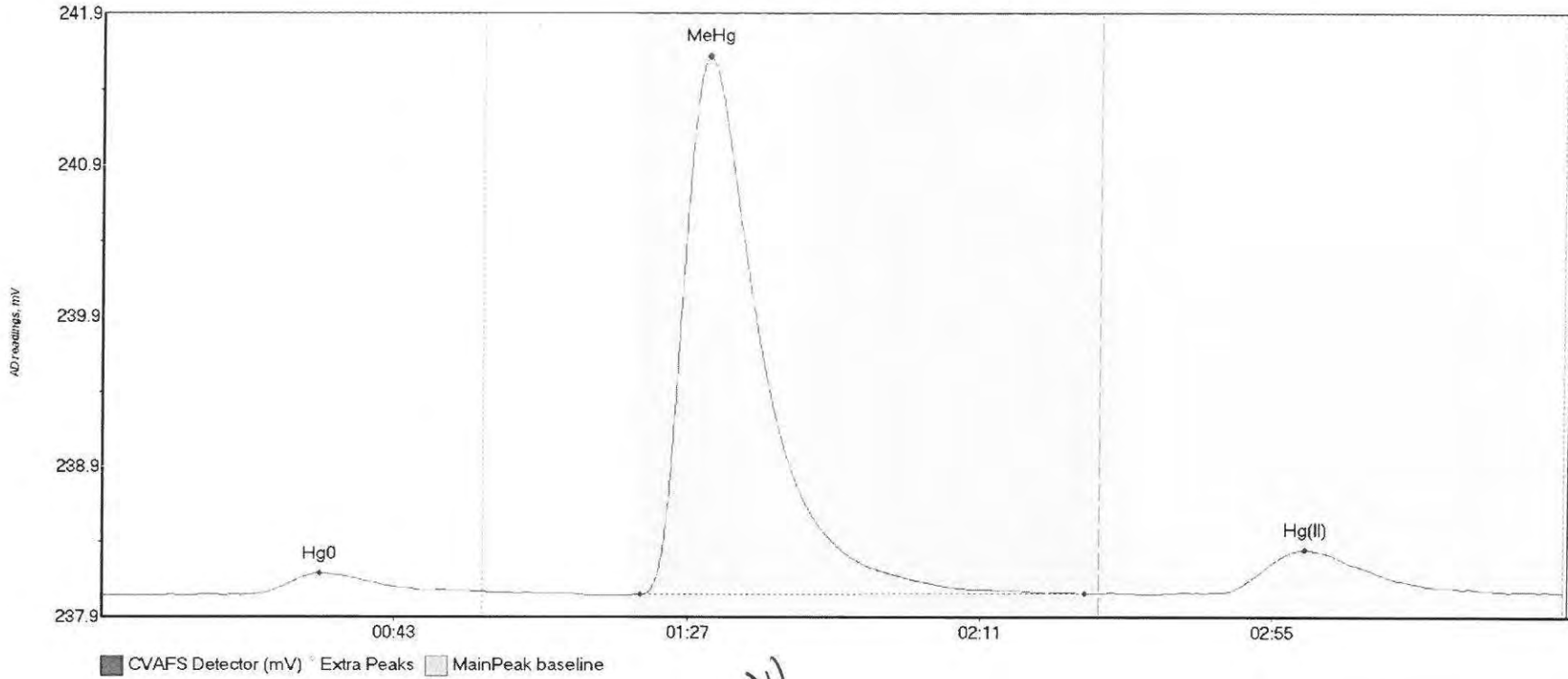
#14: F608251-BS1



JH

Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
F608251-BS1 Hg0	20.627	21.0	57.5	238.12	238.15	32.8	0.166	CT	238.1152	0.00	0.02	
F608251-BS1 MeH	453.320	80.2	147.7	238.13	238.14	91.0	3.328	OK	238.1152	0.00	0.02	
F608251-BS1 Hg(	47.986	167.5	215.8	238.13	238.14	180.7	0.265	OK	238.1152	0.00	0.02	

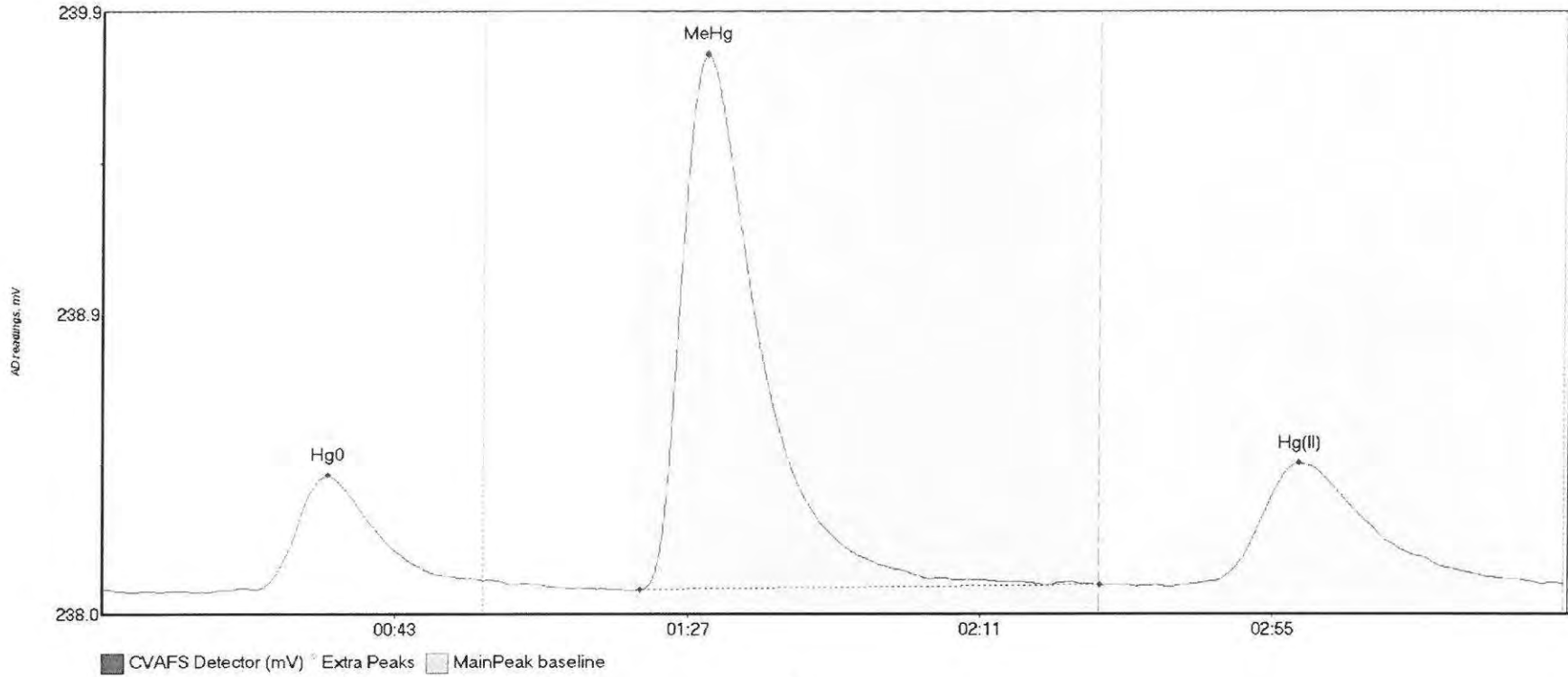
#15: F608251-BSD1



JH

Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
F608251-BSD1 Hg	18.983	18.3	57.5	238.08	238.11	32.8	0.141	CT	238.0796	0.00	0.02	
F608251-BSD1 Me	478.360	80.9	147.7	238.09	238.09	91.0	3.500	OK	238.0796	0.00	0.02	
F608251-BSD1 Hg	48.965	168.5	219.1	238.10	238.10	180.9	0.277	OK	238.0796	0.00	0.02	

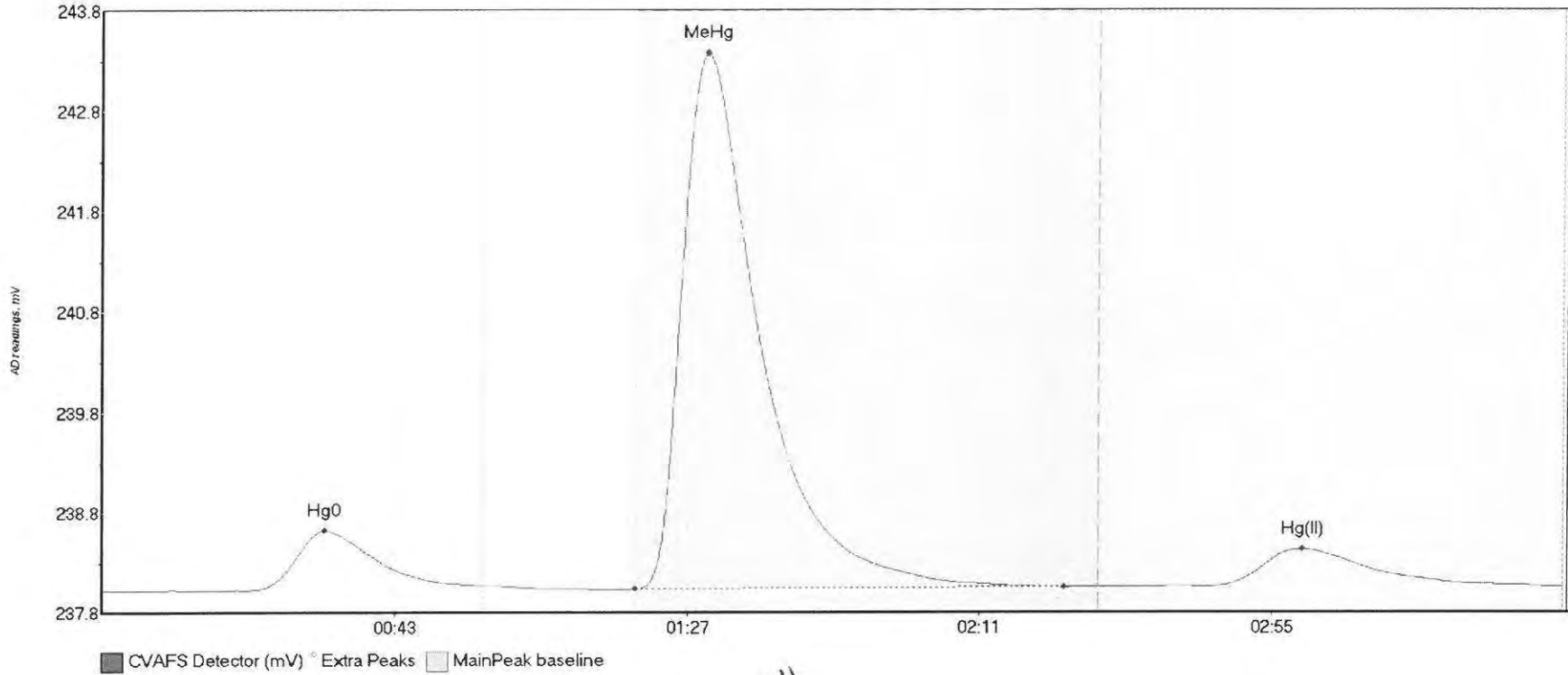
#16: F608251-DUP1



JH

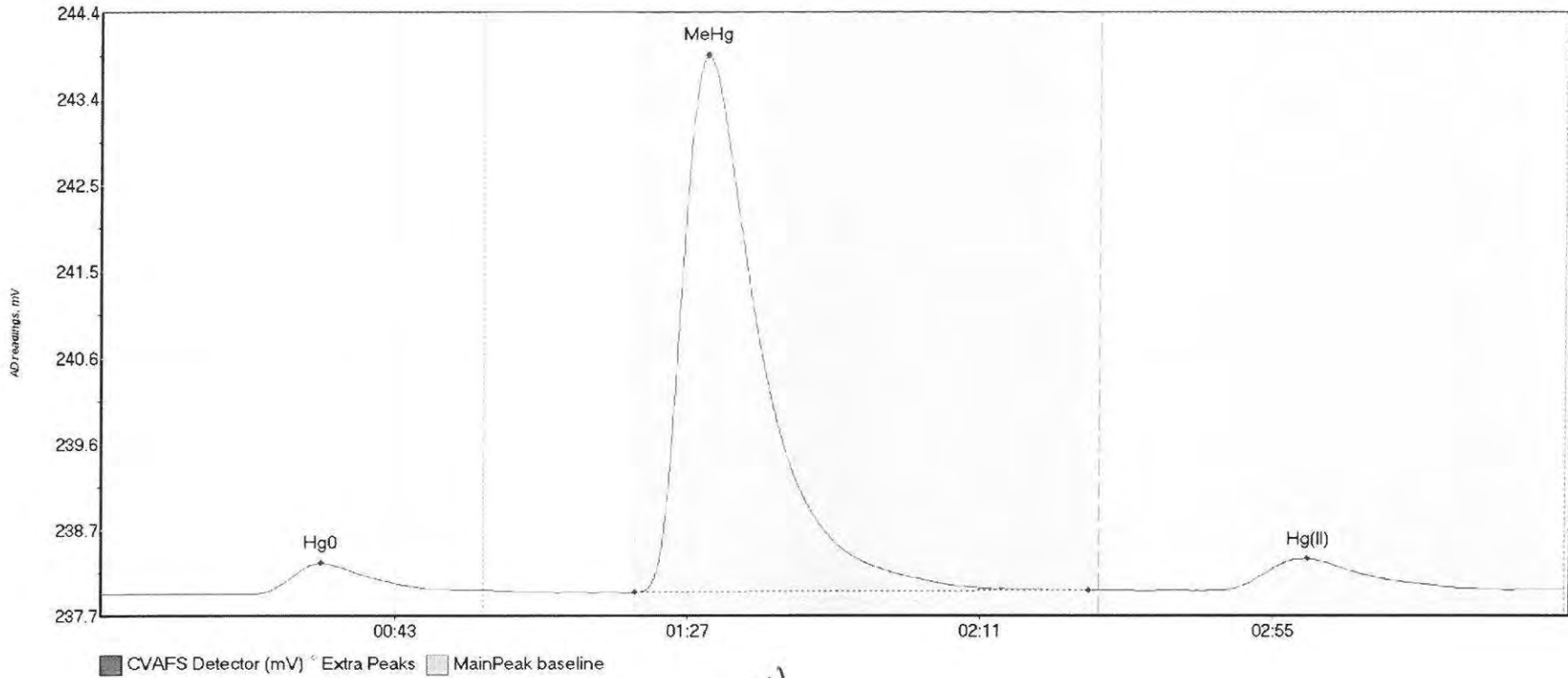
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
F608251-DUP1 Hg	45.441	23.3	57.3	238.06	238.08	33.9	0.356	OK	238.0545	0.00	0.02	
F608251-DUP1 Me	230.694	80.7	150.0	238.05	238.07	90.8	1.672	CT	238.0545	0.00	0.02	
F608251-DUP1 Hg	70.750	163.1	216.7	238.07	238.07	180.1	0.380	OK	238.0545	0.00	0.02	

#17: F608251-MS1



Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
F608251-MS1 Hg0	75.842	21.7	57.5	238.02	238.07	33.5	0.592	CT	238.0216	0.00	0.04	
F608251-MS1 MeH	725.779	80.1	144.7	238.04	238.05	90.9	5.303	OK	238.0216	0.00	0.04	
F608251-MS1 Hg(69.535	166.1	217.0	238.05	238.06	180.6	0.375	OK	238.0216	0.00	0.04	

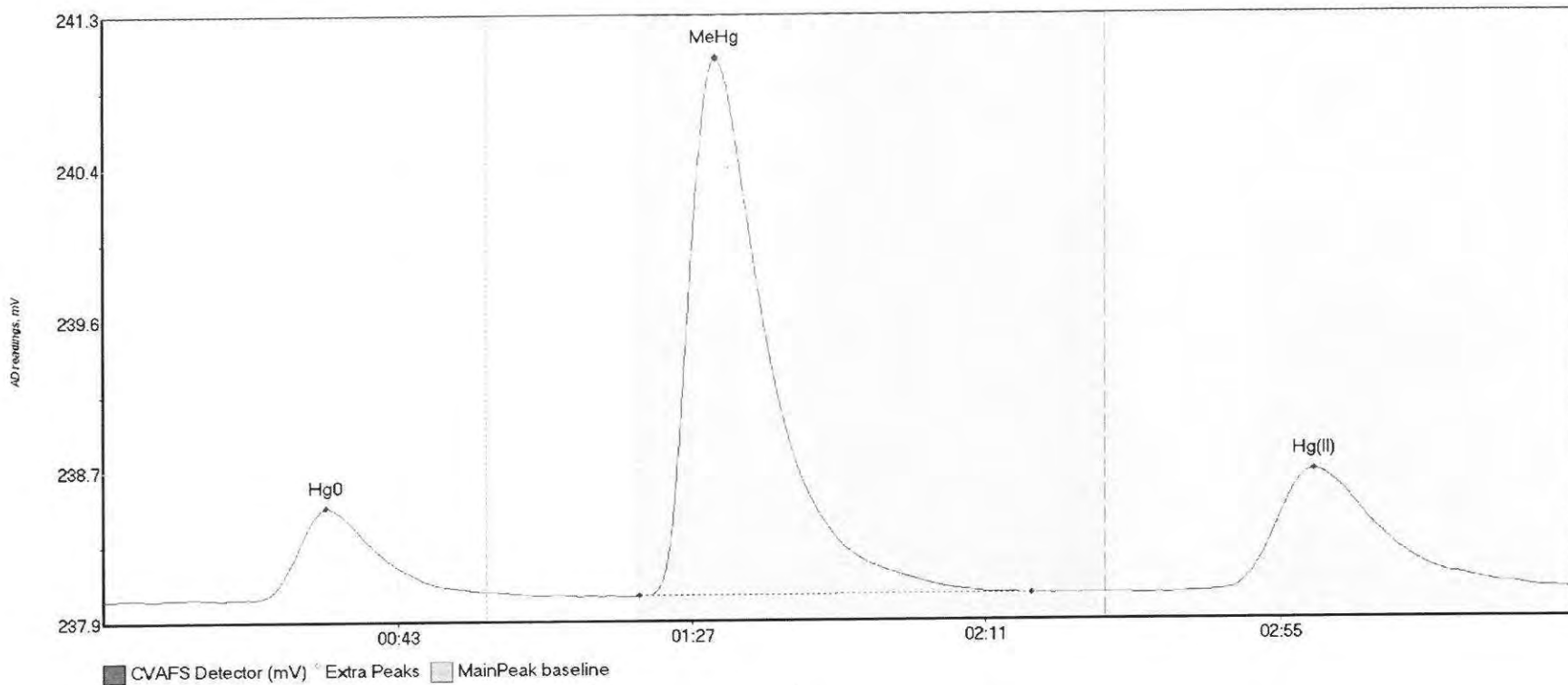
#18: F608251-MSD1



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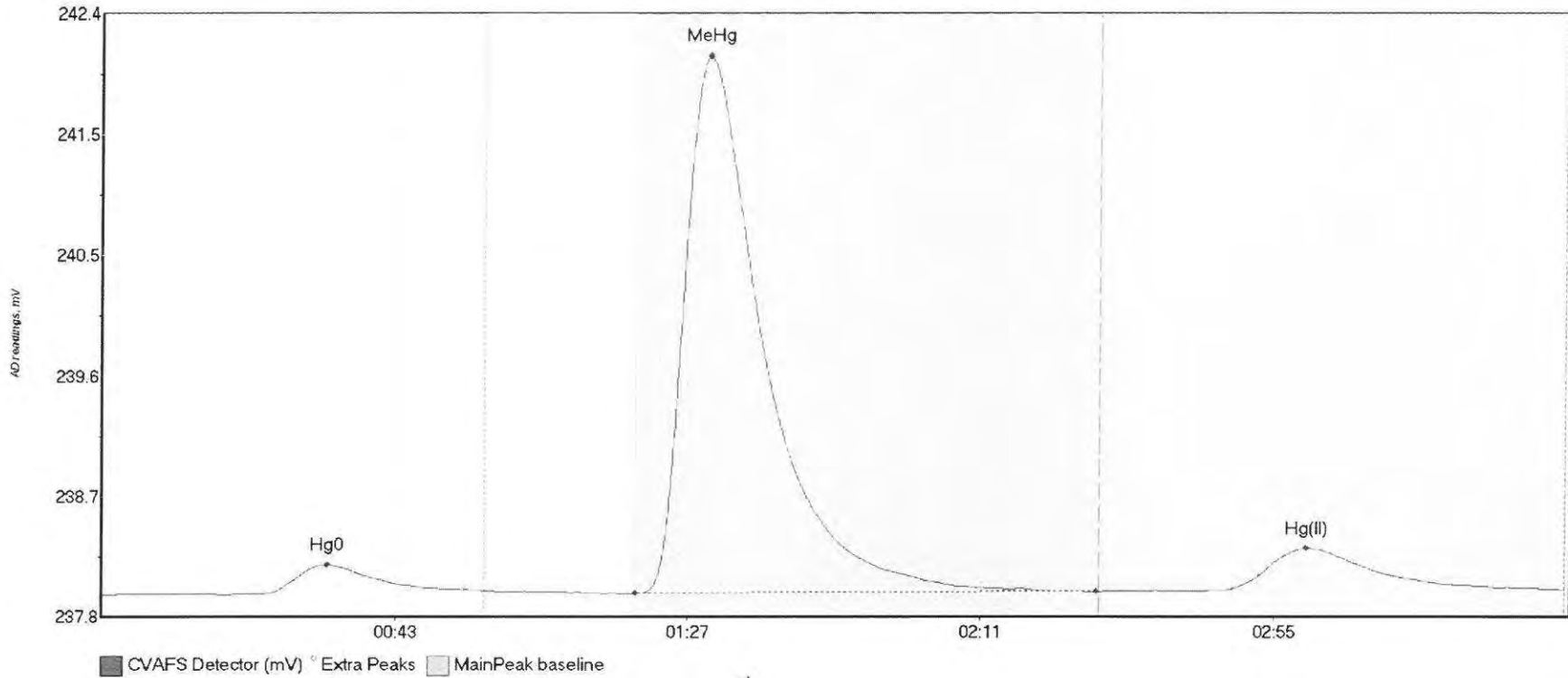
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
F608251-MSD1 Hg	41.825	22.3	56.0	237.99	238.03	32.8	0.336	OK	237.9953	0.00	0.05	
F608251-MSD1 Me	802.010	80.1	148.3	238.01	238.03	90.9	5.897	OK	237.9953	0.00	0.05	
F608251-MSD1 Hg	58.448	168.4	211.5	238.03	238.04	181.3	0.344	OK	237.9953	0.00	0.05	

#19: F608251-MS2



Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
F608251-MS2 Hg0	65.909	17.5	56.9	237.98	238.02	33.3	0.522	OK	237.9742	0.00	0.04	
F608251-MS2 MeH	415.027	80.1	138.9	237.99	238.00	91.5	3.045	OK	237.9742	0.00	0.04	
F608251-MS2 Hg(126.357	161.3	219.8	238.00	238.01	181.1	0.691	CT	237.9742	0.00	0.04	

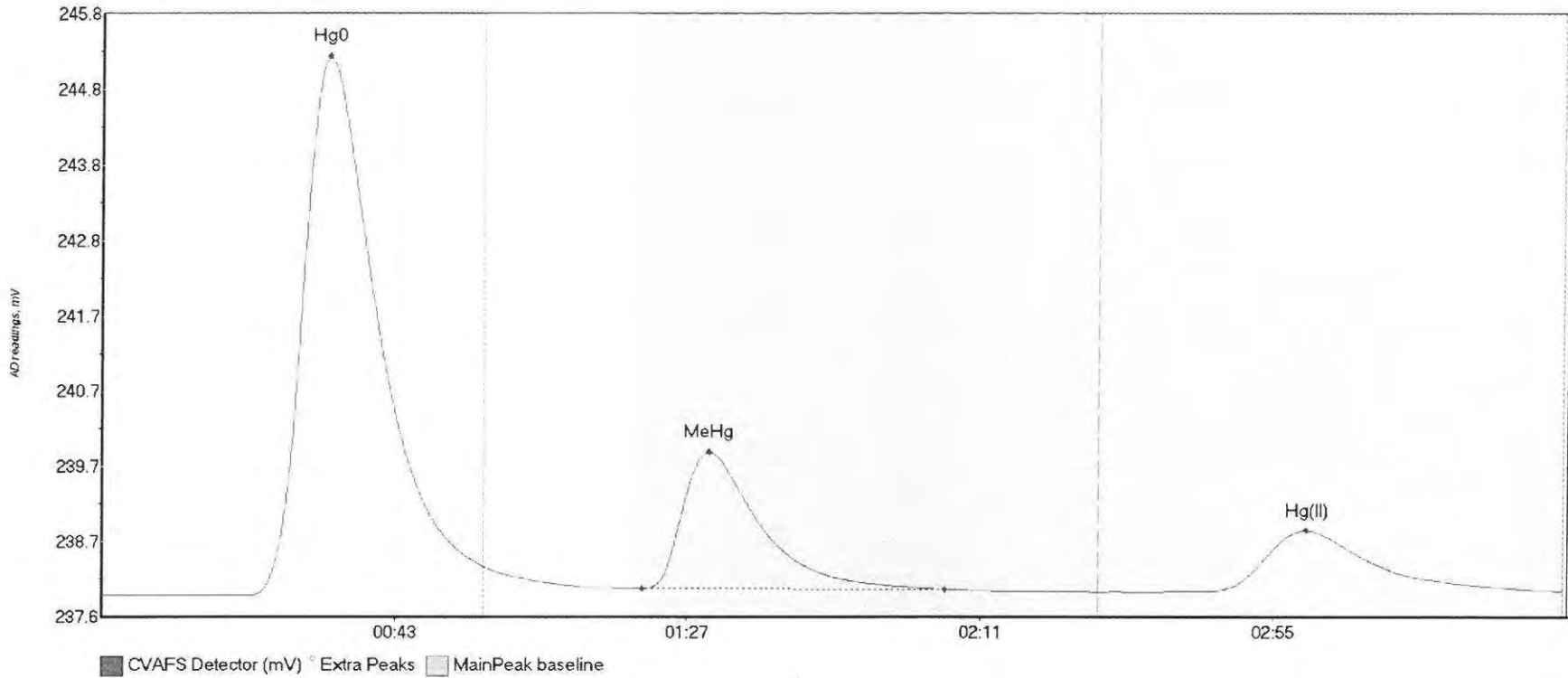
#20: F608251-MSD2



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Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
F608251-MSD2 Hg	28.922	18.0	57.5	237.96	237.98	33.8	0.224	CT	237.9518	0.00	0.04	
F608251-MSD2 Me	561.210	80.1	149.4	237.96	237.98	91.3	4.081	OK	237.9518	0.00	0.04	
F608251-MSD2 Hg	58.771	165.4	219.8	237.98	237.99	180.9	0.325	CT	237.9518	0.00	0.04	

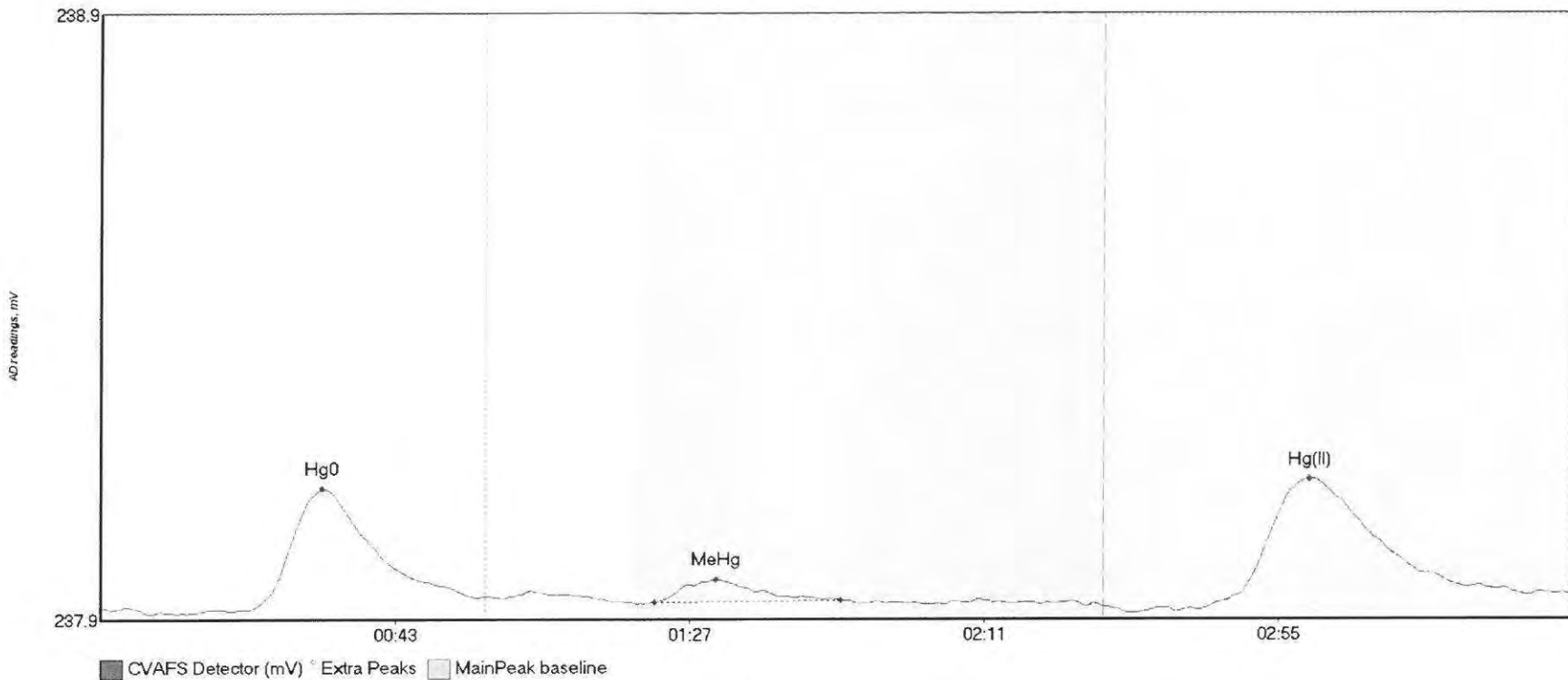
#21: SEQ-CCV1



21

Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
SEQ-CCV1 Hg0	895.402	21.7	57.5	237.93	238.32	34.2	7.327	CT	237.9380	0.00	0.05	
SEQ-CCV1 MeHg	247.592	81.3	126.8	238.03	238.01	91.3	1.861	OK	237.9380	0.00	0.05	
SEQ-CCV1 Hg(II)	152.687	165.7	219.8	237.99	237.99	181.1	0.832	CT	237.9380	0.00	0.05	

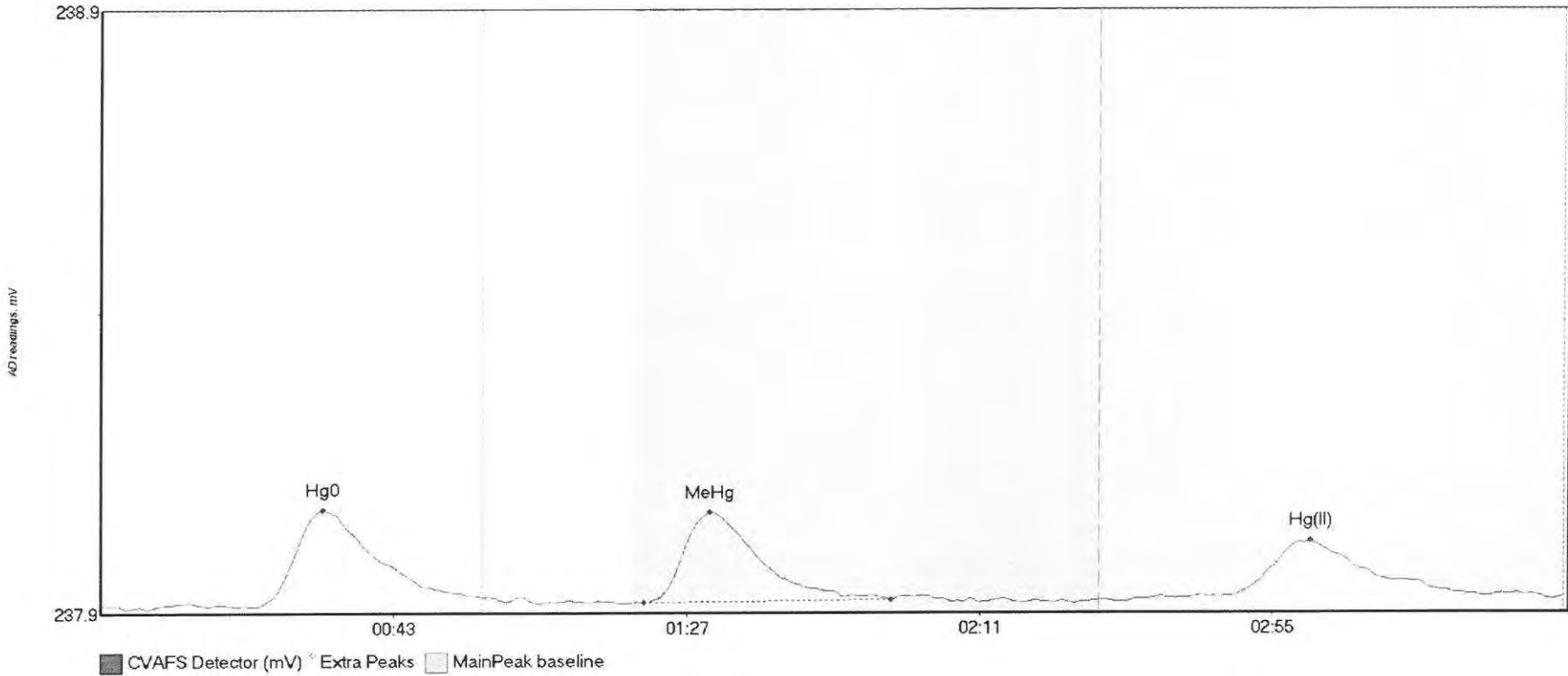
#22: SEQ-CCB1



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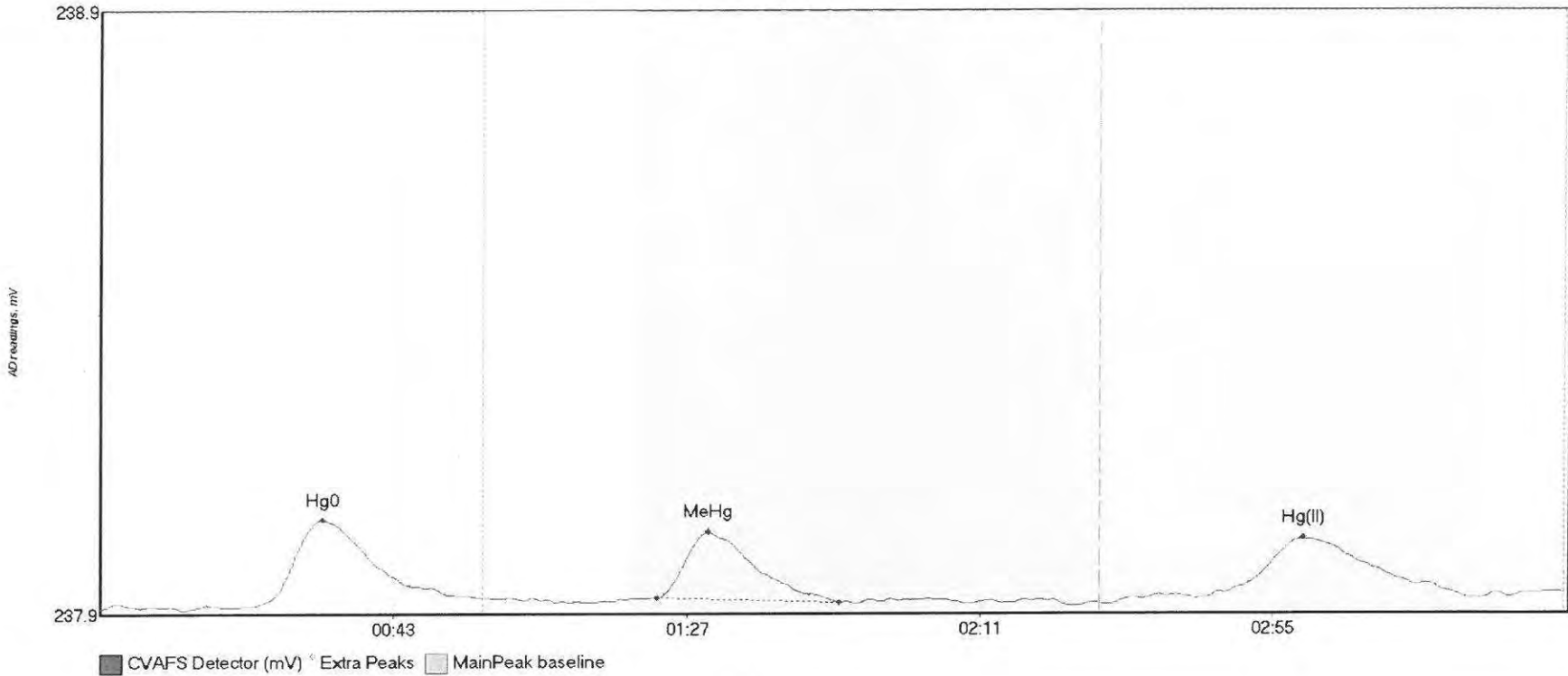
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
SEQ-CCB1 Hg0	26.165	22.2	56.0	237.91	237.93	33.1	0.200	OK	237.9155	0.00	0.02	
SEQ-CCB1 MeHg	4.690	82.7	110.6	237.92	237.93	92.0	0.038	OK	237.9155	0.00	0.02	
SEQ-CCB1 Hg(II)	38.717	163.9	213.8	237.91	237.94	180.6	0.217	OK	237.9155	0.00	0.02	

#23: 1607339-01RE2



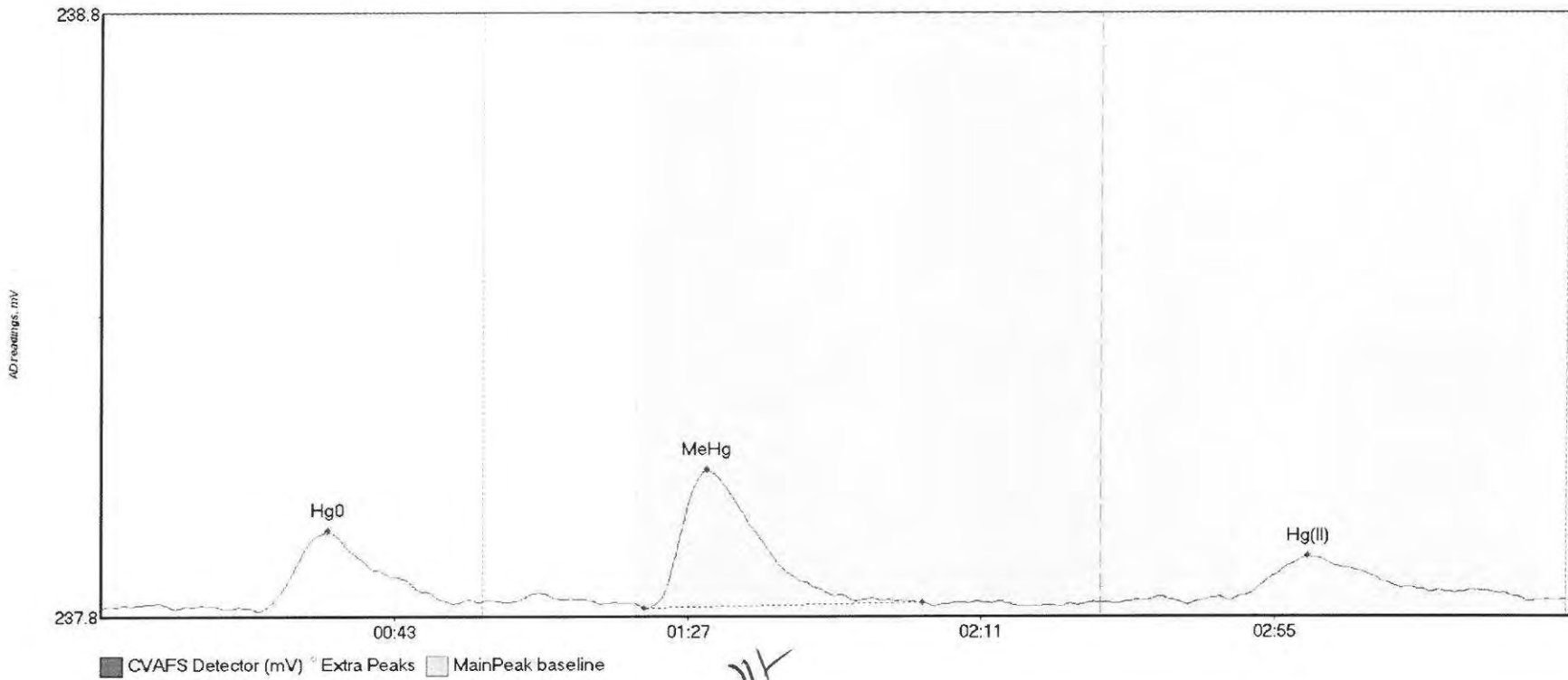
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1607339-01RE2 H	20.924	23.5	57.5	237.90	237.91	33.4	0.161	CT	237.8981	0.00	0.01	
1607339-01RE2 M	19.445	81.6	118.7	237.90	237.91	91.4	0.151	OK	237.8981	0.00	0.01	
1607339-01RE2 H	16.319	164.0	218.2	237.91	237.91	181.7	0.092	OK	237.8981	0.00	0.01	

#24: 1607339-02RE2



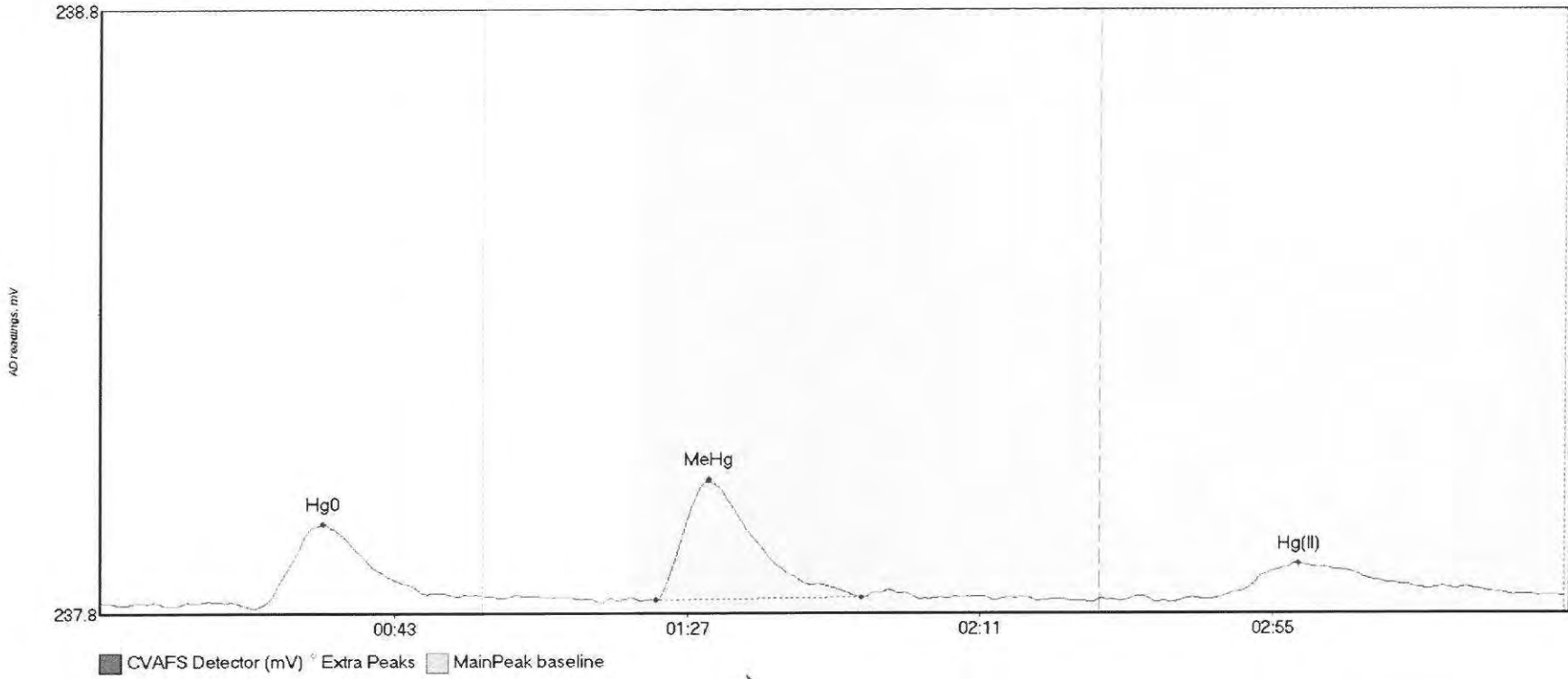
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1607339-02RE2 H	18.400	22.3	57.0	237.88	237.89	33.4	0.145	OK	237.8740	0.00	0.03	
1607339-02RE2 M	13.268	83.5	110.9	237.89	237.88	91.1	0.109	OK	237.8740	0.00	0.03	
1607339-02RE2 H	20.864	151.5	207.0	237.88	237.89	180.6	0.109	OK	237.8740	0.00	0.03	

#25: 1607380-01RE2



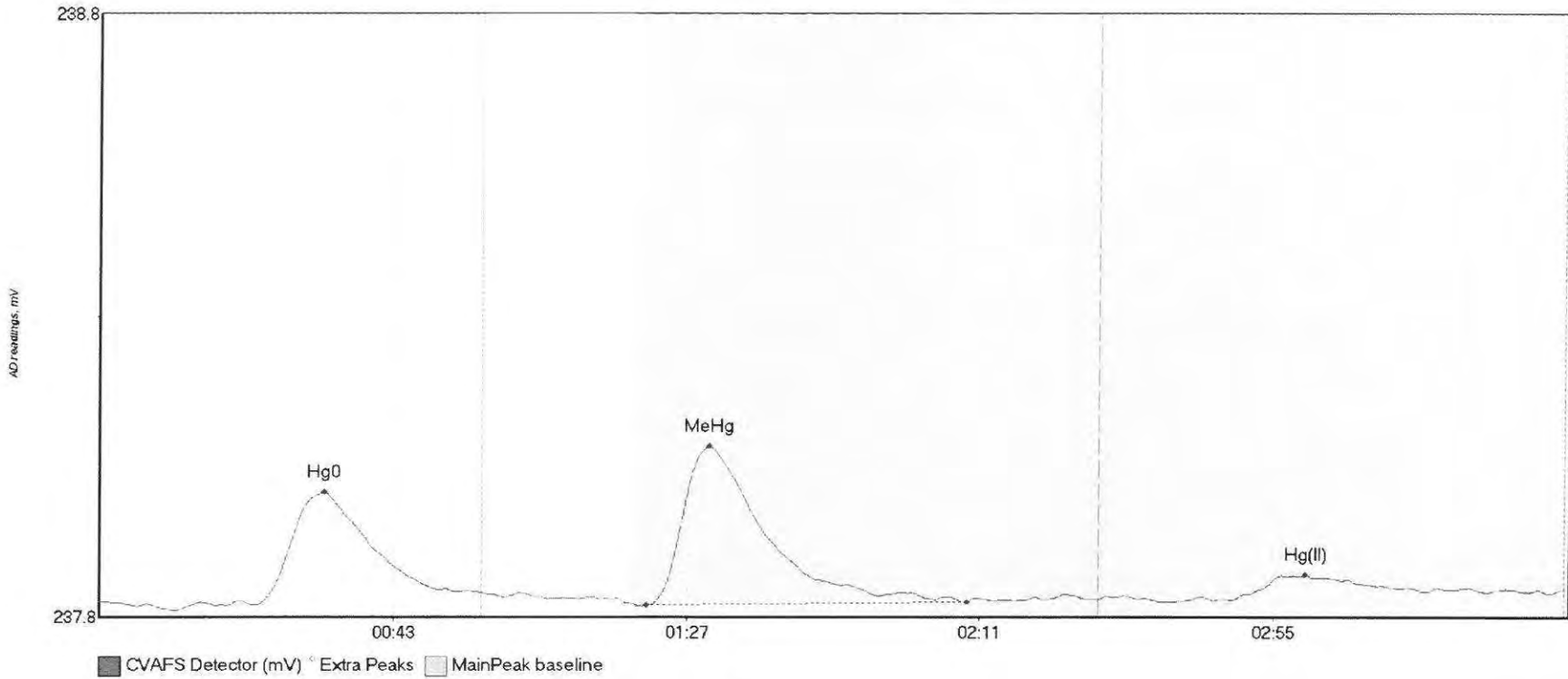
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1607380-01RE2 H	17.021	23.7	53.1	237.86	237.87	34.0	0.131	OK	237.8622	0.00	0.01	
1607380-01RE2 M	30.393	81.5	123.3	237.86	237.87	90.8	0.231	OK	237.8622	0.00	0.01	
1607380-01RE2 H	14.362	169.3	214.2	237.87	237.87	181.0	0.073	OK	237.8622	0.00	0.01	

#26: 1607380-03RE2



Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1607380-03RE2 H	16.793	22.9	53.3	237.84	237.86	33.3	0.140	OK	237.8447	0.00	0.01	
1607380-03RE2 M	24.253	83.3	114.1	237.85	237.85	91.1	0.199	OK	237.8447	0.00	0.01	
1607380-03RE2 H	12.451	166.8	219.3	237.85	237.86	179.9	0.059	OK	237.8447	0.00	0.01	

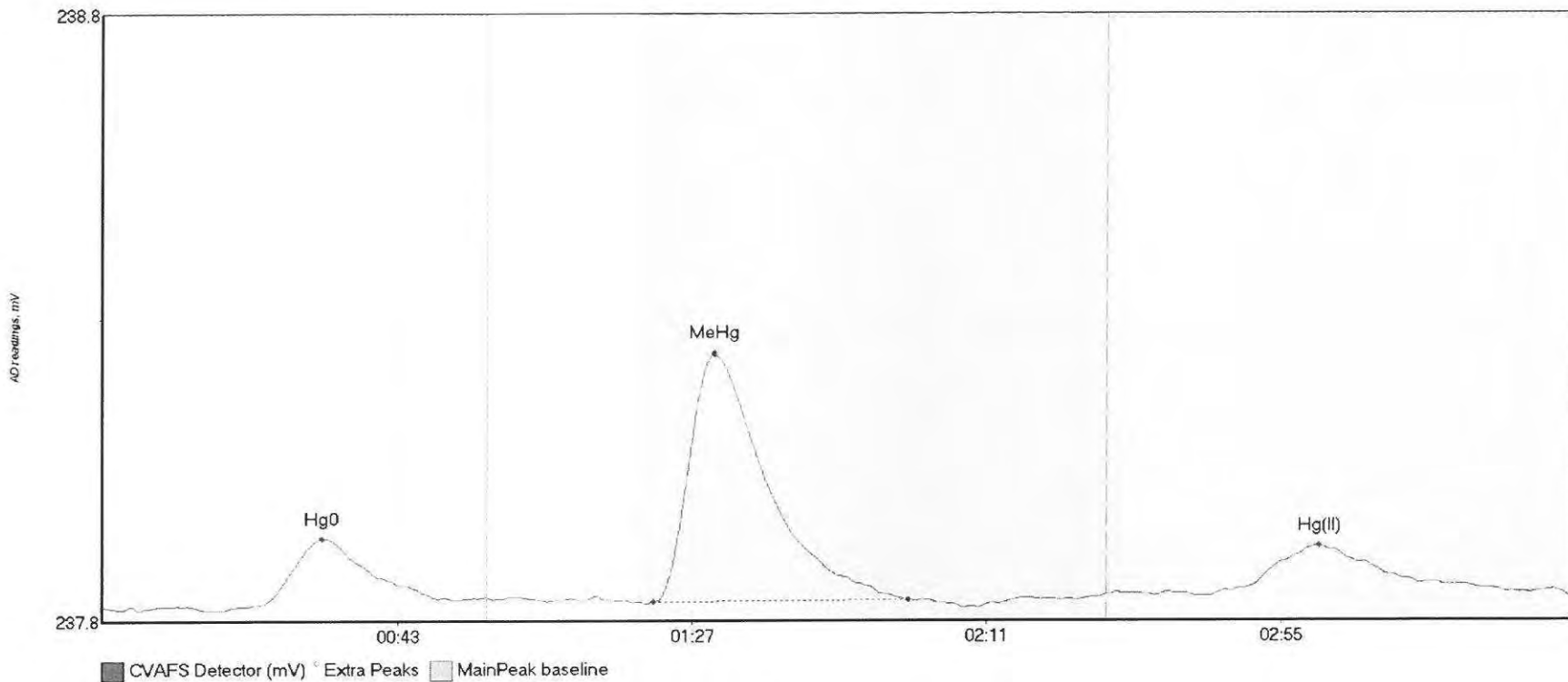
#27: 1607380-05RE2



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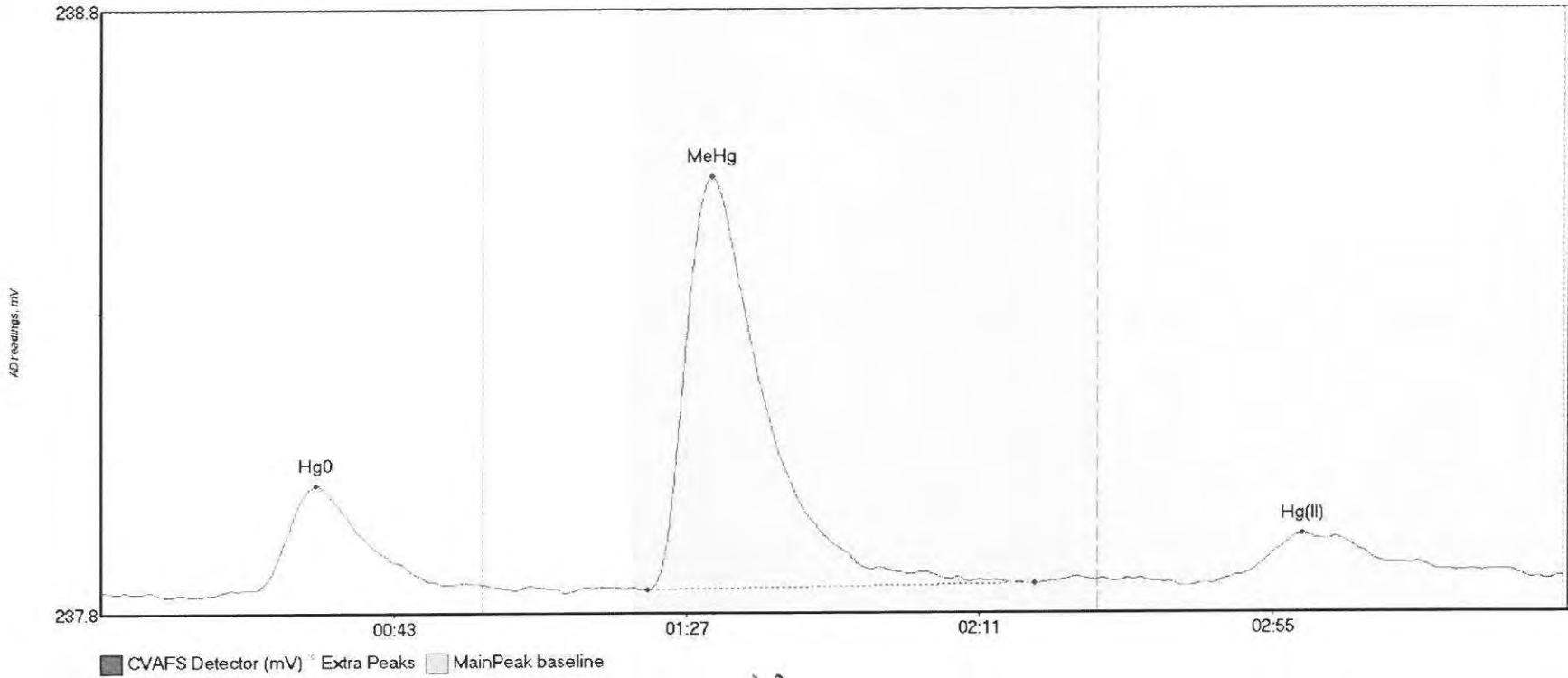
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1607380-05RE2 H	23.711	23.4	57.5	237.82	237.84	33.6	0.187	CT	237.8269	0.00	0.02	
1607380-05RE2 M	37.657	82.0	130.1	237.82	237.83	91.3	0.265	OK	237.8269	0.00	0.02	
1607380-05RE2 H	8.093	169.8	217.6	237.83	237.84	180.9	0.042	OK	237.8269	0.00	0.02	

#28: 1607380-07RE2



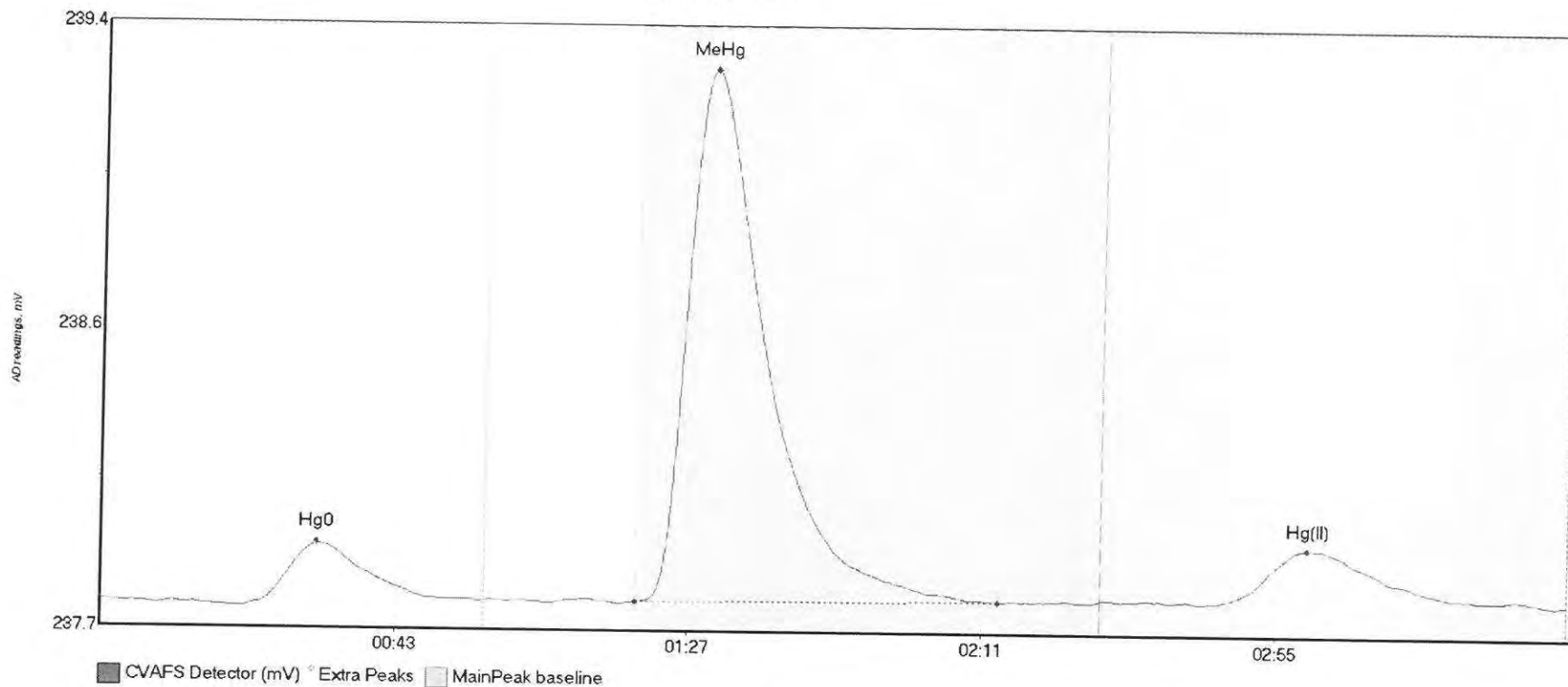
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1607380-07RE2 H	13.344	23.5	52.5	237.81	237.82	32.7	0.111	OK	237.8051	0.00	0.02	
1607380-07RE2 M	54.241	82.3	120.3	237.81	237.82	91.3	0.409	OK	237.8051	0.00	0.02	
1607380-07RE2 H	12.766	168.6	209.9	237.83	237.83	181.7	0.075	OK	237.8051	0.00	0.02	

#29: 1607380-09RE2



Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1607380-09RE2 H	20.939	23.3	52.1	237.80	237.81	32.3	0.174	OK	237.7971	0.00	0.02	
1607380-09RE2 M	93.257	82.2	140.4	237.80	237.81	91.7	0.685	OK	237.7971	0.00	0.02	
1607380-09RE2 H	13.968	169.4	214.8	237.82	237.82	180.5	0.072	OK	237.7971	0.00	0.02	

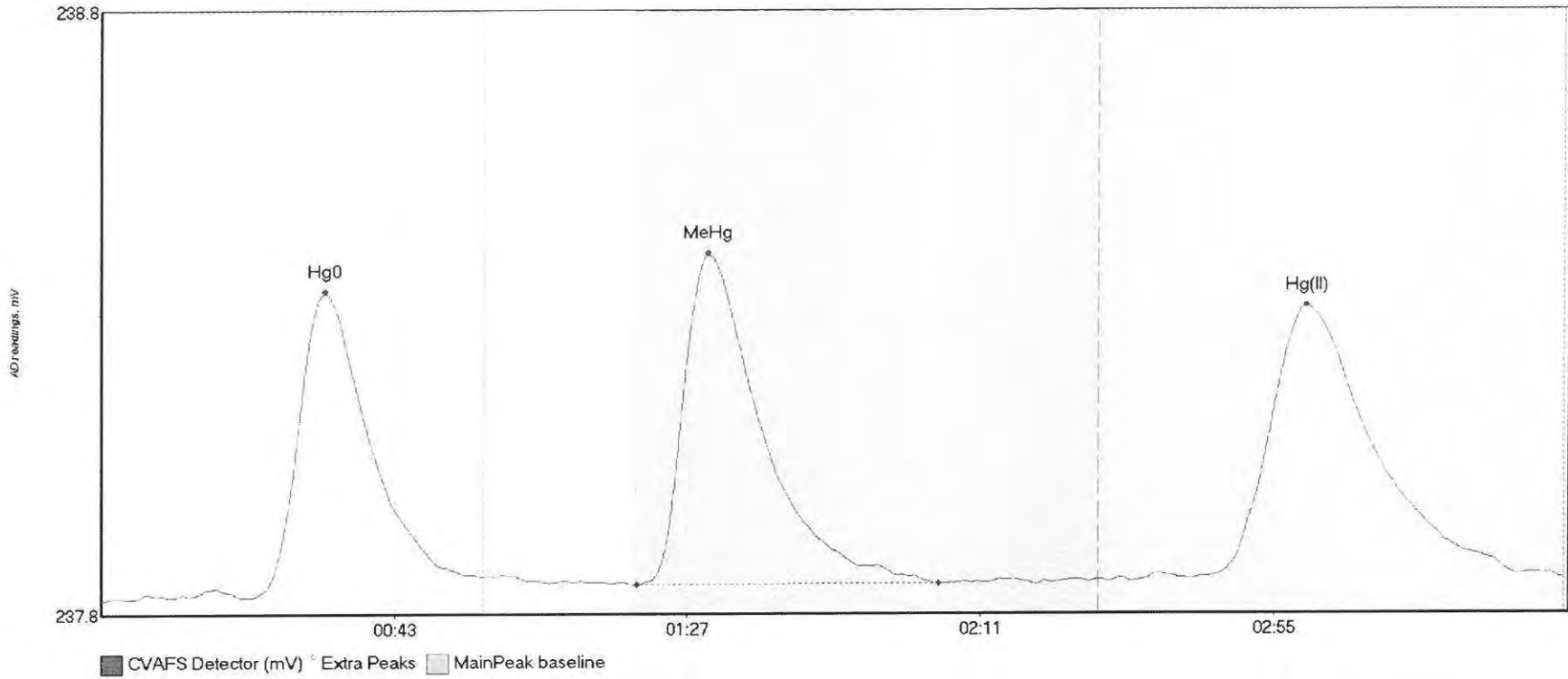
#30: 1607380-13RE2



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Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1607380-13RE2 H	22.044	21.1	56.2	237.78	237.80	32.3	0.174	OK	237.7935	0.00	0.02	
1607380-13RE2 M	198.699	80.1	134.5	237.80	237.80	91.4	1.468	OK	237.7935	0.00	0.02	
1607380-13RE2 H	25.798	166.6	206.4	237.81	237.82	180.8	0.151	OK	237.7935	0.00	0.02	

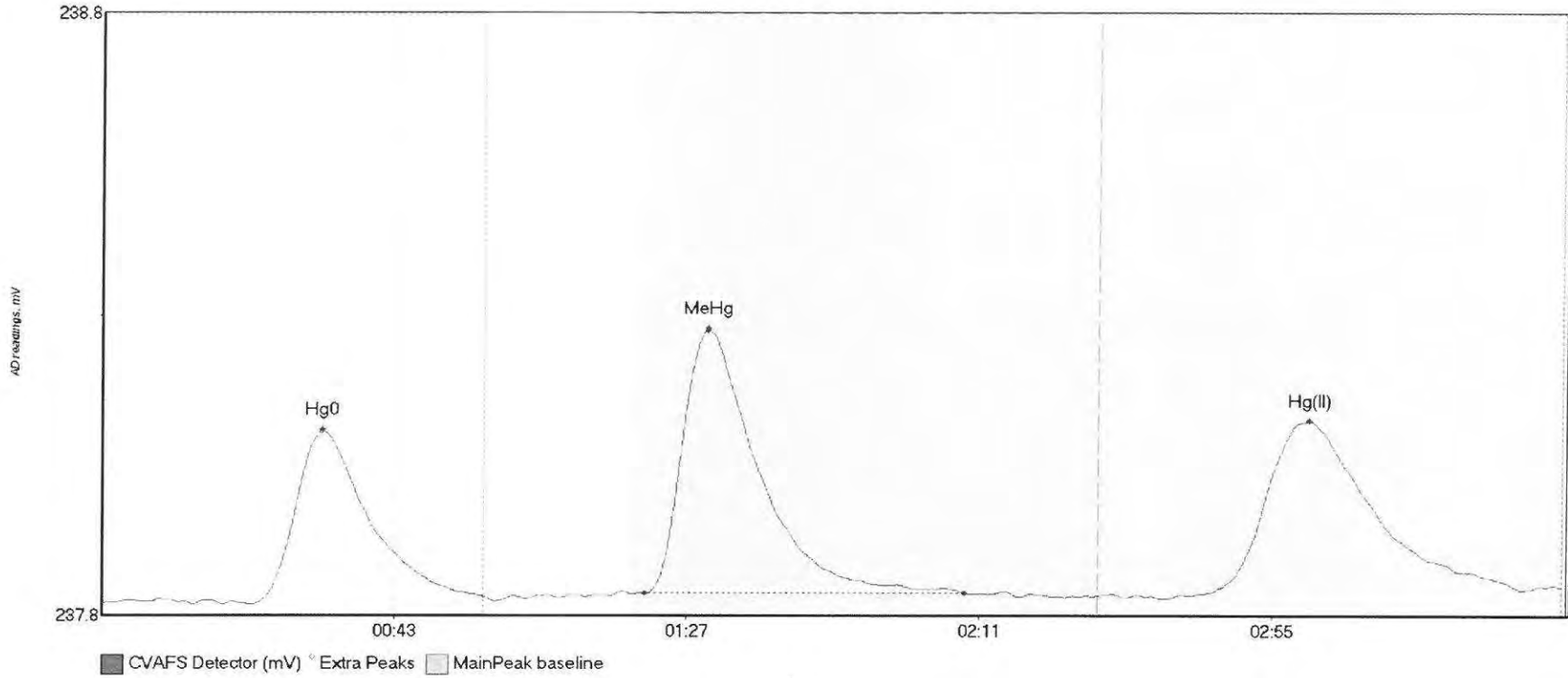
#31: 1607586-01RE2



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Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1607586-01RE2 H	58.510	10.3	57.2	237.78	237.81	33.6	0.506	OK	237.7735	0.00	0.04	
1607586-01RE2 M	74.422	80.4	125.7	237.80	237.80	91.2	0.550	OK	237.7735	0.00	0.04	
1607586-01RE2 H	81.147	165.3	219.8	237.81	237.81	180.9	0.450	CT	237.7735	0.00	0.04	

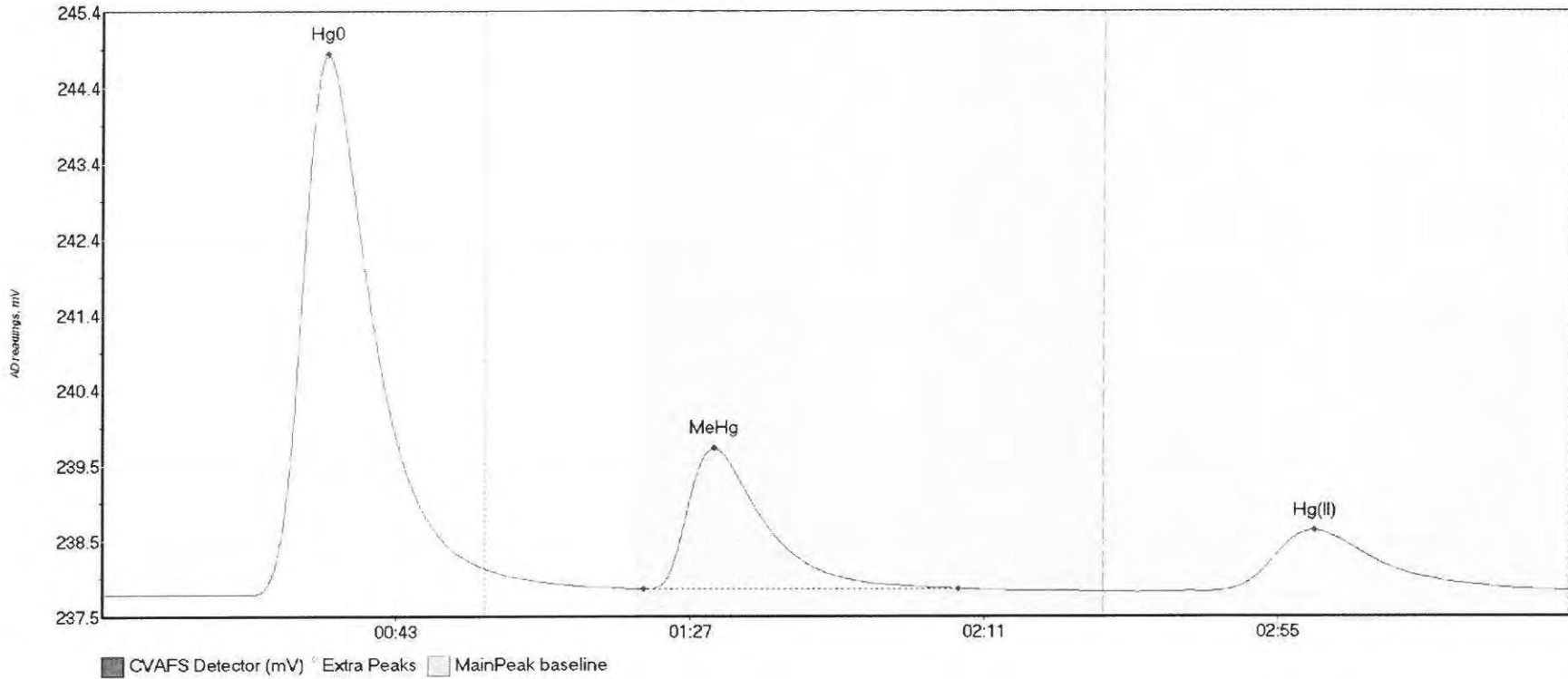
#32: 1607586-02RE2



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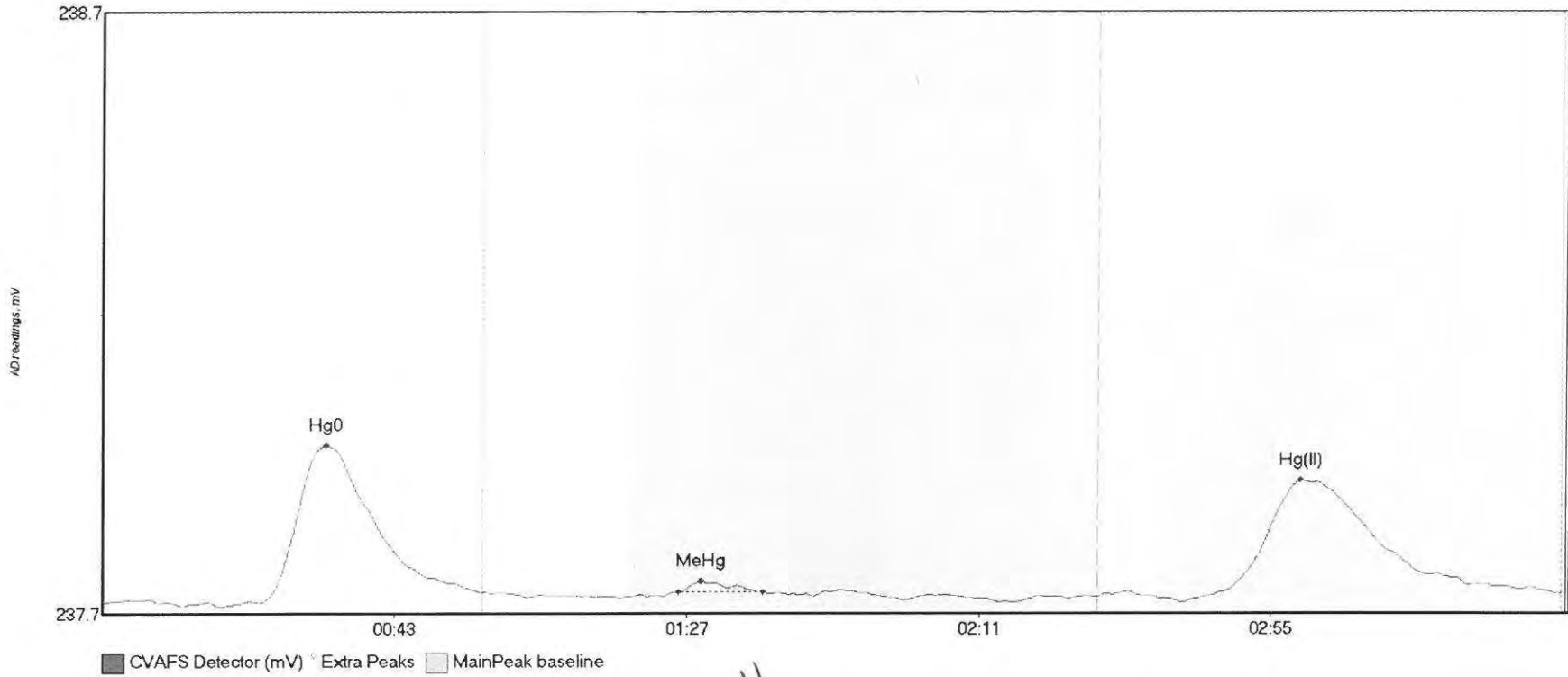
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1607586-02RE2 H	35.603	22.6	57.5	237.77	237.78	33.3	0.289	CT	237.7727	0.00	0.03	
1607586-02RE2 M	57.608	81.7	129.7	237.79	237.79	91.1	0.437	OK	237.7727	0.00	0.03	
1607586-02RE2 H	51.862	166.6	213.8	237.79	237.79	181.5	0.286	OK	237.7727	0.00	0.03	

#33: SEQ-CCV2



Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
SEQ-CCV2 Hg0	837.263	22.2	57.5	237.75	238.09	33.7	7.093	CT	237.7595	0.00	0.05	
SEQ-CCV2 MeHg	246.505	81.0	128.2	237.83	237.83	91.6	1.851	OK	237.7595	0.00	0.05	
SEQ-CCV2 Hg(II)	144.979	165.6	219.8	237.80	237.81	181.4	0.800	CT	237.7595	0.00	0.05	

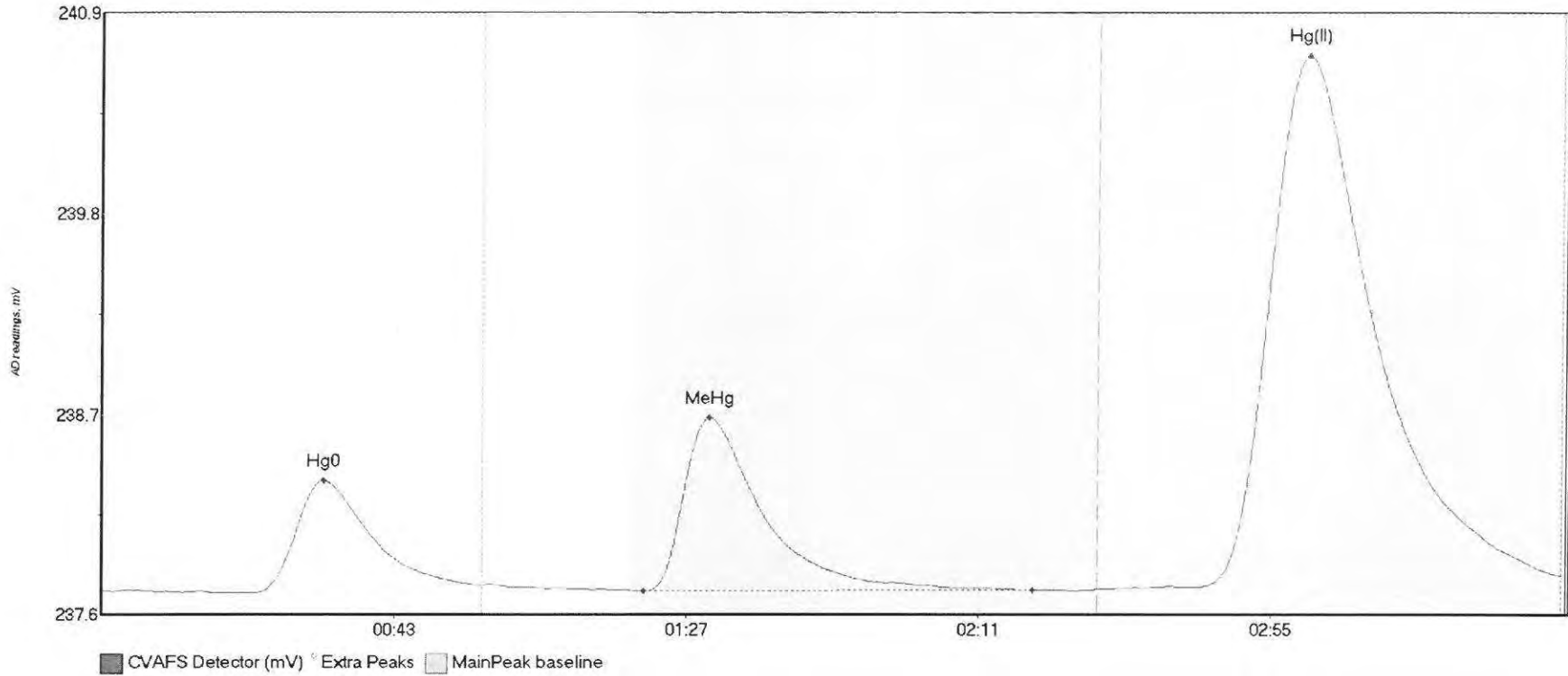
#34: SEQ-CCB2



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Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
SEQ-CCB2 Hg0	33.454	23.6	57.3	237.74	237.76	33.7	0.262	OK	237.7408	0.00	0.01	
SEQ-CCB2 MeHg	1.199	86.8	99.4	237.76	237.76	90.1	0.017	OK	237.7408	0.00	0.01	
SEQ-CCB2 Hg(II)	35.521	167.0	218.9	237.75	237.76	180.4	0.191	OK	237.7408	0.00	0.01	

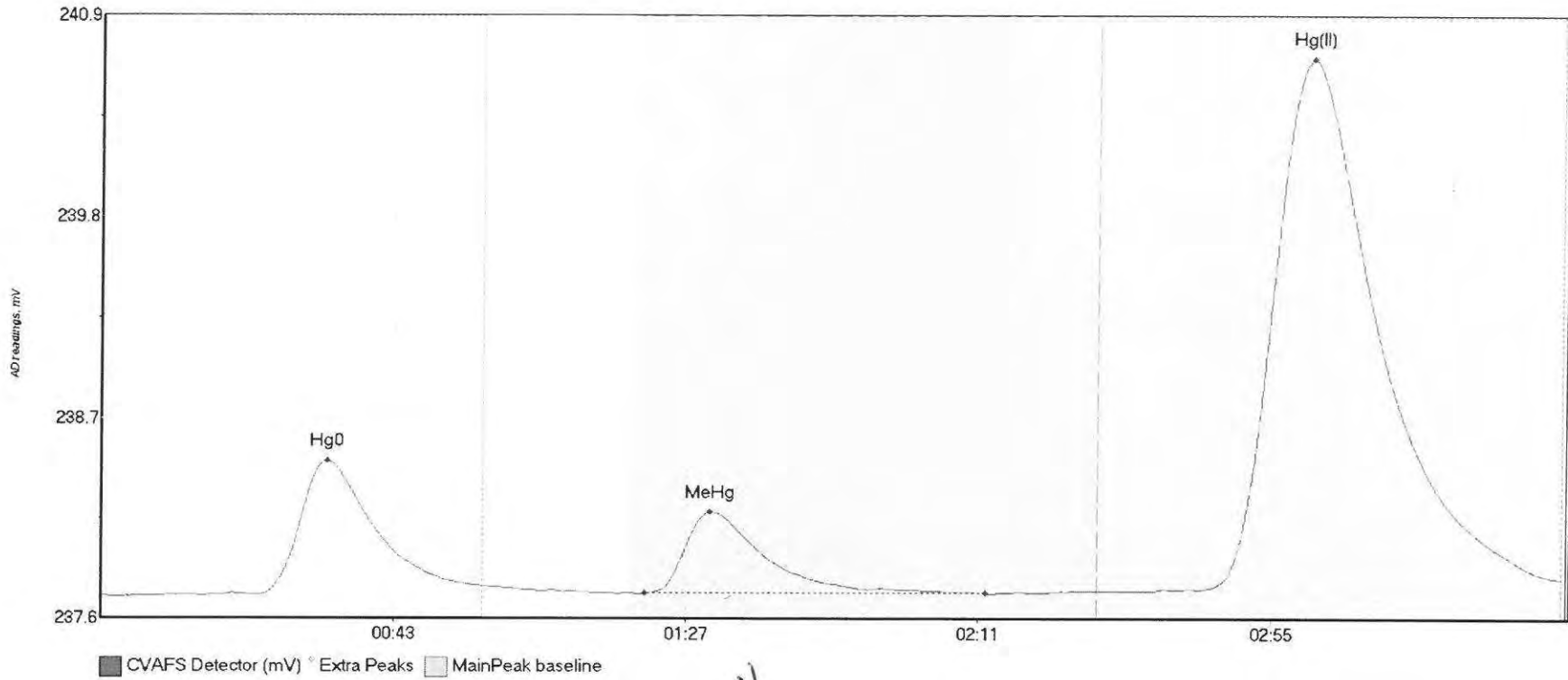
#35: 1607586-03RE2



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Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1607586-03RE2 H	77.318	22.9	56.9	237.72	237.76	33.3	0.621	OK	237.7321	0.00	0.09	
1607586-03RE2 M	131.900	81.6	140.1	237.73	237.74	91.5	0.957	OK	237.7321	0.00	0.09	
1607586-03RE2 H	527.773	154.5	219.8	237.75	237.82	181.6	2.931	CT	237.7321	0.00	0.09	

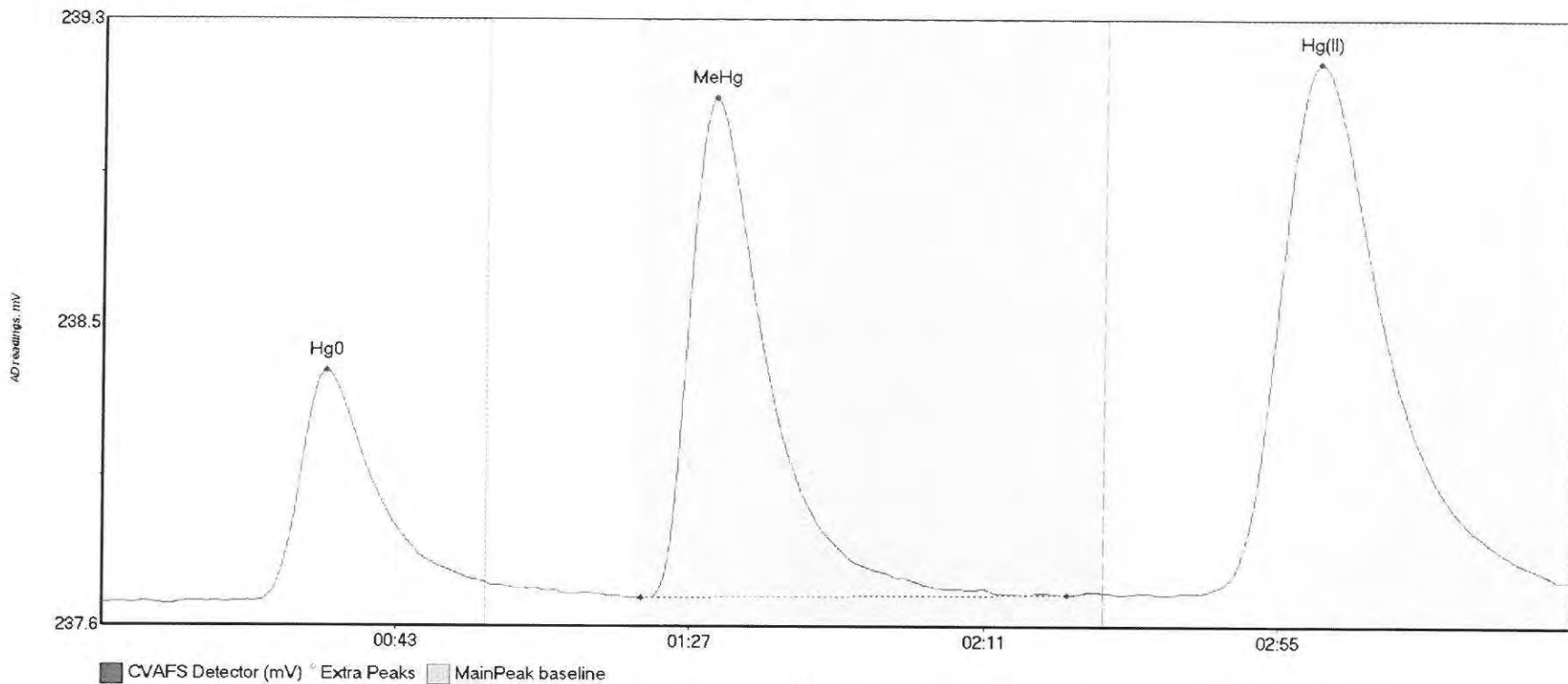
#36: 1607586-04RE2



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Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1607586-04RE2 H	87.715	16.6	57.5	237.72	237.77	34.0	0.729	CT	237.7128	0.00	0.10	
1607586-04RE2 M	61.130	81.9	133.2	237.73	237.73	91.6	0.443	OK	237.7128	0.00	0.10	
1607586-04RE2 H	519.035	157.9	219.8	237.74	237.81	182.0	2.891	CT	237.7128	0.00	0.10	

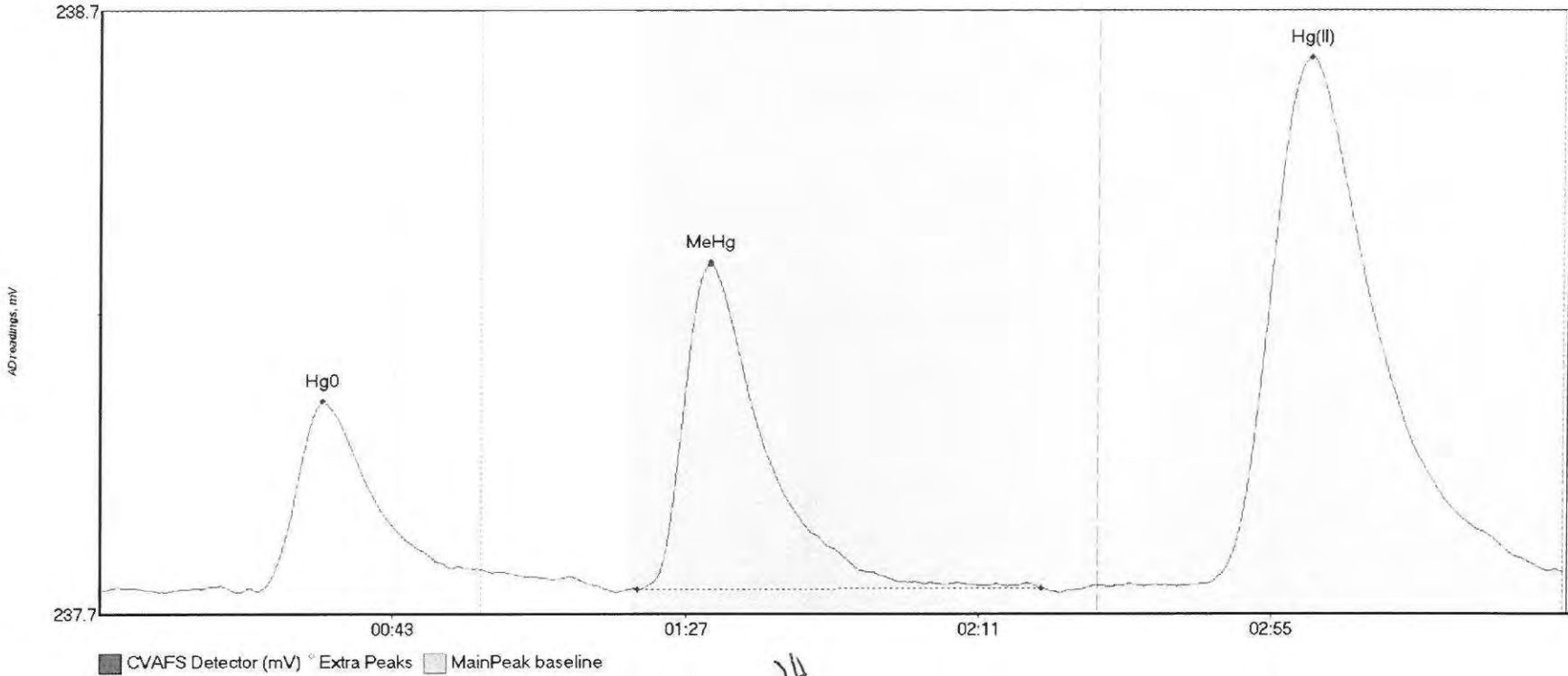
#37: 1607586-05RE2



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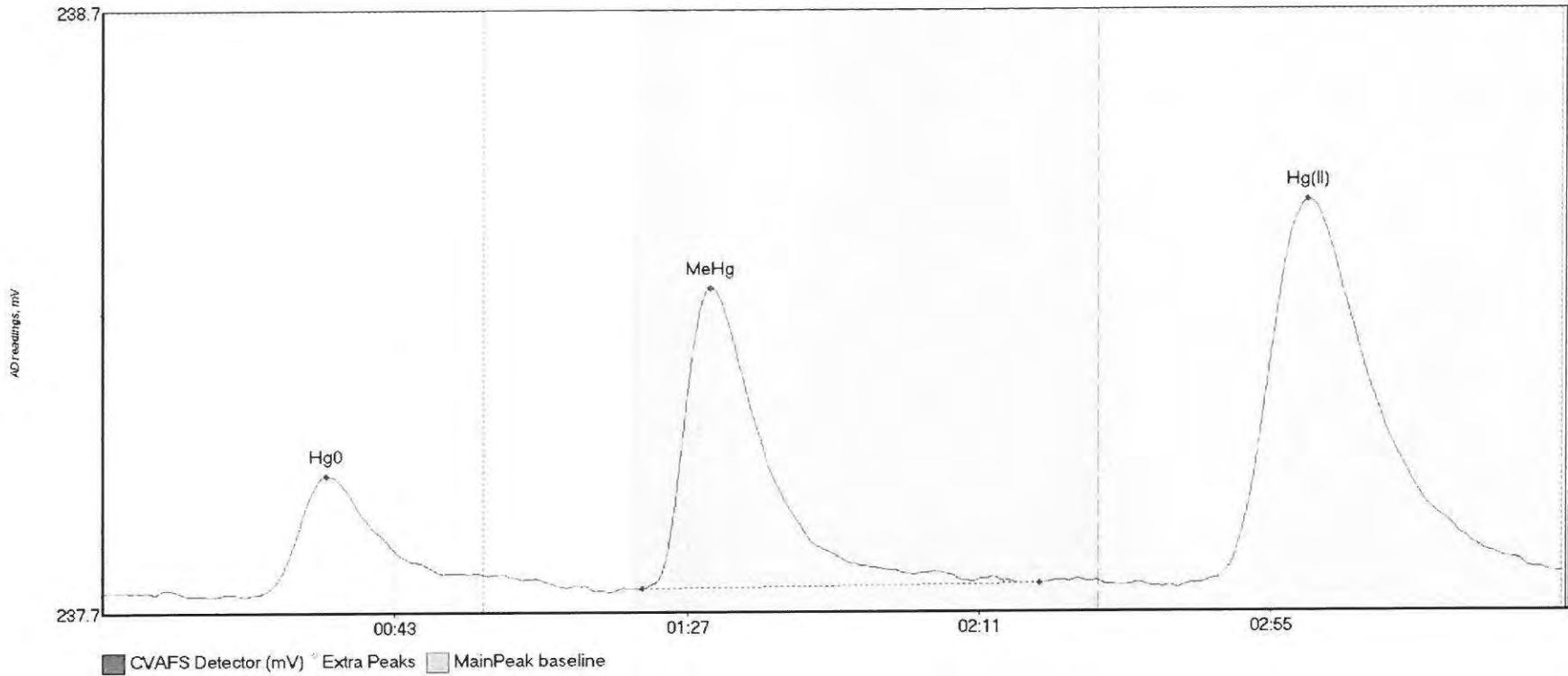
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1607586-05RE2 H	74.321	18.7	57.5	237.71	237.76	33.6	0.620	CT	237.7053	0.00	0.06	
1607586-05RE2 M	181.217	80.7	144.4	237.72	237.73	91.6	1.339	OK	237.7053	0.00	0.06	
1607586-05RE2 H	254.123	164.4	218.9	237.73	237.77	181.8	1.419	OK	237.7053	0.00	0.06	

#38: 1607586-06RE2



Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1607586-06RE2 H	37.853	23.7	57.5	237.70	237.74	33.5	0.315	CT	237.7027	0.00	0.03	
1607586-06RE2 M	74.788	80.8	141.5	237.70	237.71	91.6	0.539	OK	237.7027	0.00	0.03	
1607586-06RE2 H	157.022	166.5	219.8	237.71	237.73	181.9	0.872	CT	237.7027	0.00	0.03	

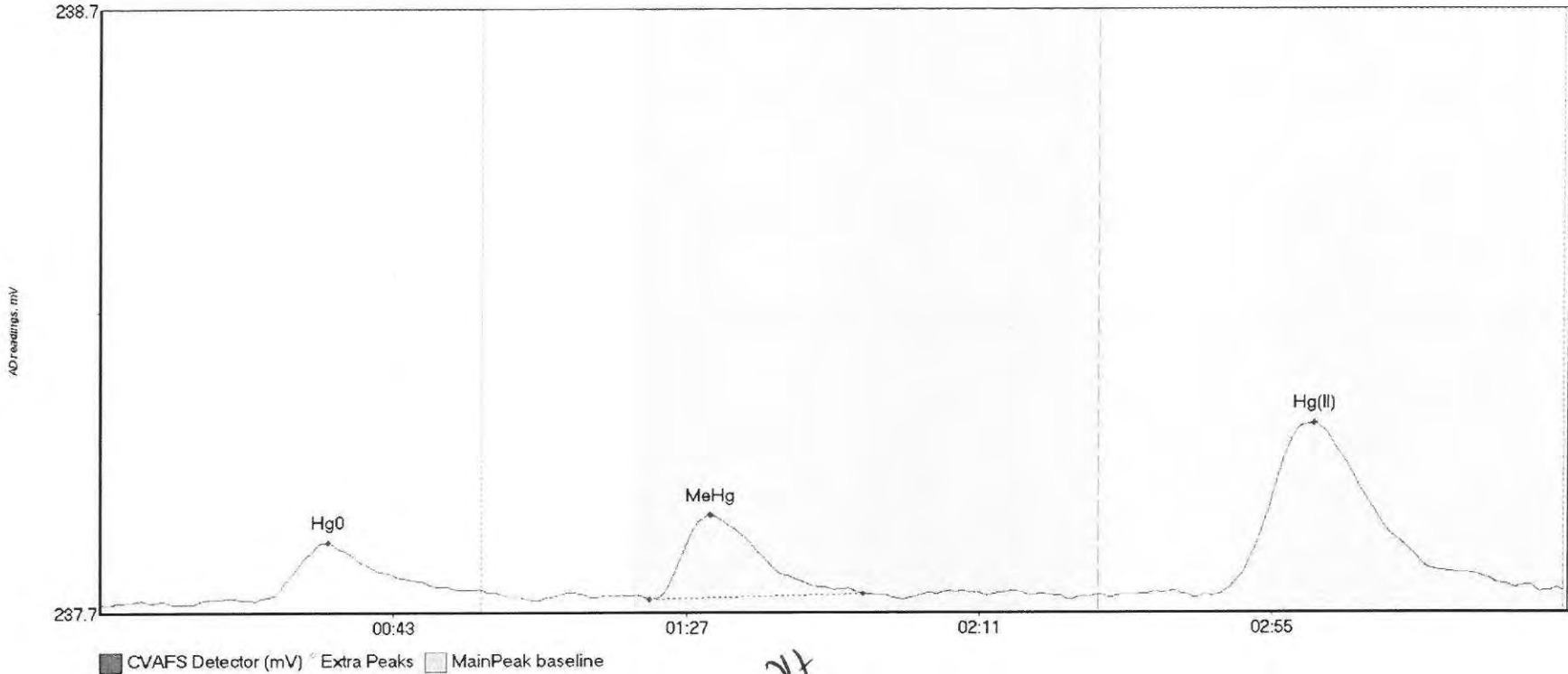
#39: 1607586-07RE1



JH

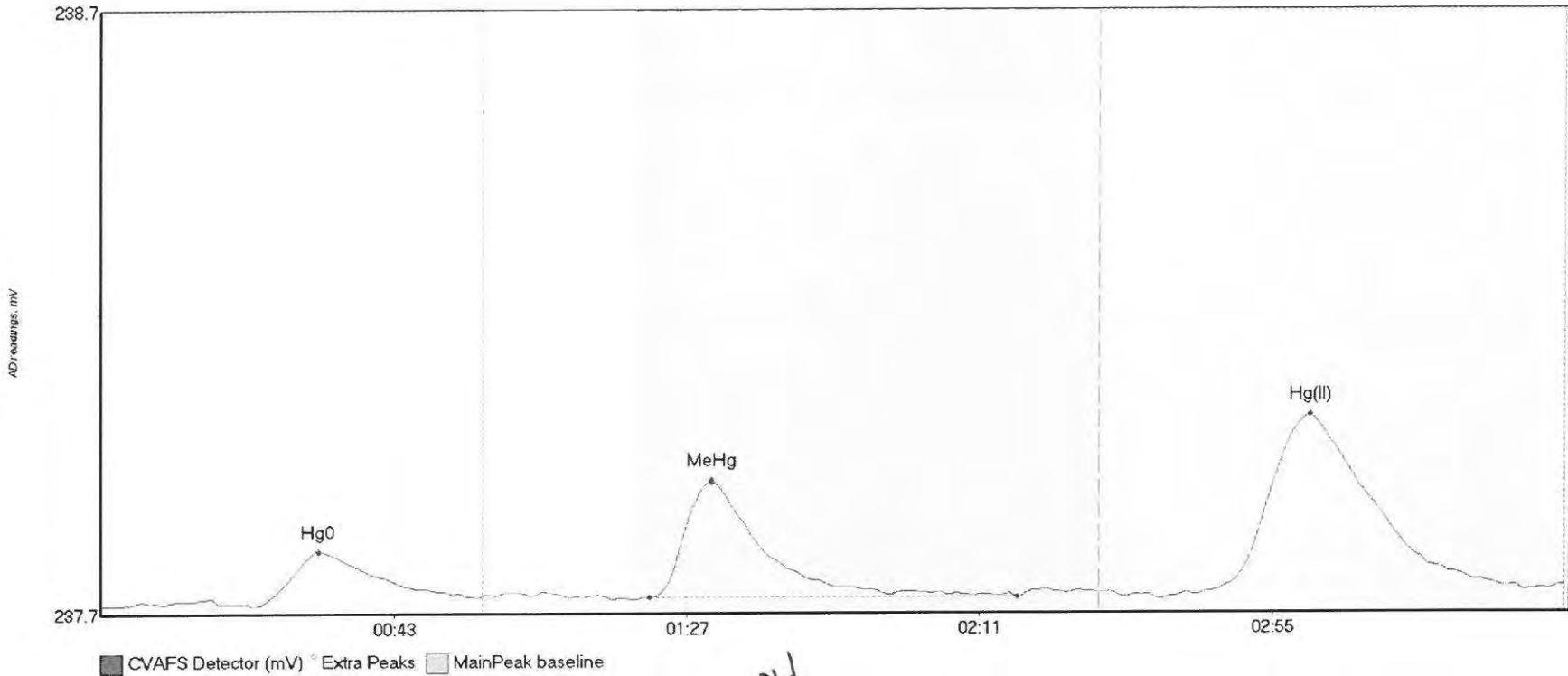
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1607586-07RE1 H	23.807	23.2	57.5	237.68	237.71	33.7	0.197	CT	237.6873	0.00	0.03	
1607586-07RE1 M	70.207	81.2	141.0	237.69	237.70	91.4	0.501	OK	237.6873	0.00	0.03	
1607586-07RE1 H	114.816	165.4	219.8	237.70	237.72	181.6	0.637	CT	237.6873	0.00	0.03	

#40: 1607586-08RE1



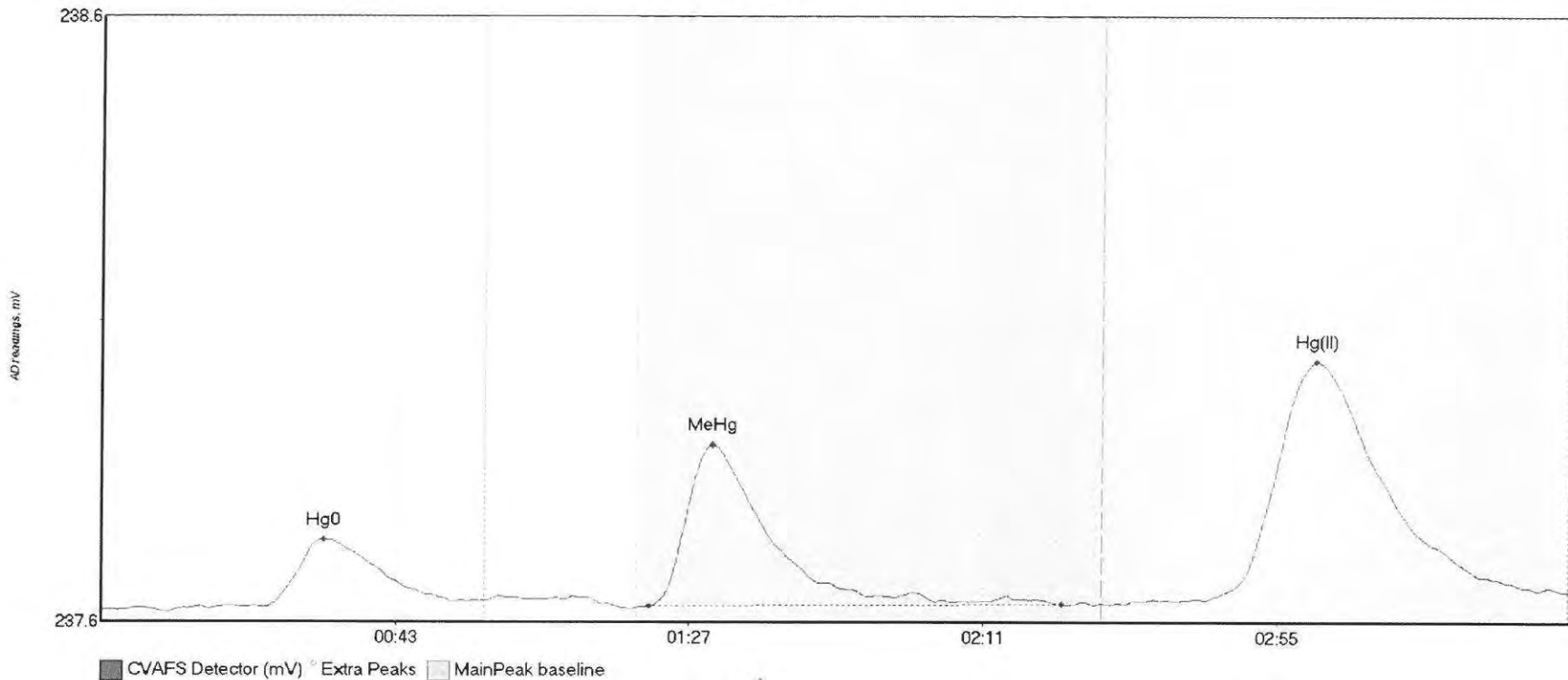
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1607586-08RE1 H	12.309	13.8	54.3	237.68	237.70	34.2	0.103	OK	237.6780	0.00	0.02	
1607586-08RE1 M	82.5	114.6	114.6	237.69	237.70	91.6	0.141	OK	237.6780	0.00	0.02	
1607586-08RE1 H	51.020	167.1	216.4	237.69	237.70	182.5	0.285	OK	237.6780	0.00	0.02	

#41: 1607586-09RE1



Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1607586-09RE1 H	12.293	22.9	56.5	237.67	237.69	32.6	0.091	OK	237.6739	0.00	0.03	
1607586-09RE1 M	26.226	82.5	137.7	237.69	237.69	91.8	0.192	OK	237.6739	0.00	0.03	
1607586-09RE1 H	50.533	166.7	213.8	237.70	237.70	181.7	0.292	OK	237.6739	0.00	0.03	

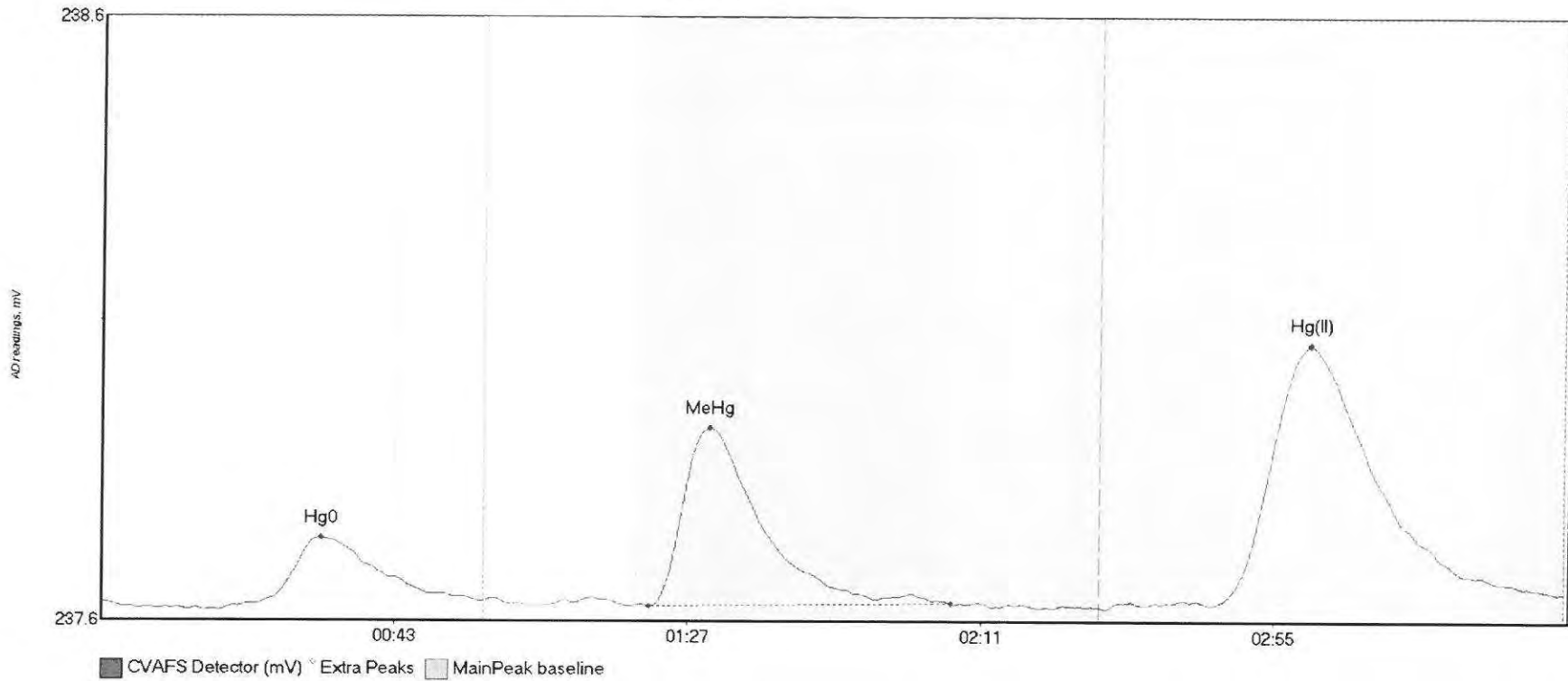
#42: 1607586-11RE1



JH

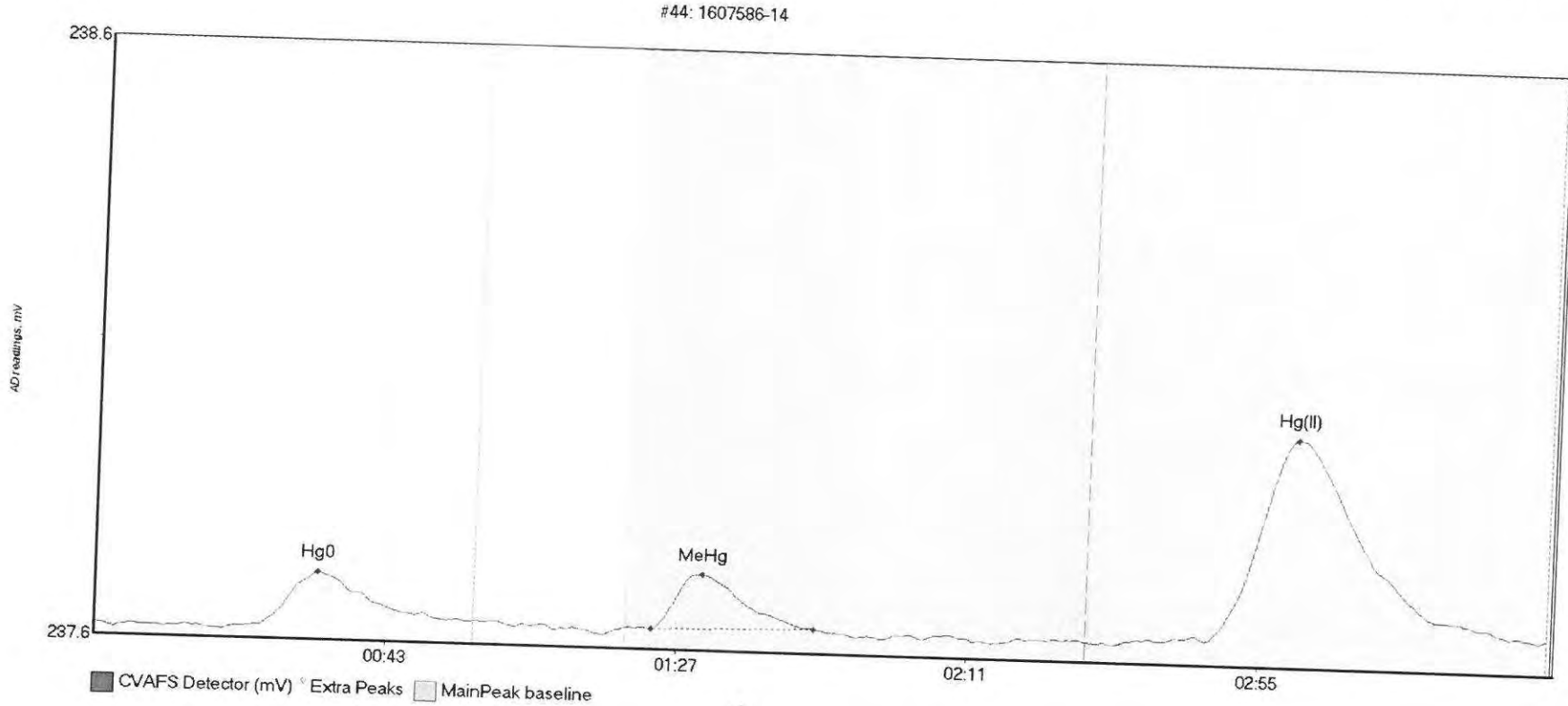
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1607586-11RE1 H	14.201	24.4	52.8	237.67	237.68	33.3	0.112	OK	237.6679	0.00	0.03	
1607586-11RE1 M	38.341	82.2	143.9	237.67	237.68	91.5	0.267	OK	237.6679	0.00	0.03	
1607586-11RE1 H	71.338	160.9	219.8	237.68	237.70	181.8	0.397	CT	237.6679	0.00	0.03	

#43: 1607586-13RE1



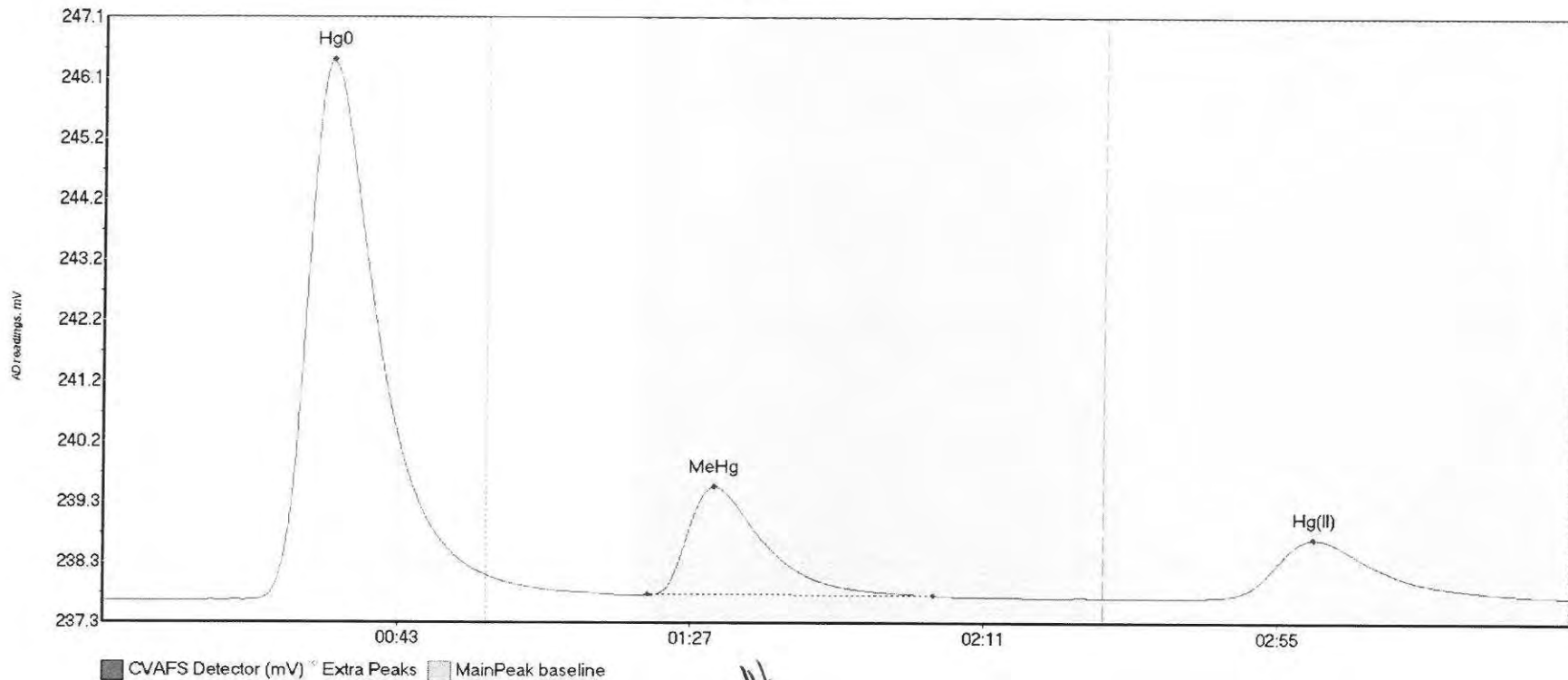
JH

Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	B1Dev	B1Shift	Comment
1607586-13RE1 H	14.961	23.4	56.9	237.67	237.67	33.0	0.109	OK	237.6698	0.00	0.02	
1607586-13RE1 M	40.381	82.2	127.4	237.66	237.67	91.3	0.295	OK	237.6698	0.00	0.02	
1607586-13RE1 H	76.000	166.8	218.9	237.66	237.68	181.5	0.432	OK	237.6698	0.00	0.02	



Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1607586-14 Hg0	11.039	24.7	56.2	237.65	237.67	33.6	0.090	OK	237.6512	0.00	0.04	
1607586-14 MeHg	10.413	84.1	108.8	237.66	237.67	91.7	0.093	OK	237.6512	0.00	0.04	
1607586-14 Hg(I)	60.419	156.6	218.4	237.67	237.68	181.4	0.344	OK	237.6512	0.00	0.04	

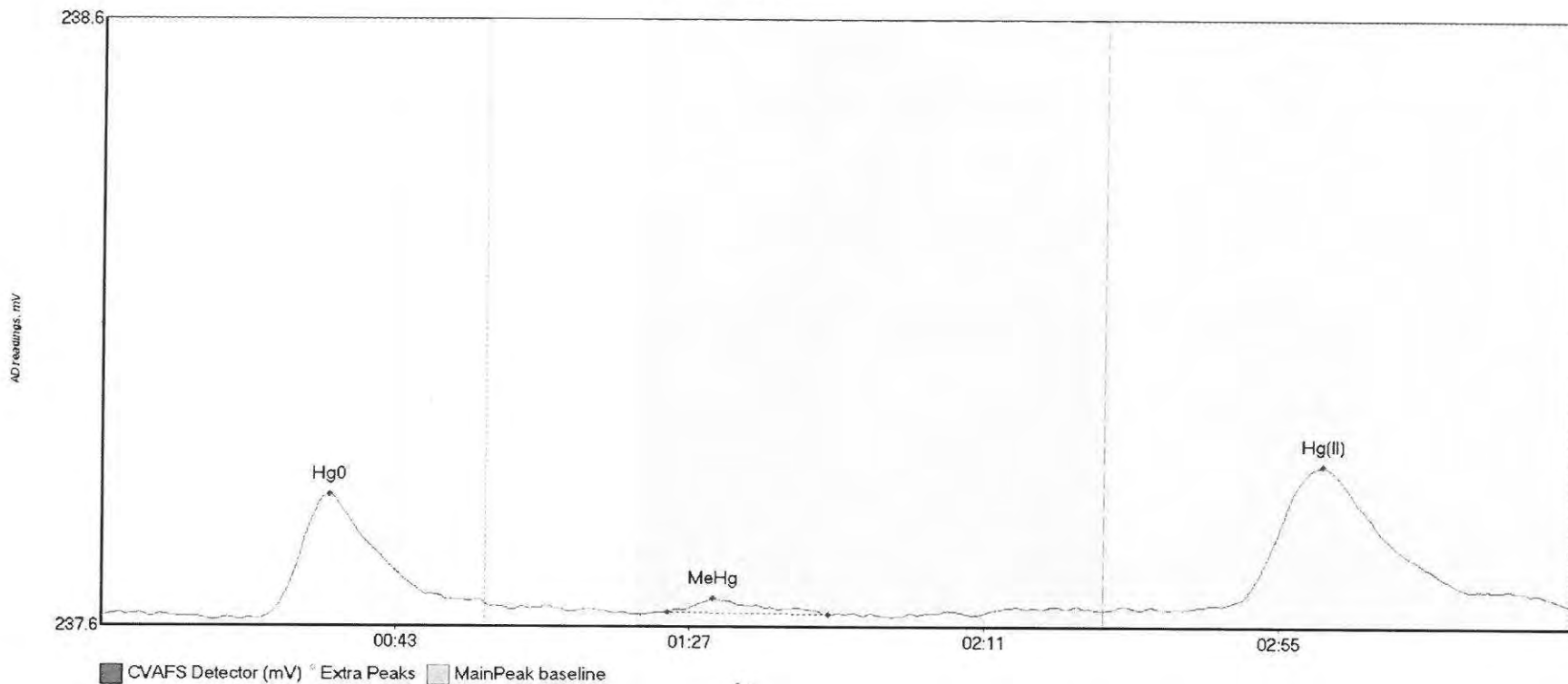
#45: SEQ-CCV3



JH

Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
SEQ-CCV3 Hg0	1024.077	21.2	57.5	237.65	238.05	34.1	8.771	CT	237.6493	0.00	0.06	
SEQ-CCV3 MeHg	230.514	81.8	124.4	237.74	237.73	91.5	1.767	OK	237.6493	0.00	0.06	
SEQ-CCV3 Hg(II)	170.508	165.3	219.8	237.70	237.71	181.5	0.953	CT	237.6493	0.00	0.06	

#46: SEQ-CCB3



JA

Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
SEQ-CCB3 Hg0	24.835	23.3	57.5	237.64	237.67	34.2	0.205	CT	237.6457	0.00	0.02	
SEQ-CCB3 MeHg	2.877	84.7	108.7	237.65	237.65	91.6	0.023	OK	237.6457	0.00	0.02	
SEQ-CCB3 Hg(II)	43.488	164.6	219.8	237.66	237.67	182.5	0.233	CT	237.6457	0.00	0.02	

Peer Review Check List for MHg for CV-GC-AFS (FGS-070) 2015 Rev 5 (08/06/2015)

Analyst: Ryan Nelson	Sequence #: 6H11011
Reviewer: Jeanne Hanel	Dataset ID #: MHg27001-160811-1
Date:	WO #:
Batch #(s): F608251	Client(s):

• Select the correct preparation method.

Additional Comments:

Analyte	Prep Method	Matrix
<input checked="" type="checkbox"/> MHg	FGS-013 MHg Distillation	Water
<input type="checkbox"/> MHg	FGS-010 KOH/MeOH Digest	Tissue
<input type="checkbox"/> MHg	FGS-045 MeCl Extraction	Sed/Soil
<input type="checkbox"/> DMHg	FGS-098 (None Accredited method)	ALL

1607586-04REZ not reportable, needs to be re-distilled. JH 8/11/14

Analyst Initials:

Reviewer Initials:

1. Compare Sample ID with Bench sheet/Sequence/Raw Data (Have all samples been imported?)	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> NO	<input checked="" type="checkbox"/>
2. Check for transcription errors from Excel spreadsheet (or Prep Bench sheet)/Raw data	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> NO	<input checked="" type="checkbox"/>
(a) Reviewer: 100% of peak heights checked	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> NO	<input checked="" type="checkbox"/>
(b) Are there peak height errors?	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> NO	<input checked="" type="checkbox"/>
(c) Error on a sample: Do peak heights, responses, & initial results match corrected data?	<input type="checkbox"/> YES	<input type="checkbox"/> NO	<input type="checkbox"/> N/A <input checked="" type="checkbox"/>
(d) Error on a Cal Pt, ICB/CCB, or PB: Has the data been reimported?	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> NO	<input type="checkbox"/> N/A <input checked="" type="checkbox"/>
(e) Check standards & reagents in sequence & bench sheet for correct usage (i.e. expiries).	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> NO	<input type="checkbox"/> N/A <input checked="" type="checkbox"/>
(f) Check and compare masses (review prep bench sheet)	<input type="checkbox"/> YES	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> N/A <input checked="" type="checkbox"/>
(g) Check and compare initial and final volumes	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> NO	<input type="checkbox"/> N/A <input checked="" type="checkbox"/>
(h) Do aliquots and dilutions written on benchsheet match those in Excel?	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> NO	<input type="checkbox"/> N/A <input checked="" type="checkbox"/>
(i) Is the pH>3.0 for all distilled samples?	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> NO	<input type="checkbox"/> N/A <input checked="" type="checkbox"/>
(j) Is the sequence #, analyst, date, and instrument # on the QC page?	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> NO	<input checked="" type="checkbox"/>
(k) Is the analysis status correct? (analyzed/initial review/reviewed)	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> NO	<input type="checkbox"/>
(l) Original prep bench sheet added to data package?	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> NO	<input checked="" type="checkbox"/>
(m) Benchsheet prep date MUST match actual prep date (check if re-shot vs re-extract)	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> NO	<input checked="" type="checkbox"/>
3. High QA? WO#(s)/Client(s):	<input type="checkbox"/> YES	<input checked="" type="checkbox"/> NO	<input checked="" type="checkbox"/>
4. Client specific QC? (if Yes, refer to Project Notes/LIMS)	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> NO	<input checked="" type="checkbox"/>
(a) Have the QC requirements been met for all WO#s?	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> NO	<input checked="" type="checkbox"/>
5. 20 or fewer samples in batch?	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> NO	<input checked="" type="checkbox"/>
(a) 3 PBs, 1 LCS/LCSD (or BS/BSD), 2 MS/MSD/MD per batch?	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> NO	<input checked="" type="checkbox"/>
(b) 1 CCV and 1 CCB every 10 analytical runs?	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> NO	<input checked="" type="checkbox"/>
QA/QC Data Checked			
6. The calibration curve included a minimum of 5 Standards	<input checked="" type="checkbox"/> PASS	<input type="checkbox"/> FAIL	<input type="checkbox"/> N/A <input checked="" type="checkbox"/>
Comments:			
7. 1st Calibration Standard % Recoveries (65-135%)	<input checked="" type="checkbox"/> PASS	<input type="checkbox"/> FAIL	<input type="checkbox"/> N/A <input checked="" type="checkbox"/>
Comments:			
8. RSD CF (<= 15%)	<input checked="" type="checkbox"/> PASS	<input type="checkbox"/> FAIL	<input checked="" type="checkbox"/>
Comments:			

Peer Review Check List for MHg for CV-GC-AFS (FGS-070) 2013 Rev 4 (08/22/2013)

Analyst: Ryan Nelson	Sequence #: 6H11011
Reviewer: <i>Jeanne Hanel</i>	Dataset ID #: MHg27001-160811-1
Date: 8/11/2016	WO #: [REDACTED]
Batch #(s): F608251	Client(s): [REDACTED]

Analyst Initials: *RN*

Reviewer Initials: *JH*

- | | | | | |
|--|--|--|---|-------------------------------------|
| 9. ICV % Recoveries 67-133% | <input checked="" type="checkbox"/> PASS | <input type="checkbox"/> FAIL | | <input checked="" type="checkbox"/> |
| Comments: _____ | | | | |
| 10. CCV % Recoveries 67-133% | <input checked="" type="checkbox"/> PASS | <input type="checkbox"/> FAIL | | <input checked="" type="checkbox"/> |
| Comments: _____ | | | | |
| 11. Are the absolute value of the ICB and CCBs < PQL? | <input checked="" type="checkbox"/> PASS | <input type="checkbox"/> FAIL | | <input checked="" type="checkbox"/> |
| Comments: _____ | | | | |
| 12. LCS/LCSD/CRM/BS/BSD % Recoveries (70-130%) | <input checked="" type="checkbox"/> PASS | <input type="checkbox"/> FAIL | | <input checked="" type="checkbox"/> |
| Comments: _____ | | | | |
| 13. LCS/LCSD or BS/BSD RPD (< 25%) | <input checked="" type="checkbox"/> PASS | <input type="checkbox"/> FAIL | | <input checked="" type="checkbox"/> |
| Comments: _____ | | | | |
| 14. Water: Average of Preparation Blanks < 0.045 ng/L and standard deviation of 0.015 ng/L? | <input checked="" type="checkbox"/> PASS | <input type="checkbox"/> FAIL | <input type="checkbox"/> N/A | <input checked="" type="checkbox"/> |
| Comments: _____ | | | | |
| 15. Sediment/Tissue: Individually, are the Preparation Blanks < PQL for the matrix? | <input type="checkbox"/> PASS | <input type="checkbox"/> FAIL | <input checked="" type="checkbox"/> N/A | <input checked="" type="checkbox"/> |
| Comments: _____ | <input type="checkbox"/> PASS | <input type="checkbox"/> FAIL | | <input checked="" type="checkbox"/> |
| 16. Have Total Solids been applied? (If NO, please ensure that they are done or nearly done) | <input type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> N/A | <input checked="" type="checkbox"/> |
| 17. Is the correct 'Source' designated for MD/MS/MSD? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | | <input checked="" type="checkbox"/> |
| 18. For digested preps: was there a spike witness signature & date on the prep bench sheet? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input type="checkbox"/> N/A | <input checked="" type="checkbox"/> |
| 19. MD RPD/MT RSD(< 35%) | <input type="checkbox"/> PASS | <input checked="" type="checkbox"/> FAIL | | <input checked="" type="checkbox"/> |
| Comments: <i>QR-07</i> | | | | |
| 20. Is there one set of MS/MSD per every 10 samples? | <input checked="" type="checkbox"/> PASS | <input type="checkbox"/> FAIL | | <input checked="" type="checkbox"/> |
| Comments: _____ | | | | |
| 21. MS/MSD RPD(< 35%) | <input checked="" type="checkbox"/> PASS | <input type="checkbox"/> FAIL | | <input checked="" type="checkbox"/> |
| Comments: _____ | | | | |
| 22. MS (AS) % Recoveries (65-130%) | <input checked="" type="checkbox"/> PASS | <input type="checkbox"/> FAIL | | <input checked="" type="checkbox"/> |
| Comments: _____ | | | | |
| 23. MSD (ASD) % Recoveries (65-130%) | <input checked="" type="checkbox"/> PASS | <input type="checkbox"/> FAIL | | <input checked="" type="checkbox"/> |
| Comments: _____ | | | | |
| 24. Spiked 1-5X ambient or 1-5X PQL (whichever is higher) (from EPA 1630) | <input checked="" type="checkbox"/> YES | <input checked="" type="checkbox"/> NO | | <input checked="" type="checkbox"/> |
| 25. Are all samples within instrument calibration range (or at maximum aliquot size)? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | | <input checked="" type="checkbox"/> |
| Comments: _____ | | | | |
| 26. For instrumental dilutions, is the dilution factor in excel correct? | <input type="checkbox"/> PASS | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> N/A | <input checked="" type="checkbox"/> |
| Is the sample volume, diluents, and final volume of the dilution noted on benchsheet? | <input type="checkbox"/> PASS | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> N/A | <input checked="" type="checkbox"/> |
| 27. Dissolved < Total metals (if applicable) | <input checked="" type="checkbox"/> PASS | <input type="checkbox"/> NO | <input type="checkbox"/> N/A | <input checked="" type="checkbox"/> |
| Comments: _____ | | | | |
| 28. Effluent < Influent metals (visually confirm if needed) | <input type="checkbox"/> PASS | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> N/A | <input checked="" type="checkbox"/> |
| Comments: _____ | | | | |

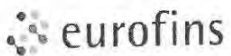
Peer Review Check List for MHg for CV-GC-AFS (FGS-070) 2013 Rev 4 (08/22/2013)

Analyst: Ryan Nelson	Sequence #: 6H11011
Reviewer: <i>Jane Karel</i>	Dataset ID #: MHg27001-160811-1
Date: 8/11/2016	WO #: [REDACTED]
Batch #(s): F608251	Client(s): [REDACTED]

Analyst Initials: *RN*

Reviewer Initials: *JK*

29. Are re-runs noted with reason? YES NO N/A
- Comments: _____
30. For failing QC (CCV, CCB, PB, BS/BSD, CAL): YES NO N/A
- Was a bubbler and trap test run before the analytical run continued?
 Comments: _____
31. Do re-run results compare to initial analysis (< 35% RPD)? YES NO N/A
- Comments: _____
32. Are qualifiers consistent with the data review flowcharts? YES NO N/A
- Comments: *QR-07*
33. Have non-reportable samples been imported into LIMS and clicked to non-reportable? YES NO N/A
- Comments: *1607586-04 RE2 distillation error, needs re-analysis JH 8/11/16*
34. Have re-extracts been created for non-reportable samples? YES NO N/A
- Comments: *JH 8/11/16*
35. Narrations in MMO box in LIMS?
 Comments: _____
36. Are there any HIGH QA projects within the data? YES NO
- If so, place dataset to the QA office.
37. Does the data set need scanning? YES NO N/A
- Files located at:** \\Cuprum\gen_admin\Quality Assurance\Training Master\DOCs
38. Date of analyst IDOC/CDOC: *1/15/16* IDOC/CDOC within last 12 months? YES NO
39. Date of analyst's SOP reading: *6/8/16* Current SOP revision? YES NO
40. Date of LOD: *7/1/16* *6/16/16* LOD within last 3 months (within 12 months for MDN)? YES NO N/A
41. Date of LOQ: *7/1/16* *6/16/16* LOQ within last 3 months (within 12 months for MDN)? YES NO N/A
42. If MDN samples, date of last MDL study: _____
43. MDL study within last 12 months? YES NO N/A
- Data can not be reported without a current IDOC/CDOC, LOD or LOQ.**
- Additional Comments: YES NO



Frontier Global Sciences

MMHg27001-160812-1 solids

Analysis Datasheet for Methyl Mercury in Soil/Tissue

Date of Analysis: August 12, 2016

Instrument #: Hg2700-1

LIMS Sequence #: 6H1201210

8/15/16

Analyst: RN

Units ng/L

Calibration Statistics:

LabNumber	n	True Val	Area	Uncorrected Response Factor	Corrected Peak Height	Corrected Response Factor	% Recovery
SEQ-CAL1	1	0.05 ng/L	34.53 units	690.64	32.30 units	646.03	97.5 %Rec
SEQ-CAL2	1	0.20 ng/L	142.05 units	710.25	139.82 units	699.09	105.5 %Rec
SEQ-CAL3	1	1.00 ng/L	551.84 units	551.84	549.61 units	549.61	82.9 %Rec
SEQ-CAL4	1	2.00 ng/L	1315.76 units	657.88	1313.53 units	656.76	99.1 %Rec
SEQ-CAL5	1	4.00 ng/L	3052.84 units	763.21	3050.61 units	762.65	115.1 %Rec
SEQ-CAL6	0						
SEQ-CAL7	0						
SEQ-CAL8	0						
SEQ-CAL9	0						

Corr. Mean RF **Corr. St Dev RF** **Corr. RSD CF** **Uncorr. Mean RF**
 662.83 +/- 78.13 11.8% RSD 674.76

Blanks:

LabNumber	n	Mean	Std Dev	Mean (ng/L)	Std Dev (ng/L)
SEQ-IBL	1	2.23 units		0.00 ng/L	#VALUE!

Preparation Blanks

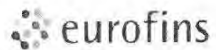
Sample Type	Batch ID	n	Mean	Std Dev
BLK	1	3	0.005 ng/L	±0.004
BLK	2	3	0.013 ng/L	±0.003
BLK	3	0	0.000 ng/L	
BLK	4	0	0.000 ng/L	
BLK	5	0	0.000 ng/L	

QUALITY ASSURANCE
 PEER-REVIEWED
 INITIALS: JH 8/15/16

Instrument	Analyst	Sample		Dilution	Analyzed	FileID	Run End	Uncorrected Response	Batch ID	No PB		RESP	InitialResult	FinalResult	InitialUnits	Comments	
		Type	LabNumber							Correction?							
Hg2700-1	RN	CAL	SEQ-1BL1	1	8/12/16 8:27	14252-1.RAW	8:27	2.23				0.0	0.000	0.000		ng/L	
Hg2700-1	RN	CAL	SEQ-CAL1	1	8/12/16 8:38	14253-1.RAW	8:38	34.53				32.3	0.049	0.049		ng/L	
Hg2700-1	RN	CAL	SEQ-CAL2	1	8/12/16 8:48	14254-1.RAW	8:48	142.05				139.8	0.211	0.211		ng/L	
Hg2700-1	RN	CAL	SEQ-CAL3	1	8/12/16 8:59	14255-1.RAW	8:59	551.84				549.6	0.829	0.829		ng/L	
Hg2700-1	RN	CAL	SEQ-CAL4	1	8/12/16 9:09	14256-1.RAW	9:09	1315.76				1313.5	1.982	1.982		ng/L	
Hg2700-1	RN	CAL	SEQ-CAL5	1	8/12/16 9:20	14257-1.RAW	9:20	3052.84				3050.6	4.602	4.602		ng/L	
Hg2700-1	RN	CAL	SEQ-1CV1	1	8/12/16 9:30	14258-1.RAW	9:30	333.68				331.5	0.500	0.500		ng/L	
Hg2700-1	RN	CAL	SEQ-1CB1	1	8/12/16 9:41	14259-1.RAW	9:41	7.83				5.6	0.008	0.008		ng/L	
Hg2700-1	RN	BLK	F608273-BLK1	1.25	8/12/16 9:51	14260-1.RAW	9:51	5.22	1	x		3.0	0.005	0.006		ng/L	
Hg2700-1	RN	BLK	F608273-BLK2	1.25	8/12/16 10:02	14261-1.RAW	10:02	6.39	1	x		4.2	0.006	0.008		ng/L	
Hg2700-1	RN	BLK	F608273-BLK3	1.25	8/12/16 10:12	14262-1.RAW	10:12	2.30	1	x		0.1	0.000	0.000		ng/L	
Hg2700-1	RN	SAM	F608273-BS1	1.25	8/12/16 10:23	14263-1.RAW	10:23	342.44	1	x		340.2	0.513	0.642		ng/L	
Hg2700-1	RN	SAM	F608273-BSD1	1.25	8/12/16 10:34	14264-1.RAW	10:34	469.25	1	x		467.0	0.705	0.881		ng/L	
Hg2700-1	RN	SAM	F608273-DUP1	1.25	8/12/16 10:44	14265-1.RAW	10:44	77.12	1	x		74.9	0.113	0.141		ng/L	
Hg2700-1	RN	SAM	F608273-MS1	1.25	8/12/16 10:55	14266-1.RAW	10:55	487.64	1	x		485.4	0.732	0.915		ng/L	
Hg2700-1	RN	SAM	F608273-MS2	1.25	8/12/16 11:05	14267-1.RAW	11:05	171.08	1	x		168.8	0.255	0.318		ng/L	
Hg2700-1	RN	SAM	F608273-MSD1	1.25	8/12/16 11:16	14268-1.RAW	11:16	346.76	1	x		344.5	0.520	0.650		ng/L	
Hg2700-1	RN	SAM	F608273-MSD2	1.25	8/12/16 11:26	14269-1.RAW	11:26	137.71	1	x		135.5	0.204	0.255		ng/L	
Hg2700-1	RN	CAL	SEQ-CCV1	1	8/12/16 11:37	14270-1.RAW	11:37	300.07				297.8	0.449	0.449		ng/L	
Hg2700-1	RN	CAL	SEQ-CCB1	1	8/12/16 11:47	14271-1.RAW	11:47	5.71				3.5	0.005	0.005		ng/L	
Hg2700-1	RN	SAM	1607542-01	1.25	8/12/16 11:58	14272-1.RAW	11:58	29.21	1	x		27.0	0.041	0.051		ng/L	
Hg2700-1	RN	SAM	1607542-03	1.25	8/12/16 12:08	14273-1.RAW	12:08	36.07	1	x		33.8	0.051	0.064		ng/L	
Hg2700-1	RN	SAM	1607542-04	1.25	8/12/16 12:19	14274-1.RAW	12:19	14.81	1	x		12.6	0.019	0.024		ng/L	
Hg2700-1	RN	SAM	1607542-05	1.25	8/12/16 12:29	14275-1.RAW	12:29	19.42	1	x		17.2	0.026	0.032		ng/L	
Hg2700-1	RN	SAM	1607542-06	1.25	8/12/16 12:40	14276-1.RAW	12:40	23.00	1	x		20.8	0.031	0.039		ng/L	
Hg2700-1	RN	SAM	1607542-07	1.25	8/12/16 12:50	14277-1.RAW	12:50	16.45	1	x		14.2	0.021	0.027		ng/L	
Hg2700-1	RN	SAM	1607586-12	1.25	8/12/16 13:01	14278-1.RAW	13:01	12.89	1	x		10.7	0.016	0.020		ng/L	
Hg2700-1	RN	SAM	1607586-19	1.25	8/12/16 13:11	14279-1.RAW	13:11	21.45	1	x		19.2	0.029	0.036		ng/L	
Hg2700-1	RN	SAM	1607586-20	1.25	8/12/16 13:22	14280-1.RAW	13:22	8.72	1	x		6.5	0.010	0.012		ng/L	
Hg2700-1	RN	SAM	1607586-21	1.25	8/12/16 13:32	14281-1.RAW	13:32	2.33	1	x		0.1	0.000	0.000		ng/L	
Hg2700-1	RN	CAL	SEQ-CCV2	1	8/12/16 13:43	14282-1.RAW	13:43	399.57				397.3	0.599	0.599		ng/L	
Hg2700-1	RN	CAL	SEQ-CCB2	1	8/12/16 13:53	14283-1.RAW	13:53	3.20				1.0	0.001	0.001		ng/L	
Hg2700-1	RN	SAM	1607772-01	1.25	8/12/16 14:04	14284-1.RAW	14:04	18.61	1	x		16.4	0.025	0.031		ng/L	
Hg2700-1	RN	SAM	1607772-02	1.25	8/12/16 14:14	14285-1.RAW	14:14	13.19	1	x		11.0	0.017	0.021		ng/L	
Hg2700-1	RN	SAM	1607772-03	1.25	8/12/16 14:25	14286-1.RAW	14:25	25.23	1	x		23.0	0.035	0.043		ng/L	
Hg2700-1	RN	SAM	1607772-04	1.25	8/12/16 14:35	14287-1.RAW	14:35	10.93	1	x		8.7	0.013	0.016		ng/L	
Hg2700-1	RN	SAM	1607772-05	1.25	8/12/16 14:46	14288-1.RAW	14:46	12.23	1	x		10.0	0.015	0.019		ng/L	
Hg2700-1	RN	SAM	1607772-06	1.25	8/12/16 14:56	14289-1.RAW	14:56	7.40	1	x		5.2	0.008	0.010		ng/L	
Hg2700-1	RN	SAM	1607772-07	1.25	8/12/16 15:07	14290-1.RAW	15:07	11.64	1	x		9.4	0.014	0.018		ng/L	
Hg2700-1	RN	SAM	1607586-04RE3	1.25	8/12/16 15:17	14291-1.RAW	15:17	60.08	1	x		57.8	0.087	0.109		ng/L	
Hg2700-1	RN	SAM	1607805-01	1.25	8/12/16 15:28	14292-1.RAW	15:28	378.52	1	x		376.3	0.568	0.710		ng/L	
Hg2700-1	RN	SAM	1607805-02	1.25	8/12/16 15:38	14293-1.RAW	15:38	78.65	1	x		76.4	0.115	0.144		ng/L	
Hg2700-1	RN	CAL	SEQ-CCV3	1	8/12/16 15:49	14294-1.RAW	15:49	343.43				341.2	0.515	0.515		ng/L	
Hg2700-1	RN	CAL	SEQ-CCB3	1	8/12/16 15:59	14295-1.RAW	15:59	3.55				1.3	0.002	0.002		ng/L	
Hg2700-1	RN	BLK	F608155-BLK1	1	8/12/16 16:10	14296-1.RAW	16:10	9.14	2			6.9	0.010	0.010		ng/L	
Hg2700-1	RN	BLK	F608155-BLK2	1	8/12/16 16:20	14297-1.RAW	16:20	12.92	2			10.7	0.016	0.016		ng/L	

Instrument	Analyst	Sample Type	LabNumber	Dilution	Analyzed	FileID	Run End	Uncorrected Response	Batch ID	No PB Correction?	RESP	InitialResult	FinalResult	InitialUnits	Comments
Hg2700-1	RN	BLK	F608155-BLK3	1	8/12/16 16:31	14298-1.RAW	16:31	11.01	2		8.8	0.013	0.013	ng/L	
Hg2700-1	RN	SAM	F608155-BS1	10	8/12/16 16:41	14299-1.RAW	16:41	776.73	2		774.5	1.167	11.671	ng/L	
Hg2700-1	RN	SAM	F608155-BSD1	10	8/12/16 16:52	14300-1.RAW	16:52	779.46	2		777.2	1.171	11.713	ng/L	
Hg2700-1	RN	SAM	F608155-DUP1	1	8/12/16 17:02	14301-1.RAW	17:02	19.87	2		17.6	0.013	0.013	ng/L	
Hg2700-1	RN	SAM	F608155-MS1	10	8/12/16 17:13	14302-1.RAW	17:13	645.63	2		643.4	0.969	9.694	ng/L	
Hg2700-1	RN	SAM	F608155-MSD1	10	8/12/16 17:23	14303-1.RAW	17:23	677.95	2		675.7	1.018	10.181	ng/L	
Hg2700-1	RN	SAM	F608155-MS2	10	8/12/16 17:34	14304-1.RAW	17:34	665.80	2		663.6	1.000	9.998	ng/L	
Hg2700-1	RN	SAM	F608155-MSD2	10	8/12/16 17:44	14305-1.RAW	17:44	781.10	2		778.9	1.174	11.737	ng/L	
Hg2700-1	RN	CAL	SEQ-CCV4	1	8/12/16 17:55	14306-1.RAW	17:55	455.29			453.1	0.684	0.684	ng/L	
Hg2700-1	RN	CAL	SEQ-CCB4	1	8/12/16 18:06	14307-1.RAW	18:06	5.37			3.1	0.005	0.005	ng/L	
Hg2700-1	RN	CAL	SEQ-CCV5	1	8/12/16 18:16	14308-1.RAW	18:16	413.96			411.7	0.621	0.621	ng/L	
Hg2700-1	RN	CAL	SEQ-CCV6	1	8/12/16 18:27	14309-1.RAW	18:27	412.44			410.2	0.619	0.619	ng/L	
Hg2700-1	RN	SAM	1607782-15	1	8/12/16 18:37	14310-1.RAW	18:37	20.06	2		17.8	0.014	0.014	ng/L	
Hg2700-1	RN	SAM	1607782-16	1	8/12/16 18:48	14311-1.RAW	18:48	49.59	2		47.4	0.058	0.058	ng/L	
Hg2700-1	RN	SAM	1607782-17	1	8/12/16 18:58	14312-1.RAW	18:58	69.34	2		67.1	0.088	0.088	ng/L	
Hg2700-1	RN	SAM	1607782-18	1	8/12/16 19:09	14313-1.RAW	19:09	35.89	2		33.7	0.038	0.038	ng/L	
Hg2700-1	RN	SAM	1607782-19	1	8/12/16 19:19	14314-1.RAW	19:19	22.19	2		20.0	0.017	0.017	ng/L	
Hg2700-1	RN	SAM	1607782-20	1	8/12/16 19:30	14315-1.RAW	19:30	37.36	2		35.1	0.040	0.040	ng/L	
Hg2700-1	RN	SAM	1607782-21	1	8/12/16 19:40	14316-1.RAW	19:40	37.23	2		35.0	0.040	0.040	ng/L	
Hg2700-1	RN	SAM	1607783-01	1	8/12/16 19:51	14317-1.RAW	19:51	293.90	2		291.7	0.427	0.427	ng/L	
Hg2700-1	RN	SAM	1607783-02	1	8/12/16 20:01	14318-1.RAW	20:01	54.69	2		52.5	0.066	0.066	ng/L	
Hg2700-1	RN	SAM	1607783-03	1	8/12/16 20:12	14319-1.RAW	20:12	43.30	2		41.1	0.049	0.049	ng/L	
Hg2700-1	RN	CAL	SEQ-CCV7	1	8/12/16 20:22	14320-1.RAW	20:22	293.87			291.6	0.440	0.440	ng/L	
Hg2700-1	RN	CAL	SEQ-CCB5	1	8/12/16 20:33	14321-1.RAW	20:33	2.91			0.7	0.001	0.001	ng/L	
Hg2700-1	RN	SAM	1607783-04	1	8/12/16 20:43	14322-1.RAW	20:43	36.56	2		34.3	0.039	0.039	ng/L	
Hg2700-1	RN	SAM	1607783-05	1	8/12/16 20:54	14323-1.RAW	20:54	30.44	2		28.2	0.029	0.029	ng/L	
Hg2700-1	RN	SAM	1607783-06	1	8/12/16 21:04	14324-1.RAW	21:04	113.82	2		111.6	0.155	0.155	ng/L	
Hg2700-1	RN	SAM	1607783-07	1	8/12/16 21:15	14325-1.RAW	21:15	220.25	2		218.0	0.316	0.316	ng/L	
Hg2700-1	RN	SAM	1607783-08	1	8/12/16 21:25	14326-1.RAW	21:25	29.67	2		27.4	0.028	0.028	ng/L	
Hg2700-1	RN	SAM	1607783-09	1	8/12/16 21:36	14327-1.RAW	21:36	19.89	2		17.7	0.013	0.013	ng/L	
Hg2700-1	RN	SAM	1607783-10	1	8/12/16 21:46	14328-1.RAW	21:46	20.75	2		18.5	0.015	0.015	ng/L	
Hg2700-1	RN	SAM	1607783-11	1	8/12/16 21:57	14329-1.RAW	21:57	69.74	2		67.5	0.089	0.089	ng/L	
Hg2700-1	RN	SAM	1607783-12	1	8/12/16 22:07	14330-1.RAW	22:07	31.76	2		29.5	0.031	0.031	ng/L	
Hg2700-1	RN	SAM	1607783-13	1	8/12/16 22:18	14331-1.RAW	22:18	19.86	2		17.6	0.013	0.013	ng/L	
Hg2700-1	RN	CAL	SEQ-CCV8	1	8/12/16 22:28	14332-1.RAW	22:28	319.82			317.6	0.479	0.479	ng/L	
Hg2700-1	RN	CAL	SEQ-CCB6	1	8/12/16 22:39	14333-1.RAW	22:39	2.94			0.7	0.001	0.001	ng/L	

MMHg27001-160812-1



Frontier Global Sciences

Analysis Datasheet for Methyl Mercury in Waters

Date of Analysis: August 12, 2016

Instrument #: Hg2700-1

LIMS Sequence #: 6H1201011

Analyst: RN

Units ng/L

n 8/15/16
n 8/15/16

Calibration Statistics:

LabNumber	n	True Val	Area	Uncorrected Response Factor	Corrected Peak Height	Corrected Response Factor	% Recovery
SEQ-CAL1	1	0.05 ng/L	34.53 units	690.64	32.30 units	646.03	97.5 %Rec
SEQ-CAL2	1	0.20 ng/L	142.05 units	710.25	139.82 units	699.09	105.5 %Rec
SEQ-CAL3	1	1.00 ng/L	551.84 units	551.84	549.61 units	549.61	82.9 %Rec
SEQ-CAL4	1	2.00 ng/L	1315.76 units	657.88	1313.53 units	656.76	99.1 %Rec
SEQ-CAL5	1	4.00 ng/L	3052.84 units	763.21	3050.61 units	762.65	115.1 %Rec
SEQ-CAL6	0						
SEQ-CAL7	0						
SEQ-CAL8	0						
SEQ-CAL9	0						

Corr. Mean RF Corr. St Dev RF Corr. RSD CF Uncorr. Mean RF Eff Factor
662.83 +/- 78.13 11.8% RSD 674.76 **0.8046**

Blanks:

LabNumber	n	Mean	Std Dev	Mean (ng/L)	Std Dev (ng/L)
SEQ-IBL	1	2.23 units		0.00 ng/L	#VALUE!

