SDG NARRATIVE

LAB NAME: Alliance Technical Group, LLC
CASE: 51793
SDG: BHK70
CONTRACT: 68HERH20D0011
LAB CODE: ACE
LAB ORDER ID: P4817
MODIFICATION REF. NUMBER: NA

Sample ID	EPA Sample ID	pH
P4817-01	BHK70	
P4817-02	BHK71	
P4817-03MS	BHK71MS	
P4817-04MSD	BHK71MSD	

04 Soil samples were delivered to the laboratory intact on 11/12/2024.

Test requested on the Chain of Custody was Semivolatile Organic and Semivolatile Organic SIM by Method SFAM01.1.

The temperature of the samples was measured using an I R Gun. The samples temperature was 2.8 degree Celsius for the samples received on 11/12/2024.

Shipping Discrepancies and/or QC issues:

Issue 01: The attached COC designates two samples for laboratory QC but only one QC sample is required for each 20 sample SDG. The laboratory would like to confirm that they can proceed with sample BHK70 only for QC analysis and keep sample BHK71 as a regular sample.

Resolution 01: Per Region 2, the laboratory should proceed with sample BHK71 as the Laboratory QC sample and analyze sample BHK70 as a regular sample. Please note the issue in the SDG Narrative and proceed with the analysis of the samples.

Semivolatiles:

The samples were analyzed on instrument BNA_P using GC Column ZB-GR Semi Volatiles Guardian which is 30 meters, 0.25 mm ID, 0.5 um df, Catalog # 7HG-G027-17-GGA.

Semis volatile Organic sample for Soil sample was extracted by Method SFAM01.1 on 11/18/2024, The analysis of SVOC-PAH-SIM was based on method SFAM01.1_SVOC.

The Holding Times were met for all analysis.

The Surrogate recoveries met the acceptable criteria.
The Internal Standards Areas met the acceptable requirements.
The Retention Times were acceptable for all samples.
The MS {BHK71MS} recovery met the requirements for all compounds.
The MSD {BHK71MSD} recovery met the requirements for all compounds.
The RPD {BHK71MSD} RPD met the requirements for all compounds.
The Blank Spike for {PB165061BS} recoveries met the requirements for all compounds.
The Blank analysis did not indicate the presence of lab contamination.
The Tuning criteria met the requirements.
The Initial Calibration met the requirements.
The Continuous Calibration met the requirements.

Concentration of SOIL Sample:

Concentration ug/Kg,

$$\text{(dry weight basis)} = \frac{(Ax)\,(Is)\,(Vt)\,(DF)\,(GPC)}{(Ais)\,(RRF)\,(Vi)\,(Wt)\,(D)}$$

Where,
Ax = Area of the characteristic ion for the compound to be measured.
Ais = Area of the characteristic ion for the internal standard.
Is = Amount of internal standard injected in ng.
Vi = Volume of extract injected in microliters (uL)
Vt = Volume of concentrated extract in microliters (uL)
Wt = Weight of the original sample extracted in g
Df = Dilution factor
RRF = Mean Relative Response Factor determined from the initial calibration standard.
GPC = Vin = GPC factor (If no GPC is performed, GPC=1)
Vout = Volume of extract collected after GPC cleanup.

$$D = \frac{100 - \%\text{moisture}}{100}$$

No positive target compounds were detected in the samples.

RRF Calculation of standard 20 ppb for **Naphthalene** with P instrument for method 11/09/2024.

$$RRF = \frac{\text{Area of compound}}{\text{Area of Internal Standard}} \times \frac{\text{Conc. of Internal Standard}}{\text{Conc. of Compound}}$$

$$= 211251/205623 \times 20/20$$

$$= 1.027 \text{ (Reported RRF)}$$

Semivolatiles SIM:

The samples were analyzed on instrument BNA_N using GC Column ZB-GR Semi Volatiles Guardian which is 30 meters, 0.25 mm ID, 0.5 um df, Catalog # 7HG-G027-17-GGA.

Semis volatile Organic sample for Soil sample was extracted by Method SFAM01.1 on 11/18/2024. The analysis of SVOC-SIM-SFAM was based on method SFAM01.1_SVOC.

The Holding Times were met for all analysis.
The Surrogate recoveries met the acceptable criteria.
The Internal Standards Areas met the acceptable requirements.
The Retention Times were acceptable for all samples.
The MS {BHK71MS} recovery met the requirements for all compounds.
The MSD {BHK71MSD} recovery met the requirements for all compounds.
The RPD {BHK71MSD} RPD met the requirements for all compounds.
The Blank Spike for {PB165062BS} recoveries met the requirements for all compounds.
The Blank analysis did not indicate the presence of lab contamination.
The Tuning criteria met requirements.
The Initial Calibration met requirements.
The Continuous Calibration met requirements.

See **Manual Integration report** for the manual integration information at the end of the case narrative.

Concentration of SOIL Sample:

Concentration ug/Kg,

$$\text{(dry weight basis)} = \frac{(Ax)\,(Is)\,(Vt)\,(DF)\,(GPC)}{(Ais)\,(\overline{RRF})\,(Vi)\,(Wt)\,(D)}$$

Where,
Ax = Area of the characteristic ion for the compound to be measured.
Ais = Area of the characteristic ion for the internal standard.
Is = Amount of internal standard injected in ng.
Vi = Volume of extract injected in microliters (uL)
Vt = Volume of concentrated extract in microliters (uL)
Wt = Weight of the original sample extracted in g
Df = Dilution factor
RRF = Mean Relative Response Factor determined from the initial calibration standard.
GPC = $\frac{Vin}{Vout}$ = GPC factor (If no GPC is performed, GPC=1)
Vout = Volume of extract collected after GPC cleanup.

D= $\frac{100 - \%moisture}{100}$

No positive target compounds were detected in the samples.

RRF Calculation of standard 0.4 ppb for **Naphthalene** with N instrument for method 11/16/2024.

RRF = Area of compound / Area of Internal Standard X Conc. of Internal Standard / Conc. of Compound

= 6250/5912 X 0.4/0.4

= 1.057 (Reported RRF)

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. The laboratory manager or his designee, as verified by the following signature has authorized release of the data contained in this hard copy data package.

Signature _____ Name: Nimisha Pandya.

Date: _____ Title: Document Control Officer.