

SDG COVER PAGE

Lab Name: Alliance Technical Group, LLC Contract: 68HERH20D0011
 Lab Code: ACE Case No.: 318680 MA No.: 3105.0 SDG No.: MH2GQ3
 SOW No. : SFAM01.1

EPA Sample No.	Lab Sample Id	ICP-AES	Analysis Method		
			ICP-MS	Mercury	Cyanide
<u>MH2GQ3</u>	<u>P4957-01</u>	<u></u>	<u>X</u>	<u></u>	<u></u>
<u>MH2GQ3D</u>	<u>P4957-02</u>	<u></u>	<u>X</u>	<u></u>	<u></u>
<u>MH2GQ3S</u>	<u>P4957-03</u>	<u></u>	<u>X</u>	<u></u>	<u></u>
<u>MH2GS3</u>	<u>P4957-04</u>	<u></u>	<u>X</u>	<u></u>	<u></u>
<u>MH2GS4</u>	<u>P4957-05</u>	<u></u>	<u>X</u>	<u></u>	<u></u>
<u>MH2GS5</u>	<u>P4957-06</u>	<u></u>	<u>X</u>	<u></u>	<u></u>
<u>MH2GS6</u>	<u>P4957-07</u>	<u></u>	<u>X</u>	<u></u>	<u></u>
<u>MH2GS7</u>	<u>P4957-08</u>	<u></u>	<u>X</u>	<u></u>	<u></u>
<u>MH2GS8</u>	<u>P4957-09</u>	<u></u>	<u>X</u>	<u></u>	<u></u>
<u>MH2GS9</u>	<u>P4957-10</u>	<u></u>	<u>X</u>	<u></u>	<u></u>
<u>MH2GT0</u>	<u>P4957-11</u>	<u></u>	<u>X</u>	<u></u>	<u></u>
<u>MH2GT1</u>	<u>P4957-12</u>	<u></u>	<u>X</u>	<u></u>	<u></u>
<u>MH2GT2</u>	<u>P4957-13</u>	<u></u>	<u>X</u>	<u></u>	<u></u>
<u>MH2GT3</u>	<u>P4957-14</u>	<u></u>	<u>X</u>	<u></u>	<u></u>
<u>MH2GT4</u>	<u>P4957-15</u>	<u></u>	<u>X</u>	<u></u>	<u></u>
<u>MH2GT5</u>	<u>P4957-16</u>	<u></u>	<u>X</u>	<u></u>	<u></u>

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed in the SDG Narrative. All edits and manual integrations have been peer-reviewed. Release of the data contained in this hardcopy Complete SDG File and in the electronic data submitted has been authorized by the Laboratory Manager or the Manager's designee, as verified by the following signature.

Signature: _____ Name: _____
 Date: _____ Title: _____

USEPA CLP Inorganics COC (LAB COPY)

Date Shipped: 11/21/2024

Carrier Name: FedEx

Airbill No: 7707 3347 7550

68HERH20D0011

SDG # MH2GQ3
No: 8-112124-133954-0600Case #: 51822
Cooler #: 2Lab: Alliance Technical Group LLC
Lab Contact: Sohli Jodhani
Lab Phone: 908-789-8900

