SDG NARRATIVE

LAB NAME: Alliance Technical Group, LLC
CASE: 51878
SDG: E29X2
CONTRACT: 68HERH20D0011
LAB CODE: ACE
LAB ORDER ID: P4874
MODIFICATION REF. NUMBER: NA

Sample ID	EPA Sample ID	pH
P4872-01	E29X1	
P4872-02	E29X2	
P4872-03	E29X3	
P4872-04	E29X4	
P4872-05	E29X5	
P4872-06MS	E29X5MS	
P4872-07MSD	E29X5MSD	
P4872-08	E29X6	
P4872-09	E29X7	
P4872-10	E29X8	
P4872-11	E29X9	
P4872-12	E29Y0	
P4872-14	E29Y1	
P4872-15	E29Y2	
P4872-16	E29Y3	
P4872-17	E29Y4	
P4872-18	E29Y5	
P4872-19	E29Y6	
P4872-20	E29Y7	
P4872-21	E29Y8	
P4872-22	E29Y9	
P4872-23	E29Z0	

12 Soil samples were delivered to the laboratory intact on 11/15/2024.
10 Soil samples were delivered to the laboratory intact on 11/16/2024.

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

The temperature of the samples was measured using an I R Gun. The samples temperature was 1.6, 2.5, 2.3 degree Celsius for the samples received on 11/15/2024, 2.3, 2.0, 2.4, 2.1 degree Celsius for the samples received on 11/16/2024.

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 11/19/2024. The analysis of SVOCMS Group3 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 {E29X5MS} recovery met the requirements for all compounds.
The MSD {E29X5MSD} recovery met the requirements for all compounds.
The RPD {E29X5MSD} RPD met the requirements for all compounds
The Blank Spike for {PB165099BS} 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 = Vin = GPC factor (If no GPC is performed, GPC=1)
Vout = Volume of extract collected after GPC cleanup.

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

Example calculation of E29X1 for 1,4-Dioxane:

Ax = 318
Ais = 4201
Is = 0.4
Vi = 1
Vt = 500
Wt = 30.1
Df = 1
RRF = 0.397
GPC = 2
D= 0.840

Concentration

$$\text{(dry weight basis) ug/Kg} = \frac{(318)\,(0.4)\,(500)\,(1)\,(2)}{(4201)\,(0.397)\,(1)\,(30.1)\,(0.840)}$$

= 3.0 ug/Kg

RRF Calculation of standard 0.4 ppb for **1,4-Dioxane** with N instrument for method 11/16/2024.

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

= 1077/2538 X 0.4/0.4

= 0.424 (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.