Preparation Blanks

Sample Type	Batch ID	n	Mean	Std Dev
BLK	1	3	0.006 ng/L	±0.005
BLK	2	0	0.000 ng/L	
BLK	3	0	0.000 ng/L	
BLK	4	0	0.000 ng/L	
BLK	5	0	0.000 ng/L	

MDN Only

SEQ-CAL1
SEQ-CAL2
SEQ-CAL3
SEQ-CAL4
SEQ-CAL5
SEQ-CAL6 NA
SEQ-CAL7 NA
SEQ-CAL8 NA
SEQ-CAL9 NA
SEQ-ICV/CCV
Acetate Buffer
Ethylating Agent

QUALITY ASSURANCE
PEER-REVIEWED
INITIALS: JH 8/15/16

Instrument	Analyst	Sample Type	LabNumber	Dilution	Analyzed	FileID	Run End	Uncorrected Response	Batch ID	No PB Correction?	RESP	InitialResult	FinalResult	InitialUnits	Comments
Hq2700-1	RN	CAL	SEQ-JBL1	1	8/12/16 8:27	14252-1.RAW	8:27	2.23			0.0	0.000	0.000	ng/L	
Hq2700-1	RN	CAL	SEQ-CAL1	1	8/12/16 8:38	14253-1.RAW	8:38	34.53			32.3	0.049	0.049	ng/L	
Hq2700-1	RN	CAL	SEQ-CAL2	1	8/12/16 8:48	14254-1.RAW	8:48	142.05			139.8	0.211	0.211	ng/L	
Hq2700-1	RN	CAL	SEQ-CAL3	1	8/12/16 8:59	14255-1.RAW	8:59	551.84			549.6	0.829	0.829	ng/L	
Hq2700-1	RN	CAL	SEQ-CAL4	1	8/12/16 9:09	14256-1.RAW	9:09	1315.76			1313.5	1.982	1.982	ng/L	
Hq2700-1	RN	CAL	SEQ-CAL5	1	8/12/16 9:20	14257-1.RAW	9:20	3052.84			3050.6	4.602	4.602	ng/L	
Hq2700-1	RN	CAL	SEQ-ICV1	1	8/12/16 9:30	14258-1.RAW	9:30	333.68			331.5	0.500	0.500	ng/L	
Hq2700-1	RN	CAL	SEQ-ICB1	1	8/12/16 9:41	14259-1.RAW	9:41	7.83			5.6	0.008	0.008	ng/L	
Hq2700-1	RN	BLK	F608273-BLK1	1.25	8/12/16 9:51	14260-1.RAW	9:51	5.22	1		3.0	0.006	0.007	ng/L	
Hq2700-1	RN	BLK	F608273-BLK2	1.25	8/12/16 10:02	14261-1.RAW	10:02	6.39	1		4.2	0.008	0.010	ng/L	
Hq2700-1	RN	BLK	F608273-BLK3	1.25	8/12/16 10:12	14262-1.RAW	10:12	2.30	1		0.1	0.000	0.000	ng/L	
Hq2700-1	RN	SAM	F608273-BS1	1.25	8/12/16 10:23	14263-1.RAW	10:23	342.44	1		340.2	0.633	0.792	ng/L	
Hq2700-1	RN	SAM	F608273-BSD1	1.25	8/12/16 10:34	14264-1.RAW	10:34	469.25	1		467.0	0.871	1.089	ng/L	
Hq2700-1	RN	SAM	F608273-DUP1	1.25	8/12/16 10:44	14265-1.RAW	10:44	77.12	1		74.9	0.136	0.170	ng/L	
Hq2700-1	RN	SAM	F608273-MS1	1.25	8/12/16 10:55	14266-1.RAW	10:55	487.64	1		485.4	0.906	1.132	ng/L	
Hq2700-1	RN	SAM	F608273-MS2	1.25	8/12/16 11:05	14267-1.RAW	11:05	171.08	1		168.8	0.312	0.390	ng/L	
Hq2700-1	RN	SAM	F608273-MSD1	1.25	8/12/16 11:16	14268-1.RAW	11:16	346.76	1		344.5	0.642	0.802	ng/L	
Hq2700-1	RN	SAM	F608273-MSD2	1.25	8/12/16 11:26	14269-1.RAW	11:26	137.71	1		135.5	0.250	0.312	ng/L	
Hq2700-1	RN	CAL	SEQ-CCV1	1	8/12/16 11:37	14270-1.RAW	11:37	300.07	1		297.8	0.449	0.449	ng/L	
Hq2700-1	RN	CAL	SEQ-CCB1	1	8/12/16 11:47	14271-1.RAW	11:47	5.71	1		3.5	0.005	0.005	ng/L	
Hq2700-1	RN	SAM	1607542-01	1.25	8/12/16 11:58	14272-1.RAW	11:58	29.21	1		27.0	0.046	0.058	ng/L	
Hq2700-1	RN	SAM	1607542-03	1.25	8/12/16 12:08	14273-1.RAW	12:08	36.07	1		33.8	0.059	0.074	ng/L	
Hq2700-1	RN	SAM	1607542-04	1.25	8/12/16 12:19	14274-1.RAW	12:19	14.81	1		12.6	0.019	0.024	ng/L	
Hq2700-1	RN	SAM	1607542-05	1.25	8/12/16 12:29	14275-1.RAW	12:29	19.42	1		17.2	0.028	0.035	ng/L	
Hq2700-1	RN	SAM	1607542-06	1.25	8/12/16 12:40	14276-1.RAW	12:40	23.00	1		20.8	0.034	0.043	ng/L	
Hq2700-1	RN	SAM	1607542-07	1.25	8/12/16 12:50	14277-1.RAW	12:50	16.45	1		14.2	0.022	0.028	ng/L	
Hq2700-1	RN	SAM	1607586-12	1.25	8/12/16 13:01	14278-1.RAW	13:01	12.89	1		10.7	0.015	0.019	ng/L	
Hq2700-1	RN	SAM	1607586-19	1.25	8/12/16 13:11	14279-1.RAW	13:11	21.45	1		19.2	0.032	0.039	ng/L	
Hq2700-1	RN	SAM	1607586-20	1.25	8/12/16 13:22	14280-1.RAW	13:22	8.72	1		6.5	0.008	0.010	ng/L	
Hq2700-1	RN	SAM	1607586-21	1.25	8/12/16 13:32	14281-1.RAW	13:32	2.33	1		0.1	-0.004	-0.005	ng/L	
Hq2700-1	RN	CAL	SEQ-CCV2	1	8/12/16 13:43	14282-1.RAW	13:43	399.57			397.3	0.599	0.599	ng/L	
Hq2700-1	RN	CAL	SEQ-CCB2	1	8/12/16 13:53	14283-1.RAW	13:53	3.20			1.0	0.001	0.001	ng/L	
Hq2700-1	RN	SAM	1607772-01	1.25	8/12/16 14:04	14284-1.RAW	14:04	18.61	1		16.4	0.026	0.033	ng/L	
Hq2700-1	RN	SAM	1607772-02	1.25	8/12/16 14:14	14285-1.RAW	14:14	13.19	1		11.0	0.016	0.020	ng/L	
Hq2700-1	RN	SAM	1607772-03	1.25	8/12/16 14:25	14286-1.RAW	14:25	25.23	1		23.0	0.039	0.048	ng/L	
Hq2700-1	RN	SAM	1607772-04	1.25	8/12/16 14:35	14287-1.RAW	14:35	10.93	1		8.7	0.012	0.015	ng/L	
Hq2700-1	RN	SAM	1607772-05	1.25	8/12/16 14:46	14288-1.RAW	14:46	12.23	1		10.0	0.014	0.018	ng/L	
Hq2700-1	RN	SAM	1607772-06	1.25	8/12/16 14:56	14289-1.RAW	14:56	7.40	1		5.2	0.005	0.006	ng/L	
Hq2700-1	RN	SAM	1607772-07	1.25	8/12/16 15:07	14290-1.RAW	15:07	11.64	1		9.4	0.013	0.016	ng/L	
Hq2700-1	RN	SAM	1607586-04RE3	1.25	8/12/16 15:17	14291-1.RAW	15:17	60.08	1		57.8	0.104	0.130	ng/L	
Hq2700-1	RN	SAM	1607805-01	1.25	8/12/16 15:28	14292-1.RAW	15:28	378.52	1		376.3	0.701	0.876	ng/L	
Hq2700-1	RN	SAM	1607805-02	1.25	8/12/16 15:38	14293-1.RAW	15:38	78.65	1		76.4	0.139	0.173	ng/L	
Hq2700-1	RN	CAL	SEQ-CCV3	1	8/12/16 15:49	14294-1.RAW	15:49	343.43			341.2	0.515	0.515	ng/L	
Hq2700-1	RN	CAL	SEQ-CCB3	1	8/12/16 15:59	14295-1.RAW	15:59	3.55			1.3	0.002	0.002	ng/L	
Hq2700-1	RN	BLK	F608155-BLK1	1	8/12/16 16:10	14296-1.RAW	16:10	9.14		x	6.9	0.013	0.013	ng/L	
Hq2700-1	RN	BLK	F608155-BLK2	1	8/12/16 16:20	14297-1.RAW	16:20	12.92		x	10.7	0.020	0.020	ng/L	

Instrument	Analyst	Sample		Dilution	Analyzed	FileID	Run End	Uncorrected Response	Batch ID	No PB		InitialResult	FinalResult	InitialUnits	Comments
		Type	LabNumber							Correction?	RESP				
Hq2700-1	RN	BLK	F608155-BLK3	1	8/12/16 16:31	14298-1.RAW	16:31	11.01		x	8.8	0.016	0.016	ng/L	
Hq2700-1	RN	SAM	F608155-BS1	10	8/12/16 16:41	14299-1.RAW	16:41	776.73		x	774.5	1.452	14.522	ng/L	
Hq2700-1	RN	SAM	F608155-BSD1	10	8/12/16 16:52	14300-1.RAW	16:52	779.46		x	777.2	1.457	14.574	ng/L	
Hq2700-1	RN	SAM	F608155-DUP1	1	8/12/16 17:02	14301-1.RAW	17:02	19.87		x	17.6	0.033	0.033	ng/L	
Hq2700-1	RN	SAM	F608155-MS1	10	8/12/16 17:13	14302-1.RAW	17:13	645.63		x	643.4	1.206	12.064	ng/L	
Hq2700-1	RN	SAM	F608155-MSD1	10	8/12/16 17:23	14303-1.RAW	17:23	677.95		x	675.7	1.267	12.670	ng/L	
Hq2700-1	RN	SAM	F608155-MS2	10	8/12/16 17:34	14304-1.RAW	17:34	665.80		x	663.6	1.244	12.442	ng/L	
Hq2700-1	RN	SAM	F608155-MSD2	10	8/12/16 17:44	14305-1.RAW	17:44	781.10		x	778.9	1.460	14.604	ng/L	
Hq2700-1	RN	CAL	SEQ-CCV4	1	8/12/16 17:55	14306-1.RAW	17:55	455.29			453.1	0.684	0.684	ng/L	
Hq2700-1	RN	CAL	SEQ-CCB4	1	8/12/16 18:06	14307-1.RAW	18:06	5.37			3.1	0.005	0.005	ng/L	
Hq2700-1	RN	CAL	SEQ-CCV5	1	8/12/16 18:16	14308-1.RAW	18:16	413.96			411.7	0.621	0.621	ng/L	
Hq2700-1	RN	CAL	SEQ-CCV6	1	8/12/16 18:27	14309-1.RAW	18:27	412.44			410.2	0.619	0.619	ng/L	
Hq2700-1	RN	SAM	1607782-15	1	8/12/16 18:37	14310-1.RAW	18:37	20.06		x	17.8	0.033	0.033	ng/L	
Hq2700-1	RN	SAM	1607782-16	1	8/12/16 18:48	14311-1.RAW	18:48	49.59		x	47.4	0.089	0.089	ng/L	
Hq2700-1	RN	SAM	1607782-17	1	8/12/16 18:58	14312-1.RAW	18:58	69.34		x	67.1	0.126	0.126	ng/L	
Hq2700-1	RN	SAM	1607782-18	1	8/12/16 19:09	14313-1.RAW	19:09	35.89		x	33.7	0.063	0.063	ng/L	
Hq2700-1	RN	SAM	1607782-19	1	8/12/16 19:19	14314-1.RAW	19:19	22.19		x	20.0	0.037	0.037	ng/L	
Hq2700-1	RN	SAM	1607782-20	1	8/12/16 19:30	14315-1.RAW	19:30	37.36		x	35.1	0.066	0.066	ng/L	
Hq2700-1	RN	SAM	1607782-21	1	8/12/16 19:40	14316-1.RAW	19:40	37.23		x	35.0	0.066	0.066	ng/L	
Hq2700-1	RN	SAM	1607783-01	1	8/12/16 19:51	14317-1.RAW	19:51	293.90		x	291.7	0.547	0.547	ng/L	
Hq2700-1	RN	SAM	1607783-02	1	8/12/16 20:01	14318-1.RAW	20:01	54.69		x	52.5	0.098	0.098	ng/L	
Hq2700-1	RN	SAM	1607783-03	1	8/12/16 20:12	14319-1.RAW	20:12	43.30		x	41.1	0.077	0.077	ng/L	
Hq2700-1	RN	CAL	SEQ-CCV7	1	8/12/16 20:22	14320-1.RAW	20:22	293.87			291.6	0.440	0.440	ng/L	
Hq2700-1	RN	CAL	SEQ-CCB5	1	8/12/16 20:33	14321-1.RAW	20:33	2.91			0.7	0.001	0.001	ng/L	
Hq2700-1	RN	SAM	1607783-04	1	8/12/16 20:43	14322-1.RAW	20:43	36.56		x	34.3	0.064	0.064	ng/L	
Hq2700-1	RN	SAM	1607783-05	1	8/12/16 20:54	14323-1.RAW	20:54	30.44		x	28.2	0.053	0.053	ng/L	
Hq2700-1	RN	SAM	1607783-06	1	8/12/16 21:04	14324-1.RAW	21:04	113.82		x	111.6	0.209	0.209	ng/L	
Hq2700-1	RN	SAM	1607783-07	1	8/12/16 21:15	14325-1.RAW	21:15	220.25		x	218.0	0.409	0.409	ng/L	
Hq2700-1	RN	SAM	1607783-08	1	8/12/16 21:25	14326-1.RAW	21:25	29.67		x	27.4	0.051	0.051	ng/L	
Hq2700-1	RN	SAM	1607783-09	1	8/12/16 21:36	14327-1.RAW	21:36	19.89		x	17.7	0.033	0.033	ng/L	
Hq2700-1	RN	SAM	1607783-10	1	8/12/16 21:46	14328-1.RAW	21:46	20.75		x	18.5	0.035	0.035	ng/L	
Hq2700-1	RN	SAM	1607783-11	1	8/12/16 21:57	14329-1.RAW	21:57	69.74		x	67.5	0.127	0.127	ng/L	
Hq2700-1	RN	SAM	1607783-12	1	8/12/16 22:07	14330-1.RAW	22:07	31.76		x	29.5	0.055	0.055	ng/L	
Hq2700-1	RN	SAM	1607783-13	1	8/12/16 22:18	14331-1.RAW	22:18	19.86		x	17.6	0.033	0.033	ng/L	
Hq2700-1	RN	CAL	SEQ-CCV8	1	8/12/16 22:28	14332-1.RAW	22:28	319.82			317.6	0.479	0.479	ng/L	
Hq2700-1	RN	CAL	SEQ-CCB6	1	8/12/16 22:39	14333-1.RAW	22:39	2.94			0.7	0.001	0.001	ng/L	

Methylmercury Operati BlankSi 2.230445076 (Conc = (Area-2.230) ##### 0
 EPA1630 Worksh CalibFa 662.8307126 !OK,I Warnings 8:01:19 0
 Method R: 0.995959998 J 0.991936317 MeHg 78.12906574
 Descrip Mhg27001-160812-1 11.7871825

Sample/ID	Location	Dilute	Blank	(ConcMeHg(ppm))	Rec%	RawData	RunEnd	P PeakMeHg (R)	F Control (eff)	Flags	RunCount
Clean				0		14250-1.RAW		0.111235469	cleandry	CT	1
ws	A1					14251-1.RAW		0	psample10	OK	1
SEQ-IBL1	A2	1	0	0.00336503		14252-1.RAW		2.230445076	psample10	OK	1
SEQ-CAL1	A3	1	2.230445076	0.048732606	97.47	14253-1.RAW		34.53191288	psample10	OK	1
SEQ-CAL2	A4	1	2.230445076	0.210941727	105.47	14254-1.RAW		142.0491004	psample10	OK	1
SEQ-CAL3	A5	1	2.230445076	0.829192209	82.92	14255-1.RAW		551.8445076	psample10	CT	1
SEQ-CAL4	A6	1	2.230445076	1.981693579	99.08	14256-1.RAW		1315.757812	psample10	CT	1
SEQ-CAL5	A7	1	2.230445076	4.602401003	115.06	14257-1.RAW		3052.843182	psample10	CT	1
SEQ-ICV1	A8	1	2.230445076	0.500052373	100.13	14258-1.RAW		333.6805161	psample10	CT	1
SEQ-ICB1	A9	1	2.230445076	0.008448363	0.00	14259-1.RAW		7.830279356	psample10	CT	1
F608273-BLK1	A10	1.25	2.230445076	0.005629873		14260-1.RAW		5.215767045	psample10	OK	1
F608273-BLK2	A11	1.25	2.230445076	0.007840569		14261-1.RAW		6.388020833	psample10	OK	1
F608273-BLK3	A12	1.25	2.230445076	0.000139921		14262-1.RAW		2.304640152	psample10	OK	1
F608273-BS1	A13	1.25	2.230445076	0.641583942		14263-1.RAW		342.439678	psample10	CT	1
F608273-BSD1	A14	1.25	2.230445076	0.880730393		14264-1.RAW		469.2505682	psample10	OK	1
F608273-DUP1	A15	1.25	2.230445076	0.141217653		14265-1.RAW		77.11316288	psample10	OK	1
F608273-MS1	A16	1.25	2.230445076	0.915404202	91.54	14266-1.RAW		487.6368608	psample10	CT	1
F608273-MS2	A17	1.25	2.230445076	0.318418183	15.92	14267-1.RAW		171.0763258	psample10	CT	1
F608273-MSD1	A18	1.25	2.230445076	0.649728372	32.49	14268-1.RAW		346.7583807	psample10	CT	1
F608273-MSD2	A19	1.25	2.230445076	0.255498351		14269-1.RAW		137.7121686	psample10	CT	1
SEQ-CCV1	A20	1	2.230445076	0.449343874	89.98	14270-1.RAW		300.0693655	psample10	CT	1
SEQ-CCB1	A21	1	2.230445076	0.005251309	0.00	14271-1.RAW		5.711174242	psample10	OK	1
1607542-01	B1	1.25	2.230445076	0.050874672		14272-1.RAW		29.20748106	psample10	CT	1
1607542-03	B2	1.25	2.230445076	0.063823915		14273-1.RAW		36.07400568	psample10	OK	1
1607542-04	B3	1.25	2.230445076	0.023723238		14274-1.RAW		14.81003788	psample10	CT	1
1607542-05	B4	1.25	2.230445076	0.032409851		14275-1.RAW		19.41624053	psample10	OK	1
1607542-06	B5	1.25	2.230445076	0.039377231		14276-1.RAW		23.11079545	psample10	OK	1
1607542-07	B6	1.25	2.230445076	0.026824356		14277-1.RAW		16.45445076	psample10	OK	1
1607586-12	B7	1.25	2.230445076	0.020093109		14278-1.RAW		12.8851089	psample10	OK	1
1607586-19	B8	1.25	2.230445076	0.036272631		14279-1.RAW		21.46453598	psample10	CT	1
1607586-20	B9	1.25	2.230445076	0.012238209		14280-1.RAW		8.719933712	psample10	OK	1
1607586-21	B10	1.25	2.230445076	0.000185281		14281-1.RAW		2.328693182	psample10	OK	1
SEQ-CCV2	B11	1	2.230445076	0.599452047	120.04	14282-1.RAW		399.5656723	psample10	CT	1
SEQ-CCB2	B12	1	2.230445076	0.001459749	0.00	14283-1.RAW		3.198011364	psample10	OK	1
1607772-01	B13	1.25	2.230445076	0.030812235		14284-1.RAW		18.56908144	psample10	CT	1
1607772-02	B14	1.25	2.230445076	0.020674892		14285-1.RAW		13.19360795	psample10	CT	1
1607772-03	B15	1.25	2.230445076	0.043379485		14286-1.RAW		25.23304924	psample10	CT	1
1607772-04	B16	1.25	2.230445076	0.016405074		14287-1.RAW		10.92947443	psample10	OK	1
1607772-05	B17	1.25	2.230445076	0.018865922		14288-1.RAW		12.234375	psample10	OK	1
1607772-06	B18	1.25	2.230445076	0.009753118		14289-1.RAW		7.40217803	psample10	CT	1
1607772-07	B19	1.25	2.230445076	0.017747359		14290-1.RAW		11.64124053	psample10	OK	1
1607586-04RE3	B20	1.25	2.230445076	0.109089519		14291-1.RAW		60.07675189	psample10	CT	1
1607805-01	B21	1.25	2.230445076	0.709619412		14292-1.RAW		378.5164773	psample10	CT	1
1607805-02	C1	1.25	2.230445076	0.144096433		14293-1.RAW		78.63967803	psample10	CT	1
SEQ-CCV3	C2	1	2.230445076	0.514768048	103.08	14294-1.RAW		343.434517	psample10	CT	1
SEQ-CCB3	C3	1	2.230445076	0.001987716	0.00	14295-1.RAW		3.547964015	psample10	OK	1
F608155-BLK1	C4	1	2.230445076	0.010419684		14296-1.RAW		9.136931818	psample10	OK	1
F608155-BLK2	C5	1	2.230445076	0.016127705		14297-1.RAW		12.92038352	psample10	OK	1
F608155-BLK3	C6	1	2.230445076	0.013224209		14298-1.RAW		10.99585701	psample10	OK	1
F608155-BS1	C7	10	2.230445076	11.68475029		14299-1.RAW		776.7315814	psample10	OK	1

F608155-BSD1	C8	10	2.230445076	11.72590756		14300-1.RAW	779.4596117	psample10	OK	1
F608155-DUP1	C9	1	2.230445076	0.026610287		14301-1.RAW	19.86856061	psample10	OK	1
F608155-MS1	C10	10	2.230445076	9.706876491	970.69	14302-1.RAW	645.6320312	psample10	CT	1
F608155-MSD1	C11	10	2.230445076	10.19439506		14303-1.RAW	677.9462595	psample10	OK	1
F608155-MS2	C12	10	2.230445076	10.01114606	500.56	14304-1.RAW	665.7999527	psample10	CT	1
F608155-MSD2	C13	10	2.230445076	11.75060864		14305-1.RAW	781.096875	psample10	OK	1
SEQ-CCV4	C14	1	2.230445076	0.683528394	136.88	14306-1.RAW	455.2940578	psample10	CT	1
SEQ-CCB4	C15	1	2.230445076	0.004740701	0.00	14307-1.RAW	5.372727273	psample10	OK	1
SEQ-CCV5	B1	1	2.230445076	0.62117155	124.39	14308-1.RAW	413.9620265	psample10	CT	1
SEQ-CCV6	B2	1	2.230445076	0.618876491	123.93	14309-1.RAW	412.4407907	psample10	CT	1
1607782-15	C16	1	2.230445076	0.026906094		14310-1.RAW	20.06463068	psample10	OK	1
1607782-16	C17	1	2.230445076	0.071454825		14311-1.RAW	49.59289773	psample10	OK	1
1607782-17	C18	1	2.230445076	0.101240128		14312-1.RAW	69.33551136	psample10	OK	1
1607782-18	C19	1	2.230445076	0.050783219		14313-1.RAW	35.89112216	psample10	OK	1
1607782-19	C20	1	2.230445076	0.030110898		14314-1.RAW	22.18887311	psample10	OK	1
1607782-20	C21	1	2.230445076	0.053000844		14315-1.RAW	37.3610322	psample10	OK	1
1607782-21	A1	1	2.230445076	0.052807223		14316-1.RAW	37.23269413	psample10	OK	1
1607783-01	A2	1	2.230445076	0.440032556		14317-1.RAW	293.8975379	psample10	CT	1
1607783-02	A3	1	2.230445076	0.079150383		14318-1.RAW	54.69375	psample10	OK	1
1607783-03	A4	1	2.230445076	0.061957208		14319-1.RAW	43.29758523	psample10	OK	1
SEQ-CCV7	A5	1	2.230445076	0.43998791	88.11	14320-1.RAW	293.8679451	psample10	CT	1
SEQ-CCB5	A6	1	2.230445076	0.001017931	0.00	14321-1.RAW	2.905160985	psample10	CT	1
1607783-04	A7	1	2.230445076	0.051792756		14322-1.RAW	36.56027462	psample10	OK	1
1607783-05	A8	1	2.230445076	0.042557301		14323-1.RAW	30.43873106	psample10	CT	1
1607783-06	A9	1	2.230445076	0.168355424		14324-1.RAW	113.8215909	psample10	CT	1
1607783-07	A10	1	2.230445076	0.328919926		14325-1.RAW	220.2486742	psample10	CT	1
1607783-08	A11	1	2.230445076	0.041399574		14326-1.RAW	29.67135417	psample10	OK	1
1607783-09	A12	1	2.230445076	0.02663386		14327-1.RAW	19.88418561	psample10	OK	1
1607783-10	A13	1	2.230445076	0.027940455		14328-1.RAW	20.75023674	psample10	OK	1
1607783-11	A14	1	2.230445076	0.101853673		14329-1.RAW	69.7421875	psample10	OK	1
1607783-12	A15	1	2.230445076	0.04455141		14330-1.RAW	31.76048769	psample10	OK	1
1607783-13	A16	1	2.230445076	0.026604001		14331-1.RAW	19.86439394	psample10	OK	1
SEQ-CCV8	A17	1	2.230445076	0.479148536	95.95	14332-1.RAW	319.8248106	psample10	CT	1
SEQ-CCB6	A18	1	2.230445076	0.001071113	0.00	14333-1.RAW	2.940411932	psample10	OK	1

18:58:34

22:39:18

Methylmercury Operat: BlankS: 2.230445076 (Conc = (Area-2.230) ##### 0
 EPA1630 Worksh: CalibFa: 662.8307126 (OK,1 Warnings: 8:01:19 0
 Method R: 0.995959998 (0.991936317 MeHg 78.12906574 0
 Descrip: MHg27001-160812-1 11.7871825

Sample/ID	Location	Dilute	Blank	(ConcMeHg(ppb)	Rec%	RawData	RunEnd	P PeakMeHg (R:	f Control (etf)	Flags	RunCount
Clean				0		14250-1.RAW	8:06:50	0.100438372	cleandry	CT	1
ws	A1			0.000151529		14251-1.RAW	8:17:21	0	psample10	OK	1
SEQ-IBL1	A2			0.00336503		14252-1.RAW	8:27:52	2.230445076	psample10	OK	1
SEQ-CAL1	A3	1	2.230445076	0.048732606	97.47	14253-1.RAW	8:38:23	34.53191288	psample10	OK	1
SEQ-CAL2	A4	1	2.230445076	0.210941727	105.47	14254-1.RAW	8:48:53	142.0491004	psample10	OK	1
SEQ-CAL3	A5	1	2.230445076	0.829192209	82.92	14255-1.RAW	8:59:24	551.8445076	psample10	CT	1
SEQ-CAL4	A6	1	2.230445076	1.981693579	99.08	14256-1.RAW	9:09:55	1315.757812	psample10	CT	1
SEQ-CAL5	A7	1	2.230445076	4.602401003	115.06	14257-1.RAW	9:20:26	3052.843182	psample10	CT	1
SEQ-ICV1	A8	1	2.230445076	0.500052373	100.13	14258-1.RAW	9:30:56	333.6805161	psample10	CT	1
SEQ-ICB1	A9	1	2.230445076	0.008448363	0.00	14259-1.RAW	9:41:27	7.830279356	psample10	CT	1
F608273-BLK1	A10	1.25	2.230445076	0.005629873		14260-1.RAW	9:51:58	5.215767045	psample10	OK	1
F608273-BLK2	A11	1.25	2.230445076	0.007840569		14261-1.RAW	10:02:29	6.388020833	psample10	OK	1
F608273-BLK3	A12	1.25	2.230445076	0.000139921		14262-1.RAW	10:12:59	2.304640152	psample10	OK	1
F608273-BS1	A13	1.25	2.230445076	0.641583942		14263-1.RAW	10:23:30	342.439678	psample10	CT	1
F608273-BSD1	A14	1.25	2.230445076	0.880730393		14264-1.RAW	10:34:01	469.2505682	psample10	OK	1
F608273-DJUP1	A15	1.25	2.230445076	0.141222385		14265-1.RAW	10:44:32	77.11567235	psample10	OK	1
F608273-MS1	A16	1.25	2.230445076	0.915404202	91.54	14266-1.RAW	10:55:02	487.6368608	psample10	CT	1
F608273-MS2	A17	1.25	2.230445076	0.318418183	15.92	14267-1.RAW	11:05:33	171.0763258	psample10	CT	1
F608273-MSD1	A18	1.25	2.230445076	0.649728372	32.49	14268-1.RAW	11:16:04	346.7583807	psample10	CT	1
F608273-MSD2	A19	1.25	2.230445076	0.255498351		14269-1.RAW	11:26:35	137.7121686	psample10	CT	1
SEQ-CCV1	A20	1	2.230445076	0.449343874	89.98	14270-1.RAW	11:37:05	300.0693655	psample10	CT	1
SEQ-CCB1	A21	1	2.230445076	0.005251309	0.00	14271-1.RAW	11:47:36	5.711174242	psample10	OK	1
1607542-01	B1	1.25	2.230445076	0.050874672		14272-1.RAW	11:58:07	29.20748106	psample10	OK	1
1607542-03	B2	1.25	2.230445076	0.06382003		14273-1.RAW	12:08:38	36.07194602	psample10	OK	1
1607542-04	B3	1.25	2.230445076	0.023723238		14274-1.RAW	12:19:08	14.81003788	psample10	CT	1
1607542-05	B4	1.25	2.230445076	0.032409851		14275-1.RAW	12:29:39	19.41624053	psample10	OK	1
1607542-06	B5	1.25	2.230445076	0.039166724		14276-1.RAW	12:40:10	22.9991714	psample10	OK	1
1607542-07	B6	1.25	2.230445076	0.026824356		14277-1.RAW	12:50:40	16.45445076	psample10	OK	1
1607586-12	B7	1.25	2.230445076	0.020093109		14278-1.RAW	13:01:11	12.8851089	psample10	OK	1
1607586-19	B8	1.25	2.230445076	0.036240307		14279-1.RAW	13:11:42	21.44739583	psample10	CT	1
1607586-20	B9	1.25	2.230445076	0.012238209		14280-1.RAW	13:22:13	8.719933712	psample10	OK	1
1607586-21	B10	1.25	2.230445076	0.000185281		14281-1.RAW	13:32:43	2.328693182	psample10	OK	1
SEQ-CCV2	B11	1	2.230445076	0.599452047	120.04	14282-1.RAW	13:43:14	399.5656723	psample10	CT	1
SEQ-CCB2	B12	1	2.230445076	0.001459749	0.00	14283-1.RAW	13:53:45	3.198011364	psample10	OK	1
1607772-01	B13	1.25	2.230445076	0.030891214		14284-1.RAW	14:04:16	18.61096117	psample10	CT	1
1607772-02	B14	1.25	2.230445076	0.020674892		14285-1.RAW	14:14:46	13.19360795	psample10	CT	1
1607772-03	B15	1.25	2.230445076	0.043379485		14286-1.RAW	14:25:17	25.23304924	psample10	CT	1
1607772-04	B16	1.25	2.230445076	0.016405074		14287-1.RAW	14:35:48	10.92947443	psample10	OK	1
1607772-05	B17	1.25	2.230445076	0.018865922		14288-1.RAW	14:46:19	12.234375	psample10	OK	1
1607772-06	B18	1.25	2.230445076	0.009753118		14289-1.RAW	14:56:49	7.40217803	psample10	CT	1
1607772-07	B19	1.25	2.230445076	0.017747359		14290-1.RAW	15:07:20	11.64124053	psample10	CT	1
1607586-04RE3	B20	1.25	2.230445076	0.109089519		14291-1.RAW	15:17:51	60.07675189	psample10	CT	1
1607805-01	B21	1.25	2.230445076	0.709619412		14292-1.RAW	15:28:22	378.5164773	psample10	CT	1
1607805-02	C1	1.25	2.230445076	0.144107014		14293-1.RAW	15:38:52	78.64528883	psample10	CT	1
SEQ-CCV3	C2	1	2.230445076	0.514768048	103.08	14294-1.RAW	15:49:23	343.434517	psample10	CT	1
SEQ-CCB3	C3	1	2.230445076	0.001987716	0.00	14295-1.RAW	15:59:54	3.547964015	psample10	OK	1
F608155-BLK1	C4	1	2.230445076	0.010419684		14296-1.RAW	16:10:25	9.136931818	psample10	OK	1
F608155-BLK2	C5	1	2.230445076	0.016127705		14297-1.RAW	16:20:55	12.92038352	psample10	OK	1
F608155-BLK3	C6	1	2.230445076	0.013238174		14298-1.RAW	16:31:25	11.00511364	psample10	OK	1
F608155-BS1	C7	10	2.230445076	11.68475029		14299-1.RAW	16:41:55	776.7315814	psample10	OK	1

F608155-BSD1	C8	10	2.230445076	11.72590756		14300-1.RAW	16:52:26	779.4596117	psample10	OK	1
F608155-DUP1	C9	1	2.230445076	0.026610287		14301-1.RAW	17:02:56	19.86856061	psample10	OK	1
F608155-MS1	C10	10	2.230445076	9.706876491	970.69	14302-1.RAW	17:13:27	645.6320312	psample10	CT	1
F608155-MSD1	C11	10	2.230445076	10.19439506		14303-1.RAW	17:23:58	677.9462595	psample10	OK	1
F608155-MS2	C12	10	2.230445076	10.01114606	500.56	14304-1.RAW	17:34:28	665.7999527	psample10	CT	1
F608155-MSD2	C13	10	2.230445076	11.75060864		14305-1.RAW	17:44:59	781.096875	psample10	OK	1
SEQ-CCV4	C14	1	2.230445076	0.683528394	136.88	14306-1.RAW	17:55:30	455.2940578	psample10	CT	1
SEQ-CCB4	C15	1	2.230445076	0.004740701	0.00	14307-1.RAW	18:06:00	5.372727273	psample10	OK	1
SEQ-CCV5	B1	1	2.230445076	0.62117155	124.39	14308-1.RAW	18:16:31	413.9620265	psample10	CT	1
SEQ-CCV6	B2	1	2.230445076	0.618876491	123.93	14309-1.RAW	18:27:02	412.4407907	psample10	CT	1
1607782-15	C16	1	2.230445076	0.026906094		14310-1.RAW	18:37:32	20.06463068	psample10	OK	1
1607782-16	C17	1	2.230445076	0.071454825		14311-1.RAW	18:48:03	49.59289773	psample10	OK	1
1607782-17	C18	1	2.230445076	0.101240128		14312-1.RAW	18:58:34	69.33551136	psample10	OK	1
1607782-18	C19	1	2.230445076	0.050783219		14313-1.RAW	19:09:04	35.89112216	psample10	OK	1
1607782-19	C20	1	2.230445076	0.030110898		14314-1.RAW	19:19:35	22.18887311	psample10	OK	1
1607782-20	C21	1	2.230445076	0.053000844		14315-1.RAW	19:30:06	37.3610322	psample10	OK	1
1607782-21	A1	1	2.230445076	0.052807223		14316-1.RAW	19:40:36	37.23269413	psample10	OK	1
1607783-01	A2	1	2.230445076	0.440032556		14317-1.RAW	19:51:07	293.8975379	psample10	CT	1
1607783-02	A3	1	2.230445076	0.079150383		14318-1.RAW	20:01:38	54.69375	psample10	OK	1
1607783-03	A4	1	2.230445076	0.061957208		14319-1.RAW	20:12:08	43.29758523	psample10	OK	1
SEQ-CCV7	A5	1	2.230445076	0.43998791	88.11	14320-1.RAW	20:22:39	293.8679451	psample10	CT	1
SEQ-CCB5	A6	1	2.230445076	0.001017931	0.00	14321-1.RAW	20:33:10	2.905160985	psample10	CT	1
1607783-04	A7	1	2.230445076	0.051792756		14322-1.RAW	20:43:40	36.56027462	psample10	OK	1
1607783-05	A8	1	2.230445076	0.042557301		14323-1.RAW	20:54:11	30.43873106	psample10	CT	1
1607783-06	A9	1	2.230445076	0.168355424		14324-1.RAW	21:04:42	113.8215909	psample10	CT	1
1607783-07	A10	1	2.230445076	0.328919926		14325-1.RAW	21:15:12	220.2486742	psample10	CT	1
1607783-08	A11	1	2.230445076	0.041399574		14326-1.RAW	21:25:43	29.67135417	psample10	OK	1
1607783-09	A12	1	2.230445076	0.026638968		14327-1.RAW	21:36:14	19.88757102	psample10	OK	1
1607783-10	A13	1	2.230445076	0.027940455		14328-1.RAW	21:46:45	20.75023674	psample10	OK	1
1607783-11	A14	1	2.230445076	0.101853673		14329-1.RAW	21:57:15	69.7421875	psample10	OK	1
1607783-12	A15	1	2.230445076	0.04455141		14330-1.RAW	22:07:46	31.76048769	psample10	OK	1
1607783-13	A16	1	2.230445076	0.026604001		14331-1.RAW	22:18:17	19.86439394	psample10	OK	1
SEQ-CCV8	A17	1	2.230445076	0.479148536	95.95	14332-1.RAW	22:28:47	319.8248106	psample10	CT	1
SEQ-CCB6	A18	1	2.230445076	0.001069149	0.00	14333-1.RAW	22:39:18	2.939109848	psample10	OK	1

Failing Data Report - 6H12010

Sample ID	Analysis	Result	MRL	Dup Result	Source Result	True Value	Units	% Rec.	Rec. LCL	Rec. UCL	RPD	RPD Limit	Over Cal	Failure	Qualifier
6H12010-CCV4	MHg-CVAFS-S-MeClExt	0.684	0.201			0.50049	ng/L	137	67.00	133.00			PASS-OVER	FAIL-CCV	DNR

Analyst Reviewed By *Ry NZ* Date *8/15/16*

Peer Reviewed By *[Signature]* Date *8/15/16*

ANALYSIS SEQUENCE

6H12010

Instrument: Hg2700-1

Calibration ID: UNASSIGNED

Analyzed: 8/12/2016

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
5H12010-IBL1	QC	1			
5H12010-CAL1	QC	2	1604163		
5H12010-CAL2	QC	3	1604164		
5H12010-CAL3	QC	4	1604165		
5H12010-CAL4	QC	5	1604166		
5H12010-CAL5	QC	6	1604167		
5H12010-ICV1	QC	7	1603001		
6H12010-ICB1	QC	8			
6H12010-CCV1	QC	9	1603001		
6H12010-CCB1	QC	10			
6H12010-CCV2	QC	11	1603001		
6H12010-CCB2	QC	12			
6H12010-CCV3	QC	13	1603001		
6H12010-CCB3	QC	14			
F608155-BLK1	QC	15			
F608155-BLK2	QC	16			
F608155-BLK3	QC	17			
F608155-BS1	QC	18			
F608155-BSD1	QC	19			
F608155-DUP1	QC	20			
F608155-MS1	QC	21			
F608155-MSD1	QC	22			
F608155-MS2	QC	23			
F608155-MSD2	QC	24			
6H12010-CCV4	QC	25	1603001		
6H12010-CCB4	QC	26			
6H12010-CCV5	QC	27	1603001		
6H12010-CCV6	QC	28	1603001		
1607782-15	MHg-CVAFS-S-MeClExt	29			
1607782-16	MHg-CVAFS-S-MeClExt	30			
1607782-17	MHg-CVAFS-S-MeClExt	31			
1607782-18	MHg-CVAFS-S-MeClExt	32			
1607782-19	MHg-CVAFS-S-MeClExt	33			
1607782-20	MHg-CVAFS-S-MeClExt	34			
1607782-21	MHg-CVAFS-S-MeClExt	35			

Due Date: 8/24/2016

Page 1 of 2

ANALYSIS SEQUENCE

6H12010

Instrument: Hg2700-1

Calibration ID: UNASSIGNED

Analyzed: 8/12/2016

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
1607783-01	MHg-CVAFS-S-MeClExt	36			
1607783-02	MHg-CVAFS-S-MeClExt	37			
1607783-03	MHg-CVAFS-S-MeClExt	38			
6H12010-CCV7	QC	39	1603001		
6H12010-CCB5	QC	40			
1607783-04	MHg-CVAFS-S-MeClExt	41			
1607783-05	MHg-CVAFS-S-MeClExt	42			
1607783-06	MHg-CVAFS-S-MeClExt	43			
1607783-07	MHg-CVAFS-S-MeClExt	44			
1607783-08	MHg-CVAFS-S-MeClExt	45			
1607783-09	MHg-CVAFS-S-MeClExt	46			
1607783-10	MHg-CVAFS-S-MeClExt	47			
1607783-11	MHg-CVAFS-S-MeClExt	48			
1607783-12	MHg-CVAFS-S-MeClExt	49			
1607783-13	MHg-CVAFS-S-MeClExt	50			
6H12010-CCV8	QC	51	1603001		
6H12010-CCB6	QC	52			

 8/12/16
 Samples Loaded By _____ Date _____

 8/15/16
 Data Processed By _____ Date _____

Due Date: 8/24/2016

PREPARATION BENCH SHEET

F608155

Eurofins Frontier Global Sciences, Inc.

Matrix: Soil/Sediment

Prepared using: Hg Aquatic/Solids - EFGS-045 MeCl2 Extraction for Methyl Hg

Prepared: 8/12/2016

Lab Number	Sample ID and Source Sample	Initial (g)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F608155-BLK1	Blank	0.5	250					
F608155-BLK2	Blank	0.5	250					
F608155-BLK3	Blank	0.5	250					
F608155-BS1	Blank Spike	0.5	250	1506872	25			
F608155-BSD1	Blank Spike Dup	0.5	250	1506872	25			
F608155-DUP1	Duplicate [1607782-15]	0.542	250					
F608155-MS1	Matrix Spike [1607782-16]	0.584	250	1506872	25			
F608155-MS2	Matrix Spike [1607782-15]	0.542	250	1506872	25			
F608155-MSD1	Matrix Spike Dup [1607782-16]	0.58	250	1506872	25			
F608155-MSD2	Matrix Spike Dup [1607782-15]	0.582	250	1506872	25			

Standard ID(s): 1506872
Description: MHg New Primary 100 ng/mL spike

Expiration: 03-Nov-16 00:00

<u>Reagent ID(s):</u> 1602382	<u>Description:</u> Dichloromethane
1602604	Acetate Buffer
1602944	Ethylating Agent (For Methyl Mercury Analysis)
1603399	Boiling Chips for AFS prep
1603749	Ethylating Agent (For Methyl Mercury Analysis)
1604262	Acid Bromide
1604379	CuSO4

Expiration: 05-May-19 00:00
 15-Nov-16 00:00
 30-Nov-16 00:00
 01-Jun-17 00:00
 09-Jan-17 00:00
 02-Sep-16 00:00
 16-Oct-16 00:00

PREPARATION BENCH SHEET

F608155

Eurofins Frontier Global Sciences, Inc.

Matrix: Soil/Sediment

Prepared using: Hg Aquatic/Solids - EFGS-045 MeCl₂ Extraction for Methyl Hg

Prepared: 8/12/2016

Lab Number	Sample ID	Initial (g)	Final (mL)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1607782-15	WP2-4C (25-30 cm.)	0.585	250	-	-	-		
1607782-16	WP2-4C (5-10 cm.)	0.539	250	-	-	-		
1607782-17	WP2-1C (0-5 cm.)	0.535	250	-	-	-		
1607782-18	WP2-1C (15-20 cm.)	0.532	250	-	-	-		
1607782-19	WP2-1C (20-25 cm.)	0.537	250	-	-	-		
1607782-20	WP2-1C (5-10 cm.)	0.556	250	-	-	-		
1607782-21	WP2-1C (10-15 cm.)	0.574	250	-	-	-		
1607783-01	WP2-1B (0-5 cm.)	0.542	250	-	-	-		
1607783-02	WP2-1B (10-15 cm.)	0.556	250	-	-	-		
1607783-03	WP2-1B (15-20 cm.)	0.59	250	-	-	-		
1607783-04	WP2-1B (20-25 cm.)	0.522	250	-	-	-		
1607783-05	WP2-1B (25-30 cm.)	0.533	250	-	-	-		
1607783-06	WP2-1B (5-10 cm.)	0.543	250	-	-	-		
1607783-07	WP2-4B (0-5 cm.)	0.535	250	-	-	-		
1607783-08	WP2-4B (10-15 cm.)	0.569	250	-	-	-		
1607783-09	WP2-4B (15-20 cm.)	0.546	250	-	-	-		
1607783-10	WP2-4B (20-25 cm.)	0.589	250	-	-	-		
783-11	WP2-4B (25-30 cm.)	0.584	250	-	-	-		
783-12	WP2-4B (30-35 cm.)	0.564	250	-	-	-		

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PREPARATION BENCH SHEET

F608155

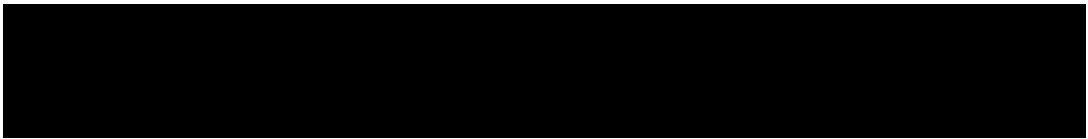
Eurofins Frontier Global Sciences, Inc.

Matrix: Soil/Sediment

Prepared using: Hg Aquatic/Solids - EFGS-045 MeCl₂ Extraction for Methyl Hg

Prepared: 8/12/2016

1607783-13	WP2-4B (35-40 cm.)	0.543	250	-	-	-		
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PREPARATION BENCH SHEET

F608155

Eurofins Frontier Global Sciences, Inc.

Matrix: Soil/Sediment

Prepared using: Hg Aquatic/Solids - EFGS-045 MeCl2 Extraction for Methyl Hg

Prepared: 8/12/2016

Lab Number	Sample ID and Source Sample	Initial (g)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F608155-BLK1	Blank	0.5	250					
F608155-BLK2	Blank	0.5	250					
F608155-BLK3	Blank	0.5	250					
F608155-BS1	Blank Spike	0.5	250	1506872	25			
F608155-BSD1	Blank Spike Dup	0.5	250	1506872	25			
F608155-DUP1	Duplicate [1607782-15]	0.542	250					
F608155-MS1	Matrix Spike [1607782-16]	0.584	250	1506872	25			
F608155-MS2	Matrix Spike [1607782-15]	0.542	250	1506872	25			
F608155-MSD1	Matrix Spike Dup [1607782-16]	0.58	250	1506872	25			
F608155-MSD2	Matrix Spike Dup [1607782-15]	0.582	250	1506872	25			

Standard ID(s): 1506872
Description: MHg New Primary 100 ng/mL spike

Expiration: 03-Nov-16 00:00

JH 8/15/16

<u>Reagent ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>
1600476	Acetate Buffer	26-Jul-16 00:00
1602382	Dichloromethane	05-May-19 00:00
1602604	Acetate Buffer	15-Nov-16 00:00
1602944	Ethylating Agent (For Methyl Mercury Analysis)	30-Nov-16 00:00
1603399	Boiling Chips for AFS prep	01-Jun-17 00:00
1603749	Ethylating Agent (For Methyl Mercury Analysis)	09-Jan-17 00:00
1604262	Acid Bromide	02-Sep-16 00:00
1604379	CuSO4	16-Oct-16 00:00

JH 8/15/16

PREPARATION BENCH SHEET

F608155

Eurofins Frontier Global Sciences, Inc.

Matrix: Soil/Sediment

Prepared using: Hg Aquatic/Solids - EFGS-045 MeCl₂ Extraction for Methyl Hg

Prepared: 8/12/2016

Lab Number	Sample ID	Initial (g)	Final (mL)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1607782-15	WP2-4C (25-30 cm.)	0.585	250	-	-	-		
1607782-16	WP2-4C (5-10 cm.)	0.539	250	-	-	-		
1607782-17	WP2-1C (0-5 cm.)	0.535	250	-	-	-		
1607782-18	WP2-1C (15-20 cm.)	0.532	250	-	-	-		
1607782-19	WP2-1C (20-25 cm.)	0.537	250	-	-	-		
1607782-20	WP2-1C (5-10 cm.)	0.556	250	-	-	-		
1607782-21	WP2-1C (10-15 cm.)	0.574	250	-	-	-		
1607783-01	WP2-1B (0-5 cm.)	0.542	250	-	-	-		
1607783-02	WP2-1B (10-15 cm.)	0.556	250	-	-	-		
1607783-03	WP2-1B (15-20 cm.)	0.59	250	-	-	-		
1607783-04	WP2-1B (20-25 cm.)	0.522	250	-	-	-		
1607783-05	WP2-1B (25-30 cm.)	0.533	250	-	-	-		
1607783-06	WP2-1B (5-10 cm.)	0.543	250	-	-	-		
1607783-07	WP2-4B (0-5 cm.)	0.535	250	-	-	-		
1607783-08	WP2-4B (10-15 cm.)	0.569	250	-	-	-		
1607783-09	WP2-4B (15-20 cm.)	0.546	250	-	-	-		
1607783-10	WP2-4B (20-25 cm.)	0.589	250	-	-	-		
1607783-11	WP2-4B (25-30 cm.)	0.584	250	-	-	-		
1607783-12	WP2-4B (30-35 cm.)	0.564	250	-	-	-		

JH 8/15/16

PREPARATION BENCH SHEET

F608155

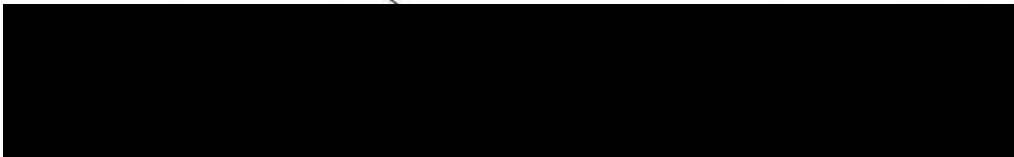
Eurofins Frontier Global Sciences, Inc.

Matrix: Soil/Sediment

Prepared using: Hg Aquatic/Solids - EFGS-045 MeCl₂ Extraction for Methyl Hg

Prepared: 8/12/2016

1607783-13	WP2-4B (35-40 cm.)	0.543	250	-	-	-		
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JH
8/15/16

PREPARATION BENCH SHEET

n 8/12/16 27001 ~~6H2~~
 6H12021
n 8/12/16

F608155

Eurofins Frontier Global Sciences, Inc.

Matrix: Soil/Sediment

Prepared using: Hg Aquatic/Solids - EFGS-045 MeCl2 Extraction for Methyl Hg

Prepared: 8/12/2016

Lab Number	Sample ID and Source Sample	Initial (g)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F608155-BLK1	Blank	0.5	250					1x
F608155-BLK2	Blank	0.5	250					1x
F608155-BLK3	Blank	0.5	250					1x
F608155-BS1	Blank Spike	0.5	250	1506872	25			10x
F608155-BSD1	Blank Spike Dup	0.5	250	1506872	25			10x
F608155-DUP1	Duplicate [1607782-15]	0.542	250					1x
F608155-MS1	Matrix Spike [1607782-16]	0.584	250	1506872	25			10x
F608155-MS2	Matrix Spike [1607782-15]	0.542	250	1506872	25			10x
F608155-MSD1	Matrix Spike Dup [1607782-16]	0.58	250	1506872	25			10x
F608155-MSD2	Matrix Spike Dup [1607782-15]	0.582	250	1506872	25			10x

Standard ID(s): 1506872
Description: MHg New Primary 100 ng/mL spike

Expiration: 03-Nov-16 00:00

Reagent ID(s): 1602382, 1603399, 1604262, 1604379
Description: Dichloromethane, Boiling Chips for AFS prep, Acid Bromide, CuSO4

Expiration: 05-May-19 00:00, 01-Jun-17 00:00, 02-Sep-16 00:00, 16-Oct-16 00:00

PREPARATION BENCH SHEET

F608155

Eurofins Frontier Global Sciences, Inc.

Matrix: Soil/Sediment

Prepared using: Hg Aquatic/Solids - EFGS-045 MeCl2 Extraction for Methyl Hg

Prepared: 8/12/2016

Lab Number	Sample ID	Initial (g)	Final (mL)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1607782-15	WP2-4C (25-30 cm.)	0.585	250	-	-	-		1x
1607782-16	WP2-4C (5-10 cm.)	0.539	250	-	-	-		1x
1607782-17	WP2-1C (0-5 cm.)	0.535	250	-	-	-		1x
1607782-18	WP2-1C (15-20 cm.)	0.532	250	-	-	-		1x
1607782-19	WP2-1C (20-25 cm.)	0.537	250	-	-	-		1x
1607782-20	WP2-1C (5-10 cm.)	0.556	250	-	-	-		1x
1607782-21	WP2-1C (10-15 cm.)	0.574	250	-	-	-		1x
1607783-01	WP2-1B (0-5 cm.)	0.542	250	-	-	-		1x
1607783-02	WP2-1B (10-15 cm.)	0.556	250	-	-	-		1x
1607783-03	WP2-1B (15-20 cm.)	0.59	250	-	-	-		1x
1607783-04	WP2-1B (20-25 cm.)	0.522	250	-	-	-		1x
1607783-05	WP2-1B (25-30 cm.)	0.533	250	-	-	-		1x
1607783-06	WP2-1B (5-10 cm.)	0.543	250	-	-	-		1x
1607783-07	WP2-4B (0-5 cm.)	0.535	250	-	-	-		1x
1607783-08	WP2-4B (10-15 cm.)	0.569	250	-	-	-		1x
1607783-09	WP2-4B (15-20 cm.)	0.546	250	-	-	-		1x
1607783-10	WP2-4B (20-25 cm.)	0.589	250	-	-	-		1x
1607783-11	WP2-4B (25-30 cm.)	0.584	250	-	-	-		1x
1607783-12	WP2-4B (30-35 cm.)	0.564	250	-	-	-		1x

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Date: 8/24/2016

PREPARATION BENCH SHEET

F608155

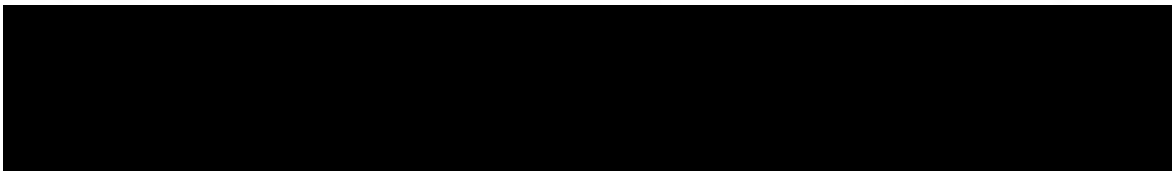
Eurofins Frontier Global Sciences, Inc.

Matrix: Soil/Sediment

Prepared using: Hg Aquatic/Solids - EFGS-045 MeCl₂ Extraction for Methyl Hg

Prepared: 8/12/2016

1607783-13	WP2-4B (35-40 cm.)	0.543	250	-	-	-		1x
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Technician: Dwyer Batch#: F608155 Date: 8/5/16

EFGS-045 Sediments - Methyl Mercury - KBr/CH₂Cl₂: Heat Block 45°C (nitrogen purge for 30 minutes). Vial Type: Glass Teflon

Balance#: 10205 ^{8/12/16} Calibrated? Yes No
 1st Time in: 10:05 Actual Temp. (raw): 49.6/49.9 °C w/ CF: 50.2/50.6 °C
 1st Time out: 10:35 Actual Temp. (raw): 49.7/50.1 °C w/ CF: 50.0/50.4 °C
 2nd Time in: 10:40 Actual Temp. (raw): 49.6/50.0 °C w/ CF: 50.2/50.6 °C
 2nd Time out: 11:15 Actual Temp. (raw): 49.7/50.1 °C w/ CF: 50.4/50.5 °C
 3rd Time in: 11:20 Actual Temp. (raw): 49.6/50.0 °C w/ CF: 50.3/50.7 °C
 3rd Time out: 11:50 Actual Temp. (raw): 49.8/50.2 °C w/ CF: 50.2/50.6 °C ^{50.7°C 8/12/16}

Final vol.: 50 mL (LIMS ID: N/A) Spike vol.: 25 µL (LIMS ID: 1506872)
 Spike Witness: DA 8/12/16 (initial and date)

1st Purge time Start: 9:05 1st Purge Time End: 10:50 2nd Purge time Start: 11:05 2nd Purge Time End: 11:20
 KBr LIMS ID: 1604262 Aide Bromide Pipette SN#: CJ17087 Calibration Date: 8-9-16
 CH₂Cl₂ LIMS ID: 1602382 Pipette SN#: U224486 Calibration Date: 8/8/16
 CuSO₄ LIMS ID: 1604379 Dispenser #: 12591647 Calibrated? Yes No
 Other Acid LIMS ID: N/A Dispenser #: N/A
 Teflon Vial # N/A Boiling Chip lot # 1603399 Centrifuge Tube: J246161-9884

Vial #	Sample ID Number	Sample Size <input type="checkbox"/> mL <input checked="" type="checkbox"/> g	Vial #	Sample ID Number	Sample Size <input type="checkbox"/> mL <input checked="" type="checkbox"/> g	Comments
1	F608155-BLK1	0.499	23	1607783-06	0.543	weigh all sample
2	F608155-BLK2	0.508	24	1607783-07	0.535	on 8/5/16
3	F608155-BLK3	0.498	25	1607783-08	0.569	Add Add Acide
4	F608155-BS1	0.530	26	1607783-09	0.546	on 8/12/16
5	F608155-BSD1	0.537	27	1607783-10	0.589	purge samples
6	1607782-15	0.585	28	1607783-11	0.584	on 8/12/16
7	F608155-DUP1(1607782-15)	0.542	29	1607783-12	0.564	Thermometer
8	F608155-MS1(1607782-15)	0.584	30	1607783-13	0.543	140418015
9	F608155-MSD1(1607782-15)	0.580	31			unit 10
10	1607782-16	0.539	32			140418012
11	F608155-MS2(1607782-16)	0.542	33			unit 11
12	F608155-MSD2(1607782-16)	0.582	34			stainless steel
13	1607782-17	0.535	35			4: Time in 11:55
14	1607782-18	0.532	36			Actual Temp
15	1607782-19	0.537	37			49.7/ 50.1
16	1607782-20	0.556	38			450.3/ 50.7
17	1607782-21	0.574	39			8-12-16
18	1607783-01	0.542	40			DA
19	1607783-02	0.556	41			8/12/16
20	1607783-03	0.590	42			DA
21	1607783-04	0.522	43			
22	1607783-05	0.533	44			

Eurofins Frontier Global Sciences / Mercury Sample Digestions (LOG-HG-013.13) / Effective 08/03/16 QA2016-124
 Verified By: DA 8/12/16 DA 8/12/16 Page 4 of 14

Failing Data Report - 6H12011

Sample ID	Analysis	Result	MRL	Dup Result	Source Result	True Value	Units	% Rec.	Rec. LCL	Rec. UCL	RPD	RPD Limit	Over Cal	Failure	Qualifier
F608273-BSD1	MHg-CVAFS-W-Dist	0.968	0.050	0.704		1.0010	ng/L	96.7	70.00	130.00	31.6	25.00	PASS-OVER	FAIL-BSD (RPD)	QR-07
F608273-DUP1	MHg-CVAFS-W-Dist	0.151	0.050	0.051	0.051		ng/L				98.7	35.00	PASS-OVER	FAIL-DUP	QR-04
F608273-MS2	MHg-CVAFS-W-Dist	0.347	0.050		0.029	1.0010	ng/L	31.7	65.00	130.00			PASS-OVER	FAIL-MS	QM-07
F608273-MSD2	MHg-CVAFS-W-Dist	0.277	0.050	0.347	0.029	1.0010	ng/L	24.8	65.00	130.00	22.3	35.00	PASS-OVER	FAIL-MSD (Rec.)	QM-07
6H12011-CCV4	MHg-CVAFS-W-Dist	0.684	0.045			0.50049	ng/L	137	67.00	133.00			PASS-OVER	FAIL-CCV	DNR


 Analyst Reviewed By _____ Date 8/15/16


 Peer Reviewed By _____ Date 8/15/16

ANALYSIS SEQUENCE

6H12011

Instrument: Hg2700-1

Calibration ID: UNASSIGNED

Analyzed: 8/12/2016

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
5H12011-IBL1	QC	1			
5H12011-CAL1	QC	2	1604163		
5H12011-CAL2	QC	3	1604164		
6H12011-CAL3	QC	4	1604165		
6H12011-CAL4	QC	5	1604166		
6H12011-CAL5	QC	6	1604167		
6H12011-ICV1	QC	7	1603001		
6H12011-ICB1	QC	8			
F608273-BLK1	QC	9			
F608273-BLK2	QC	10			
F608273-BLK3	QC	11			
F608273-BS1	QC	12			
F608273-BSD1	QC	13			
F608273-DUP1	QC	14			
F608273-MS1	QC	15			
F608273-MS2	QC	16			
F608273-MSD1	QC	17			
F608273-MSD2	QC	18			
6H12011-CCV1	QC	19	1603001		
6H12011-CCB1	QC	20			
1607542-01	MHg-CVAFS-W-Dist	21			Scan all data for level IV report
1607542-03	MHg-CVAFS-W-Dist	22			Scan all data for level IV report
1607542-04	MHg-CVAFS-W-Dist	23			Scan all data for level IV report
1607542-05	MHg-CVAFS-W-Dist	24			Scan all data for level IV report
1607542-06	MHg-CVAFS-W-Dist	25			Scan all data for level IV report
1607542-07	MHg-CVAFS-W-Dist	26			Scan all data for level IV report
1607586-12	MHg-CVAFS-W-Dist	27			Scan all data - Level IV
1607586-19	MHg-CVAFS-W-Dist	28			Scan all data - Level IV
1607586-20	MHg-CVAFS-W-Dist	29			Scan all data - Level IV
1607586-21	MHg-CVAFS-W-Dist	30			Scan all data - Level IV
6H12011-CCV2	QC	31	1603001		
6H12011-CCB2	QC	32			
1607772-01	MHg-CVAFS-W-Dist	33			
1607772-02	MHg-CVAFS-W-Dist	34			
1607772-03	MHg-CVAFS-W-Dist	35			

Due Date: 8/11/2016

Page 1 of 2

ANALYSIS SEQUENCE

6H12011

Instrument: Hg2700-1

Analyzed: 8/12/2016

Calibration ID: UNASSIGNED

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
1607772-04	MHg-CVAFS-W-Dist	36			
1607772-05	MHg-CVAFS-W-Dist	37			
1607772-06	MHg-CVAFS-W-Dist	38			
1607772-07	MHg-CVAFS-W-Dist	39			
1607586-04RE3	MHg-CVAFS-W-Dist	40			From F608251 by DMH on 11-Aug-16
1607805-01	MHg-CVAFS-W-Dist	41			Scan all data - Level IV
1607805-02	MHg-CVAFS-W-Dist	42			Scan all data - Level IV
6H12011-CCV3	QC	43	1603001		
6H12011-CCB3	QC	44			
6H12011-CCV4	QC	45	1603001		
6H12011-CCB4	QC	46			
6H12011-CCV5	QC	47	1603001		
6H12011-CCV6	QC	48	1603001		
6H12011-CCV7	QC	49	1603001		
6H12011-CCB5	QC	50			
6H12011-CCV8	QC	51	1603001		
6H12011-CCB6	QC	52			

[Signature] 8/12/16
 Samples Loaded By Date

[Signature] 8/15/16
 Data Processed By Date
n 8/15/16

Due Date: 8/11/2016

Page 2 of 2

PREPARATION BENCH SHEET

F608273

Eurofins Frontier Global Sciences, Inc.

Matrix: Water

Prepared using: Hg Aquatic/Solids - EFGS-013 Methyl Hg Distillation for Water

Prepared: 8/11/2016

Lab Number	Sample ID and Source Sample	Initial (mL)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F608273-BLK1	Blank	45	40					
F608273-BLK2	Blank	45	40					
F608273-BLK3	Blank	45	40					
F608273-BS1	Blank Spike	45	40	1603908	45			
F608273-BSD1	Blank Spike dup	45	40	1603908	45			
F608273-DUP1	Duplicate [1607542-01]	45	40					
F608273-MS1	Matrix Spike [1607586-12]	45	40	1603908	45			
F608273-MS2	Matrix Spike [1607772-01]	45	40	1603908	45			
F608273-MSD1	Matrix Spike Dup [1607586-12]	45	40	1603908	45			
F608273-MSD2	Matrix Spike Dup [1607772-01]	45	40	1603908	45			

Standard ID(s): 1603908
Description: MHg New Primary 1.0 ng/mL CAL

Expiration: 19-Oct-16 00:00

Reagent ID(s):
 1602604
 1602944
 1604432
 1604511
 1604518

Description:
 Acetate Buffer
 Ethylating Agent (For Methyl Mercury Analysis)
 APDC
 0.5% Distillation Dilute (Made Daily)
 2.5% Ascorbic Acid

Expiration:
 15-Nov-16 00:00
 30-Nov-16 00:00
 17-Aug-16 00:00
 07-Feb-17 00:00
 19-Aug-16 00:00

PREPARATION BENCH SHEET

F608273

Eurofins Frontier Global Sciences, Inc.

Prepared: 8/11/2016

Matrix: Water

Prepared using: Hg Aquatic/Solids - EFGS-013 Methyl Hg Distillation for Water

Lab Number	Sample ID	Initial (mL)	Final (mL)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1607542-01	OL-2434-01	45	40	-	-	-	Scan all data for level IV report	
1607542-03	OL-2434-02	45	40	-	-	-	Scan all data for level IV report	
1607542-04	OL-2434-03	45	40	-	-	-	Scan all data for level IV report	
1607542-05	OL-2434-04	45	40	-	-	-	Scan all data for level IV report	
1607542-06	OL-2434-05	45	40	-	-	-	Scan all data for level IV report	
1607542-07	OL-2434-06	45	40	-	-	-	Scan all data for level IV report	
1607586-04RE3	1524 WQ1b-c_071816_SW_10 Dissolved	45	40	-	-	-	From F608251 by DMH on 11-Aug-16	From F608251 by DMH on 11-Aug-16
1607586-12	1528 WQ-ECH_071816_SW_10 Dissolved	45	40	QC	-	-	MS/MSD Scan all data - Level IV	
1607586-19	1532 WQ-FPT_071816_SW_10	45	40	-	-	-	Scan all data - Level IV	
1607586-20	1532 WQ-FPT_071816_SW_10 Dissolved	45	40	-	-	-	Scan all data - Level IV	
1607586-21	1533 EB_071916_SW_QC Dissolved	45	40	-	-	-	Scan all data - Level IV	
1607772-01	WP2-1E (20 m.)	45	40	-	-	-		
1607772-02	WP2-1E (40 m.)	45	40	-	-	-		
1607772-03	WP2-1E (Bottom)	45	40	-	-	-		
1607772-04	WP2-1E (Surface)	45	40	-	-	-		
1607772-05	WP2-2E (20 tn.)	45	40	-	-	-		
1607772-06	WP2-2E (40 m.)	45	40	-	-	-		
1607772-07	WP2-2E (Bottom)	45	40	-	-	-		
1607805-01	ADD-02_072216_SW_10	45	40	-	-	-	Scan all data - Level IV	

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Date: 8/11/2016

PREPARATION BENCH SHEET

F608273

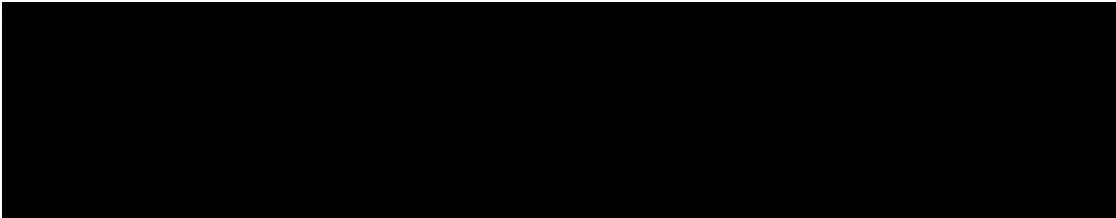
Eurofins Frontier Global Sciences, Inc.

Matrix: Water

Prepared using: Hg Aquatic/Solids - EFGS-013 Methyl Hg Distillation for Water

Prepared: 8/11/2016

1607805-02	ADD-02_072216_SW_10 Dissolved	45	40	-	-	-	Scan all data - Level IV	
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PREPARATION BENCH SHEET

F608273

Euofins Frontier Global Sciences, Inc.

Prepared: 8/11/2016

Matrix: Water

Prepared using: Hg Aquatic/Solids - EFGS-013 Methyl Hg Distillation for Water

Lab Number	Sample ID and Source Sample	Initial (mL)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F608273-BLK1	Blank	45	40					
F608273-BLK2	Blank	45	40					
F608273-BLK3	Blank	45	40					
F608273-BS1	Blank Spike	45	40	1603908	45			
F608273-BSD1	Blank Spike dup	45	40	1603908	45			
F608273-DUP1	Duplicate [1607542-01]	45	40					
F608273-MS1	Matrix Spike [1607586-12]	45	40	1603908	45			
F608273-MS2	Matrix Spike [1607772-01]	45	40	1603908	45			
F608273-MSD1	Matrix Spike Dup [1607586-12]	45	40	1603908	45			
F608273-MSD2	Matrix Spike Dup [1607772-01]	45	40	1603908	45			

Standard ID(s):
1603908

Description:
MHg New Primary 1.0 ng/mL CAL

Expiration:
19-Oct-16 00:00

Reagent ID(s):
1604432
1604511

Description:
APDC
0.5% Distillation Dilute (Made Daily)

Expiration:
17-Aug-16 00:00
07-Feb-17 00:00

1604518
1602604
1602944

JT 8/15/16

PREPARATION BENCH SHEET

F608273

Eurofins Frontier Global Sciences, Inc.

Prepared: 8/11/2016

Matrix: Water

Prepared using: Hg Aquatic/Solids - EFGS-013 Methyl Hg Distillation for Water

Lab Number	Sample ID	Initial (mL)	Final (mL)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1607542-01	OL-2434-01	45	40	-	-	-	Scan all data for level IV report	
1607542-03	OL-2434-02	45	40	-	-	-	Scan all data for level IV report	
1607542-04	OL-2434-03	45	40	-	-	-	Scan all data for level IV report	
1607542-05	OL-2434-04	45	40	-	-	-	Scan all data for level IV report	
1607542-06	OL-2434-05	45	40	-	-	-	Scan all data for level IV report	
1607542-07	OL-2434-06	45	40	-	-	-	Scan all data for level IV report	
1607586-04RE3	1524 WQ1b-c_071816_SW_10 Dissolved	45	40	-	-	-	From F608251 by DMH on 11-Aug-16	From F608251 by DMH on 11-Aug-16
1607586-12	1528 WQ-ECH_071816_SW_10 Dissolved	45	40	QC	-	-	MS/MSD Scan all data - Level IV	
1607586-19	1532 WQ-FPT_071816_SW_10	45	40	-	-	-	Scan all data - Level IV	
1607586-20	1532 WQ-FPT_071816_SW_10 Dissolved	45	40	-	-	-	Scan all data - Level IV	
1607586-21	1533 EB_071916_SW_QC Dissolved	45	40	-	-	-	Scan all data - Level IV	
1607772-01	WP2-1E (20 m.)	45	40	-	-	-		
1607772-02	WP2-1E (40 m.)	45	40	-	-	-		
1607772-03	WP2-1E (Bottom)	45	40	-	-	-		
1607772-04	WP2-1E (Surface)	45	40	-	-	-		
1607772-05	WP2-2E (20 tn.)	45	40	-	-	-		
1607772-06	WP2-2E (40 m.)	45	40	-	-	-		
1607772-07	WP2-2E (Bottom)	45	40	-	-	-		
07805-01	ADD-02_072216_SW_10	45	40	-	-	-	Scan all data - Level IV	

JH
8/15/16

PREPARATION BENCH SHEET

F608273

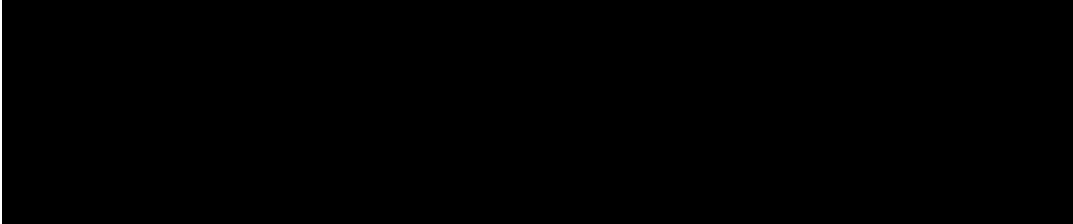
Eurofins Frontier Global Sciences, Inc.

Matrix: Water

Prepared using: Hg Aquatic/Solids - EFGS-013 Methyl Hg Distillation for Water

Prepared: 8/11/2016

1607805-02	ADD-02_072216_SW_10 Dissolved	45	40	-	-	-	Scan all data - Level IV
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JA 8/15/16

PREPARATION BENCH SHEET

RW 8/12/16 27001 6412010

F608273

Eurofins Frontier Global Sciences, Inc.

Matrix: Water

Prepared using: Hg Aquatic/Solids - EFGS-013 Methyl Hg Distillation for Water

Prepared: 8/11/2016

Lab Number	Sample ID and Source Sample	Initial (mL)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F608273-BLK1	Blank	45	40					1.25x
F608273-BLK2	Blank	45	40					1.25x
F608273-BLK3	Blank	45	40					1.25x
F608273-BS1	Blank Spike	45	40	1603908	45			1.25x
F608273-BSD1	Blank Spike dup	45	40	1603908	45			1.25x
F608273-DUP1	Duplicate [1607542-01]	45	40					1.25x
F608273-MS1	Matrix Spike [1607586-12]	45	40	1603908	45			1.25x
F608273-MS2	Matrix Spike [1607772-01]	45	40	1603908	45			1.25x
F608273-MSD1	Matrix Spike Dup [1607586-12]	45	40	1603908	45			1.25x
F608273-MSD2	Matrix Spike Dup [1607772-01]	45	40	1603908	45			1.25x

Standard ID(s):
1603908

Description:
MHg New Primary 1.0 ng/mL CAL

Expiration:
19-Oct-16 00:00

Reagent ID(s):
1604432
1604511

Description:
APDC
0.5% Distillation Dilute (Made Daily)

Expiration:
17-Aug-16 00:00
07-Feb-17 00:00

1604518
1602604
1602944

PREPARATION BENCH SHEET

F608273

Eurofins Frontier Global Sciences, Inc.

Prepared: 8/11/2016

Prepared using: Hg Aquatic/Solids - EFGS-013 Methyl Hg Distillation for Water

Matrix: Water

Lab Number	Sample ID	Initial (mL)	Final (mL)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1607542-01	OL-2434-01	45	40	-	-	-	Scan all data for level IV report	1.25x
1607542-03	OL-2434-02	45	40	-	-	-	Scan all data for level IV report	1.25x
1607542-04	OL-2434-03	45	40	-	-	-	Scan all data for level IV report	1.25x
1607542-05	OL-2434-04	45	40	-	-	-	Scan all data for level IV report	1.25x
1607542-06	OL-2434-05	45	40	-	-	-	Scan all data for level IV report	1.25x
1607542-07	OL-2434-06	45	40	-	-	-	Scan all data for level IV report	1.25x
1607586-04RE3	1524 WQ1b-c_071816_SW_10 Dissolved	45	40	-	-	-	From F608251 by DMH on 11-Aug-16	From F608251 by DMH on 11-Aug-16 1.25x
1607586-12	1528 WQ-ECH_071816_SW_10 Dissolved	45	40	QC	-	-	MS/MSD Scan all data - Level IV	1.25x
1607586-19	1532 WQ-FPT_071816_SW_10	45	40	-	-	-	Scan all data - Level IV	1.25x
1607586-20	1532 WQ-FPT_071816_SW_10 Dissolved	45	40	-	-	-	Scan all data - Level IV	1.25x
1607586-21	1533 EB_071916_SW_QC Dissolved	45	40	-	-	-	Scan all data - Level IV	1.25x
1607772-01	WP2-1E (20 m.)	45	40	-	-	-		1.25x
1607772-02	WP2-1E (40 m.)	45	40	-	-	-		1.25x
1607772-03	WP2-1E (Bottom)	45	40	-	-	-		1.25x
1607772-04	WP2-1E (Surface)	45	40	-	-	-		1.25x
1607772-05	WP2-2E (20 m.)	45	40	-	-	-		1.25x
1607772-06	WP2-2E (40 m.)	45	40	-	-	-		1.25x
1607772-07	WP2-2E (Bottom)	45	40	-	-	-		1.25x
1607805-01	ADD-02_072216_SW_10	45	40	-	-	-	Scan all data - Level IV	1.25x

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PREPARATION BENCH SHEET

F608273

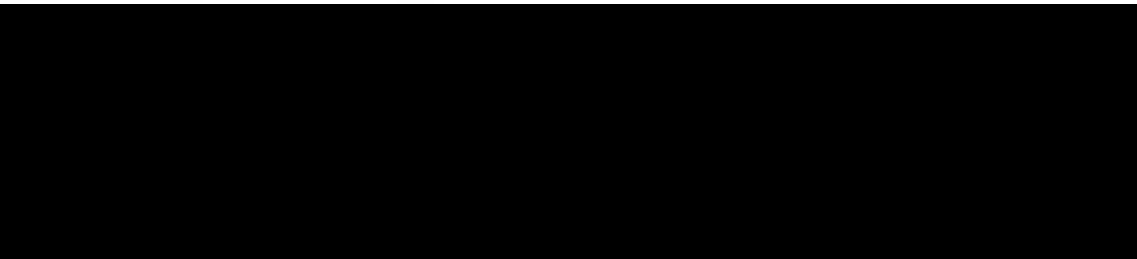
Eurofins Frontier Global Sciences, Inc.

Matrix: Water

Prepared using: Hg Aquatic/Solids - EFGS-013 Methyl Hg Distillation for Water

Prepared: 8/11/2016

1607805-02	ADD-02_072216_SW_10 Dissolved	45	40	-	-	-	Scan all data - Level IV	1.25a
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Methyl Mercury Distillations (EPA 1630)

Name: Duyen Date: 8/11/16 Batch #: F608273 Sample Matrix: Water

WO#: 1607542, 1607586, 1607772, 1607805

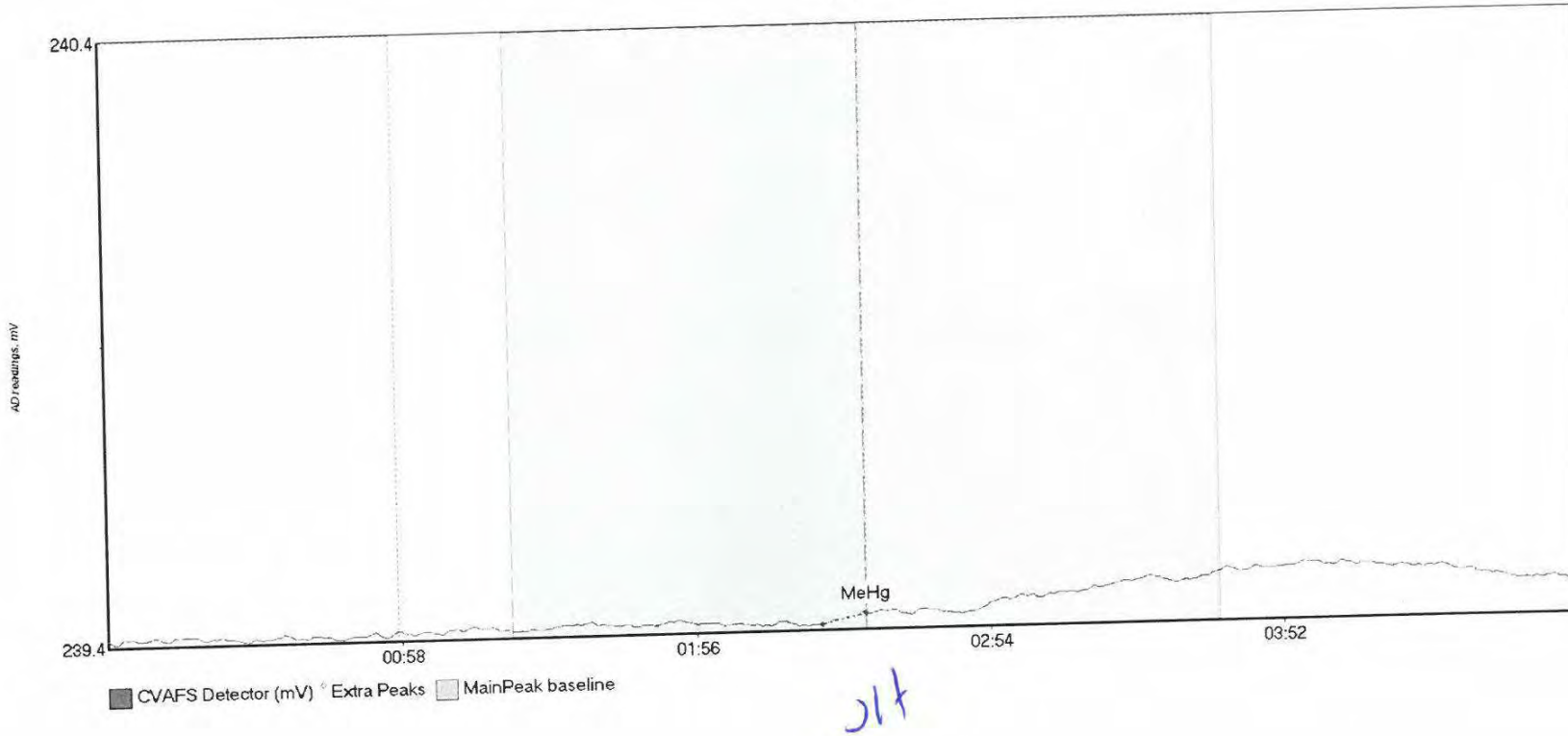
The pH of the preserved sample must be documented before an aliquot is removed for preparation.

Digest #	Sample ID Number	Preserved pH	Sample Size (mL)	Final pH (≥3)
Blk1	F608273 Blank1	1.0	45	3.0
Blk2	F608273 Blank2	1.0	45	3.0
Blk3	F608273 Blank3	1.0	45	3.0
BS	F608273 BS	1.0	45	3.0
BS0	F608273 BS0	1.0	45	3.0
Dup1	F608273 Dup1	1.0	45	3.0
MS1	F608273 MS1	1.0	45	3.0
MS01	F608273 MS01	1.0	45	3.0
MS2	F608273 MS2 ⁸⁻¹¹⁻¹⁶	1.0	45	4.0
MS02	F608273 MS02	1.0	45	4.0
1	1607542-01 B	1.0	45	3.0
2	1607542-03 B	1.0	45	3.0
3	1607542-04 B	1.0	45	3.0
4	1607542-05 B	1.0	45	3.0
5	1607542-06 B	1.0	45	3.0
6	1607542-07 B	1.0	45	3.0
7	1607586-12 B	1.0	45	3.0
8	1607586-19 B	1.0	45	3.0
9	1607586-20 B	1.0	45	3.0
10	1607586-21 B	1.0	45	4.0
11	1607772-01 A	1.0	45	4.0
12	1607772-02 A	1.0	45	4.0
13	1607772-03 A	1.0	45	4.0
14	1607772-04 A	1.0	45	3.0
15	1607772-05 A	1.0	45	3.0
16	1607772-06 A	1.0	45	3.0
17	1607772-07 A	1.0	45	3.0
18	1607586-04 RE3 ^{8/11/16}	1.0	45	3.0
19	1607805-01 B	1.0	45	4.0
20	1607586-04 RE3			
20	1607805-02 B	1.0	45	4.0

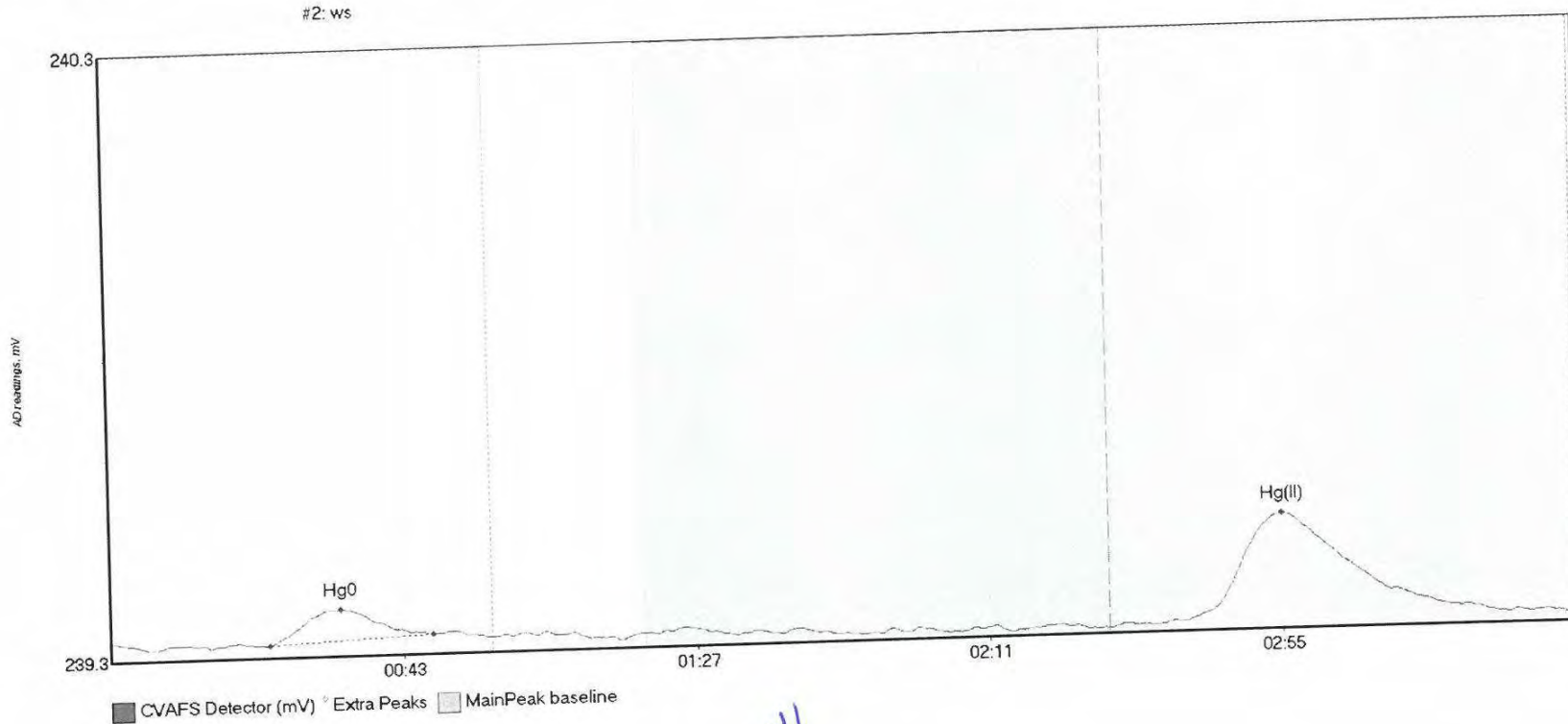
Spike ID: 1603908
 Spike Amount: 45 µL
 Spike Witness: M-8/11/16
 Balance #: 2
 Calibrated? Yes No
 Pipette #: U2448
 Cal. Date: 8/8/16
 Pipette #: N27707
 Cal. Date: 8/9/16
 Pipette #: U17087
 Cal. Date: 8/9/16
 APDC ID: 1604432
 HCI ID: 1604511
 Temperature: No set range as the temp. may be changed to keep flow rate of ≥10 mL per hour. Temperature is recorded for informational purposes only.
 Unit 1: 121.0
 Unit 2: 122.
 Unit 3: 120.9
 Unit 4: 120.1
 Unit 5: 122.
 Unit 6: 122.
 Comments:
 Dup/Source: 1607542-01
 MS1, MS01/Source: 1607586-12
 MS2, MS02 Source: 1607772-01
 #8-11-16
 1607586-04 RE3
 8-11-16 1607772-02 A 4.0

Verified M-8/11/16

#1: Clean

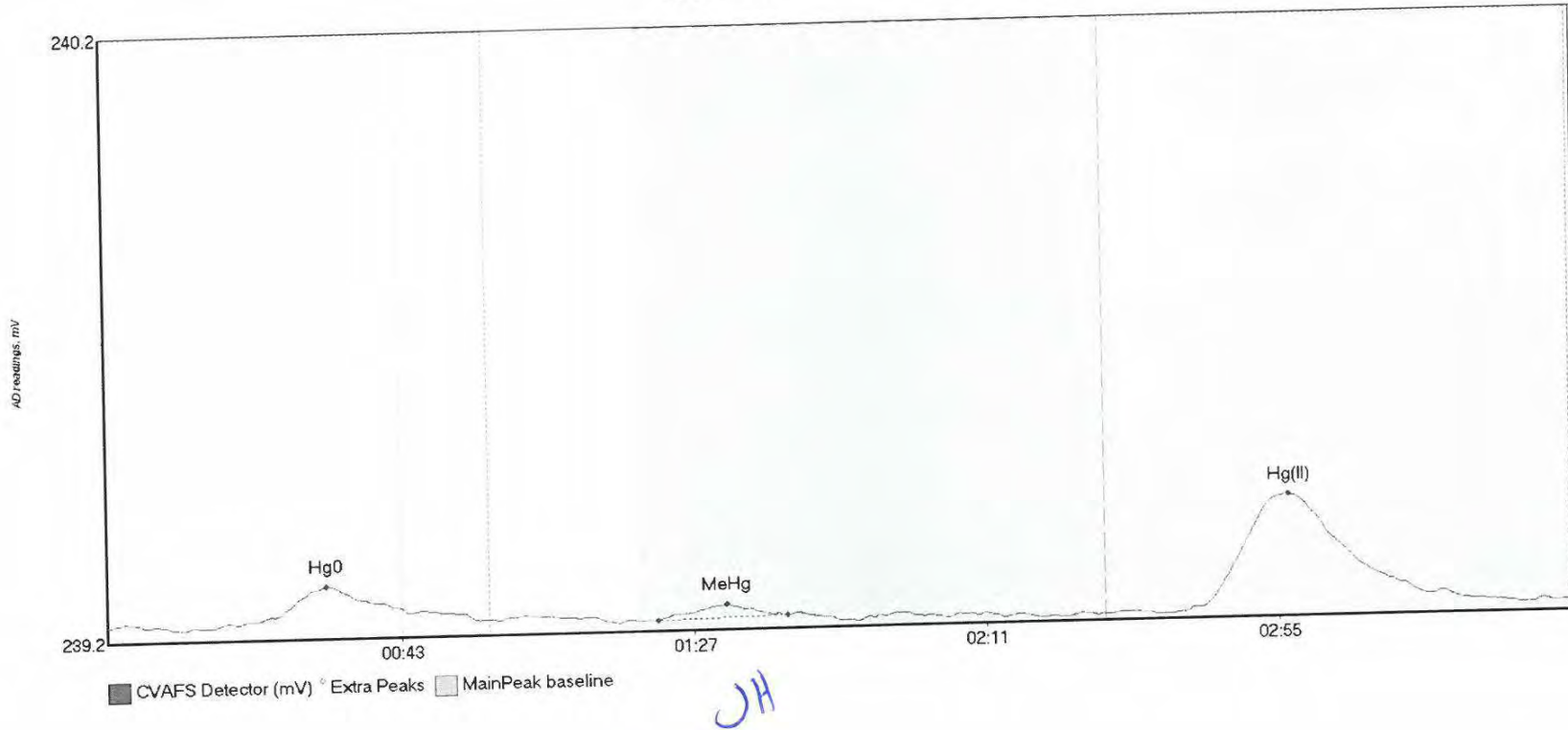


Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment	016
Clean	0.111	141.2	150.0	239.45	239.46	149.9	0.018	CT	239.4474	0.00	0.05		



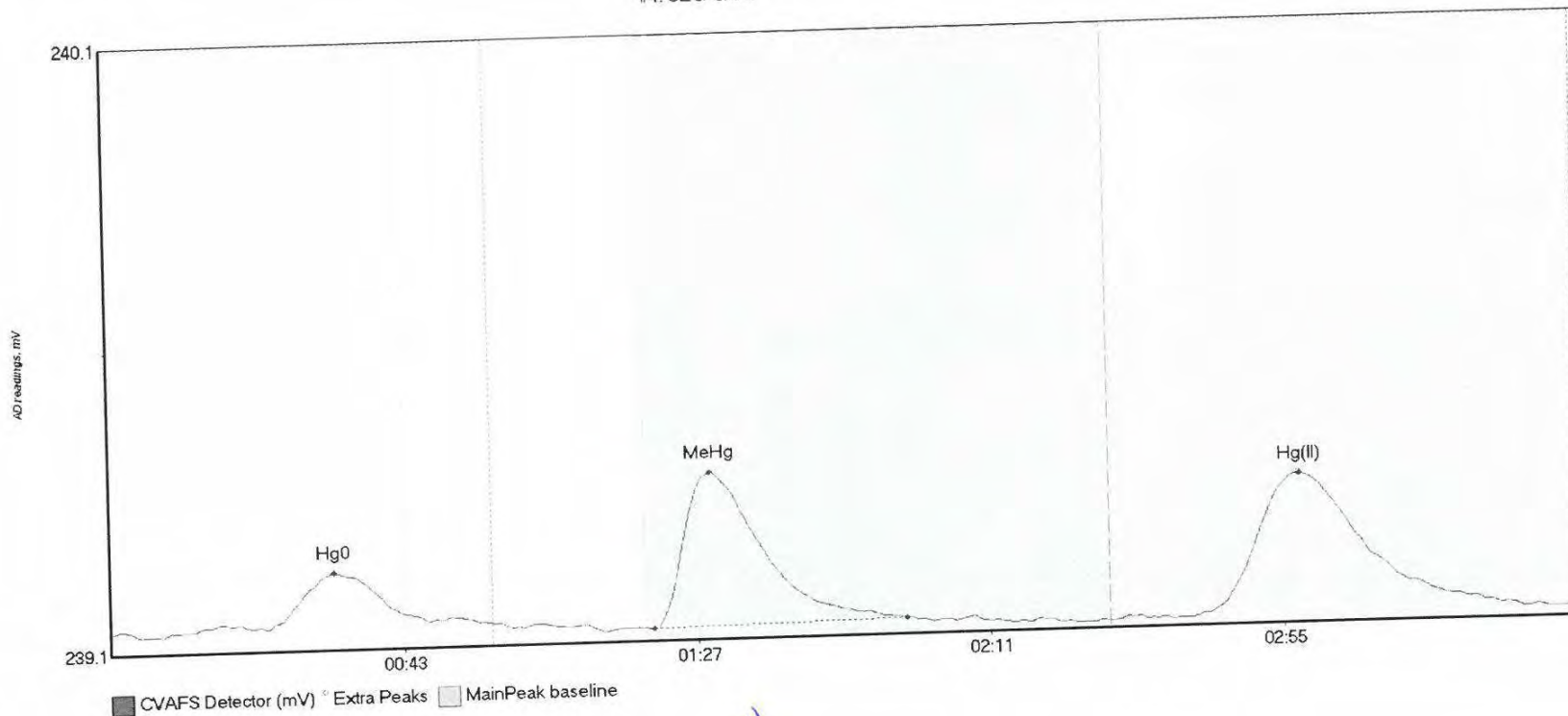
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
ws Hg0	6.583	23.8	48.5	239.34	239.36	34.6	0.058	OK	239.3547	0.00	-0.02	
ws Hg(II)	34.508	158.3	218.9	239.34	239.34	176.1	0.177	OK	239.3547	0.00	-0.02	016

#3: SEQ-IBL1

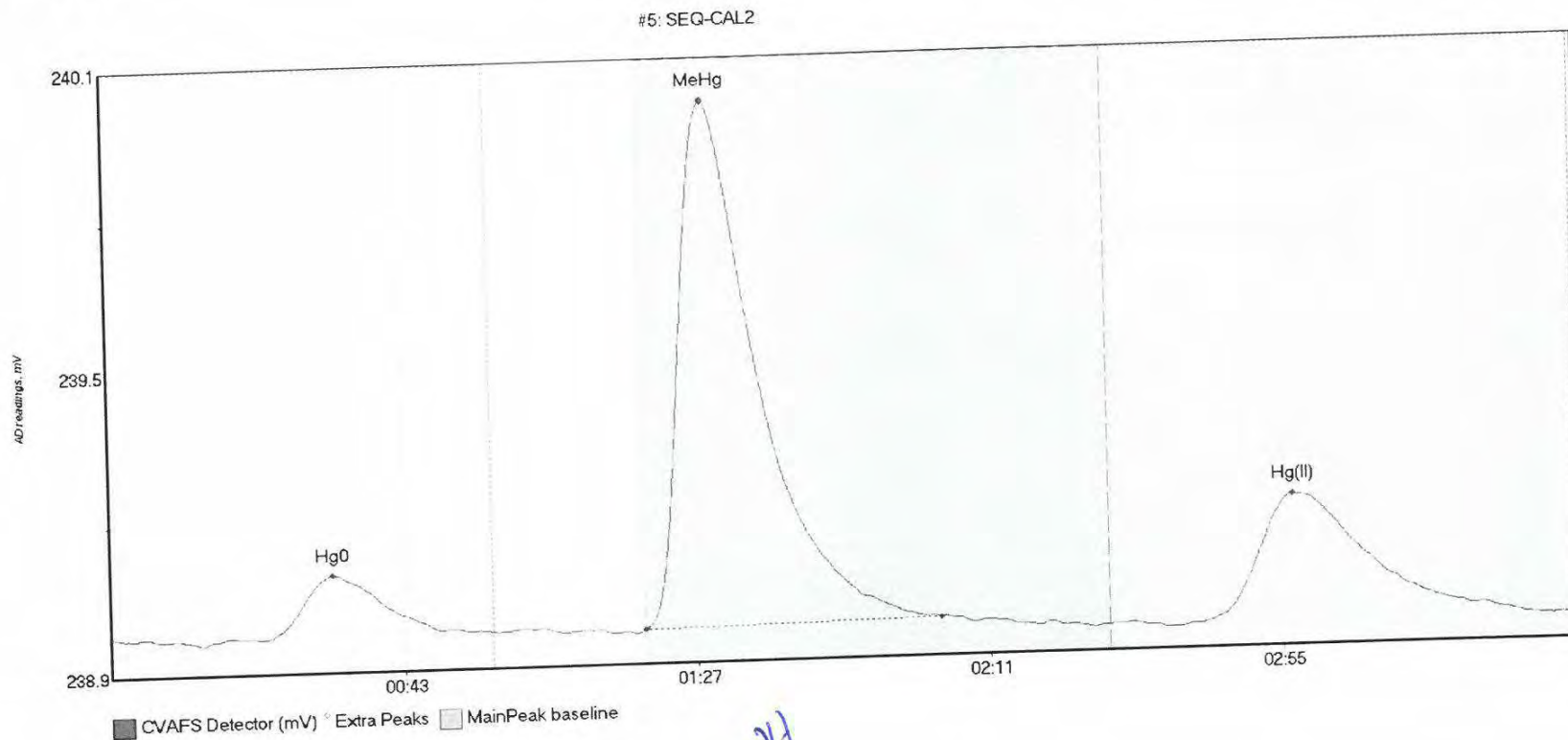


Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
SEQ-IBL1 Hg0	8.541	22.2	55.4	239.25	239.24	32.7	0.056	OK	239.2413	0.00	-0.01	
SEQ-IBL1 MeHg	2.230	82.6	102.0	239.23	239.24	92.9	0.024	OK	239.2413	0.00	-0.01	
SEQ-IBL1 Hg(II)	34.744	161.9	212.5	239.23	239.23	177.6	0.192	OK	239.2413	0.00	-0.01	

#4: SEQ-CAL1

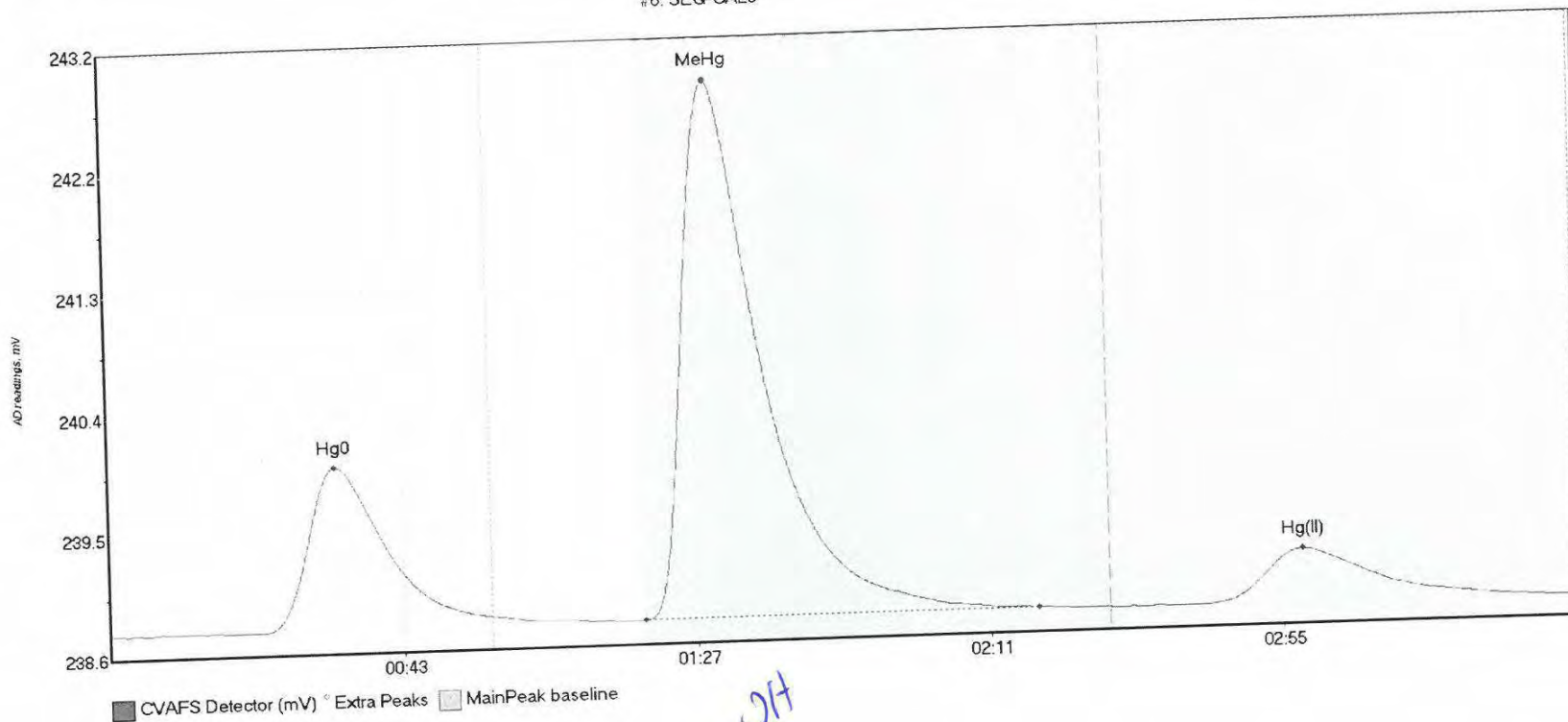


Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
SEQ-CAL1 Hg0	11.820	23.6	55.5	239.12	239.12	33.6	0.090	OK	239.1198	0.00	-0.02	
SEQ-CAL1 MeHg	34.532	81.5	119.4	239.10	239.11	90.0	0.256	OK	239.1198	0.00	-0.02	
SEQ-CAL1 Hg(II)	43.534	162.3	216.1	239.10	239.10	178.4	0.234	OK	239.1198	0.00	-0.02	



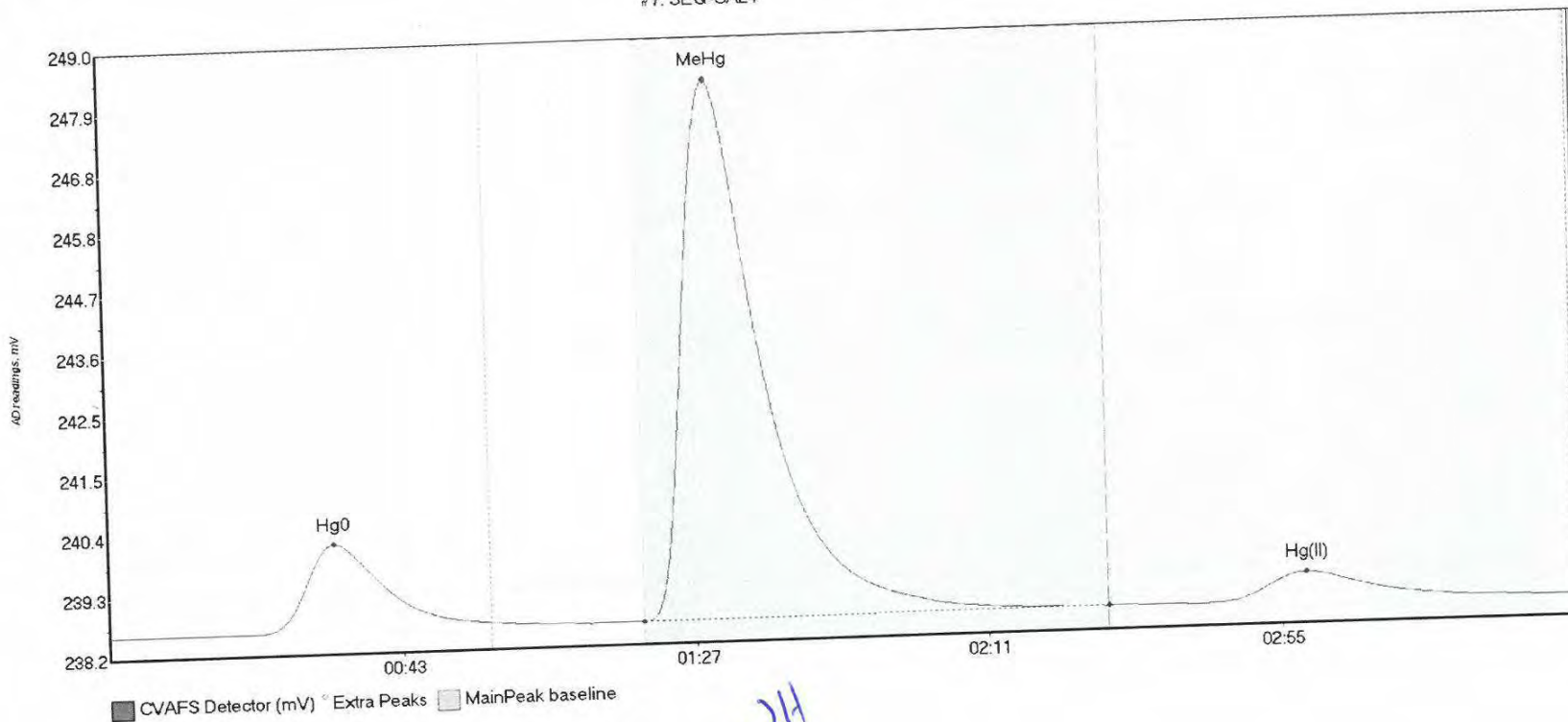
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
SEQ-CAL2 Hg0	15.642	23.2	49.5	238.96	238.97	33.3	0.127	OK	238.9704	0.00	-0.03	
SEQ-CAL2 MeHg	142.049	80.1	124.8	238.96	238.97	89.9	1.063	OK	238.9704	0.00	-0.03	
SEQ-CAL2 Hg(II)	48.071	163.3	212.7	238.94	238.95	177.7	0.256	OK	238.9704	0.00	-0.03	

#6: SEQ-CAL3



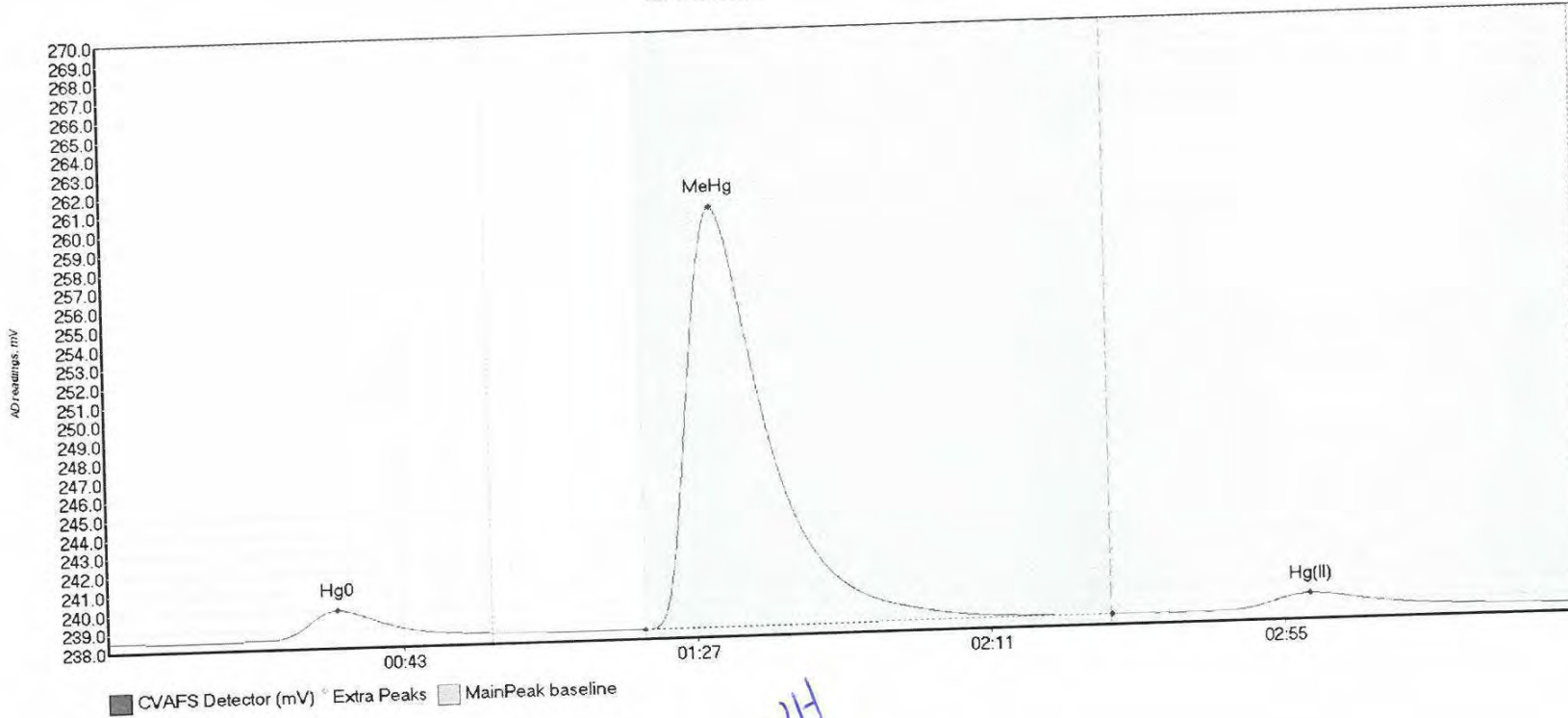
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
SEQ-CAL3 Hg0	154.780	22.6	57.5	238.79	238.87	33.9	1.229	CT	238.7997	0.00	-0.02	
SEQ-CAL3 MeHg	551.845	80.1	139.2	238.80	238.81	90.5	4.029	OK	238.7997	0.00	-0.02	
SEQ-CAL3 Hg(II)	74.564	164.6	215.6	238.79	238.79	179.0	0.399	OK	238.7997	0.00	-0.02	

#7: SEQ-CAL4



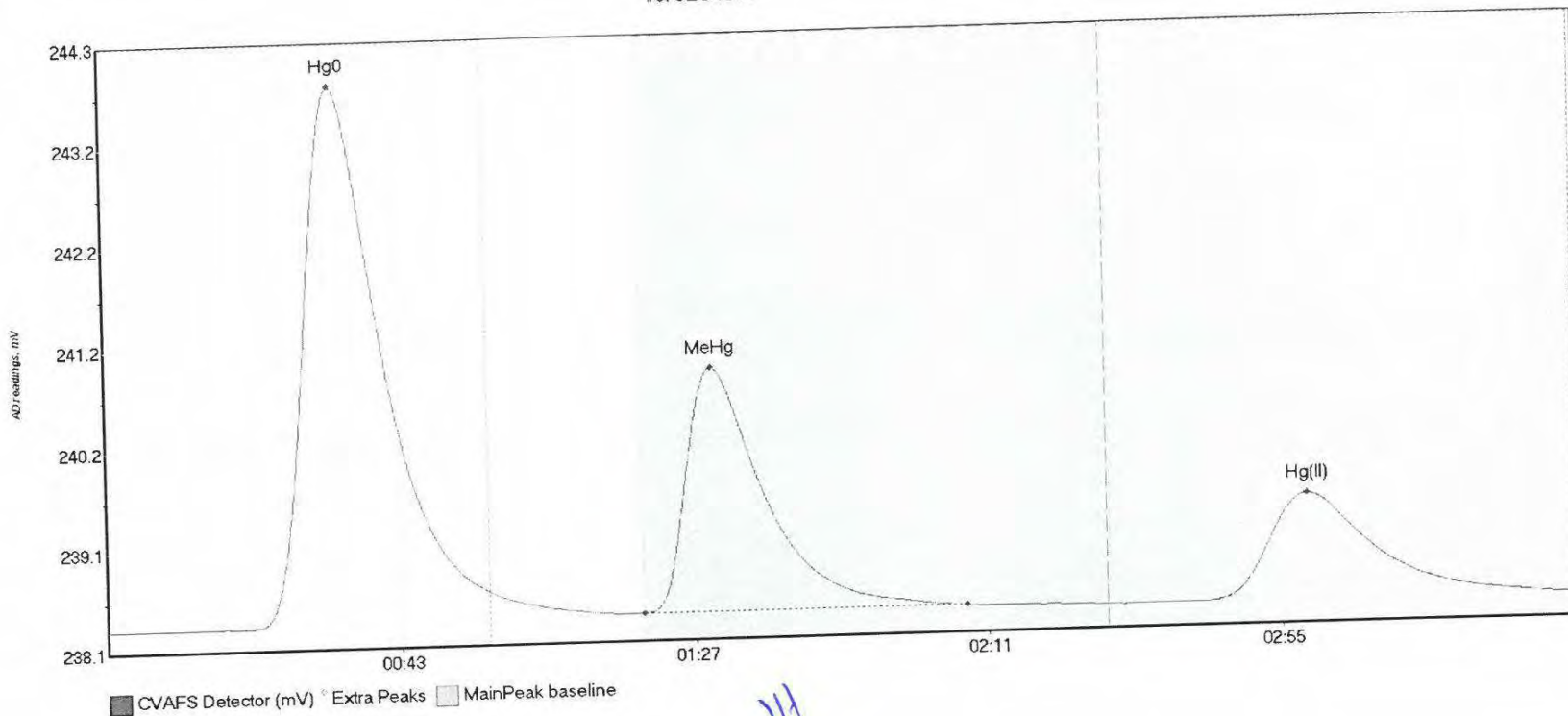
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
SEQ-CAL4 Hg0	196.284	22.1	57.5	238.63	238.72	33.9	1.564	CT	238.6371	0.00	-0.01	
SEQ-CAL4 MeHg	1315.758	80.1	150.0	238.65	238.66	90.7	9.557	CT	238.6371	0.00	-0.01	
SEQ-CAL4 Hg(II)	86.926	165.0	211.2	238.64	238.65	179.8	0.507	OK	238.6371	0.00	-0.01	

#8: SEQ-CAL5



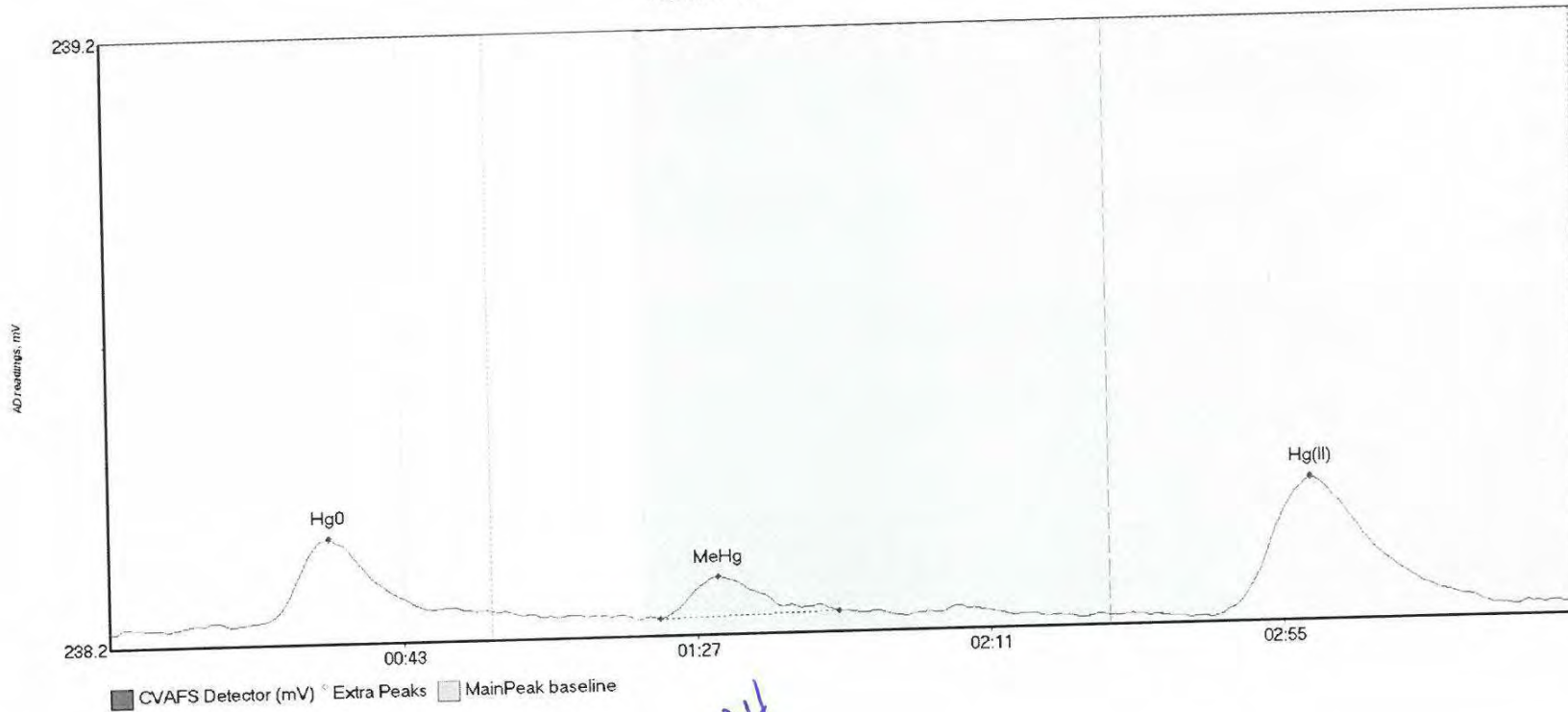
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
SEQ-CAL5 Hg0	186.675	21.7	57.5	238.48	238.58	34.1	1.499	CT	238.4866	0.00	0.04	
SEQ-CAL5 MeHg	3052.843	80.1	150.0	238.49	238.55	91.0	22.202	CT	238.4866	0.00	0.04	
SEQ-CAL5 Hg(II)	143.676	165.7	211.7	238.53	238.54	179.9	0.832	OK	238.4866	0.00	0.04	

#9: SEQ-ICV1



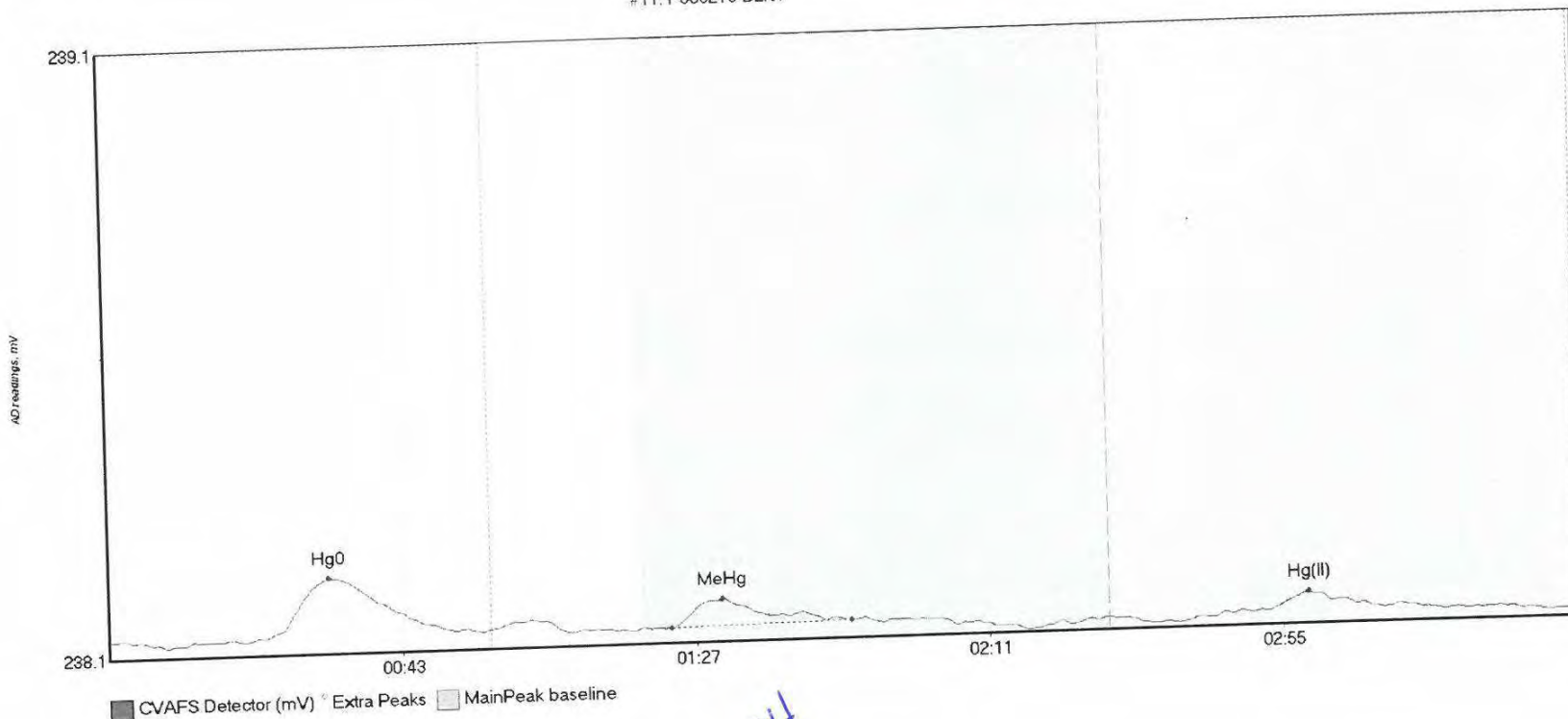
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
SEQ-ICV1 Hg0	684.266	16.6	57.5	238.35	238.66	34.2	5.461	CT	238.3486	0.00	0.02	
SEQ-ICV1 MeHg	333.681	80.1	128.7	238.41	238.40	90.7	2.468	OK	238.3486	0.00	0.02	
SEQ-ICV1 Hg(II)	193.737	164.7	219.8	238.37	238.37	179.9	1.066	CT	238.3486	0.00	0.02	J16

#10: SEQ-ICB1



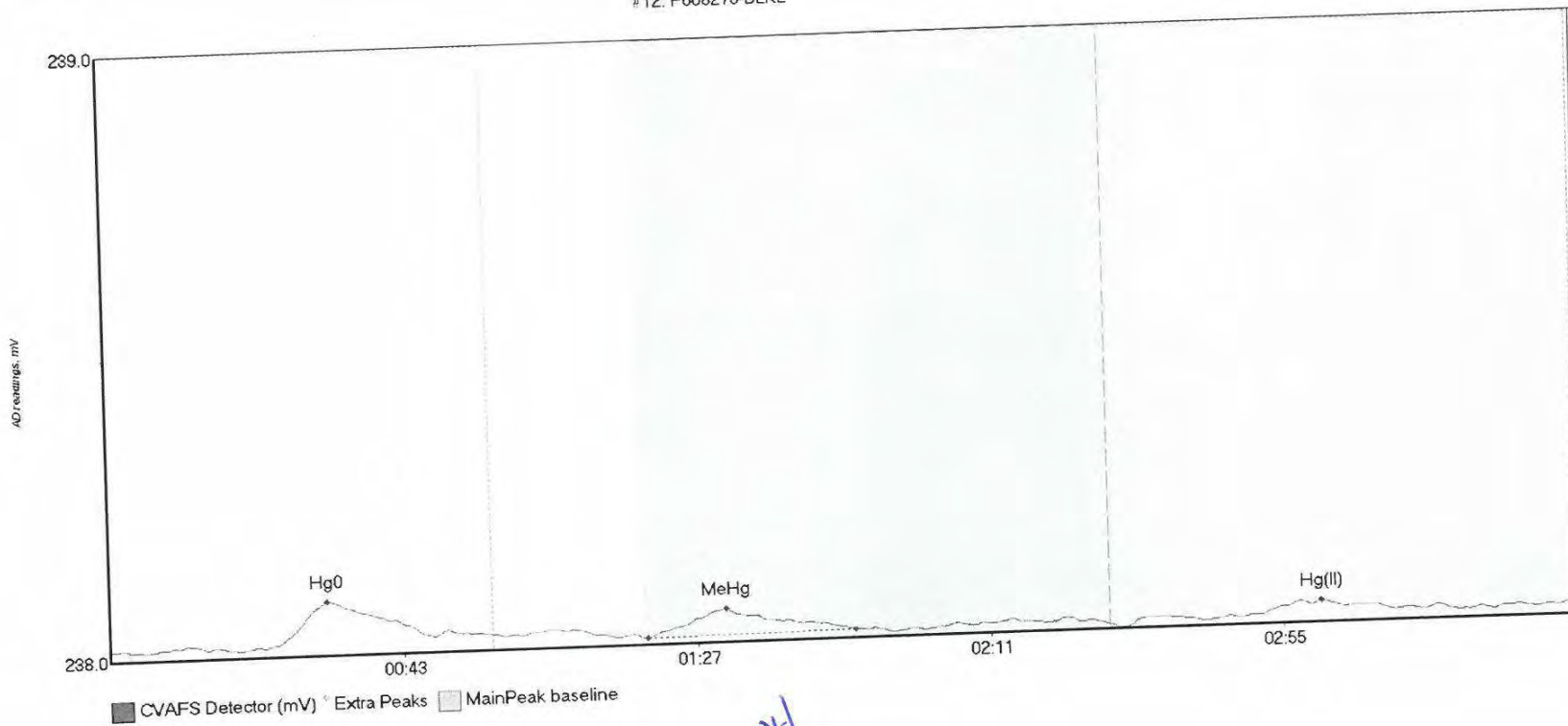
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
SEQ-ICB1 Hg0	17.593	10.1	57.5	238.22	238.24	32.9	0.144	CT	238.2207	0.00	0.00	
SEQ-ICB1 MeHg	7.830	82.5	109.3	238.22	238.23	91.1	0.067	OK	238.2207	0.00	0.00	
SEQ-ICB1 Hg(II)	38.411	166.0	210.4	238.21	238.22	180.2	0.225	OK	238.2207	0.00	0.00	

#11: F608273-BLK1



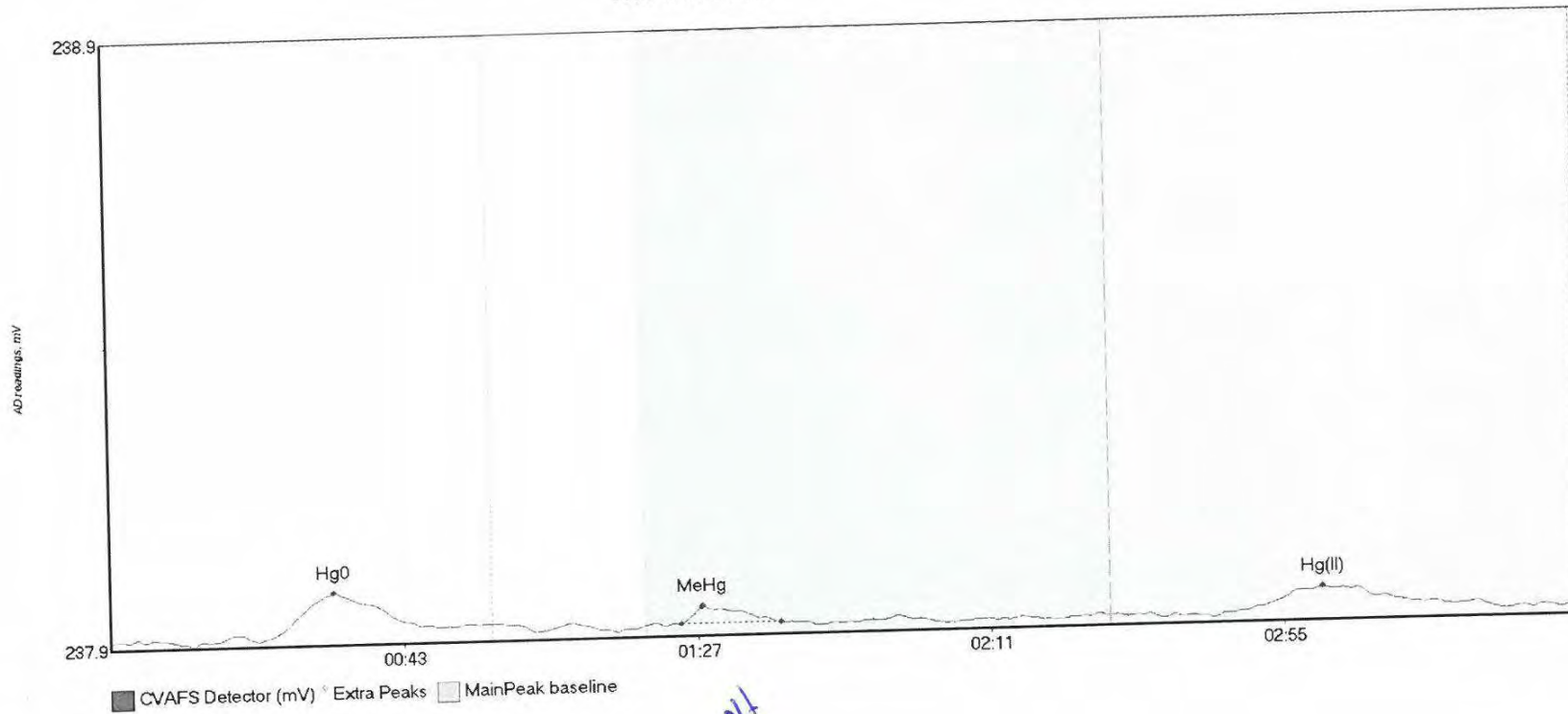
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
F608273-BLK1 Hg	12.905	23.2	51.5	238.12	238.12	33.0	0.098	OK	238.1198	0.00	-0.01	
F608273-BLK1 Me	5.216	84.2	111.1	238.12	238.12	91.9	0.045	OK	238.1198	0.00	-0.01	
F608273-BLK1 Hg	2.460	174.0	191.2	238.11	238.11	179.9	0.029	OK	238.1198	0.00	-0.01	

#12: F608273-BLK2



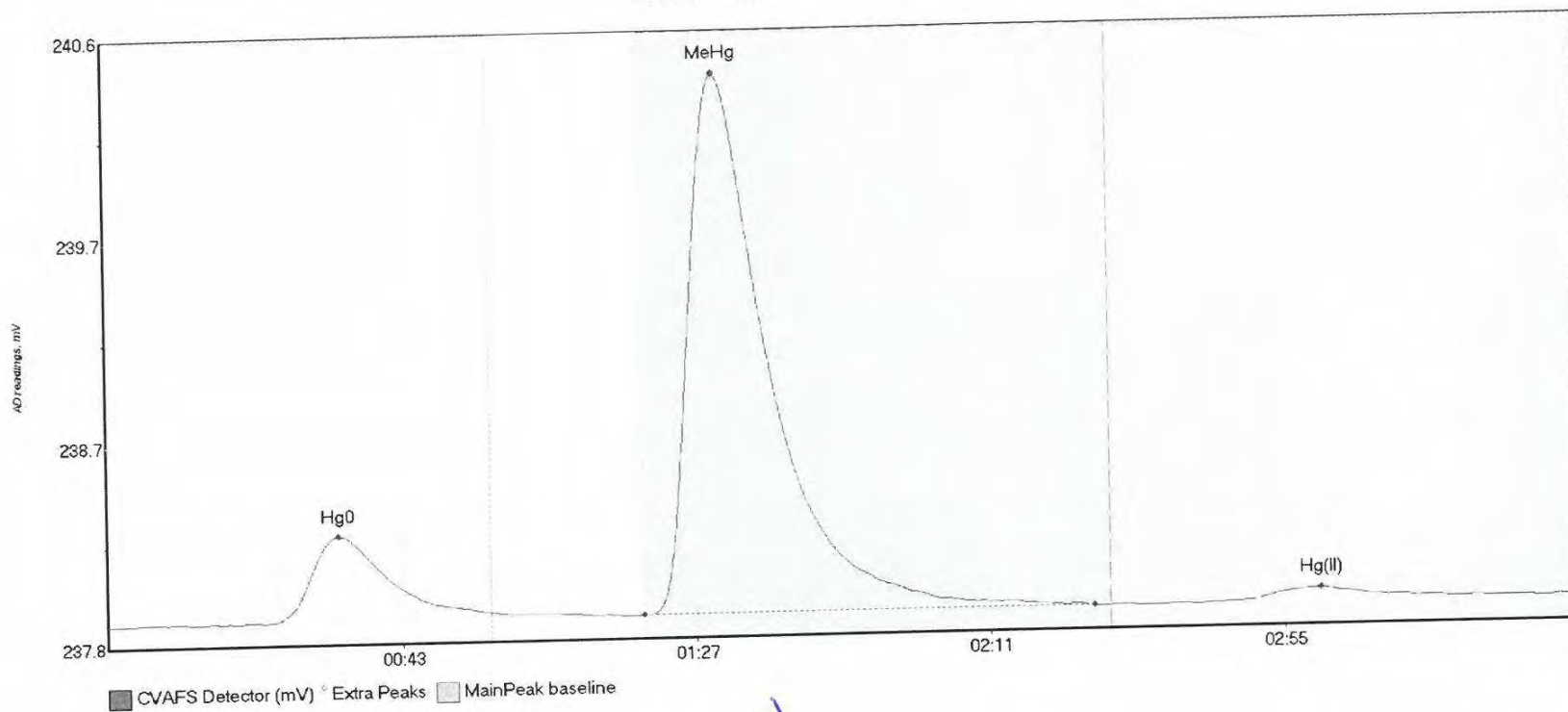
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
F608273-BLK2 Hg	8.814	23.2	48.6	238.02	238.03	32.5	0.075	OK	238.0233	0.00	0.01	
F608273-BLK2 Me	6.388	80.4	111.7	238.02	238.02	92.3	0.044	OK	238.0233	0.00	0.01	
F608273-BLK2 Hg	4.037	165.0	202.4	238.02	238.02	181.8	0.027	OK	238.0233	0.00	0.01	

#13: F608273-BLK3



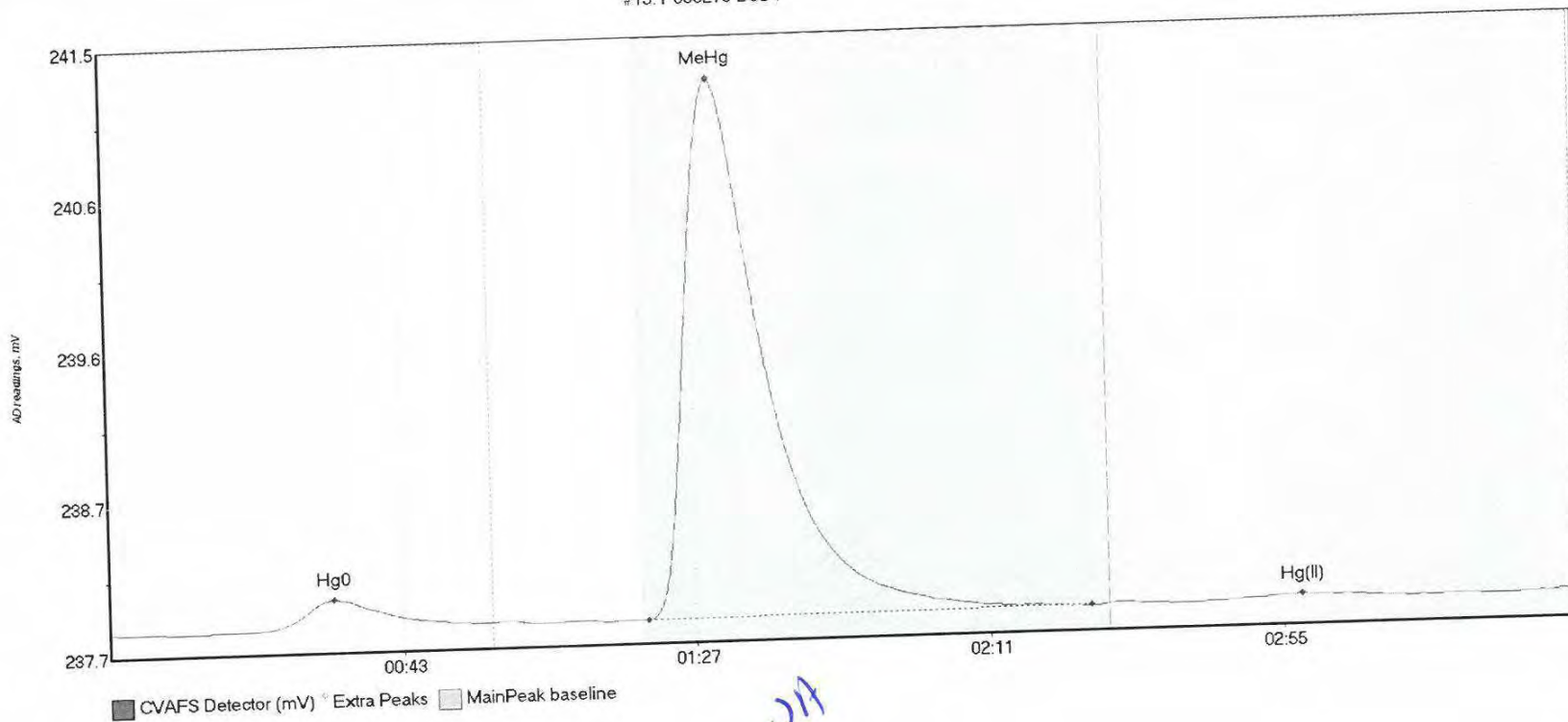
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
F608273-BLK3 Hg	8.910	22.2	49.8	237.95	237.97	33.5	0.078	OK	237.9543	0.00	0.01	016
F608273-BLK3 Me	2.305	85.5	100.5	237.96	237.96	88.6	0.028	OK	237.9543	0.00	0.01	
F608273-BLK3 Hg	5.528	170.8	201.8	237.96	237.96	181.8	0.036	OK	237.9543	0.00	0.01	

#14: F608273-BS1



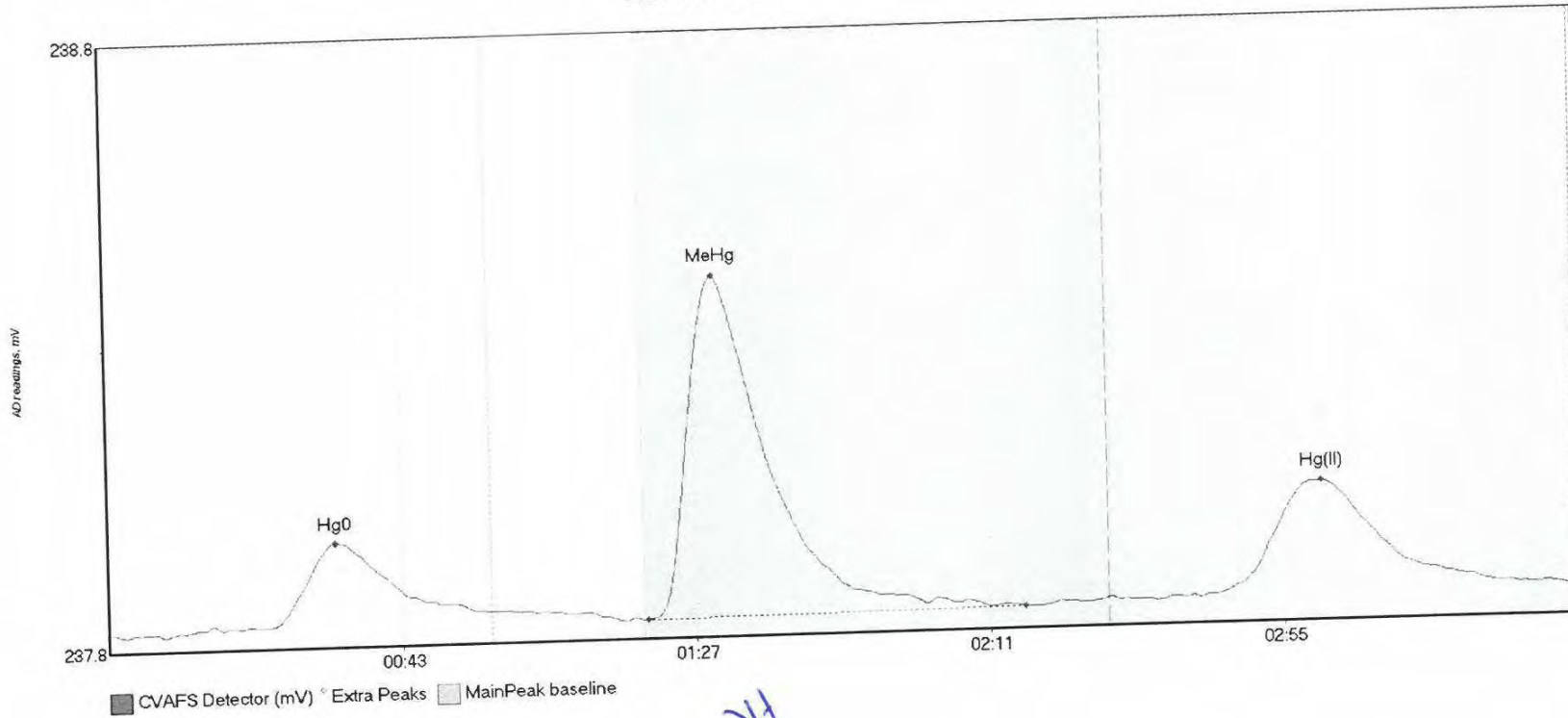
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
F608273-BS1 Hg0	49.160	23.5	57.5	237.90	237.93	34.4	0.396	CT	237.9016	0.00	0.02	
F608273-BS1 MeH	342.440	80.1	147.4	237.91	237.91	91.2	2.486	OK	237.9016	0.00	0.02	
F608273-BS1 Hg(	9.658	168.7	215.5	237.91	237.91	181.4	0.056	OK	237.9016	0.00	0.02	

#15: F608273-BSD1



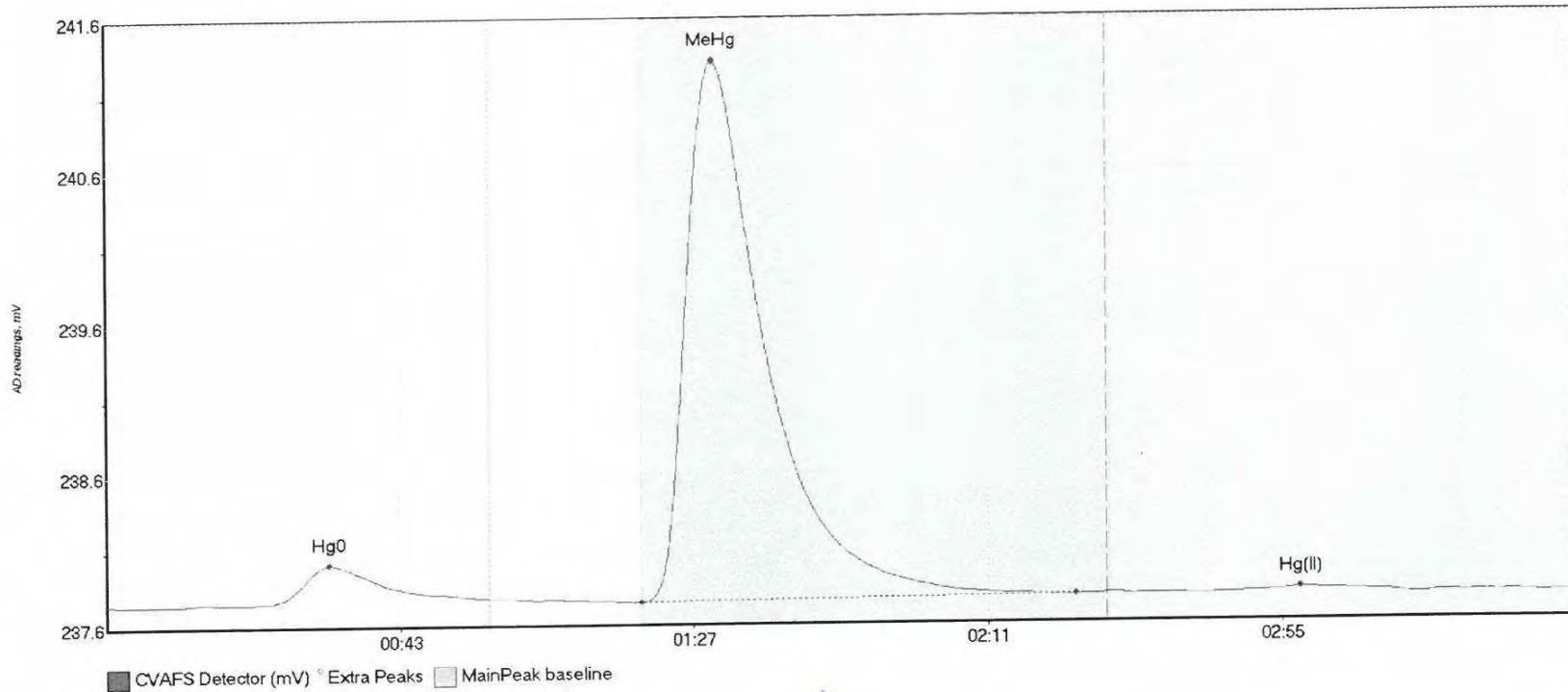
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
F608273-BSD1 Hg	23.729	22.3	56.7	237.85	237.87	33.7	0.187	OK	237.8530	0.00	0.03	
F608273-BSD1 Me	469.251	80.9	147.1	237.85	237.86	91.0	3.415	OK	237.8530	0.00	0.03	
F608273-BSD1 Hg	1.475	172.5	189.4	237.88	237.88	178.7	0.016	OK	237.8530	0.00	0.03	

#16: F608273-DUP1



Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	B1Dev	B1Shift	Comment
F608273-DUP1 Hg	17.875	24.2	57.2	237.82	237.83	34.2	0.138	OK	237.8128	0.00	0.02	
F608273-DUP1 Me	77.113	80.7	137.3	237.81	237.82	91.1	0.564	OK	237.8128	0.00	0.02	
F608273-DUP1 Hg	33.278	165.3	219.1	237.83	237.83	181.7	0.184	OK	237.8128	0.00	0.02	

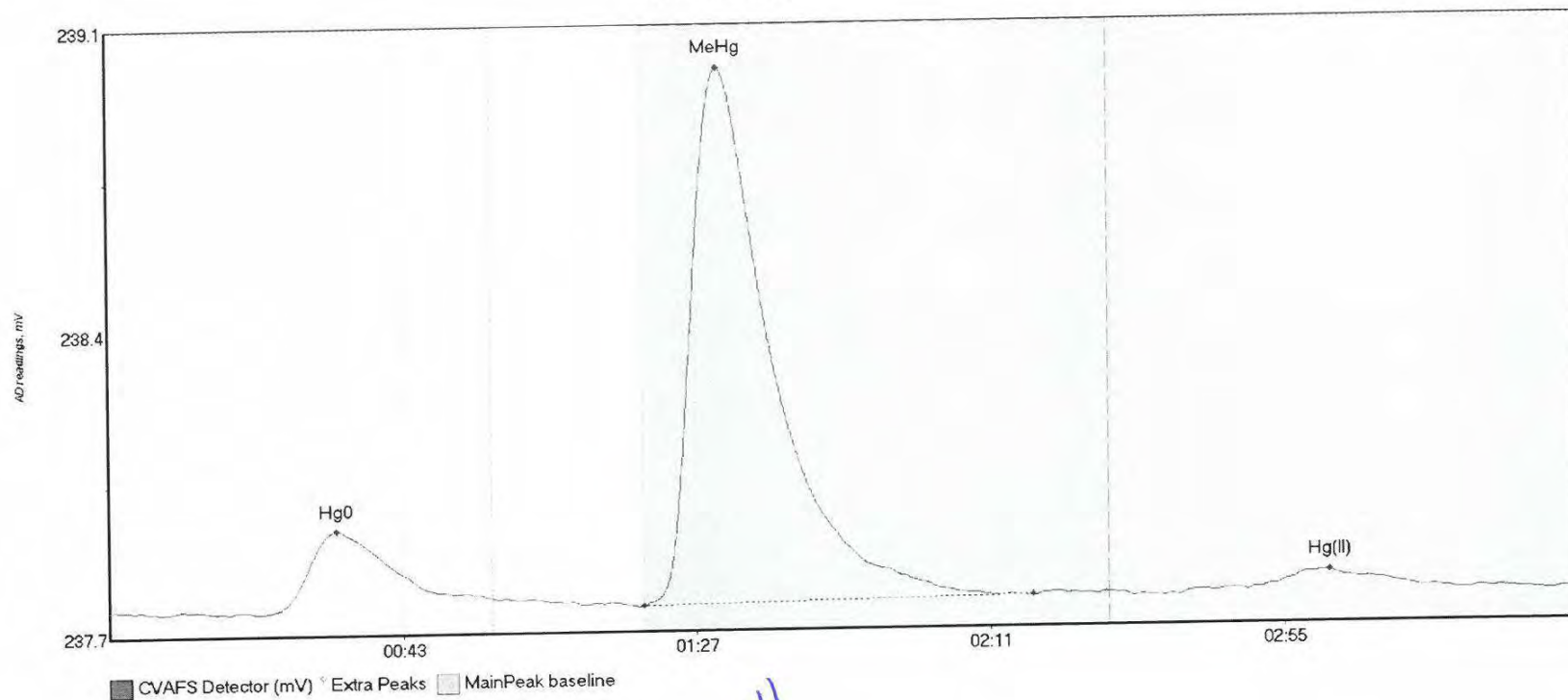
#17: F608273-MS1



JA

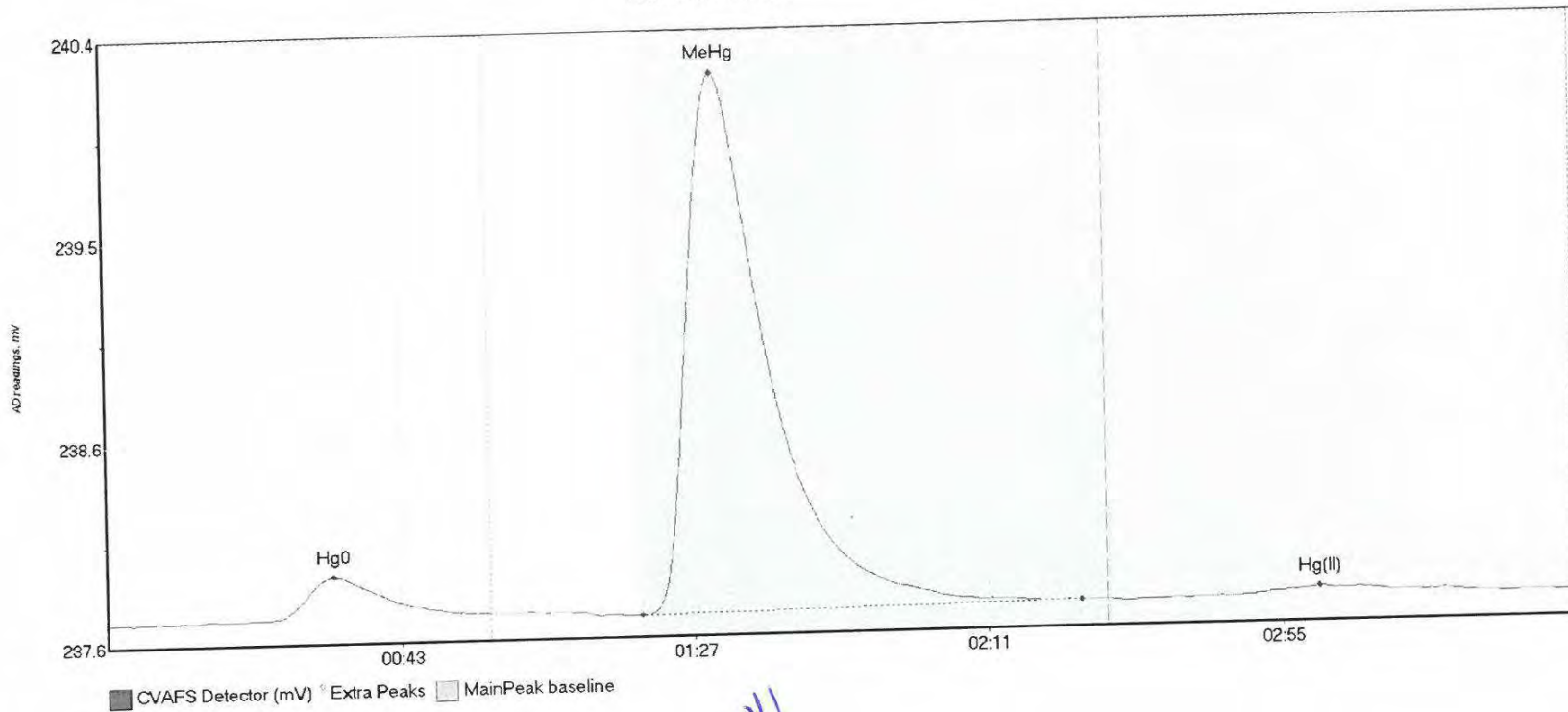
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
F608273-MS1 Hg0	32.399	21.1	57.5	237.78	237.81	33.4	0.261	CT	237.7767	0.00	0.03	
F608273-MS1 MeH	487.637	80.1	145.1	237.78	237.80	91.0	3.561	OK	237.7767	0.00	0.03	
F608273-MS1 Hg(	1.551	173.1	188.9	237.82	237.82	178.8	0.023	OK	237.7767	0.00	0.03	

