SDG NARRATIVE

LAB NAME: Alliance Technical Group, LLC
CASE: 51826
SDG: BH8B0
CONTRACT: 68HERH20D0011
LAB CODE: ACE
LAB ORDER ID: P5274
MODIFICATION REF. NUMBER: NA

Sample ID	EPA Sample ID	pH
P5274-01	BH8B0	1.0
P5274-02	BH8B1	1.0
P5274-02DL	BH8B1DL	1.0
P5274-03	BH8B2	1.0
P5274-03DL	BH8B2DL	1.0
P5274-04	BH8B3	1.0
P5274-04DL	BH8B3DL	1.0
P5274-05	BH8B4	1.0
P5274-05DL	BH8B4DL	1.0
P5274-06	BH8B5	1.0
P5274-06DL	BH8B5DL	1.0
P5274-07	BH8B6	1.0
P5274-07RE	BH8B6RE	1.0

07 Water samples were delivered to the laboratory intact on 12/13/2024.

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

The temperature of the samples was measured using an I R Gun. The samples temperature was 2.3 degree Celsius for the samples received on 12/13/2024.

Shipping Discrepancies and/or QC issues:

Issue 01: “Lab is sending this email with regards to case 51826 and SDG BH8B0.

Lab has analyzed sample BH8B6 for TVOA analysis where previous sample had high concentration TCE and instrument blank was not analyzed after the previous sample. Therefore, Lab has re-analyzed the sample the sample TVOA analysis. However, reanalysis has more than three surrogates outside the QC limits. In this case, Lab has used remaining vials and performed again re-analysis where previous sample had again high concentration of TCE observed.

However, all three analysis confirm that there is no any carry over from the previous sample therefore lab would like to confirm that lab will report original analysis for this sample.

Resolution 01: "If consistent with SOW, please advise the laboratory to submit all analyses performed. Thanks."

QSS INPUT: The laboratory's approach is in accordance with the SFAM01.1 SOW guidance described in Exhibit D Section 11.3.8 and 11.4.5. The laboratory is expected to comply with the SOW requirements specified in Exhibit D-Sections-11.3 and 11.4.

Trace Volatiles:

The analysis performed on instrument MSVOA_U were done using GC column DB-624UI 20m 0.18mm 1.0 um. Cat#121-1324UI.

The analysis of VOC-SFAM was based on method SFAM01.1_Trace.

Holding Times were met requirement.

The Surrogate recoveries met the acceptable criteria except for
BH8B1 [Toluene-d8 - 67%],
BH8B1DL [1,2-Dichlorobenzene-d4 - 124%],
BH8B2 [1,2-Dichlorobenzene-d4 - 77%, Benzene-d6 - 67%, Toluene-d8 - 63%],
BH8B4 [Toluene-d8 - 70%],
BH8B6RE [1,2-Dichlorobenzene-d4 - 140%, 1,2-Dichloroethane-d4 - 135%, Chloroethane-d5 - 131% and Chloroform-d - 128%].
As per method, up to three surrogates are allowed to fail. No corrective action was taken except for BH8B6RE.

Lab has analyzed sample BH8B6 for TVOA analysis where previous sample had high concentration TCE and instrument blank was not analyzed after the previous sample. Therefore, Lab has re-analyzed the sample the sample TVOA analysis. However, reanalysis has more than three surrogates outside the QC limits. In this case, Lab has used remaining vials and performed again re-analysis where previous sample had again high concentration of TCE observed. However, all three analysis confirm that there is no any carry over from the previous sample therefore lab would like to confirm that lab will report original analysis and reanalysis for this sample in hard copy. And Vial C analysis as screening data. Please see EPA communication after SDG Narrative.

The Internal Standards Areas met the acceptable requirements.
Instrument Performance Check met requirements.
The Retention Times met requirements.
The Tuning criteria met requirements.

The initial Calibration criteria met requirements.

The Continuing Calibration criteria met requirements.

The Blank analysis did not indicate the presence of lab contamination.
The storage blank analysis did not indicate the presence of lab contamination.

Samples BH8B1, BH8B2, BH8B3, BH8B4 and BH8B5 were diluted due to high concentrations.

The sample BH8B2 was analyzed following the analysis of BH8B1. Both samples had common hit of compound with concentration above calibration levels for Trichloroethene, It was reanalyzed at a diluted. As per method, no instrument blank was required and not analyzed.

For Samples BH8B6 First analysis was analyzed vial A and it was carryover of sample BH8B4, as corrective action this sample was reanalyzed, however reanalyzed was fail for surrogate and both run are reported.

The sample VHBLK001 was analyzed following the analysis of BH8B5. Samples BH8B5 had hit of compound Trichloroethene and Tetrachloroethene with concentration above calibration levels. Sample VHBLK001 have not detected of the compound Trichloroethene and Tetrachloroethene. Therefore, as per method no instrument blank was required

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

Calculation:

Low/Med Water Level Calculation

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

Where,
Ax = Area of the characteristic ion (EICP) for the compound to be measured.
Ais = Area of the characteristic ion (EICP) for the internal standard.
Amount of internal standard added in ng.
RRF = Mean Relative Response Factor from the initial calibration standard.
Vo = Total volume of water purged, in mL.
DF = Dilution Factor

Example calculation of **BH8B1** for **cis-1,2-Dichloroethene**:

Ax= 6575
Is = 125
RRF= 0.389
DF= 1
Ais= 109210

Vo. = 25

Concentration in ug/L = $\frac{(6575)\ (125)\ (1)}{(109210)(0.389)(25)}$

Reported Result = 0.773 ug/L

Final Reported Result = 0.77 ug/L

Relative Response Factor = **Dichlorodifluoromethane**: RUN **VU120924** for **0.5** ppb

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

RRF= $\frac{5191}{109257}$ X $\frac{5.0}{0.5}$

RRF= 0.475

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.