284 Sheffield Street
Mountainside, NJ 07092

SDG NARRATIVE

USEPA
SDG # Q3084
CASE # ARC Sayreville PostEx 2025
CONTRACT # 68HERH20D0011
SOW# SFAM01.1
LAB NAME: Alliance Technical Group, LLC
LAB CODE: ACE
LAB ORDER ID #Q3084

A. Number of Samples and Date of Receipt

20 Water samples were delivered to the laboratory intact on 09/11/2025.

B. Parameters

Test requested for Metals CLP MS = Aluminum, Antimony, Arsenic, Beryllium, Cadmium, Chromium, Iron, Lead, Manganese, Nickel, Thallium and Hg.

C. Cooler Temp

Indicator Bottle**: Presence/**
Absence Cooler: 4.1°C, 4.4°C

D. Analytical Techniques:

All analyses were based on CLP Methodology by method SFAM01.1.

E. Calculation:

Calculation for ICP-MS Water Sample:

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

Where,

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

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Example Calculation For Sample PMW-9S(20250909) For Nickel:

If C = 0.40 ppb
Vf = 50 ml
Vi = 50 ml
DF = 1

Concentration or Result (µg/L) = $5.95 \times \frac{50}{50} \times 1$

= 5.95 µg/L

= 6.0 µg/L (Reported Result with Signification)

Calculation for Hg Water Sample:

Concentration or Result (µg/L) = C x DF

Where,
C = Instrument response in µg/L from the calibration curve.
DF = Dilution Factor

Example Calculation For Sample PMW-9S(20250909):

If C = 1.3197 ppb
DF = 1

Concentration or Result (µg/L) = 0.1113 x 1

= 0.1113 µg/L

= 0.11 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.

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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.

Internal Standard Association for ICP-MS analysis.

Target Analyte	Associated Internal Standard
Aluminum	45Sc
Antimony	159Tb
Arsenic	89Y
Beryllium	6Li
Cadmium	159Tb
Chromium	45Sc
Iron	45Sc
Lead	209Bi
Manganese	45Sc
Nickel	45Sc
Thallium	209Bi

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