#18: F608273-MS2



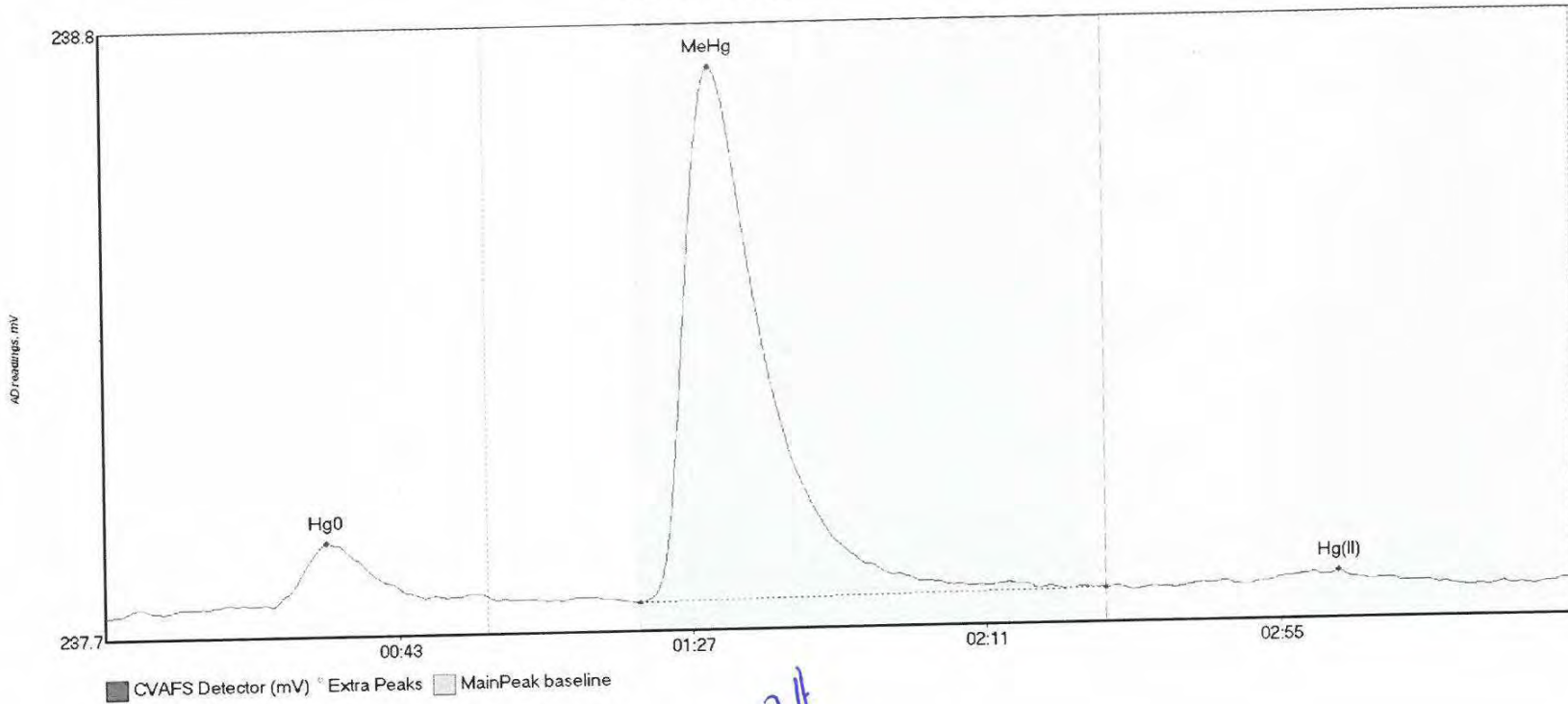
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
F608273-MS2 Hg0	24.432	22.9	57.5	237.75	237.78	34.1	0.192	CT	237.7576	0.00	0.02	
F608273-MS2 MeH	171.076	80.1	138.5	237.76	237.77	91.4	1.246	OK	237.7576	0.00	0.02	
F608273-MS2 Hg(	5.999	170.6	200.7	237.77	237.78	182.7	0.042	OK	237.7576	0.00	0.02	

#19: F608273-MSD1



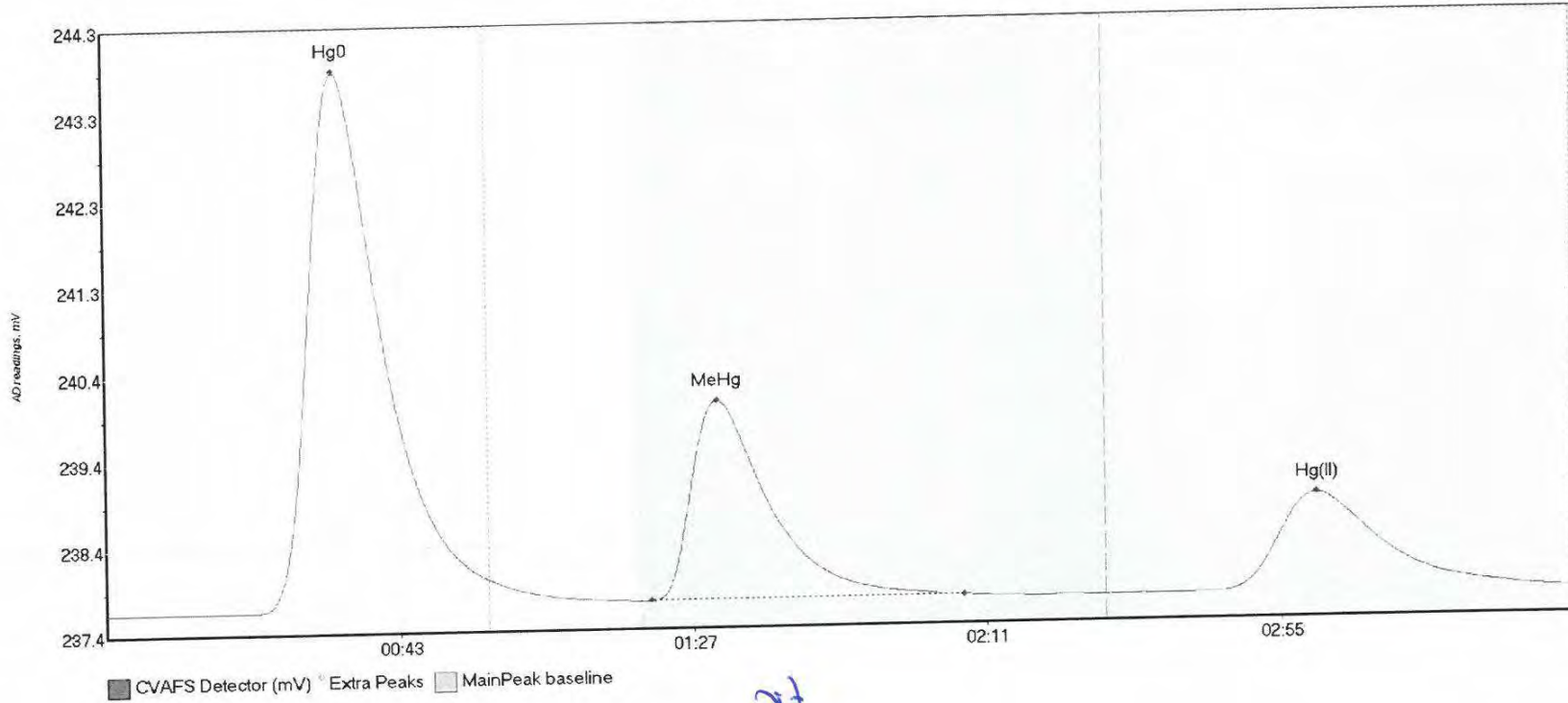
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
F608273-MSD1 Hg	24.692	20.9	57.5	237.74	237.75	34.0	0.197	CT	237.7330	0.00	0.01	
F608273-MSD1 Me	346.758	80.1	146.0	237.72	237.75	91.5	2.509	OK	237.7330	0.00	0.01	
F608273-MSD1 Hg	6.498	168.9	205.8	237.75	237.75	181.6	0.036	OK	237.7330	0.00	0.01	

#20: F608273-MSD2



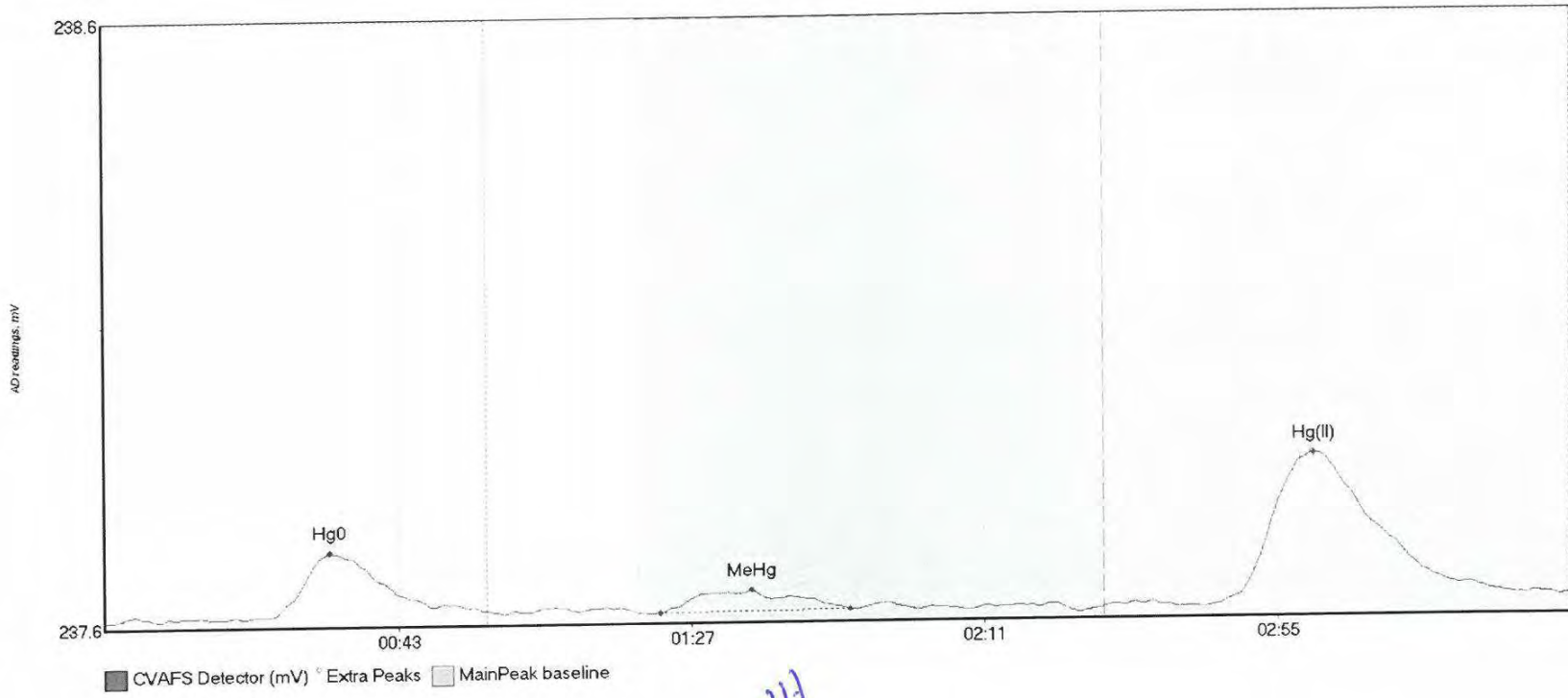
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
F608273-MSD2 Hg	14.980	2.2	57.5	237.70	237.73	33.1	0.130	CT	237.6981	0.00	0.03	
F608273-MSD2 Me	137.712	80.2	149.9	237.71	237.72	91.2	0.992	OK	237.6981	0.00	0.03	
F608273-MSD2 Hg	2.347	170.9	194.2	237.72	237.73	184.7	0.021	OK	237.6981	0.00	0.03	

#21: SEQ-CCV1



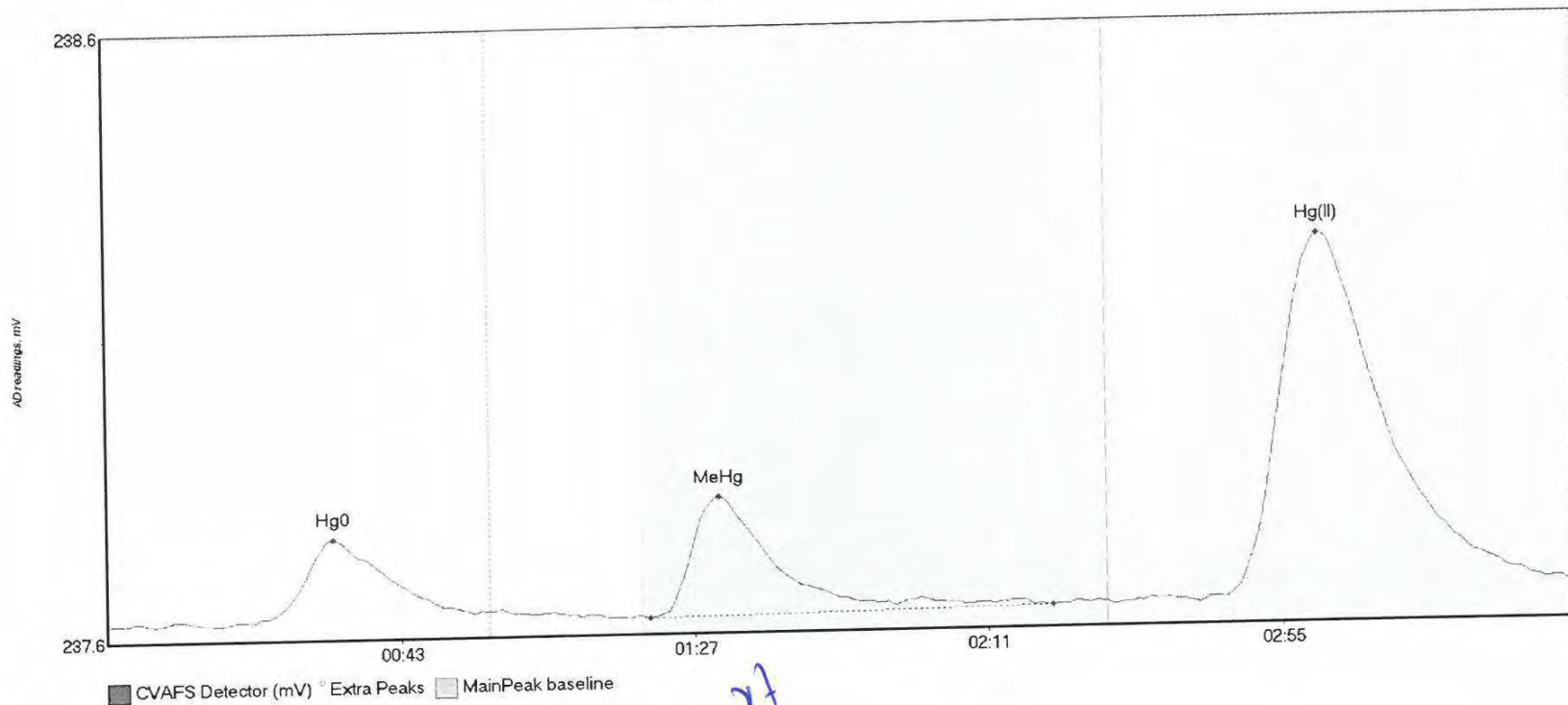
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	B1Dev	B1Shift	Comment
SEQ-CCV1 Hg0	731.557	20.5	57.5	237.68	238.01	34.5	6.090	CT	237.6744	0.00	0.06	
SEQ-CCV1 MeHg	300.069	81.7	128.6	237.75	237.75	91.7	2.251	OK	237.6744	0.00	0.06	
SEQ-CCV1 Hg(II)	197.264	165.3	219.8	237.73	237.73	181.4	1.104	CT	237.6744	0.00	0.06	

#22: SEQ-CCB1



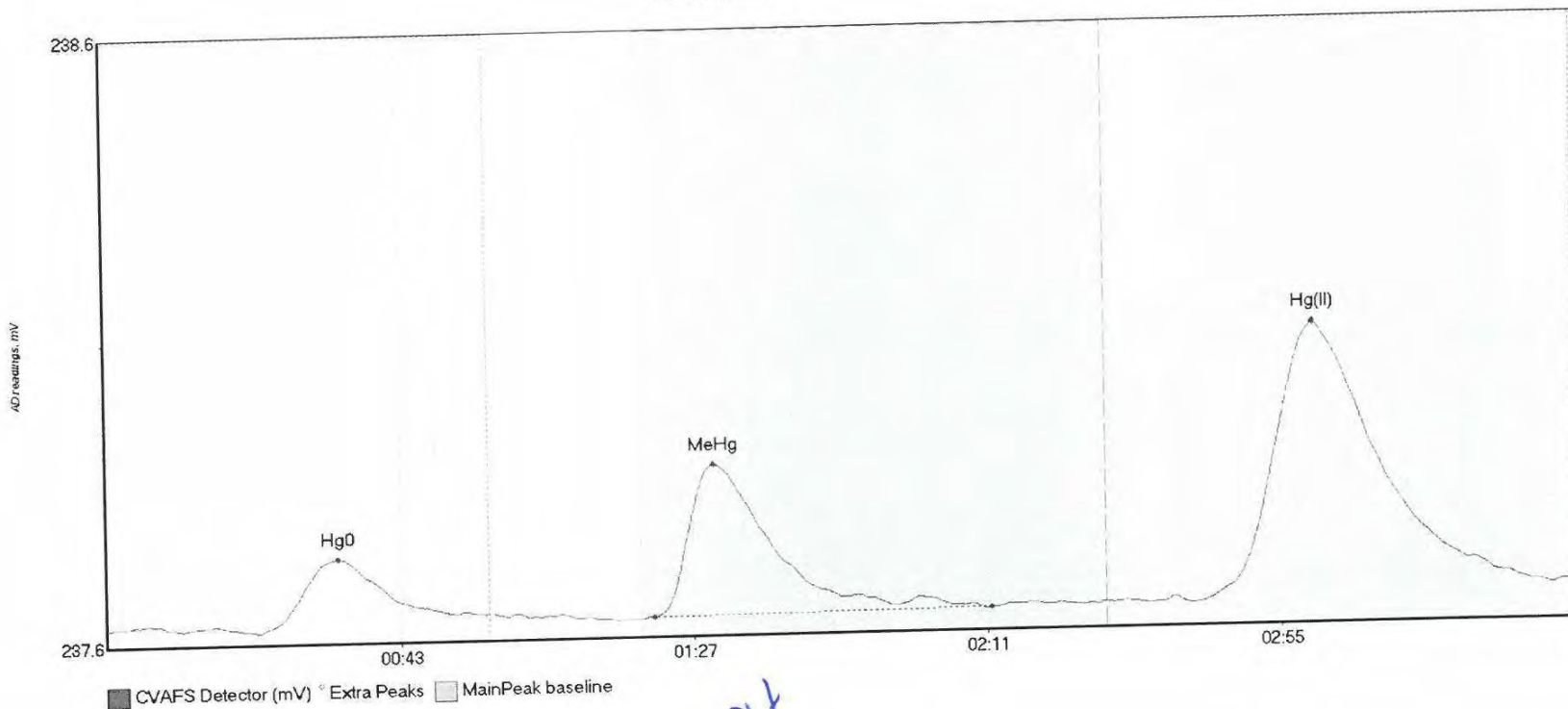
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
SEQ-CCB1 Hg0	14.243	21.0	57.1	237.65	237.66	33.7	0.108	OK	237.6502	0.00	0.02	
SEQ-CCB1 MeHg	5.711	83.3	111.7	237.66	237.66	97.0	0.037	OK	237.6502	0.00	0.02	
SEQ-CCB1 Hg(II)	44.056	167.1	218.4	237.66	237.67	181.5	0.249	OK	237.6502	0.00	0.02	

#23: 1607542-01



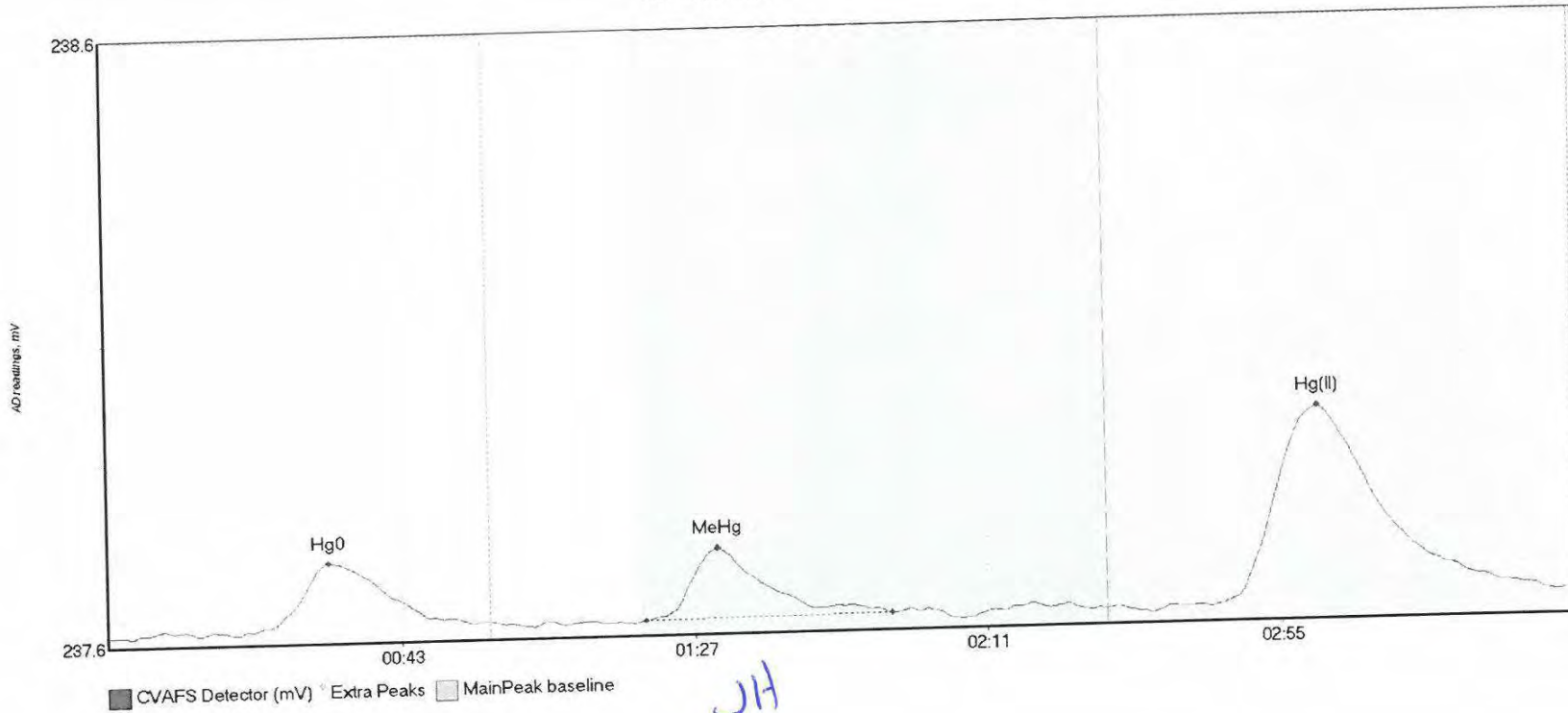
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1607542-01 Hg0	17.937	21.8	55.0	237.64	237.65	33.9	0.135	OK	237.6352	0.00	0.03	
1607542-01 MeHg	29.207	81.3	141.8	237.63	237.64	91.8	0.199	OK	237.6352	0.00	0.03	
1607542-01 Hg(I)	109.136	163.7	219.8	237.64	237.67	181.5	0.603	CT	237.6352	0.00	0.03	

#24: 1607542-03



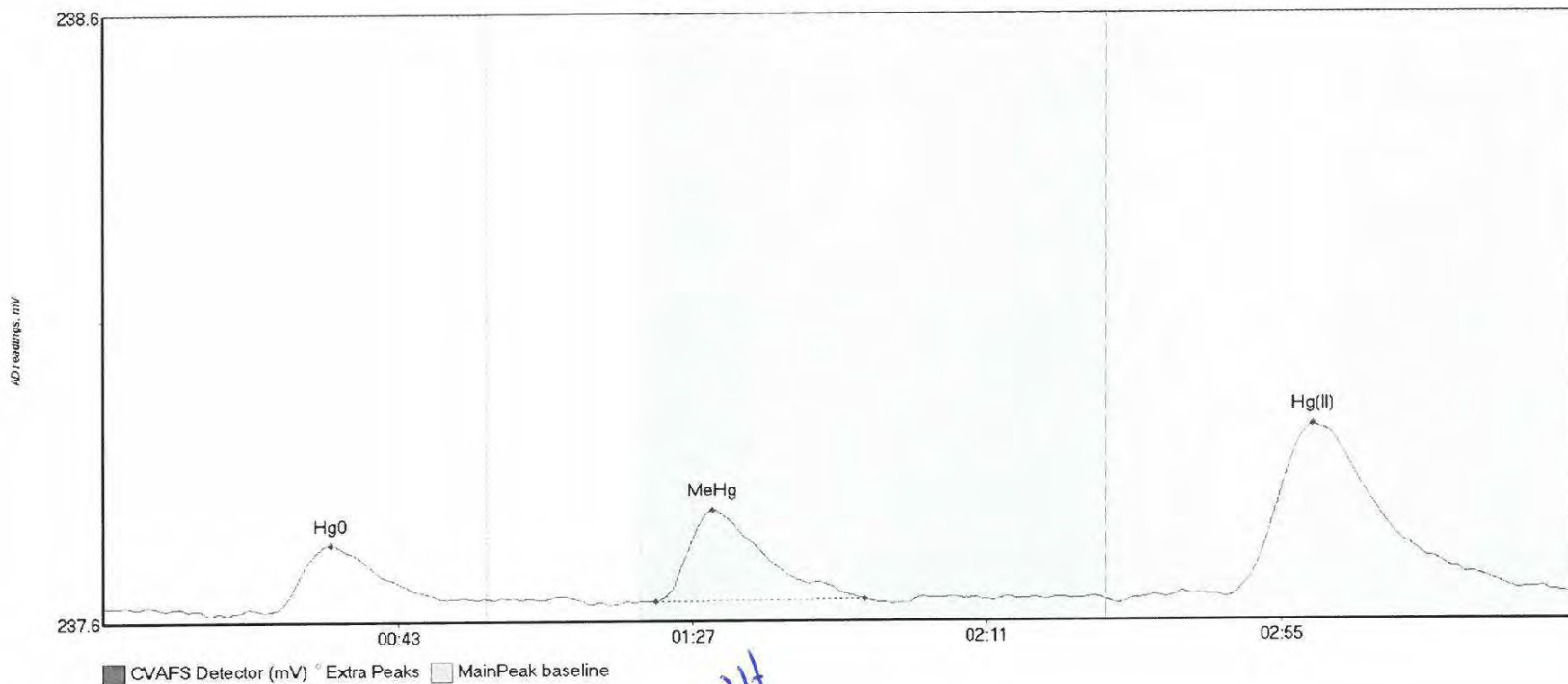
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1607542-03 Hg0	14.910	23.1	56.8	237.61	237.63	34.7	0.120	OK	237.6175	0.00	0.04	
1607542-03 MeHg	36.074	82.1	132.6	237.62	237.63	91.2	0.251	OK	237.6175	0.00	0.04	
1607542-03 Hg(I)	81.277	164.5	216.7	237.63	237.65	181.1	0.456	OK	237.6175	0.00	0.04	

#25: 1607542-04



Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1607542-04 Hg0	16.271	19.6	54.8	237.61	237.62	33.1	0.118	OK	237.6108	0.00	0.03	
1607542-04 MeHg	14.810	80.6	117.6	237.62	237.62	91.5	0.118	OK	237.6108	0.00	0.03	
1607542-04 Hg(I)	58.159	167.1	219.8	237.63	237.64	181.6	0.322	CT	237.6108	0.00	0.03	

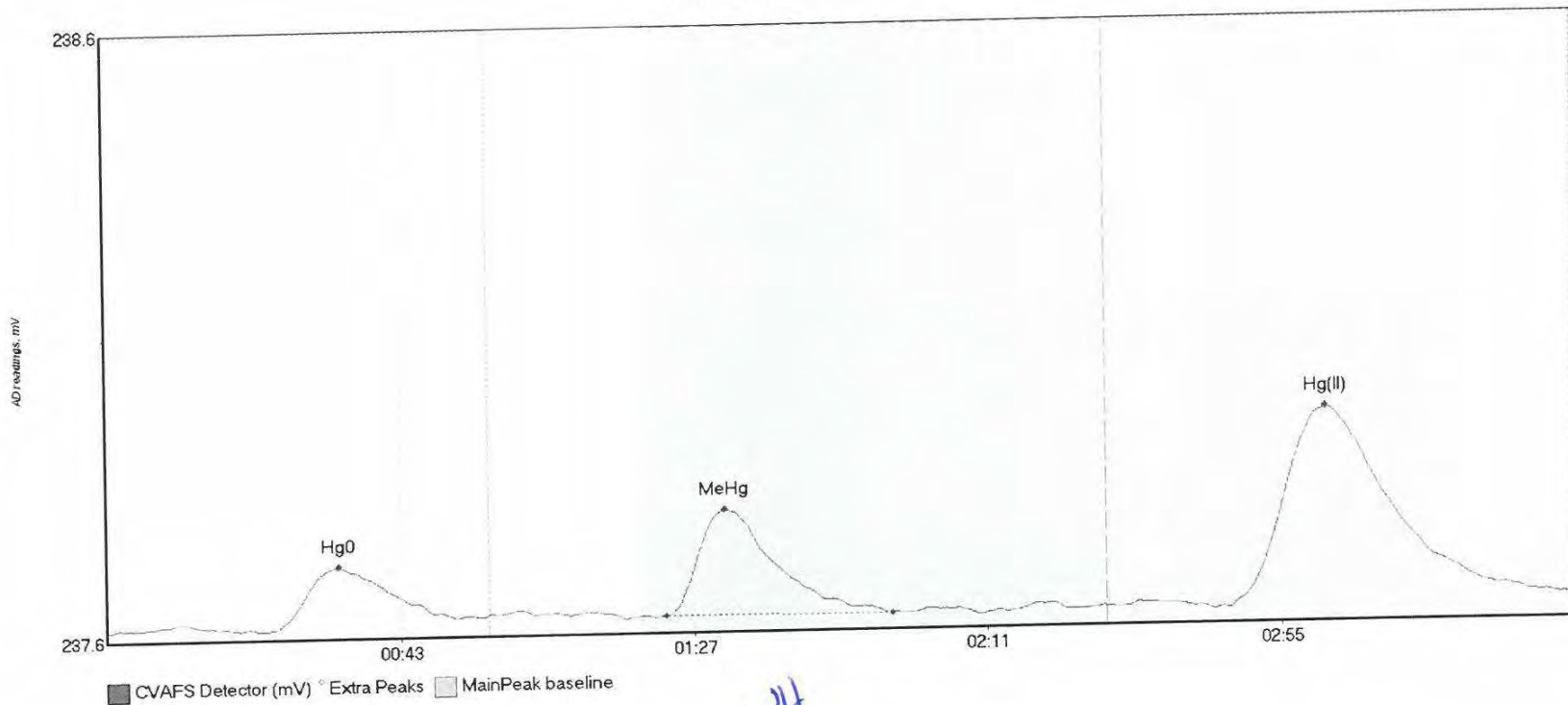
#26: 1607542-05



Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1607542-05 Hg0	13.471	24.2	55.8	237.59	237.61	33.8	0.111	OK	237.5973	0.00	0.02	
1607542-05 MeHg	19.416	82.6	113.7	237.60	237.61	91.0	0.151	OK	237.5973	0.00	0.02	
1607542-05 Hg(I	51.721	154.4	219.1	237.61	237.62	180.7	0.286	OK	237.5973	0.00	0.02	

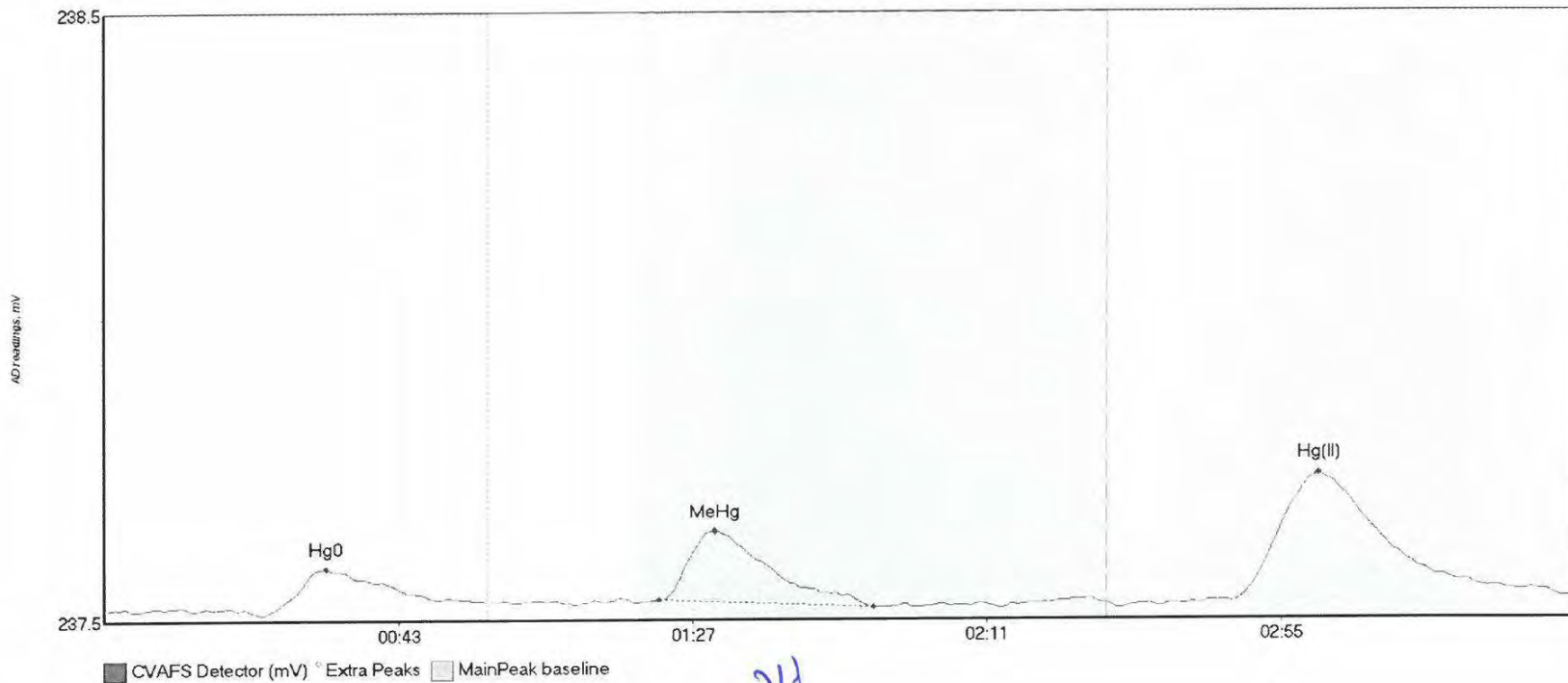
016

#27: 1607542-06



Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1607542-06 Hg0	13.185	24.8	52.4	237.58	237.59	34.7	0.103	OK	237.5757	0.00	0.03	
1607542-06 MeHg	23.111	83.8	117.7	237.59	237.59	92.6	0.175	OK	237.5757	0.00	0.03	
1607542-06 Hg(I)	59.627	168.2	219.4	237.59	237.60	182.8	0.328	OK	237.5757	0.00	0.03	

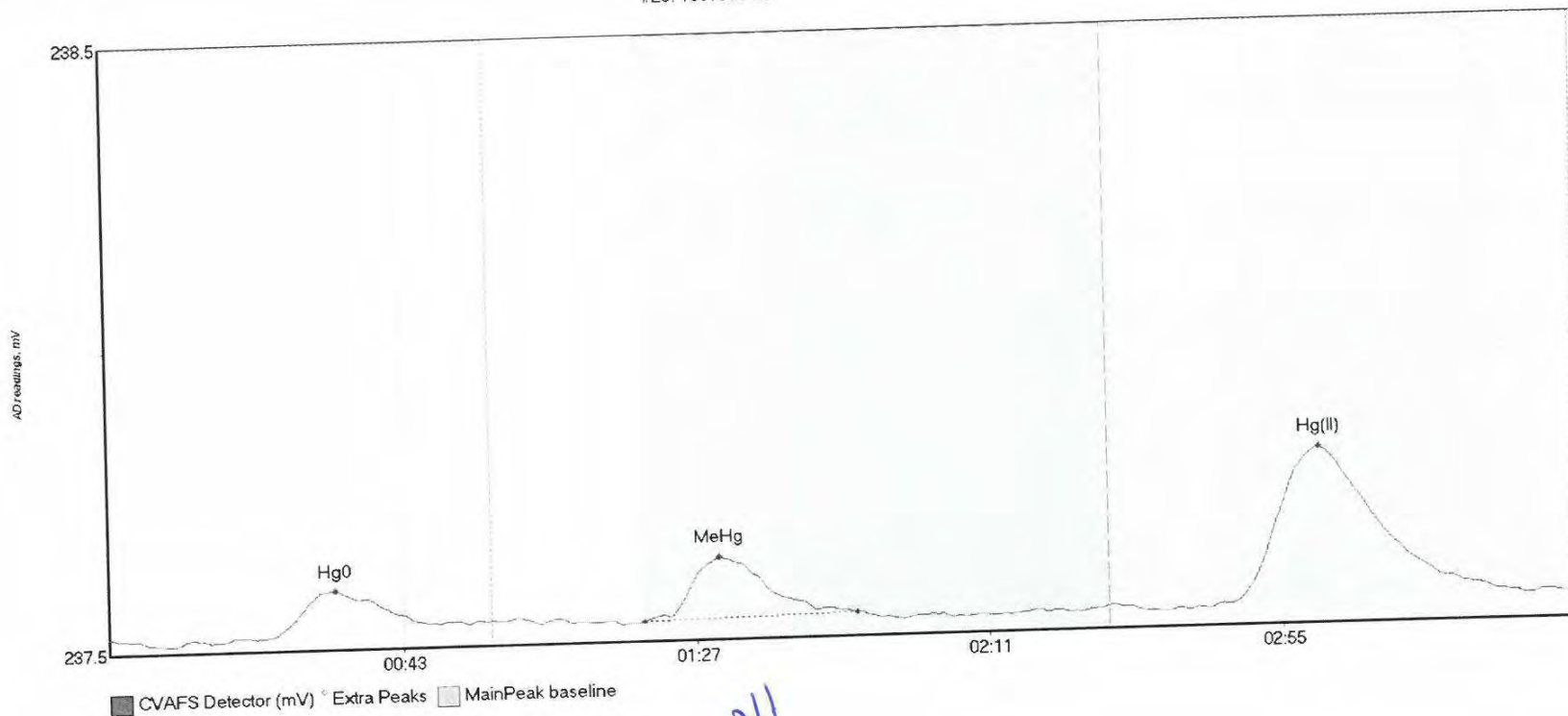
#28: 1607542-07



Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1607542-07 Hg0	10.281	23.5	57.3	237.55	237.57	33.1	0.077	OK	237.5603	0.00	0.02	
1607542-07 MeHg	16.454	83.0	115.0	237.57	237.56	91.3	0.115	OK	237.5603	0.00	0.02	
1607542-07 Hg(I)	37.608	168.6	218.2	237.57	237.58	181.6	0.210	OK	237.5603	0.00	0.02	

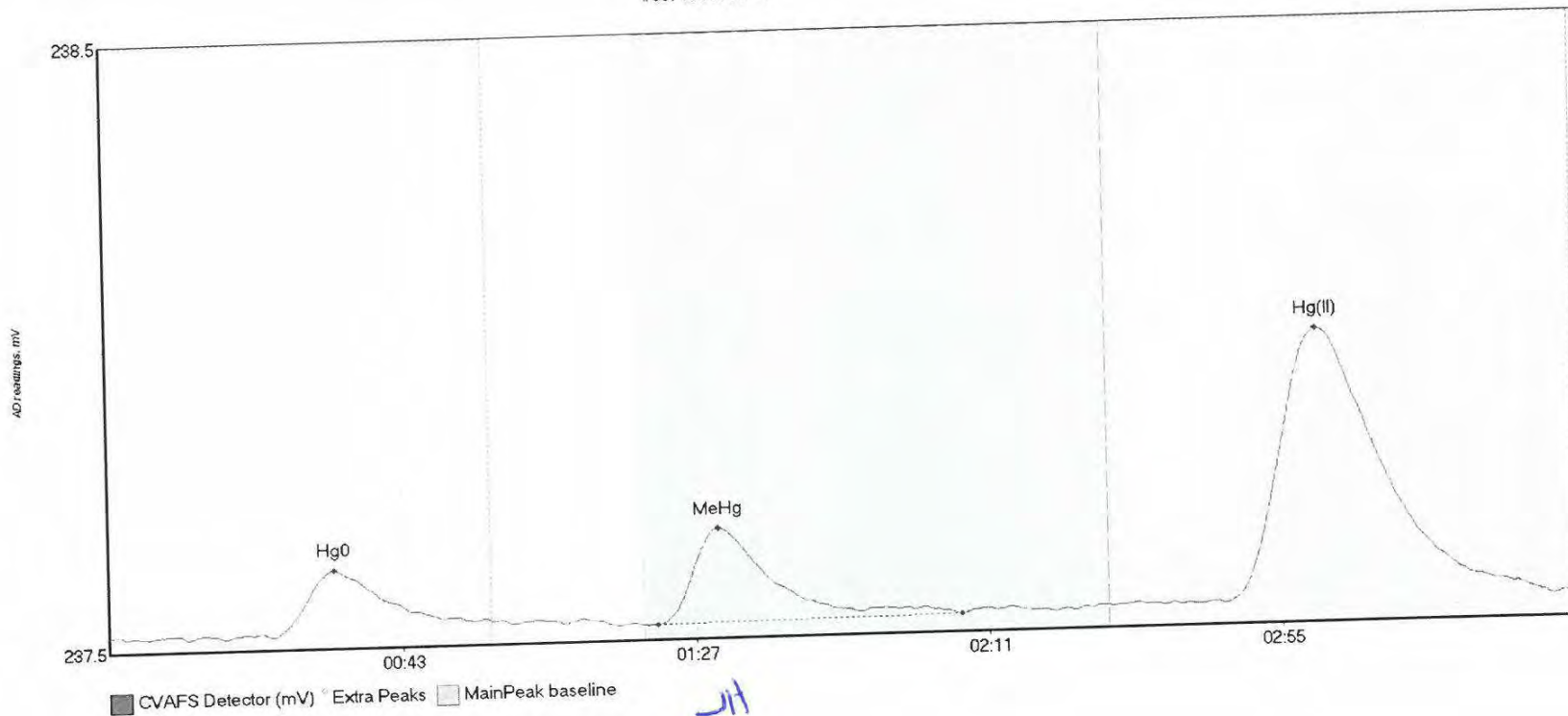
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#29: 1607586-12



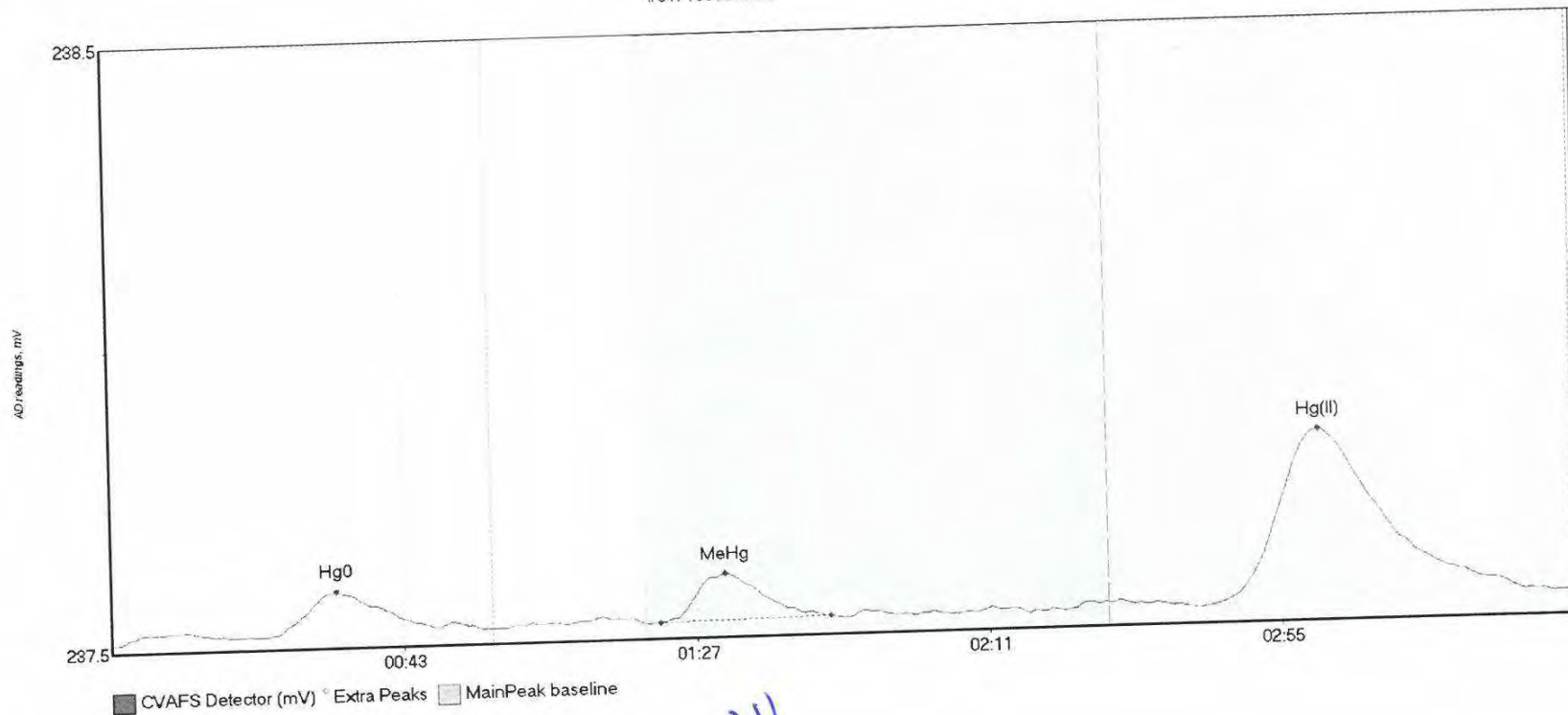
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	B1Dev	B1Shift	Comment
1607586-12 Hg0	9.465	23.3	54.0	237.54	237.55	33.9	0.077	OK	237.5412	0.00	0.02	
1607586-12 MeHg	12.885	80.1	112.1	237.55	237.56	91.5	0.103	OK	237.5412	0.00	0.02	
1607586-12 Hg(I)	43.631	168.1	212.6	237.55	237.56	181.6	0.255	OK	237.5412	0.00	0.02	

#30: 1607586-19



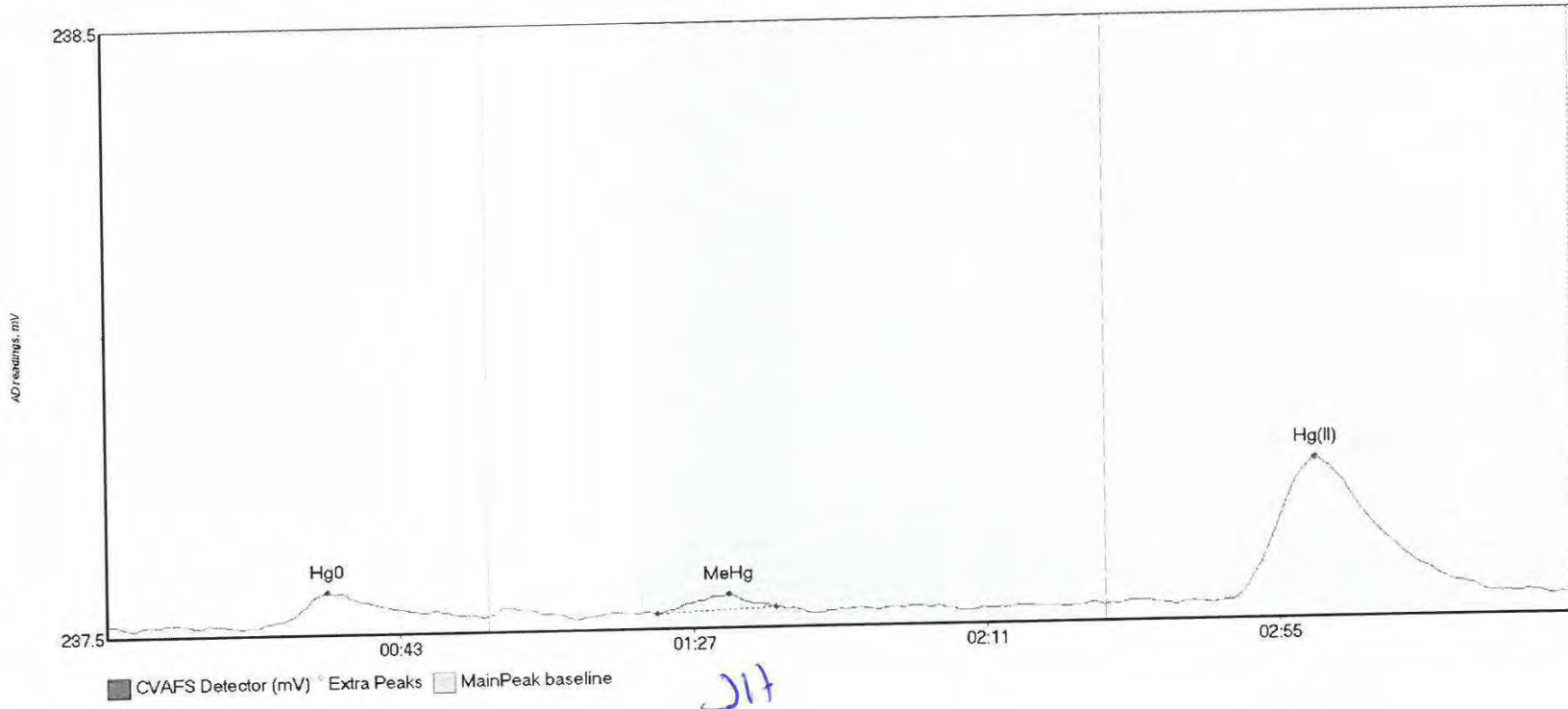
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1607586-19 Hg0	13.666	24.5	57.5	237.51	237.53	33.7	0.109	CT	237.5199	0.00	0.02	
1607586-19 MeHg	21.465	82.2	127.9	237.52	237.52	91.5	0.157	OK	237.5199	0.00	0.02	
1607586-19 Hg(I)	78.834	167.7	216.7	237.53	237.53	181.5	0.450	OK	237.5199	0.00	0.02	

#31: 1607586-20



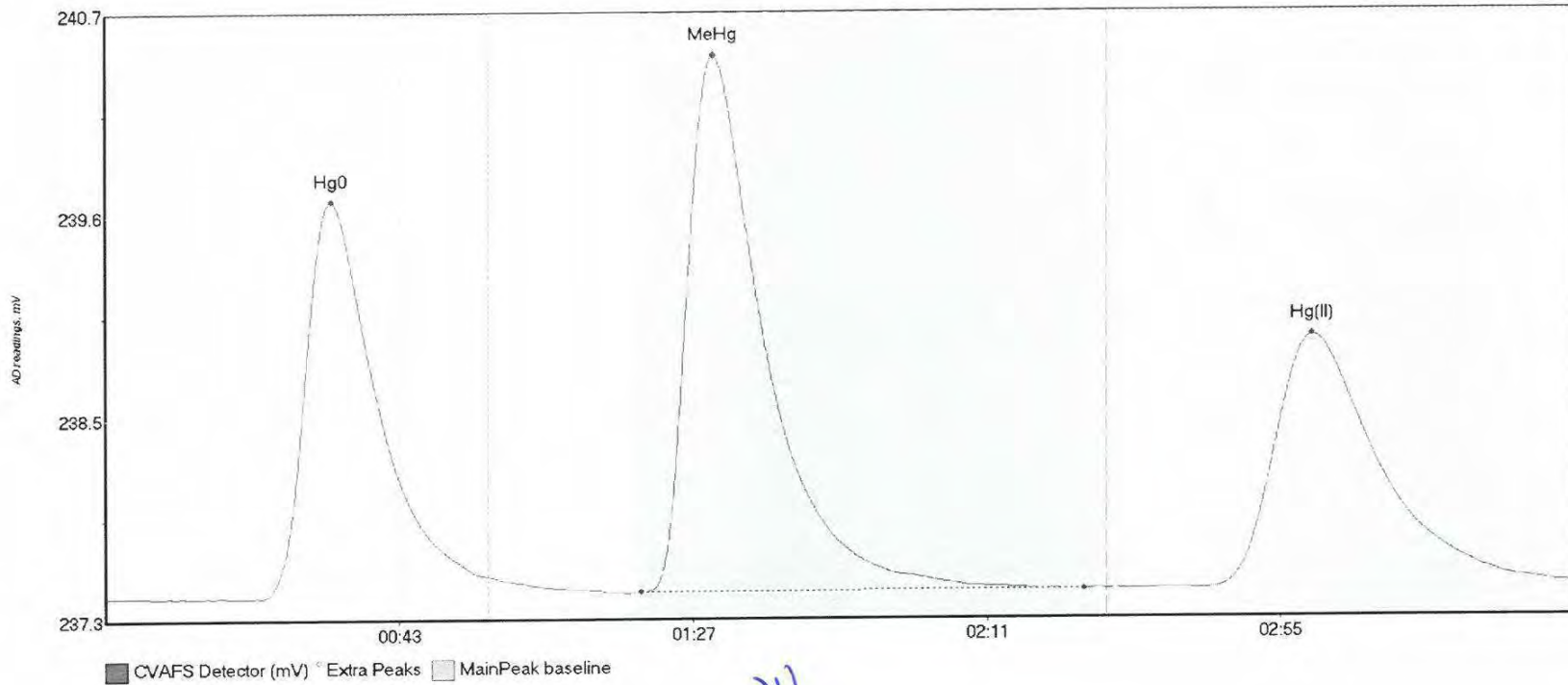
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1607586-20 Hg0	12.317	0.5	57.2	237.49	237.50	33.9	0.080	OK	237.4881	0.00	0.03	
1607586-20 MeHg	8.720	82.4	108.1	237.50	237.51	92.3	0.079	OK	237.4881	0.00	0.03	
1607586-20 Hg(I	50.096	166.7	214.7	237.51	237.52	181.8	0.285	OK	237.4881	0.00	0.03	

#32: 1607586-21



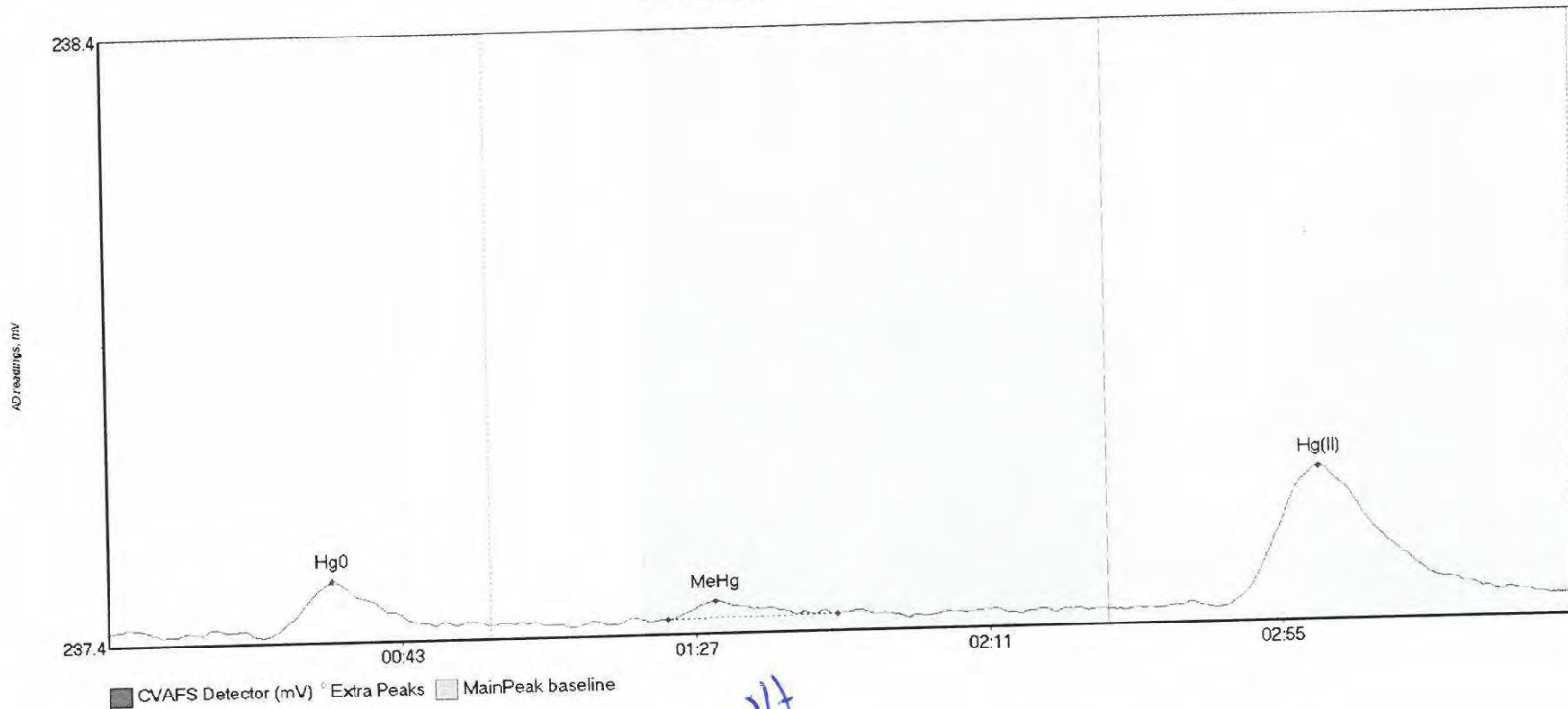
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1607586-21 Hg0	6.158	26.3	56.6	237.49	237.49	33.2	0.047	OK	237.4848	0.00	0.02	
1607586-21 MeHg	2.329	82.6	100.4	237.49	237.50	93.3	0.030	OK	237.4848	0.00	0.02	
1607586-21 Hg(I)	39.495	169.1	217.2	237.50	237.50	181.5	0.232	OK	237.4848	0.00	0.02	

#33: SEQ-CCV2



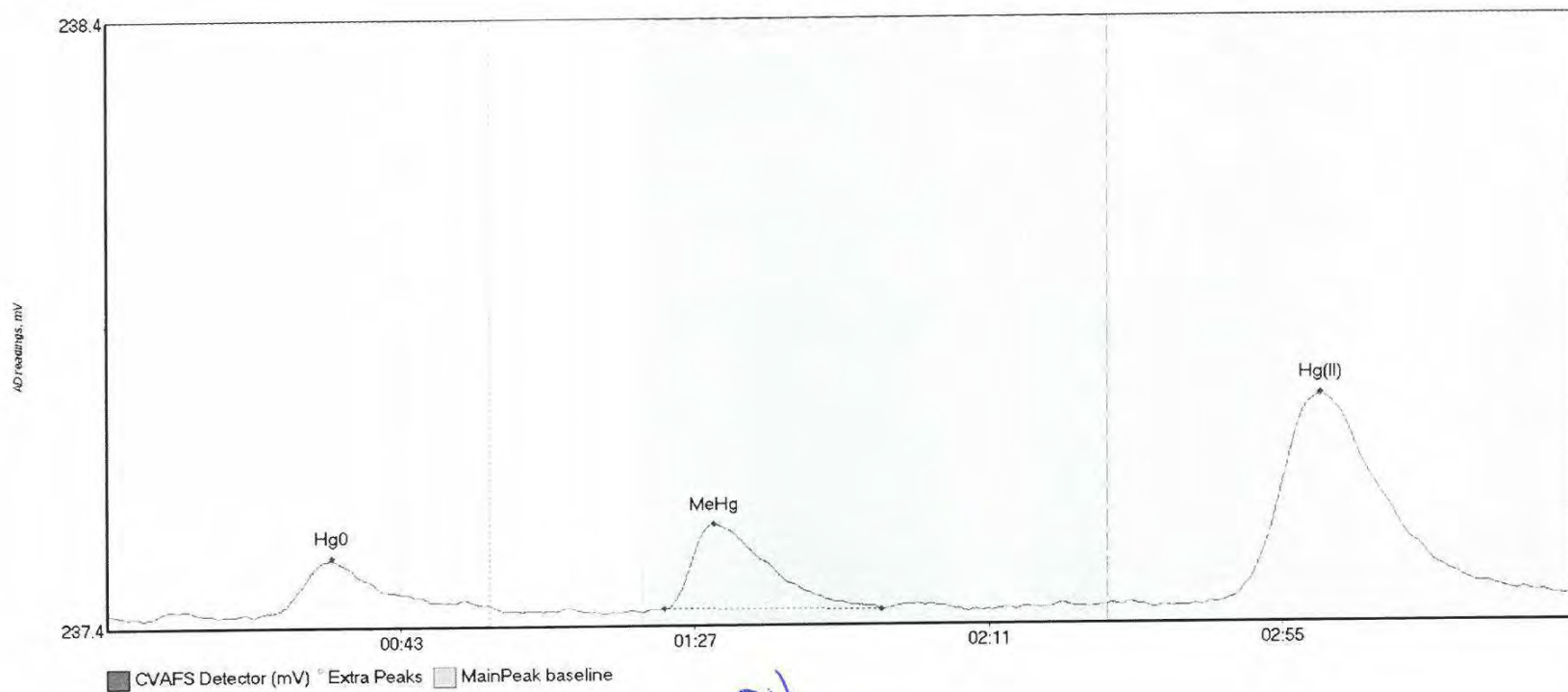
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
SEQ-CCV2 Hg0	260.627	23.4	57.5	237.46	237.58	33.8	2.200	CT	237.4668	0.00	0.06	
SEQ-CCV2 MeHg	399.566	80.1	146.4	237.49	237.50	91.0	2.972	OK	237.4668	0.00	0.06	
SEQ-CCV2 Hg(II)	249.591	164.5	219.8	237.50	237.52	180.8	1.407	CT	237.4668	0.00	0.06	

#34: SEQ-CCB2



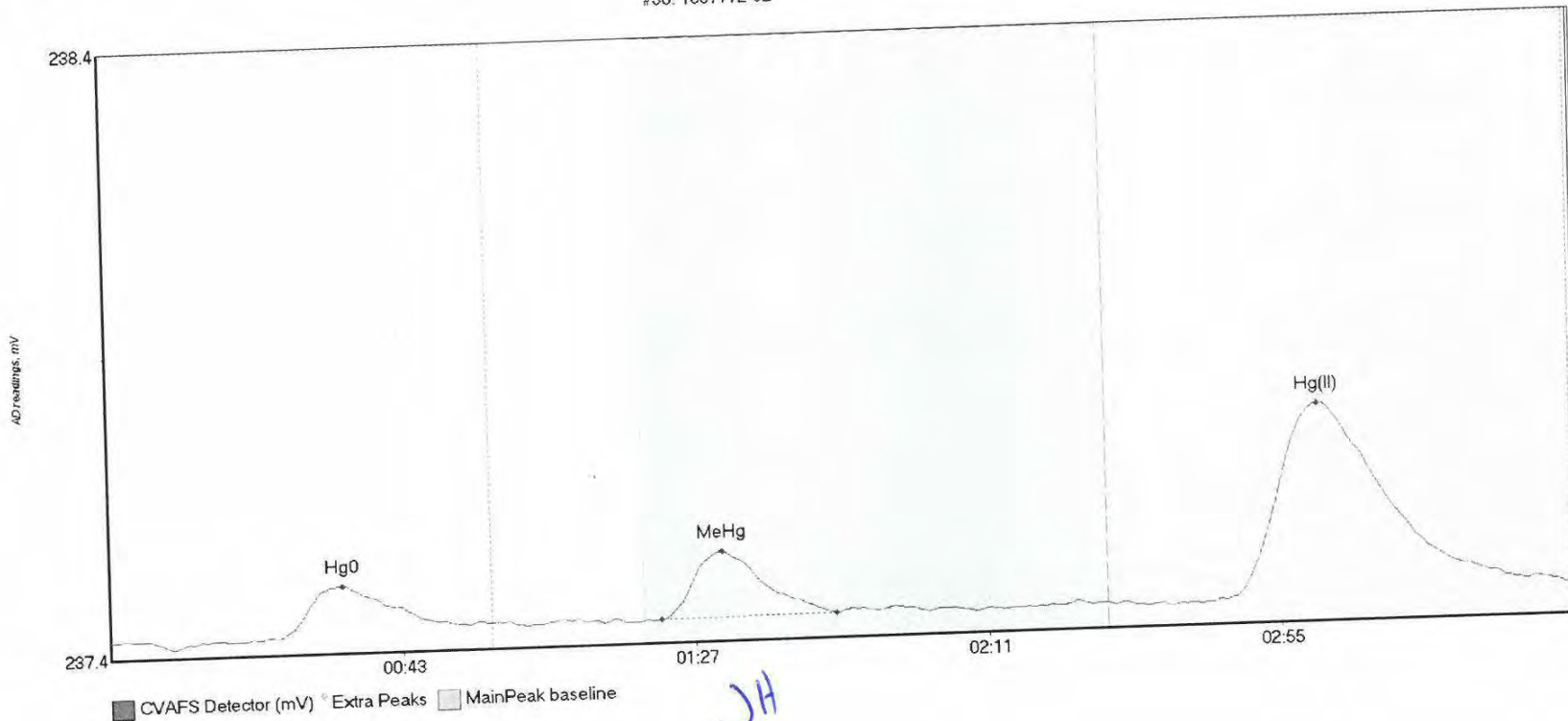
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
SEQ-CCB2 Hg0	9.764	23.6	49.2	237.45	237.46	33.6	0.088	OK	237.4597	0.00	0.02	
SEQ-CCB2 MeHg	3.198	83.8	109.3	237.46	237.47	91.0	0.029	OK	237.4597	0.00	0.02	
SEQ-CCB2 Hg(II)	40.802	166.6	216.5	237.46	237.47	181.8	0.231	OK	237.4597	0.00	0.02	

#35: 160772-01



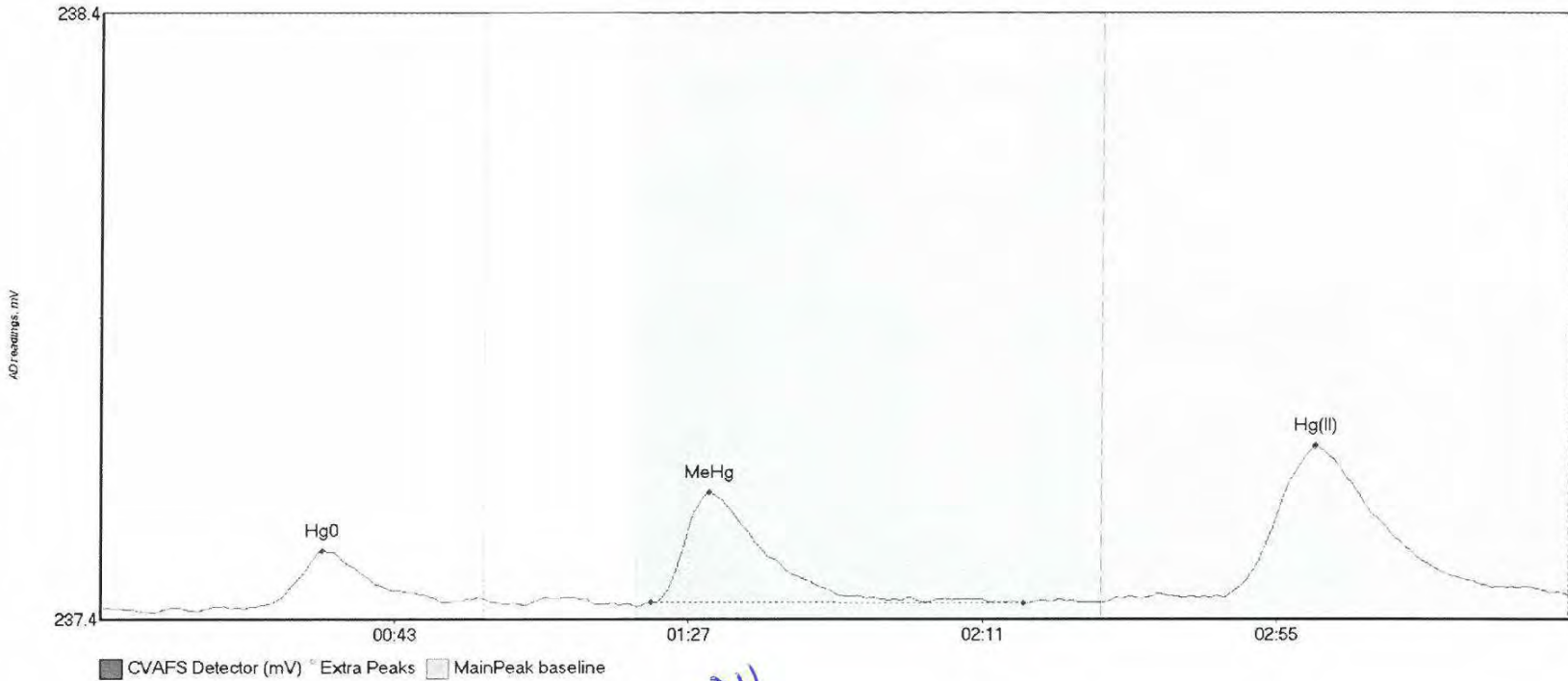
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1607772-01 Hg0	10.453	24.7	57.5	237.44	237.45	33.7	0.087	CT	237.4402	0.00	0.02	
1607772-01 MeHg	18.569	83.5	116.0	237.45	237.44	91.0	0.140	OK	237.4402	0.00	0.02	
1607772-01 Hg(I	59.694	166.3	218.5	237.45	237.46	181.8	0.342	OK	237.4402	0.00	0.02	

#36: 1607772-02



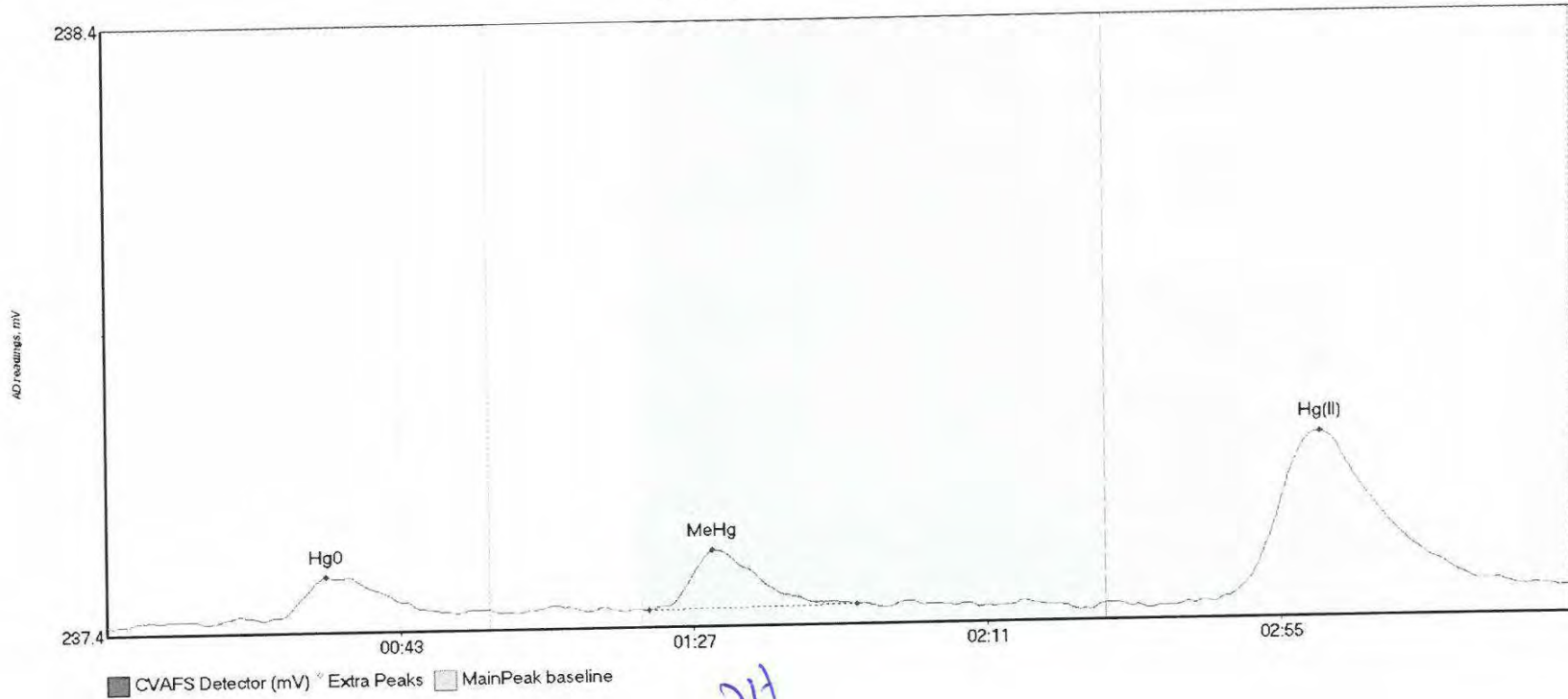
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1607772-02 Hg0	10.559	25.4	54.0	237.42	237.44	35.1	0.085	OK	237.4239	0.00	0.02	
1607772-02 MeHg	13.194	82.9	109.2	237.43	237.44	92.2	0.109	OK	237.4239	0.00	0.02	
1607772-02 Hg(I)	59.446	168.0	219.8	237.44	237.45	181.8	0.321	CT	237.4239	0.00	0.02	

#37: 1607772-03



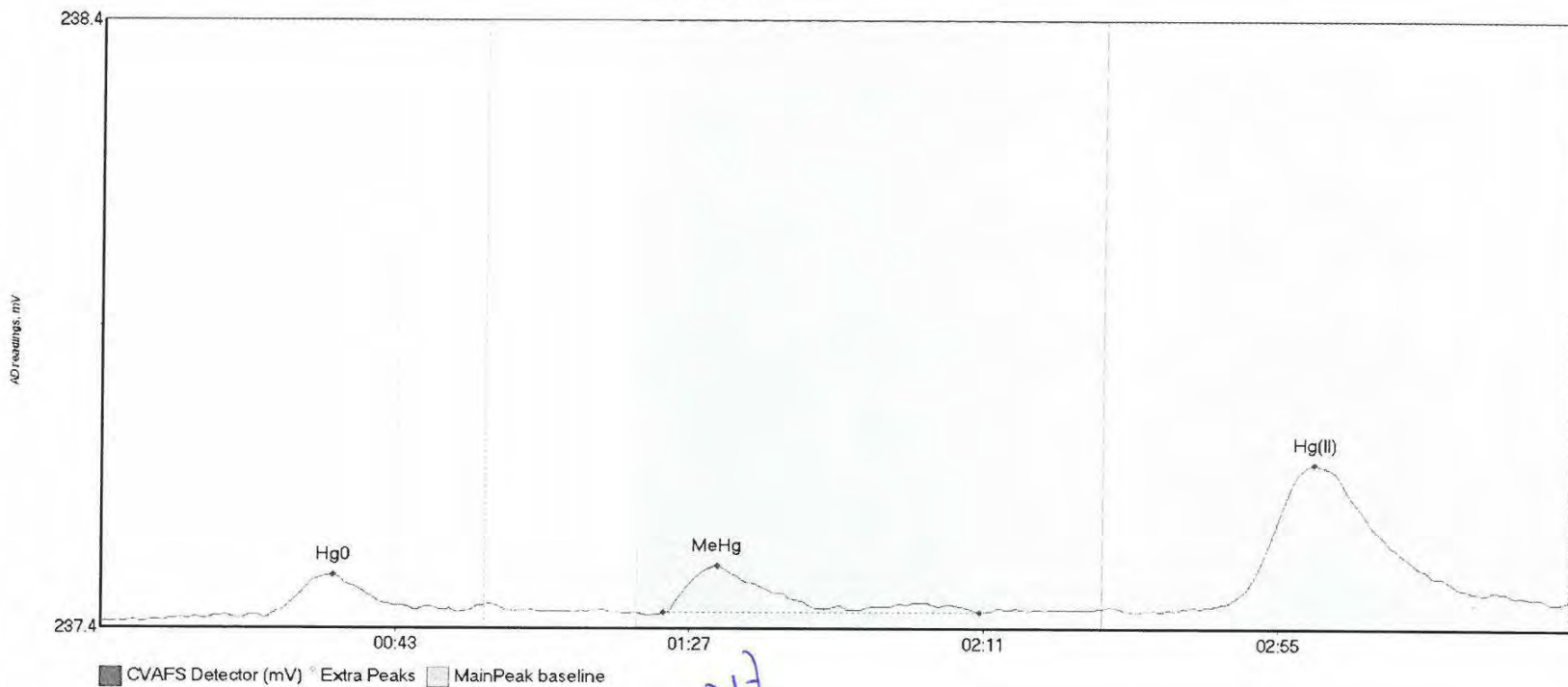
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1607772-03 Hg0	10.368	23.2	51.4	237.42	237.42	33.3	0.092	OK	237.4127	0.00	0.02	
1607772-03 MeHg	25.233	82.4	138.2	237.42	237.42	91.1	0.182	OK	237.4127	0.00	0.02	
1607772-03 Hg(I)	46.679	150.1	219.8	237.42	237.44	181.8	0.258	CT	237.4127	0.00	0.02	

#38: 1607772-04



Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1607772-04 Hg0	9.784	15.5	52.5	237.40	237.42	33.0	0.075	OK	237.4011	0.00	0.03	
1607772-04 MeHg	10.929	81.3	112.5	237.42	237.42	90.9	0.098	OK	237.4011	0.00	0.03	
1607772-04 Hg(I)	49.373	166.3	218.2	237.42	237.43	182.0	0.279	OK	237.4011	0.00	0.03	

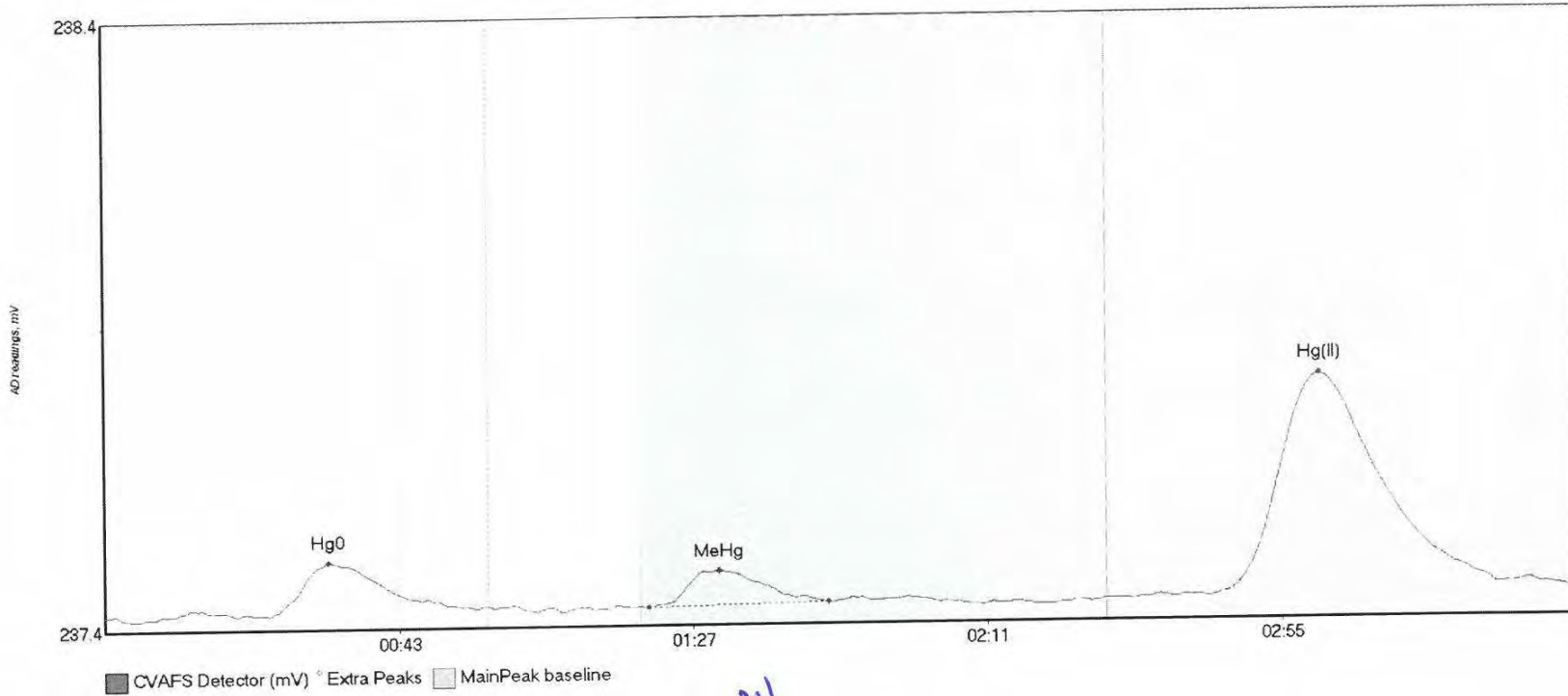
#39: 1607772-05



Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1607772-05 Hg0	7.956	15.5	53.3	237.40	237.41	34.7	0.072	OK	237.3934	0.00	0.03	
1607772-05 MeHg	12.234	84.2	131.4	237.41	237.41	92.2	0.077	OK	237.3934	0.00	0.03	
1607772-05 Hg(I)	42.855	166.2	218.1	237.42	237.42	181.3	0.235	OK	237.3934	0.00	0.03	

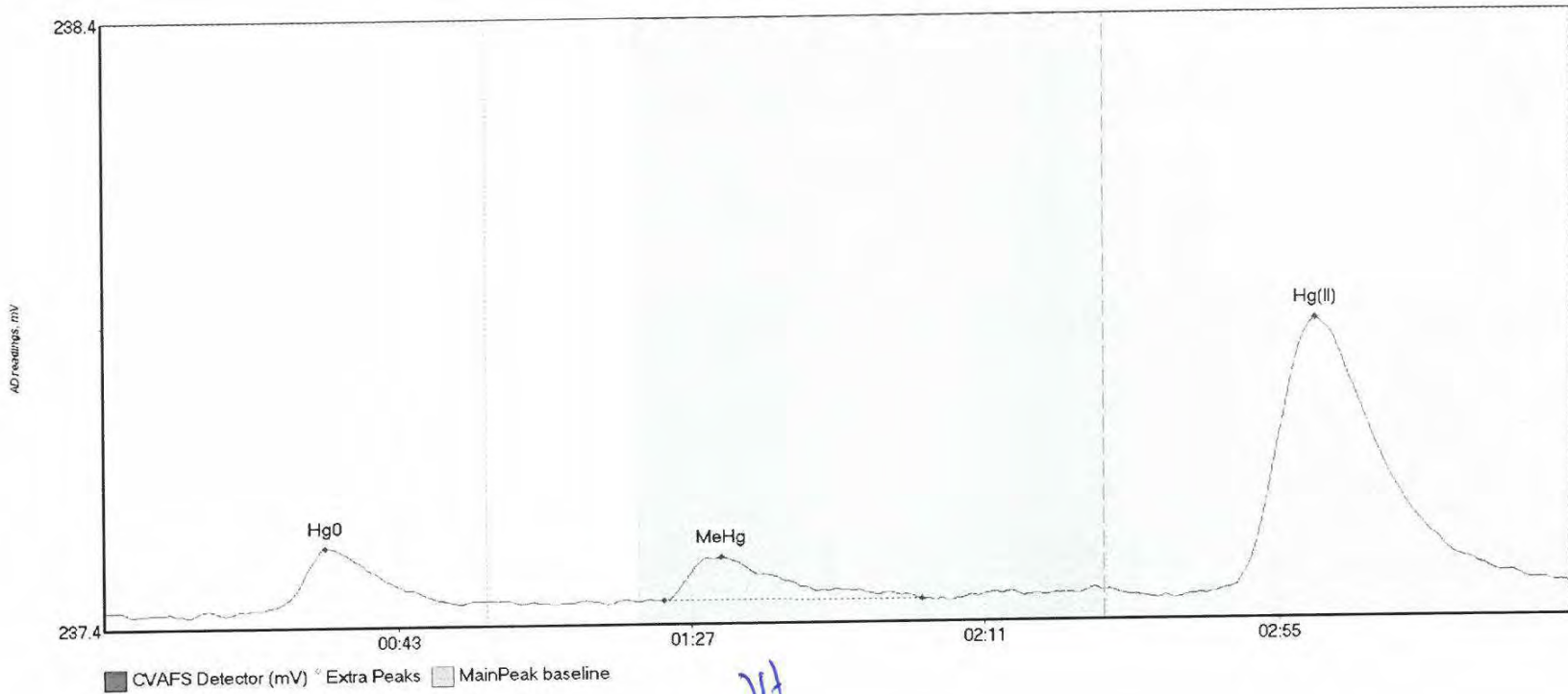
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#40: 1607772-06



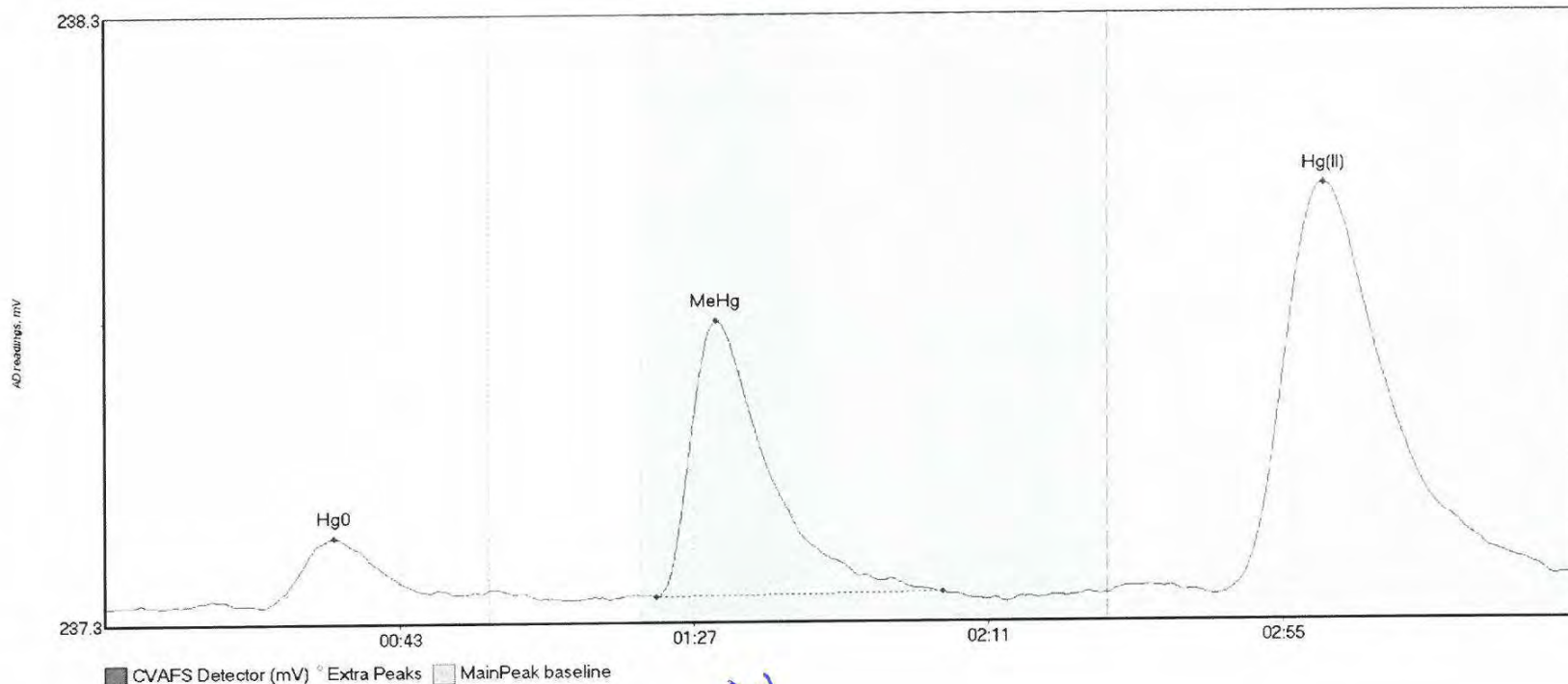
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1607772-06 Hg0	11.381	24.6	55.6	237.40	237.41	33.5	0.087	OK	237.3991	0.00	0.02	
1607772-06 MeHg	7.402	81.5	108.2	237.40	237.41	91.9	0.060	OK	237.3991	0.00	0.02	
1607772-06 Hg(I)	65.082	165.3	219.8	237.41	237.42	181.6	0.364	CT	237.3991	0.00	0.02	

#41: 1607772-07



Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1607772-07 Hg0	12.372	23.4	53.2	237.39	237.39	33.1	0.102	OK	237.3861	0.00	0.03	
1607772-07 MeHg	11.641	83.9	122.6	237.40	237.40	92.4	0.071	OK	237.3861	0.00	0.03	
1607772-07 Hg(I)	78.107	168.2	219.7	237.41	237.41	181.6	0.443	OK	237.3861	0.00	0.03	

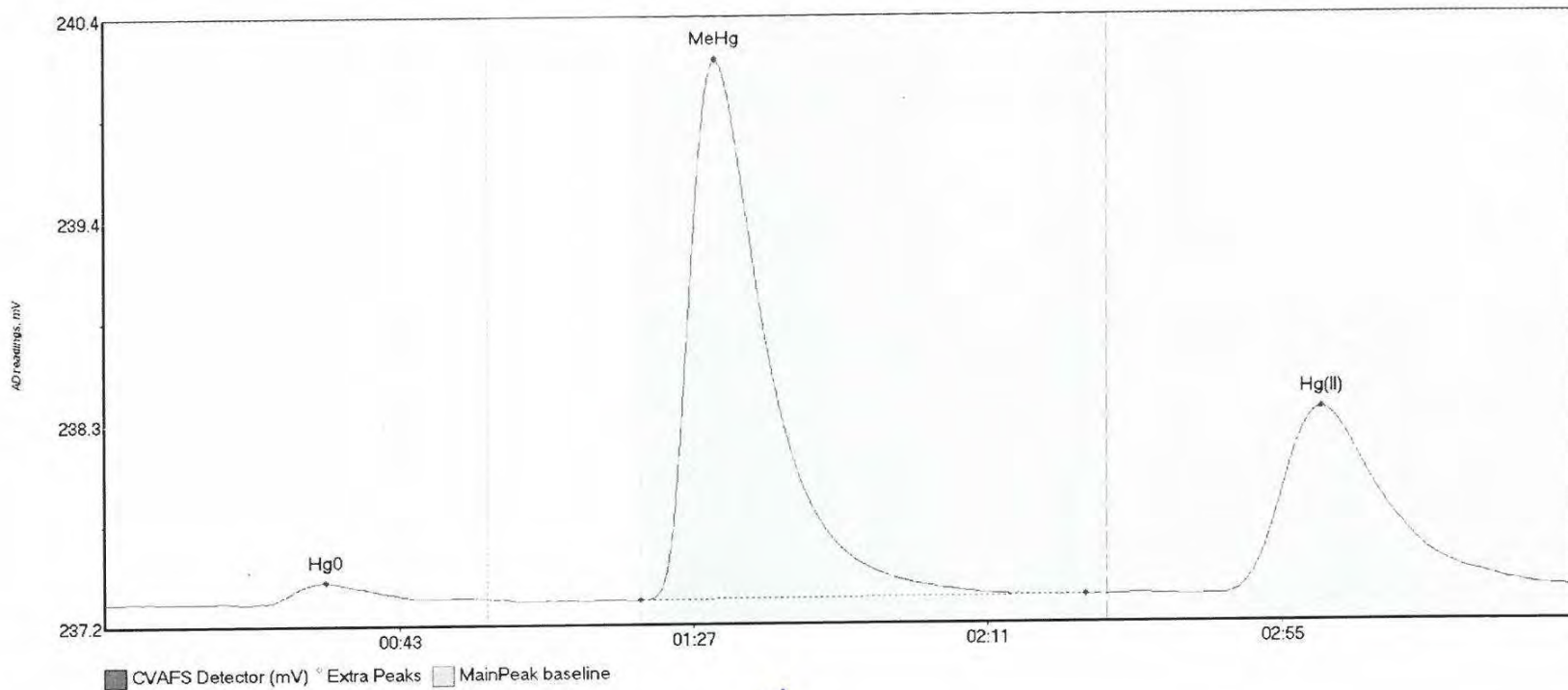
#42: 1607586-04RE3



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Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1607586-04RE3 H	13.425	23.4	52.6	237.37	237.39	34.1	0.114	OK	237.3729	0.00	0.04	
1607586-04RE3 M	60.077	82.4	125.1	237.39	237.39	91.3	0.455	OK	237.3729	0.00	0.04	
1607586-04RE3 H	120.436	166.0	219.8	237.39	237.42	182.0	0.676	CT	237.3729	0.00	0.04	

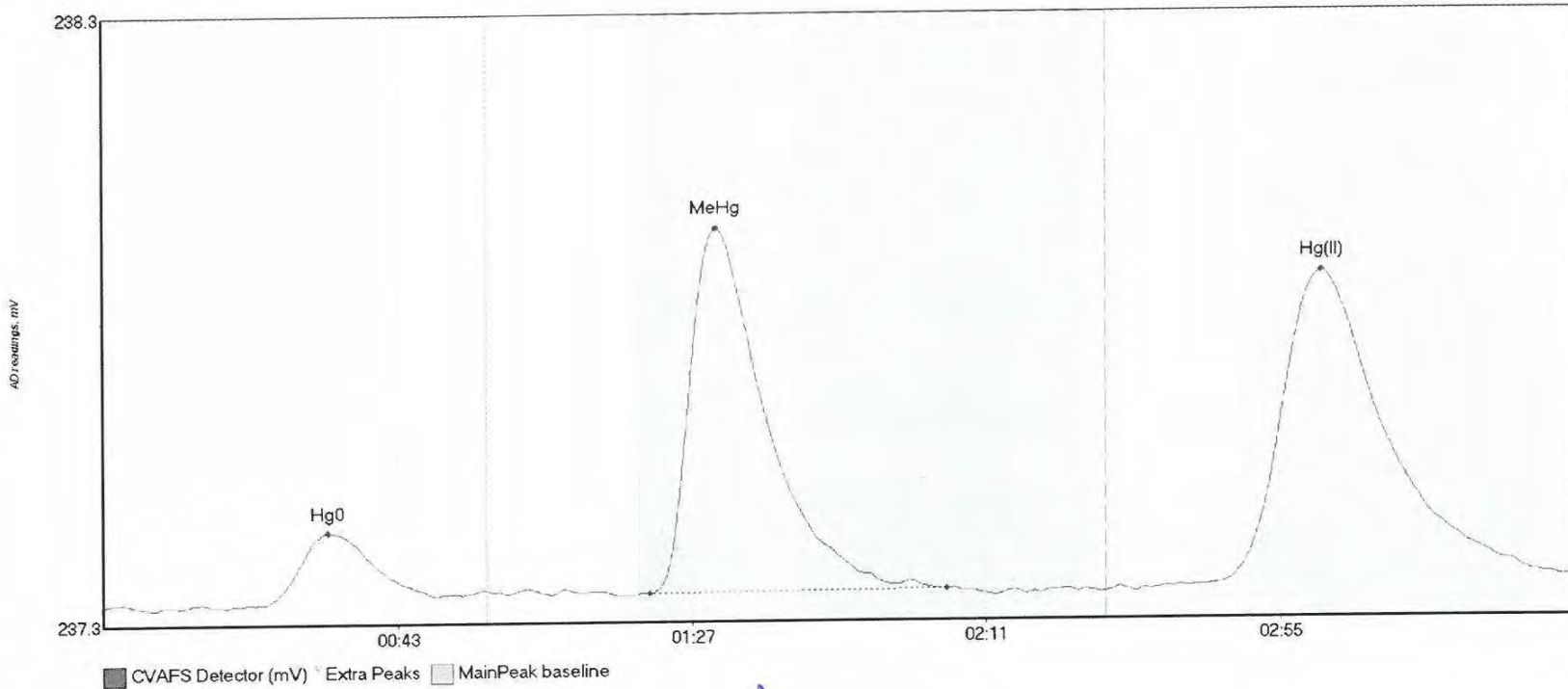
#43: 1607805-01



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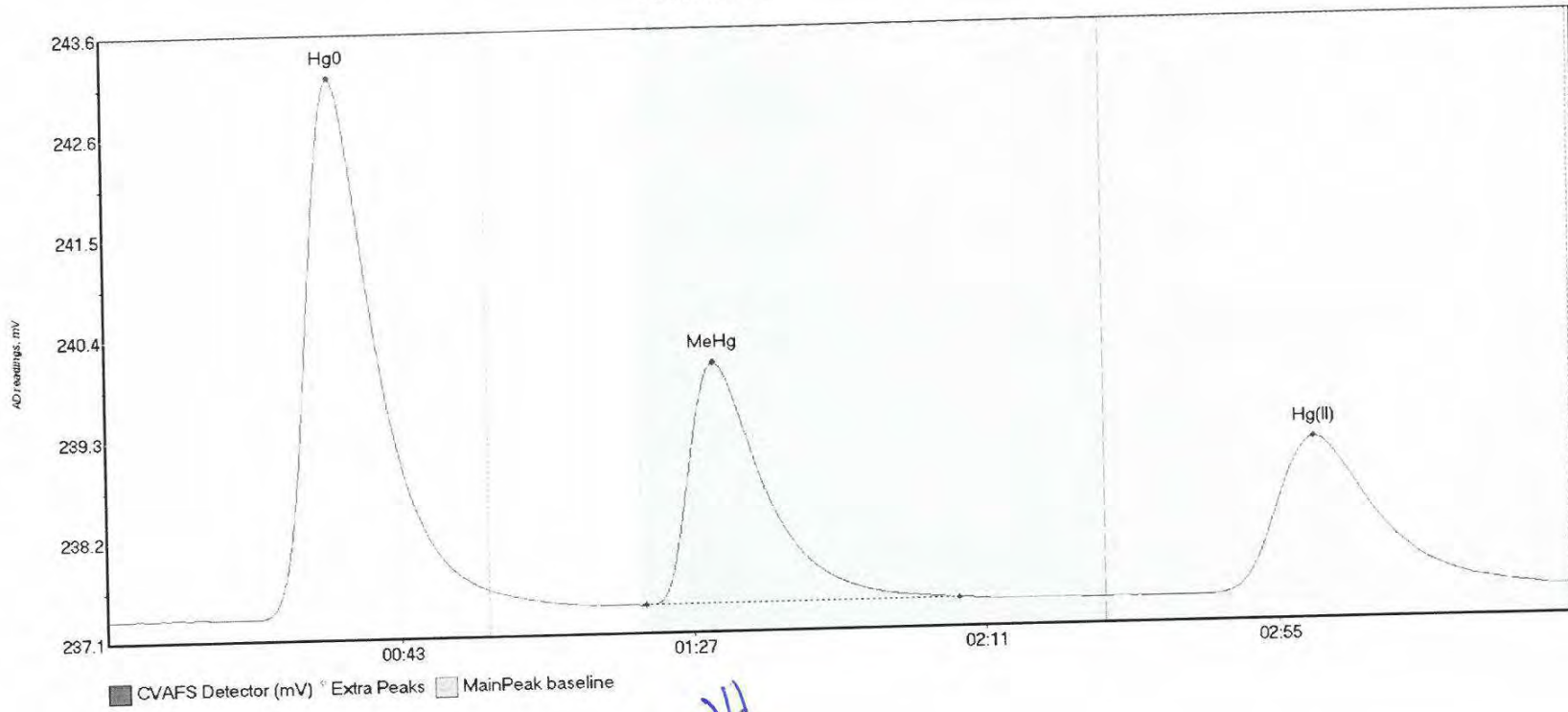
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	B1Dev	B1Shift	Comment
1607805-01 Hg0	13.338	24.1	57.5	237.37	237.39	33.0	0.108	CT	237.3701	0.00	0.05	
1607805-01 MeHg	378.516	80.1	146.8	237.38	237.39	91.3	2.822	OK	237.3701	0.00	0.05	
1607805-01 Hg(I)	172.156	167.2	219.7	237.39	237.42	181.9	0.972	OK	237.3701	0.00	0.05	

#44: 1607805-02



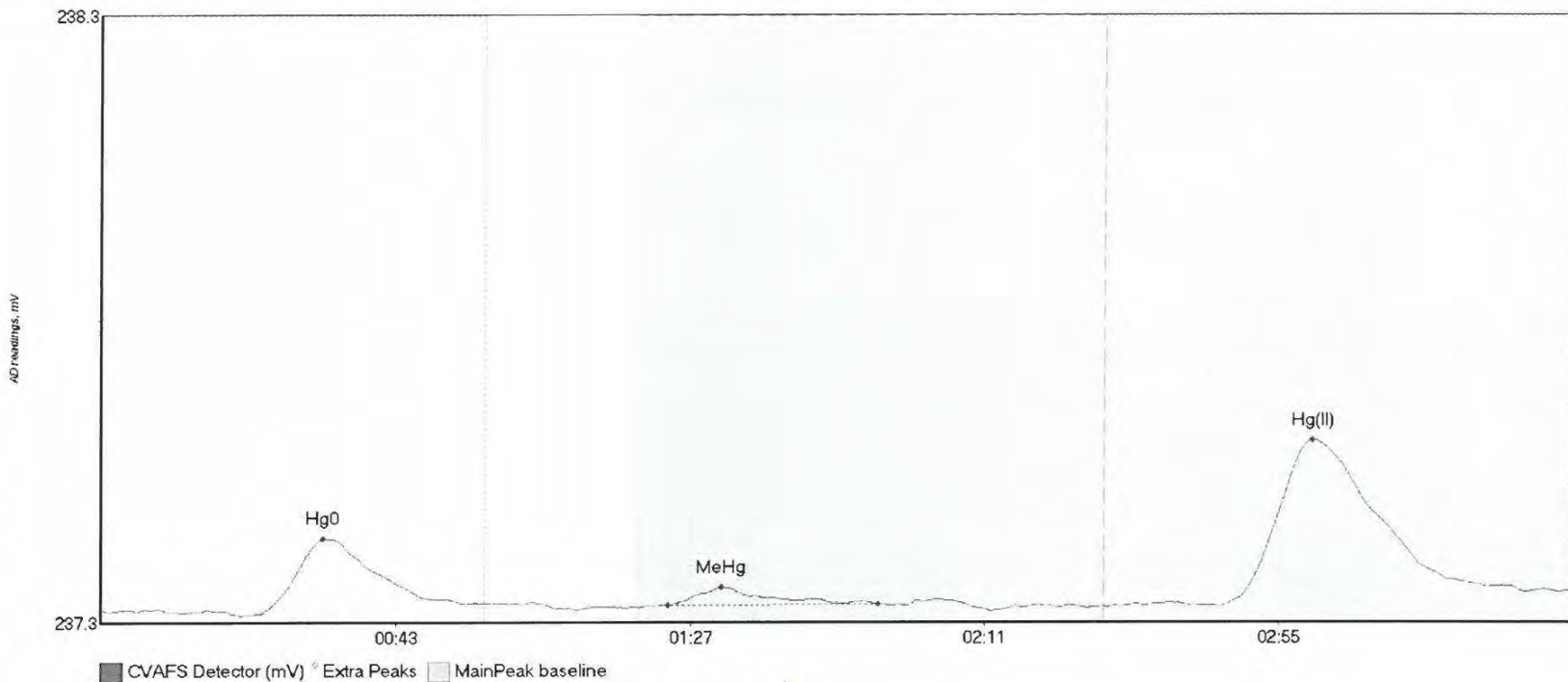
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1607805-02 Hg0	13.824	24.2	49.7	237.36	237.37	33.6	0.119	OK	237.3619	0.00	0.03	
1607805-02 MeHg	78.640	81.8	126.2	237.38	237.38	91.6	0.600	OK	237.3619	0.00	0.03	
1607805-02 Hg(I)	92.358	158.1	219.8	237.38	237.39	182.2	0.520	CT	237.3619	0.00	0.03	

#45: SEQ-CCV3



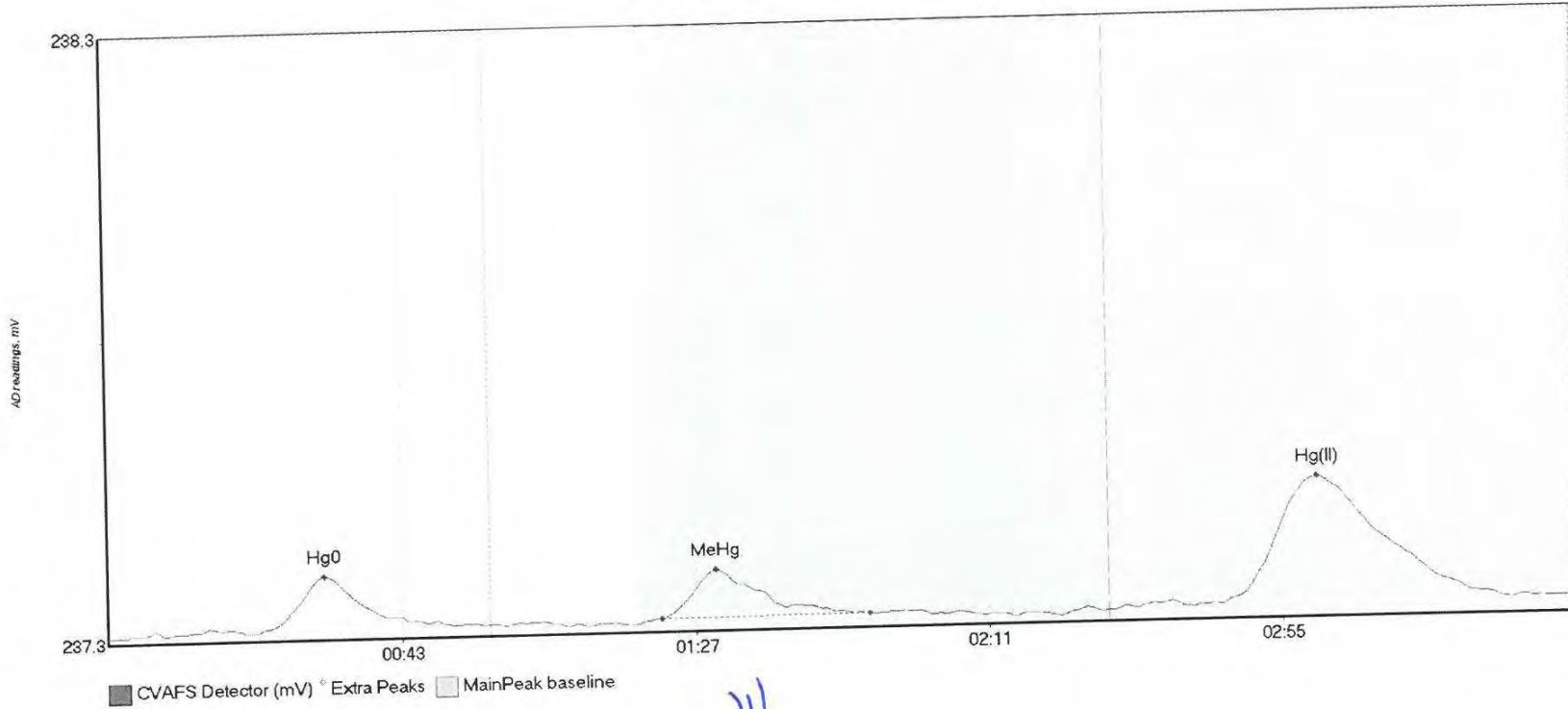
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
SEQ-CCV3 Hg0	672.167	21.0	57.5	237.35	237.61	33.9	5.832	CT	237.3521	0.00	0.08	
SEQ-CCV3 MeHg	343.435	80.7	128.0	237.42	237.42	91.3	2.611	OK	237.3521	0.00	0.08	
SEQ-CCV3 Hg(II)	298.131	164.3	219.7	237.39	237.43	181.5	1.692	OK	237.3521	0.00	0.08	

#46: SEQ-CCB3



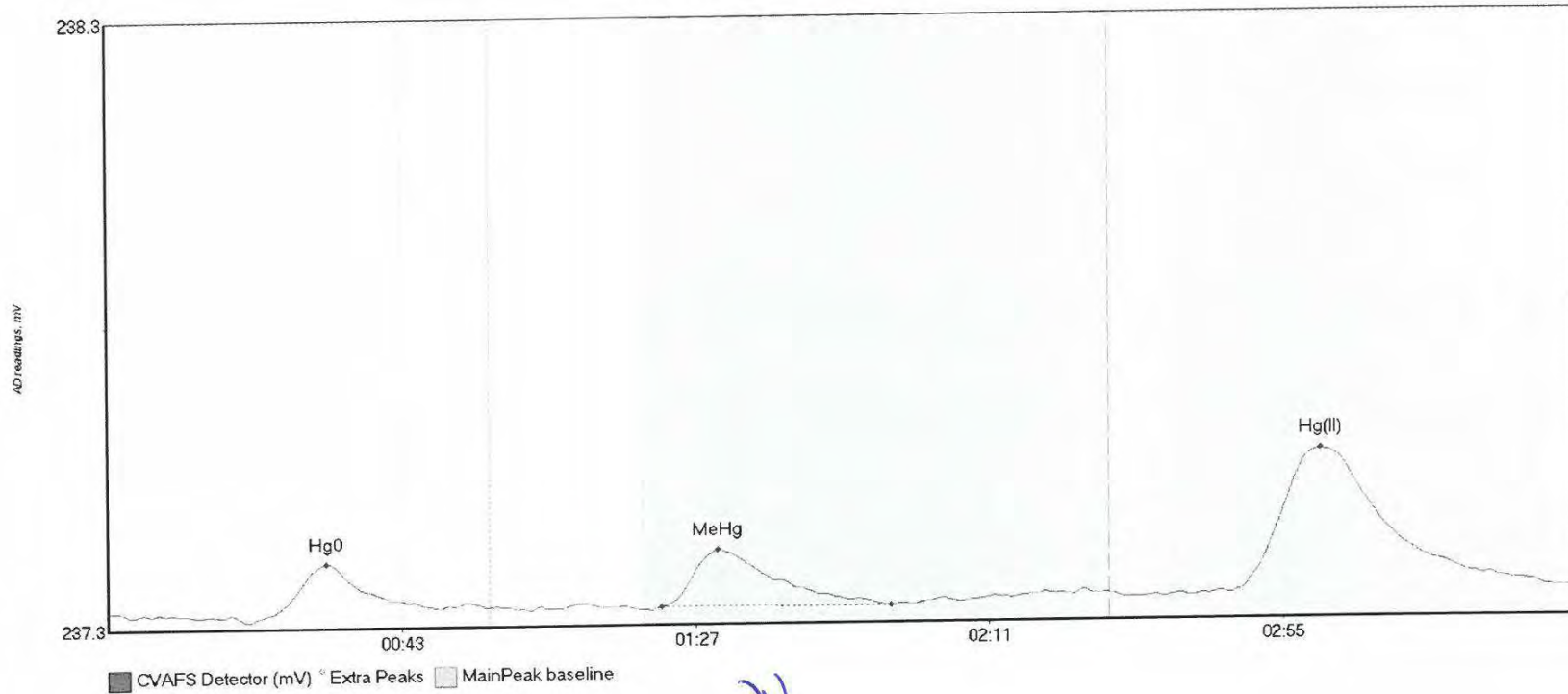
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
SEQ-CCB3 Hg0	15.663	23.2	54.6	237.34	237.36	33.0	0.124	OK	237.3453	0.00	0.03	
SEQ-CCB3 MeHg	3.548	84.6	116.1	237.35	237.36	92.6	0.030	OK	237.3453	0.00	0.03	
SEQ-CCB3 Hg(II)	45.905	167.2	213.0	237.35	237.38	181.1	0.274	OK	237.3453	0.00	0.03	

#47: F608155-BLK1



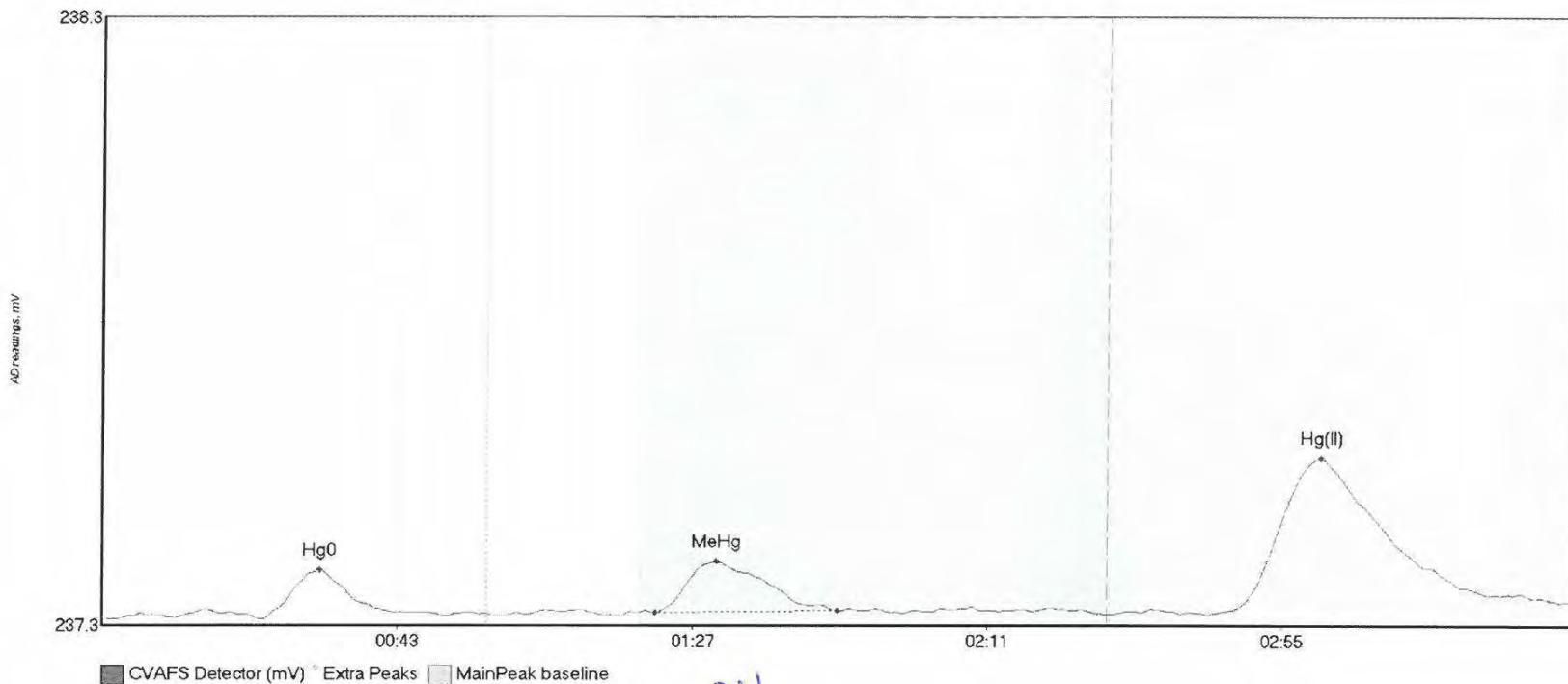
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
F608155-BLK1 Hg	9.904	21.9	56.3	237.34	237.35	32.5	0.091	OK	237.3383	0.00	0.02	
F608155-BLK1 Me	9.137	82.9	114.2	237.35	237.35	91.0	0.080	OK	237.3383	0.00	0.02	
F608155-BLK1 Hg	37.926	162.6	210.3	237.35	237.36	181.3	0.211	OK	237.3383	0.00	0.02	

#48: F608155-BLK2



Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	B1Dev	B1Shift	Comment
F608155-BLK2 Hg	8.694	22.7	48.3	237.32	237.34	32.7	0.089	OK	237.3339	0.00	0.02	
F608155-BLK2 Me	12.920	82.9	117.3	237.34	237.33	91.3	0.093	OK	237.3339	0.00	0.02	
F608155-BLK2 Hg	42.327	168.1	219.0	237.35	237.35	181.7	0.236	OK	237.3339	0.00	0.02	

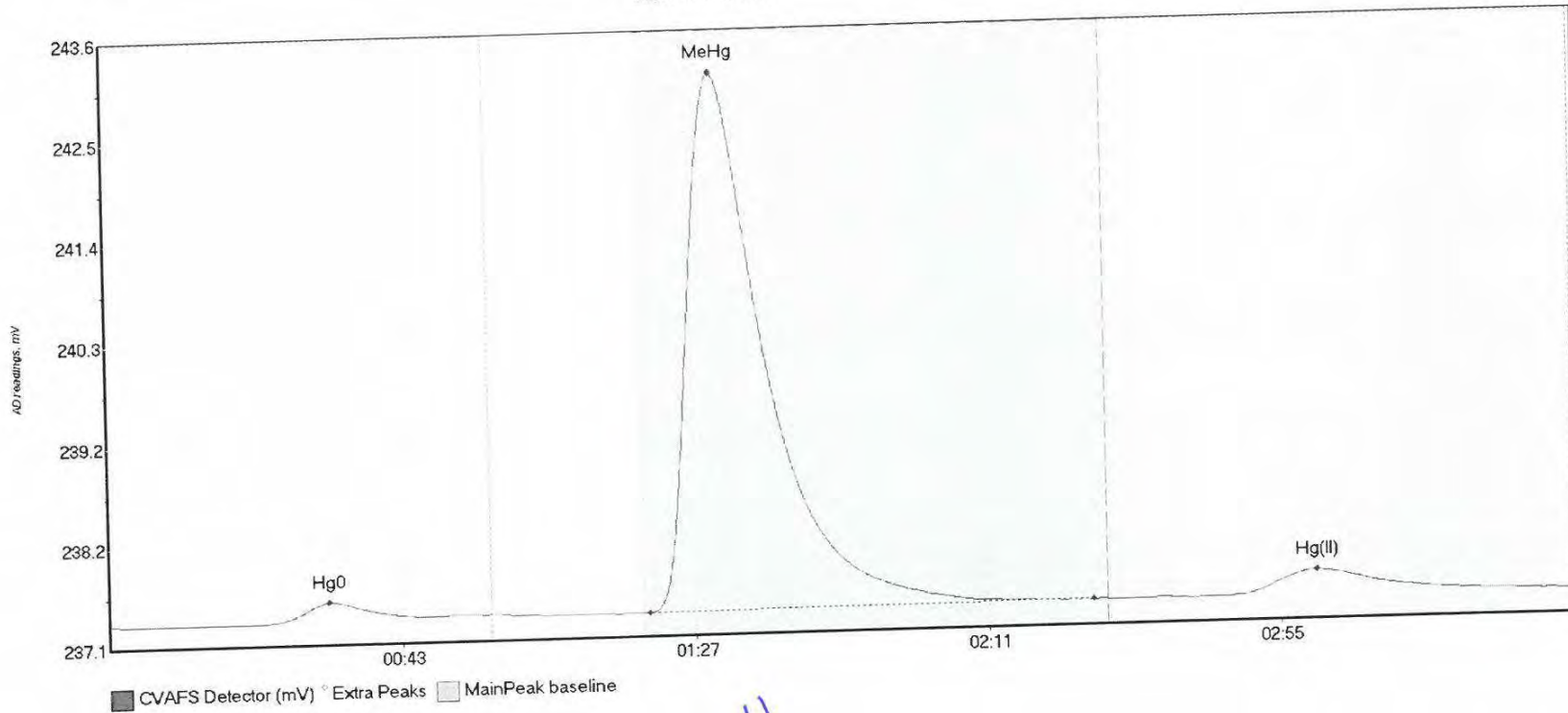
#49: F608155-BLK3



Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
F608155-BLK3 Hg	7.924	23.9	50.9	237.32	237.33	32.5	0.080	OK	237.3250	0.00	0.03	
F608155-BLK3 Me	10.996	82.5	109.7	237.33	237.34	91.6	0.084	OK	237.3250	0.00	0.03	
F608155-BLK3 Hg	44.445	167.4	217.6	237.34	237.35	181.9	0.252	OK	237.3250	0.00	0.03	

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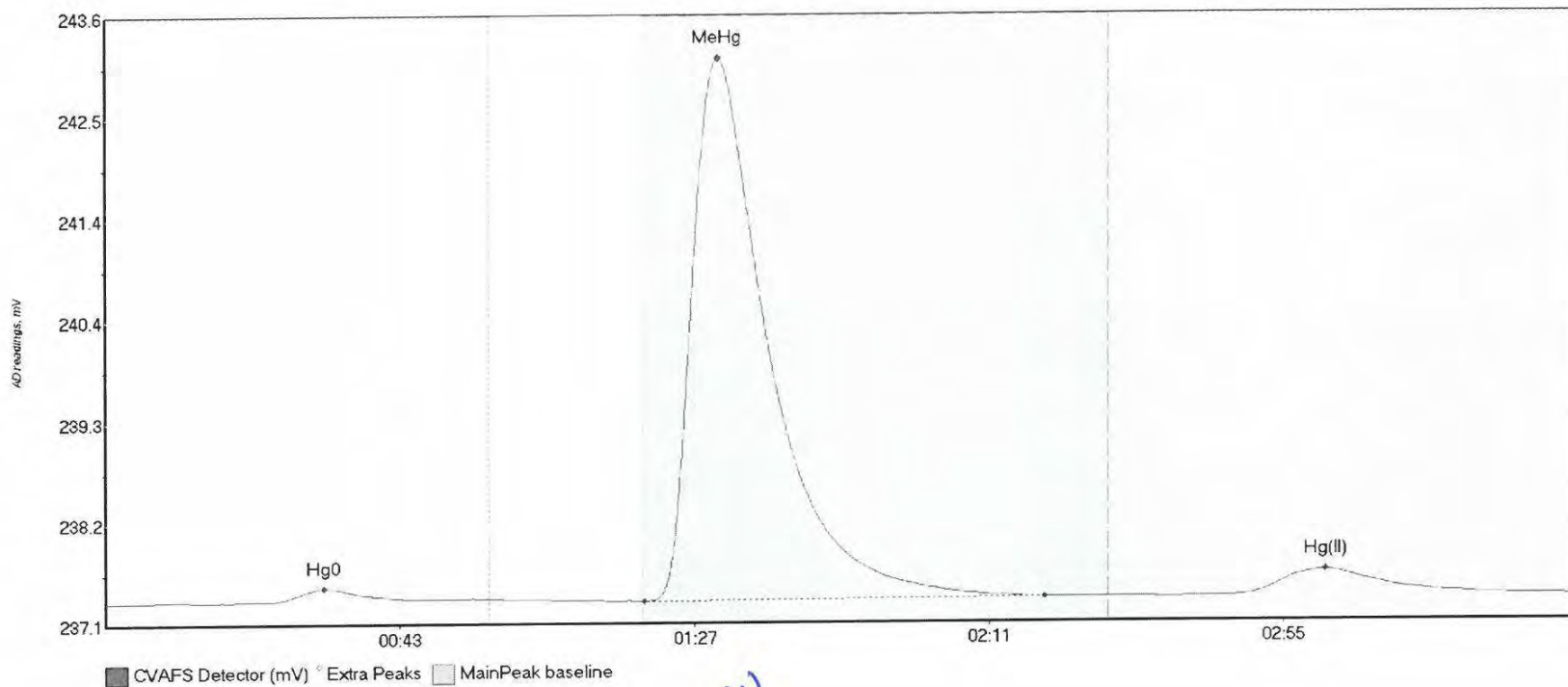
#50: F608155-BS1



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Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
F608155-BS1 Hg0	21.388	23.1	48.7	237.32	237.36	33.0	0.218	OK	237.3286	0.00	0.02	
F608155-BS1 MeH	776.732	81.0	147.7	237.34	237.36	91.3	5.771	OK	237.3286	0.00	0.02	
F608155-BS1 Hg(42.921	169.7	214.6	237.36	237.36	181.5	0.250	OK	237.3286	0.00	0.02	

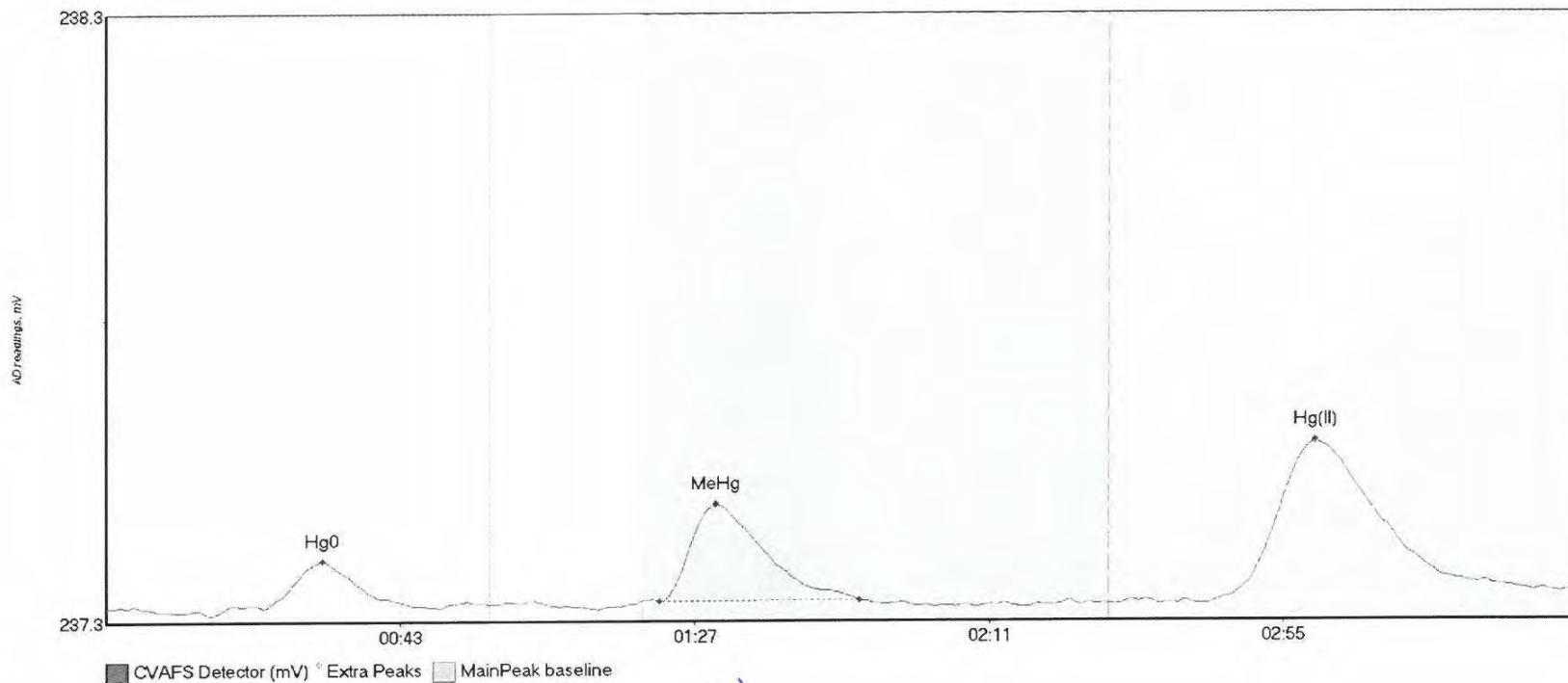
#51:F608155-BSD1



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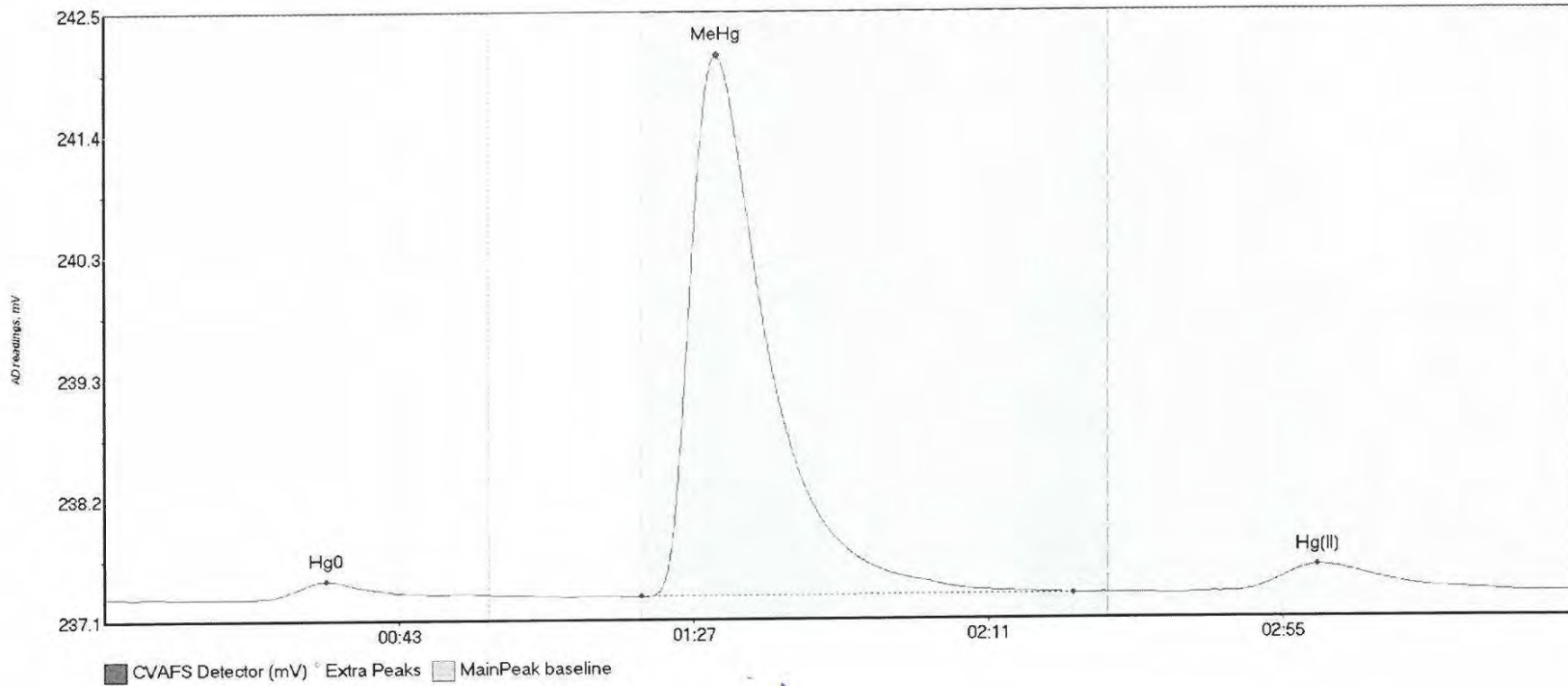
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
F608155-BSD1 Hg	13.652	23.2	47.5	237.33	237.35	32.7	0.143	OK	237.3231	0.00	0.03	
F608155-BSD1 Me	779.460	80.4	140.3	237.32	237.35	91.4	5.836	OK	237.3231	0.00	0.03	
F608155-BSD1 Hg	49.268	167.8	219.3	237.35	237.35	182.3	0.272	OK	237.3231	0.00	0.03	

#52: F608155-DUP1



Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
F608155-DUP1 Hg	7.599	23.6	45.7	237.32	237.32	32.4	0.078	OK	237.3224	0.00	0.02	
F608155-DUP1 Me	19.869	82.7	112.6	237.33	237.33	91.1	0.160	OK	237.3224	0.00	0.02	
F608155-DUP1 Hg	45.906	164.8	217.3	237.33	237.35	180.8	0.266	OK	237.3224	0.00	0.02	

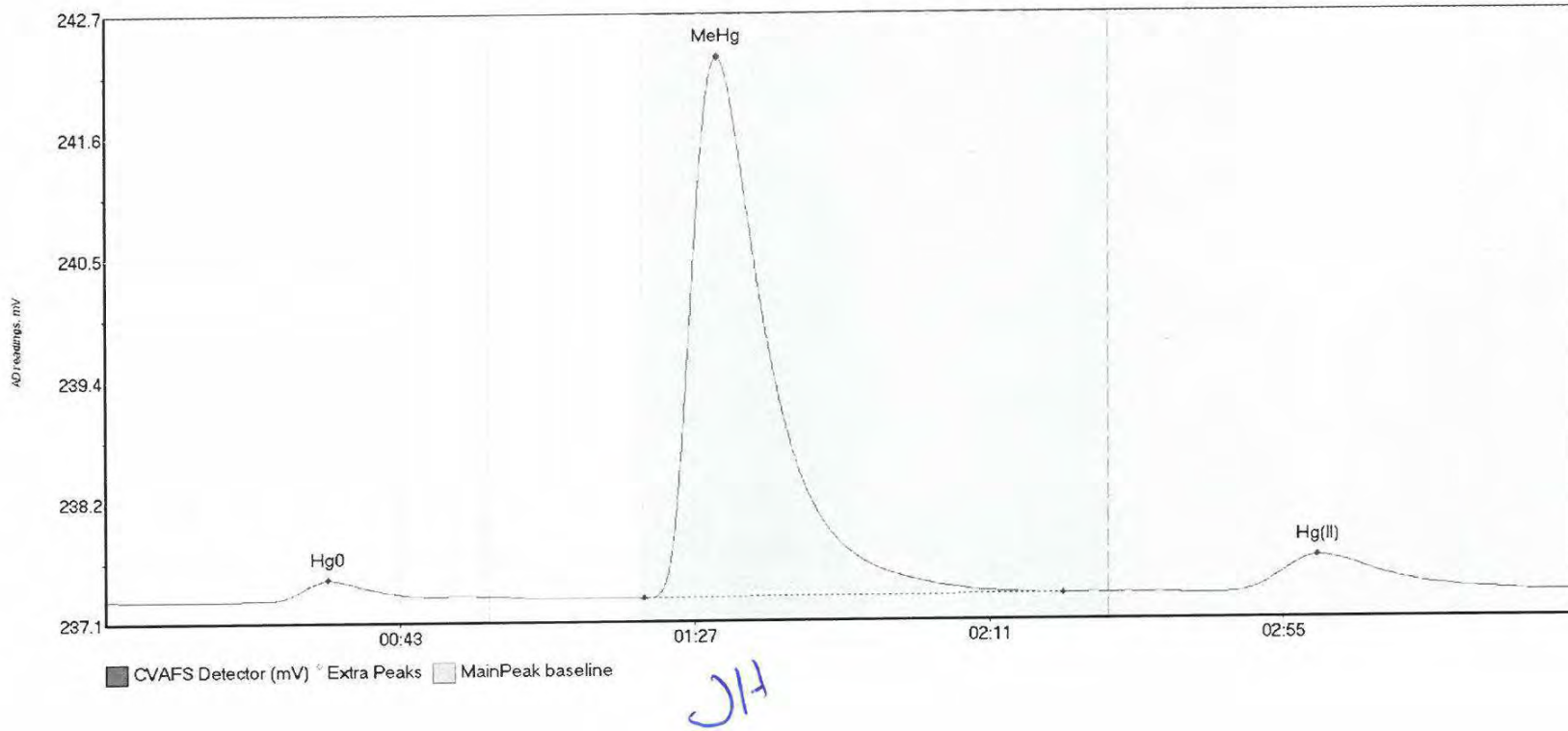
#53: F608155-MS1



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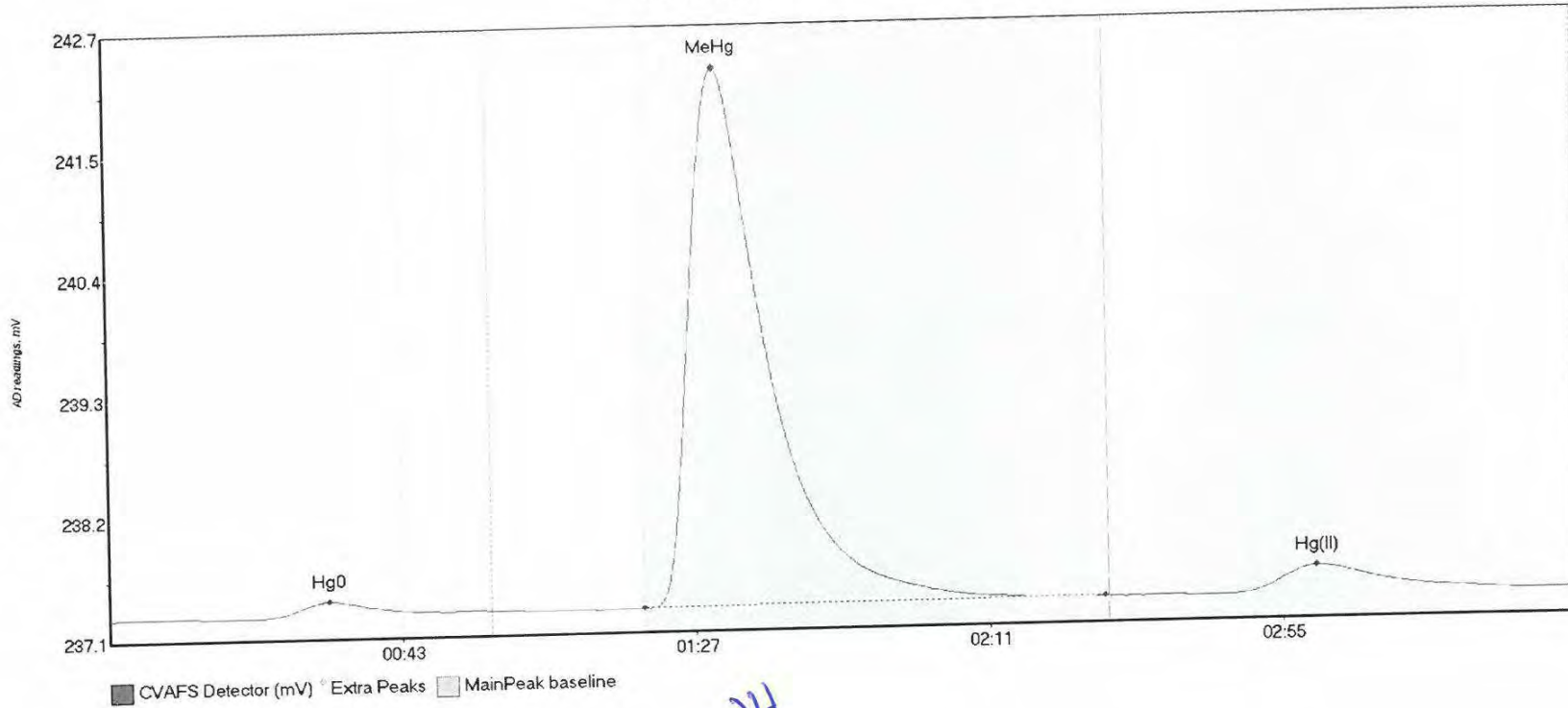
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment	
F608155-MS1	Hg0	17.267	24.1	57.5	237.32	237.34	33.3	0.148	CT	237.3150	0.00	0.02	
F608155-MS1	MeH	645.632	80.1	144.7	237.32	237.33	91.4	4.798	OK	237.3150	0.00	0.02	
F608155-MS1	Hg(	39.712	166.8	209.7	237.34	237.34	181.2	0.235	OK	237.3150	0.00	0.02	

#54: F608155-MSD1



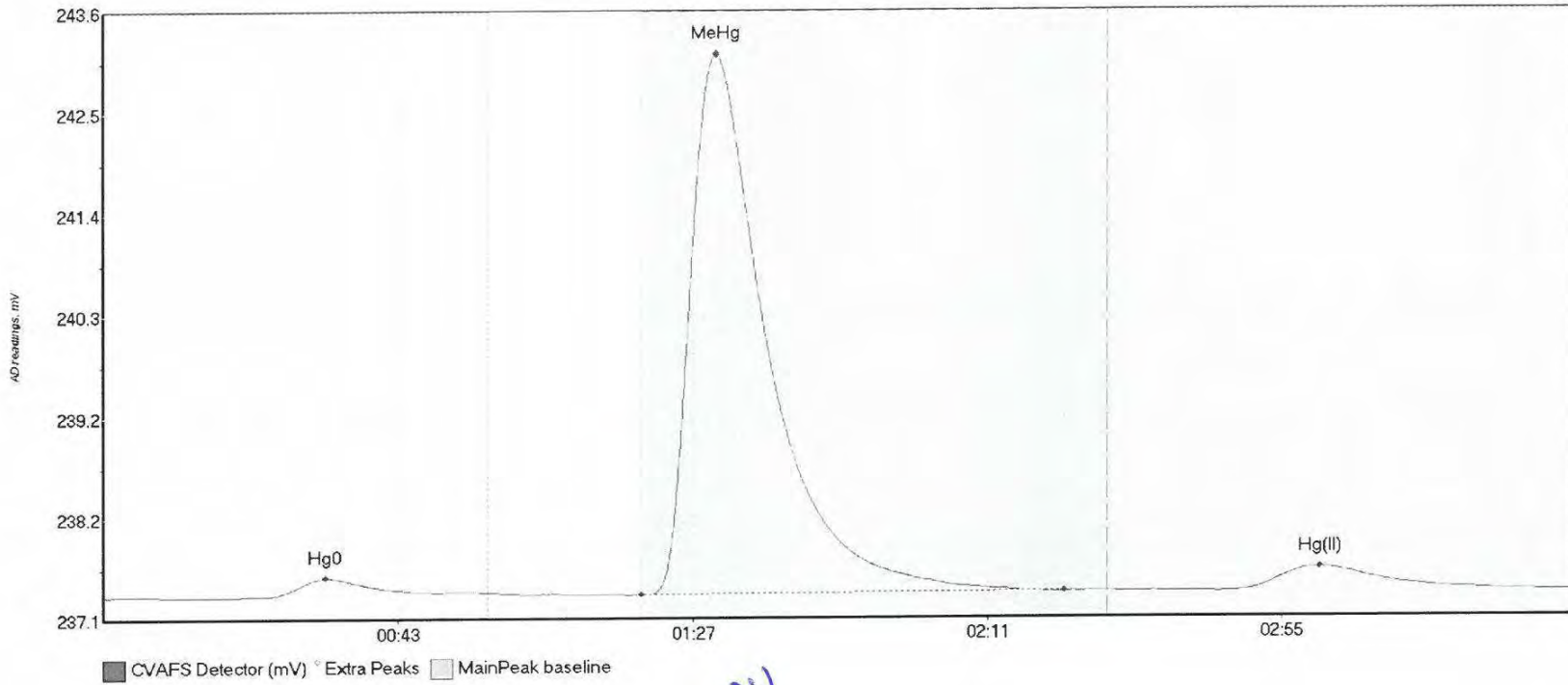
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
F608155-MSD1 Hg	18.914	24.7	48.9	237.31	237.33	33.3	0.188	OK	237.3053	0.00	0.03	
F608155-MSD1 Me	677.946	80.4	143.0	237.31	237.33	91.5	5.033	OK	237.3053	0.00	0.03	
F608155-MSD1 Hg	60.685	167.3	214.3	237.33	237.33	181.2	0.340	OK	237.3053	0.00	0.03	

#55: F608155-MS2



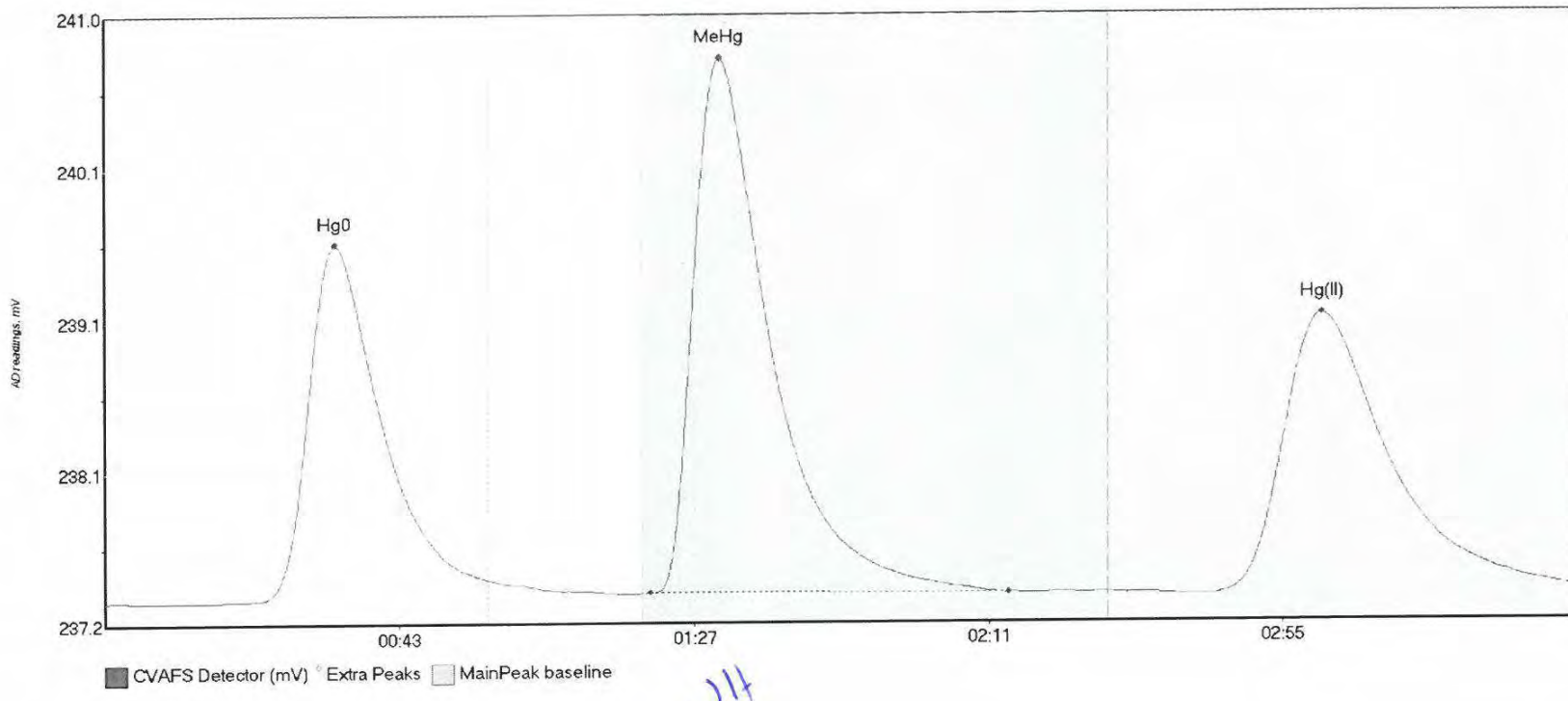
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
F608155-MS2 Hg0	16.585	22.5	57.5	237.30	237.33	33.2	0.142	CT	237.3054	0.00	0.03	
F608155-MS2 MeH	665.800	80.1	149.3	237.32	237.34	91.4	4.936	OK	237.3054	0.00	0.03	
F608155-MS2 Hg(	40.836	168.6	210.2	237.33	237.34	181.1	0.248	OK	237.3054	0.00	0.03	

#56: F608155-MSD2



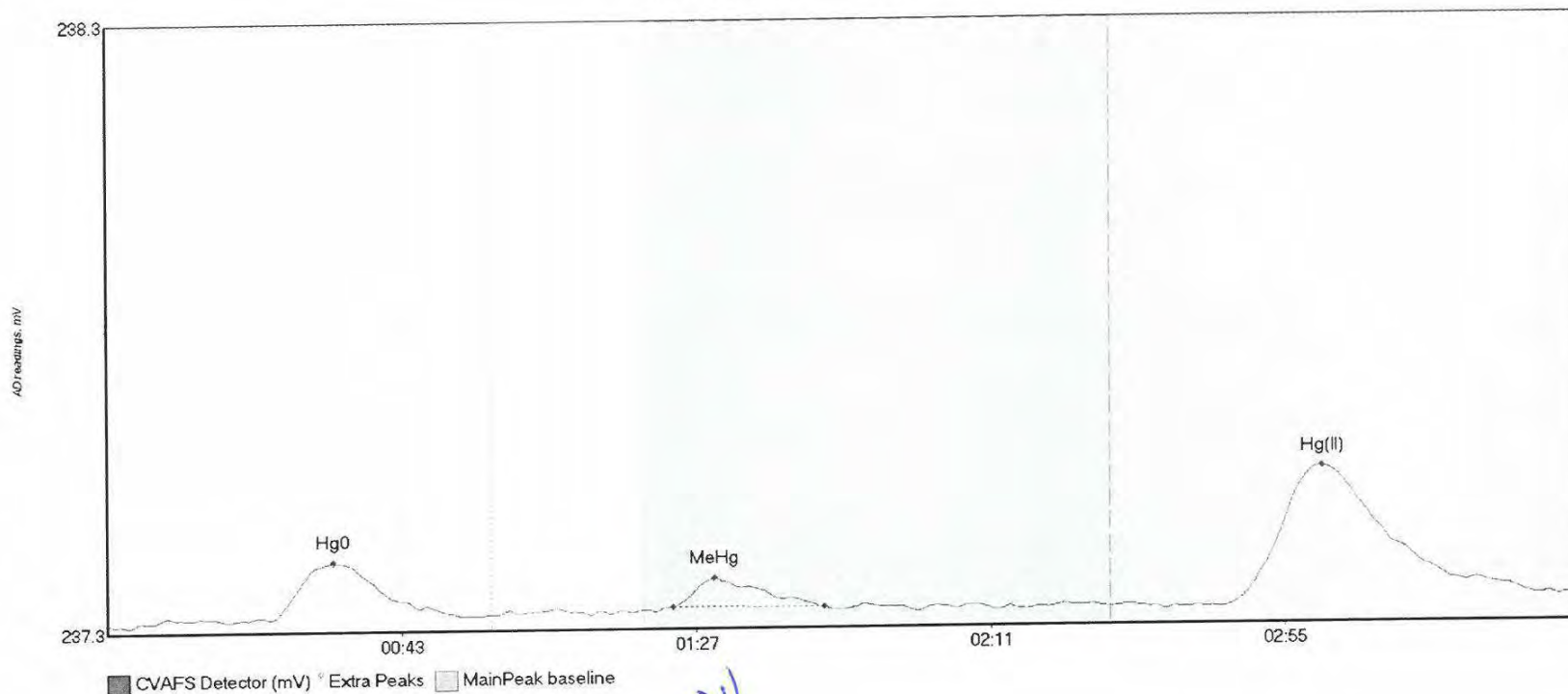
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
F608155-MSD2 Hg	21.560	22.9	56.6	237.31	237.35	33.2	0.198	OK	237.3058	0.00	0.04	
F608155-MSD2 Me	781.097	80.2	143.5	237.32	237.35	91.4	5.827	OK	237.3058	0.00	0.04	
F608155-MSD2 Hg	42.186	168.2	209.5	237.34	237.35	181.7	0.255	OK	237.3058	0.00	0.04	