Sample Identifier	CLP Sample No.	Matrix/Sampler	Coll. Method	Analysis/Turnaround (Days)	Tag/Preservative/Bottles	Location	Collection Date/Time	For Lab Use Only
S-LABQC-2024-703	MH2GQ2	Soil/ SH, LP	Subsample	ICP/MS(14)	24429 (None) (3)	XX	11/15/2024 10:48	✓
S-LABQC-2024-704	MH2GQ3	Soil/ SH, LP	Subsample	ICP/MS(14)	24430 (None) (3)	XX	11/15/2024 10:32	①
S2556-APS-0001-01	MH2GQ4	Soil/ SH, LP	Composite	ICP/MS(14)	24431 (None) (1)	APS-2556	11/15/2024 11:18	✓
S2556-APS-0106-01	MH2GQ5	Soil/ SH, LP	Composite	ICP/MS(14)	24432 (None) (1)	APS-2556	11/15/2024 11:20	✓
S2556-APS-0612-01	MH2GQ6	Soil/ SH, LP	Composite	ICP/MS(14)	24433 (None) (1)	APS-2556	11/15/2024 11:22	✓
S2556-APS-1218-01	MH2GQ7	Soil/ SH, LP	Composite	ICP/MS(14)	24434 (None) (1)	APS-2556	11/15/2024 11:24	✓
S2556-APW-0001-01	MH2GQ8	Soil/ SH, LP	Composite	ICP/MS(14)	24435 (None) (1)	APW-2556	11/15/2024 10:46	✓
S2556-APW-0106-01	MH2GQ9	Soil/ SH, LP	Composite	ICP/MS(14)	24436 (None) (1)	APW-2556	11/15/2024 10:48	✓
S2556-APW-0612-01	MH2GR0	Soil/ SH, LP	Composite	ICP/MS(14)	24437 (None) (1)	APW-2556	11/15/2024 10:50	✓
S2556-APW-1218-01	MH2GR1	Soil/ SH, LP	Composite	ICP/MS(14)	24438 (None) (1)	APW-2556	11/15/2024 10:52	✓

Sample(s) to be used for Lab QC: S-LABQC-2024-703 Tag 24429, S-LABQC-2024-704 Tag 24430 - Special Instructions:
Analyze per MA 3105

Shipment for Case Complete? N

Samples Transferred From Chain of Custody #

Analysis Key: ICP/MS=CLP TAL Total Metals ICP/MS

Items/Reason	Relinquished by (Signature and Organization)	Date/Time	Received by (Signature and Organization)	Date/Time	Sample Condition Upon Receipt
Samples	Joe Felt FWI	11/21/24 1429	ASV	11-22-24 0745	IL QW #1
					custody seals intact
					Temp. Bkt. preserved

USEPA CLP Inorganics COC (LAB COPY)

Date Shipped: 11/21/2024

Carrier Name: FedEx

Airbill No: 7707 3347 7550

CHAIN OF CUSTODY RECORD

Case #: 51822

Cooler #: 2

68HERH20D0011

SDG # MH2GQ3

No: 8-112124-133954-0600

Lab: Alliance Technical Group LLC

Lab Contact: Sofi Jodhani

Lab Phone: 908-789-8900

Sample Identifier	CLP Sample No.	Matrix/Sampler	Coll. Method	Analysis/Turnaround (Days)	Tag/Preservative/Bottles	Location	Collection Date/Time	For Lab Use Only
S2556-FY-0612-01	MH2GS2	Soil/ SH, LP	Composite	ICP/MS(14)	24449 (None) (1)	FY-2556	11/15/2024 11:14	
S2556-FY-1218-01	MH2GS3	Soil/ SH, LP	Composite	ICP/MS(14)	24450 (None) (1)	FY-2556	11/15/2024 11:16	2
S2556-LRS-0001-01	MH2GS4	Soil/ SH, LP	Composite	ICP/MS(14)	24451 (None) (1)	LRS-2556	11/15/2024 11:26	3
S2556-LRS-0106-01	MH2GS5	Soil/ SH, LP	Composite	ICP/MS(14)	24452 (None) (1)	LRS-2556	11/15/2024 11:28	4
S2556-LRS-0612-01	MH2GS6	Soil/ SH, LP	Composite	ICP/MS(14)	24453 (None) (1)	LRS-2556	11/15/2024 11:30	5
S2556-LRS-1218-01	MH2GS7	Soil/ SH, LP	Composite	ICP/MS(14)	24454 (None) (1)	LRS-2556	11/15/2024 11:32	6
S2556-SYE-0001-01	MH2GS8	Soil/ SH, LP	Composite	ICP/MS(14)	24455 (None) (1)	SYE-2556	11/15/2024 11:02	7
S2556-SYE-0106-01	MH2GS9	Soil/ SH, LP	Composite	ICP/MS(14)	24456 (None) (1)	SYE-2556	11/15/2024 11:04	8
S2556-SYE-0612-01	MH2GT0	Soil/ SH, LP	Composite	ICP/MS(14)	24457 (None) (1)	SYE-2556	11/15/2024 11:06	9
S2556-SYE-1218-01	MH2GT1	Soil/ SH, LP	Composite	ICP/MS(14)	24458 (None) (1)	SYE-2556	11/15/2024 11:08	10

