

4/22/2024

Mr. Lucas Henry  
GeoSyntec Consultants  
920 SW Sixth Avenue, Suite 600

Portland OR 97204

Project Name: Cascade SVE  
Project #: PNG0564S23/02/01  
Workorder #: 2404219

Dear Mr. Lucas Henry

The following report includes the data for the above referenced project for sample(s) received on 4/10/2024 at Eurofins Air Toxics LLC.

The data and associated QC analyzed by Modified TO-15 are compliant with the project requirements or laboratory criteria with the exception of the deviations noted in the attached case narrative.

Thank you for choosing Eurofins Air Toxics LLC. for your air analysis needs. Eurofins Air Toxics Inc. is committed to providing accurate data of the highest quality. Please feel free to contact the Project Manager: Monica Tran at 916-985-1000 if you have any questions regarding the data in this report.

Regards,



Monica Tran  
Project Manager

**WORK ORDER #: 2404219**

Work Order Summary

<b>CLIENT:</b>	Mr. Lucas Henry GeoSyntec Consultants 920 SW Sixth Avenue, Suite 600 Portland, OR 97204	<b>BILL TO:</b>	Accounts Payable Cascade Corporation 2201 NE 201st Avenue Fairview, OR 97024
<b>PHONE:</b>	503-222-9518	<b>P.O. #</b>	PNg05 G4S24
<b>FAX:</b>	503-242-1416	<b>PROJECT #</b>	PNG0564S23/02/01 Cascade SVE
<b>DATE RECEIVED:</b>	04/10/2024	<b>CONTACT:</b>	Monica Tran
<b>DATE COMPLETED:</b>	04/22/2024		

<u>FRACTION #</u>	<u>NAME</u>	<u>TEST</u>	<u>RECEIPT VAC./PRES.</u>	<u>FINAL PRESSURE</u>
01A	SVE-EFF-040924	Modified TO-15	4.9 "Hg	10.3 psi
02A	Lab Blank	Modified TO-15	NA	NA
03A	CCV	Modified TO-15	NA	NA
04A	LCS	Modified TO-15	NA	NA
04AA	LCSD	Modified TO-15	NA	NA

CERTIFIED BY:   
 \_\_\_\_\_  
 Technical Director

DATE: 04/22/24

Certification numbers: AZ Licensure AZ0775, FL NELAP – E87680, LA NELAP – 02089, NH NELAP – 209222, NJ NELAP - CA016, NY NELAP - 11291, TX NELAP – T104704434-22-18, UT NELAP – CA009332022-14, VA NELAP - 12240, WA ELAP - C935  
 Name of Accreditation Body: NELAP/ORELAP (Oregon Environmental Laboratory Accreditation Program) CA300005-017  
 Eurofins Environment Testing Northern California, LLC certifies that the test results contained in this report meet all requirements of the 2016 TNI Standard.

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**LABORATORY NARRATIVE**  
**Modified TO-15**  
**GeoSyntec Consultants**  
**Workorder# 2404219**

One 1 Liter Summa Canister (100% Certified) sample was received on April 10, 2024. The laboratory performed analysis via modified EPA Method TO-15 using GC/MS in the full scan mode.

Method modifications taken to run these samples are summarized in the table below. Specific project requirements may over-ride the EATL modifications.

<i>Requirement</i>	<i>TO-15</i>	<i>ATL Modifications</i>
Initial Calibration	<math>\leq 30\%</math> RSD with 2 compounds allowed out to <math>< 40\%</math> RSD	<math>\leq 30\%</math> RSD with 4 compounds allowed out to <math>< 40\%</math> RSD
Blank and standards	Zero Air	UHP Nitrogen provides a higher purity gas matrix than zero air

**Receiving Notes**

The Chain of Custody (COC) information for sample SVE-EFF-040924 did not match the information on the canister with regard to canister barcode. The sample labeled 1L4636 on the COC is labeled as 1L4686 on the canister. The client was notified of the discrepancy and the information on the canister was used to process and report the sample.

**Analytical Notes**

Dilution was performed on sample SVE-EFF-040924 due to the presence of high level target species.

