



SDG NARRATIVE

LAB NAME: Alliance Technical Group, LLC

CASE: 51860

SDG: YE682

CONTRACT: 68HERH20D0011

LAB CODE: ACE

LAB ORDER ID: P5326

MODIFICATION REF. NUMBER: NA

Sample ID	EPA Sample ID	pH
P5326-01	YE680	5.0
P5326-02MS	YE680MS	5.0
P5326-03MSD	YE680MSD	5.0
P5326-04	YE682	5.0
P5326-06	YE685	5.0
P5326-07	YE686	5.0

04 Soil samples were delivered to the laboratory intact on 12/18/2024.

02 Soil samples were delivered to the laboratory intact on 12/21/2024.

Test requested on the Chain of Custody was TCLP Volatile Organic and TCLP Semivolatile Organic by Method SFAM01.1.

The temperature of the samples was measured using an I R Gun. The samples temperature was 2.3 degree Celsius for the samples received on 12/18/2024, 2.1 degree Celsius for the samples received on 12/21/2024.

Low Volatiles (TCLP VOA):

The analysis performed on instrument MSVOA_X were done using GC column DB-624UI 20m 0.18mm 1.0 um. Cat#121-1324UI.

The analysis of TCLP VOA was based on method SFAM01.1_Low.

Holding Times were met requirement.

The Surrogate recoveries met the acceptable criteria except for YE686 [1,2-Dichlorobenzene-d4 - 122%]. As per method, up to two 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 MS {YE680MS} recovery met the requirements for all compounds.
The MSD {YE680MSD} recovery met the requirements for all compounds.
The RPD {YE680MSD} RPD met the requirements for all compounds.
The Initial Calibration met the requirements.
The Continuing Calibration met the requirements.
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_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.

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

No positive target compounds were detected in the samples.

Relative Response Factor = **Vinyl chloride: RUN VX120524** for **5.0** ppb

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

$$RRF = \frac{9217}{234557} \times \frac{50}{5.0}$$

$$RRF = 0.393$$

TCLP Semivolatiles :

The samples were analyzed on instrument BNA_G using GC Column ZB-GR Semi Volatiles Guardian which is 30 meters, 0.25 mm ID, 0.5 um df, Catalog # 7HG-G027-17-GGA.

The analysis of TCLP BNA Group1 was based on method SFAM01.1. Semi volatile Organic samples were extracted by Method SFAM01.1 on 12/27/2024. Samples were received on 12/18/2024 and 12/21/2024. TCLP extraction was done on 12/26/2024.

This standard solution has 3-Methylphenol and 4-Methylphenol at a concentration of 500 ug/mL each whereas all other compounds are present at a concentration of 1000 ug/mL concentration. 3-Methylphenol and 4-Methylphenol co-elute. Since 3-Methylphenol is not a Target Compound to be reported under the SFAM01.1 contract, 4-Methylphenol is reported on the forms using the RRF obtained from the 3+4-Methylphenols peak.

The Holding Times were met for all analysis.

The Surrogate recoveries met the acceptable criteria except for,

YE680MS [Anthracene-d10 - 133%],

YE682 [Anthracene-d10 - 131%]. As per method one surrogates are allowed to fail. Therefore no further corrective action was taken.

The Internal Standards Areas met the acceptable requirements.

The Retention Times were acceptable for all samples.

The MS {YE680MS} recovery met the requirements for all compounds.

The MSD {YE680MSD} recovery met the requirements for all compounds.

The RPD {YE680MSD} RPD met the requirements for all compounds

The Blank Spike for {PB165892BS} recoveries met the requirements for all compounds.

The Blank Spike for {PB165893BS} recoveries met the requirements for all compounds.

The Blank analysis did not indicate the presence of lab contamination.

The Tuning criteria met requirements.

The Initial Calibration met the requirements.

The Continuous Calibration met the requirements.

The Sample YE686 has the concentration of target compound below method detection limits; therefore it is not reported as Hit in Form1.

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

Concentration of TCLP Sample:

$$\text{Concentration ug/L} = \frac{(A_x) (I_s) (V_t) (DF) (GPC)}{(A_{is}) (RRF) (V_o) (V_i)}$$

Where,

A_x = Area of the characteristic ion for the compound to be measured.

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

I_s = Amount of internal standard injected in ng.

V_o = Volume of water extracted in mL.

V_i = Volume of extract injected in uL.



4 of 4

Vt = Volume of the concentrated extract in uL

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

GPC = $\frac{V_{in}}{V_{out}}$ = GPC factor (If no GPC is performed, GPC=1)

No positive target compounds were detected in the samples.

RRF Calculation of standard 20 ppb for **Pyridine** with instrument G for method 12/11/2024.

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

= 243297/134078 X 20/20

= 1.815 (Reported RRF)

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.