Special Instructions: Analyze per MA 3105

Analysis Key: ICP/MS=CLP TAL Total Metals ICP/MS

Shipment for Case Complete? N

Samples Transferred From Chain of Custody #

Items/Reason	Relinquished by (Signature and Organization)	Date/Time	Received by (Signature and Organization)	Date/Time	Sample Condition Upon Receipt
Samples	John Petru PWT	11/21/24 1430	SA	11-22-24 0745	2-2°C ZL Green #1
					custody seals intact
					Temp Btl: present

SDG # MH2GQ3
No: 8-112124-133954-0600



CHAIN OF CUSTODY RECORD

Lab: Alliance Technical Group LLC

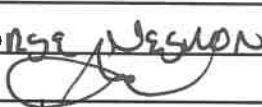
Case #: 51822

Cooler #: 2

[illegible]Shipment for Case Complete? N
Samples Transferred From Chain of Custody #Shipment for Case Complete? N
Samples Transferred From Chain of Custody #

Items/Reason	Relinquished by (Signature and Organization)	Date/Time	Received by (Signature and Organization)	Date/Time	Sample Condition Upon Receipt
Samples	 PWT	11/21/24 1430		11-22-24 0345	2.2°C IR 600 #1
					custody seals intact
					Temp 21K - MISSET


FORM DC-1
SAMPLE LOG-IN SHEET

Lab Name : Alliance Technical Group, LLC		Page <u>1</u> of <u>1</u>
Received By (Print Name) <u>Gorge Nelson</u>		Log-in Date 11/22/2024
Received By (Signature) 		
Case Number 51822	SDG No. MH2GQ3	MA No. 3105.0

Remarks:	
1. Custody Seal (s)	Present, Intact
2. Custody Seal Nos.	<u>n/a</u>
3. Traffic Reports/Chain Of Custody Records	Present
4. Airbill	Present
5. Airbill No. and Shipping Container ID No.	<u>770133477550</u> <u>1</u>
6. Shipping Container Temperature Indicator Bottle	Present
7. Shipping Container Temperature	<u>2.2</u> Degree C
8. Sample Condition	Intact
9. Sample Tags Sample Tag Numbers	Absent Listed on Traffic Report
10. Does information on Traffic Reports/Chain of Custody Records and Sample Tags agree ?	Yes
11. Date Received at Lab	<u>11/22/2024</u>
12. Time Received	<u>07:45</u>

	EPA Sample #	Aqueous/ Water Sample pH	Corresponding		Remarks: Condition of Sample Shipment, etc.
			Sample Tag #	Assigned Lab #	
1	MH2GQ3	N/A	24430	P4957-01	Intact
2	MH2GQ3D	N/A	24430	P4957-02	Intact
3	MH2GQ3S	N/A	24430	P4957-03	Intact
4	MH2GS3	N/A	24450	P4957-04	Intact
5	MH2GS4	N/A	24451	P4957-05	Intact
6	MH2GS5	N/A	24452	P4957-06	Intact
7	MH2GS6	N/A	24453	P4957-07	Intact
8	MH2GS7	N/A	24454	P4957-08	Intact
9	MH2GS8	N/A	24455	P4957-09	Intact
10	MH2GS9	N/A	24456	P4957-10	Intact
11	MH2GT0	N/A	24457	P4957-11	Intact
12	MH2GT1	N/A	24458	P4957-12	Intact
13	MH2GT2	N/A	24459	P4957-13	Intact
14	MH2GT3	N/A	24460	P4957-14	Intact
15	MH2GT4	N/A	24461	P4957-15	Intact
16	MH2GT5	N/A	24462	P4957-16	Intact
17	N/A	N/A	N/A	N/A	N/A
18	N/A	N/A	N/A	N/A	N/A
19	N/A	N/A	N/A	N/A	N/A
20	N/A	N/A	N/A	N/A	N/A
21	N/A	N/A	N/A	N/A	N/A
22	N/A	N/A	N/A	N/A	N/A
23	N/A	N/A	N/A	N/A	N/A

