

SDG NARRATIVE**LAB NAME: CHEMTECH CONSULTING GROUP****CASE: 49323****SDG: BG0M7****CONTRACT: EPW14030****LAB CODE: CHM****CHEMTECH PROJECT: M1617****MODIFICATION REF. NUMBER: NA**

Sample ID	EPA Sample ID	Test	pH
M1617-01	BG0M7		1.0
M1617-02	BG0M8		1.0
M1617-03	BG0M9		1.0
M1617-04	BG0N0		1.0
M1617-05	BG0N1		1.0
M1617-06	BG0N2		1.0
M1617-07	BG0N3		1.0
M1617-07DL	BG0N3DL	VOC	1.0
M1617-08	BG0N4		1.0
M1617-09	BG0N5		1.0
M1617-10	BG0N6		1.0

10 Water samples were delivered to the laboratory intact on 03/09/2021.

Test requested on the Chain of Custody was Volatile Organic by Method SOM02.4.

The temperature of the samples was measured using an I R Gun. The samples temperature was 3.3 degree Celsius for the samples received on 03/09/2021.

Shipping Discrepancies and/or QC issues:

Issue 1: Sample tags were not received at the laboratory. Sample tag numbers may or may not be listed on the COC.

Resolution 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

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-Low Level -15 was based on method SOM02.4_Trace.

The Holding Times were met for all analysis.

The Surrogate recoveries met the acceptable criteria except for

BG0M7 [1,1,2,2-Tetrachloroethane-d2 - 63%],

BG0M8 [1,1-Dichloroethene-d2 - 54%],

BG0M9 [1,1-Dichloroethene-d2 - 55%],

BG0N4 [1,1-Dichloroethene-d2 - 58%],

BG0N5 [1,1,2,2-Tetrachloroethane-d2 - 63%, 1,1-Dichloroethene-d2 - 50%]. As per method, up to three surrogates are allowed to fail. No corrective action was taken.

The Internal Standards Areas met the acceptable requirements.

Instrument Performance Check met requirements.

The Tuning criteria met requirements.

The Retention Times were acceptable for all samples.

The Initial Calibration met the requirements.

The Continuing Calibration met the requirements.

The Blank analysis indicated presence of 2-Hexanone [1.7ug/L] and Chloroform [0.14ug/L] FileID:VV020474.D (VBLK34) {VV0309WBL01} due to possible lab contamination.

The Blank analysis indicated presence of 2-Hexanone [1.8 ug/L] and Chloroform [0.13ug/L] FileID:VV020485.D (VBLK35) {VV0309WBL02} due to possible lab contamination.

The Blank analysis indicated presence of 2-Hexanone [1.9ug/L] and Chloroform [0.13ug/L] FileID:VV020491.D (VBLK36) {VV0310WBL01} due to possible lab contamination. As per method, less than the respective CRQL is allowed to fail for Chloroform and 2-Hexanone.

Therefore no further corrective action was taken.

The storage blank analysis indicated presence of Chloroform [0.16ug/L] and Methylene chloride [0.83ug/L] FileID: VV020495.D {VHBLK01} due to lab contamination. As per method, less than the respective CRQL is allowed to fail for Chloroform and less than 2 times the respective CRQL is allowed to fail for Methylene chloride. Therefore no further corrective action was taken.

Sample BG0N3 was diluted due to high concentration.

The samples BG0N4 and BG0N5 was analyzed following the analysis of sample BG0N3 which had concentration above calibration levels for cis-1,2-Dichloroethene, samples BG0N4 and BG0N5 have high concentration of the compound cis-1,2-Dichloroethene therefore; samples BG0N4 and BG0N5 considered to have a carryover of sample BG0N3 and the samples BG0N4 and BG0N5 were reported (Vial A) in Preliminary Results. As corrective action Lab has reanalyzed (Vial B) for these two samples. The First analyses (Vial A) data was reported in miscellaneous section.

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

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.

A_{is} = Area of the characteristic ion (EICP) for the internal standard.

I_s = Amount of internal standard added in ng.

RRF = Mean Relative Response Factor from the initial calibration standard.

V_o = Total volume of water purged, in mL.

DF = Dilution Factor.

Example Calculation for sample **BG0M9** for **Vinyl chloride**:

A_x = 450133

I_s = 125

RRF = 0.586

DF = 1

A_{is} = 305949

V_o = 25

$$\text{Concentration in ug/L} = \frac{(450133)(125)(1)}{(305949)(0.586)(25)}$$

$$= 12.5 \text{ ug/L}$$

$$\text{Reported Result} = 13 \text{ ug/L}$$

Relative Response Factor = **Dichlorodifluoromethane**: RUN **VV022221** for **0.5** ppb

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

$$\text{RRF} = \frac{27611}{392183} \times \frac{5.0}{0.5}$$

$$\text{RRF} = 0.704$$

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