SDG NARRATIVE

LAB NAME: Alliance Technical Group, LLC
CASE: 51847
SDG: E28P5
CONTRACT: 68HERH20D0011
LAB CODE: ACE
LAB ORDER ID: P5157
MODIFICATION REF. NUMBER: NA

Sample ID	EPA Sample ID	pH
P5157-01	E28P5	
P5157-02	E28Q5	
P5157-03	E28R3	
P5157-04	E28R4	
P5157-05	E28W1	
P5157-06	E28W2	
P5157-07MS	E28W2MS	
P5157-08MSD	E28W2MSD	
P5157-09	E28W5	
P5157-10	E28W6	
P5157-11	E28X1	
P5157-12	E28X2	
P5157-13	E28S5	
P5157-14	E28S9	
P5157-15	E28T1	

04 Soil samples were delivered to the laboratory intact on 12/06/2024.
03 Soil samples were delivered to the laboratory intact on 12/10/2024.
08 Soil samples were delivered to the laboratory intact on 12/11/2024.

Test requested on the Chain of Custody was Pesticides by Method SFAM01.1.

The temperature of the samples was measured using an I R Gun. The samples temperature was 2.4, 2.0, 2.1 degree Celsius for the samples received on 12/06/2024, 2.1 degree Celsius for the samples received on 12/10/2024, 2.2, 2.0 degree Celsius for the samples received on 12/11/2024.

Shipping Discrepancies and/or QC issues:

Issue 01: “Lab is sending this email with regards to case 51847.

Lab has received soil samples E28W5 & E28W6 for SVOA, SVOA-SIM and PEST analysis. These samples expected to have very high concentration of target analytes as having strong gasoline order. During extraction of Pesticides and SVOA, sample extract was very viscous and couldn't filter as well therefore lab would like to confirm that lab needs to use 1g sample instead of 30g sample due to sample matrix for Pest and SVOA, SVOA-SIM analysis. Lab QC is required for SVOA and SIM analysis and samples we are extracting with medium level extraction therefore Lab QC can not be performed for these samples due to high matrix interference therefore lab would like to confirm that the SEDD defects associated with medium level SVOA & SIM analysis should be invalid as well.

Resolution 01: "Per the client, the lab's proposal to proceed with smaller sample size is acceptable… Confirmed that the defect is invalid."

QSS INPUT: Based on the Region's response included in the email trail, the SEDD applicable defects associated with the medium level SVOA and SVOA- SIM analysis will be removed for SDGs E28P5 and E28Q6 during the CCS screening process.

Pesticides:

The analyses for Pesticides were performed on instrument ECD_D & L. The front column is ZB-Multi-Residue-1 which is 30 meters, 0.32 mm ID, 0.50 um df.The rear column ZB-Multi-Residue-2 which is 30 meters, 0.32 mm ID, 0.2 um df.

The sample was analyzed on a single injection dual column system. To distinguish the second column analysis from the first column a -2 suffix was added to the file id on the form 1. These refer to forms were both columns are reported. Form 1s for the IBLK and PLCS are referenced as IBLK(1)/IBLK(2), MS(1)/MS(2), MSD(1)/MSD(2) and PLCS01(1) / PLCS01(2) respectively.

Pesticide sample was extracted by method SFAM01.1 on 12/12/2024 and analyzed on 12/16/2024. The sample was extracted and analyzed within contractual holding time.

The Surrogate recoveries met the acceptable criteria except for
E28Q5 [Decachlorobiphenyl(1) - 16%, Decachlorobiphenyl(2) - 13%],
E28R3 [Decachlorobiphenyl(2) - 22%],
E28R4 [Decachlorobiphenyl(2) - 20%],
E28W1 [Decachlorobiphenyl(2) - 27%],
E28W2 [Decachlorobiphenyl(2) - 18%],
E28W2MS [Decachlorobiphenyl(2) - 19%],
E28W2MSD [Decachlorobiphenyl(2) - 18%],
E28W5 [Decachlorobiphenyl(1) - 27%, Decachlorobiphenyl(2) - 15%],
E28W6 [Decachlorobiphenyl(1) - 22%, Decachlorobiphenyl(2) - 14%],
E28X1 [Decachlorobiphenyl(2) - 16%],
E28X2 [Decachlorobiphenyl(2) - 15%],
E28S5 [Decachlorobiphenyl(1) - 29%, Decachlorobiphenyl(2) - 26%],
E28S9 [Decachlorobiphenyl(1) - 5%, Decachlorobiphenyl(2) - 8%] and

E28T1 [Decachlorobiphenyl(2) - 11%].The SOW allows one surrogate to fail to meet the criteria per column. ((Please See Section 11.3.6 of Exhibit D Pesticide Analysis).
E28W2MS met the requirements.
E28W2MSD met the requirements.
The RPD met the requirements

The Blank analysis did not indicate the presence of lab contamination.
Blank and Laboratory Control Sample met the requirements.
Retention Times met the requirements.
Florisil check met the requirements.
Resolution Check met the requirements.
The Retention Times were acceptable for all samples.
The Initial Calibration met the requirements.
The Individual Mix A met the requirements.
The Individual Mix B met the requirements.
The PEM met the requirement.

Samples E28Q5, E28R3, E28R4, E28S5, E28S9, E28T1, E28W1, E28W2, E28W2MS, E28W2MSD, E28W5, E28W6, E28X1 and E28X2 failed to meet the %D for the results between the two columns Criteria.

Sample E28Q5, E28W6 have the concentration of target compound - Endosulfan Sulfate, E28W5 have the concentration of target compound - 4,4'-DDD, E28W1 have the concentration of target compound - 4,4'-DDT below Method detection limits, therefore it is not reported as hit in Form1.

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

Calculation for the Concentration in Soil Samples

$$\text{Concentration ug/Kg (Dry weight basis)} = \frac{(Ax)\,(Vt)\,(DF)\,(GPC)}{(CF)\,(Vi)\,(Ws)\,(D)}$$

Where,
Ax = Response (peak area or height) of the compound to be measured.
CF = Mean Calibration Factor from the initial calibration (area/ng).
Vt = Volume of the concentrated extract in uL
Vi = Volume of extract injected (uL). (If a single injection is made onto two columns, use ½ the volume in the syringe as the volume injected onto each column).
Ws = Weight of sample extracted (g).
D = % dry weight or $\frac{100 - \%\text{Moisture}}{100}$
GPC = $\frac{Vin}{Vout}$ = GPC factor (If no GPC is performed, GPC=1)

DF = Dilution Factor.

Example of Endosulfan Sulfate calculation

Calibration Factor Calculation Endosulfan Sulfate in the first column

Calibration factor (CF) = peak area / Mass injected in ng

= 27649075 / 10ng

= 2764910

Mean Calibration Factor = average of 5 point calibration factor

= 2697840

Sample **E28R3**
Ax = 115860505
CF = 2697840
Ws =30.1
Vi = 1.0
Vt = 5000
DF = 1.0
GPC = 2.0
D = 0.775

Concentration ug/Kg (Dry weight basis) = (Ax) (Vt) (DF) (GPC) / (CF) (Vi) (Ws) (D)

= (115860505) (5000) (1.0) (2.0) / (2697840)(1.0)(30.1)(0.776)

= 18.41

Reported Results = 18 ug/kg

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.