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Lab Number: L1729601

Client: AMEC Foster Wheeler E & I, Inc.

ATTN: Rod Pendleton

Project Name: USDC PENOBSCOT

Project Number: 3616166052.04A.030

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# **Sample Delivery Group Information**



## Sample Delivery Group Summary

Alpha Job Number : L1729601

Received : 23-AUG-2017  
Reviewer : Elizabeth Porta

Account Name : AMEC Foster Wheeler E & I, Inc.  
Project Number : 3616166052.04A.030  
Project Name : USDC PENOBSCOT

### Delivery Information

Samples Delivered By : Express Ship  
UPS (1Z86W0500150527580)

Chain of Custody : Present

### Cooler Information

Cooler	Seal/Seal#	Preservation	Temperature(°C)	Additional Information
A	Present/Intact/0	Ice	3.7	

### Condition Information

All samples on COC received? **YES**

Extra samples received? **YES**  
Following additional samples were received: -15

Are there any sample container discrepancies? **NO**

Are there any discrepancies between sample labels & COC? **NO**

Are samples in appropriate containers for requested analysis? **YES**

Are samples properly preserved for requested analysis? **YES**

Are samples within holding time for requested analysis? **YES**

All sampling equipment returned? **NA**

### Volatile Organics/VPH

Reagent Water Vials Frozen by Client? **NA**

# **LIMS Chain of Custody**

ALPHA ANALYTICAL LABORATORIES, INC.  
LOGIN CHAIN OF CUSTODY REPORT  
Sep 21 2017, 04:24 pm

Login Number: L1729601

Account: AMEC-ME AMEC Foster Wheeler E & I, Inc. Project: 3616166052.04A.030

Received: 23AUG17 Due Date: 21SEP17  
Mat PR Collected Container

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Sample #	Client ID	Received:	Mat PR	Collected	Due Date:	Container
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L1729601-01 W-101-A\_081517\_SED\_ 3 S0 15AUG17 14:45 1-Plastic-A-GS  
Ok to run samples in plastic, and/or outside of hold time DPKG-FULL Package Due Date: 09/21/17  
A2-TOC-LK-2REPS,A2-TS,DPKG-FULL

L1729601-02 W-101-A\_081517\_SED\_ 3 S0 15AUG17 14:47 1-Plastic-A-GS  
Ok to run samples in plastic, and/or outside of hold time Package Due Date: 09/21/17  
A2-TOC-LK-2REPS,A2-TS

L1729601-03 W-101-B\_081517\_SED\_ 3 S0 15AUG17 15:18 1-Plastic-A-GS  
Ok to run samples in plastic, and/or outside of hold time Package Due Date: 09/21/17  
A2-TOC-LK-2REPS,A2-TS

L1729601-04 W-101-B\_081517\_SED\_ 3 S0 15AUG17 15:20 1-Plastic-A-GS  
Ok to run samples in plastic, and/or outside of hold time Package Due Date: 09/21/17  
A2-TOC-LK-2REPS,A2-TS

L1729601-05 W-101-B\_081517\_SED\_ 3 S0 15AUG17 15:20 1-Plastic-A-GS  
Ok to run samples in plastic, and/or outside of hold time Package Due Date: 09/21/17  
A2-TOC-LK-2REPS,A2-TS

L1729601-06 W-101-B\_081517\_SED\_ 3 S0 15AUG17 15:20 1-Plastic-A-GS  
Ok to run samples in plastic, and/or outside of hold time Package Due Date: 09/21/17  
A2-TOC-LK-2REPS,A2-TS

L1729601-07 W-102-A\_081517\_SED\_ 3 S0 15AUG17 14:35 1-Plastic-A-GS  
Ok to run samples in plastic, and/or outside of hold time Package Due Date: 09/21/17

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ALPHA ANALYTICAL LABORATORIES, INC.  
LOGIN CHAIN OF CUSTODY REPORT  
Sep 21 2017, 04:24 pm

Login Number: L1729601

Account: AMEC-ME AMEC Foster Wheeler E & I, Inc. Project: 3616166052.04A.030

Sample # Client ID Received: 23AUG17 Due Date: 21SEP17  
Mat PR Collected Container

A2-TOC-LK-2REPS,A2-TS

L1729601-08 W-102-A\_081517\_SED\_ 3 S0 15AUG17 14:37 1-Plastic-A-GS

Ok to run samples in plastic, and/or outside of hold time Package Due Date: 09/21/17

A2-TOC-LK-2REPS,A2-TS

L1729601-09 W-102-B\_081517\_SED\_ 3 S0 15AUG17 14:23 1-Plastic-A-GS

Ok to run samples in plastic, and/or outside of hold time Package Due Date: 09/21/17

A2-TOC-LK-2REPS,A2-TS

L1729601-10 W-102-B\_081517\_SED\_ 3 S0 15AUG17 14:25 1-Plastic-A-GS

Ok to run samples in plastic, and/or outside of hold time Package Due Date: 09/21/17

A2-TOC-LK-2REPS,A2-TS

L1729601-11 W-102-C\_081517\_SED\_ 3 S0 15AUG17 15:35 1-Plastic-A-GS

Ok to run samples in plastic, and/or outside of hold time Package Due Date: 09/21/17

A2-TOC-LK-2REPS,A2-TS

L1729601-12 W-102-C\_081517\_SED\_ 3 S0 15AUG17 15:37 1-Plastic-A-GS

Ok to run samples in plastic, and/or outside of hold time Package Due Date: 09/21/17

A2-TOC-LK-2REPS,A2-TS

L1729601-13 W-108-A\_081517\_SED\_ 3 S0 15AUG17 13:50 1-Plastic-A-GS

Ok to run samples in plastic, and/or outside of hold time Package Due Date: 09/21/17

A2-TOC-LK-2REPS,A2-TS

ALPHA ANALYTICAL LABORATORIES, INC.  
LOGIN CHAIN OF CUSTODY REPORT  
Sep 21 2017, 04:24 pm

Login Number: L1729601

Account: AMEC-ME AMEC Foster Wheeler E & I, Inc. Project: 3616166052.04A.030

Sample #	Client ID	Received: 23AUG17 Mat PR Collected	Due Date: 21SEP17 Container
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L1729601-14 W-108-A\_081517\_SED\_ 3 S0 15AUG17 13:51 1-Plastic-A-GS

Ok to run samples in plastic, and/or outside of hold time Package Due Date: 09/21/17

A2-TOC-LK-2REPS,A2-TS

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Logged By: Elizabeth Porta

# Container Tracking

**ALPHA ANALYTICAL LABORATORIES**  
**Container Tracking Report**

Container ID	Type	Status	Transaction Date	From Response	Location	To Operator	Response	Location	Operator
L1729601-01A	Plastic-A-GS	INTACT	13-SEP-17	CUSTODY	A2-WET CHEMISTRY	Alp Demiroz	A2-CUSTODY-FRZ1-Z1	A2-CUSTODY-FRZ1-Z1	Alp Demiroz
L1729601-01A	Plastic-A-GS	INTACT	13-SEP-17	A2-CUSTODY-REFRIDGE	A2-CUSTODY-FRZ1-Z1	Sonal Patel	A2-WET CHEMISTRY	A2-WET CHEMISTRY	Sonal Patel
L1729601-01A	Plastic-A-GS	INTACT	11-SEP-17	A2-CUSTODY	A2-CUSTODY-REFRIDGE	Malak Gabra	A2-CUSTODY-FRZ1-Z1	A2-CUSTODY-FRZ1-Z1	Malak Gabra
L1729601-01A	Plastic-A-GS	INTACT	11-SEP-17	A2-CUSTODY-FRZ1-Z1	A2-WET CHEMISTRY	Jennifer Hoaglund	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIDGE	Jennifer Hoaglund
L1729601-01A	Plastic-A-GS	INTACT	11-SEP-17	A2-CUSTODY-REFRIDGE	A2-CUSTODY-FRZ1-Z1	Joshua Mertens	A2-WET CHEMISTRY	A2-WET CHEMISTRY	Joshua Mertens
L1729601-01A	Plastic-A-GS	INTACT	23-AUG-17	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIDGE	Bethany Bedard	A2-CUSTODY-FRZ1-Z1	A2-CUSTODY-FRZ1-Z1	Bethany Bedard
L1729601-01A	Plastic-A-GS	INTACT	23-AUG-17	A2-LOGIN	A2-LOGIN	Brett Read	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIDGE	Brett Read
L1729601-02A	Plastic-A-GS	INTACT	13-SEP-17	CUSTODY	A2-WET CHEMISTRY	Alp Demiroz	A2-CUSTODY-FRZ1-Z1	A2-CUSTODY-FRZ1-Z1	Alp Demiroz
L1729601-02A	Plastic-A-GS	INTACT	13-SEP-17	A2-CUSTODY-REFRIDGE	A2-CUSTODY-FRZ1-Z1	Sonal Patel	A2-WET CHEMISTRY	A2-WET CHEMISTRY	Sonal Patel
L1729601-02A	Plastic-A-GS	INTACT	11-SEP-17	A2-CUSTODY	A2-CUSTODY-REFRIDGE	Malak Gabra	A2-CUSTODY-FRZ1-Z1	A2-CUSTODY-FRZ1-Z1	Malak Gabra
L1729601-02A	Plastic-A-GS	INTACT	11-SEP-17	A2-CUSTODY-FRZ1-Z1	A2-WET CHEMISTRY	Jennifer Hoaglund	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIDGE	Jennifer Hoaglund
L1729601-02A	Plastic-A-GS	INTACT	11-SEP-17	A2-CUSTODY-REFRIDGE	A2-CUSTODY-FRZ1-Z1	Joshua Mertens	A2-WET CHEMISTRY	A2-WET CHEMISTRY	Joshua Mertens
L1729601-02A	Plastic-A-GS	INTACT	23-AUG-17	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIDGE	Bethany Bedard	A2-CUSTODY-FRZ1-Z1	A2-CUSTODY-FRZ1-Z1	Bethany Bedard
L1729601-02A	Plastic-A-GS	INTACT	23-AUG-17	A2-LOGIN	A2-LOGIN	Brett Read	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIDGE	Brett Read
L1729601-03A	Plastic-A-GS	INTACT	13-SEP-17	CUSTODY	A2-WET CHEMISTRY	Alp Demiroz	A2-CUSTODY-FRZ1-Z1	A2-CUSTODY-FRZ1-Z1	Alp Demiroz
L1729601-03A	Plastic-A-GS	INTACT	13-SEP-17	A2-CUSTODY-REFRIDGE	A2-CUSTODY-FRZ1-Z1	Sonal Patel	A2-WET CHEMISTRY	A2-WET CHEMISTRY	Sonal Patel
L1729601-03A	Plastic-A-GS	INTACT	11-SEP-17	A2-CUSTODY	A2-CUSTODY-REFRIDGE	Malak Gabra	A2-CUSTODY-FRZ1-Z1	A2-CUSTODY-FRZ1-Z1	Malak Gabra
L1729601-03A	Plastic-A-GS	INTACT	11-SEP-17	A2-CUSTODY-FRZ1-Z1	A2-WET CHEMISTRY	Jennifer Hoaglund	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIDGE	Jennifer Hoaglund
L1729601-03A	Plastic-A-GS	INTACT	11-SEP-17	A2-CUSTODY-REFRIDGE	A2-CUSTODY-FRZ1-Z1	Joshua Mertens	A2-WET CHEMISTRY	A2-WET CHEMISTRY	Joshua Mertens
L1729601-03A	Plastic-A-GS	INTACT	23-AUG-17	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIDGE	Bethany Bedard	A2-CUSTODY-FRZ1-Z1	A2-CUSTODY-FRZ1-Z1	Bethany Bedard
L1729601-03A	Plastic-A-GS	INTACT	23-AUG-17	A2-LOGIN	A2-LOGIN	Brett Read	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIDGE	Brett Read
L1729601-04A	Plastic-A-GS	INTACT	13-SEP-17	CUSTODY	A2-WET CHEMISTRY	Alp Demiroz	A2-CUSTODY-FRZ1-Z1	A2-CUSTODY-FRZ1-Z1	Alp Demiroz
L1729601-04A	Plastic-A-GS	INTACT	11-SEP-17	A2-CUSTODY-REFRIDGE	A2-CUSTODY-FRZ1-Z1	Joshua Mertens	A2-WET CHEMISTRY	A2-WET CHEMISTRY	Joshua Mertens
L1729601-04A	Plastic-A-GS	INTACT	23-AUG-17	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIDGE	Bethany Bedard	A2-CUSTODY-FRZ1-Z1	A2-CUSTODY-FRZ1-Z1	Bethany Bedard
L1729601-04A	Plastic-A-GS	INTACT	23-AUG-17	A2-LOGIN	A2-LOGIN	Brett Read	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIDGE	Brett Read



Container ID	Type	Status	Transaction Date	From Response	Location	To Operator	Response	Location	Operator
L1729601-05A	Plastic-A-GS	INTACT	13-SEP-17	CUSTODY	A2-WET CHEMISTRY	Alp Demiroz	A2-CUSTODY-FRZ1-Z1	A2-CUSTODY-FRZ1-Z1	Alp Demiroz
L1729601-05A	Plastic-A-GS	INTACT	13-SEP-17	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIDGE	Sonal Patel	A2-WET CHEMISTRY	A2-WET CHEMISTRY	Sonal Patel
L1729601-05A	Plastic-A-GS	INTACT	11-SEP-17	A2-CUSTODY-FRZ1-Z1	A2-WET CHEMISTRY	Jennifer Hoaglund	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIDGE	Jennifer Hoaglund
L1729601-05A	Plastic-A-GS	INTACT	11-SEP-17	A2-CUSTODY-REFRIDGE	A2-CUSTODY-FRZ1-Z1	Joshua Mertens	A2-WET CHEMISTRY	A2-WET CHEMISTRY	Joshua Mertens
L1729601-05A	Plastic-A-GS	INTACT	23-AUG-17	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIDGE	Bethany Bedard	A2-CUSTODY-FRZ1-Z1	A2-CUSTODY-FRZ1-Z1	Bethany Bedard
L1729601-05A	Plastic-A-GS	INTACT	23-AUG-17	A2-LOGIN	A2-LOGIN	Brett Read	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIDGE	Brett Read
L1729601-06A	Plastic-A-GS	INTACT	13-SEP-17	CUSTODY	A2-CUSTODY-FRZ1-Z1	Alp Demiroz	A2-CUSTODY-FRZ1-Z1	A2-CUSTODY-FRZ1-Z1	Alp Demiroz
L1729601-06A	Plastic-A-GS	INTACT	11-SEP-17	A2-CUSTODY	A2-WET CHEMISTRY	Malak Gabra	A2-CUSTODY-FRZ1-Z1	A2-CUSTODY-FRZ1-Z1	Malak Gabra
L1729601-06A	Plastic-A-GS	INTACT	11-SEP-17	A2-CUSTODY-REFRIDGE	A2-CUSTODY-FRZ1-Z1	Joshua Mertens	A2-WET CHEMISTRY	A2-WET CHEMISTRY	Joshua Mertens
L1729601-06A	Plastic-A-GS	INTACT	23-AUG-17	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIDGE	Bethany Bedard	A2-CUSTODY-FRZ1-Z1	A2-CUSTODY-FRZ1-Z1	Bethany Bedard
L1729601-06A	Plastic-A-GS	INTACT	23-AUG-17	A2-LOGIN	A2-LOGIN	Brett Read	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIDGE	Brett Read
L1729601-07A	Plastic-A-GS	INTACT	13-SEP-17	CUSTODY	A2-WET CHEMISTRY	Alp Demiroz	A2-CUSTODY-FRZ1-Z1	A2-CUSTODY-FRZ1-Z1	Alp Demiroz
L1729601-07A	Plastic-A-GS	INTACT	13-SEP-17	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIDGE	Sonal Patel	A2-WET CHEMISTRY	A2-WET CHEMISTRY	Sonal Patel
L1729601-07A	Plastic-A-GS	INTACT	11-SEP-17	A2-CUSTODY-FRZ1-Z1	A2-WET CHEMISTRY	Jennifer Hoaglund	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIDGE	Jennifer Hoaglund
L1729601-07A	Plastic-A-GS	INTACT	11-SEP-17	A2-CUSTODY-REFRIDGE	A2-CUSTODY-FRZ1-Z1	Joshua Mertens	A2-WET CHEMISTRY	A2-WET CHEMISTRY	Joshua Mertens
L1729601-07A	Plastic-A-GS	INTACT	23-AUG-17	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIDGE	Bethany Bedard	A2-CUSTODY-FRZ1-Z1	A2-CUSTODY-FRZ1-Z1	Bethany Bedard
L1729601-07A	Plastic-A-GS	INTACT	23-AUG-17	A2-LOGIN	A2-LOGIN	Brett Read	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIDGE	Brett Read
L1729601-08A	Plastic-A-GS	INTACT	13-SEP-17	CUSTODY	A2-WET CHEMISTRY	Alp Demiroz	A2-CUSTODY-FRZ1-Z1	A2-CUSTODY-FRZ1-Z1	Alp Demiroz
L1729601-08A	Plastic-A-GS	INTACT	13-SEP-17	A2-CUSTODY-REFRIDGE	A2-CUSTODY-FRZ1-Z1	Sonal Patel	A2-WET CHEMISTRY	A2-WET CHEMISTRY	Sonal Patel
L1729601-08A	Plastic-A-GS	INTACT	11-SEP-17	A2-CUSTODY	A2-CUSTODY-REFRIDGE	Malak Gabra	A2-CUSTODY-FRZ1-Z1	A2-CUSTODY-FRZ1-Z1	Malak Gabra
L1729601-08A	Plastic-A-GS	INTACT	11-SEP-17	A2-CUSTODY-FRZ1-Z1	A2-WET CHEMISTRY	Jennifer Hoaglund	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIDGE	Jennifer Hoaglund
L1729601-08A	Plastic-A-GS	INTACT	11-SEP-17	A2-CUSTODY-REFRIDGE	A2-CUSTODY-FRZ1-Z1	Joshua Mertens	A2-WET CHEMISTRY	A2-WET CHEMISTRY	Joshua Mertens
L1729601-08A	Plastic-A-GS	INTACT	23-AUG-17	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIDGE	Bethany Bedard	A2-CUSTODY-FRZ1-Z1	A2-CUSTODY-FRZ1-Z1	Bethany Bedard
L1729601-08A	Plastic-A-GS	INTACT	23-AUG-17	A2-LOGIN	A2-LOGIN	Brett Read	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIDGE	Brett Read
L1729601-09A	Plastic-A-GS	INTACT	13-SEP-17	CUSTODY	A2-WET CHEMISTRY	Alp Demiroz	A2-CUSTODY-FRZ1-Z1	A2-CUSTODY-FRZ1-Z1	Alp Demiroz

Container ID	Type	Status	Transaction Date	From Response	Location	To Operator	Response	Location	Operator
L1729601-09A	Plastic-A-GS	INTACT	13-SEP-17	A2-CUSTODY-REFRIDGE	A2-CUSTODY-FRZ1-Z1	Sonal Patel	A2-WET CHEMISTRY	A2-WET CHEMISTRY	Sonal Patel
L1729601-09A	Plastic-A-GS	INTACT	11-SEP-17	A2-CUSTODY-REFRIDGE	A2-CUSTODY-FRZ1-Z1	Malak Gabra	A2-CUSTODY-FRZ1-Z1	A2-CUSTODY-FRZ1-Z1	Malak Gabra
L1729601-09A	Plastic-A-GS	INTACT	11-SEP-17	A2-CUSTODY	A2-CUSTODY-REFRIDGE	Malak Gabra	A2-CUSTODY-FRZ1-Z1	A2-CUSTODY-FRZ1-Z1	Malak Gabra
L1729601-09A	Plastic-A-GS	INTACT	11-SEP-17	A2-CUSTODY-FRZ1-Z1	A2-WET CHEMISTRY	Jennifer Hoaglund	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIDGE	Jennifer Hoaglund
L1729601-09A	Plastic-A-GS	INTACT	11-SEP-17	A2-CUSTODY-REFRIDGE	A2-CUSTODY-FRZ1-Z1	Joshua Mertens	A2-WET CHEMISTRY	A2-WET CHEMISTRY	Joshua Mertens
L1729601-09A	Plastic-A-GS	INTACT	23-AUG-17	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIDGE	Bethany Bedard	A2-CUSTODY-FRZ1-Z1	A2-CUSTODY-FRZ1-Z1	Bethany Bedard
L1729601-09A	Plastic-A-GS	INTACT	23-AUG-17	A2-LOGIN	A2-LOGIN	Brett Read	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIDGE	Brett Read
L1729601-10A	Plastic-A-GS	INTACT	13-SEP-17	CUSTODY	A2-WET CHEMISTRY	Alp Demiroz	A2-CUSTODY-FRZ1-Z1	A2-CUSTODY-FRZ1-Z1	Alp Demiroz
L1729601-10A	Plastic-A-GS	INTACT	13-SEP-17	A2-CUSTODY-REFRIDGE	A2-CUSTODY-FRZ1-Z1	Sonal Patel	A2-WET CHEMISTRY	A2-WET CHEMISTRY	Sonal Patel
L1729601-10A	Plastic-A-GS	INTACT	11-SEP-17	A2-CUSTODY	A2-CUSTODY-REFRIDGE	Malak Gabra	A2-CUSTODY-FRZ1-Z1	A2-CUSTODY-FRZ1-Z1	Malak Gabra
L1729601-10A	Plastic-A-GS	INTACT	11-SEP-17	A2-CUSTODY-FRZ1-Z1	A2-WET CHEMISTRY	Jennifer Hoaglund	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIDGE	Jennifer Hoaglund
L1729601-10A	Plastic-A-GS	INTACT	11-SEP-17	A2-CUSTODY-REFRIDGE	A2-CUSTODY-FRZ1-Z1	Joshua Mertens	A2-WET CHEMISTRY	A2-WET CHEMISTRY	Joshua Mertens
L1729601-10A	Plastic-A-GS	INTACT	23-AUG-17	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIDGE	Bethany Bedard	A2-CUSTODY-FRZ1-Z1	A2-CUSTODY-FRZ1-Z1	Bethany Bedard
L1729601-10A	Plastic-A-GS	INTACT	23-AUG-17	A2-LOGIN	A2-LOGIN	Brett Read	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIDGE	Brett Read
L1729601-11A	Plastic-A-GS	INTACT	13-SEP-17	CUSTODY	A2-WET CHEMISTRY	Alp Demiroz	A2-CUSTODY-FRZ1-Z1	A2-CUSTODY-FRZ1-Z1	Alp Demiroz
L1729601-11A	Plastic-A-GS	INTACT	13-SEP-17	A2-CUSTODY-REFRIDGE	A2-CUSTODY-FRZ1-Z1	Sonal Patel	A2-WET CHEMISTRY	A2-WET CHEMISTRY	Sonal Patel
L1729601-11A	Plastic-A-GS	INTACT	11-SEP-17	A2-CUSTODY	A2-CUSTODY-REFRIDGE	Malak Gabra	A2-CUSTODY-FRZ1-Z1	A2-CUSTODY-FRZ1-Z1	Malak Gabra
L1729601-11A	Plastic-A-GS	INTACT	11-SEP-17	A2-CUSTODY-FRZ1-Z1	A2-WET CHEMISTRY	Jennifer Hoaglund	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIDGE	Jennifer Hoaglund
L1729601-11A	Plastic-A-GS	INTACT	11-SEP-17	A2-CUSTODY-REFRIDGE	A2-CUSTODY-FRZ1-Z1	Joshua Mertens	A2-WET CHEMISTRY	A2-WET CHEMISTRY	Joshua Mertens
L1729601-11A	Plastic-A-GS	INTACT	23-AUG-17	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIDGE	Bethany Bedard	A2-CUSTODY-FRZ1-Z1	A2-CUSTODY-FRZ1-Z1	Bethany Bedard
L1729601-11A	Plastic-A-GS	INTACT	23-AUG-17	A2-LOGIN	A2-LOGIN	Brett Read	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIDGE	Brett Read
L1729601-12A	Plastic-A-GS	INTACT	13-SEP-17	CUSTODY	A2-WET CHEMISTRY	Alp Demiroz	A2-CUSTODY-FRZ1-Z1	A2-CUSTODY-FRZ1-Z1	Alp Demiroz
L1729601-12A	Plastic-A-GS	INTACT	13-SEP-17	A2-CUSTODY-REFRIDGE	A2-CUSTODY-FRZ1-Z1	Sonal Patel	A2-WET CHEMISTRY	A2-WET CHEMISTRY	Sonal Patel
L1729601-12A	Plastic-A-GS	INTACT	11-SEP-17	A2-CUSTODY	A2-CUSTODY-REFRIDGE	Malak Gabra	A2-CUSTODY-FRZ1-Z1	A2-CUSTODY-FRZ1-Z1	Malak Gabra
L1729601-12A	Plastic-A-GS	INTACT	11-SEP-17	A2-CUSTODY-FRZ1-Z1	A2-WET CHEMISTRY	Jennifer Hoaglund	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIDGE	Jennifer Hoaglund

Container ID	Type	Status	Transaction Date	From Response	Location	To Operator	Response	Location	Operator
L1729601-12A	Plastic-A-GS	INTACT	11-SEP-17	A2-CUSTODY-REFRIDGE	A2-CUSTODY-FRZ1-Z1	Joshua Mertens	A2-WET CHEMISTRY	A2-WET CHEMISTRY	Joshua Mertens
L1729601-12A	Plastic-A-GS	INTACT	23-AUG-17	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIDGE	Bethany Bedard	A2-CUSTODY-FRZ1-Z1	A2-CUSTODY-FRZ1-Z1	Bethany Bedard
L1729601-12A	Plastic-A-GS	INTACT	23-AUG-17	A2-LOGIN	A2-LOGIN	Brett Read	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIDGE	Brett Read
L1729601-13A	Plastic-A-GS	INTACT	13-SEP-17	CUSTODY	A2-WET CHEMISTRY	Alp Demiroz	A2-CUSTODY-FRZ1-Z1	A2-CUSTODY-FRZ1-Z1	Alp Demiroz
L1729601-13A	Plastic-A-GS	INTACT	13-SEP-17	A2-CUSTODY-REFRIDGE	A2-CUSTODY-FRZ1-Z1	Sonal Patel	A2-WET CHEMISTRY	A2-WET CHEMISTRY	Sonal Patel
L1729601-13A	Plastic-A-GS	INTACT	11-SEP-17	A2-CUSTODY	A2-CUSTODY-REFRIDGE	Malak Gabra	A2-CUSTODY-FRZ1-Z1	A2-CUSTODY-FRZ1-Z1	Malak Gabra
L1729601-13A	Plastic-A-GS	INTACT	11-SEP-17	A2-CUSTODY-FRZ1-Z1	A2-WET CHEMISTRY	Jennifer Hoaglund	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIDGE	Jennifer Hoaglund
L1729601-13A	Plastic-A-GS	INTACT	11-SEP-17	A2-CUSTODY-REFRIDGE	A2-CUSTODY-FRZ1-Z1	Joshua Mertens	A2-WET CHEMISTRY	A2-WET CHEMISTRY	Joshua Mertens
L1729601-13A	Plastic-A-GS	INTACT	23-AUG-17	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIDGE	Bethany Bedard	A2-CUSTODY-FRZ1-Z1	A2-CUSTODY-FRZ1-Z1	Bethany Bedard
L1729601-13A	Plastic-A-GS	INTACT	23-AUG-17	A2-LOGIN	A2-LOGIN	Brett Read	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIDGE	Brett Read
L1729601-14A	Plastic-A-GS	INTACT	13-SEP-17	CUSTODY	A2-WET CHEMISTRY	Alp Demiroz	A2-CUSTODY-FRZ1-Z1	A2-CUSTODY-FRZ1-Z1	Alp Demiroz
L1729601-14A	Plastic-A-GS	INTACT	13-SEP-17	A2-CUSTODY-REFRIDGE	A2-CUSTODY-FRZ1-Z1	Sonal Patel	A2-WET CHEMISTRY	A2-WET CHEMISTRY	Sonal Patel
L1729601-14A	Plastic-A-GS	INTACT	11-SEP-17	A2-CUSTODY	A2-CUSTODY-REFRIDGE	Malak Gabra	A2-CUSTODY-FRZ1-Z1	A2-CUSTODY-FRZ1-Z1	Malak Gabra
L1729601-14A	Plastic-A-GS	INTACT	11-SEP-17	A2-CUSTODY-FRZ1-Z1	A2-WET CHEMISTRY	Jennifer Hoaglund	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIDGE	Jennifer Hoaglund
L1729601-14A	Plastic-A-GS	INTACT	11-SEP-17	A2-CUSTODY-REFRIDGE	A2-CUSTODY-FRZ1-Z1	Joshua Mertens	A2-WET CHEMISTRY	A2-WET CHEMISTRY	Joshua Mertens
L1729601-14A	Plastic-A-GS	INTACT	23-AUG-17	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIDGE	Bethany Bedard	A2-CUSTODY-FRZ1-Z1	A2-CUSTODY-FRZ1-Z1	Bethany Bedard
L1729601-14A	Plastic-A-GS	INTACT	23-AUG-17	A2-LOGIN	A2-LOGIN	Brett Read	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIDGE	Brett Read
L1729601-15A	Plastic-A-GS	INTACT	23-AUG-17	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIDGE	Bethany Bedard	A2-CUSTODY-FRZ1-Z1	A2-CUSTODY-FRZ1-Z1	Bethany Bedard
L1729601-15A	Plastic-A-GS	INTACT	23-AUG-17	A2-LOGIN	A2-LOGIN	Christopher Collins	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIDGE	Christopher Collins

# Chain of Custody

L1729601

# Environmental Analysis Request/Chain of Custody

CHAIN



Page 1 of 1

Project Name/#: USDC Penobscot Project Manager: Rod Pendleton Sampler: KB/JP Phone #: _____ State where samples were collected: <u>ME</u> For Compliance: Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>		PN #: 3616166052.04A.030 P.O. #: _____ PWSID #: _____ Quote #: _____		Matrix <input type="checkbox"/> Tissue <input type="checkbox"/> Ground <input type="checkbox"/> Surface <input type="checkbox"/> Potable <input type="checkbox"/> NPDES <input checked="" type="checkbox"/> Soil <input type="checkbox"/> Water <input type="checkbox"/> Other: _____		Analyses Requested Preservation Codes				For Lab Use Only SF #: _____ SCR #: _____	
Client: <b>Amech Foster Wheeler</b> 751 Congress St. Suite 200 Portland, ME 04101		Collection Date: _____ Time: _____ Grab <input type="checkbox"/> Composite <input type="checkbox"/>		Total # of Containers TOC-Loyd Kahn 8 Oz AGI/4 DEGC		Preservation Codes H = HCl T = Thiosulfate N = HNO <sub>3</sub> B = NaOH S = H <sub>2</sub> SO <sub>4</sub> P = H <sub>3</sub> PO <sub>4</sub> O = Other				Remarks	
Sample Identification											
-01	1	W-101-A_081517_SED_00-01	081517	1445							
-02	2	W-101-A_081517_SED_01-03	081517	1447							
-03	3	W-101-B_081517_SED_00-01	081517	1518							
-04	4	W-101-B_081517_SED_01-03	081517	1520							
-05	5	W-102-A_081517_SED_00-01	081517	1435							Uss volume for 3X replicate
-06	6	W-102-A_081517_SED_01-03	081517	1437							
-07	7	W-102-B_081517_SED_00-01	081517	1423							
-08	8	W-102-B_081517_SED_01-03	081517	1425							
-09	9	W-102-C_081517_SED_00-01	081517	1535							
-10	10	W-102-C_081517_SED_01-03	081517	1537							
-11	11	W-108-A_081517_SED_00-01	081517	1350							
-12	12	W-108-A_081517_SED_01-03	081517	1351							
-13	13										
-14	14										
-15	15										
Turnaround Time Requested (TAT) (please check): Standard <input checked="" type="checkbox"/> Rush <input type="checkbox"/> (Rush TAT is subject to laboratory approval and surcharges.)				Relinquished by: <i>KB</i> Date: <i>8-18-17</i> Time: _____		Received by: _____ Date: _____ Time: _____					
Notes: aliquots to ALPHA  FedEx # _____ # of Coolers _____ Sample disposal - Hold Equipment Blanks 1-4 until 30 days after delivery of report Report and EDD to: denise.king@amecfw.com / 978-692-6633				Relinquished by: <i>KB</i> Date: <i>8/24/17</i> Time: <i>16:00</i>		Received by: <i>Cosbin Powell</i> Date: _____ Time: _____					
				Relinquished by: _____ Date: _____ Time: _____		Received by: _____ Date: _____ Time: _____					
Data Package Options (please check if required) High <input type="checkbox"/> Standard <input checked="" type="checkbox"/>				Relinquished by Commercial Carrier: _____		Received by: _____ Date: _____ Time: _____					
EDD Required? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> If yes, format: _____				UPS _____ FedEx <input checked="" type="checkbox"/> Other _____		Received by: <i>KB</i> Date: <i>8/19/17</i> Time: <i>9:10</i>				Temperature upon receipt <i>-50</i> °C	

-01  
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yo

Rec'd Kim Ballin 8/23/17 10:37 - PAK  
8103 4444 4607

# Wet Chemistry

# **Total Solids / Percent Moisture Analysis**

# Sample Raw Data



<b>WorkGroup</b> WG1040267	<b>Temp In (C)</b> 105	<b>Temp In (C)</b> 105	<b>Temp In (C)</b> 105	<b>Temp In (C)</b> 105
<b>Title</b> Solids, Total	<b>Temp Out (C)</b> 105	<b>Temp Out (C)</b> 105	<b>Temp Out (C)</b> 105	<b>Temp Out (C)</b> 105
<b>Method</b> SM2540G	<b>Time In</b> 11-SEP-17 13:52	<b>Time In</b> 12-SEP-17 08:23	<b>Time In</b> 12-SEP-17 08:23	<b>Time In</b> 12-SEP-17 08:23
<b>Instrument</b> BALANCEWC1	<b>Time Out</b> 12-SEP-17 08:19	<b>Time Out</b> 12-SEP-17 09:32	<b>Time Out</b> 12-SEP-17 09:32	<b>Time Out</b> 12-SEP-17 09:32

Sample #	Analysis Date	Analyst	Tare Weight (gm)	Gross Weight (gm)	Net Weight (1) (gm)	Net Weight (2) (gm)	Net Weight (3) (gm)	Net Weight (4) (gm)	Result %	Comment
L1729272-21	11-SEP-17 09:44	JOSHUA MERTENS	1.19	8.55	6.52	6.52			72.42	
L1729601-01	11-SEP-17 09:44	JOSHUA MERTENS	1.19	7.27	3.44	3.46			37.01	
L1729601-02	11-SEP-17 09:44	JOSHUA MERTENS	1.17	8.49	3.86	3.87			36.75	
L1729601-03	11-SEP-17 09:44	JOSHUA MERTENS	1.17	8.26	2.95	2.96			25.11	
L1729601-04	11-SEP-17 09:44	JOSHUA MERTENS	1.18	8.05	3.08	3.09			27.66	
L1729601-05	11-SEP-17 09:44	JOSHUA MERTENS	1.17	7.14	2.89	2.91			28.81	
L1729601-06	11-SEP-17 09:44	JOSHUA MERTENS	1.19	7.42	3.04	3.05			29.70	
L1729601-07	11-SEP-17 09:44	JOSHUA MERTENS	1.18	7.25	2.72	2.73			25.37	
L1729601-08	11-SEP-17 09:44	JOSHUA MERTENS	1.17	6.99	2.75	2.75			27.15	
L1729601-09	11-SEP-17 09:44	JOSHUA MERTENS	1.19	7.4	2.28	2.28			17.55	
L1729601-10	11-SEP-17 09:44	JOSHUA MERTENS	1.16	7.44	2.47	2.47			20.86	
L1729601-11	11-SEP-17 09:44	JOSHUA MERTENS	1.19	7.68	3.21	3.21			31.12	
L1729601-12	11-SEP-17 09:44	JOSHUA MERTENS	1.2	7.62	2.96	2.94			27.10	
L1729601-13	11-SEP-17 09:44	JOSHUA MERTENS	1.18	7.49	3.78	3.78			41.20	
L1729601-14	11-SEP-17 09:44	JOSHUA MERTENS	1.18	7.73	3.74	3.74			39.08	
L1729602-01	11-SEP-17 14:39	JOSHUA MERTENS	1.18	7.28	3.8	3.8			42.95	
L1729602-02	11-SEP-17 14:39	JOSHUA MERTENS	1.21	8.72	4.84	4.84			48.34	
WG1040267-1	11-SEP-17 09:44	JOSHUA MERTENS	1.18	7.25	5.56	5.54			71.83	

# **Work Group**

ALPHA ANALYTICAL LABORATORIES, INC.

Alpha WORK GROUP REPORT (wk02)

Sep 19 2017, 01:27 pm

Work Group: WG1040267 for Department: 7 Wet Chemistry

Created: 11-SEP-17 Due: Operator: jh

Sample	Client ID	C Product	Matrix	Stat	UA	HOLD	DUE	PR	Location
L1729272-21	327-0255	S A2-TS	SOIL	DONE	U	0824	0912	S0	Glass-A.06
L1729601-01	W-101-A_081517_SED_0	S A2-TS	SOIL	DONE	U	0822	0920	S0	Glass-A.06
L1729601-02	W-101-A_081517_SED_0	S A2-TS	SOIL	DONE	U	0822	0920	S0	Glass-A.06
L1729601-03	W-101-B_081517_SED_0	S A2-TS	SOIL	DONE	U	0822	0920	S0	Glass-A.06
L1729601-04	W-101-B_081517_SED_0	S A2-TS	SOIL	DONE	U	0822	0920	S0	Glass-A.06
L1729601-05	W-101-B_081517_SED_0	S A2-TS	SOIL	DONE	U	0822	0920	S0	Glass-A.06
L1729601-06	W-101-B_081517_SED_0	S A2-TS	SOIL	DONE	U	0822	0920	S0	Glass-A.06
L1729601-07	W-102-A_081517_SED_0	S A2-TS	SOIL	DONE	U	0822	0920	S0	Glass-A.06
L1729601-08	W-102-A_081517_SED_0	S A2-TS	SOIL	DONE	U	0822	0920	S0	Glass-A.06
L1729601-09	W-102-B_081517_SED_0	S A2-TS	SOIL	DONE	U	0822	0920	S0	Glass-A.06
L1729601-10	W-102-B_081517_SED_0	S A2-TS	SOIL	DONE	U	0822	0920	S0	Glass-A.06
L1729601-11	W-102-C_081517_SED_0	S A2-TS	SOIL	DONE	U	0822	0920	S0	Glass-A.06
L1729601-12	W-102-C_081517_SED_0	S A2-TS	SOIL	DONE	U	0822	0920	S0	Glass-A.06
L1729601-13	W-108-A_081517_SED_0	S A2-TS	SOIL	DONE	U	0822	0920	S0	Glass-A.06
L1729601-14	W-108-A_081517_SED_0	S A2-TS	SOIL	DONE	U	0822	0920	S0	Glass-A.06
L1729602-01	ES-13_081517_SED_00-	S A2-TS	SOIL	DONE	U	0822	0919	S0	Glass-A.06
L1729602-02	ES-13_081517_SED_01-	S A2-TS	SOIL	DONE	U	0822	0919	S0	Glass-A.06
WG1040267-1	Duplicate Sample	S A2-TS	SOIL	DONE	U				

Comments:

WG1040267-1 L1729272-21

# **Organic Carbon Analysis**

# Sequence Logs

Date of report: 9/21/2017 7:43 AM  
 User ID: mansfield toc1

Run Details				Results			Signals			
Run	Run #	Weight	Created on	Carbon	Hydroge	Nitrogen	ZR	CR	HR	NR
K1	1	11.040	9/20/2017 8:38:50 AM	14.810	18.006	0.542	1452	16959	27597	15282
BLANK	2		9/20/2017 8:43:28 AM	45	660	302	1454	14889	15549	14844
K1	3	10.750	9/20/2017 8:53:36 AM	14.735	17.980	0.077	1453	16312	26683	14685
0000	4	10.750	9/20/2017 8:58:09 AM	-0.001%	5.241%	0.007%	1453	14695	25369	14654
1000	5	11.200	9/20/2017 9:02:42 AM	0.078%	5.061%	0.005%	1449	14768	25503	14597
5000	6	11.460	9/20/2017 9:07:16 AM	0.445%	4.881%	0.004%	1454	15436	26039	14646
10000	7	10.680	9/20/2017 9:11:49 AM	0.877%	5.304%	0.004%	1454	16049	26778	14635
<del>20000</del> <i>RL</i>	8	11.040	9/20/2017 9:16:23 AM	1.488%	5.105%	0.003%	1455	17087	27765	14639
40000	9	11.050	9/20/2017 9:20:56 AM	3.734%	5.033%	0.003%	1454	20715	31260	14633
<del>ICV</del> <i>RL</i>	10	10.990	9/20/2017 9:25:30 AM	0.886%	5.125%	0.002%	1455	16096	26767	14627
<del>ICB</del> <i>RL</i>	11	49.380	9/20/2017 9:30:03 AM	-0.001%	0.007%	0.0%	1455	14658	15365	14622
20000	12	10.250	9/20/2017 9:35:38 AM	1.825%	5.393%	0.008%	1449	17399	27884	14618
ICV	13	10.580	9/20/2017 10:06:21 AM	0.952%	5.370%	0.003%	1453	16133	26892	14615
ICB	14	45.190	9/20/2017 10:15:28 AM	-0.002%	0.018%	0.0%	1455	14647	15441	14616
HICV	15	52.070	9/20/2017 10:15:29 AM	3.605%	1.070%	0.0%	1454	42123	52689	14602
SRM1944	16	5.890	9/20/2017 10:22:40 AM	4.202%	14.615	0.016%	1453	18334	34301	14668
MB	17	63.0	9/20/2017 10:27:14 AM	0.030%	0.039%	0.0%	1455	14933	16023	14613
SRM1944	18	7.750	9/20/2017 10:31:47 AM	3.575%	1.596%	0.013%	1449	18735	21585	14637
MB	19	62.430	9/20/2017 10:36:20 AM	0.033%	-0.051%	0.0%	1454	14942	15027	14601
MB	20	51.100	9/20/2017 10:40:53 AM	0.004%	-0.058%	0.0%	1449	14621	14743	14547
MB	21	62.880	9/20/2017 10:45:27 AM	0.002%	-0.053%	0.0%	1453	14656	14715	14592
CCV	26	10.160	9/20/2017 11:08:13 AM	1.042%	5.658%	0.0%	1449	16139	27017	14546
CCB	27	50.180	9/20/2017 11:12:47 AM	0.005%	-0.032%	0.0%	1455	14691	15056	14608
CCV	38	10.320	9/20/2017 12:15:39 PM	1.047%	5.689%	0.001%	1454	16229	27325	14605
CCB	39	59.240	9/20/2017 12:20:13 PM	0.002%	-0.039%	0.0%	1455	14671	14908	14613
CCV	50	10.610	9/20/2017 1:13:17 PM	0.010%	-0.214%	-0.001%	1454	14651	14896	14592

Reported on 9/21/2017 7:43 AM by mansfield\_toc1

Run Details				Results			Signals			
Run	Run #	Weight	Created on	Carbon	Hydroge	Nitrogen	ZR	CR	HR	NR
CCB	51	46.030	9/20/2017 1:17:50 PM	-.001%	-.071%	0.0%	1453	14617	14685	14578
CCV	52	10.610	9/20/2017 1:44:59 PM	0.782%	5.313%	-.001%	1454	15848	26528	14590
CCB	53	46.030	9/20/2017 1:49:33 PM	0.001%	-.060%	0.0%	1454	14648	14805	14601
CCV	54	10.750	9/20/2017 1:54:06 PM	1.002%	5.349%	0.001%	1453	16222	27102	14602
CCB	55	49.880	9/20/2017 1:58:40 PM	0.001%	-.028%	0.0%	1449	14589	14986	14541
CCV	3	10.480	9/20/2017 2:52:19 PM	1.016%	5.523%	-.001%	1453	16190	27138	14588
CCB	4	46.460	9/20/2017 2:56:53 PM	-.005%	-.030%	0.0%	1454	14604	15001	14596
SRM1944	5	4.080	9/20/2017 7:23:13 PM	3.664%	0.813%	0.038%	1453	16953	18192	14722
MB	6	42.610	9/20/2017 7:27:47 PM	0.010%	-.079%	0.001%	1453	14722	14769	14614
SRM1944	7	3.240	9/20/2017 7:32:20 PM	3.239%	-.420%	0.012%	1453	16203	16610	14624
MB	8	33.490	9/20/2017 7:36:54 PM	0.006%	-.103%	0.0%	1453	14667	14701	14593
172960101	9	5.010	9/20/2017 7:56:02 PM	7.777%	1.698%	0.028%	1453	20455	22618	14709
172960101	10	5.470	9/20/2017 8:00:36 PM	7.749%	1.767%	0.030%	1452	20967	23336	14720
172960101D	11	5.750	9/20/2017 8:05:09 PM	8.840%	2.110%	0.018%	1453	22166	24974	14683
172960101D	12	5.810	9/20/2017 8:09:43 PM	7.971%	1.843%	0.026%	1453	21545	24099	14723
172960101MS	13	5.760	9/20/2017 8:14:16 PM	10.0%	10.493	0.027%	1453	23201	34605	14727
172960101MS	14	6.070	9/20/2017 8:18:50 PM	9.663%	10.188	0.027%	1455	23373	35026	14745
CCV	15	9.950	9/20/2017 8:27:25 PM	0.958%	5.808%	-.001%	1454	16030	26962	14592
CCB	16	38.740	9/20/2017 8:31:59 PM	-.002%	-.023%	-.001%	1456	14632	15123	14598
172960102	17	8.240	9/20/2017 8:44:02 PM	8.729%	2.277%	0.025%	1454	25348	29335	14777
172960102	18	7.820	9/20/2017 8:48:35 PM	8.779%	2.277%	0.026%	1454	24866	28683	14774
172960103	19	7.330	9/20/2017 8:53:09 PM	9.281%	2.339%	0.028%	1450	24738	28438	14738
172960103	20	7.970	9/20/2017 8:57:43 PM	9.066%	2.291%	0.030%	1455	25426	29324	14807
172960104	21	5.040	9/20/2017 9:20:29 PM	10.534	2.285%	0.031%	1454	22545	25243	14731
172960104	22	5.520	9/20/2017 9:25:02 PM	10.965	2.363%	0.032%	1454	23655	26625	14753
172960105	23	5.160	9/20/2017 9:29:36 PM	10.815	2.261%	0.028%	1454	22939	25664	14728
172960105	24	5.810	9/20/2017 9:38:45 PM	10.999	2.382%	0.029%	1454	24145	27257	14748

Reported on 9/21/2017 7:43 AM by mansfield\_toc1

Run Details				Results			Signals			
Run	Run #	Weight	Created on	Carbon	Hydroge	Nitrogen	ZR	CR	HR	NR
172960105	24	5.810	9/20/2017 9:38:45 PM	10.999	2.382%	0.029%	1454	24145	27257	14748
172960106	25	5.790	9/20/2017 9:38:46 PM	11.751	2.466%	0.029%	1454	24748	27938	14746
172960106	26	6.020	9/20/2017 9:43:19 PM	10.691	2.281%	0.026%	1455	24205	27297	14742
CCV	27	9.850	9/20/2017 9:48:06 PM	1.009%	6.158%	-.002%	1455	16084	27526	14587
CCB	28	38.940	9/20/2017 9:52:40 PM	-.002%	-.042%	0.0%	1455	14626	14987	14595
172960107	29	9.230	9/20/2017 10:24:25 PM	14.546	3.550%	0.051%	1449	34648	41128	14954
172960107	30	9.850	9/20/2017 10:28:58 PM	14.230	3.627%	0.044%	1455	35547	42553	14988
172960108	31	5.780	9/20/2017 10:33:32 PM	17.810	3.678%	0.053%	1455	29985	34417	14874
172960108	32	6.280	9/20/2017 10:38:05 PM	15.681	3.426%	0.046%	1455	29313	33790	14856
172960109	33	6.330	9/20/2017 10:42:39 PM	24.431	5.306%	0.091%	1450	37734	44360	15055
172960109	34	6.270	9/20/2017 10:47:12 PM	24.519	5.324%	0.080%	1455	37587	44176	15042
172960110	35	6.600	9/20/2017 10:51:46 PM	20.869	4.596%	0.068%	1451	35157	41204	14954
172960110	36	7.190	9/20/2017 10:56:19 PM	20.347	4.450%	0.065%	1453	36453	42795	14997
172960111	37	8.150	9/20/2017 11:00:53 PM	13.621	3.262%	0.043%	1454	31186	36566	14894
172960111	38	8.240	9/20/2017 11:05:26 PM	14.263	3.403%	0.043%	1454	32147	37786	14902
CCV	39	9.800	9/20/2017 11:10:18 PM	1.025%	6.086%	-.002%	1454	16097	27358	14584
CCB	40	34.060	9/20/2017 11:14:51 PM	0.001%	-.048%	-.001%	1454	14634	14991	14587
172960112	41	8.290	9/20/2017 11:22:25 PM	13.055	2.999%	0.045%	1453	30795	35868	14911
172960112	42	8.370	9/20/2017 11:26:59 PM	13.055	3.215%	0.044%	1453	30948	36386	14911
172960113	43	8.040	9/20/2017 11:31:32 PM	7.622%	2.031%	0.038%	1456	23890	27445	14877
172960113	44	7.900	9/20/2017 11:36:06 PM	7.736%	2.087%	0.037%	1455	23854	27437	14866
172960114	45	5.480	9/20/2017 11:40:39 PM	6.444%	1.481%	0.019%	1455	19913	22006	14701
172960114	46	5.930	9/20/2017 11:45:13 PM	6.277%	1.262%	0.017%	1455	20191	22172	14700
SRM1944	47	3.260	9/20/2017 11:49:46 PM	-.073%	-1.041%	-.005%	1455	14605	14650	14597
MB	48	43.870	9/20/2017 11:54:20 PM	-.006%	-.085%	0.0%	1455	14599	14583	14592
CCV	49	9.740	9/21/2017 12:04:21 AM	2.008%	5.871%	0.002%	1450	17481	28306	14576
CCV	50	9.590	9/21/2017 12:12:06 AM	1.027%	6.120%	-.002%	1455	16082	27174	14598



Reported on 9/21/2017 7:43 AM by mansfield\_toc1

Run Details				Results			Signals			
Run	Run #	Weight	Created on	Carbon	Hydroge	Nitrogen	ZR	CR	HR	NR
CCV	50	9.590	9/21/2017 12:12:06 AM	1.027%	6.120%	-.002%	1455	16082	27174	14598
CCB	51	47.960	9/21/2017 12:19:25 AM	-.002%	-.026%	0.0%	1455	14632	15056	14600

# Sample Raw Data

Date of report 9/21/2017 7:43:29AM

User ID mansfield\_toc1

DATE & TIME 9/20/2017 8:38:50 AM P\_ID 092017SP  
RUN TYPE K1 USER ID mansfield\_toc1  
WEIGHT (mg) 11.040 MODE CHN

SIGNALS

ZR 14529 AVERAGE RESULTS  
KC 14.810 NR 15282 KC 14.539  
KH 18.006 CR 16959 KH 17.609  
KN 0.542 HR 27597 KN 85.841  
BLANKS 42 639 55  
K FACTORS 1.0% 5.03% 11.67%  
FILL TIME 15 Seconds

NUMBER MESSAGE  
12 NITROGEN KFACTOR OUT OF TOLERANCE

DATE & TIME 9/20/2017 8:43:28 AM P\_ID 092017SP  
RUN TYPE BLANK USER ID mansfield\_toc1  
MODE CHN

SIGNALS

ZR 14542 AVERAGE RESULTS  
CARBON 45 NR 14844 CARBON 43  
HYDROGEN 660 CR 14889 HYDROGEN 649  
NITROGEN 302 HR 15549 NITROGEN 55  
FILL TIME 15 Seconds

NUMBER MESSAGE  
17 NITROGEN BLANK OUT OF TOLERANCE

DATE & TIME 9/20/2017 8:53:36 AM P\_ID 092017SP  
RUN TYPE K1 USER ID mansfield\_toc1  
WEIGHT (mg) 10.750 MODE CHN

SIGNALS

ZR 14534 AVERAGE RESULTS  
KC 14.735 NR 14685 KC 14.637  
KH 17.980 CR 16312 KH 17.794  
KN 0.077 HR 26683 KN 85.841  
BLANKS 43 649 55  
K FACTORS 1.0% 5.03% 11.67%  
FILL TIME 15 Seconds

DATE & TIME 9/20/2017 8:58:09 AM P\_ID 092017SP  
SAMPLE ID 0000 USER ID mansfield\_toc1  
WEIGHT (mg) 10.750 MODE CHN

SIGNALS

ZR 14536  
CARBON -.001% NR 14654  
HYDROGEN 5.241% CR 14695  
NITROGEN 0.007% HR 25369  
BLANKS 43 649 55  
K FACTORS 14.637 17.794 85.841

FILL COMB BOOST1 BOOST2  
 0 0 0 0  
 FILL TIME 15 Seconds

DATE & TIME 9/20/2017 9:02:42 AM P\_ID 092017SP  
 SAMPLE ID 1000 USER ID mansfield\_toc1  
 WEIGHT (mg) 11.200 MODE CHN

SIGNALS  
 ZR 14494  
 NR 14597  
 CR 14768  
 HR 25503

CARBON 0.078%  
 HYDROGEN 5.061%  
 NITROGEN 0.005%  
 BLANKS 43 649 55  
 K FACTORS 14.637 17.794 85.841  
 FILL COMB BOOST1 BOOST2  
 0 0 0 0  
 FILL TIME 15 Seconds

DATE & TIME 9/20/2017 9:07:16 AM P\_ID 092017SP  
 SAMPLE ID 5000 USER ID mansfield\_toc1  
 WEIGHT (mg) 11.460 MODE CHN

SIGNALS  
 ZR 14548  
 NR 14646  
 CR 15436  
 HR 26039

CARBON 0.445%  
 HYDROGEN 4.881%  
 NITROGEN 0.004%  
 BLANKS 43 649 55  
 K FACTORS 14.637 17.794 85.841  
 FILL COMB BOOST1 BOOST2  
 0 0 0 0  
 FILL TIME 15 Seconds

DATE & TIME 9/20/2017 9:11:49 AM P\_ID 092017SP  
 SAMPLE ID 10000 USER ID mansfield\_toc1  
 WEIGHT (mg) 10.680 MODE CHN

SIGNALS  
 ZR 14545  
 NR 14635  
 CR 16049  
 HR 26778

CARBON 0.877%  
 HYDROGEN 5.304%  
 NITROGEN 0.004%  
 BLANKS 43 649 55  
 K FACTORS 14.637 17.794 85.841  
 FILL COMB BOOST1 BOOST2  
 0 0 0 0  
 FILL TIME 15 Seconds

DATE & TIME 9/20/2017 9:16:23 AM P\_ID 092017SP  
 SAMPLE ID 20000 USER ID mansfield\_toc1  
 WEIGHT (mg) 11.040 MODE CHN

SIGNALS  
 ZR 14552

CARBON	1.488%		NR	14639
HYDROGEN	5.105%		CR	17087
NITROGEN	0.003%		HR	27765
BLANKS	43	649	55	
K FACTORS	14.637	17.794	85.841	
FILL	COMB	BOOST1	BOOST2	
0	0	0	0	
FILL TIME	15 Seconds			

DATE & TIME	9/20/2017 9:20:56 AM	P_ID	092017SP
SAMPLE ID	40000	USER ID	mansfield_toc1
WEIGHT (mg)	11.050	MODE	CHN

SIGNALS

		ZR	14549
CARBON	3.734%	NR	14633
HYDROGEN	5.033%	CR	20715
NITROGEN	0.003%	HR	31260
BLANKS	43	649	55
K FACTORS	14.637	17.794	85.841
FILL	COMB	BOOST1	BOOST2
0	0	0	0
FILL TIME	15 Seconds		

DATE & TIME	9/20/2017 9:25:30 AM	P_ID	092017SP
SAMPLE ID	ICV	USER ID	mansfield_toc1
WEIGHT (mg)	10.990	MODE	CHN

SIGNALS

		ZR	14551
CARBON	0.886%	NR	14627
HYDROGEN	5.125%	CR	16096
NITROGEN	0.002%	HR	26767
BLANKS	43	649	55
K FACTORS	14.637	17.794	85.841
FILL	COMB	BOOST1	BOOST2
0	0	0	0
FILL TIME	15 Seconds		

DATE & TIME	9/20/2017 9:30:03 AM	P_ID	092017SP
SAMPLE ID	ICB	USER ID	mansfield_toc1
WEIGHT (mg)	49.380	MODE	CHN

SIGNALS

		ZR	14552
CARBON	-.001%	NR	14622
HYDROGEN	0.007%	CR	14658
NITROGEN	0.0%	HR	15365
BLANKS	43	649	55
K FACTORS	14.637	17.794	85.841
FILL	COMB	BOOST1	BOOST2
0	0	0	0
FILL TIME	15 Seconds		

DATE & TIME	9/20/2017 9:35:38 AM	P_ID	092017SP
SAMPLE ID	20000	USER ID	mansfield_toc1
WEIGHT (mg)	10.250	MODE	CHN

SIGNALS			
	ZR	14492	
CARBON	1.825%	NR	14618
HYDROGEN	5.393%	CR	17399
NITROGEN	0.008%	HR	27884
BLANKS	43	649	55
K FACTORS	14.637	17.794	85.841
FILL	COMB	BOOST1	BOOST2
0	0	0	0
FILL TIME	15 Seconds		

DATE & TIME	9/20/2017 10:06:21 AM	P_ID	092017SP
SAMPLE ID	ICV	USER ID	mansfield_toc1
WEIGHT (mg)	10.580	MODE	CHN

SIGNALS			
	ZR	14537	
CARBON	0.952%	NR	14615
HYDROGEN	5.370%	CR	16133
NITROGEN	0.003%	HR	26892
BLANKS	43	649	55
K FACTORS	14.637	17.794	85.841
FILL	COMB	BOOST1	BOOST2
0	0	0	0
FILL TIME	15 Seconds		

DATE & TIME	9/20/2017 10:15:28 AM	P_ID	092017SP
SAMPLE ID	ICB	USER ID	mansfield_toc1
WEIGHT (mg)	45.190	MODE	CHN

SIGNALS			
	ZR	14550	
CARBON	-0.002%	NR	14616
HYDROGEN	0.018%	CR	14647
NITROGEN	0.0%	HR	15441
BLANKS	43	649	55
K FACTORS	14.637	17.794	85.841
FILL	COMB	BOOST1	BOOST2
0	0	0	0
FILL TIME	15 Seconds		

DATE & TIME	9/20/2017 10:15:29 AM	P_ID	092017SP
SAMPLE ID	HICV	USER ID	mansfield_toc1
WEIGHT (mg)	52.070	MODE	CHN

SIGNALS			
	ZR	14542	
CARBON	3.605%	NR	14602
HYDROGEN	1.070%	CR	42123
NITROGEN	0.0%	HR	52689
BLANKS	43	649	55

K FACTORS 14.637 17.794 85.841  
 FILL COMB BOOST1 BOOST2  
 0 0 0 0  
 FILL TIME 15 Seconds

DATE & TIME 9/20/2017 10:22:40 AM P\_ID 092017SP  
 SAMPLE ID SRM1944 USER ID mansfield\_toc1  
 WEIGHT (mg) 5.890 MODE CHN

SIGNALS

ZR 14534  
 CARBON 4.202% NR 14668  
 HYDROGEN 14.615% CR 18334  
 NITROGEN 0.016% HR 34301  
 BLANKS 43 649 55  
 K FACTORS 14.637 17.794 85.841  
 FILL COMB BOOST1 BOOST2  
 0 0 0 0  
 FILL TIME 16 Seconds

DATE & TIME 9/20/2017 10:27:14 AM P\_ID 092017SP  
 SAMPLE ID MB USER ID mansfield\_toc1  
 WEIGHT (mg) 63.0 MODE CHN

SIGNALS

ZR 14556  
 CARBON 0.030% NR 14613  
 HYDROGEN 0.039% CR 14933  
 NITROGEN 0.0% HR 16023  
 BLANKS 43 649 55  
 K FACTORS 14.637 17.794 85.841  
 FILL COMB BOOST1 BOOST2  
 0 0 0 0  
 FILL TIME 14 Seconds

DATE & TIME 9/20/2017 10:31:47 AM P\_ID 092017SP  
 SAMPLE ID SRM1944 USER ID mansfield\_toc1  
 WEIGHT (mg) 7.750 MODE CHN

SIGNALS

ZR 14496  
 CARBON 3.575% NR 14637  
 HYDROGEN 1.596% CR 18735  
 NITROGEN 0.013% HR 21585  
 BLANKS 43 649 55  
 K FACTORS 14.637 17.794 85.841  
 FILL COMB BOOST1 BOOST2  
 0 0 0 0  
 FILL TIME 14 Seconds

DATE & TIME 9/20/2017 10:36:20 AM P\_ID 092017SP  
 SAMPLE ID MB USER ID mansfield\_toc1  
 WEIGHT (mg) 62.430 MODE CHN

			SIGNALS
			ZR 14543
CARBON	0.033%		NR 14601
HYDROGEN	-.051%		CR 14942
NITROGEN	0.0%		HR 15027
BLANKS	43	649	55
K FACTORS	14.637	17.794	85.841
FILL	COMB	BOOST1	BOOST2
0	0	0	0
FILL TIME	15 Seconds		

DATE & TIME	9/20/2017 10:40:53 AM	P_ID	092017SP
SAMPLE ID	MB	USER ID	mansfield_toc1
WEIGHT (mg)	51.100	MODE	CHN

			SIGNALS
			ZR 14493
CARBON	0.004%		NR 14547
HYDROGEN	-.058%		CR 14621
NITROGEN	0.0%		HR 14743
BLANKS	43	649	55
K FACTORS	14.637	17.794	85.841
FILL	COMB	BOOST1	BOOST2
0	0	0	0
FILL TIME	15 Seconds		

DATE & TIME	9/20/2017 10:45:27 AM	P_ID	092017SP
SAMPLE ID	MB	USER ID	mansfield_toc1
WEIGHT (mg)	62.880	MODE	CHN

			SIGNALS
			ZR 14538
CARBON	0.002%		NR 14592
HYDROGEN	-.053%		CR 14656
NITROGEN	0.0%		HR 14715
BLANKS	43	649	55
K FACTORS	14.637	17.794	85.841
FILL	COMB	BOOST1	BOOST2
0	0	0	0
FILL TIME	15 Seconds		

DATE & TIME	9/20/2017 11:08:13 AM	P_ID	092017SP
SAMPLE ID	CCV	USER ID	mansfield_toc1
WEIGHT (mg)	10.160	MODE	CHN

			SIGNALS
			ZR 14492
CARBON	1.042%		NR 14546
HYDROGEN	5.658%		CR 16139
NITROGEN	0.0%		HR 27017
BLANKS	43	649	55
K FACTORS	14.637	17.794	85.841
FILL	COMB	BOOST1	BOOST2
0	0	0	0
FILL TIME	15 Seconds		



DATE & TIME	9/20/2017 11:12:47 AM	P_ID	092017SP
SAMPLE ID	CCB	USER ID	mansfield_toc1
WEIGHT (mg)	50.180	MODE	CHN

SIGNALS			
		ZR	14553
CARBON	0.005%	NR	14608
HYDROGEN	-.032%	CR	14691
NITROGEN	0.0%	HR	15056
BLANKS	43	649	55
K FACTORS	14.637	17.794	85.841
FILL	COMB	BOOST1	BOOST2
0	0	0	0
FILL TIME	15 Seconds		

DATE & TIME	9/20/2017 12:15:39 PM	P_ID	092017SP
SAMPLE ID	CCV	USER ID	mansfield_toc1
WEIGHT (mg)	10.320	MODE	CHN

SIGNALS			
		ZR	14543
CARBON	1.047%	NR	14605
HYDROGEN	5.689%	CR	16229
NITROGEN	0.001%	HR	27325
BLANKS	43	649	55
K FACTORS	14.637	17.794	85.841
FILL	COMB	BOOST1	BOOST2
0	0	0	0
FILL TIME	16 Seconds		

DATE & TIME	9/20/2017 12:20:13 PM	P_ID	092017SP
SAMPLE ID	CCB	USER ID	mansfield_toc1
WEIGHT (mg)	59.240	MODE	CHN

SIGNALS			
		ZR	14557
CARBON	0.002%	NR	14613
HYDROGEN	-.039%	CR	14671
NITROGEN	0.0%	HR	14908
BLANKS	43	649	55
K FACTORS	14.637	17.794	85.841
FILL	COMB	BOOST1	BOOST2
0	0	0	0
FILL TIME	16 Seconds		

DATE & TIME	9/20/2017 1:13:17 PM	P_ID	092017SP
SAMPLE ID	CCV	USER ID	mansfield_toc1
WEIGHT (mg)	10.610	MODE	CHN

SIGNALS			
		ZR	14548
CARBON	0.010%	NR	14592
HYDROGEN	-.214%	CR	14651
NITROGEN	-.001%	HR	14896

BLANKS	43	649	55
K FACTORS	14.637	17.794	85.841
FILL	COMB	BOOST1	BOOST2
0	0	0	0
FILL TIME	15 Seconds		

DATE & TIME	9/20/2017 1:17:50 PM	P_ID	092017SP
SAMPLE ID	CCB	USER ID	mansfield_toc1
WEIGHT (mg)	46.030	MODE	CHN

		SIGNALS	
		ZR	14536
CARBON	-.001%	NR	14578
HYDROGEN	-.071%	CR	14617
NITROGEN	0.0%	HR	14685
BLANKS	43	649	55
K FACTORS	14.637	17.794	85.841
FILL	COMB	BOOST1	BOOST2
0	0	0	0
FILL TIME	15 Seconds		

DATE & TIME	9/20/2017 1:44:59 PM	P_ID	092017SP
SAMPLE ID	CCV	USER ID	mansfield_toc1
WEIGHT (mg)	10.610	MODE	CHN

		SIGNALS	
		ZR	14540
CARBON	0.782%	NR	14590
HYDROGEN	5.313%	CR	15848
NITROGEN	-.001%	HR	26528
BLANKS	43	649	55
K FACTORS	14.637	17.794	85.841
FILL	COMB	BOOST1	BOOST2
0	0	0	0
FILL TIME	15 Seconds		

DATE & TIME	9/20/2017 1:49:33 PM	P_ID	092017SP
SAMPLE ID	CCB	USER ID	mansfield_toc1
WEIGHT (mg)	46.030	MODE	CHN

		SIGNALS	
		ZR	14547
CARBON	0.001%	NR	14601
HYDROGEN	-.060%	CR	14648
NITROGEN	0.0%	HR	14805
BLANKS	43	649	55
K FACTORS	14.637	17.794	85.841
FILL	COMB	BOOST1	BOOST2
0	0	0	0
FILL TIME	15 Seconds		

DATE & TIME	9/20/2017 1:54:06 PM	P_ID	092017SP
SAMPLE ID	CCV	USER ID	mansfield_toc1
WEIGHT (mg)	10.750	MODE	CHN

			SIGNALS
			ZR 14539
CARBON	1.002%		NR 14602
HYDROGEN	5.349%		CR 16222
NITROGEN	0.001%		HR 27102
BLANKS	43	649	55
K FACTORS	14.637	17.794	85.841
FILL	COMB	BOOST1	BOOST2
0	0	0	0
FILL TIME	15 Seconds		

DATE & TIME	9/20/2017 1:58:40 PM	P_ID	092017SP
SAMPLE ID	CCB	USER ID	mansfield_toc1
WEIGHT (mg)	49.880	MODE	CHN

			SIGNALS
			ZR 14491
CARBON	0.001%		NR 14541
HYDROGEN	-.028%		CR 14589
NITROGEN	0.0%		HR 14986
BLANKS	43	649	55
K FACTORS	14.637	17.794	85.841
FILL	COMB	BOOST1	BOOST2
0	0	0	0
FILL TIME	15 Seconds		

DATE & TIME	9/20/2017 2:52:19 PM	P_ID	092017SP
SAMPLE ID	CCV	USER ID	mansfield_toc1
WEIGHT (mg)	10.480	MODE	CHN

			SIGNALS
			ZR 14539
CARBON	1.016%		NR 14588
HYDROGEN	5.523%		CR 16190
NITROGEN	-.001%		HR 27138
BLANKS	43	649	55
K FACTORS	14.637	17.794	85.841
FILL	COMB	BOOST1	BOOST2
0	0	0	0
FILL TIME	15 Seconds		

DATE & TIME	9/20/2017 2:56:53 PM	P_ID	092017SP
SAMPLE ID	CCB	USER ID	mansfield_toc1
WEIGHT (mg)	46.460	MODE	CHN

			SIGNALS
			ZR 14549
CARBON	-.005%		NR 14596
HYDROGEN	-.030%		CR 14604
NITROGEN	0.0%		HR 15001
BLANKS	43	649	55
K FACTORS	14.637	17.794	85.841
FILL	COMB	BOOST1	BOOST2
0	0	0	0
FILL TIME	15 Seconds		

DATE & TIME	9/20/2017 7:23:13 PM	P_ID	092017SP
SAMPLE ID	SRM1944	USER ID	mansfield_toc1
WEIGHT (mg)	4.080	MODE	CHN

SIGNALS

		ZR	14535
CARBON	3.664%	NR	14722
HYDROGEN	0.813%	CR	16953
NITROGEN	0.038%	HR	18192
BLANKS	43	649	55
K FACTORS	14.637	17.794	85.841
FILL	COMB	BOOST1	BOOST2
0	0	0	0
FILL TIME	15 Seconds		

DATE & TIME	9/20/2017 7:27:47 PM	P_ID	092017SP
SAMPLE ID	MB	USER ID	mansfield_toc1
WEIGHT (mg)	42.610	MODE	CHN

SIGNALS

		ZR	14538
CARBON	0.010%	NR	14614
HYDROGEN	-.079%	CR	14722
NITROGEN	0.001%	HR	14769
BLANKS	43	649	55
K FACTORS	14.637	17.794	85.841
FILL	COMB	BOOST1	BOOST2
0	0	0	0
FILL TIME	15 Seconds		

DATE & TIME	9/20/2017 7:32:20 PM	P_ID	092017SP
SAMPLE ID	SRM1944	USER ID	mansfield_toc1
WEIGHT (mg)	3.240	MODE	CHN

SIGNALS

		ZR	14536
CARBON	3.239%	NR	14624
HYDROGEN	-.420%	CR	16203
NITROGEN	0.012%	HR	16610
BLANKS	43	649	55
K FACTORS	14.637	17.794	85.841
FILL	COMB	BOOST1	BOOST2
0	0	0	0
FILL TIME	15 Seconds		

DATE & TIME	9/20/2017 7:36:54 PM	P_ID	092017SP
SAMPLE ID	MB	USER ID	mansfield_toc1
WEIGHT (mg)	33.490	MODE	CHN

SIGNALS

		ZR	14539
CARBON	0.006%	NR	14593
HYDROGEN	-.103%	CR	14667
NITROGEN	0.0%	HR	14701

BLANKS	43	649	55
K FACTORS	14.637	17.794	85.841
FILL	COMB	BOOST1	BOOST2
0	0	0	0
FILL TIME	15 Seconds		

DATE & TIME	9/20/2017 7:56:02 PM	P_ID	092017SP
SAMPLE ID	172960101	USER ID	mansfield_toc1
WEIGHT (mg)	5.010	MODE	CHN

		SIGNALS	
		ZR	14535
CARBON	7.777%	NR	14709
HYDROGEN	1.698%	CR	20455
NITROGEN	0.028%	HR	22618
BLANKS	43	649	55
K FACTORS	14.637	17.794	85.841
FILL	COMB	BOOST1	BOOST2
0	0	0	0
FILL TIME	15 Seconds		

DATE & TIME	9/20/2017 8:00:36 PM	P_ID	092017SP
SAMPLE ID	172960101	USER ID	mansfield_toc1
WEIGHT (mg)	5.470	MODE	CHN

		SIGNALS	
		ZR	14525
CARBON	7.749%	NR	14720
HYDROGEN	1.767%	CR	20967
NITROGEN	0.030%	HR	23336
BLANKS	43	649	55
K FACTORS	14.637	17.794	85.841
FILL	COMB	BOOST1	BOOST2
0	0	0	0
FILL TIME	15 Seconds		

DATE & TIME	9/20/2017 8:05:09 PM	P_ID	092017SP
SAMPLE ID	172960101D	USER ID	mansfield_toc1
WEIGHT (mg)	5.750	MODE	CHN

		SIGNALS	
		ZR	14539
CARBON	8.840%	NR	14683
HYDROGEN	2.110%	CR	22166
NITROGEN	0.018%	HR	24974
BLANKS	43	649	55
K FACTORS	14.637	17.794	85.841
FILL	COMB	BOOST1	BOOST2
0	0	0	0
FILL TIME	15 Seconds		

DATE & TIME	9/20/2017 8:09:43 PM	P_ID	092017SP
SAMPLE ID	172960101D	USER ID	mansfield_toc1
WEIGHT (mg)	5.810	MODE	CHN

				SIGNALS
				ZR 14538
CARBON	7.971%			NR 14723
HYDROGEN	1.843%			CR 21545
NITROGEN	0.026%			HR 24099
BLANKS	43	649	55	
K FACTORS	14.637	17.794	85.841	
FILL	COMB	BOOST1	BOOST2	
0	0	0	0	
FILL TIME	15 Seconds			

DATE & TIME	9/20/2017 8:14:16 PM	P_ID	092017SP
SAMPLE ID	172960101MS	USER ID	mansfield_toc1
WEIGHT (mg)	5.760	MODE	CHN

				SIGNALS
				ZR 14538
CARBON	10.0%			NR 14727
HYDROGEN	10.493%			CR 23201
NITROGEN	0.027%			HR 34605
BLANKS	43	649	55	
K FACTORS	14.637	17.794	85.841	
FILL	COMB	BOOST1	BOOST2	
0	0	0	0	
FILL TIME	15 Seconds			

DATE & TIME	9/20/2017 8:18:50 PM	P_ID	092017SP
SAMPLE ID	172960101MS	USER ID	mansfield_toc1
WEIGHT (mg)	6.070	MODE	CHN

				SIGNALS
				ZR 14550
CARBON	9.663%			NR 14745
HYDROGEN	10.188%			CR 23373
NITROGEN	0.027%			HR 35026
BLANKS	43	649	55	
K FACTORS	14.637	17.794	85.841	
FILL	COMB	BOOST1	BOOST2	
0	0	0	0	
FILL TIME	15 Seconds			

DATE & TIME	9/20/2017 8:27:25 PM	P_ID	092017SP
SAMPLE ID	CCV	USER ID	mansfield_toc1
WEIGHT (mg)	9.950	MODE	CHN

				SIGNALS
				ZR 14545
CARBON	0.958%			NR 14592
HYDROGEN	5.808%			CR 16030
NITROGEN	-.001%			HR 26962
BLANKS	43	649	55	
K FACTORS	14.637	17.794	85.841	
FILL	COMB	BOOST1	BOOST2	
0	0	0	0	
FILL TIME	16 Seconds			

DATE & TIME	9/20/2017 8:31:59 PM	P_ID	092017SP
SAMPLE ID	CCB	USER ID	mansfield_toc1
WEIGHT (mg)	38.740	MODE	CHN

SIGNALS

		ZR	14560
CARBON	-.002%	NR	14598
HYDROGEN	-.023%	CR	14632
NITROGEN	-.001%	HR	15123
BLANKS	43	649	55
K FACTORS	14.637	17.794	85.841
FILL	COMB	BOOST1	BOOST2
0	0	0	0
FILL TIME	15 Seconds		

DATE & TIME	9/20/2017 8:44:02 PM	P_ID	092017SP
SAMPLE ID	172960102	USER ID	mansfield_toc1
WEIGHT (mg)	8.240	MODE	CHN

SIGNALS

		ZR	14542
CARBON	8.729%	NR	14777
HYDROGEN	2.277%	CR	25348
NITROGEN	0.025%	HR	29335
BLANKS	43	649	55
K FACTORS	14.637	17.794	85.841
FILL	COMB	BOOST1	BOOST2
0	0	0	0
FILL TIME	15 Seconds		

DATE & TIME	9/20/2017 8:48:35 PM	P_ID	092017SP
SAMPLE ID	172960102	USER ID	mansfield_toc1
WEIGHT (mg)	7.820	MODE	CHN

SIGNALS

		ZR	14545
CARBON	8.779%	NR	14774
HYDROGEN	2.277%	CR	24866
NITROGEN	0.026%	HR	28683
BLANKS	43	649	55
K FACTORS	14.637	17.794	85.841
FILL	COMB	BOOST1	BOOST2
0	0	0	0
FILL TIME	15 Seconds		

DATE & TIME	9/20/2017 8:53:09 PM	P_ID	092017SP
SAMPLE ID	172960103	USER ID	mansfield_toc1
WEIGHT (mg)	7.330	MODE	CHN

SIGNALS

		ZR	14505
CARBON	9.281%	NR	14738
HYDROGEN	2.339%	CR	24738
NITROGEN	0.028%	HR	28438

BLANKS	43	649	55
K FACTORS	14.637	17.794	85.841
FILL	COMB	BOOST1	BOOST2
0	0	0	0
FILL TIME	15 Seconds		

DATE & TIME	9/20/2017 8:57:43 PM	P_ID	092017SP
SAMPLE ID	172960103	USER ID	mansfield_toc1
WEIGHT (mg)	7.970	MODE	CHN

		SIGNALS	
		ZR	14550
CARBON	9.066%	NR	14807
HYDROGEN	2.291%	CR	25426
NITROGEN	0.030%	HR	29324
BLANKS	43	649	55
K FACTORS	14.637	17.794	85.841
FILL	COMB	BOOST1	BOOST2
0	0	0	0
FILL TIME	15 Seconds		

DATE & TIME	9/20/2017 9:20:29 PM	P_ID	092017SP
SAMPLE ID	172960104	USER ID	mansfield_toc1
WEIGHT (mg)	5.040	MODE	CHN

		SIGNALS	
		ZR	14544
CARBON	10.534%	NR	14731
HYDROGEN	2.285%	CR	22545
NITROGEN	0.031%	HR	25243
BLANKS	43	649	55
K FACTORS	14.637	17.794	85.841
FILL	COMB	BOOST1	BOOST2
0	0	0	0
FILL TIME	15 Seconds		

DATE & TIME	9/20/2017 9:25:02 PM	P_ID	092017SP
SAMPLE ID	172960104	USER ID	mansfield_toc1
WEIGHT (mg)	5.520	MODE	CHN

		SIGNALS	
		ZR	14547
CARBON	10.965%	NR	14753
HYDROGEN	2.363%	CR	23655
NITROGEN	0.032%	HR	26625
BLANKS	43	649	55
K FACTORS	14.637	17.794	85.841
FILL	COMB	BOOST1	BOOST2
0	0	0	0
FILL TIME	15 Seconds		

DATE & TIME	9/20/2017 9:29:36 PM	P_ID	092017SP
SAMPLE ID	172960105	USER ID	mansfield_toc1
WEIGHT (mg)	5.160	MODE	CHN



			SIGNALS
			ZR 14549
CARBON	10.815%		NR 14728
HYDROGEN	2.261%		CR 22939
NITROGEN	0.028%		HR 25664
BLANKS	43	649	55
K FACTORS	14.637	17.794	85.841
FILL	COMB	BOOST1	BOOST2
0	0	0	0
FILL TIME	15 Seconds		

DATE & TIME	9/20/2017 9:38:45 PM	P_ID	092017SP
SAMPLE ID	172960105	USER ID	mansfield_toc1
WEIGHT (mg)	5.810	MODE	CHN

			SIGNALS
			ZR 14546
CARBON	10.999%		NR 14748
HYDROGEN	2.382%		CR 24145
NITROGEN	0.029%		HR 27257
BLANKS	43	649	55
K FACTORS	14.637	17.794	85.841
FILL	COMB	BOOST1	BOOST2
0	0	0	0
FILL TIME	16 Seconds		

DATE & TIME	9/20/2017 9:38:46 PM	P_ID	092017SP
SAMPLE ID	172960106	USER ID	mansfield_toc1
WEIGHT (mg)	5.790	MODE	CHN

			SIGNALS
			ZR 14546
CARBON	11.751%		NR 14746
HYDROGEN	2.466%		CR 24748
NITROGEN	0.029%		HR 27938
BLANKS	43	649	55
K FACTORS	14.637	17.794	85.841
FILL	COMB	BOOST1	BOOST2
0	0	0	0
FILL TIME	16 Seconds		

DATE & TIME	9/20/2017 9:43:19 PM	P_ID	092017SP
SAMPLE ID	172960106	USER ID	mansfield_toc1
WEIGHT (mg)	6.020	MODE	CHN

			SIGNALS
			ZR 14551
CARBON	10.691%		NR 14742
HYDROGEN	2.281%		CR 24205
NITROGEN	0.026%		HR 27297
BLANKS	43	649	55
K FACTORS	14.637	17.794	85.841
FILL	COMB	BOOST1	BOOST2
0	0	0	0
FILL TIME	15 Seconds		

DATE & TIME	9/20/2017 9:48:06 PM	P_ID	092017SP
SAMPLE ID	CCV	USER ID	mansfield_toc1
WEIGHT (mg)	9.850	MODE	CHN

SIGNALS

		ZR	14550
CARBON	1.009%	NR	14587
HYDROGEN	6.158%	CR	16084
NITROGEN	-.002%	HR	27526
BLANKS	43      649      55		
K FACTORS	14.637    17.794    85.841		
FILL	COMB      BOOST1      BOOST2		
0	0      0      0		
FILL TIME	15 Seconds		

DATE & TIME	9/20/2017 9:52:40 PM	P_ID	092017SP
SAMPLE ID	CCB	USER ID	mansfield_toc1
WEIGHT (mg)	38.940	MODE	CHN

SIGNALS

		ZR	14554
CARBON	-.002%	NR	14595
HYDROGEN	-.042%	CR	14626
NITROGEN	0.0%	HR	14987
BLANKS	43      649      55		
K FACTORS	14.637    17.794    85.841		
FILL	COMB      BOOST1      BOOST2		
0	0      0      0		
FILL TIME	15 Seconds		

DATE & TIME	9/20/2017 10:24:25 PM	P_ID	092017SP
SAMPLE ID	172960107	USER ID	mansfield_toc1
WEIGHT (mg)	9.230	MODE	CHN

SIGNALS

		ZR	14495
CARBON	14.546%	NR	14954
HYDROGEN	3.550%	CR	34648
NITROGEN	0.051%	HR	41128
BLANKS	43      649      55		
K FACTORS	14.637    17.794    85.841		
FILL	COMB      BOOST1      BOOST2		
0	0      0      0		
FILL TIME	15 Seconds		

DATE & TIME	9/20/2017 10:28:58 PM	P_ID	092017SP
SAMPLE ID	172960107	USER ID	mansfield_toc1
WEIGHT (mg)	9.850	MODE	CHN

SIGNALS

		ZR	14558
CARBON	14.230%	NR	14988
HYDROGEN	3.627%	CR	35547
NITROGEN	0.044%	HR	42553

BLANKS	43	649	55
K FACTORS	14.637	17.794	85.841
FILL	COMB	BOOST1	BOOST2
0	0	0	0
FILL TIME	15 Seconds		

DATE & TIME	9/20/2017 10:33:32 PM	P_ID	092017SP
SAMPLE ID	172960108	USER ID	mansfield_toc1
WEIGHT (mg)	5.780	MODE	CHN

				SIGNALS	
				ZR	14556
CARBON	17.810%			NR	14874
HYDROGEN	3.678%			CR	29985
NITROGEN	0.053%			HR	34417
BLANKS	43	649	55		
K FACTORS	14.637	17.794	85.841		
FILL	COMB	BOOST1	BOOST2		
0	0	0	0		
FILL TIME	15 Seconds				

DATE & TIME	9/20/2017 10:38:05 PM	P_ID	092017SP
SAMPLE ID	172960108	USER ID	mansfield_toc1
WEIGHT (mg)	6.280	MODE	CHN

				SIGNALS	
				ZR	14552
CARBON	15.681%			NR	14856
HYDROGEN	3.426%			CR	29313
NITROGEN	0.046%			HR	33790
BLANKS	43	649	55		
K FACTORS	14.637	17.794	85.841		
FILL	COMB	BOOST1	BOOST2		
0	0	0	0		
FILL TIME	15 Seconds				

DATE & TIME	9/20/2017 10:42:39 PM	P_ID	092017SP
SAMPLE ID	172960109	USER ID	mansfield_toc1
WEIGHT (mg)	6.330	MODE	CHN

				SIGNALS	
				ZR	14507
CARBON	24.431%			NR	15055
HYDROGEN	5.306%			CR	37734
NITROGEN	0.091%			HR	44360
BLANKS	43	649	55		
K FACTORS	14.637	17.794	85.841		
FILL	COMB	BOOST1	BOOST2		
0	0	0	0		
FILL TIME	15 Seconds				

DATE & TIME	9/20/2017 10:47:12 PM	P_ID	092017SP
SAMPLE ID	172960109	USER ID	mansfield_toc1
WEIGHT (mg)	6.270	MODE	CHN

				SIGNALS
				ZR 14557
CARBON	24.519%			NR 15042
HYDROGEN	5.324%			CR 37587
NITROGEN	0.080%			HR 44176
BLANKS	43	649	55	
K FACTORS	14.637	17.794	85.841	
FILL	COMB	BOOST1	BOOST2	
0	0	0	0	
FILL TIME	15 Seconds			

DATE & TIME	9/20/2017 10:51:46 PM	P_ID	092017SP
SAMPLE ID	172960110	USER ID	mansfield_toc1
WEIGHT (mg)	6.600	MODE	CHN

				SIGNALS
				ZR 14514
CARBON	20.869%			NR 14954
HYDROGEN	4.596%			CR 35157
NITROGEN	0.068%			HR 41204
BLANKS	43	649	55	
K FACTORS	14.637	17.794	85.841	
FILL	COMB	BOOST1	BOOST2	
0	0	0	0	
FILL TIME	15 Seconds			

DATE & TIME	9/20/2017 10:56:19 PM	P_ID	092017SP
SAMPLE ID	172960110	USER ID	mansfield_toc1
WEIGHT (mg)	7.190	MODE	CHN

				SIGNALS
				ZR 14538
CARBON	20.347%			NR 14997
HYDROGEN	4.450%			CR 36453
NITROGEN	0.065%			HR 42795
BLANKS	43	649	55	
K FACTORS	14.637	17.794	85.841	
FILL	COMB	BOOST1	BOOST2	
0	0	0	0	
FILL TIME	15 Seconds			

DATE & TIME	9/20/2017 11:00:53 PM	P_ID	092017SP
SAMPLE ID	172960111	USER ID	mansfield_toc1
WEIGHT (mg)	8.150	MODE	CHN

				SIGNALS
				ZR 14540
CARBON	13.621%			NR 14894
HYDROGEN	3.262%			CR 31186
NITROGEN	0.043%			HR 36566
BLANKS	43	649	55	
K FACTORS	14.637	17.794	85.841	
FILL	COMB	BOOST1	BOOST2	
0	0	0	0	
FILL TIME	15 Seconds			

DATE & TIME	9/20/2017 11:05:26 PM	P_ID	092017SP
SAMPLE ID	172960111	USER ID	mansfield_toc1
WEIGHT (mg)	8.240	MODE	CHN

SIGNALS

		ZR	14543
CARBON	14.263%	NR	14902
HYDROGEN	3.403%	CR	32147
NITROGEN	0.043%	HR	37786
BLANKS	43	649	55
K FACTORS	14.637	17.794	85.841
FILL	COMB	BOOST1	BOOST2
0	0	0	0
FILL TIME	15 Seconds		

DATE & TIME	9/20/2017 11:10:18 PM	P_ID	092017SP
SAMPLE ID	CCV	USER ID	mansfield_toc1
WEIGHT (mg)	9.800	MODE	CHN

SIGNALS

		ZR	14543
CARBON	1.025%	NR	14584
HYDROGEN	6.086%	CR	16097
NITROGEN	-.002%	HR	27358
BLANKS	43	649	55
K FACTORS	14.637	17.794	85.841
FILL	COMB	BOOST1	BOOST2
0	0	0	0
FILL TIME	15 Seconds		

DATE & TIME	9/20/2017 11:14:51 PM	P_ID	092017SP
SAMPLE ID	CCB	USER ID	mansfield_toc1
WEIGHT (mg)	34.060	MODE	CHN

SIGNALS

		ZR	14547
CARBON	0.001%	NR	14587
HYDROGEN	-.048%	CR	14634
NITROGEN	-.001%	HR	14991
BLANKS	43	649	55
K FACTORS	14.637	17.794	85.841
FILL	COMB	BOOST1	BOOST2
0	0	0	0
FILL TIME	15 Seconds		

DATE & TIME	9/20/2017 11:22:25 PM	P_ID	092017SP
SAMPLE ID	172960112	USER ID	mansfield_toc1
WEIGHT (mg)	8.290	MODE	CHN

SIGNALS

		ZR	14536
CARBON	13.055%	NR	14911
HYDROGEN	2.999%	CR	30795
NITROGEN	0.045%	HR	35868

BLANKS	43	649	55
K FACTORS	14.637	17.794	85.841
FILL	COMB	BOOST1	BOOST2
0	0	0	0
FILL TIME	15 Seconds		

DATE & TIME	9/20/2017 11:26:59 PM	P_ID	092017SP
SAMPLE ID	172960112	USER ID	mansfield_toc1
WEIGHT (mg)	8.370	MODE	CHN

				SIGNALS	
				ZR	14538
CARBON	13.055%			NR	14911
HYDROGEN	3.215%			CR	30948
NITROGEN	0.044%			HR	36386
BLANKS	43	649	55		
K FACTORS	14.637	17.794	85.841		
FILL	COMB	BOOST1	BOOST2		
0	0	0	0		
FILL TIME	15 Seconds				

DATE & TIME	9/20/2017 11:31:32 PM	P_ID	092017SP
SAMPLE ID	172960113	USER ID	mansfield_toc1
WEIGHT (mg)	8.040	MODE	CHN

				SIGNALS	
				ZR	14563
CARBON	7.622%			NR	14877
HYDROGEN	2.031%			CR	23890
NITROGEN	0.038%			HR	27445
BLANKS	43	649	55		
K FACTORS	14.637	17.794	85.841		
FILL	COMB	BOOST1	BOOST2		
0	0	0	0		
FILL TIME	15 Seconds				

DATE & TIME	9/20/2017 11:36:06 PM	P_ID	092017SP
SAMPLE ID	172960113	USER ID	mansfield_toc1
WEIGHT (mg)	7.900	MODE	CHN

				SIGNALS	
				ZR	14557
CARBON	7.736%			NR	14866
HYDROGEN	2.087%			CR	23854
NITROGEN	0.037%			HR	27437
BLANKS	43	649	55		
K FACTORS	14.637	17.794	85.841		
FILL	COMB	BOOST1	BOOST2		
0	0	0	0		
FILL TIME	15 Seconds				

DATE & TIME	9/20/2017 11:40:39 PM	P_ID	092017SP
SAMPLE ID	172960114	USER ID	mansfield_toc1
WEIGHT (mg)	5.480	MODE	CHN

				SIGNALS
				ZR 14558
CARBON	6.444%			NR 14701
HYDROGEN	1.481%			CR 19913
NITROGEN	0.019%			HR 22006
BLANKS	43	649	55	
K FACTORS	14.637	17.794	85.841	
FILL	COMB	BOOST1	BOOST2	
0	0	0	0	
FILL TIME	15 Seconds			

DATE & TIME	9/20/2017 11:45:13 PM	P_ID	092017SP
SAMPLE ID	172960114	USER ID	mansfield_toc1
WEIGHT (mg)	5.930	MODE	CHN

				SIGNALS
				ZR 14556
CARBON	6.277%			NR 14700
HYDROGEN	1.262%			CR 20191
NITROGEN	0.017%			HR 22172
BLANKS	43	649	55	
K FACTORS	14.637	17.794	85.841	
FILL	COMB	BOOST1	BOOST2	
0	0	0	0	
FILL TIME	15 Seconds			

DATE & TIME	9/20/2017 11:49:46 PM	P_ID	092017SP
SAMPLE ID	SRM1944	USER ID	mansfield_toc1
WEIGHT (mg)	3.260	MODE	CHN

				SIGNALS
				ZR 14557
CARBON	-.073%			NR 14597
HYDROGEN	-1.041%			CR 14605
NITROGEN	-.005%			HR 14650
BLANKS	43	649	55	
K FACTORS	14.637	17.794	85.841	
FILL	COMB	BOOST1	BOOST2	
0	0	0	0	
FILL TIME	15 Seconds			

DATE & TIME	9/20/2017 11:54:20 PM	P_ID	092017SP
SAMPLE ID	MB	USER ID	mansfield_toc1
WEIGHT (mg)	43.870	MODE	CHN

				SIGNALS
				ZR 14553
CARBON	-.006%			NR 14592
HYDROGEN	-.085%			CR 14599
NITROGEN	0.0%			HR 14583
BLANKS	43	649	55	
K FACTORS	14.637	17.794	85.841	
FILL	COMB	BOOST1	BOOST2	
0	0	0	0	
FILL TIME	15 Seconds			

DATE & TIME	9/21/2017 12:04:21 AM	P_ID	092017SP
SAMPLE ID	CCV	USER ID	mansfield_toc1
WEIGHT (mg)	9.740	MODE	CHN

SIGNALS

		ZR	14501
CARBON	2.008%	NR	14576
HYDROGEN	5.871%	CR	17481
NITROGEN	0.002%	HR	28306
BLANKS	43	649	55
K FACTORS	14.637	17.794	85.841
FILL	COMB	BOOST1	BOOST2
0	0	0	0
FILL TIME	15 Seconds		

DATE & TIME	9/21/2017 12:12:06 AM	P_ID	092017SP
SAMPLE ID	CCV	USER ID	mansfield_toc1
WEIGHT (mg)	9.590	MODE	CHN

SIGNALS

		ZR	14556
CARBON	1.027%	NR	14598
HYDROGEN	6.120%	CR	16082
NITROGEN	-0.02%	HR	27174
BLANKS	43	649	55
K FACTORS	14.637	17.794	85.841
FILL	COMB	BOOST1	BOOST2
0	0	0	0
FILL TIME	15 Seconds		

DATE & TIME	9/21/2017 12:19:25 AM	P_ID	092017SP
SAMPLE ID	CCB	USER ID	mansfield_toc1
WEIGHT (mg)	47.960	MODE	CHN

SIGNALS

		ZR	14557
CARBON	-0.02%	NR	14600
HYDROGEN	-0.26%	CR	14632
NITROGEN	0.0%	HR	15056
BLANKS	43	649	55
K FACTORS	14.637	17.794	85.841
FILL	COMB	BOOST1	BOOST2
0	0	0	0
FILL TIME	15 Seconds		



# **Work Group**

ALPHA ANALYTICAL LABORATORIES, INC.

Alpha WORK GROUP REPORT (wk02)

Sep 21 2017, 01:57 pm

Work Group: WG1043999 for Department: 7 Wet Chemistry

Created: 21-SEP-17 Due: Operator: sp

Sample	Client ID	C Product	Matrix	Stat	UA	HOLD	DUE	PR	Location
L1729601-01	W-101-A_081517_SED_0	S A2-TOC-LK-2REPS	SOIL	DONE	U	0829	0921	S0	Glass-A.120
L1729601-02	W-101-A_081517_SED_0	S A2-TOC-LK-2REPS	SOIL	DONE	U	0829	0921	S0	Glass-A.120
L1729601-03	W-101-B_081517_SED_0	S A2-TOC-LK-2REPS	SOIL	DONE	U	0829	0921	S0	Glass-A.120
L1729601-04	W-101-B_081517_SED_0	S A2-TOC-LK-2REPS	SOIL	DONE	U	0829	0921	S0	Glass-A.120
L1729601-05	W-101-B_081517_SED_0	S A2-TOC-LK-2REPS	SOIL	DONE	U	0829	0921	S0	Glass-A.120
L1729601-06	W-101-B_081517_SED_0	S A2-TOC-LK-2REPS	SOIL	DONE	U	0829	0921	S0	Glass-A.120
L1729601-07	W-102-A_081517_SED_0	S A2-TOC-LK-2REPS	SOIL	DONE	U	0829	0921	S0	Glass-A.120
L1729601-08	W-102-A_081517_SED_0	S A2-TOC-LK-2REPS	SOIL	DONE	U	0829	0921	S0	Glass-A.120
L1729601-09	W-102-B_081517_SED_0	S A2-TOC-LK-2REPS	SOIL	DONE	U	0829	0921	S0	Glass-A.120
L1729601-10	W-102-B_081517_SED_0	S A2-TOC-LK-2REPS	SOIL	DONE	U	0829	0921	S0	Glass-A.120
L1729601-11	W-102-C_081517_SED_0	S A2-TOC-LK-2REPS	SOIL	DONE	U	0829	0921	S0	Glass-A.120
L1729601-12	W-102-C_081517_SED_0	S A2-TOC-LK-2REPS	SOIL	DONE	U	0829	0921	S0	Glass-A.120
L1729601-13	W-108-A_081517_SED_0	S A2-TOC-LK-2REPS	SOIL	DONE	U	0829	0921	S0	Glass-A.120
L1729601-14	W-108-A_081517_SED_0	S A2-TOC-LK-2REPS	SOIL	DONE	U	0829	0921	S0	Glass-A.120
WG1043999-1	Laboratory Method Bl	S A2-TOC-LK-2REPS	SOIL	DONE	U				
WG1043999-2	Laboratory Control S	S A2-TOC-LK-2REPS	SOIL	DONE	U				
WG1043999-3	Duplicate Sample	S A2-TOC-LK-2REPS	SOIL	DONE	U				
WG1043999-4	Matrix Spike	S A2-TOC-LK-2REPS	SOIL	DONE	U				
Comments:									
WG1043999-3	L1729601-01								
WG1043999-4	L1729601-01								

# Sample Preparation

TOC Instrument: #1 SN: 241N8102003

#3 - SN: 241L1308211

(Circle one) #2 - SN: 241N9041221

Date: 9/20/17  
 Analyst: SP/MR

2° Review: \_\_\_\_\_

CCV ID: VW042417C  
 SRM 1944 ID: WS081814A  
 Filter Aid ID: WS120415A

ICV ID: VW042417F  
 Balance ID: 15203096  
 Other SRM ID: \_\_\_\_\_

Login	SAMPLE	QC D/MS	TRAY LOCATION	AUTO SLOT	WEIGHT (mg)
Conditioning Std				1	11.04
Blank				2	99.33
K Factor				3	10.75
Blank <u>600</u>				4	10.75
K Factor <u>5000 1000</u>				5	11.20
K Factor <u>5000</u>				6	11.46
ICV <u>10000</u>				7	10.68
ICB <u>20000</u> <u>RR</u>				8	11.04
LES <u>40000</u>				9	11.05
Blank <u>FCV</u> <u>RR</u>				10	10.99
<u>FCB</u> <u>RR</u>				11	49.38
<u>20,000</u>				12	10.25
<u>JUN</u>				13	10.58
<u>ICB</u>				14	45.19
<u>HICV</u>				15	52.07
<u>SRM</u>				16	5.89
<u>MB</u>				17	63.00
<u>SRM</u>				18	7.75
CCV <u>MB</u>				19	62.43
CCB <u>MB</u>				20	51.10
<u>MB</u>				21	62.88
<u>L1729881</u>	<u>-01</u>			22	10.24

Login	SAMPLE	QC D/MS	TRAY LOCATION	AUTO SLOT	WEIGHT (mg)
<u>L1729881</u>	<u>-01</u>			23	6.53
	<u>-02</u>			24	7.86
	<u>-02</u>			25	8.30
<u>CCV</u>				26	10.16
<u>CCB</u>				27	50.18
<u>L1729881</u>	<u>-03</u>			28	5.93
	<u>-03</u>			29	7.02
	<u>-04</u>			30	8.01
CCV	<u>-04</u>			31	7.73
CCB	<u>-05</u>			32	8.43
	<u>-05</u>			33	10.36
	<u>-06</u>			34	9.78
	<u>-06</u>			35	10.83
	<u>-010</u>			36	8.02
	<u>-010</u>			37	6.39
<u>CCV</u>				38	10.32
<u>CCB</u>				39	59.24
<u>L1729881</u>	<u>-01MS</u>	<u>9.87</u>		40	7.46
	<u>-01MS</u>	<u>11.30</u>		41	7.05
<u>L1730677</u>	<u>-01</u>			42	9.29
CCV	<u>-01</u>			43	7.59
CCB	<u>-010</u>			44	8.24

TOC Instrument: #1 SN: 241N8102003

#3 - SN: 241L1308211

(Circle one) #2 - SN: 241N9041221

Date: 9/20/17 cont  
 Analyst: MR/MC 2° Review: \_\_\_\_\_

CCV ID: \_\_\_\_\_

ICV ID: \_\_\_\_\_

SRM 1944 ID: \_\_\_\_\_

Balance ID: \_\_\_\_\_

Filter Aid ID: \_\_\_\_\_

Other SRM ID: \_\_\_\_\_

Login	SAMPLE	QC D/MS	TRAY LOCATION	AUTO SLOT	WEIGHT (mg)
Conditioning Std					
Blank	L1730677 -01D			45	11.32
K Factor	-01MS 9.60			46	8.26
Blank	-01MS 10.27			47	11.44
K Factor	L1732126 -0501			48	8.53
K Factor	-01			49	13.63
ICV	CCV			50	10.61
ICB	CCB			51	46.03
LCS	CCV			52	10.61
Blank	CCB			53	46.03
	CCV			54	10.75
	CCB			55	49.88
L1732126	-01			56	8.53
	-01			57	13.63
	-02			58	6.70
	-02			59	7.40
L1730677	-01MS 10.55			60	11.65
	-01MS 10.27			61	8.16
CCV 2126	-01			62	8.16
CCB	-01			63	7.68
	-01			1	8.16
	-01			2	7.68

Login	SAMPLE	QC D/MS	TRAY LOCATION	AUTO SLOT	WEIGHT (mg)
CCV				3	10.48
CCB				4	46.46
SEM				5	4.08
MD				6	42.61
SEM				7	3.24
MD				8	33.49
L1729601	01		E1	9	5.01
	01		E2	10	5.47
CCV	01D		E3	11	5.75
CCB	01D		E4	12	5.81
	01MS 9.77		E5	13	5.76
	01MS 9.72		E6	14	6.07
CCV				15	9.95
CCB				16	38.74
	02		E1	17	8.24
	02		E2	18	7.82
	03		E3	19	7.33
	03		E4	20	7.97
	04		E5	21	5.01
	04		E6	22	5.52
CCV	05		E7	23	5.16
CCB	05		E8	24	5.81

TOC Instrument: #1 - SN: 241N8102003  
 (Circle one) #2 - SN: 241N9041221

#3 - SN: 241L1308211

Date: 09/20/17  
 Analyst: MC

2° Review: \_\_\_\_\_

CCV ID: \_\_\_\_\_

ICV ID: \_\_\_\_\_

SRM 1944 ID: \_\_\_\_\_

Balance ID: \_\_\_\_\_

Filter Aid ID: \_\_\_\_\_

Other SRM ID: \_\_\_\_\_

L1729601 cont.

Login	SAMPLE	QC D/MS	TRAY LOCATION	AUTO SLOT	WEIGHT (mg)
<del>Conditioning Std</del>	<u>06</u>			<u>25</u>	<u>5.79</u>
<del>Blank</del>	<u>06</u>			<u>26</u>	<u>6.02</u>
<del>K-Factor</del> <u>CCV</u>				<u>27</u>	<u>9.85</u>
<del>Blank</del> <u>CCB</u>				<u>28</u>	<u>38.94</u>
<del>K Factor</del>	<u>07</u>			<u>29</u>	<u>9.23</u>
<del>K Factor</del>	<u>07</u>			<u>30</u>	<u>9.85</u>
<del>ICV</del>	<u>08</u>			<u>31</u>	<u>5.78</u>
<del>ICB</del>	<u>08</u>			<u>32</u>	<u>6.28</u>
<del>LCS</del>	<u>09</u>			<u>33</u>	<u>6.33</u>
<del>Blank</del>	<u>09</u>			<u>34</u>	<u>6.27</u>
	<u>10</u>			<u>35</u>	<u>6.60</u>
	<u>10</u>			<u>36</u>	<u>7.19</u>
	<u>11</u>			<u>37</u>	<u>8.15</u>
	<u>11</u>			<u>38</u>	<u>8.24</u>
<u>CCV</u>				<u>39</u>	<u>9.80</u>
<u>CCB</u>				<u>40</u>	<u>34.06</u>
	<u>12</u>		<u>A1</u>	<u>41</u>	<u>8.29</u>
	<u>12</u>		<u>2</u>	<u>42</u>	<u>8.37</u>
<u>CCV</u>	<u>13</u>		<u>3</u>	<u>43</u>	<u>8.01</u>
<u>CCB</u>	<u>13</u>		<u>4</u>	<u>44</u>	<u>7.90</u>
	<u>14</u>		<u>5</u>	<u>45</u>	<u>5.48</u>
	<u>14</u>		<u>6</u>	<u>46</u>	<u>5.93</u>

Login	SAMPLE	QC D/MS	TRAY LOCATION	AUTO SLOT	WEIGHT (mg)
	<u>SM</u>		<u>7</u>	<u>47</u>	<u>3.26</u>
	<u>MB</u>		<u>8</u>	<u>48</u>	<u>43.87</u>
	<del>SM</del>		<del>9</del>	<del>49</del>	
	<del>MB</del>		<del>10</del>	<del>50</del>	
<del>CCV</del>				<del>51</del>	
<del>CCB</del>				<del>52</del>	
<u>CCV</u>				<u>49</u>	<u>9.74</u>
<u>CCB</u>				<u>50</u>	<u>9.59</u>
<u>CCV CCB</u>				<u>51</u>	<u>47.96</u>
<u>CCB</u>					
<u>CCV</u>					
<u>CCB</u>					

# Alpha Report



## ANALYTICAL REPORT

Lab Number:	L1729601
Client:	AMEC Foster Wheeler E & I, Inc. 511 Congress Street Portland, ME 04101
ATTN:	Rod Pendleton
Phone:	(207) 828-3692
Project Name:	USDC PENOBSCOT
Project Number:	3616166052.04A.030
Report Date:	09/21/17

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Certifications & Approvals: MA (M-MA030), NH NELAP (2062), NJ NELAP (MA015), CT (PH-0141), FL (E87814), IL (200081), LA (85084), ME (MA00030), MD (350), NY (11627), NC (685), OH (CL106), PA (68-02089), RI (LAO00299), TX (T104704419), VT (VT-0015), VA (460194), WA (C954), US Army Corps of Engineers, USDA (Permit #P330-13-00067), USFWS (Permit #LE2069641).

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320 Forbes Boulevard, Mansfield, MA 02048-1806  
508-822-9300 (Fax) 508-822-3288 800-624-9220 - [www.alphalab.com](http://www.alphalab.com)





**Project Name:** USDC PENOBSCOT  
**Project Number:** 3616166052.04A.030

**Lab Number:** L1729601  
**Report Date:** 09/21/17

<b>Alpha Sample ID</b>	<b>Client ID</b>	<b>Matrix</b>	<b>Sample Location</b>	<b>Collection Date/Time</b>	<b>Receive Date</b>
L1729601-01	W-101-A_081517_SED_00-01	SEDIMENT	Not Specified	08/15/17 14:45	08/23/17
L1729601-02	W-101-A_081517_SED_01-03	SEDIMENT	Not Specified	08/15/17 14:47	08/23/17
L1729601-03	W-101-B_081517_SED_00-01	SEDIMENT	Not Specified	08/15/17 15:18	08/23/17
L1729601-04	W-101-B_081517_SED_01-03_R1	SEDIMENT	Not Specified	08/15/17 15:20	08/23/17
L1729601-05	W-101-B_081517_SED_01-03_R2	SEDIMENT	Not Specified	08/15/17 15:20	08/23/17
L1729601-06	W-101-B_081517_SED_01-03_R3	SEDIMENT	Not Specified	08/15/17 15:20	08/23/17
L1729601-07	W-102-A_081517_SED_00-01	SEDIMENT	Not Specified	08/15/17 14:35	08/23/17
L1729601-08	W-102-A_081517_SED_01-03	SEDIMENT	Not Specified	08/15/17 14:37	08/23/17
L1729601-09	W-102-B_081517_SED_00-01	SEDIMENT	Not Specified	08/15/17 14:23	08/23/17
L1729601-10	W-102-B_081517_SED_01-03	SEDIMENT	Not Specified	08/15/17 14:25	08/23/17
L1729601-11	W-102-C_081517_SED_00-01	SEDIMENT	Not Specified	08/15/17 15:35	08/23/17
L1729601-12	W-102-C_081517_SED_01-03	SEDIMENT	Not Specified	08/15/17 15:37	08/23/17
L1729601-13	W-108-A_081517_SED_00-01	SEDIMENT	Not Specified	08/15/17 13:50	08/23/17
L1729601-14	W-108-A_081517_SED_01-03	SEDIMENT	Not Specified	08/15/17 13:51	08/23/17

**Project Name:** USDC PENOBSCOT  
**Project Number:** 3616166052.04A.030

**Lab Number:** L1729601  
**Report Date:** 09/21/17

### 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:** USDC PENOBSCOT  
**Project Number:** 3616166052.04A.030

**Lab Number:** L1729601  
**Report Date:** 09/21/17

### 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.

#### Total Organic Carbon

The WG1043999-4 MS recovery for Total Organic Carbon (Rep1) (138%) performed on L1729601-01, is outside the 75-125% acceptance criteria, possibly due to sample matrix. The associated SRM recoveries are within criteria indicating the sample batch was in control, and all sample results were accepted.

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:



Susan O'Neil

Title: Technical Director/Representative

Date: 09/21/17

# **INORGANICS & MISCELLANEOUS**

**Project Name:** USDC PENOBSCOT  
**Project Number:** 3616166052.04A.030

**Lab Number:** L1729601  
**Report Date:** 09/21/17

**SAMPLE RESULTS**

**Lab ID:** L1729601-01  
**Client ID:** W-101-A\_081517\_SED\_00-01  
**Sample Location:** Not Specified  
**Matrix:** Sediment

**Date Collected:** 08/15/17 14:45  
**Date Received:** 08/23/17  
**Field Prep:** Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
<b>Total Organic Carbon - Mansfield Lab</b>										
Total Organic Carbon (Rep1)	8.35		%	0.050	0.050	1	-	09/20/17 00:00	13,-	SP
Total Organic Carbon (Rep2)	8.31		%	0.050	0.050	1	-	09/20/17 00:00	13,-	SP
<b>General Chemistry - Mansfield Lab</b>										
Solids, Total	37.0		%	0.100	0.100	1	-	09/11/17 09:44	121,2540G	JM



**Project Name:** USDC PENOBSCOT  
**Project Number:** 3616166052.04A.030

**Lab Number:** L1729601  
**Report Date:** 09/21/17

**SAMPLE RESULTS**

**Lab ID:** L1729601-02  
**Client ID:** W-101-A\_081517\_SED\_01-03  
**Sample Location:** Not Specified  
**Matrix:** Sediment

**Date Collected:** 08/15/17 14:47  
**Date Received:** 08/23/17  
**Field Prep:** Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
<b>Total Organic Carbon - Mansfield Lab</b>										
Total Organic Carbon (Rep1)	9.34		%	0.050	0.050	1	-	09/20/17 00:00	13,-	SP
Total Organic Carbon (Rep2)	9.39		%	0.050	0.050	1	-	09/20/17 00:00	13,-	SP
<b>General Chemistry - Mansfield Lab</b>										
Solids, Total	36.8		%	0.100	0.100	1	-	09/11/17 09:44	121,2540G	JM



**Project Name:** USDC PENOBSCOT  
**Project Number:** 3616166052.04A.030

**Lab Number:** L1729601  
**Report Date:** 09/21/17

**SAMPLE RESULTS**

**Lab ID:** L1729601-03  
**Client ID:** W-101-B\_081517\_SED\_00-01  
**Sample Location:** Not Specified  
**Matrix:** Sediment

**Date Collected:** 08/15/17 15:18  
**Date Received:** 08/23/17  
**Field Prep:** Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
<b>Total Organic Carbon - Mansfield Lab</b>										
Total Organic Carbon (Rep1)	9.93		%	0.050	0.050	1	-	09/20/17 00:00	13,-	SP
Total Organic Carbon (Rep2)	9.70		%	0.050	0.050	1	-	09/20/17 00:00	13,-	SP
<b>General Chemistry - Mansfield Lab</b>										
Solids, Total	25.1		%	0.100	0.100	1	-	09/11/17 09:44	121,2540G	JM



**Project Name:** USDC PENOBSCOT  
**Project Number:** 3616166052.04A.030

**Lab Number:** L1729601  
**Report Date:** 09/21/17

**SAMPLE RESULTS**

**Lab ID:** L1729601-04  
**Client ID:** W-101-B\_081517\_SED\_01-03\_R1  
**Sample Location:** Not Specified  
**Matrix:** Sediment

**Date Collected:** 08/15/17 15:20  
**Date Received:** 08/23/17  
**Field Prep:** Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
<b>Total Organic Carbon - Mansfield Lab</b>										
Total Organic Carbon (Rep1)	11.3		%	0.050	0.050	1	-	09/20/17 00:00	13,-	SP
Total Organic Carbon (Rep2)	11.7		%	0.050	0.050	1	-	09/20/17 00:00	13,-	SP
<b>General Chemistry - Mansfield Lab</b>										
Solids, Total	27.7		%	0.100	0.100	1	-	09/11/17 09:44	121,2540G	JM





**Project Name:** USDC PENOBSCOT  
**Project Number:** 3616166052.04A.030

**Lab Number:** L1729601  
**Report Date:** 09/21/17

**SAMPLE RESULTS**

**Lab ID:** L1729601-05  
**Client ID:** W-101-B\_081517\_SED\_01-03\_R2  
**Sample Location:** Not Specified  
**Matrix:** Sediment

**Date Collected:** 08/15/17 15:20  
**Date Received:** 08/23/17  
**Field Prep:** Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
<b>Total Organic Carbon - Mansfield Lab</b>										
Total Organic Carbon (Rep1)	11.6		%	0.050	0.050	1	-	09/20/17 00:00	13,-	SP
Total Organic Carbon (Rep2)	11.8		%	0.050	0.050	1	-	09/20/17 00:00	13,-	SP
<b>General Chemistry - Mansfield Lab</b>										
Solids, Total	28.8		%	0.100	0.100	1	-	09/11/17 09:44	121,2540G	JM



**Project Name:** USDC PENOBSCOT  
**Project Number:** 3616166052.04A.030

**Lab Number:** L1729601  
**Report Date:** 09/21/17

**SAMPLE RESULTS**

**Lab ID:** L1729601-06  
**Client ID:** W-101-B\_081517\_SED\_01-03\_R3  
**Sample Location:** Not Specified  
**Matrix:** Sediment

**Date Collected:** 08/15/17 15:20  
**Date Received:** 08/23/17  
**Field Prep:** Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
<b>Total Organic Carbon - Mansfield Lab</b>										
Total Organic Carbon (Rep1)	12.6		%	0.050	0.050	1	-	09/20/17 00:00	13,-	SP
Total Organic Carbon (Rep2)	11.4		%	0.050	0.050	1	-	09/20/17 00:00	13,-	SP
<b>General Chemistry - Mansfield Lab</b>										
Solids, Total	29.7		%	0.100	0.100	1	-	09/11/17 09:44	121,2540G	JM



**Project Name:** USDC PENOBSCOT  
**Project Number:** 3616166052.04A.030

**Lab Number:** L1729601  
**Report Date:** 09/21/17

**SAMPLE RESULTS**

**Lab ID:** L1729601-07  
**Client ID:** W-102-A\_081517\_SED\_00-01  
**Sample Location:** Not Specified  
**Matrix:** Sediment

**Date Collected:** 08/15/17 14:35  
**Date Received:** 08/23/17  
**Field Prep:** Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
<b>Total Organic Carbon - Mansfield Lab</b>										
Total Organic Carbon (Rep1)	15.5		%	0.050	0.050	1	-	09/20/17 00:00	13,-	SP
Total Organic Carbon (Rep2)	15.2		%	0.050	0.050	1	-	09/20/17 00:00	13,-	SP
<b>General Chemistry - Mansfield Lab</b>										
Solids, Total	25.4		%	0.100	0.100	1	-	09/11/17 09:44	121,2540G	JM



**Project Name:** USDC PENOBSCOT  
**Project Number:** 3616166052.04A.030

**Lab Number:** L1729601  
**Report Date:** 09/21/17

**SAMPLE RESULTS**

**Lab ID:** L1729601-08  
**Client ID:** W-102-A\_081517\_SED\_01-03  
**Sample Location:** Not Specified  
**Matrix:** Sediment

**Date Collected:** 08/15/17 14:37  
**Date Received:** 08/23/17  
**Field Prep:** Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
<b>Total Organic Carbon - Mansfield Lab</b>										
Total Organic Carbon (Rep1)	19.0		%	0.050	0.050	1	-	09/20/17 00:00	13,-	SP
Total Organic Carbon (Rep2)	16.8		%	0.050	0.050	1	-	09/20/17 00:00	13,-	SP
<b>General Chemistry - Mansfield Lab</b>										
Solids, Total	27.2		%	0.100	0.100	1	-	09/11/17 09:44	121,2540G	JM



**Project Name:** USDC PENOBSCOT  
**Project Number:** 3616166052.04A.030

**Lab Number:** L1729601  
**Report Date:** 09/21/17

**SAMPLE RESULTS**

**Lab ID:** L1729601-09  
**Client ID:** W-102-B\_081517\_SED\_00-01  
**Sample Location:** Not Specified  
**Matrix:** Sediment

**Date Collected:** 08/15/17 14:23  
**Date Received:** 08/23/17  
**Field Prep:** Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
<b>Total Organic Carbon - Mansfield Lab</b>										
Total Organic Carbon (Rep1)	26.1		%	0.050	0.050	1	-	09/20/17 00:00	13,-	SP
Total Organic Carbon (Rep2)	26.2		%	0.050	0.050	1	-	09/20/17 00:00	13,-	SP
<b>General Chemistry - Mansfield Lab</b>										
Solids, Total	17.6		%	0.100	0.100	1	-	09/11/17 09:44	121,2540G	JM



**Project Name:** USDC PENOBSCOT  
**Project Number:** 3616166052.04A.030

**Lab Number:** L1729601  
**Report Date:** 09/21/17

**SAMPLE RESULTS**

**Lab ID:** L1729601-10  
**Client ID:** W-102-B\_081517\_SED\_01-03  
**Sample Location:** Not Specified  
**Matrix:** Sediment

**Date Collected:** 08/15/17 14:25  
**Date Received:** 08/23/17  
**Field Prep:** Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
<b>Total Organic Carbon - Mansfield Lab</b>										
Total Organic Carbon (Rep1)	22.3		%	0.050	0.050	1	-	09/20/17 00:00	13,-	SP
Total Organic Carbon (Rep2)	21.7		%	0.050	0.050	1	-	09/20/17 00:00	13,-	SP
<b>General Chemistry - Mansfield Lab</b>										
Solids, Total	20.9		%	0.100	0.100	1	-	09/11/17 09:44	121,2540G	JM



**Project Name:** USDC PENOBSCOT  
**Project Number:** 3616166052.04A.030

**Lab Number:** L1729601  
**Report Date:** 09/21/17

**SAMPLE RESULTS**

**Lab ID:** L1729601-11  
**Client ID:** W-102-C\_081517\_SED\_00-01  
**Sample Location:** Not Specified  
**Matrix:** Sediment

**Date Collected:** 08/15/17 15:35  
**Date Received:** 08/23/17  
**Field Prep:** Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
<b>Total Organic Carbon - Mansfield Lab</b>										
Total Organic Carbon (Rep1)	14.5		%	0.050	0.050	1	-	09/20/17 00:00	13,-	SP
Total Organic Carbon (Rep2)	15.2		%	0.050	0.050	1	-	09/20/17 00:00	13,-	SP
<b>General Chemistry - Mansfield Lab</b>										
Solids, Total	31.1		%	0.100	0.100	1	-	09/11/17 09:44	121,2540G	JM



**Project Name:** USDC PENOBSCOT  
**Project Number:** 3616166052.04A.030

**Lab Number:** L1729601  
**Report Date:** 09/21/17

**SAMPLE RESULTS**

**Lab ID:** L1729601-12  
**Client ID:** W-102-C\_081517\_SED\_01-03  
**Sample Location:** Not Specified  
**Matrix:** Sediment

**Date Collected:** 08/15/17 15:37  
**Date Received:** 08/23/17  
**Field Prep:** Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
<b>Total Organic Carbon - Mansfield Lab</b>										
Total Organic Carbon (Rep1)	13.9		%	0.050	0.050	1	-	09/20/17 00:00	13,-	SP
Total Organic Carbon (Rep2)	13.9		%	0.050	0.050	1	-	09/20/17 00:00	13,-	SP
<b>General Chemistry - Mansfield Lab</b>										
Solids, Total	27.1		%	0.100	0.100	1	-	09/11/17 09:44	121,2540G	JM





**Project Name:** USDC PENOBSCOT  
**Project Number:** 3616166052.04A.030

**Lab Number:** L1729601  
**Report Date:** 09/21/17

**SAMPLE RESULTS**

**Lab ID:** L1729601-13  
**Client ID:** W-108-A\_081517\_SED\_00-01  
**Sample Location:** Not Specified  
**Matrix:** Sediment

**Date Collected:** 08/15/17 13:50  
**Date Received:** 08/23/17  
**Field Prep:** Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
<b>Total Organic Carbon - Mansfield Lab</b>										
Total Organic Carbon (Rep1)	8.16		%	0.050	0.050	1	-	09/20/17 00:00	13,-	SP
Total Organic Carbon (Rep2)	8.28		%	0.050	0.050	1	-	09/20/17 00:00	13,-	SP
<b>General Chemistry - Mansfield Lab</b>										
Solids, Total	41.2		%	0.100	0.100	1	-	09/11/17 09:44	121,2540G	JM



**Project Name:** USDC PENOBSCOT  
**Project Number:** 3616166052.04A.030

**Lab Number:** L1729601  
**Report Date:** 09/21/17

**SAMPLE RESULTS**

**Lab ID:** L1729601-14  
**Client ID:** W-108-A\_081517\_SED\_01-03  
**Sample Location:** Not Specified  
**Matrix:** Sediment

**Date Collected:** 08/15/17 13:51  
**Date Received:** 08/23/17  
**Field Prep:** Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
<b>Total Organic Carbon - Mansfield Lab</b>										
Total Organic Carbon (Rep1)	6.92		%	0.050	0.050	1	-	09/20/17 00:00	13,-	SP
Total Organic Carbon (Rep2)	6.74		%	0.050	0.050	1	-	09/20/17 00:00	13,-	SP
<b>General Chemistry - Mansfield Lab</b>										
Solids, Total	39.1		%	0.100	0.100	1	-	09/11/17 09:44	121,2540G	JM



**Project Name:** USDC PENOBSCOT  
**Project Number:** 3616166052.04A.030

**Lab Number:** L1729601  
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**Method Blank Analysis**  
**Batch Quality Control**

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Total Organic Carbon - Mansfield Lab for sample(s): 01-14 Batch: WG1043999-1										
Total Organic Carbon (Rep1)	ND		%	0.050	0.050	1	-	09/20/17 00:00	13,-	SP
Total Organic Carbon (Rep2)	ND		%	0.050	0.050	1	-	09/20/17 00:00	13,-	SP

## Lab Control Sample Analysis

### Batch Quality Control

**Project Name:** USDC PENOBSCOT

**Lab Number:** L1729601

**Project Number:** 3616166052.04A.030

**Report Date:** 09/21/17

Parameter	LCS		LCSD		%Recovery Limits	RPD	Qual	RPD Limits
	%Recovery	Qual	%Recovery	Qual				
Total Organic Carbon - Mansfield Lab Associated sample(s): 01-14 Batch: WG1043999-2								
Total Organic Carbon (Rep1)	91		-		75-125	-		25
Total Organic Carbon (Rep2)	81		-		75-125	-		25

### Matrix Spike Analysis Batch Quality Control

**Project Name:** USDC PENOBSCOT  
**Project Number:** 3616166052.04A.030

**Lab Number:** L1729601  
**Report Date:** 09/21/17

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD	Qual	RPD Limits
Total Organic Carbon - Mansfield Lab Associated sample(s): 01-14 QC Batch ID: WG1043999-4 QC Sample: L1729601-01 Client ID: W-101-A_081517_SED_00-01												
Total Organic Carbon (Rep1)	8.35	1.7	10.7	138	Q	-	-		75-125	-		25
Total Organic Carbon (Rep2)	8.31	1.6	10.3	124		-	-		75-125	-		25

### Lab Duplicate Analysis Batch Quality Control

**Project Name:** USDC PENOBSCOT  
**Project Number:** 3616166052.04A.03

**Lab Number:** L1729601  
**Report Date:** 09/21/17

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
General Chemistry - Mansfield Lab Associated sample(s): 01-14 QC Batch ID: WG1040267-1 QC Sample: L1729272-21 Client ID: DUP Sample						
Solids, Total	72.4	71.8	%	1		10
Total Organic Carbon - Mansfield Lab Associated sample(s): 01-14 QC Batch ID: WG1043999-3 QC Sample: L1729601-01 Client ID: W-101-A_081517_SED_00-01						
Total Organic Carbon (Rep1)	8.35	9.47	%	13		25
Total Organic Carbon (Rep2)	8.31	8.55	%	3		25



**Project Name:** USDC PENOBSCOT**Lab Number:** L1729601**Project Number:** 3616166052.04A.030**Report Date:** 09/21/17**Sample Receipt and Container Information**

Were project specific reporting limits specified?

YES

**Cooler Information**

<b>Cooler</b>	<b>Custody Seal</b>
A	Present/Intact

**Container Information**

<b>Container ID</b>	<b>Container Type</b>	<b>Cooler</b>	<b>Initial pH</b>	<b>Final pH</b>	<b>Temp deg C</b>	<b>Pres</b>	<b>Seal</b>	<b>Frozen Date/Time</b>	<b>Analysis(*)</b>
L1729601-01A	Plastic 8oz unpreserved for Grain Size	A	NA		3.7	Y	Present/Intact		A2-TOC-LK-2REPS(14),A2-TS(7)
L1729601-02A	Plastic 8oz unpreserved for Grain Size	A	NA		3.7	Y	Present/Intact		A2-TOC-LK-2REPS(14),A2-TS(7)
L1729601-03A	Plastic 8oz unpreserved for Grain Size	A	NA		3.7	Y	Present/Intact		A2-TOC-LK-2REPS(14),A2-TS(7)
L1729601-04A	Plastic 8oz unpreserved for Grain Size	A	NA		3.7	Y	Present/Intact		A2-TOC-LK-2REPS(14),A2-TS(7)
L1729601-05A	Plastic 8oz unpreserved for Grain Size	A	NA		3.7	Y	Present/Intact		A2-TOC-LK-2REPS(14),A2-TS(7)
L1729601-06A	Plastic 8oz unpreserved for Grain Size	A	NA		3.7	Y	Present/Intact		A2-TOC-LK-2REPS(14),A2-TS(7)
L1729601-07A	Plastic 8oz unpreserved for Grain Size	A	NA		3.7	Y	Present/Intact		A2-TOC-LK-2REPS(14),A2-TS(7)
L1729601-08A	Plastic 8oz unpreserved for Grain Size	A	NA		3.7	Y	Present/Intact		A2-TOC-LK-2REPS(14),A2-TS(7)
L1729601-09A	Plastic 8oz unpreserved for Grain Size	A	NA		3.7	Y	Present/Intact		A2-TOC-LK-2REPS(14),A2-TS(7)
L1729601-10A	Plastic 8oz unpreserved for Grain Size	A	NA		3.7	Y	Present/Intact		A2-TOC-LK-2REPS(14),A2-TS(7)
L1729601-11A	Plastic 8oz unpreserved for Grain Size	A	NA		3.7	Y	Present/Intact		A2-TOC-LK-2REPS(14),A2-TS(7)
L1729601-12A	Plastic 8oz unpreserved for Grain Size	A	NA		3.7	Y	Present/Intact		A2-TOC-LK-2REPS(14),A2-TS(7)
L1729601-13A	Plastic 8oz unpreserved for Grain Size	A	NA		3.7	Y	Present/Intact		A2-TOC-LK-2REPS(14),A2-TS(7)
L1729601-14A	Plastic 8oz unpreserved for Grain Size	A	NA		3.7	Y	Present/Intact		A2-TOC-LK-2REPS(14),A2-TS(7)
L1729601-15A	Plastic 8oz unpreserved for Grain Size	A	NA		3.7	Y	Present/Intact		-

**Project Name:** USDC PENOBSCOT  
**Project Number:** 3616166052.04A.030

**Lab Number:** L1729601  
**Report Date:** 09/21/17

## 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

**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.

**Final pH:** As it pertains to Sample Receipt & Container Information section of the report, Final pH reflects pH of container determined after adjustment at the laboratory, if applicable. If no adjustment required, value reflects Initial pH.

**Frozen Date/Time:** With respect to Volatile Organics in soil, Frozen Date/Time reflects the date/time at which associated Reagent Water-preserved vials were initially frozen. Note: If frozen date/time is beyond 48 hours from sample collection, value will be reflected in 'bold'.

**Initial pH:** As it pertains to Sample Receipt & Container Information section of the report, Initial pH reflects pH of container determined upon receipt, if applicable.

**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.

### 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

**Report Format:** DU Report with 'J' Qualifiers





**Project Name:** USDC PENOBSCOT  
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#### Data Qualifiers

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 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:** USDC PENOBSCOT  
**Project Number:** 3616166052.04A.030

**Lab Number:** L1729601  
**Report Date:** 09/21/17

## REFERENCES

- 13 Determination of Total Organic Carbon in Sediment. U.S. EPA, Region II. July 27, 1988.
- 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 624: o-xylene, o-toluene

EPA 8260C: PW 1,2,4-trimethylbenzene, Ethyltoluene, xobenzene, CM 1,2-dichloroethane, ethyl iodide, Methyl ethyl ketone, 1,2,4-trimethylbenzene, Ethyltoluene.

EPA 8270D: PW 1,2,4-trimethylbenzene, 1,2,4-trimethylbenzene, CM 1,2,4-trimethylbenzene, 1,2,4-trimethylbenzene.

EPA 300: W 1,2-dichloroethane

EPA 6860: PW and CM Perchlorate

EPA 9010: PW and CM Cyanide distillation

EPA 9012B: PW Total Cyanide

EPA 9050A: PW 1,2-dichloroethane

SM3500: PW 1,2-dichloroethane

SM4500: PW Cyanide, 1,2-dichloroethane, CM Total Phosphorus, 1,2,4-trimethylbenzene, 1,2,4-trimethylbenzene.

SM5310C: W 1,2-dichloroethane

### Mansfield Facility

SM 2540D: 1,2-dichloroethane

EPA 3005A: PW 1,2-dichloroethane

EPA 8082A: PW PC 1, 2, 4-trimethylbenzene, 1,2,4-trimethylbenzene, 1,2,4-trimethylbenzene, 1,2,4-trimethylbenzene.

EPA TO-15: 1,2-dichloroethane, 2,4-dimethylbenzene, 2,4-dimethylbenzene, 1,2-dichloroethane, 2-Methylthioethane,

1,2-dichloroethane, 2-Ethylthioethane, 1,2-dimethylbenzene, 1,2-dimethylbenzene, 1,2-dimethylbenzene, 1,2-dimethylbenzene, 1,2-dimethylbenzene.

Biological Tissue Matrix: EPA 1000

The following analytes are included in our Massachusetts DEP Scope of Accreditation

### Westborough Facility:

#### Drinking Water

EPA 300.1 Nitrate, Chloride, Fluoride EPA 353.2 Nitrate, Nitrite SM4500NO3-F Nitrate, Nitrite SM4500F-C, SM4500CN-CE, EPA 180.1, SM2130B, SM4500Cl-D, SM2320B, SM2540C, SM4500H-B

EPA 332 Perchlorate EPA 524.2: M and C EPA 504.1: E, CP.

Microbiology SM9215B; SM9223-P/A, SM9223B-Colilert-QT, SM9222D.

#### Non-Potable Water

SM4500H,B, EPA 120.1, SM2510B, SM2540C, SM2320B, SM4500CL-E, SM4500F-BC, SM4500NH3-BH, EPA 350.1 Cyanide, LACHAT 10-107-06-1-B Cyanide, SM4500NO3-F, EPA 353.2 Nitrate, EPA 351.1, SM4500P-E, SM4500P-B, E, SM4500SO4-E, SM5220D, EPA 410.4, SM5210B, SM5310C, SM4500CL-D, EPA 1664, EPA 420.1, SM4500-CN-CE, SM2540D.

EPA 624 Volatile Halocarbon 1,1,1-trichloroethane

EPA 608: Chlordane, Dieldrin, aldrin, beta-C, gamma-C, delta-C, dieldrin, DDE, DDD, Endosulfan, Endosulfan sulfate, Endrin, Endrin aldehyde, DDT, DDE, DDD, Endosulfan, Endosulfan sulfate, Endrin, Endrin aldehyde, DDT, DDE, DDD, Endosulfan, Endosulfan sulfate, Endrin, Endrin aldehyde, DDT, DDE, DDD, Endosulfan, Endosulfan sulfate.

EPA 625: C 1,2-dichloroethane, 1,2-dichloroethane, EPA 600/4-81-045 PC oil.

Microbiology SM9223B-Colilert-QT; Enterolert-QT, SM9221E.

### Mansfield Facility:

#### Drinking Water

EPA 200.7: As, Se, Cd, Cr, Cu, Ni, Pb, Ca. EPA 200.8: B, Br, Na, Fe, Cd, Cr, Cu, Pb, Ni, Se, Cl. EPA 245.1 1,2-dichloroethane

#### Non-Potable Water

EPA 200.7: Al, B, Br, Se, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mn, Mo, Ni, Ni, Se, Br, Na, Cr, Cl, Ni, Ni, Ni.

EPA 200.8: Al, B, Br, Se, Cd, Cr, Cu, Pb, Mn, Ni, Se, Br, Cl, Ni.

EPA 245.1 1,2-dichloroethane

SM2340B

For a complete list of analytical methods and detection limits for this Project Manager.

L1729601

# Environmental Analysis Request/Chain of Custody

CHAIN



Client: <b>Amech Foster Wheeler</b> 7511 Congress St. Suite 200 Portland, ME 04101		Matrix: <input type="checkbox"/> Soil <input type="checkbox"/> Sediment <input type="checkbox"/> Tissue		Analyses Requested				For Lab Use Only			
Project Name/#: <b>USDC Penobscot</b>		PN #: <b>3616166052.04A.030</b>		Preservation Codes				SF #: _____ SCR #: _____			
Project Manager: <b>Rod Pendleton</b>		P.O. #: _____		Total # of Containers: _____ TOC-Loyd Kahn 8 Oz AGI/4 DEGC				Preservation Codes: H = HCl      T = Thiosulfate N = HNO <sub>3</sub> B = NaOH S = H <sub>2</sub> SO <sub>4</sub> P = H <sub>3</sub> PO <sub>4</sub> O = Other			
Sampler: <b>KB/JP</b>		PWSID #: _____									
Phone #: _____		Quote #: _____									
State where samples were collected: <u>ME</u>		For Compliance: Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>		Collection				Remarks			
Sample Identification		Date      Time		Grab      Composite		Soil      Water      Other		Total # of Containers			
1 W-101-A_081517_SED_00-01		081517      1445		<input type="checkbox"/> <input type="checkbox"/>		<input checked="" type="checkbox"/>		X			
2 W-101-A_081517_SED_01-03		081517      1447		<input type="checkbox"/> <input type="checkbox"/>		<input checked="" type="checkbox"/>		X			
3 W-101-B_081517_SED_00-01		081517      1518		<input type="checkbox"/> <input type="checkbox"/>		<input checked="" type="checkbox"/>		X			
4 W-101-B_081517_SED_01-03		081517      1520		<input type="checkbox"/> <input type="checkbox"/>		<input checked="" type="checkbox"/>		X			
5 W-102-A_081517_SED_00-01		081517      1435		<input type="checkbox"/> <input type="checkbox"/>		<input checked="" type="checkbox"/>		X			
6 W-102-A_081517_SED_01-03		081517      1437		<input type="checkbox"/> <input type="checkbox"/>		<input checked="" type="checkbox"/>		X			
7 W-102-B_081517_SED_00-01		081517      1423		<input type="checkbox"/> <input type="checkbox"/>		<input checked="" type="checkbox"/>		X			
8 W-102-B_081517_SED_01-03		081517      1425		<input type="checkbox"/> <input type="checkbox"/>		<input checked="" type="checkbox"/>		X			
9 W-102-C_081517_SED_00-01		081517      1535		<input type="checkbox"/> <input type="checkbox"/>		<input checked="" type="checkbox"/>		X			
10 W-102-C_081517_SED_01-03		081517      1537		<input type="checkbox"/> <input type="checkbox"/>		<input checked="" type="checkbox"/>		X			
11 W-108-A_081517_SED_00-01		081517      1350		<input type="checkbox"/> <input type="checkbox"/>		<input checked="" type="checkbox"/>		X			
12 W-108-A_081517_SED_01-03		081517      1351		<input type="checkbox"/> <input type="checkbox"/>		<input checked="" type="checkbox"/>		X			
13		_____		<input type="checkbox"/> <input type="checkbox"/>		<input type="checkbox"/>		_____			
14		_____		<input type="checkbox"/> <input type="checkbox"/>		<input type="checkbox"/>		_____			
15		_____		<input type="checkbox"/> <input type="checkbox"/>		<input type="checkbox"/>		_____			
Turnaround Time Requested (TAT) (please check): Standard <input checked="" type="checkbox"/> Rush <input type="checkbox"/>				Relinquished by: <i>KB</i>		Date: <i>8-18-17</i>		Received by: <i>[Signature]</i>			
Notes: aliquots to ALPHA				Relinquished by: <i>[Signature]</i>		Date: <i>8/24/17 16:00</i>		Received by: <i>Corbin Powell</i>			
FedEx # _____ # of Coolers _____				Relinquished by: _____		Date: _____		Received by: <i>EF 65</i>			
Sample disposal - Hold Equipment Blanks 1-4 until 30 days after delivery of report Report and EDD to: denise.king@amecfw.com / 978-692-6633				Relinquished by: _____		Date: _____		Received by: <i>8/19/17 9:10</i>			
Data Package Options (please check if required) High <input type="checkbox"/> Standard <input checked="" type="checkbox"/>				Relinquished by Commercial Carrier: _____				Temperature upon receipt <i>-50</i> °C			
EDD Required? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> If yes, format: _____				UPS _____ FedEx <input checked="" type="checkbox"/> Other _____							

-01  
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yo

Rec'd Kim Ballin 8/23/17 10:37 - PAK

8103 4444 4607

# AMEC FOSTER WHEELER

## USDC Penobscot

Reviewed 09/27/2017  
Elizabeth Penta  
Amec FW

### Level IV Data Package

Laboratory SDG:

1707620

PO#

C012505874

August 18, 2017

# AMEC Foster Wheeler

## USDC Penobscot

Laboratory SDG: 1707620

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August 18, 2017

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AMEC Foster Wheeler  
271 Mill Road  
Chelmsford MA, 01824

Project: 2017 Penobscot Sediment Cores  
Project Number: WO-30A  
Project Manager: Denise King

Reported:  
18-Aug-17 09:31

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
W-104-A_071817_SED_00-01	1707620-01	Soil/Sediment	18-Jul-17 14:35	22-Jul-17 09:30
W-MM-03_071717_SED_00-01	1707620-02	Soil/Sediment	17-Jul-17 17:26	22-Jul-17 09:30
W-MM-04_071717_SED_00-01	1707620-03	Soil/Sediment	17-Jul-17 17:06	22-Jul-17 09:30
W-MM-05_071817_SED_00-01	1707620-04	Soil/Sediment	18-Jul-17 15:47	22-Jul-17 09:30
W-MM-08_071817_SED_00-01	1707620-05	Soil/Sediment	18-Jul-17 15:23	22-Jul-17 09:30
W-MM-11_071817_SED_00-01	1707620-06	Soil/Sediment	18-Jul-17 11:14	22-Jul-17 09:30
W-MM-12_071817_SED_00-01	1707620-07	Soil/Sediment	18-Jul-17 17:33	22-Jul-17 09:30
W-MM-13_071817_SED_00-01	1707620-08	Soil/Sediment	18-Jul-17 10:33	22-Jul-17 09:30
W-MM-14_071817_SED_00-01	1707620-09	Soil/Sediment	18-Jul-17 17:59	22-Jul-17 09:30
W-104-A_071817_SED_01-03	1707620-10	Soil/Sediment	18-Jul-17 14:36	22-Jul-17 09:30
W-MM-03_071717_SED_01-03	1707620-11	Soil/Sediment	17-Jul-17 17:28	22-Jul-17 09:30
W-MM-04_071717_SED_01-03	1707620-12	Soil/Sediment	17-Jul-17 17:07	22-Jul-17 09:30
W-MM-05_071817_SED_01-03	1707620-13	Soil/Sediment	18-Jul-17 15:48	22-Jul-17 09:30
W-MM-08_071817_SED_01-03	1707620-14	Soil/Sediment	18-Jul-17 15:26	22-Jul-17 09:30
W-MM-11_071817_SED_01-03	1707620-15	Soil/Sediment	18-Jul-17 11:17	22-Jul-17 09:30
W-MM-12_071817_SED_01-03	1707620-16	Soil/Sediment	18-Jul-17 17:35	22-Jul-17 09:30
W-MM-13_071817_SED_01-03	1707620-17	Soil/Sediment	18-Jul-17 10:35	22-Jul-17 09:30
W-MM-14_071817_SED_01-03	1707620-18	Soil/Sediment	18-Jul-17 18:00	22-Jul-17 09:30
W-MM-03_071817_SED_03-05	1707620-19	Soil/Sediment	18-Jul-17 09:40	22-Jul-17 09:30
W-MM-03_071817_SED_05-10	1707620-20	Soil/Sediment	18-Jul-17 09:48	22-Jul-17 09:30
W-MM-04_071817_SED_03-05	1707620-21	Soil/Sediment	18-Jul-17 09:58	22-Jul-17 09:30
W-MM-04_071817_SED_05-10	1707620-22	Soil/Sediment	18-Jul-17 10:02	22-Jul-17 09:30
W-MM-08_071917_SED_03-05	1707620-23	Soil/Sediment	19-Jul-17 09:15	22-Jul-17 09:30
W-MM-08_071917_SED_05-10	1707620-24	Soil/Sediment	19-Jul-17 09:25	22-Jul-17 09:30
W-MM-11_071917_SED_03-05	1707620-25	Soil/Sediment	19-Jul-17 09:55	22-Jul-17 09:30
W-MM-11_071917_SED_05-10	1707620-26	Soil/Sediment	19-Jul-17 10:00	22-Jul-17 09:30

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.



AMEC Foster Wheeler  
271 Mill Road  
Chelmsford MA, 01824

Project: 2017 Penobscot Sediment Cores  
Project Number: WO-30A  
Project Manager: Denise King

Reported:  
18-Aug-17 09:31

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
W-104-A_071917_SED_03-05	1707620-27	Soil/Sediment	19-Jul-17 13:02	22-Jul-17 09:30
W-104-A_071917_SED_05-10	1707620-28	Soil/Sediment	19-Jul-17 13:05	22-Jul-17 09:30
W-MM-05_071917_SED_03-05	1707620-29	Soil/Sediment	19-Jul-17 12:18	22-Jul-17 09:30
W-MM-05_071917_SED_05-10	1707620-30	Soil/Sediment	19-Jul-17 12:22	22-Jul-17 09:30
W-MM-12_071917_SED_03-05	1707620-31	Soil/Sediment	19-Jul-17 11:19	22-Jul-17 09:30
W-MM-12_071917_SED_05-10	1707620-32	Soil/Sediment	19-Jul-17 11:23	22-Jul-17 09:30
W-MM-13_071917_SED_03-05	1707620-33	Soil/Sediment	19-Jul-17 10:43	22-Jul-17 09:30
W-MM-13_071917_SED_05-10	1707620-34	Soil/Sediment	19-Jul-17 10:46	22-Jul-17 09:30
W-MM-14_071917_SED_03-05	1707620-35	Soil/Sediment	19-Jul-17 12:40	22-Jul-17 09:30
W-MM-14_071917_SED_05-10	1707620-36	Soil/Sediment	19-Jul-17 12:43	22-Jul-17 09:30

Eurofins Frontier Global Sciences, Inc.

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AMEC Foster Wheeler  
271 Mill Road  
Chelmsford MA, 01824Project: 2017 Penobscot Sediment Cores  
Project Number: WO-30A  
Project Manager: Denise King**Reported:**  
18-Aug-17 09:31

## REVISED REPORT (8/18/17)

The narrative was updated in the revised report. The original narrative didn't include a note about the samples that arrived in broken containers, or the samples that were homogenized incorrectly.

## SAMPLE RECEIPT

Samples were received at Eurofins Frontier Global Sciences (EFGS) on 7/22/2017 9:30:00 AM . The samples were received on-ice within four sealed coolers at -49.8, -45.8, -49.8, and -49.8 degrees Celsius.

Samples 1707620-10, -13, and -16 arrived in damaged containers. The bottom of these sample jars had been broken, but as the samples themselves were completely frozen, no sample volume was lost and there didn't appear to be any contamination. The sample volume was transferred to new containers before homogenization. The client was notified and advised that the analysis continue.

Samples 1707620-01->20 were homogenized and split per Work Instructions EFSR-P-SP-WI15953. Portions of these samples were then sent to Alpha Analytical in Mansfield, MA for Total Organic Carbon by Lloyd Kahn and AMEC Foster Wheeler in Durham, NC for Organic Carbon by ASTM D2974-C. These labs will report their data directly to the client.

Samples 1707620-02, -03, -11, and -12 were homogenized incorrectly. After following the work instructions, the lab added an additional step of homogenizing these with the magic bullet. The client was notified and there was an internal investigation. See IR QA2017-043 for additional details.

## SAMPLE PREPARATION AND ANALYSIS

Total solids analysis was performed in accordance with method SM2540B.

Total mercury preparation followed EPA 7474 and the analysis was performed by flow injection atomic fluorescence spectrometry (FI-AFS) in accordance with EPA 1631B.

Samples were prepped using a Potassium Hydroxide/Methanol solution for analysis of methyl mercury (SOP 2986) and analyzed for methyl mercury by cold vapor gas chromatography atomic fluorescence spectrometry (CV-GC-AFS) in accordance with EPA 1630 (EFGS-070/SOP 2808).

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Eurofins Frontier Global Sciences, Inc.



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AMEC Foster Wheeler  
271 Mill Road  
Chelmsford MA, 01824Project: 2017 Penobscot Sediment Cores  
Project Number: WO-30A  
Project Manager: Denise King**Reported:**  
18-Aug-17 09:31

Samples were prepped in 4 batches for total solids; F708357, F708358, F708359, and F708368. Samples 1707620-01, -11, -21, and -34 were used as the source QC per client request.

Samples were prepped in 2 batches for Methyl Mercury; F707531 and F707530. Sample 1707620-01 was used as the source QC in batch F707530. Sample 1707620-11 was used as the source QC in batch F707531. These were analyzed in 2 sequences; 7H03016 and 7H04009.

Samples were prepped in four batches for total Mercury; F707534, F707535, F707536, and F707537. Sample 1707620-01 was used as the source QC in batch F707535. Samples 1707620-11 and 1707620-21 were used as the source QC in batch F707536. Sample 1707620-34 was used as the source QC in batch F707537. These were analyzed in 4 sequences; 7H10023, 7H10027, 7H14017, and 7H15016.

#### ANALYTICAL AND QUALITY CONTROL ISSUES

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 fell within established acceptance criteria with the exception of any items flagged and described in the notes and definitions section of the report.

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Eurofins Frontier Global Sciences, Inc.



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Amy Goodall, Project Manager

# Sample Receipt Checklist

EFGS Work Order: 17C7620

Client: Amec

Date & Time Received: 7/22/17 9:30

Date Labeled: 7/24/17 Labeled By: MM

Project: \_\_\_\_\_

Received By: CSB

Label Verified By: LM

# 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>N</u>	

TID:	CF:	+0.2°C	Date/Time:	7/22/17 9:30	By:	CSB
Cooler 1:	-50°C	w/CF:	-49.8°C	Cooler 4:	-50°C	w/CF: -49.8°C
Cooler 2:	-46°C	w/CF:	-45.8°C	Cooler 5:	°C	w/CF: °C
Cooler 3:	-50°C	w/CF:	-49.8°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>NA</u>	
Requested analyses:	<u>Y</u>	
Required signatures:	<u>Y</u>	
Internal COC required:	<u>N</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>NA</u>	

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

Cooler 2: 7872 5670 5228 Cooler 1: 8103 4444 8565  
 Cooler 4: 7872 5070 5240 Cooler 3: 7872 5670 5239

W/104-A 01-03 FRIT 436 ZL - no data resolved  
W/104-A 01-03 SED 01-03 - no sample 7/24/17 MM  
Sample jars for -10 D, -13D, and -16D were damaged. Samples meet

to -15 ambient.

# Environmental Analysis Request/Chain of Custody

Client: Amec Foster Wheeler / 511 Congress St, Suite 200 Portland, ME 04101		Analyses Requested	
Project Name: USDC Penobscot		Preservation Codes	
Project Manager: Rod Pendleton		SF #	
Sampler: BWJP		SCR #	
Phone #		Preservation Codes	
State where samples were collected: ME		H=HCl, T=Trisulfate	
For Compliance: Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>		H=HCl, B=HCl, P=HCl, O=OHV	
PN # 3616166052.04A.030		Use Volume for MS/MD	
P.O. #		Remarks	
PWSID #		Use Volume for MS/MD	
Quote #		Use Volume for MS/MD	
Matrix		Use Volume for MS/MD	
Soil <input checked="" type="checkbox"/> Sediment <input type="checkbox"/> Tissue <input type="checkbox"/>		Use Volume for MS/MD	
Water <input type="checkbox"/> NPDES <input type="checkbox"/> Surface <input type="checkbox"/>		Use Volume for MS/MD	
Other: <input type="checkbox"/> Tissue <input type="checkbox"/>		Use Volume for MS/MD	
Total # of Containers		Use Volume for MS/MD	
Composite		Use Volume for MS/MD	
Grab		Use Volume for MS/MD	
Collection		Use Volume for MS/MD	
Date		Use Volume for MS/MD	
Time		Use Volume for MS/MD	
Sample Identification		Use Volume for MS/MD	
1	W-104-A_071817_SED_00-01	7/18/2017	1435
2	W-MM-03_071717_SED_00-01	7/17/2017	1726
3	W-MM-04_071717_SED_00-01	7/17/2017	1705
4	W-MM-05_071817_SED_00-01	7/18/2017	1547
5	W-MM-08_071817_SED_00-01	7/18/2017	1523
6	W-MM-11_071817_SED_00-01	7/18/2017	1114
7	W-MM-12_071817_SED_00-01	7/18/2017	1733
8	W-MM-13_071817_SED_00-01	7/18/2017	1033
9	W-MM-14_071817_SED_00-01	7/18/2017	1759
10	W-104-A_071817_SED_01-03	7/18/2017	1436
11	W-MM-03_071717_SED_01-03	7/17/2017	1728
12	W-MM-04_071717_SED_01-03	7/17/2017	1707
13	W-MM-05_071817_SED_01-03	7/18/2017	1548
14	W-MM-08_071817_SED_01-03	7/18/2017	1526
15	W-MM-11_071817_SED_01-03	7/18/2017	1117
Turnaround Time Requested (TAT) (please check):		Date	
Rush TAT is subject to laboratory approval and surcharges)		Time	
Standard <input type="checkbox"/> Rush <input type="checkbox"/>		Date	
Lab required to homogenize and aliquot to sub-fabs		Time	
Notes:		Date	
Reinquisitioned by: <i>J. Pedersen</i>		Date	
Reinquisitioned by:		Date	
Reinquisitioned by:		Date	
Reinquisitioned by:		Date	
Reinquisitioned by Commercial Carrier:		Date	
LUPS: FedEx Other:		Date	
Temperature upon receipt: _____ °C		Date	

81034444 8565  
-49.8°C  
FedEx  
930



1101020

COC SED EuroFin WG30A2

# Environmental Analysis Request/Chain of Custody

Client: Amec Foster Wheeler / 1511 Congress St. Suite 200 Portland, ME 04101		Analyses Requested							
Project Name: USDC Penobscot		Preservation Codes							
Project Manager: Rod Pendleton		SF # _____							
Sampler: BW/JPLT		SCR # _____							
Phone # _____		H=HDI T=Thiosulphate N=HYD B=HDSH S=H <sub>2</sub> O <sub>2</sub> P=H <sub>2</sub> O <sub>2</sub> O=Other							
State where samples were collected: ME <input checked="" type="checkbox"/> For Compliance Yes <input type="checkbox"/> No <input type="checkbox"/>		Remarks							
Sample Identification	Collection	Composite	Matrix	Total # of Containers	Analyses Requested		Date	Time	Remarks
					Grab	Time			
1 W-MM-12_071817_SED_01-03	7/18/2017 1735	X	<input type="checkbox"/> Soil <input checked="" type="checkbox"/> Sediment <input type="checkbox"/> Tissue	1	X	Hg 1631e	7/20/17	1730	
2 W-MM-13_071817_SED_01-03	7/18/2017 1035	X	<input type="checkbox"/> Water <input type="checkbox"/> NPDES <input type="checkbox"/> Surface <input type="checkbox"/> Ground	1	X	Hg 1631e 8oz P/Freeze			
3 W-MM-14_071817_SED_01-03	7/18/2017 1800	X	<input type="checkbox"/> Other: Tissue	1	X	Hg 1631e 16 OZ P/Freeze			
4 W-MM-03_071817_SED_03-05	7/18/2017 0940	X		1	X	Hg 1631e Methg 1630/TOC			
5 W-MM-03_071817_SED_05-10	7/18/2017 0948	X		1	X				
6 W-MM-04_071817_SED_03-05	7/18/2017 0958	X		1	X				
7 W-MM-04_071817_SED_05-10	7/18/2017 1002	X		1	X				
8 W-MM-08_071917_SED_03-05	7/19/2017 0915	X		1	X				
9 W-MM-08_071917_SED_05-10	7/19/2017 0925	X		1	X				
10 W-MM-11_071917_SED_03-05	7/19/2017 0955	X		1	X				
11 W-MM-11_071917_SED_05-10	7/19/2017 1000	X		1	X				
12 W-104-A_071917_SED_03-05	7/19/2017 1302	X		1	X				
13 W-104-A_071917_SED_05-10	7/19/2017 1305	X		1	X				
14 W-MM-05_071917_SED_03-05	7/19/2017 1218	X		1	X				
15 W-MM-05_071917_SED_05-10	7/19/2017 1222	X		1	X				
Turnaround Time Requested (TAT) (please check):		<input type="checkbox"/> Standard	<input type="checkbox"/> Rush	Relinquished by: <i>M. Pallas</i>		Date: 7/20/17		Time: 1730	
Notes: Lab required to homogenize and aliquot to sub-lab's									
FedEx # _____ # of Coolers _____ Sample disposal: Hold Equipment Blanks 1-4 until 30 days after delivery of report Report and EDD to: dense.king@amecfx.com / 978-692-6633									
Data Package Options (please check if required)									
High <input type="checkbox"/>	Standard <input checked="" type="checkbox"/>	Relinquished by Commercial Carrier							
EDD Required? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	If yes, format _____	JPS		FedEx		Other		Temperature upon receipt: _____ °C	

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# Environmental Analysis Request/Chain of Custody

Client: Amec Foster Wheeler / 511 Congress St, Suite 200 Portland, ME 04101				Analyses Requested				For Lab Use Only																																																	
Project Name# USOC Penobscot				Preservation Codes				SF # _____																																																	
Project Manager: Rod Pendleton				Matrix				SCR # _____																																																	
Sampler: BW/JPLT				<input type="checkbox"/> Soil <input checked="" type="checkbox"/> Sediment <input type="checkbox"/> Tissue <input type="checkbox"/> Water <input type="checkbox"/> NPDES <input type="checkbox"/> Surface <input type="checkbox"/> Other: _____ Tissue				H+HCl N+H <sub>2</sub> O <sub>2</sub> S+H <sub>2</sub> SO <sub>4</sub> O+Other																																																	
State where samples were collected: ME				Total # of Containers				Hg 1631e 8 oz P4 Deg c Hg 1631e 16 Oz P/Freeze Hg 1631e Merg 1631e CC Loyd Kahn/OC D2974 C Lab HOMOGENIZE - ALQUAT																																																	
<table border="1" style="width:100%; border-collapse: collapse;"> <thead> <tr> <th rowspan="2">Sample Identification</th> <th colspan="2">Collection</th> <th rowspan="2">Composite</th> </tr> <tr> <th>Date</th> <th>Time</th> </tr> </thead> <tbody> <tr><td>1</td><td>W-MM-12_071917_SED_03-05</td><td>7/19/2017</td><td>1119</td></tr> <tr><td>2</td><td>W-MM-12_071917_SED_05-10</td><td>7/19/2017</td><td>1123</td></tr> <tr><td>3</td><td>W-MM-13_071917_SED_03-05</td><td>7/19/2017</td><td>1043</td></tr> <tr><td>4</td><td>W-MM-13_071917_SED_05-10</td><td>7/19/2017</td><td>1046</td></tr> <tr><td>5</td><td>W-MM-14_071917_SED_03-05</td><td>7/19/2017</td><td>1240</td></tr> <tr><td>6</td><td>W-MM-14_071917_SED_05-10</td><td>7/19/2017</td><td>1243</td></tr> <tr><td>7</td><td></td><td></td><td></td></tr> <tr><td>8</td><td></td><td></td><td></td></tr> <tr><td>9</td><td></td><td></td><td></td></tr> <tr><td>10</td><td></td><td></td><td></td></tr> </tbody> </table>				Sample Identification	Collection		Composite	Date	Time	1	W-MM-12_071917_SED_03-05	7/19/2017	1119	2	W-MM-12_071917_SED_05-10	7/19/2017	1123	3	W-MM-13_071917_SED_03-05	7/19/2017	1043	4	W-MM-13_071917_SED_05-10	7/19/2017	1046	5	W-MM-14_071917_SED_03-05	7/19/2017	1240	6	W-MM-14_071917_SED_05-10	7/19/2017	1243	7				8				9				10				<input type="checkbox"/> Grab <input checked="" type="checkbox"/> Composite				Use Volume for MS/MD Reinquished by: _____ Reinquished by: _____ Reinquished by: _____ Reinquished by: _____ Reinquished by Commercial Carrier: _____			
Sample Identification	Collection		Composite																																																						
	Date	Time																																																							
1	W-MM-12_071917_SED_03-05	7/19/2017	1119																																																						
2	W-MM-12_071917_SED_05-10	7/19/2017	1123																																																						
3	W-MM-13_071917_SED_03-05	7/19/2017	1043																																																						
4	W-MM-13_071917_SED_05-10	7/19/2017	1046																																																						
5	W-MM-14_071917_SED_03-05	7/19/2017	1240																																																						
6	W-MM-14_071917_SED_05-10	7/19/2017	1243																																																						
7																																																									
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Turnaround Time Requested (TAT) (please check)				Date				Time																																																	
Standard				Date				Time																																																	
Rush				Date				Time																																																	
Notes: Lab required to homogenize and aliquot to sub-lab.				Date				Time																																																	
FedEx # _____ # of Coolers _____ Sample disposal - Hold Equipment Blanks 1.4 until 30 days after delivery of report Report and EDD to: denise.king@amecfx.com / 978-692-6633				Date				Time																																																	
Data Package Options (please check if required)				Date				Time																																																	
High				Date				Time																																																	
Standard				Date				Time																																																	
EDD Required? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> If yes, format: _____ UPS _____ FedEx _____ Other _____				Date				Time																																																	
				Date				Temperature upon receipt _____ °C																																																	

# Environmental Analysis Request/Chain of Custody

**eurolife** EAST GREEN SPRING, VA

Page 1 of 3

Client: Amec Foster Wheeler / 511 Congress St. Suite 200 Portland, ME 04101		Project Name/ID: USDC Penobscot		PN #: 3616166052.04A.030	
Project Manager: Rod Pendleton		P.O. #:		P.O. #:	
Sampler: BW/JJP		PWSID #:		PWSID #:	
Phone #:		Quote #:		Quote #:	
State where samples were collected: ME		For Compliance: Yes <input type="checkbox"/> No <input type="checkbox"/>		Yes <input type="checkbox"/> No <input type="checkbox"/>	
Sample Identification	Collection Date	Time	Composite		Remarks
			Grab	Composite	
1 W-104-A_071817_SED_00-01	7/18/2017	1435	X		
2 W-MM-03_071717_SED_00-01	7/17/2017	1726	X		
3 W-MM-04_071717_SED_00-01	7/17/2017	1706	X		
4 W-MM-05_071817_SED_00-01	7/18/2017	1547	X		
5 W-MM-08_071817_SED_00-01	7/18/2017	1523	X		
6 W-MM-11_071817_SED_00-01	7/18/2017	1114	X		
7 W-MM-12_071817_SED_00-01	7/18/2017	1733	X		
8 W-MM-13_071817_SED_00-01	7/18/2017	1033	X		
9 W-MM-14_071817_SED_00-01	7/18/2017	1759	X		
10 W-104-A_071817_SED_01-03	7/18/2017	1436	X		
11 W-MM-03_071717_SED_01-03	7/17/2017	1728	X		
12 W-MM-04_071717_SED_01-03	7/17/2017	1707	X		
13 W-MM-05_071817_SED_01-03	7/18/2017	1548	X		
14 W-MM-08_071817_SED_01-03	7/18/2017	1526	X		
15 W-MM-11_071817_SED_01-03	7/18/2017	1117	X		
Turnaround Time Requested (TAT) (please check):			Standard <input type="checkbox"/> Rush <input type="checkbox"/>		
(Rush TAT is subject to laboratory approval and surcharges.)					
Notes: Lab required to homogenize and aliquot to sub-labs.					
FedEx # _____ # of Coolers _____ Sample disposal - Hold Equipment Blanks 1-4 until 30 days after delivery of report Report and EDD to: denisa.king@amech.com / 978-652-6533					
Data Package Options (please check if required)					
High <input type="checkbox"/> Standard <input checked="" type="checkbox"/>					
EDD Required? Yes <input type="checkbox"/> No <input type="checkbox"/> If yes, format: _____					
Matrix: <input type="checkbox"/> Water <input type="checkbox"/> Potable <input type="checkbox"/> Ground <input type="checkbox"/> Soil <input checked="" type="checkbox"/> Sediment <input type="checkbox"/> Tissue <input type="checkbox"/> Other: _____					
Total # of Containers: _____					
Analyses Requested					
Preservation Codes					
Hg 16310 16 Oz P/Freeze					
Hg 16310 8 Oz P/Freeze					
MgHg 1630 16 Oz P/Freeze					
Hg Benthic Neph 1630 FOR HOMOGENIZ. ALIQUOT					
Use Volume for MS/MD					
Use Volume for MS/MD					
Preservation Codes: H = HCl, T = Thiosulfate, N = HNO <sub>3</sub> , S = H <sub>2</sub> SO <sub>4</sub> , P = H <sub>2</sub> O <sub>2</sub> , O = Other					
For Lab Use Only: SF #: _____ SCR #: _____					
Relinquished by: _____ Date: _____ Time: _____					
Relinquished by: _____ Date: _____ Time: _____					
Relinquished by: _____ Date: _____ Time: _____					
Relinquished by: _____ Date: _____ Time: _____					
Relinquished by Commercial Carrier: UPS _____ Fed-Ex _____ Other _____ Temperature upon receipt: _____ °C					

*Revised  
COC  
7/24/17*

# Environmental Analysis Request/Chain of Custody

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Page 3 of 3

Client: <b>Anec Foster Wheeler 1511 Congress St, Suite 200 Portland, ME 04101</b>		Project Name/ID: <b>USDC Penobscot</b>		PN # <b>3616168062.04A.030</b>		P.O. #:		PWSID #:		Quote #:	
Project Manager: <b>Rodi Pendleton</b>		Sampler: <b>BW/CJ/PLT</b>		Phone #:		State where samples were collected: <b>ME</b>		For Compliance: <input type="checkbox"/> ME <input type="checkbox"/> No		Yes <input type="checkbox"/> No <input type="checkbox"/>	
Sample Identification	Collection	Date	Time	Collection		Composite	Matrix		Preservation Codes		Remarks
				Grab	Push		Water	Soil	Hg 1831a	Hg 1831b	
1 W-MM-12_071817_SED_01-03		7/18/2017	1735	X		X	<input type="checkbox"/> Tissue				
2 W-MM-13_071817_SED_01-03		7/18/2017	1035	X		X	<input type="checkbox"/> NPDES				
3 W-MM-14_071817_SED_01-03		7/18/2017	1800	X		X	<input type="checkbox"/> Surface				
4 W-MM-03_071817_SED_03-05		7/18/2017	0940	X		X	<input type="checkbox"/> Ground				
5 W-MM-03_071817_SED_05-10		7/18/2017	0948	X		X	<input type="checkbox"/> Sediment				
6 W-MM-04_071817_SED_03-05		7/18/2017	0958	X		X	<input type="checkbox"/> Tissue				
7 W-MM-04_071817_SED_05-10		7/18/2017	1002	X		X					
8 W-MM-08_071917_SED_03-05		7/19/2017	0915	X		X					
9 W-MM-08_071917_SED_05-10		7/19/2017	0925	X		X					
10 W-MM-11_071917_SED_03-05		7/19/2017	0955	X		X					
11 W-MM-11_071917_SED_05-10		7/19/2017	1000	X		X					
12 W-104-A_071917_SED_03-05		7/19/2017	1302	X		X					
13 W-104-A_071917_SED_05-10		7/19/2017	1305	X		X					
14 W-MM-05_071917_SED_03-05		7/19/2017	1218	X		X					
15 W-MM-05_071917_SED_05-10		7/19/2017	1222	X		X					
Turnaround Time Requested (TAT) (please check):		Standard <input type="checkbox"/> Rush <input type="checkbox"/>		Refrigerated by:		Refrigerated by:		Refrigerated by:		Refrigerated by:	
(Rush TAT is subject to laboratory approval and surcharges.)				Date		Date		Date		Date	
Notes: <input type="checkbox"/> Lab required to homogenize and aliquot to sub-labs				Time		Time		Time		Time	
FedEx # _____				Date		Date		Date		Date	
Sample disposal - Hold Equipment Blanks 1-4 until 30 days after delivery of report				Time		Time		Time		Time	
Report and EDD to: donisea.king@anecfw.com / 978-692-6633				Time		Time		Time		Time	
Data Package Options (please check if required)		High <input type="checkbox"/> Standard <input checked="" type="checkbox"/>		Refrigerated by Commercial Carrier:		Refrigerated by Commercial Carrier:		Refrigerated by Commercial Carrier:		Refrigerated by Commercial Carrier:	
EDD Required? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>		If yes, format: _____		UPS _____ FedEx _____ Other _____		Temperature upon receipt _____ °C		Temperature upon receipt _____ °C		Temperature upon receipt _____ °C	

Revised  
COC  
7/24/17





AMEC Foster Wheeler 271 Mill Road Chelmsford MA, 01824	Project: 2017 Penobscot Sediment Cores Project Number: WO-30A Project Manager: Denise King	Reported: 18-Aug-17 09:31
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**W-104-A\_071817\_SED\_00-01**  
**1707620-01**

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
---------	--------	-----------------	-----------------	-------	----------	-------	----------	----------	----------	--------	-------

**Sample Preparation: EFGS-010 KOH/Methanol Hg Digestion**

Methyl Mercury (as Mercury)	ND	0.5	2.1	ng/g dry	500	F707530	01-Aug-17	7H04009	03-Aug-17	EPA 1630 Mod/FGS-070	U
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**Sample Preparation: EFGS-019 Solids Analysis**

% Solids	85.5	0.1	0.1	% by Weight	1	F708358	09-Aug-17		11-Aug-17	SM 2540B	O-04
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**Sample Preparation: EPA 7474**

Mercury	13.8	0.99	4.35	ng/g dry	10	F707535	09-Aug-17	7H10023	10-Aug-17	EPA 1631B	
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*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.*



AMEC Foster Wheeler 271 Mill Road Chelmsford MA, 01824	Project: 2017 Penobscot Sediment Cores Project Number: WO-30A Project Manager: Denise King	Reported: 18-Aug-17 09:31
--	--	------------------------------

**W-MM-03\_071717\_SED\_00-01**  
**1707620-02**

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
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**Sample Preparation: EFGS-010 KOH/Methanol Hg Digestion**

Methyl Mercury (as Mercury)	3.8	2.6	10.2	ng/g dry	500	F707530	01-Aug-17	7H04009	03-Aug-17	EPA 1630 Mod/FGS-070	J
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**Sample Preparation: EFGS-019 Solids Analysis**

% Solids	15.4	0.1	0.1	% by Weight	1	F708357	09-Aug-17		11-Aug-17	SM 2540B	O-04
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**Sample Preparation: EPA 7474**

Mercury	56.9	5.25	23.2	ng/g dry	10	F707534	09-Aug-17	7H10027	10-Aug-17	EPA 1631B	
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AMEC Foster Wheeler  
271 Mill Road  
Chelmsford MA, 01824

Project: 2017 Penobscot Sediment Cores  
Project Number: WO-30A  
Project Manager: Denise King

Reported:  
18-Aug-17 09:31

**W-MM-04\_071717\_SED\_00-01**  
**1707620-03**

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
<b>Sample Preparation: EFGS-010 KOH/Methanol Hg Digestion</b>											
Methyl Mercury (as Mercury)	10.9	1.2	4.9	ng/g dry	500	F707530	01-Aug-17	7H04009	03-Aug-17	EPA 1630 Mod/FGS-070	
<b>Sample Preparation: EFGS-019 Solids Analysis</b>											
% Solids	38.5	0.1	0.1	% by Weight	1	F708358	09-Aug-17		11-Aug-17	SM 2540B	O-04
<b>Sample Preparation: EPA 7474</b>											
Mercury	540	20.8	91.7	ng/g dry	100	F707535	09-Aug-17	7H10023	10-Aug-17	EPA 1631B	

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AMEC Foster Wheeler  
271 Mill Road  
Chelmsford MA, 01824

Project: 2017 Penobscot Sediment Cores  
Project Number: WO-30A  
Project Manager: Denise King

Reported:  
18-Aug-17 09:31

**W-MM-05\_071817\_SED\_00-01**  
**1707620-04**

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
<b>Sample Preparation: EFGS-010 KOH/Methanol Hg Digestion</b>											
Methyl Mercury (as Mercury)	9.0	1.1	4.4	ng/g dry	500	F707530	01-Aug-17	7H04009	03-Aug-17	EPA 1630 Mod/FGS-070	
<b>Sample Preparation: EFGS-019 Solids Analysis</b>											
% Solids	41.3	0.1	0.1	% by Weight	1	F708358	09-Aug-17		11-Aug-17	SM 2540B	O-04
<b>Sample Preparation: EPA 7474</b>											
Mercury	654	19.6	86.4	ng/g dry	100	F707535	09-Aug-17	7H10023	10-Aug-17	EPA 1631B	

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AMEC Foster Wheeler  
271 Mill Road  
Chelmsford MA, 01824

Project: 2017 Penobscot Sediment Cores  
Project Number: WO-30A  
Project Manager: Denise King

Reported:  
18-Aug-17 09:31

**W-MM-08\_071817\_SED\_00-01**  
**1707620-05**

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
<b>Sample Preparation: EFGS-010 KOH/Methanol Hg Digestion</b>											
Methyl Mercury (as Mercury)	20.4	1.1	4.4	ng/g dry	500	F707530	01-Aug-17	7H04009	04-Aug-17	EPA 1630 Mod/FGS-070	
<b>Sample Preparation: EFGS-019 Solids Analysis</b>											
% Solids	39.3	0.1	0.1	% by Weight	1	F708358	09-Aug-17		11-Aug-17	SM 2540B	O-04
<b>Sample Preparation: EPA 7474</b>											
Mercury	641	20.7	91.6	ng/g dry	100	F707535	09-Aug-17	7H10023	10-Aug-17	EPA 1631B	

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AMEC Foster Wheeler  
271 Mill Road  
Chelmsford MA, 01824

Project: 2017 Penobscot Sediment Cores  
Project Number: WO-30A  
Project Manager: Denise King

Reported:  
18-Aug-17 09:31

**W-MM-11\_071817\_SED\_00-01**  
**1707620-06**

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
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**Sample Preparation: EFGS-010 KOH/Methanol Hg Digestion**

Methyl Mercury (as Mercury)	11.2	1.4	5.4	ng/g dry	500	F707530	01-Aug-17	7H04009	04-Aug-17	EPA 1630 Mod/FGS-070	
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**Sample Preparation: EFGS-019 Solids Analysis**

% Solids	33.2	0.1	0.1	% by Weight	1	F708358	09-Aug-17		11-Aug-17	SM 2540B	O-04
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**Sample Preparation: EPA 7474**

Mercury	658	25.1	111	ng/g dry	100	F707535	09-Aug-17	7H10023	10-Aug-17	EPA 1631B	
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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.



AMEC Foster Wheeler  
271 Mill Road  
Chelmsford MA, 01824

Project: 2017 Penobscot Sediment Cores  
Project Number: WO-30A  
Project Manager: Denise King

Reported:  
18-Aug-17 09:31

**W-MM-12\_071817\_SED\_00-01**  
**1707620-07**

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
<b>Sample Preparation: EFGS-010 KOH/Methanol Hg Digestion</b>											
Methyl Mercury (as Mercury)	10.2	1.3	5.0	ng/g dry	500	F707530	01-Aug-17	7H04009	04-Aug-17	EPA 1630 Mod/FGS-070	
<b>Sample Preparation: EFGS-019 Solids Analysis</b>											
% Solids	34.0	0.1	0.1	% by Weight	1	F708358	09-Aug-17		11-Aug-17	SM 2540B	O-04
<b>Sample Preparation: EPA 7474</b>											
Mercury	448	23.8	105	ng/g dry	100	F707535	09-Aug-17	7H10023	10-Aug-17	EPA 1631B	



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**W-MM-13\_071817\_SED\_00-01  
1707620-08**

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
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**Sample Preparation: EFGS-010 KOH/Methanol Hg Digestion**

Methyl Mercury (as Mercury)	10.5	2.6	10.3	ng/g dry	500	F707530	01-Aug-17	7H04009	04-Aug-17	EPA 1630 Mod/FGS-070	
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**Sample Preparation: EFGS-019 Solids Analysis**

% Solids	18.4	0.1	0.1	% by Weight	1	F708358	09-Aug-17		11-Aug-17	SM 2540B	O-04
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**Sample Preparation: EPA 7474**

Mercury	229	45.4	201	ng/g dry	100	F707535	09-Aug-17	7H10023	10-Aug-17	EPA 1631B	
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**W-MM-14\_071817\_SED\_00-01**  
**1707620-09**

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
<b>Sample Preparation: EFGS-010 KOH/Methanol Hg Digestion</b>											
Methyl Mercury (as Mercury)	19.7	2.0	7.8	ng/g dry	500	F707530	01-Aug-17	7H04009	04-Aug-17	EPA 1630 Mod/FGS-070	
<b>Sample Preparation: EFGS-019 Solids Analysis</b>											
% Solids	24.0	0.1	0.1	% by Weight	1	F708358	09-Aug-17		11-Aug-17	SM 2540B	O-04
<b>Sample Preparation: EPA 7474</b>											
Mercury	446	34.1	151	ng/g dry	100	F707535	09-Aug-17	7H10023	10-Aug-17	EPA 1631B	

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**W-104-A\_071817\_SED\_01-03  
1707620-10**

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
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**Sample Preparation: EFGS-010 KOH/Methanol Hg Digestion**

Methyl Mercury (as Mercury)	ND	0.5	2.2	ng/g dry	500	F707530	01-Aug-17	7H04009	04-Aug-17	EPA 1630 Mod/FGS-070	U
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**Sample Preparation: EFGS-019 Solids Analysis**

% Solids	84.1	0.1	0.1	% by Weight	1	F708358	09-Aug-17		11-Aug-17	SM 2540B	O-04
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**Sample Preparation: EPA 7474**

Mercury	11.4	1.03	4.54	ng/g dry	10	F707535	09-Aug-17	7H10023	10-Aug-17	EPA 1631B	
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**W-MM-03\_071717\_SED\_01-03**  
**1707620-11**

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
<b>Sample Preparation: EFGS-010 KOH/Methanol Hg Digestion</b>											
Methyl Mercury (as Mercury)	3.7	2.7	10.7	ng/g dry	500	F707531	01-Aug-17	7H03016	02-Aug-17	EPA 1630 Mod/FGS-070	J
<b>Sample Preparation: EFGS-019 Solids Analysis</b>											
% Solids	17.3	0.1	0.1	% by Weight	1	F708359	10-Aug-17		14-Aug-17	SM 2540B	O-04
<b>Sample Preparation: EPA 7474</b>											
Mercury	201	4.64	20.5	ng/g dry	10	F707536	10-Aug-17	7H14017	11-Aug-17	EPA 1631B	

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**W-MM-04\_071717\_SED\_01-03**  
**1707620-12**

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
<b>Sample Preparation: EFGS-010 KOH/Methanol Hg Digestion</b>											
Methyl Mercury (as Mercury)	4.7	1.1	4.4	ng/g dry	500	F707531	01-Aug-17	7H03016	02-Aug-17	EPA 1630 Mod/FGS-070	
<b>Sample Preparation: EFGS-019 Solids Analysis</b>											
% Solids	40.5	0.1	0.1	% by Weight	1	F708358	09-Aug-17		11-Aug-17	SM 2540B	O-04
<b>Sample Preparation: EPA 7474</b>											
Mercury	93.4	2.15	9.48	ng/g dry	10	F707535	09-Aug-17	7H10023	10-Aug-17	EPA 1631B	

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**W-MM-05\_071817\_SED\_01-03**  
**1707620-13**

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
<b>Sample Preparation: EFGS-010 KOH/Methanol Hg Digestion</b>											
Methyl Mercury (as Mercury)	17.9	1.0	3.8	ng/g dry	500	F707531	01-Aug-17	7H03016	02-Aug-17	EPA 1630 Mod/FGS-070	
<b>Sample Preparation: EFGS-019 Solids Analysis</b>											
% Solids	46.2	0.1	0.1	% by Weight	1	F708358	09-Aug-17		11-Aug-17	SM 2540B	O-04
<b>Sample Preparation: EPA 7474</b>											
Mercury	689	17.7	78.4	ng/g dry	100	F707535	09-Aug-17	7H10023	10-Aug-17	EPA 1631B	

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**W-MM-08\_071817\_SED\_01-03**  
**1707620-14**

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
<b>Sample Preparation: EFGS-010 KOH/Methanol Hg Digestion</b>											
Methyl Mercury (as Mercury)	15.9	1.2	4.6	ng/g dry	500	F707531	01-Aug-17	7H03016	02-Aug-17	EPA 1630 Mod/FGS-070	
<b>Sample Preparation: EFGS-019 Solids Analysis</b>											
% Solids	41.2	0.1	0.1	% by Weight	1	F708358	09-Aug-17		11-Aug-17	SM 2540B	O-04
<b>Sample Preparation: EPA 7474</b>											
Mercury	964	21.0	92.8	ng/g dry	100	F707535	09-Aug-17	7H10023	10-Aug-17	EPA 1631B	

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**W-MM-11\_071817\_SED\_01-03**  
**1707620-15**

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
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**Sample Preparation: EFGS-010 KOH/Methanol Hg Digestion**

Methyl Mercury (as Mercury)	18.2	1.4	5.5	ng/g dry	500	F707531	01-Aug-17	7H03016	02-Aug-17	EPA 1630 Mod/FGS-070	
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**Sample Preparation: EFGS-019 Solids Analysis**

% Solids	31.8	0.1	0.1	% by Weight	1	F708358	09-Aug-17		11-Aug-17	SM 2540B	O-04
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**Sample Preparation: EPA 7474**

Mercury	699	26.3	116	ng/g dry	100	F707535	09-Aug-17	7H10023	10-Aug-17	EPA 1631B	
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**W-MM-12\_071817\_SED\_01-03**  
**1707620-16**

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
<b>Sample Preparation: EFGS-010 KOH/Methanol Hg Digestion</b>											
Methyl Mercury (as Mercury)	6.5	1.6	6.3	ng/g dry	500	F707531	01-Aug-17	7H03016	02-Aug-17	EPA 1630 Mod/FGS-070	
<b>Sample Preparation: EFGS-019 Solids Analysis</b>											
% Solids	29.2	0.1	0.1	% by Weight	1	F708358	09-Aug-17		11-Aug-17	SM 2540B	O-04
<b>Sample Preparation: EPA 7474</b>											
Mercury	538	30.6	135	ng/g dry	100	F707535	09-Aug-17	7H10023	10-Aug-17	EPA 1631B	

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**W-MM-13\_071817\_SED\_01-03**  
**1707620-17**

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
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**Sample Preparation: EFGS-010 KOH/Methanol Hg Digestion**

Methyl Mercury (as Mercury)	11.1	2.3	9.2	ng/g dry	500	F707531	01-Aug-17	7H03016	02-Aug-17	EPA 1630 Mod/FGS-070	
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**Sample Preparation: EFGS-019 Solids Analysis**

% Solids	18.9	0.1	0.1	% by Weight	1	F708358	09-Aug-17		11-Aug-17	SM 2540B	O-04
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**Sample Preparation: EPA 7474**

Mercury	371	45.6	201	ng/g dry	100	F707535	09-Aug-17	7H10023	10-Aug-17	EPA 1631B	
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**W-MM-14\_071817\_SED\_01-03**  
**1707620-18**

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
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**Sample Preparation: EFGS-010 KOH/Methanol Hg Digestion**

Methyl Mercury (as Mercury)	18.6	2.0	8.1	ng/g dry	500	F707531	01-Aug-17	7H03016	02-Aug-17	EPA 1630 Mod/FGS-070	
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**Sample Preparation: EFGS-019 Solids Analysis**

% Solids	23.2	0.1	0.1	% by Weight	1	F708358	09-Aug-17		11-Aug-17	SM 2540B	O-04
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**Sample Preparation: EPA 7474**

Mercury	1160	35.1	155	ng/g dry	100	F707535	09-Aug-17	7H10023	10-Aug-17	EPA 1631B	
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**W-MM-03\_071817\_SED\_03-05**  
**1707620-19**

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
<b>Sample Preparation: EFGS-019 Solids Analysis</b>											
% Solids	20.1	0.1	0.1	% by Weight	1	F708358	09-Aug-17		11-Aug-17	SM 2540B	O-04
<b>Sample Preparation: EPA 7474</b>											
Mercury	52.6	4.21	18.6	ng/g dry	10	F707535	09-Aug-17	7H10023	10-Aug-17	EPA 1631B	

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**W-MM-03\_071817\_SED\_05-10**  
**1707620-20**

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
<b>Sample Preparation: EFGS-019 Solids Analysis</b>											
% Solids	19.1	0.1	0.1	% by Weight	1	F708358	09-Aug-17		11-Aug-17	SM 2540B	O-04
<b>Sample Preparation: EPA 7474</b>											
Mercury	21.5	4.41	19.5	ng/g dry	10	F707535	09-Aug-17	7H10023	10-Aug-17	EPA 1631B	

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**W-MM-04\_071817\_SED\_03-05**  
**1707620-21**

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
<b>Sample Preparation: EFGS-019 Solids Analysis</b>											
% Solids	39.4	0.1	0.1	% by Weight	1	F708359	10-Aug-17		14-Aug-17	SM 2540B	O-04
<b>Sample Preparation: EPA 7474</b>											
Mercury	933	22.2	98.1	ng/g dry	100	F707536	10-Aug-17	7H14017	11-Aug-17	EPA 1631B	

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**W-MM-04\_071817\_SED\_05-10**  
**1707620-22**

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
<b>Sample Preparation: EFGS-019 Solids Analysis</b>											
% Solids	39.2	0.1	0.1	% by Weight	1	F708358	09-Aug-17		11-Aug-17	SM 2540B	O-04
<b>Sample Preparation: EPA 7474</b>											
Mercury	1780	20.9	92.2	ng/g dry	100	F707535	09-Aug-17	7H10023	10-Aug-17	EPA 1631B	

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**W-MM-08\_071917\_SED\_03-05**  
**1707620-23**

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
<b>Sample Preparation: EFGS-019 Solids Analysis</b>											
% Solids	40.4	0.1	0.1	% by Weight	1	F708359	10-Aug-17		14-Aug-17	SM 2540B	O-04
<b>Sample Preparation: EPA 7474</b>											
Mercury	697	21.3	94.1	ng/g dry	100	F707536	10-Aug-17	7H14017	11-Aug-17	EPA 1631B	

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**W-MM-08\_071917\_SED\_05-10**  
**1707620-24**

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
<b>Sample Preparation: EFGS-019 Solids Analysis</b>											
% Solids	36.5	0.1	0.1	% by Weight	1	F708359	10-Aug-17		14-Aug-17	SM 2540B	O-04
<b>Sample Preparation: EPA 7474</b>											
Mercury	1420	22.1	97.5	ng/g dry	100	F707536	10-Aug-17	7H14017	11-Aug-17	EPA 1631B	

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Amy Goodall, Project Manager





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**W-MM-11\_071917\_SED\_03-05**  
**1707620-25**

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
<b>Sample Preparation: EFGS-019 Solids Analysis</b>											
% Solids	31.9	0.1	0.1	% by Weight	1	F708359	10-Aug-17		14-Aug-17	SM 2540B	O-04
<b>Sample Preparation: EPA 7474</b>											
Mercury	1640	26.8	118	ng/g dry	100	F707536	10-Aug-17	7H14017	11-Aug-17	EPA 1631B	

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**W-MM-11\_071917\_SED\_05-10**  
**1707620-26**

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
<b>Sample Preparation: EFGS-019 Solids Analysis</b>											
% Solids	27.0	0.1	0.1	% by Weight	1	F708359	10-Aug-17		14-Aug-17	SM 2540B	O-04
<b>Sample Preparation: EPA 7474</b>											
Mercury	1180	29.1	129	ng/g dry	100	F707536	10-Aug-17	7H14017	11-Aug-17	EPA 1631B	



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**W-104-A\_071917\_SED\_03-05**  
**1707620-27**

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
<b>Sample Preparation: EFGS-019 Solids Analysis</b>											
% Solids	83.0	0.1	0.1	% by Weight	1	F708359	10-Aug-17		14-Aug-17	SM 2540B	O-04
<b>Sample Preparation: EPA 7474</b>											
Mercury	10.5	1.04	4.60	ng/g dry	10	F707536	10-Aug-17	7H14017	11-Aug-17	EPA 1631B	

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**W-104-A\_071917\_SED\_05-10  
1707620-28**

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
<b>Sample Preparation: EFGS-019 Solids Analysis</b>											
% Solids	83.8	0.1	0.1	% by Weight	1	F708359	10-Aug-17		14-Aug-17	SM 2540B	O-04
<b>Sample Preparation: EPA 7474</b>											
Mercury	7.46	0.96	4.26	ng/g dry	10	F707536	10-Aug-17	7H14017	11-Aug-17	EPA 1631B	

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Project Manager: Denise King

**Reported:**  
18-Aug-17 09:31

**W-MM-05\_071917\_SED\_03-05**  
**1707620-29**

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
<b>Sample Preparation: EFGS-019 Solids Analysis</b>											
% Solids	55.1	0.1	0.1	% by Weight	1	F708359	10-Aug-17		14-Aug-17	SM 2540B	O-04
<b>Sample Preparation: EPA 7474</b>											
Mercury	712	15.3	67.6	ng/g dry	100	F707536	10-Aug-17	7H14017	11-Aug-17	EPA 1631B	

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AMEC Foster Wheeler  
271 Mill Road  
Chelmsford MA, 01824

Project: 2017 Penobscot Sediment Cores  
Project Number: WO-30A  
Project Manager: Denise King

Reported:  
18-Aug-17 09:31

**W-MM-05\_071917\_SED\_05-10**  
**1707620-30**

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
<b>Sample Preparation: EFGS-019 Solids Analysis</b>											
% Solids	47.5	0.1	0.1	% by Weight	1	F708359	10-Aug-17		14-Aug-17	SM 2540B	O-04
<b>Sample Preparation: EPA 7474</b>											
Mercury	1480	17.7	78.0	ng/g dry	100	F707536	10-Aug-17	7H14017	11-Aug-17	EPA 1631B	

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AMEC Foster Wheeler  
271 Mill Road  
Chelmsford MA, 01824

Project: 2017 Penobscot Sediment Cores  
Project Number: WO-30A  
Project Manager: Denise King

**Reported:**  
18-Aug-17 09:31

**W-MM-12\_071917\_SED\_03-05**  
**1707620-31**

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
<b>Sample Preparation: EFGS-019 Solids Analysis</b>											
% Solids	22.2	0.1	0.1	% by Weight	1	F708359	10-Aug-17		14-Aug-17	SM 2540B	O-04
<b>Sample Preparation: EPA 7474</b>											
Mercury	282	37.0	164	ng/g dry	100	F707536	10-Aug-17	7H14017	11-Aug-17	EPA 1631B	

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271 Mill Road  
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Project: 2017 Penobscot Sediment Cores  
Project Number: WO-30A  
Project Manager: Denise King

**Reported:**  
18-Aug-17 09:31

**W-MM-12\_071917\_SED\_05-10  
1707620-32**

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
<b>Sample Preparation: EFGS-019 Solids Analysis</b>											
% Solids	18.7	0.1	0.1	% by Weight	1	F708359	10-Aug-17		14-Aug-17	SM 2540B	O-04
<b>Sample Preparation: EPA 7474</b>											
Mercury	27.4	4.19	18.5	ng/g dry	10	F707536	10-Aug-17	7H14017	11-Aug-17	EPA 1631B	

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AMEC Foster Wheeler 271 Mill Road Chelmsford MA, 01824	Project: 2017 Penobscot Sediment Cores Project Number: WO-30A Project Manager: Denise King	<b>Reported:</b> 18-Aug-17 09:31
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**W-MM-13\_071917\_SED\_03-05**  
**1707620-33**

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
<b>Sample Preparation: EFGS-019 Solids Analysis</b>											
% Solids	17.8	0.1	0.1	% by Weight	1	F708359	10-Aug-17		14-Aug-17	SM 2540B	O-04
<b>Sample Preparation: EPA 7474</b>											
Mercury	281	48.4	214	ng/g dry	100	F707536	10-Aug-17	7H14017	11-Aug-17	EPA 1631B	

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271 Mill Road  
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Project: 2017 Penobscot Sediment Cores  
Project Number: WO-30A  
Project Manager: Denise King

**Reported:**  
18-Aug-17 09:31

**W-MM-13\_071917\_SED\_05-10**  
**1707620-34**

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
<b>Sample Preparation: EFGS-019 Solids Analysis</b>											
% Solids	20.7	0.1	0.1	% by Weight	1	F708368	10-Aug-17		14-Aug-17	SM 2540B	O-04
<b>Sample Preparation: EPA 7474</b>											
Mercury	29.3	3.84	17.0	ng/g dry	10	F707537	11-Aug-17	7H15016	15-Aug-17	EPA 1631B	

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AMEC Foster Wheeler  
271 Mill Road  
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Project Number: WO-30A  
Project Manager: Denise King

**Reported:**  
18-Aug-17 09:31

**W-MM-14\_071917\_SED\_03-05**  
**1707620-35**

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
<b>Sample Preparation: EFGS-019 Solids Analysis</b>											
% Solids	24.4	0.1	0.1	% by Weight	1	F708359	10-Aug-17		14-Aug-17	SM 2540B	O-04
<b>Sample Preparation: EPA 7474</b>											
Mercury	205	36.1	159	ng/g dry	100	F707536	10-Aug-17	7H14017	11-Aug-17	EPA 1631B	

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AMEC Foster Wheeler  
271 Mill Road  
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Project: 2017 Penobscot Sediment Cores  
Project Number: WO-30A  
Project Manager: Denise King

Reported:  
18-Aug-17 09:31

**W-MM-14\_071917\_SED\_05-10**  
**1707620-36**

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
<b>Sample Preparation: EFGS-019 Solids Analysis</b>											
% Solids	24.6	0.1	0.1	% by Weight	1	F708359	10-Aug-17		14-Aug-17	SM 2540B	O-04
<b>Sample Preparation: EPA 7474</b>											
Mercury	23.7	3.50	15.5	ng/g dry	10	F707536	10-Aug-17	7H14017	11-Aug-17	EPA 1631B	

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AMEC Foster Wheeler 271 Mill Road Chelmsford MA, 01824	Project: 2017 Penobscot Sediment Cores Project Number: WO-30A Project Manager: Denise King	Reported: 18-Aug-17 09:31
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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
<b>Batch 7H03016 - F708266</b>											
<b>Cal Standard (7H03016-CAL1)</b>					Prepared & Analyzed: 02-Aug-17						
Methyl Mercury (as Mercury)	0.05	-		ng/L	0.050050		90.7				
<b>Cal Standard (7H03016-CAL2)</b>					Prepared & Analyzed: 02-Aug-17						
Methyl Mercury (as Mercury)	0.2	-		ng/L	0.20020		93.6				
<b>Cal Standard (7H03016-CAL3)</b>					Prepared & Analyzed: 02-Aug-17						
Methyl Mercury (as Mercury)	1.1	-		ng/L	1.0010		105				
<b>Cal Standard (7H03016-CAL4)</b>					Prepared & Analyzed: 02-Aug-17						
Methyl Mercury (as Mercury)	2.0	-		ng/L	2.0020		97.7				
<b>Cal Standard (7H03016-CAL5)</b>					Prepared & Analyzed: 02-Aug-17						
Methyl Mercury (as Mercury)	4.5	-		ng/L	4.0040		112				
<b>Calibration Blank (7H03016-CCB1)</b>					Prepared & Analyzed: 02-Aug-17						
Methyl Mercury (as Mercury)	0.003	-		ng/L							
<b>Calibration Blank (7H03016-CCB2)</b>					Prepared & Analyzed: 02-Aug-17						
Methyl Mercury (as Mercury)	0.0	-		ng/L							U
<b>Calibration Blank (7H03016-CCB3)</b>					Prepared & Analyzed: 02-Aug-17						
Methyl Mercury (as Mercury)	0.0	-		ng/L							U
<b>Calibration Blank (7H03016-CCB4)</b>					Prepared & Analyzed: 02-Aug-17						
Methyl Mercury (as Mercury)	0.0	-		ng/L							U
<b>Calibration Blank (7H03016-CCB5)</b>					Prepared & Analyzed: 02-Aug-17						
Methyl Mercury (as Mercury)	0.0	-		ng/L							U

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271 Mill Road  
Chelmsford MA, 01824

Project: 2017 Penobscot Sediment Cores  
Project Number: WO-30A  
Project Manager: Denise King

Reported:  
18-Aug-17 09:31

Quality Control Data

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch 7H03016 - F708266</b>											
<b>Calibration Blank (7H03016-CCB6)</b>											
Methyl Mercury (as Mercury)	0.003	-		ng/L							Prepared & Analyzed: 02-Aug-17
<b>Calibration Check (7H03016-CCV1)</b>											
Methyl Mercury (as Mercury)	0.5	-		ng/L	0.50049		106	67-133			Prepared & Analyzed: 02-Aug-17
<b>Calibration Check (7H03016-CCV2)</b>											
Methyl Mercury (as Mercury)	0.5	-		ng/L	0.50049		94.1	67-133			Prepared & Analyzed: 02-Aug-17
<b>Calibration Check (7H03016-CCV3)</b>											
Methyl Mercury (as Mercury)	0.5	-		ng/L	0.50049		93.4	67-133			Prepared & Analyzed: 02-Aug-17
<b>Calibration Check (7H03016-CCV4)</b>											
Methyl Mercury (as Mercury)	0.5	-		ng/L	0.50049		90.9	67-133			Prepared & Analyzed: 02-Aug-17
<b>Calibration Check (7H03016-CCV5)</b>											
Methyl Mercury (as Mercury)	0.5	-		ng/L	0.50049		104	67-133			Prepared & Analyzed: 02-Aug-17
<b>Calibration Check (7H03016-CCV6)</b>											
Methyl Mercury (as Mercury)	0.5	-		ng/L	0.50049		97.0	67-133			Prepared & Analyzed: 02-Aug-17
<b>Instrument Blank (7H03016-IBL1)</b>											
Methyl Mercury (as Mercury)	ND	0.001	0.004	ng/L							Prepared & Analyzed: 02-Aug-17
<b>Initial Cal Blank (7H03016-ICB1)</b>											
Methyl Mercury (as Mercury)	0.007	-		ng/L							Prepared & Analyzed: 02-Aug-17
<b>Initial Cal Check (7H03016-ICV1)</b>											
Methyl Mercury (as Mercury)	0.5	-		ng/L	0.50049		103	69-131			Prepared & Analyzed: 02-Aug-17

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Project Number: WO-30A  
Project Manager: Denise King

Reported:  
18-Aug-17 09:31

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 7H04009 - F707529

<b>Cal Standard (7H04009-CAL1)</b>						Prepared & Analyzed: 03-Aug-17					
Methyl Mercury (as Mercury)	0.04	-		ng/L	0.050050		87.9				
<b>Cal Standard (7H04009-CAL2)</b>						Prepared & Analyzed: 03-Aug-17					
Methyl Mercury (as Mercury)	0.2	-		ng/L	0.20020		95.1				
<b>Cal Standard (7H04009-CAL3)</b>						Prepared & Analyzed: 03-Aug-17					
Methyl Mercury (as Mercury)	1.0	-		ng/L	1.0010		103				
<b>Cal Standard (7H04009-CAL4)</b>						Prepared & Analyzed: 03-Aug-17					
Methyl Mercury (as Mercury)	2.1	-		ng/L	2.0020		103				
<b>Cal Standard (7H04009-CAL5)</b>						Prepared & Analyzed: 03-Aug-17					
Methyl Mercury (as Mercury)	4.4	-		ng/L	4.0040		110				
<b>Calibration Blank (7H04009-CCB1)</b>						Prepared & Analyzed: 03-Aug-17					
Methyl Mercury (as Mercury)	0.003	-		ng/L							
<b>Calibration Blank (7H04009-CCB2)</b>						Prepared & Analyzed: 03-Aug-17					
Methyl Mercury (as Mercury)	-0.002	-		ng/L							U
<b>Calibration Blank (7H04009-CCB3)</b>						Prepared & Analyzed: 03-Aug-17					
Methyl Mercury (as Mercury)	-0.002	-		ng/L							U
<b>Calibration Blank (7H04009-CCB4)</b>						Prepared & Analyzed: 03-Aug-17					
Methyl Mercury (as Mercury)	-0.002	-		ng/L							U
<b>Calibration Blank (7H04009-CCB5)</b>						Prepared & Analyzed: 03-Aug-17					
Methyl Mercury (as Mercury)	0.002	-		ng/L							

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Project Manager: Denise King

Reported:  
18-Aug-17 09:31

Quality Control Data

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch 7H04009 - F707529</b>											
<b>Calibration Blank (7H04009-CCB6)</b> Prepared & Analyzed: 03-Aug-17											
Methyl Mercury (as Mercury)	-0.002	-		ng/L							U
<b>Calibration Blank (7H04009-CCB7)</b> Prepared: 03-Aug-17 Analyzed: 04-Aug-17											
Methyl Mercury (as Mercury)	-0.002	-		ng/L							U
<b>Calibration Blank (7H04009-CCB8)</b> Prepared: 03-Aug-17 Analyzed: 04-Aug-17											
Methyl Mercury (as Mercury)	-0.002	-		ng/L							U
<b>Calibration Check (7H04009-CCV1)</b> Prepared & Analyzed: 03-Aug-17											
Methyl Mercury (as Mercury)	0.5	-		ng/L	0.50049		96.6	75-125			
<b>Calibration Check (7H04009-CCV2)</b> Prepared & Analyzed: 03-Aug-17											
Methyl Mercury (as Mercury)	0.4	-		ng/L	0.50049		87.4	75-125			
<b>Calibration Check (7H04009-CCV3)</b> Prepared & Analyzed: 03-Aug-17											
Methyl Mercury (as Mercury)	0.4	-		ng/L	0.50049		86.7	75-125			
<b>Calibration Check (7H04009-CCV4)</b> Prepared & Analyzed: 03-Aug-17											
Methyl Mercury (as Mercury)	0.5	-		ng/L	0.50049		100	75-125			
<b>Calibration Check (7H04009-CCV5)</b> Prepared & Analyzed: 03-Aug-17											
Methyl Mercury (as Mercury)	0.5	-		ng/L	0.50049		93.4	75-125			
<b>Calibration Check (7H04009-CCV6)</b> Prepared & Analyzed: 03-Aug-17											
Methyl Mercury (as Mercury)	0.5	-		ng/L	0.50049		96.8	75-125			
<b>Calibration Check (7H04009-CCV7)</b> Prepared: 03-Aug-17 Analyzed: 04-Aug-17											
Methyl Mercury (as Mercury)	0.4	-		ng/L	0.50049		84.5	75-125			

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Project: 2017 Penobscot Sediment Cores  
Project Number: WO-30A  
Project Manager: Denise King

Reported:  
18-Aug-17 09:31

**Quality Control Data**

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch 7H04009 - F707529</b>											
<b>Calibration Check (7H04009-CCV8)</b>					Prepared: 03-Aug-17 Analyzed: 04-Aug-17						
Methyl Mercury (as Mercury)	0.5	-		ng/L	0.50049		92.8	75-125			
<b>Instrument Blank (7H04009-IBL1)</b>					Prepared & Analyzed: 03-Aug-17						
Methyl Mercury (as Mercury)	ND	0.001	0.004	ng/L							U
<b>Initial Cal Blank (7H04009-ICB1)</b>					Prepared & Analyzed: 03-Aug-17						
Methyl Mercury (as Mercury)	0.004	-		ng/L							
<b>Initial Cal Check (7H04009-ICV1)</b>					Prepared & Analyzed: 03-Aug-17						
Methyl Mercury (as Mercury)	0.5	-		ng/L	0.50049		91.3	80-120			
<b>Batch F707530 - EFGS-010 KOH/Methanol Hg Digestion</b>											
<b>Blank (F707530-BLK1)</b>					Prepared: 01-Aug-17 Analyzed: 03-Aug-17						
Methyl Mercury (as Mercury)	ND	0.5	2.0	ng/g wet							U
<b>Blank (F707530-BLK2)</b>					Prepared: 01-Aug-17 Analyzed: 03-Aug-17						
Methyl Mercury (as Mercury)	ND	0.5	2.0	ng/g wet							U
<b>Blank (F707530-BLK3)</b>					Prepared: 01-Aug-17 Analyzed: 03-Aug-17						
Methyl Mercury (as Mercury)	ND	0.5	2.0	ng/g wet							U
<b>LCS (F707530-BS1)</b>					Prepared: 01-Aug-17 Analyzed: 03-Aug-17						
Methyl Mercury (as Mercury)	267.5	2.0	7.7	ng/g wet	330.28		81.0	70-130			
<b>LCS Dup (F707530-BSD1)</b>					Prepared: 01-Aug-17 Analyzed: 03-Aug-17						
Methyl Mercury (as Mercury)	268.9	2.0	7.7	ng/g wet	330.28		81.4	70-130	0.528	25	

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AMEC Foster Wheeler 271 Mill Road Chelmsford MA, 01824	Project: 2017 Penobscot Sediment Cores Project Number: WO-30A Project Manager: Denise King	Reported: 18-Aug-17 09:31
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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
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**Batch F707530 - EFGS-010 KOH/Methanol Hg Digestion**

<b>Duplicate (F707530-DUP1)</b>		<b>Source: 1707619-11</b>		Prepared: 01-Aug-17 Analyzed: 03-Aug-17							
Methyl Mercury (as Mercury)	9.1	2.3	9.2	ng/g dry		11.6			24.4	35	J
<b>Matrix Spike (F707530-MS1)</b>		<b>Source: 1707619-11</b>		Prepared: 01-Aug-17 Analyzed: 03-Aug-17							
Methyl Mercury (as Mercury)	232.7	2.7	10.6	ng/g dry	212.42	11.6	104	65-130			
<b>Matrix Spike (F707530-MS2)</b>		<b>Source: 1707620-01</b>		Prepared: 01-Aug-17 Analyzed: 03-Aug-17							
Methyl Mercury (as Mercury)	51.3	0.5	2.1	ng/g dry	41.575	ND	123	65-130			
<b>Matrix Spike Dup (F707530-MSD1)</b>		<b>Source: 1707619-11</b>		Prepared: 01-Aug-17 Analyzed: 03-Aug-17							
Methyl Mercury (as Mercury)	175.7	2.3	9.2	ng/g dry	185.03	11.6	88.6	65-130	16.0	35	
<b>Matrix Spike Dup (F707530-MSD2)</b>		<b>Source: 1707620-01</b>		Prepared: 01-Aug-17 Analyzed: 03-Aug-17							
Methyl Mercury (as Mercury)	42.7	0.5	2.0	ng/g dry	40.385	ND	106	65-130	15.5	35	

**Batch F707531 - EFGS-010 KOH/Methanol Hg Digestion**

<b>Blank (F707531-BLK1)</b>				Prepared: 01-Aug-17 Analyzed: 02-Aug-17							
Methyl Mercury (as Mercury)	ND	0.5	2.0	ng/g wet							U
<b>Blank (F707531-BLK2)</b>				Prepared: 01-Aug-17 Analyzed: 02-Aug-17							
Methyl Mercury (as Mercury)	ND	0.5	2.0	ng/g wet							U
<b>Blank (F707531-BLK3)</b>				Prepared: 01-Aug-17 Analyzed: 02-Aug-17							
Methyl Mercury (as Mercury)	ND	0.5	2.0	ng/g wet							U
<b>Blank (F707531-BLK4)</b>				Prepared: 01-Aug-17 Analyzed: 03-Aug-17							
Methyl Mercury (as Mercury)	ND	0.5	2.0	ng/g wet							U



AMEC Foster Wheeler  
271 Mill Road  
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Project: 2017 Penobscot Sediment Cores  
Project Number: WO-30A  
Project Manager: Denise King

Reported:  
18-Aug-17 09:31

**Quality Control Data**

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch F707531 - EFGS-010 KOH/Methanol Hg Digestion</b>											
<b>Blank (F707531-BLK5)</b> Prepared: 01-Aug-17 Analyzed: 03-Aug-17											
Methyl Mercury (as Mercury)	ND	0.5	2.0	ng/g wet							U
<b>Blank (F707531-BLK6)</b> Prepared: 01-Aug-17 Analyzed: 03-Aug-17											
Methyl Mercury (as Mercury)	ND	0.5	2.0	ng/g wet							U
<b>LCS (F707531-BS1)</b> Prepared: 01-Aug-17 Analyzed: 02-Aug-17											
Methyl Mercury (as Mercury)	267.7	2.0	7.9	ng/g wet	330.28		81.1	70-130			
<b>LCS Dup (F707531-BSD1)</b> Prepared: 01-Aug-17 Analyzed: 02-Aug-17											
Methyl Mercury (as Mercury)	271.9	2.0	8.0	ng/g wet	330.28		82.3	70-130	1.55	25	
<b>Duplicate (F707531-DUP1)</b> Source: 1707620-11 Prepared: 01-Aug-17 Analyzed: 02-Aug-17											
Methyl Mercury (as Mercury)	5.5	2.8	11.2	ng/g dry		3.7			39.9	35	QR-07, J
<b>Duplicate (F707531-DUP2)</b> Source: 1707620-11 Prepared: 01-Aug-17 Analyzed: 03-Aug-17											
Methyl Mercury (as Mercury)	4.6	2.7	10.7	ng/g dry		3.7			21.6	35	AD, J
<b>Matrix Spike (F707531-MS1)</b> Source: 1707620-11 Prepared: 01-Aug-17 Analyzed: 02-Aug-17											
Methyl Mercury (as Mercury)	140.9	2.8	11.1	ng/g dry	221.61	3.7	61.9	65-130			QM-07
<b>Matrix Spike (F707531-MS2)</b> Source: 1707620-11 Prepared: 01-Aug-17 Analyzed: 03-Aug-17											
Methyl Mercury (as Mercury)	58.6	2.7	10.7	ng/g dry	53.635	3.7	102	65-130			AS
<b>Matrix Spike Dup (F707531-MSD1)</b> Source: 1707620-11 Prepared: 01-Aug-17 Analyzed: 02-Aug-17											
Methyl Mercury (as Mercury)	160.8	2.6	10.5	ng/g dry	210.25	3.7	74.7	65-130	18.8	35	
<b>Matrix Spike Dup (F707531-MSD2)</b> Source: 1707620-11 Prepared: 01-Aug-17 Analyzed: 03-Aug-17											
Methyl Mercury (as Mercury)	58.9	2.7	10.7	ng/g dry	53.635	3.7	103	65-130	0.660	35	AS

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AMEC Foster Wheeler  
271 Mill Road  
Chelmsford MA, 01824

Project: 2017 Penobscot Sediment Cores  
Project Number: WO-30A  
Project Manager: Denise King

Reported:  
18-Aug-17 09:31

Quality Control Data

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch 7H10023 - F707535</b>											
<b>Cal Standard (7H10023-CAL1)</b>					Prepared & Analyzed: 10-Aug-17						
Mercury	0.48	-		ng/L	0.50100		96.0				
<b>Cal Standard (7H10023-CAL2)</b>					Prepared & Analyzed: 10-Aug-17						
Mercury	1.03	-		ng/L	1.0020		102				
<b>Cal Standard (7H10023-CAL3)</b>					Prepared & Analyzed: 10-Aug-17						
Mercury	5.12	-		ng/L	5.0100		102				
<b>Cal Standard (7H10023-CAL4)</b>					Prepared & Analyzed: 10-Aug-17						
Mercury	19.66	-		ng/L	20.040		98.1				
<b>Cal Standard (7H10023-CAL5)</b>					Prepared & Analyzed: 10-Aug-17						
Mercury	40.20	-		ng/L	40.080		100				
<b>Calibration Blank (7H10023-CCB1)</b>					Prepared & Analyzed: 10-Aug-17						
Mercury	0.07	-		ng/L							
<b>Calibration Blank (7H10023-CCB2)</b>					Prepared & Analyzed: 10-Aug-17						
Mercury	0.10	-		ng/L							
<b>Calibration Blank (7H10023-CCB3)</b>					Prepared & Analyzed: 10-Aug-17						
Mercury	0.11	-		ng/L							
<b>Calibration Blank (7H10023-CCB4)</b>					Prepared & Analyzed: 10-Aug-17						
Mercury	0.14	-		ng/L							
<b>Calibration Check (7H10023-CCV1)</b>					Prepared & Analyzed: 10-Aug-17						
Mercury	5.14	-		ng/L	5.0000		103	77-123			

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Project Manager: Denise King

Reported:  
18-Aug-17 09:31

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 7H10023 - F707535

Calibration Check (7H10023-CCV2) Prepared & Analyzed: 10-Aug-17

Mercury	5.12	-		ng/L	5.0000		102	77-123			
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Calibration Check (7H10023-CCV3) Prepared & Analyzed: 10-Aug-17

Mercury	5.11	-		ng/L	5.0000		102	77-123			
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Calibration Check (7H10023-CCV4) Prepared & Analyzed: 10-Aug-17

Mercury	5.09	-		ng/L	5.0000		102	77-123			
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Instrument Blank (7H10023-IBL1) Prepared & Analyzed: 10-Aug-17

Mercury	ND	0.09	0.40	ng/L							U
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Instrument Blank (7H10023-IBL2) Prepared & Analyzed: 10-Aug-17

Mercury	ND	0.09	0.40	ng/L							U
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Instrument Blank (7H10023-IBL3) Prepared & Analyzed: 10-Aug-17

Mercury	ND	0.09	0.40	ng/L							U
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Initial Cal Check (7H10023-ICV1) Prepared & Analyzed: 10-Aug-17

Mercury	5.19	-		ng/L	5.0000		104	79-121			
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Batch 7H10027 - F707534

Cal Standard (7H10027-CAL1) Prepared & Analyzed: 10-Aug-17

Mercury	0.52	-		ng/L	0.50100		104				
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Cal Standard (7H10027-CAL2) Prepared & Analyzed: 10-Aug-17

Mercury	1.02	-		ng/L	1.0020		102				
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Amy Goodall, Project Manager



AMEC Foster Wheeler 271 Mill Road Chelmsford MA, 01824	Project: 2017 Penobscot Sediment Cores Project Number: WO-30A Project Manager: Denise King	Reported: 18-Aug-17 09:31
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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
<b>Batch 7H10027 - F707534</b>											
<b>Cal Standard (7H10027-CAL3)</b>					Prepared & Analyzed: 10-Aug-17						
Mercury	4.97	-		ng/L	5.0100		99.2				
<b>Cal Standard (7H10027-CAL4)</b>					Prepared & Analyzed: 10-Aug-17						
Mercury	19.56	-		ng/L	20.040		97.6				
<b>Cal Standard (7H10027-CAL5)</b>					Prepared & Analyzed: 10-Aug-17						
Mercury	38.70	-		ng/L	40.080		96.5				
<b>Calibration Blank (7H10027-CCB1)</b>					Prepared & Analyzed: 10-Aug-17						
Mercury	0.02	-		ng/L							
<b>Calibration Blank (7H10027-CCB2)</b>					Prepared & Analyzed: 10-Aug-17						
Mercury	0.00009	-		ng/L							
<b>Calibration Blank (7H10027-CCB3)</b>					Prepared & Analyzed: 10-Aug-17						
Mercury	0.04	-		ng/L							
<b>Calibration Blank (7H10027-CCB4)</b>					Prepared & Analyzed: 10-Aug-17						
Mercury	0.09	-		ng/L							
<b>Calibration Check (7H10027-CCV1)</b>					Prepared & Analyzed: 10-Aug-17						
Mercury	4.96	-		ng/L	5.0000		99.2	77-123			
<b>Calibration Check (7H10027-CCV2)</b>					Prepared & Analyzed: 10-Aug-17						
Mercury	4.95	-		ng/L	5.0000		99.1	77-123			
<b>Calibration Check (7H10027-CCV3)</b>					Prepared & Analyzed: 10-Aug-17						
Mercury	4.99	-		ng/L	5.0000		99.8	77-123			

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Project: 2017 Penobscot Sediment Cores  
Project Number: WO-30A  
Project Manager: Denise King

Reported:  
18-Aug-17 09:31

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 7H10027 - F707534

<b>Calibration Check (7H10027-CCV4)</b>					Prepared & Analyzed: 10-Aug-17						
Mercury	4.89	-		ng/L	5.0000		97.7	77-123			
<b>Instrument Blank (7H10027-IBL1)</b>					Prepared & Analyzed: 10-Aug-17						
Mercury	ND	0.09	0.40	ng/L							U
<b>Instrument Blank (7H10027-IBL2)</b>					Prepared & Analyzed: 10-Aug-17						
Mercury	ND	0.09	0.40	ng/L							U
<b>Instrument Blank (7H10027-IBL3)</b>					Prepared & Analyzed: 10-Aug-17						
Mercury	ND	0.09	0.40	ng/L							U
<b>Initial Cal Check (7H10027-ICV1)</b>					Prepared & Analyzed: 10-Aug-17						
Mercury	4.97	-		ng/L	5.0000		99.4	79-121			

Batch 7H14017 - F707536

<b>Cal Standard (7H14017-CAL1)</b>					Prepared & Analyzed: 11-Aug-17						
Mercury	0.55	-		ng/L	0.50100		110				
<b>Cal Standard (7H14017-CAL2)</b>					Prepared & Analyzed: 11-Aug-17						
Mercury	1.01	-		ng/L	1.0020		101				
<b>Cal Standard (7H14017-CAL3)</b>					Prepared & Analyzed: 11-Aug-17						
Mercury	4.90	-		ng/L	5.0100		97.8				
<b>Cal Standard (7H14017-CAL4)</b>					Prepared & Analyzed: 11-Aug-17						
Mercury	19.06	-		ng/L	20.040		95.1				

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Project: 2017 Penobscot Sediment Cores  
Project Number: WO-30A  
Project Manager: Denise King

Reported:  
18-Aug-17 09:31

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 7H14017 - F707536

<b>Cal Standard (7H14017-CAL5)</b>					Prepared & Analyzed: 11-Aug-17						
Mercury	38.09	-		ng/L	40.080		95.0				
<b>Calibration Blank (7H14017-CCB1)</b>					Prepared & Analyzed: 11-Aug-17						
Mercury	0.07	-		ng/L							
<b>Calibration Blank (7H14017-CCB2)</b>					Prepared & Analyzed: 11-Aug-17						
Mercury	0.05	-		ng/L							
<b>Calibration Blank (7H14017-CCB3)</b>					Prepared & Analyzed: 11-Aug-17						
Mercury	0.04	-		ng/L							
<b>Calibration Blank (7H14017-CCB4)</b>					Prepared & Analyzed: 11-Aug-17						
Mercury	0.05	-		ng/L							
<b>Calibration Blank (7H14017-CCB5)</b>					Prepared & Analyzed: 11-Aug-17						
Mercury	0.03	-		ng/L							
<b>Calibration Blank (7H14017-CCB6)</b>					Prepared & Analyzed: 11-Aug-17						
Mercury	0.08	-		ng/L							
<b>Calibration Check (7H14017-CCV1)</b>					Prepared & Analyzed: 11-Aug-17						
Mercury	4.88	-		ng/L	5.0000		97.6	77-123			
<b>Calibration Check (7H14017-CCV2)</b>					Prepared & Analyzed: 11-Aug-17						
Mercury	4.91	-		ng/L	5.0000		98.3	77-123			
<b>Calibration Check (7H14017-CCV3)</b>					Prepared & Analyzed: 11-Aug-17						
Mercury	5.00	-		ng/L	5.0000		100	77-123			

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AMEC Foster Wheeler 271 Mill Road Chelmsford MA, 01824	Project: 2017 Penobscot Sediment Cores Project Number: WO-30A Project Manager: Denise King	Reported: 18-Aug-17 09:31
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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
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Batch 7H14017 - F707536

Calibration Check (7H14017-CCV4) Prepared & Analyzed: 11-Aug-17

Mercury	4.99	-		ng/L	5.0000		99.7	77-123			
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Calibration Check (7H14017-CCV5) Prepared & Analyzed: 11-Aug-17

Mercury	4.99	-		ng/L	5.0000		99.8	77-123			
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Calibration Check (7H14017-CCV6) Prepared & Analyzed: 11-Aug-17

Mercury	5.01	-		ng/L	5.0000		100	77-123			
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Instrument Blank (7H14017-IBL1) Prepared & Analyzed: 11-Aug-17

Mercury	ND	0.09	0.40	ng/L							U
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Instrument Blank (7H14017-IBL2) Prepared & Analyzed: 11-Aug-17

Mercury	ND	0.09	0.40	ng/L							U
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Instrument Blank (7H14017-IBL3) Prepared & Analyzed: 11-Aug-17

Mercury	ND	0.09	0.40	ng/L							U
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Initial Cal Check (7H14017-ICV1) Prepared & Analyzed: 11-Aug-17

Mercury	4.93	-		ng/L	5.0000		98.7	79-121			
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Batch 7H15016 - F708322

Cal Standard (7H15016-CAL1) Prepared & Analyzed: 15-Aug-17

Mercury	0.51	-		ng/L	0.50100		101				
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Cal Standard (7H15016-CAL2) Prepared & Analyzed: 15-Aug-17

Mercury	1.02	-		ng/L	1.0020		102				
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AMEC Foster Wheeler  
271 Mill Road  
Chelmsford MA, 01824

Project: 2017 Penobscot Sediment Cores  
Project Number: WO-30A  
Project Manager: Denise King

Reported:  
18-Aug-17 09:31

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 7H15016 - F708322

<b>Cal Standard (7H15016-CAL3)</b>					Prepared & Analyzed: 15-Aug-17						
Mercury	4.98	-		ng/L	5.0100		99.5				
<b>Cal Standard (7H15016-CAL4)</b>					Prepared & Analyzed: 15-Aug-17						
Mercury	19.64	-		ng/L	20.040		98.0				
<b>Cal Standard (7H15016-CAL5)</b>					Prepared & Analyzed: 15-Aug-17						
Mercury	39.30	-		ng/L	40.080		98.1				
<b>Calibration Blank (7H15016-CCB1)</b>					Prepared & Analyzed: 15-Aug-17						
Mercury	0.02	-		ng/L							
<b>Calibration Blank (7H15016-CCB2)</b>					Prepared & Analyzed: 15-Aug-17						
Mercury	0.01	-		ng/L							
<b>Calibration Blank (7H15016-CCB3)</b>					Prepared & Analyzed: 15-Aug-17						
Mercury	0.01	-		ng/L							
<b>Calibration Blank (7H15016-CCB4)</b>					Prepared & Analyzed: 15-Aug-17						
Mercury	0.02	-		ng/L							
<b>Calibration Blank (7H15016-CCB5)</b>					Prepared & Analyzed: 15-Aug-17						
Mercury	0.06	-		ng/L							
<b>Calibration Blank (7H15016-CCB6)</b>					Prepared & Analyzed: 15-Aug-17						
Mercury	0.07	-		ng/L							
<b>Calibration Blank (7H15016-CCB7)</b>					Prepared & Analyzed: 15-Aug-17						
Mercury	0.05	-		ng/L							

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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
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Batch 7H15016 - F708322

<b>Calibration Check (7H15016-CCV1)</b>												Prepared & Analyzed: 15-Aug-17
Mercury	5.08	-		ng/L	5.0000		102	77-123				
<b>Calibration Check (7H15016-CCV2)</b>												Prepared & Analyzed: 15-Aug-17
Mercury	5.22	-		ng/L	5.0000		104	77-123				
<b>Calibration Check (7H15016-CCV3)</b>												Prepared & Analyzed: 15-Aug-17
Mercury	5.10	-		ng/L	5.0000		102	77-123				
<b>Calibration Check (7H15016-CCV4)</b>												Prepared & Analyzed: 15-Aug-17
Mercury	5.09	-		ng/L	5.0000		102	77-123				
<b>Calibration Check (7H15016-CCV5)</b>												Prepared & Analyzed: 15-Aug-17
Mercury	5.15	-		ng/L	5.0000		103	77-123				
<b>Calibration Check (7H15016-CCV6)</b>												Prepared & Analyzed: 15-Aug-17
Mercury	5.17	-		ng/L	5.0000		103	77-123				
<b>Calibration Check (7H15016-CCV7)</b>												Prepared & Analyzed: 15-Aug-17
Mercury	5.03	-		ng/L	5.0000		101	77-123				
<b>Instrument Blank (7H15016-IBL1)</b>												Prepared & Analyzed: 15-Aug-17
Mercury	ND	0.09	0.40	ng/L							U	
<b>Instrument Blank (7H15016-IBL2)</b>												Prepared & Analyzed: 15-Aug-17
Mercury	ND	0.09	0.40	ng/L							U	
<b>Instrument Blank (7H15016-IBL3)</b>												Prepared & Analyzed: 15-Aug-17
Mercury	ND	0.09	0.40	ng/L							U	

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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
<b>Batch 7H15016 - F708322</b>											
<b>Initial Cal Check (7H15016-ICV1)</b>					Prepared & Analyzed: 15-Aug-17						
Mercury	5.10	-		ng/L	5.0000		102	79-121			
<b>Batch F707534 - EPA 7474</b>											
<b>Blank (F707534-BLK1)</b>					Prepared: 09-Aug-17 Analyzed: 10-Aug-17						
Mercury	ND	0.91	4.00	ng/g wet							U
<b>Blank (F707534-BLK2)</b>					Prepared: 09-Aug-17 Analyzed: 10-Aug-17						
Mercury	ND	0.91	4.00	ng/g wet							U
<b>LCS (F707534-BS1)</b>					Prepared: 09-Aug-17 Analyzed: 10-Aug-17						
Mercury	80.33	9.05	40.0	ng/g wet	80.000		100	75-125			
<b>LCS Dup (F707534-BSD1)</b>					Prepared: 09-Aug-17 Analyzed: 10-Aug-17						
Mercury	86.97	9.05	40.0	ng/g wet	80.000		109	75-125	7.94	24	
<b>Matrix Spike (F707534-MS1)</b>					Source: 1707619-11		Prepared: 09-Aug-17 Analyzed: 10-Aug-17				
Mercury	5045	179	791	ng/g dry	4955.0	305.7	95.6	71-125			
<b>Matrix Spike (F707534-MS2)</b>					Source: 1707619-21		Prepared: 09-Aug-17 Analyzed: 10-Aug-17				
Mercury	4953	114	504	ng/g dry	3156.7	1926	95.9	71-125			
<b>Matrix Spike Dup (F707534-MSD1)</b>					Source: 1707619-11		Prepared: 09-Aug-17 Analyzed: 10-Aug-17				
Mercury	4640	176	777	ng/g dry	4863.2	305.7	89.1	71-125	7.06	24	
<b>Matrix Spike Dup (F707534-MSD2)</b>					Source: 1707619-21		Prepared: 09-Aug-17 Analyzed: 10-Aug-17				
Mercury	5272	116	511	ng/g dry	3199.3	1926	105	71-125	8.68	24	

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Project: 2017 Penobscot Sediment Cores  
Project Number: WO-30A  
Project Manager: Denise King

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18-Aug-17 09:31

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 F707535 - EPA 7474

**Blank (F707535-BLK1)** Prepared: 09-Aug-17 Analyzed: 10-Aug-17  
 Mercury ND 0.91 4.00 ng/g wet U

**Blank (F707535-BLK2)** Prepared: 09-Aug-17 Analyzed: 10-Aug-17  
 Mercury ND 0.91 4.00 ng/g wet U

**LCS (F707535-BS1)** Prepared: 09-Aug-17 Analyzed: 10-Aug-17  
 Mercury 86.50 9.05 40.0 ng/g wet 80.000 108 75-125

**LCS Dup (F707535-BSD1)** Prepared: 09-Aug-17 Analyzed: 10-Aug-17  
 Mercury 90.95 9.05 40.0 ng/g wet 80.000 114 75-125 5.02 24

**Matrix Spike (F707535-MS1)** Source: 1707619-32RE1 Prepared: 09-Aug-17 Analyzed: 10-Aug-17  
 Mercury 2847 106 467 ng/g dry 2923.5 22.15 96.6 71-125

**Matrix Spike (F707535-MS2)** Source: 1707620-01RE1 Prepared: 09-Aug-17 Analyzed: 10-Aug-17  
 Mercury 1079 38.9 172 ng/g dry 1075.6 13.76 99.0 71-125

**Matrix Spike Dup (F707535-MSD1)** Source: 1707619-32RE1 Prepared: 09-Aug-17 Analyzed: 10-Aug-17  
 Mercury 2483 100 443 ng/g dry 2774.9 22.15 88.7 71-125 8.57 24

**Matrix Spike Dup (F707535-MSD2)** Source: 1707620-01RE1 Prepared: 09-Aug-17 Analyzed: 10-Aug-17  
 Mercury 1011 37.8 167 ng/g dry 1045.2 13.76 95.4 71-125 3.70 24

Batch F707536 - EPA 7474

**Blank (F707536-BLK1)** Prepared: 10-Aug-17 Analyzed: 11-Aug-17  
 Mercury ND 0.91 4.00 ng/g wet U

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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.



AMEC Foster Wheeler  
271 Mill Road  
Chelmsford MA, 01824

Project: 2017 Penobscot Sediment Cores  
Project Number: WO-30A  
Project Manager: Denise King

Reported:  
18-Aug-17 09:31

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 F707536 - EPA 7474

<b>Blank (F707536-BLK2)</b>					Prepared: 10-Aug-17 Analyzed: 11-Aug-17						
Mercury	ND	0.91	4.00	ng/g wet							U
<b>LCS (F707536-BS1)</b>					Prepared: 10-Aug-17 Analyzed: 11-Aug-17						
Mercury	84.16	9.05	40.0	ng/g wet	80.000		105	75-125			
<b>LCS Dup (F707536-BSD1)</b>					Prepared: 10-Aug-17 Analyzed: 11-Aug-17						
Mercury	82.35	9.05	40.0	ng/g wet	80.000		103	75-125	2.17	24	
<b>Matrix Spike (F707536-MS1)</b>					Source: 1707620-11 Prepared: 10-Aug-17 Analyzed: 11-Aug-17						
Mercury	4406	192	849	ng/g dry	5315.6	201.5	79.1	71-125			
<b>Matrix Spike (F707536-MS2)</b>					Source: 1707620-21 Prepared: 10-Aug-17 Analyzed: 11-Aug-17						
Mercury	3211	88.6	391	ng/g dry	2450.5	932.8	93.0	71-125			
<b>Matrix Spike Dup (F707536-MSD1)</b>					Source: 1707620-11 Prepared: 10-Aug-17 Analyzed: 11-Aug-17						
Mercury	4642	186	822	ng/g dry	5145.6	201.5	86.3	71-125	8.71	24	
<b>Matrix Spike Dup (F707536-MSD2)</b>					Source: 1707620-21 Prepared: 10-Aug-17 Analyzed: 11-Aug-17						
Mercury	2895	79.4	351	ng/g dry	2195.8	932.8	89.4	71-125	3.96	24	

Batch F707537 - EPA 7474

<b>Blank (F707537-BLK1)</b>					Prepared: 11-Aug-17 Analyzed: 15-Aug-17						
Mercury	ND	0.91	4.00	ng/g wet							U
<b>Blank (F707537-BLK2)</b>					Prepared: 11-Aug-17 Analyzed: 15-Aug-17						
Mercury	ND	0.91	4.00	ng/g wet							U

Eurofins Frontier Global Sciences, Inc.

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AMEC Foster Wheeler  
271 Mill Road  
Chelmsford MA, 01824

Project: 2017 Penobscot Sediment Cores  
Project Number: WO-30A  
Project Manager: Denise King

Reported:  
18-Aug-17 09:31

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 F707537 - EPA 7474

<b>LCS (F707537-BS1)</b>					Prepared: 11-Aug-17 Analyzed: 15-Aug-17						
Mercury	75.63	8.64	38.2	ng/g wet	76.321		99.1	75-125			
<b>LCS Dup (F707537-BSD1)</b>					Prepared: 11-Aug-17 Analyzed: 15-Aug-17						
Mercury	78.42	8.21	36.3	ng/g wet	72.516		108	75-125	8.73	24	
<b>Matrix Spike (F707537-MS1)</b>					Source: 1707620-34RE1 Prepared: 11-Aug-17 Analyzed: 15-Aug-17						
Mercury	3654	163	722	ng/g dry	4518.8	29.35	80.2	71-125			
<b>Matrix Spike (F707537-MS2)</b>					Source: 1707771-04 Prepared: 11-Aug-17 Analyzed: 15-Aug-17						
Mercury	2958	82.6	365	ng/g dry	2285.5	1103	81.2	71-125			
<b>Matrix Spike Dup (F707537-MSD1)</b>					Source: 1707620-34RE1 Prepared: 11-Aug-17 Analyzed: 15-Aug-17						
Mercury	3868	150	661	ng/g dry	4140.8	29.35	92.7	71-125	14.4	24	
<b>Matrix Spike Dup (F707537-MSD2)</b>					Source: 1707771-04 Prepared: 11-Aug-17 Analyzed: 15-Aug-17						
Mercury	3060	84.9	375	ng/g dry	2347.9	1103	83.3	71-125	2.63	24	

Eurofins Frontier Global Sciences, Inc.

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AMEC Foster Wheeler 271 Mill Road Chelmsford MA, 01824	Project: 2017 Penobscot Sediment Cores Project Number: WO-30A Project Manager: Denise King	Reported: 18-Aug-17 09:31
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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
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Batch F708357 - EFGS-019 Solids Analysis

<b>Duplicate (F708357-DUP1)</b>		<b>Source: 1707619-11</b>			Prepared: 09-Aug-17 Analyzed: 11-Aug-17						
% Solids	18.0	0.1	0.1	% by Weight		18.7			3.81	10	
<b>Duplicate (F708357-DUP2)</b>		<b>Source: 1707619-21</b>			Prepared: 09-Aug-17 Analyzed: 11-Aug-17						
% Solids	27.7	0.1	0.1	% by Weight		27.8			0.360	10	

Batch F708358 - EFGS-019 Solids Analysis

<b>Duplicate (F708358-DUP1)</b>		<b>Source: 1707619-32</b>			Prepared: 09-Aug-17 Analyzed: 11-Aug-17						
% Solids	32.8	0.1	0.1	% by Weight		31.0			5.64	10	O-04
<b>Duplicate (F708358-DUP2)</b>		<b>Source: 1707620-01</b>			Prepared: 09-Aug-17 Analyzed: 11-Aug-17						
% Solids	85.0	0.1	0.1	% by Weight		85.5			0.587	10	O-04

Batch F708359 - EFGS-019 Solids Analysis

<b>Duplicate (F708359-DUP1)</b>		<b>Source: 1707620-11</b>			Prepared: 10-Aug-17 Analyzed: 14-Aug-17						
% Solids	17.1	0.1	0.1	% by Weight		17.3			1.16	10	O-04
<b>Duplicate (F708359-DUP2)</b>		<b>Source: 1707620-21</b>			Prepared: 10-Aug-17 Analyzed: 14-Aug-17						
% Solids	37.5	0.1	0.1	% by Weight		39.4			4.94	10	O-04

Batch F708368 - EFGS-019 Solids Analysis

<b>Duplicate (F708368-DUP1)</b>		<b>Source: 1707620-34</b>			Prepared: 10-Aug-17 Analyzed: 14-Aug-17						
% Solids	19.9	0.1	0.1	% by Weight		20.7			3.94	10	O-04

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.





AMEC Foster Wheeler 271 Mill Road Chelmsford MA, 01824	Project: 2017 Penobscot Sediment Cores Project Number: WO-30A Project Manager: Denise King	<b>Reported:</b> 18-Aug-17 09:31
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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
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**Batch F708368 - EFGS-019 Solids Analysis**

<b>Duplicate (F708368-DUP2)</b>		<b>Source: 1707771-17</b>			Prepared: 10-Aug-17 Analyzed: 14-Aug-17						
% Solids	32.3	0.1	0.1	% by Weight		33.0			2.14	10	O-04

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  
 271 Mill Road  
 Chelmsford MA, 01824

Project: 2017 Penobscot Sediment Cores  
 Project Number: WO-30A  
 Project Manager: Denise King

**Reported:**  
 18-Aug-17 09:31

**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-04 RPD and/or RSD value exceeded control limit. Sample concentrations less than 5 times the reporting limit and the difference between the QC values was less than 1 time 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.
- O-04 This sample was analyzed outside of the recommended holding time.
- J The result is an estimated concentration.
- AS This MS and/or MSD is an analytical spike and/or an analytical spike duplicate.
- AD This matrix duplicate is an analytical duplicate.
- 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





Frontier Global Sciences

**Total Solids Dataset Cover Page**

**Dataset ID:** TS170809-3  
**Batch ID:** F708357  
**Work Order(s):** 1707619, 1707620

**Analyst:** CLC  
**Prep. Date:** 8/9/2017

**Analytical Issues/Explanations:**

QUALITY ASSURANCE  
PEER - REVIEWED  
INITIALS: DM 8/11/17

Preparation Date: Aug 9, 2017

Batch #: 3

Analyst: CLC

Batch ID: F708357

Work Order(s): 1707619, 1707620

Pan ID	Sample ID	Pan Wt (g)	Pan + Sample Wet (g)	Wet Sample (g)	Pan + Sample Dry (g)	Dry Sample (g)	% TS	Notes
1	1707619-11	0.9890	6.2540	5.2650	1.9730	0.9840	18.7%	
2	1707619-11MD	1.0280	6.7850	5.7570	2.0640	1.0360	18.0%	3.8%
3	1707619-14	0.9600	6.5350	5.5750	2.0050	1.0450	18.7%	
4	1707619-15	1.0470	6.4780	5.4310	3.1140	2.0670	38.1%	
5	1707619-16	1.0250	6.1710	5.1460	2.2580	1.2330	24.0%	
6	1707619-17	1.0820	6.8700	5.7880	2.5780	1.4960	25.8%	
7	1707619-18	1.0800	6.4540	5.3740	2.5680	1.4880	27.7%	
8	1707619-19	1.0420	6.9930	5.9510	3.0190	1.9770	33.2%	
9	1707619-20	1.0360	6.5100	5.4740	2.8680	1.8320	33.5%	
10	1707619-21	1.0110	6.2770	5.2660	2.4770	1.4660	27.8%	
11	1707619-21MD	1.0130	6.6440	5.6310	2.5720	1.5590	27.7%	0.6%
12	1707619-22	1.0020	6.5260	5.5240	2.4120	1.4100	25.5%	
13	1707619-23	0.9970	6.1800	5.1830	4.4430	3.4460	66.5%	
14	1707619-24	1.0030	6.5160	5.5130	5.2380	4.2350	76.8%	
15	1707619-25	1.0510	6.2770	5.2260	3.1620	2.1110	40.4%	
16	1707619-26	1.0520	6.6200	5.5680	3.5470	2.4950	44.8%	
17	1707619-27	1.0130	6.5970	5.5840	2.3140	1.3010	23.3%	
18	1707619-28	1.0210	6.3160	5.2950	2.3180	1.2970	24.5%	
19	1707619-29	1.0430	6.9070	5.8640	3.6180	2.5750	43.9%	
20	1707619-30	1.0360	6.9250	5.8890	3.1630	2.1270	36.1%	
21	1707619-31	1.0430	6.8210	5.7780	2.7820	1.7390	30.1%	
22	1707620-02	1.0240	6.9600	5.9360	1.9400	0.9160	15.4%	

## Failing Data Report -

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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Cortley 8/11/17  
 Analyst Reviewed By Date

Don Morem 8/11/17  
 Peer Reviewed By Date

**PREPARATION BENCH SHEET**

F708357

**Eurofins Frontier Global Sciences, Inc.**

**Matrix: Soil/Sediment**

**Prepared using: AFS - EFGS-019 Solids Analysis**

**Prepared: 8/9/2017**

Lab Number	Sample ID and Source Sample	Initial (g)	Final (g)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F708357-DUP1	Duplicate [1707619-11]	5	5					
F708357-DUP2	Duplicate [1707619-21]	5	5					

Standard ID(s):      Description:

Expiration:

**PREPARATION BENCH SHEET**

F708357

**Eurofins Frontier Global Sciences, Inc.**

**Matrix: Soil/Sediment**

**Prepared using: AFS - EFGS-019 Solids Analysis**

**Prepared: 8/9/2017**

Lab Number	Sample ID	Initial (g)	Final (g)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1707619-11	W-21-UM-Central-C_071817_SED_01-03	5	5	QC	-	-	MS/MSD	
1707619-14	W-65-High_071817_SED_01-03	5	5	-	-	-		
1707619-15	W-65-Low_071817_SED_01-03	5	5	-	-	-		
1707619-16	W-65-Mid_071817_SED_01-03	5	5	-	-	-		
1707619-17	W-21-UM-Central-C_071917_SED_03-05	5	5	-	-	-		
1707619-18	W-21-UM-Central-C_071917_SED_05-10	5	5	-	-	-		
1707619-19	W-17-Low_071917_SED_03-05	5	5	-	-	-		
1707619-20	W-17-Low_071917_SED_05-10	5	5	-	-	-		
1707619-21	W-17-Mid_071917_SED_03-05	5	5	QC	-	-	MS/MSD	
1707619-22	W-17-Mid_071917_SED_05-10	5	5	-	-	-		
1707619-23	W-63-High_071917_SED_03-05	5	5	-	-	-		
1707619-24	W-63-High_071917_SED_05-10	5	5	-	-	-		
1707619-25	W-63-Mid_071917_SED_03-05	5	5	-	-	-		
1707619-26	W-63-Mid_071917_SED_05-10	5	5	-	-	-		
1707619-27	W-65-High_071917_SED_03-05	5	5	-	-	-		
1707619-28	W-65-High_071917_SED_05-10	5	5	-	-	-		
1707619-29	W-65-Low_071917_SED_03-05	5	5	-	-	-		
1707619-30	W-65-Low_071917_SED_05-10	5	5	-	-	-		
1707619-31	W-65-Mid_071917_SED_03-05	5	5	-	-	-		

Due Date: 8/21/2017

PREPARATION BENCH SHEET

F708357

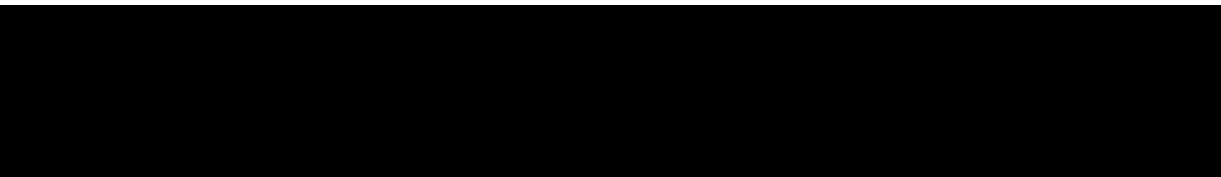
Eurofins Frontier Global Sciences, Inc.

