SDG COVER PAGE

Lab Name: Alliance Technical Group, LLC Contract: 68HERH20D0011

Lab Code: ACE Case No.: 51822 MA No.: 3105.0 SDG No.: MH2GX1

SOW No. : SFAM01.1

EPA Sample No.	Lab Sample Id	Analysis Method ICP-AES	ICP-MS	Mercury	Cyanide
MH2GX1	Q1179-01		X		
MH2GX1D	Q1179-02		X		
MH2GX1S	Q1179-03		X		
MH2H17	Q1179-04		X		
MH2H18	Q1179-05		X		
MH2H19	Q1179-06		X		
MH2H20	Q1179-07		X		
MH2H21	Q1179-08		X		
MH2H22	Q1179-09		X		
MH2H23	Q1179-10		X		
MH2H24	Q1179-11		X		
MH2H25	Q1179-12		X		
MH2H26	Q1179-13		X		

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: _____

68HERH20D0011

SDG # MH2GX1

USEPA CLP Inorganics COC (LAB COPY)

DateShipped: 1/23/2025

CarrierName: FedEx

AirbillNo: 8184 7188 9747

CHAIN OF CUSTODY RECORD

Case #: 51822

Cooler #: 4

No: 8-012325-144017-0603

Lab: Alliance Technical Group LLC

Lab Contact: Sohil 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-2024-705	MH2GW9	Soil/ LP, SH	Subsample	ICP/MS(14)	24476 (None) (3)	XX	12/18/2024 12:12	
S-LABQC-2024-706	MH2GX0	Soil/ LP, SH	Subsample	ICP/MS(14)	24477 (None) (3)	XX	12/18/2024 11:15	
S-LABQC-2024-707	MH2GX1	Soil/ LP, SH	Subsample	ICP/MS(14)	24478 (None) (3)	XX	01/16/2025 11:08	1 QC
S2427-ED-0001-01	MH2GX2	Soil/ LP, SH	Composite	ICP/MS(14)	24479 (None) (1)	ED-2427	12/18/2024 12:30	
S2427-ED-0106-01	MH2GX3	Soil/ LP, SH	Composite	ICP/MS(14)	24480 (None) (1)	ED-2427	12/18/2024 12:32	
S2427-ED-0612-01	MH2GX4	Soil/ LP, SH	Composite	ICP/MS(14)	24481 (None) (1)	ED-2427	12/18/2024 12:34	
S2427-ED-1218-01	MH2GX5	Soil/ LP, SH	Composite	ICP/MS(14)	24482 (None) (1)	ED-2427	12/18/2024 12:36	
S2427-ED-0001-02	MH2GX6	Soil/ LP, SH	Composite	ICP/MS(14)	24483 (None) (1)	ED-2427	12/18/2024 12:38	
S2427-ED-0106-02	MH2GX7	Soil/ LP, SH	Composite	ICP/MS(14)	24484 (None) (1)	ED-2427	12/18/2024 12:40	
S2427-ED-0612-02	MH2GX8	Soil/ LP, SH	Composite	ICP/MS(14)	24485 (None) (1)	ED-2427	12/18/2024 12:42	

Sample(s) to be used for Lab QC: S-LABQC-2024-705 Tag 24476, S-LABQC-2024-706 Tag 24477, S-LABQC-2024-707 Tag 24478 - Special Instructions: Analyze per MA3105

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	[signature] QWT	1/23/25 1500	[signature]	1-24-25 0735	1.2°C IR GUN #1 custody seals intact Temp blk. present

68HERH20D0011

SDG # MH2GX1

USEPA CLP Inorganics COC (LAB COPY)

CHAIN OF CUSTODY RECORD

No: 8-012325-144017-0603

DateShipped: 1/23/2025

CarrierName: FedEx

AirbillNo: 8184 7188 9747

Case #: 51822

Cooler #: 4

Lab: Alliance Technical Group LLC

Lab Contact: Sohil 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
S2431-APS-0106-01	MH2H17	Soil/ LP, SH	Composite	ICP/MS(14)	24524 (None) (1)	APS-2431	12/14/2024 14:54	2
S2431-APS-0612-01	MH2H18	Soil/ LP, SH	Composite	ICP/MS(14)	24525 (None) (1)	APS-2431	12/14/2024 14:56	3
S2431-APS-1218-01	MH2H19	Soil/ LP, SH	Composite	ICP/MS(14)	24526 (None) (1)	APS-2431	12/14/2024 14:58	4
S2431-APE-0001-01	MH2H20	Soil/ LP, SH	Composite	ICP/MS(14)	24527 (None) (1)	APE-2431	12/14/2024 15:00	5
S2431-APE-0106-01	MH2H21	Soil/ LP, SH	Composite	ICP/MS(14)	24528 (None) (1)	APE-2431	12/14/2024 15:02	6
S2431-APE-0612-01	MH2H22	Soil/ LP, SH	Composite	ICP/MS(14)	24529 (None) (1)	APE-2431	12/14/2024 15:04	7
S2431-APE-1218-01	MH2H23	Soil/ LP, SH	Composite	ICP/MS(14)	24530 (None) (1)	APE-2431	12/14/2024 15:06	8
S2430-VL-0001-31	MH2H24	Soil/ LP, SH	Composite	ICP/MS(14)	24531 (None) (1)	VL-2430	12/18/2024 10:25	9
S2430-VL-0106-31	MH2H25	Soil/ LP, SH	Composite	ICP/MS(14)	24532 (None) (1)	VL-2430	12/18/2024 10:30	10
S2430-VL-0612-31	MH2H26	Soil/ LP, SH	Composite	ICP/MS(14)	24533 (None) (1)	VL-2430	12/18/2024 10:35	11

