

SDG NARRATIVE

LAB NAME: Alliance Technical Group, LLC CASE: 51945 SDG: BH8X0 CONTRACT: 68HERH20D0011 LAB CODE: ACE LAB ORDER ID: Q1058 MODIFICATION REF. NUMBER: NA

Sample ID	EPA Sample ID	Test	pН
Q1058-01	BH8X0		1.0
Q1058-01DL	BH8X0DL	TVOA	1.0
Q1058-02	BH8X1		1.0
Q1058-03	BH8X2		1.0
Q1058-04	BH8X3		1.0
Q1058-05	BH8X4		1.0
Q1058-06	BH8X5		1.0
Q1058-07	BH8X6		1.0
Q1058-07DL	BH8X6DL	TVOA	1.0
Q1058-08	BH8X7		1.0
Q1058-08DL	BH8X7DL	TVOA	1.0
Q1058-09	BH8X8		1.0
Q1058-10	BH8X9		1.0
Q1058-11	BH8Y0		1.0
Q1058-12	BH8Y1		1.0
Q1058-13	BH8Y2		1.0
Q1058-13DL	BH8Y2DL	TVOA	1.0
Q1058-14	BH8Y3		1.0
Q1058-15	BH8Y4		1.0
Q1058-16	BH8Y5		1.0
Q1058-17	BH8Y6		1.0
Q1058-18	BH8Y7		1.0
Q1058-19	BH8Y8		1.0
Q1058-19DL	BH8Y8DL	TVOA	1.0
Q1058-20	BH8Y9		1.0
Q1058-20DL	BH8Y9DL	TVOA	1.0



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20 Water samples were delivered to the laboratory intact on 01/10/2025.

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 2.1 degree Celsius for the samples received on 01/10/2025.

Shipping Discrepancies and/or QC issues:

Issue 1: The COC shipped with samples for Case 51945 on 01/10/2025 listed an incorrect Case number.

Resolution 1: Per Region 2, a revised COC with the correct Case number listed is attached. Please note the issue in the SDG Narrative and proceed with the analysis of the samples.

Issue 2: 'The Lab has received water samples for TVOA analysis. The samples BH8Y6 and BH8Y7 were received with foamy nature of the samples and samples could not be analyzed undiluted due to foamy matrix. Therefore, as a precautionary step, Lab has analyzed samples BH8Y6 and BH8Y7 with most plausible dilution factors as you can see attached quant reports for your reference. The sample BH8Y3 has and analyzed undiluted analysis and found surrogates recovery was outside the QC limits due to nature of the sample, therefore lab would like to confirm that lab will report dilution analysis for TVOA analysis as first analysis for the samples BH8Y6 and BH8Y7 and the sample BH8Y3 with surrogate failure final electronic deliverables.'

Lab has performed the analysis for sample BH8Y3 as checked pH for the sample and found that pH is more than 2 for the sample.

The lab has received water samples for TVOA analysis. Lab has performed the analysis for the samples BH8X7, BH8Y9, BH8Y8 and BH8X6 in a continuous analytical sequence. Samples are found positive with high concentration of multiple analysis and required dilution analysis to bring target analytes within calibration range. In this case, instrument blank was analyzed in between the samples due to continuous analytical sequence therefore lab would like to confirm that lab will report undiluted VOA analysis without instrument blank in between and further dilution in final electronic data."

Resolution 2: "Please advise the laboratory to proceed and document rational for any deviation from the SOW in their SDG narrative. Thanks."

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.



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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,

BH8Y3 [1,1-Dichloroethene-d2 - 51%,2-Butanone-d5 - 179%,2-Hexanone-d5 - 140%, 1,1,2,2-Tetrachloroethane-d2 - 128%],

As per method, up to three surrogates are allowed to fail.

The Lab has received water samples for TVOA analysis. The sample BH8Y3 was received with foamy nature of the sample and sample BH8Y3 has and analyzed undiluted analysis and found surrogates recovery was outside the QC limits due to nature of the sample, therefore Lab Reported sample BH8Y3 with surrogate failure final hard Copy, Please see EPA communication after SDG Narrative.

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 End Continuing Calibration (VSTD005096) file ID VU062695.D met the requirements except for Bromomethane (-60%). 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 End Continuing Calibration (VSTD005099) file ID VU062728.D met the requirements except for Bromomethane (-58.4%). 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 End Continuing Calibration (VSTD005101) file ID VU062754.D met the requirements except for Bromomethane (-55.7%). 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 (VSTD005102) file ID VU062756.D met the requirements except for Vinyl Chloride-d3 (-37.4%) and 1,1-Dichloroethene-d2 (-30.5%). 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 (VSTD005103) file ID VU062779.D met the requirements except for Vinyl Chloride-d3 (-36.4%) and 1,1-Dichloroethene-d2 (-26.1%). 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.



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The End Continuing Calibration (VSTD005104) file ID VU062803.D met the requirements except for 2-Butanone (-73.8%) and 2-Butanone-d5 (-69.4%). 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 Blank analysis did not indicate the presence of lab contamination. The storage blank analysis did not indicate the presence of lab contamination.

The Lab has received water samples for TVOA analysis. The samples BH8Y6 and BH8Y7 were received with foamy nature of the samples and samples could not be analyzed undiluted due to foamy matrix. Therefore, as a precautionary step, Lab has analyzed samples BH8Y6 and BH8Y7 with most plausible dilution factors, , therefore lab reported diluted analysis for TVOA analysis as first analysis for the samples BH8Y6 and BH8Y7 for final Hard Copy, Please see EPA communication after SDG Narrative.

Samples BH8X0, BH8X6, BH8X7, BH8Y2, BH8Y8 and BH8Y9 were diluted due to high concentrations.

The Samples BH8X6, BH8X7, BH8Y8 and BH8Y9 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.

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

Calculation:

Low/Med Water Level Calculation

Concentration in ug/L = (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.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 **BH8X0** for **Vinyl chloride**:

Ax= 6968 Is = 125 RRF= 0.360 DF= 1 Ais= 116081 Vo. = 25 Concentration in ug/L = (6968)(125)(1)(116081)(0.360)(25)

Reported Result = 0.83 ug/L

Final Reported Result = 0.83 ug/L

Relative Response Factor = **Dichlorodifluoromethane**: RUN **VU010225** for **0.5** ppb

- RRF= <u>Area of compound</u> X <u>Conc. of Internal Standard</u> Area of Internal Standard Conc. of Compound
- $RRF = \frac{4870}{100728} X \frac{5.0}{0.5}$

RRF= 0.483

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.