SDG NARRATIVE

LAB NAME: CHEMTECH CONSULTING GROUP
CASE: 49689
SDG: C0AZ7
CONTRACT: 68HERH20D0011
LAB CODE: CHM
CHEMTECH PROJECT: M4022
MODIFICATION REF. NUMBER: NA

Sample ID	EPA Sample ID	pH
M4022-18	C0AZ7	1.0
M4022-18DL	C0AZ7DL	1.0
M4022-19	C0AZ8	1.0
M4022-19DL	C0AZ8DL	1.0
M4022-20	C0AZ9	1.0
M4022-20DL	C0AZ9DL	1.0
M4022-21	C0B00	1.0
M4022-21DL	C0B00DL	1.0
M4022-22	C0B01	1.0
M4022-23	C0B02	1.0
M4022-24	C0B03	1.0

7 Water samples were delivered to the laboratory intact on 10/06/2021.

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

Sample Tags were not received with the samples.

The temperature of the samples was measured using an I R Gun. The samples temperature was 2.9 degree Celsius for the samples received on 10/06/2021.

Shipping Discrepancies and/or QC issues:
Issue 1: Sample tags were not received with samples at the laboratory. Sample tag numbers may or may not be listed on the TR/COC.

Resolutions 1: The laboratory will note the samples with the missing tags in the SDG Narrative and proceed with the analysis of the samples. The resolution will be applied to all samples received for this Case.

Issue 2: Laboratory QC is not scheduled for TVOA analysis for this Case; however, QC is designated on the COC. The laboratory would like to confirm that they may proceed as scheduled.

Resolution 2: Per Region 3, the laboratory will proceed with the analysis of the samples as scheduled without performing QC. Please note the issue in the SDG Narrative and proceed with the analysis of the samples.

Trace Volatiles:

The analysis performed on instrument MSVOA_V were done using GC column DB-624UI 20m 0.18mm 1.0 um. Cat#121-1324UI. The Trap was supplied by OI Analytical, OI #10 Trap, OI Eclipse 4660 Concentrator.
The analysis of VOC-TRACE-SFAM was based on method SFAM01.1_Trace.

The Holding Times were met for all analysis.
The Surrogate recoveries met the acceptable criteria.
The Retention Times met requirements.
The Internal Standards Areas met the acceptable requirements.
Instrument Performance Check met requirements.
The Tuning criteria met requirements.
The Initial Calibration met requirements.

The Continuing Calibration (VSTD005305) file ID VV022718.D met the requirements except for Benzene-d6 (-20.6%). As per method, up to two target analyte in CCV are allowed to exceed the %D values. Therefore no further corrective action was taken.

The Blank analysis indicated presence of Chloroform [0.35ug/L] FileID:VV022692.D (VBLK219) {VV1008WBL01} due to possible lab contamination. As per method, less than the respective CRQL is allowed to fail for Chloroform, therefore no further corrective action was taken.

The storage blank analysis indicated presence of Methylene chloride [0.34ug/L] FileID: VV022762.D {VHBLK001} due to lab contamination. As per method, less than the respective CRQL is allowed to fail for Chloroform. Therefore no further corrective action was taken.

Samples C0AZ7, C0AZ8, C0AZ9 and C0B00 were diluted due to high concentrations.

The samples C0AZ7, C0AZ8, C0AZ9 and C0B00 were analyzed back to back in a continuous analytical sequence and samples had common hit of compound with concentration above calibration levels for Tetrachloroethene. It was reanalyzed at a diluted. As per method, no instrument blank was required and not analyzed.

The sample C0B01 was analyzed following the analysis of C0B00. Sample C0B00 had hit of compound Tetrachloroethene with concentration above calibration levels. Sample C0B01 have not detected of the compound 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:

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.
Is = 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 for sample **C0AZ7** for **Chloromethane**:

Ax = 1246
Is = 125
RRF=0.366
DF = 1
Ais = 116645
Vo. = 25

Concentration in ug/L = $\frac{(1246)\ (125)\ (1)}{(116645)\ (0.366)\ (25)}$

Reported Result = 0.15ug/L

Relative Response Factor = **Dichlorodifluoromethane**: RUN **VV100721** 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 = $\frac{5315}{131296} \times \frac{5.0}{0.5}$

RRF= 0.405

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.