* Contact SMO and attach record of resolution

Reviewed By 	Logbook No. N/A
Date <u>11/22/24</u>	Logbook Page No. N/A

FORM DC-2
COMPLETE SDG FILE (CSF) INVENTORY SHEET

LAB NAME	Alliance Technical Group, LLC		
LAB CODE	ACE		
CONTRACT NO.	68HERH20D0011		
CASE NO.	51822	SDG NO.	MH2GQ3
MA NO.	3105.0	SOW NO.	SFAM01.1

All documents delivered in the Complete SDG File must be original documents where possible.
(Reference - Exhibit B Section 2.4)

	PAGE NOS:		CHECK	
	FROM	TO	LAB	REGION
1. SDG Cover Page	1	1	✓	
2. Traffic Report/Chain of Custody Record(s)	2	4	✓	
3. Sample Log-In Sheet (DC-1)	5	5	✓	
4. CSF Inventory Sheet (DC-2)	6	8	✓	
5. SDG Narrative	9	12	✓	
6. Communication Logs	NA	NA	✓	
7. Percent Solids Log	NA	NA	✓	
Analysis Forms and Data (ICP-AES)				
8. Sample Analysis Data Forms (1A-OR, 1B-OR, and 1-IN) for each sample or sample analysis, laboratory QC as applicable	NA	NA	✓	
9. Instrument raw data by instrument in analysis order	NA	NA	✓	
Other Data				
10. Standard and Reagent Preparation Logs	NA	NA	✓	
11. Original Preparation and Cleanup forms or copies of Preparation and Cleanup Logbooks	NA	NA	✓	
12. Original Analysis or Instrument Run forms or copies of Analysis or Instrument Logbooks	NA	NA	✓	
13. Performance Evaluation (PE)/Proficiency Testing (PT) Sample Instructions	NA	NA	✓	
14. Extraction Logs for TCLP and SPLP	NA	NA	✓	
15. Raw GPC Data	NA	NA	✓	
16. Raw Florisil Data	NA	NA	✓	
Analysis Forms and Data (ICP-MS)				
17. Sample Analysis Data Forms (1A-OR, 1B-OR, and 1-IN) for each sample or sample analysis, laboratory QC as applicable	13	26	✓	
18. Instrument raw data by instrument in analysis order	27	491	✓	
Other Data				
19. Standard and Reagent Preparation Logs	492	629	✓	
20. Original Preparation and Cleanup forms or copies of Preparation and Cleanup Logbooks	630	631	✓	
21. Original Analysis or Instrument Run forms or copies of Analysis or Instrument Logbooks	632	636	✓	
22. Performance Evaluation (PE)/Proficiency Testing (PT) Sample Instructions	NA	NA	✓	

	<u>PAGE NOS:</u>		<u>CHECK</u>	
	<u>FROM</u>	<u>TO</u>	<u>LAB</u>	<u>REGION</u>
23 . Extraction Logs for TCLP and SPLP	NA	NA	✓	
24 . Raw GPC Data	NA	NA	✓	
25 . Raw Florisil Data	NA	NA	✓	

Analysis Forms and Data (Mercury)

26 . Sample Analysis Data Forms (1A-OR, 1B-OR, and 1-IN) for each sample or sample analysis, laboratory QC as applicable	NA	NA	✓	
27 . Instrument raw data by instrument in analysis order	NA	NA	✓	

