

SDG COVER PAGE

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

Lab Code: ACE Case No.: 51847 MA No.: _____ SDG No.: ME28R5

SOW No. : SFAM01.1

EPA Sample No.	Lab Sample Id	Analysis Method			
		ICP-AES	ICP-MS	Mercury	Cyanide
ME28R5	P5233-01	X	X	X	X
ME28R6	P5233-02	X	X	X	X
ME28R7	P5233-03	X	X	X	X
ME28R8	P5233-04	X	X	X	X
ME28R9	P5233-05	X	X	X	X
ME28S0	P5233-06	X	X	X	X
ME28S1	P5233-07	X	X	X	X
ME28S2	P5233-08	X	X	X	X
ME28S3	P5233-09	X	X	X	X
ME28S4	P5233-10	X	X	X	X
ME28S5	P5233-11	X	X	X	X
ME28S6	P5233-12	X	X	X	X
ME28S7	P5233-13	X	X	X	X
ME28S8	P5233-14	X	X	X	X
ME28S9	P5233-15	X	X	X	X
ME28T0	P5233-16	X	X	X	X
ME28T1	P5233-17	X	X	X	X
ME28T2	P5233-18	X	X	X	X
ME28T3	P5233-19	X	X	X	X
ME28S7D	P5233-20	X	X	X	X
ME28S7S	P5233-21	X	X	X	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 # ME28R5

USEPA CLP COC (LAB COPY)

Date Shipped: 12/9/2024

Carrier Name: UPS

Airbill No: 1Z93947Y0137511539

CHAIN OF CUSTODY RECORD

Case #: 51847

Cooler #: 6

No: 5-120924-114922-0301

Lab: Alliance Technical Group LLC

Lab Contact: Mohammad Ahmed

Lab Phone: 908-728-3151

Sample Identifier	CLP Sample No.	Matrix/Sampler	Coll. Method	Analysis/Turnaround (Days)	Tag/Preservative/Bottles	Location	Collection Date/Time	For Lab Use Only
IA14DRUM05-0-0.5	E28S2	Soil	Grab	Semivolatiles, PAHs+PCP by SIM (TAT 21 Days)(21), ARO(21), VOA(21)	2931, 4484, 4486 (MeOH), 4487, 4488 (6)	IA-14-DRUM-05	12/06/2024 09:00	
IA15DRUM1621S-0-0.5	E28S3	Soil	Grab	Semivolatiles, PAHs+PCP by SIM (TAT 21 Days)(21), ARO(21), VOA(21)	2931, 4489, 4491 (MeOH), 4492, 4493 (6)	IA-15-DRUM-16-21-S	12/06/2024 10:30	
IA14DRUM03-0-0.5	ME28R5	Soil	Grab	ICP-MS/AES+HG+CN(21)	4445 (1)	IA-14-DRUM-03	12/05/2024 15:15	- 1
DR-24-101	ME28R6	Soil	Grab	ICP-MS/AES+HG+CN(21)	4450 (1)	DR-24-101	12/05/2024 15:15	- 2
IA02MMW03-0-0.5	ME28R7	Soil	Grab	ICP-MS/AES+HG+CN(21)	4455 (1)	IA-02-MMW-03	12/05/2024 14:45	- 3
IA02MMW03-7-8	ME28R8	Soil	Grab	ICP-MS/AES+HG+CN(21)	4460 (1)	IA-02-MMW-03	12/05/2024 15:15	- 4
IA02MMW03-19-20	ME28R9	Soil	Grab	ICP-MS/AES+HG+CN(21)	4465 (1)	IA-02-MMW-03	12/05/2024 15:35	- 5
IA02MMW02S-27-28	ME28S0	Soil	Grab	ICP-MS/AES+HG+CN(21)	4470 (1)	IA-02-MMW-02S	12/06/2024 13:40	- 6
IA14DRUM04-0-0.5	ME28S1	Soil	Grab	ICP-MS/AES+HG+CN(21)	4480 (1)	IA-14-DRUM-04	12/06/2024 08:30	- 7
IA14DRUM05-0-0.5	ME28S2	Soil	Grab	ICP-MS/AES+HG+CN(21)	4485 (1)	IA-14-DRUM-05	12/06/2024 09:00	- 8
IA15DRUM1621S-0-0.5	ME28S3	Soil	Grab	ICP-MS/AES+HG+CN(21)	4490 (1)	IA-15-DRUM-16-21-S	12/06/2024 10:30	- 9

Special Instructions: Please return cooler with enclosed airbill (1Z93947Y0312022646).

