



## SDG NARRATIVE

**LAB NAME:** Alliance Technical Group, LLC

**CASE:** 51894

**SDG:** E1PH7

**CONTRACT:** 68HERH20D0011

**LAB CODE:** ACE

**LAB ORDER ID:** P4965

**MODIFICATION REF. NUMBER:** NA

Sample ID	EPA Sample ID	pH
P4965-01	E1PH7	
P4965-02	E1PH8	
P4965-03	E1PJ0	

02 Water samples were delivered to the laboratory intact on 11/22/2024.

01 Water sample was delivered to the laboratory intact on 11/23/2024.

Test requested on the Chain of Custody was Semivolatile Organic, 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 degree Celsius for the samples received on 11/22/2024. The samples temperature was 1.8 degree Celsius for the samples received on 11/23/2024.

### Shipping Discrepancies and/or QC issues:

Issue 1 : SDGs E1PH7 and E1PH8 require Laboratory QC, but there is no extra volume. The laboratory would like to proceed without Laboratory QC for both SDGs since these samples contain PRs.

Resolution 1: Per Region 3, the laboratory will note the issue in the SDG Narrative and proceed without Laboratory QC for SDGs E1PH7 and E1PH8.

Issue 2: The air bill number is missing on the COC.

Resolution 2: In accordance with previous direction from Region 5, the laboratory will note the issue in the SDG Narrative and proceed with the analysis of the samples. This resolution will be applied to all samples received for this Case.

### Semivolatiles:

The samples were analyzed on instrument BNA\_G 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 11/22/2024 and 11/25/2024, 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 Blank Spike for {PB165199BS} recoveries met the requirements for all compounds.

The Blank Spike for {PB165231BS} 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:

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

Where,

A<sub>x</sub> = Area of the characteristic ion for the compound to be measured.

A<sub>is</sub> = Area of the characteristic ion for the internal standard.

I<sub>s</sub> = Amount of internal standard injected in ng.

V<sub>o</sub> = Volume of water extracted in mL.

V<sub>i</sub> = Volume of extract injected in uL.

V<sub>t</sub> = Volume of the concentrated extract in uL

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)

V<sub>out</sub> = Volume of extract collected after GPC cleanup.

**No positive target compounds were detected in the samples.**

RRF Calculation of standard 20 ppb for **1,4-Dioxane** with G instrument for method 11/20/2024.

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

= 26160/102084 X 20/8

= 0.641 (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 Water sample was extracted by Method SFAM01.1 on 11/22/2024 and 11/25/2024. 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 Blank Spike for {PB165200BS} recoveries met the requirements for all compounds.

The Blank Spike for {PB165232BS} 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 Water Sample:

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

Where,

A<sub>x</sub> = Area of the characteristic ion for the compound to be measured.

A<sub>is</sub> = Area of the characteristic ion for the internal standard.

I<sub>s</sub> = Amount of internal standard injected in ng.

V<sub>o</sub> = Volume of water extracted in mL.

V<sub>i</sub> = Volume of extract injected in uL.

V<sub>t</sub> = Volume of the concentrated extract in uL

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)

**No positive target compounds were detected in the samples.**

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



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

$$= 6250/5912 \times 0.4/0.4$$

$$= 0.424 \text{ (Reported RRF)}$$

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.