

**SDG NARRATIVE****LAB NAME: CHEMTECH CONSULTING GROUP****CASE: 48950****SDG: BFX41****CONTRACT: EPW14030****LAB CODE: CHM****CHEMTECH PROJECT: L2846****MODIFICATION REF. NUMBER: NA**

Sample ID	EPA Sample ID	pH
L2846-01	BFX41	1.0
L2846-02	BFX42	1.0

2 Water samples were delivered to the laboratory intact on 06/02/2020.

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

Samples for Volatile Organic analyses were transferred unopened to the Volatile Laboratory. 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 06/02/2020.

**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.

**Resolution 1:** In accordance with previous direction from Region 2, the laboratory will note the issue in the SDG Narrative, and proceed with the analysis of the sample. The Resolution will be applied to all samples received for this Case

**Issue 2:** The laboratory received water samples for TVOA analysis on 6/2/2020. The COC lists a 21 day TAT for the samples, but a 7 day TAT is scheduled for TVOA analysis.

**Resolution 2:** In accordance with previous direction from Region 2, the laboratory will note the issue in the SDG Narrative and proceed with the analysis of the samples as indicated on the Scheduling Notification Form. The resolution will be applied to all COCs received for this Case that list information that does not match the Scheduling Notification Form.

**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 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

BFX41 [1,1-Dichloroethene-d2 - 55%]. 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 Closing Continuing Calibration (VSTD00530) file ID VU038506.D met the requirements except for Carbon disulfide (-27.4%). As per method, up to two targets analyte in closing CCV are allowed to exceed the %D values. Therefore no further corrective action was taken.

The blank did not indicate the presence of lab contamination.

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

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<sub>x</sub> = Area of the characteristic ion (EICP) for the compound to be measured.

A<sub>is</sub> = Area of the characteristic ion (EICP) for the internal standard.

I<sub>s</sub> = Amount of internal standard added in ng.

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

V<sub>o</sub> = Total volume of water purged, in mL.

DF = Dilution Factor.

Example Calculation for sample **BFX41** for **Chloroform**:

$$A_x = 19219$$

$$I_s = 125$$

$$RRF = 0.603$$

$$DF = 1$$

$$A_{is} = 341529$$

$$V_o = 25$$

$$\text{Concentration in ug/L} = \frac{(19219) (125) (1)}{(341529) (0.603) (25)}$$

$$= 0.47 \text{ ug/L}$$

$$\text{Reported Result} = 0.47 \text{ ug/L}$$

Relative Response Factor = **Dichlorodifluoromethane**: RUN **VU053020** for 0.5 ppb

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

$$\text{RRF} = \frac{14955}{340878} \times \frac{5.0}{0.5}$$

$$\text{RRF} = 0.439$$

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