

**SDG NARRATIVE****LAB NAME: Alliance Technical Group, LLC****CASE: 51829****SDG: GCP52****CONTRACT: 68HERH20D0011****LAB CODE: ACE****LAB ORDER ID: P4686****MODIFICATION REF. NUMBER: 3177.0**

Sample ID	EPA Sample ID	pH
P4686-01	GCP52	
P4686-01DL	GCP52DL	
P4686-02MS	GCP52MS	
P4686-03MSD	GCP52MSD	
P4686-04	GCP53	
P4686-05	GCP54	
P4686-05DL	GCP54DL	

05 Soil samples were delivered to the laboratory intact on 11/02/2024.

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

The temperature of the samples was measured using an I R Gun. The samples temperature was 2.1 degree Celsius for the samples received on 11/02/2024.

**Shipping Discrepancies and/or QC issues:**

**Issue 01:** The laboratory received sample GCP54 on 11/2/2024. The sample is listed on the attached COC without a collection time. The laboratory would like to confirm the collection time for the sample.

**Resolution 01:** Per Region 7, sample GCP54 is a PT sample and the collection time can be marked as 11:00am. The laboratory should note the issue in the SDG Narrative and proceed with the analysis of the samples.

**Issue 02:** A Laboratory QC sample was not listed on the COC. The laboratory would like to use sample GCP52 for Laboratory QC. The laboratory has confirmed that the sample is not a PE or blank.

**Resolution 02:** Per SFAM01.1 Exhibit A, Section [5.5.4.1](#), the laboratory will note the issue in the SDG Narrative and proceed with the analysis of the samples.

**Semivolatiles:**

The samples were analyzed on instrument BNA\_M 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 11/07/2024, The analysis of SVOCMS Group1 was based on method SFAM01.1\_SVOC. using MA 3177.0 See the MA instructions at the end of the Case Narrative.

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 {GCP52MS} recovery met the requirements for all compounds.

The MSD {GCP52MSD} recovery met the requirements for all compounds.

The RPD {GCP52MSD} RPD met the requirements for all compounds

The Blank Spike for {PB164746BS} 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.

Samples GCP52, GCP54 were diluted due to high concentrations.

**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 =  $\frac{V_{in}}{V_{out}}$  = GPC factor (If no GPC is performed, GPC=1)

Vout = Volume of extract collected after GPC cleanup.

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

### Example calculation of GCP52 for Pentachlorophenol:

$A_x = 947060$   
 $A_{is} = 727968$   
 $I_s = 20$   
 $V_i = 1$   
 $V_t = 500$   
 $W_t = 30.0$   
 $D_f = 1$   
 $RRF = 0.145$   
 $GPC = 2$   
 $D = 0.840$

Concentration

$$\begin{aligned}
 (\text{dry weight basis}) \text{ ug/Kg} &= \frac{(947060) (20) (500) (1) (2)}{(727968) (0.145) (1) (30.0) (0.840)} \\
 &= 7100 \text{ ug/Kg}
 \end{aligned}$$

RRF Calculation of standard 20 ppb for **Pentachlorophenol** with M instrument for method 11/07/2024.

$$\begin{aligned}
 RRF &= \frac{\text{Area of compound}}{\text{Area of Internal Standard}} \times \frac{\text{Conc. of Internal Standard}}{\text{Conc. of Compound}} \\
 &= 625795/93412 \times 20/20 \\
 &= 0.149 \text{ (Reported RRF)}
 \end{aligned}$$

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.