Matrix: Soil/Sediment

Prepared using: AFS - EFGS-019 Solids Analysis

Prepared: 8/9/2017

1707620-02	W-MM-03_071717_SED_00-01	5	5	-	-	-		
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### Remote Lab Total Solids Logbook

Lab Technician(s): CU Batch: F708357 Date: 8/9/17 Page 3 of 4  
 Thermometer #: 12040514212 Oven #: 12 Actual temperature: 104.0 (Range 103-105°C) cc  
 Balance #<sup>1</sup>: 6 Start time: 1120 8/10/17 End time<sup>2</sup>: 940 8/11/17 Time re-weighed<sup>3</sup>: 1013 8/11/17 cc  
 Client(s)/WO#: 1707619, 1707620 08 cc 8/11/17 8/10/17

Sample ID	Pan #	Pan (g)	Pan + Wet Sample (g)	Pan + Dry Sample (g)	Notes
1707619-11	C1	0.989	6.254	1.973	Container D
F708357-PMF	C2	1.028	6.785	2.064	SRC: 1707619-11
1707619-14	C3	0.960	6.535	2.005	
1707619-15	C4	1.047	6.478	3.114	
1707619-16	C5	1.025	6.171	2.258	
1707619-17	C6	1.082	6.870	2.578	
1707619-18	C7	1.080	6.454 <sup>cc 8/11/17</sup>	2.568	
1707619-19	C8	1.042	6.99 <sup>cc 8/11/17</sup>	3.019	
1707619-20	C9	1.036	6.510	2.868	
1707619-21	C10	1.011	6.277	2.477	
F708357-DUP2	C11	1.013	6.644	2.572	SRC: 1707619-21
1707619-22	C12	1.002	6.526	2.412	
1707619-23	C13	0.997	6.180	4.443	
1707619-24	C14	1.003	6.516	5.238	
1707619-25	C15	1.051	6.277	3.162	
1707619-26	C16	1.052	6.620	3.547	
1707619-27	C17	1.013	6.597	2.314	
1707619-28	C18	1.021	6.316	2.318	
1707619-29	C19	1.043	6.907	3.618	
1707619-30	C20	1.036	6.925	3.163	
1707619-31	C21	1.043	6.821	2.782	
1707620-02	C22	1.024	6.960	1.940	

Comments: cc 8/10/17

<sup>1</sup>The same balance must be used to weight samples before and after ovening.  
<sup>2</sup>Samples must be ovened over 12 hours.  
<sup>3</sup>Samples must be re-weighed within 30 minutes of oven cool down.

Peer Review Checklist for Total Solids and Density (SOP5133)

Analyst: CLC Date: 8/11/17 Reviewer: DM Date: 8/11/17

WO #: 1707619, 1707620 Batch #: F708357 Dataset ID: TS170809-3

Reviewer Initials: DM

General Comments/Re-run requirements:

Select	SOP	Method	Matrix
<input checked="" type="checkbox"/>	SOP5133	TS	S/T
<input type="checkbox"/>	SOP5133	Density	Liquids

Initials	SOP Date
<u>CLC</u>	<u>12/20/16</u>
<input checked="" type="checkbox"/>	<input type="checkbox"/>

Reviewer Initials: DM  
CLC 8/11/17

1. Total Solids

- A. Check for transcription errors from Benchsheet/Raw Data
  - (i) Do sample ID(s) match?
  - (ii) Do masses/volumes match?
  - (iii) Are the analyst name, dataset ID, and preparation date listed?
  - (iv) Does the LIMS benchsheet prep date match the actual prep date?
- B. Does the batch include 1 MD/MT per 10 client samples?
- C. MD RPD/MT RSD ≤ 10%
- D. Are qualifiers, O-04 and O-09, included for samples analyzed out of hold time?

Density Only - NA this section

<input checked="" type="checkbox"/> DONE		<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"/> 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 checked="" type="checkbox"/>
<input checked="" type="checkbox"/> YES	<input type="checkbox"/> NO	<input type="checkbox"/> N/A <input checked="" type="checkbox"/>

2. Density

- A. Check for transcription errors from Benchsheet/Raw Data
  - (i) Do sample ID(s) match?
  - (ii) Do masses/volumes match?
  - (iii) Are the analyst name, dataset ID, and preparation date listed?
  - (iv) Does the LIMS benchsheet prep date match the actual prep date?
  - (v) Volume (if other than 1 mL): \_\_\_\_\_ Can the calculated result be reproduced?

Total Solids Only - NA this section

<input type="checkbox"/> DONE		<input type="checkbox"/>
<input type="checkbox"/> YES	<input type="checkbox"/> NO	<input type="checkbox"/>
<input type="checkbox"/> YES	<input type="checkbox"/> NO	<input type="checkbox"/>
<input type="checkbox"/> YES	<input type="checkbox"/> NO	<input type="checkbox"/>
<input type="checkbox"/> YES	<input type="checkbox"/> NO	<input type="checkbox"/>
<input type="checkbox"/> YES	<input type="checkbox"/> NO	<input type="checkbox"/>
<input type="checkbox"/> YES	<input type="checkbox"/> NO	<input type="checkbox"/> N/A <input type="checkbox"/>



Frontier Global Sciences

**Total Solids Dataset Cover Page**

**Dataset ID:** TS170809-4  
**Batch ID:** F708358  
**Work Order(s):** 1707619, 1707620

**Analyst:** CLC  
**Prep. Date:** 8/9/2017

**Analytical Issues/Explanations:**

QUALITY ASSURANCE  
PEER - REVIEWED  
INITIALS: DM 8/11/17

Preparation Date: Aug 9, 2017

Batch #: 4

Analyst: CLC

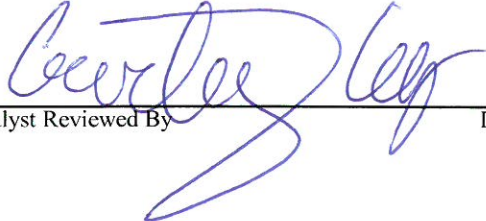
Batch ID: F708358

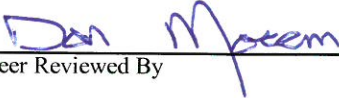
Work Order(s): 1707619, 1707620

Pan ID	Sample ID	Pan Wt (g)	Pan + Sample Wet (g)	Wet Sample (g)	Pan + Sample Dry (g)	Dry Sample (g)	% TS	Notes
1	1707619-32	0.9730	6.9490	5.9760	2.8280	1.8550	31.0%	
2	707619-32MD	0.9780	6.6650	5.6870	2.8460	1.8680	32.8%	5.7%
3	1707620-01	1.0670	6.8040	5.7370	5.9720	4.9050	85.5%	
4	1707620-03	1.0460	6.8790	5.8330	3.2940	2.2480	38.5%	
5	1707620-04	1.0640	6.4940	5.4300	3.3070	2.2430	41.3%	
6	1707620-05	1.0180	6.5610	5.5430	3.1990	2.1810	39.3%	
7	1707620-06	1.0390	6.8530	5.8140	2.9700	1.9310	33.2%	
8	1707620-07	1.0450	6.6660	5.6210	2.9550	1.9100	34.0%	
9	1707620-08	1.0490	6.5360	5.4870	2.0600	1.0110	18.4%	
10	1707620-09	1.0460	6.7060	5.6600	2.4070	1.3610	24.0%	
11	1707620-10	0.9900	6.4770	5.4870	5.6030	4.6130	84.1%	
12	1707620-12	1.0180	6.2020	5.1840	3.1190	2.1010	40.5%	
13	1707620-13	1.0690	6.6440	5.5750	3.6430	2.5740	46.2%	
14	1707620-14	1.0830	6.6780	5.5950	3.3860	2.3030	41.2%	
15	1707620-15	1.0280	6.3870	5.3590	2.7320	1.7040	31.8%	
16	1707620-16	1.0910	6.3810	5.2900	2.6340	1.5430	29.2%	
17	1707620-17	1.0310	6.7770	5.7460	2.1190	1.0880	18.9%	
18	1707620-18	1.0920	7.0100	5.9180	2.4650	1.3730	23.2%	
19	1707620-19	0.9890	6.3840	5.3950	2.0750	1.0860	20.1%	
20	1707620-20	0.9590	6.7540	5.7950	2.0630	1.1040	19.1%	
21	1707620-22	0.9950	6.2740	5.2790	3.0630	2.0680	39.2%	
22	1707620-01MD	0.9450	6.0250	5.0800	5.2640	4.3190	85.0%	0.8%

# Failing Data Report -

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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 8/11/17  
Analyst Reviewed By Date

 8/11/17  
Peer Reviewed By Date

**PREPARATION BENCH SHEET**

F708358

**Eurofins Frontier Global Sciences, Inc.**

**Matrix: Soil/Sediment**

**Prepared using: AFS - EFGS-019 Solids Analysis**

**Prepared: 8/9/2017**

Lab Number	Sample ID and Source Sample	Initial (g)	Final (g)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F708358-DUP1	Duplicate [1707619-32]	5	5					
F708358-DUP2	Duplicate [1707620-01]	5	5					

Standard ID(s):      Description:

Expiration:

**PREPARATION BENCH SHEET**

F708358

**Eurofins Frontier Global Sciences, Inc.**

**Matrix: Soil/Sediment**

**Prepared using: AFS - EFGS-019 Solids Analysis**

**Prepared: 8/9/2017**

Lab Number	Sample ID	Initial (g)	Final (g)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1707619-32	W-65-Mid_071917_SED_05-10	5	5	QC	-	-	MS/MSD	
1707620-01	W-104-A_071817_SED_00-01	5	5	QC	-	-	MS/MSD	
1707620-03	W-MM-04_071717_SED_00-01	5	5	-	-	-		
1707620-04	W-MM-05_071817_SED_00-01	5	5	-	-	-		
1707620-05	W-MM-08_071817_SED_00-01	5	5	-	-	-		
1707620-06	W-MM-11_071817_SED_00-01	5	5	-	-	-		
1707620-07	W-MM-12_071817_SED_00-01	5	5	-	-	-		
1707620-08	W-MM-13_071817_SED_00-01	5	5	-	-	-		
1707620-09	W-MM-14_071817_SED_00-01	5	5	-	-	-		
1707620-10	W-104-A_071817_SED_01-03	5	5	-	-	-	Original jar broken, created container E	
1707620-12	W-MM-04_071717_SED_01-03	5	5	-	-	-		
1707620-13	W-MM-05_071817_SED_01-03	5	5	-	-	-	Original jar broken, created container E	
1707620-14	W-MM-08_071817_SED_01-03	5	5	-	-	-		
1707620-15	W-MM-11_071817_SED_01-03	5	5	-	-	-		
1707620-16	W-MM-12_071817_SED_01-03	5	5	-	-	-	Original jar broken, created container E	
1707620-17	W-MM-13_071817_SED_01-03	5	5	-	-	-		
1707620-18	W-MM-14_071817_SED_01-03	5	5	-	-	-		
1707620-19	W-MM-03_071817_SED_03-05	5	5	-	-	-		
1707620-20	W-MM-03_071817_SED_05-10	5	5	-	-	-		

Due Date: 8/21/2017

**PREPARATION BENCH SHEET**

F708358

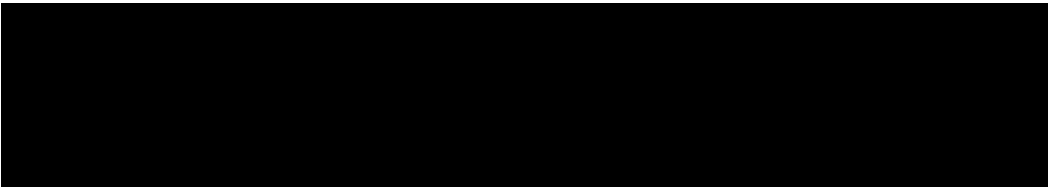
**Eurofins Frontier Global Sciences, Inc.**

**Matrix: Soil/Sediment**

**Prepared using: AFS - EFGS-019 Solids Analysis**

**Prepared: 8/9/2017**

1707620-22	W-MM-04_071817_SED_05-10	5	5	-	-	-		
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### Remote Lab Total Solids Logbook

Lab Technician(s): CJC Batch: F708358 Date: 8/17 Page 4 of 4 ccc 8/10/17  
 Thermometer #: 12406412 Oven #: 12 Actual temperature: 104.0 (Range 103-105°C)  
 Balance #<sup>1</sup>: 6 Start time: 1120 <sup>8/10/17</sup> End time<sup>2</sup>: 1010 <sup>8/11/17</sup> Time re-weighed<sup>3</sup>: 1033  
 Client(s)/WO#: 1707619, 1707620 ccc 8/11/17

Sample ID	Pan #	Pan (g)	Pan + Wet Sample (g)	Pan + Dry Sample (g)	Notes
1707619-32	D1	0.973	6.949	2.828	
F708358-DUP1	D2	0.978	6.665	2.846	Src: 1707619-32
1707620-01	D3	1.067	6.804	5.972	
1707620-03	D4	1.046	6.879	3.294	
1707620-04	D5	1.064	6.494	3.307	
1707620-05	D6	1.018	6.561	3.199	
1707620-06	D7	1.039	6.853	2.970	
1707620-07	D8	1.045	6.666	2.955	
1707620-08	D9	1.049	6.536	2.060	
1707620-09	D10	1.046	6.706	2.407	
1707620-10	D11	0.990	6.477	5.603	
1707620-12	D12	1.018	6.202	3.119	
1707620-13	D13	1.069	6.644	3.643	
1707620-14	D14	1.083	6.678	3.386	
1707620-15	D15	1.028	6.387	2.732	
1707620-16	D16	1.091	6.381	2.634	
1707620-17	D17	1.031	6.777	2.119	
1707620-18	D18	1.092	7.010	2.465	
1707620-19	D19	<del>0.993</del> <sup>0.989</sup>	6.384	2.075	} weighed out 8/10/17 ccc 8/10/17
1707620-20	D20	0.959	6.754	2.063	
1707620-22	D21	0.995	6.274	3.063	
F708358-DUP2	D22	0.945	6.025	5.264	Src: 1707620-01
ccc 8/10/17					

Comments:

<sup>1</sup>The same balance must be used to weight samples before and after ovening.

<sup>2</sup>Samples must be ovened over 12 hours.

<sup>3</sup>Samples must be re-weighed within 30 minutes of oven cool down.

### Peer Review Checklist for Total Solids and Density (SOP5133)

Analyst: CC Date: 8/11/17 Reviewer: DM Date: 8/11/17

WO #: 1707619, 1707620 Batch #: F708358 Dataset ID: TS170809-4

Reviewer Initials: DM

#### General Comments/Re-run requirements:

Select	SOP	Method	Matrix
<input checked="" type="checkbox"/>	SOP5133	TS	S/T
<input type="checkbox"/>	SOP5133	Density	Liquids

Initials	SOP Date
<u>CC</u>	<u>12/20/16</u>
<input type="checkbox"/>	<input type="checkbox"/>

Reviewer Initials: DM

#### 1. Total Solids

- A. Check for transcription errors from Benchsheet/Raw Data
  - (i) Do sample ID(s) match?
  - (ii) Do masses/volumes match?
  - (iii) Are the analyst name, dataset ID, and preparation date listed?
  - (iv) Does the LIMS benchsheet prep date match the actual prep date?
- B. Does the batch include 1 MD/MT per 10 client samples?
- C. MD RPD/MT RSD ≤ 10%
- D. Are qualifiers, O-04 and O-09, included for samples analyzed out of hold time?

<input type="checkbox"/> Density Only - NA this section			
<input checked="" type="checkbox"/>	DONE		<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"/>	YES	<input type="checkbox"/> NO	<input checked="" type="checkbox"/>
<input checked="" type="checkbox"/>	PASS	<input type="checkbox"/> FAIL	<input checked="" type="checkbox"/>
<input checked="" type="checkbox"/>	YES	<input type="checkbox"/> NO	<input type="checkbox"/> N/A <input checked="" type="checkbox"/>

#### 2. Density

- A. Check for transcription errors from Benchsheet/Raw Data
  - (i) Do sample ID(s) match?
  - (ii) Do masses/volumes match?
  - (iii) Are the analyst name, dataset ID, and preparation date listed?
  - (iv) Does the LIMS benchsheet prep date match the actual prep date?
  - (v) Volume (if other than 1 mL): \_\_\_\_\_ Can the calculated result be reproduced?

<input checked="" type="checkbox"/> Total Solids Only - NA this section			
<input type="checkbox"/>	DONE		<input type="checkbox"/>
<input type="checkbox"/>	YES	<input type="checkbox"/> NO	<input type="checkbox"/>
<input type="checkbox"/>	YES	<input type="checkbox"/> NO	<input type="checkbox"/>
<input type="checkbox"/>	YES	<input type="checkbox"/> NO	<input type="checkbox"/>
<input type="checkbox"/>	YES	<input type="checkbox"/> NO	<input type="checkbox"/>
<input type="checkbox"/>	YES	<input type="checkbox"/> NO	<input type="checkbox"/> N/A <input type="checkbox"/>



Frontier Global Sciences

**Total Solids Dataset Cover Page**

**Dataset ID:** TS170810-1  
**Batch ID:** F708359  
**Work Order(s):** 1707620, 1707737

**Analyst:** CLC  
**Prep. Date:** 8/10/2017

**Analytical Issues/Explanations:**

QUALITY ASSURANCE  
PEER-REVIEWED

INITIALS: PC 8/14/17

Preparation Date: Aug 10, 2017

Batch #: 1

Analyst: CLC

Batch ID: F708359

Work Order(s): 1707620, 1707737

Pan ID	Sample ID	Pan Wt (g)	Pan + Sample Wet (g)	Wet Sample (g)	Pan + Sample Dry (g)	Dry Sample (g)	% TS	Notes
1	1707620-11 ✓	1.0410 ✓	6.4850 ✓	5.4440	1.9840 ✓	0.9430	17.3%	
2	1707620-11MD ✓	1.0560 ✓	6.4360 ✓	5.3800	1.9760 ✓	0.9200	17.1%	1.3%
3	1707620-21 ✓	1.0520 ✓	6.3810 ✓	5.3290	3.1540 ✓	2.1020	39.4%	
4	1707620-21MD ✓	1.0240 ✓	6.9900 ✓	5.9660	3.2630 ✓	2.2390	37.5%	5.0%
5	1707620-23 ✓	1.0120 ✓	6.1520 ✓	5.1400	3.0880 ✓	2.0760	40.4%	
6	1707620-24 ✓	1.0280 ✓	6.8190 ✓	5.7910	3.1400 ✓	2.1120	36.5%	
7	1707620-25 ✓	1.0150 ✓	6.6990 ✓	5.6840	2.8280 ✓	1.8130	31.9%	
8	1707620-26 ✓	1.0040 ✓	6.7330 ✓	5.7290	2.5480 ✓	1.5440	27.0%	
9	1707620-27 ✓	1.0270 ✓	6.5860 ✓	5.5590	5.6430 ✓	4.6160	83.0%	
10	1707620-28 ✓	1.0330 ✓	6.5130 ✓	5.4800	5.6270 ✓	4.5940	83.8%	
11	1707620-29 ✓	1.0370 ✓	6.7260 ✓	5.6890	4.1730 ✓	3.1360	55.1%	
12	1707620-30 ✓	1.0440 ✓	6.6550 ✓	5.6110	3.7100 ✓	2.6660	47.5%	
13	1707620-31 ✓	1.0300 ✓	6.3910 ✓	5.3610	2.2180 ✓	1.1880	22.2%	
14	1707620-32 ✓	1.0300 ✓	6.5790 ✓	5.5490	2.0700 ✓	1.0400	18.7%	
15	1707620-33 ✓	1.0120 ✓	6.5850 ✓	5.5730	2.0040 ✓	0.9920	17.8%	
16	1707620-35 ✓	0.9790 ✓	6.0970 ✓	5.1180	2.2260 ✓	1.2470	24.4%	
17	1707620-36 ✓	1.0240 ✓	6.7960 ✓	5.7720	2.4460 ✓	1.4220	24.6%	
18	1707737-01 ✓	1.0700 ✓	6.9370 ✓	5.8670	2.0750 ✓	1.0050	17.1%	
19	1707737-02 ✓	1.0150 ✓	6.8190 ✓	5.8040	2.0660 ✓	1.0510	18.1%	
20	1707737-03 ✓	1.0360 ✓	6.7680 ✓	5.7320	2.9060 ✓	1.8700	32.6%	
21	1707737-04 ✓	1.0190 ✓	6.2870 ✓	5.2680	2.6810 ✓	1.6620	31.5%	
22	1707737-05 ✓	1.0360 ✓	6.3230 ✓	5.2870	2.2930 ✓	1.2570	23.8%	

Remote Lab Total Solids Logbook

CU 8/10/17

Lab Technician(s): CC Batch: F708359 Date: 8/10/17 Page 1 of 3

Thermometer #: 12105A4216 Oven #: 12 Actual temperature: 104.0 (Range 103-105°C) CU 8/10/17

Balance #<sup>1</sup>: 6 Start time: 1045 <sup>8/11/17</sup> End time<sup>2</sup>: 9:30 <sup>8/12/17</sup> Time re-weighed<sup>3</sup>: 9:45

Client(s)/WO#: 1707620, 1707737

Sample ID	Pan #	Pan (g)	Pan + Wet Sample (g)	Pan + Dry Sample (g)	Notes
1707620-11	E1	1.041	6.485	1.984	
F708359-DUP1	E2	1.056	6.436	1.976	SRC: 1707620-11
1707620-21	E3	1.052	6.381	3.154	
F708359-DUP2	E4	1.024	6.990	3.263	SRC: 1707620-21
1707620-23	E5	1.012	6.152	3.088	
1707620-24	E6	1.028	6.819	3.140	
1707620-25	E7	1.015	6.699	2.828	
1707620-26	E8	1.004	6.733	2.548	
1707620-27	E9	1.027	6.586	5.643	
1707620-28	E10	1.033	6.513	5.627	
1707620-29	E11	1.037	6.726	4.173	
1707620-30	E12	1.044	6.655	3.710	
1707620-31	E13	1.030	6.391	2.218	
1707620-32	E14	1.030	6.579	2.070	
1707620-33	E15	1.012	6.585	2.004	
1707620-35	E16	0.979	6.097	2.226	
1707620-36	E17	1.024	6.796	2.446	
1707737-01	E18	1.070	6.937	2.075	
1707737-02	E19	1.015	6.819	2.066 <del>2.056</del> <sup>8/10/17</sup>	
1707737-03	E20	1.036	6.768	2.906	
1707737-04	E21 <sup>8/10/17</sup>	<del>1.018</del> 1.019	6.287	2.681	
1707737-05	E22 <sup>8/10/17</sup>	<del>1.036</del> 1.036	6.323	2.293	
CU 8/10/17					

Comments:

<sup>1</sup>The same balance must be used to weight samples before and after ovening.  
<sup>2</sup>Samples must be ovened over 12 hours.  
<sup>3</sup>Samples must be re-weighed within 30 minutes of oven cool down.



PREPARATION BENCH SHEET

F708359

Eurofins Frontier Global Sciences, Inc.

Matrix: Soil/Sediment

Prepared using: AFS - EFGS-019 Solids Analysis

Prepared: 8/10/2017

Lab Number	Sample ID and Source Sample	Initial (g)	Final (g)	Spike1 ID	$\mu$ l Spike1	Spike2 ID	$\mu$ l Spike2	Extraction Comments
F708359-DUP1	Duplicate [1707620-11]	5	5					
F708359-DUP2	Duplicate [1707620-21]	5	5					

Standard ID(s): Description:

Expiration:

**PREPARATION BENCH SHEET**

F708359

**Eurofins Frontier Global Sciences, Inc.**

**Matrix: Soil/Sediment**

**Prepared using: AFS - EFGS-019 Solids Analysis**

**Prepared: 8/10/2017**

Lab Number	Sample ID	Initial (g)	Final (g)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1707620-11	W-MM-03_071717_SED_01-03	5	5	QC	-	-	MS/MSD	
1707620-21	W-MM-04_071817_SED_03-05	5	5	QC	-	-	MS/MSD	
1707620-23	W-MM-08_071917_SED_03-05	5	5	-	-	-		
1707620-24	W-MM-08_071917_SED_05-10	5	5	-	-	-		
1707620-25	W-MM-11_071917_SED_03-05	5	5	-	-	-		
1707620-26	W-MM-11_071917_SED_05-10	5	5	-	-	-		
1707620-27	W-104-A_071917_SED_03-05	5	5	-	-	-		
1707620-28	W-104-A_071917_SED_05-10	5	5	-	-	-		
1707620-29	W-MM-05_071917_SED_03-05	5	5	-	-	-		
1707620-30	W-MM-05_071917_SED_05-10	5	5	-	-	-		
1707620-31	W-MM-12_071917_SED_03-05	5	5	-	-	-		
1707620-32	W-MM-12_071917_SED_05-10	5	5	-	-	-		
1707620-33	W-MM-13_071917_SED_03-05	5	5	-	-	-		
1707620-35	W-MM-14_071917_SED_03-05	5	5	-	-	-		
1707620-36	W-MM-14_071917_SED_05-10	5	5	-	-	-		
1707737-01	MMSE-1_N2_072417_SED_00-01	5	5	-	-	-		
1707737-02	MMSE-1_N2_072417_SED_01-03	5	5	-	-	-		
1707737-03	MMSW-C_S_072417_SED_00-01	5	5	-	-	-		
1707737-04	MMSW-C_S_072417_SED_01-03	5	5	-	-	-		

PREPARATION BENCH SHEET

F708359

Eurofins Frontier Global Sciences, Inc.

Matrix: Soil/Sediment

Prepared using: AFS - EFGS-019 Solids Analysis

Prepared: 8/10/2017

1707737-05	MMSW-C_SW_072617_SED_03-05	5	5	-	-	-		
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**Failing Data Report -**

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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Cordelia Swell 8/14/17  
Analyst Reviewed By Date

[Signature] 8/14/17  
Peer Reviewed By Date

### Peer Review Checklist for Total Solids and Density (SOP5133)

Analyst:     *llc*     Date:     8/14/17     Reviewer:     *PLM*     Date:     8/14/17    

WO #:     1707620, 1707737     Batch #:     F708359     Dataset ID:     TS170810-1    

Reviewer Initials:     *PLM*    

**General Comments/Re-run requirements:**

Select	SOP	Method	Matrix
<input checked="" type="checkbox"/>	SOP5133	TS	S/T
<input type="checkbox"/>	SOP5133	Density	Liquids

Initials	SOP Date
<u>    <i>llc</i>    </u>	<u>    12/20/16    </u>
<input type="checkbox"/>	<input type="checkbox"/>

Reviewer Initials:     *PLM*    

**1. Total Solids**

- A. Check for transcription errors from Benchsheet/Raw Data
  - (i) Do sample ID(s) match?
  - (ii) Do masses/volumes match?
  - (iii) Are the analyst name, dataset ID, and preparation date listed?
  - (iv) Does the LIMS benchsheet prep date match the actual prep date?
- B. Does the batch include 1 MD/MT per 10 client samples?
- C. MD RPD/MT RSD ≤ 10%
- D. Are qualifiers, O-04 and O-09, included for samples analyzed out of hold time?

<input type="checkbox"/> Density Only - NA this section			
<input checked="" type="checkbox"/> DONE			<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"/> 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 checked="" type="checkbox"/>
<input checked="" type="checkbox"/> YES	<input type="checkbox"/> NO	<input type="checkbox"/> N/A	<input checked="" type="checkbox"/>

**2. Density**

- A. Check for transcription errors from Benchsheet/Raw Data
  - (i) Do sample ID(s) match?
  - (ii) Do masses/volumes match?
  - (iii) Are the analyst name, dataset ID, and preparation date listed?
  - (iv) Does the LIMS benchsheet prep date match the actual prep date?
  - (v) Volume (if other than 1 mL): \_\_\_\_\_ Can the calculated result be reproduced?

<input checked="" type="checkbox"/> Total Solids Only - NA this section			
<input type="checkbox"/> DONE			<input checked="" type="checkbox"/>
<input type="checkbox"/> YES	<input type="checkbox"/> NO		<input checked="" type="checkbox"/>
<input type="checkbox"/> YES	<input type="checkbox"/> NO		<input checked="" type="checkbox"/>
<input type="checkbox"/> YES	<input type="checkbox"/> NO		<input checked="" type="checkbox"/>
<input type="checkbox"/> YES	<input type="checkbox"/> NO		<input checked="" type="checkbox"/>
<input type="checkbox"/> YES	<input type="checkbox"/> NO		<input checked="" type="checkbox"/>
<input type="checkbox"/> YES	<input type="checkbox"/> NO	<input type="checkbox"/> N/A	<input checked="" type="checkbox"/>



Frontier Global Sciences

**Total Solids Dataset Cover Page**

**Dataset ID:** TS170810-2  
**Batch ID:** F708368  
**Work Order(s):** 1707737, 1707771

**Analyst:** CLC  
**Prep. Date:** 8/10/2017

**Analytical Issues/Explanations:**

QUALITY ASSURANCE  
PEER-REVIEWED

INITIALS: PC 8/14/17

Preparation Date: Aug 10, 2017

Batch #: 2

Analyst: CLC

Batch ID: F708368

Work Order(s): 1707737, 1707771

Pan ID	Sample ID	Pan Wt (g)	Pan + Sample Wet (g)	Wet Sample (g)	Pan + Sample Dry (g)	Dry Sample (g)	% TS	Notes
1	1707737-06	1.0240	6.4540	5.4300	2.3280	1.3040	24.0%	
2	1707737-07	1.0220	6.0540	5.0320	1.9280	0.9060	18.0%	
3	1707737-08	1.0130	6.9490	5.9360	2.4460	1.4330	24.1%	
4	1707737-09	0.9890	6.8370	5.8480	2.8610	1.8720	32.0%	
5	1707737-10	1.0380	6.3070	5.2690	2.6230	1.5850	30.1%	
6	1707737-11	1.0570	6.5730	5.5160	2.0540	0.9970	18.1%	
7	1707737-12	1.0410	6.4270	5.3860	2.1130	1.0720	19.9%	
8	1707737-13	1.0320	6.2110	5.1790	1.7360	0.7040	13.6%	
9	1707737-14	1.0690	6.5740	5.5050	2.0230	0.9540	17.3%	
10	1707771-32	1.0310	6.2810	5.2500	2.9140	1.8830	35.9%	
11	1707771-33	1.0170	6.5640	5.5470	2.3290	1.3120	23.7%	
12	1707771-34	0.9810	6.1130	5.1320	2.3800	1.3990	27.3%	
13	1707620-34	1.0750	6.4870	5.4120	2.1940	1.1190	20.7%	
14	1707620-34MD	1.0840	6.4460	5.3620	2.1500	1.0660	19.9%	3.9%
15	1707771-05	1.0320	7.5670	6.5350	2.9290	1.8970	29.0%	
16	1707771-06	1.0390	6.1630	5.1240	2.8090	1.7700	34.5%	
17	1707771-07	1.0620	6.7340	5.6720	2.8840	1.8220	32.1%	
18	1707771-08	1.0260	6.4390	5.4130	2.9370	1.9110	35.3%	
19	1707771-35	1.0750	6.6740	5.5990	2.8200	1.7450	31.2%	
20	1707771-36	1.0930	6.3940	5.3010	3.0950	2.0020	37.8%	
21	1707771-17	1.1000	6.2620	5.1620	2.8010	1.7010	33.0%	
22	1707771-17MD	1.0530	6.2520	5.1990	2.7340	1.6810	32.3%	1.9%

Remote Lab Total Solids Logbook

Lab Technician(s): CC Batch: F708368 Date: 8/10/17 Page 1 of 1 <sup>2 3</sup> <sub>ccc 8/10/17</sub>  
 Thermometer #: 1204041425<sup>2</sup> Oven #: 12 Actual temperature: 104.0 (Range 103-105°C)  
 Balance #<sup>1</sup>: 6 Start time: 10:45 <sup>8/10/17</sup> End time<sup>2</sup>: 9:45 <sup>8/10/17</sup> Time re-weighed<sup>3</sup>: 10:00  
 Client(s)/WO#: 1707737, 1707771

Sample ID	Pan #	Pan (g)	Pan + Wet Sample (g)	Pan + Dry Sample (g)	Notes
1707737-06	F1	1.024	6.454	2.328	
1707737-07	F2	1.022	6.054	1.928	
1707737-08	F3	1.013	6.949	2.446	
1707737-09	F4	0.989	6.837	2.861	
1707737-10	F5	1.038	6.307	2.623	
1707737-11	F6	1.057	6.573	2.054	
1707737-12	F7	1.041	6.427	2.113	
1707737-13	F8	1.032	6.211	1.736	
1707737-14	F9	1.069	6.574	2.023	
<del>1707771-37</del> <del>1707771-01</del>	F10	1.031	6.281	2.914	
<del>1707771-33</del> <del>1707771-02</del>	F11	1.017	6.564	2.329	
<del>1707771-34</del> <del>1707771-03</del>	F12	0.981	6.113 <sup>cc 8/10/17</sup>	2.380	Container D
<del>1707771-34</del> <del>1707771-04</del>	F13	<del>1.075</del> 1.054	<del>6.487</del> 6.739	2.194	Container D <sup>ccc 8/10/17</sup>
F708368-DUP1	F14	<del>1.084</del> 1.009	<del>6.446</del> 6.820	2.150	SRC: <del>1707771-04</del> <sup>ccc 8/10/17</sup>
1707771-05	F15	1.032	7.567	2.929	
1707771-06	F16	1.039	6.163	2.809	Container D
1707771-07	F17	1.062	6.734	2.884	
1707771-08	F18	1.026	6.439	2.937	
<del>1707771-35</del> <del>1707771-09</del>	F19	1.075	6.674	2.820	
<del>1707771-36</del> <del>1707771-10</del>	F20	1.093	6.394	3.095	Cont. D
1707771-17	F21	1.100	6.262	2.801	
F708368-DUP2	F22	1.053	6.252	2.734	SRC: 1707771-17

Comments:

cc 8/10/17

<sup>1</sup>The same balance must be used to weight samples before and after ovening.

<sup>2</sup>Samples must be ovened over 12 hours.

<sup>3</sup>Samples must be re-weighed within 30 minutes of oven cool down.

**PREPARATION BENCH SHEET**

F708368

**Eurofins Frontier Global Sciences, Inc.**

**Matrix: Soil/Sediment**

**Prepared using: AFS - EFGS-019 Solids Analysis**

**Prepared: 8/10/2017**

Lab Number	Sample ID and Source Sample	Initial (g)	Final (g)	Spike1 ID	$\mu$ l Spike1	Spike2 ID	$\mu$ l Spike2	Extraction Comments
F708368-DUP1	Duplicate [1707620-34]	5	5					
F708368-DUP2	Duplicate [1707771-17]	5	5					

Standard ID(s):

Description:

Expiration:

**PREPARATION BENCH SHEET**

F708368

**Eurofins Frontier Global Sciences, Inc.**

**Matrix: Soil/Sediment**

**Prepared using: AFS - EFGS-019 Solids Analysis**

**Prepared: 8/10/2017**

Lab Number	Sample ID	Initial (g)	Final (g)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1707620-34	W-MM-13_071917_SED_05-10	5	5	QC	-	-	MS/MSD	
1707737-06	MMSW-C_SW_072617_SED_05-10	5	5	-	-	-		
1707737-07	MMSE-1_N2_072517_SED_03-05	5	5	-	-	-		
1707737-08	MMSE-1_N2_072517_SED_05-10	5	5	-	-	-		
1707737-09	MMSW-C_S_072517_SED_03-05	5	5	-	-	-		
1707737-10	MMSW-C_S_072517_SED_05-10	5	5	-	-	-		
1707737-11	MMSW-C_SW_072517_SED_00-01	5	5	-	-	-		
1707737-12	MMSW-C_SW_072517_SED_01-03	5	5	-	-	-	Original jar broken, created container D	
1707737-13	W-21-UM-West-A_072517_SED_00-01	5	5	-	-	-		
1707737-14	W-21-UM-West-A_072517_SED_01-03	5	5	-	-	-		
1707771-05	OR-01-02_072417_SED_00-01	5	5	-	-	-		
1707771-06	OR-01-02_072417_SED_01-03	5	5	-	-	-		
1707771-07	OR-01-03_072417_SED_00-01	5	5	-	-	-		
1707771-08	OR-01-03_072417_SED_01-03	5	5	-	-	-		
1707771-17	OR-02-02_072417_SED_00-01	5	5	QC	-	-	MS/MSD	
1707771-32	W-27-INTA_072417_SED_01-03	5	5	-	-	-		
1707771-33	W-MM-06_072417_SED_00-01	5	5	-	-	-		
1707771-34	W-MM-06_072417_SED_01-03	5	5	-	-	-		
1707771-35	W-MM-19_072417_SED_00-01	5	5	-	-	-		

PREPARATION BENCH SHEET

F708368

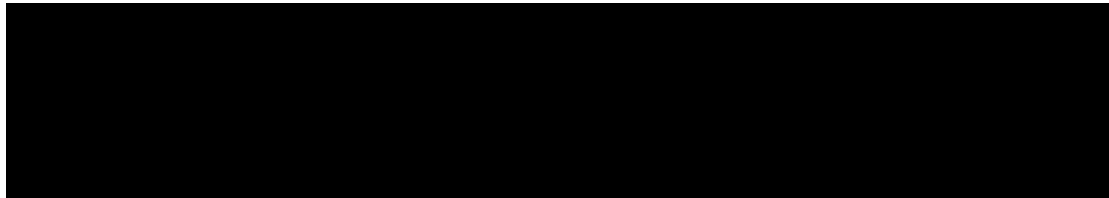
Eurofins Frontier Global Sciences, Inc.

Matrix: Soil/Sediment

Prepared using: AFS - EFGS-019 Solids Analysis

Prepared: 8/10/2017

1707771-36	W-MM-19_072417_SED_01-03	5	5	-	-	-		
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# Failing Data Report -

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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 Analyst Reviewed By \_\_\_\_\_ Date 8/14/17


  
 Peer Reviewed By \_\_\_\_\_ Date 8/14/17

### Peer Review Checklist for Total Solids and Density (SOP5133)

Analyst: CLC Date: 8/14/17 Reviewer: PLW Date: 8/14/14

WO #: 1707737, 1707771 Batch #: F708368 Dataset ID: B170810-2

Reviewer Initials: PL

**General Comments/Re-run requirements:**

Select	SOP	Method	Matrix
<input checked="" type="checkbox"/>	SOP5133	TS	S/T
<input type="checkbox"/>	SOP5133	Density	Liquids

Initials	SOP Date
<u>CLC</u>	<u>12/20/16</u>

Reviewer Initials: PL

#### 1. Total Solids

- A. Check for transcription errors from Benchsheet/Raw Data
  - (i) Do sample ID(s) match?
  - (ii) Do masses/volumes match?
  - (iii) Are the analyst name, dataset ID, and preparation date listed?
  - (iv) Does the LIMS benchsheet prep date match the actual prep date?
- B. Does the batch include 1 MD/MT per 10 client samples?
- C. MD RPD/MT RSD ≤ 10%
- D. Are qualifiers, O-04 and O-09, included for samples analyzed out of hold time?

Density Only - NA this section			
<input checked="" type="checkbox"/>	DONE		<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"/>	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 checked="" type="checkbox"/>
<input checked="" type="checkbox"/>	YES	<input type="checkbox"/> NO	<input type="checkbox"/> N/A <input checked="" type="checkbox"/>

#### 2. Density

- A. Check for transcription errors from Benchsheet/Raw Data
  - (i) Do sample ID(s) match?
  - (ii) Do masses/volumes match?
  - (iii) Are the analyst name, dataset ID, and preparation date listed?
  - (iv) Does the LIMS benchsheet prep date match the actual prep date?
  - (v) Volume (if other than 1 mL): \_\_\_\_\_ Can the calculated result be reproduced?

Total Solids Only - NA this section			
<input type="checkbox"/>	DONE		<input checked="" type="checkbox"/>
<input type="checkbox"/>	YES	<input type="checkbox"/> NO	<input checked="" type="checkbox"/>
<input type="checkbox"/>	YES	<input type="checkbox"/> NO	<input checked="" type="checkbox"/>
<input type="checkbox"/>	YES	<input type="checkbox"/> NO	<input checked="" type="checkbox"/>
<input type="checkbox"/>	YES	<input type="checkbox"/> NO	<input checked="" type="checkbox"/>
<input type="checkbox"/>	YES	<input type="checkbox"/> NO	<input checked="" type="checkbox"/>
<input type="checkbox"/>	YES	<input type="checkbox"/> NO	<input type="checkbox"/> N/A <input checked="" type="checkbox"/>



Frontier Global Sciences

### MHg27001-170802-1

Analysis Datasheet for Methyl Mercury in Waters

Date of Analysis: August 02, 2017

Instrument #: Hg2700-1

LIMS Sequence #: 7H03014

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	20.59 units	411.78	20.59 units	411.78	90.8 %Rec
SEQ-CAL2	1	0.20 ng/L	84.97 units	424.83	84.97 units	424.83	93.7 %Rec
SEQ-CAL3	1	1.00 ng/L	477.81 units	477.81	477.81 units	477.81	105.4 %Rec
SEQ-CAL4	1	2.00 ng/L	887.30 units	443.65	887.30 units	443.65	97.8 %Rec
SEQ-CAL5	1	4.00 ng/L	2038.65 units	509.66	2038.65 units	509.66	112.4 %Rec
SEQ-CAL6	0						
SEQ-CAL7	0						
SEQ-CAL8	0						
SEQ-CAL9	0						

<b>Corr. Mean RF</b>	<b>Corr. St Dev RF</b>	<b>Corr. RSD CF</b>	<b>Uncorr. Mean RF</b>	<b>Eff Factor</b>
453.55	+/- 40.02	8.8% RSD	453.55	<b>0.8690</b>

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	0.00 units		0.00 ng/L	#VALUE!

#### Preparation Blanks

Sample Type	Batch ID	n	Mean	Std Dev
BLK	1	3	0.008 ng/L	±0.008
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: BL 8/3/17



Frontier Global Sciences

MHg27001-170802-2

Analysis Datasheet for Methyl Mercury in Soil/Tissue

Date of Analysis: August 02, 2017

Analyst: DM2

Instrument #: Hg2700-1

Units ng/L

LIMS Sequence #: 7H03015, 7H03016

Calibration Statistics:

LabNumber	n	True Val	Area	Uncorrected Response Factor	Corrected Peak Height	Corrected Response Factor	% Recovery
SEQ-CAL1	1	0.05 ng/L	20.59 units	411.78	20.59 units	411.78	90.8 %Rec
SEQ-CAL2	1	0.20 ng/L	84.97 units	424.83	84.97 units	424.83	93.7 %Rec
SEQ-CAL3	1	1.00 ng/L	477.81 units	477.81	477.81 units	477.81	105.4 %Rec
SEQ-CAL4	1	2.00 ng/L	887.30 units	443.65	887.30 units	443.65	97.8 %Rec
SEQ-CAL5	1	4.00 ng/L	2038.65 units	509.66	2038.65 units	509.66	112.4 %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**  
 453.55            +/- 40.02            8.8% RSD            453.55

Blanks:

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

Preparation Blanks

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

Instrument	Analyst	Sample		Dilution	Analyzed	FileID	Run End	Uncorrected Response	Batch ID	No PB Correction?					Comments
		Type	LabNumber							RESP	InitialResult	FinalResult	InitialUnits		
Hq2700-1	DM2	CAL	SEQ-IBL1	1	8/2/17 9:11	24476-1.RAW	9:11	0.00			0.0	0.000	0.000	ng/L	
Hq2700-1	DM2	CAL	SEQ-CAL1	1	8/2/17 9:22	24477-1.RAW	#####	20.59			20.6	0.045	0.045	ng/L	
Hq2700-1	DM2	CAL	SEQ-CAL2	1	8/2/17 9:32	24478-1.RAW	#####	84.97			85.0	0.187	0.187	ng/L	
Hq2700-1	DM2	CAL	SEQ-CAL3	1	8/2/17 9:43	24479-1.RAW	#####	477.81			477.8	1.054	1.054	ng/L	
Hq2700-1	DM2	CAL	SEQ-CAL4	1	8/2/17 9:53	24480-1.RAW	#####	887.30			887.3	1.956	1.956	ng/L	
Hq2700-1	DM2	CAL	SEQ-CAL5	1	8/2/17 10:04	24481-1.RAW	#####	2038.65			2038.6	4.495	4.495	ng/L	
Hq2700-1	DM2	CAL	SEQ-ICV1	1	8/2/17 10:14	24482-1.RAW	#####	234.36			234.4	0.517	0.517	ng/L	
Hq2700-1	DM2	CAL	SEQ-ICB1	1	8/2/17 10:25	24483-1.RAW	#####	3.34			3.3	0.007	0.007	ng/L	
Hq2700-1	DM2	BLK	F708260-BLK1	1.25	8/2/17 10:35	24484-1.RAW	#####	1.22	1		1.2	0.003	0.004	ng/L	
Hq2700-1	DM2	BLK	F708260-BLK2	1.25	8/2/17 10:46	24485-1.RAW	#####	0.85	1		0.9	0.002	0.003	ng/L	
Hq2700-1	DM2	BLK	F708260-BLK3	1.25	8/2/17 10:56	24486-1.RAW	#####	5.57	1		5.6	0.014	0.018	ng/L	
Hq2700-1	DM2	SAM	F708260-BS1	1.25	8/2/17 11:07	24487-1.RAW	#####	314.94	1		314.9	0.793	0.991	ng/L	
Hq2700-1	DM2	SAM	F708260-BSD1	1.25	8/2/17 11:17	24488-1.RAW	#####	367.60	1		367.6	0.926	1.158	ng/L	
Hq2700-1	DM2	SAM	F708260-DUP1	1.25	8/2/17 11:28	24489-1.RAW	#####	33.29	1		33.3	0.078	0.097	ng/L	
Hq2700-1	DM2	SAM	F708260-MS1	1.25	8/2/17 11:38	24490-1.RAW	#####	394.04	1		394.0	0.993	1.242	ng/L	
Hq2700-1	DM2	SAM	F708260-MSD1	1.25	8/2/17 11:49	24491-1.RAW	#####	386.37	1		386.4	0.974	1.217	ng/L	
Hq2700-1	DM2	SAM	F708260-MS2	1.25	8/2/17 11:59	24492-1.RAW	#####	362.58	1		362.6	0.913	1.142	ng/L	
Hq2700-1	DM2	SAM	F708260-MSD2	1.25	8/2/17 12:10	24493-1.RAW	#####	396.66	1		396.7	1.000	1.250	ng/L	
Hq2700-1	DM2	CAL	SEQ-CCV1	1	8/2/17 12:20	24494-1.RAW	#####	240.85			240.9	0.531	0.531	ng/L	
Hq2700-1	DM2	CAL	SEQ-CCB1	1	8/2/17 12:31	24495-1.RAW	#####	1.51			1.5	0.003	0.003	ng/L	
Hq2700-1	DM2	SAM	1706895-01	1.25	8/2/17 12:41	24496-1.RAW	#####	171.16	1		171.2	0.428	0.535	ng/L	
Hq2700-1	DM2	SAM	1706895-05	1.25	8/2/17 12:52	24497-1.RAW	#####	152.94	1		152.9	0.382	0.477	ng/L	
Hq2700-1	DM2	SAM	1707150-01	1.25	8/2/17 13:02	24498-1.RAW	#####	0.00	1		0.0	-0.006	-0.008	ng/L	
Hq2700-1	DM2	SAM	clean	1	8/2/17 13:24	24499-1.RAW	#####	0.00		X	0.0	0.000	0.000	ng/L	
Hq2700-1	DM2	SAM	clean	1	8/2/17 13:30	24500-1.RAW	#####	0.00		X	0.0	0.000	0.000	ng/L	
Hq2700-1	DM2	SAM	1707150-03	1.25	8/2/17 13:40	24501-1.RAW	#####	0.00	1		0.0	-0.006	-0.008	ng/L	
Hq2700-1	DM2	SAM	1707150-05	1.25	8/2/17 13:51	24502-1.RAW	#####	0.00	1		0.0	-0.006	-0.008	ng/L	
Hq2700-1	DM2	SAM	1707150-07	1.25	8/2/17 14:01	24503-1.RAW	#####	0.00	1		0.0	-0.006	-0.008	ng/L	
Hq2700-1	DM2	SAM	1707295-01	1.25	8/2/17 14:12	24504-1.RAW	#####	3.90	1		3.9	0.003	0.004	ng/L	
Hq2700-1	DM2	SAM	1707543-07	1.25	8/2/17 14:22	24505-1.RAW	#####	12.64	1		12.6	0.026	0.032	ng/L	
Hq2700-1	DM2	SAM	1707696-01	1.25	8/2/17 14:33	24506-1.RAW	#####	29.60	1		29.6	0.069	0.086	ng/L	
Hq2700-1	DM2	SAM	1707696-02	1.25	8/2/17 14:43	24507-1.RAW	#####	29.31	1		29.3	0.068	0.085	ng/L	
Hq2700-1	DM2	CAL	SEQ-CCV2	1	8/2/17 14:54	24508-1.RAW	#####	213.66			213.7	0.471	0.471	ng/L	
Hq2700-1	DM2	CAL	SEQ-CCB2	1	8/2/17 15:04	24509-1.RAW	#####	0.00			0.0	0.000	0.000	ng/L	
Hq2700-1	DM2	SAM	1707696-03	1.25	8/2/17 15:15	24510-1.RAW	#####	20.92	1		20.9	0.047	0.058	ng/L	
Hq2700-1	DM2	SAM	1707696-04	1.25	8/2/17 15:25	24511-1.RAW	#####	20.91	1		20.9	0.047	0.058	ng/L	
Hq2700-1	DM2	SAM	1707696-05	1.25	8/2/17 15:36	24512-1.RAW	#####	32.23	1		32.2	0.075	0.094	ng/L	
Hq2700-1	DM2	SAM	1707696-06	1.25	8/2/17 15:46	24513-1.RAW	#####	23.05	1		23.1	0.052	0.065	ng/L	
Hq2700-1	DM2	SAM	1707806-01	1.25	8/2/17 15:57	24514-1.RAW	#####	38.56	1		38.6	0.091	0.114	ng/L	
Hq2700-1	DM2	SAM	1707806-02	1.25	8/2/17 16:07	24515-1.RAW	#####	31.25	1		31.2	0.073	0.091	ng/L	
Hq2700-1	DM2	SAM	1707806-03	1.25	8/2/17 16:18	24516-1.RAW	#####	36.40	1		36.4	0.086	0.107	ng/L	
Hq2700-1	DM2	SAM	1707806-04	1.25	8/2/17 16:29	24517-1.RAW	#####	27.33	1		27.3	0.063	0.079	ng/L	
Hq2700-1	DM2	SAM	1707806-05	1.25	8/2/17 16:39	24518-1.RAW	#####	21.53	1		21.5	0.048	0.060	ng/L	
Hq2700-1	DM2	SAM	1707806-06	1.25	8/2/17 16:50	24519-1.RAW	#####	13.40	1		13.4	0.028	0.034	ng/L	
Hq2700-1	DM2	CAL	SEQ-CCV3	1	8/2/17 17:00	24520-1.RAW	#####	211.95			212.0	0.467	0.467	ng/L	
Hq2700-1	DM2	CAL	SEQ-CCB3	1	8/2/17 17:11	24521-1.RAW	#####	0.00			0.0	0.000	0.000	ng/L	

Instrument	Analyst	Sample		Dilution	Analyzed	FileID	Run End	Uncorrected Response	Batch ID	No PB				InitialUnits	Comments	
		Type	LabNumber							Correction?	RESP	InitialResult	FinalResult			
Hg2700-1	DM2	CAL	SEQ-IBL1	1	8/2/17 9:11	24476-1.RAW	9:11:31	0.00				0.0	0.000	0.000	ng/L	
Hg2700-1	DM2	CAL	SEQ-CAL1	1	8/2/17 9:22	24477-1.RAW	9:22:02	20.59				20.6	0.045	0.045	ng/L	
Hg2700-1	DM2	CAL	SEQ-CAL2	1	8/2/17 9:32	24478-1.RAW	9:32:33	84.97				85.0	0.187	0.187	ng/L	
Hg2700-1	DM2	CAL	SEQ-CAL3	1	8/2/17 9:43	24479-1.RAW	9:43:03	477.81				477.8	1.054	1.054	ng/L	
Hg2700-1	DM2	CAL	SEQ-CAL4	1	8/2/17 9:53	24480-1.RAW	9:53:34	887.30				887.3	1.956	1.956	ng/L	
Hg2700-1	DM2	CAL	SEQ-CAL5	1	8/2/17 10:04	24481-1.RAW	10:04:05	2038.65				2038.6	4.495	4.495	ng/L	
Hg2700-1	DM2	CAL	SEQ-ICV1	1	8/2/17 10:14	24482-1.RAW	10:14:35	234.36				234.4	0.517	0.517	ng/L	
Hg2700-1	DM2	CAL	SEQ-ICB1	1	8/2/17 10:25	24483-1.RAW	10:25:06	3.34				3.3	0.007	0.007	ng/L	
Hg2700-1	DM2	BLK	F708260-BLK1	1.25	8/2/17 10:35	24484-1.RAW	10:35:37	1.22			X	1.2	0.003	0.003	ng/L	
Hg2700-1	DM2	BLK	F708260-BLK2	1.25	8/2/17 10:46	24485-1.RAW	10:46:08	0.85			X	0.9	0.002	0.002	ng/L	
Hg2700-1	DM2	BLK	F708260-BLK3	1.25	8/2/17 10:56	24486-1.RAW	10:56:38	5.57			X	5.6	0.012	0.012	ng/L	
Hg2700-1	DM2	SAM	F708260-BS1	1.25	8/2/17 11:07	24487-1.RAW	11:07:09	314.94			X	314.9	0.694	0.868	ng/L	
Hg2700-1	DM2	SAM	F708260-BSD1	1.25	8/2/17 11:17	24488-1.RAW	11:17:40	367.60			X	367.6	0.811	1.013	ng/L	
Hg2700-1	DM2	SAM	F708260-DUP1	1.25	8/2/17 11:28	24489-1.RAW	11:28:10	33.29			X	33.3	0.073	0.092	ng/L	
Hg2700-1	DM2	SAM	F708260-MS1	1.25	8/2/17 11:38	24490-1.RAW	11:38:41	394.04			X	394.0	0.869	1.086	ng/L	
Hg2700-1	DM2	SAM	F708260-MSD1	1.25	8/2/17 11:49	24491-1.RAW	11:49:12	386.37			X	386.4	0.852	1.065	ng/L	
Hg2700-1	DM2	SAM	F708260-MS2	1.25	8/2/17 11:59	24492-1.RAW	11:59:42	362.58			X	362.6	0.799	0.999	ng/L	
Hg2700-1	DM2	SAM	F708260-MSD2	1.25	8/2/17 12:10	24493-1.RAW	12:10:13	396.66			X	396.7	0.875	1.093	ng/L	
Hg2700-1	DM2	CAL	SEQ-CCV1	1	8/2/17 12:20	24494-1.RAW	12:20:44	240.85				240.9	0.531	0.531	ng/L	
Hg2700-1	DM2	CAL	SEQ-CCB1	1	8/2/17 12:31	24495-1.RAW	12:31:15	1.51				1.5	0.003	0.003	ng/L	
Hg2700-1	DM2	SAM	1706895-01	1.25	8/2/17 12:41	24496-1.RAW	12:41:45	171.16			X	171.2	0.377	0.472	ng/L	
Hg2700-1	DM2	SAM	1706895-05	1.25	8/2/17 12:52	24497-1.RAW	12:52:16	152.94			X	152.9	0.337	0.422	ng/L	
Hg2700-1	DM2	SAM	1707150-01	1.25	8/2/17 13:02	24498-1.RAW	13:02:47	0.00			X	0.0	0.000	0.000	ng/L	
Hg2700-1	DM2	SAM	clean	1	8/2/17 13:24	24499-1.RAW	13:24:50	0.00			X	0.0	0.000	0.000	ng/L	
Hg2700-1	DM2	SAM	clean	1	8/2/17 13:30	24500-1.RAW	13:30:18	0.00			X	0.0	0.000	0.000	ng/L	
Hg2700-1	DM2	SAM	1707150-03	1.25	8/2/17 13:40	24501-1.RAW	13:40:49	0.00			X	0.0	0.000	0.000	ng/L	
Hg2700-1	DM2	SAM	1707150-05	1.25	8/2/17 13:51	24502-1.RAW	13:51:19	0.00			X	0.0	0.000	0.000	ng/L	
Hg2700-1	DM2	SAM	1707150-07	1.25	8/2/17 14:01	24503-1.RAW	14:01:50	0.00			X	0.0	0.000	0.000	ng/L	
Hg2700-1	DM2	SAM	1707295-01	1.25	8/2/17 14:12	24504-1.RAW	14:12:21	3.90			X	3.9	0.009	0.011	ng/L	
Hg2700-1	DM2	SAM	1707543-07	1.25	8/2/17 14:22	24505-1.RAW	14:22:51	12.64			X	12.6	0.028	0.035	ng/L	
Hg2700-1	DM2	SAM	1707696-01	1.25	8/2/17 14:33	24506-1.RAW	14:33:22	29.60			X	29.6	0.065	0.082	ng/L	
Hg2700-1	DM2	SAM	1707696-02	1.25	8/2/17 14:43	24507-1.RAW	14:43:53	29.31			X	29.3	0.065	0.081	ng/L	
Hg2700-1	DM2	CAL	SEQ-CCV2	1	8/2/17 14:54	24508-1.RAW	14:54:24	213.66				213.7	0.471	0.471	ng/L	
Hg2700-1	DM2	CAL	SEQ-CCB2	1	8/2/17 15:04	24509-1.RAW	15:04:54	0.00				0.0	0.000	0.000	ng/L	
Hg2700-1	DM2	SAM	1707696-03	1.25	8/2/17 15:15	24510-1.RAW	15:15:25	20.92			X	20.9	0.046	0.058	ng/L	
Hg2700-1	DM2	SAM	1707696-04	1.25	8/2/17 15:25	24511-1.RAW	15:25:56	20.91			X	20.9	0.046	0.058	ng/L	
Hg2700-1	DM2	SAM	1707696-05	1.25	8/2/17 15:36	24512-1.RAW	15:36:26	32.23			X	32.2	0.071	0.089	ng/L	
Hg2700-1	DM2	SAM	1707696-06	1.25	8/2/17 15:46	24513-1.RAW	15:46:57	23.05			X	23.1	0.051	0.064	ng/L	
Hg2700-1	DM2	SAM	1707806-01	1.25	8/2/17 15:57	24514-1.RAW	15:57:28	38.56			X	38.6	0.085	0.106	ng/L	
Hg2700-1	DM2	SAM	1707806-02	1.25	8/2/17 16:07	24515-1.RAW	16:07:58	31.25			X	31.2	0.069	0.086	ng/L	
Hg2700-1	DM2	SAM	1707806-03	1.25	8/2/17 16:18	24516-1.RAW	16:18:29	36.40			X	36.4	0.080	0.100	ng/L	
Hg2700-1	DM2	SAM	1707806-04	1.25	8/2/17 16:29	24517-1.RAW	16:29:00	27.33			X	27.3	0.060	0.075	ng/L	
Hg2700-1	DM2	SAM	1707806-05	1.25	8/2/17 16:39	24518-1.RAW	16:39:31	21.53			X	21.5	0.047	0.059	ng/L	
Hg2700-1	DM2	SAM	1707806-06	1.25	8/2/17 16:50	24519-1.RAW	16:50:01	13.40			X	13.4	0.030	0.037	ng/L	
Hg2700-1	DM2	CAL	SEQ-CCV3	1	8/2/17 17:00	24520-1.RAW	17:00:32	211.95				212.0	0.467	0.467	ng/L	
Hg2700-1	DM2	CAL	SEQ-CCB3	1	8/2/17 17:11	24521-1.RAW	17:11:03	0.00				0.0	0.000	0.000	ng/L	



Instrument	Analyst	Sample		Dilution	Analyzed	FileID	Run End	Uncorrected Response	Batch ID	No PB					Comments
		Type	LabNumber							Correction?	RESP	InitialResult	FinalResult	InitialUnits	
Hg2700-1	DM2	BLK	F707531-BLK1	500	8/2/17 17:21	24522-1.RAW	17:21:34	0.00	1		0.0	0.000	0.000	ng/L	
Hg2700-1	DM2	BLK	F707531-BLK2	500	8/2/17 17:32	24523-1.RAW	17:32:04	0.00	1		0.0	0.000	0.000	ng/L	
Hg2700-1	DM2	BLK	F707531-BLK3	500	8/2/17 17:42	24524-1.RAW	17:42:35	0.00	1		0.0	0.000	0.000	ng/L	
Hg2700-1	DM2	SAM	F707531-BS1	1000	8/2/17 17:53	24525-1.RAW	17:53:05	765.66	1		765.7	1.688	1688.153	ng/L	
Hg2700-1	DM2	SAM	F707531-BSD1	1000	8/2/17 18:03	24526-1.RAW	18:03:36	771.43	1		771.4	1.701	1700.880	ng/L	
Hg2700-1	DM2	SAM	F707531-DUP1	500	8/2/17 18:14	24527-1.RAW	18:14:07	11.21	1		11.2	0.025	12.358	ng/L	
Hg2700-1	DM2	SAM	F707531-MS1	500	8/2/17 18:24	24528-1.RAW	18:24:38	288.66	1		288.7	0.636	318.226	ng/L	
Hg2700-1	DM2	SAM	F707531-MSD1	500	8/2/17 18:35	24529-1.RAW	18:35:08	347.23	1		347.2	0.766	382.799	ng/L	
Hg2700-1	DM2	SAM	1707620-11	500	8/2/17 18:45	24530-1.RAW	18:45:39	7.80	1		7.8	0.017	8.601	ng/L	
Hg2700-1	DM2	SAM	1707620-12	500	8/2/17 18:56	24531-1.RAW	18:56:10	24.40	1		24.4	0.054	26.903	ng/L	
Hg2700-1	DM2	CAL	SEQ-CCV4	1	8/2/17 19:06	24532-1.RAW	19:06:40	206.30			206.3	0.455	0.455	ng/L	
Hg2700-1	DM2	CAL	SEQ-CCB4	1	8/2/17 19:17	24533-1.RAW	19:17:11	0.00			0.0	0.000	0.000	ng/L	
Hg2700-1	DM2	SAM	1707620-13	500	8/2/17 19:27	24534-1.RAW	19:27:42	107.11	1		107.1	0.236	118.084	ng/L	
Hg2700-1	DM2	SAM	1707620-14	500	8/2/17 19:38	24535-1.RAW	19:38:13	78.36	1		78.4	0.173	86.385	ng/L	
Hg2700-1	DM2	SAM	1707620-15	500	8/2/17 19:48	24536-1.RAW	19:48:43	75.61	1		75.6	0.167	83.355	ng/L	
Hg2700-1	DM2	SAM	1707620-16	500	8/2/17 19:59	24537-1.RAW	19:59:14	23.60	1		23.6	0.052	26.022	ng/L	
Hg2700-1	DM2	SAM	1707620-17	500	8/2/17 20:09	24538-1.RAW	20:09:45	27.53	1		27.5	0.061	30.353	ng/L	
Hg2700-1	DM2	SAM	1707620-18	500	8/2/17 20:20	24539-1.RAW	20:20:15	52.04	1		52.0	0.115	57.366	ng/L	
Hg2700-1	DM2	BLK	F707454-BLK1	500	8/2/17 20:30	24540-1.RAW	20:30:46	0.00	2		0.0	0.000	0.000	ng/L	
Hg2700-1	DM2	BLK	F707454-BLK2	500	8/2/17 20:41	24541-1.RAW	20:41:17	0.00	2		0.0	0.000	0.000	ng/L	
Hg2700-1	DM2	BLK	F707454-BLK3	500	8/2/17 20:51	24542-1.RAW	20:51:47	0.00	2		0.0	0.000	0.000	ng/L	
Hg2700-1	DM2	SAM	F707454-BS1	500	8/2/17 21:02	24543-1.RAW	21:02:18	3.13	2		3.1	0.007	3.449	ng/L	
Hg2700-1	DM2	CAL	SEQ-CCV5	1	8/2/17 21:12	24544-1.RAW	21:12:49	236.10			236.1	0.521	0.521	ng/L	
Hg2700-1	DM2	CAL	SEQ-CCB5	1	8/2/17 21:23	24545-1.RAW	21:23:19	0.00			0.0	0.000	0.000	ng/L	
Hg2700-1	DM2	SAM	F707454-BS2	500	8/2/17 21:33	24546-1.RAW	21:33:50	7.86	2		7.9	0.017	8.660	ng/L	
Hg2700-1	DM2	SAM	1707500-09	500	8/2/17 21:44	24547-1.RAW	21:44:21	0.00	2		0.0	0.000	0.000	ng/L	
Hg2700-1	DM2	BLK	F708266-BLK1	500	8/2/17 21:54	24548-1.RAW	21:54:51	0.00	3		0.0	0.000	0.000	ng/L	
Hg2700-1	DM2	BLK	F708266-BLK2	500	8/2/17 22:05	24549-1.RAW	22:05:22	0.00	3		0.0	0.000	0.000	ng/L	
Hg2700-1	DM2	BLK	F708266-BLK3	500	8/2/17 22:15	24550-1.RAW	22:15:53	0.00	3		0.0	0.000	0.000	ng/L	
Hg2700-1	DM2	SAM	F708266-BS1	1000	8/2/17 22:26	24551-1.RAW	22:26:24	943.15	3		943.2	2.080	2079.500	ng/L	
Hg2700-1	DM2	SAM	F708266-BS2	1000	8/2/17 22:36	24552-1.RAW	22:36:55	799.73	3		799.7	1.763	1763.271	ng/L	
Hg2700-1	DM2	SAM	F708266-BS3	1000	8/2/17 22:47	24553-1.RAW	22:47:25	924.16	3		924.2	2.038	2037.636	ng/L	
Hg2700-1	DM2	SAM	F708266-BS4	1000	8/2/17 22:57	24554-1.RAW	22:57:56	735.04	3		735.0	1.621	1620.660	ng/L	
Hg2700-1	DM2	SAM	1708029-01	500	8/2/17 23:08	24555-1.RAW	23:08:27	4.39	3		4.4	0.010	4.835	ng/L	
Hg2700-1	DM2	CAL	SEQ-CCV6	1	8/2/17 23:18	24556-1.RAW	23:18:57	220.24			220.2	0.486	0.486	ng/L	
Hg2700-1	DM2	CAL	SEQ-CCB6	1	8/2/17 23:29	24557-1.RAW	23:29:28	1.34			1.3	0.003	0.003	ng/L	

MethylMercury EPA1630		Operat DM	BlankSub:	CalibEqn:	Run Date:	Blank SD:															
		Works MMHg2	CalibFactor:	Status:	Calblank error: Zero Pe	Run Time:	Blank RSD%:														
		Methoc 2010-R1	R:	CF SD:	CF RSD%:																
Sample/ID	Locator	Rinse	Dilute	Blank	ConcHQ2(ri	ConcMeHg	ConcHQ2(p	ConcPHq(R	Rec%	QA	RawData	RunEnd	PeakHQ	(Raw	PeakMeHo	(R	PeakHQ2(Raw	PeakPHq(Raw	Control (ref)	Flags	RunCount
Clean																					
WS	A1																				
SEQ-1BL1	A2		1																		
SEQ-CAL1	A3		1																		
SEQ-CAL2	A4		1																		
SEQ-CAL3	A5		1																		
SEQ-CAL4	A6		1																		
SEQ-CAL5	A7		1																		
SEQ-ICV1	A8		1																		
SEQ-ICB1	A9		1																		
F708260-BLK1	A10		1.25																		
F708260-BLK2	A11		1.25																		
F708260-BLK3	A12		1.25																		
F708260-BS1	A13		1.25																		
F708260-BSD1	A14		1.25																		
F708260-DUP1	A15		1.25																		
F708260-MS1	A16		1.25																		
F708260-MSD1	A17		1.25																		
F708260-MS2	A18		1.25																		
F708260-MSD2	A19		1.25																		
SEQ-CCV1	A20		1																		
SEQ-CCB1	A21		1																		
1706895-01	B1		1.25																		
1706895-05	B2		1.25																		
1707150-01	B3		1.25																		
Clean			1																		
Clean			1																		
1707150-03	B4		1.25																		
1707150-05	B5		1.25																		
1707150-07	B6		1.25																		
1707295-01	B7		1.25																		
1707543-07	B8		1.25																		
1707696-01	B9		1.25																		
1707696-02	B10		1.25																		
SEQ-CCV2	B11		1																		
SEQ-CCB2	B12		1																		
1707696-03	B13		1.25																		
1707696-04	B14		1.25																		
1707696-05	B15		1.25																		
1707696-06	B16		1.25																		
1707806-01	B17		1.25																		
1707806-02	B18		1.25																		
1707806-03	B19		1.25																		
1707806-04	B20		1.25																		
1707806-05	B21		1.25																		
1707806-06	C1		1.25																		
SEQ-CCV3	C2		1																		
SEQ-CCB3	C3		1																		
F707531-BLK1	C4		500																		
F707531-BLK2	C5		500																		
F707531-BLK3	C6		500																		
F707531-BS1	C7		1000																		
F707531-BSD1	C8		1000																		
F707531-DUP1	C9		500																		
F707531-MS1	C10		500																		
F707531-MSD1	C11		500																		
1707620-11	C12		500																		
1707620-12	C13		500																		
SEQ-CCV4	C14		1																		
SEQ-CCB4	C15		1																		
1707620-13	C16		500																		
1707620-14	C17		500																		
1707620-15	C18		500																		
1707620-16	C19		500																		
1707620-17	C20		500																		
1707620-18	C21		500																		
F707454-BLK1	A1		500																		
F707454-BLK2	A2		500																		
F707454-BLK3	A3		500																		
F707454-BS1	A4		500																		
SEQ-CCV5	A5		1																		
SEQ-CCB5	A6		1																		
F707454-BS2	A7		500																		
1707500-09	A8		500																		



F708266-BLK1	A9	500	24548-1.RAW	21:54:51	5.26	0.00	9.58	0.00	psample10	CT	1
F708266-BLK2	A10	500	24549-1.RAW	22:05:22	6.64	0.00	11.24	0.00	psample10	OK	1
F708266-BLK3	A11	500	24550-1.RAW	22:15:53	8.21	0.00	11.74	0.00	psample10	CT	1
F708266-BS1	A12	1000	24551-1.RAW	22:26:24	8.29	943.15	135.72	0.00	psample10	OK	1
F708266-BS2	A13	1000	24552-1.RAW	22:36:55	8.13	799.73	135.18	0.00	psample10	OK	1
F708266-BS3	A14	1000	24553-1.RAW	22:47:25	10.90	924.16	146.88	0.00	psample10	CT	1
F708266-BS4	A15	1000	24554-1.RAW	22:57:56	7.16	735.04	133.92	0.00	psample10	OK	1
1708029-01	A16	500	24555-1.RAW	23:08:27	6.42	4.39	11.03	0.00	psample10	CT	1
SEQ-CCV6	A17	1	24556-1.RAW	23:18:57	6.30	220.24	8.83	0.00	psample10	OK	1
SEQ-CCB6	A18	1	24557-1.RAW	23:29:28	7.56	1.34	7.52	0.00	psample10	CT	1

# Failing Data Report - 7H03014

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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Dan M...am  
 Analyst Reviewed By

8/3/17  
 Date

[Signature]  
 Peer Reviewed By

8/3/17  
 Date

**Failing Data Report - 7H03015**

Sample ID	Analysis	Result	MRL	Dup Result	Source Result	True Value	Units	% Rec.	Rec. LCL	Rec. UCL	RPD	RPD Limit	Over Cal	Failure	Qualifier
F707454-BS1	MHg-CVAFS-T-KOH DOD	0.3	2.0			1.0010	ng/g		70.00	130.00			PASS-OVER	FAIL-BS	LOD
F707454-BS2	MHg-CVAFS-T-KOH DOD	0.7	2.0			2.0020	ng/g	34.6	70.00	130.00			PASS-OVER	FAIL-BS	LOD

Don Maken 8/3/17  
 Analyst Reviewed By Date

Becing 8/3/17  
 Peer Reviewed By Date

**Failing Data Report - 7H03016**

Sample ID	Analysis	Result	MRL	Dup Result	Source Result	True Value	Units	% Rec.	Rec. LCL	Rec. UCL	RPD	RPD Limit	Over Cal	Failure	Qualifier
F707531-DUP1	MHg-CVAFS-S-KOH	1.0	1.9	0.6	0.6		ng/g				39.9	35.00	PASS-OVER	FAIL-DUP	QR.07
F707531-MS1	MHg-CVAFS-S-KOH	24.4	1.9		0.6	38.338	ng/g	61.9	65.00	130.00			PASS-OVER	FAIL-MS	QM.07

Den Mason      8/3/17  
 Analyst Reviewed By      Date

[Signature]      8/3/17  
 Peer Reviewed By      Date

## ANALYSIS SEQUENCE

7H03015

Instrument: Hg2700-1

Calibration ID: UNASSIGNED

Analyzed: 8/2/2017

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
7H03015-IBL1	QC	1			
7H03015-CAL1	QC	2	1704180		
7H03015-CAL2	QC	3	1704181		
7H03015-CAL3	QC	4	1704182		
7H03015-CAL4	QC	5	1704183		
7H03015-CAL5	QC	6	1704184		
7H03015-ICV1	QC	7	1703246		
7H03015-ICB1	QC	8			
7H03015-CCV1	QC	9	1703246		
7H03015-CCB1	QC	10			
7H03015-CCV2	QC	11	1703246		
7H03015-CCB2	QC	12			
7H03015-CCV3	QC	13	1703246		
7H03015-CCB3	QC	14			
7H03015-CCV4	QC	15	1703246		
7H03015-CCB4	QC	16			
F707454-BLK1	QC	17			
F707454-BLK2	QC	18			
F707454-BLK3	QC	19			
F707454-BS1	QC	20			
7H03015-CCV5	QC	21	1703246		
7H03015-CCB5	QC	22			
F707454-BS2	QC	23			
1707500-09	MHg-CVAFS-T-KOH DOD	24			Spike at specified level
7H03015-CCV6	QC	25	1703246		
7H03015-CCB6	QC	26			

Don M. Peem 8/2/17  
 Samples Loaded By Date

Don M. Peem 8/3/17  
 Data Processed By Date

Due Date: 8/16/2017

## ANALYSIS SEQUENCE

7H03016

Instrument: Hg2700-1

Calibration ID: UNASSIGNED

Analyzed: 8/2/2017

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
7H03016-IBL1	QC	1			
7H03016-CAL1	QC	2	1704180		
7H03016-CAL2	QC	3	1704181		
7H03016-CAL3	QC	4	1704182		
7H03016-CAL4	QC	5	1704183		
7H03016-CAL5	QC	6	1704184		
7H03016-ICV1	QC	7	1703246		
7H03016-ICB1	QC	8			
7H03016-CCV1	QC	9	1703246		
7H03016-CCB1	QC	10			
7H03016-CCV2	QC	11	1703246		
7H03016-CCB2	QC	12			
7H03016-CCV3	QC	13	1703246		
7H03016-CCB3	QC	14			
F707531-BLK1	QC	15			
F707531-BLK2	QC	16			
F707531-BLK3	QC	17			
F707531-BS1	QC	18			
F707531-BSD1	QC	19			
F707531-DUP1	QC	20			
F707531-MS1	QC	21			
F707531-MSD1	QC	22			
1707620-11	MHg-CVAFS-S-KOH	23			
1707620-12	MHg-CVAFS-S-KOH	24			
7H03016-CCV4	QC	25	1703246		
7H03016-CCB4	QC	26			
1707620-13	MHg-CVAFS-S-KOH	27			
1707620-14	MHg-CVAFS-S-KOH	28			
1707620-15	MHg-CVAFS-S-KOH	29			
1707620-16	MHg-CVAFS-S-KOH	30			
1707620-17	MHg-CVAFS-S-KOH	31			
1707620-18	MHg-CVAFS-S-KOH	32			
7H03016-CCV5	QC	33	1703246		
7H03016-CCB5	QC	34			
F708266-BLK1	QC	35			

Due Date: 8/21/2017

ANALYSIS SEQUENCE

7H03016

Instrument: Hg2700-1

Calibration ID: UNASSIGNED

Analyzed: 8/2/2017

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
F708266-BLK2	QC	36			
F708266-BLK3	QC	37			
F708266-BS1	QC	38			
F708266-BS2	QC	39			
F708266-BS3	QC	40			
F708266-BS4	QC	41			
1708029-01	MHg-CVAFS-T-KOH	42			
7H03016-CCV6	QC	43	1703246		
7H03016-CCB6	QC	44			

Don Moran 8/2/17  
Samples Loaded By Date

Don Moran 8/3/17  
Data Processed By Date

## ANALYSIS SEQUENCE

7H03014

Instrument: Hg2700-1

Calibration ID: UNASSIGNED

Analyzed: 8/2/2017

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
7H03014-IBL1	QC	1			
7H03014-CAL1	QC	2	1704180		
7H03014-CAL2	QC	3	1704181		
7H03014-CAL3	QC	4	1704182		
7H03014-CAL4	QC	5	1704183		
7H03014-CAL5	QC	6	1704184		
7H03014-ICV1	QC	7	1703246		
7H03014-ICB1	QC	8			
F708260-BLK1	QC	9			
F708260-BLK2	QC	10			
F708260-BLK3	QC	11			
F708260-BS1	QC	12			
F708260-BSD1	QC	13			
F708260-DUP1	QC	14			
F708260-MS1	QC	15			
F708260-MSD1	QC	16			
F708260-MS2	QC	17			
F708260-MSD2	QC	18			
7H03014-CCV1	QC	19	1703246		
7H03014-CCB1	QC	20			
1706895-01	MHg-CVAFS-W-Dist	21			
1706895-05	MHg-CVAFS-W-Dist	22			
1707150-01	MHg-CVAFS-W-Dist	23			
1707150-03	MHg-CVAFS-W-Dist	24			
1707150-05	MHg-CVAFS-W-Dist	25			
1707150-07	MHg-CVAFS-W-Dist	26			
1707295-01	MHg-CVAFS-W-Dist	27			
1707543-07	MHg-CVAFS-W-Dist	28			Scan all data for level IV report
1707696-01	MHg-CVAFS-W-Dist	29			Scan all data for level IV report
1707696-02	MHg-CVAFS-W-Dist	30			Scan all data for level IV report
7H03014-CCV2	QC	31	1703246		
7H03014-CCB2	QC	32			
1707696-03	MHg-CVAFS-W-Dist	33			Scan all data for level IV report
1707696-04	MHg-CVAFS-W-Dist	34			Scan all data for level IV report
1707696-05	MHg-CVAFS-W-Dist	35			Scan all data for level IV report

Due Date: 7/28/2017



ANALYSIS SEQUENCE

7H03014

Instrument: Hg2700-1

Calibration ID: UNASSIGNED

Analyzed: 8/2/2017

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
1707696-06	MHg-CVAFS-W-Dist	36			Scan all data for level IV report
1707806-01	MHg-CVAFS-W-Dist	37			
1707806-02	MHg-CVAFS-W-Dist	38			
1707806-03	MHg-CVAFS-W-Dist	39			
1707806-04	MHg-CVAFS-W-Dist	40			
1707806-05	MHg-CVAFS-W-Dist	41			
1707806-06	MHg-CVAFS-W-Dist	42			
7H03014-CCV3	QC	43	1703246		
7H03014-CCB3	QC	44			

Dan Moxam      8/2/17  
Samples Loaded By      Date

Dan Moxam      8/3/17  
Data Processed By      Date

**PREPARATION BENCH SHEET**

F708260

**Eurofins Frontier Global Sciences, Inc.**

**Matrix: Water**

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

**Prepared: 8/1/2017**

Lab Number	Sample ID and Source Sample	Initial (mL)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F708260-BLK1	Blank	45	40					
F708260-BLK2	Blank	45	40					
F708260-BLK3	Blank	45	40					
F708260-BS1	Blank Spike	45	40	1704143	45			
F708260-BSD1	Blank Spike Dup	45	40	1704143	45			
F708260-DUP1	Duplicate [1707696-01]	45	40					
F708260-MS1	Matrix Spike [1707696-02]	45	40	1704143	45			
F708260-MS2	Matrix Spike [1707806-01]	45	40	1704143	45			
F708260-MSD1	Matrix Spike Dup [1707696-02]	45	40	1704143	45			
F708260-MSD2	Matrix Spike Dup [1707806-01]	45	40	1704143	45			

Standard ID(s):  
1704143

Description:  
MHg New Primary 1.0 ng/mL CAL

Expiration:  
10-Oct-17 00:00

Reagent ID(s):

1703755  
1704399  
1704513  
1704672  
1704674

Description:  
Acetate Buffer  
Ethylating Agent (For Methyl Mercury Analysis)  
2.5% Ascorbic Acid  
APDC  
0.4% HCl Distillation Dilute (Made Daily)

Expiration:  
20-Dec-17 00:00  
16-Jan-18 00:00  
02-Aug-17 00:00  
08-Aug-17 00:00  
02-Aug-17 00:00

**PREPARATION BENCH SHEET**

F708260

**Eurofins Frontier Global Sciences, Inc.**

**Matrix: Water**

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

**Prepared: 8/1/2017**

Lab Number	Sample ID	Initial (mL)	Final (mL)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1706895-01	MW33D-062817	5	40	-	-	-		
1706895-05	STPZ2-062817	5	40	-	-	-		
1707150-01	TPZ21-070517	5	40	-	-	-		
1707150-03	TPZ4-070517	5	40	-	-	-		
1707150-05	TPZ8-070517	5	40	-	-	-		
1707150-07	MW111-070517	5	40	-	-	-		
1707295-01	STPZ7-071017	5	40	-	-	-		
1707543-07	OL-2629-06	45	40	-	-	-	Preservation Blank created Scan all data	
1707696-01	OL-2634-01	45	40	-	-	-	Scan all data for level IV report	
1707696-02	OL-2634-02	45	40	-	-	-	Scan all data for level IV report	
1707696-03	OL-2634-03	45	40	-	-	-	Scan all data for level IV report	
1707696-04	OL-2634-04	45	40	-	-	-	Scan all data for level IV report	
1707696-05	OL-2634-05	45	40	-	-	-	Scan all data for level IV report	
1707696-06	OL-2634-06	45	40	-	-	-	Scan all data for level IV report	
1707806-01	MDS7	45	40	-	-	-		
1707806-02	MDS7 Dissolved	45	40	-	-	-		
1707806-03	MDS24	45	40	-	-	-		
1707806-04	MDS24 Dissolved	45	40	-	-	-		
1707806-05	MDS10	45	40	-	-	-		

PREPARATION BENCH SHEET

F708260

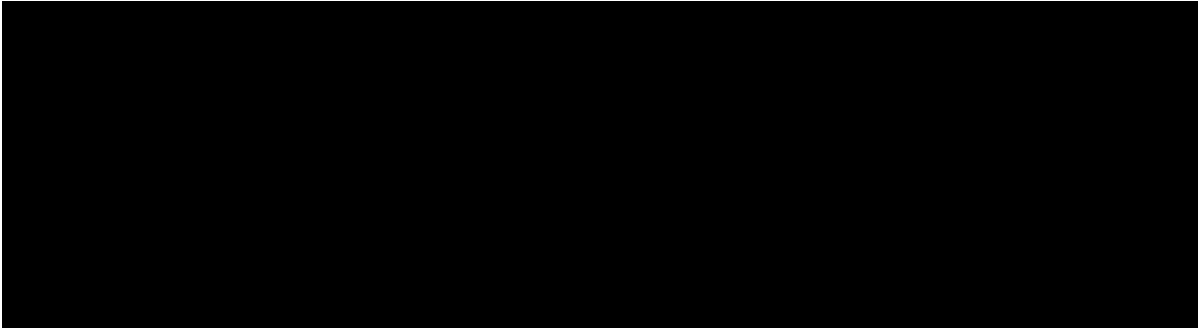
Eurofins Frontier Global Sciences, Inc.

Matrix: Water

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

Prepared: 8/1/2017

1707806-06	MDS10 Dissolved	45	40	-	-	-		
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**PREPARATION BENCH SHEET**

F707454

**Eurofins Frontier Global Sciences, Inc.**

**Matrix: Tissue**

**Prepared using: Hg Aquatic/Solids - EFGS-010 KOH/Methanol Hg Digestion**

**Prepared: 8/1/2017**

Lab Number	Sample ID and Source Sample	Initial (g)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F707454-BLK1	Blank	0.25	20					
F707454-BLK2	Blank	0.25	20					
F707454-BLK3	Blank	0.25	20					
F707454-BS1	LOD 2017 Q3 2700	0.25	20	1704676	25			
F707454-BS2	LOQ 2017 Q3 2700	0.25	20	1704676	50			

<u>Standard ID(s):</u> 1704676	<u>Description:</u> MHg 10ng/mL LOD/LOQ standard	<u>Expiration:</u> 08-Aug-17 00:00 08-Aug-17 00:00	<u>Reagent ID(s):</u> 1606305 1700863 1703755 1704399 1704424 1704675	<u>Description:</u> Methanol, HPLC Grade 25% KOH/Methanol Acetate Buffer Ethylating Agent (For Methyl Mercury Analysis) Boiling Chips for AFS prep KOH QC Tissue sample matrix for liquid spikes	<u>Expiration:</u> 28-Oct-19 00:00 09-Aug-17 00:00 20-Dec-17 00:00 16-Jan-18 00:00 21-Jan-18 00:00 31-Jan-19 00:00
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PREPARATION BENCH SHEET

F707454

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: Hg Aquatic/Solids - EFGS-010 KOH/Methanol Hg Digestion

Prepared: 8/1/2017

Lab Number	Sample ID	Initial (g)	Final (mL)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1707500-09	Q3 LOD/LOQ - 2700	0.25	20	-	-	-	Spike at specified level	

**PREPARATION BENCH SHEET**

F708266

**Eurofins Frontier Global Sciences, Inc.**

**Matrix: Tissue**

**Prepared using: Hg Aquatic/Solids - EFGS-010 KOH/Methanol Hg Digestion**

**Prepared: 8/1/2017**

Lab Number	Sample ID and Source Sample	Initial (g)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F708266-BLK1	Blank	0.25	20					
F708266-BLK2	Blank	0.25	20					
F708266-BLK3	Blank	0.25	20					
F708266-BS1	CWF DOC 2017 KOH	0.1307	20	1703305	131			
F708266-BS2	CWF DOC 2017 KOH	0.1259	20	1703305	126			
F708266-BS3	CWF DOC 2017 KOH	0.1291	20	1703305	129			
F708266-BS4	CWF DOC 2017 KOH	0.1321	20	1703305	132			

Standard ID(s):  
1703305

Description:  
DORM-4

Expiration:  
29-May-20 00:00  
29-May-20 00:00  
29-May-20 00:00  
29-May-20 00:00

Reagent ID(s):  
1703755  
1704399

Description:  
Acetate Buffer  
Ethylating Agent (For Methyl Mercury Analysis)

Expiration:  
20-Dec-17 00:00  
16-Jan-18 00:00

**PREPARATION BENCH SHEET**

F708266

**Eurofins Frontier Global Sciences, Inc.**

**Matrix: Tissue**

**Prepared using: Hg Aquatic/Solids - EFGS-010 KOH/Methanol Hg Digestion**

**Prepared: 8/1/2017**

Lab Number	Sample ID	Initial (g)	Final (mL)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1708029-01	CWF 2017 DOC for MHg KOH	0.25	20	-	-	-		



**PREPARATION BENCH SHEET**

F707531

**Eurofins Frontier Global Sciences, Inc.**

**Matrix: Soil/Sediment**

**Prepared using: AFS - EFGS-010 KOH/Methanol Hg Digestion**

**Prepared: 8/1/2017**

Lab Number	Sample ID and Source Sample	Initial (g)	Final (ml)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F707531-BLK1	Blank	0.25	20					
F707531-BLK2	Blank	0.25	20					
F707531-BLK3	Blank	0.25	20					
F707531-BS1	LCS	0.1261	20	1703305	126			
F707531-BSD1	LCS Dup	0.1251	20	1703305	125			
F707531-DUP1	Duplicate [1707620-11]	0.2586	20					
F707531-MS1	Matrix Spike [1707620-11]	0.2611	20	1605978	100			
F707531-MSD1	Matrix Spike Dup [1707620-11]	0.2752	20	1605978	100			

<u>Standard ID(s):</u>	<u>Description:</u>
1605978	MHg New Primary 100 ng/mL spike
1703305	DORM-4

<u>Expiration:</u>
15-Oct-17 00:00
29-May-20 00:00
29-May-20 00:00

<u>Reagent ID(s):</u>	<u>Description:</u>
1606305	Methanol, HPLC Grade
1700863	25% KOH/Methanol
1703755	Acetate Buffer
1704399	Ethylating Agent (For Methyl Mercury Analysis)
1704424	Boiling Chips for AFS prep

<u>Expiration:</u>
28-Oct-19 00:00
09-Aug-17 00:00
20-Dec-17 00:00
16-Jan-18 00:00
21-Jan-18 00:00

**PREPARATION BENCH SHEET**

F707531

**Eurofins Frontier Global Sciences, Inc.**

**Matrix: Soil/Sediment**

**Prepared using: AFS - EFGS-010 KOH/Methanol Hg Digestion**

**Prepared: 8/1/2017**

Lab Number	Sample ID	Initial (g)	Final (ml)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1707620-11	W-MM-03_071717_SED_01-03	0.2697	20	QC	-	-	MS/MSD	
1707620-12	W-MM-04_071717_SED_01-03	0.2838	20	-	-	-		
1707620-13	W-MM-05_071817_SED_01-03	0.2863	20	-	-	-	Original jar broken, created container E	
1707620-14	W-MM-08_071817_SED_01-03	0.2636	20	-	-	-		
1707620-15	W-MM-11_071817_SED_01-03	0.2876	20	-	-	-		
1707620-16	W-MM-12_071817_SED_01-03	0.2737	20	-	-	-	Original jar broken, created container E	
1707620-17	W-MM-13_071817_SED_01-03	0.2886	20	-	-	-		
1707620-18	W-MM-14_071817_SED_01-03	0.2665	20	-	-	-		

PREPARATION BENCH SHEET

F708260

Eurolins Frontier Global Sciences, Inc.

2700-1  
8/2/17 DM

Matrix: Water

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

Prepared: 8/1/2017

Lab Number	Sample ID and Source Sample	Initial (mL)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F708260-BLK1	Blank	45	40					1.25X
F708260-BLK2	Blank	45	40					1.25X
F708260-BLK3	Blank	45	40					1.25X
F708260-BS1	Blank Spike	45	40	1704143	45			1.25X
F708260-BSD1	Blank Spike Dup	45	40	1704143	45			1.25X
F708260-DUP1	Duplicate [1707696-01]	45	40					1.25X
F708260-MS1	Matrix Spike [1707696-02]	45	40	1704143	45			1.25X
F708260-MS2	Matrix Spike [1707806-01]	45	40	1704143	45			1.25X
F708260-MSD1	Matrix Spike Dup [1707696-02]	45	40	1704143	45			1.25X
F708260-MSD2	Matrix Spike Dup [1707806-01]	45	40	1704143	45			1.25X

Standard ID(s):  
1704143

Description:  
MHg New Primary 1.0 ng/mL CAL

Expiration:  
10-Oct-17 00:00

Reagent ID(s):  
1704672  
1704674

Description:  
APDC  
0.4% HCl Distillation Dilute (Made Daily)

Expiration:  
08-Aug-17 00:00  
02-Aug-17 00:00

1704513  
1703755  
1704399

PREPARATION BENCH SHEET

F708260

Eurofins Frontier Global Sciences, Inc.

2700-1  
8/2/17 DM

Matrix: Water

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

Prepared: 8/1/2017

Lab Number	Sample ID	Initial (mL)	Final (mL)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1706895-01	MW33D-062817	5	40	-	-	-		1.25x
1706895-05	STPZ2-062817	5	40	-	-	-		1.25x
1707150-01	TPZ21-070517	5	40	-	-	-		1.25x
1707150-03	TPZ4-070517	5	40	-	-	-		1.25x
1707150-05	TPZ8-070517	5	40	-	-	-		1.25x
1707150-07	MW111-070517	5	40	-	-	-		1.25x
1707295-01	STPZ7-071017	5	40	-	-	-		1.25x
1707543-07	OL-2629-06	45	40	-	-	-	Preservation Blank created Scan all data	1.25x
1707696-01	OL-2634-01	45	40	-	-	-	Scan all data for level IV report	1.25x
1707696-02	OL-2634-02	45	40	-	-	-	Scan all data for level IV report	1.25x
1707696-03	OL-2634-03	45	40	-	-	-	Scan all data for level IV report	1.25x
1707696-04	OL-2634-04	45	40	-	-	-	Scan all data for level IV report	1.25x
1707696-05	OL-2634-05	45	40	-	-	-	Scan all data for level IV report	1.25x
1707696-06	OL-2634-06	45	40	-	-	-	Scan all data for level IV report	1.25x
1707806-01	MDS7	45	40	-	-	-		1.25x
1707806-02	MDS7 Dissolved	45	40	-	-	-		1.25x
1707806-03	MDS24	45	40	-	-	-		1.25x
1707806-04	MDS24 Dissolved	45	40	-	-	-		1.25x
1707806-05	MDS10	45	40	-	-	-		1.25x

Due Date: 7/28/2017

PREPARATION BENCH SHEET

2700-1  
8/2/17 DM

F708260

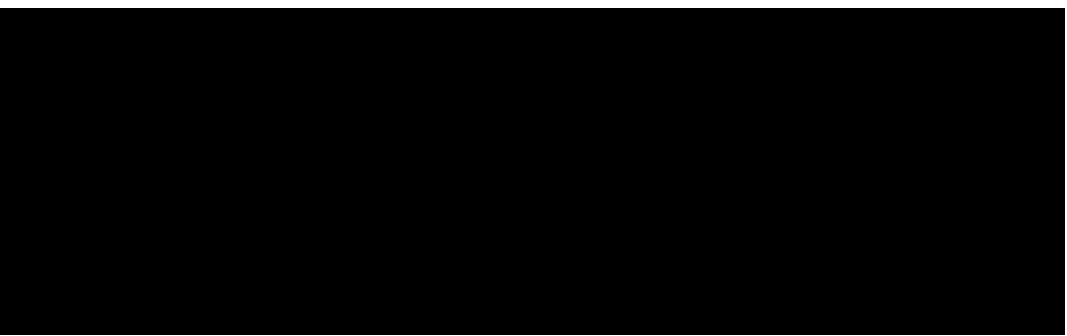
Eurofins Frontier Global Sciences, Inc.

Matrix: Water

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

Prepared: 8/1/2017

1707806-06	MDS10 Dissolved	45	40	-	-	-		1.25X
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Methyl Mercury Distillations (EPA 1630)

Name: Duyen Date: 8/1/17 Batch #: F708260 Sample Matrix: Water  
 WO#: 1706895, 1707150, 1707295, 1707543, 1707696, 1707806

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	F708260 Blk1	1.0	45	3.0	Spike ID: <u>1704143</u> Spike Amount: <u>45</u> µL Spike Witness: <u>DM 8/1/17</u> Balance #: <u>2</u> Calibrated? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Pipette #: <u>CJ17087</u> Cal. Date: <u>7/27/17</u> Pipette #: <u>NW09643</u> Cal. Date: <u>7/31/17</u> Pipette #: <u>NW0152</u> Cal. Date: <u>7/31/17</u> APDC ID: <u>1704672</u> HCl ID: <u>1704674</u> 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: <u>120.8</u> Unit 2: <u>122.0</u> Unit 3: <u>120.7</u> Unit 4: <u>120.5</u> Unit 5: <u>122.0</u> Unit 6: <u>122.0</u> Time Fridge samples off: <u>14:10 PM 8/1/17</u> Comments: <u>F708260 source</u> <u>Dupl 1707696-01B</u> <u>MS1 MS2 1707696-02B</u> <u>MS2 MS2 1707806-01A</u> <u>8-8-17 ms</u> <u>8/1/17</u>
Blk2	F708260 Blk2	1.0	45	3.0	
Blk3	F708260 Blk3	1.0	45	3.0	
BS1	F708260 BS1	1.0	45	3.0	
BS01	F708260 BS01	1.0	45	3.0	
Dup1	F708260 Dup1	1.0	45	3.0	
MS1	F708260 MS1	1.0	45	3.0	
MS01	F708260 MS01	1.0	45	3.0	
MS2	F708260 MS2	1.0	45	4.0	
MS02	F708260 MS02	1.0	45	4.0	
1	1706895-01 B	1.0	5	4.0	
2	1706895-05 B	1.0	5	4.0	
3	1707150-01 B	1.0	5	4.0	
4	1707150-03 B	1.0	5	4.0	
5	1707150-05 B	1.0	5	4.0	
6	1707150-07 B	1.0	5	4.0	
7	1707295-01 B	1.0	5	4.0	
8	1707543-07 B	1.0	45	4.0	
9	1707696-01 B	1.0	45	4.0	
10	1707696-02 B	1.0	45	4.0	
11	1707696-03 B	1.0	45	4.0	
12	1707696-04 B	1.0	45	3.0	
13	1707696-05 B	1.0	45	3.0	
14	1707696-06 B	1.0	45	3.0	
15	1707806-01 A	1.0	45	4.0	
16	1707806-02	1.0	45	3.0	
17	1707806-03	1.0	45	3.0	
18	1707806-04	1.0	45	3.0	
19	1707806-05	1.0	45	3.0	
20	1707806-06	1.0	45	3.0	

PREPARATION BENCH SHEET

2700-1  
8/2/17 DM

F707454

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: Hg Aquatic/Solids - EFGS-010 KOH/Methanol Hg Digestion

Prepared: 8/1/2017

Lab Number	Sample ID and Source Sample	Initial (g)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F707454-BLK1	Blank	0.25	20					SOX
F707454-BLK2	Blank	0.25	20					SOX
F707454-BLK3	Blank	0.25	20					SOX
F707454-BS1	LOD 2017 Q3 2700	0.25	20	1704676	25			SOX
F707454-BS2	LOQ 2017 Q3 2700	0.25	20	1704676	50			SOX

Standard ID(s): 1704676  
Description: MHg 10ng/mL LOD/LOQ standard

Expiration: 08-Aug-17 00:00  
08-Aug-17 00:00

Reagent ID(s): 1606305, 1700863, 1704424, 1704675  
Description: Methanol, HPLC Grade; 25% KOH/Methanol; Boiling Chips for AFS prep; KOH QC Tissue sample matrix for liquid spikes

Expiration: 28-Oct-19 00:00; 09-Aug-17 00:00; 21-Jan-18 00:00; 31-Jan-19 00:00

1703755

1704309

PREPARATION BENCH SHEET

2700-1

F707454

8/2/17 DM

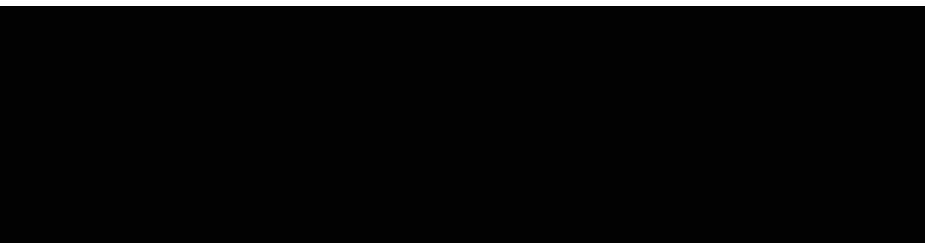
Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: Hg Aquatic/Solids - EFGS-010 KOH/Methanol Hg Digestion

Prepared: 8/1/2017

Lab Number	Sample ID	Initial (g)	Final (mL)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1707500-09	Q3 LOD/LOQ - 2700	0.25	20	-	-	-	Spike at specified level	500x





Technician: AMB Batch#: F707454 Date: 8/1/17

- EFAFS-T-AFS-SOP2986** Tissues - Methyl Mercury - KOH/Methanol: **Hot plate 75±5°C for 2-4 hours.**
- EFAFS-T-AFS-SOP2795** Tissues - Total Mercury - 70:30: **Hot plate 75±5°C for two hours.**
- EFAFS-T-AFS-SOP5134** Sediments - Methyl Mercury - KBr/CH<sub>2</sub>Cl<sub>2</sub>: **Heat Block 45°C (nitrogen purge for 30 minutes).**
- EFAFS-T-AFS-SOP2807** Solids - Total Mercury - Cold AR: **18-25°C for over four hours.**

Other: \_\_\_\_\_ Vial Type:  Glass  Teflon  
 Balance#: 19 Calibrated?  Yes  No Therm.#: 14545 Calibrated?  Yes  No  
 \*Time in: 16:02 Actual Temp. (raw): 76.0 °C w/ CF: 76.1 °C  
 Time out: 19:02 Actual Temp. (raw): 79.0 °C w/ CF: 79.1 °C  
 \*Time in can't begin before target temperature is reached

Final vol.: 20 mL (LIMS ID: 1606305) Spike vol.: see µL (LIMS ID: N/A)  
 Spike Witness: PC 8/1/17 (initial and date) Comments  
AMB 8-1-17

HCl LIMS ID: N/A Pipette SN#: CJ17087 Calibration Date: 7/27/17  
 HNO<sub>3</sub> LIMS ID: N/A Pipette SN#: NU01152 Calibration Date: 7/31/17  
 70/30 LIMS ID: N/A Dispenser #: 02N48426 Calibrated?  Yes  No  
 Other Acid LIMS ID: 1700863 Dispenser #: N/A  
 Glass Vial # 00065550 Boiling Chip lot # 1704424 \*Hotblock Position: 64

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 type="checkbox"/> g	CRM LIMS ID <input checked="" type="checkbox"/> NA
1	F707454-BLK1	0.2555	23			
2	F707454-BLK2	0.2558	24			
3	F707454-BLK3	0.2632	25			
4	F707454-BS1	0.268	26			<b>Comments</b> Spike tissue matrix: LIMS 1704675 BS1=LOD: 25ml of 10ng/ml 1704676 BS2=LOQ: 50ml of 10ng/ml 1704676 LOD/LOQ Q3 for 2700. AMB 8/1/17 Bring up volume BY DH 8/2/17
5	F707454-BS2	0.253	27			
6	1707500-09	N/A	28			
7			29			
8			30			
9			31			
10			32			
11			33			
12			34			
13			35			
14			36			
15			37			
16			38			
17			39			
18			40			
19			41			
20			42			
21			43			
22			44			

PREPARATION BENCH SHEET

2700-1

8/2/17 DM

F708266

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: Hg Aquatic/Solids - EFGS-010 KOH/Methanol Hg Digestion

Prepared: 8/1/2017

Lab Number	Sample ID and Source Sample	Initial (g)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F708266-BLK1	Blank	0.25	20					500X
F708266-BLK2	Blank	0.25	20					500X
F708266-BLK3	Blank	0.25	20					500X
F708266-BS1	CWF DOC 2017 KOH	0.1307	20	1703305	131			1000X
F708266-BS2	CWF DOC 2017 KOH	0.1259	20	1703305	126			1000X
F708266-BS3	CWF DOC 2017 KOH	0.1291	20	1703305	129			1000X
F708266-BS4	CWF DOC 2017 KOH	0.1321	20	1703305	132			1000X

Standard ID(s): Description:

Expiration:

1703755

1704399

PREPARATION BENCH SHEET

2700-1

F708266

8/2/17 DM

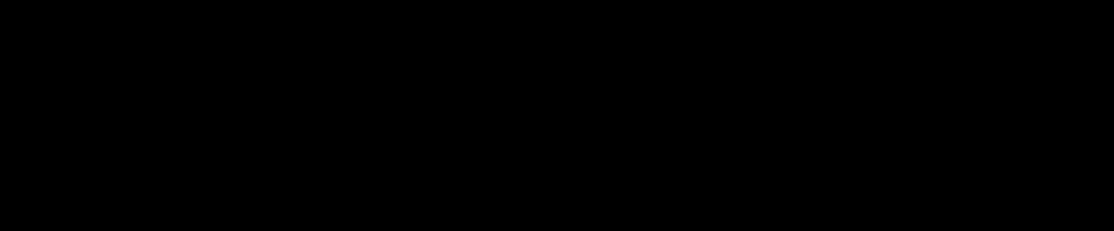
Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: Hg Aquatic/Solids - EFGS-010 KOH/Methanol Hg Digestion

Prepared: 8/1/2017

Lab Number	Sample ID	Initial (g)	Final (mL)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1708029-01	CWF 2017 DOC for MHg KOH	0.25	20	-	-	-		500x



Technician: CWF Batch#: F708266 Date: 8/1/17

- EFAFS-T-AFS-SOP2986 Tissues - Methyl Mercury - KOH/Methanol: Hot plate 75±5°C for 2-4 hours.
- EFAFS-T-AFS-SOP2795 Tissues - Total Mercury - 70:30: Hot plate 75±5°C for two hours.
- EFAFS-T-AFS-SOP5134 Sediments - Methyl Mercury - KBr/CH<sub>2</sub>Cl<sub>2</sub>: Heat Block 45°C (nitrogen purge for 30 minutes).
- EFAFS-T-AFS-SOP2807 Solids - Total Mercury - Cold AR: 18-25°C for over four hours.

Other: \_\_\_\_\_  
 Balance#: 19 Calibrated?  Yes  No Therm. #: 44 13698 Calibrated?  Yes  No  
 \*Time in: 13:30 Actual Temp. (raw): 78.0 °C w/ CF: 78.0 °C  
 Time out: 15:30 11:30 Actual Temp. (raw): 83.0 °C w/ CF: 83.0 °C  
 \*Time in can't begin before target temperature is reached

Final vol.: 20 mL (LIMS ID: 1606305) Spike vol.: N/A µL (LIMS ID: N/A)  
 Spike Witness: N/A (initial and date)

HCl LIMS ID: N/A Pipette SN#: N1101152 Calibration Date: 7/31/17  
 HNO<sub>3</sub> LIMS ID: N/A Pipette SN#: N/A Calibration Date: NA  
 70/30 LIMS ID: N/A Dispenser #: 02N48426 Calibrated?  Yes  No  
 Other Acid LIMS ID: KOH/Methanol = 1700863 Dispenser #: N/A  
 Glass Vial # 00068647 Boiling Chip lot # 1704424 \*Hotblock Position: 65

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	CRM LIMS ID <input type="checkbox"/> NA
1	F708266 - BK1	0.2534	23			DORM-4 1709305
2	F708266 - BK2	0.2902	24			
3	F708266 - BK3	0.2673	25			Comments CWF DOC 2017
4	F708266 - BS1	0.1307	26			
5	F708266 - BS2	0.1259	27			
6	F708266 - BS3	0.1291	28			
7	F708266 - BS4	0.1321	29			
8	1708029 - 01	0.2534	30			
9			31			
10			32			
11			33			
12			34			
13			35			
14			36			
15			37			
16			38			
17			39			
18			40			
19			41			
20			42			
21			43			
22			44			

**PREPARATION BENCH SHEET**

2700-1  
8/2/17 DM

F707531

**Eurofins Frontier Global Sciences, Inc.**

**Matrix: Soil/Sediment**

**Prepared using: AFS - EFGS-010 KOH/Methanol Hg Digestion**

**Prepared: 8/1/2017**

Lab Number	Sample ID and Source Sample	Initial (g)	Final (ml)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F707531-BLK1	Blank	0.25	20					500X
F707531-BLK2	Blank	0.25	20					500X
F707531-BLK3	Blank	0.25	20					500X
F707531-BS1	LCS	0.1261	20	1703305	126			1000X
F707531-BSD1	LCS Dup	0.1251	20	1703305	125			1000X
F707531-DUP1	Duplicate [1707620-11]	0.2586	20					500X
F707531-MS1	Matrix Spike [1707620-11]	0.2611	20	1605978	100			500X
F707531-MSD1	Matrix Spike Dup [1707620-11]	0.2752	20	1605978	100			500X

Standard ID(s):  
1605978  
1703305

Description:  
MHg New Primary 100 ng/mL spike  
DORM-4

Expiration:  
15-Oct-17 00:00  
29-May-20 00:00  
29-May-20 00:00

Reagent ID(s):  
1606305  
1700863  
1704424

Description:  
Methanol, HPLC Grade  
25% KOH/Methanol  
Boiling Chips for AFS prep

Expiration:  
28-Oct-19 00:00  
09-Aug-17 00:00  
21-Jan-18 00:00

1703755  
1704399

PREPARATION BENCH SHEET

2700-1

8/2/17 DM

F707531

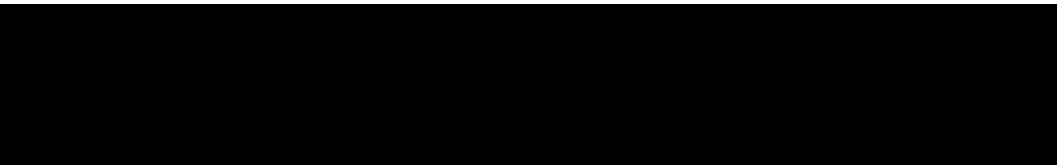
Eurofins Frontier Global Sciences, Inc.

Matrix: Soil/Sediment

Prepared using: AFS - EFGS-010 KOH/Methanol Hg Digestion

Prepared: 8/1/2017

Lab Number	Sample ID	Initial (g)	Final (ml)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1707620-11	W-MM-03_071717_SED_01-03	0.2697	20	QC	-	-	MS/MSD	500X
1707620-12	W-MM-04_071717_SED_01-03	0.2838	20	-	-	-		500X
1707620-13	W-MM-05_071817_SED_01-03	0.2863	20	-	-	-	Original jar broken, created container E	500X
1707620-14	W-MM-08_071817_SED_01-03	0.2636	20	-	-	-		500X
1707620-15	W-MM-11_071817_SED_01-03	0.2876	20	-	-	-		500X
1707620-16	W-MM-12_071817_SED_01-03	0.2737	20	-	-	-	Original jar broken, created container E	500X
1707620-17	W-MM-13_071817_SED_01-03	0.2886	20	-	-	-		500X
1707620-18	W-MM-14_071817_SED_01-03	0.2665	20	-	-	-		500X





Technician: AMB Batch#: F707531 Date: 7/31/17

- EFAFS-T-AFS-SOP2986** Tissues - Methyl Mercury - KOH/Methanol: **Hot plate 75±5°C for 2-4 hours.**
- EFAFS-T-AFS-SOP2795** Tissues - Total Mercury - 70:30: **Hot plate 75±5°C for two hours.**
- EFAFS-T-AFS-SOP5134** Sediments - Methyl Mercury - KBr/CH<sub>2</sub>Cl<sub>2</sub>: **Heat Block 45°C** (nitrogen purge for 30 minutes).
- EFAFS-T-AFS-SOP2807** Solids - Total Mercury - Cold AR: **18-25°C for over four hours.**

Other: \_\_\_\_\_ Vial Type:  Glass  Teflon  
 Balance#: 19 Calibrated?  Yes  No Therm.#: 14545 Calibrated?  Yes  No  
 \*Time in: 1030 Actual Temp. (raw): 79.0 °C w/ CF: 79.1 °C  
 Time out: 1930 Actual Temp. (raw): 80.0 °C w/ CF: 80.1 °C  
 \*Time in can't begin before target temperature is reached

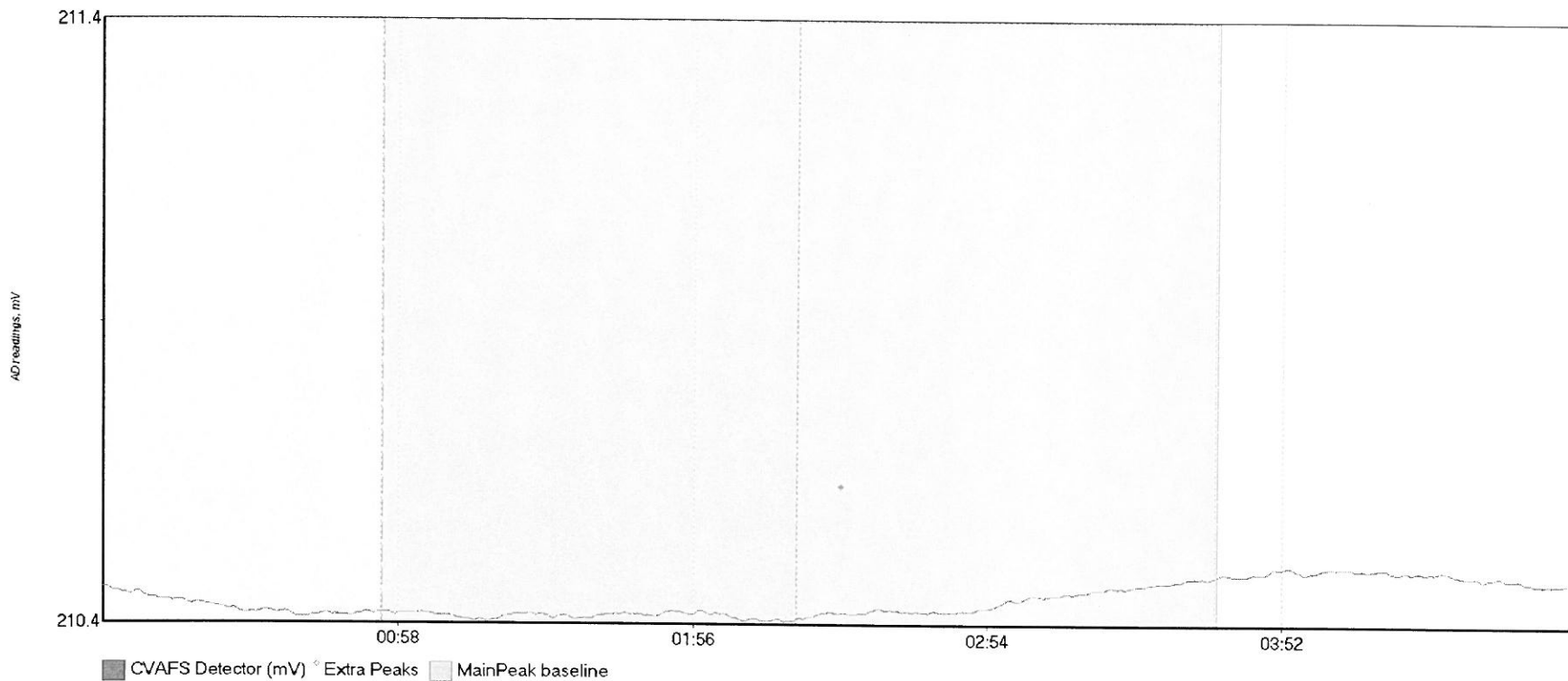
Final vol.: 20 mL (LIMS ID: 1606305) Spike vol.: 100 µL (LIMS ID: 1605978)  
 Spike Witness: A 8/1/17 (initial and date)

HCl LIMS ID: N/A Pipette SN#: NU09653 Calibration Date: 7/27/17  
 HNO<sub>3</sub> LIMS ID: N/A Pipette SN#: NU01152 Calibration Date: 7/31/17  
 70/30 LIMS ID: N/A Dispenser #: D2N48426 Calibrated?  Yes  No  
 Other Acid LIMS ID: 1700863 Dispenser #: N/A  
 Glass Vial # 00068647 Boiling Chip lot # 1704424 \*Hotblock Position: 67

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	CRM LIMS ID <input type="checkbox"/> NA
1	F707531-BLK1	0.2648	23	<del>1707737-11</del>		DORMA
2	F707531-BLK2	0.2568	24	<del>1707737-12</del>		BS1, BSD1
3	F707531-BLK3	0.2840	25	<del>1707737-13</del>		1703305
4	F707531-BS1	0.1261	26	<del>1707737-14</del>		Comments
5	F707531-BSD1	0.1251	27			DUP1, MSI, MSD1
6	1707620-11	0.2697	28			Source:
7	F707531-DUP1	0.2586	29			1707620-11
8	F707531-MS1	0.2611	30			MS2, MSD2
9	F707531-MSD1	0.2752	31			Source: AMB
10	1707620-12	0.2838	32			<del>1707737-01</del>
11	1707620-B	0.2863	33			8-1-17
12	1707620-14	0.2636	34			Work order
13	1707620-15	0.2876	35			1707737
14	1707620-16	0.2737	36			wasn't thawed
15	1707620-17	0.2886	37			for prep. Removed
16	1707620-18	0.2665	38			from batch.
17	<del>1707737-01</del>		39			AMB 8-1-17
18	F707531-MS2		40			Weighed
19	F707531-MSD2		41			out on
20	<del>1707737-02</del>		42			7/31/17,
21	<del>1707737-03</del>		43			digested on
22	<del>1707737-04</del>		44			8-1-17.

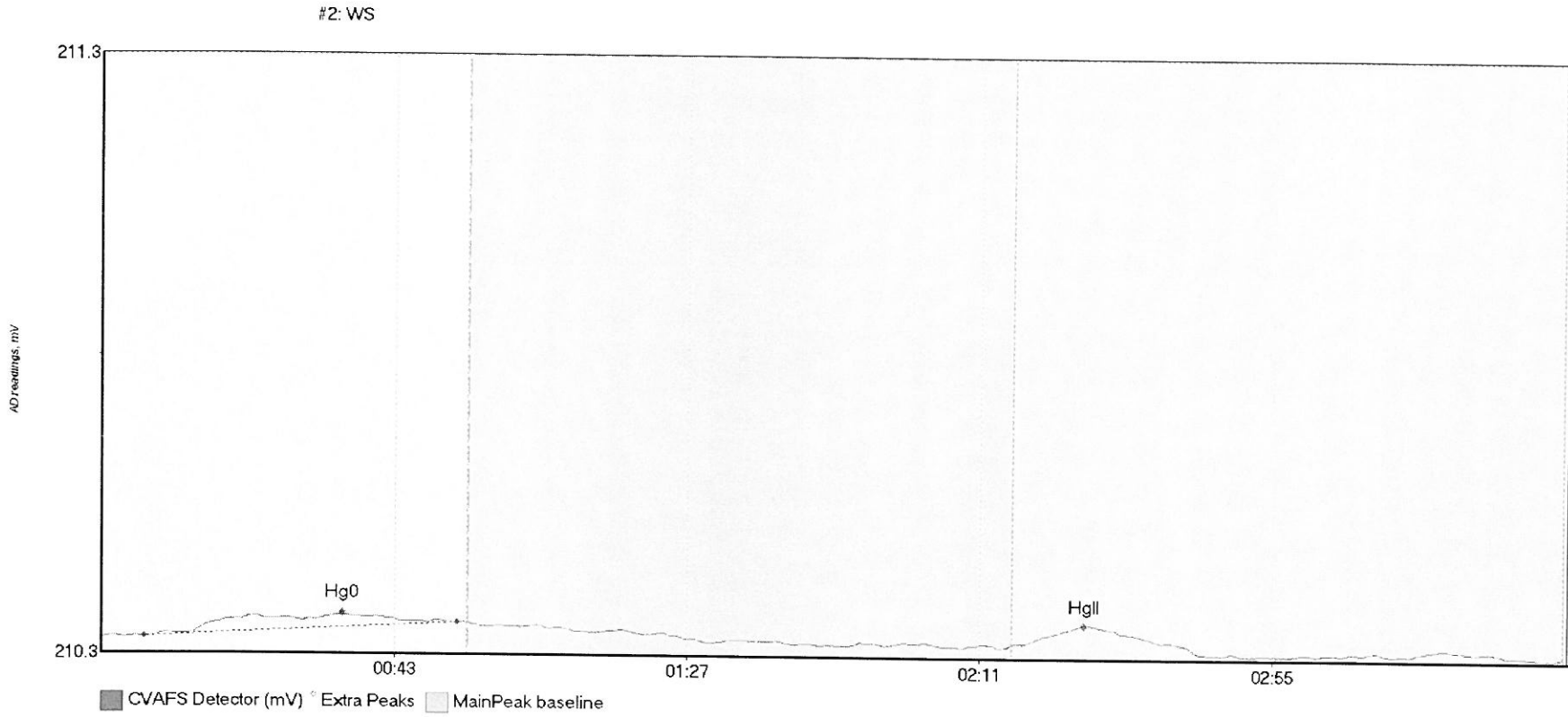
AMB 8-1-17

Clean: No peak(s) detected.



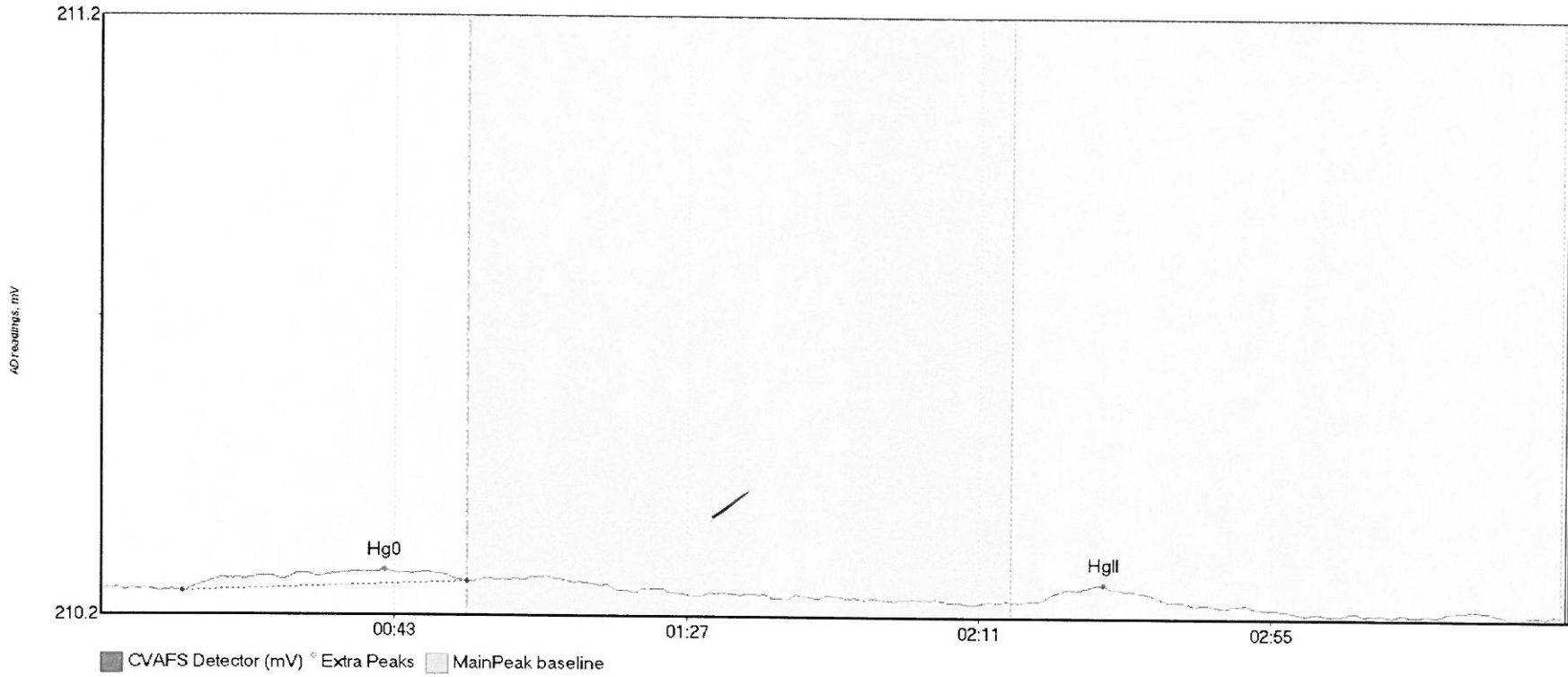
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	B1Dev	B1Shift	Comment
Clean	0.000	-	-	-	-	-	-	NP	210.4750	0.00	0.01	017





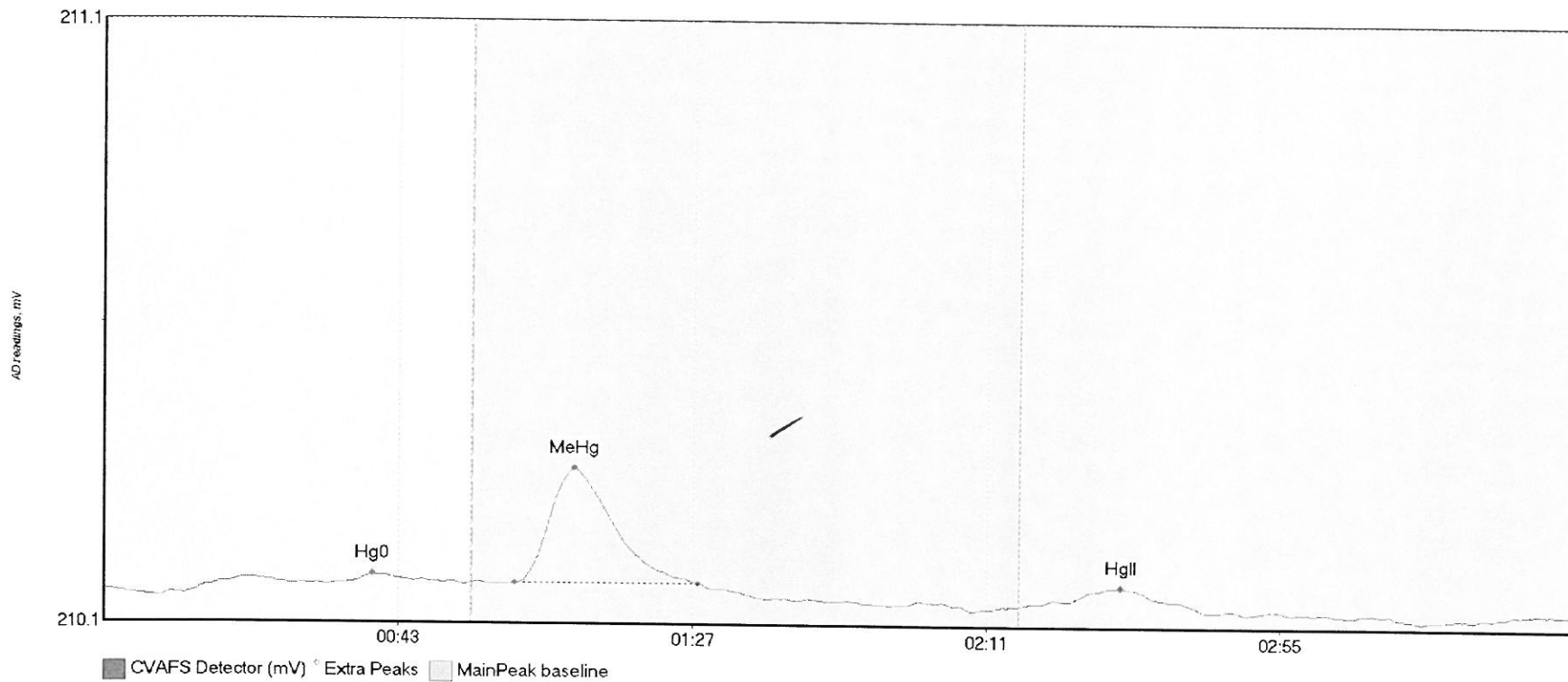
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
WS Hg0	6.423	6.5	53.4	210.33	210.36	36.2	0.039	OK	210.3299	0.00	-0.02	
WS HgII	3.525	138.4	159.4	210.33	210.33	147.6	0.033	OK	210.3299	0.00	-0.02	017

#3: SEQ-IBL1



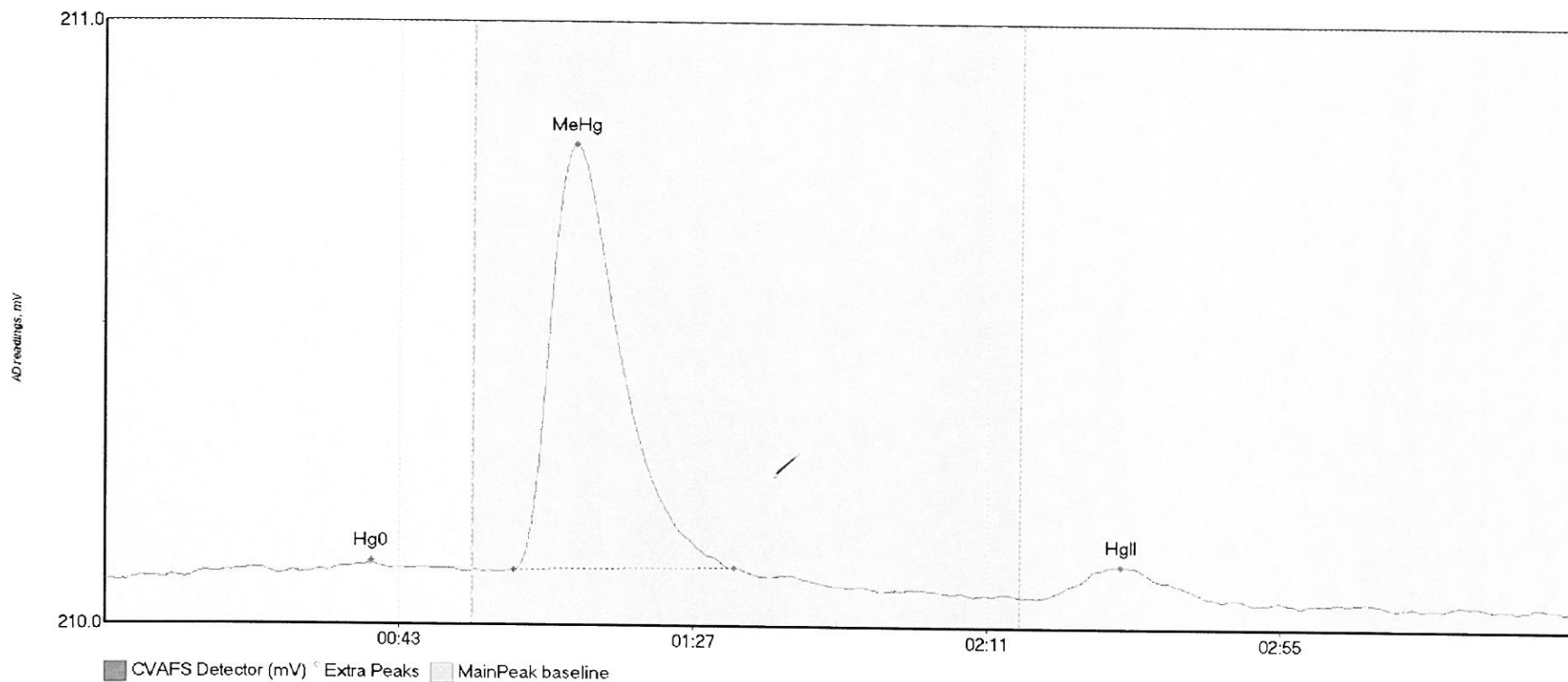
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
SEQ-IBL1 Hg0	7.427	12.1	55.0	210.25	210.27	42.6	0.036	CT	210.2601	0.00	-0.04	
SEQ-IBL1 HgII	3.253	140.6	160.7	210.24	210.24	150.7	0.028	OK	210.2601	0.00	-0.04	017

#4: SEQ-CAL1



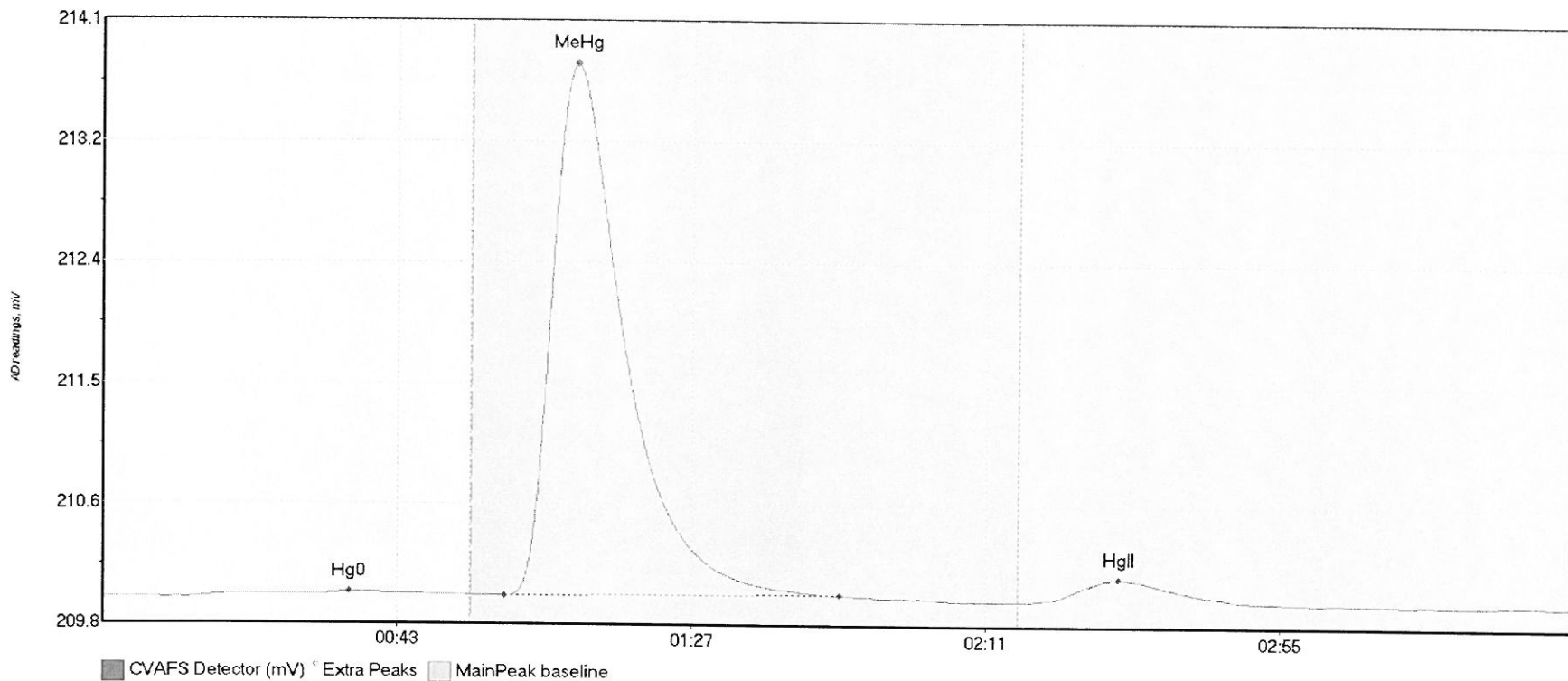
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
SEQ-CAL1 Hg0	5.088	12.0	53.8	210.16	210.17	40.2	0.032	OK	210.1630	0.00	-0.03	
SEQ-CAL1 MeHg	20.589	61.4	88.8	210.17	210.17	70.3	0.192	OK	210.1630	0.00	-0.03	
SEQ-CAL1 HgII	4.457	140.0	165.1	210.15	210.13	152.0	0.028	OK	210.1630	0.00	-0.03	

#5: SEQ-CAL2



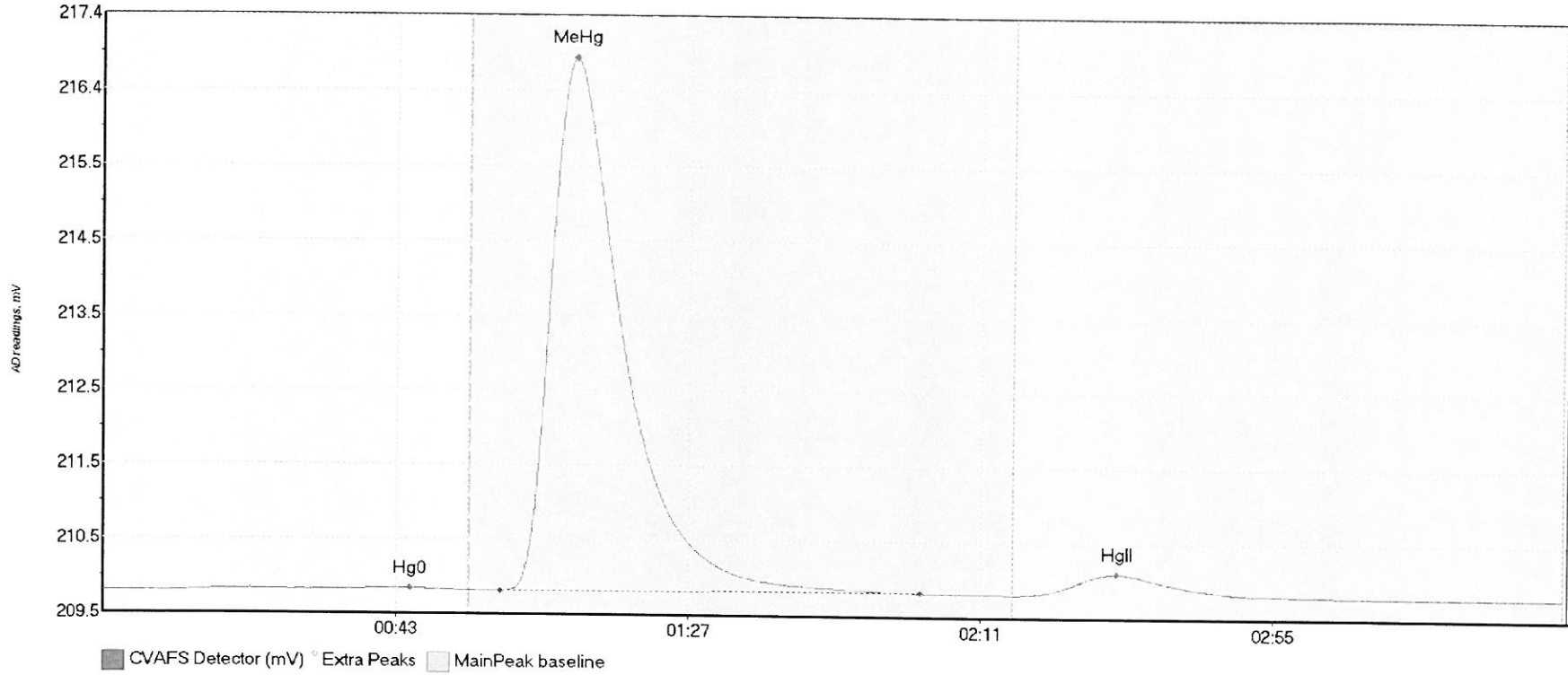
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
SEQ-CAL2 Hg0	3.581	11.7	54.3	210.06	210.07	39.9	0.025	OK	210.0525	0.00	-0.04	
SEQ-CAL2 MeHg	84.966	61.1	94.1	210.07	210.07	70.3	0.706	OK	210.0525	0.00	-0.04	
SEQ-CAL2 HgII	7.668	140.7	167.5	210.03	210.02	152.1	0.052	OK	210.0525	0.00	-0.04	

#6: SEQ-CAL3



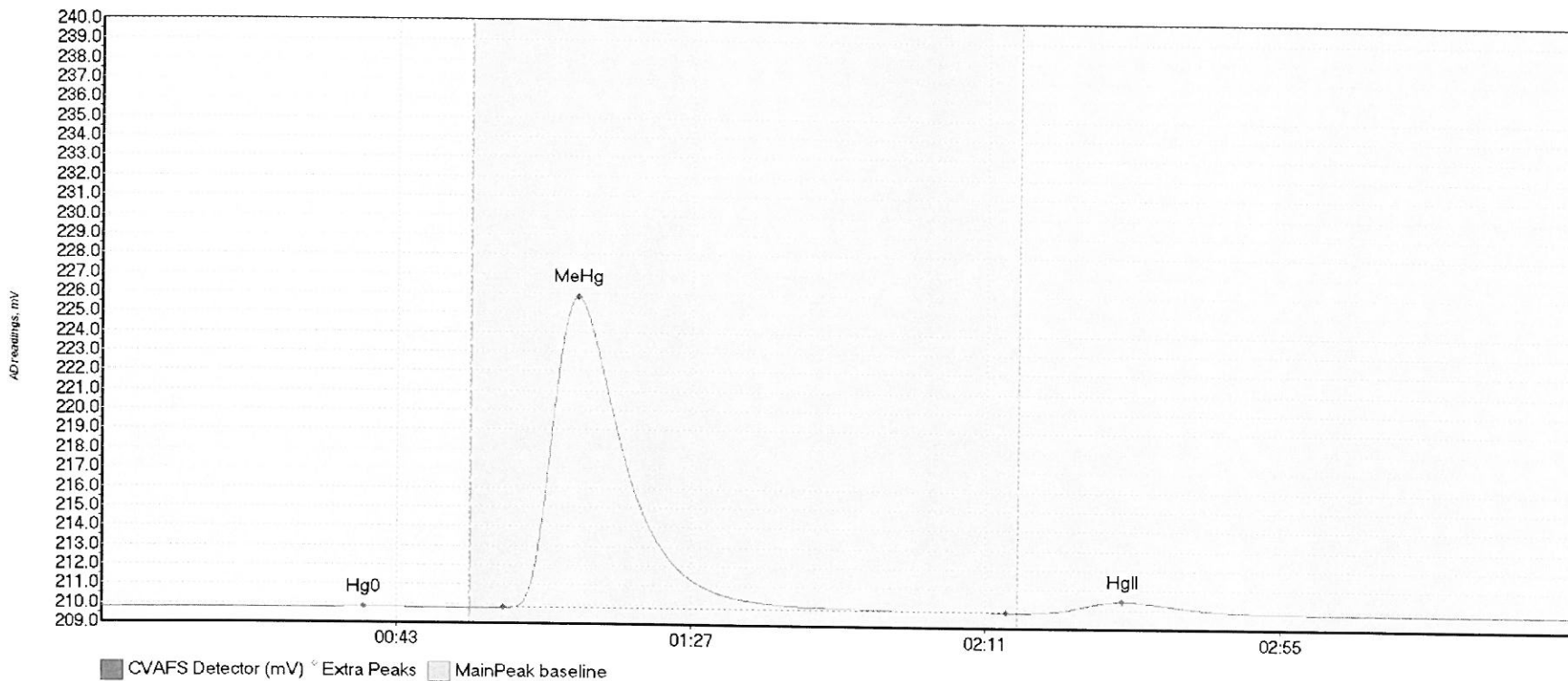
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
SEQ-CAL3 Hg0	6.546	12.8	54.7	209.95	209.97	36.9	0.039	OK	209.9502	0.00	-0.03	
SEQ-CAL3 MeHg	477.814	60.0	110.2	209.96	209.97	70.6	3.812	OK	209.9502	0.00	-0.03	
SEQ-CAL3 HgII	26.397	138.2	174.0	209.94	209.94	152.0	0.165	OK	209.9502	0.00	-0.03	

#7: SEQ-CAL4



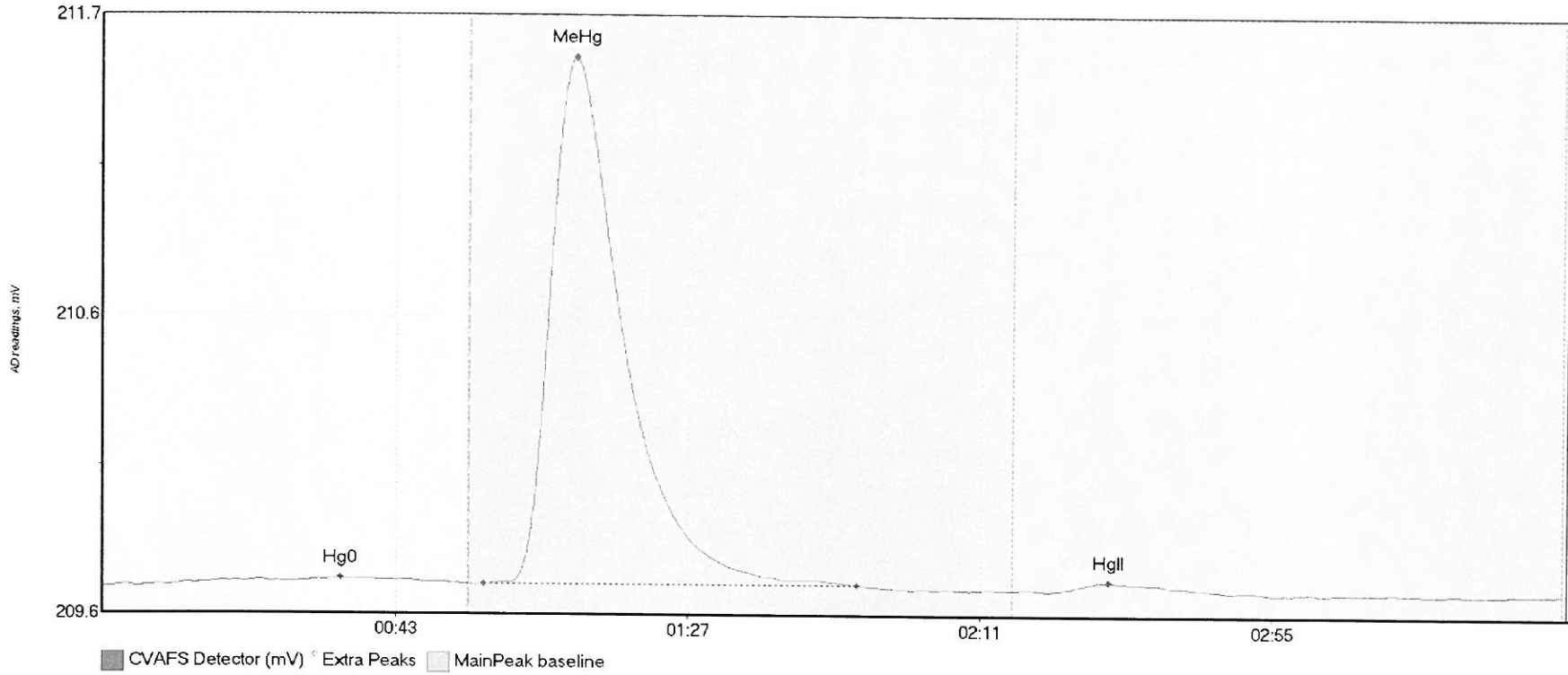
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
SEQ-CAL4 Hg0	6.556	11.8	55.0	209.85	209.86	46.1	0.034	CT	209.8489	0.00	-0.02	
SEQ-CAL4 MeHg	887.299	59.7	122.9	209.86	209.86	70.9	7.011	OK	209.8489	0.00	-0.02	
SEQ-CAL4 HgII	44.610	136.8	174.5	209.85	209.85	152.6	0.289	OK	209.8489	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	7.777	14.1	55.0	209.77	209.79	39.1	0.041	CT	209.7692	0.00	0.02	
SEQ-CAL5 MeHg	2038.648	60.0	135.1	209.79	209.81	71.0	15.995	OK	209.7692	0.00	0.02	
SEQ-CAL5 HgII	98.821	138.7	179.5	209.81	209.81	152.5	0.613	OK	209.7692	0.00	0.02	

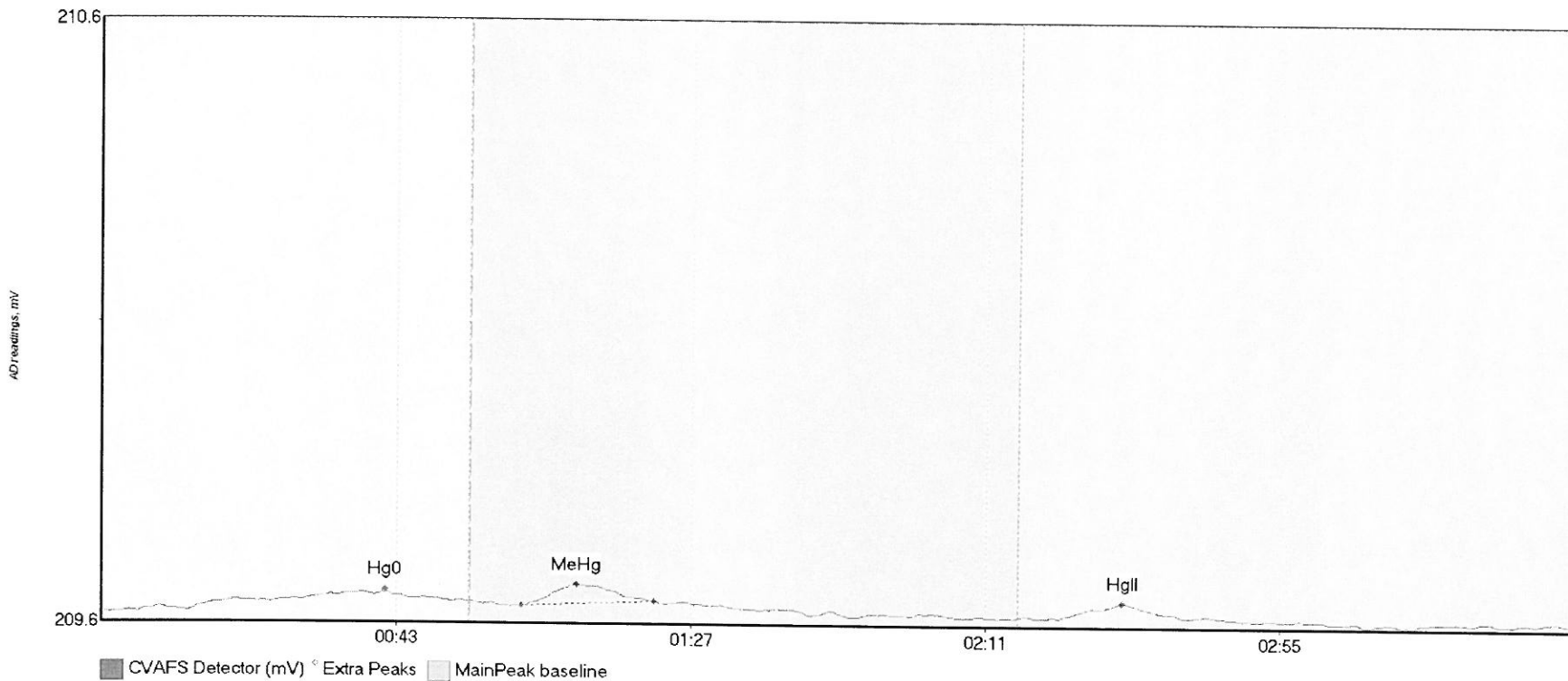
#9: SEQ-ICV1



Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
SEQ-ICV1 Hg0	5.634	9.9	55.0	209.69	209.70	35.7	0.025	CT	209.6905	0.00	-0.01	
SEQ-ICV1 MeHg	234.356	57.3	113.4	209.70	209.70	71.0	1.855	OK	209.6905	0.00	-0.01	
SEQ-ICV1 HgII	3.306	143.9	165.2	209.68	209.69	151.3	0.030	OK	209.6905	0.00	-0.01	

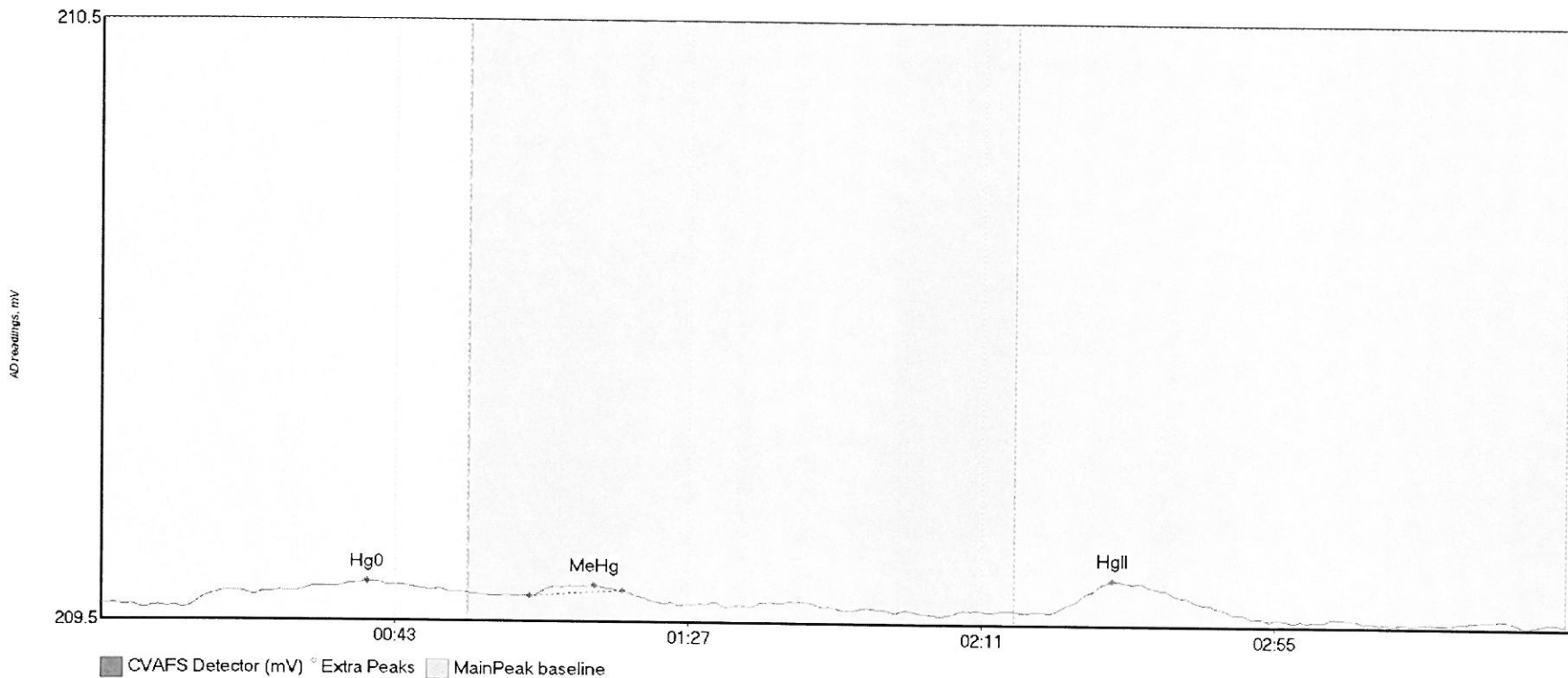


#10: SEQ-ICB1



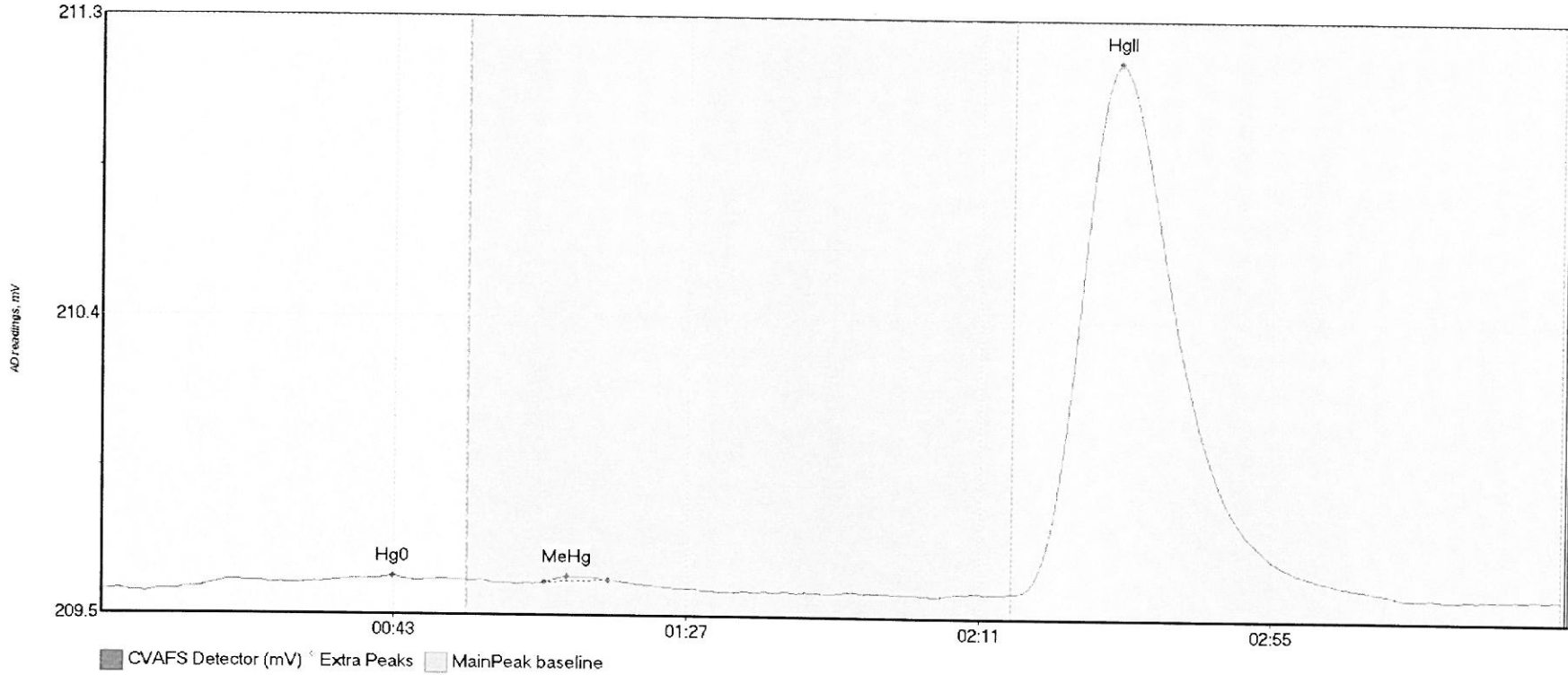
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
SEQ-ICB1 Hg0	5.135	12.8	54.8	209.62	209.64	42.3	0.033	OK	209.6165	0.00	-0.01	
SEQ-ICB1 MeHg	3.337	62.7	82.4	209.63	209.64	70.8	0.036	OK	209.6165	0.00	-0.01	
SEQ-ICB1 HgII	2.415	142.8	161.9	209.61	209.62	152.5	0.025	OK	209.6165	0.00	-0.01	

#11: F708260-BLK1



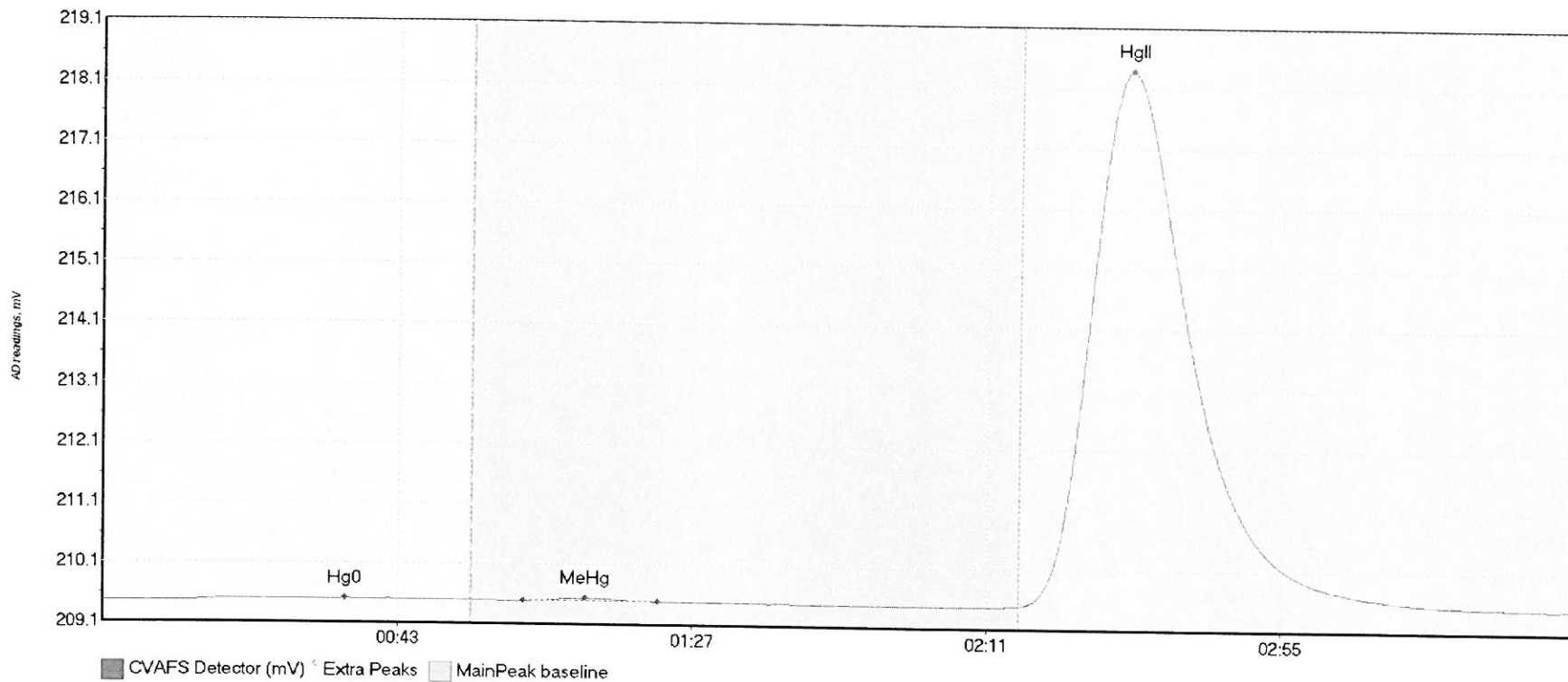
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
F708260-BLK1 Hg	7.584	12.4	55.0	209.57	209.59	39.9	0.045	CT	209.5723	0.00	-0.02	
F708260-BLK1 Me	1.225	64.2	78.0	209.59	209.60	73.9	0.017	OK	209.5723	0.00	-0.02	
F708260-BLK1 Hg	8.340	142.1	170.0	209.57	209.57	151.6	0.054	OK	209.5723	0.00	-0.02	

#12: F708260-BLK2



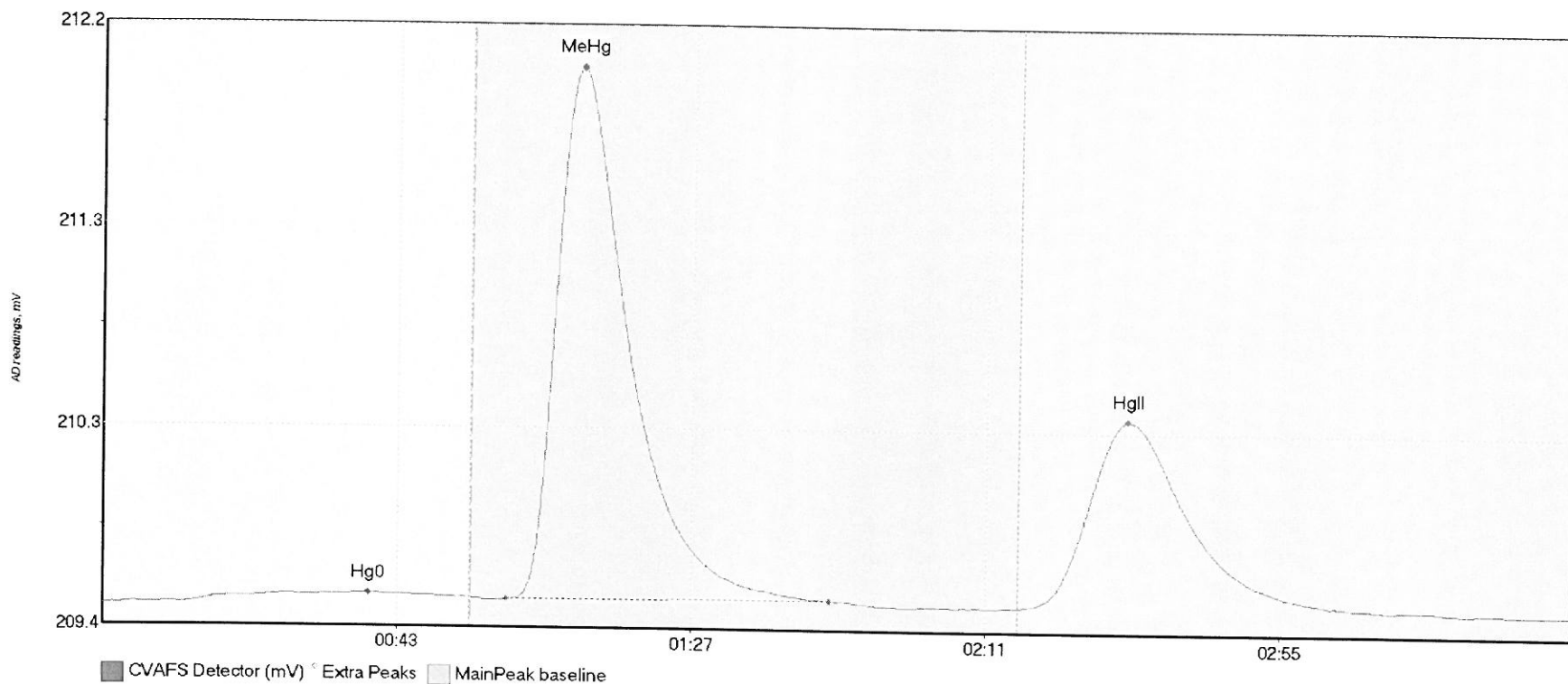
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
F708260-BLK2 Hg	4.147	11.2	47.7	209.53	209.56	43.9	0.042	OK	209.5287	0.00	0.00	
F708260-BLK2 Me	0.855	66.6	76.2	209.55	209.56	70.0	0.016	OK	209.5287	0.00	0.00	
F708260-BLK2 Hg	275.864	136.8	196.2	209.53	209.52	153.1	1.614	OK	209.5287	0.00	0.00	017

#13: F708260-BLK3



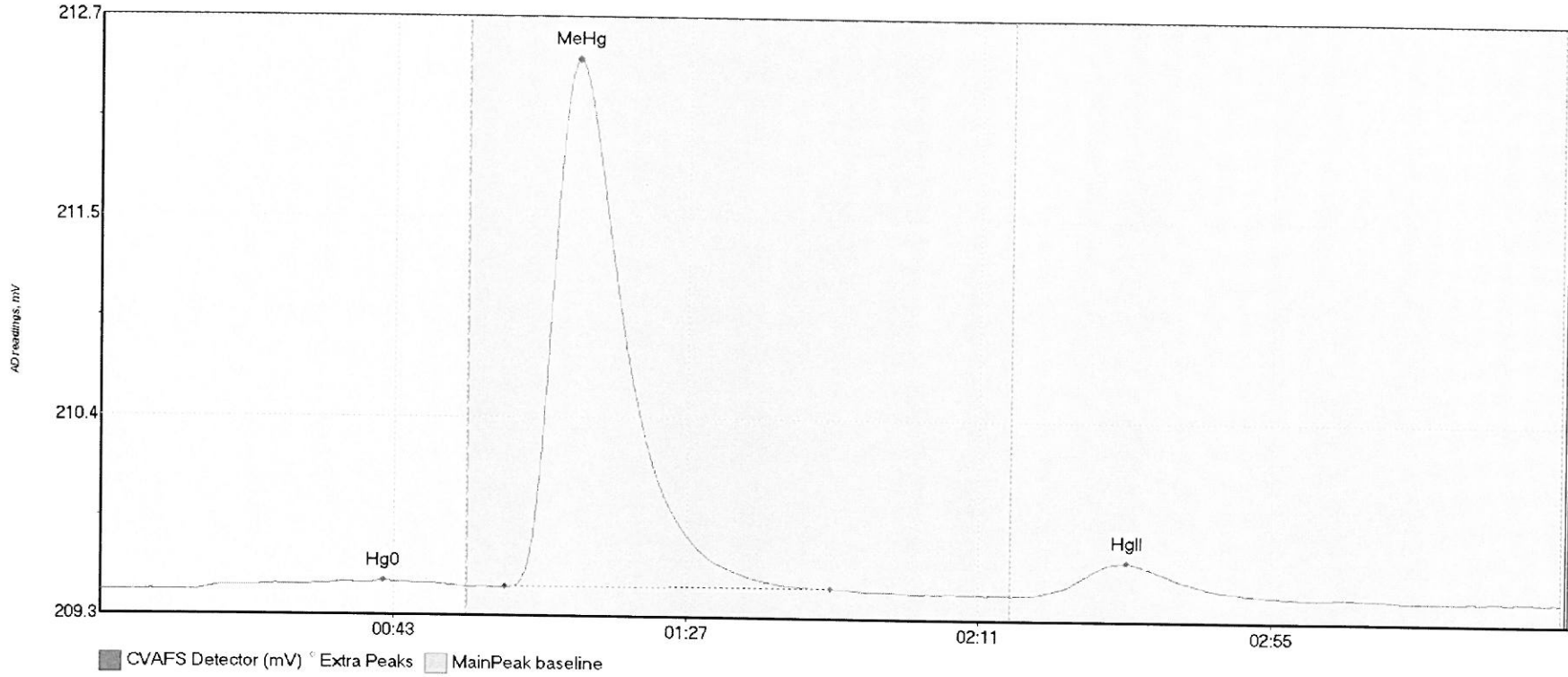
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
F708260-BLK3 Hg	6.844	12.1	55.0	209.49	209.52	36.1	0.040	CT	209.4925	0.00	0.02	
F708260-BLK3 Me	5.570	62.7	82.9	209.51	209.51	72.0	0.053	OK	209.4925	0.00	0.02	
F708260-BLK3 Hg	1533.624	136.8	212.5	209.51	209.53	153.4	8.874	OK	209.4925	0.00	0.02	

#14: F708260-BS1



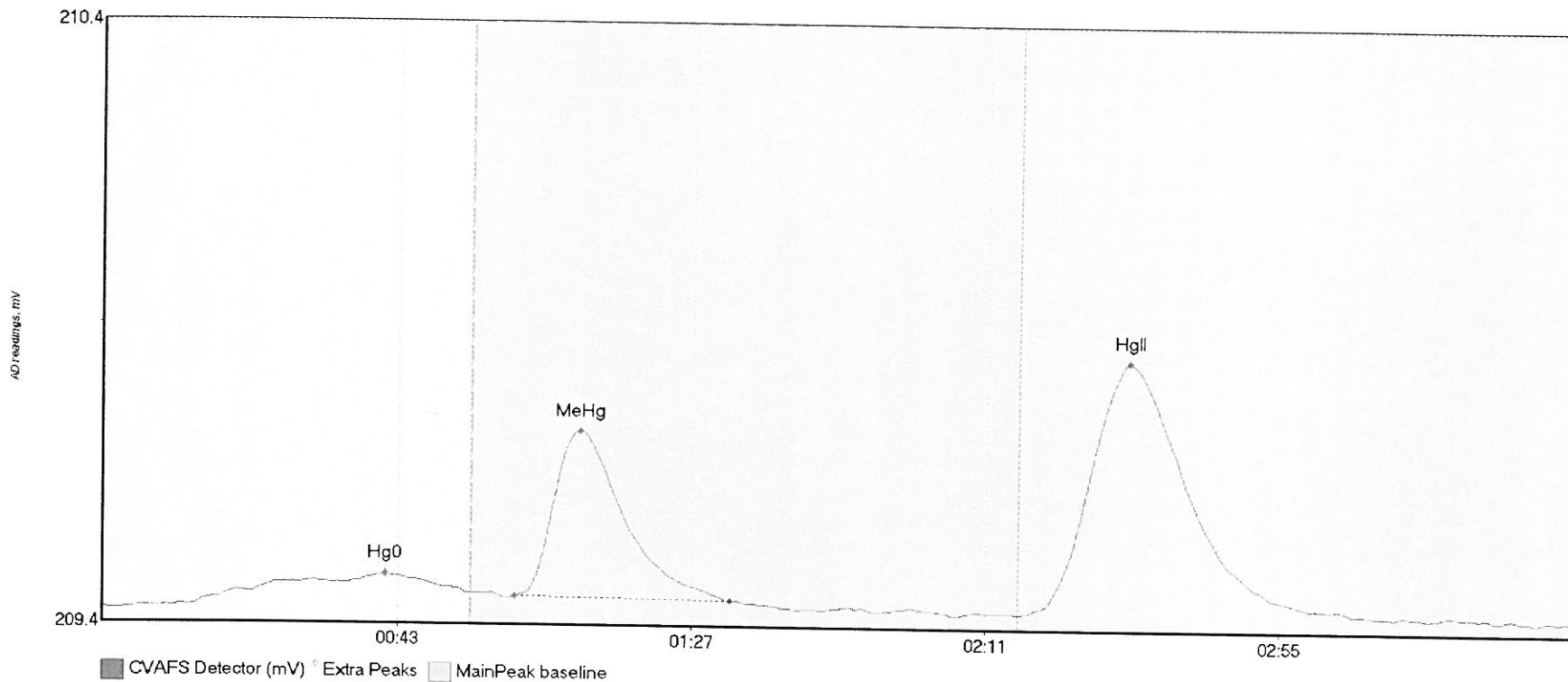
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
F708260-BS1 Hg0	9.702	11.8	55.0	209.47	209.50	39.7	0.051	CT	209.4627	0.00	0.00	
F708260-BS1 MeH	314.937	60.5	108.6	209.49	209.50	71.4	2.524	OK	209.4627	0.00	0.00	
F708260-BS1 HgI	149.869	136.8	188.8	209.48	209.48	153.2	0.892	OK	209.4627	0.00	0.00	

#15: F708260-BSD1



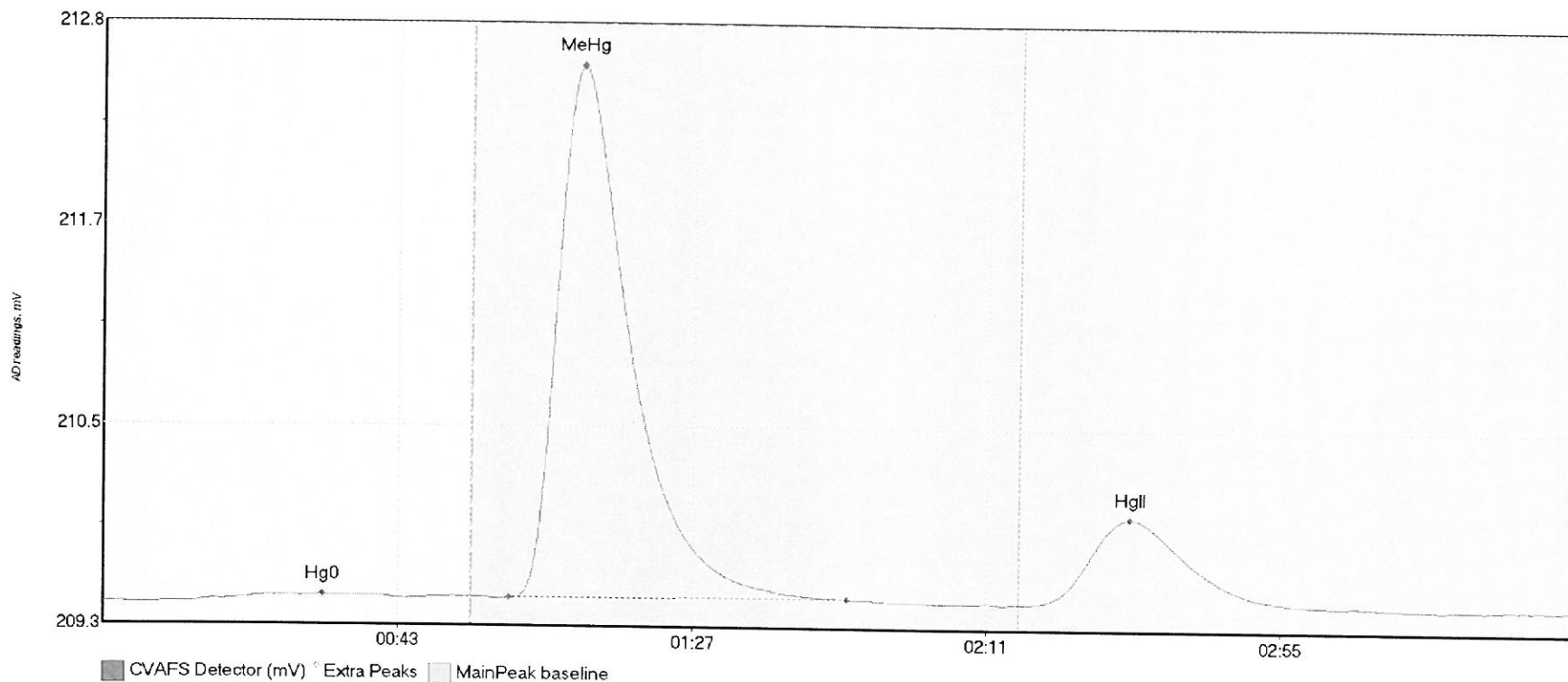
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
F708260-BSD1 Hg	9.231	14.3	55.0	209.45	209.47	42.5	0.051	CT	209.4475	0.00	-0.01	
F708260-BSD1 Me	367.601	60.7	109.8	209.47	209.48	71.5	2.942	OK	209.4475	0.00	-0.01	
F708260-BSD1 Hg	28.525	140.0	175.7	209.45	209.46	154.3	0.186	OK	209.4475	0.00	-0.01	

#16: F708260-DUP1



Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
F708260-DUP1 Hg	9.599	12.8	54.5	209.42	209.45	42.2	0.051	OK	209.4197	0.00	0.00	
F708260-DUP1 Me	33.285	61.6	93.8	209.44	209.44	71.3	0.275	OK	209.4197	0.00	0.00	
F708260-DUP1 Hg	69.139	137.7	187.5	209.42	209.42	153.3	0.419	OK	209.4197	0.00	0.00	

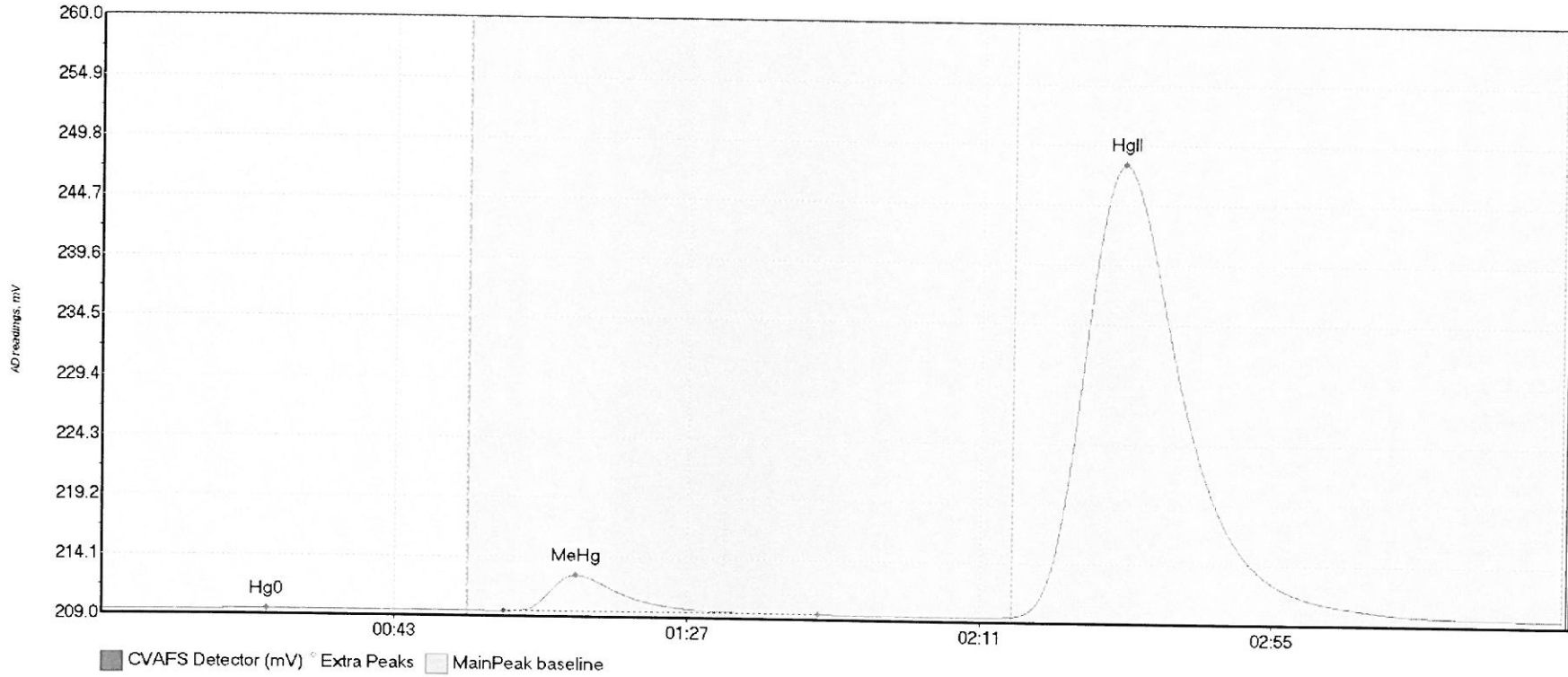
#17: F708260-MS1



Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
F708260-MS1 Hg0	5.832	13.2	44.9	209.41	209.43	32.7	0.043	OK	209.4088	0.00	0.00	
F708260-MS1 MeH	394.045	60.6	111.2	209.44	209.45	71.3	3.156	OK	209.4088	0.00	0.00	
F708260-MS1 HgI	82.072	138.0	179.1	209.43	209.43	153.4	0.512	OK	209.4088	0.00	0.00	

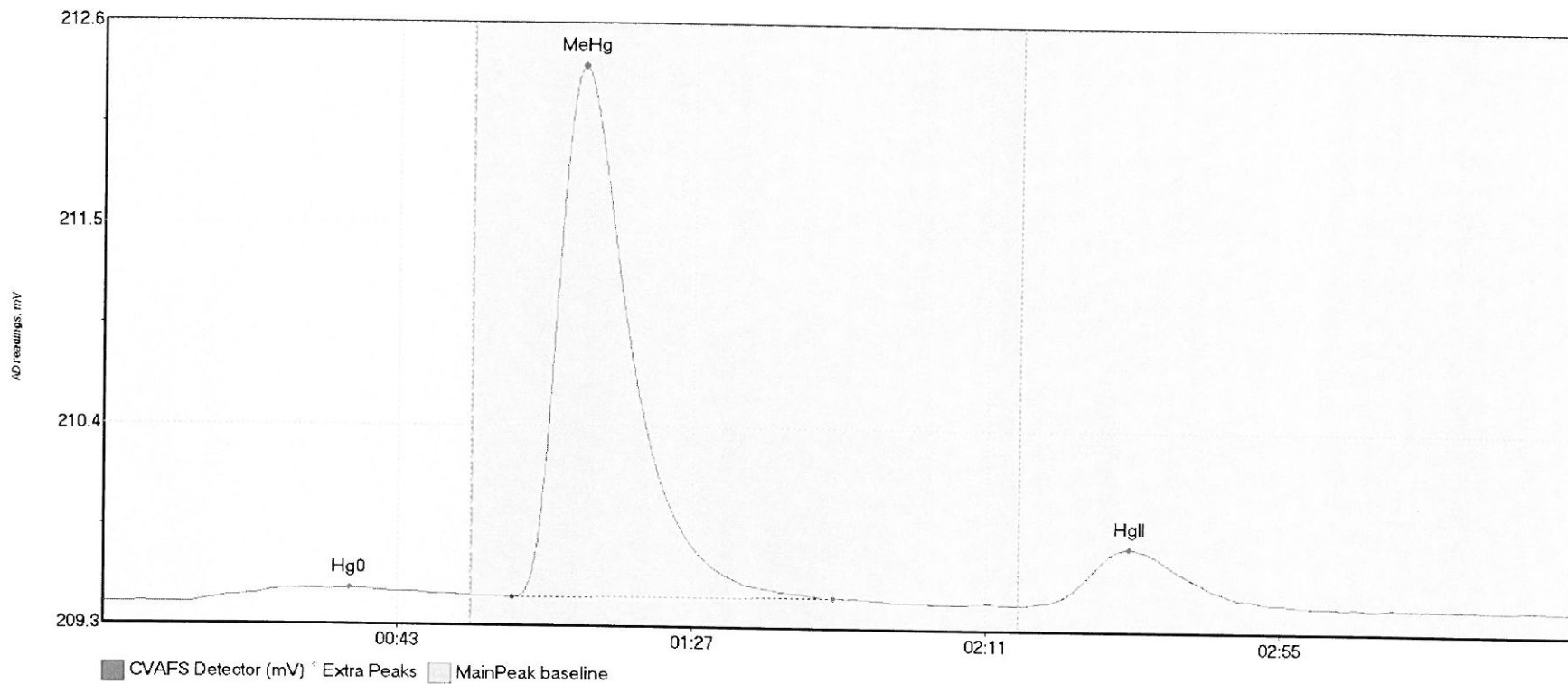


#18: F708260-MSD1



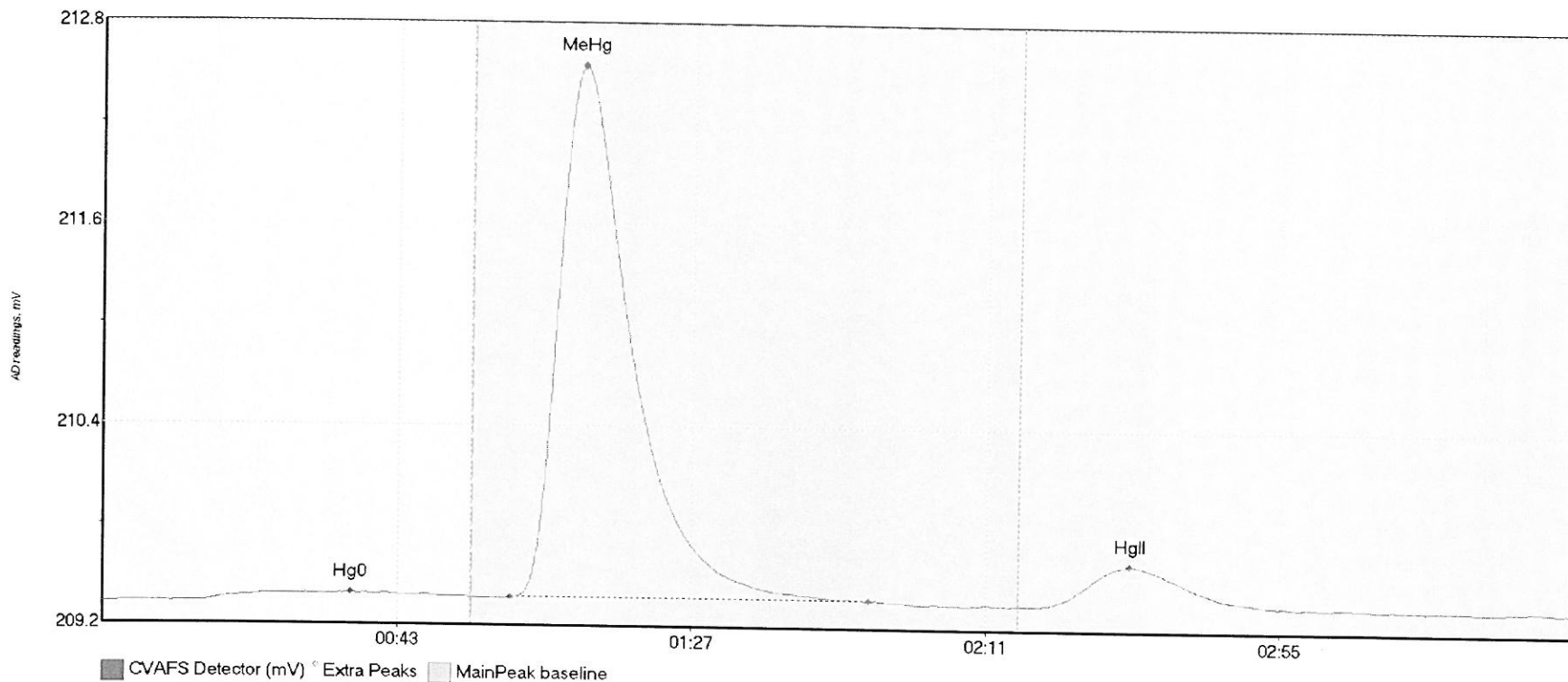
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
F708260-MSD1 Hg	12.830	12.0	55.0	209.40	209.45	24.7	0.074	CT	209.4031	0.00	0.17	
F708260-MSD1 Me	386.366	60.4	107.7	209.44	209.45	71.3	3.095	OK	209.4031	0.00	0.17	
F708260-MSD1 Hg	6726.719	136.8	219.8	209.49	209.57	153.5	38.633	CT	209.4031	0.00	0.17	

#19: F708260-MS2



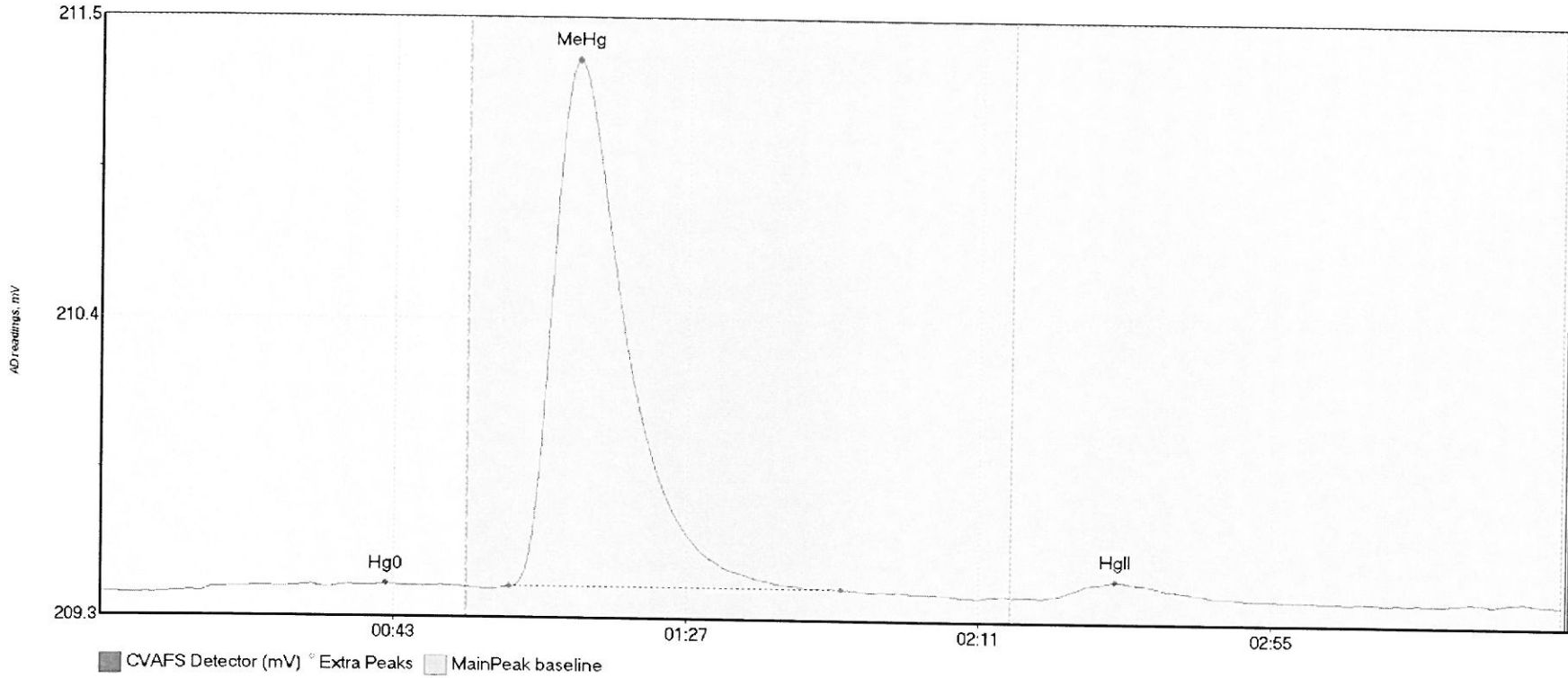
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
F708260-MS2 Hg0	14.830	13.3	55.0	209.40	209.44	36.8	0.079	CT	209.3958	0.00	0.01	
F708260-MS2 MeH	362.584	61.1	109.1	209.43	209.44	71.4	2.898	OK	209.3958	0.00	0.01	
F708260-MS2 HgI	51.771	136.8	181.1	209.42	209.42	153.4	0.315	OK	209.3958	0.00	0.01	

#20: F708260-MSD2



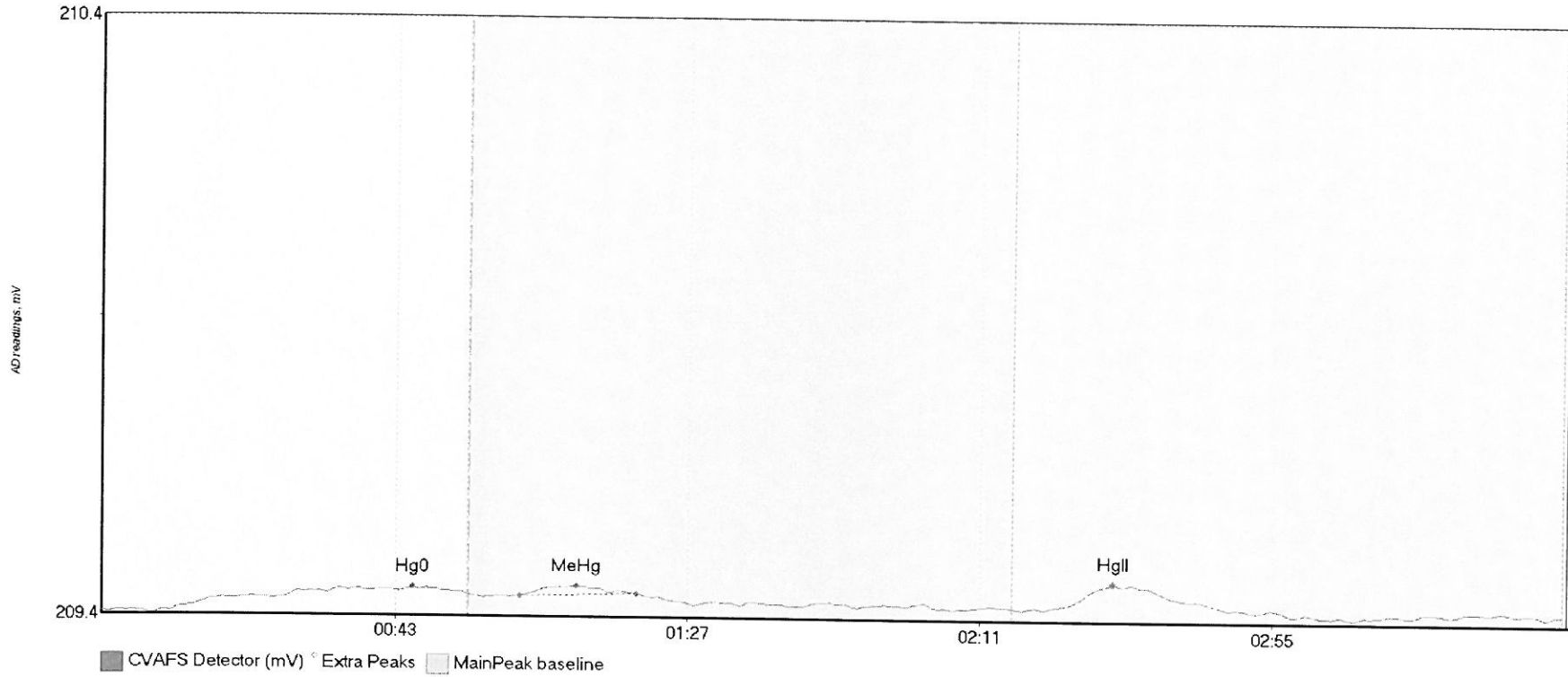
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
F708260-MSD2 Hg	10.477	14.1	55.0	209.38	209.41	37.0	0.052	CT	209.3818	0.00	0.00	
F708260-MSD2 Me	396.663	60.8	114.4	209.41	209.41	71.5	3.141	OK	209.3818	0.00	0.00	
F708260-MSD2 Hg	37.507	140.4	175.6	209.40	209.40	153.6	0.240	OK	209.3818	0.00	0.00	

#21: SEQ-CCV1



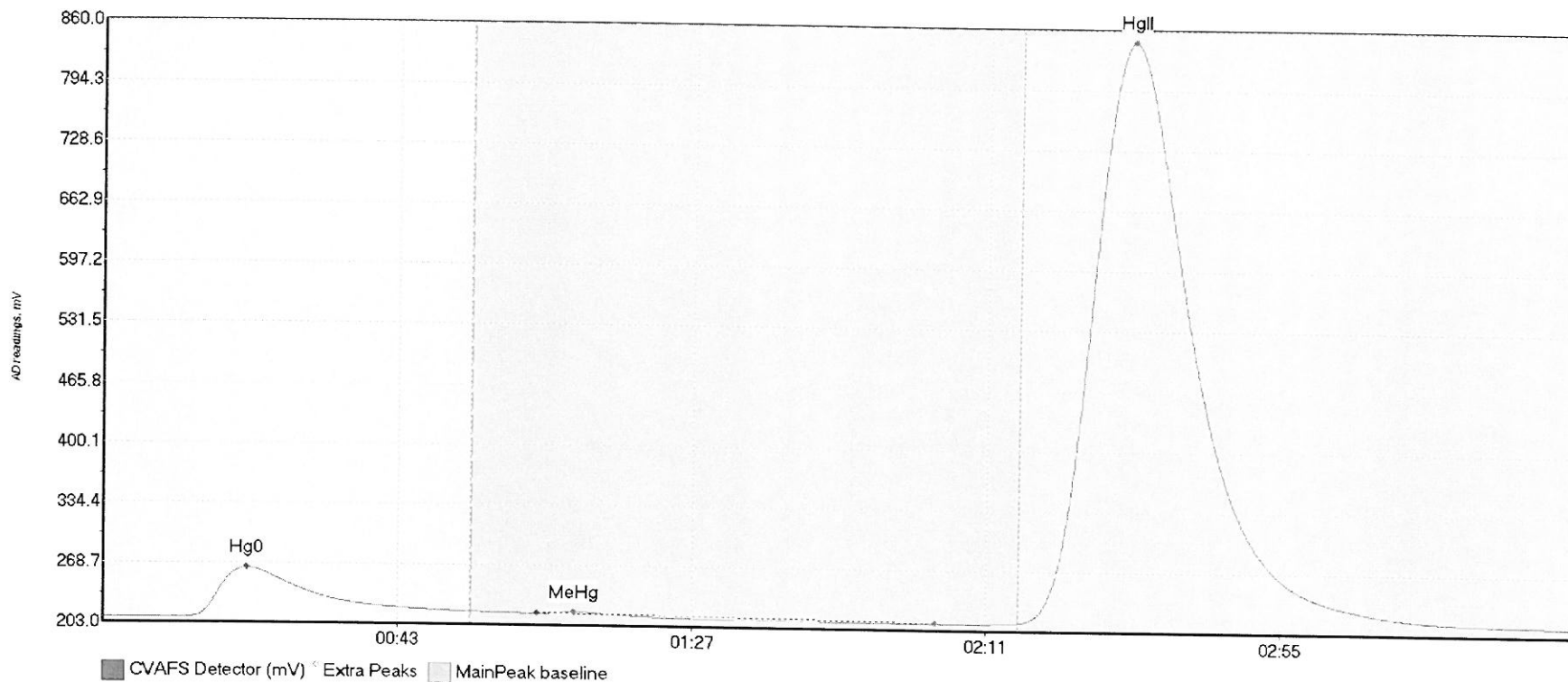
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
SEQ-CCV1 Hg0	4.399	14.9	55.0	209.38	209.40	42.9	0.029	CT	209.3754	0.00	-0.01	
SEQ-CCV1 MeHg	240.851	61.5	111.3	209.40	209.40	71.5	1.901	OK	209.3754	0.00	-0.01	
SEQ-CCV1 HgII	7.399	143.2	167.9	209.39	209.39	152.6	0.055	OK	209.3754	0.00	-0.01	

#22: SEQ-CCB1



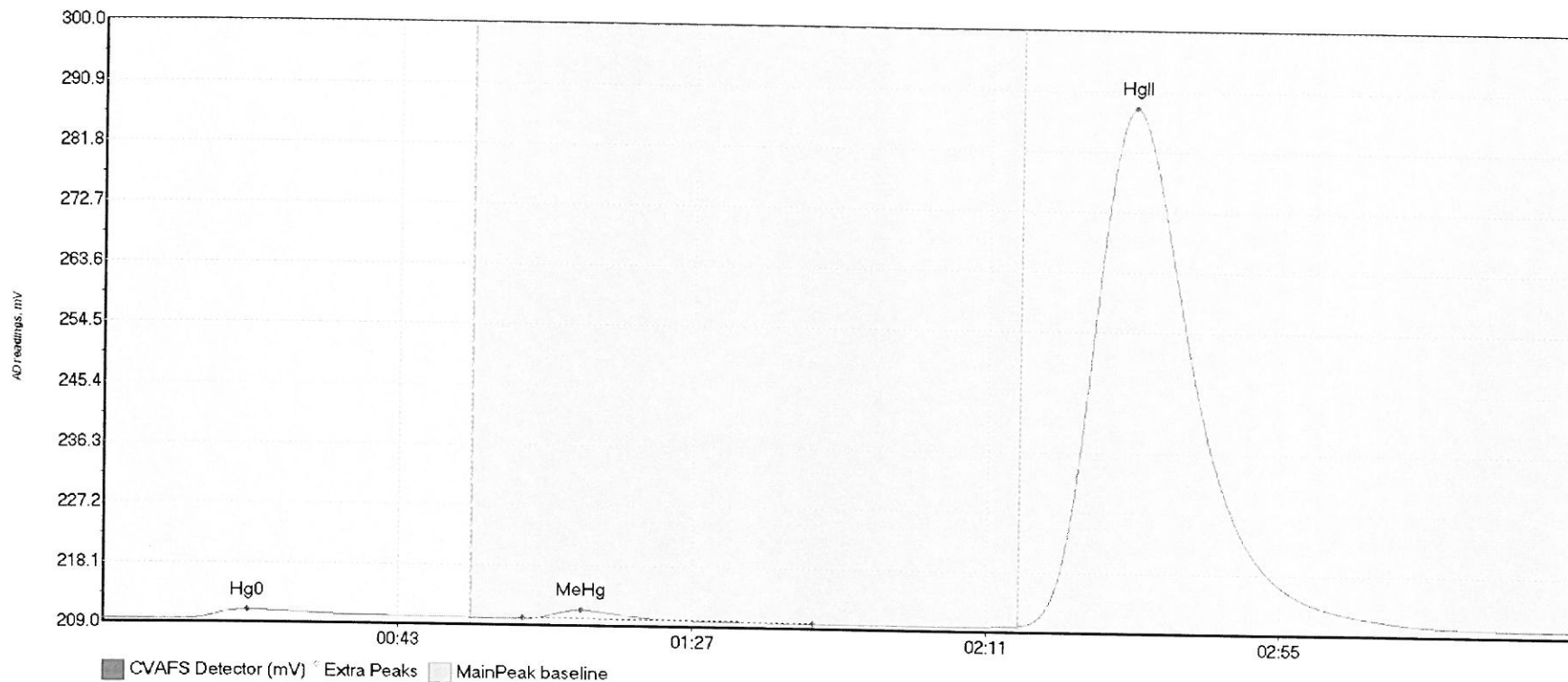
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
SEQ-CCB1 Hg0	6.396	10.0	55.0	209.36	209.39	46.6	0.041	CT	209.3635	0.00	0.01	
SEQ-CCB1 MeHg	1.509	62.7	80.3	209.39	209.40	71.3	0.017	OK	209.3635	0.00	0.01	
SEQ-CCB1 HgII	5.442	143.7	169.5	209.38	209.38	152.0	0.038	OK	209.3635	0.00	0.01	

#23: 1706895-01

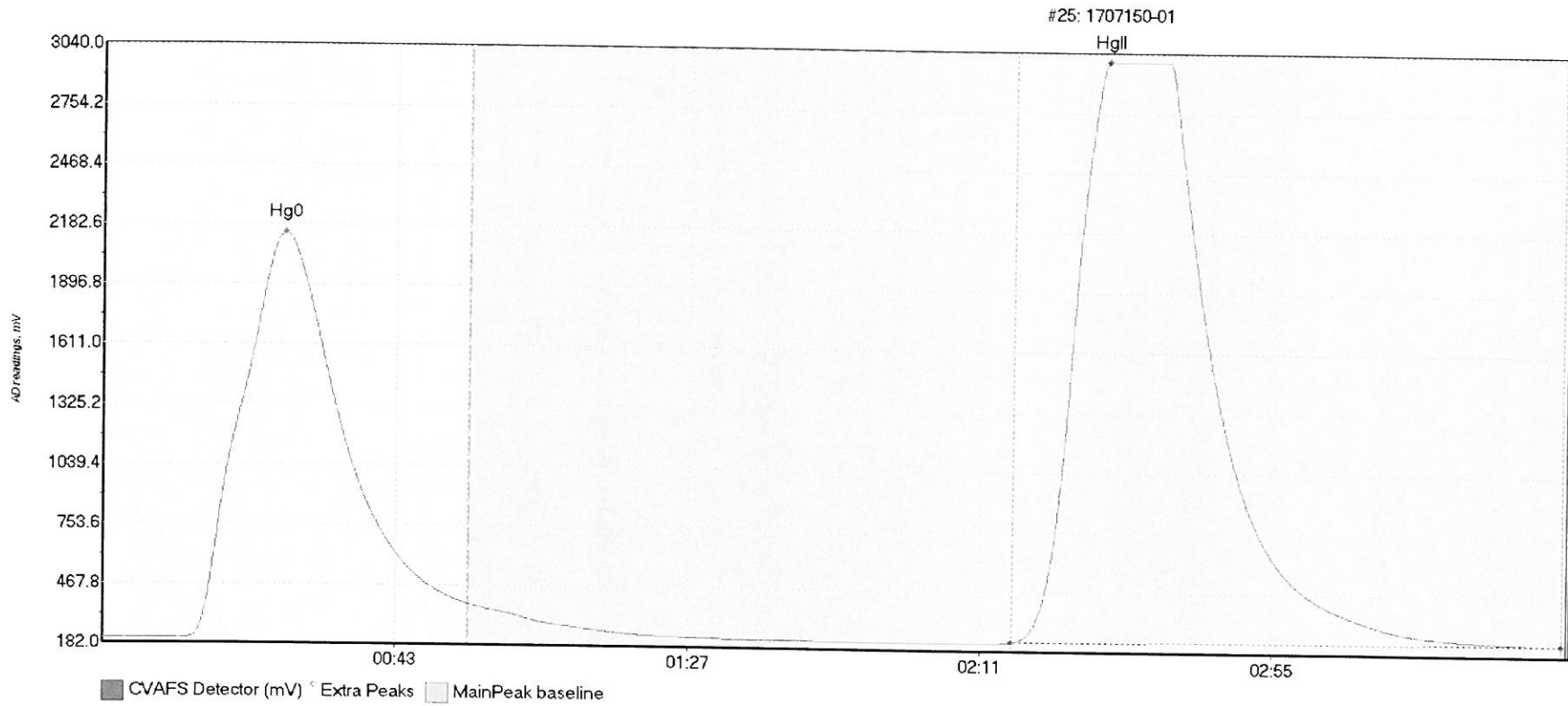


Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1706895-01 Hg0	7884.949	11.4	55.0	209.37	217.35	21.5	53.747	CT	209.3694	0.00	3.25	
1706895-01 MeHg	171.164	64.8	124.5	215.51	210.49	70.5	1.897	OK	209.3694	0.00	3.25	
1706895-01 HgII	110144.517	136.8	219.8	211.80	212.60	153.6	634.689	CT	209.3694	0.00	3.25	

#24: 1706895-05

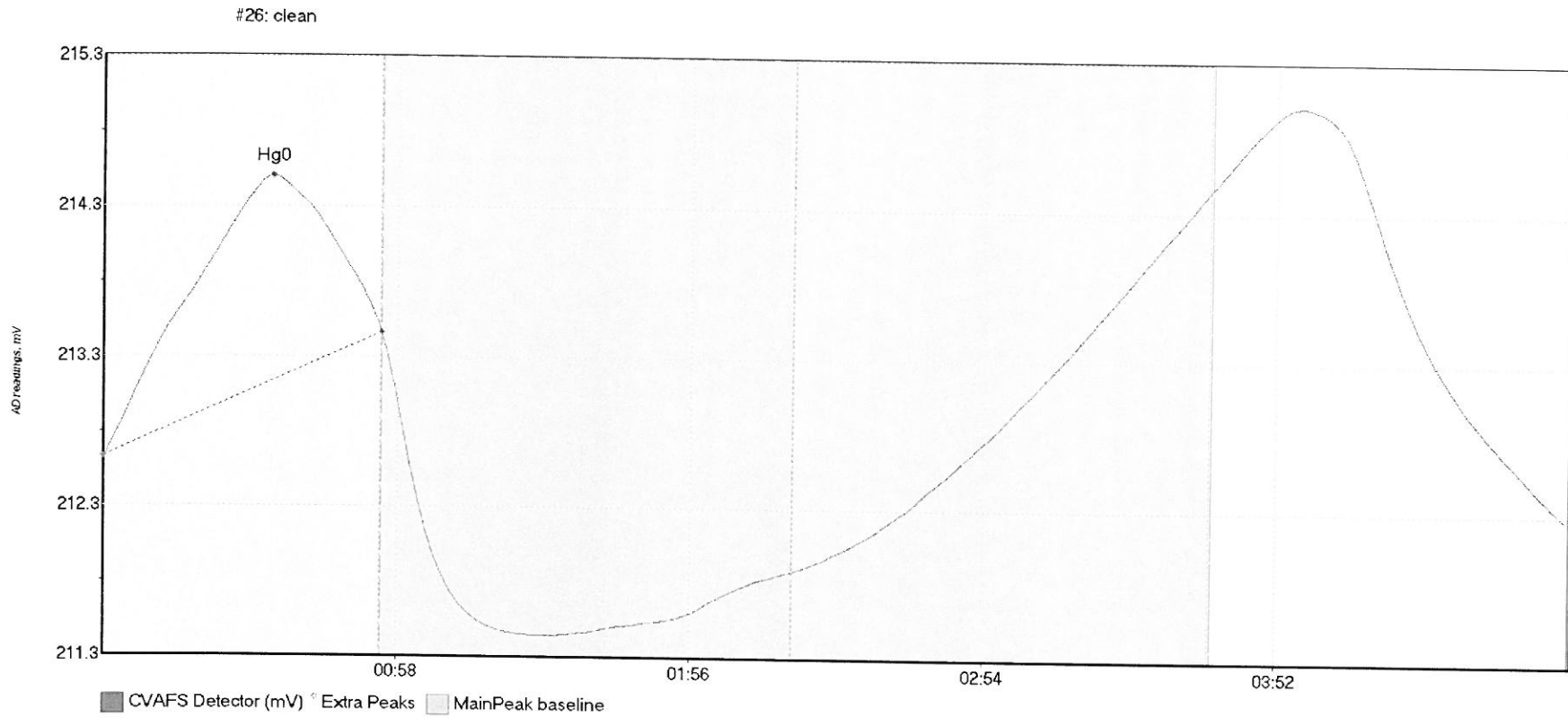


Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1706895-05 Hg0	201.553	1.9	55.0	209.57	210.08	21.5	1.296	CT	209.5710	0.00	0.37	
1706895-05 MeHg	152.937	62.7	106.1	210.03	209.76	71.4	1.292	OK	209.5710	0.00	0.37	
1706895-05 HgII	13673.462	136.8	219.8	209.95	209.94	153.9	78.324	CT	209.5710	0.00	0.37	

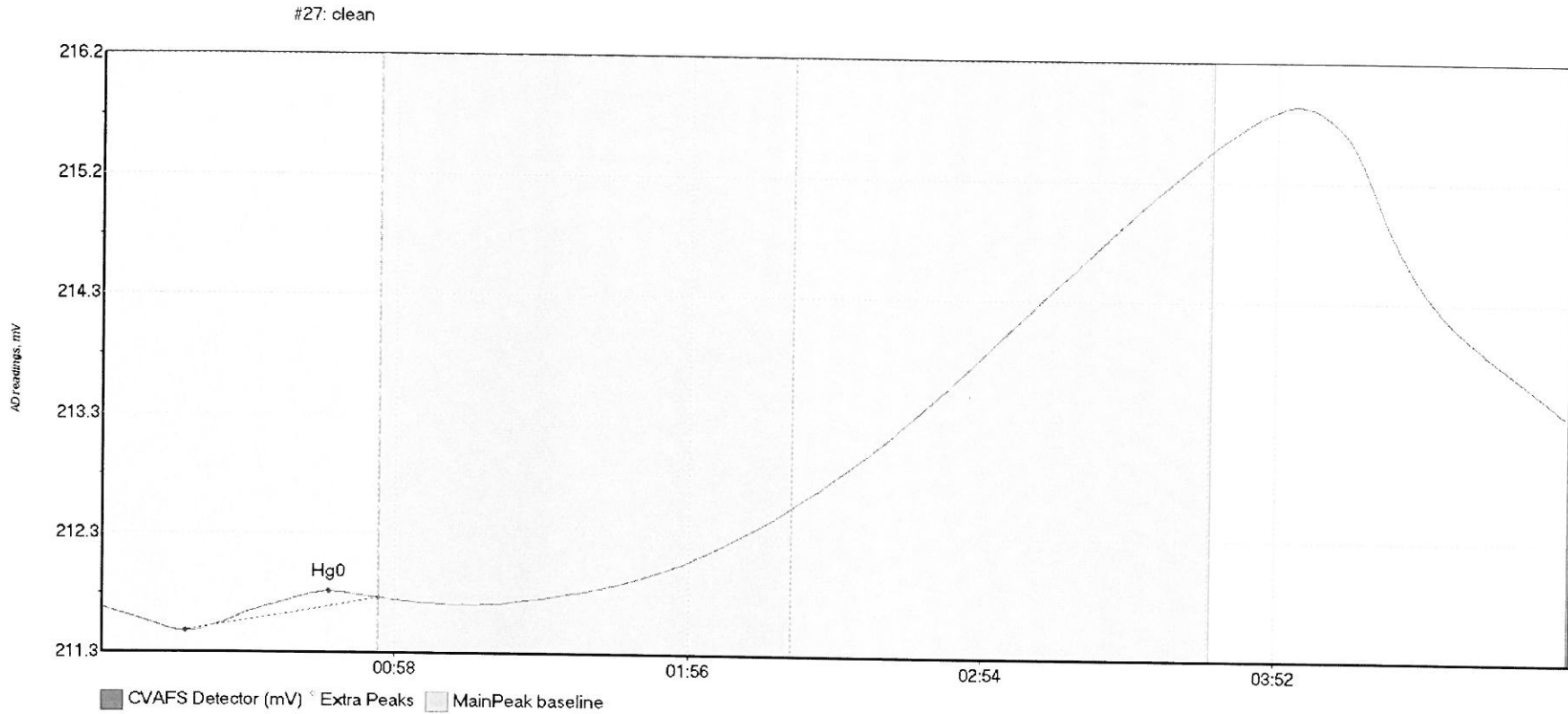


Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1707150-01 Hg0	316426.019	7.3	55.0	209.50	378.13	27.3	1933.991	CT	209.4926	0.00	25.82	
1707150-01 HgII	649555.400	136.8	219.8	225.21	235.20	150.8	2774.789	CT	209.4926	0.00	25.82	017



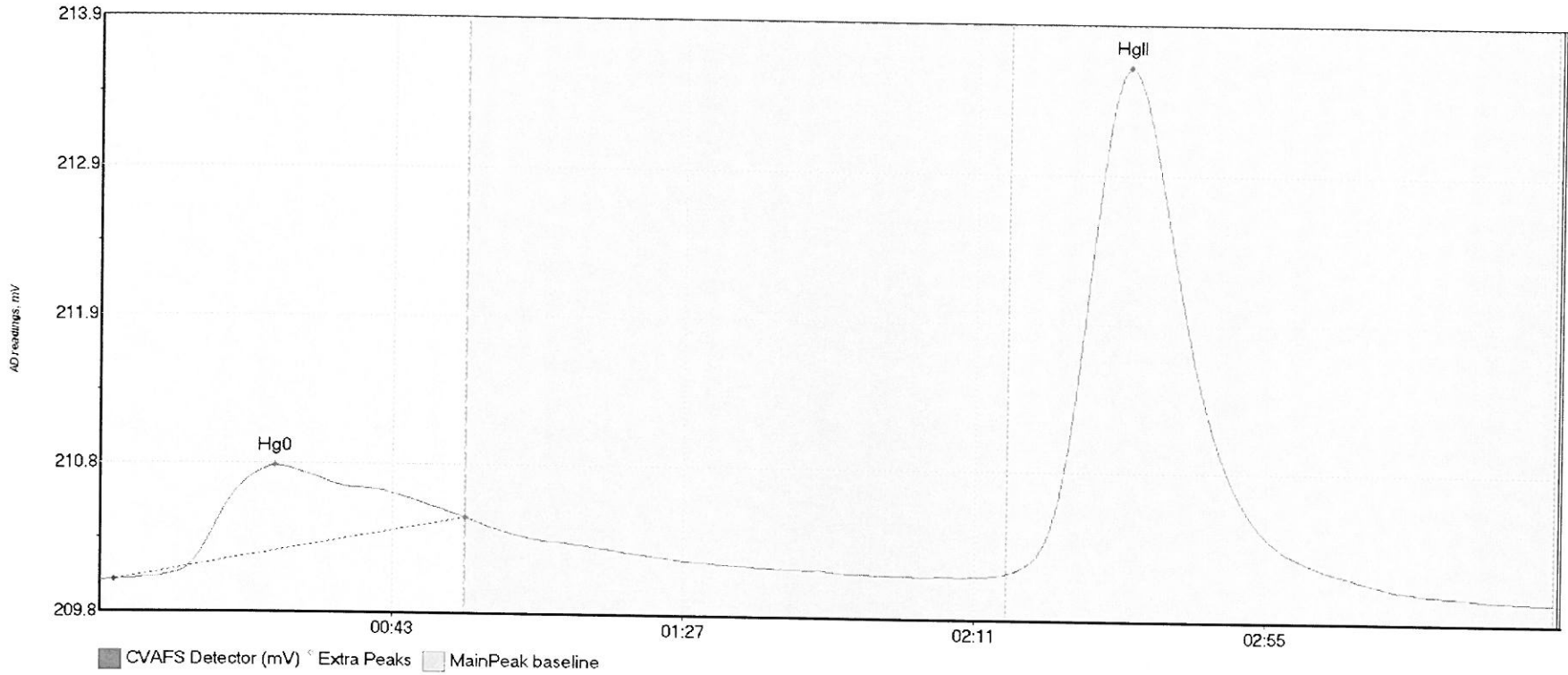


Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
clean	438.987	0.0	55.0	212.59	213.43	33.4	1.882	CT	212.6156	0.01	-0.37	017



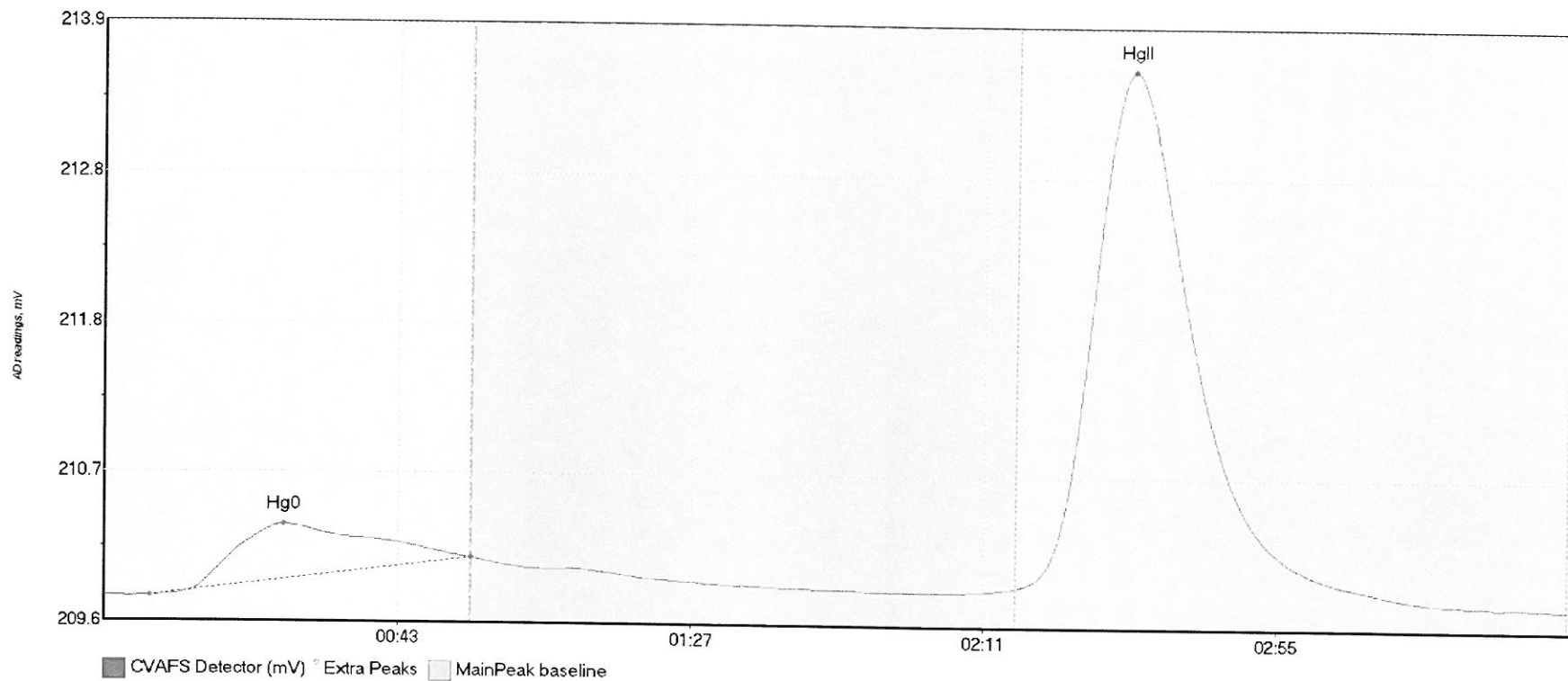
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
clean	26.539	16.6	55.0	211.45	211.73	45.2	0.333	CT	211.6448	0.01	1.70	017

#28: 1707150-03



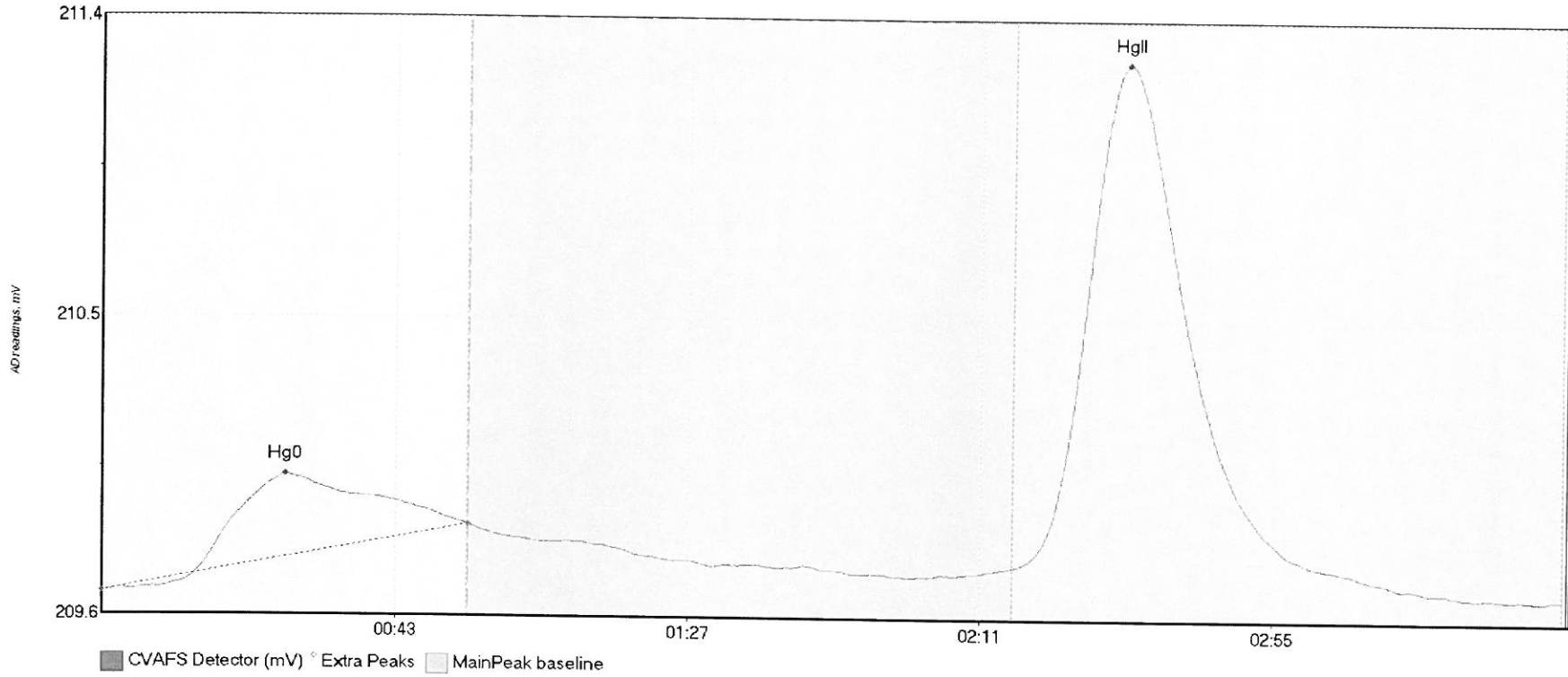
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1707150-03 Hg0	138.763	2.2	55.0	210.00	210.45	26.3	0.804	CT	209.9984	0.00	-0.07	
1707150-03 HgII	635.465	136.8	202.4	210.11	209.97	155.1	3.546	OK	209.9984	0.00	-0.07	017

#29: 1707150-05



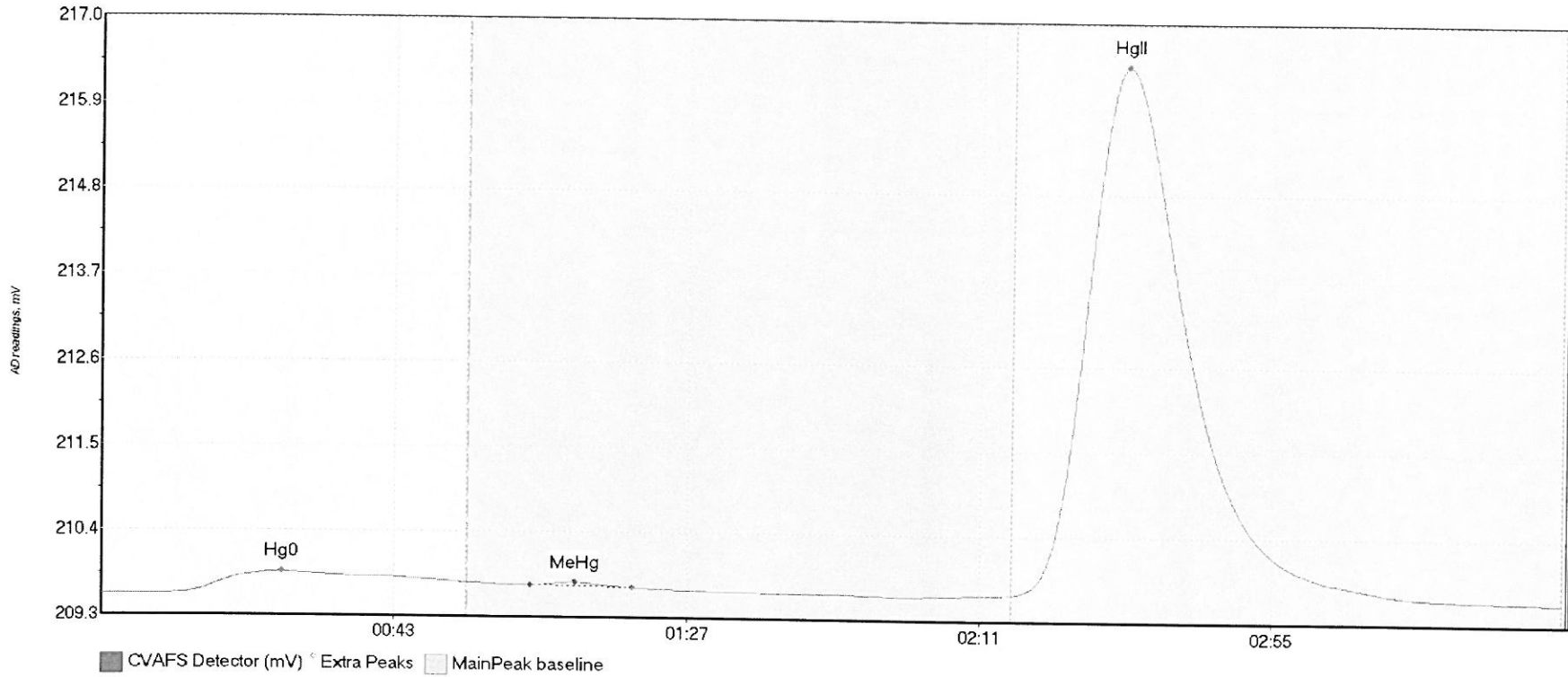
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1707150-05 Hg0	89.360	6.9	55.0	209.80	210.08	26.9	0.512	CT	209.7981	0.00	-0.03	
1707150-05 HgII	642.944	136.8	198.9	209.90	209.81	154.3	3.694	OK	209.7981	0.00	-0.03	017

#30: 1707150-07



Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1707150-07 Hg0	56.970	0.0	55.0	209.66	209.88	27.5	0.364	CT	209.6649	0.00	0.00	
1707150-07 HgII	267.339	136.8	191.5	209.75	209.71	154.1	1.555	OK	209.6649	0.00	0.00	017

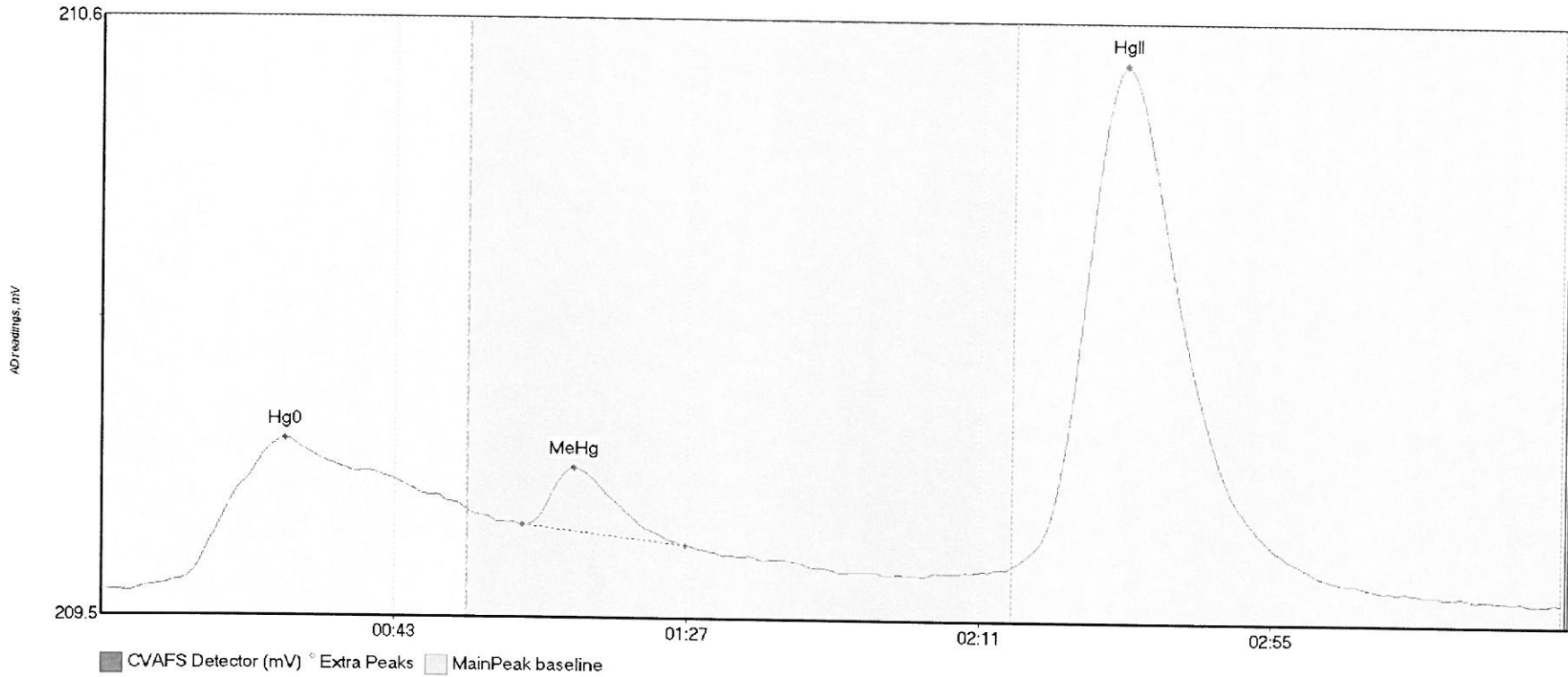
#31: 1707295-01



Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1707295-01 Hg0	53.477	9.2	55.0	209.62	209.78	27.0	0.283	CT	209.6196	0.00	0.00	
1707295-01 MeHg	3.896	64.4	79.8	209.75	209.72	71.1	0.038	OK	209.6196	0.00	0.00	
1707295-01 HgII	1166.426	136.8	202.3	209.68	209.65	154.1	6.765	OK	209.6196	0.00	0.00	

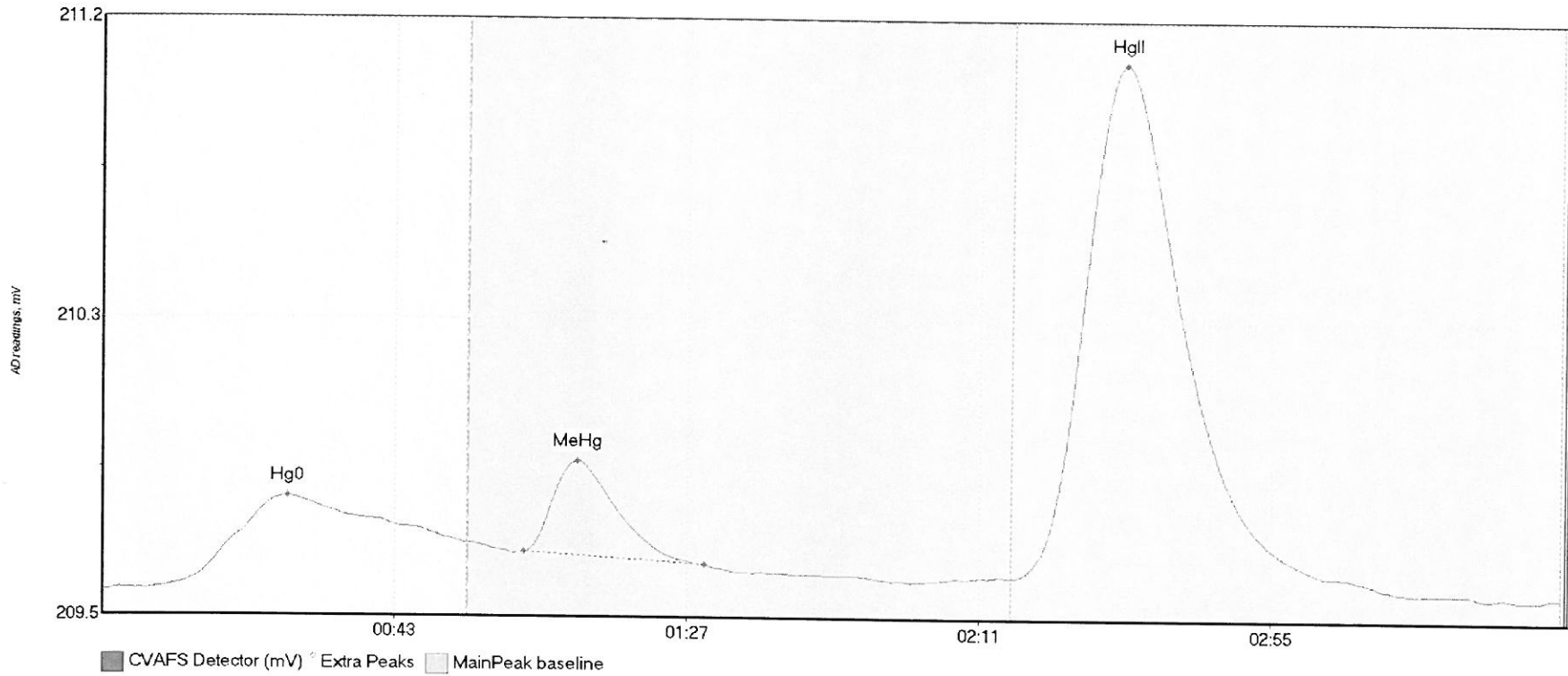
017

#32: 1707543-07



Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1707543-07 Hg0	46.563	4.5	55.0	209.56	209.72	27.6	0.281	CT	209.5652	0.00	-0.01	
1707543-07 MeHg	12.644	63.3	87.7	209.69	209.65	71.0	0.106	OK	209.5652	0.00	-0.01	
1707543-07 HgII	157.106	136.8	186.9	209.62	209.59	153.7	0.921	OK	209.5652	0.00	-0.01	017

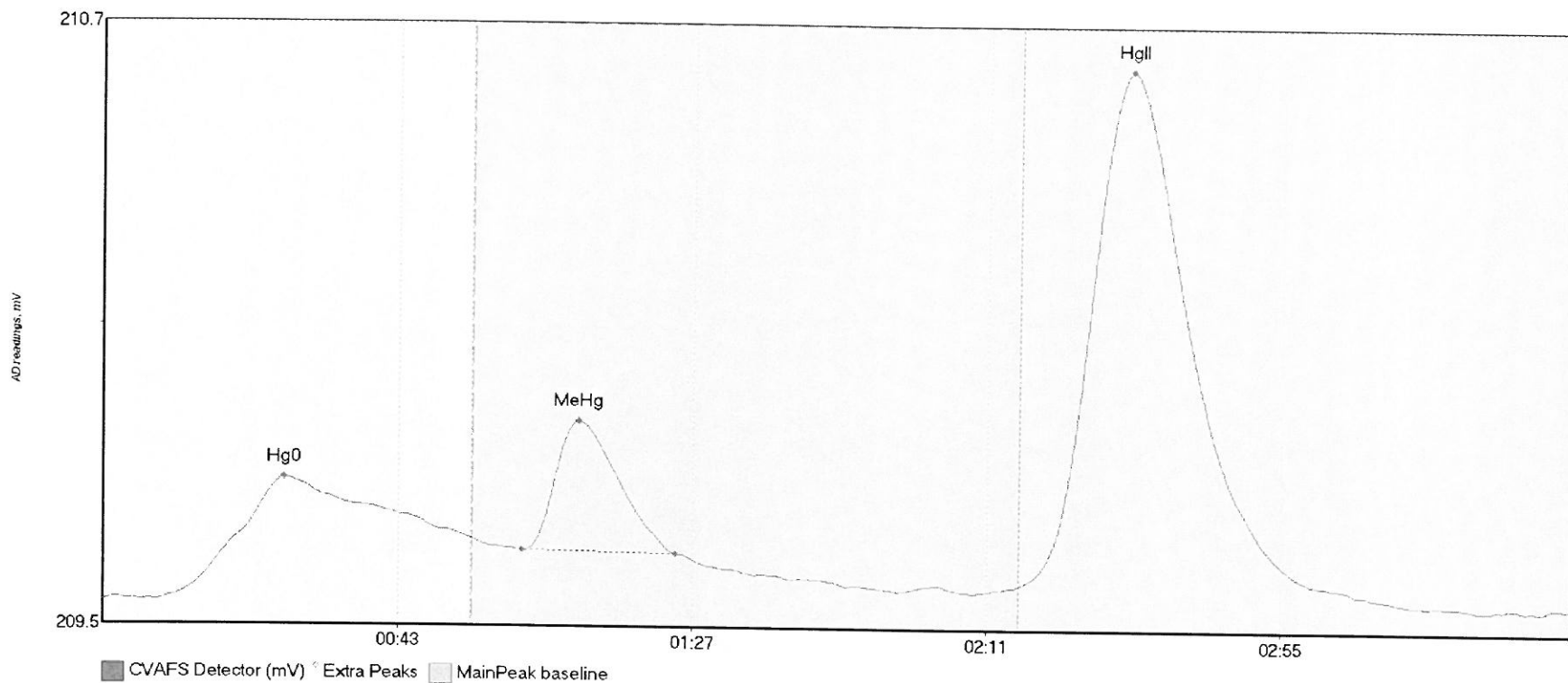
#33: 1707696-01



Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1707696-01 Hg0	45.164	6.8	55.0	209.54	209.67	27.9	0.266	CT	209.5345	0.00	0.00	
1707696-01 MeHg	29.599	63.4	90.6	209.65	209.61	71.4	0.261	OK	209.5345	0.00	0.00	
1707696-01 HgII	244.534	137.1	184.5	209.58	209.59	153.9	1.470	OK	209.5345	0.00	0.00	