Analysis Key: ARO=Aroclors, VOA=Volatiles, ICP-MS/AES+HG+CN=ICP-AES/MS (5-10, 11+)+HG+CN

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
Box 2	Med of Plains	11/09/24 1100	UPS	11/09/24 1100	good aft temp
				12-10-24 1058	203° the box #1
					custody seals broken
					Temp OK - present

68HERH20D0011

SDG # ME28R5

USEPA CLP COC (LAB COPY)**CHAIN OF CUSTODY RECORD****No: 5-120924-115735-0302**

Date Shipped: 12/9/2024

Carrier Name: UPS

Airbill No: 1Z93947Y0137368945

Case #: 51847

Cooler #: 7

Lab: Alliance Technical Group LLC

Lab Contact: Mohammad Ahmed

Lab Phone: 908-728-3151

Sample Identifier	CLP Sample No.	Matrix/Sampler	Coll. Method	Analysis/Turnaround (Days)	Tag/Preservative/Bottles	Location	Collection Date/Time	For Lab Use Only
IA15DRUM13-0-0.5	ME28T1	Soil/	Grab	Semivolatiles, PAHs+PCP by SIM (TAT 21 Days)(21), ARO+PEST(21), VOA(21)	2931, 4530, 4532 (MeOH), 4533, 4534 (6)	IA-15-DRUM-13	12/09/2024 10:30	
IA15DRUM1621E-0-0.5	ME28S4	Soil/	Grab	ICP-MS/AES+HG+CN(21)	4495 (1)	IA-15-DRUM-16-21-E	12/06/2024 11:20	- (0)
IA15DRUM1621N-0-0.5	ME28S5	Soil/	Grab	ICP-MS/AES+HG+CN(21)	4500 (1)	IA-15-DRUM-16-21-N	12/06/2024 11:50	- (1)
IA15DRUM1621W-0-0.5	ME28S6	Soil/	Grab	ICP-MS/AES+HG+CN(21)	4506 (1)	IA-15-DRUM-16-21-W	12/06/2024 13:30	- (2)
IA15DRUM1621W-0-0.5-MS/MSD	ME28S7	Soil/	Grab	ICP-MS/AES+HG+CN(21)	4511 (2)	IA-15-DRUM-16-21-W	12/06/2024 13:30	- (3)
IA15DRUM1621C-0-0.5	ME28S8	Soil/	Grab	ICP-MS/AES+HG+CN(21)	4516 (1)	IA-15-DRUM-16-21-C	12/06/2024 14:20	- (4)
IA15DRUM15-0-0.5	ME28S9	Soil/	Grab	ICP-MS/AES+HG+CN(21)	4521 (1)	IA-15-DRUM-15	12/09/2024 09:15	- (5)
IA15DRUM14-0-0.5	ME28T0	Soil/	Grab	ICP-MS/AES+HG+CN(21)	4526 (1)	IA-15-DRUM-14	12/09/2024 09:50	- (6)
IA15DRUM13-0-0.5	ME28T1	Soil/	Grab	ICP-MS/AES+HG+CN(21)	4531 (1)	IA-15-DRUM-13	12/09/2024 10:30	- (7)

Special Instructions: Please return cooler with enclosed airbill (1Z93947Y0300631653).

Shipment for Case Complete? N

Samples Transferred From Chain of Custody #

Analysis Key: ARO=Aroclors, VOA=Volatiles, ARO+PEST=Aroclors + Pesticides, ICP-MS/AES+HG+CN=ICP-AES/MS (5-10, 11)+HG+CN

Items/Reason	Relinquished by (Signature and Organization)	Date/Time	Received by (Signature and Organization)	Date/Time	Sample Condition Upon Receipt
Lot 2	Michael Plexus	12/9/2024 15:00	UPS	12/09/2024 10:58	Good, @ temp
				12/10/24	2.1.1
					Custody Seal Intact
					Temp Blank present

No: 5-120924-162052-0303

Lab: Alliance Technical Group LLC
Lab Contact: Mohammad Ahmed

Lab Phone: 908-728-3151

[illegible]

