SDG COVER PAGE

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

Lab Code: ACE Case No.: 51879 MA No.: SDG No.: MBHMT4

SOW No. : SFAM01.1

EPA Sample No.	Lab Sample Id	Analysis Method ICP-AES	ICP-MS	Mercury	Cyanide
MBHMT4	P5200-01	X			
MBHMT5	P5200-02	X			
MBHMT6	P5200-03	X			
MBHMT7	P5200-04	X			
MBHMX0	P5200-05	X			
MBHMX1	P5200-06	X			
MBHMX2	P5200-07	X			
MBHMX3	P5200-08	X			
MBHMX3D	P5200-09	X			
MBHMX3S	P5200-10	X			
MBHMX4	P5200-11	X			
MBHMX5	P5200-12	X			
MBHMX6	P5200-13	X			
MBHMX7	P5200-14	X			
MBHNJ3	P5200-15	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 # MBHMT4

USEPA CLP COC (LAB COPY)
DateShipped: 12/5/2024
CarrierName: FedEx
AirbillNo: 7705 5865 8740

CHAIN OF CUSTODY RECORD

Case #: 51879
Cooler #: 2

No: 2-120524-112527-0053
Lab: Alliance Technical Group LLC
Lab Contact: Mohammad Ahmed
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
P179-SB-04-Z12-18	MBHMT4	Soil/		ICP-AES(35)	5107 (Wet ice < 6 C) (1)	P179-SB-04	11/22/2024 09:50	
P179-SB-04-Z18-24	MBHMT5	Soil/		ICP-AES(35)	5108 (Wet ice < 6 C) (1)	P179-SB-04	11/22/2024 09:50	
P179-SB-04-Z24-30	MBHMT6	Soil/		ICP-AES(35)	5109 (Wet ice < 6 C) (1)	P179-SB-04	11/22/2024 09:50	
P179-SB-04-Z30-36	MBHMT7	Soil/		ICP-AES(35)	5170 (Wet ice < 6 C) (1)	P179-SB-04	11/22/2024 09:50	
P179-SB-04-Z12-18-FD	MBHMX0	Soil/		ICP-AES(35)	5568 (Wet ice < 6 C) (1)	P179-SB-04	11/22/2024 09:50	
P169-SB-06-Z00-02	MBHMX1	Soil/		ICP-AES(35)	4072 (Wet ice < 6 C) (1)	P169-SB-06	11/19/2024 14:40	
P169-SB-06-Z02-06	MBHMX2	Soil/		ICP-AES(35)	4073 (Wet ice < 6 C) (1)	P169-SB-06	11/19/2024 14:40	
P169-SB-06-Z06-12	MBHMX3	Soil/		ICP-AES(35)	4074 (Wet ice < 6 C) (1)	P169-SB-06	11/19/2024 14:40	
P169-SB-06-Z12-18	MBHMX4	Soil/		ICP-AES(35)	4075 (Wet ice < 6 C) (1)	P169-SB-06	11/19/2024 14:40	
P169-SB-10-Z00-02	MBHMX5	Soil/		ICP-AES(35)	4030 (Wet ice < 6 C) (1)	P169-SB-10	11/20/2024 14:35	

Sample(s) to be used for Lab QC: P169-SB-06-Z06-12 Tag 4074 - Special Instructions: Samples MBHMQ3 and MBHMX3 are MS/MSDs. Sample MBHMT2 had limited sample mass.

Shipment for Case Complete? N

Samples Transferred From Chain of Custody #

Analysis Key: ICP-AES=CLP Routine - SFAM01.1/LSASD SOP C-109 Metals

Items/Reason	Relinquished by (Signature and Organization)	Date/Time	Received by (Signature and Organization)	Date/Time	Sample Condition Upon Receipt
1 Cooler	[signature] WSP	12/06/24 16:40	[signature]	12/7/24 9:11	2.5°
		N/A	[signature]		
			12/06/24		

68HERH20D0011

SDG # MBHMT4

USEPA CLP COC (LAB COPY)