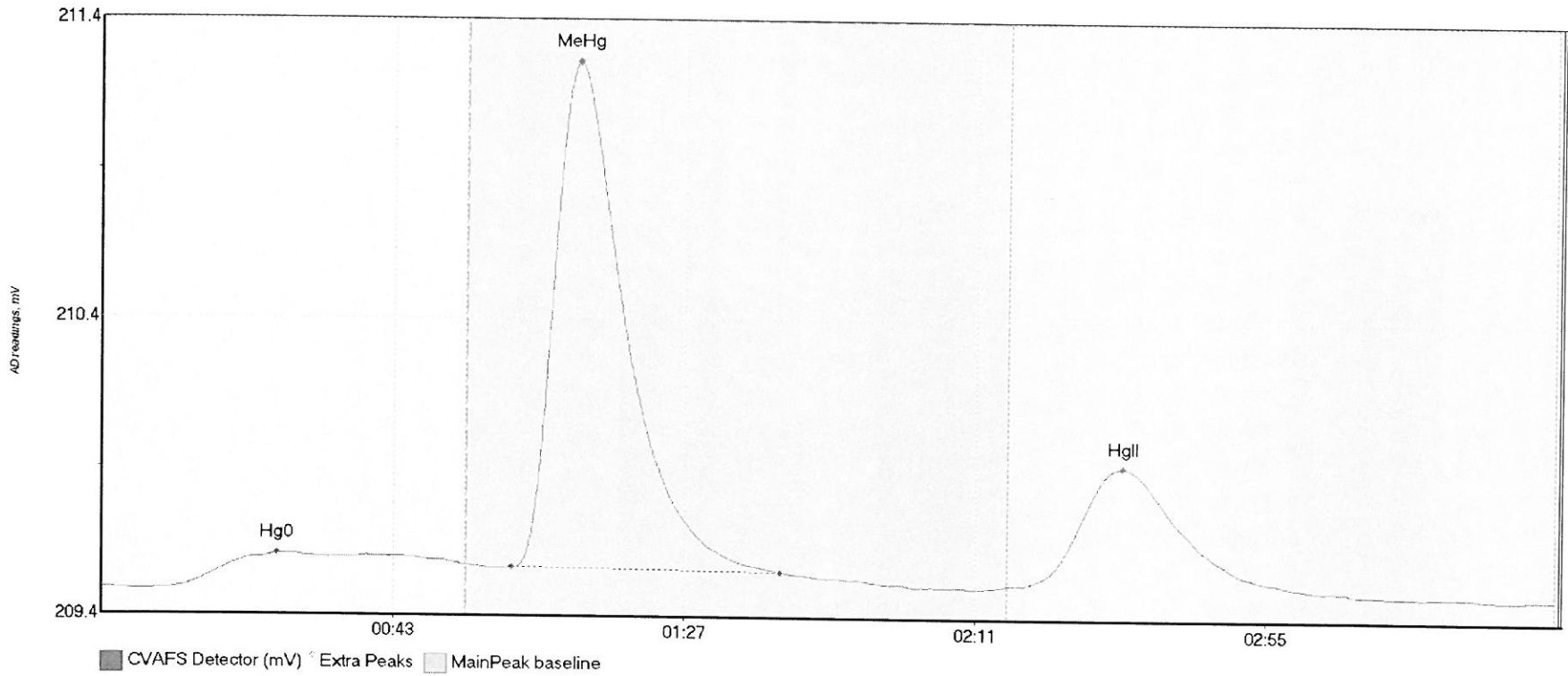


#34: 1707696-02

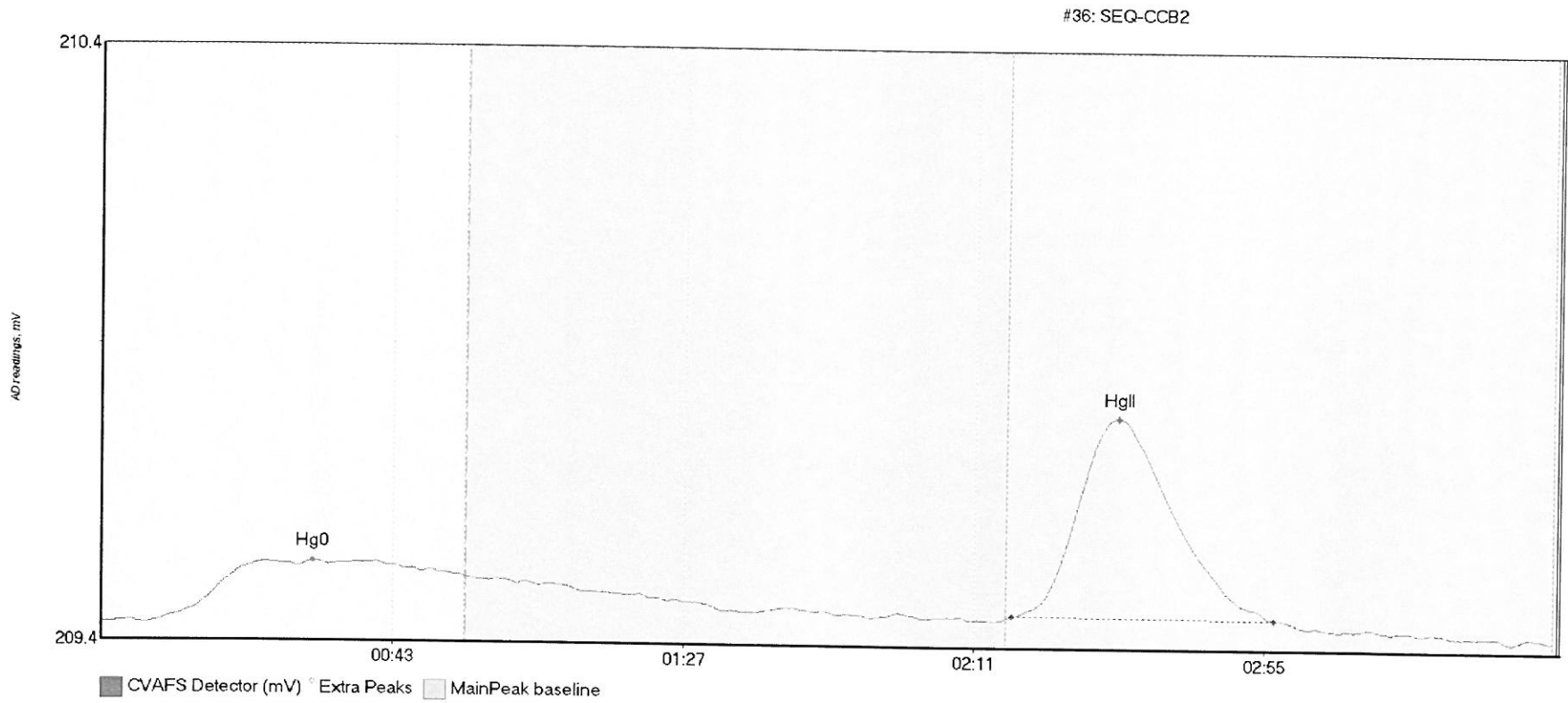


Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1707696-02 Hg0	42.884	8.3	55.0	209.50	209.63	27.0	0.255	CT	209.5050	0.00	0.00	
1707696-02 MeHg	29.307	62.5	85.5	209.61	209.60	70.8	0.270	OK	209.5050	0.00	0.00	
1707696-02 HgII	175.281	136.8	181.9	209.54	209.55	153.5	1.073	OK	209.5050	0.00	0.00	

#35: SEQ-CCV2

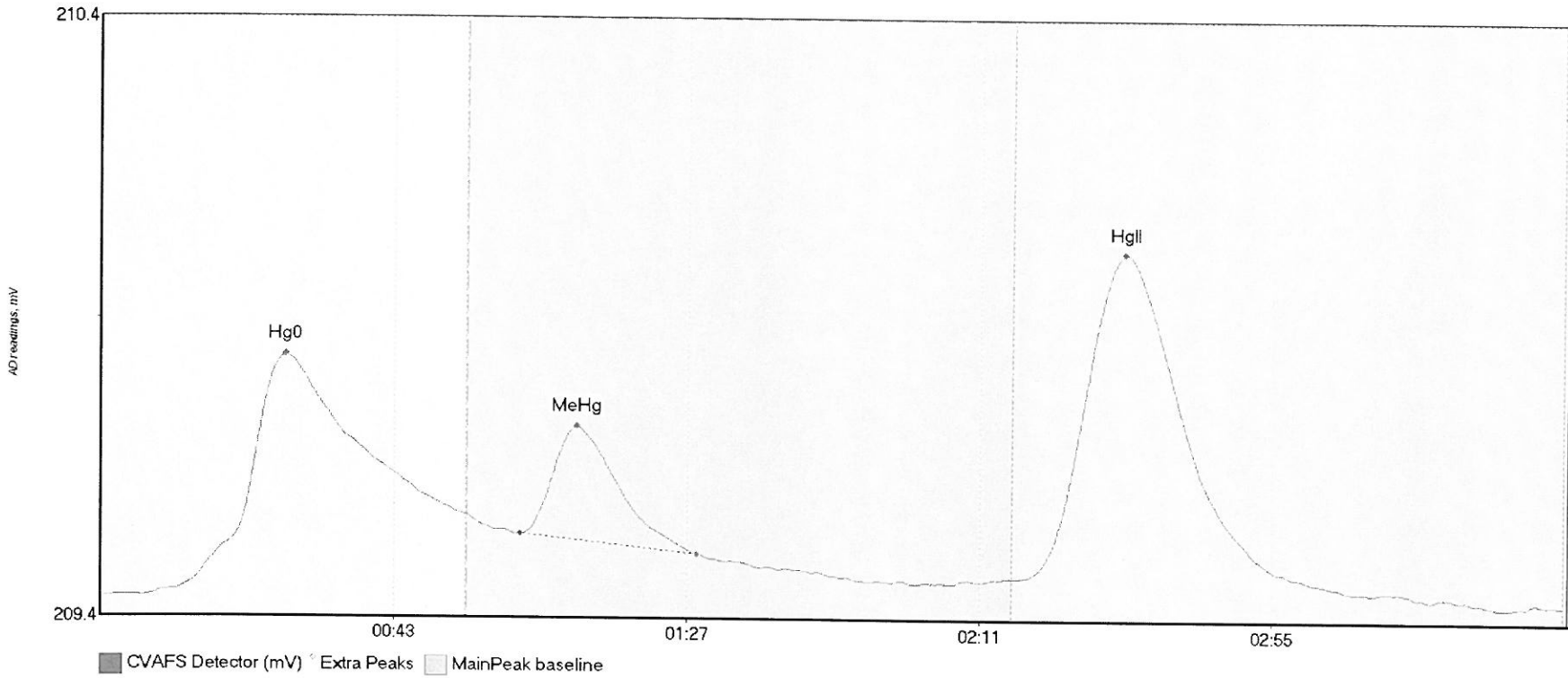


Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
SEQ-CCV2 Hg0	22.443	9.0	55.0	209.48	209.56	26.4	0.122	CT	209.4851	0.00	-0.02	
SEQ-CCV2 MeHg	213.663	61.9	102.5	209.56	209.54	71.9	1.727	OK	209.4851	0.00	-0.02	
SEQ-CCV2 HgII	68.515	138.8	182.1	209.51	209.50	154.3	0.404	OK	209.4851	0.00	-0.02	



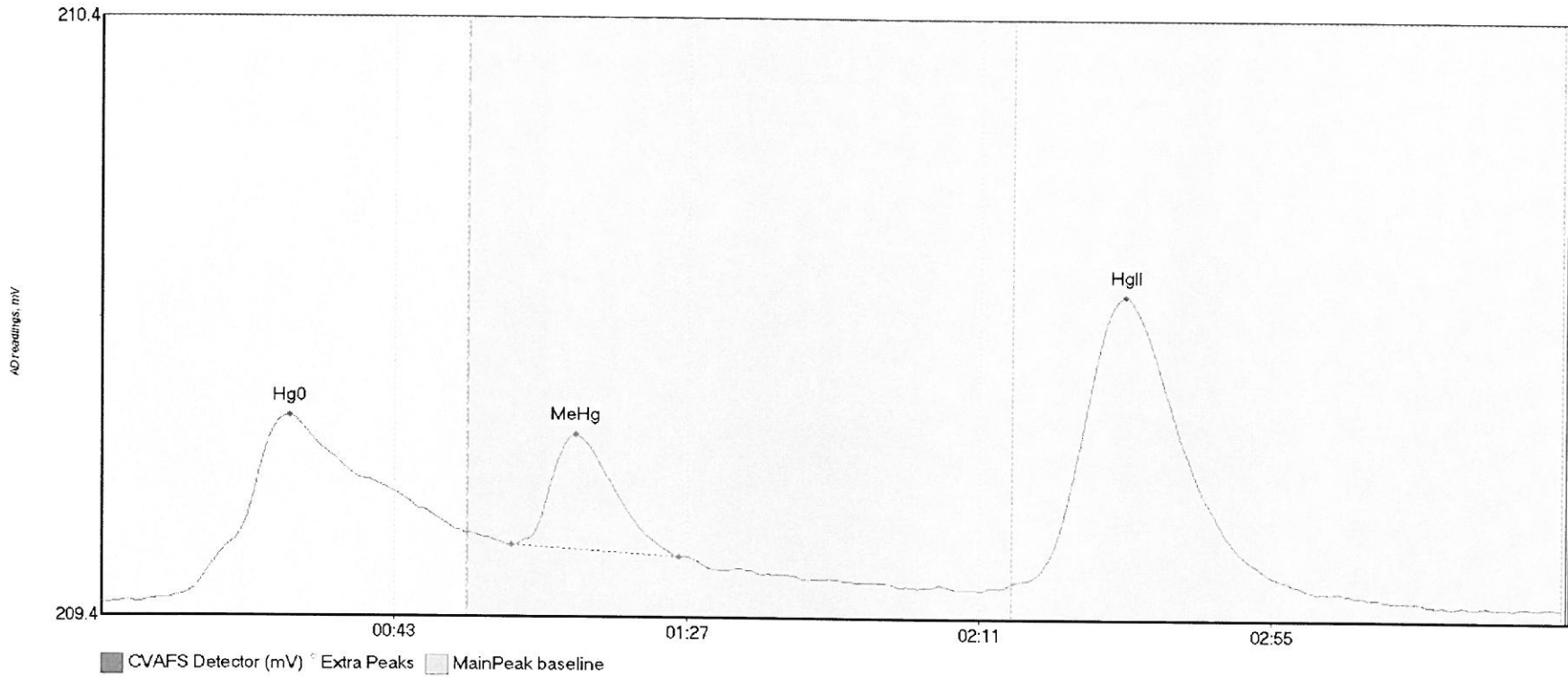
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
SEQ-CCB2 Hg0	18.728	6.8	55.0	209.45	209.53	31.9	0.105	CT	209.4527	0.00	-0.01	
SEQ-CCB2 HgII	55.148	137.8	177.5	209.47	209.47	153.8	0.334	OK	209.4527	0.00	-0.01	017

#37: 1707696-03



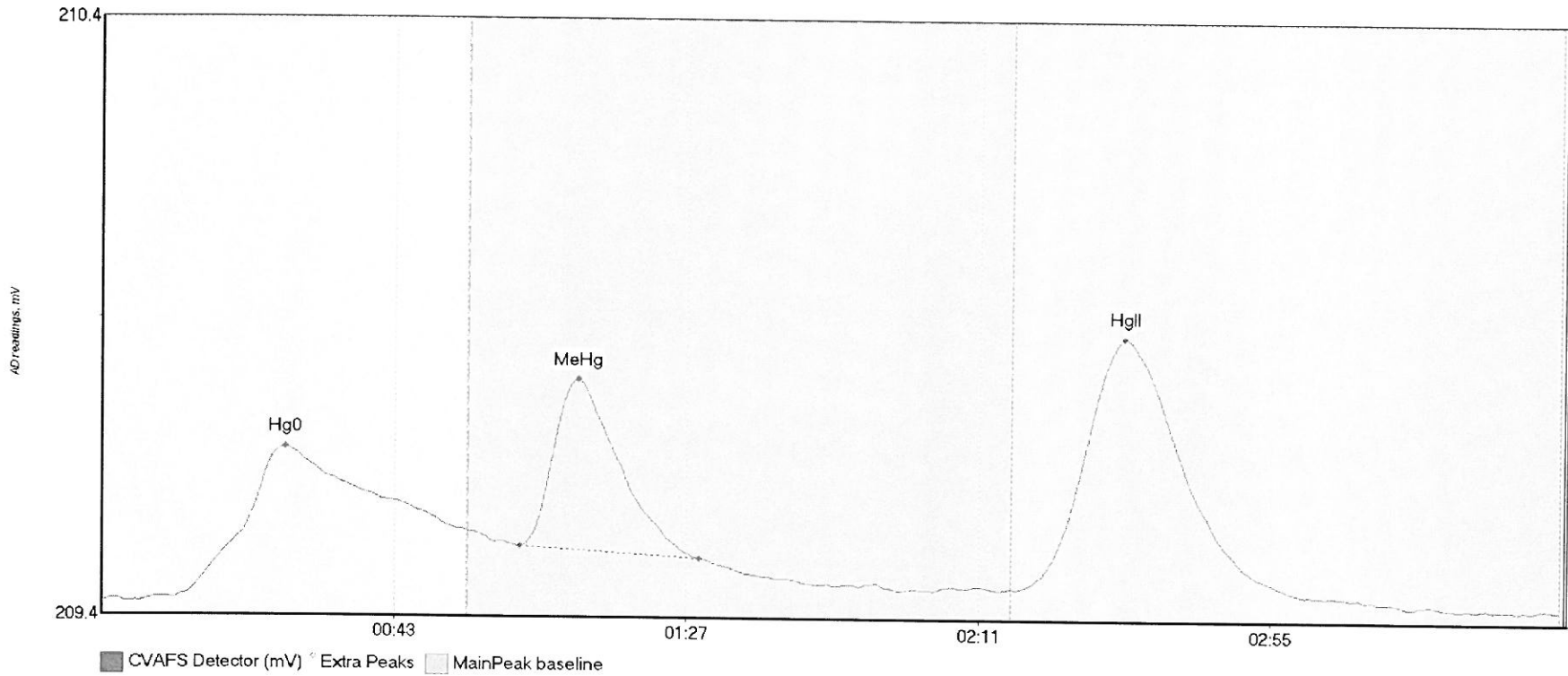
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1707696-03 Hg0	58.165	6.5	55.0	209.43	209.57	27.6	0.402	CT	209.4301	0.00	-0.01	
1707696-03 MeHg	20.920	63.0	89.4	209.54	209.50	71.4	0.180	OK	209.4301	0.00	-0.01	
1707696-03 HgII	88.938	138.5	182.9	209.47	209.46	153.8	0.542	OK	209.4301	0.00	-0.01	

#38: 1707696-04



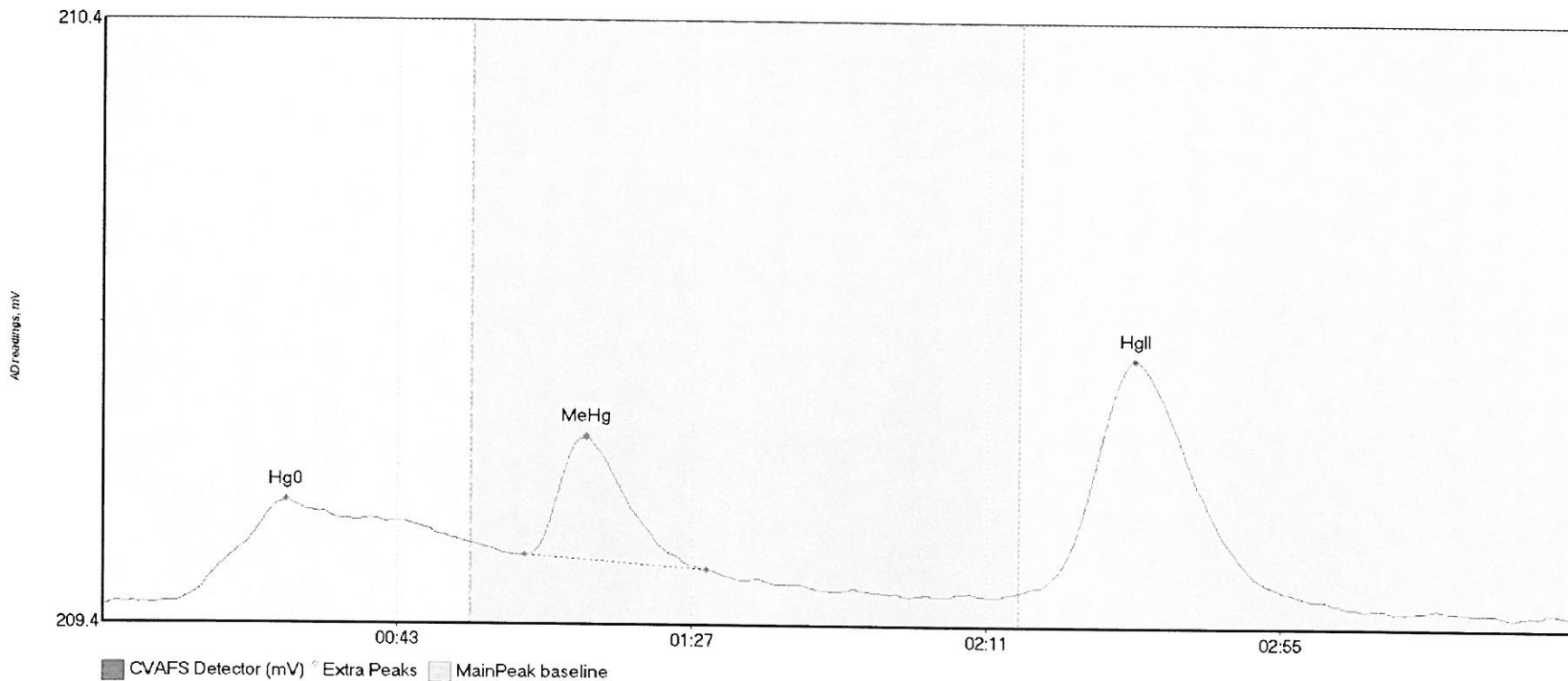
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1707696-04 Hg0	48.742	7.2	54.9	209.42	209.53	28.2	0.308	OK	209.4152	0.00	0.00	
1707696-04 MeHg	20.911	61.6	86.7	209.51	209.49	71.2	0.185	OK	209.4152	0.00	0.00	
1707696-04 HgII	77.814	138.9	179.8	209.46	209.45	153.9	0.476	OK	209.4152	0.00	0.00	017

#39: 1707696-05



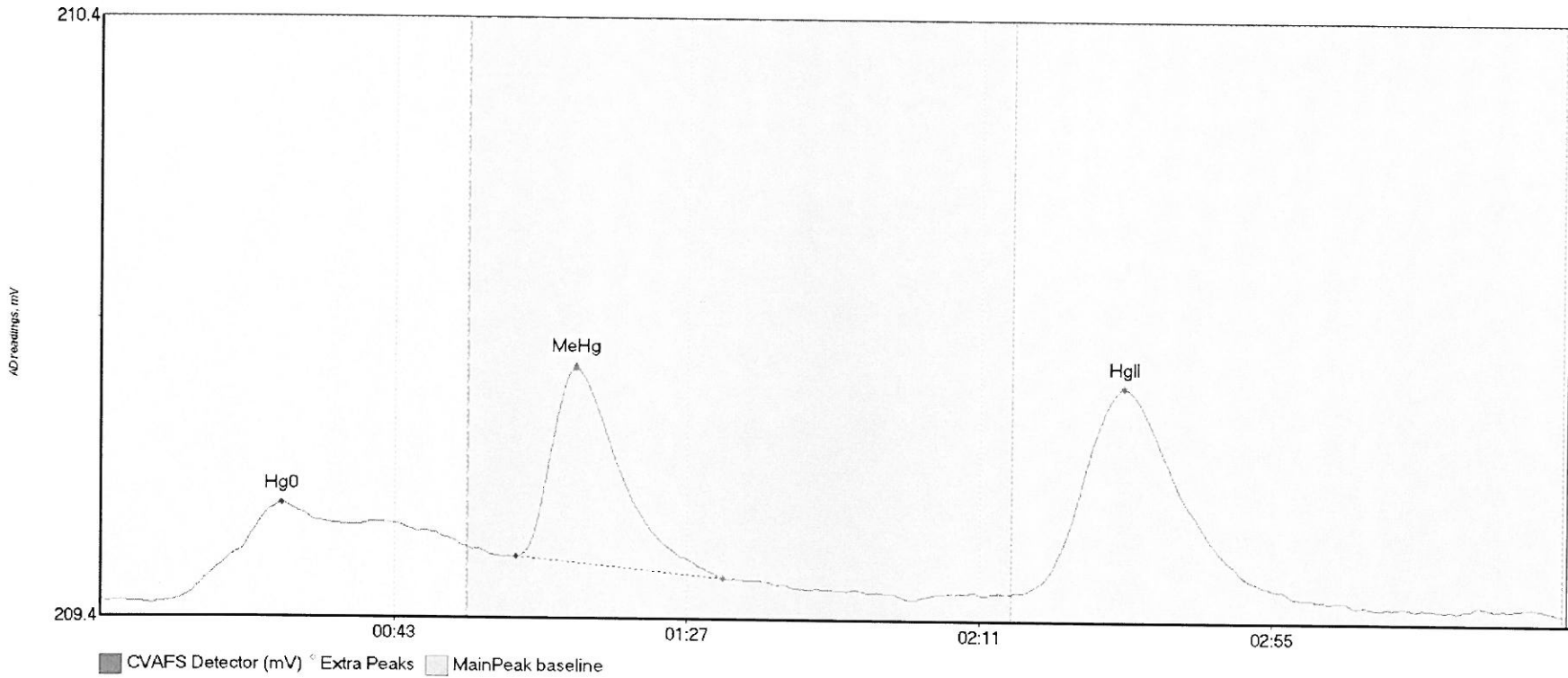
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1707696-05 Hg0	39.522	5.8	55.0	209.41	209.53	27.6	0.258	CT	209.4073	0.00	0.00	
1707696-05 MeHg	32.234	62.8	89.9	209.50	209.48	71.6	0.280	OK	209.4073	0.00	0.00	
1707696-05 HgII	69.199	137.7	179.2	209.43	209.43	153.9	0.421	OK	209.4073	0.00	0.00	

#40: 1707696-06



Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1707696-06 Hg0	28.064	10.6	55.0	209.40	209.50	27.4	0.168	CT	209.3940	0.00	-0.01	
1707696-06 MeHg	23.050	63.0	90.2	209.48	209.45	72.2	0.196	OK	209.3940	0.00	-0.01	
1707696-06 HgII	64.068	136.8	180.7	209.42	209.41	154.2	0.387	OK	209.3940	0.00	-0.01	

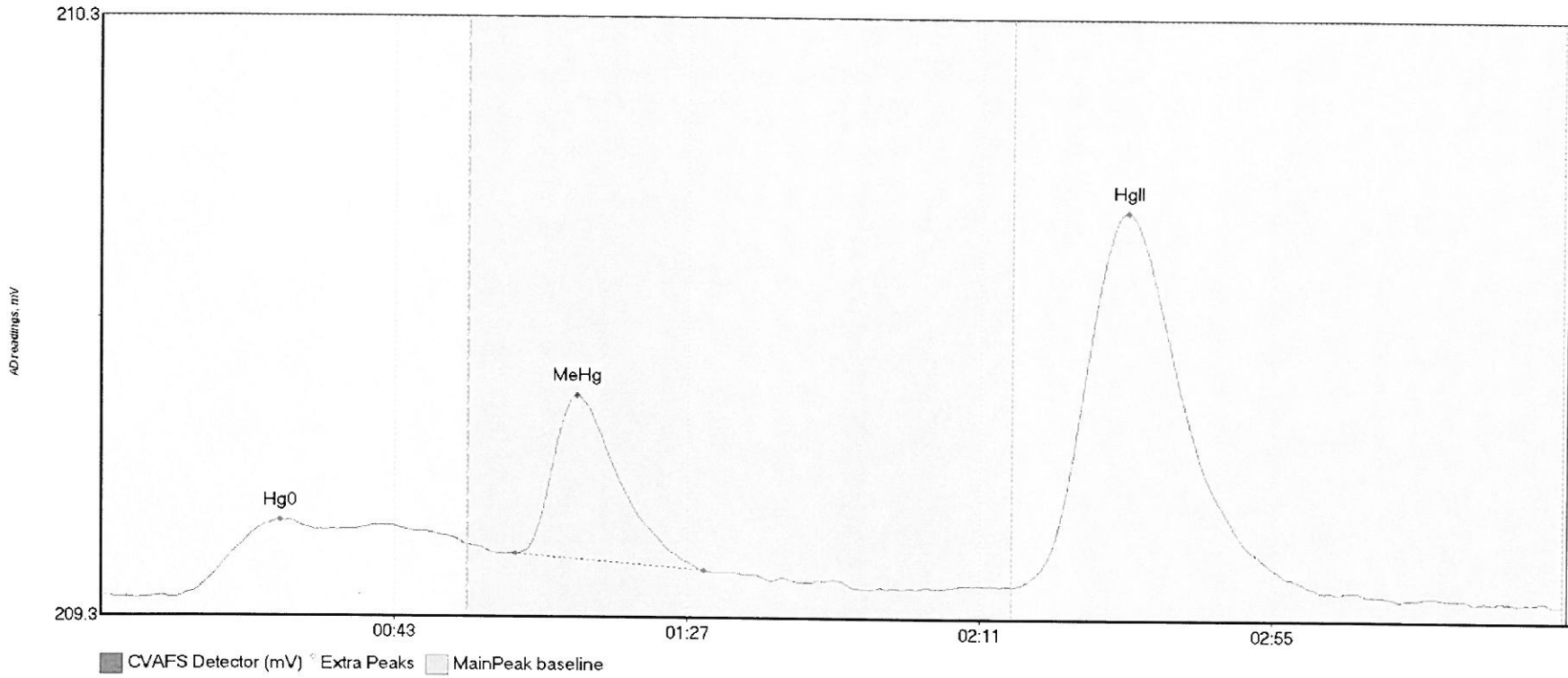
#41: 1707806-01



Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1707806-01 Hg0	27.312	11.5	55.0	209.39	209.48	27.2	0.161	CT	209.3885	0.00	-0.01	
1707806-01 MeHg	38.555	62.3	93.5	209.46	209.43	71.3	0.315	OK	209.3885	0.00	-0.01	
1707806-01 HgII	56.583	138.4	180.4	209.41	209.40	153.7	0.343	OK	209.3885	0.00	-0.01	

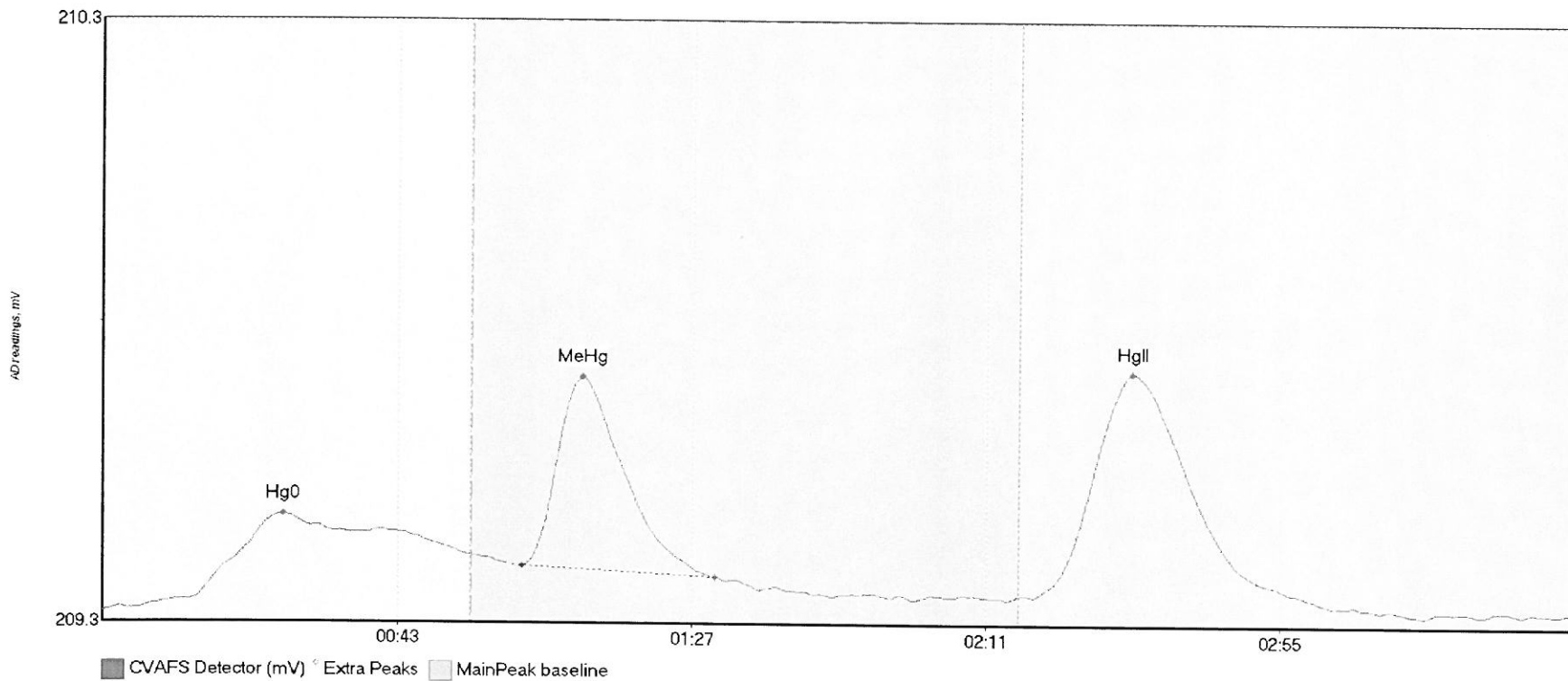


#42: 1707806-02



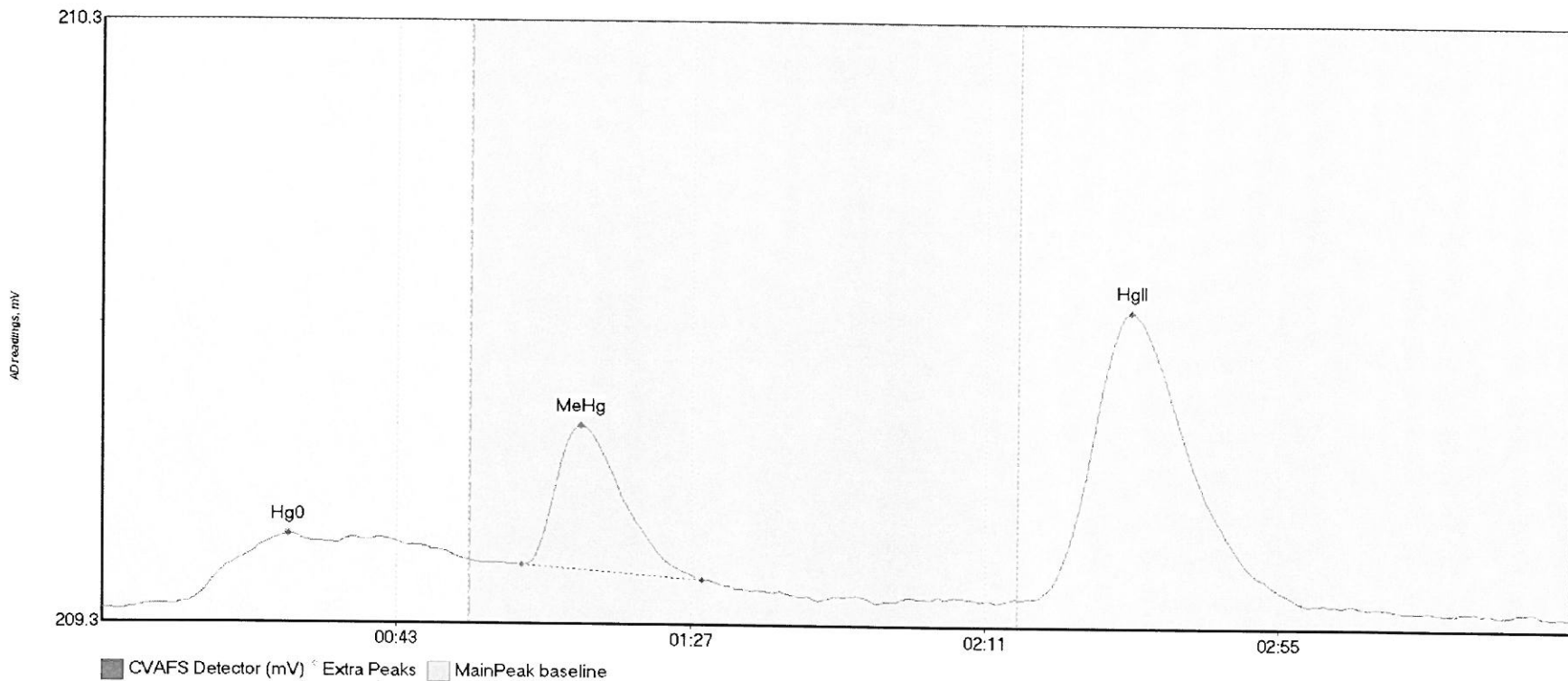
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1707806-02 Hg0	22.681	10.8	55.0	209.38	209.47	26.9	0.129	CT	209.3798	0.00	-0.01	
1707806-02 MeHg	31.250	62.2	90.5	209.45	209.42	71.4	0.265	OK	209.3798	0.00	-0.01	
1707806-02 HgII	105.089	137.6	183.9	209.40	209.39	154.2	0.624	OK	209.3798	0.00	-0.01	

#43: 1707806-03



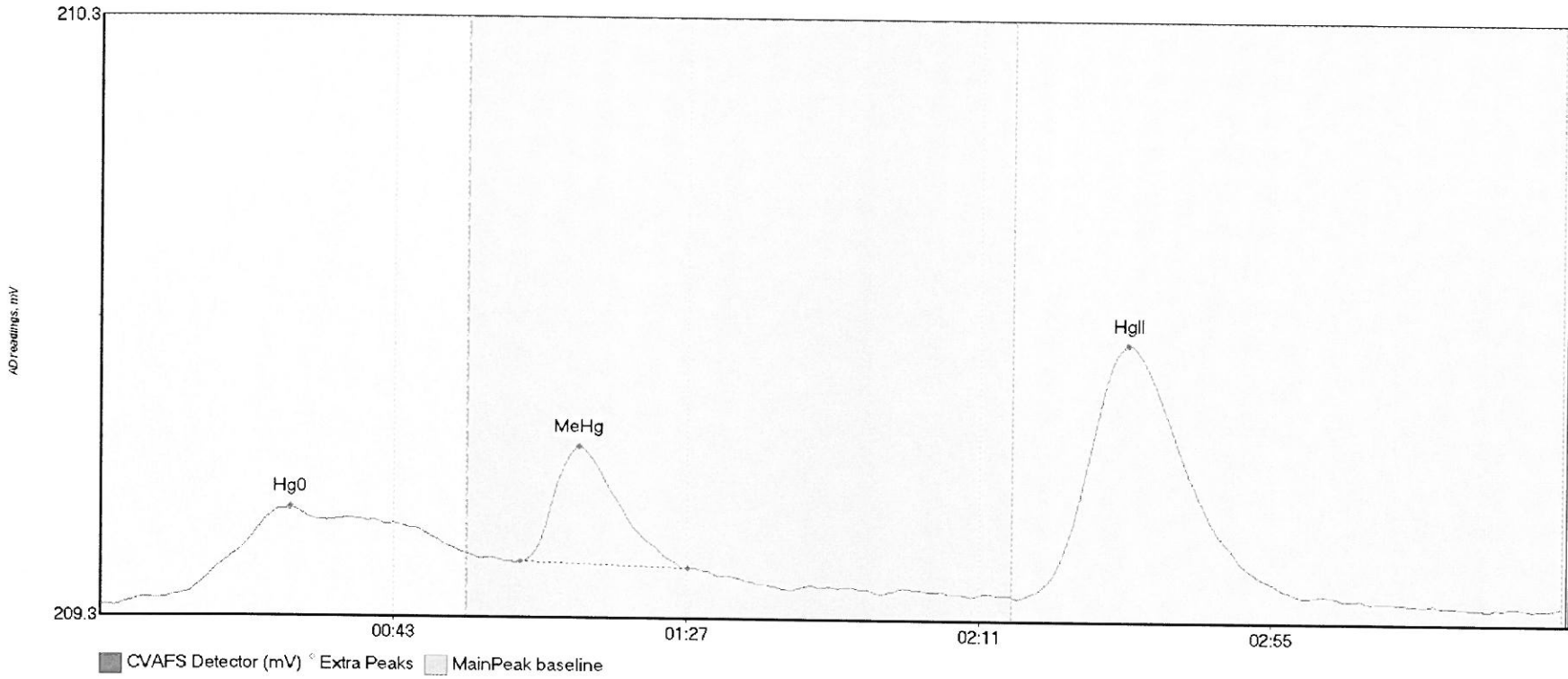
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1707806-03 Hg0	25.620	5.2	55.0	209.37	209.46	26.8	0.156	CT	209.3681	0.00	0.00	
1707806-03 MeHg	36.398	62.6	91.5	209.44	209.43	71.6	0.314	OK	209.3681	0.00	0.00	
1707806-03 HgII	58.394	139.0	177.7	209.39	209.40	153.8	0.373	OK	209.3681	0.00	0.00	

#44: 1707806-04



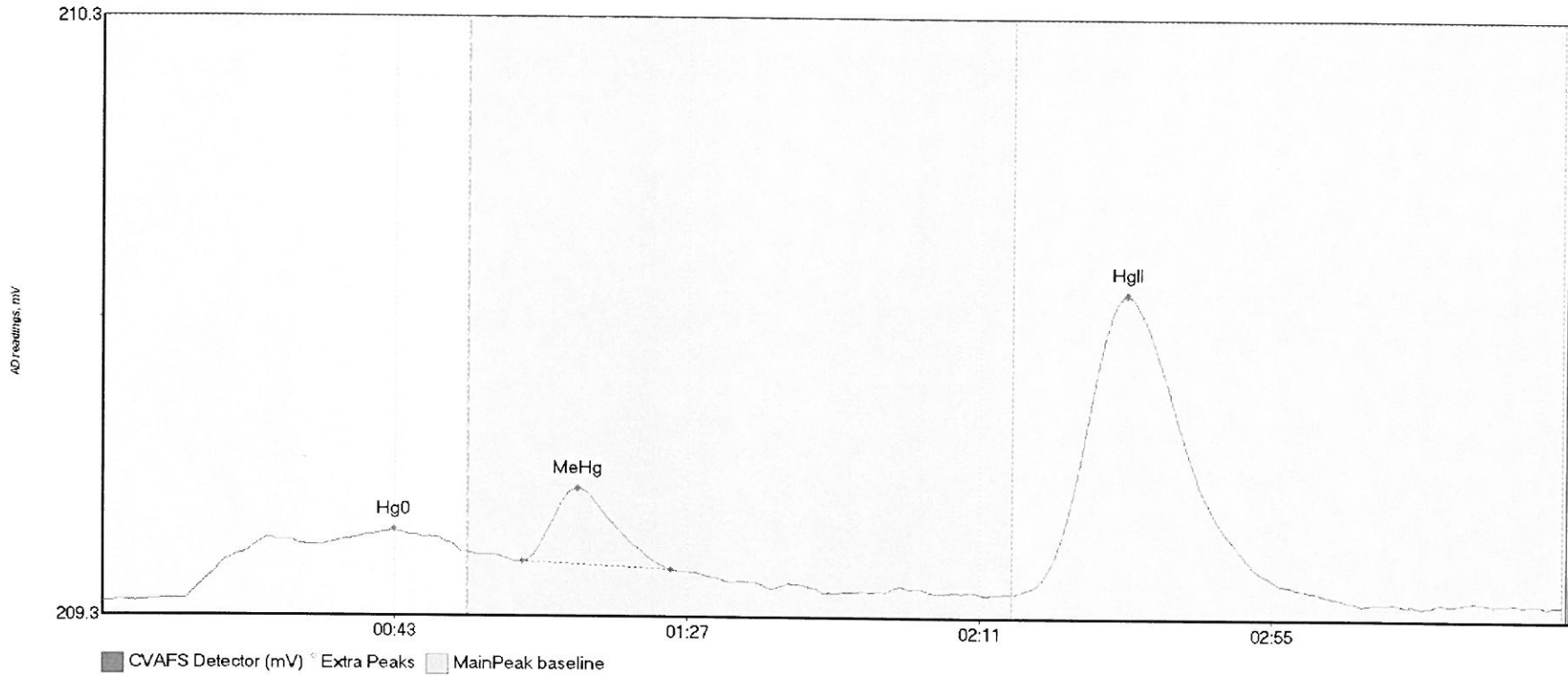
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1707806-04 Hg0	20.842	4.8	55.0	209.36	209.44	27.7	0.123	CT	209.3622	0.00	0.00	
1707806-04 MeHg	27.333	62.7	89.6	209.44	209.41	71.5	0.232	OK	209.3622	0.00	0.00	
1707806-04 HgII	78.326	139.5	180.4	209.39	209.38	153.7	0.476	OK	209.3622	0.00	0.00	

#45: 1707806-05



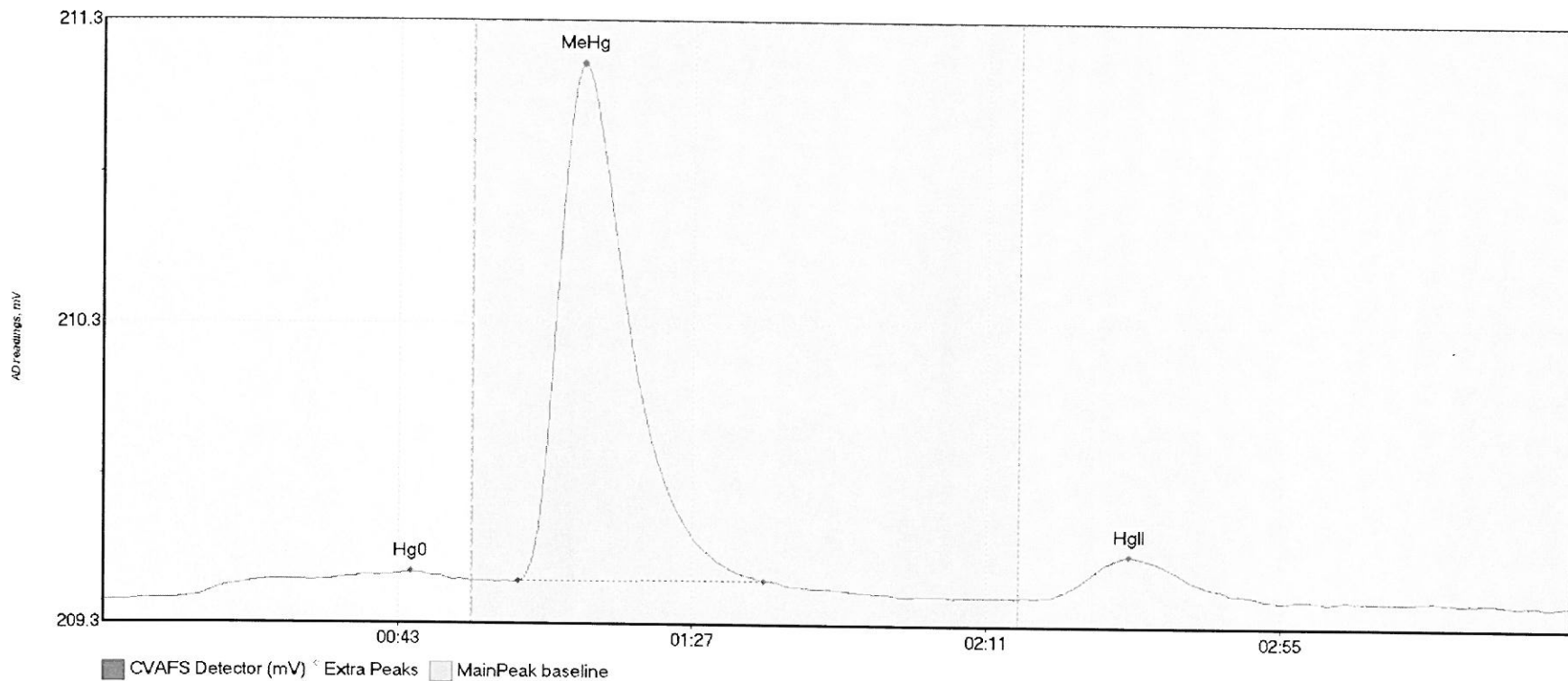
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1707806-05 Hg0	28.405	2.1	55.0	209.35	209.44	28.4	0.164	CT	209.3523	0.00	0.01	
1707806-05 MeHg	21.531	63.0	88.1	209.43	209.42	71.7	0.193	OK	209.3523	0.00	0.01	
1707806-05 HgII	70.307	138.2	181.0	209.37	209.38	154.3	0.424	OK	209.3523	0.00	0.01	017

#46: 1707806-06



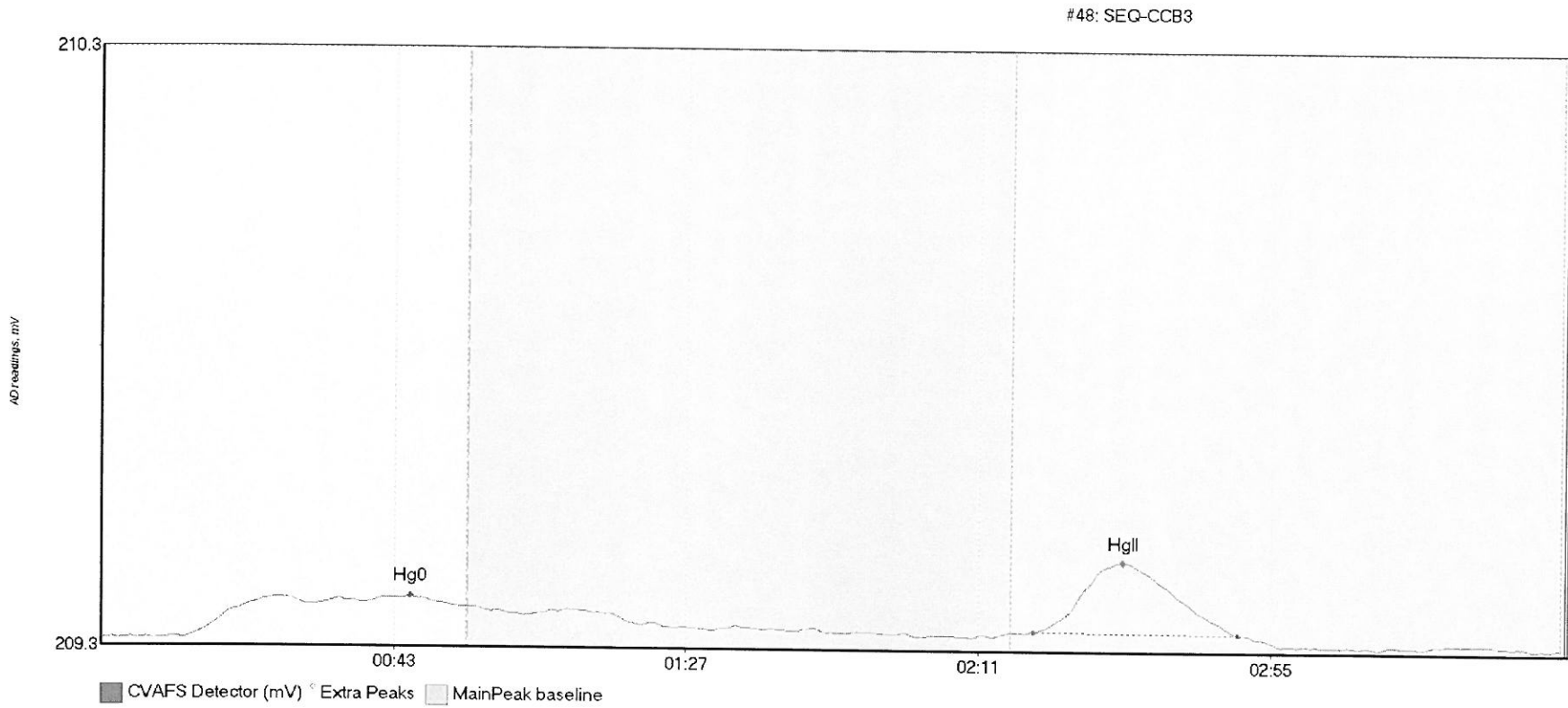
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1707806-06 Hg0	20.567	12.1	55.0	209.36	209.44	43.8	0.115	CT	209.3579	0.00	0.00	
1707806-06 MeHg	13.400	63.1	85.5	209.43	209.41	71.4	0.121	OK	209.3579	0.00	0.00	
1707806-06 HgII	83.016	136.9	182.4	209.37	209.38	154.2	0.500	OK	209.3579	0.00	0.00	

#47: SEQ-CCV3



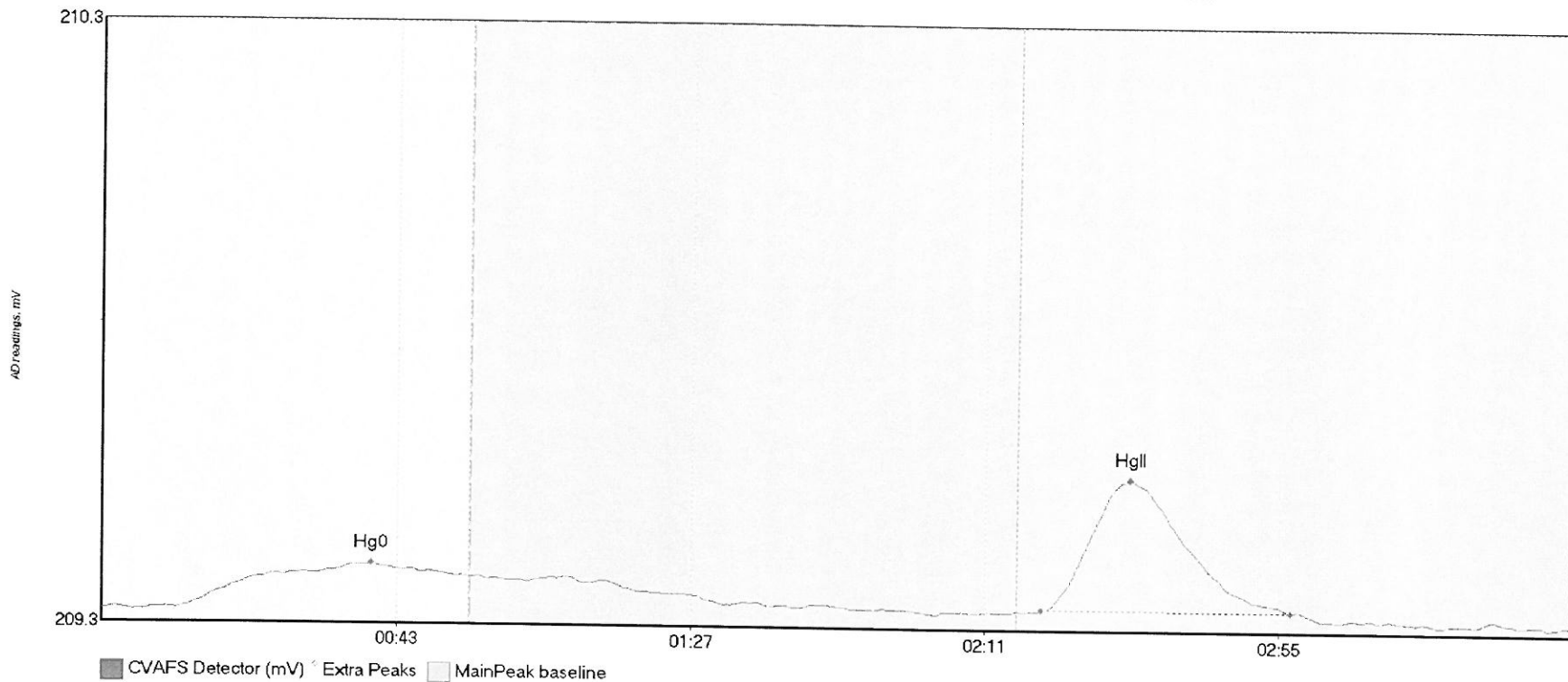
/

Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
SEQ-CCV3 Hg0	13.047	10.0	55.0	209.36	209.42	45.9	0.090	CT	209.3523	0.00	0.00	
SEQ-CCV3 MeHg	211.950	61.8	98.8	209.42	209.42	71.5	1.733	OK	209.3523	0.00	0.00	
SEQ-CCV3 HgII	22.404	141.5	176.2	209.37	209.36	153.5	0.137	OK	209.3523	0.00	0.00	017



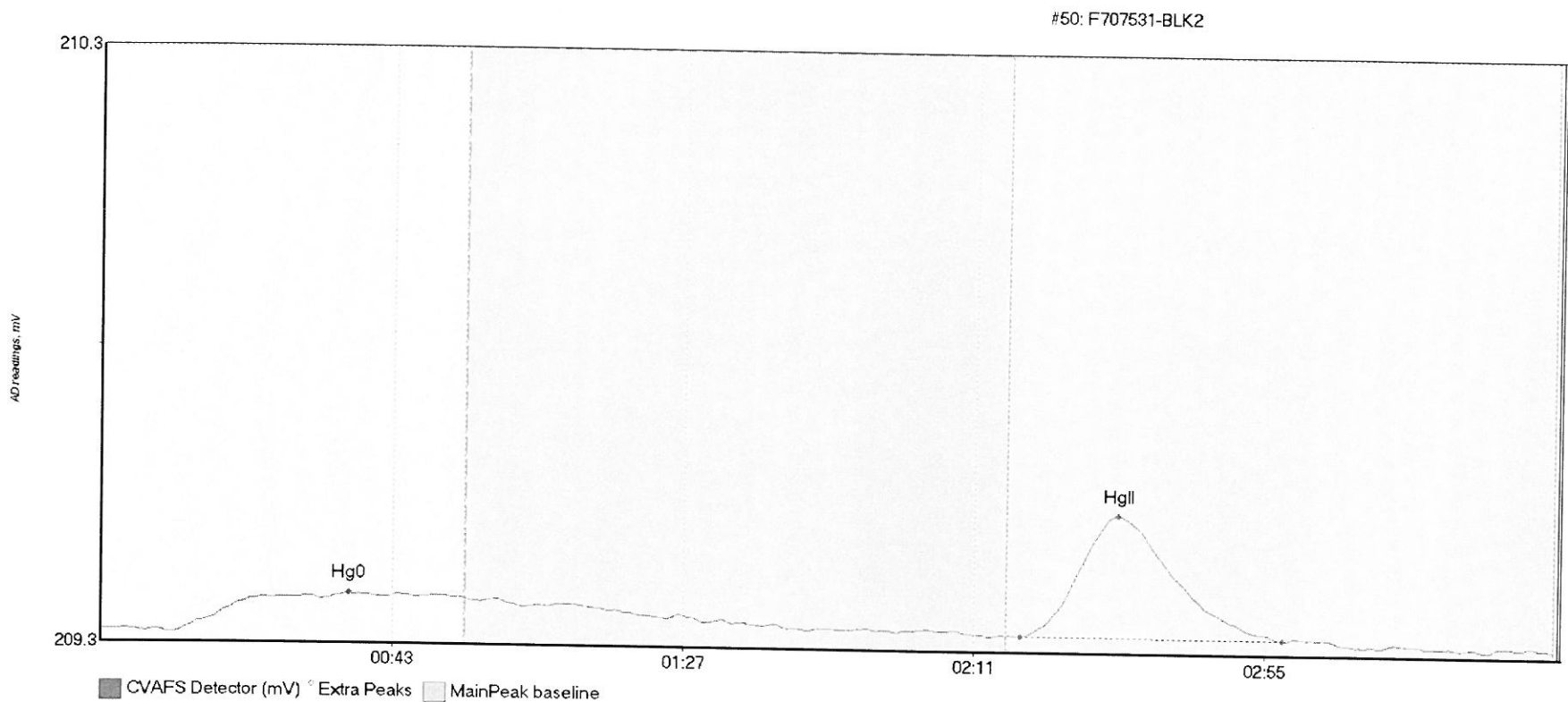
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
SEQ-CCB3 Hg0	11.861	12.4	55.0	209.35	209.41	46.5	0.070	CT	209.3525	0.00	0.00	
SEQ-CCB3 HgII	18.324	140.3	171.0	209.37	209.37	153.7	0.117	OK	209.3525	0.00	0.00	017

#49: F707531-BLK1



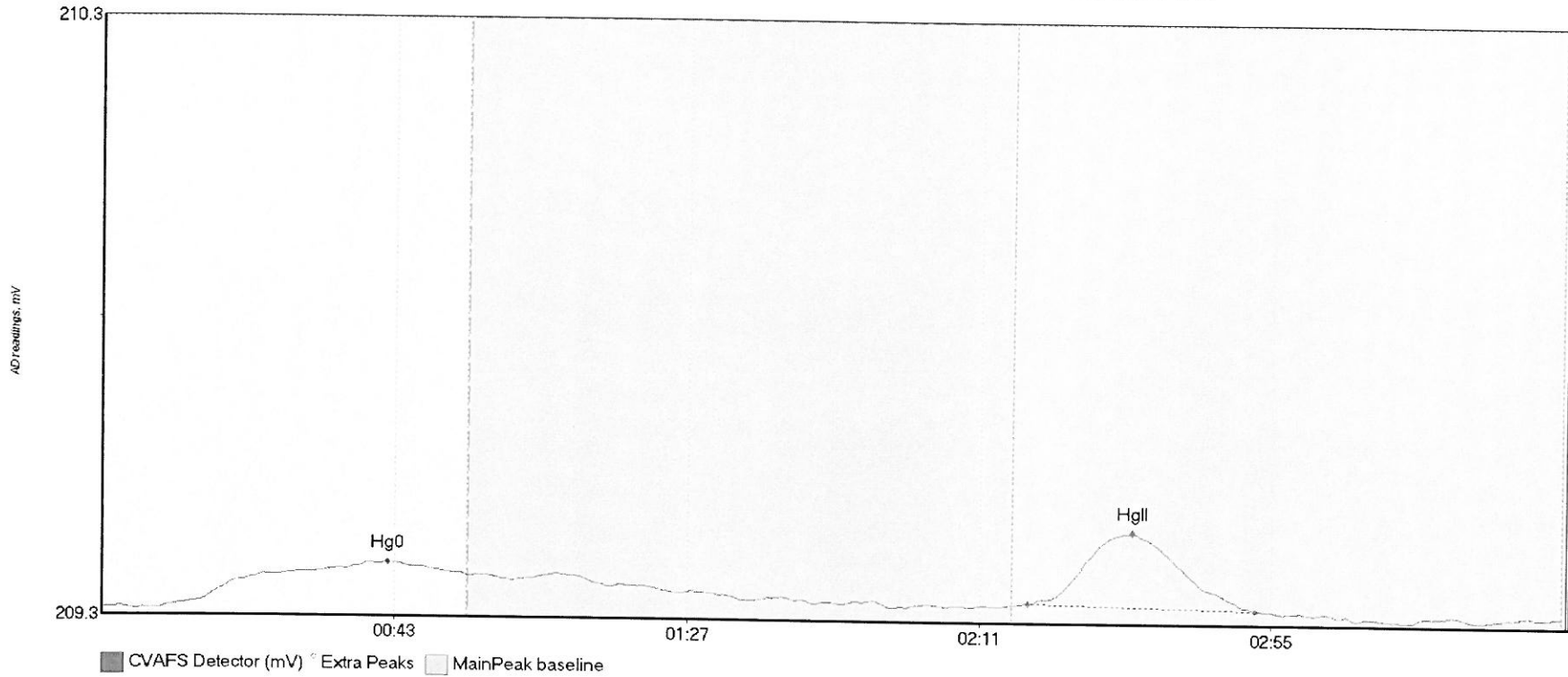
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
F707531-BLK1 Hg	10.835	12.5	55.0	209.36	209.41	40.1	0.071	CT	209.3530	0.00	-0.01	
F707531-BLK1 Hg	34.613	140.5	177.8	209.36	209.36	153.8	0.217	OK	209.3530	0.00	-0.01	017





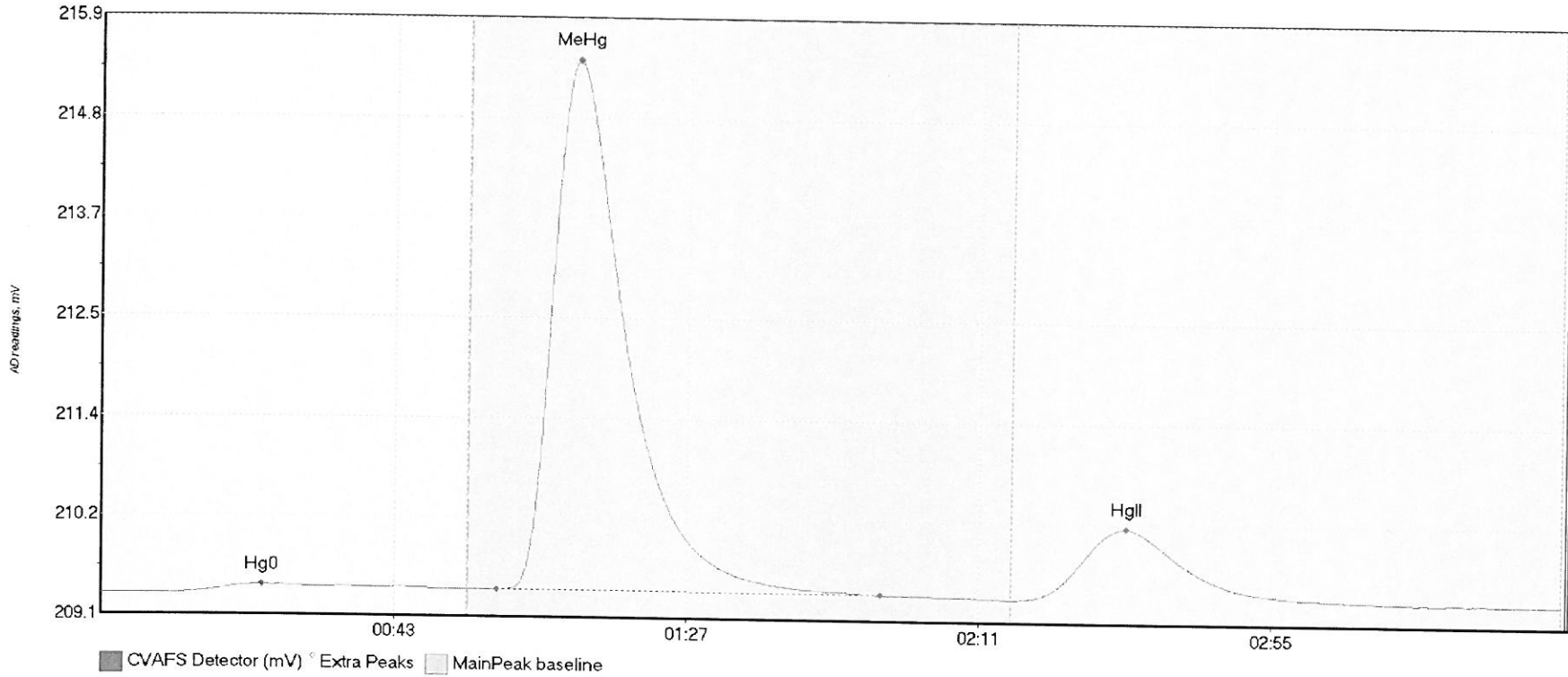
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
F707531-BLK2 Hg	10.286	11.0	55.0	209.35	209.41	37.4	0.067	CT	209.3562	0.00	-0.01	
F707531-BLK2 Hg	33.570	139.0	178.8	209.36	209.36	153.7	0.204	OK	209.3562	0.00	-0.01	017

#51: F707531-BLK3



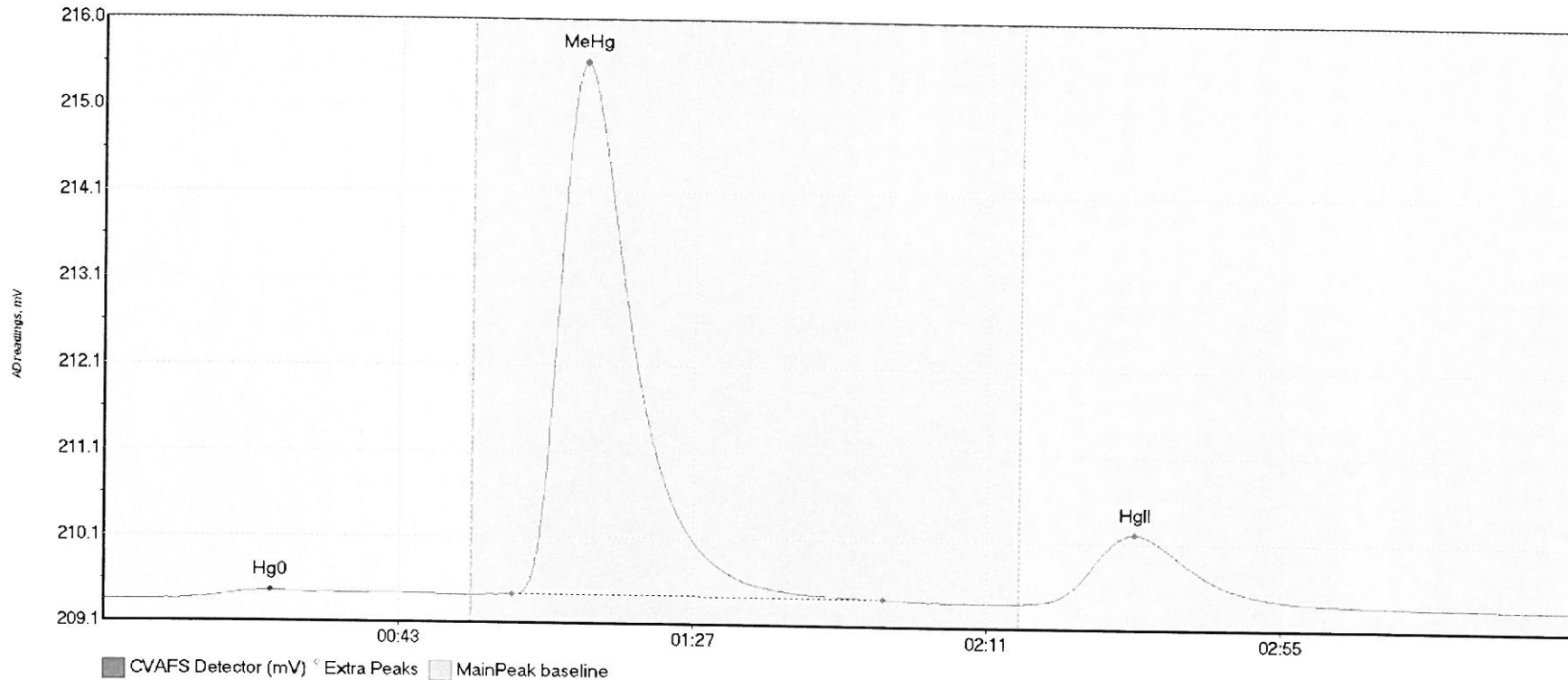
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
F707531-BLK3 Hg	10.919	10.2	55.0	209.36	209.41	43.0	0.073	CT	209.3552	0.00	0.00	
F707531-BLK3 Hg	19.881	139.3	173.6	209.37	209.37	155.1	0.119	OK	209.3552	0.00	0.00	017

#52: F707531-BS1



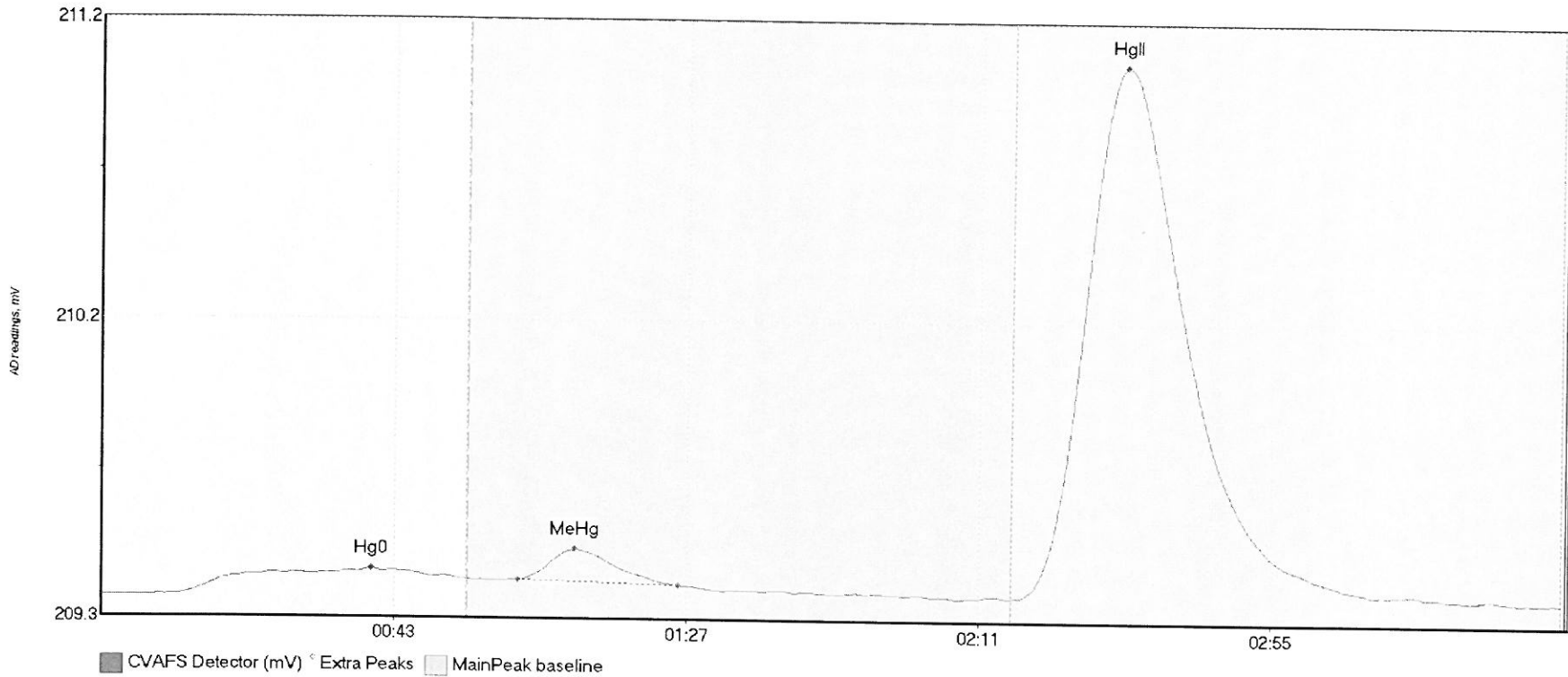
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
F707531-BS1 Hg0	15.888	11.4	52.8	209.36	209.43	24.1	0.096	OK	209.3622	0.00	0.00	
F707531-BS1 MeH	765.656	59.5	117.2	209.43	209.41	71.4	6.015	OK	209.3622	0.00	0.00	
F707531-BS1 HgI	141.233	137.4	190.4	209.38	209.38	154.0	0.819	OK	209.3622	0.00	0.00	

#53: F707531-BSD1



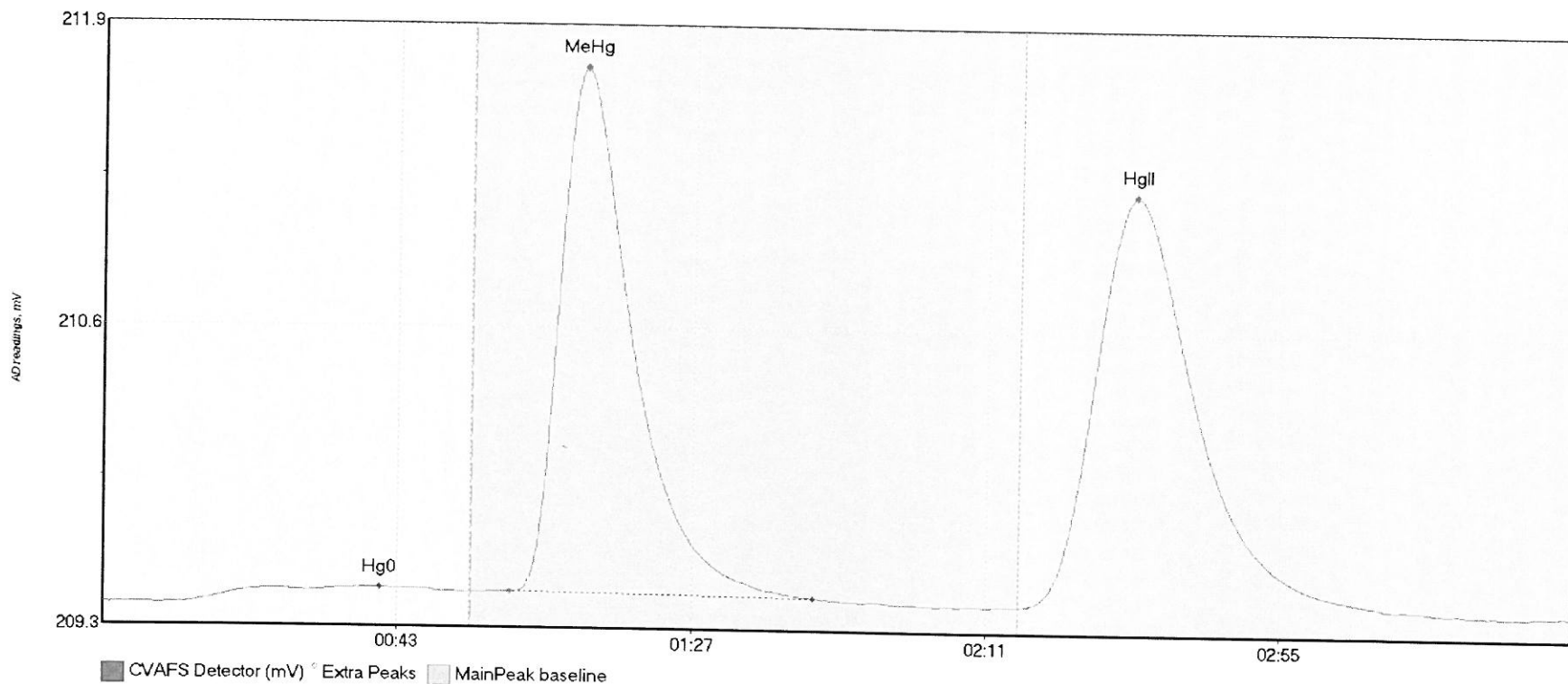
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
F707531-BSD1 Hg	15.152	3.6	52.7	209.36	209.43	24.9	0.103	OK	209.3597	0.00	0.00	
F707531-BSD1 Me	771.428	61.1	116.6	209.44	209.42	71.7	6.102	OK	209.3597	0.00	0.00	
F707531-BSD1 Hg	136.832	137.0	187.0	209.40	209.39	154.2	0.802	OK	209.3597	0.00	0.00	017

#54: F707531-DUP1



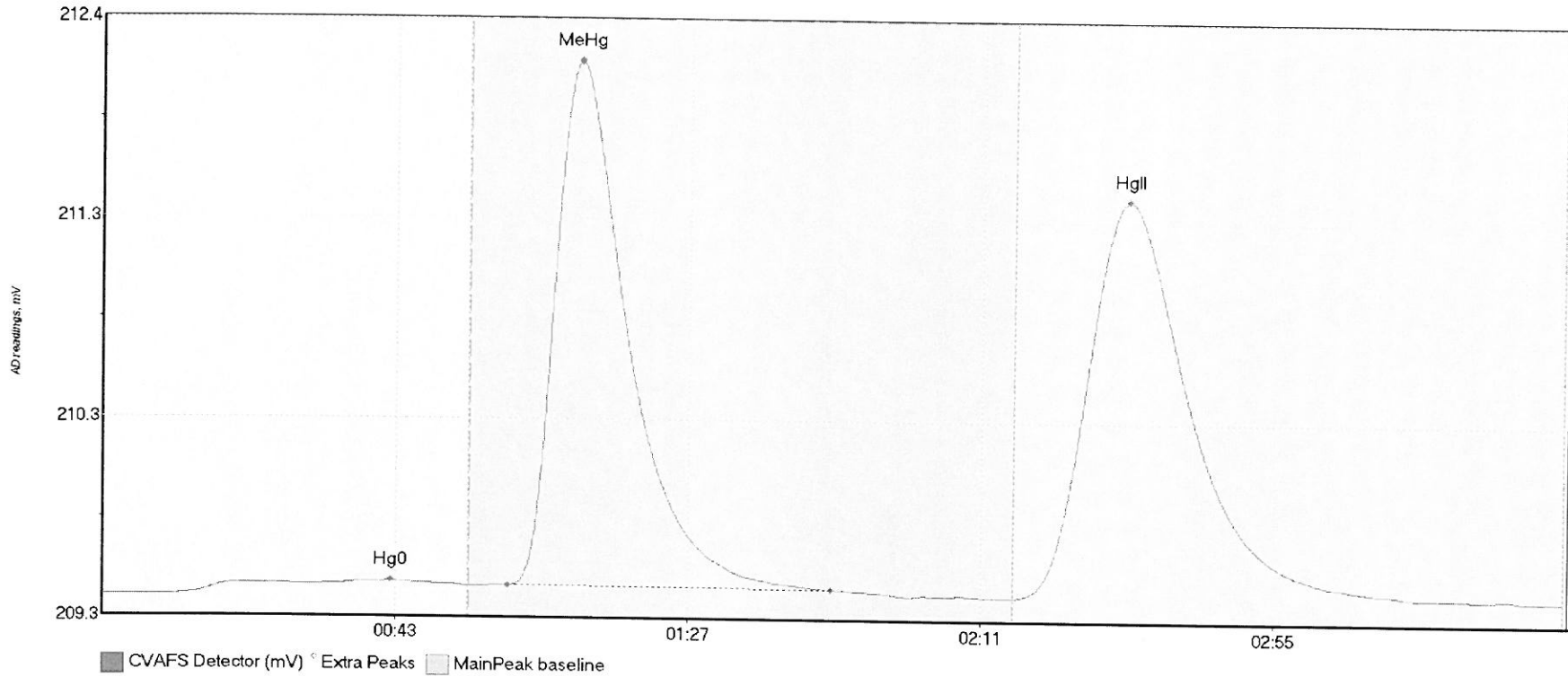
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
F707531-DUP1 Hg	14.780	11.6	55.0	209.37	209.42	40.6	0.080	CT	209.3653	0.00	0.00	
F707531-DUP1 Me	11.210	62.6	86.8	209.42	209.40	71.2	0.095	OK	209.3653	0.00	0.00	
F707531-DUP1 Hg	290.660	137.8	203.3	209.37	209.38	153.8	1.659	OK	209.3653	0.00	0.00	

#55: F707531-MS1



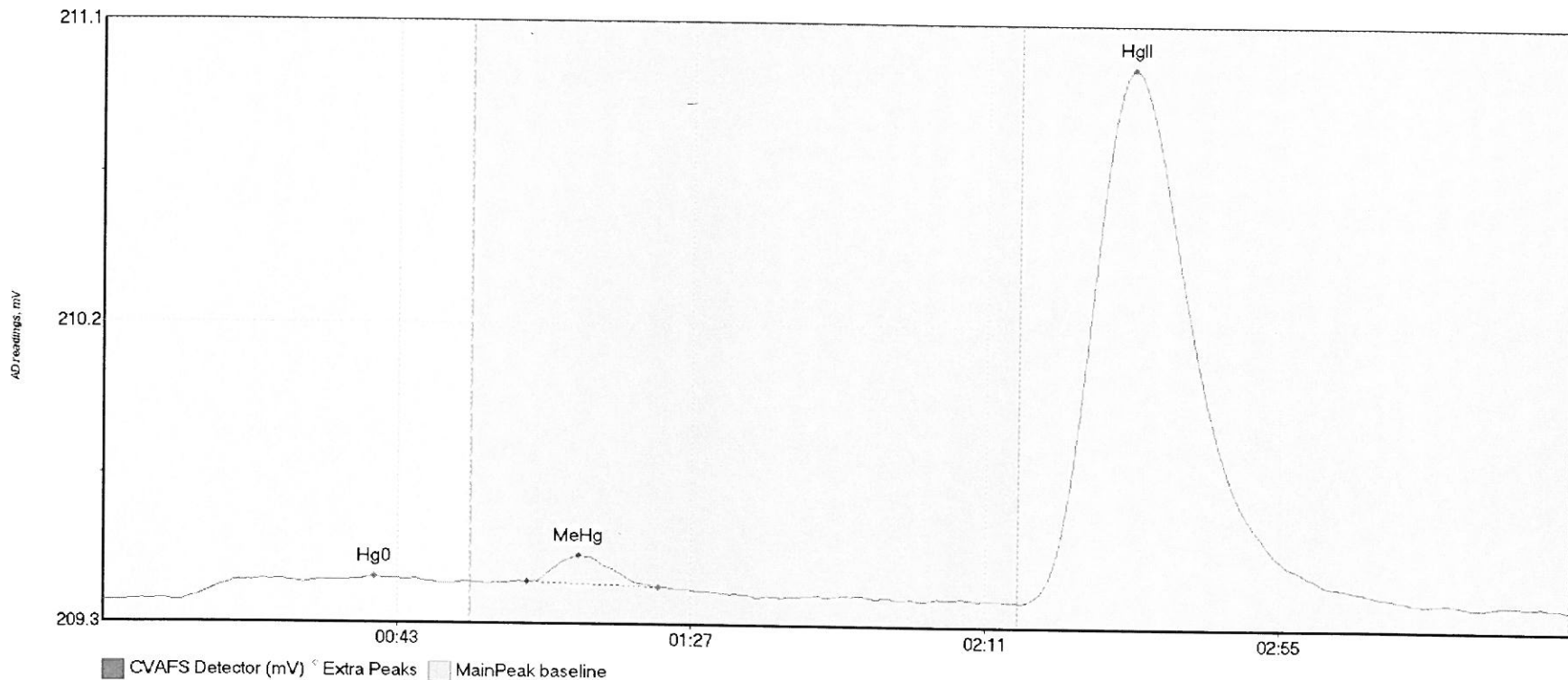
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
F707531-MS1 Hg0	11.697	11.8	53.6	209.37	209.43	41.5	0.072	OK	209.3709	0.00	0.00	
F707531-MS1 MeH	288.660	60.8	106.2	209.43	209.41	71.7	2.310	OK	209.3709	0.00	0.00	
F707531-MS1 HgI	314.048	137.3	193.2	209.39	209.39	154.1	1.813	OK	209.3709	0.00	0.00	

#56: F707531-MSD1



Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
F707531-MSD1 Hg	12.673	10.8	55.0	209.37	209.42	43.3	0.074	CT	209.3686	0.00	0.01	
F707531-MSD1 Me	347.234	60.8	109.5	209.42	209.41	71.5	2.749	OK	209.3686	0.00	0.01	
F707531-MSD1 Hg	368.469	136.8	206.7	209.38	209.38	154.1	2.085	OK	209.3686	0.00	0.01	017

#57: 1707620-11

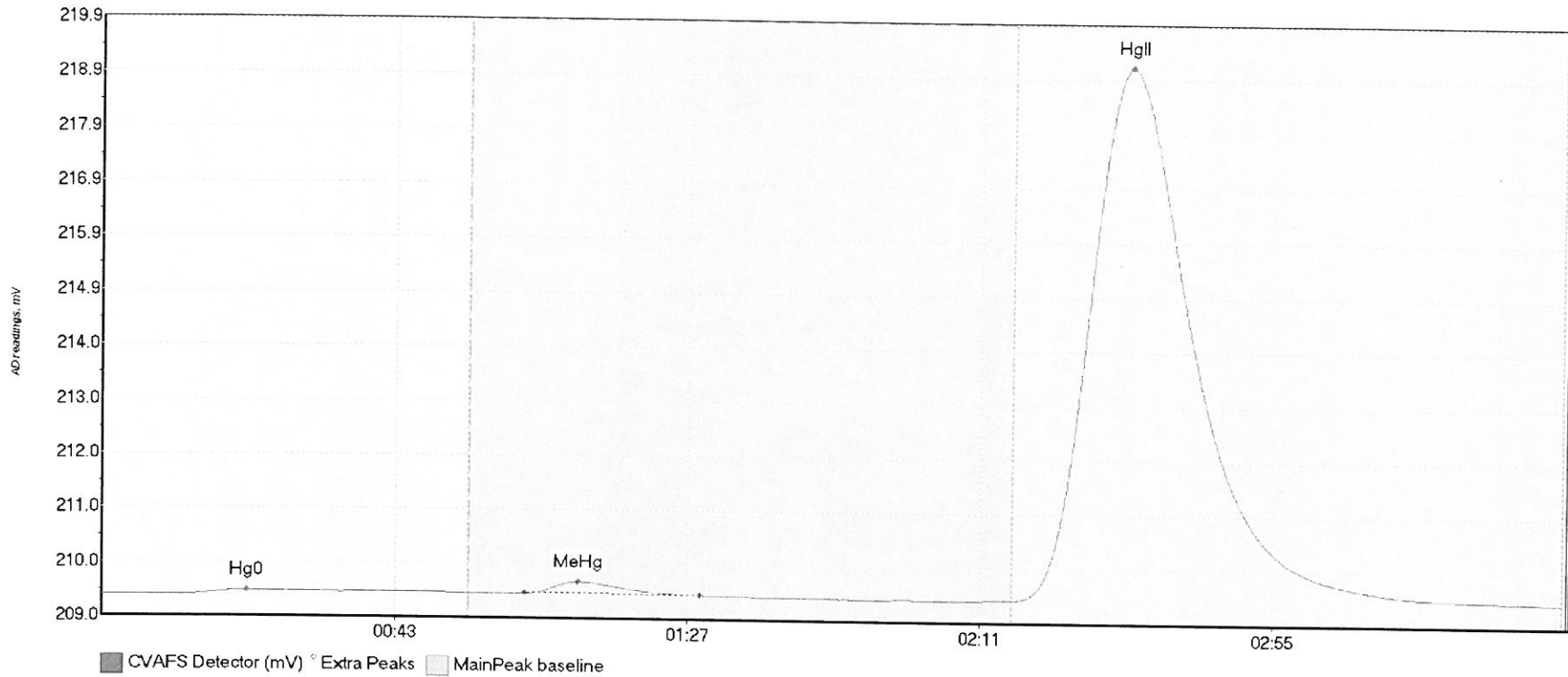


Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1707620-11 Hg0	11.478	11.2	50.8	209.37	209.42	40.6	0.071	OK	209.3729	0.00	0.00	
1707620-11 MeHg	7.802	63.4	83.2	209.43	209.42	71.2	0.076	OK	209.3729	0.00	0.00	
1707620-11 HgII	274.629	137.3	197.0	209.38	209.39	153.9	1.562	OK	209.3729	0.00	0.00	

017

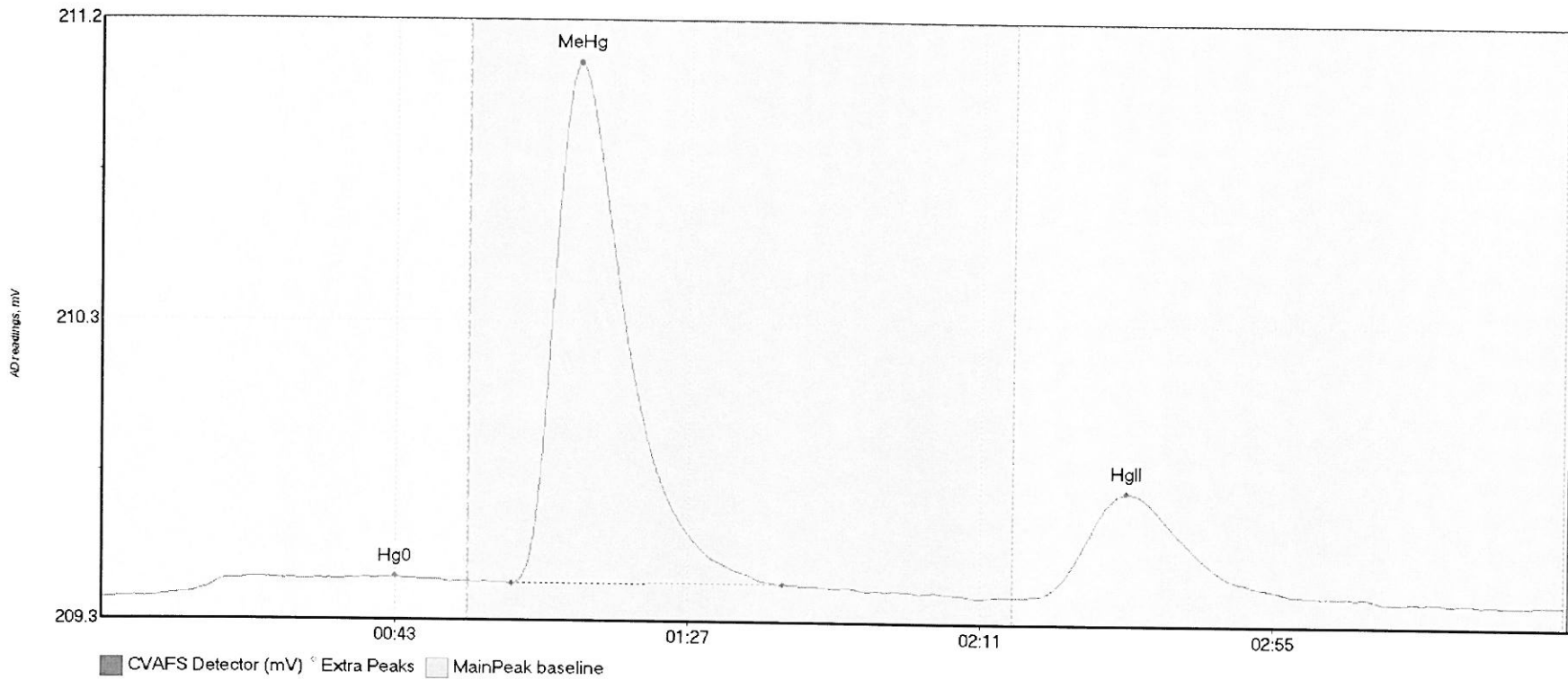


#58: 1707620-12

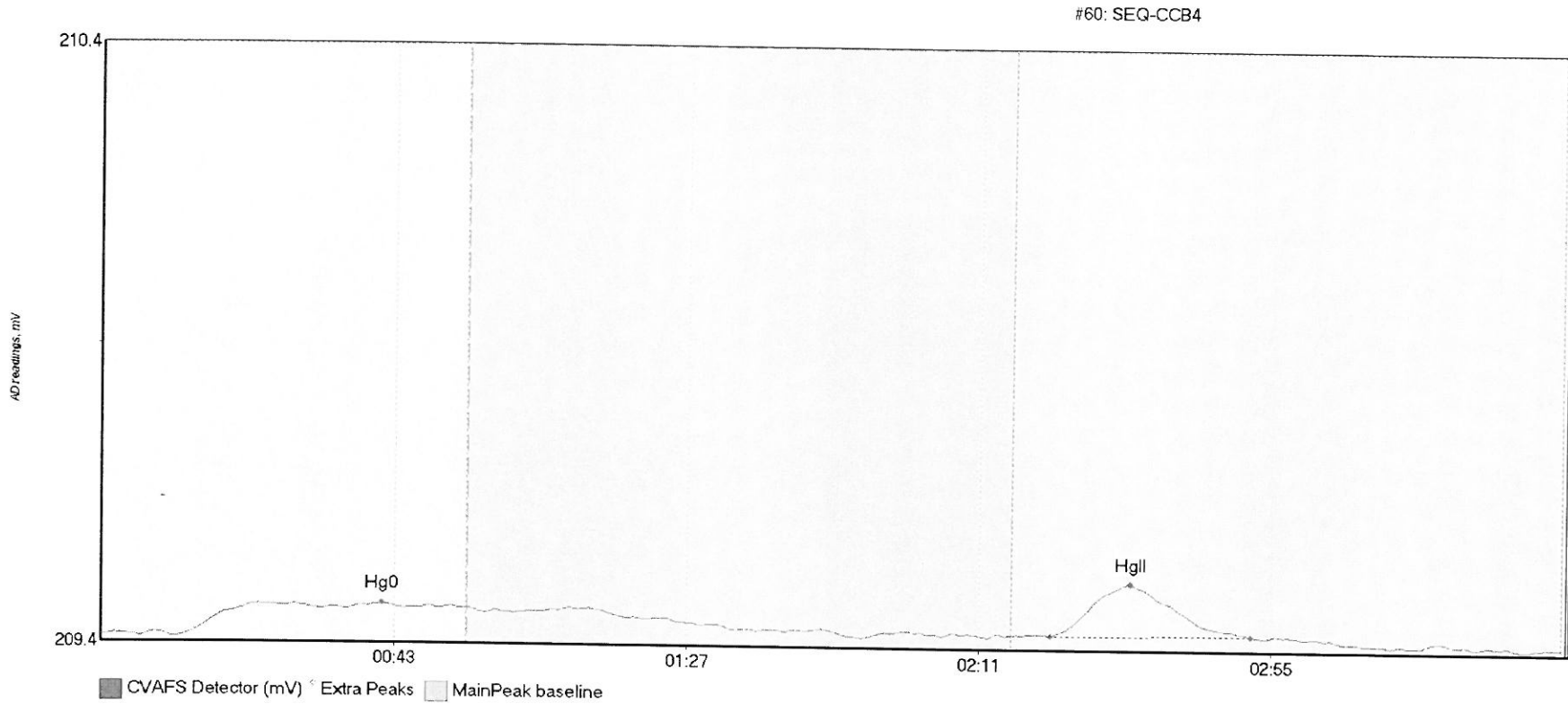


Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1707620-12 Hg0	15.057	11.4	55.0	209.38	209.44	21.7	0.081	CT	209.3848	0.00	0.04	
1707620-12 MeHg	24.403	63.4	89.9	209.44	209.43	71.6	0.211	OK	209.3848	0.00	0.04	
1707620-12 HgII	1729.755	136.8	219.8	209.40	209.42	154.5	9.731	CT	209.3848	0.00	0.04	

#59: SEQ-CCV4

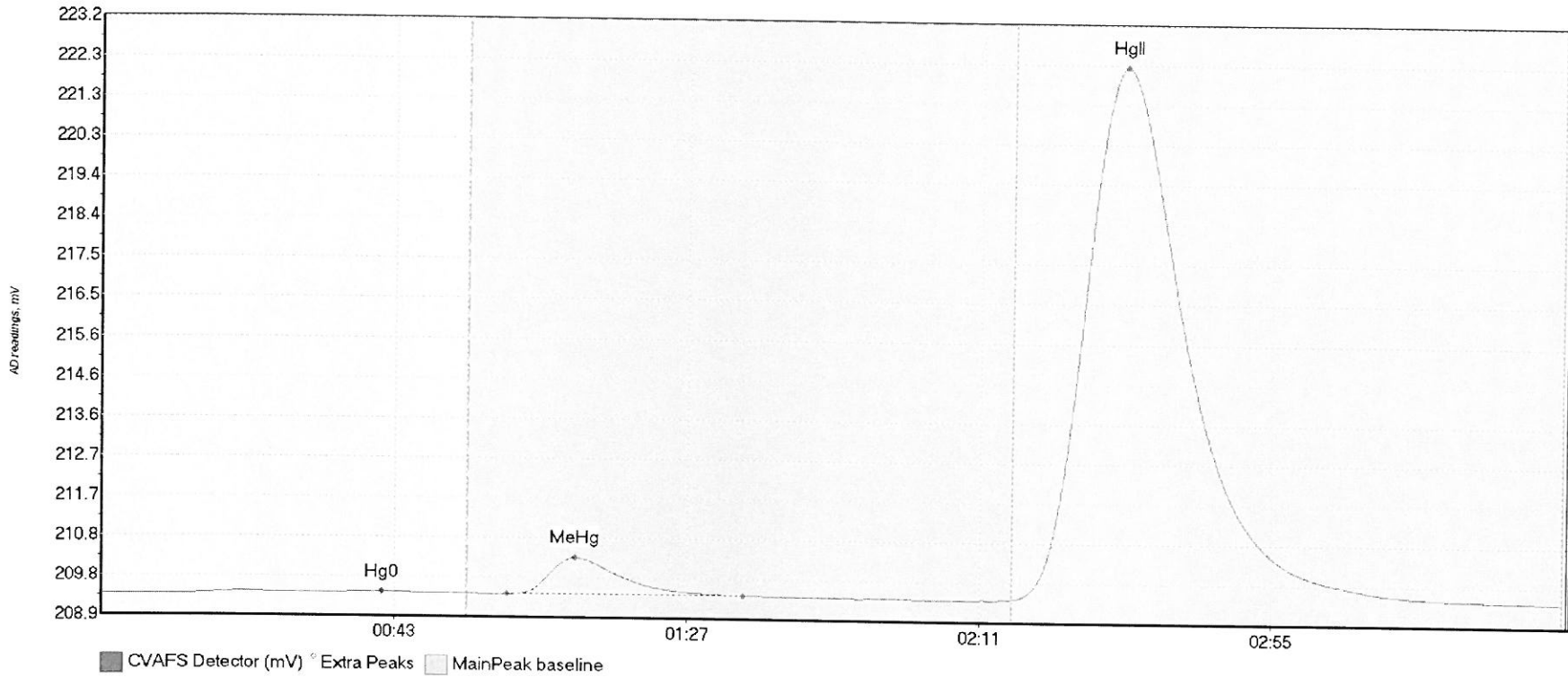


Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
SEQ-CCV4 Hg0	11.209	7.9	52.3	209.38	209.43	44.0	0.064	OK	209.3756	0.00	0.00	
SEQ-CCV4 MeHg	206.301	61.6	102.1	209.42	209.42	71.6	1.661	OK	209.3756	0.00	0.00	
SEQ-CCV4 HgII	54.633	140.6	181.3	209.40	209.40	153.9	0.332	OK	209.3756	0.00	0.00	



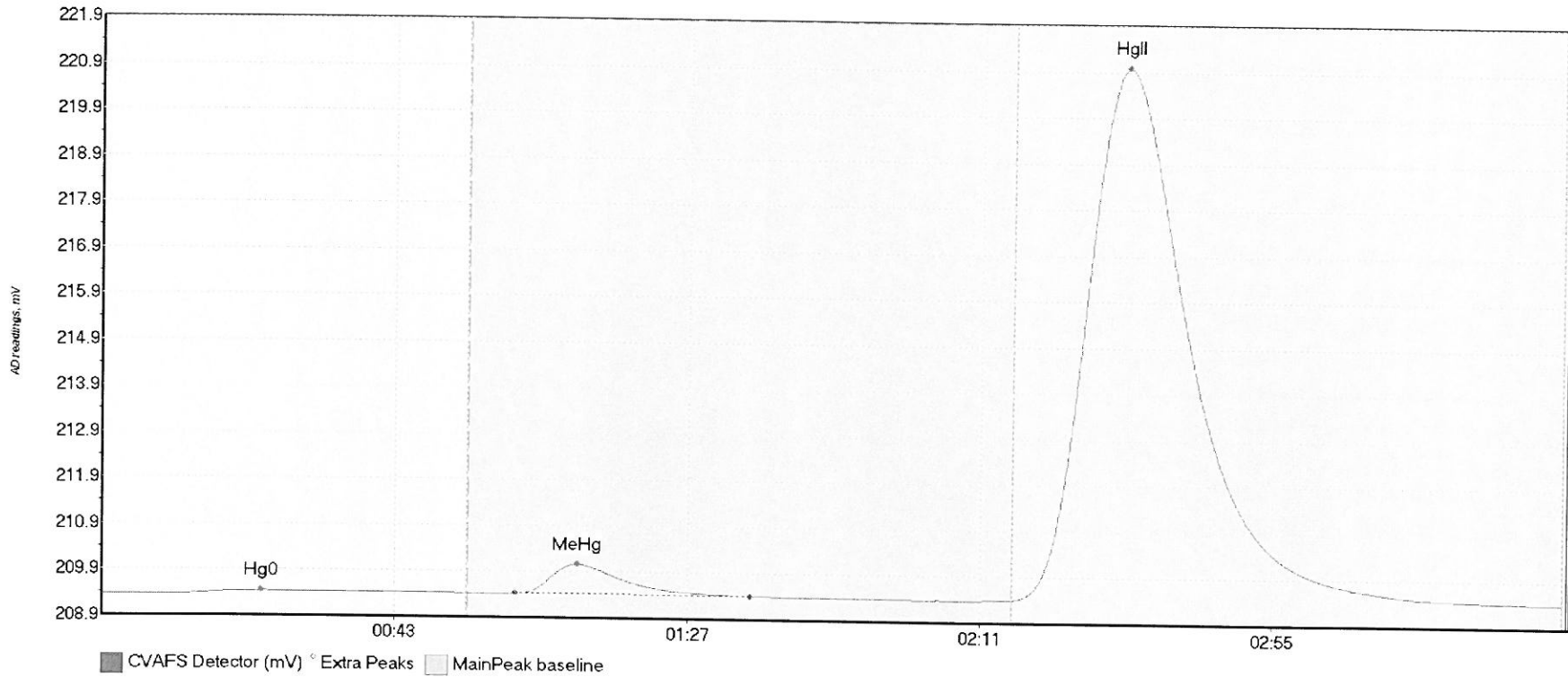
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
SEQ-CCB4 Hg0	6.637	11.4	45.5	209.37	209.42	42.2	0.056	OK	209.3749	0.00	0.00	
SEQ-CCB4 HgII	11.985	142.7	172.9	209.39	209.39	154.7	0.088	OK	209.3749	0.00	0.00	017

#61: 1707620-13



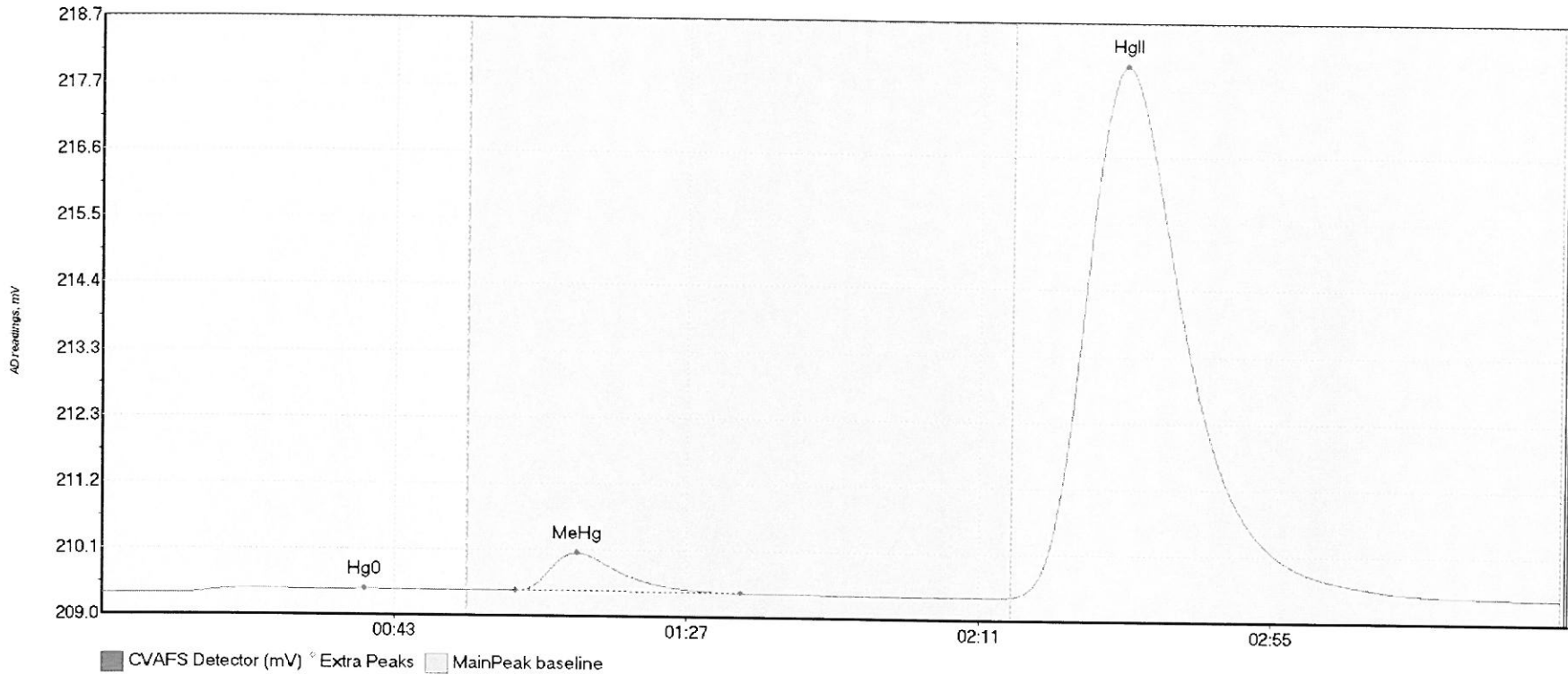
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1707620-13 Hg0	12.910	8.6	54.9	209.37	209.42	42.1	0.067	OK	209.3668	0.00	0.06	
1707620-13 MeHg	107.113	61.0	96.4	209.40	209.42	71.2	0.883	OK	209.3668	0.00	0.06	
1707620-13 HgII	2266.216	136.8	218.0	209.41	209.43	153.7	12.788	OK	209.3668	0.00	0.06	

#62: 1707620-14



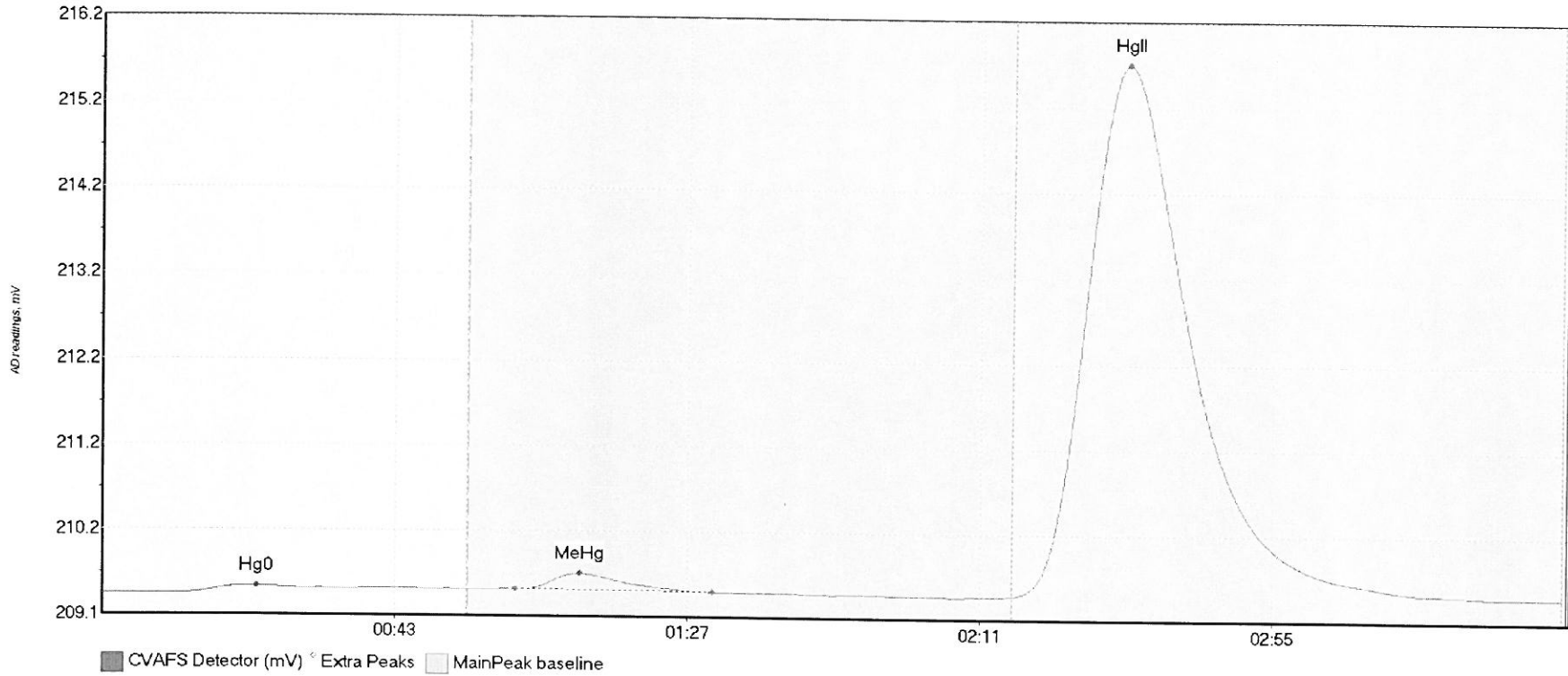
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1707620-14 Hg0	13.926	11.8	54.6	209.39	209.44	24.0	0.073	OK	209.3885	0.00	0.05	
1707620-14 MeHg	78.359	62.2	97.5	209.44	209.43	71.4	0.640	OK	209.3885	0.00	0.05	
1707620-14 HgII	2071.453	136.8	216.1	209.41	209.43	154.1	11.567	OK	209.3885	0.00	0.05	017

#63: 1707620-15



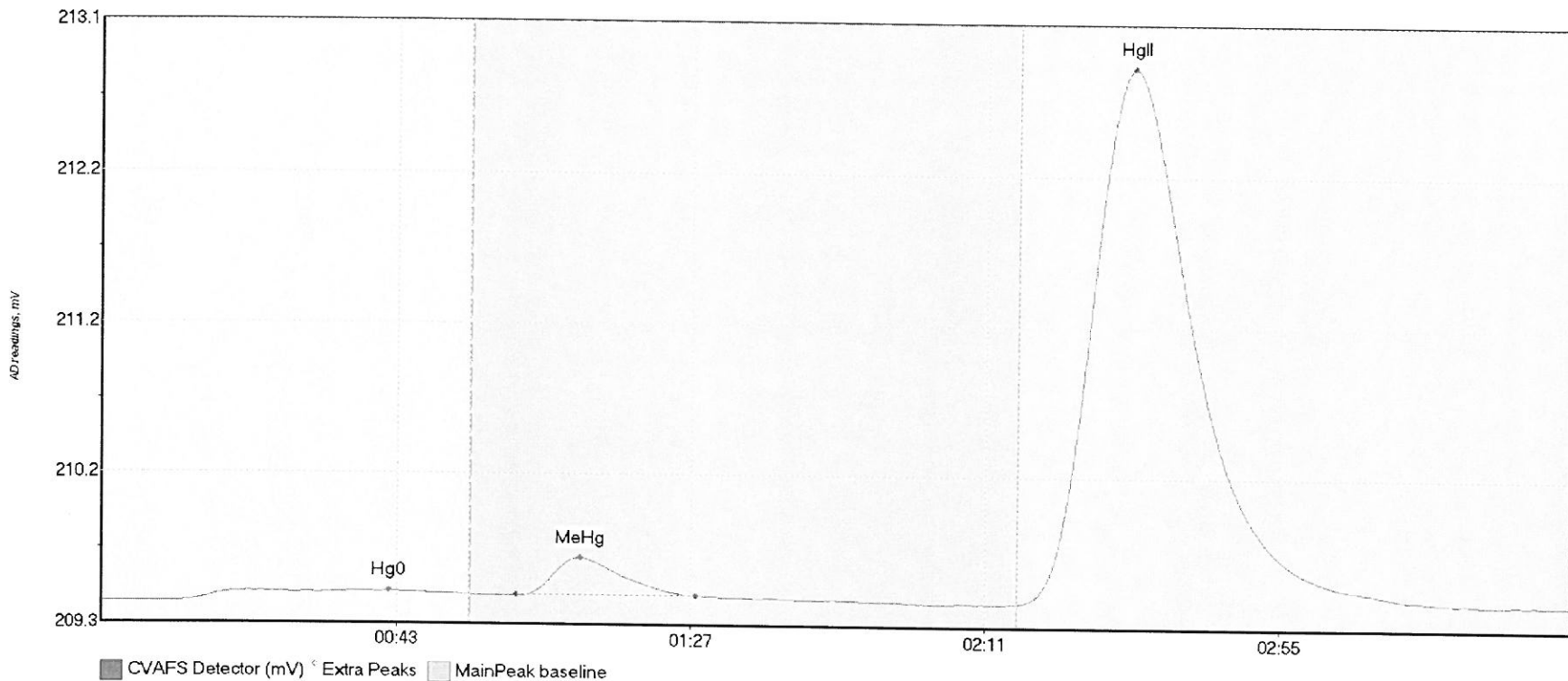
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1707620-15 Hg0	12.282	8.1	52.4	209.38	209.45	39.6	0.079	OK	209.3817	0.00	0.05	
1707620-15 MeHg	75.611	62.3	96.1	209.44	209.42	71.6	0.616	OK	209.3817	0.00	0.05	
1707620-15 HgII	1535.544	136.8	219.6	209.42	209.43	153.9	8.629	OK	209.3817	0.00	0.05	

#64: 1707620-16



Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1707620-16 Hg0	14.158	11.6	54.7	209.39	209.45	23.3	0.086	OK	209.3979	0.00	0.03	
1707620-16 MeHg	23.605	62.2	91.7	209.46	209.43	71.9	0.189	OK	209.3979	0.00	0.03	
1707620-16 HgII	1126.385	136.8	210.4	209.42	209.43	154.2	6.306	OK	209.3979	0.00	0.03	

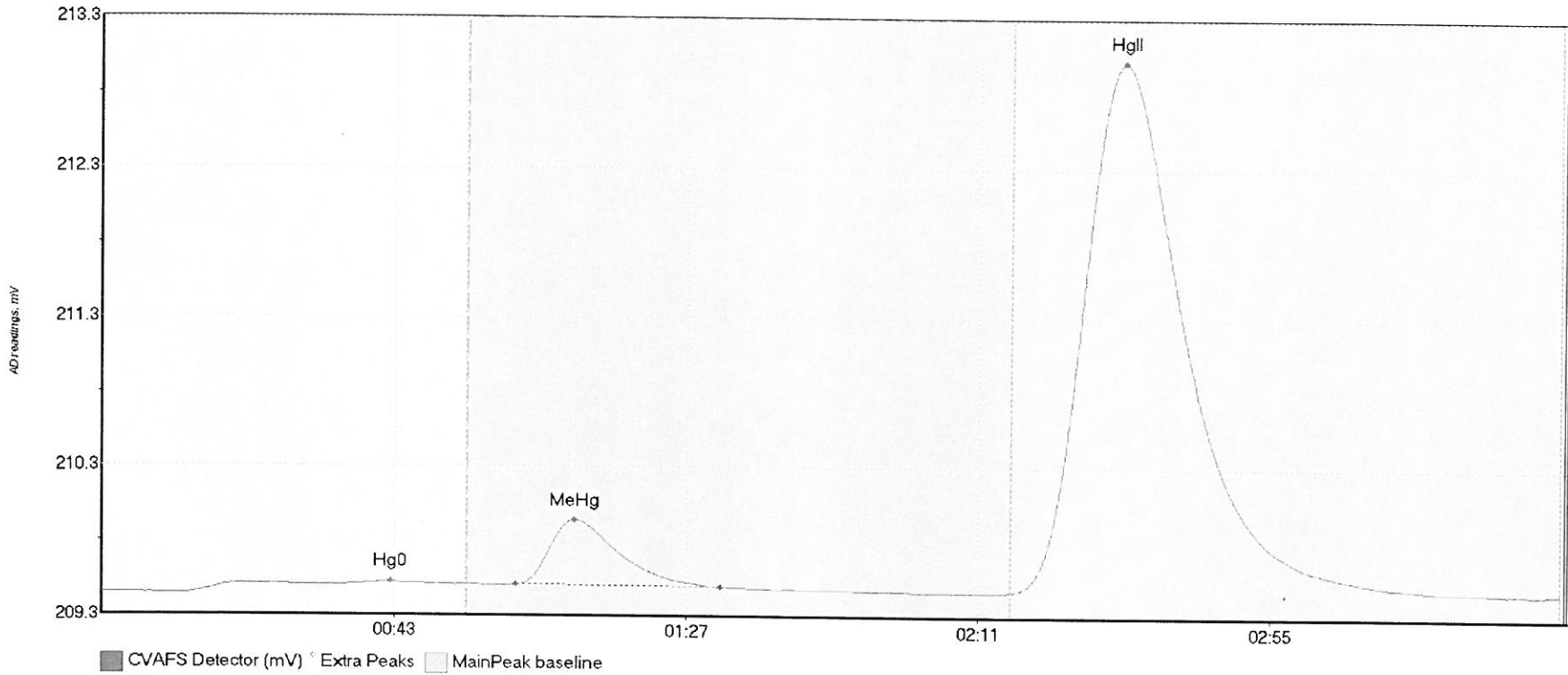
#65: 1707620-17



Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1707620-17 Hg0	13.074	11.9	55.0	209.40	209.45	42.8	0.065	CT	209.3999	0.00	0.02	
1707620-17 MeHg	27.533	61.9	88.8	209.44	209.45	71.4	0.242	OK	209.3999	0.00	0.02	
1707620-17 HgII	606.152	136.8	206.8	209.41	209.42	154.0	3.426	OK	209.3999	0.00	0.02	

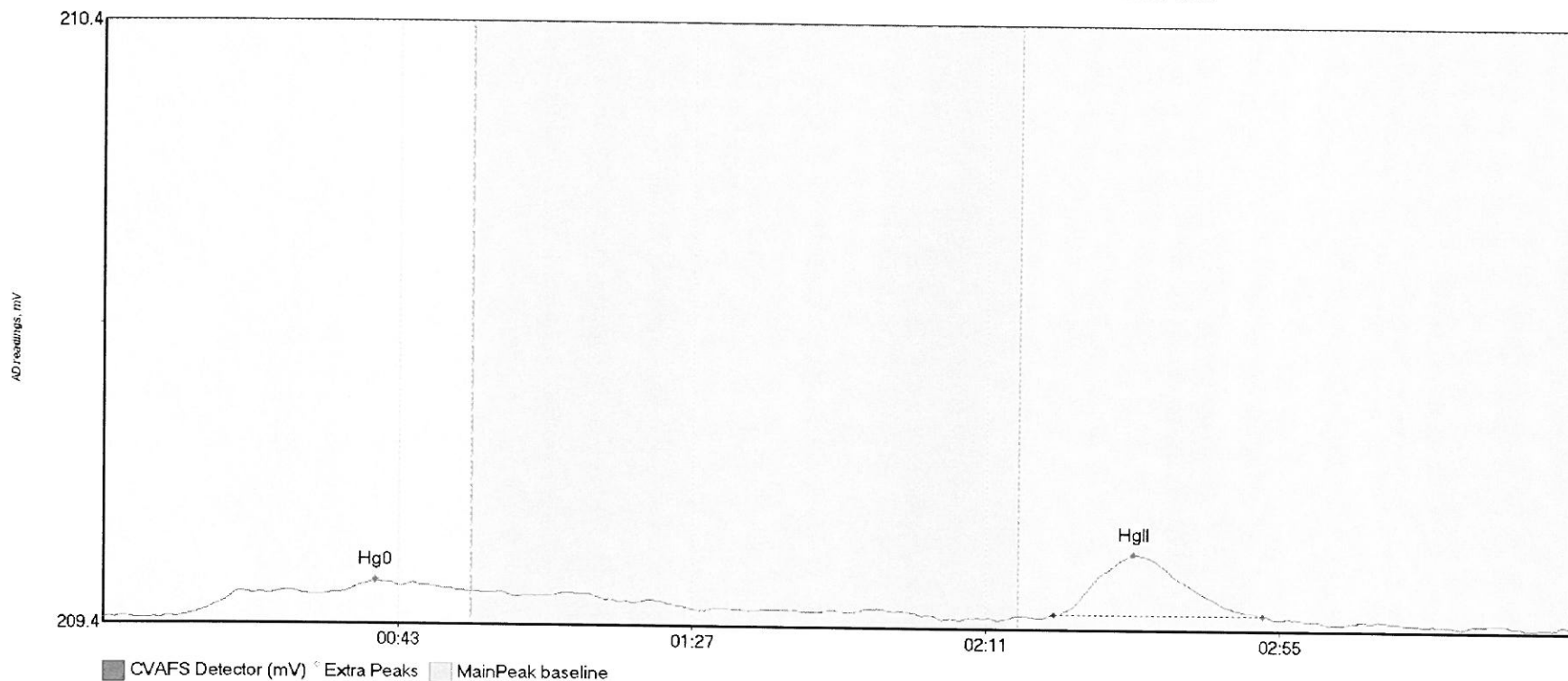


#66: 1707620-18



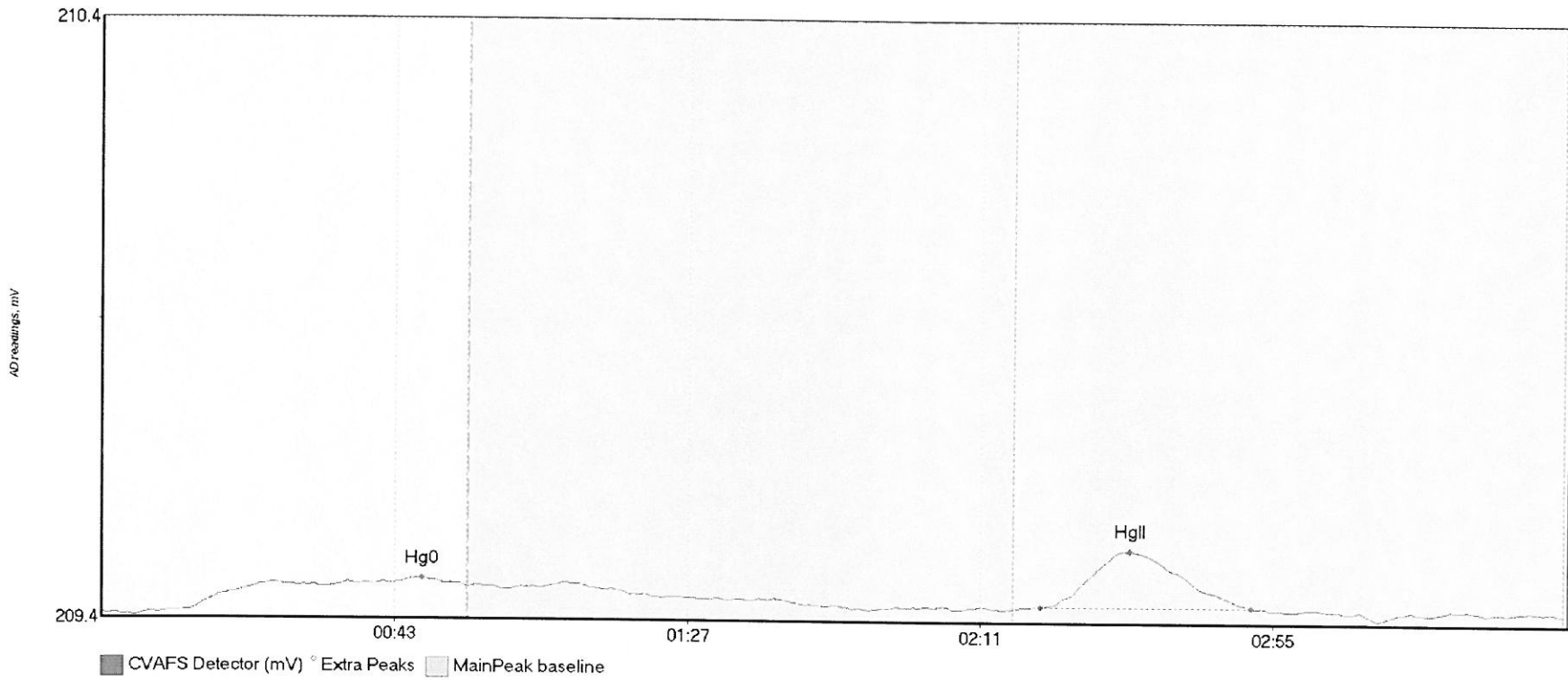
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1707620-18 Hg0	11.298	12.8	53.3	209.40	209.46	43.5	0.075	OK	209.4081	0.00	0.02	
1707620-18 MeHg	52.036	62.4	93.0	209.46	209.45	71.3	0.437	OK	209.4081	0.00	0.02	
1707620-18 HgII	627.283	136.8	203.9	209.43	209.43	153.9	3.563	OK	209.4081	0.00	0.02	

#67: F707454-BLK1



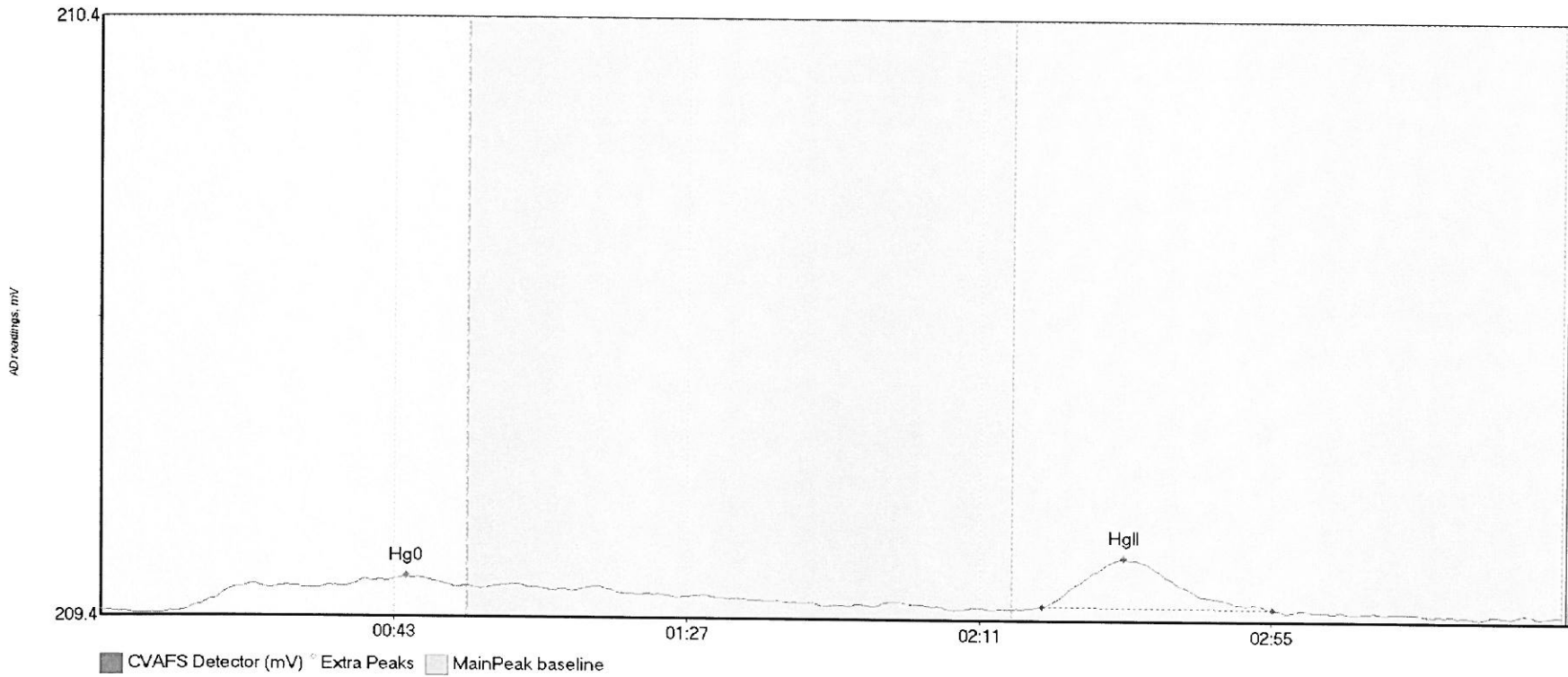
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
F707454-BLK1 Hg	8.464	11.1	55.0	209.41	209.46	40.6	0.061	CT	209.4131	0.00	0.00	
F707454-BLK1 Hg	14.822	142.2	173.5	209.43	209.43	154.1	0.100	OK	209.4131	0.00	0.00	017

#68: F707454-BLK2



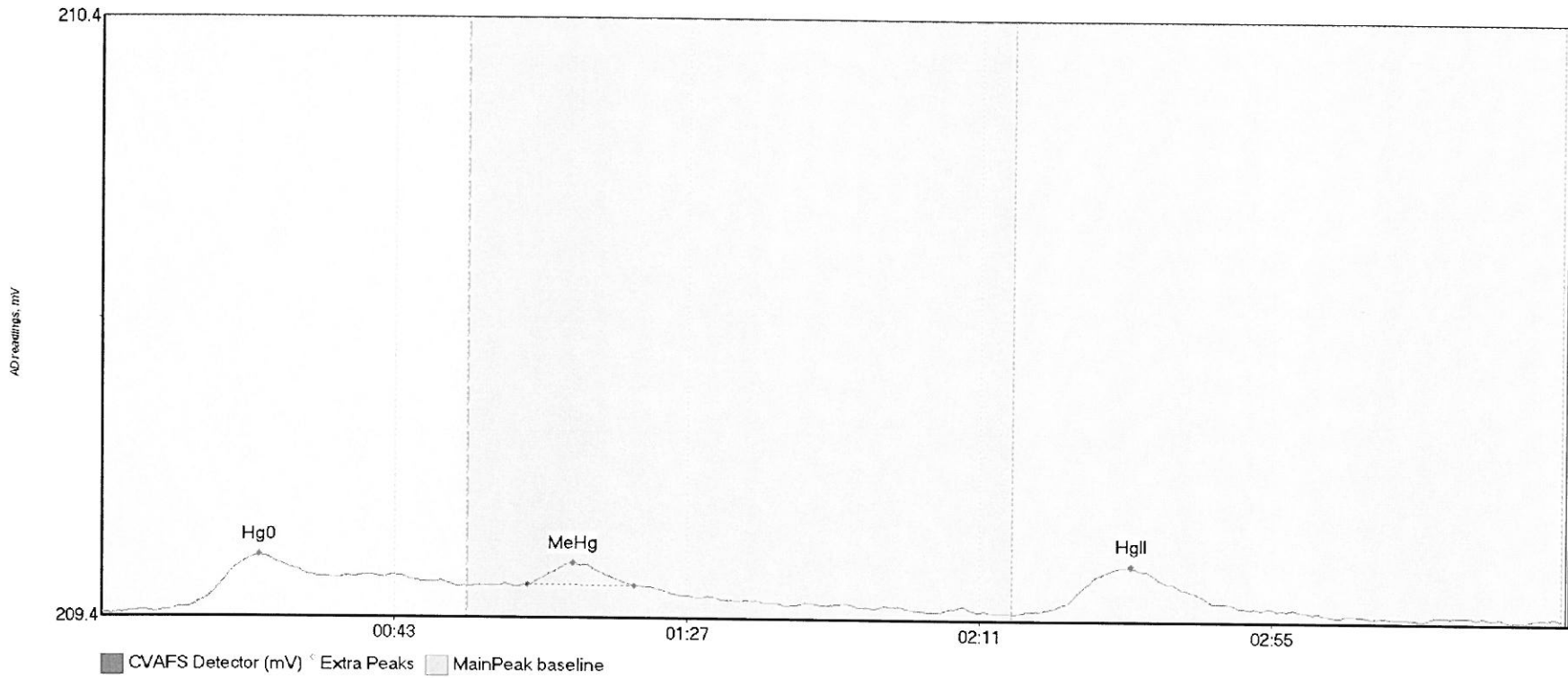
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
F707454-BLK2 Hg	8.447	11.7	55.0	209.41	209.46	48.1	0.056	CT	209.4119	0.00	0.01	
F707454-BLK2 Hg	14.544	141.0	172.8	209.43	209.43	154.4	0.094	OK	209.4119	0.00	0.01	017

#69: F707454-BLK3



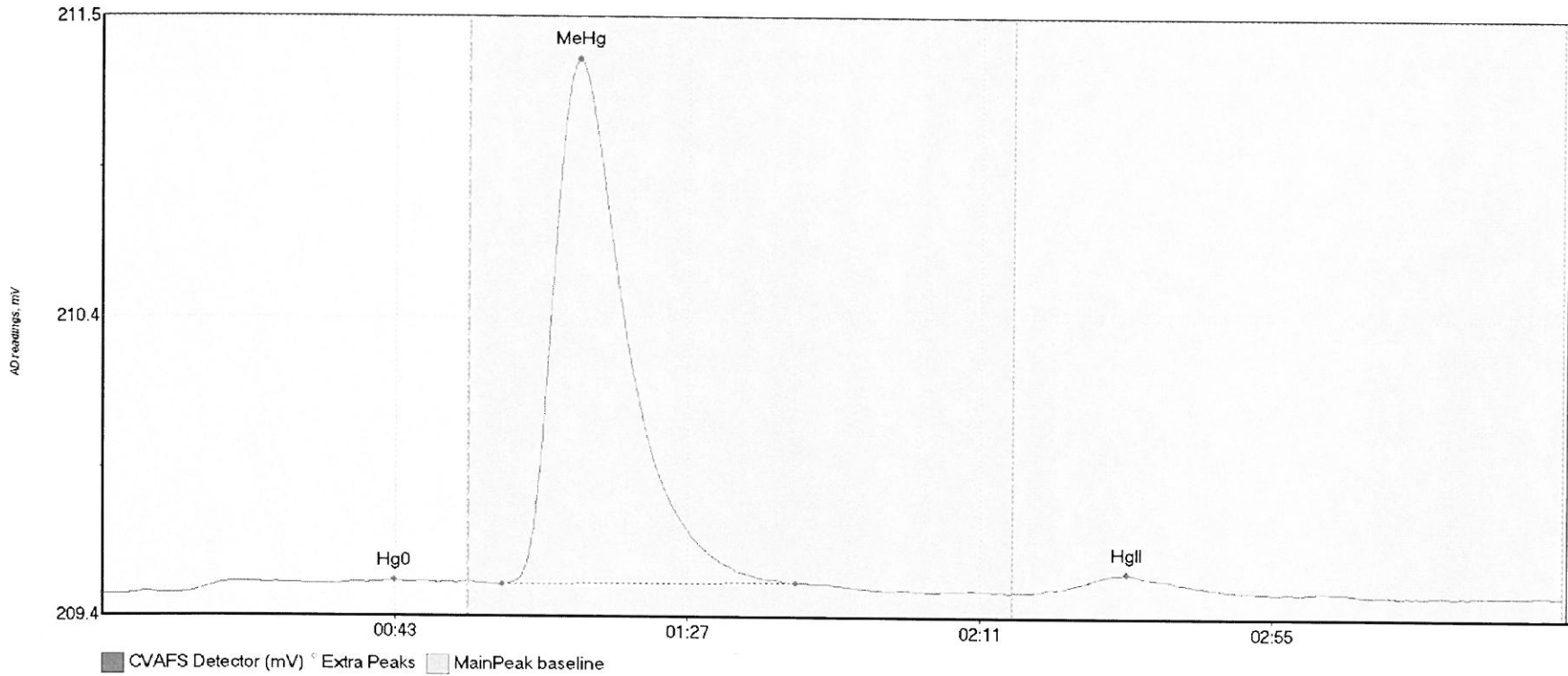
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
F707454-BLK3 Hg	8.200	12.3	53.4	209.42	209.47	45.9	0.057	OK	209.4248	0.00	0.00	
F707454-BLK3 Hg	13.015	141.4	176.2	209.44	209.43	153.7	0.081	OK	209.4248	0.00	0.00	017

#70: F707454-BS1



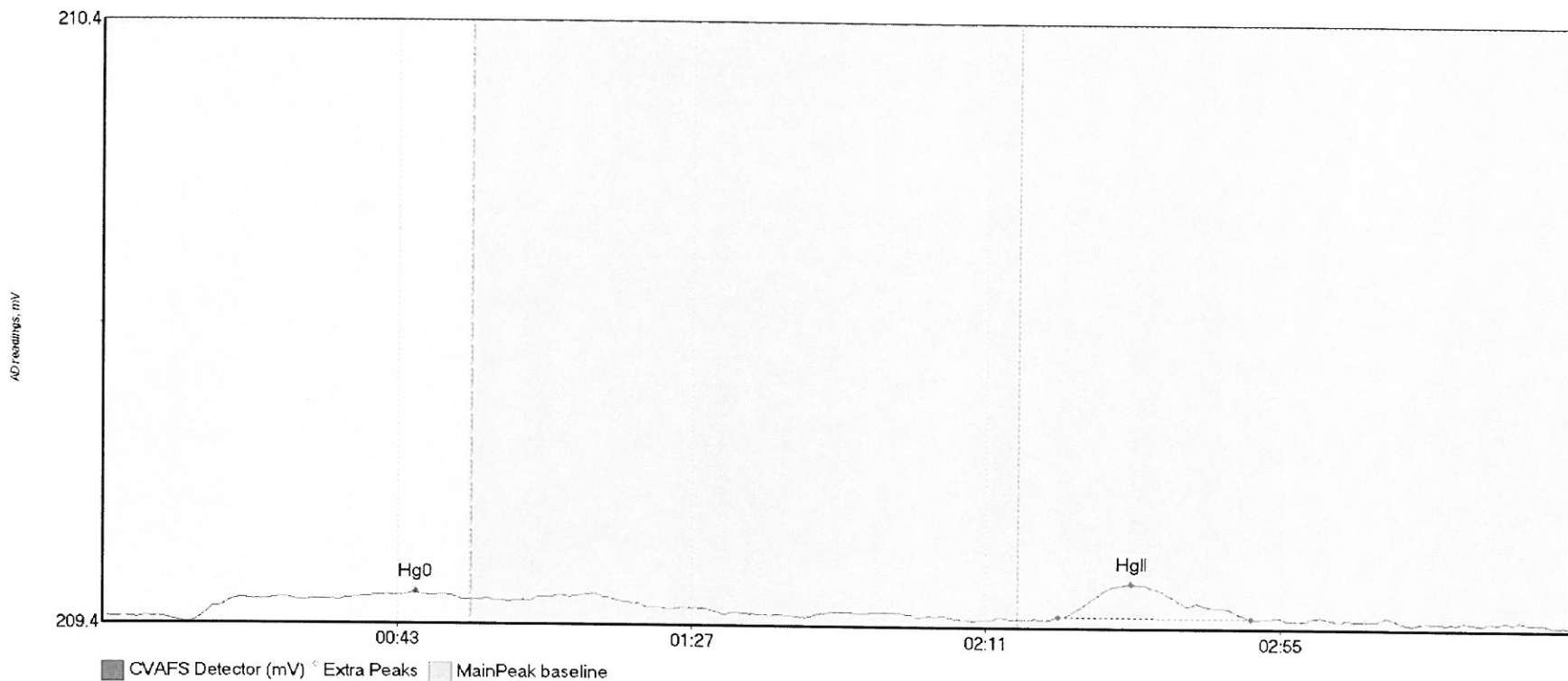
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
F707454-BS1 Hg0	14.552	9.9	53.6	209.44	209.48	23.7	0.091	OK	209.4320	0.00	0.00	
F707454-BS1 MeH	3.128	64.0	80.0	209.48	209.48	70.8	0.036	OK	209.4320	0.00	0.00	
F707454-BS1 HgI	12.483	141.1	182.0	209.44	209.44	154.9	0.074	OK	209.4320	0.00	0.00	017

#71: SEQ-CCV5



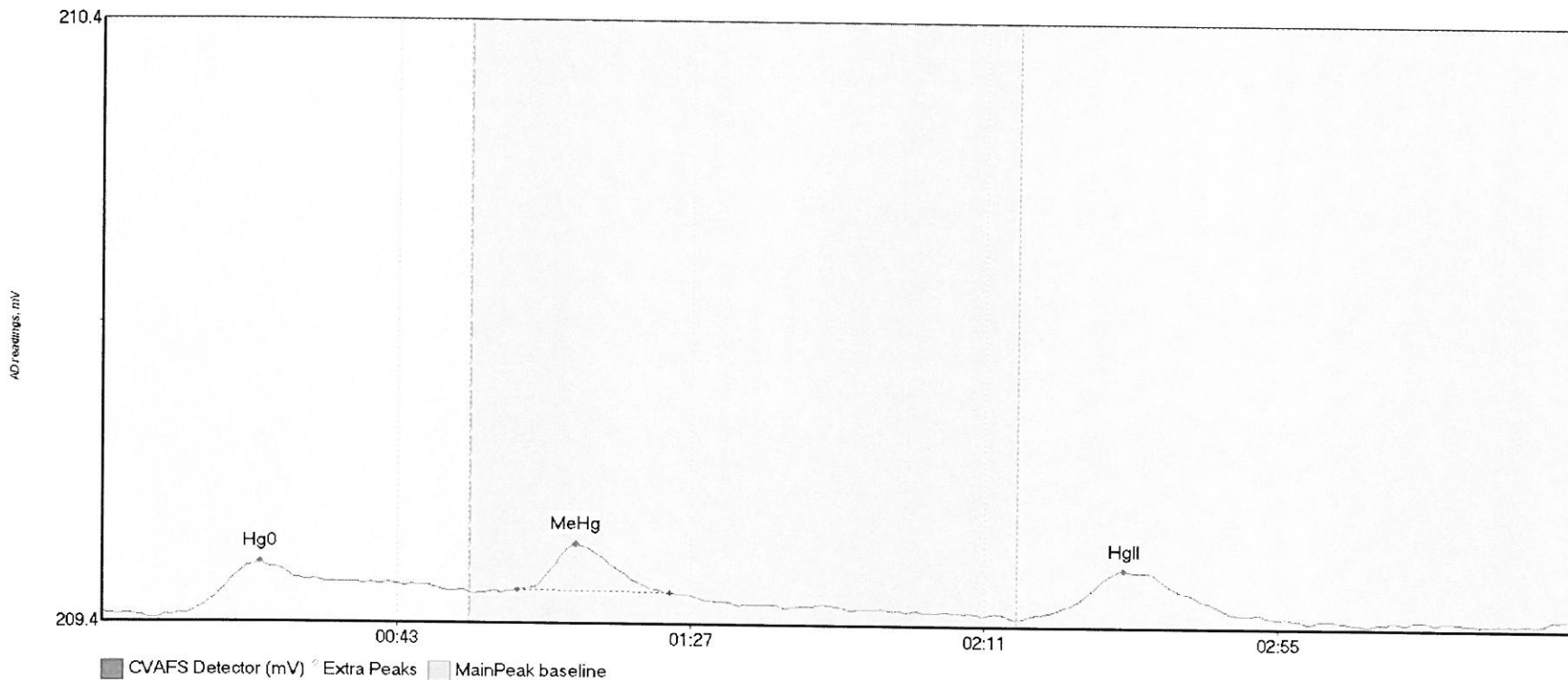
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
SEQ-CCV5 Hg0	6.901	11.3	53.4	209.43	209.47	43.9	0.047	OK	209.4297	0.00	0.00	
SEQ-CCV5 MeHg	236.099	60.2	104.3	209.47	209.47	71.6	1.867	OK	209.4297	0.00	0.00	
SEQ-CCV5 HgII	9.413	140.9	171.4	209.45	209.45	154.2	0.065	OK	209.4297	0.00	0.00	

#72: SEQ-CCB5



Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
SEQ-CCB5 Hg0	7.867	13.0	54.0	209.43	209.47	46.7	0.049	OK	209.4392	0.00	-0.01	
SEQ-CCB5 HgII	8.491	142.9	171.6	209.44	209.44	153.7	0.056	OK	209.4392	0.00	-0.01	017

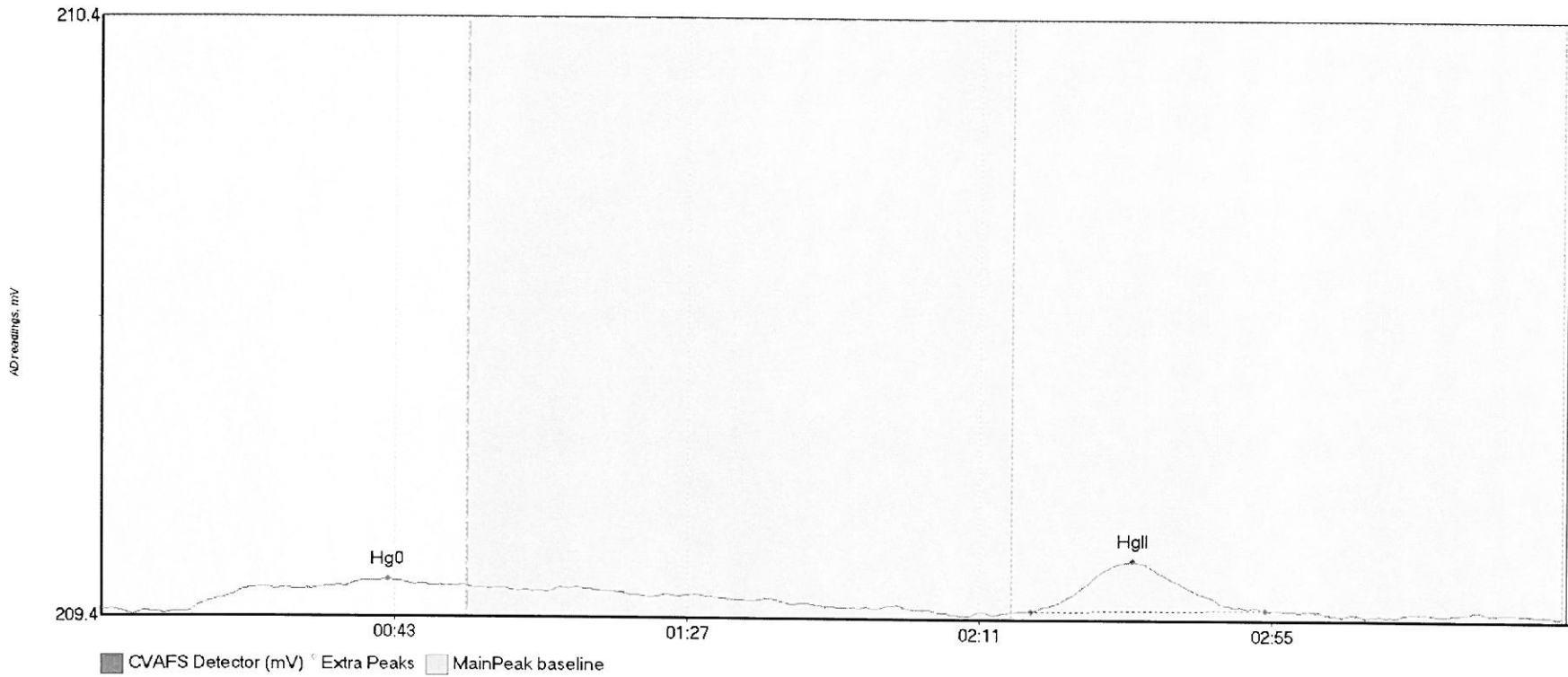
#73: F707454-BS2



Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
F707454-BS2 Hg0	14.046	12.8	55.0	209.44	209.48	23.6	0.085	CT	209.4451	0.00	0.00	
F707454-BS2 MeH	7.855	62.2	84.9	209.48	209.48	70.9	0.077	OK	209.4451	0.00	0.00	
F707454-BS2 HgI	13.450	136.8	175.3	209.44	209.45	152.9	0.083	OK	209.4451	0.00	0.00	

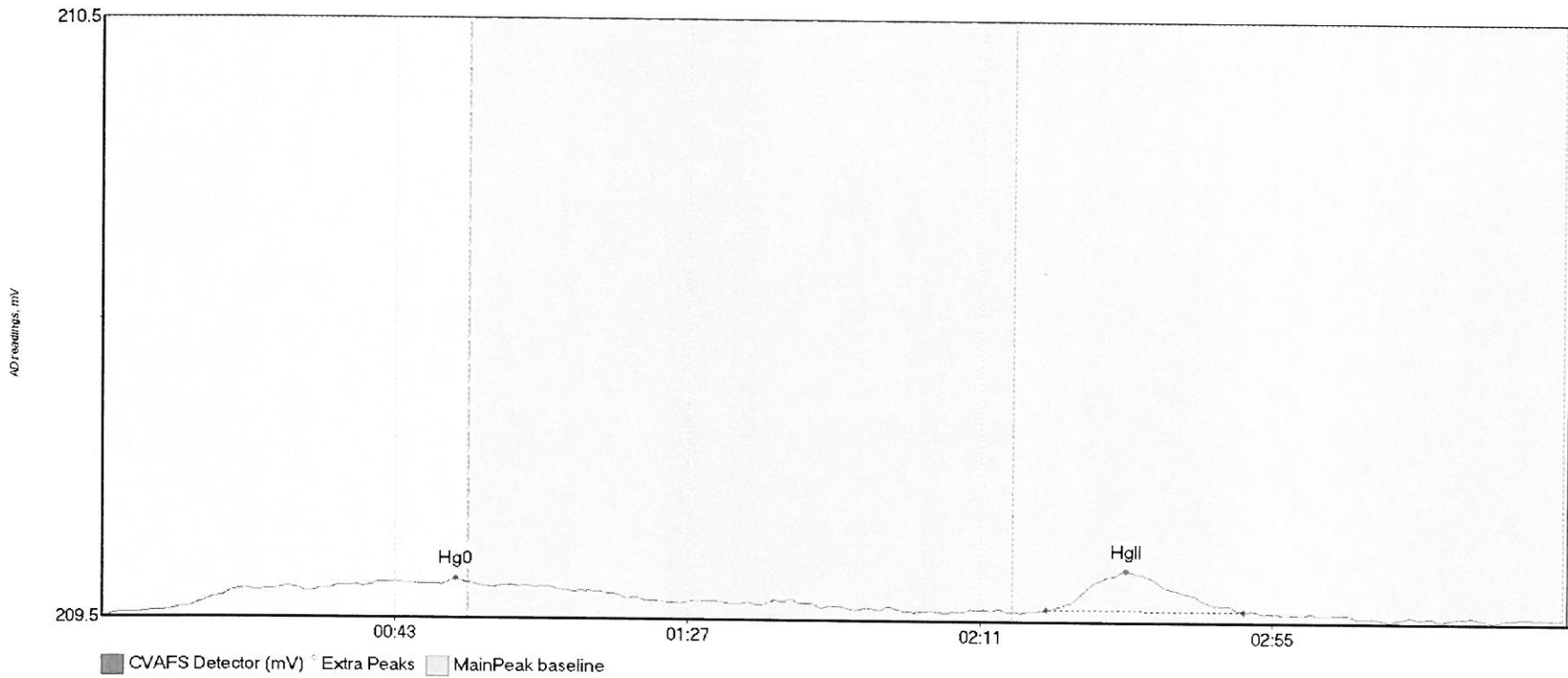


#74: 1707500-09



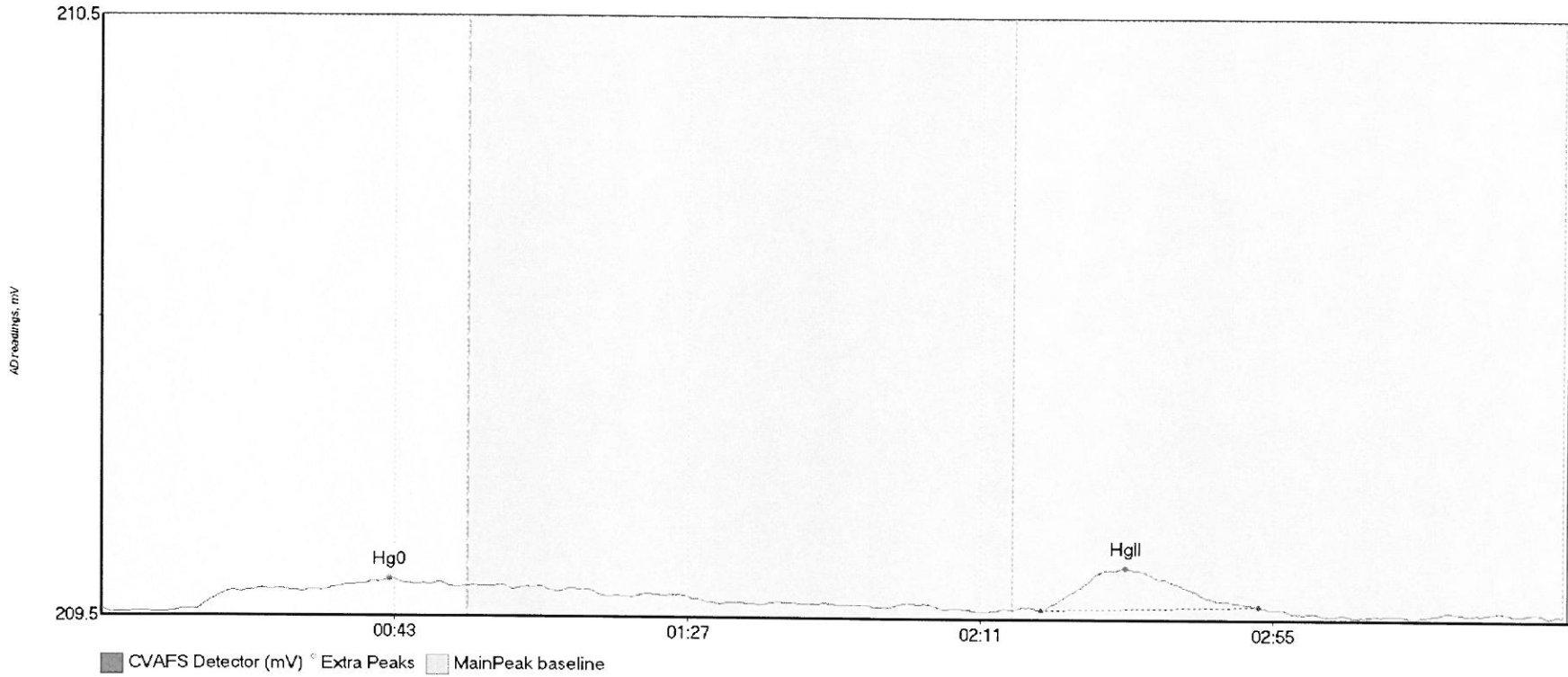
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1707500-09 Hg0	6.276	12.9	49.9	209.45	209.50	43.0	0.054	OK	209.4583	0.00	0.00	
1707500-09 HgII	13.298	139.8	175.0	209.46	209.46	155.1	0.085	OK	209.4583	0.00	0.00	017

#75: F708266-BLK1



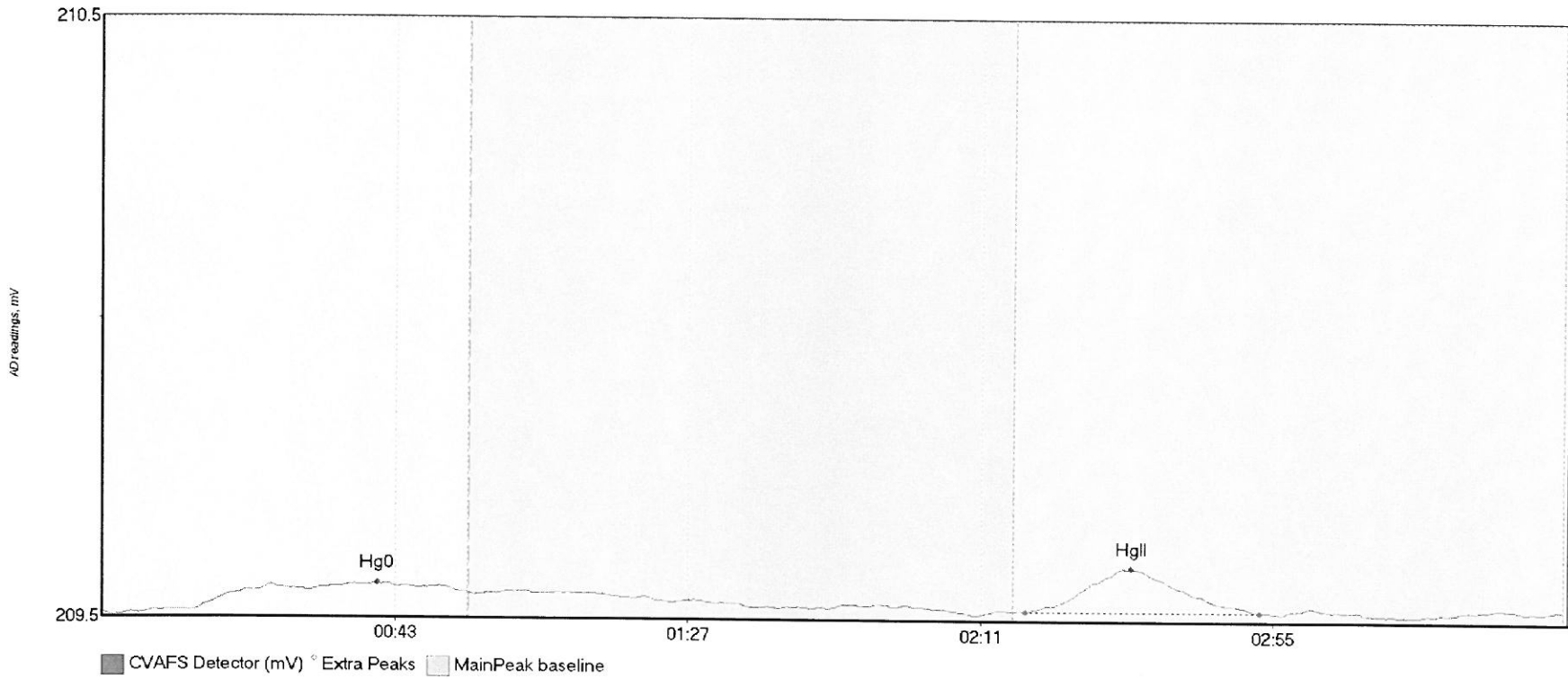
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
F708266-BLK1 Hg	5.263	4.9	55.0	209.46	209.52	53.1	0.057	CT	209.4600	0.00	0.00	
F708266-BLK1 Hg	9.583	141.9	171.8	209.48	209.47	153.9	0.066	OK	209.4600	0.00	0.00	017

#76: F708266-BLK2



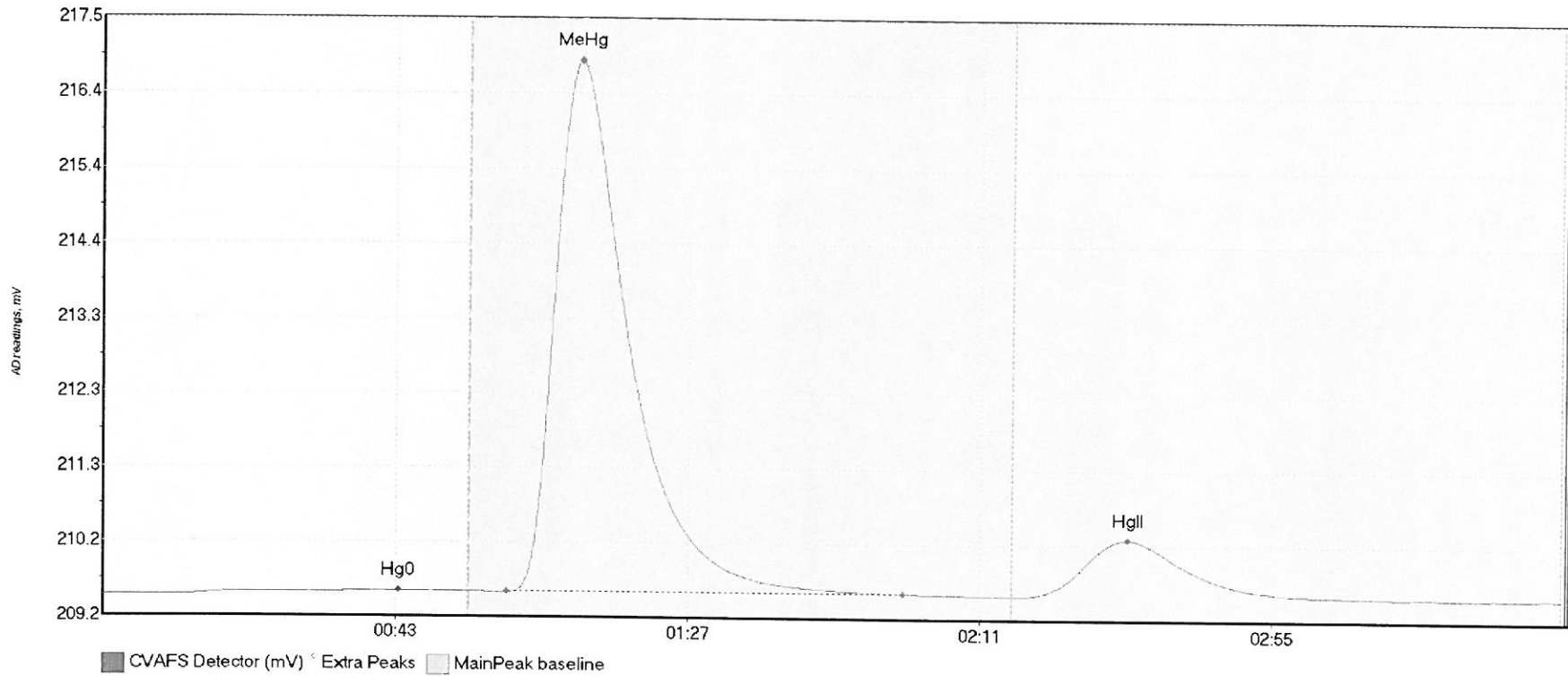
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
F708266-BLK2 Hg	6.645	14.1	53.3	209.47	209.51	43.3	0.052	OK	209.4684	0.00	0.00	
F708266-BLK2 Hg	11.244	141.1	173.9	209.47	209.48	153.9	0.070	OK	209.4684	0.00	0.00	017

#77: F708266-BLK3



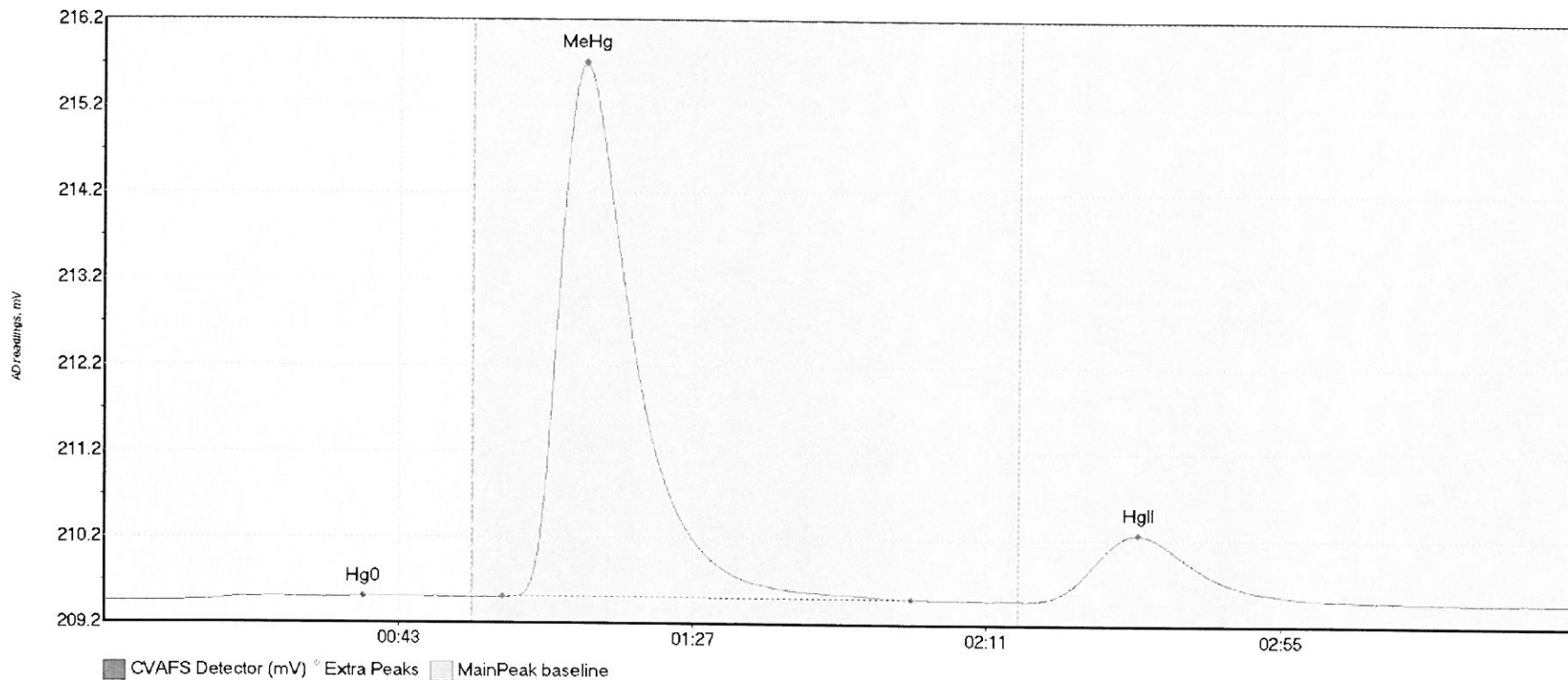
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
F708266-BLK3 Hg	8.209	13.2	55.0	209.47	209.50	41.3	0.046	CT	209.4683	0.00	0.01	
F708266-BLK3 Hg	11.738	138.7	174.0	209.48	209.48	154.8	0.073	OK	209.4683	0.00	0.01	017

#78: F708266-BS1



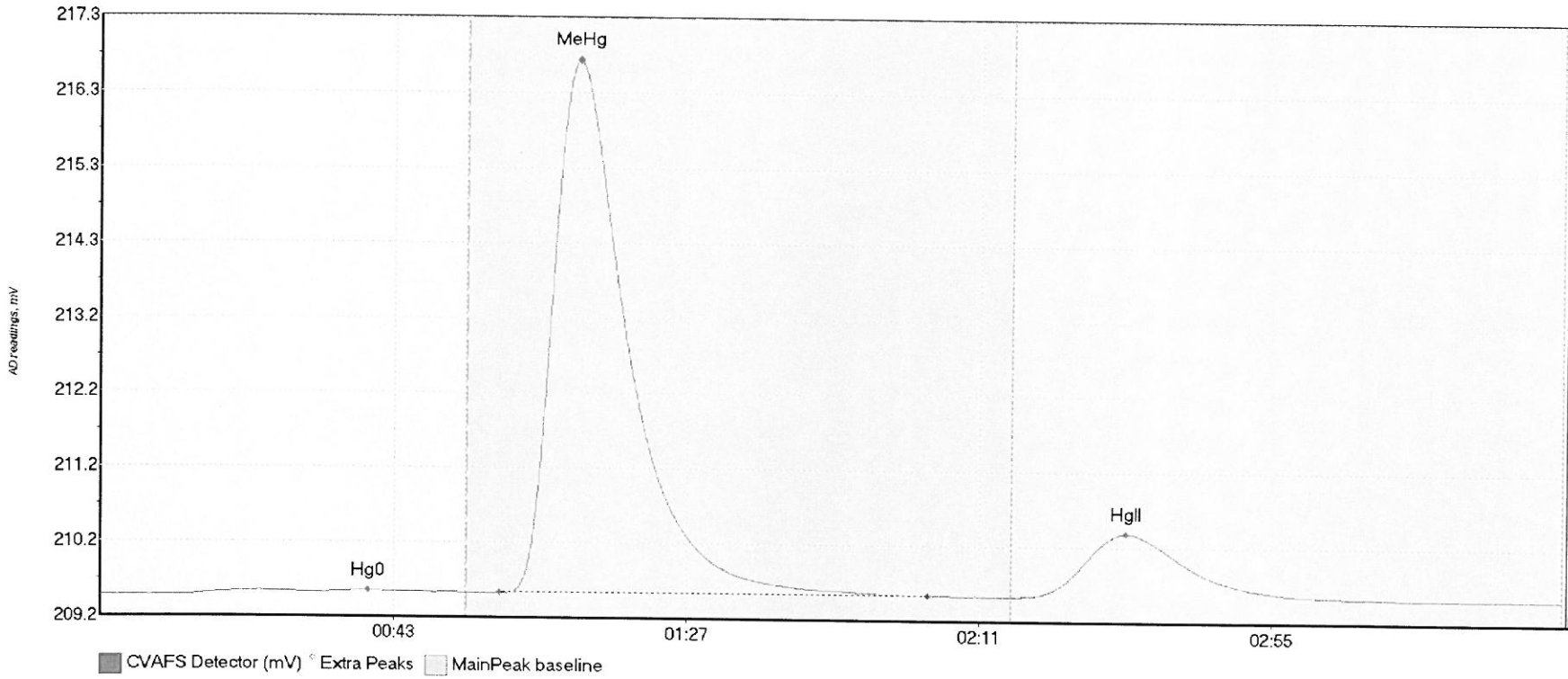
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
F708266-BS1 Hg0	8.293	9.1	54.9	209.49	209.54	44.5	0.060	OK	209.4861	0.00	0.02	
F708266-BS1 MeH	943.150	60.7	120.5	209.53	209.54	71.7	7.344	OK	209.4861	0.00	0.02	
F708266-BS1 HgI	135.715	138.1	187.6	209.51	209.52	154.3	0.796	OK	209.4861	0.00	0.02	

#79: F708266-BS2



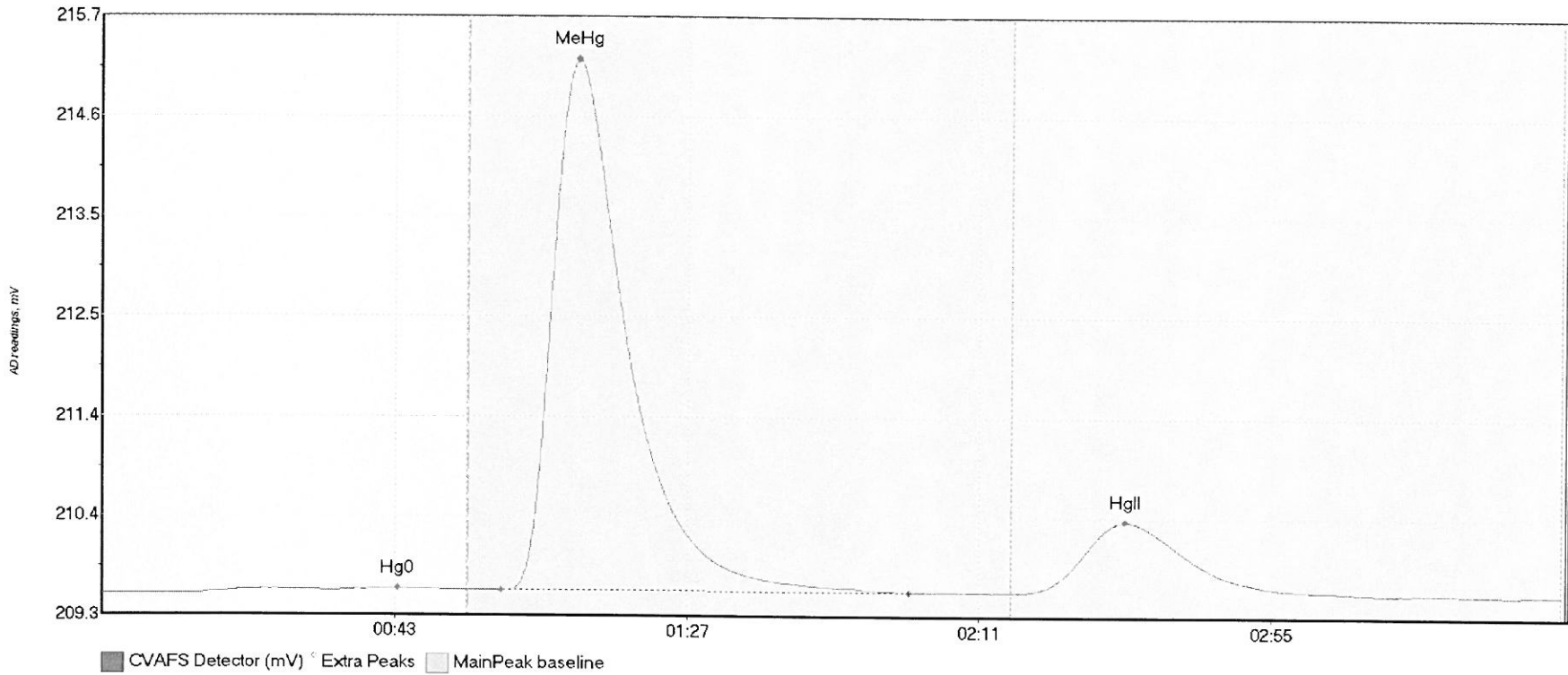
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
F708266-BS2 Hg0	8.132	10.5	52.8	209.49	209.54	38.7	0.055	OK	209.4922	0.00	0.01	
F708266-BS2 MeH	799.725	59.6	120.7	209.54	209.54	71.8	6.202	OK	209.4922	0.00	0.01	
F708266-BS2 HgI	135.179	138.2	190.0	209.52	209.52	154.7	0.778	OK	209.4922	0.00	0.01	

#80: F708266-BS3



Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
F708266-BS3 Hg0	10.900	11.6	55.0	209.50	209.55	40.2	0.064	CT	209.5044	0.00	0.02	
F708266-BS3 MeH	924.163	60.0	124.3	209.54	209.55	71.7	7.158	OK	209.5044	0.00	0.02	
F708266-BS3 HgI	146.884	138.3	186.3	209.55	209.55	154.1	0.857	OK	209.5044	0.00	0.02	

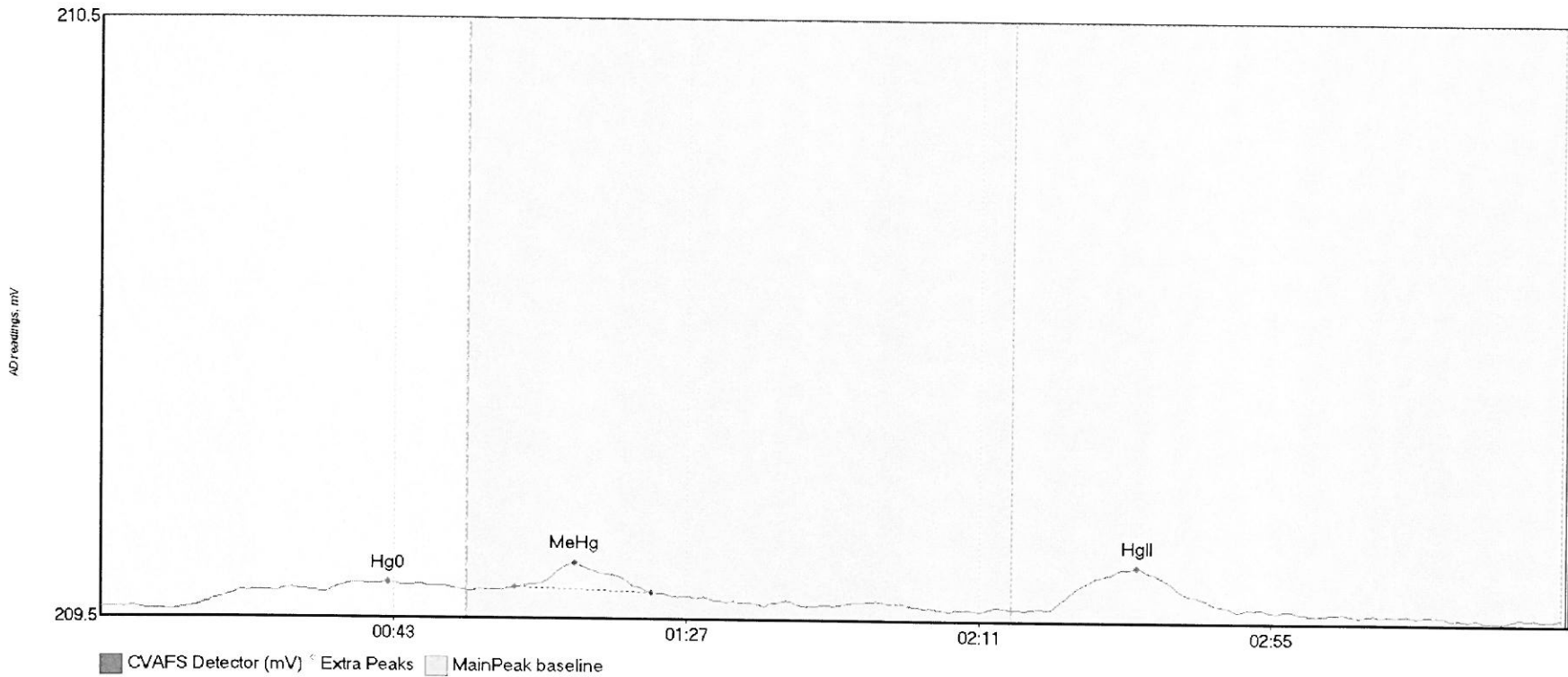
#81: F708266-BS4



Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
F708266-BS4 Hg0	7.158	14.1	52.1	209.52	209.56	44.4	0.054	OK	209.5189	0.00	0.01	
F708266-BS4 MeH	735.045	60.0	121.4	209.55	209.55	71.5	5.669	OK	209.5189	0.00	0.01	
F708266-BS4 HgI	133.923	138.6	190.8	209.55	209.54	153.9	0.758	OK	209.5189	0.00	0.01	017

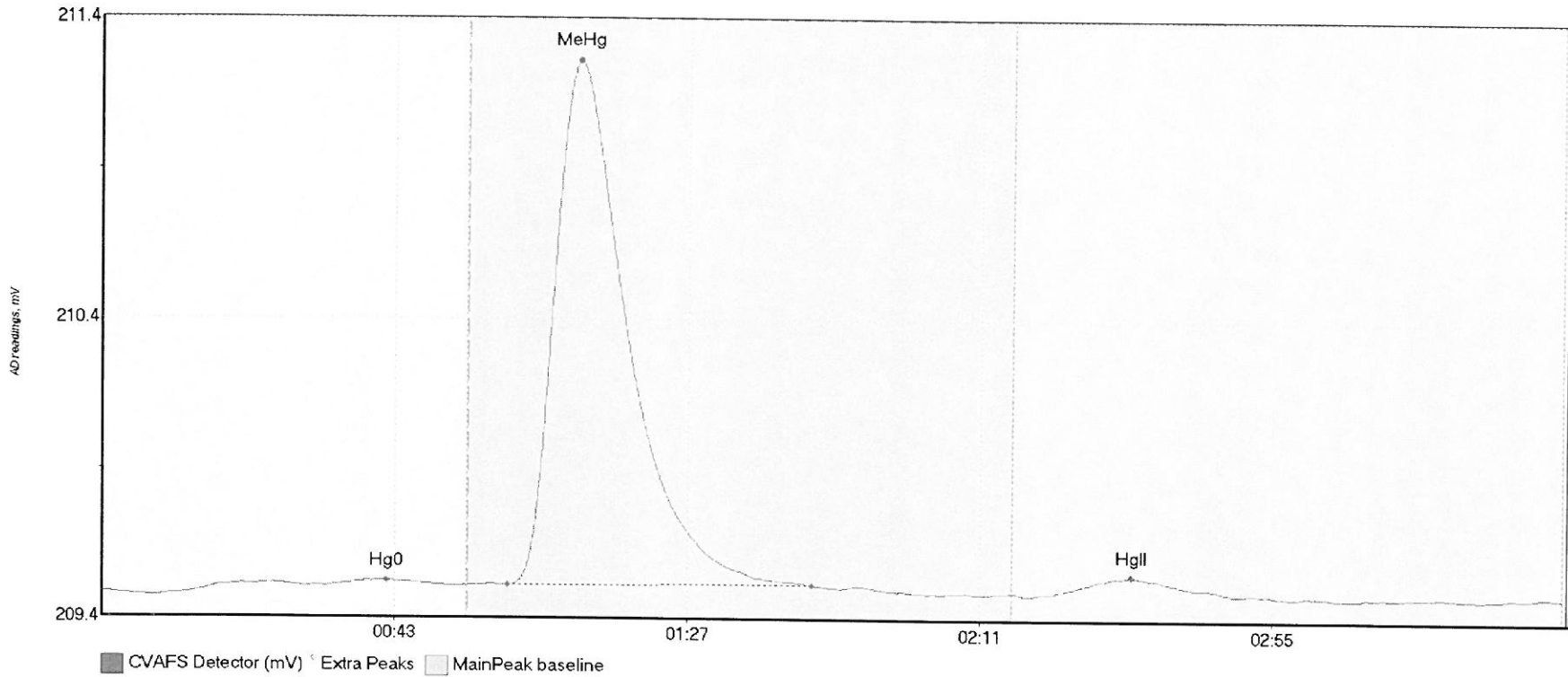


#82: 1708029-01



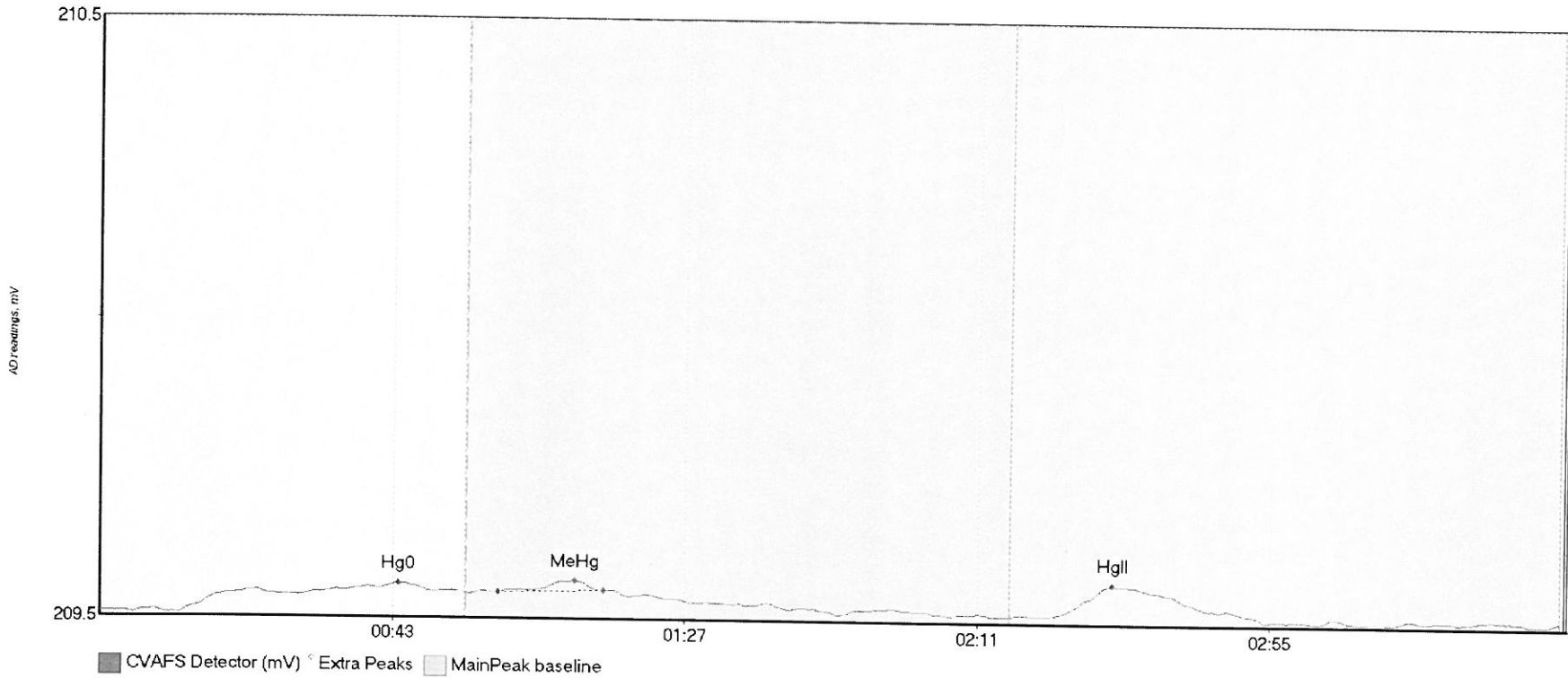
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1708029-01 Hg0	6.420	13.9	55.0	209.53	209.55	43.1	0.042	CT	209.5239	0.00	-0.01	
1708029-01 MeHg	4.386	62.2	82.8	209.56	209.55	71.1	0.041	OK	209.5239	0.00	-0.01	
1708029-01 HgII	11.033	142.2	171.1	209.53	209.53	155.8	0.071	OK	209.5239	0.00	-0.01	

#83: SEQ-CCV6



Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
SEQ-CCV6 Hg0	6.299	13.1	52.3	209.52	209.55	42.8	0.041	OK	209.5249	0.00	0.00	
SEQ-CCV6 MeHg	220.241	61.0	106.7	209.55	209.55	71.6	1.742	OK	209.5249	0.00	0.00	
SEQ-CCV6 HgII	8.833	142.7	170.7	209.53	209.53	154.9	0.059	OK	209.5249	0.00	0.00	

#84: SEQ-CCB6



Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
SEQ-CCB6 Hg0	7.565	11.9	55.0	209.51	209.55	44.9	0.051	CT	209.5123	0.00	0.00	
SEQ-CCB6 MeHg	1.343	59.9	75.7	209.55	209.55	71.4	0.020	OK	209.5123	0.00	0.00	
SEQ-CCB6 HgII	7.516	143.3	172.9	209.52	209.52	152.3	0.051	OK	209.5123	0.00	0.00	

**Peer Review Check List for MHg for CV-GC-AFS (SOP2808) 2017 Rev 6 (02/22/17)**

<b>Analyst:</b> DON MORAN	<b>Sequence #:</b> 7H03014, 7H03015, 7H03016
<b>Reviewer:</b> <u>BC 9/3/17</u>	<b>Dataset ID #:</b> MMHG27001-170802-1, MMHG27001-170802-2
<b>Date:</b> <u>8-3-17</u>	<b>WO #:</b> VARIOUS
<b>Batch #(s):</b> F708260, F707531, F707454, F708266	<b>Client(s):</b> VARIOUS

• Select the correct preparation method.

Additional Comments:

Analyte	Prep Method	Matrix
<input checked="" type="checkbox"/> MHg	SOP2797 MHg Distillation	Water
<input checked="" type="checkbox"/> MHg	SOP2986 KOH/MeOH Digest	Tissue
<input type="checkbox"/> MHg	SOP5134 MeCl Extraction	Sed/Soil
<input type="checkbox"/> DMHg	SOP2816 (None Accredited method)	ALL

**Analyst Initials:**

DM

**Reviewer Initials:**

BC

- |   |   |   |                             |                                     |   |                             |                                     |   |                             |                                     |                              |  |                                     |                              |                             |   |                              |                             |   |   |                             |                              |   |                             |                              |   |                             |                              |   |                             |                                     |   |                             |                                     |                              |  |                                     |   |                             |                                     |   |                             |                                     |   |                             |                                     |  |                               |                              |  |                               |                              |  |                               |                                     |
|---|---|---|-----------------------------|-------------------------------------|---|-----------------------------|-------------------------------------|---|-----------------------------|-------------------------------------|------------------------------|--|-------------------------------------|------------------------------|-----------------------------|---|------------------------------|-----------------------------|---|---|-----------------------------|------------------------------|---|-----------------------------|------------------------------|---|-----------------------------|------------------------------|---|-----------------------------|-------------------------------------|---|-----------------------------|-------------------------------------|------------------------------|--|-------------------------------------|---|-----------------------------|-------------------------------------|---|-----------------------------|-------------------------------------|---|-----------------------------|-------------------------------------|--|-------------------------------|------------------------------|--|-------------------------------|------------------------------|--|-------------------------------|-------------------------------------|
| <p>1. Compare Sample ID with Bench sheet/Sequence/Raw Data (Have all samples been imported?)</p> <p>2. Check for transcription errors from Excel spreadsheet (or Prep Bench sheet)/Raw data</p> <p style="margin-left: 20px;">(a) Reviewer: 100% of peak heights checked</p> <p style="margin-left: 20px;">(b) Are there peak height errors?</p> <p style="margin-left: 20px;">(c) Error on a sample: Do peak heights, responses, &amp; initial results match corrected data?</p> <p style="margin-left: 20px;">(d) Error on a Cal Pt, ICB/CCB, or PB: Has the data been reimported?</p> <p style="margin-left: 20px;">(e) Check standards &amp; reagents in sequence &amp; bench sheet for correct usage (i.e. expiries).</p> <p style="margin-left: 20px;">(f) Check and compare masses (review prep bench sheet)</p> <p style="margin-left: 20px;">(g) Check and compare initial and final volumes</p> <p style="margin-left: 20px;">(h) Do aliquots and dilutions written on benchsheet match those in Excel?</p> <p style="margin-left: 20px;">(i) Is the pH&gt;3.0 for all distilled samples? _____</p> <p style="margin-left: 20px;">(j) Is the sequence #, analyst, date, and instrument # on the QC page?</p> <p style="margin-left: 20px;">(k) Is the analysis status correct? (analyzed/initial review/reviewed)</p> <p style="margin-left: 20px;">(l) Original prep bench sheet added to data package?</p> <p style="margin-left: 20px;">(m) Benchsheet prep date MUST match actual prep date (check if re-shot vs re-extract)</p> <p>3. High QA? WO#(s)/Client(s): _____</p> <p>4. Client specific QC? (if Yes, refer to Project Notes/LIMS)</p> <p style="margin-left: 20px;">(a) Have the QC requirements been met for all WO#s?</p> <p>5. 20 or fewer samples in batch? _____</p> <p style="margin-left: 20px;">(a) 3 PBs, 1 LCS/LCSD (or BS/BSD), 2 MS/MSD/MD per batch?</p> <p style="margin-left: 20px;">(b) 1 CCV and 1 CCB every 10 analytical runs? _____</p> <p><b>QA/QC Data Checked</b></p> <p>6. The calibration curve included a minimum of 5 Standards</p> <p style="margin-left: 20px;">Comments: _____</p> <p>7. 1st Calibration Standard % Recoveries (65-135%)</p> <p style="margin-left: 20px;">Comments: _____</p> <p>8. RSD CF (≤ 15%)</p> <p style="margin-left: 20px;">Comments: _____</p> | <table style="width:100%; border-collapse: collapse;"> <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"/></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 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 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"/></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"/> | <input type="checkbox"/> YES | <input 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 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"/> | <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"/>     |                             |                                     |   |                             |                                     |   |                             |                                     |                              |  |                                     |                              |                             |   |                              |                             |   |   |                             |                              |   |                             |                              |   |                             |                              |   |                             |                                     |   |                             |                                     |                              |  |                                     |   |                             |                                     |   |                             |                                     |   |                             |                                     |  |                               |                              |  |                               |                              |  |                               |                                     |
| <input type="checkbox"/> YES  | <input 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 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"/>     |                             |                                     |   |                             |                                     |   |                             |                                     |                              |  |                                     |                              |                             |   |                              |                             |   |   |                             |                              |   |                             |                              |   |                             |                              |   |                             |                                     |   |                             |                                     |                              |  |                                     |   |                             |                                     |   |                             |                                     |   |                             |                                     |  |                               |                              |  |                               |                              |  |                               |                                     |
| <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 (SOP2808) 2017 Rev 6 (02/22/17)**

<b>Analyst:</b>	DON MORAN	<b>Sequence #:</b>	7H03014, 7H03015, 7H03016
<b>Reviewer:</b>	0 <i>[Signature]</i> 8/3/17	<b>Dataset ID #:</b>	MMHG27001-170802-1, MMHG27001-170802-2
<b>Date:</b>	8/3/2017	<b>WO #:</b>	VARIOUS
<b>Batch #(s):</b>	F708260, F707531, F707454, F708266	<b>Client(s):</b>	VARIOUS

	Analyst Initials:		Reviewer Initials:	
	<i>DM</i>		<i>BL</i>	
9. ICV % Recoveries 67-133%	<input checked="" type="checkbox"/> PASS	<input type="checkbox"/> FAIL	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Comments: _____				
10. CCV % Recoveries 67-133%	<input checked="" type="checkbox"/> PASS	<input type="checkbox"/> FAIL	<input type="checkbox"/>	<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 type="checkbox"/>	<input checked="" type="checkbox"/>
Comments: _____				
12. LCS/LCSD/CRM/BS/BSD % Recoveries (70-130%)	<input checked="" type="checkbox"/> PASS	<input checked="" type="checkbox"/> FAIL	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Comments: <b>F707454-BS1, BS2 FAILED. LOW RECOVERY</b>				
13. LCS/LCSD or BS/BSD RPD (< 25%)	<input checked="" type="checkbox"/> PASS	<input type="checkbox"/> FAIL	<input type="checkbox"/>	<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 checked="" type="checkbox"/> PASS	<input type="checkbox"/> FAIL	<input type="checkbox"/> N/A	<input checked="" type="checkbox"/>
Comments: _____	<input checked="" 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 checked="" type="checkbox"/> FAIL		<input checked="" type="checkbox"/>
Comments: <b>F707531-DUP1 FAILED. HIGH RPD</b>				
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: <b>F707531-MS1 FAILED. LOW RECOVERY</b>				
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 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 (SOP2808) 2017 Rev 6 (02/22/17)**

<b>Analyst:</b>	DON MORAN	<b>Sequence #:</b>	7H03014, 7H03015, 7H03016
<b>Reviewer:</b>	0 <i>[Signature]</i> 8/3/17	<b>Dataset ID #:</b>	MMHG27001-170802-1, MMHG27001-170802-2
<b>Date:</b>	8/3/2017	<b>WO #:</b>	VARIOUS
<b>Batch #(s):</b>	F708260, F707531, F707454, F708266	<b>Client(s):</b>	VARIOUS

**Analyst Initials:**

*DM*

**Reviewer Initials:**

*BS*

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  NO  N/A
- Files located at: \\Cuprum\gen\_admin\Quality Assurance\Training Master\DOCs
38. Date of analyst IDOC/CDOC: 6/13/2017 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: 4/24/17, 5/8/17 LOD within last 3 months (within 12 months for MDN)?  YES  NO  N/A
41. Date of LOQ: 4/24/17, 5/8/17 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

### MHg27001-170803-1

#### Analysis Datasheet for Methyl Mercury in Soil/Tissue

Date of Analysis: August 03, 2017

Instrument #: Hg2700-1

LIMS Sequence #: 7H04009, 7H04007

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	22.00 units	440.09	21.11 units	422.16	88.0 %Rec
SEQ-CAL2	1	0.20 ng/L	92.24 units	461.22	91.35 units	456.74	95.2 %Rec
SEQ-CAL3	1	1.00 ng/L	495.72 units	495.72	494.83 units	494.83	103.2 %Rec
SEQ-CAL4	1	2.00 ng/L	994.09 units	497.04	993.19 units	496.60	103.5 %Rec
SEQ-CAL5	1	4.00 ng/L	2111.73 units	527.93	2110.84 units	527.71	110.0 %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**  
 479.61            +/- 40.79            8.5% RSD            484.40

#### Blanks:

LabNumber	n	Mean	Std Dev	Mean (ng/L)	Std Dev (ng/L)
SEQ-IBL	1	0.90 units		0.00 ng/L	#VALUE!

#### Preparation Blanks

Sample Type	Batch ID	n	Mean	Std Dev
BLK	1	3	-0.465 ng/L	±0.503
BLK	2	3	-0.934 ng/L	±0.000
BLK	3	3	-0.934 ng/L	±0.000
BLK	4	3	-0.934 ng/L	±0.000
BLK	5	0	0.000 ng/L	

QUALITY ASSURANCE  
PEER-REVIEWED

INITIALS:   R 8/4/17

Instrument	Sample			Dilution	Analyzed	FileID	Run End	Uncorrected Response	Batch ID	No PB Correction?	RESP	InitialResult	FinalResult	InitialUnits	Comments
	Analyst	Type	LabNumber												
Hg2700-1	DM2	CAL	SEQ-1BL1	1	8/3/17 9:03	24560-1.RAW	9:03:11	0.90			0.0	0.000	0.000	ng/L	
Hg2700-1	DM2	CAL	SEQ-CAL1	1	8/3/17 9:13	24561-1.RAW	9:13:42	22.00			21.1	0.044	0.044	ng/L	
Hg2700-1	DM2	CAL	SEQ-CAL2	1	8/3/17 9:24	24562-1.RAW	9:24:12	92.24			91.3	0.190	0.190	ng/L	
Hg2700-1	DM2	CAL	SEQ-CAL3	1	8/3/17 9:34	24563-1.RAW	9:34:43	495.72			494.8	1.032	1.032	ng/L	
Hg2700-1	DM2	CAL	SEQ-CAL4	1	8/3/17 9:45	24564-1.RAW	9:45:14	994.09			993.2	2.071	2.071	ng/L	
Hg2700-1	DM2	CAL	SEQ-CAL5	1	8/3/17 9:55	24565-1.RAW	9:55:45	2111.73			2110.8	4.401	4.401	ng/L	
Hg2700-1	DM2	CAL	SEQ-1CV1	1	8/3/17 10:06	24566-1.RAW	10:06:16	219.99			219.1	0.457	0.457	ng/L	
Hg2700-1	DM2	CAL	SEQ-1CB1	1	8/3/17 10:16	24567-1.RAW	10:16:46	2.73			1.8	0.004	0.004	ng/L	
Hg2700-1	DM2	BLK	F707529-BLK1	500	8/3/17 10:27	24568-1.RAW	10:27:17	0.96	1		0.1	0.000	0.067	ng/L	
Hg2700-1	DM2	BLK	F707529-BLK2	500	8/3/17 10:37	24569-1.RAW	10:37:48	0.39	1		-0.5	-0.001	-0.526	ng/L	
Hg2700-1	DM2	BLK	F707529-BLK3	500	8/3/17 10:48	24570-1.RAW	10:48:18	0.00	1		-0.9	-0.002	-0.934	ng/L	
Hg2700-1	DM2	SAM	F707529-BS1	1000	8/3/17 10:58	24571-1.RAW	10:58:49	794.87	1		794.0	1.656	1655.923	ng/L	
Hg2700-1	DM2	SAM	F707529-BSD1	1000	8/3/17 11:09	24572-1.RAW	11:09:20	922.03	1		921.1	1.921	1921.065	ng/L	
Hg2700-1	DM2	SAM	F707529-DUP1	500	8/3/17 11:19	24573-1.RAW	11:19:50	22.44	1		21.5	0.046	22.927	ng/L	
Hg2700-1	DM2	SAM	F707529-MS1	500	8/3/17 11:30	24574-1.RAW	11:30:21	485.34	1		484.4	1.011	505.508	ng/L	
Hg2700-1	DM2	SAM	F707529-MSD1	500	8/3/17 11:40	24575-1.RAW	11:40:52	456.55	1		455.7	0.951	475.490	ng/L	
Hg2700-1	DM2	SAM	F707529-MS2	500	8/3/17 11:51	24576-1.RAW	11:51:22	501.02	1		500.1	1.044	521.853	ng/L	
Hg2700-1	DM2	SAM	F707529-MSD2	500	8/3/17 12:01	24577-1.RAW	12:01:53	637.00	1		636.1	1.327	663.613	ng/L	
Hg2700-1	DM2	CAL	SEQ-CCV1	1	8/3/17 12:12	24578-1.RAW	12:12:24	232.78			231.9	0.483	0.483	ng/L	
Hg2700-1	DM2	CAL	SEQ-CCB1	1	8/3/17 12:22	24579-1.RAW	12:22:54	2.27			1.4	0.003	0.003	ng/L	
Hg2700-1	DM2	SAM	1707617-01	500	8/3/17 12:33	24580-1.RAW	12:33:25	2.51	1		1.6	0.004	2.145	ng/L	
Hg2700-1	DM2	SAM	1707617-02	500	8/3/17 12:43	24581-1.RAW	12:43:56	94.58	1		93.7	0.196	98.132	ng/L	
Hg2700-1	DM2	SAM	1707617-03	500	8/3/17 12:54	24582-1.RAW	12:54:26	86.24	1		85.3	0.179	89.440	ng/L	
Hg2700-1	DM2	SAM	1707617-04	500	8/3/17 13:04	24583-1.RAW	13:04:57	25.19	1		24.3	0.052	25.788	ng/L	
Hg2700-1	DM2	SAM	1707617-05	500	8/3/17 13:15	24584-1.RAW	13:15:28	120.54	1		119.6	0.250	125.192	ng/L	
Hg2700-1	DM2	SAM	1707617-06	500	8/3/17 13:25	24585-1.RAW	13:25:58	135.24	1		134.3	0.281	140.526	ng/L	
Hg2700-1	DM2	SAM	1707617-07	500	8/3/17 13:36	24586-1.RAW	13:36:29	29.48	1		28.6	0.061	30.261	ng/L	
Hg2700-1	DM2	SAM	1707617-08	500	8/3/17 13:47	24587-1.RAW	13:47:00	14.22	1		13.3	0.029	14.357	ng/L	
Hg2700-1	DM2	SAM	1707617-09	500	8/3/17 13:57	24588-1.RAW	13:57:30	0.00	1		-0.9	-0.001	-0.470	ng/L	
Hg2700-1	DM2	SAM	1707617-10	500	8/3/17 14:08	24589-1.RAW	14:08:02	32.95	1		32.1	0.068	33.884	ng/L	
Hg2700-1	DM2	CAL	SEQ-CCV2	1	8/3/17 14:18	24590-1.RAW	14:18:32	210.67			209.8	0.437	0.437	ng/L	
Hg2700-1	DM2	CAL	SEQ-CCB2	1	8/3/17 14:29	24591-1.RAW	14:29:03	0.00			-0.9	-0.002	-0.002	ng/L	
Hg2700-1	DM2	SAM	1707617-11	500	8/3/17 14:39	24592-1.RAW	14:39:34	20.22	1		19.3	0.041	20.614	ng/L	
Hg2700-1	DM2	SAM	1707617-12	500	8/3/17 14:50	24593-1.RAW	14:50:05	14.71	1		13.8	0.030	14.863	ng/L	
Hg2700-1	DM2	SAM	1707617-13	500	8/3/17 15:00	24594-1.RAW	15:00:35	40.50	1		39.6	0.084	41.754	ng/L	
Hg2700-1	DM2	SAM	1707617-14	500	8/3/17 15:11	24595-1.RAW	15:11:06	152.59	1		151.7	0.317	158.612	ng/L	
Hg2700-1	DM2	SAM	1707619-01	500	8/3/17 15:21	24596-1.RAW	15:21:37	86.41	1		85.5	0.179	89.611	ng/L	
Hg2700-1	DM2	SAM	1707619-02	500	8/3/17 15:32	24597-1.RAW	15:32:08	83.99	1		83.1	0.174	87.097	ng/L	
Hg2700-1	DM2	SAM	1707619-03	500	8/3/17 15:42	24598-1.RAW	15:42:38	46.84	1		45.9	0.097	48.361	ng/L	
Hg2700-1	DM2	SAM	1707619-04	500	8/3/17 15:53	24599-1.RAW	15:53:09	46.73	1		45.8	0.096	48.243	ng/L	
Hg2700-1	DM2	SAM	1707619-05	500	8/3/17 16:03	24600-1.RAW	16:03:40	110.25	1		109.4	0.229	114.470	ng/L	
Hg2700-1	DM2	SAM	1707619-06	500	8/3/17 16:14	24601-1.RAW	16:14:11	52.78	1		51.9	0.109	54.554	ng/L	
Hg2700-1	DM2	CAL	SEQ-CCV3	1	8/3/17 16:24	24602-1.RAW	16:24:41	209.02			208.1	0.434	0.434	ng/L	
Hg2700-1	DM2	CAL	SEQ-CCB3	1	8/3/17 16:35	24603-1.RAW	16:35:12	0.00			-0.9	-0.002	-0.002	ng/L	
Hg2700-1	DM2	BLK	F707454-BLK4	500	8/3/17 16:45	24604-1.RAW	16:45:43	0.00	2		-0.9	-0.002	-0.934	ng/L	
Hg2700-1	DM2	BLK	F707454-BLK5	500	8/3/17 16:56	24605-1.RAW	16:56:13	0.00	2		-0.9	-0.002	-0.934	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	BLK	F707454-BLK6	500	8/3/17 17:06	24606-1.RAW	17:06:44	0.00	2		-0.9	-0.002	-0.934	ng/L	
Hg2700-1	DM2	SAM	F707454-BS3	500	8/3/17 17:17	24607-1.RAW	17:17:15	5.81	2		4.9	0.012	6.054	ng/L	
Hg2700-1	DM2	SAM	F707454-BS4	500	8/3/17 17:27	24608-1.RAW	17:27:46	9.03	2		8.1	0.019	9.417	ng/L	
Hg2700-1	DM2	SAM	F707500-09RE1	500	8/3/17 17:38	24609-1.RAW	17:38:16	0.00	2		-0.9	0.000	0.000	ng/L	
Hg2700-1	DM2	BLK	F707531-BLK4	500	8/3/17 17:48	24610-1.RAW	17:48:47	0.00	3		-0.9	-0.002	-0.934	ng/L	
Hg2700-1	DM2	BLK	F707531-BLK5	500	8/3/17 17:59	24611-1.RAW	17:59:18	0.00	3		-0.9	-0.002	-0.934	ng/L	
Hg2700-1	DM2	BLK	F707531-BLK6	500	8/3/17 18:09	24612-1.RAW	18:09:49	0.00	3		-0.9	-0.002	-0.934	ng/L	
Hg2700-1	DM2	SAM	F707531-DUP2	500	8/3/17 18:20	24613-1.RAW	18:20:19	10.25	3		9.4	0.021	10.685	ng/L	
Hg2700-1	DM2	CAL	SEQ-CCV4	1	8/3/17 18:30	24614-1.RAW	18:30:50	241.47			240.6	0.502	0.502	ng/L	
Hg2700-1	DM2	CAL	SEQ-CCB4	1	8/3/17 18:41	24615-1.RAW	18:41:20	0.00			-0.9	-0.002	-0.002	ng/L	
Hg2700-1	DM2	SAM	F707531-MS2	500	8/3/17 18:51	24616-1.RAW	18:51:51	131.07			130.2	0.273	136.646	ng/L	
Hg2700-1	DM2	SAM	F707531-MSD2	500	8/3/17 19:02	24617-1.RAW	19:02:21	131.89			131.0	0.275	137.495	ng/L	
Hg2700-1	DM2	BLK	F707530-BLK1	500	8/3/17 19:12	24618-1.RAW	19:12:52	0.00	4		-0.9	-0.002	-0.934	ng/L	
Hg2700-1	DM2	BLK	F707530-BLK2	500	8/3/17 19:23	24619-1.RAW	19:23:23	0.00	4		-0.9	-0.002	-0.934	ng/L	
Hg2700-1	DM2	BLK	F707530-BLK3	500	8/3/17 19:33	24620-1.RAW	19:33:53	0.00	4		-0.9	-0.002	-0.934	ng/L	
Hg2700-1	DM2	SAM	F707530-BS1	1000	8/3/17 19:44	24621-1.RAW	19:44:24	829.30	4		828.4	1.728	1728.194	ng/L	
Hg2700-1	DM2	SAM	F707530-BSD1	1000	8/3/17 19:54	24622-1.RAW	19:54:55	833.05	4		832.2	1.736	1736.006	ng/L	
Hg2700-1	DM2	SAM	F707530-DUP1	500	8/3/17 20:05	24623-1.RAW	20:05:25	23.68	4		22.8	0.049	24.692	ng/L	
Hg2700-1	DM2	SAM	F707530-MS1	500	8/3/17 20:15	24624-1.RAW	20:15:56	525.87	4		525.0	1.096	548.231	ng/L	
Hg2700-1	DM2	SAM	F707530-MSD1	500	8/3/17 20:26	24625-1.RAW	20:26:27	455.81	4		454.9	0.950	475.192	ng/L	
Hg2700-1	DM2	CAL	SEQ-CCV5	1	8/3/17 20:36	24626-1.RAW	20:36:58	225.11			224.2	0.467	0.467	ng/L	
Hg2700-1	DM2	CAL	SEQ-CCB5	1	8/3/17 20:47	24627-1.RAW	20:47:28	1.70			0.8	0.002	0.002	ng/L	
Hg2700-1	DM2	SAM	F707530-MS2	500	8/3/17 20:57	24628-1.RAW	20:57:59	592.59	4		591.7	1.236	617.784	ng/L	
Hg2700-1	DM2	SAM	F707530-MSD2	500	8/3/17 21:08	24629-1.RAW	21:08:29	507.42	4		506.5	1.058	528.990	ng/L	
Hg2700-1	DM2	SAM	1707619-07	500	8/3/17 21:19	24630-1.RAW	21:19:00	39.51	4		38.6	0.082	41.187	ng/L	
Hg2700-1	DM2	SAM	1707619-08	500	8/3/17 21:29	24631-1.RAW	21:29:31	86.42	4		85.5	0.180	90.097	ng/L	
Hg2700-1	DM2	SAM	1707619-09	500	8/3/17 21:40	24632-1.RAW	21:40:02	23.45	4		22.5	0.049	24.442	ng/L	
Hg2700-1	DM2	SAM	1707619-10	500	8/3/17 21:50	24633-1.RAW	21:50:32	32.56	4		31.7	0.068	33.944	ng/L	
Hg2700-1	DM2	SAM	1707619-11	500	8/3/17 22:01	24634-1.RAW	22:01:03	27.15	4		26.3	0.057	28.310	ng/L	
Hg2700-1	DM2	SAM	1707619-12	500	8/3/17 22:11	24635-1.RAW	22:11:34	16.65	4		15.8	0.035	17.359	ng/L	
Hg2700-1	DM2	SAM	1707619-13	500	8/3/17 22:22	24636-1.RAW	22:22:04	53.23	4		52.3	0.111	55.497	ng/L	
Hg2700-1	DM2	SAM	1707619-14	500	8/3/17 22:32	24637-1.RAW	22:32:35	36.11	4		35.2	0.075	37.649	ng/L	
Hg2700-1	DM2	CAL	SEQ-CCV6	1	8/3/17 22:43	24638-1.RAW	22:43:06	233.27			232.4	0.485	0.485	ng/L	
Hg2700-1	DM2	CAL	SEQ-CCB6	1	8/3/17 22:53	24639-1.RAW	22:53:36	0.00			-0.9	-0.002	-0.002	ng/L	
Hg2700-1	DM2	SAM	1707619-15	500	8/3/17 23:04	24640-1.RAW	23:04:07	22.09	4		21.2	0.046	23.026	ng/L	
Hg2700-1	DM2	SAM	1707619-16	500	8/3/17 23:14	24641-1.RAW	23:14:38	16.61	4		15.7	0.035	17.316	ng/L	
Hg2700-1	DM2	SAM	1707620-01	500	8/3/17 23:25	24642-1.RAW	23:25:09	0.00	4		-0.9	0.000	0.000	ng/L	
Hg2700-1	DM2	SAM	1707620-02	500	8/3/17 23:35	24643-1.RAW	23:35:40	9.03	4		8.1	0.019	9.416	ng/L	
Hg2700-1	DM2	SAM	1707620-03	500	8/3/17 23:46	24644-1.RAW	23:46:10	52.79	4		51.9	0.110	55.038	ng/L	
Hg2700-1	DM2	SAM	1707620-04	500	8/3/17 23:56	24645-1.RAW	23:56:41	49.21	4		48.3	0.103	51.305	ng/L	
Hg2700-1	DM2	SAM	1707620-05	500	8/3/17 0:07	24646-1.RAW	0:07:12	111.41	4		110.5	0.232	116.147	ng/L	
Hg2700-1	DM2	SAM	1707620-06	500	8/3/17 0:17	24647-1.RAW	0:17:42	49.46	4		48.6	0.103	51.560	ng/L	
Hg2700-1	DM2	SAM	1707620-07	500	8/3/17 0:28	24648-1.RAW	0:28:13	48.87	4		48.0	0.102	50.949	ng/L	
Hg2700-1	DM2	SAM	1707620-08	500	8/3/17 0:38	24649-1.RAW	0:38:44	24.66	4		23.8	0.051	25.704	ng/L	
Hg2700-1	DM2	CAL	SEQ-CCV7	1	8/3/17 0:49	24650-1.RAW	0:49:14	203.76			202.9	0.423	0.423	ng/L	
Hg2700-1	DM2	CAL	SEQ-CCB7	1	8/3/17 0:59	24651-1.RAW	0:59:45	0.00			-0.9	-0.002	-0.002	ng/L	
Hg2700-1	DM2	SAM	1707620-09	500	8/3/17 1:10	24652-1.RAW	1:10:16	60.61	4		59.7	0.126	63.185	ng/L	
Hg2700-1	DM2	SAM	1707620-10	500	8/3/17 1:20	24653-1.RAW	1:20:46	0.98	4		0.1	0.002	1.022	ng/L	
Hg2700-1	DM2	SAM	A. BUFFER 1704707	1	8/3/17 1:31	24654-1.RAW	1:31:17	0.00		X	-0.9	-0.002	-0.002	ng/L	
Hg2700-1	DM2	CAL	SEQ-CCV8	1	8/3/17 1:41	24655-1.RAW	1:41:48	223.73			222.8	0.465	0.465	ng/L	
Hg2700-1	DM2	CAL	SEQ-CCB8	1	8/3/17 1:52	24656-1.RAW	1:52:18	0.00			-0.9	-0.002	-0.002	ng/L	

Analyzed on 8/4/17 not 8/3/17

DM 8/4/17

ANALYSIS SEQUENCE

QUALITY ASSURANCE

7H04009

PEER-REVIEWED

Instrument: Hg2700-1

Calibration ID: UNASSIGNED

INITIALS: R 8/4/17 Analyzed: 8/3/2017

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
7H04009-IBL1 ✓	QC	1			
7H04009-CAL1 ✓	QC	2	1704180		
7H04009-CAL2 ✓	QC	3	1704181		
7H04009-CAL3 ✓	QC	4	1704182		
7H04009-CAL4 ✓	QC	5	1704183		
7H04009-CAL5 ✓	QC	6	1704184		
7H04009-ICV1 ✓	QC	7	1703246		
7H04009-ICB1 ✓	QC	8			
F707529-BLK1 ✓	QC	9			
F707529-BLK2 ✓	QC	10			
F707529-BLK3 ✓	QC	11			
F707529-BS1 ✓	QC	12			
F707529-BSD1 ✓	QC	13			
F707529-DUP1 ✓	QC	14			
F707529-MS1 ✓	QC	15			
F707529-MSD1 ✓	QC	16			
F707529-MS2 ✓	QC	17			
F707529-MSD2 ✓	QC	18			
7H04009-CCV1 ✓	QC	19	1703246		
7H04009-CCB1 ✓	QC	20			
1707617-01 ✓	MHg-CVAFS-S-KOH	21			
1707617-02 ✓	MHg-CVAFS-S-KOH	22			
1707617-03 ✓	MHg-CVAFS-S-KOH	23			
1707617-04 ✓	MHg-CVAFS-S-KOH	24			
1707617-05 ✓	MHg-CVAFS-S-KOH	25			
1707617-06 ✓	MHg-CVAFS-S-KOH	26			
1707617-07 ✓	MHg-CVAFS-S-KOH	27			
1707617-08 ✓	MHg-CVAFS-S-KOH	28			
1707617-09 ✓	MHg-CVAFS-S-KOH	29			
1707617-10 ✓	MHg-CVAFS-S-KOH	30			
7H04009-CCV2 ✓	QC	31	1703246		
7H04009-CCB2 ✓	QC	32			
1707617-11 ✓	MHg-CVAFS-S-KOH	33			
1707617-12 ✓	MHg-CVAFS-S-KOH	34			
1707617-13 ✓	MHg-CVAFS-S-KOH	35			

## ANALYSIS SEQUENCE

7H04009

Instrument: Hg2700-1

Calibration ID: UNASSIGNED

Analyzed: 8/3/2017

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
1707617-14 ✓	MHg-CVAFS-S-KOH	36			
1707619-01 ✓	MHg-CVAFS-S-KOH	37			
1707619-02 ✓	MHg-CVAFS-S-KOH	38			
1707619-03 ✓	MHg-CVAFS-S-KOH	39			
1707619-04 ✓	MHg-CVAFS-S-KOH	40			
1707619-05 ✓	MHg-CVAFS-S-KOH	41			
1707619-06 ✓	MHg-CVAFS-S-KOH	42			
7H04009-CCV3 ✓	QC	43	1703246 ✓		
7H04009-CCB3 ✓	QC	44			
F707531-BLK4 ✓	QC	45			
F707531-BLK5 ✓	QC	46			
F707531-BLK6 ✓	QC	47			
F707531-DUP2 ✓	QC	48			
7H04009-CCV4 ✓	QC	49	1703246 ✓		
7H04009-CCB4 ✓	QC	50			
F707531-MS2 ✓	QC	51			
F707531-MSD2 ✓	QC	52			
F707530-BLK1 ✓	QC	53			
F707530-BLK2 ✓	QC	54			
F707530-BLK3 ✓	QC	55			
F707530-BS1 ✓	QC	56			
F707530-BSD1 ✓	QC	57			
F707530-DUP1 ✓	QC	58			
F707530-MS1 ✓	QC	59			
F707530-MSD1 ✓	QC	60			
7H04009-CCV5 ✓	QC	61	1703246 ✓		
7H04009-CCB5 ✓	QC	62			
F707530-MS2 ✓	QC	63			
F707530-MSD2 ✓	QC	64			
1707619-07 ✓	MHg-CVAFS-S-KOH	65			
1707619-08 ✓	MHg-CVAFS-S-KOH	66			
1707619-09 ✓	MHg-CVAFS-S-KOH	67			
1707619-10 ✓	MHg-CVAFS-S-KOH	68			
1707619-11 ✓	MHg-CVAFS-S-KOH	69			
1707619-12 ✓	MHg-CVAFS-S-KOH	70			

Due Date: 8/21/2017

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**ANALYSIS SEQUENCE**

**7H04009**

**Instrument: Hg2700-1**

**Calibration ID: UNASSIGNED**

**Analyzed: 8/3/2017**

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
1707619-13	MHg-CVAFS-S-KOH	71			
1707619-14	MHg-CVAFS-S-KOH	72			
7H04009-CCV6	QC	73	1703246		
7H04009-CCB6	QC	74			
1707619-15	MHg-CVAFS-S-KOH	75			
1707619-16	MHg-CVAFS-S-KOH	76			
1707620-01	MHg-CVAFS-S-KOH	77			
1707620-02	MHg-CVAFS-S-KOH	78			
1707620-03	MHg-CVAFS-S-KOH	79			
1707620-04	MHg-CVAFS-S-KOH	80			
1707620-05	MHg-CVAFS-S-KOH	81			
1707620-06	MHg-CVAFS-S-KOH	82			
1707620-07	MHg-CVAFS-S-KOH	83			
1707620-08	MHg-CVAFS-S-KOH	84			
7H04009-CCV7	QC	85	1703246		
7H04009-CCB7	QC	86			
1707620-09	MHg-CVAFS-S-KOH	87			
1707620-10	MHg-CVAFS-S-KOH	88			
7H04009-CCV8	QC	89	1703246		
7H04009-CCB8	QC	90			

Don Moran      8/3/17  
 Samples Loaded By      Date

Don Moran      8/4/17  
 Data Processed By      Date

**PREPARATION BENCH SHEET**

F707529

**Eurofins Frontier Global Sciences, Inc.**

**Matrix: Soil/Sediment**

**Prepared using: AFS - EFGS-010 KOH/Methanol Hg Digestion**

**Prepared: 8/1/2017**

Lab Number	Sample ID and Source Sample	Initial (g)	Final (ml)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F707529-BLK1	Blank	0.25	20					
F707529-BLK2	Blank	0.25	20					
F707529-BLK3	Blank	0.25	20					
F707529-BS1	DORM-4	0.1253	20	1703305	125 125.3			
F707529-BSD1	DORM-4 Dup	0.1255	20	1703305	125 125.5			
F707529-DUP1	Duplicate [1707617-08]	0.297	20					
F707529-MS1	Matrix Spike [1707617-08]	0.2851	20	1605978	100			
F707529-MS2	Matrix Spike [1707619-01]	0.2857	20	1605978	100			
F707529-MSD1	Matrix Spike Dup [1707617-08]	0.2872	20	1605978	100			
F707529-MSD2	Matrix Spike Dup [1707619-01]	0.2901	20	1605978	100			

Standard ID(s):      Description:  
 1605978      MHg New Primary 100 ng/mL spike  
 1703305      DORM-4

Expiration:  
 15-Oct-17 00:00  
 29-May-20 00:00  
 29-May-20 00:00

Reagent ID(s):      Description:  
 1606305      Methanol, HPLC Grade  
 1702833      25% KOH/Methanol  
 1703755      Acetate Buffer  
 1704399      Ethylating Agent (For Methyl Mercury Analysis)  
 1704424      Boiling Chips for AFS prep

Expiration:  
 28-Oct-19 00:00  
 05-Nov-17 00:00  
 20-Dec-17 00:00  
 16-Jan-18 00:00  
 21-Jan-18 00:00

PREPARATION BENCH SHEET

F707529

**Eurofins Frontier Global Sciences, Inc.**

**Matrix: Soil/Sediment**

**Prepared using: AFS - EFGS-010 KOH/Methanol Hg Digestion**

**Prepared: 8/1/2017**

Lab Number	Sample ID	Initial (g)	Final (ml)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1707617-01	ADD-01_071817_SED_00-01	0.2871	20	-	-	-		
1707617-02	MMSE-1_N1_071817_SED_00-01	0.2796	20	-	-	-		
1707617-03	MMSE-1_S1_071817_SED_00-01	0.2856	20	-	-	-		
1707617-04	MMSE-1_S2_071817_SED_00-01	0.281	20	-	-	-		
1707617-05	MMSW-C_N_071817_SED_00-01	0.285	20	-	-	-		
1707617-06	W-17-NE_071817_SED_00-01	0.2712	20	-	-	-		
1707617-07	W-17-NW_071717_SED_00-01	0.2839	20	-	-	-		
1707617-08	W-17-NW_071717_SED_01-03	0.2768	20	QC	-	-	MS/MSD	
1707617-09	ADD-01_071817_SED_01-03	0.2987	20	-	-	-		
1707617-10	MMSE-1_N1_071817_SED_01-03	0.2896	20	-	-	-		
1707617-11	MMSE-1_S1_071817_SED_01-03	0.2827	20	-	-	-		
1707617-12	MMSE-1_S2_071817_SED_01-03	0.2963	20	-	-	-		
1707617-13	MMSW-C_N_071817_SED_01-03	0.2791	20	-	-	-		
1707617-14	W-17-NE_071817_SED_01-03	0.2994	20	-	-	-		
1707619-01	W-17-Low_071817_SED_00-01	0.2932	20	QC	-	-	MS/MSD	
1707619-02	W-17-Mid_071817_SED_00-01	0.297	20	-	-	-		
1707619-03	W-21-UM-Central-C_071817_SED_00-01	0.2699	20	-	-	-		
1707619-04	W-63-High_071817_SED_00-01	0.2974 0.2927	20 RL 8/1/17	-	-	-		
1707619-05	W-63-Mid_071817_SED_00-01	0.2927	20	-	-	-		

Due Date: 8/21/2017

PREPARATION BENCH SHEET

F707529

Eurofins Frontier Global Sciences, Inc.

Matrix: Soil/Sediment

Prepared using: AFS - EFGS-010 KOH/Methanol Hg Digestion

Prepared: 8/1/2017

1707619-06	W-65-High_071817_SED_00-01	0.2761	20	-	-	-		
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PREPARATION BENCH SHEET

2700-1  
8/3/17 DM

F707529

Eurofins Frontier Global Sciences, Inc.

Matrix: Soil/Sediment

Prepared using: AFS - EFGS-010 KOH/Methanol Hg Digestion

Prepared: 8/1/2017

Lab Number	Sample ID and Source Sample	Initial (g)	Final (ml)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F707529-BLK1	Blank	0.25	20					500X
F707529-BLK2	Blank	0.25	20					500X
F707529-BLK3	Blank	0.25	20					500X
F707529-BS1	DORM-4	0.1253	20	1703305	1253			1000X
F707529-BSD1	DORM-4 Dup	0.1255	20	1703305	1255			1000X
F707529-DUP1	Duplicate [1707617-08]	0.297	20					500X
F707529-MS1	Matrix Spike [1707617-08]	0.2851	20	1605978	100			500X
F707529-MS2	Matrix Spike [1707619-01]	0.2857	20	1605978	100			500X
F707529-MSD1	Matrix Spike Dup [1707617-08]	0.2872	20	1605978	100			500X
F707529-MSD2	Matrix Spike Dup [1707619-01]	0.2901	20	1605978	100			500X

Standard ID(s):  
1605978  
1703305

Description:  
MHg New Primary 100 ng/mL spike  
DORM-4

Expiration:  
15-Oct-17 00:00  
29-May-20 00:00  
29-May-20 00:00

Reagent ID(s):  
1702696  
1702833

Description:  
Methanol, HPLC Grade  
25% KOH/Methanol

Expiration:  
28-Apr-20 00:00  
05-Nov-17 00:00

1703755  
1704999



PREPARATION BENCH SHEET

F707529

Eurofins Frontier Global Sciences, Inc.

2700-1  
8/13/17 DM

Matrix: Soil/Sediment

Prepared using: AFS - EFGS-010 KOH/Methanol Hg Digestion

Prepared: 8/1/2017

Lab Number	Sample ID	Initial (g)	Final (ml)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1707617-01	ADD-01_071817_SED_00-01	0.2871	20	-	-	-		500X
1707617-02	MMSE-1_N1_071817_SED_00-01	0.2796	20	-	-	-		500X
1707617-03	MMSE-1_S1_071817_SED_00-01	0.2856	20	-	-	-		500X
1707617-04	MMSE-1_S2_071817_SED_00-01	0.281	20	-	-	-		500X
1707617-05	MMSW-C_N_071817_SED_00-01	0.285	20	-	-	-		500X
1707617-06	W-17-NE_071817_SED_00-01	0.2712	20	-	-	-		500X
1707617-07	W-17-NW_071717_SED_00-01	0.2839	20	-	-	-		500X
1707617-08	W-17-NW_071717_SED_01-03	0.2768	20	QC	-	-	MS/MSD	500X
1707617-09	ADD-01_071817_SED_01-03	0.2987	20	-	-	-		500X
1707617-10	MMSE-1_N1_071817_SED_01-03	0.2896	20	-	-	-		500X
1707617-11	MMSE-1_S1_071817_SED_01-03	0.2827	20	-	-	-		500X
1707617-12	MMSE-1_S2_071817_SED_01-03	0.2963	20	-	-	-		500X
1707617-13	MMSW-C_N_071817_SED_01-03	0.2791	20	-	-	-		500X
1707617-14	W-17-NE_071817_SED_01-03	0.2994	20	-	-	-		500X
1707619-01	W-17-Low_071817_SED_00-01	0.2932	20	QC	-	-	MS/MSD	500X
1707619-02	W-17-Mid_071817_SED_00-01	0.297	20	-	-	-		500X
1707619-03	W-21-UM-Central-C_071817_SED_00-01	0.2699	20	-	-	-		500X
1707619-04	W-63-High_071817_SED_00-01	0.2974	20	-	-	-		500X
1707619-05	W-63-Mid_071817_SED_00-01	0.2927	20	-	-	-		500X

Due Date: 8/21/2017

PREPARATION BENCH SHEET

2700-1

F707529

8/8/17 DM

Eurofins Frontier Global Sciences, Inc.

Matrix: Soil/Sediment

Prepared using: AFS - EFGS-010 KOH/Methanol Hg Digestion

Prepared: 8/1/2017

1707619-06	W-65-High_071817_SED_00-01	0.2761	20	-	-	-	500x
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Technician: Dwyer Batch#: F707529 Date: 7/31/17

- EFAFS-T-AFS-SOP2986** Tissues - Methyl Mercury - KOH/Methanol: Hot plate 75±5°C for 2-4 hours.
- EFAFS-T-AFS-SOP2795** Tissues - Total Mercury - 70:30: Hot plate 75±5°C for two hours.
- EFAFS-T-AFS-SOP5134** Sediments - Methyl Mercury - KBr/CH<sub>2</sub>Cl<sub>2</sub>: Heat Block 45°C (nitrogen purge for 30 minutes).
- EFAFS-T-AFS-SOP2807** Solids - Total Mercury - Cold AR: 18-25°C for over four hours.

Other: \_\_\_\_\_ Vial Type:  Glass  Teflon  
 Balance#: 19 Calibrated?  Yes  No Therm.#: 13698 Calibrated?  Yes  No  
 \*Time in: 13:25 Actual Temp. (raw): 79.0 °C w/ CF: 79.0 °C  
 Time out: 16:30 Actual Temp. (raw): 83.0 °C w/ CF: 83.0 °C  
 \*Time in can't begin before target temperature is reached

Final vol.: 20 mL (LIMS ID: 1606305) Spike vol.: 100 µL (LIMS ID: 1605978)  
 Spike Witness: DB/1/17 (initial and date)

HCl LIMS ID: N/A Pipette SN#: NU09653 Calibration Date: 7-27-17  
 HNO<sub>3</sub> LIMS ID: N/A Pipette SN#: NU01152 Calibration Date: 7/31/17  
 70/30 LIMS ID: N/A Dispenser #: 02N48426 Calibrated?  Yes  No  
 Other Acid LIMS ID: 1702833 25/06/08 Dispenser #: N/A  
 Glass Vial # 00068124 Boiling Chip lot # 1704424 \*Hotblock Position: C5

Vial #	Sample ID Number	Sample Size <input type="checkbox"/> mL <input checked="" type="checkbox"/> µg	Vial #	Sample ID Number	Sample Size <input type="checkbox"/> mL <input checked="" type="checkbox"/> µg	CRM LIMS ID <input type="checkbox"/> NA
1	F707529 Blk1	0.2215	23	1707617-013A	0.2791	BS1 B5D1
2	F707529 Blk2	0.2591	24	1707617-14A	0.2994	DUP-4
3	F707529 Blk3	0.2923	25	1707619-01A	0.2932	1703305
4	F707529 BS1	0.1253	26	1707619-02	0.2970	Comments
5	F707529 B5D1	0.1255	27	1707619-03	0.2699	F707529
6	F707529 Dup1	0.2970	28	1707619-04	0.2924	Source 8/1/17
7	F707529 MS1	0.2851	29	1707619-05	0.2927	Dup1707617
8	F707529 MS1	0.2872	30	1707619-06	0.2761	MS1 MS01
9	F707529 MS2	0.2857	31			1707617-08
10	F707529 MS2	0.2901	32			
11	1707617-01A	0.2871	33			
12	1707617-02A	0.2796	34			F707529
13	1707617-03A	0.2856	35			MS2 MS02
14	1707617-04A	0.2810	36			1707617-09
15	1707617-05A	0.2850	37			-01 7/31/17
16	1707617-06A	0.2712	38			1707617 and
17	1707617-07A	0.2839	39			1707617
18	1707617-08A	0.2768	40			20 samples
19	1707617-09A	0.2987	41			weighted on
20	1707617-10D	0.2896	42			7/31/17 digestion
21	1707617-11A	0.2827	43			samples on 8/1/17
22	1707617-12A	0.2963	44			Acid added on 8/1/17

**PREPARATION BENCH SHEET**

F707531

**Eurofins Frontier Global Sciences, Inc.**

**Matrix: Soil/Sediment**

**Prepared using: AFS - EFGS-010 KOH/Methanol Hg Digestion**

**Prepared: 8/1/2017**

Lab Number	Sample ID and Source Sample	Initial (g)	Final (ml)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F707531-BLK1	Blank	0.25	20					
F707531-BLK2	Blank	0.25	20					
F707531-BLK3	Blank	0.25	20					
F707531-BLK4	Blank	0.25	20					
F707531-BLK5	Blank	0.25	20					
F707531-BLK6	Blank	0.25	20					
F707531-BS1	LCS	0.1261	20	1703305	126	126.1	R spike	
F707531-BSD1	LCS Dup	0.1251	20	1703305	125	125.1		
F707531-DUP1	Duplicate [1707620-11]	0.2586	20					
F707531-DUP2	AD [1707620-11]	0.2697	20					
F707531-MS1	Matrix Spike [1707620-11]	0.2611	20	1605978	100			
F707531-MS2	AS [1707620-11]	0.0013485	0.1	1704142	250			[Spk] 0.2697g->20ml; 40ml->40ml; Spiked 0.1ml
F707531-MSD1	Matrix Spike Dup [1707620-11]	0.2752	20	1605978	100			
F707531-MSD2	ASD [1707620-11]	0.0013485	0.1	1704142	250			[Spk] 0.2697g->20ml; 40ml->40ml; 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>
1605978	MHg New Primary 100 ng/mL spike	15-Oct-17 00:00	1606305	Methanol, HPLC Grade	28-Oct-19 00:00
1703305	DORM-4	29-May-20 00:00	1700863	25% KOH/Methanol	09-Aug-17 00:00
		29-May-20 00:00	1703755	Acetate Buffer	20-Dec-17 00:00
1704142	MHg Primary 0.05 ng/mL CAL	10-Oct-17 00:00	1704399	Ethylating Agent (For Methyl Mercury Analysis)	16-Jan-18 00:00
			1704424	Boiling Chips for AFS prep	21-Jan-18 00:00

**PREPARATION BENCH SHEET**

F707531

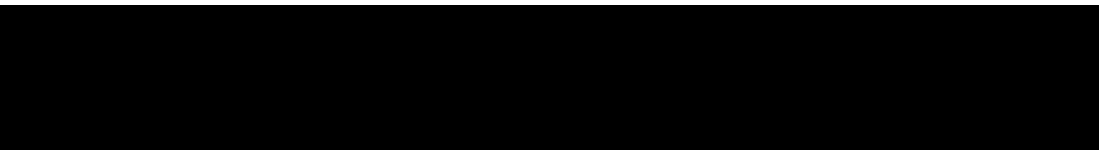
**Eurofins Frontier Global Sciences, Inc.**

**Matrix: Soil/Sediment**

**Prepared using: AFS - EFGS-010 KOH/Methanol Hg Digestion**

**Prepared: 8/1/2017**

Lab Number	Sample ID	Initial (g)	Final (ml)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1707620-11	W-MM-03_071717_SED_01-03	0.2697	20	QC	-	-	MS/MSD	
1707620-12	W-MM-04_071717_SED_01-03	0.2838	20	-	-	-		
1707620-13	W-MM-05_071817_SED_01-03	0.2863	20	-	-	-	Original jar broken, created container E	
1707620-14	W-MM-08_071817_SED_01-03	0.2636	20	-	-	-		
1707620-15	W-MM-11_071817_SED_01-03	0.2876	20	-	-	-		
1707620-16	W-MM-12_071817_SED_01-03	0.2737	20	-	-	-	Original jar broken, created container E	
1707620-17	W-MM-13_071817_SED_01-03	0.2886	20	-	-	-		
1707620-18	W-MM-14_071817_SED_01-03	0.2665	20	-	-	-		



PREPARATION BENCH SHEET

2700-1

8/3/17 DM

F707531

Eurofins Frontier Global Sciences, Inc.

