SDG NARRATIVE

LAB NAME: Alliance Technical Group, LLC
CASE: 51724
SDG: GCNX9
CONTRACT: 68HERH20D0011
LAB CODE: ACE
LAB ORDER ID: P4560
MODIFICATION REF. NUMBER: NA

Sample ID	EPA Sample ID	pH
P4560-01	GCNW6	1.0
P4560-02	GCNX9	1.0
P4560-03	GCNY0	1.0
P4560-04	GCNY1	1.0
P4560-05	GCNY2	1.0
P4560-06	GCNY3	1.0
P4560-07	GCNY4	1.0
P4560-08	GCNY5	1.0
P4560-09	GCNY6	1.0
P4560-10	GCNY7	1.0
P4560-11MS	GCNY7MS	1.0
P4560-12MSD	GCNY7MSD	1.0
P4560-13	GCNY8	1.0
P4560-14	GCNY9	1.0
P4560-15	GCNZ0	1.0
P4560-16	GCNZ1	1.0
P4560-17	GCNZ2	1.0
P4560-18	GCNZ3	1.0
P4560-19	GCNZ4	1.0

19 Water samples were delivered to the laboratory intact on 10/25/2024.

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 3.2, 3.0, 2.9, 3.3, 2.8 degree Celsius for the samples received on 10/25/2024.

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 analysis of VOC-SFAM was based on method SFAM01.1_Trace.

The Surrogate recoveries met the acceptable criteria.
The Internal Standards Areas met the acceptable requirements.
Instrument Performance Check met requirements.
The Retention Times met requirements.
The Tuning criteria met requirements.
The MS {GCNY7MS} recovery met the requirements for all compounds.
The MSD {GCNY7MSD} recovery met the requirements for all compounds.
The RPD {GCNY7MSD} RPD met the requirements for all compounds.
The initial Calibration criteria met requirements.

The Continuing Calibration (VSTD005108) file ID VU061214.D met the requirements except for Chloroethane-d5 (-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 Blank analysis 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:

Low/Med Water Level Calculation

$$\text{Concentration in ug/L} = \frac{(Ax)\,(Is)\,(DF)}{(Ais)\,(RRF)\,(Vo)}$$

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.
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 **GCNW6** for **Chloroethane**:

Ax= 135587
Is = 125
RRF= 0.285
DF= 1
Ais= 186664
Vo. = 25
Concentration in ug/L = $\frac{(135587)\,(125)\,(1)}{(186664)(0.285)(25)}$

Reported Result = 12.74 ug/L

Final Reported Result = 13 ug/L

Relative Response Factor = **Dichlorodifluoromethane**: RUN **VU102324** for **0.5** ppb

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

RRF= $\frac{5894}{198718}$ X $\frac{5.0}{0.5}$

RRF= 0.297

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.