DateShipped: 12/5/2024

CarrierName: FedEx

AirbillNo: 7705 5865 8740

CHAIN OF CUSTODY RECORD

Case #: 51879

Cooler #: 2

No: 2-120524-112527-0053

Lab: Alliance Technical Group LLC

Lab Contact: Mohammad Ahmed

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
P169-SB-10-Z02-06	MBHMX6	Soil/		ICP-AES(35)	4031 (Wet ice < 6 C) (1)	P169-SB-10	11/20/2024 14:35	
P169-SB-10-Z02-06-FD	MBHMX7	Soil/		ICP-AES(35)	5569 (Wet ice < 6 C) (1)	P169-SB-10	11/20/2024 14:35	
RB15-12062024	MBHNJ3	Water/		ICP-AES(35)	5582 (HNO3 pH < 2) (1)	RB15-12062024	12/06/2024 10:00	pH 1.0

N/A

12/06/24

Special Instructions: Samples MBHMQ3 and MBHMX3 are MS/MSDs. Sample MBHMT2 had limited sample mass.

Shipment for Case Complete? N

Samples Transferred From Chain of Custody #

Analysis Key: ICP-AES=CLP Routine - SFAM01.1/LSASD SOP C-109 Metals

Items/Reason	Relinquished by (Signature and Organization)	Date/Time	Received by (Signature and Organization)	Date/Time	Sample Condition Upon Receipt
1 Cooler	WSP	12/06/24 16:40		12/7/24	2.5° IR Gun #1
				9:15	Temp blank Present
			N/A		Custody Seal Thru
			12/06/24		

FORM DC-1

SAMPLE LOG-IN SHEET

Lab Name : Alliance Technical Group, LLC		Page 1 of 1
Received By (Print Name)		Log-in Date 12/7/2024
Received By (Signature)		
Case Number 51879	SDG No. MBHMT4	MA No. N/A

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.	770558658740 1
6. Shipping Container Temperature Indicator Bottle	Present
7. Shipping Container Temperature	2.5 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	12/07/2024
12.Time Received	09:55

	EPA Sample #	Aqueous/ Water Sample pH	Corresponding Sample Tag #	Corresponding Assigned Lab #	Remarks: Condition of Sample Shipment, etc.
1	MBHMT4	N/A	5107	P5200-01	Intact
2	MBHMT5	N/A	5108	P5200-02	Intact
3	MBHMT6	N/A	5109	P5200-03	Intact
4	MBHMT7	N/A	5170	P5200-04	Intact
5	MBHMX0	N/A	5568	P5200-05	Intact
6	MBHMX1	N/A	4072	P5200-06	Intact
7	MBHMX2	N/A	4073	P5200-07	Intact
8	MBHMX3	N/A	4074	P5200-08	Intact
9	MBHMX3D	N/A	4074	P5200-09	Intact
10	MBHMX3S	N/A	4074	P5200-10	Intact
11	MBHMX4	N/A	4075	P5200-11	Intact
12	MBHMX5	N/A	4030	P5200-12	Intact
13	MBHMX6	N/A	4031	P5200-13	Intact
14	MBHMX7	N/A	5569	P5200-14	Intact
15	MBHNJ3	1.0	5582	P5200-15	Intact
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	12/7/24	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.	**51879**	SDG NO.	**MBHMT4**
MA NO.		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	10	✓	
6. Communication Logs	NA	NA	✓	
7. Percent Solids Log	11	12	✓	
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	13	25	✓	
9. Instrument raw data by instrument in analysis order	26	741	✓	
Other Data				
10. Standard and Reagent Preparation Logs	742	880	✓	
11. Original Preparation and Cleanup forms or copies of Preparation and Cleanup Logbooks	881	884	✓	
12. Original Analysis or Instrument Run forms or copies of Analysis or Instrument Logbooks	885	908	✓	
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	NA	NA	✓	
18. Instrument raw data by instrument in analysis order	NA	NA	✓	
Other Data				
19. Standard and Reagent Preparation Logs	NA	NA	✓	
20. Original Preparation and Cleanup forms or copies of Preparation and Cleanup Logbooks	NA	NA	✓	
21. Original Analysis or Instrument Run forms or copies of Analysis or Instrument Logbooks	NA	NA	✓	
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)	909	909	✓	
Sample Tags	NA	NA	✓	
Sample Log-In Sheet (Lab)	910	911	✓	
45. Misc. Shipping/Receiving Records (list all individual records)				
	NA	NA	✓	
46. Internal Lab Sample Transfer Records and Tracking Sheets (describe or list)				
	912	913	✓	
47. Other Records and related Communication Logs (describe or list)				
	NA	NA	✓	