Other Data

28 . Standard and Reagent Preparation Logs	NA	NA	✓	
29 . Original Preparation and Cleanup forms or copies of Preparation and Cleanup Logbooks	NA	NA	✓	
30 . Original Analysis or Instrument Run forms or copies of Analysis or Instrument Logbooks	NA	NA	✓	
31 . Performance Evaluation (PE)/Proficiency Testing (PT) Sample Instructions	NA	NA	✓	
32 . Extraction Logs for TCLP and SPLP	NA	NA	✓	
33 . Raw GPC Data	NA	NA	✓	
34 . Raw Florisil Data	NA	NA	✓	

Analysis Forms and Data (Cyanide)

35 . Sample Analysis Data Forms (1A-OR, 1B-OR, and 1-IN) for each sample or sample analysis, laboratory QC as applicable	NA	NA	✓	
36 . Instrument raw data by instrument in analysis order	NA	NA	✓	

Other Data

37 . Standard and Reagent Preparation Logs	NA	NA	✓	
38 . Original Preparation and Cleanup forms or copies of Preparation and Cleanup Logbooks	NA	NA	✓	
39 . Original Analysis or Instrument Run forms or copies of Analysis or Instrument Logbooks	NA	NA	✓	
40 . Performance Evaluation (PE)/Proficiency Testing (PT) Sample Instructions	NA	NA	✓	
41 . Extraction Logs for TCLP and SPLP	NA	NA	✓	
42 . Raw GPC Data	NA	NA	✓	
43 . Raw Florisil Data	NA	NA	✓	

Additional

44. EPA Shipping/Receiving Documents

Airbill (No. of Shipments 1)

Sample Tags

Sample Log-In Sheet (Lab)

45. Misc. Shipping/Receiving Records (list all individual records)

46. Internal Lab Sample Transfer Records and Tracking Sheets
(describe or list)47. Other Records and related Communication Logs
(describe or list)

48. Comments:

Completed by:
(CLP Lab)Audited by:
(EPA)

Nimisha Pandya, Document Control Officer

PAGE NOs:		CHECK	
FROM	TO	LAB	REGION
637	637	✓	
NA	NA	✓	
638	639	✓	
NA	NA	✓	
640	640	✓	
NA	NA	✓	



**284 Sheffield Street
Mountainside, NJ 07092**

SDG NARRATIVE

USEPA

SDG # MH2GQ3

CASE # 51822

CONTRACT # 68HERH20D0011

SOW# SFAM01.1

LAB NAME: Alliance Technical Group, LLC

LAB CODE: ACE

LAB ORDER ID # P4957

MODIFIED ANALYSIS #3105.0

A. Number of Samples and Date of Receipt

14 Soil samples were delivered to the laboratory intact on 11/22/2024

B. Parameters

Test requested for Metals CLP MS FULL = Antimony, Arsenic, Barium, Beryllium, Cadmium, Chromium, Cobalt, Copper, Lead, Manganese, Nickel, Selenium, Silver, Thallium, Vanadium, Zinc.

C. Cooler Temp

Indicator Bottle: Presence/Absence

Cooler: 2.2°C

D. Detail Documentation (related to Sample Handling Shipping, Analytical Problem, Temp of Cooler etc):

Issue 1 : A "P" or "M" prefix was listed at the beginning of a CLP sample ID.

E. Corrective Action taken for above:

Resolution 1 : To maintain COC integrity, ASB requests no changes to the Sample IDs. The laboratory will note the issue in the SDG Narrative and proceed with the analysis of the samples.

F. Analytical Techniques:

All analyses were based on CLP Methodology by method SFAM01.1.

G. Calculation:

Calculation for ICP-MS Soil Sample:



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Mountainside, NJ 07092**

Conversion of Results from $\mu\text{g/L}$ or ppb to mg/kg :

$$\text{Concentration (mg/kg)} = C \times \frac{V_f}{W \times S} \times \text{DF} / 1000$$

Where,

C = Instrument value in ppb (The average of all replicate integrations)

Vf = Final digestion volume (mL)

W = Initial aliquot amount (g) (Fraction of Sample amount taken in prep)

S = % Solids / 100 (Fraction of Percent Solids)