Matrix: Soil/Sediment

Prepared using: AFS - EFGS-010 KOH/Methanol Hg Digestion

Prepared: 8/1/2017

Lab Number	Sample ID and Source Sample	Initial (g)	Final (ml)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F707531-BLK1	Blank	0.25	20					
F707531-BLK2	Blank	0.25	20					
F707531-BLK3	Blank	0.25	20					
F707531-BLK4	Blank	0.25	20					500X
F707531-BLK5	Blank	0.25	20					500X
F707531-BLK6	Blank	0.25	20					500X
F707531-BS1	LCS	0.1261	20	1703305	126			
F707531-BSD1	LCS Dup	0.1251	20	1703305	125			
F707531-DUP1	Duplicate [1707620-11]	0.2586	20					
F707531-DUP2	AD [1707620-11]	0.2697	20					500X
F707531-MS1	Matrix Spike [1707620-11]	0.2611	20	1605978	100			
F707531-MS2	AS [1707620-11]	0.0013485	0.1	1704142	250			[Spk] 0.2697g->20ml; 40ml->40ml; Spiked 0.1ml 500X
F707531-MSD1	Matrix Spike Dup [1707620-11]	0.2752	20	1605978	100			
F707531-MSD2	ASD [1707620-11]	0.0013485	0.1	1704142	250			[Spk] 0.2697g->20ml; 40ml->40ml; Spiked 0.1ml 500X

<u>Standard ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>	<u>Reagent ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>
1605978	MHg New Primary 100 ng/mL spike	15-Oct-17 00:00	1606305	Methanol, HPLC Grade	28-Oct-19 00:00
1703305	DORM-4	29-May-20 00:00	1700863	25% KOH/Methanol	09-Aug-17 00:00
		29-May-20 00:00	1703755	Acetate Buffer	20-Dec-17 00:00
1704142	MHg Primary 0.05 ng/mL CAL	10-Oct-17 00:00	1704399	Ethylating Agent (For Methyl Mercury Analysis)	16-Jan-18 00:00
			1704424	Boiling Chips for AFS prep	21-Jan-18 00:00

Due Date: 8/21/2017

**PREPARATION BENCH SHEET**

F707531

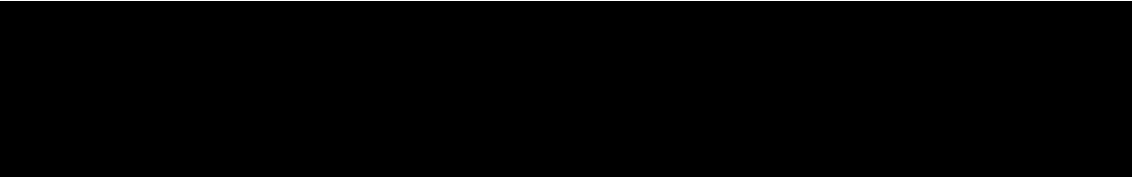
**Eurofins Frontier Global Sciences, Inc.**

**Matrix: Soil/Sediment**

**Prepared using: AFS - EFGS-010 KOH/Methanol Hg Digestion**

**Prepared: 8/1/2017**

Lab Number	Sample ID	Initial (g)	Final (ml)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1707620-11	W-MM-03_071717_SED_01-03	0.2697	20	QC	-	-	MS/MSD	
1707620-12	W-MM-04_071717_SED_01-03	0.2838	20	-	-	-		
1707620-13	W-MM-05_071817_SED_01-03	0.2863	20	-	-	-	Original jar broken, created container E	
1707620-14	W-MM-08_071817_SED_01-03	0.2636	20	-	-	-		
1707620-15	W-MM-11_071817_SED_01-03	0.2876	20	-	-	-		
1707620-16	W-MM-12_071817_SED_01-03	0.2737	20	-	-	-	Original jar broken, created container E	
1707620-17	W-MM-13_071817_SED_01-03	0.2886	20	-	-	-		
1707620-18	W-MM-14_071817_SED_01-03	0.2665	20	-	-	-		



**PREPARATION BENCH SHEET**

F707530

**Eurofins Frontier Global Sciences, Inc.**

**Matrix: Soil/Sediment**

**Prepared using: AFS - EFGS-010 KOH/Methanol Hg Digestion**

**Prepared: 8/1/2017**

Lab Number	Sample ID and Source Sample	Initial (g)	Final (ml)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F707530-BLK1	Blank	0.25	20					
F707530-BLK2	Blank	0.25	20					
F707530-BLK3	Blank	0.25	20					
F707530-BS1	DORM-4	0.1292	20	1703305	129	129.2		
F707530-BSD1	DORM-4	0.1291	20	1703305	129	129.1		
F707530-DUP1	Duplicate [1707619-11]	0.2897	20					
F707530-MS1	Matrix Spike [1707619-11]	0.252	20	1605978	100			
F707530-MS2	Matrix Spike [1707620-01]	0.2816	20	1605978	100			
F707530-MSD1	Matrix Spike Dup [1707619-11]	0.2893	20	1605978	100			
F707530-MSD2	Matrix Spike Dup [1707620-01]	0.2899	20	1605978	100			

Standard ID(s):  
1605978  
1703305

Description:  
MHg New Primary 100 ng/mL spike  
DORM-4

Expiration:  
15-Oct-17 00:00  
29-May-20 00:00

Reagent ID(s):  
1606305  
1700863  
1703755  
1704399  
1704424

Description:  
Methanol, HPLC Grade  
25% KOH/Methanol  
Acetate Buffer  
Ethylating Agent (For Methyl Mercury Analysis)  
Boiling Chips for AFS prep

Expiration:  
28-Oct-19 00:00  
09-Aug-17 00:00  
20-Dec-17 00:00  
16-Jan-18 00:00  
21-Jan-18 00:00



**PREPARATION BENCH SHEET**

F707530

**Eurofins Frontier Global Sciences, Inc.**

**Matrix: Soil/Sediment**

**Prepared using: AFS - EFGS-010 KOH/Methanol Hg Digestion**

**Prepared: 8/1/2017**

Lab Number	Sample ID	Initial (g)	Final (ml)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1707619-07	W-65-Low_071817_SED_00-01	0.2569	20	-	-	-		
1707619-08	W-65-Mid_071817_SED_00-01	0.2954	20	-	-	-		
1707619-09	W-17-Low_071817_SED_01-03	0.2905	20	-	-	-		
1707619-10	W-17-Mid_071817_SED_01-03	0.2732	20	-	-	-		
1707619-11	W-21-UM-Central-C_071817_SED_01-03	0.2599	20	QC	-	-	MS/MSD	
1707619-12	W-63-High_071817_SED_01-03	0.2891	20	-	-	-		
1707619-13	W-63-Mid_071817_SED_01-03	0.2553	20	-	-	-		
1707619-14	W-65-High_071817_SED_01-03	0.257	20	-	-	-		
1707619-15	W-65-Low_071817_SED_01-03	0.26	20	-	-	-		
1707619-16	W-65-Mid_071817_SED_01-03	0.2847	20	-	-	-		
1707620-01	W-104-A_071817_SED_00-01	0.2817	20	QC	-	-	MS/MSD	
1707620-02	W-MM-03_071717_SED_00-01	0.3185	20	-	-	-		
1707620-03	W-MM-04_071717_SED_00-01	0.2625	20	-	-	-		
1707620-04	W-MM-05_071817_SED_00-01	0.2771	20	-	-	-		
1707620-05	W-MM-08_071817_SED_00-01	0.2894	20	-	-	-		
1707620-06	W-MM-11_071817_SED_00-01	0.2772	20	-	-	-		
1707620-07	W-MM-12_071817_SED_00-01	0.2946	20	-	-	-		
1707620-08	W-MM-13_071817_SED_00-01	0.2649	20	-	-	-		
1707620-09	W-MM-14_071817_SED_00-01	0.2667	20	-	-	-		

Due Date: 8/21/2017

PREPARATION BENCH SHEET

F707530

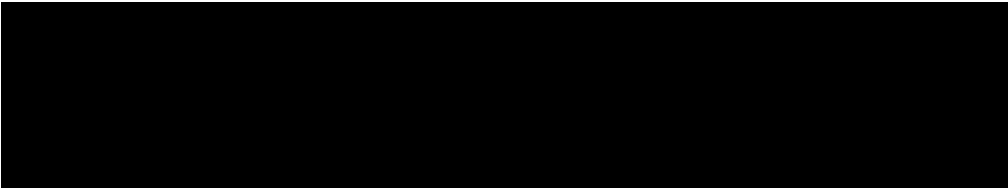
Eurofins Frontier Global Sciences, Inc.

Matrix: Soil/Sediment

Prepared using: AFS - EFGS-010 KOH/Methanol Hg Digestion

Prepared: 8/1/2017

1707620-10	W-104-A_071817_SED_01-03	0.273	20	-	-	-	Original jar broken, created container E
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PREPARATION BENCH SHEET

2700-1  
8/3/17 DM

F707530

Eurofins Frontier Global Sciences, Inc.

Matrix: Soil/Sediment

Prepared using: AFS - EFGS-010 KOH/Methanol Hg Digestion

Prepared: 8/1/2017

Lab Number	Sample ID and Source Sample	Initial (g)	Final (ml)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F707530-BLK1	Blank	0.25	20					500X
F707530-BLK2	Blank	0.25	20					500X
F707530-BLK3	Blank	0.25	20					500X
F707530-BS1	DORM-4	0.1292	20	1703305	129			1000X
F707530-BSD1	DORM-4	0.1291	20	1703305	129			1000X
F707530-DUP1	Duplicate [1707619-11]	0.2897	20					500X
F707530-MS1	Matrix Spike [1707619-11]	0.252	20	1605978	100			500X
F707530-MS2	Matrix Spike [1707620-01]	0.2816	20	1605978	100			500X
F707530-MSD1	Matrix Spike Dup [1707619-11]	0.2893	20	1605978	100			500X
F707530-MSD2	Matrix Spike Dup [1707620-01]	0.2899	20	1605978	100			500X

Standard ID(s):  
1605978  
1703305

Description:  
MHg New Primary 100 ng/mL spike  
DORM-4

Expiration:  
15-Oct-17 00:00  
29-May-20 00:00

Reagent ID(s):  
1606305  
1700863  
1704424

Description:  
Methanol, HPLC Grade  
25% KOH/Methanol  
Boiling Chips for AFS prep

Expiration:  
28-Oct-19 00:00  
09-Aug-17 00:00  
21-Jan-18 00:00

1703755

1704399

PREPARATION BENCH SHEET

2700-1

8/3/17 DM

F707530

Eurofins Frontier Global Sciences, Inc.

Matrix: Soil/Sediment

Prepared using: AFS - EFGS-010 KOH/Methanol Hg Digestion

Prepared: 8/1/2017

Lab Number	Sample ID	Initial (g)	Final (ml)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1707619-07	W-65-Low_071817_SED_00-01	0.2569	20	-	-	-		500X
1707619-08	W-65-Mid_071817_SED_00-01	0.2954	20	-	-	-		500X
1707619-09	W-17-Low_071817_SED_01-03	0.2905	20	-	-	-		500X
1707619-10	W-17-Mid_071817_SED_01-03	0.2732	20	-	-	-		500X
1707619-11	W-21-UM-Central-C_071817_SED_01-03	0.2599	20	QC	-	-	MS/MSD	500X
1707619-12	W-63-High_071817_SED_01-03	0.2891	20	-	-	-		500X
1707619-13	W-63-Mid_071817_SED_01-03	0.2553	20	-	-	-		500X
1707619-14	W-65-High_071817_SED_01-03	0.257	20	-	-	-		500X
1707619-15	W-65-Low_071817_SED_01-03	0.26	20	-	-	-		500X
1707619-16	W-65-Mid_071817_SED_01-03	0.2847	20	-	-	-		500X
1707620-01	W-104-A_071817_SED_00-01	0.2817	20	QC	-	-	MS/MSD	500X
1707620-02	W-MM-03_071717_SED_00-01	0.3185	20	-	-	-		500X
1707620-03	W-MM-04_071717_SED_00-01	0.2625	20	-	-	-		500X
1707620-04	W-MM-05_071817_SED_00-01	0.2771	20	-	-	-		500X
1707620-05	W-MM-08_071817_SED_00-01	0.2894	20	-	-	-		500X
1707620-06	W-MM-11_071817_SED_00-01	0.2772	20	-	-	-		500X
1707620-07	W-MM-12_071817_SED_00-01	0.2946	20	-	-	-		500X
1707620-08	W-MM-13_071817_SED_00-01	0.2649	20	-	-	-		500X
1707620-09	W-MM-14_071817_SED_00-01	0.2667	20	-	-	-		500X

Due Date: 8/21/2017

PREPARATION BENCH SHEET

2700-1

F707530

8/3/17 DM

Eurofins Frontier Global Sciences, Inc.

Matrix: Soil/Sediment

Prepared using: AFS - EFGS-010 KOH/Methanol Hg Digestion

Prepared: 8/1/2017

1707620-10	W-104-A_071817_SED_01-03	0.273	20	-	-	-	Original jar broken, created container E	Box
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Technician: LoF/AMB

Batch#: F707530

Date: 7/31/17

EFAFS-T-AFS-SOP2986 Tissues - Methyl Mercury - KOH/Methanol: Hot plate 75±5°C for 2-4 hours.

EFAFS-T-AFS-SOP2795 Tissues - Total Mercury - 70:30: Hot plate 75±5°C for two hours.

EFAFS-T-AFS-SOP5134 Sediments - Methyl Mercury - KBr/CH<sub>2</sub>Cl<sub>2</sub>: Heat Block 45°C (nitrogen purge for 30 minutes).

EFAFS-T-AFS-SOP2807 Solids - Total Mercury - Cold AR: 18-25°C for over four hours.

Other: \_\_\_\_\_ Vial Type:  Glass  Teflon

Balance#: 19 Calibrated?  Yes  No Therm.#: 8-17173 3648 14545 Calibrated?  Yes  No

\*Time in: 1625 Actual Temp. (raw): 79.0 °C w/ CF: 79.1 °C

Time out: 1930 Actual Temp. (raw): 80.0 °C w/ CF: 80.1 °C

\*Time in can't begin before target temperature is reached

Final vol.: 20 mL (LIMS ID: 1606305) Spike vol.: 100 µL (LIMS ID: 1605978)

Spike Witness: PL x o/p/17 (initial and date)

HCl LIMS ID: N/A

Pipette SN#: NU09653 Calibration Date: 7/27/17

HNO<sub>3</sub> LIMS ID: N/A

Pipette SN#: NU01152 Calibration Date: 7/31/17

70/30 LIMS ID: N/A

Dispenser #: 02N48426 Calibrated?  Yes  No

Other Acid LIMS ID: 1700863

Dispenser #: N/A

Glass Vial # 00068647 Boiling Chip lot # 1704424 \*Hotblock Position: AMB 8/1/17  
65-6A

Vial #	Sample ID Number	Sample Size <input type="checkbox"/> mL <input type="checkbox"/> g	Vial #	Sample ID Number	Sample Size <input type="checkbox"/> mL <input type="checkbox"/> g	CRM LIMS ID <input type="checkbox"/> NA
1	F707530 BLU1	0.2873	23	1707620 - 03	0.2625	DORM - 4
2	F707530 BLU2	0.2544	24	1707620 - 04	0.2771	For BSI and BSD1 = 1703305
3	F707530 BLU3	0.2897	25	1707620 - 05	0.2894	
4	F707530 BSI	0.1292	26	1707620 - 06	0.2772	Comments
5	F707530 BSD1	0.1291	27	1707620 - 07	0.2946	F707530 DUP1
6	1707619 - 07	0.2569	28	1707620 - 08	0.2849	Source = 1707619-11
7	1707619 - 08	0.2954	29	1707620 - 09	0.2667	F707530 MS1 Source = 1707619-11
8	1707619 - 09	0.2905	30	1707620 - 10	0.2730	F707530 MS2 Source = 1707620-01
9	1707619 - 10	0.2732	31			F707530 MSD1 Source = 1707619-11
10	1707619 - 11	0.2599	32			F707530 MSD2 Source = 1707620-01
11	F707530 - DUP1	0.2897	33			
12	F707530 - MS1	0.2520	34			
13	F707530 - MSD1	0.2893	35			
14	1707619 - 12	0.2891	36			
15	1707619 - 13	0.2553	37			
16	1707619 - 14	0.2970	38			
17	1707619 - 15	0.2600	39			
18	1707619 - 16	0.2847	40			
19	1707620 - 01	0.2817	41			
20	F707530 - MS2	0.2816	42			
21	F707530 - MSD2	0.2899	43			
22	1707620 - 02	0.3185	44			



AMB 8-1-17

Weighed out on 7/31/17, digested on 8/1/17. AMB 8/1/17  
Spiked by AMB 8/1/17.  
Aird added by AMB 8/1/17.

Bring up Volume by DH/BL

**Failing Data Report - 7H04009**

Sample ID	Analysis	Result	MRL	Dup Result	Source Result	True Value	Units	% Rec.	Rec. LCL	Rec. UCL	RPD	RPD Limit	Over Cal	Failure	Qualifier
F707529-DUP1	MHg-CVAFS-S-KOH	1.5	1.7	1.0	1.0		ng/g				39.2	35.00	PASS-OVER	FAIL-DUP	QR-04

  
 Analyst Reviewed By \_\_\_\_\_  
  
 Date \_\_\_\_\_

  
 Peer Reviewed By \_\_\_\_\_  
  
 Date \_\_\_\_\_

ANALYSIS SEQUENCE

7H04007

QUALITY ASSURANCE  
PEER-REVIEWED

Instrument: Hg2700-1

Calibration ID: UNASSIGNED

INITIALS: DM 8/4/17 Analyzed: 8/3/2017

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
7H04007-IBL1 ✓	QC	1			
7H04007-CAL1 ✓	QC	2	1704180 ✓		
7H04007-CAL2 ✓	QC	3	1704181 ✓		
7H04007-CAL3 ✓	QC	4	1704182 ✓		
7H04007-CAL4 ✓	QC	5	1704183 ✓		
7H04007-CAL5 ✓	QC	6	1704184 ✓		
7H04007-ICV1 ✓	QC	7	1703246 ✓		
7H04007-ICB1 ✓	QC	8			
7H04007-CCV1 ✓	QC	9	1703246 ✓		
7H04007-CCB1 ✓	QC	10			
7H04007-CCV2 ✓	QC	11	1703246 ✓		
7H04007-CCB2 ✓	QC	12			
7H04007-CCV3 ✓	QC	13	1703246 ✓		
7H04007-CCB3 ✓	QC	14			
F707454-BLK4 ✓	QC	15			
F707454-BLK5 ✓	QC	16			
F707454-BLK6 ✓	QC	17			
F707454-BS3 ✓	QC	18			
F707454-BS4 ✓	QC	19			
1707500-09RE1 ✓	MHg-CVAFS-T-KOH DOD	20			Added 8/3/2017 by DM2
7H04007-CCV4 ✓	QC	21	1703246 ✓		
7H04007-CCB4 ✓	QC	22			

DM M. Patten 8/3/17  
Samples Loaded By Date

DM M. Patten 8/4/17  
Data Processed By Date



**PREPARATION BENCH SHEET**

F707454

**Eurofins Frontier Global Sciences, Inc.**

**Matrix: Tissue**

**Prepared using: Hg Aquatic/Solids - EFGS-010 KOH/Methanol Hg Digestion**

**Prepared: 8/1/2017**

Lab Number	Sample ID and Source Sample	Initial (g)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F707454-BLK1	Blank	0.25	20					
F707454-BLK2	Blank	0.25	20					
F707454-BLK3	Blank	0.25	20					
F707454-BLK4	Blank	0.25	20					
F707454-BLK5	Blank	0.25	20					
F707454-BLK6	Blank	0.25	20					
F707454-BS1	LOD 2017 Q3 2700	0.25	20	1704676	25			
F707454-BS2	LOQ 2017 Q3 2700	0.25	20	1704676	50			
F707454-BS3	LOD 2017 Q3 2700	0.25	20	1704676	25			
F707454-BS4	LOQ 2017 Q3 2700	0.25	20	1704676	50			

Standard ID(s): 1704676  
Description: MHg 10ng/mL LOD/LOQ standard

Expiration:  
 08-Aug-17 00:00  
 08-Aug-17 00:00

Reagent ID(s):  
 1606305  
 1700863  
 1703755  
 1704399  
 1704424  
 1704675

Description:  
 Methanol, HPLC Grade  
 25% KOH/Methanol  
 Acetate Buffer  
 Ethylating Agent (For Methyl Mercury Analysis)  
 Boiling Chips for AFS prep  
 KOH QC Tissue sample matrix for liquid spikes

Expiration:  
 28-Oct-19 00:00  
 09-Aug-17 00:00  
 20-Dec-17 00:00  
 16-Jan-18 00:00  
 21-Jan-18 00:00  
 31-Jan-19 00:00

PREPARATION BENCH SHEET

F707454

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: Hg Aquatic/Solids - EFGS-010 KOH/Methanol Hg Digestion

Prepared: 8/1/2017

Lab Number	Sample ID	Initial (g)	Final (mL)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1707500-09	Q3 LOD/LOQ - 2700	0.25	20	-	-	-	Spike at specified level	
1707500-09RE1	Q3 LOD/LOQ - 2700	0.25	20	-	-	-	Added 8/3/2017 by DM2	Added 8/3/2017 by DM2

PREPARATION BENCH SHEET

8/3/17 DM  
2700-1

F707454

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: Hg Aquatic/Solids - EFGS-010 KOH/Methanol Hg Digestion

Prepared: 8/1/2017

Lab Number	Sample ID and Source Sample	Initial (g)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F707454-BLK1	Blank	0.25	20					
F707454-BLK2	Blank	0.25	20					
F707454-BLK3	Blank	0.25	20					
F707454-BLK4	Blank	0.25	20					SOX
F707454-BLK5	Blank	0.25	20					SOX
F707454-BLK6	Blank	0.25	20					SOX
F707454-BS1	LOD 2017 Q3 2700	0.25	20	1704676	25			
F707454-BS2	LOQ 2017 Q3 2700	0.25	20	1704676	50			
F707454-BS3	LOD 2017 Q3 2700	0.25	20	1704676	25			SOX
F707454-BS4	LOQ 2017 Q3 2700	0.25	20	1704676	50			SOX

<u>Standard ID(s):</u> 1704676	<u>Description:</u> MHg 10ng/mL LOD/LOQ standard	<u>Expiration:</u> 08-Aug-17 00:00 08-Aug-17 00:00	<u>Reagent ID(s):</u> 1606305 1700863 1703755 1704399 1704424 1704675	<u>Description:</u> Methanol, HPLC Grade 25% KOH/Methanol Acetate Buffer Ethylating Agent (For Methyl Mercury Analysis) Boiling Chips for AFS prep KOH QC Tissue sample matrix for liquid spikes	<u>Expiration:</u> 28-Oct-19 00:00 09-Aug-17 00:00 20-Dec-17 00:00 16-Jan-18 00:00 21-Jan-18 00:00 31-Jan-19 00:00
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PREPARATION BENCH SHEET

2700-1

F707454

8/3/17 DM

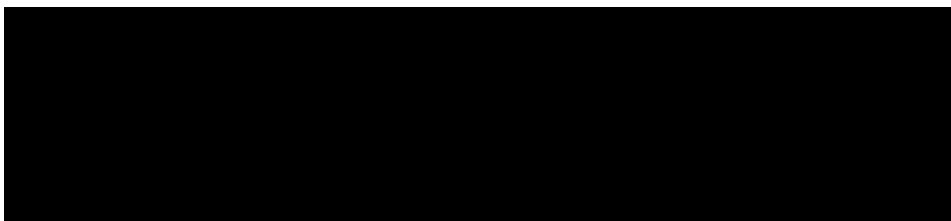
Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: Hg Aquatic/Solids - EFGS-010 KOH/Methanol Hg Digestion

Prepared: 8/1/2017

Lab Number	Sample ID	Initial (g)	Final (mL)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1707500-09	Q3 LOD/LOQ - 2700	0.25	20	-	-	-	Spike at specified level	
1707500-09RE1	Q3 LOD/LOQ - 2700	0.25	20	-	-	-	Added 8/3/2017 by DM2	Added 8/3/2017 by DM2 <i>SDX</i>



**Failing Data Report - 7H04007**

Sample ID	Analysis	Result	MRL	Dup Result	Source Result	True Value	Units	% Rec.	Rec. LCL	Rec. UCL	RPD	RPD Limit	Over Cal	Failure	Qualifier
F707454-BS3	MHg-CVAFS-T-KOH DOD	0.5	2.0			1.0010	ng/g		70.00	130.00			PASS-OVER	FAIL-BS	LOD -
F707454-BS4	MHg-CVAFS-T-KOH DOD	0.8	2.0			2.0020	ng/g	37.6	70.00	130.00			PASS-OVER	FAIL-BS	LOD -

Don Maaten 8/4/17  
Analyst Reviewed By Date

[Signature] 8/4/17  
Peer Reviewed By Date

**Peer Review Check List for MHg for CV-GC-AFS (SOP2808) 2017 Rev 6 (02/22/17)**

<b>Analyst:</b> DON MORAN	<b>Sequence #:</b> 7H04007, 7H04009
<b>Reviewer:</b> PL 8/4/17	<b>Dataset ID #:</b> MMHG27001-170803-1
<b>Date:</b> 8-4-17	<b>WO #:</b> VARIOUS
<b>Batch #(s):</b> F707259, F707454, F707531, F707530	<b>Client(s):</b> VARIOUS

• Select the correct preparation method.

Additional Comments:

Analyte	Prep Method	Matrix
<input type="checkbox"/> MHg	SOP2797 MHg Distillation	Water
<input checked="" type="checkbox"/> MHg	SOP2986 KOH/MeOH Digest	Tissue
<input type="checkbox"/> MHg	SOP5134 MeCl Extraction	Sed/Soil
<input type="checkbox"/> DMHg	SOP2816 (None Accredited method)	ALL

**Analyst Initials:**

DM

**Reviewer Initials:**

PL 8/4/17

- |   |  |   |                             |                                     |   |                             |                                     |   |                             |                                     |   |                             |                                     |                              |                             |   |                              |                             |   |   |                             |                              |   |                             |                              |   |                             |                              |                              |                             |   |   |                             |                                     |   |                             |                                     |   |                             |                                     |                              |  |                                     |   |                             |                                     |   |                             |                                     |   |                             |                                     |  |                               |                              |  |                               |                              |  |                               |                                     |
|---|--|---|-----------------------------|-------------------------------------|---|-----------------------------|-------------------------------------|---|-----------------------------|-------------------------------------|---|-----------------------------|-------------------------------------|------------------------------|-----------------------------|---|------------------------------|-----------------------------|---|---|-----------------------------|------------------------------|---|-----------------------------|------------------------------|---|-----------------------------|------------------------------|------------------------------|-----------------------------|---|---|-----------------------------|-------------------------------------|---|-----------------------------|-------------------------------------|---|-----------------------------|-------------------------------------|------------------------------|--|-------------------------------------|---|-----------------------------|-------------------------------------|---|-----------------------------|-------------------------------------|---|-----------------------------|-------------------------------------|--|-------------------------------|------------------------------|--|-------------------------------|------------------------------|--|-------------------------------|-------------------------------------|
| <p>1. Compare Sample ID with Bench sheet/Sequence/Raw Data (Have all samples been imported?)</p> <p>2. Check for transcription errors from Excel spreadsheet (or Prep Bench sheet)/Raw data</p> <p style="margin-left: 20px;">(a) Reviewer: 100% of peak heights checked</p> <p style="margin-left: 20px;">(b) Are there peak height errors?</p> <p style="margin-left: 20px;">(c) Error on a sample: Do peak heights, responses, &amp; initial results match corrected data?</p> <p style="margin-left: 20px;">(d) Error on a Cal Pt, ICB/CCB, or PB: Has the data been reimported?</p> <p style="margin-left: 20px;">(e) Check standards &amp; reagents in sequence &amp; bench sheet for correct usage (i.e. expiries).</p> <p style="margin-left: 20px;">(f) Check and compare masses (review prep bench sheet)</p> <p style="margin-left: 20px;">(g) Check and compare initial and final volumes</p> <p style="margin-left: 20px;">(h) Do aliquots and dilutions written on benchsheet match those in Excel?</p> <p style="margin-left: 20px;">(i) Is the pH&gt;3.0 for all distilled samples? _____</p> <p style="margin-left: 20px;">(j) Is the sequence #, analyst, date, and instrument # on the QC page?</p> <p style="margin-left: 20px;">(k) Is the analysis status correct? (analyzed/initial review/reviewed)</p> <p style="margin-left: 20px;">(l) Original prep bench sheet added to data package?</p> <p style="margin-left: 20px;">(m) Benchsheet prep date MUST match actual prep date (check if re-shot vs re-extract)</p> <p>3. High QA? WO#(s)/Client(s): _____</p> <p>4. Client specific QC? (if Yes, refer to Project Notes/LIMS)</p> <p style="margin-left: 20px;">(a) Have the QC requirements been met for all WO#s?</p> <p>5. 20 or fewer samples in batch? _____</p> <p style="margin-left: 20px;">(a) 3 PBs, 1 LCS/LCSD (or BS/BSD), 2 MS/MSD/MD per batch?</p> <p style="margin-left: 20px;">(b) 1 CCV and 1 CCB every 10 analytical runs? _____</p> <p><b>QA/QC Data Checked</b></p> <p>6. The calibration curve included a minimum of 5 Standards</p> <p style="margin-left: 20px;">Comments: _____</p> <p>7. 1st Calibration Standard % Recoveries (65-135%)</p> <p style="margin-left: 20px;">Comments: _____</p> <p>8. RSD CF (≤ 15%)</p> <p style="margin-left: 20px;">Comments: _____</p> | <table style="width:100%; border-collapse: collapse;"> <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"/> YES</td> <td><input type="checkbox"/> NO</td> <td><input checked="" type="checkbox"/></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 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 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 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 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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 type="checkbox"/> YES | <input 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 type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> N/A | <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"/> | <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 checked="" type="checkbox"/> YES   | <input type="checkbox"/> NO  | <input checked="" type="checkbox"/>     |                             |                                     |   |                             |                                     |   |                             |                                     |   |                             |                                     |                              |                             |   |                              |                             |   |   |                             |                              |   |                             |                              |   |                             |                              |                              |                             |   |   |                             |                                     |   |                             |                                     |   |                             |                                     |                              |  |                                     |   |                             |                                     |   |                             |                                     |   |                             |                                     |  |                               |                              |  |                               |                              |  |                               |                                     |
| <input type="checkbox"/> YES  | <input 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 type="checkbox"/> YES  | <input type="checkbox"/> NO  | <input checked="" type="checkbox"/> N/A |                             |                                     |   |                             |                                     |   |                             |                                     |   |                             |                                     |                              |                             |   |                              |                             |   |   |                             |                              |   |                             |                              |   |                             |                              |                              |                             |   |   |                             |                                     |   |                             |                                     |   |                             |                                     |                              |  |                                     |   |                             |                                     |   |                             |                                     |   |                             |                                     |  |                               |                              |  |                               |                              |  |                               |                                     |
| <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"/>     |                             |                                     |   |                             |                                     |   |                             |                                     |   |                             |                                     |                              |                             |   |                              |                             |   |   |                             |                              |   |                             |                              |   |                             |                              |                              |                             |   |   |                             |                                     |   |                             |                                     |   |                             |                                     |                              |  |                                     |   |                             |                                     |   |                             |                                     |   |                             |                                     |  |                               |                              |  |                               |                              |  |                               |                                     |
| <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 (SOP2808) 2017 Rev 6 (02/22/17)**

<b>Analyst:</b>	DON MORAN	<b>Sequence #:</b>	7H04007, 7H04009
<b>Reviewer:</b>	0 <i>DM</i>	<b>Dataset ID #:</b>	MMHG27001-170803-1
<b>Date:</b>	8/4/2017	<b>WO #:</b>	VARIOUS
<b>Batch #(s):</b>	F707259, F707454, F707531, F707530	<b>Client(s):</b>	VARIOUS

**Analyst Initials:**

**Reviewer Initials:**

- |  |  |  |   |
|--|--|--|---|
| 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 type="checkbox"/> PASS            | <input type="checkbox"/> FAIL            | <input checked="" 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 checked="" 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 checked="" type="checkbox"/> FAIL | <input checked="" type="checkbox"/>   |
| Comments: <b>F707529-DUP1 FAILED. HIGH RPD. SAMPLE UNDETECTED</b>                            |  |  |   |
| 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 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 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 checked="" type="checkbox"/> |
| Comments: _____  |  |  |   |

**Peer Review Check List for MHg for CV-GC-AFS (SOP2808) 2017 Rev 6 (02/22/17)**

<b>Analyst:</b>	DON MORAN	<b>Sequence #:</b>	7H04007, 7H04009
<b>Reviewer:</b>	0 <i>R 8/4/17</i>	<b>Dataset ID #:</b>	MMHG27001-170803-1
<b>Date:</b>	8/4/2017	<b>WO #:</b>	VARIOUS
<b>Batch #(s):</b>	F707529, F707454, F707531, F707530	<b>Client(s):</b>	VARIOUS

**Analyst Initials:**

**Reviewer Initials:**

*DM*

*R 8/4/17*

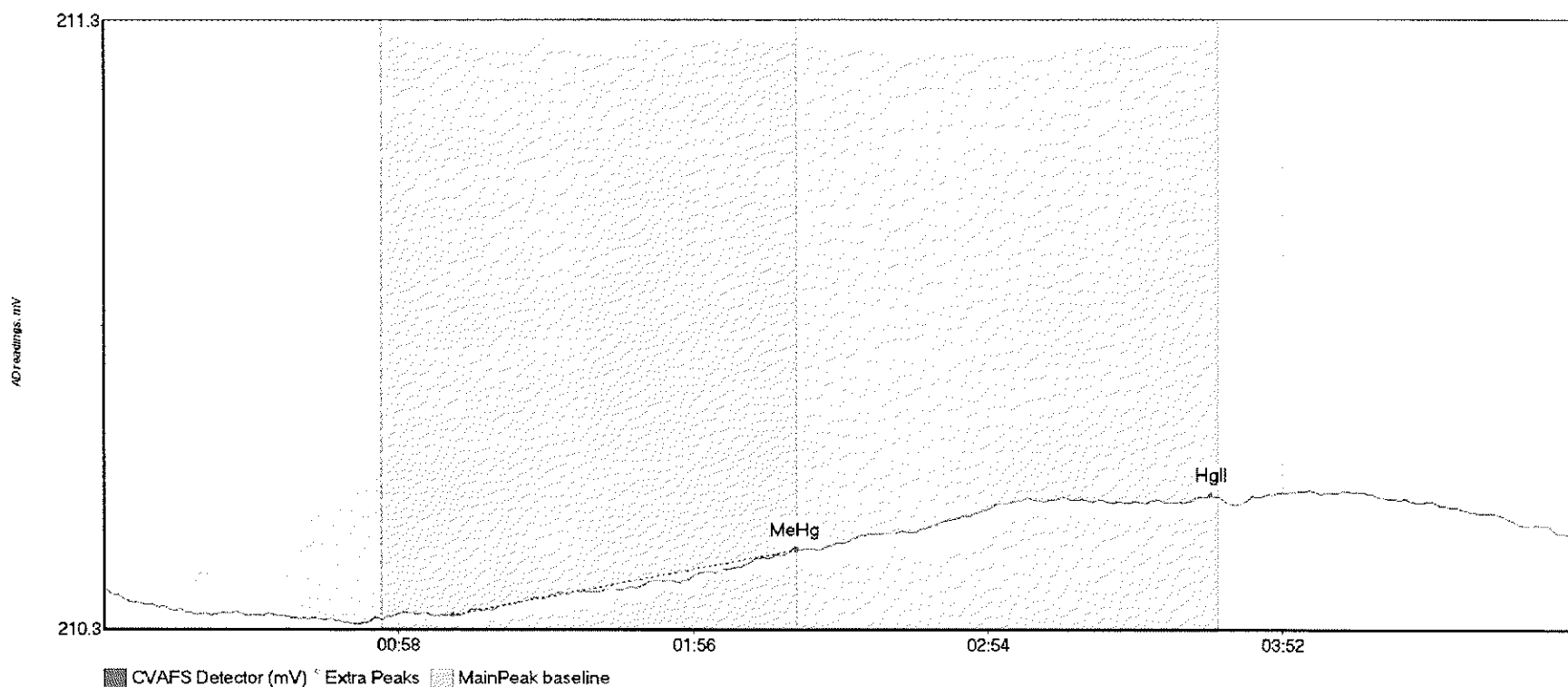
- |  |   |  |   |                                     |
|--|---|--|---|-------------------------------------|
| 29. Are re-runs noted with reason?<br>Comments: _____  | <input type="checkbox"/> YES            | <input type="checkbox"/> NO            | <input checked="" type="checkbox"/> N/A | <input checked="" type="checkbox"/> |
| 30. For failing QC (CCV, CCB, PB, BS/BSD, CAL):<br>Was a bubbler and trap test run before the analytical run continued?<br>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)?<br>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?<br>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?<br>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 type="checkbox"/> YES            | <input type="checkbox"/> NO            | <input checked="" type="checkbox"/> N/A | <input checked="" type="checkbox"/> |
| 35. Narrations in MMO box in LIMS?<br>Comments: _____  |   |  |   |                                     |
| 36. Are there any HIGH QA projects within the data?<br>If so, place dataset to the QA office.  | <input type="checkbox"/> YES            | <input checked="" type="checkbox"/> NO |   |                                     |
| 37. Does the data set need scanning?<br>Files located at: \\Cuprum\gen_admin\Quality Assurance\Training Master\DOCs                        | <input type="checkbox"/> YES            |  | <input checked="" type="checkbox"/> N/A | <input checked="" type="checkbox"/> |
| 38. Date of analyst IDOC/CDOC: <u>6/13/2017</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>5/23/2016</u> Current SOP revision?  | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO            |   | <input checked="" type="checkbox"/> |
| 40. Date of LOD: <u>4/24/2017</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>4/24/2017</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?   | <input type="checkbox"/> YES            | <input type="checkbox"/> NO            | <input type="checkbox"/> N/A            | <input checked="" type="checkbox"/> |
| <b>Data can not be reported without a current IDOC/CDOC, LOD or LOQ.</b>   |   |  |   |                                     |
| Additional Comments: _____   | <input type="checkbox"/> YES            | <input type="checkbox"/> NO            |   | <input checked="" type="checkbox"/> |



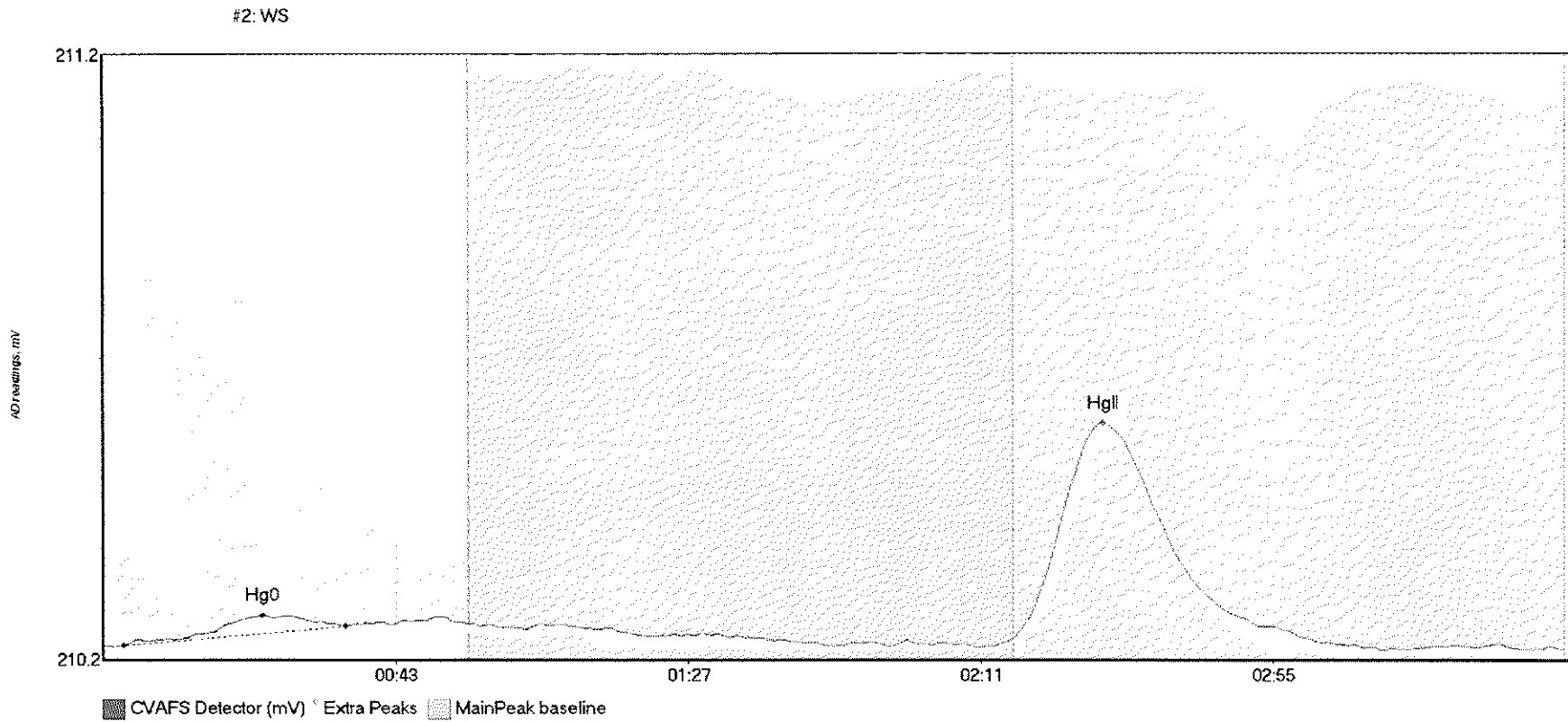


1707619-09	A11	500	0.90	2.60	23.51	2363.13		24632-1.RAW	21:40:02	3.39	23.45	2267.64	0.00	psample10	CT	1
1707619-10	A12	500	0.90	4.42	33.01	1748.07		24633-1.RAW	21:50:32	5.13	32.56	1677.67	0.00	psample10	CT	1
1707619-11	A13	500	0.90	7.11	27.38	623.21		24634-1.RAW	22:01:03	7.71	27.15	598.69	0.00	psample10	OK	1
1707619-12	A14	500	0.90	7.37	16.42	548.81		24635-1.RAW	22:11:34	7.97	16.65	527.33	0.00	psample10	OK	1
1707619-13	A15	500	0.90	2.89	54.56	2309.70		24636-1.RAW	22:22:04	3.67	53.23	2216.40	0.00	psample10	CT	1
1707619-14	A16	500	0.90	2.58	36.71	468.52		24637-1.RAW	22:32:35	3.37	36.11	450.31	0.00	psample10	OK	1
SEQ-CCV6	A17	1	0.90	0.01	0.48	0.04	97.02	24638-1.RAW	22:43:06	5.92	233.27	20.82	0.00	psample10	CT	1
SEQ-CCB6	A18	1						24639-1.RAW	22:53:36	4.50	0.00	4.40	0.00	psample10	CT	1
1707619-15	A19	500	0.90	1.73	22.09	2113.73		24640-1.RAW	23:04:07	2.55	22.09	2028.42	0.00	psample10	OK	1
1707619-16	A20	500	0.90	5.14	16.38	557.59		24641-1.RAW	23:14:38	5.83	16.61	535.75	0.00	psample10	OK	1
1707620-01	A21	500						24642-1.RAW	23:25:09	4.44	0.00	69.97	0.00	psample10	OK	1
1707620-02	B1	500	0.90	5.74	8.48	75.12		24643-1.RAW	23:35:40	6.40	9.03	72.95	0.00	psample10	OK	1
1707620-03	B2	500	0.90	4.37	54.10	575.07		24644-1.RAW	23:46:10	5.09	52.79	552.51	0.00	psample10	OK	1
1707620-04	B3	500	0.90	3.05	50.37	871.88		24645-1.RAW	23:56:41	3.82	49.21	837.21	0.00	psample10	OK	1
1707620-05	B4	500	0.90	1.51	115.21	1096.00		24646-1.RAW	0:07:12	2.35	111.41	1052.20	0.00	psample10	CT	1
1707620-06	B5	500	0.90	2.23	50.63	965.64		24647-1.RAW	0:17:42	3.03	49.46	927.16	0.00	psample10	CT	1
1707620-07	B6	500	0.90	4.70	50.02	927.76		24648-1.RAW	0:28:13	5.40	48.87	890.82	0.00	psample10	CT	1
1707620-08	B7	500	0.90	6.19	24.77	261.44		24649-1.RAW	0:38:44	6.63	24.66	251.67	0.00	psample10	OK	1
SEQ-CCV7	B8	1	0.90	0.01	0.42	0.02	84.70	24650-1.RAW	0:49:14	5.61	203.76	9.44	0.00	psample10	OK	1
SEQ-CCB7	B9	1						24651-1.RAW	0:59:45	3.18	0.00	2.86	0.00	psample10	OK	1
1707620-09	B10	500	0.90	4.92	62.25	599.45		24652-1.RAW	1:10:16	5.62	60.61	575.91	0.00	psample10	OK	1
1707620-10	B11	500	0.90	4.73	0.09	56.86		24653-1.RAW	1:20:46	5.44	0.98	55.44	0.00	psample10	OK	1
A. BUFFER 1704	B12	1						24654-1.RAW	1:31:17	3.10	0.00	4.46	0.00	psample10	OK	1
SEQ-CCV8	B13	1	0.90	0.01	0.46	0.00	93.04	24655-1.RAW	1:41:48	3.98	223.73	2.85	0.00	psample10	OK	1
SEQ-CCB8	B14	1						24656-1.RAW	1:52:18	2.86	0.00	2.66	0.00	psample10	OK	1

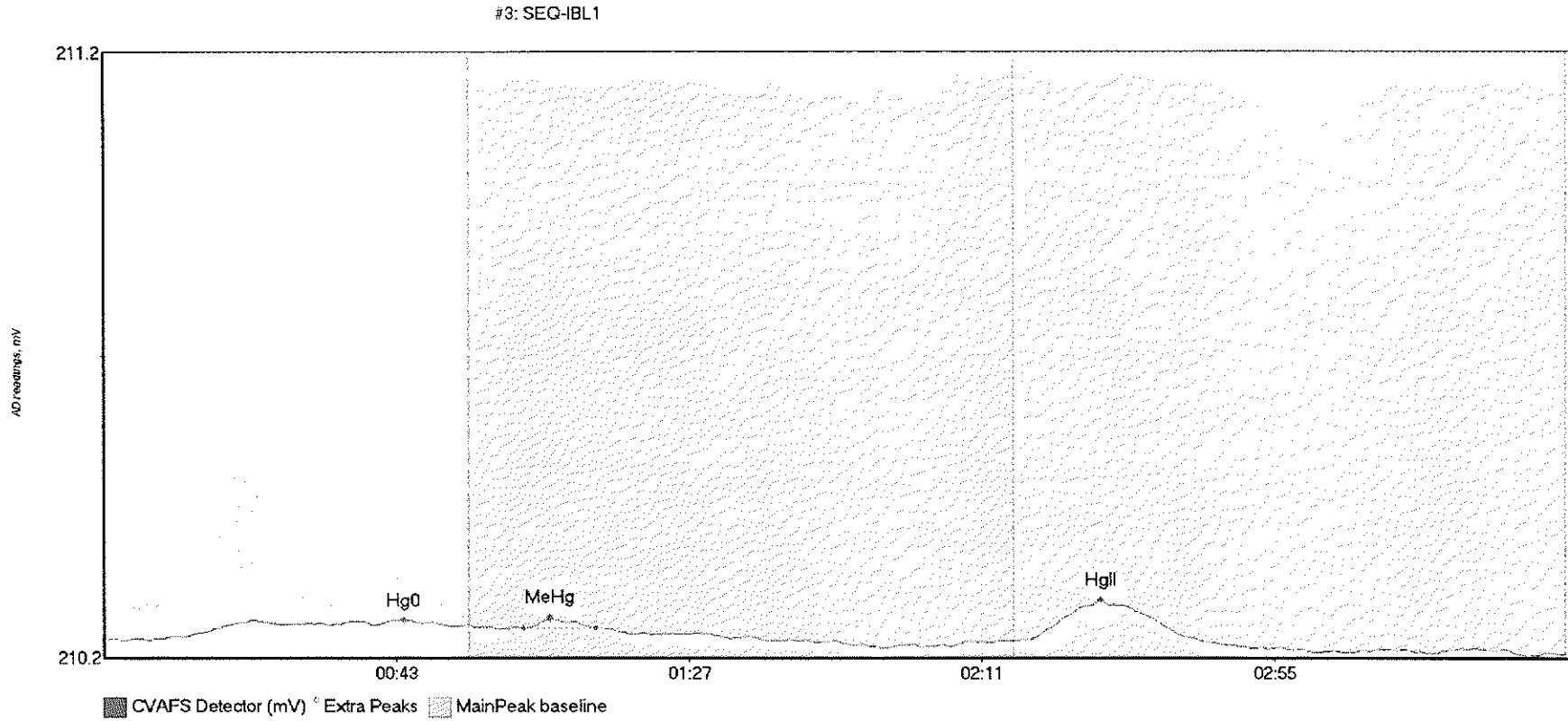
#1: Clean



Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
Clean MeHg	0.413	68.9	136.8	210.36	210.47	136.6	0.109	CT	210.4008	0.00	0.09	
Clean HgII	13.091	141.3	219.5	210.47	210.55	218.6	0.089	OK	210.4008	0.00	0.09	017

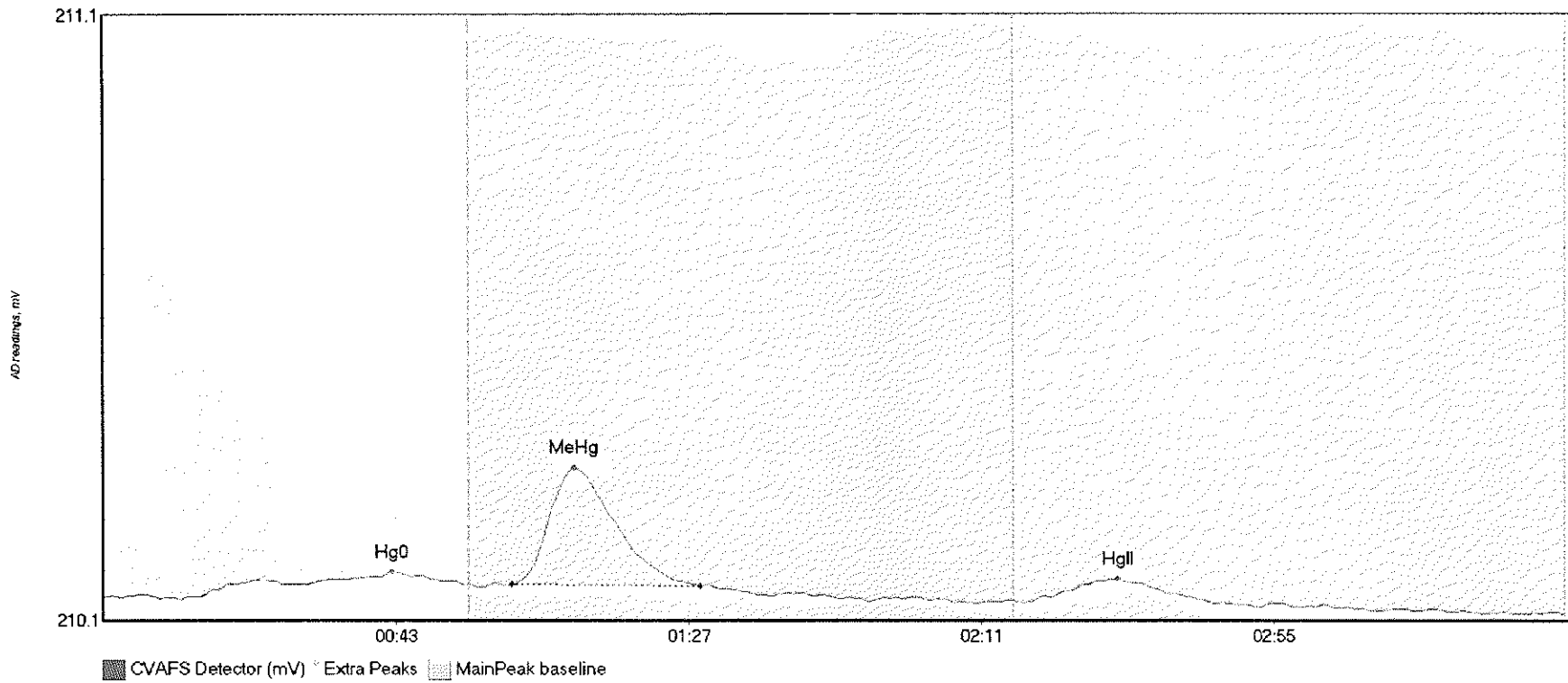


Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
WS Hg0	4.517	3.1	36.4	210.27	210.30	24.0	0.050	OK	210.2653	0.00	0.00	
WS HgII	62.433	136.8	181.2	210.28	210.28	150.5	0.356	OK	210.2653	0.00	0.00	017



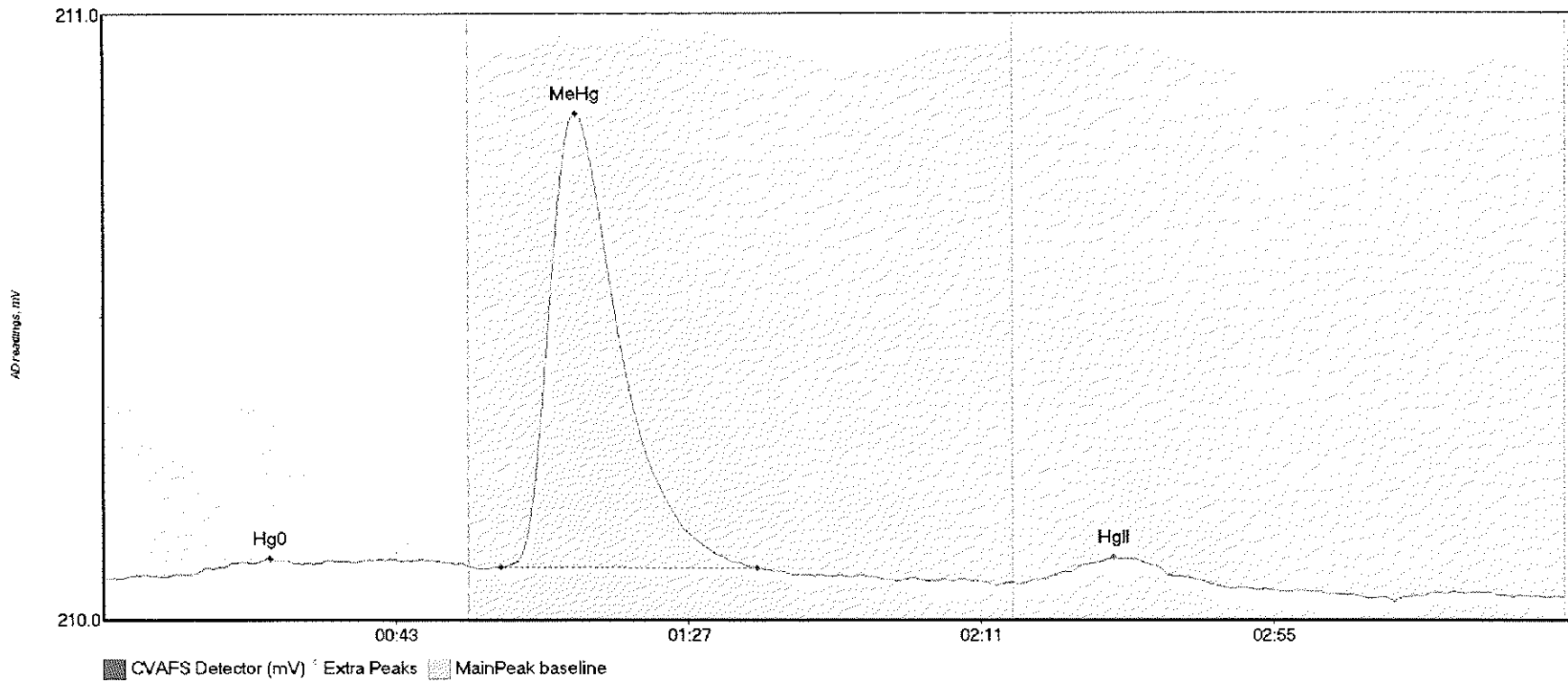
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
SEQ-IBL1 Hg0	5.049	12.4	53.7	210.21	210.23	45.2	0.028	OK	210.2108	0.00	-0.02	
SEQ-IBL1 MeHg	0.896	63.2	74.0	210.23	210.23	67.2	0.015	OK	210.2108	0.00	-0.02	
SEQ-IBL1 HgII	9.150	138.8	165.5	210.21	210.21	149.9	0.064	OK	210.2108	0.00	-0.02	

#4: SEQ-CAL1



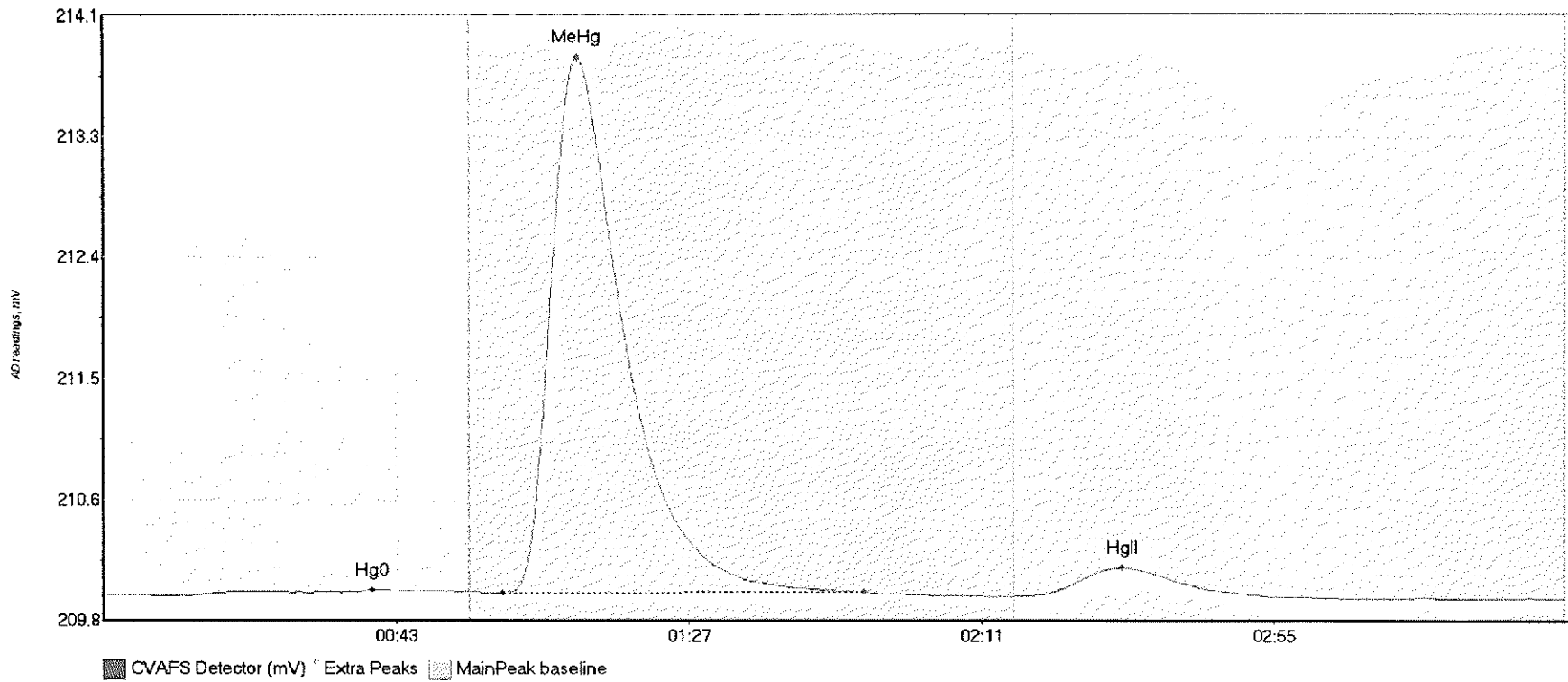
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
SEQ-CAL1 Hg0	6.464	14.6	54.5	210.14	210.15	43.5	0.041	OK	210.1357	0.00	-0.03	
SEQ-CAL1 MeHg	22.004	61.4	89.8	210.15	210.15	70.8	0.192	OK	210.1357	0.00	-0.03	
SEQ-CAL1 HgII	4.757	139.6	164.9	210.13	210.13	152.6	0.037	OK	210.1357	0.00	-0.03	

#5: SEQ-CAL2



Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
SEQ-CAL2 Hg0	5.927	9.2	55.0	210.04	210.06	25.1	0.030	CT	210.0424	0.00	-0.03	
SEQ-CAL2 MeHg	92.245	59.8	98.3	210.06	210.06	71.1	0.751	OK	210.0424	0.00	-0.03	
SEQ-CAL2 HgII	7.595	137.7	169.6	210.03	210.03	152.0	0.044	OK	210.0424	0.00	-0.03	

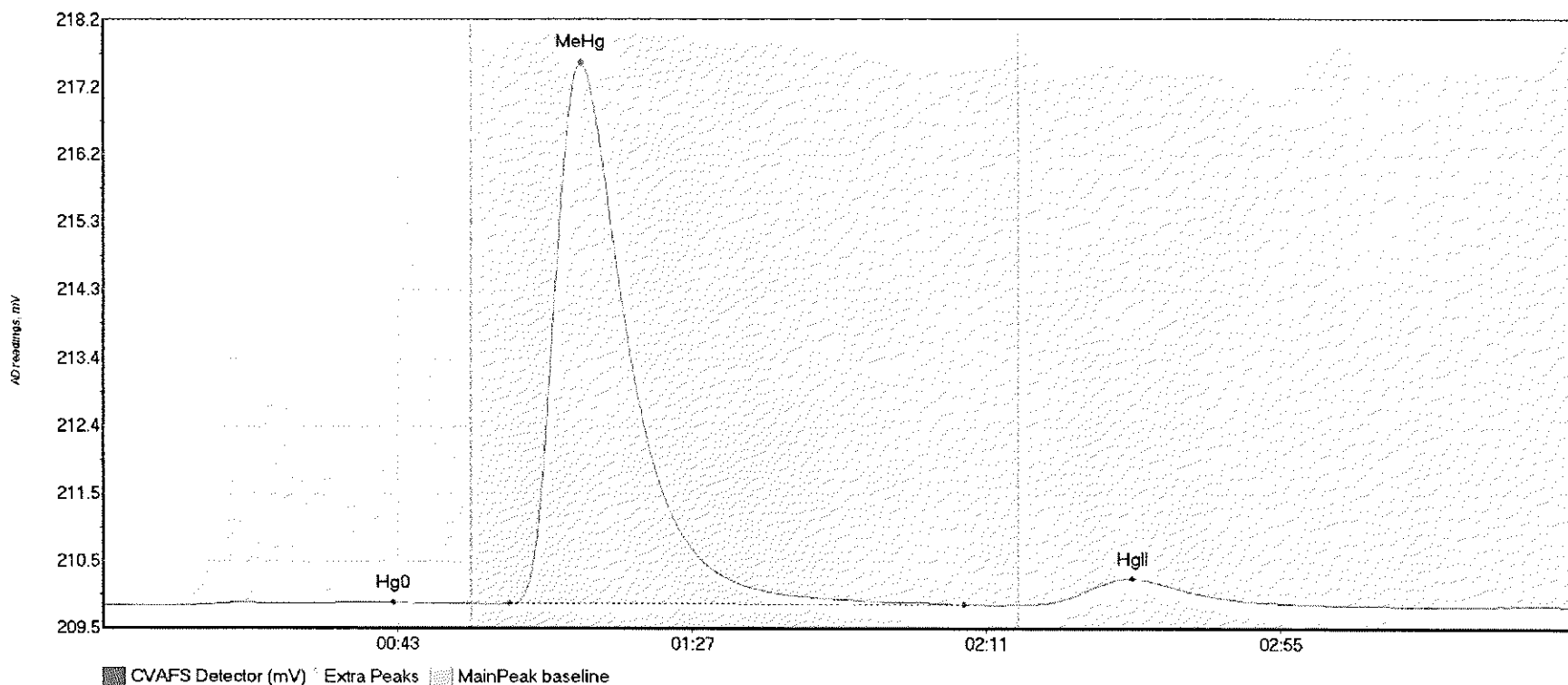
#6: SEQ-CAL3



Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
SEQ-CAL3 Hg0	6.520	12.0	55.0	209.95	209.97	40.4	0.044	CT	209.9545	0.00	-0.03	
SEQ-CAL3 MeHg	495.723	60.0	114.3	209.97	209.97	71.3	3.862	OK	209.9545	0.00	-0.03	
SEQ-CAL3 HgII	34.498	138.9	176.5	209.95	209.94	153.2	0.207	OK	209.9545	0.00	-0.03	

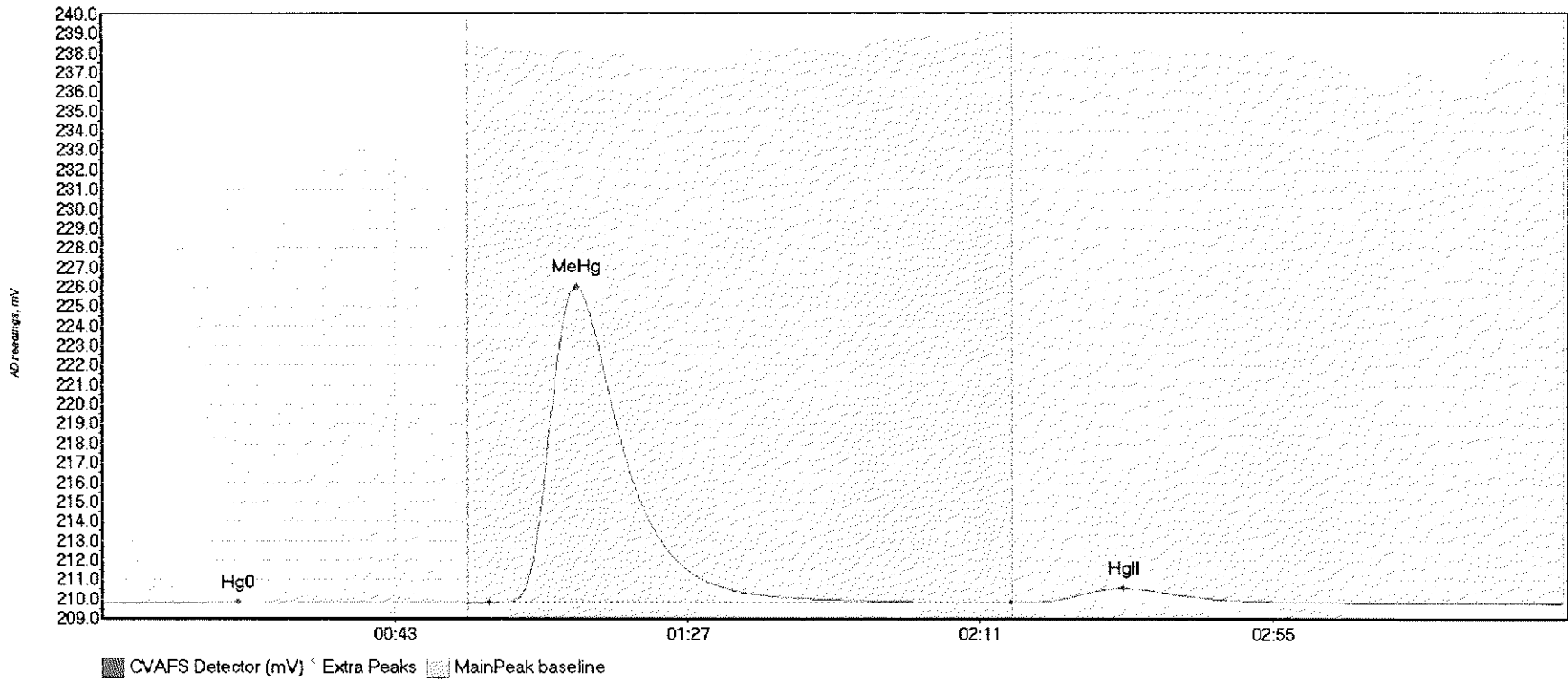


#7: SEQ-CAL4



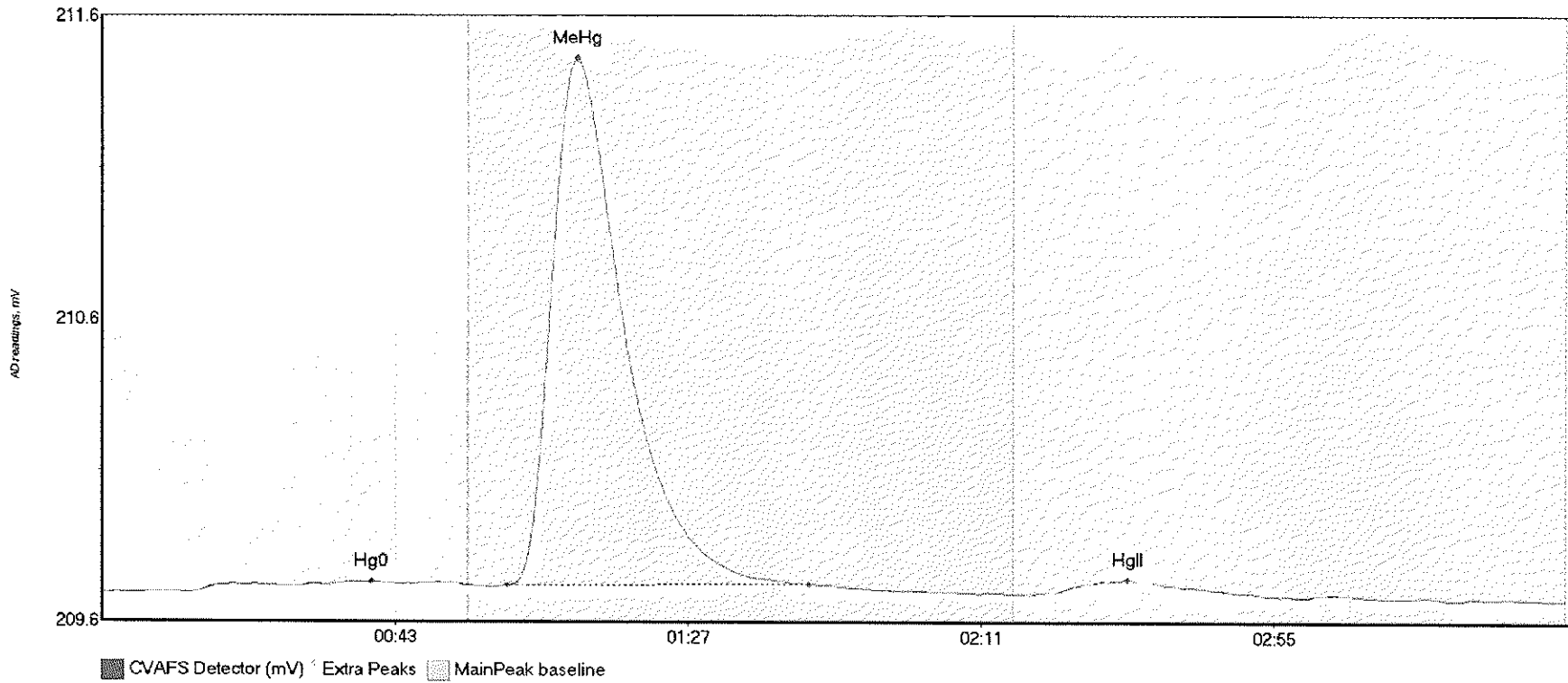
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
SEQ-CAL4 Hg0	7.068	12.2	54.7	209.87	209.89	43.4	0.038	OK	209.8667	0.00	-0.01	
SEQ-CAL4 MeHg	994.088	60.7	128.8	209.89	209.88	71.4	7.652	OK	209.8667	0.00	-0.01	
SEQ-CAL4 HgII	65.031	137.4	184.7	209.87	209.87	153.9	0.370	OK	209.8667	0.00	-0.01	

#8: SEQ-CAL5



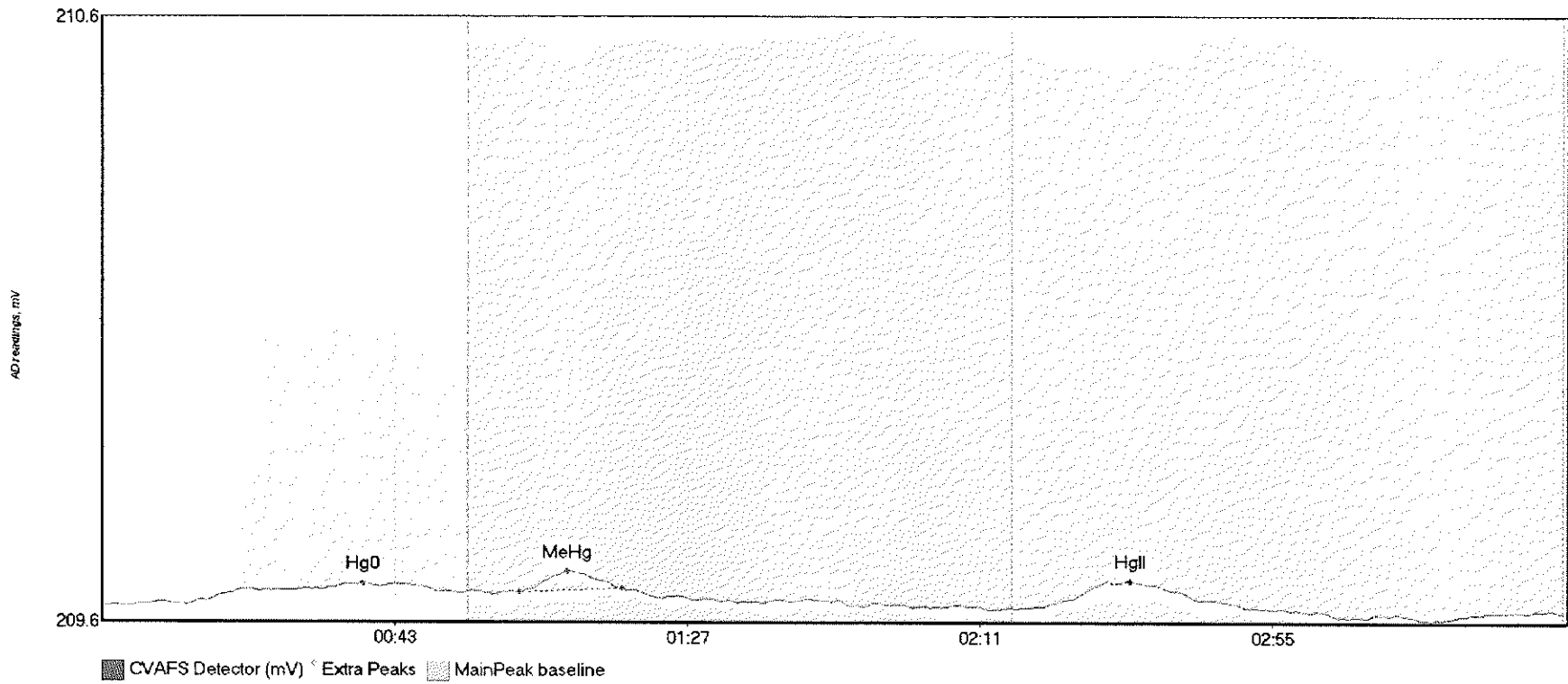
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BiDev	BiShift	Comment
SEQ-CAL5 Hg0	9.474	1.8	54.8	209.78	209.81	20.6	0.050	OK	209.7808	0.00	0.02	
SEQ-CAL5 MeHg	2111.734	58.1	136.8	209.81	209.82	71.4	16.167	CT	209.7808	0.00	0.02	
SEQ-CAL5 HgII	125.694	138.0	182.6	209.82	209.82	153.6	0.743	OK	209.7808	0.00	0.02	

#9: SEQ-ICV1



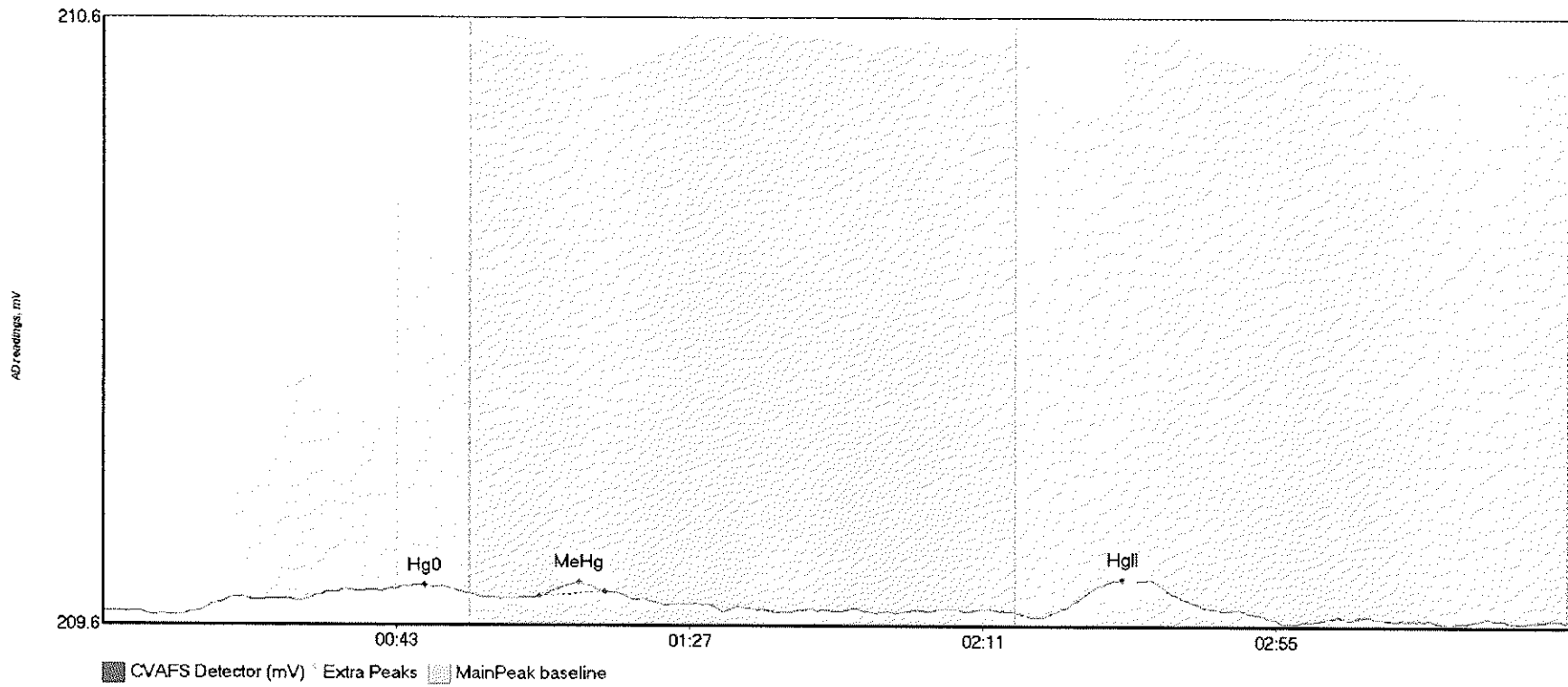
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
SEQ-ICV1 Hg0	5.692	12.7	54.7	209.73	209.76	40.5	0.036	OK	209.7327	0.00	-0.02	
SEQ-ICV1 MeHg	219.990	60.9	106.2	209.76	209.76	71.5	1.747	OK	209.7327	0.00	-0.02	
SEQ-ICV1 HgII	7.009	141.0	170.8	209.73	209.73	154.0	0.045	OK	209.7327	0.00	-0.02	

#10: SEQ-ICB1



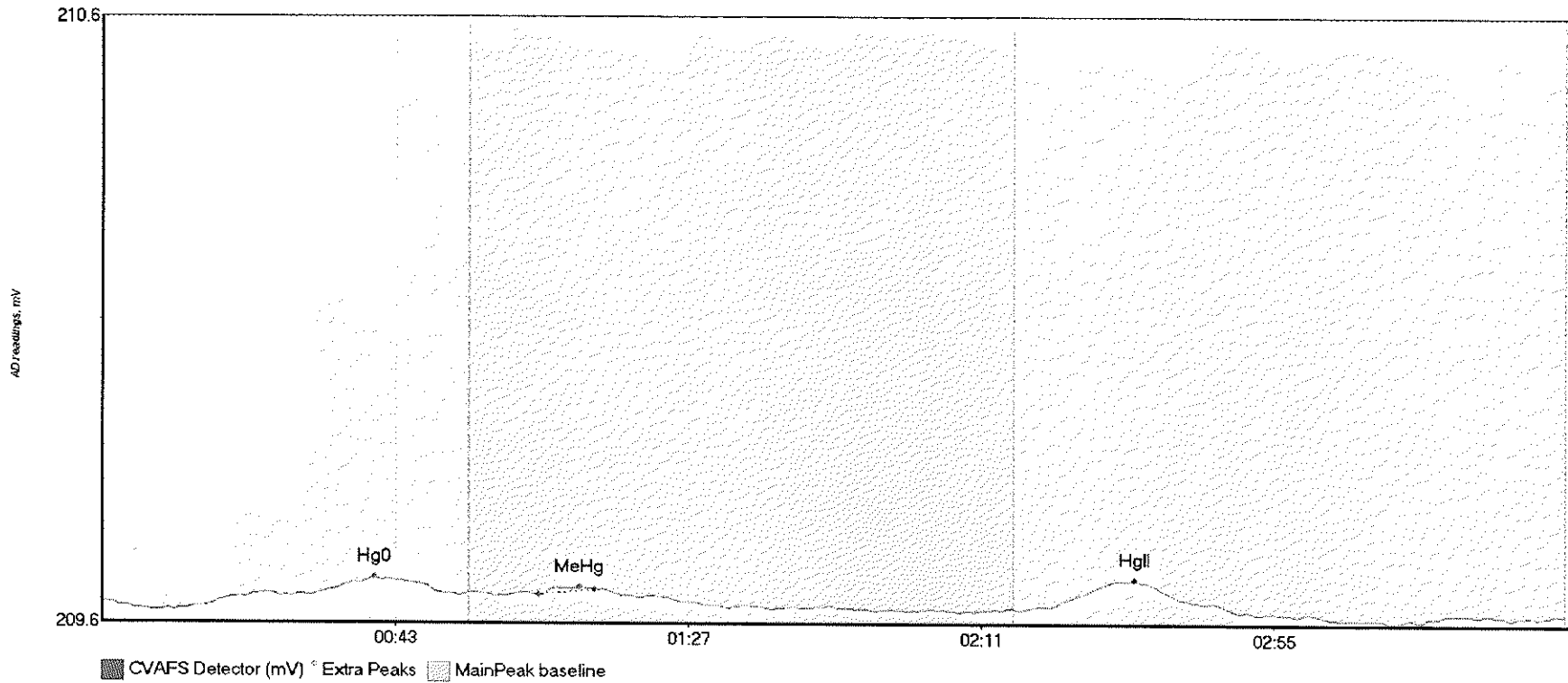
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
SEQ-ICB1 Hg0	6.121	12.9	53.9	209.68	209.69	39.3	0.034	OK	209.6730	0.00	-0.01	
SEQ-ICB1 MeHg	2.726	62.7	78.1	209.69	209.70	70.0	0.036	OK	209.6730	0.00	-0.01	
SEQ-ICB1 HgII	7.249	141.4	172.3	209.67	209.67	154.6	0.044	OK	209.6730	0.00	-0.01	

#11: F707529-BLK1



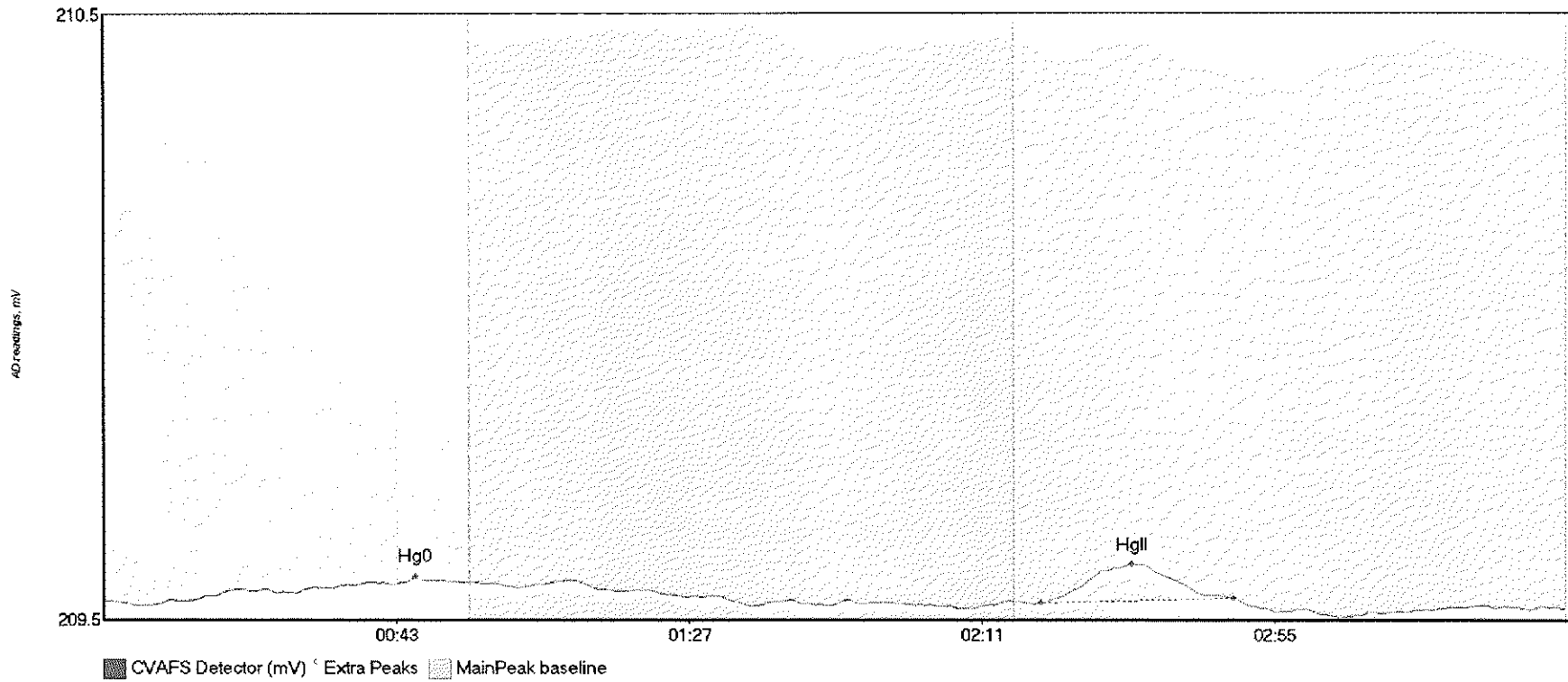
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
F707529-BLK1 Hg	5.647	13.7	55.0	209.63	209.66	48.3	0.044	CT	209.6278	0.00	-0.01	
F707529-BLK1 Me	0.960	65.4	75.3	209.65	209.66	71.5	0.023	OK	209.6278	0.00	-0.01	
F707529-BLK1 Hg	8.492	140.9	168.4	209.62	209.63	153.0	0.062	OK	209.6278	0.00	-0.01	

#12: F707529-BLK2



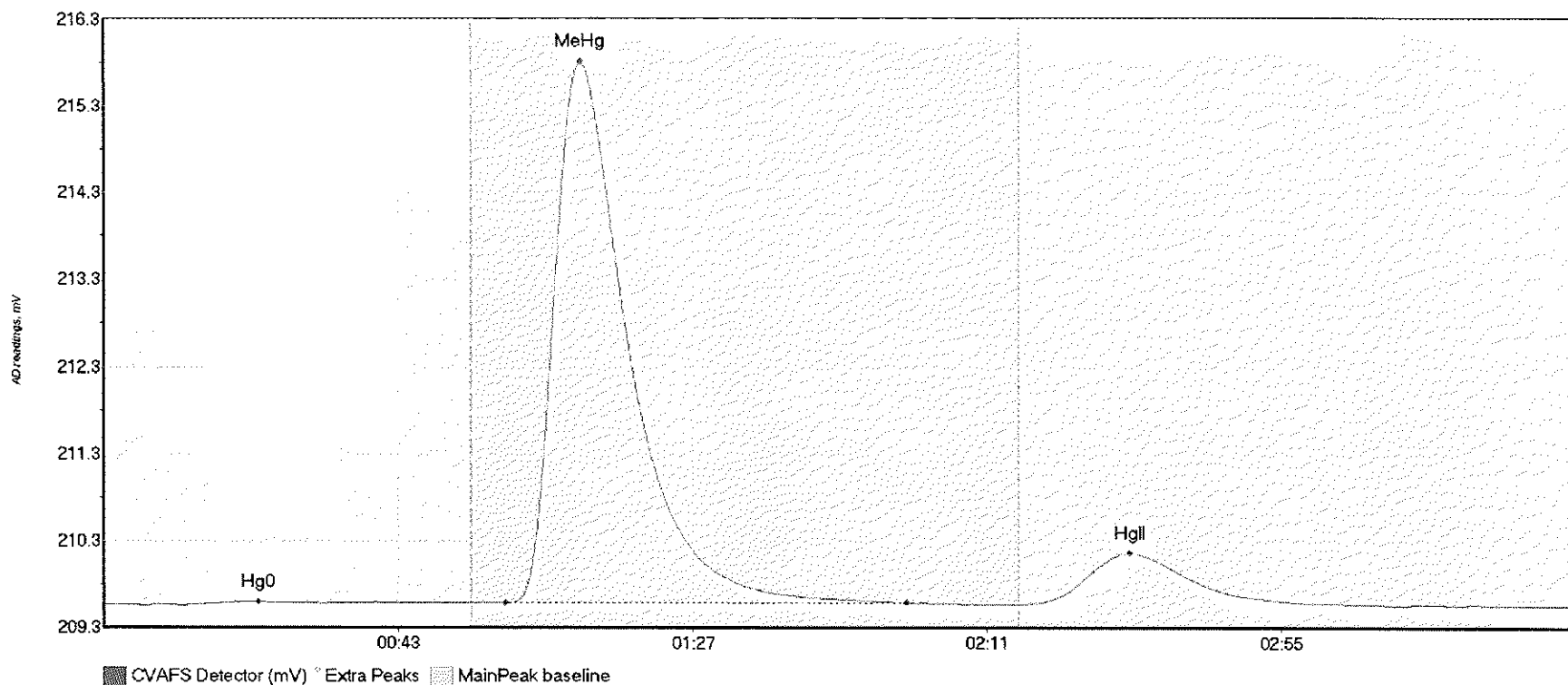
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	B1Dev	B1Shift	Comment
F707529-BLK2 Hg	4.663	18.0	53.7	209.61	209.62	40.9	0.036	OK	209.6107	0.00	-0.02	
F707529-BLK2 Me	0.391	65.5	73.9	209.62	209.63	71.6	0.012	OK	209.6107	0.00	-0.02	
F707529-BLK2 Hg	7.246	142.4	170.9	209.60	209.59	155.0	0.045	OK	209.6107	0.00	-0.02	

#13: F707529-BLK3



Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
F707529-BLK3 Hg	2.891	13.5	54.3	209.58	209.61	46.8	0.037	OK	209.5793	0.00	-0.01	
F707529-BLK3 Hg	8.706	140.9	169.9	209.58	209.58	154.6	0.065	OK	209.5793	0.00	-0.01	017

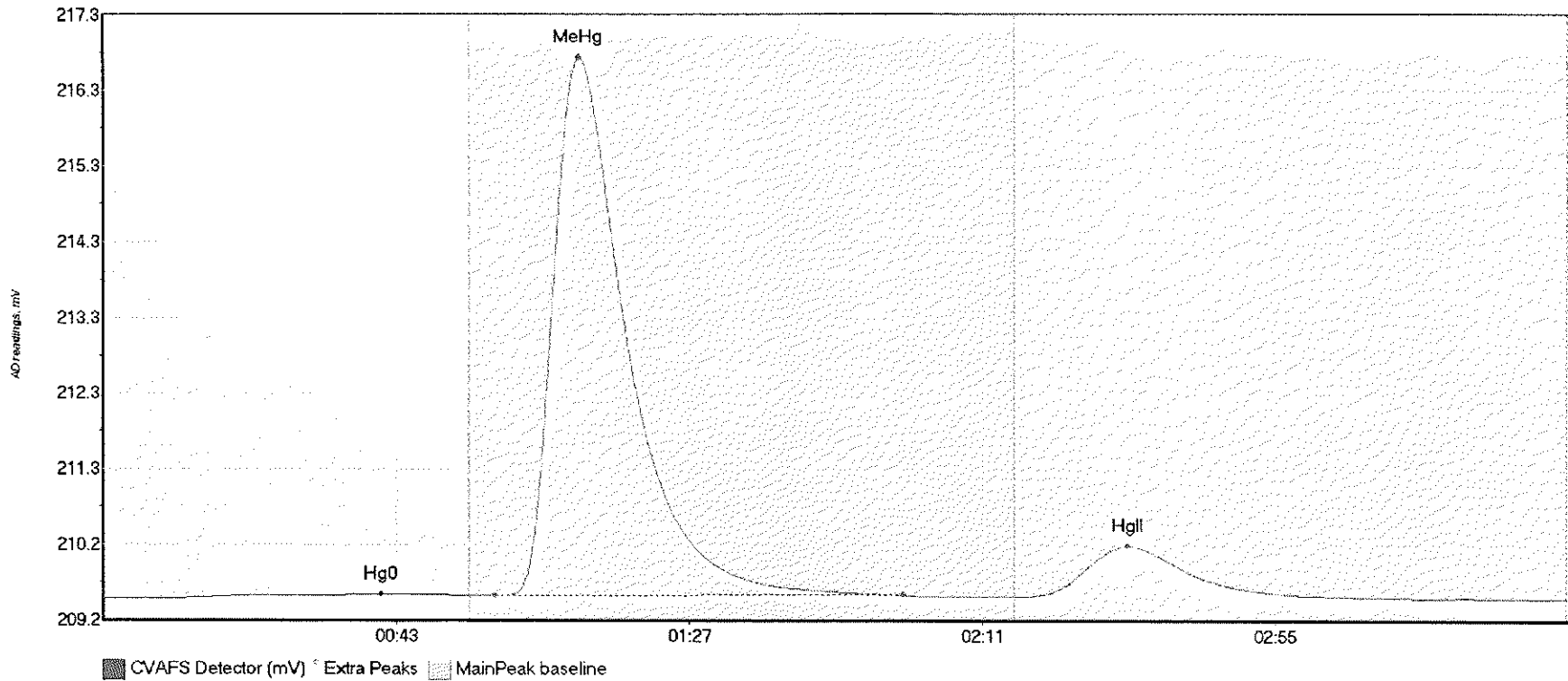
#14: F707529-BS1



Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
F707529-BS1 Hg0	3.041	11.7	32.9	209.56	209.58	23.2	0.037	OK	209.5597	0.00	-0.01	
F707529-BS1 MeH	794.867	60.0	120.0	209.58	209.58	71.3	6.199	OK	209.5597	0.00	-0.01	
F707529-BS1 HgI	99.514	137.3	185.7	209.57	209.57	153.5	0.590	OK	209.5597	0.00	-0.01	

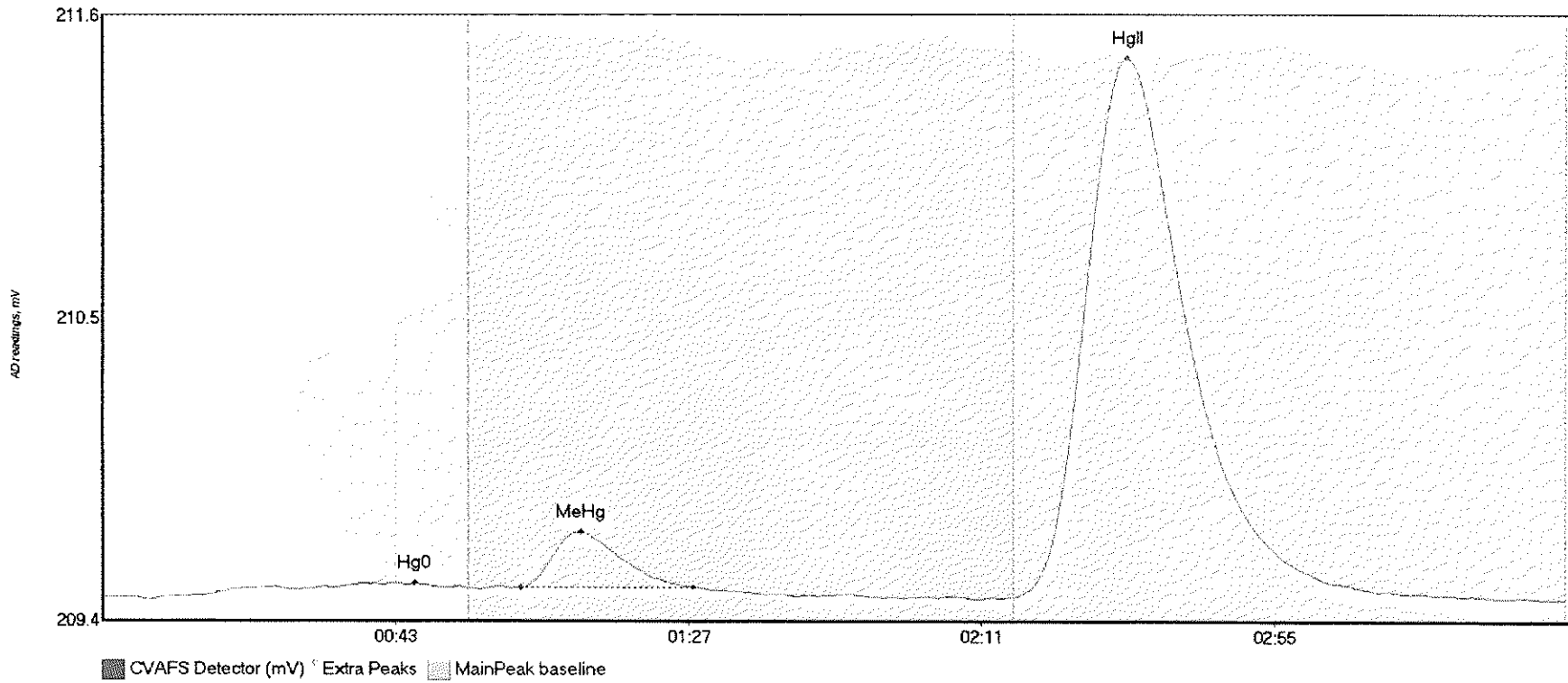


#15: F707529-BSD1



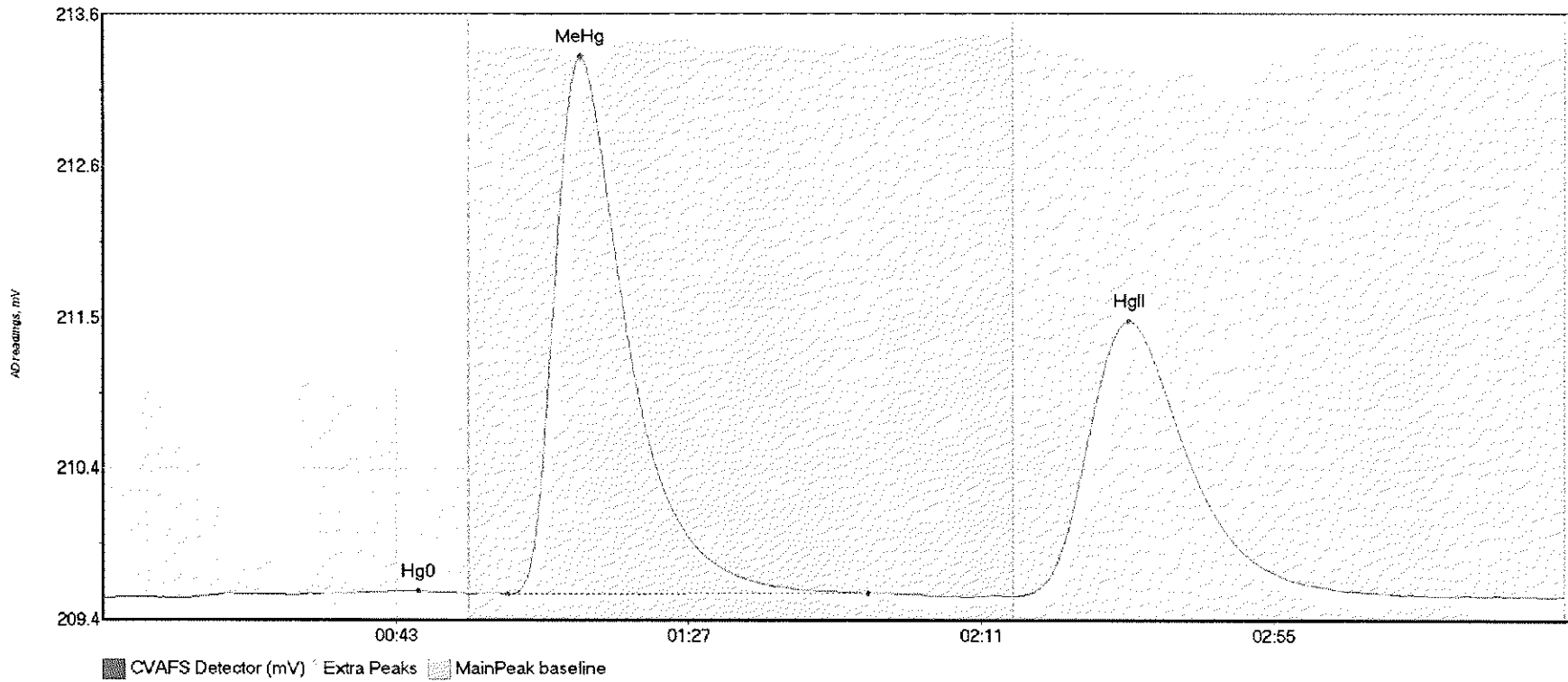
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
F707529-BSD1 Hg	6.348	12.3	54.4	209.54	209.57	41.7	0.050	OK	209.5375	0.00	-0.01	
F707529-BSD1 Me	922.031	58.9	120.2	209.57	209.57	71.5	7.152	OK	209.5375	0.00	-0.01	
F707529-BSD1 Hg	115.571	138.2	186.4	209.55	209.55	153.9	0.679	OK	209.5375	0.00	-0.01	

#16: F707529-DUP1



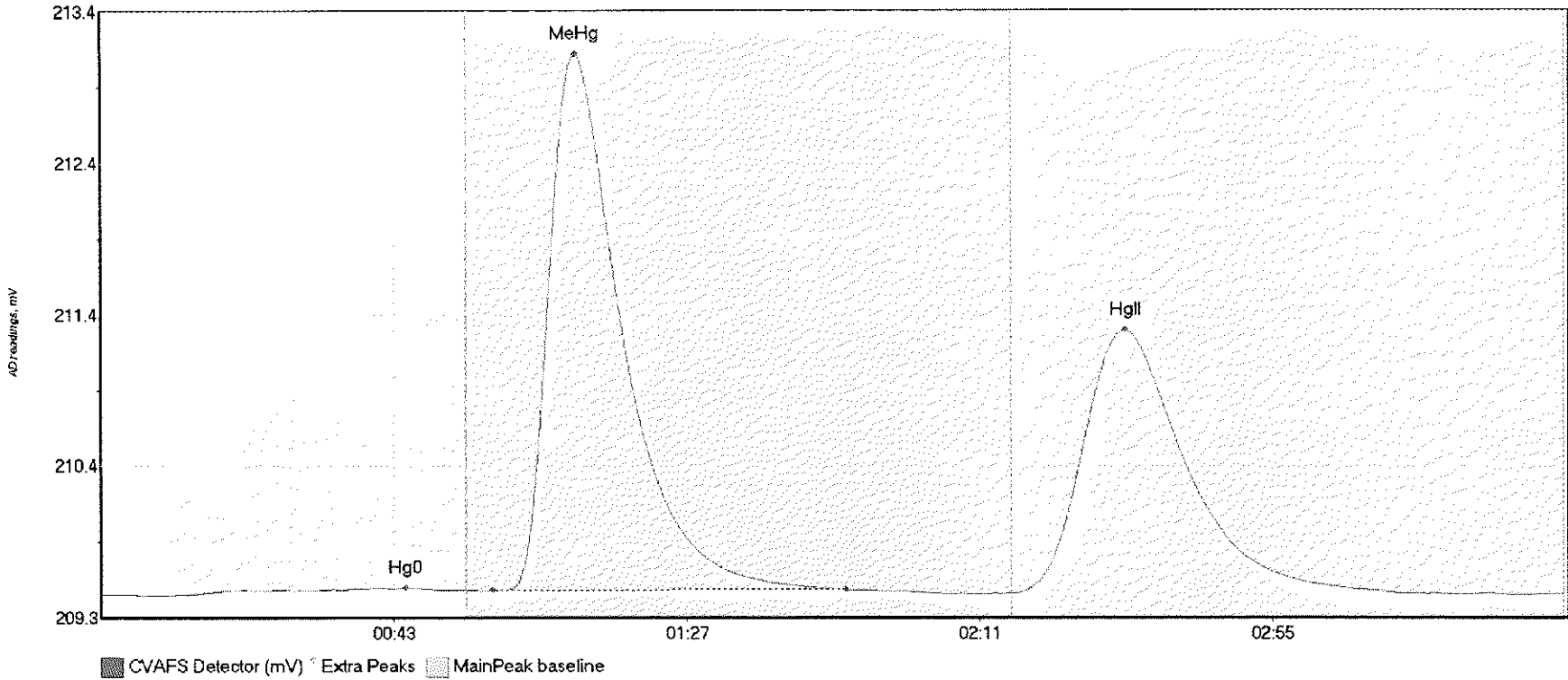
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
F707529-DUP1 Hg	6.861	12.3	54.9	209.53	209.55	46.8	0.046	OK	209.5231	0.00	-0.01	
F707529-DUP1 Me	22.442	62.9	88.7	209.56	209.56	71.8	0.194	OK	209.5231	0.00	-0.01	
F707529-DUP1 Hg	336.910	136.8	202.4	209.52	209.53	154.0	1.908	OK	209.5231	0.00	-0.01	

#17: F707529-MS1



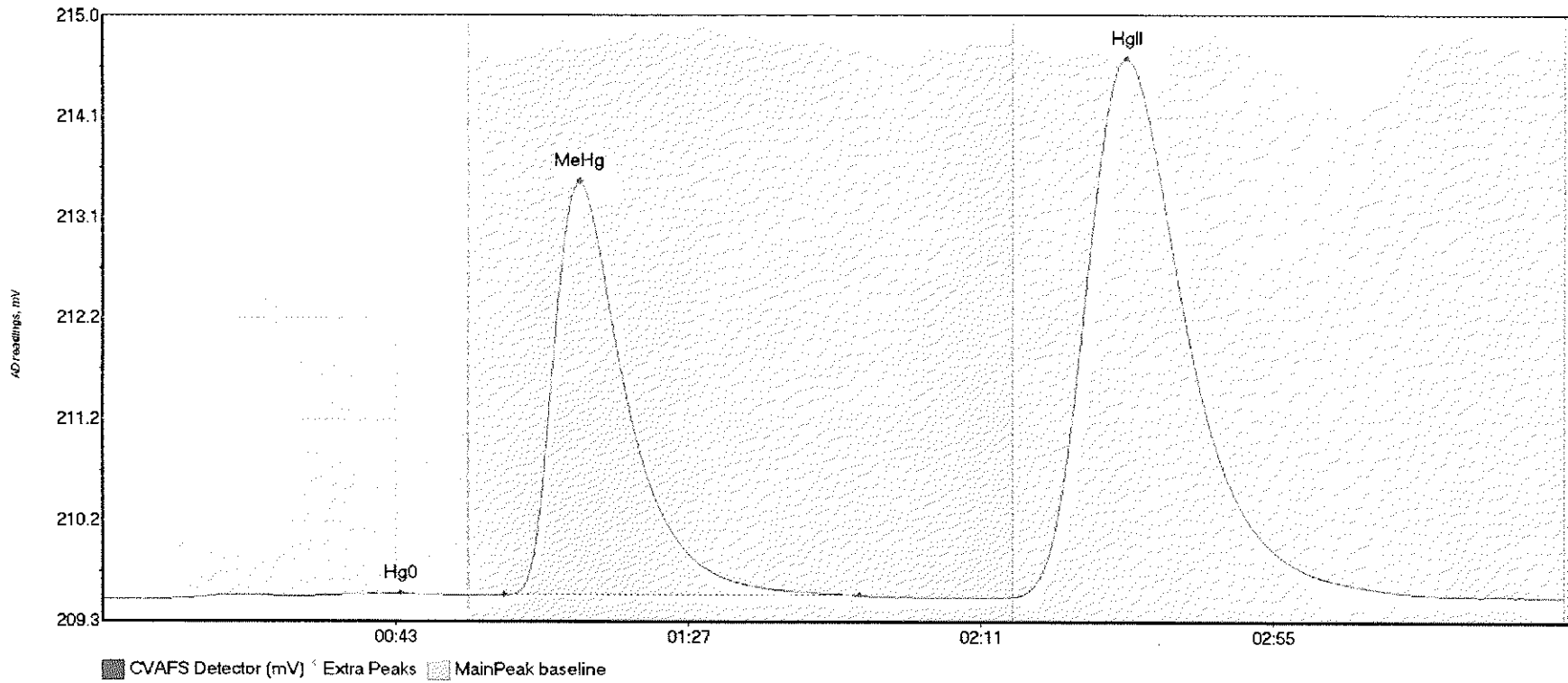
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
F707529-MS1 Hg0	7.990	11.3	55.0	209.51	209.54	47.4	0.051	CT	209.5094	0.00	0.01	
F707529-MS1 MeH	485.342	60.8	115.0	209.53	209.54	71.9	3.795	OK	209.5094	0.00	0.01	
F707529-MS1 HgI	344.449	137.3	200.5	209.52	209.52	154.3	1.948	OK	209.5094	0.00	0.01	

#18: F707529-MSD1



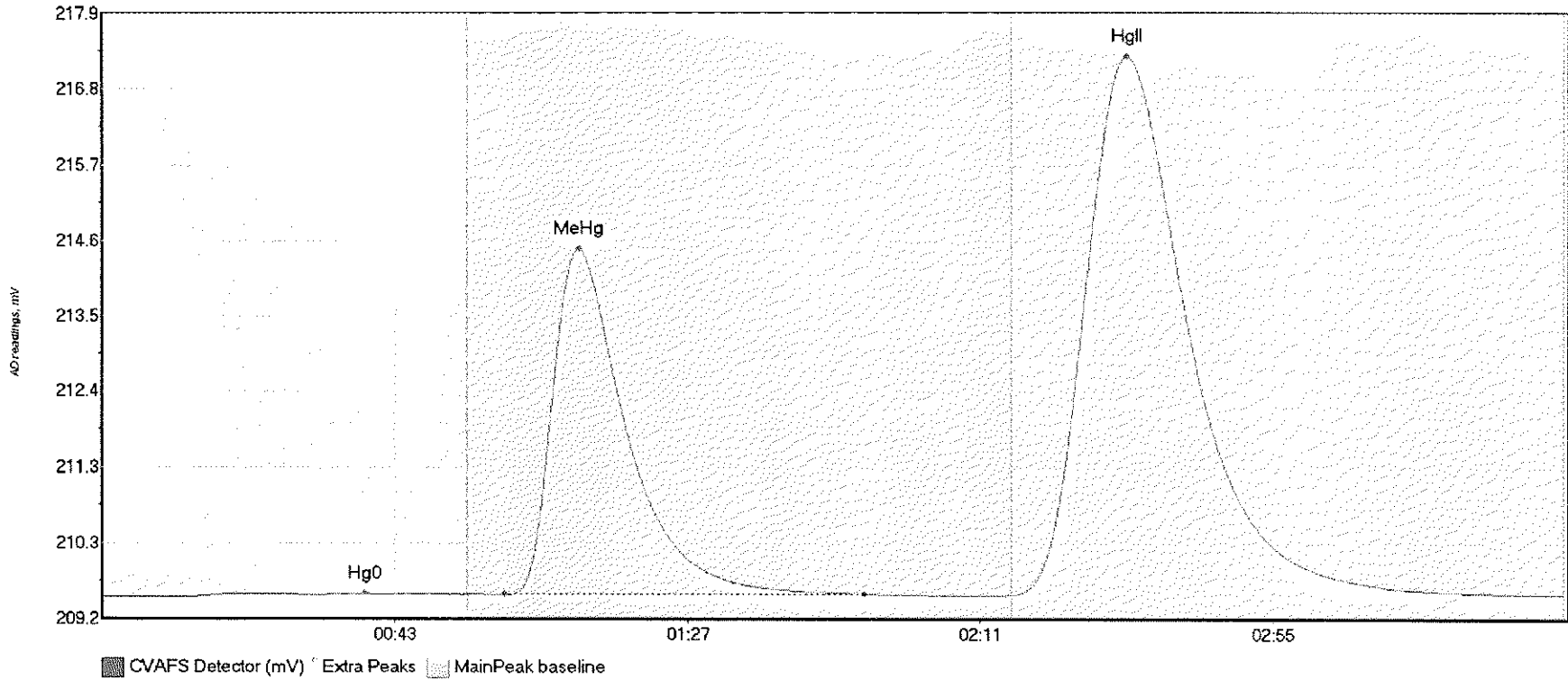
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
F707529-MSD1 Hg	5.952	14.1	55.0	209.50	209.53	45.8	0.043	CT	209.4955	0.00	0.01	
F707529-MSD1 Me	456.548	58.8	111.9	209.52	209.53	71.4	3.578	OK	209.4955	0.00	0.01	
F707529-MSD1 Hg	312.331	137.4	195.5	209.51	209.51	154.0	1.758	OK	209.4955	0.00	0.01	

#19: F707529-MS2



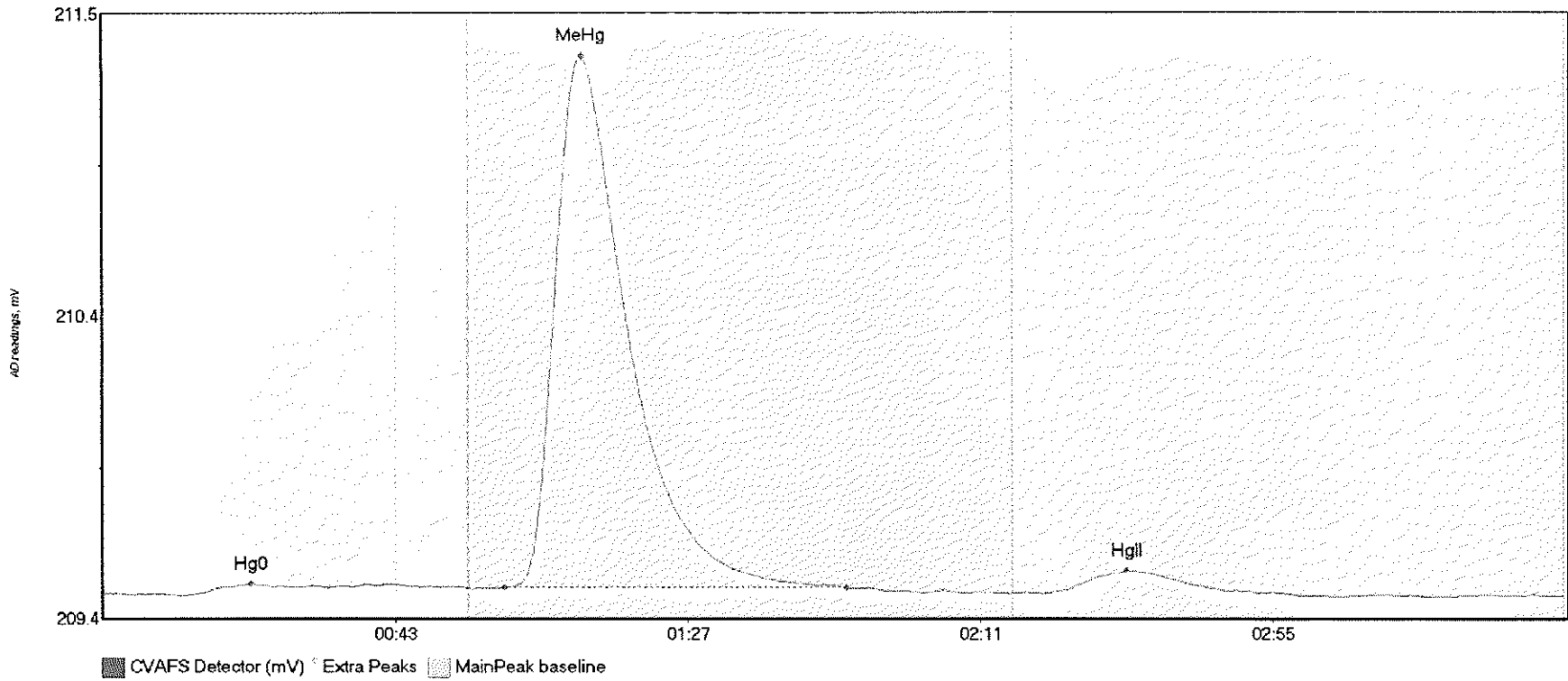
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
F707529-MS2 Hg0	6.397	11.5	52.5	209.49	209.52	44.9	0.049	OK	209.4888	0.00	0.02	
F707529-MS2 MeH	501.020	60.5	113.9	209.52	209.52	71.7	3.939	OK	209.4888	0.00	0.02	
F707529-MS2 HgI	910.853	136.8	207.3	209.51	209.52	154.0	5.118	OK	209.4888	0.00	0.02	

#20: F707529-MSD2



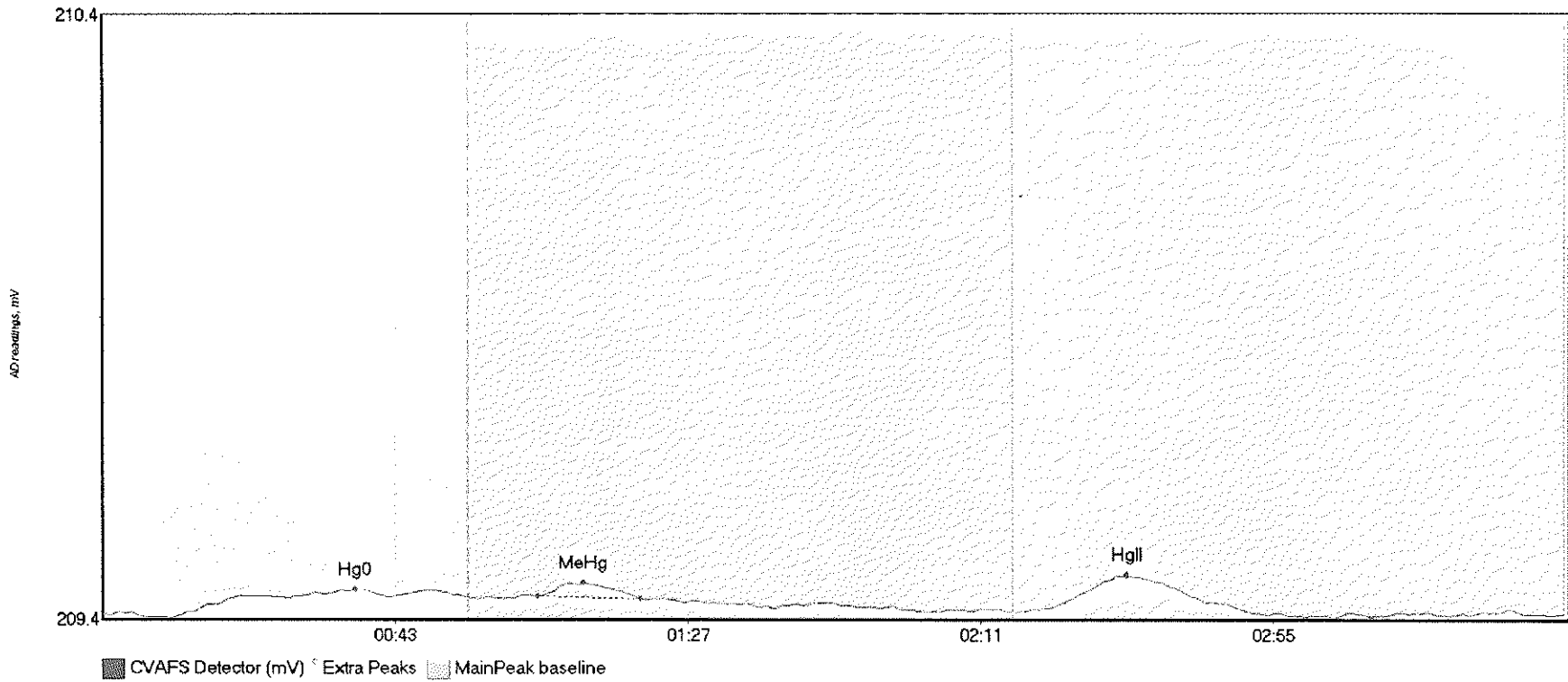
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
F707529-MSD2 Hg	8.600	12.4	54.2	209.48	209.52	39.6	0.052	OK	209.4784	0.00	0.04	
F707529-MSD2 Me	636.999	60.6	114.6	209.51	209.52	71.7	4.992	OK	209.4784	0.00	0.04	
F707529-MSD2 Hg	1400.134	136.8	219.6	209.51	209.52	154.2	7.772	OK	209.4784	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	7.484	12.4	55.0	209.47	209.49	22.4	0.041	CT	209.4749	0.00	-0.01	
SEQ-CCV1 MeHg	232.775	60.5	111.9	209.50	209.50	72.1	1.835	OK	209.4749	0.00	-0.01	
SEQ-CCV1 HgII	11.736	141.4	173.7	209.47	209.48	154.1	0.079	OK	209.4749	0.00	-0.01	

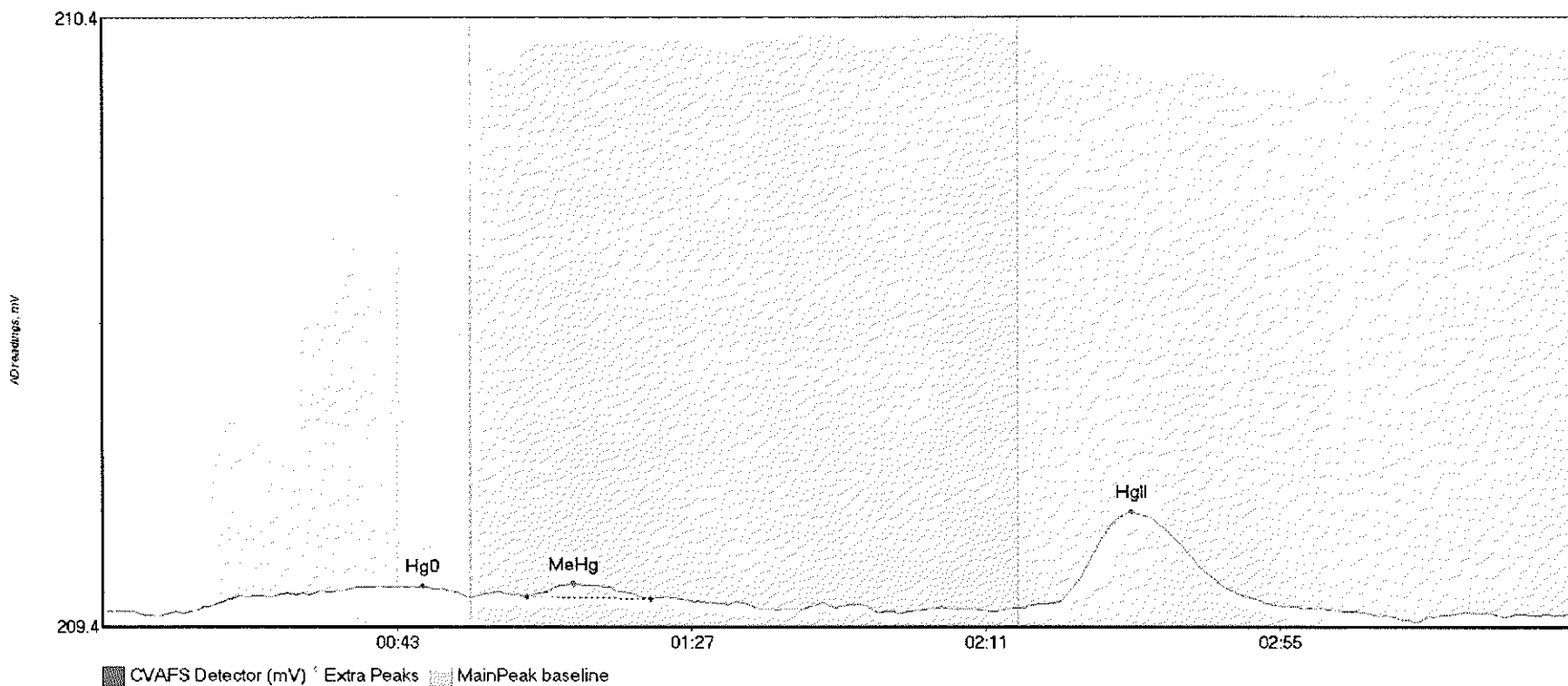
#22: SEQ-CCB1



Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
SEQ-CCB1 Hg0	6.331	13.1	55.0	209.46	209.48	38.0	0.038	CT	209.4543	0.00	0.00	
SEQ-CCB1 MeHg	2.269	65.5	80.9	209.48	209.48	72.3	0.023	OK	209.4543	0.00	0.00	
SEQ-CCB1 HgII	9.713	141.0	172.9	209.46	209.46	154.0	0.057	OK	209.4543	0.00	0.00	

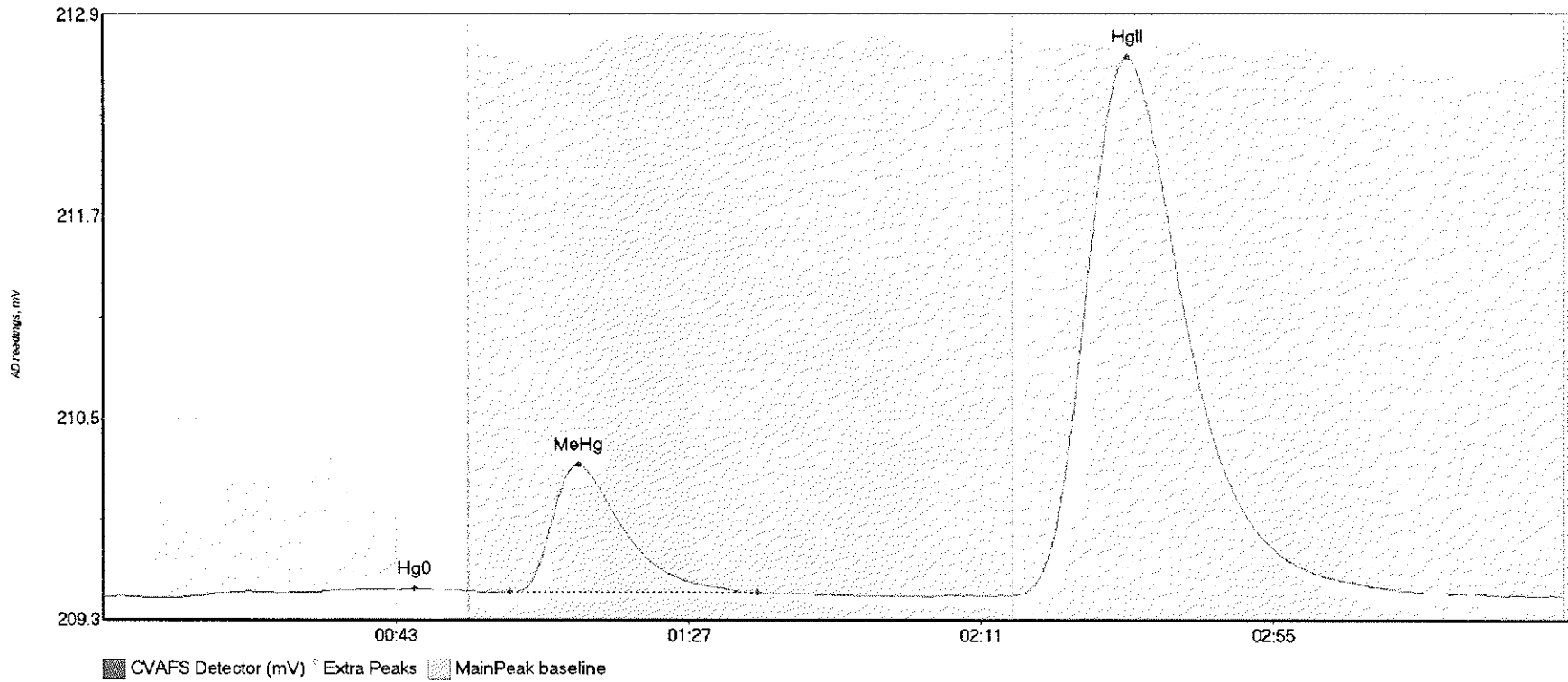


#23: 1707617-01



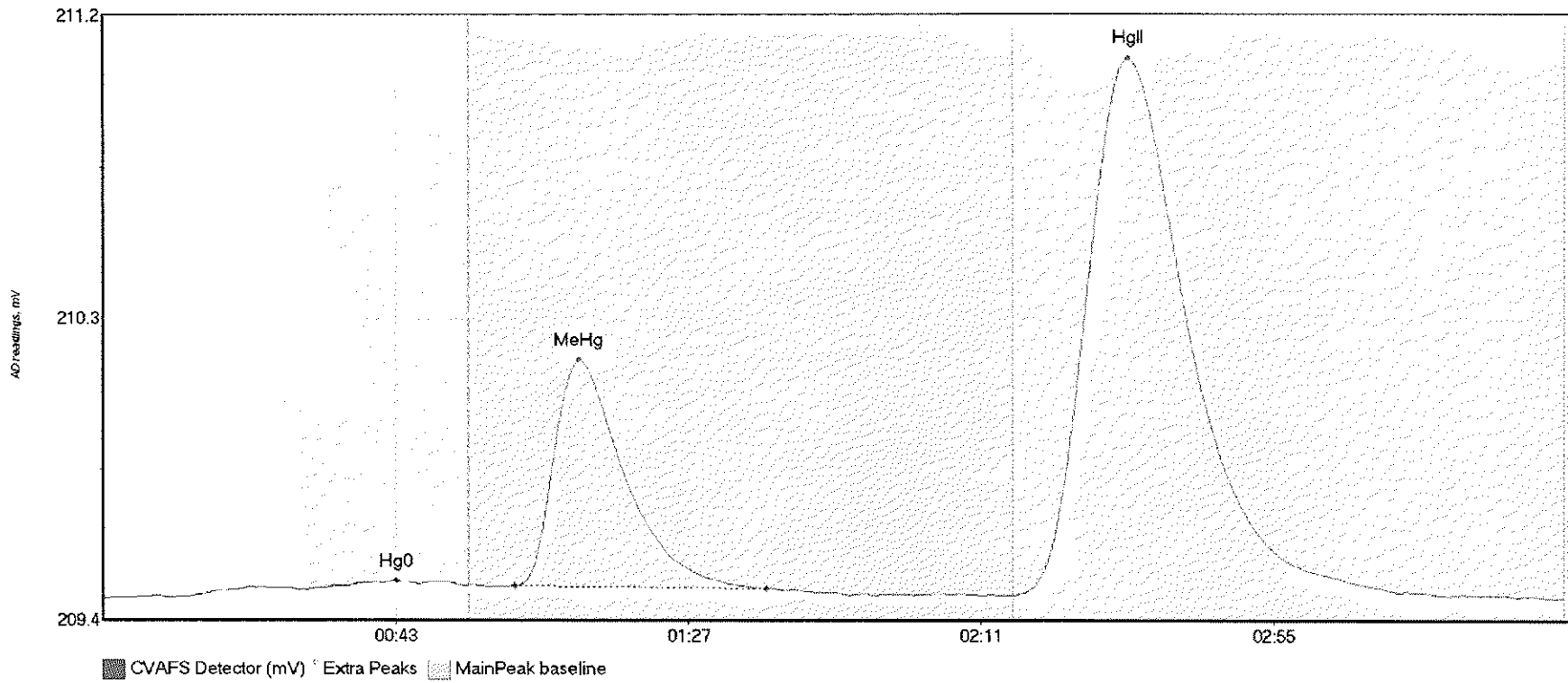
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1707617-01 Hg0	8.020	12.3	55.0	209.45	209.48	47.9	0.044	CT	209.4574	0.00	-0.01	
1707617-01 MeHg	2.508	63.4	81.9	209.48	209.48	70.4	0.022	OK	209.4574	0.00	-0.01	
1707617-01 HgII	24.780	138.8	176.5	209.47	209.46	153.9	0.154	OK	209.4574	0.00	-0.01	

#24: 1707617-02



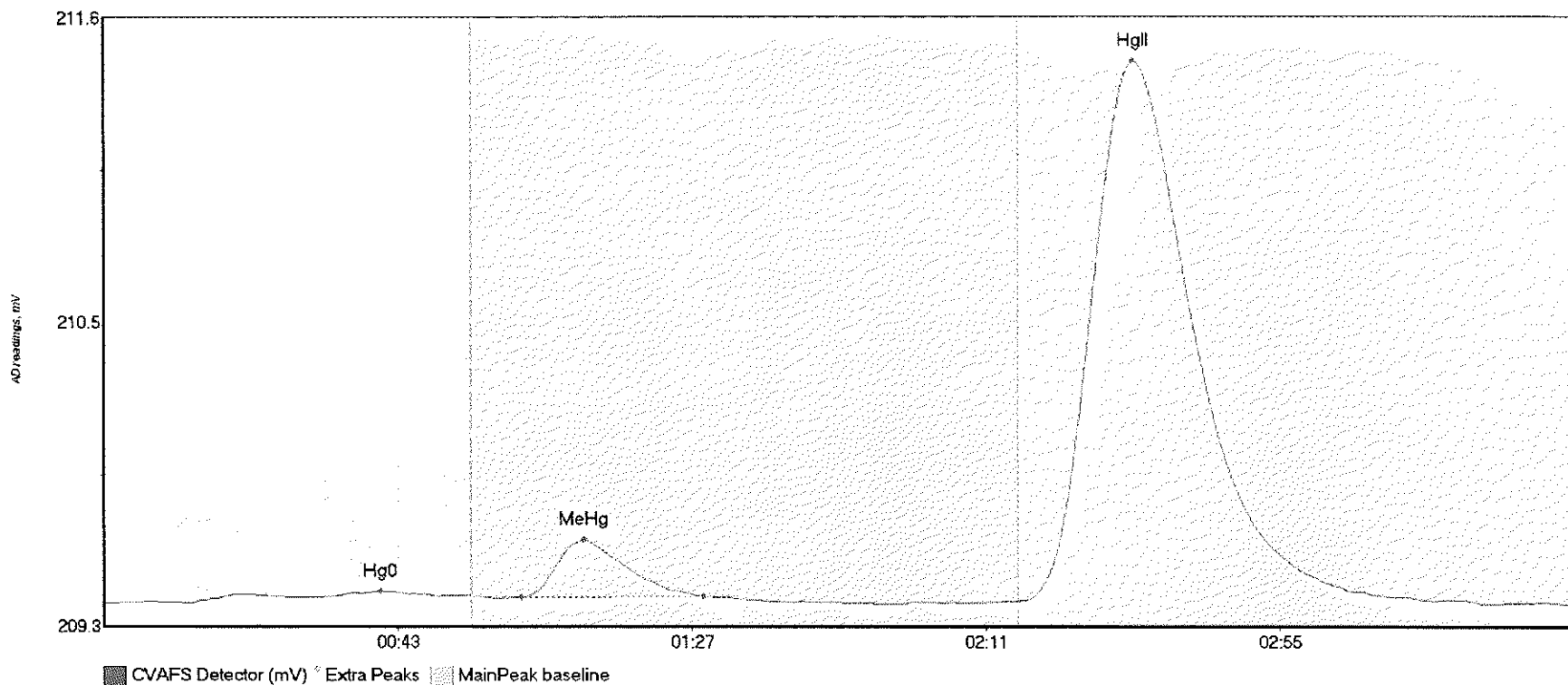
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	B1Dev	B1Shift	Comment
1707617-02 Hg0	8.134	10.6	55.0	209.44	209.49	46.9	0.055	CT	209.4500	0.00	0.01	
1707617-02 MeHg	94.581	61.3	98.5	209.48	209.47	71.6	0.764	OK	209.4500	0.00	0.01	
1707617-02 HgII	577.973	136.8	210.9	209.46	209.46	154.2	3.222	OK	209.4500	0.00	0.01	

#25: 1707617-03



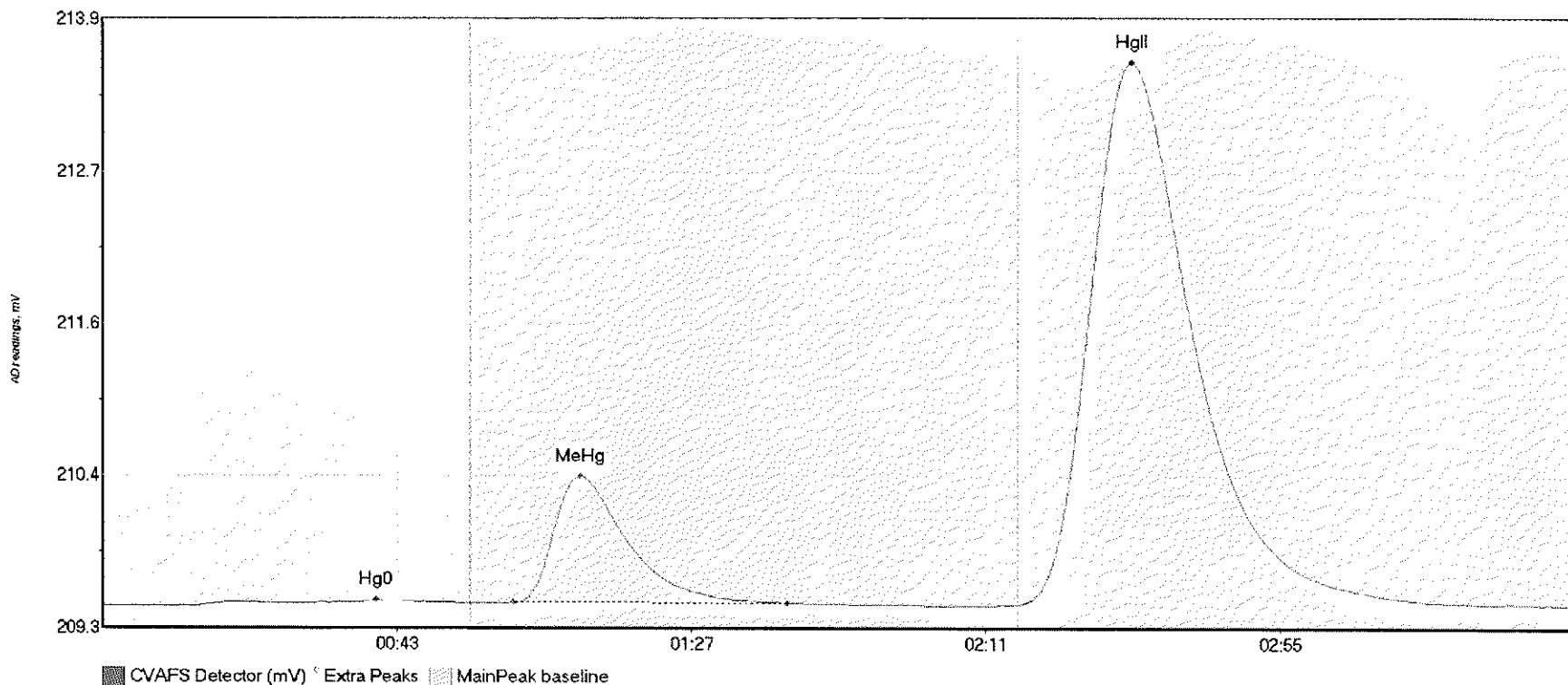
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	ElDev	ElShift	Comment
1707617-03 Hg0	5.815	11.6	54.3	209.44	209.48	44.1	0.048	OK	209.4389	0.00	0.00	
1707617-03 MeHg	86.242	61.8	99.8	209.48	209.47	71.6	0.699	OK	209.4389	0.00	0.00	
1707617-03 HgII	296.553	136.8	202.5	209.45	209.45	154.2	1.662	OK	209.4389	0.00	0.00	

#26: 1707617-04



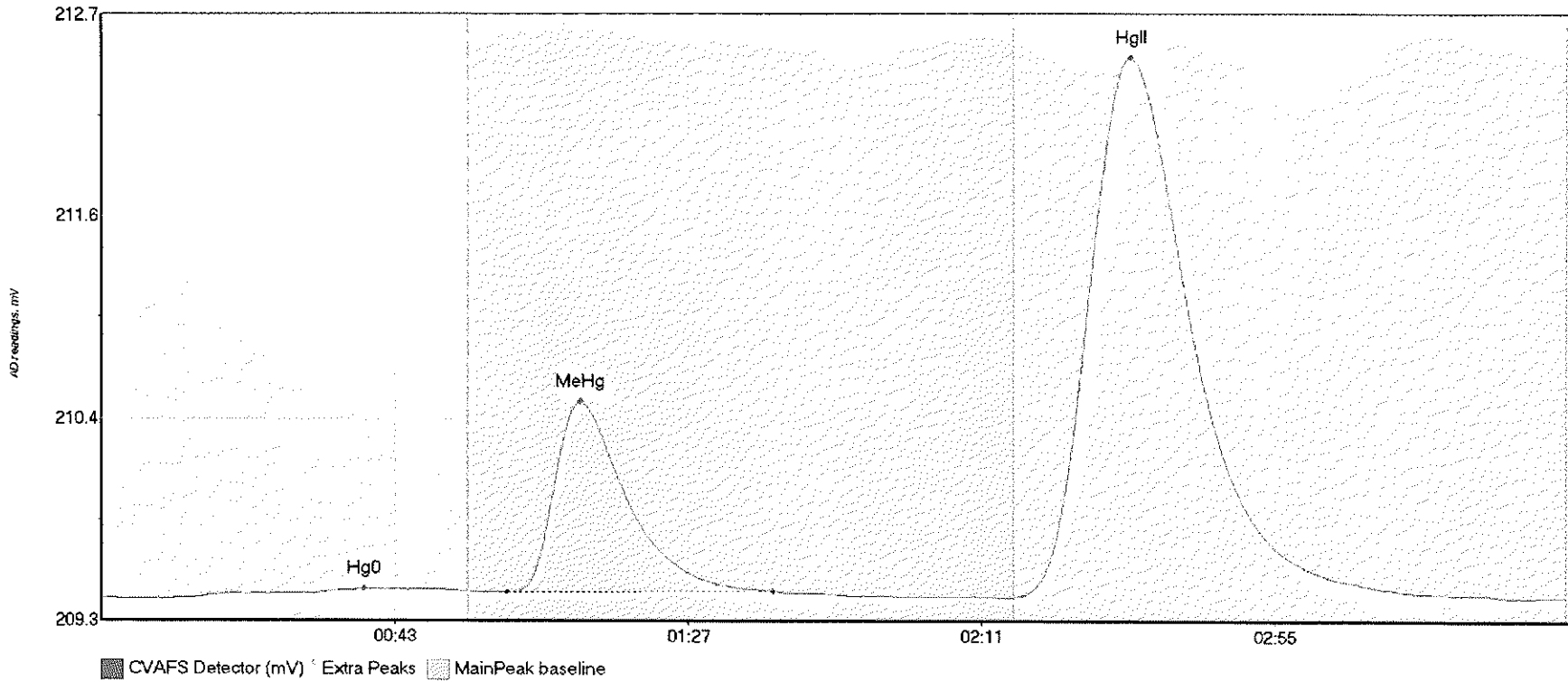
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1707617-04 Hg0	5.955	12.8	49.9	209.43	209.46	41.4	0.045	OK	209.4348	0.00	0.00	
1707617-04 MeHg	25.187	62.5	89.8	209.46	209.46	71.9	0.216	OK	209.4348	0.00	0.00	
1707617-04 HgII	357.794	136.8	197.8	209.44	209.44	154.1	2.022	OK	209.4348	0.00	0.00	

#27: 1707617-05



Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1707617-05 Hg0	6.828	13.0	53.7	209.43	209.45	40.8	0.045	OK	209.4316	0.00	0.01	
1707617-05 MeHg	120.536	61.4	102.3	209.45	209.45	71.4	0.961	OK	209.4316	0.00	0.01	
1707617-05 HgII	735.293	136.8	206.1	209.44	209.44	153.9	4.121	OK	209.4316	0.00	0.01	

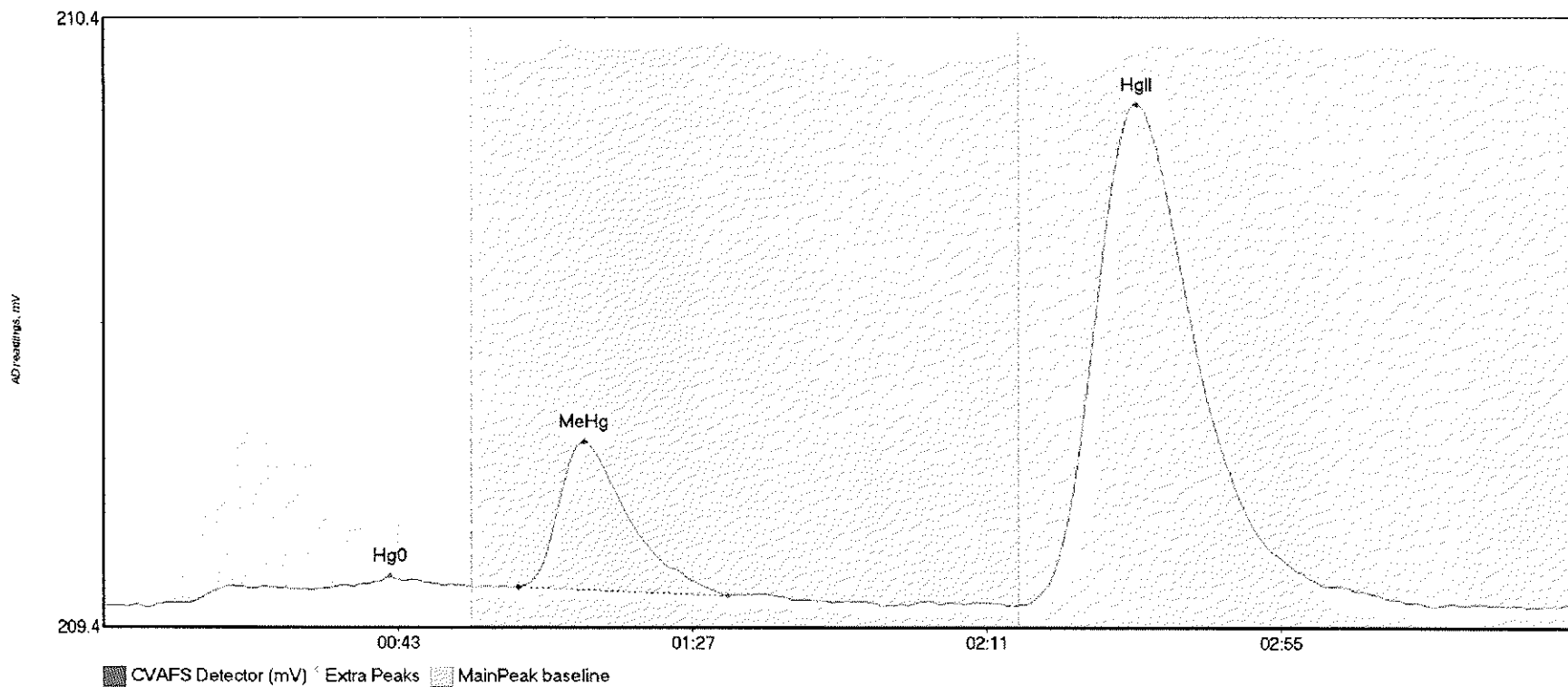
#28: 1707617-06



Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1707617-06 Hg0	6.807	12.7	55.0	209.42	209.45	39.5	0.051	CT	209.4186	0.00	0.00	
1707617-06 MeHg	135.245	60.8	100.7	209.45	209.45	71.9	1.082	OK	209.4186	0.00	0.00	
1707617-06 HgII	555.120	136.8	211.7	209.42	209.42	154.4	3.076	OK	209.4186	0.00	0.00	

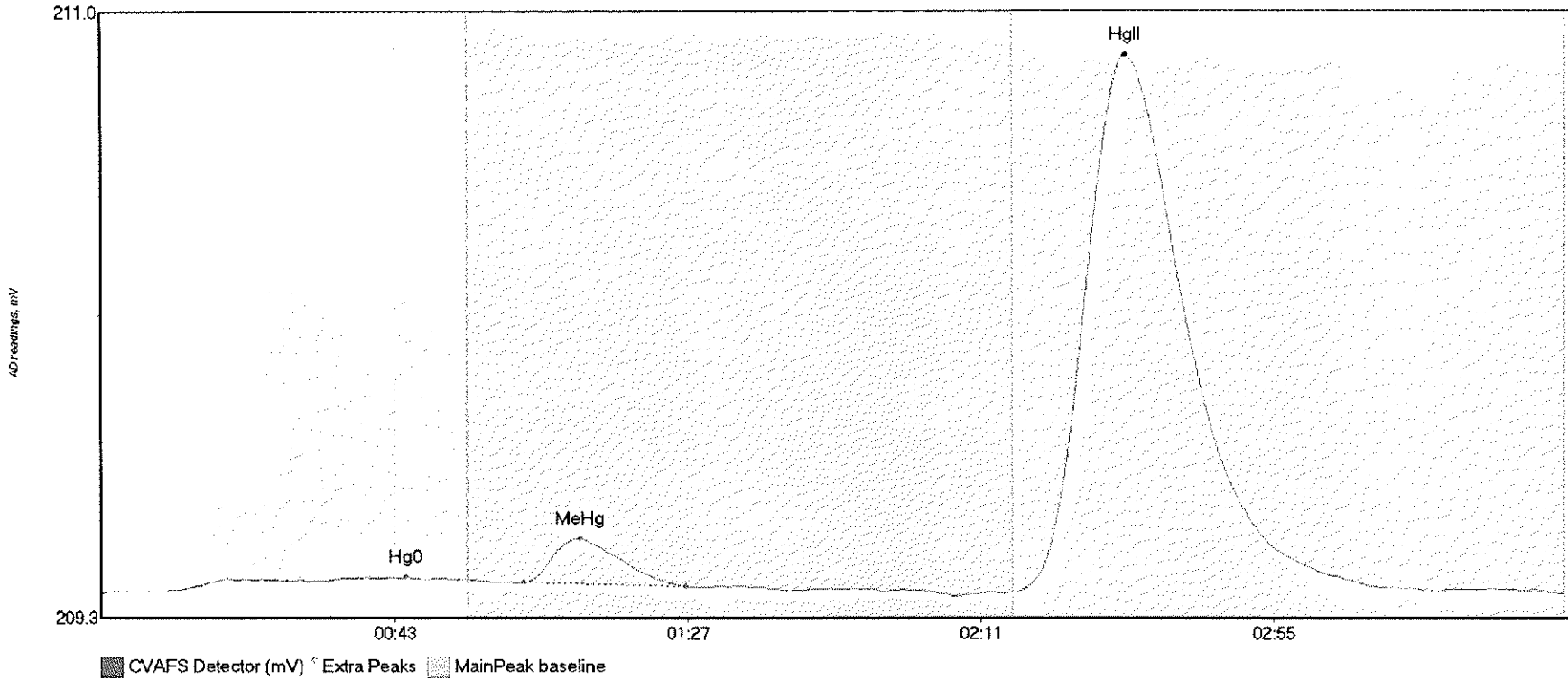
017

#29: 1707617-07



Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1707617-07 Hg0	5.829	13.0	55.0	209.41	209.44	42.9	0.043	CT	209.4051	0.00	0.00	
1707617-07 MeHg	29.477	62.0	93.3	209.43	209.42	71.8	0.238	OK	209.4051	0.00	0.00	
1707617-07 HgII	146.269	137.7	195.2	209.41	209.41	154.5	0.821	OK	209.4051	0.00	0.00	

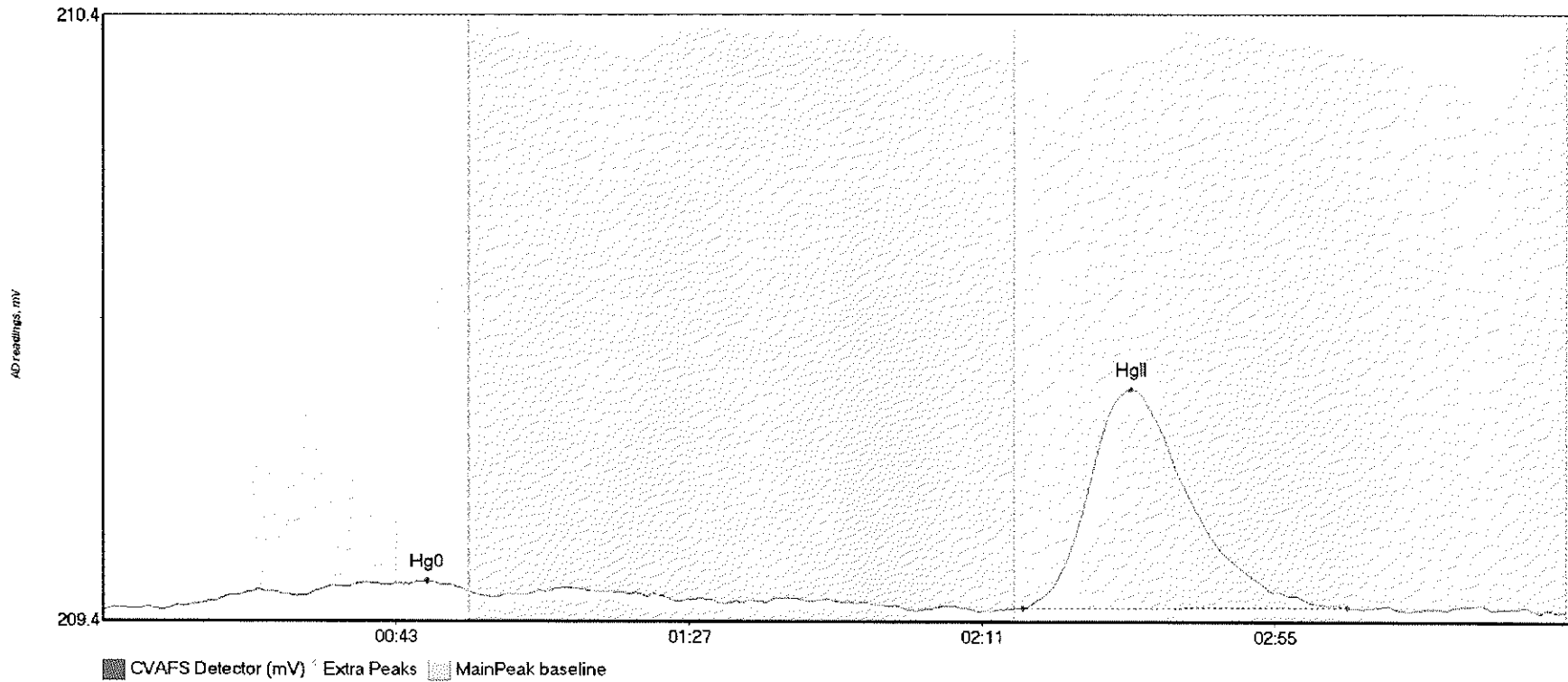
#30: 1707617-08



Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1707617-08 Hg0	5.409	9.7	53.5	209.40	209.43	45.7	0.037	OK	209.3950	0.00	0.00	
1707617-08 MeHg	14.222	63.5	87.8	209.42	209.41	71.8	0.120	OK	209.3950	0.00	0.00	
1707617-08 HgII	255.453	136.8	199.2	209.40	209.40	153.9	1.442	OK	209.3950	0.00	0.00	

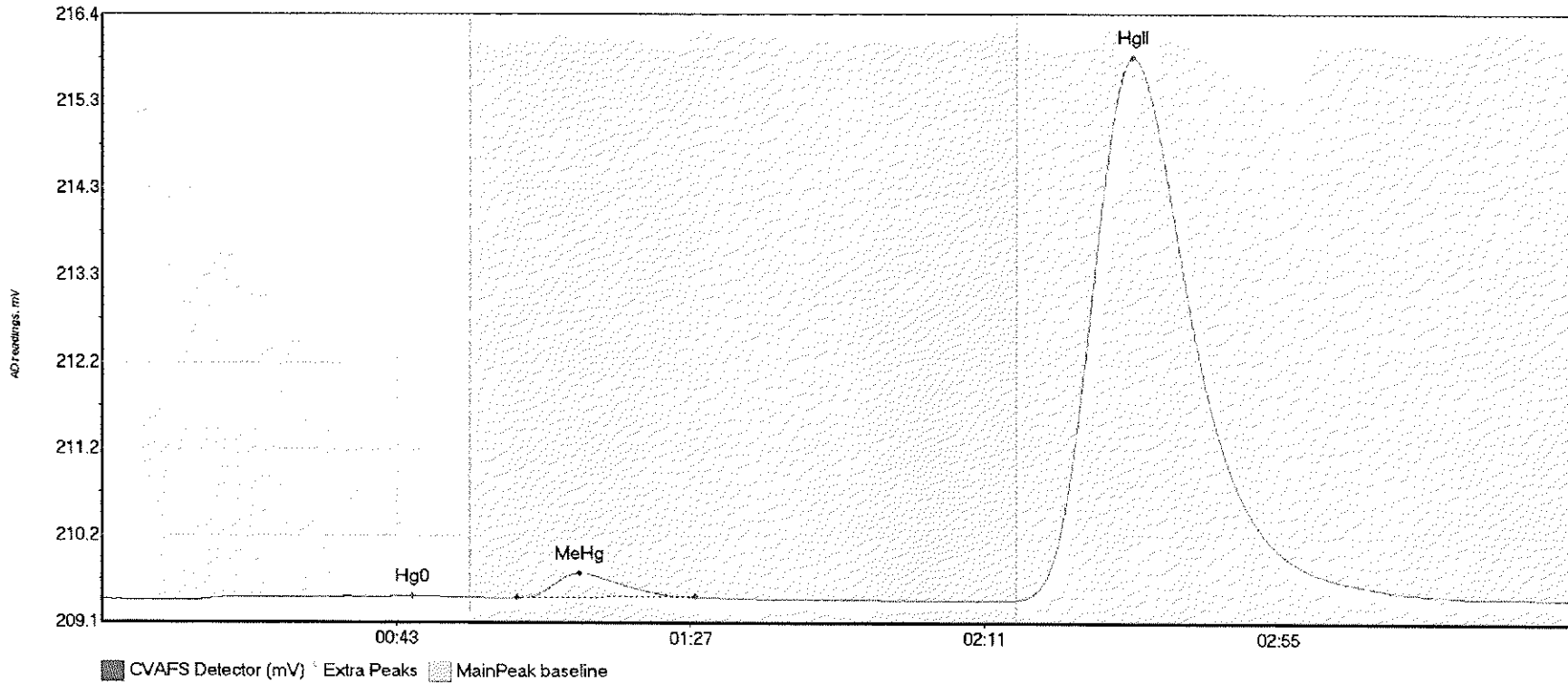


#31: 1707617-09



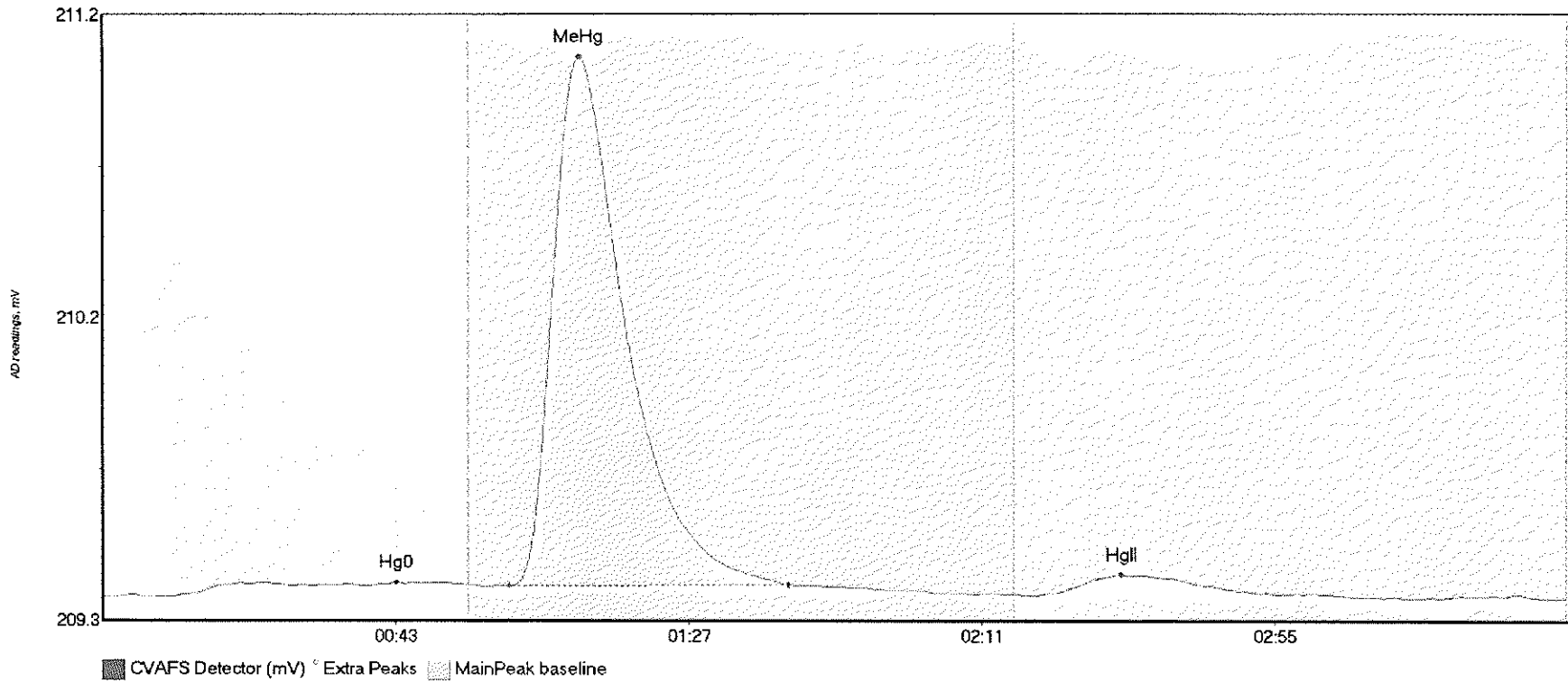
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1707617-09 Hg0	7.032	9.0	55.0	209.39	209.42	48.7	0.047	CT	209.3896	0.00	0.00	
1707617-09 HgII	63.435	138.1	186.9	209.39	209.39	154.4	0.362	OK	209.3896	0.00	0.00	017

#32: 1707617-10



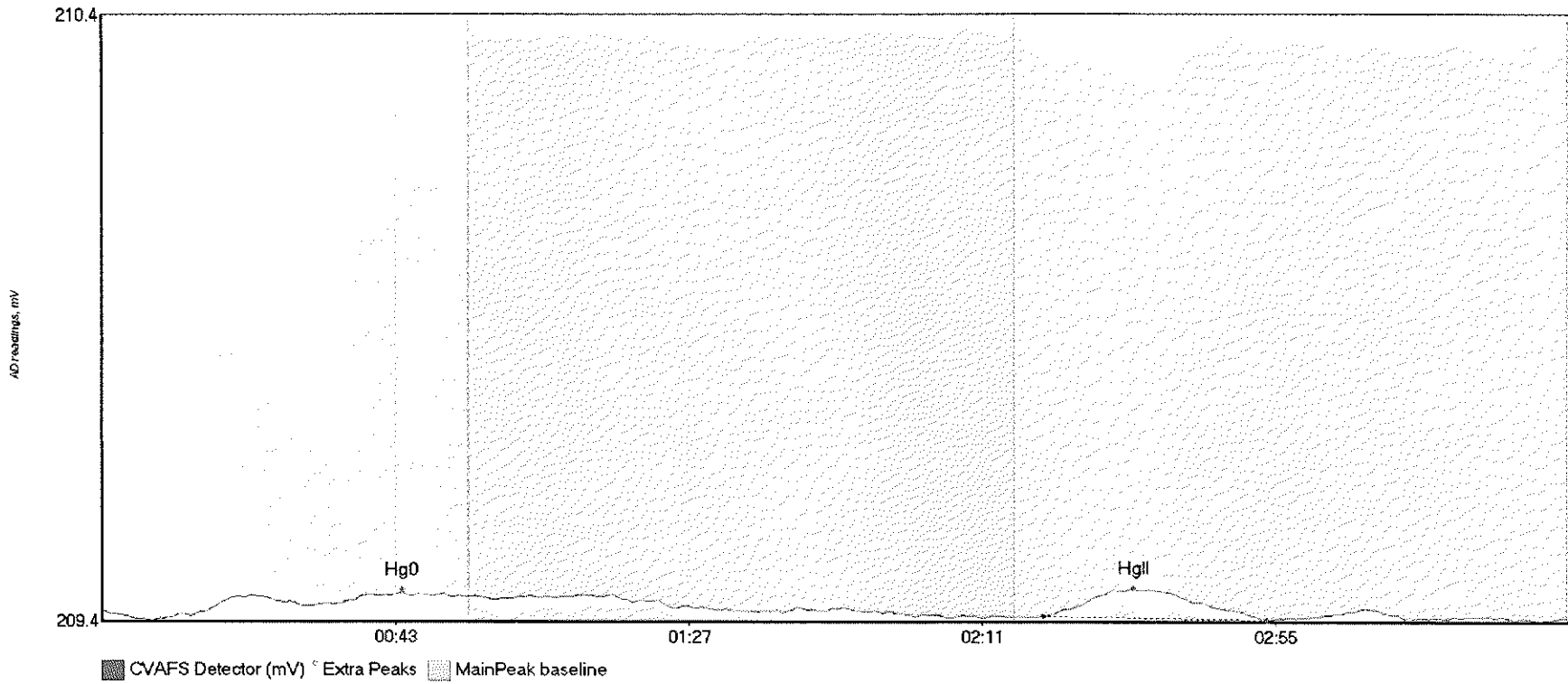
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1707617-10 Hg0	7.127	13.4	54.5	209.38	209.42	46.4	0.044	OK	209.3896	0.00	0.02	
1707617-10 MeHg	32.953	62.0	88.8	209.41	209.42	71.5	0.295	OK	209.3896	0.00	0.02	
1707617-10 HgII	1157.778	136.8	218.7	209.39	209.40	154.2	6.478	OK	209.3896	0.00	0.02	

#33: SEQ-CCV2



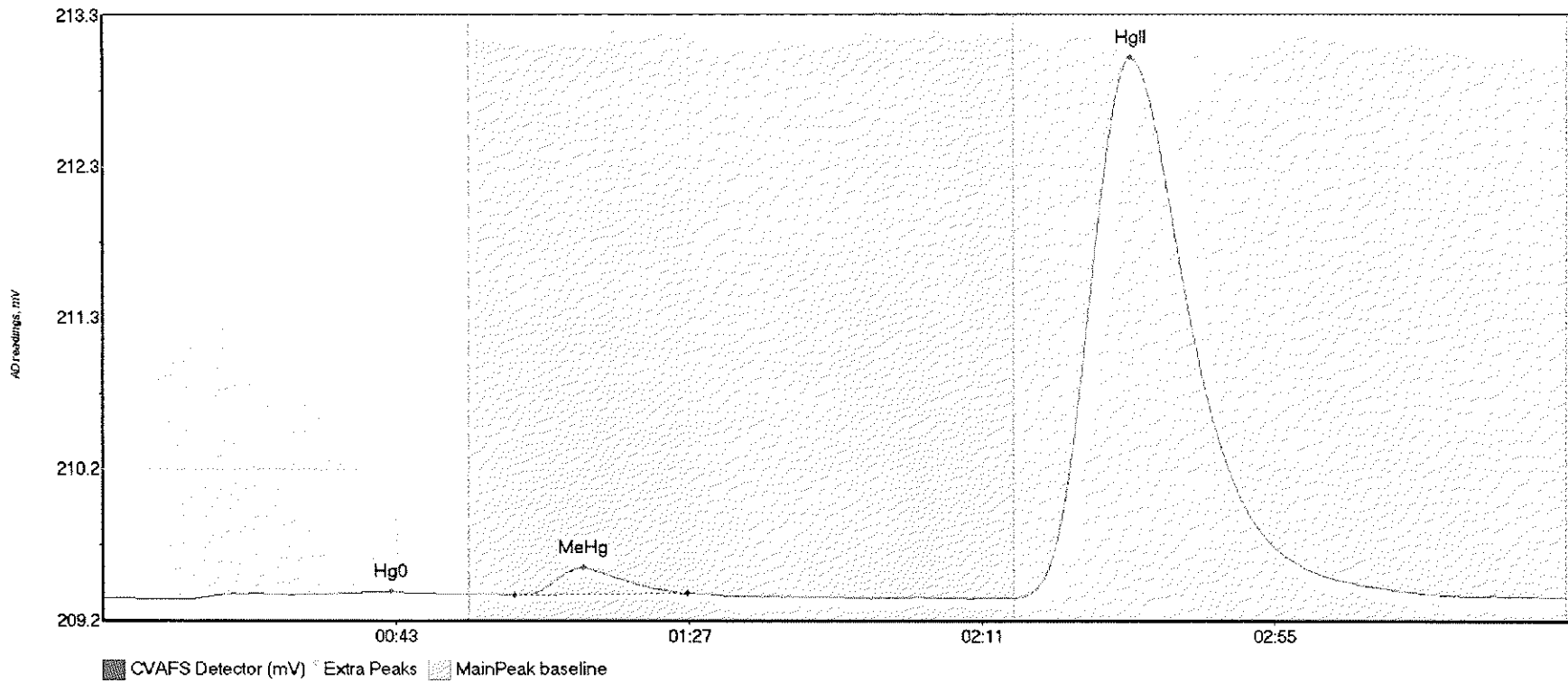
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
SEQ-CCV2 Hg0	7.131	10.7	55.0	209.37	209.41	44.2	0.043	CT	209.3723	0.00	-0.01	
SEQ-CCV2 MeHg	210.674	61.1	103.0	209.40	209.41	71.6	1.664	OK	209.3723	0.00	-0.01	
SEQ-CCV2 HgII	10.226	142.7	173.6	209.38	209.38	153.0	0.060	OK	209.3723	0.00	-0.01	

#34: SEQ-CCB2



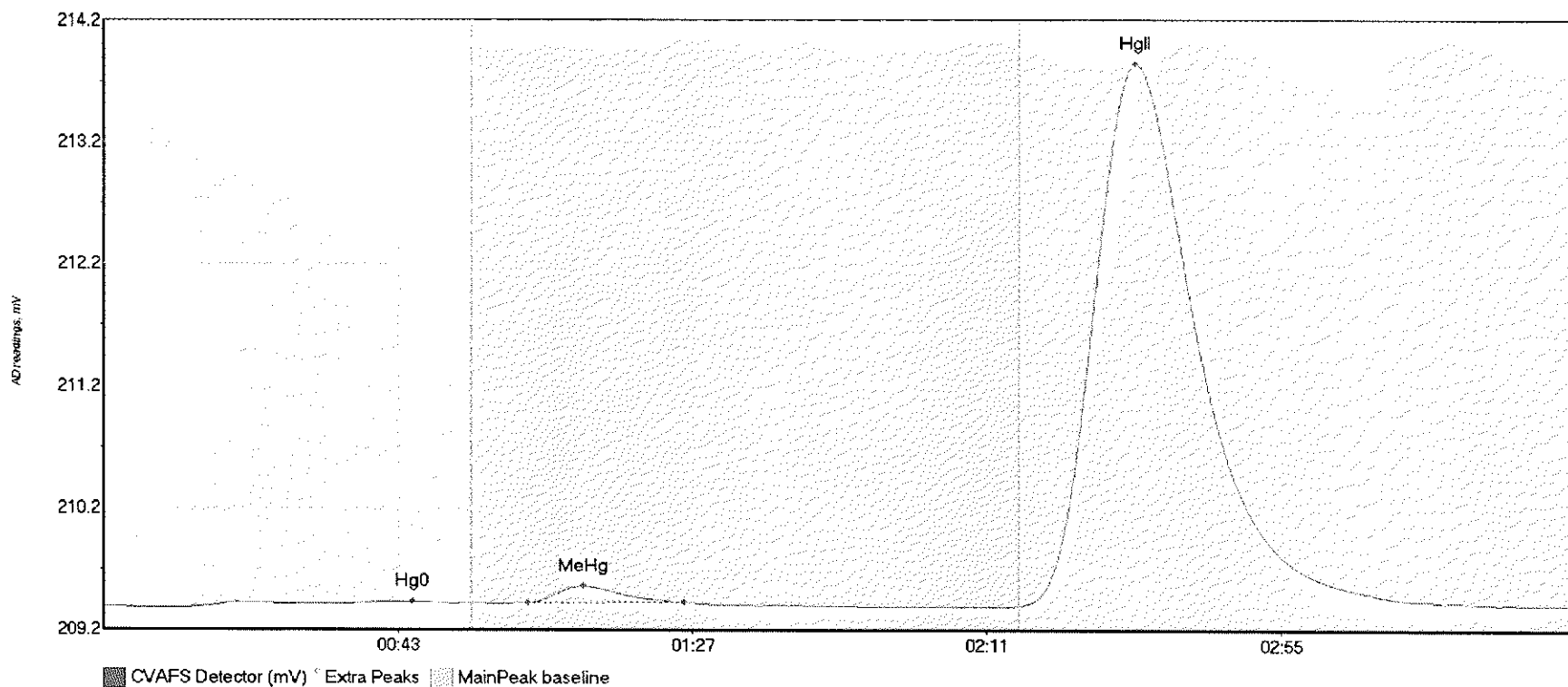
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
SEQ-CCB2 Hg0	3.423	15.1	54.8	209.37	209.39	45.0	0.031	OK	209.3694	0.00	-0.01	
SEQ-CCB2 HgII	8.916	141.1	174.8	209.36	209.36	154.7	0.046	OK	209.3694	0.00	-0.01	017

#35: 1707617-11



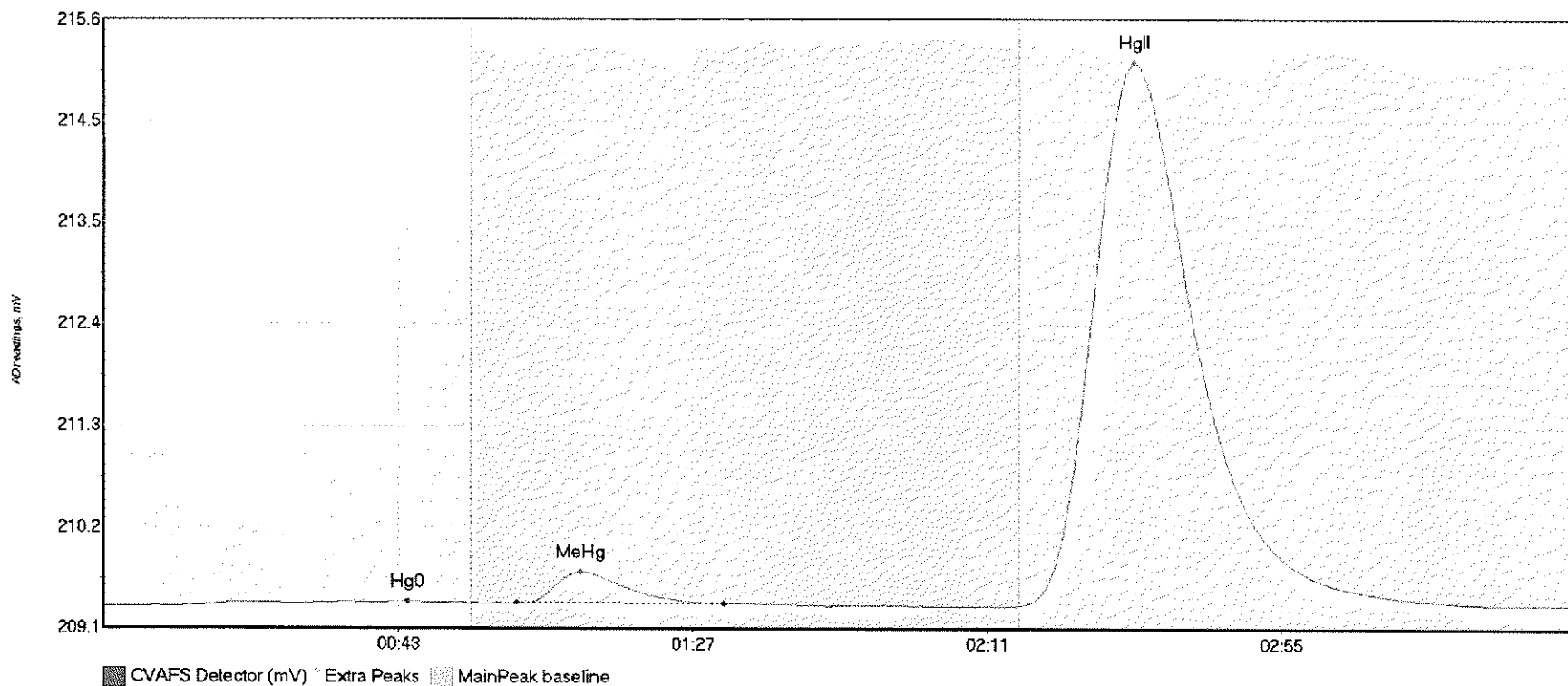
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1707617-11 Hg0	7.318	13.7	55.0	209.36	209.39	43.3	0.043	CT	209.3605	0.00	0.01	
1707617-11 MeHg	20.224	61.9	87.7	209.38	209.39	72.1	0.185	OK	209.3605	0.00	0.01	
1707617-11 HgII	660.635	137.2	219.1	209.36	209.37	154.5	3.673	OK	209.3605	0.00	0.01	

#36: 1707617-12



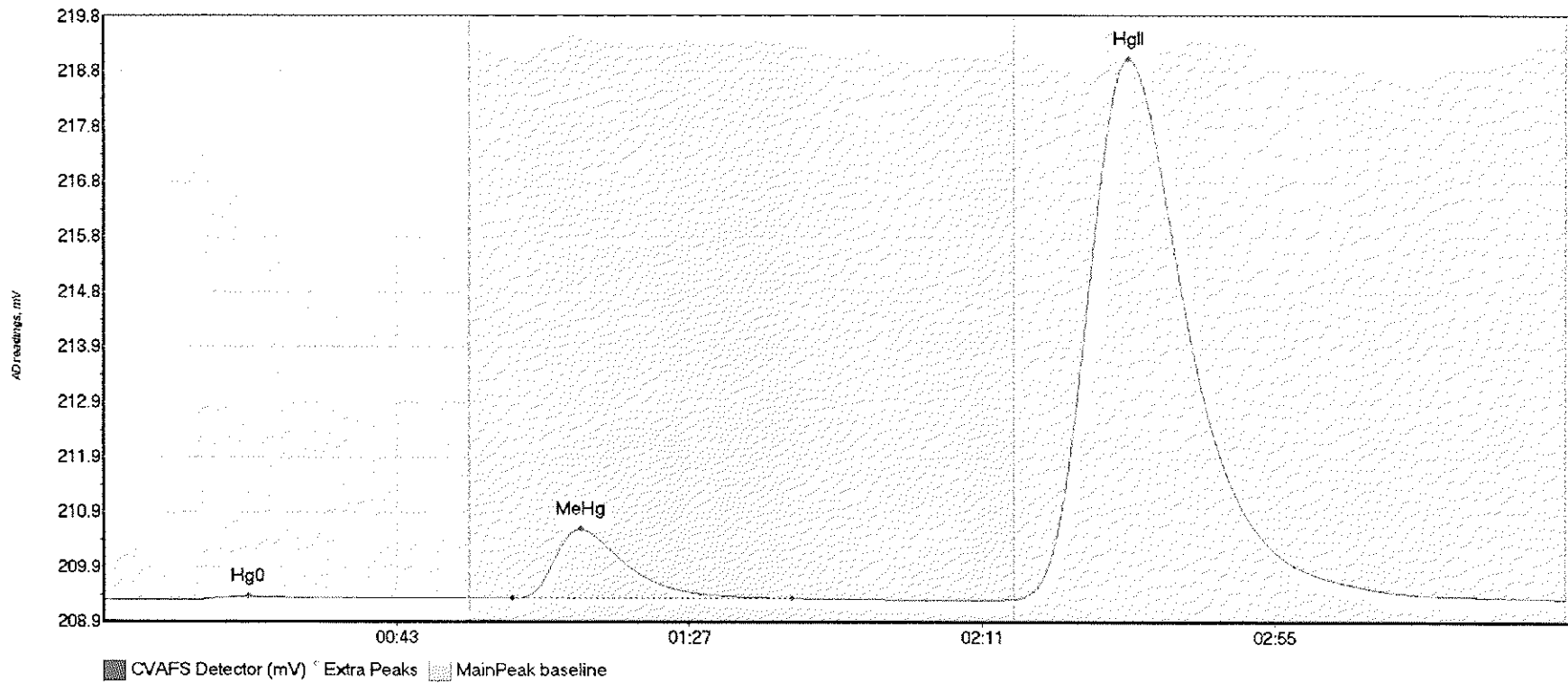
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1707617-12 Hg0	6.402	12.9	52.8	209.35	209.38	46.2	0.046	OK	209.3518	0.00	0.02	
1707617-12 MeHg	14.707	63.5	86.8	209.39	209.39	71.7	0.137	OK	209.3518	0.00	0.02	
1707617-12 HgII	802.485	136.8	219.8	209.36	209.37	154.2	4.452	CT	209.3518	0.00	0.02	

#37: 1707617-13



Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1707617-13 Hg0	7.792	6.2	54.7	209.35	209.38	45.4	0.049	OK	209.3449	0.00	0.03	
1707617-13 MeHg	40.501	61.7	92.7	209.38	209.37	71.3	0.339	OK	209.3449	0.00	0.03	
1707617-13 HgII	1042.080	136.8	216.7	209.36	209.37	154.1	5.809	OK	209.3449	0.00	0.03	

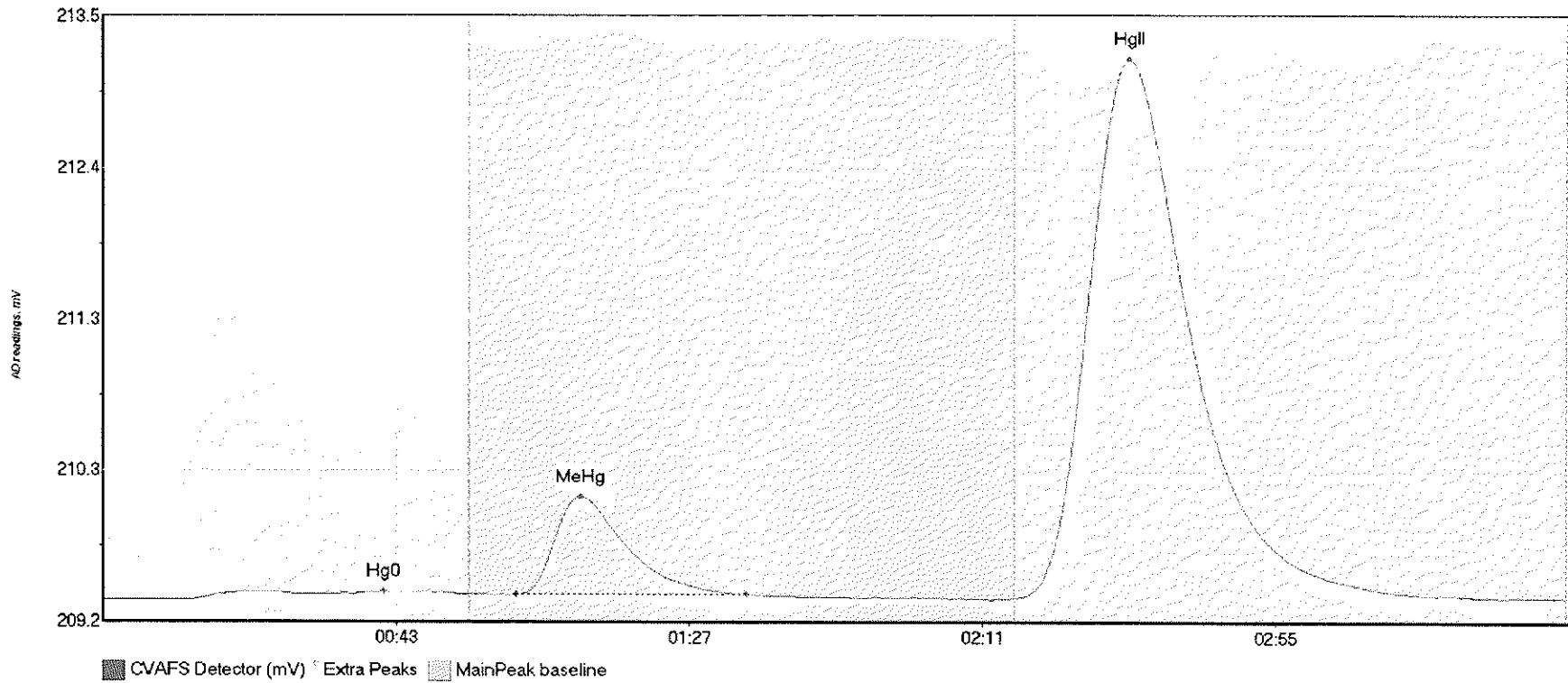
#38: 1707617-14



Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1707617-14 Hg0	3.949	12.1	31.6	209.34	209.37	21.7	0.056	OK	209.3366	0.00	0.03	
1707617-14 MeHg	152.594	61.4	103.5	209.37	209.37	71.7	1.235	OK	209.3366	0.00	0.03	
1707617-14 HgII	1720.012	136.8	219.2	209.36	209.36	154.2	9.620	OK	209.3366	0.00	0.03	

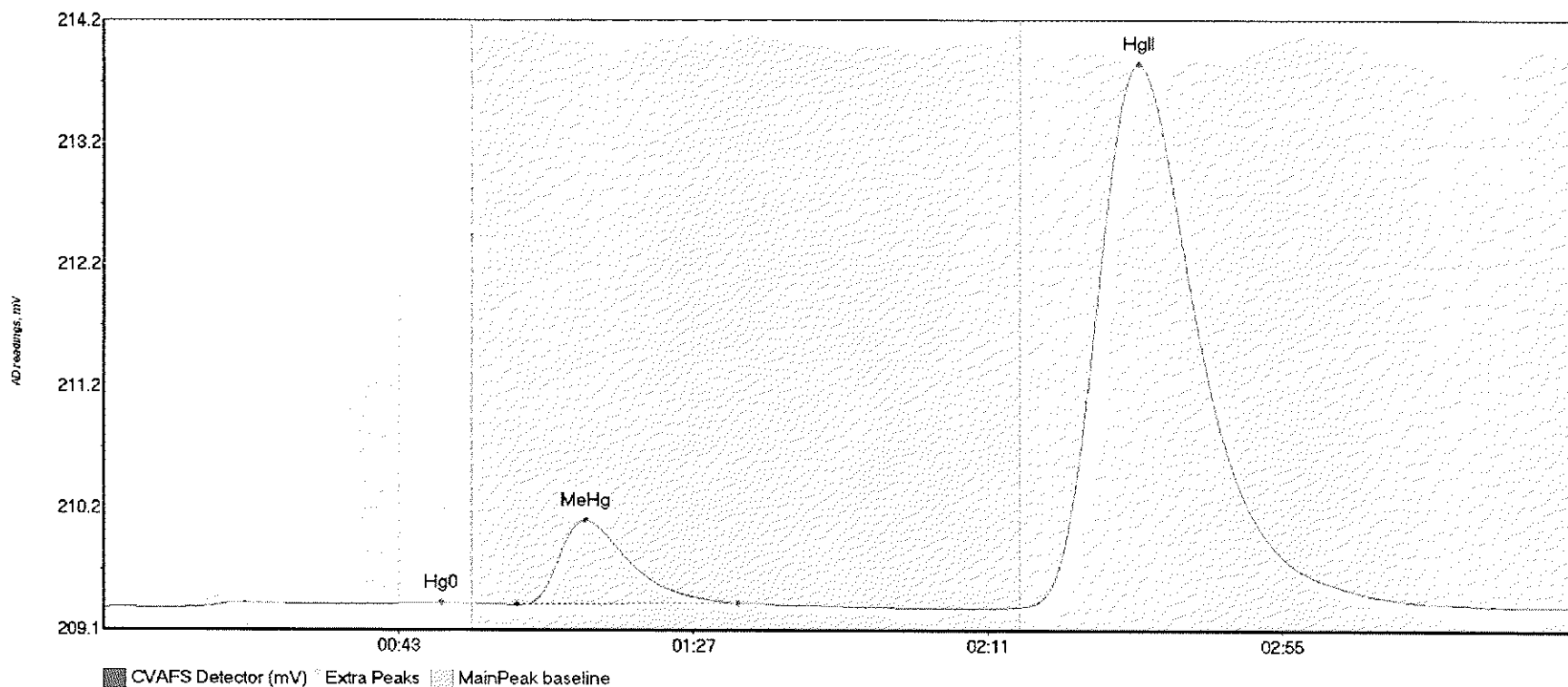


#39: 1707619-01



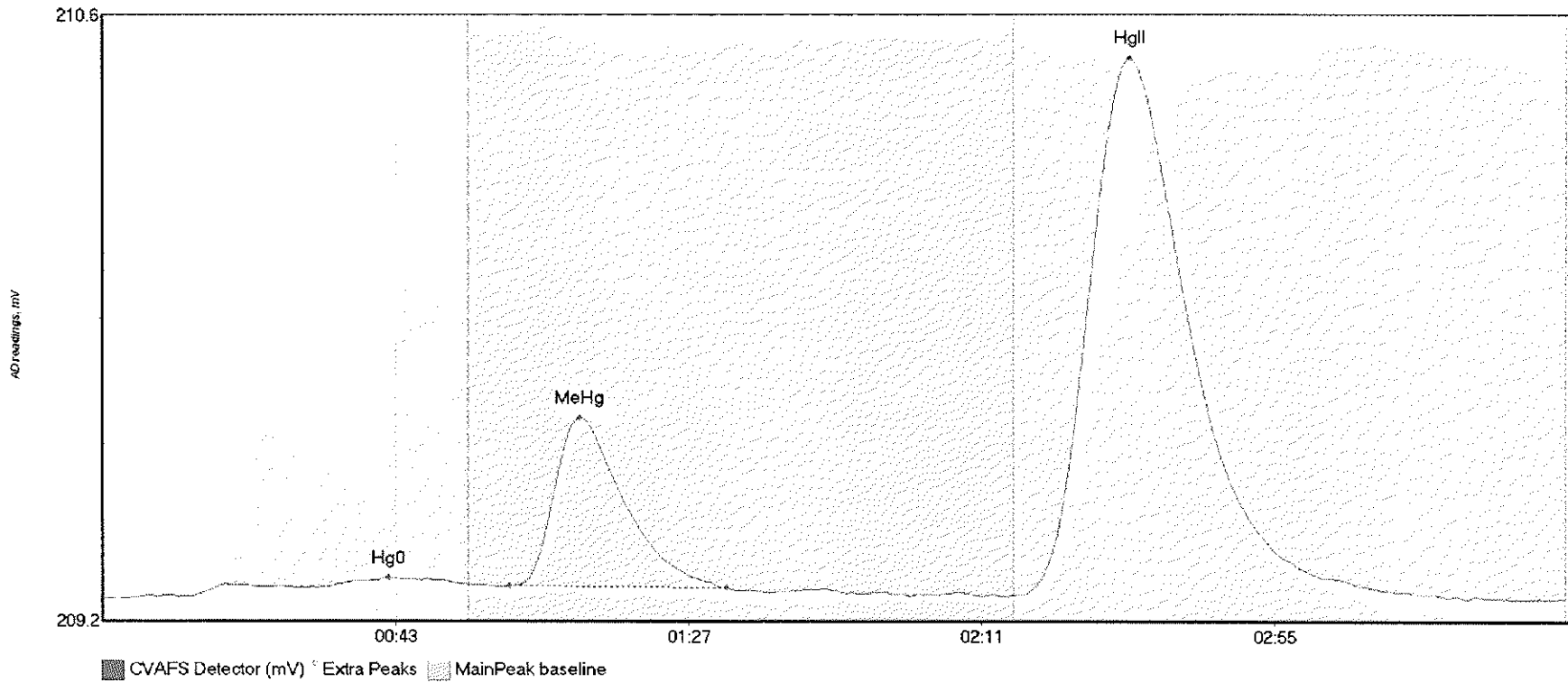
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1707619-01 Hg0	10.945	12.5	55.0	209.32	209.36	42.1	0.061	CT	209.3234	0.00	0.02	
1707619-01 MeHg	86.406	62.0	96.6	209.36	209.36	71.7	0.702	OK	209.3234	0.00	0.02	
1707619-01 HgII	685.126	136.8	206.7	209.34	209.34	154.2	3.863	OK	209.3234	0.00	0.02	

#40: 1707619-02



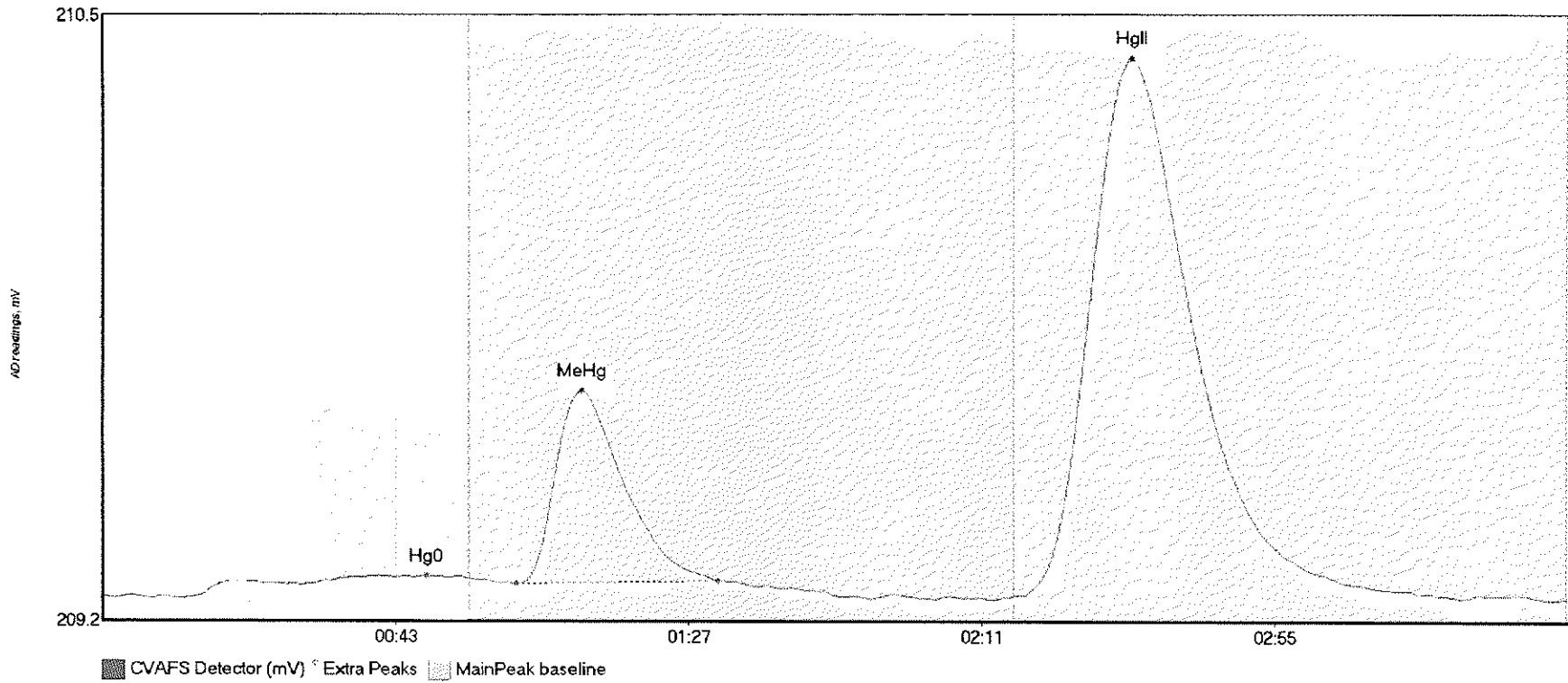
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1707619-02 Hg0	5.920	13.7	54.1	209.32	209.36	50.5	0.041	OK	209.3233	0.00	0.01	
1707619-02 MeHg	83.995	61.7	94.8	209.35	209.36	72.0	0.704	OK	209.3233	0.00	0.01	
1707619-02 HgII	807.856	136.8	209.0	209.33	209.33	154.6	4.526	OK	209.3233	0.00	0.01	

#41: 1707619-03



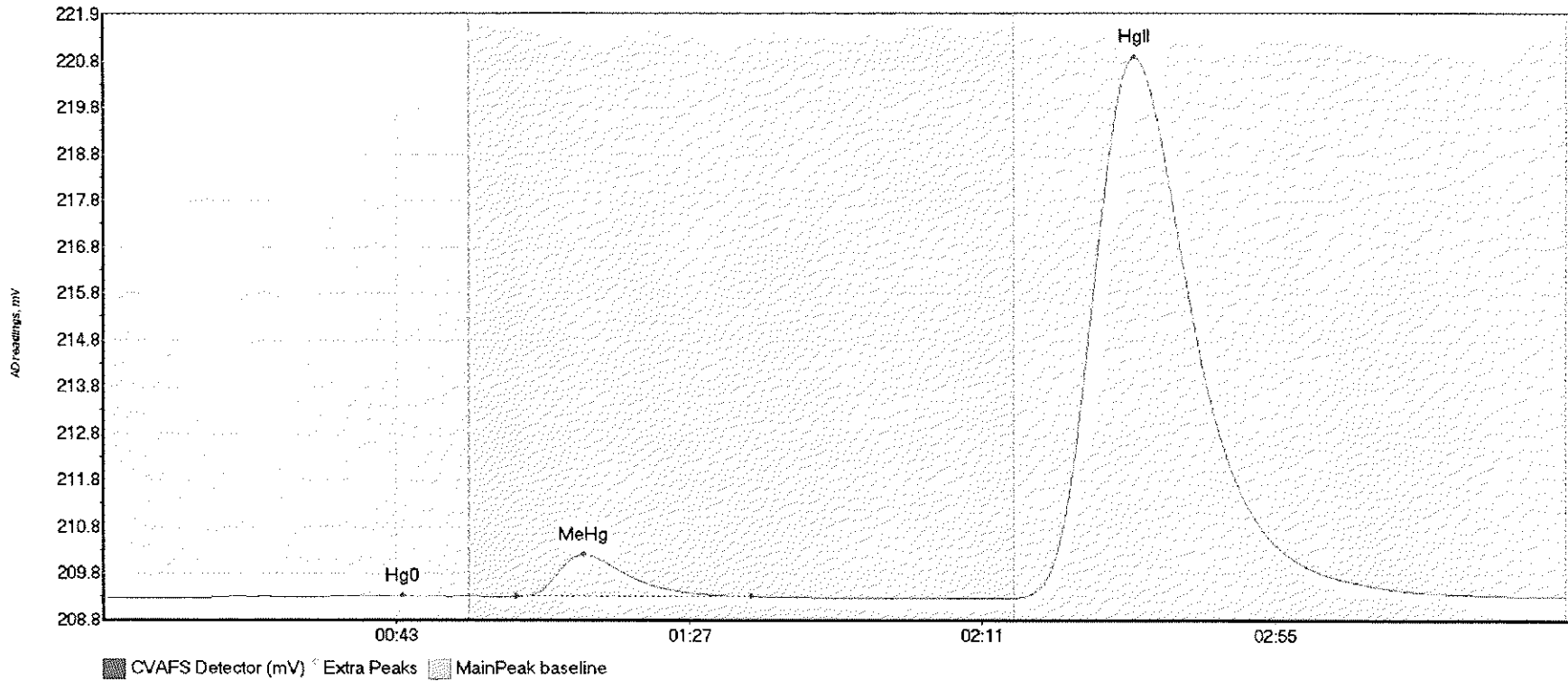
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1707619-03 Hg0	6.166	13.2	55.0	209.31	209.33	43.0	0.044	CT	209.3014	0.00	0.00	
1707619-03 MeHg	46.839	61.1	93.8	209.33	209.32	71.7	0.386	OK	209.3014	0.00	0.00	
1707619-03 HgII	215.554	138.0	197.6	209.31	209.31	154.3	1.229	OK	209.3014	0.00	0.00	

#42: 1707619-04



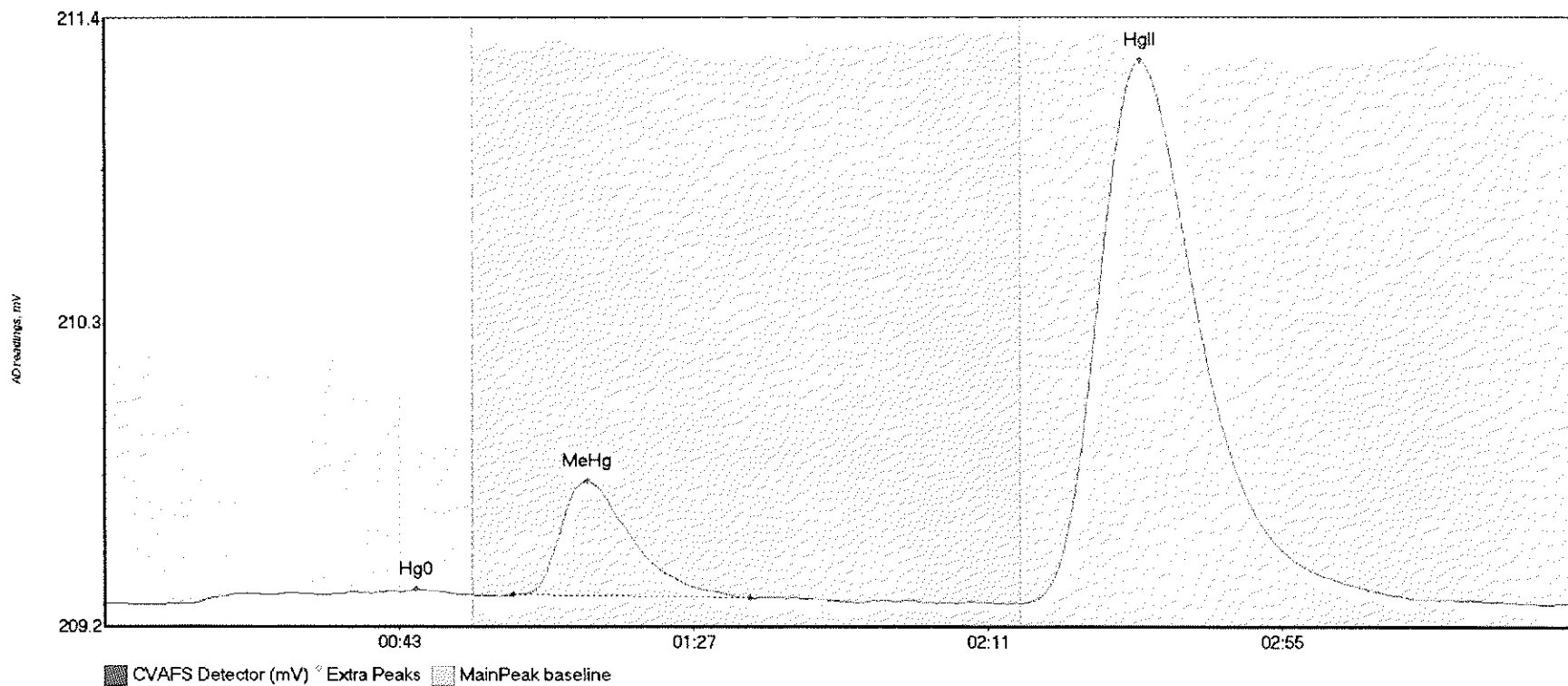
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1707619-04 Hg0	6.145	11.8	55.0	209.29	209.33	48.6	0.046	CT	209.2919	0.00	0.00	
1707619-04 MeHg	46.726	62.1	92.5	209.32	209.32	72.0	0.398	OK	209.2919	0.00	0.00	
1707619-04 HgII	195.778	138.2	197.7	209.29	209.30	154.6	1.105	OK	209.2919	0.00	0.00	

#43: 1707619-05



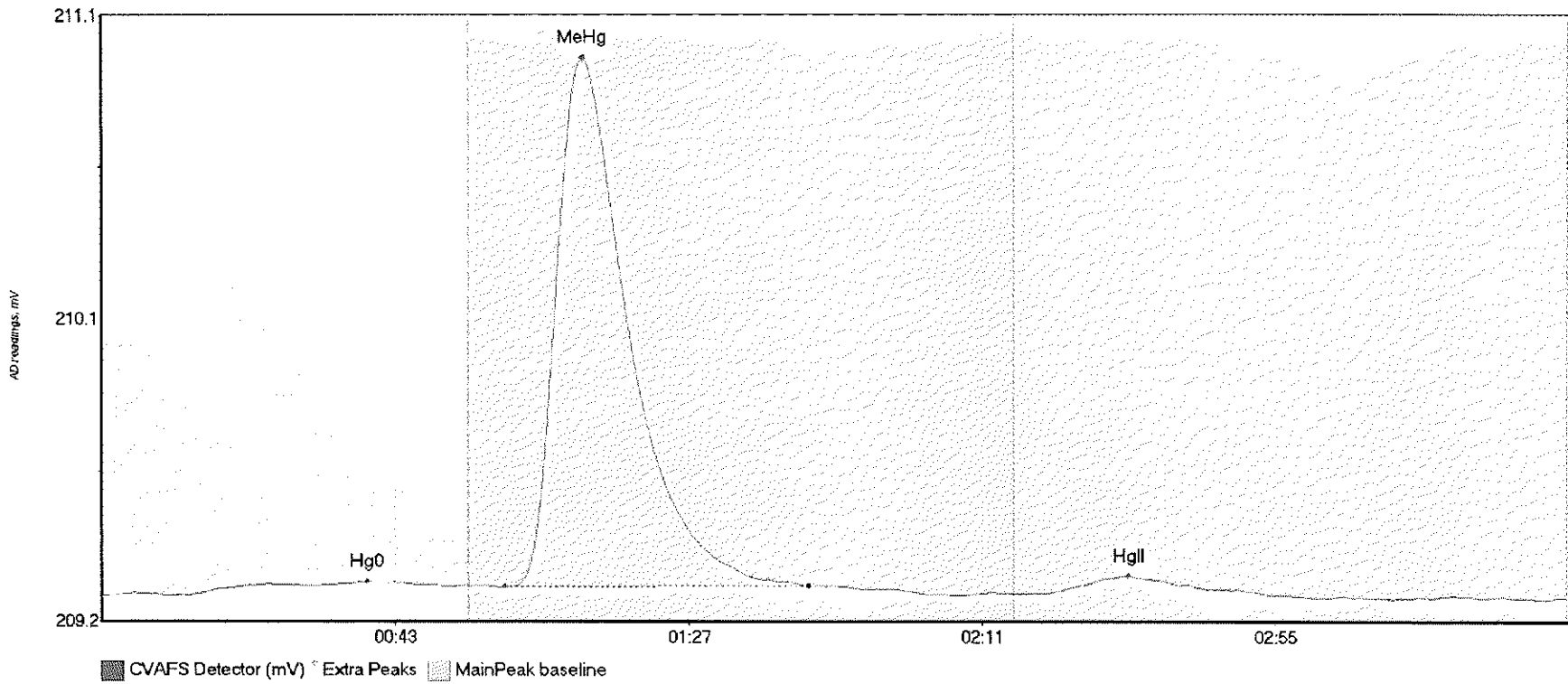
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1707619-05 Hg0	7.092	12.9	52.0	209.27	209.31	45.0	0.052	OK	209.2777	0.00	0.04	
1707619-05 MeHg	110.252	62.0	97.3	209.31	209.32	72.2	0.910	OK	209.2777	0.00	0.04	
1707619-05 HgII	2087.734	136.8	219.8	209.28	209.32	154.9	11.639	CT	209.2777	0.00	0.04	

#44: 1707619-06

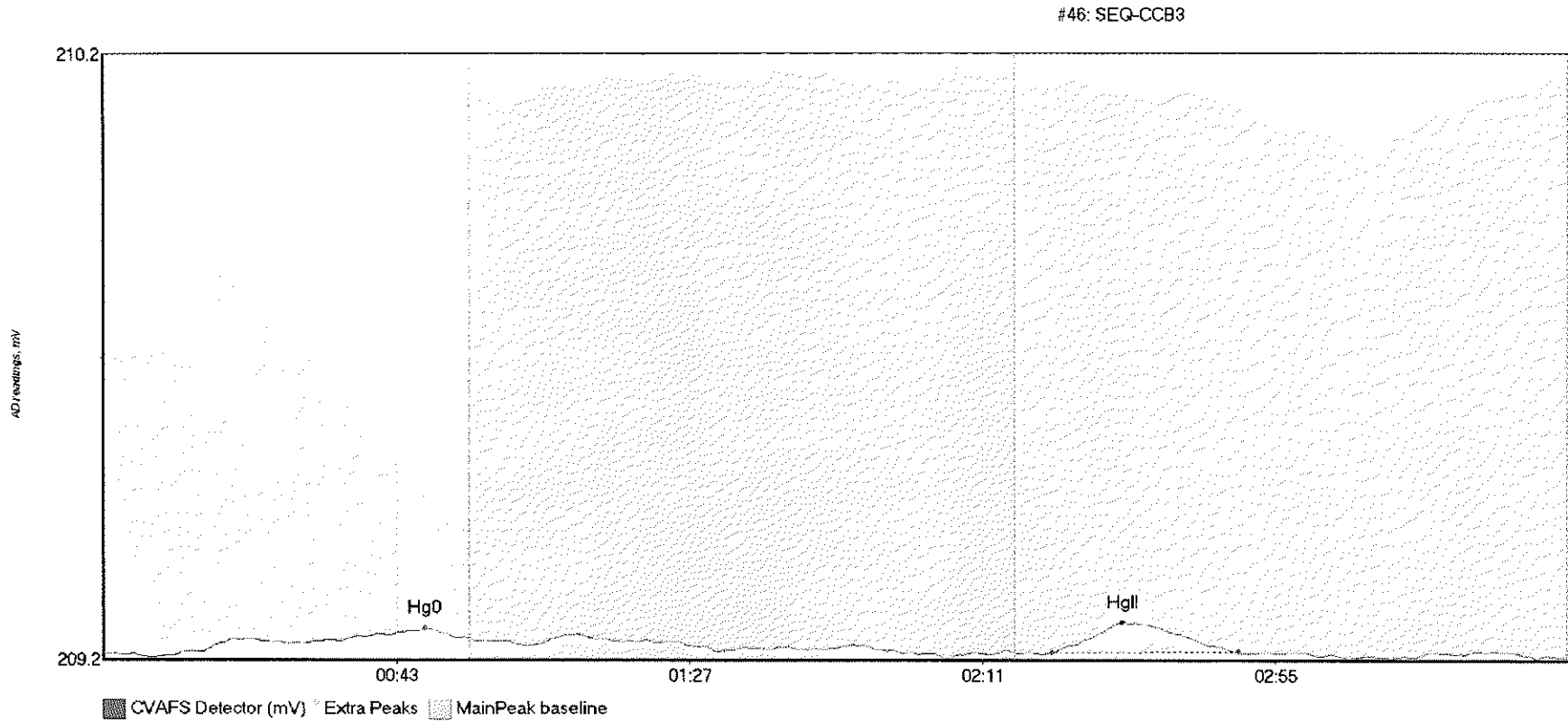


Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1707619-06 Hg0	8.077	13.5	55.0	209.27	209.30	46.6	0.048	CT	209.2685	0.00	0.00	
1707619-06 MeHg	52.779	61.0	96.4	209.30	209.29	72.2	0.420	OK	209.2685	0.00	0.00	
1707619-06 HgII	358.609	137.1	209.8	209.27	209.27	154.8	1.987	OK	209.2685	0.00	0.00	

#45: SEQ-CCV3



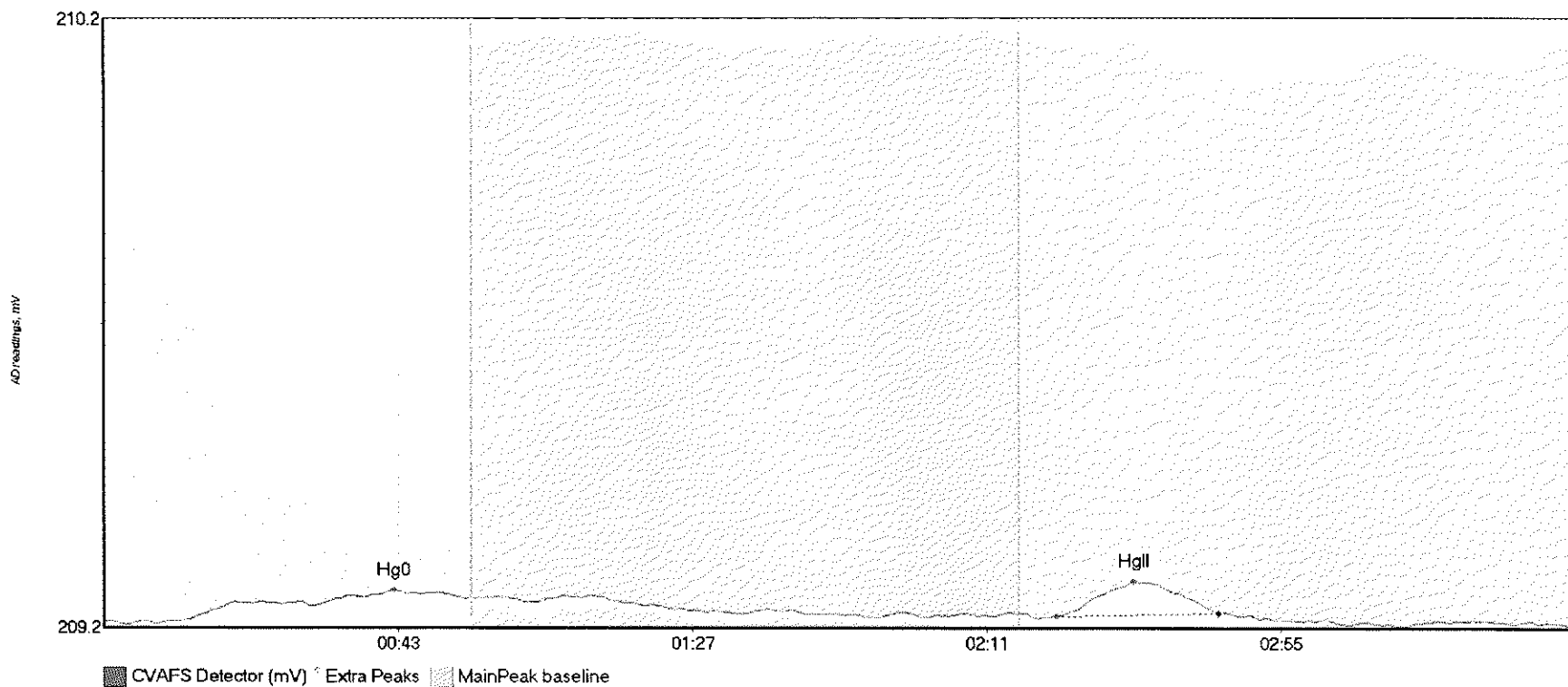
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
SEQ-CCV3 Hg0	6.613	13.1	52.5	209.27	209.29	39.8	0.042	OK	209.2654	0.00	0.00	
SEQ-CCV3 MeHg	209.020	60.4	106.0	209.29	209.30	72.1	1.658	OK	209.2654	0.00	0.00	
SEQ-CCV3 HgII	9.380	142.0	175.5	209.27	209.27	154.1	0.054	OK	209.2654	0.00	0.00	



Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
SEQ-CCB3 Hg0	4.427	14.6	55.0	209.26	209.28	48.3	0.038	CT	209.2531	0.00	-0.01	
SEQ-CCB3 HgII	7.262	142.4	170.4	209.25	209.26	153.0	0.050	OK	209.2531	0.00	-0.01	017

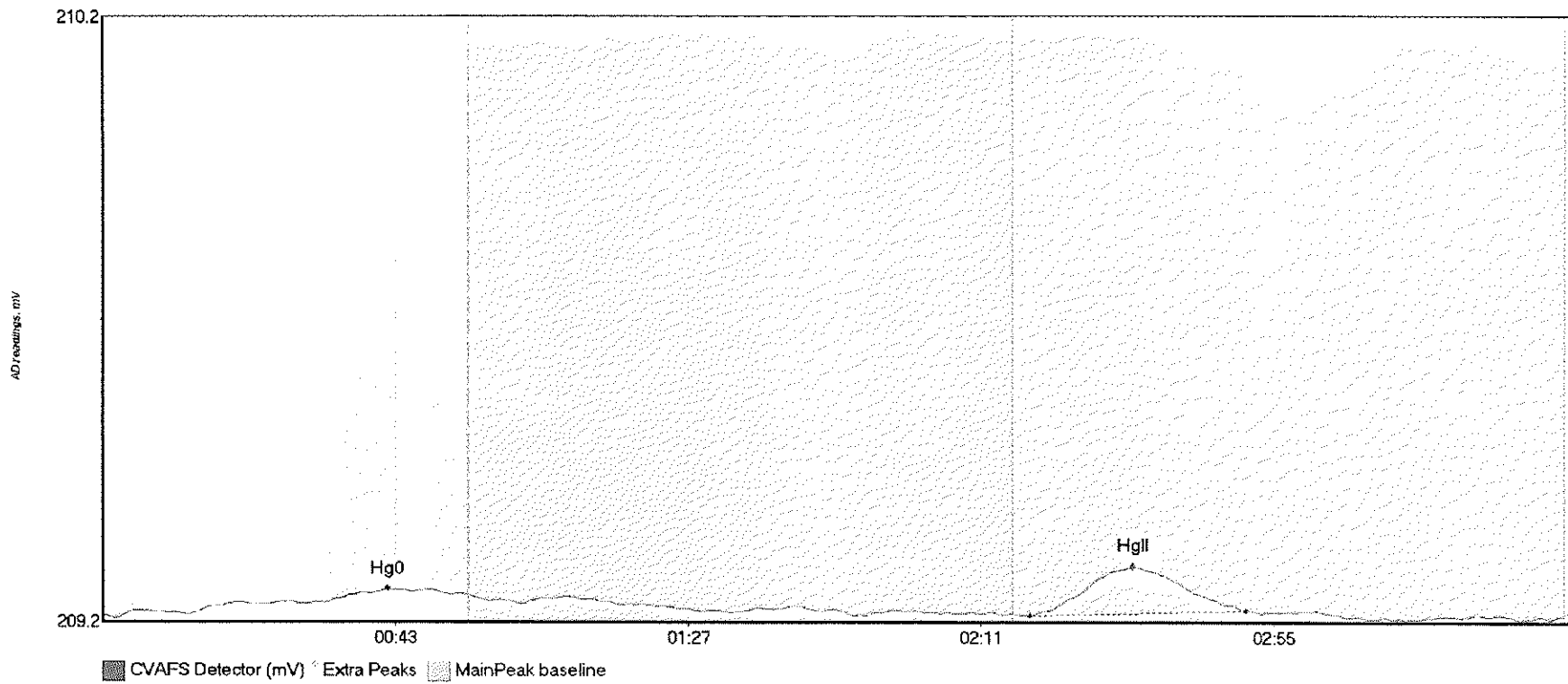


#47: F707454-BLK4



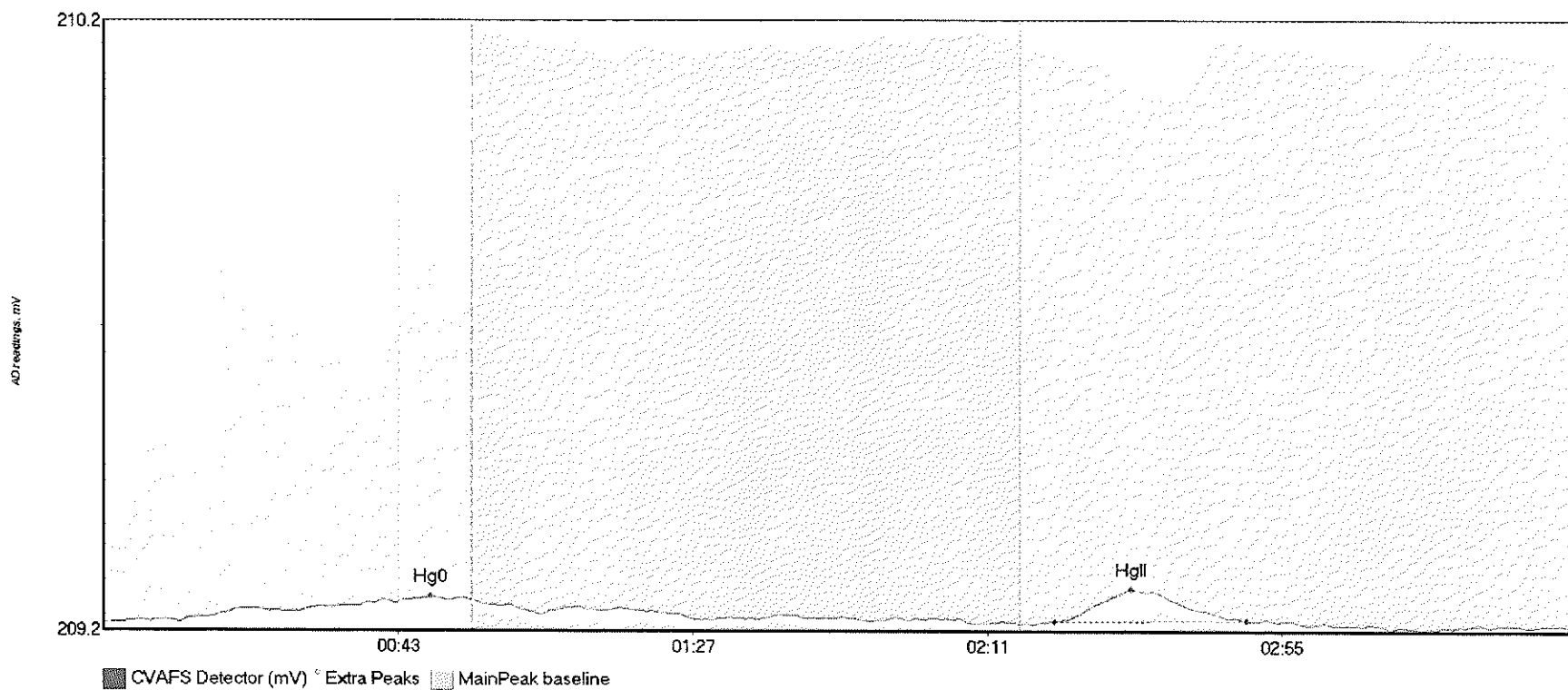
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
F707454-BLK4 Hg	6.004	12.7	54.6	209.25	209.28	43.5	0.048	OK	209.2453	0.00	0.00	
F707454-BLK4 Hg	7.397	142.4	166.8	209.25	209.26	154.1	0.057	OK	209.2453	0.00	0.00	017

#48: F707454-BLK5



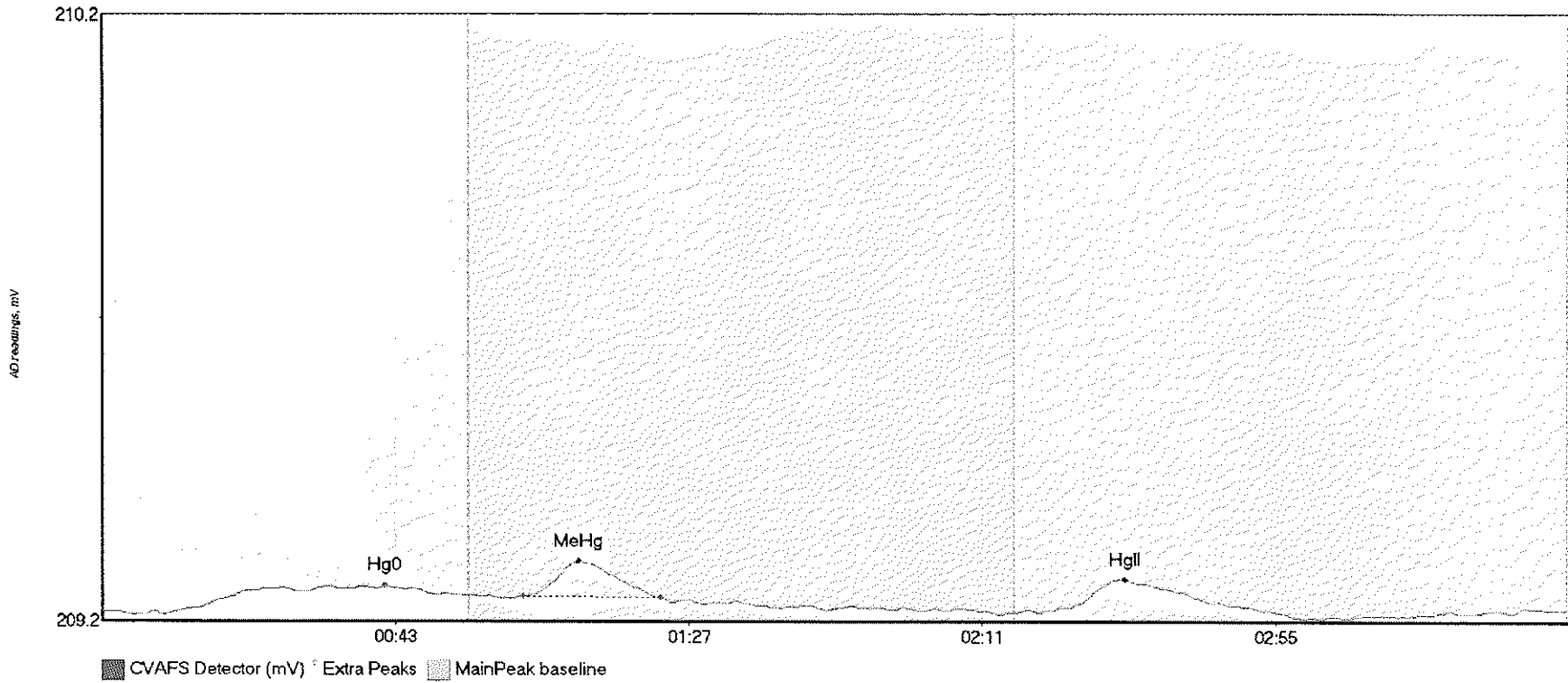
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
F707454-BLK5 Hg	4.287	13.0	55.0	209.25	209.28	42.8	0.042	CT	209.2470	0.00	0.00	
F707454-BLK5 Hg	12.696	139.4	171.9	209.25	209.25	154.9	0.080	OK	209.2470	0.00	0.00	017

#49: F707454-BLK6



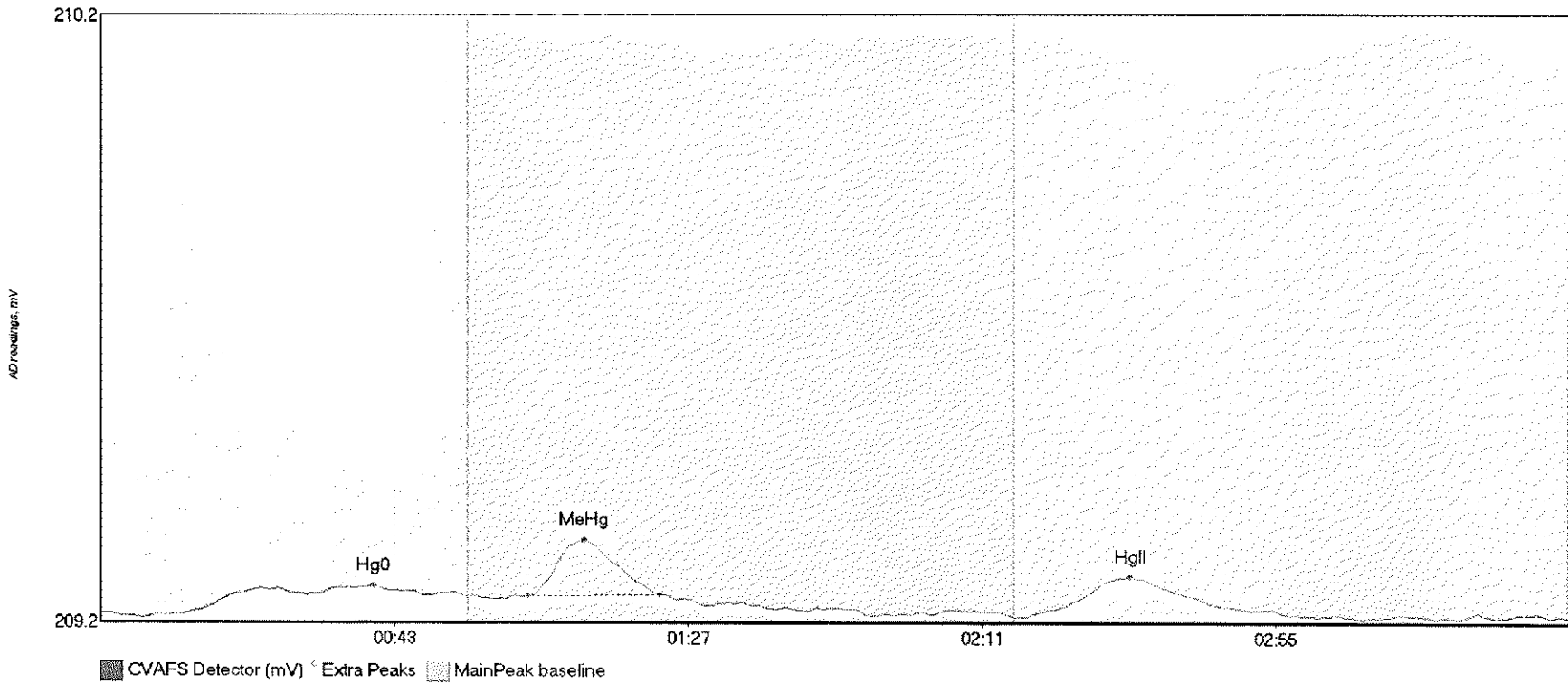
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
F707454-BLK6 Hg	3.270	11.5	55.0	209.25	209.29	48.9	0.041	CT	209.2482	0.00	0.00	
F707454-BLK6 Hg	7.287	142.0	170.7	209.25	209.25	153.5	0.053	OK	209.2482	0.00	0.00	017

#50: F707454-BS3



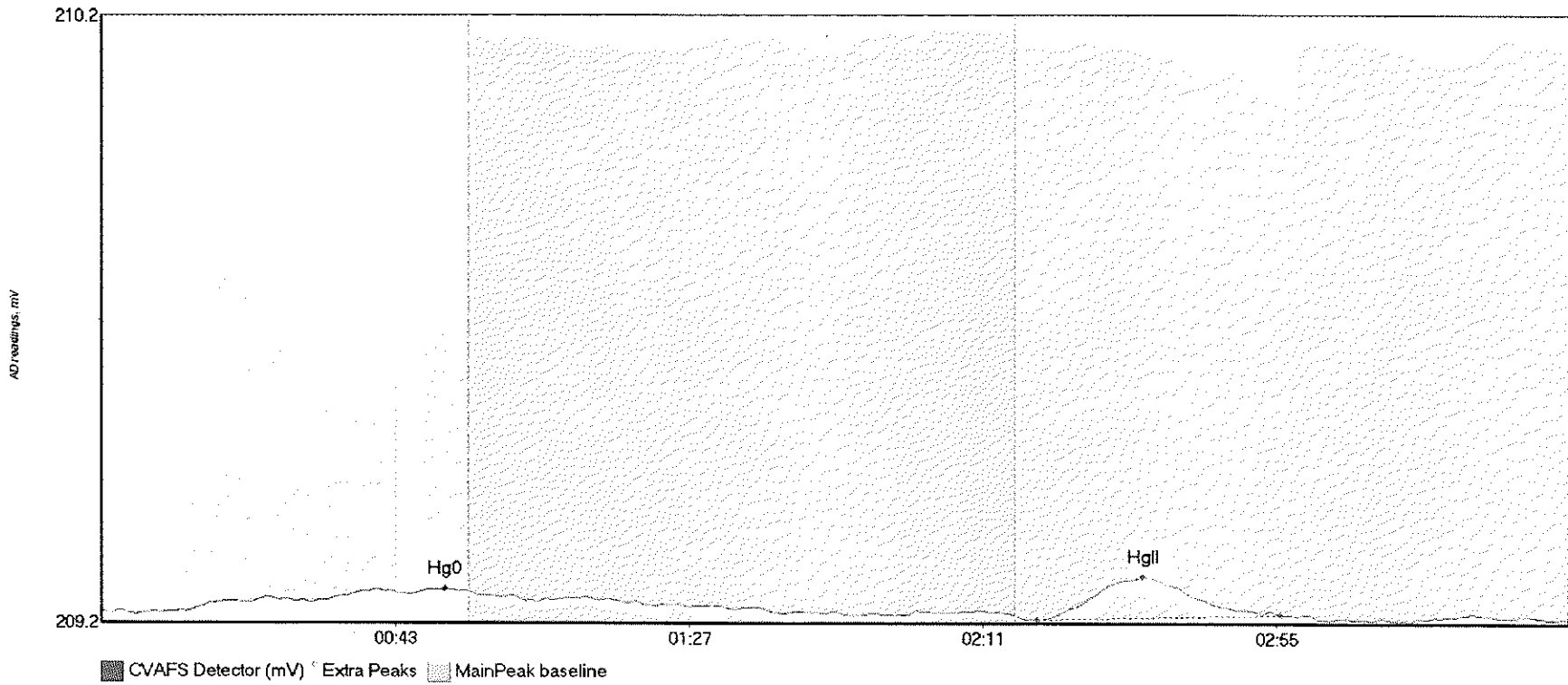
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
F707454-BS3 Hg0	7.491	11.2	54.2	209.25	209.28	42.5	0.042	OK	209.2496	0.00	0.00	
F707454-BS3 MeH	5.807	63.2	83.7	209.27	209.27	71.4	0.058	OK	209.2496	0.00	0.00	
F707454-BS3 HgI	7.891	142.7	174.4	209.25	209.25	153.4	0.053	OK	209.2496	0.00	0.00	

#51: F707454-BS4



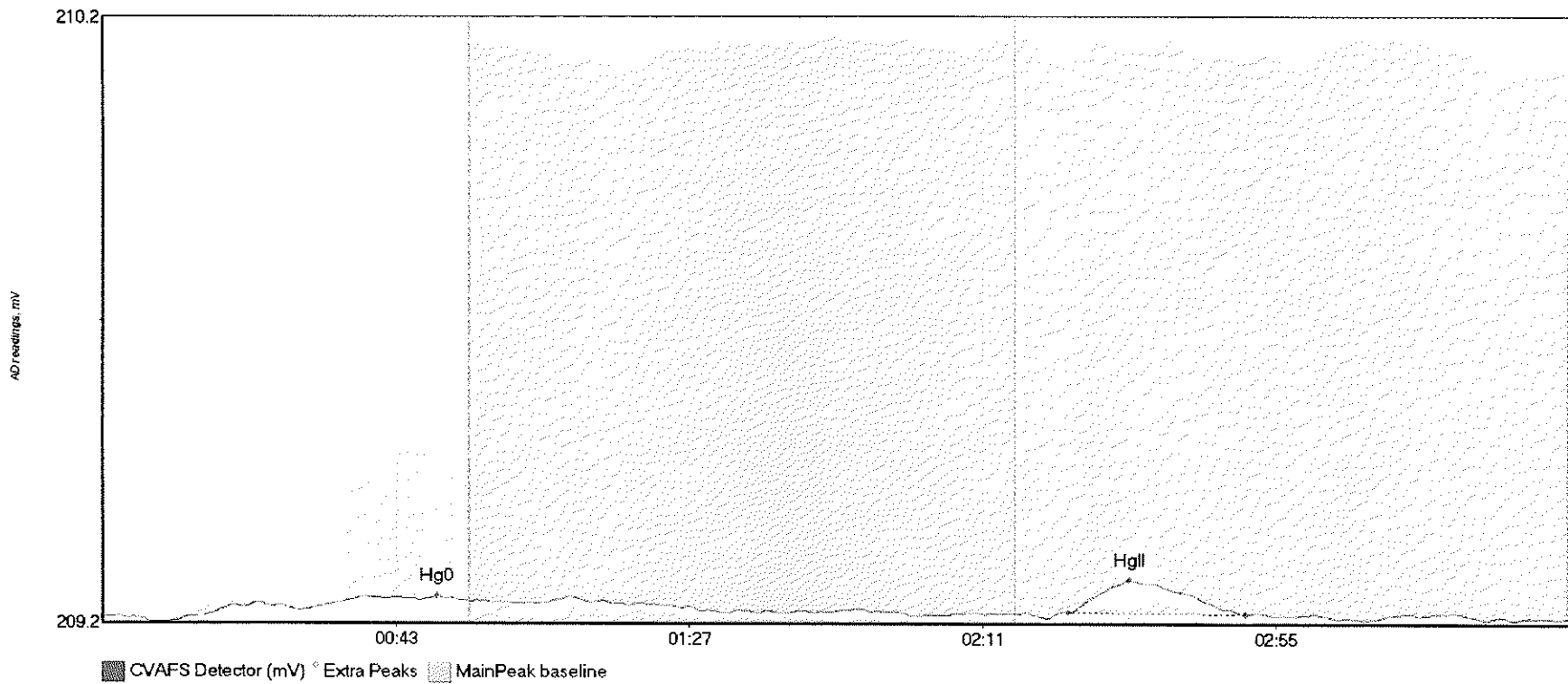
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
F707454-BS4 Hg0	7.267	14.6	54.9	209.26	209.28	40.8	0.040	OK	209.2524	0.00	0.00	
F707454-BS4 MeH	9.033	64.0	83.8	209.28	209.28	72.4	0.091	OK	209.2524	0.00	0.00	
F707454-BS4 HgI	11.294	138.6	177.4	209.25	209.25	154.3	0.067	OK	209.2524	0.00	0.00	

#52: 1707500-09RE1



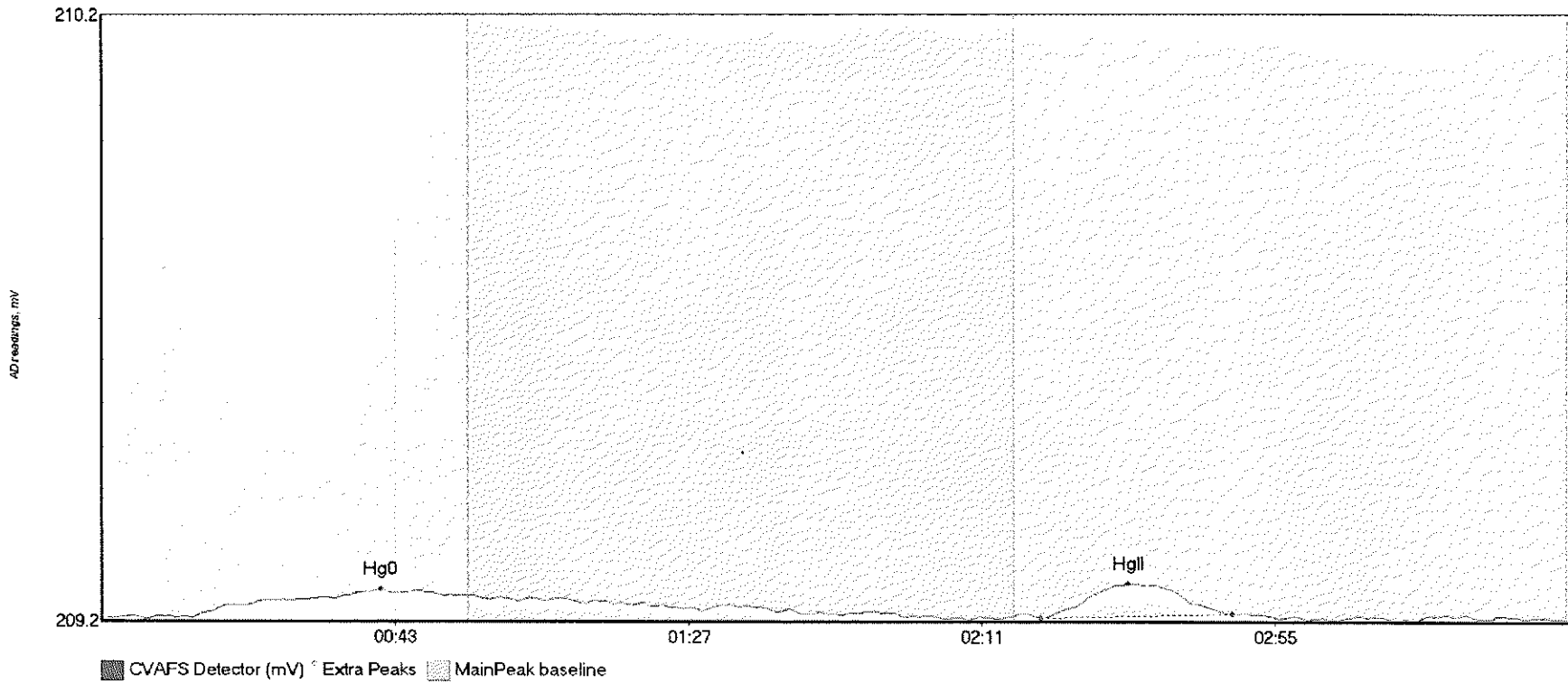
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1707500-09RE1 H	3.111	13.1	55.0	209.26	209.29	51.4	0.036	CT	209.2573	0.00	-0.01	
1707500-09RE1 H	11.229	140.2	176.6	209.24	209.25	156.1	0.071	OK	209.2573	0.00	-0.01	117

#53: F707531-BLK4



Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
F707531-BLK4 Hg	3.995	13.9	54.9	209.25	209.28	50.1	0.034	OK	209.2527	0.00	0.00	
F707531-BLK4 Hg	7.952	144.9	171.4	209.26	209.26	154.1	0.054	OK	209.2527	0.00	0.00	017

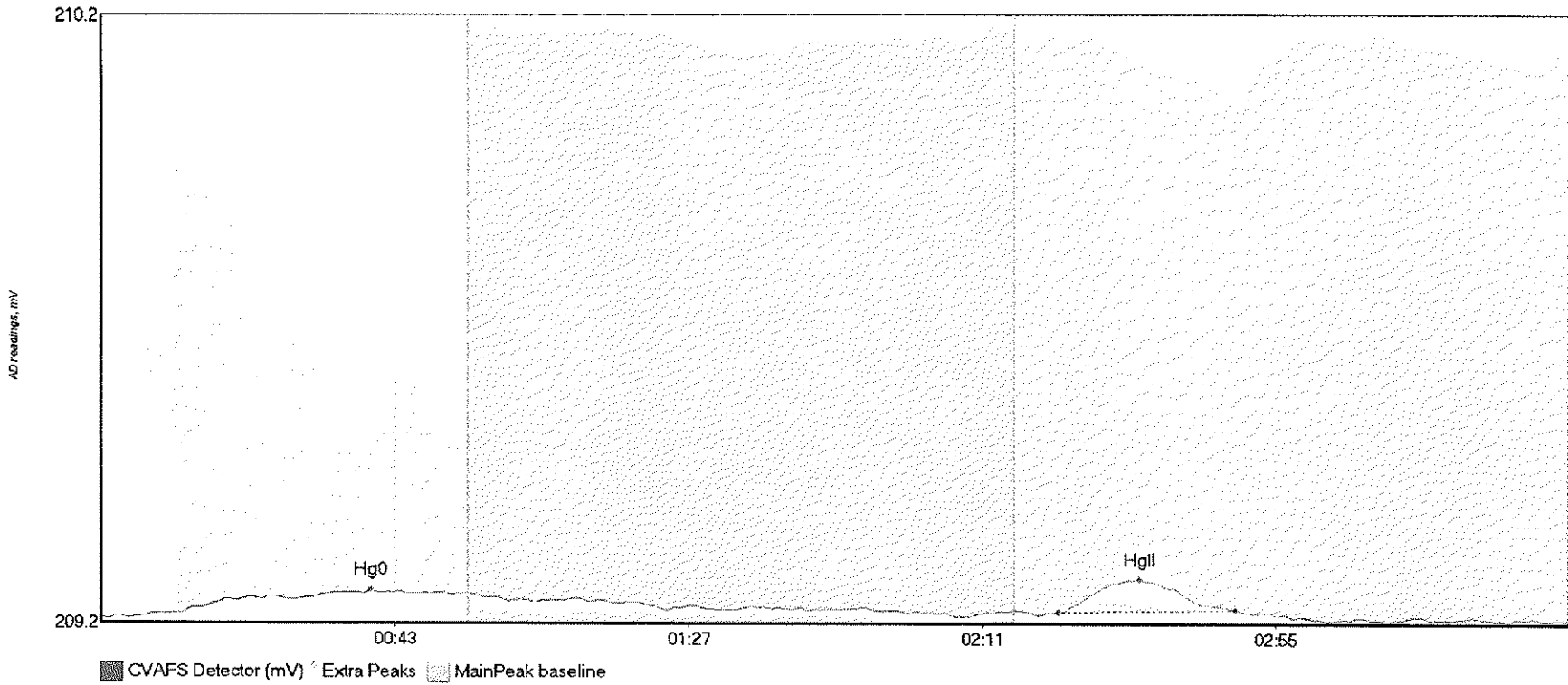
#54: F707531-BLK5



Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
F707531-BLK5 Hg	5.251	13.7	53.2	209.25	209.28	41.8	0.045	OK	209.2490	0.00	0.00	
F707531-BLK5 Hg	8.391	140.9	169.6	209.25	209.25	154.1	0.056	OK	209.2490	0.00	0.00	017