Shipment for Case Complete? N

Analysis Key: ARO=Aroclors, VOA=Volatiles, ARO+PEST=Aroclors + Pesticides, ICP-MS/AES+HG+CN=ICP-AES/MS (5-10, 11+)+HG+CN

Items/Reason	Relinquished by (Signature and Organization)	Date/Time	Received by (Signature and Organization)	Date/Time	Sample Condition Upon Receipt
2 of 2	Wail Leaf Plexus	12/09/2024 18:00	UBS [Signature]	12/09/2024 18:00	Good @ temp
				12/09/2024 18:58	IRBout 1 20° -
				12/09/2024	Curly Soft IRBout
					Temp Butk Reent

FORM DC-1
SAMPLE LOG-IN SHEET

Lab Name : Alliance Technical Group, LLC		Page <u>1</u> of <u>2</u>
Received By (Print Name) <u>Agarwal Rina</u>		Log-in Date 12/10/2024
Received By (Signature) <u>[Signature]</u>		
Case Number 51847	SDG No. ME28R5	MA No. N/A

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>1Z93947Y0137511539</u> <u>1</u>
6. Shipping Container Temperature Indicator Bottle	Present
7. Shipping Container Temperature	<u>2.3</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>12/10/2024</u>
12. Time Received	<u>10:58</u>

	EPA Sample #	Aqueous/ Water Sample pH	Corresponding		Remarks: Condition of Sample Shipment, etc.
			Sample Tag #	Assigned Lab #	
1	ME28R5	N/A	4445	P5233-01	Intact
2	ME28R6	N/A	4450	P5233-02	Intact
3	ME28R7	N/A	4455	P5233-03	Intact
4	ME28R8	N/A	4460	P5233-04	Intact
5	ME28R9	N/A	4465	P5233-05	Intact
6	ME28S0	N/A	4470	P5233-06	Intact
7	ME28S1	N/A	4480	P5233-07	Intact
8	ME28S2	N/A	4485	P5233-08	Intact
9	ME28S3	N/A	4490	P5233-09	Intact
10	N/A	N/A	N/A	N/A	N/A
11	N/A	N/A	N/A	N/A	N/A
12	N/A	N/A	N/A	N/A	N/A
13	N/A	N/A	N/A	N/A	N/A
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 <u>[Signature]</u>	Logbook No. N/A
Date <u>12/10/24</u>	Logbook Page No. N/A

FORM DC-1
SAMPLE LOG-IN SHEET

Lab Name : Alliance Technical Group, LLC		Page <u>2</u> of <u>3</u>
Received By (Print Name) <u>Cassanova Reia</u>		Log-in Date 12/10/2024
Received By (Signature) <u>[Signature]</u>		
Case Number 51847	SDG No. ME28R5	MA No. N/A

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>1Z93947Y0137368945</u> <u>2</u>
6. Shipping Container Temperature Indicator Bottle	Present
7. Shipping Container Temperature	<u>2.1</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>12/10/2024</u>
12. Time Received	<u>10:58</u>

	EPA Sample #	Aqueous/ Water Sample pH	Corresponding		Remarks: Condition of Sample Shipment, etc.
			Sample Tag #	Assigned Lab #	
1	ME28S4	N/A	4495	P5233-10	Intact
2	ME28S5	N/A	4500	P5233-11	Intact
3	ME28S6	N/A	4506	P5233-12	Intact
4	ME28S7	N/A	4511	P5233-13	Intact
5	ME28S8	N/A	4516	P5233-14	Intact
6	ME28S9	N/A	4521	P5233-15	Intact
7	ME28T0	N/A	4526	P5233-16	Intact
8	ME28T1	N/A	4531	P5233-17	Intact
9	N/A	N/A	N/A	N/A	N/A
10	N/A	N/A	N/A	N/A	N/A
11	N/A	N/A	N/A	N/A	N/A
12	N/A	N/A	N/A	N/A	N/A
13	N/A	N/A	N/A	N/A	N/A
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 <u>[Signature]</u>	Logbook No. N/A
Date <u>12/10/24</u>	Logbook Page No. N/A

FORM DC-1
SAMPLE LOG-IN SHEET

Lab Name : Alliance Technical Group, LLC		Page <u>3</u> of <u>3</u>
Received By (Print Name) <u>Christopher Peric</u>		Log-in Date 12/10/2024
Received By (Signature) <u>[Signature]</u>		
Case Number 51847	SDG No. ME28R5	MA No. N/A