#57: SEQ-CCV4



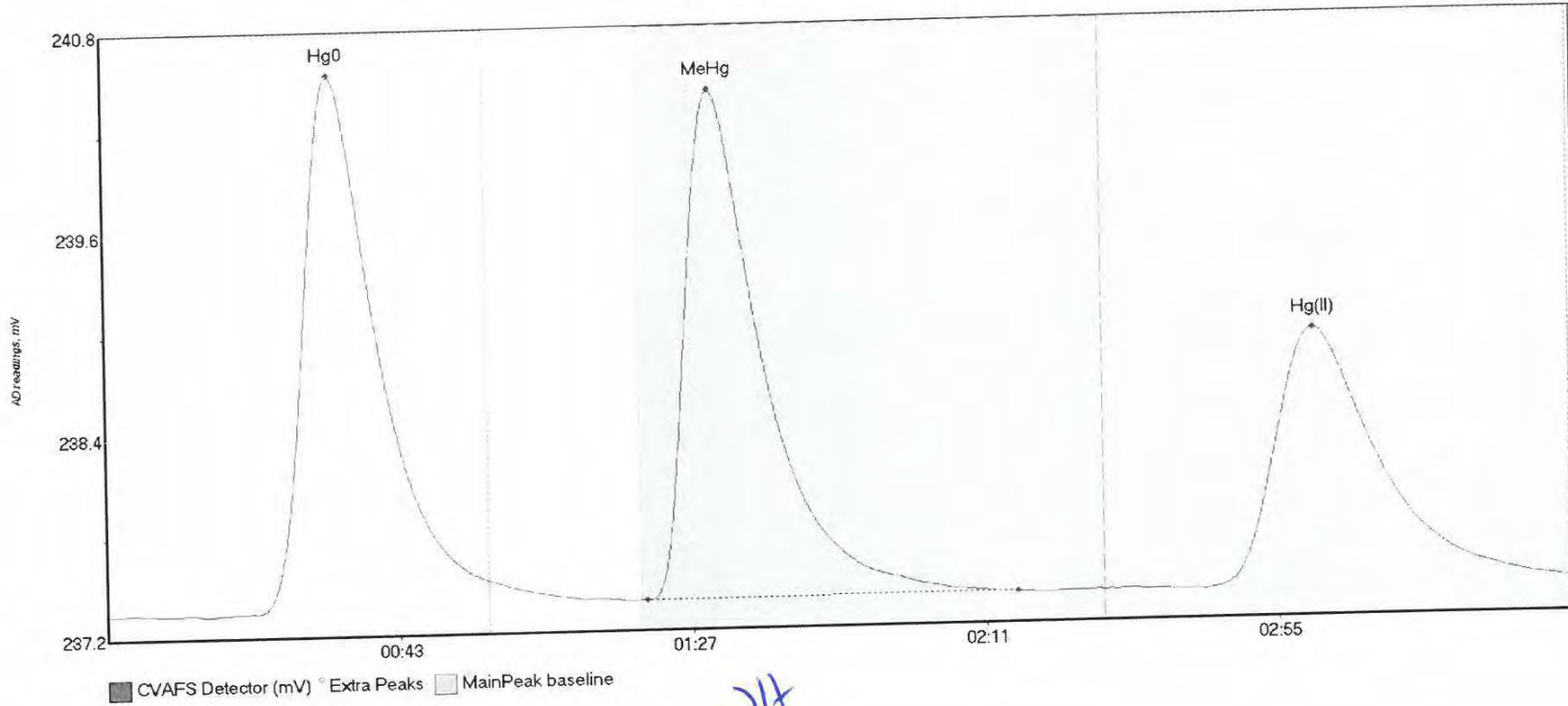
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
SEQ-CCV4 Hg0	269.921	20.1	57.5	237.31	237.44	34.4	2.269	CT	237.3090	0.00	0.08	
SEQ-CCV4 MeHg	455.294	81.5	134.9	237.36	237.35	91.7	3.400	OK	237.3090	0.00	0.08	
SEQ-CCV4 Hg(II)	315.371	165.2	219.8	237.34	237.38	181.9	1.781	CT	237.3090	0.00	0.08	

#58: SEQ-CCB4



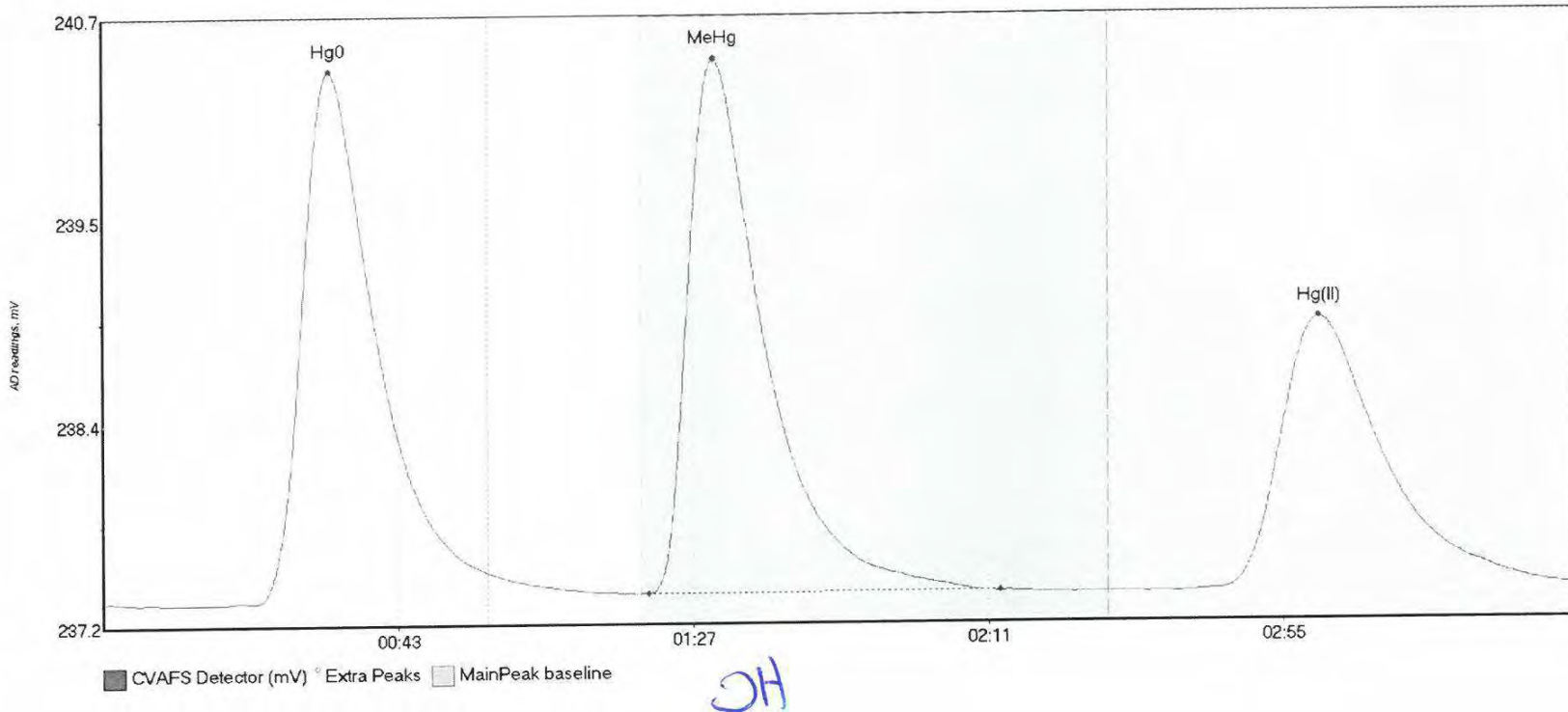
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
SEQ-CCB4 Hg0	12.985	18.7	54.6	237.31	237.32	33.9	0.096	OK	237.3098	0.00	0.03	
SEQ-CCB4 MeHg	5.373	84.5	107.2	237.33	237.33	90.8	0.048	OK	237.3098	0.00	0.03	
SEQ-CCB4 Hg(II)	41.996	166.6	217.1	237.32	237.34	181.6	0.231	OK	237.3098	0.00	0.03	

#59: SEQ-CCV5



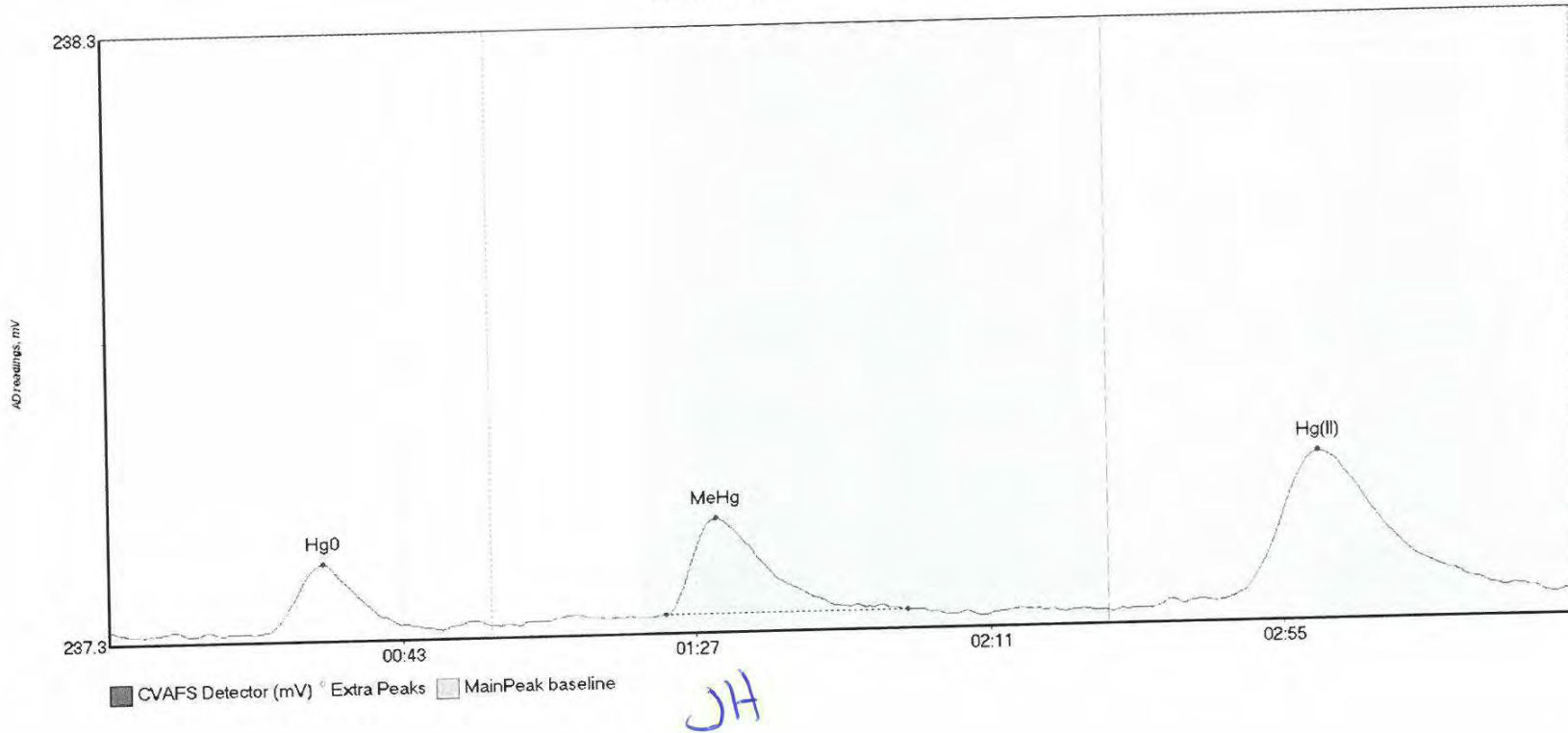
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
SEQ-CCV5 Hg0	393.029	22.5	57.5	237.32	237.49	34.0	3.266	CT	237.3175	0.00	0.07	
SEQ-CCV5 MeHg	413.962	81.0	136.8	237.36	237.36	91.2	3.095	OK	237.3175	0.00	0.07	
SEQ-CCV5 Hg (II)	277.801	165.0	219.8	237.35	237.39	181.4	1.579	CT	237.3175	0.00	0.07	

#60: SEQ-CCV6



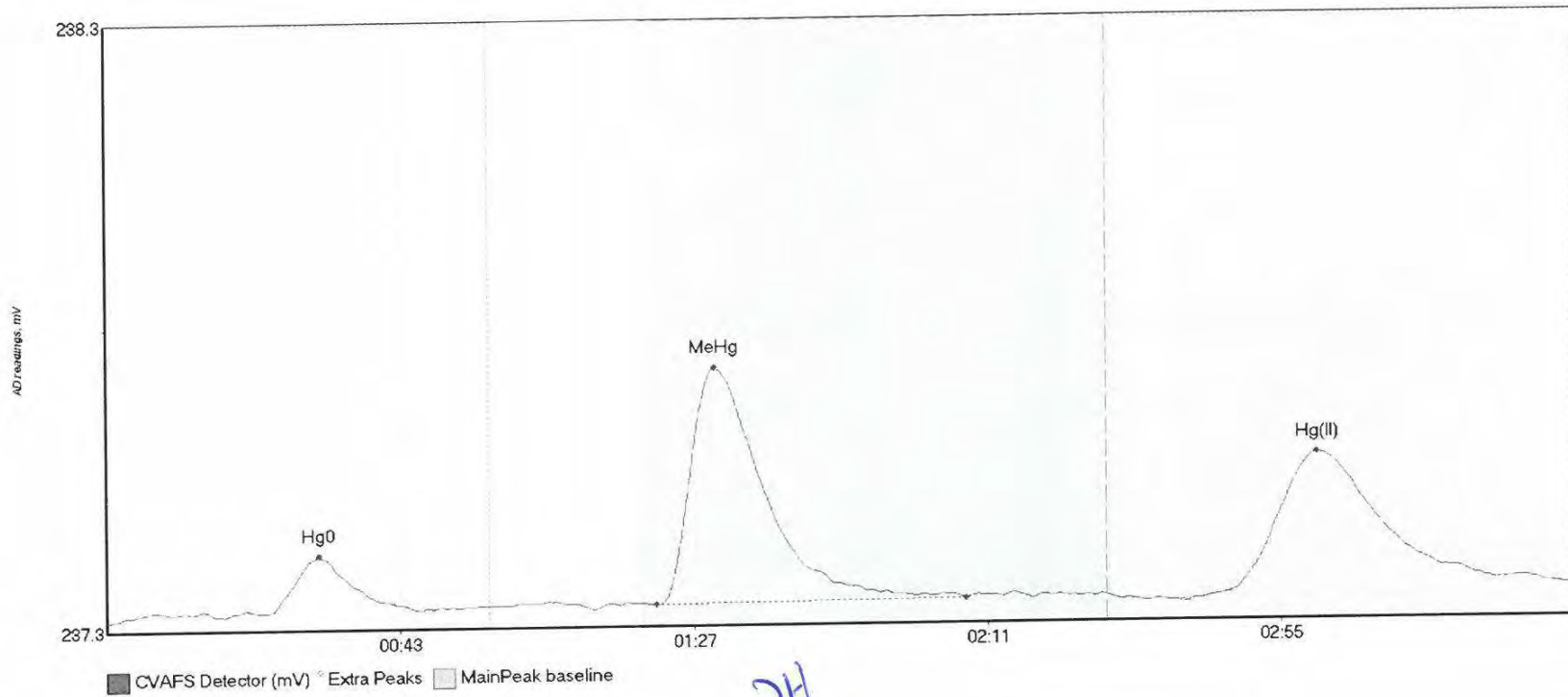
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	B1Dev	B1Shift	Comment
SEQ-CCV6 Hg0	372.049	22.6	57.5	237.32	237.48	33.8	3.080	CT	237.3254	0.00	0.06	
SEQ-CCV6 MeHg	412.441	81.3	133.7	237.36	237.36	91.1	3.095	OK	237.3254	0.00	0.06	
SEQ-CCV6 Hg(II)	277.428	162.7	219.8	237.36	237.39	181.3	1.584	CT	237.3254	0.00	0.06	

#61: 1607782-15



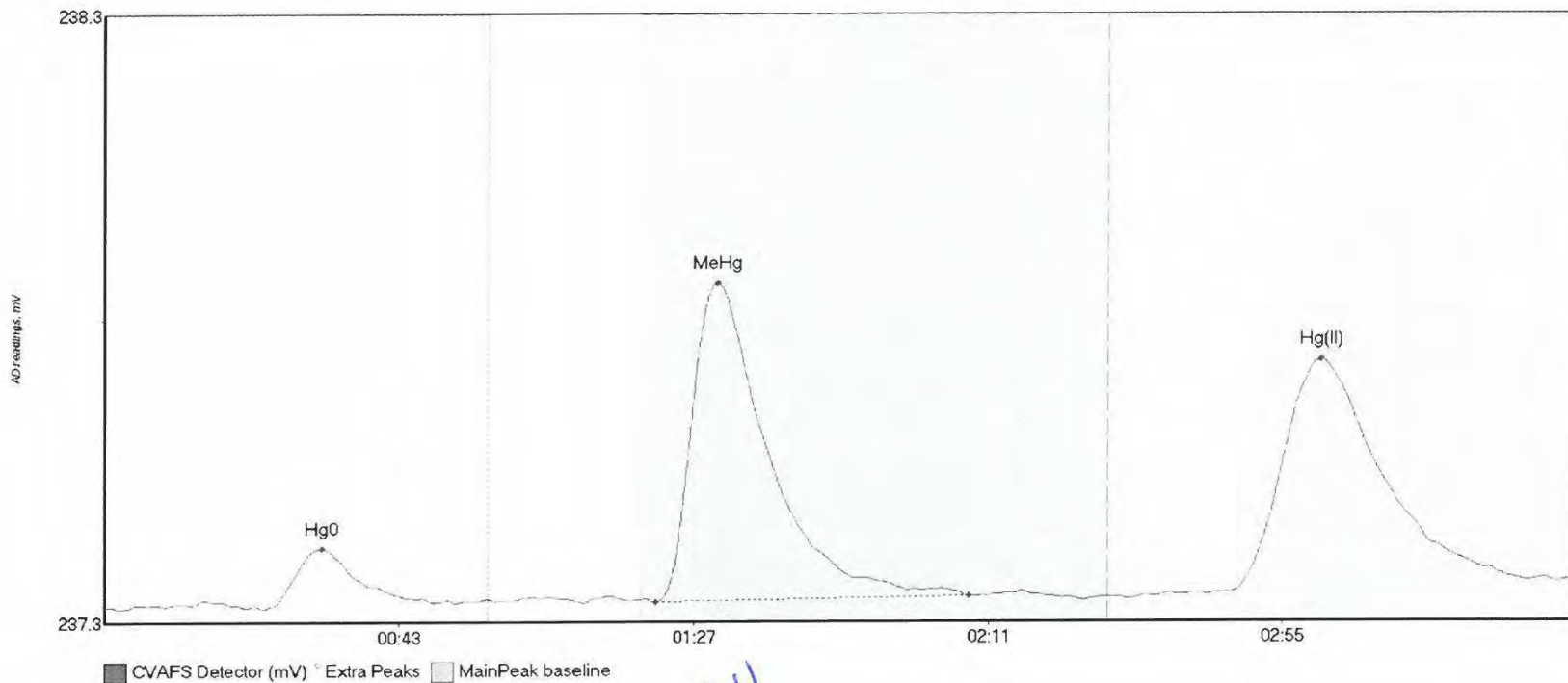
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1607782-15 Hg0	10.240	23.1	43.8	237.32	237.33	32.3	0.112	OK	237.3259	0.00	0.02	
1607782-15 MeHg	20.065	83.5	119.6	237.34	237.34	91.2	0.159	OK	237.3259	0.00	0.02	
1607782-15 Hg(I)	47.142	156.4	217.0	237.33	237.34	181.3	0.254	OK	237.3259	0.00	0.02	

#62: 1607782-16



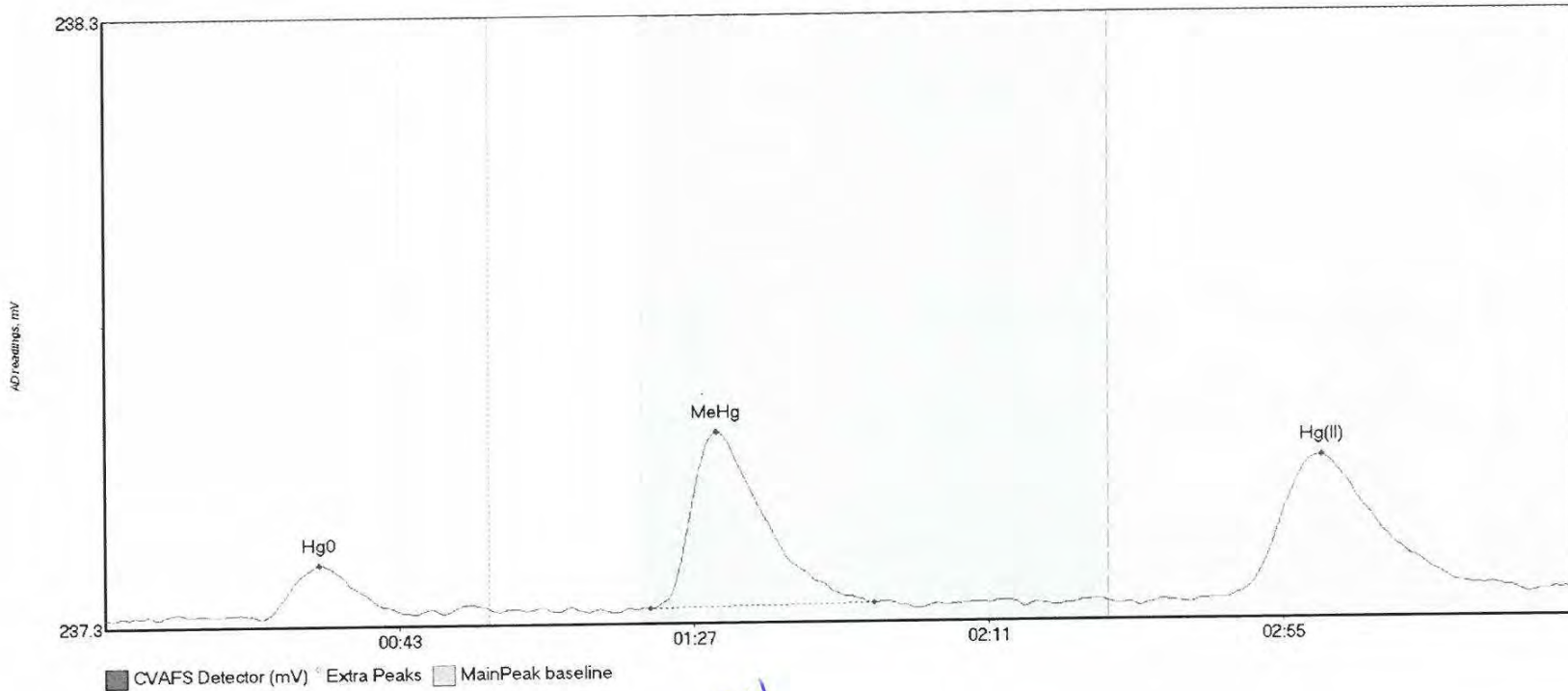
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	B1Dev	B1Shift	Comment
1607782-16 Hg0	10.763	1.8	47.1	237.32	237.33	31.8	0.102	OK	237.3147	0.00	0.04	
1607782-16 MeHg	49.593	82.3	128.8	237.33	237.34	91.2	0.391	OK	237.3147	0.00	0.04	
1607782-16 Hg(I)	41.077	166.4	218.7	237.34	237.35	181.5	0.234	OK	237.3147	0.00	0.04	

#63: 1607782-17



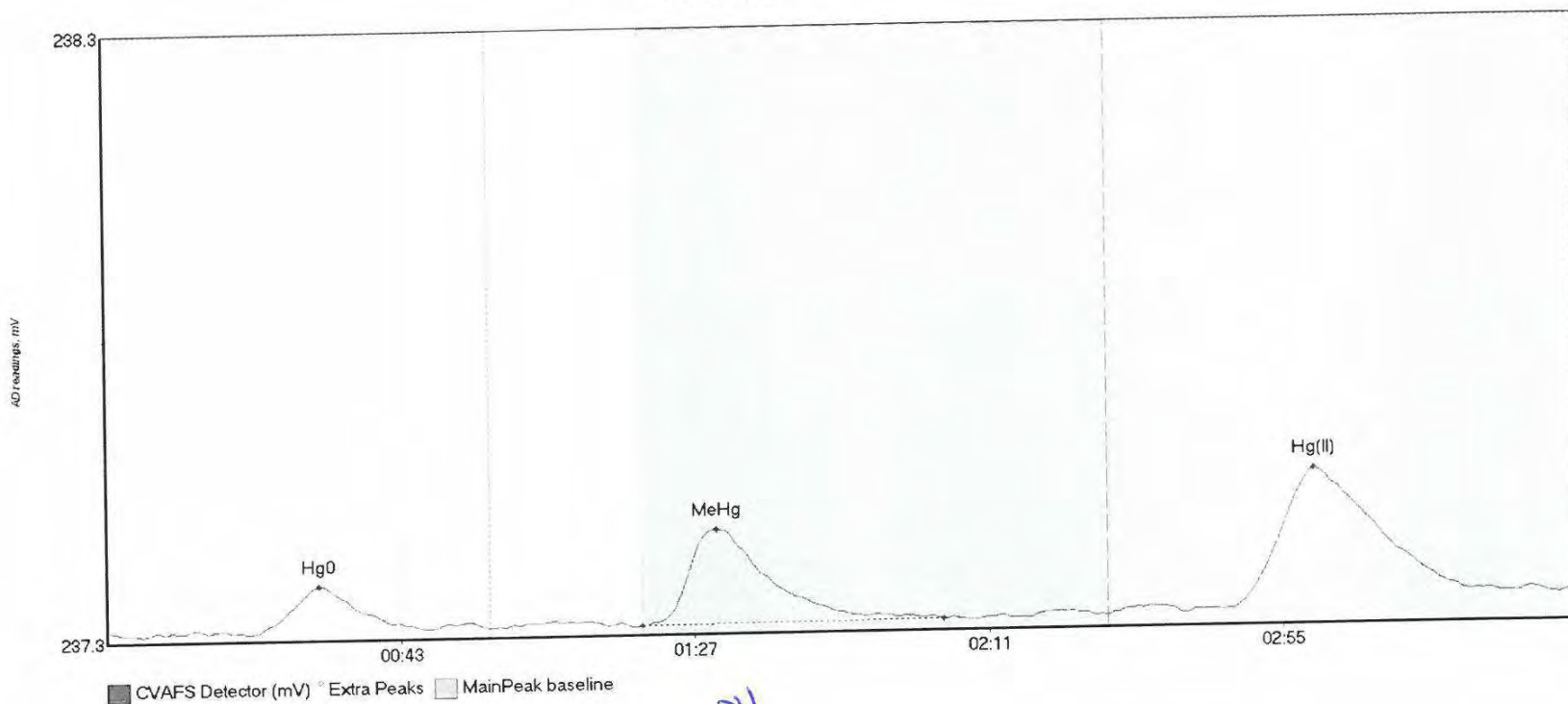
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1607782-17 Hg0	10.382	23.7	52.4	237.33	237.34	32.6	0.099	OK	237.3305	0.00	0.04	
1607782-17 MeHg	69.336	82.3	129.0	237.34	237.35	91.6	0.525	OK	237.3305	0.00	0.04	
1607782-17 Hg(I)	64.798	157.6	217.5	237.35	237.37	181.8	0.388	OK	237.3305	0.00	0.04	

#64: 1607782-18



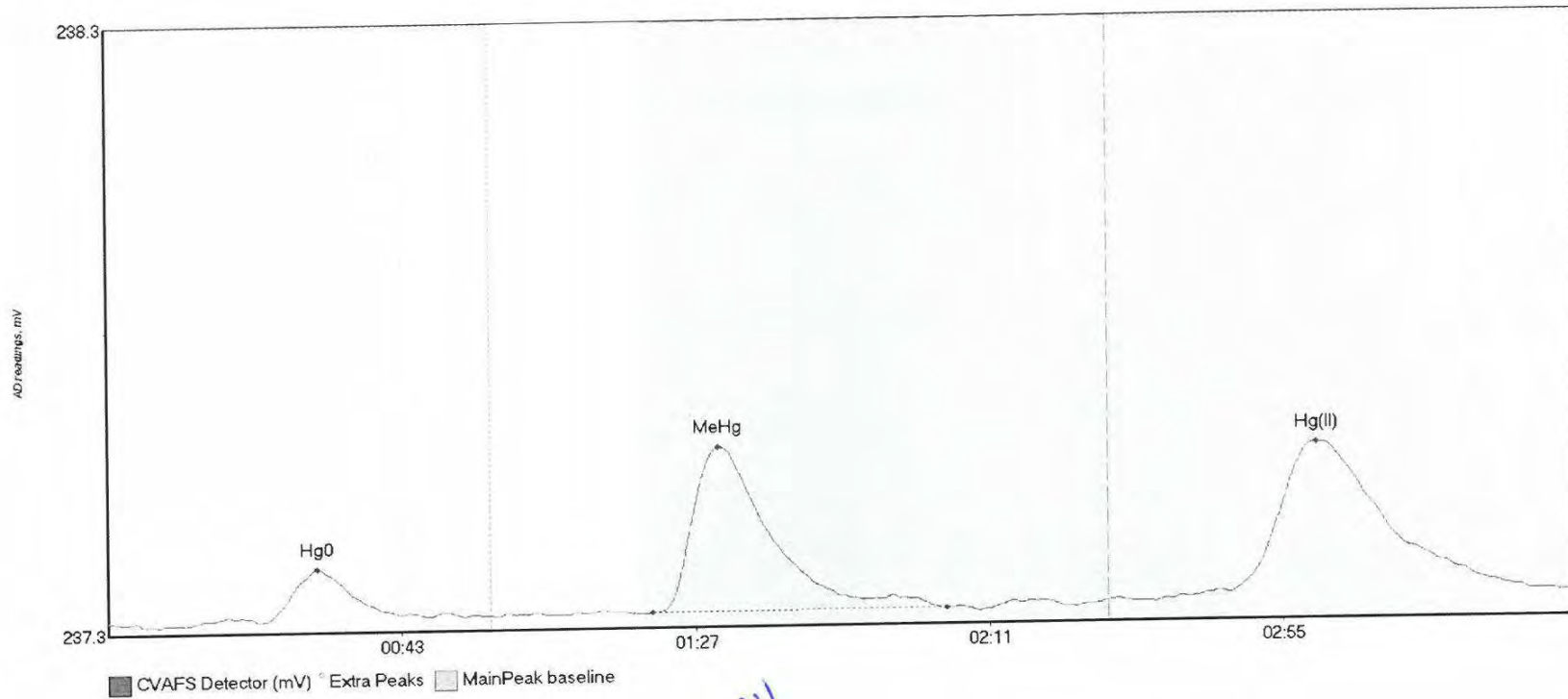
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1607782-18 Hg0	9.155	23.5	46.4	237.34	237.34	32.2	0.089	OK	237.3365	0.00	0.03	
1607782-18 MeHg	35.891	81.5	114.9	237.35	237.35	91.5	0.290	OK	237.3365	0.00	0.03	
1607782-18 Hg(I)	39.378	164.8	212.8	237.36	237.36	181.7	0.235	OK	237.3365	0.00	0.03	

#65: 1607782-19



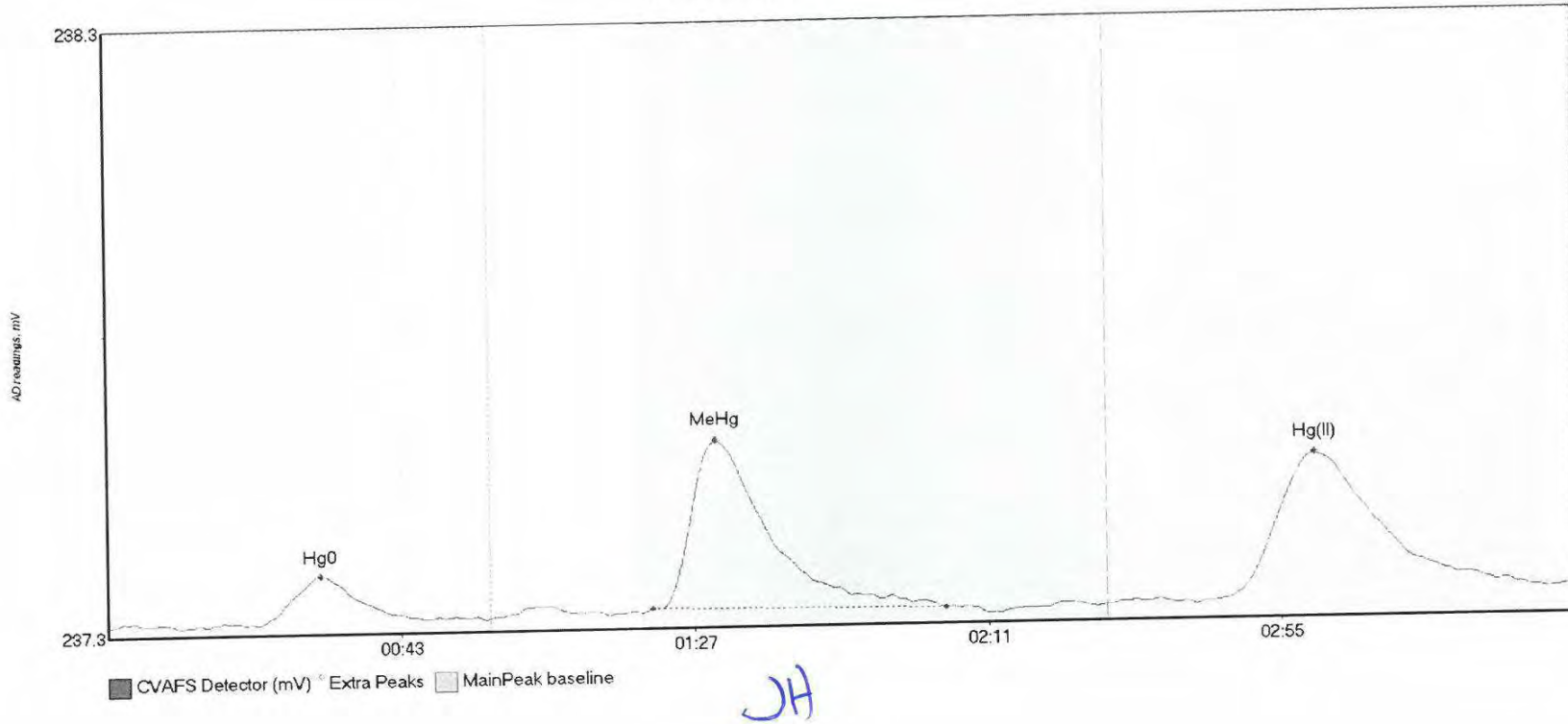
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1607782-19 Hg0	7.998	21.4	46.8	237.34	237.35	31.8	0.078	OK	237.3502	0.00	0.03	
1607782-19 MeHg	22.189	80.1	125.1	237.35	237.35	91.5	0.158	OK	237.3502	0.00	0.03	
1607782-19 Hg(I)	38.370	167.1	217.6	237.36	237.38	180.8	0.230	OK	237.3502	0.00	0.03	

#66: 1607782-20



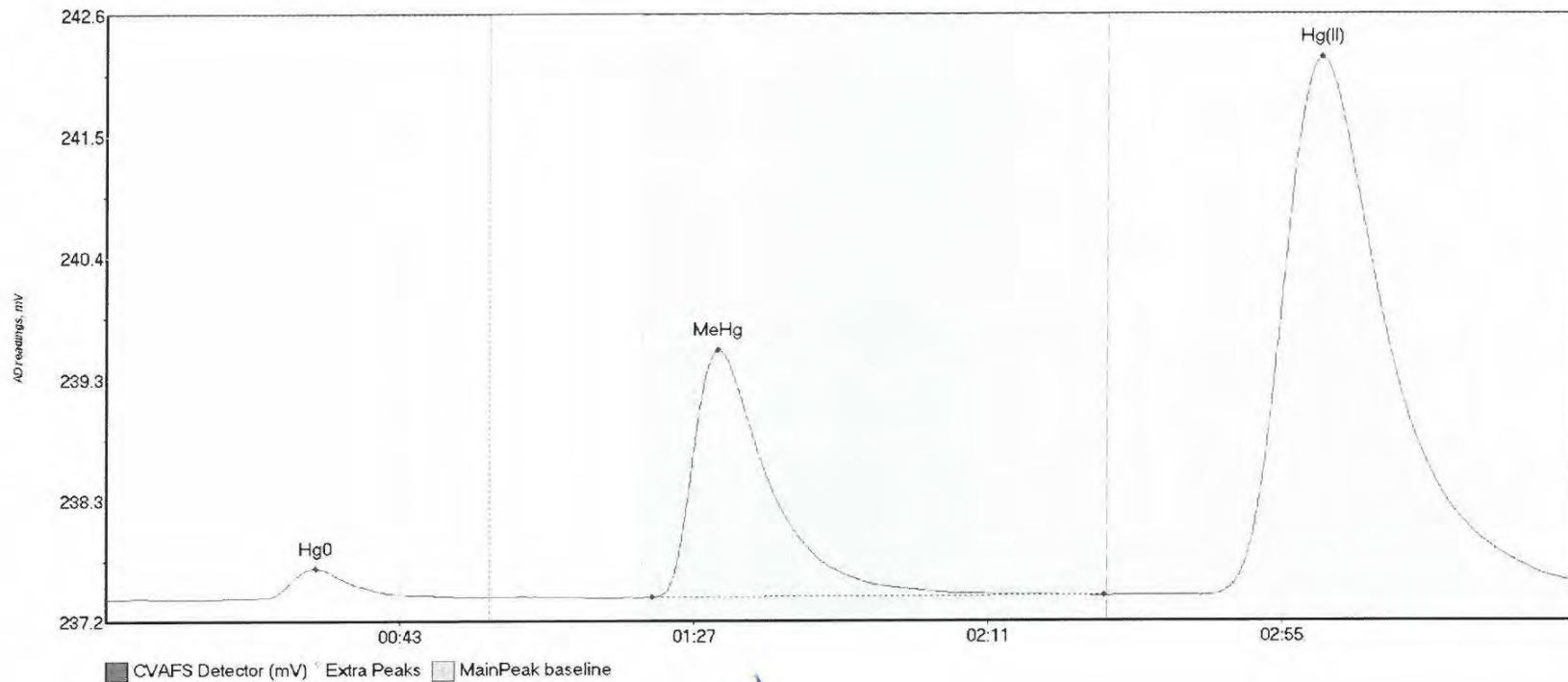
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1607782-20 Hg0	8.175	23.7	47.7	237.36	237.36	31.5	0.086	OK	237.3564	0.00	0.03	
1607782-20 MeHg	37.361	81.4	125.6	237.36	237.36	91.4	0.273	OK	237.3564	0.00	0.03	
1607782-20 Hg(I)	45.574	163.2	218.4	237.38	237.38	181.0	0.250	OK	237.3564	0.00	0.03	

#67: 1607782-21



Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1607782-21 Hg0	9.138	22.8	56.8	237.37	237.37	32.0	0.080	OK	237.3654	0.00	0.03	
1607782-21 MeHg	37.233	81.8	125.6	237.38	237.38	91.3	0.276	OK	237.3654	0.00	0.03	
1607782-21 Hg(I)	41.473	167.0	216.1	237.38	237.39	181.0	0.239	OK	237.3654	0.00	0.03	

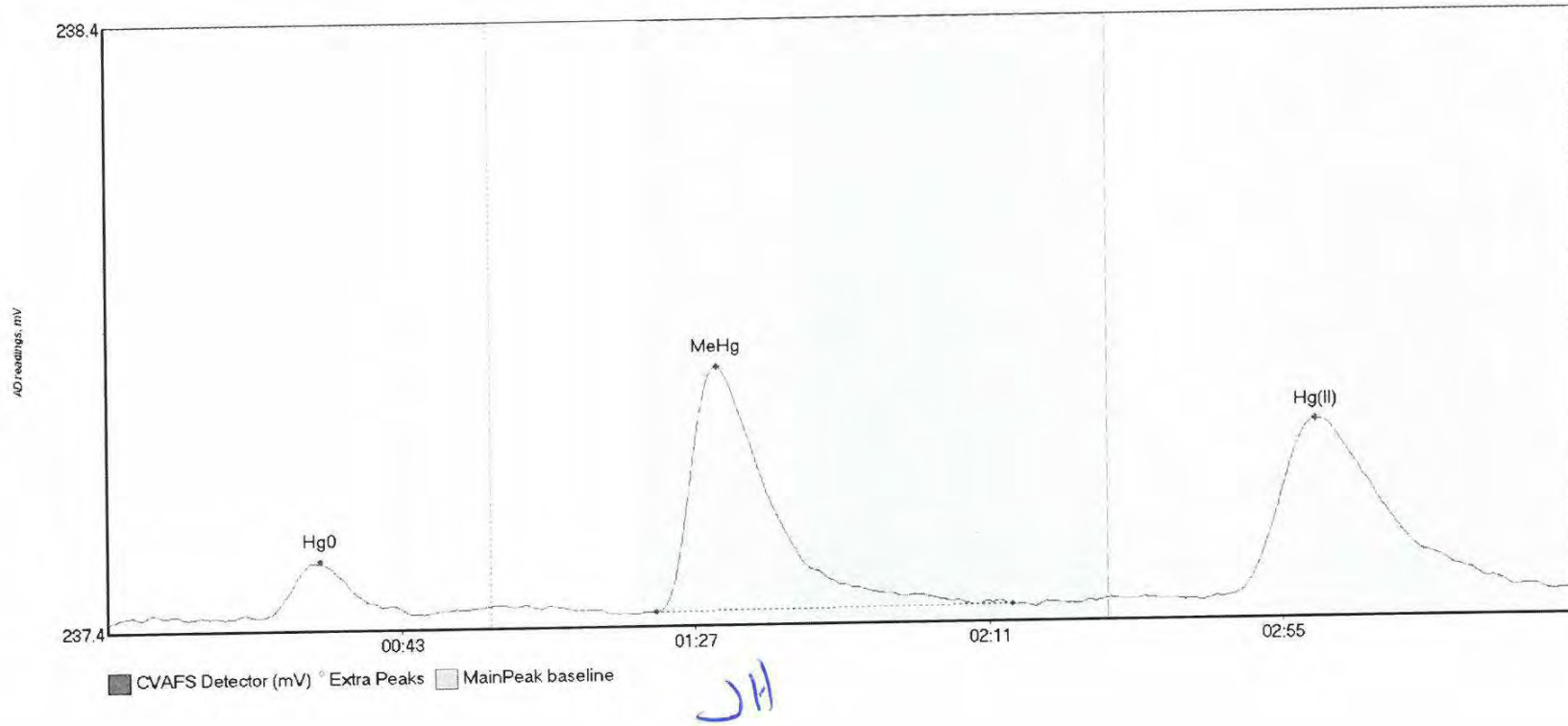
#68: 1607783-01



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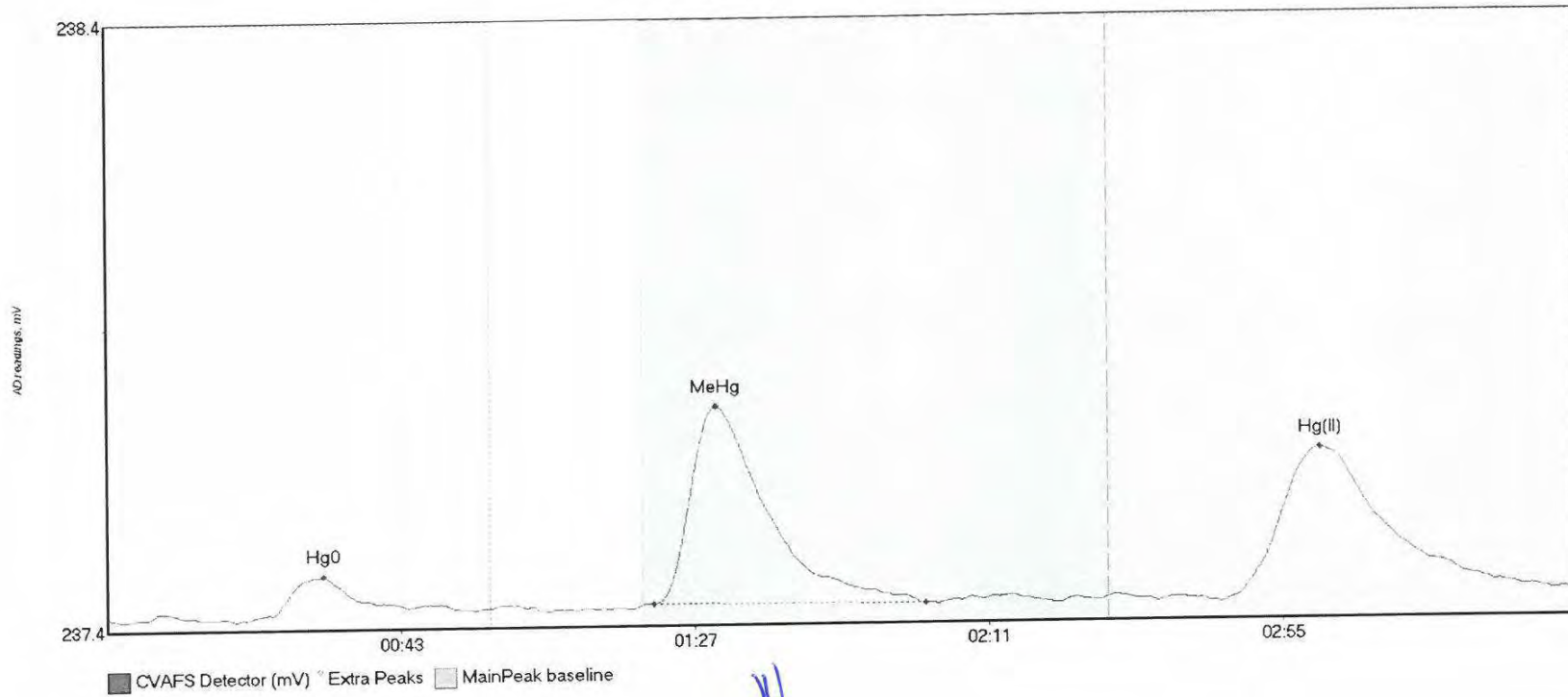
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	B1Dev	B1Shift	Comment
1607783-01 Hg0	29.032	16.2	57.5	237.37	237.38	31.6	0.271	CT	237.3692	0.00	0.16	
1607783-01 MeHg	293.898	81.8	149.5	237.38	237.39	91.6	2.204	OK	237.3692	0.00	0.16	
1607783-01 Hg(I)	845.410	164.5	219.8	237.40	237.52	181.8	4.795	CT	237.3692	0.00	0.16	

#69: 1607783-02



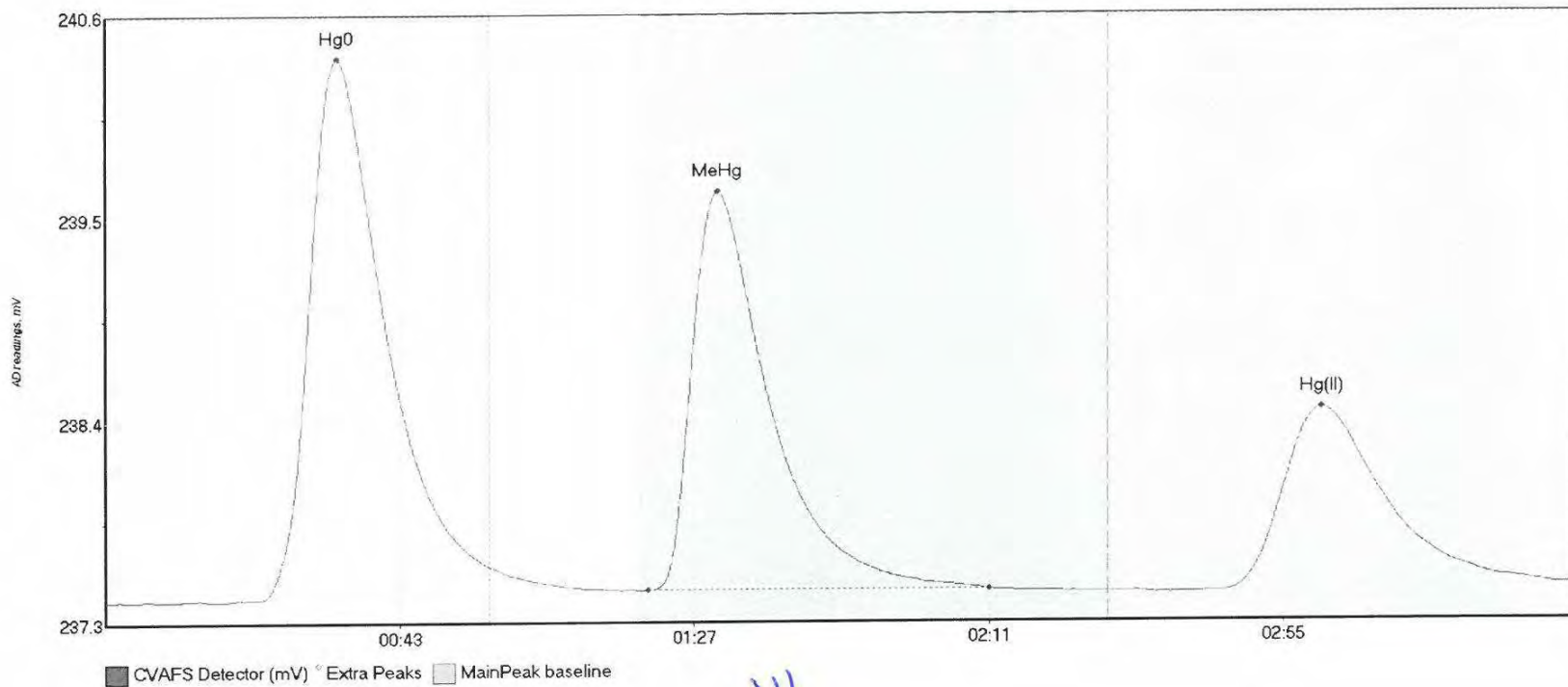
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1607783-02 Hg0	9.321	18.3	47.3	237.39	237.40	31.9	0.092	OK	237.3879	0.00	0.03	
1607783-02 MeHg	54.694	82.1	135.4	237.39	237.40	91.5	0.404	OK	237.3879	0.00	0.03	
1607783-02 Hg(I)	52.319	167.1	216.2	237.41	237.41	181.0	0.292	OK	237.3879	0.00	0.03	

#70: 1607783-03



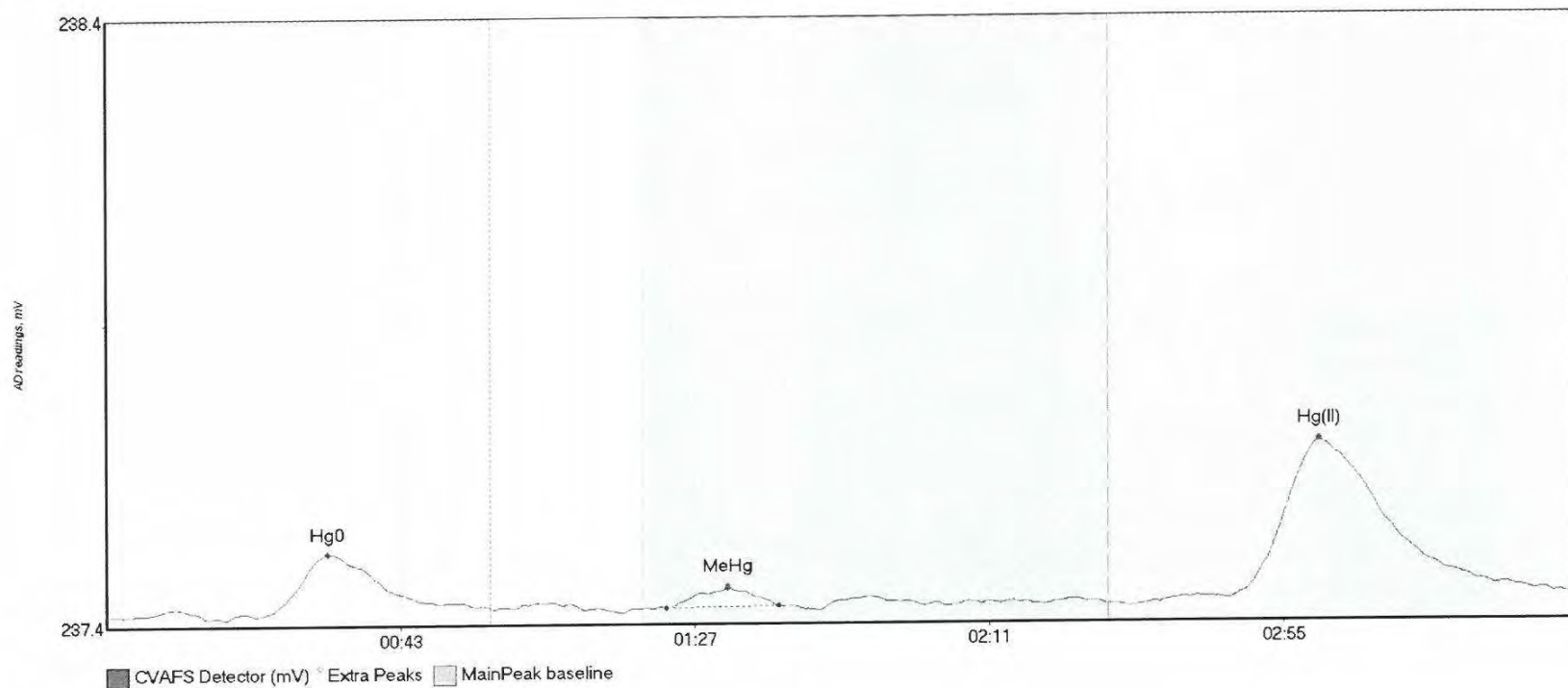
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1607783-03 Hg0	6.993	24.9	55.1	237.40	237.41	32.6	0.062	OK	237.3987	0.00	0.03	
1607783-03 MeHg	43.298	81.9	122.6	237.41	237.41	91.3	0.326	OK	237.3987	0.00	0.03	
1607783-03 Hg(I)	45.000	167.3	216.8	237.41	237.42	181.6	0.253	OK	237.3987	0.00	0.03	

#71: SEQ-CCV7



Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	B1Dev	B1Shift	Comment
SEQ-CCV7 Hg0	363.019	17.5	57.5	237.41	237.60	34.7	2.991	CT	237.4097	0.00	0.08	
SEQ-CCV7 MeHg	293.868	81.1	132.0	237.47	237.47	91.6	2.199	OK	237.4097	0.00	0.08	
SEQ-CCV7 Hg(II)	175.968	167.2	219.8	237.45	237.49	181.8	1.010	CT	237.4097	0.00	0.08	

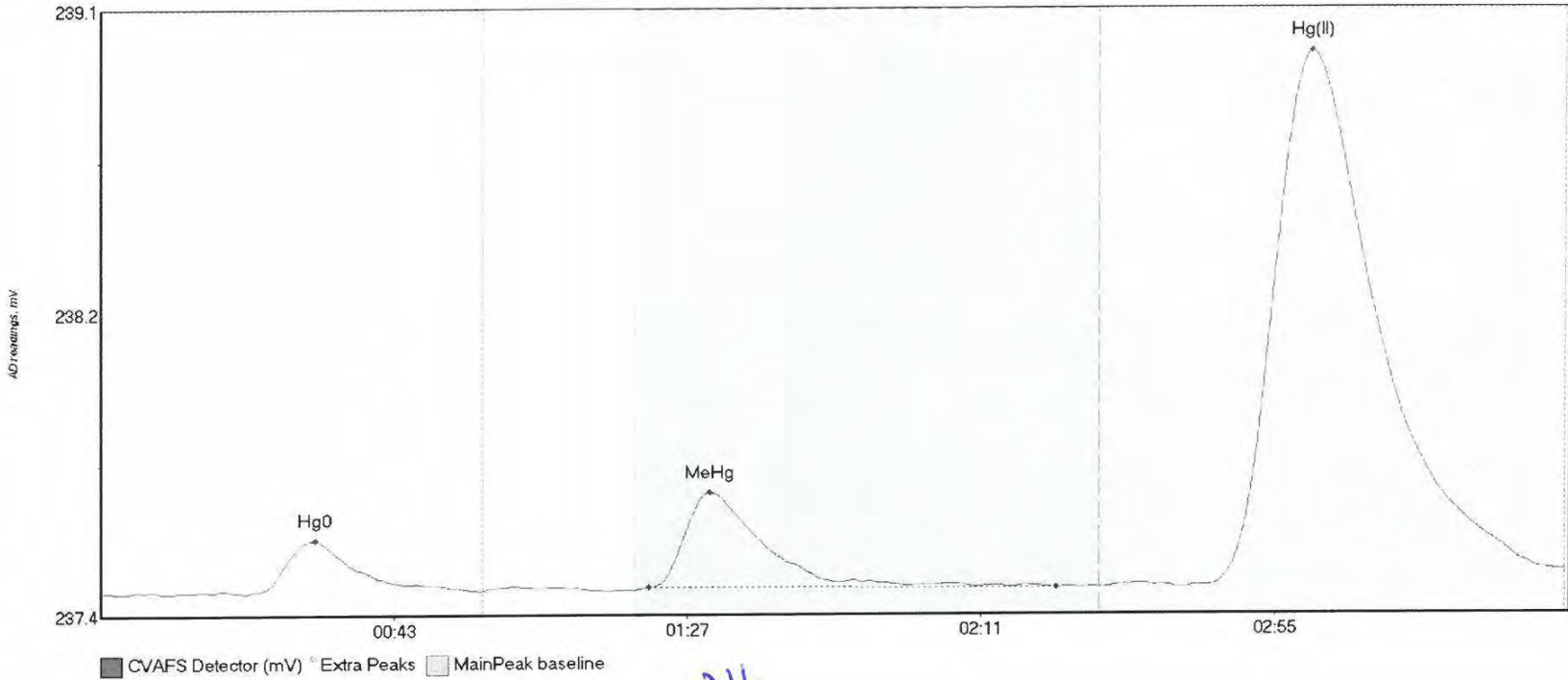
#72: SEQ-CCB5



Handwritten signature or mark.

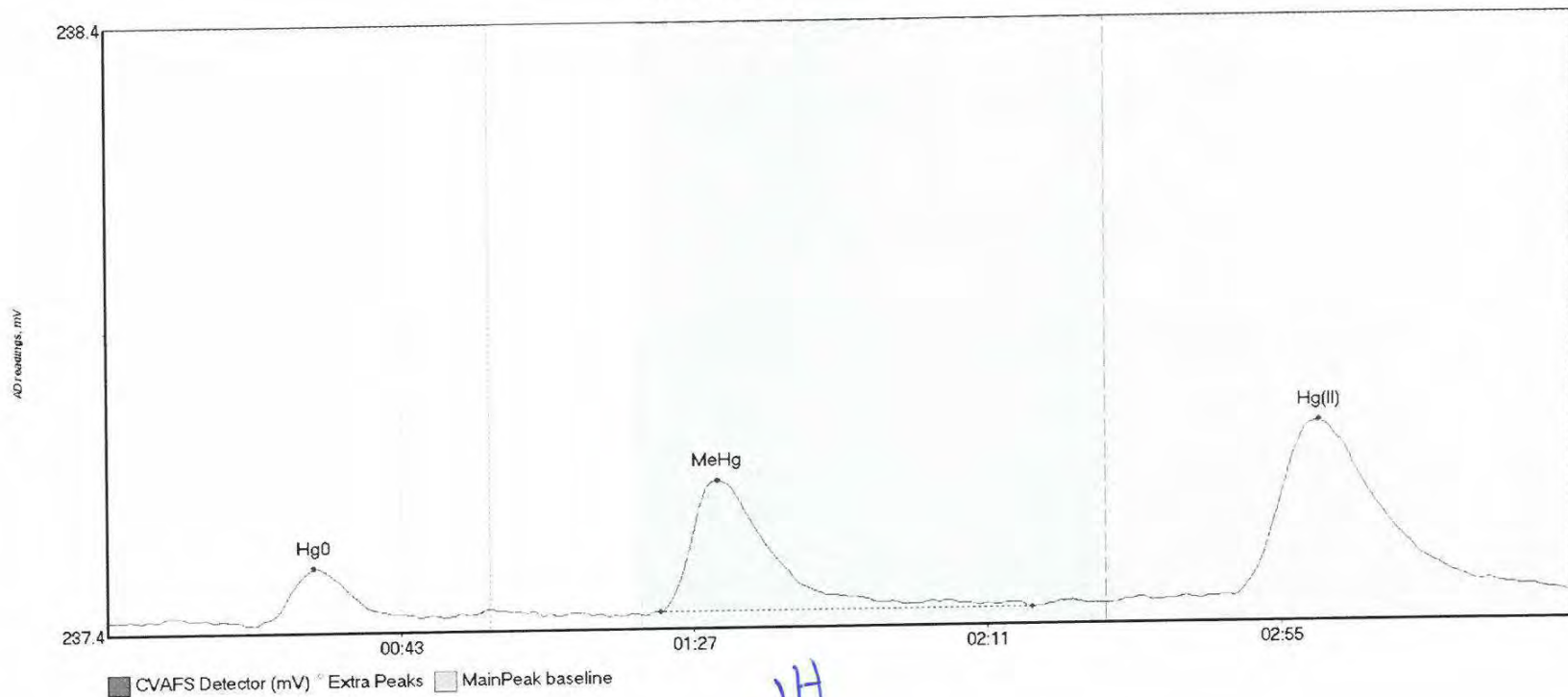
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
SEQ-CCB5 Hg0	12.855	24.1	57.5	237.44	237.44	33.2	0.100	CT	237.4333	0.00	0.03	
SEQ-CCB5 MeHg	2.905	83.8	100.6	237.44	237.45	93.0	0.033	OK	237.4333	0.00	0.03	
SEQ-CCB5 Hg(II)	47.353	157.6	219.3	237.45	237.46	181.3	0.266	OK	237.4333	0.00	0.03	

#73: 1607783-04



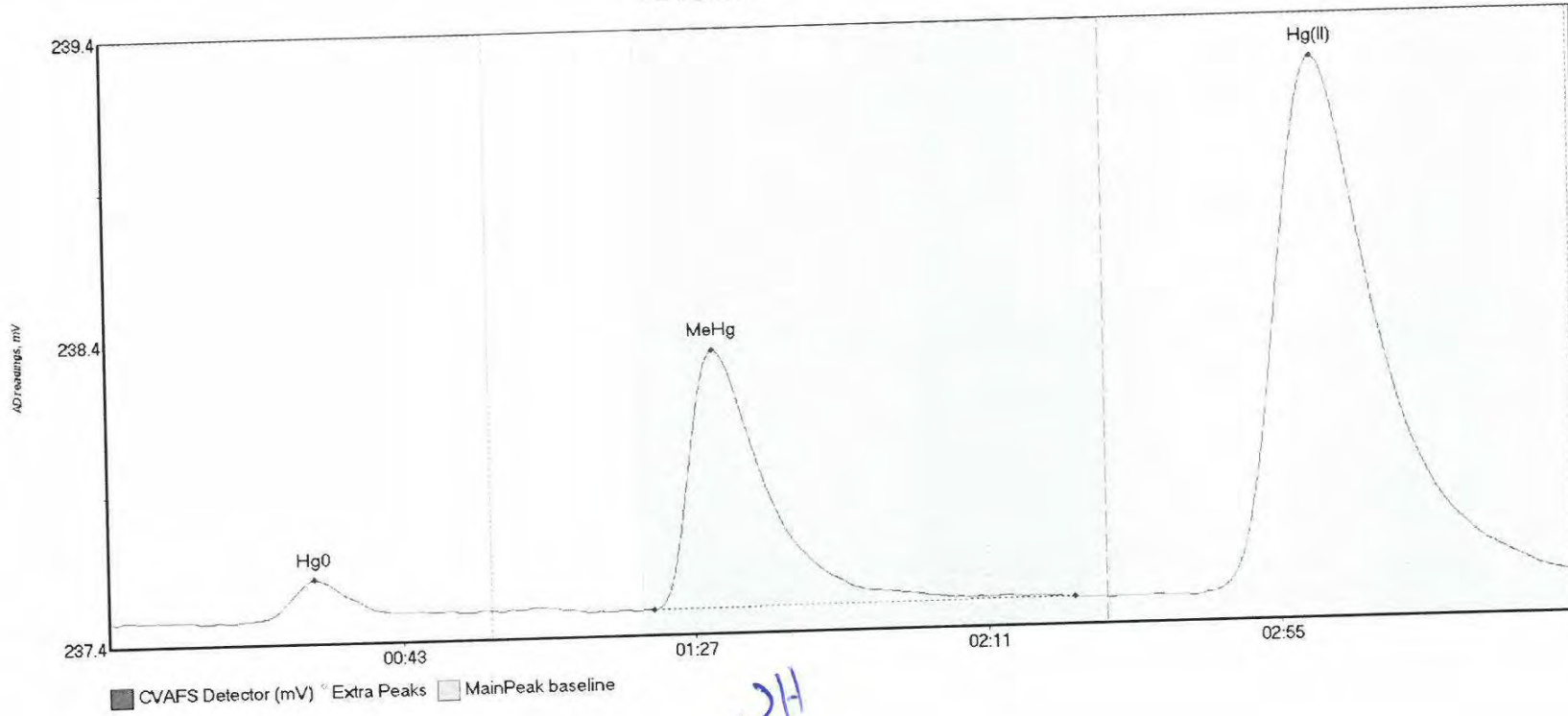
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1607783-04 Hg0	16.457	23.6	55.5	237.45	237.46	32.3	0.143	OK	237.4522	0.00	0.06	
1607783-04 MeHg	36.560	82.3	143.4	237.46	237.46	91.5	0.267	OK	237.4522	0.00	0.06	
1607783-04 Hg(I)	264.583	165.8	219.2	237.47	237.51	181.6	1.490	OK	237.4522	0.00	0.06	

#74: 1607783-05



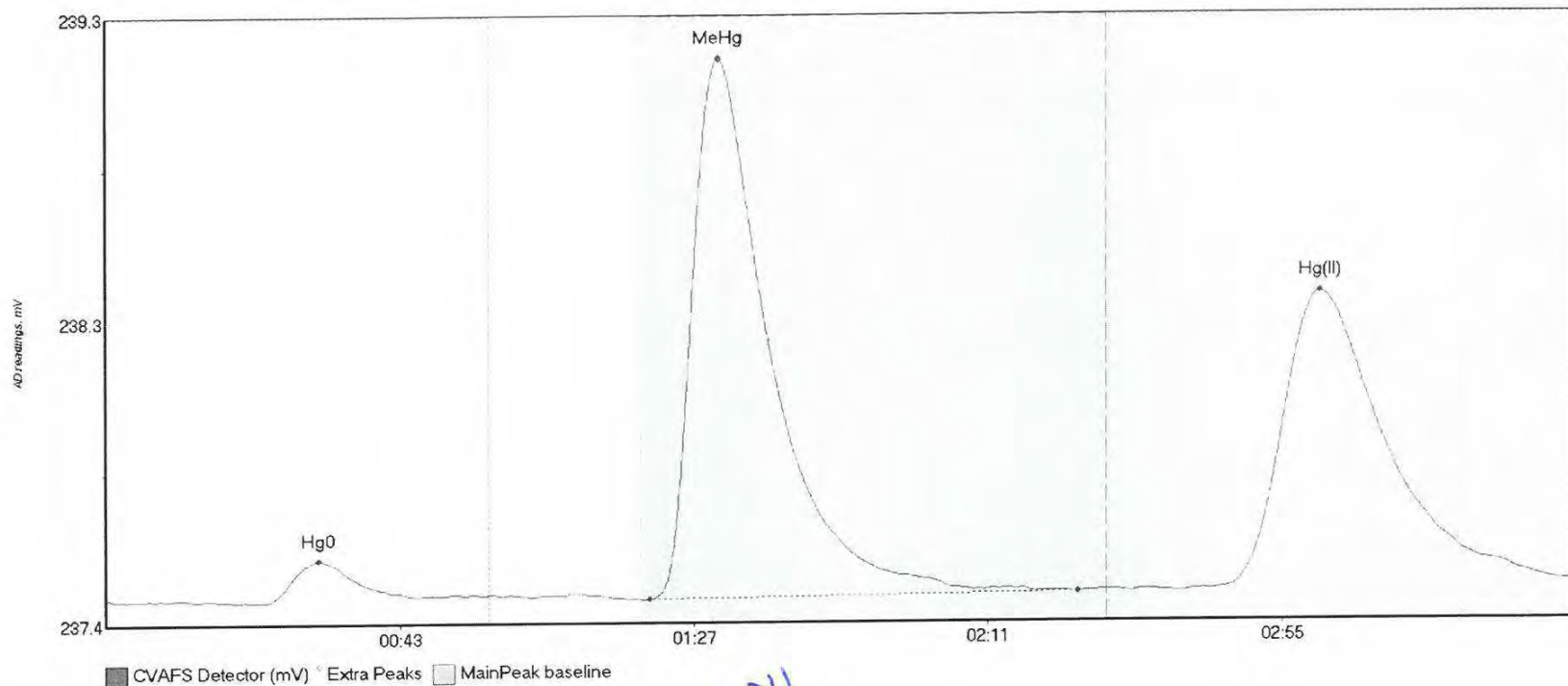
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1607783-05 Hg0	8.980	22.2	46.8	237.46	237.47	31.2	0.095	OK	237.4686	0.00	0.02	
1607783-05 MeHg	30.439	83.0	138.8	237.48	237.48	91.6	0.217	OK	237.4686	0.00	0.02	
1607783-05 Hg(I)	52.752	157.2	219.8	237.49	237.49	181.7	0.294	CT	237.4686	0.00	0.02	

#75: 1607783-06



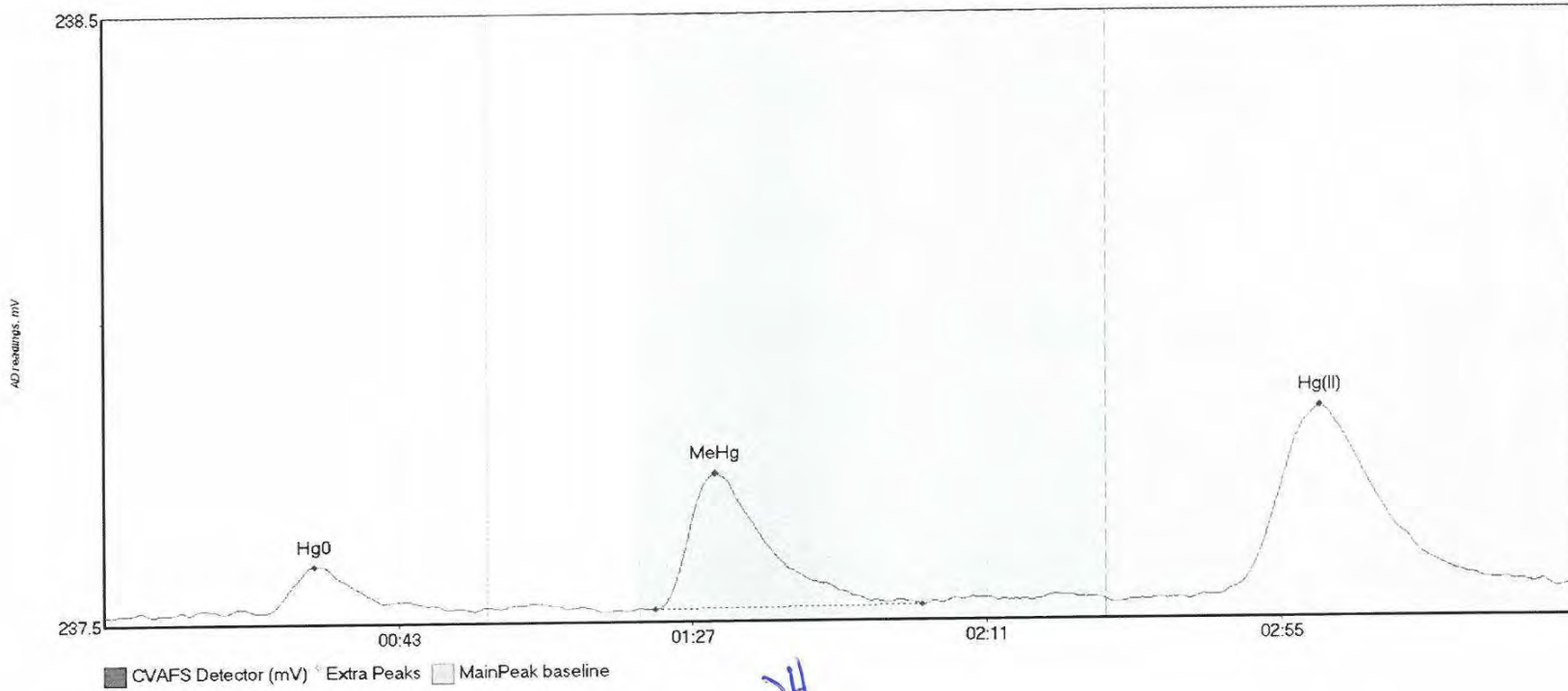
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1607783-06 Hg0	12.700	22.1	53.0	237.48	237.49	30.9	0.129	OK	237.4807	0.00	0.06	
1607783-06 MeHg	113.822	81.9	145.0	237.49	237.49	91.2	0.849	OK	237.4807	0.00	0.06	
1607783-06 Hg(I)	309.868	163.2	219.8	237.49	237.54	181.5	1.761	CT	237.4807	0.00	0.06	

#76: 1607783-07



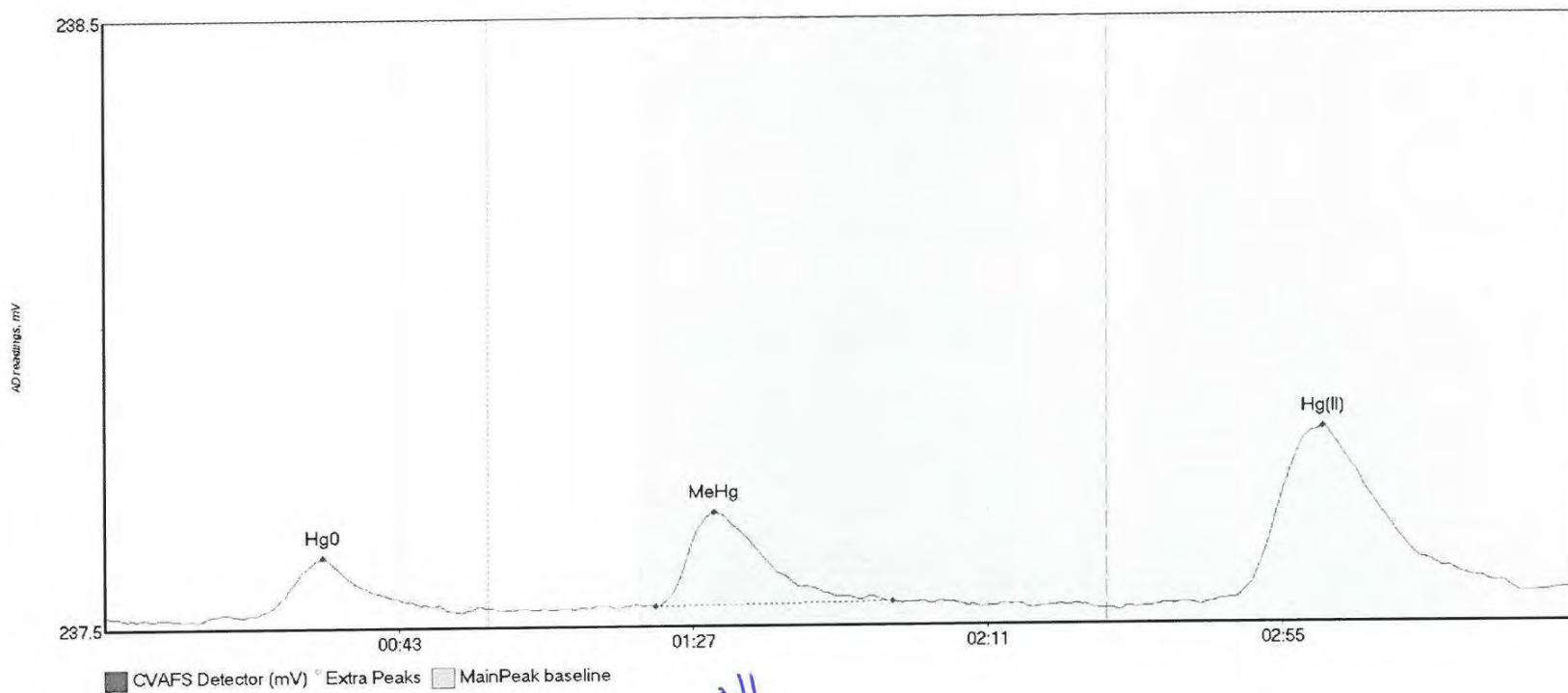
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	B1Dev	B1Shift	Comment
1607783-07 Hg0	12.393	23.7	46.6	237.49	237.50	31.9	0.128	OK	237.4974	0.00	0.04	
1607783-07 MeHg	220.249	81.5	145.6	237.49	237.51	91.7	1.642	OK	237.4974	0.00	0.04	
1607783-07 Hg(I)	159.886	166.0	219.8	237.52	237.54	181.7	0.902	CT	237.4974	0.00	0.04	

#77: 1607783-08



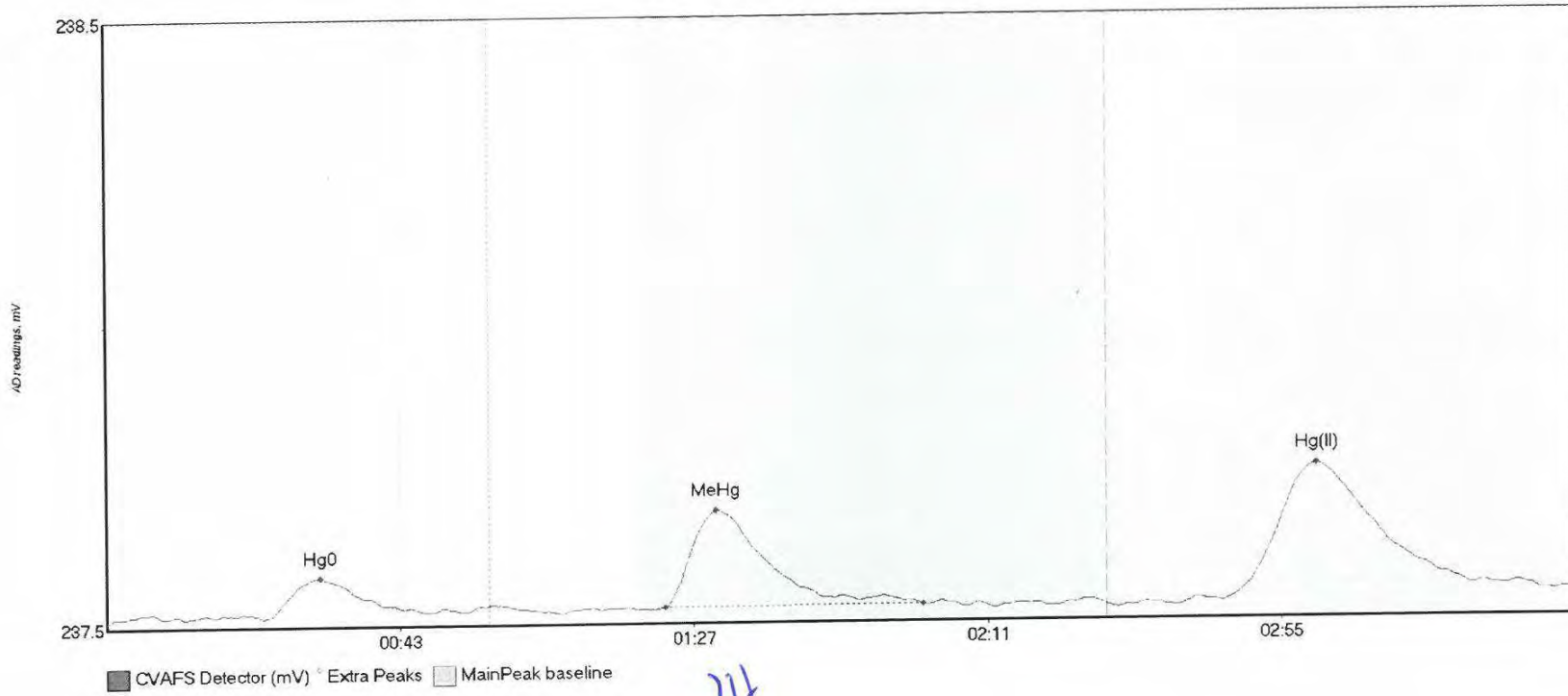
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1607783-08 Hg0	8.921	24.0	55.5	237.51	237.51	31.5	0.077	OK	237.5024	0.00	0.04	
1607783-08 MeHg	29.671	82.6	122.3	237.51	237.51	91.5	0.223	OK	237.5024	0.00	0.04	
1607783-08 Hg(I)	54.796	162.3	217.3	237.52	237.54	181.8	0.316	OK	237.5024	0.00	0.04	

#78: 1607783-09



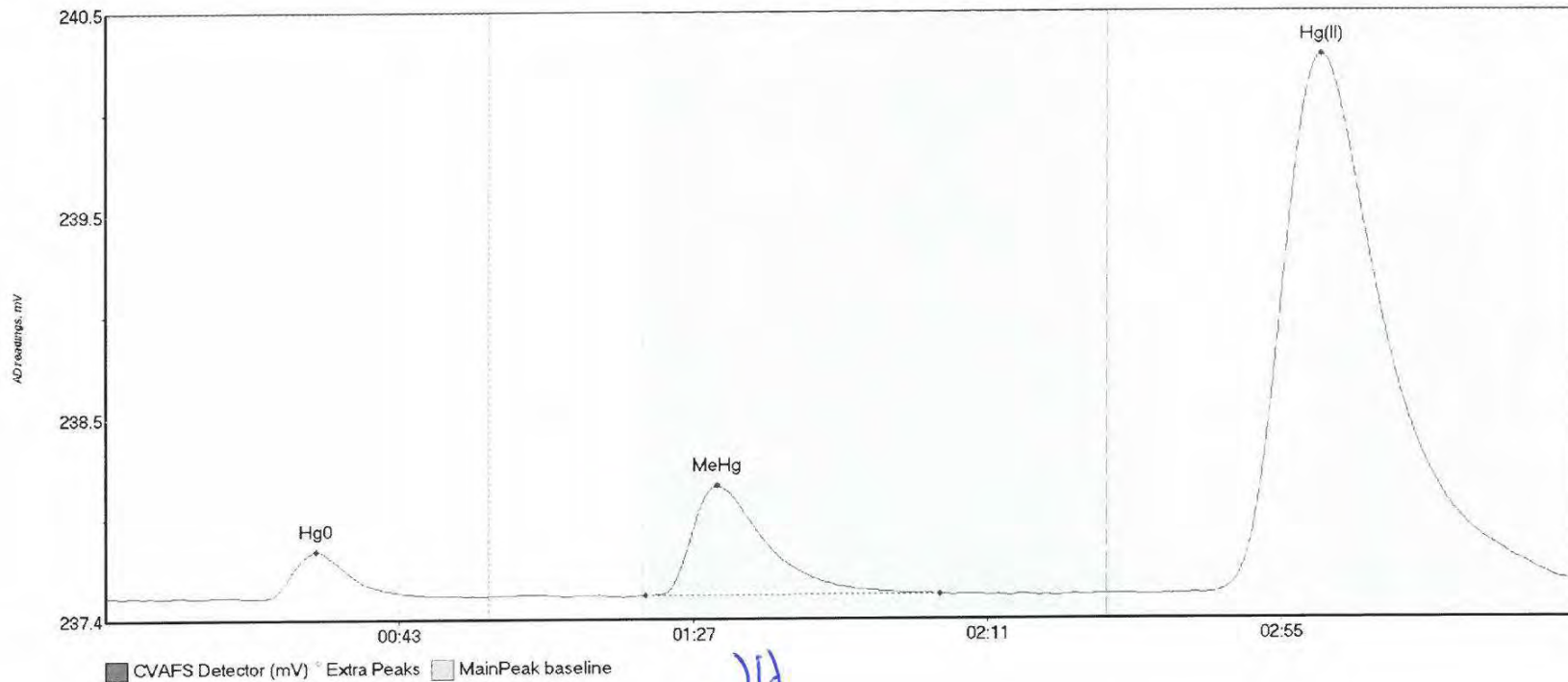
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1607783-09 Hg0	11.381	22.6	53.3	237.53	237.53	32.7	0.094	OK	237.5270	0.00	0.04	
1607783-09 MeHg	19.884	82.5	117.8	237.54	237.54	91.2	0.156	OK	237.5270	0.00	0.04	
1607783-09 Hg(I)	50.719	156.4	212.2	237.53	237.56	182.0	0.293	OK	237.5270	0.00	0.04	

#79: 1607783-10



Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1607783-10 Hg0	7.650	23.7	53.8	237.55	237.55	32.1	0.066	OK	237.5431	0.00	0.03	
1607783-10 MeHg	20.750	83.7	122.3	237.56	237.56	91.4	0.160	OK	237.5431	0.00	0.03	
1607783-10 Hg(I)	40.417	160.5	217.0	237.55	237.57	181.3	0.231	OK	237.5431	0.00	0.03	

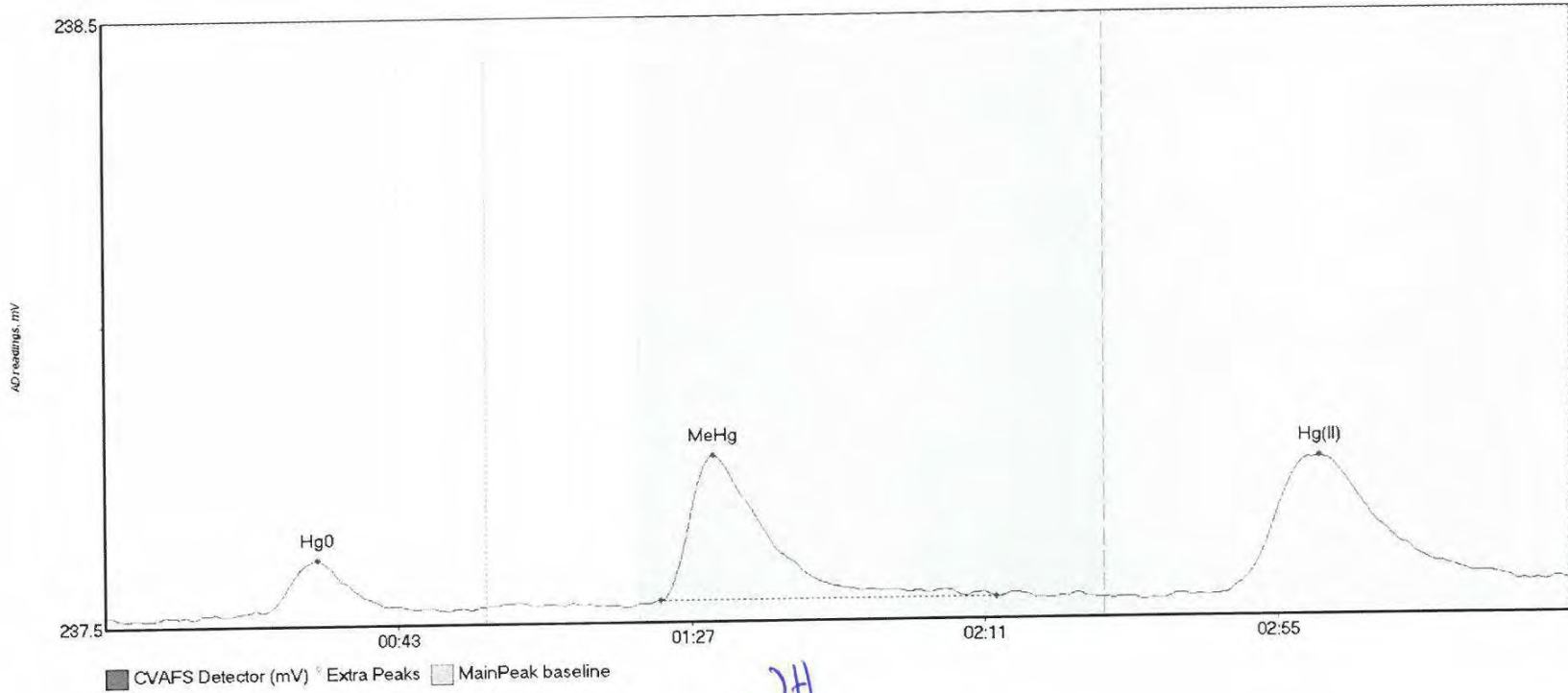
#80: 1607783-11



Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1607783-11 Hg0	22.250	23.6	49.2	237.56	237.56	31.6	0.231	OK	237.5597	0.00	0.08	
1607783-11 MeHg	69.742	80.8	124.9	237.56	237.57	91.6	0.545	OK	237.5597	0.00	0.08	
1607783-11 Hg(I	472.827	165.3	219.7	237.57	237.64	181.7	2.672	OK	237.5597	0.00	0.08	

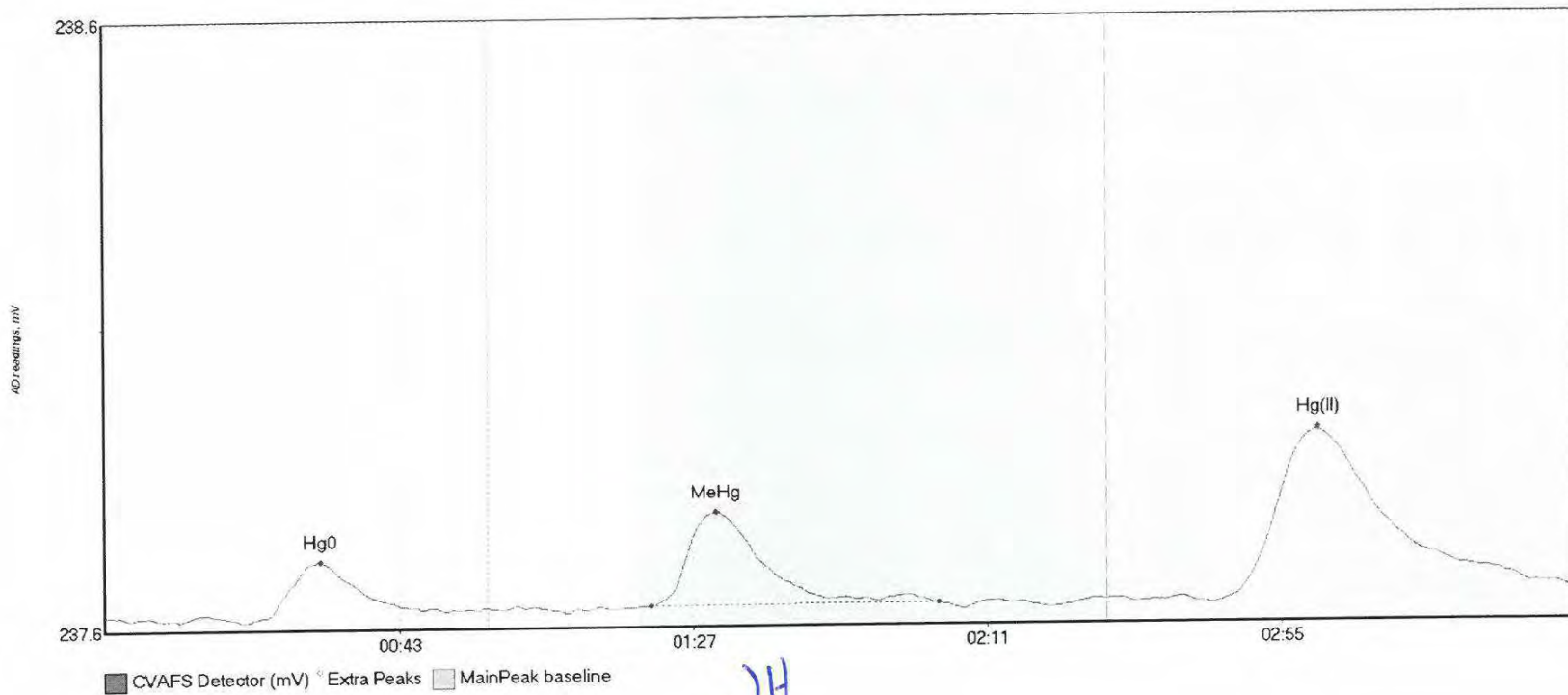
016

#81: 1607783-12



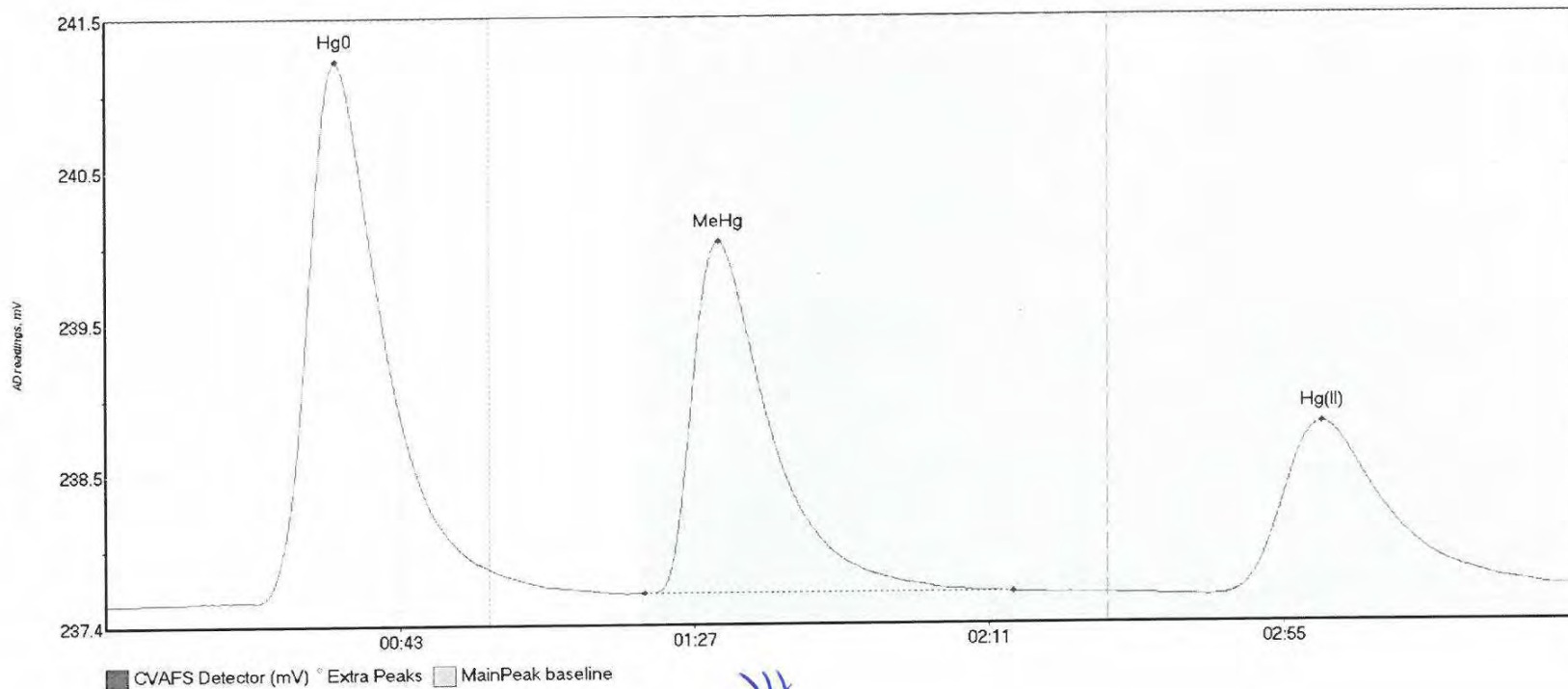
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1607783-12 Hg0	8.814	21.1	51.7	237.57	237.57	31.8	0.087	OK	237.5655	0.00	0.04	
1607783-12 MeHg	31.760	83.3	133.7	237.58	237.58	91.3	0.239	OK	237.5655	0.00	0.04	
1607783-12 Hg(I)	39.731	167.3	213.9	237.58	237.60	182.3	0.226	OK	237.5655	0.00	0.04	

#82: 1607783-13



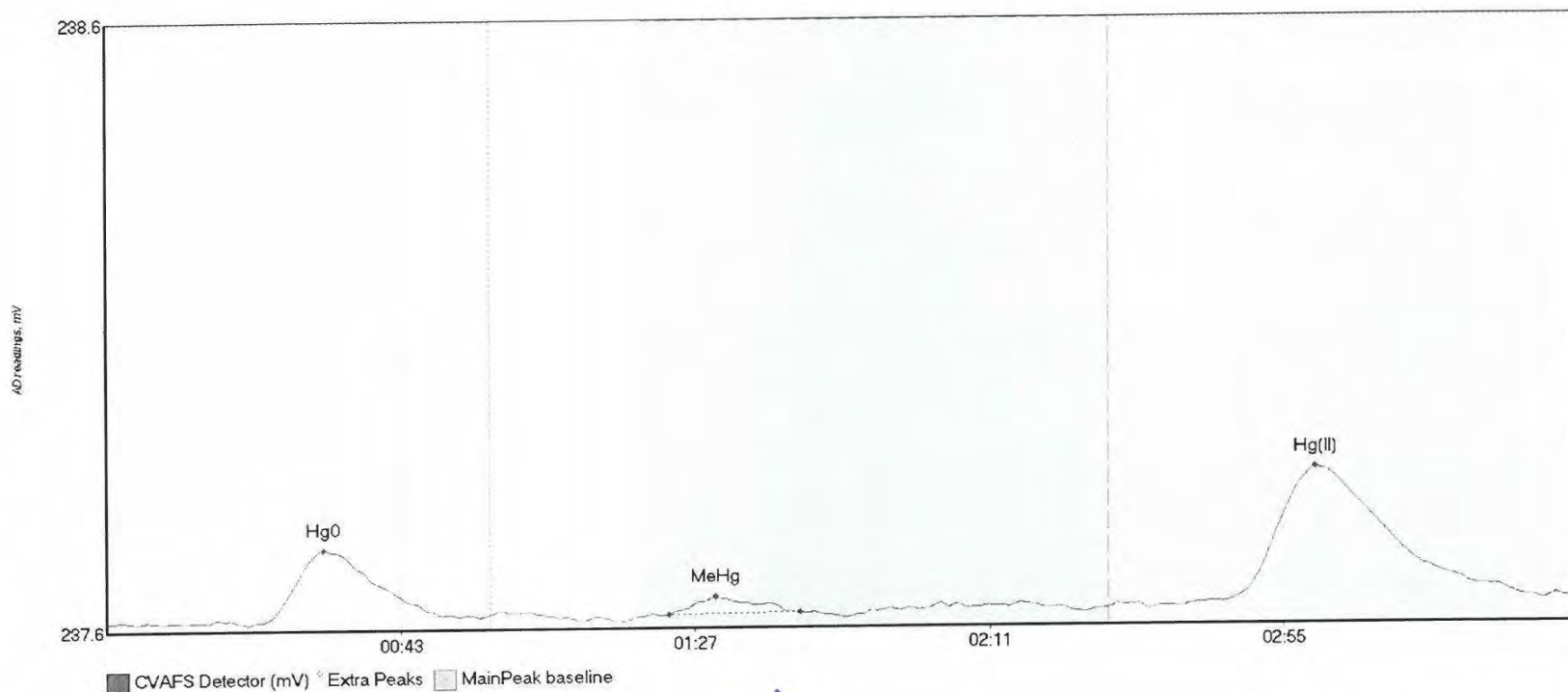
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1607783-13 Hg0	9.819	24.0	51.0	237.58	237.59	32.1	0.091	OK	237.5866	0.00	0.03	
1607783-13 MeHg	19.864	81.8	124.7	237.60	237.60	91.5	0.154	OK	237.5866	0.00	0.03	
1607783-13 Hg(I)	52.487	165.5	218.8	237.59	237.62	181.4	0.285	OK	237.5866	0.00	0.03	

#83: SEQ-CCV8



Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	B1Dev	B1Shift	Comment
SEQ-CCV8 Hg0	434.207	6.8	57.5	237.60	237.82	34.4	3.650	CT	237.5950	0.00	0.09	
SEQ-CCV8 MeHg	319.825	80.6	135.7	237.66	237.66	91.7	2.375	OK	237.5950	0.00	0.09	
SEQ-CCV8 Hg(II)	204.505	166.9	218.1	237.64	237.68	181.8	1.157	OK	237.5950	0.00	0.09	

#84: SEQ-CCB6



Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
SEQ-CCB6 Hg0	15.454	23.7	55.8	237.62	237.63	32.6	0.117	OK	237.6219	0.00	0.03	
SEQ-CCB6 MeHg	2.940	84.1	103.7	237.63	237.63	91.1	0.029	OK	237.6219	0.00	0.03	
SEQ-CCB6 Hg(II)	41.567	164.3	214.8	237.64	237.65	180.7	0.222	OK	237.6219	0.00	0.03	

Peer Review Check List for MHg for CV-GC-AFS (FGS-070) 2015 Rev 5 (08/06/2015)

Analyst: Ryan Nelson	Sequence #: 6H12010, 6H12011
Reviewer: <u>Jeanne Herel</u>	Dataset ID #: MHg27001-160815-1
Date:	WO #: Various <u>E JH 8/19/12</u>
Batch #(s): F608273, F608155	Client(s): NA

• Select the correct preparation method.

Additional Comments:

Analyte	Prep Method	Matrix
<input checked="" type="checkbox"/> MHg	FGS-013 MHg Distillation	Water
<input type="checkbox"/> MHg	FGS-010 KOH/MeOH Digest	Tissue
<input type="checkbox"/> MHg	FGS-045 MeCl Extraction	Sed/Soil
<input type="checkbox"/> DMHg	FGS-098 (None Accredited method)	ALL

Analyst Initials:

Reviewer Initials:

1. Compare Sample ID with Bench sheet/Sequence/Raw Data (Have all samples been imported?)	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> NO	<input checked="" type="checkbox"/>
2. Check for transcription errors from Excel spreadsheet (or Prep Bench sheet)/Raw data	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> NO	<input type="checkbox"/>
(a) Reviewer: 100% of peak heights checked	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> NO	<input checked="" type="checkbox"/>
(b) Are there peak height errors?	<input type="checkbox"/> YES	<input checked="" type="checkbox"/> NO	<input checked="" type="checkbox"/>
(c) Error on a sample: Do peak heights, responses, & initial results match corrected data?	<input type="checkbox"/> YES	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> N/A
(d) Error on a Cal Pt, ICB/CCB, or PB: Has the data been reimported?	<input type="checkbox"/> YES	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> N/A
(e) Check standards & reagents in sequence & bench sheet for correct usage (i.e. expiries).	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> N/A
(f) Check and compare masses (review prep bench sheet)	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> N/A
(g) Check and compare initial and final volumes	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> N/A
(h) Do aliquots and dilutions written on benchsheet match those in Excel?	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> N/A
(i) Is the pH>3.0 for all distilled samples? _____	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> N/A
(j) Is the sequence #, analyst, date, and instrument # on the QC page?	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> NO	<input checked="" type="checkbox"/>
(k) Is the analysis status correct? (analyzed/initial review/reviewed)	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> NO	<input checked="" type="checkbox"/>
(l) Original prep bench sheet added to data package?	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> NO	<input checked="" type="checkbox"/>
(m) Benchsheet prep date MUST match actual prep date (check if re-shot vs re-extract)	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> NO	<input checked="" type="checkbox"/>
3. High QA? WO#(s)/Client(s): _____	<input type="checkbox"/> YES	<input checked="" type="checkbox"/> NO	<input checked="" type="checkbox"/>
4. Client specific QC? (if Yes, refer to Project Notes/LIMS)	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> NO	<input checked="" type="checkbox"/>
(a) Have the QC requirements been met for all WO#s?	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> NO	<input checked="" type="checkbox"/>
5. 20 or fewer samples in batch? _____	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> NO	<input checked="" type="checkbox"/>
(a) 3 PBs, 1 LCS/LCSD (or BS/BSD), 2 MS/MSD/MD per batch?	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> NO	<input checked="" type="checkbox"/>
(b) 1 CCV and 1 CCB every 10 analytical runs? _____	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> NO	<input checked="" type="checkbox"/>
QA/QC Data Checked			
6. The calibration curve included a minimum of 5 Standards	<input checked="" type="checkbox"/> PASS	<input type="checkbox"/> FAIL	<input type="checkbox"/> N/A <input checked="" type="checkbox"/>
Comments: _____			
7. 1st Calibration Standard % Recoveries (65-135%)	<input checked="" type="checkbox"/> PASS	<input type="checkbox"/> FAIL	<input type="checkbox"/> N/A <input type="checkbox"/>
Comments: _____			
8. RSD CF (≤ 15%)	<input checked="" type="checkbox"/> PASS	<input type="checkbox"/> FAIL	<input type="checkbox"/> <input checked="" type="checkbox"/>
Comments: _____			

Peer Review Check List for MHg for CV-GC-AFS (FGS-070) 2013 Rev 4 (08/22/2013)

Analyst:	Ryan Nelson	Sequence #:	6H12010, 6H12011
Reviewer:	Jeanne Haire	Dataset ID #:	MHg27001-160815-1
Date:	8/15/2016	WO #:	Various
Batch #(s):	F608273, F608155	Client(s):	NA

Analyst Initials: RN **Reviewer Initials:** JH

- | | | | | |
|--|--|--|---|-------------------------------------|
| 9. ICV % Recoveries 67-133% | <input checked="" type="checkbox"/> PASS | <input type="checkbox"/> FAIL | | <input checked="" type="checkbox"/> |
| Comments: _____ | | | | |
| 10. CCV % Recoveries 67-133% | <input checked="" type="checkbox"/> PASS | <input type="checkbox"/> FAIL | | <input checked="" type="checkbox"/> |
| Comments: CCV4 failed. Investigated and both passed. | | | | |
| 11. Are the absolute value of the ICB and CCBs < PQL? | <input checked="" type="checkbox"/> PASS | <input type="checkbox"/> FAIL | | <input checked="" type="checkbox"/> |
| Comments: _____ | | | | |
| 12. LCS/LCSD/CRM/BS/BSD % Recoveries (70-130%) | <input checked="" type="checkbox"/> PASS | <input type="checkbox"/> FAIL | | <input checked="" type="checkbox"/> |
| Comments: _____ | | | | |
| 13. LCS/LCSD or BS/BSD RPD (< 25%) | <input type="checkbox"/> PASS | <input checked="" type="checkbox"/> FAIL | | <input checked="" type="checkbox"/> |
| Comments: QR-07 | | | | |
| 14. Water: Average of Preparation Blanks < 0.045 ng/L and standard deviation of 0.015 ng/L? | <input checked="" type="checkbox"/> PASS | <input type="checkbox"/> FAIL | <input type="checkbox"/> N/A | <input checked="" type="checkbox"/> |
| Comments: _____ | | | | |
| 15. Sediment/Tissue: Individually, are the Preparation Blanks < PQL for the matrix? | <input checked="" type="checkbox"/> PASS | <input type="checkbox"/> FAIL | <input type="checkbox"/> N/A | <input checked="" type="checkbox"/> |
| Comments: _____ | <input type="checkbox"/> PASS | <input type="checkbox"/> FAIL | | <input checked="" type="checkbox"/> |
| 16. Have Total Solids been applied? (If NO, please ensure that they are done or nearly done) | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input type="checkbox"/> N/A | <input checked="" type="checkbox"/> |
| 17. Is the correct 'Source' designated for MD/MS/MSD? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | | <input checked="" type="checkbox"/> |
| 18. For digested preps: was there a spike witness signature & date on the prep bench sheet? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input type="checkbox"/> N/A | <input checked="" type="checkbox"/> |
| 19. MD RPD/MT RSD(< 35%) | <input checked="" type="checkbox"/> PASS | <input checked="" type="checkbox"/> FAIL | | <input checked="" type="checkbox"/> |
| Comments: _____ | | | | |
| 20. Is there one set of MS/MSD per every 10 samples? | <input checked="" type="checkbox"/> PASS | <input type="checkbox"/> FAIL | | <input checked="" type="checkbox"/> |
| Comments: _____ | | | | |
| 21. MS/MSD RPD(< 35%) | <input checked="" type="checkbox"/> PASS | <input type="checkbox"/> FAIL | | <input checked="" type="checkbox"/> |
| Comments: _____ | | | | |
| 22. MS (AS) % Recoveries (65-130%) | <input checked="" type="checkbox"/> PASS | <input checked="" type="checkbox"/> FAIL | | <input checked="" type="checkbox"/> |
| Comments: _____ | | | | |
| 23. MSD (ASD) % Recoveries (65-130%) | <input checked="" type="checkbox"/> PASS | <input checked="" type="checkbox"/> FAIL | | <input checked="" type="checkbox"/> |
| Comments: _____ | | | | |
| 24. Spiked 1-5X ambient or 1-5X PQL (whichever is higher) (from EPA 1630) | <input type="checkbox"/> YES | <input checked="" type="checkbox"/> NO | | <input checked="" type="checkbox"/> |
| 25. Are all samples within instrument calibration range (or at maximum aliquot size)? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | | <input checked="" type="checkbox"/> |
| Comments: _____ | | | | |
| 26. For instrumental dilutions, is the dilution factor in excel correct? | <input type="checkbox"/> PASS | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> N/A | <input checked="" type="checkbox"/> |
| Is the sample volume, diluents, and final volume of the dilution noted on benchsheet? | <input type="checkbox"/> PASS | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> N/A | <input checked="" type="checkbox"/> |
| 27. Dissolved < Total metals (if applicable) | <input type="checkbox"/> PASS | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> N/A | <input checked="" type="checkbox"/> |
| Comments: _____ | | | | |
| 28. Effluent < Influent metals (visually confirm if needed) | <input type="checkbox"/> PASS | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> N/A | <input type="checkbox"/> |
| Comments: _____ | | | | |

Peer Review Check List for MHg for CV-GC-AFS (FGS-070) 2013 Rev 4 (08/22/2013)

Analyst: Ryan Nelson	Sequence #: 6H12010, 6H12011
Reviewer: <i>O'Grady Heneel</i>	Dataset ID #: MHg27001-160815-1
Date: 8/15/2016	WO #: Various <i>2 JH 8/19/16</i>
Batch #(s): F608273, F608155	Client(s): NA

Analyst Initials: *R* **Reviewer Initials:** *JH*

29. Are re-runs noted with reason? YES NO N/A
- Comments: _____
30. For failing QC (CCV, CCB, PB, BS/BSD, CAL): YES NO N/A
- Was a bubbler and trap test run before the analytical run continued?
- Comments: CCV4
31. Do re-run results compare to initial analysis (< 35% RPD)? YES NO N/A
- Comments: _____
32. Are qualifiers consistent with the data review flowcharts? YES NO N/A
- Comments: _____
33. Have non-reportable samples been imported into LIMS and clicked to non-reportable? YES NO N/A
- Comments: _____
34. Have re-extracts been created for non-reportable samples? YES NO N/A
35. Narrations in MMO box in LIMS?
- Comments: _____
36. Are there any HIGH QA projects within the data? YES NO
- If so, place dataset to the QA office.
37. Does the data set need scanning? YES NO N/A
- Files located at: \\Cuprum\gen_admin\Quality Assurance\Training Master\IDOCs
38. Date of analyst IDOC/CDOC: 4/15/2016 *7/27/16 JH 8/22/16* IDOC/CDOC within last 12 months? YES NO
39. Date of analyst's SOP reading: 6/8/2016 Current SOP revision? YES NO
40. Date of LOD: 4/21 - 6/16 *7/7/16 JH 8/22/16* LOD within last 3 months (within 12 months for MDN)? YES NO N/A
41. Date of LOQ: 4/21 - 6/16 *7/7/16 JH 8/22/16* LOQ within last 3 months (within 12 months for MDN)? YES NO N/A
42. If MDN samples, date of last MDL study: _____
43. MDL study within last 12 months? YES NO N/A
- Data can not be reported without a current IDOC/CDOC, LOD or LOQ.**
- Additional Comments: YES NO



Frontier Global Sciences

11720 Northcreek Pkwy N, Suite 400
Bothell, WA 98011
425.686.1996 Phone
425.686.3096 Fax

23 August 2016

Rod Pendleton
AMEC Foster Wheeler
511 Congress Street
Portland, ME 04101

RE: Penobscot Seawater Total And Diss Hg and MMHg

Enclosed are the analytical results for samples received by Eurofins Frontier Global Sciences. All quality control measurements are within established control limits and there were no analytical difficulties encountered with the exception of those listed in the case narrative section of this report.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

A handwritten signature in black ink that reads "Amy Goodall".

Amy Goodall
Project Manager



Frontier Global Sciences

11720 Northcreek Pkwy N, Suite 400
Bothell, WA 98011
425.686.1996 Phone
425.686.3096 Fax

AMEC Foster Wheeler
511 Congress Street
Portland ME, 04101

Project: Penobscot Seawater Total And Diss Hg and MMHg
Project Number: 3616166052
Project Manager: Rod Pendleton

Reported:
23-Aug-16 16:30

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
ADD-02_072216_SW_10	1607805-01	Water	22-Jul-16 16:38	27-Jul-16 09:40
ADD-02_072216_SW_10 Dissolved	1607805-02	Water	22-Jul-16 16:38	27-Jul-16 09:40

Eurofins Frontier Global Sciences, Inc.

The results in this report only apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Amy Goodall, Project Manager



AMEC Foster Wheeler
511 Congress Street
Portland ME, 04101

Project: Penobscot Seawater Total And Diss Hg and MMHg
Project Number: 3616166052
Project Manager: Rod Pendleton

Reported:
23-Aug-16 16:30

SAMPLE RECEIPT

Samples were received at Eurofins Frontier Global Sciences (EFGS) on 7/27/2016 9:40:00 AM . The samples were received intact, on-ice within a sealed cooler at 1.0 degrees Celsius.

SAMPLE PREPARATION AND ANALYSIS

Samples were prepared and analyzed for total mercury by flow injection atomic fluorescence spectrometry (FI-AFS) in accordance with EPA 1631E.

Samples were prepared and analyzed for methyl mercury by cold vapor gas chromatography atomic fluorescence spectrometry (CV-GC-AFS) in accordance with EPA 1630 (EFGS-070).

ANALYTICAL AND QUALITY CONTROL ISSUES

Sample 1607805-02 was used as the QC source for the Mercury batch; F608263-MS2/MSD. Neither sample from this work order was used as the source QC for the Methyl Mercury batch. There were no QC issues, and all the data from the original analytical run was reported.

Method blanks were prepared for every preparation to assess possible blank contribution from the sample preparation procedure. The method blanks were carried through the entire analytical procedure. All blanks fell within the established acceptance criteria with the exception of any items narrated above or flagged and described in the notes and definitions section of the report.

Liquid spikes, certified reference material (CRM) or a quality control samples (QCS) were prepared for every preparation as a measure of accuracy. All liquid spikes, CRMs and/or QCS samples fell within the established acceptance criteria with the exception of any items narrated above or flagged and described in the notes and definitions section of the report.

As an additional measure of the accuracy of the methods used and to check for matrix interference, matrix spikes (MS) and matrix spike duplicates (MSD) were digested and analyzed. All of the matrix spike recoveries fell within the established acceptance criteria with the exception of any items flagged and described in the notes and definitions section of the report.

A reasonable measure of the precision of the analytical methods is the relative percent difference (RPD) between a matrix spike recovery and a matrix spike duplicate recovery and between laboratory control sample recovery and laboratory control sample duplicate recoveries. All of the relative percent differences established acceptance criteria with the exception of any items flagged and described in the notes and definitions section of the report.

Eurofins Frontier Global Sciences, Inc.

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Amy Goodall, Project Manager



Frontier Global Sciences

11720 Northcreek Pkwy N, Suite 400
Bothell, WA 98011
425.686.1996 Phone
425.686.3096 Fax

AMEC Foster Wheeler
511 Congress Street
Portland ME, 04101

Project: Penobscot Seawater Total And Diss Hg and MMHg
Project Number: 3616166052
Project Manager: Rod Pendleton

Reported:
23-Aug-16 16:30

Eurofins Frontier Global Sciences, Inc.

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Amy Goodall, Project Manager

Sample Receipt Checklist

EFGS Work Order: 1607805

Client: Amec

Date & Time Received: 7/27/16 490

Date Labeled: 7/27/16 Labeled By: VM

Project: _____

Received By: CSP

Label Verified By: CSP

of Coolers Received: 1 Samples Arrived By: Shipping Service _____ Courier _____ Hand _____ Other (Specify: _____)

Coolant: None/Ambient Loose Ice Gel Ice Dry Ice Coolant Required: (Y/N) Temp Blank Used: (Y/N) for Cooler(s): _____

Notify Project Manager if packages/coolers are received without coolant or with thawed coolant and at a temperature in excess of 6°C. PM notified: Y/N

Cooler Information:	Y/N/NA	Comments
The coolers do not appear to be tampered with:	<u>Y</u>	
Custody Seals are present and intact:	<u>Y</u>	
Custody seals signed:	<u>Y</u>	

TID: <u>5225</u>	CF: <u>+0.1 °C</u>	Date/time: <u>7/27/16 490</u>	By: <u>CSP</u>
Cooler 1: <u>0.9 °C</u>	w/ CF: <u>1.0 °C</u>	Cooler 4: _____ °C	w/ CF: _____ °C
Cooler 2: _____ °C	w/ CF: _____ °C	Cooler 5: _____ °C	w/ CF: _____ °C
Cooler 3: _____ °C	w/ CF: _____ °C	Cooler 6: _____ °C	w/ CF: _____ °C

Chain of Custody:	Y/N/NA	Comments
Sample ID/Description:	<u>Y</u>	
Date and time of collection:	<u>Y</u>	
Sampled by:	<u>Y</u>	
Preservation type:	<u>Y</u>	
Requested analyses:	<u>Y</u>	
Required signatures:	<u>Y</u>	
Internal COC required:	<u>NA</u>	

Sample Condition/Integrity:	Y/N/NA	Comments
Sample containers intact/present:	<u>Y</u>	
Sample labels are present and legible:	<u>Y</u>	
Sample ID on container/bag matches COC:	<u>Y</u>	
Correct sample containers used:	<u>Y</u>	
Samples received within holding times:	<u>Y</u>	
Sample volume sufficient for requested analyses:	<u>Y</u>	
Correct preservative used for requested analyses:	<u>Y</u>	

Anomalies/Non-conformances (attach additional pages if needed):

1607805

Chain Of Custody/Analysis Request Form

USDC - Penobscot River

Lab: Eurofins

AMEC, Suite 200, 511 Congress Street, Portland, ME

Tech Lead - Louise Venne
Work# 770-421-3461

Proj Chemist - Denise King
508-789-1738

AMEC Job Number = 3616166052

Samp #	Sample Date	Sample Time	Field Sample ID	QC Code	Qty Total	Qty Each	Bottle Size and Material	Preservative	Media Method	Fraction
1601	7/22/2016	16:38	ADD-02_072216_SW_10		4					
				FS	1	250 mL	PETG	4 deg C	SW Total Hg (1631e)	T
				FS	1	250 mL	PETG	4 deg C	SW Dissolved Hg (1631e)	D
				FS	1	250 mL	BS Glass	H2SO4/4 deg C	SW Total MeHg (1630)	T
				FS	1	250 mL	BS Glass	H2SO4/4 deg C	SW Dissolved MeHg (1630)	D

QC Codes: FS = Field Sample, EB = Equipment Rinsate Blank, MS - Matrix Spike, MSD = Matrix Spike Duplicate

Relinquished: Julie Palozzo Date: 7 / 26 / 2016 Time: 1633

Received: [Signature] Cosbin Powell EFGS Date: 7 / 27 / 16 Time: 940

- AIRBILL: 8045 4405 6952
- ONE COOLER

yes
1.0°C
Fedex
940

Tuesday, July 26, 2016

Page 1 of 1



AMEC Foster Wheeler
511 Congress Street
Portland ME, 04101

Project: Penobscot Seawater Total And Diss Hg and MMHg
Project Number: 3616166052
Project Manager: Rod Pendleton

Reported:
23-Aug-16 16:30

ADD-02_072216_SW_10
1607805-01

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
---------	--------	-----------------	-----------------	-------	----------	-------	----------	----------	----------	--------	-------

Sample Preparation: EFGS-013 Methyl Hg Distillation for Water

Methyl Mercury (as Mercury)	0.779	0.026	0.050	ng/L	1.25	F608273	11-Aug-16	6H12011	12-Aug-16	EPA 1630/FGS-070	
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Sample Preparation: EPA 1631E BrCl Oxidation

Mercury	20.7	0.84	5.05	ng/L	10	F608263	27-Jul-16	6H11005	11-Aug-16	EPA 1631E	
---------	------	------	------	------	----	---------	-----------	---------	-----------	-----------	--

Eurofins Frontier Global Sciences, Inc.

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Amy Goodall, Project Manager



AMEC Foster Wheeler
511 Congress Street
Portland ME, 04101

Project: Penobscot Seawater Total And Diss Hg and MMHg
Project Number: 3616166052
Project Manager: Rod Pendleton

Reported:
23-Aug-16 16:30

**ADD-02_072216_SW_10 Dissolved
1607805-02**

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
---------	--------	-----------------	-----------------	-------	----------	-------	----------	----------	----------	--------	-------

Sample Preparation: EFGS-013 Methyl Hg Distillation for Water

Methyl Mercury (as Mercury)	0.154	0.026	0.050	ng/L	1.25	F608273	11-Aug-16	6H12011	12-Aug-16	EPA 1630/FGS-070	
-----------------------------	-------	-------	-------	------	------	---------	-----------	---------	-----------	---------------------	--

Sample Preparation: EPA 1631E BrCl Oxidation

Mercury	1.81	0.08	0.50	ng/L	1	F608263	27-Jul-16	6H11005	11-Aug-16	EPA 1631E	
---------	------	------	------	------	---	---------	-----------	---------	-----------	-----------	--

Eurofins Frontier Global Sciences, Inc.

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Amy Goodall, Project Manager



AMEC Foster Wheeler
511 Congress Street
Portland ME, 04101

Project: Penobscot Seawater Total And Diss Hg and MMHg
Project Number: 3616166052
Project Manager: Rod Pendleton

Reported:
23-Aug-16 16:30

Quality Control Data

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 6H11005 - F608263											
Cal Standard (6H11005-CAL1)					Prepared: 10-Aug-16 Analyzed: 11-Aug-16						
Mercury	0.50	-		ng/L	0.50100		99.6				
Cal Standard (6H11005-CAL2)					Prepared: 10-Aug-16 Analyzed: 11-Aug-16						
Mercury	1.02	-		ng/L	1.0020		102				
Cal Standard (6H11005-CAL3)					Prepared: 10-Aug-16 Analyzed: 11-Aug-16						
Mercury	4.95	-		ng/L	5.0100		98.9				
Cal Standard (6H11005-CAL4)					Prepared: 10-Aug-16 Analyzed: 11-Aug-16						
Mercury	19.82	-		ng/L	20.040		98.9				
Cal Standard (6H11005-CAL5)					Prepared: 10-Aug-16 Analyzed: 11-Aug-16						
Mercury	39.82	-		ng/L	40.080		99.3				
Calibration Blank (6H11005-CCB1)					Prepared: 10-Aug-16 Analyzed: 11-Aug-16						
Mercury	-0.01	-		ng/L							U
Calibration Blank (6H11005-CCB2)					Prepared: 10-Aug-16 Analyzed: 11-Aug-16						
Mercury	-0.006	-		ng/L							U
Calibration Blank (6H11005-CCB3)					Prepared: 10-Aug-16 Analyzed: 11-Aug-16						
Mercury	0.12	-		ng/L							
Calibration Blank (6H11005-CCB5)					Prepared: 10-Aug-16 Analyzed: 11-Aug-16						
Mercury	0.53	-		ng/L							
Calibration Check (6H11005-CCV1)					Prepared: 10-Aug-16 Analyzed: 11-Aug-16						
Mercury	5.24	-		ng/L	5.0000		105	77-123			

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Amy Goodall, Project Manager



AMEC Foster Wheeler
511 Congress Street
Portland ME, 04101

Project: Penobscot Seawater Total And Diss Hg and MMHg
Project Number: 3616166052
Project Manager: Rod Pendleton

Reported:
23-Aug-16 16:30

Quality Control Data

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 6H11005 - F608263

Calibration Check (6H11005-CCV2)					Prepared: 10-Aug-16 Analyzed: 11-Aug-16						
Mercury	5.43	-		ng/L	5.0000		109	77-123			
Calibration Check (6H11005-CCV3)					Prepared: 10-Aug-16 Analyzed: 11-Aug-16						
Mercury	5.64	-		ng/L	5.0000		113	77-123			
Instrument Blank (6H11005-IBL1)					Prepared: 10-Aug-16 Analyzed: 11-Aug-16						
Mercury	ND	0.08	0.50	ng/L							U
Instrument Blank (6H11005-IBL2)					Prepared: 10-Aug-16 Analyzed: 11-Aug-16						
Mercury	ND	0.08	0.50	ng/L							U
Instrument Blank (6H11005-IBL3)					Prepared: 10-Aug-16 Analyzed: 11-Aug-16						
Mercury	ND	0.08	0.50	ng/L							U
Initial Cal Check (6H11005-ICV1)					Prepared: 10-Aug-16 Analyzed: 11-Aug-16						
Mercury	5.42	-		ng/L	5.0000		108	77-123			

Batch 6H12011 - F608273

Cal Standard (6H12011-CAL1)					Prepared & Analyzed: 12-Aug-16						
Methyl Mercury (as Mercury)	0.049	-		ng/L	0.050050		97.4				
Cal Standard (6H12011-CAL2)					Prepared & Analyzed: 12-Aug-16						
Methyl Mercury (as Mercury)	0.211	-		ng/L	0.20020		105				
Cal Standard (6H12011-CAL3)					Prepared & Analyzed: 12-Aug-16						
Methyl Mercury (as Mercury)	0.829	-		ng/L	1.0010		82.8				

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AMEC Foster Wheeler
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Project: Penobscot Seawater Total And Diss Hg and MMHg
Project Number: 3616166052
Project Manager: Rod Pendleton

Reported:
23-Aug-16 16:30

Quality Control Data

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 6H12011 - F608273											
Cal Standard (6H12011-CAL4)					Prepared & Analyzed: 12-Aug-16						
Methyl Mercury (as Mercury)	1.982	-		ng/L	2.0020		99.0				
Cal Standard (6H12011-CAL5)					Prepared & Analyzed: 12-Aug-16						
Methyl Mercury (as Mercury)	4.602	-		ng/L	4.0040		115				
Calibration Blank (6H12011-CCB1)					Prepared & Analyzed: 12-Aug-16						
Methyl Mercury (as Mercury)	0.005	-		ng/L							
Calibration Blank (6H12011-CCB2)					Prepared & Analyzed: 12-Aug-16						
Methyl Mercury (as Mercury)	0.001	-		ng/L							
Calibration Blank (6H12011-CCB3)					Prepared & Analyzed: 12-Aug-16						
Methyl Mercury (as Mercury)	0.002	-		ng/L							
Calibration Blank (6H12011-CCB4)					Prepared & Analyzed: 12-Aug-16						
Methyl Mercury (as Mercury)	0.005	-		ng/L							
Calibration Blank (6H12011-CCB5)					Prepared & Analyzed: 12-Aug-16						
Methyl Mercury (as Mercury)	0.001	-		ng/L							
Calibration Blank (6H12011-CCB6)					Prepared & Analyzed: 12-Aug-16						
Methyl Mercury (as Mercury)	0.001	-		ng/L							
Calibration Check (6H12011-CCV1)					Prepared & Analyzed: 12-Aug-16						
Methyl Mercury (as Mercury)	0.449	-		ng/L	0.50049		89.8	67-133			
Calibration Check (6H12011-CCV2)					Prepared & Analyzed: 12-Aug-16						
Methyl Mercury (as Mercury)	0.599	-		ng/L	0.50049		120	67-133			

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Project: Penobscot Seawater Total And Diss Hg and MMHg
Project Number: 3616166052
Project Manager: Rod Pendleton

Reported:
23-Aug-16 16:30

Quality Control Data

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 6H12011 - F608273											
Calibration Check (6H12011-CCV3)					Prepared & Analyzed: 12-Aug-16						
Methyl Mercury (as Mercury)	0.515	-		ng/L	0.50049		103	67-133			
Calibration Check (6H12011-CCV5)					Prepared & Analyzed: 12-Aug-16						
Methyl Mercury (as Mercury)	0.621	-		ng/L	0.50049		124	67-133			
Calibration Check (6H12011-CCV6)					Prepared & Analyzed: 12-Aug-16						
Methyl Mercury (as Mercury)	0.619	-		ng/L	0.50049		124	67-133			
Calibration Check (6H12011-CCV7)					Prepared & Analyzed: 12-Aug-16						
Methyl Mercury (as Mercury)	0.440	-		ng/L	0.50049		87.9	67-133			
Calibration Check (6H12011-CCV8)					Prepared & Analyzed: 12-Aug-16						
Methyl Mercury (as Mercury)	0.479	-		ng/L	0.50049		95.7	67-133			
Instrument Blank (6H12011-IBL1)					Prepared & Analyzed: 12-Aug-16						
Methyl Mercury (as Mercury)	ND	0.021	0.040	ng/L							U
Initial Cal Blank (6H12011-ICB1)					Prepared & Analyzed: 12-Aug-16						
Methyl Mercury (as Mercury)	0.008	-		ng/L							
Initial Cal Check (6H12011-ICV1)					Prepared & Analyzed: 12-Aug-16						
Methyl Mercury (as Mercury)	0.500	-		ng/L	0.50049		99.9	67-133			
Batch F608263 - EPA 1631E BrCl Oxidation											
Blank (F608263-BLK1)					Prepared: 10-Aug-16 Analyzed: 11-Aug-16						
Mercury	ND	0.08	0.50	ng/L							U

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AMEC Foster Wheeler
511 Congress Street
Portland ME, 04101

Project: Penobscot Seawater Total And Diss Hg and MMHg
Project Number: 3616166052
Project Manager: Rod Pendleton

Reported:
23-Aug-16 16:30

Quality Control Data

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch F608263 - EPA 1631E BrCl Oxidation

Blank (F608263-BLK2)					Prepared: 10-Aug-16 Analyzed: 11-Aug-16						
Mercury	ND	0.08	0.50	ng/L							U
Blank (F608263-BLK3)					Prepared: 10-Aug-16 Analyzed: 11-Aug-16						
Mercury	ND	0.08	0.50	ng/L							U
Blank (F608263-BLK4)					Prepared: 10-Aug-16 Analyzed: 11-Aug-16						
Mercury	ND	0.08	0.50	ng/L							U
LCS (F608263-BS1)					Prepared: 10-Aug-16 Analyzed: 11-Aug-16						
Mercury	15.32	0.08	0.50	ng/L	15.679		97.7	80-120			
LCS Dup (F608263-BSD1)					Prepared: 10-Aug-16 Analyzed: 11-Aug-16						
Mercury	15.53	0.08	0.50	ng/L	15.679		99.1	80-120	1.42	24	
Matrix Spike (F608263-MS1)					Source: 1607542-06		Prepared: 10-Aug-16 Analyzed: 11-Aug-16				
Mercury	6.52	0.08	0.50	ng/L	5.0601	1.17	106	71-125			
Matrix Spike (F608263-MS2)					Source: 1607805-02		Prepared: 10-Aug-16 Analyzed: 11-Aug-16				
Mercury	7.16	0.08	0.50	ng/L	5.0601	1.81	106	71-125			
Matrix Spike Dup (F608263-MSD1)					Source: 1607542-06		Prepared: 10-Aug-16 Analyzed: 11-Aug-16				
Mercury	6.47	0.08	0.50	ng/L	5.0601	1.17	105	71-125	0.744	24	
Matrix Spike Dup (F608263-MSD2)					Source: 1607805-02		Prepared: 10-Aug-16 Analyzed: 11-Aug-16				
Mercury	7.29	0.08	0.50	ng/L	5.0601	1.81	108	71-125	1.77	24	

Batch F608273 - EFGS-013 Methyl Hg Distillation for Water

Blank (F608273-BLK1)					Prepared: 11-Aug-16 Analyzed: 12-Aug-16						
Methyl Mercury (as Mercury)	ND	0.026	0.050	ng/L							U

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511 Congress Street
Portland ME, 04101

Project: Penobscot Seawater Total And Diss Hg and MMHg
Project Number: 3616166052
Project Manager: Rod Pendleton

Reported:
23-Aug-16 16:30

Quality Control Data

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch F608273 - EFGS-013 Methyl Hg Distillation for Water

Blank (F608273-BLK2)					Prepared: 11-Aug-16 Analyzed: 12-Aug-16						
Methyl Mercury (as Mercury)	ND	0.026	0.050	ng/L							U
Blank (F608273-BLK3)					Prepared: 11-Aug-16 Analyzed: 12-Aug-16						
Methyl Mercury (as Mercury)	ND	0.026	0.050	ng/L							U
LCS (F608273-BS1)					Prepared: 11-Aug-16 Analyzed: 12-Aug-16						
Methyl Mercury (as Mercury)	0.704	0.026	0.050	ng/L	1.0010		70.3	70-130			
LCS Dup (F608273-BSD1)					Prepared: 11-Aug-16 Analyzed: 12-Aug-16						
Methyl Mercury (as Mercury)	0.968	0.026	0.050	ng/L	1.0010		96.7	70-130	31.6	25	QR-06
Duplicate (F608273-DUP1)					Source: 1607542-01 Prepared: 11-Aug-16 Analyzed: 12-Aug-16						
Methyl Mercury (as Mercury)	0.151	0.026	0.050	ng/L		0.051			98.7	35	QR-07
Matrix Spike (F608273-MS1)					Source: 1607586-12 Prepared: 11-Aug-16 Analyzed: 12-Aug-16						
Methyl Mercury (as Mercury)	1.006	0.026	0.050	ng/L	1.0010	ND	101	65-130			
Matrix Spike (F608273-MS2)					Source: 1607772-01 Prepared: 11-Aug-16 Analyzed: 12-Aug-16						
Methyl Mercury (as Mercury)	0.347	0.026	0.050	ng/L	1.0010	0.029	31.7	65-130			QM-07
Matrix Spike Dup (F608273-MSD1)					Source: 1607586-12 Prepared: 11-Aug-16 Analyzed: 12-Aug-16						
Methyl Mercury (as Mercury)	0.713	0.026	0.050	ng/L	1.0010	ND	71.2	65-130	34.1	35	
Matrix Spike Dup (F608273-MSD2)					Source: 1607772-01 Prepared: 11-Aug-16 Analyzed: 12-Aug-16						
Methyl Mercury (as Mercury)	0.277	0.026	0.050	ng/L	1.0010	0.029	24.8	65-130	22.3	35	QM-07

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Project: Penobscot Seawater Total And Diss Hg and MMHg
Project Number: 3616166052
Project Manager: Rod Pendleton

Reported:
23-Aug-16 16:30

Notes and Definitions

- U Analyte was not detected and is reported as less than the LOD or as defined by the client. The LOD has been adjusted for any dilution or concentration of the sample.
- QR-07 The RPD/RSD value for the matrix duplicate/triplicate was outside of acceptance limits. Batch QC acceptable based on MS/MSD and/or LCS/LCSD RPD values within control limits.
- QR-06 The RPD value for the LCS/LCSD was outside of acceptance limits. Batch QC acceptable based on MS/MSD, and where applicable, matrix duplicate RPD value(s) within control limits.
- QM-07 The spike recovery was outside control limits for the MS and/or MSD. The batch was accepted based on LCS and LCSD recoveries within control limits and, when analysis permits, acceptable AS/ASD.
- J The result is an estimated concentration.
- FB This blank is a filtration blank. Data is reported for informational purposes only.
- DET Analyte DETECTED
- ND Analyte NOT DETECTED at or above the reporting limit
- NR Not Reported
- dry Sample results reported on a dry weight basis
- RPD Relative Percent Difference



Analysis Datasheet for Total Mercury

Date of Analysis: August 11, 2016

Analyst: BC

Instrument #: Hg2600-3

Units ng/L

LIMS Sequence #: 6H11005

Calibration Statistics:

LabNumber	n	True Val	Area	Uncorrected Response Factor	Corrected Peak Height	Corrected Response Factor	% Recovery
SEQ-CAL1	1	0.50 ng/L	57.20 units	114.39	45.28 units	90.56	99.8 %Rec
SEQ-CAL2	1	1.00 ng/L	104.81 units	104.81	92.89 units	92.89	102.4 %Rec
SEQ-CAL3	1	5.00 ng/L	461.27 units	92.25	449.36 units	89.87	99.1 %Rec
SEQ-CAL4	1	20.00 ng/L	1809.88 units	90.49	1797.96 units	89.90	99.1 %Rec
SEQ-CAL5	1	40.00 ng/L	3623.13 units	90.58	3611.21 units	90.28	99.5 %Rec
SEQ-CAL6	0						
SEQ-CAL7	0						
SEQ-CAL8	0						
SEQ-CAL9	0						

Corr. Mean RF 90.70 Corr. St Dev RF +/- 1.26 Corr. RSD CF 1.4% RSD Uncorr. Mean RF 98.51

Blanks:

LabNumber	n	Mean	Std Dev	Mean (ng/L)	Std Dev (ng/L)
SEQ-IBL	3	11.92 units	±4.86	0.12 ng/L	±0.05

Preparation Blanks

Sample Type	Batch ID	n	Mean	Std Dev
BLK	1	3	0.014 ng/L	±0.040
BLK	2	1	-0.013 ng/L	
BLK	3	0	0.000 ng/L	
BLK	4	0	0.000 ng/L	
BLK	5	0	0.000 ng/L	
BLK	6	0	0.000 ng/L	

QUALITY ASSURANCE
PEER - REVIEWED
INITIALS: DMW 8-11-16

Instrument	Analyst	Sample		Dilution	Analyzed	FileID	RunEnd	Uncorrected Response	Batch ID	No PB		InitialResult	FinalResult	InitialUnits	Comments
		Type	LabNumber							Correction?	RESP				
Hg2600-3	BC	CAL	SEQ-IBL1	1	8/11/2016 8:06:36	47401-1.RAW	8:06:36 AM	16.87				5.0	0.055	0.055	ng/L
Hg2600-3	BC	CAL	SEQ-IBL2	1	8/11/2016 8:10:45	47402-1.RAW	8:10:45 AM	11.72				-0.2	-0.002	-0.002	ng/L
Hg2600-3	BC	CAL	SEQ-IBL3	1	8/11/2016 8:14:53	47403-1.RAW	8:14:53 AM	7.16				-4.8	-0.052	-0.052	ng/L
Hg2600-3	BC	CAL	SEQ-CAL1	1	8/11/2016 8:19:01	47404-1.RAW	8:19:01 AM	57.20				45.3	0.499	0.499	ng/L
Hg2600-3	BC	CAL	SEQ-CAL2	1	8/11/2016 8:23:10	47405-1.RAW	8:23:10 AM	104.81				92.9	1.024	1.024	ng/L
Hg2600-3	BC	CAL	SEQ-CAL3	1	8/11/2016 8:27:18	47406-1.RAW	8:27:18 AM	461.27				449.4	4.954	4.954	ng/L
Hg2600-3	BC	CAL	SEQ-CAL4	1	8/11/2016 8:31:27	47407-1.RAW	8:31:27 AM	1809.88				1798.0	19.823	19.823	ng/L
Hg2600-3	BC	CAL	SEQ-CAL5	1	8/11/2016 8:35:35	47408-1.RAW	8:35:35 AM	3623.13				3611.2	39.815	39.815	ng/L
Hg2600-3	BC	CAL	SEQ-ICV1	1	8/11/2016 8:39:44	47409-1.RAW	8:39:44 AM	503.23				491.3	5.417	5.417	ng/L
Hg2600-3	BC	BLK	F608263-BLK1	1	8/11/2016 8:48:42	47410-1.RAW	8:48:42 AM	16.96	1			5.0	0.056	0.056	ng/L
Hg2600-3	BC	BLK	F608263-BLK2	1	8/11/2016 8:52:50	47411-1.RAW	8:52:50 AM	9.75	1			-2.2	-0.024	-0.024	ng/L
Hg2600-3	BC	BLK	F608263-BLK3	1	8/11/2016 8:56:59	47412-1.RAW	8:56:59 AM	12.80	1			0.9	0.010	0.010	ng/L
Hg2600-3	BC	BLK	F608263-BLK4	1	8/11/2016 9:01:07	47413-1.RAW	9:01:07 AM	10.75	2			-1.2	-0.013	-0.013	ng/L
Hg2600-3	BC	SAM	F608263-BS1	1	8/11/2016 9:05:15	47414-1.RAW	9:05:15 AM	1388.49	1			1376.6	15.163	15.163	ng/L
Hg2600-3	BC	SAM	F608263-BSD1	1	8/11/2016 9:09:24	47415-1.RAW	9:09:24 AM	1408.12	1			1396.2	15.380	15.380	ng/L
Hg2600-3	BC	SAM	1607542-01	1	8/11/2016 9:13:32	47416-1.RAW	9:13:32 AM	80.27	1			68.4	0.740	0.740	ng/L
Hg2600-3	BC	SAM	1607542-02	1	8/11/2016 9:17:41	47417-1.RAW	9:17:41 AM	32.16	1			20.2	0.209	0.209	ng/L
Hg2600-3	BC	SAM	1607542-03	1	8/11/2016 9:21:49	47418-1.RAW	9:21:49 AM	70.81	1			58.9	0.636	0.636	ng/L
Hg2600-3	BC	SAM	1607542-04	1	8/11/2016 9:25:58	47419-1.RAW	9:25:58 AM	68.15	1			56.2	0.606	0.606	ng/L
Hg2600-3	BC	CAL	SEQ-CCV1	1	8/11/2016 9:30:06	47420-1.RAW	9:30:06 AM	487.07				475.2	5.239	5.239	ng/L
Hg2600-3	BC	CAL	SEQ-CCB1	1	8/11/2016 9:34:14	47421-1.RAW	9:34:14 AM	10.59				-1.3	-0.015	-0.015	ng/L
Hg2600-3	BC	SAM	1607542-05	1	8/11/2016 9:38:23	47422-1.RAW	9:38:23 AM	97.04	1			85.1	0.925	0.925	ng/L
Hg2600-3	BC	SAM	1607542-06	1	8/11/2016 9:42:31	47423-1.RAW	9:42:31 AM	117.97	1			106.1	1.156	1.156	ng/L
Hg2600-3	BC	SAM	1607542-07	1	8/11/2016 9:46:40	47424-1.RAW	9:46:40 AM	15.99	1			4.1	0.031	0.031	ng/L
Hg2600-3	BC	SAM	1607542-09	1	8/11/2016 9:50:48	47425-1.RAW	9:50:48 AM	7.42	1			-4.5	-0.063	-0.063	ng/L
Hg2600-3	BC	SAM	1607586-19	1	8/11/2016 9:54:56	47426-1.RAW	9:54:56 AM	142.24	1			130.3	1.423	1.423	ng/L
Hg2600-3	BC	SAM	1607586-20	1	8/11/2016 9:59:05	47427-1.RAW	9:59:05 AM	58.46	1			46.5	0.499	0.499	ng/L
Hg2600-3	BC	SAM	1607586-21	1	8/11/2016 10:03:13	47428-1.RAW	10:03:13 AM	14.74	1			2.8	0.017	0.017	ng/L
Hg2600-3	BC	SAM	1607805-01	10	8/11/2016 10:07:22	47429-1.RAW	10:07:22 AM	195.88	2			184.0	2.030	20.295	ng/L
Hg2600-3	BC	SAM	1607805-02	1	8/11/2016 10:11:30	47430-1.RAW	10:11:30 AM	176.11	1			164.2	1.797	1.797	ng/L
Hg2600-3	BC	SAM	1608038-01	1	8/11/2016 10:15:38	47431-1.RAW	10:15:38 AM	24.97	1			13.1	0.130	0.130	ng/L
Hg2600-3	BC	CAL	SEQ-CCV2	1	8/11/2016 10:19:47	47432-1.RAW	10:19:47 AM	504.12				492.2	5.427	5.427	ng/L
Hg2600-3	BC	CAL	SEQ-CCB2	1	8/11/2016 10:23:55	47433-1.RAW	10:23:55 AM	11.34				-0.6	-0.006	-0.006	ng/L
Hg2600-3	BC	SAM	1608109-01	1	8/11/2016 10:28:04	47434-1.RAW	10:28:04 AM	23.42	1			11.5	0.113	0.113	ng/L
Hg2600-3	BC	SAM	1608109-03	1	8/11/2016 10:32:12	47435-1.RAW	10:32:12 AM	646.58	1			634.7	6.984	6.984	ng/L
Hg2600-3	BC	SAM	1608109-05	1	8/11/2016 10:36:21	47436-1.RAW	10:36:21 AM	357.89	1			346.0	3.801	3.801	ng/L
Hg2600-3	BC	SAM	1608109-07	1	8/11/2016 10:40:29	47437-1.RAW	10:40:29 AM	21.87	1			10.0	0.096	0.096	ng/L
Hg2600-3	BC	SAM	1608109-09	1	8/11/2016 10:44:37	47438-1.RAW	10:44:37 AM	276.68	1			264.8	2.905	2.905	ng/L
Hg2600-3	BC	SAM	1608109-11	1	8/11/2016 10:48:46	47439-1.RAW	10:48:46 AM	258.35	1			246.4	2.703	2.703	ng/L
Hg2600-3	BC	SAM	F608263-MS1	1	8/11/2016 10:52:54	47440-1.RAW	10:52:54 AM	598.26	1			586.3	6.451	6.451	ng/L
Hg2600-3	BC	SAM	F608263-MS2	1	8/11/2016 10:57:03	47441-1.RAW	10:57:03 AM	593.92	1			582.0	6.403	6.403	ng/L
Hg2600-3	BC	SAM	F608263-MS2	1	8/11/2016 11:01:11	47442-1.RAW	11:01:11 AM	656.47	1			644.6	7.093	7.093	ng/L
Hg2600-3	BC	SAM	F608263-MSD2	1	8/11/2016 11:05:19	47443-1.RAW	11:05:19 AM	667.95	1			656.0	7.219	7.219	ng/L
Hg2600-3	BC	CAL	SEQ-CCV3	1	8/11/2016 11:09:28	47444-1.RAW	11:09:28 AM	523.03				511.1	5.635	5.635	ng/L
Hg2600-3	BC	CAL	SEQ-CCB3	1	8/11/2016 11:13:36	47445-1.RAW	11:13:36 AM	22.54				10.6	0.117	0.117	ng/L
Hg2600-3	BC	SAM	F608263-DUP1	1	8/11/2016 11:17:45	47446-1.RAW	11:17:45 AM	80.30	1			68.4	0.740	0.740	ng/L
Hg2600-3	BC	BLK	F608233-BLK1	100	8/11/2016 11:21:53	47447-1.RAW	11:21:53 AM	19.11	x			7.2	0.079	7.933	ng/L
Hg2600-3	BC	BLK	F608233-BLK2	100	8/11/2016 11:26:01	47448-1.RAW	11:26:01 AM	20.22	x			8.3	0.092	9.158	ng/L
Hg2600-3	BC	BLK	F608233-BLK3	100	8/11/2016 11:30:10	47449-1.RAW	11:30:10 AM	15.99	x			4.1	0.045	4.491	ng/L
Hg2600-3	BC	SAM	F608233-BS1	500	8/11/2016 11:34:18	47450-1.RAW	11:34:18 AM	383.99	x			372.1	4.102	2051.143	ng/L
Hg2600-3	BC	SAM	F608233-BSD1	500	8/11/2016 11:38:27	47451-1.RAW	11:38:27 AM	382.54	x			370.6	4.086	2043.148	ng/L
Hg2600-3	BC	SAM	1608154-14	100	8/11/2016 11:42:35	47452-1.RAW	11:42:35 AM	54.28	x			42.4	0.467	46.707	ng/L
Hg2600-3	BC	SAM	1608154-15	2500	8/11/2016 11:46:44	47453-1.RAW	11:46:44 AM	129030.53	x			129018.6	1422.482	3556205.197	ng/L
Hg2600-3	BC	SAM	WS	1	8/11/2016 11:56:28	47454-1.RAW	11:56:28 AM	198.79	x			186.9	2.060	2.060	ng/L
Hg2600-3	BC	SAM	CLEAN	1	8/11/2016 12:00:49	47455-1.RAW	12:00:49 PM	26.87	x			15.0	0.165	0.165	ng/L
Hg2600-3	BC	SAM	WS	1	8/11/2016 12:04:58	47456-1.RAW	12:04:58 PM	71.60	x			59.7	0.658	0.658	ng/L
Hg2600-3	BC	SAM	WS	1	8/11/2016 12:09:06	47457-1.RAW	12:09:06 PM	46.09	x			34.2	0.377	0.377	ng/L

Instrument	Analyst	Sample Type	LabNumber	Dilution	Analyzed	FileID	RunEnd	Uncorrected Response	Batch ID	No PB Correction?	RESP	InitialResult	FinalResult	InitialUnits	Comments
Hg2600-3	BC	SAM	WS	1	8/11/2016 12:13:15	47458-1.RAW	12:13:15 PM	38.76		x	26.8	0.296	0.296	ng/L	
Hg2600-3	BC	SAM	WS	1	8/11/2016 12:17:23	47459-1.RAW	12:17:23 PM	40.74		x	28.8	0.318	0.318	ng/L	
Hg2600-3	BC	SAM	WS	1	8/11/2016 12:21:31	47460-1.RAW	12:21:31 PM	39.50		x	27.6	0.304	0.304	ng/L	
Hg2600-3	BC	SAM	WS	1	8/11/2016 12:25:40	47461-1.RAW	12:25:40 PM	32.14		x	20.2	0.223	0.223	ng/L	
Hg2600-3	BC	SAM	1608154-21	2500	8/11/2016 12:29:48	47462-1.RAW	12:29:48 PM	154193.54		x	154181.6	1699.914	4249785.980	ng/L	
Hg2600-3	BC	SAM	1608154-25	2500	8/11/2016 12:39:32	47463-1.RAW	12:39:32 PM	460.10		x	448.2	4.941	12353.617	ng/L	
Hg2600-3	BC	CAL	SEQ-CCV4 -	1	8/11/2016 12:43:41	47464-1.RAW -	12:43:41 PM -	633.00			621.1	6.848	6.848	ng/L	
Hg2600-3	BC	CAL	SEQ-CCB4 -	1	8/11/2016 12:47:49	47465-1.RAW -	12:47:49 PM -	96.17			84.3	0.929	0.929	ng/L	
Hg2600-3	BC	SAM	ws	1	8/11/2016 12:56:38	47467-1.RAW	12:56:38 PM	418.23		x	406.3	4.480	4.480	ng/L	
Hg2600-3	BC	SAM	ws	1	8/11/2016 13:00:46	47468-1.RAW	1:00:46 PM	62.89		x	51.0	0.562	0.562	ng/L	
Hg2600-3	BC	SAM	WS	1	8/11/2016 13:04:55	47469-1.RAW	1:04:55 PM	55.64784167		x	43.7	0.482	0.482	ng/L	
Hg2600-3	BC	SAM	WS	1	8/11/2016 13:09:03	47470-1.RAW	1:09:03 PM	54.05		x	42.1	0.465	0.465	ng/L	
Hg2600-3	BC	CAL	SEQ-CCV5 -	1	8/11/2016 13:13:11	47471-1.RAW -	1:13:11 PM -	547.63			535.7	5.906	5.906	ng/L	
Hg2600-3	BC	CAL	SEQ-CCB5 -	1	8/11/2016 13:17:20	47472-1.RAW -	1:17:20 PM -	59.91			48.0	0.529	0.529	ng/L	

TotalMercury EPA1631
 Operati BC
 Worksh THg2600
 Method #####
 R: 1
 R2:
 Descrip THg26003-160810-1

BlankS: 11.917
 Calib Eqn: 90.7
 Status:

Conc = (Area-11.917) / 1
 QC Warnings:5/QC E
 Run Date: 8/10/2016
 Run Time: 15:10:50
 Blank SD: 4.859873844
 Blank RSD%: 40.78232244
 CF SD: 1.257107378
 CF RSD%: 1.386011407

Sample/ID	Location Rinse	Dilute	Blank	Conc (ppt)	MB%	FinalConc	Rec%	QA	RawData	RunEnd	Peak (Raw)	Control (ef)	Flags	RunCount
clean			0.00	1.23					47396-1.RAW	7:47:11	111.21	Clean	OK	1
clean									47397-1.RAW	7:50:03	0.00	Clean	NP	1
ws			11.92	0.00					47398-1.RAW	7:54:11	10.02	Sample	OK	1
ws			11.92	0.00					47399-1.RAW	7:58:19	6.26	Sample	OK	1
ws			11.92	0.00					47400-1.RAW	8:02:28	7.48	Sample	OK	1
SEQ-IBL1	A1	1	0.00	0.19					47401-1.RAW	8:06:36	16.87	Sample	OK	1
SEQ-IBL2	A2	1	0.00	0.13					47402-1.RAW	8:10:45	11.72	Sample	OK	1
SEQ-IBL3	A3	1	0.00	0.08					47403-1.RAW	8:14:53	7.16	Sample	OK	1
SEQ-CAL1	A4	1	11.92	0.50			99.84		47404-1.RAW	8:19:01	57.20	Sample	OK	1
SEQ-CAL2	A5	1	11.92	1.02			102.41		47405-1.RAW	8:23:10	104.81	Sample	OK	1
SEQ-CAL3	A6	1	11.92	4.95			99.09		47406-1.RAW	8:27:18	461.27	Sample	OK	1
SEQ-CAL4	A7	1	11.92	19.82			99.12		47407-1.RAW	8:31:27	1809.88	Sample	OK	1
SEQ-CAL5	A8	1	11.92	39.82			99.54		47408-1.RAW	8:35:35	3623.13	Sample	FB	1
SEQ-ICV1	A9	1	11.92	5.42			108.34		47409-1.RAW	8:39:44	503.23	Sample	OK	1
F608263-BLK1	A10	1	11.92	0.06					47410-1.RAW	8:48:42	16.96	Sample	OK	1
F608263-BLK2	A11	1	11.92	0.00					47411-1.RAW	8:52:50	9.75	Sample	OK	1
F608263-BLK3	A12	1	11.92	0.01					47412-1.RAW	8:56:59	12.80	Sample	OK	1
F608263-BLK4	B1	1	11.92	0.00					47413-1.RAW	9:01:07	10.75	Sample	OK	1
F608263-BS1	B2	1	11.92	15.18					47414-1.RAW	9:05:15	1388.49	Sample	OK	1
F608263-BSD1	B3	1	11.92	15.39					47415-1.RAW	9:09:24	1408.12	Sample	OK	1
1607542-01	B4	1	11.92	0.75					47416-1.RAW	9:13:32	80.27	Sample	OK	1
1607542-02	B5	1	11.92	0.22					47417-1.RAW	9:17:41	32.16	Sample	OK	1
1607542-03	B6	1	11.92	0.65					47418-1.RAW	9:21:49	70.81	Sample	OK	1
1607542-04	B7	1	11.92	0.62					47419-1.RAW	9:25:58	68.15	Sample	OK	1
SEQ-CCV1	B8	1	11.92	5.24			104.77		47420-1.RAW	9:30:06	487.07	Sample	OK	1
SEQ-CCB1	B9	1	11.92	0.00			0.00		47421-1.RAW	9:34:14	10.59	Sample	OK	1
1607542-05	B10	1	11.92	0.94					47422-1.RAW	9:38:23	97.04	Sample	OK	1
1607542-06	B11	1	11.92	1.17					47423-1.RAW	9:42:31	117.97	Sample	OK	1
1607542-07	B12	1	11.92	0.04					47424-1.RAW	9:46:40	15.99	Sample	OK	1
1607542-09	C1	1	11.92	0.00					47425-1.RAW	9:50:48	7.42	Sample	OK	1
1607586-19	C2	1	11.92	1.44					47426-1.RAW	9:54:56	142.24	Sample	OK	1
1607586-20	C3	1	11.92	0.51					47427-1.RAW	9:59:05	58.46	Sample	OK	1
1607586-21	C4	1	11.92	0.03					47428-1.RAW	10:03:13	14.74	Sample	OK	1
1607805-01	C5	10	11.92	20.28					47429-1.RAW	10:07:22	195.88	Sample	OK	1
1607805-02	C6	1	11.92	1.81					47430-1.RAW	10:11:30	176.11	Sample	OK	1
1608038-01	C7	1	11.92	0.14					47431-1.RAW	10:15:38	24.97	Sample	OK	1
SEQ-CCV2	C8	1	11.92	5.43			108.54		47432-1.RAW	10:19:47	504.12	Sample	OK	1
SEQ-CCB2	C9	1	11.92	0.00			0.00		47433-1.RAW	10:23:55	11.34	Sample	OK	1
1608109-01	C10	1	11.92	0.13					47434-1.RAW	10:28:04	23.42	Sample	OK	1
1608109-03	C11	1	11.92	7.00					47435-1.RAW	10:32:12	646.58	Sample	OK	1
1608109-05	C12	1	11.92	3.81					47436-1.RAW	10:36:21	357.89	Sample	OK	1
1608109-07	D1	1	11.92	0.11					47437-1.RAW	10:40:29	21.87	Sample	OK	1
1608109-09	D2	1	11.92	2.92					47438-1.RAW	10:44:37	276.68	Sample	OK	1
1608109-11	D3	1	11.92	2.72					47439-1.RAW	10:48:46	258.35	Sample	OK	1
F608263-MS1	D4	1	11.92	6.46			173.92		47440-1.RAW	10:52:54	598.26	Sample	OK	1

F608263-MSD1	D5	1	11.92	6.42		47441-1.RAW	10:57:03	593.92	Sample	OK	1
F608263-MS2	D6	1	11.92	7.11	84.43	47442-1.RAW	11:01:11	656.47	Sample	OK	1
F608263-MSD2	D7	1	11.92	7.23		47443-1.RAW	11:05:19	667.95	Sample	OK	1
SEQ-CCV3	D8	1	11.92	5.64	112.70	47444-1.RAW	11:09:28	523.03	Sample	OK	1
SEQ-CCB3	D9	1	11.92	0.12	0.00	47445-1.RAW	11:13:36	22.54	Sample	OK	1
F608263-DUP1	D10	1	11.92	0.75		47446-1.RAW	11:17:45	80.30	Sample	OK	1
F608233-BLK1	D11	100	11.92	7.93		47447-1.RAW	11:21:53	19.11	Sample	OK	1
F608233-BLK2	D12	100	11.92	9.16		47448-1.RAW	11:26:01	20.22	Sample	OK	1
F608233-BLK3	A1	100	11.92	4.49		47449-1.RAW	11:30:10	15.99	Sample	OK	1
F608233-BS1	A2	500	11.92	2051.14		47450-1.RAW	11:34:18	383.99	Sample	OK	1
F608233-BSD1	A3	500	11.92	2043.15		47451-1.RAW	11:38:27	382.54	Sample	OK	1
1608154-14	A4	100	11.92	46.71		47452-1.RAW	11:42:35	54.28	Sample	OK	1
1608154-15	A5	2500	11.92	3556205.20		47453-1.RAW	11:46:44	129030.53	Sample	OLFB	1
WS			11.92	2.06		47454-1.RAW	11:56:28	198.79	Sample	OK	1
CLEAN			0.00	0.30		47455-1.RAW	12:00:49	26.87	Clean	OK	1
WS			11.92	0.66		47456-1.RAW	12:04:58	71.60	Sample	OK	1
WS			11.92	0.38		47457-1.RAW	12:09:06	46.09	Sample	OK	1
WS			11.92	0.30		47458-1.RAW	12:13:15	38.76	Sample	OK	1
WS			11.92	0.32		47459-1.RAW	12:17:23	40.74	Sample	OK	1
WS			11.92	0.30		47460-1.RAW	12:21:31	39.50	Sample	OK	1
WS			11.92	0.22		47461-1.RAW	12:25:40	32.14	Sample	OK	1
1608154-21	A6	2500	11.92	4249785.98		47462-1.RAW	12:29:48	154193.54	Sample	OLFB	1
1608154-25	A7	2500	11.92	12353.62		47463-1.RAW	12:39:32	460.10	Sample	OK	1
SEQ-CCV4	A8	1	11.92	6.85	136.95	47464-1.RAW	12:43:41	633.00	Sample	OK	1
SEQ-CCB4	A9	1	11.92	0.93	0.00	47465-1.RAW	12:47:49	96.17	Sample	OK	1
ws			11.92	4.48		47467-1.RAW	12:56:38	418.23		OK	1
ws			11.92	0.56		47468-1.RAW	13:00:46	62.89	Sample	OK	1
WS			11.92	0.48		47469-1.RAW	13:04:55	55.65	Sample	OK	1
WS			11.92	0.46		47470-1.RAW	13:09:03	54.05	Sample	OK	1
SEQ-CCV5	C1	1	11.92	5.91	118.13	47471-1.RAW	13:13:11	547.63	Sample	OK	1
SEQ-CCB6	C2	1	11.92	0.53	0.00	47472-1.RAW	13:17:20	59.91	Sample	OK	1
1608154-15RE1	A10	1E+06	11.92	4181110.18		47466-2.RAW	13:24:03	315.30	Sample	OK	1
1608154-16	A11	1E+06	11.92	1581794.68		47473-1.RAW	13:28:12	126.69	Sample	OK	1
1608154-17	A12	1E+06	11.92	2779216.58		47474-1.RAW	13:32:20	213.58	Sample	OK	1
1608154-18	B1	1E+06	11.92	1696374.50		47475-1.RAW	13:36:28	135.01	Sample	OK	1
1608154-19	B2	1E+06	11.92	1209469.63		47476-1.RAW	13:40:37	99.68	Sample	OK	1
1608154-20	B3	1E+06	11.92	374885.02		47477-1.RAW	13:44:45	39.12	Sample	OK	1
CLEAN						47478-1.RAW	13:47:37	0.00	Clean	NP	1
CLEAN			0.00	0.17		47479-1.RAW	13:50:28	15.39	Clean	OK	1
CLEAN			0.00	0.20		47480-1.RAW	13:53:19	18.48	Clean	OK	1
WS			11.92	0.36		47481-1.RAW	13:57:28	44.23	Sample	OK	1
WS			11.92	0.22		47482-1.RAW	14:01:36	31.59	Sample	OK	1
WS			11.92	0.21		47483-1.RAW	14:05:45	31.22	Sample	OK	1
WS			11.92	3.80		47484-1.RAW	14:09:53	356.51	Sample	OK	1
CLEAN						47485-1.RAW	14:12:44	0.00	Clean	NP	1
WS			11.92	0.05		47486-1.RAW	14:16:53	16.46	Sample	OK	1
WS			11.92	0.60		47487-1.RAW	14:21:01	66.74	Sample	OK	1
WS			11.92	0.30		47488-1.RAW	14:25:10	39.41	Sample	OK	1
WS			11.92	0.20		47489-1.RAW	14:29:18	30.51	Sample	OK	1
WS			11.92	0.27		47490-1.RAW	14:33:26	36.67	Sample	OK	1

SEQ-CCB5
DHW
8-11-16

WS	11.92	0.25	47491-1.RAW	14:37:35	34.51	Sample	OK	1
WS	11.92	0.29	47492-1.RAW	14:41:43	38.07	Sample	OK	1
WS	11.92	0.33	47493-1.RAW	14:45:52	42.14	Sample	OK	1
WS	11.92	0.37	47494-1.RAW	14:50:00	45.63	Sample	OK	1
WS	11.92	0.28	47495-1.RAW	14:54:09	37.58	Sample	OK	1
WS	11.92	0.31	47496-1.RAW	14:58:17	39.95	Sample	OK	1
jk			47497-1.RAW	15:13:42	3.97	Clean	OK	1
Clean			47498-1.RAW	15:16:33	0.00	Clean	NP	1
Clean			47499-1.RAW	15:19:25	0.00	Clean	NP	1
Clean			47500-1.RAW	15:22:16	14270.57	Clean	FB	1
Clean			47501-1.RAW	15:25:07	0.00	Clean	NP	1
Clean			47502-1.RAW	15:27:59	24.27	Clean	OK	1
Clean			47503-1.RAW	15:30:50	247.41	Clean	OK	1
Clean			47504-1.RAW	15:33:41	0.00	Clean	NP	1

Failing Data Report - 6H11005

Sample ID	Analysis	Result	MRL	Dup Result	Source Result	True Value	Units	% Rec.	Rec. LCL	Rec. UCL	RPD	RPD Limit	Over Cal	Failure	Qualifier
6H11005-CCV4	Hg-CVAFS-W-1631	6.85	0.495			5.0000	ng/L	137	77.00	123.00			PASS-OVER	FAIL-CCV	re run
6H11005-CCB4	Hg-CVAFS-W-1631	0.93	0.495				ng/L						PASS-OVER	FAIL-CCB	re run
6H11005-CCB5	Hg-CVAFS-W-1631	0.53	0.495				ng/L						PASS-OVER	FAIL-CCB	failed


 Analyst Reviewed By _____

 Date _____


 Peer Reviewed By _____

 Date _____

ANALYSIS SEQUENCE

6H11005

Instrument: Hg2600-3

Calibration ID: UNASSIGNED

Analyzed: 8/10/2016

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
6H11005-IBL1	QC	1			
6H11005-IBL2	QC	2			
6H11005-IBL3	QC	3			
6H11005-CAL1	QC	4	1603274		
6H11005-CAL2	QC	5	1603275		
6H11005-CAL3	QC	6	1603276		
6H11005-CAL4	QC	7	1603277		
6H11005-CAL5	QC	8	1603278		
6H11005-ICV1	QC	9	1603625		
F608263-BLK1	QC	10			
F608263-BLK2	QC	11			
F608263-BLK3	QC	12			
F608263-BLK4	QC	13			
F608263-BS1	QC	14			
F608263-BSD1	QC	15			
1607542-01	Hg-CVAFS-W-1631	16			Scan all data for level IV report
1607542-02	Hg-CVAFS-W-1631	17			Scan all data for level IV report
1607542-03	Hg-CVAFS-W-1631	18			Scan all data for level IV report
1607542-04	Hg-CVAFS-W-1631	19			Scan all data for level IV report
6H11005-CCV1	QC	20	1603625		
6H11005-CCB1	QC	21			
1607542-05	Hg-CVAFS-W-1631	22			Scan all data for level IV report
1607542-06	Hg-CVAFS-W-1631	23			Scan all data for level IV report
1607542-07	Hg-CVAFS-W-1631	24			Scan all data for level IV report
1607542-09	Hg-CVAFS-W-1631	25			Scan all data for level IV report
1607586-19	Hg-CVAFS-W-1631	26			Scan all data - Level IV
1607586-20	Hg-CVAFS-W-1631	27			Scan all data - Level IV
1607586-21	Hg-CVAFS-W-1631	28			Scan all data - Level IV
1607805-01	Hg-CVAFS-W-1631	29			Scan all data - Level IV
1607805-02	Hg-CVAFS-W-1631	30			Scan all data - Level IV
1608038-01	Hg-CVAFS-W-1631	31			Do not oven samples (CCV 90-110%, CCB <), <1/2 PQL
6H11005-CCV2	QC	32	1603625		
6H11005-CCB2	QC	33			
1608109-01	Hg-CVAFS-W-1631	34			
1608109-03	Hg-CVAFS-W-1631	35			

Due Date: 8/11/2016

ANALYSIS SEQUENCE

6H11005

Instrument: Hg2600-3

Calibration ID: UNASSIGNED

Analyzed: 8/10/2016

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
1608109-05	Hg-CVAFS-W-1631	36			
1608109-07	Hg-CVAFS-W-1631	37			
1608109-09	Hg-CVAFS-W-1631	38			
1608109-11	Hg-CVAFS-W-1631	39			
F608263-MS1	QC	40			
F608263-MSD1	QC	41			
F608263-MS2	QC	42			
F608263-MSD2	QC	43			
6H11005-CCV3	QC	44	1603625		
6H11005-CCB3	QC	45			
F608263-DUP1	QC	46			
6H11005-CCV4	QC	47	1603625		
6H11005-CCB4	QC	48			
6H11005-CCV5	QC	49	1603625		
6H11005-CCB5	QC	50			

[Signature] 8/11/16
 Samples Loaded By Date

[Signature] 8/11/16
 Data Processed By Date

109322 8/10/16

Due Date: 8/11/2016

PREPARATION BENCH SHEET

F608263

Eurofins Frontier Global Sciences, Inc.