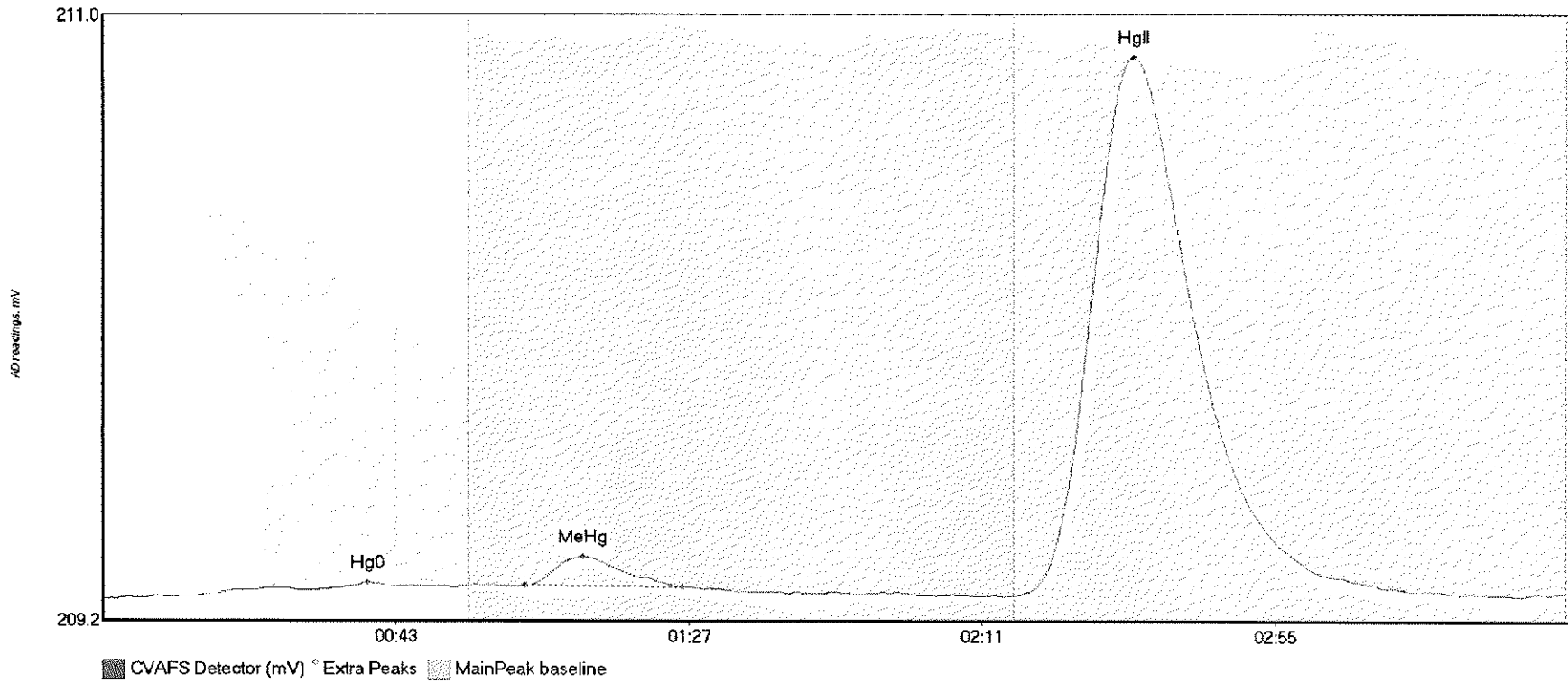


#55: F707531-BLK6



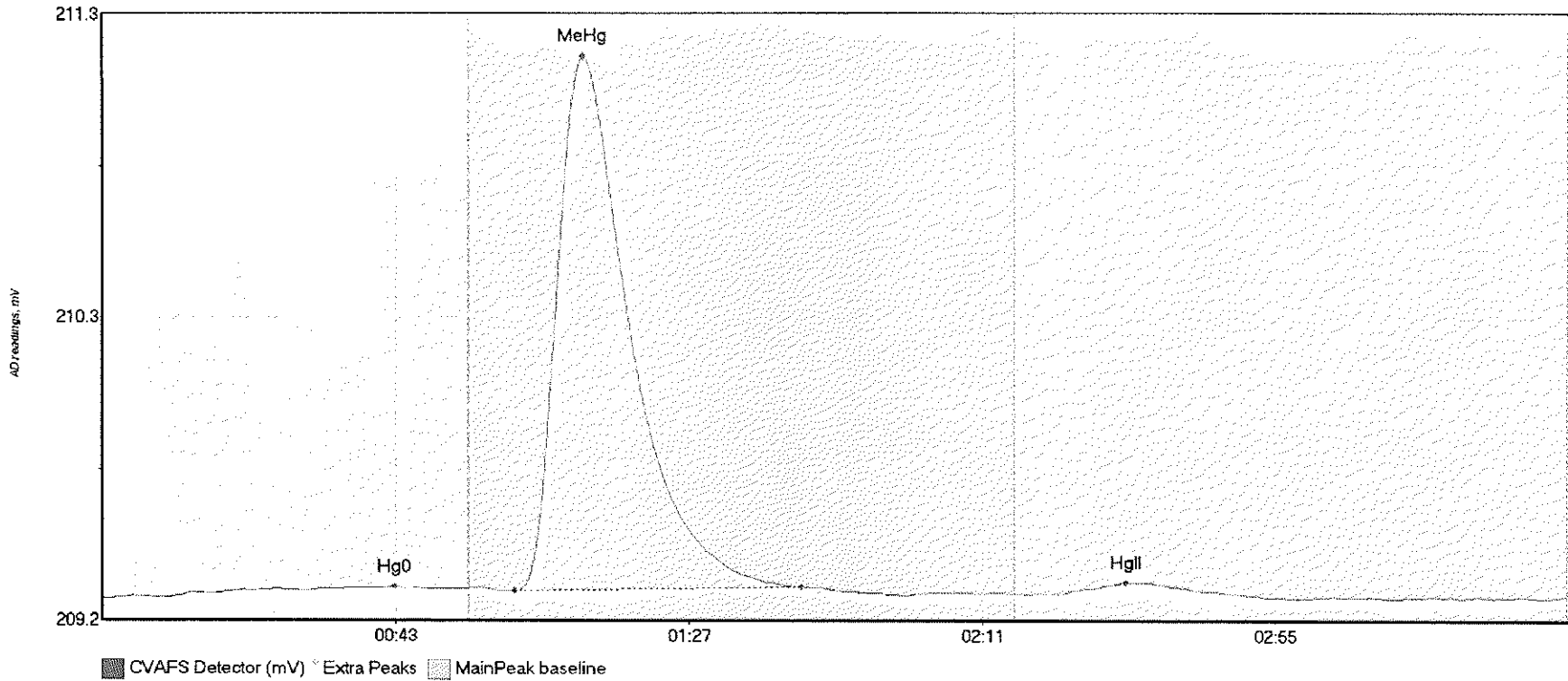
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
F707531-BLK6 Hg	4.726	5.9	52.3	209.24	209.28	40.4	0.043	OK	209.2417	0.00	0.00	
F707531-BLK6 Hg	7.583	143.4	170.0	209.25	209.25	155.6	0.056	OK	209.2417	0.00	0.00	317

#56: F707531-DUP2



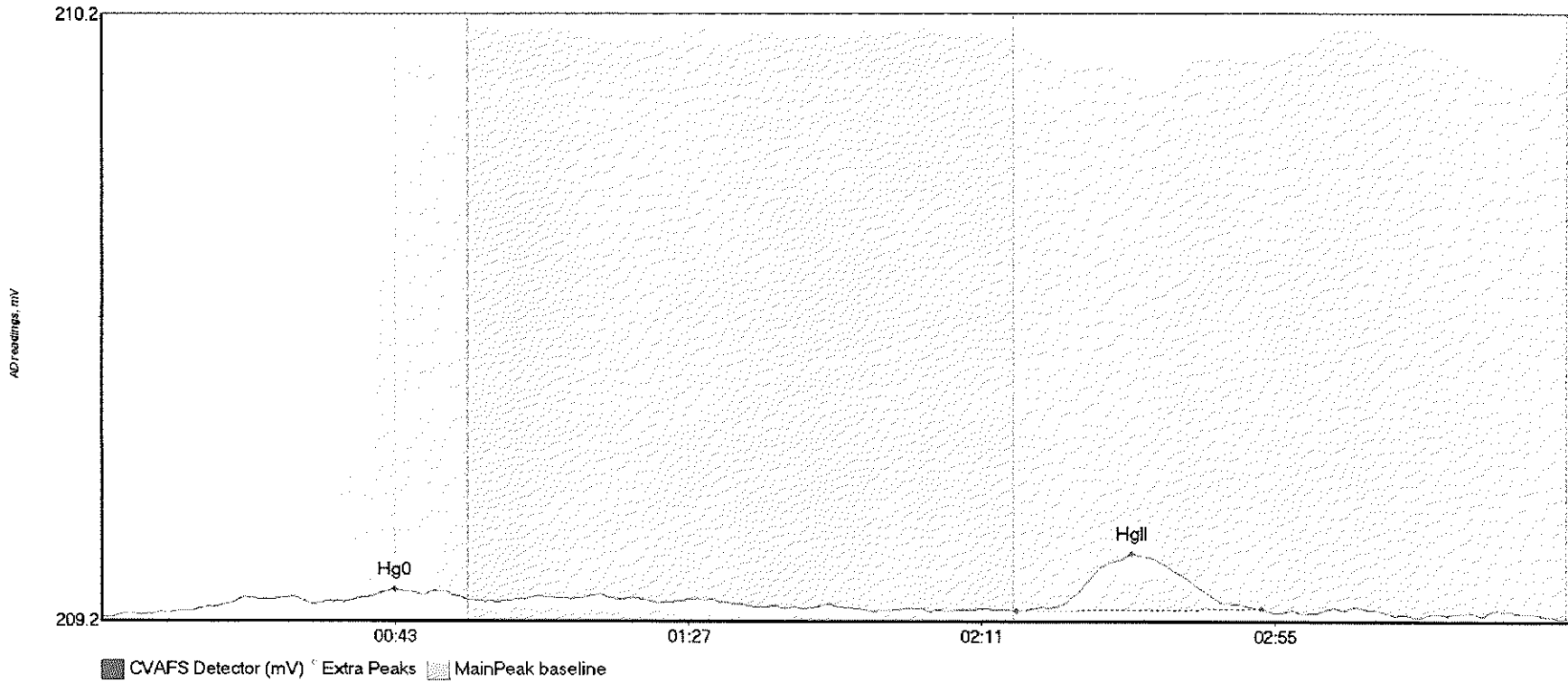
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
F707531-DUP2 Hg	3.920	6.4	52.7	209.24	209.28	39.8	0.044	OK	209.2407	0.00	0.02	
F707531-DUP2 Me	10.249	63.5	87.0	209.28	209.27	72.1	0.088	OK	209.2407	0.00	0.02	
F707531-DUP2 Hg	290.636	137.0	203.8	209.25	209.25	154.9	1.603	OK	209.2407	0.00	0.02	

#57: SEQ-CCV4



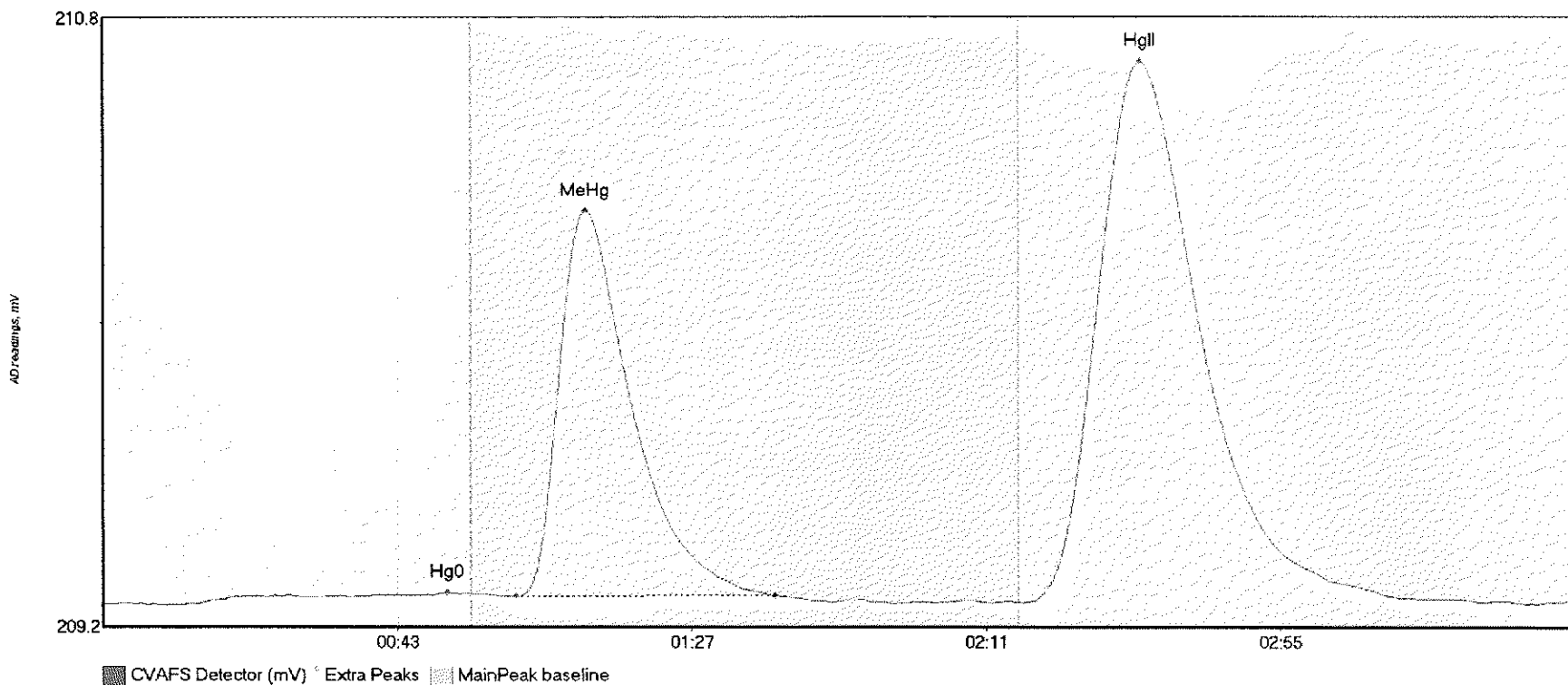
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
SEQ-CCV4 Hg0	4.824	10.3	52.5	209.25	209.28	43.8	0.036	OK	209.2493	0.00	0.01	
SEQ-CCV4 MeHg	241.469	61.8	104.9	209.27	209.29	72.2	1.916	OK	209.2493	0.00	0.01	
SEQ-CCV4 HgII	5.743	143.5	169.7	209.26	209.26	153.6	0.041	OK	209.2493	0.00	0.01	

#58: SEQ-CCB4



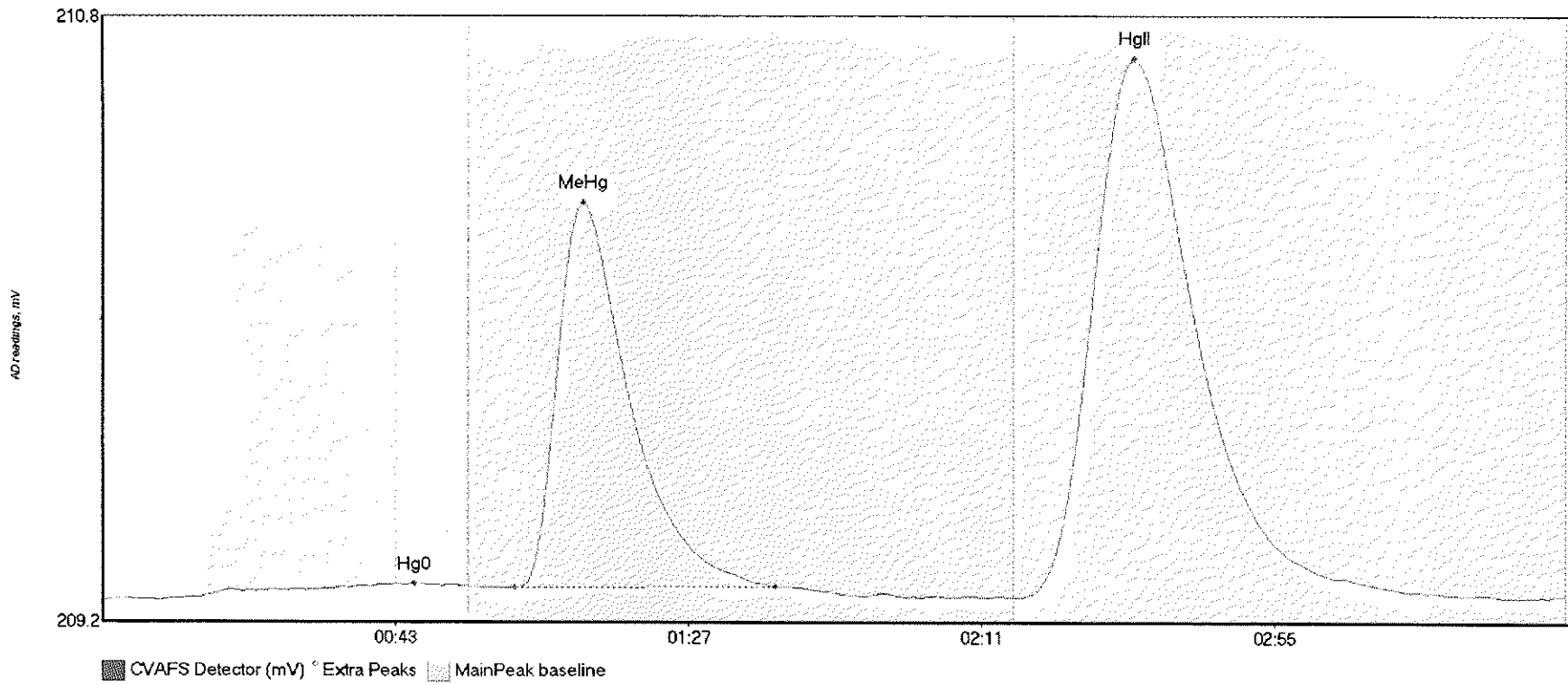
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
SEQ-CCB4 Hg0	5.703	5.9	55.0	209.25	209.28	44.0	0.042	CT	209.2469	0.00	0.00	017
SEQ-CCB4 HgII	14.953	137.3	174.1	209.26	209.26	154.6	0.095	OK	209.2469	0.00	0.00	

#59: F707531-MS2



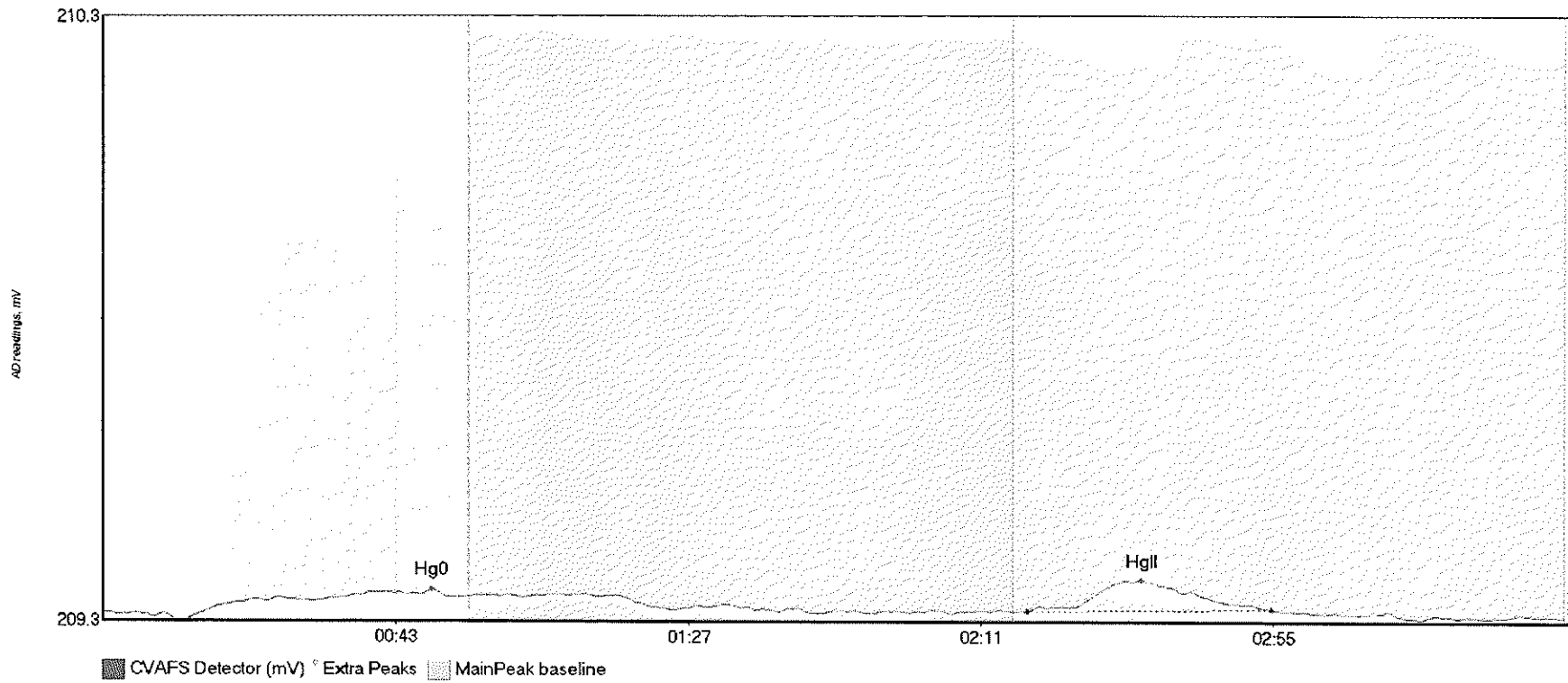
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
F707531-MS2 Hg0	2.535	13.6	53.3	209.26	209.28	51.4	0.030	OK	209.2550	0.00	0.01	
F707531-MS2 MeH	131.073	61.7	100.4	209.28	209.28	72.1	1.045	OK	209.2550	0.00	0.01	
F707531-MS2 HgI	264.158	137.6	206.0	209.26	209.26	155.0	1.466	OK	209.2550	0.00	0.01	

#60: F707531-MSD2



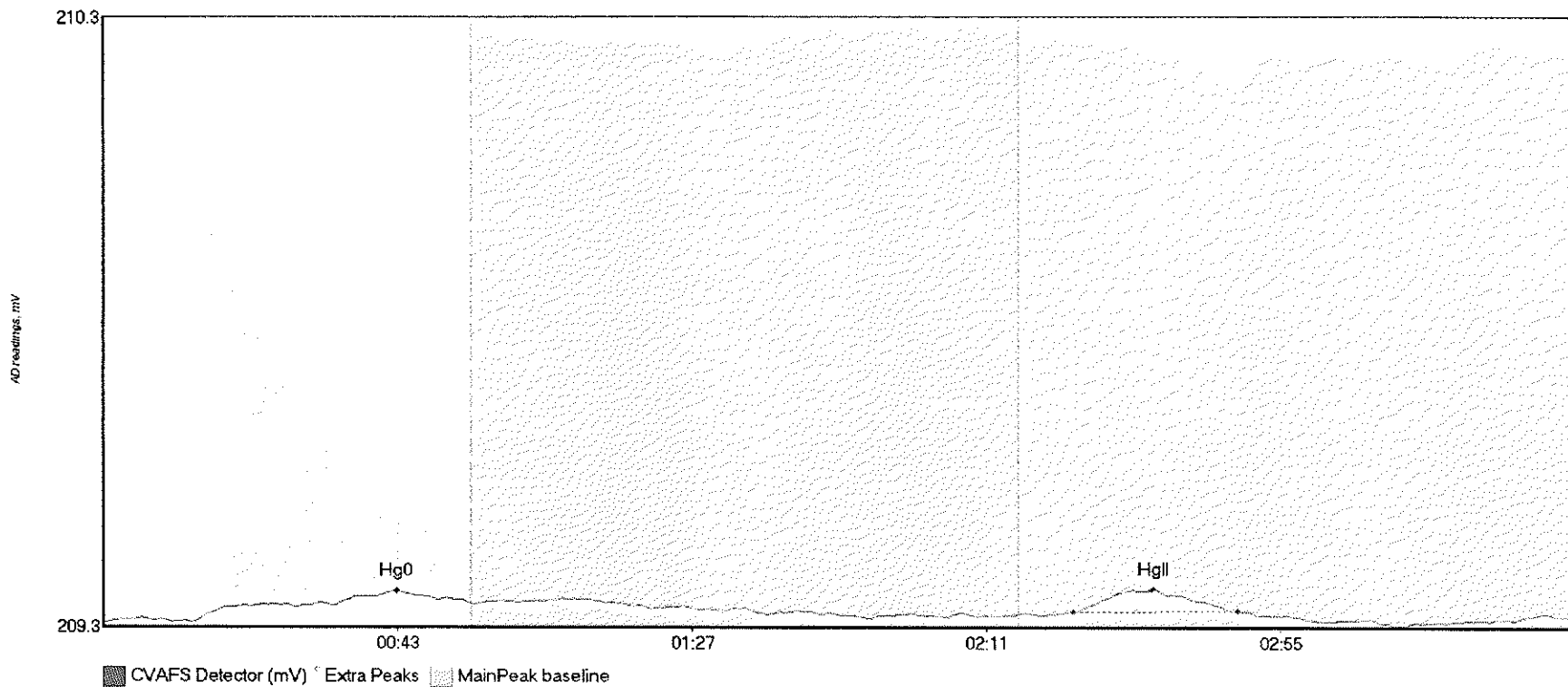
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
F707531-MSD2 Hg	4.344	11.4	55.0	209.25	209.29	46.8	0.040	CT	209.2499	0.00	0.01	
F707531-MSD2 Me	131.887	62.0	101.0	209.28	209.29	72.3	1.052	OK	209.2499	0.00	0.01	
F707531-MSD2 Hg	265.370	137.9	204.4	209.26	209.26	155.1	1.469	OK	209.2499	0.00	0.01	

#61: F707530-BLK1



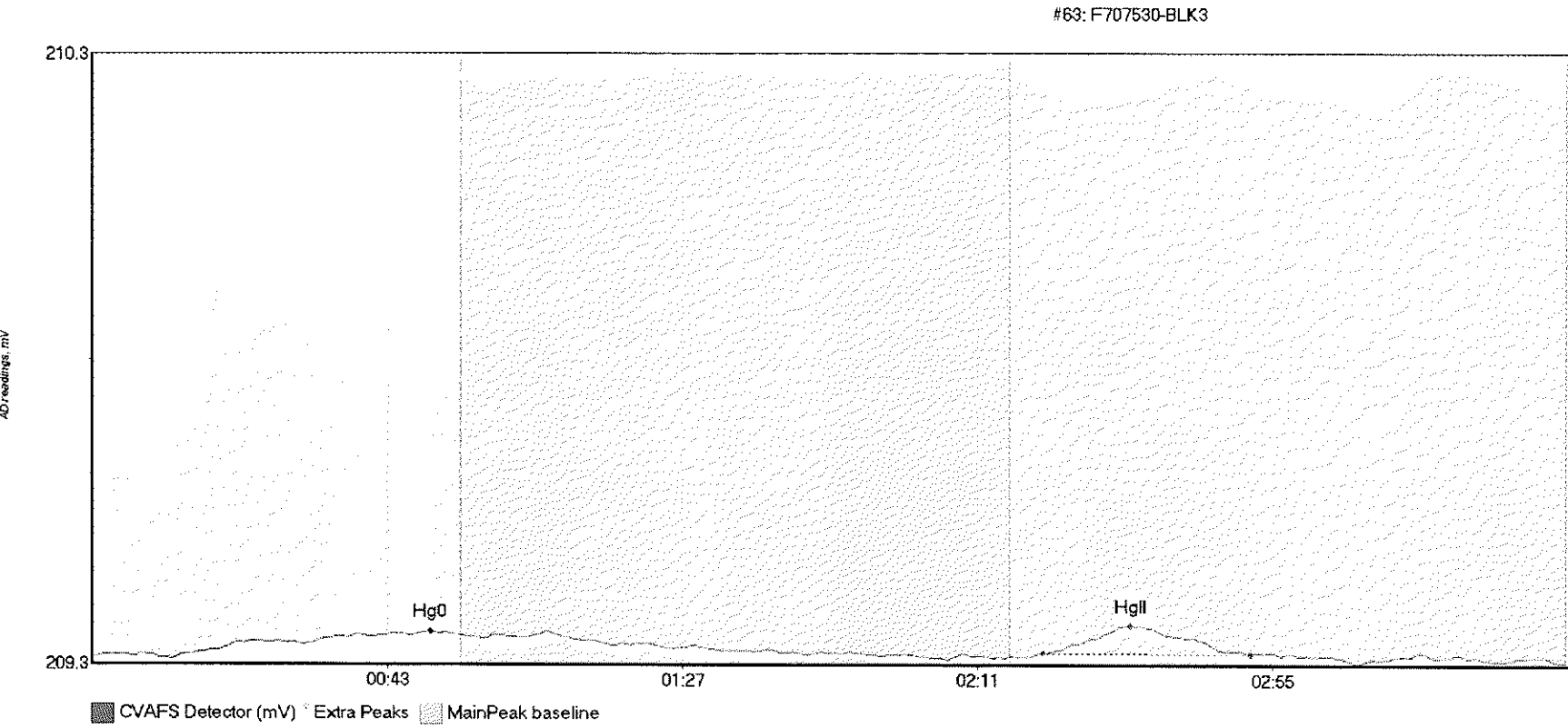
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
F707530-BLK1 Hg	6.055	12.5	53.4	209.25	209.29	49.4	0.048	OK	209.2647	0.00	-0.01	
F707530-BLK1 Hg	8.393	139.0	175.7	209.27	209.27	156.2	0.052	OK	209.2647	0.00	-0.01	017

#62: F707530-BLK2



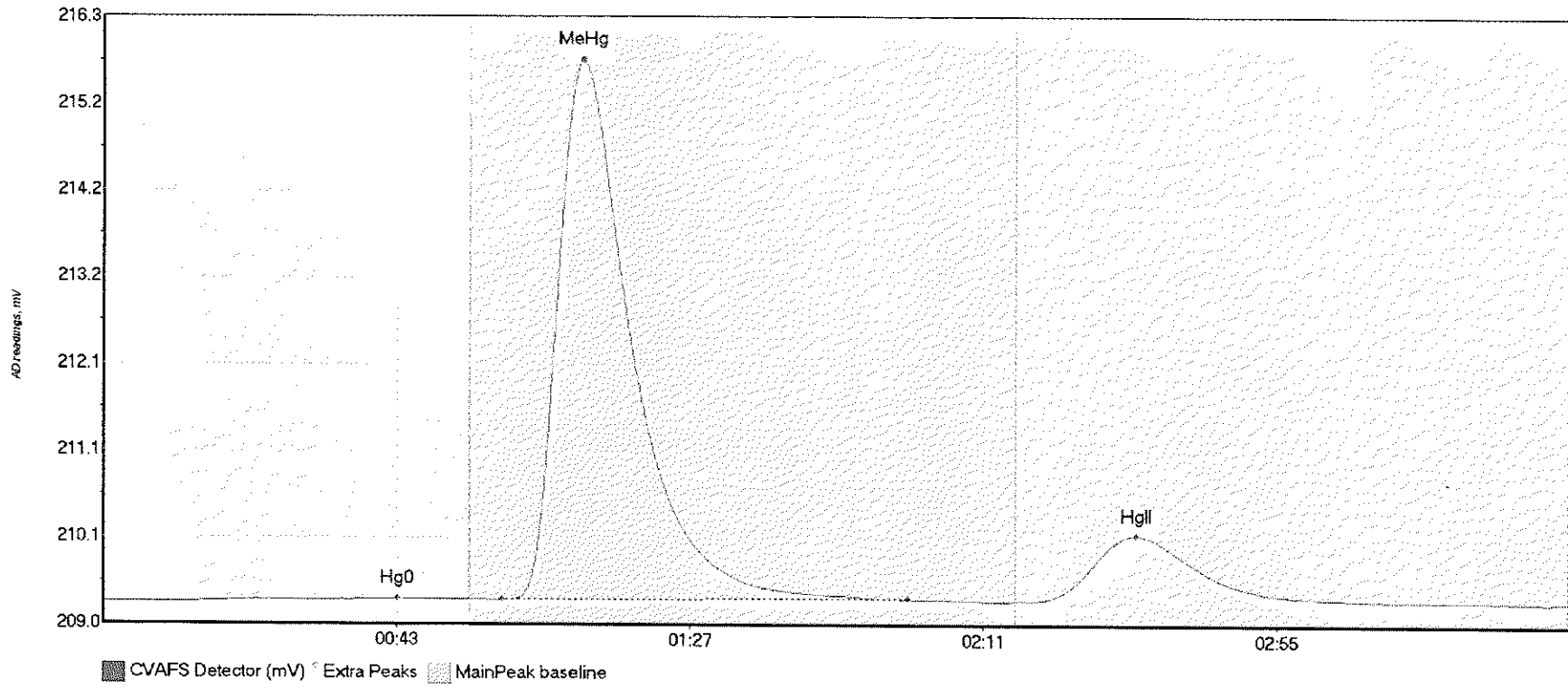
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
F707530-BLK2 Hg	7.326	13.3	55.0	209.26	209.29	43.9	0.051	CT	209.2612	0.00	0.01	
F707530-BLK2 Hg	5.199	145.2	169.6	209.28	209.28	157.1	0.038	OK	209.2612	0.00	0.01	017





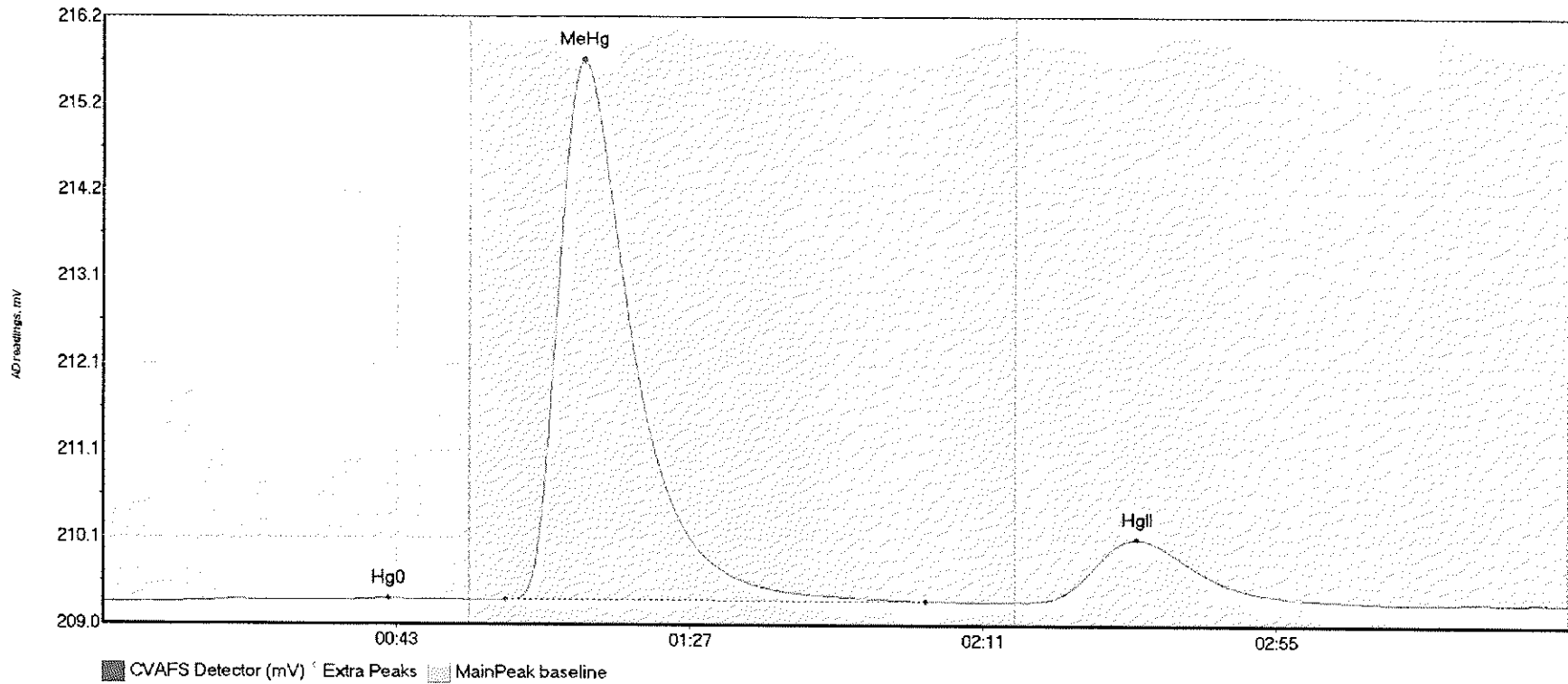
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
F707530-BLK3 Hg	3.168	14.5	54.9	209.28	209.31	50.4	0.037	OK	209.2725	0.00	-0.01	
F707530-BLK3 Hg	7.078	141.9	172.7	209.28	209.28	154.9	0.046	OK	209.2725	0.00	-0.01	017

#64: F707530-BS1



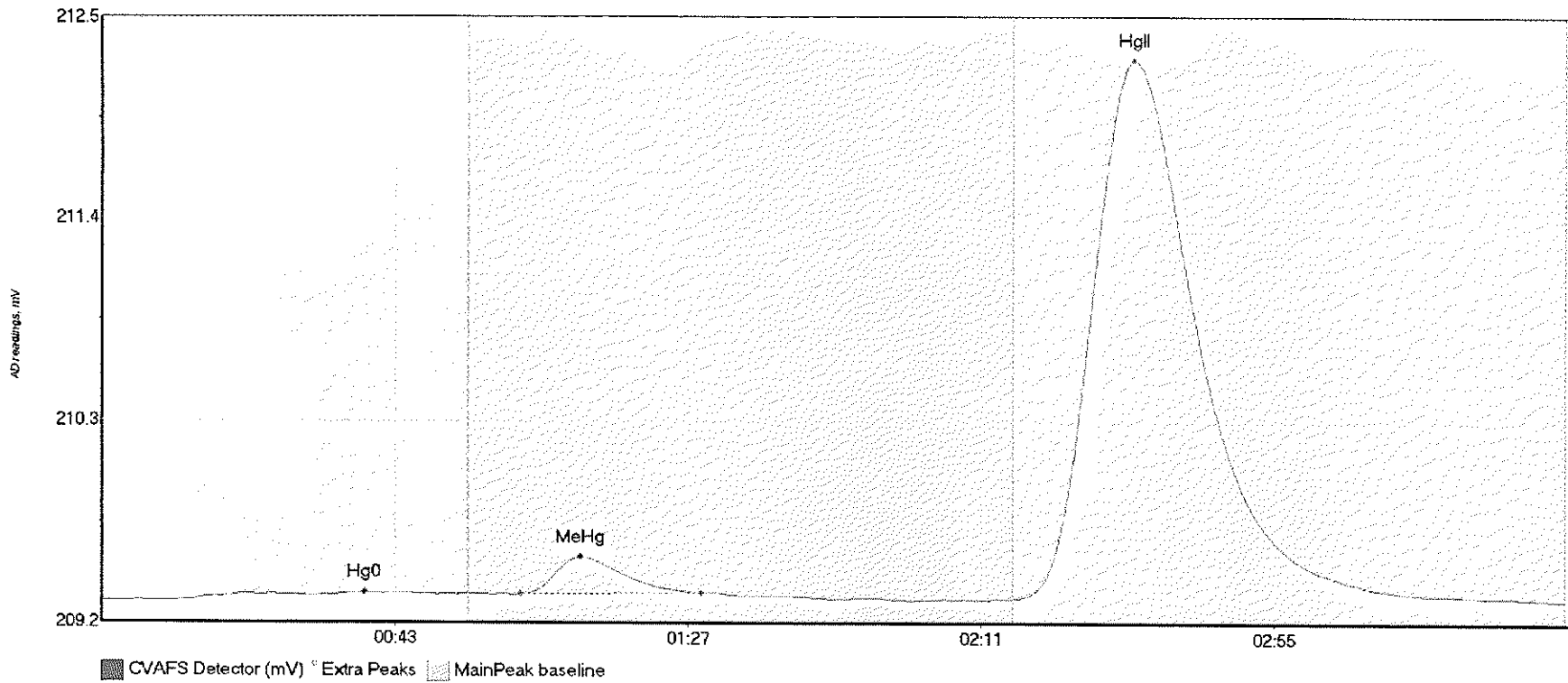
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
F707530-BS1 Hg0	3.588	13.2	55.0	209.28	209.31	44.1	0.036	CT	209.2783	0.00	0.01	
F707530-BS1 MeH	829.304	59.9	120.7	209.31	209.32	72.0	6.452	OK	209.2783	0.00	0.01	
F707530-BS1 HgI	139.647	138.7	197.3	209.30	209.30	155.1	0.785	OK	209.2783	0.00	0.01	

#65: F707530-BSD1



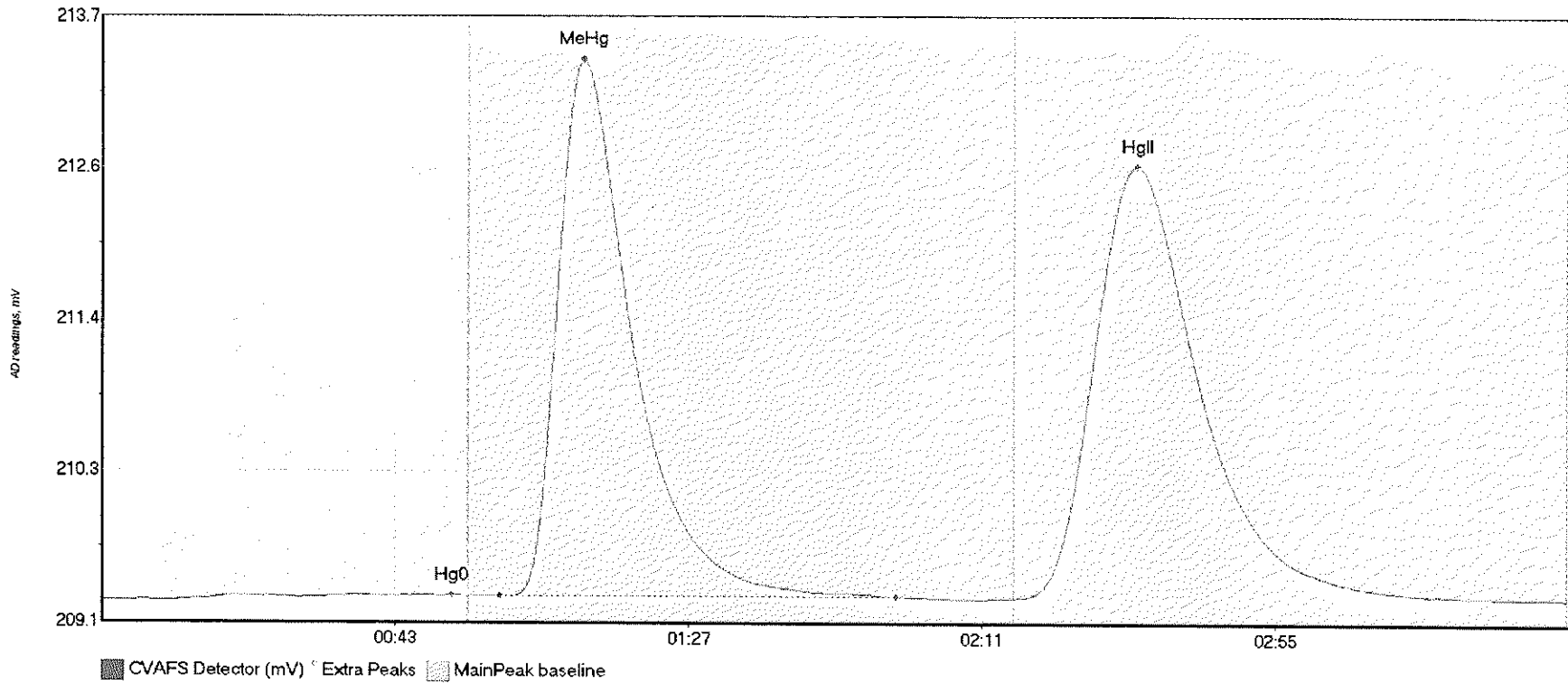
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
F707530-BSD1 Hg	6.972	9.6	55.0	209.29	209.31	42.8	0.044	CT	209.2839	0.00	0.01	
F707530-BSD1 Me	833.050	60.4	123.5	209.32	209.31	72.2	6.403	OK	209.2839	0.00	0.01	
F707530-BSD1 Hg	133.602	138.6	192.2	209.30	209.29	155.2	0.745	OK	209.2839	0.00	0.01	

#66: F707530-DUP1



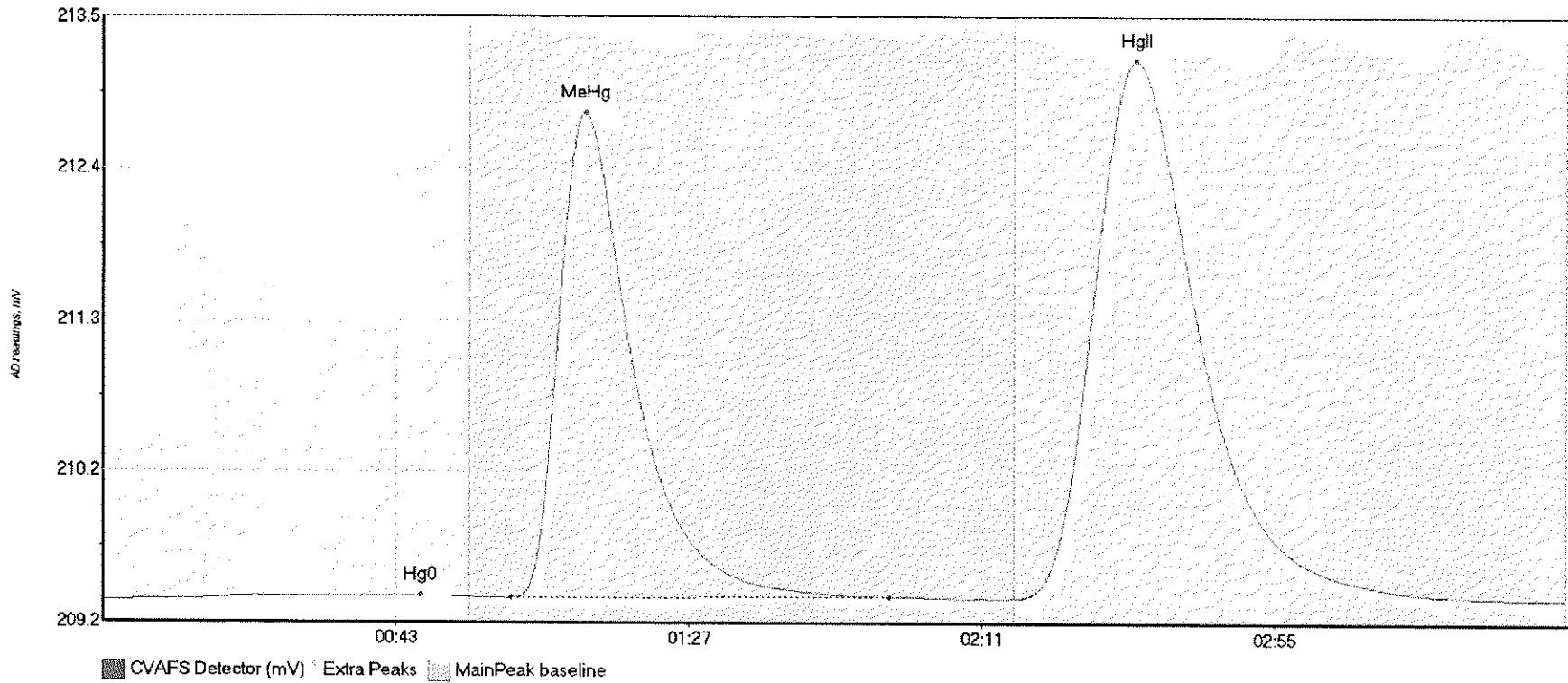
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
F707530-DUP1 Hg	5.248	13.3	53.3	209.29	209.32	39.5	0.039	OK	209.2863	0.00	0.00	
F707530-DUP1 Me	23.685	62.9	90.0	209.32	209.32	71.9	0.208	OK	209.2863	0.00	0.00	
F707530-DUP1 Hg	545.477	136.8	212.9	209.30	209.30	155.1	2.984	OK	209.2863	0.00	0.00	

#67: F707530-MS1



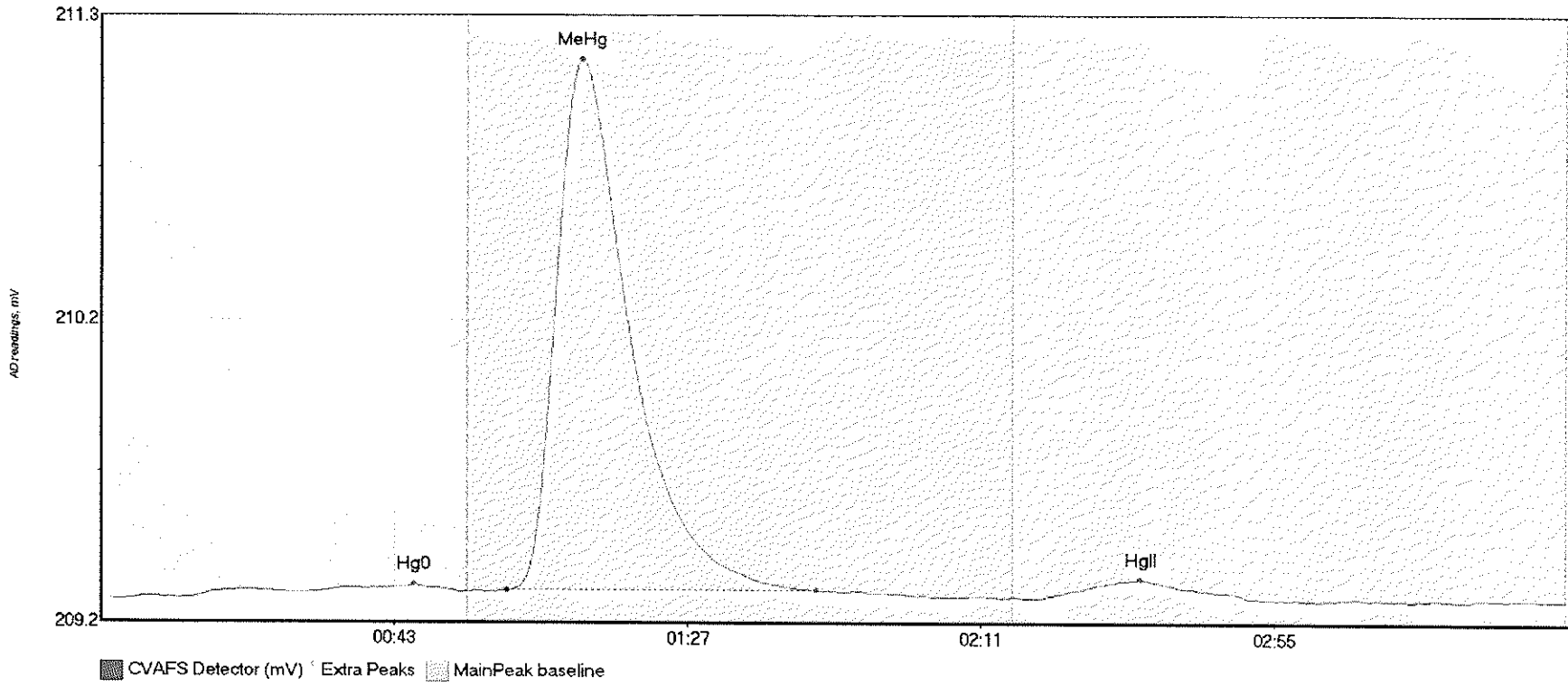
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
F707530-MS1 Hg0	6.122	11.1	54.9	209.30	209.33	52.6	0.040	OK	209.2928	0.00	0.03	
F707530-MS1 MeH	525.871	59.7	119.1	209.33	209.33	72.3	4.049	OK	209.2928	0.00	0.03	
F707530-MS1 HgI	594.816	138.0	209.9	209.32	209.32	155.3	3.258	OK	209.2928	0.00	0.03	

#68: F707530-MSD1



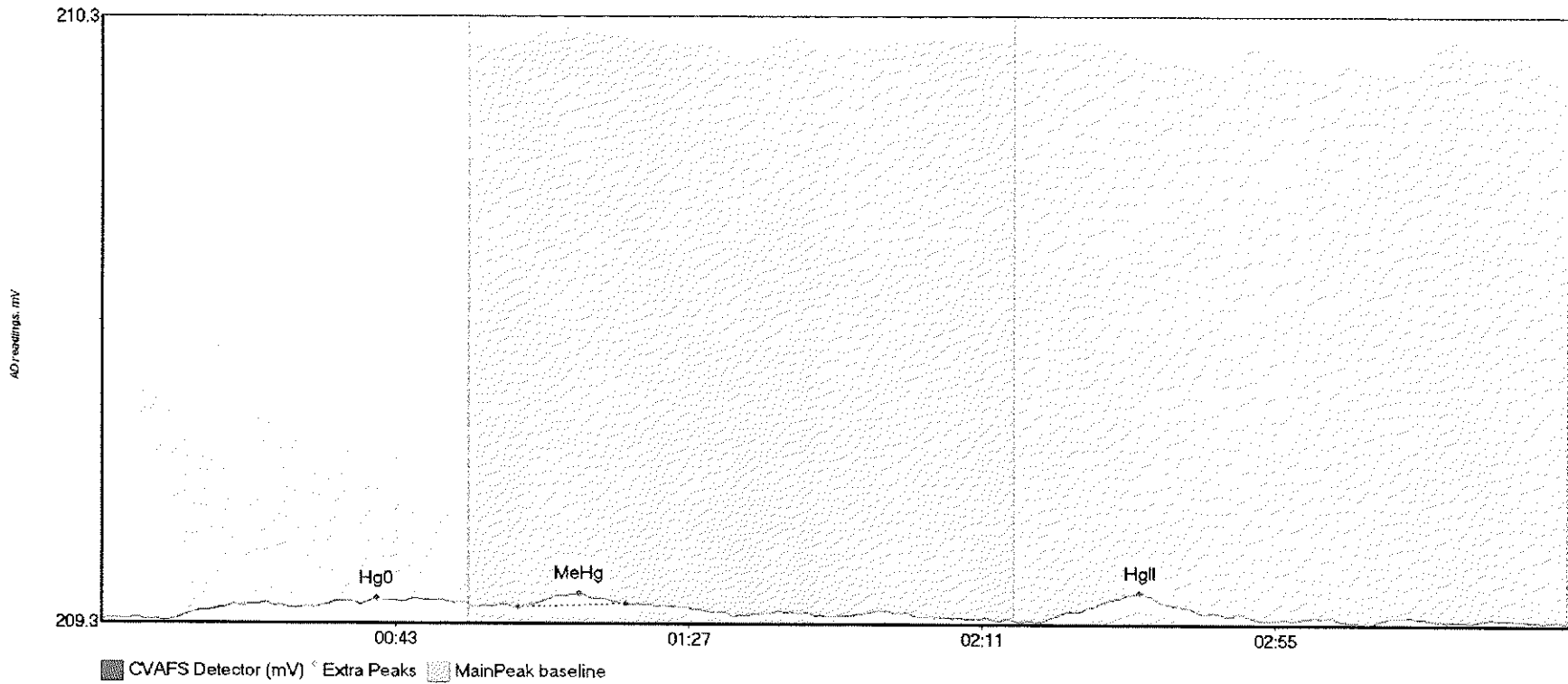
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BiDev	BlShift	Comment
F707530-MSD1 Hg	5.588	12.4	55.0	209.32	209.34	47.7	0.033	CT	209.3126	0.00	0.02	
F707530-MSD1 Me	455.811	61.3	118.2	209.33	209.34	72.4	3.504	OK	209.3126	0.00	0.02	
F707530-MSD1 Hg	715.659	136.8	211.3	209.33	209.33	155.2	3.887	OK	209.3126	0.00	0.02	

#69: SEQ-CCV5



Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
SEQ-CCV5 Hg0	6.084	13.7	53.9	209.33	209.34	47.0	0.040	OK	209.3207	0.00	0.00	
SEQ-CCV5 MeHg	225.112	60.8	107.3	209.35	209.35	72.2	1.764	OK	209.3207	0.00	0.00	
SEQ-CCV5 HgII	10.391	140.8	172.5	209.32	209.32	156.1	0.063	OK	209.3207	0.00	0.00	

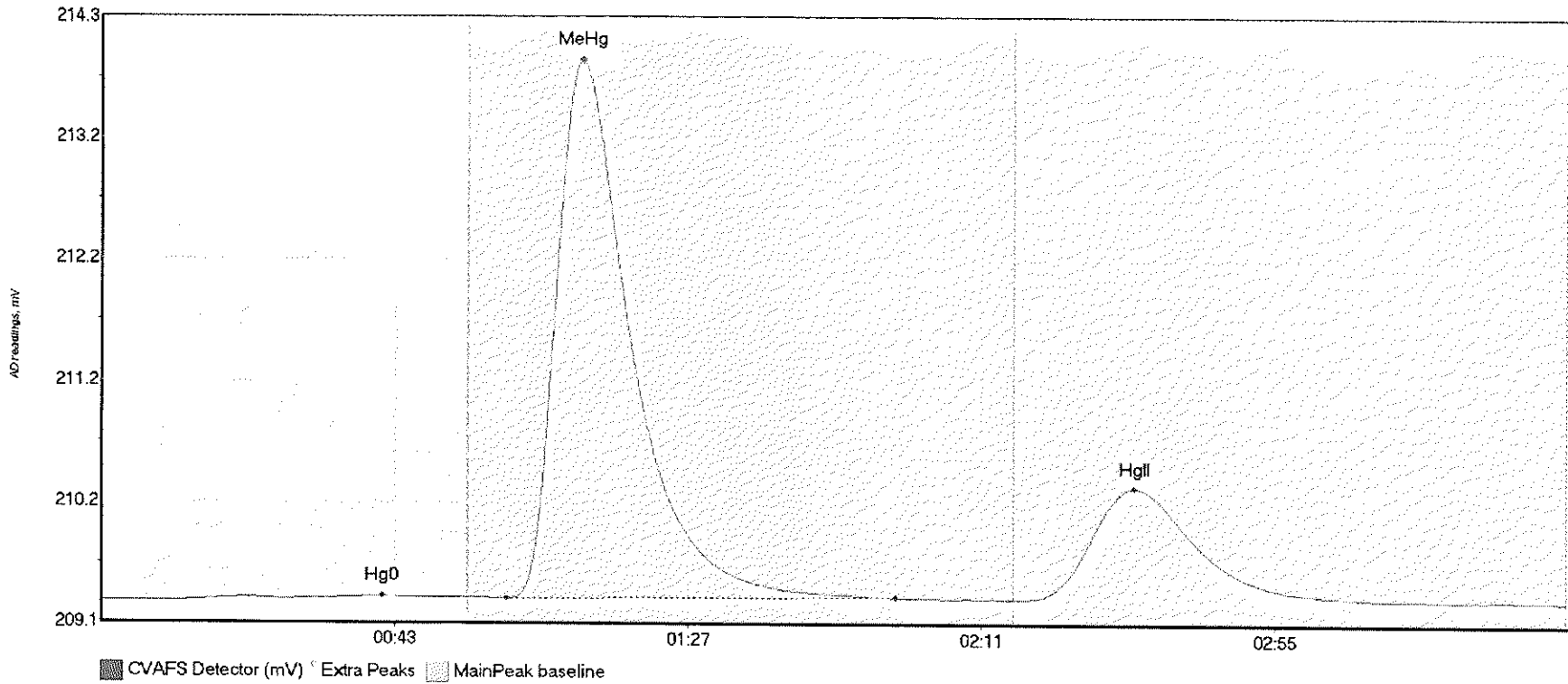
#70: SEQ-CCB5



Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
SEQ-CCB5 Hg0	5.099	10.5	55.0	209.32	209.34	41.2	0.035	CT	209.3175	0.00	0.00	
SEQ-CCB5 MeHg	1.695	62.5	78.6	209.34	209.34	71.6	0.022	OK	209.3175	0.00	0.00	
SEQ-CCB5 HgII	6.577	140.7	173.1	209.32	209.32	155.7	0.047	OK	209.3175	0.00	0.00	

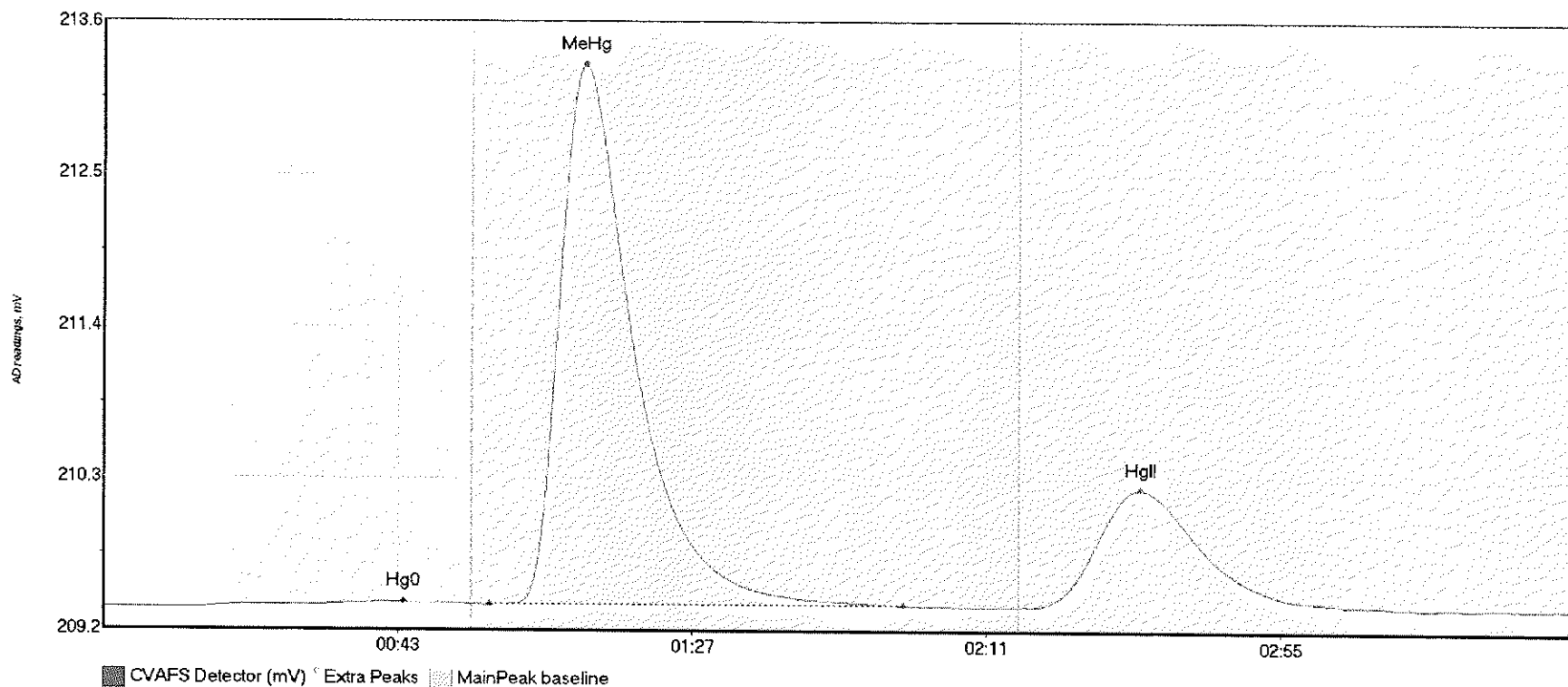


#71: F707530-MS2



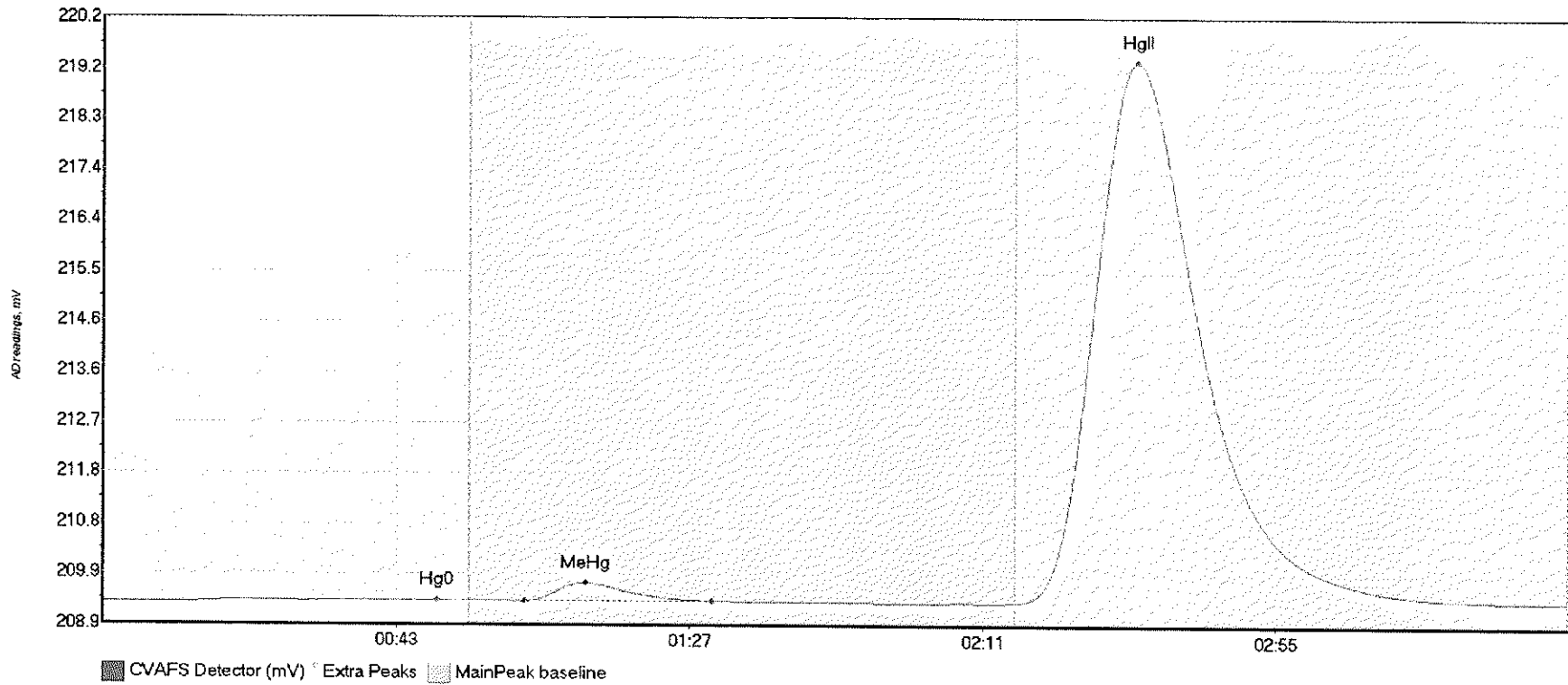
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BiDev	BlShift	Comment
F707530-MS2 Hg0	4.541	11.7	53.1	209.32	209.35	42.2	0.042	OK	209.3153	0.00	0.02	
F707530-MS2 MeH	592.588	60.8	119.2	209.34	209.35	72.1	4.556	OK	209.3153	0.00	0.02	
F707530-MS2 HgI	168.658	137.9	191.5	209.34	209.34	155.0	0.951	OK	209.3153	0.00	0.02	

#72: F707530-MSD2



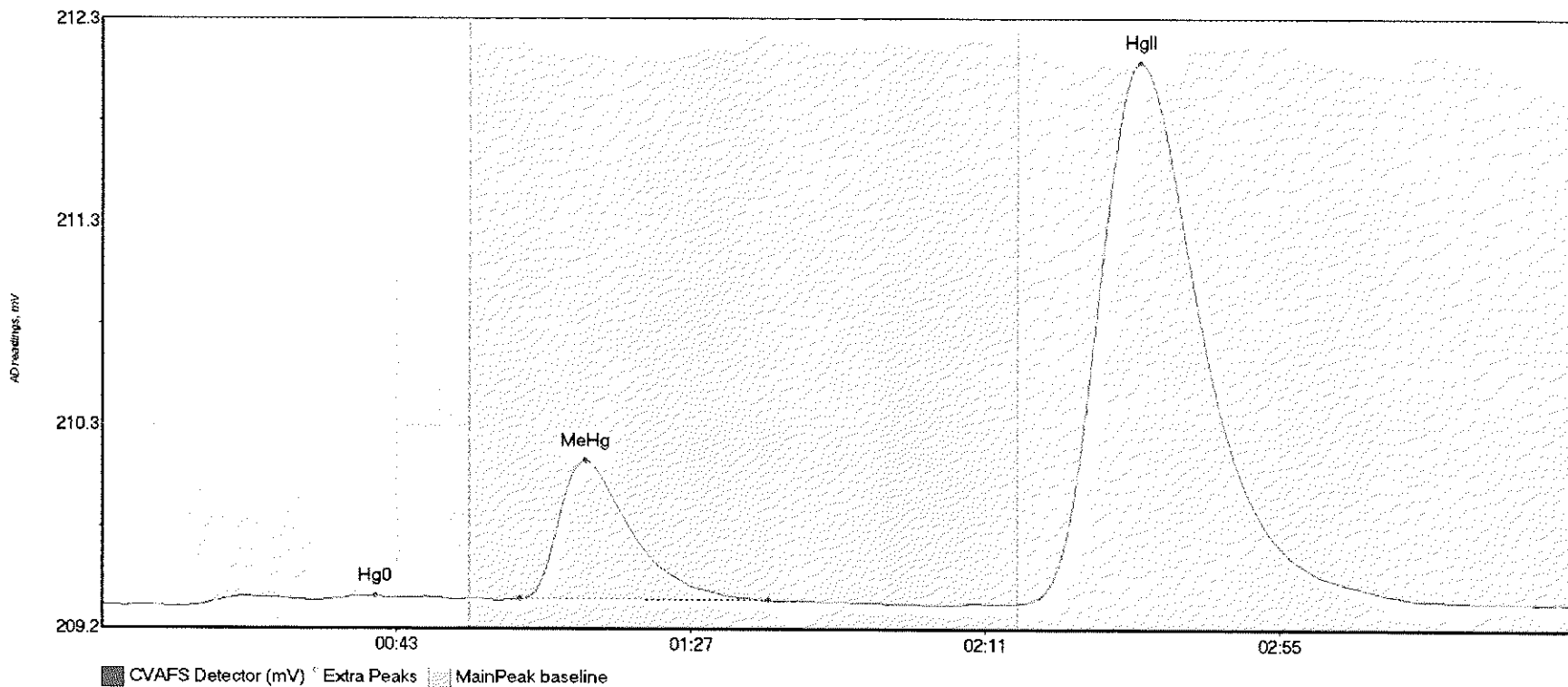
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
F707530-MSD2 Hg	5.759	14.7	55.0	209.34	209.36	44.8	0.041	CT	209.3397	0.00	0.01	
F707530-MSD2 Me	507.416	57.7	119.8	209.36	209.36	72.0	3.930	OK	209.3397	0.00	0.01	
F707530-MSD2 Hg	153.091	138.9	194.4	209.35	209.35	155.1	0.860	OK	209.3397	0.00	0.01	

#73: 1707619-07



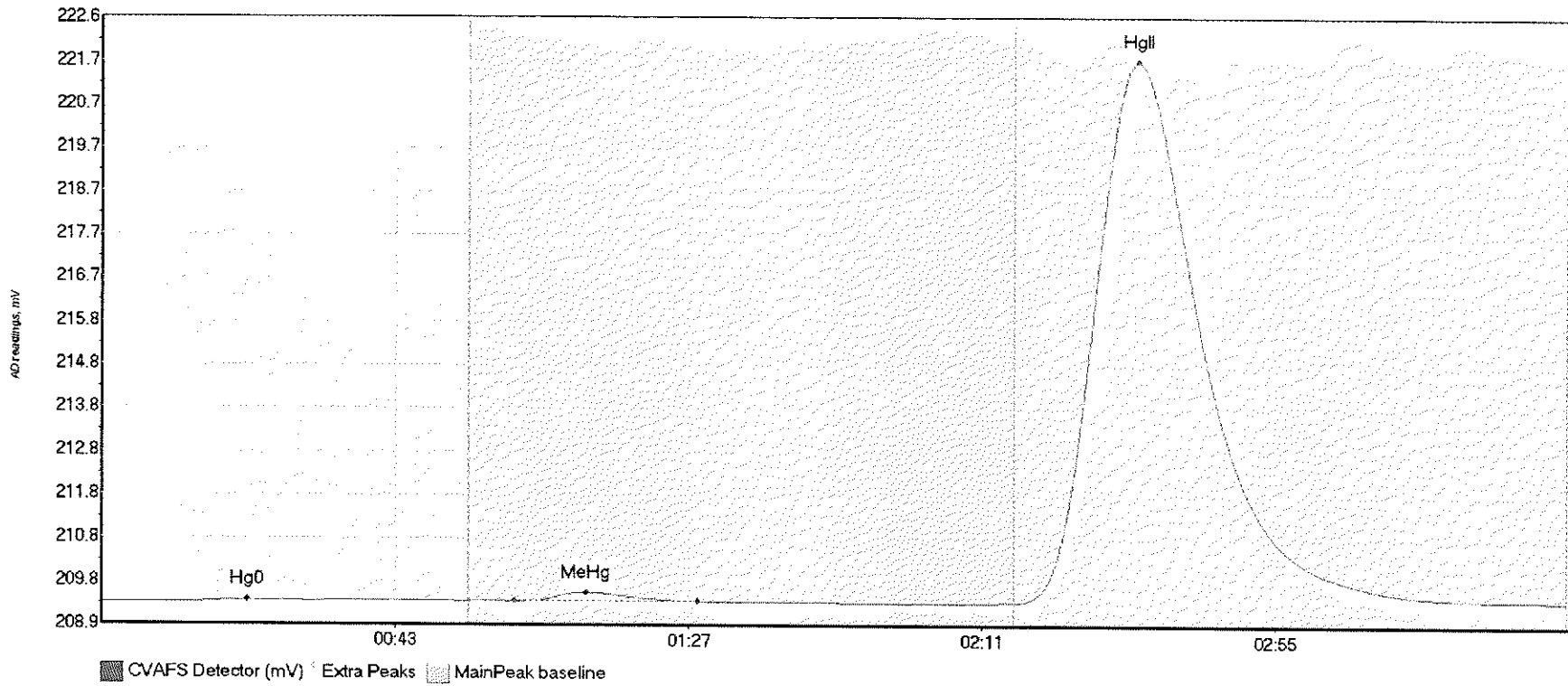
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1707619-07 Hg0	5.292	11.7	52.9	209.35	209.39	50.2	0.044	OK	209.3441	0.00	0.05	
1707619-07 MeHg	39.507	63.3	91.5	209.38	209.38	72.4	0.337	OK	209.3441	0.00	0.05	
1707619-07 HgII	1845.587	136.8	219.7	209.37	209.40	155.2	10.014	OK	209.3441	0.00	0.05	

#74: 1707619-08



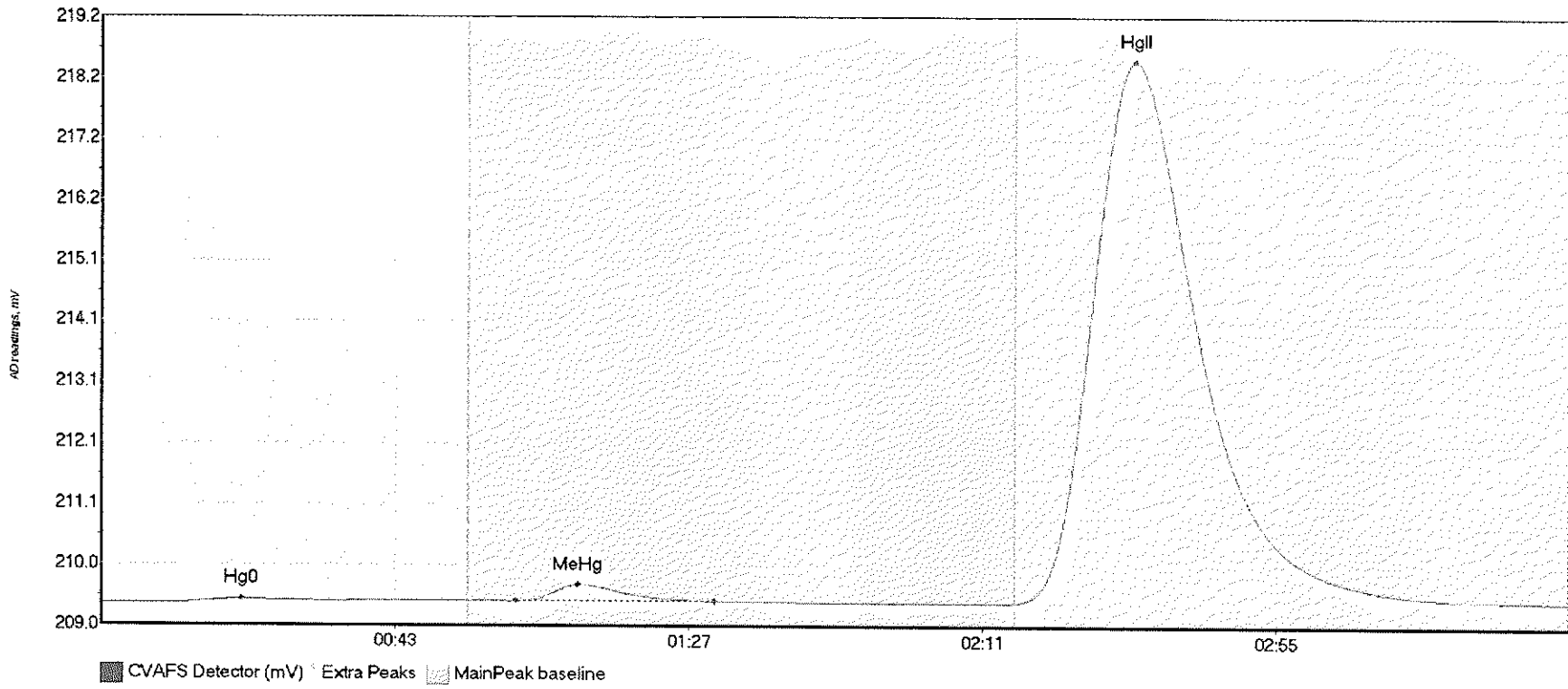
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1707619-08 Hg0	7.250	14.0	53.0	209.36	209.39	40.9	0.044	OK	209.3579	0.00	0.01	
1707619-08 MeHg	86.422	62.4	99.6	209.39	209.38	72.3	0.688	OK	209.3579	0.00	0.01	
1707619-08 HgII	487.150	137.6	213.4	209.37	209.38	155.2	2.681	OK	209.3579	0.00	0.01	

#75: 1707619-09



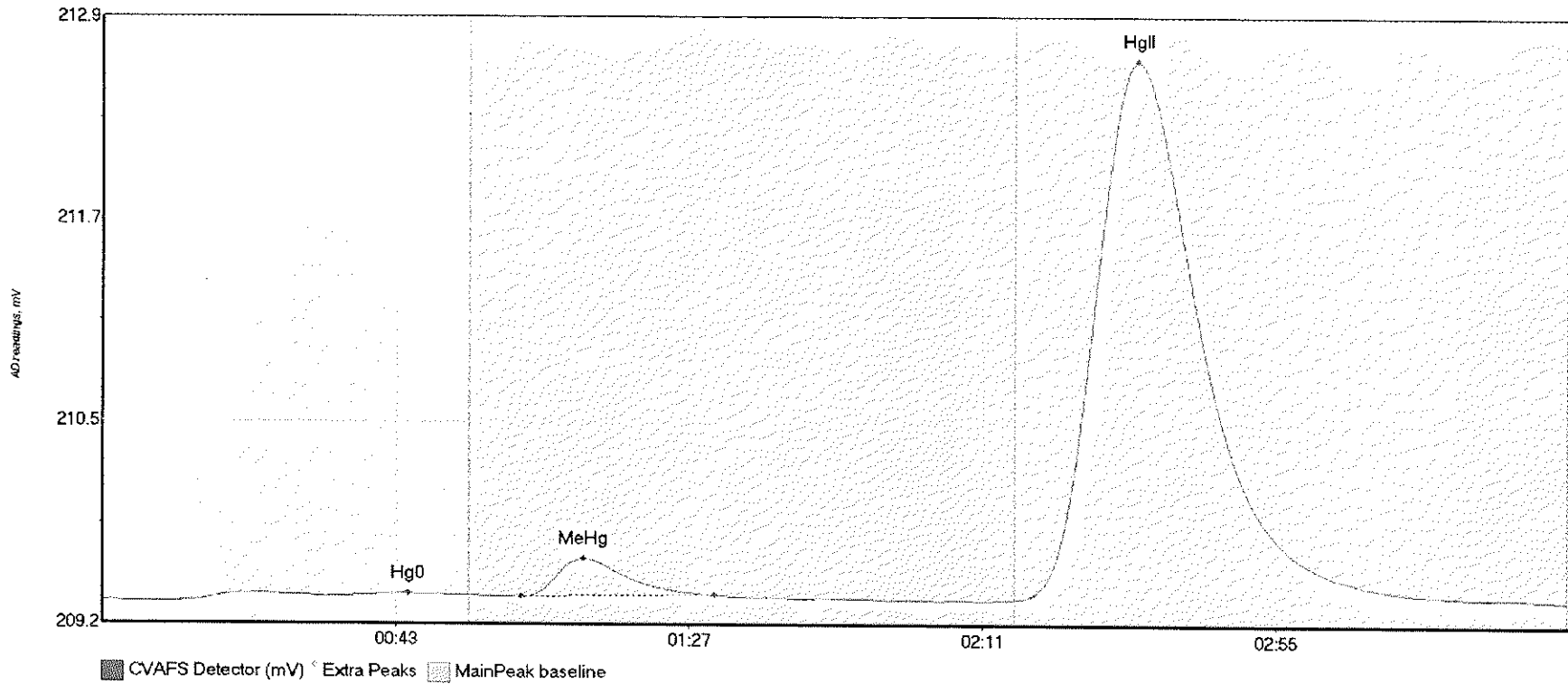
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1707619-09 Hg0	3.391	11.7	31.1	209.37	209.40	21.9	0.050	OK	209.3625	0.00	0.07	
1707619-09 MeHg	23.445	61.8	89.3	209.40	209.40	72.6	0.200	OK	209.3625	0.00	0.07	
1707619-09 HgII	2267.643	136.8	219.8	209.39	209.43	155.4	12.276	CT	209.3625	0.00	0.07	

#76: 1707619-10



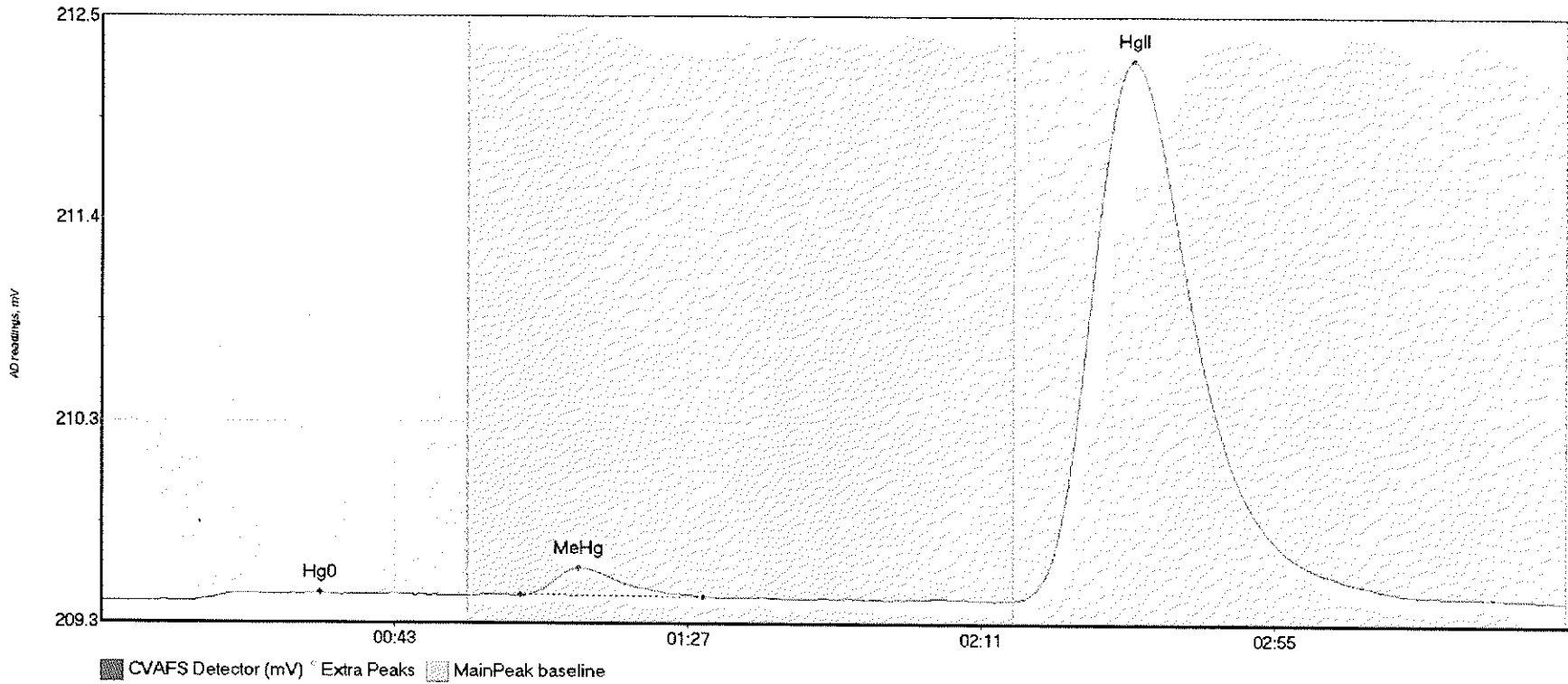
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1707619-10 Hg0	5.132	2.8	33.3	209.37	209.41	21.0	0.073	OK	209.3685	0.00	0.06	
1707619-10 MeHg	32.560	62.2	91.9	209.41	209.41	71.5	0.276	OK	209.3685	0.00	0.06	
1707619-10 HgII	1677.668	136.8	219.8	209.40	209.43	154.9	9.109	CT	209.3685	0.00	0.06	017

#77: 1707619-11



Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1707619-11 Hg0	7.713	13.3	53.3	209.39	209.42	45.8	0.047	OK	209.3891	0.00	0.01	
1707619-11 MeHg	27.155	62.8	91.9	209.41	209.42	72.1	0.233	OK	209.3891	0.00	0.01	
1707619-11 HgII	598.690	136.8	216.0	209.40	209.40	155.3	3.241	OK	209.3891	0.00	0.01	

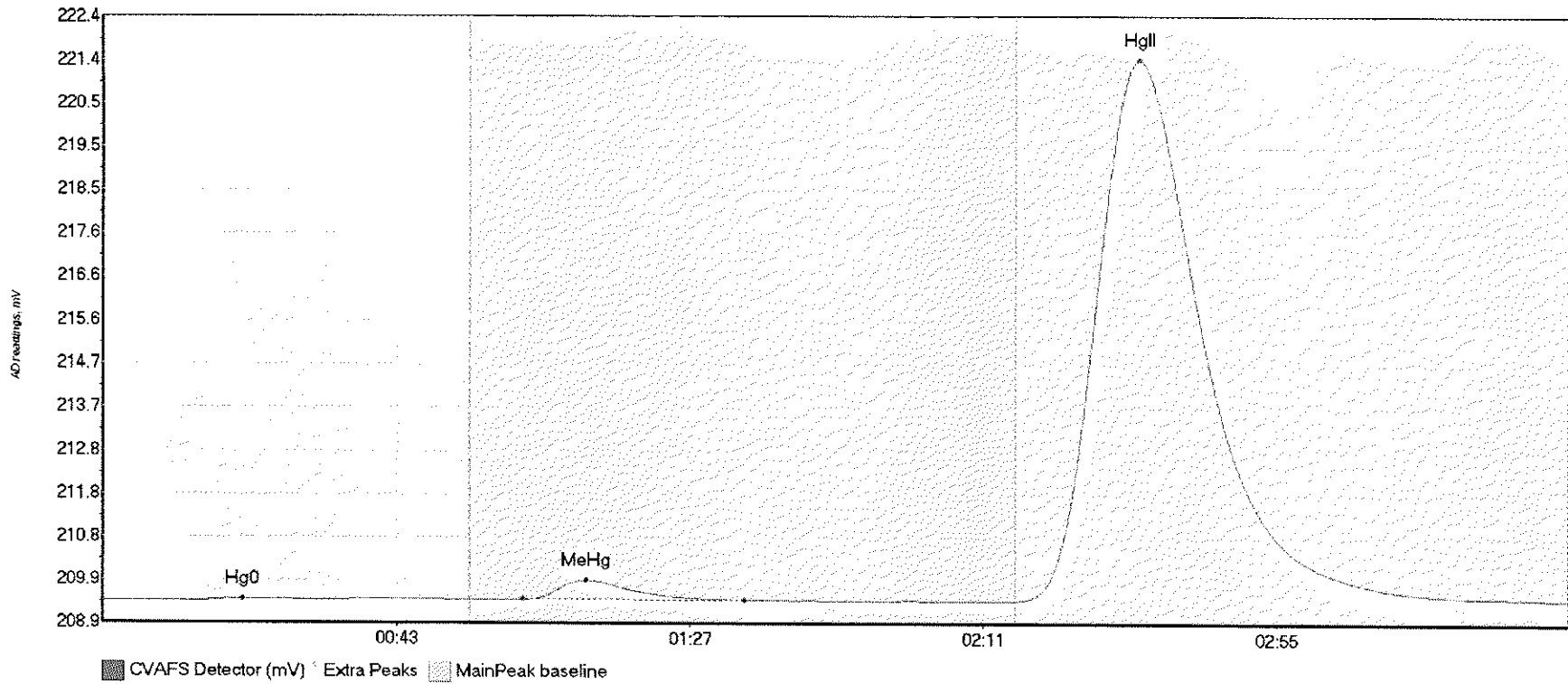
#78: 1707619-12



Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1707619-12 Hg0	7.969	13.4	53.5	209.40	209.42	32.8	0.044	OK	209.3962	0.00	0.01	
1707619-12 MeHg	16.651	62.8	90.3	209.43	209.42	71.6	0.144	OK	209.3962	0.00	0.01	
1707619-12 HgII	527.328	136.8	215.8	209.41	209.41	154.9	2.846	OK	209.3962	0.00	0.01	

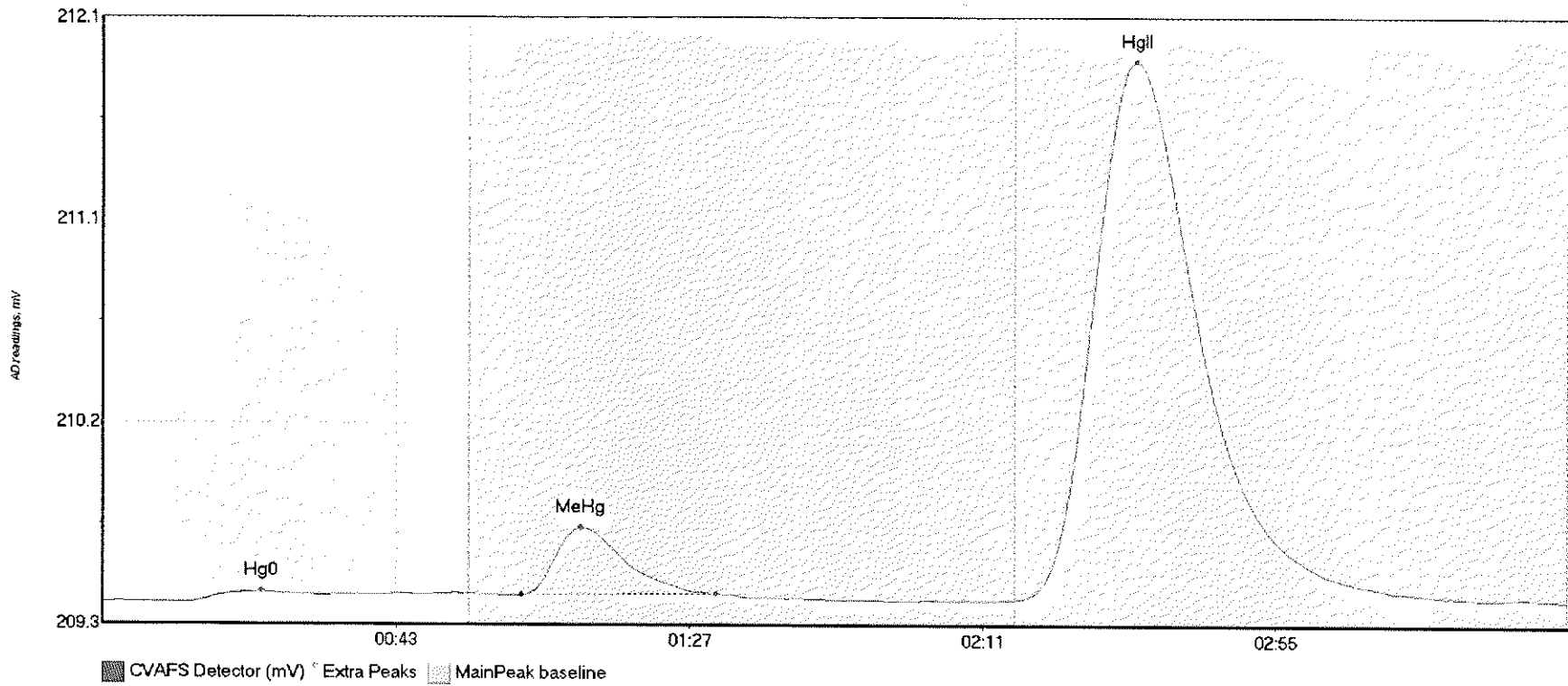


#79: 1707619-13



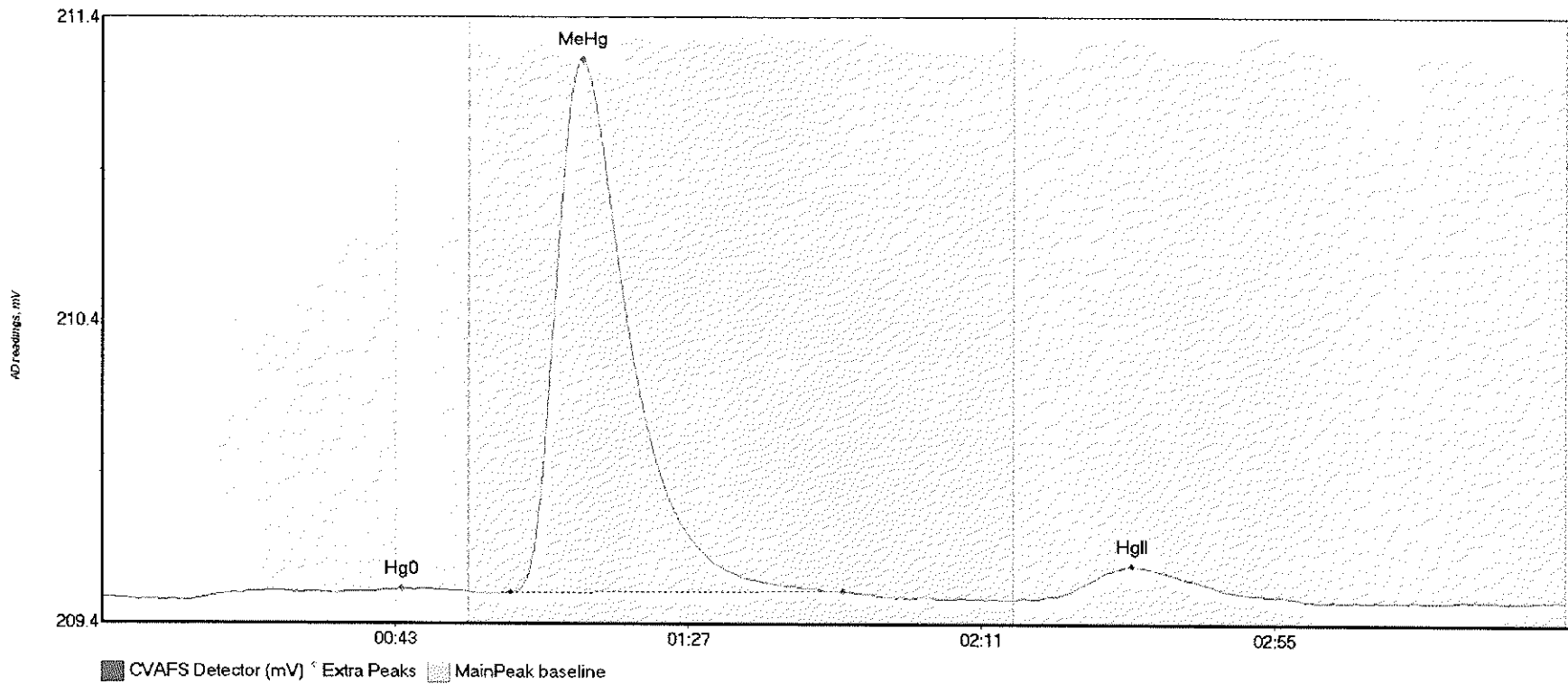
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1707619-13 Hg0	3.671	13.4	33.1	209.41	209.44	21.0	0.046	OK	209.4056	0.00	0.06	
1707619-13 MeHg	53.233	63.0	96.1	209.44	209.44	72.5	0.427	OK	209.4056	0.00	0.06	
1707619-13 HgII	2216.399	136.8	219.8	209.42	209.46	155.5	11.992	CT	209.4056	0.00	0.06	

#80: 1707619-14



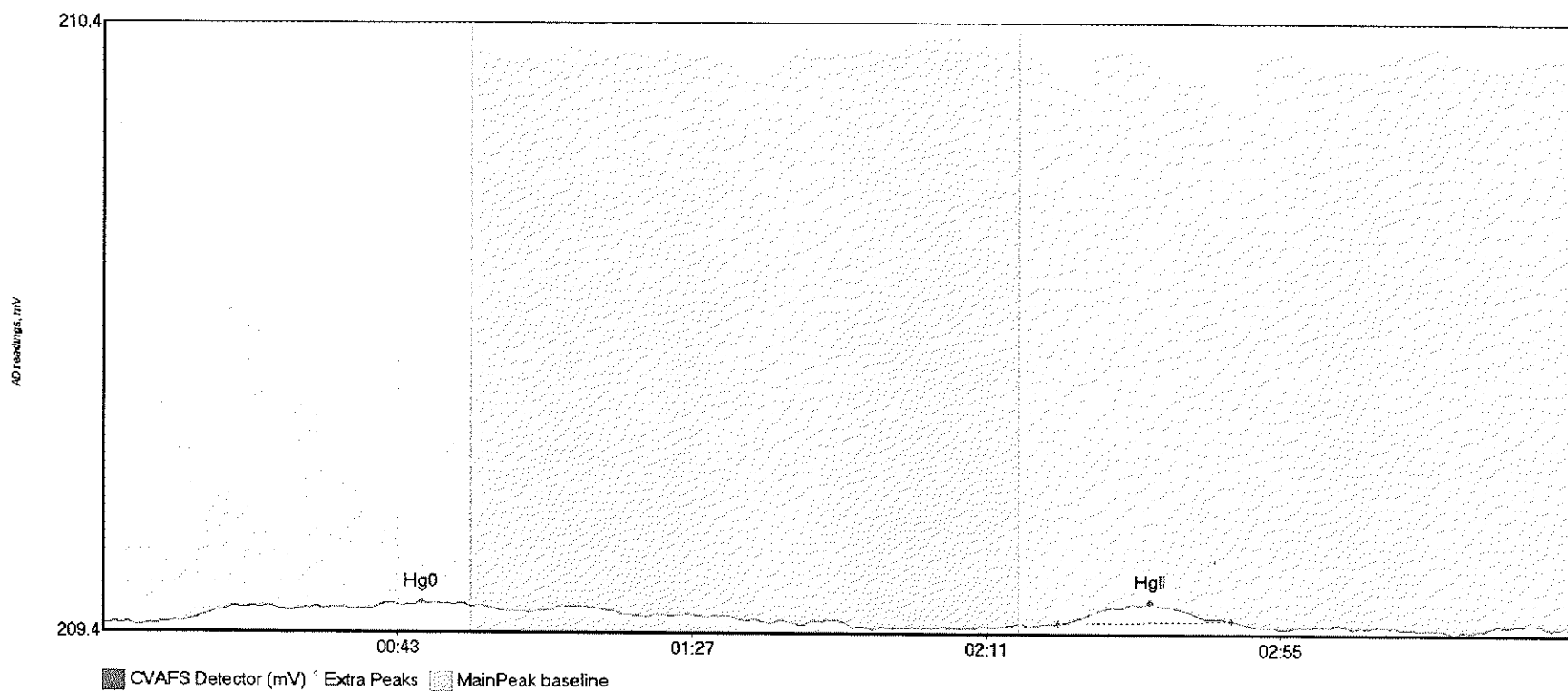
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1707619-14 Hg0	3.374	13.5	33.7	209.42	209.45	23.9	0.045	OK	209.4230	0.00	0.01	
1707619-14 MeHg	36.113	62.9	92.0	209.45	209.46	71.7	0.306	OK	209.4230	0.00	0.01	
1707619-14 HgII	450.311	136.8	207.5	209.44	209.44	155.2	2.430	OK	209.4230	0.00	0.01	

#81: SEQ-CCV6



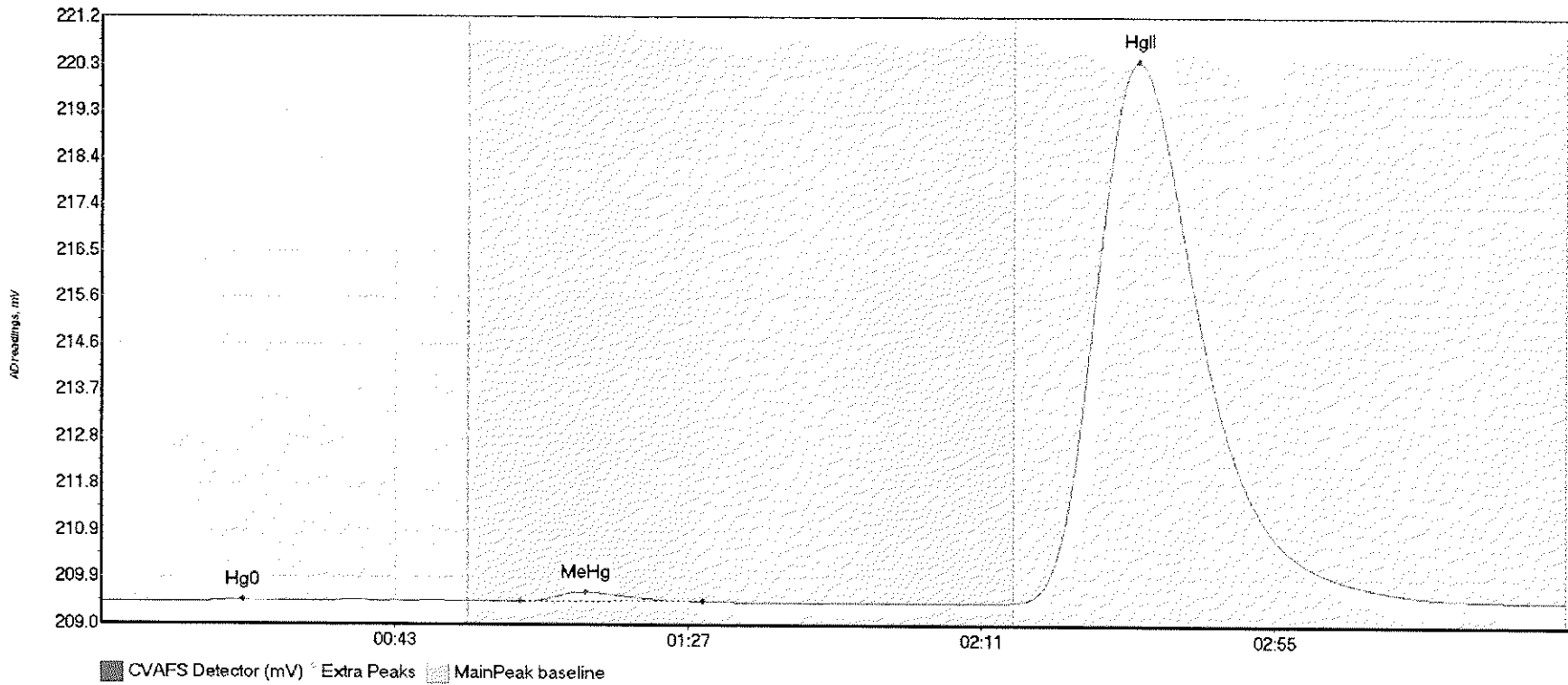
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
SEQ-CCV6 Hg0	5.925	12.9	55.0	209.43	209.46	45.0	0.039	CT	209.4415	0.00	-0.01	
SEQ-CCV6 MeHg	233.274	61.3	111.3	209.46	209.46	72.1	1.815	OK	209.4415	0.00	-0.01	
SEQ-CCV6 HgII	20.816	140.4	180.9	209.44	209.43	154.6	0.114	OK	209.4415	0.00	-0.01	

#82: SEQ-CCB6



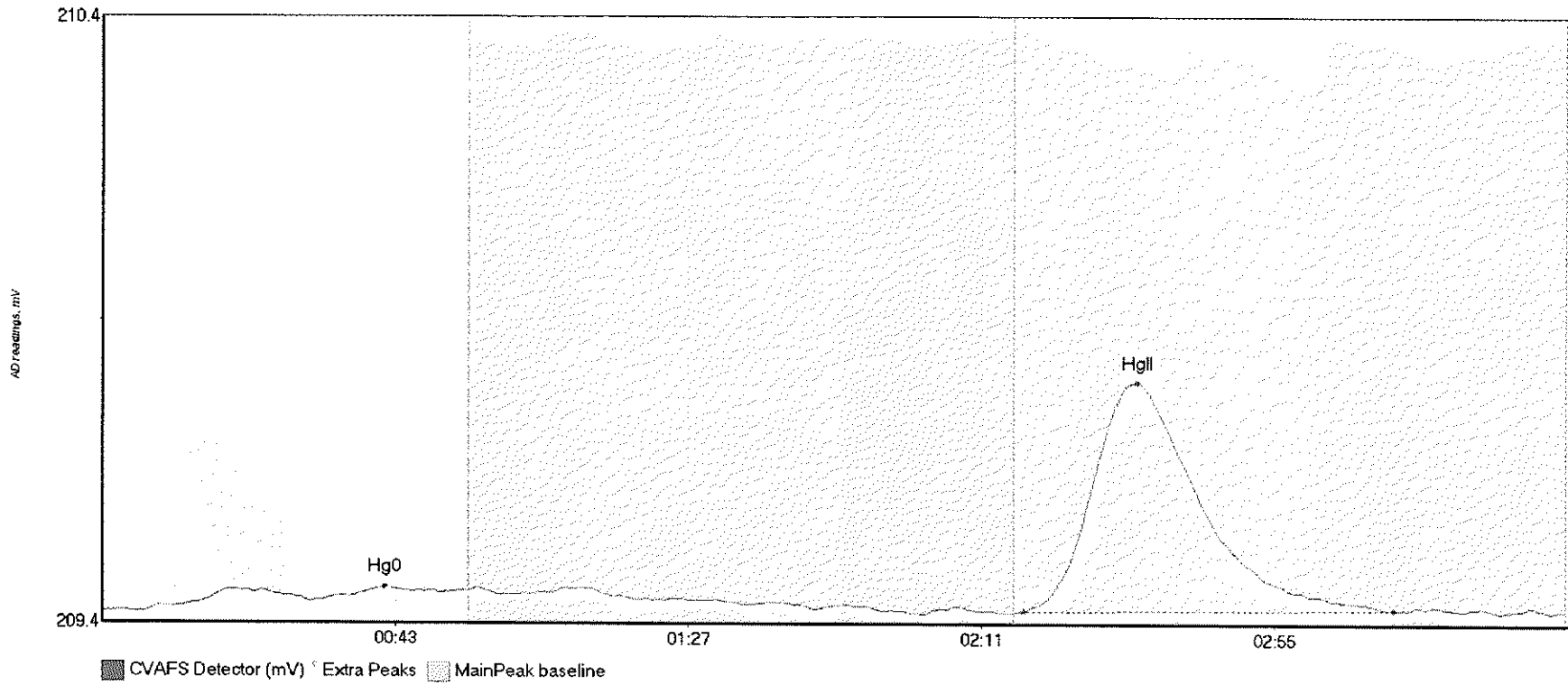
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
SEQ-CCB6 Hg0	4.505	11.8	55.0	209.44	209.46	47.6	0.031	CT	209.4335	0.00	0.00	
SEQ-CCB6 HgII	4.395	142.7	168.7	209.44	209.44	156.6	0.034	OK	209.4335	0.00	0.00	017

#83: 1707619-15



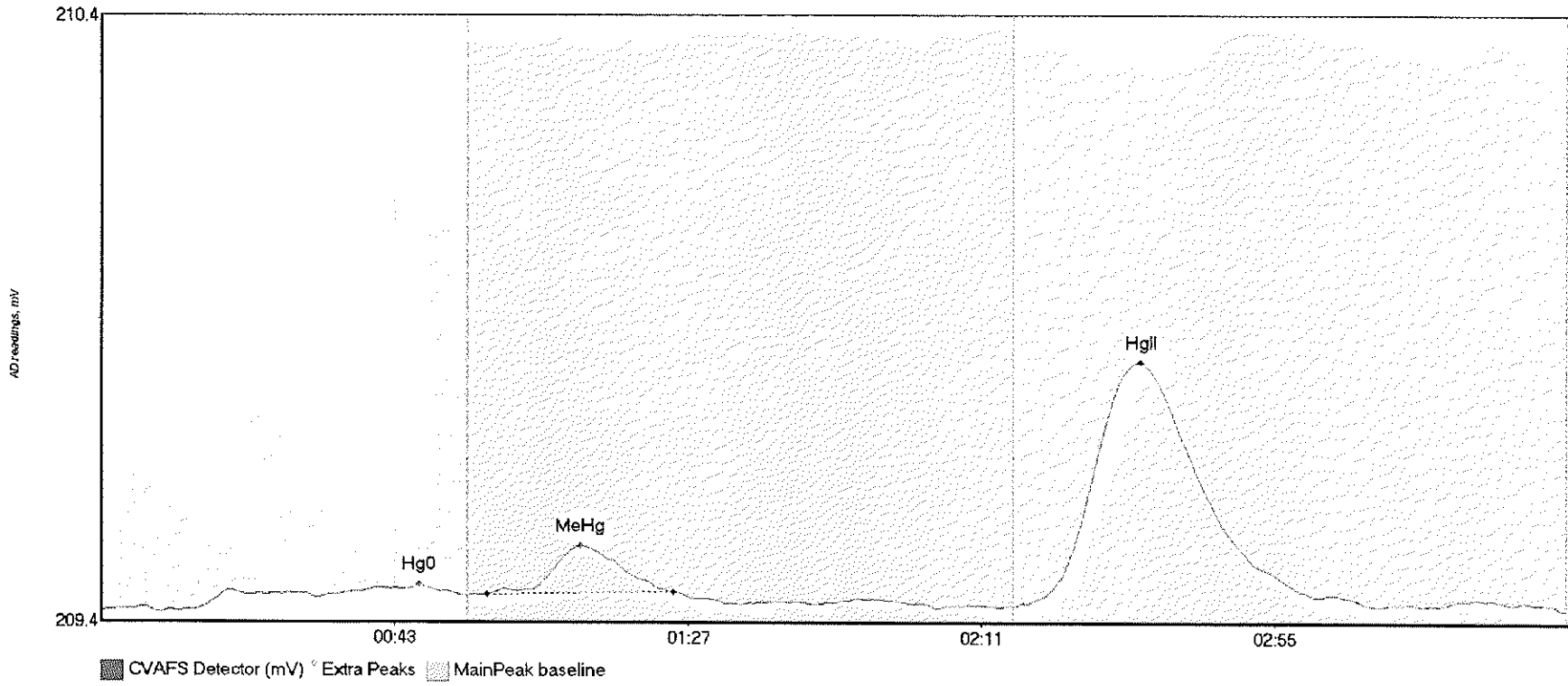
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1707619-15 Hg0	2.554	14.6	32.2	209.44	209.47	21.3	0.038	OK	209.4394	0.00	0.06	
1707619-15 MeHg	22.087	62.8	90.2	209.46	209.46	72.7	0.185	OK	209.4394	0.00	0.06	
1707619-15 HgII	2028.419	136.8	214.9	209.46	209.50	155.6	10.869	OK	209.4394	0.00	0.06	

#85: 1707620-01



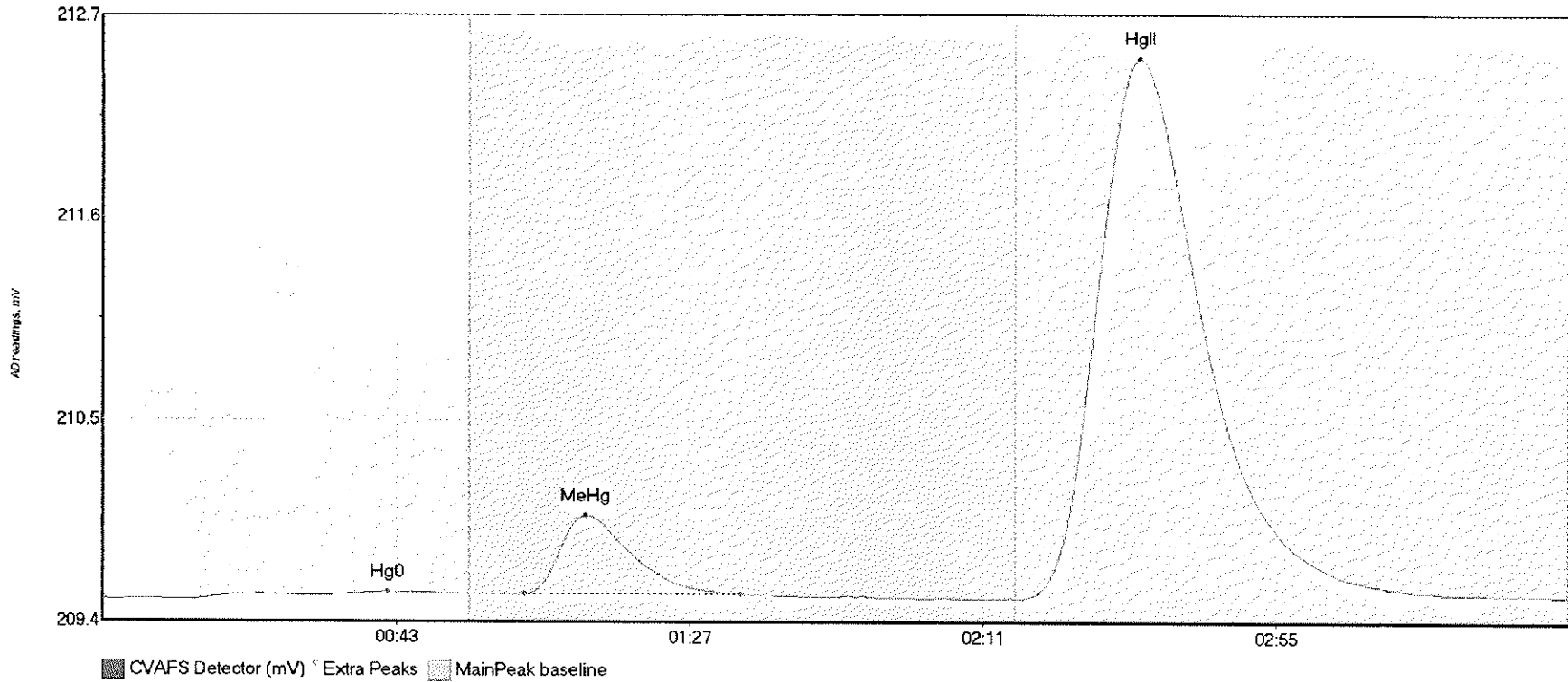
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1707620-01 Hg0	4.435	6.4	50.5	209.46	209.49	42.5	0.040	OK	209.4625	0.00	0.00	
1707620-01 HgII	69.970	138.4	194.0	209.46	209.47	155.5	0.379	OK	209.4625	0.00	0.00	017

#86: 1707620-02



Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1707620-02 Hg0	6.402	13.8	54.4	209.47	209.49	47.7	0.041	OK	209.4696	0.00	0.00	
1707620-02 MeHg	9.032	57.8	85.7	209.50	209.50	71.8	0.080	OK	209.4696	0.00	0.00	
1707620-02 HgII	72.949	138.9	190.6	209.48	209.48	156.1	0.398	OK	209.4696	0.00	0.00	

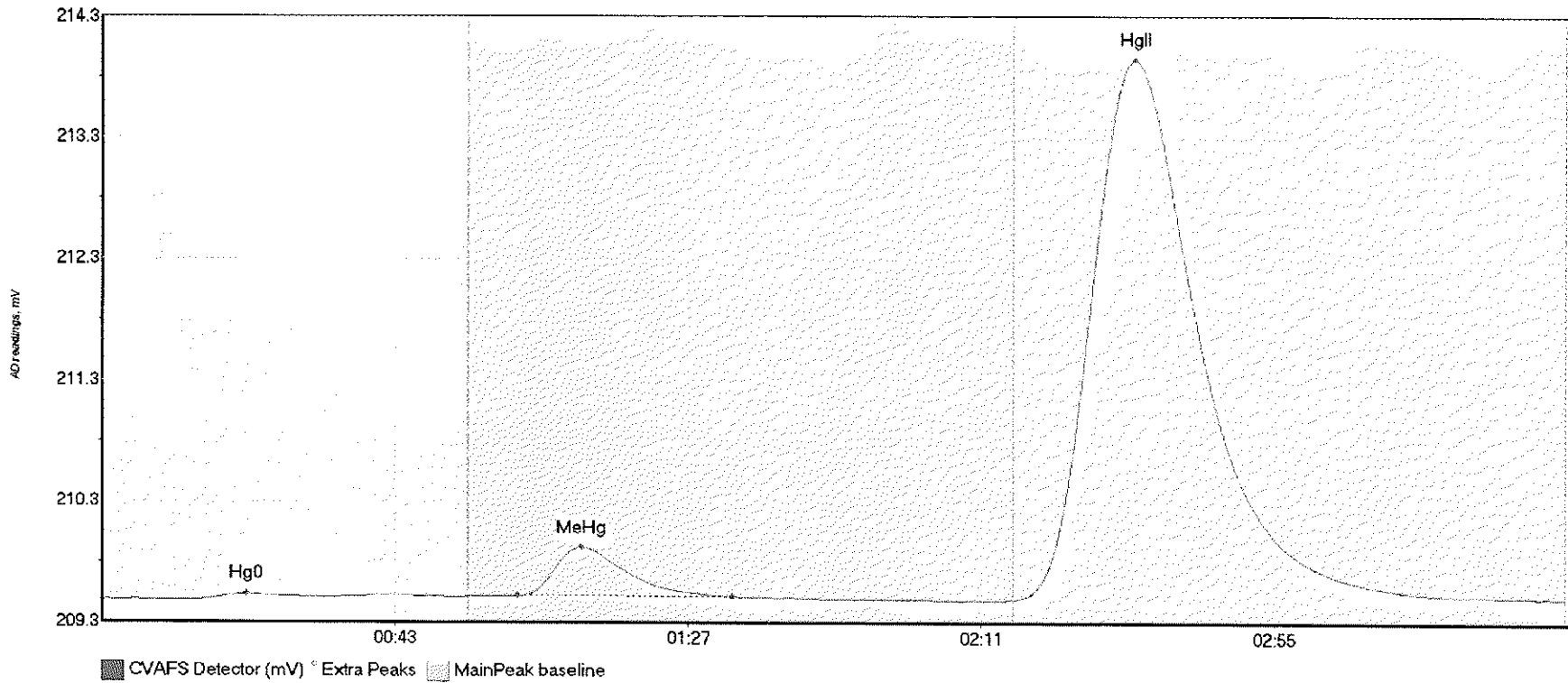
#87: 1707620-03



Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1707620-03 Hg0	5.089	13.3	51.5	209.47	209.51	42.7	0.044	OK	209.4791	0.00	0.02	
1707620-03 MeHg	52.793	63.3	95.7	209.50	209.51	72.4	0.435	OK	209.4791	0.00	0.02	
1707620-03 HgII	552.509	138.0	218.8	209.48	209.50	155.6	2.960	OK	209.4791	0.00	0.02	

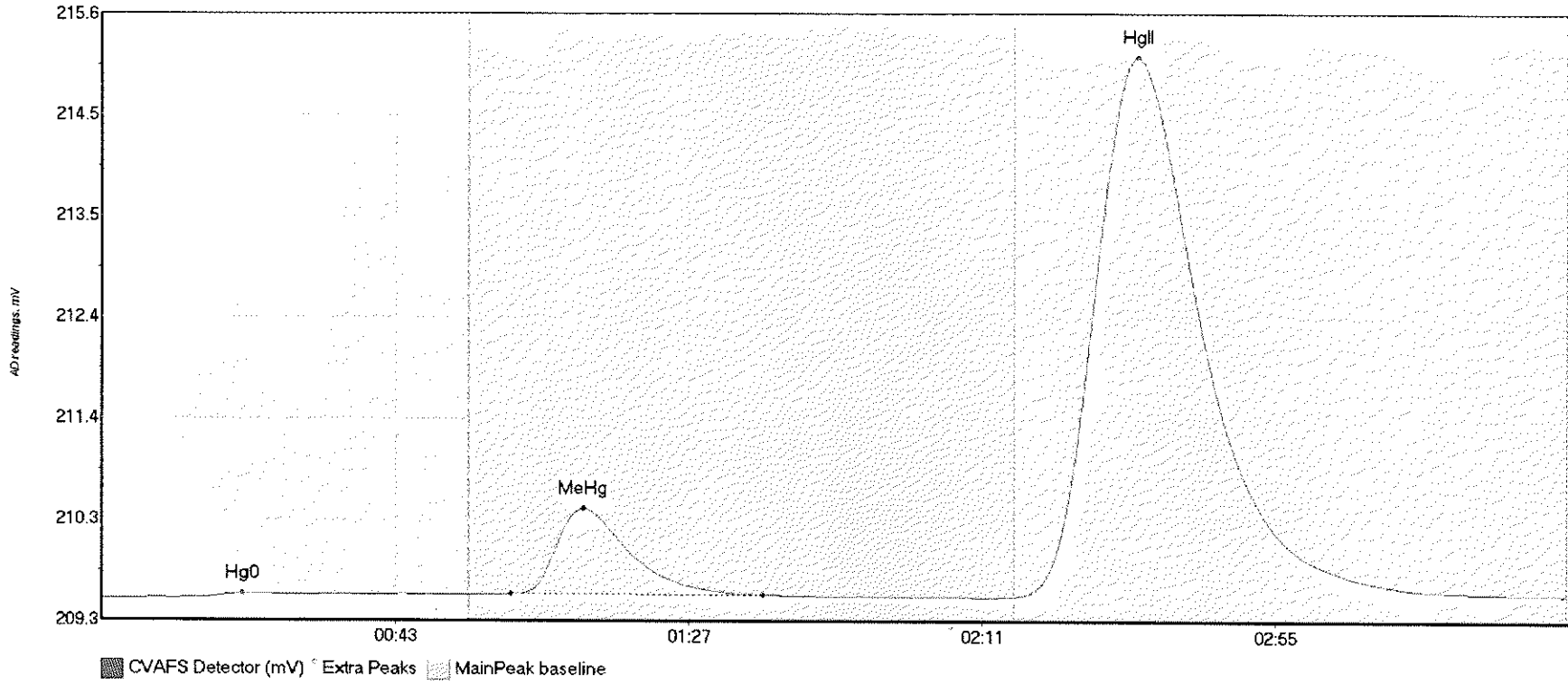


#88: 1707620-04



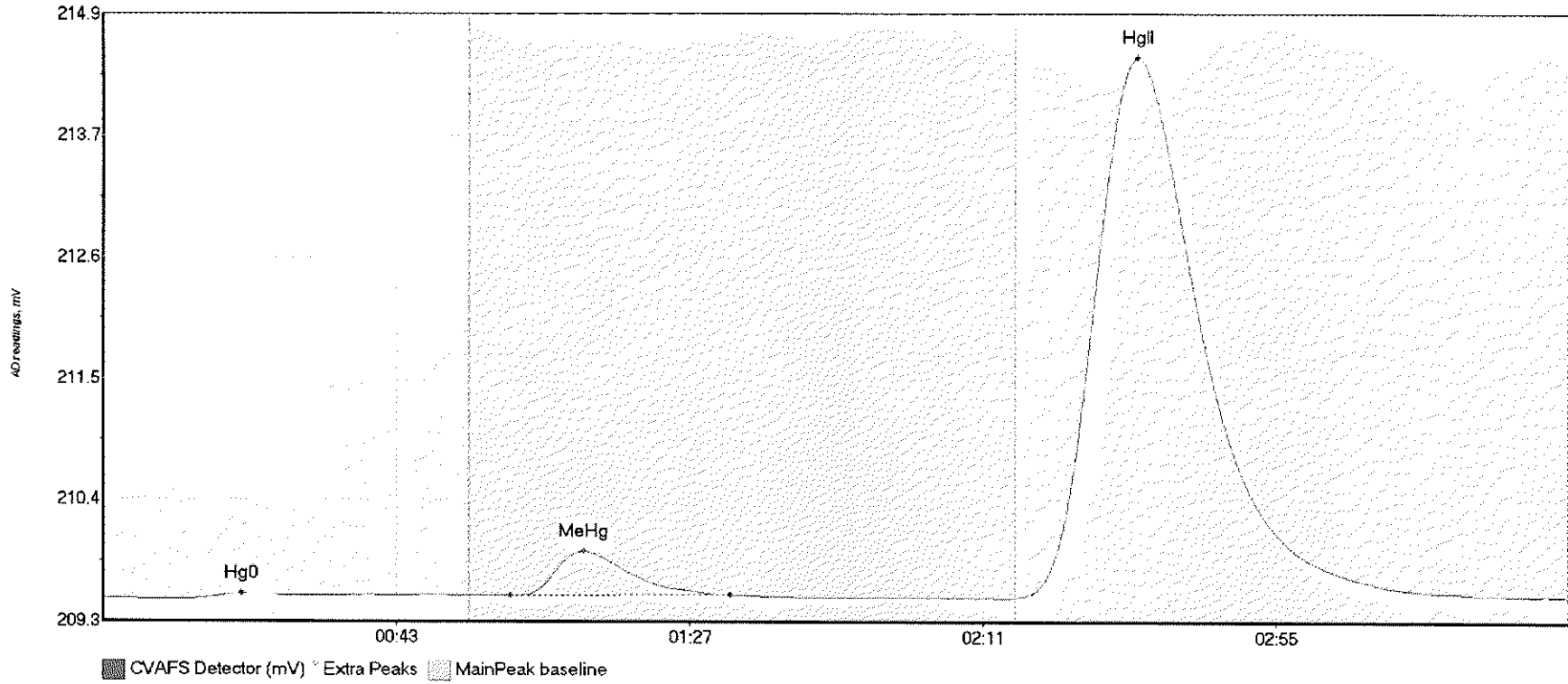
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1707620-04 Hg0	3.821	13.9	33.0	209.48	209.50	21.7	0.049	OK	209.4872	0.00	0.02	
1707620-04 MeHg	49.212	62.4	94.6	209.52	209.51	72.0	0.403	OK	209.4872	0.00	0.02	
1707620-04 HgII	837.214	136.8	219.7	209.49	209.51	155.2	4.470	OK	209.4872	0.00	0.02	

#89: 1707620-05



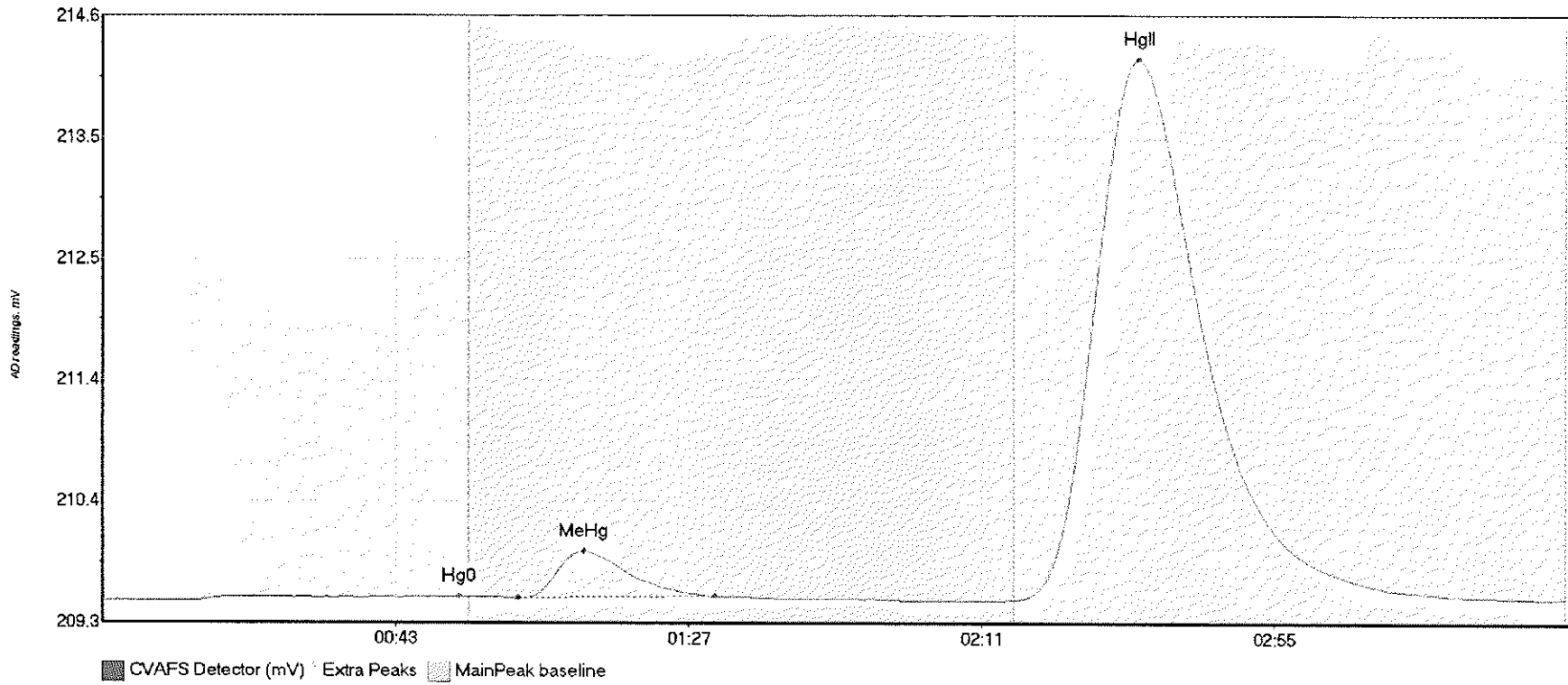
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1707620-05 Hg0	2.348	1.6	30.0	209.49	209.53	21.2	0.053	OK	209.4900	0.00	0.05	
1707620-05 MeHg	111.410	61.3	99.1	209.54	209.53	72.2	0.890	OK	209.4900	0.00	0.05	
1707620-05 HgII	1052.197	136.8	219.8	209.51	209.54	155.4	5.627	CT	209.4900	0.00	0.05	

#90: 1707620-06



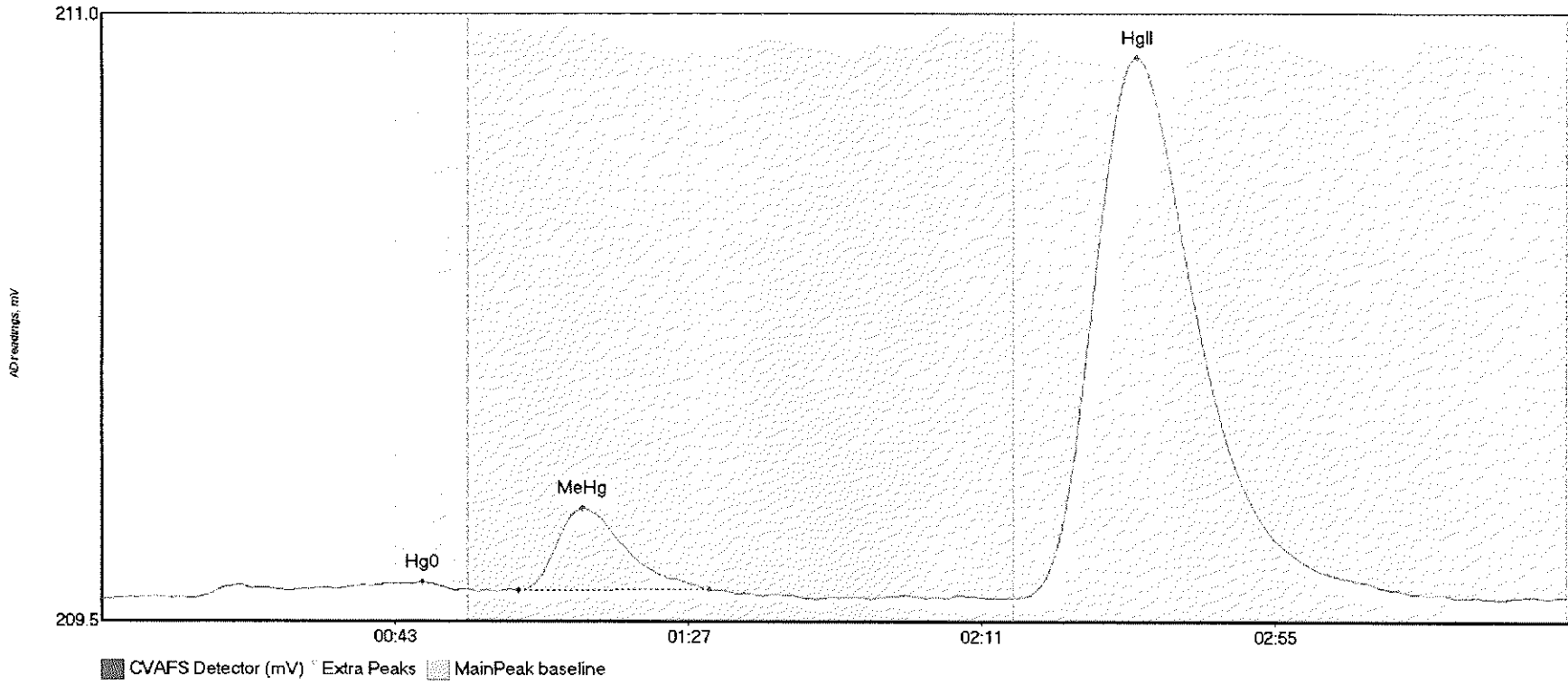
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1707620-06 Hg0	3.031	11.6	29.9	209.50	209.54	20.9	0.053	OK	209.5102	0.00	0.02	
1707620-06 MeHg	49.457	61.1	94.0	209.54	209.54	72.1	0.401	OK	209.5102	0.00	0.02	
1707620-06 HgII	927.156	136.8	219.8	209.52	209.53	155.3	4.941	CT	209.5102	0.00	0.02	

#91: 1707620-07



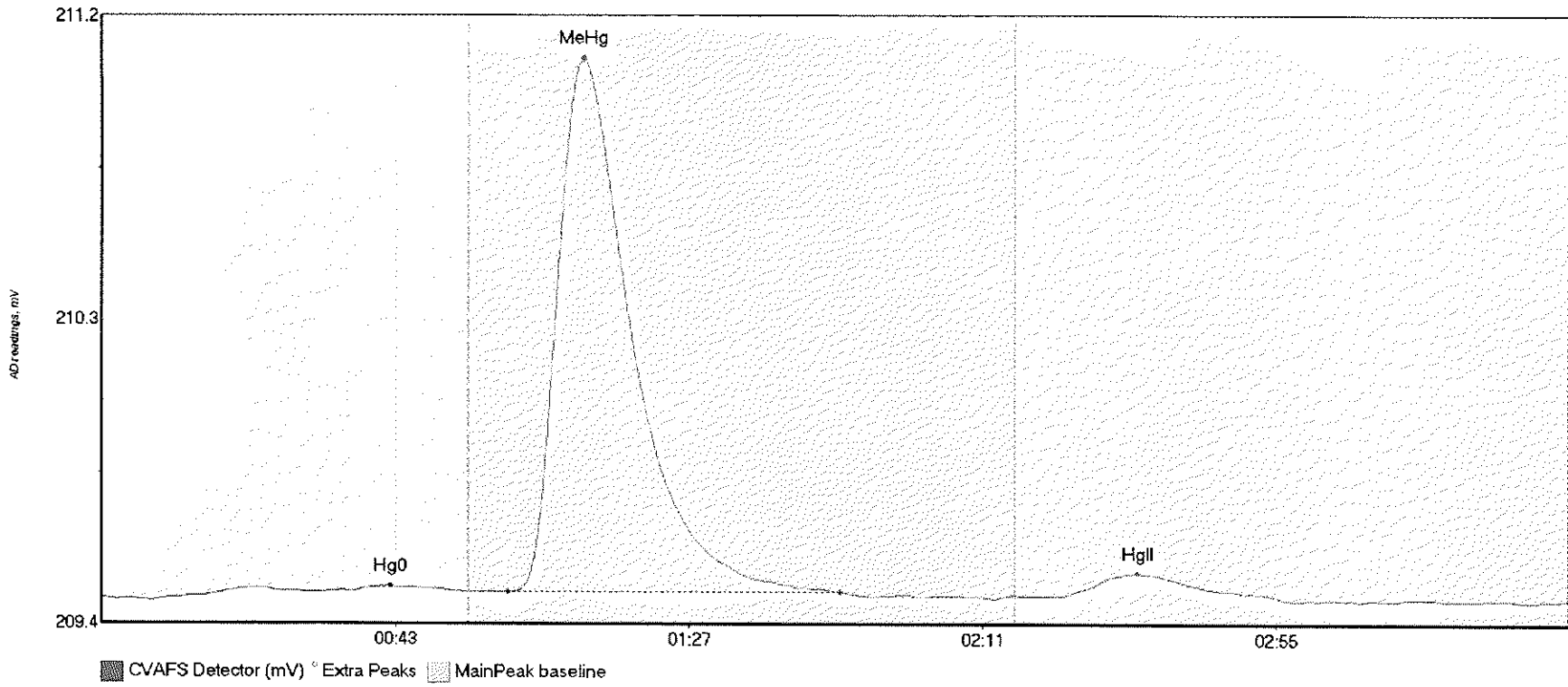
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1707620-07 Hg0	5.402	13.0	55.0	209.50	209.54	53.6	0.039	CT	209.5094	0.00	0.02	
1707620-07 MeHg	48.871	62.4	92.0	209.53	209.54	72.3	0.408	OK	209.5094	0.00	0.02	
1707620-07 HgII	890.822	136.8	217.7	209.51	209.52	155.7	4.703	OK	209.5094	0.00	0.02	

#82: 1707620-08



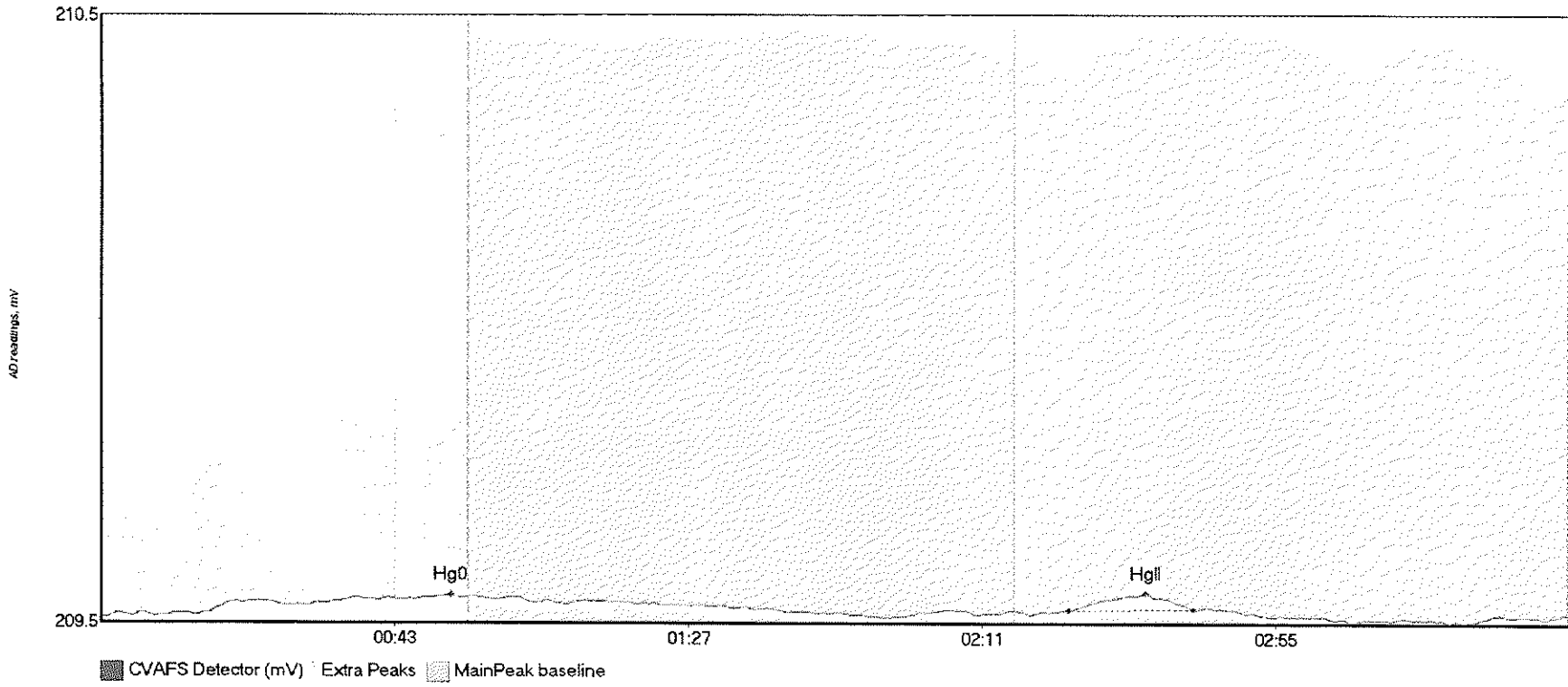
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1707620-08 Hg0	6.830	13.5	53.0	209.51	209.53	48.2	0.040	OK	209.5094	0.00	0.01	
1707620-08 MeHg	24.655	62.6	91.1	209.53	209.53	72.1	0.209	OK	209.5094	0.00	0.01	
1707620-08 HgII	251.672	137.5	203.0	209.51	209.52	155.3	1.362	OK	209.5094	0.00	0.01	

#93: SEQ-CCV7



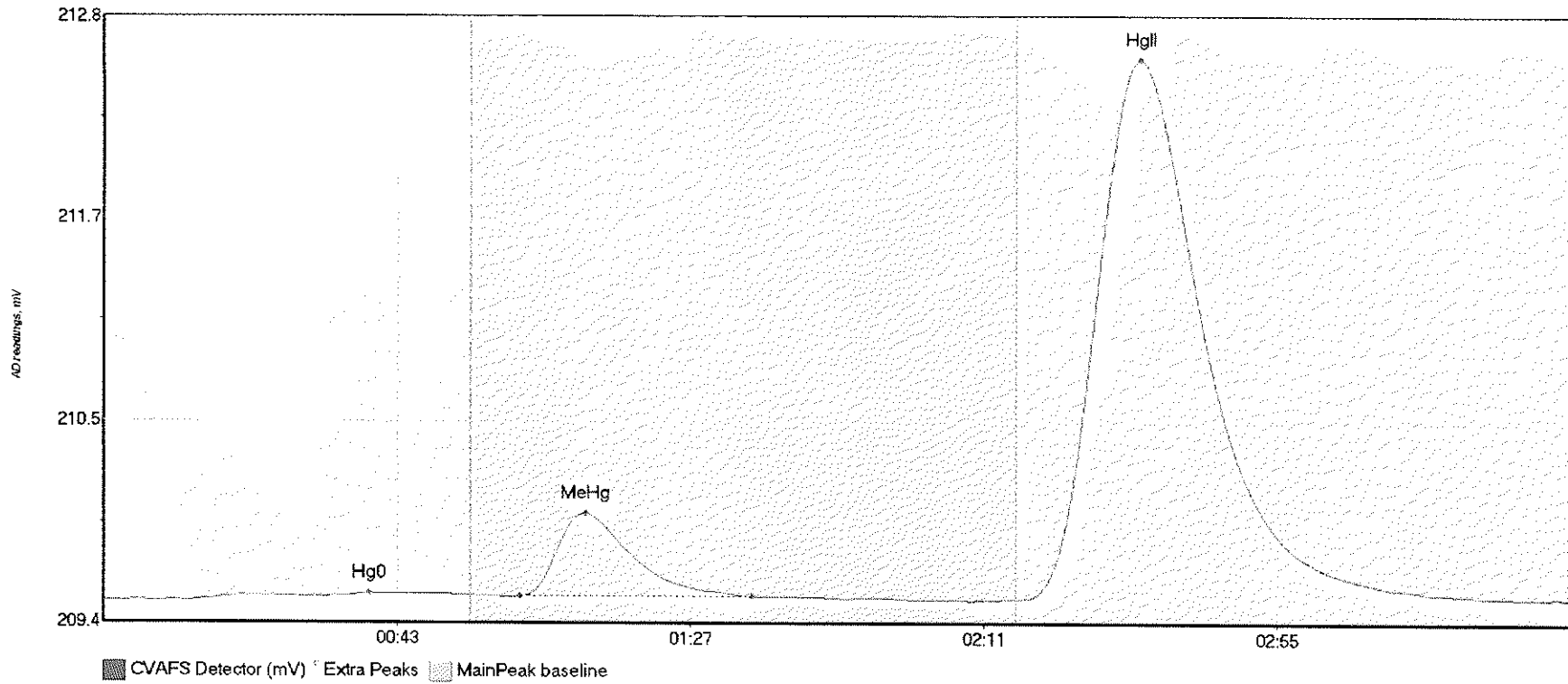
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
SEQ-CCV7 Hg0	5.613	11.7	54.9	209.50	209.52	43.3	0.034	OK	209.5000	0.00	0.00	
SEQ-CCV7 MeHg	203.758	60.9	110.8	209.52	209.52	72.3	1.572	OK	209.5000	0.00	0.00	
SEQ-CCV7 HgII	9.439	143.7	173.5	209.51	209.51	155.3	0.067	OK	209.5000	0.00	0.00	

#94: SEQ-CCB7



Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
SEQ-CCB7 Hg0	3.181	14.1	54.1	209.49	209.51	52.5	0.033	OK	209.4808	0.00	0.01	
SEQ-CCB7 HgII	2.860	145.0	163.8	209.49	209.49	156.6	0.027	OK	209.4808	0.00	0.01	017

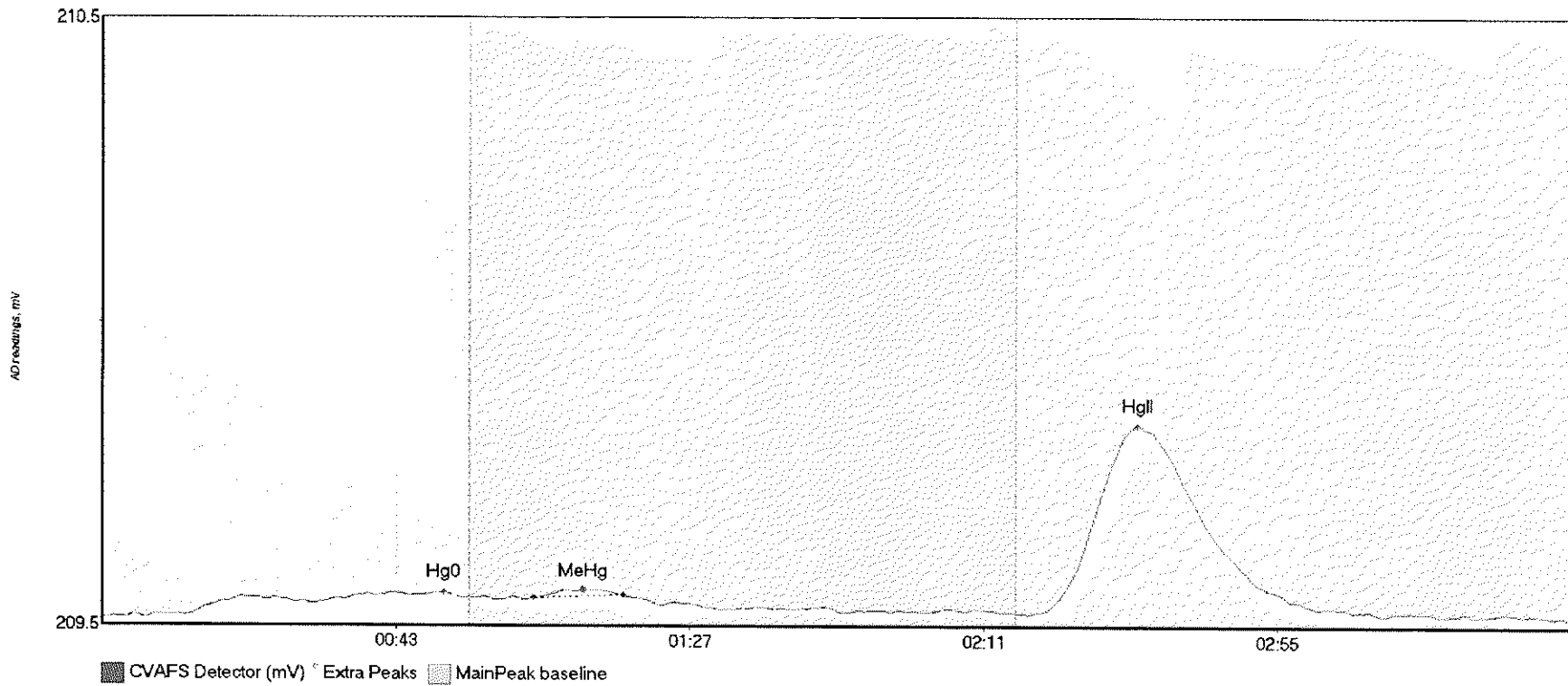
#95: 1707620-09



Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1707620-09 Hg0	5.616	12.5	53.8	209.48	209.51	39.8	0.042	OK	209.4772	0.00	0.02	
1707620-09 MeHg	60.608	62.4	97.3	209.50	209.50	72.3	0.476	OK	209.4772	0.00	0.02	
1707620-09 HgII	575.908	138.3	219.7	209.49	209.49	155.4	3.070	OK	209.4772	0.00	0.02	

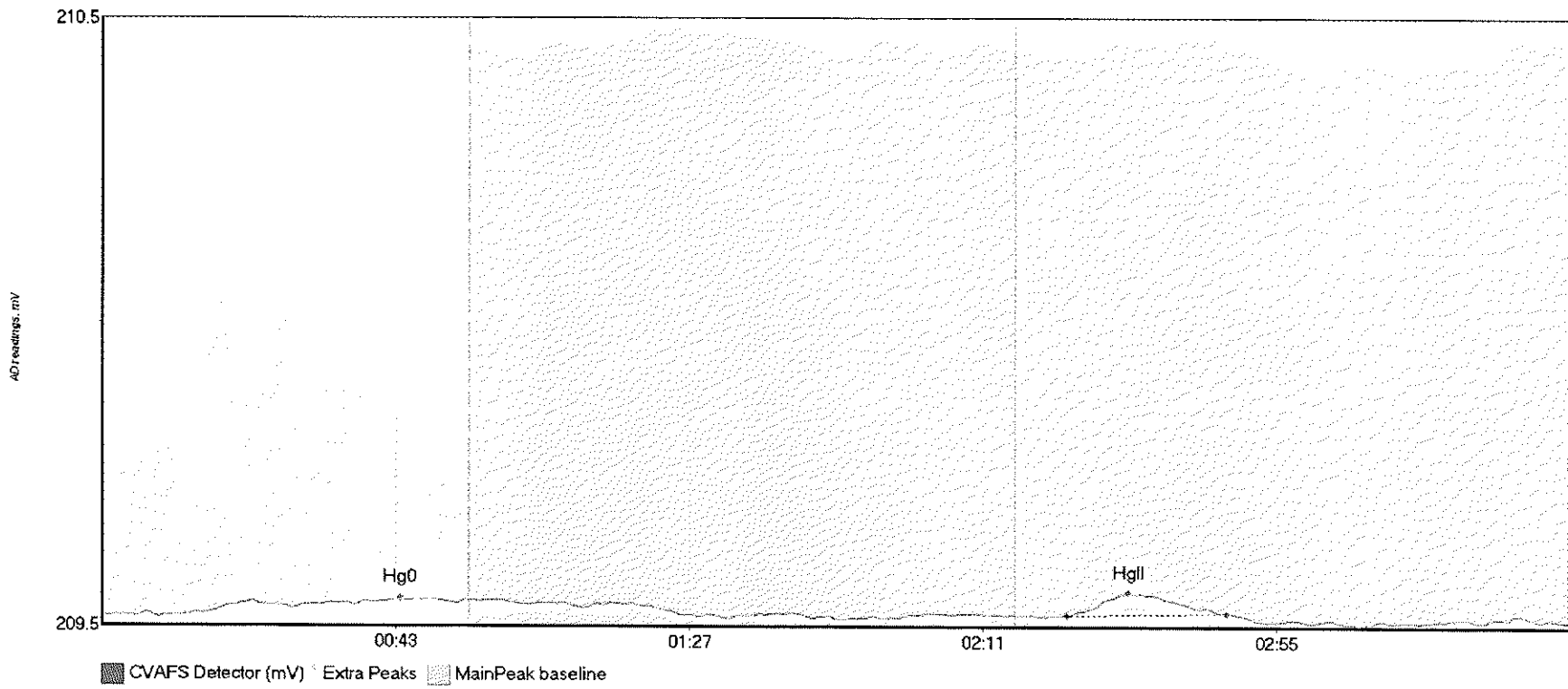


#96: 1707620-10



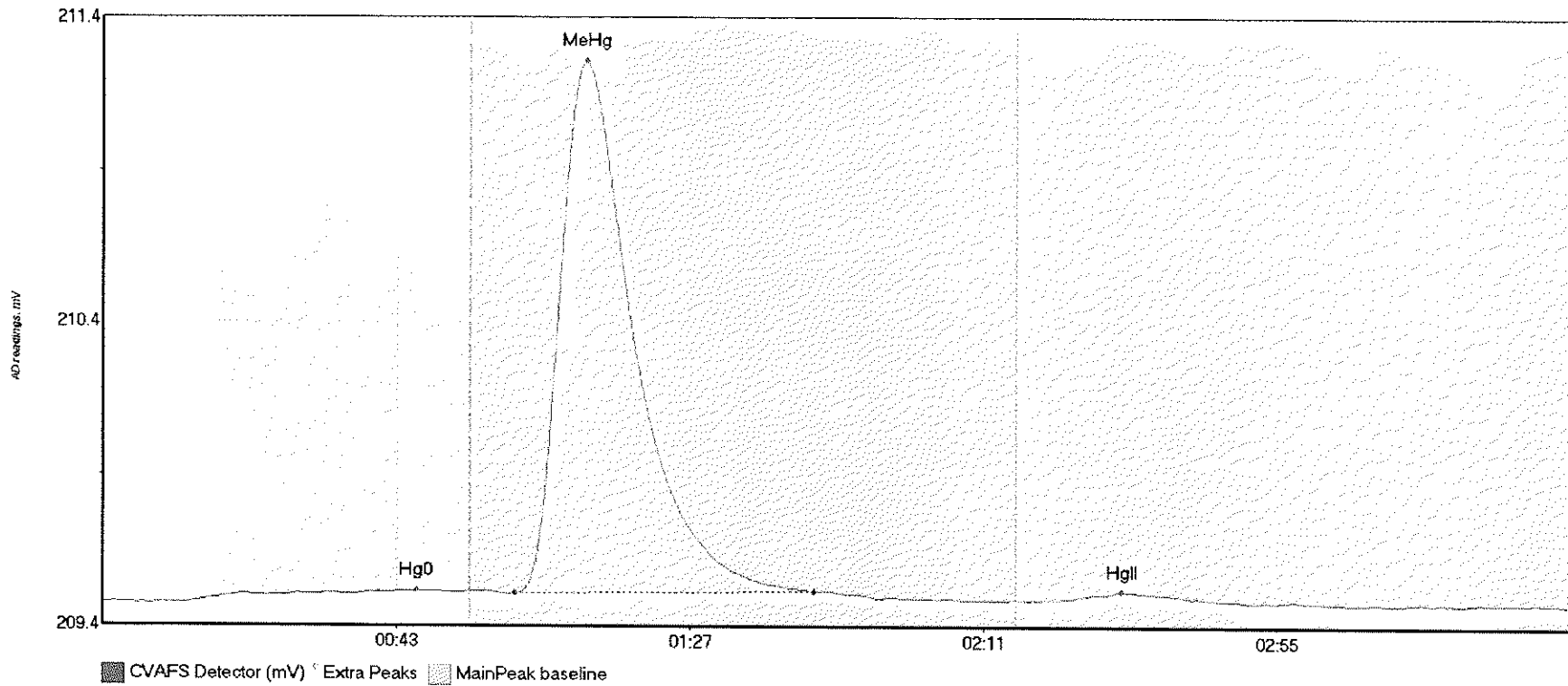
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1707620-10 Hg0	5.437	12.2	54.0	209.47	209.50	51.1	0.038	OK	209.4690	0.00	0.00	
1707620-10 MeHg	0.980	64.6	78.0	209.50	209.51	72.0	0.014	OK	209.4690	0.00	0.00	
1707620-10 HgII	55.437	138.8	187.3	209.48	209.48	155.0	0.312	OK	209.4690	0.00	0.00	

#97: A. BUFFER 1704707



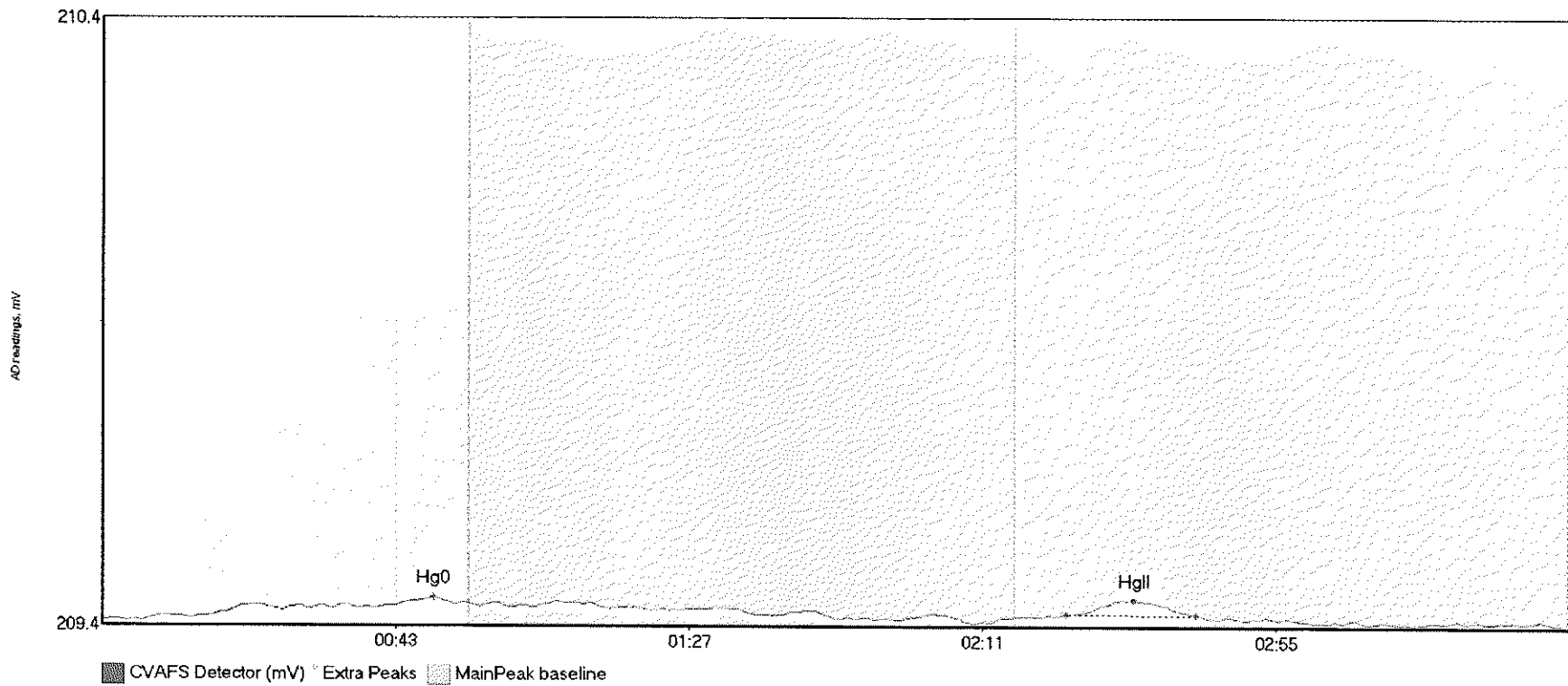
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
A. BUFFER 17047	3.103	15.2	53.1	209.48	209.49	44.7	0.024	OK	209.4732	0.00	-0.01	
A. BUFFER 17047	4.461	144.6	168.6	209.47	209.48	153.9	0.037	OK	209.4732	0.00	-0.01	017

#98: SEQ-CCV8



Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
SEQ-CCV8 Hg0	3.977	12.5	52.1	209.46	209.49	47.0	0.039	OK	209.4573	0.00	0.00	
SEQ-CCV8 MeHg	223.734	61.7	106.6	209.49	209.49	72.4	1.744	OK	209.4573	0.00	0.00	
SEQ-CCV8 HgII	2.851	144.9	165.7	209.47	209.47	152.7	0.025	OK	209.4573	0.00	0.00	

#99: SEQ-CCB8



Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
SEQ-CCB8 Hg0	2.857	13.1	53.1	209.46	209.48	49.7	0.034	OK	209.4524	0.00	-0.01	
SEQ-CCB8 HgII	2.659	144.6	164.1	209.46	209.46	154.7	0.025	OK	209.4524	0.00	-0.01	017



Frontier Global Sciences

Analysis Datasheet for Total Mercury

Date of Analysis: August 10, 2017

Analyst: BC

Instrument #: Hg2600-2

Units ng/L

LIMS Sequence #: 7H10023, 7H10024

Calibration Statistics:

LabNumber	n	True Val	Area	Uncorrected Response Factor	Corrected Peak Height	Corrected Response Factor	% Recovery
SEQ-CAL1	1	0.50 ng/L	92.52 units	185.04	78.76 units	157.53	96.2 %Rec
SEQ-CAL2	1	1.00 ng/L	181.71 units	181.71	167.96 units	167.96	102.5 %Rec
SEQ-CAL3	1	5.00 ng/L	853.13 units	170.63	839.38 units	167.88	102.5 %Rec
SEQ-CAL4	1	20.00 ng/L	3233.98 units	161.70	3220.22 units	161.01	98.3 %Rec
SEQ-CAL5	1	40.00 ng/L	6597.68 units	164.94	6583.93 units	164.60	100.5 %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
163.79	+/- 4.52	2.8% RSD	172.80

Blanks:

LabNumber	n	Mean	Std Dev	Mean (ng/L)	Std Dev (ng/L)
SEQ-IBL	3	13.76 units	±1.81	0.08 ng/L	±0.01

Preparation Blanks

Sample Type	Batch ID	n	Mean	Std Dev
BLK	1	2	1.181 ng/L	±0.513
BLK	2	3	12.988 ng/L	±5.169
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: AL 8/11/17

Instrument	Analyst	Sample Type	LabNumber	Dilution	Analyzed	FileID	RunEnd	Uncorrected Response	Batch ID	No PB Correction?	RESP	InitialResult	FinalResult	InitialUnits	Comments
Hg2600-2	BC	CAL	SEQ-IBL1	1	8/10/2017 7:54:41	82783-1.RAW	7:54:41 AM	11.68			-2.1	0.013	0.013	ng/L	
Hg2600-2	BC	CAL	SEQ-IBL2	1	8/10/2017 7:58:50	82784-1.RAW	7:58:50 AM	14.53			0.8	0.005	0.005	ng/L	
Hg2600-2	BC	CAL	SEQ-IBL3	1	8/10/2017 8:02:58	82785-1.RAW	8:02:58 AM	15.05			1.3	0.008	0.008	ng/L	
Hg2600-2	BC	CAL	SEQ-CAL1	1	8/10/2017 8:07:06	82786-1.RAW	8:07:06 AM	92.52			78.8	0.481	0.481	ng/L	
Hg2600-2	BC	CAL	SEQ-CAL2	1	8/10/2017 8:11:15	82787-1.RAW	8:11:15 AM	181.71			168.0	1.025	1.025	ng/L	
Hg2600-2	BC	CAL	SEQ-CAL3	1	8/10/2017 8:15:23	82788-1.RAW	8:15:23 AM	853.13			839.4	5.125	5.125	ng/L	
Hg2600-2	BC	CAL	SEQ-CAL4	1	8/10/2017 8:19:32	82789-1.RAW	8:19:32 AM	3235.98			3220.2	19.660	19.660	ng/L	
Hg2600-2	BC	CAL	SEQ-CAL5	1	8/10/2017 8:23:40	82790-1.RAW	8:23:40 AM	6597.68			6583.9	40.196	40.196	ng/L	
Hg2600-2	BC	CAL	SEQ-ICV1	1	8/10/2017 8:27:49	82791-1.RAW	8:27:49 AM	863.23			849.5	5.186	5.186	ng/L	
Hg2600-2	BC	BLK	F707535-BLK1	10	8/10/2017 8:32:31	82792-1.RAW	8:32:31 AM	39.04	1		25.3	0.154	1.544	ng/L	
Hg2600-2	BC	BLK	F707535-BLK2	10	8/10/2017 8:36:39	82793-1.RAW	8:36:39 AM	27.17	1		13.4	0.082	0.819	ng/L	
Hg2600-2	BC	SAM	F707535-BS1	100	8/10/2017 8:40:47	82794-1.RAW	8:40:47 AM	369.89	1		356.1	2.162	216.247	ng/L	
Hg2600-2	BC	SAM	F707535-BSD1	100	8/10/2017 8:44:56	82795-1.RAW	8:44:56 AM	388.14	1		374.4	2.274	227.387	ng/L	
Hg2600-2	BC	SAM	1707619-32	100	8/10/2017 8:49:04	82796-1.RAW	8:49:04 AM	50.72	1		37.0	0.214	21.384	ng/L	
Hg2600-2	BC	SAM	1707620-01	100	8/10/2017 8:53:13	82797-1.RAW	8:53:13 AM	69.59	1		55.8	0.329	32.906	ng/L	
Hg2600-2	BC	SAM	1707620-03	100	8/10/2017 8:57:21	82798-1.RAW	8:57:21 AM	979.96	1		966.2	5.887	588.711	ng/L	
Hg2600-2	BC	SAM	1707620-04	100	8/10/2017 9:01:29	82799-1.RAW	9:01:29 AM	1255.69	1		1241.9	7.570	757.046	ng/L	
Hg2600-2	BC	SAM	1707620-05	100	8/10/2017 9:05:38	82800-1.RAW	9:05:38 AM	1162.19	1		1148.4	7.000	699.964	ng/L	
Hg2600-2	BC	SAM	1707620-06	100	8/10/2017 9:09:46	82801-1.RAW	9:09:46 AM	988.95	1		975.2	5.942	594.198	ng/L	
Hg2600-2	BC	CAL	SEQ-CCV1	1	8/10/2017 9:13:55	82802-1.RAW	9:13:55 AM	855.13			841.4	5.137	5.137	ng/L	
Hg2600-2	BC	CAL	SEQ-CCB1	1	8/10/2017 9:18:03	82803-1.RAW	9:18:03 AM	25.19			11.4	0.070	0.070	ng/L	
Hg2600-2	BC	SAM	1707620-07	100	8/10/2017 9:22:12	82804-1.RAW	9:22:12 AM	712.95	1		699.2	4.257	425.692	ng/L	
Hg2600-2	BC	SAM	1707620-08	100	8/10/2017 9:26:20	82805-1.RAW	9:26:20 AM	202.38	1		188.6	1.140	113.979	ng/L	
Hg2600-2	BC	SAM	1707620-09	100	8/10/2017 9:30:28	82806-1.RAW	9:30:28 AM	499.40	1		485.6	2.953	295.319	ng/L	
Hg2600-2	BC	SAM	1707620-10	100	8/10/2017 9:34:37	82807-1.RAW	9:34:37 AM	118.93	1		105.2	0.630	63.032	ng/L	
Hg2600-2	BC	SAM	1707620-12	100	8/10/2017 9:38:45	82808-1.RAW	9:38:45 AM	182.56	1		168.8	1.019	101.877	ng/L	
Hg2600-2	BC	SAM	1707620-13	100	8/10/2017 9:42:54	82809-1.RAW	9:42:54 AM	1454.51	1		1440.8	8.784	878.430	ng/L	
Hg2600-2	BC	SAM	1707620-14	100	8/10/2017 9:47:02	82810-1.RAW	9:47:02 AM	1717.35	1		1703.6	10.389	1038.901	ng/L	
Hg2600-2	BC	SAM	1707620-15	100	8/10/2017 9:51:10	82811-1.RAW	9:51:10 AM	1002.21	1		988.5	6.023	602.296	ng/L	
Hg2600-2	BC	SAM	1707620-16	100	8/10/2017 9:55:19	82812-1.RAW	9:55:19 AM	666.00	1		652.2	3.970	397.027	ng/L	
Hg2600-2	BC	SAM	1707620-17	100	8/10/2017 9:59:27	82813-1.RAW	9:59:27 AM	317.47	1		303.7	1.842	184.246	ng/L	
Hg2600-2	BC	CAL	SEQ-CCV2	1	8/10/2017 10:03:36	82814-1.RAW	10:03:36 AM	852.07			838.3	5.118	5.118	ng/L	
Hg2600-2	BC	CAL	SEQ-CCB2	1	8/10/2017 10:07:44	82815-1.RAW	10:07:44 AM	29.78			16.0	0.098	0.098	ng/L	
Hg2600-2	BC	SAM	1707620-18	100	8/10/2017 10:11:53	82816-1.RAW	10:11:53 AM	1239.36	1		1225.6	7.471	747.078	ng/L	
Hg2600-2	BC	SAM	1707620-19	100	8/10/2017 10:16:01	82817-1.RAW	10:16:01 AM	67.77	1		54.0	0.318	31.797	ng/L	
Hg2600-2	BC	SAM	1707620-20	100	8/10/2017 10:20:09	82818-1.RAW	10:20:09 AM	32.93	1		19.2	0.105	10.527	ng/L	
Hg2600-2	BC	SAM	1707620-22	100	8/10/2017 10:24:18	82819-1.RAW	10:24:18 AM	3169.80	1		3156.0	19.257	1925.657	ng/L	
Hg2600-2	BC	SAM	1707619-32RE1	10	8/10/2017 10:28:26	82820-1.RAW	10:28:26 AM	330.27	1		316.5	1.814	18.143	ng/L	
Hg2600-2	BC	SAM	1707620-01RE1	10	8/10/2017 10:32:35	82821-1.RAW	10:32:35 AM	550.74	1		537.0	3.160	31.603	ng/L	
Hg2600-2	BC	SAM	1707620-10RE1	10	8/10/2017 10:36:43	82822-1.RAW	10:36:43 AM	445.93	1		432.2	2.520	25.204	ng/L	
Hg2600-2	BC	SAM	1707620-12RE1	10	8/10/2017 10:40:51	82823-1.RAW	10:40:51 AM	1646.39	1		1632.6	9.849	98.495	ng/L	
Hg2600-2	BC	SAM	1707620-19RE1	10	8/10/2017 10:45:00	82824-1.RAW	10:45:00 AM	495.44	1		481.7	2.823	28.227	ng/L	
Hg2600-2	BC	SAM	1707620-20RE1	10	8/10/2017 10:49:08	82825-1.RAW	10:49:08 AM	214.02	1		200.3	1.105	11.045	ng/L	
Hg2600-2	BC	CAL	SEQ-CCV3	1	8/10/2017 10:53:17	82826-1.RAW	10:53:17 AM	850.10			836.3	5.106	5.106	ng/L	
Hg2600-2	BC	CAL	SEQ-CCB3	1	8/10/2017 10:57:25	82827-1.RAW	10:57:25 AM	32.55			18.8	0.115	0.115	ng/L	
Hg2600-2	BC	SAM	F707535-MS1	400	8/10/2017 11:01:34	82828-1.RAW	11:01:34 AM	1013.06	1		999.3	6.098	2439.218	ng/L	
Hg2600-2	BC	SAM	F707535-MSD1	400	8/10/2017 11:05:42	82829-1.RAW	11:05:42 AM	932.06	1		918.3	5.603	2241.390	ng/L	
Hg2600-2	BC	SAM	F707535-MS2	400	8/10/2017 11:09:50	82830-1.RAW	11:09:50 AM	1043.21	1		1029.4	6.282	2512.829	ng/L	
Hg2600-2	BC	SAM	F707535-MSD2	400	8/10/2017 11:13:59	82831-1.RAW	11:13:59 AM	1006.64	1		992.9	6.059	2423.527	ng/L	
Hg2600-2	BC	BLK	F708365-BLK1	100	8/10/2017 11:18:07	82832-1.RAW	11:18:07 AM	44.71	2		31.0	0.189	18.896	ng/L	
Hg2600-2	BC	BLK	F708365-BLK2	100	8/10/2017 11:22:16	82833-1.RAW	11:22:16 AM	31.39	2		17.6	0.108	10.769	ng/L	
Hg2600-2	BC	BLK	F708365-BLK3	100	8/10/2017 11:26:24	82834-1.RAW	11:26:24 AM	28.99	2		15.2	0.093	9.300	ng/L	
Hg2600-2	BC	SAM	F708365-BS1	400	8/10/2017 11:30:32	82835-1.RAW	11:30:32 AM	781.60	2		767.8	4.655	1862.146	ng/L	
Hg2600-2	BC	SAM	F708365-BSD1	400	8/10/2017 11:34:41	82836-1.RAW	11:34:41 AM	812.89	2		799.1	4.846	1938.564	ng/L	
Hg2600-2	BC	SAM	1708263-01	2500	8/10/2017 11:38:49	82837-1.RAW	11:38:49 AM	200.81	2		187.1	1.137	2842.110	ng/L	
Hg2600-2	BC	CAL	SEQ-CCV4	1	8/10/2017 11:42:58	82838-1.RAW	11:42:58 AM	847.70			833.9	5.091	5.091	ng/L	
Hg2600-2	BC	CAL	SEQ-CCB4	1	8/10/2017 11:47:06	82839-1.RAW	11:47:06 AM	36.86			23.1	0.141	0.141	ng/L	

Instrument	Analyst	Sample Type	LabNumber	Dilution	Analyzed	FileID	RunEnd	Uncorrected Response	Batch ID	No PB Correction?	RESP	InitialResult	FinalResult	InitialUnits	Comments
Hg2600-2	BC	SAM	1708263-02	2500	8/10/2017 11:51:15	82840-1.RAW	11:51:15 AM	180.94	2		167.2	1.016	2538.787	ng/L	
Hg2600-2	BC	SAM	1708267-01	2500	8/10/2017 11:55:24	82841-1.RAW	11:55:24 AM	506.08	2		492.3	3.001	7501.324	ng/L	
Hg2600-2	BC	SAM	1708267-02	2500	8/10/2017 11:59:33	82842-1.RAW	11:59:33 AM	450.82	2		437.1	2.663	6658.006	ng/L	
Hg2600-2	BC	SAM	1708263-01B	100	8/10/2017 12:03:41	82843-1.RAW	12:03:41 PM	78.53	2		64.8	0.266	26.557	ng/L	
Hg2600-2	BC	SAM	1708263-02B	100	8/10/2017 12:07:50	82844-1.RAW	12:07:50 PM	87.89	2		74.1	0.323	32.274	ng/L	
Hg2600-2	BC	SAM	1708267-01B	100	8/10/2017 12:11:58	82845-1.RAW	12:11:58 PM	32.85	2		19.1	-0.013	-1.332	ng/L	
Hg2600-2	BC	SAM	1708267-02B	100	8/10/2017 12:16:06	82846-1.RAW	12:16:06 PM	54.62	2		40.8	0.119	11.900	ng/L	
Hg2600-2	BC	SAM	1708263-01C	1000	8/10/2017 12:21:05	82847-1.RAW	12:21:05 PM	1403.29	2		1389.5	8.470	8470.456	ng/L	
Hg2600-2	BC	SAM	1708263-02C	1000	8/10/2017 12:25:13	82848-1.RAW	12:25:13 PM	1480.51	2		1466.8	8.942	8941.874	ng/L	
Hg2600-2	BC	SAM	1708267-01C	1000	8/10/2017 12:29:21	82849-1.RAW	12:29:21 PM	1410.00	2		1396.2	8.511	8511.414	ng/L	
Hg2600-2	BC	CAL	SEQ-CCV5	1	8/10/2017 12:33:30	82850-1.RAW	12:33:30 PM	835.0999902			821.3	5.014	5.014	ng/L	
Hg2600-2	BC	CAL	SEQ-CCB5	1	8/10/2017 12:37:38	82851-1.RAW	12:37:38 PM	26.77			13.0	0.079	0.079	ng/L	
Hg2600-2	BC	SAM	1708267-02C	1000	8/10/2017 12:41:47	82852-1.RAW	12:41:47 PM	1342.16	2		1328.4	8.097	8097.223	ng/L	
Hg2600-2	BC	SAM	1708263-01RE1	1000	8/10/2017 12:45:55	82853-1.RAW	12:45:55 PM	443.66	2		429.9	2.612	2611.676	ng/L	
Hg2600-2	BC	SAM	1708263-02RE1	1000	8/10/2017 12:50:03	82854-1.RAW	12:50:03 PM	409.38	2		395.6	2.402	2402.380	ng/L	
Hg2600-2	BC	SAM	F708365-DUP1	2500	8/10/2017 12:54:12	82855-1.RAW	12:54:12 PM	533.23	2		519.5	3.166	7915.722	ng/L	
Hg2600-2	BC	SAM	F708365-MS1	2500	8/10/2017 12:58:20	82856-1.RAW	12:58:20 PM	2101.89	2		2088.1	12.743	31858.342	ng/L	
Hg2600-2	BC	SAM	F708365-MSD1	2500	8/10/2017 13:02:29	82857-1.RAW	1:02:29 PM	2130.73	2		2117.0	12.919	32298.608	ng/L	
Hg2600-2	BC	CAL	SEQ-CCV6	1	8/10/2017 13:06:37	82858-1.RAW	1:06:37 PM	866.45			852.7	5.206	5.206	ng/L	
Hg2600-2	BC	CAL	SEQ-CCB6	1	8/10/2017 13:10:46	82859-1.RAW	1:10:46 PM	31.64			17.9	0.109	0.109	ng/L	

TotalMercury EPA1631  
 Operat BC  
 Worksh THg2600  
 Method #####  
 R: 0.9999  
 R<sup>2</sup>: 0.9999  
 BlankS: 13.756  
 CalibEqn: Conc = (Area-13.75  
 QC Warnings:8/QC E  
 Run Date: 8/10/2017  
 Run Time: 12:16:55  
 Blank SD: 1.813676669  
 Blank RSD%: 13.18500621  
 CF SD: 4.518378571  
 CF RSD%: 2.758573182

Sample/ID	Location	Rinse	Dilute	Blank	Conc (ppt)	MB%	FinalConc	Rec%	QA	RawData	RunEnd	Peak (Raw)	Control (eff)	Flags	RunCount
Clean				0.00	7.01					82778-1.RAW	7:35:16	1148.27	Clean	OK	1
clean				0.00	0.02					82779-1.RAW	7:38:08	2.70	Clean	OK	1
ws				13.76	0.00					82780-1.RAW	7:42:16	12.82	Sample	OK	1
ws				13.76	0.01					82781-1.RAW	7:46:24	15.47	Sample	OK	1
ws				13.76	0.00					82782-1.RAW	7:50:33	11.31	Sample	OK	1
SEQ-IBL1	A1		1	0.00	0.07					82783-1.RAW	7:54:41	11.68	Sample	OK	1
SEQ-IBL2	A2		1	0.00	0.09					82784-1.RAW	7:58:50	14.53	Sample	OK	1
SEQ-IBL3	A3		1	0.00	0.09					82785-1.RAW	8:02:58	15.05	Sample	OK	1
SEQ-CAL1	A4		1	13.76	0.48			96.17		82786-1.RAW	8:07:06	92.52	Sample	OK	1
SEQ-CAL2	A5		1	13.76	1.03			102.54		82787-1.RAW	8:11:15	181.71	Sample	OK	1
SEQ-CAL3	A6		1	13.76	5.12			102.49		82788-1.RAW	8:15:23	853.13	Sample	OK	1
SEQ-CAL4	A7		1	13.76	19.66			98.30		82789-1.RAW	8:19:32	3233.98	Sample	OK	1
SEQ-CAL5	A8		1	13.76	40.20			100.49		82790-1.RAW	8:23:40	6597.68	Sample	OK	1
SEQ-ICV1	A9		1	13.76	5.19			103.73		82791-1.RAW	8:27:49	863.23	Sample	OK	1
F707535-BLK1	A10		10	13.76	1.54					82792-1.RAW	8:32:31	39.04	Sample	OK	1
F707535-BLK2	A11		10	13.76	0.82					82793-1.RAW	8:36:39	27.17	Sample	OK	1
F707535-BS1	A12		100	13.76	217.43					82794-1.RAW	8:40:47	369.89	Sample	OK	1
F707535-BSD1	A13		100	13.76	228.57					82795-1.RAW	8:44:56	388.14	Sample	OK	1
1707619-32	A14		100	13.76	22.57					82796-1.RAW	8:49:04	50.72	Sample	OK	1
1707620-01	A15		100	13.76	34.09					82797-1.RAW	8:53:13	69.59	Sample	OK	1
1707620-03	A16		100	13.76	589.89					82798-1.RAW	8:57:21	979.96	Sample	OK	1
1707620-04	A17		100	13.76	758.23					82799-1.RAW	9:01:29	1255.69	Sample	OK	1
1707620-05	A18		100	13.76	701.15					82800-1.RAW	9:05:38	1162.19	Sample	OK	1
1707620-06	A19		100	13.76	595.38					82801-1.RAW	9:09:46	988.95	Sample	OK	1
SEQ-CCV1	A20		1	13.76	5.14			102.74		82802-1.RAW	9:13:55	855.13	Sample	OK	1
SEQ-CCB1	A21		1	13.76	0.07			0.00		82803-1.RAW	9:18:03	25.19	Sample	OK	1
1707620-07	B1		100	13.76	426.87					82804-1.RAW	9:22:12	712.95	Sample	OK	1
1707620-08	B2		100	13.76	115.16					82805-1.RAW	9:26:20	202.38	Sample	OK	1
1707620-09	B3		100	13.76	296.50					82806-1.RAW	9:30:28	499.40	Sample	OK	1
1707620-10	B4		100	13.76	64.21					82807-1.RAW	9:34:37	118.93	Sample	OK	1
1707620-12	B5		100	13.76	103.06					82808-1.RAW	9:38:45	182.56	Sample	OK	1
1707620-13	B6		100	13.76	879.61					82809-1.RAW	9:42:54	1454.51	Sample	OK	1
1707620-14	B7		100	13.76	1040.08					82810-1.RAW	9:47:02	1717.35	Sample	OK	1
1707620-15	B8		100	13.76	603.48					82811-1.RAW	9:51:10	1002.21	Sample	OK	1
1707620-16	B9		100	13.76	398.21					82812-1.RAW	9:55:19	666.00	Sample	OK	1
1707620-17	B10		100	13.76	185.43					82813-1.RAW	9:59:27	317.47	Sample	OK	1
SEQ-CCV2	B11		1	13.76	5.12			102.36		82814-1.RAW	10:03:36	852.07	Sample	OK	1
SEQ-CCB2	B12		1	13.76	0.10			0.00		82815-1.RAW	10:07:44	29.76	Sample	OK	1
1707620-18	B13		100	13.76	748.26					82816-1.RAW	10:11:53	1239.36	Sample	OK	1
1707620-19	B14		100	13.76	32.98					82817-1.RAW	10:16:01	67.77	Sample	OK	1
1707620-20	B15		100	13.76	11.71					82818-1.RAW	10:20:09	32.93	Sample	OK	1
1707620-22	B16		100	13.76	1926.84					82819-1.RAW	10:24:18	3169.80	Sample	OK	1
1707619-32RE1	B17		10	13.76	19.32					82820-1.RAW	10:28:26	330.27	Sample	OK	1
1707620-01RE1	B18		10	13.76	32.78					82821-1.RAW	10:32:35	550.74	Sample	OK	1



1707620-10RE1	B19	10	13.76	26.38		82822-1.RAW	10:36:43	445.93	OK	1	
1707620-12RE1	B20	10	13.76	99.68		82823-1.RAW	10:40:51	1646.39	Sample	OK	1
1707620-19RE1	B21	10	13.76	29.41		82824-1.RAW	10:45:00	495.44	Sample	OK	1
1707620-20RE1	C1	10	13.76	12.23		82825-1.RAW	10:49:08	214.02	Sample	OK	1
SEQ-CCV3	C2	1	13.76	5.11	102.12	82826-1.RAW	10:53:17	850.10	Sample	OK	1
SEQ-CCB3	C3	1	13.76	0.11	0.00	82827-1.RAW	10:57:25	32.55	Sample	OK	1
F707535-MS1	C4	400	13.76	2440.40	218920.75	82828-1.RAW	11:01:34	1013.06	Sample	OK	1
F707535-MSD1	C5	400	13.76	2242.57		82829-1.RAW	11:05:42	932.06	Sample	OK	1
F707535-MS2	C6	400	13.76	2514.01	112.00	82830-1.RAW	11:09:50	1043.21	Sample	OK	1
F707535-MSD2	C7	400	13.76	2424.71		82831-1.RAW	11:13:59	1006.64	Sample	OK	1
F708365-BLK1	C8	100	13.76	18.90		82832-1.RAW	11:18:07	44.71	Sample	OK	1
F708365-BLK2	C9	100	13.76	10.77		82833-1.RAW	11:22:16	31.39	Sample	OK	1
F708365-BLK3	C10	100	13.76	9.30		82834-1.RAW	11:26:24	28.99	Sample	OK	1
F708365-BS1	C11	400	13.76	1875.13		82835-1.RAW	11:30:32	781.60	Sample	OK	1
F708365-BSD1	C12	400	13.76	1951.55		82836-1.RAW	11:34:41	812.89	Sample	OK	1
1708263-01	C13	2500	13.76	2855.10		82837-1.RAW	11:38:49	200.81	Sample	OK	1
SEQ-CCV4	C14	1	13.76	5.09	101.83	82838-1.RAW	11:42:58	847.70	Sample	OK	1
SEQ-CCB4	C15	1	13.76	0.14	0.00	82839-1.RAW	11:47:06	36.86	Sample	OK	1
1708263-02	C16	2500	13.76	2551.78		82840-1.RAW	11:51:15	180.94	Sample	OK	1
1708267-01	C17	2500	13.76	7514.31		82841-1.RAW	11:55:24	506.08	Sample	OK	1
1708267-02	C18	2500	13.76	6670.99		82842-1.RAW	11:59:33	450.82	Sample	OK	1
1708263-01B	C19	100	13.76	39.54		82843-1.RAW	12:03:41	78.53	Sample	OK	1
1708263-02B	C20	100	13.76	45.26		82844-1.RAW	12:07:50	87.89	Sample	OK	1
1708267-01B	C21	100	13.76	11.66		82845-1.RAW	12:11:58	32.85	Sample	OK	1
1708267-02B	A1	100	13.76	24.89		82846-1.RAW	12:16:06	54.52	Sample	OK	1
1708263-01C	A2	1000	13.76	8483.44		82847-1.RAW	12:21:05	1403.29	Sample	OK	1
1708263-02C	A3	1000	13.76	8954.86		82848-1.RAW	12:25:13	1480.51	Sample	OK	1
1708267-01C	A4	1000	13.76	8524.40		82849-1.RAW	12:29:21	1410.00	Sample	OK	1
SEQ-CCV5	A5	1	13.76	5.01	100.29	82850-1.RAW	12:33:30	835.10	Sample	OK	1
SEQ-CCB5	A6	1	13.76	0.08	0.00	82851-1.RAW	12:37:38	26.77	Sample	OK	1
1708267-02C	A7	1000	13.76	8110.21		82852-1.RAW	12:41:47	1342.16	Sample	OK	1
1708263-01RE1	A8	1000	13.76	2624.66		82853-1.RAW	12:45:55	443.66	Sample	OK	1
1708263-02RE1	A9	1000	13.76	2415.37		82854-1.RAW	12:50:03	409.38	Sample	OK	1
F708365-DUP1	A10	2500	13.76	7928.71		82855-1.RAW	12:54:12	533.23	Sample	OK	1
F708365-MS1	A11	2500	13.76	31871.33	#####	82856-1.RAW	12:58:20	2101.89	Sample	OK	1
F708365-MSD1	A12	2500	13.76	32311.60		82857-1.RAW	13:02:29	2130.73	Sample	OK	1
SEQ-CCV6	A13	1	13.76	5.21	104.12	82858-1.RAW	13:06:37	866.45	Sample	OK	1
SEQ-CCB6	A14	1	13.76	0.11	0.00	82859-1.RAW	13:10:46	31.64	Sample	OK	1

7H10024

INITIALS: A 8/11/17  
Analyzed: 8/10/2017

Instrument: Hg2600-3

Calibration ID: UNASSIGNED

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
7H10024-IBL1 ✓	QC	1			
7H10024-IBL2 ✓	QC	2			
7H10024-IBL3 ✓	QC	3			
7H10024-CAL1 ✓	QC	4	1704505 ✓		
7H10024-CAL2 ✓	QC	5	1704506 ✓		
7H10024-CAL3 ✓	QC	6	1704507 ✓		
7H10024-CAL4 ✓	QC	7	1704508 ✓		
7H10024-CAL5 ✓	QC	8	1704509 ✓		
7H10024-ICV1 ✓	QC	9	1703679		
7H10024-CCV1 ✓	QC	10	1703679 ✓		
7H10024-CCB1 ✓	QC	11			
7H10024-CCV2 ✓	QC	12	1703679 ✓		
7H10024-CCB2 ✓	QC	13			
7H10024-CCV3 ✓	QC	14	1703679 ✓		
7H10024-CCB3 ✓	QC	15			
F708365-BLK1 ✓	QC	16			
F708365-BLK2 ✓	QC	17			
F708365-BLK3 ✓	QC	18			
F708365-BS1 ✓	QC	19			
F708365-BSD1 ✓	QC	20			
1708263-01 ✓	Hg_FSTM_TRAP_A	21			
7H10024-CCV4 ✓	QC	22	1703679 ✓		
7H10024-CCB4 ✓	QC	23			
1708263-02 ✓	Hg_FSTM_TRAP_A	24			
1708267-01 ✓	Hg_FSTM_TRAP_A	25			
1708267-02 ✓	Hg_FSTM_TRAP_A	26			
7H10024-CCV5 ✓	QC	27	1703679 ✓		
7H10024-CCB5 ✓	QC	28			
1708263-01RE1 ✓	Hg_FSTM_TRAP_A	29			Added 8/10/2017 by BC
1708263-02RE1 ✓	Hg_FSTM_TRAP_A	30			Added 8/10/2017 by BC
F708365-DUPI ✓	QC	31			
F708365-MS1 ✓	QC	32			
F708365-MSD1 ✓	QC	33			
7H10024-CCV6 ✓	QC	34	1703679		
7H10024-CCB6 ✓	QC	35			

Due Date: 8/11/2017

ANALYSIS SEQUENCE

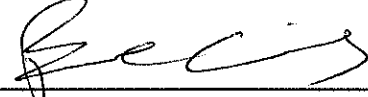
7H10024

Instrument: Hg2600-3

Calibration ID: UNASSIGNED

Analyzed: 8/10/2017

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
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	8/10/17		8/10/17
Samples Loaded By	Date	Data Processed By	Date

**PREPARATION BENCH SHEET**

F708365

**Eurofins Frontier Global Sciences, Inc.**

**Matrix: Air**

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

**Prepared: 8/9/2017**

Lab Number	Sample ID and Source Sample	Initial (Trap)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F708365-BLK1	Blank	1	100					
F708365-BLK2	Blank	1	100					
F708365-BLK3	Blank	1	100					
F708365-BS1	LCS	1	100	1701763	200			
F708365-BSD1	LCS Dup	1	100	1701763	200			
F708365-DUP1	Duplicate [1708267-01]	1	100					
F708365-MS1	Matrix Spike [1708267-01]	0.0002	0.02	1704422	50			[Spk] 1Trap->100mL; 20mL->20mL; Spiked 0.02mL
F708365-MSD1	Matrix Spike Dup [1708267-01]	0.0002	0.02	1704422	50			[Spk] 1Trap->100mL; 20mL->20mL; Spiked 0.02mL

<u>Standard ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>	<u>Reagent ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>
1701763	THg 1,000ng/mL Secondary Spiking Standard	22-Sep-17 00:00	1703182	25% Hydroxylamine-HCl working solution	24-Nov-17 00:00
1704422	THg 10ng/mL Calibration Standard	21-Oct-17 00:00	1703701	THg Washstation (0.5% BrCl)	21-Dec-17 00:00
			1703702	THg Dilute 1% BrCl	
			1704691	3% SnCl2 THg reductant	22-Jan-18 00:00
			1704740	5% BrCl	18-Dec-17 00:00
			1704814	70/30 Digestion Acid	04-Feb-18 00:00

**PREPARATION BENCH SHEET**

F708365

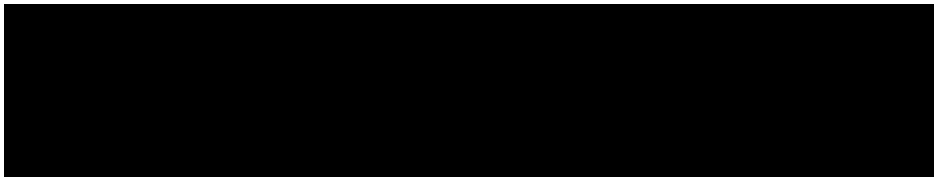
**Eurofins Frontier Global Sciences, Inc.**

**Matrix: Air**

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

**Prepared: 8/9/2017**

Lab Number	Sample ID	Initial (Trap)	Final (mL)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1708263-01	EFGS08913 Trap A	1	100	-	-	-	2255.51L	
1708263-01RE1	EFGS08913 Trap A	1	100	-	-	-	2255.51L Added 8/10/2017 by BC	Added 8/10/2017 by BC
1708263-02	EFGS08598 Trap B	1	100	-	-	-	2255.56L	
1708263-02RE1	EFGS08598 Trap B	1	100	-	-	-	2255.56L Added 8/10/2017 by BC	Added 8/10/2017 by BC
1708267-01	EFGS08006 Trap A	1	100	-	-	-	Sample Volume: 2462.48 L	
1708267-02	EFGS07994 Trap B	1	100	-	-	-	Sample Volume: 2464.25 L	



PREPARATION BENCH SHEET

2600-2  
 BC 8/10/17

F708365

Eurofins Frontier Global Sciences, Inc.

Matrix: Air

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

Prepared: 8/9/2017

Lab Number	Sample ID and Source Sample	Initial (Trap)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F708365-BLK1	Blank	1	100					100X
F708365-BLK2	Blank	1	100					100X
F708365-BLK3	Blank	1	100					100X
F708365-BS1	LCS	1	100					400X
F708365-BSD1	LCS Dup	1	100					400X
F708365-DUP1	Duplicate 1708267-01	1	100					2500
F708365-MS1	Matrix Spike 1708267-01	1	100	1704422	50			2500X
F708365-MSD1	Matrix Spike Dup 1708267-01	1	100	1704422	50			2500X

Standard ID(s):

Description:

Expiration:

1704641  
 1703701  
 1703702  
 1703182

PREPARATION BENCH SHEET

2600-2  
GCS/10/17

F708365

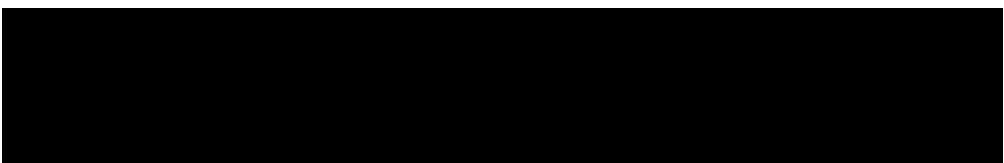
Eurofins Frontier Global Sciences, Inc.

Matrix: Air

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

Prepared: 8/9/2017

Lab Number	Sample ID	Initial (Trap)	Final (mL)	QC Sample	Sample Specs.	Raw Data	A Sample Comments	B	Analysis Comments	C
1708263-01	EFGS08913 Trap A	1	100	-	-	-	2255.51L 2500X → 1000X ✓	100X ✓	1000X ✓	
1708263-02	EFGS08598 Trap B	1	100	-	-	-	2255.56L 2500X → 1000X ✓	100X ✓	1000X ✓	
1708267-01	EFGS08006 Trap A	1	100	-	-	-	Sample Volume: 2462.48 L 2500X	100X ✓	1000X ✓	
1708267-02	EFGS07994 Trap B	1	100	-	-	-	Sample Volume: 2464.25 L 2500X	100X ✓	1000X ✓	



Name: PXC Date: 8/9/17 Batch ID: F708365  
 Work Order(s): 1708263, 1708267 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: 1535, start temp (°C): 56 (raw) 55.2 (w/ CF)  
 end time: 17:35, end temp (°C): 70.0 (raw) 69.7 (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)
F708365 - B1K1	100
F708365 - B1K2	100
F708365 - B1K3	100
F708365 - B5I	100
F708365 - BSD1	100
1708263 - 01 A	100
1708263 - 01 B	100
1708263 - 01 C	100
1708263 - 02 A	100
1708263 - 02 B	100
1708263 - 02 C	100
1708267 - 01 A	100
1708267 - 01 B	100
1708267 - 01 C	100
1708267 - 02 A	100
1708267 - 02 B	100
1708267 - 02 C	100

Spike ID: 1701703  
 Spike Amount (µL): 200  
 Spike Witness: CLC 8/9/17

BrCl ID: 1704740  
 70/30: 1704814  
 Other: NA

Thermometer: 13698  
 Dispensers: 02K27494   
 04N73497   
 Other 15406623

Pipette ID: NU11619  
 Cal. Date: 8/9/17

Vials and Jars lot# 00060335  
 Trap Material Lot#: 1702565  
 Loader Mass Verified:  Yes  No

Comments:  
1708263 C Bcds  
SPiked at 900mg  
1708267 - CBcds  
SPiked at 900mg

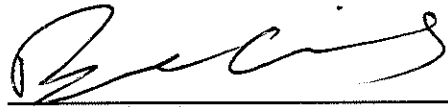
PXC 8/9/17



# Failing Data Report - 7H10024

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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8/10/17

Analyst Reviewed By

Date



8/11/17

Peer Reviewed By

Date

7H10023

PEER-REVIEWED

Instrument: Hg2600-3

Calibration ID: UNASSIGNED

INITIALS: *R 8/11/17* Analyzed: 8/10/2017

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
7H10023-IBL1 ✓	QC	1			
7H10023-IBL2 ✓	QC	2			
7H10023-IBL3 ✓	QC	3			
7H10023-CAL1 ✓	QC	4	1704505	✓	
7H10023-CAL2 ✓	QC	5	1704506	✓	
7H10023-CAL3 ✓	QC	6	1704507	✓	
7H10023-CAL4 ✓	QC	7	1704508	✓	
7H10023-CAL5 ✓	QC	8	1704509	✓	
7H10023-ICV1 ✓	QC	9	1703679	✓	
F707535-BLK1 ✓	QC	10			
F707535-BLK2 ✓	QC	11			
F707535-BS1 ✓	QC	12			
F707535-BSD1 ✓	QC	13			
1707619-32 ✓	Hg-CVAFS-S-7474	14			
1707620-01 ✓	Hg-CVAFS-S-7474	15			
1707620-03 ✓	Hg-CVAFS-S-7474	16			
1707620-04 ✓	Hg-CVAFS-S-7474	17			
1707620-05 ✓	Hg-CVAFS-S-7474	18			
1707620-06 ✓	Hg-CVAFS-S-7474	19			
7H10023-CCV1 ✓	QC	20	1703679	✓	
7H10023-CCB1 ✓	QC	21			
1707620-07 ✓	Hg-CVAFS-S-7474	22			
1707620-08 ✓	Hg-CVAFS-S-7474	23			
1707620-09 ✓	Hg-CVAFS-S-7474	24			
1707620-10 ✓	Hg-CVAFS-S-7474	25			
1707620-12 ✓	Hg-CVAFS-S-7474	26			
1707620-13 ✓	Hg-CVAFS-S-7474	27			
1707620-14 ✓	Hg-CVAFS-S-7474	28			
1707620-15 ✓	Hg-CVAFS-S-7474	29			
1707620-16 ✓	Hg-CVAFS-S-7474	30			
1707620-17 ✓	Hg-CVAFS-S-7474	31			
7H10023-CCV2 ✓	QC	32	1703679	✓	
7H10023-CCB2 ✓	QC	33			
1707620-18 ✓	Hg-CVAFS-S-7474	34			
1707620-19 ✓	Hg-CVAFS-S-7474	35			

Due Date: 8/21/2017

## ANALYSIS SEQUENCE

7H10023


Instrument: Hg2600-3

Calibration ID: UNASSIGNED

Analyzed: 8/10/2017

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
1707620-20	Hg-CVAFS-S-7474	36			
1707620-22	Hg-CVAFS-S-7474	37			
1707619-32RE1	Hg-CVAFS-S-7474	38			Added 8/10/2017 by BC
1707620-01RE1	Hg-CVAFS-S-7474	39			Added 8/10/2017 by BC
1707620-10RE1	Hg-CVAFS-S-7474	40			Added 8/10/2017 by BC
1707620-12RE1	Hg-CVAFS-S-7474	41			Added 8/10/2017 by BC
1707620-19RE1	Hg-CVAFS-S-7474	42			Added 8/10/2017 by BC
1707620-20RE1	Hg-CVAFS-S-7474	43			Added 8/10/2017 by BC
7H10023-CCV3	QC	44	1703679		
7H10023-CCB3	QC	45			
F707535-MS1	QC	46			
F707535-MSD1	QC	47			
F707535-MS2	QC	48			
F707535-MSD2	QC	49			
7H10023-CCV4	QC	50	1703679		
7H10023-CCB4	QC	51			

 8/10/17  
 Samples Loaded By \_\_\_\_\_ Date 8/10/17

 8/10/17  
 Data Processed By \_\_\_\_\_ Date 8/10/17

Due Date: 8/21/2017

Page 2 of 2

373 of 473

**PREPARATION BENCH SHEET**

F707535

**Eurofins Frontier Global Sciences, Inc.**

**Matrix: Soil/Sediment**

**Prepared using: AFS - EPA 7474**

**Prepared: 8/9/2017**

Lab Number	Sample ID and Source Sample	Initial (g)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F707535-BLK1	Blank	0.5	200					
F707535-BLK2	Blank	0.5	200					
F707535-BS1	Blank Spike	0.5	200	1701763	40			
F707535-BSD1	Blank Spike Dup	0.5	200	1701763	40			
F707535-MS1	Matrix Spike [1707619-32RE1]	0.5528	200	1703591	50			
F707535-MS2	Matrix Spike [1707620-01RE1]	0.5448	200	1703591	50			
F707535-MSD1	Matrix Spike Dup [1707619-32RE1]	0.5824	200	1703591	50			
F707535-MSD2	Matrix Spike Dup [1707620-01RE1]	0.5606	200	1703591	50			

<u>Standard ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>	<u>Reagent ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>
1701763	THg 1,000ng/mL Secondary Spiking Standard	22-Sep-17 00:00	1703182	25% Hydroxylamine-HCl working solution	24-Nov-17 00:00
1703591	THg 10,000ng/mL Primary Spiking Standard	14-Dec-17 00:00	1703701	THg Washstation (0.5% BrCl)	21-Dec-17 00:00
			1703702	THg Dilute 1% BrCl	
			1703831	Omnitrace Hydrochloric Acid	26-Jun-20 00:00
			1704424	Boiling Chips for AFS prep	21-Jan-18 00:00
			1704484	Fisher Nitric Acid, Tracemetal Grade	15-Mar-19 00:00
			1704691	3% SnCl2 THg reductant	22-Jan-18 00:00
			1704812	7474 Potassium Bromate/Bromide Reagent	15-Aug-17 00:00

**PREPARATION BENCH SHEET**

F707535

**Eurofins Frontier Global Sciences, Inc.**

**Matrix: Soil/Sediment**

**Prepared using: AFS - EPA 7474**

**Prepared: 8/9/2017**

Lab Number	Sample ID	Initial (g)	Final (mL)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1707619-32	W-65-Mid_071917_SED_05-10	0.5284	200	QC	-	-	MS/MSD	
1707619-32RE1	W-65-Mid_071917_SED_05-10	0.5284	200	QC	-	-	MS/MSD Added 8/10/2017 by BC	Added 8/10/2017 by BC
1707620-01	W-104-A_071817_SED_00-01	0.5372	200	QC	-	-	MS/MSD	
1707620-01RE1	W-104-A_071817_SED_00-01	0.5372	200	QC	-	-	MS/MSD Added 8/10/2017 by BC	Added 8/10/2017 by BC
1707620-03	W-MM-04_071717_SED_00-01	0.5565	200	-	-	-		
1707620-04	W-MM-05_071817_SED_00-01	0.5606	200	-	-	-		
1707620-05	W-MM-08_071817_SED_00-01	0.5557	200	-	-	-		
1707620-06	W-MM-11_071817_SED_00-01	0.5437	200	-	-	-		
1707620-07	W-MM-12_071817_SED_00-01	0.5591	200	-	-	-		
1707620-08	W-MM-13_071817_SED_00-01	0.5416	200	-	-	-		
1707620-09	W-MM-14_071817_SED_00-01	0.5523	200	-	-	-		
1707620-10	W-104-A_071817_SED_01-03	0.5241	200	-	-	-	Original jar broken, created container E	
1707620-10RE1	W-104-A_071817_SED_01-03	0.5241	200	-	-	-	Original jar broken, created container E	Added 8/10/2017 by BC
1707620-12	W-MM-04_071717_SED_01-03	0.521	200	-	-	-		
1707620-12RE1	W-MM-04_071717_SED_01-03	0.521	200	-	-	-	Added 8/10/2017 by BC	Added 8/10/2017 by BC
1707620-13	W-MM-05_071817_SED_01-03	0.5523	200	-	-	-	Original jar broken, created container E	
1707620-14	W-MM-08_071817_SED_01-03	0.5232	200	-	-	-		
1707620-15	W-MM-11_071817_SED_01-03	0.5421	200	-	-	-		
1707620-16	W-MM-12_071817_SED_01-03	0.5058	200	-	-	-	Original jar broken, created container E	

**PREPARATION BENCH SHEET**

F707535

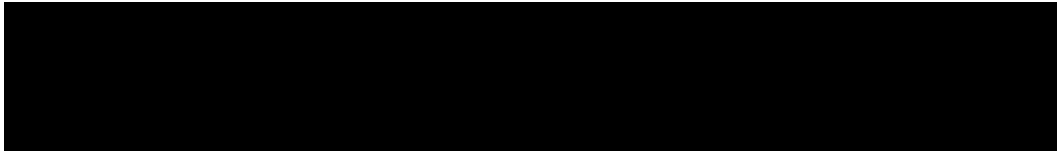
**Eurofins Frontier Global Sciences, Inc.**

**Matrix: Soil/Sediment**

**Prepared using: AFS - EPA 7474**

**Prepared: 8/9/2017**

1707620-17	W-MM-13_071817_SED_01-03	0.5255	200	-	-	-		
1707620-18	W-MM-14_071817_SED_01-03	0.5561	200	-	-	-		
1707620-19	W-MM-03_071817_SED_03-05	0.5343	200	-	-	-		
1707620-19RE1	W-MM-03_071817_SED_03-05	0.5343	200	-	-	-	Added 8/10/2017 by BC	Added 8/10/2017 by BC
1707620-20	W-MM-03_071817_SED_05-10	0.5372	200	-	-	-		
1707620-20RE1	W-MM-03_071817_SED_05-10	0.5372	200	-	-	-	Added 8/10/2017 by BC	Added 8/10/2017 by BC
1707620-22	W-MM-04_071817_SED_05-10	0.5532	200	-	-	-		



PREPARATION BENCH SHEET

2600-2  
BC 8/10/17

F707535

Eurofins Frontier Global Sciences, Inc.

Matrix: Soil/Sediment

Prepared using: AFS - EPA 7474

Prepared: 8/28/2017

Lab Number	Sample ID and Source Sample	Initial (g)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F707535-BLK1	Blank	0.5	200					10X -
F707535-BLK2	Blank	0.5	200					10X -
F707535-BS1	Blank Spike	0.5	200	1701763	40			100X -
F707535-BSD1	Blank Spike Dup	0.5	200	1701763	40			100X -
F707535-MS1	Matrix Spike [1707619-32]	0.5528	200	1703591	50			400X -
F707535-MS2	Matrix Spike [1707620-01]	0.5448	200	1703591	50			400X -
F707535-MSD1	Matrix Spike Dup [1707619-32]	0.5824	200	1703591	50			400X -
F707535-MSD2	Matrix Spike Dup [1707620-01]	0.5606	200	1703591	50			400X -

Standard ID(s):

Description:

Expiration:

Reagent ID(s):

Description:

Expiration:

1701763 THg 1,000ng/mL Secondary Spiking Standard  
1703591 THg 10,000ng/mL Primary Spiking Standard

22-Sep-17 00:00  
14-Dec-17 00:00

1703831 Omnitrace Hydrochloric Acid  
1704424 Boiling Chips for AFS prep  
1704484 Fisher Nitric Acid, Tracemetal Grade  
1704812 7474 Potassium Bromate/Bromide Reagent

26-Jun-20 00:00  
21-Jan-18 00:00  
15-Mar-19 00:00  
15-Aug-17 00:00

1704691  
1703701  
~~1704~~  
1703702  
1703182

PREPARATION BENCH SHEET

2600-2  
BCL 8/10/17

F707535

Eurofins Frontier Global Sciences, Inc.

Matrix: Soil/Sediment

Prepared using: AFS - EPA 7474

Prepared: 8/28/2017

Lab Number	Sample ID	Initial (g)	Final (mL)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1707619-32	W-65-Mid_071917_SED_05-10	0.5284	200	QC	-	-	MS/MSD 100X → 10X	
1707620-01	W-104-A_071817_SED_00-01	0.5372	200	QC	-	-	MS/MSD 100X → 10X	
1707620-03	W-MM-04_071717_SED_00-01	0.5565	200	-	-	-	100X	
1707620-04	W-MM-05_071817_SED_00-01	0.5606	200	-	-	-	100X	
1707620-05	W-MM-08_071817_SED_00-01	0.5557	200	-	-	-	100X	
1707620-06	W-MM-11_071817_SED_00-01	0.5437	200	-	-	-	100X	
1707620-07	W-MM-12_071817_SED_00-01	0.5591	200	-	-	-	100X	
1707620-08	W-MM-13_071817_SED_00-01	0.5416	200	-	-	-	100X	
1707620-09	W-MM-14_071817_SED_00-01	0.5523	200	-	-	-	100X	
1707620-10	W-104-A_071817_SED_01-03	0.5241	200	-	-	-	Original jar broken, created container E 100X → 10X	
1707620-12	W-MM-04_071717_SED_01-03	0.521	200	-	-	-	100X → 10X	
1707620-13	W-MM-05_071817_SED_01-03	0.5523	200	-	-	-	Original jar broken, created container E 100X	
1707620-14	W-MM-08_071817_SED_01-03	0.5232	200	-	-	-	100X	
1707620-15	W-MM-11_071817_SED_01-03	0.5421	200	-	-	-	100X	
1707620-16	W-MM-12_071817_SED_01-03	0.5058	200	-	-	-	Original jar broken, created container E 100X	
1707620-17	W-MM-13_071817_SED_01-03	0.5255	200	-	-	-	100X	
1707620-18	W-MM-14_071817_SED_01-03	0.5561	200	-	-	-	100X	
1707620-19	W-MM-03_071817_SED_03-05	0.5343	200	-	-	-	100X → 10X	
1707620-20	W-MM-03_071817_SED_05-10	0.5372	200	-	-	-	100X → 10X	

Due Date: 8/21/2017



PREPARATION BENCH SHEET

2600-2  
BL 8/10/17

F707535

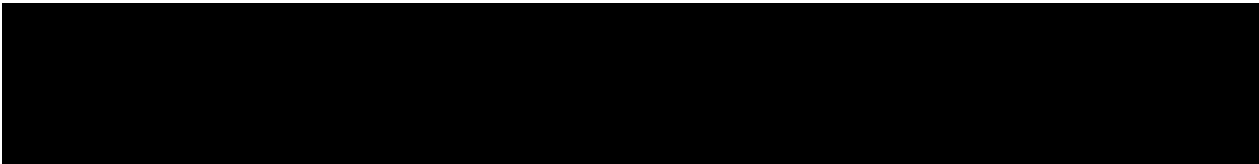
Eurofins Frontier Global Sciences, Inc.

Matrix: Soil/Sediment

Prepared using: AFS - EPA 7474

Prepared: 8/28/2017

1707620-22	W-MM-04_071817_SED_05-10	0.5532	200	-	-	-	100X	
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Technician: Duyen Batch#: F707535 Date: 8/9/17

- EFAFS-T-AFS-SOP2986 Tissues - Methyl Mercury - KOH/Methanol: Hot plate 75±5°C for 2-4 hours.
- EFAFS-T-AFS-SOP2795 Tissues - Total Mercury - 70:30: Hot plate 75±5°C for two hours.
- EFAFS-T-AFS-SOP5134 Sediments - Methyl Mercury - KBr/CH<sub>2</sub>Cl<sub>2</sub>: Heat Block 45°C (nitrogen purge for 30 minutes).
- EFAFS-T-AFS-SOP2807 Solids - Total Mercury - Cold AR: 18-25°C for over four hours.

Other: EPA 7474 Vial Type:  Glass  Teflon  
 Balance#: 1g Calibrated?  Yes  No Therm.#: N/A Calibrated?  Yes  No  
 \*Time in: N/A Actual Temp. (raw): N/A °C w/ CF: N/A °C  
 Time out: N/A Actual Temp. (raw): N/A °C w/ CF: N/A °C  
 \*Time in can't begin before target temperature is reached

Final vol.: 25 mL (LIMS ID: R0H20) Spike vol.: 40 µL (LIMS ID: 1701763)  
 Spike Witness: cc 8/9/17 (initial and date)

HCl LIMS ID: 1703831 Pipette SN#: MU11619 Calibration Date: 8-4-9-17  
 HNO<sub>3</sub> LIMS ID: 1704484 Pipette SN#: NH07693 Calibration Date: 8/9/17  
 70/30 LIMS ID: N/A Dispenser #: 09045351 Calibrated?  Yes  No  
 Other Acid LIMS ID: 1704812 Dispenser #: 0842293  Yes  
 Glass Vial # 1264713-3025 Boiling Chip lot # 1704424 \*Hotblock Position: N/A

Vial #	Sample ID Number	Sample Size <input type="checkbox"/> mL <input checked="" type="checkbox"/> g	Vial # <u>8/9/17</u>	Sample ID Number	Sample Size <input type="checkbox"/> mL <input checked="" type="checkbox"/> g	CRM LIMS ID <input checked="" type="checkbox"/> NA
1	F707535 B1K1	0.5201	23 8	1707620-16A	0.5058	
2	F707535 B1K2	0.5376	24 9	1707620-17	0.5255	
3	F707535 B51	0.5205	25 10	1707620-18	0.5561	
4	F707535 B501	0.5084	26 11	1707620-19	0.5343	Comments
5	1707619-32A	0.5284	27 12	1707620-20	0.5372	F707535
6	F707535-M51	0.5528	28 13	1707620-22	0.5532	50µL
7	F707535-M501	0.5824	29			M51 M501
8	1707620-01A	0.5372	30			8/9/17
9	F707535-M52	0.5448	31			1707620-01
10	F707535-M502	0.5606	32			F707535
11	1707620-03A	0.5665	33			M52 M502
12	1707620-04A	0.5606	34			1707620-01
13	1707620-05A	0.5557	35			All spike
14	1707620-06A	0.5437	36			M51 M501
15	1707620-07A	0.5591	37			= 50µL
16	1707620-08A	0.5416	38			10,000µg/L
17	1707620-09A	0.5523	39			1703591
18	1707620-10A	0.5241	40			8/9/17
19	1707620-12A	0.5210	41			
20	1707620-13A	0.5523	42			
21	1707620-14A	0.5232	43			
22	1707620-15A	0.5421	44			

# Failing Data Report - 7H10023

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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 8/10/17  
Analyst Reviewed By Date

 8/11/18  
Peer Reviewed By Date

**Peer Review Check List for THg by 2600 CV-AFS (SOP2822) 2016 Rev 1 (04/1/2016)**

<b>Analyst:</b> BC	<b>Sequence(s) #:</b> 7H10023, 7H10024
<b>Reviewer:</b> <u>pc 8/11/12</u>	<b>Dataset ID(s):</b> THg26002-170810-1
<b>Date:</b> 8/10/2017	<b>WO (s) #:</b> VARIOUS
<b>Batch #(s):</b> F707535, F708365	

• Select the correct preparation method.