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>1Z93947Y0131971553</u> <u>3</u>
6. Shipping Container Temperature Indicator Bottle	Present
7. Shipping Container Temperature	<u>2.0</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>12/10/2024</u>
12. Time Received	<u>10:58</u>

	EPA Sample #	Aqueous/ Water Sample pH	Corresponding		Remarks: Condition of Sample Shipment, etc.
			Sample Tag #	Assigned Lab #	
1	ME28T2	N/A	4536	P5233-18	Intact
2	ME28T3	N/A	4541	P5233-19	Intact
3	ME28S7D	N/A	4511	P5233-20	Intact
4	ME28S7S	N/A	4511	P5233-21	Intact
5	N/A	N/A	N/A	N/A	N/A
6	N/A	N/A	N/A	N/A	N/A
7	N/A	N/A	N/A	N/A	N/A
8	N/A	N/A	N/A	N/A	N/A
9	N/A	N/A	N/A	N/A	N/A
10	N/A	N/A	N/A	N/A	N/A
11	N/A	N/A	N/A	N/A	N/A
12	N/A	N/A	N/A	N/A	N/A
13	N/A	N/A	N/A	N/A	N/A
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 <u>[Signature]</u>	Logbook No. N/A
Date <u>12/10/24</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.	51847	SDG NO.	ME28R5
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:		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	7	✓	
4. CSF Inventory Sheet (DC-2)	8	10	✓	
5. SDG Narrative	11	15	✓	
6. Communication Logs	NA	NA	✓	
7. Percent Solids Log	16	17	✓	
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	18	36	✓	
9. Instrument raw data by instrument in analysis order	37	286	✓	
Other Data				
10. Standard and Reagent Preparation Logs	287	423	✓	
11. Original Preparation and Cleanup forms or copies of Preparation and Cleanup Logbooks	424	425	✓	
12. Original Analysis or Instrument Run forms or copies of Analysis or Instrument Logbooks	426	460	✓	
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	461	479	✓	
18. Instrument raw data by instrument in analysis order	480	1323	✓	
Other Data				
19. Standard and Reagent Preparation Logs	1324	1460	✓	
20. Original Preparation and Cleanup forms or copies of Preparation and Cleanup Logbooks	1461	1462	✓	
21. Original Analysis or Instrument Run forms or copies of Analysis or Instrument Logbooks	1463	1472	✓	
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	1473	1491	✓	
27 . Instrument raw data by instrument in analysis order	1492	1494	✓	

Other Data

28 . Standard and Reagent Preparation Logs	1495	1519	✓	
29 . Original Preparation and Cleanup forms or copies of Preparation and Cleanup Logbooks	1520	1521	✓	
30 . Original Analysis or Instrument Run forms or copies of Analysis or Instrument Logbooks	1522	1526	✓	
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	1527	1545	✓	
36 . Instrument raw data by instrument in analysis order	1546	1550	✓	

Other Data

37 . Standard and Reagent Preparation Logs	1551	1580	✓	
38 . Original Preparation and Cleanup forms or copies of Preparation and Cleanup Logbooks	1581	1582	✓	
39 . Original Analysis or Instrument Run forms or copies of Analysis or Instrument Logbooks	1583	1586	✓	
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 3)

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)

(Signature)

Nimisha Pandya, Document Control Officer

(Print Name & Title)

(Date)

Audited by:
(EPA)

(Signature)

(Print Name & Title)

(Date)

PAGE NOs:		CHECK	
FROM	TO	LAB	REGION
1587	1589	✓	
NA	NA	✓	
1590	1593	✓	
NA	NA	✓	
1594	1597	✓	
NA	NA	✓	



**284 Sheffield Street
Mountainside, NJ 07092**

SDG NARRATIVE

USEPA

SDG # ME28R5

CASE # 51847

CONTRACT # 68HERH20D0011

SOW# SFAM01.1

LAB NAME: Alliance Technical Group, LLC

LAB CODE: ACE

LAB ORDER ID # P5233

A. Number of Samples and Date of Receipt

19 Soil samples were delivered to the laboratory intact on 12/10/2024.

B. Parameters

Test requested for Metals CLP12 = Aluminum, Calcium, Iron, Magnesium, Potassium, Sodium & Mercury, Cyanide.