Matrix: Water

Prepared using: AFS - EPA 1631E BrCl Oxidation

Prepared: 8/10/2016

Lab Number	Sample ID and Source Sample	Initial (mL)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F608263-BLK1	Blank	100	101					Source:1607542-08
F608263-BLK2	Blank	100	101					Source:1607542-08
F608263-BLK3	Blank	100	101					Source:1607542-08
F608263-BLK4	Blank	100	102					
F608263-BS1	LCS	50	50.5	1505246	100			
F608263-BSD1	LCS Dup	50	50.5	1505246	100			
F608263-DUP1	Duplicate [1607542-01]	100	101					
F608263-MS1	Matrix Spike [1607542-06]	49.50495	50	1603190	25			[Spk] 100mL->101mL; 101mL->101mL; Spiked 50mL
F608263-MS2	Matrix Spike [1607805-02]	49.50495	50	1603190	25			[Spk] 100mL->101mL; 101mL->101mL; Spiked 50mL
F608263-MSD1	Matrix Spike Dup [1607542-06]	49.50495	50	1603190	25			[Spk] 100mL->101mL; 101mL->101mL; Spiked 50mL
F608263-MSD2	Matrix Spike Dup [1607805-02]	49.50495	50	1603190	25			[Spk] 100mL->101mL; 101mL->101mL; Spiked 50mL

Standard ID(s):

Description:

Expiration:

1505246
1603190

Nist 1641D 200X
THg 10ng/mL Calibration Standard

20-Aug-16 00:00
15-Sep-16 00:00

PREPARATION BENCH SHEET

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Eurofins Frontier Global Sciences, Inc.

Matrix: Water

Prepared using: AFS - EPA 1631E BrCl Oxidation

Prepared: 8/10/2016

Lab Number	Sample ID	Initial (mL)	Final (mL)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1607542-01	OL-2434-01	100	101	-	-	-	Scan all data for level IV report	
1607542-02	OL-2434-01 Dissolved	100	101	-	-	-	Scan all data for level IV report	
1607542-03	OL-2434-02	100	101	-	-	-	Scan all data for level IV report	
1607542-04	OL-2434-03	100	101	-	-	-	Scan all data for level IV report	
1607542-05	OL-2434-04	100	101	-	-	-	Scan all data for level IV report	
1607542-06	OL-2434-05	100	101	-	-	-	Scan all data for level IV report	
1607542-07	OL-2434-06	100	101	-	-	-	Scan all data for level IV report	
1607542-09	Laboratory Filter Blank	100	101	-	-	-	Scan all data for level IV report	
1607586-19	1532 WQ-FPT_071816_SW_10	100	101	-	-	-	Scan all data - Level IV	
1607586-20	1532 WQ-FPT_071816_SW_10 Dissolved	100	101	-	-	-	Scan all data - Level IV	
1607586-21	1533 EB_071916_SW_QC Dissolved	100	101	-	-	-	Scan all data - Level IV	
1607805-01	ADD-02_072216_SW_10	100	102	-	-	-	Scan all data - Level IV	
1607805-02	ADD-02_072216_SW_10 Dissolved	100	101	-	-	-	Scan all data - Level IV	
1608038-01	August 2016 Monthly Water ICPMS Sink 1	100	101	-	-	-	Do not oven samples (CCV 90-110%, t	
1608109-01	C141742 003 Blank	100	101	-	-	-		
1608109-03	C142057 003	100	101	-	-	-		
1608109-05	C142063 003 DUP	100	101	-	-	-		
1608109-07	C142061 001 Blank	100	101	-	-	-		
1608109-09	C141746 001	100	101	-	-	-		

PREPARATION BENCH SHEET

F608263

Eurofins Frontier Global Sciences, Inc.

Matrix: Water

Prepared using: AFS - EPA 1631E BrCl Oxidation

Prepared: 8/10/2016

1608109-11	Bottle 1 001 DUP	100	101	-	-	-		
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PREPARATION BENCH SHEET

F608263

Eurofins Frontier Global Sciences, Inc.

Matrix: Water

Prepared using: AFS - EPA 1631E BrCl Oxidation

Prepared: 8/10/2016

Lab Number	Sample ID and Source Sample	Initial (mL)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F608263-BLK1	Blank	100	101					IV
F608263-BLK2	Blank	100	101					IX
F608263-BLK3	Blank	100	101					IX
F608263-BS1	LCS	100	101	1505246	100			IX
F608263-BSD1	LCS Dup	100	101	1505246	100			IX
F608263-DUP1	Duplicate 1608542-01	100	101					IX
F608263-MS1	Matrix Spike 1608542-06	100	101	1603140	25			IX
F608263-MS2	Matrix Spike 1607805-02	100	101	1603140	25			IX
F608263-MSD1	Matrix Spike Dup 1608542-06	100	101	1603140	25			IX
F608263-MSD2	Matrix Spike Dup 1608205	100	101	1603140	25			X

1607805-02

Standard ID(s): Description:

Expiration:

Blk 4 2% 100 102 IX

1602941
1603825
1603826
1603827
1604289

PREPARATION BENCH SHEET

F608263

Eurofins Frontier Global Sciences, Inc.

Matrix: Water

Prepared using: AFS - EPA 1631E BrCl Oxidation

Prepared: 8/10/2016

Lab Number	Sample ID	Initial (mL)	Final (mL)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1607542-01	OL-2434-01	100	101	-	-	-	Scan all data for level IV report IX	
1607542-02	OL-2434-01 Dissolved	100	101	-	-	-	Scan all data for level IV report IX	
1607542-03	OL-2434-02	100	101	-	-	-	Scan all data for level IV report IX	
1607542-04	OL-2434-03	100	101	-	-	-	Scan all data for level IV report IX	
1607542-05	OL-2434-04	100	101	-	-	-	Scan all data for level IV report IX	
1607542-06	OL-2434-05	100	101	-	-	-	Scan all data for level IV report IX	
1607542-07	OL-2434-06	100	101	-	-	-	Scan all data for level IV report IX	
1607542-09	Laboratory Filter Blank	100	101	-	-	-	Scan all data for level IV report IX	
1607586-19	1532 WQ-FPT_071816_SW_10	100	101	-	-	-	Scan all data - Level IV IX	
1607586-20	1532 WQ-FPT_071816_SW_10 Dissolved	100	101	-	-	-	Scan all data - Level IV IX	
1607586-21	1533 EB_071916_SW_QC Dissolved	100	101	-	-	-	Scan all data - Level IV IX	
1607805-01	ADD-02_072216_SW_10	100	101	-	-	-	Scan all data - Level IV IX	
1607805-02	ADD-02_072216_SW_10 Dissolved	100	101	-	-	-	Scan all data - Level IV IX	
1608038-01	August 2016 Monthly Water ICPMS Sink 1	100	101	-	-	-	Do not oven samples (CCV 90-110%, t IX	
1608109-01	C141742 003 Blank	100	101	-	-	-	IX	
1608109-03	C142057 003	100	101	-	-	-	IX	
1608109-05	C142063 003 DUP	100	101	-	-	-	IX	
8109-07	C142061 001 Blank	100	101	-	-	-	IX	
8109-09	C141746 001	100	101	-	-	-	IX	

SS16

SS17

SS17

SS18

SS33

Page 29 of 162

Date: 8/11/2016

PREPARATION BENCH SHEET

F608263

Eurofins Frontier Global Sciences, Inc.

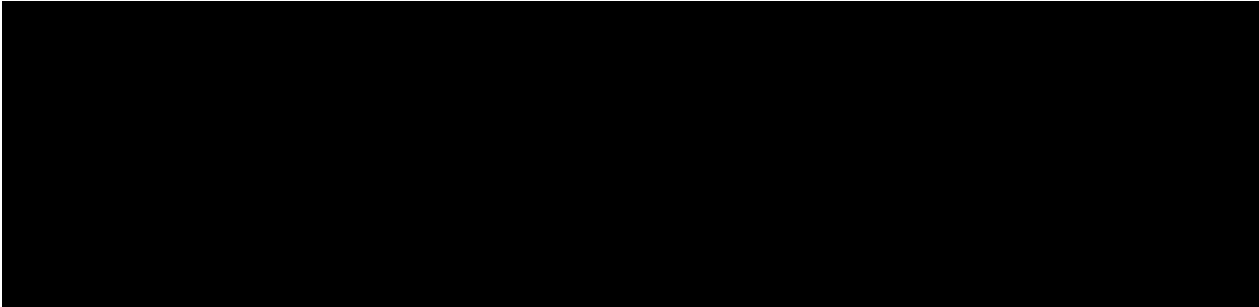
Matrix: Water

Prepared using: AFS - EPA 1631E BrCl Oxidation

Prepared: 8/10/2016

1608109-11	Bottle 1 001 DUP	100	101	-	-	-	ix	
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SS33



Total Mercury Preservation Logbook

Initial preservation and/or verification

Technician: LMM Date: 7/20/16 Time Completed: 16:50

Work Orders: 1607537, 1607538
1607539, 1607540, 1607542
1607544

Additional preservation and/or verification (as needed)

Technician: _____ Date: _____ Time Completed: _____

Technician: _____ Date: _____ Time Completed: _____

BrCl LIMS ID: 1603196

Pipette SN: MU32229

Cal. Date: 7/8/16

Sample ID	Sample Volume (mL)	Reagent added (mL)	Oxidized? Y/N	Additional preservation (as needed)		
				Oxidized? Y/N	Reagent added (mL)	Oxidized? Y/N
1607537-01A	300	3.00	Y			
1607537-02A	300	3.00	Y			
1607537-03A	300	3.00	Y			
1607538-01A	300	3.00	Y			
1607538-02A	300	3.00	Y			
1607538-03A	300	3.00	Y			
1607539-01A	300	3.00	Y			
1607539-02A	300	3.00	Y			
1607539-03A	300	3.00	Y			
1607539-04A	300	3.00	Y			
1607539-05A	300	15.00	Y			
1607539-06A	300	3.00	Y			
1607540-01A	255	2.55	Y			
1607542-01A	170	1.70	Y			
1607542-02A	150	1.50	Y			
1607542-03A	300	3.00	Y			
1607542-04A	300	3.00	Y			
1607542-05A	300	3.00	Y			
1607542-06A	300	3.00	Y			
1607542-07A	300	3.00	Y			
1607542-08A	300	3.00	Y			
1607542-09A	300	3.00	Y			
1607544-01A	300	3.00	Y			
1607544-02A	300	3.00	Y			
1607544-03A	300	3.00	Y			
1607544-04A	300	3.00	Y			

Oxidation with BrCl is confirmed by a yellow color change of the sample and/or a purple color change in KI starch paper.

Comments: _____

Reviewed
2/21

Total Mercury Preservation Logbook

Initial preservation and/or verification

Technician: LM Date: 7/21/16 Time Completed: 17:45

Work Orders: 1607586

Additional preservation and/or verification (as needed)

Technician: _____ Date: _____ Time Completed: _____

Technician: _____ Date: _____ Time Completed: _____

BrCl LIMS ID: 1603196

Pipette SN: MU32229

Cal. Date: 7/19/16

Sample ID	Sample Volume (mL)	Reagent added (mL)	Oxidized? Y/N	Additional preservation (as needed)		
				Oxidized? Y/N	Reagent added (mL)	Oxidized? Y/N
1607586-01A	300	3.00	Y			
1607586-02A	300	3.00	Y			
1607586-03A	300	3.00	Y			
1607586-04A	300	3.00	Y			
1607586-05A	300	3.00	Y			
1607586-06A	300	3.00	Y			
1607586-07A	300	3.00	Y			
1607586-08A	300	3.00	Y			
1607586-09A	300	3.00	Y			
1607586-10A	300	3.00	Y			
1607586-11A	300	3.00	Y			
1607586-12A	300	3.00	Y			
1607586-13A	300	3.00	Y			
1607586-14A	300	3.00	Y			
1607586-15A	300	3.00	Y			
1607586-16A	300	3.00	Y			
1607586-17A	300	3.00	Y			
1607586-18A	300	3.00	Y			
1607586-19A	300	3.00	Y			
1607586-20A	300	3.00	Y			
1607586-21A	300	3.00	Y			
LM 7/21/16						

Oxidation with BrCl is confirmed by a yellow color change of the sample and/or a purple color change in KI starch paper.

Comments: _____

Reviewed

Total Mercury Preservation Logbook

Initial preservation and/or verification

Technician: CSP Date: 7/27/16 Time Completed: 1715

Work Orders: 1607799, 1607803

~~CSP 1607803~~ 1607805
7/27/16

Additional preservation and/or verification (as needed)

Technician: _____ Date: _____ Time Completed: _____

Technician: _____ Date: _____ Time Completed: _____

BrCl LIMS ID: 1603126

Pipette SN: MU32229

Cal. Date: 7/18/16

Sample ID	Sample Volume (mL)	Reagent added (mL)	Oxidized? Y/N	Additional preservation (as needed)		
				Oxidized? Y/N	Reagent added (mL)	Oxidized? Y/N
1607799-01 A	300	3.00	y			
1607799-02 A	300	3.00	y			
1607799-03 A	300	3.00	y			
1607799-04 A	300	3.00	y			
1607799-05 A	300	15.00	y			
1607799-06 A	300	3.00	y			
1607803-01 A	300	3.00	y			
1607803-02 A	300	3.00	y			
1607803-03 A	300	3.00	y			
1607803-04 A	300	3.00	y			
1607803-05 A	300	3.00	y			
1607803-06 A	300	3.00	y			
1607803-07 A	300	3.00	y			
1607805-01 A	300	3.00 + 3.00	y			
1607805-02 A	300	3.00	y			
CSP 7/21/16						

Oxidation with BrCl is confirmed by a yellow color change of the sample and/or a purple color change in KI starch paper.

Comments: _____

Reviewed
7/29/16 on

Total Mercury Preservation Logbook

Initial preservation and/or verification

Technician: LIM Date: 8/1/16 Time Completed: 16:35

Work Orders: 1608034
1608038

Additional preservation and/or verification (as needed)

Technician: _____ Date: _____ Time Completed: _____
Technician: _____ Date: _____ Time Completed: _____

BrCl LIMS ID: 1603196
Pipette SN: MU32229
Cal. Date: 7/29/16

Sample ID	Sample Volume (mL)	Reagent added (mL)	Oxidized? Y/N	Additional preservation (as needed)		
				Oxidized? Y/N	Reagent added (mL)	Oxidized? Y/N
1608034-01A	300	3.00	Y			
1608034-02A	300	3.00	Y			
1608034-03A	300	3.00	Y			
1608038-01A	260	2.60	Y			
<div style="border: 1px solid black; width: 100%; height: 100%; transform: rotate(45deg); opacity: 0.5;"></div> <p>LIM 8/1/16</p>						

Oxidation with BrCl is confirmed by a yellow color change of the sample and/or a purple color change in KI starch paper.

Comments: _____

Reviewed
8/2/16

Total Mercury Preservation Logbook

Initial preservation and/or verification

Technician: CSJ Date: 8/3/16 Time Completed: 1750

Work Orders: 1608109, 1608114
1608113, 1608108, 1608071

Additional preservation and/or verification (as needed)

Technician: _____ Date: _____ Time Completed: _____
 Technician: _____ Date: _____ Time Completed: _____

BrCl LIMS ID: ~~MU3222A~~ 1603196
1603825
 Pipette SN: MU32229
 Cal. Date: 7/29/16

Sample ID	Sample Volume (mL)	Reagent added (mL)	Oxidized? Y/N	Additional preservation (as needed)		
				Oxidized? Y/N	Reagent added (mL)	Oxidized? Y/N
1608109-01A	600	6.00	y			
1608109-03A	600	6.00	y			
1608109-05A	600	6.00	y			
1608109-07A	600	6.00	y			
1608109-09A	600	6.00	y			
1608109-11A	600	6.00	y			
1608113-01A	170	1.70	y			
1608113-02A	150	1.50	y			
1608113-03A	300	3.00	y			
1608113-04A	300	3.00	y			
1608113-05A	170	1.70	y			
1608113-06A	160	1.60	y			
1608113-07A	300	3.00	y			
1608113-08A	300	3.00	y			
1608113-09A	300	3.00	y			
1608113-10A	300	3.00	y			
1608108-01A	300	3.00	y			
1608108-02A	3.00 ^{CSJ 8/3/16} 300	3.00	y			
1608108-03A	3.00 ^{CSJ 8/3/16} 300	3.00	y			
1608108-05A	300	15.00	y			
1608108-04A	3.00 ^{CSJ 8/3/16} 300	3.00	y			
1608108-06A	3.00 ^{CSJ 8/3/16} 300	3.00	y			
1608071-12	150	1.50	y			
1608071-13	150	1.50	y			
1608071-14	150	1.50	y			
1608114-01B	10	10.00	y			

Oxidation with BrCl is confirmed by a yellow color change of the sample and/or a purple color change in KI starch paper.

Comments: * 50/50 BrCl using BrCl 1603825 - sample spiked in temperature

Peer Review Check List for THg by 2600 CV-AFS (FGS-121) 2016 Rev 1 (04/1/2016)

Analyst:	BC	Sequence(s) #:	6H11005
Reviewer:		Dataset ID(s):	THg26003-160810-1
Date:	8/11/2016	WO (s) #:	1607542, 1607586, 1607805, 1608038, 1608109
Batch #(s):	F608263		

• Select the correct preparation method.

Analyte	Prep Method		Matrix
<input type="checkbox"/> THg	EFAFS-T-AFS-SOP2985	FSTM Trap 70:30 Digest	Air/Gas
<input type="checkbox"/> THg	EFAFS-T-AFS-SOP2807	Modified Cold Aqua Regia	Sed/Soil
<input type="checkbox"/> THg	EFAFS-T-AFS-SOP2821	Shared Bomb- HF/HNO3/HCl Digest	Sed/Soil
<input type="checkbox"/> THg	EFTM-T-TM-SOP2825	Nitric Acid Oven Bomb	Sed/Soil
<input type="checkbox"/> THg	EFAFS-T-AFS-SOP2795	70:30 Digest	Tissue
<input type="checkbox"/> THg	EFAFS-T-AFS-SOP2800	KCl Trap BrCl Oxidation	Air/Gas
<input type="checkbox"/> THg	EFTM-T-TM-SOP2837	Shared Nitric	Tissue
<input checked="" type="checkbox"/> THg	EFSR-P-SP-SOP2796	BrCl Oxidation	Water
<input type="checkbox"/> Hg0	NA	NA	Water
<input type="checkbox"/> Inorg Hg	NA	NA	Water

Analyst Initials: BC

Reviewer Initials: DMW

- | | | | |
|---|---|--|---|
| 1. Compare SampleID with Benchsheet/Sequence/Raw Data (Have all samples been imported?) | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> |
| 2. Check for transcription errors from Excel spreadsheet (or Prep Benchsheet)/Raw data | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> |
| (a) On raw data (instrument print-out), does correct file (dataset ID#) name appear in description? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> |
| Naming convention: THg26001-yymmdd-1 or THg26002-yymmdd-1 | | | |
| (b) Check 5% of transcription from Instrument print-out and Excel file | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> |
| Compare the "Dilute" and "Peak (raw)" columns to "Dilution" and "Uncorrected Result" in Excel | | | |
| (c) Check standards & reagents in sequence & bench sheet for correct usage (expiries). | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input type="checkbox"/> N/A <input checked="" type="checkbox"/> |
| (d) Check and compare masses (review prep benchsheet) | <input type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> N/A <input checked="" type="checkbox"/> |
| (e) Check & compare initial & final volumes | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input type="checkbox"/> N/A <input checked="" type="checkbox"/> |
| (f) Do aliquots and dilutions written on benchsheet match those in Excel? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input type="checkbox"/> N/A <input checked="" type="checkbox"/> |
| 50 ml / aliquot = Excel dilution value | | | |
| (g) Is the sequence #, analyst, date, and instrument # on the QC page? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> |
| (h) Is the analysis status correct? (analyzed/initial review/reviewed) | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> |
| (i) Original prep bench sheet added to data package? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> |
| (j) Benchsheet prep date MUST match actual prep date (check if re-shot vs re-extract) | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> |
| 3. High QA? WO#(s)/Client(s): _____ | <input type="checkbox"/> YES | <input checked="" type="checkbox"/> NO | <input checked="" type="checkbox"/> |
| 4. Client specific QC? (if Yes, refer to Project Notes/LIMS) | <input type="checkbox"/> YES | <input checked="" type="checkbox"/> NO | <input checked="" type="checkbox"/> |
| (a) Have the QC requirements been met for all WO#s? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> |
| (b) Prep blanks corrections/assigned properly | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> |
| 5a. 20 or fewer samples in batch? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> |
| (i) 3 PBs, 1 LCS(or BS), 1 LCSD(or BSD), 1 DUP/Batch 1 MS/MSD (or AS/ASD)/10 samples? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> |
| (ii) 1 CCV and 1 CCB every 10 analytical runs? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> |

Peer Review Check List for THg by 2600 CV-AFS (FGS-121) 2016 Rev 1 (04/1/2016)

Analyst:	BC	Sequence(s) #:	6H11005
Reviewer:	0	Dataset ID(s):	THg26003-160810-1
Date:	8/11/2016	WO (s) #:	1607542, 1607586, 1607805, 1608038, 1608109
Batch #(s):	F608263		0

Analyst Initials BC Reviewer Initials DMW

- 5b. Has the B/C section data been uploaded? YES NO N/A
- QA/QC Data Checked**
6. RSD CF (≤ 15%) PASS FAIL
 Comments: _____
7. The calibration curve included a minimum of 5 Standards YES NO
 Comments: _____
8. 1st Calibration Standard % Recoveries EPA 1631E (75-125%) PASS FAIL
9. ICV and CCV % Recoveries EPA 1631E (77-123%) PASS FAIL
 Comments: _____
10. Do all calibration points pass acceptance criteria? YES NO
 Comments: _____
11. Are qualifiers consistent with the data review flowcharts? YES NO N/A
 Comments: _____
12. Explain any items on the failed data report from Element
 Comments: Closing CCV/CCB Failed, Dup not reportable
13. Are the individual Preparation Blanks < PQL or <2.2xMDL for WI (refer to appropriate prep method PQL list) PASS FAIL
 (a) If not < PQL or <2.2xMDL for WI, note which PB(s) are above control limit:
 (b) Is the mean PB < PQL or <2.2xMDL for WI (for appropriate qualification)? YES NO
 (c) Was a BrCl Blank analyzed for each preservation level? YES NO N/A
 (d) Are Preparation Blanks summarized on QC page? YES NO
14. Filtration Blank Prepared (if yes, use FB qualifier) YES NO
 (a) Filtration Blank prep date same as associated samples' prep date YES NO N/A
 (b) Filtration Blank absolute value < PQL or <2.2xMDL for WI YES NO N/A
15. IBLs (3 minimum) individually < 0.50 ng/L, mean < 0.25 ng/L and STD of 0.10 ng/L? PASS FAIL
 Comments: _____
16. CCBs individually < 0.50 ng/L or 2.2 x MDL for WI? PASS FAIL
 Comments: _____
17. Have Total Solids been applied? (If NO, please ensure that they are done or nearly done) YES NO N/A
18. Is the correct 'Source' designated for MD/MS/MSD? YES NO
19. For digested preps: was there a spike witness signature & date on the prep bench sheet? YES NO N/A

Peer Review Check List for THg by 2600 CV-AFS (FGS-121) 2016 Rev 1 (04/1/2016)

Analyst: BC	Sequence(s) #: 6H11005
Reviewer: 0	Dataset ID(s): THg26003-160810-1
Date: 8/11/2016	WO (s) #: 1607542, 1607586, 1607805, 1608038, 1608109
Batch #(s): F608263	0

Analyst Initials BC **Reviewer Initials** DMW

- | | | | |
|--|--|-------------------------------|---|
| 20. MS/MSD Spiked at least 1-5 X ambient or 5x MRL (whichever is higher) ? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> |
| Comments: _____ | | | |
| 21. Are all samples within instrument calibration range? (or at minimum dilution size) | <input checked="" type="checkbox"/> PASS | <input type="checkbox"/> FAIL | <input checked="" type="checkbox"/> |
| Comments: _____ | | | |
| 22. Are the samples run at the correct dilution level for the method? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> |
| Comments: _____ | | | |
| 23. Dissolved < Total (if applicable) | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input type="checkbox"/> N/A <input checked="" type="checkbox"/> |
| Comments: _____ | | | |
| 24. Effluent < Influent (visually confirm if needed) | <input type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> N/A <input checked="" type="checkbox"/> |
| Comments: _____ | | | |
| 25. Are re-runs noted with reason? | <input type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> N/A <input checked="" type="checkbox"/> |
| Comments: _____ | | | |
| 26. FSTM Datasets: Check to ensure the 'Response' & 'Initial Result' columns match in both the Excel dataset & LIMS for the FSTM A (in sequence) & B/C (in batch) traps? | <input type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> N/A <input checked="" type="checkbox"/> |
| Comments: _____ | | | |
| 27. Is the B trap <5% A Traps | <input type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> N/A <input checked="" type="checkbox"/> |
| Comments: _____ | | | |
| 28. Are spiked trap recoveries 75-125% of true value? | <input type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> N/A <input checked="" type="checkbox"/> |
| Comments: _____ | | | |
| 29. Have non-reportable samples been imported into LIMS and clicked to non-reportable? | <input type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> N/A <input checked="" type="checkbox"/> |
| Comments: _____ | | | |
| 30. Have re-extracts been created for non-reportable samples? | <input type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> N/A <input checked="" type="checkbox"/> |
| 31. Are there any HIGH QA projects within the data? If so, place data package in QA office before scanning. | <input type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> N/A <input checked="" type="checkbox"/> |
| 32. Does the data set need scanning? | <input checked="" type="checkbox"/> YES | | <input type="checkbox"/> N/A <input checked="" type="checkbox"/> |
| 33. Does the dataset have an LOQ/LOQ or DOC? | <input type="checkbox"/> YES | | <input checked="" type="checkbox"/> N/A <input checked="" type="checkbox"/> |
| 34. Water samples: has the preservation log been included in dataset for final volume verification? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input type="checkbox"/> N/A <input checked="" type="checkbox"/> |
| 35. Water samples-is the final volume correct in the sequence? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input type="checkbox"/> N/A <input checked="" type="checkbox"/> |

Files located at: \\Cuprum\gen_admin\Quality Assurance\Training Master\DOCs

- | | | | | |
|---|----------------------------------|---|-----------------------------|-------------------------------------|
| 36. Date of analyst IDOC/CDOC: <u>12/17/15</u> | IDOC/CDOC within last 12 months? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> |
| 37. Date of analyst's SOP reading for method: <u>D4 ISSUE CRT CHECK</u> | Current SOP revision read? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> |
| 38. Date of LOD: <u>6/14/16</u> | LOD within last 3 months? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> |
| 39. Date of LOQ: <u>6/14/16</u> | LOQ within last 3 months? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> |

Data can not be reported without a current IDOC/CDOC, LOD or LOQ.

Peer Review Check List for THg by 2600 CV-AFS (FGS-121) 2016 Rev 1 (04/1/2016)

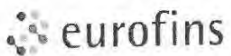
Analyst:	BC	Sequence(s) #:	6H11005
Reviewer:	0	Dataset ID(s):	THg26003-160810-1
Date:	8/11/2016	WO (s) #:	1607542, 1607586, 1607805, 1608038, 1608109
Batch #(s):	F608263		0

40. Peer Reviewer's comments (use Peer Review Checklist Additional Comments form if necessary):

DMW

NO DUP available for Batch, The instrument was spiked from a trap sample in the same bracket which caused the analysis to fail. BC 8/11/16	

Additional Page (s)? YES



Frontier Global Sciences

MMHg27001-160812-1 solids

Analysis Datasheet for Methyl Mercury in Soil/Tissue

Date of Analysis: August 12, 2016

Instrument #: Hg2700-1

LIMS Sequence #: 6H1201210

8/15/16

Analyst: RN

Units ng/L

Calibration Statistics:

LabNumber	n	True Val	Area	Uncorrected Response Factor	Corrected Peak Height	Corrected Response Factor	% Recovery
SEQ-CAL1	1	0.05 ng/L	34.53 units	690.64	32.30 units	646.03	97.5 %Rec
SEQ-CAL2	1	0.20 ng/L	142.05 units	710.25	139.82 units	699.09	105.5 %Rec
SEQ-CAL3	1	1.00 ng/L	551.84 units	551.84	549.61 units	549.61	82.9 %Rec
SEQ-CAL4	1	2.00 ng/L	1315.76 units	657.88	1313.53 units	656.76	99.1 %Rec
SEQ-CAL5	1	4.00 ng/L	3052.84 units	763.21	3050.61 units	762.65	115.1 %Rec
SEQ-CAL6	0						
SEQ-CAL7	0						
SEQ-CAL8	0						
SEQ-CAL9	0						

Corr. Mean RF **Corr. St Dev RF** **Corr. RSD CF** **Uncorr. Mean RF**
 662.83 +/- 78.13 11.8% RSD 674.76

Blanks:

LabNumber	n	Mean	Std Dev	Mean (ng/L)	Std Dev (ng/L)
SEQ-IBL	1	2.23 units		0.00 ng/L	#VALUE!

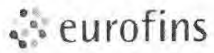
Preparation Blanks

Sample Type	Batch ID	n	Mean	Std Dev
BLK	1	3	0.005 ng/L	±0.004
BLK	2	3	0.013 ng/L	±0.003
BLK	3	0	0.000 ng/L	
BLK	4	0	0.000 ng/L	
BLK	5	0	0.000 ng/L	

QUALITY ASSURANCE
 PEER-REVIEWED
 INITIALS: JH 8/15/16

Instrument	Analyst	Sample		Dilution	Analyzed	FileID	Run End	Uncorrected Response	Batch ID	No PB		RESP	InitialResult	FinalResult	InitialUnits	Comments
		Type	LabNumber							Correction?						
Hg2700-1	RN	CAL	SEQ-1BL1	1	8/12/16 8:27	14252-1.RAW	8:27	2.23				0.0	0.000	0.000	ng/L	
Hg2700-1	RN	CAL	SEQ-CAL1	1	8/12/16 8:38	14253-1.RAW	8:38	34.53				32.3	0.049	0.049	ng/L	
Hg2700-1	RN	CAL	SEQ-CAL2	1	8/12/16 8:48	14254-1.RAW	8:48	142.05				139.8	0.211	0.211	ng/L	
Hg2700-1	RN	CAL	SEQ-CAL3	1	8/12/16 8:59	14255-1.RAW	8:59	551.84				549.6	0.829	0.829	ng/L	
Hg2700-1	RN	CAL	SEQ-CAL4	1	8/12/16 9:09	14256-1.RAW	9:09	1315.76				1313.5	1.982	1.982	ng/L	
Hg2700-1	RN	CAL	SEQ-CAL5	1	8/12/16 9:20	14257-1.RAW	9:20	3052.84				3050.6	4.602	4.602	ng/L	
Hg2700-1	RN	CAL	SEQ-1CV1	1	8/12/16 9:30	14258-1.RAW	9:30	333.68				331.5	0.500	0.500	ng/L	
Hg2700-1	RN	CAL	SEQ-1CB1	1	8/12/16 9:41	14259-1.RAW	9:41	7.83				5.6	0.008	0.008	ng/L	
Hg2700-1	RN	BLK	F608273-BLK1	1.25	8/12/16 9:51	14260-1.RAW	9:51	5.22	1	x		3.0	0.005	0.006	ng/L	
Hg2700-1	RN	BLK	F608273-BLK2	1.25	8/12/16 10:02	14261-1.RAW	10:02	6.39	1	x		4.2	0.006	0.008	ng/L	
Hg2700-1	RN	BLK	F608273-BLK3	1.25	8/12/16 10:12	14262-1.RAW	10:12	2.30	1	x		0.1	0.000	0.000	ng/L	
Hg2700-1	RN	SAM	F608273-BS1	1.25	8/12/16 10:23	14263-1.RAW	10:23	342.44	1	x		340.2	0.513	0.642	ng/L	
Hg2700-1	RN	SAM	F608273-BSD1	1.25	8/12/16 10:34	14264-1.RAW	10:34	469.25	1	x		467.0	0.705	0.881	ng/L	
Hg2700-1	RN	SAM	F608273-BSD1	1.25	8/12/16 10:44	14265-1.RAW	10:44	77.12	1	x		74.9	0.113	0.141	ng/L	
Hg2700-1	RN	SAM	F608273-DUP1	1.25	8/12/16 10:55	14266-1.RAW	10:55	487.64	1	x		485.4	0.732	0.915	ng/L	
Hg2700-1	RN	SAM	F608273-MS1	1.25	8/12/16 11:05	14267-1.RAW	11:05	171.08	1	x		168.8	0.255	0.318	ng/L	
Hg2700-1	RN	SAM	F608273-MS2	1.25	8/12/16 11:16	14268-1.RAW	11:16	346.76	1	x		344.5	0.520	0.650	ng/L	
Hg2700-1	RN	SAM	F608273-MSD1	1.25	8/12/16 11:26	14269-1.RAW	11:26	137.71	1	x		135.5	0.204	0.255	ng/L	
Hg2700-1	RN	SAM	F608273-MSD2	1.25	8/12/16 11:37	14270-1.RAW	11:37	300.07	1	x		297.8	0.449	0.449	ng/L	
Hg2700-1	RN	CAL	SEQ-CCV1	1	8/12/16 11:47	14271-1.RAW	11:47	5.71				3.5	0.005	0.005	ng/L	
Hg2700-1	RN	CAL	SEQ-CCB1	1.25	8/12/16 11:58	14272-1.RAW	11:58	29.21	1	x		27.0	0.041	0.051	ng/L	
Hg2700-1	RN	SAM	1607542-01	1.25	8/12/16 12:08	14273-1.RAW	12:08	36.07	1	x		33.8	0.051	0.064	ng/L	
Hg2700-1	RN	SAM	1607542-03	1.25	8/12/16 12:19	14274-1.RAW	12:19	14.81	1	x		12.6	0.019	0.024	ng/L	
Hg2700-1	RN	SAM	1607542-04	1.25	8/12/16 12:29	14275-1.RAW	12:29	19.42	1	x		17.2	0.026	0.032	ng/L	
Hg2700-1	RN	SAM	1607542-05	1.25	8/12/16 12:40	14276-1.RAW	12:40	23.00	1	x		20.8	0.031	0.039	ng/L	
Hg2700-1	RN	SAM	1607542-06	1.25	8/12/16 12:50	14277-1.RAW	12:50	16.45	1	x		14.2	0.021	0.027	ng/L	
Hg2700-1	RN	SAM	1607542-07	1.25	8/12/16 13:01	14278-1.RAW	13:01	12.89	1	x		10.7	0.016	0.020	ng/L	
Hg2700-1	RN	SAM	1607586-12	1.25	8/12/16 13:11	14279-1.RAW	13:11	21.45	1	x		19.2	0.029	0.036	ng/L	
Hg2700-1	RN	SAM	1607586-19	1.25	8/12/16 13:22	14280-1.RAW	13:22	8.72	1	x		6.5	0.010	0.012	ng/L	
Hg2700-1	RN	SAM	1607586-20	1.25	8/12/16 13:32	14281-1.RAW	13:32	2.33	1	x		0.1	0.000	0.000	ng/L	
Hg2700-1	RN	CAL	SEQ-CCV2	1	8/12/16 13:43	14282-1.RAW	13:43	399.57				397.3	0.599	0.599	ng/L	
Hg2700-1	RN	CAL	SEQ-CCB2	1.25	8/12/16 14:04	14283-1.RAW	14:04	3.20	1	x		1.0	0.001	0.001	ng/L	
Hg2700-1	RN	SAM	1607772-01	1.25	8/12/16 14:14	14284-1.RAW	14:14	18.61	1	x		16.4	0.025	0.031	ng/L	
Hg2700-1	RN	SAM	1607772-02	1.25	8/12/16 14:25	14285-1.RAW	14:25	13.19	1	x		11.0	0.017	0.021	ng/L	
Hg2700-1	RN	SAM	1607772-03	1.25	8/12/16 14:35	14286-1.RAW	14:35	25.23	1	x		23.0	0.035	0.043	ng/L	
Hg2700-1	RN	SAM	1607772-04	1.25	8/12/16 14:46	14287-1.RAW	14:46	10.93	1	x		8.7	0.013	0.016	ng/L	
Hg2700-1	RN	SAM	1607772-05	1.25	8/12/16 14:56	14288-1.RAW	14:56	12.23	1	x		10.0	0.015	0.019	ng/L	
Hg2700-1	RN	SAM	1607772-06	1.25	8/12/16 15:07	14289-1.RAW	15:07	7.40	1	x		5.2	0.008	0.010	ng/L	
Hg2700-1	RN	SAM	1607772-07	1.25	8/12/16 15:17	14290-1.RAW	15:17	11.64	1	x		9.4	0.014	0.018	ng/L	
Hg2700-1	RN	SAM	1607586-04RE3	1.25	8/12/16 15:28	14291-1.RAW	15:28	60.08	1	x		57.8	0.087	0.109	ng/L	
Hg2700-1	RN	SAM	1607805-01	1.25	8/12/16 15:38	14292-1.RAW	15:38	378.52	1	x		376.3	0.568	0.710	ng/L	
Hg2700-1	RN	SAM	1607805-02	1.25	8/12/16 15:49	14293-1.RAW	15:49	78.65	1	x		76.4	0.115	0.144	ng/L	
Hg2700-1	RN	CAL	SEQ-CCV3	1	8/12/16 15:59	14294-1.RAW	15:59	343.43				341.2	0.515	0.515	ng/L	
Hg2700-1	RN	CAL	SEQ-CCB3	1	8/12/16 16:10	14295-1.RAW	16:10	3.55				1.3	0.002	0.002	ng/L	
Hg2700-1	RN	BLK	F608155-BLK1	1	8/12/16 16:20	14296-1.RAW	16:20	9.14	2			6.9	0.010	0.010	ng/L	
Hg2700-1	RN	BLK	F608155-BLK2	1	8/12/16 16:20	14297-1.RAW	16:20	12.92	2			10.7	0.016	0.016	ng/L	

Instrument	Analyst	Sample Type	LabNumber	Dilution	Analyzed	FileID	Run End	Uncorrected Response	Batch ID	No PB Correction?	RESP	InitialResult	FinalResult	InitialUnits	Comments
Hg2700-1	RN	BLK	F608155-BLK3	1	8/12/16 16:31	14298-1.RAW	16:31	11.01	2		8.8	0.013	0.013	ng/L	
Hg2700-1	RN	SAM	F608155-BS1	10	8/12/16 16:41	14299-1.RAW	16:41	776.73	2		774.5	1.167	11.671	ng/L	
Hg2700-1	RN	SAM	F608155-BSD1	10	8/12/16 16:52	14300-1.RAW	16:52	779.46	2		777.2	1.171	11.713	ng/L	
Hg2700-1	RN	SAM	F608155-DUP1	1	8/12/16 17:02	14301-1.RAW	17:02	19.87	2		17.6	0.013	0.013	ng/L	
Hg2700-1	RN	SAM	F608155-MS1	10	8/12/16 17:13	14302-1.RAW	17:13	645.63	2		643.4	0.969	9.694	ng/L	
Hg2700-1	RN	SAM	F608155-MSD1	10	8/12/16 17:23	14303-1.RAW	17:23	677.95	2		675.7	1.018	10.181	ng/L	
Hg2700-1	RN	SAM	F608155-MS2	10	8/12/16 17:34	14304-1.RAW	17:34	665.80	2		663.6	1.000	9.998	ng/L	
Hg2700-1	RN	SAM	F608155-MSD2	10	8/12/16 17:44	14305-1.RAW	17:44	781.10	2		778.9	1.174	11.737	ng/L	
Hg2700-1	RN	CAL	SEQ-CCV4	1	8/12/16 17:55	14306-1.RAW	17:55	455.29			453.1	0.684	0.684	ng/L	
Hg2700-1	RN	CAL	SEQ-CCB4	1	8/12/16 18:06	14307-1.RAW	18:06	5.37			3.1	0.005	0.005	ng/L	
Hg2700-1	RN	CAL	SEQ-CCV5	1	8/12/16 18:16	14308-1.RAW	18:16	413.96			411.7	0.621	0.621	ng/L	
Hg2700-1	RN	CAL	SEQ-CCV6	1	8/12/16 18:27	14309-1.RAW	18:27	412.44			410.2	0.619	0.619	ng/L	
Hg2700-1	RN	SAM	1607782-15	1	8/12/16 18:37	14310-1.RAW	18:37	20.06	2		17.8	0.014	0.014	ng/L	
Hg2700-1	RN	SAM	1607782-16	1	8/12/16 18:48	14311-1.RAW	18:48	49.59	2		47.4	0.058	0.058	ng/L	
Hg2700-1	RN	SAM	1607782-17	1	8/12/16 18:58	14312-1.RAW	18:58	69.34	2		67.1	0.088	0.088	ng/L	
Hg2700-1	RN	SAM	1607782-18	1	8/12/16 19:09	14313-1.RAW	19:09	35.89	2		33.7	0.038	0.038	ng/L	
Hg2700-1	RN	SAM	1607782-19	1	8/12/16 19:19	14314-1.RAW	19:19	22.19	2		20.0	0.017	0.017	ng/L	
Hg2700-1	RN	SAM	1607782-20	1	8/12/16 19:30	14315-1.RAW	19:30	37.36	2		35.1	0.040	0.040	ng/L	
Hg2700-1	RN	SAM	1607782-21	1	8/12/16 19:40	14316-1.RAW	19:40	37.23	2		35.0	0.040	0.040	ng/L	
Hg2700-1	RN	SAM	1607783-01	1	8/12/16 19:51	14317-1.RAW	19:51	293.90	2		291.7	0.427	0.427	ng/L	
Hg2700-1	RN	SAM	1607783-02	1	8/12/16 20:01	14318-1.RAW	20:01	54.69	2		52.5	0.066	0.066	ng/L	
Hg2700-1	RN	SAM	1607783-03	1	8/12/16 20:12	14319-1.RAW	20:12	43.30	2		41.1	0.049	0.049	ng/L	
Hg2700-1	RN	CAL	SEQ-CCV7	1	8/12/16 20:22	14320-1.RAW	20:22	293.87			291.6	0.440	0.440	ng/L	
Hg2700-1	RN	CAL	SEQ-CCB5	1	8/12/16 20:33	14321-1.RAW	20:33	2.91			0.7	0.001	0.001	ng/L	
Hg2700-1	RN	SAM	1607783-04	1	8/12/16 20:43	14322-1.RAW	20:43	36.56	2		34.3	0.039	0.039	ng/L	
Hg2700-1	RN	SAM	1607783-05	1	8/12/16 20:54	14323-1.RAW	20:54	30.44	2		28.2	0.029	0.029	ng/L	
Hg2700-1	RN	SAM	1607783-06	1	8/12/16 21:04	14324-1.RAW	21:04	113.82	2		111.6	0.155	0.155	ng/L	
Hg2700-1	RN	SAM	1607783-07	1	8/12/16 21:15	14325-1.RAW	21:15	220.25	2		218.0	0.316	0.316	ng/L	
Hg2700-1	RN	SAM	1607783-08	1	8/12/16 21:25	14326-1.RAW	21:25	29.67	2		27.4	0.028	0.028	ng/L	
Hg2700-1	RN	SAM	1607783-09	1	8/12/16 21:36	14327-1.RAW	21:36	19.89	2		17.7	0.013	0.013	ng/L	
Hg2700-1	RN	SAM	1607783-10	1	8/12/16 21:46	14328-1.RAW	21:46	20.75	2		18.5	0.015	0.015	ng/L	
Hg2700-1	RN	SAM	1607783-11	1	8/12/16 21:57	14329-1.RAW	21:57	69.74	2		67.5	0.089	0.089	ng/L	
Hg2700-1	RN	SAM	1607783-12	1	8/12/16 22:07	14330-1.RAW	22:07	31.76	2		29.5	0.031	0.031	ng/L	
Hg2700-1	RN	SAM	1607783-13	1	8/12/16 22:18	14331-1.RAW	22:18	19.86	2		17.6	0.013	0.013	ng/L	
Hg2700-1	RN	CAL	SEQ-CCV8	1	8/12/16 22:28	14332-1.RAW	22:28	319.82			317.6	0.479	0.479	ng/L	
Hg2700-1	RN	CAL	SEQ-CCB6	1	8/12/16 22:39	14333-1.RAW	22:39	2.94			0.7	0.001	0.001	ng/L	



Frontier Global Sciences

MMHg27001-160812-1

Analysis Datasheet for Methyl Mercury in Waters

Date of Analysis: August 12, 2016

Instrument #: Hg2700-1

LIMS Sequence #: 6H1201011

Analyst: RN

Units ng/L

n 8/15/16
n 8/15/16

Calibration Statistics:

LabNumber	n	True Val	Area	Uncorrected Response Factor	Corrected Peak Height	Corrected Response Factor	% Recovery
SEQ-CAL1	1	0.05 ng/L	34.53 units	690.64	32.30 units	646.03	97.5 %Rec
SEQ-CAL2	1	0.20 ng/L	142.05 units	710.25	139.82 units	699.09	105.5 %Rec
SEQ-CAL3	1	1.00 ng/L	551.84 units	551.84	549.61 units	549.61	82.9 %Rec
SEQ-CAL4	1	2.00 ng/L	1315.76 units	657.88	1313.53 units	656.76	99.1 %Rec
SEQ-CAL5	1	4.00 ng/L	3052.84 units	763.21	3050.61 units	762.65	115.1 %Rec
SEQ-CAL6	0						
SEQ-CAL7	0						
SEQ-CAL8	0						
SEQ-CAL9	0						

Corr. Mean RF	Corr. St Dev RF	Corr. RSD CF	Uncorr. Mean RF	Eff Factor
662.83	+/- 78.13	11.8% RSD	674.76	0.8046

Blanks:

LabNumber	n	Mean	Std Dev	Mean (ng/L)	Std Dev (ng/L)
SEQ-IBL	1	2.23 units		0.00 ng/L	#VALUE!

Preparation Blanks

Sample Type	Batch ID	n	Mean	Std Dev
BLK	1	3	0.006 ng/L	±0.005
BLK	2	0	0.000 ng/L	
BLK	3	0	0.000 ng/L	
BLK	4	0	0.000 ng/L	
BLK	5	0	0.000 ng/L	

MDN Only

SEQ-CAL1
 SEQ-CAL2
 SEQ-CAL3
 SEQ-CAL4
 SEQ-CAL5
 SEQ-CAL6 NA
 SEQ-CAL7 NA
 SEQ-CAL8 NA
 SEQ-CAL9 NA
 SEQ-ICV/CCV
 Acetate Buffer
 Ethylating Agent

QUALITY ASSURANCE
 PEER-REVIEWED
 INITIALS: JH 8/15/16

Instrument	Analyst	Sample Type	LabNumber	Dilution	Analyzed	FileID	Run End	Uncorrected Response	Batch ID	No PB Correction?	RESP	InitialResult	FinalResult	InitialUnits	Comments
Hq2700-1	RN	CAL	SEQ-JBL1	1	8/12/16 8:27	14252-1.RAW	8:27	2.23			0.0	0.000	0.000	ng/L	
Hq2700-1	RN	CAL	SEQ-CAL1	1	8/12/16 8:38	14253-1.RAW	8:38	34.53			32.3	0.049	0.049	ng/L	
Hq2700-1	RN	CAL	SEQ-CAL2	1	8/12/16 8:48	14254-1.RAW	8:48	142.05			139.8	0.211	0.211	ng/L	
Hq2700-1	RN	CAL	SEQ-CAL3	1	8/12/16 8:59	14255-1.RAW	8:59	551.84			549.6	0.829	0.829	ng/L	
Hq2700-1	RN	CAL	SEQ-CAL4	1	8/12/16 9:09	14256-1.RAW	9:09	1315.76			1313.5	1.982	1.982	ng/L	
Hq2700-1	RN	CAL	SEQ-CAL5	1	8/12/16 9:20	14257-1.RAW	9:20	3052.84			3050.6	4.602	4.602	ng/L	
Hq2700-1	RN	CAL	SEQ-ICV1	1	8/12/16 9:30	14258-1.RAW	9:30	333.68			331.5	0.500	0.500	ng/L	
Hq2700-1	RN	CAL	SEQ-ICB1	1	8/12/16 9:41	14259-1.RAW	9:41	7.83			5.6	0.008	0.008	ng/L	
Hq2700-1	RN	BLK	F608273-BLK1	1.25	8/12/16 9:51	14260-1.RAW	9:51	5.22	1		3.0	0.006	0.007	ng/L	
Hq2700-1	RN	BLK	F608273-BLK2	1.25	8/12/16 10:02	14261-1.RAW	10:02	6.39	1		4.2	0.008	0.010	ng/L	
Hq2700-1	RN	BLK	F608273-BLK3	1.25	8/12/16 10:12	14262-1.RAW	10:12	2.30	1		0.1	0.000	0.000	ng/L	
Hq2700-1	RN	SAM	F608273-BS1	1.25	8/12/16 10:23	14263-1.RAW	10:23	342.44	1		340.2	0.633	0.792	ng/L	
Hq2700-1	RN	SAM	F608273-BSD1	1.25	8/12/16 10:34	14264-1.RAW	10:34	469.25	1		467.0	0.871	1.089	ng/L	
Hq2700-1	RN	SAM	F608273-DUP1	1.25	8/12/16 10:44	14265-1.RAW	10:44	77.12	1		74.9	0.136	0.170	ng/L	
Hq2700-1	RN	SAM	F608273-MS1	1.25	8/12/16 10:55	14266-1.RAW	10:55	487.64	1		485.4	0.906	1.132	ng/L	
Hq2700-1	RN	SAM	F608273-MS2	1.25	8/12/16 11:05	14267-1.RAW	11:05	171.08	1		168.8	0.312	0.390	ng/L	
Hq2700-1	RN	SAM	F608273-MSD1	1.25	8/12/16 11:16	14268-1.RAW	11:16	346.76	1		344.5	0.642	0.802	ng/L	
Hq2700-1	RN	SAM	F608273-MSD2	1.25	8/12/16 11:26	14269-1.RAW	11:26	137.71	1		135.5	0.250	0.312	ng/L	
Hq2700-1	RN	CAL	SEQ-CCV1	1	8/12/16 11:37	14270-1.RAW	11:37	300.07	1		297.8	0.449	0.449	ng/L	
Hq2700-1	RN	CAL	SEQ-CCB1	1	8/12/16 11:47	14271-1.RAW	11:47	5.71	1		3.5	0.005	0.005	ng/L	
Hq2700-1	RN	SAM	1607542-01	1.25	8/12/16 11:58	14272-1.RAW	11:58	29.21	1		27.0	0.046	0.058	ng/L	
Hq2700-1	RN	SAM	1607542-03	1.25	8/12/16 12:08	14273-1.RAW	12:08	36.07	1		33.8	0.059	0.074	ng/L	
Hq2700-1	RN	SAM	1607542-04	1.25	8/12/16 12:19	14274-1.RAW	12:19	14.81	1		12.6	0.019	0.024	ng/L	
Hq2700-1	RN	SAM	1607542-05	1.25	8/12/16 12:29	14275-1.RAW	12:29	19.42	1		17.2	0.028	0.035	ng/L	
Hq2700-1	RN	SAM	1607542-06	1.25	8/12/16 12:40	14276-1.RAW	12:40	23.00	1		20.8	0.034	0.043	ng/L	
Hq2700-1	RN	SAM	1607542-07	1.25	8/12/16 12:50	14277-1.RAW	12:50	16.45	1		14.2	0.022	0.028	ng/L	
Hq2700-1	RN	SAM	1607586-12	1.25	8/12/16 13:01	14278-1.RAW	13:01	12.89	1		10.7	0.015	0.019	ng/L	
Hq2700-1	RN	SAM	1607586-19	1.25	8/12/16 13:11	14279-1.RAW	13:11	21.45	1		19.2	0.032	0.039	ng/L	
Hq2700-1	RN	SAM	1607586-20	1.25	8/12/16 13:22	14280-1.RAW	13:22	8.72	1		6.5	0.008	0.010	ng/L	
Hq2700-1	RN	SAM	1607586-21	1.25	8/12/16 13:32	14281-1.RAW	13:32	2.33	1		0.1	-0.004	-0.005	ng/L	
Hq2700-1	RN	CAL	SEQ-CCV2	1	8/12/16 13:43	14282-1.RAW	13:43	399.57			397.3	0.599	0.599	ng/L	
Hq2700-1	RN	CAL	SEQ-CCB2	1	8/12/16 13:53	14283-1.RAW	13:53	3.20			1.0	0.001	0.001	ng/L	
Hq2700-1	RN	SAM	1607772-01	1.25	8/12/16 14:04	14284-1.RAW	14:04	18.61	1		16.4	0.026	0.033	ng/L	
Hq2700-1	RN	SAM	1607772-02	1.25	8/12/16 14:14	14285-1.RAW	14:14	13.19	1		11.0	0.016	0.020	ng/L	
Hq2700-1	RN	SAM	1607772-03	1.25	8/12/16 14:25	14286-1.RAW	14:25	25.23	1		23.0	0.039	0.048	ng/L	
Hq2700-1	RN	SAM	1607772-04	1.25	8/12/16 14:35	14287-1.RAW	14:35	10.93	1		8.7	0.012	0.015	ng/L	
Hq2700-1	RN	SAM	1607772-05	1.25	8/12/16 14:46	14288-1.RAW	14:46	12.23	1		10.0	0.014	0.018	ng/L	
Hq2700-1	RN	SAM	1607772-06	1.25	8/12/16 14:56	14289-1.RAW	14:56	7.40	1		5.2	0.005	0.006	ng/L	
Hq2700-1	RN	SAM	1607772-07	1.25	8/12/16 15:07	14290-1.RAW	15:07	11.64	1		9.4	0.013	0.016	ng/L	
Hq2700-1	RN	SAM	1607586-04RE3	1.25	8/12/16 15:17	14291-1.RAW	15:17	60.08	1		57.8	0.104	0.130	ng/L	
Hq2700-1	RN	SAM	1607805-01	1.25	8/12/16 15:28	14292-1.RAW	15:28	378.52	1		376.3	0.701	0.876	ng/L	
Hq2700-1	RN	SAM	1607805-02	1.25	8/12/16 15:38	14293-1.RAW	15:38	78.65	1		76.4	0.139	0.173	ng/L	
Hq2700-1	RN	CAL	SEQ-CCV3	1	8/12/16 15:49	14294-1.RAW	15:49	343.43			341.2	0.515	0.515	ng/L	
Hq2700-1	RN	CAL	SEQ-CCB3	1	8/12/16 15:59	14295-1.RAW	15:59	3.55			1.3	0.002	0.002	ng/L	
Hq2700-1	RN	BLK	F608155-BLK1	1	8/12/16 16:10	14296-1.RAW	16:10	9.14		x	6.9	0.013	0.013	ng/L	
Hq2700-1	RN	BLK	F608155-BLK2	1	8/12/16 16:20	14297-1.RAW	16:20	12.92		x	10.7	0.020	0.020	ng/L	

Instrument	Analyst	Sample		Dilution	Analyzed	FileID	Run End	Uncorrected Response	Batch ID	No PB		InitialResult	FinalResult	InitialUnits	Comments
		Type	LabNumber							Correction?	RESP				
Hq2700-1	RN	BLK	F608155-BLK3	1	8/12/16 16:31	14298-1.RAW	16:31	11.01		x	8.8	0.016	0.016	ng/L	
Hq2700-1	RN	SAM	F608155-BS1	10	8/12/16 16:41	14299-1.RAW	16:41	776.73		x	774.5	1.452	14.522	ng/L	
Hq2700-1	RN	SAM	F608155-BSD1	10	8/12/16 16:52	14300-1.RAW	16:52	779.46		x	777.2	1.457	14.574	ng/L	
Hq2700-1	RN	SAM	F608155-DUP1	1	8/12/16 17:02	14301-1.RAW	17:02	19.87		x	17.6	0.033	0.033	ng/L	
Hq2700-1	RN	SAM	F608155-MS1	10	8/12/16 17:13	14302-1.RAW	17:13	645.63		x	643.4	1.206	12.064	ng/L	
Hq2700-1	RN	SAM	F608155-MSD1	10	8/12/16 17:23	14303-1.RAW	17:23	677.95		x	675.7	1.267	12.670	ng/L	
Hq2700-1	RN	SAM	F608155-MS2	10	8/12/16 17:34	14304-1.RAW	17:34	665.80		x	663.6	1.244	12.442	ng/L	
Hq2700-1	RN	SAM	F608155-MSD2	10	8/12/16 17:44	14305-1.RAW	17:44	781.10		x	778.9	1.460	14.604	ng/L	
Hq2700-1	RN	CAL	SEQ-CCV4	1	8/12/16 17:55	14306-1.RAW	17:55	455.29			453.1	0.684	0.684	ng/L	
Hq2700-1	RN	CAL	SEQ-CCB4	1	8/12/16 18:06	14307-1.RAW	18:06	5.37			3.1	0.005	0.005	ng/L	
Hq2700-1	RN	CAL	SEQ-CCV5	1	8/12/16 18:16	14308-1.RAW	18:16	413.96			411.7	0.621	0.621	ng/L	
Hq2700-1	RN	CAL	SEQ-CCV6	1	8/12/16 18:27	14309-1.RAW	18:27	412.44			410.2	0.619	0.619	ng/L	
Hq2700-1	RN	SAM	1607782-15	1	8/12/16 18:37	14310-1.RAW	18:37	20.06		x	17.8	0.033	0.033	ng/L	
Hq2700-1	RN	SAM	1607782-16	1	8/12/16 18:48	14311-1.RAW	18:48	49.59		x	47.4	0.089	0.089	ng/L	
Hq2700-1	RN	SAM	1607782-17	1	8/12/16 18:58	14312-1.RAW	18:58	69.34		x	67.1	0.126	0.126	ng/L	
Hq2700-1	RN	SAM	1607782-18	1	8/12/16 19:09	14313-1.RAW	19:09	35.89		x	33.7	0.063	0.063	ng/L	
Hq2700-1	RN	SAM	1607782-19	1	8/12/16 19:19	14314-1.RAW	19:19	22.19		x	20.0	0.037	0.037	ng/L	
Hq2700-1	RN	SAM	1607782-20	1	8/12/16 19:30	14315-1.RAW	19:30	37.36		x	35.1	0.066	0.066	ng/L	
Hq2700-1	RN	SAM	1607782-21	1	8/12/16 19:40	14316-1.RAW	19:40	37.23		x	35.0	0.066	0.066	ng/L	
Hq2700-1	RN	SAM	1607783-01	1	8/12/16 19:51	14317-1.RAW	19:51	293.90		x	291.7	0.547	0.547	ng/L	
Hq2700-1	RN	SAM	1607783-02	1	8/12/16 20:01	14318-1.RAW	20:01	54.69		x	52.5	0.098	0.098	ng/L	
Hq2700-1	RN	SAM	1607783-03	1	8/12/16 20:12	14319-1.RAW	20:12	43.30		x	41.1	0.077	0.077	ng/L	
Hq2700-1	RN	CAL	SEQ-CCV7	1	8/12/16 20:22	14320-1.RAW	20:22	293.87			291.6	0.440	0.440	ng/L	
Hq2700-1	RN	CAL	SEQ-CCB5	1	8/12/16 20:33	14321-1.RAW	20:33	2.91			0.7	0.001	0.001	ng/L	
Hq2700-1	RN	SAM	1607783-04	1	8/12/16 20:43	14322-1.RAW	20:43	36.56		x	34.3	0.064	0.064	ng/L	
Hq2700-1	RN	SAM	1607783-05	1	8/12/16 20:54	14323-1.RAW	20:54	30.44		x	28.2	0.053	0.053	ng/L	
Hq2700-1	RN	SAM	1607783-06	1	8/12/16 21:04	14324-1.RAW	21:04	113.82		x	111.6	0.209	0.209	ng/L	
Hq2700-1	RN	SAM	1607783-07	1	8/12/16 21:15	14325-1.RAW	21:15	220.25		x	218.0	0.409	0.409	ng/L	
Hq2700-1	RN	SAM	1607783-08	1	8/12/16 21:25	14326-1.RAW	21:25	29.67		x	27.4	0.051	0.051	ng/L	
Hq2700-1	RN	SAM	1607783-09	1	8/12/16 21:36	14327-1.RAW	21:36	19.89		x	17.7	0.033	0.033	ng/L	
Hq2700-1	RN	SAM	1607783-10	1	8/12/16 21:46	14328-1.RAW	21:46	20.75		x	18.5	0.035	0.035	ng/L	
Hq2700-1	RN	SAM	1607783-11	1	8/12/16 21:57	14329-1.RAW	21:57	69.74		x	67.5	0.127	0.127	ng/L	
Hq2700-1	RN	SAM	1607783-12	1	8/12/16 22:07	14330-1.RAW	22:07	31.76		x	29.5	0.055	0.055	ng/L	
Hq2700-1	RN	SAM	1607783-13	1	8/12/16 22:18	14331-1.RAW	22:18	19.86		x	17.6	0.033	0.033	ng/L	
Hq2700-1	RN	CAL	SEQ-CCV8	1	8/12/16 22:28	14332-1.RAW	22:28	319.82			317.6	0.479	0.479	ng/L	
Hq2700-1	RN	CAL	SEQ-CCB6	1	8/12/16 22:39	14333-1.RAW	22:39	2.94			0.7	0.001	0.001	ng/L	

Methylmercury Operati BlankSi 2.230445076 (Conc = (Area-2.230) ##### 0
 EPA1630 Worksh CalibFa 662.8307126 !OK,I Warnings 8:01:19 0
 Method R: 0.995959998 J 0.991936317 MeHg 78.12906574
 Descrip MHg27001-160812-1 11.7871825

Sample/ID	Location	Dilute	Blank	(ConcMeHg(ppm)	Rec%	RawData	RunEnd	P PeakMeHg (R)	F Control (eff)	Flags	RunCount
Clean			0	0.000167819		14250-1.RAW		0.111235469	cleandry	CT	1
ws	A1					14251-1.RAW		0	psample10	OK	1
SEQ-IBL1	A2	1	0	0.00336503		14252-1.RAW		2.230445076	psample10	OK	1
SEQ-CAL1	A3	1	2.230445076	0.048732606	97.47	14253-1.RAW		34.53191288	psample10	OK	1
SEQ-CAL2	A4	1	2.230445076	0.210941727	105.47	14254-1.RAW		142.0491004	psample10	OK	1
SEQ-CAL3	A5	1	2.230445076	0.829192209	82.92	14255-1.RAW		551.8445076	psample10	CT	1
SEQ-CAL4	A6	1	2.230445076	1.981693579	99.08	14256-1.RAW		1315.757812	psample10	CT	1
SEQ-CAL5	A7	1	2.230445076	4.602401003	115.06	14257-1.RAW		3052.843182	psample10	CT	1
SEQ-ICV1	A8	1	2.230445076	0.500052373	100.13	14258-1.RAW		333.6805161	psample10	CT	1
SEQ-ICB1	A9	1	2.230445076	0.008448363	0.00	14259-1.RAW		7.830279356	psample10	CT	1
F608273-BLK1	A10	1.25	2.230445076	0.005629873		14260-1.RAW		5.215767045	psample10	OK	1
F608273-BLK2	A11	1.25	2.230445076	0.007840569		14261-1.RAW		6.388020833	psample10	OK	1
F608273-BLK3	A12	1.25	2.230445076	0.000139921		14262-1.RAW		2.304640152	psample10	OK	1
F608273-BS1	A13	1.25	2.230445076	0.641583942		14263-1.RAW		342.439678	psample10	CT	1
F608273-BSD1	A14	1.25	2.230445076	0.880730393		14264-1.RAW		469.2505682	psample10	OK	1
F608273-DUP1	A15	1.25	2.230445076	0.141217653		14265-1.RAW		77.11316288	psample10	OK	1
F608273-MS1	A16	1.25	2.230445076	0.915404202	91.54	14266-1.RAW		487.6368608	psample10	CT	1
F608273-MS2	A17	1.25	2.230445076	0.318418183	15.92	14267-1.RAW		171.0763258	psample10	CT	1
F608273-MSD1	A18	1.25	2.230445076	0.649728372	32.49	14268-1.RAW		346.7583807	psample10	CT	1
F608273-MSD2	A19	1.25	2.230445076	0.255498351		14269-1.RAW		137.7121686	psample10	CT	1
SEQ-CCV1	A20	1	2.230445076	0.449343874	89.98	14270-1.RAW		300.0693655	psample10	CT	1
SEQ-CCB1	A21	1	2.230445076	0.005251309	0.00	14271-1.RAW		5.711174242	psample10	OK	1
1607542-01	B1	1.25	2.230445076	0.050874672		14272-1.RAW		29.20748106	psample10	CT	1
1607542-03	B2	1.25	2.230445076	0.063823915		14273-1.RAW		36.07400568	psample10	OK	1
1607542-04	B3	1.25	2.230445076	0.023723238		14274-1.RAW		14.81003788	psample10	CT	1
1607542-05	B4	1.25	2.230445076	0.032409851		14275-1.RAW		19.41624053	psample10	OK	1
1607542-06	B5	1.25	2.230445076	0.039377231		14276-1.RAW		23.11079545	psample10	OK	1
1607542-07	B6	1.25	2.230445076	0.026824356		14277-1.RAW		16.45445076	psample10	OK	1
1607586-12	B7	1.25	2.230445076	0.020093109		14278-1.RAW		12.8851089	psample10	OK	1
1607586-19	B8	1.25	2.230445076	0.036272631		14279-1.RAW		21.46453598	psample10	CT	1
1607586-20	B9	1.25	2.230445076	0.012238209		14280-1.RAW		8.719933712	psample10	OK	1
1607586-21	B10	1.25	2.230445076	0.000185281		14281-1.RAW		2.328693182	psample10	OK	1
SEQ-CCV2	B11	1	2.230445076	0.599452047	120.04	14282-1.RAW		399.5656723	psample10	CT	1
SEQ-CCB2	B12	1	2.230445076	0.001459749	0.00	14283-1.RAW		3.198011364	psample10	OK	1
1607772-01	B13	1.25	2.230445076	0.030812235		14284-1.RAW		18.56908144	psample10	CT	1
1607772-02	B14	1.25	2.230445076	0.020674892		14285-1.RAW		13.19360795	psample10	CT	1
1607772-03	B15	1.25	2.230445076	0.043379485		14286-1.RAW		25.23304924	psample10	CT	1
1607772-04	B16	1.25	2.230445076	0.016405074		14287-1.RAW		10.92947443	psample10	OK	1
1607772-05	B17	1.25	2.230445076	0.018865922		14288-1.RAW		12.234375	psample10	OK	1
1607772-06	B18	1.25	2.230445076	0.009753118		14289-1.RAW		7.40217803	psample10	CT	1
1607772-07	B19	1.25	2.230445076	0.017747359		14290-1.RAW		11.64124053	psample10	OK	1
1607586-04RE3	B20	1.25	2.230445076	0.109089519		14291-1.RAW		60.07675189	psample10	CT	1
1607805-01	B21	1.25	2.230445076	0.709619412		14292-1.RAW		378.5164773	psample10	CT	1
1607805-02	C1	1.25	2.230445076	0.144096433		14293-1.RAW		78.63967803	psample10	CT	1
SEQ-CCV3	C2	1	2.230445076	0.514768048	103.08	14294-1.RAW		343.434517	psample10	CT	1
SEQ-CCB3	C3	1	2.230445076	0.001987716	0.00	14295-1.RAW		3.547964015	psample10	OK	1
F608155-BLK1	C4	1	2.230445076	0.010419684		14296-1.RAW		9.136931818	psample10	OK	1
F608155-BLK2	C5	1	2.230445076	0.016127705		14297-1.RAW		12.92038352	psample10	OK	1
F608155-BLK3	C6	1	2.230445076	0.013224209		14298-1.RAW		10.99585701	psample10	OK	1
F608155-BS1	C7	10	2.230445076	11.68475029		14299-1.RAW		776.7315814	psample10	OK	1

F608155-BSD1	C8	10	2.230445076	11.72590756		14300-1.RAW	779.4596117	psample10	OK	1
F608155-DUP1	C9	1	2.230445076	0.026610287		14301-1.RAW	19.86856061	psample10	OK	1
F608155-MS1	C10	10	2.230445076	9.706876491	970.69	14302-1.RAW	645.6320312	psample10	CT	1
F608155-MSD1	C11	10	2.230445076	10.19439506		14303-1.RAW	677.9462595	psample10	OK	1
F608155-MS2	C12	10	2.230445076	10.01114606	500.56	14304-1.RAW	665.7999527	psample10	CT	1
F608155-MSD2	C13	10	2.230445076	11.75060864		14305-1.RAW	781.096875	psample10	OK	1
SEQ-CCV4	C14	1	2.230445076	0.683528394	136.88	14306-1.RAW	455.2940578	psample10	CT	1
SEQ-CCB4	C15	1	2.230445076	0.004740701	0.00	14307-1.RAW	5.372727273	psample10	OK	1
SEQ-CCV5	B1	1	2.230445076	0.62117155	124.39	14308-1.RAW	413.9620265	psample10	CT	1
SEQ-CCV6	B2	1	2.230445076	0.618876491	123.93	14309-1.RAW	412.4407907	psample10	CT	1
1607782-15	C16	1	2.230445076	0.026906094		14310-1.RAW	20.06463068	psample10	OK	1
1607782-16	C17	1	2.230445076	0.071454825		14311-1.RAW	49.59289773	psample10	OK	1
1607782-17	C18	1	2.230445076	0.101240128		14312-1.RAW	69.33551136	psample10	OK	1
1607782-18	C19	1	2.230445076	0.050783219		14313-1.RAW	35.89112216	psample10	OK	1
1607782-19	C20	1	2.230445076	0.030110898		14314-1.RAW	22.18887311	psample10	OK	1
1607782-20	C21	1	2.230445076	0.053000844		14315-1.RAW	37.3610322	psample10	OK	1
1607782-21	A1	1	2.230445076	0.052807223		14316-1.RAW	37.23269413	psample10	OK	1
1607783-01	A2	1	2.230445076	0.440032556		14317-1.RAW	293.8975379	psample10	CT	1
1607783-02	A3	1	2.230445076	0.079150383		14318-1.RAW	54.69375	psample10	OK	1
1607783-03	A4	1	2.230445076	0.061957208		14319-1.RAW	43.29758523	psample10	OK	1
SEQ-CCV7	A5	1	2.230445076	0.43998791	88.11	14320-1.RAW	293.8679451	psample10	CT	1
SEQ-CCB5	A6	1	2.230445076	0.001017931	0.00	14321-1.RAW	2.905160985	psample10	CT	1
1607783-04	A7	1	2.230445076	0.051792756		14322-1.RAW	36.56027462	psample10	OK	1
1607783-05	A8	1	2.230445076	0.042557301		14323-1.RAW	30.43873106	psample10	CT	1
1607783-06	A9	1	2.230445076	0.168355424		14324-1.RAW	113.8215909	psample10	CT	1
1607783-07	A10	1	2.230445076	0.328919926		14325-1.RAW	220.2486742	psample10	CT	1
1607783-08	A11	1	2.230445076	0.041399574		14326-1.RAW	29.67135417	psample10	OK	1
1607783-09	A12	1	2.230445076	0.02663386		14327-1.RAW	19.88418561	psample10	OK	1
1607783-10	A13	1	2.230445076	0.027940455		14328-1.RAW	20.75023674	psample10	OK	1
1607783-11	A14	1	2.230445076	0.101853673		14329-1.RAW	69.7421875	psample10	OK	1
1607783-12	A15	1	2.230445076	0.04455141		14330-1.RAW	31.76048769	psample10	OK	1
1607783-13	A16	1	2.230445076	0.026604001		14331-1.RAW	19.86439394	psample10	OK	1
SEQ-CCV8	A17	1	2.230445076	0.479148536	95.95	14332-1.RAW	319.8248106	psample10	CT	1
SEQ-CCB6	A18	1	2.230445076	0.001071113	0.00	14333-1.RAW	2.940411932	psample10	OK	1

18:58:34

22:39:18

Methylmercury Operat: BlankS: 2.230445076 (Conc = (Area-2.230) ##### 0
 EPA1630 Worksh: CalibFa: 662.8307126 : OK,1 Warnings: 8:01:19 0
 Method R: 0.995959998 : 0.991936317 MeHg 78.12906574
 Descrip: MHg27001-160812-1 11.7871825

Sample/ID	Location	Dilute	Blank	(ConcMeHg(ppb))	Rec%	RawData	RunEnd	P	PeakMeHg (Rz)	f Control (etf)	Flags	RunCount
Clean				0		14250-1.RAW	8:06:50	0.100438372		cleandry	CT	1
ws	A1			0.000151529		14251-1.RAW	8:17:21	0		psample10	OK	1
SEQ-IBL1	A2			0.00336503		14252-1.RAW	8:27:52	2.230445076		psample10	OK	1
SEQ-CAL1	A3	1	2.230445076	0.048732606	97.47	14253-1.RAW	8:38:23	34.53191288		psample10	OK	1
SEQ-CAL2	A4	1	2.230445076	0.210941727	105.47	14254-1.RAW	8:48:53	142.0491004		psample10	OK	1
SEQ-CAL3	A5	1	2.230445076	0.829192209	82.92	14255-1.RAW	8:59:24	551.8445076		psample10	CT	1
SEQ-CAL4	A6	1	2.230445076	1.981693579	99.08	14256-1.RAW	9:09:55	1315.757812		psample10	CT	1
SEQ-CAL5	A7	1	2.230445076	4.602401003	115.06	14257-1.RAW	9:20:26	3052.843182		psample10	CT	1
SEQ-ICV1	A8	1	2.230445076	0.500052373	100.13	14258-1.RAW	9:30:56	333.6805161		psample10	CT	1
SEQ-ICB1	A9	1	2.230445076	0.008448363	0.00	14259-1.RAW	9:41:27	7.830279356		psample10	CT	1
F608273-BLK1	A10	1.25	2.230445076	0.005629873		14260-1.RAW	9:51:58	5.215767045		psample10	OK	1
F608273-BLK2	A11	1.25	2.230445076	0.007840569		14261-1.RAW	10:02:29	6.388020833		psample10	OK	1
F608273-BLK3	A12	1.25	2.230445076	0.000139921		14262-1.RAW	10:12:59	2.304640152		psample10	OK	1
F608273-BS1	A13	1.25	2.230445076	0.641583942		14263-1.RAW	10:23:30	342.439678		psample10	CT	1
F608273-BSD1	A14	1.25	2.230445076	0.880730393		14264-1.RAW	10:34:01	469.2505682		psample10	OK	1
F608273-DJUP1	A15	1.25	2.230445076	0.141222385		14265-1.RAW	10:44:32	77.11567235		psample10	OK	1
F608273-MS1	A16	1.25	2.230445076	0.915404202	91.54	14266-1.RAW	10:55:02	487.6368608		psample10	CT	1
F608273-MS2	A17	1.25	2.230445076	0.318418183	15.92	14267-1.RAW	11:05:33	171.0763258		psample10	CT	1
F608273-MSD1	A18	1.25	2.230445076	0.649728372	32.49	14268-1.RAW	11:16:04	346.7583807		psample10	CT	1
F608273-MSD2	A19	1.25	2.230445076	0.255498351		14269-1.RAW	11:26:35	137.7121686		psample10	CT	1
SEQ-CCV1	A20	1	2.230445076	0.449343874	89.98	14270-1.RAW	11:37:05	300.0693655		psample10	CT	1
SEQ-CCB1	A21	1	2.230445076	0.005251309	0.00	14271-1.RAW	11:47:36	5.711174242		psample10	OK	1
1607542-01	B1	1.25	2.230445076	0.050874672		14272-1.RAW	11:58:07	29.20748106		psample10	OK	1
1607542-03	B2	1.25	2.230445076	0.06382003		14273-1.RAW	12:08:38	36.07194602		psample10	OK	1
1607542-04	B3	1.25	2.230445076	0.023723238		14274-1.RAW	12:19:08	14.81003788		psample10	CT	1
1607542-05	B4	1.25	2.230445076	0.032409851		14275-1.RAW	12:29:39	19.41624053		psample10	OK	1
1607542-06	B5	1.25	2.230445076	0.039166724		14276-1.RAW	12:40:10	22.9991714		psample10	OK	1
1607542-07	B6	1.25	2.230445076	0.026824356		14277-1.RAW	12:50:40	16.45445076		psample10	OK	1
1607586-12	B7	1.25	2.230445076	0.020093109		14278-1.RAW	13:01:11	12.8851089		psample10	OK	1
1607586-19	B8	1.25	2.230445076	0.036240307		14279-1.RAW	13:11:42	21.44739583		psample10	CT	1
1607586-20	B9	1.25	2.230445076	0.012238209		14280-1.RAW	13:22:13	8.719933712		psample10	OK	1
1607586-21	B10	1.25	2.230445076	0.000185281		14281-1.RAW	13:32:43	2.328693182		psample10	OK	1
SEQ-CCV2	B11	1	2.230445076	0.599452047	120.04	14282-1.RAW	13:43:14	399.5656723		psample10	CT	1
SEQ-CCB2	B12	1	2.230445076	0.001459749	0.00	14283-1.RAW	13:53:45	3.198011364		psample10	OK	1
1607772-01	B13	1.25	2.230445076	0.030891214		14284-1.RAW	14:04:16	18.61096117		psample10	CT	1
1607772-02	B14	1.25	2.230445076	0.020674892		14285-1.RAW	14:14:46	13.19360795		psample10	CT	1
1607772-03	B15	1.25	2.230445076	0.043379485		14286-1.RAW	14:25:17	25.23304924		psample10	CT	1
1607772-04	B16	1.25	2.230445076	0.016405074		14287-1.RAW	14:35:48	10.92947443		psample10	OK	1
1607772-05	B17	1.25	2.230445076	0.018865922		14288-1.RAW	14:46:19	12.234375		psample10	OK	1
1607772-06	B18	1.25	2.230445076	0.009753118		14289-1.RAW	14:56:49	7.40217803		psample10	CT	1
1607772-07	B19	1.25	2.230445076	0.017747359		14290-1.RAW	15:07:20	11.64124053		psample10	CT	1
1607586-04RE3	B20	1.25	2.230445076	0.109089519		14291-1.RAW	15:17:51	60.07675189		psample10	CT	1
1607805-01	B21	1.25	2.230445076	0.709619412		14292-1.RAW	15:28:22	378.5164773		psample10	CT	1
1607805-02	C1	1.25	2.230445076	0.144107014		14293-1.RAW	15:38:52	78.64528883		psample10	CT	1
SEQ-CCV3	C2	1	2.230445076	0.514768048	103.08	14294-1.RAW	15:49:23	343.434517		psample10	CT	1
SEQ-CCB3	C3	1	2.230445076	0.001987716	0.00	14295-1.RAW	15:59:54	3.547964015		psample10	OK	1
F608155-BLK1	C4	1	2.230445076	0.010419684		14296-1.RAW	16:10:25	9.136931818		psample10	OK	1
F608155-BLK2	C5	1	2.230445076	0.016127705		14297-1.RAW	16:20:55	12.92038352		psample10	OK	1
F608155-BLK3	C6	1	2.230445076	0.013238174		14298-1.RAW	16:31:25	11.00511364		psample10	OK	1
F608155-BS1	C7	10	2.230445076	11.68475029		14299-1.RAW	16:41:55	776.7315814		psample10	OK	1

F608155-BSD1	C8	10	2.230445076	11.72590756		14300-1.RAW	16:52:26	779.4596117	psample10	OK	1
F608155-DUP1	C9	1	2.230445076	0.026610287		14301-1.RAW	17:02:56	19.86856061	psample10	OK	1
F608155-MS1	C10	10	2.230445076	9.706876491	970.69	14302-1.RAW	17:13:27	645.6320312	psample10	CT	1
F608155-MSD1	C11	10	2.230445076	10.19439506		14303-1.RAW	17:23:58	677.9462595	psample10	OK	1
F608155-MS2	C12	10	2.230445076	10.01114606	500.56	14304-1.RAW	17:34:28	665.7999527	psample10	CT	1
F608155-MSD2	C13	10	2.230445076	11.75060864		14305-1.RAW	17:44:59	781.096875	psample10	OK	1
SEQ-CCV4	C14	1	2.230445076	0.683528394	136.88	14306-1.RAW	17:55:30	455.2940578	psample10	CT	1
SEQ-CCB4	C15	1	2.230445076	0.004740701	0.00	14307-1.RAW	18:06:00	5.372727273	psample10	OK	1
SEQ-CCV5	B1	1	2.230445076	0.62117155	124.39	14308-1.RAW	18:16:31	413.9620265	psample10	CT	1
SEQ-CCV6	B2	1	2.230445076	0.618876491	123.93	14309-1.RAW	18:27:02	412.4407907	psample10	CT	1
1607782-15	C16	1	2.230445076	0.026906094		14310-1.RAW	18:37:32	20.06463068	psample10	OK	1
1607782-16	C17	1	2.230445076	0.071454825		14311-1.RAW	18:48:03	49.59289773	psample10	OK	1
1607782-17	C18	1	2.230445076	0.101240128		14312-1.RAW	18:58:34	69.33551136	psample10	OK	1
1607782-18	C19	1	2.230445076	0.050783219		14313-1.RAW	19:09:04	35.89112216	psample10	OK	1
1607782-19	C20	1	2.230445076	0.030110898		14314-1.RAW	19:19:35	22.18887311	psample10	OK	1
1607782-20	C21	1	2.230445076	0.053000844		14315-1.RAW	19:30:06	37.3610322	psample10	OK	1
1607782-21	A1	1	2.230445076	0.052807223		14316-1.RAW	19:40:36	37.23269413	psample10	OK	1
1607783-01	A2	1	2.230445076	0.440032556		14317-1.RAW	19:51:07	293.8975379	psample10	CT	1
1607783-02	A3	1	2.230445076	0.079150383		14318-1.RAW	20:01:38	54.69375	psample10	OK	1
1607783-03	A4	1	2.230445076	0.061957208		14319-1.RAW	20:12:08	43.29758523	psample10	OK	1
SEQ-CCV7	A5	1	2.230445076	0.43998791	88.11	14320-1.RAW	20:22:39	293.8679451	psample10	CT	1
SEQ-CCB5	A6	1	2.230445076	0.001017931	0.00	14321-1.RAW	20:33:10	2.905160985	psample10	CT	1
1607783-04	A7	1	2.230445076	0.051792756		14322-1.RAW	20:43:40	36.56027462	psample10	OK	1
1607783-05	A8	1	2.230445076	0.042557301		14323-1.RAW	20:54:11	30.43873106	psample10	CT	1
1607783-06	A9	1	2.230445076	0.168355424		14324-1.RAW	21:04:42	113.8215909	psample10	CT	1
1607783-07	A10	1	2.230445076	0.328919926		14325-1.RAW	21:15:12	220.2486742	psample10	CT	1
1607783-08	A11	1	2.230445076	0.041399574		14326-1.RAW	21:25:43	29.67135417	psample10	OK	1
1607783-09	A12	1	2.230445076	0.026638968		14327-1.RAW	21:36:14	19.88757102	psample10	OK	1
1607783-10	A13	1	2.230445076	0.027940455		14328-1.RAW	21:46:45	20.75023674	psample10	OK	1
1607783-11	A14	1	2.230445076	0.101853673		14329-1.RAW	21:57:15	69.7421875	psample10	OK	1
1607783-12	A15	1	2.230445076	0.04455141		14330-1.RAW	22:07:46	31.76048769	psample10	OK	1
1607783-13	A16	1	2.230445076	0.026604001		14331-1.RAW	22:18:17	19.86439394	psample10	OK	1
SEQ-CCV8	A17	1	2.230445076	0.479148536	95.95	14332-1.RAW	22:28:47	319.8248106	psample10	CT	1
SEQ-CCB6	A18	1	2.230445076	0.001069149	0.00	14333-1.RAW	22:39:18	2.939109848	psample10	OK	1

Failing Data Report - 6H12010

Sample ID	Analysis	Result	MRL	Dup Result	Source Result	True Value	Units	% Rec.	Rec. LCL	Rec. UCL	RPD	RPD Limit	Over Cal	Failure	Qualifier
6H12010-CCV4	MHg-CVAFS-S-MeClExt	0.684	0.201			0.50049	ng/L	137	67.00	133.00			PASS-OVER	FAIL-CCV	DNR

Analyst Reviewed By *Ry NZ* Date *8/15/16*

Peer Reviewed By *[Signature]* Date *8/15/16*

ANALYSIS SEQUENCE

6H12010

Instrument: Hg2700-1

Calibration ID: UNASSIGNED

Analyzed: 8/12/2016

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
5H12010-IBL1	QC	1			
5H12010-CAL1	QC	2	1604163		
5H12010-CAL2	QC	3	1604164		
5H12010-CAL3	QC	4	1604165		
5H12010-CAL4	QC	5	1604166		
5H12010-CAL5	QC	6	1604167		
5H12010-ICV1	QC	7	1603001		
6H12010-ICB1	QC	8			
6H12010-CCV1	QC	9	1603001		
6H12010-CCB1	QC	10			
6H12010-CCV2	QC	11	1603001		
6H12010-CCB2	QC	12			
6H12010-CCV3	QC	13	1603001		
6H12010-CCB3	QC	14			
F608155-BLK1	QC	15			
F608155-BLK2	QC	16			
F608155-BLK3	QC	17			
F608155-BS1	QC	18			
F608155-BSD1	QC	19			
F608155-DUP1	QC	20			
F608155-MS1	QC	21			
F608155-MSD1	QC	22			
F608155-MS2	QC	23			
F608155-MSD2	QC	24			
6H12010-CCV4	QC	25	1603001		
6H12010-CCB4	QC	26			
6H12010-CCV5	QC	27	1603001		
6H12010-CCV6	QC	28	1603001		
1607782-15	MHg-CVAFS-S-MeClExt	29			
1607782-16	MHg-CVAFS-S-MeClExt	30			
1607782-17	MHg-CVAFS-S-MeClExt	31			
1607782-18	MHg-CVAFS-S-MeClExt	32			
1607782-19	MHg-CVAFS-S-MeClExt	33			
1607782-20	MHg-CVAFS-S-MeClExt	34			
1607782-21	MHg-CVAFS-S-MeClExt	35			

Due Date: 8/24/2016

Page 1 of 2

ANALYSIS SEQUENCE

6H12010

Instrument: Hg2700-1

Calibration ID: UNASSIGNED

Analyzed: 8/12/2016

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
1607783-01	MHg-CVAFS-S-MeClExt	36			
1607783-02	MHg-CVAFS-S-MeClExt	37			
1607783-03	MHg-CVAFS-S-MeClExt	38			
6H12010-CCV7	QC	39	1603001		
6H12010-CCB5	QC	40			
1607783-04	MHg-CVAFS-S-MeClExt	41			
1607783-05	MHg-CVAFS-S-MeClExt	42			
1607783-06	MHg-CVAFS-S-MeClExt	43			
1607783-07	MHg-CVAFS-S-MeClExt	44			
1607783-08	MHg-CVAFS-S-MeClExt	45			
1607783-09	MHg-CVAFS-S-MeClExt	46			
1607783-10	MHg-CVAFS-S-MeClExt	47			
1607783-11	MHg-CVAFS-S-MeClExt	48			
1607783-12	MHg-CVAFS-S-MeClExt	49			
1607783-13	MHg-CVAFS-S-MeClExt	50			
6H12010-CCV8	QC	51	1603001		
6H12010-CCB6	QC	52			

By NA 8/12/16
 Samples Loaded By _____ Date _____

By NA 8/15/16
 Data Processed By _____ Date _____

Due Date: 8/24/2016

PREPARATION BENCH SHEET

F608155

Eurofins Frontier Global Sciences, Inc.

Matrix: Soil/Sediment

Prepared using: Hg Aquatic/Solids - EFGS-045 MeCl2 Extraction for Methyl Hg

Prepared: 8/12/2016

Lab Number	Sample ID and Source Sample	Initial (g)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F608155-BLK1	Blank	0.5	250					
F608155-BLK2	Blank	0.5	250					
F608155-BLK3	Blank	0.5	250					
F608155-BS1	Blank Spike	0.5	250	1506872	25			
F608155-BSD1	Blank Spike Dup	0.5	250	1506872	25			
F608155-DUP1	Duplicate [1607782-15]	0.542	250					
F608155-MS1	Matrix Spike [1607782-16]	0.584	250	1506872	25			
F608155-MS2	Matrix Spike [1607782-15]	0.542	250	1506872	25			
F608155-MSD1	Matrix Spike Dup [1607782-16]	0.58	250	1506872	25			
F608155-MSD2	Matrix Spike Dup [1607782-15]	0.582	250	1506872	25			

Standard ID(s): 1506872
Description: MHg New Primary 100 ng/mL spike

Expiration: 03-Nov-16 00:00

<u>Reagent ID(s):</u> 1602382	<u>Description:</u> Dichloromethane
1602604	Acetate Buffer
1602944	Ethylating Agent (For Methyl Mercury Analysis)
1603399	Boiling Chips for AFS prep
1603749	Ethylating Agent (For Methyl Mercury Analysis)
1604262	Acid Bromide
1604379	CuSO4

Expiration: 05-May-19 00:00
 15-Nov-16 00:00
 30-Nov-16 00:00
 01-Jun-17 00:00
 09-Jan-17 00:00
 02-Sep-16 00:00
 16-Oct-16 00:00

PREPARATION BENCH SHEET

F608155

Eurofins Frontier Global Sciences, Inc.

Matrix: Soil/Sediment

Prepared using: Hg Aquatic/Solids - EFGS-045 MeCl₂ Extraction for Methyl Hg

Prepared: 8/12/2016

Lab Number	Sample ID	Initial (g)	Final (mL)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1607782-15	WP2-4C (25-30 cm.)	0.585	250	-	-	-		
1607782-16	WP2-4C (5-10 cm.)	0.539	250	-	-	-		
1607782-17	WP2-1C (0-5 cm.)	0.535	250	-	-	-		
1607782-18	WP2-1C (15-20 cm.)	0.532	250	-	-	-		
1607782-19	WP2-1C (20-25 cm.)	0.537	250	-	-	-		
1607782-20	WP2-1C (5-10 cm.)	0.556	250	-	-	-		
1607782-21	WP2-1C (10-15 cm.)	0.574	250	-	-	-		
1607783-01	WP2-1B (0-5 cm.)	0.542	250	-	-	-		
1607783-02	WP2-1B (10-15 cm.)	0.556	250	-	-	-		
1607783-03	WP2-1B (15-20 cm.)	0.59	250	-	-	-		
1607783-04	WP2-1B (20-25 cm.)	0.522	250	-	-	-		
1607783-05	WP2-1B (25-30 cm.)	0.533	250	-	-	-		
1607783-06	WP2-1B (5-10 cm.)	0.543	250	-	-	-		
1607783-07	WP2-4B (0-5 cm.)	0.535	250	-	-	-		
1607783-08	WP2-4B (10-15 cm.)	0.569	250	-	-	-		
1607783-09	WP2-4B (15-20 cm.)	0.546	250	-	-	-		
1607783-10	WP2-4B (20-25 cm.)	0.589	250	-	-	-		
783-11	WP2-4B (25-30 cm.)	0.584	250	-	-	-		
783-12	WP2-4B (30-35 cm.)	0.564	250	-	-	-		

PREPARATION BENCH SHEET

F608155

Eurofins Frontier Global Sciences, Inc.

Matrix: Soil/Sediment

Prepared using: Hg Aquatic/Solids - EFGS-045 MeCl₂ Extraction for Methyl Hg

Prepared: 8/12/2016

1607783-13	WP2-4B (35-40 cm.)	0.543	250	-	-	-		
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PREPARATION BENCH SHEET

F608155

Eurofins Frontier Global Sciences, Inc.

Matrix: Soil/Sediment

Prepared using: Hg Aquatic/Solids - EFGS-045 MeCl2 Extraction for Methyl Hg

Prepared: 8/12/2016

Lab Number	Sample ID and Source Sample	Initial (g)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F608155-BLK1	Blank	0.5	250					
F608155-BLK2	Blank	0.5	250					
F608155-BLK3	Blank	0.5	250					
F608155-BS1	Blank Spike	0.5	250	1506872	25			
F608155-BSD1	Blank Spike Dup	0.5	250	1506872	25			
F608155-DUP1	Duplicate [1607782-15]	0.542	250					
F608155-MS1	Matrix Spike [1607782-16]	0.584	250	1506872	25			
F608155-MS2	Matrix Spike [1607782-15]	0.542	250	1506872	25			
F608155-MSD1	Matrix Spike Dup [1607782-16]	0.58	250	1506872	25			
F608155-MSD2	Matrix Spike Dup [1607782-15]	0.582	250	1506872	25			

Standard ID(s): 1506872
Description: MHg New Primary 100 ng/mL spike

Expiration: 03-Nov-16 00:00

JH 8/15/16

<u>Reagent ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>
1600476	Acetate Buffer	26-Jul-16 00:00
1602382	Dichloromethane	05-May-19 00:00
1602604	Acetate Buffer	15-Nov-16 00:00
1602944	Ethylating Agent (For Methyl Mercury Analysis)	30-Nov-16 00:00
1603399	Boiling Chips for AFS prep	01-Jun-17 00:00
1603749	Ethylating Agent (For Methyl Mercury Analysis)	09-Jan-17 00:00
1604262	Acid Bromide	02-Sep-16 00:00
1604379	CuSO4	16-Oct-16 00:00

JH 8/15/16

PREPARATION BENCH SHEET

F608155

Eurofins Frontier Global Sciences, Inc.

Matrix: Soil/Sediment

Prepared using: Hg Aquatic/Solids - EFGS-045 MeCl₂ Extraction for Methyl Hg

Prepared: 8/12/2016

Lab Number	Sample ID	Initial (g)	Final (mL)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1607782-15	WP2-4C (25-30 cm.)	0.585	250	-	-	-		
1607782-16	WP2-4C (5-10 cm.)	0.539	250	-	-	-		
1607782-17	WP2-1C (0-5 cm.)	0.535	250	-	-	-		
1607782-18	WP2-1C (15-20 cm.)	0.532	250	-	-	-		
1607782-19	WP2-1C (20-25 cm.)	0.537	250	-	-	-		
1607782-20	WP2-1C (5-10 cm.)	0.556	250	-	-	-		
1607782-21	WP2-1C (10-15 cm.)	0.574	250	-	-	-		
1607783-01	WP2-1B (0-5 cm.)	0.542	250	-	-	-		
1607783-02	WP2-1B (10-15 cm.)	0.556	250	-	-	-		
1607783-03	WP2-1B (15-20 cm.)	0.59	250	-	-	-	JH 8/15/16	
1607783-04	WP2-1B (20-25 cm.)	0.522	250	-	-	-		
1607783-05	WP2-1B (25-30 cm.)	0.533	250	-	-	-		
1607783-06	WP2-1B (5-10 cm.)	0.543	250	-	-	-		
1607783-07	WP2-4B (0-5 cm.)	0.535	250	-	-	-		
1607783-08	WP2-4B (10-15 cm.)	0.569	250	-	-	-		
1607783-09	WP2-4B (15-20 cm.)	0.546	250	-	-	-		
1607783-10	WP2-4B (20-25 cm.)	0.589	250	-	-	-		
1607783-11	WP2-4B (25-30 cm.)	0.584	250	-	-	-		
1607783-12	WP2-4B (30-35 cm.)	0.564	250	-	-	-		

PREPARATION BENCH SHEET

F608155

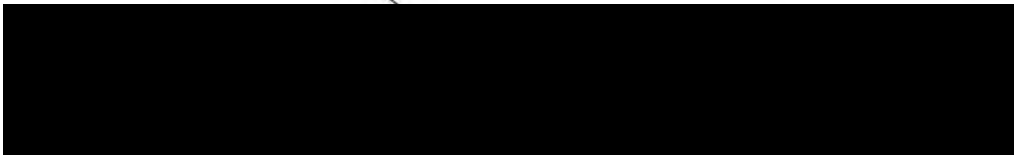
Eurofins Frontier Global Sciences, Inc.

Matrix: Soil/Sediment

Prepared using: Hg Aquatic/Solids - EFGS-045 MeCl₂ Extraction for Methyl Hg

Prepared: 8/12/2016

1607783-13	WP2-4B (35-40 cm.)	0.543	250	-	-	-		
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JH
8/15/16

PREPARATION BENCH SHEET

n 8/12/16 27001 ~~6H2~~
 6H12021
n 8/12/16

F608155

Eurofins Frontier Global Sciences, Inc.

Matrix: Soil/Sediment

Prepared using: Hg Aquatic/Solids - EFGS-045 MeCl2 Extraction for Methyl Hg

Prepared: 8/12/2016

Lab Number	Sample ID and Source Sample	Initial (g)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F608155-BLK1	Blank	0.5	250					1x
F608155-BLK2	Blank	0.5	250					1x
F608155-BLK3	Blank	0.5	250					1x
F608155-BS1	Blank Spike	0.5	250	1506872	25			10x
F608155-BSD1	Blank Spike Dup	0.5	250	1506872	25			10x
F608155-DUP1	Duplicate [1607782-15]	0.542	250					1x
F608155-MS1	Matrix Spike [1607782-16]	0.584	250	1506872	25			10x
F608155-MS2	Matrix Spike [1607782-15]	0.542	250	1506872	25			10x
F608155-MSD1	Matrix Spike Dup [1607782-16]	0.58	250	1506872	25			10x
F608155-MSD2	Matrix Spike Dup [1607782-15]	0.582	250	1506872	25			10x

Standard ID(s): 1506872
Description: MHg New Primary 100 ng/mL spike

Expiration: 03-Nov-16 00:00

Reagent ID(s): 1602382, 1603399, 1604262, 1604379
Description: Dichloromethane, Boiling Chips for AFS prep, Acid Bromide, CuSO4

Expiration: 05-May-19 00:00, 01-Jun-17 00:00, 02-Sep-16 00:00, 16-Oct-16 00:00

PREPARATION BENCH SHEET

F608155

Eurofins Frontier Global Sciences, Inc.

Matrix: Soil/Sediment

Prepared using: Hg Aquatic/Solids - EFGS-045 MeCl₂ Extraction for Methyl Hg

Prepared: 8/12/2016

Lab Number	Sample ID	Initial (g)	Final (mL)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1607782-15	WP2-4C (25-30 cm.)	0.585	250	-	-	-		1x
1607782-16	WP2-4C (5-10 cm.)	0.539	250	-	-	-		1x
1607782-17	WP2-1C (0-5 cm.)	0.535	250	-	-	-		1x
1607782-18	WP2-1C (15-20 cm.)	0.532	250	-	-	-		1x
1607782-19	WP2-1C (20-25 cm.)	0.537	250	-	-	-		1x
1607782-20	WP2-1C (5-10 cm.)	0.556	250	-	-	-		1x
1607782-21	WP2-1C (10-15 cm.)	0.574	250	-	-	-		1x
1607783-01	WP2-1B (0-5 cm.)	0.542	250	-	-	-		1x
1607783-02	WP2-1B (10-15 cm.)	0.556	250	-	-	-		1x
1607783-03	WP2-1B (15-20 cm.)	0.59	250	-	-	-		1x
1607783-04	WP2-1B (20-25 cm.)	0.522	250	-	-	-		1x
1607783-05	WP2-1B (25-30 cm.)	0.533	250	-	-	-		1x
1607783-06	WP2-1B (5-10 cm.)	0.543	250	-	-	-		1x
1607783-07	WP2-4B (0-5 cm.)	0.535	250	-	-	-		1x
1607783-08	WP2-4B (10-15 cm.)	0.569	250	-	-	-		1x
1607783-09	WP2-4B (15-20 cm.)	0.546	250	-	-	-		1x
1607783-10	WP2-4B (20-25 cm.)	0.589	250	-	-	-		1x
1607783-11	WP2-4B (25-30 cm.)	0.584	250	-	-	-		1x
1607783-12	WP2-4B (30-35 cm.)	0.564	250	-	-	-		1x

PREPARATION BENCH SHEET

F608155

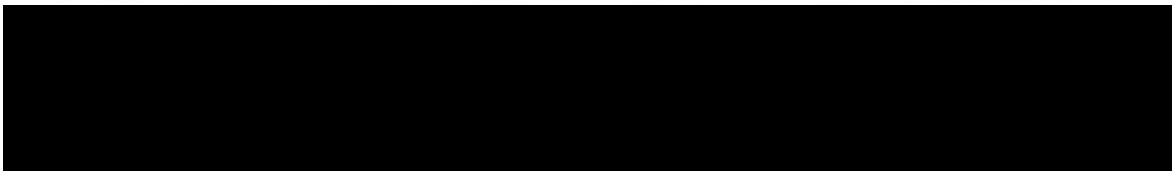
Eurofins Frontier Global Sciences, Inc.

Matrix: Soil/Sediment

Prepared using: Hg Aquatic/Solids - EFGS-045 MeCl₂ Extraction for Methyl Hg

Prepared: 8/12/2016

1607783-13	WP2-4B (35-40 cm.)	0.543	250	-	-	-		1x
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Technician: Dwyer Batch#: F608155 Date: 8/5/16

EFGS-045 Sediments - Methyl Mercury - KBr/CH₂Cl₂: Heat Block 45°C (nitrogen purge for 30 minutes). Vial Type: Glass Teflon

Balance#: 10205 ^{8/12/16} Calibrated? Yes No
 1st Time in: 10:05 Actual Temp. (raw): 49.6/49.9 °C w/ CF: 50.2/50.6 °C
 1st Time out: 10:35 Actual Temp. (raw): 49.7/50.1 °C w/ CF: 50.0/50.4 °C
 2nd Time in: 10:40 Actual Temp. (raw): 49.6/50.0 °C w/ CF: 50.2/50.6 °C
 2nd Time out: 11:15 Actual Temp. (raw): 49.7/50.1 °C w/ CF: 50.4/50.5 °C
 3rd Time in: 11:20 Actual Temp. (raw): 49.6/50.0 °C w/ CF: 50.3/50.7 °C
 3rd Time out: 11:50 Actual Temp. (raw): 49.8/50.2 °C w/ CF: 50.2/50.6 °C ^{50.7°C 8/12/16}

Final vol.: 50 mL (LIMS ID: N/A) Spike vol.: 25 µL (LIMS ID: 1506872)
 Spike Witness: DA 8/12/16 (initial and date)

1st Purge time Start: 9:05 1st Purge Time End: 10:50 2nd Purge time Start: 11:05 2nd Purge Time End: 11:20
 KBr LIMS ID: 1604262 Aide Bromide Pipette SN#: CJ17087 Calibration Date: 8-9-16
 CH₂Cl₂ LIMS ID: 1602382 Pipette SN#: U224486 Calibration Date: 8/8/16
 CuSO₄ LIMS ID: 1604379 Dispenser #: 12591647 Calibrated? Yes No
 Other Acid LIMS ID: N/A Dispenser #: N/A
 Teflon Vial # N/A Boiling Chip lot # 1603399 Centrifuge Tube: J246161-9884

Vial #	Sample ID Number	Sample Size <input type="checkbox"/> mL <input checked="" type="checkbox"/> g	Vial #	Sample ID Number	Sample Size <input type="checkbox"/> mL <input checked="" type="checkbox"/> g	Comments
1	F608155-BLK1	0.499	23	1607783-06	0.543	weigh all sample
2	F608155-BLK2	0.508	24	1607783-07	0.535	on 8/5/16
3	F608155-BLK3	0.498	25	1607783-08	0.569	Add Add Acide
4	F608155-BS1	0.530	26	1607783-09	0.546	on 8/12/16
5	F608155-BSD1	0.537	27	1607783-10	0.589	purge samples
6	1607782-15	0.585	28	1607783-11	0.584	on 8/12/16
7	F608155-DUP1(1607782-15)	0.542	29	1607783-12	0.564	Thermometer
8	F608155-MS1(1607782-15)	0.584	30	1607783-13	0.543	140418015
9	F608155-MSD1(1607782-15)	0.580	31			unit 10
10	1607782-16	0.539	32			140418012
11	F608155-MS2(1607782-16)	0.542	33			unit 11
12	F608155-MSD2(1607782-16)	0.582	34			stainless steel
13	1607782-17	0.535	35			4: Time in 11:55
14	1607782-18	0.532	36			Actual Temp
15	1607782-19	0.537	37			49.7/ 50.1
16	1607782-20	0.556	38			450.3/ 50.7
17	1607782-21	0.574	39			8-12-16
18	1607783-01	0.542	40			DA
19	1607783-02	0.556	41			8/12/16
20	1607783-03	0.590	42			DA
21	1607783-04	0.522	43			
22	1607783-05	0.533	44			

Eurofins Frontier Global Sciences / Mercury Sample Digestions (LOG-HG-013.13) / Effective 08/03/16 QA2016-124
 Verified By: DA 8/12/16 DA 8/12/16 Page 4 of 14

Failing Data Report - 6H12011

Sample ID	Analysis	Result	MRL	Dup Result	Source Result	True Value	Units	% Rec.	Rec. LCL	Rec. UCL	RPD	RPD Limit	Over Cal	Failure	Qualifier
F608273-BSD1	MHg-CVAFS-W-Dist	0.968	0.050	0.704		1.0010	ng/L	96.7	70.00	130.00	31.6	25.00	PASS-OVER	FAIL-BSD (RPD)	QR-07
F608273-DUP1	MHg-CVAFS-W-Dist	0.151	0.050	0.051	0.051		ng/L				98.7	35.00	PASS-OVER	FAIL-DUP	QR-04
F608273-MS2	MHg-CVAFS-W-Dist	0.347	0.050		0.029	1.0010	ng/L	31.7	65.00	130.00			PASS-OVER	FAIL-MS	QM-07
F608273-MSD2	MHg-CVAFS-W-Dist	0.277	0.050	0.347	0.029	1.0010	ng/L	24.8	65.00	130.00	22.3	35.00	PASS-OVER	FAIL-MSD (Rec.)	QM-07
6H12011-CCV4	MHg-CVAFS-W-Dist	0.684	0.045			0.50049	ng/L	137	67.00	133.00			PASS-OVER	FAIL-CCV	DNR


 Analyst Reviewed By _____ Date 8/15/16


 Peer Reviewed By _____ Date 8/15/16

ANALYSIS SEQUENCE

6H12011

Instrument: Hg2700-1

Calibration ID: UNASSIGNED

Analyzed: 8/12/2016

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
5H12011-IBL1	QC	1			
5H12011-CAL1	QC	2	1604163		
5H12011-CAL2	QC	3	1604164		
6H12011-CAL3	QC	4	1604165		
6H12011-CAL4	QC	5	1604166		
6H12011-CAL5	QC	6	1604167		
6H12011-ICV1	QC	7	1603001		
6H12011-ICB1	QC	8			
F608273-BLK1	QC	9			
F608273-BLK2	QC	10			
F608273-BLK3	QC	11			
F608273-BS1	QC	12			
F608273-BSD1	QC	13			
F608273-DUP1	QC	14			
F608273-MS1	QC	15			
F608273-MS2	QC	16			
F608273-MSD1	QC	17			
F608273-MSD2	QC	18			
6H12011-CCV1	QC	19	1603001		
6H12011-CCB1	QC	20			
1607542-01	MHg-CVAFS-W-Dist	21			Scan all data for level IV report
1607542-03	MHg-CVAFS-W-Dist	22			Scan all data for level IV report
1607542-04	MHg-CVAFS-W-Dist	23			Scan all data for level IV report
1607542-05	MHg-CVAFS-W-Dist	24			Scan all data for level IV report
1607542-06	MHg-CVAFS-W-Dist	25			Scan all data for level IV report
1607542-07	MHg-CVAFS-W-Dist	26			Scan all data for level IV report
1607586-12	MHg-CVAFS-W-Dist	27			Scan all data - Level IV
1607586-19	MHg-CVAFS-W-Dist	28			Scan all data - Level IV
1607586-20	MHg-CVAFS-W-Dist	29			Scan all data - Level IV
1607586-21	MHg-CVAFS-W-Dist	30			Scan all data - Level IV
6H12011-CCV2	QC	31	1603001		
6H12011-CCB2	QC	32			
1607772-01	MHg-CVAFS-W-Dist	33			
1607772-02	MHg-CVAFS-W-Dist	34			
1607772-03	MHg-CVAFS-W-Dist	35			

Due Date: 8/11/2016

Page 1 of 2

PREPARATION BENCH SHEET

F608273

Eurofins Frontier Global Sciences, Inc.

Matrix: Water

Prepared using: Hg Aquatic/Solids - EFGS-013 Methyl Hg Distillation for Water

Prepared: 8/11/2016

Lab Number	Sample ID and Source Sample	Initial (mL)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F608273-BLK1	Blank	45	40					
F608273-BLK2	Blank	45	40					
F608273-BLK3	Blank	45	40					
F608273-BS1	Blank Spike	45	40	1603908	45			
F608273-BSD1	Blank Spike dup	45	40	1603908	45			
F608273-DUP1	Duplicate [1607542-01]	45	40					
F608273-MS1	Matrix Spike [1607586-12]	45	40	1603908	45			
F608273-MS2	Matrix Spike [1607772-01]	45	40	1603908	45			
F608273-MSD1	Matrix Spike Dup [1607586-12]	45	40	1603908	45			
F608273-MSD2	Matrix Spike Dup [1607772-01]	45	40	1603908	45			

Standard ID(s): 1603908
Description: MHg New Primary 1.0 ng/mL CAL

Expiration: 19-Oct-16 00:00

Reagent ID(s):
 1602604
 1602944
 1604432
 1604511
 1604518

Description:
 Acetate Buffer
 Ethylating Agent (For Methyl Mercury Analysis)
 APDC
 0.5% Distillation Dilute (Made Daily)
 2.5% Ascorbic Acid

Expiration:
 15-Nov-16 00:00
 30-Nov-16 00:00
 17-Aug-16 00:00
 07-Feb-17 00:00
 19-Aug-16 00:00

PREPARATION BENCH SHEET

F608273

Eurofins Frontier Global Sciences, Inc.

Prepared: 8/11/2016

Matrix: Water

Prepared using: Hg Aquatic/Solids - EFGS-013 Methyl Hg Distillation for Water

Lab Number	Sample ID	Initial (mL)	Final (mL)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1607542-01	OL-2434-01	45	40	-	-	-	Scan all data for level IV report	
1607542-03	OL-2434-02	45	40	-	-	-	Scan all data for level IV report	
1607542-04	OL-2434-03	45	40	-	-	-	Scan all data for level IV report	
1607542-05	OL-2434-04	45	40	-	-	-	Scan all data for level IV report	
1607542-06	OL-2434-05	45	40	-	-	-	Scan all data for level IV report	
1607542-07	OL-2434-06	45	40	-	-	-	Scan all data for level IV report	
1607586-04RE3	1524 WQ1b-c_071816_SW_10 Dissolved	45	40	-	-	-	From F608251 by DMH on 11-Aug-16	From F608251 by DMH on 11-Aug-16
1607586-12	1528 WQ-ECH_071816_SW_10 Dissolved	45	40	QC	-	-	MS/MSD Scan all data - Level IV	
1607586-19	1532 WQ-FPT_071816_SW_10	45	40	-	-	-	Scan all data - Level IV	
1607586-20	1532 WQ-FPT_071816_SW_10 Dissolved	45	40	-	-	-	Scan all data - Level IV	
1607586-21	1533 EB_071916_SW_QC Dissolved	45	40	-	-	-	Scan all data - Level IV	
1607772-01	WP2-1E (20 m.)	45	40	-	-	-		
1607772-02	WP2-1E (40 m.)	45	40	-	-	-		
1607772-03	WP2-1E (Bottom)	45	40	-	-	-		
1607772-04	WP2-1E (Surface)	45	40	-	-	-		
1607772-05	WP2-2E (20 tn.)	45	40	-	-	-		
1607772-06	WP2-2E (40 m.)	45	40	-	-	-		
1607772-07	WP2-2E (Bottom)	45	40	-	-	-		
1607805-01	ADD-02_072216_SW_10	45	40	-	-	-	Scan all data - Level IV	

Page 67 of 162

Date: 8/11/2016

PREPARATION BENCH SHEET

F608273

Eurofins Frontier Global Sciences, Inc.

Matrix: Water

Prepared using: Hg Aquatic/Solids - EFGS-013 Methyl Hg Distillation for Water

Prepared: 8/11/2016

1607805-02	ADD-02_072216_SW_10 Dissolved	45	40	-	-	-	Scan all data - Level IV	
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PREPARATION BENCH SHEET

F608273

Eurofins Frontier Global Sciences, Inc.

Prepared: 8/11/2016

Matrix: Water

Prepared using: Hg Aquatic/Solids - EFGS-013 Methyl Hg Distillation for Water

Lab Number	Sample ID and Source Sample	Initial (mL)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F608273-BLK1	Blank	45	40					
F608273-BLK2	Blank	45	40					
F608273-BLK3	Blank	45	40					
F608273-BS1	Blank Spike	45	40	1603908	45			
F608273-BSD1	Blank Spike dup	45	40	1603908	45			
F608273-DUP1	Duplicate [1607542-01]	45	40					
F608273-MS1	Matrix Spike [1607586-12]	45	40	1603908	45			
F608273-MS2	Matrix Spike [1607772-01]	45	40	1603908	45			
F608273-MSD1	Matrix Spike Dup [1607586-12]	45	40	1603908	45			
F608273-MSD2	Matrix Spike Dup [1607772-01]	45	40	1603908	45			

Standard ID(s):
1603908

Description:
MHg New Primary 1.0 ng/mL CAL

Expiration:
19-Oct-16 00:00

Reagent ID(s):
1604432
1604511

Description:
APDC
0.5% Distillation Dilute (Made Daily)

Expiration:
17-Aug-16 00:00
07-Feb-17 00:00

1604518
1602604
1602944

JF 8/15/16

PREPARATION BENCH SHEET

F608273

Eurofins Frontier Global Sciences, Inc.

Prepared: 8/11/2016

Matrix: Water

Prepared using: Hg Aquatic/Solids - EFGS-013 Methyl Hg Distillation for Water

Lab Number	Sample ID	Initial (mL)	Final (mL)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1607542-01	OL-2434-01	45	40	-	-	-	Scan all data for level IV report	
1607542-03	OL-2434-02	45	40	-	-	-	Scan all data for level IV report	
1607542-04	OL-2434-03	45	40	-	-	-	Scan all data for level IV report	
1607542-05	OL-2434-04	45	40	-	-	-	Scan all data for level IV report	
1607542-06	OL-2434-05	45	40	-	-	-	Scan all data for level IV report	
1607542-07	OL-2434-06	45	40	-	-	-	Scan all data for level IV report	
1607586-04RE3	1524 WQ1b-c_071816_SW_10 Dissolved	45	40	-	-	-	From F608251 by DMH on 11-Aug-16	From F608251 by DMH on 11-Aug-16
1607586-12	1528 WQ-ECH_071816_SW_10 Dissolved	45	40	QC	-	-	MS/MSD Scan all data - Level IV	
1607586-19	1532 WQ-FPT_071816_SW_10	45	40	-	-	-	Scan all data - Level IV	
1607586-20	1532 WQ-FPT_071816_SW_10 Dissolved	45	40	-	-	-	Scan all data - Level IV	
1607586-21	1533 EB_071916_SW_QC Dissolved	45	40	-	-	-	Scan all data - Level IV	
1607772-01	WP2-1E (20 m.)	45	40	-	-	-		
1607772-02	WP2-1E (40 m.)	45	40	-	-	-		
1607772-03	WP2-1E (Bottom)	45	40	-	-	-		
1607772-04	WP2-1E (Surface)	45	40	-	-	-		
1607772-05	WP2-2E (20 tn.)	45	40	-	-	-		
1607772-06	WP2-2E (40 m.)	45	40	-	-	-		
1607772-07	WP2-2E (Bottom)	45	40	-	-	-		
07805-01	ADD-02_072216_SW_10	45	40	-	-	-	Scan all data - Level IV	

JH
8/15/16

PREPARATION BENCH SHEET

F608273

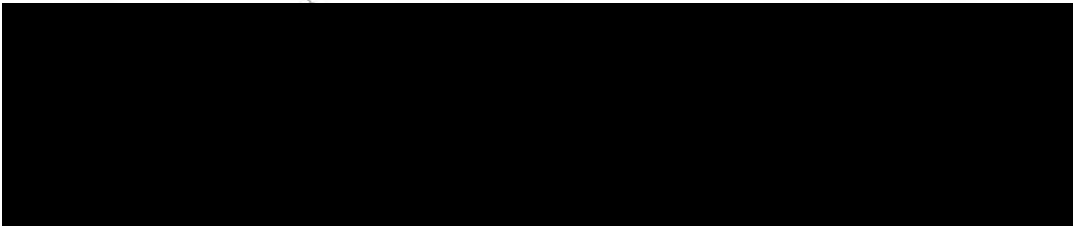
Eurofins Frontier Global Sciences, Inc.

Matrix: Water

Prepared using: Hg Aquatic/Solids - EFGS-013 Methyl Hg Distillation for Water

Prepared: 8/11/2016

1607805-02	ADD-02_072216_SW_10 Dissolved	45	40	-	-	-	Scan all data - Level IV
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JA 8/15/16

PREPARATION BENCH SHEET

RW 8/12/16 27001 6412010

F608273

Eurofins Frontier Global Sciences, Inc.

Matrix: Water

Prepared using: Hg Aquatic/Solids - EFGS-013 Methyl Hg Distillation for Water

Prepared: 8/11/2016

Lab Number	Sample ID and Source Sample	Initial (mL)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F608273-BLK1	Blank	45	40					1.25x
F608273-BLK2	Blank	45	40					1.25x
F608273-BLK3	Blank	45	40					1.25x
F608273-BS1	Blank Spike	45	40	1603908	45			1.25x
F608273-BSD1	Blank Spike dup	45	40	1603908	45			1.25x
F608273-DUP1	Duplicate [1607542-01]	45	40					1.25x
F608273-MS1	Matrix Spike [1607586-12]	45	40	1603908	45			1.25x
F608273-MS2	Matrix Spike [1607772-01]	45	40	1603908	45			1.25x
F608273-MSD1	Matrix Spike Dup [1607586-12]	45	40	1603908	45			1.25x
F608273-MSD2	Matrix Spike Dup [1607772-01]	45	40	1603908	45			1.25x

Standard ID(s):
1603908

Description:
MHg New Primary 1.0 ng/mL CAL

Expiration:
19-Oct-16 00:00

Reagent ID(s):
1604432
1604511

Description:
APDC
0.5% Distillation Dilute (Made Daily)

Expiration:
17-Aug-16 00:00
07-Feb-17 00:00

1604518
1602604
1602944

PREPARATION BENCH SHEET

F608273

Eurofins Frontier Global Sciences, Inc.

Prepared: 8/11/2016

Prepared using: Hg Aquatic/Solids - EFGS-013 Methyl Hg Distillation for Water

Matrix: Water

Lab Number	Sample ID	Initial (mL)	Final (mL)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1607542-01	OL-2434-01	45	40	-	-	-	Scan all data for level IV report	1.25x
1607542-03	OL-2434-02	45	40	-	-	-	Scan all data for level IV report	1.25x
1607542-04	OL-2434-03	45	40	-	-	-	Scan all data for level IV report	1.25x
1607542-05	OL-2434-04	45	40	-	-	-	Scan all data for level IV report	1.25x
1607542-06	OL-2434-05	45	40	-	-	-	Scan all data for level IV report	1.25x
1607542-07	OL-2434-06	45	40	-	-	-	Scan all data for level IV report	1.25x
1607586-04RE3	1524 WQ1b-c_071816_SW_10 Dissolved	45	40	-	-	-	From F608251 by DMH on 11-Aug-16	From F608251 by DMH on 11-Aug-16 1.25x
1607586-12	1528 WQ-ECH_071816_SW_10 Dissolved	45	40	QC	-	-	MS/MSD Scan all data - Level IV	1.25x
1607586-19	1532 WQ-FPT_071816_SW_10	45	40	-	-	-	Scan all data - Level IV	1.25x
1607586-20	1532 WQ-FPT_071816_SW_10 Dissolved	45	40	-	-	-	Scan all data - Level IV	1.25x
1607586-21	1533 EB_071916_SW_QC Dissolved	45	40	-	-	-	Scan all data - Level IV	1.25x
1607772-01	WP2-1E (20 m.)	45	40	-	-	-		1.25x
1607772-02	WP2-1E (40 m.)	45	40	-	-	-		1.25x
1607772-03	WP2-1E (Bottom)	45	40	-	-	-		1.25x
1607772-04	WP2-1E (Surface)	45	40	-	-	-		1.25x
1607772-05	WP2-2E (20 m.)	45	40	-	-	-		1.25x
1607772-06	WP2-2E (40 m.)	45	40	-	-	-		1.25x
1607772-07	WP2-2E (Bottom)	45	40	-	-	-		1.25x
1607805-01	ADD-02_072216_SW_10	45	40	-	-	-	Scan all data - Level IV	1.25x

PREPARATION BENCH SHEET

F608273

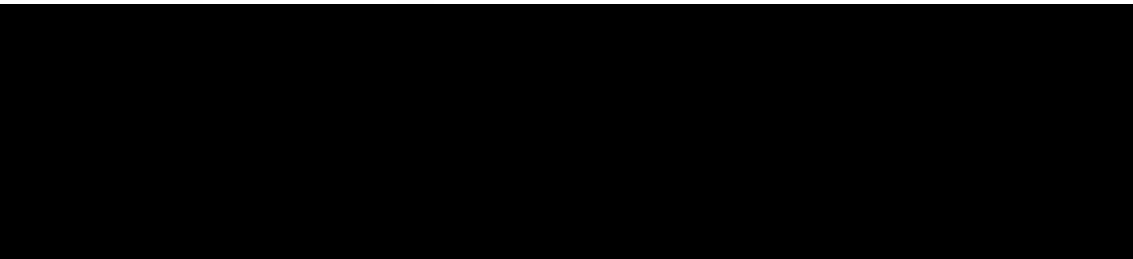
Eurofins Frontier Global Sciences, Inc.

Matrix: Water

Prepared using: Hg Aquatic/Solids - EFGS-013 Methyl Hg Distillation for Water

Prepared: 8/11/2016

1607805-02	ADD-02_072216_SW_10 Dissolved	45	40	-	-	-	Scan all data - Level IV	1.25a
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Methyl Mercury Distillations (EPA 1630)

Name: Duyen Date: 8/11/16 Batch #: F608273 Sample Matrix: Water

WO#: 1607542, 1607586, 1607772, 1607805

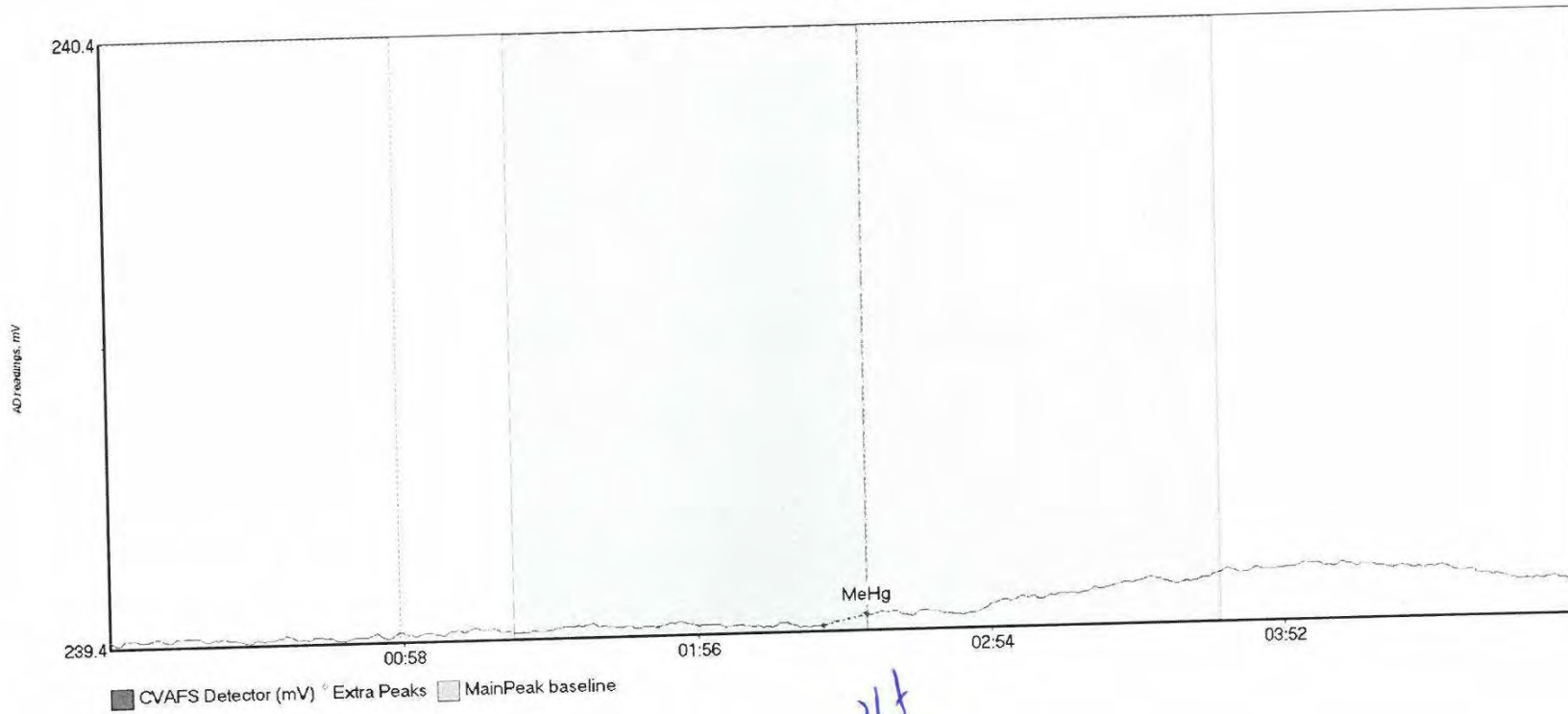
The pH of the preserved sample must be documented before an aliquot is removed for preparation.