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

**Analyst Initials:** BC      **Reviewer Initials:** pc 8/11/12

- |   |   |  |                                     |
|---|---|--|-------------------------------------|
| 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        |
| (d) Check and compare masses (review prep benchsheet)   | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO            | <input type="checkbox"/> N/A        |
| (e) Check & compare initial & final volumes   | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO            | <input type="checkbox"/> N/A        |
| (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        |
| 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 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"/> |
| (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 (SOP2822) 2016 Rev 1 (04/1/2016)**

<b>Analyst:</b> BC	<b>Sequence(s) #:</b> 7H10023, 7H10024
<b>Reviewer:</b> 0 <i>R 8/11/17</i>	<b>Dataset ID(s):</b> THg26002-170810-1
<b>Date:</b> 8/10/2017	<b>WO (s) #:</b> VARIOUS
<b>Batch #(s):</b> F707535, F708365	0

**Analyst Initials** BC      **Reviewer Initials** R 8/11/17

- |  |  |                               |   |                                     |
|--|--|-------------------------------|---|-------------------------------------|
| 5b. Has the B/C section data been uploaded?  | <input checked="" type="checkbox"/> YES  | <input type="checkbox"/> NO   | <input type="checkbox"/> N/A            | <input checked="" type="checkbox"/> |
| <b>QA/QC Data Checked</b>  |  |                               |   |                                     |
| 6. RSD CF ( $\leq$ 15%)  | <input checked="" type="checkbox"/> PASS | <input type="checkbox"/> FAIL |   | <input checked="" type="checkbox"/> |
| Comments: _____  |  |                               |   |                                     |
| 7. The calibration curve included a minimum of 5 Standards   | <input checked="" type="checkbox"/> YES  | <input type="checkbox"/> NO   |   | <input checked="" type="checkbox"/> |
| Comments: _____  |  |                               |   |                                     |
| 8. 1st Calibration Standard % Recoveries EPA 1631E (75-125%)   | <input checked="" type="checkbox"/> PASS | <input type="checkbox"/> FAIL |   | <input checked="" type="checkbox"/> |
| 9. ICV and CCV % Recoveries EPA 1631E (77-123%)  | <input checked="" type="checkbox"/> PASS | <input type="checkbox"/> FAIL |   | <input checked="" type="checkbox"/> |
| Comments: _____  |  |                               |   |                                     |
| 10. Do all calibration points pass acceptance criteria?  | <input checked="" type="checkbox"/> YES  | <input type="checkbox"/> NO   |   | <input checked="" type="checkbox"/> |
| Comments: _____  |  |                               |   |                                     |
| 11. Are qualifiers consistent with the data review flowcharts?   | <input checked="" type="checkbox"/> YES  | <input type="checkbox"/> NO   | <input type="checkbox"/> N/A            | <input checked="" type="checkbox"/> |
| Comments: _____  |  |                               |   |                                     |
| 12. Explain any items on the failed data report from Element   |  |                               |   | <input checked="" type="checkbox"/> |
| Comments: <u>NA</u>  |  |                               |   |                                     |
| 13. Are the individual Preparation Blanks < PQL or <2.2xMDL for WI (refer to appropriate prep method PQL list) | <input checked="" type="checkbox"/> PASS | <input type="checkbox"/> FAIL |   | <input checked="" type="checkbox"/> |
| (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)?                                   | <input checked="" type="checkbox"/> YES  | <input type="checkbox"/> NO   |   | <input checked="" type="checkbox"/> |
| (c) Was a BrCl Blank analyzed for each preservation level?   | <input type="checkbox"/> YES             | <input type="checkbox"/> NO   | <input checked="" type="checkbox"/> N/A | <input checked="" type="checkbox"/> |
| (d) Are Preparation Blanks summarized on QC page?  | <input checked="" type="checkbox"/> YES  | <input type="checkbox"/> NO   |   | <input checked="" type="checkbox"/> |
| 14. Filtration Blank Prepared (if yes, use FB qualifier)   | <input type="checkbox"/> YES             | <input type="checkbox"/> NO   |   | <input checked="" type="checkbox"/> |
| (a) Filtration Blank prep date same as associated samples' prep date   | <input type="checkbox"/> YES             | <input type="checkbox"/> NO   | <input checked="" type="checkbox"/> N/A | <input checked="" type="checkbox"/> |
| (b) Filtration Blank absolute value < PQL or <2.2xMDL for WI   | <input type="checkbox"/> YES             | <input type="checkbox"/> NO   | <input checked="" type="checkbox"/> N/A | <input checked="" type="checkbox"/> |
| 15. IBLs (3 minimum) individually < 0.50 ng/L, mean < 0.25 ng/L and STD of 0.10 ng/L?                          | <input checked="" type="checkbox"/> PASS | <input type="checkbox"/> FAIL |   | <input checked="" type="checkbox"/> |
| Comments: _____  |  |                               |   |                                     |
| 16. CCBs individually < 0.50 ng/L or 2.2 x MDL for WI?   | <input checked="" type="checkbox"/> PASS | <input type="checkbox"/> FAIL |   | <input checked="" type="checkbox"/> |
| Comments: _____  |  |                               |   |                                     |
| 17. 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"/> |
| 18. Is the correct 'Source' designated for MD/MS/MSD?  | <input checked="" type="checkbox"/> YES  | <input type="checkbox"/> NO   |   | <input checked="" type="checkbox"/> |
| 19. 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"/> |

**Peer Review Check List for THg by 2600 CV-AFS (SOP2822) 2016 Rev 1 (04/1/2016)**

<b>Analyst:</b> BC	<b>Sequence(s) #:</b> 7H10023, 7H10024
<b>Reviewer:</b> 0 <i>R 8/11/17</i>	<b>Dataset ID(s):</b> THg26002-170810-1
<b>Date:</b> 8/10/2017	<b>WO (s) #:</b> VARIOUS
<b>Batch #(s):</b> F707535, F708365	0

**Analyst Initials** *BC*      **Reviewer Initials** *R 8/11/17*

- |  |  |                               |   |
|--|--|-------------------------------|---|
| 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 type="checkbox"/> YES             | <input type="checkbox"/> NO   | <input checked="" 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 checked="" type="checkbox"/> YES  | <input type="checkbox"/> NO   | <input 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 checked="" type="checkbox"/> YES  | <input type="checkbox"/> NO   | <input type="checkbox"/> N/A <input checked="" type="checkbox"/>            |
| Comments: _____  |  |                               |   |
| 27. Is the B trap <5% A Traps  | <input checked="" type="checkbox"/> YES  | <input type="checkbox"/> NO   | <input type="checkbox"/> N/A <input checked="" type="checkbox"/>            |
| Comments: _____  |  |                               |   |
| 28. Are spiked trap recoveries 75-125% of true value?  | <input checked="" type="checkbox"/> YES  | <input type="checkbox"/> NO   | <input type="checkbox"/> N/A <input checked="" type="checkbox"/>            |
| Comments: _____  |  |                               |   |
| 29. Have non-reportable samples been imported into LIMS and clicked to non-reportable?   | <input checked="" type="checkbox"/> YES  | <input type="checkbox"/> NO   | <input type="checkbox"/> N/A <input checked="" type="checkbox"/>            |
| Comments: _____  |  |                               |   |
| 30. 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"/>            |
| 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 type="checkbox"/> YES             |                               | <input checked="" 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 type="checkbox"/> YES             | <input type="checkbox"/> NO   | <input checked="" type="checkbox"/> N/A <input checked="" type="checkbox"/> |
| 35. Water samples-is the final volume correct in the sequence?   | <input type="checkbox"/> YES             | <input type="checkbox"/> NO   | <input checked="" 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>1/11/17</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>5/20/17</u> | Current SOP revision read?       | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> |
| 38. Date of LOD: <u>4/27/17</u>                              | LOD within last 3 months?        | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> |
| 39. Date of LOQ: <u>4/27/17</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 (SOP2822) 2016 Rev 1 (04/1/2016)**

<b>Analyst:</b> BC	<b>Sequence(s) #:</b> 7H10023, 7H10024
<b>Reviewer:</b> 0 <i>R B/u/kr</i>	<b>Dataset ID(s):</b> THg26002-170810-1
<b>Date:</b> 8/10/2017	<b>WO (s) #:</b> VARIOUS
<b>Batch #(s):</b> F707535, F708365	0

*BC*

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


Additional Page (s)?  YES



Frontier Global Sciences

THg26003-170810-1

Analysis Datasheet for Total Mercury

Date of Analysis: August 10, 2017

Analyst: BC

Instrument #: Hg2600-3

Units ng/L

LIMS Sequence #: 7H10026, 7H10027

Calibration Statistics:

LabNumber	n	True Val	Area	Uncorrected Response Factor	Corrected Peak Height	Corrected Response Factor	% Recovery
SEQ-CAL1	1	0.50 ng/L	66.35 units	132.70	59.69 units	119.38	104.0 %Rec
SEQ-CAL2	1	1.00 ng/L	123.73 units	123.73	117.07 units	117.07	102.0 %Rec
SEQ-CAL3	1	5.00 ng/L	577.00 units	115.40	570.34 units	114.07	99.4 %Rec
SEQ-CAL4	1	20.00 ng/L	2250.90 units	112.55	2244.24 units	112.21	97.8 %Rec
SEQ-CAL5	1	40.00 ng/L	4446.82 units	111.17	4440.16 units	111.00	96.7 %Rec
SEQ-CAL6	0						
SEQ-CAL7	0						
SEQ-CAL8	0						
SEQ-CAL9	0						
<b>Corr. Mean RF</b>	<b>Corr. St Dev RF</b>	<b>Corr. RSD CF</b>	<b>Uncorr. Mean RF</b>				
114.75	+/- 3.46	3.0% RSD	119.11				

Blanks:

LabNumber	n	Mean	Std Dev	Mean (ng/L)	Std Dev (ng/L)
SEQ-IBL	3	6.66 units	±1.46	0.06 ng/L	±0.01

Preparation Blanks

Sample Type	Batch ID	n	Mean	Std Dev
BLK	1	2	0.600 ng/L	±0.409
BLK	2	3	1.130 ng/L	±0.450
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: om 8/11/17



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	F708302-BS2	400	8/10/2017 11:50:55	72970-1.RAW	11:50:55 AM	627.37	2		620.7	5.407	2162.625	ng/L	
Hg2600-3	BC	SAM	1708084-01	100	8/10/2017 11:55:03	72971-1.RAW	11:55:03 AM	1141.66	2		1135.0	9.880	988.004	ng/L	
Hg2600-3	BC	SAM	1708118-01	400	8/10/2017 11:59:12	72972-1.RAW	11:59:12 AM	138.56	2		131.9	1.147	458.665	ng/L	
Hg2600-3	BC	SAM	1708118-02	400	8/10/2017 12:03:20	72973-1.RAW	12:03:20 PM	124.43	2		117.8	1.024	409.409	ng/L	
Hg2600-3	BC	SAM	1708118-03	400	8/10/2017 12:07:29	72974-1.RAW	12:07:29 PM	149.96	2		143.3	1.246	498.405	ng/L	
Hg2600-3	BC	SAM	1708118-04	400	8/10/2017 12:11:37	72975-1.RAW	12:11:37 PM	140.64	2		134.0	1.165	465.916	ng/L	
Hg2600-3	BC	SAM	1708118-05	400	8/10/2017 12:15:45	72976-1.RAW	12:15:45 PM	130.98	2		124.3	1.081	432.242	ng/L	
Hg2600-3	BC	SAM	1708120-01	400	8/10/2017 12:19:54	72977-1.RAW	12:19:54 PM	1216.11	2		1209.5	10.537	4214.935	ng/L	
Hg2600-3	BC	SAM	1708120-02	400	8/10/2017 12:24:02	72978-1.RAW	12:24:02 PM	730.60	2		723.9	6.306	2522.478	ng/L	
Hg2600-3	BC	SAM	1708120-03	400	8/10/2017 12:28:11	72979-1.RAW	12:28:11 PM	670.66	2		664.0	5.784	2313.531	ng/L	
Hg2600-3	BC	CAL	SEQ-CCV5	1	8/10/2017 12:32:19	72980-1.RAW	12:32:19 PM	584.06			577.4	5.032	5.032	ng/L	
Hg2600-3	BC	CAL	SEQ-CCB5	1	8/10/2017 12:36:27	72981-1.RAW	12:36:27 PM	12.97			6.3	0.055	0.055	ng/L	
Hg2600-3	BC	SAM	1708120-04	400	8/10/2017 12:40:36	72982-1.RAW	12:40:36 PM	586.83	2		580.2	5.053	2021.305	ng/L	
Hg2600-3	BC	SAM	1708120-05	400	8/10/2017 12:44:44	72983-1.RAW	12:44:44 PM	505.38	2		498.7	4.343	1737.376	ng/L	
Hg2600-3	BC	SAM	1708118-01RE1	100	8/10/2017 12:48:53	72984-1.RAW	12:48:53 PM	496.42	2		489.8	4.257	425.688	ng/L	
Hg2600-3	BC	SAM	1708118-02RE1	100	8/10/2017 12:53:01	72985-1.RAW	12:53:01 PM	470.80	2		464.1	4.034	403.361	ng/L	
Hg2600-3	BC	SAM	1708118-03RE1	100	8/10/2017 12:57:10	72986-1.RAW	12:57:10 PM	551.14	2		544.5	4.734	473.376	ng/L	
Hg2600-3	BC	SAM	1708118-04RE1	100	8/10/2017 13:01:18	72987-1.RAW	1:01:18 PM	520.87	2		514.2	4.470	446.996	ng/L	
Hg2600-3	BC	SAM	1708118-05RE1	100	8/10/2017 13:05:26	72988-1.RAW	1:05:26 PM	498.46	2		491.8	4.275	427.466	ng/L	
Hg2600-3	BC	SAM	F708302-DUP1	100	8/10/2017 13:14:30	72989-1.RAW	1:14:30 PM	4896.67	2		4890.0	42.604	4260.435	ng/L	
Hg2600-3	BC	SAM	F708302-MS1	400	8/10/2017 13:18:39	72990-1.RAW	1:18:39 PM	2534.86	2		2528.2	22.030	8812.013	ng/L	
Hg2600-3	BC	SAM	F708302-MSD1	400	8/10/2017 13:22:47	72991-1.RAW	1:22:47 PM	2411.91	2		2405.3	20.959	8383.418	ng/L	
Hg2600-3	BC	CAL	SEQ-CCV6	1	8/10/2017 13:26:56	72992-1.RAW	1:26:56 PM	591.84			585.2	5.100	5.100	ng/L	
Hg2600-3	BC	CAL	SEQ-CCB6	1	8/10/2017 13:31:04	72993-1.RAW	1:31:04 PM	19.24			12.6	0.110	0.110	ng/L	
Hg2600-3	BC	SAM	F708302-MS2	400	8/10/2017 13:35:12	72994-1.RAW	1:35:12 PM	2137.76	2		2131.1	18.569	7427.748	ng/L	
Hg2600-3	BC	SAM	F708302-MSD2	400	8/10/2017 13:39:21	72995-1.RAW	1:39:21 PM	2054.35	2		2047.7	17.842	7136.986	ng/L	
Hg2600-3	BC	SAM	F708302-DUP2	400	8/10/2017 13:43:29	72996-1.RAW	1:43:29 PM	1270.00	2		1263.3	11.007	4402.792	ng/L	
Hg2600-3	BC	SAM	F708302-MS3	400	8/10/2017 13:47:38	72997-1.RAW	1:47:38 PM	2574.79	2		2568.1	22.378	8951.207	ng/L	
Hg2600-3	BC	SAM	F708302-MSD3	400	8/10/2017 13:51:46	72998-1.RAW	1:51:46 PM	2429.88	2		2423.2	21.115	8446.060	ng/L	
Hg2600-3	BC	CAL	SEQ-CCV7	1	8/10/2017 13:55:55	72999-1.RAW	1:55:55 PM	595.66			589.0	5.133	5.133	ng/L	
Hg2600-3	BC	CAL	SEQ-CCB7	1	8/10/2017 14:00:03	73000-1.RAW	2:00:03 PM	17.08			10.4	0.091	0.091	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	8/10/2017 7:54:01	72913-1.RAW	7:54:01 AM	5.00			-1.7	-0.014	-0.014	ng/L	
Hg2600-3	BC	CAL	SEQ-IBL2	1	8/10/2017 7:58:09	72914-1.RAW	7:58:09 AM	7.22			0.6	0.005	0.005	ng/L	
Hg2600-3	BC	CAL	SEQ-IBL3	1	8/10/2017 8:02:18	72915-1.RAW	8:02:18 AM	7.76			1.1	0.010	0.010	ng/L	
Hg2600-3	BC	CAL	SEQ-CAL1	1	8/10/2017 8:06:26	72916-1.RAW	8:06:26 AM	66.35			59.7	0.520	0.520	ng/L	
Hg2600-3	BC	CAL	SEQ-CAL2	1	8/10/2017 8:10:35	72917-1.RAW	8:10:35 AM	123.73			117.1	1.020	1.020	ng/L	
Hg2600-3	BC	CAL	SEQ-CAL3	1	8/10/2017 8:14:43	72918-1.RAW	8:14:43 AM	577.00			570.3	4.970	4.970	ng/L	
Hg2600-3	BC	CAL	SEQ-CAL4	1	8/10/2017 8:18:51	72919-1.RAW	8:18:51 AM	2250.90			2244.2	19.558	19.558	ng/L	
Hg2600-3	BC	CAL	SEQ-CAL5	1	8/10/2017 8:23:00	72920-1.RAW	8:23:00 AM	4446.82			4440.2	38.695	38.695	ng/L	
Hg2600-3	BC	CAL	SEQ-ICV1	1	8/10/2017 8:27:08	72921-1.RAW	8:27:08 AM	577.14			570.5	4.972	4.972	ng/L	
Hg2600-3	BC	BLK	F707534-BLK1	10	8/10/2017 8:32:11	72922-1.RAW	8:32:11 AM	16.87		1	10.2	0.089	0.890	ng/L	
Hg2600-3	BC	BLK	F707534-BLK2	10	8/10/2017 8:36:19	72923-1.RAW	8:36:19 AM	10.23			3.6	0.031	0.311	ng/L	
Hg2600-3	BC	SAM	F707534-BS1	100	8/10/2017 8:40:28	72924-1.RAW	8:40:28 AM	237.79		1	231.1	2.008	200.826	ng/L	
Hg2600-3	BC	SAM	F707534-BSD1	100	8/10/2017 8:44:36	72925-1.RAW	8:44:36 AM	256.85			250.2	2.174	217.436	ng/L	
Hg2600-3	BC	SAM	1707619-11	100	8/10/2017 8:48:45	72926-1.RAW	8:48:45 AM	199.98		1	193.3	1.679	167.875	ng/L	
Hg2600-3	BC	SAM	1707619-14	100	8/10/2017 8:52:53	72927-1.RAW	8:52:53 AM	154.78		1	148.1	1.285	128.484	ng/L	
Hg2600-3	BC	SAM	1707619-15	100	8/10/2017 8:57:01	72928-1.RAW	8:57:01 AM	1642.51		1	1635.9	14.250	1425.017	ng/L	
Hg2600-3	BC	SAM	1707619-16	100	8/10/2017 9:01:10	72929-1.RAW	9:01:10 AM	172.50		1	165.8	1.439	143.926	ng/L	
Hg2600-3	BC	SAM	1707619-17	100	8/10/2017 9:05:18	72930-1.RAW	9:05:18 AM	228.39		1	221.7	1.926	192.634	ng/L	
Hg2600-3	BC	SAM	1707619-18	100	8/10/2017 9:09:27	72931-1.RAW	9:09:27 AM	32.13		1	25.5	0.216	21.596	ng/L	
Hg2600-3	BC	CAL	SEQ-CCV1	1	8/10/2017 9:13:35	72932-1.RAW	9:13:35 AM	575.93			569.3	4.961	4.961	ng/L	
Hg2600-3	BC	CAL	SEQ-CCB1	1	8/10/2017 9:17:43	72933-1.RAW	9:17:43 AM	9.24			2.6	0.022	0.022	ng/L	
Hg2600-3	BC	SAM	1707619-19	100	8/10/2017 9:21:52	72934-1.RAW	9:21:52 AM	1603.35		1	1596.7	13.909	1390.889	ng/L	
Hg2600-3	BC	SAM	1707619-20	100	8/10/2017 9:26:00	72935-1.RAW	9:26:00 AM	3960.51		1	3953.9	34.451	3445.117	ng/L	
Hg2600-3	BC	SAM	1707619-21	100	8/10/2017 9:30:09	72936-1.RAW	9:30:09 AM	1831.38		1	1824.7	15.896	1589.614	ng/L	
Hg2600-3	BC	SAM	1707619-22	100	8/10/2017 9:34:17	72937-1.RAW	9:34:17 AM	2650.43		1	2643.8	23.034	2303.403	ng/L	
Hg2600-3	BC	SAM	1707619-23	100	8/10/2017 9:38:25	72938-1.RAW	9:38:25 AM	789.93		1	783.3	6.820	682.007	ng/L	
Hg2600-3	BC	SAM	1707619-24	100	8/10/2017 9:42:34	72939-1.RAW	9:42:34 AM	166.41		1	159.8	1.386	138.619	ng/L	
Hg2600-3	BC	SAM	1707619-25	100	8/10/2017 9:46:42	72940-1.RAW	9:46:42 AM	1625.13		1	1618.5	14.099	1409.870	ng/L	
Hg2600-3	BC	SAM	1707619-26	100	8/10/2017 9:50:51	72941-1.RAW	9:50:51 AM	1437.72		1	1431.1	12.465	1246.545	ng/L	
Hg2600-3	BC	SAM	1707619-27	100	8/10/2017 9:54:59	72942-1.RAW	9:54:59 AM	112.45		1	105.8	0.916	91.594	ng/L	
Hg2600-3	BC	SAM	1707619-28	100	8/10/2017 9:59:08	72943-1.RAW	9:59:08 AM	27.71		1	21.1	0.177	17.744	ng/L	
Hg2600-3	BC	CAL	SEQ-CCV2	1	8/10/2017 10:03:16	72944-1.RAW	10:03:16 AM	575.23			568.6	4.955	4.955	ng/L	
Hg2600-3	BC	CAL	SEQ-CCB2	1	8/10/2017 10:07:24	72945-1.RAW	10:07:24 AM	6.67			0.0	0.000	0.000	ng/L	
Hg2600-3	BC	SAM	1707619-29	100	8/10/2017 10:11:33	72946-1.RAW	10:11:33 AM	1358.79		1	1352.1	11.778	1177.759	ng/L	
Hg2600-3	BC	SAM	1707619-30	100	8/10/2017 10:15:41	72947-1.RAW	10:15:41 AM	81.86		1	75.2	0.649	64.935	ng/L	
Hg2600-3	BC	SAM	1707619-31	100	8/10/2017 10:19:50	72948-1.RAW	10:19:50 AM	28.51		1	21.9	0.184	18.441	ng/L	
Hg2600-3	BC	SAM	1707620-02	100	8/10/2017 10:23:58	72949-1.RAW	10:23:58 AM	35.15		1	28.5	0.242	24.228	ng/L	
Hg2600-3	BC	SAM	1707619-18RE1	10	8/10/2017 10:28:07	72950-1.RAW	10:28:07 AM	256.30		1	249.6	2.116	21.155	ng/L	
Hg2600-3	BC	SAM	1707619-27RE1	10	8/10/2017 10:32:15	72951-1.RAW	10:32:15 AM	922.25		1	915.6	7.919	79.192	ng/L	
Hg2600-3	BC	SAM	1707619-28RE1	10	8/10/2017 10:36:23	72952-1.RAW	10:36:23 AM	202.32		1	195.7	1.645	16.451	ng/L	
Hg2600-3	BC	SAM	1707619-30RE1	10	8/10/2017 10:40:32	72953-1.RAW	10:40:32 AM	750.40		1	743.7	6.422	64.215	ng/L	
Hg2600-3	BC	SAM	1707619-31RE1	10	8/10/2017 10:44:40	72954-1.RAW	10:44:40 AM	235.45		1	228.8	1.934	19.338	ng/L	
Hg2600-3	BC	SAM	1707620-02RE1	10	8/10/2017 10:48:49	72955-1.RAW	10:48:49 AM	295.06		1	288.4	2.453	24.533	ng/L	
Hg2600-3	BC	CAL	SEQ-CCV3	1	8/10/2017 10:52:57	72956-1.RAW	10:52:57 AM	579.51			572.9	4.992	4.992	ng/L	
Hg2600-3	BC	CAL	SEQ-CCB3	1	8/10/2017 10:57:05	72957-1.RAW	10:57:05 AM	11.78			5.1	0.045	0.045	ng/L	
Hg2600-3	BC	SAM	F707534-MS1	400	8/10/2017 11:01:14	72958-1.RAW	11:01:14 AM	738.46		1	731.8	6.376	2550.408	ng/L	
Hg2600-3	BC	SAM	F707534-MSD1	400	8/10/2017 11:05:22	72959-1.RAW	11:05:22 AM	692.41		1	685.8	5.975	2389.880	ng/L	
Hg2600-3	BC	SAM	F707534-MS2	400	8/10/2017 11:09:31	72960-1.RAW	11:09:31 AM	1134.31		1	1127.7	9.826	3930.315	ng/L	
Hg2600-3	BC	SAM	F707534-MSD2	400	8/10/2017 11:13:39	72961-1.RAW	11:13:39 AM	1190.99		1	1184.3	10.320	4127.898	ng/L	
Hg2600-3	BC	BLK	F708302-BLK1	20	8/10/2017 11:17:48	72962-1.RAW	11:17:48 AM	16.09		2	9.4	0.082	1.644	ng/L	
Hg2600-3	BC	BLK	F708302-BLK2	20	8/10/2017 11:21:56	72963-1.RAW	11:21:56 AM	11.26		2	4.6	0.040	0.802	ng/L	
Hg2600-3	BC	BLK	F708302-BLK3	20	8/10/2017 11:26:04	72964-1.RAW	11:26:04 AM	12.08		2	5.4	0.047	0.945	ng/L	
Hg2600-3	BC	SAM	*F708302-BLK4	20	8/10/2017 11:30:13	72965-1.RAW	11:30:13 AM	10.56		2	3.9	-0.023	-0.450	ng/L	
Hg2600-3	BC	SAM	F708302-BS1	20	8/10/2017 11:34:21	72966-1.RAW	11:34:21 AM	536.82		2	530.2	4.564	91.275	ng/L	
Hg2600-3	BC	SAM	F708302-BSD1	20	8/10/2017 11:38:30	72967-1.RAW	11:38:30 AM	571.82		2	565.2	4.869	97.376	ng/L	
Hg2600-3	BC	CAL	SEQ-CCV4	1	8/10/2017 11:42:38	72968-1.RAW	11:42:38 AM	567.28			560.6	4.886	4.886	ng/L	
Hg2600-3	BC	CAL	SEQ-CCB4	1	8/10/2017 11:46:46	72969-1.RAW	11:46:46 AM	16.85			10.2	0.089	0.089	ng/L	

TotalMercury  
EPA1631

Operati BC      BlankSi 6.6609      Calib Eqn: Conc = (Area-6.660      Run Date: 8/10/2017      Blank SD: 1.460992236  
 Worksh THg260(      CalibFa 114.74      Status: QC Warnings:5/QC E      Run Time: 13:10:21      Blank RSD%: 21.93384191  
 Method ##### R: 1      R<sup>2</sup>: 1      CF SD: 3.451711905  
 Descrip THg26003-170810-1      CF RSD%: 3.00818576

Sample/ID	Location	Rinse	Dilute	Blank	Conc (ppt)	MB%	FinalConc	Rec%	QA	RawData	RunEnd	Peak (Raw)	Control (etf)	Flags	RunCount
Clean				0.00	1.43					72908-1.RAW	7:34:36	164.55	Clean	OK	1
clean										72909-1.RAW	7:37:27	0.00	Clean	NP	1
ws				6.66	0.00					72910-1.RAW	7:41:36	4.10	Sample	OK	1
ws										72911-1.RAW	7:45:44	0.00	Sample	NP	1
ws				6.66	0.00					72912-1.RAW	7:49:52	3.84	Sample	OK	1
SEQ-IBL1	A1		1	0.00	0.04					72913-1.RAW	7:54:01	5.00	Sample	OK	1
SEQ-IBL2	A2		1	0.00	0.06					72914-1.RAW	7:58:09	7.22	Sample	OK	1
SEQ-IBL3	A3		1	0.00	0.07					72915-1.RAW	8:02:18	7.76	Sample	OK	1
SEQ-CAL1	A4		1	6.66	0.52			104.03		72916-1.RAW	8:06:26	66.35	Sample	OK	1
SEQ-CAL2	A5		1	6.66	1.02			102.02		72917-1.RAW	8:10:35	123.73	Sample	OK	1
SEQ-CAL3	A6		1	6.66	4.97			99.41		72918-1.RAW	8:14:43	577.00	Sample	OK	1
SEQ-CAL4	A7		1	6.66	19.56			97.79		72919-1.RAW	8:18:51	2250.90	Sample	OK	1
SEQ-CAL5	A8		1	6.66	38.70			96.74		72920-1.RAW	8:23:00	4446.82	Sample	OK	1
SEQ-ICV1	A9		1	6.66	4.97			99.43		72921-1.RAW	8:27:08	577.14	Sample	OK	1
F707534-BLK1	A10		10	6.66	0.89					72922-1.RAW	8:32:11	16.87	Sample	OK	1
F707534-BLK2	A11		10	6.66	0.31					72923-1.RAW	8:36:19	10.23	Sample	OK	1
F707534-BS1	A12		100	6.66	201.43					72924-1.RAW	8:40:28	237.79	Sample	OK	1
F707534-BSD1	B1		100	6.66	218.04					72925-1.RAW	8:44:36	256.85	Sample	OK	1
1707619-11	B2		100	6.66	168.48					72926-1.RAW	8:48:45	199.98	Sample	OK	1
1707619-14	B3		100	6.66	129.09					72927-1.RAW	8:52:53	154.78	Sample	OK	1
1707619-15	B4		100	6.66	1425.65					72928-1.RAW	8:57:01	1642.51	Sample	OK	1
1707619-16	B5		100	6.66	144.53					72929-1.RAW	9:01:10	172.50	Sample	OK	1
1707619-17	B6		100	6.66	193.24					72930-1.RAW	9:05:18	228.39	Sample	OK	1
1707619-18	B7		100	6.66	22.20					72931-1.RAW	9:09:27	32.13	Sample	OK	1
SEQ-CCV1	B8		1	6.66	4.96			99.22		72932-1.RAW	9:13:35	575.93	Sample	OK	1
SEQ-CCB1	B9		1	6.66	0.02			0.00		72933-1.RAW	9:17:43	9.24	Sample	OK	1
1707619-19	B10		100	6.66	1391.52					72934-1.RAW	9:21:52	1603.35	Sample	OK	1
1707619-20	B11		100	6.66	3445.80					72935-1.RAW	9:26:00	3960.51	Sample	FB	1
1707619-21	B12		100	6.66	1590.25					72936-1.RAW	9:30:09	1831.38	Sample	OK	1
1707619-22	C1		100	6.66	2304.06					72937-1.RAW	9:34:17	2650.43	Sample	OK	1
1707619-23	C2		100	6.66	682.62					72938-1.RAW	9:38:25	789.93	Sample	OK	1
1707619-24	C3		100	6.66	139.22					72939-1.RAW	9:42:34	166.41	Sample	OK	1
1707619-25	C4		100	6.66	1410.51					72940-1.RAW	9:46:42	1625.13	Sample	OK	1
1707619-26	C5		100	6.66	1247.17					72941-1.RAW	9:50:51	1437.72	Sample	OK	1
1707619-27	C6		100	6.66	92.20					72942-1.RAW	9:54:59	112.45	Sample	OK	1
1707619-28	C7		100	6.66	18.34					72943-1.RAW	9:59:08	27.71	Sample	OK	1
SEQ-CCV2	C8		1	6.66	4.96			99.10		72944-1.RAW	10:03:16	575.23	Sample	OK	1
SEQ-CCB2	C9		1	6.66	0.00			0.00		72945-1.RAW	10:07:24	6.67	Sample	OK	1
1707619-29	C10		100	6.66	1178.39					72946-1.RAW	10:11:33	1358.79	Sample	OK	1
1707619-30	C11		100	6.66	65.53					72947-1.RAW	10:15:41	81.86	Sample	OK	1
1707619-31	C12		100	6.66	19.04					72948-1.RAW	10:19:50	28.51	Sample	OK	1
1707620-02	D1		100	6.66	24.83					72949-1.RAW	10:23:58	35.15	Sample	OK	1
1707619-18RE1	D2		10	6.66	21.76					72950-1.RAW	10:28:07	256.30	Sample	OK	1

1707619-27RE1	D3	10	6.66	79.79		72951-1.RAW	10:32:15	922.25	Sample	OK	1
1707619-28RE1	D4	10	6.66	17.05		72952-1.RAW	10:36:23	202.32	Sample	OK	1
1707619-30RE1	D5	10	6.66	64.82		72953-1.RAW	10:40:32	750.40	Sample	OK	1
1707619-31RE1	D6	10	6.66	19.94		72954-1.RAW	10:44:40	235.45	Sample	OK	1
1707620-02RE1	D7	10	6.66	25.13		72955-1.RAW	10:48:49	295.06	Sample	OK	1
SEQ-CCV3	D8	1	6.66	4.99	99.85	72956-1.RAW	10:52:57	579.51	Sample	OK	1
SEQ-CCB3	D9	1	6.66	0.04	0.00	72957-1.RAW	10:57:05	11.78	Sample	OK	1
F707534-MS1	D10	400	6.66	2551.08	244215.67	72958-1.RAW	11:01:14	738.46	Sample	OK	1
F707534-MSD1	D11	400	6.66	2390.54		72959-1.RAW	11:05:22	692.41	Sample	OK	1
F707534-MS2	D12	400	6.66	3931.02	164.30	72960-1.RAW	11:09:31	1134.31	Sample	OK	1
F707534-MSD2	A1	400	6.66	4128.59		72961-1.RAW	11:13:39	1190.99	Sample	OK	1
F708302-BLK1	A2	20	6.66	1.64		72962-1.RAW	11:17:48	16.09	Sample	OK	1
F708302-BLK2	A3	20	6.66	0.80		72963-1.RAW	11:21:56	11.26	Sample	OK	1
F708302-BLK3	A4	20	6.66	0.95		72964-1.RAW	11:26:04	12.08	Sample	OK	1
*F708302-BLK4	A5	20	6.66	0.68		72965-1.RAW	11:30:13	10.56	Sample	OK	1
F708302-BS1	A6	20	6.66	92.41		72966-1.RAW	11:34:21	536.82	Sample	OK	1
F708302-BSD1	A7	20	6.66	98.51		72967-1.RAW	11:38:30	571.82	Sample	OK	1
SEQ-CCV4	A8	1	6.66	4.89	97.72	72968-1.RAW	11:42:38	567.28	Sample	OK	1
SEQ-CCB4	A9	1	6.66	0.09	0.00	72969-1.RAW	11:46:46	16.85	Sample	OK	1
F708302-BS2	A10	400	6.66	2163.80		72970-1.RAW	11:50:55	627.37	Sample	OK	1
1708084-01	A11	100	6.66	989.16		72971-1.RAW	11:55:03	1141.66	Sample	OK	1
1708118-01	A12	400	6.66	459.80		72972-1.RAW	11:59:12	138.56	Sample	OK	1
1708118-02	B1	400	6.66	410.53		72973-1.RAW	12:03:20	124.43	Sample	OK	1
1708118-03	B2	400	6.66	499.53		72974-1.RAW	12:07:29	149.96	Sample	OK	1
1708118-04	B3	400	6.66	467.04		72975-1.RAW	12:11:37	140.64	Sample	OK	1
1708118-05	B4	400	6.66	433.38		72976-1.RAW	12:15:45	130.98	Sample	OK	1
1708120-01	B5	400	6.66	4216.17		72977-1.RAW	12:19:54	1216.11	Sample	OK	1
1708120-02	B6	400	6.66	2523.68		72978-1.RAW	12:24:02	730.60	Sample	OK	1
1708120-03	B7	400	6.66	2314.70		72979-1.RAW	12:28:11	670.66	Sample	OK	1
SEQ-CCV5	B8	1	6.66	5.03	100.64	72980-1.RAW	12:32:19	584.06	Sample	OK	1
SEQ-CCB5	B9	1	6.66	0.05	0.00	72981-1.RAW	12:36:27	12.97	Sample	OK	1
1708120-04	B10	400	6.66	2022.47		72982-1.RAW	12:40:36	586.83	Sample	OK	1
1708120-05	B11	400	6.66	1738.56		72983-1.RAW	12:44:44	505.38	Sample	OK	1
1708118-01RE1	B12	100	6.66	426.83		72984-1.RAW	12:48:53	496.42	Sample	OK	1
1708118-02RE1	C1	100	6.66	404.50		72985-1.RAW	12:53:01	470.80	Sample	OK	1
1708118-03RE1	C2	100	6.66	474.52		72986-1.RAW	12:57:10	551.14	Sample	OK	1
1708118-04RE1	C3	100	6.66	448.14		72987-1.RAW	13:01:18	520.87	Sample	OK	1
1708118-05RE1	C4	100	6.66	428.61		72988-1.RAW	13:05:26	498.46	Sample	OK	1
F708302-DUP1	C5	100	6.66	4261.67		72989-1.RAW	13:14:30	4896.67	Sample	OK	1
F708302-MS1	C6	400	6.66	8813.34	206.76	72990-1.RAW	13:18:39	2534.86	Sample	OK	1
F708302-MSD1	C7	400	6.66	8384.76		72991-1.RAW	13:22:47	2411.91	Sample	OK	1
SEQ-CCV6	C8	1	6.66	5.10	102.00	72992-1.RAW	13:26:56	591.84	Sample	OK	1
SEQ-CCB6	C9	1	6.66	0.11	0.00	72993-1.RAW	13:31:04	19.24	Sample	OK	1
F708302-MS2	C10	400	6.66	7429.07	352150.22	72994-1.RAW	13:35:12	2137.76	Sample	OK	1
F708302-MSD2	C11	400	6.66	7138.28		72995-1.RAW	13:39:21	2054.35	Sample	OK	1
F708302-DUP2	C12	400	6.66	4404.03		72996-1.RAW	13:43:29	1270.00	Sample	OK	1
F708302-MS3	D1	400	6.66	8952.54	203.14	72997-1.RAW	13:47:38	2574.79	Sample	OK	1
F708302-MSD3	D2	400	6.66	8447.39		72998-1.RAW	13:51:46	2429.88	Sample	FB	1

SEQ-CCV7	D3	1	6.66	5.13	102.66	72999-1.RAW	13:55:55	595.66 Sample	OK	1
SEQ-CCB7	D4	1	6.66	0.09	0.00	73000-1.RAW	14:00:03	17.08 Sample	OK	1

**ANALYSIS SEQUENCE**

**7H10026**



**Instrument: Hg2600-3**

**Calibration ID: UNASSIGNED**

**Analyzed: 8/10/2017**

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
7H10026-IBL1	QC	1			
7H10026-IBL2	QC	2			
7H10026-IBL3	QC	3			
7H10026-CAL1	QC	4	1704505		
7H10026-CAL2	QC	5	1704506		
7H10026-CAL3	QC	6	1704507		
7H10026-CAL4	QC	7	1704508		
7H10026-CAL5	QC	8	1704509		
7H10026-ICV1	QC	9	1703679		
7H10026-CCV1	QC	10	1703679		
7H10026-CCB1	QC	11			
7H10026-CCV2	QC	12	1703679		
7H10026-CCB2	QC	13			
7H10026-CCV3	QC	14	1703679		
7H10026-CCB3	QC	15			
F708302-BLK1	QC	16			
F708302-BLK2	QC	17			
F708302-BLK3	QC	18			
F708302-BLK4	QC	19			
F708302-BS1	QC	20			
F708302-BSD1	QC	21			
7H10026-CCV4	QC	22	1703679		
7H10026-CCB4	QC	23			
F708302-BS2	QC	24			
1708084-01	Hg-CVAFS-T-7030	25			Scan all data for level IV report
1708118-01	Hg-CVAFS-T-7030	26			
1708118-02	Hg-CVAFS-T-7030	27			
1708118-03	Hg-CVAFS-T-7030	28			
1708118-04	Hg-CVAFS-T-7030	29			
1708118-05	Hg-CVAFS-T-7030	30			
1708120-01	Hg-CVAFS-T-7030	31			
1708120-02	Hg-CVAFS-T-7030	32			
1708120-03	Hg-CVAFS-T-7030	33			
7H10026-CCV5	QC	34	1703679		
7H10026-CCB5	QC	35			

**Due Date: 8/30/2017**



ANALYSIS SEQUENCE

7H10026



Instrument: Hg2600-3

Calibration ID: UNASSIGNED

Analyzed: 8/10/2017

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
1708120-04	Hg-CVAFS-T-7030	36			
1708120-05	Hg-CVAFS-T-7030	37			
1708118-01RE1	Hg-CVAFS-T-7030	38			Added 8/10/2017 by BC
1708118-02RE1	Hg-CVAFS-T-7030	39			Added 8/10/2017 by BC
1708118-03RE1	Hg-CVAFS-T-7030	40			Added 8/10/2017 by BC
1708118-04RE1	Hg-CVAFS-T-7030	41			Added 8/10/2017 by BC
1708118-05RE1	Hg-CVAFS-T-7030	42			Added 8/10/2017 by BC
F708302-DUP1	QC	43			
F708302-MS1	QC	44			
F708302-MSD1	QC	45			
7H10026-CCV6	QC	46	1703679		
7H10026-CCB6	QC	47			
F708302-MS2	QC	48			
F708302-MSD2	QC	49			
F708302-DUP2	QC	50			
F708302-MS3	QC	51			
F708302-MSD3	QC	52			
7H10026-CCV7	QC	53	1703679		
7H10026-CCB7	QC	54			

 8/10/17  
Samples Loaded By Date

 8/10/17  
Data Processed By Date

## ANALYSIS SEQUENCE

7H10027



Instrument: Hg2600-3

Calibration ID: UNASSIGNED

Analyzed: 8/10/2017

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
7H10027-IBL1	QC	1			
7H10027-IBL2	QC	2			
7H10027-IBL3	QC	3			
7H10027-CAL1	QC	4	1704505		
7H10027-CAL2	QC	5	1704506		
7H10027-CAL3	QC	6	1704507		
7H10027-CAL4	QC	7	1704508		
7H10027-CAL5	QC	8	1704509		
7H10027-ICV1	QC	9	1703679		
F707534-BLK1	QC	10			
F707534-BLK2	QC	11			
F707534-BS1	QC	12			
F707534-BSD1	QC	13			
1707619-11	Hg-CVAFS-S-7474	14			
1707619-14	Hg-CVAFS-S-7474	15			
1707619-15	Hg-CVAFS-S-7474	16			
1707619-16	Hg-CVAFS-S-7474	17			
1707619-17	Hg-CVAFS-S-7474	18			
1707619-18	Hg-CVAFS-S-7474	19			
7H10027-CCV1	QC	20	1703679		
7H10027-CCB1	QC	21			
1707619-19	Hg-CVAFS-S-7474	22			
1707619-20	Hg-CVAFS-S-7474	23			
1707619-21	Hg-CVAFS-S-7474	24			
1707619-22	Hg-CVAFS-S-7474	25			
1707619-23	Hg-CVAFS-S-7474	26			
1707619-24	Hg-CVAFS-S-7474	27			
1707619-25	Hg-CVAFS-S-7474	28			
1707619-26	Hg-CVAFS-S-7474	29			
1707619-27	Hg-CVAFS-S-7474	30			
1707619-28	Hg-CVAFS-S-7474	31			
7H10027-CCV2	QC	32	1703679		
7H10027-CCB2	QC	33			
1707619-29	Hg-CVAFS-S-7474	34			
1707619-30	Hg-CVAFS-S-7474	35			

Due Date: 8/21/2017

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Page 1 of 2



**ANALYSIS SEQUENCE**

**7H10027**



**Instrument: Hg2600-3**

**Calibration ID: UNASSIGNED**

**Analyzed: 8/10/2017**

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
1707619-31	Hg-CVAFS-S-7474	36			
1707620-02	Hg-CVAFS-S-7474	37			
1707619-18RE1	Hg-CVAFS-S-7474	38			Added 8/10/2017 by BC
1707619-27RE1	Hg-CVAFS-S-7474	39			Added 8/10/2017 by BC
1707619-28RE1	Hg-CVAFS-S-7474	40			Added 8/10/2017 by BC
1707619-30RE1	Hg-CVAFS-S-7474	41			Added 8/10/2017 by BC
1707619-31RE1	Hg-CVAFS-S-7474	42			Added 8/10/2017 by BC
1707620-02RE1	Hg-CVAFS-S-7474	43			Added 8/10/2017 by BC
7H10027-CCV3	QC	44	1703679		
7H10027-CCB3	QC	45			
F707534-MS1	QC	46			
F707534-MSD1	QC	47			
F707534-MS2	QC	48			
F707534-MSD2	QC	49			
7H10027-CCV4	QC	50	1703679		
7H10027-CCB4	QC	51			

*Becis* 8/10/17  
 Samples Loaded By                      Date

*Becis* 8/10/17  
 Data Processed By                      Date

**Failing Data Report - 7H10026**

Sample ID	Analysis	Result	MRL	Dup Result	Source Result	True Value	Units	% Rec.	Rec. LCL	Rec. UCL	RPD	RPD Limit	Over Cal	Failure	Qualifier
F708302-DUP1	Hg-CVAFS-T-7030	295.0	3.46	320.0	320.0		ng/g				8.13	24.00	FAIL-OVER	PASS-DUP	E

Beaings      8/10/17  
 Analyst Reviewed By      Date

Dan M. Steem      8/11/17  
 Peer Reviewed By      Date

**Failing Data Report - 7H10027**

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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Beck 8/10/17  
Analyst Reviewed By Date

Don M... 8/11/17  
Peer Reviewed By Date

**PREPARATION BENCH SHEET**

F708302

**Eurofins Frontier Global Sciences, Inc.**

**Matrix: Tissue**

**Prepared using: AFS - EFGS-011 Nitric/Sulfuric Hg Digestion**

**Prepared: 8/4/2017**

Lab Number	Sample ID and Source Sample	Initial (g)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F708302-BLK1	Blank	0.25	20					
F708302-BLK2	Blank	0.25	20					
F708302-BLK3	Blank	0.25	20					
F708302-BLK4	Filter Blank	0.274	20					
F708302-BS1	LCS	0.2748	20	1704421	20			
F708302-BS2	LCS	0.1343	20	1703305	134.3			
F708302-BSD1	LCS Dup	0.285	20	1704421	20			
F708302-DUP1	Duplicate [1708120-01]	0.2888	20					
F708302-DUP2	Duplicate [1708120-01]	0.2888	20					
F708302-MS1	Matrix Spike [1708120-01]	0.2867	20	1701763	100			
F708302-MS2	Matrix Spike [1708120-02]	0.2922	20	1701763	100			
F708302-MS3	Matrix Spike [1708120-01]	0.2867	20	1701763	100			
F708302-MSD1	Matrix Spike Dup [1708120-01]	0.2555	20	1701763	100			
F708302-MSD2	Matrix Spike Dup [1708120-02]	0.2752	20	1701763	100			
F708302-MSD3	Matrix Spike Dup [1708120-01]	0.2555	20	1701763	100			

<u>Standard ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>	<u>Reagent ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>
1701763	THg 1,000ng/mL Secondary Spiking Standard	22-Sep-17 00:00	1703182	25% Hydroxylamine-HCl working solution	24-Nov-17 00:00
1703305	DORM-4	29-May-20 00:00	1703701	THg Washstation (0.5% BrCl)	21-Dec-17 00:00
1704421	THg 100ng/mL Primary Spiking Standard	21-Oct-17 00:00	1703702	THg Dilute 1% BrCl	
			1704424	Boiling Chips for AFS prep	21-Jan-18 00:00
			1704524	70/30 Digestion Acid	22-Jan-18 00:00
			1704691	3% SnCl2 THg reductant	
			1704740	5% BrCl	18-Dec-17 00:00

**PREPARATION BENCH SHEET**

F708302

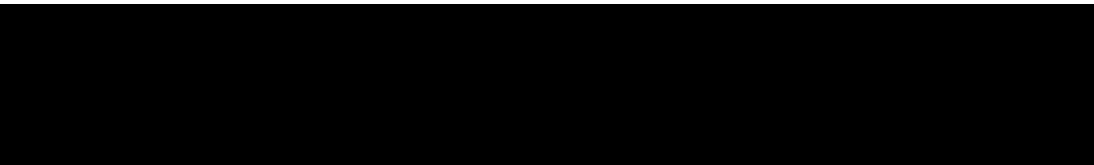
**Eurofins Frontier Global Sciences, Inc.**

**Matrix: Tissue**

**Prepared using: AFS - EFGS-011 Nitric/Sulfuric Hg Digestion**

**Prepared: 8/4/2017**

Lab Number	Sample ID	Initial (g)	Final (mL)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1708084-01	OL-2638-01	0.2915	20	-	-	-	Preservation Blank Created Scan all dat	
1708118-01	OB-01_17HC001_072517_POL_01_WB	0.2792	20	QC	-	-	MS/MSD	From F708299 by CF on 04-Aug-17
1708118-01RE1	OB-01_17HC001_072517_POL_01_WB	0.2792	20	QC	-	-	MS/MSD Added 8/10/2017 by BC	Added 8/10/2017 by BC
1708118-02	OB-01_17HC001_072517_POL_02_WB	0.2635	20	-	-	-		From F708299 by CF on 04-Aug-17
1708118-02RE1	OB-01_17HC001_072517_POL_02_WB	0.2635	20	-	-	-	Added 8/10/2017 by BC	Added 8/10/2017 by BC
1708118-03	OB-01_17HC001_072517_POL_03_WB	0.2961	20	-	-	-		From F708299 by CF on 04-Aug-17
1708118-03RE1	OB-01_17HC001_072517_POL_03_WB	0.2961	20	-	-	-	Added 8/10/2017 by BC	Added 8/10/2017 by BC
1708118-04	OB-01_17HC001_072517_POL_04_WB	0.25	20	-	-	-		From F708299 by CF on 04-Aug-17
1708118-04RE1	OB-01_17HC001_072517_POL_04_WB	0.25	20	-	-	-	Added 8/10/2017 by BC	Added 8/10/2017 by BC
1708118-05	OB-01_17HC001_072517_POL_05_WB	0.2901	20	-	-	-		From F708299 by CF on 04-Aug-17
1708118-05RE1	OB-01_17HC001_072517_POL_05_WB	0.2901	20	-	-	-	Added 8/10/2017 by BC	Added 8/10/2017 by BC
1708120-01	OV-04_17ET628_072817_EEL_02_WB	0.2634	20	QC	-	-	MS/MSD	From F708299 by CF on 04-Aug-17
1708120-02	OV-04_17ET628_072817_EEL_03_WB	0.2869	20	-	-	-		From F708299 by CF on 04-Aug-17
1708120-03	OV-04_17ET628_072817_EEL_04_WB	0.287	20	-	-	-		From F708299 by CF on 04-Aug-17
1708120-04	OV-04_17ET628_072817_EEL_05_WB	0.2645	20	-	-	-		From F708299 by CF on 04-Aug-17
1708120-05	OV-04_17ET628_072817_EEL_06_WB	0.245	20	-	-	-		From F708299 by CF on 04-Aug-17



**PREPARATION BENCH SHEET**

F708302

**Eurofins Frontier Global Sciences, Inc.**

**Matrix: Tissue**

**Prepared using: AFS - EFGS-011 Nitric/Sulfuric Hg Digestion**

**Prepared: 8/4/2017**

From F708299 on 04-Aug-17 by CF

Due Date: 8/30/2017

**PREPARATION BENCH SHEET**

F707534

**Eurofins Frontier Global Sciences, Inc.**

**Matrix: Soil/Sediment**

**Prepared using: AFS - EPA 7474**

**Prepared: 8/9/2017**

Lab Number	Sample ID and Source Sample	Initial (g)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F707534-BLK1	Blank	0.5	200					
F707534-BLK2	Blank	0.5	200					
F707534-BS1	Blank Spike	0.5	200	1701763	40			
F707534-BSD1	Blank Spike	0.5	200	1701763	40			
F707534-MS1	Matrix Spike [1707619-11]	0.5407	200	1703591	50			
F707534-MS2	Matrix Spike [1707619-21]	0.5709	200	1703591	50			
F707534-MSD1	Matrix Spike Dup [1707619-11]	0.5509	200	1703591	50			
F707534-MSD2	Matrix Spike Dup [1707619-21]	0.5633	200	1703591	50			

<u>Standard ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>	<u>Reagent ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>
1701763	THg 1,000ng/mL Secondary Spiking Standard	22-Sep-17 00:00	1703182	25% Hydroxylamine-HCl working solution	24-Nov-17 00:00
1703591	THg 10,000ng/mL Primary Spiking Standard	14-Dec-17 00:00	1703701	THg Washstation (0.5% BrCl)	21-Dec-17 00:00
			1703702	THg Dilute 1% BrCl	
			1703831	Omnitrace Hydrochloric Acid	26-Jun-20 00:00
			1704424	Boiling Chips for AFS prep	21-Jan-18 00:00
			1704484	Fisher Nitric Acid, Tracemetal Grade	15-Mar-19 00:00
			1704691	3% SnCl2 THg reductant	22-Jan-18 00:00
			1704812	7474 Potassium Bromate/Bromide Reagent	15-Aug-17 00:00

**PREPARATION BENCH SHEET**

F707534

**Eurofins Frontier Global Sciences, Inc.**

**Matrix: Soil/Sediment**

**Prepared using: AFS - EPA 7474**

**Prepared: 8/9/2017**

Lab Number	Sample ID	Initial (g)	Final (mL)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1707619-11	W-21-UM-Central-C_071817_SED_01-03	0.5873	200	QC	-	-	MS/MSD	
1707619-14	W-65-High_071817_SED_01-03	0.5474	200	-	-	-		
1707619-15	W-65-Low_071817_SED_01-03	0.5591	200	-	-	-		
1707619-16	W-65-Mid_071817_SED_01-03	0.5839	200	-	-	-		
1707619-17	W-21-UM-Central-C_071917_SED_03-05	0.5358	200	-	-	-		
1707619-18	W-21-UM-Central-C_071917_SED_05-10	0.5429	200	-	-	-		
1707619-18RE1	W-21-UM-Central-C_071917_SED_05-10	0.5429	200	-	-	-	Added 8/10/2017 by BC	Added 8/10/2017 by BC
1707619-19	W-17-Low_071917_SED_03-05	0.5837	200	-	-	-		
1707619-20	W-17-Low_071917_SED_05-10	0.5291	200	-	-	-		
1707619-21	W-17-Mid_071917_SED_03-05	0.5937	200	QC	-	-	MS/MSD	
1707619-22	W-17-Mid_071917_SED_05-10	0.5602	200	-	-	-		
1707619-23	W-63-High_071917_SED_03-05	0.584	200	-	-	-		
1707619-24	W-63-High_071917_SED_05-10	0.5528	200	-	-	-		
1707619-25	W-63-Mid_071917_SED_03-05	0.5614	200	-	-	-		
1707619-26	W-63-Mid_071917_SED_05-10	0.5642	200	-	-	-		
1707619-27	W-65-High_071917_SED_03-05	0.5572	200	-	-	-		
1707619-27RE1	W-65-High_071917_SED_03-05	0.5572	200	-	-	-	Added 8/10/2017 by BC	Added 8/10/2017 by BC
1707619-28	W-65-High_071917_SED_05-10	0.5524	200	-	-	-		
1707619-28RE1	W-65-High_071917_SED_05-10	0.5524	200	-	-	-	Added 8/10/2017 by BC	Added 8/10/2017 by BC

Due Date: 8/21/2017



**PREPARATION BENCH SHEET**

F707534

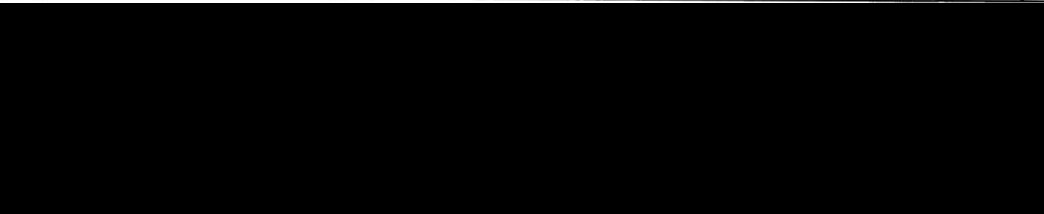
**Eurofins Frontier Global Sciences, Inc.**

**Matrix: Soil/Sediment**

**Prepared using: AFS - EPA 7474**

**Prepared: 8/9/2017**

1707619-29	W-65-Low_071917_SED_03-05	0.553	200	-	-	-		
1707619-30	W-65-Low_071917_SED_05-10	0.5423	200	-	-	-		
1707619-30RE1	W-65-Low_071917_SED_05-10	0.5423	200	-	-	-	Added 8/10/2017 by BC	Added 8/10/2017 by BC
1707619-31	W-65-Mid_071917_SED_03-05	0.5559	200	-	-	-		
1707619-31RE1	W-65-Mid_071917_SED_03-05	0.5559	200	-	-	-	Added 8/10/2017 by BC	Added 8/10/2017 by BC
1707620-02	W-MM-03_071717_SED_00-01	0.56	200	-	-	-		
1707620-02RE1	W-MM-03_071717_SED_00-01	0.56	200	-	-	-	Added 8/10/2017 by BC	Added 8/10/2017 by BC



PREPARATION BENCH SHEET

~~176~~ PX 8/10/17  
2600-3

F707534

Eurofins Frontier Global Sciences, Inc.

Matrix: Soil/Sediment

Prepared using: AFS - EPA 7474

Prepared: 8/9/2017

Lab Number	Sample ID and Source Sample	Initial (g)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F707534-BLK1	Blank	0.5	200					10X
F707534-BLK2	Blank	0.5	200					10X
F707534-BS1	Blank Spike	0.5	200	1701763	40			100X
F707534-BSD1	Blank Spike	0.5	200	1701763	40			100X
F707534-MS1	Matrix Spike [1707619-11]	0.5407	200	1703591	50			400X
F707534-MS2	Matrix Spike [1707619-21]	0.5709	200	1703591	50			400X
F707534-MSD1	Matrix Spike Dup [1707619-11]	0.5509	200	1703591	50			400X
F707534-MSD2	Matrix Spike Dup [1707619-21]	0.5633	200	1703591	50			400X

Standard ID(s):  
1701763  
1703591

Description:  
THg 1,000ng/mL Secondary Spiking Standard  
THg 10,000ng/mL Primary Spiking Standard

Expiration:  
22-Sep-17 00:00  
14-Dec-17 00:00

Reagent ID(s):  
1703831  
1704424  
1704484  
1704812

Description:  
Omnitrace Hydrochloric Acid  
Boiling Chips for AFS prep  
Fisher Nitric Acid, Tracemetal Grade  
7474 Potassium Bromate/Bromide Reagent

Expiration:  
26-Jun-20 00:00  
21-Jan-18 00:00  
15-Mar-19 00:00  
15-Aug-17 00:00

1704691  
1703701  
1703702  
1703182

PC 8/10/17  
2600-3

PREPARATION BENCH SHEET

F707534

Eurofins Frontier Global Sciences, Inc.

Matrix: Soil/Sediment

Prepared using: AFS - EPA 7474

Prepared: 8/9/2017

Lab Number	Sample ID	Initial (g)	Final (mL)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1707619-11	W-21-UM-Central-C_071817_SED_01-03	0.5873	200	QC	-	-	MS/MSD 100X	
1707619-14	W-65-High_071817_SED_01-03	0.5474	200	-	-	-	100X	
1707619-15	W-65-Low_071817_SED_01-03	0.5591	200	-	-	-	100X	
1707619-16	W-65-Mid_071817_SED_01-03	0.5839	200	-	-	-	100X	
1707619-17	W-21-UM-Central-C_071917_SED_03-05	0.5358	200	-	-	-	100X	
1707619-18	W-21-UM-Central-C_071917_SED_05-10	0.5429	200	-	-	-	100X → 10X	
1707619-19	W-17-Low_071917_SED_03-05	0.5837	200	-	-	-	100X	
1707619-20	W-17-Low_071917_SED_05-10	0.5291	200	-	-	-	100X	
1707619-21	W-17-Mid_071917_SED_03-05	0.5937	200	QC	-	-	MS/MSD 100X	
1707619-22	W-17-Mid_071917_SED_05-10	0.5602	200	-	-	-	100X	
1707619-23	W-63-High_071917_SED_03-05	0.584	200	-	-	-	100X	
1707619-24	W-63-High_071917_SED_05-10	0.5528	200	-	-	-	100X	
1707619-25	W-63-Mid_071917_SED_03-05	0.5614	200	-	-	-	100X	
1707619-26	W-63-Mid_071917_SED_05-10	0.5642	200	-	-	-	100y	
1707619-27	W-65-High_071917_SED_03-05	0.5572	200	-	-	-	100X → 10X	
1707619-28	W-65-High_071917_SED_05-10	0.5524	200	-	-	-	100X → 10X	
1707619-29	W-65-Low_071917_SED_03-05	0.553	200	-	-	-	100X	
1707619-30	W-65-Low_071917_SED_05-10	0.5423	200	-	-	-	100X → 10X	
1707619-31	W-65-Mid_071917_SED_03-05	0.5559	200	-	-	-	100X → 10X	

Due Date: 8/21/2017

PREPARATION BENCH SHEET

BC 8/10/17  
2600-3

F707534

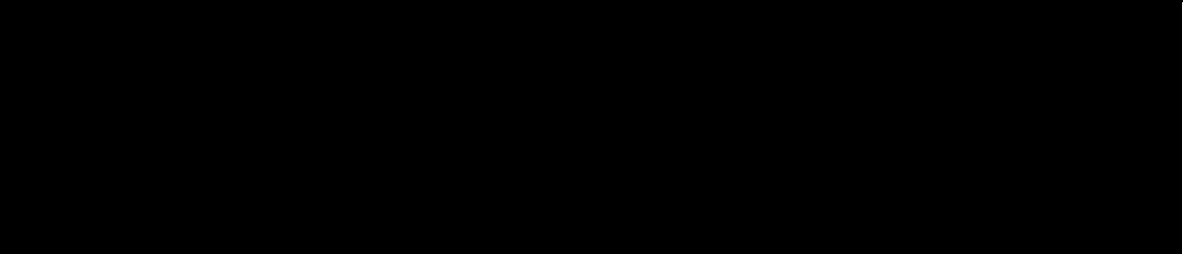
Eurofins Frontier Global Sciences, Inc.

Matrix: Soil/Sediment

Prepared using: AFS - EPA 7474

Prepared: 8/9/2017

1707620-02	W-MM-03_071717_SED_00-01	0.56	200	-	-	-	100X → 10X	
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Technician: Duyen Batch#: F707534 Date: 8/9/17

- EFAS-T-AFS-SOP2986 Tissues - Methyl Mercury - KOH/Methanol: Hot plate 75±5°C for 2-4 hours.
- EFAS-T-AFS-SOP2795 Tissues - Total Mercury - 70:30: Hot plate 75±5°C for two hours.
- EFAS-T-AFS-SOP5134 Sediments - Methyl Mercury - KBr/CH<sub>2</sub>Cl<sub>2</sub>: Heat Block 45°C (nitrogen purge for 30 minutes).
- EFAS-T-AFS-SOP2807 Solids - Total Mercury - Cold AR: 18-25°C for over four hours.

Other: EPA 7474  
 Balance#: 19 Calibrated?  Yes  No Therm.#: N/A Vial Type:  Glass  Teflon  
 Calibrated?  Yes  No

\*Time in: N/A Actual Temp. (raw): N/A °C w/ CF: N/A °C  
 Time out: N/A Actual Temp. (raw): N/A °C w/ CF: N/A °C

\*Time in can't begin before target temperature is reached  
 Final vol.: 25 mL (LIMS ID: RoH20) Spike vol.: 40 µL (LIMS ID: 1701763)  
 Spike Witness: BC 8/9/17 (initial and date)

HCl LIMS ID: 1703831 Pipette SN#: MU11619 Calibration Date: 8-9-17  
 HNO<sub>3</sub> LIMS ID: 1704484 Pipette SN#: NW07693 Calibration Date: 8/9/17  
 70/30 LIMS ID: N/A Dispenser #: 09N45351 Calibrated?  Yes  No  
 Other Acid LIMS ID: 1704812 Dispenser #: 08Y2293  Yes  No  
 Glass Vial # J264712-3025 Boiling Chip lot # 1704424 \*Hotblock Position: N/A

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	CRM LIMS ID <input checked="" type="checkbox"/> N/A
1	F707534 Bk1	0.5017	23 8	1707619-27A	0.5572	
2	F707534 Bk2	0.5068	24 9	1707619-28	0.5524	
3	F707534 B51	0.5008	25 10	1707619-29	0.5530	
4	F707534 B501	0.5832	26 11	1707619-20	0.5423	Comments
5	1707619-11D	0.5873	27 12	1707619-31	0.5559	F707534 source MS1 MS01 1707619-11 <hr/> F707534 MS2 MS02 1707619-27 ALL Spike MS1 MS01 = 50 ul 10,000ug/bottle 1703591 8/9/17 ms
6	F707534-MS1	0.5407	28 13	1707620-02	0.5600	
7	F707534-MS01	0.5509	29			
8	1707619-14D	0.5474	30			
9	1707619-15A	0.5591	31			
10	1707619-16A	0.5839	32			
11	1707619-17A	0.5358	33			
12	1707619-18A	0.5429	34			
13	1707619-19A	0.5837	35			
14	1707619-20A	0.5291	36			
15	1707619-21A	0.5977	37			
16	F707534-MS2	0.5709	38			
17	F707534-MS02	0.5633	39			
18	1707619-22A	0.5602	40			
19	1707619-23A	0.5840	41			
20	1707619-24A	0.5528	42			
21	1707619-25A	0.5614	43			
22	1707619-26A	0.5642	44			

8/10/17 BL  
2600-3

PREPARATION BENCH SHEET

F708302

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: AFS - EFGS-011 Nitric/Sulfuric Hg Digestion

Prepared: 8/4/2017

Lab Number	Sample ID and Source Sample	Initial (g)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F708302-BLK1	Blank	0.25	20					20X
F708302-BLK2	Blank	0.25	20					20X
F708302-BLK3	Blank	0.25	20					20X
F708302-BLK4	Filter Blank	0.274	20					20X
F708302-BS1	LCS	0.2748	20	1704421	20			20X
F708302-BS2	LCS	0.1343	20					400X
F708302-BSD1	LCS Dup	0.285	20	1704421	20			20X
F708302-DUP1	Duplicate [1708120-01]	0.2888	20					100X
F708302-MS1	Matrix Spike [1708120-01]	0.2867	20	1701763	100			400X
F708302-MS2	Matrix Spike [1708120-02]	0.2922	20	1701763	100			400X
F708302-MSD1	Matrix Spike Dup [1708120-01]	0.2555	20	1701763	100			400X
F708302-MSD2	Matrix Spike Dup [1708120-02]	0.2752	20	1701763	100			400X

Standard ID(s):  
1701763  
1704421

Description:  
THg 1,000ng/mL Secondary Spiking Standard  
THg 100ng/mL Primary Spiking Standard

Expiration:  
22-Sep-17 00:00  
21-Oct-17 00:00

Reagent ID(s):  
1704424  
1704524  
1704740

Description:  
Boiling Chips for AFS prep  
70/30 Digestion Acid  
5% BrCl

Expiration:  
21-Jan-18 00:00  
22-Jan-18 00:00  
18-Dec-17 00:00

DUP 2 rerun of DUP 1 400X

MS 3, MSD3 rerun MS1/MSD1 400X

1704691

~~170470~~

1703701

1703702

1703182

PREPARATION BENCH SHEET

Bx 8/10/17

2600-3

F708302

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: AFS - EFGS-011 Nitric/Sulfuric Hg Digestion

Prepared: 8/4/2017

Lab Number	Sample ID	Initial (g)	Final (mL)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1708084-01	OL-2638-01	0.2915	20	-	-	-	Preservation Blank Created Scan all dat	100x
1708118-01	OB-01_17HC001_072517_POL_01_WB	0.2792	20	-	-	-		From F708299 by CF on 04-Aug-17 400x → 100x
1708118-02	OB-01_17HC001_072517_POL_02_WB	0.2635	20	-	-	-		From F708299 by CF on 04-Aug-17 400x → 100x
1708118-03	OB-01_17HC001_072517_POL_03_WB	0.2961	20	-	-	-		From F708299 by CF on 04-Aug-17 400x → 100x
1708118-04	OB-01_17HC001_072517_POL_04_WB	0.25	20	-	-	-		From F708299 by CF on 04-Aug-17 400x → 100x
1708118-05	OB-01_17HC001_072517_POL_05_WB	0.2901	20	-	-	-		From F708299 by CF on 04-Aug-17 400x → 100x
1708120-01	OV-04_17ET628_072817_EEL_02_WB	0.2634	20	QC	-	-	MS/MSD	From F708299 by CF on 04-Aug-17 400x
1708120-02	OV-04_17ET628_072817_EEL_03_WB	0.2869	20	-	-	-		From F708299 by CF on 04-Aug-17 400x
1708120-03	OV-04_17ET628_072817_EEL_04_WB	0.287	20	-	-	-		From F708299 by CF on 04-Aug-17 400x
1708120-04	OV-04_17ET628_072817_EEL_05_WB	0.2645	20	-	-	-		From F708299 by CF on 04-Aug-17 400x
1708120-05	OV-04_17ET628_072817_EEL_06_WB	0.245	20	-	-	-		From F708299 by CF on 04-Aug-17 400x



Technician: CWF Batch#: F708302 Date: 8/4/17

- EFAFS-T-AFS-SOP2986 Tissues - Methyl Mercury - KOH/Methanol: Hot plate 75±5°C for 2-4 hours.
- EFAFS-T-AFS-SOP2795 Tissues - Total Mercury - 70:30: Hot plate 75±5°C for two hours.
- EFAFS-T-AFS-SOP5134 Sediments - Methyl Mercury - KBr/CH<sub>2</sub>Cl<sub>2</sub>: Heat Block 45°C (nitrogen purge for 30 minutes).
- EFAFS-T-AFS-SOP2807 Solids - Total Mercury - Cold AR: 18-25°C for over four hours.

Other: \_\_\_\_\_ Vial Type:  Glass  Teflon  
 Balance#: 19 Calibrated?  Yes  No Therm.#: 13698 Calibrated?  Yes  No

\*Time in: 11:00 Actual Temp. (raw): 76.0 °C w/ CF: 76.0 °C

Time out: 13:00 Actual Temp. (raw): 80.0 °C w/ CF: 80.0 °C

\*Time in can't begin before target temperature is reached

Final vol.: 20 mL (LIMS ID: 1704740) Spike vol.: 100 µL (LIMS ID: 1701763)

Spike Witness: on 8/7/17 (initial and date)

HCl LIMS ID: N/A Pipette SN#: MU11619 Calibration Date: 8/2/17

HNO<sub>3</sub> LIMS ID: N/A Pipette SN#: N/A Calibration Date: N/A

70/30 LIMS ID: 1704524 Dispenser #: 02227494 Calibrated?  Yes  No

Other Acid LIMS ID: \_\_\_\_\_ Dispenser #: 15406623 Calibrated?  Yes  No

Glass Vial # ~~0068424~~ 0068017 Boiling Chip lot # 1704424 \*Hotblock Position: K4

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	CRM LIMS ID <input type="checkbox"/> NA
1	F708302 - BLK1	0.2849	23	1708120 - 05	0.2450	BS2 = DORM-4
2	F708302 - BLK2	0.2850	24			LIMS = 1707305
3	F708302 - BLK3	0.2550	25			
4	F708302 - BLK4	0.2740	26			Comments
5	F708302 - BS1	0.2748	27			F708302 - DUPI,
6	F708302 - BSD1	0.2850	28			MS1, MSD1
7	F708302 - BS2	0.1343	29			source = 1708120-01
8	1708084 - 01	0.2915 w/ CF 29.15 w/ CF	30			
9	1708118 - 01	20.2792 w/ CF	31			F708302 - MS2,
10	1708118 - 02	0.2635	32			MSD2 source =
11	1708118 - 03	0.2961	33			1708120-02
12	1708118 - 04	0.2500	34			BLK4 is filter
13	1708118 - 05	0.2901	35			blank.
14	1708120 - 01	0.2634	36			BSK BSD1 spiked
15	F708302 - DUPI	0.2888	37			w/ 20 mL of 100 µg/mL
16	F708302 - MS1	0.2867	38			LIMS = 1704421
17	F708302 - MSD1	0.2555	39			
18	1708120 - 02	0.2869	40			CWF 8/7/17
19	F708302 - MS2	0.2922	41			
20	F708302 - MSD2	0.2792	42			
21	1708120 - 03	0.2870	43			
22	1708120 - 04	0.2645	44			



**Peer Review Check List for THg by 2600 CV-AFS (SOP2822) 2016 Rev 1 (04/1/2016)**

<b>Analyst:</b> <u>BC</u>	<b>Sequence(s) #:</b> <u>7H10026, 7H10027</u>
<b>Reviewer:</b> <u>DM</u>	<b>Dataset ID(s):</b> <u>THg26003-170810-1</u>
<b>Date:</b> <u>8/10/2017</u>	<b>WO (s) #:</b> <u>Various</u>
<b>Batch #(s):</b> <u>F707535, F708302</u>	

● 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 checked="" 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 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:** DM

- |   |   |  |                                     |                                     |
|---|---|--|-------------------------------------|-------------------------------------|
| 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-yyymmdd-1 or THg26002-yyymmdd-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 checked="" type="checkbox"/> YES | <input type="checkbox"/> NO            | <input 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 (SOP2822) 2016 Rev 1 (04/1/2016)**

<b>Analyst:</b> BC	<b>Sequence(s) #:</b> 7H10026, 7H10027
<b>Reviewer:</b> 0	<b>Dataset ID(s):</b> THg26003-170810-1
<b>Date:</b> 8/10/2017	<b>WO (s) #:</b> Various
<b>Batch #(s):</b> F707535, F708302	0

Analyst Initials BC                      Reviewer Initials DM

- |  |  |                               |   |                                     |
|--|--|-------------------------------|---|-------------------------------------|
| 5b. Has the B/C section data been uploaded?  | <input checked="" type="checkbox"/> YES  | <input type="checkbox"/> NO   | <input type="checkbox"/> N/A            | <input checked="" type="checkbox"/> |
| <b>QA/QC Data Checked</b>  |  |                               |   |                                     |
| 6. RSD CF (≤ 15%)  | <input checked="" type="checkbox"/> PASS | <input type="checkbox"/> FAIL |   | <input checked="" type="checkbox"/> |
| Comments: _____  |  |                               |   |                                     |
| 7. The calibration curve included a minimum of 5 Standards   | <input checked="" type="checkbox"/> YES  | <input type="checkbox"/> NO   |   | <input checked="" type="checkbox"/> |
| Comments: _____  |  |                               |   |                                     |
| 8. 1st Calibration Standard % Recoveries EPA 1631E (75-125%)   | <input checked="" type="checkbox"/> PASS | <input type="checkbox"/> FAIL |   | <input checked="" type="checkbox"/> |
| 9. ICV and CCV % Recoveries EPA 1631E (77-123%)  | <input checked="" type="checkbox"/> PASS | <input type="checkbox"/> FAIL |   | <input checked="" type="checkbox"/> |
| Comments: _____  |  |                               |   |                                     |
| 10. Do all calibration points pass acceptance criteria?  | <input checked="" type="checkbox"/> YES  | <input type="checkbox"/> NO   |   | <input checked="" type="checkbox"/> |
| Comments: _____  |  |                               |   |                                     |
| 11. Are qualifiers consistent with the data review flowcharts?   | <input checked="" type="checkbox"/> YES  | <input type="checkbox"/> NO   | <input type="checkbox"/> N/A            | <input checked="" type="checkbox"/> |
| Comments: _____  |  |                               |   |                                     |
| 12. Explain any items on the failed data report from Element   |  |                               |   | <input checked="" type="checkbox"/> |
| Comments: <u>DUP1 was off curve</u>  |  |                               |   |                                     |
| 13. Are the individual Preparation Blanks < PQL or <2.2xMDL for WI (refer to appropriate prep method PQL list) | <input checked="" type="checkbox"/> PASS | <input type="checkbox"/> FAIL |   | <input checked="" type="checkbox"/> |
| (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)?                                   | <input checked="" type="checkbox"/> YES  | <input type="checkbox"/> NO   |   | <input checked="" type="checkbox"/> |
| (c) Was a BrCl Blank analyzed for each preservation level?   | <input type="checkbox"/> YES             | <input type="checkbox"/> NO   | <input checked="" type="checkbox"/> N/A | <input checked="" type="checkbox"/> |
| (d) Are Preparation Blanks summarized on QC page?  | <input checked="" type="checkbox"/> YES  | <input type="checkbox"/> NO   |   | <input checked="" type="checkbox"/> |
| 14. Filtration Blank Prepared (if yes, use FB qualifier)   | <input checked="" type="checkbox"/> YES  | <input type="checkbox"/> NO   |   | <input checked="" type="checkbox"/> |
| (a) Filtration Blank prep date same as associated samples' prep date   | <input checked="" type="checkbox"/> YES  | <input type="checkbox"/> NO   | <input type="checkbox"/> N/A            | <input checked="" type="checkbox"/> |
| (b) Filtration Blank absolute value < PQL or <2.2xMDL for WI   | <input checked="" type="checkbox"/> YES  | <input type="checkbox"/> NO   | <input type="checkbox"/> N/A            | <input checked="" type="checkbox"/> |
| 15. IBLs (3 minimum) individually < 0.50 ng/L, mean < 0.25 ng/L and STD of 0.10 ng/L?                          | <input checked="" type="checkbox"/> PASS | <input type="checkbox"/> FAIL |   | <input checked="" type="checkbox"/> |
| Comments: _____  |  |                               |   |                                     |
| 16. CCBs individually < 0.50 ng/L or 2.2 x MDL for WI?   | <input checked="" type="checkbox"/> PASS | <input type="checkbox"/> FAIL |   | <input checked="" type="checkbox"/> |
| Comments: _____  |  |                               |   |                                     |
| 17. 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"/> |
| 18. Is the correct 'Source' designated for MD/MS/MSD?  | <input checked="" type="checkbox"/> YES  | <input type="checkbox"/> NO   |   | <input checked="" type="checkbox"/> |
| 19. 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"/> |

**Peer Review Check List for THg by 2600 CV-AFS (SOP2822) 2016 Rev 1 (04/1/2016)**

<b>Analyst:</b> BC	<b>Sequence(s) #:</b> 7H10026, 7H10027
<b>Reviewer:</b> 0	<b>Dataset ID(s):</b> THg26003-170810-1
<b>Date:</b> 8/10/2017	<b>WO (s) #:</b> Various
<b>Batch #(s):</b> F707535, F708302	0

**Analyst Initials** BC **Reviewer Initials** DM

- |  |  |                               |   |
|--|--|-------------------------------|---|
| 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 type="checkbox"/> YES             | <input type="checkbox"/> NO   | <input checked="" 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                                     |
| Comments: _____  |  |                               |   |
| 30. 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"/>            |
| 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 type="checkbox"/> YES             |                               | <input checked="" 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 type="checkbox"/> YES             | <input type="checkbox"/> NO   | <input checked="" type="checkbox"/> N/A <input checked="" type="checkbox"/> |
| 35. Water samples-is the final volume correct in the sequence?   | <input type="checkbox"/> YES             | <input type="checkbox"/> NO   | <input checked="" type="checkbox"/> N/A <input checked="" type="checkbox"/> |
| <b>Files located at: \\Cuprum\gen_admin\Quality Assurance\Training Master\DOCs</b>   |  |                               |   |
| 36. Date of analyst IDOC/CDOC: _____ 1/27/2017 _____ 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: _____ 5/20/2017 _____ Current SOP revision read?   | <input checked="" type="checkbox"/> YES  | <input type="checkbox"/> NO   | <input checked="" type="checkbox"/>   |
| 38. Date of LOD: _____ 5/9/2017 _____ LOD within last 3 months?  | <input checked="" type="checkbox"/> YES  | <input type="checkbox"/> NO   | <input checked="" type="checkbox"/>   |
| 39. Date of LOQ: _____ 5/9/2017 _____ 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.**







Frontier Global Sciences

Analysis Datasheet for Total Mercury

Date of Analysis: August 11, 2017

Analyst: BC

Instrument #: Hg2600-3

Units ng/L

LIMS Sequence #: 7H14016, 7H14017

Calibration Statistics:

LabNumber	n	True Val	Area	Uncorrected Response Factor	Corrected Peak Height	Corrected Response Factor	% Recovery
SEQ-CAL1	1	0.50 ng/L	58.23 units	116.46	56.11 units	112.22	110.3 %Rec
SEQ-CAL2	1	1.00 ng/L	104.97 units	104.97	102.85 units	102.85	101.1 %Rec
SEQ-CAL3	1	5.00 ng/L	500.39 units	100.08	498.27 units	99.65	98.0 %Rec
SEQ-CAL4	1	20.00 ng/L	1940.94 units	97.05	1938.82 units	96.94	95.3 %Rec
SEQ-CAL5	1	40.00 ng/L	3876.26 units	96.91	3874.14 units	96.85	95.2 %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**  
 101.70            +/- 6.37            6.3% RSD            103.09

Blanks:

LabNumber	n	Mean	Std Dev	Mean (ng/L)	Std Dev (ng/L)
SEQ-IBL	3	2.12 units	±0.56	0.02 ng/L	±0.01

Preparation Blanks

Sample Type	Batch ID	n	Mean	Std Dev
BLK	1	3	0.002 ng/L	±0.025
BLK	2	1	0.390 ng/L	
BLK	3	2	0.598 ng/L	±0.420
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: AL 8/14/17

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	8/11/2017 8:48:09	73006-1.RAW	8:48:09 AM	1.58			-0.5	-0.005	-0.005	ng/L	
Hg2600-3	BC	CAL	SEQ-IBL2	1	8/11/2017 8:52:18	73007-1.RAW	8:52:18 AM	2.08			0.0	0.000	0.000	ng/L	
Hg2600-3	BC	CAL	SEQ-IBL3	1	8/11/2017 8:56:26	73008-1.RAW	8:56:26 AM	2.70			0.6	0.006	0.006	ng/L	
Hg2600-3	BC	CAL	SEQ-CAL1	1	8/11/2017 9:00:35	73009-1.RAW	9:00:35 AM	58.23			56.1	0.552	0.552	ng/L	
Hg2600-3	BC	CAL	SEQ-CAL2	1	8/11/2017 9:04:43	73010-1.RAW	9:04:43 AM	104.97			102.9	1.011	1.011	ng/L	
Hg2600-3	BC	CAL	SEQ-CAL3	1	8/11/2017 9:08:52	73011-1.RAW	9:08:52 AM	500.39			498.3	4.899	4.899	ng/L	
Hg2600-3	BC	CAL	SEQ-CAL4	1	8/11/2017 9:13:00	73012-1.RAW	9:13:00 AM	1940.94			1938.8	19.063	19.063	ng/L	
Hg2600-3	BC	CAL	SEQ-CAL5	1	8/11/2017 9:17:08	73013-1.RAW	9:17:08 AM	3876.26			3874.1	38.092	38.092	ng/L	
Hg2600-3	BC	CAL	SEQ-ICV1	1	8/11/2017 9:21:17	73014-1.RAW	9:21:17 AM	503.94			501.8	4.934	4.934	ng/L	
Hg2600-3	BC	BLK	F708388-BLK1	1	8/11/2017 9:26:19	73015-1.RAW	9:26:19 AM	5.11	1		3.0	0.029	0.029	ng/L	
Hg2600-3	BC	BLK	F708388-BLK2	1	8/11/2017 9:30:28	73016-1.RAW	9:30:28 AM	1.99	1		-0.1	-0.001	-0.001	ng/L	
Hg2600-3	BC	BLK	F708388-BLK3	1	8/11/2017 9:34:36	73017-1.RAW	9:34:36 AM	0.00	1		-2.1	-0.021	-0.021	ng/L	
Hg2600-3	BC	BLK	F708388-BLK4	10	8/11/2017 9:38:45	73018-1.RAW	9:38:45 AM	6.09	2		4.0	0.039	0.390	ng/L	
Hg2600-3	BC	SAM	F708388-BS1	1	8/11/2017 9:42:53	73019-1.RAW	9:42:53 AM	1539.20	1		1537.1	15.111	15.111	ng/L	
Hg2600-3	BC	SAM	F708388-BSD1	1	8/11/2017 9:47:01	73020-1.RAW	9:47:01 AM	1528.91	1		1524.8	14.990	14.990	ng/L	
Hg2600-3	BC	SAM	1708268-01	1	8/11/2017 9:51:10	73021-1.RAW	9:51:10 AM	282.57	1		280.5	2.755	2.755	ng/L	
Hg2600-3	BC	SAM	1708268-02	1	8/11/2017 9:55:18	73022-1.RAW	9:55:18 AM	5.78	1		3.7	0.034	0.034	ng/L	
Hg2600-3	BC	SAM	1708268-03	1	8/11/2017 9:59:27	73023-1.RAW	9:59:27 AM	236.17	1		234.1	2.299	2.299	ng/L	
Hg2600-3	BC	SAM	1708268-04	1	8/11/2017 10:03:35	73024-1.RAW	10:03:35 AM	3.96	1		1.8	0.016	0.016	ng/L	
Hg2600-3	BC	CAL	SEQ-CCV1	1	8/11/2017 10:07:44	73025-1.RAW	10:07:44 AM	498.52			496.4	4.881	4.881	ng/L	
Hg2600-3	BC	CAL	SEQ-CCB1	1	8/11/2017 10:11:52	73026-1.RAW	10:11:52 AM	9.67			7.6	0.074	0.074	ng/L	
Hg2600-3	BC	SAM	1708268-05	10	8/11/2017 10:16:01	73027-1.RAW	10:16:01 AM	486.72	2		484.6	4.726	47.258	ng/L	
Hg2600-3	BC	SAM	1708268-06	1	8/11/2017 10:20:09	73028-1.RAW	10:20:09 AM	4.38	1		2.3	0.020	0.020	ng/L	
Hg2600-3	BC	SAM	1708269-01	1	8/11/2017 10:24:17	73029-1.RAW	10:24:17 AM	54.76	1		52.6	0.515	0.515	ng/L	
Hg2600-3	BC	SAM	1708269-02	1	8/11/2017 10:28:26	73030-1.RAW	10:28:26 AM	55.34	1		53.2	0.521	0.521	ng/L	
Hg2600-3	BC	SAM	1708269-03	1	8/11/2017 10:32:34	73031-1.RAW	10:32:34 AM	48.19	1		46.1	0.451	0.451	ng/L	
Hg2600-3	BC	SAM	1708269-04	1	8/11/2017 10:36:42	73032-1.RAW	10:36:42 AM	63.59	1		61.5	0.602	0.602	ng/L	
Hg2600-3	BC	SAM	1708269-05	1	8/11/2017 10:40:50	73033-1.RAW	10:40:50 AM	84.92	1		82.8	0.812	0.812	ng/L	
Hg2600-3	BC	SAM	1708269-06	1	8/11/2017 10:44:58	73034-1.RAW	10:44:58 AM	71.92	1		69.8	0.684	0.684	ng/L	
Hg2600-3	BC	SAM	F708388-DUP1	1	8/11/2017 10:49:06	73035-1.RAW	10:49:06 AM	272.34	1		270.2	2.655	2.655	ng/L	
Hg2600-3	BC	SAM	F708388-MS1	1	8/11/2017 10:53:14	73036-1.RAW	10:53:14 AM	1175.70	1		1173.6	11.537	11.537	ng/L	
Hg2600-3	BC	CAL	SEQ-CCV2	1	8/11/2017 10:57:23	73037-1.RAW	10:57:23 AM	501.99			499.9	4.915	4.915	ng/L	
Hg2600-3	BC	CAL	SEQ-CCB2	1	8/11/2017 11:01:31	73038-1.RAW	11:01:31 AM	7.23			5.1	0.050	0.050	ng/L	
Hg2600-3	BC	SAM	F708388-MSD1	1	8/11/2017 11:05:40	73039-1.RAW	11:05:40 AM	1174.08	1		1172.0	11.521	11.521	ng/L	
Hg2600-3	BC	SAM	F708388-MS2	1	8/11/2017 11:09:48	73040-1.RAW	11:09:48 AM	1146.07	1		1144.0	11.245	11.245	ng/L	
Hg2600-3	BC	SAM	F708388-MSD2	1	8/11/2017 11:13:57	73041-1.RAW	11:13:57 AM	1132.05	1		1129.9	11.108	11.108	ng/L	
Hg2600-3	BC	BLK	F707536-BLK1	10	8/11/2017 11:20:06	73042-1.RAW	11:20:06 AM	11.22	3		9.1	0.089	0.895	ng/L	
Hg2600-3	BC	BLK	F707536-BLK2	10	8/11/2017 11:24:14	73043-1.RAW	11:24:14 AM	5.18	3		3.1	0.030	0.301	ng/L	
Hg2600-3	BC	SAM	F707536-BS1	100	8/11/2017 11:28:23	73044-1.RAW	11:28:23 AM	218.72	3		214.6	2.104	210.407	ng/L	
Hg2600-3	BC	SAM	F707536-BSD1	100	8/11/2017 11:32:31	73045-1.RAW	11:32:31 AM	212.12	3		210.0	2.059	205.684	ng/L	
Hg2600-3	BC	SAM	1707620-11	100	8/11/2017 11:36:40	73046-1.RAW	11:36:40 AM	102.81	3		100.7	0.984	98.405	ng/L	
Hg2600-3	BC	SAM	1707620-21	100	8/11/2017 11:40:48	73047-1.RAW	11:40:48 AM	970.06	3		967.9	9.511	951.128	ng/L	
Hg2600-3	BC	SAM	1707620-23	100	8/11/2017 11:44:56	73048-1.RAW	11:44:56 AM	756.14	3		754.0	7.408	740.791	ng/L	
Hg2600-3	BC	CAL	SEQ-CCV3	1	8/11/2017 11:49:05	73049-1.RAW	11:49:05 AM	510.69			508.6	5.001	5.001	ng/L	
Hg2600-3	BC	CAL	SEQ-CCB3	1	8/11/2017 11:53:13	73050-1.RAW	11:53:13 AM	6.39			4.3	0.042	0.042	ng/L	
Hg2600-3	BC	SAM	1707620-24	100	8/11/2017 11:57:22	73051-1.RAW	11:57:22 AM	1480.90	3		1478.8	14.534	1453.410	ng/L	
Hg2600-3	BC	SAM	1707620-25	100	8/11/2017 12:01:30	73052-1.RAW	12:01:30 PM	1411.99	3		1409.9	13.857	1385.655	ng/L	
Hg2600-3	BC	SAM	1707620-26	100	8/11/2017 12:05:39	73053-1.RAW	12:05:39 PM	934.47	3		932.4	9.161	916.134	ng/L	
Hg2600-3	BC	SAM	1707620-27	100	8/11/2017 12:09:47	73054-1.RAW	12:09:47 PM	34.98	3		32.9	0.317	31.712	ng/L	
Hg2600-3	BC	SAM	1707620-28	100	8/11/2017 12:13:55	73055-1.RAW	12:13:55 PM	21.49	3		19.4	0.184	18.448	ng/L	
Hg2600-3	BC	SAM	1707620-29	100	8/11/2017 12:18:04	73056-1.RAW	12:18:04 PM	1074.10	3		1072.0	10.534	1053.425	ng/L	
Hg2600-3	BC	SAM	1707620-30	100	8/11/2017 12:22:12	73057-1.RAW	12:22:12 PM	1934.08	3		1932.0	18.990	1898.999	ng/L	
Hg2600-3	BC	SAM	1707620-31	100	8/11/2017 12:26:21	73058-1.RAW	12:26:21 PM	178.02	3		175.9	1.724	172.356	ng/L	
Hg2600-3	BC	SAM	1707620-32	100	8/11/2017 12:30:29	73059-1.RAW	12:30:29 PM	21.06	3		18.9	0.180	18.025	ng/L	
Hg2600-3	BC	SAM	1707620-33	100	8/11/2017 12:34:37	73060-1.RAW	12:34:37 PM	136.68	3		134.6	1.317	131.708	ng/L	
Hg2600-3	BC	CAL	SEQ-CCV4	1	8/11/2017 12:38:46	73061-1.RAW	12:38:46 PM	509.20			507.1	4.986	4.986	ng/L	
Hg2600-3	BC	CAL	SEQ-CCB4	1	8/11/2017 12:42:54	73062-1.RAW	12:42:54 PM	7.13			5.0	0.049	0.049	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	1707620-35	100	8/11/2017 12:50:22	73063-1.RAW	12:50:22 PM	133.64	3		131.5	1.287	128.719	ng/L	
Hg2600-3	BC	SAM	1707620-36	100	8/11/2017 12:54:30	73064-1.RAW	12:54:30 PM	22.86	3		20.7	0.198	19.795	ng/L	
Hg2600-3	BC	SAM	1707737-01	100	8/11/2017 12:58:39	73065-1.RAW	12:58:39 PM	100.92	3		98.8	0.965	96.547	ng/L	
Hg2600-3	BC	SAM	1707737-02	100	8/11/2017 13:02:47	73066-1.RAW	1:02:47 PM	276.99	3		274.9	2.697	269.668	ng/L	
Hg2600-3	BC	SAM	1707737-03	100	8/11/2017 13:06:56	73067-1.RAW	1:06:56 PM	417.93	3		415.8	4.082	408.247	ng/L	
Hg2600-3	BC	SAM	1707737-04	100	8/11/2017 13:11:04	73068-1.RAW	1:11:04 PM	644.01	3		641.9	6.305	630.539	ng/L	
Hg2600-3	BC	SAM	1707737-05	100	8/11/2017 13:15:12	73069-1.RAW	1:15:12 PM	189.54	3		187.4	1.837	183.683	ng/L	
Hg2600-3	BC	SAM	1707620-11RE1	10	8/11/2017 13:19:21	73070-1.RAW	1:19:21 PM	1004.74	3		1002.6	9.798	97.985	ng/L	
Hg2600-3	BC	SAM	1707620-27RE1	10	8/11/2017 13:23:29	73071-1.RAW	1:23:29 PM	239.72	3		237.6	2.276	22.764	ng/L	
Hg2600-3	BC	SAM	1707620-28RE1	10	8/11/2017 13:27:38	73072-1.RAW	1:27:38 PM	186.54	3		184.4	1.754	17.535	ng/L	
Hg2600-3	BC	CAL	SEQ-CCV5	1	8/11/2017 13:31:46	73073-1.RAW	1:31:46 PM	509.6			507.5	4.990	4.990	ng/L	
Hg2600-3	BC	CAL	SEQ-CCB5	1	8/11/2017 13:35:54	73074-1.RAW	1:35:54 PM	5.46			3.3	0.033	0.033	ng/L	
Hg2600-3	BC	SAM	1707620-32RE1	10	8/11/2017 13:40:03	73075-1.RAW	1:40:03 PM	158.93	3		156.8	1.482	14.821	ng/L	
Hg2600-3	BC	SAM	1707620-36RE1	10	8/11/2017 13:44:11	73076-1.RAW	1:44:11 PM	163.74	3		161.6	1.529	15.293	ng/L	
Hg2600-3	BC	SAM	1707737-01RE1	10	8/11/2017 13:48:20	73077-1.RAW	1:48:20 PM	951.47	3		949.4	9.275	92.747	ng/L	
Hg2600-3	BC	SAM	F707536-MS1	400	8/11/2017 13:52:28	73078-1.RAW	1:52:28 PM	530.18	3		528.1	5.191	2076.259	ng/L	
Hg2600-3	BC	SAM	F707536-MSD1	400	8/11/2017 13:56:37	73079-1.RAW	1:56:37 PM	576.83	3		574.7	5.649	2259.733	ng/L	
Hg2600-3	BC	SAM	F707536-MS2	400	8/11/2017 14:00:45	73080-1.RAW	2:00:45 PM	836.78	3		834.7	8.205	3282.115	ng/L	
Hg2600-3	BC	SAM	F707536-MSD2	400	8/11/2017 14:04:53	73081-1.RAW	2:04:53 PM	841.94	3		839.8	8.256	3302.409	ng/L	
Hg2600-3	BC	CAL	SEQ-CCV6	1	8/11/2017 14:09:02	73082-1.RAW	2:09:02 PM	511.73			509.6	5.011	5.011	ng/L	
Hg2600-3	BC	CAL	SEQ-CCB6	1	8/11/2017 14:13:10	73083-1.RAW	2:13:10 PM	10.12			8.0	0.079	0.079	ng/L	
Hg2600-3	BC	CAL	SEQ-CCV7	1	8/11/2017 14:30:02	73084-1.RAW	2:30:02 PM	506.40			504.3	4.958	4.958	ng/L	
Hg2600-3	BC	CAL	SEQ-CCB7	1	8/11/2017 14:34:10	73085-1.RAW	2:34:10 PM	9.07			7.0	0.068	0.068	ng/L	
Hg2600-3	BC	SAM	1708310-01	1	8/11/2017 14:38:19	73086-1.RAW	2:38:19 PM	159.57	1		157.5	1.546	1.546	ng/L	
Hg2600-3	BC	SAM	1708311-02	10	8/11/2017 14:42:27	73087-1.RAW	2:42:27 PM	315.03	1		312.9	3.076	30.764	ng/L	
Hg2600-3	BC	SAM	1708311-04	1	8/11/2017 14:46:35	73088-1.RAW	2:46:35 PM	282.57	1		280.5	2.755	2.755	ng/L	
Hg2600-3	BC	SAM	1708311-06	1	8/11/2017 14:50:44	73089-1.RAW	2:50:44 PM	47.34	1		45.2	0.442	0.442	ng/L	
Hg2600-3	BC	SAM	1708311-08	1	8/11/2017 14:54:52	73090-1.RAW	2:54:52 PM	0.00	1		-2.1	-0.023	-0.023	ng/L	
Hg2600-3	BC	SAM	1708312-02	10	8/11/2017 14:59:01	73091-1.RAW	2:59:01 PM	881.00	1		878.9	8.641	86.413	ng/L	
Hg2600-3	BC	SAM	1708312-04	1	8/11/2017 15:03:09	73092-1.RAW	3:03:09 PM	153.36	1		151.2	1.485	1.485	ng/L	
Hg2600-3	BC	CAL	SEQ-CCV8	1	8/11/2017 15:08:02	73093-1.RAW	3:08:02 PM	518.55			516.4	5.078	5.078	ng/L	
Hg2600-3	BC	CAL	SEQ-CCB8	1	8/11/2017 15:12:11	73094-1.RAW	3:12:11 PM	9.07			7.0	0.068	0.068	ng/L	

TotalMercury EPA1631  
 Operati BC  
 BlankS: 2.1203  
 Calib Eqn: Conc = (Area-2.120  
 Run Date: 8/11/2017  
 Blank SD: 0.565500456  
 Worksh THg260( CalibFa 101.7  
 Status: QC Warnings:4/QC E  
 Run Time: 15:03:53  
 Blank RSD%: 26.67101742  
 Method ##### R: 1 R<sup>2</sup>: 1  
 CF SD: 6.366031913  
 Descrip THg26003-170811-1  
 CF RSD%: 6.259546249

Sample/ID	Location	Rinse	Dilute	Blank	Conc (ppt)	MB%	FinalConc	Rec%	QA	RawData	RunEnd	Peak (Raw)	Control (etf)	Flags	RunCount
Clean				0.00	2.38					73001-1.RAW	8:28:44	242.45	Clean	OK	1
clean										73002-1.RAW	8:31:36	0.00	Clean	NP	1
ws				2.12	0.00					73003-1.RAW	8:35:44	0.67	Sample	OK	1
ws				2.12	0.00					73004-1.RAW	8:39:52	2.54	Sample	OK	1
ws				2.12	0.00					73005-1.RAW	8:44:01	1.83	Sample	OK	1
SEQ-IBL1	A1		1	0.00	0.02					73006-1.RAW	8:48:09	1.58	Sample	OK	1
SEQ-IBL2	A2		1	0.00	0.02					73007-1.RAW	8:52:18	2.08	Sample	OK	1
SEQ-IBL3	A3		1	0.00	0.03					73008-1.RAW	8:56:26	2.70	Sample	OK	1
SEQ-CAL1	A4		1	2.12	0.55		110.33			73009-1.RAW	9:00:35	58.23	Sample	OK	1
SEQ-CAL2	A5		1	2.12	1.01		101.13			73010-1.RAW	9:04:43	104.97	Sample	OK	1
SEQ-CAL3	A6		1	2.12	4.90		97.99			73011-1.RAW	9:08:52	500.39	Sample	OK	1
SEQ-CAL4	A7		1	2.12	19.06		95.32			73012-1.RAW	9:13:00	1940.94	Sample	OK	1
SEQ-CAL5	A8		1	2.12	38.09		95.23			73013-1.RAW	9:17:08	3876.26	Sample	OK	1
SEQ-ICV1	A9		1	2.12	4.93		98.68			73014-1.RAW	9:21:17	503.94	Sample	OK	1
F708388-BLK1	A10		1	2.12	0.03					73015-1.RAW	9:26:19	5.11	Sample	OK	1
F708388-BLK2	A11		1	2.12	0.00					73016-1.RAW	9:30:28	1.99	Sample	OK	1
F708388-BLK3	A12		1							73017-1.RAW	9:34:36	0.00	Sample	NP	1
F708388-BLK4	B1		10	2.12	0.39					73018-1.RAW	9:38:45	6.09	Sample	OK	1
F708388-BS1	B2		1	2.12	15.11					73019-1.RAW	9:42:53	1539.20	Sample	OK	1
F708388-BSD1	B3		1	2.12	14.99					73020-1.RAW	9:47:01	1526.91	Sample	OK	1
1708268-01	B4		1	2.12	2.76					73021-1.RAW	9:51:10	282.57	Sample	OK	1
1708268-02	B5		1	2.12	0.04					73022-1.RAW	9:55:18	5.78	Sample	OK	1
1708268-03	B6		1	2.12	2.30					73023-1.RAW	9:59:27	236.17	Sample	OK	1
1708268-04	B7		1	2.12	0.02					73024-1.RAW	10:03:35	3.96	Sample	OK	1
SEQ-CCV1	B8		1	2.12	4.88		97.62			73025-1.RAW	10:07:44	498.52	Sample	OK	1
SEQ-CCB1	B9		1	2.12	0.07		0.00			73026-1.RAW	10:11:52	9.67	Sample	OK	1
1708268-05	B10		10	2.12	47.65					73027-1.RAW	10:16:01	486.72	Sample	OK	1
1708268-06	B11		1	2.12	0.02					73028-1.RAW	10:20:09	4.38	Sample	OK	1
1708269-01	B12		1	2.12	0.52					73029-1.RAW	10:24:17	54.76	Sample	OK	1
1708269-02	C1		1	2.12	0.52					73030-1.RAW	10:28:26	55.34	Sample	OK	1
1708269-03	C2		1	2.12	0.45					73031-1.RAW	10:32:34	48.19	Sample	OK	1
1708269-04	C3		1	2.12	0.60					73032-1.RAW	10:36:42	63.59	Sample	OK	1
1708269-05	C4		1	2.12	0.81					73033-1.RAW	10:40:50	84.92	Sample	OK	1
1708269-06	C5		1	2.12	0.69					73034-1.RAW	10:44:58	71.92	Sample	OK	1
F708388-DUP1	C6		1	2.12	2.66					73035-1.RAW	10:49:06	272.34	Sample	OK	1
F708388-MS1	C7		1	2.12	11.54		315.54			73036-1.RAW	10:53:14	1175.70	Sample	OK	1
SEQ-CCV2	C8		1	2.12	4.92		98.30			73037-1.RAW	10:57:23	501.99	Sample	OK	1
SEQ-CCB2	C9		1	2.12	0.05		0.00			73038-1.RAW	11:01:31	7.23	Sample	OK	1
F708388-MSD1	C10		1	2.12	11.52					73039-1.RAW	11:05:40	1174.08	Sample	OK	1
F708388-MS2	C11		1	2.12	11.25		83.17			73040-1.RAW	11:09:48	1146.07	Sample	OK	1
F708388-MSD2	C12		1	2.12	11.11					73041-1.RAW	11:13:57	1132.05	Sample	OK	1
F707536-BLK1	D1		10	2.12	0.89					73042-1.RAW	11:20:06	11.22	Sample	OK	1
F707536-BLK2	D2		10	2.12	0.30					73043-1.RAW	11:24:14	5.18	Sample	OK	1



F707536-BS1	D3	100	2.12	211.01		73044-1.RAW	11:28:23	216.72	Sample	OK	1
F707536-BSD1	D4	100	2.12	206.49		73045-1.RAW	11:32:31	212.12	Sample	OK	1
1707620-11	D5	100	2.12	99.00		73046-1.RAW	11:36:40	102.81	Sample	OK	1
1707620-21	D6	100	2.12	951.75		73047-1.RAW	11:40:48	970.06	Sample	OK	1
1707620-23	D7	100	2.12	741.41		73048-1.RAW	11:44:56	756.14	Sample	OK	1
SEQ-CCV3	D8	1	2.12	5.00	100.01	73049-1.RAW	11:49:05	510.69	Sample	OK	1
SEQ-CCB3	D9	1	2.12	0.04	0.00	73050-1.RAW	11:53:13	6.39	Sample	OK	1
1707620-24	D10	100	2.12	1454.04		73051-1.RAW	11:57:22	1480.90	Sample	OK	1
1707620-25	D11	100	2.12	1386.28		73052-1.RAW	12:01:30	1411.99	Sample	OK	1
1707620-26	D12	100	2.12	916.75		73053-1.RAW	12:05:39	934.47	Sample	OK	1
1707620-27	A1	100	2.12	32.31		73054-1.RAW	12:09:47	34.98	Sample	OK	1
1707620-28	A2	100	2.12	19.05		73055-1.RAW	12:13:55	21.49	Sample	OK	1
1707620-29	A3	100	2.12	1054.05		73056-1.RAW	12:18:04	1074.10	Sample	OK	1
1707620-30	A4	100	2.12	1899.65		73057-1.RAW	12:22:12	1934.08	Sample	FB	1
1707620-31	A5	100	2.12	172.95		73058-1.RAW	12:26:21	178.02	Sample	OK	1
1707620-32	A6	100	2.12	18.62		73059-1.RAW	12:30:29	21.06	Sample	OK	1
1707620-33	A7	100	2.12	132.31		73060-1.RAW	12:34:37	136.68	Sample	OK	1
SEQ-CCV4	A8	1	2.12	4.99	99.72	73061-1.RAW	12:38:46	509.20	Sample	OK	1
SEQ-CCB4	A9	1	2.12	0.05	0.00	73062-1.RAW	12:42:54	7.13	Sample	OK	1
1707620-35	A10	100	2.12	129.32		73063-1.RAW	12:50:22	133.64	Sample	OK	1
1707620-36	A11	100	2.12	20.40		73064-1.RAW	12:54:30	22.86	Sample	OK	1
1707737-01	A12	100	2.12	97.14		73065-1.RAW	12:58:39	100.92	Sample	OK	1
1707737-02	B1	100	2.12	270.27		73066-1.RAW	13:02:47	276.99	Sample	OK	1
1707737-03	B2	100	2.12	408.86		73067-1.RAW	13:06:56	417.93	Sample	OK	1
1707737-04	B3	100	2.12	631.15		73068-1.RAW	13:11:04	644.01	Sample	OK	1
1707737-05	B4	100	2.12	184.29		73069-1.RAW	13:15:12	189.54	Sample	OK	1
1707620-11RE1	B5	10	2.12	98.59		73070-1.RAW	13:19:21	1004.74	Sample	OK	1
1707620-27RE1	B6	10	2.12	23.36		73071-1.RAW	13:23:29	239.72	Sample	OK	1
1707620-28RE1	B7	10	2.12	18.13		73072-1.RAW	13:27:38	186.54	Sample	OK	1
SEQ-CCV5	B8	1	2.12	4.99	99.80	73073-1.RAW	13:31:46	509.60	Sample	OK	1
SEQ-CCB5	B9	1	2.12	0.03	0.00	73074-1.RAW	13:35:54	5.46	Sample	OK	1
1707620-32RE1	B10	10	2.12	15.42		73075-1.RAW	13:40:03	158.93	Sample	OK	1
1707620-36RE1	B11	10	2.12	15.89		73076-1.RAW	13:44:11	163.74	Sample	OK	1
1707737-01RE1	B12	10	2.12	93.35		73077-1.RAW	13:48:20	951.47	Sample	OK	1
F707536-MS1	C1	400	2.12	2076.92	2201.36	73078-1.RAW	13:52:28	530.18	Sample	OK	1
F707536-MSD1	C2	400	2.12	2260.37		73079-1.RAW	13:56:37	576.83	Sample	OK	1
F707536-MS2	C3	400	2.12	3282.79	145.10	73080-1.RAW	14:00:45	836.78	Sample	OK	1
F707536-MSD2	C4	400	2.12	3303.07		73081-1.RAW	14:04:53	841.94	Sample	OK	1
SEQ-CCV6	C5	1	2.12	5.01	100.22	73082-1.RAW	14:09:02	511.73	Sample	OK	1
SEQ-CCB6	C6	1	2.12	0.08	0.00	73083-1.RAW	14:13:10	10.12	Sample	OK	1
SEQ-CCV7	C5	1	2.12	4.96	99.17	73084-1.RAW	14:30:02	506.40	Sample	OK	1
SEQ-CCB7	C6	1	2.12	0.07	0.00	73085-1.RAW	14:34:10	9.07	Sample	OK	1
1708310-01	C7	1	2.12	1.55		73086-1.RAW	14:38:19	159.57	Sample	OK	1
1708311-02	C8	10	2.12	30.77		73087-1.RAW	14:42:27	315.03	Sample	OK	1
1708311-04	C9	1	2.12	2.76		73088-1.RAW	14:46:35	282.57	Sample	OK	1
1708311-06	C10	1	2.12	0.44		73089-1.RAW	14:50:44	47.34	Sample	OK	1
1708311-08	C11	1				73090-1.RAW	14:54:52	0.00	Sample	NP	1
1708312-02	C12	10	2.12	86.42		73091-1.RAW	14:59:01	881.00	Sample	OK	1

1708312-04	D1	1	2.12	1.49		73092-1.RAW	15:03:09	153.36 Sample	OK	1
SEQ-CCV8	D2	1	2.12	5.08	101.56	73093-1.RAW	15:08:02	518.55 Sample	OK	1
SEQ-CCB8	D3	1	2.12	0.07	0.00	73094-1.RAW	15:12:11	9.07 Sample	OK	1

ANALYSIS SEQUENCE

QUALITY ASSURANCE

PEER-REVIEWED

7H14016



Instrument: Hg2600-3

Calibration ID: UNASSIGNED

INITIALS: *PL 8/14/17* Analyzed: 8/11/2017

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
7H14016-IBL1 ✓	QC	1			
7H14016-IBL2 ✓	QC	2			
7H14016-IBL3 ✓	QC	3			
7H14016-CAL1 ✓	QC	4	1704505	✓	
7H14016-CAL2 ✓	QC	5	1704506	✓	
7H14016-CAL3 ✓	QC	6	1704507	✓	
7H14016-CAL4 ✓	QC	7	1704508	✓	
7H14016-CAL5 ✓	QC	8	1704509	✓	
7H14016-ICV1 ✓	QC	9	1703679	✓	
F708388-BLK1 ✓	QC	10			
F708388-BLK2 ✓	QC	11			
F708388-BLK3 ✓	QC	12			
F708388-BLK4 ✓	QC	13			
F708388-BS1 ✓	QC	14			
F708388-BSD1 ✓	QC	15			
1708268-01 ✓	Hg-CVAFS-W-1631	16			
1708268-02 ✓	Hg-CVAFS-W-1631	17			
1708268-03 ✓	Hg-CVAFS-W-1631	18			
1708268-04 ✓	Hg-CVAFS-W-1631	19			
7H14016-CCV1 ✓	QC	20	1703679	✓	
7H14016-CCB1 ✓	QC	21			
1708268-05 ✓	Hg-CVAFS-W-1631	22			
1708268-06 ✓	Hg-CVAFS-W-1631	23			
1708269-01 ✓	Hg-CVAFS-W-1631	24			Scan all data for level IV report
1708269-02 ✓	Hg-CVAFS-W-1631	25			Scan all data for level IV report
1708269-03 ✓	Hg-CVAFS-W-1631	26			Scan all data for level IV report
1708269-04 ✓	Hg-CVAFS-W-1631	27			Scan all data for level IV report
1708269-05 ✓	Hg-CVAFS-W-1631	28			Scan all data for level IV report
1708269-06 ✓	Hg-CVAFS-W-1631	29			Scan all data for level IV report
F708388-DUP1 ✓	QC	30			
F708388-MS1 ✓	QC	31			
7H14016-CCV2 ✓	QC	32	1703679	✓	
7H14016-CCB2 ✓	QC	33			
F708388-MSD1 ✓	QC	34			
F708388-MS2 ✓	QC	35			

Due Date: 8/14/2017

**ANALYSIS SEQUENCE**

**7H14016**



**Instrument: Hg2600-3**

**Calibration ID: UNASSIGNED**

**Analyzed: 8/11/2017**

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
F708388-MSD2 ✓	QC	36			
7H14016-CCV3 ✓	QC	37	1703679		
7H14016-CCB3 ✓	QC	38			
7H14016-CCV4 ✓	QC	39	1703679		
7H14016-CCB4 ✓	QC	40			
7H14016-CCV5 ✓	QC	41	1703679		
7H14016-CCB5 ✓	QC	42			
7H14016-CCV6 ✓	QC	43	1703679		
7H14016-CCB6 ✓	QC	44			
7H14016-CCV7 ✓	QC	45	1703679		
7H14016-CCB7 ✓	QC	46			
1708310-01 ✓	Hg-CVAFS-W-1631	47			
1708311-02 ✓	Hg-CVAFS-W-1631	48			Scan Data for Level IV
1708311-04 ✓	Hg-CVAFS-W-1631	49			Scan Data for Level IV
1708311-06 ✓	Hg-CVAFS-W-1631	50			Scan Data for Level IV
1708311-08 ✓	Hg-CVAFS-W-1631	51			Scan Data for Level IV
1708312-02 ✓	Hg-CVAFS-W-1631	52			
1708312-04 ✓	Hg-CVAFS-W-1631	53			
7H14016-CCV8 ✓	QC	54	1703679		
7H14016-CCB8 ✓	QC	55			

*Beck*      8/14/17  
 Samples Loaded By      Date

*Beck*      8/14/17  
 Data Processed By      Date

*109408*  
*8/11/17*

**PREPARATION BENCH SHEET**

F708388

**Eurofins Frontier Global Sciences, Inc.**

**Matrix: Water**

**Prepared using: AFS - EPA 1631E BrCl Oxidation**

**Prepared: 8/11/2017**

Lab Number	Sample ID and Source Sample	Initial (mL)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F708388-BLK1	Blank	100	101					
F708388-BLK2	Blank	100	101					
F708388-BLK3	Blank	100	101					
F708388-BLK4	Blank	10	20					
F708388-BS1	LCS	50	50.5	1604715	100			
F708388-BSD1	LCS Dup	50	50.5	1604715	100			
F708388-DUP1	Duplicate [1708268-01]	100	101					
F708388-MS1	Matrix Spike [1708268-01]	49.50495	50	1704422	50			[Spk] 100mL->101mL; 101mL->101mL; Spiked 50mL
F708388-MS2	Matrix Spike [1708268-03]	49.50495	50	1704422	50			[Spk] 100mL->101mL; 101mL->101mL; Spiked 50mL
F708388-MSD1	Matrix Spike Dup [1708268-01]	49.50495	50	1704422	50			[Spk] 100mL->101mL; 101mL->101mL; Spiked 50mL
F708388-MSD2	Matrix Spike Dup [1708268-03]	49.50495	50	1704422	50			[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>
1604715	Nist 1641D 200X	18-Aug-17 00:00	1703182	25% Hydroxylamine-HCl working solution	24-Nov-17 00:00
1704422	THg 10ng/mL Calibration Standard	21-Oct-17 00:00	1703700	0.2 N BRCL JUNE 2017	18-Dec-17 00:00
			1703701	THg Washstation (0.5% BrCl)	21-Dec-17 00:00
			1703702	THg Dilute 1% BrCl	
			1704691	3% SnCl2 THg reductant	22-Jan-18 00:00

**PREPARATION BENCH SHEET**

F708388

**Eurofins Frontier Global Sciences, Inc.**

**Matrix: Water**

**Prepared using: AFS - EPA 1631E BrCl Oxidation**

**Prepared: 8/11/2017**

Lab Number	Sample ID	Initial (mL)	Final (mL)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1708268-01	Lagoons	100	101	-	-	-		
1708268-02	Lagoons Field Blank	100	101	-	-	-		
1708268-03	Clarifier	100	101	-	-	-		
1708268-04	Clarifier Field Blank	100	101	-	-	-		
1708268-05	A149	10 ✓	20 -	-	-	-		
1708268-06	A149 Blank	100	101	-	-	-		
1708269-01	OL-2642-01	100	101	-	-	-	Preservation Blank Created Scan all dat	
1708269-02	OL-2642-02	100	101	-	-	-	Preservation Blank Created Scan all dat	
1708269-03	OL-2642-03	100	101	-	-	-	Preservation Blank Created Scan all dat	
1708269-04	OL-2642-04	100	101	-	-	-	Preservation Blank Created Scan all dat	
1708269-05	OL-2642-05	100	101	-	-	-	Preservation Blank Created Scan all dat	
1708269-06	OL-2642-06	100	101	-	-	-	Preservation Blank Created Scan all dat	
1708310-01	201708080953 E-14 OUTFALL (Quarterly)	100	101	-	-	-		
1708311-02	B-173757 PLANT INFLUENT #17-10844	100	101	-	-	-	Scan Data for Level IV	
1708311-04	B-173756 PLANT EFFLUENT #17-10846	100	101	-	-	-	Scan Data for Level IV	
1708311-06	B-173762 EQUIP BLANK #17-10848	100	101	-	-	-	Scan Data for Level IV	
1708311-08	B-173889 TRIP BLANK #17-10850	100	101	-	-	-	Scan Data for Level IV	
1708312-02	17H0444-02 CC INF-001 COMP B-170179	100	101	-	-	-		
1708312-04	17H0444-04 CC EFF-001 COMP B-170200	100	101	-	-	-		

**PREPARATION BENCH SHEET**

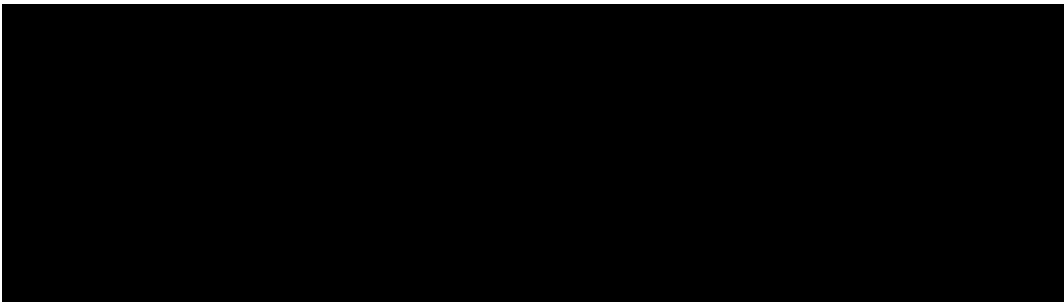
F708388

**Eurofins Frontier Global Sciences, Inc.**

**Matrix: Water**

**Prepared using: AFS - EPA 1631E BrCl Oxidation**

**Prepared: 8/11/2017**



Due Date: 8/14/2017

8/12 9/11/17  
2600-3

PREPARATION BENCH SHEET

F708388

Eurofins Frontier Global Sciences, Inc.

Matrix: Water

Prepared using: AFS - EPA 1631E BrCl Oxidation

Prepared: 8/11/2017

Lab Number	Sample ID and Source Sample	Initial (mL)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F708388-BLK1	Blank	100	101					IX
F708388-BLK2	Blank	100	101					IX
F708388-BLK3	Blank	100	101					IX
F708388-BLK4	Blank	10	20					10X
F708388-BS1	LCS	100	101	1704715	100			IX
F708388-BSD1	LCS Dup	100	101	1704715	100			IX
F708388-DUP1	Duplicate 1708268-01	100	101					IX
F708388-MS1	Matrix Spike 1708268-01	100	101	1704422	50			IX
F708388-MS2	Matrix Spike 1708268-03	100	101	1704422	50			IX
F708388-MSD1	Matrix Spike Dup 1708268-01	100	101	1704422	50			IX
F708388-MSD2	Matrix Spike Dup 1708268-03	100	101	1704422	50			IX

Standard ID(s):      Description:      Expiration:

1704691  
1703701  
170900  
1703702  
1703182

Due Date: 8/14/2017



8/11/17 BC  
2600-3

PREPARATION BENCH SHEET

F708388

Eurofins Frontier Global Sciences, Inc.

Matrix: Water

Prepared using: AFS - EPA 1631E BrCl Oxidation

Prepared: 8/11/2017

Lab Number	Sample ID	Initial (mL)	Final (mL)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1708268-01	Lagoons	100	101	-	-	-		IX
1708268-02	Lagoons Field Blank	100	101	-	-	-		IX
1708268-03	Clarifier	100	101	-	-	-		IX
1708268-04	Clarifier Field Blank	100	101	-	-	-		IX
1708268-05	A149	10	20	-	-	-		10X -
1708268-06	A149 Blank	100	101	-	-	-		IX
1708269-01	OL-2642-01	100	101	-	-	-	Preservation Blank Created Scan all dat	IX
1708269-02	OL-2642-02	100	101	-	-	-	Preservation Blank Created Scan all dat	IX
1708269-03	OL-2642-03	100	101	-	-	-	Preservation Blank Created Scan all dat	IX
1708269-04	OL-2642-04	100	101	-	-	-	Preservation Blank Created Scan all dat	IX
1708269-05	OL-2642-05	100	101	-	-	-	Preservation Blank Created Scan all dat	IX
1708269-06	OL-2642-06	100	101	-	-	-	Preservation Blank Created Scan all dat	IX
1708310-01	201708080953 E-14 OUTFALL (Quarterly)	100	101	-	-	-	IX	
1708311-02	B-173757 PLANT INFLUENT #17-10844	100	101	-	-	-	Scan Data for Level IV 10X -	
1708311-04	B-173756 PLANT EFFLUENT #17-10846	100	101	-	-	-	Scan Data for Level IV IX	
1708311-06	B-173762 EQUIP BLANK #17-10848	100	101	-	-	-	Scan Data for Level IV IX	
1708311-08	B-173889 TRIP BLANK #17-10850	100	101	-	-	-	Scan Data for Level IV IX	
1708312-02	17H0444-02 CC INF-001 COMP B-170179	100	101	-	-	-	10X -	
1708312-04	17H0444-04 CC EFF-001 COMP B-170200	100	101	-	-	-	IX	

03030

PREPARATION BENCH SHEET

F708388

Eurofins Frontier Global Sciences, Inc.

8/11/17 BC  
2600.3

Matrix: Water

Prepared using: AFS - EPA 1631E BrCl Oxidation

Prepared: 8/11/2017



# Total Mercury Preservation Logbook

**Initial preservation and/or verification**

Technician: Bow Date: 8/10/17 Time Completed: 1410

Work Orders: 1708313  
1708310 1708312 1708311  
BSW 8/10/17

**Additional preservation and/or verification (as needed)**

Technician: \_\_\_\_\_ Date: \_\_\_\_\_ Time Completed: \_\_\_\_\_  
 Technician: \_\_\_\_\_ Date: \_\_\_\_\_ Time Completed: \_\_\_\_\_

BrCl LIMS ID: 507631 1703700

Pipette SN: 507631  
 Cal. Date: 8/9/17

**Additional preservation (as needed)**

Sample ID	Sample Volume (mL)	Reagent added (mL)	Oxidized? Y/N	Additional preservation (as needed)		
				Oxidized? Y/N	Reagent added (mL)	Oxidized? Y/N
1708310-01A	300	3.00	Y			
1708311-02A	300	3.00	Y			
1708311-04A	300	3.00	Y			
1708311-06A	300	3.00	Y			
1708311-08A	300	3.00	Y			
1708312-02A	300	3.00	Y			
1708312-04A	300	3.00	Y			
1708313-02A	300	3.00	Y			
1708313-04A	300	3.00	Y			
1708313-06A	300	3.00	Y			
1708313-08A	300	3.00	Y			
<div style="font-size: 2em; font-family: cursive;">                     Bow                      8/10/17                 </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: \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

# Total Mercury Preservation Logbook

Initial preservation and/or verification

Technician: CSP Date: 8/9/17 Time Completed: 1515

Work Orders: 1708268  
1708269

Additional preservation and/or verification (as needed)

Technician: \_\_\_\_\_ Date: \_\_\_\_\_ Time Completed: \_\_\_\_\_  
Technician: \_\_\_\_\_ Date: \_\_\_\_\_ Time Completed: \_\_\_\_\_

<sup>CSP 8/9/17</sup>  
BrCI LIMS ID: ~~50763~~ 1703700  
Pipette SN: J07631  
Cal. Date: 8/9/17

Sample ID	Sample Volume (mL)	Reagent added (mL)	Oxidized? Y/N	Additional preservation (as needed)		
				Oxidized? Y/N	Reagent added (mL)	Oxidized? Y/N
1708268-01A	300	3.00	y			
1708268-02A	300	3.00	y			
1708268-03A	300	3.00	y			
1708268-04A	300	3.00	y			
1708268-05B	10	10	y			
1708268-06A	300	3.00	y			
1708269-01A	300	3.00	y			
1708269-02A	300	3.00	y			
1708269-03A	300	3.00	y			
1708269-04A	300	3.00	y			
1708269-05A	300	3.00	y			
1708269-06A	300	3.00	y			
1708269-07A	300	3.00	y			
CSP 8/9/17						


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


Comments: \_\_\_\_\_  
\_\_\_\_\_

# Failing Data Report - 7H14016

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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 8/14/17  
Analyst Reviewed By Date

 8/14/17  
Peer Reviewed By Date

## ANALYSIS SEQUENCE

QUALITY ASSURANCE

7H14017

PEER-REVIEWED

Instrument: Hg2600-3

INITIALS:    a    8/14/17  
Analyzed: 8/11/2017

Calibration ID: UNASSIGNED

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
7H14017-IBL1 ✓	QC	1			
7H14017-IBL2 ✓	QC	2			
7H14017-IBL3 ✓	QC	3			
7H14017-CAL1 ✓	QC	4	1704505 ✓		
7H14017-CAL2 ✓	QC	5	1704506 ✓		
7H14017-CAL3 ✓	QC	6	1704507 ✓		
7H14017-CAL4 ✓	QC	7	1704508 ✓		
7H14017-CAL5 ✓	QC	8	1704509 ✓		
7H14017-ICV1 ✓	QC	9	1703679 ✓		
7H14017-CCV1 ✓	QC	10	1703679 ✓		
7H14017-CCB1 ✓	QC	11			
7H14017-CCV2 ✓	QC	12	1703679 ✓		
7H14017-CCB2 ✓	QC	13			
F707536-BLK1 ✓	QC	14			
F707536-BLK2 ✓	QC	15			
F707536-BS1 ✓	QC	16			
F707536-BSD1 ✓	QC	17			
1707620-11 ✓	Hg-CVAFS-S-7474	18			
1707620-21 ✓	Hg-CVAFS-S-7474	19			
1707620-23 ✓	Hg-CVAFS-S-7474	20			
7H14017-CCV3 ✓	QC	21	1703679 ✓		
7H14017-CCB3 ✓	QC	22			
1707620-24 ✓	Hg-CVAFS-S-7474	23			
1707620-25 ✓	Hg-CVAFS-S-7474	24			
1707620-26 ✓	Hg-CVAFS-S-7474	25			
1707620-27 ✓	Hg-CVAFS-S-7474	26			
1707620-28 ✓	Hg-CVAFS-S-7474	27			
1707620-29 ✓	Hg-CVAFS-S-7474	28			
1707620-30 ✓	Hg-CVAFS-S-7474	29			
1707620-31 ✓	Hg-CVAFS-S-7474	30			
1707620-32 ✓	Hg-CVAFS-S-7474	31			
1707620-33 ✓	Hg-CVAFS-S-7474	32			
7H14017-CCV4 ✓	QC	33	1703679 ✓		
7H14017-CCB4 ✓	QC	34			
1707620-35 ✓	Hg-CVAFS-S-7474	35			

Due Date: 8/21/2017

**ANALYSIS SEQUENCE**

**7H14017**



**Instrument: Hg2600-3**

**Calibration ID: UNASSIGNED**

**Analyzed: 8/11/2017**

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
1707620-36 ✓	Hg-CVAFS-S-7474	36			
1707737-01 ✓	Hg-CVAFS-S-7474	37			
1707737-02 ✓	Hg-CVAFS-S-7474	38			
1707737-03 ✓	Hg-CVAFS-S-7474	39			
1707737-04 ✓	Hg-CVAFS-S-7474	40			
1707737-05 ✓	Hg-CVAFS-S-7474	41			
1707620-11RE1 ✓	Hg-CVAFS-S-7474	42			Added 8/14/2017 by BC
1707620-27RE1 ✓	Hg-CVAFS-S-7474	43			Added 8/14/2017 by BC
1707620-28RE1 ✓	Hg-CVAFS-S-7474	44			Added 8/14/2017 by BC
7H14017-CCV5 ✓	QC	45	1703679 ✓		
7H14017-CCB5 ✓	QC	46			
1707620-32RE1 ✓	Hg-CVAFS-S-7474	47			Added 8/14/2017 by BC
1707620-36RE1 ✓	Hg-CVAFS-S-7474	48			Added 8/14/2017 by BC
1707737-01RE1 ✓	Hg-CVAFS-S-7474	49			Added 8/14/2017 by BC
F707536-MS1 ✓	QC	50			
F707536-MSD1 ✓	QC	51			
F707536-MS2 ✓	QC	52			
F707536-MSD2 ✓	QC	53			
7H14017-CCV6 ✓	QC	54	1703679 ✓		
7H14017-CCB6 ✓	QC	55			

*[Signature]* 8/14/17  
 Samples Loaded By                      Date

*[Signature]* 8/14/17  
 Data Processed By                      Date

**PREPARATION BENCH SHEET**

F707536

**Eurofins Frontier Global Sciences, Inc.**

**Matrix: Soil/Sediment**

**Prepared using: AFS - EPA 7474**

**Prepared: 8/10/2017**

Lab Number	Sample ID and Source Sample	Initial (g)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F707536-BLK1	Blank	0.5	200					
F707536-BLK2	Blank	0.5	200					
F707536-BS1	Blank Spike	0.5	200	1701763	40			
F707536-BSD1	Blank Spike dup	0.5	200	1701763	40			
F707536-MS1	Matrix Spike [1707620-11]	0.5448	200	1703591	50			
F707536-MS2	Matrix Spike [1707620-21]	0.5189	200	1703591	50			
F707536-MSD1	Matrix Spike Dup [1707620-11]	0.5628	200	1703591	50			
F707536-MSD2	Matrix Spike Dup [1707620-21]	0.5719	200	1703591	50			

<u>Standard ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>	<u>Reagent ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>
1701763	THg 1,000ng/mL Secondary Spiking Standard	22-Sep-17 00:00	1703182	25% Hydroxylamine-HCl working solution	24-Nov-17 00:00
1703591	THg 10,000ng/mL Primary Spiking Standard	14-Dec-17 00:00	1703701	THg Washstation (0.5% BrCl)	21-Dec-17 00:00
			1703702	THg Dilute 1% BrCl	
			1703831	Omnitrace Hydrochloric Acid	26-Jun-20 00:00
			1704424	Boiling Chips for AFS prep	21-Jan-18 00:00
			1704484	Fisher Nitric Acid, Tracemetal Grade	15-Mar-19 00:00
			1704691	3% SnCl2 THg reductant	22-Jan-18 00:00
			1704812	7474 Potassium Bromate/Bromide Reagent	15-Aug-17 00:00



**PREPARATION BENCH SHEET**

F707536

**Eurofins Frontier Global Sciences, Inc.**

**Matrix: Soil/Sediment**

**Prepared using: AFS - EPA 7474**

**Prepared: 8/10/2017**

Lab Number	Sample ID	Initial (g)	Final (mL)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1707620-11	W-MM-03_071717_SED_01-03	0.5645	200	QC	-	-	MS/MSD	
1707620-11RE1	W-MM-03_071717_SED_01-03	0.5645	200	QC	-	-	MS/MSD Added 8/14/2017 by BC	Added 8/14/2017 by BC
1707620-21	W-MM-04_071817_SED_03-05	0.5176	200	QC	-	-	MS/MSD	
1707620-23	W-MM-08_071917_SED_03-05	0.526	200	-	-	-		
1707620-24	W-MM-08_071917_SED_05-10	0.562	200	-	-	-		
1707620-25	W-MM-11_071917_SED_03-05	0.5303	200	-	-	-		
1707620-26	W-MM-11_071917_SED_05-10	0.5757	200	-	-	-		
1707620-27	W-104-A_071917_SED_03-05	0.5241	200	-	-	-		
1707620-27RE1	W-104-A_071917_SED_03-05	0.5241	200	-	-	-	Added 8/14/2017 by BC	Added 8/14/2017 by BC
1707620-28	W-104-A_071917_SED_05-10	0.5608	200	-	-	-		
1707620-28RE1	W-104-A_071917_SED_05-10	0.5608	200	-	-	-	Added 8/14/2017 by BC	Added 8/14/2017 by BC
1707620-29	W-MM-05_071917_SED_03-05	0.5368	200	-	-	-		
1707620-30	W-MM-05_071917_SED_05-10	0.5399	200	-	-	-		
1707620-31	W-MM-12_071917_SED_03-05	0.5505	200	-	-	-		
1707620-32	W-MM-12_071917_SED_05-10	0.5775	200	-	-	-		
1707620-32RE1	W-MM-12_071917_SED_05-10	0.5775	200	-	-	-	Added 8/14/2017 by BC	Added 8/14/2017 by BC
1707620-33	W-MM-13_071917_SED_03-05	0.5258	200	-	-	-		
1707620-35	W-MM-14_071917_SED_03-05	0.5142	200	-	-	-		
1707620-36	W-MM-14_071917_SED_05-10	0.525	200	-	-	-		

Due Date: 8/21/2017

**PREPARATION BENCH SHEET**

F707536

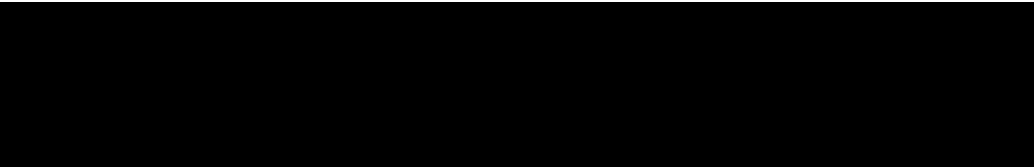
**Eurofins Frontier Global Sciences, Inc.**

**Matrix: Soil/Sediment**

**Prepared using: AFS - EPA 7474**

**Prepared: 8/10/2017**

1707620-36RE1	W-MM-14_071917_SED_05-10	0.525	200	-	-	-	Added 8/14/2017 by BC	Added 8/14/2017 by BC
1707737-01	MMSE-1_N2_072417_SED_00-01	0.5611	200	-	-	-		
1707737-01RE1	MMSE-1_N2_072417_SED_00-01	0.5611	200	-	-	-	Added 8/14/2017 by BC	Added 8/14/2017 by BC
1707737-02	MMSE-1_N2_072417_SED_01-03	0.575	200	-	-	-		
1707737-03	MMSW-C_S_072417_SED_00-01	0.5388	200	-	-	-		
1707737-04	MMSW-C_S_072417_SED_01-03	0.5401	200	-	-	-		
1707737-05	MMSW-C_SW_072617_SED_03-05	0.5393	200	-	-	-		



8/11/17 BC

26003

PREPARATION BENCH SHEET

F707536

Eurofins Frontier Global Sciences, Inc.

Matrix: Soil/Sediment

Prepared using: AFS - EPA 7474

Prepared: 8/10/2017

Lab Number	Sample ID and Source Sample	Initial (g)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F707536-BLK1	Blank	0.5	200					10X
F707536-BLK2	Blank	0.5	200					10X
F707536-BS1	Blank Spike	0.5	200	1701763	40			100X
F707536-BSD1	Blank Spike dup	0.5	200	1701763	40			100X
F707536-MS1	Matrix Spike [1707620-11]	0.5448	200	1703591	50			400X
F707536-MS2	Matrix Spike [1707620-21]	0.5189	200	1703591	50			400X
F707536-MSD1	Matrix Spike Dup [1707620-11]	0.5628	200	1703591	50			400X
F707536-MSD2	Matrix Spike Dup [1707620-21]	0.5719	200	1703591	50			400X

<u>Standard ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>	<u>Reagent ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>
1701763	THg 1,000ng/mL Secondary Spiking Standard	22-Sep-17 00:00	1703831	Omnitrace Hydrochloric Acid	26-Jun-20 00:00
1703591	THg 10,000ng/mL Primary Spiking Standard	14-Dec-17 00:00	1704424	Boiling Chips for AFS prep	21-Jan-18 00:00
			1704484	Fisher Nitric Acid, Tracemetal Grade	15-Mar-19 00:00
			1704812	7474 Potassium Bromate/Bromide Reagent	15-Aug-17 00:00

1704691  
1703701  
1703702  
1703182

Due Date: 8/21/2017

8/11/17 BC  
2600-3

PREPARATION BENCH SHEET

F707536

Eurofins Frontier Global Sciences, Inc.

Matrix: Soil/Sediment

Prepared using: AFS - EPA 7474

Prepared: 8/10/2017

Lab Number	Sample ID	Initial (g)	Final (mL)	QC Sample	Sample Spccs.	Raw Data	Sample Comments	Analysis Comments
1707620-11	W-MM-03_071717_SED_01-03	0.5645	200	QC	-	-	MS/MSD 100X + 10X	
1707620-21	W-MM-04_071817_SED_03-05	0.5176	200	QC	-	-	MS/MSD 100X	
1707620-23	W-MM-08_071917_SED_03-05	0.526	200	-	-	-	100X	
1707620-24	W-MM-08_071917_SED_05-10	0.562	200	-	-	-	100X	
1707620-25	W-MM-11_071917_SED_03-05	0.5303	200	-	-	-	100X	
1707620-26	W-MM-11_071917_SED_05-10	0.5757	200	-	-	-	100X	
1707620-27	W-104-A_071917_SED_03-05	0.5241	200	-	-	-	160X → 10X	
1707620-28	W-104-A_071917_SED_05-10	0.5608	200	-	-	-	100X → 10X	
1707620-29	W-MM-05_071917_SED_03-05	0.5368	200	-	-	-	100X	
1707620-30	W-MM-05_071917_SED_05-10	0.5399	200	-	-	-	100X	
1707620-31	W-MM-12_071917_SED_03-05	0.5505	200	-	-	-	100X	
1707620-32	W-MM-12_071917_SED_05-10	0.5775	200	-	-	-	100X → 10X	
1707620-33	W-MM-13_071917_SED_03-05	0.5258	200	-	-	-	100X	
1707620-35	W-MM-14_071917_SED_03-05	0.5142	200	-	-	-	100X	
1707620-36	W-MM-14_071917_SED_05-10	0.525	200	-	-	-	100X → 10X	
1707737-01	MMSE-1_N2_072417_SED_00-01	0.5611	200	-	-	-	100X → 10X	
1707737-02	MMSE-1_N2_072417_SED_01-03	0.575	200	-	-	-	100X	
1707737-03	MMSW-C_S_072417_SED_00-01	0.5388	200	-	-	-	100X	
1707737-04	MMSW-C_S_072417_SED_01-03	0.5401	200	-	-	-	100X	

Due Date: 8/21/2017

PREPARATION BENCH SHEET

8/11/17 BC  
2600-3

F707536

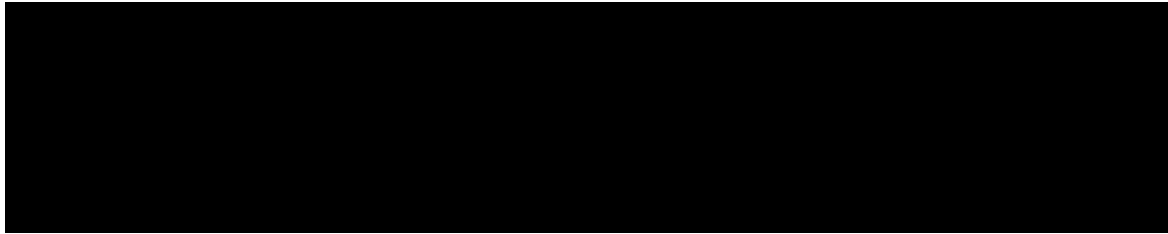
Eurofins Frontier Global Sciences, Inc.

Matrix: Soil/Sediment

Prepared using: AFS - EPA 7474

Prepared: 8/10/2017

1707737-05	MMSW-C_SW_072617_SED_03-05	0.5393	200	-	-	-	100%	
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Technician: WJW Batch#: F707536 Date: 8/10/17

- EFAFS-T-AFS-SOP2986 Tissues - Methyl Mercury - KOH/Methanol: Hot plate 75±5°C for 2-4 hours.
- EFAFS-T-AFS-SOP2795 Tissues - Total Mercury - 70:30: Hot plate 75±5°C for two hours.
- EFAFS-T-AFS-SOP5134 Sediments - Methyl Mercury - KBr/CH<sub>2</sub>Cl<sub>2</sub>: Heat Block 45°C (nitrogen purge for 30 minutes).
- EFAFS-T-AFS-SOP2807 Solids - Total Mercury - Cold AR: 18-25°C for over four hours.

Other: EPA 7474 Vial Type:  Glass  Teflon  
 Balance#: 19 Calibrated?  Yes  No Therm.#: N/A Calibrated?  Yes  No  
 \*Time in: N/A Actual Temp. (raw): N/A °C w/ CF: N/A °C  
 Time out: N/A Actual Temp. (raw): N/A °C w/ CF: N/A °C  
 \*Time in can't begin before target temperature is reached

Final vol.: 25 mL (LIMS ID: R01100) Spike vol.: 40 µL (LIMS ID: 1701763)  
 Spike Witness: CLL 8/10/17 (initial and date)

HCl LIMS ID: 1703831 Pipette SN#: MU11617 Calibration Date: 8-9-17  
 HNO<sub>3</sub> LIMS ID: 1704484 Pipette SN#: N407693 Calibration Date: 8/9/17  
 70/30 LIMS ID: N/A Dispenser #: 09W45751 Calibrated?  Yes  No  
 Other Acid LIMS ID: 1704812 Dispenser #: 08V2293  Yes  No  
 8/10/17  
 Glass Vial # J264713-3025 Boiling Chip lot # 1704424 \*Hotblock Position: N/A  
 Cent Tub

Vial #	Sample ID Number	Sample Size <input type="checkbox"/> mL <input checked="" type="checkbox"/> g	Vial # slid/pt	Sample ID Number	Sample Size <input type="checkbox"/> mL <input checked="" type="checkbox"/> g	CRM LIMS ID <input checked="" type="checkbox"/> NA
1	F707536 Blk1	0.5583	8 23	1707620-36	0.5250	
2	F707536 Blk2	0.5580	9 24	1707737-01A	0.5611	
3	F707536 BSI	0.5769	10 25	1707737-02A	0.5750	
4	F707536 BSI01	0.5047	11 26	1707737-03	0.5388	Comments
5	1707620-11A	0.5645	12 27	1707737-04	0.5401	F707536
6	F707536-MS1	0.5448	13 28	1707737-05	0.5393	source
7	F707536-MS01	0.5628	29			MS 14501
8	1707620-21A	0.5176	30			1707620-11
9	F707620-MS2	0.5189	31			F707536
10	F707620-MS02	0.5791	32			MS 14502
11	1707620-23A	0.5260	33			1707620-21
12	1707620-24A	0.5620	34			F707536
13	1707620-25A	0.5303	35			ALL spike
14	1707620-26A	0.5757	36			MS 14501
15	1707620-27A	0.5241	37			10,000y 102
16	1707620-28	0.5608	38			= 5000 1703591
17	1707620-29	0.5368	39			8/10/17 WJW
18	1707620-30	0.5399	40			
19	1707620-31	0.5505	41			
20	1707620-32	0.5775	42			
21	1707620-33	0.5258	43			
22	1707620-35	0.5142	44			

# Failing Data Report - 7H14017

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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Becis      8/14/17  
Analyst Reviewed By      Date

Allen      8/14/17  
Peer Reviewed By      Date

Peer Review Check List for THg by 2600 CV-AFS (SOP2822) 2016 Rev 1 (04/1/2016)

Analyst: BC Sequence(s) #: 7H14016, 7H14017
Reviewer: PL 8/14/17 Dataset ID(s): THg26003-170811-1
Date: 8/14/2017 WO (s) #: VARIOUS
Batch #(s): F708388, F707536

Select the correct preparation method.

Table with 4 columns: Analyte, Prep Method, Matrix, and checkboxes. Rows include THg with various methods like FSTF Trap, Modified Cold Aqua Regia, Shared Bomb-HF/HNO3/HCl Digest, Nitric Acid Oven Bomb, 70:30 Digest, KCl Trap BrCl Oxidation, Shared Nitric, EFSR-P-SP-SOP2796, Hg0, and Inorg Hg.

Analyst Initials: BC Reviewer Initials: PL 8/14/17

- 1. Compare SampleID with Benchsheet/Sequence/Raw Data (Have all samples been imported?)
2. Check for transcription errors from Excel spreadsheet (or Prep Benchsheet)/Raw data
(a) On raw data (instrument print-out), does correct file (dataset ID#) name appear in description?
(b) Check 5% of transcription from instrument print-out and Excel file
(c) Check standards & reagents in sequence & bench sheet for correct usage (expiration).
(d) Check and compare masses (review prep benchsheet)
(e) Check & compare initial & final volumes
(f) Do aliquots and dilutions written on benchsheet match those in Excel?
(g) Is the sequence #, analyst, date, and instrument # on the QC page?
(h) Is the analysis status correct? (analyzed/initial review/reviewed)
(i) Original prep bench sheet added to data package?
(j) 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)
5a. 20 or fewer samples in batch?



**Peer Review Check List for THg by 2600 CV-AFS (SOP2822) 2016 Rev 1 (04/1/2016)**

Analyst:	BC	Sequence(s) #:	7H14016, 7H14017
Reviewer:	0 <i>A 8/14/17</i>	Dataset ID(s):	THg26003-170811-1
Date:	8/14/2017	WO (s) #:	VARIOUS
Batch #(s):	F708388, F707536		0

Analyst Initials BC                      Reviewer Initials A 8/14/17

- |  |  |  |   |                                     |
|--|--|--|---|-------------------------------------|
| 5b. Has the B/C section data been uploaded?  | <input type="checkbox"/> YES             | <input type="checkbox"/> NO            | <input checked="" type="checkbox"/> N/A | <input checked="" type="checkbox"/> |
| <b>QA/QC Data Checked</b>  |  |  |   |                                     |
| 6. RSD CF ( $\leq 15\%$ )  | <input checked="" type="checkbox"/> PASS | <input type="checkbox"/> FAIL          |   | <input checked="" type="checkbox"/> |
| Comments: _____  |  |  |   |                                     |
| 7. The calibration curve included a minimum of 5 Standards   | <input checked="" type="checkbox"/> YES  | <input type="checkbox"/> NO            |   | <input checked="" type="checkbox"/> |
| Comments: _____  |  |  |   |                                     |
| 8. 1st Calibration Standard % Recoveries EPA 1631E (75-125%)   | <input checked="" type="checkbox"/> PASS | <input type="checkbox"/> FAIL          |   | <input checked="" type="checkbox"/> |
| 9. ICV and CCV % Recoveries EPA 1631E (77-123%)  | <input checked="" type="checkbox"/> PASS | <input type="checkbox"/> FAIL          |   | <input checked="" type="checkbox"/> |
| Comments: _____  |  |  |   |                                     |
| 10. Do all calibration points pass acceptance criteria?  | <input checked="" type="checkbox"/> YES  | <input type="checkbox"/> NO            |   | <input checked="" type="checkbox"/> |
| Comments: _____  |  |  |   |                                     |
| 11. Are qualifiers consistent with the data review flowcharts?   | <input checked="" type="checkbox"/> YES  | <input type="checkbox"/> NO            | <input type="checkbox"/> N/A            | <input checked="" type="checkbox"/> |
| 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) | <input checked="" type="checkbox"/> PASS | <input type="checkbox"/> FAIL          |   | <input checked="" type="checkbox"/> |
| (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)?                                   | <input checked="" type="checkbox"/> YES  | <input type="checkbox"/> NO            |   | <input checked="" type="checkbox"/> |
| (c) Was a BrCl Blank analyzed for each preservation level?   | <input type="checkbox"/> YES             | <input type="checkbox"/> NO            | <input checked="" type="checkbox"/> N/A | <input checked="" type="checkbox"/> |
| (d) Are Preparation Blanks summarized on QC page?  | <input checked="" type="checkbox"/> YES  | <input type="checkbox"/> NO            |   | <input checked="" type="checkbox"/> |
| 14. Filtration Blank Prepared (if yes, use FB qualifier)   | <input type="checkbox"/> YES             | <input checked="" type="checkbox"/> NO |   | <input checked="" type="checkbox"/> |
| (a) Filtration Blank prep date same as associated samples' prep date   | <input type="checkbox"/> YES             | <input type="checkbox"/> NO            | <input checked="" type="checkbox"/> N/A | <input checked="" type="checkbox"/> |
| (b) Filtration Blank absolute value < PQL or <2.2xMDL for WI   | <input type="checkbox"/> YES             | <input type="checkbox"/> NO            | <input checked="" type="checkbox"/> N/A | <input checked="" type="checkbox"/> |
| 15. IBLs (3 minimum) individually < 0.50 ng/L, mean < 0.25 ng/L and STD of 0.10 ng/L?                          | <input checked="" type="checkbox"/> PASS | <input type="checkbox"/> FAIL          |   | <input checked="" type="checkbox"/> |
| Comments: _____  |  |  |   |                                     |
| 16. CCBs individually < 0.50 ng/L or 2.2 x MDL for WI?   | <input checked="" type="checkbox"/> PASS | <input type="checkbox"/> FAIL          |   | <input checked="" type="checkbox"/> |
| Comments: _____  |  |  |   |                                     |
| 17. 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"/> |
| 18. Is the correct 'Source' designated for MD/MS/MSD?  | <input checked="" type="checkbox"/> YES  | <input type="checkbox"/> NO            |   | <input checked="" type="checkbox"/> |
| 19. 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"/> |

**Peer Review Check List for THg by 2600 CV-AFS (SOP2822) 2016 Rev 1 (04/1/2016)**

<b>Analyst:</b>	BC	<b>Sequence(s) #:</b>	7H14016, 7H14017
<b>Reviewer:</b>	0 <i>A 8/14/17</i>	<b>Dataset ID(s):</b>	THg26003-170811-1
<b>Date:</b>	8/14/2017	<b>WO (s) #:</b>	VARIOUS
<b>Batch #(s):</b>	F708388, F707536		0

Analyst Initials BC                      Reviewer Initials A 8/14/17

- |  |  |                               |   |                                     |
|--|--|-------------------------------|---|-------------------------------------|
| 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 checked="" type="checkbox"/> YES  | <input type="checkbox"/> NO   | <input type="checkbox"/> N/A            | <input checked="" type="checkbox"/> |
| Comments: _____  |  |                               |   |                                     |
| 25. Are re-runs noted with reason?   | <input checked="" type="checkbox"/> YES  | <input type="checkbox"/> NO   | <input 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 checked="" type="checkbox"/> YES  | <input type="checkbox"/> NO   | <input type="checkbox"/> N/A            | <input checked="" type="checkbox"/> |
| Comments: _____  |  |                               |   |                                     |
| 30. 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"/> |
| 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\IDOCs**

- |  |   |                             |                                     |
|--|---|-----------------------------|-------------------------------------|
| 36. Date of analyst IDOC/CDOC: _____ 1/11/2017 _____ 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: _____ 5/20/2017 _____ Current SOP revision read? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> |
| 38. Date of LOD: _____ 4/27/2017 _____ LOD within last 3 months?                               | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> |
| 39. Date of LOQ: _____ 4/27/2017 _____ 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 (SOP2822) 2016 Rev 1 (04/1/2016)

Analyst:	BC	Sequence(s) #:	7H14016, 7H14017
Reviewer:	0 PL 8/14/17	Dataset ID(s):	THg26003-170811-1
Date:	8/14/2017	WO (s) #:	VARIOUS
Batch #(s):	F708388, F707536		0

BC

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


Additional Page (s)?  YES

**Analysis Datasheet for Total Mercury**

Date of Analysis: August 15, 2017

Instrument #: Hg2600-3

LIMS Sequence #: 7H15016

Analyst: BC

Units ng/L

**Calibration Statistics:**

LabNumber	n	True Val	Area	Uncorrected Response Factor	Corrected Peak Height	Corrected Response Factor	% Recovery
SEQ-CAL1	1	0.50 ng/L	40.27 units	80.54	37.99 units	75.97	101.5 %Rec
SEQ-CAL2	1	1.00 ng/L	78.94 units	78.94	76.66 units	76.66	102.4 %Rec
SEQ-CAL3	1	5.00 ng/L	375.28 units	75.06	373.00 units	74.60	99.7 %Rec
SEQ-CAL4	1	20.00 ng/L	1472.06 units	73.60	1469.78 units	73.49	98.2 %Rec
SEQ-CAL5	1	40.00 ng/L	2944.38 units	73.61	2942.10 units	73.55	98.3 %Rec
SEQ-CAL6	0						
SEQ-CAL7	0						
SEQ-CAL8	0						
SEQ-CAL9	0						

<b>Corr. Mean RF</b>	<b>Corr. St Dev RF</b>	<b>Corr. RSD CF</b>	<b>Uncorr. Mean RF</b>
74.85	+/- 1.43	1.9% RSD	76.35

**Blanks:**

LabNumber	n	Mean	Std Dev	Mean (ng/L)	Std Dev (ng/L)
SEQ-IBL	3	2.28 units	±2.04	0.03 ng/L	±0.03

**Preparation Blanks**

Sample Type	Batch ID	n	Mean	Std Dev
BLK	1	2	0.304 ng/L	±0.028
BLK	2	2	0.275 ng/L	±0.316
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: DM 8/16/17

Instrument	Analyst	Sample		LabNumber	Dilution	Analyzed	FileID	RunEnd	Uncorrected Response	Batch ID	No PB Correction?	RESP	InitialResult	FinalResult	InitialUnits	Comments
		Type														
Hg2600-3	BC	CAL	SEQ-IBL1		1	8/15/2017 8:28:57	73163-1.RAW	8:28:57 AM	0.00							
Hg2600-3	BC	CAL	SEQ-IBL2		1	8/15/2017 8:33:05	73164-1.RAW	8:33:05 AM	2.94			-2.3	-0.031	-0.031	ng/L	
Hg2600-3	BC	CAL	SEQ-IBL3		1	8/15/2017 8:37:14	73165-1.RAW	8:37:14 AM	3.91			0.7	0.009	0.009	ng/L	
Hg2600-3	BC	CAL	SEQ-CAL1		1	8/15/2017 8:41:22	73166-1.RAW	8:41:22 AM	40.27			1.6	0.022	0.022	ng/L	
Hg2600-3	BC	CAL	SEQ-CAL2		1	8/15/2017 8:45:30	73167-1.RAW	8:45:30 AM	78.94			38.0	0.507	0.507	ng/L	
Hg2600-3	BC	CAL	SEQ-CAL3		1	8/15/2017 8:49:39	73168-1.RAW	8:49:39 AM	375.28			76.7	1.024	1.024	ng/L	
Hg2600-3	BC	CAL	SEQ-CAL4		1	8/15/2017 8:53:47	73169-1.RAW	8:53:47 AM	1472.06			373.0	4.983	4.983	ng/L	
Hg2600-3	BC	CAL	SEQ-CAL5		1	8/15/2017 8:57:56	73170-1.RAW	8:57:56 AM	2944.38			1469.8	19.635	19.635	ng/L	
Hg2600-3	BC	CAL	SEQ-ICV1		1	8/15/2017 9:02:04	73171-1.RAW	9:02:04 AM	383.80			2942.1	39.304	39.304	ng/L	
Hg2600-3	BC	BLK	F707537-BLK1		10	8/15/2017 9:06:36	73172-1.RAW	9:06:36 AM	4.71	1		381.5	5.097	5.097	ng/L	
Hg2600-3	BC	BLK	F707537-BLK2		10	8/15/2017 9:10:45	73173-1.RAW	9:10:45 AM	4.41	1		2.4	0.032	0.324	ng/L	
Hg2600-3	BC	SAM	F707537-BS1		100	8/15/2017 9:14:53	73174-1.RAW	9:14:53 AM	150.87	1		2.1	0.028	0.284	ng/L	
Hg2600-3	BC	SAM	F707537-BSD1		100	8/15/2017 9:19:01	73175-1.RAW	9:19:01 AM	164.41	1		148.6	1.982	198.198	ng/L	
Hg2600-3	BC	SAM	1707620-34		100	8/15/2017 9:23:10	73176-1.RAW	9:23:10 AM	14.16	1		162.1	2.163	216.286	ng/L	
Hg2600-3	BC	SAM	1707737-06		100	8/15/2017 9:27:18	73177-1.RAW	9:27:18 AM	17.23	1		11.9	0.156	15.562	ng/L	
Hg2600-3	BC	SAM	1707737-07		100	8/15/2017 9:31:27	73178-1.RAW	9:31:27 AM	147.21	1		14.9	0.197	19.664	ng/L	
Hg2600-3	BC	SAM	1707737-08		100	8/15/2017 9:35:35	73179-1.RAW	9:35:35 AM	24.17	1		144.9	1.933	193.308	ng/L	
Hg2600-3	BC	SAM	1707737-09		100	8/15/2017 9:39:43	73180-1.RAW	9:39:43 AM	978.63	1		21.9	0.289	28.935	ng/L	
Hg2600-3	BC	SAM	1707737-10		100	8/15/2017 9:43:52	73181-1.RAW	9:43:52 AM	318.84	1		976.3	13.040	1304.028	ng/L	
Hg2600-3	BC	CAL	SEQ-CCV1		1	8/15/2017 9:48:00	73182-1.RAW	9:48:00 AM	382.61	1		316.6	4.226	422.594	ng/L	
Hg2600-3	BC	CAL	SEQ-CCB1		1	8/15/2017 9:52:09	73183-1.RAW	9:52:09 AM	4.02			380.3	5.081	5.081	ng/L	
Hg2600-3	BC	SAM	1707737-11		100	8/15/2017 9:56:17	73184-1.RAW	9:56:17 AM	50.95	1		1.7	0.023	0.023	ng/L	
Hg2600-3	BC	SAM	1707737-12		100	8/15/2017 10:00:26	73185-1.RAW	10:00:26 AM	73.68	1		48.7	0.647	64.711	ng/L	
Hg2600-3	BC	SAM	1707737-13		100	8/15/2017 10:04:34	73186-1.RAW	10:04:34 AM	27.84	1		71.4	0.951	95.077	ng/L	
Hg2600-3	BC	SAM	1707737-14		100	8/15/2017 10:08:42	73187-1.RAW	10:08:42 AM	83.20	1		25.6	0.338	33.838	ng/L	
Hg2600-3	BC	SAM	1707771-01		100	8/15/2017 10:12:51	73188-1.RAW	10:12:51 AM	706.83	1		80.9	1.078	107.795	ng/L	
Hg2600-3	BC	SAM	1707771-02		50	8/15/2017 10:16:59	73189-1.RAW	10:16:59 AM	1005.10	1		704.5	9.409	940.922	ng/L	
Hg2600-3	BC	SAM	1707771-03		50	8/15/2017 10:21:08	73190-1.RAW	10:21:08 AM	960.93	1		1002.8	13.391	669.543	ng/L	
Hg2600-3	BC	SAM	1707771-04		50	8/15/2017 10:25:16	73191-1.RAW	10:25:16 AM	1823.99	1		958.6	12.801	640.039	ng/L	
Hg2600-3	BC	SAM	1707771-05		50	8/15/2017 10:29:24	73192-1.RAW	10:29:24 AM	1135.42	1		1821.7	24.331	1216.534	ng/L	
Hg2600-3	BC	SAM	1707771-06		50	8/15/2017 10:33:33	73193-1.RAW	10:33:33 AM	1392.32	1		1133.1	15.132	756.593	ng/L	
Hg2600-3	BC	CAL	SEQ-CCV2		1	8/15/2017 10:37:41	73194-1.RAW	10:37:41 AM	392.86	1		1390.0	18.564	928.193	ng/L	
Hg2600-3	BC	CAL	SEQ-CCB2		1	8/15/2017 10:41:50	73195-1.RAW	10:41:50 AM	3.19			390.6	5.218	5.218	ng/L	
Hg2600-3	BC	SAM	1707771-07		50	8/15/2017 10:45:58	73196-1.RAW	10:45:58 AM	1163.75	1		0.9	0.012	0.012	ng/L	
Hg2600-3	BC	SAM	1707771-08		50	8/15/2017 10:50:07	73197-1.RAW	10:50:07 AM	1024.88	1		1161.5	15.510	775.516	ng/L	
Hg2600-3	BC	SAM	1707771-09		50	8/15/2017 10:54:15	73198-1.RAW	10:54:15 AM	1160.85	1		1022.6	13.655	682.756	ng/L	
Hg2600-3	BC	SAM	1707771-10		50	8/15/2017 10:58:23	73199-1.RAW	10:58:23 AM	1377.56	1		1158.6	15.472	773.579	ng/L	
Hg2600-3	BC	SAM	1707620-34RE1		10	8/15/2017 11:02:32	73200-1.RAW	11:02:32 AM	134.06	1		1375.3	18.367	918.334	ng/L	
Hg2600-3	BC	SAM	1707737-06RE1		10	8/15/2017 11:06:40	73201-1.RAW	11:06:40 AM	136.21	1		131.8	1.730	17.300	ng/L	
Hg2600-3	BC	SAM	1707737-08RE1		10	8/15/2017 11:10:49	73202-1.RAW	11:10:49 AM	204.84	1		133.9	1.759	17.588	ng/L	
Hg2600-3	BC	SAM	1707737-11RE1		10	8/15/2017 11:14:57	73203-1.RAW	11:14:57 AM	505.06	1		202.6	2.676	26.756	ng/L	
Hg2600-3	BC	SAM	1707737-12RE1		10	8/15/2017 11:19:06	73204-1.RAW	11:19:06 AM	673.01	1		502.8	6.686	66.863	ng/L	
Hg2600-3	BC	SAM	1707737-13RE1		10	8/15/2017 11:23:14	73205-1.RAW	11:23:14 AM	273.57	1		670.7	8.930	89.300	ng/L	
Hg2600-3	BC	CAL	SEQ-CCV3		1	8/15/2017 11:27:22	73206-1.RAW	11:27:22 AM	383.76	1		271.3	3.594	35.938	ng/L	
Hg2600-3	BC	CAL	SEQ-CCB3		1	8/15/2017 11:31:31	73207-1.RAW	11:31:31 AM	3.18			381.5	5.096	5.096	ng/L	
Hg2600-3	BC	SAM	1707737-14RE1		10	8/15/2017 11:35:39	73208-1.RAW	11:35:39 AM	789.53	1		0.9	0.012	0.012	ng/L	
Hg2600-3	BC	SAM	F707537-MS1		400	8/15/2017 11:39:48	73209-1.RAW	11:39:48 AM	381.43	1		787.2	10.487	104.867	ng/L	
Hg2600-3	BC	SAM	F707537-MSD1		400	8/15/2017 11:43:56	73210-1.RAW	11:43:56 AM	440.24	1		379.1	5.064	2025.752	ng/L	
Hg2600-3	BC	SAM	F707537-MS2		400	8/15/2017 11:48:04	73211-1.RAW	11:48:04 AM	609.08	1		438.0	5.850	2340.017	ng/L	
Hg2600-3	BC	SAM	F707537-MSD2		400	8/15/2017 11:52:13	73212-1.RAW	11:52:13 AM	613.21	1		606.8	8.106	3242.252	ng/L	
Hg2600-3	BC	BLK	F708322-BLK1		10	8/15/2017 11:56:21	73213-1.RAW	11:56:21 AM	6.01	2		610.9	8.161	3264.321	ng/L	
Hg2600-3	BC	BLK	F708322-BLK2		10	8/15/2017 12:00:30	73214-1.RAW	12:00:30 PM	2.67	2		3.7	0.050	0.498	ng/L	
Hg2600-3	BC	SAM	F708322-BS1		100	8/15/2017 12:04:38	73215-1.RAW	12:04:38 PM	158.11	2		0.4	0.005	0.052	ng/L	
Hg2600-3	BC	SAM	F708322-BSD1		100	8/15/2017 12:08:47	73216-1.RAW	12:08:47 PM	165.61	2		155.8	2.079	207.899	ng/L	
Hg2600-3	BC	SAM	1707771-11		50	8/15/2017 12:12:55	73217-1.RAW	12:12:55 PM	1219.84	2		163.3	2.179	217.919	ng/L	
Hg2600-3	BC	CAL	SEQ-CCV4		1	8/15/2017 12:17:03	73218-1.RAW	12:17:03 PM	383.02	2		1217.6	16.260	813.012	ng/L	
Hg2600-3	BC	CAL	SEQ-CCB4		1	8/15/2017 12:21:12	73219-1.RAW	12:21:12 PM	3.58			380.7	5.086	5.086	ng/L	
												1.3	0.017	0.017	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	1707771-12	50	8/15/2017 12:25:20	73220-1.RAW	12:25:20 PM	1472.20	2		1469.9	19.632	981.580	ng/L	
Hg2600-3	BC	SAM	1707771-13	50	8/15/2017 12:29:29	73221-1.RAW	12:29:29 PM	937.77	2		935.5	12.492	624.598	ng/L	
Hg2600-3	BC	SAM	1707771-14	50	8/15/2017 12:33:37	73222-1.RAW	12:33:37 PM	1212.55	2		1210.3	16.163	808.142	ng/L	
Hg2600-3	BC	SAM	1707771-15	50	8/15/2017 12:37:45	73223-1.RAW	12:37:45 PM	1148.12	2		1145.8	15.302	765.105	ng/L	
Hg2600-3	BC	SAM	1707771-16	50	8/15/2017 12:41:54	73224-1.RAW	12:41:54 PM	1190.18	2		1187.9	15.864	793.200	ng/L	
Hg2600-3	BC	SAM	1707771-17	50	8/15/2017 12:46:02	73225-1.RAW	12:46:02 PM	1298.81	2		1296.5	17.315	865.761	ng/L	
Hg2600-3	BC	SAM	1707771-18	50	8/15/2017 12:50:11	73226-1.RAW	12:50:11 PM	1537.45	2		1535.2	20.503	1025.164	ng/L	
Hg2600-3	BC	SAM	1707771-19	50	8/15/2017 12:54:19	73227-1.RAW	12:54:19 PM	157.25	2		155.0	2.065	103.238	ng/L	
Hg2600-3	BC	SAM	1707771-20	50	8/15/2017 12:58:28	73228-1.RAW	12:58:28 PM	751.28	2		749.0	10.001	500.030	ng/L	
Hg2600-3	BC	SAM	1707771-21	50	8/15/2017 13:02:36	73229-1.RAW	1:02:36 PM	569.78	2		567.5	7.576	378.794	ng/L	
Hg2600-3	BC	CAL	SEQ-CCV5	1	8/15/2017 13:06:44	73230-1.RAW	1:06:44 PM	387.97			385.7	5.153	5.153	ng/L	
Hg2600-3	BC	CAL	SEQ-CCB5	1	8/15/2017 13:10:53	73231-1.RAW	1:10:53 PM	6.85			4.6	0.061	0.061	ng/L	
Hg2600-3	BC	SAM	ws		8/15/2017 13:25:53	73232-1.RAW	1:25:53 PM	8.93		X	6.6	0.089	0.000	ng/L	
Hg2600-3	BC	SAM	1707771-22	50	8/15/2017 13:30:01	73233-1.RAW	1:30:01 PM	447.76	2		445.5	5.946	297.288	ng/L	
Hg2600-3	BC	SAM	1707771-23	50	8/15/2017 13:34:10	73234-1.RAW	1:34:10 PM	447.60	2		445.3	5.944	297.182	ng/L	
Hg2600-3	BC	SAM	1707771-24	50	8/15/2017 13:38:18	73235-1.RAW	1:38:18 PM	1390.41	2		1388.1	18.539	926.947	ng/L	
Hg2600-3	BC	SAM	1707771-25	50	8/15/2017 13:42:27	73236-1.RAW	1:42:27 PM	698.37	2		696.1	9.294	464.687	ng/L	
Hg2600-3	BC	SAM	1707771-26	50	8/15/2017 13:46:35	73237-1.RAW	1:46:35 PM	953.02	2		950.7	12.696	634.785	ng/L	
Hg2600-3	BC	SAM	1707771-27	50	8/15/2017 13:50:43	73238-1.RAW	1:50:43 PM	592.24	2		590.0	7.876	393.796	ng/L	
Hg2600-3	BC	SAM	1707771-28	50	8/15/2017 13:54:52	73239-1.RAW	1:54:52 PM	883.76	2		881.5	11.770	588.522	ng/L	
Hg2600-3	BC	SAM	1707771-29	50	8/15/2017 13:59:00	73240-1.RAW	1:59:00 PM	768.73	2		766.4	10.234	511.686	ng/L	
Hg2600-3	BC	SAM	1707771-30	50	8/15/2017 14:03:09	73241-1.RAW	2:03:09 PM	798.56	2		796.3	10.632	531.611	ng/L	
Hg2600-3	BC	SAM	F708322-MS1	400	8/15/2017 14:07:17	73242-1.RAW	2:07:17 PM	576.64	2		574.4	7.672	3068.931	ng/L	
Hg2600-3	BC	CAL	SEQ-CCV6	1	8/15/2017 14:11:26	73243-1.RAW	2:11:26 PM	389.10			386.8	5.168	5.168	ng/L	
Hg2600-3	BC	CAL	SEQ-CCB6	1	8/15/2017 14:15:34	73244-1.RAW	2:15:34 PM	7.29			5.0	0.067	0.067	ng/L	
Hg2600-3	BC	SAM	F708322-MSD1	400	8/15/2017 14:19:42	73245-1.RAW	2:19:42 PM	565.03	2		562.7	7.517	3006.890	ng/L	
Hg2600-3	BC	SAM	F708322-MS2	400	8/15/2017 14:23:51	73246-1.RAW	2:23:51 PM	497.84	2		495.6	6.620	2647.845	ng/L	
Hg2600-3	BC	SAM	F708322-MSD2	400	8/15/2017 14:27:59	73247-1.RAW	2:27:59 PM	478.71	2		476.4	6.364	2545.620	ng/L	
Hg2600-3	BC	CAL	SEQ-CCV7	1	8/15/2017 14:36:45	73248-1.RAW	2:36:45 PM	379.12			376.8	5.034	5.034	ng/L	
Hg2600-3	BC	CAL	SEQ-CCB7	1	8/15/2017 14:40:54	73249-1.RAW	2:40:54 PM	5.97			3.7	0.049	0.049	ng/L	
Hg2600-3	BC	SAM	SnCl2 1704955	1	8/15/2017 14:45:03	73250-1.RAW	2:45:03 PM	3.02		X	0.7	0.010	0.010	ng/L	
Hg2600-3	BC	SAM	CLEAN		8/15/2017 14:47:54	73251-1.RAW	2:47:54 PM	0.00		X	-2.3	-0.031	0.000	ng/L	
Hg2600-3	BC	SAM	WS		8/15/2017 14:52:03	73252-1.RAW	2:52:03 PM	0.00		X	-2.3	-0.031	0.000	ng/L	
Hg2600-3	BC	SAM	WS		8/15/2017 14:56:11	73253-1.RAW	2:56:11 PM	0.00		X	-2.3	-0.031	0.000	ng/L	
Hg2600-3	BC	SAM	WS		8/15/2017 15:00:20	73254-1.RAW	3:00:20 PM	0.00		X	-2.3	-0.031	0.000	ng/L	

TotalMercury EPA1631  
 Operatr BC  
 BlankSi 2.2842  
 Calib Eqn: Conc = (Area-2.284  
 Run Date: 8/15/2017  
 Blank SD: 2.036408503  
 Worksh THg260( CalibFa 74.852  
 Status: QC Warnings:3/QC E Run Time: 14:32:36  
 Blank RSD%: 89.1525771  
 Method ##### R: 1 R<sup>2</sup>: 1  
 CF SD: 1.423312471  
 Descrip THg26003-170815-1  
 CF RSD%: 1.901491368

Sample/ID	Location	Rinse	Dilute	Blank	Conc (ppt)	MB%	FinalConc	Rec%	QA	RawData	RunEnd	Peak (Raw)	Control (eff)	Flags	RunCount
Clean				0.00	1.49					73158-1.RAW	8:09:32	111.35	Clean	OK	1
clean										73159-1.RAW	8:12:23	0.00	Clean	NP	1
ws				2.28	0.00					73160-1.RAW	8:16:31	1.98	Sample	OK	1
ws										73161-1.RAW	8:20:40	0.00	Sample	NP	1
SEQ-IBL1	A1		1							73162-1.RAW	8:24:48	0.00	Sample	NP	1
SEQ-IBL2	A2		1	0.00	0.04					73163-1.RAW	8:28:57	0.00	Sample	NP	1
SEQ-IBL3	A3		1	0.00	0.05					73164-1.RAW	8:33:05	2.94	Sample	OK	1
SEQ-CAL1	A4		1	2.28	0.51			101.49		73165-1.RAW	8:37:14	3.91	Sample	OK	1
SEQ-CAL2	A5		1	2.28	1.02			102.40		73166-1.RAW	8:41:22	40.27	Sample	OK	1
SEQ-CAL3	A6		1	2.28	4.98			99.66		73167-1.RAW	8:45:30	78.94	Sample	OK	1
SEQ-CAL4	A7		1	2.28	19.64			98.18		73168-1.RAW	8:49:39	375.28	Sample	OK	1
SEQ-CAL5	A8		1	2.28	39.31			98.26		73169-1.RAW	8:53:47	1472.06	Sample	OK	1
SEQ-ICV1	A9		1	2.28	5.10			101.94		73170-1.RAW	8:57:56	2944.38	Sample	OK	1
F707537-BLK1	A10		10	2.28	0.32					73171-1.RAW	9:02:04	383.80	Sample	OK	1
F707537-BLK2	A11		10	2.28	0.28					73172-1.RAW	9:06:36	4.71	Sample	OK	1
F707537-BS1	A12		100	2.28	198.51					73173-1.RAW	9:10:45	4.41	Sample	OK	1
F707537-BSD1	B1		100	2.28	216.59					73174-1.RAW	9:14:53	150.87	Sample	OK	1
1707620-34	B2		100	2.28	15.87					73175-1.RAW	9:19:01	164.41	Sample	OK	1
1707737-06	B3		100	2.28	19.97					73176-1.RAW	9:23:10	14.16	Sample	OK	1
1707737-07	B4		100	2.28	193.61					73177-1.RAW	9:27:18	17.23	Sample	OK	1
1707737-08	B5		100	2.28	29.24					73178-1.RAW	9:31:27	147.21	Sample	OK	1
1707737-09	B6		100	2.28	1304.36					73179-1.RAW	9:35:35	24.17	Sample	OK	1
1707737-10	B7		100	2.28	422.90					73180-1.RAW	9:39:43	978.63	Sample	OK	1
SEQ-CCV1	B8		1	2.28	5.08			101.62		73181-1.RAW	9:43:52	318.84	Sample	OK	1
SEQ-CCB1	B9		1	2.28	0.02			0.00		73182-1.RAW	9:48:00	382.61	Sample	OK	1
1707737-11	B10		100	2.28	65.02					73183-1.RAW	9:52:09	4.02	Sample	OK	1
1707737-12	B11		100	2.28	95.38					73184-1.RAW	9:56:17	50.95	Sample	OK	1
1707737-13	B12		100	2.28	34.15					73185-1.RAW	10:00:26	73.68	Sample	OK	1
1707737-14	C1		100	2.28	108.11					73186-1.RAW	10:04:34	27.84	Sample	OK	1
1707771-01	C2		100	2.28	941.25					73187-1.RAW	10:08:42	83.20	Sample	OK	1
1707771-02	C3		50	2.28	669.86					73188-1.RAW	10:12:51	706.83	Sample	OK	1
1707771-03	C4		50	2.28	640.36					73189-1.RAW	10:16:59	1005.10	Sample	OK	1
1707771-04	C5		50	2.28	1216.87					73190-1.RAW	10:21:08	960.93	Sample	OK	1
1707771-05	C6		50	2.28	756.92					73191-1.RAW	10:25:16	1823.99	Sample	OK	1
1707771-06	C7		50	2.28	928.52					73192-1.RAW	10:29:24	1135.42	Sample	OK	1
SEQ-CCV2	C8		1	2.28	5.22			104.36		73193-1.RAW	10:33:33	1392.32	Sample	OK	1
SEQ-CCB2	C9		1	2.28	0.01			0.00		73194-1.RAW	10:37:41	392.86	Sample	OK	1
1707771-07	C10		50	2.28	775.84					73195-1.RAW	10:41:50	3.19	Sample	OK	1
1707771-08	C11		50	2.28	683.08					73196-1.RAW	10:45:58	1163.75	Sample	OK	1
1707771-09	C12		50	2.28	773.90					73197-1.RAW	10:50:07	1024.88	Sample	OK	1
1707771-10	D1		50	2.28	918.66					73198-1.RAW	10:54:15	1160.85	Sample	OK	1
1707620-34RE1	D2		10	2.28	17.60					73199-1.RAW	10:58:23	1377.56	Sample	OK	1
										73200-1.RAW	11:02:32	134.06	Sample	OK	1

1707737-06RE1	D3	10	2.28	17.89		73201-1.RAW	11:06:40	136.21	Sample	OK	1
1707737-08RE1	D4	10	2.28	27.06		73202-1.RAW	11:10:49	204.84	Sample	OK	1
1707737-11RE1	D5	10	2.28	67.17		73203-1.RAW	11:14:57	505.06	Sample	OK	1
1707737-12RE1	D6	10	2.28	89.61		73204-1.RAW	11:19:06	673.01	Sample	OK	1
1707737-13RE1	D7	10	2.28	36.24		73205-1.RAW	11:23:14	273.57	Sample	OK	1
SEQ-CCV3	D8	1	2.28	5.10	101.93	73206-1.RAW	11:27:22	383.76	Sample	OK	1
SEQ-CCB3	D9	1	2.28	0.01	0.00	73207-1.RAW	11:31:31	3.18	Sample	OK	1
1707737-14RE1	D10	10	2.28	105.17		73208-1.RAW	11:35:39	789.53	Sample	OK	1
F707537-MS1	D11	400	2.28	2026.09	1908.29	73209-1.RAW	11:39:48	381.43	Sample	OK	1
F707537-MSD1	D12	400	2.28	2340.38		73210-1.RAW	11:43:56	440.24	Sample	OK	1
F707537-MS2	A1	400	2.28	3242.62	138.43	73211-1.RAW	11:48:04	609.08	Sample	OK	1
F707537-MSD2	A2	400	2.28	3264.70		73212-1.RAW	11:52:13	613.21	Sample	OK	1
F708322-BLK1	A3	10	2.28	0.50		73213-1.RAW	11:56:21	6.01	Sample	OK	1
F708322-BLK2	A4	10	2.28	0.05		73214-1.RAW	12:00:30	2.67	Sample	OK	1
F708322-BS1	A5	100	2.28	208.18		73215-1.RAW	12:04:38	158.11	Sample	OK	1
F708322-BSD1	A6	100	2.28	218.19		73216-1.RAW	12:08:47	165.61	Sample	OK	1
1707771-11	A7	50	2.28	813.30		73217-1.RAW	12:12:55	1219.84	Sample	OK	1
SEQ-CCV4	A8	1	2.28	5.09	101.73	73218-1.RAW	12:17:03	383.02	Sample	OK	1
SEQ-CCB4	A9	1	2.28	0.02	0.00	73219-1.RAW	12:21:12	3.58	Sample	OK	1
1707771-12	A10	50	2.28	981.88		73220-1.RAW	12:25:20	1472.20	Sample	OK	1
1707771-13	A11	50	2.28	624.88		73221-1.RAW	12:29:29	937.77	Sample	OK	1
1707771-14	A12	50	2.28	808.44		73222-1.RAW	12:33:37	1212.55	Sample	OK	1
1707771-15	B1	50	2.28	765.40		73223-1.RAW	12:37:45	1148.12	Sample	OK	1
1707771-16	B2	50	2.28	793.50		73224-1.RAW	12:41:54	1190.18	Sample	OK	1
1707771-17	B3	50	2.28	866.05		73225-1.RAW	12:46:02	1298.81	Sample	OK	1
1707771-18	B4	50	2.28	1025.46		73226-1.RAW	12:50:11	1537.45	Sample	OK	1
1707771-19	B5	50	2.28	103.51		73227-1.RAW	12:54:19	157.25	Sample	OK	1
1707771-20	B6	50	2.28	500.32		73228-1.RAW	12:58:28	751.28	Sample	OK	1
1707771-21	B7	50	2.28	379.08		73229-1.RAW	13:02:36	569.78	Sample	OK	1
SEQ-CCV5	B8	1	2.28	5.15	103.05	73230-1.RAW	13:06:44	387.97	Sample	OK	1
SEQ-CCB5	B9	1	2.28	0.06	0.00	73231-1.RAW	13:10:53	6.85	Sample	OK	1
ws			2.28	0.09		73232-1.RAW	13:25:53	8.93	Sample	OK	1
1707771-22	B10	50	2.28	297.57		73233-1.RAW	13:30:01	447.76	Sample	OK	1
1707771-23	B11	50	2.28	297.46		73234-1.RAW	13:34:10	447.60	Sample	OK	1
1707771-24	B12	50	2.28	927.24		73235-1.RAW	13:38:18	1390.41	Sample	OK	1
1707771-25	C1	50	2.28	464.97		73236-1.RAW	13:42:27	698.37	Sample	OK	1
1707771-26	C2	50	2.28	635.07		73237-1.RAW	13:46:35	953.02	Sample	OK	1
1707771-27	C3	50	2.28	394.08		73238-1.RAW	13:50:43	592.24	Sample	OK	1
1707771-28	C4	50	2.28	588.81		73239-1.RAW	13:54:52	883.76	Sample	OK	1
1707771-29	C5	50	2.28	511.97		73240-1.RAW	13:59:00	768.73	Sample	OK	1
1707771-30	C6	50	2.28	531.90		73241-1.RAW	14:03:09	798.56	Sample	OK	1
F708322-MS1	C7	400	2.28	3069.25	575.95	73242-1.RAW	14:07:17	576.64	Sample	OK	1
SEQ-CCV6	C8	1	2.28	5.17	103.35	73243-1.RAW	14:11:26	389.10	Sample	OK	1
SEQ-CCB6	C9	1	2.28	0.07	0.00	73244-1.RAW	14:15:34	7.29	Sample	OK	1
F708322-MSD1	C10	400	2.28	3007.23		73245-1.RAW	14:19:42	565.03	Sample	OK	1
F708322-MS2	C11	400	2.28	2648.17	88.00	73246-1.RAW	14:23:51	497.84	Sample	OK	1
F708322-MSD2	C12	400	2.28	2545.93		73247-1.RAW	14:27:59	478.71	Sample	OK	1
SEQ-CCV7	D1	1	2.28	5.03	100.69	73248-1.RAW	14:36:45	379.12	Sample	OK	1



SEQ-CCB7	D2	1	2.28	0.05	0.00	73249-1.RAW	14:40:54	5.97	Sample	OK	1
SnCl2 1704955	D3	1	2.28	0.01		73250-1.RAW	14:45:03	3.02	Sample	OK	1
CLEAN						73251-1.RAW	14:47:54	0.00	Clean	NP	1
WS						73252-1.RAW	14:52:03	0.00	Sample	NP	1
WS						73253-1.RAW	14:56:11	0.00	Sample	NP	1
WS						73254-1.RAW	15:00:20	0.00	Sample	NP	1

**ANALYSIS SEQUENCE**

**7H15016**



**Instrument: Hg2600-3**

**Calibration ID: UNASSIGNED**

**Analyzed: 8/15/2017**

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
7H15016-IBL1	QC	1			
7H15016-IBL2	QC	2			
7H15016-IBL3	QC	3			
7H15016-CAL1	QC	4	1704505		
7H15016-CAL2	QC	5	1704506		
7H15016-CAL3	QC	6	1704507		
7H15016-CAL4	QC	7	1704508		
7H15016-CAL5	QC	8	1704509		
7H15016-ICV1	QC	9	1703679		
F707537-BLK1	QC	10			
F707537-BLK2	QC	11			
F707537-BS1	QC	12			
F707537-BSD1	QC	13			
1707620-34	Hg-CVAFS-S-7474	14			
1707737-06	Hg-CVAFS-S-7474	15			
1707737-07	Hg-CVAFS-S-7474	16			
1707737-08	Hg-CVAFS-S-7474	17			
1707737-09	Hg-CVAFS-S-7474	18			
1707737-10	Hg-CVAFS-S-7474	19			
7H15016-CCV1	QC	20	1703679		
7H15016-CCB1	QC	21			
1707737-11	Hg-CVAFS-S-7474	22			
1707737-12	Hg-CVAFS-S-7474	23			
1707737-13	Hg-CVAFS-S-7474	24			
1707737-14	Hg-CVAFS-S-7474	25			
1707771-01	Hg-CVAFS-S-7474	26			
1707771-02	Hg-CVAFS-S-7474	27			
1707771-03	Hg-CVAFS-S-7474	28			
1707771-04	Hg-CVAFS-S-7474	29			
1707771-05	Hg-CVAFS-S-7474	30			
1707771-06	Hg-CVAFS-S-7474	31			
7H15016-CCV2	QC	32	1703679		
7H15016-CCB2	QC	33			
1707771-07	Hg-CVAFS-S-7474	34			
1707771-08	Hg-CVAFS-S-7474	35			

## ANALYSIS SEQUENCE

7H15016



Instrument: Hg2600-3

Calibration ID: UNASSIGNED

Analyzed: 8/15/2017

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
1707771-09	Hg-CVAFS-S-7474	36			
1707771-10	Hg-CVAFS-S-7474	37			
1707620-34RE1	Hg-CVAFS-S-7474	38			Added 8/15/2017 by BC
1707737-06RE1	Hg-CVAFS-S-7474	39			Added 8/15/2017 by BC
1707737-08RE1	Hg-CVAFS-S-7474	40			Added 8/15/2017 by BC
1707737-11RE1	Hg-CVAFS-S-7474	41			Added 8/15/2017 by BC
1707737-12RE1	Hg-CVAFS-S-7474	42			Added 8/15/2017 by BC
1707737-13RE1	Hg-CVAFS-S-7474	43			Added 8/15/2017 by BC
7H15016-CCV3	QC	44	1703679		
7H15016-CCB3	QC	45			
1707737-14RE1	Hg-CVAFS-S-7474	46			Added 8/15/2017 by BC
F707537-MS1	QC	47			
F707537-MSD1	QC	48			
F707537-MS2	QC	49			
F707537-MSD2	QC	50			
F708322-BLK1	QC	51			
F708322-BLK2	QC	52			
F708322-BS1	QC	53			
F708322-BSD1	QC	54			
1707771-11	Hg-CVAFS-S-7474	55			
7H15016-CCV4	QC	56	1703679		
7H15016-CCB4	QC	57			
1707771-12	Hg-CVAFS-S-7474	58			
1707771-13	Hg-CVAFS-S-7474	59			
1707771-14	Hg-CVAFS-S-7474	60			
1707771-15	Hg-CVAFS-S-7474	61			
1707771-16	Hg-CVAFS-S-7474	62			
1707771-17	Hg-CVAFS-S-7474	63			
1707771-18	Hg-CVAFS-S-7474	64			
1707771-19	Hg-CVAFS-S-7474	65			
1707771-20	Hg-CVAFS-S-7474	66			
1707771-21	Hg-CVAFS-S-7474	67			
7H15016-CCV5	QC	68	1703679		
7H15016-CCB5	QC	69			
1707771-22	Hg-CVAFS-S-7474	70			

Due Date: 8/21/2017

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Page 2 of 3

**ANALYSIS SEQUENCE**

**7H15016**



**Instrument: Hg2600-3**

**Calibration ID: UNASSIGNED**

**Analyzed: 8/15/2017**

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
1707771-23	Hg-CVAFS-S-7474	71			
1707771-24	Hg-CVAFS-S-7474	72			
1707771-25	Hg-CVAFS-S-7474	73			
1707771-26	Hg-CVAFS-S-7474	74			
1707771-27	Hg-CVAFS-S-7474	75			
1707771-28	Hg-CVAFS-S-7474	76			
1707771-29	Hg-CVAFS-S-7474	77			
1707771-30	Hg-CVAFS-S-7474	78			
F708322-MS1	QC	79			
7H15016-CCV6	QC	80	1703679		
7H15016-CCB6	QC	81			
F708322-MSD1	QC	82			
F708322-MS2	QC	83			
F708322-MSD2	QC	84			
7H15016-CCV7	QC	85	1703679		
7H15016-CCB7	QC	86			

*Beck* 8/15/17  
 Samples Loaded By                      Date

*Beck* 8/15/17  
 Data Processed By                      Date

**Failing Data Report - 7H15016**

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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Reavis 8/15/17  
Analyst Reviewed By /Date

Dan Moxem 8/16/17  
Peer Reviewed By /Date

**PREPARATION BENCH SHEET**

F708322

**Eurofins Frontier Global Sciences, Inc.**

**Matrix: Soil/Sediment**

**Prepared using: Trace Metals - EPA 7474**

**Prepared: 8/8/2017**

Lab Number	Sample ID and Source Sample	Initial (g)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F708322-BLK1	Blank	0.5	200					
F708322-BLK2	Blank	0.5	200					
F708322-BS1	Blank Spike	0.513	200	1701763	40			
F708322-BSD1	Blank Spike	0.5513	200	1701763	40			
F708322-MS1	Matrix Spike [1707771-17]	0.5782	200	1703591	50			
F708322-MS2	Matrix Spike [1707771-21]	0.5442	200	1703591	50			
F708322-MSD1	Matrix Spike Dup [1707771-17]	0.5301	200	1703591	50			
F708322-MSD2	Matrix Spike Dup [1707771-21]	0.5502	200	1703591	50			

<u>Standard ID(s):</u>	<u>Description:</u>
1701763	THg 1,000ng/mL Secondary Spiking Standard
1703591	THg 10,000ng/mL Primary Spiking Standard

<u>Expiration:</u>
22-Sep-17 00:00
14-Dec-17 00:00

<u>Reagent ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>
1703182	25% Hydroxylamine-HCl working solution	24-Nov-17 00:00
1703701	THg Washstation (0.5% BrCl)	21-Dec-17 00:00
1703702	THg Dilute 1% BrCl	
1703831	Omnitrace Hydrochloric Acid	26-Jun-20 00:00
1704424	Boiling Chips for AFS prep	21-Jan-18 00:00
1704484	Fisher Nitric Acid, Tracemetal Grade	15-Mar-19 00:00
1704691	3% SnCl2 THg reductant	22-Jan-18 00:00
1704812	7474 Potassium Bromate/Bromide Reagent	15-Aug-17 00:00

**PREPARATION BENCH SHEET**

F708322

**Eurofins Frontier Global Sciences, Inc.**

**Matrix: Soil/Sediment**

**Prepared using: Trace Metals - EPA 7474**

**Prepared: 8/8/2017**

Lab Number	Sample ID	Initial (g)	Final (mL)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1707771-11	OR-01-05_072417_SED_00-01_R3	0.5556	200	-	-	-		
1707771-12	OR-01-05_072417_SED_01-03	0.5697	200	-	-	-		
1707771-13	OR-02-01_072417_SED_00-01	0.5203	200	-	-	-		
1707771-14	OR-02-01_072417_SED_01-03_R1	0.5575	200	-	-	-		
1707771-15	OR-02-01_072417_SED_01-03_R2	0.5879	200	-	-	-		
1707771-16	OR-02-01_072417_SED_01-03_R3	0.568	200	-	-	-		
1707771-17	OR-02-02_072417_SED_00-01	0.5825	200	QC	-	-	MS/MSD	
1707771-18	OR-02-02_072417_SED_01-03	0.5472	200	-	-	-		
1707771-19	W-103-A_072417_SED_00-01	0.5365	200	-	-	-		
1707771-20	W-103-A_072417_SED_01-03	0.5569	200	-	-	-		
1707771-21	W-103-B_072417_SED_00-01_R1	0.576	200	-	-	-		
1707771-22	W-103-B_072417_SED_00-01_R2	0.5183	200	-	-	-		
1707771-23	W-103-B_072417_SED_00-01_R3	0.5914	200	-	-	-		
1707771-24	W-103-B_072417_SED_01-03	0.5978	200	-	-	-		
1707771-25	W-105-A_072417_SED_00-01	0.5598	200	-	-	-		
1707771-26	W-105-A_072417_SED_01-03	0.5553	200	-	-	-		
1707771-27	W-14-C_072417_SED_00-01	0.5815	200	-	-	-		
1707771-28	W-14-C_072417_SED_01-03_R1	0.5554	200	-	-	-		
1707771-29	W-14-C_072417_SED_01-03_R2	0.55	200	-	-	-		

Due Date: 8/24/2017

PREPARATION BENCH SHEET

F708322

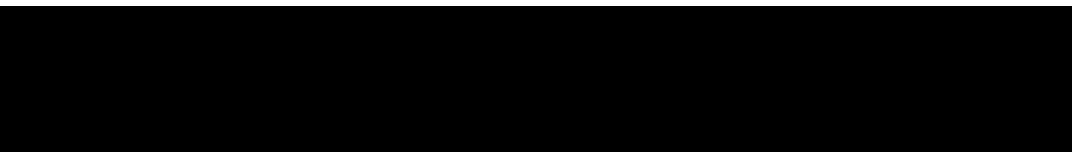
Eurofins Frontier Global Sciences, Inc.

Matrix: Soil/Sediment

Prepared using: Trace Metals - EPA 7474

Prepared: 8/8/2017

1707771-30	W-14-C_072417_SED_01-03_R3	0.5641	200	-	-	-		
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**PREPARATION BENCH SHEET**

F707537

**Eurofins Frontier Global Sciences, Inc.**

**Matrix: Soil/Sediment**

**Prepared using: AFS - EPA 7474**

**Prepared: 8/11/2017**

Lab Number	Sample ID and Source Sample	Initial (g)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F707537-BLK1	Blank	0.5	200					
F707537-BLK2	Blank	0.5	200					
F707537-BS1	Blank Spike	0.5241	200	1701763	40			
F707537-BSD1	Blank Spike Dup	0.5516	200	1701763	40			
F707537-MS1	Matrix Spike [1707620-34RE1]	0.5356	200	1703591	50			
F707537-MS2	Matrix Spike [1707771-04]	0.5453	200	1703591	50			
F707537-MSD1	Matrix Spike Dup [1707620-34RE1]	0.5845	200	1703591	50			
F707537-MSD2	Matrix Spike Dup [1707771-04]	0.5308	200	1703591	50			

<u>Standard ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>	<u>Reagent ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>
1701763	THg 1,000ng/mL Secondary Spiking Standard	22-Sep-17 00:00	1703182	25% Hydroxylamine-HCl working solution	24-Nov-17 00:00
1703591	THg 10,000ng/mL Primary Spiking Standard	14-Dec-17 00:00	1703701	THg Washstation (0.5% BrCl)	21-Dec-17 00:00
			1703702	THg Dilute 1% BrCl	
			1703831	Omnitrace Hydrochloric Acid	26-Jun-20 00:00
			1704424	Boiling Chips for AFS prep	21-Jan-18 00:00
			1704484	Fisher Nitric Acid, Tracemetal Grade	15-Mar-19 00:00
			1704691	3% SnCl2 THg reductant	22-Jan-18 00:00
			1704812	7474 Potassium Bromate/Bromide Reagent	15-Aug-17 00:00

**PREPARATION BENCH SHEET**

F707537

**Eurofins Frontier Global Sciences, Inc.**

**Matrix: Soil/Sediment**

**Prepared using: AFS - EPA 7474**

**Prepared: 8/11/2017**

Lab Number	Sample ID	Initial (g)	Final (mL)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1707620-34	W-MM-13_071917_SED_05-10	0.5696	200	QC	-	-	MS/MSD	
1707620-34RE1	W-MM-13_071917_SED_05-10	0.5696	200	QC	-	-	MS/MSD Added 8/15/2017 by BC	Added 8/15/2017 by BC
1707737-06	MMSW-C_SW_072617_SED_05-10	0.5384	200	-	-	-		
1707737-06RE1	MMSW-C_SW_072617_SED_05-10	0.5384	200	-	-	-	Added 8/15/2017 by BC	Added 8/15/2017 by BC
1707737-07	MMSE-1_N2_072517_SED_03-05	0.5644	200	-	-	-		
1707737-08	MMSE-1_N2_072517_SED_05-10	0.5653	200	-	-	-		
1707737-08RE1	MMSE-1_N2_072517_SED_05-10	0.5653	200	-	-	-	Added 8/15/2017 by BC	Added 8/15/2017 by BC
1707737-09	MMSW-C_S_072517_SED_03-05	0.5665	200	-	-	-		
1707737-10	MMSW-C_S_072517_SED_05-10	0.5475	200	-	-	-		
1707737-11	MMSW-C_SW_072517_SED_00-01	0.5327	200	-	-	-		
1707737-11RE1	MMSW-C_SW_072517_SED_00-01	0.5327	200	-	-	-	Added 8/15/2017 by BC	Added 8/15/2017 by BC
1707737-12	MMSW-C_SW_072517_SED_01-03	0.5497	200	-	-	-	Original jar broken, created container D	
1707737-12RE1	MMSW-C_SW_072517_SED_01-03	0.5497	200	-	-	-	Original jar broken, created container D	Added 8/15/2017 by BC
1707737-13	W-21-UM-West-A_072517_SED_00-01	0.5848	200	-	-	-		
1707737-13RE1	W-21-UM-West-A_072517_SED_00-01	0.5848	200	-	-	-	Added 8/15/2017 by BC	Added 8/15/2017 by BC
1707737-14	W-21-UM-West-A_072517_SED_01-03	0.5974	200	-	-	-		
1707737-14RE1	W-21-UM-West-A_072517_SED_01-03	0.5974	200	-	-	-	Added 8/15/2017 by BC	Added 8/15/2017 by BC
1707771-01	OR-01-01_072417_SED_00-01_R1	0.5458	200	-	-	-		
1707771-02	OR-01-01_072417_SED_00-01_R2	0.5418	200	-	-	-		

Due Date: 8/21/2017

**PREPARATION BENCH SHEET**

F707537

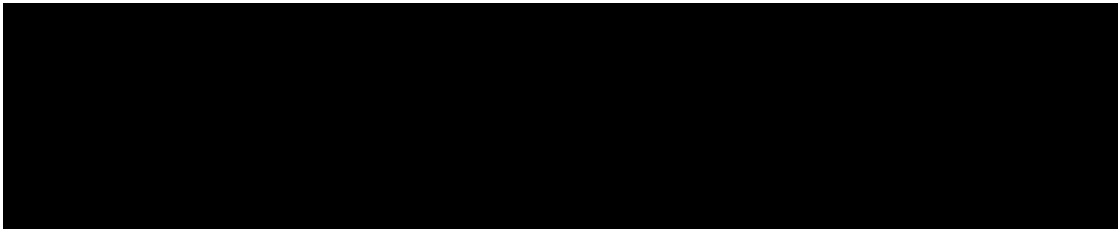
**Eurofins Frontier Global Sciences, Inc.**

**Matrix: Soil/Sediment**

**Prepared using: AFS - EPA 7474**

**Prepared: 8/11/2017**

1707771-03	OR-01-01_072417_SED_00-01_R3	0.5165	200	-	-	-		
1707771-04	OR-01-01_072417_SED_01-03	0.5485	200	QC	-	-	MS/MSD	
1707771-05	OR-01-02_072417_SED_00-01	0.5915	200	-	-	-		
1707771-06	OR-01-02_072417_SED_01-03	0.5741	200	-	-	-		
1707771-07	OR-01-03_072417_SED_00-01	0.5631	200	-	-	-		
1707771-08	OR-01-03_072417_SED_01-03	0.5617	200	-	-	-		
1707771-09	OR-01-05_072417_SED_00-01_R1	0.5388	200	-	-	-		
1707771-10	OR-01-05_072417_SED_00-01_R2	0.5376	200	-	-	-		



PREPARATION BENCH SHEET

BL 8/15/17

2600-3

F708322

Eurofins Frontier Global Sciences, Inc.

Matrix: Soil/Sediment

Prepared using: Trace Metals - EPA 7474

Prepared: 8/8/2017

Lab Number	Sample ID and Source Sample	Initial (g)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F708322-BLK1	Blank	0.5	200					
F708322-BLK2	Blank	0.5	200					10x
F708322-BS1	Blank Spike	0.513	200	1701763	40			10x
F708322-BSD1	Blank Spike	0.5513	200	1701763	40			100x
F708322-MS1	Matrix Spike [1707771-17]	0.5578	200	1703591	50			50x/100x
F708322-MS2	Matrix Spike [1707771-21]	0.5714	200	1703591	50			400x
F708322-MSD1	Matrix Spike Dup [1707771-17]	0.5943	200	1703591	50			400x
F708322-MSD2	Matrix Spike Dup [1707771-21]	0.5414	200	1703591	50			400x

Standard ID(s):  
 1701763  
 1703591

Description:  
 THg 1,000ng/mL Secondary Spiking Standard  
 THg 10,000ng/mL Primary Spiking Standard

Expiration:  
 22-Sep-17 00:00  
 14-Dec-17 00:00

Reagent ID(s):  
 1703831  
 1704424  
 1704484  
 1704812

Description:  
 Omnitrace Hydrochloric Acid  
 Boiling Chips for AFS prep  
 Fisher Nitric Acid, Tracemetal Grade  
 7474 Potassium Bromate/Bromide Reagent

Expiration:  
 26-Jun-20 00:00  
 21-Jan-18 00:00  
 15-Mar-19 00:00  
 15-Aug-17 00:00

1703701

1703702

17037102

1704691

PREPARATION BENCH SHEET

BC 8/15/17

2600-3

F708322

Eurofins Frontier Global Sciences, Inc.

Matrix: Soil/Sediment

Prepared using: Trace Metals - EPA 7474

Prepared: 8/8/2017

Lab Number	Sample ID	Initial (g)	Final (mL)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1707771-11	OR-01-05_072417_SED_00-01_R3	0.5556	200	-	-	-	50X	
1707771-12	OR-01-05_072417_SED_01-03	0.5697	200	-	-	-	50X	
1707771-13	OR-02-01_072417_SED_00-01	0.5203	200	-	-	-	50X	
1707771-14	OR-02-01_072417_SED_01-03_R1	0.5575	200	-	-	-	50X	
1707771-15	OR-02-01_072417_SED_01-03_R2	0.5879	200	-	-	-	50X	
1707771-16	OR-02-01_072417_SED_01-03_R3	0.568	200	-	-	-	50X	
1707771-17	OR-02-02_072417_SED_00-01	0.5825	200	QC	-	-	MS/MSD 50X	
1707771-18	OR-02-02_072417_SED_01-03	0.5472	200	-	-	-	50X	
1707771-19	W-103-A_072417_SED_00-01	0.5365	200	-	-	-	50X	
1707771-20	W-103-A_072417_SED_01-03	0.5569	200	-	-	-	50X	
1707771-21	W-103-B_072417_SED_00-01_R1	0.576	200	-	-	-	50X	
1707771-22	W-103-B_072417_SED_00-01_R2	0.5183	200	-	-	-	50X	
1707771-23	W-103-B_072417_SED_00-01_R3	0.5914	200	-	-	-	50X	
1707771-24	W-103-B_072417_SED_01-03	0.5978	200	-	-	-	50X	
1707771-25	W-105-A_072417_SED_00-01	0.5598	200	-	-	-	50X	
1707771-26	W-105-A_072417_SED_01-03	0.5553	200	-	-	-	50X	
1707771-27	W-14-C_072417_SED_00-01	0.5815	200	-	-	-	50X	
1707771-28	W-14-C_072417_SED_01-03_R1	0.5554	200	-	-	-	50X	
1707771-29	W-14-C_072417_SED_01-03_R2	0.55	200	-	-	-	50X	

Due Date: 8/24/2017

PREPARATION BENCH SHEET

B 08/15/17  
2600-3

F708322

Eurofins Frontier Global Sciences, Inc.

Matrix: Soil/Sediment

Prepared using: Trace Metals - EPA 7474

Prepared: 8/8/2017

1707771-30	W-14-C_072417_SED_01-03_R3	0.5641	200	-	-	-	50x	
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Technician: Dwyer Batch#: F708322 Date: 8/11/17

- EFAFS-T-AFS-SOP2986 Tissues - Methyl Mercury - KOH/Methanol: Hot plate 75±5°C for 2-4 hours.
- EFAFS-T-AFS-SOP2795 Tissues - Total Mercury - 70:30: Hot plate 75±5°C for two hours.
- EFAFS-T-AFS-SOP5134 Sediments - Methyl Mercury - KBr/CH<sub>2</sub>Cl<sub>2</sub>: Heat Block 45°C (nitrogen purge for 30 minutes).
- EFAFS-T-AFS-SOP2807 Solids - Total Mercury - Cold AR: 18-25°C for over four hours.

Other: EPA 7474

Balance#: 19 Calibrated?  Yes  No Therm.#: N/A Vial Type:  Glass  Teflon  
 Calibrated?  Yes  No

\*Time in: N/A Actual Temp. (raw): N/A °C w/ CF: N/A °C

Time out: N/A Actual Temp. (raw): N/A °C w/ CF: N/A °C

\*Time in can't begin before target temperature is reached

Final vol.: 25 mL (LIMS ID: R0420) Spike vol.: 40 µL (LIMS ID: 1701763)  
 Spike Witness: BC 8/11/17 (initial and date)

HCl LIMS ID: 1703831 / 1704640

Pipette SN#: 0007852 Calibration Date: 8/11/17

HNO<sub>3</sub> LIMS ID: 1704484

Pipette SN#: N407692 Calibration Date: 8-9-17

70/30 LIMS ID: N/A

Dispenser #: 09NH5351 Calibrated?  Yes  No

Other Acid LIMS ID: 1704812

Dispenser #: 08Y2293

Glass Vial # J264713-2025 Boiling Chip lot # 1704424

\*Hotblock Position: N/A

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	CRM LIMS ID <input type="checkbox"/> NA
1	F708322 Blk1	0.4998	23	8	1707771-25A	0.5598
2	F708322 Blk2	0.5676	24	9	1707771-26A	0.5553
3	F708322 B51	0.5130	25	10	1707771-27A	0.5815
4	F708322 B501	0.5513	26	11	1707771-28A	0.5554
5	1707771-11A	0.5556	27	12	1707771-29A	0.5500
6	1707771-12A	0.5697	28	13	1707771-30A	0.5641
7	1707771-13A	0.5207	29			
8	1707771-14A	0.5575	30			
9	1707771-15A	0.5879	31			
10	1707771-16A	0.5680	32			
11	1707771-17A	0.5825	33			
12	F708322-MS1	0.5782	34			
13	F708322-1MSD1	0.5301	35			
14	1707771-18A	0.5472	36			
15	1707771-19A	0.5365	37			
16	1707771-20A	0.5569	38			
17	1707771-21A	0.5760	39			
18	F708322-MS2	0.5442	40			
19	F708322-MS02	0.5502	41			
20	1707771-22A	0.5183	42			
21	1707771-23A	0.5914	43			
22	1707771-24A	0.5978	44			

**Comments**  
 F708322 source  
 MS1 MS01  
 1707771-17  
 F708322 MS2 MS02  
 1707771-21  
 F708322 All spike MS1 MS01 = 10,000 µL = 50 µL 1703591  
 8/11/17

PREPARATION BENCH SHEET

BL 8/15/17  
2600-3

F707537

Eurofins Frontier Global Sciences, Inc.

Matrix: Soil/Sediment

Prepared using: AFS - EPA 7474

Prepared: 8/11/2017

Lab Number	Sample ID and Source Sample	Initial (g)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F707537-BLK1	Blank	0.5	200					10X
F707537-BLK2	Blank	0.5	200					10X
F707537-BS1	Blank Spike	0.5241	200	1701763	40			100X
F707537-BSD1	Blank Spike Dup	0.5516	200	1701763	40			100X
F707537-MS1	Matrix Spike [1707620-34]	0.5356	200	1703591	50			400X
F707537-MS2	Matrix Spike [1707771-04]	0.5453	200	1703591	50			400X
F707537-MSD1	Matrix Spike Dup [1707620-34]	0.5845	200	1703591	50			400X
F707537-MSD2	Matrix Spike Dup [1707771-04]	0.5308	200	1703591	50			400X

Standard ID(s):  
1701763  
1703591

Description:  
THg 1,000ng/mL Secondary Spiking Standard  
THg 10,000ng/mL Primary Spiking Standard

Expiration:  
22-Sep-17 00:00  
14-Dec-17 00:00

Reagent ID(s):  
1703831  
1704424  
1704484  
1704812

Description:  
Omnitrace Hydrochloric Acid  
Boiling Chips for AFS prep  
Fisher Nitric Acid, Tracemetal Grade  
7474 Potassium Bromate/Bromide Reagent

Expiration:  
26-Jun-20 00:00  
21-Jan-18 00:00  
15-Mar-19 00:00  
15-Aug-17 00:00

#

1703701  
1703702  
1703182  
1704691



BL 8/15/17  
2600-3

PREPARATION BENCH SHEET

F707537

Eurofins Frontier Global Sciences, Inc.

Matrix: Soil/Sediment

Prepared using: AFS - EPA 7474

Prepared: 8/11/2017

Lab Number	Sample ID	Initial (g)	Final (mL)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1707620-34	W-MM-13_071917_SED_05-10	0.5696	200	QC	-	-	MS/MSD 100X → 10X	
1707737-06	MMSW-C_SW_072617_SED_05-10	0.5384	200	-	-	-	100X → 10X	
1707737-07	MMSE-1_N2_072517_SED_03-05	0.5644	200	-	-	-	100X	
1707737-08	MMSE-1_N2_072517_SED_05-10	0.5653	200	-	-	-	100X → 10X	
1707737-09	MMSW-C_S_072517_SED_03-05	0.5665	200	-	-	-	100X	
1707737-10	MMSW-C_S_072517_SED_05-10	0.5475	200	-	-	-	100X	
1707737-11	MMSW-C_SW_072517_SED_00-01	0.5327	200	-	-	-	100X → 10X	
1707737-12	MMSW-C_SW_072517_SED_01-03	0.5497	200	-	-	-	Original jar broken, created container D 100X → 10X	
1707737-13	W-21-UM-West-A_072517_SED_00-01	0.5848	200	-	-	-	100X → 10X	
1707737-14	W-21-UM-West-A_072517_SED_01-03	0.5974	200	-	-	-	100X → 10X	
1707771-01	OR-01-01_072417_SED_00-01_R1	0.5458	200	-	-	-	100X	
1707771-02	OR-01-01_072417_SED_00-01_R2	0.5418	200	-	-	-	<del>50X</del> 50X	
1707771-03	OR-01-01_072417_SED_00-01_R3	0.5165	200	-	-	-	<del>50X</del> 50X	
1707771-04	OR-01-01_072417_SED_01-03	0.5485	200	QC	-	-	MS/MSD <del>50X</del> 50X	
1707771-05	OR-01-02_072417_SED_00-01	0.5915	200	-	-	-	<del>50X</del> 50X	
1707771-06	OR-01-02_072417_SED_01-03	0.5741	200	-	-	-	<del>50X</del> 50X	
1707771-07	OR-01-03_072417_SED_00-01	0.5631	200	-	-	-	50X	
1707771-08	OR-01-03_072417_SED_01-03	0.5617	200	-	-	-	50X	
1707771-09	OR-01-05_072417_SED_00-01_R1	0.5388	200	-	-	-	50X	

Due Date: 8/21/2017

PREPARATION BENCH SHEET

BL 8/15/17  
2600-3

F707537

Eurofins Frontier Global Sciences, Inc.

Matrix: Soil/Sediment

Prepared using: AFS - EPA 7474

Prepared: 8/11/2017

1707771-10	OR-01-05_072417_SED_00-01_R2	0.5376	200	-	-	-		
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Technician: Duyen Batch#: F707537 Date: 8-11-17

- EFAPS-T-AFS-SOP2986 Tissues - Methyl Mercury - KOH/Methanol: Hot plate 75±5°C for 2-4 hours.
- EFAPS-T-AFS-SOP2795 Tissues - Total Mercury - 70:30: Hot plate 75±5°C for two hours.
- EFAPS-T-AFS-SOP5134 Sediments - Methyl Mercury - KBr/CH<sub>2</sub>Cl<sub>2</sub>: Heat Block 45°C (nitrogen purge for 30 minutes).
- EFAPS-T-AFS-SOP2807 Solids - Total Mercury - Cold AR: 18-25°C for over four hours.

Other: EPA7474  
 Balance#: 19 Calibrated?  Yes  No Therm.#: N/A Vial Type:  Glass  Teflon  
 \*Time in: N/A Actual Temp. (raw): N/A °C w/ CF: N/A °C Calibrated?  Yes  No  
 Time out: N/A Actual Temp. (raw): N/A °C w/ CF: N/A °C  
 \*Time in can't begin before target temperature is reached

Final vol.: 25 mL (LIMS ID: R0H20) Spike vol.: 40 µL (LIMS ID: 1701763)  
 Spike Witness: Cue 8/11/17 (initial and date)

HCl LIMS ID: 1703843 / 1703831 Pipette SN#: 0MU1167 Calibration Date: 8-9-17  
 HNO<sub>3</sub> LIMS ID: 1704484 Pipette SN#: NW07693 Calibration Date: 8-9-17  
 70/30 LIMS ID: N/A Dispenser #: 09N45351 Calibrated?  Yes  No  
 Other Acid LIMS ID: 1704812 Dispenser #: 08Y2297  yes  
 Glass Vial # J264713-3025 Boiling Chip lot # 1704424 \*Hotblock Position: N/A

Vial #	Sample ID Number	Sample Size <input type="checkbox"/> mL <input checked="" type="checkbox"/> g	Vial # 8-11-17	Sample ID Number	Sample Size <input type="checkbox"/> mL <input checked="" type="checkbox"/> g	CRM LIMS ID <input checked="" type="checkbox"/> NA
1	F707537 Blk1	0.4998	237	F707537 - M52	0.5308	
2	F707537 Blk2	0.5638	248	1707771-05A	0.5915	
3	F707537 B51	0.5241	259	1707771-06A	0.5741	
4	F707537 B501	0.5516	260	1707771-07A	0.5631	
5	1707620-34	0.5696	2711	1707771-08A	0.5617	
6	1707737-06	8/11/17	2812	1707771-09A	0.5388	F707537 source
7	F707620-537-M51	0.5356	2913	1707771-10A	0.5376	1707620-34 M51 M501
8	F707537-M501	0.5845	30			
9	1707737-06A	0.5384	31			
10	1707737-07A	0.5644	32			F707537 M52 M502
11	1707737-08A	0.5653	33			170777104
12	1707737-09A	0.5665	34			
13	1707737-10A	0.5475	35			# vials 6
14	1707737-11A	0.5327	36			F707537-M51 = 0.5356(g)
15	1707737-12A	0.5497	37			F707537 ALL spike M51 M501
16	1707737-13A	0.5848	38			= 1000 µg/l
17	1707737-14A	0.5974	39			= 50 µg/l
18	1707771-01A	0.5458	40			1703591
19	1707771-02A	0.5418	41			8/11/17
20	1707771-03A	0.5165	42			
21	1707771-04A	0.5485	43			
22	F707537-M52	0.5453	44			



### Peer Review Check List for THg by 2600 CV-AFS (SOP2822) 2016 Rev 1 (04/1/2016)

Analyst: <u>BC</u>	Sequence(s) #: <u>7H15016</u>
Reviewer: <u>DM</u>	Dataset ID(s): <u>THg26003-170815-1</u>
Date: <u>8/15/2017</u>	WO (s) #: <u>Various</u>
Batch #(s): <u>F707537, F708322</u>	

• 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 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: DM

- |   |   |  |                                     |
|---|---|--|-------------------------------------|
| 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?<br>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<br>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        |
| (d) Check and compare masses (review prep benchsheet)   | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO            | <input type="checkbox"/> N/A        |
| (e) Check & compare initial & final volumes   | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO            | <input type="checkbox"/> N/A        |
| (f) Do aliquots and dilutions written on benchsheet match those in Excel?<br>50 ml / aliquot = Excel dilution value   | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO            | <input type="checkbox"/> N/A        |
| (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 (SOP2822) 2016 Rev 1 (04/1/2016)**

<b>Analyst:</b> <u>BC</u>	<b>Sequence(s) #:</b> <u>7H15016</u>
<b>Reviewer:</b> <u>0</u>	<b>Dataset ID(s):</b> <u>THg26003-170815-1</u>
<b>Date:</b> <u>8/15/2017</u>	<b>WO (s) #:</b> <u>Various</u>
<b>Batch #(s):</b> <u>F707537, F708322</u>	<u>0</u>

Analyst Initials BC                      Reviewer Initials JM

- 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: NA
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 (SOP2822) 2016 Rev 1 (04/1/2016)**

<b>Analyst:</b> BC	<b>Sequence(s) #:</b> 7H15016
<b>Reviewer:</b> 0	<b>Dataset ID(s):</b> THg26003-170815-1
<b>Date:</b> 8/15/2017	<b>WO (s) #:</b> Various
<b>Batch #(s):</b> F707537, F708322	0

Analyst Initials BC                      Reviewer Initials DM

- |  |  |                                     |
|--|--|-------------------------------------|
| 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                              |                                     |
| Comments: _____  |  |                                     |
| 23. Dissolved < Total (if applicable)  | <input type="checkbox"/> YES <input type="checkbox"/> NO <input checked="" 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 checked="" type="checkbox"/> YES <input type="checkbox"/> NO <input 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 checked="" type="checkbox"/> YES <input type="checkbox"/> NO <input type="checkbox"/> N/A |                                     |
| Comments: _____  |  |                                     |
| 30. 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"/> |
| 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 type="checkbox"/> YES <input checked="" 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 type="checkbox"/> YES <input type="checkbox"/> NO <input checked="" type="checkbox"/> N/A | <input checked="" type="checkbox"/> |
| 35. Water samples-is the final volume correct in the sequence?   | <input type="checkbox"/> YES <input type="checkbox"/> NO <input checked="" 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: _____ 1/11/2017 _____ 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: _____ 5/20/2017 _____ Current SOP revision read? | <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO | <input checked="" type="checkbox"/> |
| 38. Date of LOD: _____ LOD within last 3 months?   | <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO | <input checked="" type="checkbox"/> |
| 39. Date of LOQ: _____ 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 (SOP2822) 2016 Rev 1 (04/1/2016)**

Analyst:	BC	Sequence(s) #:	7H15016
Reviewer:	0	Dataset ID(s):	THg26003-170815-1
Date:	8/15/2017	WO (s) #:	Various
Batch #(s):	F707537, F708322		0

*BC DM*

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


Additional Page (s)?  YES

Reviewed 10/05/2017  
Elizabeth Penta  
Amec FW

# AMEC FOSTER WHEELER

## USDC Penobscot

### Level IV Data Package

Laboratory SDG:

1707704

PO#

C012505874

August 23, 2017



# AMEC Foster Wheeler

## USDC Penobscot

Laboratory SDG: 1707704

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August 23, 2017

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**Total Pages – 170**



AMEC Foster Wheeler  
271 Mill Road  
Chelmsford MA, 01824

Project: 2017 Sediment and Surface Water Monitoring  
Project Number: WO-04A-030  
Project Manager: Rod Pendleton

**Reported:**  
23-Aug-17 16:43

**ANALYTICAL REPORT FOR SAMPLES**

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
EQ_072517_CSHOE_QC	1707704-01	Water	25-Jul-17 13:00	26-Jul-17 09:50
EQ_072517_CORE_QC	1707704-02	Water	25-Jul-17 13:10	26-Jul-17 09:50

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AMEC Foster Wheeler  
271 Mill Road  
Chelmsford MA, 01824Project: 2017 Sediment and Surface Water Monitoring  
Project Number: WO-04A-030  
Project Manager: Rod Pendleton**Reported:**  
23-Aug-17 16:43

## SAMPLE RECEIPT

Samples were received at Eurofins Frontier Global Sciences (EFGS) on 7/26/2017 9:50:00 AM . The samples were received intact, on-ice within a sealed cooler at 4.2 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).

Samples were prepped for Total Mercury in batch F708258 and analyzed in sequence 7H01022. Samples were prepped for Methyl Mercury in batch F708434 and analyzed in sequence 7H18015.

## ANALYTICAL AND QUALITY CONTROL ISSUES

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 fell within established acceptance criteria with the exception of any items flagged and described in the notes and definitions section of the report.

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Amy Goodall, Project Manager

# Sample Receipt Checklist

EFGS Work Order: 1707704

Client: AMEX Fetter Wheeler

Date & Time Received: 7/26/17 9:50 Date Labeled: 7/26/17 Labeled By: mw

Project: \_\_\_\_\_

Received By: LM Label Verified By: LSJ

# 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:	CF:	Date/time:	By:
<u>5225</u>	<u>0.0 °C</u>	<u>7/26/17 9:50</u>	<u>LM</u>
Cooler 1: <u>4.2 °C</u>	w/ CF: <u>4.2 °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>[Signature]</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):

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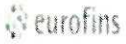


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1707704



Frontier Global Sciences

# Environmental Analysis Request/Chain of Custody

Page 1 of 1

Client: Amec Foster Wheeler / 511 Congress St. Suite 200 Portland, ME 04101				Matrix				Analyses Requested				For Lab Use Only					
Project Name/# USDC Penobscot PN #3616166052.04A.031				<input type="checkbox"/> Tissue <input type="checkbox"/> Ground <input type="checkbox"/> Surface				Preservation Codes				SF #: _____					
Project Manager: Rod Pendleton P.O. # _____				<input type="checkbox"/> Sediment <input type="checkbox"/> Potable <input checked="" type="checkbox"/> Water <input type="checkbox"/> NPDES <input type="checkbox"/> Tissue				<input type="checkbox"/> Hg 1631e <input type="checkbox"/> Hg 1631e 8 oz P4 Deg c <input type="checkbox"/> MeHg 1630 16 Oz P/Freeze <input type="checkbox"/> Hg 1631e MeHg 1630/TOC <input type="checkbox"/> Elysi Kure/CC D274-C LAL <input type="checkbox"/> HCHOSENZE - ALCOHOL				SCR #: _____					
Sampler: BW/JP/LT PWSID # _____				Total # of Containers				<input type="checkbox"/> Hg 1631e <input type="checkbox"/> MeHg 1630 250 ml Glass/ 4 deg c				Preservation Codes H = HCl T = Thiosulfate N = HNO <sub>3</sub> B = NaOH S = H <sub>2</sub> SO <sub>4</sub> P = H <sub>3</sub> PO <sub>4</sub> O = Other					
Phone #: _____ Quote #: _____												Remarks					
State where samples were collected: ME For Compliance: Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>																	
Sample Identification		Collection		Grab	Composite	Soil	Water	Other:	Total # of Containers	Hg 1631e 16 Oz P/Freeze	Hg 1631e 8 oz P4 Deg c	MeHg 1630 16 Oz P/Freeze	Hg 1631e MeHg 1630/TOC Elysi Kure/CC D274-C LAL HCHOSENZE - ALCOHOL	Hg 1631e 250 ml P4 Deg c	MeHg 1630 250 ml Glass/ 4 deg c	Remarks	
1	EQ_072517_CSHOE_QC	7/25/2017	1300	X			X		2					X	X		
2	EQ_072517_CORE_QC	7/25/2017	1310	X			X		2					X	X		
3																	
4																	
5																	
6																	
7																	
8																	
9																	
10																	
Turnaround Time Requested (TAT) (please check): Standard <input type="checkbox"/> Rush <input type="checkbox"/> (Rush TAT is subject to laboratory approval and surcharges.)				Relinquished by: <i>RUP</i>		Date: 7-25-17		Time: 1700		Received by: <i>[Signature]</i>		Date: 7/24/17		Time: 9:50			
Notes:				Relinquished by:		Date:		Time:		Received by: <i>Las Mader</i>		Date:		Time:			
FedEx # <u>010344448507</u>				Relinquished by:		Date:		Time:		Received by: <i>[Signature]</i>		Date:		Time:			
# of Coolers <u>1</u>				Relinquished by:		Date:		Time:		Received by:		Date:		Time:			
Sample disposal - Hold Equipment Blanks 1-4 until 30 days after delivery of report Report and EDD to: denise.king@amecfw.com / 978-692-6633				Relinquished by:		Date:		Time:		Received by:		Date:		Time:			
Data Package Options (please check if required) High <input type="checkbox"/> Standard <input checked="" type="checkbox"/>				Relinquished by Commercial Carrier:				UPS <input type="checkbox"/> FedEx <input checked="" type="checkbox"/> Other <input type="checkbox"/>				Temperature upon receipt <u>4.2</u> °C					
EDD Required? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> If yes, format: _____				UPS <input type="checkbox"/> FedEx <input checked="" type="checkbox"/> Other <input type="checkbox"/>													



AMEC Foster Wheeler 271 Mill Road Chelmsford MA, 01824	Project: 2017 Sediment and Surface Water Monitoring Project Number: WO-04A-030 Project Manager: Rod Pendleton	Reported: 23-Aug-17 16:43
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**EQ\_072517\_CSHOE\_QC**  
**1707704-01**

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)	ND	0.026	0.050	ng/L	1.25	F708434	16-Aug-17	7H18015	17-Aug-17	EPA 1630/FGS-070	U
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**Sample Preparation: EPA 1631E BrCl Oxidation**

Mercury	0.15	0.08	0.50	ng/L	1	F708258	26-Jul-17	7H01022	01-Aug-17	EPA 1631E	J
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AMEC Foster Wheeler  
271 Mill Road  
Chelmsford MA, 01824

Project: 2017 Sediment and Surface Water Monitoring  
Project Number: WO-04A-030  
Project Manager: Rod Pendleton

Reported:  
23-Aug-17 16:43

**EQ\_072517\_CORE\_QC**  
**1707704-02**

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
<b>Sample Preparation: EFGS-013 Methyl Hg Distillation for Water</b>											
Methyl Mercury (as Mercury)	ND	0.026	0.050	ng/L	1.25	F708434	16-Aug-17	7H18015	17-Aug-17	EPA 1630/FGS-070	U
<b>Sample Preparation: EPA 1631E BrCl Oxidation</b>											
Mercury	ND	0.08	0.50	ng/L	1	F708258	26-Jul-17	7H01022	01-Aug-17	EPA 1631E	U

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Amy Goodall, Project Manager





AMEC Foster Wheeler 271 Mill Road Chelmsford MA, 01824	Project: 2017 Sediment and Surface Water Monitoring Project Number: WO-04A-030 Project Manager: Rod Pendleton	Reported: 23-Aug-17 16:43
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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
<b>Batch 7H01022 - F708258</b>											
<b>Cal Standard (7H01022-CAL1)</b> Prepared & Analyzed: 01-Aug-17											
Mercury	0.52	-		ng/L	0.50100		105				
<b>Cal Standard (7H01022-CAL2)</b> Prepared & Analyzed: 01-Aug-17											
Mercury	0.99	-		ng/L	1.0020		98.9				
<b>Cal Standard (7H01022-CAL3)</b> Prepared & Analyzed: 01-Aug-17											
Mercury	4.82	-		ng/L	5.0100		96.1				
<b>Cal Standard (7H01022-CAL4)</b> Prepared & Analyzed: 01-Aug-17											
Mercury	19.62	-		ng/L	20.040		97.9				
<b>Cal Standard (7H01022-CAL5)</b> Prepared & Analyzed: 01-Aug-17											
Mercury	40.70	-		ng/L	40.080		102				
<b>Calibration Blank (7H01022-CCB1)</b> Prepared & Analyzed: 01-Aug-17											
Mercury	0.07	-		ng/L							
<b>Calibration Blank (7H01022-CCB2)</b> Prepared & Analyzed: 01-Aug-17											
Mercury	0.15	-		ng/L							
<b>Calibration Blank (7H01022-CCB3)</b> Prepared & Analyzed: 01-Aug-17											
Mercury	0.09	-		ng/L							
<b>Calibration Blank (7H01022-CCB4)</b> Prepared & Analyzed: 01-Aug-17											
Mercury	0.23	-		ng/L							
<b>Calibration Blank (7H01022-CCB5)</b> Prepared & Analyzed: 01-Aug-17											
Mercury	0.14	-		ng/L							

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AMEC Foster Wheeler  
271 Mill Road  
Chelmsford MA, 01824

Project: 2017 Sediment and Surface Water Monitoring  
Project Number: WO-04A-030  
Project Manager: Rod Pendleton

Reported:  
23-Aug-17 16:43

**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 7H01022 - F708258**

<b>Calibration Blank (7H01022-CCB6)</b>											
Prepared & Analyzed: 01-Aug-17											
Mercury	0.09	-		ng/L							
<b>Calibration Blank (7H01022-CCB7)</b>											
Prepared & Analyzed: 01-Aug-17											
Mercury	0.19	-		ng/L							
<b>Calibration Blank (7H01022-CCB8)</b>											
Prepared & Analyzed: 01-Aug-17											
Mercury	0.28	-		ng/L							
<b>Calibration Check (7H01022-CCV1)</b>											
Prepared & Analyzed: 01-Aug-17											
Mercury	5.16	-		ng/L	5.0000		103	77-123			
<b>Calibration Check (7H01022-CCV2)</b>											
Prepared & Analyzed: 01-Aug-17											
Mercury	5.39	-		ng/L	5.0000		108	77-123			
<b>Calibration Check (7H01022-CCV3)</b>											
Prepared & Analyzed: 01-Aug-17											
Mercury	5.06	-		ng/L	5.0000		101	77-123			
<b>Calibration Check (7H01022-CCV4)</b>											
Prepared & Analyzed: 01-Aug-17											
Mercury	5.72	-		ng/L	5.0000		114	77-123			
<b>Calibration Check (7H01022-CCV5)</b>											
Prepared & Analyzed: 01-Aug-17											
Mercury	5.41	-		ng/L	5.0000		108	77-123			
<b>Calibration Check (7H01022-CCV6)</b>											
Prepared & Analyzed: 01-Aug-17											
Mercury	5.25	-		ng/L	5.0000		105	77-123			
<b>Calibration Check (7H01022-CCV7)</b>											
Prepared & Analyzed: 01-Aug-17											
Mercury	5.33	-		ng/L	5.0000		107	77-123			

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AMEC Foster Wheeler  
271 Mill Road  
Chelmsford MA, 01824

Project: 2017 Sediment and Surface Water Monitoring  
Project Number: WO-04A-030  
Project Manager: Rod Pendleton

Reported:  
23-Aug-17 16:43

**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 7H01022 - F708258**

**Calibration Check (7H01022-CCV8)**

Prepared & Analyzed: 01-Aug-17

Mercury	5.60	-		ng/L	5.0000		112	77-123			
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**Instrument Blank (7H01022-IBL1)**

Prepared & Analyzed: 01-Aug-17

Mercury	ND	0.08	0.50	ng/L							U
---------	----	------	------	------	--	--	--	--	--	--	---

**Instrument Blank (7H01022-IBL2)**

Prepared & Analyzed: 01-Aug-17

Mercury	ND	0.08	0.50	ng/L							U
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**Instrument Blank (7H01022-IBL3)**

Prepared & Analyzed: 01-Aug-17

Mercury	ND	0.08	0.50	ng/L							U
---------	----	------	------	------	--	--	--	--	--	--	---

**Initial Cal Check (7H01022-ICV1)**

Prepared & Analyzed: 01-Aug-17

Mercury	5.20	-		ng/L	5.0000		104	79-121			
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**Batch 7H18015 - F708434**

**Cal Standard (7H18015-CAL1)**

Prepared & Analyzed: 17-Aug-17

Methyl Mercury (as Mercury)	0.049	-		ng/L	0.050050		98.3				
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**Cal Standard (7H18015-CAL2)**

Prepared & Analyzed: 17-Aug-17

Methyl Mercury (as Mercury)	0.187	-		ng/L	0.20020		93.4				
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**Cal Standard (7H18015-CAL3)**

Prepared & Analyzed: 17-Aug-17

Methyl Mercury (as Mercury)	1.079	-		ng/L	1.0010		108				
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**Cal Standard (7H18015-CAL4)**

Prepared & Analyzed: 17-Aug-17

Methyl Mercury (as Mercury)	1.963	-		ng/L	2.0020		98.1				
-----------------------------	-------	---	--	------	--------	--	------	--	--	--	--

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AMEC Foster Wheeler  
271 Mill Road  
Chelmsford MA, 01824

Project: 2017 Sediment and Surface Water Monitoring  
Project Number: WO-04A-030  
Project Manager: Rod Pendleton

Reported:  
23-Aug-17 16:43

Quality Control Data

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch 7H18015 - F708434</b>											
<b>Cal Standard (7H18015-CAL5)</b>					Prepared & Analyzed: 17-Aug-17						
Methyl Mercury (as Mercury)	4.083	-		ng/L	4.0040		102				
<b>Calibration Blank (7H18015-CCB1)</b>					Prepared & Analyzed: 17-Aug-17						
Methyl Mercury (as Mercury)	0.003	-		ng/L							
<b>Calibration Blank (7H18015-CCB2)</b>					Prepared & Analyzed: 17-Aug-17						
Methyl Mercury (as Mercury)	0.003	-		ng/L							
<b>Calibration Blank (7H18015-CCB3)</b>					Prepared & Analyzed: 17-Aug-17						
Methyl Mercury (as Mercury)	0.000	-		ng/L							U
<b>Calibration Blank (7H18015-CCB4)</b>					Prepared & Analyzed: 17-Aug-17						
Methyl Mercury (as Mercury)	0.000	-		ng/L							U
<b>Calibration Check (7H18015-CCV1)</b>					Prepared & Analyzed: 17-Aug-17						
Methyl Mercury (as Mercury)	0.487	-		ng/L	0.50049		97.4	67-133			
<b>Calibration Check (7H18015-CCV2)</b>					Prepared & Analyzed: 17-Aug-17						
Methyl Mercury (as Mercury)	0.469	-		ng/L	0.50049		93.8	67-133			
<b>Calibration Check (7H18015-CCV3)</b>					Prepared & Analyzed: 17-Aug-17						
Methyl Mercury (as Mercury)	0.467	-		ng/L	0.50049		93.4	67-133			
<b>Calibration Check (7H18015-CCV4)</b>					Prepared & Analyzed: 17-Aug-17						
Methyl Mercury (as Mercury)	0.494	-		ng/L	0.50049		98.8	67-133			
<b>Instrument Blank (7H18015-IBL1)</b>					Prepared & Analyzed: 17-Aug-17						
Methyl Mercury (as Mercury)	ND	0.021	0.040	ng/L							U

Eurofins Frontier Global Sciences, Inc.

