



## SDG NARRATIVE

**LAB NAME:** Alliance Technical Group, LLC

**CASE:** 51948

**SDG:** C0AL9

**CONTRACT:** 68HERH20D0011

**LAB CODE:** ACE

**LAB ORDER ID:** Q1125

**MODIFICATION REF. NUMBER:** NA

Sample ID	EPA Sample ID	pH
Q1125-01	C0AL9	1.0
Q1125-02	C0AM2	1.0
Q1125-03	C0AZ9	1.0
Q1125-04	C0B00	1.0
Q1125-05	C0B01	1.0
Q1125-06	C0B02	1.0
Q1125-07	C0B04	1.0
Q1125-08	C0B06	1.0
Q1125-09	C0B07	1.0
Q1125-10	C0B08	1.0
Q1125-11	C0B09	1.0
Q1125-12	C0B10	1.0
Q1125-13	C0B11	1.0

13 Water samples were delivered to the laboratory intact on 01/17/2025.

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 2.4 degree Celsius for the samples received on 01/17/2025.

### 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 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,  
C0B08 [Toluene-d8 - 69%],

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 Retention Times met requirements.

The Tuning criteria met requirements.

The initial Calibration criteria met requirements.

The Continuing Calibration (VSTD005330) file ID VV038474.D met the requirements except for 4-Methyl-2-pentanone (34.1%). 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 Blank analysis did not indicate the presence of lab contamination.

The storage blank analysis 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:

#### Low/Med Water Level 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.

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 of **C0B04** for **Vinyl chloride**:

$$A_x = 57668$$

$$I_s = 125$$

$$RRF = 0.579$$

$$DF = 1$$

$$A_{is} = 205250$$

$$V_o = 25$$



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$$\text{Concentration in ug/L} = \frac{(57668)(125)(1)}{(205250)(0.579)(25)}$$

Reported Result = 2.43 ug/L

Final Reported Result = 2.4 ug/L

Relative Response Factor = **Dichlorodifluoromethane: RUN VV011725** for **0.5** ppb

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

$$\text{RRF} = \frac{11771}{194122} \times \frac{5.0}{0.5}$$

$$\text{RRF} = 0.606$$

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.