Digest #	Sample ID Number	Preserved pH	Sample Size (mL)	Final pH (≥3)
Blk1	F608273 Blank1	1.0	45	3.0
Blk2	F608273 Blank2	1.0	45	3.0
Blk3	F608273 Blank3	1.0	45	3.0
BS	F608273 BS	1.0	45	3.0
BS0	F608273 BS0	1.0	45	3.0
Dup1	F608273 Dup1	1.0	45	3.0
MS1	F608273 MS1	1.0	45	3.0
MS01	F608273 MS01	1.0	45	3.0
MS2	F608273 MS2 ⁸⁻¹¹⁻¹⁶ MS2	1.0	45	4.0
MS02	F608273 MS02	1.0	45	4.0
1	1607542-01 B	1.0	45	3.0
2	1607542-03 B	1.0	45	3.0
3	1607542-04 B	1.0	45	3.0
4	1607542-05 B	1.0	45	3.0
5	1607542-06 B	1.0	45	3.0
6	1607542-07 B	1.0	45	3.0
7	1607586-12 B	1.0	45	3.0
8	1607586-19 B	1.0	45	3.0
9	1607586-20 B	1.0	45	3.0
10	1607586-21 B	1.0	45	4.0
11	1607772-01 A	1.0	45	4.0
12	1607772-02 A	1.0	45	4.0
13	1607772-03 A	1.0	45	4.0
14	1607772-04 A	1.0	45	3.0
15	1607772-05 A	1.0	45	3.0
16	1607772-06 A	1.0	45	3.0
17	1607772-07 A	1.0	45	3.0
18	1607586-04 RE3 ^{8/11/16} MS2	1.0	45	3.0
19	1607805-01 B	1.0	45	4.0
20	1607586-04 RE3 ⁸⁻¹¹⁻¹⁶ MS2			
20	1607805-02 B	1.0	45	4.0

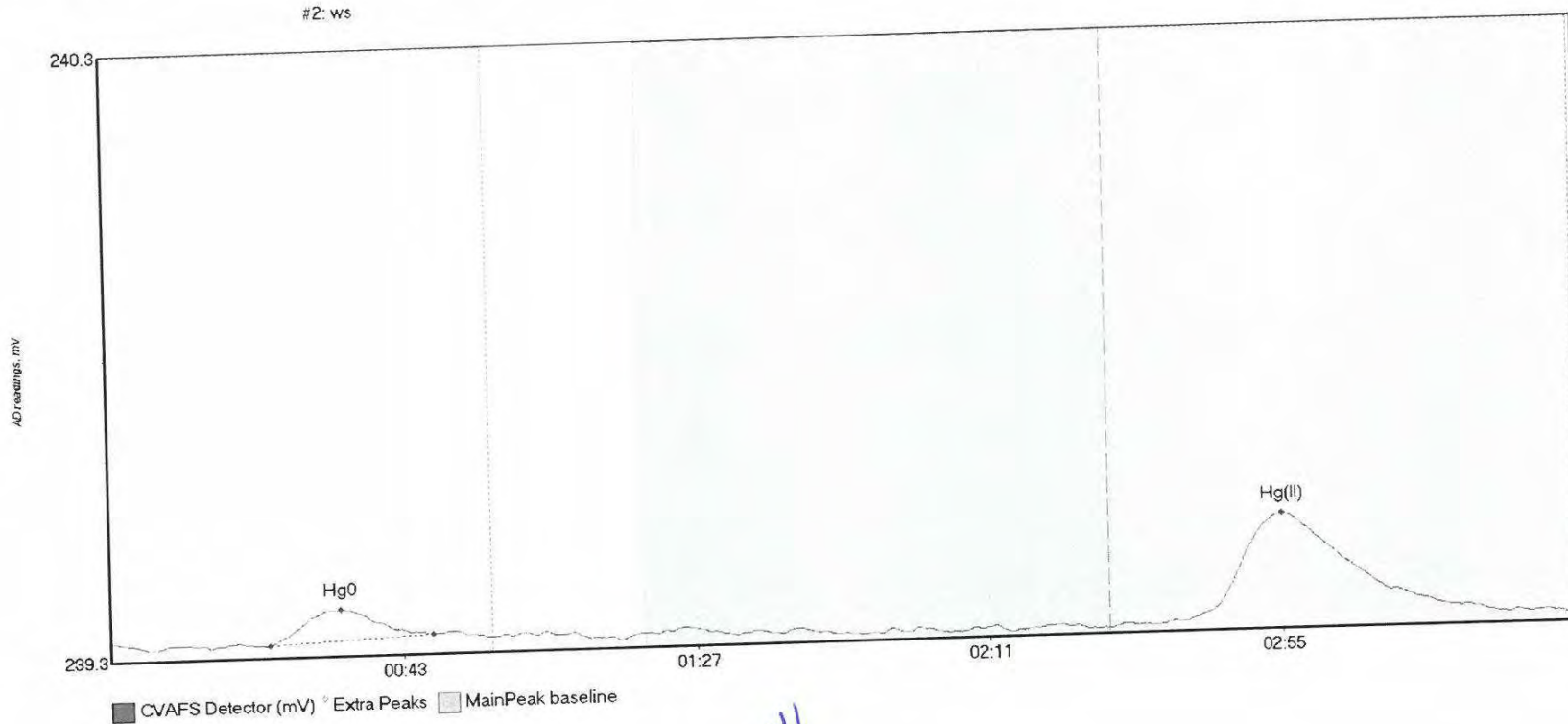
Spike ID: 1603908
 Spike Amount: 45 μ L
 Spike Witness: M-8/11/16
 Balance #: 2
 Calibrated? Yes No
 Pipette #: U2448
 Cal. Date: 8/8/16
 Pipette #: N27707
 Cal. Date: 8/9/16
 Pipette #: U717087
 Cal. Date: 8/9/16
 APDC ID: 1604432
 HCI ID: 1604511
 Temperature: No set range as the temp. may be changed to keep flow rate of ≥ 10 mL per hour. Temperature is recorded for informational purposes only.
 Unit 1: 121.0
 Unit 2: 122.
 Unit 3: 120.9
 Unit 4: 120.1
 Unit 5: 122.
 Unit 6: 122.
 Comments:
 Dup/Source: 1607542-01
 MS1, MS01/Source: 1607586-12
 MS2, MS02 Source: 1607772-01
 #8-11-16
 1607586-04 RE3
 8-11-16 ¹⁶⁰⁷⁷⁷² ~~MS2~~ 4.0

Verified M-8/11/16

#1: Clean

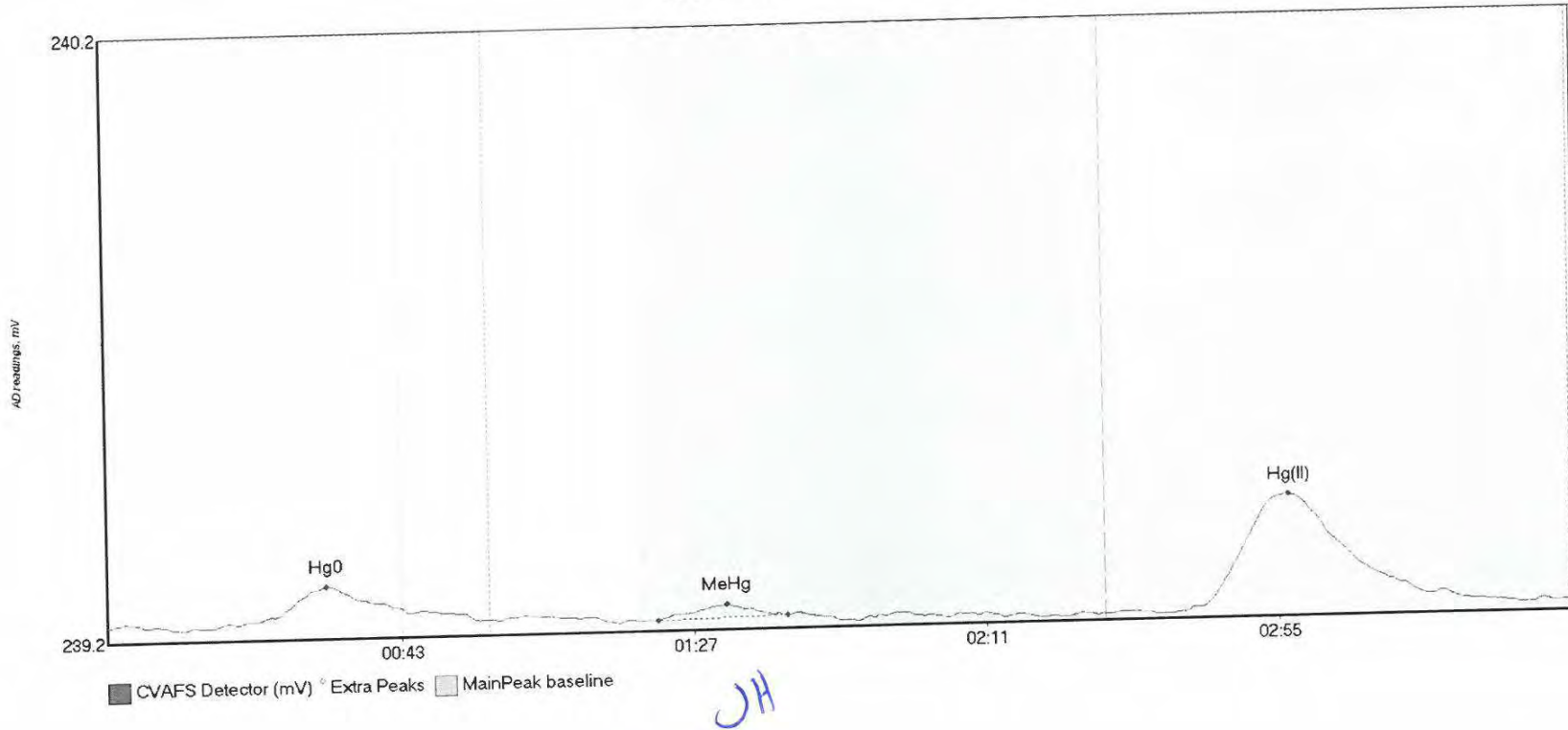


Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment	016
Clean	0.111	141.2	150.0	239.45	239.46	149.9	0.018	CT	239.4474	0.00	0.05		



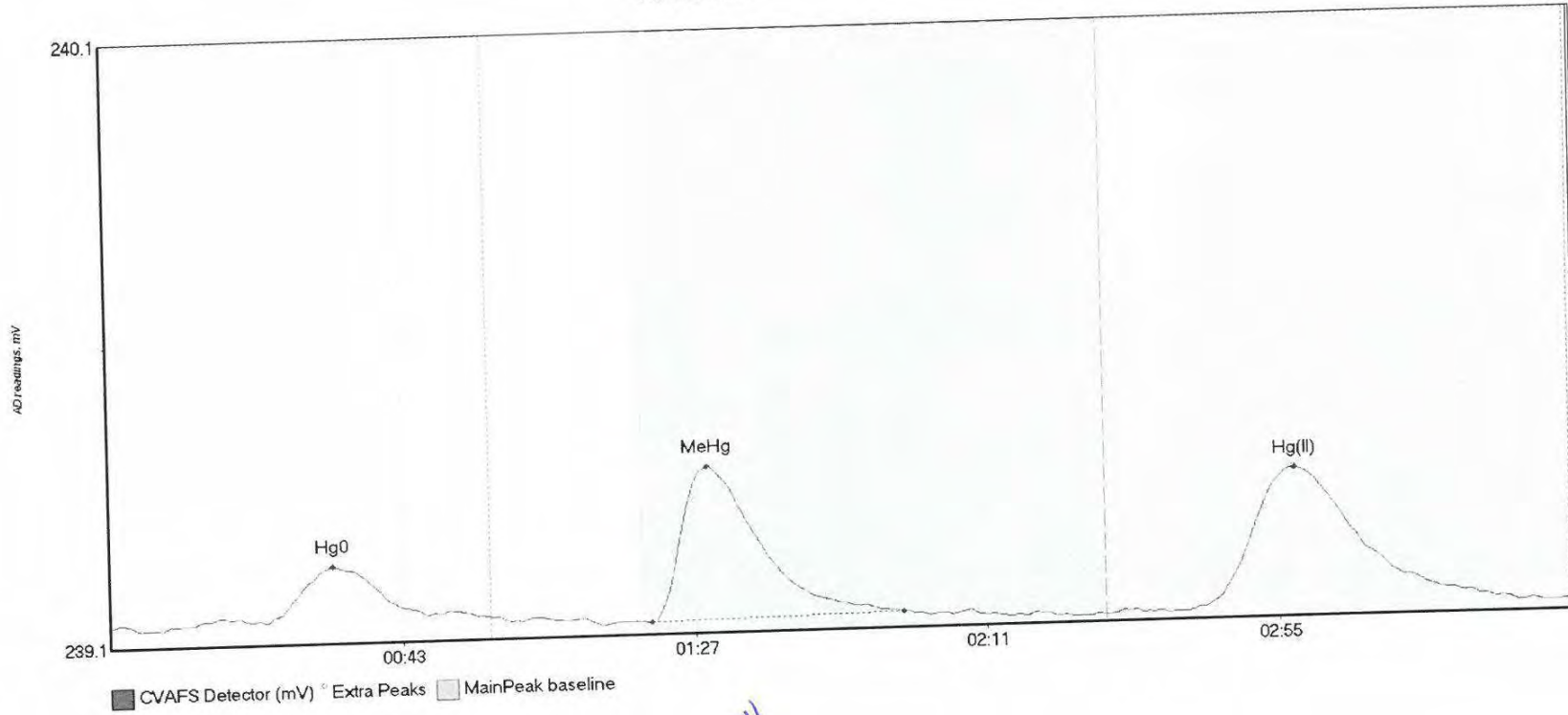
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
ws Hg0	6.583	23.8	48.5	239.34	239.36	34.6	0.058	OK	239.3547	0.00	-0.02	
ws Hg(II)	34.508	158.3	218.9	239.34	239.34	176.1	0.177	OK	239.3547	0.00	-0.02	016

#3: SEQ-IBL1

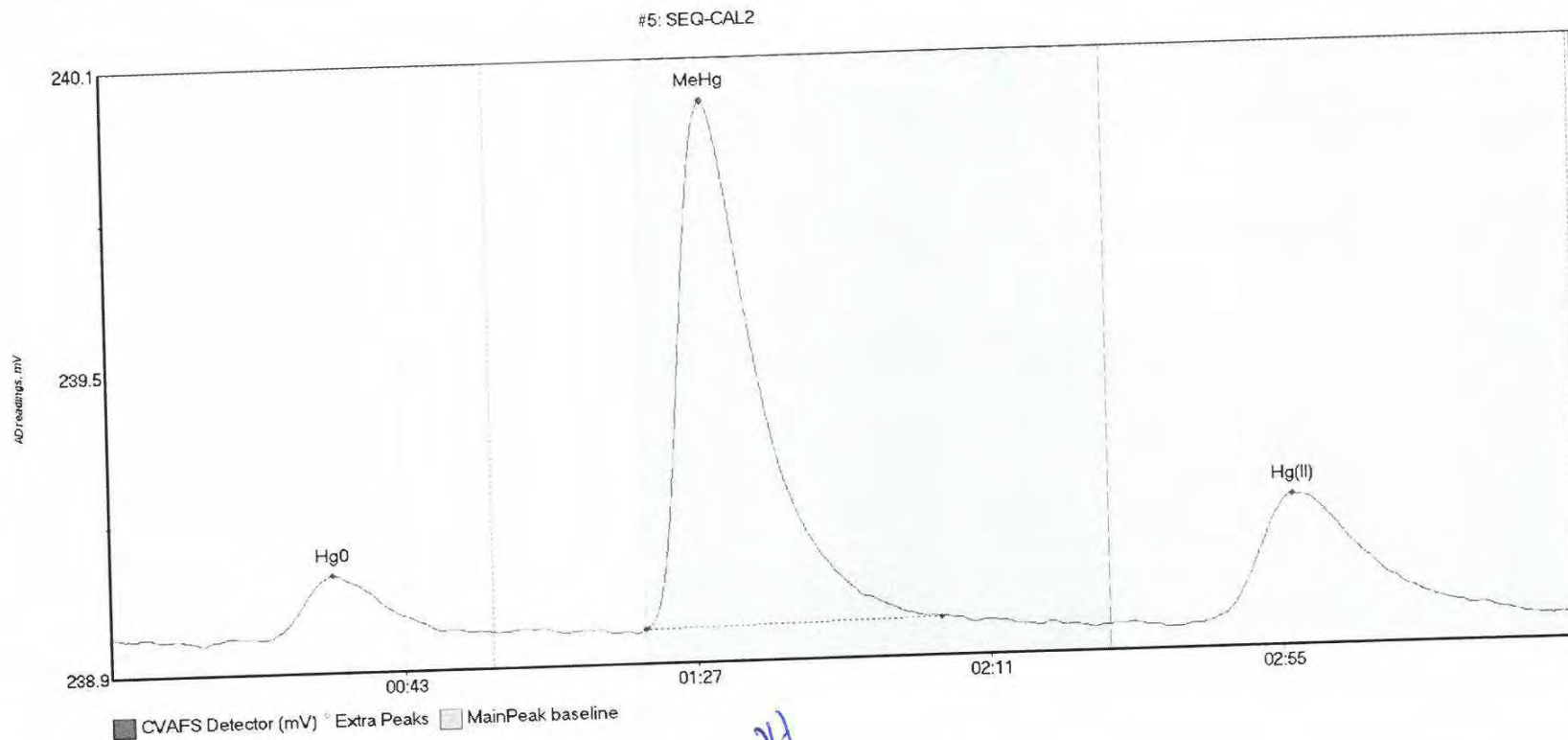


Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
SEQ-IBL1 Hg0	8.541	22.2	55.4	239.25	239.24	32.7	0.056	OK	239.2413	0.00	-0.01	
SEQ-IBL1 MeHg	2.230	82.6	102.0	239.23	239.24	92.9	0.024	OK	239.2413	0.00	-0.01	
SEQ-IBL1 Hg(II)	34.744	161.9	212.5	239.23	239.23	177.6	0.192	OK	239.2413	0.00	-0.01	

#4: SEQ-CAL1

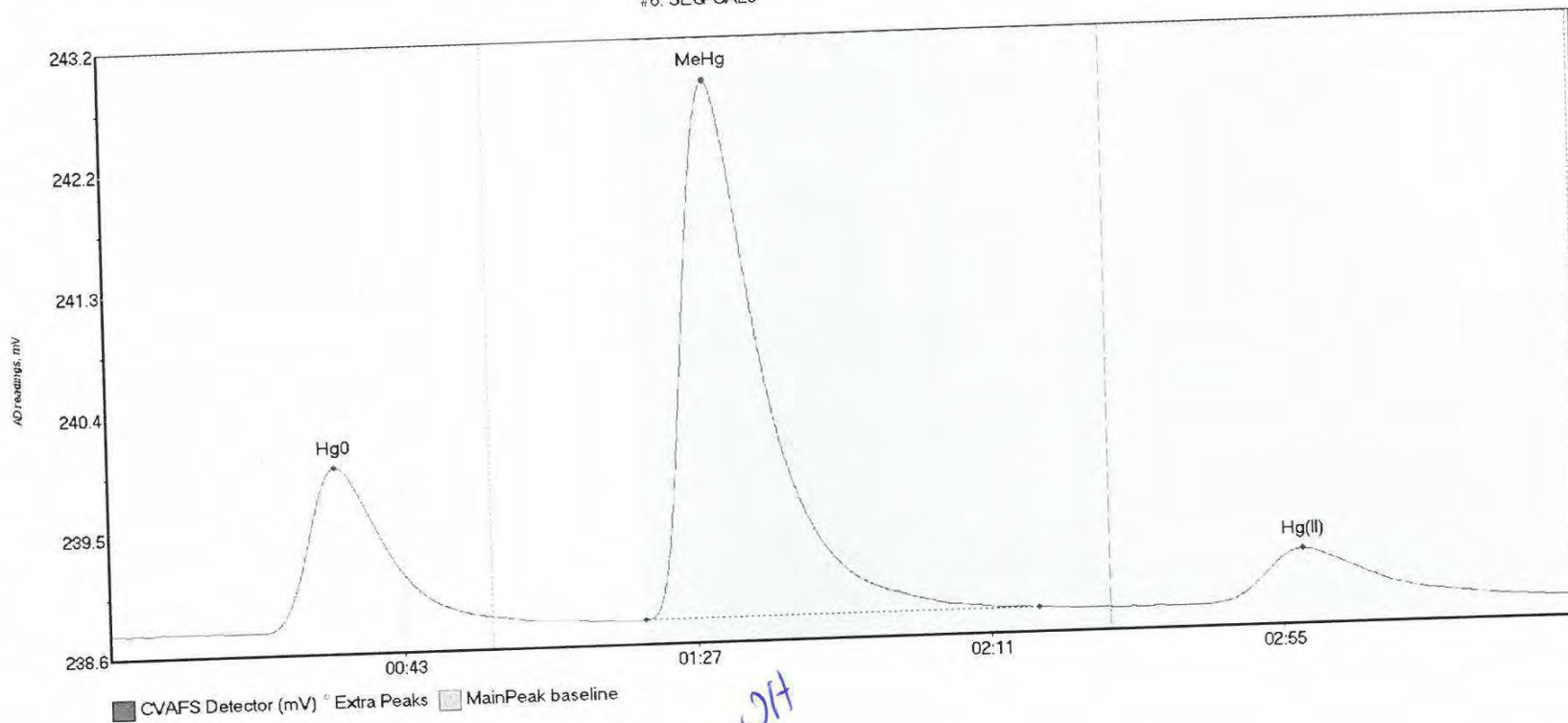


Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
SEQ-CAL1 Hg0	11.820	23.6	55.5	239.12	239.12	33.6	0.090	OK	239.1198	0.00	-0.02	
SEQ-CAL1 MeHg	34.532	81.5	119.4	239.10	239.11	90.0	0.256	OK	239.1198	0.00	-0.02	
SEQ-CAL1 Hg(II)	43.534	162.3	216.1	239.10	239.10	178.4	0.234	OK	239.1198	0.00	-0.02	



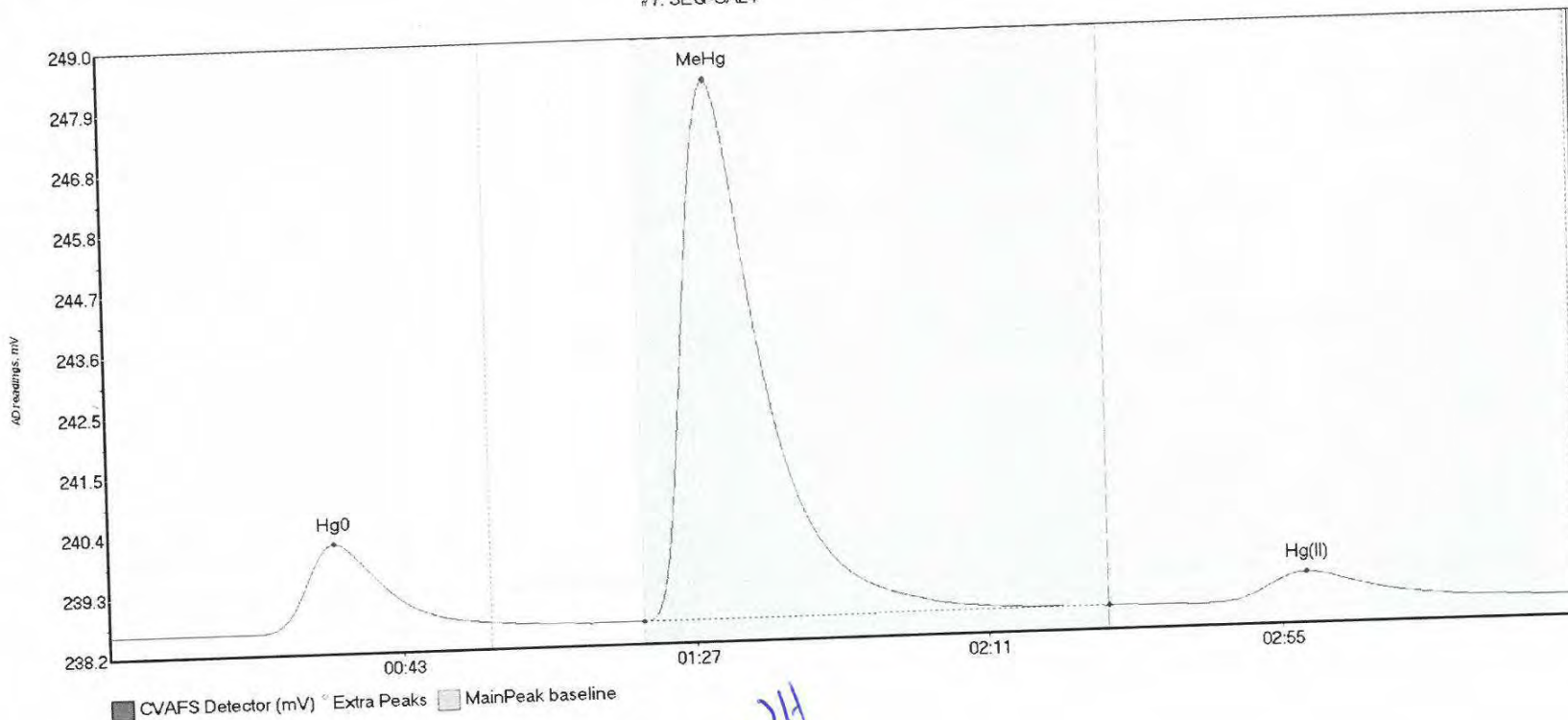
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
SEQ-CAL2 Hg0	15.642	23.2	49.5	238.96	238.97	33.3	0.127	OK	238.9704	0.00	-0.03	
SEQ-CAL2 MeHg	142.049	80.1	124.8	238.96	238.97	89.9	1.063	OK	238.9704	0.00	-0.03	
SEQ-CAL2 Hg(II)	48.071	163.3	212.7	238.94	238.95	177.7	0.256	OK	238.9704	0.00	-0.03	

#6: SEQ-CAL3



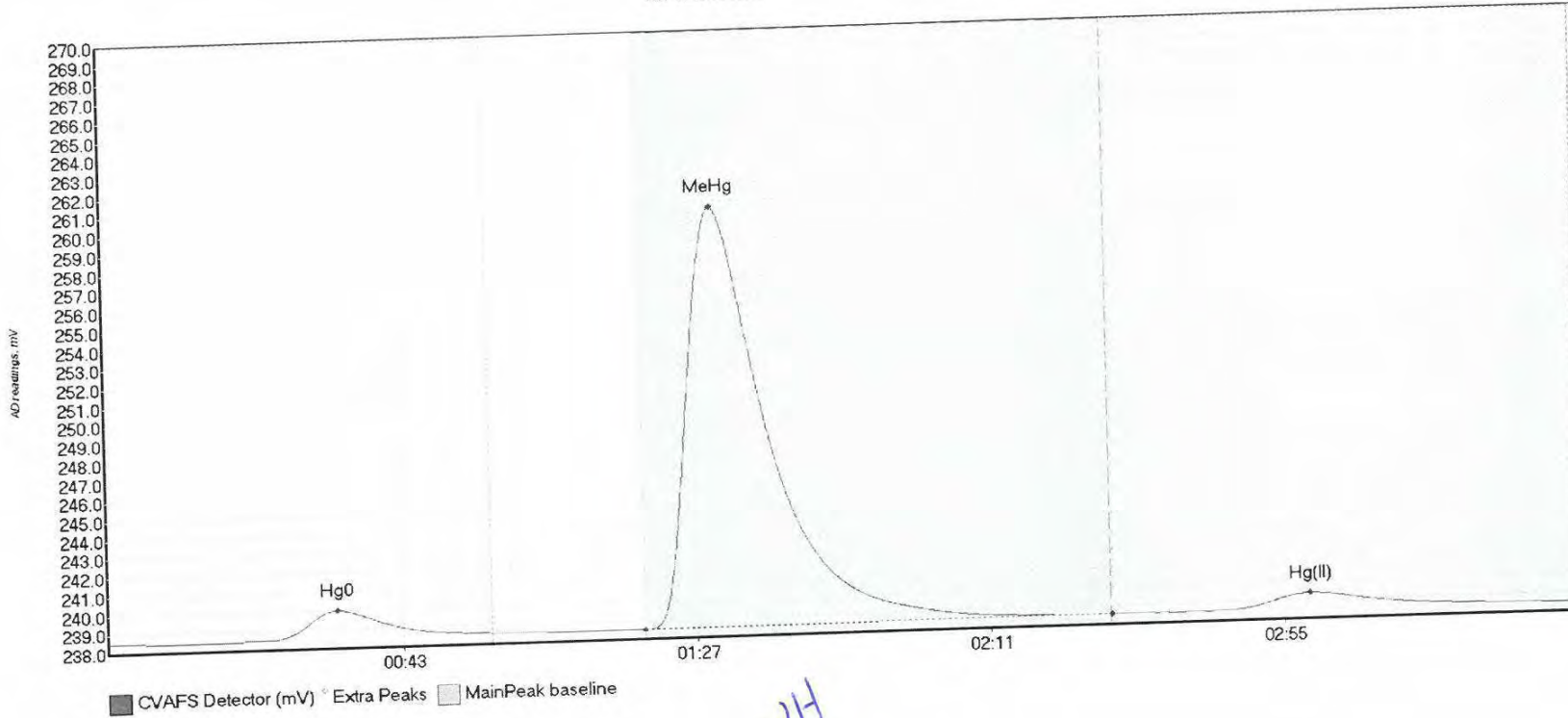
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	B1Dev	B1Shift	Comment
SEQ-CAL3 Hg0	154.780	22.6	57.5	238.79	238.87	33.9	1.229	CT	238.7997	0.00	-0.02	
SEQ-CAL3 MeHg	551.845	80.1	139.2	238.80	238.81	90.5	4.029	OK	238.7997	0.00	-0.02	
SEQ-CAL3 Hg(II)	74.564	164.6	215.6	238.79	238.79	179.0	0.399	OK	238.7997	0.00	-0.02	

#7: SEQ-CAL4



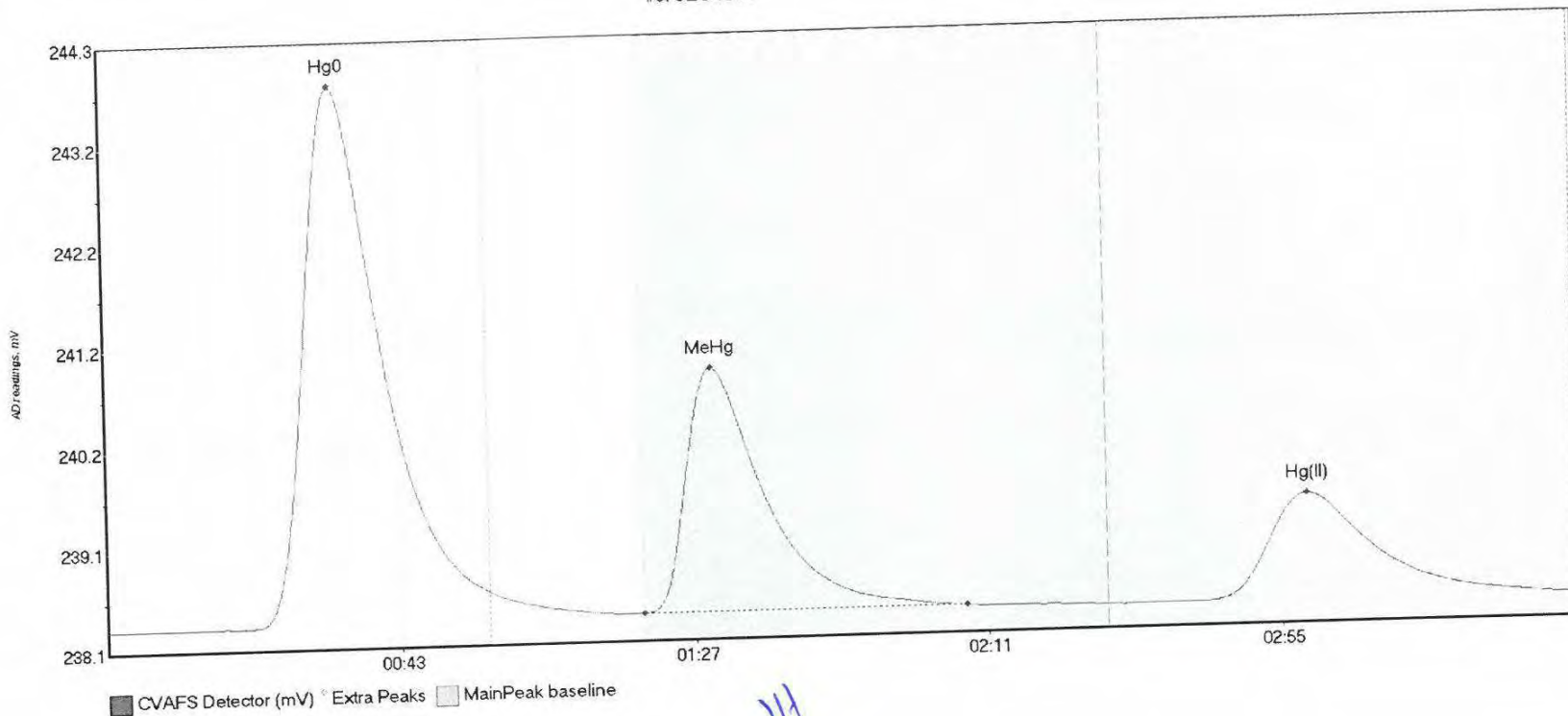
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
SEQ-CAL4 Hg0	196.284	22.1	57.5	238.63	238.72	33.9	1.564	CT	238.6371	0.00	-0.01	
SEQ-CAL4 MeHg	1315.758	80.1	150.0	238.65	238.66	90.7	9.557	CT	238.6371	0.00	-0.01	
SEQ-CAL4 Hg(II)	86.926	165.0	211.2	238.64	238.65	179.8	0.507	OK	238.6371	0.00	-0.01	

#8: SEQ-CAL5



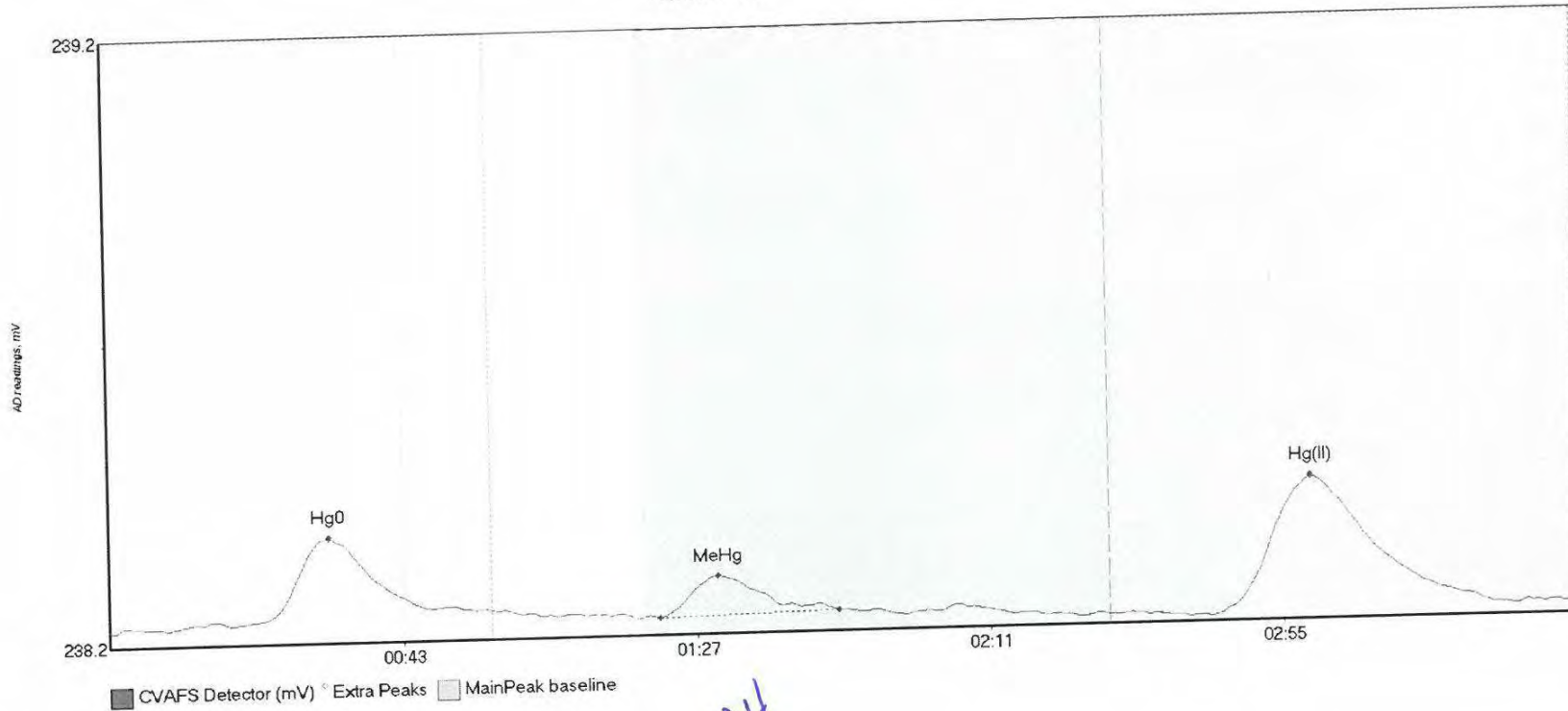
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
SEQ-CAL5 Hg0	186.675	21.7	57.5	238.48	238.58	34.1	1.499	CT	238.4866	0.00	0.04	
SEQ-CAL5 MeHg	3052.843	80.1	150.0	238.49	238.55	91.0	22.202	CT	238.4866	0.00	0.04	
SEQ-CAL5 Hg(II)	143.676	165.7	211.7	238.53	238.54	179.9	0.832	OK	238.4866	0.00	0.04	

#9: SEQ-ICV1



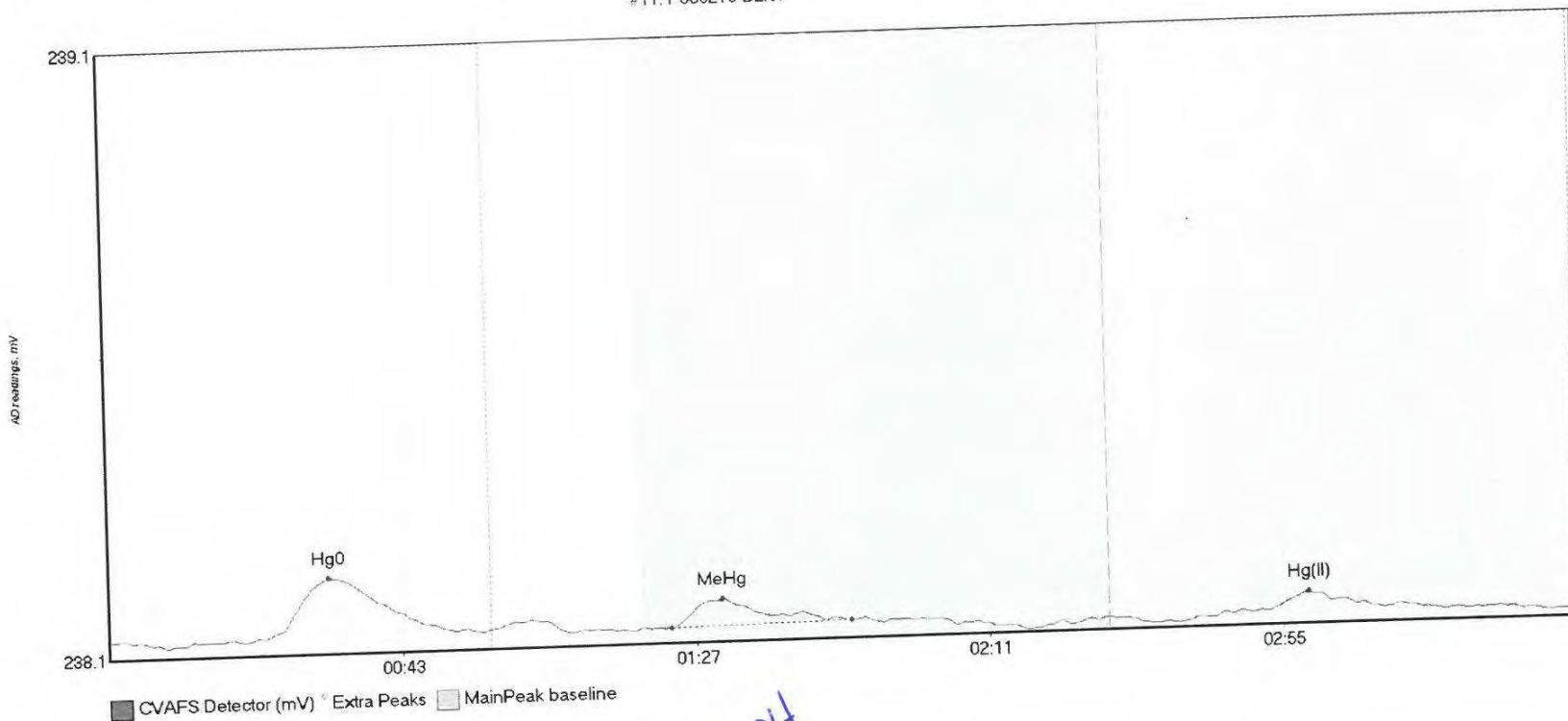
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
SEQ-ICV1 Hg0	684.266	16.6	57.5	238.35	238.66	34.2	5.461	CT	238.3486	0.00	0.02	
SEQ-ICV1 MeHg	333.681	80.1	128.7	238.41	238.40	90.7	2.468	OK	238.3486	0.00	0.02	
SEQ-ICV1 Hg(II)	193.737	164.7	219.8	238.37	238.37	179.9	1.066	CT	238.3486	0.00	0.02	J16

#10: SEQ-ICB1



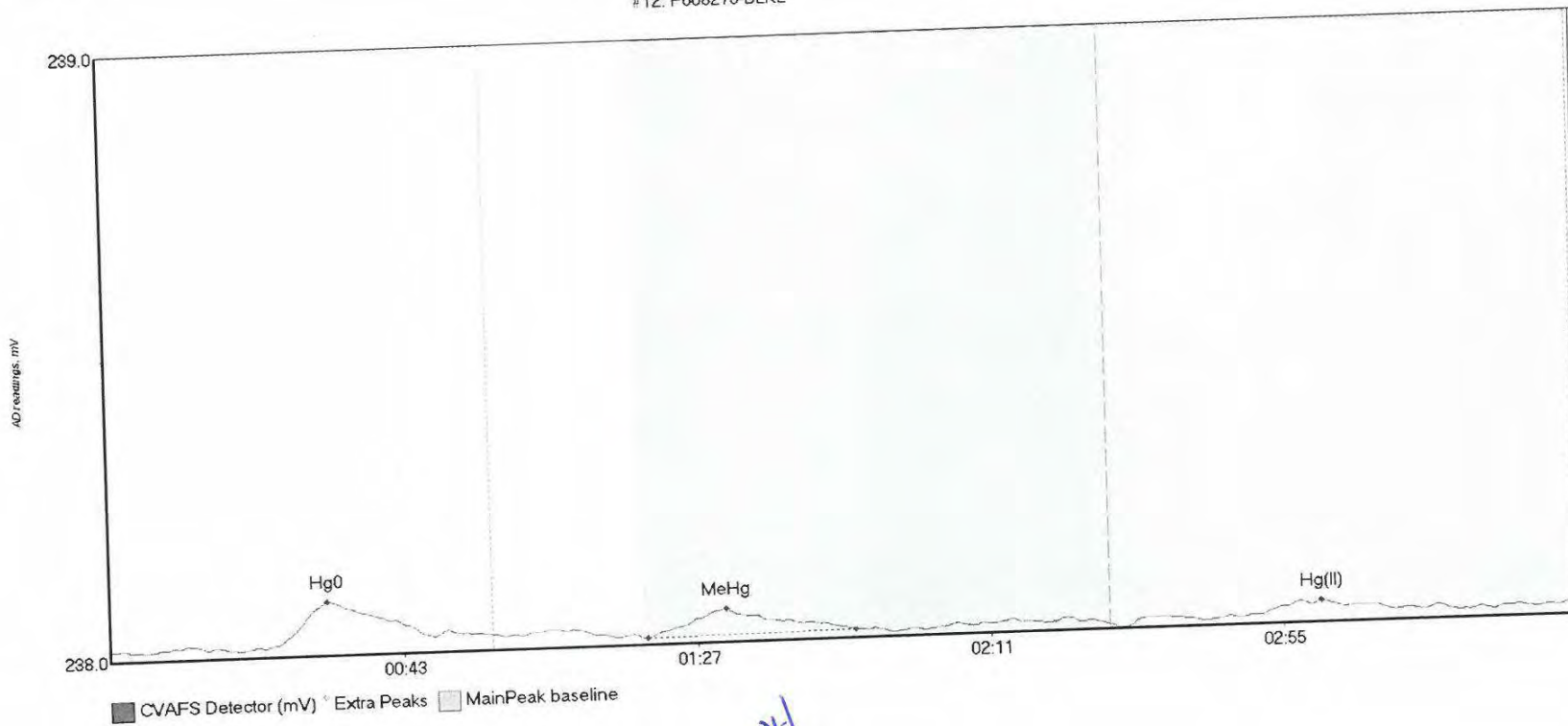
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
SEQ-ICB1 Hg0	17.593	10.1	57.5	238.22	238.24	32.9	0.144	CT	238.2207	0.00	0.00	
SEQ-ICB1 MeHg	7.830	82.5	109.3	238.22	238.23	91.1	0.067	OK	238.2207	0.00	0.00	
SEQ-ICB1 Hg(II)	38.411	166.0	210.4	238.21	238.22	180.2	0.225	OK	238.2207	0.00	0.00	

#11: F608273-BLK1



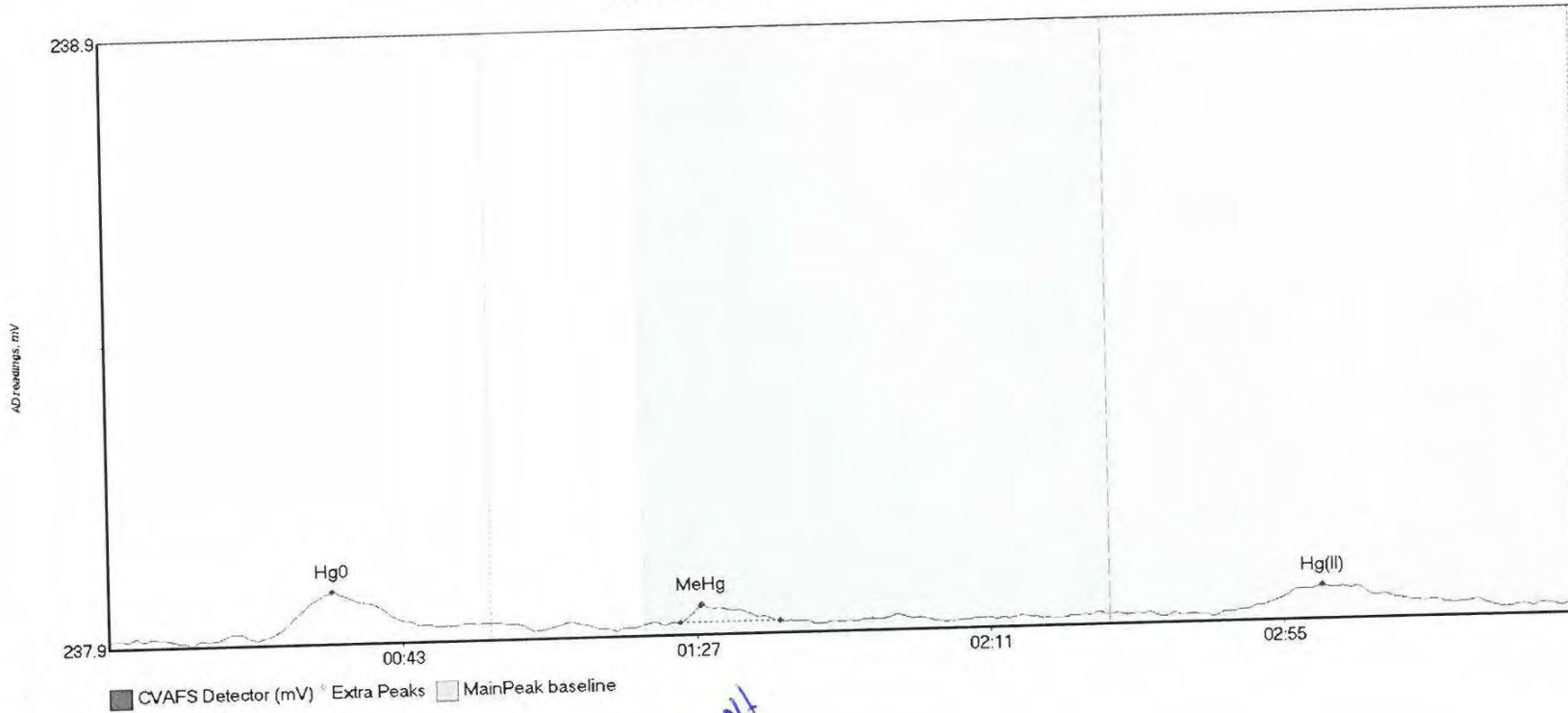
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
F608273-BLK1 Hg	12.905	23.2	51.5	238.12	238.12	33.0	0.098	OK	238.1198	0.00	-0.01	
F608273-BLK1 Me	5.216	84.2	111.1	238.12	238.12	91.9	0.045	OK	238.1198	0.00	-0.01	
F608273-BLK1 Hg	2.460	174.0	191.2	238.11	238.11	179.9	0.029	OK	238.1198	0.00	-0.01	

#12: F608273-BLK2



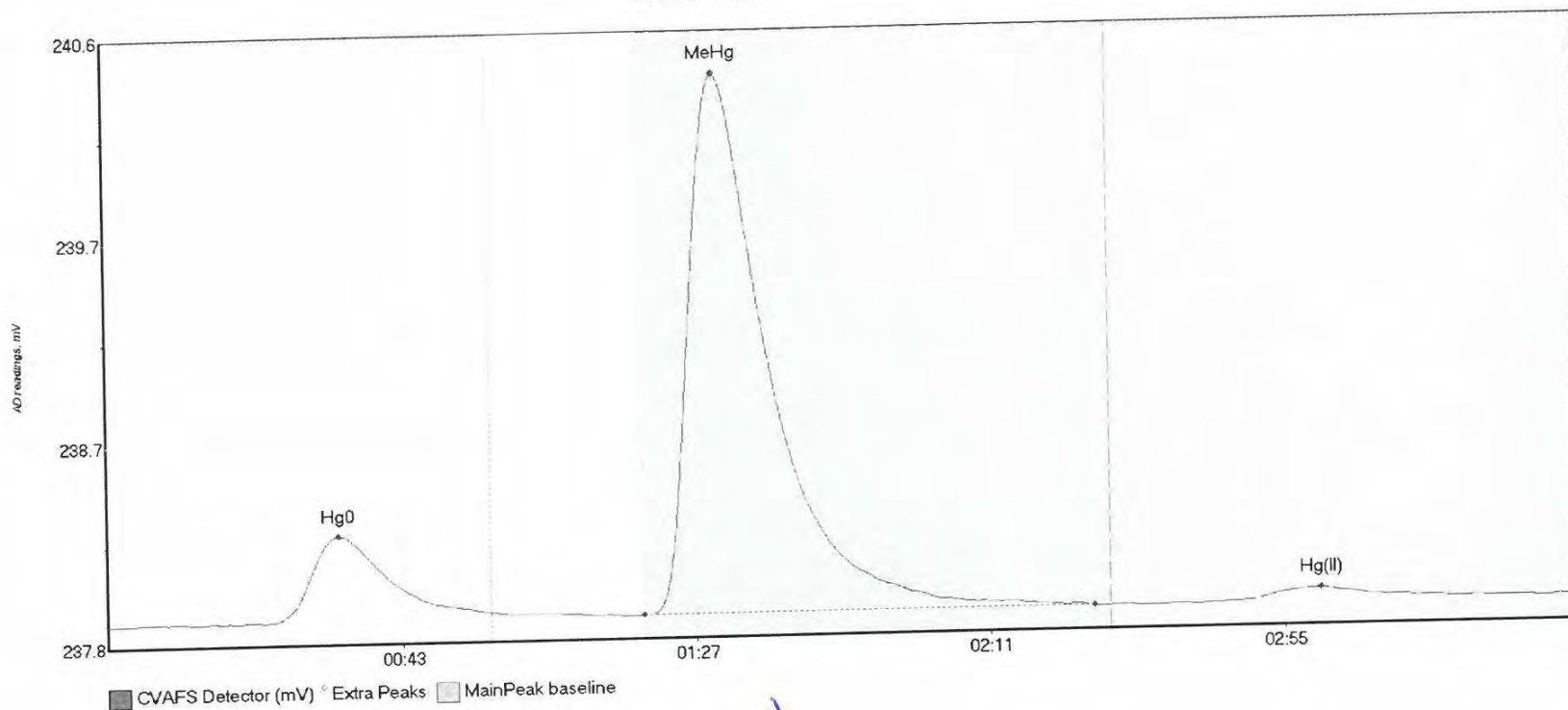
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
F608273-BLK2 Hg	8.814	23.2	48.6	238.02	238.03	32.5	0.075	OK	238.0233	0.00	0.01	
F608273-BLK2 Me	6.388	80.4	111.7	238.02	238.02	92.3	0.044	OK	238.0233	0.00	0.01	
F608273-BLK2 Hg	4.037	165.0	202.4	238.02	238.02	181.8	0.027	OK	238.0233	0.00	0.01	

#13: F608273-BLK3



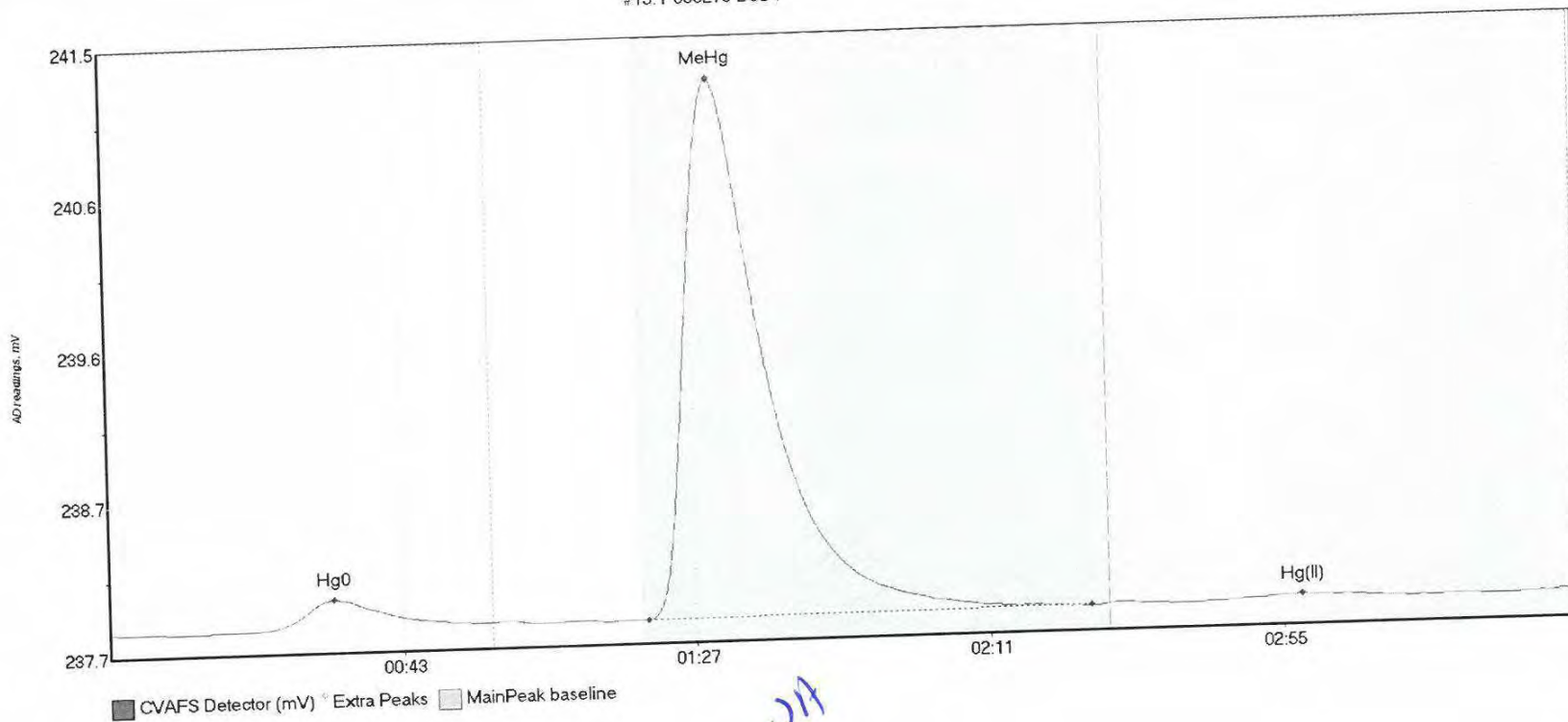
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
F608273-BLK3 Hg	8.910	22.2	49.8	237.95	237.97	33.5	0.078	OK	237.9543	0.00	0.01	016
F608273-BLK3 Me	2.305	85.5	100.5	237.96	237.96	88.6	0.028	OK	237.9543	0.00	0.01	
F608273-BLK3 Hg	5.528	170.8	201.8	237.96	237.96	181.8	0.036	OK	237.9543	0.00	0.01	

#14: F608273-BS1



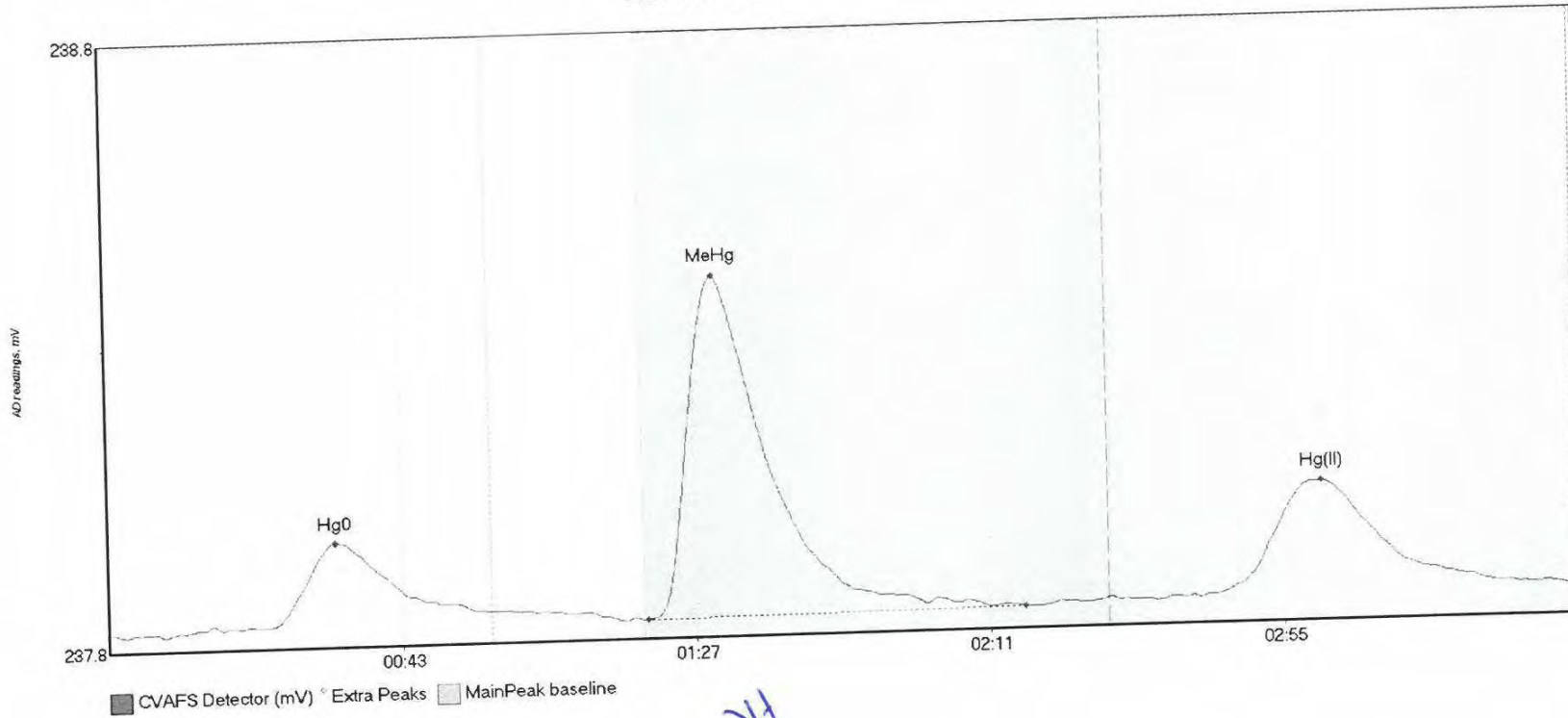
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
F608273-BS1 Hg0	49.160	23.5	57.5	237.90	237.93	34.4	0.396	CT	237.9016	0.00	0.02	
F608273-BS1 MeH	342.440	80.1	147.4	237.91	237.91	91.2	2.486	OK	237.9016	0.00	0.02	
F608273-BS1 Hg(	9.658	168.7	215.5	237.91	237.91	181.4	0.056	OK	237.9016	0.00	0.02	

#15: F608273-BSD1



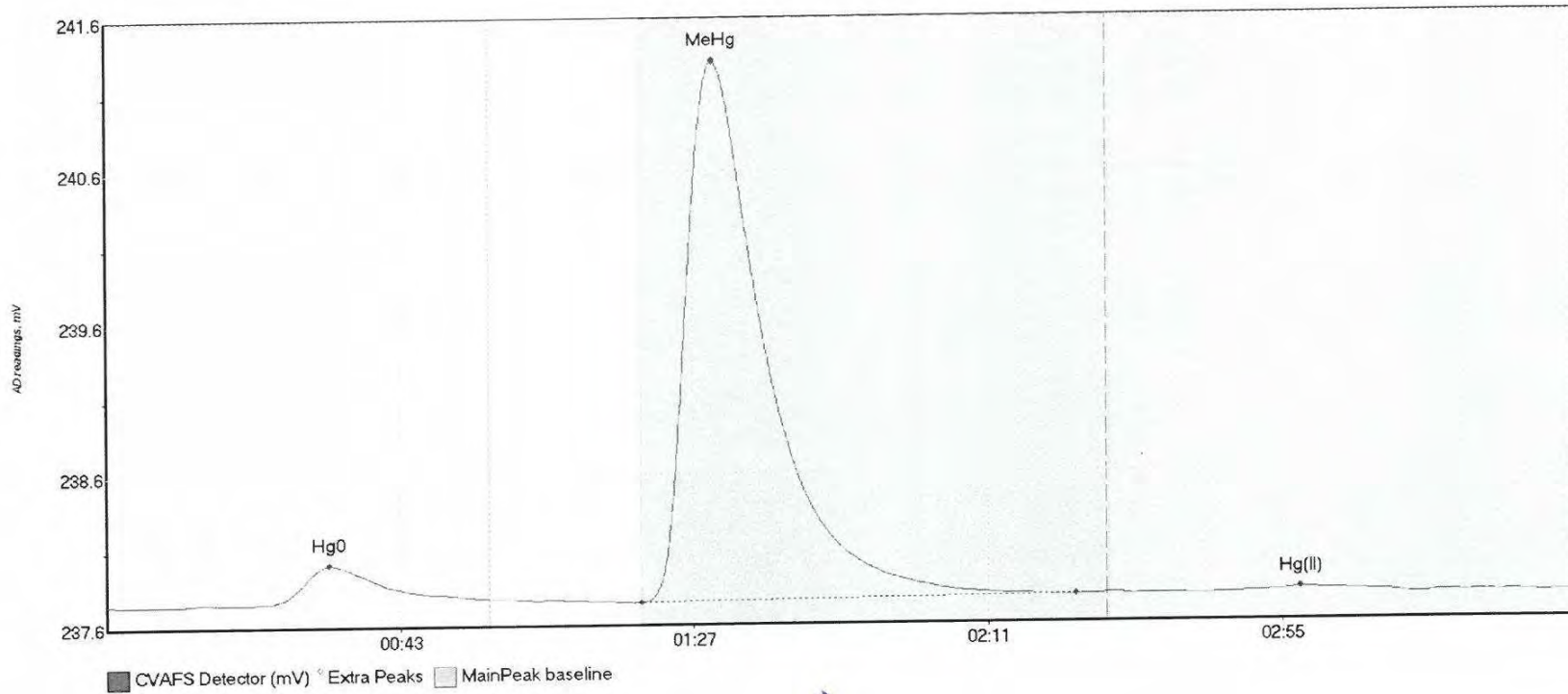
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
F608273-BSD1 Hg	23.729	22.3	56.7	237.85	237.87	33.7	0.187	OK	237.8530	0.00	0.03	
F608273-BSD1 Me	469.251	80.9	147.1	237.85	237.86	91.0	3.415	OK	237.8530	0.00	0.03	
F608273-BSD1 Hg	1.475	172.5	189.4	237.88	237.88	178.7	0.016	OK	237.8530	0.00	0.03	

#16: F608273-DUP1



Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	B1Dev	B1Shift	Comment
F608273-DUP1 Hg	17.875	24.2	57.2	237.82	237.83	34.2	0.138	OK	237.8128	0.00	0.02	
F608273-DUP1 Me	77.113	80.7	137.3	237.81	237.82	91.1	0.564	OK	237.8128	0.00	0.02	
F608273-DUP1 Hg	33.278	165.3	219.1	237.83	237.83	181.7	0.184	OK	237.8128	0.00	0.02	

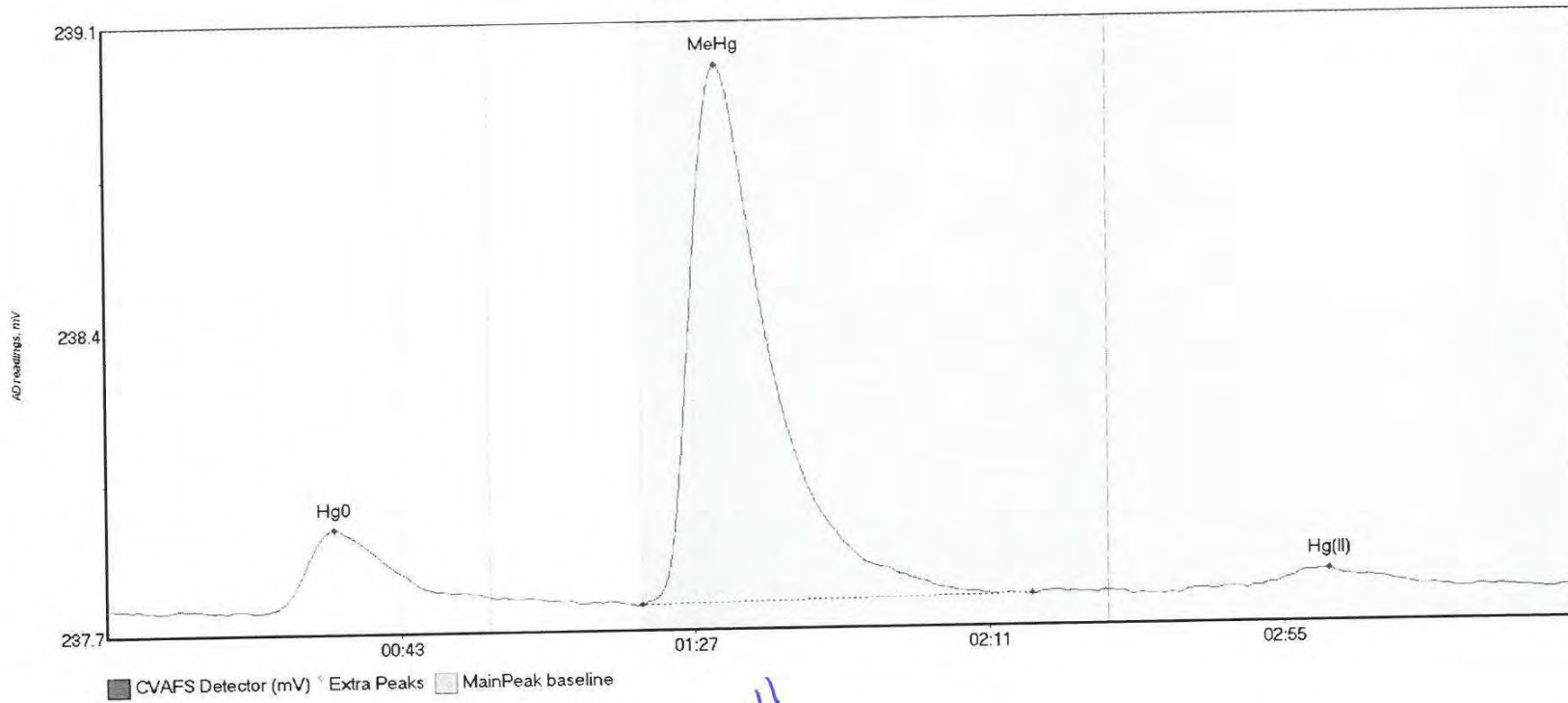
#17: F608273-MS1



JA

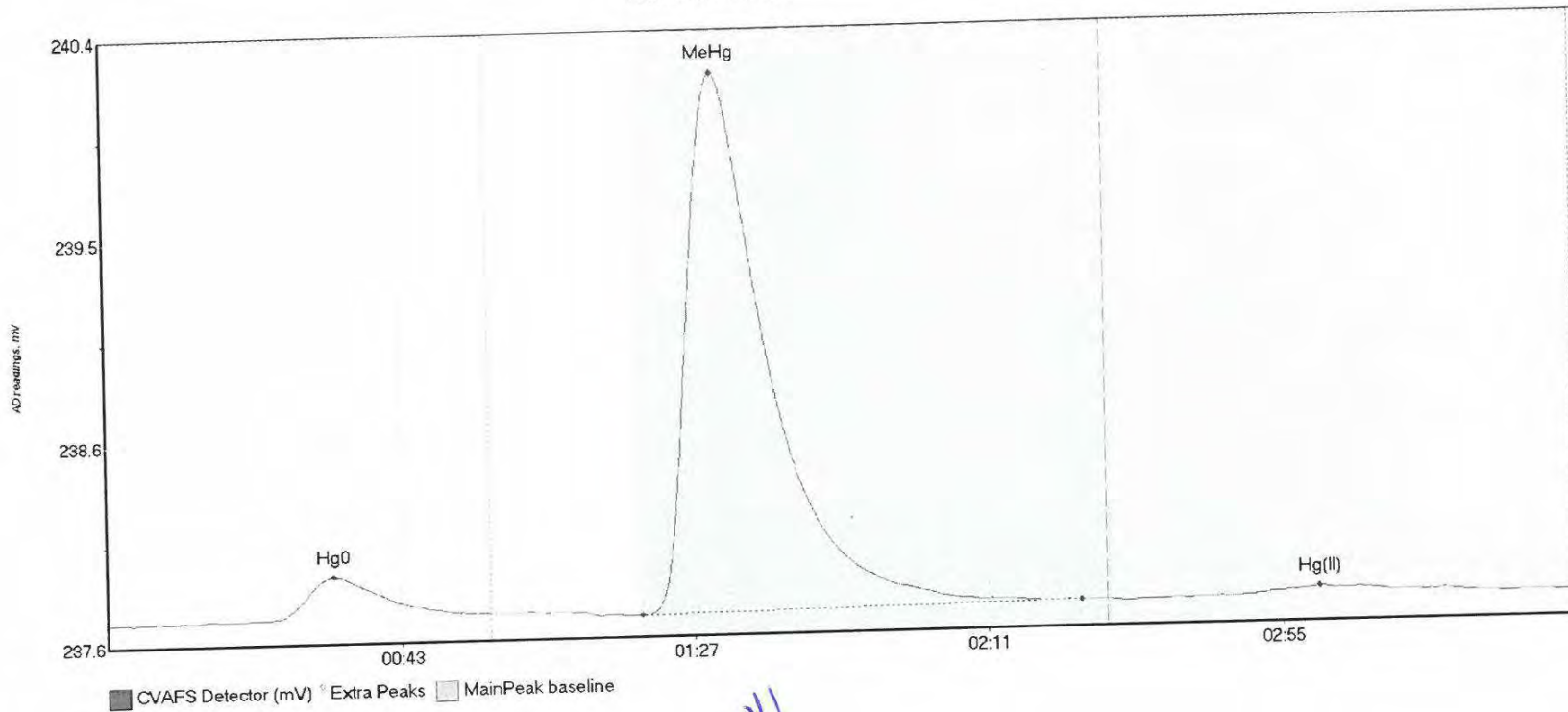
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
F608273-MS1 Hg0	32.399	21.1	57.5	237.78	237.81	33.4	0.261	CT	237.7767	0.00	0.03	
F608273-MS1 MeH	487.637	80.1	145.1	237.78	237.80	91.0	3.561	OK	237.7767	0.00	0.03	
F608273-MS1 Hg(	1.551	173.1	188.9	237.82	237.82	178.8	0.023	OK	237.7767	0.00	0.03	

#18: F608273-MS2



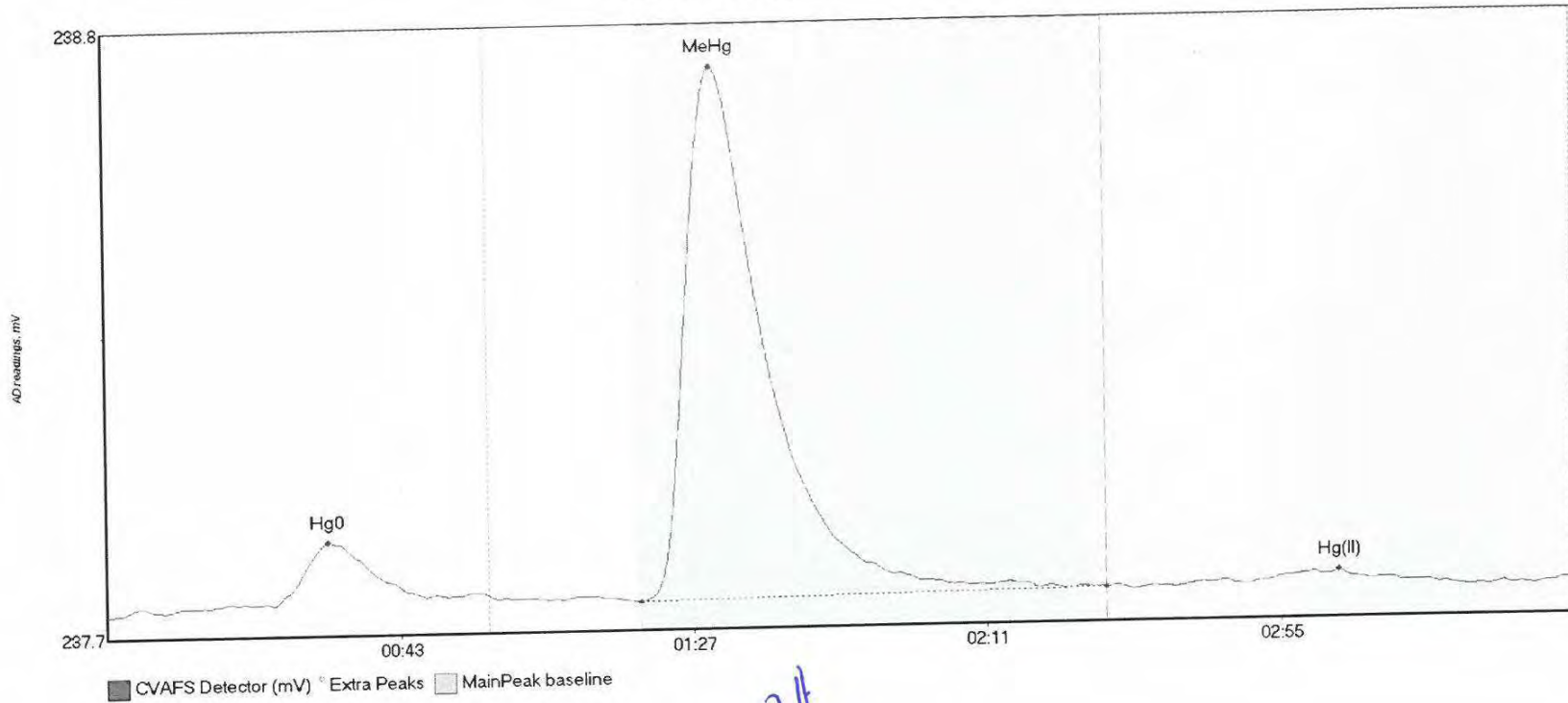
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
F608273-MS2 Hg0	24.432	22.9	57.5	237.75	237.78	34.1	0.192	CT	237.7576	0.00	0.02	
F608273-MS2 MeH	171.076	80.1	138.5	237.76	237.77	91.4	1.246	OK	237.7576	0.00	0.02	
F608273-MS2 Hg(	5.999	170.6	200.7	237.77	237.78	182.7	0.042	OK	237.7576	0.00	0.02	

#19: F608273-MSD1



Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
F608273-MSD1 Hg	24.692	20.9	57.5	237.74	237.75	34.0	0.197	CT	237.7330	0.00	0.01	
F608273-MSD1 Me	346.758	80.1	146.0	237.72	237.75	91.5	2.509	OK	237.7330	0.00	0.01	
F608273-MSD1 Hg	6.498	168.9	205.8	237.75	237.75	181.6	0.036	OK	237.7330	0.00	0.01	

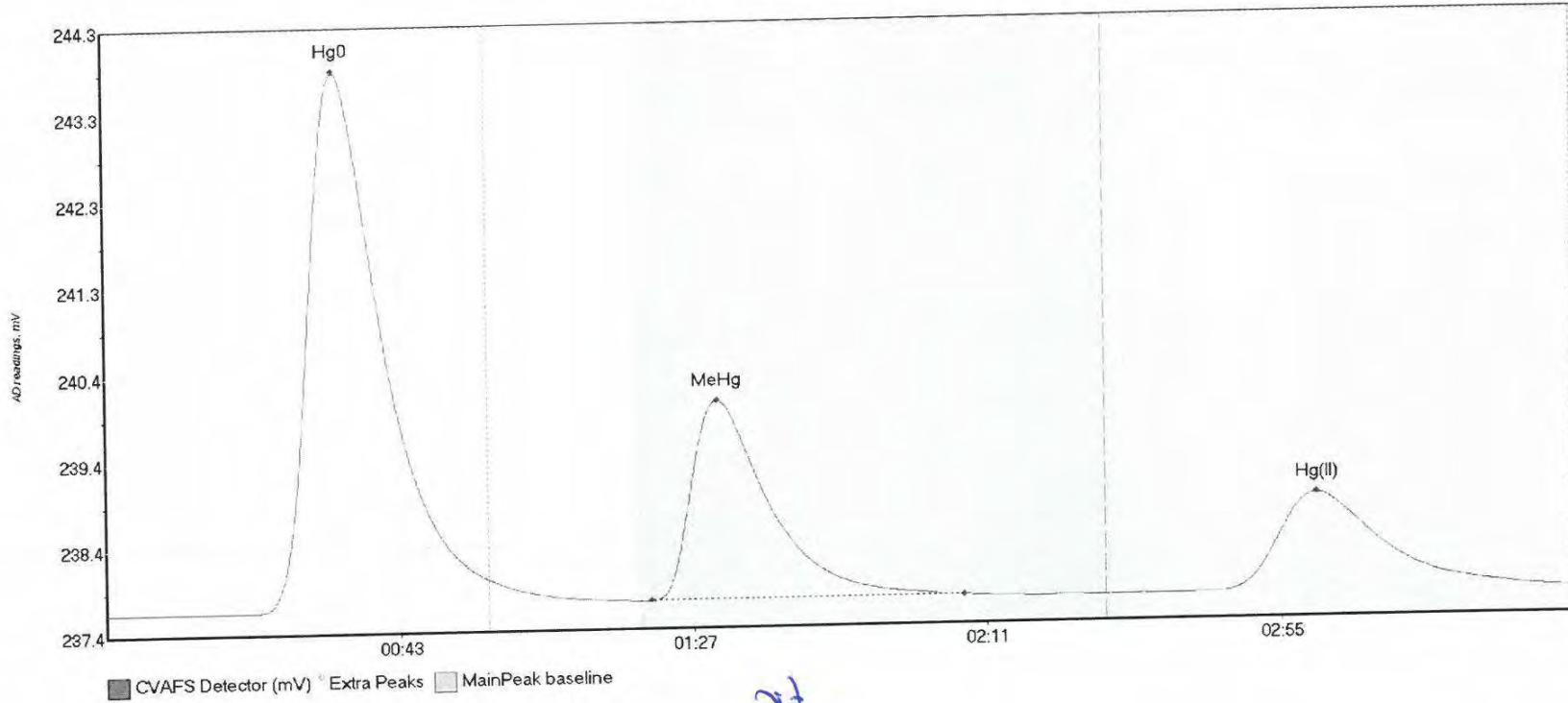
#20: F608273-MSD2



OK

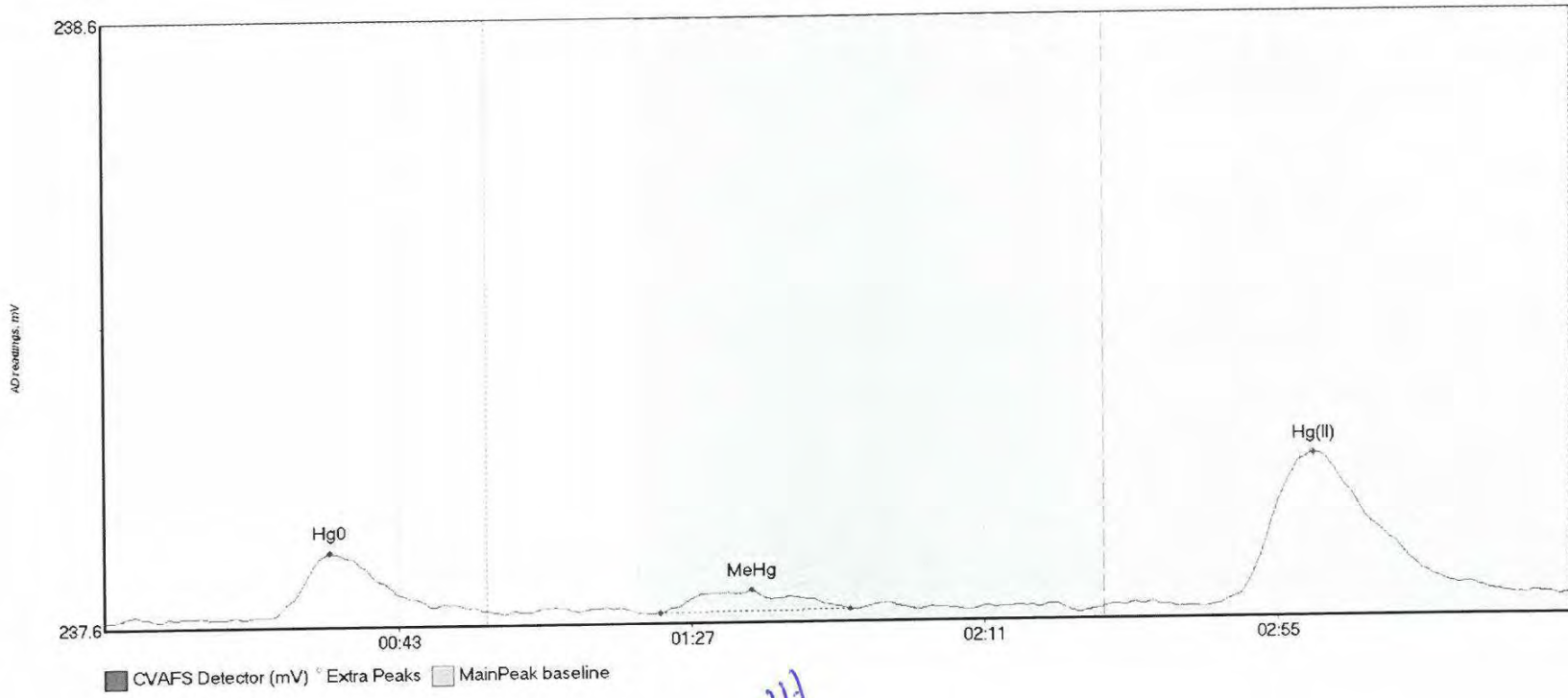
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
F608273-MSD2 Hg	14.980	2.2	57.5	237.70	237.73	33.1	0.130	CT	237.6981	0.00	0.03	
F608273-MSD2 Me	137.712	80.2	149.9	237.71	237.72	91.2	0.992	OK	237.6981	0.00	0.03	
F608273-MSD2 Hg	2.347	170.9	194.2	237.72	237.73	184.7	0.021	OK	237.6981	0.00	0.03	

#21: SEQ-CCV1



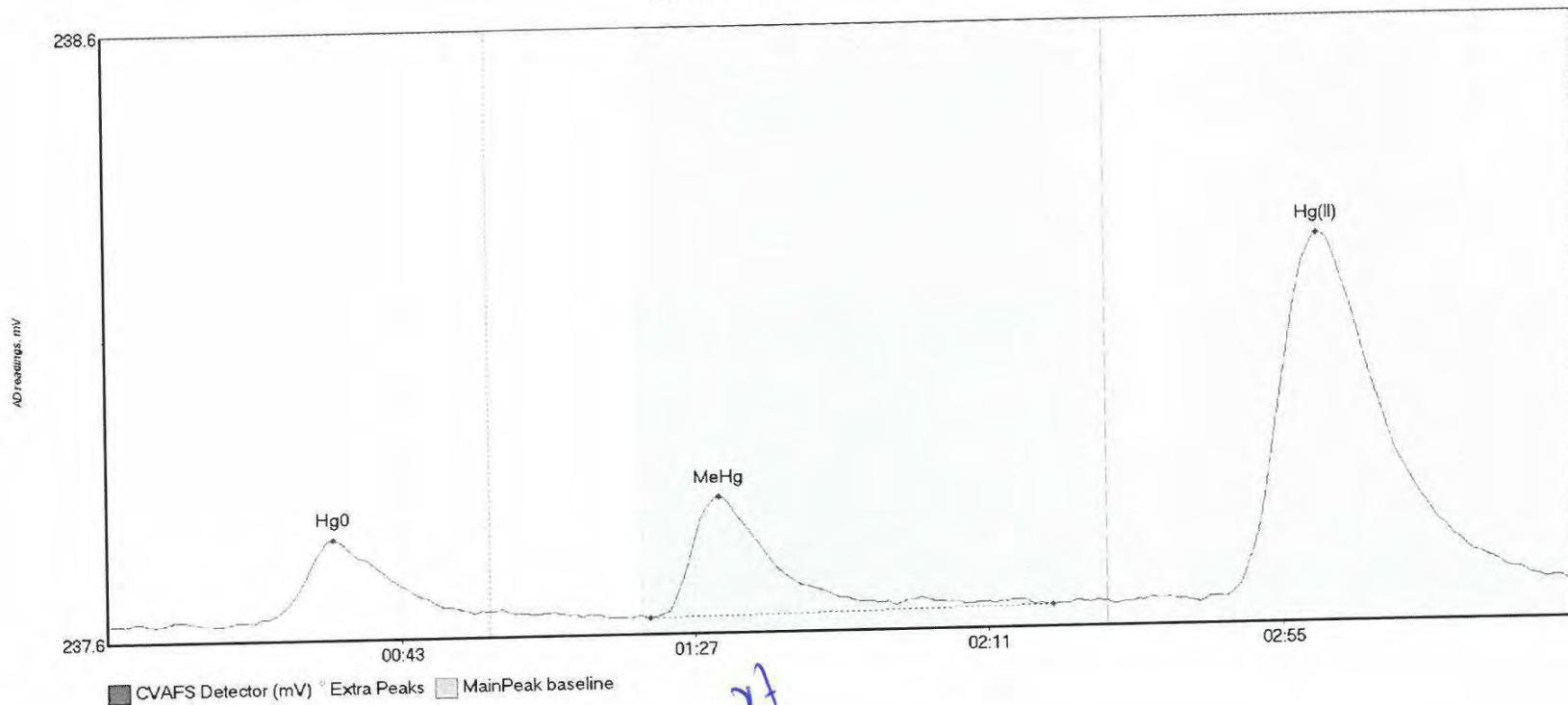
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	B1Dev	B1Shift	Comment
SEQ-CCV1 Hg0	731.557	20.5	57.5	237.68	238.01	34.5	6.090	CT	237.6744	0.00	0.06	
SEQ-CCV1 MeHg	300.069	81.7	128.6	237.75	237.75	91.7	2.251	OK	237.6744	0.00	0.06	
SEQ-CCV1 Hg(II)	197.264	165.3	219.8	237.73	237.73	181.4	1.104	CT	237.6744	0.00	0.06	

#22: SEQ-CCB1



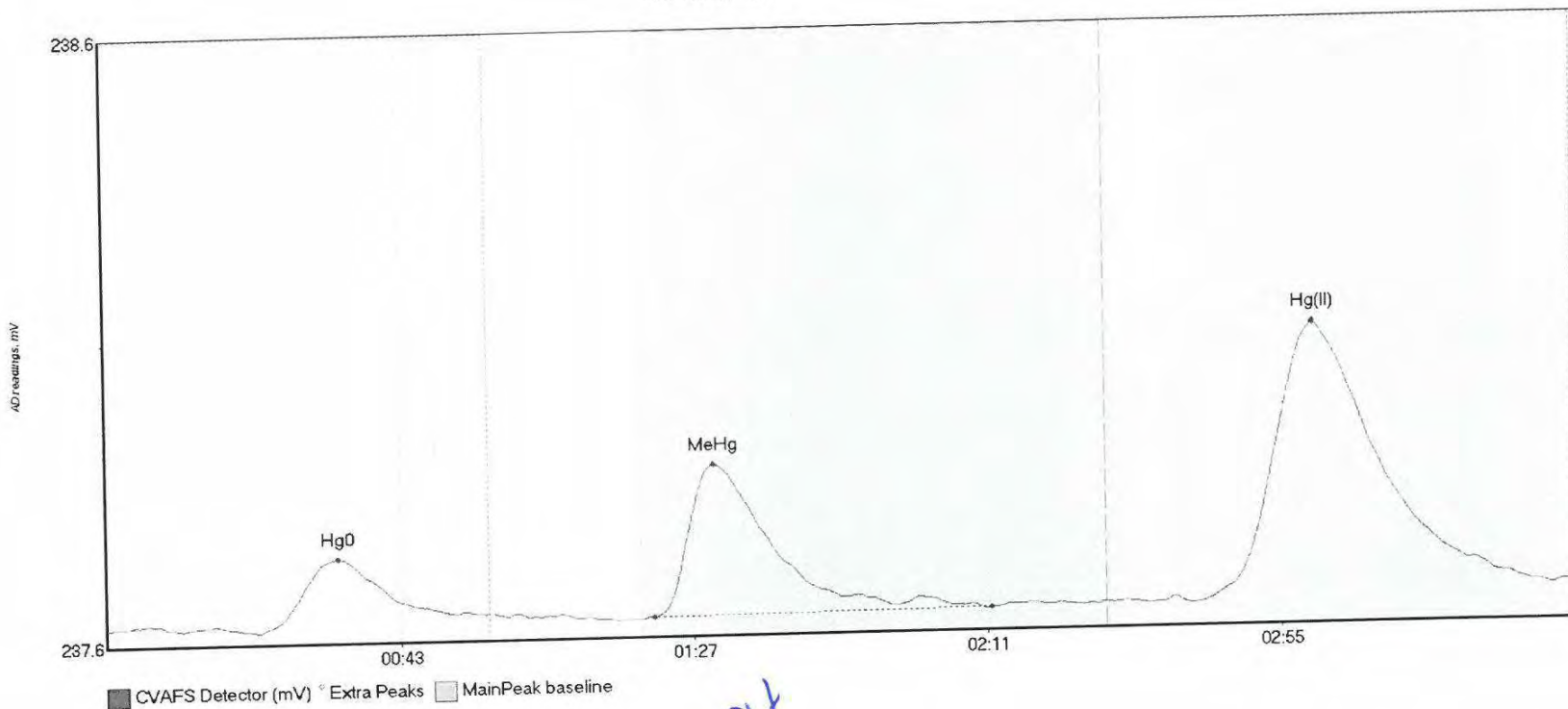
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
SEQ-CCB1 Hg0	14.243	21.0	57.1	237.65	237.66	33.7	0.108	OK	237.6502	0.00	0.02	
SEQ-CCB1 MeHg	5.711	83.3	111.7	237.66	237.66	97.0	0.037	OK	237.6502	0.00	0.02	
SEQ-CCB1 Hg(II)	44.056	167.1	218.4	237.66	237.67	181.5	0.249	OK	237.6502	0.00	0.02	

#23: 1607542-01



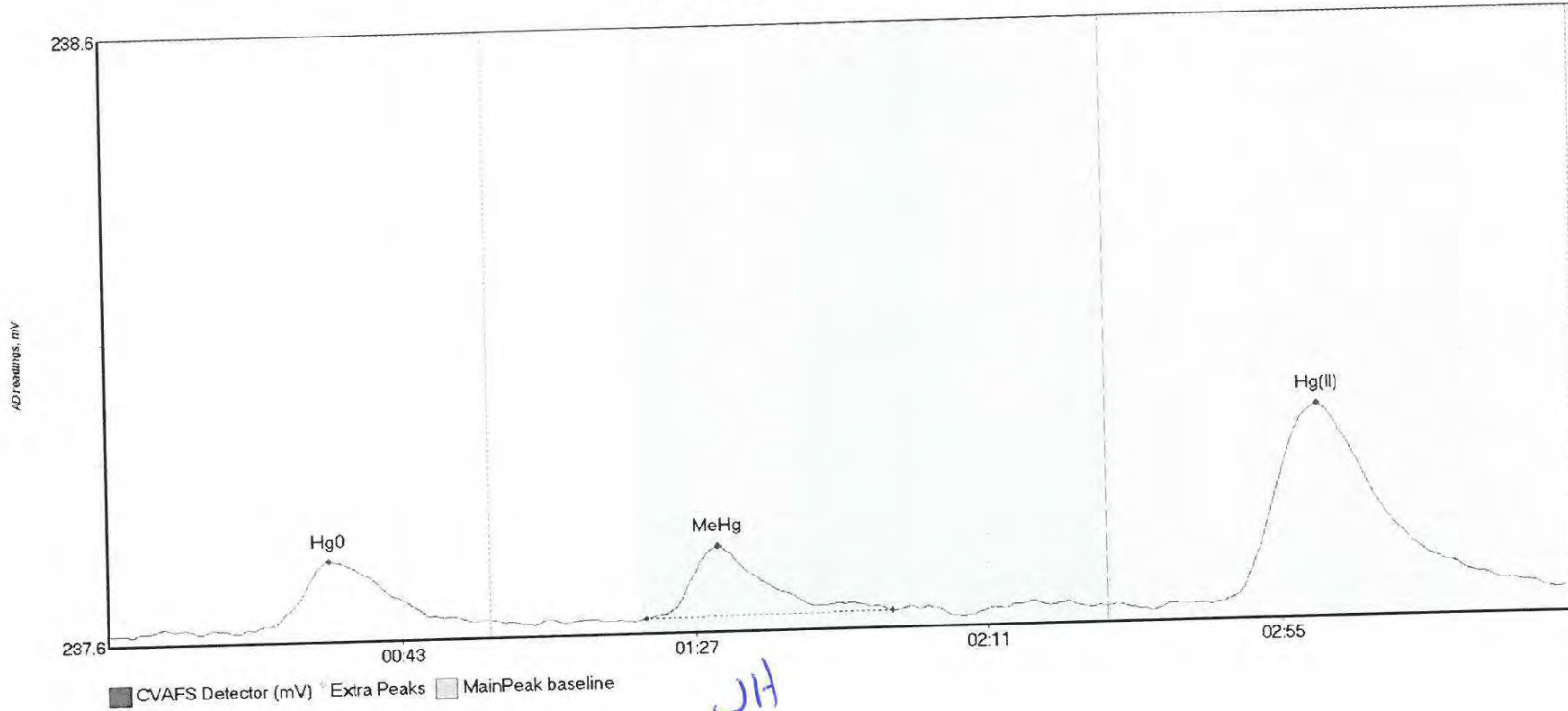
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1607542-01 Hg0	17.937	21.8	55.0	237.64	237.65	33.9	0.135	OK	237.6352	0.00	0.03	
1607542-01 MeHg	29.207	81.3	141.8	237.63	237.64	91.8	0.199	OK	237.6352	0.00	0.03	
1607542-01 Hg(I)	109.136	163.7	219.8	237.64	237.67	181.5	0.603	CT	237.6352	0.00	0.03	

#24: 1607542-03



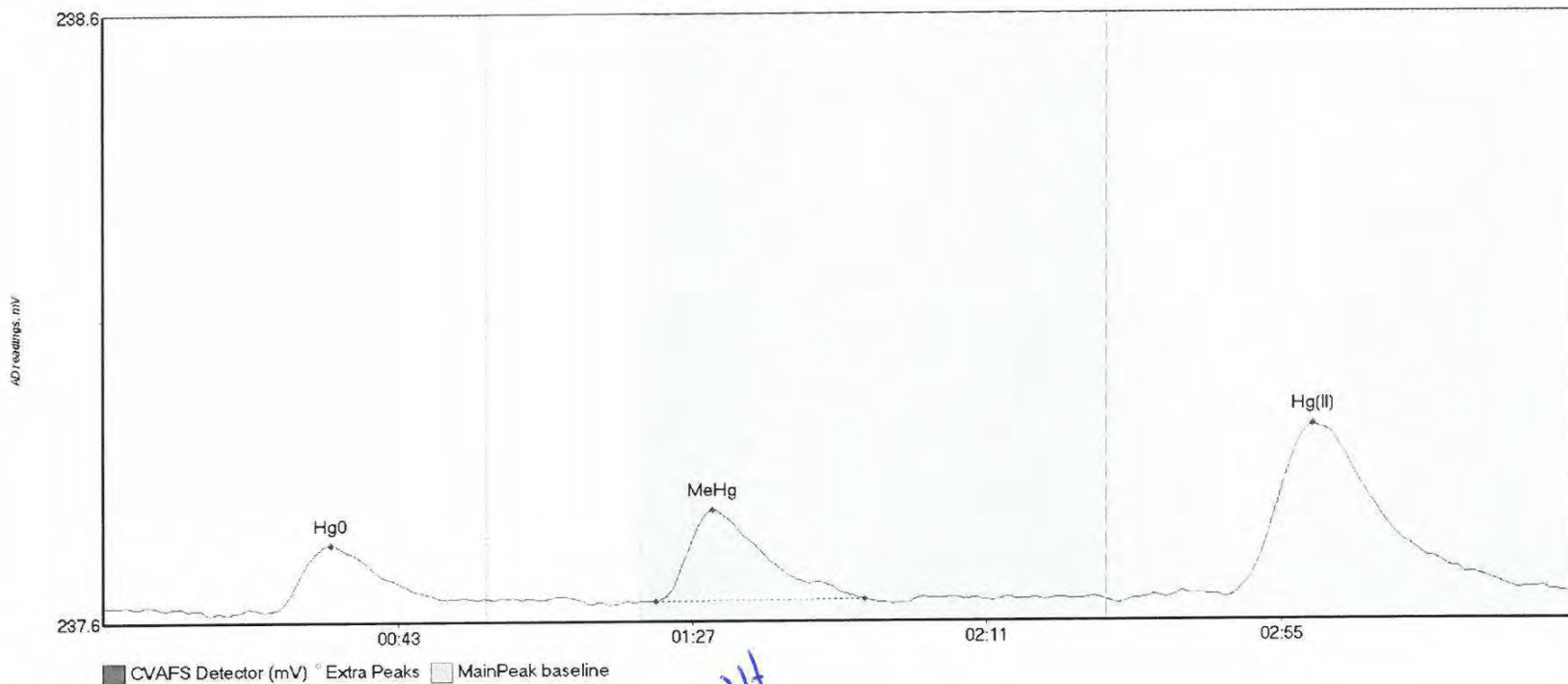
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1607542-03 Hg0	14.910	23.1	56.8	237.61	237.63	34.7	0.120	OK	237.6175	0.00	0.04	
1607542-03 MeHg	36.074	82.1	132.6	237.62	237.63	91.2	0.251	OK	237.6175	0.00	0.04	
1607542-03 Hg(I)	81.277	164.5	216.7	237.63	237.65	181.1	0.456	OK	237.6175	0.00	0.04	

#25: 1607542-04



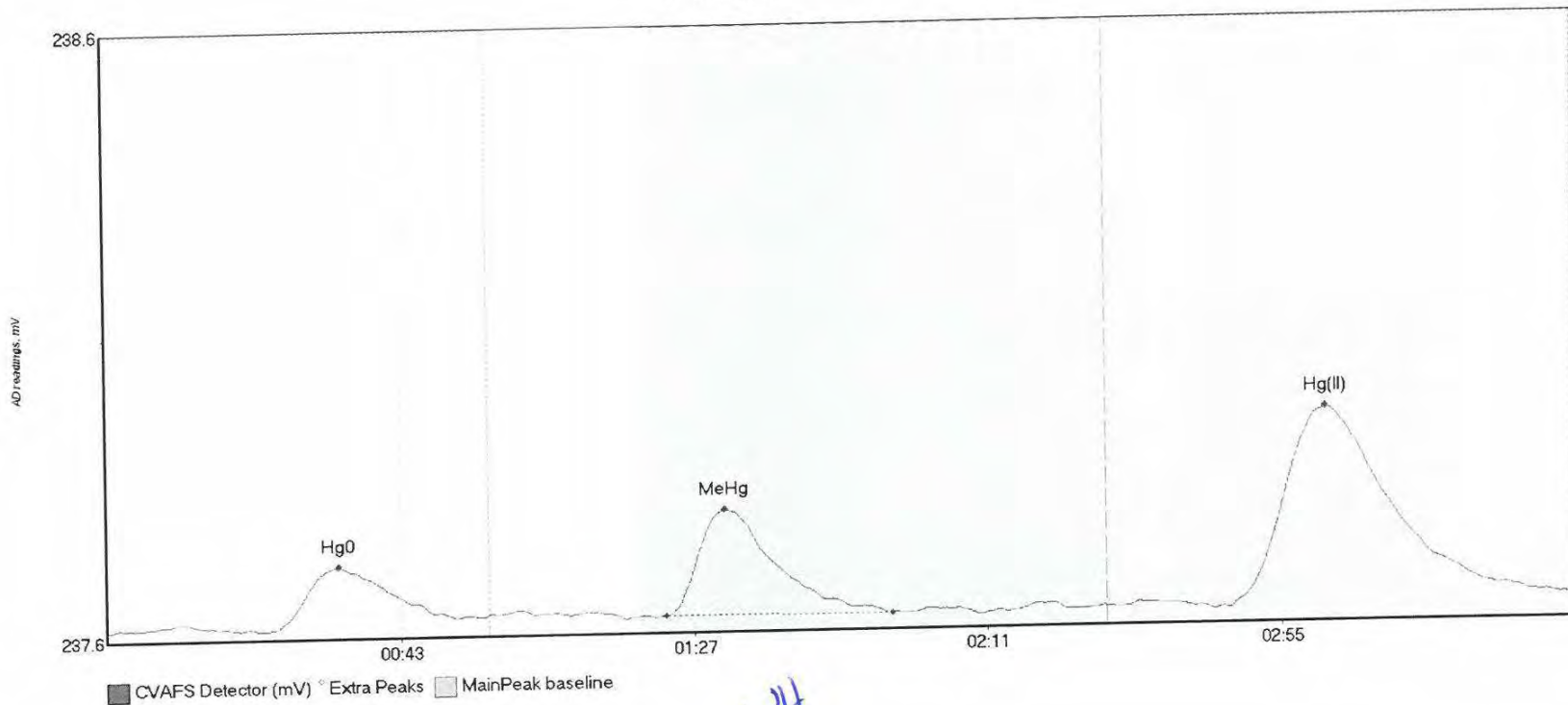
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1607542-04 Hg0	16.271	19.6	54.8	237.61	237.62	33.1	0.118	OK	237.6108	0.00	0.03	
1607542-04 MeHg	14.810	80.6	117.6	237.62	237.62	91.5	0.118	OK	237.6108	0.00	0.03	
1607542-04 Hg(I)	58.159	167.1	219.8	237.63	237.64	181.6	0.322	CT	237.6108	0.00	0.03	

#26: 1607542-05



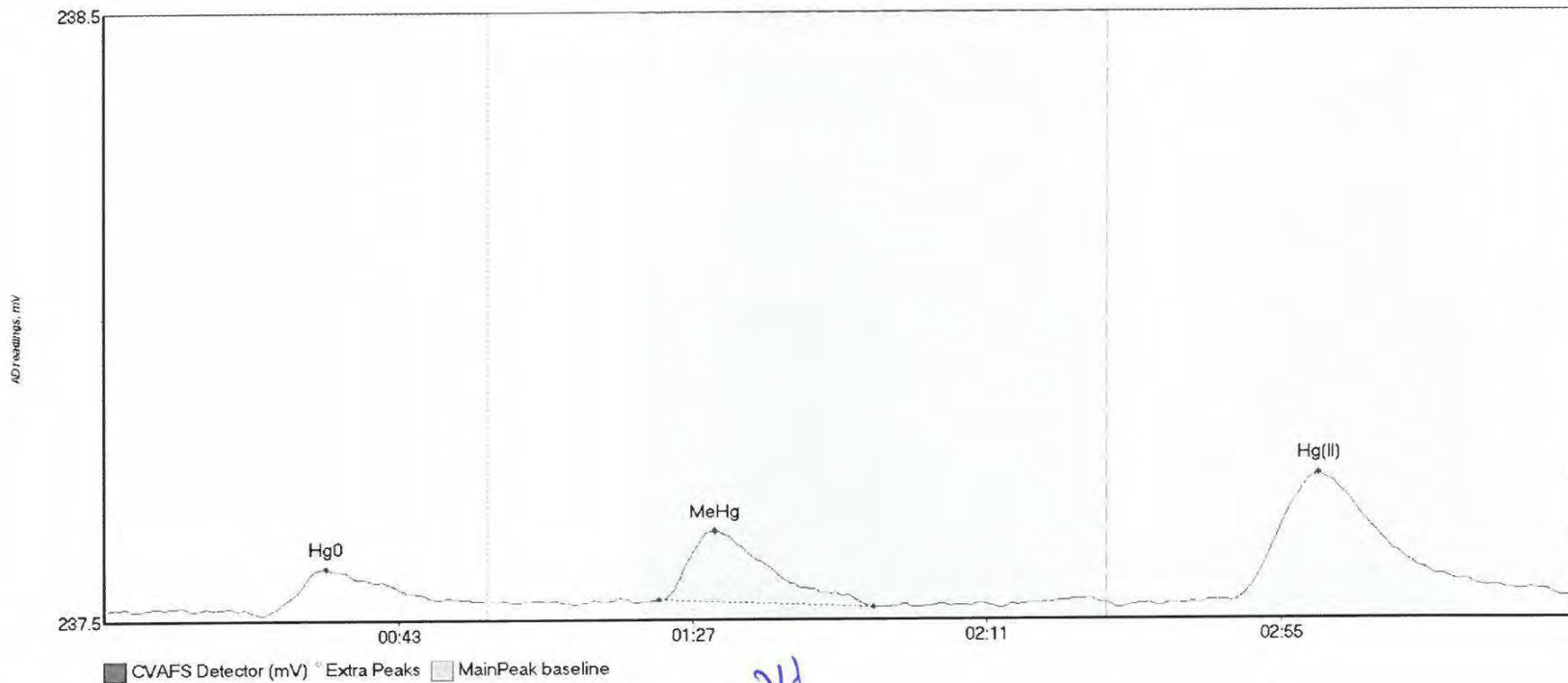
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1607542-05 Hg0	13.471	24.2	55.8	237.59	237.61	33.8	0.111	OK	237.5973	0.00	0.02	
1607542-05 MeHg	19.416	82.6	113.7	237.60	237.61	91.0	0.151	OK	237.5973	0.00	0.02	
1607542-05 Hg(I	51.721	154.4	219.1	237.61	237.62	180.7	0.286	OK	237.5973	0.00	0.02	

#27: 1607542-06



Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1607542-06 Hg0	13.185	24.8	52.4	237.58	237.59	34.7	0.103	OK	237.5757	0.00	0.03	
1607542-06 MeHg	23.111	83.8	117.7	237.59	237.59	92.6	0.175	OK	237.5757	0.00	0.03	
1607542-06 Hg(I)	59.627	168.2	219.4	237.59	237.60	182.8	0.328	OK	237.5757	0.00	0.03	

#28: 1607542-07

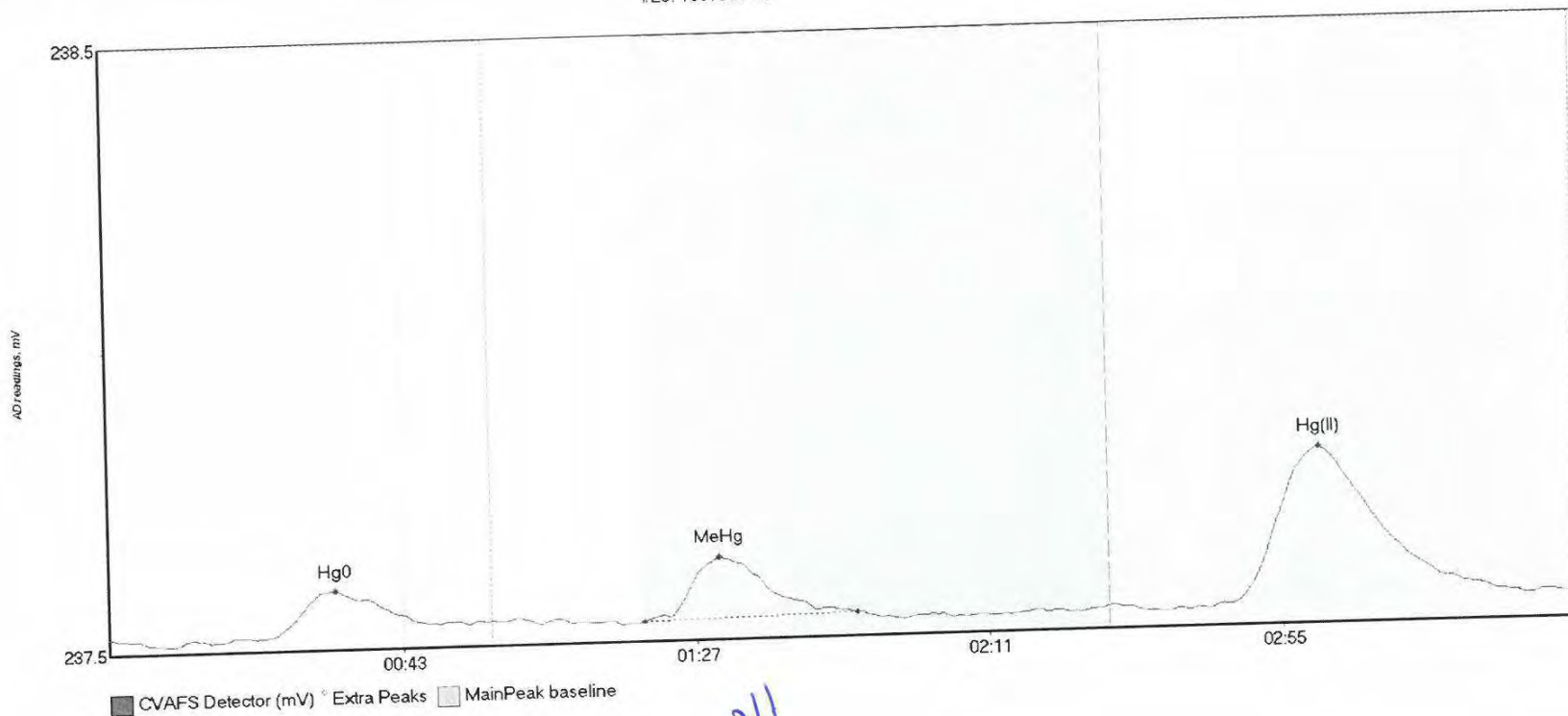


OK

Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1607542-07 Hg0	10.281	23.5	57.3	237.55	237.57	33.1	0.077	OK	237.5603	0.00	0.02	
1607542-07 MeHg	16.454	83.0	115.0	237.57	237.56	91.3	0.115	OK	237.5603	0.00	0.02	
1607542-07 Hg(I)	37.608	168.6	218.2	237.57	237.58	181.6	0.210	OK	237.5603	0.00	0.02	

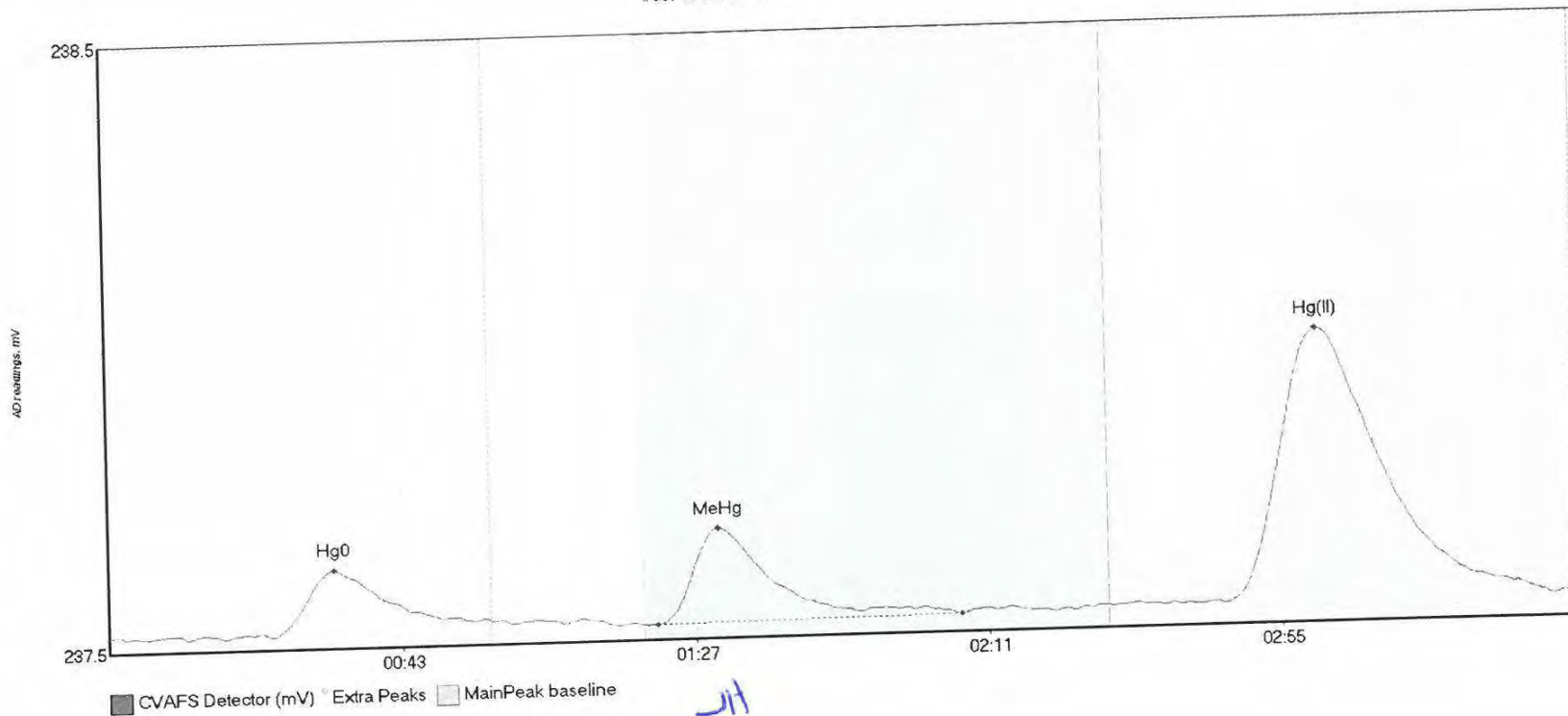
016

#29: 1607586-12



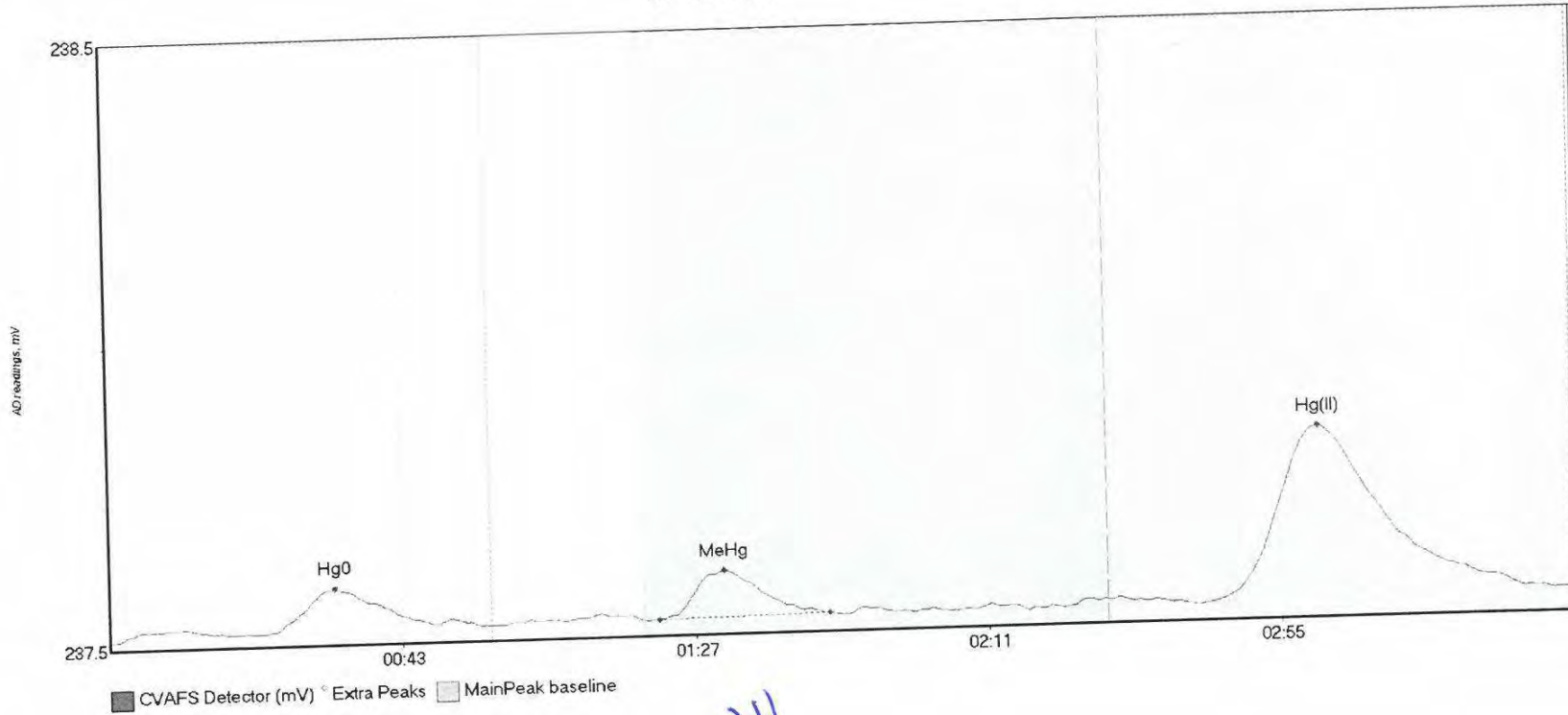
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	B1Dev	B1Shift	Comment
1607586-12 Hg0	9.465	23.3	54.0	237.54	237.55	33.9	0.077	OK	237.5412	0.00	0.02	
1607586-12 MeHg	12.885	80.1	112.1	237.55	237.56	91.5	0.103	OK	237.5412	0.00	0.02	
1607586-12 Hg(I)	43.631	168.1	212.6	237.55	237.56	181.6	0.255	OK	237.5412	0.00	0.02	

#30: 1607586-19



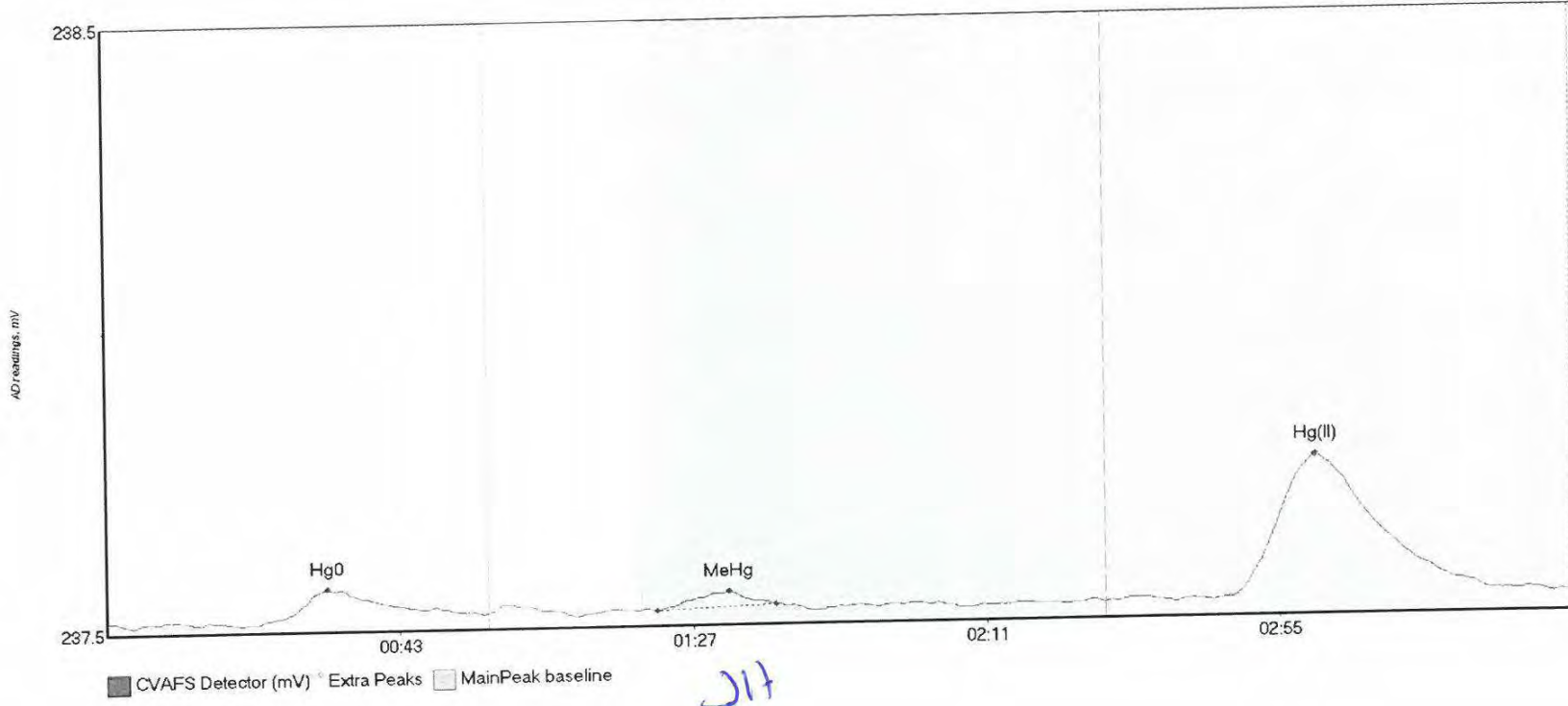
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1607586-19 Hg0	13.666	24.5	57.5	237.51	237.53	33.7	0.109	CT	237.5199	0.00	0.02	
1607586-19 MeHg	21.465	82.2	127.9	237.52	237.52	91.5	0.157	OK	237.5199	0.00	0.02	
1607586-19 Hg(I)	78.834	167.7	216.7	237.53	237.53	181.5	0.450	OK	237.5199	0.00	0.02	

#31: 1607586-20



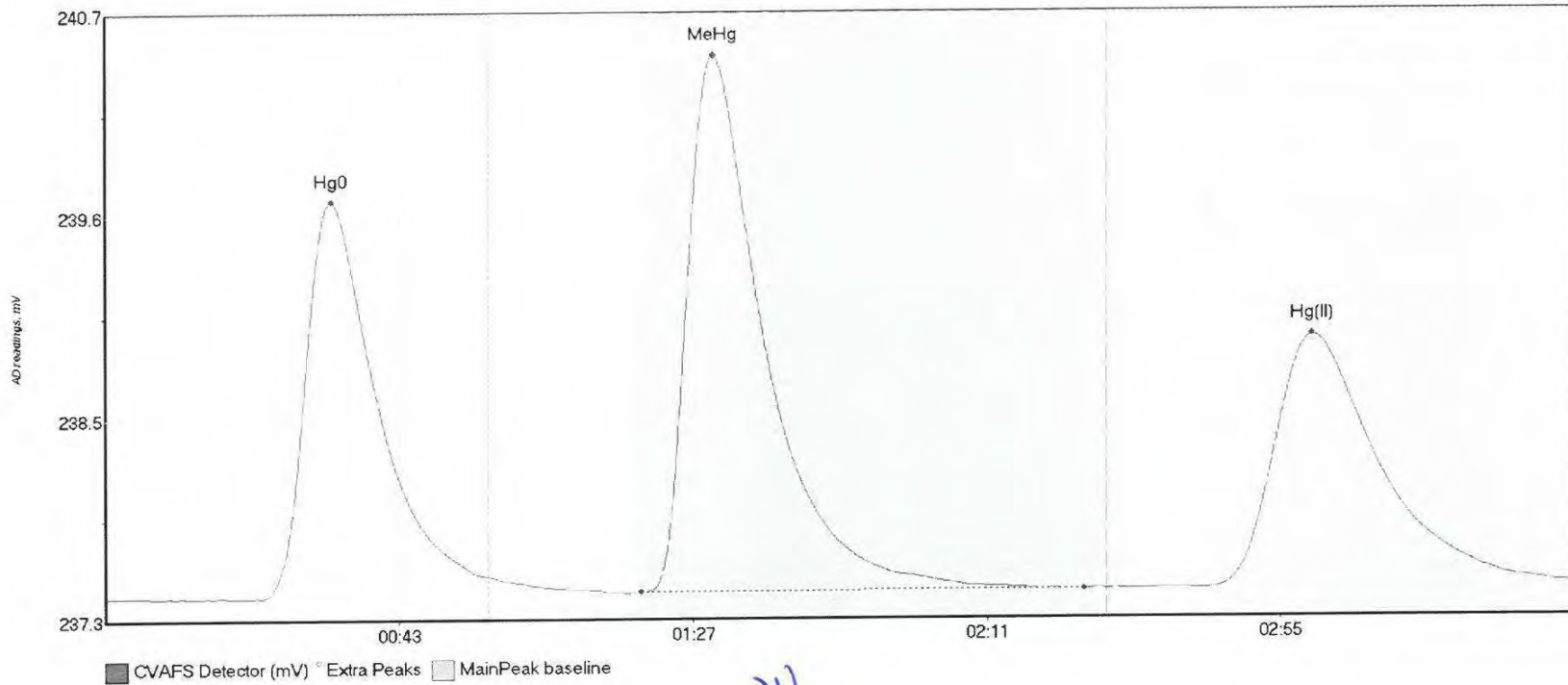
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1607586-20 Hg0	12.317	0.5	57.2	237.49	237.50	33.9	0.080	OK	237.4881	0.00	0.03	
1607586-20 MeHg	8.720	82.4	108.1	237.50	237.51	92.3	0.079	OK	237.4881	0.00	0.03	
1607586-20 Hg(I)	50.096	166.7	214.7	237.51	237.52	181.8	0.285	OK	237.4881	0.00	0.03	

#32: 1607586-21



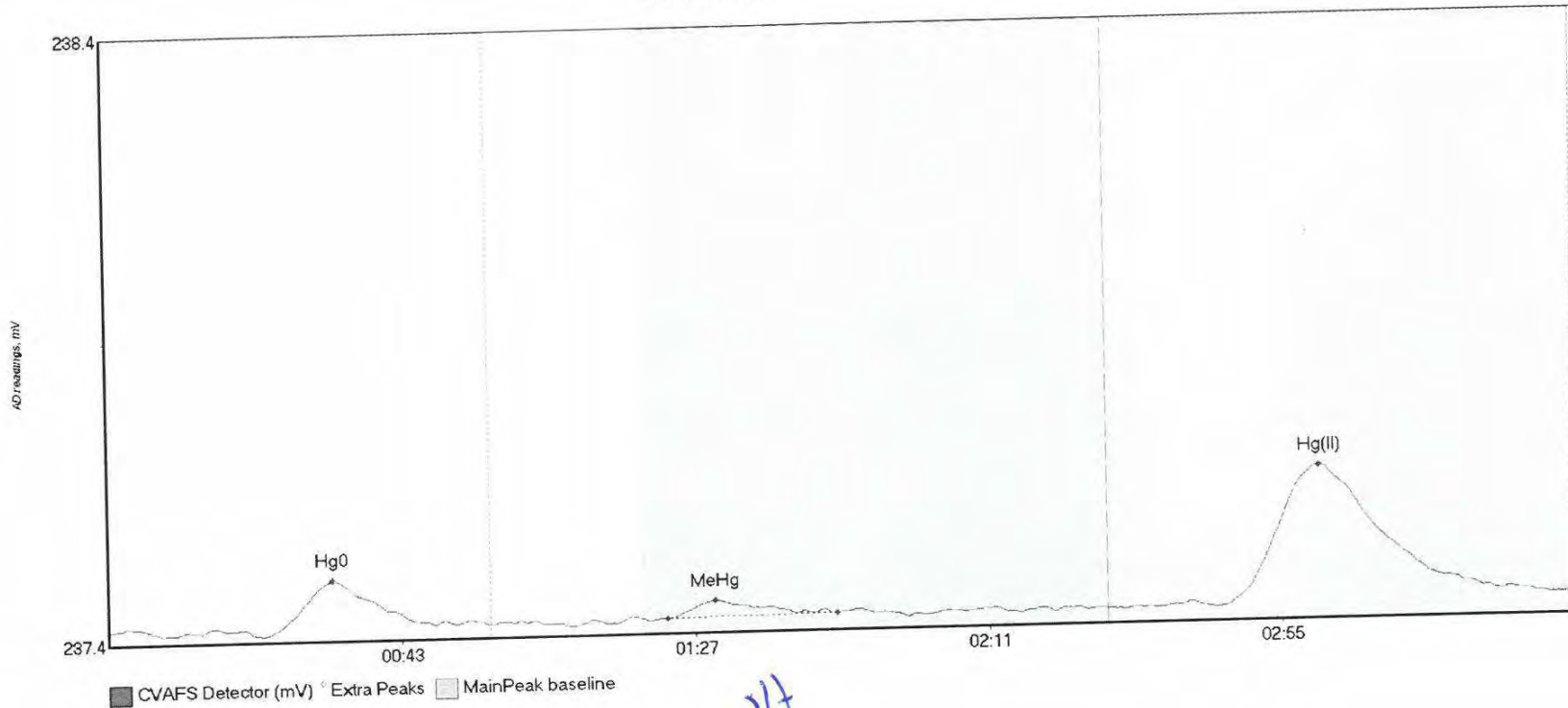
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1607586-21 Hg0	6.158	26.3	56.6	237.49	237.49	33.2	0.047	OK	237.4848	0.00	0.02	
1607586-21 MeHg	2.329	82.6	100.4	237.49	237.50	93.3	0.030	OK	237.4848	0.00	0.02	
1607586-21 Hg(I)	39.495	169.1	217.2	237.50	237.50	181.5	0.232	OK	237.4848	0.00	0.02	

#33: SEQ-CCV2



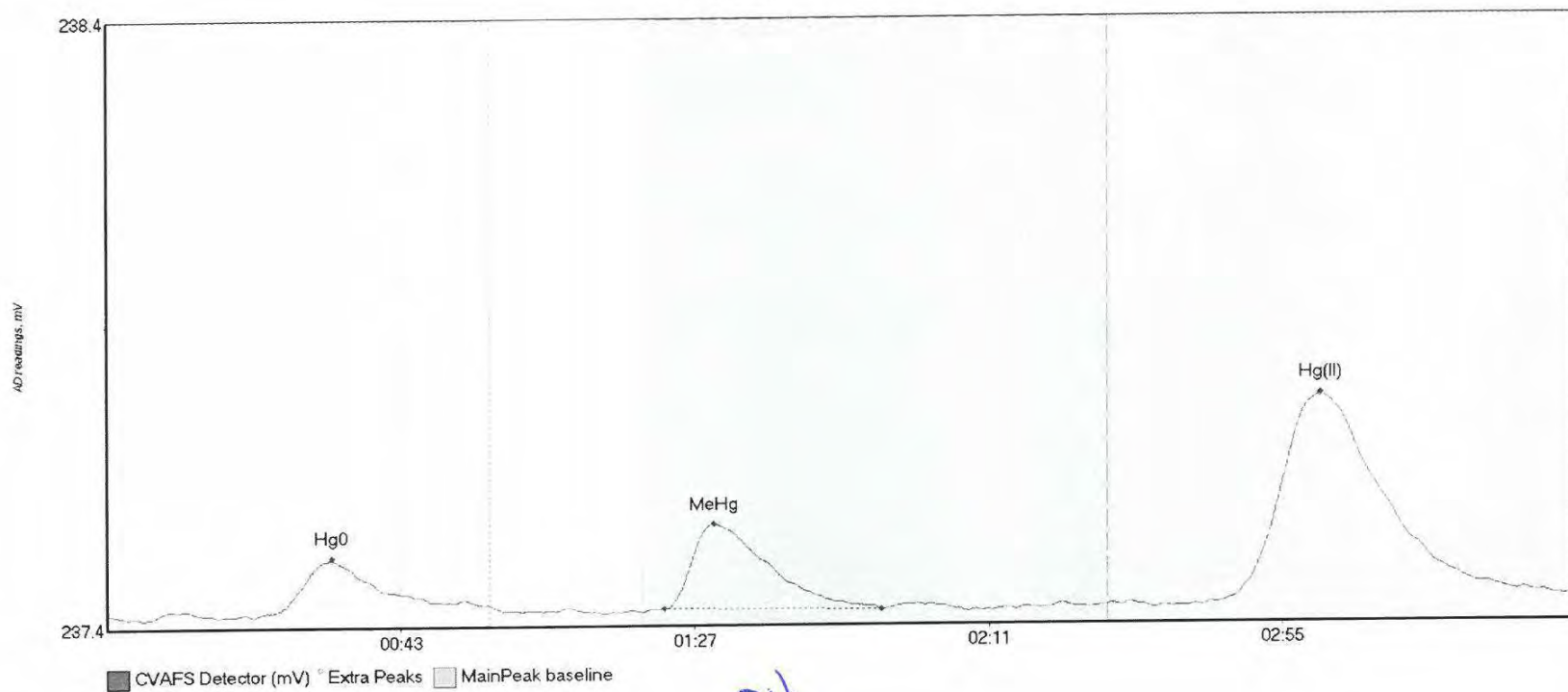
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
SEQ-CCV2 Hg0	260.627	23.4	57.5	237.46	237.58	33.8	2.200	CT	237.4668	0.00	0.06	
SEQ-CCV2 MeHg	399.566	80.1	146.4	237.49	237.50	91.0	2.972	OK	237.4668	0.00	0.06	
SEQ-CCV2 Hg(II)	249.591	164.5	219.8	237.50	237.52	180.8	1.407	CT	237.4668	0.00	0.06	

#34: SEQ-CCB2



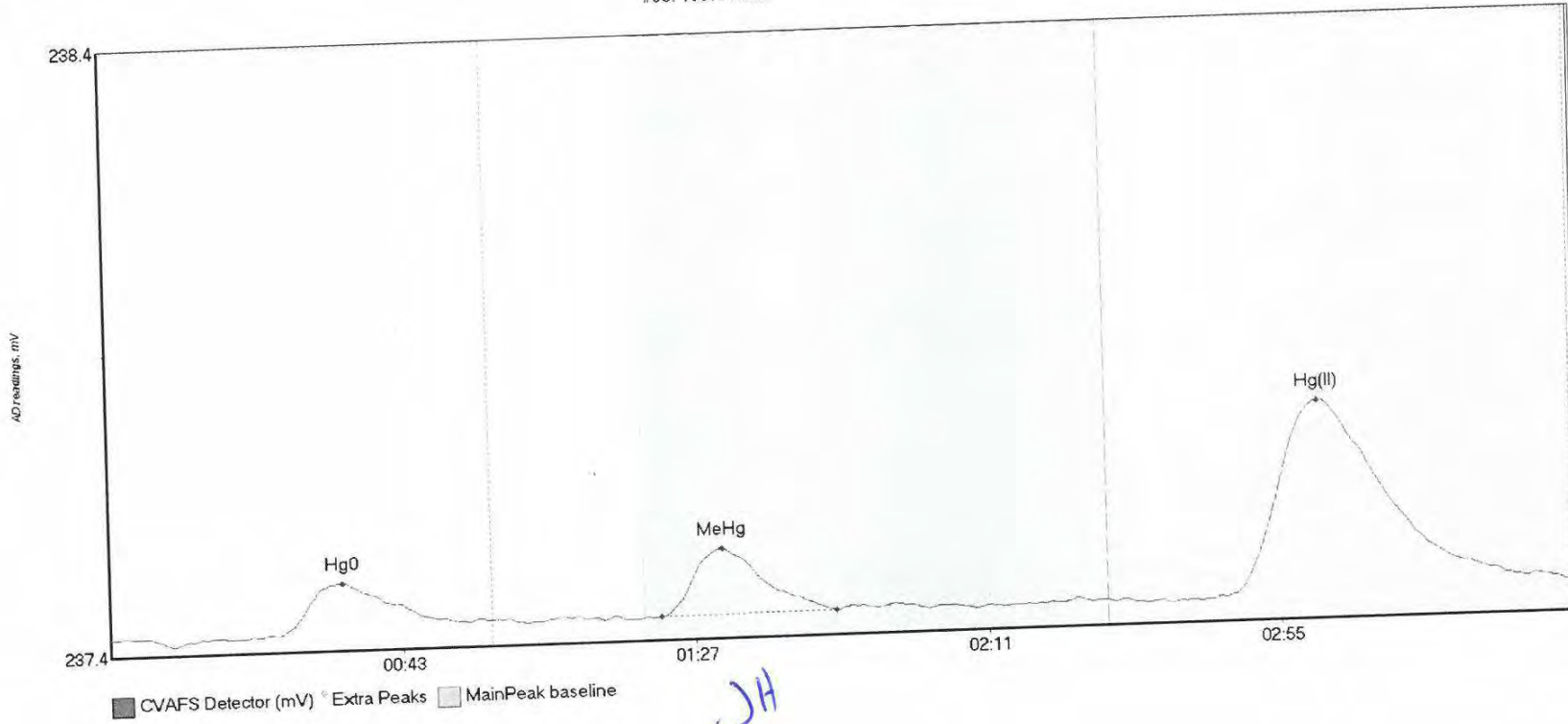
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
SEQ-CCB2 Hg0	9.764	23.6	49.2	237.45	237.46	33.6	0.088	OK	237.4597	0.00	0.02	
SEQ-CCB2 MeHg	3.198	83.8	109.3	237.46	237.47	91.0	0.029	OK	237.4597	0.00	0.02	
SEQ-CCB2 Hg(II)	40.802	166.6	216.5	237.46	237.47	181.8	0.231	OK	237.4597	0.00	0.02	

#35: 160772-01



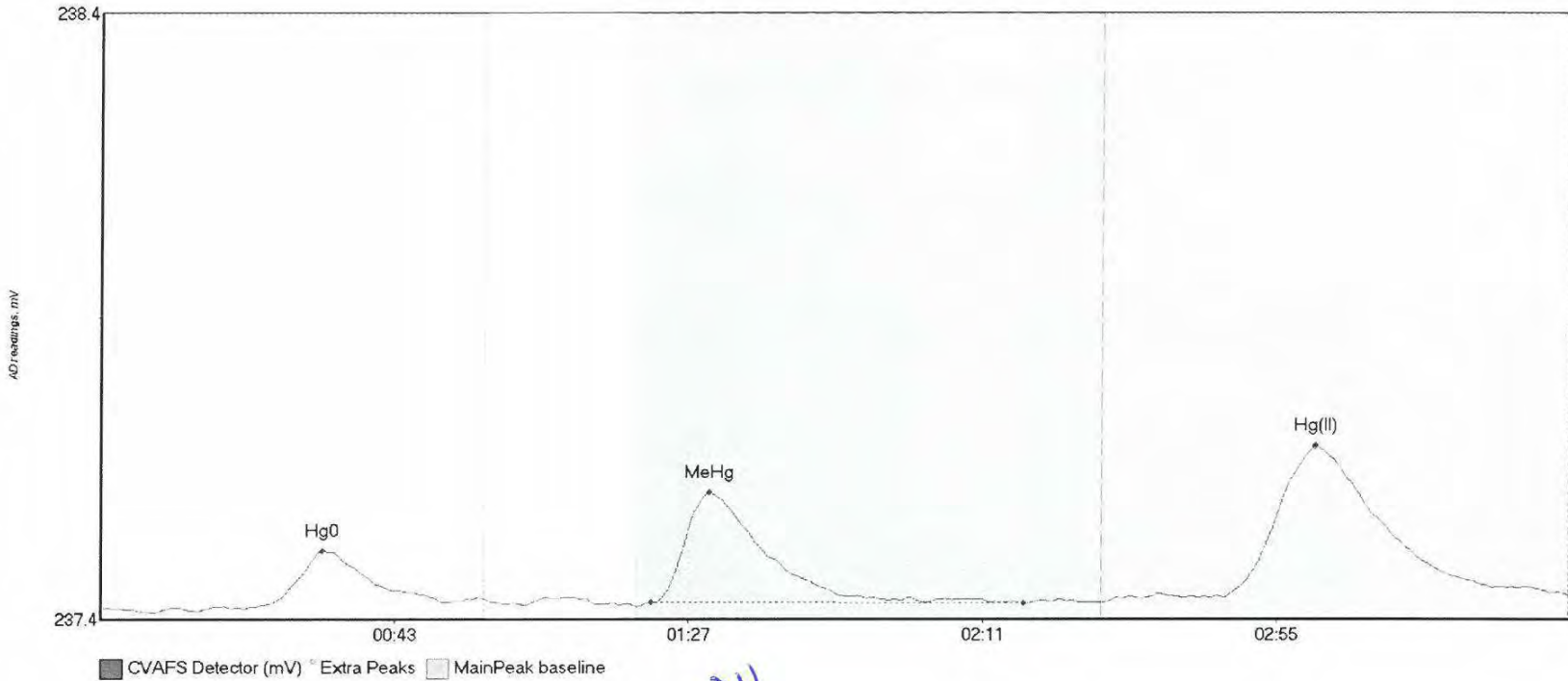
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1607772-01 Hg0	10.453	24.7	57.5	237.44	237.45	33.7	0.087	CT	237.4402	0.00	0.02	
1607772-01 MeHg	18.569	83.5	116.0	237.45	237.44	91.0	0.140	OK	237.4402	0.00	0.02	
1607772-01 Hg(I	59.694	166.3	218.5	237.45	237.46	181.8	0.342	OK	237.4402	0.00	0.02	

#36: 1607772-02



Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1607772-02 Hg0	10.559	25.4	54.0	237.42	237.44	35.1	0.085	OK	237.4239	0.00	0.02	
1607772-02 MeHg	13.194	82.9	109.2	237.43	237.44	92.2	0.109	OK	237.4239	0.00	0.02	
1607772-02 Hg(I)	59.446	168.0	219.8	237.44	237.45	181.8	0.321	CT	237.4239	0.00	0.02	

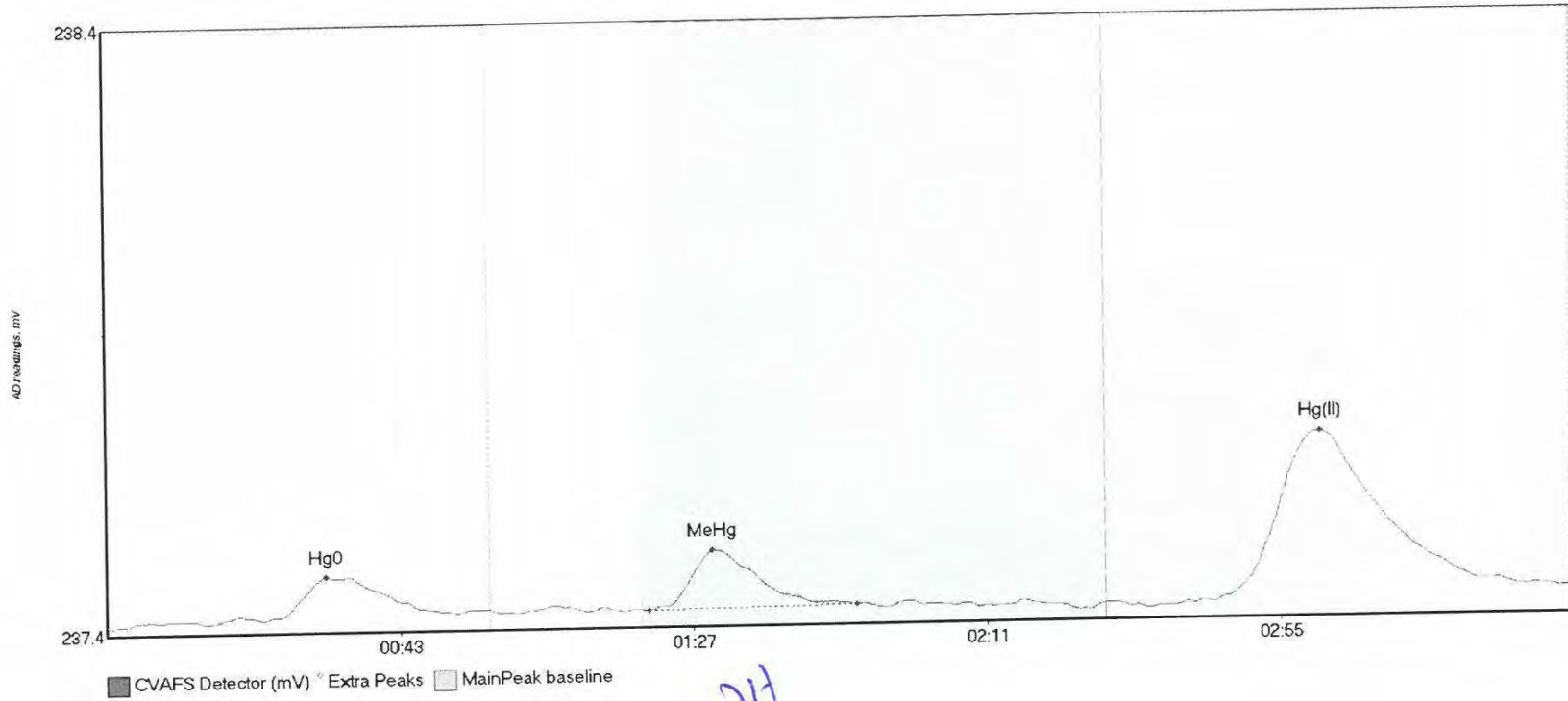
#37: 1607772-03



Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1607772-03 Hg0	10.368	23.2	51.4	237.42	237.42	33.3	0.092	OK	237.4127	0.00	0.02	
1607772-03 MeHg	25.233	82.4	138.2	237.42	237.42	91.1	0.182	OK	237.4127	0.00	0.02	
1607772-03 Hg(I)	46.679	150.1	219.8	237.42	237.44	181.8	0.258	CT	237.4127	0.00	0.02	

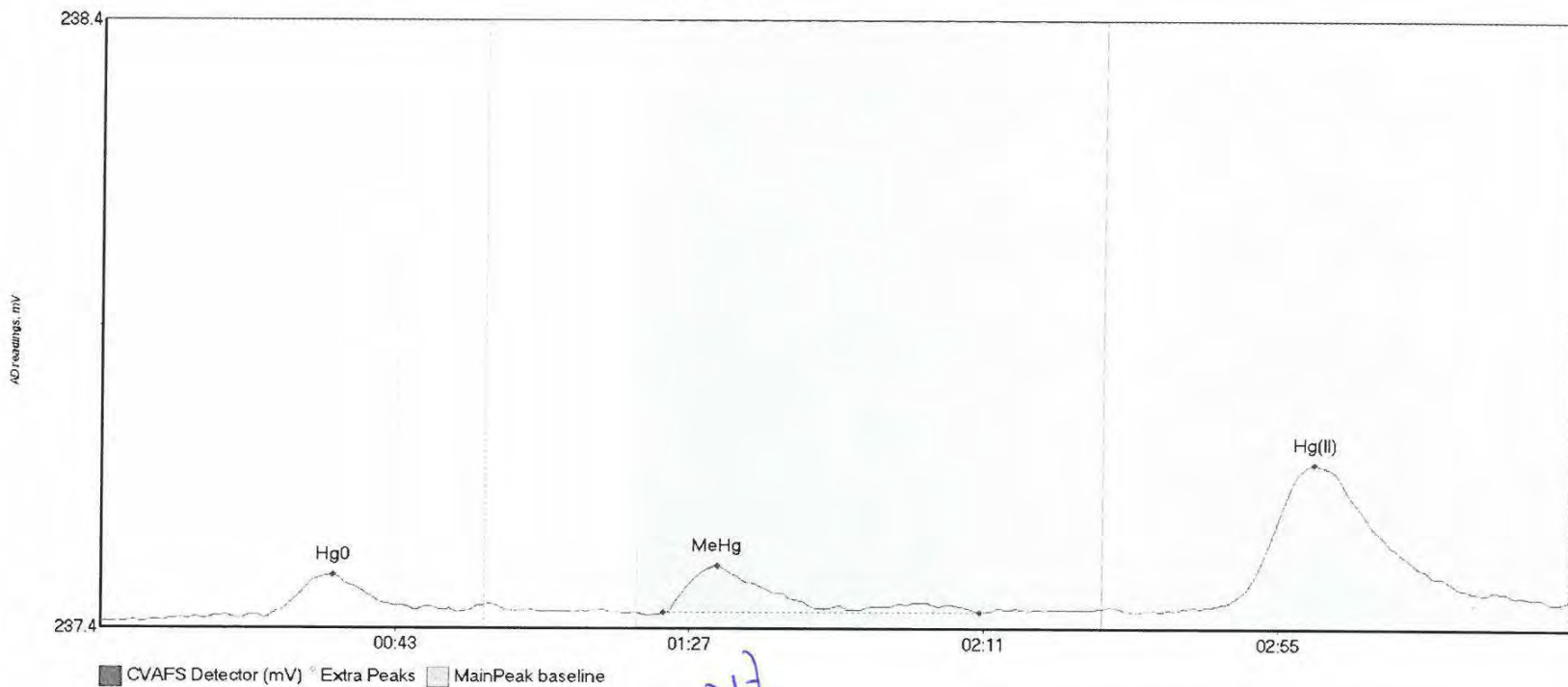
016

#38: 1607772-04



Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1607772-04 Hg0	9.784	15.5	52.5	237.40	237.42	33.0	0.075	OK	237.4011	0.00	0.03	
1607772-04 MeHg	10.929	81.3	112.5	237.42	237.42	90.9	0.098	OK	237.4011	0.00	0.03	
1607772-04 Hg(I)	49.373	166.3	218.2	237.42	237.43	182.0	0.279	OK	237.4011	0.00	0.03	

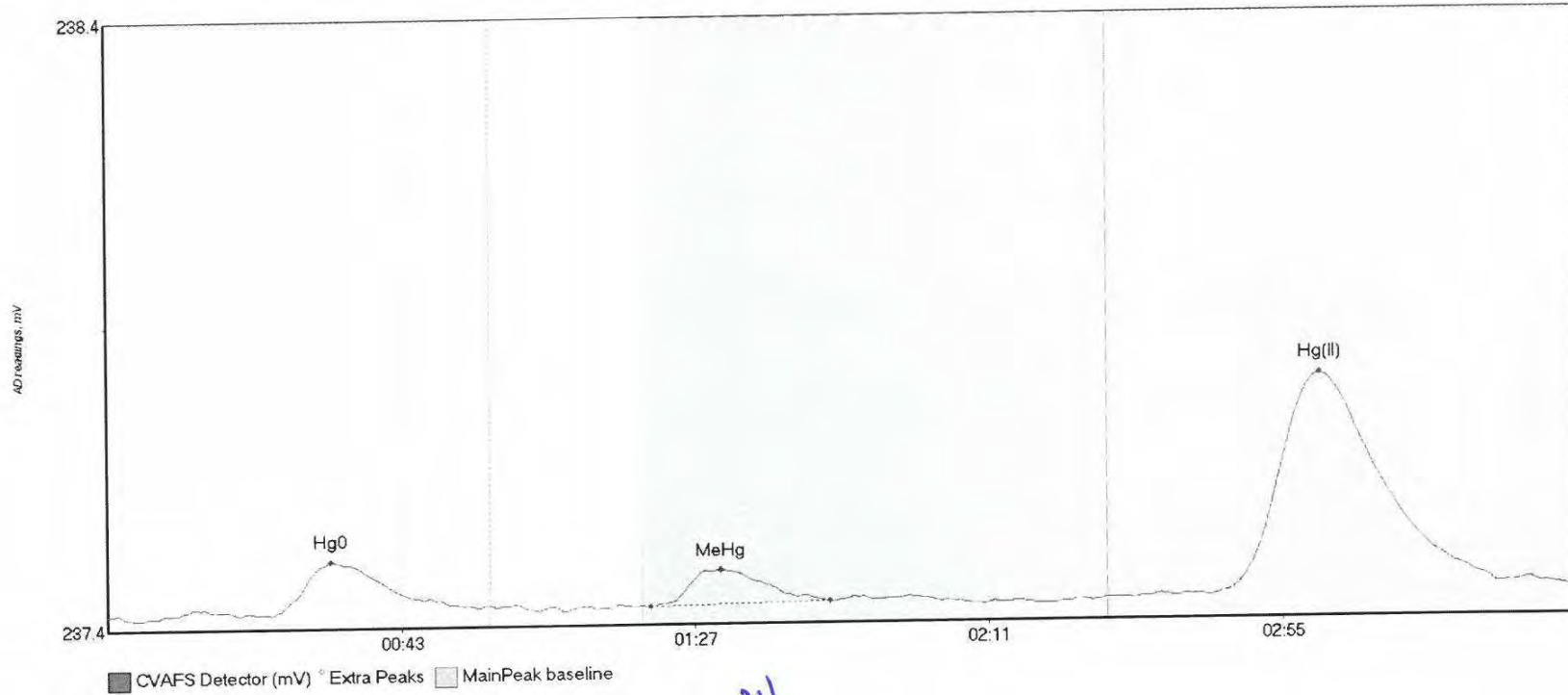
#39: 160772-05



Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1607772-05 Hg0	7.956	15.5	53.3	237.40	237.41	34.7	0.072	OK	237.3934	0.00	0.03	
1607772-05 MeHg	12.234	84.2	131.4	237.41	237.41	92.2	0.077	OK	237.3934	0.00	0.03	
1607772-05 Hg(I)	42.855	166.2	218.1	237.42	237.42	181.3	0.235	OK	237.3934	0.00	0.03	

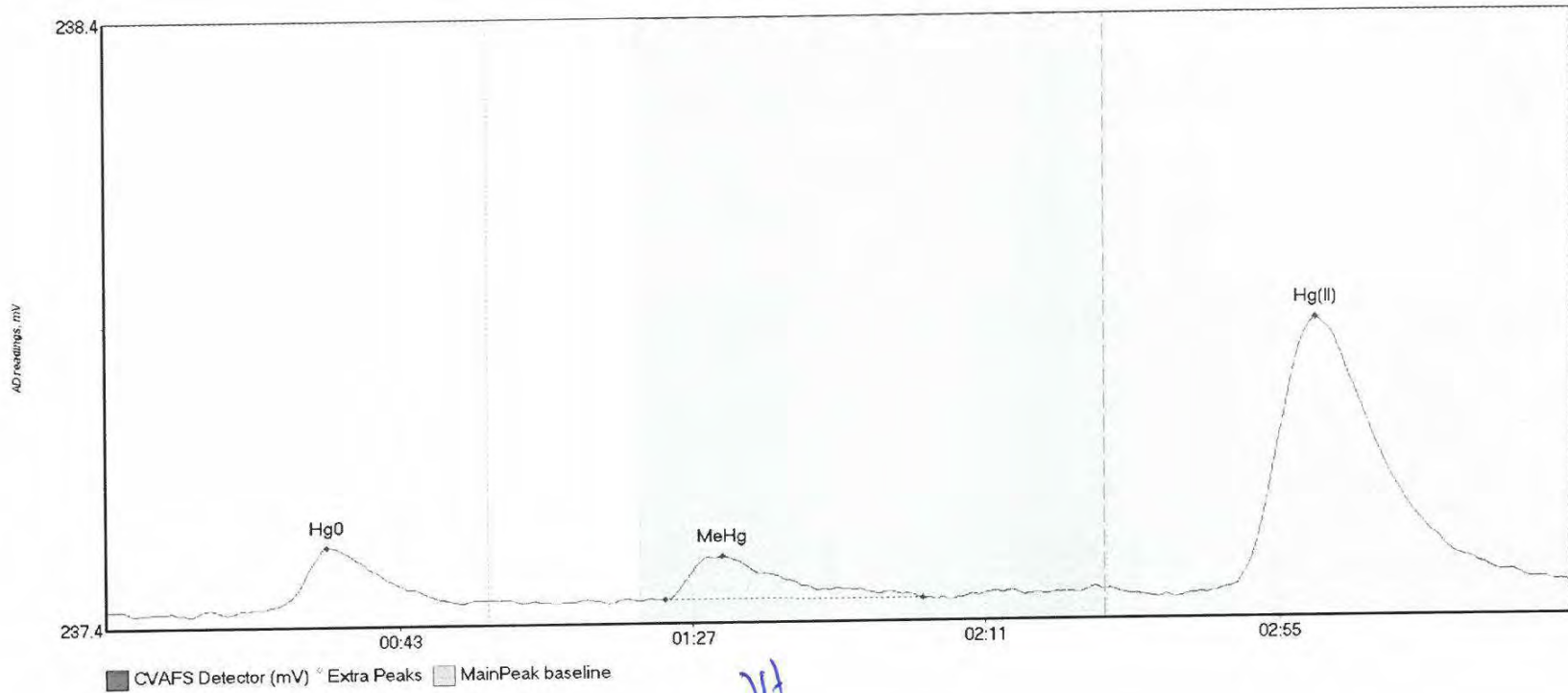
016

#40: 1607772-06



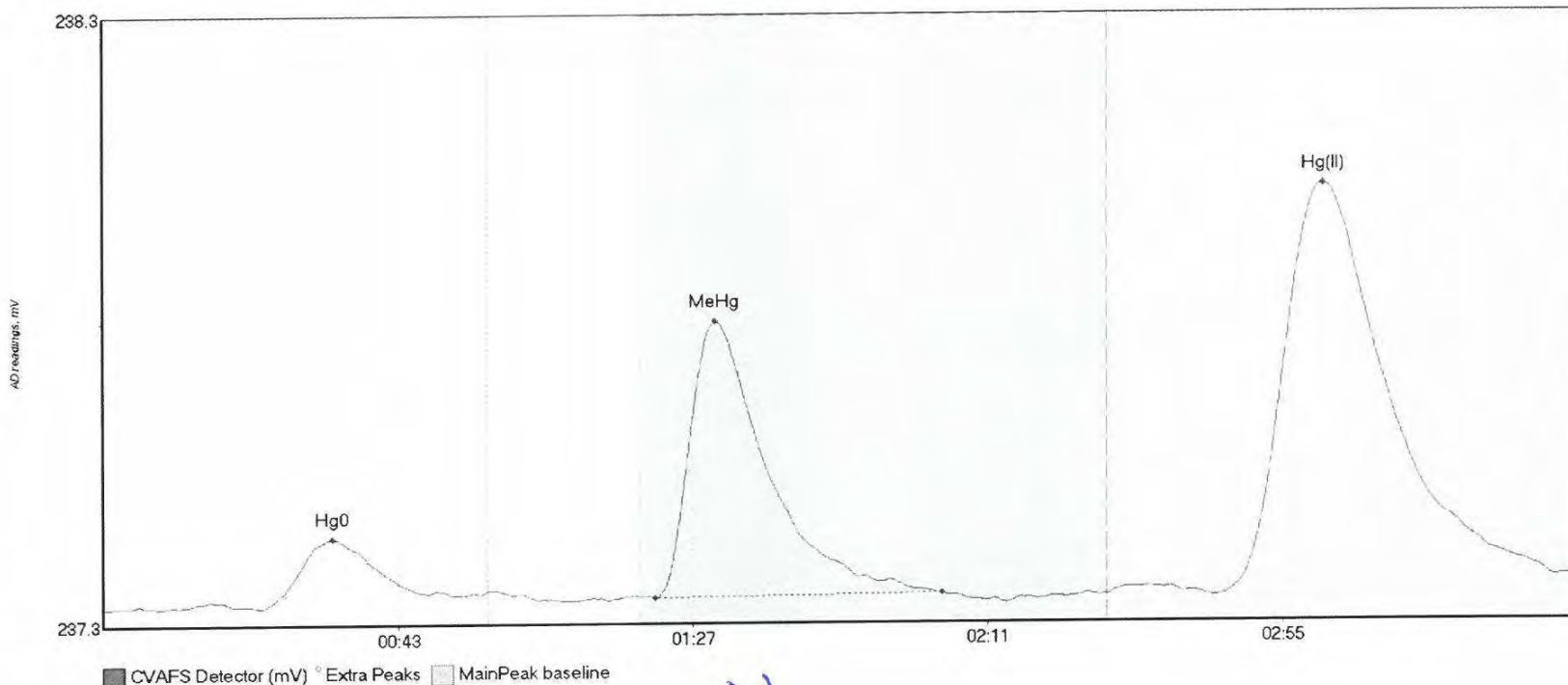
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1607772-06 Hg0	11.381	24.6	55.6	237.40	237.41	33.5	0.087	OK	237.3991	0.00	0.02	
1607772-06 MeHg	7.402	81.5	108.2	237.40	237.41	91.9	0.060	OK	237.3991	0.00	0.02	
1607772-06 Hg(I)	65.082	165.3	219.8	237.41	237.42	181.6	0.364	CT	237.3991	0.00	0.02	

#41: 1607772-07



Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1607772-07 Hg0	12.372	23.4	53.2	237.39	237.39	33.1	0.102	OK	237.3861	0.00	0.03	
1607772-07 MeHg	11.641	83.9	122.6	237.40	237.40	92.4	0.071	OK	237.3861	0.00	0.03	
1607772-07 Hg(I)	78.107	168.2	219.7	237.41	237.41	181.6	0.443	OK	237.3861	0.00	0.03	

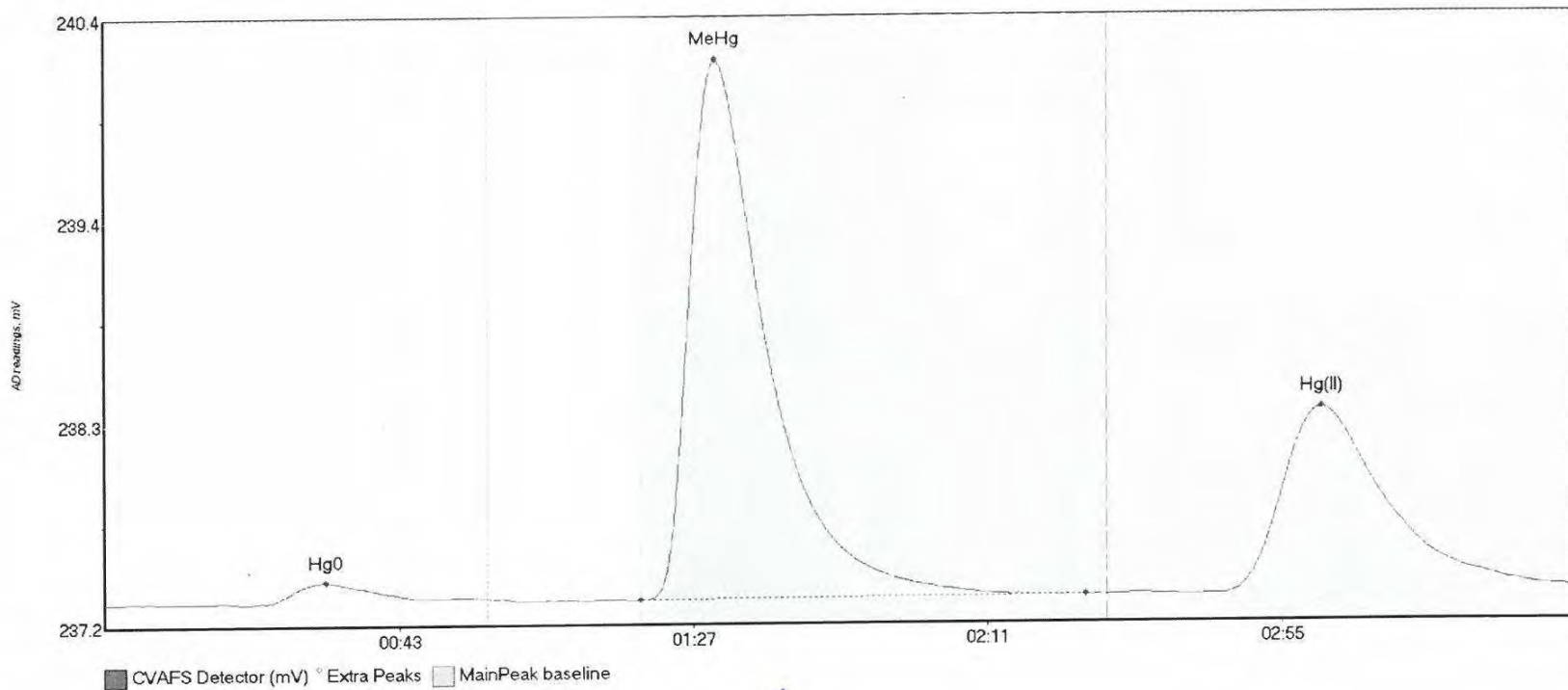
#42: 1607586-04RE3



JH

Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1607586-04RE3 H	13.425	23.4	52.6	237.37	237.39	34.1	0.114	OK	237.3729	0.00	0.04	
1607586-04RE3 M	60.077	82.4	125.1	237.39	237.39	91.3	0.455	OK	237.3729	0.00	0.04	
1607586-04RE3 H	120.436	166.0	219.8	237.39	237.42	182.0	0.676	CT	237.3729	0.00	0.04	