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AMEC Foster Wheeler  
271 Mill Road  
Chelmsford MA, 01824

Project: 2017 Sediment and Surface Water Monitoring  
Project Number: WO-04A-030  
Project Manager: Rod Pendleton

Reported:  
23-Aug-17 16:43

**Quality Control Data**

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
---------	--------	-----------------	-----------------	-------	-------------	---------------	------	-------------	-----	-----------	-------

**Batch 7H18015 - F708434**

**Initial Cal Blank (7H18015-ICB1)**

Prepared & Analyzed: 17-Aug-17

Methyl Mercury (as Mercury) 0.007 - ng/L

**Initial Cal Check (7H18015-ICV1)**

Prepared & Analyzed: 17-Aug-17

Methyl Mercury (as Mercury) 0.492 - ng/L 0.50049 98.3 69-131

**Batch F708258 - EPA 1631E BrCl Oxidation**

**Blank (F708258-BLK1)**

Prepared & Analyzed: 01-Aug-17

Mercury 0.33 0.08 0.50 ng/L J

**Blank (F708258-BLK2)**

Prepared & Analyzed: 01-Aug-17

Mercury 0.13 0.08 0.50 ng/L J

**Blank (F708258-BLK3)**

Prepared & Analyzed: 01-Aug-17

Mercury 0.10 0.08 0.50 ng/L J

**LCS (F708258-BS1)**

Prepared & Analyzed: 01-Aug-17

Mercury 15.67 0.08 0.50 ng/L 15.679 100 80-120

**LCS Dup (F708258-BSD1)**

Prepared & Analyzed: 01-Aug-17

Mercury 15.81 0.08 0.50 ng/L 15.679 101 80-120 0.870 24

**Duplicate (F708258-DUP1)**

Source: 1707371-04

Prepared & Analyzed: 01-Aug-17

Mercury 44.53 0.83 5.00 ng/L 44.38 0.327 24

**Matrix Spike (F708258-MS1)**

Source: 1707371-04

Prepared & Analyzed: 01-Aug-17

Mercury 242.4 0.83 5.00 ng/L 202.40 44.38 97.8 71-125

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AMEC Foster Wheeler 271 Mill Road Chelmsford MA, 01824	Project: 2017 Sediment and Surface Water Monitoring Project Number: WO-04A-030 Project Manager: Rod Pendleton	Reported: 23-Aug-17 16:43
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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
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**Batch F708258 - EPA 1631E BrCl Oxidation**

<b>Matrix Spike (F708258-MS2)</b>		<b>Source: 1707717-02</b>			Prepared & Analyzed: 01-Aug-17						
Mercury	247.0	0.83	5.00	ng/L	202.40	50.35	97.2	71-125			
<b>Matrix Spike Dup (F708258-MSD1)</b>		<b>Source: 1707371-04</b>			Prepared & Analyzed: 01-Aug-17						
Mercury	244.3	0.83	5.00	ng/L	202.40	44.38	98.8	71-125	0.784	24	
<b>Matrix Spike Dup (F708258-MSD2)</b>		<b>Source: 1707717-02</b>			Prepared & Analyzed: 01-Aug-17						
Mercury	255.5	0.83	5.00	ng/L	202.40	50.35	101	71-125	3.37	24	

**Batch F708434 - EFGS-013 Methyl Hg Distillation for Water**

<b>Blank (F708434-BLK1)</b>		Prepared: 16-Aug-17 Analyzed: 17-Aug-17									
Methyl Mercury (as Mercury)	ND	0.026	0.050	ng/L							U
<b>Blank (F708434-BLK2)</b>		Prepared: 16-Aug-17 Analyzed: 17-Aug-17									
Methyl Mercury (as Mercury)	ND	0.026	0.050	ng/L							U
<b>Blank (F708434-BLK3)</b>		Prepared: 16-Aug-17 Analyzed: 17-Aug-17									
Methyl Mercury (as Mercury)	ND	0.026	0.050	ng/L							U
<b>LCS (F708434-BS1)</b>		Prepared: 16-Aug-17 Analyzed: 17-Aug-17									
Methyl Mercury (as Mercury)	0.957	0.026	0.050	ng/L	1.0010		95.6	70-130			
<b>LCS Dup (F708434-BSD1)</b>		Prepared: 16-Aug-17 Analyzed: 17-Aug-17									
Methyl Mercury (as Mercury)	0.976	0.026	0.050	ng/L	1.0010		97.5	70-130	1.98	35	
<b>Duplicate (F708434-DUP1)</b>		<b>Source: 1707704-01</b>			Prepared: 16-Aug-17 Analyzed: 17-Aug-17						
Methyl Mercury (as Mercury)	ND	0.026	0.050	ng/L		ND				35	U

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AMEC Foster Wheeler  
271 Mill Road  
Chelmsford MA, 01824

Project: 2017 Sediment and Surface Water Monitoring  
Project Number: WO-04A-030  
Project Manager: Rod Pendleton

Reported:  
23-Aug-17 16:43

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 F708434 - EFGS-013 Methyl Hg Distillation for Water

<b>Matrix Spike (F708434-MS1)</b>		<b>Source: 1707732-02</b>			Prepared: 16-Aug-17 Analyzed: 17-Aug-17						
Methyl Mercury (as Mercury)	1.762	0.026	0.050	ng/L	1.0010	0.713	105	65-130			
<b>Matrix Spike (F708434-MS2)</b>		<b>Source: 1708082-01</b>			Prepared: 16-Aug-17 Analyzed: 17-Aug-17						
Methyl Mercury (as Mercury)	1.118	0.026	0.050	ng/L	1.0010	0.093	102	65-130			
<b>Matrix Spike Dup (F708434-MSD1)</b>		<b>Source: 1707732-02</b>			Prepared: 16-Aug-17 Analyzed: 17-Aug-17						
Methyl Mercury (as Mercury)	1.598	0.026	0.050	ng/L	1.0010	0.713	88.5	65-130	9.72	35	
<b>Matrix Spike Dup (F708434-MSD2)</b>		<b>Source: 1708082-01</b>			Prepared: 16-Aug-17 Analyzed: 17-Aug-17						
Methyl Mercury (as Mercury)	1.083	0.026	0.050	ng/L	1.0010	0.093	99.0	65-130	3.19	35	

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Amy Goodall, Project Manager



AMEC Foster Wheeler  
271 Mill Road  
Chelmsford MA, 01824

Project: 2017 Sediment and Surface Water Monitoring  
Project Number: WO-04A-030  
Project Manager: Rod Pendleton

**Reported:**  
23-Aug-17 16:43

**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.
- J The result is an estimated concentration.
- 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



Frontier Global Sciences

**THg26002-170801-1**

**Analysis Datasheet for Total Mercury**

Date of Analysis: August 01, 2017

Analyst: DM2

Instrument #: Hg2600-2

Units ng/L

LIMS Sequence #: 7H01022, 7H01023, 7H01024

**Calibration Statistics:**

LabNumber	n	True Val	Area	Uncorrected Response Factor	Corrected Peak Height	Corrected Response Factor	% Recovery
SEQ-CAL1	1	0.50 ng/L	97.63 units	195.26	85.48 units	170.95	104.7 %Rec
SEQ-CAL2	1	1.00 ng/L	173.84 units	173.84	161.69 units	161.69	99.1 %Rec
SEQ-CAL3	1	5.00 ng/L	798.41 units	159.68	786.25 units	157.25	96.3 %Rec
SEQ-CAL4	1	20.00 ng/L	3215.37 units	160.77	3203.22 units	160.16	98.1 %Rec
SEQ-CAL5	1	40.00 ng/L	6654.61 units	166.37	6642.46 units	166.06	101.7 %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**  
 163.22            +/- 5.37            3.3% RSD            171.18

**Blanks:**

LabNumber	n	Mean	Std Dev	Mean (ng/L)	Std Dev (ng/L)
SEQ-IBL	3	12.16 units	±0.52	0.07 ng/L	±0.00

**Preparation Blanks**

Sample Type	Batch ID	n	Mean	Std Dev
BLK	1	3	7.137 ng/L	±3.760
BLK	2	3	0.181 ng/L	±0.124
BLK	3	3	13.249 ng/L	±3.710
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: BC 8/2/17



Instrument	Analyst	Sample Type	LabNumber	Dilution	Analyzed	FileID	RunEnd	Uncorrected Response	Batch ID	No PB Correction?	RESP	InitialResult	FinalResult	InitialUnits	Comments
Hg2600-2	DM2	CAL	SEQ-IBL1	1	8/1/2017 7:40:17	82350-1.RAW	7:40:17 AM	11.60			-0.6	-0.003	-0.003	ng/L	
Hg2600-2	DM2	CAL	SEQ-IBL2	1	8/1/2017 7:44:26	82351-1.RAW	7:44:26 AM	12.25			0.1	0.001	0.001	ng/L	
Hg2600-2	DM2	CAL	SEQ-IBL3	1	8/1/2017 7:48:34	82352-1.RAW	7:48:34 AM	12.62			0.5	0.003	0.003	ng/L	
Hg2600-2	DM2	CAL	SEQ-CAL1	1	8/1/2017 7:52:43	82353-1.RAW	7:52:43 AM	97.63			85.5	0.524	0.524	ng/L	
Hg2600-2	DM2	CAL	SEQ-CAL2	1	8/1/2017 7:56:51	82354-1.RAW	7:56:51 AM	173.84			161.7	0.991	0.991	ng/L	
Hg2600-2	DM2	CAL	SEQ-CAL3	1	8/1/2017 8:00:59	82355-1.RAW	8:00:59 AM	798.41			786.3	4.817	4.817	ng/L	
Hg2600-2	DM2	CAL	SEQ-CAL4	1	8/1/2017 8:05:08	82356-1.RAW	8:05:08 AM	3215.37			3203.2	19.625	19.625	ng/L	
Hg2600-2	DM2	CAL	SEQ-CAL5	1	8/1/2017 8:09:16	82357-1.RAW	8:09:16 AM	6654.61			6642.5	40.696	40.696	ng/L	
Hg2600-2	DM2	CAL	SEQ-ICV1	1	8/1/2017 8:13:25	82358-1.RAW	8:13:25 AM	861.53			849.4	5.204	5.204	ng/L	
Hg2600-2	DM2	BLK	F707541-BLK1	100	8/1/2017 8:17:33	82359-1.RAW	8:17:33 AM	30.64	1		18.5	0.113	11.324	ng/L	
Hg2600-2	DM2	BLK	F707541-BLK2	100	8/1/2017 8:21:42	82360-1.RAW	8:21:42 AM	18.76	1		6.6	0.040	4.049	ng/L	
Hg2600-2	DM2	BLK	F707541-BLK3	100	8/1/2017 8:25:50	82361-1.RAW	8:25:50 AM	22.01	1		9.9	0.060	6.037	ng/L	
Hg2600-2	DM2	SAM	F707541-BS1	400	8/1/2017 8:29:58	82362-1.RAW	8:29:58 AM	900.97	1		888.8	5.428	2171.021	ng/L	
Hg2600-2	DM2	SAM	F707541-BSD1	400	8/1/2017 8:34:07	82363-1.RAW	8:34:07 AM	880.73	1		868.6	5.304	2121.432	ng/L	
Hg2600-2	DM2	SAM	1707698-01	100	8/1/2017 8:38:15	82364-1.RAW	8:38:15 AM	1442.00	1		1429.8	8.689	868.868	ng/L	
Hg2600-2	DM2	SAM	1707698-02	100	8/1/2017 8:42:24	82365-1.RAW	8:42:24 AM	302.99	1		290.8	1.710	171.046	ng/L	
Hg2600-2	DM2	SAM	1707698-03	100	8/1/2017 8:46:32	82366-1.RAW	8:46:32 AM	441.05	1		428.9	2.556	255.631	ng/L	
Hg2600-2	DM2	SAM	1707698-04	100	8/1/2017 8:50:40	82367-1.RAW	8:50:40 AM	895.92	1		883.8	5.343	534.310	ng/L	
Hg2600-2	DM2	SAM	1707698-05	100	8/1/2017 8:54:49	82368-1.RAW	8:54:49 AM	289.71	1		277.6	1.629	162.908	ng/L	
Hg2600-2	DM2	CAL	SEQ-CCV1	1	8/1/2017 8:58:57	82369-1.RAW	8:58:57 AM	854.52			842.4	5.161	5.161	ng/L	
Hg2600-2	DM2	CAL	SEQ-CCB1	1	8/1/2017 9:03:06	82370-1.RAW	9:03:06 AM	22.93			10.8	0.066	0.066	ng/L	
Hg2600-2	DM2	SAM	1707698-06	100	8/1/2017 9:07:14	82371-1.RAW	9:07:14 AM	287.52	1		275.4	1.616	161.570	ng/L	
Hg2600-2	DM2	SAM	1707698-07	100	8/1/2017 9:11:23	82372-1.RAW	9:11:23 AM	176.79	1		164.6	0.937	93.730	ng/L	
Hg2600-2	DM2	SAM	F707541-DUP1	100	8/1/2017 9:15:31	82373-1.RAW	9:15:31 AM	1422.69	1		1410.5	8.570	857.039	ng/L	
Hg2600-2	DM2	SAM	F707541-MS1	100	8/1/2017 9:19:39	82374-1.RAW	9:19:39 AM	4902.13	1		4890.0	29.887	2988.743	ng/L	
Hg2600-2	DM2	SAM	F707541-MSD1	100	8/1/2017 9:23:48	82375-1.RAW	9:23:48 AM	4828.89	1		4816.7	29.439	2943.874	ng/L	
Hg2600-2	DM2	BLK	F708258-BLK1	1	8/1/2017 9:27:57	82376-1.RAW	9:27:57 AM	64.98	2		52.8	0.324	0.324	ng/L	
Hg2600-2	DM2	BLK	F708258-BLK2	1	8/1/2017 9:32:06	82377-1.RAW	9:32:06 AM	32.53	2		20.4	0.125	0.125	ng/L	
Hg2600-2	DM2	BLK	F708258-BLK3	1	8/1/2017 9:36:14	82378-1.RAW	9:36:14 AM	27.73	2		15.6	0.095	0.095	ng/L	
Hg2600-2	DM2	SAM	F708258-BS1	1	8/1/2017 9:40:23	82379-1.RAW	9:40:23 AM	2574.48	2		2562.3	15.517	15.517	ng/L	
Hg2600-2	DM2	SAM	F708258-BSD1	1	8/1/2017 9:44:31	82380-1.RAW	9:44:31 AM	2596.62	2		2584.5	15.653	15.653	ng/L	
Hg2600-2	DM2	CAL	SEQ-CCV2	1	8/1/2017 9:48:40	82381-1.RAW	9:48:40 AM	892.63			880.5	5.394	5.394	ng/L	
Hg2600-2	DM2	CAL	SEQ-CCB2	1	8/1/2017 9:52:48	82382-1.RAW	9:52:48 AM	37.30			25.1	0.154	0.154	ng/L	
Hg2600-2	DM2	SAM	1707371-02	10	8/1/2017 9:56:57	82383-1.RAW	9:56:57 AM	278.49	2		266.3	1.614	16.136	ng/L	
Hg2600-2	DM2	SAM	1707371-04	10	8/1/2017 10:01:05	82384-1.RAW	10:01:05 AM	732.39	2		720.2	4.394	43.945	ng/L	
Hg2600-2	DM2	SAM	1707371-06	10	8/1/2017 10:05:13	82385-1.RAW	10:05:13 AM	254.02	2		241.9	1.464	14.637	ng/L	
Hg2600-2	DM2	SAM	1707702-01	1	8/1/2017 10:09:22	82386-1.RAW	10:09:22 AM	162.12	2		150.0	0.737	0.737	ng/L	
Hg2600-2	DM2	SAM	1707703-01	1	8/1/2017 10:13:30	82387-1.RAW	10:13:30 AM	135.80	2		123.6	0.576	0.576	ng/L	
Hg2600-2	DM2	SAM	1707704-01	1	8/1/2017 10:17:39	82388-1.RAW	10:17:39 AM	66.03	2		53.9	0.149	0.149	ng/L	
Hg2600-2	DM2	SAM	1707704-02	1	8/1/2017 10:21:47	82389-1.RAW	10:21:47 AM	44.19	2		32.0	0.015	0.015	ng/L	
Hg2600-2	DM2	SAM	1707717-02	10	8/1/2017 10:25:56	82390-1.RAW	10:25:56 AM	828.73	2		816.6	4.985	49.847	ng/L	
Hg2600-2	DM2	SAM	1707717-04	1	8/1/2017 10:30:04	82391-1.RAW	10:30:04 AM	356.52	2		344.4	1.928	1.928	ng/L	
Hg2600-2	DM2	SAM	1707732-01	1	8/1/2017 10:34:13	82392-1.RAW	10:34:13 AM	26.26	2		14.1	-0.095	-0.095	ng/L	
Hg2600-2	DM2	CAL	SEQ-CCV3	1	8/1/2017 10:38:21	82393-1.RAW	10:38:21 AM	837.68			825.5	5.058	5.058	ng/L	
Hg2600-2	DM2	CAL	SEQ-CCB3	1	8/1/2017 10:42:29	82394-1.RAW	10:42:29 AM	27.40			15.2	0.093	0.093	ng/L	
Hg2600-2	DM2	SAM	1707732-02	1	8/1/2017 10:46:38	82395-1.RAW	10:46:38 AM	648.19	2		636.0	3.715	3.715	ng/L	
Hg2600-2	DM2	SAM	1707732-03	1	8/1/2017 10:50:46	82396-1.RAW	10:50:46 AM	664.25	2		652.1	3.814	3.814	ng/L	
Hg2600-2	DM2	SAM	1707732-04	1	8/1/2017 10:54:55	82397-1.RAW	10:54:55 AM	685.04	2		672.9	3.941	3.941	ng/L	
Hg2600-2	DM2	SAM	1707732-05	1	8/1/2017 10:59:03	82398-1.RAW	10:59:03 AM	26.84	2		14.7	-0.091	-0.091	ng/L	
Hg2600-2	DM2	SAM	F708258-DUP1	10	8/1/2017 11:03:12	82399-1.RAW	11:03:12 AM	734.75	2		722.6	4.409	44.089	ng/L	
Hg2600-2	DM2	SAM	F708258-MS1	10	8/1/2017 11:07:20	82400-1.RAW	11:07:20 AM	3931.92	2		3919.8	23.997	239.966	ng/L	
Hg2600-2	DM2	SAM	F708258-MSD1	10	8/1/2017 11:11:29	82401-1.RAW	11:11:29 AM	3962.76	2		3950.6	24.186	241.856	ng/L	
Hg2600-2	DM2	SAM	F708258-MS2	10	8/1/2017 11:15:37	82402-1.RAW	11:15:37 AM	4006.75	2		3994.6	24.455	244.551	ng/L	
Hg2600-2	DM2	SAM	F708258-MSD2	10	8/1/2017 11:19:45	82403-1.RAW	11:19:45 AM	4143.38	2		4131.2	25.292	252.921	ng/L	
Hg2600-2	DM2	CAL	SEQ-CCV4	1	8/1/2017 11:23:54	82404-1.RAW	11:23:54 AM	945.25			933.1	5.717	5.717	ng/L	
Hg2600-2	DM2	CAL	SEQ-CCB4	1	8/1/2017 11:28:02	82405-1.RAW	11:28:02 AM	49.24			37.1	0.227	0.227	ng/L	
Hg2600-2	DM2	BLK	F707561-BLK1	100	8/1/2017 11:32:11	82406-1.RAW	11:32:11 AM	39.61	3		27.5	0.168	16.820	ng/L	

Instrument	Analyst	Sample Type	LabNumber	Dilution	Analyzed	FileID	RunEnd	Uncorrected Response	Batch ID	No PB Correction?	RESP	InitialResult	FinalResult	InitialUnits	Comments
Hg2600-2	DM2	BLK	F707561-BLK2	100	8/1/2017 11:36:19	82407-1.RAW	11:36:19 AM	34.21	3		22.1	0.135	13.513	ng/L	
Hg2600-2	DM2	BLK	F707561-BLK3	100	8/1/2017 11:40:28	82408-1.RAW	11:40:28 AM	27.52	3		15.4	0.094	9.414	ng/L	
Hg2600-2	DM2	SAM	F707561-BS1	400	8/1/2017 11:44:36	82409-1.RAW	11:44:36 AM	817.85	3		805.7	4.903	1961.223	ng/L	
Hg2600-2	DM2	SAM	F707561-BSD1	400	8/1/2017 11:48:44	82410-1.RAW	11:48:44 AM	781.52	3		769.4	4.680	1872.192	ng/L	
Hg2600-2	DM2	SAM	1707715-01	2500	8/1/2017 11:52:53	82411-1.RAW	11:52:53 AM	3814.36	3		3802.2	23.289	58222.990	ng/L	
Hg2600-2	DM2	SAM	1707715-02	2500	8/1/2017 11:57:01	82412-1.RAW	11:57:01 AM	4001.78	3		3989.6	24.437	61093.548	ng/L	
Hg2600-2	DM2	SAM	1707799-01	2500	8/1/2017 12:01:10	82413-1.RAW	12:01:10 PM	502.63	3		490.5	3.000	7499.012	ng/L	
Hg2600-2	DM2	SAM	1707799-02	2500	8/1/2017 12:05:18	82414-1.RAW	12:05:18 PM	417.25	3		405.1	2.477	6191.349	ng/L	
Hg2600-2	DM2	SAM	1707800-01	2500	8/1/2017 12:09:27	82415-1.RAW	12:09:27 PM	145.66	3		133.5	0.813	2031.638	ng/L	
Hg2600-2	DM2	CAL	SEQ-CCV5	1	8/1/2017 12:13:35	82416-1.RAW	12:13:35 PM	895.30			883.1	5.411	5.411	ng/L	
Hg2600-2	DM2	CAL	SEQ-CCB5	1	8/1/2017 12:17:44	82417-1.RAW	12:17:44 PM	34.66969326			22.5	0.138	0.138	ng/L	
Hg2600-2	DM2	SAM	1707800-02	2500	8/1/2017 12:21:52	82418-1.RAW	12:21:52 PM	109.72	3		97.6	0.592	1481.023	ng/L	
Hg2600-2	DM2	SAM	1707801-01	2500	8/1/2017 12:26:00	82419-1.RAW	12:26:00 PM	3755.58	3		3743.4	22.929	57322.771	ng/L	
Hg2600-2	DM2	SAM	1707801-02	2500	8/1/2017 12:30:09	82420-1.RAW	12:30:09 PM	4459.61	3		4447.5	27.242	68106.008	ng/L	
Hg2600-2	DM2	SAM	1707715-01B	100	8/1/2017 12:34:17	82421-1.RAW	12:34:17 PM	90.07	3		77.9	0.345	34.487	ng/L	
Hg2600-2	DM2	SAM	1707715-02B	100	8/1/2017 12:38:26	82422-1.RAW	12:38:26 PM	69.72	3		57.6	0.220	22.015	ng/L	
Hg2600-2	DM2	SAM	1707799-01B	100	8/1/2017 12:42:34	82423-1.RAW	12:42:34 PM	38.06	3		25.9	0.026	2.622	ng/L	
Hg2600-2	DM2	SAM	1707799-02B	100	8/1/2017 12:46:43	82424-1.RAW	12:46:43 PM	44.91	3		32.7	0.068	6.815	ng/L	
Hg2600-2	DM2	SAM	1707800-01B	100	8/1/2017 12:50:51	82425-1.RAW	12:50:51 PM	69.27	3		57.1	0.217	21.744	ng/L	
Hg2600-2	DM2	SAM	1707800-02B	100	8/1/2017 12:55:00	82426-1.RAW	12:55:00 PM	29.24	3		17.1	-0.028	-2.781	ng/L	
Hg2600-2	DM2	SAM	1707801-01B	100	8/1/2017 12:59:08	82427-1.RAW	12:59:08 PM	89.90	3		77.7	0.344	34.381	ng/L	
Hg2600-2	DM2	CAL	SEQ-CCV6	1	8/1/2017 13:03:16	82428-1.RAW	1:03:16 PM	868.57			856.4	5.247	5.247	ng/L	
Hg2600-2	DM2	CAL	SEQ-CCB6	1	8/1/2017 13:07:25	82429-1.RAW	1:07:25 PM	27.38			15.2	0.093	0.093	ng/L	
Hg2600-2	DM2	SAM	1707801-02B	100	8/1/2017 13:11:33	82430-1.RAW	1:11:33 PM	69.16	3		57.0	0.217	21.674	ng/L	
Hg2600-2	DM2	SAM	1707800-01RE1	1000	8/1/2017 13:15:42	82431-1.RAW	1:15:42 PM	271.77	3		259.6	1.577	1577.287	ng/L	
Hg2600-2	DM2	SAM	1707800-02RE1	1000	8/1/2017 13:19:50	82432-1.RAW	1:19:50 PM	234.95	3		222.8	1.352	1351.742	ng/L	
Hg2600-2	DM2	SAM	1707801-01RE1	2500	8/1/2017 13:23:59	82433-1.RAW	1:23:59 PM	3658.11	3		3646.0	22.332	55829.850	ng/L	
Hg2600-2	DM2	SAM	1707801-02RE1	2500	8/1/2017 13:28:07	82434-1.RAW	1:28:07 PM	4263.76	3		4251.6	26.042	65106.180	ng/L	
Hg2600-2	DM2	SAM	1707715-01C	2500	8/1/2017 13:32:16	82435-1.RAW	1:32:16 PM	3232.26	3		3220.1	19.723	49307.240	ng/L	
Hg2600-2	DM2	SAM	1707715-02C	2500	8/1/2017 13:36:24	82436-1.RAW	1:36:24 PM	3256.40	3		3244.2	19.871	49677.015	ng/L	
Hg2600-2	DM2	SAM	1707799-01C	2500	8/1/2017 13:40:32	82437-1.RAW	1:40:32 PM	1744.21	3		1732.1	10.606	26515.681	ng/L	
Hg2600-2	DM2	SAM	1707799-02C	2500	8/1/2017 13:44:41	82438-1.RAW	1:44:41 PM	1655.37	3		1643.2	10.062	25154.930	ng/L	
Hg2600-2	DM2	SAM	1707800-01C	2500	8/1/2017 13:48:49	82439-1.RAW	1:48:49 PM	1548.50	3		1536.3	9.407	23518.054	ng/L	
Hg2600-2	DM2	CAL	SEQ-CCV7	1	8/1/2017 13:52:58	82440-1.RAW	1:52:58 PM	882.33			870.2	5.331	5.331	ng/L	
Hg2600-2	DM2	CAL	SEQ-CCB7	1	8/1/2017 13:57:06	82441-1.RAW	1:57:06 PM	42.65			30.5	0.187	0.187	ng/L	
Hg2600-2	DM2	SAM	1707540-02	1	8/1/2017 14:01:15	82442-1.RAW	2:01:15 PM	34.89	2		22.7	-0.042	-0.042	ng/L	
Hg2600-2	DM2	SAM	1707800-02C	2500	8/1/2017 14:05:23	82443-1.RAW	2:05:23 PM	1674.60	3		1662.4	10.180	25449.527	ng/L	
Hg2600-2	DM2	SAM	1707801-01C	5000	8/1/2017 14:09:32	82444-1.RAW	2:09:32 PM	4793.75	3		4781.6	29.292	146460.674	ng/L	
Hg2600-2	DM2	SAM	1707801-02C	5000	8/1/2017 14:13:40	82445-1.RAW	2:13:40 PM	4632.88	3		4620.7	28.307	141533.038	ng/L	
Hg2600-2	DM2	SAM	F707561-DUP1	2500	8/1/2017 14:17:48	82446-1.RAW	2:17:48 PM	527.88	3		515.7	3.154	7885.858	ng/L	
Hg2600-2	DM2	SAM	F707561-MS1	2500	8/1/2017 14:21:57	82447-1.RAW	2:21:57 PM	2162.09	3		2149.9	13.166	32916.085	ng/L	
Hg2600-2	DM2	SAM	F707561-MSD1	2500	8/1/2017 14:26:05	82448-1.RAW	2:26:05 PM	2153.21	3		2141.1	13.112	32780.038	ng/L	
Hg2600-2	DM2	CAL	SEQ-CCV8	1	8/1/2017 14:30:14	82449-1.RAW	2:30:14 PM	926.45			914.3	5.601	5.601	ng/L	
Hg2600-2	DM2	CAL	SEQ-CCB8	1	8/1/2017 14:34:22	82450-1.RAW	2:34:22 PM	57.53			45.4	0.278	0.278	ng/L	

TotalMercury EPA1631		Operat DM	Blanks 12.155	Calib Eqn:	Conc = (Area-12.15	Run Date: 8/1/2017	Blank SD: 0.51841136							
		Workst THg2600	CalibFa 163.22	Status:	QC Warnings:11/QC	Run Time: 7:18:00	Blank RSD%: 4.264909814							
		Method ##### R:	0.9998	R <sup>2</sup> :	0.9997		CF SD: 5.366777689							
		Descrip THg26002-170801-1					CF RSD%: 3.287998275							
Sample/D	Locator Rinse	Dilute	Blank	Conc (ppt)	MB%	FinalConc	Rec%	QA	RawData	RunEnd	Peak (Raw)	Control (etf)	Flags	RunCount
Clean			0.00	9.70					82345-1.RAW	7:20:52	1583.75	Clean	OK	1
clean			0.00	0.04					82346-1.RAW	7:23:44	6.34	Clean	OK	1
ws			12.16	0.00					82347-1.RAW	7:27:52	11.56	Sample	OK	1
ws			12.16	0.02					82348-1.RAW	7:32:01	15.45	Sample	OK	1
ws			12.16	0.00					82349-1.RAW	7:36:09	9.00	Sample	OK	1
SEQ-IBL1	A1	1	0.00	0.07					82350-1.RAW	7:40:17	11.60	Sample	OK	1
SEQ-IBL2	A2	1	0.00	0.08					82351-1.RAW	7:44:26	12.25	Sample	OK	1
SEQ-IBL3	A3	1	0.00	0.08					82352-1.RAW	7:48:34	12.62	Sample	OK	1
SEQ-CAL1	A4	1	12.16	0.52			104.74		82353-1.RAW	7:52:43	97.63	Sample	OK	1
SEQ-CAL2	A5	1	12.16	0.00			99.06		82354-1.RAW	7:56:51	173.84	Sample	OK	1
SEQ-CAL3	A6	1	12.16	4.82			96.34		82355-1.RAW	8:00:59	798.41	Sample	OK	1
SEQ-CAL4	A7	1	12.16	19.62			98.12		82356-1.RAW	8:05:08	3215.37	Sample	OK	1
SEQ-CAL5	A8	1	12.16	40.70			101.74		82357-1.RAW	8:09:16	6654.61	Sample	OK	1
SEQ-ICV1	A9	1	12.16	5.20			104.07		82358-1.RAW	8:13:25	861.53	Sample	OK	1
F707541-BLK1	A10	100	12.16	11.32					82359-1.RAW	8:17:33	30.64	Sample	OK	1
F707541-BLK2	A11	100	12.16	4.05					82360-1.RAW	8:21:42	18.76	Sample	OK	1
F707541-BLK3	A12	100	12.16	6.04					82361-1.RAW	8:25:50	22.01	Sample	OK	1
F707541-BS1	A13	400	12.16	2178.16					82362-1.RAW	8:29:58	900.97	Sample	OK	1
F707541-BSD1	A14	400	12.16	2128.57					82363-1.RAW	8:34:07	880.73	Sample	OK	1
1707698-01	A15	100	12.16	876.00					82364-1.RAW	8:38:15	1442.00	Sample	OK	1
1707698-02	A16	100	12.16	178.18					82365-1.RAW	8:42:24	302.99	Sample	OK	1
1707698-03	A17	100	12.16	262.77					82366-1.RAW	8:46:32	441.05	Sample	OK	1
1707698-04	A18	100	12.16	541.45					82367-1.RAW	8:50:40	895.92	Sample	OK	1
1707698-05	A19	100	12.16	170.04					82368-1.RAW	8:54:49	289.71	Sample	OK	1
SEQ-CCV1	A20	1	12.16	5.16			103.22		82369-1.RAW	8:58:57	854.52	Sample	OK	1
SEQ-CCB1	A21	1	12.16	0.07			0.00		82370-1.RAW	9:03:06	22.93	Sample	OK	1
1707698-06	B1	100	12.16	168.71					82371-1.RAW	9:07:14	287.52	Sample	OK	1
1707698-07	B2	100	12.16	100.87					82372-1.RAW	9:11:23	176.79	Sample	OK	1
F707541-DUP1	B3	100	12.16	864.18					82373-1.RAW	9:15:31	1422.69	Sample	OK	1
F707541-MS1	B4	100	12.16	2995.88			346.27		82374-1.RAW	9:19:39	4902.13	Sample	OK	1
F707541-MSD1	B5	100	12.16	2951.01					82375-1.RAW	9:23:48	4828.89	Sample	OK	1
F708258-BLK1	B6	1	12.16	0.32					82376-1.RAW	9:27:57	64.98	Sample	OK	1
F708258-BLK2	B7	1	12.16	0.12					82377-1.RAW	9:32:06	32.53	Sample	OK	1
F708258-BLK3	B8	1	12.16	0.10					82378-1.RAW	9:36:14	27.73	Sample	OK	1
F708258-BS1	B9	1	12.16	15.70					82379-1.RAW	9:40:23	2574.48	Sample	OK	1
F708258-BSD1	B10	1	12.16	15.83					82380-1.RAW	9:44:31	2596.62	Sample	OK	1
SEQ-CCV2	B11	1	12.16	5.39			107.89		82381-1.RAW	9:48:40	892.63	Sample	OK	1
SEQ-CCB2	B12	1	12.16	0.15			0.00		82382-1.RAW	9:52:48	37.30	Sample	OK	1
1707371-02	B13	10	12.16	16.32					82383-1.RAW	9:56:57	278.49	Sample	OK	1
1707371-04	B14	10	12.16	44.13					82384-1.RAW	10:01:05	732.39	Sample	OK	1
1707371-06	B15	10	12.16	14.82					82385-1.RAW	10:05:13	254.02	Sample	OK	1
1707702-01	B16	1	12.16	0.92					82386-1.RAW	10:09:22	162.12	Sample	OK	1
1707703-01	B17	1	12.16	0.76					82387-1.RAW	10:13:30	135.80	Sample	OK	1
1707704-01	B18	1	12.16	0.33					82388-1.RAW	10:17:39	66.03	Sample	OK	1
1707704-02	B19	1	12.16	0.20					82389-1.RAW	10:21:47	44.19	Sample	OK	1
1707717-02	B20	10	12.16	50.03					82390-1.RAW	10:25:56	828.73	Sample	OK	1
1707717-04	B21	1	12.16	2.11					82391-1.RAW	10:30:04	356.52	Sample	OK	1
1707732-01	C1	1	12.16	0.09					82392-1.RAW	10:34:13	26.26	Sample	OK	1
SEQ-CCV3	C2	1	12.16	5.06			101.15		82393-1.RAW	10:38:21	837.68	Sample	OK	1
SEQ-CCB3	C3	1	12.16	0.09			0.00		82394-1.RAW	10:42:29	27.40	Sample	OK	1
1707732-02	C4	1	12.16	3.90					82395-1.RAW	10:46:38	648.19	Sample	OK	1
1707732-03	C5	1	12.16	4.00					82396-1.RAW	10:50:46	664.25	Sample	OK	1
1707732-04	C6	1	12.16	4.12					82397-1.RAW	10:54:55	685.04	Sample	OK	1
1707732-05	C7	1	12.16	0.09					82398-1.RAW	10:59:03	26.84	Sample	OK	1
F708258-DUP1	C8	10	12.16	44.27					82399-1.RAW	11:03:12	734.75	Sample	OK	1
F708258-MS1	C9	10	12.16	240.15			530.48		82400-1.RAW	11:07:20	3931.92	Sample	OK	1
F708258-MSD1	C10	10	12.16	242.04					82401-1.RAW	11:11:29	3962.76	Sample	OK	1
F708258-MS2	C11	10	12.16	244.73			100.28		82402-1.RAW	11:15:37	4006.75	Sample	OK	1
F708258-MSD2	C12	10	12.16	253.10					82403-1.RAW	11:19:45	4143.38	Sample	OK	1
SEQ-CCV4	C13	1	12.16	5.72			114.33		82404-1.RAW	11:23:54	945.25	Sample	OK	1

SEQ-CCB4	C14	1	12.16	0.23	0.00	82405-1.RAW	11:28:02	49.24	Sample	OK	1
F707561-BLK1	C15	100	12.16	16.82		82406-1.RAW	11:32:11	39.61	Sample	OK	1
F707561-BLK2	C16	100	12.16	13.51		82407-1.RAW	11:36:19	34.21	Sample	OK	1
F707561-BLK3	C17	100	12.16	9.41		82408-1.RAW	11:40:28	27.52	Sample	OK	1
F707561-BS1	C18	400	12.16	1974.47		82409-1.RAW	11:44:36	817.85	Sample	OK	1
F707561-BSD1	C19	400	12.16	1885.44		82410-1.RAW	11:48:44	781.52	Sample	OK	1
1707715-01	C20	2500	12.16	58236.24		82411-1.RAW	11:52:53	3814.36	Sample	OK	1
1707715-02	C21	2500	12.16	61106.80		82412-1.RAW	11:57:01	4001.78	Sample	OK	1
1707799-01	A1	2500	12.16	7512.26		82413-1.RAW	12:01:10	502.63	Sample	OK	1
1707799-02	A2	2500	12.16	6204.60		82414-1.RAW	12:05:18	417.25	Sample	OK	1
1707800-01	A3	2500	12.16	2044.89		82415-1.RAW	12:09:27	145.66	Sample	OK	1
SEQ-CCV5	A4	1	12.16	5.41	108.21	82416-1.RAW	12:13:35	895.30	Sample	OK	1
SEQ-CCB5	A5	1	12.16	0.14	0.00	82417-1.RAW	12:17:44	34.67	Sample	OK	1
1707800-02	A6	2500	12.16	1494.27		82418-1.RAW	12:21:52	109.72	Sample	OK	1
1707801-01	A7	2500	12.16	57336.02		82419-1.RAW	12:26:00	3755.58	Sample	OK	1
1707801-02	A8	2500	12.16	68119.26		82420-1.RAW	12:30:09	4459.61	Sample	OK	1
1707715-01B	A9	100	12.16	47.74		82421-1.RAW	12:34:17	90.07	Sample	OK	1
1707715-02B	A10	100	12.16	35.26		82422-1.RAW	12:38:26	69.72	Sample	OK	1
1707799-01B	A11	100	12.16	15.87		82423-1.RAW	12:42:34	38.06	Sample	OK	1
1707799-02B	A12	100	12.16	20.06		82424-1.RAW	12:46:43	44.91	Sample	OK	1
1707800-01B	A13	100	12.16	34.99		82425-1.RAW	12:50:51	69.27	Sample	OK	1
1707800-02B	A14	100	12.16	10.47		82426-1.RAW	12:55:00	29.24	Sample	OK	1
1707801-01B	A15	100	12.16	47.63		82427-1.RAW	12:59:08	89.90	Sample	OK	1
SEQ-CCV6	A16	1	12.16	5.25	104.94	82428-1.RAW	13:03:16	868.57	Sample	OK	1
SEQ-CCB6	A17	1	12.16	0.09	0.00	82429-1.RAW	13:07:25	27.38	Sample	OK	1
1707801-02B	A18	100	12.16	34.92		82430-1.RAW	13:11:33	69.16	Sample	OK	1
1707800-01RE1	A19	1000	12.16	1590.54		82431-1.RAW	13:15:42	271.77	Sample	OK	1
1707800-02RE1	A20	1000	12.16	1364.99		82432-1.RAW	13:19:50	234.95	Sample	OK	1
1707801-01RE1	A21	2500	12.16	55843.10		82433-1.RAW	13:23:59	3658.11	Sample	OK	1
1707801-02RE1	B1	2500	12.16	65119.43		82434-1.RAW	13:28:07	4263.76	Sample	OK	1
1707715-01C	B2	2500	12.16	49320.49		82435-1.RAW	13:32:16	3232.26	Sample	OK	1
1707715-02C	B3	2500	12.16	49690.26		82436-1.RAW	13:36:24	3256.40	Sample	OK	1
1707799-01C	B4	2500	12.16	26528.93		82437-1.RAW	13:40:32	1744.21	Sample	OK	1
1707799-02C	B5	2500	12.16	25168.18		82438-1.RAW	13:44:41	1655.37	Sample	OK	1
1707800-01C	B6	2500	12.16	23531.30		82439-1.RAW	13:48:49	1548.50	Sample	OK	1
SEQ-CCV7	B7	1	12.16	5.33	106.62	82440-1.RAW	13:52:58	882.33	Sample	OK	1
SEQ-CCB7	B8	1	12.16	0.19	0.00	82441-1.RAW	13:57:06	42.65	Sample	OK	1
1707540-02	B9	1	12.16	0.14		82442-1.RAW	14:01:15	34.89	Sample	OK	1
1707800-02C	B10	2500	12.16	25462.78		82443-1.RAW	14:05:23	1674.60	Sample	OK	1
1707801-01C	B11	5000	12.16	146473.92		82444-1.RAW	14:09:32	4793.75	Sample	OK	1
1707801-02C	B12	5000	12.16	141546.29		82445-1.RAW	14:13:40	4632.88	Sample	OK	1
F707561-DUP1	B13	2500	12.16	7899.11		82446-1.RAW	14:17:48	527.88	Sample	OK	1
F707561-MS1	B14	2500	12.16	32929.33	416.82	82447-1.RAW	14:21:57	2162.09	Sample	FB	1
F707561-MSD1	B15	2500	12.16	32793.29		82448-1.RAW	14:26:05	2153.21	Sample	OK	1
SEQ-CCV8	B16	1	12.16	5.60	112.03	82449-1.RAW	14:30:14	926.45	Sample	OK	1
SEQ-CCB8	B17	1	12.16	0.28	0.00	82450-1.RAW	14:34:22	57.53	Sample	OK	1

# Failing Data Report - 7H01022

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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*DM* *Mokem* 8/1/17  
 Analyst Reviewed By Date

*Becis* 8/2/17  
 Peer Reviewed By Date

# Failing Data Report - 7H01023

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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Don Maxam      8/1/17  
Analyst Reviewed By      Date

[Signature]      8/2/17  
Peer Reviewed By      Date

**Failing Data Report - 7H01024**

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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*Don McKeem*  
 Analyst Reviewed By

*8/1/17*  
 Date

*[Signature]*  
 Peer Reviewed By

*8/2/17*  
 Date

**ANALYSIS SEQUENCE**

**7H01022**



**Instrument: Hg2600-2**

**Calibration ID: UNASSIGNED**

**Analyzed: 8/1/2017**

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
7H01022-IBL1	QC	1			
7H01022-IBL2	QC	2			
7H01022-IBL3	QC	3			
7H01022-CAL1	QC	4	1704505		
7H01022-CAL2	QC	5	1704506		
7H01022-CAL3	QC	6	1704507		
7H01022-CAL4	QC	7	1704508		
7H01022-CAL5	QC	8	1704509		
7H01022-ICV1	QC	9	1703679		
7H01022-CCV1	QC	10	1703679		
7H01022-CCB1	QC	11			
F708258-BLK1	QC	12			
F708258-BLK2	QC	13			
F708258-BLK3	QC	14			
F708258-BS1	QC	15			
F708258-BSD1	QC	16			
7H01022-CCV2	QC	17	1703679		
7H01022-CCB2	QC	18			
1707371-02	Hg-CVAFS-W-1631	19			
1707371-04	Hg-CVAFS-W-1631	20			
1707371-06	Hg-CVAFS-W-1631	21			
1707702-01	Hg-CVAFS-W-1631	22			Scan all data - Level IV
1707703-01	Hg-CVAFS-W-1631	23			Scan all data - Level IV
1707704-01	Hg-CVAFS-W-1631	24			Scan all data - Level IV
1707704-02	Hg-CVAFS-W-1631	25			Scan all data - Level IV
1707717-02	Hg-CVAFS-W-1631	26			Scan Data for Level IV
1707717-04	Hg-CVAFS-W-1631	27			Scan Data for Level IV
1707732-01	Hg-CVAFS-W-1631	28			
7H01022-CCV3	QC	29	1703679		
7H01022-CCB3	QC	30			
1707732-02	Hg-CVAFS-W-1631	31			
1707732-03	Hg-CVAFS-W-1631	32			
1707732-04	Hg-CVAFS-W-1631	33			
1707732-05	Hg-CVAFS-W-1631	34			
F708258-DUP1	QC	35			



**ANALYSIS SEQUENCE**

**7H01022**



**Instrument: Hg2600-2**

**Calibration ID: UNASSIGNED**

**Analyzed: 8/1/2017**

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
F708258-MS1	QC	36			
F708258-MSD1	QC	37			
F708258-MS2	QC	38			
F708258-MSD2	QC	39			
7H01022-CCV4	QC	40	1703679		
7H01022-CCB4	QC	41			
7H01022-CCV5	QC	42	1703679		
7H01022-CCB5	QC	43			
7H01022-CCV6	QC	44	1703679		
7H01022-CCB6	QC	45			
7H01022-CCV7	QC	46	1703679		
7H01022-CCB7	QC	47			
1707540-02	Hg-CVAFS-W-1631	48			
7H01022-CCV8	QC	49	1703679		
7H01022-CCB8	QC	50			

Don Moran                      8/1/17  
 Samples Loaded By                      Date

Don Moran                      8/2/17  
 Data Processed By                      Date

**ANALYSIS SEQUENCE**

**7H01022**

**Instrument: Hg2600-2**

**Calibration ID: UNASSIGNED**

**Analyzed: 8/1/2017**

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
7H01022-IBL1	QC	1			
7H01022-IBL2	QC	2			
7H01022-IBL3	QC	3			
7H01022-CAL1	QC	4	1704505		
7H01022-CAL2	QC	5	1704506		
7H01022-CAL3	QC	6	1704507		
7H01022-CAL4	QC	7	1704508		
7H01022-CAL5	QC	8	1704509		
7H01022-ICV1	QC	9	1703679		
F708258-BLK1	QC	10			
F708258-BLK2	QC	11			
F708258-BLK3	QC	12			
F708258-BS1	QC	13			
7H01022-CCV1	QC	14	1703679		
7H01022-CCB1	QC	15			
F708258-BSD1	QC	16			
1707371-02	Hg-CVAFS-W-1631	17			
1707371-04	Hg-CVAFS-W-1631	18			
1707371-06	Hg-CVAFS-W-1631	19			
1707702-01	Hg-CVAFS-W-1631	20			Scan all data - Level IV
1707703-01	Hg-CVAFS-W-1631	21			Scan all data - Level IV
1707704-01	Hg-CVAFS-W-1631	22			Scan all data - Level IV
1707704-02	Hg-CVAFS-W-1631	23			Scan all data - Level IV
1707717-02	Hg-CVAFS-W-1631	24			Scan Data for Level IV
1707717-04	Hg-CVAFS-W-1631	25			Scan Data for Level IV
7H01022-CCV2	QC	26	1703679		
7H01022-CCB2	QC	27			
1707732-01	Hg-CVAFS-W-1631	28			
1707732-02	Hg-CVAFS-W-1631	29			
1707732-03	Hg-CVAFS-W-1631	30			
1707732-04	Hg-CVAFS-W-1631	31			
1707732-05	Hg-CVAFS-W-1631	32			
F708258-DUP1	QC	33			
F708258-MS1	QC	34			
F708258-MSD1	QC	35			

*Handwritten:* PJ 8/2/17

ANALYSIS SEQUENCE

7H01022

Instrument: Hg2600-2

Calibration ID: UNASSIGNED

Analyzed: 8/1/2017

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
F708258-MS2	QC	36			
F708258-MSD2	QC	37			
7H01022-CCV3	QC	38	1703679		
7H01022-CCB3	QC	39			
7H01022-CCV4	QC	40	1703679		
7H01022-CCB4	QC	41			
7H01022-CCV5	QC	42	1703679		
7H01022-CCB5	QC	43			
7H01022-CCV6	QC	44	1703679		
7H01022-CCB6	QC	45			
7H01022-CCV7	QC	46	1703679		
7H01022-CCB7	QC	47			
1707540-02	Hg-CVAFS-W-1631	48			
7H01022-CCV8	QC	49	1703679		
7H01022-CCB8	QC	50			

Don Marum 8/1/17  
Samples Loaded By                                  Date

Don Marum 8/1/17  
Data Processed By                                  Date

BC  
8/2/17

## ANALYSIS SEQUENCE

7H01023

Instrument: Hg2600-2

Calibration ID: UNASSIGNED

Analyzed: 8/1/2017

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
7H01023-IBL1	QC	1			
7H01023-IBL2	QC	2			
7H01023-IBL3	QC	3			
7H01023-CAL1	QC	4	1704505		
7H01023-CAL2	QC	5	1704506		
7H01023-CAL3	QC	6	1704507		
7H01023-CAL4	QC	7	1704508		
7H01023-CAL5	QC	8	1704509		
7H01023-ICV1	QC	9	1703679		
F707541-BLK1	QC	10			
F707541-BLK2	QC	11			
F707541-BLK3	QC	12			
F707541-BS1	QC	13			
F707541-BSD1	QC	14			
1707698-01	Hg_Passive_OSHAID140	15			
1707698-02	Hg_Passive_OSHAID140	16			
1707698-03	Hg_Passive_OSHAID140	17			
1707698-04	Hg_Passive_OSHAID140	18			
1707698-05	Hg_Passive_OSHAID140	19			
7H01023-CCV1	QC	20	1703679		
7H01023-CCB1	QC	21			
1707698-06	Hg_Passive_OSHAID140	22			
1707698-07	Hg_Passive_OSHAID140	23			
F707541-DUP1	QC	24			
F707541-MS1	QC	25			
F707541-MSD1	QC	26			
7H01023-CCV2	QC	27	1703679		
7H01023-CCB2	QC	28			

Samples Loaded By

Date

Data Processed By

Date

Due Date: 8/9/2017

## ANALYSIS SEQUENCE

7H01024

Instrument: Hg2600-2

Calibration ID: UNASSIGNED

Analyzed: 8/1/2017

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
7H01024-IBL1	QC	1			
7H01024-IBL2	QC	2			
7H01024-IBL3	QC	3			
7H01024-CAL1	QC	4	1704505		
7H01024-CAL2	QC	5	1704506		
7H01024-CAL3	QC	6	1704507		
7H01024-CAL4	QC	7	1704508		
7H01024-CAL5	QC	8	1704509		
7H01024-ICV1	QC	9	1703679		
7H01024-CCV1	QC	10	1703679		
7H01024-CCB1	QC	11			
7H01024-CCV2	QC	12	1703679		
7H01024-CCB2	QC	13			
7H01024-CCV3	QC	14	1703679		
7H01024-CCB3	QC	15			
7H01024-CCV4	QC	16	1703679		
7H01024-CCB4	QC	17			
F707561-BLK1	QC	18			
F707561-BLK2	QC	19			
F707561-BLK3	QC	20			
F707561-BS1	QC	21			
F707561-BSD1	QC	22			
1707715-01	Hg_FSTM_TRAP_A	23			
1707715-02	Hg_FSTM_TRAP_A	24			
1707799-01	Hg_FSTM_TRAP_A	25			AFS - Take photos of trap if heavy particulate present and send to PM
1707799-02	Hg_FSTM_TRAP_A	26			AFS - Take photos of trap if heavy particulate present and send to PM
1707800-01	Hg_FSTM_TRAP_A	27			AFS - Take photos of trap if heavy particulate present and send to PM
7H01024-CCV5	QC	28	1703679		
7H01024-CCB5	QC	29			
1707800-02	Hg_FSTM_TRAP_A	30			AFS - Take photos of trap if heavy particulate present and send to PM
1707801-01	Hg_FSTM_TRAP_A	31			
1707801-02	Hg_FSTM_TRAP_A	32			
7H01024-CCV6	QC	33	1703679		
7H01024-CCB6	QC	34			
1707800-01RE1	Hg_FSTM_TRAP_A	35			Added 8/1/2017 by DM2

Due Date: 8/3/2017

**ANALYSIS SEQUENCE**

**7H01024**

**Instrument: Hg2600-2**

**Calibration ID: UNASSIGNED**

**Analyzed: 8/1/2017**

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
1707800-02RE1	Hg_FSTM_TRAP_A	36			Added 8/1/2017 by DM2
1707801-01RE1	Hg_FSTM_TRAP_A	37			Added 8/1/2017 by DM2
1707801-02RE1	Hg_FSTM_TRAP_A	38			Added 8/1/2017 by DM2
7H01024-CCV7	QC	39	1703679		
7H01024-CCB7	QC	40			
F707561-DUP1	QC	41			
F707561-MS1	QC	42			
F707561-MSD1	QC	43			
7H01024-CCV8	QC	44	1703679		
7H01024-CCB8	QC	45			

*Don M. Peem* 8/1/17  
 Samples Loaded By \_\_\_\_\_ Date

*Don M. Peem* 8/1/17  
 Data Processed By \_\_\_\_\_ Date

**PREPARATION BENCH SHEET**

F707561

**Eurofins Frontier Global Sciences, Inc.**

**Matrix: Air**

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

**Prepared: 7/31/2017**

Lab Number	Sample ID and Source Sample	Initial (Trap)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F707561-BLK1	Blank	1	100					
F707561-BLK2	Blank	1	100					
F707561-BLK3	Blank	1	100					
F707561-BS1	LCS	1	100	1701763	200			
F707561-BSD1	LCS Dup	1	100	1701763	200			
F707561-DUP1	Duplicate [1707799-01]	1	100					
F707561-MS1	Matrix Spike [1707799-01]	0.0002	0.02	1704422	50			[Spk] 1Trap->100mL; 20mL->20mL; Spiked 0.02mL
F707561-MSD1	Matrix Spike Dup [1707799-01]	0.0002	0.02	1704422	50			[Spk] 1Trap->100mL; 20mL->20mL; Spiked 0.02mL

<u>Standard ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>	<u>Reagent ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>
1701763	THg 1,000ng/mL Secondary Spiking Standard	22-Sep-17 00:00	1702565	FSTM Lot 170426B	26-Apr-18 00:00
1704422	THg 10ng/mL Calibration Standard	21-Oct-17 00:00	1703182	25% Hydroxylamine-HCl working solution	24-Nov-17 00:00
			1703701	THg Washstation (0.5% BrCl)	21-Dec-17 00:00
			1703702	THg Dilute 1% BrCl	
			1704303	3% SnCl2 THg reductant	03-Jan-18 00:00
			1704418	5% BrCl	18-Dec-17 00:00
			1704524	70/30 Digestion Acid	22-Jan-18 00:00
			1704575	5% BrCl	18-Dec-17 00:00

**PREPARATION BENCH SHEET**

F707561

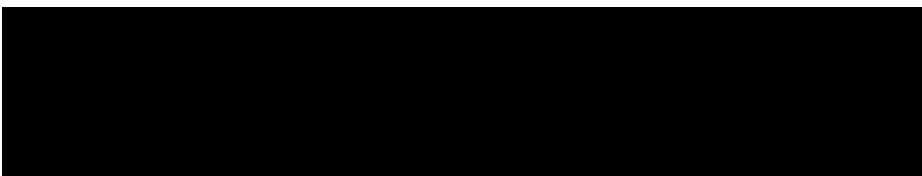
**Eurofins Frontier Global Sciences, Inc.**

**Matrix: Air**

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

**Prepared: 7/31/2017**

Lab Number	Sample ID	Initial (Trap)	Final (mL)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1707715-01	EFGS06573 CO4 Stack Trap A	1	100	-	-	-	Sample Volume: 1876.71 L	
1707715-02	EFGS07671 CO4 Stack Trap B	1	100	-	-	-	Sample Volume: 1877.57 L	
1707799-01	EFGS09124 31/32 TRAP A 7/21/17 - 7/24/17	1	100	-	-	-	1442.464 L AFS - Take photos of trap if	
1707799-02	EFGS09167 31/32 TRAP B 7/21/17 - 7/24/17	1	100	-	-	-	1235.578 L AFS - Take photos of trap if	
1707800-01	EFGS09161 Unit 31-2 Trap A 7/19/17 - 7/21/17	1	100	-	-	-	572.611 L AFS - Take photos of trap if	
1707800-01RE1	EFGS09161 Unit 31-2 Trap A 7/19/17 - 7/21/17	1	100	-	-	-	572.611 L Added 8/1/2017 by DM2	Added 8/1/2017 by DM2
1707800-02	EFGS09173 Unit 31-2 Trap B 7/19/17 - 7/21/17	1	100	-	-	-	525.234 L AFS - Take photos of trap if	
1707800-02RE1	EFGS09173 Unit 31-2 Trap B 7/19/17 - 7/21/17	1	100	-	-	-	525.234 L Added 8/1/2017 by DM2	Added 8/1/2017 by DM2
1707801-01	EFGS08834 Trap A	1	100	-	-	-	2867.47 L	
1707801-01RE1	EFGS08834 Trap A	1	100	-	-	-	2867.47 L Added 8/1/2017 by DM2	Added 8/1/2017 by DM2
1707801-02	EFGS08937 Trap B	1	100	-	-	-	2867.83 L	
1707801-02RE1	EFGS08937 Trap B	1	100	-	-	-	2867.83 L Added 8/1/2017 by DM2	Added 8/1/2017 by DM2





**PREPARATION BENCH SHEET**

F707541

**Eurofins Frontier Global Sciences, Inc.**

**Matrix: Air**

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

**Prepared: 7/28/2017**

Lab Number	Sample ID and Source Sample	Initial (Trap)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F707541-BLK1	Blank	1	25					
F707541-BLK2	Blank	1	25					
F707541-BLK3	Blank	1	25					
F707541-BS1	LCS	1	25	1701763	50			
F707541-BSD1	LCS Dup	1	25	1701763	50			
F707541-DUP1	Duplicate [1707698-01]	1	25					
F707541-MS1	Matrix Spike [1707698-01]	0.02	0.5	1704422	100			[Spk] 1Trap->25mL; 25mL->25mL; Spiked 0.5mL
F707541-MSD1	Matrix Spike Dup [1707698-01]	0.02	0.5	1704422	100			[Spk] 1Trap->25mL; 25mL->25mL; Spiked 0.5mL

<u>Standard ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>	<u>Reagent ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>
1701763	THg 1,000ng/mL Secondary Spiking Standard	22-Sep-17 00:00	1702551	Boiling Chips for AFS prep	31-Dec-17 00:00
1704422	THg 10ng/mL Calibration Standard	21-Oct-17 00:00	1703003	Omnitrace Hydrochloric Acid	16-May-20 00:00
			1703182	25% Hydroxylamine-HCl working solution	24-Nov-17 00:00
			1703701	THg Washstation (0.5% BrCl)	21-Dec-17 00:00
			1703702	THg Dilute 1% BrCl	
			1704303	3% SnCl2 THg reductant	03-Jan-18 00:00
			1704484	Fisher Nitric Acid, Tracemetal Grade	15-Mar-19 00:00

PREPARATION BENCH SHEET

F707541

Eurofins Frontier Global Sciences, Inc.

Matrix: Air

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

Prepared: 7/28/2017

Lab Number	Sample ID	Initial (Trap)	Final (mL)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1707698-01	SID0126601	1	25	-	-	-	Sample Volume: 1.78 L	
1707698-02	SID0126602	1	25	-	-	-	Sample Volume: 1.82 L	
1707698-03	SID0126603	1	25	-	-	-	No Sample Volume Provided	
1707698-04	SID0126604	1	25	-	-	-	No Sample Volume Provided	
1707698-05	SID0126605	1	25	-	-	-	No Sample Volume Provided	
1707698-06	SID0126606	1	25	-	-	-	No Sample Volume Provided	
1707698-07	SID0126607	1	25	-	-	-	No Sample Volume Provided	



**PREPARATION BENCH SHEET**

F708258

**Eurofins Frontier Global Sciences, Inc.**

**Matrix: Water**

**Prepared using: AFS - EPA 1631E BrCl Oxidation**

**Prepared: 8/1/2017**

Lab Number	Sample ID and Source Sample	Initial (mL)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F708258-BLK1	Blank	100	101					
F708258-BLK2	Blank	100	101					
F708258-BLK3	Blank	100	101					
F708258-BS1	LCS	50	50.5	1604715	100			
F708258-BSD1	LCS Dup	50	50.5	1604715	100			
F708258-DUP1	Duplicate [1707371-04]	100	101					
F708258-MS1	Matrix Spike [1707371-04]	4.950495	5	1704422	100			[Spk] 100mL->101mL; 101mL->101mL; Spiked 5mL
F708258-MS2	Matrix Spike [1707717-02]	4.950495	5	1704422	100			[Spk] 100mL->101mL; 101mL->101mL; Spiked 5mL
F708258-MSD1	Matrix Spike Dup [1707371-04]	4.950495	5	1704422	100			[Spk] 100mL->101mL; 101mL->101mL; Spiked 5mL
F708258-MSD2	Matrix Spike Dup [1707717-02]	4.950495	5	1704422	100			[Spk] 100mL->101mL; 101mL->101mL; Spiked 5mL

<u>Standard ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>	<u>Reagent ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>
1604715	Nist 1641D 200X	18-Aug-17 00:00	1703182	25% Hydroxylamine-HCl working solution	24-Nov-17 00:00
1704422	THg 10ng/mL Calibration Standard	21-Oct-17 00:00	1703700	0.2 N BRCL JUNE 2017	18-Dec-17 00:00
			1703701	THg Washstation (0.5% BrCl)	21-Dec-17 00:00
			1703702	THg Dilute 1% BrCl	
			1704303	3% SnCl2 THg reductant	03-Jan-18 00:00

**PREPARATION BENCH SHEET**

F708258

**Eurofins Frontier Global Sciences, Inc.**

**Matrix: Water**

**Prepared using: AFS - EPA 1631E BrCl Oxidation**

**Prepared: 8/1/2017**

Lab Number	Sample ID	Initial (mL)	Final (mL)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1707371-02	B172738 Salem MH (Background)	100	101	-	-	-		
1707371-04	B172740 Salem MH (Background)	100	101	-	-	-		
1707371-06	B172753 Salem MH (Background)	100	101	-	-	-		
1707540-02	Stream B/B1 - Blank	100	101	-	-	-		
1707702-01	EQ_072517_PONAR_QC	100	101	-	-	-	Scan all data - Level IV	
1707703-01	EQ_072517_TWEEZER_QC	100	101	-	-	-	Scan all data - Level IV	
1707704-01	EQ_072517_CSHOE_QC	100	101	-	-	-	Scan all data - Level IV	
1707704-02	EQ_072517_CORE_QC	100	101	-	-	-	Scan all data - Level IV	
1707717-02	B-172998 Plant Inf. (Hg) #17-10171	100	101	-	-	-	Scan Data for Level IV	
1707717-04	B-172980 Plant Eff. (Hg) #17-10173	100	101	-	-	-	Scan Data for Level IV	
1707732-01	P89218-1	100	101	-	-	-		
1707732-02	P89218-2	100	101	-	-	-		
1707732-03	P89218-6	100	101	-	-	-		
1707732-04	P89218-7	100	101	-	-	-		
1707732-05	P89218-8	100	101	-	-	-		

**PREPARATION BENCH SHEET**

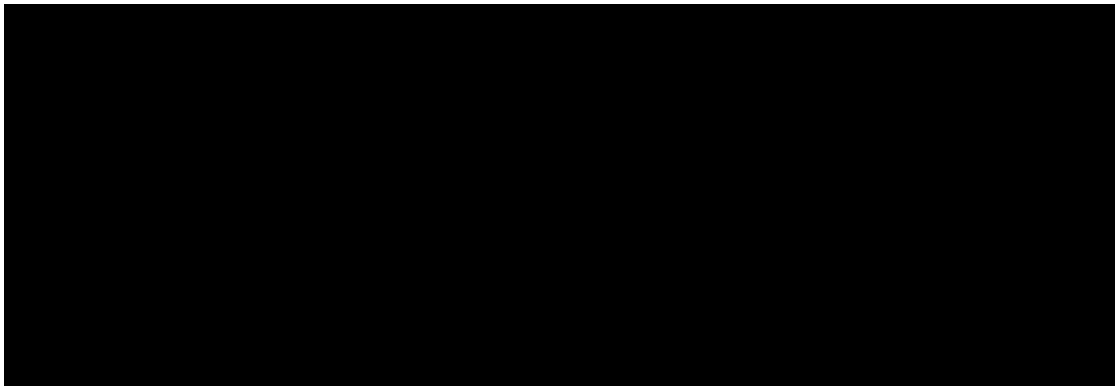
**F708258**

**Eurofins Frontier Global Sciences, Inc.**

**Matrix: Water**

**Prepared using: AFS - EPA 1631E BrCl Oxidation**

**Prepared: 8/1/2017**



PREPARATION BENCH SHEET

2600-2

8/1/17 DM

F707561

Eurofins Frontier Global Sciences, Inc.

Matrix: Air

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

Prepared: 7/31/2017

Lab Number	Sample ID and Source Sample	Initial (Trap)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F707561-BLK1	Blank	1	100					100x
F707561-BLK2	Blank	1	100					100x
F707561-BLK3	Blank	1	100					100x
F707561-BS1	LCS	1	100	1701763	200			400x
F707561-BSD1	LCS Dup 1707799-01	1	100	1701763	200			400x
F707561-DUP1	Duplicate 1707512-	1	100					2500x
F707561-MS1	Matrix Spike 1707799-01	1	100	1704422	50			2500x
F707561-MSD1	Matrix Spike Dup 1707799-01	1	100	1704422	50			2500x

Standard ID(s):  
1701763

Description:  
THg 1,000ng/mL Secondary Spiking Standard

Expiration:  
22-Sep-17 00:00

Reagent ID(s):  
1702565  
1704418  
1704524  
1704575

Description:  
FSTM Lot 170426B  
5% BrCl  
70/30 Digestion Acid  
5% BrCl

Expiration:  
26-Apr-18 00:00  
18-Dec-17 00:00  
22-Jan-18 00:00  
18-Dec-17 00:00

1703182

1703701

1703702

1704303

PREPARATION BENCH SHEET

F707561

Eurofins Frontier Global Sciences, Inc.

20002

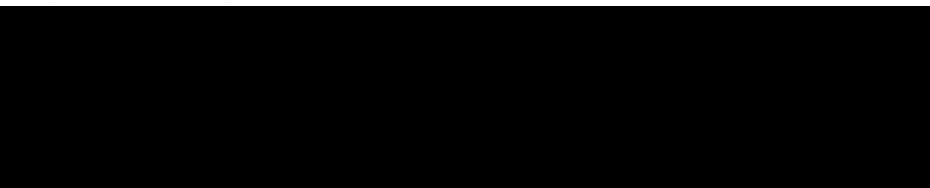
3/1/17 LM

Matrix: Air

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

Prepared: 7/31/2017

Lab Number	Sample ID	Initial (Trap)	Final (mL)	QC Sample	Sample Specs.	Raw Data	A Sample Comments	B Analysis Comments	C
1707715-01	EFGS06573 CO4 Stack Trap A	1	100	-	-	-	Sample Volume: 1876.71 L 2500x	100x	2500x
1707715-02	EFGS07671 CO4 Stack Trap B	1	100	-	-	-	Sample Volume: 1877.57 L 2500x	100x	2500x
1707799-01	EFGS09124 31/32 TRAP A 7/21/17 - 7/24/17	1	100	-	-	-	1442.464 L AFS - Take photos of trap if 2500x	100x	2500x
1707799-02	EFGS09167 31/32 TRAP B 7/21/17 - 7/24/17	1	100	-	-	-	1235.578 L AFS - Take photos of trap if 2500x	100x	2500x
1707800-01	EFGS09161 Unit 31-2 Trap A 7/19/17 - 7/21/17	1	100	-	-	-	572.611 L AFS - Take photos of trap if 2500x → 1000x	100x	2500x
1707800-02	EFGS09173 Unit 31-2 Trap B 7/19/17 - 7/21/17	1	100	-	-	-	525.234 L AFS - Take photos of trap if 2500x → 1000x	100x	2500x
1707801-01	EFGS08834 Trap A	1	100	-	-	-	2867.47 L 2500x → 1000x	100x	5000x
1707801-02	EFGS08937 Trap B	1	100	-	-	-	2867.83 L 2500x → 2500x	100x	5000x



### Trap Digestions

Name: CWF Date: 7/31/17 Batch ID: F707561

Work Order(s): 1707715, 1707799, 1707800 Analysis:  Total Hg  Other

Sample Matrix:  ASTM  KCl  PHg Plug  Other

Prep:  70/30 Digestion, 2 hr. @ ~55°C (EFAFS-T-AFS-SOP2985)

start time: 15:30, start temp (°C): 56.0 (raw) 55.8 (w/ CF)

end time: 19:09, end temp (°C): 65.0 (raw) 54.8 (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)
F707561	100
F707561	100
F707561	100
F707561	100
F707561	100
1707715	100
1707715	100
1707715	100
1707715	100
1707715	100
1707715	100
1707715	100
1707799	100
1707799	100
1707799	100
1707799	100
1707799	100
1707799	100
1707800	100
1707800	100
1707800	100
1707800	100
1707800	100
1707801	100
1707801	100
1707801	100
1707801	100
1707801	100
1707801	100

Spike ID: 1701763  
 Spike Amount (µL): 200  
 Spike Witness: AMMS 7/31/17

BrCl ID: 1704575, 1704418  
 70/30: 1704574  
 Other: N/A

Thermometer: 14545  
 Dispensers: 02K27494   
 04N73497   
 Other 15406603

Pipette ID: MU11619  
 Cal. Date: 7/26/17

Vials and Jars lot# 00068335  
 Trap Material Lot#: 170296  
 Loader Mass Verified:  Yes  No

Note: Samples were left on hot plate over 2 hrs 8/1/17

Comments:  
 1707715 all c-beds spiked @ 5000 ng  
 1707799 and 1707800 on 11 c-beds spiked @ 2700 ng  
 1707801 all c-beds spiked @ 16,000 ng  
 CWF 7/31/17

Testlan liner for cap of 1707800 o1c fell into bin replaced CWF 8/1/17

Traps were digested for 3.5 hours



PREPARATION BENCH SHEET

2600-2

F707541

8/1/17 DM

Eurofins Frontier Global Sciences, Inc.

Matrix: Air

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

Prepared: 7/28/2017

Lab Number	Sample ID and Source Sample	Initial (Trap)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F707541-BLK1	Blank	1	25					100X
F707541-BLK2	Blank	1	25					100X
F707541-BLK3	Blank	1	25					100X
F707541-BS1	LCS	1	25	1701763	50			400X
F707541-BSD1	LCS Dup	1	25	1701763	50			400X
F707541-DUP1	Duplicate 1707695-01	1	25					100X
F707541-MS1	Matrix Spike 1707695-01	1	25	1704422 1707422	100			100X
F707541-MSD1	Matrix Spike Dup 1707695-01	1	25	1704422 1707422	100			100X

1704422

Standard ID(s): 1701763  
Description: THg 1.000ng/mL Secondary Spiking Standard

Expiration: 22-Sep-17 00:00

Reagent ID(s): 1702551  
1703003  
1704484

Description: Boiling Chips for AFS prep  
Omnitrace Hydrochloric Acid  
Fisher Nitric Acid, Tracemetal Grade

Expiration: 31-Dec-17 00:00  
16-May-20 00:00  
15-Mar-19 00:00

1704303

1703182

1703701

1703702

PREPARATION BENCH SHEET

2600-2

8/1/17 DM

F707541

Eurofins Frontier Global Sciences, Inc.

Matrix: Air

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

Prepared: 7/28/2017

Lab Number	Sample ID	Initial (Trap)	Final (mL)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1707698-01	SID0126601	1	25	-	-	-	Sample Volume: 1.78 L	100X
1707698-02	SID0126602	1	25	-	-	-	Sample Volume: 1.82 L	100X
1707698-03	SID0126603	1	25	-	-	-	No Sample Volume Provided	100X
1707698-04	SID0126604	1	25	-	-	-	No Sample Volume Provided	100X
1707698-05	SID0126605	1	25	-	-	-	No Sample Volume Provided	100X
1707698-06	SID0126606	1	25	-	-	-	No Sample Volume Provided	100X
1707698-07	SID0126607	1	25	-	-	-	No Sample Volume Provided	100X



Trap Digestions

Name: AMB

Date: 7/28/17

Batch ID: F707541

Work Order(s): 1707698

Analysis:  Total Hg  Other

Sample Matrix:  FSTM  KCl  PHg Plug  Other Sorbent badges

Prep:  70/30 Digestion, 2 hr. @ ~55°C (EFAFS-T-AFS-SOP2985)

start time: N/A, start temp (°C): N/A (raw) N/A (w/ CF)

end time: N/A, end temp (°C): N/A (raw) N/A (w/ CF) Timer?  Yes  No

5% BrCl Oxidation (EFGS-031) start time: \_\_\_\_\_ (allow samples to sit for at least 4 hr before analysis)

Other 5mL HCl, 5mL HNO<sub>3</sub>, bring to vol. with 15 mL H<sub>2</sub>O.

AMB 7/28/17

Sample ID Number	Digest vol. (mL)
F707541-BLK1	25
F707541-BLK2	25
F707541-BLK3	25
F707541-BS1	25
F707541-BSD1	25
1707698-01	25
1707698-02	25
1707698-03	25
1707698-04	25
1707698-05	25
1707698-06	25
1707698-07	25

Spike ID: 1701703

Spike Amount (µL): 50

Spike Witness: AMB 7/28/17

<sup>AMB</sup> BrCl ID: HCl: 1703003

<sup>AMB</sup> 70/30: HNO<sub>3</sub>: 1704484

Other: N/A

Thermometer: N/A

Dispensers: 02K27494  AMB

04N73497  7/28/17

Other 09N45351

Other 08Y2293

Pipette ID: 0407852

Cal. Date: 7/28/17

Vials and Jars lot# 00068424

Trap Material Lot#: N/A

Loader Mass Verified:  Yes  No N/A

AMB 7/28/17

Comments:

Boiling chips: 1702551

AMB 7/28/17

Brought up to volume by wF

7/31/17

Pipette = N401049 wF 7/31/17

Cal = 7/26/17

AMB 7/28/17

PREPARATION BENCH SHEET

F708258

Eurofins Frontier Global Sciences, Inc.

200-2  
8/1/17 DM

Matrix: Water

Prepared using: AFS - EPA 1631E BrCl Oxidation

Prepared: 8/1/2017

Lab Number	Sample ID and Source Sample	Initial (mL)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F708258-BLK1	Blank	100	101					ix
F708258-BLK2	Blank	100	101					ix
F708258-BLK3	Blank	100	101					ix
F708258-BS1	LCS	50 100	50.3 101	1004715	100			ix
F708258-BSD1	LCS Dup	50 100	50.5 101	1004715	100			ix
F708258-DUP1	Duplicate 1707371.04	100	101					ix
F708258-MS1	Matrix Spike 1707371.04	100	101	1704422	100			ix
F708258-MS2	Matrix Spike 1707717.02	100	101	1704422	100			ix
F708258-MSD1	Matrix Spike Dup 1707371.04	100	101	1704422	100			ix
F708258-MSD2	Matrix Spike Dup 1707717.02	100	101	1704422	100			ix

Standard ID(s):      Description:

Expiration:

1703700  
1704423  
1703182  
1703701  
1703702

PREPARATION BENCH SHEET

2600-2

8/1/17 DM

F708258

Eurofins Frontier Global Sciences, Inc.

Matrix: Water

Prepared using: AFS - EPA 1631E BrCl Oxidation

Prepared: 8/1/2017

Lab Number	Sample ID	Initial (mL)	Final (mL)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1707371-02	B172738 Salem MH (Background)	100	101	-	-	-		10X
1707371-04	B172740 Salem MH (Background)	100	101	-	-	-		10X
1707371-06	B172753 Salem MH (Background)	100	101	-	-	-		10X
1707702-01	EQ_072517_PONAR_QC	100	101	-	-	-	Scan all data - Level IV	1X
1707703-01	EQ_072517_TWEEZER_QC	100	101	-	-	-	Scan all data - Level IV	1X
1707704-01	EQ_072517_CSHOE_QC	100	101	-	-	-	Scan all data - Level IV	1X
1707704-02	EQ_072517_CORE_QC	100	101	-	-	-	Scan all data - Level IV	1X
1707717-02	B-172998 Plant Inf. (Hg) #17-10171	100	101	-	-	-	Scan Data for Level IV	10X
1707717-04	B-172980 Plant Eff. (Hg) #17-10173	100	101	-	-	-	Scan Data for Level IV	1X
1707732-01	P89218-1	100	101	-	-	-		1X
1707732-02	P89218-2	100	101	-	-	-		1X
1707732-03	P89218-6	100	101	-	-	-		1X
1707732-04	P89218-7	100	101	-	-	-		1X
1707732-05	P89218-8	100	101	-	-	-		1X

1707540-02 1X

**PREPARATION BENCH SHEET**

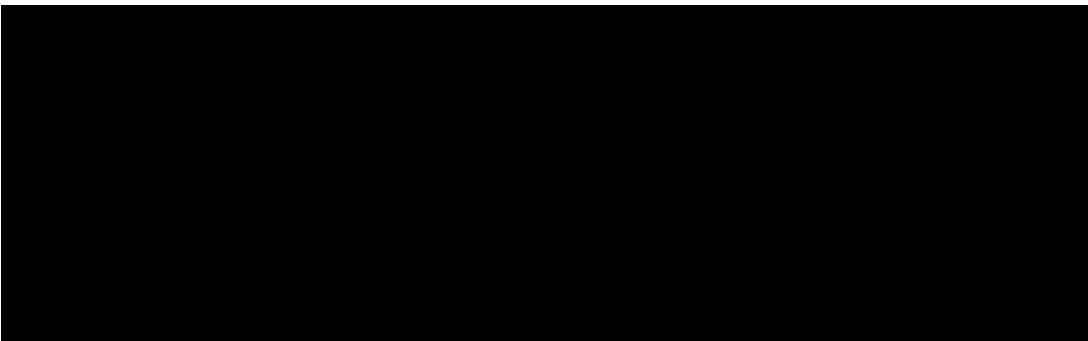
F708258

**Eurofins Frontier Global Sciences, Inc.**

**Matrix: Water**

**Prepared using: AFS - EPA 1631E BrCl Oxidation**

**Prepared: 8/1/2017**



# Total Mercury Preservation Logbook

**Initial preservation and/or verification**

Technician: NW Date: 7/26/17 Time Completed: 1654

Work Orders: 1707695, 1707696  
1707702, 1707703, 1707704

**Additional preservation and/or verification (as needed)**

Technician: \_\_\_\_\_ Date: \_\_\_\_\_ Time Completed: \_\_\_\_\_  
 Technician: \_\_\_\_\_ Date: \_\_\_\_\_ Time Completed: \_\_\_\_\_

BrCl LIMS ID: 1703700

Pipette SN: 507631

Cal. Date: 7/19/17

Sample ID	Sample Volume (mL)	Reagent added (mL)	Oxidized? Y/N	Additional preservation (as needed)		
				Oxidized? Y/N	Reagent added (mL)	Oxidized? Y/N
1707695-01A	300	3.00	Y			
1707695-02A	300	3.00	Y			
1707695-03A	300	3.00	Y			
1707695-04A	300	3.00	Y			
1707695-05B	10	10	Y			
1707695-06A	300	3.00	Y			
1707696-01A	300	3.00	Y			
1707696-02A	300	3.00	Y			
1707696-03A	300	3.00	Y			
1707696-04A	300	3.00	Y			
1707696-05A	300	3.00	Y			
1707696-06A	300	3.00	Y			
1707702-01A	300	3.00	Y			
1707703-01A	300	3.00	Y			
1707704-01A	300	3.00	Y			
1707704-02A	300	3.00	Y			
NW 7/26/17						

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: CS8 Date: 7/27/17 Time Completed: 1615

Work Orders: 1707717  
1707732

**Additional preservation and/or verification (as needed)**

Technician: \_\_\_\_\_ Date: \_\_\_\_\_ Time Completed: \_\_\_\_\_

Technician: \_\_\_\_\_ Date: \_\_\_\_\_ Time Completed: \_\_\_\_\_

BrCl LIMS ID: 1703205

Pipette SN: 307631

Cal. Date: 7/27/17

Sample ID	Sample Volume (mL)	Reagent added (mL)	Oxidized? Y/N	Additional preservation (as needed)		
				Oxidized? Y/N	Reagent added (mL)	Oxidized? Y/N
1707717-02A	300	3.00	y			
1707717-04A	300	3.00	y			
1707732-01B	300	3.00	y			
1707732-02B	300	3.00	y			
1707732-03B	300	3.00	y			
1707732-04B	300	3.00	y			
1707732-05B	300	3.00	y			
<div style="border: 1px solid black; width: 100%; height: 100%; transform: rotate(45deg); position: relative; margin: 20px auto;"> <span style="position: absolute; top: 50%; left: 50%; transform: translate(-50%, -50%); font-size: 2em;">CS8</span> <span style="position: absolute; top: 60%; left: 50%; transform: translate(-50%, -50%); font-size: 1.5em;">7/27/17</span> </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: \_\_\_\_\_



# Total Mercury Preservation Logbook

1707372

**Initial preservation and/or verification**

Technician: BW Date: 7/14/17 Time Completed: 1430

Work Orders: 1707367 1707371  
1707368, 1707369, 1707370

**Additional preservation and/or verification (as needed)**

Technician: \_\_\_\_\_ Date: \_\_\_\_\_ Time Completed: \_\_\_\_\_  
 Technician: \_\_\_\_\_ Date: \_\_\_\_\_ Time Completed: \_\_\_\_\_

BrCl LIMS ID: 1703700  
 Pipette SN: <sup>BW #114/17</sup> 507631  
 Cal. Date: 7/19/17 7/12/17  
 BW 7/14/17

Sample ID	Sample Volume (mL)	Reagent added (mL)	Oxidized? Y/N	Additional preservation (as needed)		
				Oxidized? Y/N	Reagent added (mL)	Oxidized? Y/N
1707367-01A	290	2.90	Y			
1707367-02A	300	3.00	Y			
1707367-03A	300	3.00	Y			
1707368-01A	260	2.60	Y			
1707368-02A	300	3.00	Y			
1707368-03A	300	3.00	Y			
1707369-01A	280	2.80	Y			
1707369-02A	300	3.00	Y			
1707369-03A	300	3.00	Y			
1707370-01A	275	2.75	Y			
1707370-02A	300	3.00	Y			
1707370-03A	300	3.00	Y			
1707371-02A	300	3.00	Y			
1707371-04A	300	3.00	Y			
1707371-06A	300	3.00	Y			
1707372-02A	300	3.00	Y			
1707372-04A	300	3.00	Y			
1707372-06A	300	3.00	Y			
1707372-08A	300	3.00	Y			
1707372-10A	300	3.00	Y			
1707372-12A	300	3.00	Y			
1707372-14A	300	3.00	Y			
1707372-16A	300	3.00	Y			
<u>BW</u>						
<u>7/14/17</u>						

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

489/24/17 DM

# Total Mercury Preservation Logbook

**Initial preservation and/or verification**

Technician: CSG Date: 7/21/17 Time Completed: 1324

Work Orders: 1707539  
1707540, 1707578

**Additional preservation and/or verification (as needed)**

Technician: \_\_\_\_\_ Date: \_\_\_\_\_ Time Completed: \_\_\_\_\_  
Technician: \_\_\_\_\_ Date: \_\_\_\_\_ Time Completed: \_\_\_\_\_

BrCl LIMS ID: 1703700

Pipette SN: J07631

Cal. Date: 7/19/17

Sample ID	Sample Volume (mL)	Reagent added (mL)	Oxidized? Y/N	Additional preservation (as needed)		
				Oxidized? Y/N	Reagent added (mL)	Oxidized? Y/N
<u>1707539-02A</u> <small>CSG 7/21/17</small>	<u>150</u>	<u>1.50</u>	<u>y</u>			
<u>1707540-02A</u> <small>CSG 7/21/17</small>	<u>150</u>	<u>1.50</u>	<u>y y</u>			
<u>1707578-01A</u>	<u>300</u>	<u>3.00</u>	<u>y</u>			
<u>1707578-02A</u>	<u>300</u>	<u>3.00</u>	<u>y y</u>			
<u>1707578-03A</u>	<u>300</u>	<u>3.00</u>	<u>y</u>			
<u>1707578-04A</u>	<u>300</u>	<u>3.00</u>	<u>y</u>			
<div style="border: 1px solid black; width: 100%; height: 100%; transform: rotate(45deg); position: relative; margin: 0 auto;"> <span style="position: absolute; top: -20px; left: 50%; transform: translate(-50%, -50%); font-size: 2em;">CSG</span> <span style="position: absolute; top: 10px; left: 50%; transform: translate(-50%, -50%); font-size: 1.5em;">7/21/17</span> </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: \_\_\_\_\_  
\_\_\_\_\_

**Peer Review Check List for THg by 2600 CV-AFS (SOP2822) 2016 Rev 1 (04/1/2016)**

<b>Analyst:</b> DON MORAN	<b>Sequence(s) #:</b> 7H01022, 7H01023, 7H01024
<b>Reviewer:</b> <i>BC</i> 8/2/17	<b>Dataset ID(s):</b> THG26002-170801-1
<b>Date:</b> 8/1/2017	<b>WO (s) #:</b> VARIOUS
<b>Batch #(s):</b> F707561, F707541, F708258	

• 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:** DM

**Reviewer Initials:** BC

- |   |   |  |                                     |
|---|---|--|-------------------------------------|
| 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        |
| (d) Check and compare masses (review prep benchsheet)   | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO            | <input type="checkbox"/> N/A        |
| (e) Check & compare initial & final volumes   | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO            | <input type="checkbox"/> N/A        |
| (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        |
| 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? <span style="float:right">WO#(s)/Client(s): <u>8/2/17</u></span>                        | <input checked="" 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 (SOP2822) 2016 Rev 1 (04/1/2016)**

<b>Analyst:</b> DON MORAN	<b>Sequence(s) #:</b> 7H01022, 7H01023, 7H01024
<b>Reviewer:</b> 0 <i>Brc</i> 8/2/17	<b>Dataset ID(s):</b> THG26002-170801-1
<b>Date:</b> 8/1/2017	<b>WO (s) #:</b> VARIOUS
<b>Batch #(s):</b> F707561, F707541, F708258	0

Analyst Initials DM

Reviewer Initials Brc

- |  |  |  |   |                                     |
|--|--|--|---|-------------------------------------|
| 5b. Has the B/C section data been uploaded?  | <input checked="" type="checkbox"/> YES  | <input type="checkbox"/> NO            | <input type="checkbox"/> N/A            | <input checked="" type="checkbox"/> |
| <b>QA/QC Data Checked</b>  |  |  |   |                                     |
| 6. RSD CF ( $\leq 15\%$ )  | <input checked="" type="checkbox"/> PASS | <input type="checkbox"/> FAIL          |   | <input checked="" type="checkbox"/> |
| Comments: _____  |  |  |   |                                     |
| 7. The calibration curve included a minimum of 5 Standards   | <input checked="" type="checkbox"/> YES  | <input type="checkbox"/> NO            |   | <input checked="" type="checkbox"/> |
| Comments: _____  |  |  |   |                                     |
| 8. 1st Calibration Standard % Recoveries EPA 1631E (75-125%)   | <input checked="" type="checkbox"/> PASS | <input type="checkbox"/> FAIL          |   | <input checked="" type="checkbox"/> |
| 9. ICV and CCV % Recoveries EPA 1631E (77-123%)  | <input checked="" type="checkbox"/> PASS | <input type="checkbox"/> FAIL          |   | <input checked="" type="checkbox"/> |
| Comments: _____  |  |  |   |                                     |
| 10. Do all calibration points pass acceptance criteria?  | <input checked="" type="checkbox"/> YES  | <input type="checkbox"/> NO            |   | <input checked="" type="checkbox"/> |
| Comments: _____  |  |  |   |                                     |
| 11. Are qualifiers consistent with the data review flowcharts?   | <input checked="" type="checkbox"/> YES  | <input type="checkbox"/> NO            | <input type="checkbox"/> N/A            | <input checked="" type="checkbox"/> |
| Comments: _____  |  |  |   |                                     |
| 12. Explain any items on the failed data report from Element   |  |  |   | <input checked="" type="checkbox"/> |
| Comments: <b>NONE</b>  |  |  |   |                                     |
| 13. Are the individual Preparation Blanks < PQL or <2.2xMDL for WI (refer to appropriate prep method PQL list) | <input checked="" type="checkbox"/> PASS | <input type="checkbox"/> FAIL          |   | <input checked="" type="checkbox"/> |
| (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)?                                   | <input checked="" type="checkbox"/> YES  | <input type="checkbox"/> NO            |   | <input checked="" type="checkbox"/> |
| (c) Was a BrCl Blank analyzed for each preservation level?   | <input checked="" type="checkbox"/> YES  | <input type="checkbox"/> NO            | <input type="checkbox"/> N/A            | <input checked="" type="checkbox"/> |
| (d) Are Preparation Blanks summarized on QC page?  | <input checked="" type="checkbox"/> YES  | <input type="checkbox"/> NO            |   | <input checked="" type="checkbox"/> |
| 14. Filtration Blank Prepared (if yes, use FB qualifier)   | <input type="checkbox"/> YES             | <input checked="" type="checkbox"/> NO |   | <input checked="" type="checkbox"/> |
| (a) Filtration Blank prep date same as associated samples' prep date   | <input type="checkbox"/> YES             | <input type="checkbox"/> NO            | <input checked="" type="checkbox"/> N/A | <input checked="" type="checkbox"/> |
| (b) Filtration Blank absolute value < PQL or <2.2xMDL for WI   | <input type="checkbox"/> YES             | <input type="checkbox"/> NO            | <input checked="" type="checkbox"/> N/A | <input checked="" type="checkbox"/> |
| 15. IBLs (3 minimum) individually < 0.50 ng/L, mean < 0.25 ng/L and STD of 0.10 ng/L?                          | <input checked="" type="checkbox"/> PASS | <input type="checkbox"/> FAIL          |   | <input checked="" type="checkbox"/> |
| Comments: _____  |  |  |   |                                     |
| 16. CCBs individually < 0.50 ng/L or 2.2 x MDL for WI?   | <input checked="" type="checkbox"/> PASS | <input type="checkbox"/> FAIL          |   | <input checked="" type="checkbox"/> |
| Comments: _____  |  |  |   |                                     |
| 17. 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"/> |
| 18. Is the correct 'Source' designated for MD/MS/MSD?  | <input checked="" type="checkbox"/> YES  | <input type="checkbox"/> NO            |   | <input checked="" type="checkbox"/> |
| 19. 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"/> |

**Peer Review Check List for THg by 2600 CV-AFS (SOP2822) 2016 Rev 1 (04/1/2016)**

<b>Analyst:</b>	DON MORAN	<b>Sequence(s) #:</b>	7H01022, 7H01023, 7H01024
<b>Reviewer:</b>	0 <i>BC</i> 8/2/17	<b>Dataset ID(s):</b>	THG26002-170801-1
<b>Date:</b>	8/1/2017	<b>WO (s) #:</b>	VARIOUS
<b>Batch #(s):</b>	F707561, F707541, F708258		0

Analyst Initials DM

Reviewer Initials BC

- |  |  |                               |   |
|--|--|-------------------------------|---|
| 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 type="checkbox"/>  |
| Comments: _____  |  |                               |   |
| 23. Dissolved < Total (if applicable)  | <input type="checkbox"/> YES             | <input type="checkbox"/> NO   | <input checked="" type="checkbox"/> N/A <input checked="" type="checkbox"/> |
| Comments: _____  |  |                               |   |
| 24. Effluent < Influent (visually confirm if needed)   | <input checked="" type="checkbox"/> YES  | <input type="checkbox"/> NO   | <input type="checkbox"/> N/A <input checked="" type="checkbox"/>            |
| Comments: _____  |  |                               |   |
| 25. Are re-runs noted with reason?   | <input checked="" type="checkbox"/> YES  | <input type="checkbox"/> NO   | <input 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 checked="" type="checkbox"/> YES  | <input type="checkbox"/> NO   | <input type="checkbox"/> N/A <input checked="" type="checkbox"/>            |
| Comments: _____  |  |                               |   |
| 27. Is the B trap <5% A Traps  | <input checked="" type="checkbox"/> YES  | <input type="checkbox"/> NO   | <input type="checkbox"/> N/A <input checked="" type="checkbox"/>            |
| Comments: _____  |  |                               |   |
| 28. Are spiked trap recoveries 75-125% of true value?  | <input checked="" type="checkbox"/> YES  | <input type="checkbox"/> NO   | <input type="checkbox"/> N/A <input checked="" type="checkbox"/>            |
| Comments: _____  |  |                               |   |
| 29. Have non-reportable samples been imported into LIMS and clicked to non-reportable?   | <input checked="" type="checkbox"/> YES  | <input type="checkbox"/> NO   | <input type="checkbox"/> N/A <input 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: _____                | 12/15/2016       | 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: _____ | 5/20/2016        | Current SOP revision read?       | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> |
| 38. Date of LOD: _____                              | 4/27/17, 4/26/17 | LOD within last 3 months?        | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> |
| 39. Date of LOQ: _____                              | 4/27/17, 4/26/17 | 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 (SOP2822) 2016 Rev 1 (04/1/2016)**

<b>Analyst:</b> DON MORAN	<b>Sequence(s) #:</b> 7H01022, 7H01023, 7H01024
<b>Reviewer:</b> 0 <i>[Signature]</i> 8/7/17	<b>Dataset ID(s):</b> THG26002-170801-1
<b>Date:</b> 8/1/2017	<b>WO (s) #:</b> VARIOUS
<b>Batch #(s):</b> F707561, F707541, F708258	0

DM

BC

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


Additional Page (s)?  YES





Frontier Global Sciences

### MHg27001-170817-1

#### Analysis Datasheet for Methyl Mercury in Soil/Tissue

Date of Analysis: August 17, 2017

Instrument #: Hg2700-1

LIMS Sequence #: 7H18012

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	22.31 units	446.29	22.31 units	446.29	98.4 %Rec
SEQ-CAL2	1	0.20 ng/L	84.83 units	424.16	84.83 units	424.16	93.5 %Rec
SEQ-CAL3	1	1.00 ng/L	489.83 units	489.83	489.83 units	489.83	107.9 %Rec
SEQ-CAL4	1	2.00 ng/L	890.79 units	445.40	890.79 units	445.40	98.2 %Rec
SEQ-CAL5	1	4.00 ng/L	1852.56 units	463.14	1852.56 units	463.14	102.1 %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**  
 453.76            +/- 24.45            5.4% RSD            453.76

#### Blanks:

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

#### Preparation Blanks

Sample Type	Batch ID	n	Mean	Std Dev
BLK	1	3	0.012 ng/L	±0.021
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: PL 8/16/17

Instrument	Analyst	Sample		Dilution	Analyzed	FileID	Run End	Uncorrected Response	Batch ID	No PB				Comments		
		Type	LabNumber							Correction?	RESP	InitialResult	FinalResult		InitialUnits	
Hg2700-1	DM2	CAL	SEQ-IBL1	1	8/17/17 9:18	25080-1.RAW	9:18:16	0.00				0.0	0.000	0.000	ng/L	
Hg2700-1	DM2	CAL	SEQ-CAL1	1	8/17/17 9:28	25081-1.RAW	9:28:46	22.31				22.3	0.049	0.049	ng/L	
Hg2700-1	DM2	CAL	SEQ-CAL2	1	8/17/17 9:39	25082-1.RAW	9:39:17	84.83				84.8	0.187	0.187	ng/L	
Hg2700-1	DM2	CAL	SEQ-CAL3	1	8/17/17 9:49	25083-1.RAW	9:49:48	489.83				489.8	1.079	1.079	ng/L	
Hg2700-1	DM2	CAL	SEQ-CAL4	1	8/17/17 10:00	25084-1.RAW	10:00:18	890.79				890.8	1.963	1.963	ng/L	
Hg2700-1	DM2	CAL	SEQ-CAL5	1	8/17/17 10:10	25085-1.RAW	10:10:49	1852.56				1852.6	4.083	4.083	ng/L	
Hg2700-1	DM2	CAL	SEQ-1CV1	1	8/17/17 10:21	25086-1.RAW	10:21:20	223.21				223.2	0.492	0.492	ng/L	
Hg2700-1	DM2	CAL	SEQ-1CB1	1	8/17/17 10:31	25087-1.RAW	10:31:50	3.07				3.1	0.007	0.007	ng/L	
Hg2700-1	DM2	SAM	F708416-BS1	1000	8/17/17 10:42	25088-1.RAW	10:42:21	954.97	1			955.0	2.105	2104.539	ng/L	
Hg2700-1	DM2	SAM	F708416-BSD1	1000	8/17/17 11:00	25089-2.RAW	11:00:19	886.39	1			886.4	1.953	1953.410	ng/L	
Hg2700-1	DM2	BLK	F708434-BLK1	1.25	8/17/17 11:10	25090-1.RAW	11:10:50	3.77		X		3.8	0.008	0.010	ng/L	
Hg2700-1	DM2	BLK	F708434-BLK2	1.25	8/17/17 11:21	25091-1.RAW	11:21:21	0.00		X		0.0	0.000	0.000	ng/L	
Hg2700-1	DM2	BLK	F708434-BLK3	1.25	8/17/17 11:31	25092-1.RAW	11:31:52	0.64		X		0.6	0.001	0.002	ng/L	
Hg2700-1	DM2	SAM	F708434-BS1	1.25	8/17/17 11:42	25093-1.RAW	11:42:22	341.02		X		341.0	0.752	0.939	ng/L	
Hg2700-1	DM2	SAM	F708434-BSD1	1.25	8/17/17 11:52	25094-1.RAW	11:52:53	347.80		X		347.8	0.766	0.958	ng/L	
Hg2700-1	DM2	SAM	F708434-DUP1	1.25	8/17/17 12:03	25095-1.RAW	12:03:24	1.89		X		1.9	0.004	0.005	ng/L	
Hg2700-1	DM2	SAM	F708434-MS1	1.25	8/17/17 12:13	25096-1.RAW	12:13:54	626.72		X		626.7	1.381	1.726	ng/L	
Hg2700-1	DM2	SAM	F708434-MSD1	1.25	8/17/17 12:24	25097-1.RAW	12:24:25	568.74		X		568.7	1.253	1.567	ng/L	
Hg2700-1	DM2	CAL	SEQ-CCV1	1	8/17/17 12:34	25098-1.RAW	12:34:56	221.11				221.1	0.487	0.487	ng/L	
Hg2700-1	DM2	CAL	SEQ-CCB1	1	8/17/17 12:45	25099-1.RAW	12:45:26	1.17				1.2	0.003	0.003	ng/L	
Hg2700-1	DM2	SAM	F708434-MS2	1.25	8/17/17 12:55	25100-1.RAW	12:55:57	398.34		X		398.3	0.878	1.097	ng/L	
Hg2700-1	DM2	SAM	F708434-MSD2	1.25	8/17/17 13:06	25101-1.RAW	13:06:28	385.87		X		385.9	0.850	1.063	ng/L	
Hg2700-1	DM2	SAM	1707702-01	1.25	8/17/17 13:16	25102-1.RAW	13:16:59	2.45		X		2.5	0.005	0.007	ng/L	
Hg2700-1	DM2	SAM	1707703-01	1.25	8/17/17 13:27	25103-1.RAW	13:27:29	4.71		X		4.7	0.010	0.013	ng/L	
Hg2700-1	DM2	SAM	1707704-01	1.25	8/17/17 13:38	25104-1.RAW	13:38:00	0.69		X		0.7	0.002	0.002	ng/L	
Hg2700-1	DM2	SAM	1707704-02	1.25	8/17/17 13:48	25105-1.RAW	13:48:31	0.97		X		1.0	0.002	0.003	ng/L	
Hg2700-1	DM2	SAM	1707732-01	1.25	8/17/17 13:59	25106-1.RAW	13:59:01	0.00		X		0.0	0.000	0.000	ng/L	
Hg2700-1	DM2	SAM	1707732-02	1.25	8/17/17 14:09	25107-1.RAW	14:09:32	254.39		X		254.4	0.561	0.701	ng/L	
Hg2700-1	DM2	SAM	1707732-03	1.25	8/17/17 14:20	25108-1.RAW	14:20:03	269.63		X		269.6	0.594	0.743	ng/L	
Hg2700-1	DM2	SAM	1707732-04	1.25	8/17/17 14:30	25109-1.RAW	14:30:33	241.49		X		241.5	0.532	0.665	ng/L	
Hg2700-1	DM2	CAL	SEQ-CCV2	1	8/17/17 14:41	25110-1.RAW	14:41:04	212.96				213.0	0.469	0.469	ng/L	
Hg2700-1	DM2	CAL	SEQ-CCB2	1	8/17/17 14:51	25111-1.RAW	14:51:35	1.57				1.6	0.003	0.003	ng/L	
Hg2700-1	DM2	SAM	1707732-05	1.25	8/17/17 15:02	25112-1.RAW	15:02:06	0.00		X		0.0	0.000	0.000	ng/L	
Hg2700-1	DM2	SAM	1708082-01	1.25	8/17/17 15:12	25113-1.RAW	15:12:36	34.32		X		34.3	0.076	0.095	ng/L	
Hg2700-1	DM2	SAM	1708082-03	1.25	8/17/17 15:23	25114-1.RAW	15:23:07	47.57		X		47.6	0.105	0.131	ng/L	
Hg2700-1	DM2	SAM	1708082-04	1.25	8/17/17 15:33	25115-1.RAW	15:33:38	25.72		X		25.7	0.057	0.071	ng/L	
Hg2700-1	DM2	SAM	1708082-05	1.25	8/17/17 15:44	25116-1.RAW	15:44:08	17.48		X		17.5	0.039	0.048	ng/L	
Hg2700-1	DM2	SAM	1708082-07	1.25	8/17/17 15:54	25117-1.RAW	15:54:39	11.92		X		11.9	0.026	0.033	ng/L	
Hg2700-1	DM2	SAM	1708082-08	1.25	8/17/17 16:05	25118-1.RAW	16:05:10	16.28		X		16.3	0.036	0.045	ng/L	
Hg2700-1	DM2	SAM	1708150-01	1.25	8/17/17 16:15	25119-1.RAW	16:15:41	5.24		X		5.2	0.012	0.014	ng/L	
Hg2700-1	DM2	SAM	1708269-01	1.25	8/17/17 16:31	25120-1.RAW	16:31:15	33.55		X		33.6	0.074	0.092	ng/L	
Hg2700-1	DM2	SAM	1708269-02	1.25	8/17/17 16:41	25121-1.RAW	16:41:45	46.12		X		46.1	0.102	0.127	ng/L	
Hg2700-1	DM2	CAL	SEQ-CCV3	1	8/17/17 16:52	25122-1.RAW	16:52:16	212.08				212.1	0.467	0.467	ng/L	
Hg2700-1	DM2	CAL	SEQ-CCB3	1	8/17/17 17:02	25123-1.RAW	17:02:47	0.00				0.0	0.000	0.000	ng/L	
Hg2700-1	DM2	SAM	1708269-03	1.25	8/17/17 17:13	25124-1.RAW	17:13:18	31.15		X		31.2	0.069	0.086	ng/L	
Hg2700-1	DM2	SAM	1708269-04	1.25	8/17/17 17:23	25125-1.RAW	17:23:48	44.28		X		44.3	0.098	0.122	ng/L	



Instrument	Analyst	Sample		Dilution	Analyzed	FileID	Run End	Uncorrected Response	Batch ID	No PB		RESP	InitialResult	FinalResult	InitialUnits	Comments
		Type	LabNumber							Correction?	RESP					
Hg2700-1	DM2	BLK	F708416-BLK1	500	8/17/17 17:34	25126-1.RAW	17:34:19	0.03	1		0.0	0.000	0.037	ng/L		
Hg2700-1	DM2	BLK	F708416-BLK2	500	8/17/17 17:44	25127-1.RAW	17:44:50	0.00	1		0.0	0.000	0.000	ng/L		
Hg2700-1	DM2	BLK	F708416-BLK3	500	8/17/17 17:55	25128-1.RAW	17:55:20	0.00	1		0.0	0.000	0.000	ng/L		
Hg2700-1	DM2	SAM	*F708416-BLK4	500	8/17/17 18:05	25129-1.RAW	18:05:51	0.00	1		0.0	0.000	-0.012	ng/L		
Hg2700-1	DM2	SAM	*F708416-BLK5	500	8/17/17 18:16	25130-1.RAW	18:16:22	0.00	1		0.0	0.000	-0.012	ng/L		
Hg2700-1	DM2	SAM	F708416-DUP1	2500	8/17/17 18:26	25131-1.RAW	18:26:52	373.55	1		373.6	0.823	2058.082	ng/L		
Hg2700-1	DM2	SAM	F708416-MS1	2500	8/17/17 18:37	25132-1.RAW	18:37:23	460.93	1		460.9	1.016	2539.488	ng/L		
Hg2700-1	DM2	SAM	F708416-MSD1	2500	8/17/17 18:47	25133-1.RAW	18:47:54	522.36	1		522.4	1.151	2877.938	ng/L		
Hg2700-1	DM2	CAL	SEQ-CCV4	1	8/17/17 18:58	25134-1.RAW	18:58:25	224.38	1		224.4	0.494	0.494	ng/L		
Hg2700-1	DM2	CAL	SEQ-CCB4	1	8/17/17 19:08	25135-1.RAW	19:08:55	0.00	1		0.0	0.000	0.000	ng/L		
Hg2700-1	DM2	SAM	F708416-MS2	2500	8/17/17 19:19	25136-1.RAW	19:19:26	439.04	1		439.0	0.968	2418.891	ng/L		
Hg2700-1	DM2	SAM	F708416-MSD2	2500	8/17/17 19:29	25137-1.RAW	19:29:57	476.99	1		477.0	1.051	2627.957	ng/L		
Hg2700-1	DM2	SAM	1707810-30	500	8/17/17 19:40	25138-1.RAW	19:40:27	20.98	1		21.0	0.046	23.101	ng/L		
Hg2700-1	DM2	SAM	1707810-31	500	8/17/17 19:50	25139-1.RAW	19:50:58	10.76	1		10.8	0.024	11.842	ng/L		
Hg2700-1	DM2	SAM	1707810-44	500	8/17/17 20:01	25140-1.RAW	20:01:29	55.17	1		55.2	0.122	60.774	ng/L		
Hg2700-1	DM2	SAM	1707810-45	500	8/17/17 20:11	25141-1.RAW	20:11:59	72.61	1		72.6	0.160	80.002	ng/L		
Hg2700-1	DM2	SAM	1707810-54	500	8/17/17 20:22	25142-1.RAW	20:22:30	24.25	1		24.3	0.053	26.712	ng/L		
Hg2700-1	DM2	SAM	1707810-55	500	8/17/17 20:33	25143-1.RAW	20:33:01	9.91	1		9.9	0.022	10.910	ng/L		
Hg2700-1	DM2	SAM	1708148-01	2500	8/17/17 20:43	25144-1.RAW	20:43:32	430.64	1		430.6	0.949	2372.569	ng/L		
Hg2700-1	DM2	SAM	1708148-02	2500	8/17/17 20:54	25145-1.RAW	20:54:02	1007.13	1		1007.1	2.220	5548.785	ng/L		
Hg2700-1	DM2	CAL	SEQ-CCV5	1	8/17/17 21:04	25146-1.RAW	21:04:33	241.42	1		241.4	0.532	0.532	ng/L		
Hg2700-1	DM2	CAL	SEQ-CCB5	1	8/17/17 21:15	25147-1.RAW	21:15:04	0.64	1		0.6	0.001	0.001	ng/L		
Hg2700-1	DM2	SAM	1708151-01	500	8/17/17 21:25	25148-1.RAW	21:25:34	121.83	1		121.8	0.268	134.227	ng/L		
Hg2700-1	DM2	SAM	1708151-02	500	8/17/17 21:36	25149-1.RAW	21:36:05	117.69	1		117.7	0.259	129.668	ng/L		
Hg2700-1	DM2	SAM	1708151-03	500	8/17/17 21:46	25150-1.RAW	21:46:36	57.70	1		57.7	0.127	63.566	ng/L		
Hg2700-1	DM2	SAM	1708156-01	500	8/17/17 21:57	25151-1.RAW	21:57:06	12.88	1		12.9	0.028	14.178	ng/L		
Hg2700-1	DM2	SAM	1708156-02	500	8/17/17 22:07	25152-1.RAW	22:07:37	12.73	1		12.7	0.028	14.011	ng/L		
Hg2700-1	DM2	SAM	1708156-03	500	8/17/17 22:18	25153-1.RAW	22:18:08	10.32	1		10.3	0.023	11.360	ng/L		
Hg2700-1	DM2	SAM	1708156-04	500	8/17/17 22:28	25154-1.RAW	22:28:39	48.48	1		48.5	0.107	53.411	ng/L		
Hg2700-1	DM2	SAM	1708156-05	500	8/17/17 22:39	25155-1.RAW	22:39:09	0.00	1		0.0	0.000	-0.012	ng/L		
Hg2700-1	DM2	SAM	1708156-06	500	8/17/17 22:49	25156-1.RAW	22:49:40	34.57	1		34.6	0.076	38.085	ng/L		
Hg2700-1	DM2	SAM	1708156-07	500	8/17/17 23:00	25157-1.RAW	23:00:11	67.30	1		67.3	0.148	74.143	ng/L		
Hg2700-1	DM2	CAL	SEQ-CCV6	1	8/17/17 23:10	25158-1.RAW	23:10:41	209.43	1		209.4	0.462	0.462	ng/L		
Hg2700-1	DM2	CAL	SEQ-CCB6	1	8/17/17 23:21	25159-1.RAW	23:21:12	0.00	1		0.0	0.000	0.000	ng/L		
Hg2700-1	DM2	SAM	1708156-08	500	8/17/17 23:31	25160-1.RAW	23:31:43	12.38	1		12.4	0.027	13.633	ng/L		
Hg2700-1	DM2	SAM	1708367-01	2500	8/17/17 23:42	25161-1.RAW	23:42:13	469.16	1		469.2	1.034	2584.845	ng/L		
Hg2700-1	DM2	CAL	SEQ-CCV7	1	8/17/17 23:52	25162-1.RAW	23:52:44	218.88	1		218.9	0.482	0.482	ng/L		
Hg2700-1	DM2	CAL	SEQ-CCB7	1	8/17/17 0:03	25163-1.RAW	0:03:15	0.00	1		0.0	0.000	0.000	ng/L		

## ANALYSIS SEQUENCE

7H18012

Instrument: Hg2700-1

Calibration ID: UNASSIGNED

Analyzed: 8/17/2017

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
7H18012-IBL1 ✓	QC	1			
7H18012-CAL1 ✓	QC	2	1704180 ✓		
7H18012-CAL2 ✓	QC	3	1704181 ✓		
7H18012-CAL3 ✓	QC	4	1704182 ✓		
7H18012-CAL4 ✓	QC	5	1704183 ✓		
7H18012-CAL5 ✓	QC	6	1704184 ✓		
7H18012-ICV1 ✓	QC	7	1703246 ✓		
7H18012-ICB1 ✓	QC	8			
F708416-BS1 ✓	QC	9			
F708416-BSD1 ✓	QC	10			
7H18012-CCV1 ✓	QC	11	1703246 ✓		
7H18012-CCB1 ✓	QC	12			
7H18012-CCV2 ✓	QC	13	1703246 ✓		
7H18012-CCB2 ✓	QC	14			
7H18012-CCV3 ✓	QC	15	1703246 ✓		
7H18012-CCB3 ✓	QC	16			
F708416-BLK1 ✓	QC	17			
F708416-BLK2 ✓	QC	18			
F708416-BLK3 ✓	QC	19			
F708416-BLK4 ✓	QC	20			
F708416-BLK5 ✓	QC	21			
F708416-DUP1 ✓	QC	22			
F708416-MS1 ✓	QC	23			
F708416-MSD1 ✓	QC	24			
7H18012-CCV4 ✓	QC	25	1703246 ✓		
7H18012-CCB4 ✓	QC	26			
F708416-MS2 ✓	QC	27			
F708416-MSD2 ✓	QC	28			
1707810-30 ✓	MHg-CVAFS-S-KOH	29			
1707810-31 ✓	MHg-CVAFS-S-KOH	30			
1707810-44 ✓	MHg-CVAFS-S-KOH	31			
1707810-45 ✓	MHg-CVAFS-S-KOH	32			
1707810-54 ✓	MHg-CVAFS-S-KOH	33			
1707810-55 ✓	MHg-CVAFS-S-KOH	34			
1708148-01 ✓	MHg-CVAFS-S-KOH	35			BatchQC

Due Date: 8/18/2017

57 of 170

Page 1 of 2

**ANALYSIS SEQUENCE**

**7H18012**

**Instrument: Hg2700-1**

**Calibration ID: UNASSIGNED**

**Analyzed: 8/17/2017**

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
1708148-01 ✓	MHg-CVAFS-T-KOH	36			
1708148-02 ✓	MHg-CVAFS-T-KOH	37			
7H18012-CCV5 ✓	QC	38	1703246	✓	
7H18012-CCB5 ✓	QC	39			
1708151-01 ✓	MHg-CVAFS-S-KOH	40			
1708151-02 ✓	MHg-CVAFS-S-KOH	41			
1708151-03 ✓	MHg-CVAFS-S-KOH	42			
1708156-01 ✓	MHg-CVAFS-S-KOH	43			
1708156-02 ✓	MHg-CVAFS-S-KOH	44			
1708156-03 ✓	MHg-CVAFS-S-KOH	45			
1708156-04 ✓	MHg-CVAFS-S-KOH	46			
1708156-05 ✓	MHg-CVAFS-S-KOH	47			
1708156-06 ✓	MHg-CVAFS-S-KOH	48			
1708156-07 ✓	MHg-CVAFS-S-KOH	49			
7H18012-CCV6 ✓	QC	50	1703246	✓	
7H18012-CCB6 ✓	QC	51			
1708156-08 ✓	MHg-CVAFS-S-KOH	52			
1708367-01 ✓	MHg-CVAFS-S-KOH	53			BatchQC
1708367-01 ✓	MHg-CVAFS-T-KOH	54			
7H18012-CCV7 ✓	QC	55	1703246	✓	
7H18012-CCB7 ✓	QC	56			

Dan Moore                      8/17/17  
 Samples Loaded By                      Date

Dan Moore                      8/18/17  
 Data Processed By                      Date

**PREPARATION BENCH SHEET**

F708416

**Eurofins Frontier Global Sciences, Inc.**

**Matrix: Soil/Sediment**

**Prepared using: AFS - EFGS-010 KOH/Methanol Hg Digestion**

**Prepared: 8/14/2017**

Lab Number	Sample ID and Source Sample	Initial (g)	Final (ml)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F708416-BLK1	Blank	0.5	20					
F708416-BLK2	Blank	0.5	20					
F708416-BLK3	Blank	0.5	20					
F708416-BLK4	Blank	0.293	20					Homogenization Pre Blank 1708148 + 1708367
F708416-BLK5	Blank	0.2741	20					Homogenization Post Blank 1708148 + 1708367
F708416-BS1	LCS	0.1685	20	1703305	168.5			
F708416-BSD1	LCS Dup	0.1363	20	1703305	136.3			
F708416-DUP1	Duplicate [1708148-01]	0.2651	20					
F708416-MS1	Matrix Spike [1708148-01]	0.2792	20	1605978	100			
F708416-MS2	Matrix Spike [1708367-01]	0.25	20	1605978	100			
F708416-MSD1	Matrix Spike Dup [1708148-01]	0.2721	20	1605978	100			
F708416-MSD2	Matrix Spike Dup [1708367-01]	0.2581	20	1605978	100			

Standard ID(s):  
1605978  
1703305

Description:  
MHg New Primary 100 ng/mL spike  
DORM-4

Expiration:  
15-Oct-17 00:00  
29-May-20 00:00  
29-May-20 00:00

Reagent ID(s):  
1704399  
1704707

Description:  
Ethylating Agent (For Methyl Mercury Analysis)  
Acetate Buffer

Expiration:  
16-Jan-18 00:00  
29-Jan-18 00:00

**PREPARATION BENCH SHEET**

F708416

**Eurofins Frontier Global Sciences, Inc.**

**Matrix: Soil/Sediment**

**Prepared using: AFS - EFGS-010 KOH/Methanol Hg Digestion**

**Prepared: 8/14/2017**

Lab Number	Sample ID	Initial (g)	Final (ml)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1707810-30	BO-05_072517_SED_00-01	0.2541	20	-	-	-		
1707810-31	BO-05_072517_SED_01-03	0.2692	20	-	-	-		
1707810-44	W-21-UM-Central-E_072517_SED_00-01	0.2511	20	-	-	-		
1707810-45	W-21-UM-Central-E_072517_SED_01-03	0.2551	20	-	-	-		
1707810-54	W-65-Intertidal_072517_SED_00-01	0.2543	20	-	-	-		
1707810-55	W-65-Intertidal_072517_SED_01-03	0.2582	20	-	-	-		
1708148-01	170717-00814 NW 1033 912291 Canned Albacore Tuna FY17 M07	0.2724	20	-	-	-	BatchQC	Added for BatchQC in: F708416
1708148-02	170717-00816 SD 1022 912291 Canned Albacore Tuna FY17 M07	0.2523	20	-	-	-		
1708151-01	W-100-A_080117_SED_00-01	0.2941	20	-	-	-		
1708151-02	W-100-A_080117_SED_01-03	0.2651	20	-	-	-		
1708151-03	W-101-INTA_080117_SED_00-01	0.2744	20	-	-	-		
1708156-01	MM-MR_080117_SED_00-03_R1	0.2882	20	-	-	-		
1708156-02	MM-MR_080117_SED_00-03_R2	0.2913	20	-	-	-		
1708156-03	MM-MR_080117_SED_00-03_R3	0.2771	20	-	-	-		
1708156-04	ES-02_073117_SED_00-03	0.2592	20	-	-	-		
1708156-05	BO-04_080117_SED_00-03	0.2562	20	-	-	-		
1708156-06	OB-04_072717_SED_00-03	0.2742	20	-	-	-		
1708156-07	OB-05S_072717_SED_00-03	0.2503	20	-	-	-		
1708156-08	ES-04_072817_SED_00-03	0.2501	20	-	-	-		

PREPARATION BENCH SHEET

F708416

Eurofins Frontier Global Sciences, Inc.

Matrix: Soil/Sediment

Prepared using: AFS - EFGS-010 KOH/Methanol Hg Digestion

Prepared: 8/14/2017

1708367-01	170717-00815 BA 146 912291 Canned Albacore Tuna FY17 M07	0.254	20	-	-	-	BatchQC	Added for BatchQC in: F708416
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PREPARATION BENCH SHEET

2700-1  
8/17/17 DM

F708416

Eurofins Frontier Global Sciences, Inc.

Matrix: Soil/Sediment

Prepared using: AFS - EFGS-010 KOH/Methanol Hg Digestion

Prepared: 8/14/2017

Lab Number	Sample ID and Source Sample	Initial (g)	Final (ml)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F708416-BLK1	Blank	0.5	20					500X
F708416-BLK2	Blank	0.5	20					500X
F708416-BLK3	Blank	0.5	20					500X
F708416-BLK4	Blank	0.293	20					Homogenization Pre Blank 1708148 + 1708367 500X
F708416-BLK5	Blank	0.2741	20					Homogenization Post Blank 1708148 + 1708367 500X
F708416-BS1	LCS	0.1685	20	1703305	168.5			1000X
F708416-BSD1	LCS Dup	0.1363	20	1703305	136.3			1000X
F708416-DUP1	Duplicate [1708148-01]	0.2651	20					2500X
F708416-MS1	Matrix Spike [1708148-01]	0.2792	20	1605978	100			2500X
F708416-MS2	Matrix Spike [1708367-01]	0.25	20	1605978	100			2500X
F708416-MSD1	Matrix Spike Dup [1708148-01]	0.2721	20	1605978	100			2500X
F708416-MSD2	Matrix Spike Dup [1708367-01]	0.2581	20	1605978	100			2500X

Standard ID(s):  
1605978  
1703305

Description:  
MHg New Primary 100 ng/mL spike  
DORM-4

Expiration:  
15-Oct-17 00:00  
29-May-20 00:00  
29-May-20 00:00

1704399  
1704707

PREPARATION BENCH SHEET

2700-1  
8/17/17 DM

F708416

Eurofins Frontier Global Sciences, Inc.

Matrix: Soil/Sediment

Prepared using: AFS - EFGS-010 KOH/Methanol Hg Digestion

Prepared: 8/14/2017

Lab Number	Sample ID	Initial (g)	Final (ml)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1707810-30	BO-05_072517_SED_00-01	0.2541	20	-	-	-		500X
1707810-31	BO-05_072517_SED_01-03	0.2692	20	-	-	-		500X
1707810-44	W-21-UM-Central-E_072517_SED_00-01	0.2511	20	-	-	-		500X
1707810-45	W-21-UM-Central-E_072517_SED_01-03	0.2551	20	-	-	-		500X
1707810-54	W-65-Intertidal_072517_SED_00-01	0.2543	20	-	-	-		500X
1707810-55	W-65-Intertidal_072517_SED_01-03	0.2582	20	-	-	-		500X
1708148-01	170717-00814 NW 1033 912291 Canned Albacore Tuna FY17 M07	0.2724	20	-	-	-	BatchQC	Added for BatchQC in: F708416 2500X
1708148-02	170717-00816 SD 1022 912291 Canned Albacore Tuna FY17 M07	0.2523	20	-	-	-		2500X
1708151-01	W-100-A_080117_SED_00-01	0.2941	20	-	-	-		500X
1708151-02	W-100-A_080117_SED_01-03	0.2651	20	-	-	-		500X
1708151-03	W-101-INTA_080117_SED_00-01	0.2744	20	-	-	-		500X
1708156-01	MM-MR_080117_SED_00-03_R1	0.2882	20	-	-	-		500X
1708156-02	MM-MR_080117_SED_00-03_R2	0.2913	20	-	-	-		500X
1708156-03	MM-MR_080117_SED_00-03_R3	0.2771	20	-	-	-		500X
1708156-04	ES-02_073117_SED_00-03	0.2592	20	-	-	-		500X
1708156-05	BO-04_080117_SED_00-03	0.2562	20	-	-	-		500X
1708156-06	OB-04_072717_SED_00-03	0.2742	20	-	-	-		500X
1708156-07	OB-05S_072717_SED_00-03	0.2503	20	-	-	-		500X
1708156-08	ES-04_072817_SED_00-03	0.2501	20	-	-	-		500X



PREPARATION BENCH SHEET

2700-1  
8/17/17 DM

F708416

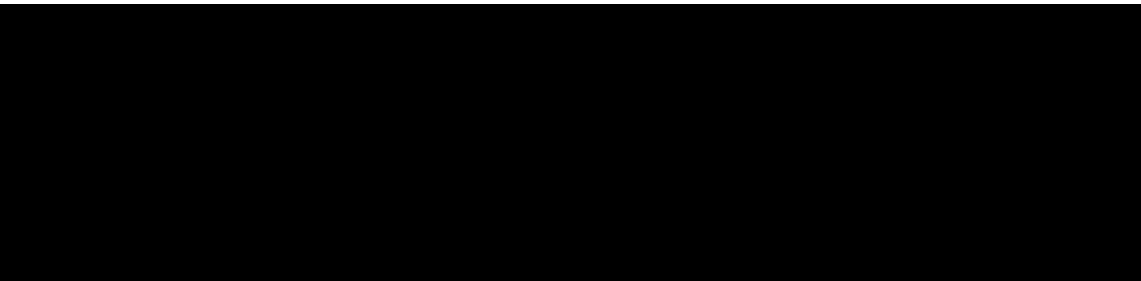
Eurofins Frontier Global Sciences, Inc.

Matrix: Soil/Sediment

Prepared using: AFS - EFGS-010 KOH/Methanol Hg Digestion

Prepared: 8/14/2017

1708367-01	170717-00815 BA 146 912291 Canned Albacore Tuna FY17 M07	0.254	20	-	-	-	BatchQC	Added for BatchQC in: F708416 2522x
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Technician: CwF

Batch#: F708416

Date: 8/14/17

- EFAFS-T-AFS-SOP2986 Tissues - Methyl Mercury - KOH/Methanol: Hot plate 75±5°C for 2-4 hours.
- EFAFS-T-AFS-SOP2795 Tissues - Total Mercury - 70:30: Hot plate 75±5°C for two hours.
- EFAFS-T-AFS-SOP5134 Sediments - Methyl Mercury - KBr/CH<sub>2</sub>Cl<sub>2</sub>: Heat Block 45°C (nitrogen purge for 30 minutes).
- EFAFS-T-AFS-SOP2807 Solids - Total Mercury - Cold AR: 18-25°C for over four hours.

Other: \_\_\_\_\_

Balance#: 1019 8/14/17 Calibrated?  Yes  No

Therm.#: 14545

Vial Type:  Glass  Teflon  
Calibrated?  Yes  No

\*Time in: 3:00 Actual Temp. (raw): 77.0 °C w/ CF: 77.1 °C

Time out: 6:00 Actual Temp. (raw): 77.0 °C w/ CF: 77.1 °C

\*Time in can't begin before target temperature is reached

Final vol.: 20 mL (LIMS ID: 1606119 CwF 8/16/17)

Spike Witness: DH 8/15/17 (initial and date) Spike vol.: 100 µL (LIMS ID: 1605978)

HCl LIMS ID: N/A

HNO<sub>3</sub> LIMS ID: N/A

70/30 LIMS ID: N/A

Other Acid LIMS ID: KOH/methanol = 1704725

Glass Vial # 0006824

Boiling Chip lot # 1704424

Pipette SN#: N/A 8/15/17 Calibration Date: 8/10/17

Pipette SN#: N101152 Calibration Date: 8/15/17

Dispenser #: 02N48426 Calibrated?  Yes  No

Dispenser #: N/A

\*Hotblock Position: H5

Vial #	Sample ID Number	Sample Size <input type="checkbox"/> mL <input checked="" type="checkbox"/> µg	Vial #	Sample ID Number	Sample Size <input type="checkbox"/> mL <input checked="" type="checkbox"/> µg	CRM LIMS ID <input type="checkbox"/> NA
1	F708416 - BLK1	0.2998	23	1708156 - 04	0.2592	
2	F708416 - BLK2	0.2942	24	1708156 - 05	0.2562	BSY/BSID = DORAM
3	F708416 - BLK3	0.2869	25	1708156 - 06	0.2742	LIMS/1703305
4	F708416 - BSI	0.1685	26	1708156 - 07	0.2503	
5	F708416 - (BSID)	0.1363	27	1708156 - 08	0.2501	
6	<del>F70780</del> 1707810-30	0.2541	28	1708367 - 01	0.2540	DUP1, MS1, MSD1 source = 1708148-01
7	1707810 - 31	0.2592	29	F708416 - BLK4	0.2930	MS2 MSD2 source = 1708367-01
8	1707810 - 44	0.2511	30	F708416 - BLK5	0.2741	
9	1707810 - 45	0.2551	31	F708416 - MSZ	0.2500	
10	1707810 - 54	0.2543	32	F708416 - MSD2	0.2981	BLK4 is homog. pre-blank
11	1707810 - 55	0.2582	33			BLK5 is homog. post-blank
12	1708148 - 01	0.2724	34			
13	F708416 - DUP1	0.2651	35			
14	F708416 - MS1	0.2792	36			
15	F708416 - MSD1	0.2721	37			
16	1708148 - 02	0.2523	38			
17	1708151 - 01	0.2941	39			
18	1708151 - 02	0.2651	40			
19	1708151 - 03	0.2744	41			
20	1708156 - 01	0.2882	42			
21	1708156 - 02	0.2913	43			
22	1708156 - 03	0.2771	44			

**Failing Data Report - 7H18012**

Sample ID	Analysis	Result	MRL	Dup Result	Source Result	True Value	Units	% Rec.	Rec. LCL	Rec. UCL	RPD	RPD Limit	Over Cal	Failure	Qualifier
F708416-MS1	MHg-CVAFS-S-KOH ✓	181.9	9.0		174.2	35.852	ng/g	21.5	65.00	130.00			PASS-OVER	FAIL-MS	QM-02
F708416-MSD1	MHg-CVAFS-S-KOH ✓	211.5	9.2	181.9	174.2	36.788	ng/g	101	65.00	130.00	130	35.00	PASS-OVER	FAIL-MSD (RPD)	QR-078 8.15
F708416-MS2	MHg-CVAFS-S-KOH ✓	193.5	10.0		203.5	40.040	ng/g	-25.0	65.00	130.00			PASS-OVER	FAIL-MS	QM-02
F708416-MSD2	MHg-CVAFS-S-KOH ✓	203.6	9.7	193.5	203.5	38.783	ng/g	0.277	65.00	130.00	-204	35.00	PASS-OVER	FAIL-MSD (Rec.)	QM-02, QR-08
F708416-MS1	MHg-CVAFS-T-KOH ✓	181.9	9.0		174.2	35.852	ng/g	21.5	65.00	130.00			PASS-OVER	FAIL-MS	QM-02
F708416-MSD1	MHg-CVAFS-T-KOH ✓	211.5	9.2	181.9	174.2	36.788	ng/g	101	65.00	130.00	130	35.00	PASS-OVER	FAIL-MSD (RPD)	QR-08
F708416-MS2	MHg-CVAFS-T-KOH ✓	193.5	10.0		203.5	40.040	ng/g	-25.0	65.00	130.00			PASS-OVER	FAIL-MS	QM-02
F708416-MSD2	MHg-CVAFS-T-KOH ✓	203.6	9.7	193.5	203.5	38.783	ng/g	0.277	65.00	130.00	-204	35.00	PASS-OVER	FAIL-MSD (Rec.)	QM-02, QR-08

Don Mosem                      8/18/17  
 Analyst Reviewed By                      Date

[Signature]                      8/18/17  
 Peer Reviewed By                      Date



Frontier Global Sciences

MHg27001-170817-2

Analysis Datasheet for Methyl Mercury in Waters

Date of Analysis: August 17, 2017

Instrument #: Hg2700-1

LIMS Sequence #: 7H18015

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	22.31 units	446.29	22.31 units	446.29	98.4 %Rec
SEQ-CAL2	1	0.20 ng/L	84.83 units	424.16	84.83 units	424.16	93.5 %Rec
SEQ-CAL3	1	1.00 ng/L	489.83 units	489.83	489.83 units	489.83	107.9 %Rec
SEQ-CAL4	1	2.00 ng/L	890.79 units	445.40	890.79 units	445.40	98.2 %Rec
SEQ-CAL5	1	4.00 ng/L	1852.56 units	463.14	1852.56 units	463.14	102.1 %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**  
 453.76            +/- 24.45            5.4% RSD            453.76            **0.8690**

Blanks:

LabNumber	n	Mean	Std Dev	Mean (ng/L)	Std Dev (ng/L)
SEQ-IBL	1	0.00 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	0.005 ng/L	±0.006
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:         A 8/18/17



Instrument	Analyst	Sample		Dilution	Analyzed	FileID	Run End	Uncorrected Response	Batch ID	No PB		InitialResult	FinalResult	InitialUnits	Comments
		Type	LabNumber							Correction?	RESP				
Hq2700-1	DM2	CAL	SEQ-IBL1	1	8/17/17 9:18	25080-1.RAW	9:18	0.00			0.0	0.000	0.000	ng/L	
Hq2700-1	DM2	CAL	SEQ-CAL1	1	8/17/17 9:28	25081-1.RAW	#####	22.31			22.3	0.049	0.049	ng/L	
Hq2700-1	DM2	CAL	SEQ-CAL2	1	8/17/17 9:39	25082-1.RAW	#####	84.83			84.8	0.187	0.187	ng/L	
Hq2700-1	DM2	CAL	SEQ-CAL3	1	8/17/17 9:49	25083-1.RAW	#####	489.83			489.8	1.079	1.079	ng/L	
Hq2700-1	DM2	CAL	SEQ-CAL4	1	8/17/17 10:00	25084-1.RAW	#####	890.79			890.8	1.963	1.963	ng/L	
Hq2700-1	DM2	CAL	SEQ-CAL5	1	8/17/17 10:10	25085-1.RAW	#####	1852.56			1852.6	4.083	4.083	ng/L	
Hq2700-1	DM2	CAL	SEQ-1CV1	1	8/17/17 10:21	25086-1.RAW	#####	223.21			223.2	0.492	0.492	ng/L	
Hq2700-1	DM2	CAL	SEQ-1CB1	1	8/17/17 10:31	25087-1.RAW	#####	3.07			3.1	0.007	0.007	ng/L	
Hq2700-1	DM2	SAM	F708416-BS1	1000	8/17/17 10:42	25088-1.RAW	#####	954.97		x	955.0	2.422	2421.808	ng/L	
Hq2700-1	DM2	SAM	F708416-BSD1	1000	8/17/17 11:00	25089-2.RAW	#####	886.39		x	886.4	2.248	2247.897	ng/L	
Hq2700-1	DM2	BLK	F708434-BLK1	1.25	8/17/17 11:10	25090-1.RAW	#####	3.77	1		3.8	0.010	0.012	ng/L	
Hq2700-1	DM2	BLK	F708434-BLK2	1.25	8/17/17 11:21	25091-1.RAW	#####	0.00	1		0.0	0.000	0.000	ng/L	
Hq2700-1	DM2	BLK	F708434-BLK3	1.25	8/17/17 11:31	25092-1.RAW	#####	0.64	1		0.6	0.002	0.002	ng/L	
Hq2700-1	DM2	SAM	F708434-BS1	1.25	8/17/17 11:42	25093-1.RAW	#####	341.02	1		341.0	0.861	1.076	ng/L	
Hq2700-1	DM2	SAM	F708434-BSD1	1.25	8/17/17 11:52	25094-1.RAW	#####	347.80	1		347.8	0.878	1.098	ng/L	
Hq2700-1	DM2	SAM	F708434-DUP1	1.25	8/17/17 12:03	25095-1.RAW	#####	1.89	1		1.9	0.001	0.001	ng/L	
Hq2700-1	DM2	SAM	F708434-MS1	1.25	8/17/17 12:13	25096-1.RAW	#####	626.72	1		626.7	1.586	1.982	ng/L	
Hq2700-1	DM2	SAM	F708434-MSD1	1.25	8/17/17 12:24	25097-1.RAW	#####	568.74	1		568.7	1.439	1.798	ng/L	
Hq2700-1	DM2	CAL	SEQ-CCV1	1	8/17/17 12:34	25098-1.RAW	#####	221.11			221.1	0.487	0.487	ng/L	
Hq2700-1	DM2	CAL	SEQ-CCB1	1	8/17/17 12:45	25099-1.RAW	#####	1.17			1.2	0.003	0.003	ng/L	
Hq2700-1	DM2	SAM	F708434-MS2	1.25	8/17/17 12:55	25100-1.RAW	#####	398.34	1		398.3	1.006	1.258	ng/L	
Hq2700-1	DM2	SAM	F708434-MSD2	1.25	8/17/17 13:06	25101-1.RAW	#####	385.87	1		385.9	0.975	1.219	ng/L	
Hq2700-1	DM2	SAM	1707702-01	1.25	8/17/17 13:16	25102-1.RAW	#####	2.45	1		2.5	0.002	0.003	ng/L	
Hq2700-1	DM2	SAM	1707703-01	1.25	8/17/17 13:27	25103-1.RAW	#####	4.71	1		4.7	0.008	0.010	ng/L	
Hq2700-1	DM2	SAM	1707704-01	1.25	8/17/17 13:38	25104-1.RAW	#####	0.69	1		0.7	-0.002	-0.002	ng/L	
Hq2700-1	DM2	SAM	1707704-02	1.25	8/17/17 13:48	25105-1.RAW	#####	0.97	1		1.0	-0.001	-0.002	ng/L	
Hq2700-1	DM2	SAM	1707732-01	1.25	8/17/17 13:59	25106-1.RAW	#####	0.00	1		0.0	-0.004	-0.005	ng/L	
Hq2700-1	DM2	SAM	1707732-02	1.25	8/17/17 14:09	25107-1.RAW	#####	254.39	1		254.4	0.641	0.802	ng/L	
Hq2700-1	DM2	SAM	1707732-03	1.25	8/17/17 14:20	25108-1.RAW	#####	269.63	1		269.6	0.680	0.850	ng/L	
Hq2700-1	DM2	SAM	1707732-04	1.25	8/17/17 14:30	25109-1.RAW	#####	241.49	1		241.5	0.609	0.761	ng/L	
Hq2700-1	DM2	CAL	SEQ-CCV2	1	8/17/17 14:41	25110-1.RAW	#####	212.96			213.0	0.469	0.469	ng/L	
Hq2700-1	DM2	CAL	SEQ-CCB2	1	8/17/17 14:51	25111-1.RAW	#####	1.57			1.6	0.003	0.003	ng/L	
Hq2700-1	DM2	SAM	1707732-05	1.25	8/17/17 15:02	25112-1.RAW	#####	0.00	1		0.0	-0.004	-0.005	ng/L	
Hq2700-1	DM2	SAM	1708082-01	1.25	8/17/17 15:12	25113-1.RAW	#####	34.32	1		34.3	0.083	0.104	ng/L	
Hq2700-1	DM2	SAM	1708082-03	1.25	8/17/17 15:23	25114-1.RAW	#####	47.57	1		47.6	0.117	0.146	ng/L	
Hq2700-1	DM2	SAM	1708082-04	1.25	8/17/17 15:33	25115-1.RAW	#####	25.72	1		25.7	0.061	0.077	ng/L	
Hq2700-1	DM2	SAM	1708082-05	1.25	8/17/17 15:44	25116-1.RAW	#####	17.48	1		17.5	0.041	0.051	ng/L	
Hq2700-1	DM2	SAM	1708082-07	1.25	8/17/17 15:54	25117-1.RAW	#####	11.92	1		11.9	0.026	0.033	ng/L	
Hq2700-1	DM2	SAM	1708082-08	1.25	8/17/17 16:05	25118-1.RAW	#####	16.28	1		16.3	0.038	0.047	ng/L	
Hq2700-1	DM2	SAM	1708150-01	1.25	8/17/17 16:15	25119-1.RAW	#####	5.24	1		5.2	0.010	0.012	ng/L	
Hq2700-1	DM2	SAM	1708269-01	1.25	8/17/17 16:31	25120-1.RAW	#####	33.55	1		33.6	0.081	0.102	ng/L	
Hq2700-1	DM2	SAM	1708269-02	1.25	8/17/17 16:41	25121-1.RAW	#####	46.12	1		46.1	0.113	0.142	ng/L	
Hq2700-1	DM2	CAL	SEQ-CCV3	1	8/17/17 16:52	25122-1.RAW	#####	212.08			212.1	0.467	0.467	ng/L	
Hq2700-1	DM2	CAL	SEQ-CCB3	1	8/17/17 17:02	25123-1.RAW	#####	0.00			0.0	0.000	0.000	ng/L	
Hq2700-1	DM2	SAM	1708269-03	1.25	8/17/17 17:13	25124-1.RAW	#####	31.15	1		31.2	0.075	0.094	ng/L	
Hq2700-1	DM2	SAM	1708269-04	1.25	8/17/17 17:23	25125-1.RAW	#####	44.28	1		44.3	0.109	0.136	ng/L	

Instrument	Sample			Dilution	Analyzed	FileID	Run End	Uncorrected Response	Batch ID	No PB					Comments
	Analyst	Type	LabNumber							Correction?	RESP	InitialResult	FinalResult	InitialUnits	
Hq2700-1	DM2	BLK	F708416-BLK1	500	8/17/17 17:34	25126-1.RAW	#####	0.03		X	0.0	0.000	0.042	ng/L	
Hq2700-1	DM2	BLK	F708416-BLK2	500	8/17/17 17:44	25127-1.RAW	#####	0.00		X	0.0	0.000	0.000	ng/L	
Hq2700-1	DM2	BLK	F708416-BLK3	500	8/17/17 17:55	25128-1.RAW	#####	0.00		X	0.0	0.000	0.000	ng/L	
Hq2700-1	DM2	SAM	*F708416-BLK4	500	8/17/17 18:05	25129-1.RAW	#####	0.00		X	0.0	0.000	0.000	ng/L	
Hq2700-1	DM2	SAM	*F708416-BLK5	500	8/17/17 18:16	25130-1.RAW	#####	0.00		X	0.0	0.000	0.000	ng/L	
Hq2700-1	DM2	SAM	F708416-DUP1	2500	8/17/17 18:26	25131-1.RAW	#####	373.55		X	373.6	0.947	2368.348	ng/L	
Hq2700-1	DM2	SAM	F708416-MS1	2500	8/17/17 18:37	25132-1.RAW	#####	460.93		X	460.9	1.169	2922.325	ng/L	
Hq2700-1	DM2	SAM	F708416-MSD1	2500	8/17/17 18:47	25133-1.RAW	#####	522.36		X	522.4	1.325	3311.795	ng/L	
Hq2700-1	DM2	CAL	SEQ-CCV4	1	8/17/17 18:58	25134-1.RAW	#####	224.38			224.4	0.494	0.494	ng/L	
Hq2700-1	DM2	CAL	SEQ-CCB4	1	8/17/17 19:08	25135-1.RAW	#####	0.00			0.0	0.000	0.000	ng/L	
Hq2700-1	DM2	SAM	F708416-MS2	2500	8/17/17 19:19	25136-1.RAW	#####	439.04		X	439.0	1.113	2783.548	ng/L	
Hq2700-1	DM2	SAM	F708416-MSD2	2500	8/17/17 19:29	25137-1.RAW	#####	476.99		X	477.0	1.210	3024.130	ng/L	
Hq2700-1	DM2	SAM	1707810-30	500	8/17/17 19:40	25138-1.RAW	#####	20.98		X	21.0	0.053	26.597	ng/L	
Hq2700-1	DM2	SAM	1707810-31	500	8/17/17 19:50	25139-1.RAW	#####	10.76		X	10.8	0.027	13.642	ng/L	
Hq2700-1	DM2	SAM	1707810-44	500	8/17/17 20:01	25140-1.RAW	#####	55.17		X	55.2	0.140	69.950	ng/L	
Hq2700-1	DM2	SAM	1707810-45	500	8/17/17 20:11	25141-1.RAW	#####	72.61		X	72.6	0.184	92.076	ng/L	
Hq2700-1	DM2	SAM	1707810-54	500	8/17/17 20:22	25142-1.RAW	#####	24.25		X	24.3	0.062	30.753	ng/L	
Hq2700-1	DM2	SAM	1707810-55	500	8/17/17 20:33	25143-1.RAW	#####	9.91		X	9.9	0.025	12.569	ng/L	
Hq2700-1	DM2	SAM	1708148-01	2500	8/17/17 20:43	25144-1.RAW	#####	430.64		X	430.6	1.092	2730.244	ng/L	
Hq2700-1	DM2	SAM	1708148-02	2500	8/17/17 20:54	25145-1.RAW	#####	1007.13		X	1007.1	2.554	6385.267	ng/L	
Hq2700-1	DM2	CAL	SEQ-CCV5	1	8/17/17 21:04	25146-1.RAW	#####	241.42			241.4	0.532	0.532	ng/L	
Hq2700-1	DM2	CAL	SEQ-CCB5	1	8/17/17 21:15	25147-1.RAW	#####	0.64			0.6	0.001	0.001	ng/L	
Hq2700-1	DM2	SAM	1708151-01	500	8/17/17 21:25	25148-1.RAW	#####	121.83		X	121.8	0.309	154.476	ng/L	
Hq2700-1	DM2	SAM	1708151-02	500	8/17/17 21:36	25149-1.RAW	#####	117.69		X	117.7	0.298	149.229	ng/L	
Hq2700-1	DM2	SAM	1708151-03	500	8/17/17 21:46	25150-1.RAW	#####	57.70		X	57.7	0.146	73.163	ng/L	
Hq2700-1	DM2	SAM	1708156-01	500	8/17/17 21:57	25151-1.RAW	#####	12.88		X	12.9	0.033	16.329	ng/L	
Hq2700-1	DM2	SAM	1708156-02	500	8/17/17 22:07	25152-1.RAW	#####	12.73		X	12.7	0.032	16.138	ng/L	
Hq2700-1	DM2	SAM	1708156-03	500	8/17/17 22:18	25153-1.RAW	#####	10.32		X	10.3	0.026	13.087	ng/L	
Hq2700-1	DM2	SAM	1708156-04	500	8/17/17 22:28	25154-1.RAW	#####	48.48		X	48.5	0.123	61.477	ng/L	
Hq2700-1	DM2	SAM	1708156-05	500	8/17/17 22:39	25155-1.RAW	#####	0.00		X	0.0	0.000	0.000	ng/L	
Hq2700-1	DM2	SAM	1708156-06	500	8/17/17 22:49	25156-1.RAW	#####	34.57		X	34.6	0.088	43.840	ng/L	
Hq2700-1	DM2	SAM	1708156-07	500	8/17/17 23:00	25157-1.RAW	#####	67.30		X	67.3	0.171	85.334	ng/L	
Hq2700-1	DM2	CAL	SEQ-CCV6	1	8/17/17 23:10	25158-1.RAW	#####	209.43			209.4	0.462	0.462	ng/L	
Hq2700-1	DM2	CAL	SEQ-CCB6	1	8/17/17 23:21	25159-1.RAW	#####	0.00			0.0	0.000	0.000	ng/L	
Hq2700-1	DM2	SAM	1708156-08	500	8/17/17 23:31	25160-1.RAW	#####	12.38		X	12.4	0.031	15.702	ng/L	
Hq2700-1	DM2	SAM	1708367-01	2500	8/17/17 23:42	25161-1.RAW	#####	469.16		X	469.2	1.190	2974.519	ng/L	
Hq2700-1	DM2	CAL	SEQ-CCV7	1	8/17/17 23:52	25162-1.RAW	#####	218.88			218.9	0.482	0.482	ng/L	
Hq2700-1	DM2	CAL	SEQ-CCB7	1	8/17/17 0:03	25163-1.RAW	#####	0.00			0.0	0.000	0.000	ng/L	

## ANALYSIS SEQUENCE

7H18015

Instrument: Hg2700-1

Calibration ID: UNASSIGNED

Analyzed: 8/17/2017

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
7H18015-IBL1 ✓	QC	1			
7H18015-CAL1 ✓	QC	2	1704180 ✓		
7H18015-CAL2 ✓	QC	3	1704181 ✓		
7H18015-CAL3 ✓	QC	4	1704182 ✓		
7H18015-CAL4 ✓	QC	5	1704183 ✓		
7H18015-CAL5 ✓	QC	6	1704184 ✓		
7H18015-ICV1 ✓	QC	7	1703246 ✓		
7H18015-ICB1 ✓	QC	8			
F708434-BLK1 -	QC	9			
F708434-BLK2 ✓	QC	10			
F708434-BLK3 ✓	QC	11			
F708434-BS1 ✓	QC	12			
F708434-BSD1 ✓	QC	13			
F708434-DUP1 ✓	QC	14			
F708434-MS1 ✓	QC	15			
F708434-MSD1 ✓	QC	16			
7H18015-CCV1 ✓	QC	17	1703246 ✓		
7H18015-CCB1 ✓	QC	18			
F708434-MS2 ✓	QC	19			
F708434-MSD2 ✓	QC	20			
1707702-01 ✓	MHg-CVAFS-W-Dist	21			Scan all data - Level IV
1707703-01 ✓	MHg-CVAFS-W-Dist	22			Scan all data - Level IV
1707704-01 ✓	MHg-CVAFS-W-Dist	23			Scan all data - Level IV
1707704-02 ✓	MHg-CVAFS-W-Dist	24			Scan all data - Level IV
1707732-01 ✓	MHg-CVAFS-W-Dist	25			
1707732-02 ✓	MHg-CVAFS-W-Dist	26			
1707732-03 ✓	MHg-CVAFS-W-Dist	27			
1707732-04 ✓	MHg-CVAFS-W-Dist	28			
7H18015-CCV2 ✓	QC	29	1703246 ✓		
7H18015-CCB2 ✓	QC	30			
1707732-05 ✓	MHg-CVAFS-W-Dist	31			
1708082-01 ✓	MHg-CVAFS-W-Dist	32			Scan all data for level IV report
1708082-03 ✓	MHg-CVAFS-W-Dist	33			Scan all data for level IV report
1708082-04 ✓	MHg-CVAFS-W-Dist	34			Scan all data for level IV report
1708082-05 ✓	MHg-CVAFS-W-Dist	35			Scan all data for level IV report

Due Date: 8/18/2017

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**ANALYSIS SEQUENCE**

**7H18015**

**Instrument: Hg2700-1**

**Calibration ID: UNASSIGNED**

**Analyzed: 8/17/2017**

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
1708082-07 ✓	MHg-CVAFS-W-Dist	36			Scan all data for level IV report
1708082-08 ✓	MHg-CVAFS-W-Dist	37			Scan all data for level IV report
1708150-01 ✓	MHg-CVAFS-W-Dist	38			
1708269-01 ✓	MHg-CVAFS-W-Dist	39			Scan all data for level IV report
1708269-02 ✓	MHg-CVAFS-W-Dist	40			Scan all data for level IV report
7H18015-CCV3 ✓	QC	41	1703246 ✓		
7H18015-CCB3 ✓	QC	42			
1708269-03 ✓	MHg-CVAFS-W-Dist	43			Scan all data for level IV report
1708269-04 ✓	MHg-CVAFS-W-Dist	44			Scan all data for level IV report
7H18015-CCV4 ✓	QC	45	1703246 ✓		
7H18015-CCB4 ✓	QC	46			

Don Maxem      8/17/17  
 Samples Loaded By                      Date

Don Maxem      8/18/17  
 Data Processed By                      Date



**PREPARATION BENCH SHEET**

F708434

**Eurofins Frontier Global Sciences, Inc.**

**Matrix: Water**

**Prepared using: AFS - EFGS-013 Methyl Hg Distillation for Water**

**Prepared: 8/16/2017**

Lab Number	Sample ID and Source Sample	Initial (mL)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F708434-BLK1	Blank	45	40					
F708434-BLK2	Blank	45	40					
F708434-BLK3	Blank	45	40					
F708434-BS1	Blank Spike	45	40	1704143	45			
F708434-BSD1	Blank Spike dup	45	40	1704143	45			
F708434-DUP1	Duplicate [1707704-01]	45	40					
F708434-MS1	Matrix Spike [1707732-02]	45	40	1704143	45			
F708434-MS2	Matrix Spike [1708082-01]	45	40	1704143	45			
F708434-MSD1	Matrix Spike Dup [1707732-02]	45	40	1704143	45			
F708434-MSD2	Matrix Spike Dup [1708082-01]	45	40	1704143	45			

<u>Standard ID(s):</u> 1704143	<u>Description:</u> MHg New Primary 1.0 ng/mL CAL	<u>Expiration:</u> 10-Oct-17 00:00	<u>Reagent ID(s):</u> 1704399	<u>Description:</u> Ethylating Agent (For Methyl Mercury Analysis)	<u>Expiration:</u> 16-Jan-18 00:00
			1704707	Acetate Buffer	29-Jan-18 00:00
			1704976	APDC	03-Sep-17 00:00
			1704978	0.4% HCl Distillation Dilute (Made Daily)	17-Aug-17 00:00
			1705016	2.5% Ascorbic Acid	24-Aug-17 00:00

**PREPARATION BENCH SHEET**

F708434

**Eurofins Frontier Global Sciences, Inc.**

**Matrix: Water**

**Prepared using: AFS - EFGS-013 Methyl Hg Distillation for Water**

**Prepared: 8/16/2017**

Lab Number	Sample ID	Initial (mL)	Final (mL)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1707702-01	EQ_072517_PONAR_QC	45	40	-	-	-	Scan all data - Level IV	
1707703-01	EQ_072517_TWEEZER_QC	45	40	-	-	-	Scan all data - Level IV	
1707704-01	EQ_072517_CSHOE_QC	45	40	-	-	-	Scan all data - Level IV	
1707704-02	EQ_072517_CORE_QC	45	40	-	-	-	Scan all data - Level IV	
1707732-01	P89218-1	45	40	-	-	-		
1707732-02	P89218-2	45	40	-	-	-		
1707732-03	P89218-6	45	40	-	-	-		
1707732-04	P89218-7	45	40	-	-	-		
1707732-05	P89218-8	45	40	-	-	-		
1708082-01	OL-2637-01	45	40	-	-	-	Preservation Blank Created Scan all dat	
1708082-03	OL-2637-02	45	40	-	-	-	Preservation Blank Created Scan all dat	
1708082-04	OL-2637-03	45	40	-	-	-	Preservation Blank Created Scan all dat	
1708082-05	OL-2637-04	45	40	-	-	-	Preservation Blank Created Scan all dat	
1708082-07	OL-2637-05	45	40	-	-	-	Preservation Blank Created Scan all dat	
1708082-08	OL-2637-06	45	40	-	-	-	Preservation Blank Created Scan all dat	
1708150-01	Sewer_Comp1	45	40	-	-	-		
1708269-01	OL-2642-01	45	40	-	-	-	Preservation Blank Created Scan all dat	
1708269-02	OL-2642-02	45	40	-	-	-	Preservation Blank Created Scan all dat	
1708269-03	OL-2642-03	45	40	-	-	-	Preservation Blank Created Scan all dat	

PREPARATION BENCH SHEET

F708434

Eurofins Frontier Global Sciences, Inc.

Matrix: Water

Prepared using: AFS - EFGS-013 Methyl Hg Distillation for Water

Prepared: 8/16/2017

1708269-04	OL-2642-04	45	40	-	-	-	Preservation Blank Created Scan all dat
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**PREPARATION BENCH SHEET**

F708434

**Eurofins Frontier Global Sciences, Inc.**

2700-1  
8/17/17 DM

**Matrix: Water**

**Prepared using: AFS - EFGS-013 Methyl Hg Distillation for Water**

**Prepared: 8/16/2017**

Lab Number	Sample ID and Source Sample	Initial (mL)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F708434-BLK1	Blank	45	40					1.25X
F708434-BLK2	Blank	45	40					1.25X
F708434-BLK3	Blank	45	40					1.25X
F708434-BS1	Blank Spike	45	40	1704143	45			1.25X
F708434-BSD1	Blank Spike dup	45	40	1704143	45			1.25X
F708434-DUP1	Duplicate [1707704-01]	45	40					1.25X
F708434-MS1	Matrix Spike [1707732-02]	45	40	1704143	45			1.25X
F708434-MS2	Matrix Spike [1708082-01]	45	40	1704143	45			1.25X
F708434-MSD1	Matrix Spike Dup [1707732-02]	45	40	1704143	45			1.25X
F708434-MSD2	Matrix Spike Dup [1708082-01]	45	40	1704143	45			1.25X

Standard ID(s): 1704143  
Description: MHg New Primary 1.0 ng/mL CAL

Expiration: 10-Oct-17 00:00

Reagent ID(s): 1704976, 1704978  
Description: APDC, 0.4% HCl Distillation Dilute (Made Daily)

Expiration: 03-Sep-17 00:00, 17-Aug-17 00:00

1705014  
1704399  
1704707

PREPARATION BENCH SHEET

2700-1  
8/17/17 DM

F708434

Eurofins Frontier Global Sciences, Inc.

Matrix: Water

Prepared using: AFS - EFGS-013 Methyl Hg Distillation for Water

Prepared: 8/16/2017

Lab Number	Sample ID	Initial (mL)	Final (mL)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1707702-01	EQ_072517_PONAR_QC	45	40	-	-	-	Scan all data - Level IV	1.25X
1707703-01	EQ_072517_TWEEZER_QC	45	40	-	-	-	Scan all data - Level IV	1.25X
1707704-01	EQ_072517_CSHOE_QC	45	40	-	-	-	Scan all data - Level IV	1.25X
1707704-02	EQ_072517_CORE_QC	45	40	-	-	-	Scan all data - Level IV	1.25X
1707732-01	P89218-1	45	40	-	-	-		1.25X
1707732-02	P89218-2	45	40	-	-	-		1.25X
1707732-03	P89218-6	45	40	-	-	-		1.25X
1707732-04	P89218-7	45	40	-	-	-		1.25X
1707732-05	P89218-8	45	40	-	-	-		1.25X
1708082-01	OL-2637-01	45	40	-	-	-	Preservation Blank Created Scan all dat	1.25X
1708082-03	OL-2637-02	45	40	-	-	-	Preservation Blank Created Scan all dat	1.25X
1708082-04	OL-2637-03	45	40	-	-	-	Preservation Blank Created Scan all dat	1.25X
1708082-05	OL-2637-04	45	40	-	-	-	Preservation Blank Created Scan all dat	1.25X
1708082-07	OL-2637-05	45	40	-	-	-	Preservation Blank Created Scan all dat	1.25X
1708082-08	OL-2637-06	45	40	-	-	-	Preservation Blank Created Scan all dat	1.25X
1708150-01	Sewer_Comp1	45	40	-	-	-		1.25X
1708269-01	OL-2642-01	45	40	-	-	-	Preservation Blank Created Scan all dat	1.25X
1708269-02	OL-2642-02	45	40	-	-	-	Preservation Blank Created Scan all dat	1.25X
1708269-03	OL-2642-03	45	40	-	-	-	Preservation Blank Created Scan all dat	1.25X

PREPARATION BENCH SHEET

2200-1  
8/17/17 DM

F708434

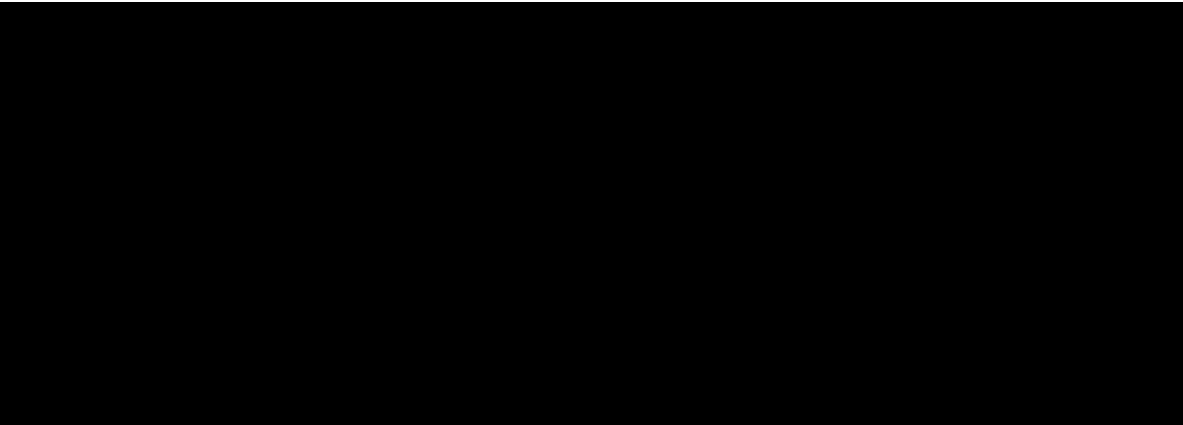
Eurofins Frontier Global Sciences, Inc.

Matrix: Water

Prepared using: AFS - EFGS-013 Methyl Hg Distillation for Water

Prepared: 8/16/2017

1708269-04	OL-2642-04	45	40	-	-	-	Preservation Blank Created Scan all dat	1.25X
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Methyl Mercury Distillations (EPA 1630)

Name: Duyen Date: 8/16/17 Batch #: F708434 Sample Matrix: Water  
 WO#: 1707702, 1707703, 1707704, 1707732, 1708082, 1708150, 1708269

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	F708434 Blk1	1.0	45	3.0	Spike ID: <u>1704143</u> Spike Amount: <u>45</u> µL Spike Witness: <u>DAL 8-10-17</u> Balance #: <u>2</u> Calibrated? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Pipette #: <u>MW09653</u> Cal. Date: <u>8-10-17</u> Pipette #: <u>MW09643</u> Cal. Date: <u>8/16/17</u> Pipette #: <u>N/A</u> Cal. Date: <u>N/A</u> APDC ID: <u>1704976</u> HCl ID: <u>1704978</u> 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: <u>120.5</u> Unit 2: <u>122.0</u> Unit 3: <u>120.6</u> Unit 4: <u>120.4</u> Unit 5: <u>122.0</u> Unit 6: <u>122.0</u> Time first samples is OFF 13:15 Comments: <u>F708424 source dupli 1707704-01</u> <u>F708424 MS1 MS01 1707732-02 8/16/17</u> <u>F708424 MS2 MS02 1708082-01 8/16/17</u> <u>1708082-01</u>
Blk2	F708434 Blk2	1.0	45	3.0	
Blk3	F708434 Blk3	1.0	45	3.0	
BS1	F708434 BS1	1.0	45	3.0	
BS01	F708434 BS01	1.0	45	3.0	
Dup1	F708434 Dup1	1.0	45	4.0	
MS1	F708434 MS1	1.0	45	4.0	
MS01	F708434 MS01	1.0	45	4.0	
MS2	F708434 MS2	1.0	45	3.0	
MS02	F708434 MS02	1.0	45	3.0	
1	1707702-01B	1.0	45	4.0	
2	1707703-01B	1.0	45	4.0	
3	1707704-01B	1.0	45	4.0	
4	1707704-02B	1.0	45	4.0	
5	1707732-01A	1.0	45	3.0	
6	1707732-02A	1.0	45	3.0	
7	1707732-03A	1.0	45	3.0	
8	1707732-04A	1.0	45	3.0	
9	1707732-05A	1.0	45	3.0	
10	1708082-01B	1.0	45	3.0	
11	1708082-03B	1.0	45	3.0	
12	1708082-04B	1.0	45	4.0	
13	1708082-05B	1.0	45	3.0	
14	1708082-07B	1.0	45	3.0	
15	1708082-08B	1.0	45	3.0	
16	1708150-01A	1.0	45	3.0	
17	1708269-01B	1.0	45	3.0	
18	1708269-02B	1.0	45	3.0	
19	1708269-03B	1.0	45	3.0	
20	1708269-04B	1.0	45	3.0	

# Failing Data Report - 7H18015

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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Don Mattem  
Analyst Reviewed By

8/18/17  
Date

[Signature]  
Peer Reviewed By

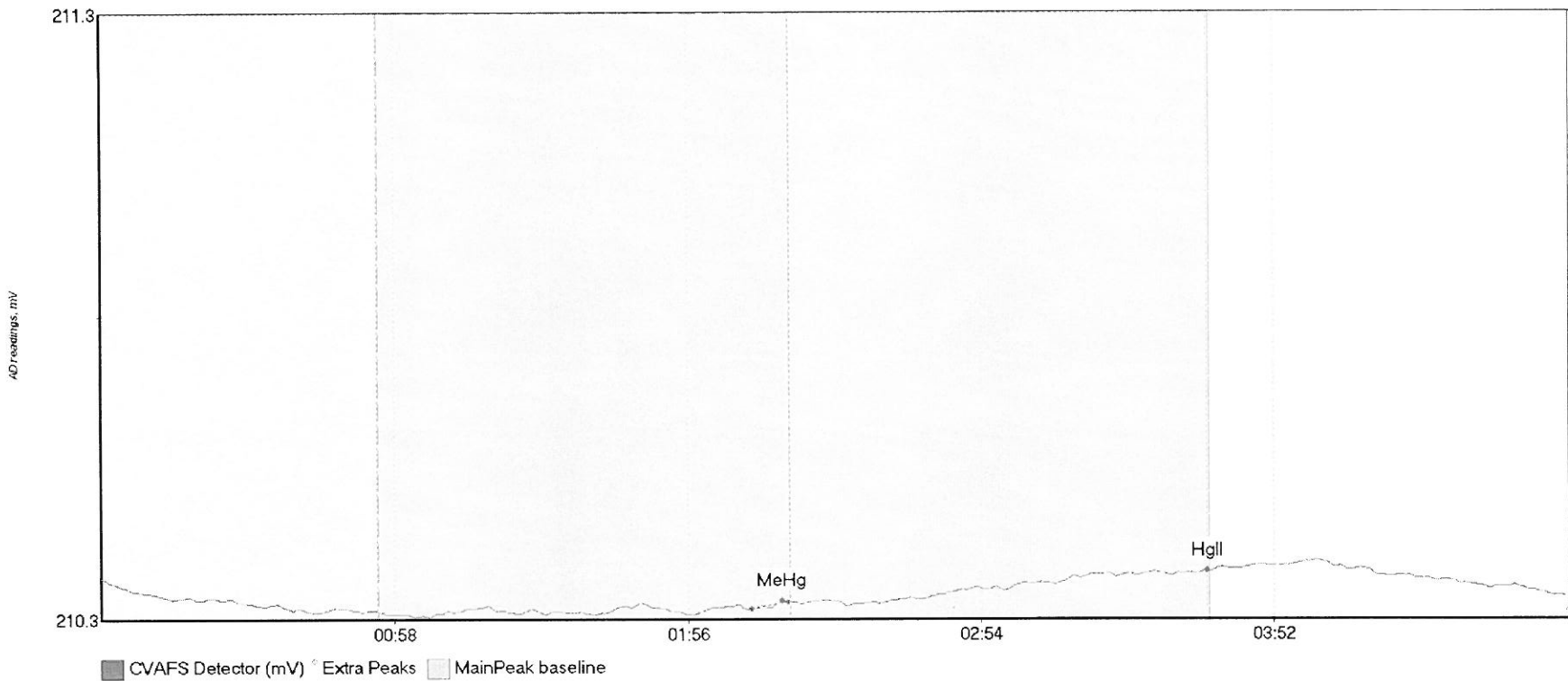
8/10/17  
Date



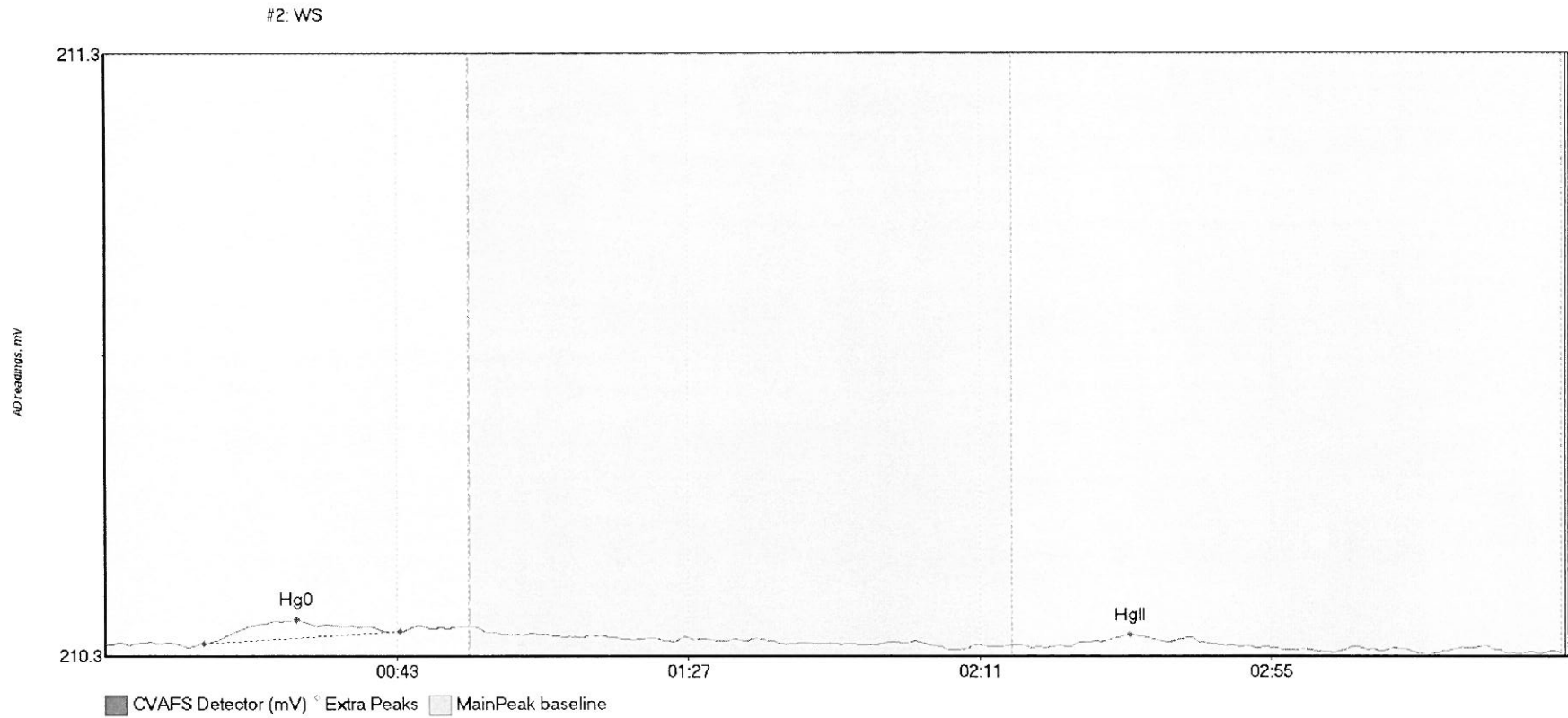


1708156-02	A11	500	25152-1.RAW	4.06070076	12.7267519	479.799811	0	psample10	OK	1
1708156-03	A12	500	25153-1.RAW	5.96628788	10.3209754	-534.510582	0	psample10	OK	1
1708156-04	A13	500	25154-1.RAW	22:28:39 4.74507576	48.4832386	-1515.51893	0	psample10	CT	1
1708156-05	A14	500	25155-1.RAW	3.05445076	0	-93.1611032	0	psample10	OK	1
1708156-06	A15	500	25156-1.RAW	3.90175189	34.5738873	-541.405469	0	psample10	OK	1
1708156-07	A16	500	25157-1.RAW	2.6502939	67.2973485	-1038.55647	0	psample10	CT	1
SEQ-CCV6	A17	1	25158-1.RAW	2.11030402	209.432552	-8.96465436	0	psample10	CT	1
SEQ-CCB6	A18	1	25159-1.RAW	3.77528409	0	-3.49514678	0	psample10	OK	1
1708156-08	A19	500	25160-1.RAW	2.54320549	12.383428	-501.458913	0	psample10	CT	1
1708367-01	A20	2500	25161-1.RAW	6.45890152	469.164512	-23.3007576	0	psample10	CT	1
SEQ-CCV7	A21	1	25162-1.RAW	4.21510417	218.878409	-12.0877131	0	psample10	OK	1
SEQ-CCB7	B1	1	25163-1.RAW	0:03:15 3.77679924	0	8.09688322	0	psample10	OK	1

#1: Clean

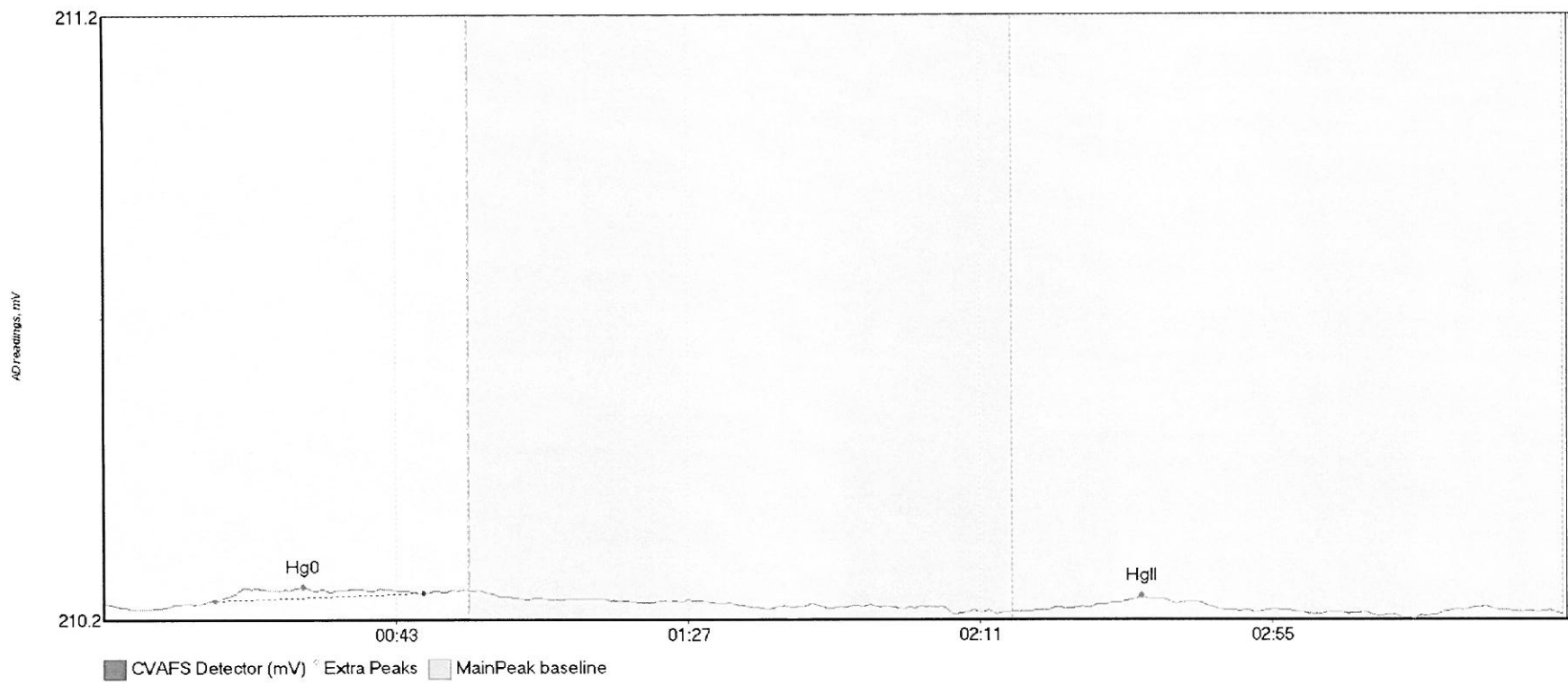


Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
Clean MeHg	0.092	129.2	136.3	210.35	210.37	135.2	0.014	OK	210.4046	0.00	-0.03	
Clean HgII	3.855	162.4	219.8	210.37	210.42	219.5	0.047	CT	210.4046	0.00	-0.03	017



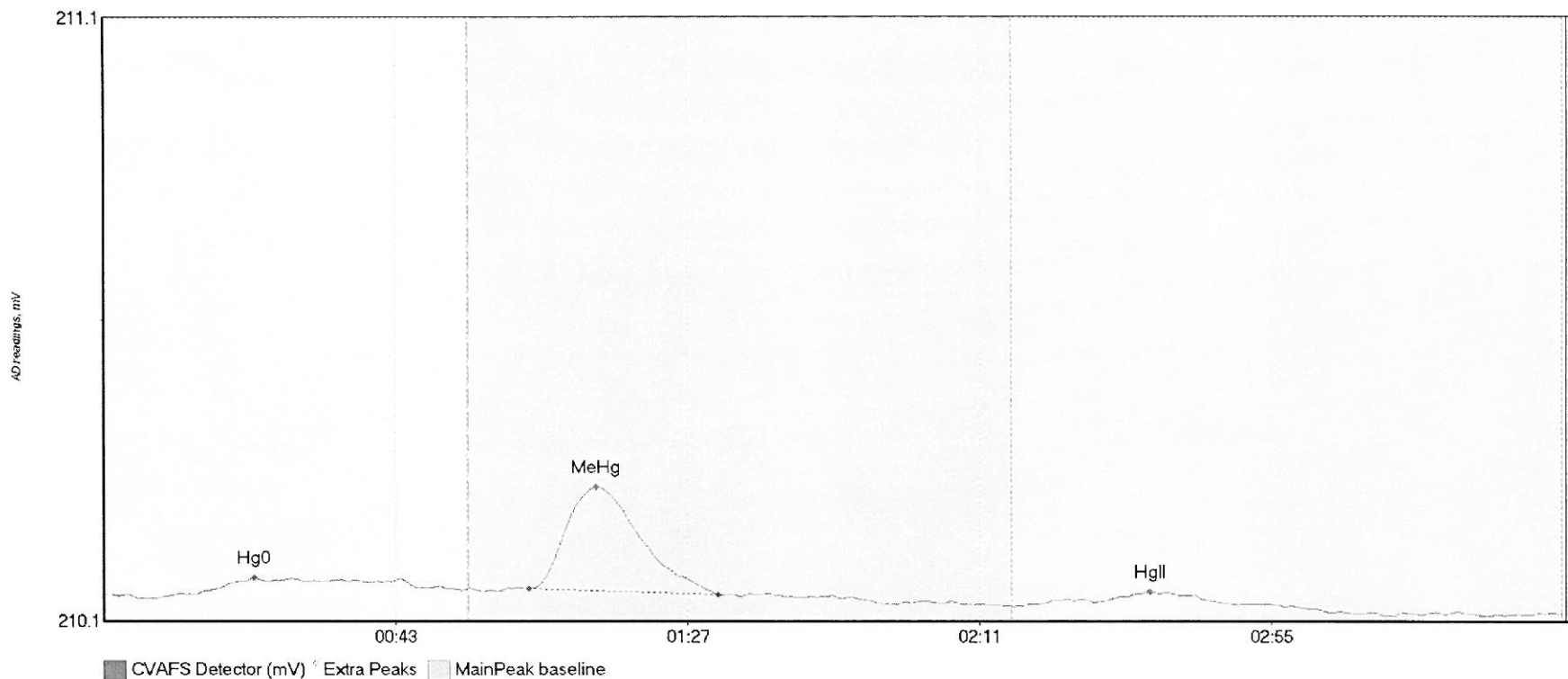
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
WS Hg0	4.972	14.9	44.4	210.28	210.30	28.8	0.039	OK	210.2774	0.00	-0.01	
WS HgII	0.760	148.3	160.3	210.28	210.28	154.7	0.013	OK	210.2774	0.00	-0.01	017

#3: SEQ-IBL1



Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
SEQ-IBL1 Hg0	3.419	16.7	48.1	210.22	210.24	30.0	0.023	OK	210.2190	0.00	-0.02	
SEQ-IBL1 HgII	2.521	145.1	169.1	210.21	210.21	156.3	0.020	OK	210.2190	0.00	-0.02	017

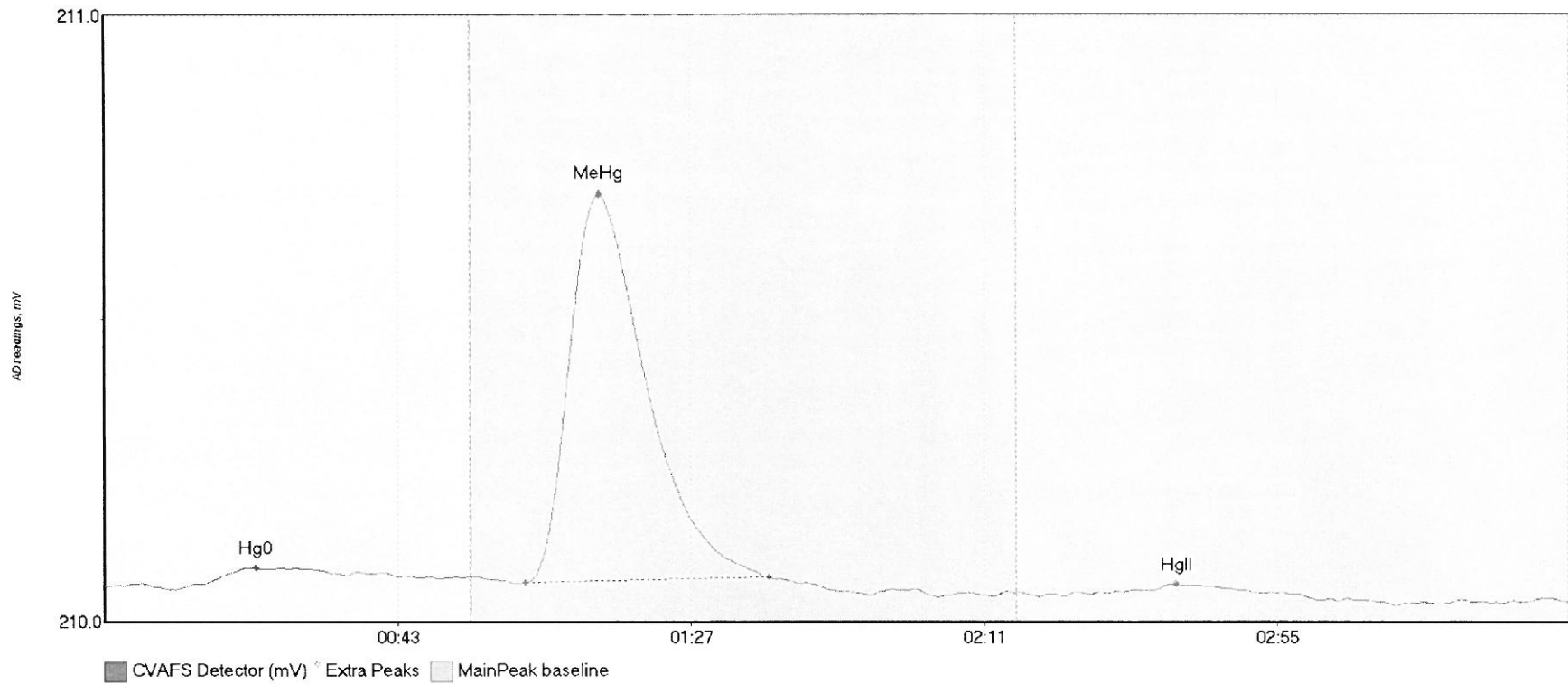
#4: SEQ-CAL1



Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
SEQ-CAL1 Hg0	6.229	13.9	54.0	210.15	210.15	22.7	0.027	OK	210.1474	0.00	-0.03	
SEQ-CAL1 MeHg	22.315	64.1	92.6	210.16	210.15	74.3	0.170	OK	210.1474	0.00	-0.03	
SEQ-CAL1 HgII	2.940	141.0	170.3	210.13	210.13	157.8	0.020	OK	210.1474	0.00	-0.03	

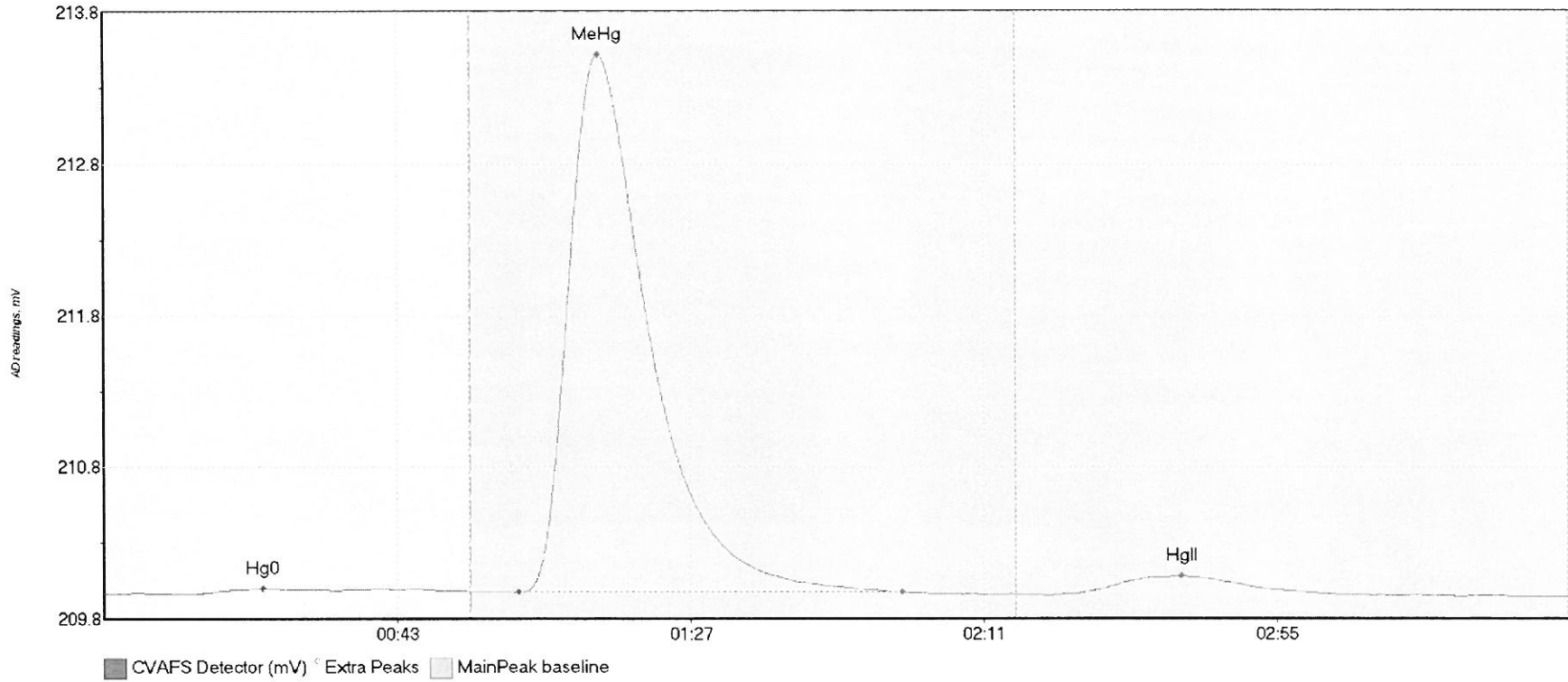
017

#5: SEQ-CAL2



Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
SEQ-CAL2 Hg0	5.182	14.5	50.5	210.07	210.08	22.7	0.028	OK	210.0631	0.00	-0.02	
SEQ-CAL2 MeHg	84.832	63.2	99.7	210.07	210.08	74.3	0.639	OK	210.0631	0.00	-0.02	017
SEQ-CAL2 HgII	0.809	157.5	170.6	210.06	210.06	160.9	0.010	OK	210.0631	0.00	-0.02	

#6: SEQ-CAL3

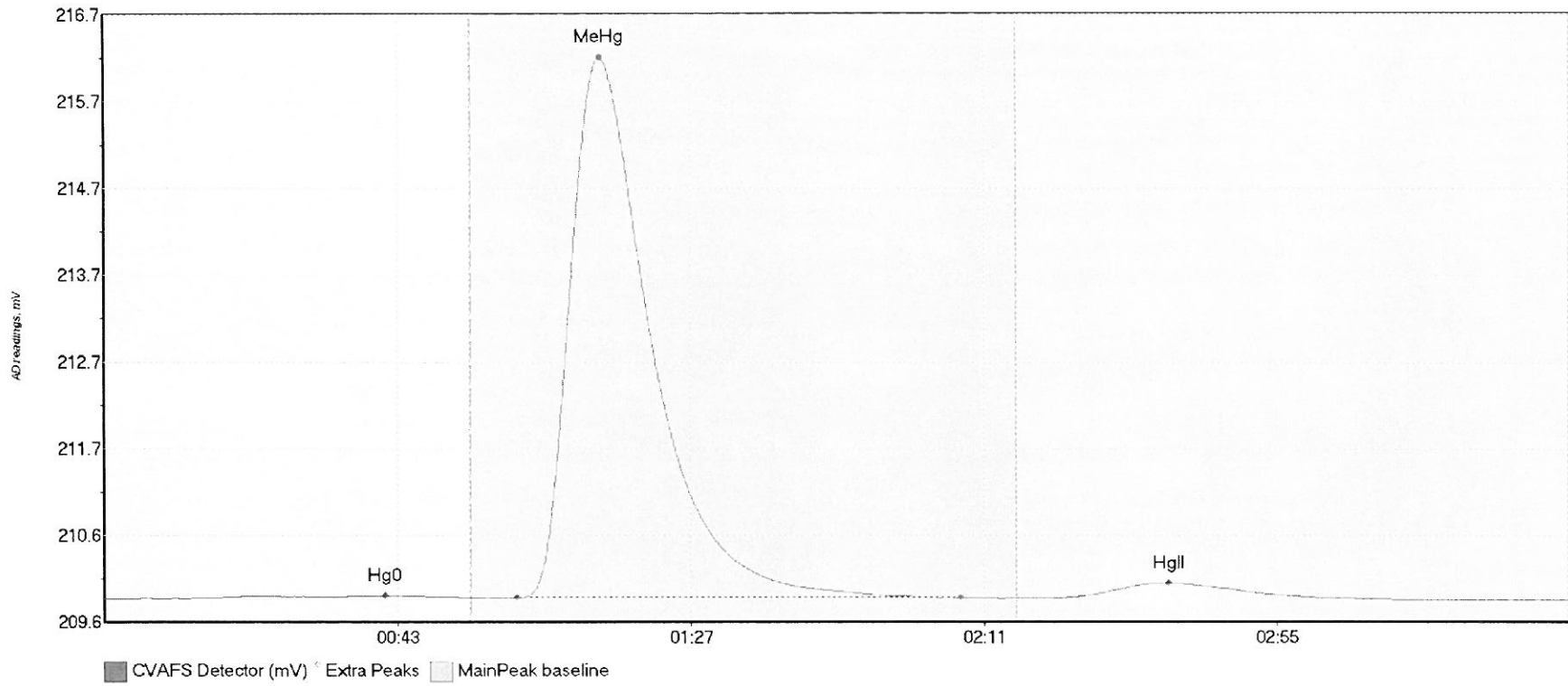


Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
SEQ-CAL3 Hg0	6.367	14.1	55.0	209.99	210.00	23.8	0.033	CT	209.9871	0.00	-0.02	
SEQ-CAL3 MeHg	489.825	62.2	119.7	209.99	209.99	74.2	3.480	OK	209.9871	0.00	-0.02	
SEQ-CAL3 HgII	22.242	145.6	184.4	209.99	209.98	161.8	0.113	OK	209.9871	0.00	-0.02	

017

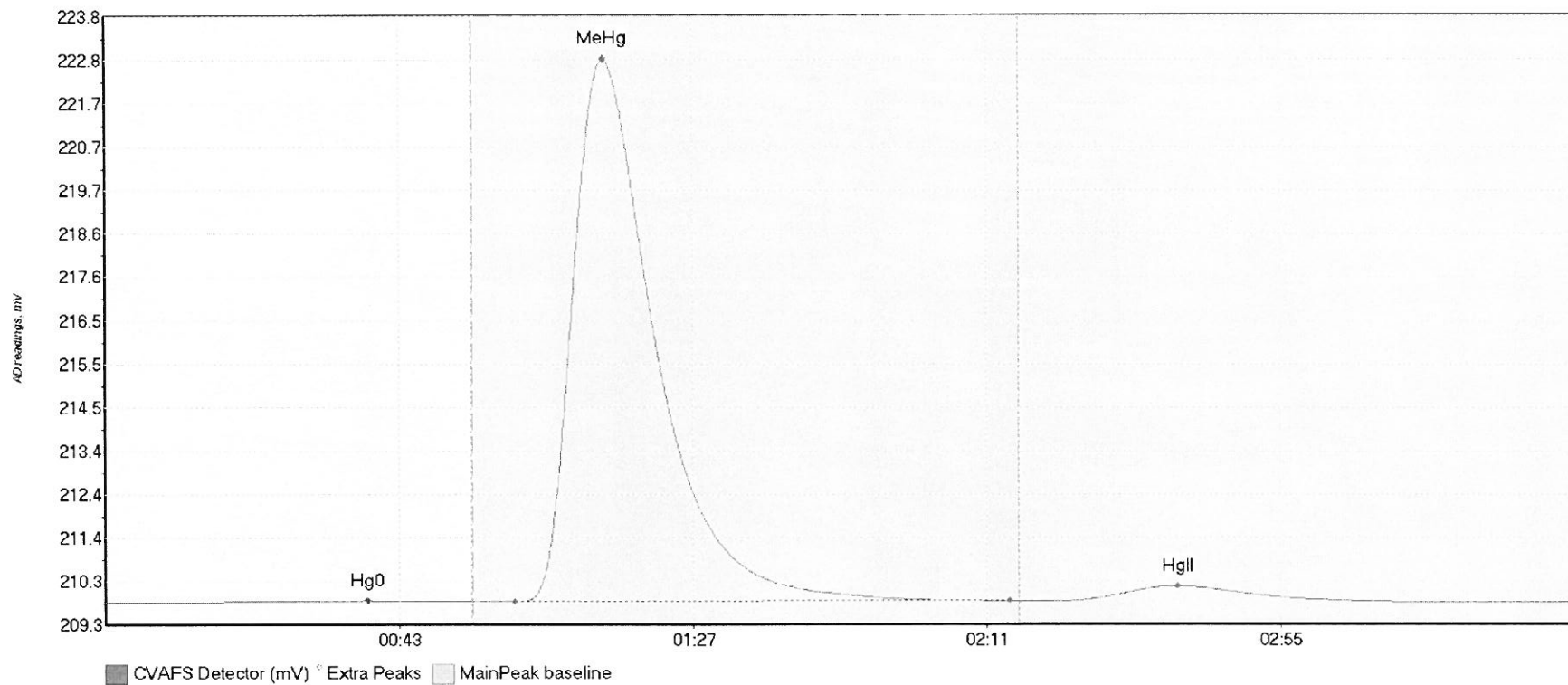


#7: SEQ-CAL4



Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
SEQ-CAL4 Hg0	7.701	8.1	55.0	209.91	209.92	42.1	0.034	CT	209.9058	0.00	-0.01	
SEQ-CAL4 MeHg	890.793	61.8	128.4	209.92	209.92	74.4	6.288	OK	209.9058	0.00	-0.01	017
SEQ-CAL4 HgII	33.648	142.5	182.8	209.92	209.92	159.8	0.172	OK	209.9058	0.00	-0.01	

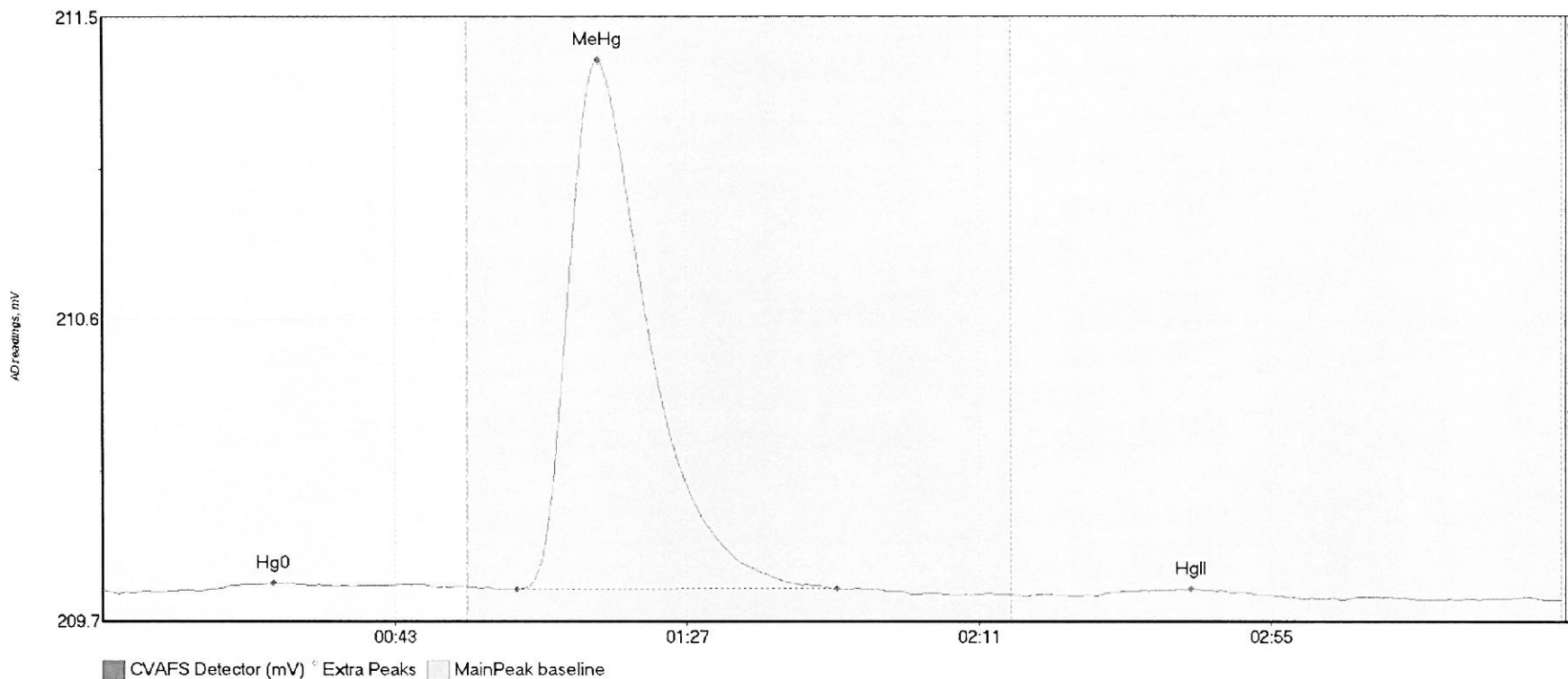
#8: SEQ-CAL5



Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
SEQ-CAL5 Hg0	6.417	14.7	55.0	209.82	209.84	39.3	0.042	CT	209.8193	0.00	0.01	
SEQ-CAL5 MeHg	1852.558	61.3	135.5	209.84	209.85	74.6	12.919	OK	209.8193	0.00	0.01	
SEQ-CAL5 HgII	73.303	142.5	190.1	209.85	209.84	160.6	0.350	OK	209.8193	0.00	0.01	

017

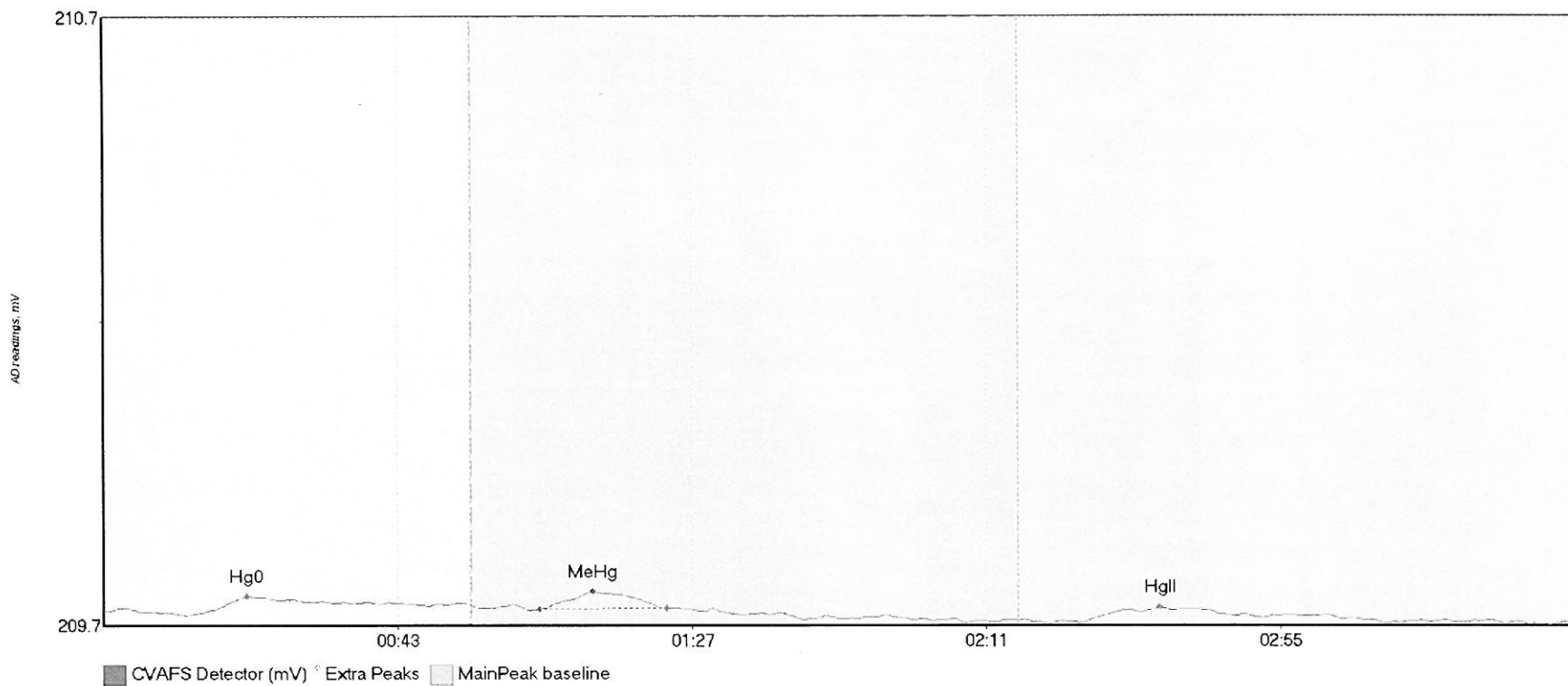
#9: SEQ-ICV1



Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
SEQ-ICV1 Hg0	3.469	16.4	55.0	209.77	209.78	25.7	0.019	CT	209.7684	0.00	-0.03	
SEQ-ICV1 MeHg	223.209	62.4	110.6	209.77	209.77	74.7	1.613	OK	209.7684	0.00	-0.03	
SEQ-ICV1 HgII	2.985	149.8	174.3	209.75	209.76	164.0	0.019	OK	209.7684	0.00	-0.03	

017

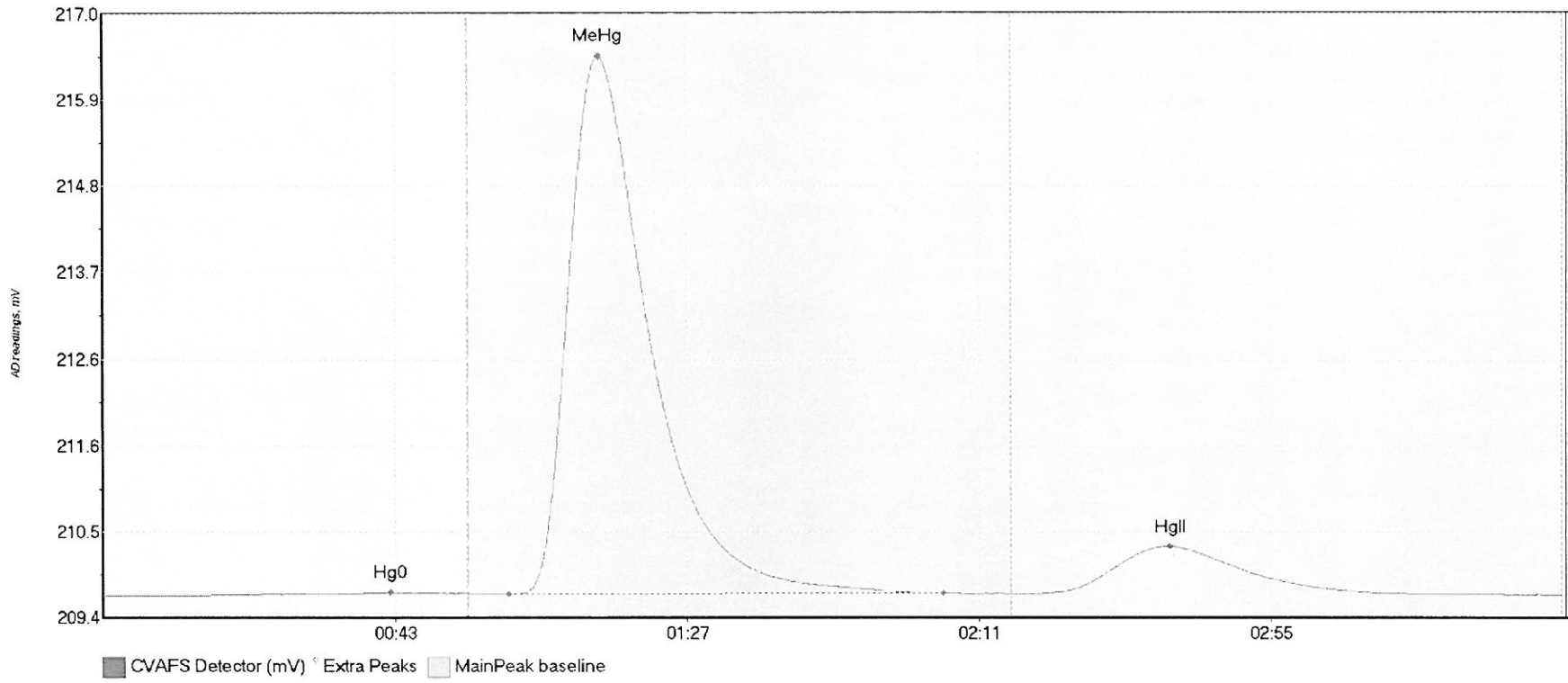
#10: SEQ-ICB1



Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
SEQ-ICB1 Hg0	3.183	16.4	48.6	209.72	209.73	21.5	0.022	OK	209.7199	0.00	-0.02	
SEQ-ICB1 MeHg	3.066	65.1	84.1	209.72	209.72	73.2	0.029	OK	209.7199	0.00	-0.02	
SEQ-ICB1 HgII	3.185	146.4	172.6	209.70	209.71	158.1	0.025	OK	209.7199	0.00	-0.02	

017

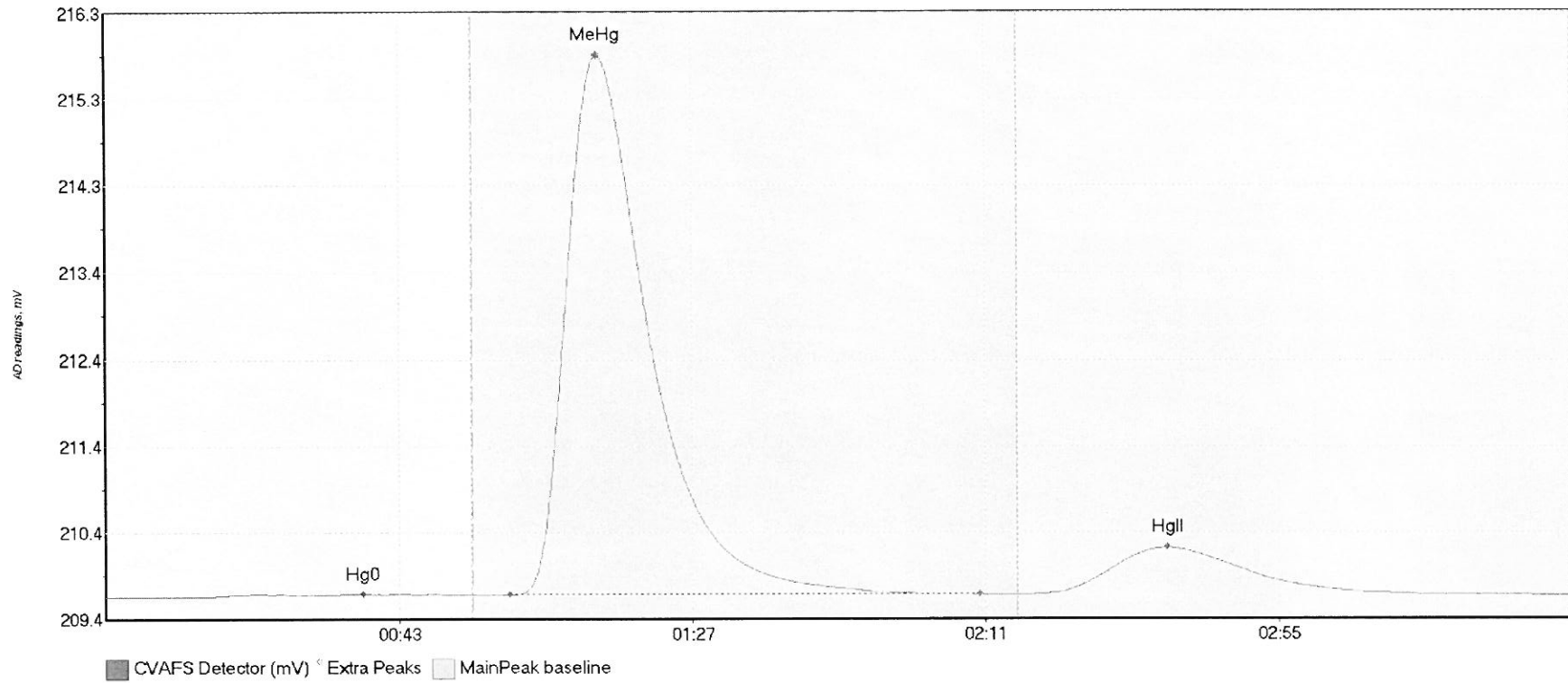
#11: F708416-BS1



Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
F708416-BS1 Hg0	4.229	13.1	53.2	209.67	209.71	43.3	0.042	OK	209.6720	0.00	0.02	
F708416-BS1 MeH	954.966	61.2	126.6	209.70	209.71	74.7	6.742	OK	209.6720	0.00	0.02	
F708416-BS1 HgI	127.621	140.6	194.3	209.70	209.71	160.9	0.596	OK	209.6720	0.00	0.02	

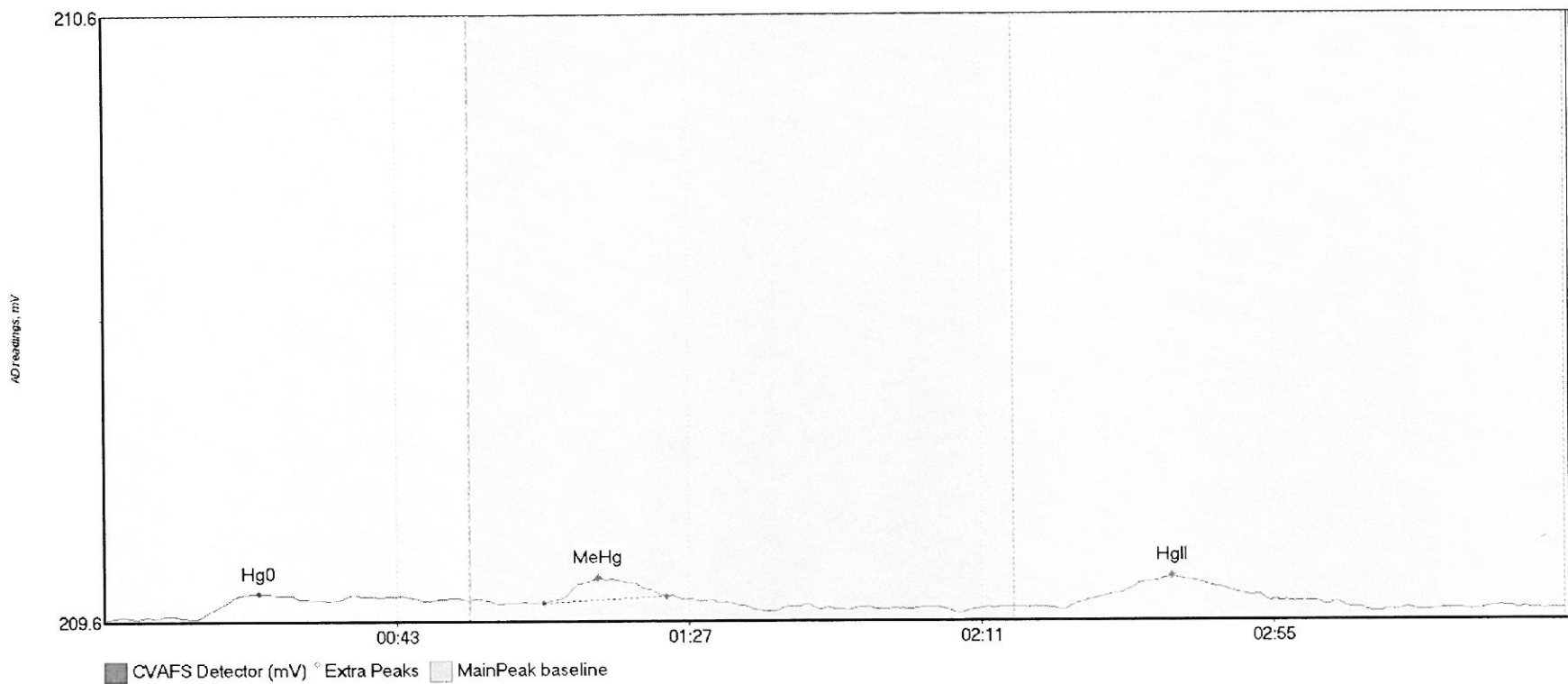
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#12: F708416-BSD1



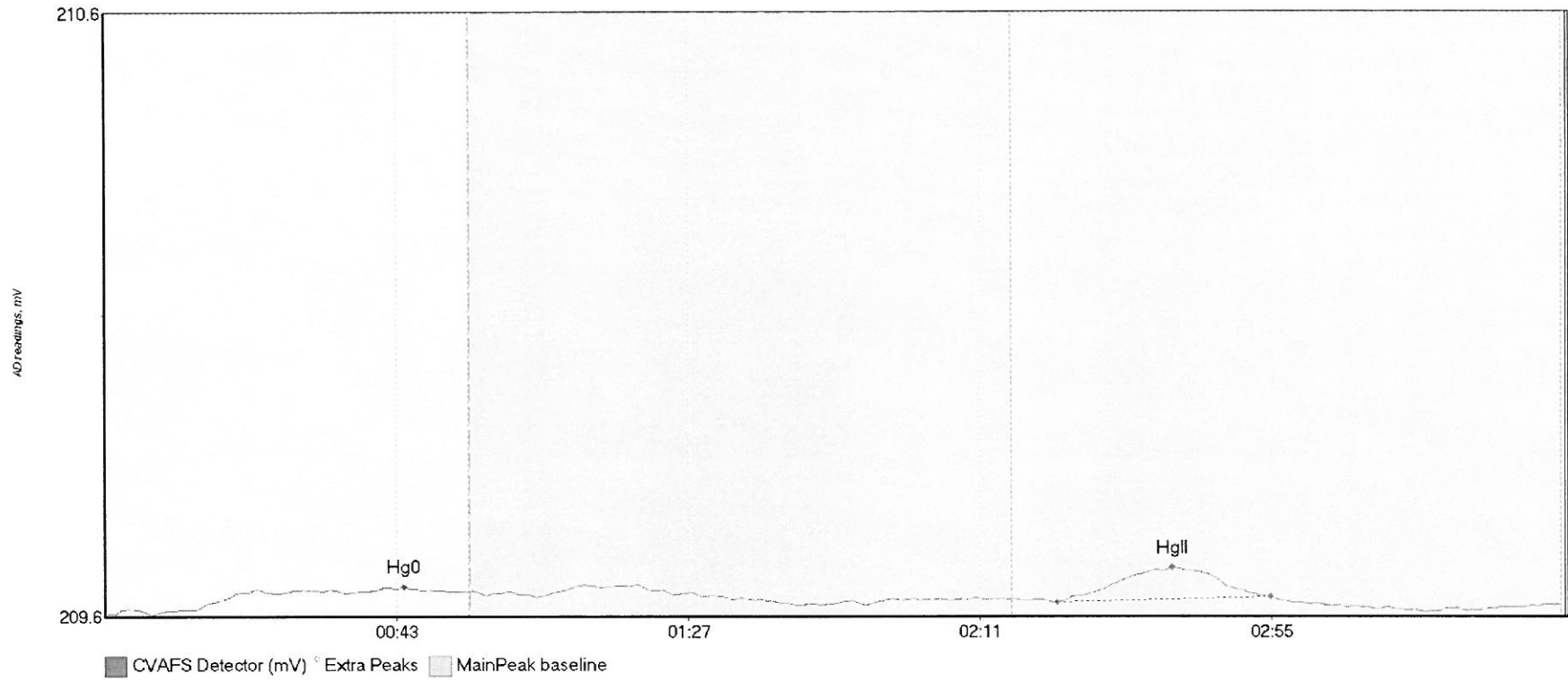
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
F708416-BSD1 Hg	5.233	15.7	55.0	209.66	209.68	38.6	0.030	CT	209.6528	0.00	0.01	
F708416-BSD1 Me	886.390	60.6	131.1	209.68	209.68	73.8	6.150	OK	209.6528	0.00	0.01	
F708416-BSD1 Hg	118.481	139.1	197.2	209.68	209.68	159.3	0.531	OK	209.6528	0.00	0.01	

#13: F708434-BLK1



Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
F708434-BLK1 Hg	6.303	13.8	48.3	209.63	209.66	23.3	0.042	OK	209.6308	0.00	0.01	
F708434-BLK1 Me	3.774	66.2	84.6	209.66	209.67	74.3	0.041	OK	209.6308	0.00	0.01	
F708434-BLK1 Hg	9.937	144.3	183.9	209.64	209.65	160.8	0.055	OK	209.6308	0.00	0.01	

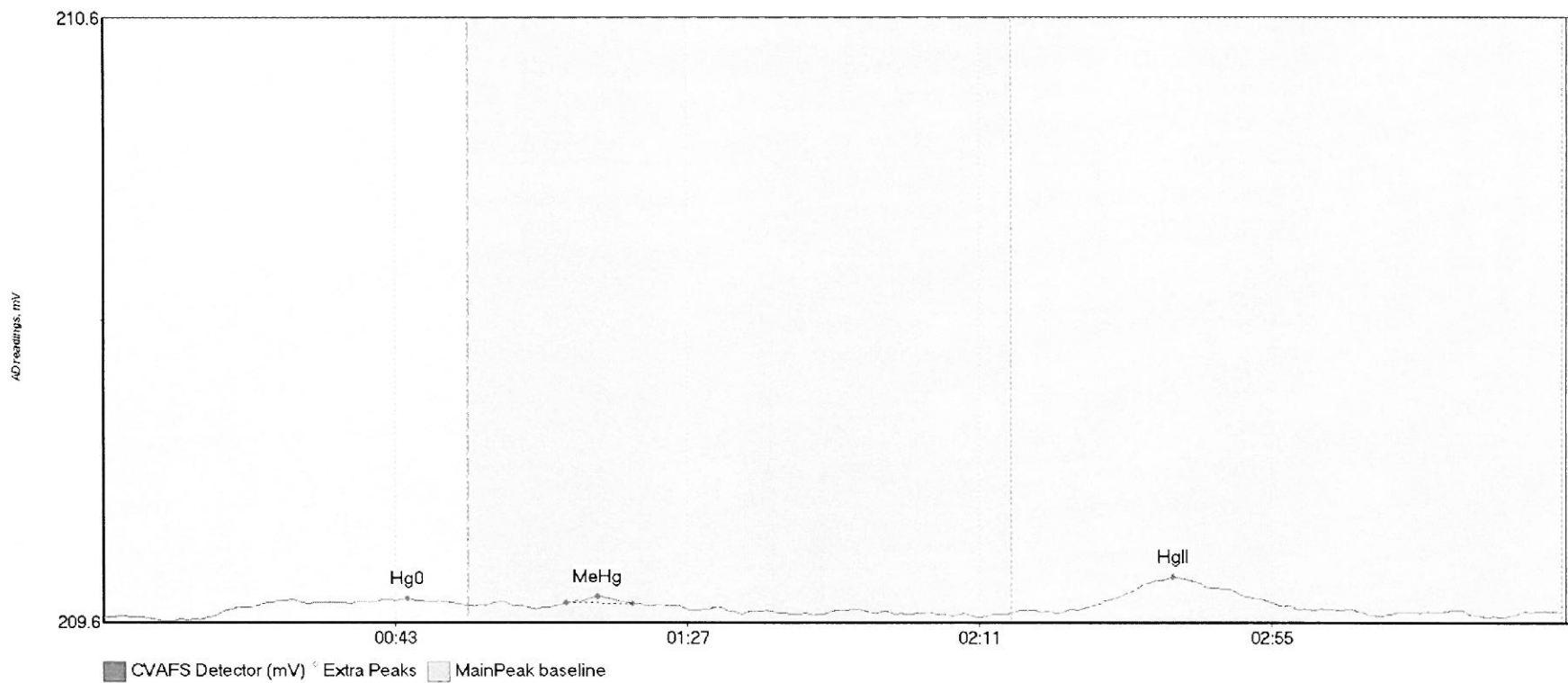
#14: F708434-BLK2



Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
F708434-BLK2 Hg	5.840	7.2	52.2	209.62	209.66	45.2	0.045	OK	209.6203	0.00	0.02	
F708434-BLK2 Hg	9.013	143.7	175.9	209.64	209.65	161.0	0.058	OK	209.6203	0.00	0.02	017

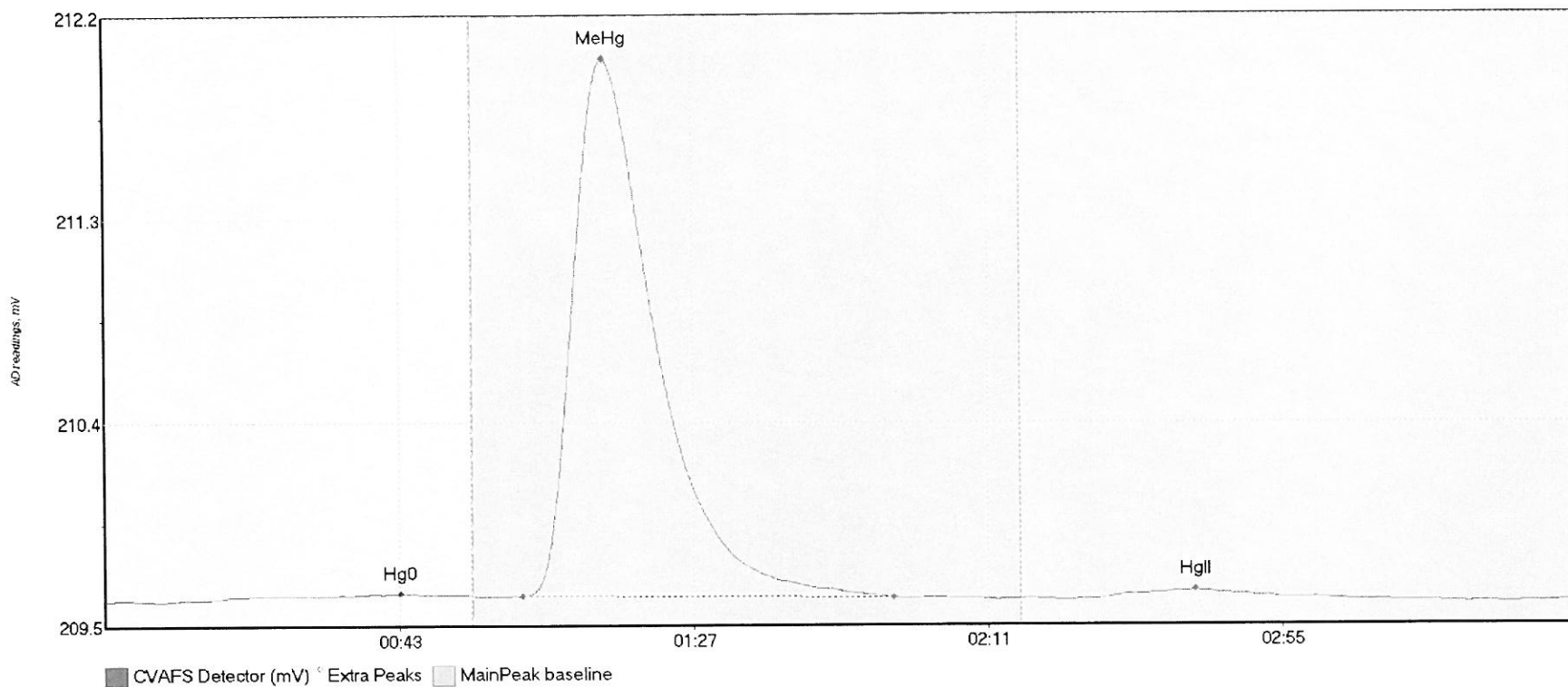


#15: F708434-BLK3



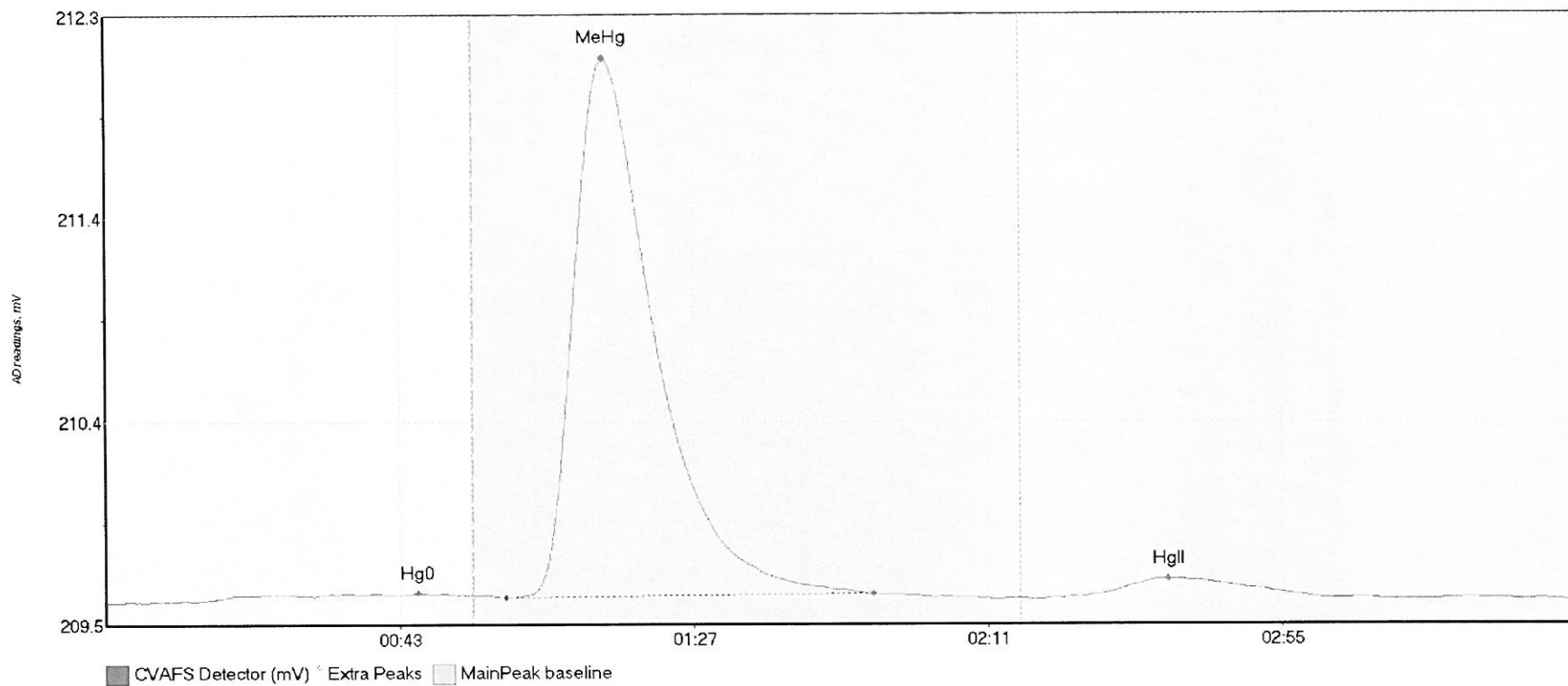
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
F708434-BLK3 Hg	5.792	14.5	55.0	209.61	209.64	45.8	0.034	CT	209.6180	0.00	0.01	
F708434-BLK3 Me	0.638	69.7	79.8	209.64	209.64	74.4	0.011	OK	209.6180	0.00	0.01	
F708434-BLK3 Hg	9.124	146.8	180.2	209.63	209.63	161.2	0.054	OK	209.6180	0.00	0.01	

#16: F708434-BS1



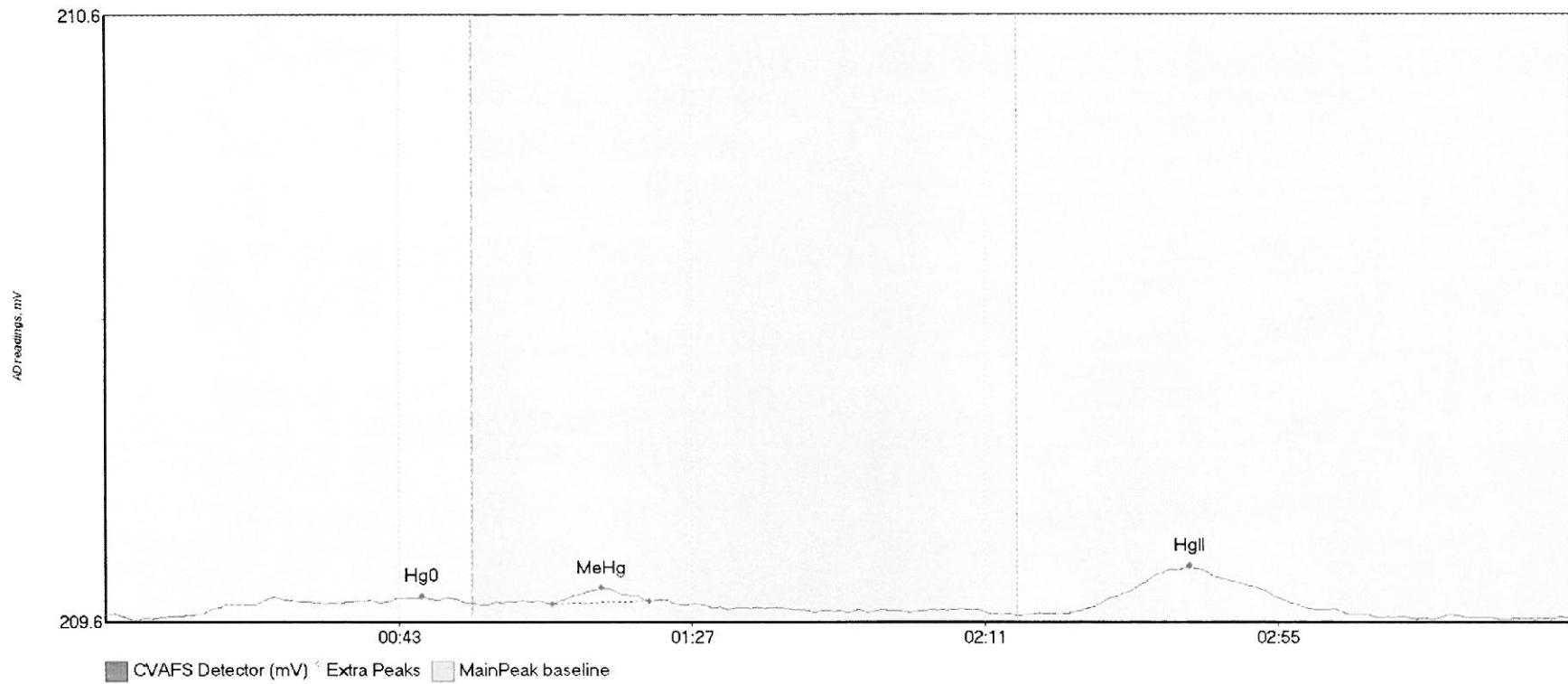
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
F708434-BS1 Hg0	4.128	14.5	55.0	209.62	209.64	44.2	0.026	CT	209.6181	0.00	0.00	
F708434-BS1 MeH	341.025	62.4	117.9	209.64	209.63	74.7	2.395	OK	209.6181	0.00	0.00	
F708434-BS1 HgI	5.678	148.4	176.5	209.62	209.63	163.0	0.038	OK	209.6181	0.00	0.00	

#17: F708434-BSD1



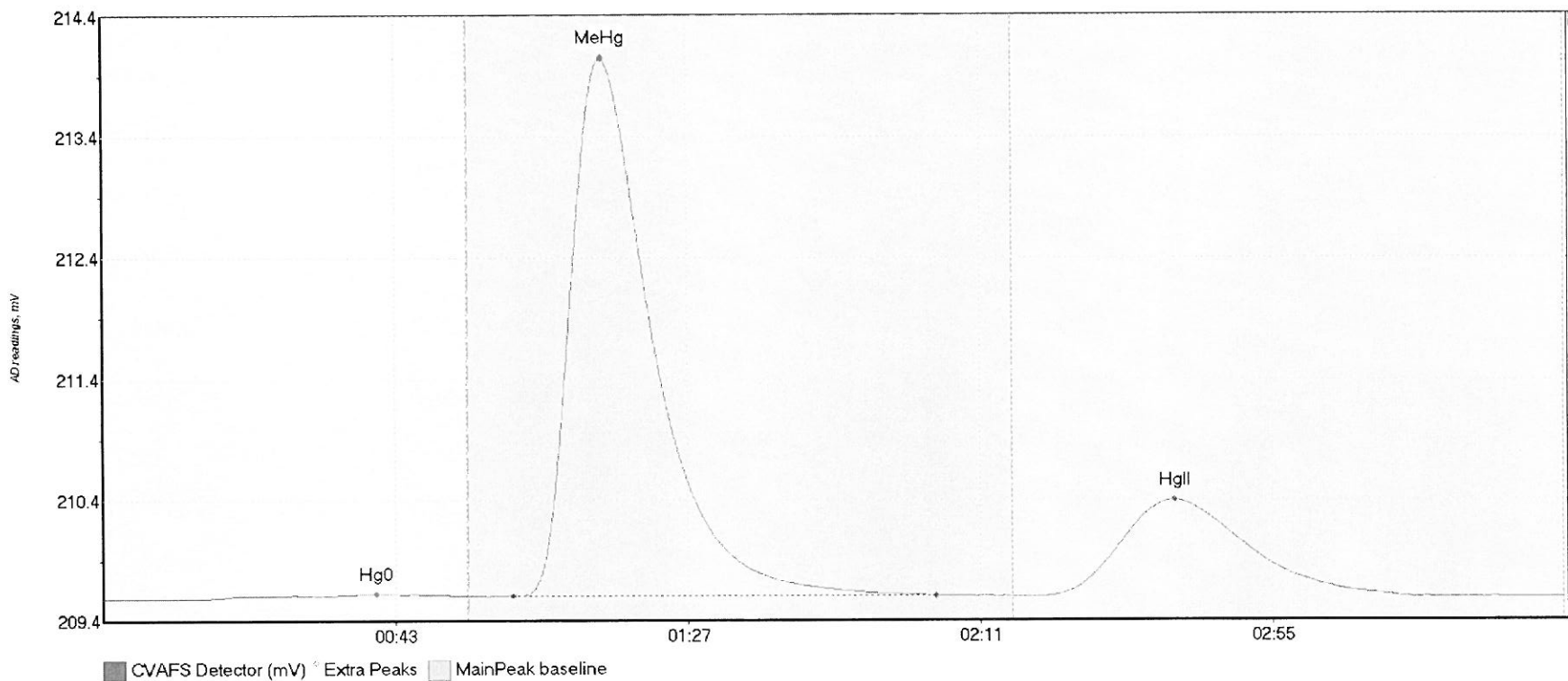
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
F708434-BSD1 Hg	6.037	10.4	55.0	209.61	209.64	46.7	0.037	CT	209.6084	0.00	0.01	
F708434-BSD1 Me	347.799	59.8	114.8	209.63	209.64	74.6	2.472	OK	209.6084	0.00	0.01	
F708434-BSD1 Hg	17.526	143.2	181.9	209.63	209.63	159.0	0.088	OK	209.6084	0.00	0.01	

#18: F708434-DUP1



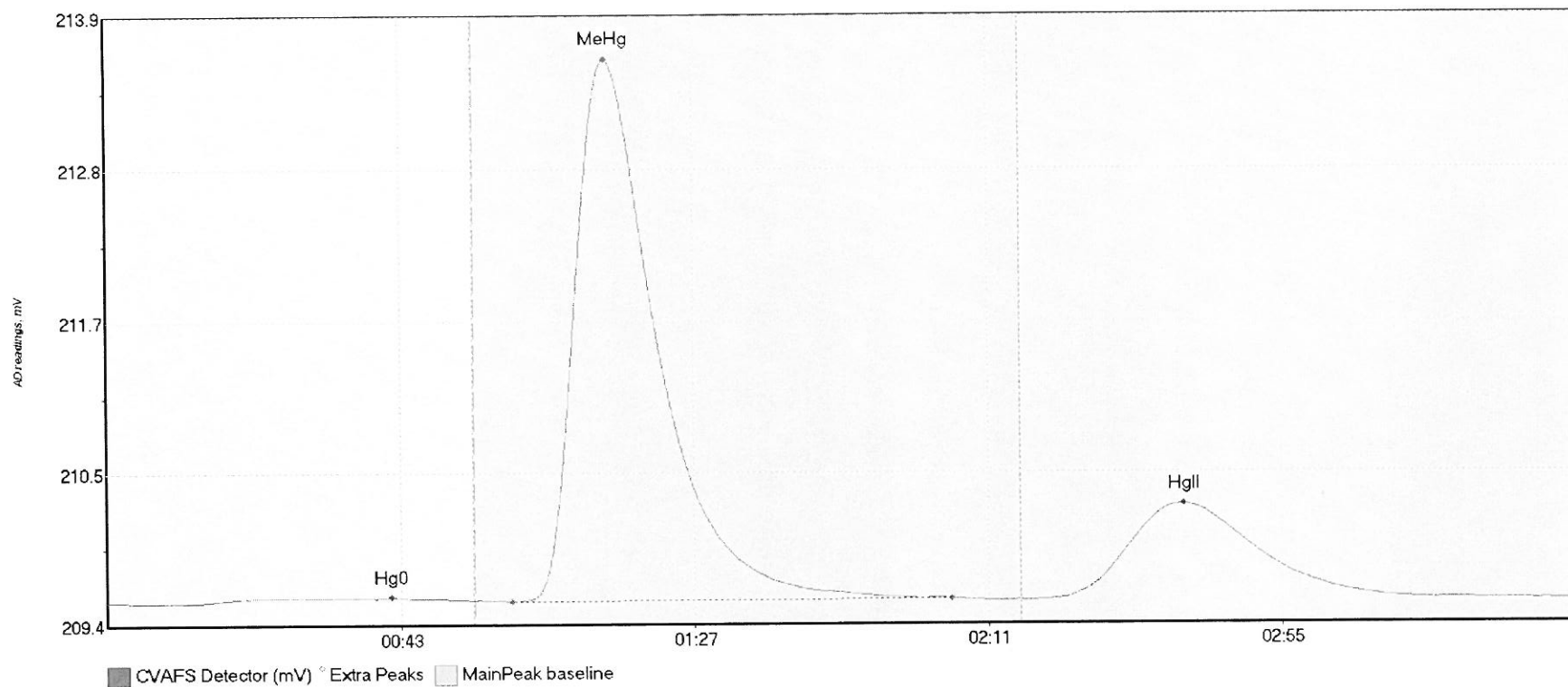
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
F708434-DUP1 Hg	4.433	14.2	54.2	209.62	209.63	47.5	0.029	OK	209.6142	0.00	0.00	
F708434-DUP1 Me	1.891	67.0	81.6	209.63	209.64	74.5	0.027	OK	209.6142	0.00	0.00	
F708434-DUP1 Hg	15.336	144.8	186.3	209.62	209.62	162.8	0.076	OK	209.6142	0.00	0.00	

#19: F708434-MS1



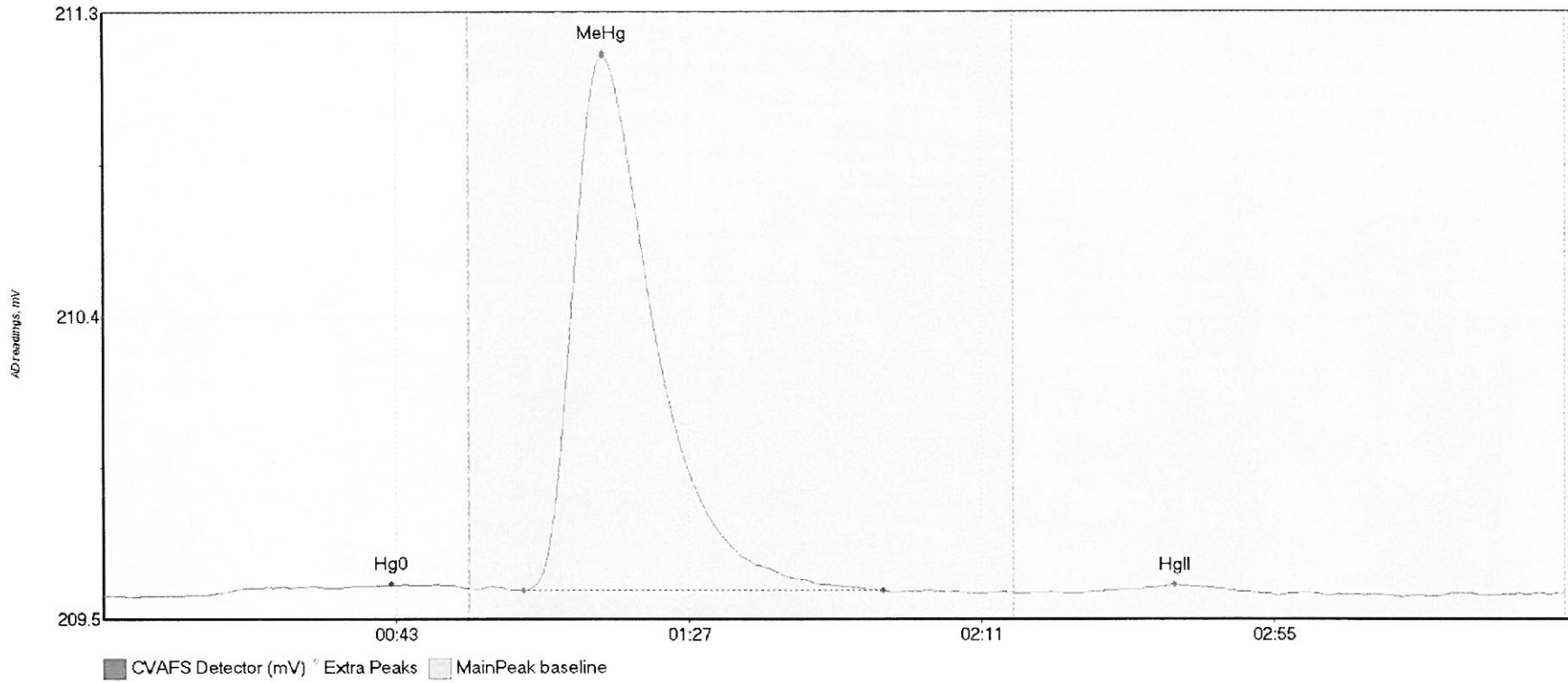
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
F708434-MS1 Hg0	5.258	16.0	53.4	209.60	209.62	41.2	0.037	OK	209.6012	0.00	0.00	
F708434-MS1 MeH	626.715	61.7	125.3	209.62	209.62	75.1	4.412	OK	209.6012	0.00	0.00	
F708434-MS1 HgI	173.814	141.0	197.4	209.61	209.61	161.3	0.797	OK	209.6012	0.00	0.00	

#20: F708434-MSD1



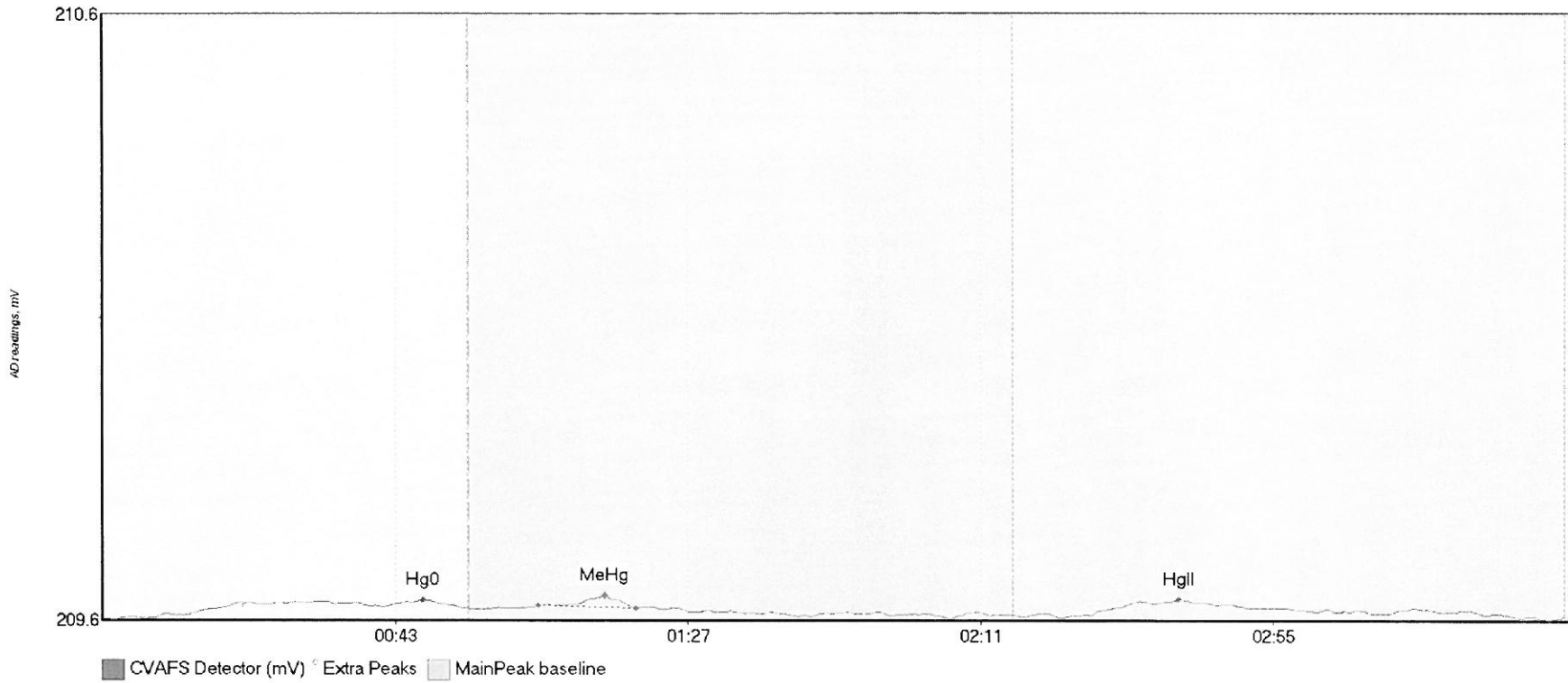
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
F708434-MSD1 Hg	8.479	14.0	54.8	209.58	209.60	42.6	0.039	OK	209.5846	0.00	0.00	
F708434-MSD1 Me	568.738	60.6	126.5	209.59	209.60	74.9	3.991	OK	209.5846	0.00	0.00	
F708434-MSD1 Hg	154.559	140.8	205.9	209.60	209.59	161.3	0.700	OK	209.5846	0.00	0.00	

#21: SEQ-CCV1



Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
SEQ-CCV1 Hg0	5.230	15.2	54.9	209.57	209.59	43.3	0.031	OK	209.5689	0.00	0.01	
SEQ-CCV1 MeHg	221.105	63.1	117.1	209.59	209.58	75.2	1.552	OK	209.5689	0.00	0.01	
SEQ-CCV1 HgII	2.137	149.5	171.2	209.58	209.58	161.0	0.020	OK	209.5689	0.00	0.01	

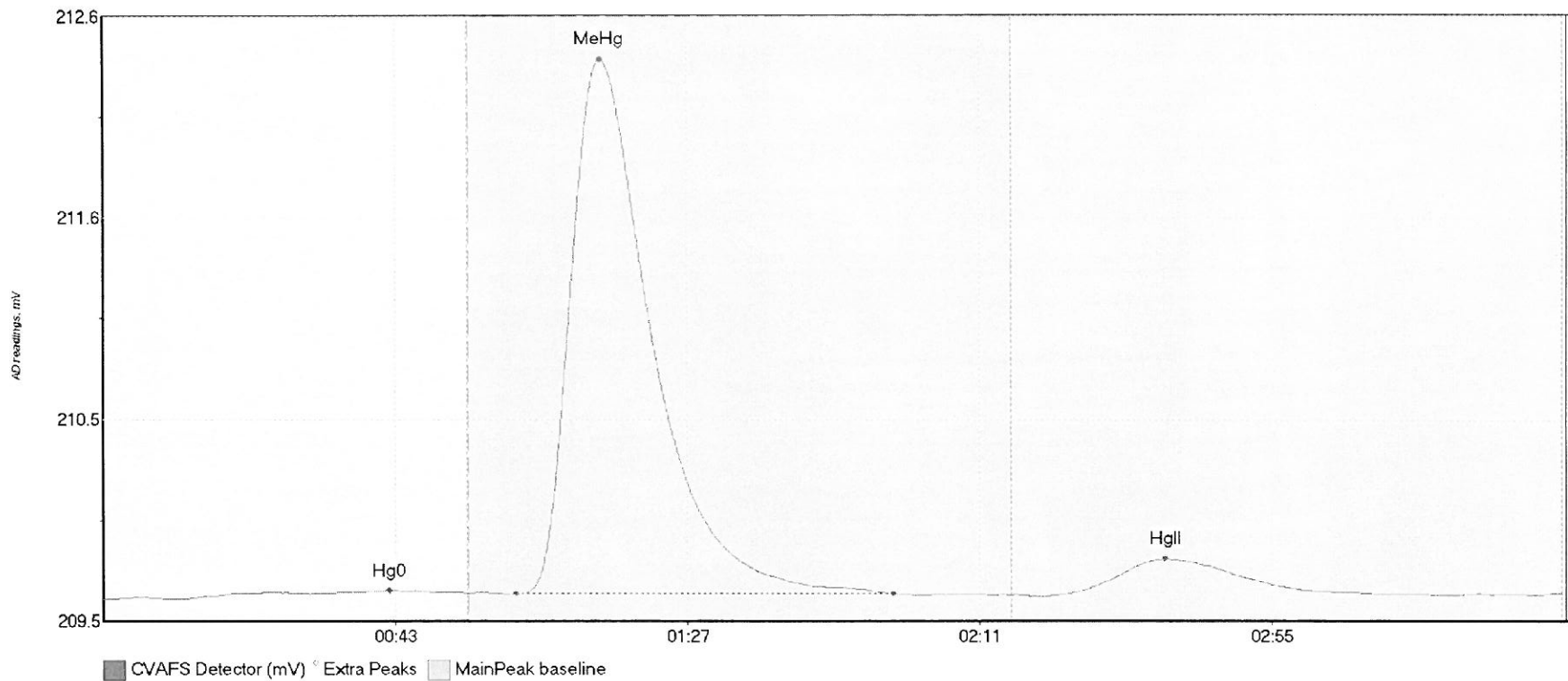
#22: SEQ-CCB1



Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	B1Dev	B1Shift	Comment
SEQ-CCB1 Hg0	5.895	8.1	55.0	209.57	209.58	48.2	0.029	CT	209.5642	0.00	0.00	
SEQ-CCB1 MeHg	1.170	65.5	80.1	209.58	209.58	75.5	0.017	OK	209.5642	0.00	0.00	
SEQ-CCB1 HgII	5.545	148.5	191.3	209.57	209.57	161.7	0.026	OK	209.5642	0.00	0.00	

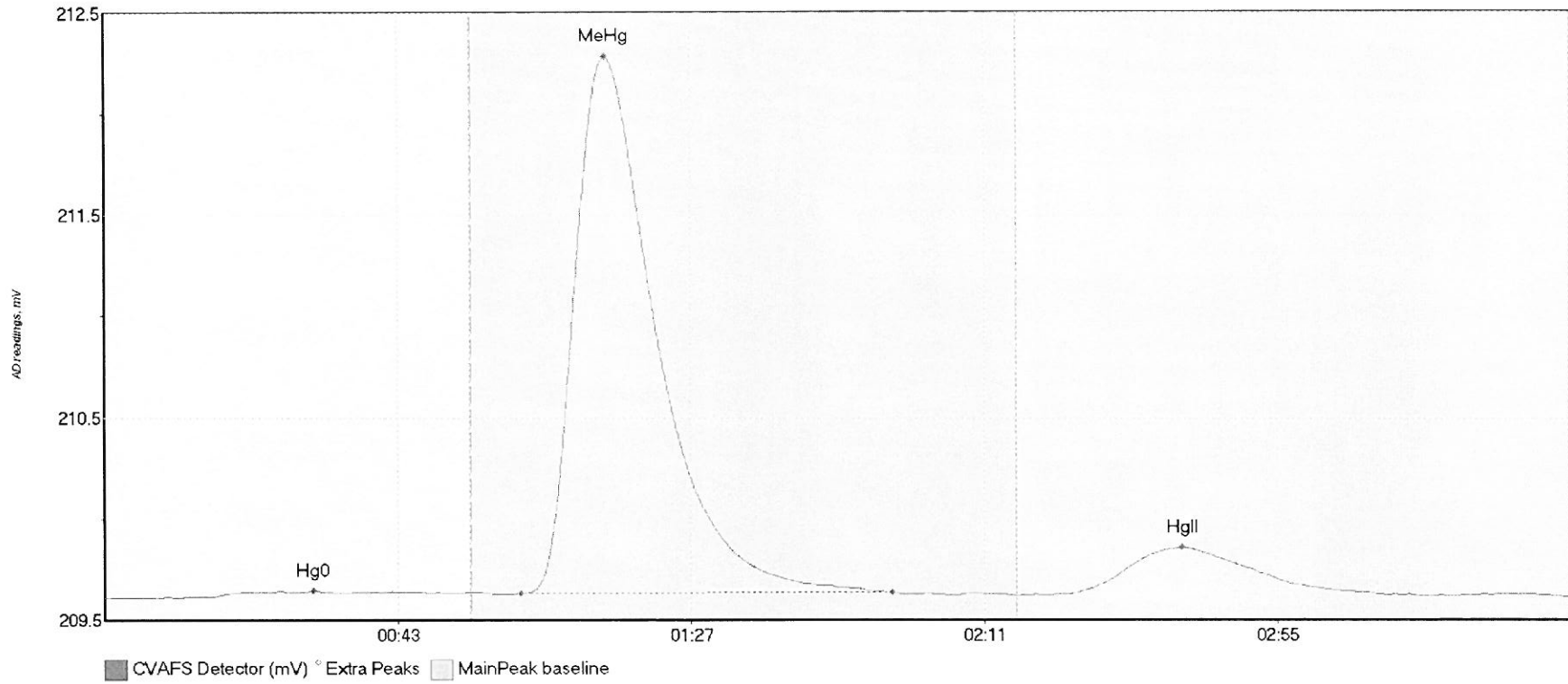


#23: F708434-MS2



Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
F708434-MS2 Hg0	7.227	12.3	54.9	209.57	209.60	43.1	0.044	OK	209.5697	0.00	0.03	
F708434-MS2 MeH	398.340	62.1	119.0	209.60	209.60	74.9	2.807	OK	209.5697	0.00	0.03	
F708434-MS2 HgI	38.649	143.0	191.6	209.59	209.60	160.1	0.192	OK	209.5697	0.00	0.03	

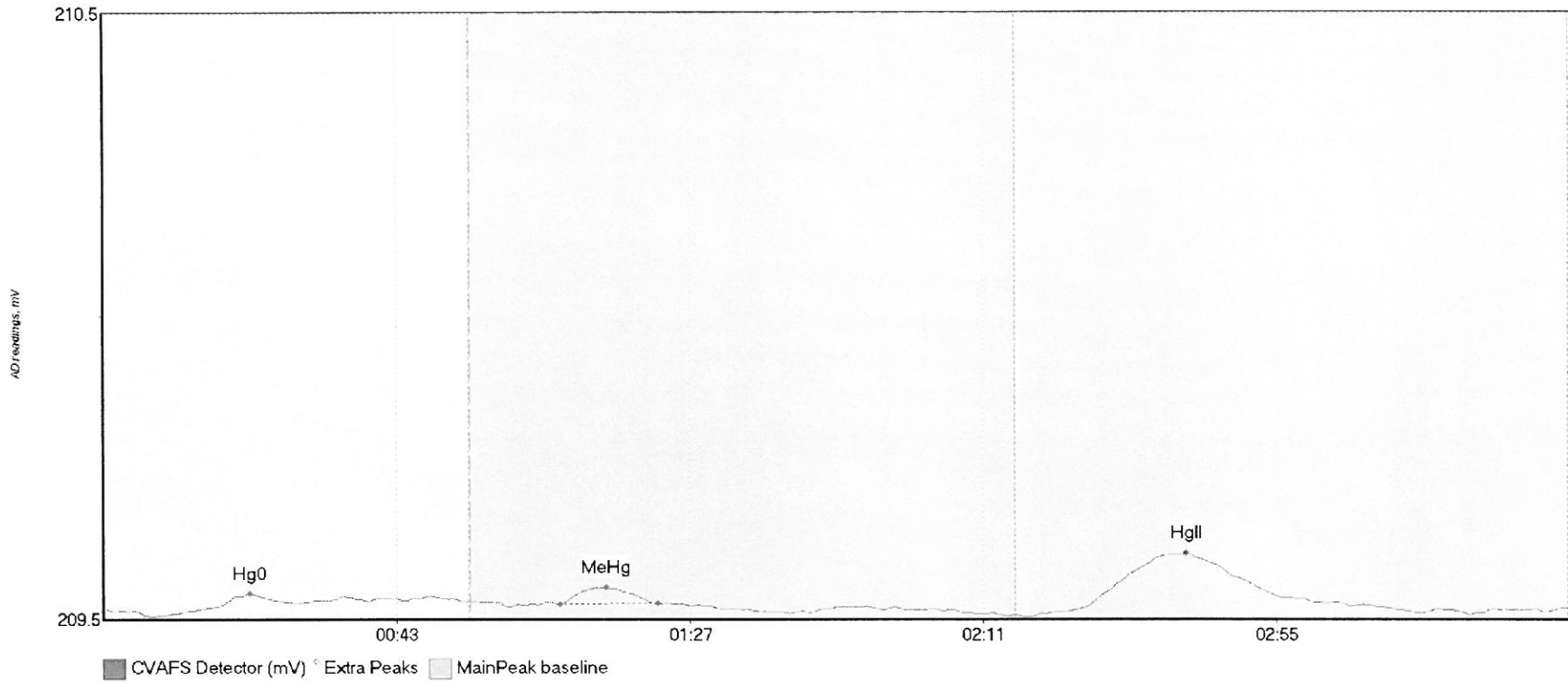
#24: F708434-MSD2



Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
F708434-MSD2 Hg	5.122	16.0	53.0	209.57	209.59	31.3	0.030	OK	209.5669	0.00	0.01	
F708434-MSD2 Me	385.871	62.5	118.1	209.59	209.59	75.2	2.720	OK	209.5669	0.00	0.01	
F708434-MSD2 Hg	51.180	141.1	192.7	209.58	209.58	161.7	0.242	OK	209.5669	0.00	0.01	

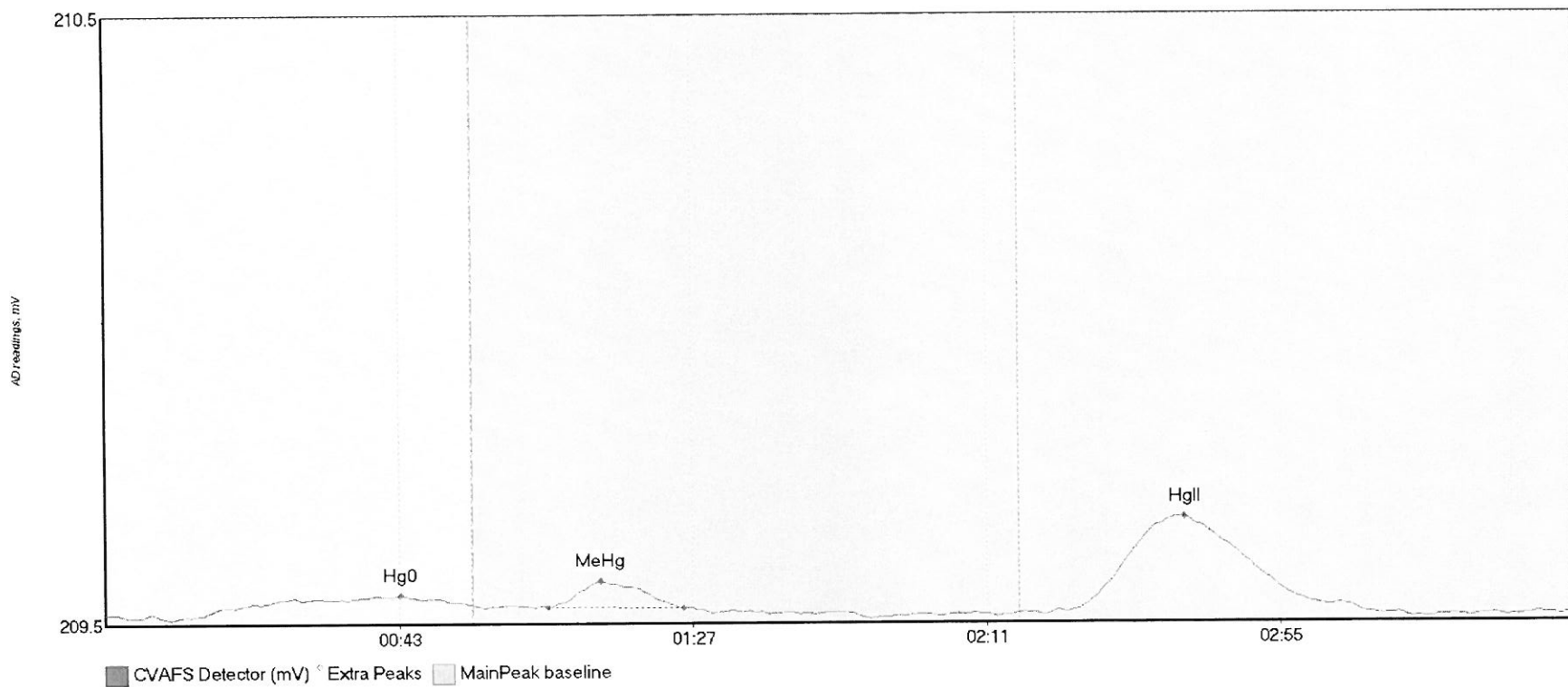
017

#25: 1707702-01



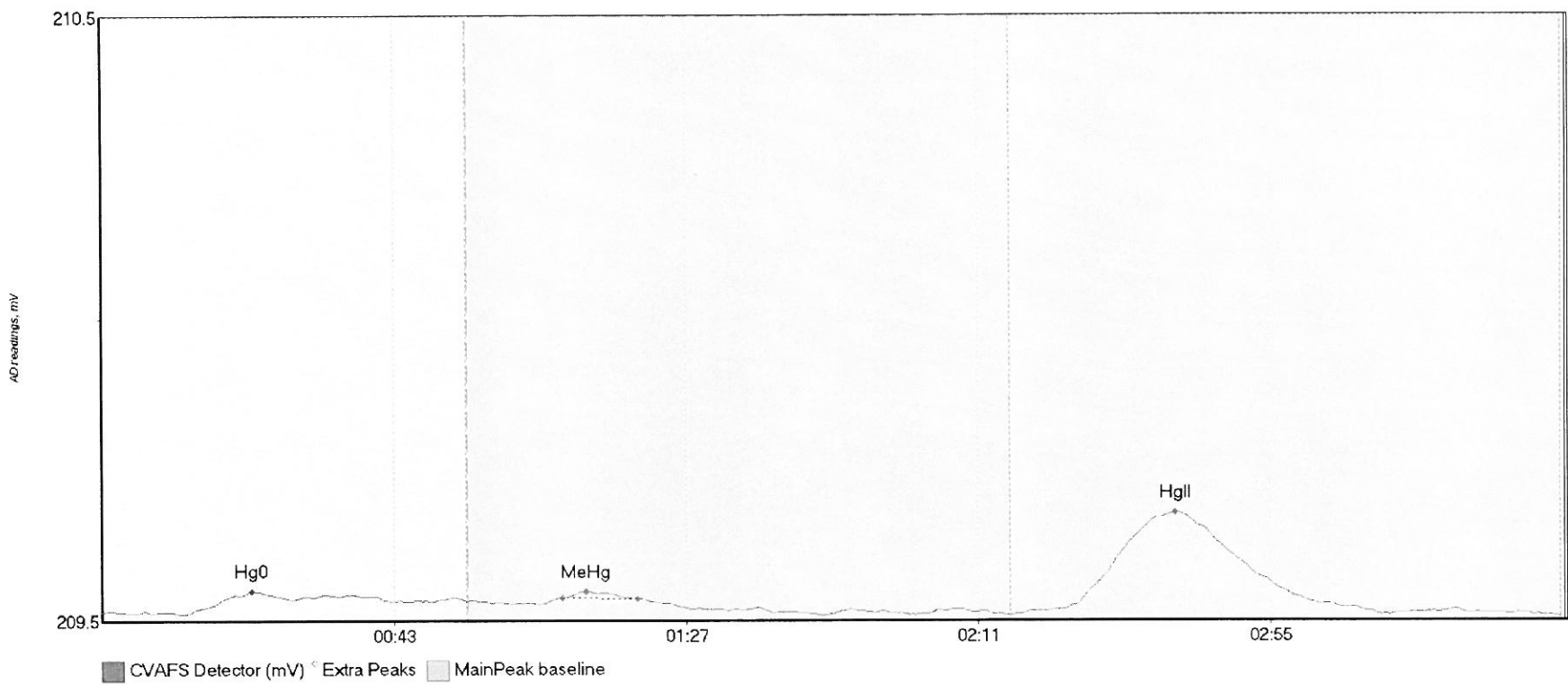
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1707702-01 Hg0	1.254	15.8	29.4	209.56	209.57	22.0	0.024	OK	209.5619	0.00	0.00	
1707702-01 MeHg	2.450	68.4	83.1	209.57	209.57	75.4	0.027	OK	209.5619	0.00	0.00	
1707702-01 HgII	22.118	141.4	197.0	209.55	209.56	162.5	0.099	OK	209.5619	0.00	0.00	

#26: 1707703-01



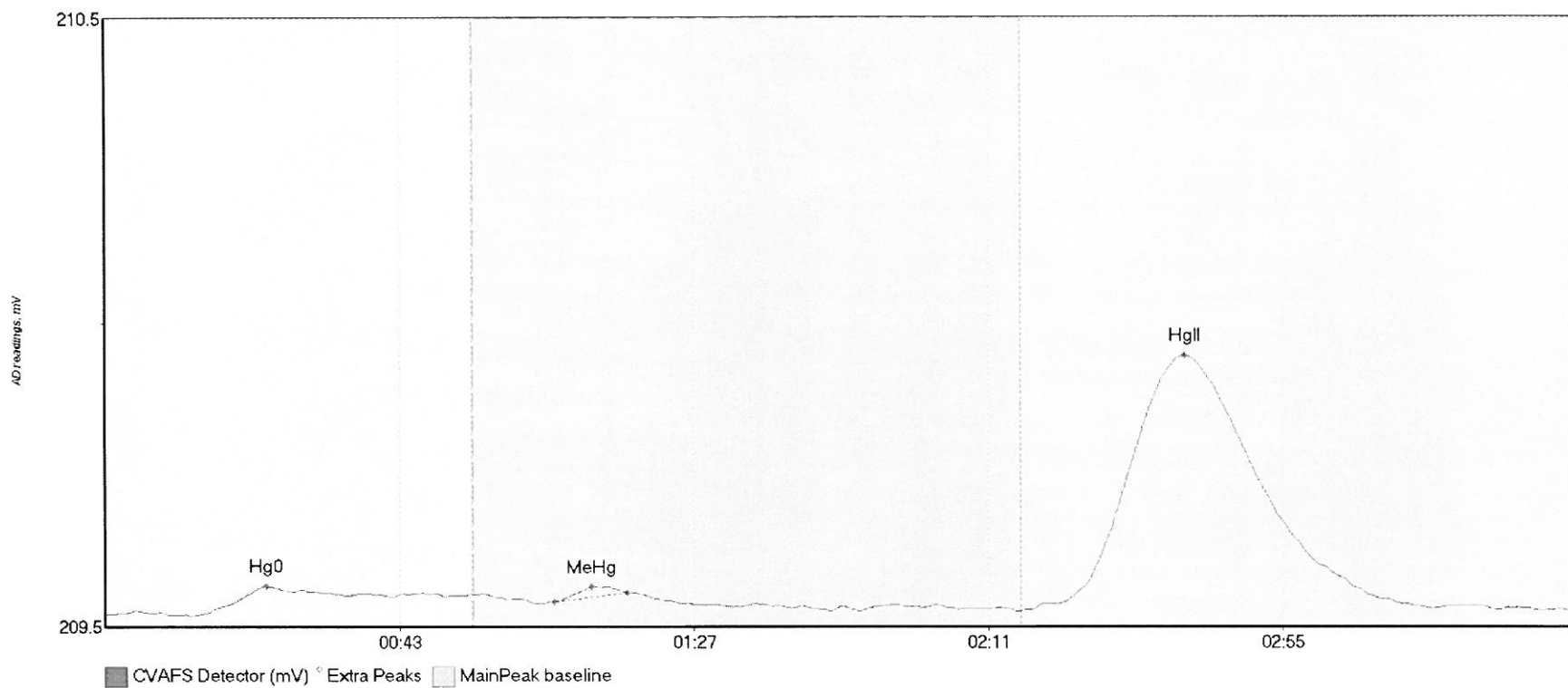
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1707703-01 Hg0	6.052	14.0	55.0	209.55	209.57	44.1	0.033	CT	209.5559	0.00	0.00	
1707703-01 MeHg	4.712	66.3	86.6	209.57	209.56	74.1	0.043	OK	209.5559	0.00	0.00	
1707703-01 HgII	31.509	144.0	188.5	209.56	209.56	161.8	0.157	OK	209.5559	0.00	0.00	017

