

# 284 Sheffield Street Mountainside, NJ 07092

## **SDG NARRATIVE**

USEPA SDG # MH2D27 CASE # 51811 CONTRACT # 68HERH20D0011 SOW# SFAM01.1 LAB NAME: Alliance Technical Group, LLC LAB CODE: ACE LAB ORDER ID #P5392 MODIFIED ANALYSIS # 3124.0, 3123.0

## A. Number of Samples and Date of Receipt

17 Soil samples were delivered to the laboratory intact on 12/27/2024.

## **B.** Parameters

Test requested for SPLP MetalGroup3 = Aluminum, Antimony, Arsenic, Barium, Beryllium, Cadmium, Calcium, Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Nickel, Potassium, Selenium, Silver, Sodium, Thallium, Vanadium, Zinc & SPLP Mercury.

## C. Cooler Temp

Indicator Bottle: Presence/Absence

Cooler: 3.2°C, 3.1°C, 2.4°C, 3.0°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.



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

G. Calculation:

## Calculation for ICP-AES Water Sample:

Concentration or Result ( $\mu g/L$ ) = C x  $\frac{Vf}{Vi}$  x DF x 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

## Example Calculation For Sample MH2D27 For Arsenic:

If C = 0.0156865 ppm Vf = 50 ml Vi = 50 ml DF = 1

Concentration or Result ( $\mu$ g/L) = 0.0156865 x 50 x 1 x 1000 50

 $= 15.6865 \ \mu g/L$ 

= 16  $\mu$ g/L (Reported Result with Signification)

## **Calculation for Hg Water Sample**:

Concentration or Result  $(\mu g/L) = C \times DF$ 

Where,

C = Instrument response in  $\mu g/L$  from the calibration curve. DF = Dilution Factor

## **Example Calculation For Sample MH2D27:**

If C = 0.2667 ppbDF = 1



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Concentration or Result ( $\mu$ g/L) = 0.2667 x 1 = 0.2667  $\mu$ g/L = 0.27  $\mu$ g/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 Antimony, Barium, Silver. Duplicate sample did meet requirements. Serial Dilution did meet requirements.

Samples receive as soil but as per ASR process for SPLP and forms are reported with water.

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: 10/04/2021	MA: 3123.0	<b>Title:</b> Mercury with SPLP with	Reduced Ratio of		
		Extraction Fluid to Sample			
Method Source: SFAM01.1	Method: CVAA				
Matrix: Soil/Sediment					
Summary of Modification					
The purpose of this modified analysis is to prepare modified SPLP leachates of samples and analyze them for Mercury by CVAA. 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 Metho	d Modifications		Not applicable		
The Laboratory shall:					
<ul> <li>Calculate the amount of extraction fluid necessary for each sample based on 4 times the percent solids x weight of sample filtered. See Equation 33 in Section 3.6 of Exhibit G and change the "20" to "4" for calculating the amount of fluid required.</li> <li>Digest the extracts using the aqueous sample preparation method for Mercury samples. Prepare the extraction blank as the Leachate Extraction Blank (LEB).</li> <li>If there is insufficient volume for the full-volume preparation of samples by all scheduled analytical methods, prepare the samples at reduced volume with adjusted reagent and spike</li> </ul>					
volumes.					
IV. Special Reporting Requ	irements		Not applicable		
The Laboratory shall:					
Ensure that the SDG     administrative problem	Narrative is updat	ed as stated in the SOW, including			

Modified Analysis including a copy of the approved modification with the SDG Narrative.

Date: 10/04/2021	MA: 3124.0	Title: ICP-AES with SPLP with Rec	Juced Ratio of		
		Extraction Fluid to Sample			
Method Source: SFAM01.1	Method: ICP-AES				
Matrix: Soil/Sediment					
Summary of Modification					
The purpose of this modified analysis is to prepare modified SPLP leachates of samples and analyze them by ICP-AES. 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 Metho	d Modifications		Not applicable		
<ul> <li>Calculate the amount of extraction fluid necessary for each sample based on 4 times the percent solids x weight of sample filtered. See Equation 33 in Section 3.6 of Exhibit G and change the "20" to "4" for calculating the amount of fluid required.</li> <li>Digest the extracts using the aqueous sample preparation method for ICP-AES samples. Prepare the extraction blank as the Leachate Extraction Blank (LEB).</li> <li>If there is insufficient volume for the full-volume preparation of samples by all scheduled analytical methods, prepare the samples at reduced volume with adjusted reagent and spike volumes. The sample final volume shall equal the sample initial volume.</li> </ul>					
IV. Special Reporting Requi	irements		Not applicable		
<ul> <li>The Laboratory shall:</li> <li>Ensure that the SDG administrative problems include problems en- performed, and problems Modified Analysis ind</li> </ul>	Narrative is updated ems encountered ar countered during ar plems with the analy cluding a copy of the	d as stated in the SOW, including and the corrective action taken. The nalysis, dilutions, re-analyses or re- vsis of samples. Also include a discue approved modification with the S	ny technical and se problems may preparations ussion of any SOW DG Narrative.		