



**284 Sheffield Street
Mountainside, NJ 07092**

SDG NARRATIVE

USEPA

SDG # E1491

CASE # 51981

CONTRACT # 68HERH20D0011

SOW# SFAM01.1

LAB NAME: Alliance Technical Group, LLC

LAB CODE: ACE

LAB ORDER ID # Q1251

A. Number of Samples and Date of Receipt

07 Soil and 01 Water samples were delivered to the laboratory intact on 01/31/2025.

B. Parameters

Test requested for Metals CLP4= Arsenic, Lead.

C. Cooler Temp

Indicator Bottle: Presence/Absence

Cooler: 10.7°C

D. 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.

E. Calculation:

Calculation for ICP-AES Soil Sample:

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

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



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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 E1491 For Arsenic:

If C = 0.1039964 ppm

Vf = 100 ml

W = 1.25 g

S = 0.783(78.3/100)

DF = 1

$$\begin{aligned}\text{Concentration (mg/kg)} &= 0.1039964 \times \frac{100}{1.25 \times 0.783} \times 1 \\ &= 10.6254 \text{ mg/kg} \\ &= 11 \text{ mg/kg (Reported Result with Signification)}\end{aligned}$$

Calculation for ICP-AES Water Sample:

$$\text{Concentration or Result } (\mu\text{g/L}) = C \times \frac{V_f}{V_i} \times DF \times 1000$$

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

Example Calculation:

If C = 3.134631 ppm

Vf = 50 ml

Vi = 50 ml

DF = 1

$$\text{Concentration or Result } (\mu\text{g/L}) = 3.134631 \times \frac{50}{50} \times 1 \times 1000$$



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= 3134.631 µg/L

= 3100 µg/L (Reported Result with Signification)

F. 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. 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