#27: 1707704-01



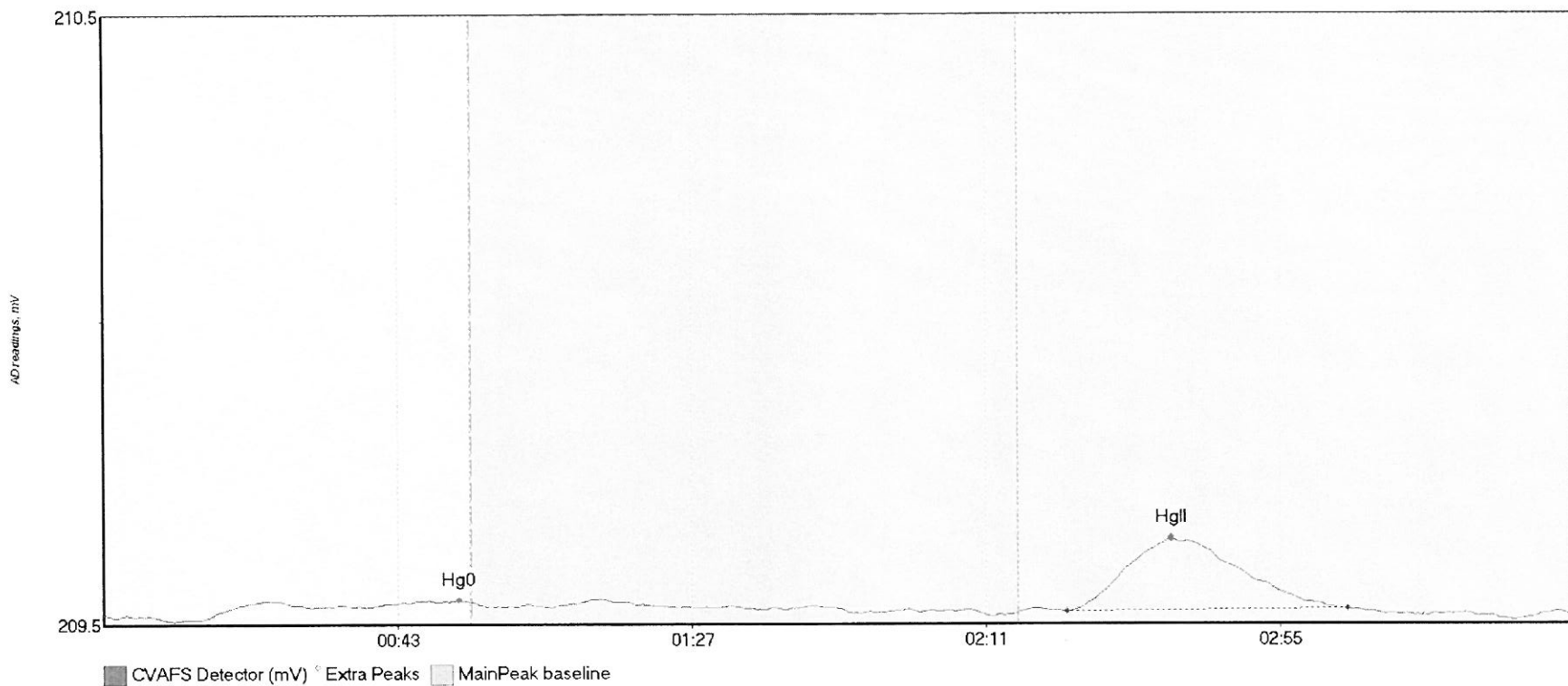
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1707704-01 Hg0	5.172	12.1	46.2	209.54	209.56	22.6	0.038	OK	209.5447	0.00	-0.01	
1707704-01 MeHg	0.693	69.3	80.6	209.57	209.57	72.8	0.010	OK	209.5447	0.00	-0.01	
1707704-01 HgII	35.531	138.6	192.9	209.54	209.54	161.7	0.168	OK	209.5447	0.00	-0.01	017

#28: 1707704-02



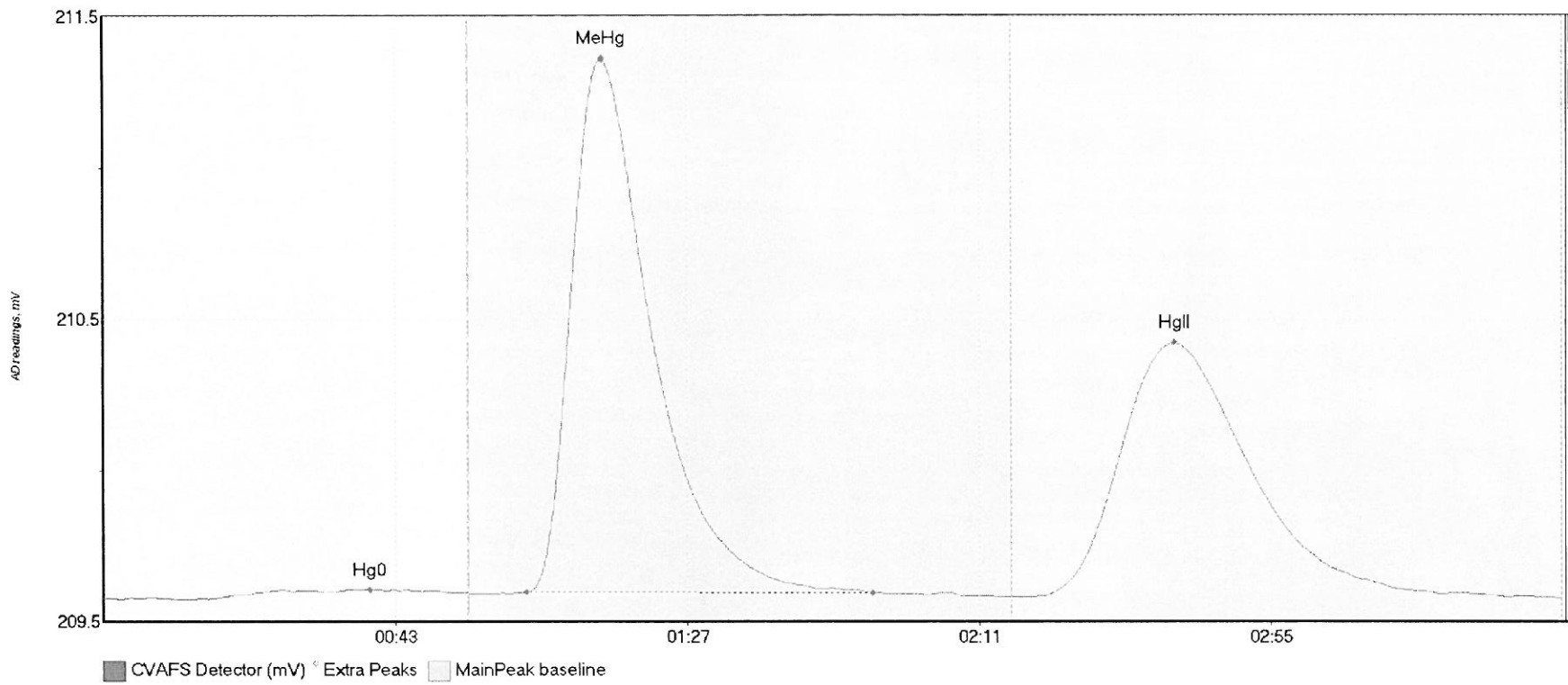
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1707704-02 Hg0	4.956	13.3	42.6	209.54	209.57	24.2	0.049	OK	209.5381	0.00	0.01	
1707704-02 MeHg	0.969	67.1	78.0	209.56	209.57	72.7	0.024	OK	209.5381	0.00	0.01	
1707704-02 HgII	91.394	138.4	197.7	209.55	209.55	161.4	0.418	OK	209.5381	0.00	0.01	

#29: 1707732-01



Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1707732-01 Hg0	3.731	14.5	55.0	209.53	209.56	53.1	0.031	CT	209.5421	0.00	0.00	
1707732-01 HgII	22.837	144.2	186.2	209.55	209.55	159.7	0.119	OK	209.5421	0.00	0.00	017

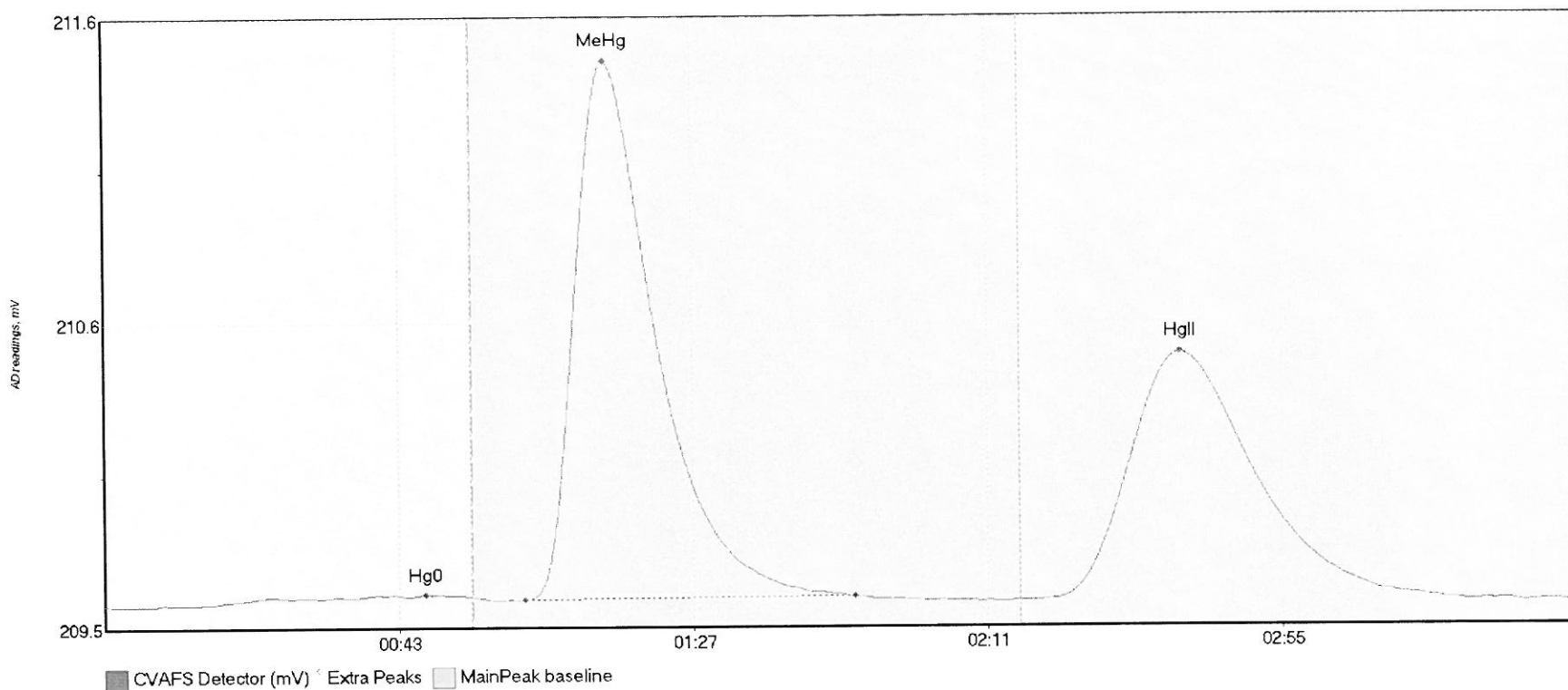
#30: 1707732-02



Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1707732-02 Hg0	5.566	15.7	55.0	209.54	209.56	40.1	0.032	CT	209.5402	0.00	0.01	
1707732-02 MeHg	254.390	63.7	115.9	209.56	209.56	75.1	1.809	OK	209.5402	0.00	0.01	
1707732-02 HgII	192.911	141.4	211.9	209.55	209.55	161.4	0.861	OK	209.5402	0.00	0.01	

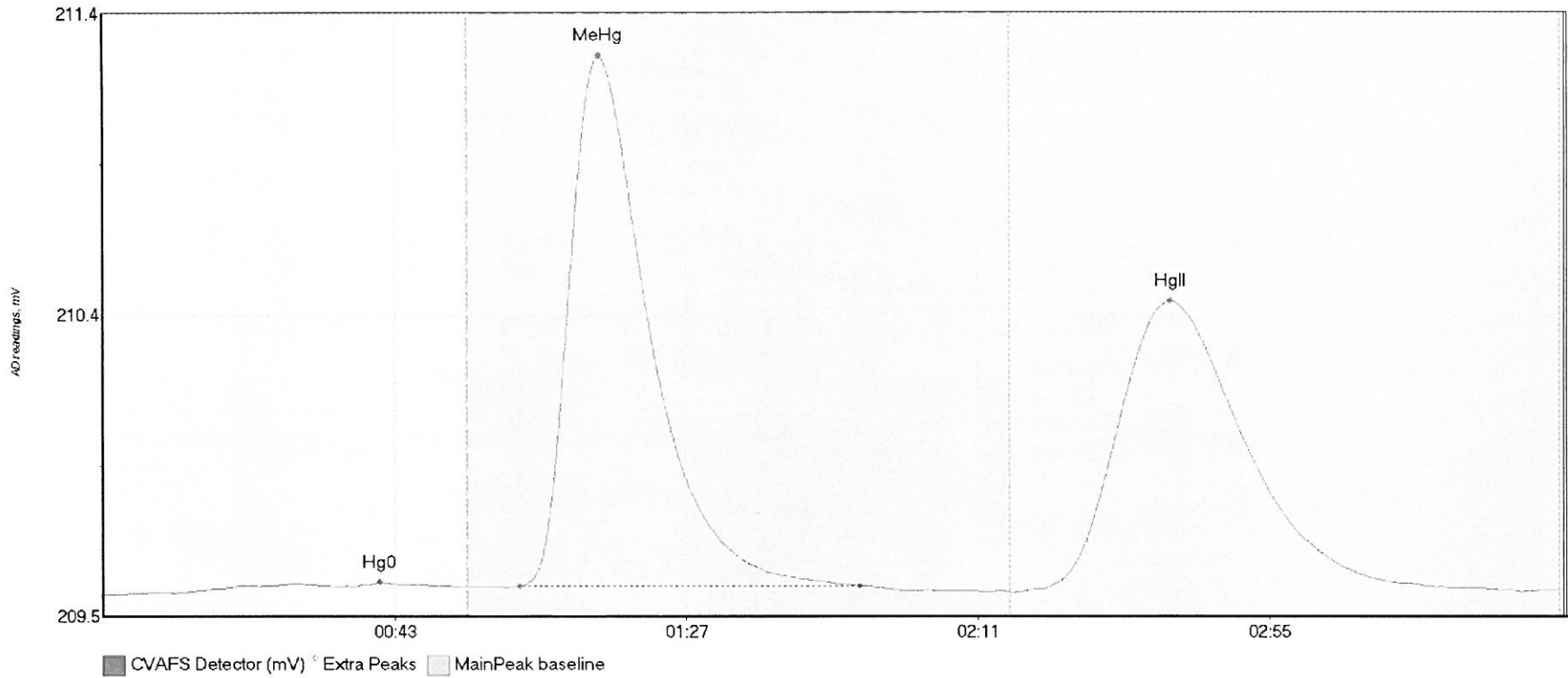


#31: 1707732-03



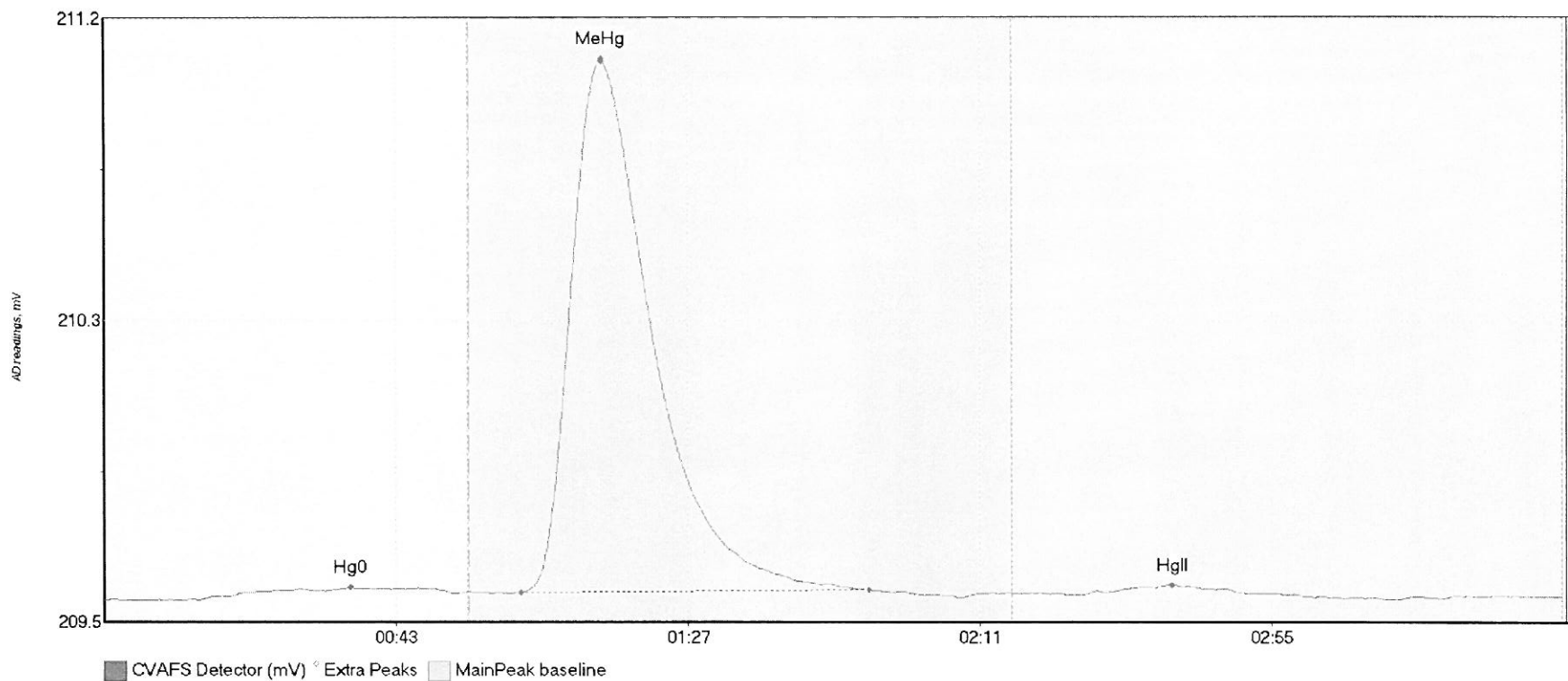
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1707732-03 Hg0	4.793	13.1	55.0	209.54	209.56	48.0	0.035	CT	209.5356	0.00	0.00	
1707732-03 MeHg	269.631	62.8	112.1	209.55	209.56	75.0	1.940	OK	209.5356	0.00	0.00	
1707732-03 HgII	190.306	139.3	200.7	209.55	209.55	160.9	0.892	OK	209.5356	0.00	0.00	

#32: 1707732-04



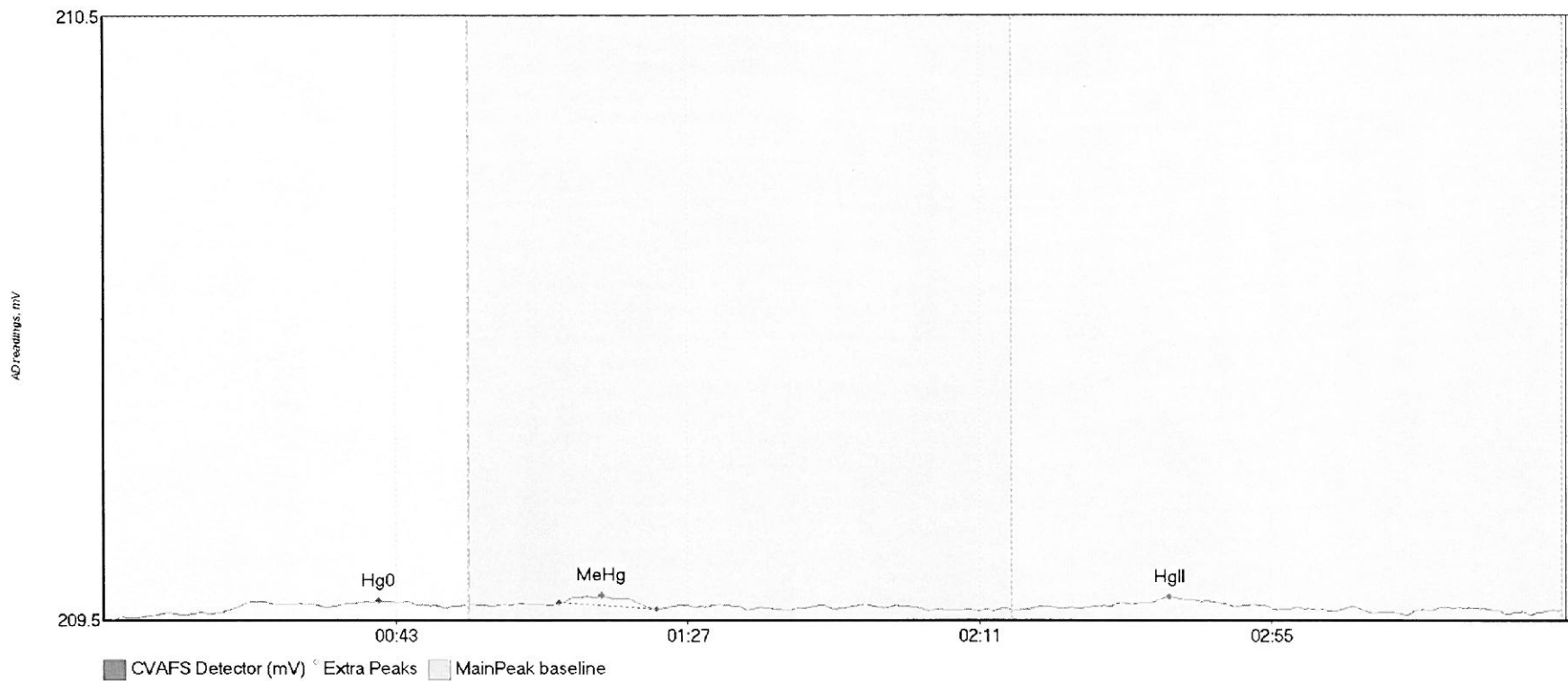
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1707732-04 Hg0	5.002	10.7	53.2	209.53	209.56	41.7	0.035	OK	209.5298	0.00	0.02	
1707732-04 MeHg	241.493	62.8	114.1	209.55	209.56	74.9	1.726	OK	209.5298	0.00	0.02	
1707732-04 HgII	210.774	138.6	213.9	209.54	209.54	161.1	0.946	OK	209.5298	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	6.307	14.4	52.9	209.53	209.54	37.1	0.034	OK	209.5244	0.00	0.01	
SEQ-CCV2 MeHg	212.964	62.9	115.3	209.55	209.55	75.0	1.503	OK	209.5244	0.00	0.01	
SEQ-CCV2 HgII	2.554	151.0	171.1	209.55	209.55	161.1	0.021	OK	209.5244	0.00	0.01	

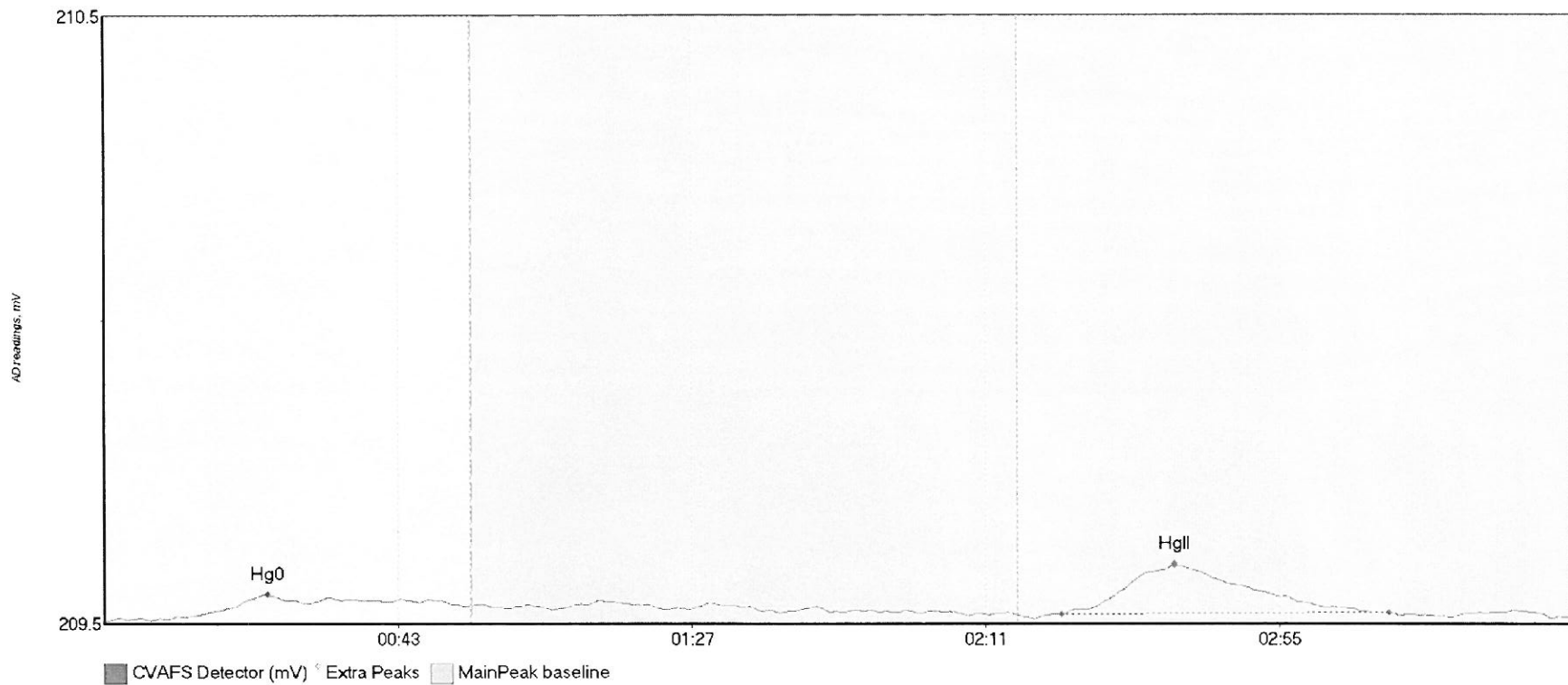
#34: SEQ-CCB2



Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
SEQ-CCB2 Hg0	3.836	7.6	51.3	209.54	209.55	41.5	0.024	OK	209.5307	0.00	0.01	
SEQ-CCB2 MeHg	1.575	68.6	83.3	209.56	209.55	75.0	0.012	OK	209.5307	0.00	0.01	
SEQ-CCB2 HgII	2.721	147.8	176.9	209.55	209.54	160.6	0.019	OK	209.5307	0.00	0.01	

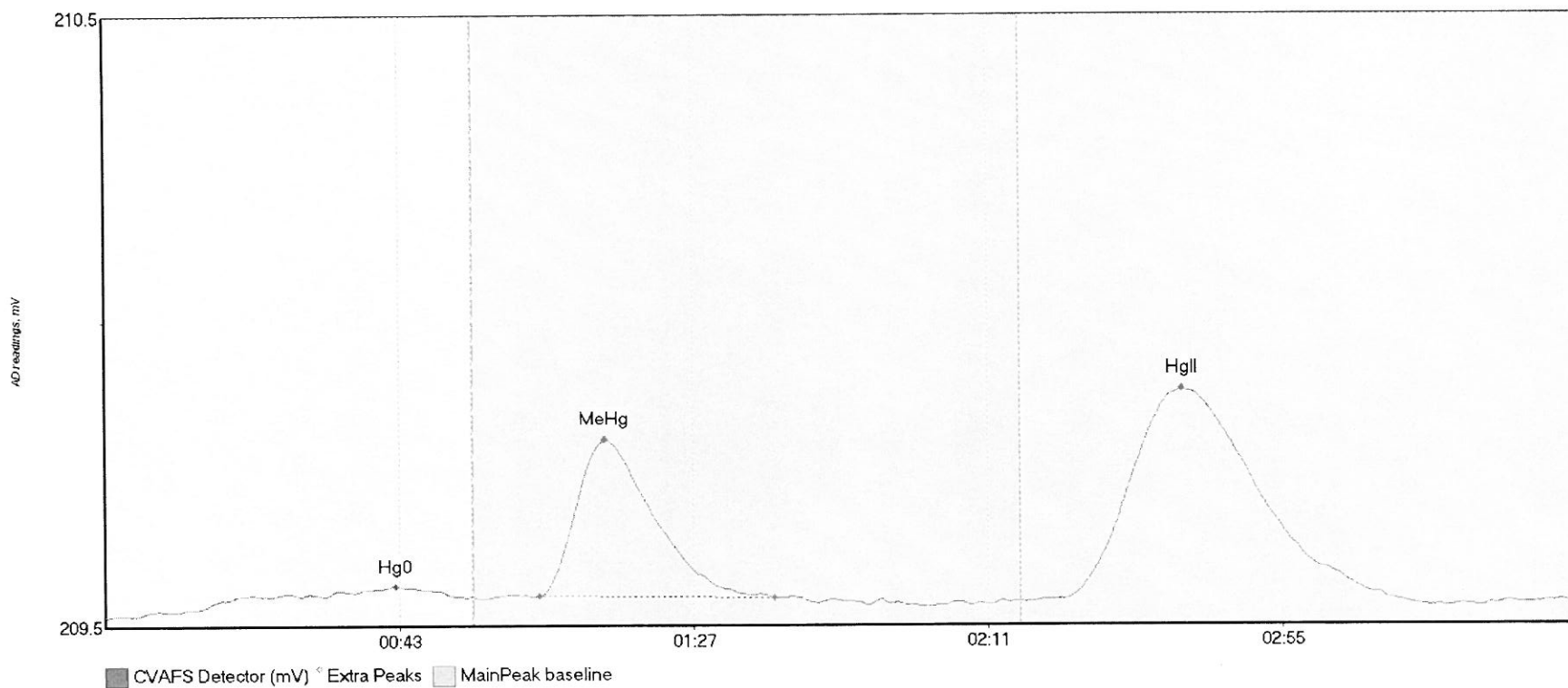
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#35: 1707732-05



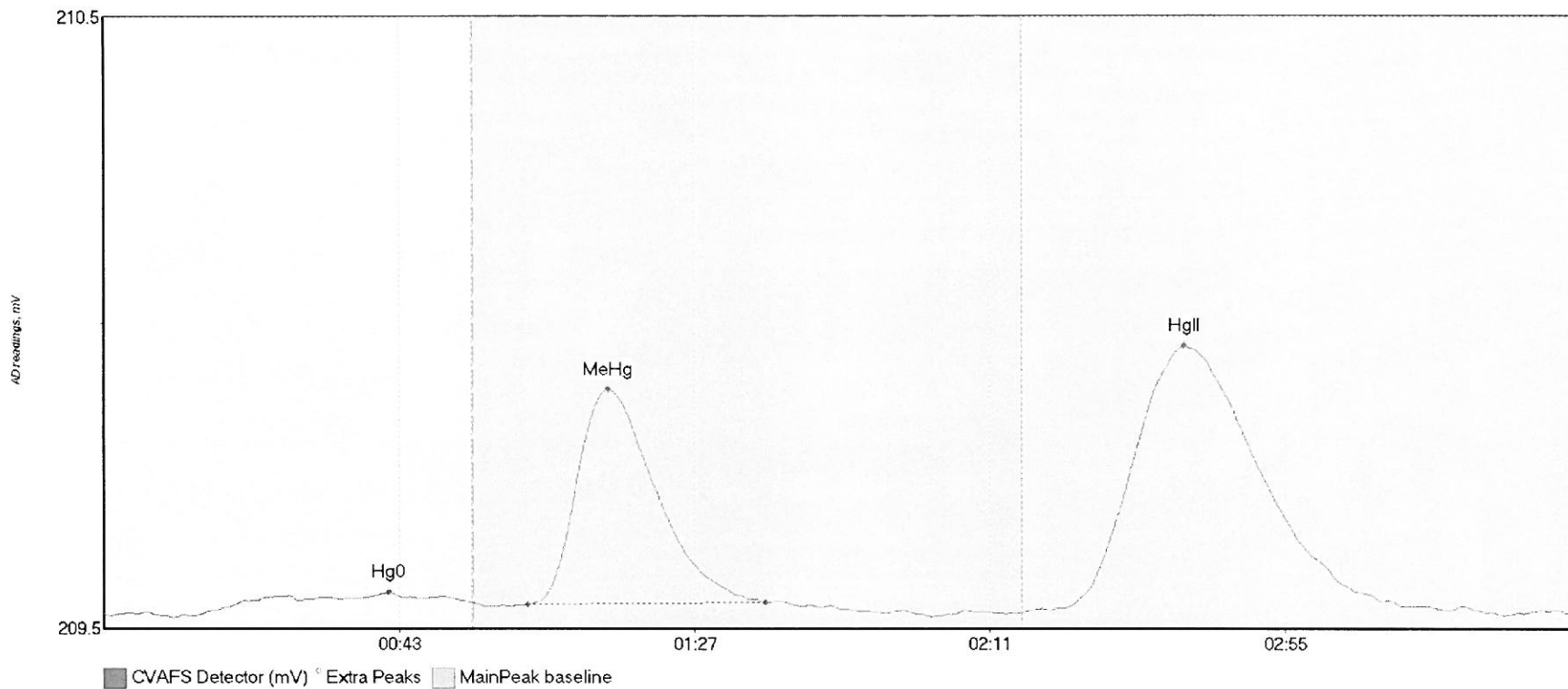
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1707732-05 Hg0	6.729	9.5	54.1	209.54	209.56	24.4	0.040	OK	209.5359	0.00	0.01	
1707732-05 HgII	16.796	143.5	192.4	209.55	209.55	160.3	0.081	OK	209.5359	0.00	0.01	017

#36: 1708082-01



Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1708082-01 Hg0	7.621	4.7	54.0	209.53	209.56	43.4	0.049	OK	209.5281	0.00	0.02	
1708082-01 MeHg	34.316	64.8	100.0	209.56	209.56	74.8	0.256	OK	209.5281	0.00	0.02	
1708082-01 HgII	73.434	143.4	192.2	209.56	209.56	161.0	0.344	OK	209.5281	0.00	0.02	

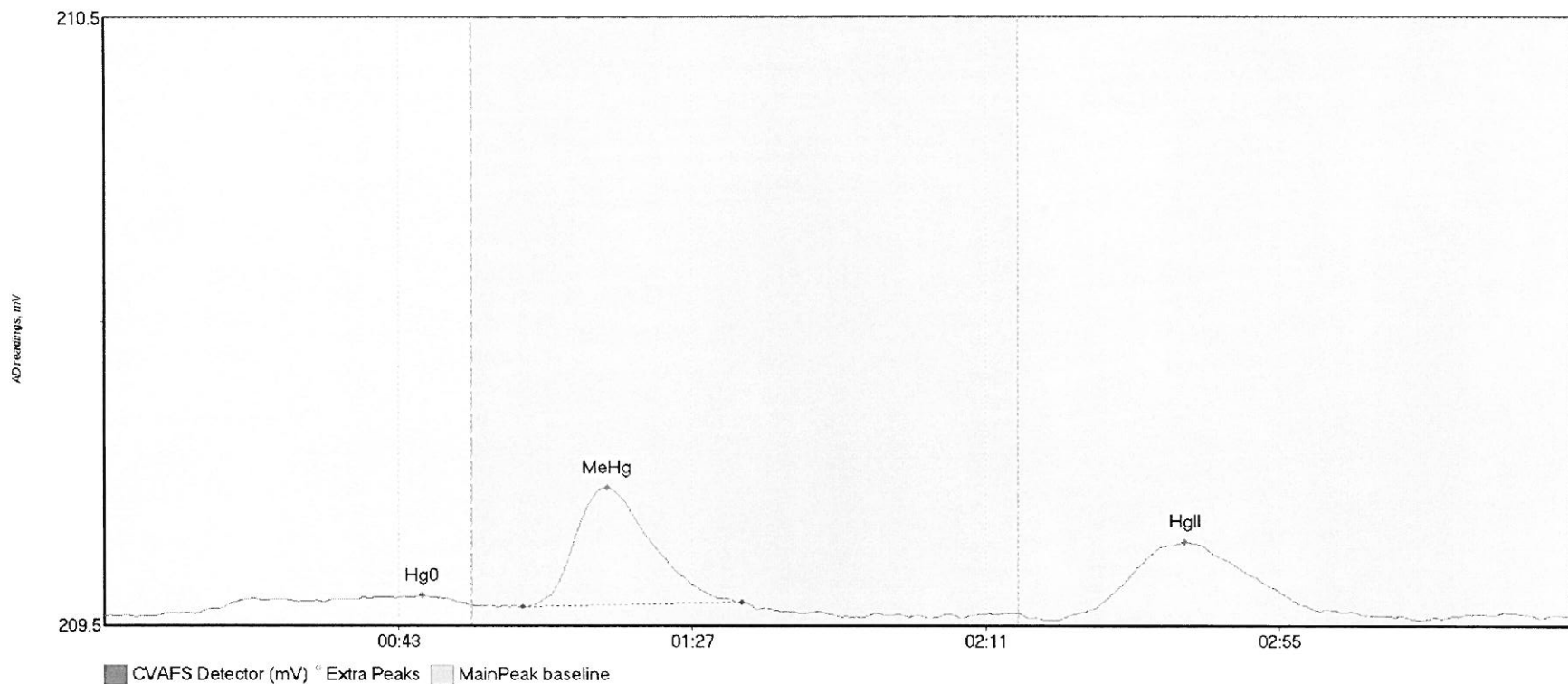
#37: 1708082-03



Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1708082-03 Hg0	6.395	13.6	55.0	209.52	209.55	42.5	0.039	CT	209.5256	0.00	0.00	
1708082-03 MeHg	47.566	63.1	98.6	209.54	209.55	75.1	0.352	OK	209.5256	0.00	0.00	
1708082-03 HgII	93.335	141.1	200.4	209.53	209.53	161.1	0.432	OK	209.5256	0.00	0.00	

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#38: 1708082-04

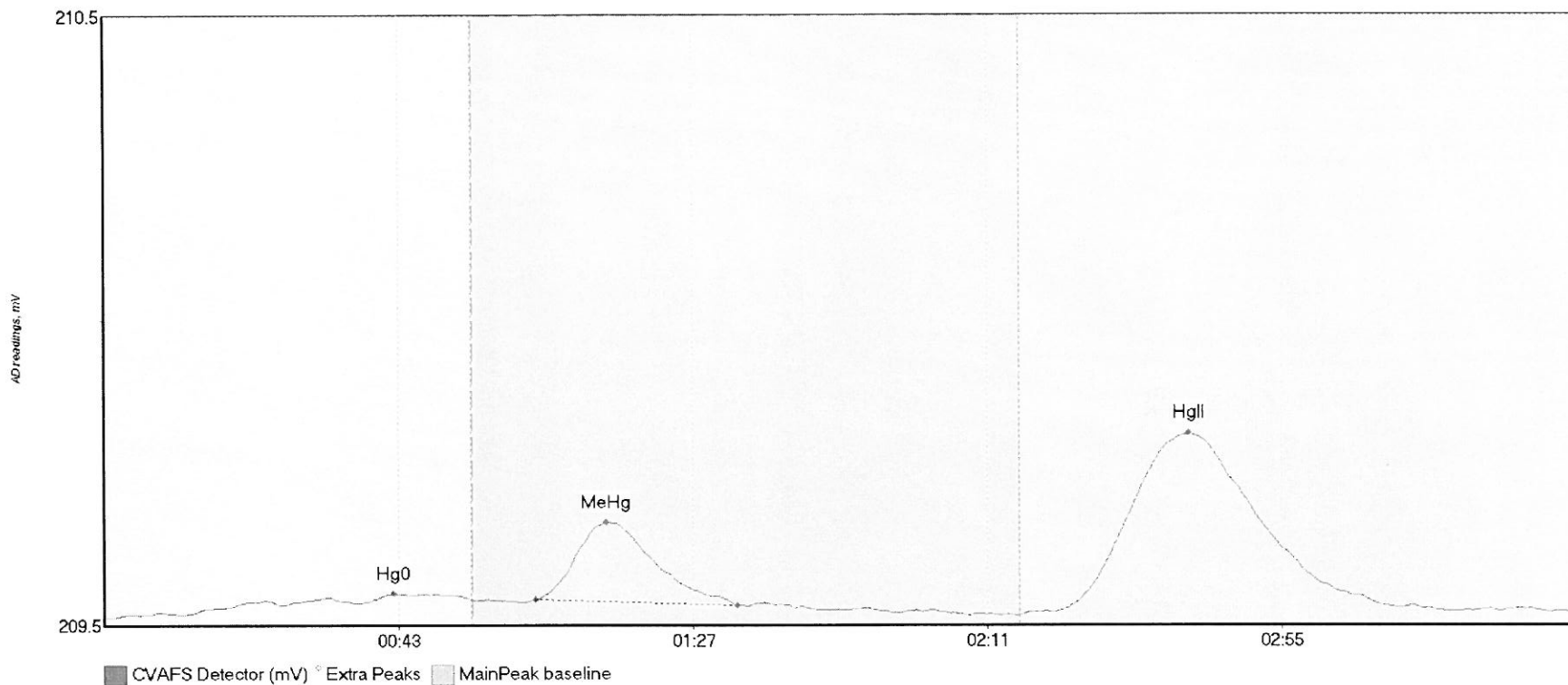


Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1708082-04 Hg0	6.228	13.6	55.0	209.52	209.54	47.6	0.031	CT	209.5194	0.00	0.00	
1708082-04 MeHg	25.717	62.6	95.4	209.53	209.54	75.3	0.196	OK	209.5194	0.00	0.00	
1708082-04 HgII	22.565	145.6	185.7	209.52	209.52	161.9	0.119	OK	209.5194	0.00	0.00	

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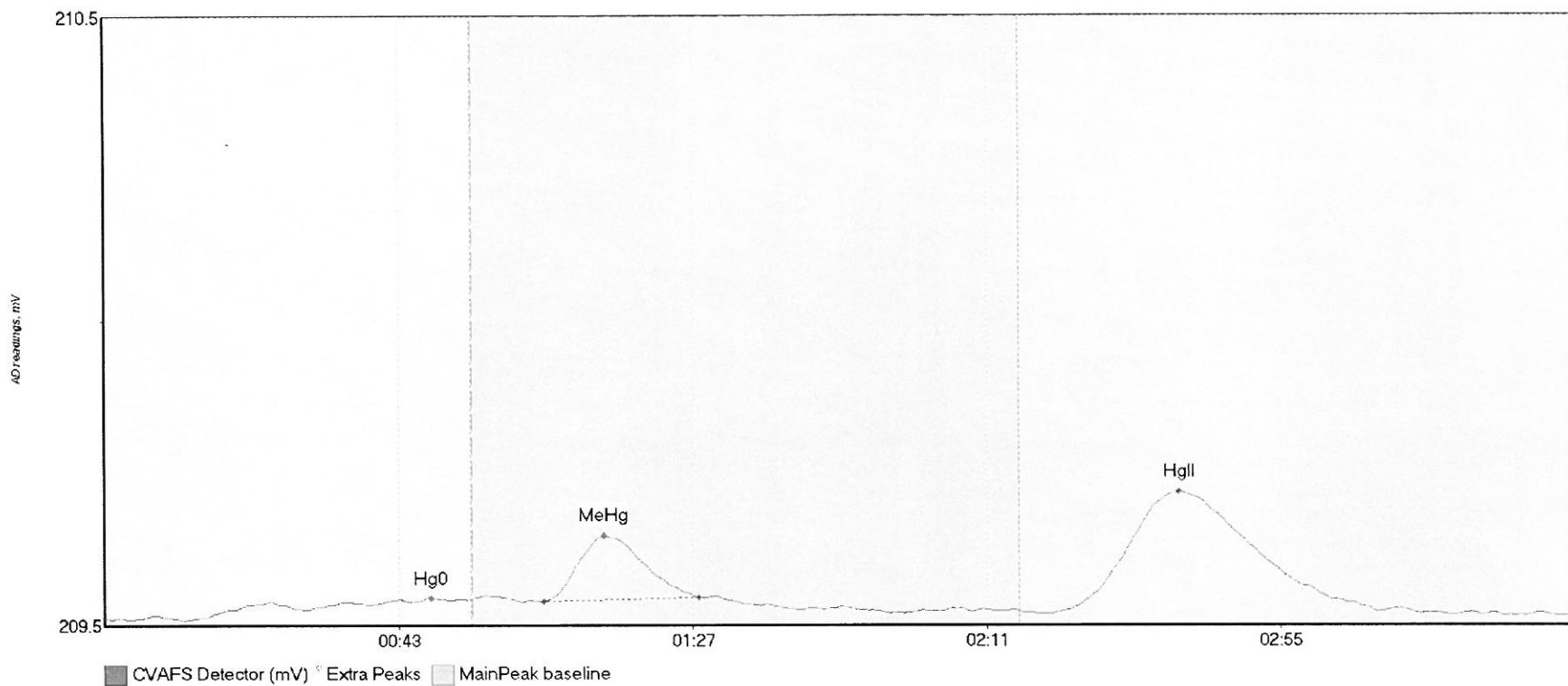


#39: 1708082-05



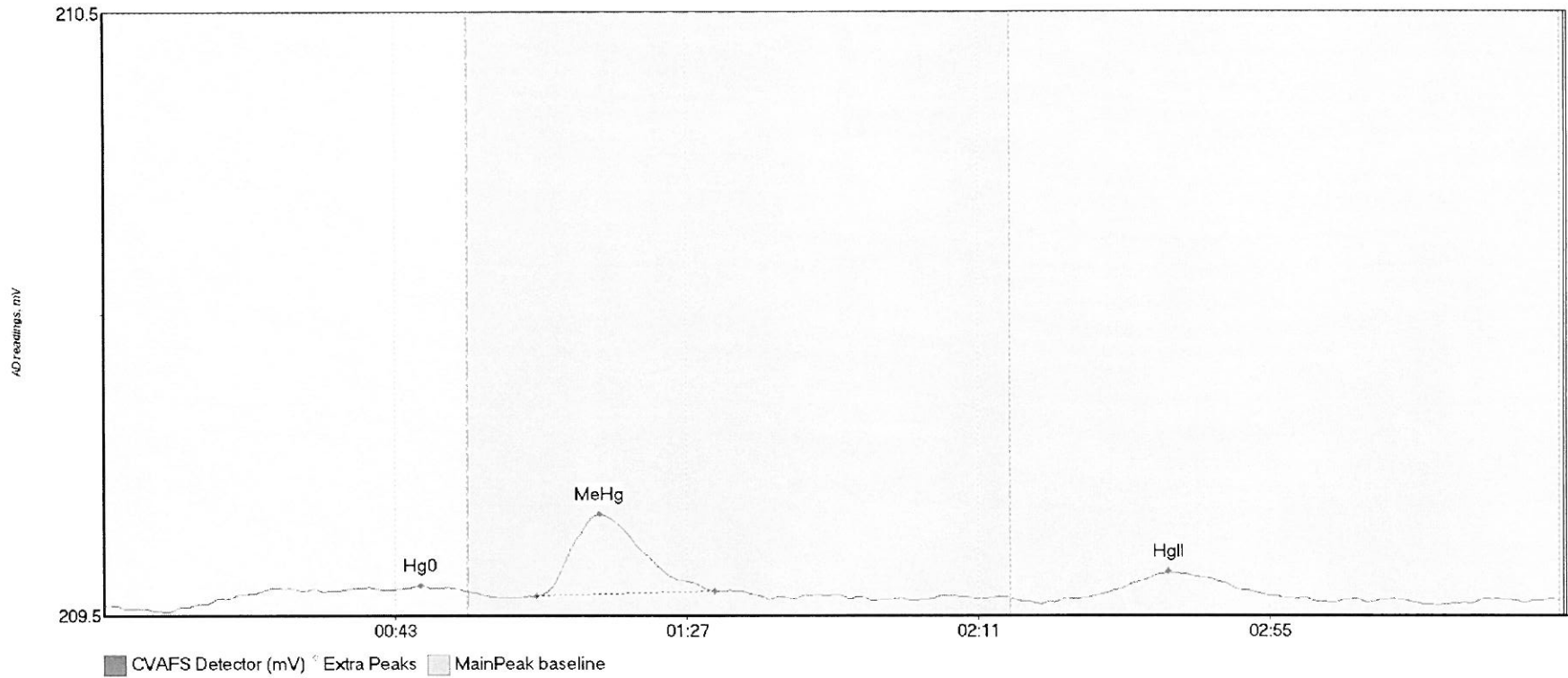
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1708082-05 Hg0	4.428	11.5	55.0	209.51	209.53	43.3	0.034	CT	209.5037	0.00	0.01	
1708082-05 MeHg	17.478	64.4	94.6	209.53	209.52	75.0	0.126	OK	209.5037	0.00	0.01	
1708082-05 HgII	65.772	142.0	216.0	209.51	209.51	162.2	0.294	OK	209.5037	0.00	0.01	

#40: 1708082-07



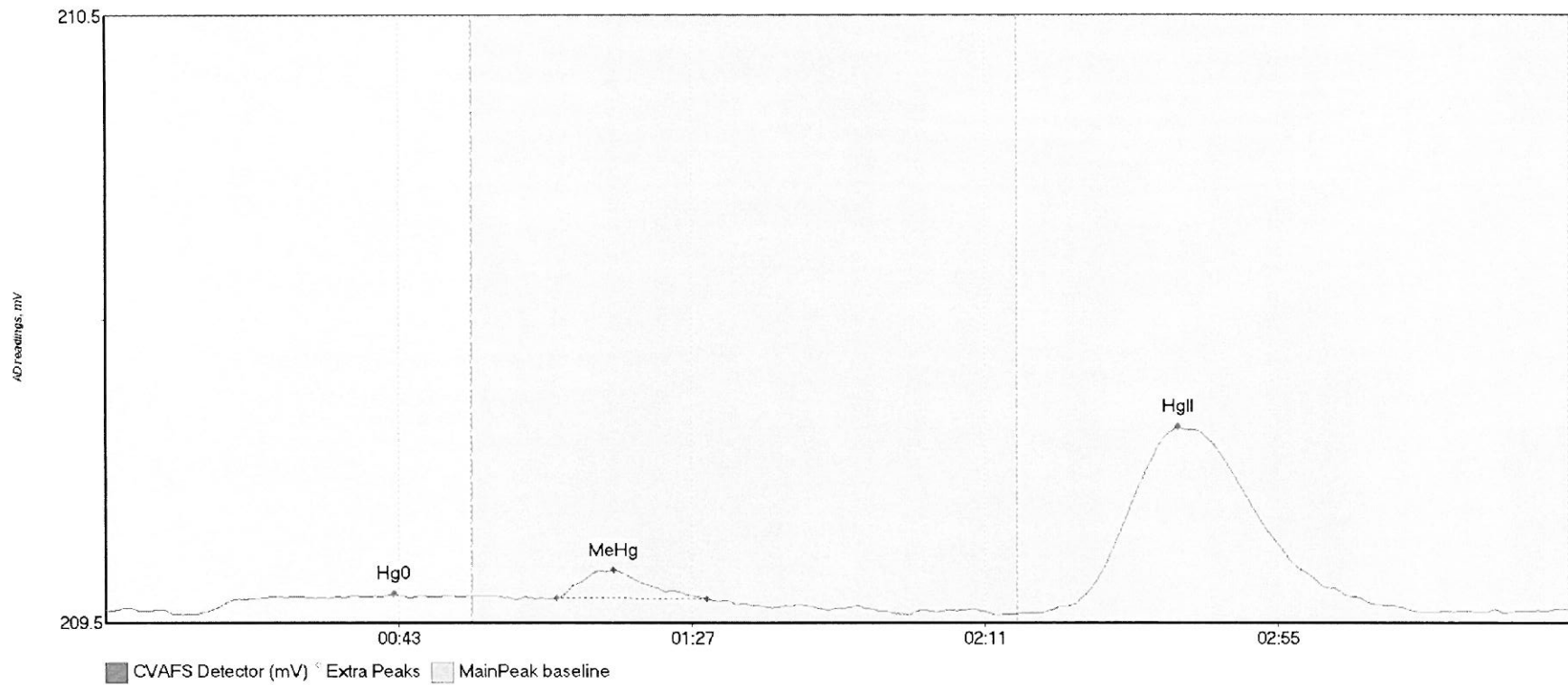
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1708082-07 Hg0	2.596	15.3	51.8	209.51	209.54	48.8	0.032	OK	209.5077	0.00	0.01	
1708082-07 MeHg	11.918	65.7	88.9	209.54	209.54	74.8	0.109	OK	209.5077	0.00	0.01	
1708082-07 HgII	42.706	141.4	190.7	209.52	209.52	160.9	0.201	OK	209.5077	0.00	0.01	

#41: 1708082-08



Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1708082-08 Hg0	4.775	15.3	55.0	209.50	209.52	47.8	0.031	CT	209.5010	0.00	0.01	
1708082-08 MeHg	16.277	65.3	92.2	209.52	209.52	74.9	0.137	OK	209.5010	0.00	0.01	
1708082-08 HgII	6.000	148.3	176.1	209.51	209.52	160.7	0.043	OK	209.5010	0.00	0.01	

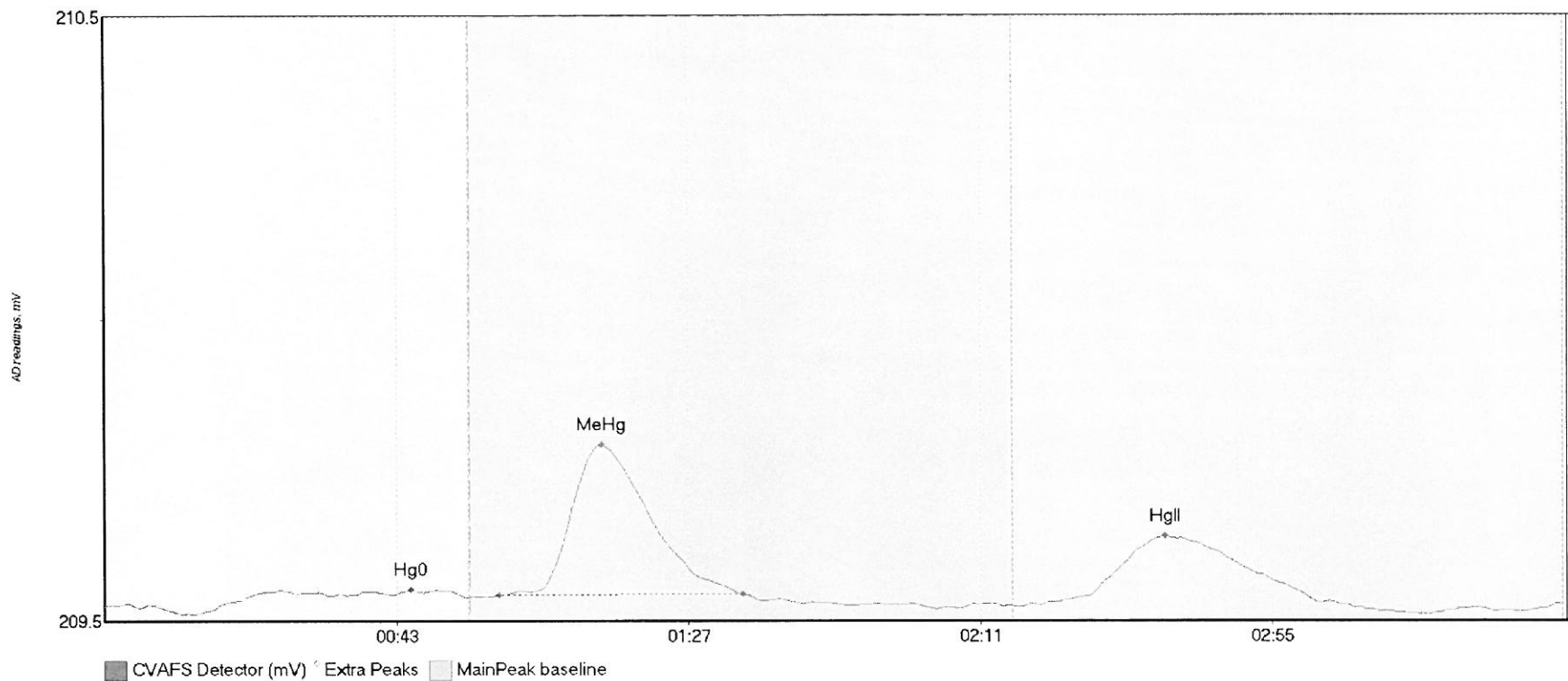
#42: 1708150-01



Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1708150-01 Hg0	3.741	13.6	45.8	209.50	209.52	43.3	0.033	OK	209.5036	0.00	0.00	
1708150-01 MeHg	5.235	67.7	90.2	209.52	209.52	76.3	0.047	OK	209.5036	0.00	0.00	
1708150-01 HgII	67.595	140.6	196.3	209.50	209.50	161.0	0.308	OK	209.5036	0.00	0.00	

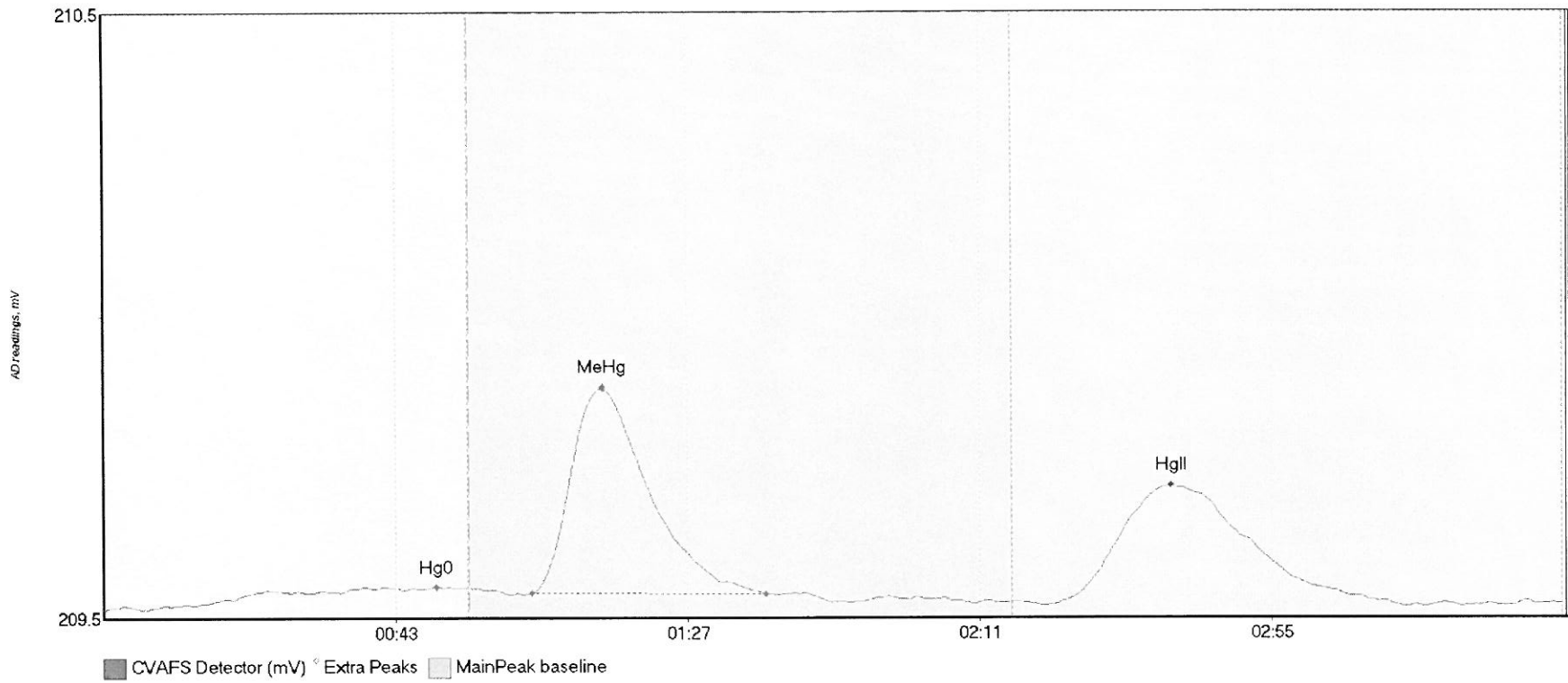
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#43: 1708269-01



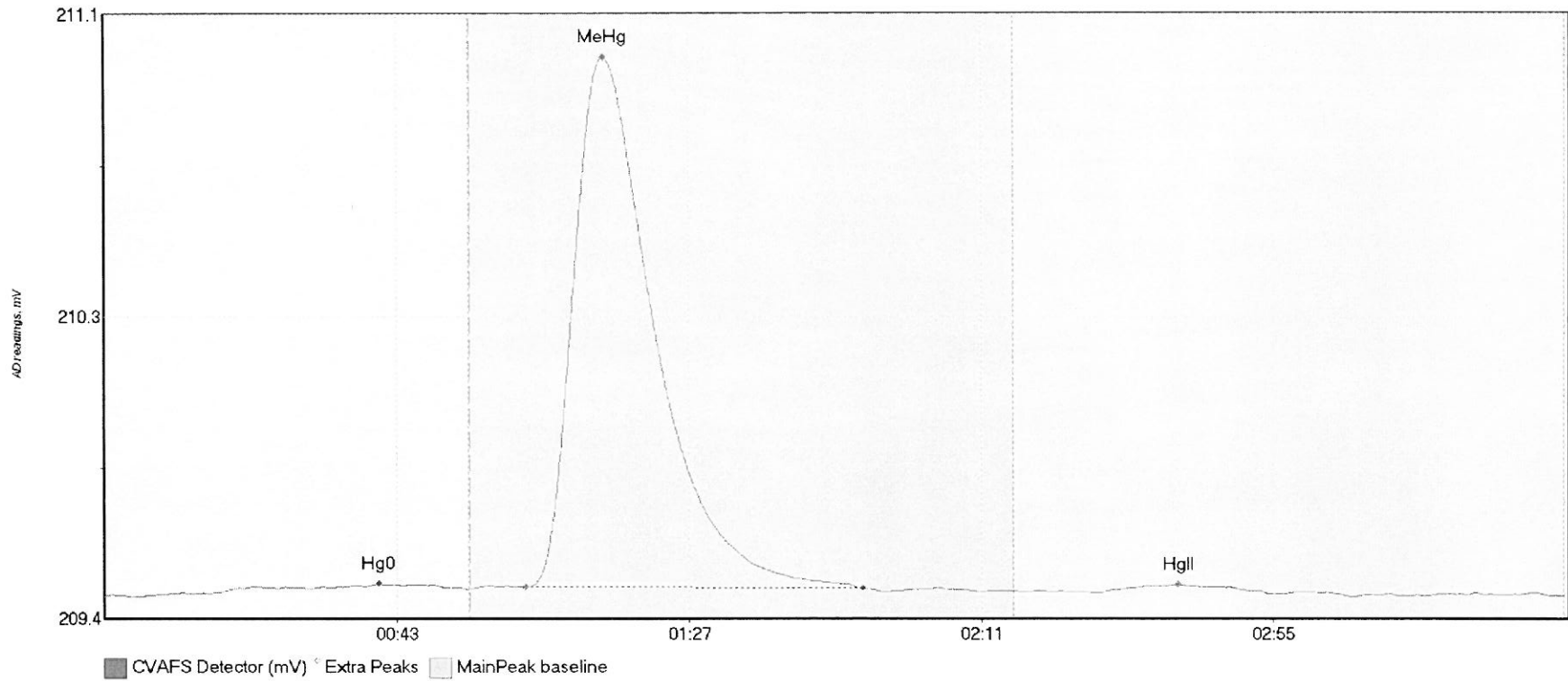
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1708269-01 Hg0	7.003	13.5	54.5	209.48	209.51	46.2	0.040	OK	209.4951	0.00	0.00	
1708269-01 MeHg	33.551	59.5	96.2	209.51	209.51	75.0	0.250	OK	209.4951	0.00	0.00	
1708269-01 HgII	24.158	141.0	186.6	209.50	209.50	159.9	0.114	OK	209.4951	0.00	0.00	

#44: 1708269-02



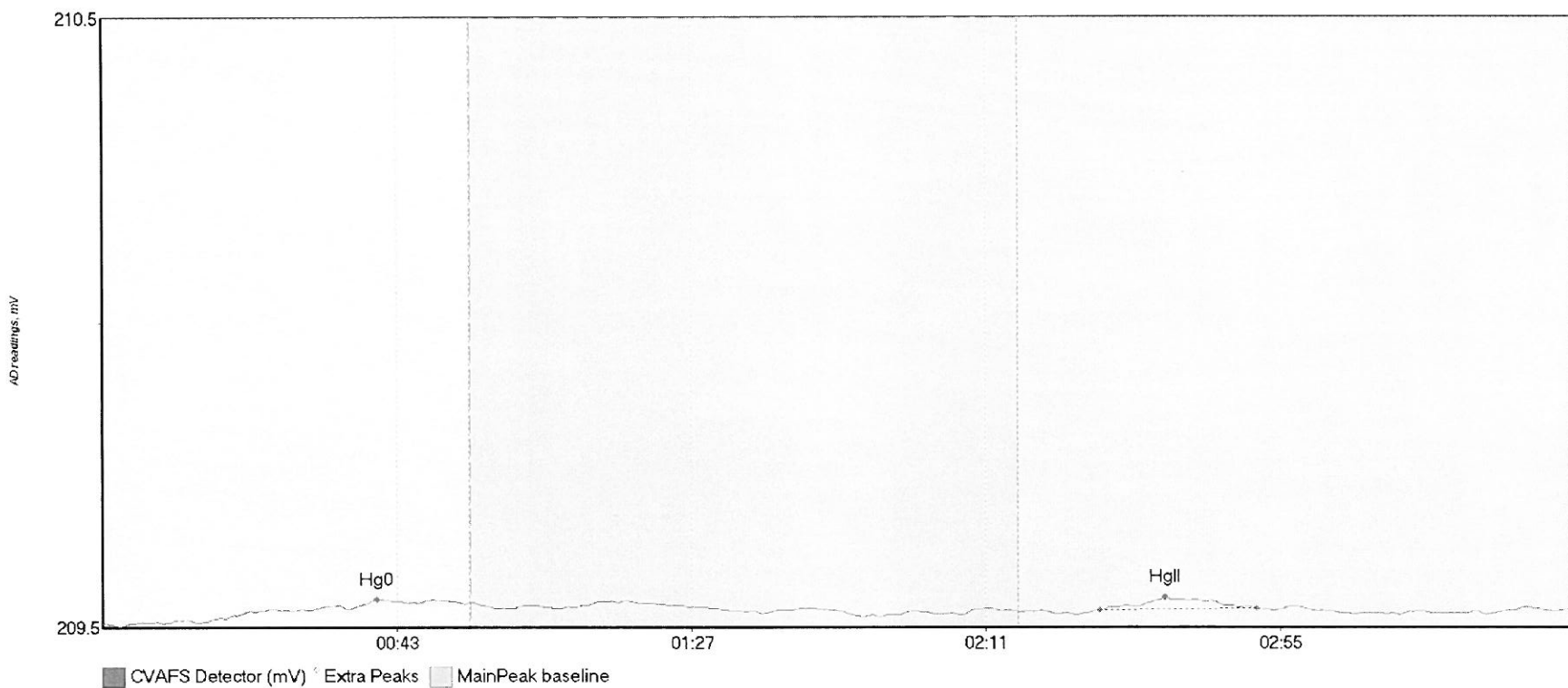
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1708269-02 Hg0	3.377	13.7	54.0	209.48	209.51	50.2	0.031	OK	209.4802	0.00	0.01	
1708269-02 MeHg	46.124	64.4	99.7	209.51	209.50	75.1	0.339	OK	209.4802	0.00	0.01	
1708269-02 HgII	41.294	143.3	190.8	209.49	209.50	160.9	0.196	OK	209.4802	0.00	0.01	

#45: SEQ-CCV3



Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
SEQ-CCV3 Hg0	4.717	9.2	54.7	209.49	209.50	41.3	0.029	OK	209.4846	0.00	0.00	
SEQ-CCV3 MeHg	212.083	63.4	114.1	209.51	209.50	75.2	1.499	OK	209.4846	0.00	0.00	
SEQ-CCV3 HgII	1.663	153.3	172.3	209.50	209.50	161.8	0.013	OK	209.4846	0.00	0.00	

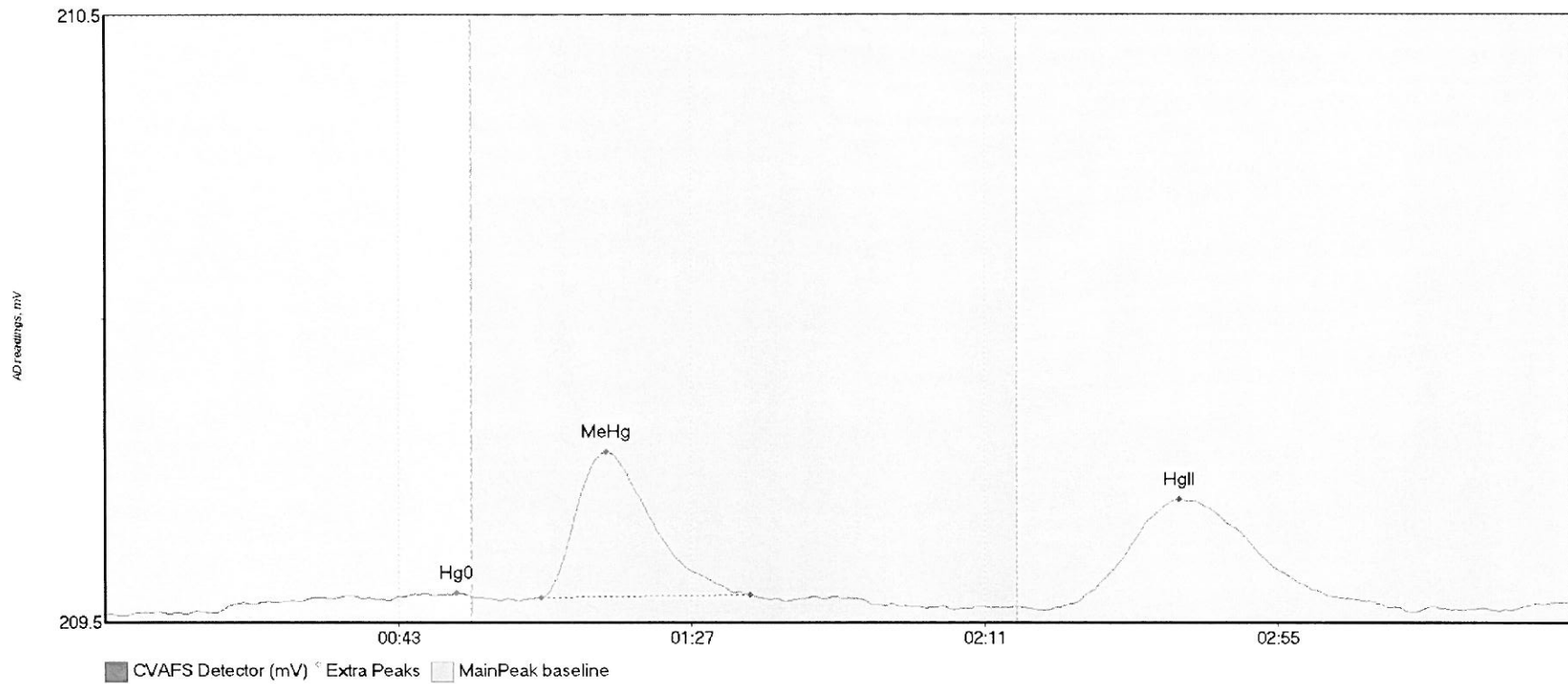
#46: SEQ-CCB3



Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
SEQ-CCB3 Hg0	3.573	15.6	54.1	209.48	209.51	41.0	0.037	OK	209.4762	0.00	0.03	
SEQ-CCB3 HgII	2.398	149.1	172.4	209.50	209.50	158.8	0.021	OK	209.4762	0.00	0.03	017

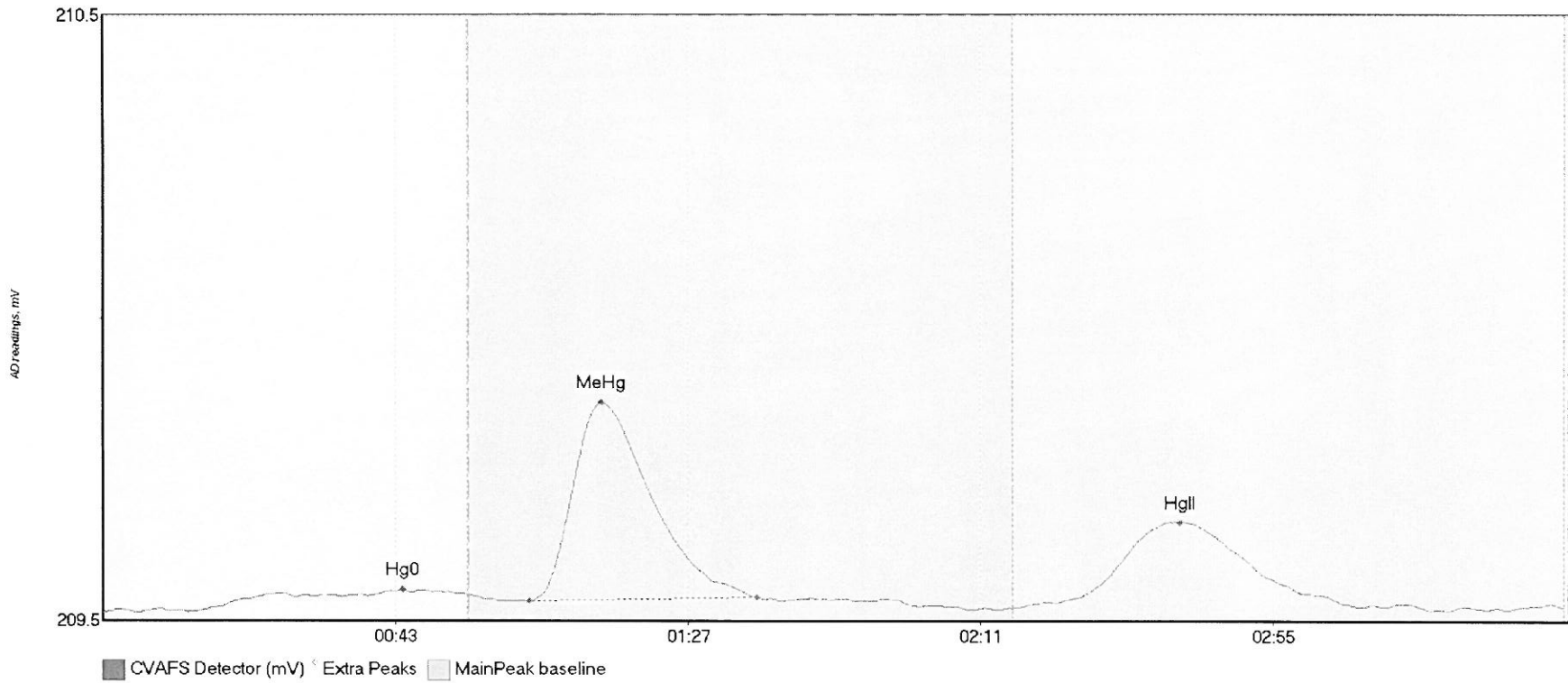


#47: 1708269-03



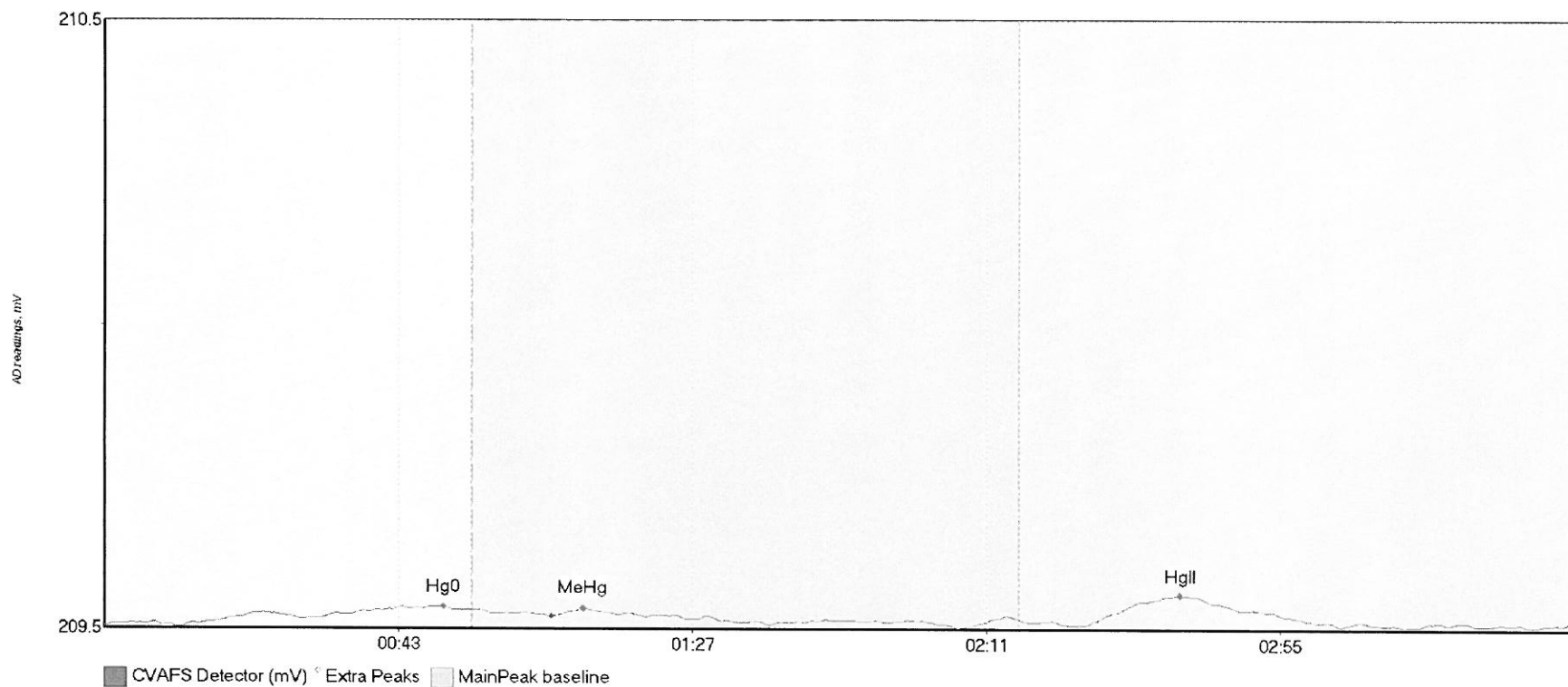
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1708269-03 Hg0	3.643	16.4	55.0	209.49	209.52	52.7	0.032	CT	209.4891	0.00	0.02	
1708269-03 MeHg	31.153	65.4	96.7	209.51	209.52	75.3	0.241	OK	209.4891	0.00	0.02	
1708269-03 HgII	40.136	141.2	192.9	209.49	209.50	161.2	0.183	OK	209.4891	0.00	0.02	

#48: 1708269-04



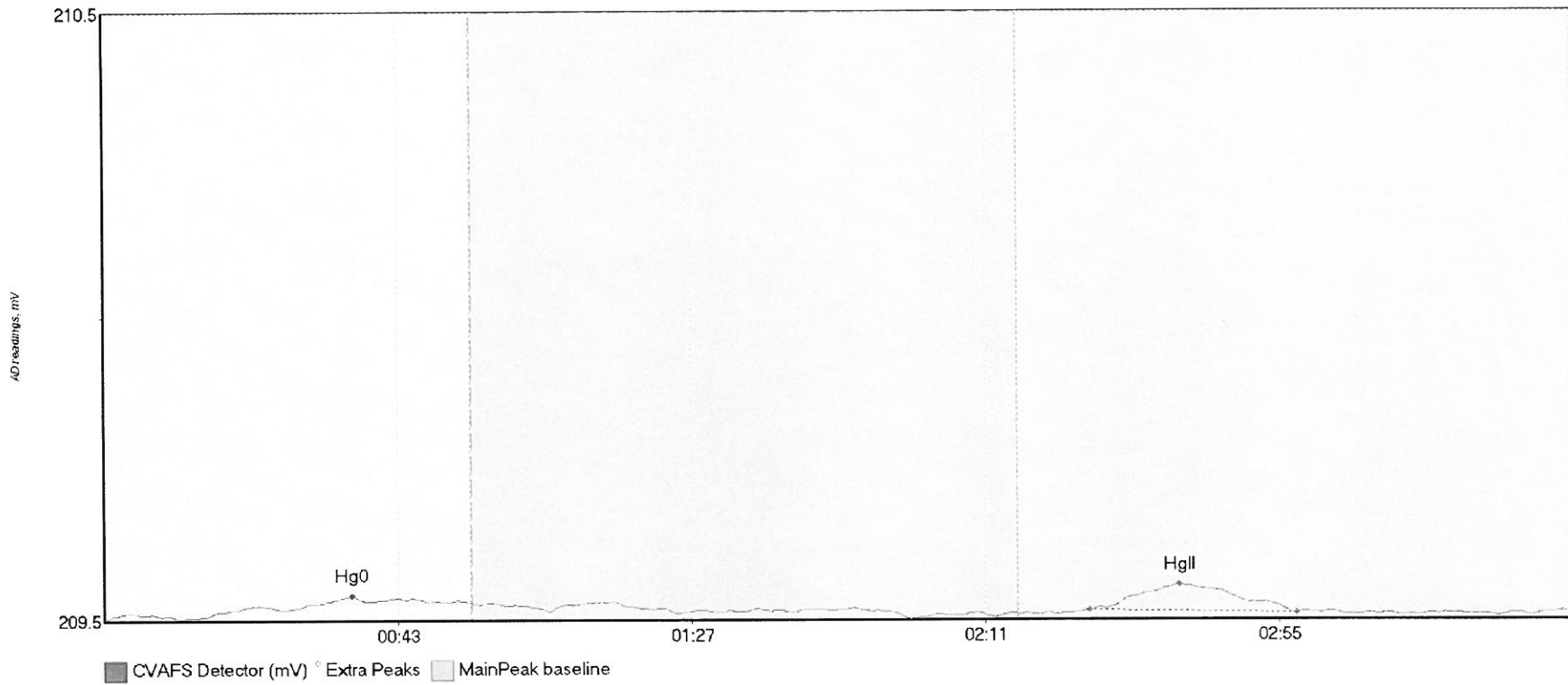
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1708269-04 Hg0	4.611	14.3	55.0	209.48	209.51	45.1	0.035	CT	209.4794	0.00	0.01	
1708269-04 MeHg	44.277	64.1	98.3	209.50	209.50	75.0	0.329	OK	209.4794	0.00	0.01	
1708269-04 HgII	30.604	137.8	189.2	209.49	209.49	162.1	0.144	OK	209.4794	0.00	0.01	

#49: F708416-BLK1



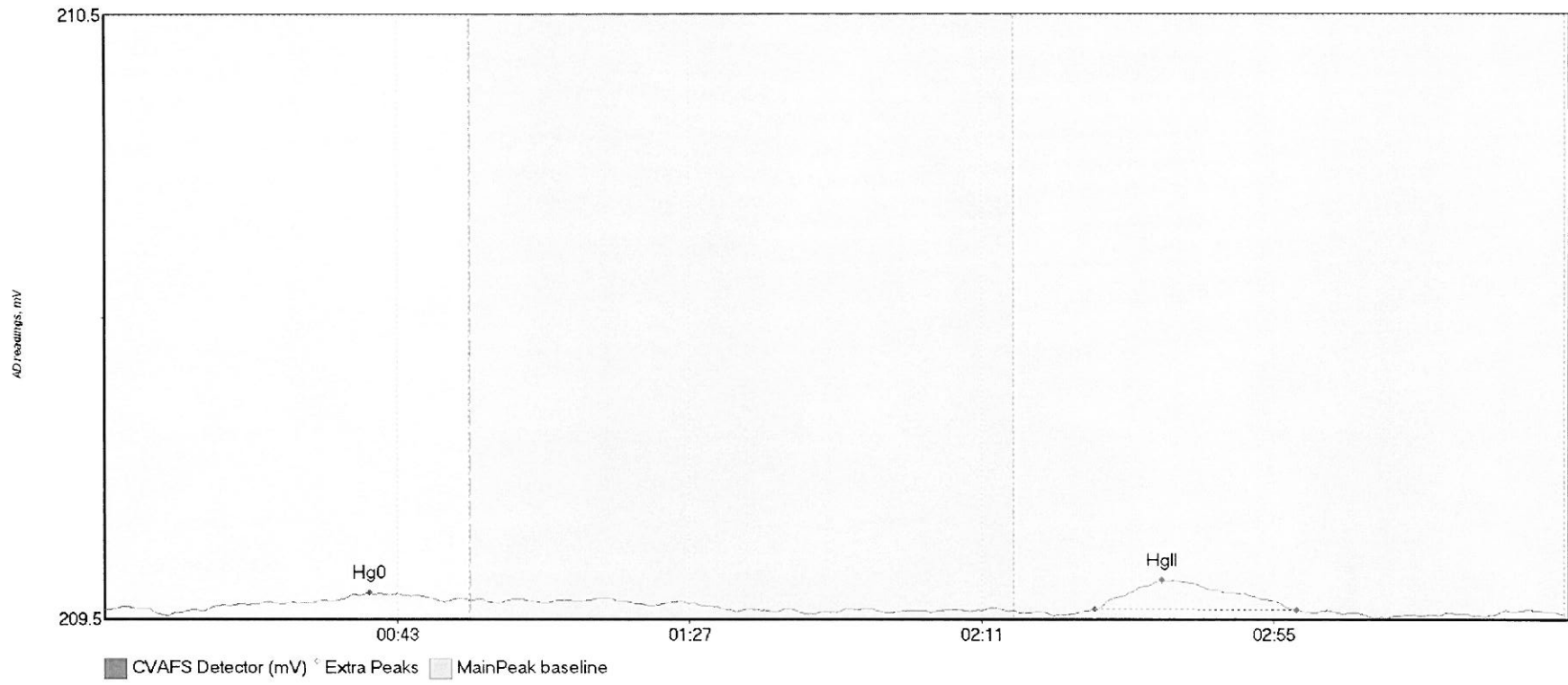
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
F708416-BLK1 Hg	2.150	14.5	53.4	209.48	209.50	50.7	0.029	OK	209.4787	0.00	0.01	
F708416-BLK1 Me	0.033	66.9	71.7	209.49	209.51	71.6	0.014	OK	209.4787	0.00	0.01	
F708416-BLK1 Hg	7.473	146.3	177.8	209.48	209.49	161.1	0.050	OK	209.4787	0.00	0.01	

#50: F708416-BLK2



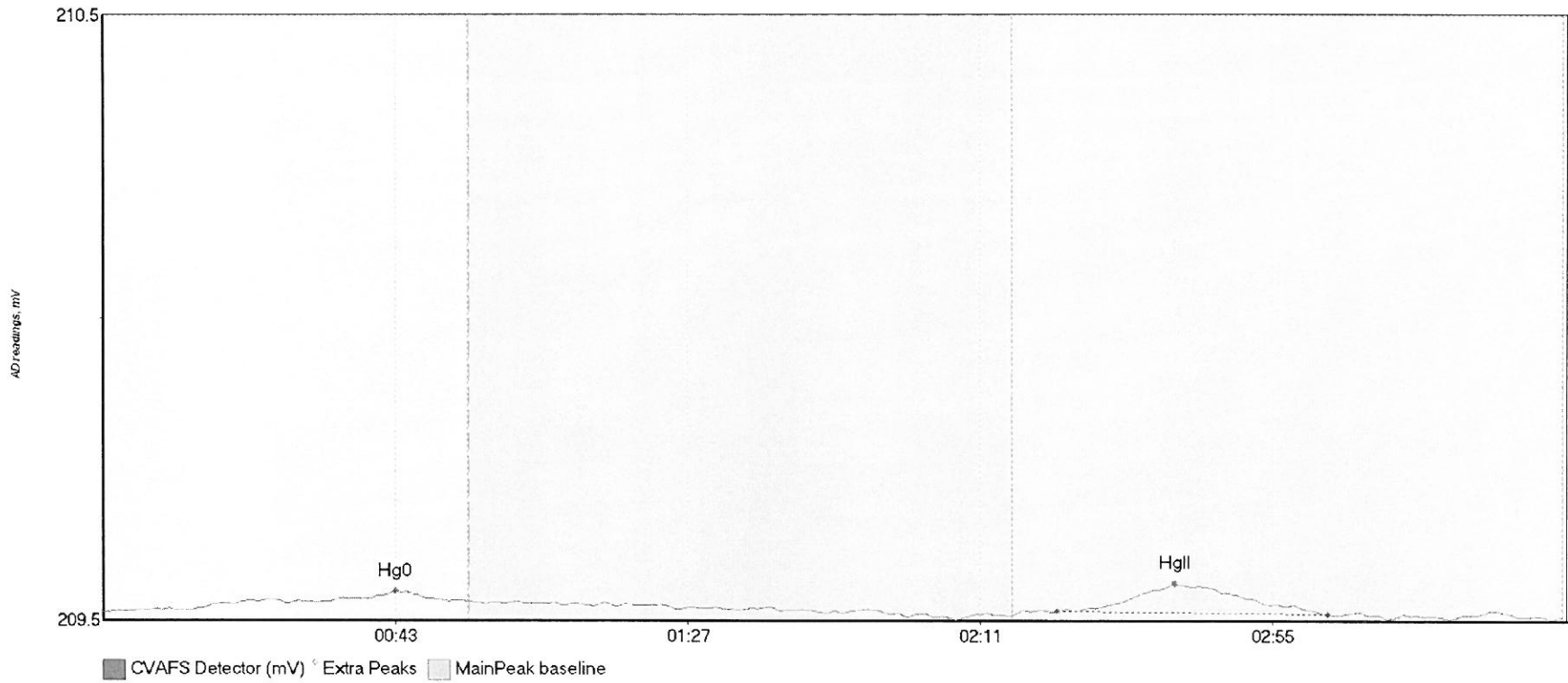
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
F708416-BLK2 Hg	3.937	15.1	55.0	209.49	209.51	37.2	0.033	CT	209.4900	0.00	0.01	
F708416-BLK2 Hg	7.360	147.6	178.6	209.50	209.50	161.1	0.042	OK	209.4900	0.00	0.01	017

#51: F708416-BLK3



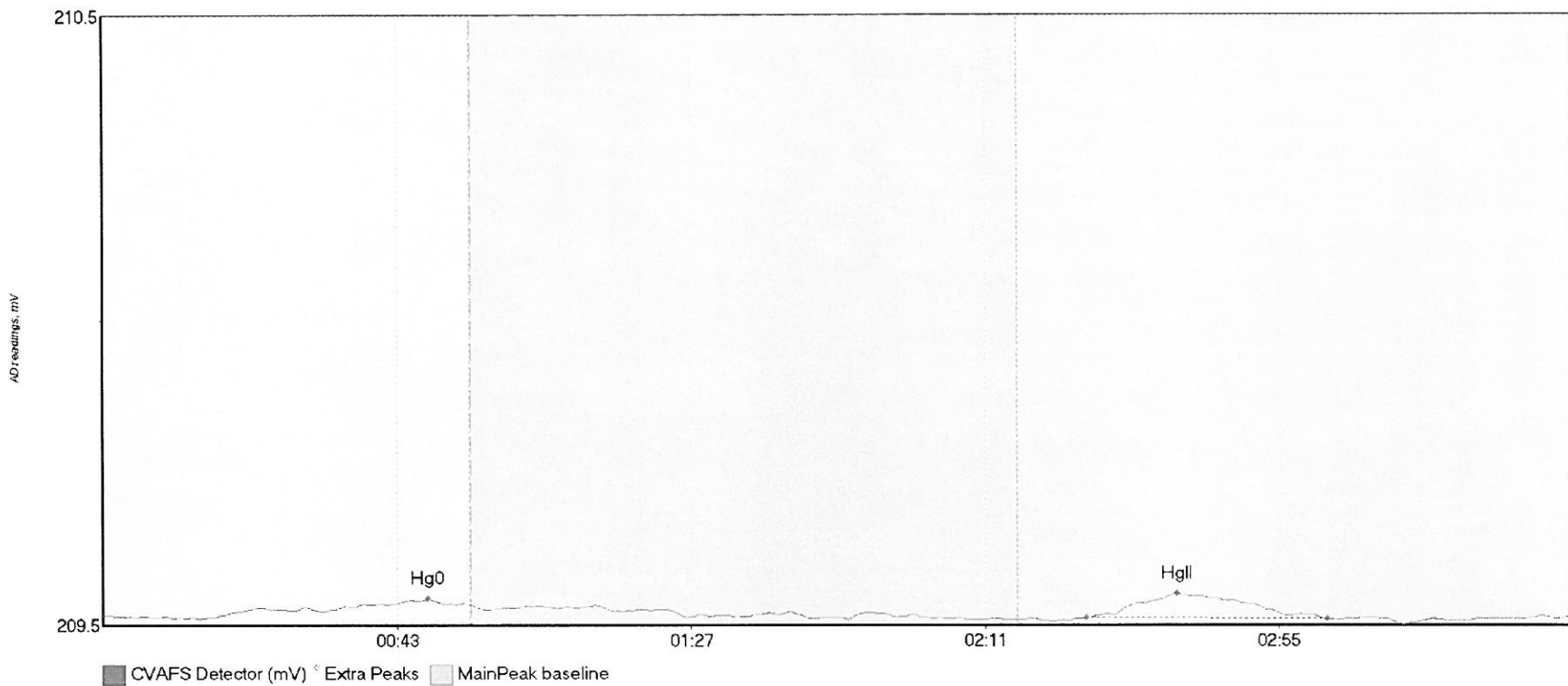
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
F708416-BLK3 Hg	2.560	16.3	51.0	209.51	209.52	39.8	0.023	OK	209.5069	0.00	-0.01	
F708416-BLK3 Hg	8.556	149.0	179.5	209.51	209.51	159.2	0.049	OK	209.5069	0.00	-0.01	017

#52: \*F708416-BLK4



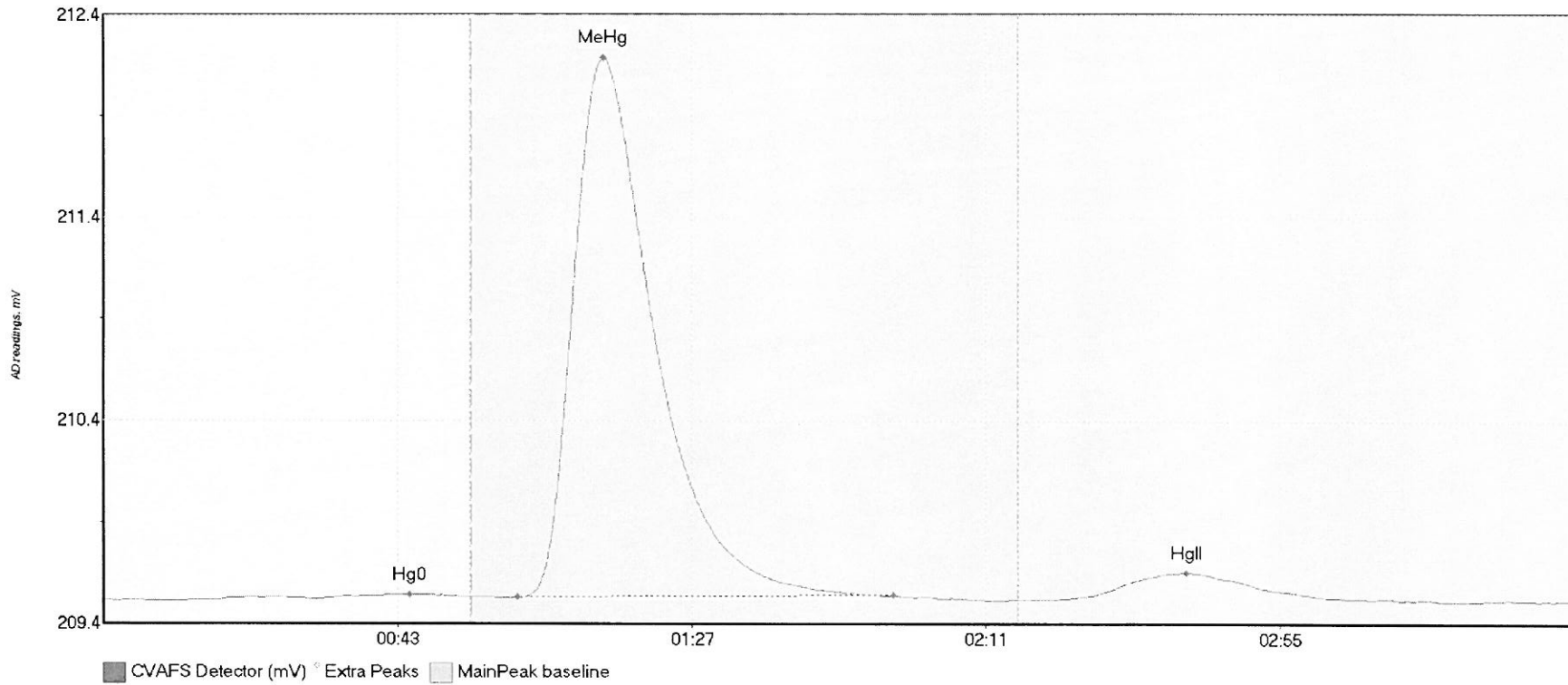
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
*F708416-BLK4 H	3.671	13.1	52.1	209.51	209.52	44.0	0.031	OK	209.5059	0.00	-0.01	
*F708416-BLK4 H	9.145	143.6	184.3	209.51	209.50	161.3	0.045	OK	209.5059	0.00	-0.01	017

#53: \*F708416-BLK5



Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
*F708416-BLK5 H	2.116	17.9	55.0	209.51	209.52	48.6	0.027	CF	209.5075	0.00	0.00	
*F708416-BLK5 H	7.518	147.1	183.3	209.50	209.50	160.7	0.039	OK	209.5075	0.00	0.00	017

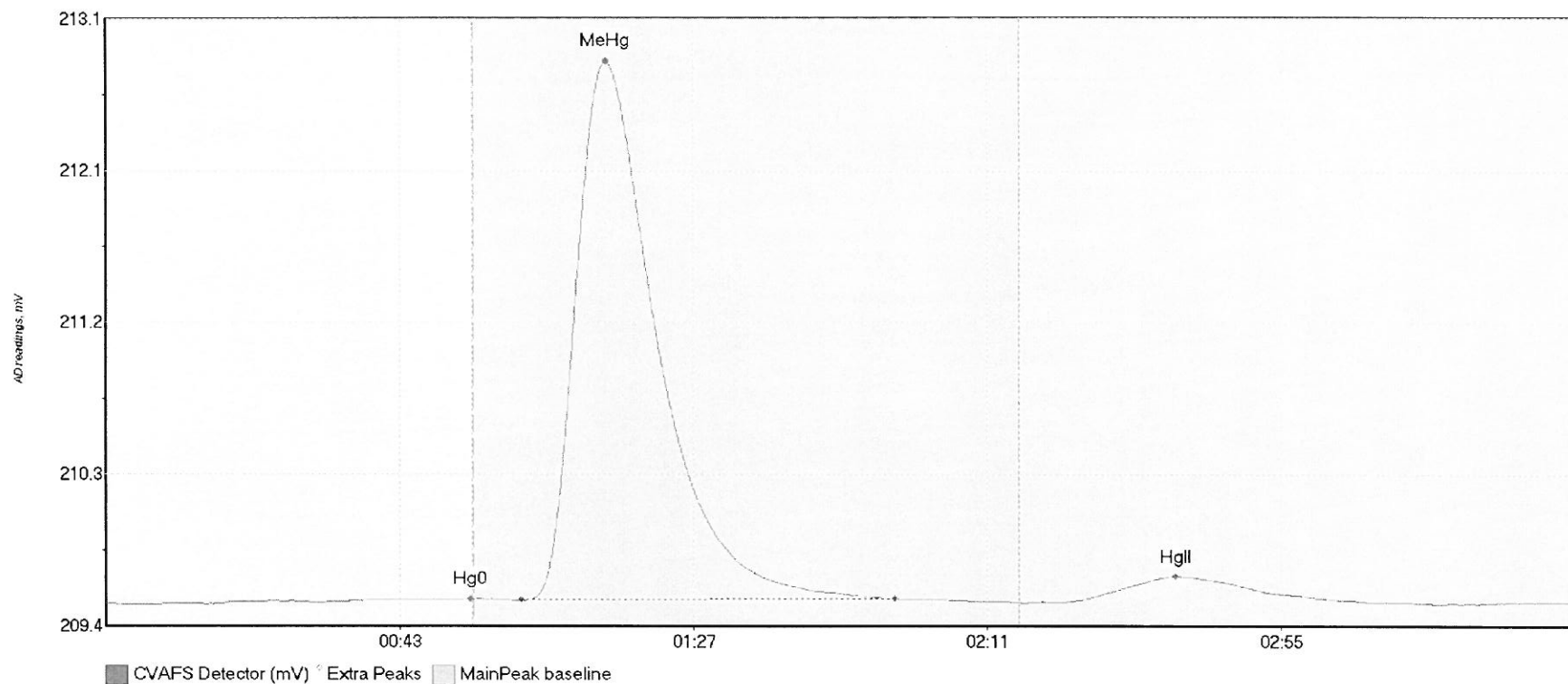
#54: F708416-DUP1



Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
F708416-DUP1 Hg	2.365	31.8	55.0	209.51	209.52	45.9	0.024	CT	209.5066	0.00	0.00	
F708416-DUP1 Me	373.554	61.9	118.1	209.52	209.53	74.8	2.651	OK	209.5066	0.00	0.00	
F708416-DUP1 Hg	27.649	142.3	189.6	209.51	209.51	162.1	0.132	OK	209.5066	0.00	0.00	



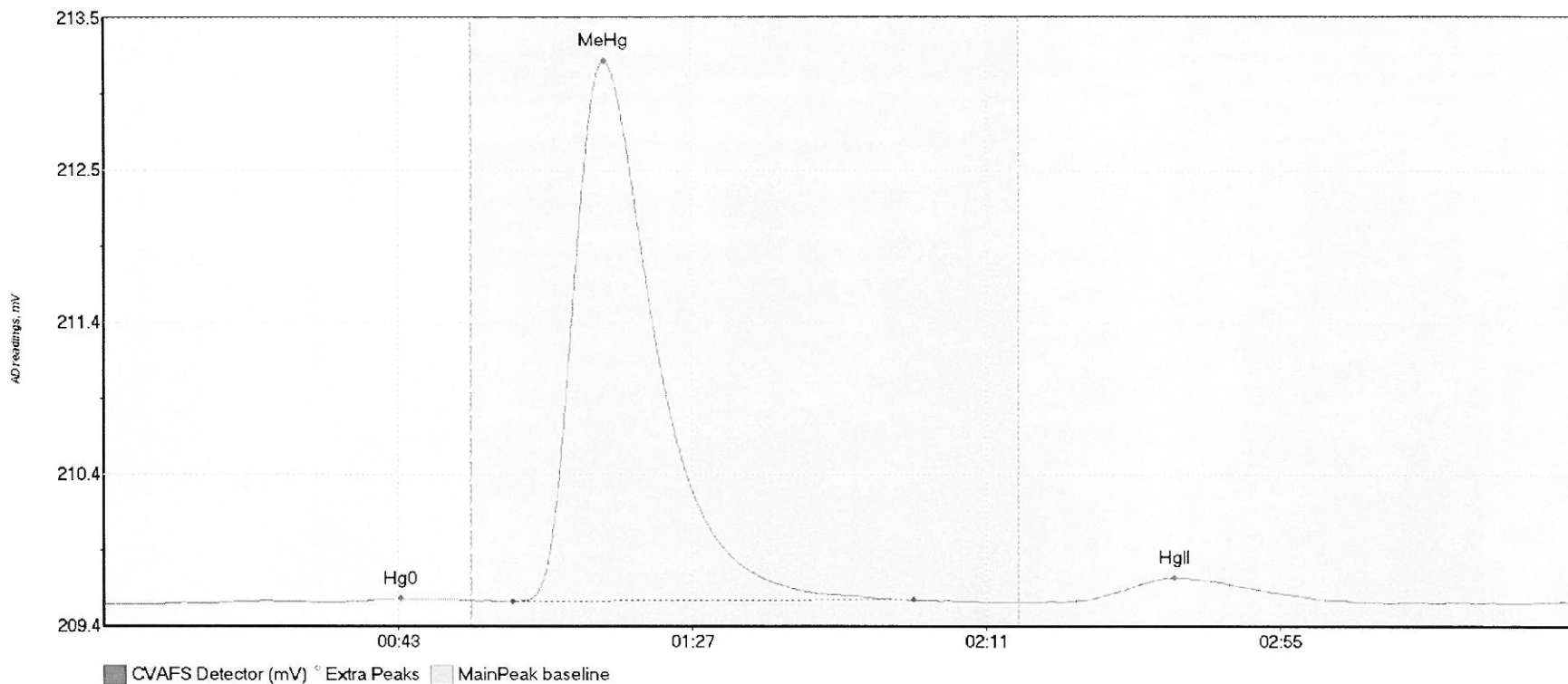
#55: F708416-MS1



Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
F708416-MS1 Hg0	1.992	16.7	55.0	209.51	209.53	54.6	0.028	CT	209.5067	0.00	0.01	
F708416-MS1 MeH	460.932	62.2	118.1	209.53	209.54	74.9	3.273	OK	209.5067	0.00	0.01	
F708416-MS1 HgI	32.916	143.5	189.4	209.51	209.51	160.2	0.156	OK	209.5067	0.00	0.01	

017

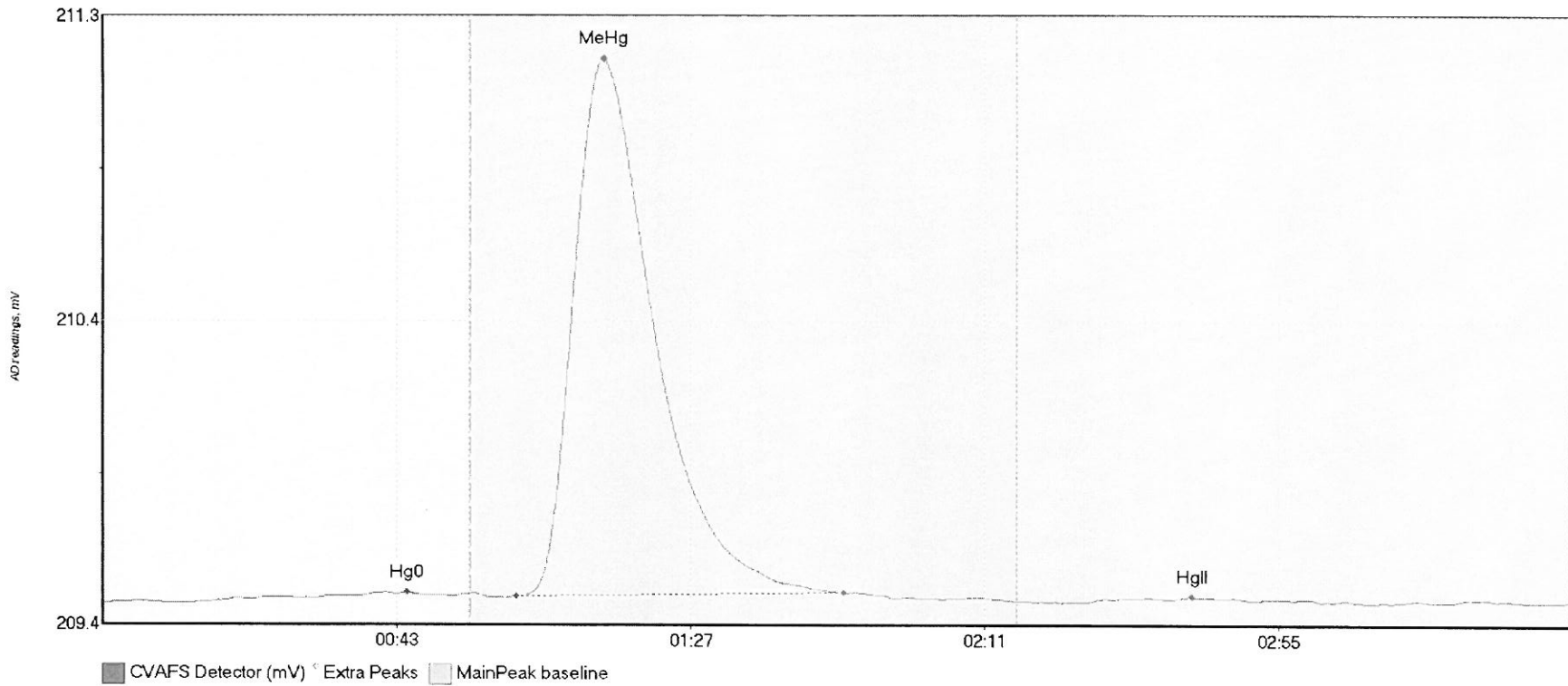
#56: F708416-MSD1



Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
F708416-MSD1 Hg	3.162	15.6	55.0	209.52	209.54	44.5	0.032	CT	209.5134	0.00	0.01	
F708416-MSD1 Me	522.362	61.2	121.1	209.53	209.54	74.9	3.669	OK	209.5134	0.00	0.01	
F708416-MSD1 Hg	34.587	143.1	187.3	209.53	209.53	160.2	0.163	OK	209.5134	0.00	0.01	

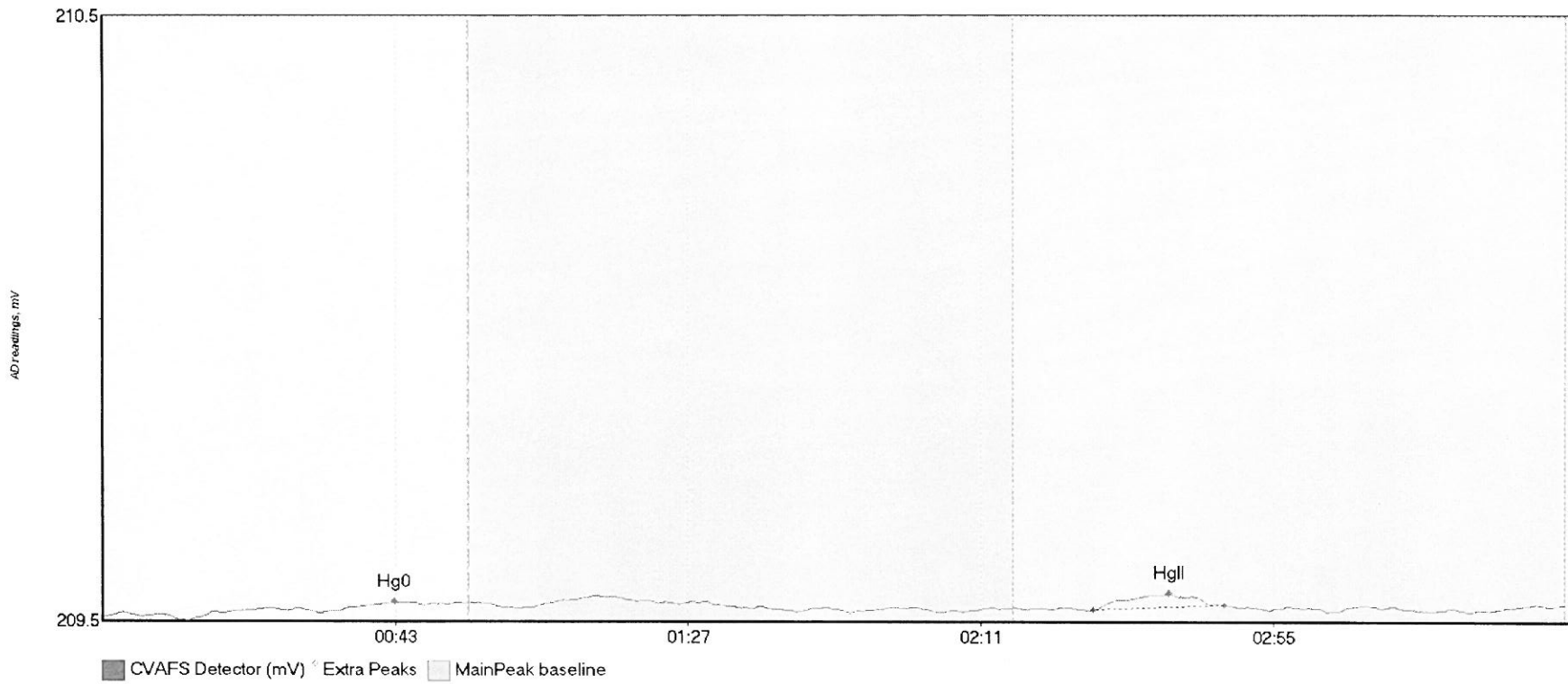
017

#57: SEQ-CCV4



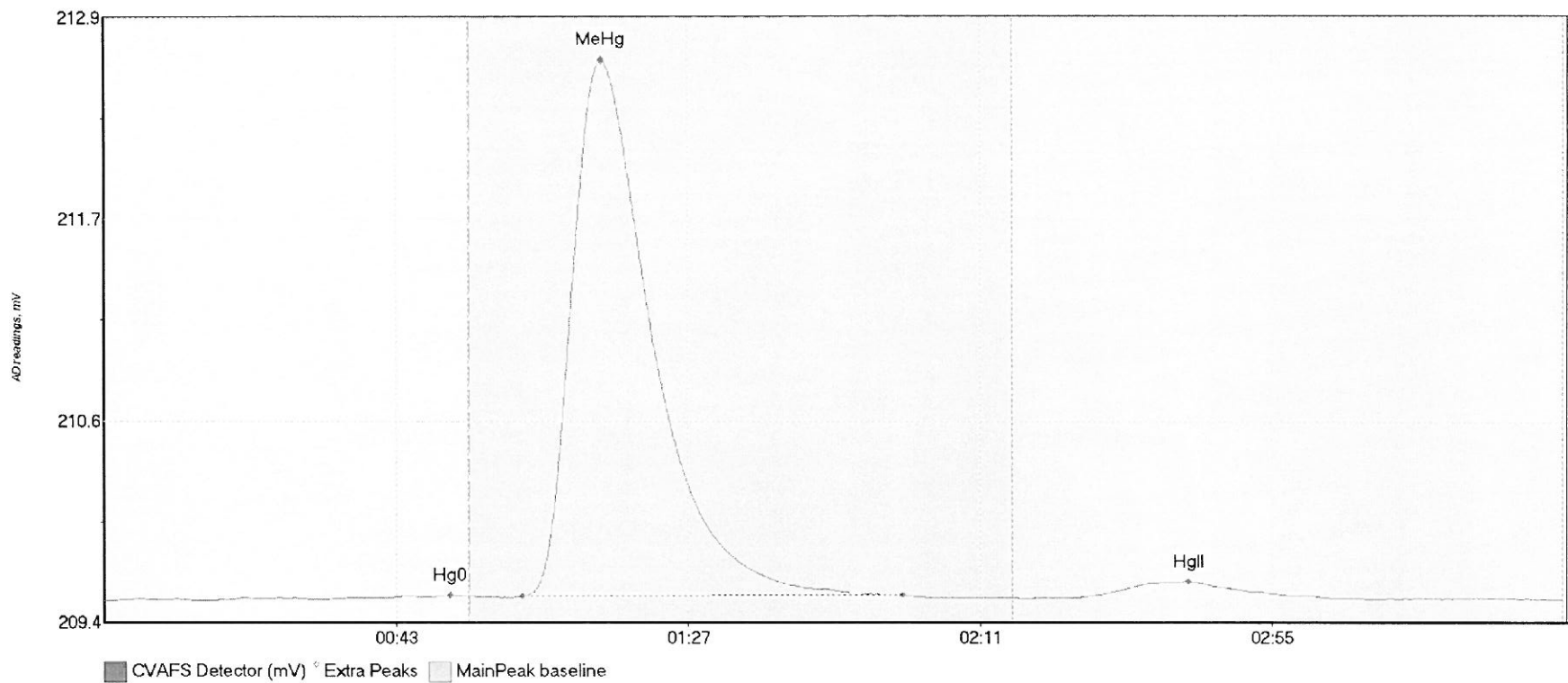
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
SEQ-CCV4 Hg0	2.576	16.0	52.6	209.52	209.54	45.6	0.027	OK	209.5143	0.00	0.01	
SEQ-CCV4 MeHg	224.381	61.9	110.9	209.53	209.55	75.0	1.603	OK	209.5143	0.00	0.01	
SEQ-CCV4 HgII	1.894	147.5	171.4	209.52	209.52	163.1	0.016	OK	209.5143	0.00	0.01	

#58: SEQ-CCB4



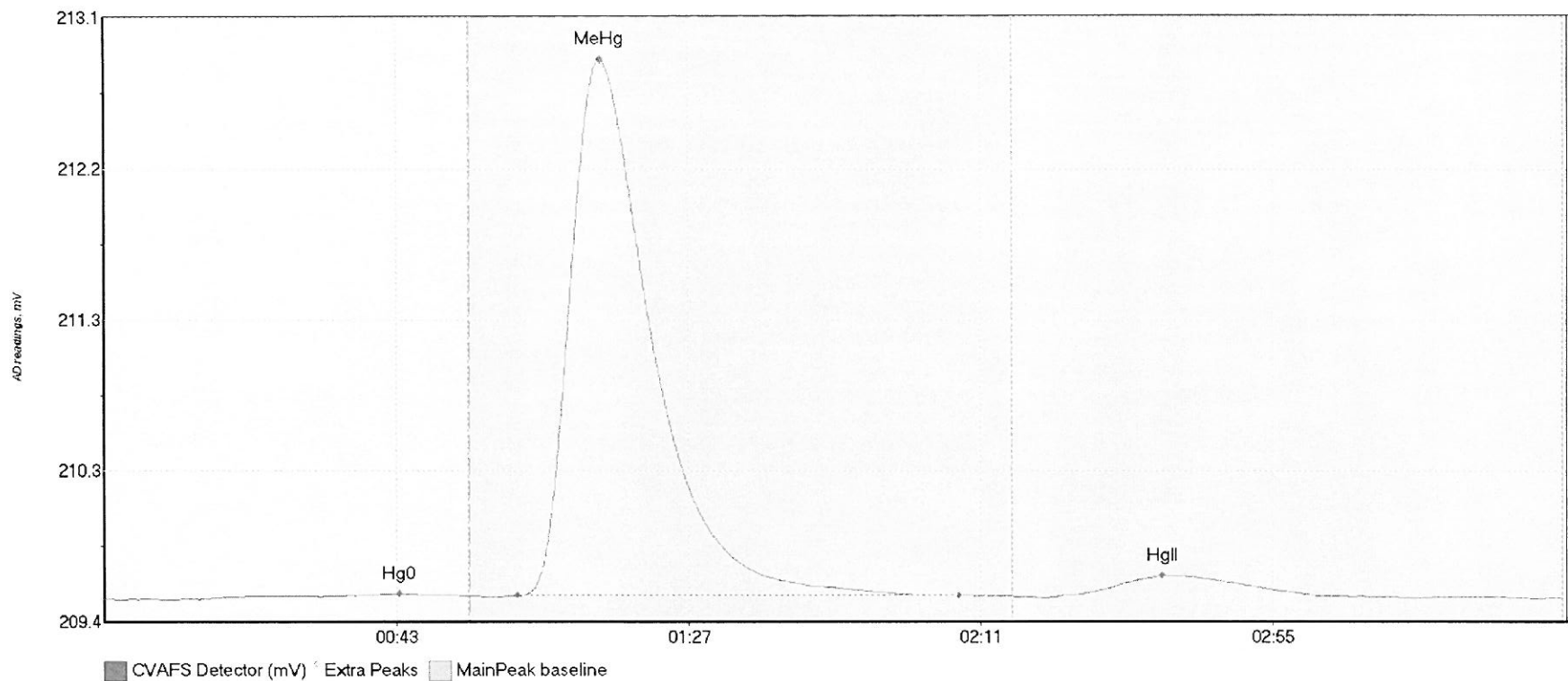
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
SEQ-CCB4 Hg0	1.643	14.6	48.2	209.52	209.54	43.9	0.026	OK	209.5176	0.00	0.02	
SEQ-CCB4 HgII	2.745	148.9	168.6	209.53	209.54	160.3	0.027	OK	209.5176	0.00	0.02	017

#59: F708416-MS2



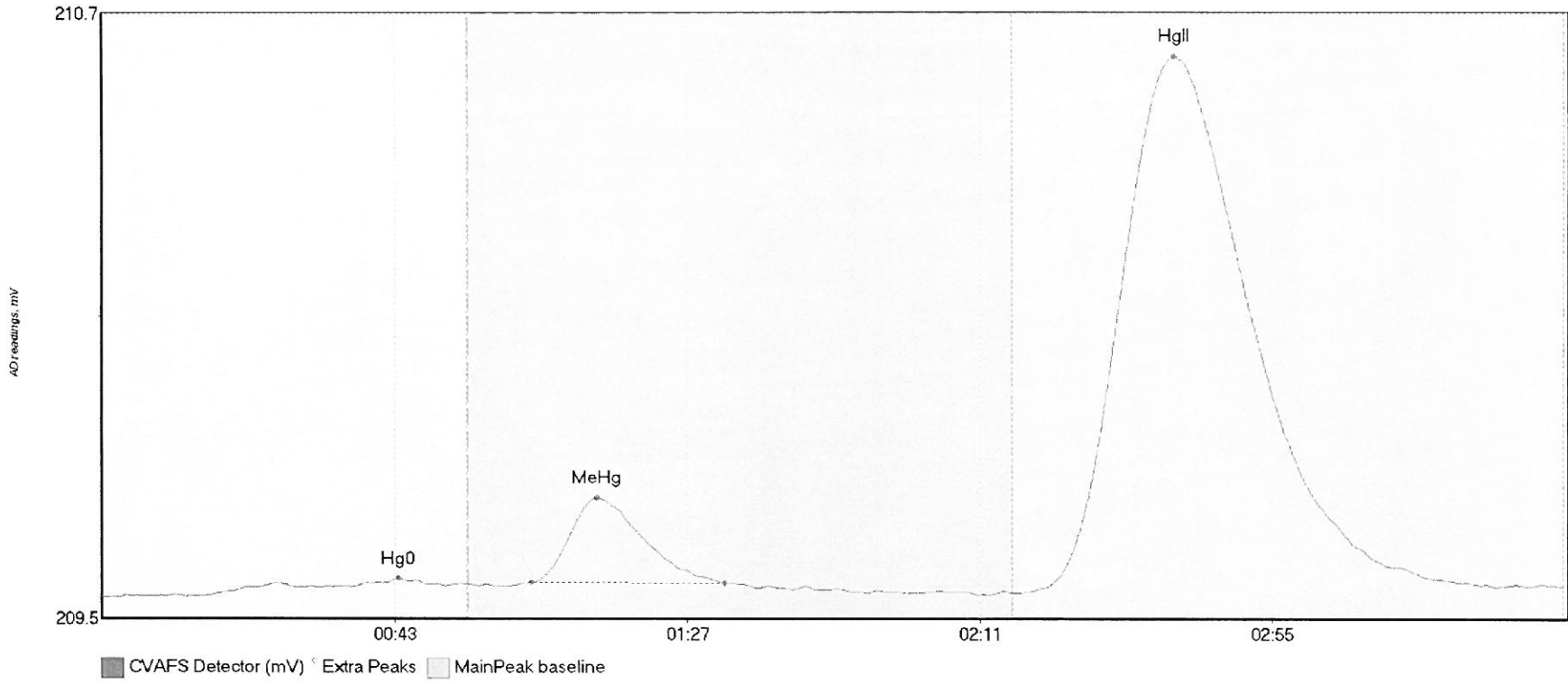
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
F708416-MS2 Hg0	1.546	15.4	54.5	209.52	209.55	52.2	0.033	OK	209.5197	0.00	0.00	
F708416-MS2 MeH	439.043	63.0	120.3	209.54	209.55	75.0	3.118	OK	209.5197	0.00	0.00	
F708416-MS2 HgI	18.758	146.1	186.6	209.54	209.53	163.4	0.093	OK	209.5197	0.00	0.00	

#60: F708416-MSD2



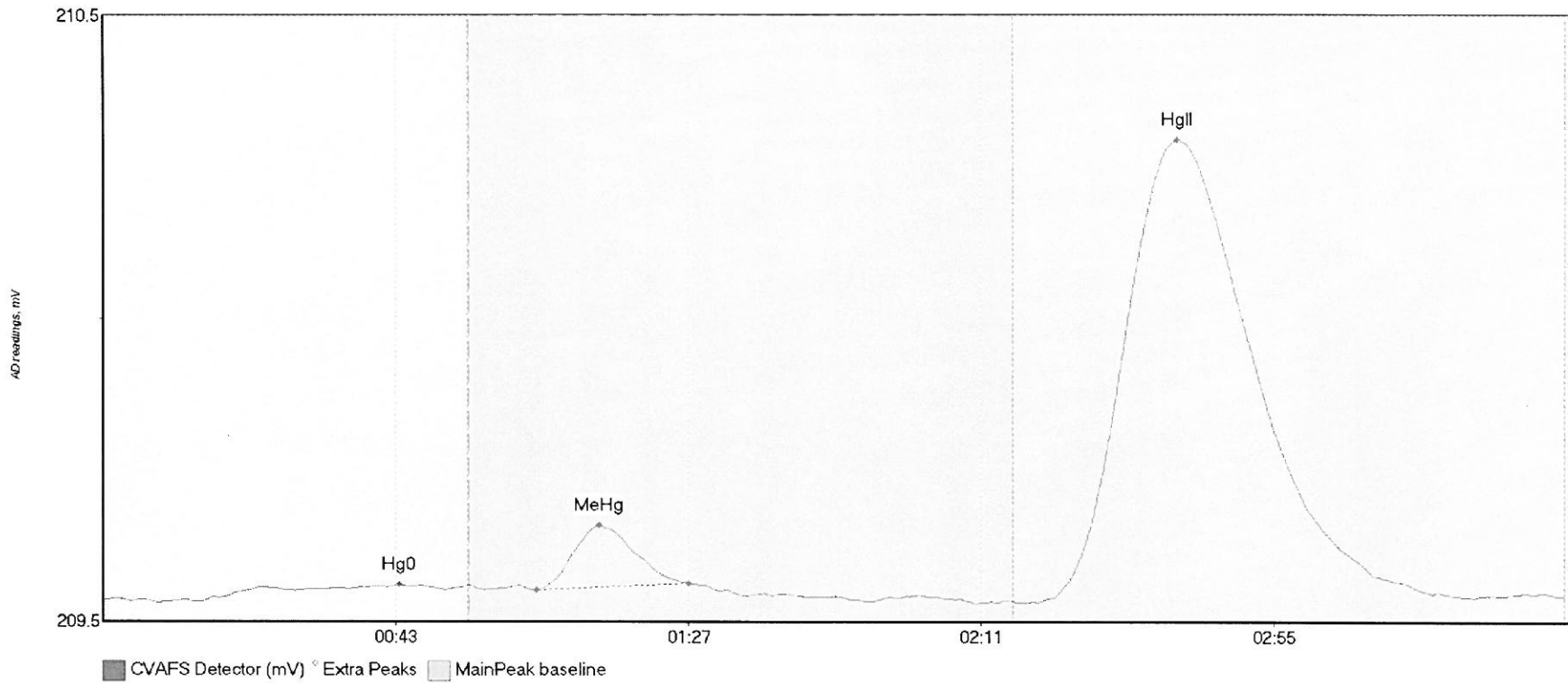
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
F708416-MSD2 Hg	4.013	16.3	55.0	209.52	209.54	44.5	0.029	CT	209.5188	0.00	0.00	
F708416-MSD2 Me	476.989	62.2	128.8	209.54	209.54	74.7	3.334	OK	209.5188	0.00	0.00	
F708416-MSD2 Hg	28.047	141.8	183.9	209.53	209.53	159.4	0.136	OK	209.5188	0.00	0.00	

#61: 1707810-30



Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1707810-30 Hg0	3.621	15.5	51.7	209.52	209.54	44.6	0.033	OK	209.5215	0.00	0.02	
1707810-30 MeHg	20.976	64.6	93.6	209.55	209.55	74.4	0.166	OK	209.5215	0.00	0.02	
1707810-30 HgII	235.692	139.3	209.9	209.53	209.54	161.3	1.046	OK	209.5215	0.00	0.02	

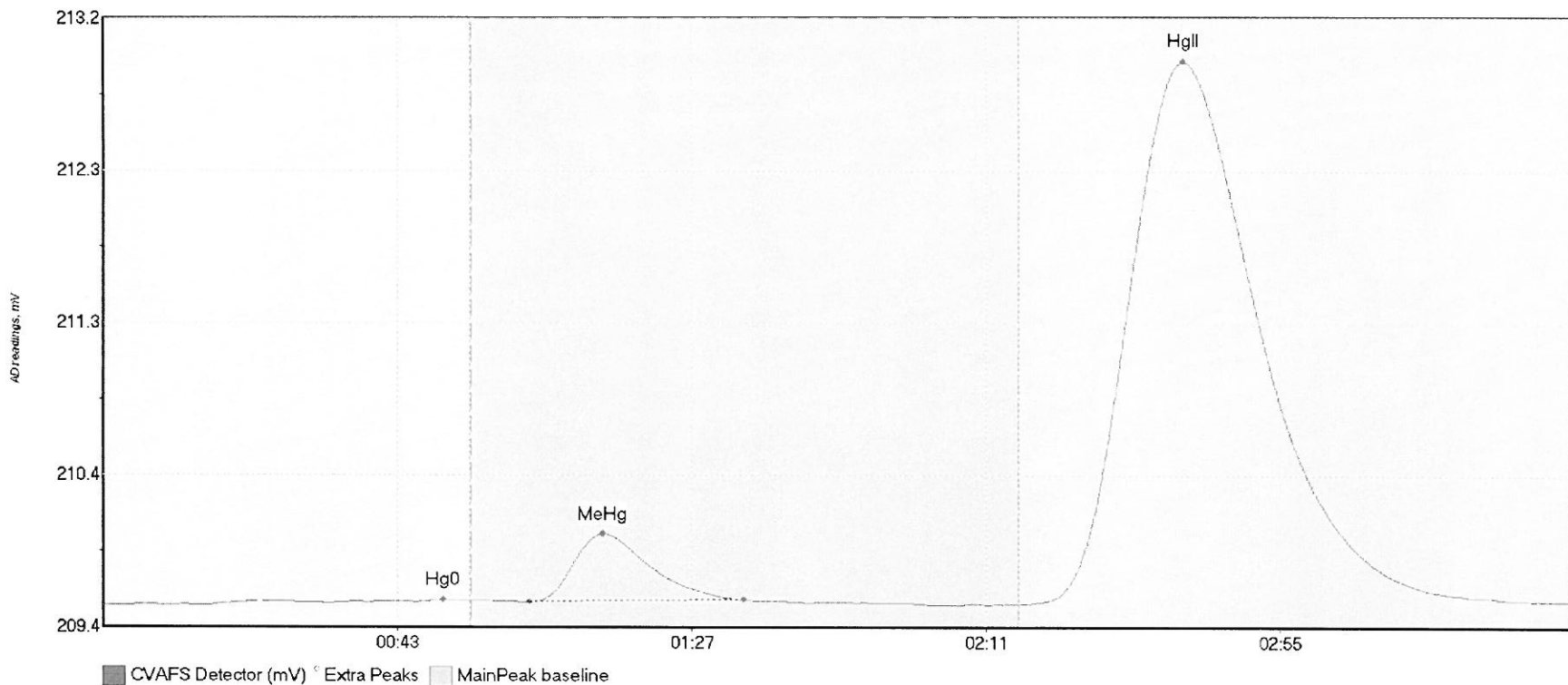
#62: 1707810-31



Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1707810-31 Hg0	2.846	17.3	51.3	209.55	209.56	44.6	0.020	OK	209.5455	0.00	0.01	
1707810-31 MeHg	10.758	65.1	88.0	209.56	209.57	74.6	0.107	OK	209.5455	0.00	0.01	
1707810-31 HgII	170.362	140.5	206.1	209.54	209.55	161.4	0.765	OK	209.5455	0.00	0.01	

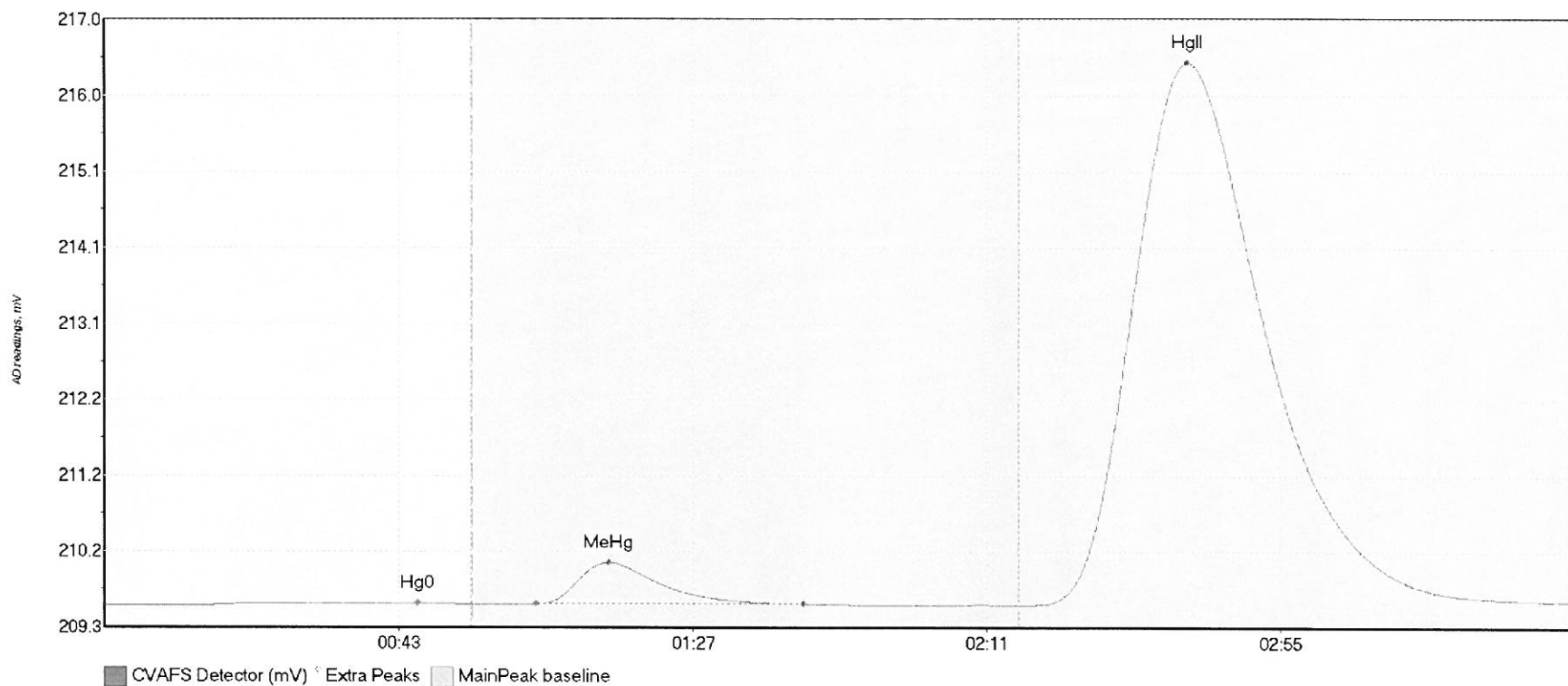


#63: 1707810-44



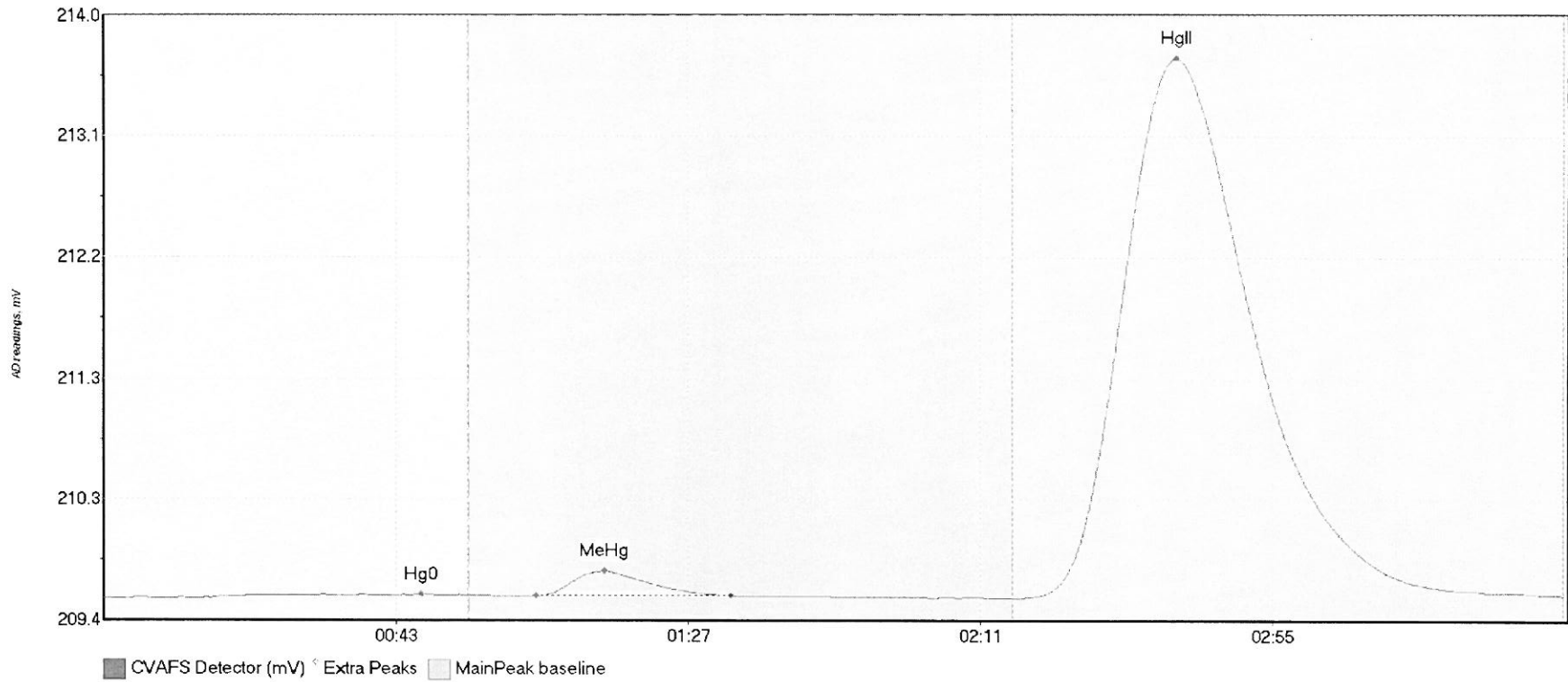
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1707810-44 Hg0	2.214	16.0	52.3	209.55	209.58	50.8	0.030	OK	209.5450	0.00	0.03	
1707810-44 MeHg	55.165	63.7	95.8	209.57	209.58	74.8	0.430	OK	209.5450	0.00	0.03	
1707810-44 HgII	769.460	137.8	216.4	209.55	209.57	161.4	3.417	OK	209.5450	0.00	0.03	

#64: 1707810-45



Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1707810-45 Hg0	6.188	14.1	55.0	209.56	209.58	46.8	0.031	CT	209.5574	0.00	0.06	
1707810-45 MeHg	72.615	64.6	104.6	209.58	209.58	75.5	0.528	OK	209.5574	0.00	0.06	
1707810-45 HgII	1553.797	137.5	219.8	209.56	209.62	162.1	6.899	CT	209.5574	0.00	0.06	

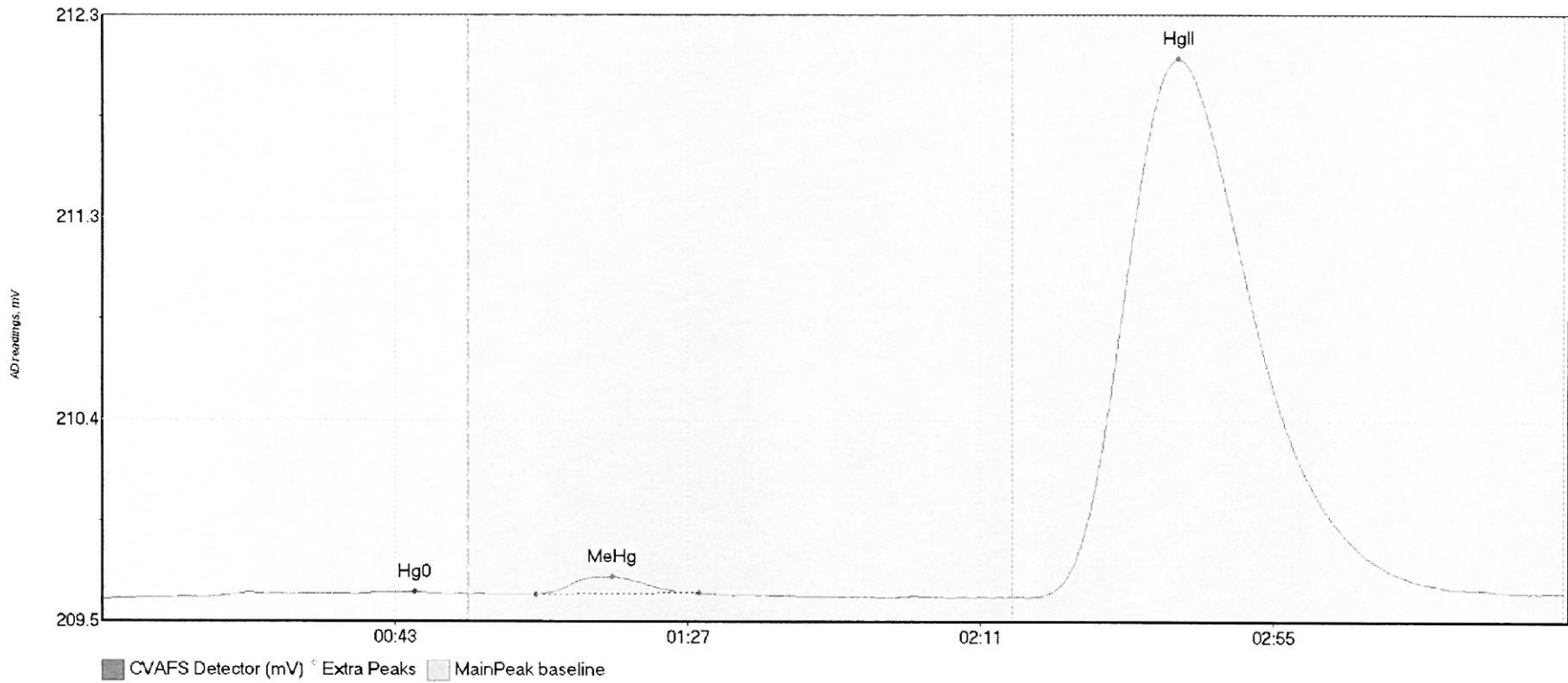
#65: 1707810-54



Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1707810-54 Hg0	3.971	14.1	51.6	209.56	209.58	47.8	0.029	OK	209.5605	0.00	0.03	
1707810-54 MeHg	24.253	65.1	94.5	209.58	209.58	75.4	0.190	OK	209.5605	0.00	0.03	
1707810-54 HgII	929.231	137.8	219.8	209.56	209.59	161.6	4.140	CT	209.5605	0.00	0.03	

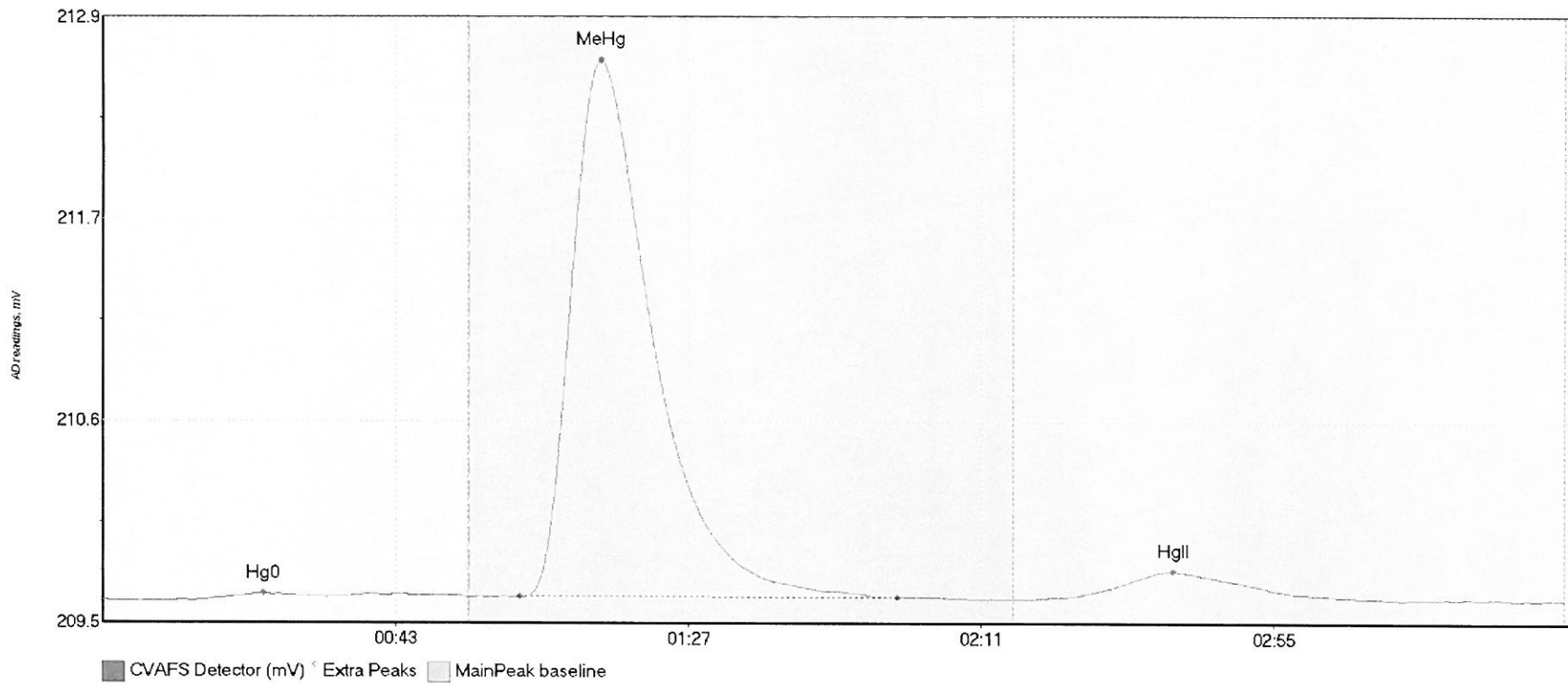
017

#66: 1707810-55



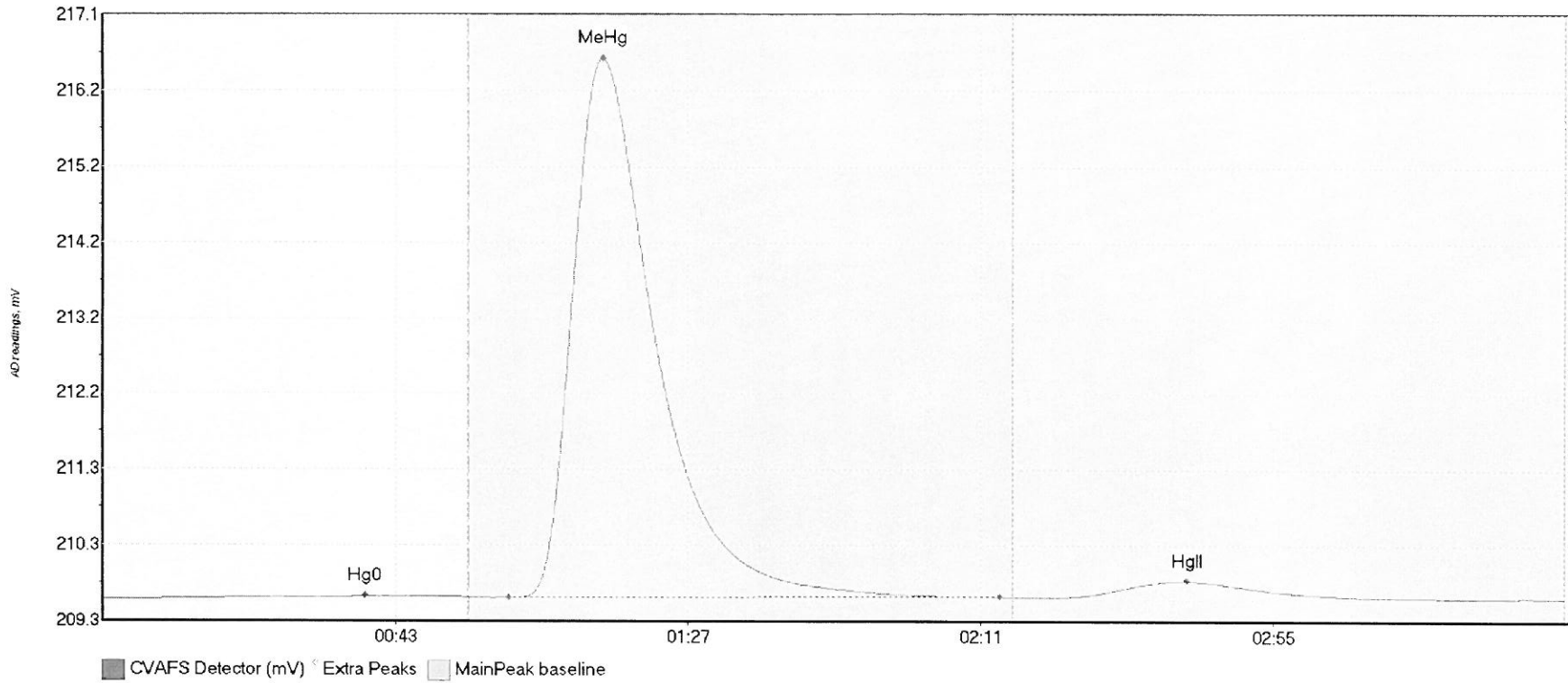
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1707810-55 Hg0	5.027	0.1	51.4	209.56	209.58	47.0	0.035	OK	209.5600	0.00	0.03	
1707810-55 MeHg	9.912	65.2	89.7	209.58	209.59	76.7	0.083	OK	209.5600	0.00	0.03	
1707810-55 HgII	564.058	139.9	216.1	209.57	209.59	161.8	2.503	OK	209.5600	0.00	0.03	

#67: 1708148-01



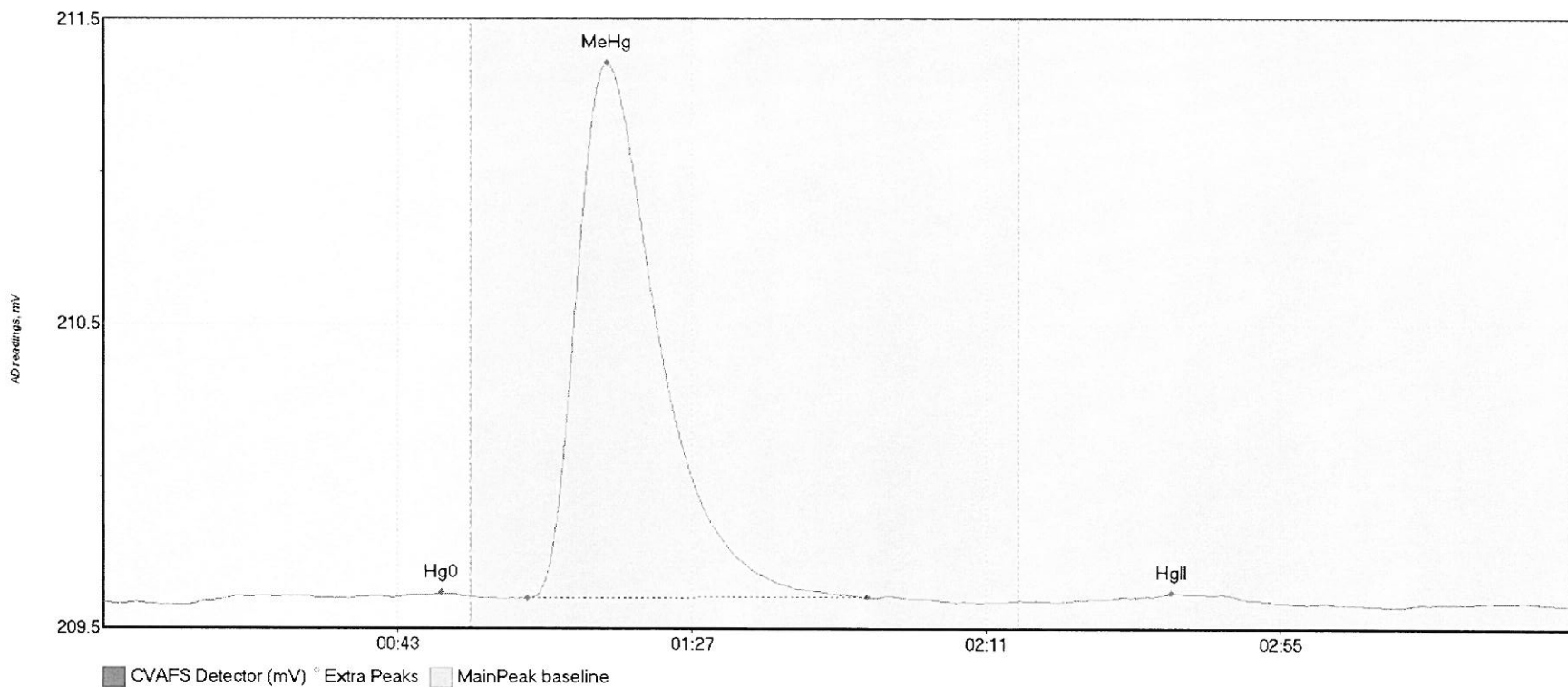
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1708148-01 Hg0	6.878	13.8	55.0	209.59	209.61	24.2	0.038	CT	209.5878	0.00	0.00	
1708148-01 MeHg	430.635	62.6	119.4	209.61	209.60	74.9	3.027	OK	209.5878	0.00	0.00	
1708148-01 HgII	31.990	139.6	189.1	209.59	209.60	160.9	0.157	OK	209.5878	0.00	0.00	

#68: 1708148-02



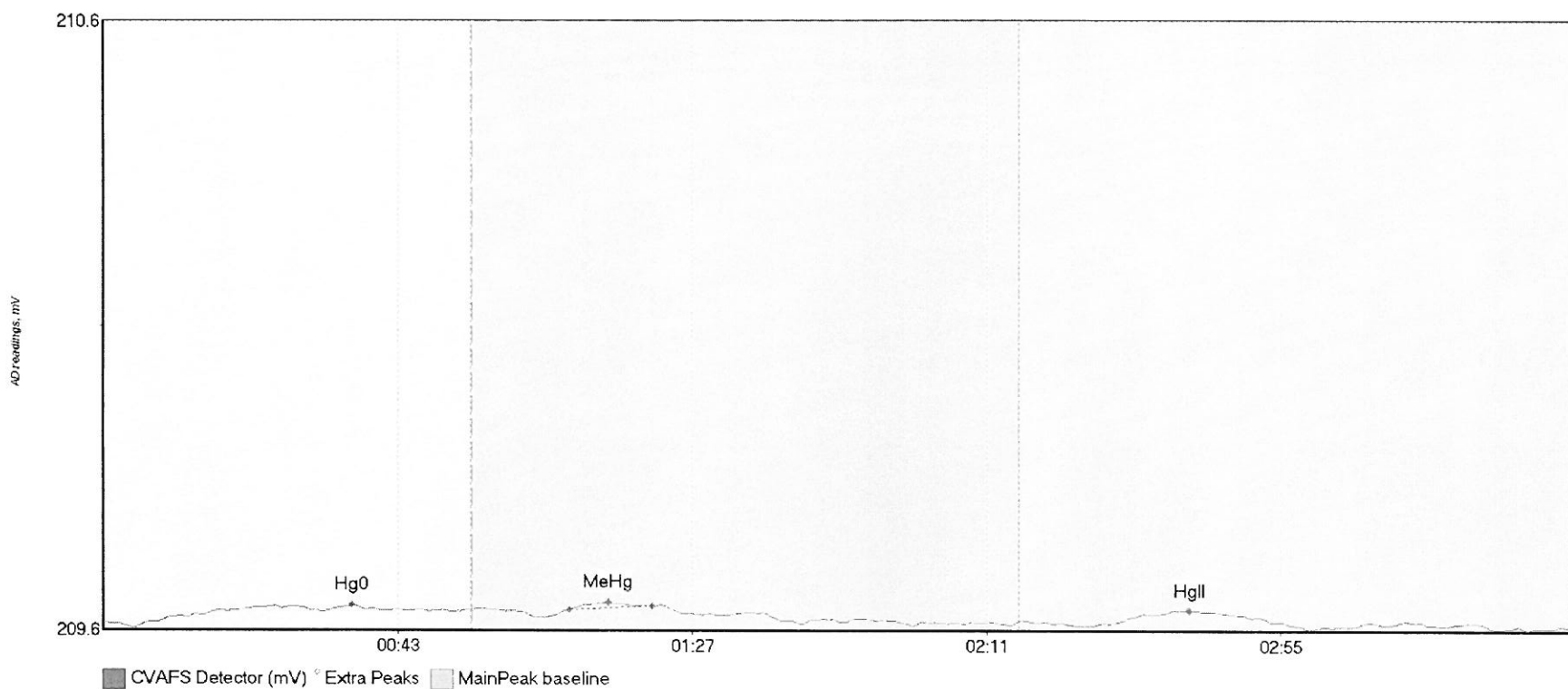
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1708148-02 Hg0	5.581	5.9	55.0	209.59	209.61	39.4	0.039	CT	209.5865	0.00	0.01	
1708148-02 MeHg	1007.134	61.0	134.9	209.61	209.62	75.3	6.966	OK	209.5865	0.00	0.01	
1708148-02 HgII	44.552	144.2	190.0	209.61	209.61	163.1	0.216	OK	209.5865	0.00	0.01	

#69: SEQ-CCV5



Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
SEQ-CCV5 Hg0	4.919	12.6	55.0	209.60	209.62	50.6	0.037	CT	209.6053	0.00	-0.01	
SEQ-CCV5 MeHg	241.424	63.5	114.1	209.62	209.62	75.3	1.701	OK	209.6053	0.00	-0.01	
SEQ-CCV5 HgII	2.440	149.6	171.8	209.62	209.61	159.8	0.019	OK	209.6053	0.00	-0.01	

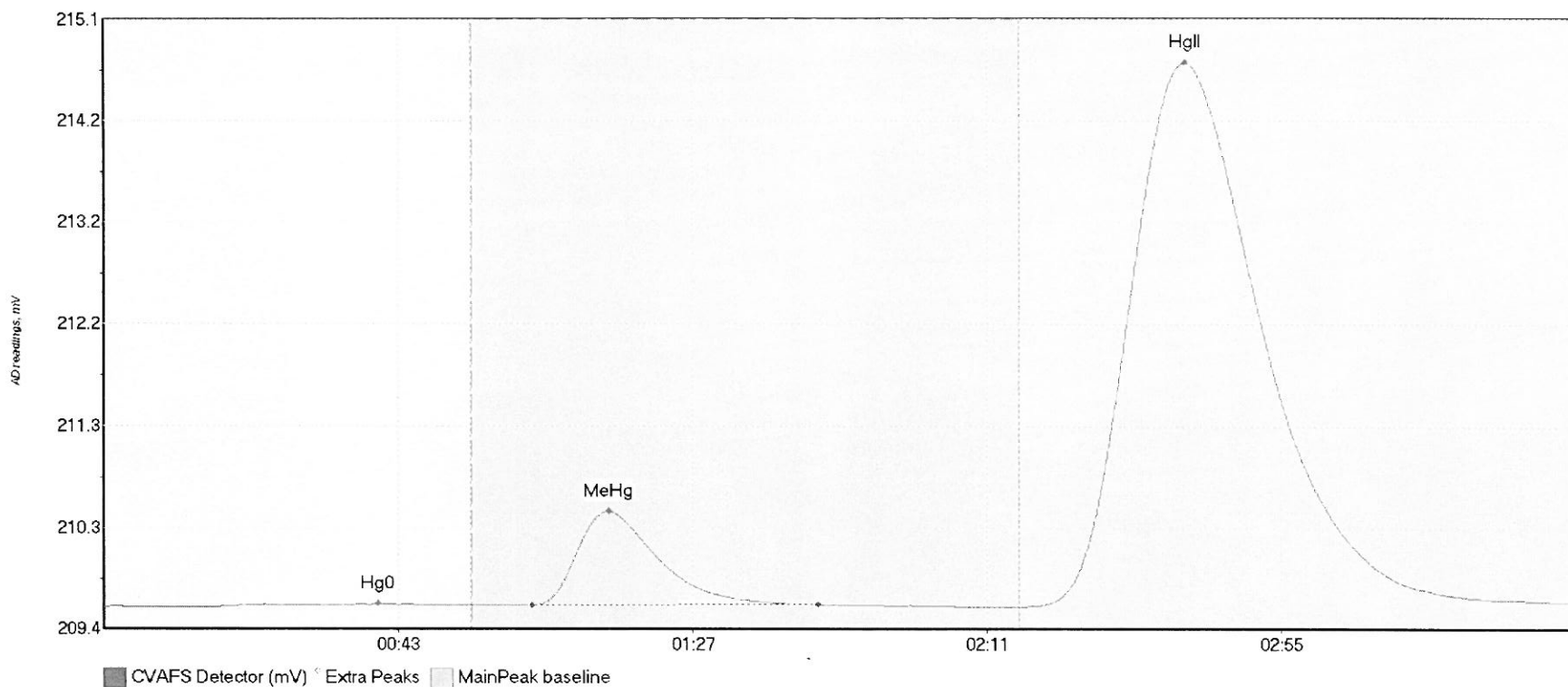
#70: SEQ-CCB5



Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
SEQ-CCB5 Hg0	4.459	8.2	51.9	209.60	209.61	37.1	0.027	OK	209.5942	0.00	-0.01	
SEQ-CCB5 MeHg	0.644	69.6	82.0	209.62	209.62	75.5	0.011	OK	209.5942	0.00	-0.01	
SEQ-CCB5 HgII	1.952	152.1	171.6	209.60	209.60	162.3	0.019	OK	209.5942	0.00	-0.01	

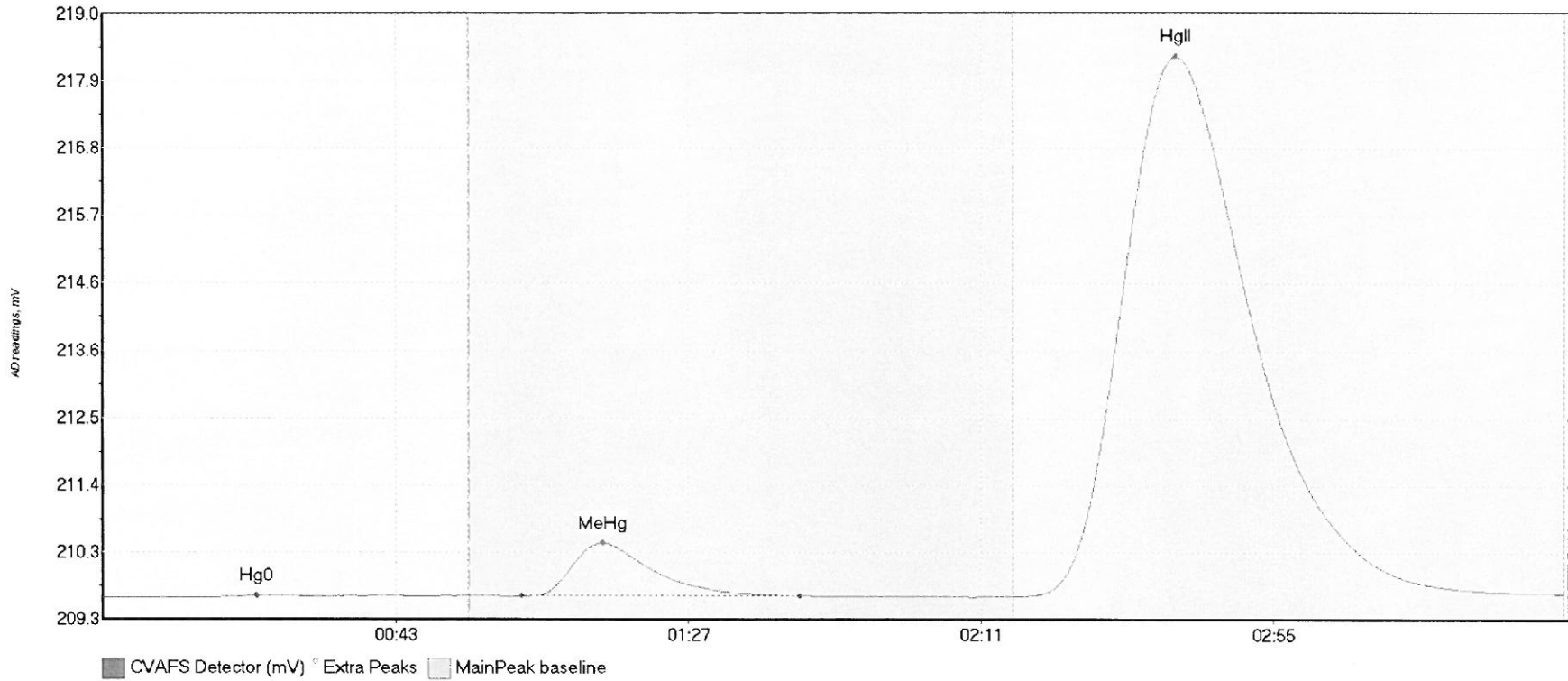


#71: 1708151-01



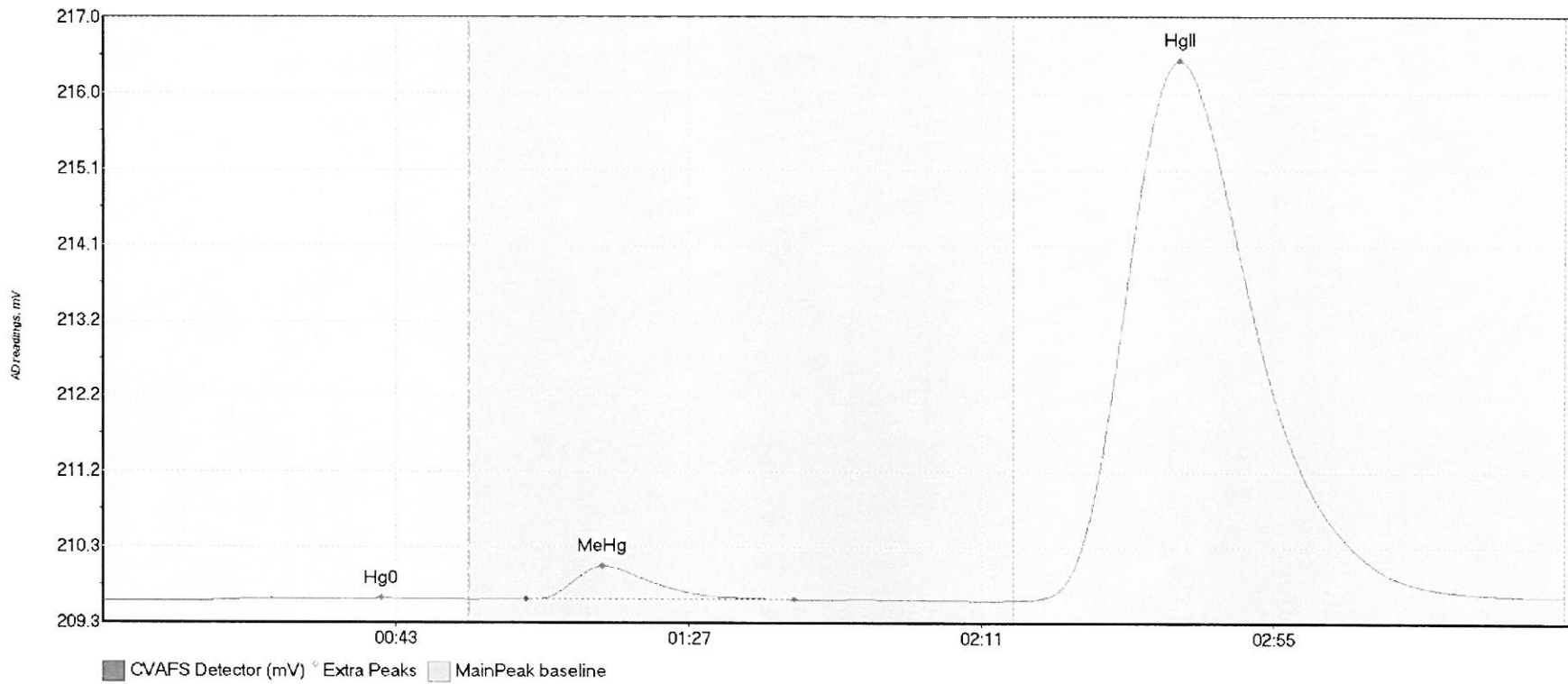
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1708151-01 Hg0	2.323	18.7	49.9	209.61	209.62	41.0	0.020	OK	209.6018	0.00	0.04	
1708151-01 MeHg	121.826	64.0	106.8	209.61	209.62	75.4	0.881	OK	209.6018	0.00	0.04	
1708151-01 HgII	1152.992	137.5	219.1	209.60	209.64	161.6	5.095	OK	209.6018	0.00	0.04	

#72: 1708151-02



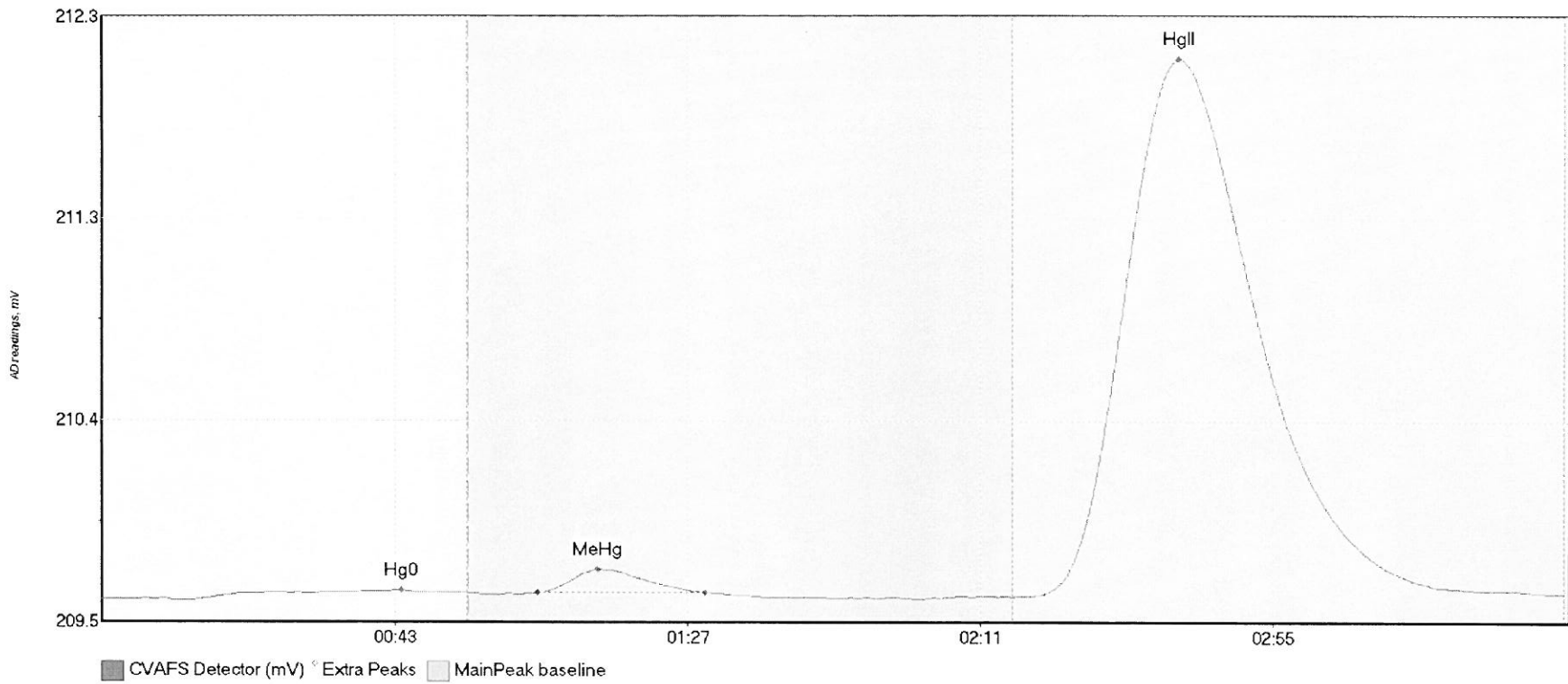
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1708151-02 Hg0	1.838	16.1	31.9	209.61	209.62	23.2	0.026	OK	209.6021	0.00	0.07	
1708151-02 MeHg	117.688	62.8	104.8	209.62	209.63	75.1	0.854	OK	209.6021	0.00	0.07	
1708151-02 HgII	1935.593	136.8	219.8	209.62	209.67	161.3	8.645	CT	209.6021	0.00	0.07	

#73: 1708151-03



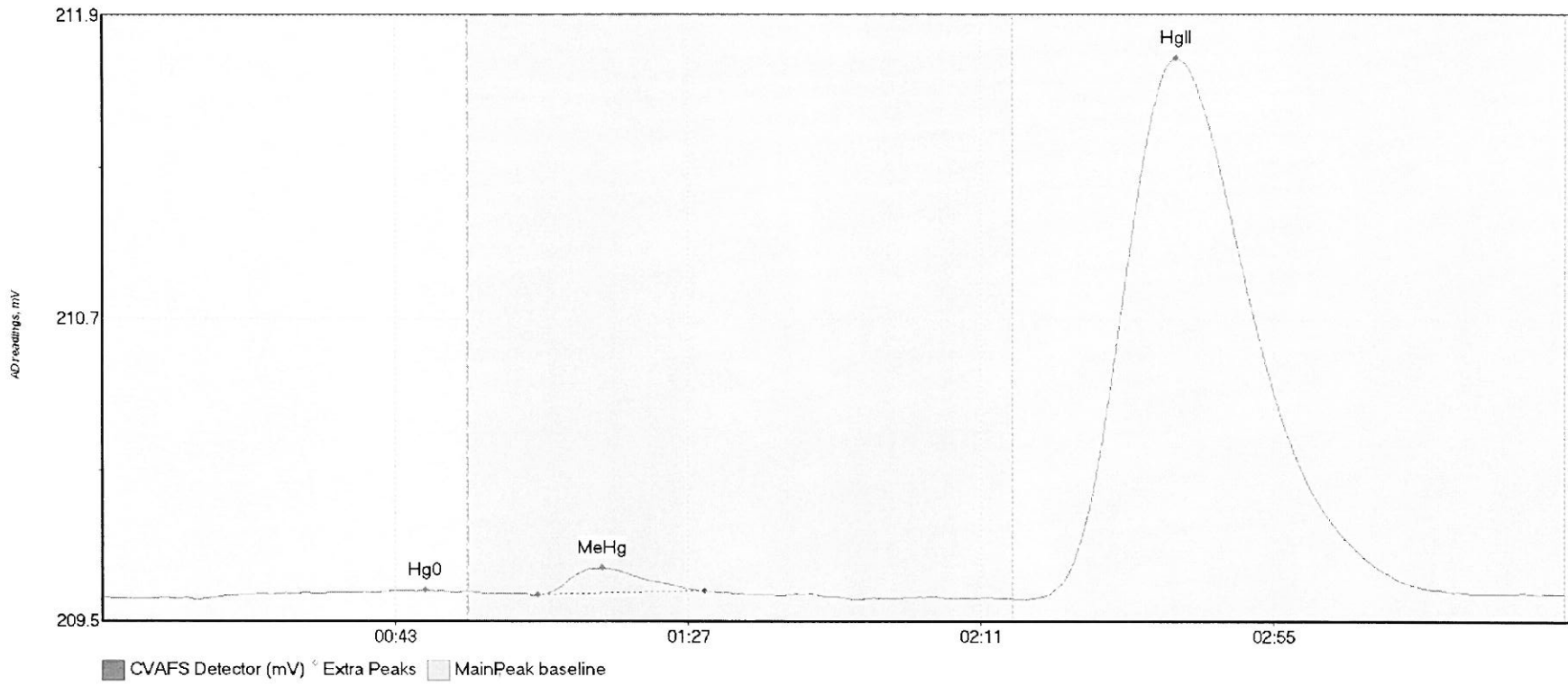
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1708151-03 Hg0	6.112	14.2	55.0	209.60	209.62	41.8	0.033	CT	209.6027	0.00	0.06	
1708151-03 MeHg	57.699	63.6	103.9	209.63	209.62	75.0	0.417	OK	209.6027	0.00	0.06	
1708151-03 HgII	1531.710	137.0	219.8	209.61	209.66	161.9	6.847	CT	209.6027	0.00	0.06	

#74: 1708156-01



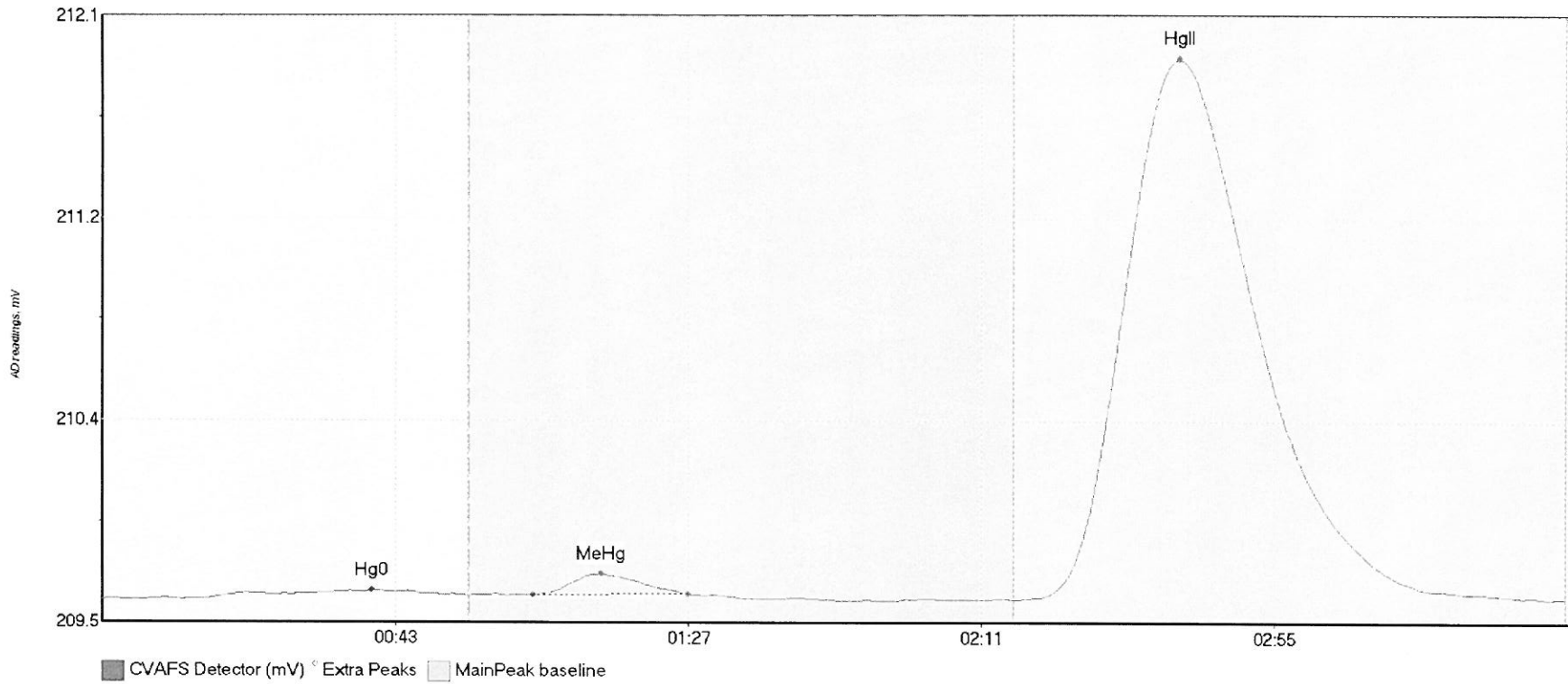
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1708156-01 Hg0	5.673	13.1	49.4	209.59	209.63	45.0	0.045	OK	209.5976	0.00	0.03	
1708156-01 MeHg	12.878	65.5	90.6	209.63	209.63	74.4	0.105	OK	209.5976	0.00	0.03	
1708156-01 HgII	562.208	139.5	219.8	209.61	209.62	161.9	2.456	CT	209.5976	0.00	0.03	

#75: 1708156-02



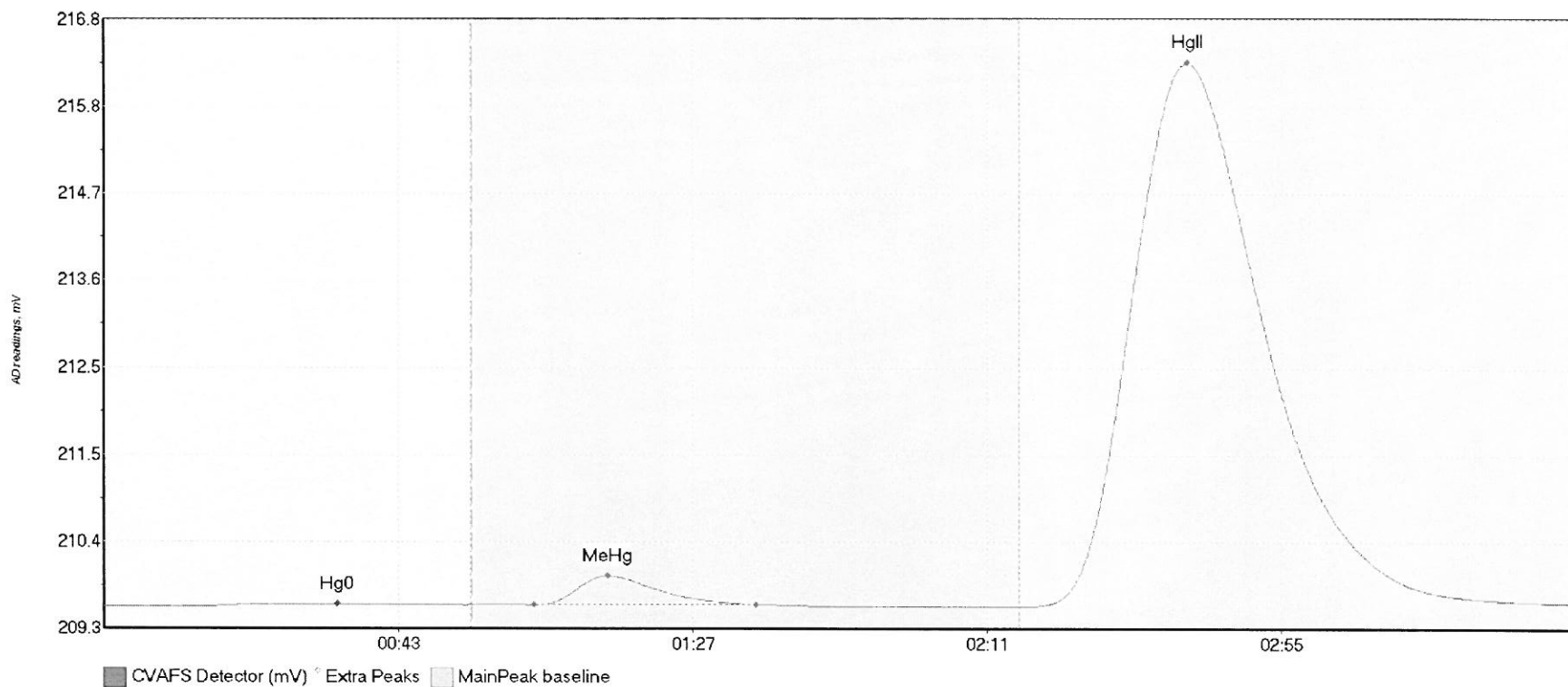
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1708156-02 Hg0	4.061	14.6	53.3	209.59	209.61	48.6	0.035	OK	209.5944	0.00	0.02	
1708156-02 MeHg	12.727	65.5	90.5	209.60	209.62	75.2	0.107	OK	209.5944	0.00	0.02	
1708156-02 HgII	479.800	138.3	216.0	209.59	209.61	161.4	2.128	OK	209.5944	0.00	0.02	

#76: 1708156-03



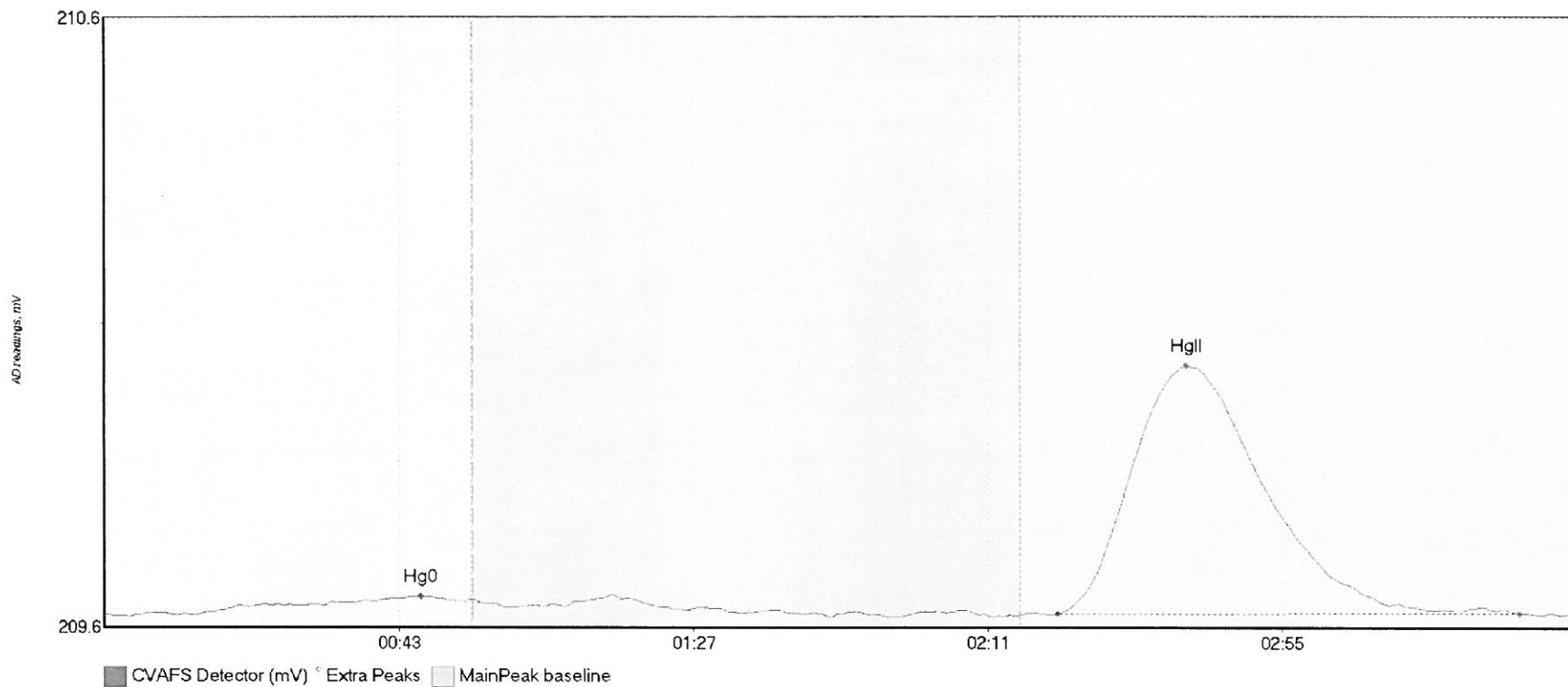
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1708156-03 Hg0	5.966	15.4	54.9	209.58	209.60	40.5	0.032	OK	209.5819	0.00	0.01	
1708156-03 MeHg	10.321	64.6	87.9	209.60	209.60	74.9	0.091	OK	209.5819	0.00	0.01	
1708156-03 HgII	534.511	137.6	217.2	209.58	209.58	161.7	2.339	OK	209.5819	0.00	0.01	

#77: 1708156-04



Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1708156-04 Hg0	4.745	13.3	54.2	209.58	209.60	34.8	0.028	OK	209.5779	0.00	0.05	
1708156-04 MeHg	48.483	64.3	97.5	209.59	209.60	75.3	0.363	OK	209.5779	0.00	0.05	
1708156-04 HgII	1515.519	138.1	219.8	209.58	209.62	162.0	6.708	CT	209.5779	0.00	0.05	

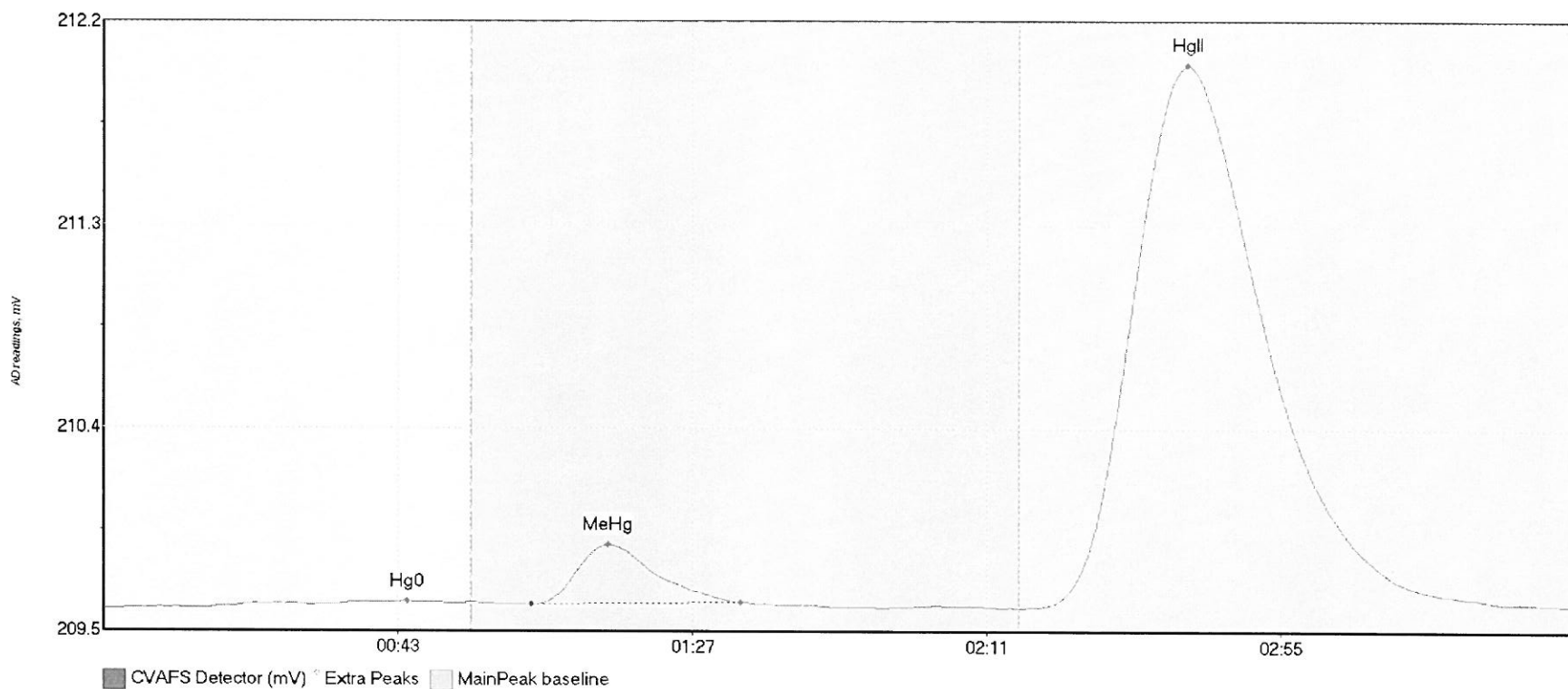
#78: 1708156-05



Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1708156-05 Hg0	3.054	13.5	52.4	209.58	209.61	47.3	0.031	OK	209.5831	0.00	0.00	
1708156-05 HgII	93.161	142.4	211.6	209.58	209.59	161.8	0.409	OK	209.5831	0.00	0.00	017

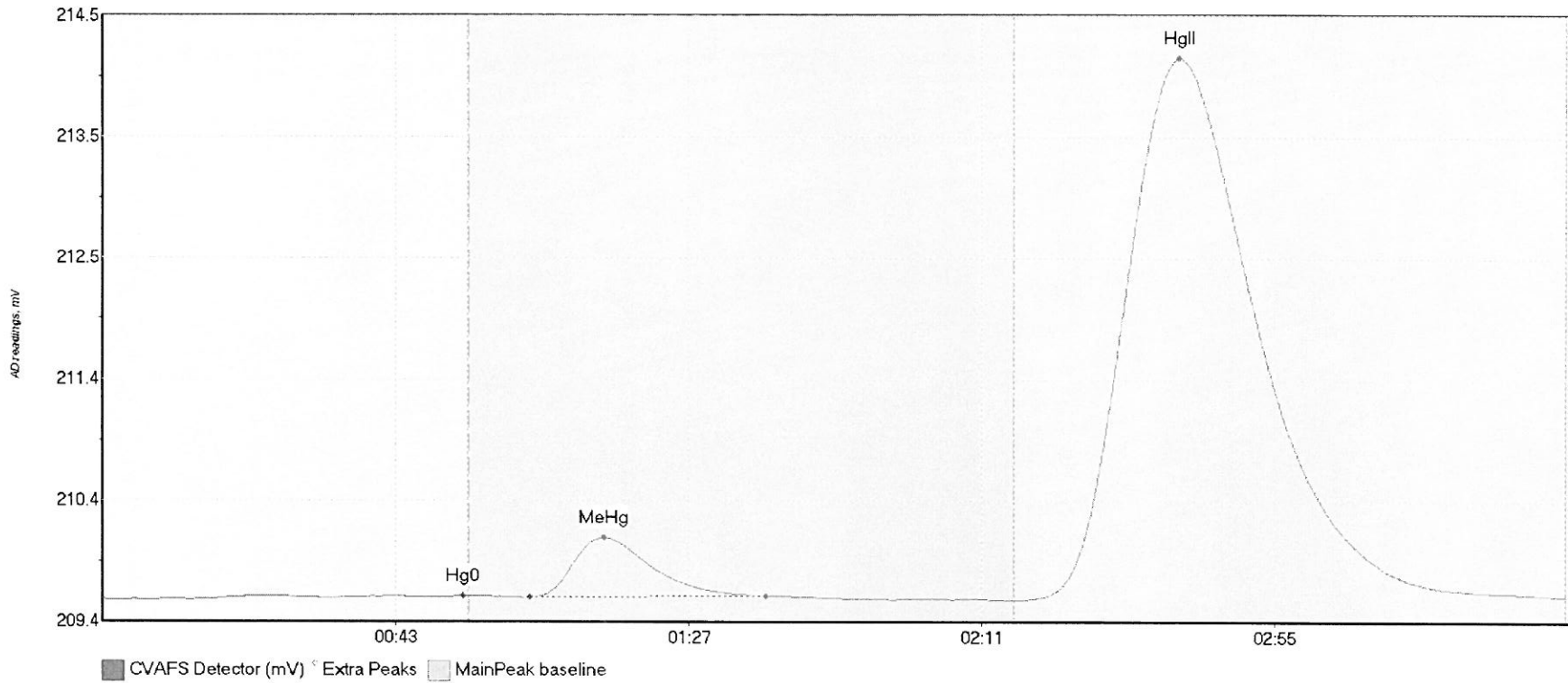


#79: 1708156-06



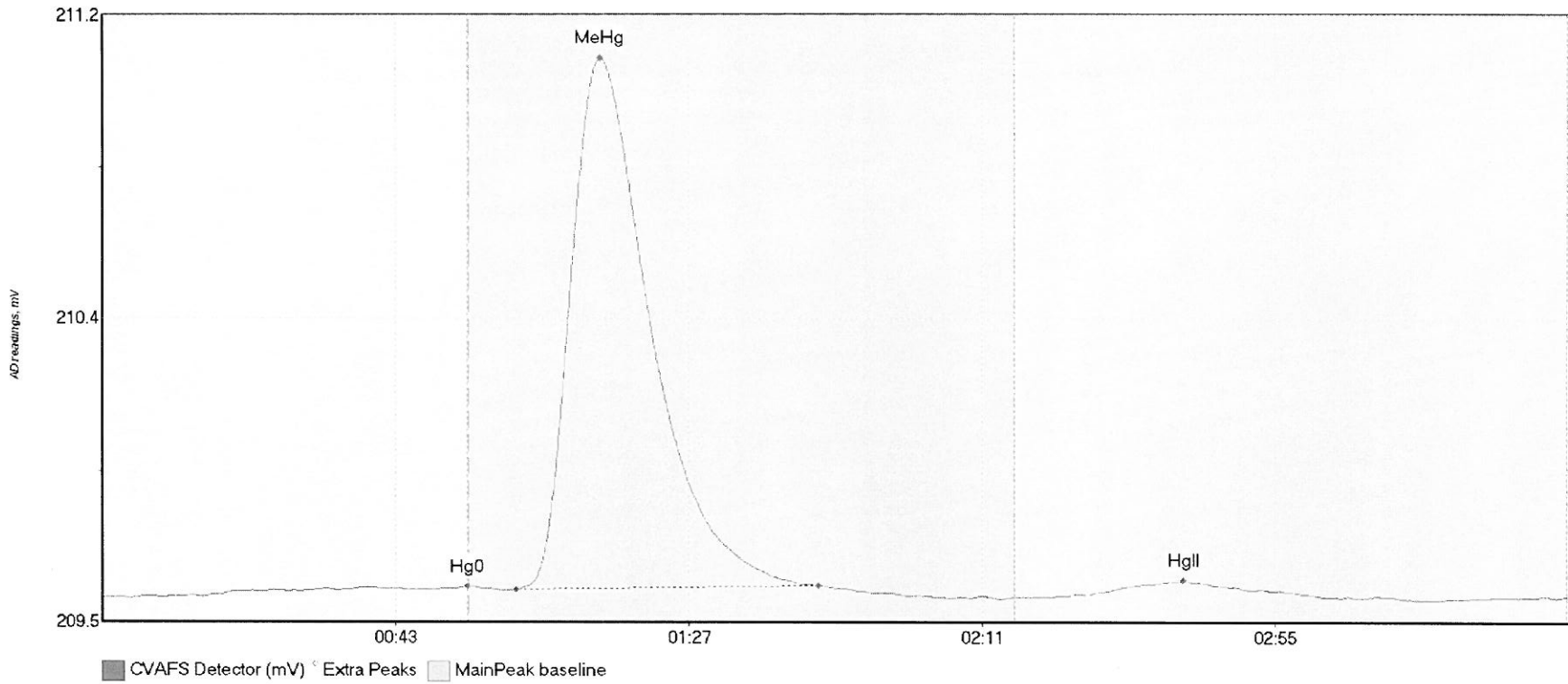
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1708156-06 Hg0	3.902	15.1	52.9	209.59	209.61	45.4	0.031	OK	209.5859	0.00	0.02	
1708156-06 MeHg	34.574	64.0	95.2	209.61	209.61	75.4	0.263	OK	209.5859	0.00	0.02	
1708156-06 HgII	541.405	139.5	218.3	209.59	209.60	162.1	2.382	OK	209.5859	0.00	0.02	

#80: 1708156-07



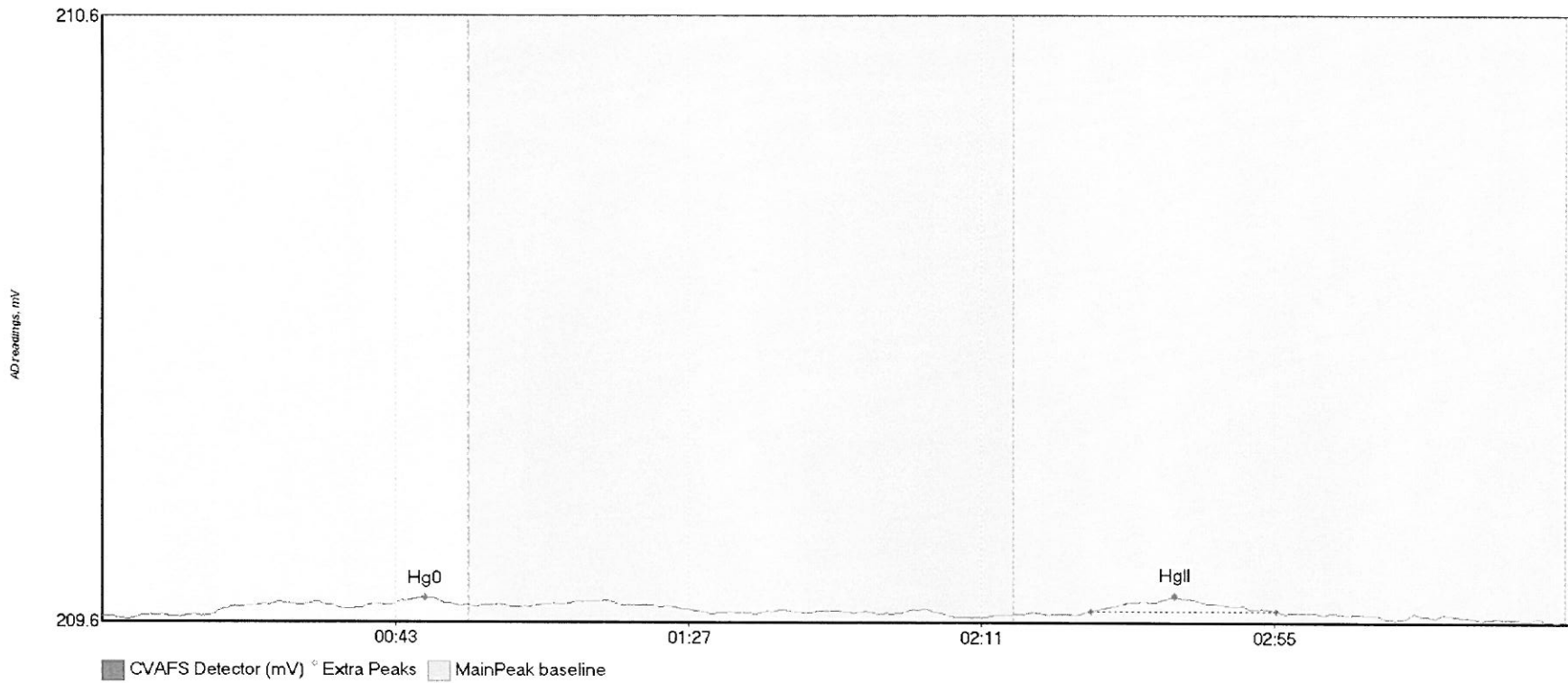
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1708156-07 Hg0	2.650	16.3	55.0	209.58	209.61	54.1	0.026	CT	209.5783	0.00	0.03	
1708156-07 MeHg	67.297	64.2	99.6	209.59	209.60	75.3	0.505	OK	209.5783	0.00	0.03	
1708156-07 HgII	1038.556	137.3	219.8	209.57	209.60	161.8	4.576	CT	209.5783	0.00	0.03	

#81: SEQ-CCV6



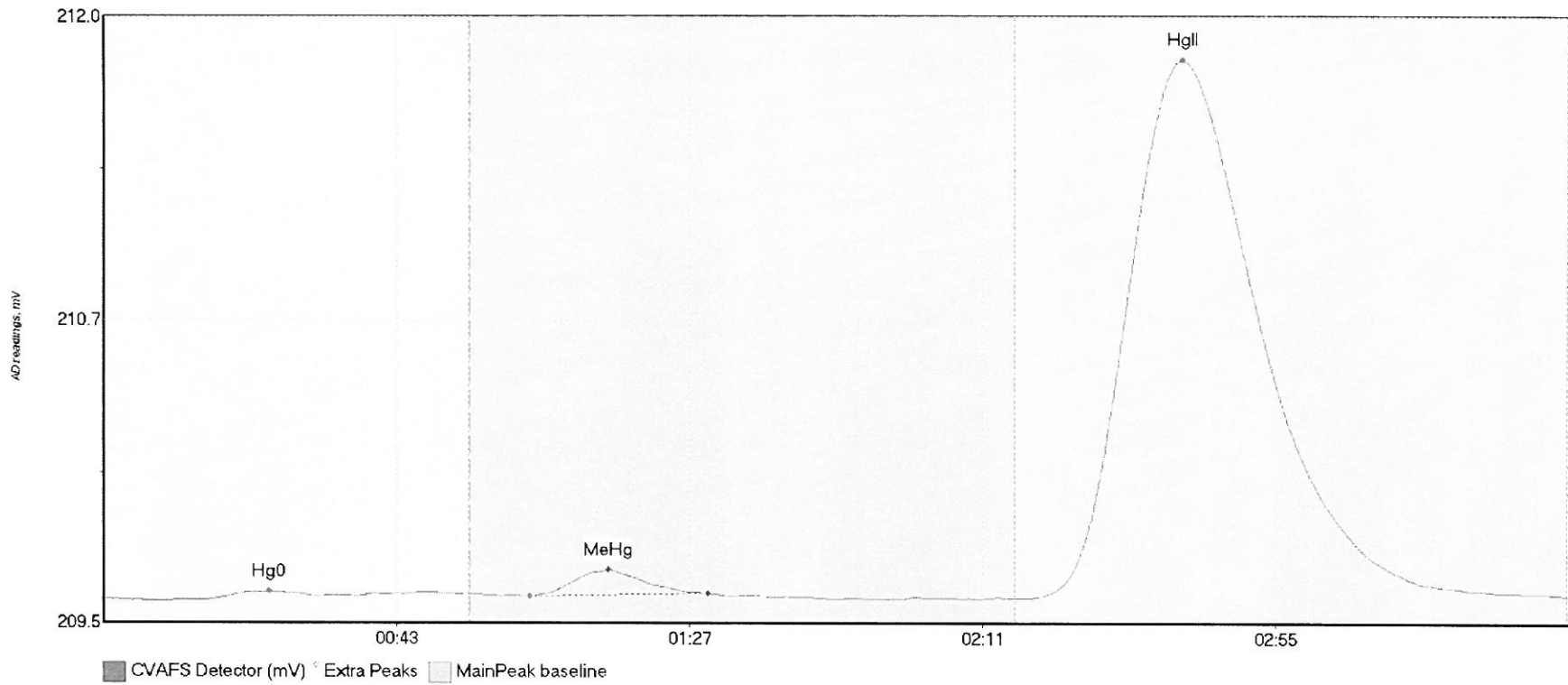
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
SEQ-CCV6 Hg0	2.110	15.2	55.0	209.58	209.61	54.8	0.029	CT	209.5762	0.00	0.00	
SEQ-CCV6 MeHg	209.433	62.1	107.5	209.60	209.61	74.8	1.513	OK	209.5762	0.00	0.00	
SEQ-CCV6 HgII	8.965	144.6	183.8	209.58	209.57	162.3	0.043	OK	209.5762	0.00	0.00	

#82: SEQ-CCB6



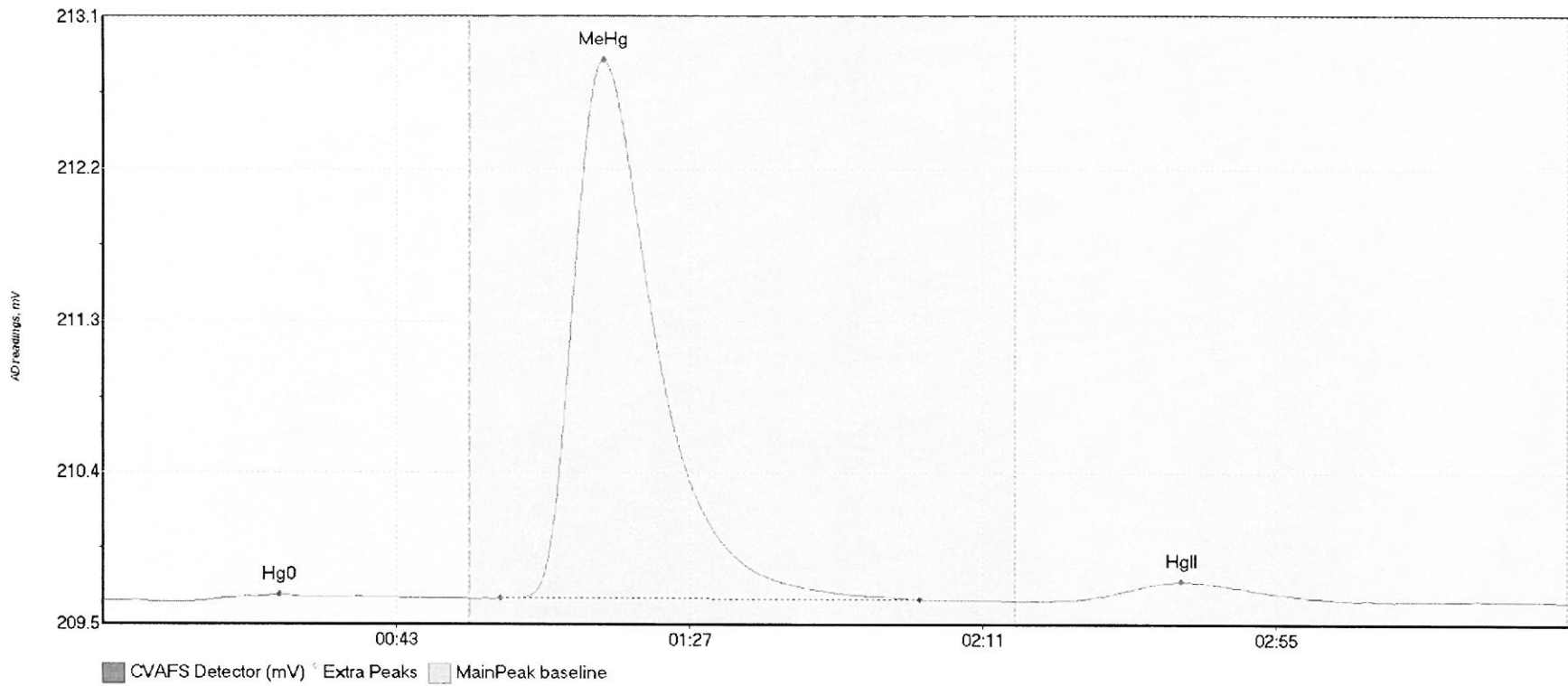
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
SEQ-CCB6 Hg0	3.775	16.2	54.1	209.58	209.59	48.5	0.029	OK	209.5748	0.00	-0.01	
SEQ-CCB6 HgII	3.495	148.5	176.3	209.58	209.58	161.0	0.024	OK	209.5748	0.00	-0.01	017

#83: 1708156-08



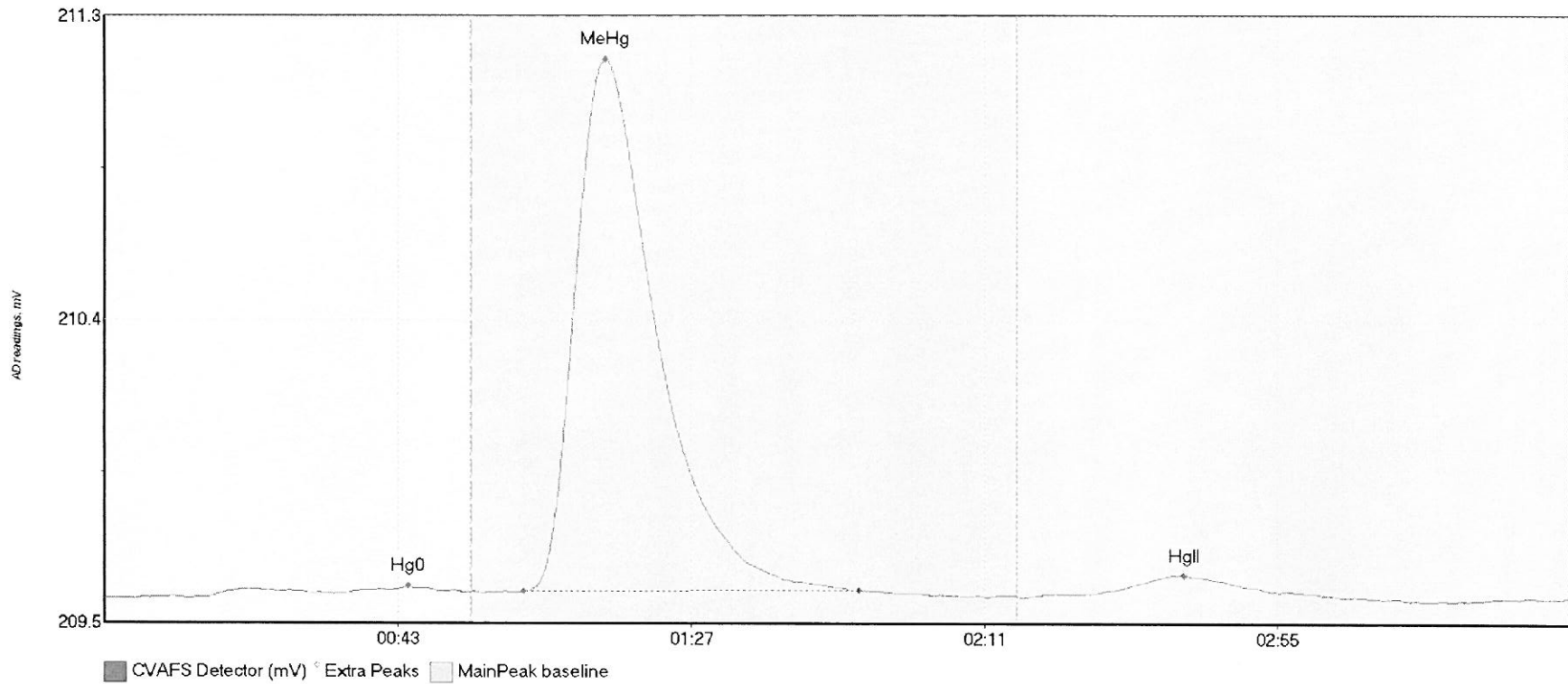
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1708156-08 Hg0	2.543	15.4	32.6	209.58	209.60	24.9	0.033	OK	209.5869	0.00	0.02	
1708156-08 MeHg	12.383	64.0	90.8	209.60	209.61	75.9	0.107	OK	209.5869	0.00	0.02	
1708156-08 HgII	501.459	139.9	219.8	209.59	209.60	162.0	2.200	CT	209.5869	0.00	0.02	

#84: 1708367-01



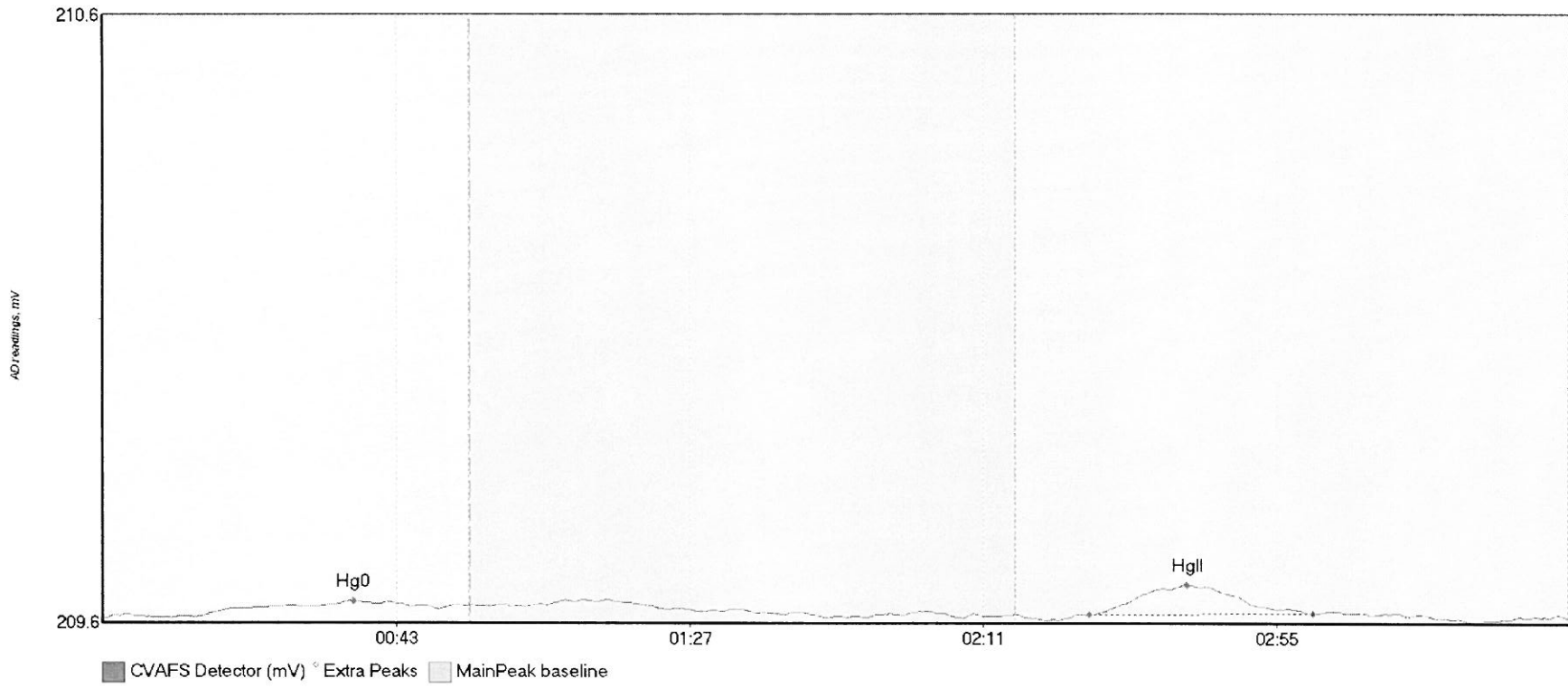
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1708367-01 Hg0	6.459	14.8	55.0	209.59	209.61	26.6	0.036	CT	209.5965	0.00	-0.01	
1708367-01 MeHg	469.165	59.6	122.6	209.61	209.60	75.2	3.255	OK	209.5965	0.00	-0.01	
1708367-01 HgII	23.301	144.4	187.1	209.60	209.60	161.9	0.112	OK	209.5965	0.00	-0.01	

#85: SEQ-CCV7



Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
SEQ-CCV7 Hg0	4.215	15.2	54.4	209.58	209.59	45.6	0.030	OK	209.5725	0.00	0.00	
SEQ-CCV7 MeHg	218.878	62.9	113.1	209.59	209.59	75.2	1.546	OK	209.5725	0.00	0.00	
SEQ-CCV7 HgII	12.088	139.8	186.6	209.58	209.57	162.0	0.060	OK	209.5725	0.00	0.00	

#86: SEQ-CCB7



Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
SEQ-CCB7 Hg0	3.777	14.8	50.5	209.56	209.58	37.6	0.025	OK	209.5606	0.00	0.00	
SEQ-CCB7 HgII	8.097	147.9	181.4	209.57	209.57	162.6	0.050	OK	209.5606	0.00	0.00	017



**Peer Review Check List for MHg for CV-GC-AFS (SOP2808) 2017 Rev 6 (02/22/17)**

<b>Analyst:</b> DON MORAN	<b>Sequence #:</b> 7H18012, 7H18015
<b>Reviewer:</b> <i>PC 8/16/17</i>	<b>Dataset ID #:</b> MMHG27001-170817-1, MMHG27001-170817-2
<b>Date:</b> 8.18.17	<b>WO #:</b> VARIOUS
<b>Batch #(s):</b> F708434, F708416	<b>Client(s):</b> VARIOUS

• Select the correct preparation method.

Additional Comments:

Analyte	Prep Method	Matrix
<input checked="" type="checkbox"/> MHg	SOP2797 MHg Distillation	Water
<input checked="" type="checkbox"/> MHg	SOP2986 KOH/MeOH Digest	Tissue
<input type="checkbox"/> MHg	SOP5134 MeCl Extraction	Sed/Soil
<input type="checkbox"/> DMHg	SOP2816 (None Accredited method)	ALL

Analyst Initials:

*DM*

Reviewer Initials:

*PC 8/16/17*

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 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 type="checkbox"/> N/A
(f) Check and compare masses (review prep bench sheet)	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> NO	<input type="checkbox"/> N/A
(g) Check and compare initial and final volumes	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> NO	<input 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 type="checkbox"/> N/A
(i) Is the pH>3.0 for all distilled samples?	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> NO	<input 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"/>
<b>QA/QC Data Checked</b>			
6. The calibration curve included a minimum of 5 Standards	<input checked="" type="checkbox"/> PASS	<input type="checkbox"/> FAIL	<input type="checkbox"/> N/A
Comments: _____			
7. 1st Calibration Standard % Recoveries (65-135%)	<input checked="" type="checkbox"/> PASS	<input type="checkbox"/> FAIL	<input type="checkbox"/> N/A
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 (SOP2808) 2017 Rev 6 (02/22/17)**

<b>Analyst:</b>	DON MORAN	<b>Sequence #:</b>	7H18012, 7H18015
<b>Reviewer:</b>	0 <i>PC 8/18/17</i>	<b>Dataset ID #:</b>	MMHG27001-170817-1, MMHG27001-170817-2
<b>Date:</b>	8/18/2017	<b>WO #:</b>	VARIOUS
<b>Batch #(s):</b>	F708434, F708416	<b>Client(s):</b>	VARIOUS

**Analyst Initials:**

*DM*

**Reviewer Initials:**

*PC 8/18/17*

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 checked="" type="checkbox"/> PASS	<input type="checkbox"/> FAIL	<input type="checkbox"/> N/A <input checked="" type="checkbox"/>
Comments: _____	<input checked="" 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 checked="" type="checkbox"/> FAIL	<input checked="" type="checkbox"/>
Comments: <b>F708416-MSD1, MSD2 FAILED. MSD1 HIGH RPD AND MSD2 LOW RPD</b>			
22. MS (AS) % Recoveries (65-130%)	<input checked="" type="checkbox"/> PASS	<input checked="" type="checkbox"/> FAIL	<input checked="" type="checkbox"/>
Comments: <b>F708416-MS1, MS2 FAILED. LOW RECOVERIES</b>			
23. MSD (ASD) % Recoveries (65-130%)	<input checked="" type="checkbox"/> PASS	<input checked="" type="checkbox"/> FAIL	<input checked="" type="checkbox"/>
Comments: <b>F708416-MSD2 FAILED. LOW RECOVERY</b>			
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 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 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 checked="" type="checkbox"/>
Comments: _____			

**Peer Review Check List for MHg for CV-GC-AFS (SOP2808) 2017 Rev 6 (02/22/17)**

<b>Analyst:</b>	DON MORAN	<b>Sequence #:</b>	7H18012, 7H18015
<b>Reviewer:</b>	0 <u>A 8/18/17</u>	<b>Dataset ID #:</b>	MMHG27001-170817-1, MMHG27001-170817-2
<b>Date:</b>	8/18/2017	<b>WO #:</b>	VARIOUS
<b>Batch #(s):</b>	F708434, F708416	<b>Client(s):</b>	VAROUS

**Analyst Initials:**

DM

**Reviewer Initials:**

A 8/18/17

29. Are re-runs noted with reason?  
 Comments: \_\_\_\_\_  
 YES     NO     N/A
30. For failing QC (CCV, CCB, PB, BS/BSD, CAL):  
 Was a bubbler and trap test run before the analytical run continued?  
 Comments: \_\_\_\_\_  
 YES     NO     N/A
31. Do re-run results compare to initial analysis (< 35% RPD)?  
 Comments: \_\_\_\_\_  
 YES     NO     N/A
32. Are qualifiers consistent with the data review flowcharts?  
 Comments: \_\_\_\_\_  
 YES     NO     N/A
33. Have non-reportable samples been imported into LIMS and clicked to non-reportable?  
 Comments: \_\_\_\_\_  
 YES     NO     N/A
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?  
 If so, place dataset to the QA office.  
 YES     NO
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: 6/13/2017 IDOC/CDOC within last 12 months?  
 YES     NO     N/A
39. Date of analyst's SOP reading: 5/23/2016 Current SOP revision?  
 YES     NO     N/A
40. Date of LOD: 4-24-17, 5-8-17 LOD within last 3 months (within 12 months for MDN)?  
 YES     NO     N/A
41. Date of LOQ: 4-24-17, 5-8-17 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



**TABLE 3**  
**DATA VALIDATION SUMMARY**  
**2017 MARSH PLATFORM SEDIMENT**  
**PENOBSCOT RIVER ESTUARY PHASE III - ENGINEERING EVAL**

SDGs L1725276, 1707620, 1707704, L1725963, L1726234, L1726792, 1707771, 1708151, 1708524, L1727213, L1727676, L1729216, L1729601

SDG	Location ID	Sample Date	Sample ID	Analysis Method Parameter Unit Fraction QC Code	% Solids PERCENT Total		EPA 1631 Mercury NG/G Total		EPA 1630 Methyl Mercury NG/G Total		LLOYD KAHN TOC PERCENT Total	
					Final	Final	Final	Final	Final	Final	Final	Final
					Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier
1707771	W-MM-22	7/25/2017	W-MM-22_072517_SED_05-10_R2	FS	31.2	J	20.8	J				
1707771	W-MM-22	7/25/2017	W-MM-22_072517_SED_05-10_R3	FS	32.1	J	103	J				
1707771	W-MM-23	7/24/2017	W-MM-23_072417_SED_00-01_R1	FS	34	J	423		6.3			
1707771	W-MM-23	7/24/2017	W-MM-23_072417_SED_00-01_R2	FS	32.7	J	440		7.6			
1707771	W-MM-23	7/24/2017	W-MM-23_072417_SED_00-01_R3	FS	33.5	J	389		7.9			
1707771	W-MM-23	7/24/2017	W-MM-23_072417_SED_01-03	FS	37.5	J	596		8.8			
1707771	W-MM-23	7/25/2017	W-MM-23_072517_SED_03-05	FS	35.7	J	1080					
1707771	W-MM-23	7/25/2017	W-MM-23_072517_SED_05-10	FS	38.9	J	288					
1707771	W-MM-24	7/24/2017	W-MM-24_072417_SED_00-01	FS	34.7	J	480		5.8			
1707771	W-MM-24	7/24/2017	W-MM-24_072417_SED_01-03_R1	FS	40.3	J	391		5			
1707771	W-MM-24	7/24/2017	W-MM-24_072417_SED_01-03_R2	FS	39.4	J	418		4.9			
1707771	W-MM-24	7/24/2017	W-MM-24_072417_SED_01-03_R3	FS	39.8	J	345		3.6	J		
1707771	W-MM-24	7/25/2017	W-MM-24_072517_SED_03-05	FS	42.9	J	302					
1707771	W-MM-24	7/25/2017	W-MM-24_072517_SED_05-10	FS	48	J	140					
1707771	W-MM-TP	7/25/2017	W-MM-TP_072517_SED_00-01_R1	FS	56.9	J	247		3.1			
1707771	W-MM-TP	7/25/2017	W-MM-TP_072517_SED_00-01_R2	FS	56	J	221		2.7	J		
1707771	W-MM-TP	7/25/2017	W-MM-TP_072517_SED_00-01_R3	FS	52.2	J	230		3.2			
1707771	W-MM-TP	7/25/2017	W-MM-TP_072517_SED_01-03	FS	50.7	J	163		1.4	J		
1707771	W-MM-TP	7/26/2017	W-MM-TP_072617_SED_03-05	FS	49.2	J	100					
1707771	W-MM-TP	7/26/2017	W-MM-TP_072617_SED_05-10	FS	48.3	J	46.6					
1708151	W-100-A	8/1/2017	W-100-A_080117_SED_00-01	FS	29.8	J	554		30.6			
1708151	W-100-A	8/1/2017	W-100-A_080117_SED_01-03	FS	34.2	J	837		28.6			
1708151	W-100-A	8/3/2017	W-100-A_080317_SED_03-05	FS	29.1	J	1620					
1708151	W-100-A	8/3/2017	W-100-A_080317_SED_05-10	FS	25	J	1180					

**TABLE 3**  
**DATA VALIDATION SUMMARY**  
**2017 MARSH PLATFORM SEDIMENT**  
**PENOBSCOT RIVER ESTUARY PHASE III - ENGINEERING EVAL**

**SDGs L1725276, 1707620, 1707704, L1725963, L1726234, L1726792, 1707771, 1708151, 1708524, L1727213, L1727676, L1729216, L1729601**

SDG	Location ID	Sample Date	Sample ID	Analysis Method Parameter Unit Fraction QC Code	% Solids PERCENT Total		EPA 1631 Mercury NG/G Total		EPA 1630 Methyl Mercury NG/G Total		LLOYD KAHN TOC PERCENT Total	
					Final	Final	Final	Final	Final	Final	Final	Final
					Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier
1708151	W-101-INTA	8/1/2017	W-101-INTA_080117_SED_00-01	FS	34.8	J	766		13.3			
1708151	W-101-INTA	8/1/2017	W-101-INTA_080117_SED_01-03_R1	FS	37.6	J	916		5.2			
1708151	W-101-INTA	8/1/2017	W-101-INTA_080117_SED_01-03_R2	FS	38.1	J	884		4.5			
1708151	W-101-INTA	8/1/2017	W-101-INTA_080117_SED_01-03_R3	FS	36.4	J	864		4.4			
1708151	W-101-INTA	8/3/2017	W-101-INTA_080317_SED_03-05	FS	41	J	929					
1708151	W-101-INTA	8/3/2017	W-101-INTA_080317_SED_05-10	FS	39	J	583					
1708151	W-104-B	8/1/2017	W-104-B_080117_SED_00-01	FS	63	J	82.3		1	J		
1708151	W-104-B	8/1/2017	W-104-B_080117_SED_01-03	FS	53.7	J	461		0.6	J		
1708151	W-104-B	8/3/2017	W-104-B_080317_SED_03-05_R1	FS	55.4	J	511					
1708151	W-104-B	8/3/2017	W-104-B_080317_SED_03-05_R2	FS	53.1	J	519					
1708151	W-104-B	8/3/2017	W-104-B_080317_SED_03-05_R3	FS	55.1	J	537					
1708151	W-104-B	8/3/2017	W-104-B_080317_SED_05-10	FS	52.1	J	296					
1708151	W-104-INTB	8/1/2017	W-104-INTB_080117_SED_00-01	FS	34.8	J	549		6.9			
1708151	W-104-INTB	8/1/2017	W-104-INTB_080117_SED_01-03	FS	34.9	J	698		3.7			
1708151	W-104-INTB	8/3/2017	W-104-INTB_080317_SED_03-05	FS	37.8	J	977					
1708151	W-104-INTB	8/3/2017	W-104-INTB_080317_SED_05-10	FS	41.2	J	1040					
1708151	W-106-A	8/1/2017	W-106-A_080117_SED_00-01	FS	29.4	J	669		3.7			
1708151	W-106-A	8/1/2017	W-106-A_080117_SED_01-03	FS	30.4	J	922		3.6			
1708151	W-106-A	8/3/2017	W-106-A_080317_SED_03-05	FS	32.9	J	1720					
1708151	W-106-A	8/3/2017	W-106-A_080317_SED_05-10	FS	31.7	J	2990					
1708151	W-107-A	8/1/2017	W-107-A_080117_SED_00-01	FS	36.6	J	513		5.9			
1708151	W-107-A	8/1/2017	W-107-A_080117_SED_01-03	FS	43.2	J	1060		8.2			
1708151	W-107-A	8/3/2017	W-107-A_080317_SED_03-05	FS	36.4	J	2200					
1708151	W-107-A	8/3/2017	W-107-A_080317_SED_05-10	FS	48.4	J	651					

**TABLE 3**  
**DATA VALIDATION SUMMARY**  
**2017 MARSH PLATFORM SEDIMENT**  
**PENOBSCOT RIVER ESTUARY PHASE III - ENGINEERING EVAL**

**SDGs L1725276, 1707620, 1707704, L1725963, L1726234, L1726792, 1707771, 1708151, 1708524, L1727213, L1727676, L1729216, L1729601**

SDG	Location ID	Sample Date	Sample ID	Analysis Method Parameter Unit Fraction QC Code	% Solids PERCENT Total		EPA 1631 Mercury NG/G Total		EPA 1630 Methyl Mercury NG/G Total		LLOYD KAHN TOC PERCENT Total	
					Final	Final	Final	Final	Final	Final	Final	Final
					Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier
1708151	W-109-A	8/1/2017	W-109-A_080117_SED_00-01	FS	23.7	J	92.5		1.9	U		
1708151	W-109-A	8/1/2017	W-109-A_080117_SED_01-03	FS	29.9	J	90.8		0.6	J		
1708151	W-109-A	8/3/2017	W-109-A_080317_SED_05-10_R1	FS	68.8	J	38.6					
1708151	W-109-A	8/3/2017	W-109-A_080317_SED_05-10_R2	FS	60.1	J	38.6					
1708151	W-109-A	8/3/2017	W-109-A_080317_SED_05-10_R3	FS	63.6	J	36.2					
1708151	W-109-A	8/3/2017	W-109-A_080317_SED_03-05	FS	28.6	J	206					
1708151	W-110-A	8/1/2017	W-110-A_080117_SED_00-01_R1	FS	23.5	J	217		0.5	J		
1708151	W-110-A	8/1/2017	W-110-A_080117_SED_00-01_R2	FS	23.9	J	200		0.5	J		
1708151	W-110-A	8/1/2017	W-110-A_080117_SED_00-01_R3	FS	22.4	J	213		0.6	J		
1708151	W-110-A	8/1/2017	W-110-A_080117_SED_01-03	FS	24.4	J	433		4.5			
1708151	W-110-A	8/3/2017	W-110-A_080317_SED_03-05	FS	41.4	J	187					
1708151	W-110-A	8/3/2017	W-110-A_080317_SED_05-10	FS	70.1	J	30.2					
1708151	W-MM-09	8/1/2017	W-MM-09_080117_SED_00-01	FS	25.7	J	237		2.9			
1708151	W-MM-09	8/1/2017	W-MM-09_080117_SED_01-03	FS	23.6	J	725		2.2			
1708151	W-MM-09	8/3/2017	W-MM-09_080317_SED_03-05	FS	24.7	J	594					
1708151	W-MM-09	8/3/2017	W-MM-09_080317_SED_05-10	FS	28.1	J	33.4					
1708151	W-MM-10	8/1/2017	W-MM-10_080117_SED_00-01	FS	14.2	J	183		1.4	J		
1708151	W-MM-10	8/1/2017	W-MM-10_080117_SED_01-03	FS	15.5	J	357		2.7			
1708151	W-MM-10	8/3/2017	W-MM-10_080317_SED_03-05	FS	18.9	J	116					
1708151	W-MM-10	8/3/2017	W-MM-10_080317_SED_05-10	FS	23.7	J	16.5					
1708151	W-MM-15	8/1/2017	W-MM-15_080117_SED_00-01	FS	25	J	282		6			
1708151	W-MM-15	8/1/2017	W-MM-15_080117_SED_01-03	FS	26.1	J	266		2.1			
1708151	W-MM-15	8/3/2017	W-MM-15_080317_SED_03-05	FS	28.7	J	237					
1708151	W-MM-15	8/3/2017	W-MM-15_080317_SED_05-10	FS	29	J	47.7					

**TABLE 3**  
**DATA VALIDATION SUMMARY**  
**2017 MARSH PLATFORM SEDIMENT**  
**PENOBSCOT RIVER ESTUARY PHASE III - ENGINEERING EVAL**

**SDGs L1725276, 1707620, 1707704, L1725963, L1726234, L1726792, 1707771, 1708151, 1708524, L1727213, L1727676, L1729216, L1729601**

SDG	Location ID	Sample Date	Sample ID	Analysis Method Parameter Unit Fraction QC Code	% Solids PERCENT Total		EPA 1631 Mercury NG/G Total		EPA 1630 Methyl Mercury NG/G Total		LLOYD KAHN TOC PERCENT Total	
					Final	Final	Final	Final	Final	Final	Final	Final
					Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier
1708151	W-MM-16	8/1/2017	W-MM-16_080117_SED_00-01	FS	20	J	144		1.8			
1708151	W-MM-16	8/1/2017	W-MM-16_080117_SED_01-03	FS	26	J	734		0.4	J		
1708151	W-MM-16	8/3/2017	W-MM-16_080317_SED_03-05	FS	31.4	J	86.6					
1708151	W-MM-16	8/3/2017	W-MM-16_080317_SED_05-10	FS	36.4	J	23.4					
1708151	W-MM-20	8/1/2017	W-MM-20_080117_SED_00-01	FS	35.7	J	348		2.9			
1708151	W-MM-20	8/1/2017	W-MM-20_080117_SED_01-03	FS	36.2	J	532		2.5			
1708151	W-MM-20	8/3/2017	W-MM-20_080317_SED_03-05	FS	37.1	J	1130					
1708151	W-MM-20	8/3/2017	W-MM-20_080317_SED_05-10	FS	43.7	J	299					
1708151	W-MM-21	8/1/2017	W-MM-21_080117_SED_00-01	FS	30	J	435		2.2			
1708151	W-MM-21	8/1/2017	W-MM-21_080117_SED_01-03	FS	30.8	J	634		1.9			
1708151	W-MM-21	8/3/2017	W-MM-21_080317_SED_03-05	FS	26.2	J	949					
1708151	W-MM-21	8/3/2017	W-MM-21_080317_SED_05-10	FS	26.7	J	141					
1708524	W-101-A	8/15/2017	W-101-A_081517_SED_00-01	FS	36.3	J	854		5.7			
1708524	W-101-A	8/15/2017	W-101-A_081517_SED_01-03	FS	36.8	J	900		4.9			
1708524	W-101-A	8/17/2017	W-101-A_081717_SED_03-05	FS	36.4	J	2380					
1708524	W-101-A	8/17/2017	W-101-A_081717_SED_05-10	FS	32.4	J	1330					
1708524	W-101-B	8/15/2017	W-101-B_081517_SED_00-01	FS	28.1	J	878		1.4	J		
1708524	W-101-B	8/15/2017	W-101-B_081517_SED_01-03_R1	FS	32.6	J	2240		3.7			
1708524	W-101-B	8/15/2017	W-101-B_081517_SED_01-03_R2	FS	32.7	J	1980		3.5			
1708524	W-101-B	8/15/2017	W-101-B_081517_SED_01-03_R3	FS	33.1	J	1460		2.8			
1708524	W-101-B	8/17/2017	W-101-B_081717_SED_03-05	FS	31.3	J	2270					
1708524	W-101-B	8/17/2017	W-101-B_081717_SED_05-10_R1	FS	30.5	J	608					
1708524	W-101-B	8/17/2017	W-101-B_081717_SED_05-10_R2	FS	30.7	J	711					
1708524	W-101-B	8/17/2017	W-101-B_081717_SED_05-10_R3	FS	31.5	J	575					

**TABLE 3  
DATA VALIDATION SUMMARY  
2017 MARSH PLATFORM SEDIMENT  
PENOBSCOT RIVER ESTUARY PHASE III - ENGINEERING EVAL**

**SDGs L1725276, 1707620, 1707704, L1725963, L1726234, L1726792, 1707771, 1708151, 1708524, L1727213, L1727676, L1729216, L1729601**

SDG	Location ID	Sample Date	Sample ID	Analysis Method Parameter Unit Fraction QC Code	% Solids PERCENT Total		EPA 1631 Mercury NG/G Total		EPA 1630 Methyl Mercury NG/G Total		LLOYD KAHN TOC PERCENT Total	
					Final	Final	Final	Final	Final	Final	Final	Final
					Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier
1708524	W-102-A	8/15/2017	W-102-A_081517_SED_00-01	FS	24.3	J	731		22.4			
1708524	W-102-A	8/15/2017	W-102-A_081517_SED_01-03	FS	28.7	J	1750		15.15			
1708524	W-102-A	8/17/2017	W-102-A_081717_SED_03-05	FS	24.3	J	3480					
1708524	W-102-A	8/17/2017	W-102-A_081717_SED_05-10	FS	18.9	J	1540					
1708524	W-102-B	8/15/2017	W-102-B_081517_SED_00-01	FS	19.2	J	250		7.6			
1708524	W-102-B	8/15/2017	W-102-B_081517_SED_01-03	FS	20.1	J	748		4.5			
1708524	W-102-B	8/17/2017	W-102-B_081717_SED_03-05	FS	19.7	J	599					
1708524	W-102-B	8/17/2017	W-102-B_081717_SED_05-10	FS	20.3	J	445					
1708524	W-102-C	8/15/2017	W-102-C_081517_SED_00-01	FS	28.5	J	987		21.7			
1708524	W-102-C	8/15/2017	W-102-C_081517_SED_01-03	FS	31.7	J	946		6.2			
1708524	W-102-C	8/17/2017	W-102-C_081717_SED_03-05	FS	27.6	J	1530					
1708524	W-102-C	8/17/2017	W-102-C_081717_SED_05-10	FS	20.2	J	3200					
1708524	W-108-A	8/15/2017	W-108-A_081517_SED_00-01	FS	45.5	J	465		5.4			
1708524	W-108-A	8/15/2017	W-108-A_081517_SED_01-03	FS	48	J	512		1.9			
1708524	W-108-A	8/17/2017	W-108-A_081717_SED_03-05	FS	52.2	J	162					
1708524	W-108-A	8/17/2017	W-108-A_081717_SED_05-10	FS	54.8	J	29.3					

**Notes:**  
 NG/G = Nanogram per gram                      J = Value is estimated  
 NG/L = Nanogram per liter                      U = The target compound was not detected above the method detection limit  
 FS = Field Sample                                      SDG = Sample Delivery Group  
 EB = Equipment Blank