48. Comments:

Completed by: (CLP Lab)		Nimisha Pandya, Document Control Officer	
	(Signature)	(Print Name & Title)	(Date)
Audited by: (EPA)			
	(Signature)	(Print Name & Title)	(Date)

284 Sheffield Street
Mountainside, NJ 07092

SDG NARRATIVE

USEPA
SDG # MBHMT4
CASE # 51879
CONTRACT # 68HERH20D0011
SOW# SFAM01.1
LAB NAME: Alliance Technical Group, LLC
LAB CODE: ACE
LAB ORDER ID # P5200

A. Number of Samples and Date of Receipt

12 Soil & 01 Water sample were delivered to the laboratory intact on 12/07/2024.

B. Parameters

Test requested for Metals CLP FULL = Aluminum, Antimony, Arsenic, Barium, Beryllium, Cadmium, Calcium, Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Nickel, Potassium, Selenium, Silver, Sodium, Thallium, Vanadium, Zinc.

C. Cooler Temp

Indicator Bottle**: Presence/**Absence

Cooler: 2.5^{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.

Inter Element correction factors (IECs) are determined annually and correction factor are applied during ICP-AES analysis.

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Mountainside, NJ 07092

G. Calculation:

Calculation for ICP-AES Soil Sample:

Conversion of Results from mg/L or ppm to mg/kg (Dry Weight Basis):

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

Where,

C = Instrument value in ppm (The average of all replicate exposures)
Vf = Final digestion volume (mL)
W = Initial aliquot amount (g) (Sample amount taken in prep)
S = % Solids / 100 (Fraction of Percent Solids)
DF = Dilution Factor

Example Calculation For Sample MBHMT4 For Antimony:

If C = 0.0223164 ppm
Vf = 100 ml
W = 1.43 g
S = 0.791(79.1/100)
DF = 1

$$\text{Concentration (mg/kg)} = 0.0223164 \times \frac{100}{1.43 \times 0.791} \times 1$$

$$= 1.972929 \text{ mg/kg}$$

= 2.0 mg/kg (Reported Result with Signification

Calculation for ICP-AES Water Sample:

$$\text{Concentration or Result (µg/L)} = C \times \frac{Vf}{Vi} \times DF \times 1000$$

Where,
C = Instrument value in ppm (The average of all replicate exposures)
Vf = Final digestion volume (mL)
Vi = Initial aliquot amount (mL) (Sample amount taken in prep)
DF = Dilution Factor

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Mountainside, NJ 07092

Example Calculation For Sample MBHNJ3 For Aluminum:

If C = 0.0273913 ppm
Vf = 50 ml
Vi = 50 ml
DF = 1

Concentration or Result (µg/L) = $0.0273913 \times \frac{50}{50} \times 1 \times 1000$

= 27.3913 µg/L

= 27 µg/L (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 Arsenic, Silver, Thallium. Duplicate sample did meet. Serial Dilution did meet requirements.

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

PERCENT SOLID

Supervisor: Iwona
Analyst: jignesh
Date: 12/12/2024

OVENTEMP IN Celsius(°C): 107
Time IN: 17:00
In Date: 12/11/2024
Weight Check 1.0g: 1.00
Weight Check 10g: 10.00
OvenID: M OVEN#1

OVENTEMP OUT Celsius(°C): 103
Time OUT: 08:00
Out Date: 12/12/2024
Weight Check 1.0g: 1.00
Weight Check 10g: 10.00
BalanceID: M SC-4
Thermometer ID: % SOLID- OVEN

