SDG NARRATIVE

LAB NAME: Alliance Technical Group, LLC
CASE: 51952
SDG: A6317
CONTRACT: 68HERH20D0011
LAB CODE: ACE
LAB ORDER ID: Q1247
MODIFICATION REF. NUMBER: NA

Sample ID	EPA Sample ID	Test
Q1247-01	A6317	
Q1247-01DL	A6317DL	SVOC-SIM
Q1247-02	A6327	
Q1247-03	A6328	
Q1247-04	A6329	
Q1247-05	A6330	
Q1247-06	A6335	
Q1247-07MS	A6335MS	
Q1247-08MSD	A6335MSD	
Q1247-09	A6336	
Q1247-10	A6337	
Q1247-11	A6338	
Q1247-12	A6339	
Q1247-13	A6340	
Q1247-14	A6341	

14 Water samples were delivered to the laboratory intact on 01/31/2025.

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 2.9,2.4,2.1,2.0 degree Celsius for the samples received on 01/31/2025.

Shipping Discrepancies and/or QC issues:

Issue: The laboratory is missing instructions for all PT samples for this Case; the laboratory would also like confirmation if the PT samples require PRs.

Resolution : Per Region 1, the PT samples do not require preliminary results (PRs). The PT

instructions are attached. Please note the issue in the SDG narrative and proceed with analysis of the samples**.**

Semivolatiles:

The samples were analyzed on instrument BNA_P 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 01/31/2025 and 02/01/2025, The analysis of SVOC-PAH-SFAM 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 {A6335MS} recovery met the requirements for all compounds.
The MSD {A6335MSD} recovery met the requirements for all compounds.
The MSD {A6335MSD} RPD met the requirements for all compounds.
The Blank Spike for {PB166453BS} recoveries met the requirements for all compounds.
The Blank Spike for {PB166463BS} recoveries met the requirements for all compounds.
The Blank Spike for (PB166466BS} recoveries met the requirements for all compounds.
The Blank Spike for (PB166495BS} 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 A6317 has the concentration of target compound below method detection limits; therefore it is not reported as Hit in Form1.

Concentration of Water Sample:

$$\text{Concentration ug/L} = \frac{(Ax)\,(Is)\,(Vt)\,(DF)\,(GPC)}{(Ais)\,(\overline{RRF})\,(Vo)\,(Vi)}$$

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.
Vo = Volume of water extracted in mL.
Vi = Volume of extract injected in uL.
Vt = Volume of the concentrated extract in uL
RRF = Mean Relative Response Factor determined from the initial calibration standard.
GPC = $\frac{Vin}{}$ = GPC factor (If no GPC is performed, GPC=1)

Vout = Volume of extract collected after GPC cleanup.

Example calculation of A6317 for Naphthalene:

Ax = 227600
Ais = 1653965
Is = 20
DF = 1
Vo = 1000
Vi = 1
Vt = 1000
RRF = 1.071
GPC = 1

Concentration ug/L = $\frac{(227600)\ (20)\ (1000)\ (1)\ (1)}{(1653965)\ (1.071)\ (1000)\ (1)}$

= 2.6 ug/L

RRF Calculation of standard 20 ppb for **Naphthalene** with P instrument for method 01/29/2025.

RRF= Area of compound / Area of Internal Standard X Conc. of Internal Standard / Conc. of Compound

= 2498726/2130098 X 20/20

= 1.173 (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 samples for Water were extracted by Method SFAM01.1 on 01/31/2025 and 02/01/2025. The analysis of SVOC-SIM-SFAM was based on method SFAM01.1_SIM.

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 {A6335MS} recovery met the requirements for all compounds.
The MSD {A6335MSD} recovery met the requirements for all compounds.

The MSD {A6335MSD} RPD met the requirements for all compounds.
The Blank Spike for {PB166454BS} recoveries met the requirements for all compounds.
The Blank Spike for {PB166464BS} recoveries met the requirements for all compounds.
The Blank Spike for {PB166467BS} recoveries met the requirements for all compounds.
The Blank Spike for {PB166496BS} 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 the requirements.
The Continues Calibration met the requirements.

Samples A6317 was diluted due to high concentrations.

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

Concentration of Water Sample:

$$\text{Concentration ug/L} = \frac{(Ax)\,(Is)\,(Vt)\,(DF)\,(GPC)}{(Ais)\,(\overline{RRF})\,(Vo)\,(Vi)}$$

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.
Vo = Volume of water extracted in mL.
Vi = Volume of extract injected in uL.
Vt = Volume of the concentrated extract in uL
RRF = Mean Relative Response Factor determined from the initial calibration standard.
GPC = Vin / Vout = GPC factor (If no GPC is performed, GPC=1)

Example calculation of **A6317** for **Naphthalene**:

Ax = 35969
Ais = 4429
Is = 0.4
DF = 1
Vo = 1000
Vi = 1
Vt = 1000
RRF = 1.102
GPC = 1

$$\text{Concentration ug/L} = \frac{(35969)\,(0.4)\,(1000)\,(1)\,(1)}{(4429)\,(1.102)\,(1000)\,(1)}$$

= 2.9 ug/L

RRF Calculation of standard 0.4 ppb **Naphthalene** with instrument N for method 01/21/2025.

RRF = Area of compound / X Conc. of Internal Standard /

Area of Internal Standard Conc. of Compound

= 5142/4615 X 0.4/0.4

= 1.114 (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.