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: 2.3°C, 2.1°C, 2.0°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.



**284 Sheffield Street
Mountainside, NJ 07092**

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

G. Calculation:

Calculation for ICP-AES Soil Sample:

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

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

Where,

C = Instrument value in ppm (The average of all replicate exposures)

V_f = 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 ME28R5 For Aluminum :

If C = 106.8684 ppm

V_f = 100 ml

W = 1.27g

S = 0.787 (78.7/100)

DF = 1

$$\begin{aligned} \text{Concentration (mg/kg)} &= 106.8684 \times \frac{100}{1.27 \times 0.787} \times 1 \\ &= 10692.29 \text{ mg/kg} \\ &= 11000 \text{ mg/kg (Reported Result with Signification)} \end{aligned}$$

Calculation for ICP-MS Soil Sample:

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

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

Where,

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

V_f = 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



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Example Calculation For Sample ME28R5 For Arsenic:

If C = 27.93 ppb

Vf = 500 ml

W = 1.20 g

S = 0.787 (78.7/100)

DF = 1

$$\text{Concentration (mg/kg)} = 27.93 \times \frac{500}{1.20 \times 0.787} \times 1 / 1000$$

$$= 14.7871 \text{ mg/kg}$$

$$= 15 \text{ mg/kg (Reported Result with Signification)}$$

Calculation for Hg Soil Sample:

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

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

Where,

C = Instrument response in $\mu\text{g/L}$ from the calibration curve.

Vf = Final prepared (absorbing solution) 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 ME28R5:

If C = 0.3887 ppb

Vf = 100 mL

W = 0.54g

S = 0.787(78.7/100)

DF = 1

$$\text{Concentration (mg/kg)} = 0.3887 \times \frac{100}{0.54 \times 0.787} \times 1 / 1000$$

$$= 0.09146 \text{ mg/kg}$$

$$= 0.091 \text{ mg/kg (Reported Result with Signification)}$$



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Calculation for CN Soil Sample:

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 response in $\mu\text{g/L}$ CN from the calibration curve.

Vf = Final prepared (absorbing solution) 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 ME28R5:

If C = 9.2269 ppb

Vf = 50 ml

W = 1.05 g

S = 0.787(78.7/100)

DF = 1

$$\text{Concentration (mg/kg)} = 9.2269 \times \frac{50}{1.05 \times 0.787} \times 1 / 1000$$

$$= 0.5582 \text{ mg/kg}$$

$$= 0.56 \text{ mg/kg (Reported Result with Signification)}$$

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 requirements except for Calcium, Mercury. Serial Dilution did meet requirements except for Calcium.

Chemical or physical interference effect was suspected and the data for all affected analytes in the sample received and associated with this serial dilution were flagged.

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.



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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



PERCENT SOLID

Supervisor: Iwona
Analyst: jignesh
Date: 12/13/2024

OVENTEMP IN Celsius(°C): 107
Time IN: 14:15
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: 07:40
Out Date: 12/12/2024
Weight Check 1.0g: 1.00
Weight Check 10g: 10.00
BalanceID: M SC-4
Thermometer ID: % SOLIDS-OVEN

QC:LB133885

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
P5233-01	ME28R5	1	1.14	8.59	9.73	7.9	78.7	
P5233-02	ME28R6	2	1.18	8.33	9.51	7.7	78.3	
P5233-03	ME28R7	3	1.18	8.39	9.57	8.25	84.3	
P5233-04	ME28R8	4	1.16	8.67	9.83	8.67	86.6	
P5233-05	ME28R9	5	1.15	8.50	9.65	8.24	83.4	
P5233-06	ME28S0	6	1.15	8.38	9.53	6.01	58.0	
P5233-07	ME28S1	7	1.15	8.50	9.65	7.59	75.8	
P5233-08	ME28S2	8	1.19	8.45	9.64	7.79	78.1	
P5233-09	ME28S3	9	1.19	8.62	9.81	7.8	76.7	
P5233-10	ME28S4	10	1.18	8.72	9.9	8.33	82.0	
P5233-11	ME28S5	11	1.15	8.81	9.96	8.12	79.1	
P5233-12	ME28S6	12	1.13	8.64	9.77	7.74	76.5	
P5233-13	ME28S7	13	1.19	8.73	9.92	7.72	74.8	
P5233-14	ME28S8	14	1.15	8.55	9.7	7.67	76.3	
P5233-15	ME28S9	15	1.19	8.42	9.61	6.45	62.5	
P5233-16	ME28T0	16	1.12	8.70	9.82	7.05	68.2	
P5233-17	ME28T1	17	1.15	8.40	9.55	7.86	79.9	
P5233-18	ME28T2	18	1.16	8.50	9.66	7.46	74.1	
P5233-19	ME28T3	19	1.16	8.82	9.98	7.36	70.3	
P5233-20	ME28S7D	20	1.19	8.73	9.92	7.72	74.8	
P5233-21	ME28S7S	21	1.19	8.73	9.92	7.72	74.8	