**Definition of Data Qualifying Flags**

Eight qualifiers may have been used on the data analysis sheets and indicates as follows:

- B - Compound present in laboratory blank greater than reporting limit (background subtraction not performed).
- J - Estimated value.
- E - Exceeds instrument calibration range.
- S - Saturated peak.
- Q - Exceeds quality control limits.
- U - Compound analyzed for but not detected above the reporting limit, LOD, or MDL value. See data page for project specific U-flag definition.
- UJ- Non-detected compound associated with low bias in the CCV
- N - The identification is based on presumptive evidence.

File extensions may have been used on the data analysis sheets and indicates as follows:

- a-File was requantified
- b-File was quantified by a second column and detector
- r1-File was requantified for the purpose of reissue

**Summary of Detected Compounds**  
**MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN**

**Client Sample ID: SVE-EFF-040924**

**Lab ID#: 2404219-01A**

<b>Compound</b>	<b>Rpt. Limit (ppbv)</b>	<b>Amount (ppbv)</b>	<b>Rpt. Limit (ug/m3)</b>	<b>Amount (ug/m3)</b>
cis-1,2-Dichloroethene	0.51	8.1	2.0	32
Trichloroethene	0.51	70	2.7	380
Tetrachloroethene	0.51	4.3	3.4	29

Client Sample ID: SVE-EFF-040924

Lab ID#: 2404219-01A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	22041919	Date of Collection:	4/9/24 12:40:00 PM
Dil. Factor:	5.08	Date of Analysis:	4/19/24 09:32 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Vinyl Chloride	0.51	Not Detected	1.3	Not Detected
1,1-Dichloroethene	0.51	Not Detected	2.0	Not Detected
cis-1,2-Dichloroethene	0.51	8.1	2.0	32
Trichloroethene	0.51	70	2.7	380
Tetrachloroethene	0.51	4.3	3.4	29

Container Type: 1 Liter Summa Canister (100% Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	92	70-130
Toluene-d8	91	70-130
4-Bromofluorobenzene	104	70-130

Client Sample ID: Lab Blank

Lab ID#: 2404219-02A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	22041906g	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 4/19/24 11:27 AM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Vinyl Chloride	0.10	Not Detected	0.26	Not Detected
1,1-Dichloroethene	0.10	Not Detected	0.40	Not Detected
cis-1,2-Dichloroethene	0.10	Not Detected	0.40	Not Detected
Trichloroethene	0.10	Not Detected	0.54	Not Detected
Tetrachloroethene	0.10	Not Detected	0.68	Not Detected

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	101	70-130
Toluene-d8	91	70-130
4-Bromofluorobenzene	105	70-130

Client Sample ID: CCV

Lab ID#: 2404219-03A

**MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN**

<b>File Name:</b>	<b>22041902</b>	<b>Date of Collection: NA</b>
<b>Dil. Factor:</b>	<b>1.00</b>	<b>Date of Analysis: 4/19/24 08:19 AM</b>

<b>Compound</b>	<b>%Recovery</b>
Vinyl Chloride	102
1,1-Dichloroethene	97
cis-1,2-Dichloroethene	96
Trichloroethene	96
Tetrachloroethene	100

Container Type: NA - Not Applicable

<b>Surrogates</b>	<b>%Recovery</b>	<b>Method Limits</b>
1,2-Dichloroethane-d4	92	70-130
Toluene-d8	94	70-130
4-Bromofluorobenzene	112	70-130

Client Sample ID: LCS

Lab ID#: 2404219-04A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	22041903	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 4/19/24 09:04 AM

Compound	%Recovery	Method Limits
Vinyl Chloride	98	70-130
1,1-Dichloroethene	91	70-130
cis-1,2-Dichloroethene	91	70-130
Trichloroethene	91	70-130
Tetrachloroethene	96	70-130

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	93	70-130
Toluene-d8	91	70-130
4-Bromofluorobenzene	111	70-130

Client Sample ID: LCSD

Lab ID#: 2404219-04AA

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	22041904	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 4/19/24 09:52 AM

Compound	%Recovery	Method Limits
Vinyl Chloride	98	70-130
1,1-Dichloroethene	90	70-130
cis-1,2-Dichloroethene	91	70-130
Trichloroethene	91	70-130
Tetrachloroethene	97	70-130

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	92	70-130
Toluene-d8	91	70-130
4-Bromofluorobenzene	112	70-130