DF = Dilution Factor

Example Calculation For Sample MH2GQ3 For Antimony:

If C = 1.54 ppb

Vf = 500 ml

W = 2.25 g

S = 1.0(100/100)

DF = 1

$$\text{Concentration (mg/kg)} = 1.54 \times \frac{500}{2.25 \times 1.0} \times 1 / 1000$$

$$= 0.34222 \text{ mg/kg}$$

$$= 0.34 \text{ mg/kg (Reported Result with Signification)}$$

H. QA/ QC

Calibrations met requirements. Interference check met requirements. Blank analyses did not indicate any presence of contamination. Laboratory Control sample was within control limits. Spike sample did meet requirements. Duplicate sample did meet. Serial Dilution did meet requirements.

Collision cell is being used to remove potential interferences. The analytes Na, Mg, Al, K, V, Cr, Mn, Fe, Co, Ni, Cu, Zn, As are being analyzed with collision cell and analytes Be, B, Ca, Ti, Se, Sr, Zr, Mo, Ag, Cd, Sn, Sb, Ba, Tl, Pb, U are being analyzed with Non-Collision Cell. Helium gas is used for the Collision Cell analysis.

Internal Standard Association for ICP-MS analysis.

Target Analyte	Associated Internal Standard
Antimony	159Tb
Arsenic	89Y
Barium	159Tb



**284 Sheffield Street
Mountainside, NJ 07092**

Beryllium	6Li
Cadmium	159Tb
Chromium	45Sc
Cobalt	45Sc
Copper	45Sc
Lead	209Bi
Manganese	45Sc
Nickel	45Sc
Selenium	89Y
Silver	159Tb
Thallium	209Bi
Vanadium	45Sc
Zinc	45Sc

I certify that the data package is in compliance with the terms and conditions of the contract both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hard copy data package has been authorized by the Laboratory Director or his designee, as verified by the following signature.

Signature_____

Name: Nimisha Pandya

Date _____

Title: Document Control Officer

Date: 06/25/2021	MA: 3105.0	Title: ICP-MS Analysis with Increased Sample Mass
Method Source: SFAM01.1	Method: ICP-MS	
Matrix: Soil/Sediment		
Summary of Modification		
<p>The purpose of this modified analysis is to analyze dried, composited, and sieved soil/sediment samples by ICP-MS (processed by Incremental Sampling Methodology). Unless specifically modified by this modification, all analyses, Quality Control (QC), and reporting requirements specified in the SOW listed in your current EPA agreement remain unchanged and in full force and effect.</p>		
I. Analyte Modifications		Not applicable <input checked="" type="checkbox"/>
II. Calibration and QC Requirements		Not applicable <input checked="" type="checkbox"/>
III. Preparation and Method Modifications		Not applicable <input type="checkbox"/>
<p>The Laboratory shall:</p> <ul style="list-style-type: none"> • Calculate and report results for the samples on the basis of 100% solids. The Laboratory is not required to determine the Percent (%) Solids for the samples. • Receive the composited samples dried and sieved prior to shipment to the Laboratory. The samples will be received in plastic baggies as individual aliquots with approximately 2 grams each. The aliquots shall not be re-combined and/or subsampled at the Laboratory. • Not increase the amount of acid reagents added to the sample to account for the increase in mass. • Store the samples at ambient temperature from the time of receipt until preparation. Do not refrigerate. • Remove and weigh the entire content within each baggie followed by digesting the entire sample per the SOW. • Prepare and analyze Matrix Spikes and Duplicates if additional aliquots were provided for these analyses. 		
IV. Special Reporting Requirements		Not applicable <input type="checkbox"/>
<ul style="list-style-type: none"> • Report 100.0 on Form 1 for % Solids. • Ensure that the SDG Narrative is updated as stated in the SOW, including any technical and administrative problems encountered and the corrective action taken. These problems may include interference problems encountered during analysis, dilutions, re-analyses or re-preparations performed, and problems with the analysis of samples. Also include a discussion of any SOW Modified Analysis including a copy of the approved modification with the SDG Narrative. 		