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

WORKLIST(Hardcopy Internal Chain)

1733885

WorkList Name : %1-p5233

WorkList ID : 186226

Department : Wet-Chemistry

Date : 12-11-2024 10:54:39

Sample	Customer Sample	Matrix	Test	Preservative	Customer	Raw Sample Storage Location	Collect Date	Method
P5233-01	ME28R5	Solid	Percent Solids	Cool 4 deg C	USEP01	C32	12/05/2024	Chemtech -SO
P5233-02	ME28R6	Solid	Percent Solids	Cool 4 deg C	USEP01	C32	12/05/2024	Chemtech -SO
P5233-03	ME28R7	Solid	Percent Solids	Cool 4 deg C	USEP01	C32	12/05/2024	Chemtech -SO
P5233-04	ME28R8	Solid	Percent Solids	Cool 4 deg C	USEP01	C32	12/05/2024	Chemtech -SO
P5233-05	ME28R9	Solid	Percent Solids	Cool 4 deg C	USEP01	C32	12/05/2024	Chemtech -SO
P5233-06	ME28S0	Solid	Percent Solids	Cool 4 deg C	USEP01	C32	12/05/2024	Chemtech -SO
P5233-07	ME28S1	Solid	Percent Solids	Cool 4 deg C	USEP01	C32	12/06/2024	Chemtech -SO
P5233-08	ME28S2	Solid	Percent Solids	Cool 4 deg C	USEP01	C32	12/06/2024	Chemtech -SO
P5233-09	ME28S3	Solid	Percent Solids	Cool 4 deg C	USEP01	C32	12/06/2024	Chemtech -SO
P5233-10	ME28S4	Solid	Percent Solids	Cool 4 deg C	USEP01	C32	12/06/2024	Chemtech -SO
P5233-11	ME28S5	Solid	Percent Solids	Cool 4 deg C	USEP01	C32	12/06/2024	Chemtech -SO
P5233-12	ME28S6	Solid	Percent Solids	Cool 4 deg C	USEP01	C32	12/06/2024	Chemtech -SO
P5233-13	ME28S7	Solid	Percent Solids	Cool 4 deg C	USEP01	C32	12/06/2024	Chemtech -SO
P5233-14	ME28S8	Solid	Percent Solids	Cool 4 deg C	USEP01	C32	12/06/2024	Chemtech -SO
P5233-15	ME28S9	Solid	Percent Solids	Cool 4 deg C	USEP01	C32	12/06/2024	Chemtech -SO
P5233-16	ME28T0	Solid	Percent Solids	Cool 4 deg C	USEP01	C32	12/09/2024	Chemtech -SO
P5233-17	ME28T1	Solid	Percent Solids	Cool 4 deg C	USEP01	C32	12/09/2024	Chemtech -SO
P5233-18	ME28T2	Solid	Percent Solids	Cool 4 deg C	USEP01	C32	12/09/2024	Chemtech -SO
P5233-19	ME28T3	Solid	Percent Solids	Cool 4 deg C	USEP01	C32	12/09/2024	Chemtech -SO
P5233-20	ME28S7D	Solid	Percent Solids	Cool 4 deg C	USEP01	C32	12/09/2024	Chemtech -SO
P5233-21	ME28S7S	Solid	Percent Solids	Cool 4 deg C	USEP01	C32	12/06/2024	Chemtech -SO

Date/Time 12-11-24 13:30

Raw Sample Received by: 16 CWC

Raw Sample Relinquished by: CWC

Date/Time 12-11-24

Raw Sample Received by: 16 CWC

Raw Sample Relinquished by: 16 CWC