

**SDG NARRATIVE****LAB NAME: Alliance Technical Group, LLC****CASE: 51946****SDG: GCQB8****CONTRACT: 68HERH20D0011****LAB CODE: ACE****LAB ORDER ID: Q1188****MODIFICATION REF. NUMBER: NA**

Sample ID	EPA Sample ID	pH
Q1188-01	GCQB8	
Q1188-02	GCQB9	
Q1188-03	GCQC0	
Q1188-04	GCQC1	
Q1188-05MS	GCQC1MS	
Q1188-06MSD	GCQC1MSD	
Q1188-07	GCQC2	

07 Water samples were delivered to the laboratory intact on 01/25/2025.

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, 2.3, degree Celsius for the samples received on 01/25/2025.

**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 water sample was extracted by Method SFAM01.1 on 01/27/2025, The analysis of SVOCMS Group4 was based on method SFAM01.1\_SVOC.

The Holding Times were met for all analysis.

The Surrogate recoveries met the acceptable except criteria.

The Internal Standards Areas met the acceptable requirements.

The Retention Times were acceptable for all samples.

The MS {GCQC1MS} recovery met the requirements for all compounds.

The MSD {GCQC1MSD} recovery met the requirements for all compounds.

The MSD {GCQC1MSD} RPD met the requirements for all compounds

The Blank Spike for {PB166286BS} recoveries met the requirements for all compounds.

The Blank Spike for {PB166287BS} 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 Water Sample:

$$\text{Concentration ug/L} = \frac{(A_x) (I_s) (V_t) (DF) (GPC)}{(A_{is}) (RRF) (V_o) (V_i)}$$

Where,

$A_x$  = Area of the characteristic ion for the compound to be measured.

$A_{is}$  = Area of the characteristic ion for the internal standard.

$I_s$  = Amount of internal standard injected in ng.

$V_o$  = Volume of water extracted in mL.

$V_i$  = Volume of extract injected in uL.

$V_t$  = Volume of the concentrated extract in uL

RRF = Mean Relative Response Factor determined from the initial calibration standard.

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

$V_{out}$  = Volume of extract collected after GPC cleanup.

### Example calculation of GCQC2 for 1,4-Dioxane:

$$A_x = 17915$$

$$A_{is} = 128563$$

$$I_s = 20$$

$$DF = 1$$

$$V_o = 1000$$

$$V_i = 1$$

$$V_t = 1000$$

$$RRF = 0.567$$

$$GPC = 1$$

$$\text{Concentration ug/L} = \frac{(17915) (20) (1000) (1) (1)}{(128563) (0.567) (1000) (1)}$$

$$= 4.9 \text{ ug/L}$$

RRF Calculation of standard 20 ppb for **1,4-Dioxane** with M instrument for method 01/28/2025.

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



= 46009/168328 X 20/8

= 0.683 (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.