SDG NARRATIVE

LAB NAME: Alliance Technical Group, LLC
CASE: 51914
SDG: C0CG7
CONTRACT: 68HERH20D0011
LAB CODE: ACE
LAB ORDER ID: P5345
MODIFICATION REF. NUMBER: NA

Sample ID	EPA Sample ID	pH
P5345-01	C0CG7	1.0
P5345-02	C0CK0	1.0
P5345-02DL	C0CK0DL	1.0
P5345-03	C0CK1	1.0
P5345-03DL	C0CK1DL	1.0
P5345-04	C0CK2	1.0
P5345-04DL	C0CK2DL	1.0
P5345-05	C0CK3	1.0
P5345-05DL	C0CK3DL	1.0
P5345-06	C0CK4	1.0
P5345-07	C0CK9	1.0
P5345-08	C0CL3	1.0
P5345-09	C0CL4	1.0
P5345-10	C0CL5	1.0
P5345-10DL	C0CL5DL	1.0
P5345-11	C0CL7	1.0
P5345-12	C0CL8	1.0
P5345-13	C0CM1	1.0
P5345-14	C0CN0	1.0
P5345-15	C0CN7	1.0
P5345-16	C0CP6	1.0
P5345-16DL	C0CP6DL	1.0

16 Water samples were delivered to the laboratory intact on 12/19/2024.

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 3.1 degree Celsius for the samples received on 12/19/2024.

Shipping Discrepancies and/or QC issues:

Issue 01: "Lab has analyzed Multiple samples in a continuous analytical sequence where sample C0CJ1, C0CJ2, C0CK0, C0CK1, C0CK2, C0CK3 had different target analytes detected at very high concentration over the calibration. Due to these samples were analyzed back-to-back in a continuous analytical sequence instrument blanks were not analyzed in between these samples and due to these samples contain high concentration target compounds lab will use this undiluted analysis for our first run and analyze required dilution. Lab will report this undiluted VOA analysis without instrument blank and diluted samples in final electronic deliverables.
Raw data for samples is attached for your review."

Resolution 01: "Inform ACE Region 3 is in agreement with their below written approach; have ACE make note of the issue in their SDG Narrative and proceed with the analysis of the samples."

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.
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 (VSTD005197) file ID VU062464.D met the requirements except for 1,2-Dichloropropane-d6 (-21.0%). As per method, up to two target analyte in opening and closing CCV are allowed to exceed the %D values. Therefore no further corrective action was taken.

The Continuing Calibration (VSTD005081) file ID VU062512.D met the requirements except for 1,2-Dichloropropane-d6 (-24.1%). As per method, up to two target analyte in opening and closing CCV are allowed to exceed the %D values. Therefore no further corrective action was taken.

The Continuing End Calibration (VSTD005083) file ID VU062558.D met the requirements except for Trichloroethene (1224.4%). As per method, up to two target analyte in opening and closing CCV are allowed to exceed the %D values. Therefore no further corrective action was taken.

The Continuing Calibration (VSTD005087) file ID VU062588.D met the requirements except for Dibromochloromethane (23.2%). As per method, up to two target analyte in opening and closing CCV are allowed to exceed the %D values. Therefore no further corrective action was taken.

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

Samples C0CK0, C0CK1, C0CK2, C0CK3, C0CL5 and C0CP6 were diluted due to high concentrations.

The sample C0CK1 was analyzed following the analysis of C0CK0. Both samples had common hit of compound with concentration above calibration levels for Trichlorofluoromethane, Trichloroethene and Tetrachloroethene It was reanalyzed at a diluted. As per method, no instrument blank was required and not analyzed.

The Samples C0CK1, C0CK2 and C0CK3 were analyzed back to back in an continuous analytical sequence and samples found positive with high concentration of target analytes are detected and required dilution. However, instrument blanks were not analyzed in between them per SOW due to samples are analyzed in continuous analytical sequence, so Lab has reported both the analysis as undiluted analysis without instrument blanks and further dilution analysis. Please see EPA communication after SDG Narrative.

The Continuing Calibration file id (VSTD005082) VU062537.D was analyzed following the analysis of C0CP6 which had concentration above calibration levels for Vinyl chloride. A sample was reanalyzed at a diluted. The associate calibration is passing for this compound; therefore 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

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

Where,
A_x = 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 **C0CG7** for **Acetone**:

Ax= 4937
Is = 125
RRF= 0.044
DF= 1
Ais= 82265
Vo. = 25

$$\text{Concentration in ug/L} = \frac{(4937)\,(125)\,(1)}{(82265)(0.044)(25)}$$

Reported Result = 6.82 ug/L

Final Reported Result = 6.8 ug/L

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

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

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

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.