QC: LB133889

Lab ID	Client SampleID	Dish #	Dish Wt(g) (A)	Sample Wt(g)	Dish + Sample Wt(g) (B)	Dish+Dry Sample Wt(g) (C)	% Solid	Comments
P5200-01	MBHMT4	1	1.15	8.70	9.85	8.03	79.1	
P5200-02	MBHMT5	2	1.18	8.45	9.63	8.43	85.8	
P5200-03	MBHMT6	3	1.13	8.74	9.87	8.76	87.3	
P5200-04	MBHMT7	4	1.16	8.61	9.77	8.7	87.6	
P5200-05	MBHMX0	5	1.15	8.40	9.55	7.75	78.6	
P5200-06	MBHMX1	6	1.12	8.86	9.98	8.3	81.0	
P5200-07	MBHMX2	7	1.16	8.47	9.63	8.47	86.3	
P5200-08	MBHMX3	8	1.19	8.72	9.91	8.72	86.4	
P5200-09	MBHMX3D	9	1.19	8.72	9.91	8.72	86.4	
P5200-10	MBHMX3S	10	1.19	8.72	9.91	8.72	86.4	
P5200-11	MBHMX4	11	1.13	8.77	9.9	8.93	88.9	
P5200-12	MBHMX5	12	1.17	8.40	9.57	7.91	80.2	
P5200-13	MBHMX6	13	1.17	8.50	9.67	8.4	85.1	
P5200-14	MBHMX7	14	1.12	8.67	9.79	8.47	84.8	

$$\% \text{ Solid} = \frac{(C-A) * 100}{(B-A)}$$

WORKLIST(Hardcopy Internal Chain)

UP 133889

WorkList Name : %1-p5200 **WorkList ID :** 186230 **Department :** Wet-Chemistry **Date :** 12-11-2024 13:15:25

Sample	Customer Sample	Matrix	Test	Preservative	Customer	Raw Sample Storage Location	Collect Date	Method
P5200-01	MBHMT4	Solid	Percent Solids	Cool 4 deg C	USEP01	C13	11/22/2024	Chemtech -SO
P5200-02	MBHMT5	Solid	Percent Solids	Cool 4 deg C	USEP01	C13	11/22/2024	Chemtech -SO
P5200-03	MBHMT6	Solid	Percent Solids	Cool 4 deg C	USEP01	C13	11/22/2024	Chemtech -SO
P5200-04	MBHMT7	Solid	Percent Solids	Cool 4 deg C	USEP01	C13	11/22/2024	Chemtech -SO
P5200-05	MBHMX0	Solid	Percent Solids	Cool 4 deg C	USEP01	C13	11/22/2024	Chemtech -SO
P5200-06	MBHMX1	Solid	Percent Solids	Cool 4 deg C	USEP01	C13	11/22/2024	Chemtech -SO
P5200-07	MBHMX2	Solid	Percent Solids	Cool 4 deg C	USEP01	C13	11/19/2024	Chemtech -SO
P5200-08	MBHMX3	Solid	Percent Solids	Cool 4 deg C	USEP01	C13	11/19/2024	Chemtech -SO
P5200-09	MBHMX3D	Solid	Percent Solids	Cool 4 deg C	USEP01	C13	11/19/2024	Chemtech -SO
P5200-10	MBHMX3S	Solid	Percent Solids	Cool 4 deg C	USEP01	C13	11/19/2024	Chemtech -SO
P5200-11	MBHMX4	Solid	Percent Solids	Cool 4 deg C	USEP01	C13	11/19/2024	Chemtech -SO
P5200-12	MBHMX5	Solid	Percent Solids	Cool 4 deg C	USEP01	C13	11/19/2024	Chemtech -SO
P5200-13	MBHMX6	Solid	Percent Solids	Cool 4 deg C	USEP01	C13	11/20/2024	Chemtech -SO
P5200-14	MBHMX7	Solid	Percent Solids	Cool 4 deg C	USEP01	C13	11/20/2024	Chemtech -SO

Date/Time 12-11-24 14:40

Raw Sample Received by: [signature]

Raw Sample Relinquished by: [signature]

Date/Time 12-11-24 15:10

Raw Sample Received by: [signature]

Raw Sample Relinquished by: [signature]