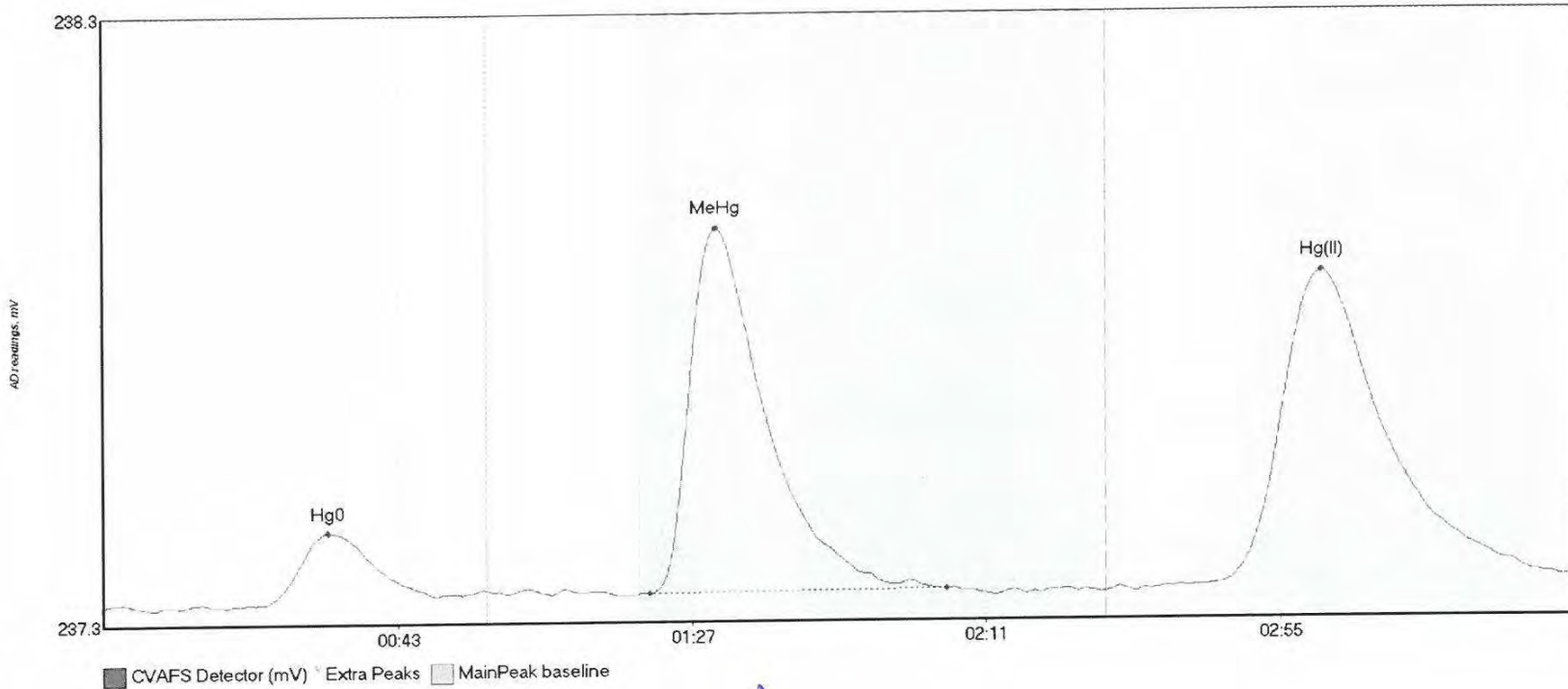
#43: 1607805-01



JH

Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1607805-01 Hg0	13.338	24.1	57.5	237.37	237.39	33.0	0.108	CT	237.3701	0.00	0.05	
1607805-01 MeHg	378.516	80.1	146.8	237.38	237.39	91.3	2.822	OK	237.3701	0.00	0.05	
1607805-01 Hg(I)	172.156	167.2	219.7	237.39	237.42	181.9	0.972	OK	237.3701	0.00	0.05	

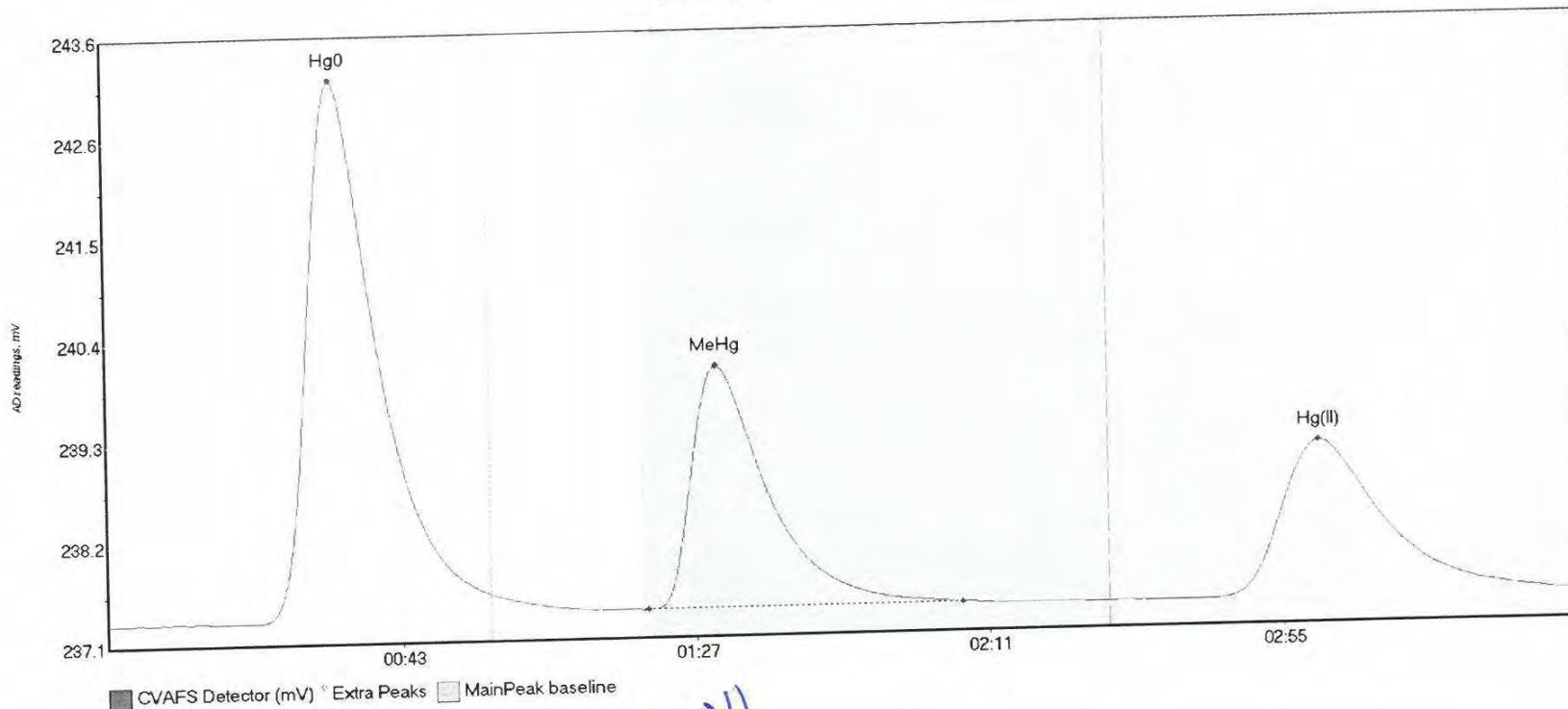
#44: 1607805-02



JH

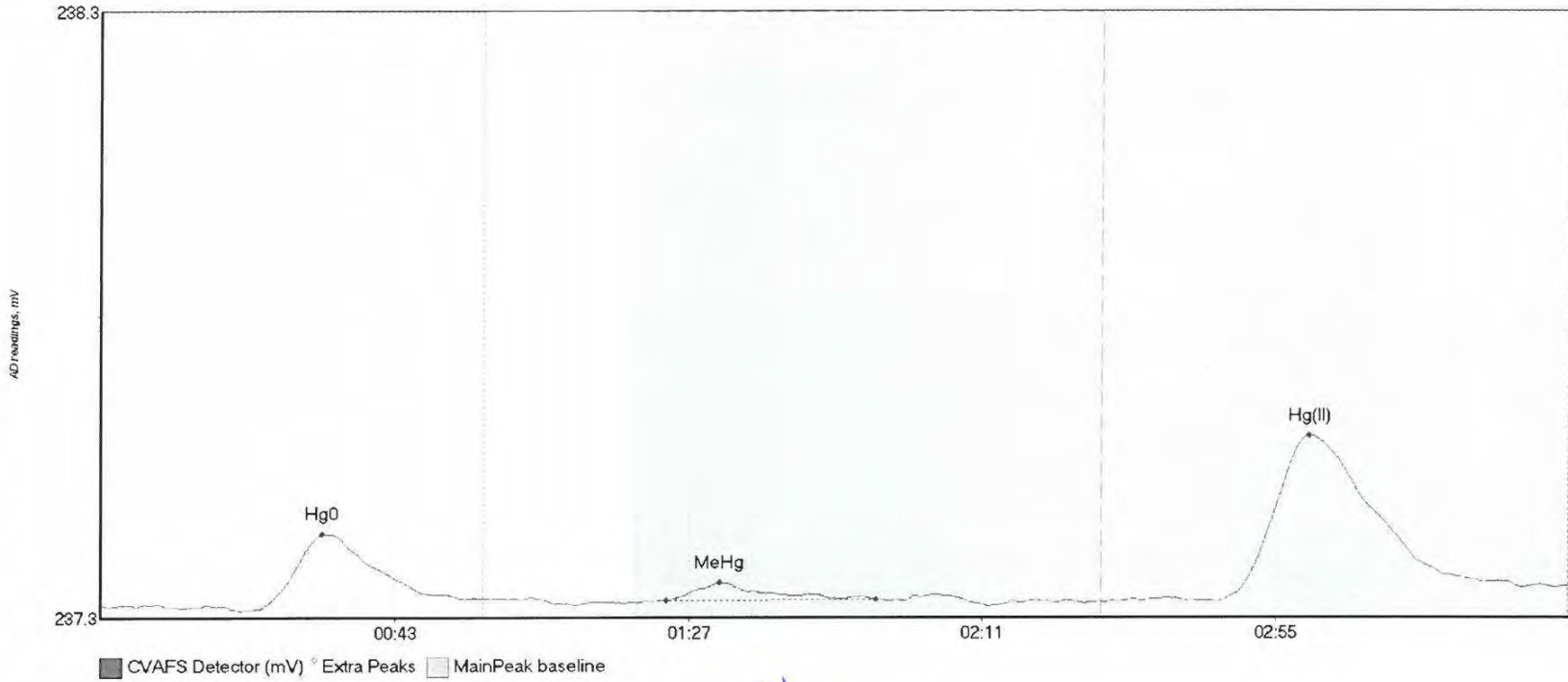
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1607805-02 Hg0	13.824	24.2	49.7	237.36	237.37	33.6	0.119	OK	237.3619	0.00	0.03	
1607805-02 MeHg	78.640	81.8	126.2	237.38	237.38	91.6	0.600	OK	237.3619	0.00	0.03	
1607805-02 Hg(I)	92.358	158.1	219.8	237.38	237.39	182.2	0.520	CT	237.3619	0.00	0.03	

#45: SEQ-CCV3



Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
SEQ-CCV3 Hg0	672.167	21.0	57.5	237.35	237.61	33.9	5.832	CT	237.3521	0.00	0.08	J16
SEQ-CCV3 MeHg	343.435	80.7	128.0	237.42	237.42	91.3	2.611	OK	237.3521	0.00	0.08	
SEQ-CCV3 Hg(II)	298.131	164.3	219.7	237.39	237.43	181.5	1.692	OK	237.3521	0.00	0.08	

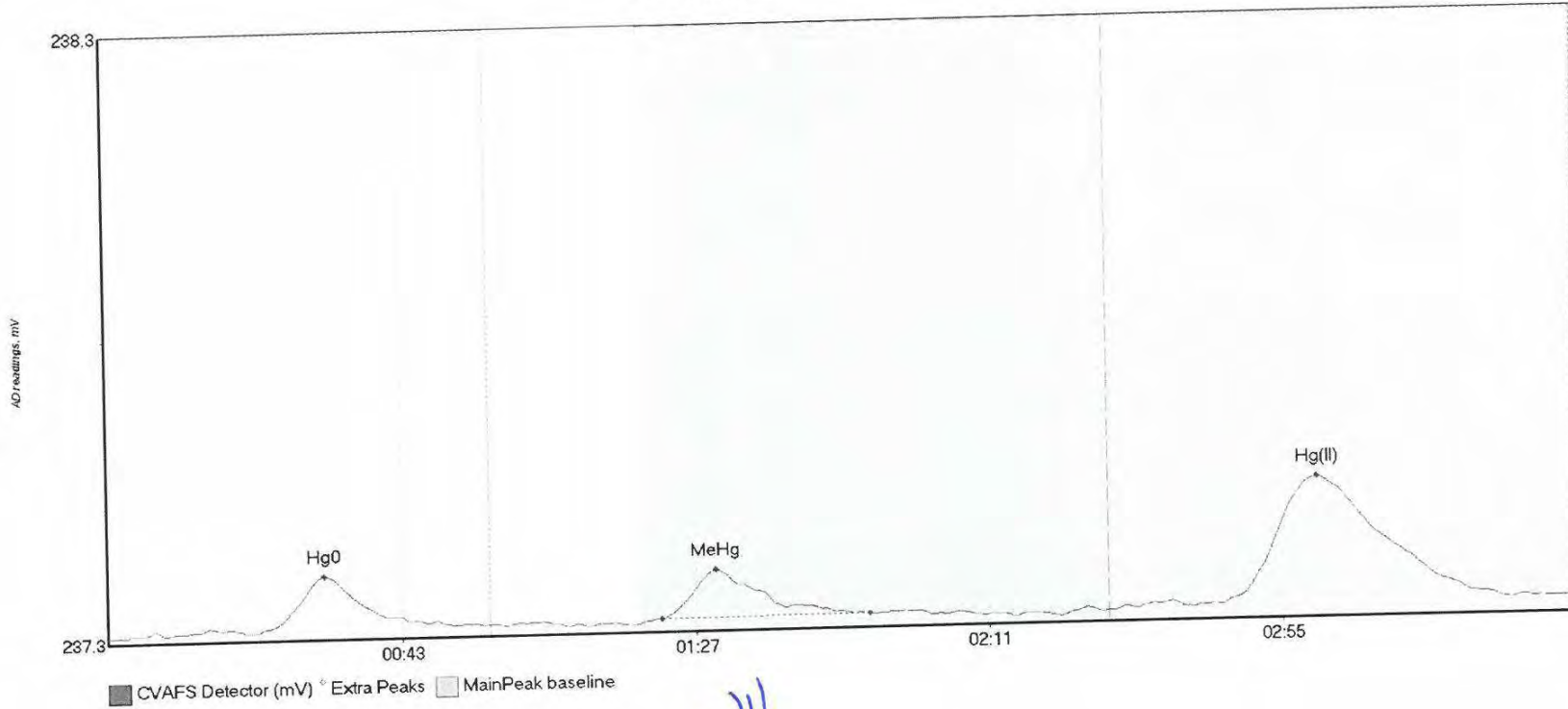
#46: SEQ-CCB3



JH

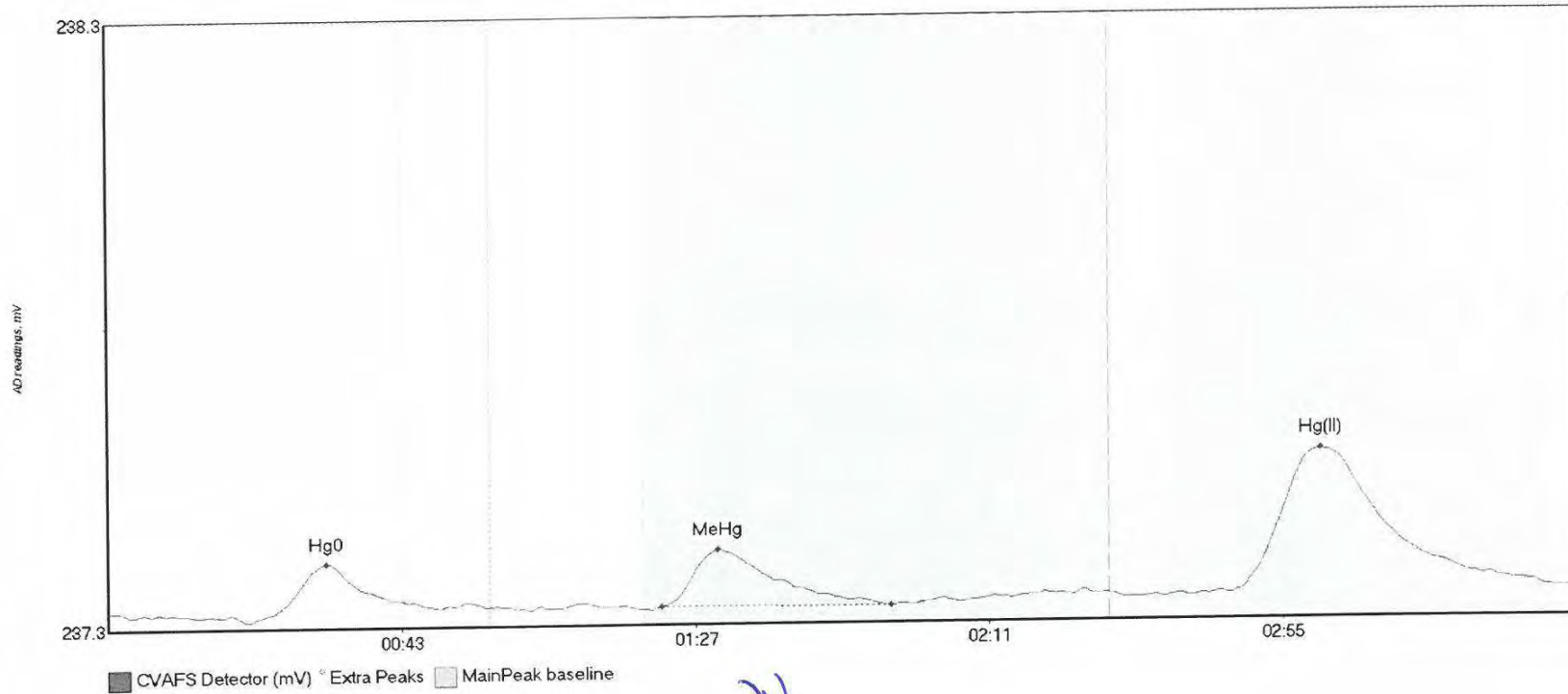
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
SEQ-CCB3 Hg0	15.663	23.2	54.6	237.34	237.36	33.0	0.124	OK	237.3453	0.00	0.03	
SEQ-CCB3 MeHg	3.548	84.6	116.1	237.35	237.36	92.6	0.030	OK	237.3453	0.00	0.03	
SEQ-CCB3 Hg(II)	45.905	167.2	213.0	237.35	237.38	181.1	0.274	OK	237.3453	0.00	0.03	

#47: F608155-BLK1



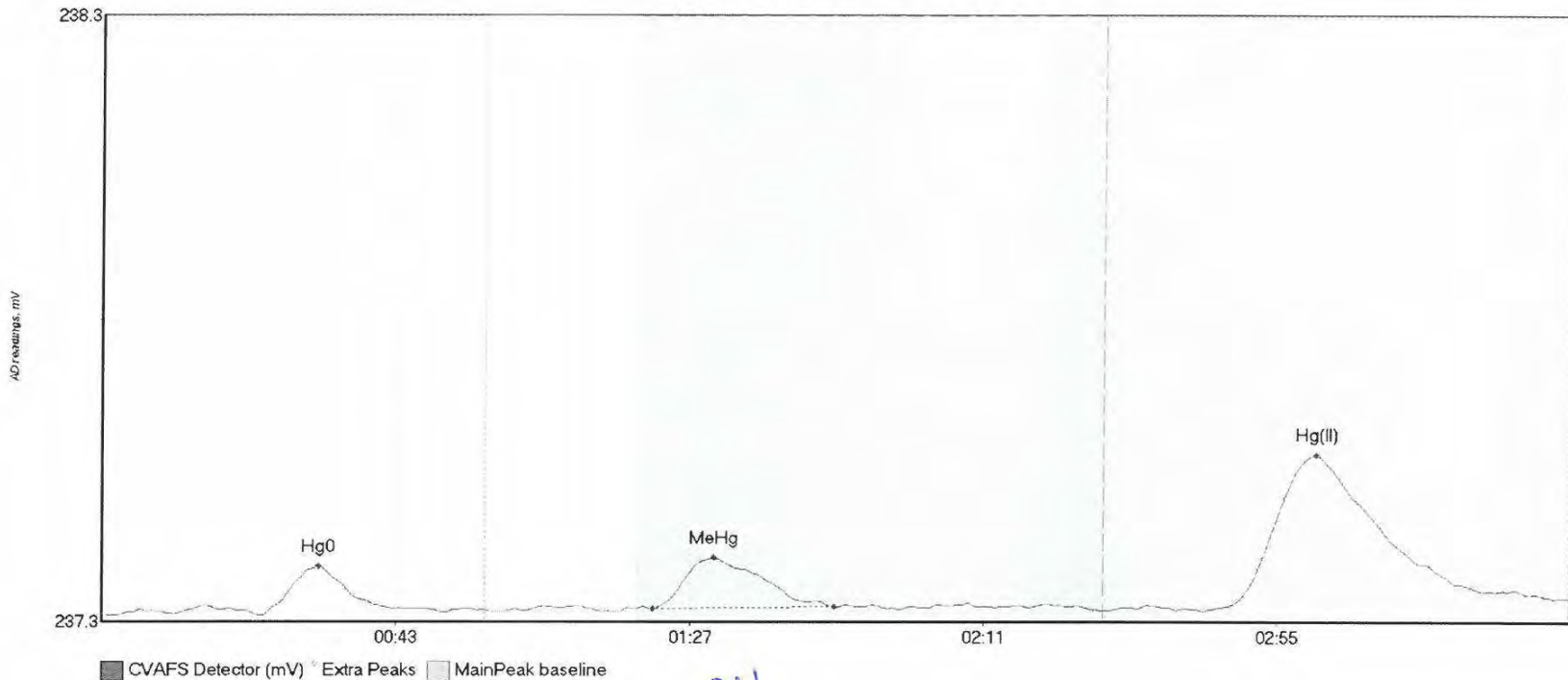
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
F608155-BLK1 Hg	9.904	21.9	56.3	237.34	237.35	32.5	0.091	OK	237.3383	0.00	0.02	
F608155-BLK1 Me	9.137	82.9	114.2	237.35	237.35	91.0	0.080	OK	237.3383	0.00	0.02	
F608155-BLK1 Hg	37.926	162.6	210.3	237.35	237.36	181.3	0.211	OK	237.3383	0.00	0.02	

#48: F608155-BLK2



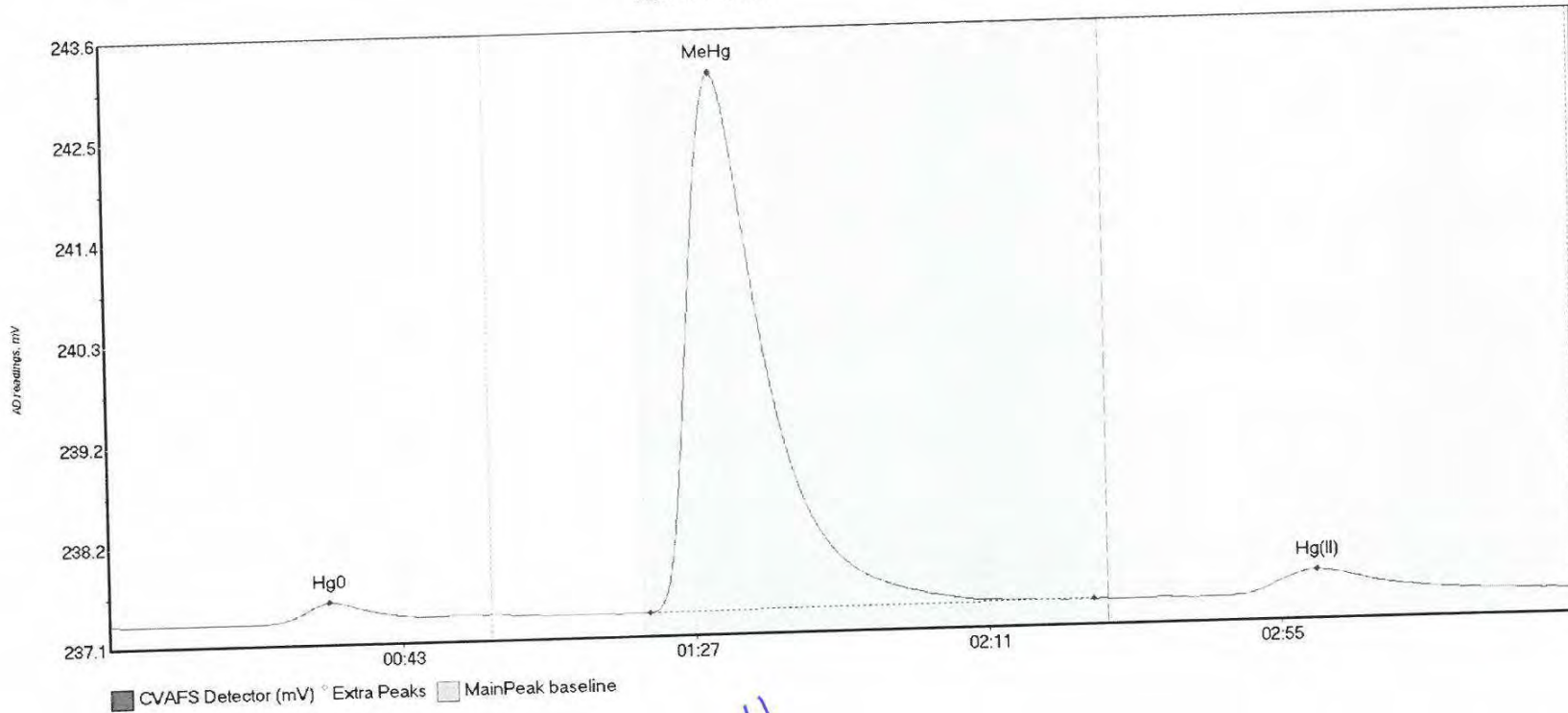
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	B1Dev	B1Shift	Comment
F608155-BLK2 Hg	8.694	22.7	48.3	237.32	237.34	32.7	0.089	OK	237.3339	0.00	0.02	
F608155-BLK2 Me	12.920	82.9	117.3	237.34	237.33	91.3	0.093	OK	237.3339	0.00	0.02	
F608155-BLK2 Hg	42.327	168.1	219.0	237.35	237.35	181.7	0.236	OK	237.3339	0.00	0.02	

#49: F608155-BLK3



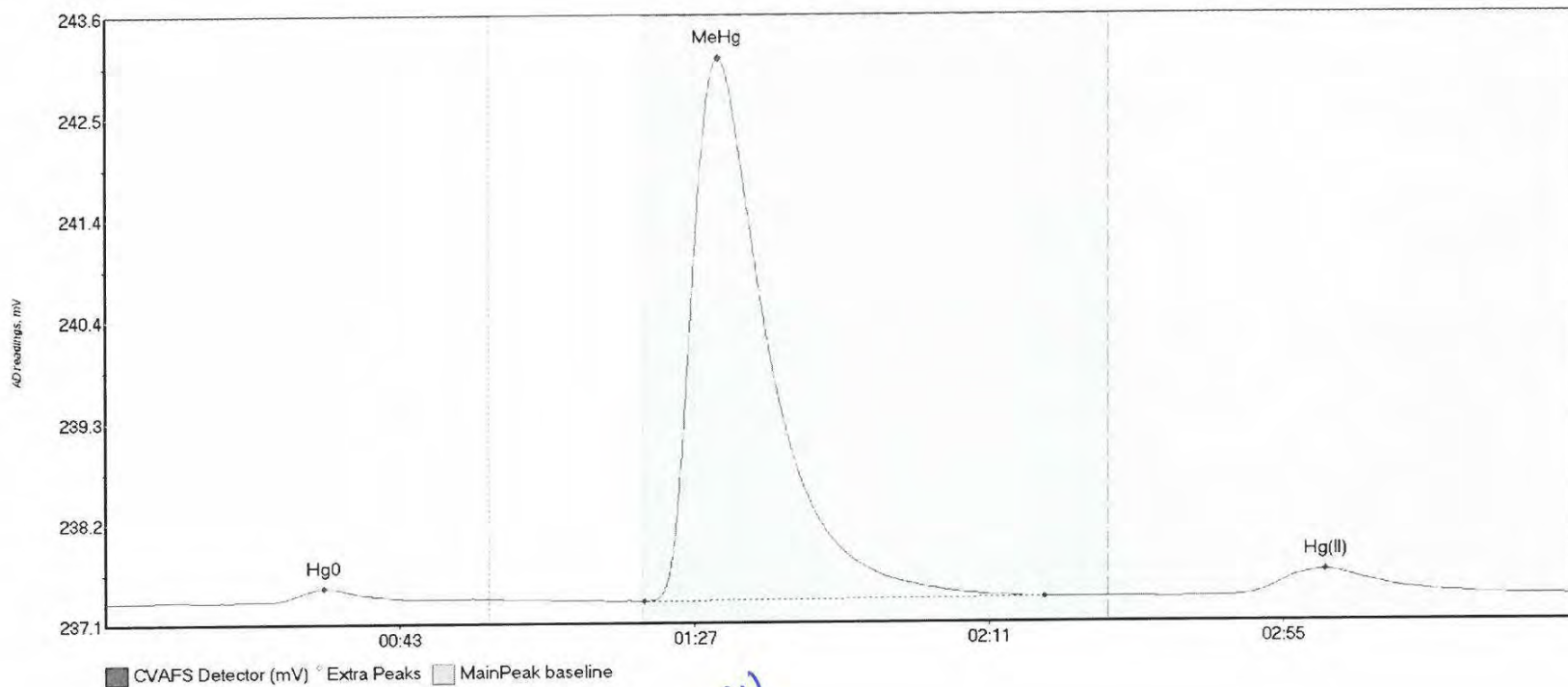
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
F608155-BLK3 Hg	7.924	23.9	50.9	237.32	237.33	32.5	0.080	OK	237.3250	0.00	0.03	
F608155-BLK3 Me	10.996	82.5	109.7	237.33	237.34	91.6	0.084	OK	237.3250	0.00	0.03	
F608155-BLK3 Hg	44.445	167.4	217.6	237.34	237.35	181.9	0.252	OK	237.3250	0.00	0.03	

#50: F608155-BS1



Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
F608155-BS1 Hg0	21.388	23.1	48.7	237.32	237.36	33.0	0.218	OK	237.3286	0.00	0.02	
F608155-BS1 MeH	776.732	81.0	147.7	237.34	237.36	91.3	5.771	OK	237.3286	0.00	0.02	
F608155-BS1 Hg(42.921	169.7	214.6	237.36	237.36	181.5	0.250	OK	237.3286	0.00	0.02	

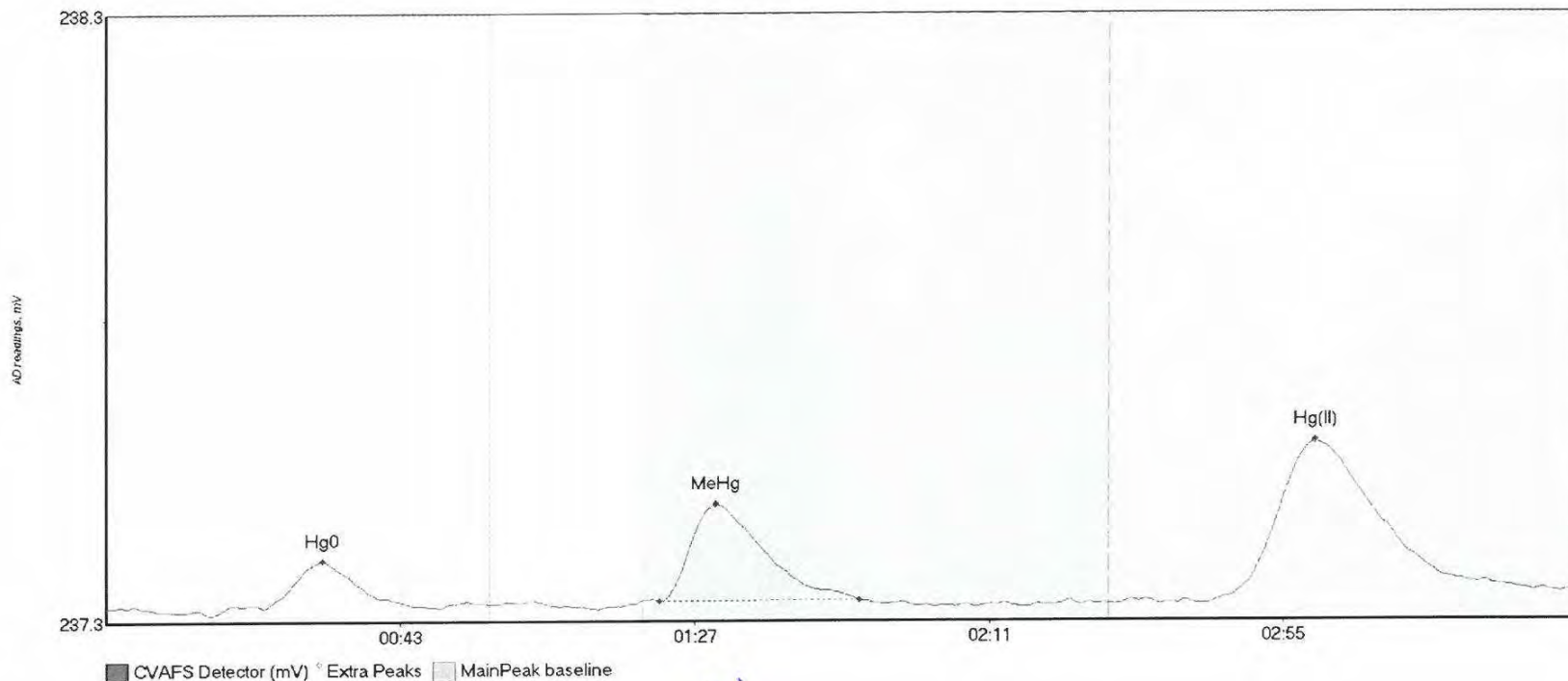
#51: F608155-BSD1



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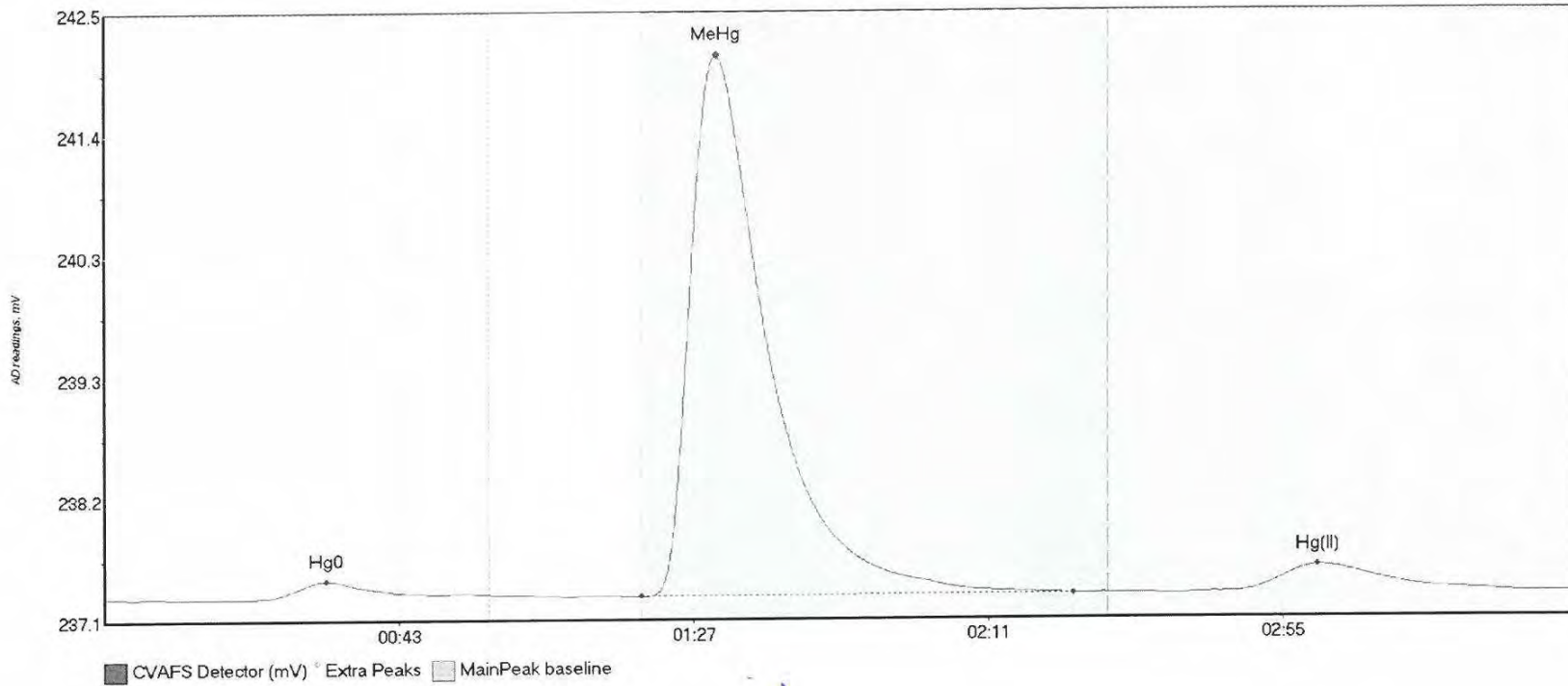
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
F608155-BSD1 Hg	13.652	23.2	47.5	237.33	237.35	32.7	0.143	OK	237.3231	0.00	0.03	
F608155-BSD1 Me	779.460	80.4	140.3	237.32	237.35	91.4	5.836	OK	237.3231	0.00	0.03	
F608155-BSD1 Hg	49.268	167.8	219.3	237.35	237.35	182.3	0.272	OK	237.3231	0.00	0.03	

#52: F608155-DUP1



Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
F608155-DUP1 Hg	7.599	23.6	45.7	237.32	237.32	32.4	0.078	OK	237.3224	0.00	0.02	
F608155-DUP1 Me	19.869	82.7	112.6	237.33	237.33	91.1	0.160	OK	237.3224	0.00	0.02	
F608155-DUP1 Hg	45.906	164.8	217.3	237.33	237.35	180.8	0.266	OK	237.3224	0.00	0.02	

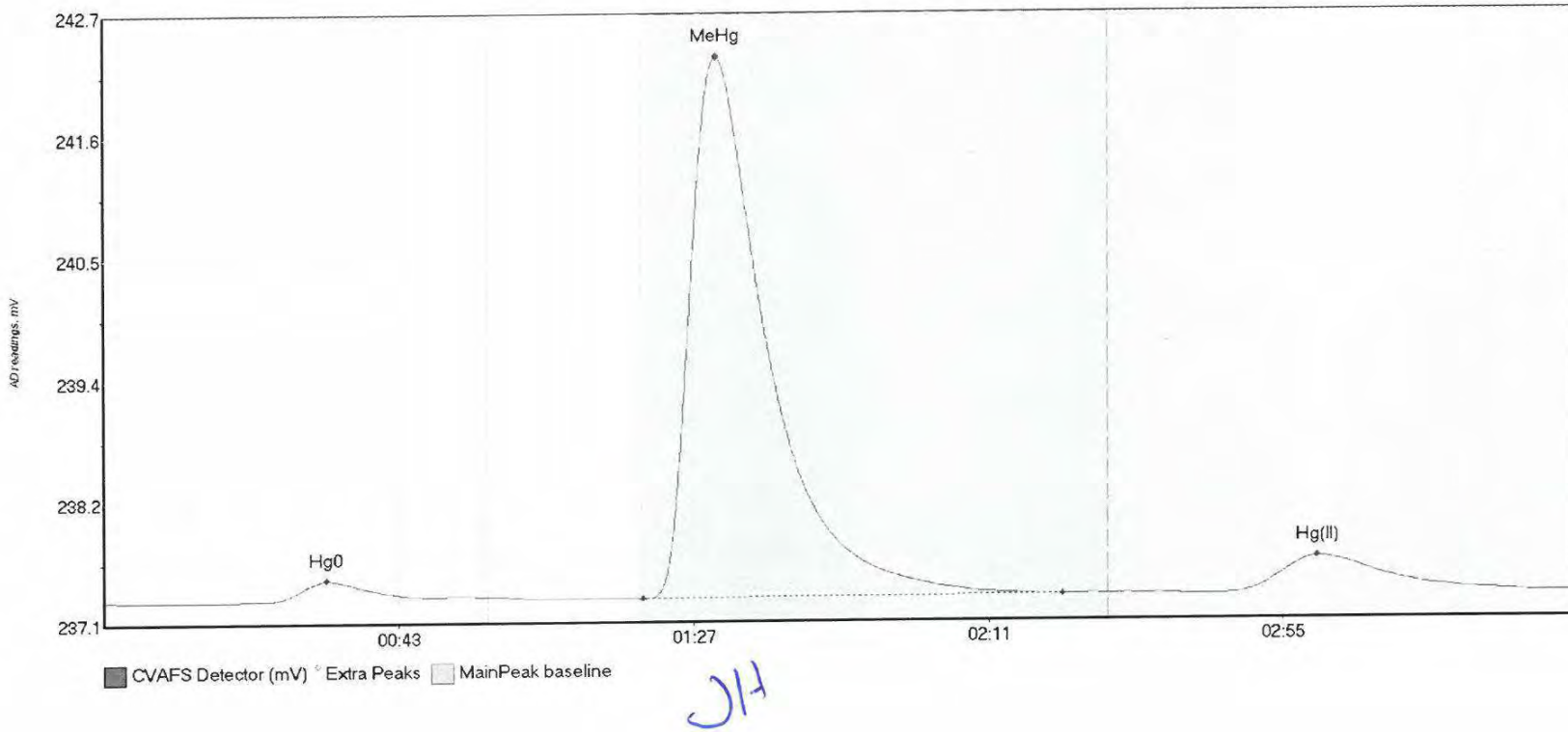
#53: F608155-MS1



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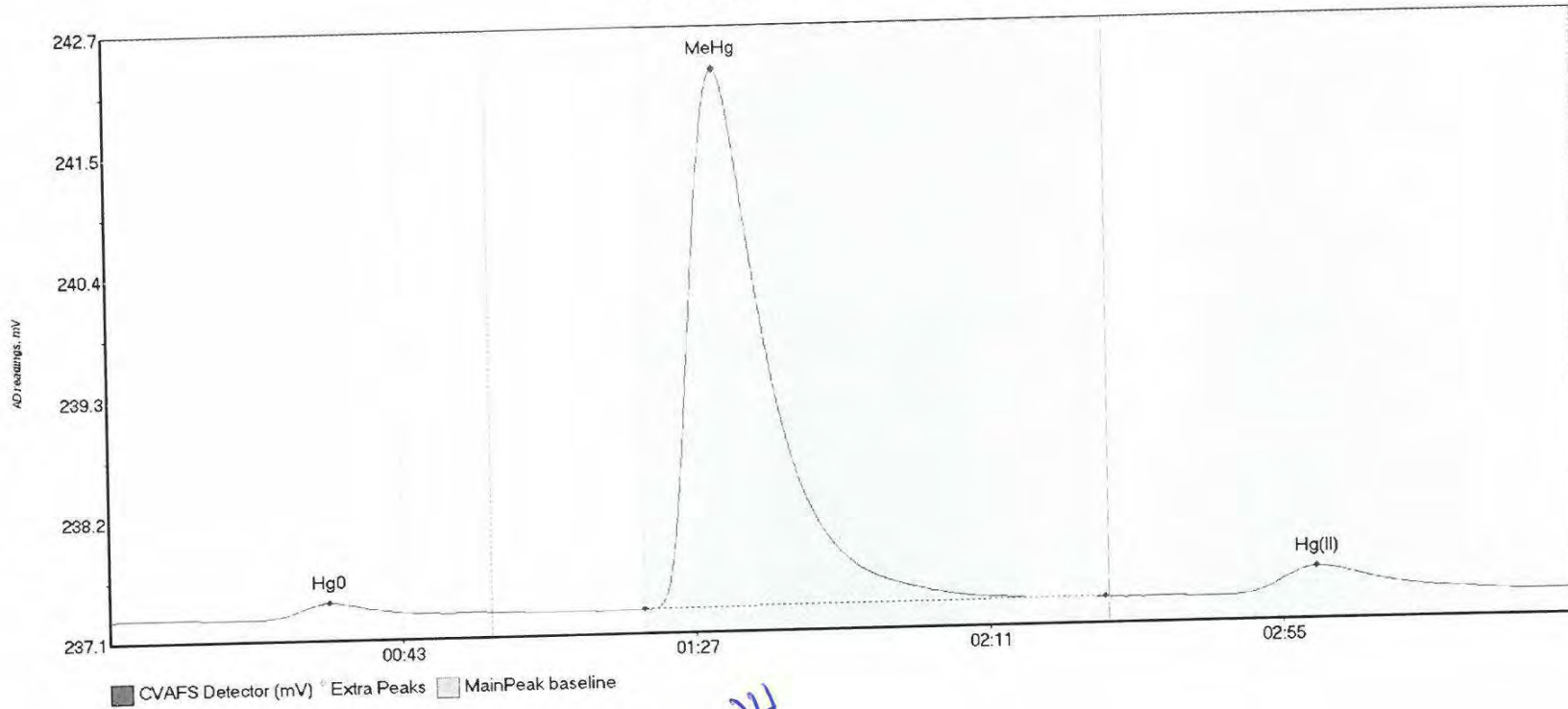
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment	
F608155-MS1	Hg0	17.267	24.1	57.5	237.32	237.34	33.3	0.148	CT	237.3150	0.00	0.02	
F608155-MS1	MeH	645.632	80.1	144.7	237.32	237.33	91.4	4.798	OK	237.3150	0.00	0.02	
F608155-MS1	Hg(	39.712	166.8	209.7	237.34	237.34	181.2	0.235	OK	237.3150	0.00	0.02	

#54: F608155-MSD1



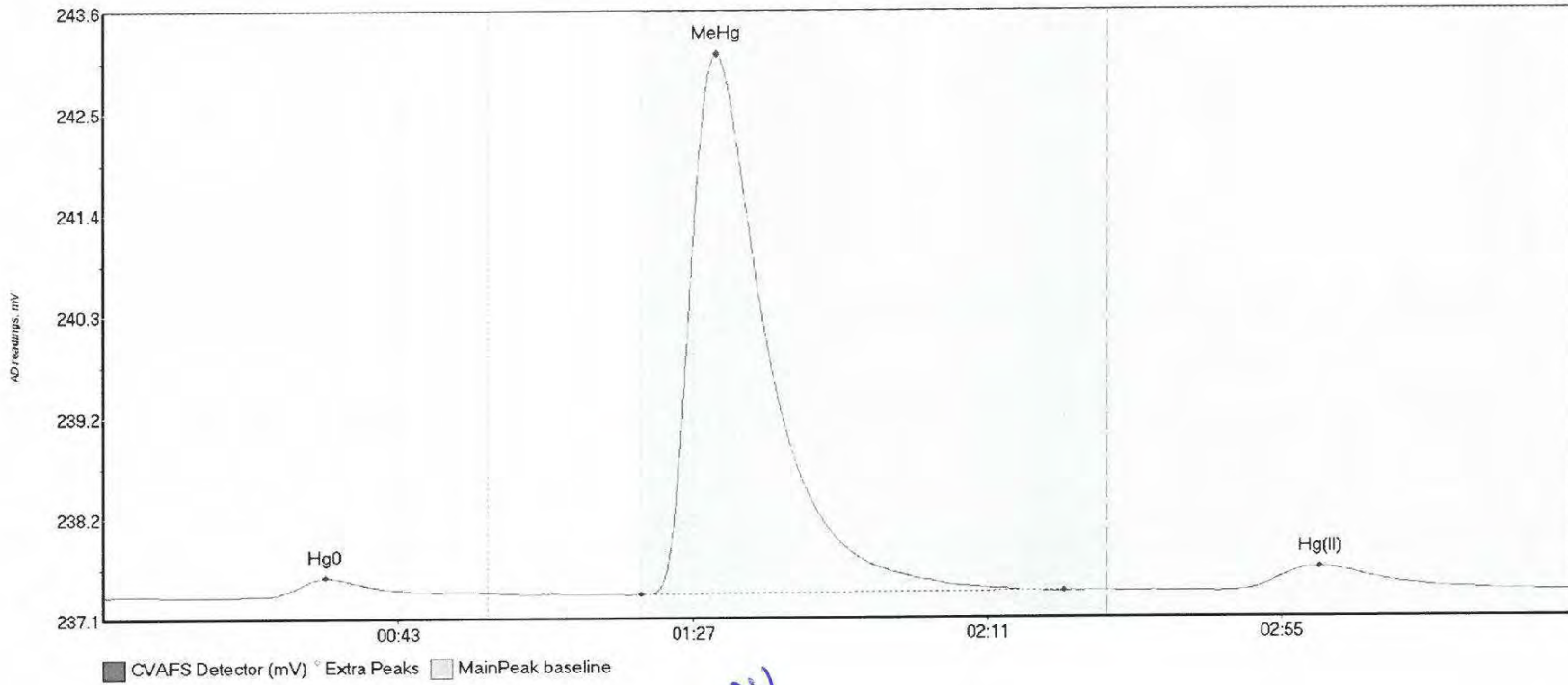
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
F608155-MSD1 Hg	18.914	24.7	48.9	237.31	237.33	33.3	0.188	OK	237.3053	0.00	0.03	
F608155-MSD1 Me	677.946	80.4	143.0	237.31	237.33	91.5	5.033	OK	237.3053	0.00	0.03	
F608155-MSD1 Hg	60.685	167.3	214.3	237.33	237.33	181.2	0.340	OK	237.3053	0.00	0.03	

#55: F608155-MS2



Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
F608155-MS2 Hg0	16.585	22.5	57.5	237.30	237.33	33.2	0.142	CT	237.3054	0.00	0.03	
F608155-MS2 MeH	665.800	80.1	149.3	237.32	237.34	91.4	4.936	OK	237.3054	0.00	0.03	
F608155-MS2 Hg(	40.836	168.6	210.2	237.33	237.34	181.1	0.248	OK	237.3054	0.00	0.03	

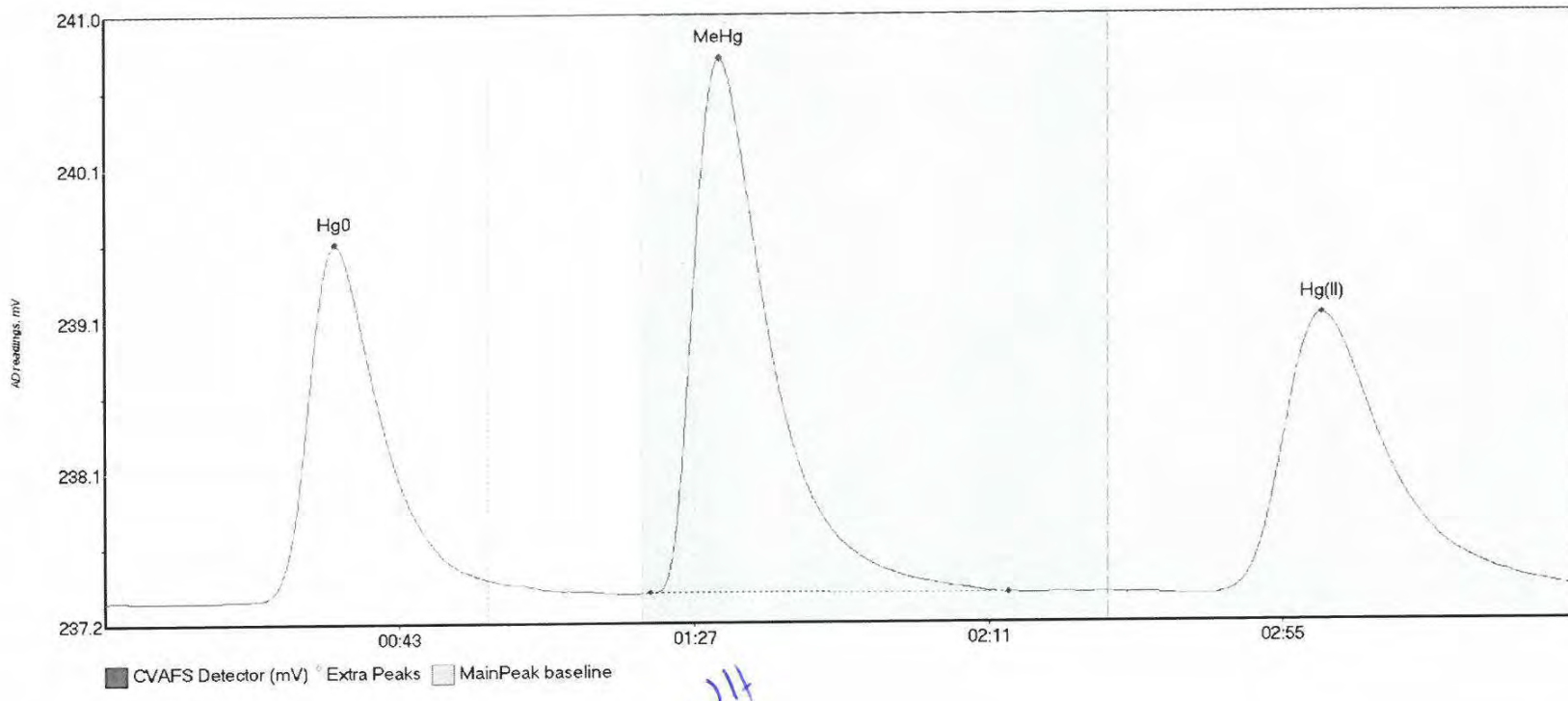
#56: F608155-MSD2



JH

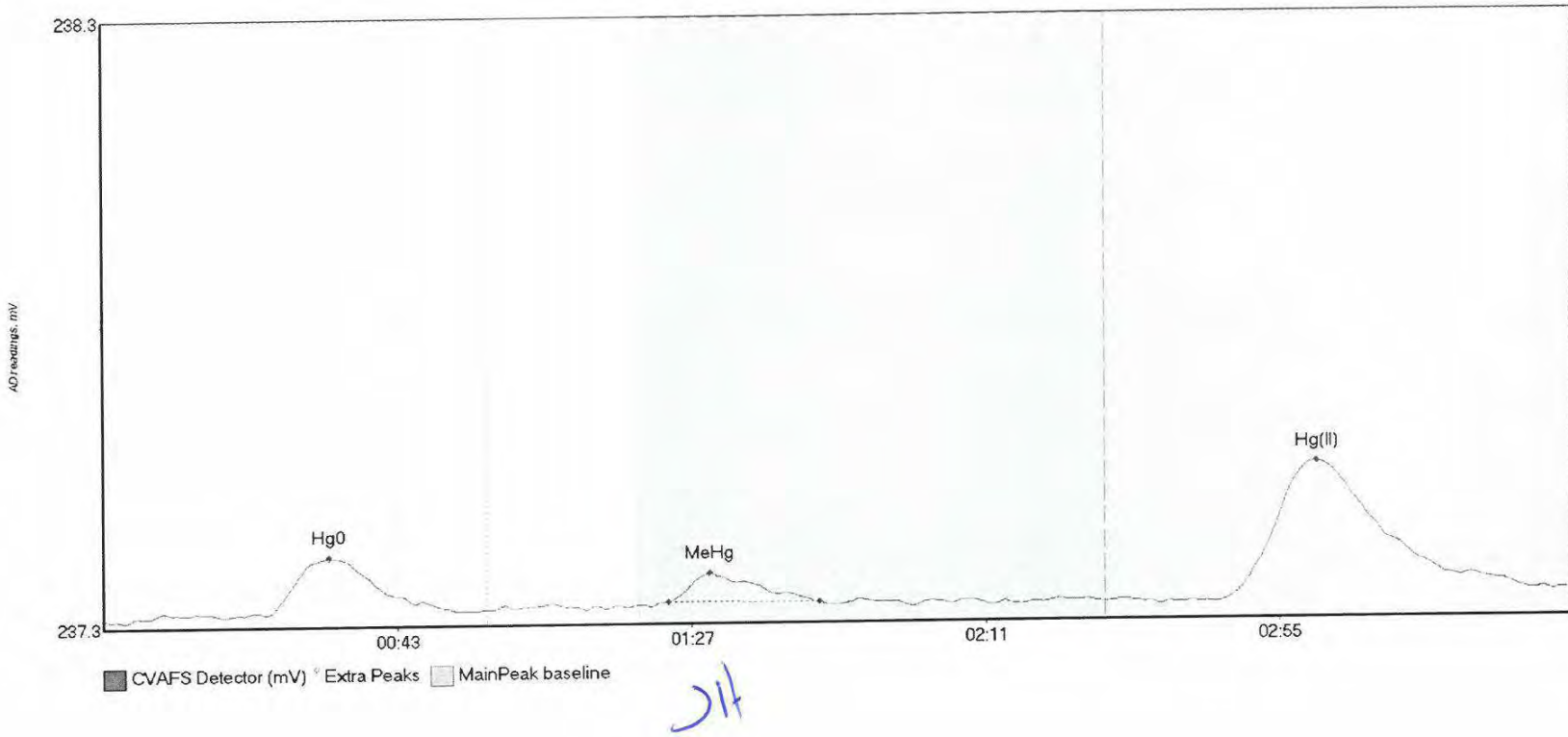
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
F608155-MSD2 Hg	21.560	22.9	56.6	237.31	237.35	33.2	0.198	OK	237.3058	0.00	0.04	
F608155-MSD2 Me	781.097	80.2	143.5	237.32	237.35	91.4	5.827	OK	237.3058	0.00	0.04	
F608155-MSD2 Hg	42.186	168.2	209.5	237.34	237.35	181.7	0.255	OK	237.3058	0.00	0.04	

#57: SEQ-CCV4



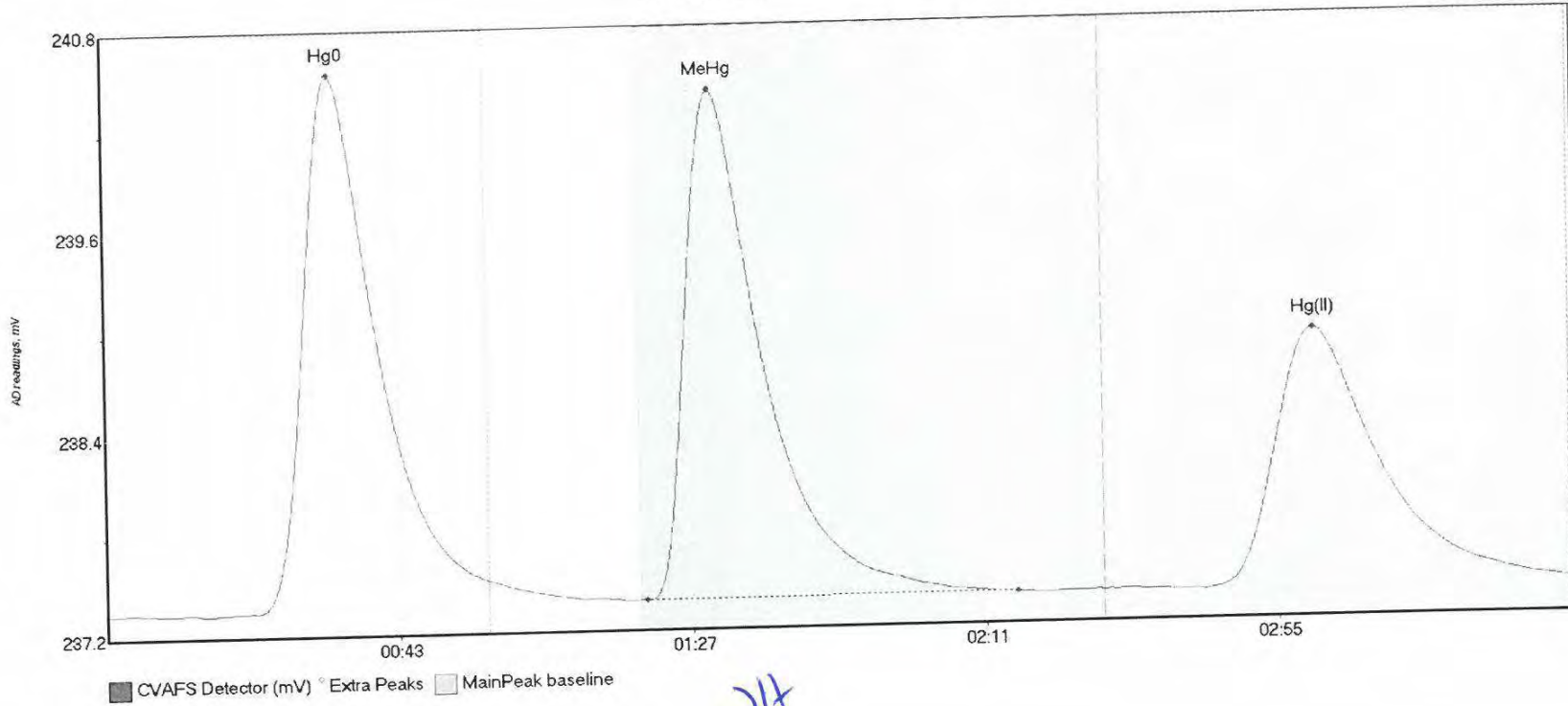
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
SEQ-CCV4 Hg0	269.921	20.1	57.5	237.31	237.44	34.4	2.269	CT	237.3090	0.00	0.08	
SEQ-CCV4 MeHg	455.294	81.5	134.9	237.36	237.35	91.7	3.400	OK	237.3090	0.00	0.08	
SEQ-CCV4 Hg(II)	315.371	165.2	219.8	237.34	237.38	181.9	1.781	CT	237.3090	0.00	0.08	

#58: SEQ-CCB4



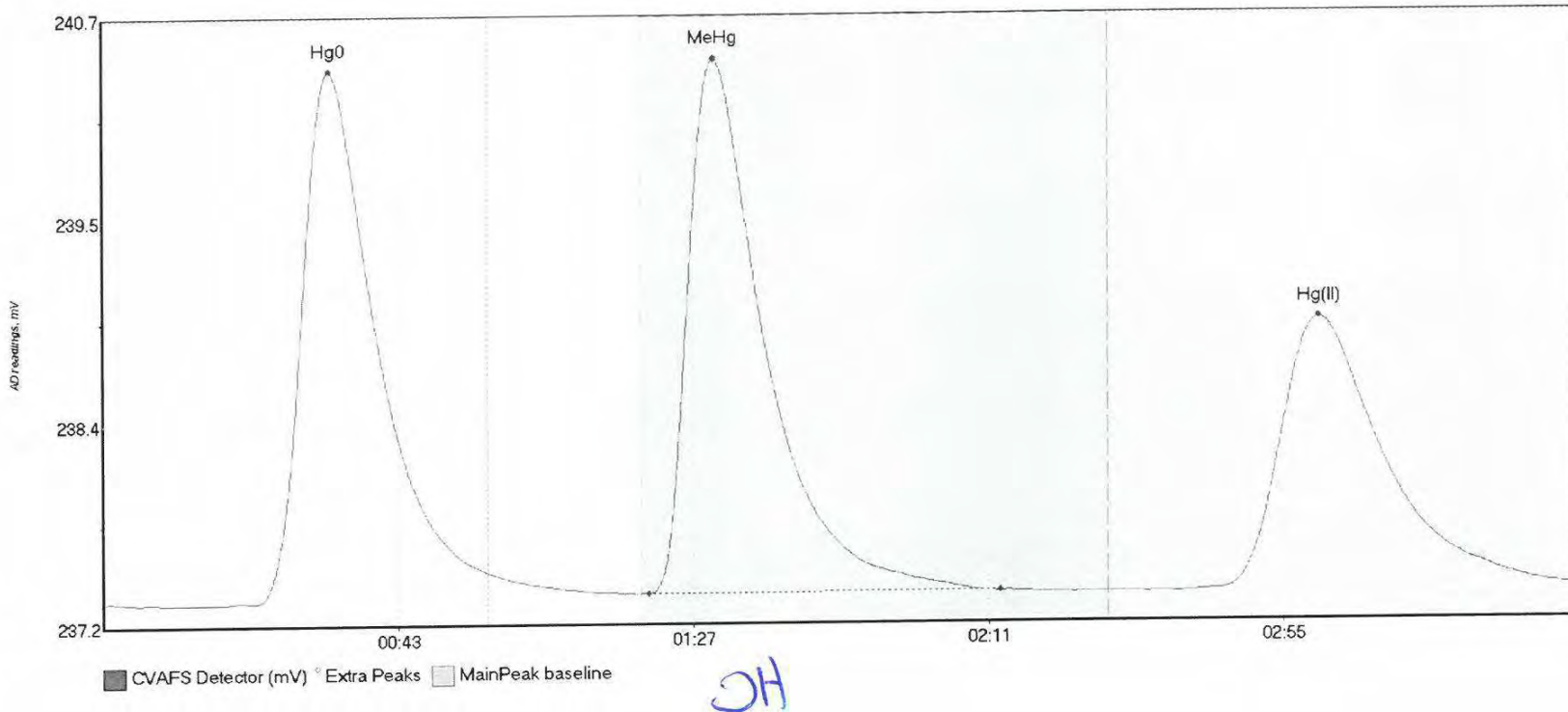
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
SEQ-CCB4 Hg0	12.985	18.7	54.6	237.31	237.32	33.9	0.096	OK	237.3098	0.00	0.03	
SEQ-CCB4 MeHg	5.373	84.5	107.2	237.33	237.33	90.8	0.048	OK	237.3098	0.00	0.03	
SEQ-CCB4 Hg(II)	41.996	166.6	217.1	237.32	237.34	181.6	0.231	OK	237.3098	0.00	0.03	

#59: SEQ-CCV5



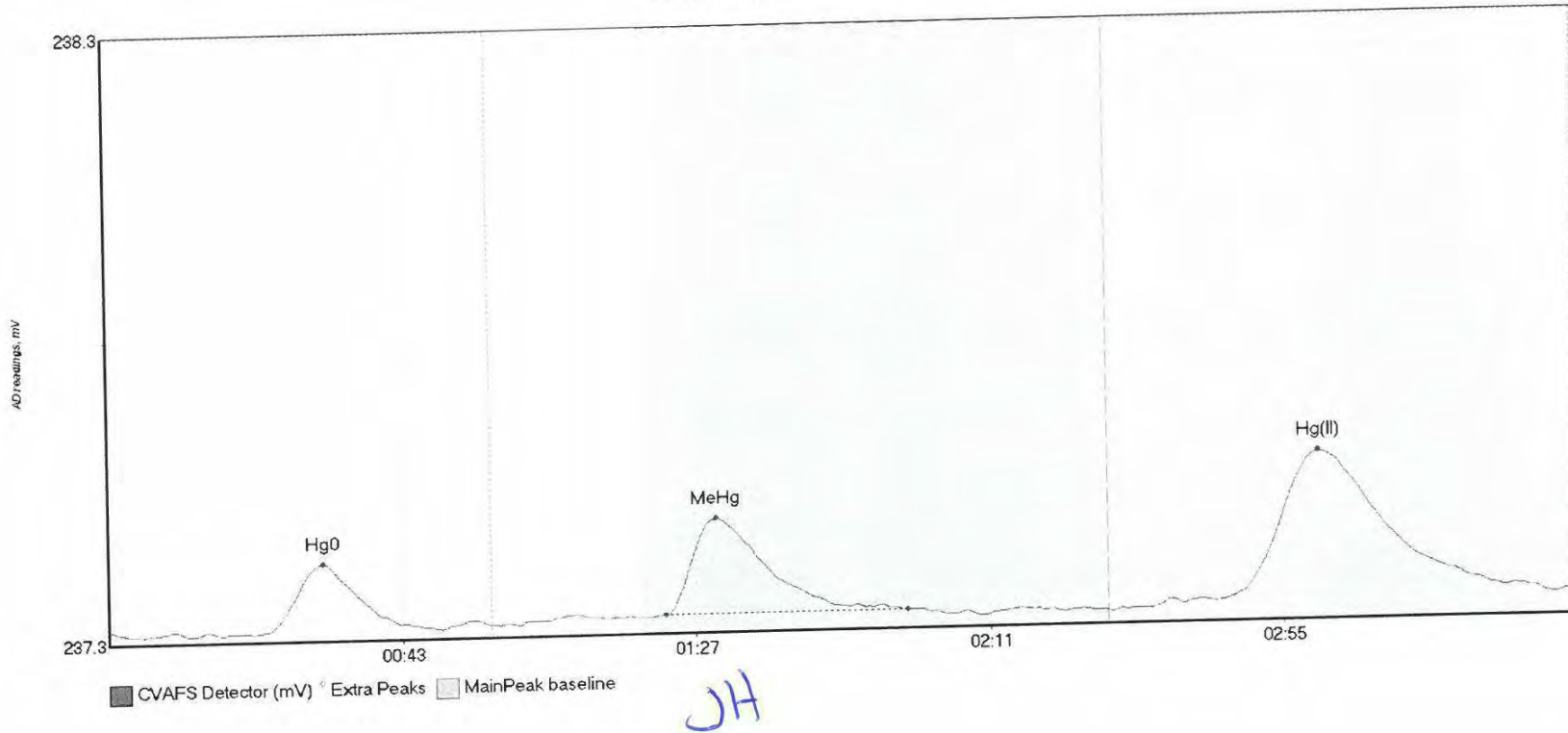
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
SEQ-CCV5 Hg0	393.029	22.5	57.5	237.32	237.49	34.0	3.266	CT	237.3175	0.00	0.07	
SEQ-CCV5 MeHg	413.962	81.0	136.8	237.36	237.36	91.2	3.095	OK	237.3175	0.00	0.07	
SEQ-CCV5 Hg (II)	277.801	165.0	219.8	237.35	237.39	181.4	1.579	CT	237.3175	0.00	0.07	

#60: SEQ-CCV6



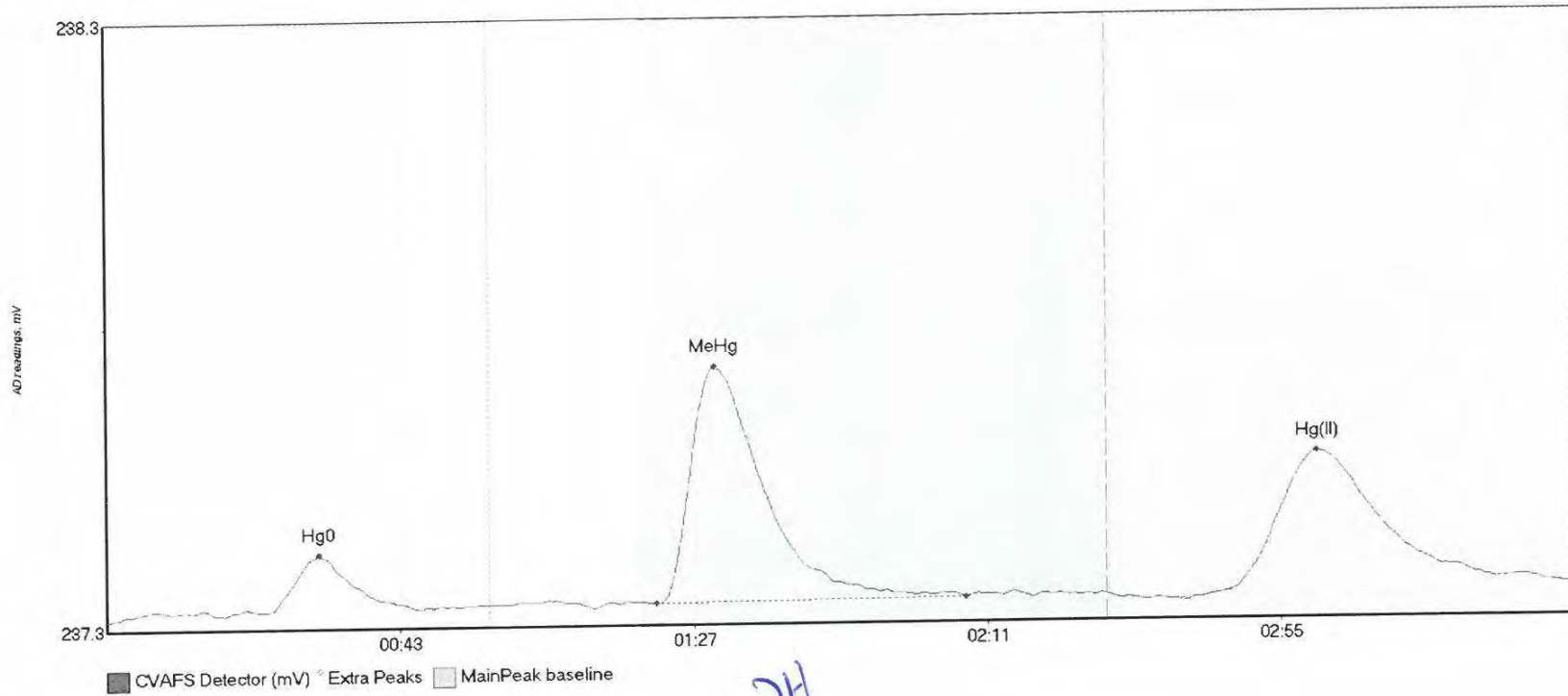
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
SEQ-CCV6 Hg0	372.049	22.6	57.5	237.32	237.48	33.8	3.080	CT	237.3254	0.00	0.06	
SEQ-CCV6 MeHg	412.441	81.3	133.7	237.36	237.36	91.1	3.095	OK	237.3254	0.00	0.06	
SEQ-CCV6 Hg(II)	277.428	162.7	219.8	237.36	237.39	181.3	1.584	CT	237.3254	0.00	0.06	

#61: 1607782-15



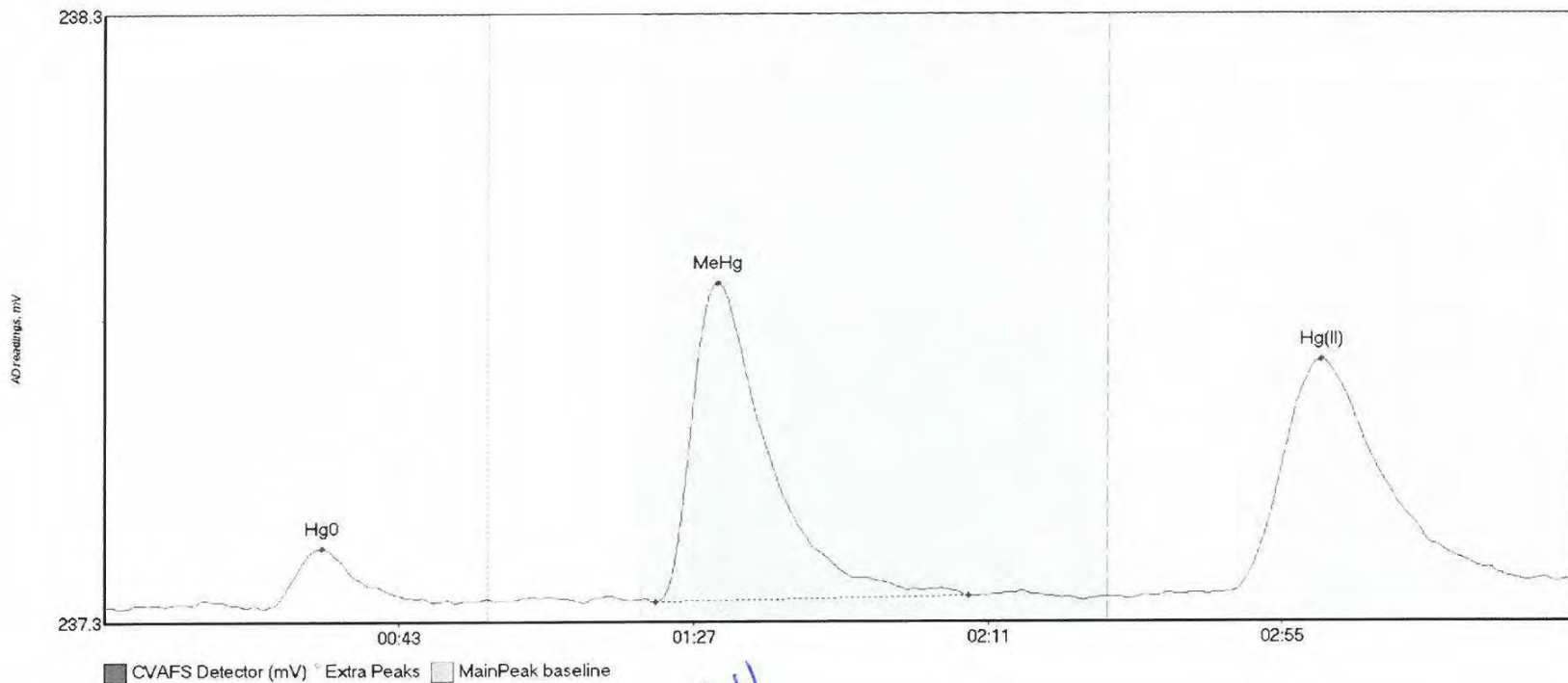
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1607782-15 Hg0	10.240	23.1	43.8	237.32	237.33	32.3	0.112	OK	237.3259	0.00	0.02	
1607782-15 MeHg	20.065	83.5	119.6	237.34	237.34	91.2	0.159	OK	237.3259	0.00	0.02	
1607782-15 Hg(I)	47.142	156.4	217.0	237.33	237.34	181.3	0.254	OK	237.3259	0.00	0.02	

#62: 1607782-16



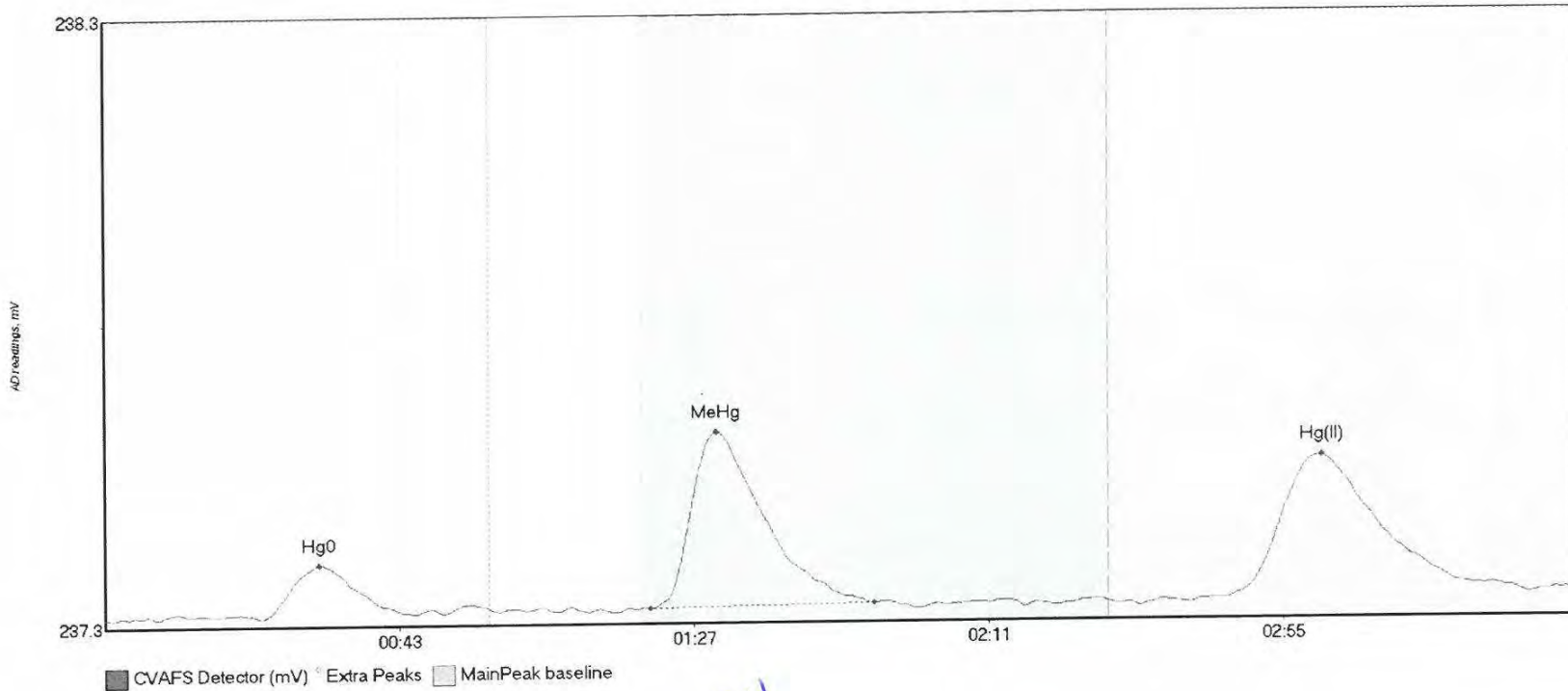
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	B1Dev	B1Shift	Comment
1607782-16 Hg0	10.763	1.8	47.1	237.32	237.33	31.8	0.102	OK	237.3147	0.00	0.04	
1607782-16 MeHg	49.593	82.3	128.8	237.33	237.34	91.2	0.391	OK	237.3147	0.00	0.04	
1607782-16 Hg(I)	41.077	166.4	218.7	237.34	237.35	181.5	0.234	OK	237.3147	0.00	0.04	

#63: 1607782-17



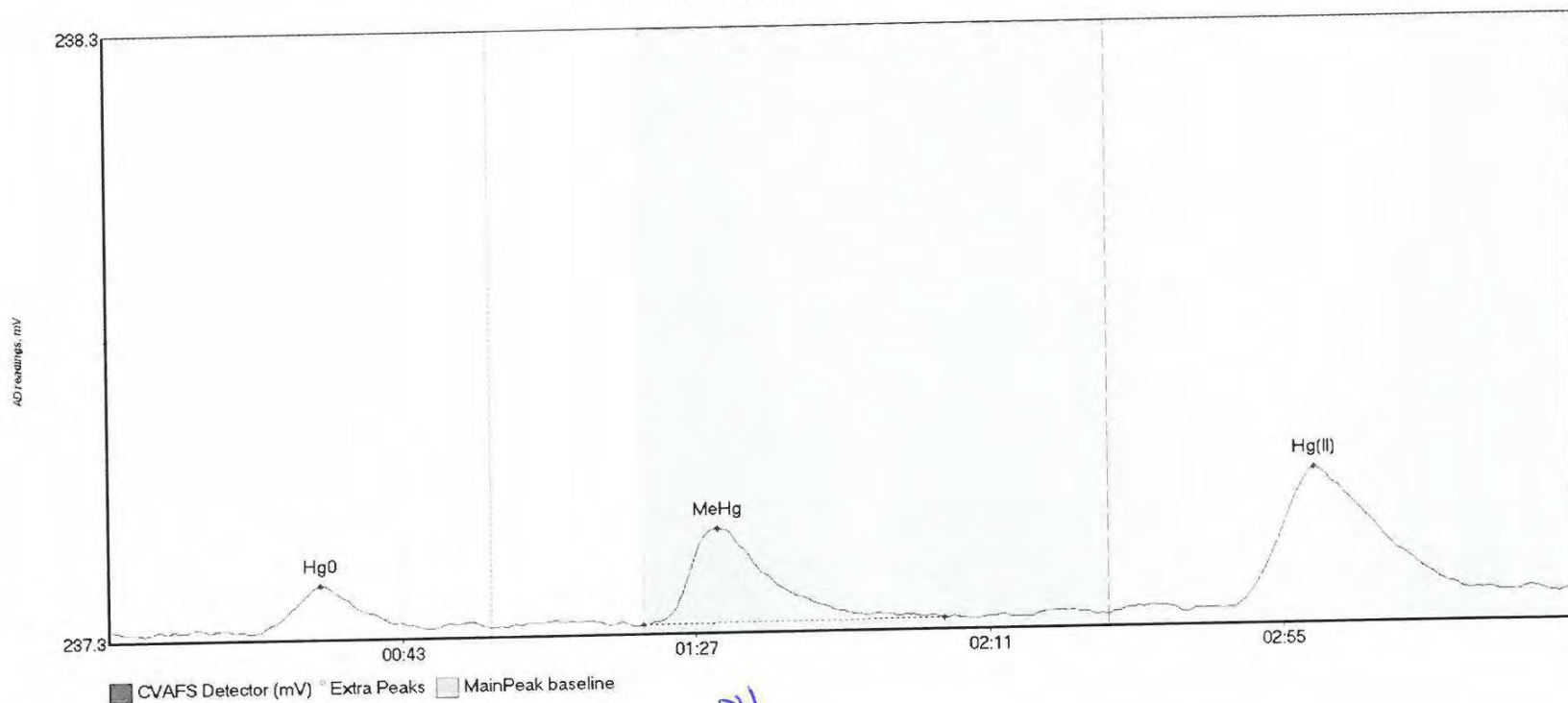
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1607782-17 Hg0	10.382	23.7	52.4	237.33	237.34	32.6	0.099	OK	237.3305	0.00	0.04	
1607782-17 MeHg	69.336	82.3	129.0	237.34	237.35	91.6	0.525	OK	237.3305	0.00	0.04	
1607782-17 Hg(I)	64.798	157.6	217.5	237.35	237.37	181.8	0.388	OK	237.3305	0.00	0.04	

#64: 1607782-18



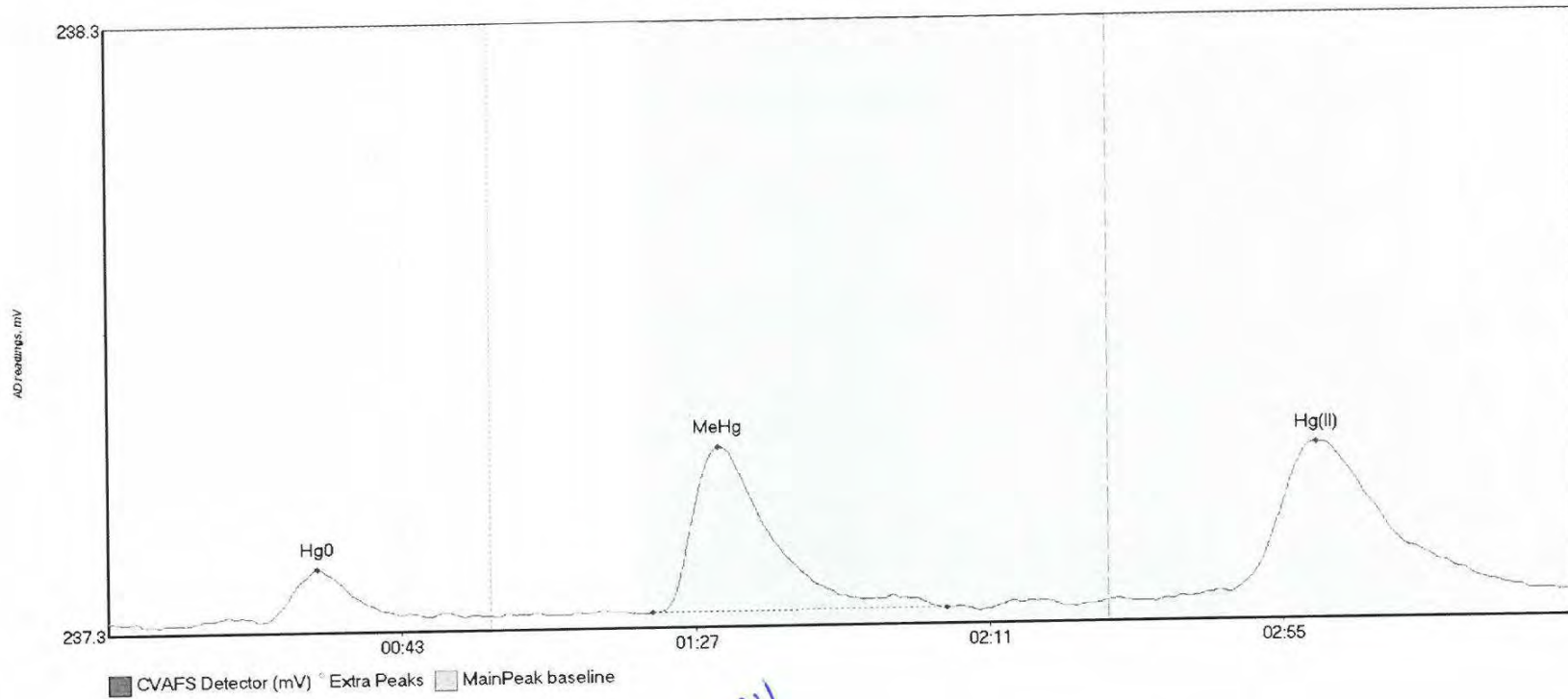
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1607782-18 Hg0	9.155	23.5	46.4	237.34	237.34	32.2	0.089	OK	237.3365	0.00	0.03	
1607782-18 MeHg	35.891	81.5	114.9	237.35	237.35	91.5	0.290	OK	237.3365	0.00	0.03	
1607782-18 Hg(I)	39.378	164.8	212.8	237.36	237.36	181.7	0.235	OK	237.3365	0.00	0.03	

#65: 1607782-19



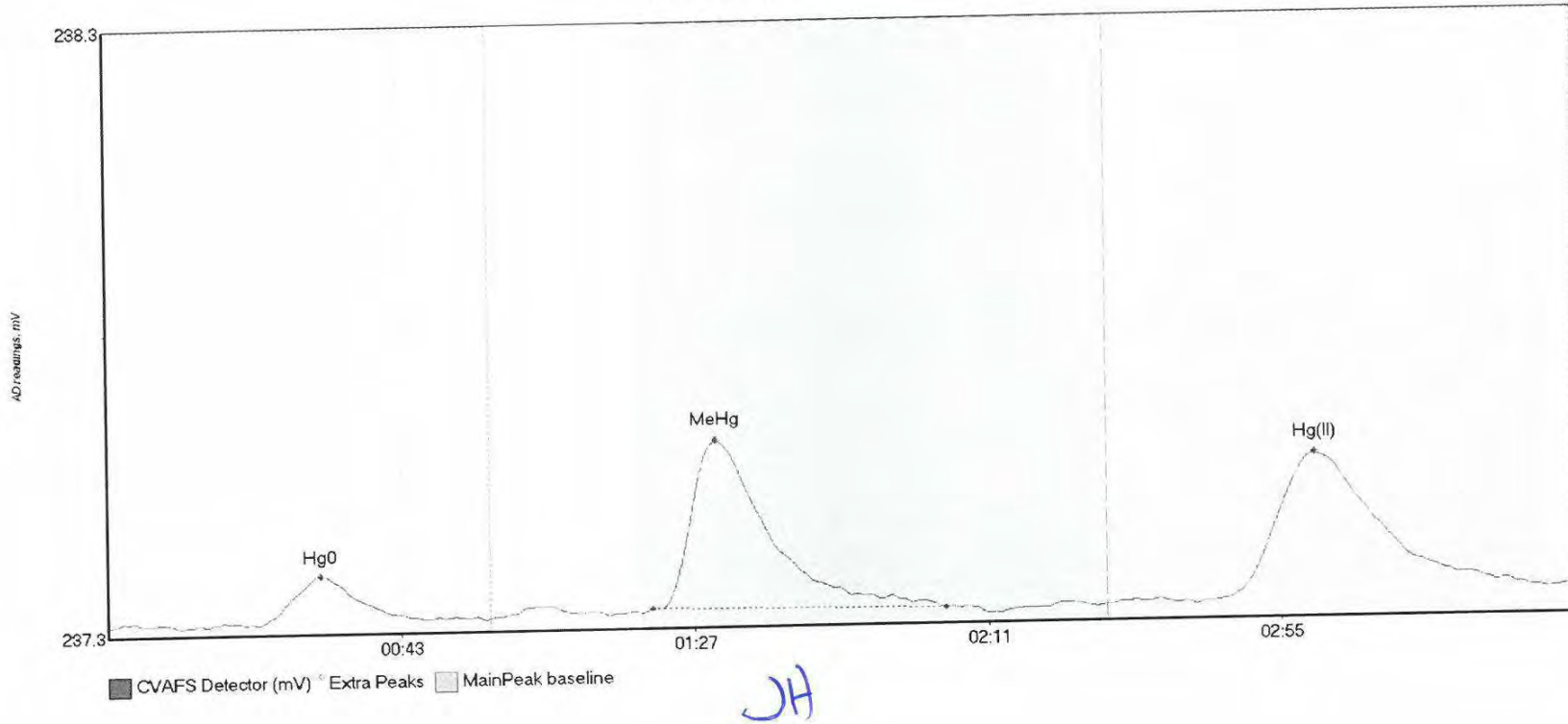
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1607782-19 Hg0	7.998	21.4	46.8	237.34	237.35	31.8	0.078	OK	237.3502	0.00	0.03	
1607782-19 MeHg	22.189	80.1	125.1	237.35	237.35	91.5	0.158	OK	237.3502	0.00	0.03	
1607782-19 Hg(I)	38.370	167.1	217.6	237.36	237.38	180.8	0.230	OK	237.3502	0.00	0.03	

#66: 1607782-20



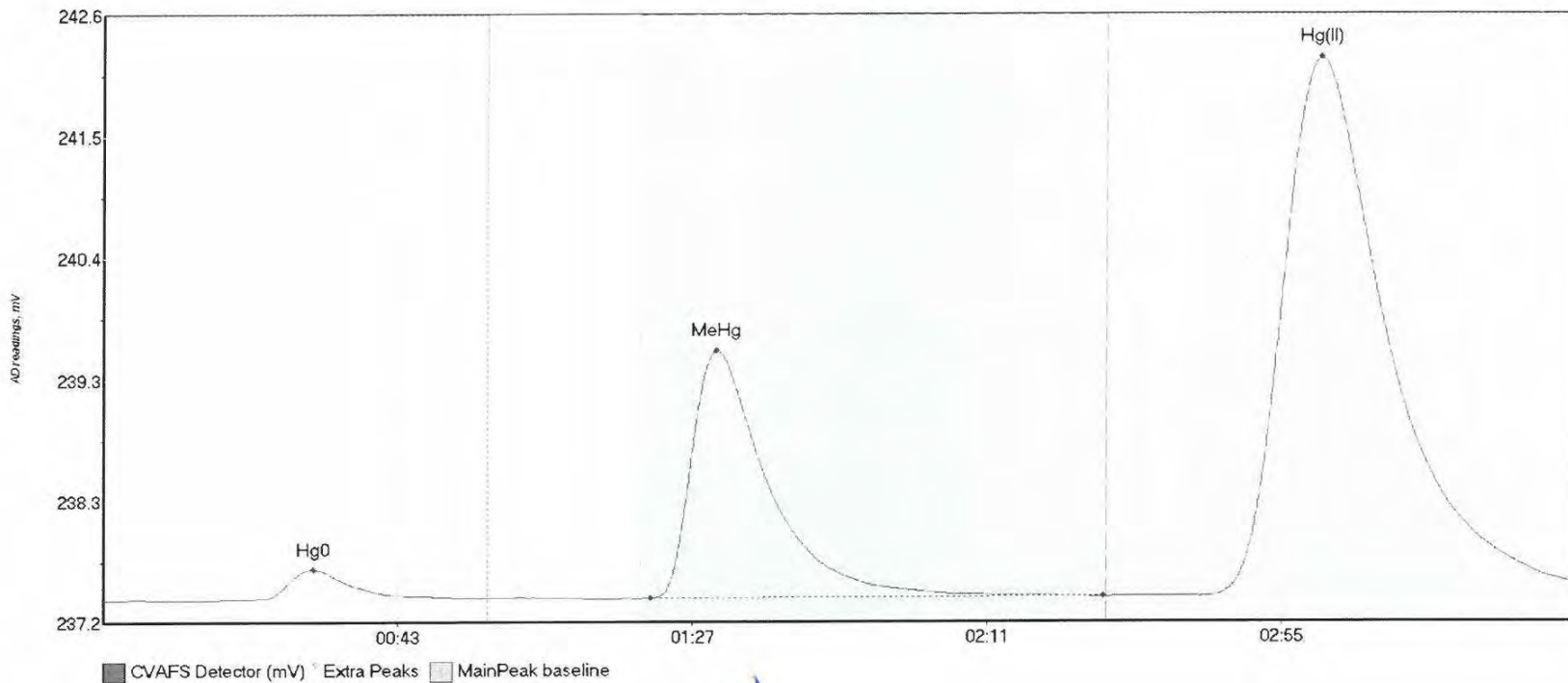
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1607782-20 Hg0	8.175	23.7	47.7	237.36	237.36	31.5	0.086	OK	237.3564	0.00	0.03	
1607782-20 MeHg	37.361	81.4	125.6	237.36	237.36	91.4	0.273	OK	237.3564	0.00	0.03	
1607782-20 Hg(I)	45.574	163.2	218.4	237.38	237.38	181.0	0.250	OK	237.3564	0.00	0.03	

#67: 1607782-21



Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1607782-21 Hg0	9.138	22.8	56.8	237.37	237.37	32.0	0.080	OK	237.3654	0.00	0.03	
1607782-21 MeHg	37.233	81.8	125.6	237.38	237.38	91.3	0.276	OK	237.3654	0.00	0.03	
1607782-21 Hg(I)	41.473	167.0	216.1	237.38	237.39	181.0	0.239	OK	237.3654	0.00	0.03	

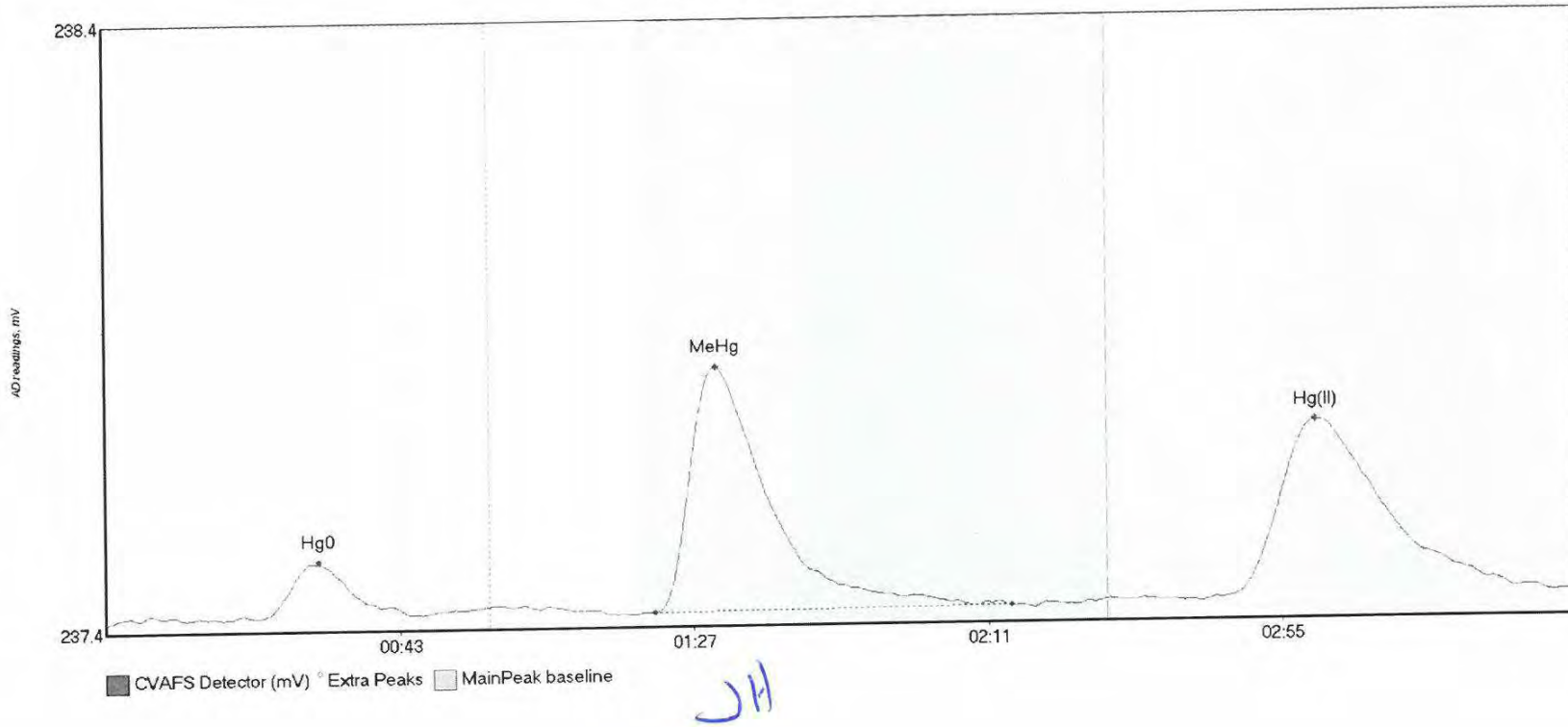
#68: 1607783-01



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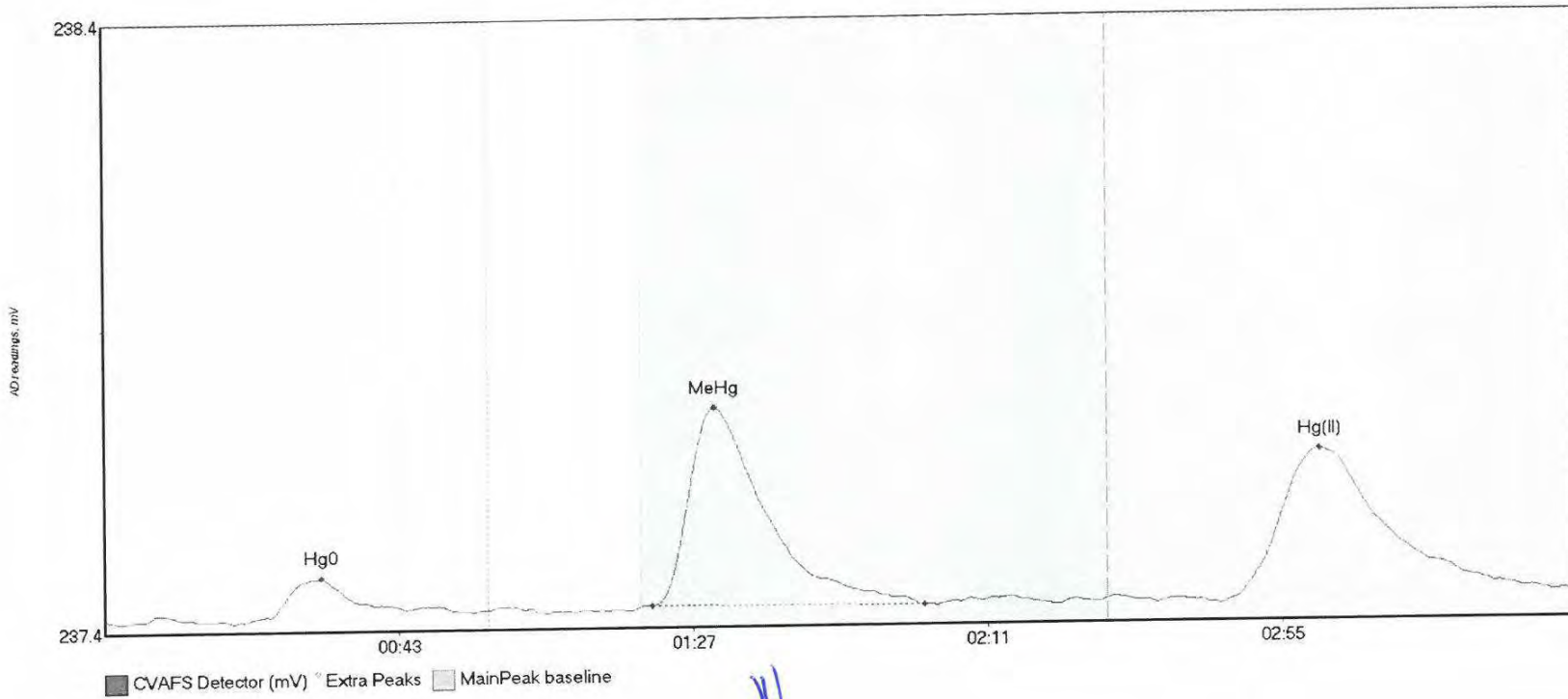
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	B1Dev	B1Shift	Comment
1607783-01 Hg0	29.032	16.2	57.5	237.37	237.38	31.6	0.271	CT	237.3692	0.00	0.16	
1607783-01 MeHg	293.898	81.8	149.5	237.38	237.39	91.6	2.204	OK	237.3692	0.00	0.16	
1607783-01 Hg(I)	845.410	164.5	219.8	237.40	237.52	181.8	4.795	CT	237.3692	0.00	0.16	

#69: 1607783-02



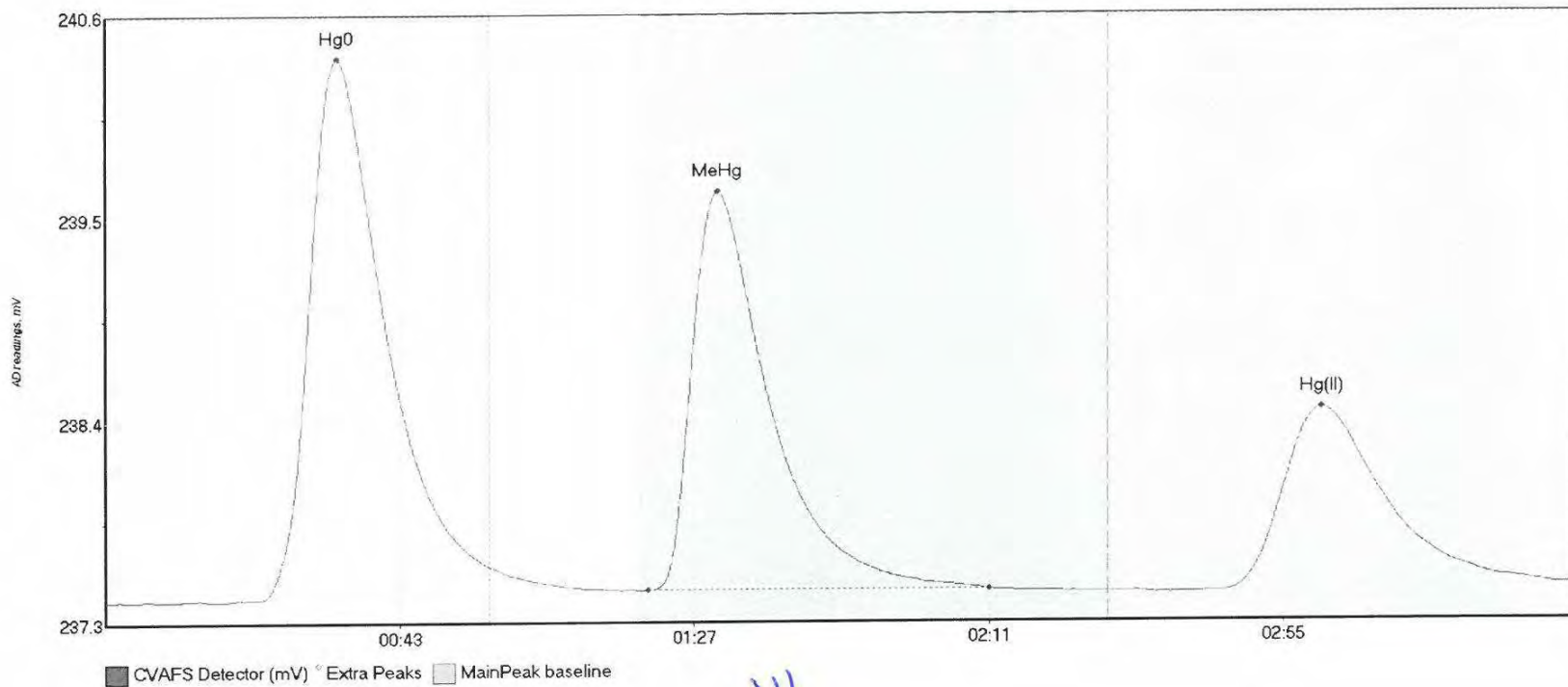
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1607783-02 Hg ⁰	9.321	18.3	47.3	237.39	237.40	31.9	0.092	OK	237.3879	0.00	0.03	
1607783-02 MeHg	54.694	82.1	135.4	237.39	237.40	91.5	0.404	OK	237.3879	0.00	0.03	
1607783-02 Hg(I)	52.319	167.1	216.2	237.41	237.41	181.0	0.292	OK	237.3879	0.00	0.03	

#70: 1607783-03



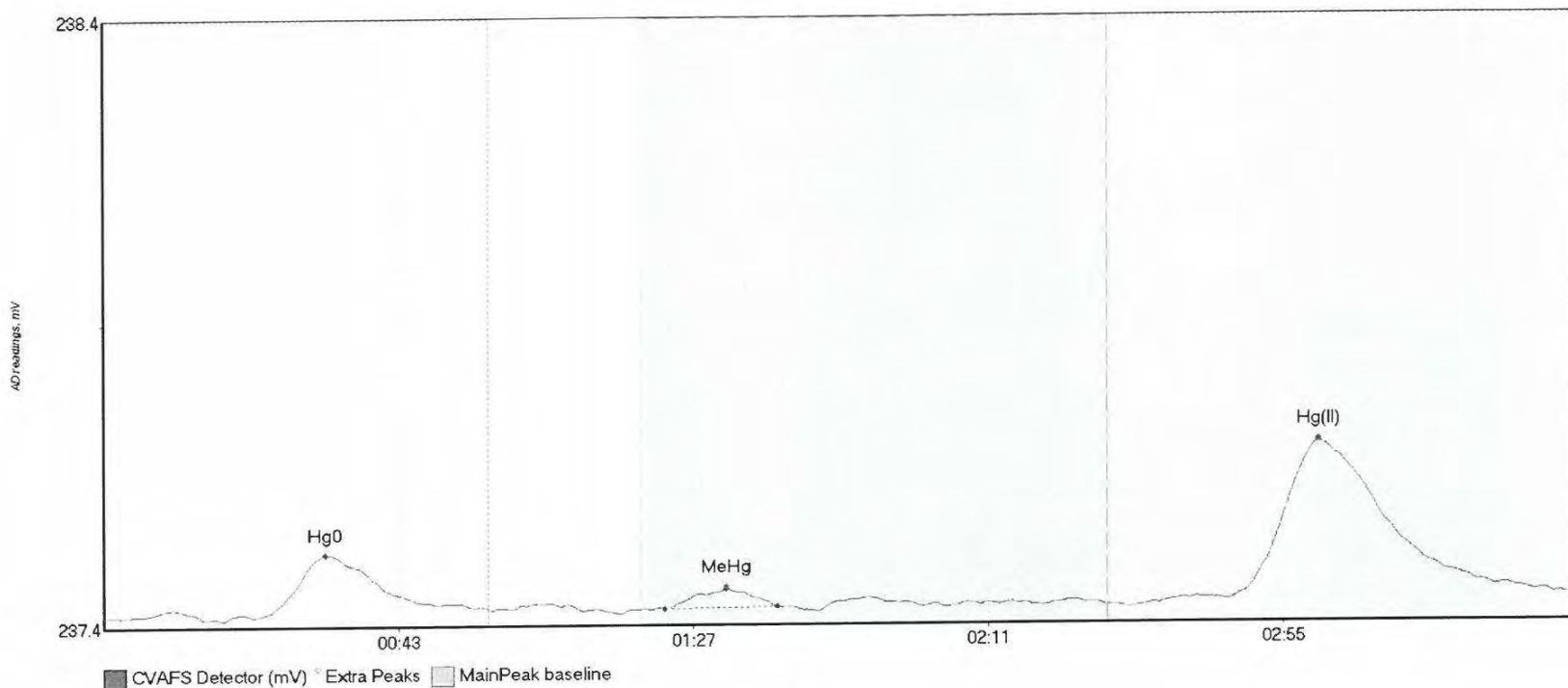
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1607783-03 Hg0	6.993	24.9	55.1	237.40	237.41	32.6	0.062	OK	237.3987	0.00	0.03	
1607783-03 MeHg	43.298	81.9	122.6	237.41	237.41	91.3	0.326	OK	237.3987	0.00	0.03	
1607783-03 Hg(I)	45.000	167.3	216.8	237.41	237.42	181.6	0.253	OK	237.3987	0.00	0.03	

#71: SEQ-CCV7



Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	B1Dev	B1Shift	Comment
SEQ-CCV7 Hg0	363.019	17.5	57.5	237.41	237.60	34.7	2.991	CT	237.4097	0.00	0.08	
SEQ-CCV7 MeHg	293.868	81.1	132.0	237.47	237.47	91.6	2.199	OK	237.4097	0.00	0.08	
SEQ-CCV7 Hg(II)	175.968	167.2	219.8	237.45	237.49	181.8	1.010	CT	237.4097	0.00	0.08	

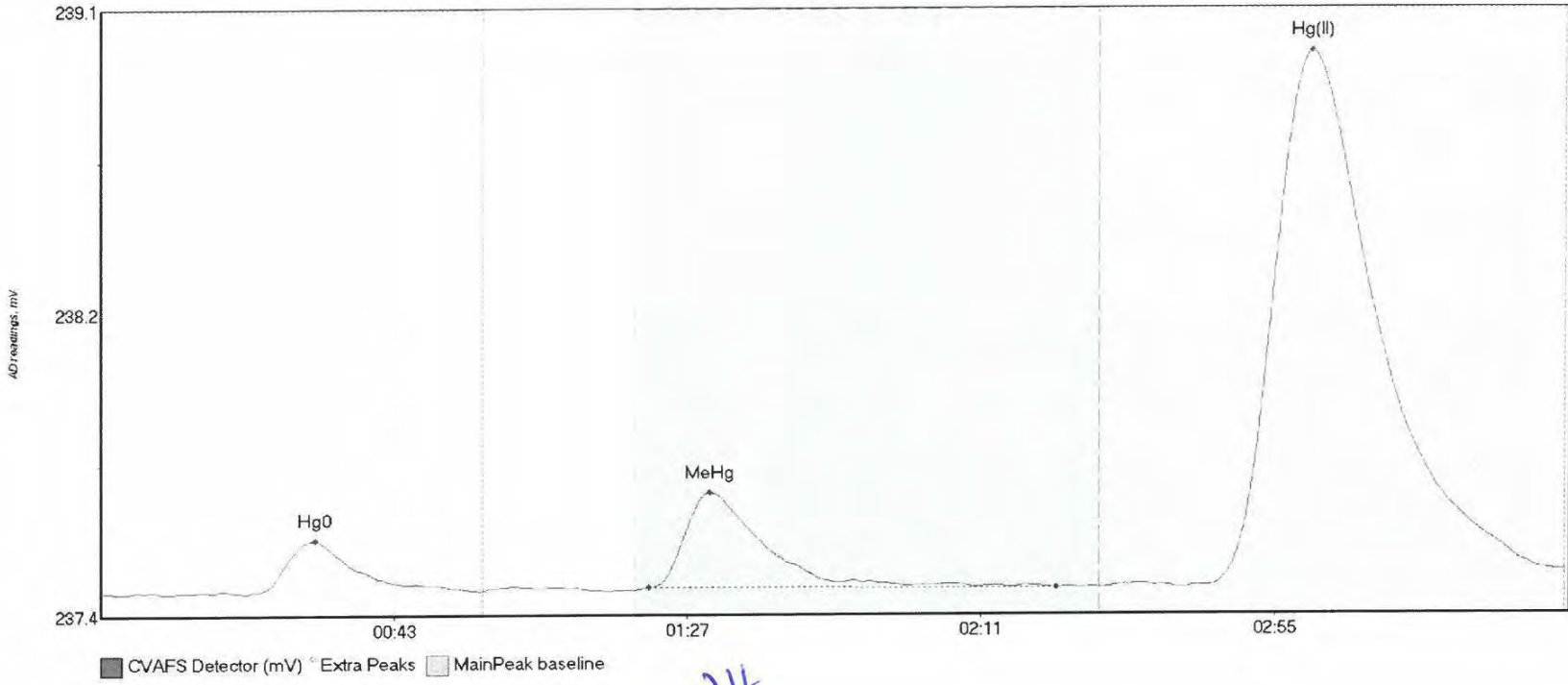
#72: SEQ-CCB5



Handwritten signature or mark.

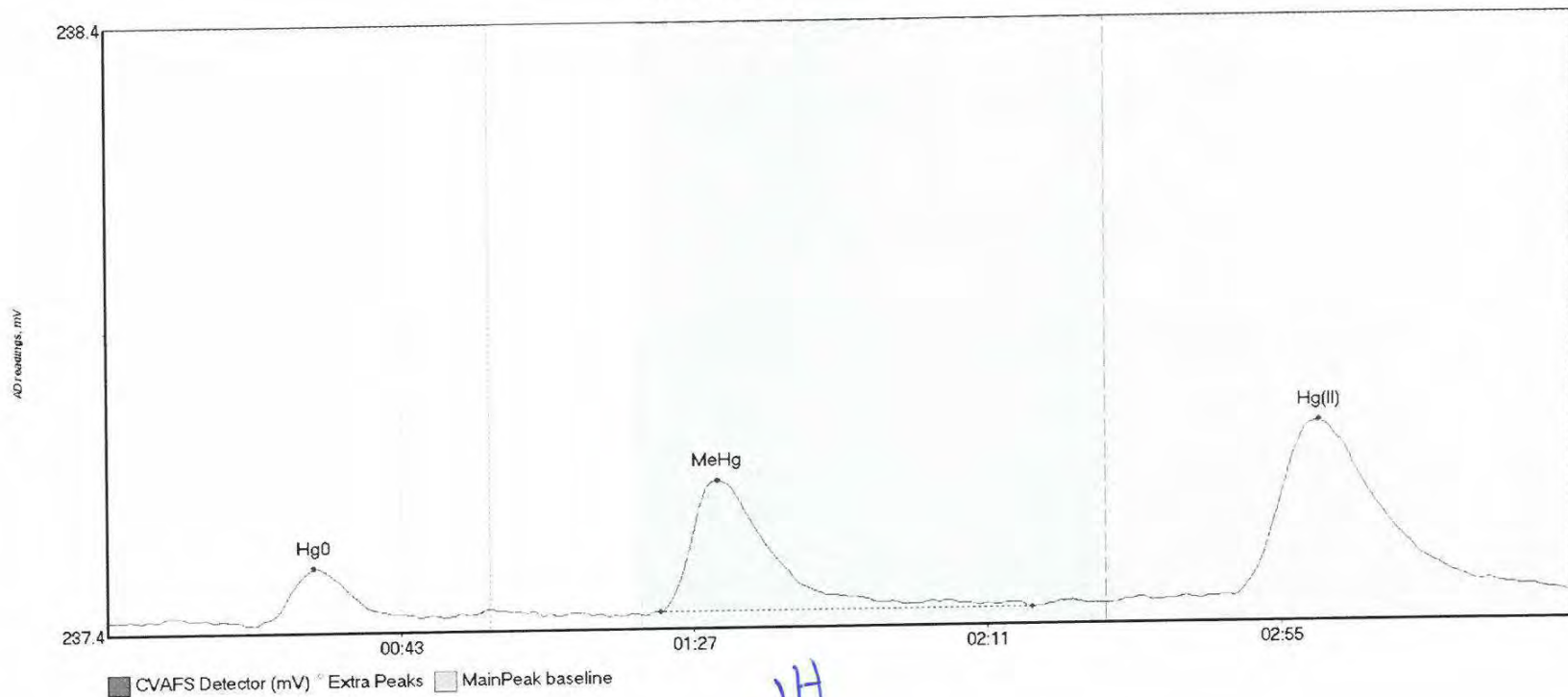
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
SEQ-CCB5 Hg0	12.855	24.1	57.5	237.44	237.44	33.2	0.100	CT	237.4333	0.00	0.03	
SEQ-CCB5 MeHg	2.905	83.8	100.6	237.44	237.45	93.0	0.033	OK	237.4333	0.00	0.03	
SEQ-CCB5 Hg (II)	47.353	157.6	219.3	237.45	237.46	181.3	0.266	OK	237.4333	0.00	0.03	

#73: 1607783-04



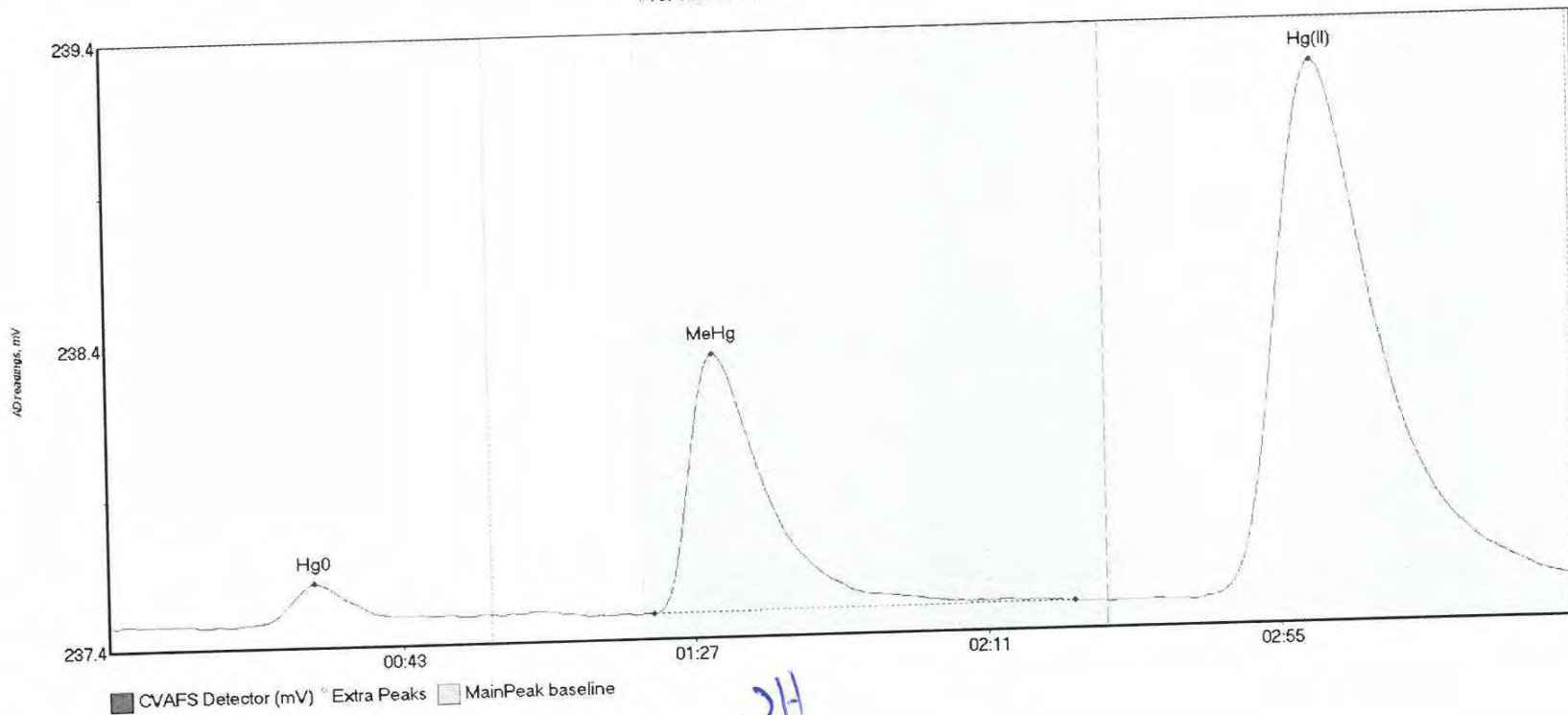
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1607783-04 Hg0	16.457	23.6	55.5	237.45	237.46	32.3	0.143	OK	237.4522	0.00	0.06	
1607783-04 MeHg	36.560	82.3	143.4	237.46	237.46	91.5	0.267	OK	237.4522	0.00	0.06	
1607783-04 Hg(I)	264.583	165.8	219.2	237.47	237.51	181.6	1.490	OK	237.4522	0.00	0.06	

#74: 1607783-05



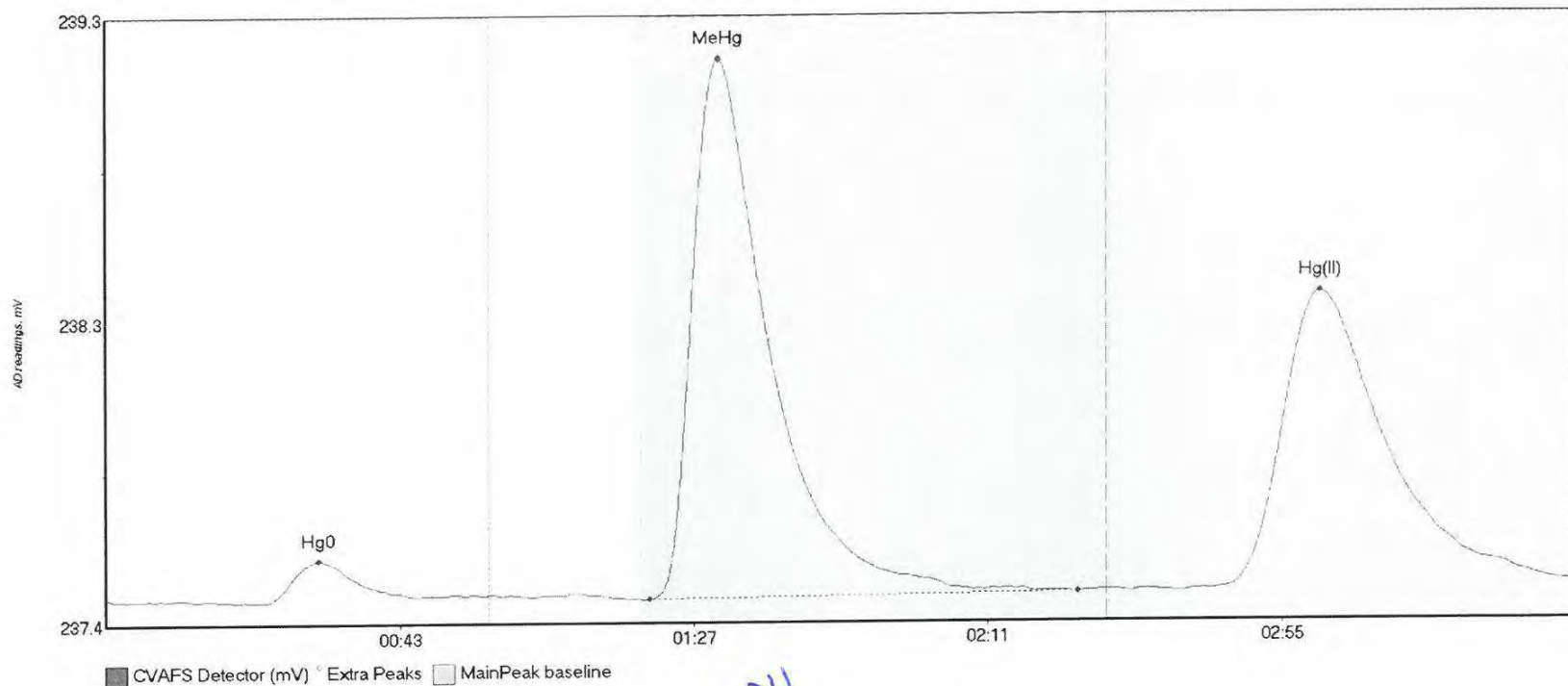
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1607783-05 Hg0	8.980	22.2	46.8	237.46	237.47	31.2	0.095	OK	237.4686	0.00	0.02	
1607783-05 MeHg	30.439	83.0	138.8	237.48	237.48	91.6	0.217	OK	237.4686	0.00	0.02	
1607783-05 Hg(I)	52.752	157.2	219.8	237.49	237.49	181.7	0.294	CT	237.4686	0.00	0.02	

#75: 1607783-06



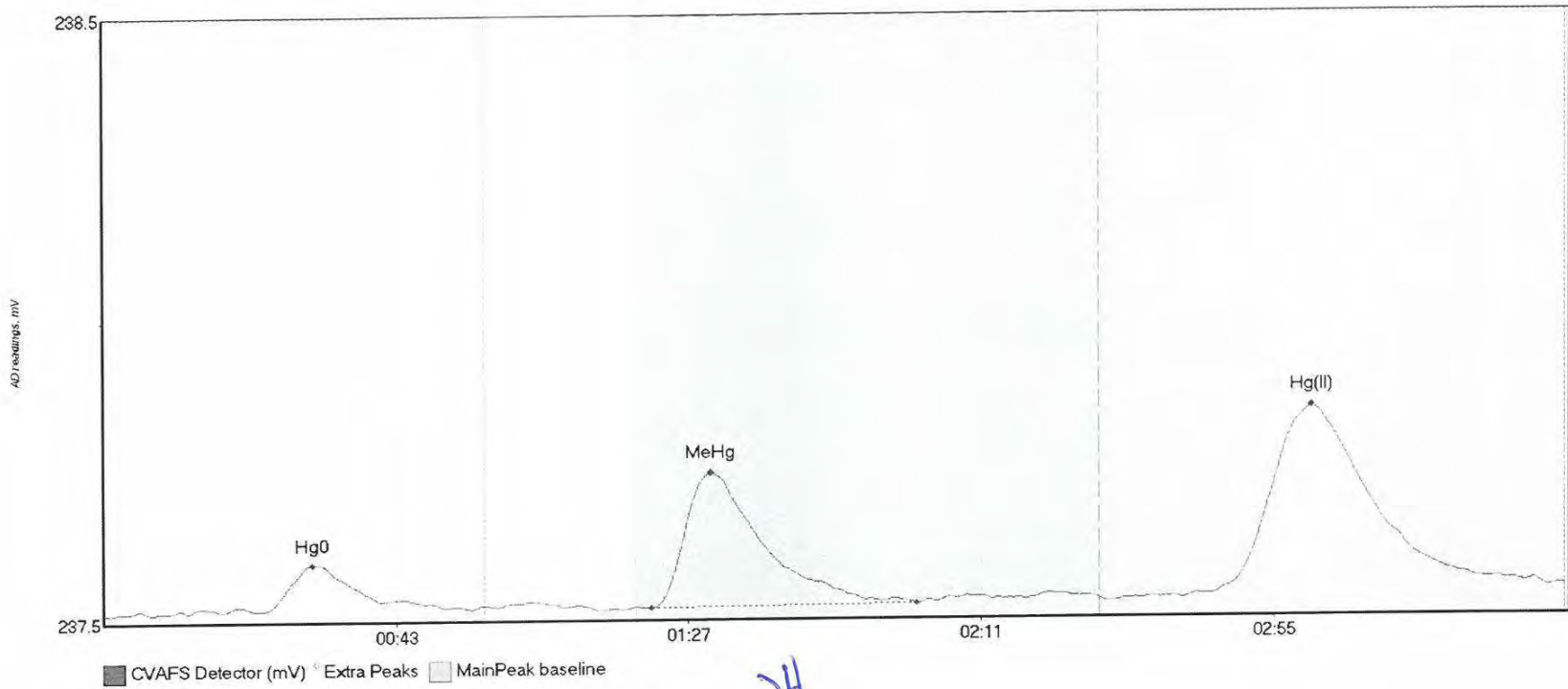
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1607783-06 Hg0	12.700	22.1	53.0	237.48	237.49	30.9	0.129	OK	237.4807	0.00	0.06	
1607783-06 MeHg	113.822	81.9	145.0	237.49	237.49	91.2	0.849	OK	237.4807	0.00	0.06	
1607783-06 Hg(I)	309.868	163.2	219.8	237.49	237.54	181.5	1.761	CT	237.4807	0.00	0.06	

#76: 1607783-07



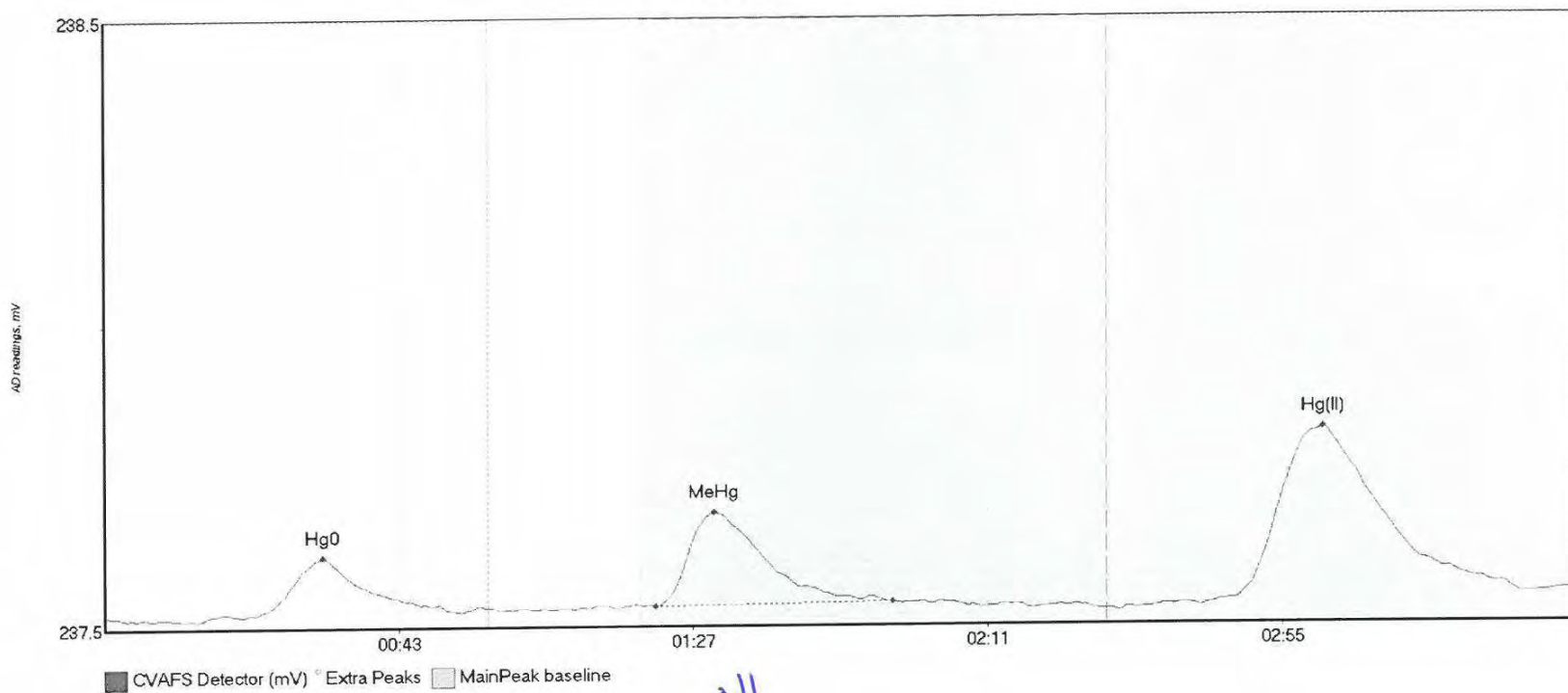
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	B1Dev	B1Shift	Comment
1607783-07 Hg0	12.393	23.7	46.6	237.49	237.50	31.9	0.128	OK	237.4974	0.00	0.04	
1607783-07 MeHg	220.249	81.5	145.6	237.49	237.51	91.7	1.642	OK	237.4974	0.00	0.04	
1607783-07 Hg(I)	159.886	166.0	219.8	237.52	237.54	181.7	0.902	CT	237.4974	0.00	0.04	

#77: 1607783-08



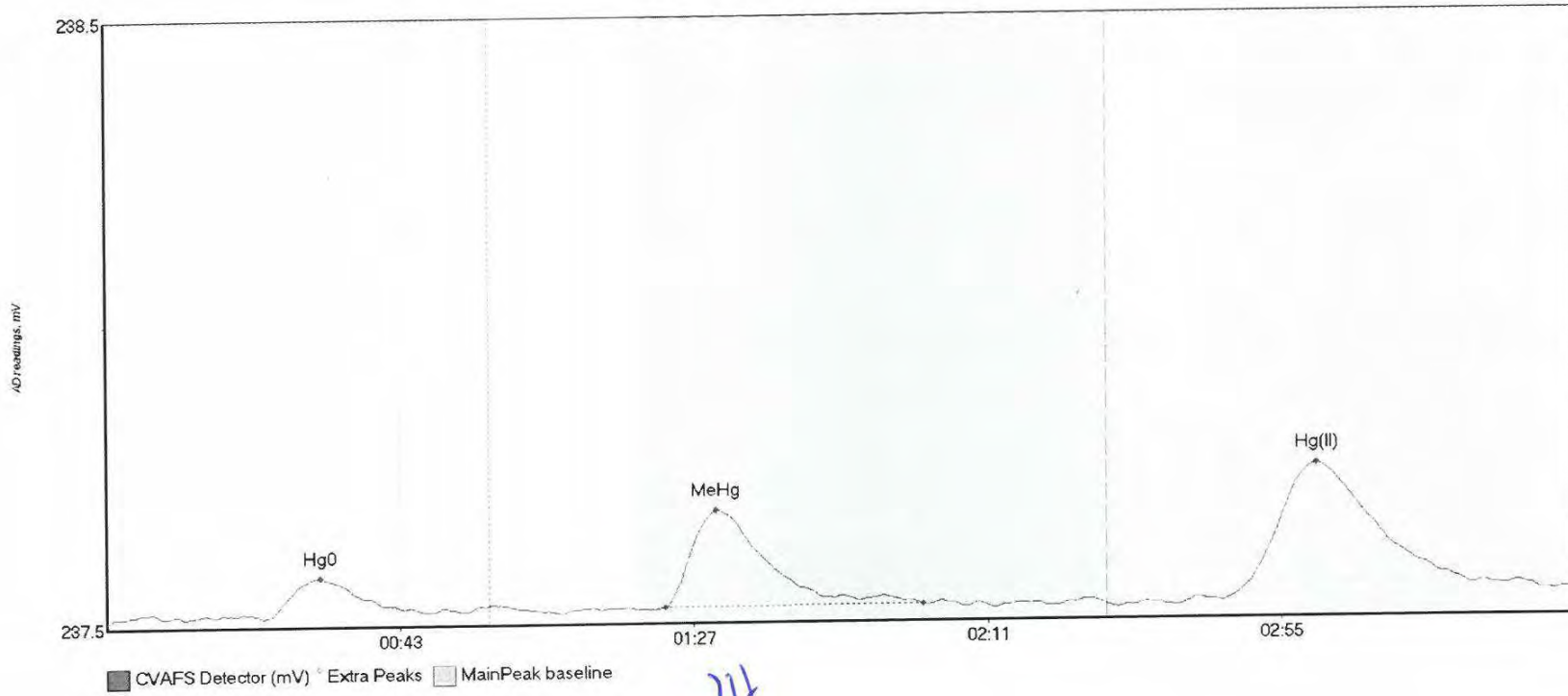
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1607783-08 Hg0	8.921	24.0	55.5	237.51	237.51	31.5	0.077	OK	237.5024	0.00	0.04	
1607783-08 MeHg	29.671	82.6	122.3	237.51	237.51	91.5	0.223	OK	237.5024	0.00	0.04	
1607783-08 Hg(I)	54.796	162.3	217.3	237.52	237.54	181.8	0.316	OK	237.5024	0.00	0.04	

#78: 1607783-09



Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1607783-09 Hg0	11.381	22.6	53.3	237.53	237.53	32.7	0.094	OK	237.5270	0.00	0.04	
1607783-09 MeHg	19.884	82.5	117.8	237.54	237.54	91.2	0.156	OK	237.5270	0.00	0.04	
1607783-09 Hg(I	50.719	156.4	212.2	237.53	237.56	182.0	0.293	OK	237.5270	0.00	0.04	

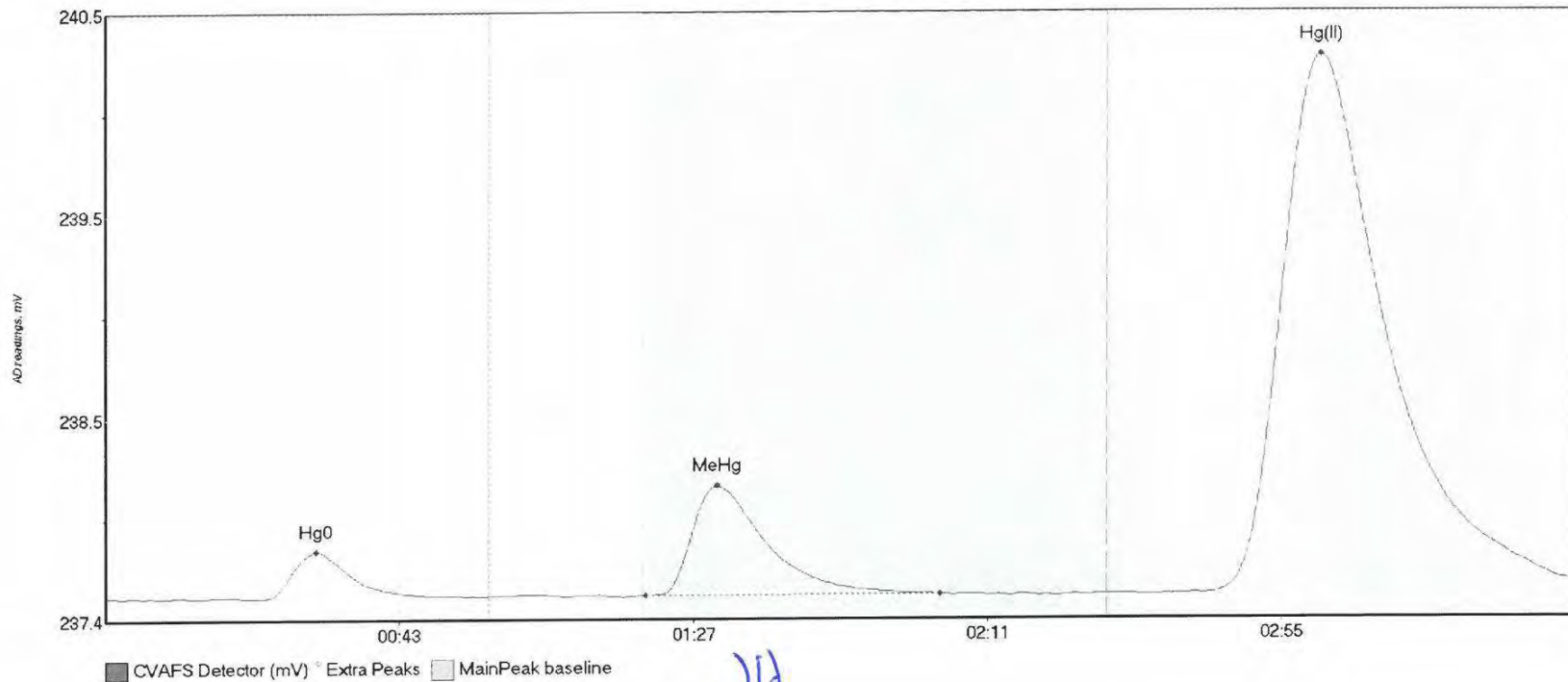
#79: 1607783-10



Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1607783-10 Hg0	7.650	23.7	53.8	237.55	237.55	32.1	0.066	OK	237.5431	0.00	0.03	
1607783-10 MeHg	20.750	83.7	122.3	237.56	237.56	91.4	0.160	OK	237.5431	0.00	0.03	
1607783-10 Hg(I)	40.417	160.5	217.0	237.55	237.57	181.3	0.231	OK	237.5431	0.00	0.03	

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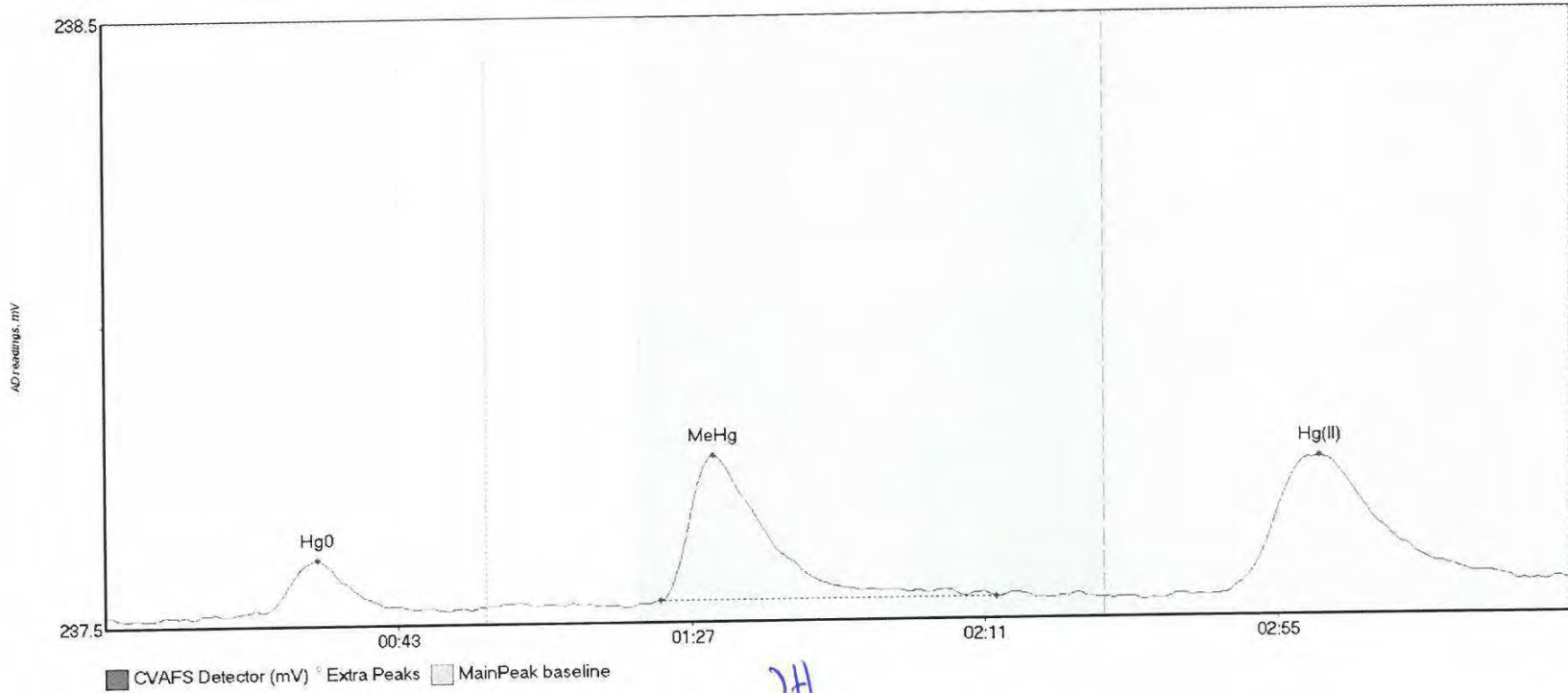
#80: 1607783-11



Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1607783-11 Hg0	22.250	23.6	49.2	237.56	237.56	31.6	0.231	OK	237.5597	0.00	0.08	
1607783-11 MeHg	69.742	80.8	124.9	237.56	237.57	91.6	0.545	OK	237.5597	0.00	0.08	
1607783-11 Hg(I	472.827	165.3	219.7	237.57	237.64	181.7	2.672	OK	237.5597	0.00	0.08	

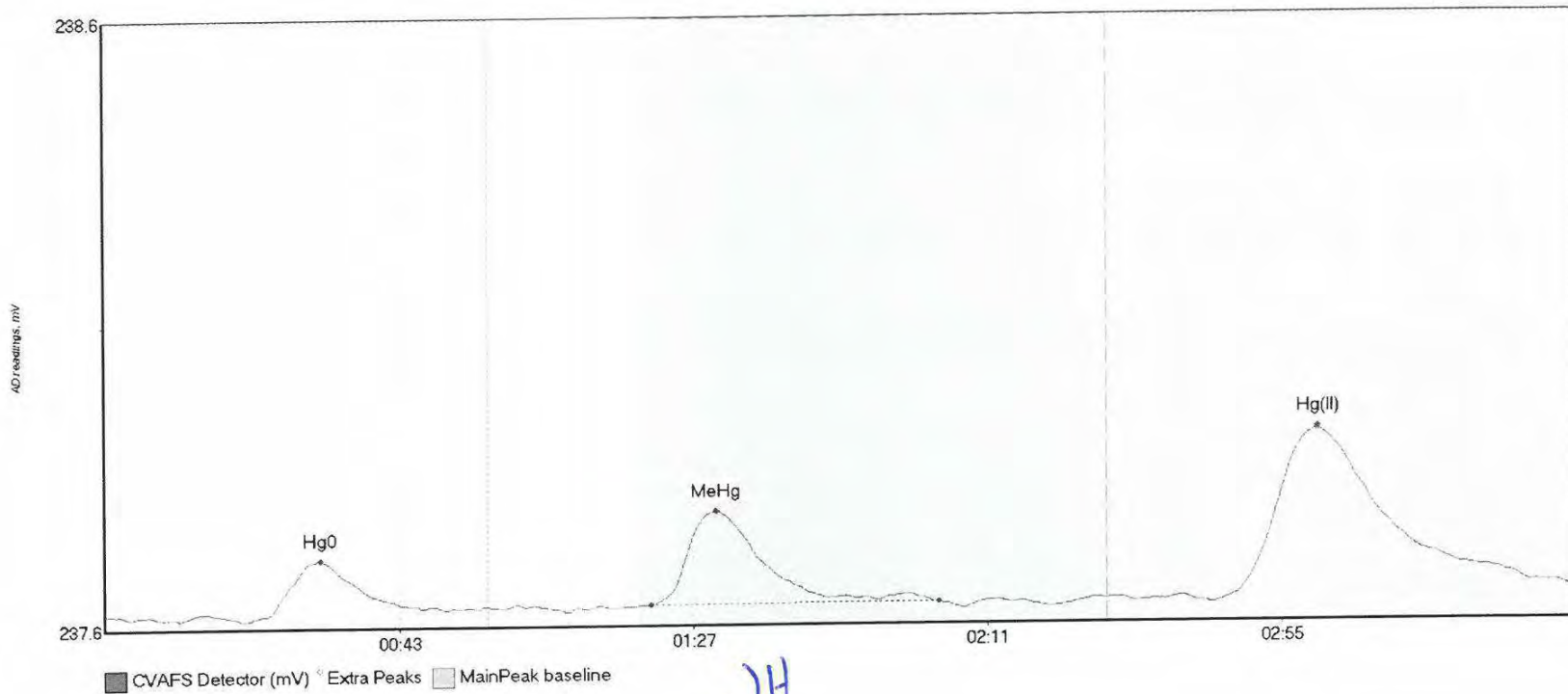
016

#81: 1607783-12



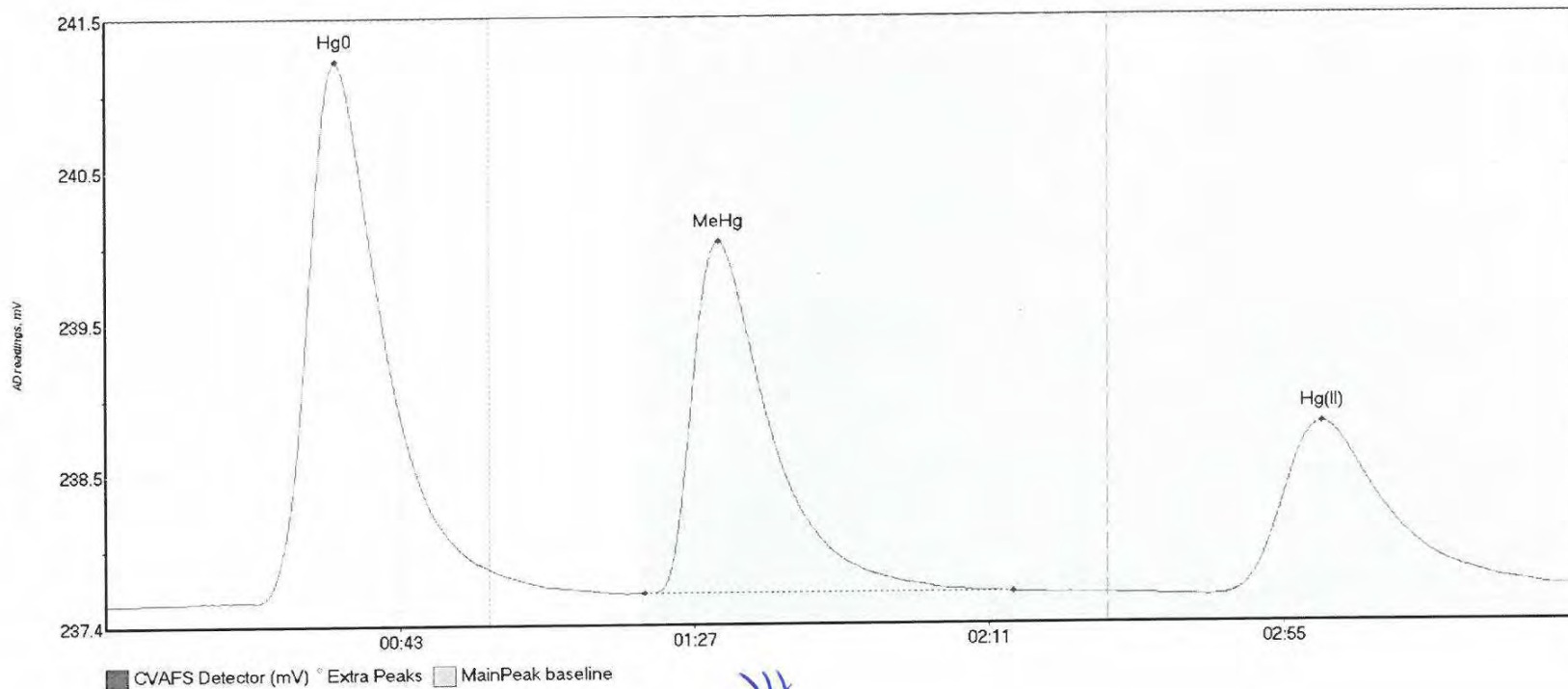
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1607783-12 Hg0	8.814	21.1	51.7	237.57	237.57	31.8	0.087	OK	237.5655	0.00	0.04	
1607783-12 MeHg	31.760	83.3	133.7	237.58	237.58	91.3	0.239	OK	237.5655	0.00	0.04	
1607783-12 Hg(I)	39.731	167.3	213.9	237.58	237.60	182.3	0.226	OK	237.5655	0.00	0.04	

#82: 1607783-13



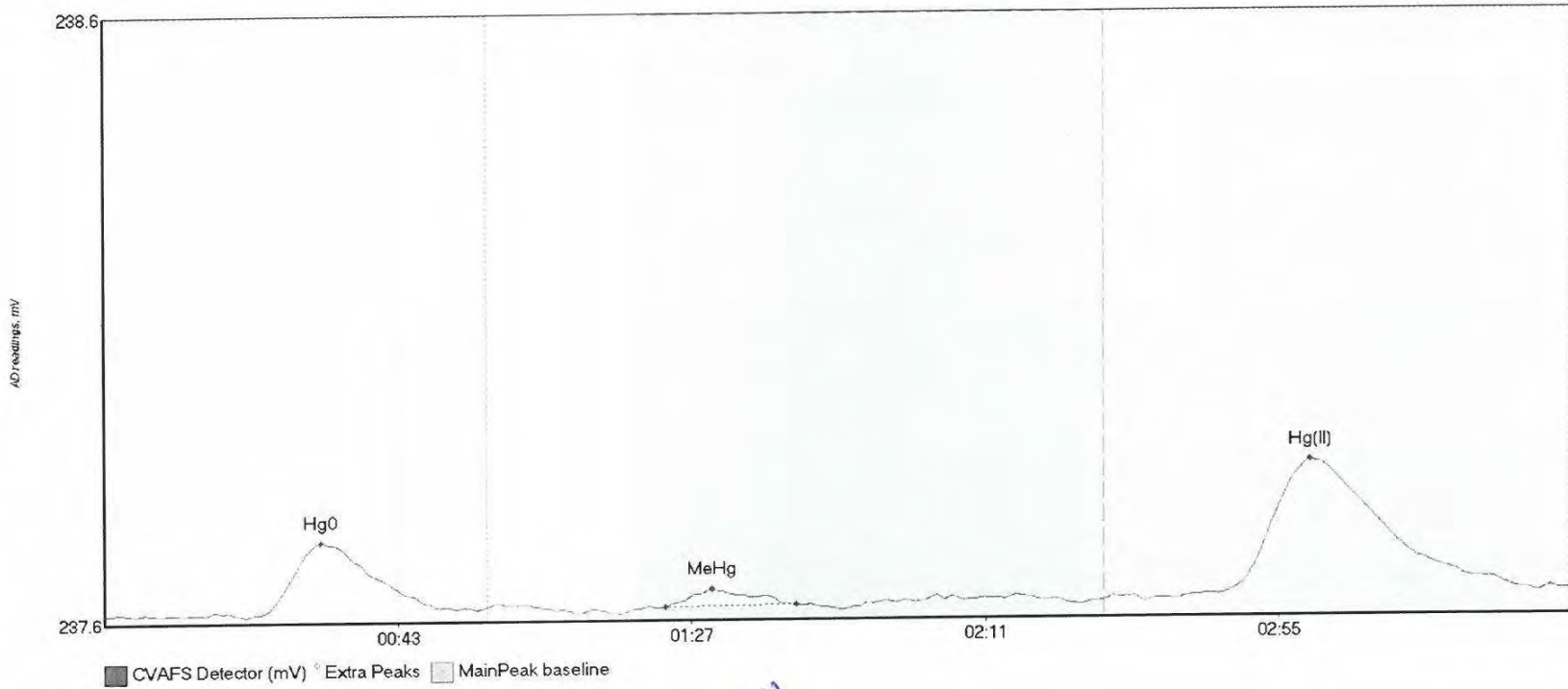
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1607783-13 Hg0	9.819	24.0	51.0	237.58	237.59	32.1	0.091	OK	237.5866	0.00	0.03	
1607783-13 MeHg	19.864	81.8	124.7	237.60	237.60	91.5	0.154	OK	237.5866	0.00	0.03	
1607783-13 Hg(I)	52.487	165.5	218.8	237.59	237.62	181.4	0.285	OK	237.5866	0.00	0.03	

#83: SEQ-CCV8



Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	B1Dev	B1Shift	Comment
SEQ-CCV8 Hg0	434.207	6.8	57.5	237.60	237.82	34.4	3.650	CT	237.5950	0.00	0.09	
SEQ-CCV8 MeHg	319.825	80.6	135.7	237.66	237.66	91.7	2.375	OK	237.5950	0.00	0.09	
SEQ-CCV8 Hg(II)	204.505	166.9	218.1	237.64	237.68	181.8	1.157	OK	237.5950	0.00	0.09	

#84: SEQ-CCB6



Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
SEQ-CCB6 Hg0	15.454	23.7	55.8	237.62	237.63	32.6	0.117	OK	237.6219	0.00	0.03	
SEQ-CCB6 MeHg	2.940	84.1	103.7	237.63	237.63	91.1	0.029	OK	237.6219	0.00	0.03	
SEQ-CCB6 Hg(II)	41.567	164.3	214.8	237.64	237.65	180.7	0.222	OK	237.6219	0.00	0.03	

Peer Review Check List for MHg for CV-GC-AFS (FGS-070) 2015 Rev 5 (08/06/2015)

Analyst: Ryan Nelson	Sequence #: 6H12010, 6H12011
Reviewer: <u>Jeanne Herel</u>	Dataset ID #: MHg27001-160815-1
Date:	WO #: Various <u>E JH 8/19/15</u>
Batch #(s): F608273, F608155	Client(s): NA

• Select the correct preparation method.