Special Instructions: Analyze per MA3105

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	[signature] TWT	1/23/25 1505	[signature]	1-24-25 0735	1.2°C IR GUN #1
					custody seals intact
					Temp Blk. present

FORM DC-1

SAMPLE LOG-IN SHEET

Lab Name : Alliance Technical Group, LLC		Page 1 of 1
Received By (Print Name)		Log-in Date **1/24/2025**
Received By (Signature)		
Case Number 51822	SDG No. MH2GX1	MA No. 3105.0

Remarks:	
1. Custody Seal (s)	Present, Intact
2. Custody Seal Nos.	n/a
3. Traffic Reports/Chain Of Custody Records	Present
4. Airbill	Present
5. Airbill No. and Shipping Container ID No.	814871889747 DA 1
6. Shipping Container Temperature Indicator Bottle	Present
7. Shipping Container Temperature	1.2 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	01/24/2025
12.Time Received	07:35

	EPA Sample #	Aqueous/ Water Sample pH	Corresponding Sample Tag #	Corresponding Assigned Lab #	Remarks: Condition of Sample Shipment, etc.
1	MH2GX1	N/A	24478	Q1179-01	Intact
2	MH2GX1D	N/A	24478	Q1179-02	Intact
3	MH2GX1S	N/A	24478	Q1179-03	Intact
4	MH2H17	N/A	24524	Q1179-04	Intact
5	MH2H18	N/A	24525	Q1179-05	Intact
6	MH2H19	N/A	24526	Q1179-06	Intact
7	MH2H20	N/A	24527	Q1179-07	Intact
8	MH2H21	N/A	24528	Q1179-08	Intact
9	MH2H22	N/A	24529	Q1179-09	Intact
10	MH2H23	N/A	24530	Q1179-10	Intact
11	MH2H24	N/A	24531	Q1179-11	Intact
12	MH2H25	N/A	24532	Q1179-12	Intact
13	MH2H26	N/A	24533	Q1179-13	Intact
14	N/A	N/A	N/A	N/A	N/A
15	N/A	N/A	N/A	N/A	N/A
16	N/A	N/A	N/A	N/A	N/A
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	1/24/25	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.	**MH2GX1**
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: FROM	PAGE NOs: TO	CHECK LAB	CHECK REGION
1 . SDG Cover Page	1	1	✓	
2 . Traffic Report/Chain of Custody Record(s)	2	3	✓	
3 . Sample Log-In Sheet (DC-1)	4	4	✓	
4 . CSF Inventory Sheet (DC-2)	5	7	✓	
5 . SDG Narrative	8	11	✓	
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	12	22	✓	
18 . Instrument raw data by instrument in analysis order	23	566	✓	
Other Data				
19 . Standard and Reagent Preparation Logs	567	699	✓	
20 . Original Preparation and Cleanup forms or copies of Preparation and Cleanup Logbooks	700	701	✓	
21 . Original Analysis or Instrument Run forms or copies of Analysis or Instrument Logbooks	702	706	✓	
22 . Performance Evaluation (PE)/Proficiency Testing (PT) Sample Instructions	NA	NA	✓	

	PAGE NOs: FROM	TO	CHECK LAB	REGION
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	✓	

	PAGE NOs: FROM	TO	CHECK LAB	REGION
Additional				
44. EPA Shipping/Receiving Documents				
Airbill (No. of Shipments 1)	707	707	✓	
Sample Tags	NA	NA	✓	
Sample Log-In Sheet (Lab)	708	709	✓	
45. Misc. Shipping/Receiving Records (list all individual records)				
	NA	NA	✓	
46. Internal Lab Sample Transfer Records and Tracking Sheets (describe or list)				
	710	710	✓	
47. Other Records and related Communication Logs (describe or list)				
	NA	NA	✓	

48. Comments:

Completed by:
(CLP Lab)

(Signature)	Nimisha Pandya, Document Control Officer (Print Name & Title)	(Date)

Audited by:
(EPA)

(Signature)	(Print Name & Title)	(Date)

284 Sheffield Street
Mountainside, NJ 07092

SDG NARRATIVE

USEPA
SDG # MH2GX1
CASE # 51822
CONTRACT # 68HERH20D0011
SOW# SFAM01.1
LAB NAME: Alliance Technical Group, LLC
LAB CODE: ACE
LAB ORDER ID # Q1179
MODIFIED ANALYSIS # 3105.0

A. Number of Samples and Date of Receipt

11 Soil samples were delivered to the laboratory intact on 01/24/2025.

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: 1.2^{o}C

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

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

E. Corrective Action taken for above:

Resolution : 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.

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Mountainside, NJ 07092

G. Calculation:

Calculation for ICP-MS Soil Sample:

Conversion of Results from µg /L or ppb to mg/kg :

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

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 MH2GX1 For Arsenic :

If C = 245.13 ppb
Vf = 500 ml
W = 2.17 g
S = 1.0 (100/100)
DF = 1

$$\text{Concentration (mg/kg)} = 245.13 \times \frac{500}{2.17 \times 1.0} \times 1 / 1000$$

$$= 56.4815 \text{ mg/kg}$$

$$= 57 \text{ mg/kg (Reported Result with Signification)}$$

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 except for Selenium. Duplicate sample did meet requirements. 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.

284 Sheffield Street
Mountainside, NJ 07092

Internal Standard Association for ICP-MS analysis.

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

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.

I. Analyte Modifications **Not applicable** ☒

II. Calibration and QC Requirements **Not applicable** ☒

III. Preparation and Method Modifications **Not applicable** ☐

The Laboratory shall:

- 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** ☐

- 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.