Additional Comments:

Analyte	Prep Method	Matrix
<input checked="" type="checkbox"/> MHg	FGS-013 MHg Distillation	Water
<input type="checkbox"/> MHg	FGS-010 KOH/MeOH Digest	Tissue
<input type="checkbox"/> MHg	FGS-045 MeCl Extraction	Sed/Soil
<input type="checkbox"/> DMHg	FGS-098 (None Accredited method)	ALL

Analyst Initials:

Reviewer Initials:

1. Compare Sample ID with Bench sheet/Sequence/Raw Data (Have all samples been imported?)
2. Check for transcription errors from Excel spreadsheet (or Prep Bench sheet)/Raw data
 - (a) Reviewer: 100% of peak heights checked
 - (b) Are there peak height errors?
 - (c) Error on a sample: Do peak heights, responses, & initial results match corrected data?
 - (d) Error on a Cal Pt, ICB/CCB, or PB: Has the data been reimported?
 - (e) Check standards & reagents in sequence & bench sheet for correct usage (i.e. expiries).
 - (f) Check and compare masses (review prep bench sheet)
 - (g) Check and compare initial and final volumes
 - (h) Do aliquots and dilutions written on benchsheet match those in Excel?
 - (i) Is the pH>3.0 for all distilled samples? _____
 - (j) Is the sequence #, analyst, date, and instrument # on the QC page?
 - (k) Is the analysis status correct? (analyzed/initial review/reviewed)
 - (l) Original prep bench sheet added to data package?
 - (m) Benchsheet prep date MUST match actual prep date (check if re-shot vs re-extract)
3. High QA? WO#(s)/Client(s): _____
4. Client specific QC? (if Yes, refer to Project Notes/LIMS)
 - (a) Have the QC requirements been met for all WO#s?
5. 20 or fewer samples in batch? _____
 - (a) 3 PBs, 1 LCS/LCSD (or BS/BSD), 2 MS/MSD/MD per batch?
 - (b) 1 CCV and 1 CCB every 10 analytical runs? _____

<input checked="" type="checkbox"/> YES	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> NO
<input checked="" type="checkbox"/> YES	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> NO
<input checked="" type="checkbox"/> YES	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> NO
<input type="checkbox"/> YES	<input checked="" type="checkbox"/> NO	<input type="checkbox"/> YES	<input checked="" type="checkbox"/> NO
<input type="checkbox"/> YES	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> N/A	<input checked="" type="checkbox"/>
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<input checked="" type="checkbox"/> YES	<input type="checkbox"/> NO	<input type="checkbox"/> N/A	<input checked="" type="checkbox"/>
<input checked="" type="checkbox"/> PASS	<input type="checkbox"/> FAIL	<input type="checkbox"/> N/A	<input checked="" type="checkbox"/>

QA/QC Data Checked

6. The calibration curve included a minimum of 5 Standards
 Comments: _____
7. 1st Calibration Standard % Recoveries (65-135%)
 Comments: _____
8. RSD CF (≤ 15%)
 Comments: _____

Peer Review Check List for MHg for CV-GC-AFS (FGS-070) 2013 Rev 4 (08/22/2013)

Analyst:	Ryan Nelson	Sequence #:	6H12010, 6H12011
Reviewer:	Jeanne Haire	Dataset ID #:	MHg27001-160815-1
Date:	8/15/2016	WO #:	Various
Batch #(s):	F608273, F608155	Client(s):	NA

Analyst Initials: RN **Reviewer Initials:** JH

- | | | | | |
|--|--|--|---|-------------------------------------|
| 9. ICV % Recoveries 67-133% | <input checked="" type="checkbox"/> PASS | <input type="checkbox"/> FAIL | | <input checked="" type="checkbox"/> |
| Comments: _____ | | | | |
| 10. CCV % Recoveries 67-133% | <input checked="" type="checkbox"/> PASS | <input type="checkbox"/> FAIL | | <input checked="" type="checkbox"/> |
| Comments: CCV4 failed. Investigated and both passed. | | | | |
| 11. Are the absolute value of the ICB and CCBs < PQL? | <input checked="" type="checkbox"/> PASS | <input type="checkbox"/> FAIL | | <input checked="" type="checkbox"/> |
| Comments: _____ | | | | |
| 12. LCS/LCSD/CRM/BS/BSD % Recoveries (70-130%) | <input checked="" type="checkbox"/> PASS | <input type="checkbox"/> FAIL | | <input checked="" type="checkbox"/> |
| Comments: _____ | | | | |
| 13. LCS/LCSD or BS/BSD RPD (< 25%) | <input type="checkbox"/> PASS | <input checked="" type="checkbox"/> FAIL | | <input checked="" type="checkbox"/> |
| Comments: QR-07 | | | | |
| 14. Water: Average of Preparation Blanks < 0.045 ng/L and standard deviation of 0.015 ng/L? | <input checked="" type="checkbox"/> PASS | <input type="checkbox"/> FAIL | <input type="checkbox"/> N/A | <input checked="" type="checkbox"/> |
| Comments: _____ | | | | |
| 15. Sediment/Tissue: Individually, are the Preparation Blanks < PQL for the matrix? | <input checked="" type="checkbox"/> PASS | <input type="checkbox"/> FAIL | <input type="checkbox"/> N/A | <input checked="" type="checkbox"/> |
| Comments: _____ | <input type="checkbox"/> PASS | <input type="checkbox"/> FAIL | | <input checked="" type="checkbox"/> |
| 16. Have Total Solids been applied? (If NO, please ensure that they are done or nearly done) | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input type="checkbox"/> N/A | <input checked="" type="checkbox"/> |
| 17. Is the correct 'Source' designated for MD/MS/MSD? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | | <input checked="" type="checkbox"/> |
| 18. For digested preps: was there a spike witness signature & date on the prep bench sheet? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input type="checkbox"/> N/A | <input checked="" type="checkbox"/> |
| 19. MD RPD/MT RSD(< 35%) | <input checked="" type="checkbox"/> PASS | <input checked="" type="checkbox"/> FAIL | | <input checked="" type="checkbox"/> |
| Comments: _____ | | | | |
| 20. Is there one set of MS/MSD per every 10 samples? | <input checked="" type="checkbox"/> PASS | <input type="checkbox"/> FAIL | | <input checked="" type="checkbox"/> |
| Comments: _____ | | | | |
| 21. MS/MSD RPD(< 35%) | <input checked="" type="checkbox"/> PASS | <input type="checkbox"/> FAIL | | <input checked="" type="checkbox"/> |
| Comments: _____ | | | | |
| 22. MS (AS) % Recoveries (65-130%) | <input checked="" type="checkbox"/> PASS | <input checked="" type="checkbox"/> FAIL | | <input checked="" type="checkbox"/> |
| Comments: _____ | | | | |
| 23. MSD (ASD) % Recoveries (65-130%) | <input checked="" type="checkbox"/> PASS | <input checked="" type="checkbox"/> FAIL | | <input checked="" type="checkbox"/> |
| Comments: _____ | | | | |
| 24. Spiked 1-5X ambient or 1-5X PQL (whichever is higher) (from EPA 1630) | <input type="checkbox"/> YES | <input checked="" type="checkbox"/> NO | | <input checked="" type="checkbox"/> |
| 25. Are all samples within instrument calibration range (or at maximum aliquot size)? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | | <input checked="" type="checkbox"/> |
| Comments: _____ | | | | |
| 26. For instrumental dilutions, is the dilution factor in excel correct? | <input type="checkbox"/> PASS | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> N/A | <input checked="" type="checkbox"/> |
| Is the sample volume, diluents, and final volume of the dilution noted on benchsheet? | <input type="checkbox"/> PASS | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> N/A | <input checked="" type="checkbox"/> |
| 27. Dissolved < Total metals (if applicable) | <input type="checkbox"/> PASS | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> N/A | <input checked="" type="checkbox"/> |
| Comments: _____ | | | | |
| 28. Effluent < Influent metals (visually confirm if needed) | <input type="checkbox"/> PASS | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> N/A | <input type="checkbox"/> |
| Comments: _____ | | | | |

Peer Review Check List for MHg for CV-GC-AFS (FGS-070) 2013 Rev 4 (08/22/2013)

Analyst: Ryan Nelson	Sequence #: 6H12010, 6H12011
Reviewer: <i>George Henei</i>	Dataset ID #: MHg27001-160815-1
Date: 8/15/2016	WO #: Various <i>2 JH 8/19/16</i>
Batch #(s): F608273, F608155	Client(s): NA

Analyst Initials: *R* **Reviewer Initials:** *JH*

29. Are re-runs noted with reason? YES NO N/A
- Comments: _____
30. For failing QC (CCV, CCB, PB, BS/BSD, CAL): YES NO N/A
- Was a bubbler and trap test run before the analytical run continued?
 Comments: CCV4
31. Do re-run results compare to initial analysis (< 35% RPD)? YES NO N/A
- Comments: _____
32. Are qualifiers consistent with the data review flowcharts? YES NO N/A
- Comments: _____
33. Have non-reportable samples been imported into LIMS and clicked to non-reportable? YES NO N/A
- Comments: _____
34. Have re-extracts been created for non-reportable samples? YES NO N/A
35. Narrations in MMO box in LIMS?
 Comments: _____
36. Are there any HIGH QA projects within the data? YES NO
 If so, place dataset to the QA office.
37. Does the data set need scanning? YES NO N/A
- Files located at: \\Cuprum\gen_admin\Quality Assurance\Training Master\IDOCs
38. Date of analyst IDOC/CDOC: 4/15/2016 *7/27/16 JH 8/22/16* IDOC/CDOC within last 12 months? YES NO
39. Date of analyst's SOP reading: 6/8/2016 Current SOP revision? YES NO
40. Date of LOD: 4/21 - 6/16 *7/7/16 JH 8/22/16* LOD within last 3 months (within 12 months for MDN)? YES NO N/A
41. Date of LOQ: 4/21 - 6/16 *7/7/16 JH 8/22/16* LOQ within last 3 months (within 12 months for MDN)? YES NO N/A
42. If MDN samples, date of last MDL study: _____
43. MDL study within last 12 months? YES NO N/A
- Data can not be reported without a current IDOC/CDOC, LOD or LOQ.**
- Additional Comments: YES NO



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Lab Number: L1622656

Client: AMEC Foster Wheeler E & I, Inc.

ATTN: Rod Pendleton

Project Name: PENOBSCOT RIVER ESTUARY

Project Number: 3616166052

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Sample Delivery Group Information





Sample Delivery Group Form

Laboratory Job number: L1622656

Project Manager: Elizabeth Porta

Review Date: 07/26/2016

Project Number: 3616166052

Project Name: PENOBSCOT RIVER ESTUARY

Received: 07/21/2016 11:30

Client Account: AMEC Foster Wheeler E & I, Inc.

Received by: GP/RM

Samples Delivered by: FEDEX

Call Tracker #

Bill Of Laden N/A

Trackingnum 809405619691

Coc Present Present

Container Status Intact

Sample IDs

All Containers Accounted For? Yes

Were Extra Samples Received? No

Do Sample Labels and COC agree? Yes

Are Samples in Appropriate Containers? Yes

Are Samples Received within Holding time? Yes

pH of Samples upon Receipt 7

Are samples Properly Preserved? Yes

Initial pH preserved in house with

Final pH

Other Issues

Chlorine Check N/A

Are VOA/VPH Vials Present? No

Aqueous: Do Vials Contain Head Space? N/A

Soils: Is MeOHCovering the Soil? N/A

Reagent H2O Preserved vials Frozen on N/A

Frozen by Client N/A

Cooler	Seal	Ice Present	Blue Ice Present	Temp. (Celsius)	Frozen upon Receipt	Delivered Direct from Site
A	Absent	No	No	10.2 - IR Gun	No	No

LIMS Chain of Custody



ALPHA ANALYTICAL LABORATORIES, INC.
LOGIN CHAIN OF CUSTODY REPORT
Jul 28 2016, 04:27 pm

Login Number: L1622656

Account: AMEC-ME AMEC Foster Wheeler E & I, Inc. Project: 3616166052

Sample # Client ID Received: 21JUL16 Due Date: 28JUL16
 Mat PR Collected Container

L1622656-01 OV-02_071816_SW_10 1 S0 18JUL16 07:45 1-Plastic-A1,2-Vial-D
| DPKG-FULL Package Due Date: 07/28/16

DOC-9060,DPKG-FULL,TSS-2540

L1622656-02 WQ1B-C_071816_SW_10 1 S0 18JUL16 16:30 1-Plastic-A1,2-Vial-D
| Package Due Date: 07/28/16

DOC-9060,TSS-2540

L1622656-03 WQ2-C_071816_SW_10 1 S0 18JUL16 15:15 1-Plastic-A1,2-Vial-D
| Package Due Date: 07/28/16

DOC-9060,TSS-2540

L1622656-04 WQ3-L_071816_SW_10 1 S0 18JUL16 14:00 1-Plastic-A1,2-Vial-D
| Package Due Date: 07/28/16

DOC-9060,TSS-2540

L1622656-05 ES-15_071816_SW_10 1 S0 18JUL16 13:15 1-Plastic-A1,2-Vial-D
| Package Due Date: 07/28/16

DOC-9060,TSS-2540

L1622656-06 WQ-ECH_071816_SW_10 1 S0 18JUL16 12:00 3-Plastic-A1,6-Vial-D
L1622656-06 MS L1622656-06 MSD Package Due Date: 07/28/16

DOC-9060,MS/MSD,TSS-2540

L1622656-07 WQ-ECH_071816_SW_10 1 S0 18JUL16 12:00 1-Plastic-A1,2-Vial-D
| Package Due Date: 07/28/16

ALPHA ANALYTICAL LABORATORIES, INC.
LOGIN CHAIN OF CUSTODY REPORT
Jul 28 2016, 04:27 pm

Login Number: L1622656

Account: AMEC-ME AMEC Foster Wheeler E & I, Inc. Project: 3616166052

Sample #	Client ID	Received: 21JUL16 Mat PR Collected	Due Date: 28JUL16 Container
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DOC-9060,TSS-2540

L1622656-08 WQ-FPT_071816_SW_10 1 S0 18JUL16 11:00 1-Plastic-A1,2-Vial-D

| Package Due Date: 07/28/16

DOC-9060,TSS-2540

Container Tracking



ALPHA ANALYTICAL LABORATORIES
Container Tracking Report

Container ID Type	Status	Transaction Date	From Response	Location	To Operator	Response	Location	Operator
L1622656-01A Vial-D	INTACT	28-JUL-16	CUSTODY	WETCHEM	Deb Whelan	WALK-IN CUSTODY	WALK-IN CUSTODY	Deb Whelan
L1622656-01A Vial-D	INTACT	27-JUL-16	CUSTODY	WALK-IN CUSTODY	Deb Whelan	WETCHEM	WETCHEM	Deb Whelan
L1622656-01A Vial-D	INTACT	25-JUL-16	CUSTODY	CUSTODY	Christina Mazza	WALK-IN CUSTODY	WALK-IN CUSTODY	Christina Mazza
L1622656-01A Vial-D	INTACT	25-JUL-16	LOGIN	LOGIN	Brett Read	CUSTODY	CUSTODY	Brett Read
L1622656-01B Vial-D	INTACT	28-JUL-16	CUSTODY	WETCHEM	Deb Whelan	WALK-IN CUSTODY	WALK-IN CUSTODY	Deb Whelan
L1622656-01B Vial-D	INTACT	27-JUL-16	CUSTODY	WALK-IN CUSTODY	Deb Whelan	WETCHEM	WETCHEM	Deb Whelan
L1622656-01B Vial-D	INTACT	25-JUL-16	CUSTODY	CUSTODY	Christina Mazza	WALK-IN CUSTODY	WALK-IN CUSTODY	Christina Mazza
L1622656-01B Vial-D	INTACT	25-JUL-16	LOGIN	LOGIN	Brett Read	CUSTODY	CUSTODY	Brett Read
L1622656-01C Plastic-Al	EMPTY	25-JUL-16	CUSTODY	WETCHEM	Samantha Garner	CUSTODY	CUSTODY	Samantha Garner
L1622656-01C Plastic-Al	INTACT	25-JUL-16	CUSTODY	CUSTODY	Samantha Garner	WETCHEM	WETCHEM	Samantha Garner
L1622656-01C Plastic-Al	INTACT	25-JUL-16	LOGIN	LOGIN	Brett Read	CUSTODY	CUSTODY	Brett Read
L1622656-02A Vial-D	INTACT	28-JUL-16	CUSTODY	WETCHEM	Deb Whelan	WALK-IN CUSTODY	WALK-IN CUSTODY	Deb Whelan
L1622656-02A Vial-D	INTACT	27-JUL-16	CUSTODY	WALK-IN CUSTODY	Deb Whelan	WETCHEM	WETCHEM	Deb Whelan
L1622656-02A Vial-D	INTACT	25-JUL-16	CUSTODY	CUSTODY	Christina Mazza	WALK-IN CUSTODY	WALK-IN CUSTODY	Christina Mazza
L1622656-02A Vial-D	INTACT	25-JUL-16	LOGIN	LOGIN	Brett Read	CUSTODY	CUSTODY	Brett Read
L1622656-02B Vial-D	INTACT	28-JUL-16	CUSTODY	WETCHEM	Deb Whelan	WALK-IN CUSTODY	WALK-IN CUSTODY	Deb Whelan
L1622656-02B Vial-D	INTACT	27-JUL-16	CUSTODY	WALK-IN CUSTODY	Deb Whelan	WETCHEM	WETCHEM	Deb Whelan
L1622656-02B Vial-D	INTACT	25-JUL-16	CUSTODY	CUSTODY	Christina Mazza	WALK-IN CUSTODY	WALK-IN CUSTODY	Christina Mazza
L1622656-02B Vial-D	INTACT	25-JUL-16	LOGIN	LOGIN	Brett Read	CUSTODY	CUSTODY	Brett Read
L1622656-02C Plastic-Al	EMPTY	25-JUL-16	CUSTODY	WETCHEM	Samantha Garner	CUSTODY	CUSTODY	Samantha Garner
L1622656-02C Plastic-Al	INTACT	25-JUL-16	CUSTODY	CUSTODY	Samantha Garner	WETCHEM	WETCHEM	Samantha Garner
L1622656-02C Plastic-Al	INTACT	25-JUL-16	LOGIN	LOGIN	Brett Read	CUSTODY	CUSTODY	Brett Read
L1622656-03A Vial-D	INTACT	28-JUL-16	CUSTODY	WETCHEM	Deb Whelan	WALK-IN CUSTODY	WALK-IN CUSTODY	Deb Whelan
L1622656-03A Vial-D	INTACT	27-JUL-16	CUSTODY	WALK-IN CUSTODY	Deb Whelan	WETCHEM	WETCHEM	Deb Whelan
L1622656-03A Vial-D	INTACT	25-JUL-16	CUSTODY	CUSTODY	Christina Mazza	WALK-IN CUSTODY	WALK-IN CUSTODY	Christina Mazza

Container ID	Type	Status	Transaction Date	From Response	Location	To Operator	Response	Location	Operator
L1622656-03A	Vial-D	INTACT	25-JUL-16	LOGIN	LOGIN	Brett Read	CUSTODY	CUSTODY	Brett Read
L1622656-03B	Vial-D	INTACT	28-JUL-16	CUSTODY	WETCHEM	Deb Whelan	WALK-IN CUSTODY	WALK-IN CUSTODY	Deb Whelan
L1622656-03B	Vial-D	INTACT	27-JUL-16	CUSTODY	WALK-IN CUSTODY	Deb Whelan	WETCHEM	WETCHEM	Deb Whelan
L1622656-03B	Vial-D	INTACT	25-JUL-16	CUSTODY	CUSTODY	Christina Mazza	WALK-IN CUSTODY	WALK-IN CUSTODY	Christina Mazza
L1622656-03B	Vial-D	INTACT	25-JUL-16	LOGIN	LOGIN	Brett Read	CUSTODY	CUSTODY	Brett Read
L1622656-03C	Plastic-A1	EMPTY	25-JUL-16	CUSTODY	WETCHEM	Samantha Garner	CUSTODY	CUSTODY	Samantha Garner
L1622656-03C	Plastic-A1	INTACT	25-JUL-16	CUSTODY	CUSTODY	Samantha Garner	WETCHEM	WETCHEM	Samantha Garner
L1622656-03C	Plastic-A1	INTACT	25-JUL-16	LOGIN	LOGIN	Brett Read	CUSTODY	CUSTODY	Brett Read
L1622656-04A	Vial-D	INTACT	28-JUL-16	CUSTODY	WETCHEM	Deb Whelan	WALK-IN CUSTODY	WALK-IN CUSTODY	Deb Whelan
L1622656-04A	Vial-D	INTACT	27-JUL-16	CUSTODY	WALK-IN CUSTODY	Deb Whelan	WETCHEM	WETCHEM	Deb Whelan
L1622656-04A	Vial-D	INTACT	25-JUL-16	CUSTODY	CUSTODY	Christina Mazza	WALK-IN CUSTODY	WALK-IN CUSTODY	Christina Mazza
L1622656-04A	Vial-D	INTACT	25-JUL-16	LOGIN	LOGIN	Brett Read	CUSTODY	CUSTODY	Brett Read
L1622656-04B	Vial-D	INTACT	28-JUL-16	CUSTODY	WETCHEM	Deb Whelan	WALK-IN CUSTODY	WALK-IN CUSTODY	Deb Whelan
L1622656-04B	Vial-D	INTACT	27-JUL-16	CUSTODY	WALK-IN CUSTODY	Deb Whelan	WETCHEM	WETCHEM	Deb Whelan
L1622656-04B	Vial-D	INTACT	25-JUL-16	CUSTODY	CUSTODY	Christina Mazza	WALK-IN CUSTODY	WALK-IN CUSTODY	Christina Mazza
L1622656-04B	Vial-D	INTACT	25-JUL-16	LOGIN	LOGIN	Brett Read	CUSTODY	CUSTODY	Brett Read
L1622656-04C	Plastic-A1	EMPTY	25-JUL-16	CUSTODY	WETCHEM	Samantha Garner	CUSTODY	CUSTODY	Samantha Garner
L1622656-04C	Plastic-A1	INTACT	25-JUL-16	CUSTODY	CUSTODY	Samantha Garner	WETCHEM	WETCHEM	Samantha Garner
L1622656-04C	Plastic-A1	INTACT	25-JUL-16	LOGIN	LOGIN	Brett Read	CUSTODY	CUSTODY	Brett Read
L1622656-05A	Vial-D	INTACT	28-JUL-16	CUSTODY	WETCHEM	Deb Whelan	WALK-IN CUSTODY	WALK-IN CUSTODY	Deb Whelan
L1622656-05A	Vial-D	INTACT	27-JUL-16	CUSTODY	WALK-IN CUSTODY	Deb Whelan	WETCHEM	WETCHEM	Deb Whelan
L1622656-05A	Vial-D	INTACT	25-JUL-16	CUSTODY	CUSTODY	Christina Mazza	WALK-IN CUSTODY	WALK-IN CUSTODY	Christina Mazza
L1622656-05A	Vial-D	INTACT	25-JUL-16	LOGIN	LOGIN	Brett Read	CUSTODY	CUSTODY	Brett Read
L1622656-05B	Vial-D	INTACT	28-JUL-16	CUSTODY	WETCHEM	Deb Whelan	WALK-IN CUSTODY	WALK-IN CUSTODY	Deb Whelan
L1622656-05B	Vial-D	INTACT	27-JUL-16	CUSTODY	WALK-IN CUSTODY	Deb Whelan	WETCHEM	WETCHEM	Deb Whelan

Container ID Type	Status	Transaction Date	From Response	Location	To Operator	Response	Location	Operator
L1622656-05B Vial-D	INTACT	25-JUL-16	CUSTODY	CUSTODY	Christina Mazza	WALK-IN CUSTODY	WALK-IN CUSTODY	Christina Mazza
L1622656-05B Vial-D	INTACT	25-JUL-16	LOGIN	LOGIN	Brett Read	CUSTODY	CUSTODY	Brett Read
L1622656-05C Plastic-A1	EMPTY	25-JUL-16	CUSTODY	WETCHEM	Samantha Garner	CUSTODY	CUSTODY	Samantha Garner
L1622656-05C Plastic-A1	INTACT	25-JUL-16	CUSTODY	CUSTODY	Samantha Garner	WETCHEM	WETCHEM	Samantha Garner
L1622656-05C Plastic-A1	INTACT	25-JUL-16	LOGIN	LOGIN	Brett Read	CUSTODY	CUSTODY	Brett Read
L1622656-06A Vial-D	INTACT	28-JUL-16	CUSTODY	WETCHEM	Deb Whelan	WALK-IN CUSTODY	WALK-IN CUSTODY	Deb Whelan
L1622656-06A Vial-D	INTACT	27-JUL-16	CUSTODY	WALK-IN CUSTODY	Deb Whelan	WETCHEM	WETCHEM	Deb Whelan
L1622656-06A Vial-D	INTACT	25-JUL-16	CUSTODY	CUSTODY	Christina Mazza	WALK-IN CUSTODY	WALK-IN CUSTODY	Christina Mazza
L1622656-06A Vial-D	INTACT	25-JUL-16	LOGIN	LOGIN	Brett Read	CUSTODY	CUSTODY	Brett Read
L1622656-06A1 Vial-D	INTACT	28-JUL-16	CUSTODY	WETCHEM	Deb Whelan	WALK-IN CUSTODY	WALK-IN CUSTODY	Deb Whelan
L1622656-06A1 Vial-D	INTACT	27-JUL-16	CUSTODY	WALK-IN CUSTODY	Deb Whelan	WETCHEM	WETCHEM	Deb Whelan
L1622656-06A1 Vial-D	INTACT	25-JUL-16	CUSTODY	CUSTODY	Christina Mazza	WALK-IN CUSTODY	WALK-IN CUSTODY	Christina Mazza
L1622656-06A1 Vial-D	INTACT	25-JUL-16	LOGIN	LOGIN	Brett Read	CUSTODY	CUSTODY	Brett Read
L1622656-06A2 Vial-D	INTACT	28-JUL-16	CUSTODY	WETCHEM	Deb Whelan	WALK-IN CUSTODY	WALK-IN CUSTODY	Deb Whelan
L1622656-06A2 Vial-D	INTACT	27-JUL-16	CUSTODY	WALK-IN CUSTODY	Deb Whelan	WETCHEM	WETCHEM	Deb Whelan
L1622656-06A2 Vial-D	INTACT	25-JUL-16	CUSTODY	CUSTODY	Christina Mazza	WALK-IN CUSTODY	WALK-IN CUSTODY	Christina Mazza
L1622656-06A2 Vial-D	INTACT	25-JUL-16	LOGIN	LOGIN	Brett Read	CUSTODY	CUSTODY	Brett Read
L1622656-06B Vial-D	INTACT	28-JUL-16	CUSTODY	WETCHEM	Deb Whelan	WALK-IN CUSTODY	WALK-IN CUSTODY	Deb Whelan
L1622656-06B Vial-D	INTACT	27-JUL-16	CUSTODY	WALK-IN CUSTODY	Deb Whelan	WETCHEM	WETCHEM	Deb Whelan
L1622656-06B Vial-D	INTACT	25-JUL-16	CUSTODY	CUSTODY	Christina Mazza	WALK-IN CUSTODY	WALK-IN CUSTODY	Christina Mazza
L1622656-06B Vial-D	INTACT	25-JUL-16	LOGIN	LOGIN	Brett Read	CUSTODY	CUSTODY	Brett Read
L1622656-06B1 Vial-D	INTACT	28-JUL-16	CUSTODY	WETCHEM	Deb Whelan	WALK-IN CUSTODY	WALK-IN CUSTODY	Deb Whelan
L1622656-06B1 Vial-D	INTACT	27-JUL-16	CUSTODY	WALK-IN CUSTODY	Deb Whelan	WETCHEM	WETCHEM	Deb Whelan
L1622656-06B1 Vial-D	INTACT	25-JUL-16	CUSTODY	CUSTODY	Christina Mazza	WALK-IN CUSTODY	WALK-IN CUSTODY	Christina Mazza
L1622656-06B1 Vial-D	INTACT	25-JUL-16	LOGIN	LOGIN	Brett Read	CUSTODY	CUSTODY	Brett Read

Container ID Type	Status	Transaction Date	From Response	Location	To Operator	Response	Location	Operator
L1622656-06B2 Vial-D	INTACT	28-JUL-16	CUSTODY	WETCHEM	Deb Whelan	WALK-IN CUSTODY	WALK-IN CUSTODY	Deb Whelan
L1622656-06B2 Vial-D	INTACT	27-JUL-16	CUSTODY	WALK-IN CUSTODY	Deb Whelan	WETCHEM	WETCHEM	Deb Whelan
L1622656-06B2 Vial-D	INTACT	25-JUL-16	CUSTODY	CUSTODY	Christina Mazza	WALK-IN CUSTODY	WALK-IN CUSTODY	Christina Mazza
L1622656-06B2 Vial-D	INTACT	25-JUL-16	LOGIN	LOGIN	Brett Read	CUSTODY	CUSTODY	Brett Read
L1622656-06C Plastic-A1	INTACT	25-JUL-16		RETURN WALK-IN CUSTODY	Fred Ababio	W7-S2-D CUSTODY	W7-S2-D CUSTODY	Fred Ababio
L1622656-06C Plastic-A1	INTACT	25-JUL-16	CUSTODY	WETCHEM	Samantha Garner	RETURN WALK-IN CUSTODY	RETURN WALK-IN CUSTODY	Samantha Garner
L1622656-06C Plastic-A1	INTACT	25-JUL-16	CUSTODY	CUSTODY	Samantha Garner	WETCHEM	WETCHEM	Samantha Garner
L1622656-06C Plastic-A1	INTACT	25-JUL-16	LOGIN	LOGIN	Brett Read	CUSTODY	CUSTODY	Brett Read
L1622656-06C1 Plastic-A1	EMPTY	25-JUL-16	CUSTODY	WETCHEM	Samantha Garner	CUSTODY	CUSTODY	Samantha Garner
L1622656-06C1 Plastic-A1	INTACT	25-JUL-16	CUSTODY	CUSTODY	Samantha Garner	WETCHEM	WETCHEM	Samantha Garner
L1622656-06C1 Plastic-A1	INTACT	25-JUL-16	LOGIN	LOGIN	Brett Read	CUSTODY	CUSTODY	Brett Read
L1622656-06C2 Plastic-A1	INTACT	25-JUL-16		RETURN WALK-IN CUSTODY	Fred Ababio	W7-S2-D CUSTODY	W7-S2-D CUSTODY	Fred Ababio
L1622656-06C2 Plastic-A1	INTACT	25-JUL-16	CUSTODY	WETCHEM	Samantha Garner	RETURN WALK-IN CUSTODY	RETURN WALK-IN CUSTODY	Samantha Garner
L1622656-06C2 Plastic-A1	INTACT	25-JUL-16	CUSTODY	CUSTODY	Samantha Garner	WETCHEM	WETCHEM	Samantha Garner
L1622656-06C2 Plastic-A1	INTACT	25-JUL-16	LOGIN	LOGIN	Brett Read	CUSTODY	CUSTODY	Brett Read
L1622656-07A Vial-D	INTACT	28-JUL-16	CUSTODY	WETCHEM	Deb Whelan	WALK-IN CUSTODY	WALK-IN CUSTODY	Deb Whelan
L1622656-07A Vial-D	INTACT	27-JUL-16	CUSTODY	WALK-IN CUSTODY	Deb Whelan	WETCHEM	WETCHEM	Deb Whelan
L1622656-07A Vial-D	INTACT	25-JUL-16	CUSTODY	CUSTODY	Christina Mazza	WALK-IN CUSTODY	WALK-IN CUSTODY	Christina Mazza
L1622656-07A Vial-D	INTACT	25-JUL-16	LOGIN	LOGIN	Brett Read	CUSTODY	CUSTODY	Brett Read
L1622656-07B Vial-D	INTACT	28-JUL-16	CUSTODY	WETCHEM	Deb Whelan	WALK-IN CUSTODY	WALK-IN CUSTODY	Deb Whelan
L1622656-07B Vial-D	INTACT	27-JUL-16	CUSTODY	WALK-IN CUSTODY	Deb Whelan	WETCHEM	WETCHEM	Deb Whelan
L1622656-07B Vial-D	INTACT	25-JUL-16	CUSTODY	CUSTODY	Christina Mazza	WALK-IN CUSTODY	WALK-IN CUSTODY	Christina Mazza
L1622656-07B Vial-D	INTACT	25-JUL-16	LOGIN	LOGIN	Brett Read	CUSTODY	CUSTODY	Brett Read
L1622656-07C Plastic-A1	EMPTY	25-JUL-16	CUSTODY	WETCHEM	Samantha Garner	CUSTODY	CUSTODY	Samantha Garner
L1622656-07C Plastic-A1	INTACT	25-JUL-16	CUSTODY	CUSTODY	Samantha Garner	WETCHEM	WETCHEM	Samantha Garner

Container ID Type	Status	Transaction Date	From Response	Location	To Operator	Response	Location	Operator
L1622656-07C Plastic-A1	INTACT	25-JUL-16	LOGIN	LOGIN	Brett Read	CUSTODY	CUSTODY	Brett Read
L1622656-08A Vial-D	INTACT	28-JUL-16	CUSTODY	WETCHEM	Deb Whelan	WALK-IN CUSTODY	WALK-IN CUSTODY	Deb Whelan
L1622656-08A Vial-D	INTACT	27-JUL-16	CUSTODY	WALK-IN CUSTODY	Deb Whelan	WETCHEM	WETCHEM	Deb Whelan
L1622656-08A Vial-D	INTACT	25-JUL-16	CUSTODY	CUSTODY	Christina Mazza	WALK-IN CUSTODY	WALK-IN CUSTODY	Christina Mazza
L1622656-08A Vial-D	INTACT	25-JUL-16	LOGIN	LOGIN	Brett Read	CUSTODY	CUSTODY	Brett Read
L1622656-08B Vial-D	INTACT	28-JUL-16	CUSTODY	WETCHEM	Deb Whelan	WALK-IN CUSTODY	WALK-IN CUSTODY	Deb Whelan
L1622656-08B Vial-D	INTACT	27-JUL-16	CUSTODY	WALK-IN CUSTODY	Deb Whelan	WETCHEM	WETCHEM	Deb Whelan
L1622656-08B Vial-D	INTACT	25-JUL-16	CUSTODY	CUSTODY	Christina Mazza	WALK-IN CUSTODY	WALK-IN CUSTODY	Christina Mazza
L1622656-08B Vial-D	INTACT	25-JUL-16	LOGIN	LOGIN	Brett Read	CUSTODY	CUSTODY	Brett Read
L1622656-08C Plastic-A1	EMPTY	25-JUL-16	CUSTODY	WETCHEM	Samantha Garner	CUSTODY	CUSTODY	Samantha Garner
L1622656-08C Plastic-A1	INTACT	25-JUL-16	CUSTODY	CUSTODY	Samantha Garner	WETCHEM	WETCHEM	Samantha Garner
L1622656-08C Plastic-A1	INTACT	25-JUL-16	LOGIN	LOGIN	Brett Read	CUSTODY	CUSTODY	Brett Read

Communications

Call Tracker Report

Call # 86042

Call #: 86042
Call Date: 07/21/16 15:14
Status: NEED
Date: 07/21/16 15:14
Operator: LPORTA
Type: Live

Contact: Denise King
Company: AMEC Foster Wheeler E & I, Inc.
Acct #: AMEC-ME
Project #: 3616166052
Client Proj: PENOBSCOT RIVER ESTUARY
Login #: L1622656

Call Details

King, Denise
2:02 PM (1 hour ago)

to me, Brad, Kendra, Julie
Hi Liz,

Yes please proceed with analysis.

Kendra,

Sounds like we need to ship with more ice or use the courier for future shipments.

Thanks,

Denise King
Senior Environmental Chemist, Environment & Infrastructure, Amec Foster Wheeler
T +1 978 392 5339
M +1 508 789 1738
Denise.king@amecfw.com--

From: Liz Porta [mailto:eporta@alphalab.com]
Sent: Thursday, July 21, 2016 1:24 PM
To: King, Denise <Denise.King@amec.com>
Subject: Penobscot Samples Rec'd 7/21

Hi Denise,

We received samples for TSS and DOC via FedEx today and the cooler temp was 10.2C.

Would you like us to proceed?

Thank you,
Liz Porta
Project Manager

Email: eporta@alphalab.com
Direct: 508-844-4124

Chain of Custody

Chain Of Custody/Analysis Request Form

L1622656

USDC - Penobscot River

Lab: Alpha

AMEC, Suite 200, 511 Congress
Street, Portland, ME

Tech Lead - Louise Venne
Work# 770-421-3461

Proj Chemist - Denise King
508-789-1738

AMEC Job Number = 3616166052

Samp #	Sample Date	Sample Time	Field Sample ID	QC Code	Qty Total	Qty Each	Bottle Size and Material	Preservative	Media Method	Fraction
1523	7/18/2016	7:45	OV-02_071816_SW_10		3					
				FS	1	1 L	Plastic	4 deg C	SW TSS (Mod 2450D)	T
				FS	2	40 mL	Glass Vial	H2SO4/4 deg C	SW DOC (SW846 9060)	T
1524	7/18/2016	16:30	WQ1b-c_071816_SW_10		3					
				FS	2	40 mL	Glass Vial	H2SO4/4 deg C	SW DOC (SW846 9060)	T
				FS	1	1 L	Plastic	4 deg C	SW TSS (Mod 2450D)	T
1525	7/18/2016	15:15	WQ2-c_071816_SW_10		3					
				FS	2	40 mL	Glass Vial	H2SO4/4 deg C	SW DOC (SW846 9060)	T
				FS	1	1 L	Plastic	4 deg C	SW TSS (Mod 2450D)	T
1526	7/18/2016	14:00	WQ3-L_071816_SW_10		3					
				FS	2	40 mL	Glass Vial	H2SO4/4 deg C	SW DOC (SW846 9060)	T
				FS	1	1 L	Plastic	4 deg C	SW TSS (Mod 2450D)	T
1527	7/18/2016	13:15	ES-15_071816_SW_10		3					
				FS	2	40 mL	Glass Vial	H2SO4/4 deg C	SW DOC (SW846 9060)	T
				FS	1	1 L	Plastic	4 deg C	SW TSS (Mod 2450D)	T

Wednesday, July 20, 2016

Page 1 of 2

L 1622656

Samp #	Sample Date	Sample Time	Field Sample ID	QC Code	Qty Total	Qty Each	Bottle Size and Material	Preservative	Media	Method	Fraction
1528	7/18/2016	12:00	WQ-ECH_071816_SW_10		3						
				FS	2	40 mL	Glass Vial	H2SO4/4 deg C	SW	DOC (SW846 9060)	T
				FS	1	1 L	Plastic	4 deg C	SW	TSS (Mod 2450D)	T
1529	7/18/2016	12:00	WQ-ECH_071816_SW_10_DUP		3						
				FD	1	1 L	Plastic	4 deg C	SW	TSS (Mod 2450D)	T
				FD	2	40 mL	Glass Vial	H2SO4/4 deg C	SW	DOC (SW846 9060)	T
1530	7/18/2016	12:00	WQ-ECH_071816_SW_10_MS		3						
				MS	1	1 L	Plastic	4 deg C	SW	TSS (Mod 2450D)	T
				MS	2	40 mL	Glass Vial	H2SO4/4 deg C	SW	DOC (SW846 9060)	T
1531	7/18/2016	12:00	WQ-ECH_071816_SW_10_MD		3						
				MSD	2	40 mL	Glass Vial	H2SO4/4 deg C	SW	DOC (SW846 9060)	T
				MSD	1	1 L	Plastic	4 deg C	SW	TSS (Mod 2450D)	T
1532	7/18/2016	11:00	WQ-FPT_071816_SW_10		3						
				FS	1	1 L	Plastic	4 deg C	SW	TSS (Mod 2450D)	T
				FS	2	40 mL	Glass Vial	H2SO4/4 deg C	SW	DOC (SW846 9060)	T

EXTRA VOLUME FOR MATRIX SPIKE

EXTRA VOLUME FOR MATRIX SPIKE DUP

QC Codes: FS = Field Sample, EB = Equipment Rinsate Blank, MS - Matrix Spike, MSD = Matrix Spike Duplicate

Relinquished: Juli Palocz Date: 7 / 20 / 2016 Time: 1724

Received: [Signature] AM Date: 7 / 21 / 16 Time: 11:30

AIRBILL#: 8094 0561 9691

Wet Chemistry



Total Suspended Solids Analysis

Sample Raw Data

ALPHA ANALYTICAL LABS
WET CHEMISTRY DEPARTMENT
 TOTAL SUSPENDED SOLIDS

Last Change 3/4/13
 File tss.xlt

2540D (PPB)

2540D

Get Samples

Save to LIMS

METHODS

Sample Number: Oven C Product: TSS-2540
 In104 16:05 Analyte: Solids, Total Suspended
 Client: Out 22:52 Analysis Date: 7/25/2016 15:05
 In 23:45 Technician: SG
 Analysis: T S S Out 0:48 7/26 Work group: WG916634
 Method: SM 2540D In 1:52 RDL: 5.0 mg/l
 Out 2:57

2

Sample Number	Symbol	Tare Weight (gm)	Sample Volume (ml)	Net Weight(1) (gm)	Net Weight(2) (gm)	Net Weight(3) (gm)	Net Weight(4) (gm)	RDL MULT.	RESULT mg/l
BLANK	WG916634-1	55	0.4265	1000	0.4242	0.4242			0.00
DUP	WG916634-2	56	0.433	1000	0.4421	0.4419			8.90
SAMP	L1622656-01	57	0.4348	1070	0.4349	0.4347			0.00
SAMP	L1622656-02	58	0.4338	1060	0.4453	0.4450			10.57
SAMP	L1622656-03	59	0.4298	1100	0.4499	0.4495			17.91
SAMP	L1622656-04	60	0.4343	1110	0.4494	0.4493			13.51
SAMP	L1622656-05	127	0.425	1110	0.4347	0.4347			8.74
SAMP	L1622656-06	129	0.431	1000	0.4402	0.4402			9.20
SAMP	L1622656-07	130	0.4343	1110	0.4451	0.4448			9.46
SAMP	L1622656-08	131	0.4264	1140	0.4347	0.4346			7.19
SAMP	L1622828-01	145	0.4339	400	0.4511	0.4516		2	43.00
			DUP-TARE:	0.44190	0.43300	0.00890			20140.30
			Sample-TARE:	0.44020	0.43100	0.00920			20899.59
			DUP weight (g) on the filter:			0.00890			
			Sample weight (g) on the filter:			0.00920			
			Ave weight (g) on the filter:			0.00905			
			DUP%:			98.3			
			Sample%:			101.7			

Work Group

ALPHA ANALYTICAL LABORATORIES, INC.

Alpha WORK GROUP REPORT (wk02)

Jul 28 2016, 01:44 pm

Work Group: WG916634 for Department: 7 Wet Chemistry

Created: 25-JUL-16 Due: Operator: SG

Sample	Client ID	C Product	Matrix	Stat	UA	HOLD	DUE	PR	Location
L1622656-01	OV-02_071816_SW_10	S TSS-2540	WATER	DONE	U	0725	0728	S0	Plastic-A1
L1622656-02	WQ1B-C_071816_SW_10	S TSS-2540	WATER	DONE	U	0725	0728	S0	Plastic-A1
L1622656-03	WQ2-C_071816_SW_10	S TSS-2540	WATER	DONE	U	0725	0728	S0	Plastic-A1
L1622656-04	WQ3-L_071816_SW_10	S TSS-2540	WATER	DONE	U	0725	0728	S0	Plastic-A1
L1622656-05	ES-15_071816_SW_10	S TSS-2540	WATER	DONE	U	0725	0728	S0	Plastic-A1
L1622656-06	WQ-ECH_071816_SW_10	S TSS-2540	WATER	DONE	U	0725	0728	S0	Plastic-A1
L1622656-07	WQ-ECH_071816_SW_10	S TSS-2540	WATER	DONE	U	0725	0728	S0	Plastic-A1
L1622656-08	WQ-FPT_071816_SW_10	S TSS-2540	WATER	DONE	U	0725	0728	S0	Plastic-A1
L1622828-01	INFLUENT	S TSS-2540	WATER	DONE	U	0729	0729	S0	Plastic-A1
WG916634-1	Laboratory Method Bl	S TSS-2540	WATER	DONE	U				
WG916634-2	Duplicate Sample	S TSS-2540	WATER	DONE	U				

Comments:

WG916634-2 L1622656-06

Organic Carbon Analysis

Sequence Logs

DATE: WED 072716	STOCK STDS ID INFO:	WORKING STDS ID INFO:
ANALYST: [Signature]	LOT #'s:	LOT #'s:
CURVE INFO:	2000 PPM CURVE SLN: TDC-050916-C	2 PPM ICV: TDC-072716-ICV
CURVE IN USE: 050916 TDC-3	2000 PPM ICV/LCS/SPK SLN: TDC-050916-W	2 PPM LCS: TDC-072716-LCS
	4000 PPM IC CK STD SLN: TDC-060216-	4 PPM SPK: TDC-072716-SPK
	ICV	10 PPM IC CK STD: TDC-072716-IC

POSITION	SAMPLE	DIL X	PH	COMMENTS	POSITION	SAMPLE	DIL X	PH	COMMENTS
1	DI								
2	ICV STD 10ppm								
3	ICV 2ppm								
4	ICV								
5	ICV								
6	LCS 2ppm								
7	22656.1 DOC	1	2	DULS FF					
8	2	1	2						
9	3	2	2						
10	4	3	2						
11	5	5	2						
12	6	5	2						
13	7	5	2						
14	8	5	2						
15	ICV 2ppm								
16	ICV								
17	22656.3 DOC	1	2						
18	4	1	2						
19	5	1	2						
20	6	1	2						
21	7	1	2						
22	8	1	2						
28	ICV 2ppm								
29	ICV								

DATE: Thu 072816	STOCK STDS ID INFO:	WORKING STDS ID INFO:
ANALYST: JA	LOT #s:	LOT #s:
CURVE INFO:	2000 PPM CURVE SLN: TDC-050916-C	2 PPM ICV: TDC-072816-ICV
CURVE IN USE: 050916 TDC-3	2000 PPM ICV/LCS/SPK SLN: TDC-050916-W	2 PPM LCS: TDC-072816-LCS ICV
	4000 PPM IC CK STD SLN: TDC-060216-	4 PPM SPK: TDC-072816-SPK
	IC 400	10 PPM IC CK STD: TDC-072716-IC

POSITION	SAMPLE	DIL X	PH	COMMENTS	POSITION	SAMPLE	DIL X	PH	COMMENTS
1	DE								
2	EC LCS STD 10 ppm								
3	REV 2 ppm								
4	DE B								
5	MB								
6	LCS 2 ppm								
7	22656.6 dup	1	2	TDC QC for					
8	de spk	1	2	= 4 ppm 712716					
9	remun de spk	2	2	= 8 ppm					
10	ccv 2 ppm								
11	ccb								

Sample Raw Data

ALPHA ANALYTICAL LABS
BACTERIA DEPARTMENT
 DISSOLVED ORGANIC CARBON

Last Change 03/4/13 GFF File TOC/DOC.xlt

Sample Number: _____
 Client: _____
 Analysis: **DOC**
 TOC Instrument ID: 3
 Method: EPA-9060

Product: **DOC-9060**
 Analyte: **Dissolved Organic Carbon,**
 Analysis Date: 7/27/2016 6:57
 Technician: dw
 Work group: wg917343
 MDL: 1.0 mg/l
 Page Number:
 Preparation Date: 7/27/2016 6:57

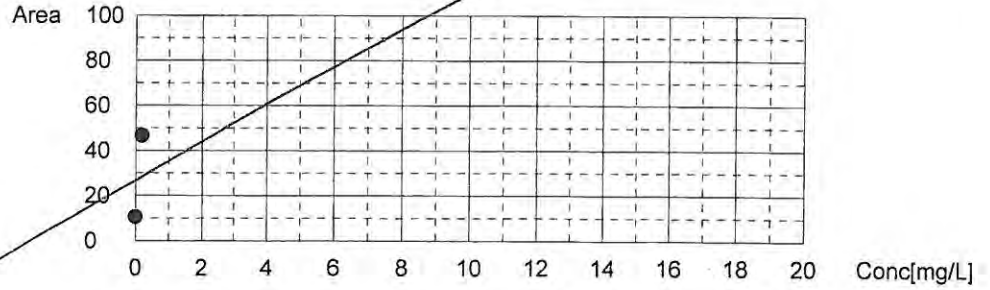
LCS Conc. (ppm):
 Spike Conc(ppm):

	Sample Number	COMMENTS	MDL Multiplier	RESULT mg/L	
DUP	WG917343-3		1	0.25	L1622656-06
SAMP	L1622656-01		1	5.78	
SAMP	L1622656-02		1	2.37	
SAMP	L1622656-03		1	0.76	
SAMP	L1622656-04		1	0.41	
SAMP	L1622656-05		1	0.24	
SAMP	L1622656-06		1	0.29	
SAMP	L1622656-07		1	0.24	
SAMP	L1622656-08		1	0.19	
BLANK	WG917343-1		1	0.00	

	Sample	Comments	Spike Result	Spike Conc	Spike Result	% Rec
MS	WG917343-4		0	8	2.31	29
LCS	WG917343-2			2	2.00	100

L16226

Slope: 7632
 Intercept: -548.4
 r²: 0.848361
 r: 0.921065
 Zero Shift: No



Cal. Curve

Sample Name: 05092016 toc-3 curve
 Sample ID:
 Cal. Curve: 05092016 toc-3.2016_05_09_09_55_51.cal
 Status: Completed

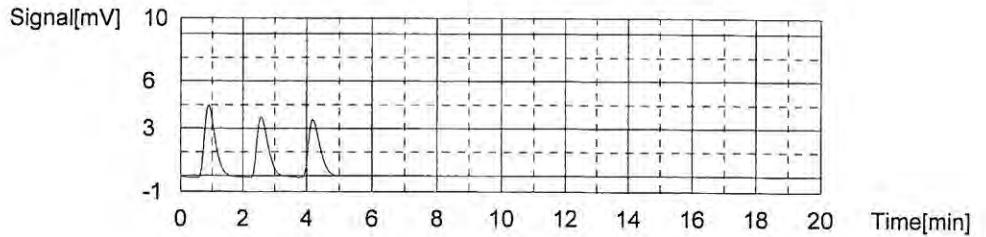
**TOC-3
 curve
 050916**

Type	Anal.
Standard	NPOC

Conc: 0.000mg/L

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	11.55	2500uL	1	*****	E	5/9/2016 10:04:29 AM
2	9.448	2500uL	1	*****		5/9/2016 10:09:05 AM
3	9.120	2500uL	1	*****		5/9/2016 10:13:42 AM

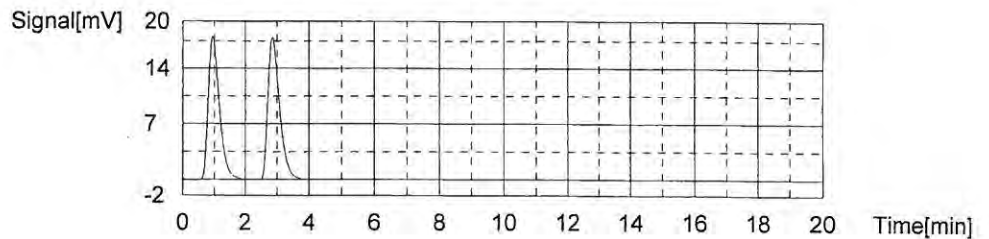
Acid Add. 3.000%
 Sp. Time 180.0sec
 Mean Area 9.284



Conc: 0.2000mg/L

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	46.87	2500uL	1	*****		5/9/2016 10:24:17 AM
2	46.35	2500uL	1	*****		5/9/2016 10:28:33 AM

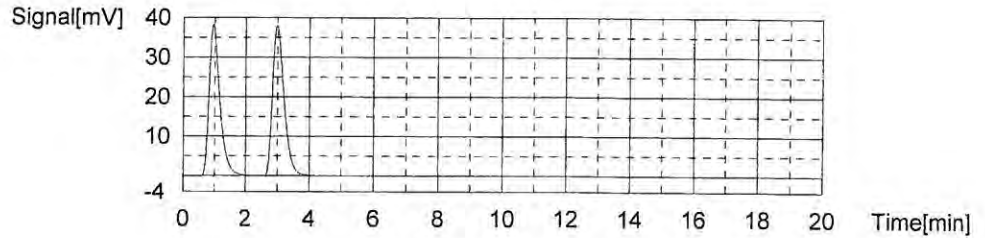
Acid Add. 3.000%
 Sp. Time 180.0sec
 Mean Area 46.61



Conc: 0.5000mg/L

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	98.92	2500uL	1	*****		5/9/2016 10:39:31 AM
2	96.85	2500uL	1	*****		5/9/2016 10:43:42 AM

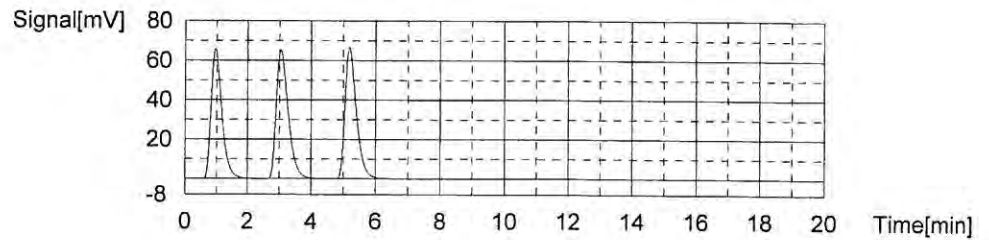
Acid Add. 3.000%
 Sp. Time 180.0sec
 Mean Area 97.89



Conc: 1.000mg/L

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	168.5	2500uL	1	*****		5/9/2016 10:54:43 AM
2	174.4	2500uL	1	*****	E	5/9/2016 10:59:04 AM
3	171.1	2500uL	1	*****		5/9/2016 11:03:17 AM

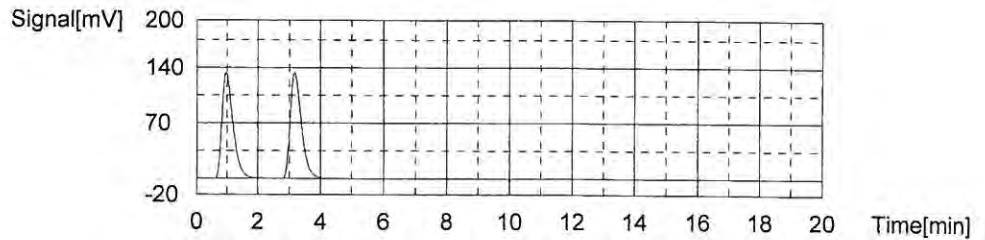
Acid Add. 3.000%
 Sp. Time 180.0sec
 Mean Area 169.8



Conc: 2.000mg/L

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	346.8	2500uL	1	*****		5/9/2016 11:14:09 AM
2	349.8	2500uL	1	*****		5/9/2016 11:18:27 AM

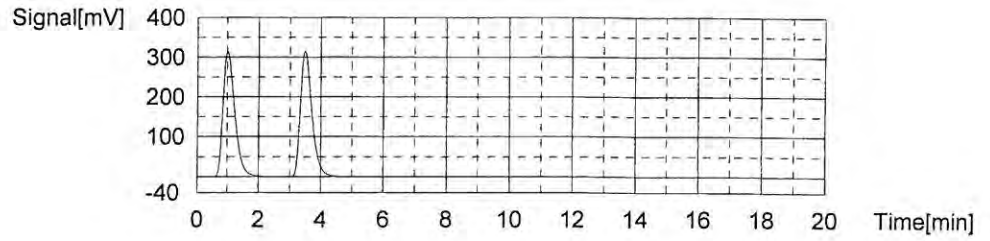
Acid Add. 3.000%
 Sp. Time 180.0sec
 Mean Area 348.3



Conc: 5.000mg/L

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	850.0	2500uL	1	*****		5/9/2016 11:29:52 AM
2	841.4	2500uL	1	*****		5/9/2016 11:34:29 AM

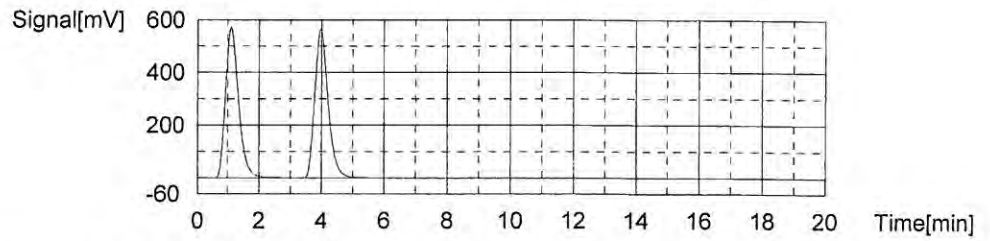
Acid Add. 3.000%
Sp. Time 180.0sec
Mean Area 845.7



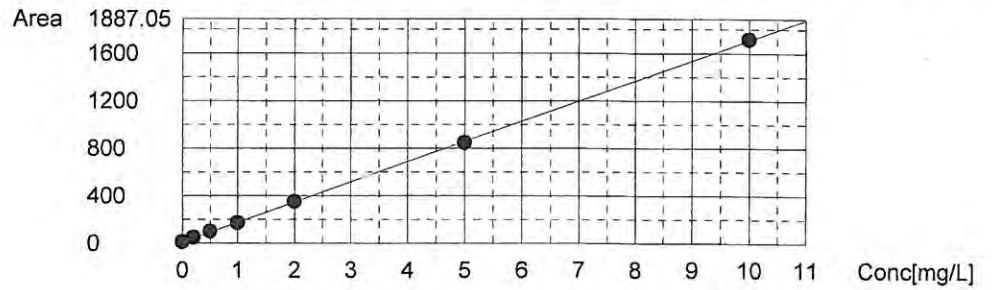
Conc: 10.00mg/L

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	1710	2500uL	1	*****		5/9/2016 11:46:16 AM
2	1721	2500uL	1	*****		5/9/2016 11:52:21 AM

Acid Add. 3.000%
Sp. Time 180.0sec
Mean Area 1716



Slope: 170.2
Intercept 7.247
r² 0.999863
r 0.999932
Zero Shift No



WED

Instr. Information

System TOC-VW
Detector Wet Chemical

Sample

Sample Name: di
Sample ID:
Origin: toc-3 4 reps method.met
Status Completed
Chk. Result

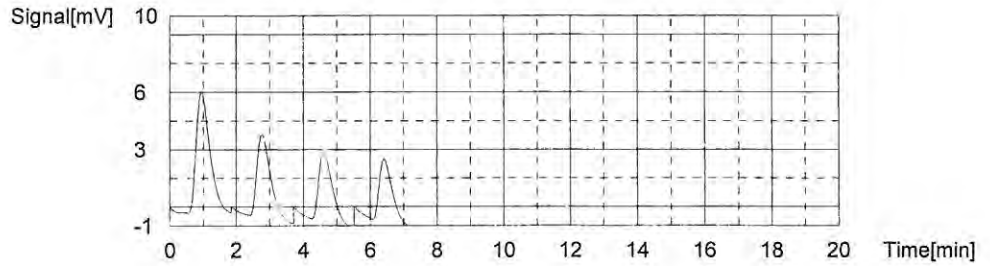
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:0.03147mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	18.50	0.06613mg/L	2500uL	1		05092016 toc-3.2016_05_09_09	7/27/2016 6:05:08 A
2	12.37	0.03010mg/L	2500uL	1		05092016 toc-3.2016_05_09_09	7/27/2016 6:10:22 A
3	10.43	0.01870mg/L	2500uL	1		05092016 toc-3.2016_05_09_09	7/27/2016 6:14:37 A
4	9.108	0.01094mg/L	2500uL	1		05092016 toc-3.2016_05_09_09	7/27/2016 6:19:33 A

Mean Area 12.60
Mean Conc. 0.03147mg/l



Sample

Sample Name: ic ck std 10ppm
Sample ID:
Origin: toc-3 4 reps method.met
Status Completed
Chk. Result

Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:0.08202mg/L

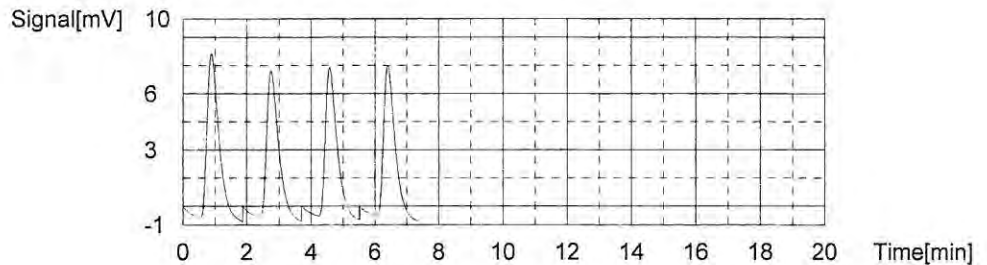


1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	23.24	0.09398mg/L	2500uL	1		05092016 toc-3.2016_05_09_09	7/27/2016 6:30:20 A
2	20.46	0.07764mg/L	2500uL	1		05092016 toc-3.2016_05_09_09	7/27/2016 6:35:35 A
3	20.39	0.07723mg/L	2500uL	1		05092016 toc-3.2016_05_09_09	7/27/2016 6:41:13 A
4	20.73	0.07923mg/L	2500uL	1		05092016 toc-3.2016_05_09_09	7/27/2016 6:46:26 A

Mean Area 21.21
 Mean Conc. 0.08202mg/l



Sample

Sample Name: icv 2ppm
 Sample ID:
 Origin: toc-3 4 reps method.met
 Status: Completed
 Chk. Result:

Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:1.983mg/L



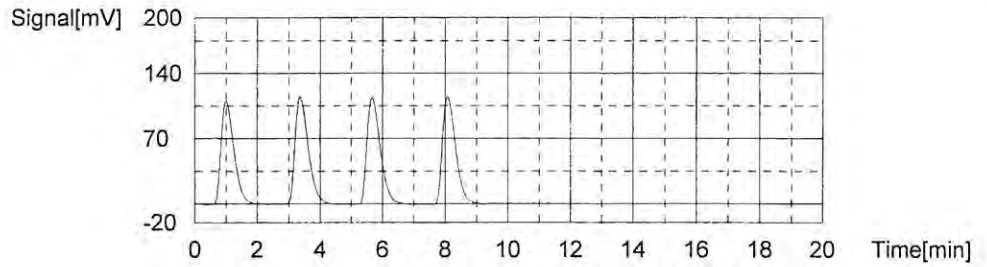
1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	333.9	1.919mg/L	2500uL	1		05092016 toc-3.2016_05_09_09	7/27/2016 6:57:48 A
2	349.1	2.009mg/L	2500uL	1		05092016 toc-3.2016_05_09_09	7/27/2016 7:02:12 A
3	349.5	2.011mg/L	2500uL	1		05092016 toc-3.2016_05_09_09	7/27/2016 7:06:56 A
4	346.5	1.994mg/L	2500uL	1		05092016 toc-3.2016_05_09_09	7/27/2016 7:11:46 A



Mean Area 344.8
Mean Conc. 1.983mg/L



Sample

Sample Name: icb
Sample ID:
Origin: toc-3 4 reps method.met
Status: Completed
Chk. Result

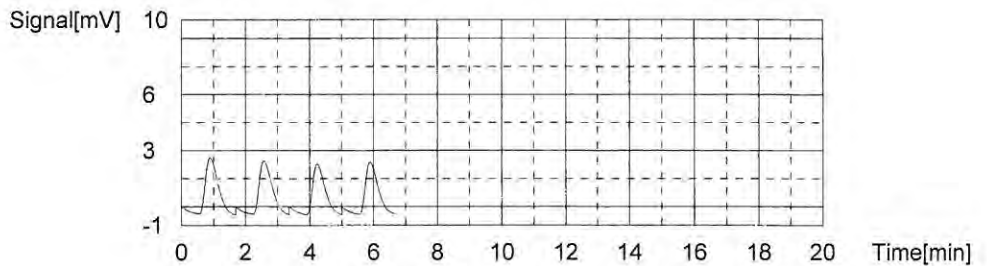
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:0.00343mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	8.359	0.00654mg/L	2500uL	1		05092016 toc-3.2016_05_09_09	7/27/2016 7:22:22 A
2	7.991	0.00437mg/L	2500uL	1		05092016 toc-3.2016_05_09_09	7/27/2016 7:26:59 A
3	7.350	0.00061mg/L	2500uL	1		05092016 toc-3.2016_05_09_09	7/27/2016 7:31:35 A
4	7.623	0.00221mg/L	2500uL	1		05092016 toc-3.2016_05_09_09	7/27/2016 7:36:09 A

Mean Area 7.831
Mean Conc. 0.00343mg/L



Sample

Sample Name: mb
 Sample ID:
 Origin: toc-3 4 reps method.met
 Status: Completed
 Chk. Result

Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:0.00121mg/L

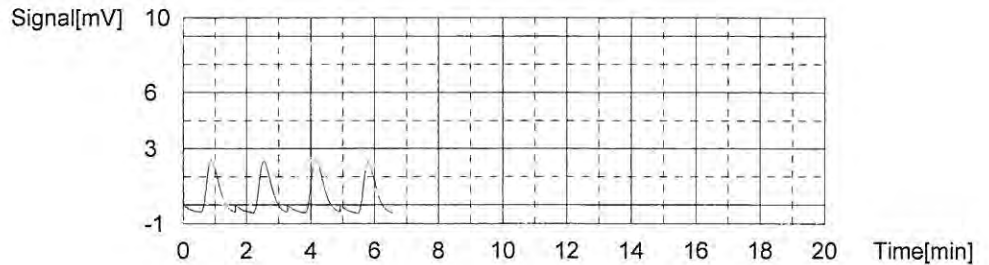
0

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	7.638	0.00230mg/L	2500uL	1		05092016 toc-3.2016_05_09_09	7/27/2016 7:46:44 A
2	7.277	0.00018mg/L	2500uL	1		05092016 toc-3.2016_05_09_09	7/27/2016 7:51:14 A
3	7.732	0.00285mg/L	2500uL	1		05092016 toc-3.2016_05_09_09	7/27/2016 7:55:48 A
4	7.167	0.00047mg/L	2500uL	1		05092016 toc-3.2016_05_09_09	7/27/2016 8:00:20 A

Mean Area 7.454
 Mean Conc. 0.00121mg/l



Sample

Sample Name: lcs 2ppm
 Sample ID:
 Origin: toc-3 4 reps method.met
 Status: Completed
 Chk. Result

Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:2.001mg/L

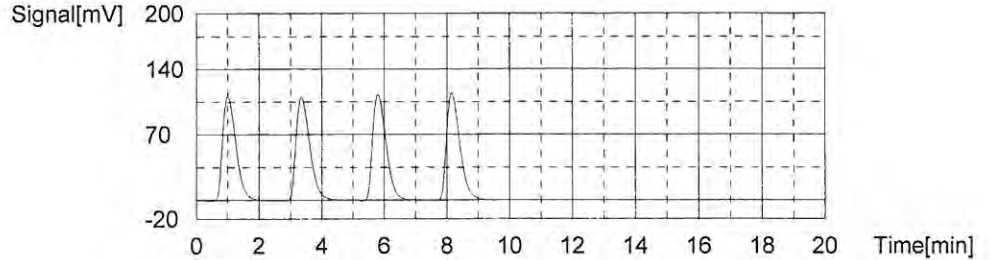
2.00

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	341.1	1.962mg/L	2500uL	1		05092016 toc-3.2016_05_09_09	7/27/2016 8:11:35 A
2	351.6	2.023mg/L	2500uL	1		05092016 toc-3.2016_05_09_09	7/27/2016 8:16:09 A
3	347.0	1.996mg/L	2500uL	1		05092016 toc-3.2016_05_09_09	7/27/2016 8:20:36 A
4	351.5	2.023mg/L	2500uL	1		05092016 toc-3.2016_05_09_09	7/27/2016 8:25:04 A

Mean Area 347.8
 Mean Conc. 2.001mg/L



Sample

Sample Name: 22656-01 doc
 Sample ID:
 Origin: toc-3 4 reps method.met
 Status: Completed
 Chk. Result

Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:5.782mg/L

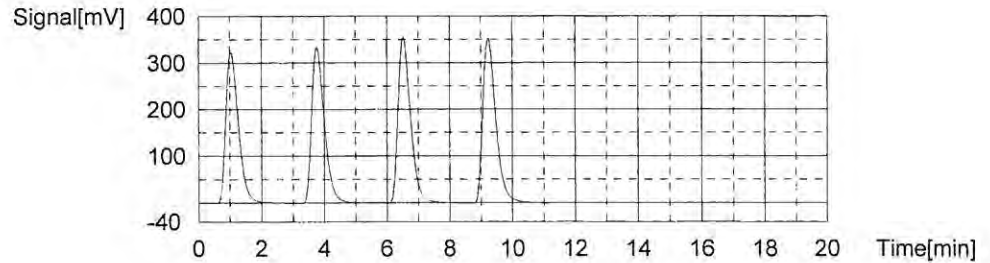
5.78

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	918.3	5.353mg/L	2500uL	1		05092016 toc-3.2016_05_09_09	7/27/2016 8:40:04 A
2	981.4	5.724mg/L	2500uL	1		05092016 toc-3.2016_05_09_09	7/27/2016 8:44:55 A
3	1013	5.910mg/L	2500uL	1		05092016 toc-3.2016_05_09_09	7/27/2016 8:49:43 A
4	1052	6.139mg/L	2500uL	1		05092016 toc-3.2016_05_09_09	7/27/2016 8:54:48 A

Mean Area 991.2
 Mean Conc. 5.782mg/L



Sample

Sample Name: 22656-02 doc
 Sample ID:
 Origin: toc-3 4 reps method.met
 Status: Completed
 Chk. Result

Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:2.666mg/L

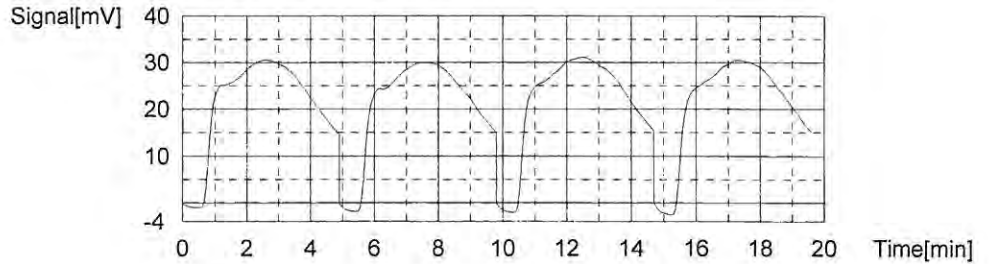
2.67

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	450.7	2.606mg/L	2500uL	1		05092016 toc-3.2016_05_09_09	7/27/2016 9:08:37 A
2	457.7	2.647mg/L	2500uL	1		05092016 toc-3.2016_05_09_09	7/27/2016 9:16:44 A
3	465.2	2.691mg/L	2500uL	1		05092016 toc-3.2016_05_09_09	7/27/2016 9:24:53 A
4	470.0	2.719mg/L	2500uL	1		05092016 toc-3.2016_05_09_09	7/27/2016 9:33:04 A

Mean Area 460.9
 Mean Conc. 2.666mg/L



Sample

Sample Name: 22656-03 2x doc
 Sample ID:
 Origin: toc-3 4 reps method.met
 Status: Completed
 Chk. Result

Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:0.4783mg/L

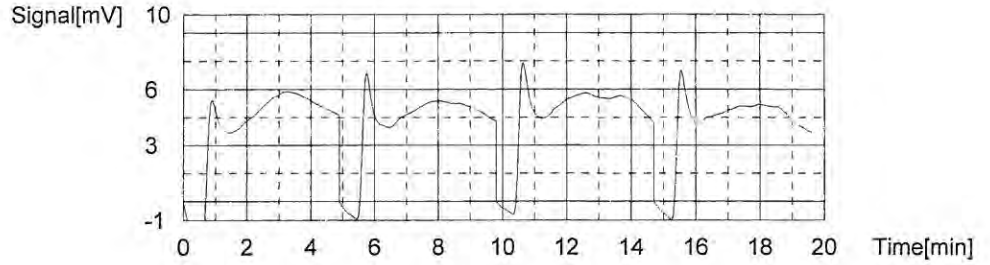
Report
 for
 03-08
 (B)

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	95.43	0.5182mg/L	2500uL	1		05092016 toc-3.2016_05_09_09	7/27/2016 9:46:52 A
2	82.02	0.4394mg/L	2500uL	1		05092016 toc-3.2016_05_09_09	7/27/2016 9:54:54 A
3	89.25	0.4819mg/L	2500uL	1		05092016 toc-3.2016_05_09_09	7/27/2016 10:01:54
4	87.88	0.4738mg/L	2500uL	1		05092016 toc-3.2016_05_09_09	7/27/2016 10:10:01

Mean Area 88.65
 Mean Conc. 0.4783mg/L



Sample

Sample Name: 22656-04 5x doc
 Sample ID:
 Origin: toc-3 4 reps method.met
 Status Completed
 Chk. Result

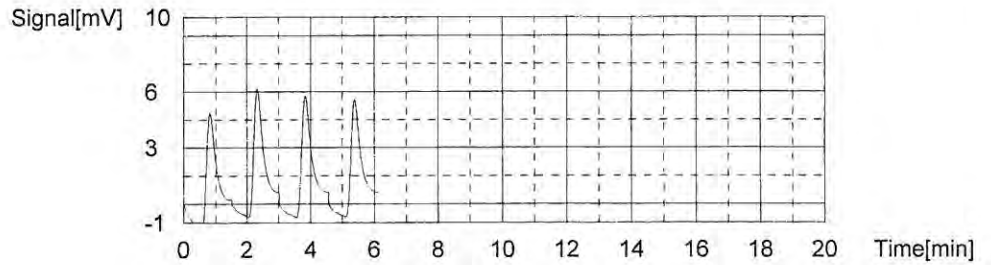
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:0.03226mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	12.63	0.03163mg/L	2500uL	1		05092016 toc-3.2016_05_09_09	7/27/2016 10:20:27
2	13.23	0.03516mg/L	2500uL	1		05092016 toc-3.2016_05_09_09	7/27/2016 10:25:12
3	12.84	0.03287mg/L	2500uL	1		05092016 toc-3.2016_05_09_09	7/27/2016 10:29:59
4	12.25	0.02940mg/L	2500uL	1		05092016 toc-3.2016_05_09_09	7/27/2016 10:34:44

Mean Area 12.74
Mean Conc. 0.03226mg/l



Sample

Sample Name: 22656-05 5x doc
Sample ID:
Origin: toc-3 4 reps method.met
Status: Completed
Chk. Result

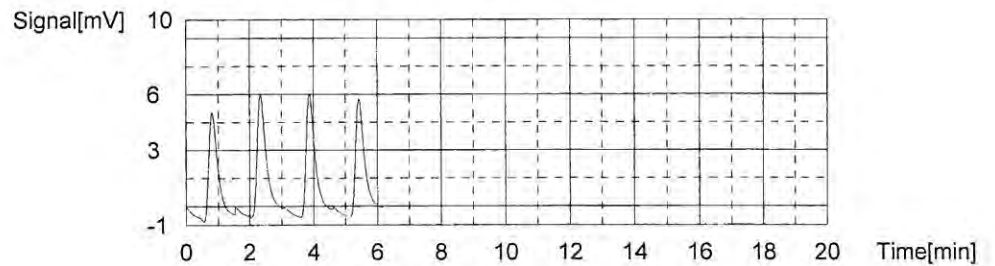
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:0.02897mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	11.23	0.02341mg/L	2500uL	1		05092016 toc-3.2016_05_09_09	7/27/2016 10:45:10
2	12.67	0.03187mg/L	2500uL	1		05092016 toc-3.2016_05_09_09	7/27/2016 10:49:57
3	12.76	0.03240mg/L	2500uL	1		05092016 toc-3.2016_05_09_09	7/27/2016 10:54:44
4	12.05	0.02822mg/L	2500uL	1		05092016 toc-3.2016_05_09_09	7/27/2016 10:59:26

Mean Area 12.18
Mean Conc. 0.02897mg/l



Sample

Sample Name: 22656-06 5x doc
 Sample ID:
 Origin: toc-3 4 reps method.met
 Status: Completed
 Chk. Result

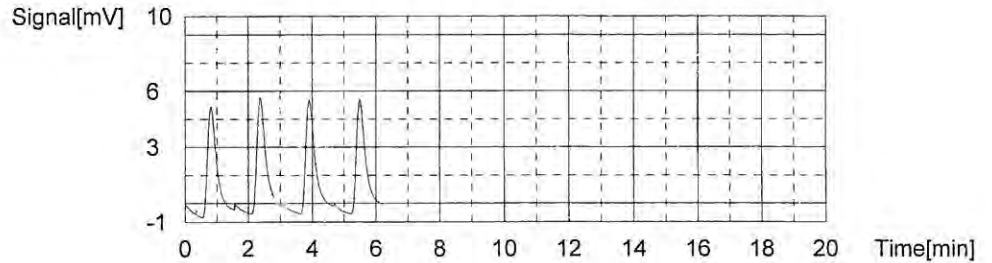
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:0.02724mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	11.74	0.02640mg/L	2500uL	1		05092016 toc-3.2016_05_09_09	7/27/2016 11:09:55
2	12.10	0.02852mg/L	2500uL	1		05092016 toc-3.2016_05_09_09	7/27/2016 11:14:39
3	11.98	0.02781mg/L	2500uL	1		05092016 toc-3.2016_05_09_09	7/27/2016 11:19:21
4	11.71	0.02623mg/L	2500uL	1		05092016 toc-3.2016_05_09_09	7/27/2016 11:24:00

Mean Area 11.88
 Mean Conc. 0.02724mg/l



Sample

Sample Name: 22656-07 5x doc
 Sample ID:
 Origin: toc-3 4 reps method.met
 Status: Completed
 Chk. Result

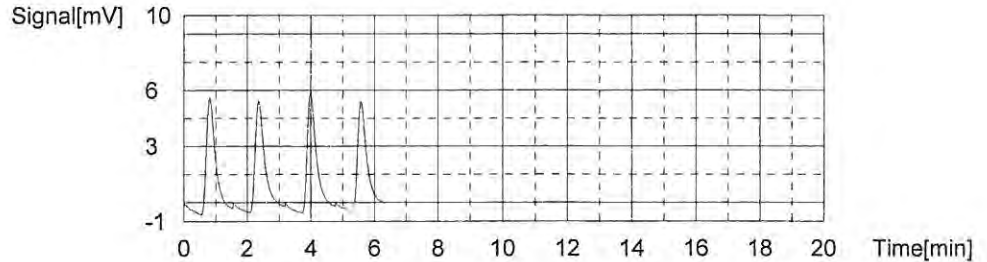
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:0.02881mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	12.23	0.02928mg/L	2500uL	1		05092016 toc-3.2016_05_09_09	7/27/2016 11:34:28
2	12.22	0.02922mg/L	2500uL	1		05092016 toc-3.2016_05_09_09	7/27/2016 11:39:20
3	12.71	0.03210mg/L	2500uL	1		05092016 toc-3.2016_05_09_09	7/27/2016 11:44:00
4	11.44	0.02464mg/L	2500uL	1		05092016 toc-3.2016_05_09_09	7/27/2016 11:48:37

Mean Area 12.15
 Mean Conc. 0.02881mg/L



Sample

Sample Name: 22656-08 5x doc
 Sample ID:
 Origin: toc-3 4 reps method.met
 Status Completed
 Chk. Result

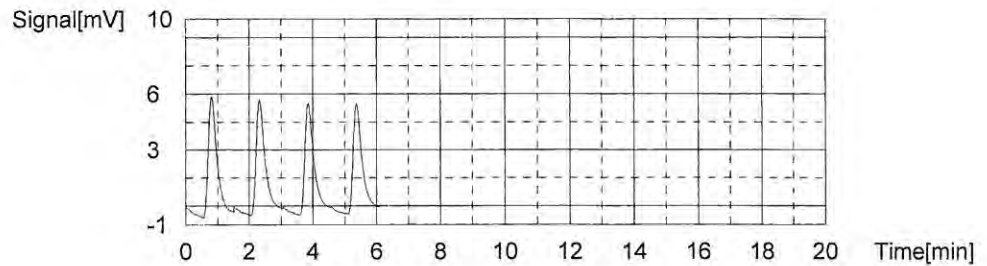
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:0.02674mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	12.26	0.02946mg/L	2500uL	1		05092016 toc-3.2016_05_09_09	7/27/2016 11:59:03
2	11.88	0.02723mg/L	2500uL	1		05092016 toc-3.2016_05_09_09	7/27/2016 12:03:42
3	11.68	0.02605mg/L	2500uL	1		05092016 toc-3.2016_05_09_09	7/27/2016 12:08:20
4	11.37	0.02423mg/L	2500uL	1		05092016 toc-3.2016_05_09_09	7/27/2016 12:12:57

Mean Area 11.80
 Mean Conc. 0.02674mg/L



Sample

Sample Name: ccv 2ppm
 Sample ID:
 Origin: toc-3 4 reps method.met
 Status: Completed
 Chk. Result

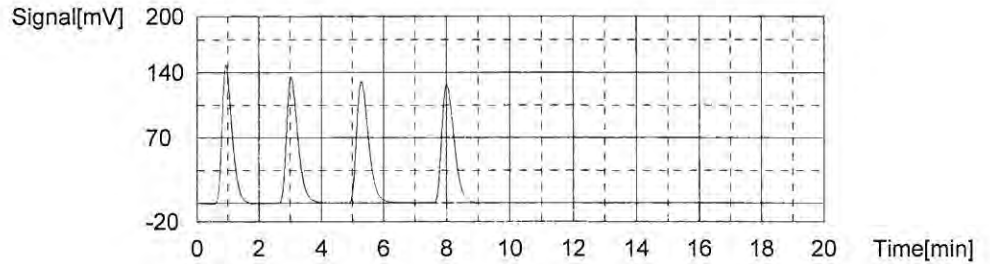
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:2.042mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	351.9	2.025mg/L	2500uL	1		05092016 toc-3.2016_05_09_09	7/27/2016 12:31:05
2	355.4	2.046mg/L	2500uL	1		05092016 toc-3.2016_05_09_09	7/27/2016 12:36:29
3	359.0	2.067mg/L	2500uL	1		05092016 toc-3.2016_05_09_09	7/27/2016 12:41:18
4	353.0	2.032mg/L	2500uL	1		05092016 toc-3.2016_05_09_09	7/27/2016 12:45:38

Mean Area 354.8
 Mean Conc. 2.042mg/L



Sample

Sample Name: ccb
 Sample ID:
 Origin: toc-3 4 reps method.met
 Status: Completed
 Chk. Result

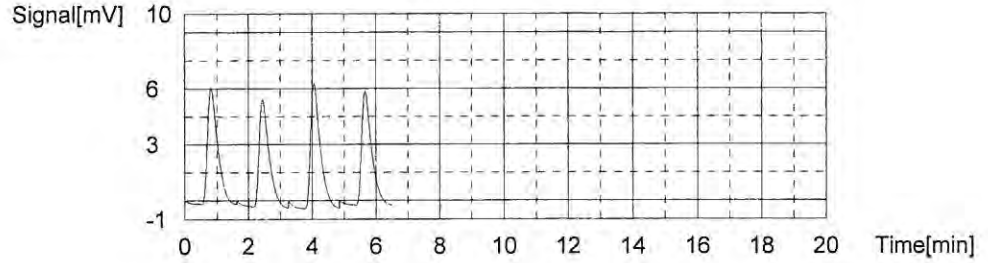
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:0.03658mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	13.87	0.03892mg/L	2500uL	1		05092016 toc-3.2016_05_09_09	7/27/2016 12:56:11
2	12.47	0.03069mg/L	2500uL	1		05092016 toc-3.2016_05_09_09	7/27/2016 1:00:47 P
3	14.35	0.04174mg/L	2500uL	1		05092016 toc-3.2016_05_09_09	7/27/2016 1:05:20 P
4	13.20	0.03498mg/L	2500uL	1		05092016 toc-3.2016_05_09_09	7/27/2016 1:09:54 P

Mean Area 13.47
 Mean Conc. 0.03658mg/l



Sample

Sample Name: 22656-03 1x doc
 Sample ID:
 Origin: toc-3 4 reps method.met
 Status: Completed
 Chk. Result

Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:0.7600mg/L

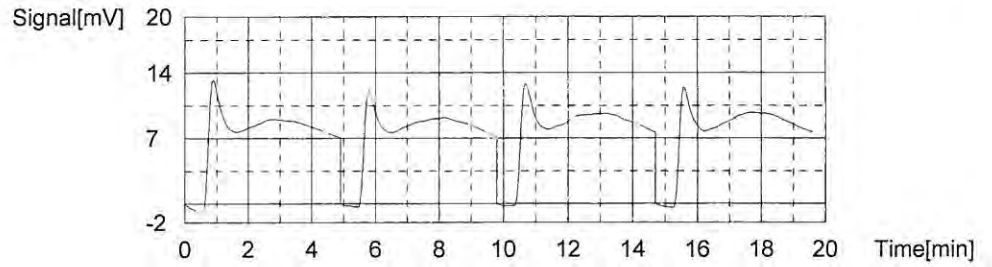
0.76

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	141.8	0.7907mg/L	2500uL	1		05092016 toc-3.2016_05_09_09	7/27/2016 1:23:44 P
2	132.5	0.7360mg/L	2500uL	1		05092016 toc-3.2016_05_09_09	7/27/2016 1:31:47 P
3	135.1	0.7513mg/L	2500uL	1		05092016 toc-3.2016_05_09_09	7/27/2016 1:38:47 P
4	136.9	0.7619mg/L	2500uL	1		05092016 toc-3.2016_05_09_09	7/27/2016 1:47:02 P

Mean Area 136.6
Mean Conc. 0.7600mg/L



Sample

Sample Name: 22656-04 1x
Sample ID:
Origin: toc-3 4 reps method.met
Status: Completed
Chk. Result

Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:0.4132mg/L

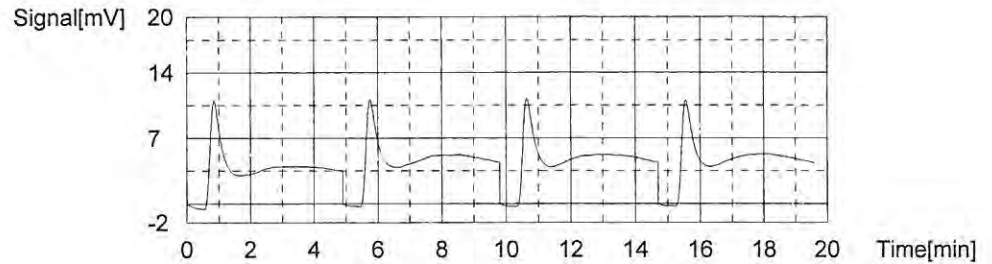
0.41

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	69.12	0.3636mg/L	2500uL	1		05092016 toc-3.2016_05_09_09	7/27/2016 2:00:51 P
2	79.27	0.4232mg/L	2500uL	1		05092016 toc-3.2016_05_09_09	7/27/2016 2:07:51 P
3	81.12	0.4341mg/L	2500uL	1		05092016 toc-3.2016_05_09_09	7/27/2016 2:14:51 P
4	80.78	0.4321mg/L	2500uL	1		05092016 toc-3.2016_05_09_09	7/27/2016 2:21:51 P

Mean Area 77.57
Mean Conc. 0.4132mg/L



Sample

Sample Name: 22656-05 1x
 Sample ID:
 Origin: toc-3 4 reps method.met
 Status: Completed
 Chk. Result

Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:0.2374mg/L

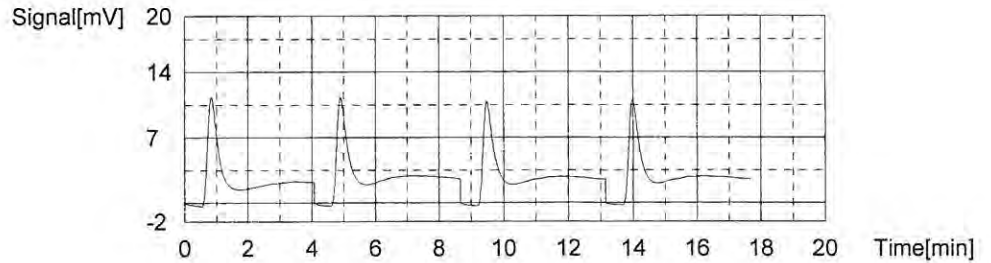
0.24

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	39.21	0.1878mg/L	2500uL	1		05092016 toc-3.2016_05_09_09	7/27/2016 2:36:29 P
2	51.73	0.2614mg/L	2500uL	1		05092016 toc-3.2016_05_09_09	7/27/2016 2:43:10 P
3	49.32	0.2472mg/L	2500uL	1		05092016 toc-3.2016_05_09_09	7/27/2016 2:49:46 P
4	50.35	0.2533mg/L	2500uL	1		05092016 toc-3.2016_05_09_09	7/27/2016 2:56:23 P

Mean Area 47.65
 Mean Conc. 0.2374mg/L



Sample

Sample Name: 22656-06 1x
 Sample ID:
 Origin: toc-3 4 reps method.met
 Status: Completed
 Chk. Result

Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:0.2923mg/L

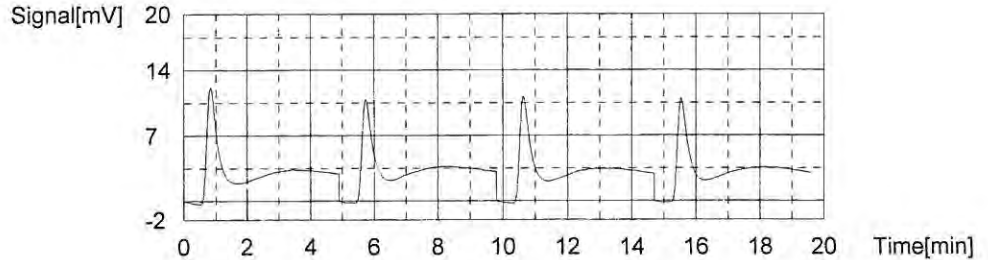
0.24

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	56.07	0.2869mg/L	2500uL	1		05092016 toc-3.2016_05_09_09	7/27/2016 3:10:12 P
2	57.37	0.2945mg/L	2500uL	1		05092016 toc-3.2016_05_09_09	7/27/2016 3:17:12 P
3	56.98	0.2922mg/L	2500uL	1		05092016 toc-3.2016_05_09_09	7/27/2016 3:24:12 P
4	57.53	0.2955mg/L	2500uL	1		05092016 toc-3.2016_05_09_09	7/27/2016 3:31:12 P

Mean Area 56.99
 Mean Conc. 0.2923mg/L



Sample

Sample Name: 22656-07 1x
 Sample ID:
 Origin: toc-3 4 reps method.met
 Status: Completed
 Chk. Result

Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:0.2378mg/L

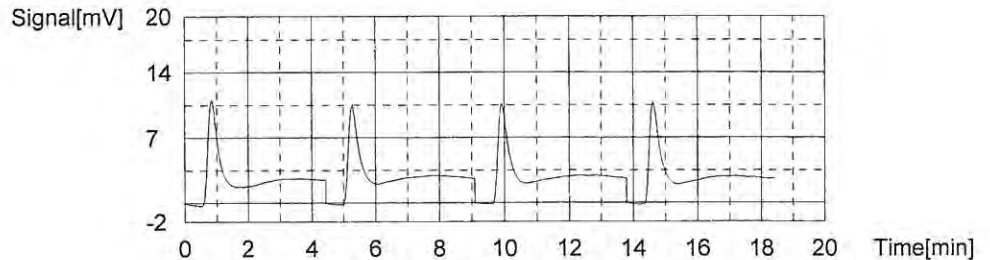
024

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	44.24	0.2174mg/L	2500uL	1		05092016 toc-3.2016_05_09_09	7/27/2016 3:44:33 P
2	48.75	0.2439mg/L	2500uL	1		05092016 toc-3.2016_05_09_09	7/27/2016 3:51:18 P
3	49.55	0.2486mg/L	2500uL	1		05092016 toc-3.2016_05_09_09	7/27/2016 3:58:06 P
4	48.29	0.2412mg/L	2500uL	1		05092016 toc-3.2016_05_09_09	7/27/2016 4:04:50 P

Mean Area 47.71
 Mean Conc. 0.2378mg/L



Sample

Sample Name: 22656-08 1x
 Sample ID:
 Origin: toc-3 4 reps method.met
 Status: Completed
 Chk. Result

Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:0.1921mg/L

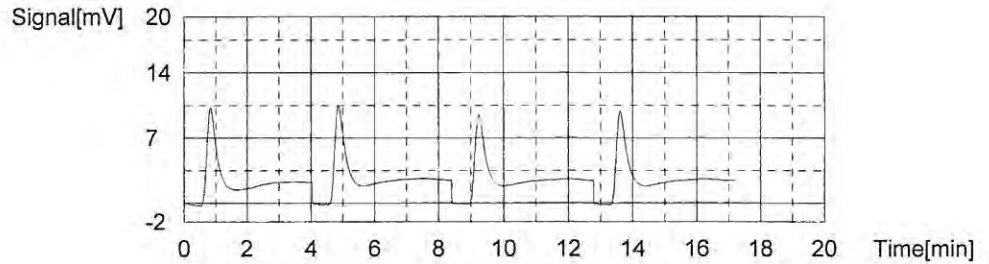
2.19

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	35.85	0.1681mg/L	2500uL	1		05092016 toc-3.2016_05_09_09	7/27/2016 4:17:47 P
2	42.78	0.2088mg/L	2500uL	1		05092016 toc-3.2016_05_09_09	7/27/2016 4:24:15 P
3	39.89	0.1918mg/L	2500uL	1		05092016 toc-3.2016_05_09_09	7/27/2016 4:30:44 P
4	41.20	0.1995mg/L	2500uL	1		05092016 toc-3.2016_05_09_09	7/27/2016 4:37:14 P

Mean Area 39.93
 Mean Conc. 0.1921mg/L



Sample

Sample Name: ccv
 Sample ID:
 Origin: toc-3 4 reps method.met
 Status: Completed
 Chk. Result

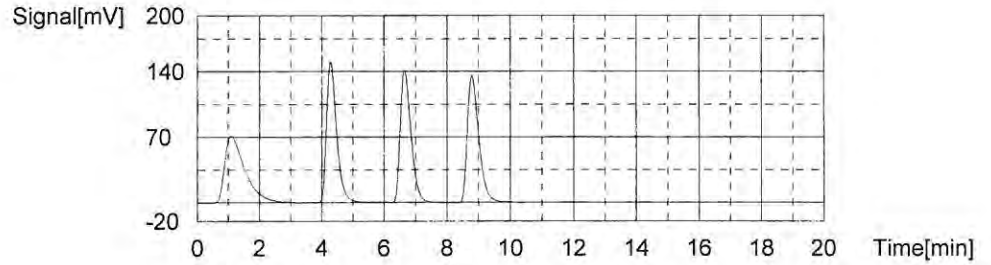
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:2.008mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	337.4	1.940mg/L	2500uL	1		05092016 toc-3.2016_05_09_09	7/27/2016 4:55:50 P
2	354.0	2.038mg/L	2500uL	1		05092016 toc-3.2016_05_09_09	7/27/2016 5:00:30 P
3	347.8	2.001mg/L	2500uL	1		05092016 toc-3.2016_05_09_09	7/27/2016 5:04:44 P
4	356.6	2.053mg/L	2500uL	1		05092016 toc-3.2016_05_09_09	7/27/2016 5:09:27 P

Mean Area 349.0
 Mean Conc. 2.008mg/L



Sample

Sample Name: ccb
 Sample ID:
 Origin: toc-3 4 reps method.met
 Status: Completed
 Chk. Result

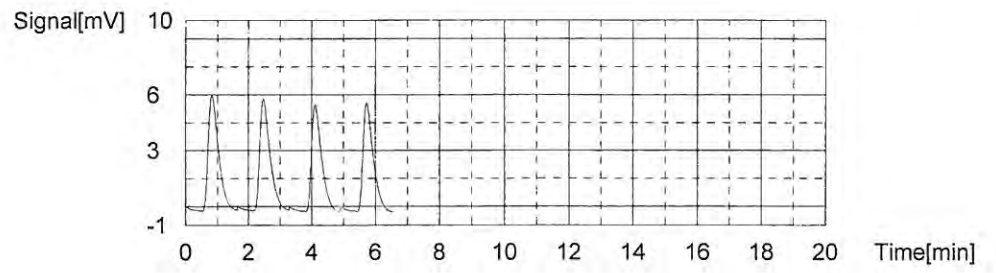
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:0.03729mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	14.39	0.04197mg/L	2500uL	1		05092016 toc-3.2016_05_09_09	7/27/2016 5:20:01 P
2	13.85	0.03880mg/L	2500uL	1		05092016 toc-3.2016_05_09_09	7/27/2016 5:24:39 P
3	12.84	0.03287mg/L	2500uL	1		05092016 toc-3.2016_05_09_09	7/27/2016 5:29:12 P
4	13.29	0.03551mg/L	2500uL	1		05092016 toc-3.2016_05_09_09	7/27/2016 5:33:44 P

Mean Area 13.59
Mean Conc. 0.03729mg/l



Handwritten signature/initials in a box.

Instr. Information

System: TOC-VW
Detector: Wet Chemical

Sample

Sample Name: di
Sample ID:
Origin: toc-3 4 reps method.met
Status: Completed
Chk. Result

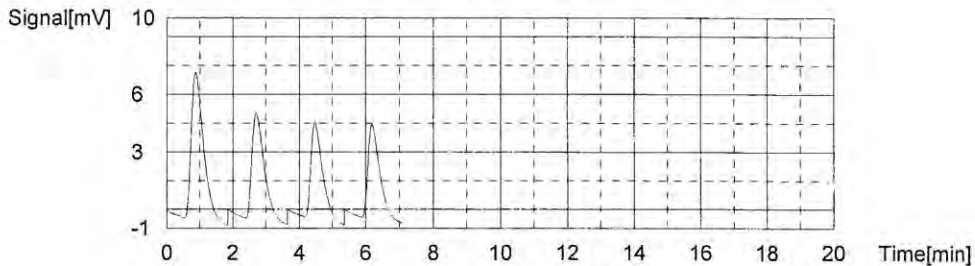
Table with 4 columns: Type, Anal., Dil., Result. Row 1: Unknown, NPOC, 1.000, NPOC:0.04610mg/L

1. Det

Anal.: NPOC

Table with 8 columns: No., Area, Conc., Inj. Vol., Aut. Dil., Ex., Cal. Curve, Date / Time. Contains 4 rows of data.

Mean Area: 15.09
Mean Conc.: 0.04610mg/l



Sample

Sample Name: ic ck std 10ppm
Sample ID:
Origin: toc-3 4 reps method.met
Status: Completed
Chk. Result

Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:0.1131mg/L

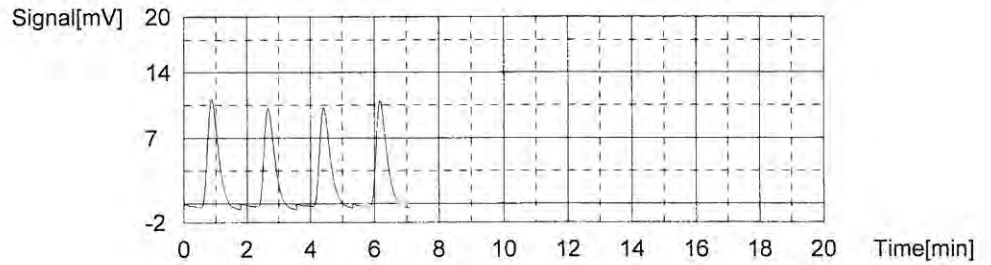


1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	28.43	0.1245mg/L	2500uL	1		05092016 toc-3.2016_05_09_09	7/28/2016 6:38:59 A
2	25.12	0.1050mg/L	2500uL	1		05092016 toc-3.2016_05_09_09	7/28/2016 6:44:05 A
3	25.52	0.1074mg/L	2500uL	1		05092016 toc-3.2016_05_09_09	7/28/2016 6:49:25 A
4	26.91	0.1155mg/L	2500uL	1		05092016 toc-3.2016_05_09_09	7/28/2016 6:54:22 A

Mean Area 26.49
 Mean Conc. 0.1131mg/L



Sample

Sample Name: icv 2ppm
 Sample ID:
 Origin: toc-3 4 reps method.met
 Status: Completed
 Chk. Result

Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:2.056mg/L

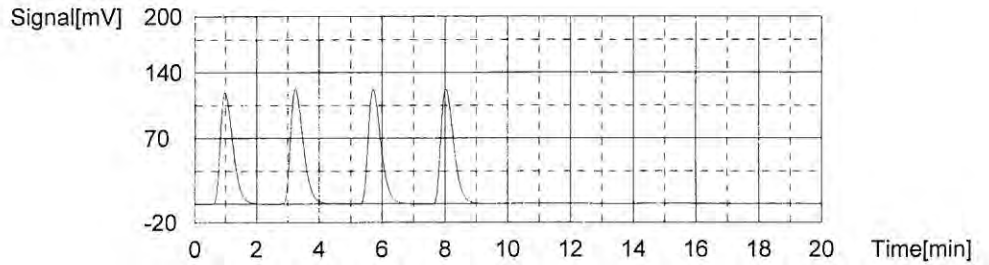


1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	352.8	2.031mg/L	2500uL	1		05092016 toc-3.2016_05_09_09	7/28/2016 7:05:33 A
2	359.8	2.072mg/L	2500uL	1		05092016 toc-3.2016_05_09_09	7/28/2016 7:10:07 A
3	358.0	2.061mg/L	2500uL	1		05092016 toc-3.2016_05_09_09	7/28/2016 7:14:32 A
4	357.7	2.059mg/L	2500uL	1		05092016 toc-3.2016_05_09_09	7/28/2016 7:18:57 A

Mean Area 357.1
Mean Conc. 2.056mg/L



Sample

Sample Name: icb
Sample ID:
Origin: toc-3 4 reps method.met
Status Completed
Chk. Result

Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:0.02524mg/L

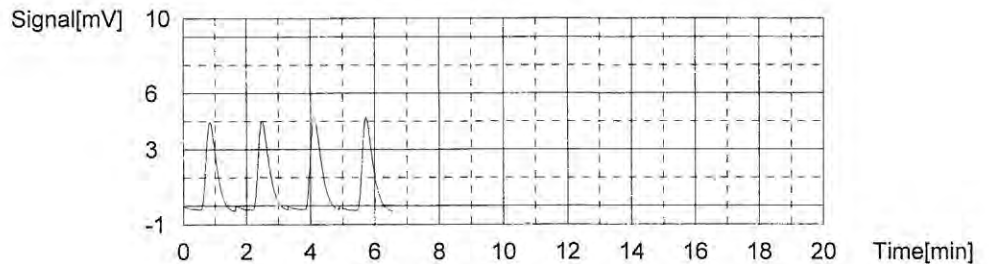


1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	11.24	0.02346mg/L	2500uL	1		05092016 toc-3.2016_05_09_09	7/28/2016 7:29:31 A
2	11.51	0.02505mg/L	2500uL	1		05092016 toc-3.2016_05_09_09	7/28/2016 7:34:04 A
3	11.79	0.02670mg/L	2500uL	1		05092016 toc-3.2016_05_09_09	7/28/2016 7:38:37 A
4	11.63	0.02576mg/L	2500uL	1		05092016 toc-3.2016_05_09_09	7/28/2016 7:43:11 A

Mean Area 11.54
Mean Conc. 0.02524mg/l



Sample

Sample Name: mb
 Sample ID:
 Origin: toc-3 4 reps method.met
 Status: Completed
 Chk. Result

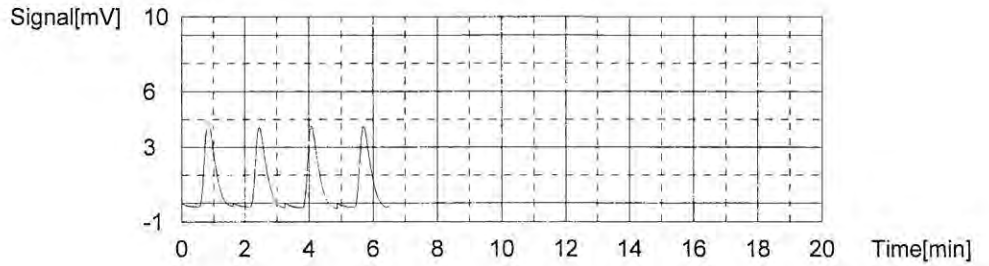
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:0.01868mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	11.00	0.02205mg/L	2500uL	1		05092016 toc-3.2016_05_09_09	7/28/2016 7:53:43 A
2	10.14	0.01700mg/L	2500uL	1		05092016 toc-3.2016_05_09_09	7/28/2016 7:58:18 A
3	10.37	0.01835mg/L	2500uL	1		05092016 toc-3.2016_05_09_09	7/28/2016 8:02:51 A
4	10.19	0.01729mg/L	2500uL	1		05092016 toc-3.2016_05_09_09	7/28/2016 8:07:28 A

Mean Area 10.43
 Mean Conc. 0.01868mg/l



Sample

Sample Name: lcs 2ppm
 Sample ID:
 Origin: toc-3 4 reps method.met
 Status: Completed
 Chk. Result

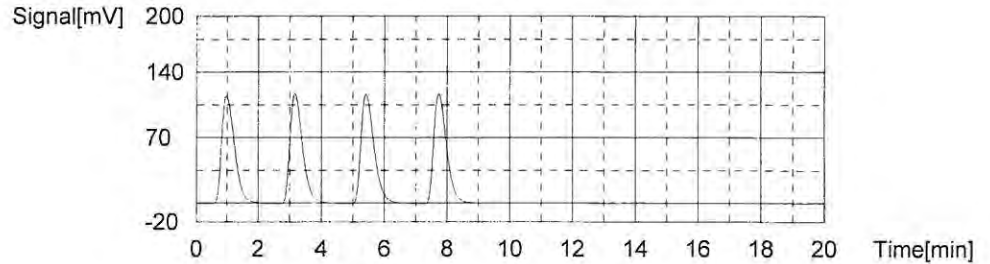
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:1.963mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	341.3	1.963mg/L	2500uL	1		05092016 toc-3.2016_05_09_09	7/28/2016 8:18:34 A
2	337.5	1.941mg/L	2500uL	1		05092016 toc-3.2016_05_09_09	7/28/2016 8:23:05 A
3	345.7	1.989mg/L	2500uL	1		05092016 toc-3.2016_05_09_09	7/28/2016 8:27:30 A
4	340.7	1.959mg/L	2500uL	1		05092016 toc-3.2016_05_09_09	7/28/2016 8:31:52 A

Mean Area 341.3
 Mean Conc. 1.963mg/L



Sample

Sample Name: 22656-06 dup doc
 Sample ID:
 Origin: toc-3 4 reps method.met
 Status: Completed
 Chk. Result

Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:0.2515mg/L

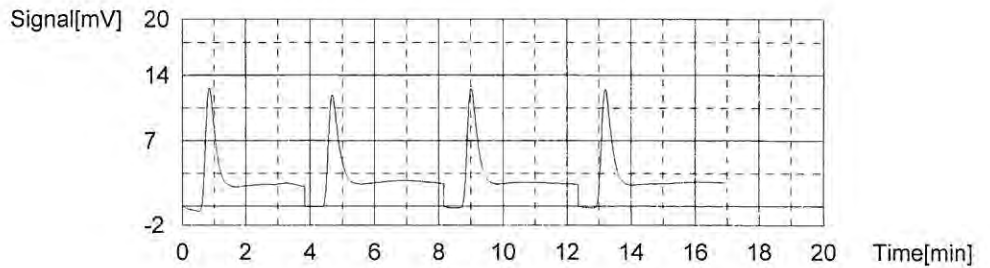
0.25

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	49.24	0.2468mg/L	2500uL	1		05092016 toc-3.2016_05_09_09	7/28/2016 8:44:37 A
2	50.45	0.2539mg/L	2500uL	1		05092016 toc-3.2016_05_09_09	7/28/2016 8:51:02 A
3	50.13	0.2520mg/L	2500uL	1		05092016 toc-3.2016_05_09_09	7/28/2016 8:57:20 A
4	50.38	0.2535mg/L	2500uL	1		05092016 toc-3.2016_05_09_09	7/28/2016 9:03:59 A

Mean Area 50.05
 Mean Conc. 0.2515mg/L



Sample

Sample Name: 22656-06 spk 4ppm doc
 Sample ID:
 Origin: toc-3 4 reps method.met
 Status: Aborted
 Chk. Result

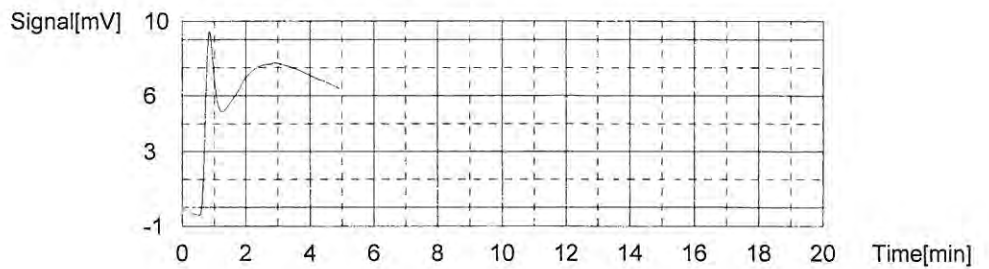
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:0.5491mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	100.7	0.5491mg/L	2500uL	1		05092016 toc-3.2016_05_09_09	7/28/2016 9:17:48 A

Mean Area 100.7
 Mean Conc. 0.5491mg/L



Sample

Sample Name: 22656-06 spk 8ppm 2x
 Sample ID:
 Origin: toc-3 4 reps method.met
 Status: Completed
 Chk. Result

Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:1.155mg/L

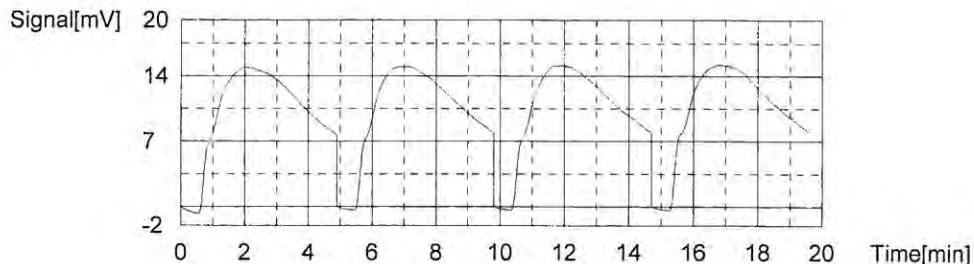
1. Det

Anal.: NPOC

2.31
 2x

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	207.7	1.178mg/L	2500uL	1		05092016 toc-3.2016_05_09_09	7/28/2016 9:39:48 A
2	200.6	1.136mg/L	2500uL	1		05092016 toc-3.2016_05_09_09	7/28/2016 9:47:52 A
3	203.2	1.151mg/L	2500uL	1		05092016 toc-3.2016_05_09_09	7/28/2016 9:55:56 A
4	203.7	1.154mg/L	2500uL	1		05092016 toc-3.2016_05_09_09	7/28/2016 10:04:00

Mean Area 203.8
 Mean Conc. 1.155mg/L



Sample

Sample Name: ccv 2ppm
 Sample ID:
 Origin: toc-3 4 reps method.met
 Status: Completed
 Chk. Result

Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:1.972mg/L

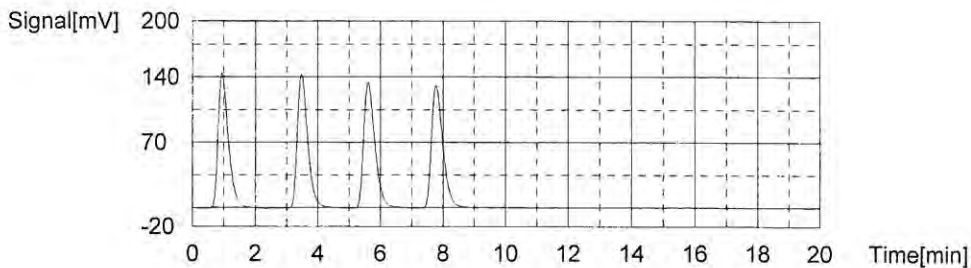


1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	347.1	1.997mg/L	2500uL	1		05092016 toc-3.2016_05_09_09	7/28/2016 10:15:27
2	338.2	1.945mg/L	2500uL	1		05092016 toc-3.2016_05_09_09	7/28/2016 10:19:40
3	345.7	1.989mg/L	2500uL	1		05092016 toc-3.2016_05_09_09	7/28/2016 10:24:00
4	340.2	1.956mg/L	2500uL	1		05092016 toc-3.2016_05_09_09	7/28/2016 10:28:15

Mean Area 342.8
 Mean Conc. 1.972mg/L



Sample

Sample Name: ccb
Sample ID:
Origin: toc-3 4 reps method.met
Status: Completed
Chk. Result

Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:0.01712mg/L

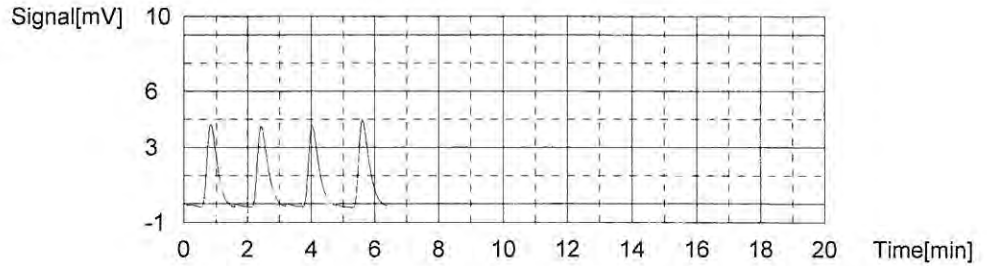


1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	10.14	0.01700mg/L	2500uL	1		05092016 toc-3.2016_05_09_09	7/28/2016 10:38:46
2	9.923	0.01573mg/L	2500uL	1		05092016 toc-3.2016_05_09_09	7/28/2016 10:43:20
3	9.750	0.01471mg/L	2500uL	1		05092016 toc-3.2016_05_09_09	7/28/2016 10:47:49
4	10.83	0.02106mg/L	2500uL	1		05092016 toc-3.2016_05_09_09	7/28/2016 10:52:21

Mean Area 10.16
Mean Conc. 0.01712mg/L



Work Group

ALPHA ANALYTICAL LABORATORIES, INC.

Alpha WORK GROUP REPORT (wk02)

Jul 28 2016, 01:44 pm

Work Group: WG917343 for Department: 7 Wet Chemistry

Created: 27-JUL-16 Due: Operator: dw

Sample	Client ID	C Product	Matrix	Stat	UA	HOLD	DUE	PR	Location
L1622656-01	OV-02_071816_SW_10	S DOC-9060	WATER	DONE	U	0815	0728	S0	Vial-D
L1622656-02	WQ1B-C_071816_SW_10	S DOC-9060	WATER	DONE	U	0815	0728	S0	Vial-D
L1622656-03	WQ2-C_071816_SW_10	S DOC-9060	WATER	DONE	U	0815	0728	S0	Vial-D
L1622656-04	WQ3-L_071816_SW_10	S DOC-9060	WATER	DONE	U	0815	0728	S0	Vial-D
L1622656-05	ES-15_071816_SW_10	S DOC-9060	WATER	DONE	U	0815	0728	S0	Vial-D
L1622656-06	WQ-ECH_071816_SW_10	S DOC-9060	WATER	DONE	U	0815	0728	S0	Vial-D
L1622656-07	WQ-ECH_071816_SW_10_	S DOC-9060	WATER	DONE	U	0815	0728	S0	Vial-D
L1622656-08	WQ-FPT_071816_SW_10	S DOC-9060	WATER	DONE	U	0815	0728	S0	Vial-D
WG917343-1	Laboratory Method Bl	S DOC-9060	WATER	DONE	U				
WG917343-2	Laboratory Control S	S DOC-9060	WATER	DONE	U				
WG917343-3	Duplicate Sample	S DOC-9060	WATER	DONE	U				
WG917343-4	Matrix Spike	S DOC-9060	WATER	DONE	U				

Comments:

WG917343-3 L1622656-06
 WG917343-4 L1622656-06

Alpha Report





ANALYTICAL REPORT

Lab Number:	L1622656
Client:	AMEC Foster Wheeler E & I, Inc. 511 Congress Street P.O. Box 7050 Portland, ME 04112-7050
ATTN:	Rod Pendleton
Phone:	(207) 828-3692
Project Name:	PENOBSCOT RIVER ESTUARY
Project Number:	3616166052
Report Date:	07/28/16

The original project report/data package is held by Alpha Analytical. This report/data package is paginated and should be reproduced only in its entirety. Alpha Analytical holds no responsibility for results and/or data that are not consistent with the original.

Certifications & Approvals: MA (M-MA086), NY (11148), CT (PH-0574), NH (2003), NJ NELAP (MA935), RI (LAO00065), ME (MA00086), PA (68-03671), VA (460195), MD (348), IL (200077), NC (666), TX (T104704476), DOD (L2217), USDA (Permit #P-330-11-00240).

Eight Walkup Drive, Westborough, MA 01581-1019
508-898-9220 (Fax) 508-898-9193 800-624-9220 - www.alphalab.com



Project Name: PENOBSCOT RIVER ESTUARY
Project Number: 3616166052

Lab Number: L1622656
Report Date: 07/28/16

Alpha Sample ID	Client ID	Matrix	Sample Location	Collection Date/Time	Receive Date
L1622656-01	OV-02_071816_SW_10	WATER	PENOBSCOT RIVER	07/18/16 07:45	07/21/16
L1622656-02	WQ1B-C_071816_SW_10	WATER	PENOBSCOT RIVER	07/18/16 16:30	07/21/16
L1622656-03	WQ2-C_071816_SW_10	WATER	PENOBSCOT RIVER	07/18/16 15:15	07/21/16
L1622656-04	WQ3-L_071816_SW_10	WATER	PENOBSCOT RIVER	07/18/16 14:00	07/21/16
L1622656-05	ES-15_071816_SW_10	WATER	PENOBSCOT RIVER	07/18/16 13:15	07/21/16
L1622656-06	WQ-ECH_071816_SW_10	WATER	PENOBSCOT RIVER	07/18/16 12:00	07/21/16
L1622656-07	WQ- ECH_071816_SW_10_DUP	WATER	PENOBSCOT RIVER	07/18/16 12:00	07/21/16
L1622656-08	WQ-FPT_071816_SW_10	WATER	PENOBSCOT RIVER	07/18/16 11:00	07/21/16

Project Name: PENOBSCOT RIVER ESTUARY
Project Number: 3616166052

Lab Number: L1622656
Report Date: 07/28/16

Case Narrative

The samples were received in accordance with the Chain of Custody and no significant deviations were encountered during the preparation or analysis unless otherwise noted. Sample Receipt, Container Information, and the Chain of Custody are located at the back of the report.

Results contained within this report relate only to the samples submitted under this Alpha Lab Number and meet NELAP requirements for all NELAP accredited parameters unless otherwise noted in the following narrative. The data presented in this report is organized by parameter (i.e. VOC, SVOC, etc.). Sample specific Quality Control data (i.e. Surrogate Spike Recovery) is reported at the end of the target analyte list for each individual sample, followed by the Laboratory Batch Quality Control at the end of each parameter. Tentatively Identified Compounds (TICs), if requested, are reported for compounds identified to be present and are not part of the method/program Target Compound List, even if only a subset of the TCL are being reported. If a sample was re-analyzed or re-extracted due to a required quality control corrective action and if both sets of data are reported, the Laboratory ID of the re-analysis or re-extraction is designated with an "R" or "RE", respectively. When multiple Batch Quality Control elements are reported (e.g. more than one LCS), the associated samples for each element are noted in the grey shaded header line of each data table. Any Laboratory Batch, Sample Specific % recovery or RPD value that is outside the listed Acceptance Criteria is bolded in the report. All specific QC information is also incorporated in the Data Usability format of our Data Merger tool where it can be reviewed along with any associated usability implications. Soil/sediments, solids and tissues are reported on a dry weight basis unless otherwise noted. Definitions of all data qualifiers and acronyms used in this report are provided in the Glossary located at the back of the report.

In reference to questions H (CAM) or 4 (RCP) when "NO" is checked, the performance criteria for CAM and RCP methods allow for some quality control failures to occur and still be within method compliance. In these instances the specific failure is not narrated but noted in the associated QC table. The information is also incorporated in the Data Usability format of our Data Merger tool where it can be reviewed along with any associated usability implications.

Please see the associated ADEx data file for a comparison of laboratory reporting limits that were achieved with the regulatory Numerical Standards requested on the Chain of Custody.

HOLD POLICY

For samples submitted on hold, Alpha's policy is to hold samples (with the exception of Air canisters) free of charge for 21 calendar days from the date the project is completed. After 21 calendar days, we will dispose of all samples submitted including those put on hold unless you have contacted your Client Service Representative and made arrangements for Alpha to continue to hold the samples. Air canisters will be disposed after 3 business days from the date the project is completed.

Please contact Client Services at 800-624-9220 with any questions.

Project Name: PENOBSCOT RIVER ESTUARY
Project Number: 3616166052

Lab Number: L1622656
Report Date: 07/28/16

Case Narrative (continued)

Report Submission

All non-detect (ND) or estimated concentrations (J-qualified) have been quantitated to the limit noted in the MDL column.

Sample Receipt

The samples were received via express courier in a cooler with ice; however, the ice was melted and the samples were above the required temperature range. The client was notified of the exceedance, and all requested analyses were performed.


Dissolved Organic Carbon

The samples were field filtered; a filter blank was not received.

The WG917343-4 MS recovery (29%), performed on L1622656-06, is outside the acceptance criteria; however, the associated LCS recovery is within criteria. No further action was taken.

I, the undersigned, attest under the pains and penalties of perjury that, to the best of my knowledge and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete. This certificate of analysis is not complete unless this page accompanies any and all pages of this report.

Authorized Signature:

 Michelle M. Morris

Title: Technical Director/Representative

Date: 07/28/16

INORGANICS & MISCELLANEOUS

Project Name: PENOBSCOT RIVER ESTUARY
Project Number: 3616166052

Lab Number: L1622656
Report Date: 07/28/16

SAMPLE RESULTS

Lab ID: L1622656-01
Client ID: OV-02_071816_SW_10
Sample Location: PENOBSCOT RIVER
Matrix: Water

Date Collected: 07/18/16 07:45
Date Received: 07/21/16
Field Prep: Field Filtered (DOC)

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total Suspended	ND		mg/l	5.0	NA	1	-	07/25/16 15:05	121,2540D	SG
Dissolved Organic Carbon	5.8		mg/l	1.0	0.04	1	07/27/16 06:57	07/27/16 06:57	1,9060A	DW



Project Name: PENOBSCOT RIVER ESTUARY
Project Number: 3616166052

Lab Number: L1622656
Report Date: 07/28/16

SAMPLE RESULTS

Lab ID: L1622656-02
Client ID: WQ1B-C_071816_SW_10
Sample Location: PENOBSCOT RIVER
Matrix: Water

Date Collected: 07/18/16 16:30
Date Received: 07/21/16
Field Prep: Field Filtered (DOC)

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total Suspended	10.		mg/l	5.0	NA	1	-	07/25/16 15:05	121,2540D	SG
Dissolved Organic Carbon	2.4		mg/l	1.0	0.04	1	07/27/16 06:57	07/27/16 06:57	1,9060A	DW



Project Name: PENOBSHOT RIVER ESTUARY

Lab Number: L1622656

Project Number: 3616166052

Report Date: 07/28/16

SAMPLE RESULTS

Lab ID: L1622656-03
 Client ID: WQ2-C_071816_SW_10
 Sample Location: PENOBSHOT RIVER
 Matrix: Water

Date Collected: 07/18/16 15:15
 Date Received: 07/21/16
 Field Prep: Field Filtered (DOC)

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total Suspended	18.		mg/l	5.0	NA	1	-	07/25/16 15:05	121,2540D	SG
Dissolved Organic Carbon	0.76	J	mg/l	1.0	0.04	1	07/27/16 06:57	07/27/16 06:57	1,9060A	DW



Project Name: PENOBSHOT RIVER ESTUARY

Lab Number: L1622656

Project Number: 3616166052

Report Date: 07/28/16

SAMPLE RESULTS

Lab ID: L1622656-04
 Client ID: WQ3-L_071816_SW_10
 Sample Location: PENOBSHOT RIVER
 Matrix: Water

Date Collected: 07/18/16 14:00
 Date Received: 07/21/16
 Field Prep: Field Filtered (DOC)

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total Suspended	14.		mg/l	5.0	NA	1	-	07/25/16 15:05	121,2540D	SG
Dissolved Organic Carbon	0.41	J	mg/l	1.0	0.04	1	07/27/16 06:57	07/27/16 06:57	1,9060A	DW



Project Name: PENOBSCOT RIVER ESTUARY
Project Number: 3616166052

Lab Number: L1622656
Report Date: 07/28/16

SAMPLE RESULTS

Lab ID: L1622656-05
Client ID: ES-15_071816_SW_10
Sample Location: PENOBSCOT RIVER
Matrix: Water

Date Collected: 07/18/16 13:15
Date Received: 07/21/16
Field Prep: Field Filtered (DOC)

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total Suspended	8.7		mg/l	5.0	NA	1	-	07/25/16 15:05	121,2540D	SG
Dissolved Organic Carbon	0.24	J	mg/l	1.0	0.04	1	07/27/16 06:57	07/27/16 06:57	1,9060A	DW



Project Name: PENOBSCOT RIVER ESTUARY
Project Number: 3616166052

Lab Number: L1622656
Report Date: 07/28/16

SAMPLE RESULTS

Lab ID: L1622656-06
Client ID: WQ-ECH_071816_SW_10
Sample Location: PENOBSCOT RIVER
Matrix: Water

Date Collected: 07/18/16 12:00
Date Received: 07/21/16
Field Prep: Field Filtered (DOC)

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total Suspended	9.2		mg/l	5.0	NA	1	-	07/25/16 15:05	121,2540D	SG
Dissolved Organic Carbon	0.29	J	mg/l	1.0	0.04	1	07/27/16 06:57	07/27/16 06:57	1,9060A	DW



Project Name: PENOBSCOT RIVER ESTUARY
Project Number: 3616166052

Lab Number: L1622656
Report Date: 07/28/16

SAMPLE RESULTS

Lab ID: L1622656-07
Client ID: WQ-ECH_071816_SW_10_DUP
Sample Location: PENOBSCOT RIVER
Matrix: Water

Date Collected: 07/18/16 12:00
Date Received: 07/21/16
Field Prep: Field Filtered (DOC)

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total Suspended	9.5		mg/l	5.0	NA	1	-	07/25/16 15:05	121,2540D	SG
Dissolved Organic Carbon	0.24	J	mg/l	1.0	0.04	1	07/27/16 06:57	07/27/16 06:57	1,9060A	DW



Project Name: PENOBSCOT RIVER ESTUARY
Project Number: 3616166052

Lab Number: L1622656
Report Date: 07/28/16

SAMPLE RESULTS

Lab ID: L1622656-08
Client ID: WQ-FPT_071816_SW_10
Sample Location: PENOBSCOT RIVER
Matrix: Water

Date Collected: 07/18/16 11:00
Date Received: 07/21/16
Field Prep: Field Filtered (DOC)

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total Suspended	7.2		mg/l	5.0	NA	1	-	07/25/16 15:05	121,2540D	SG
Dissolved Organic Carbon	0.19	J	mg/l	1.0	0.04	1	07/27/16 06:57	07/27/16 06:57	1,9060A	DW



Project Name: PENOBSCOT RIVER ESTUARY

Lab Number: L1622656

Project Number: 3616166052

Report Date: 07/28/16

Method Blank Analysis
Batch Quality Control

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab for sample(s): 01-08 Batch: WG916634-1										
Solids, Total Suspended	ND		mg/l	5.0	NA	1	-	07/25/16 15:05	121,2540D	SG
General Chemistry - Westborough Lab for sample(s): 01-08 Batch: WG917343-1										
Dissolved Organic Carbon	ND		mg/l	1.0	0.04	1	07/27/16 06:57	07/27/16 06:57	1,9060A	DW

Lab Control Sample Analysis**Batch Quality Control****Project Name:** PENOBSCOT RIVER ESTUARY**Lab Number:** L1622656**Project Number:** 3616166052**Report Date:** 07/28/16

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 01-08 Batch: WG917343-2								
Dissolved Organic Carbon	100		-		90-110	-		

Matrix Spike Analysis
Batch Quality Control

Project Name: PENOBSCOT RIVER ESTUARY

Lab Number: L1622656

Project Number: 3616166052

Report Date: 07/28/16

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD	Qual	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 01-08 QC Batch ID: WG917343-4 QC Sample: L1622656-06 Client ID: WQ-ECH_071816_SW_10												
Dissolved Organic Carbon	0.29J	8	2.3	29	Q	-	-		79-120	-		20

Lab Duplicate Analysis

Batch Quality Control

Project Name: PENOBSCOT RIVER ESTUARY

Project Number: 3616166052

Lab Number: L1622656

Report Date: 07/28/16

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 01-08 QC Batch ID: WG916634-2 QC Sample: L1622656-06 Client ID: WQ-ECH_071816_SW_10						
Solids, Total Suspended	9.2	8.9	mg/l	3		29
General Chemistry - Westborough Lab Associated sample(s): 01-08 QC Batch ID: WG917343-3 QC Sample: L1622656-06 Client ID: WQ-ECH_071816_SW_10						
Dissolved Organic Carbon	0.29J	0.25J	mg/l	NC		20

Project Name: PENOBSCOT RIVER ESTUARY
Project Number: 3616166052

Lab Number: L1622656
Report Date: 07/28/16

Sample Receipt and Container Information

Were project specific reporting limits specified? YES

Cooler Information Custody Seal

Cooler

A Absent

Container Information

Container ID	Container Type	Cooler	pH	Temp deg C	Pres	Seal	Analysis(*)
L1622656-01A	Vial H2SO4 preserved	A	N/A	10.2	Y	Absent	DOC-9060(28)
L1622656-01B	Vial H2SO4 preserved	A	N/A	10.2	Y	Absent	DOC-9060(28)
L1622656-01C	Plastic 950ml unpreserved	A	7	10.2	Y	Absent	TSS-2540(7)
L1622656-02A	Vial H2SO4 preserved	A	N/A	10.2	Y	Absent	DOC-9060(28)
L1622656-02B	Vial H2SO4 preserved	A	N/A	10.2	Y	Absent	DOC-9060(28)
L1622656-02C	Plastic 950ml unpreserved	A	7	10.2	Y	Absent	TSS-2540(7)
L1622656-03A	Vial H2SO4 preserved	A	N/A	10.2	Y	Absent	DOC-9060(28)
L1622656-03B	Vial H2SO4 preserved	A	N/A	10.2	Y	Absent	DOC-9060(28)
L1622656-03C	Plastic 950ml unpreserved	A	7	10.2	Y	Absent	TSS-2540(7)
L1622656-04A	Vial H2SO4 preserved	A	N/A	10.2	Y	Absent	DOC-9060(28)
L1622656-04B	Vial H2SO4 preserved	A	N/A	10.2	Y	Absent	DOC-9060(28)
L1622656-04C	Plastic 950ml unpreserved	A	7	10.2	Y	Absent	TSS-2540(7)
L1622656-05A	Vial H2SO4 preserved	A	N/A	10.2	Y	Absent	DOC-9060(28)
L1622656-05B	Vial H2SO4 preserved	A	N/A	10.2	Y	Absent	DOC-9060(28)
L1622656-05C	Plastic 950ml unpreserved	A	7	10.2	Y	Absent	TSS-2540(7)
L1622656-06A	Vial H2SO4 preserved	A	N/A	10.2	Y	Absent	DOC-9060(28)
L1622656-06A1	Vial H2SO4 preserved	A	N/A	10.2	Y	Absent	DOC-9060(28)
L1622656-06A2	Vial H2SO4 preserved	A	N/A	10.2	Y	Absent	DOC-9060(28)
L1622656-06B	Vial H2SO4 preserved	A	N/A	10.2	Y	Absent	DOC-9060(28)
L1622656-06B1	Vial H2SO4 preserved	A	N/A	10.2	Y	Absent	DOC-9060(28)
L1622656-06B2	Vial H2SO4 preserved	A	N/A	10.2	Y	Absent	DOC-9060(28)
L1622656-06C	Plastic 950ml unpreserved	A	7	10.2	Y	Absent	TSS-2540(7)
L1622656-06C1	Plastic 950ml unpreserved	A	7	10.2	Y	Absent	TSS-2540(7)
L1622656-06C2	Plastic 950ml unpreserved	A	7	10.2	Y	Absent	TSS-2540(7)
L1622656-07A	Vial H2SO4 preserved	A	N/A	10.2	Y	Absent	DOC-9060(28)
L1622656-07B	Vial H2SO4 preserved	A	N/A	10.2	Y	Absent	DOC-9060(28)
L1622656-07C	Plastic 950ml unpreserved	A	7	10.2	Y	Absent	TSS-2540(7)
L1622656-08A	Vial H2SO4 preserved	A	N/A	10.2	Y	Absent	DOC-9060(28)
L1622656-08B	Vial H2SO4 preserved	A	N/A	10.2	Y	Absent	DOC-9060(28)

*Values in parentheses indicate holding time in days



Project Name: PENOBSCOT RIVER ESTUARY**Lab Number:** L1622656**Project Number:** 3616166052**Report Date:** 07/28/16**Container Information**

Container ID	Container Type	Cooler	pH	Temp deg C	Pres	Seal	Analysis(*)
L1622656-08C	Plastic 950ml unpreserved	A	7	10.2	Y	Absent	TSS-2540(7)

*Values in parentheses indicate holding time in days



Project Name: PENOBSCOT RIVER ESTUARY
Project Number: 3616166052

Lab Number: L1622656
Report Date: 07/28/16

GLOSSARY

Acronyms

EDL	- Estimated Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The EDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. The use of EDLs is specific to the analysis of PAHs using Solid-Phase Microextraction (SPME).
EPA	- Environmental Protection Agency.
LCS	- Laboratory Control Sample: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
LCSD	- Laboratory Control Sample Duplicate: Refer to LCS.
LFB	- Laboratory Fortified Blank: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
MDL	- Method Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The MDL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
MS	- Matrix Spike Sample: A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analyte concentration is available.
MSD	- Matrix Spike Sample Duplicate: Refer to MS.
NA	- Not Applicable.
NC	- Not Calculated: Term is utilized when one or more of the results utilized in the calculation are non-detect at the parameter's reporting unit.
NDPA/DPA	- N-Nitrosodiphenylamine/Diphenylamine.
NI	- Not Ignitable.
NP	- Non-Plastic: Term is utilized for the analysis of Atterberg Limits in soil.
RL	- Reporting Limit: The value at which an instrument can accurately measure an analyte at a specific concentration. The RL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
RPD	- Relative Percent Difference: The results from matrix and/or matrix spike duplicates are primarily designed to assess the precision of analytical results in a given matrix and are expressed as relative percent difference (RPD). Values which are less than five times the reporting limit for any individual parameter are evaluated by utilizing the absolute difference between the values; although the RPD value will be provided in the report.
SRM	- Standard Reference Material: A reference sample of a known or certified value that is of the same or similar matrix as the associated field samples.
STLP	- Semi-dynamic Tank Leaching Procedure per EPA Method 1315.
TIC	- Tentatively Identified Compound: A compound that has been identified to be present and is not part of the target compound list (TCL) for the method and/or program. All TICs are qualitatively identified and reported as estimated concentrations.

Footnotes

- 1 - The reference for this analyte should be considered modified since this analyte is absent from the target analyte list of the original method.

Terms

Total: With respect to Organic analyses, a 'Total' result is defined as the summation of results for individual isomers or Aroclors. If a 'Total' result is requested, the results of its individual components will also be reported. This is applicable to 'Total' results for methods 8260, 8081 and 8082.

Analytical Method: Both the document from which the method originates and the analytical reference method. (Example: EPA 8260B is shown as 1,8260B.) The codes for the reference method documents are provided in the References section of the Addendum.

Data Qualifiers

- A** - Spectra identified as "Aldol Condensation Product".
- B** - The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For MCP-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank. For NJ-Air-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte above the reporting limit. For NJ-related projects (excluding Air), flag only applies to associated field samples that have detectable concentrations of the analyte, which was detected above the reporting limit in the associated method blank or above five times the

Report Format: DU Report with 'J' Qualifiers



Project Name: PENOBSCOT RIVER ESTUARY
Project Number: 3616166052

Lab Number: L1622656
Report Date: 07/28/16

Data Qualifiers

- reporting limit for common lab contaminants (Phthalates, Acetone, Methylene Chloride, 2-Butanone).
- C** - Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses.
 - D** - Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.
 - E** - Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.
 - G** - The concentration may be biased high due to matrix interferences (i.e. co-elution) with non-target compound(s). The result should be considered estimated.
 - H** - The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.
 - I** - The lower value for the two columns has been reported due to obvious interference.
 - M** - Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.
 - NJ** - Presumptive evidence of compound. This represents an estimated concentration for Tentatively Identified Compounds (TICs), where the identification is based on a mass spectral library search.
 - P** - The RPD between the results for the two columns exceeds the method-specified criteria.
 - Q** - The quality control sample exceeds the associated acceptance criteria. For DOD-related projects, LCS and/or Continuing Calibration Standard exceedences are also qualified on all associated sample results. Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when the sample concentrations are less than 5x the RL. (Metals only.)
 - R** - Analytical results are from sample re-analysis.
 - RE** - Analytical results are from sample re-extraction.
 - S** - Analytical results are from modified screening analysis.
 - J** - Estimated value. The Target analyte concentration is below the quantitation limit (RL), but above the Method Detection Limit (MDL) or Estimated Detection Limit (EDL) for SPME-related analyses. This represents an estimated concentration for Tentatively Identified Compounds (TICs).
 - ND** - Not detected at the method detection limit (MDL) for the sample, or estimated detection limit (EDL) for SPME-related analyses.

Report Format: DU Report with 'J' Qualifiers



Project Name: PENOBSCOT RIVER ESTUARY
Project Number: 3616166052

Lab Number: L1622656
Report Date: 07/28/16

REFERENCES

- 1 Test Methods for Evaluating Solid Waste: Physical/Chemical Methods. EPA SW-846. Third Edition. Updates I - IV, 2007.
- 121 Standard Methods for the Examination of Water and Wastewater. APHA-AWWA-WEF. Standard Methods Online.

LIMITATION OF LIABILITIES

Alpha Analytical performs services with reasonable care and diligence normal to the analytical testing laboratory industry. In the event of an error, the sole and exclusive responsibility of Alpha Analytical shall be to re-perform the work at it's own expense. In no event shall Alpha Analytical be held liable for any incidental, consequential or special damages, including but not limited to, damages in any way connected with the use of, interpretation of, information or analysis provided by Alpha Analytical.

We strongly urge our clients to comply with EPA protocol regarding sample volume, preservation, cooling, containers, sampling procedures, holding time and splitting of samples in the field.



Certification Information

The following analytes are not included in our Primary NELAP Scope of Accreditation:

Westborough Facility

EPA 524.2: 1,2-Dibromo-3-chloropropane, 1,2-Dibromoethane, m/p-xylene, o-xylene

EPA 624: 2-Butanone (MEK), 1,4-Dioxane, tert-Amylmethyl Ether, tert-Butyl Alcohol, m/p-xylene, o-xylene

EPA 625: Aniline, Benzoic Acid, Benzyl Alcohol, 4-Chloroaniline, 3-Methylphenol, 4-Methylphenol.

EPA 1010A: NPW: Ignitability

EPA 6010C: NPW: Strontium; SCM: Strontium

EPA 8151A: NPW: 2,4-DB, Dicamba, Dichloroprop, MCPA, MCPP; SCM: 2,4-DB, Dichloroprop, MCPA, MCPP

EPA 8260C: NPW: 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene, Azobenzene, Isopropanol; SCM: Iodomethane (methyl iodide), Methyl methacrylate (soil); 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene.

EPA 8270D: NPW: Pentachloronitrobenzene, 1-Methylnaphthalene, Dimethylnaphthalene, 1,4-Diphenylhydrazine; SCM: Pentachloronitrobenzene, 1-Methylnaphthalene, Dimethylnaphthalene, 1,4-Diphenylhydrazine.

EPA 9010: NPW: Amenable Cyanide Distillation, Total Cyanide Distillation

EPA 9038: NPW: Sulfate

EPA 9050A: NPW: Specific Conductance

EPA 9056: NPW: Chloride, Nitrate, Sulfate

EPA 9065: NPW: Phenols

EPA 9251: NPW: Chloride

SM3500: NPW: Ferrous Iron

SM4500: NPW: Amenable Cyanide, Dissolved Oxygen; SCM: Total Phosphorus, TKN, NO₂, NO₃.

SM5310C: DW: Dissolved Organic Carbon

Mansfield Facility

EPA 8270D: NPW: Biphenyl; SCM: Biphenyl, Caprolactam

EPA 8270D-SIM Isotope Dilution: SCM: 1,4-Dioxane

SM 2540D: TSS

SM2540G: SCM: Percent Solids

EPA 1631E: SCM: Mercury

EPA 7474: SCM: Mercury

EPA 8081B: NPW and SCM: Mirex, Hexachlorobenzene.

EPA 8082A: NPW: PCB: 1, 5, 31, 87,101, 110, 141, 151, 153, 180, 183, 187.

EPA 8270-SIM: NPW and SCM: Alkylated PAHs.

EPA TO-15: Halothane, 2,4,4-Trimethyl-2-pentene, 2,4,4-Trimethyl-1-pentene, Thiophene, 2-Methylthiophene,

3-Methylthiophene, 2-Ethylthiophene, 1,2,3-Trimethylbenzene, Indan, Indene, 1,2,4,5-Tetramethylbenzene, Benzothiophene, 1-Methylnaphthalene, n-Butylbenzene, n-Propylbenzene, sec-Butylbenzene, tert-Butylbenzene.

Biological Tissue Matrix: **8270D-SIM; 3050B; 3051A; 7471B; 8081B; 8082A; 6020A:** Lead; **8270D:** bis(2-ethylhexyl)phthalate, Butylbenzylphthalate, Diethyl phthalate, Dimethyl phthalate, Di-n-butyl phthalate, Di-n-octyl phthalate, Fluoranthene, Pentachlorophenol.

The following analytes are included in our Massachusetts DEP Scope of Accreditation, Westborough Facility:

Drinking Water

EPA 200.8: Sb,As,Ba,Be,Cd,Cr,Cu,Pb,Ni,Se,Tl; **EPA 200.7:** Ba,Be,Ca,Cd,Cr,Cu,Na; **EPA 245.1:** Mercury;

EPA 300.0: Nitrate-N, Fluoride, Sulfate; **EPA 353.2:** Nitrate-N, Nitrite-N; **SM4500NO3-F:** Nitrate-N, Nitrite-N; **SM4500F-C, SM4500CN-CE, EPA 180.1,**

SM2130B, SM4500CI-D, SM2320B, SM2540C, SM4500H-B

EPA 332: Perchlorate.

Microbiology: **SM9215B; SM9223-P/A, SM9223B-Colilert-QT, Enterolert-QT.**

Non-Potable Water

EPA 200.8: Al,Sb,As,Be,Cd,Cr,Cu,Pb,Mn,Ni,Se,Ag,Tl,Zn;

EPA 200.7: Al,Sb,As,Be,Cd,Ca,Cr,Co,Cu,Fe,Pb,Mg,Mn,Mo,Ni,K,Se,Ag,Na,Sr,Ti,Tl,V,Zn;

EPA 245.1, SM4500H,B, EPA 120.1, SM2510B, SM2540C, SM2340B, SM2320B, SM4500CL-E, SM4500F-BC, SM426C, SM4500NH3-BH, EPA

350.1: Ammonia-N, **LACHAT 10-107-06-1-B:** Ammonia-N, **SM4500NO3-F,**

EPA 353.2: Nitrate-N, **SM4500NH3-BC-NES, EPA 351.1, SM4500P-E, SM4500P-B, E, SM5220D, EPA 410.4, SM5210B, SM5310C, SM4500CL-D,**

EPA 1664, SM14 510AC, EPA 420.1, SM4500-CN-CE, SM2540D.

EPA 624: Volatile Halocarbons & Aromatics,

EPA 608: Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT, Endosulfan I, Endosulfan II, Endosulfan sulfate, Endrin, Endrin Aldehyde, Heptachlor, Heptachlor Epoxide, PCBs

EPA 625: SVOC (Acid/Base/Neutral Extractables), **EPA 600/4-81-045:** PCB-Oil.

Microbiology: **SM9223B-Colilert-QT; Enterolert-QT, SM9222D-MF.**

For a complete listing of analytes and methods, please contact your Alpha Project Manager.

Chain Of Custody/Analysis Request Form

L1622656

USDC - Penobscot River

Lab: Alpha

AMEC, Suite 200, 511 Congress
Street, Portland, ME

Tech Lead - Louise Venne
Work# 770-421-3461

Proj Chemist - Denise King
508-789-1738

AMEC Job Number = 3616166052

Samp #	Sample Date	Sample Time	Field Sample ID	QC Code	Qty Total	Qty Each	Bottle Size and Material	Preservative	Media Method	Fraction
1523	7/18/2016	7:45	OV-02_071816_SW_10		3					
				FS	1	1 L	Plastic	4 deg C	SW TSS (Mod 2450D)	T
				FS	2	40 mL	Glass Vial	H2SO4/4 deg C	SW DOC (SW846 9060)	T
1524	7/18/2016	16:30	WQ1b-c_071816_SW_10		3					
				FS	2	40 mL	Glass Vial	H2SO4/4 deg C	SW DOC (SW846 9060)	T
				FS	1	1 L	Plastic	4 deg C	SW TSS (Mod 2450D)	T
1525	7/18/2016	15:15	WQ2-c_071816_SW_10		3					
				FS	2	40 mL	Glass Vial	H2SO4/4 deg C	SW DOC (SW846 9060)	T
				FS	1	1 L	Plastic	4 deg C	SW TSS (Mod 2450D)	T
1526	7/18/2016	14:00	WQ3-L_071816_SW_10		3					
				FS	2	40 mL	Glass Vial	H2SO4/4 deg C	SW DOC (SW846 9060)	T
				FS	1	1 L	Plastic	4 deg C	SW TSS (Mod 2450D)	T
1527	7/18/2016	13:15	ES-15_071816_SW_10		3					
				FS	2	40 mL	Glass Vial	H2SO4/4 deg C	SW DOC (SW846 9060)	T
				FS	1	1 L	Plastic	4 deg C	SW TSS (Mod 2450D)	T

Wednesday, July 20, 2016

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L 1622656

Samp #	Sample Date	Sample Time	Field Sample ID	QC Code	Qty Total	Qty Each	Bottle Size and Material	Preservative	Media	Method	Fraction
1528	7/18/2016	12:00	WQ-ECH_071816_SW_10		3						
				FS	2	40 mL	Glass Vial	H2SO4/4 deg C	SW	DOC (SW846 9060)	T
				FS	1	1 L	Plastic	4 deg C	SW	TSS (Mod 2450D)	T
1529	7/18/2016	12:00	WQ-ECH_071816_SW_10_DUP		3						
				FD	1	1 L	Plastic	4 deg C	SW	TSS (Mod 2450D)	T
				FD	2	40 mL	Glass Vial	H2SO4/4 deg C	SW	DOC (SW846 9060)	T
1530	7/18/2016	12:00	WQ-ECH_071816_SW_10_MS		3						
				MS	1	1 L	Plastic	4 deg C	SW	TSS (Mod 2450D)	T
				MS	2	40 mL	Glass Vial	H2SO4/4 deg C	SW	DOC (SW846 9060)	T
1531	7/18/2016	12:00	WQ-ECH_071816_SW_10_MD		3						
				MSD	2	40 mL	Glass Vial	H2SO4/4 deg C	SW	DOC (SW846 9060)	T
				MSD	1	1 L	Plastic	4 deg C	SW	TSS (Mod 2450D)	T
1532	7/18/2016	11:00	WQ-FPT_071816_SW_10		3						
				FS	1	1 L	Plastic	4 deg C	SW	TSS (Mod 2450D)	T
				FS	2	40 mL	Glass Vial	H2SO4/4 deg C	SW	DOC (SW846 9060)	T

EXTRA VOLUME FOR MATRIX SPIKE

EXTRA VOLUME FOR MATRIX SPIKE DUP

QC Codes: FS = Field Sample, EB = Equipment Rinsate Blank, MS - Matrix Spike, MSD = Matrix Spike Duplicate

Relinquished: Juli Palocz Date: 7 / 20 / 2016 Time: 1724

Received: [Signature] AM Date: 7 / 21 / 16 Time: 11:30

AIRBILL#: 8094 0561 9691