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January 9, 2023

Ms. Rebecca Armbruster
Aramark Uniform & Career Apparel, LLC
8130 S. Meridian Street, Suite 1A
Indianapolis, IN 46217

Subject: Vapor Sample Results for Aramark Uniform & Career Apparel, LLC (AUCA)
400 North West Street, Sikeston (Scott County), Missouri 68301
TRC #255308

Dear Ms. Armbruster:

In May 2021, TRC submitted a "Work Plan for Vapor Intrusion and Industrial Hygiene Sampling" (Work Plan) to the Missouri Department of Natural Resources (MDNR), who then transferred the case to USEPA Region VII in June 2022. In September 2022, Brianne Stubblefield with USEPA approved the Work Plan with revisions, including sub-slab vapor sampling at AUCA's 400 North West Street, Sikeston, Missouri facility (Site).

You and John Tweddale from TRC met with AUCA plant personnel on November 9, 2022, and performed a preliminary evaluation of the Site. This evaluation was conducted to further discuss TRC's planned scope of work, site access, and sample locations. Between November 15 and 18, 2022, TRC field staff installed nine sub-slab vapor sample pins and completed one round of sub-slab vapor sampling within the AUCA building.

The purpose of this letter is to provide results of the sub-slab vapor sampling, which included collection of nine sub-slab vapor samples and one duplicate sample (parent sample: AUCA-VP-5). The locations and sample identification information for each sub-slab sample are shown on Figure 1 (Attachment 1).

Sub-slab vapor samples were submitted to Eurofins Environment Testing America - Knoxville for analysis of tetrachloroethene (PCE); trichloroethene (TCE); cis-1,2-dichloroethene (cDCE); trans-1,2-dichloroethene (tDCE); and vinyl chloride (VC) using USEPA Method Toxic Organic (TO) TO-15. The laboratory analytical results from the sampling event are summarized in Table 1 (Attachment 2) and the laboratory analytical report is included in Attachment 3.

The results shown in Table 1 are compared to the risk-based screening and action levels specified in the USEPA-approved Work Plan. The preliminary sample results from the November 2022 monitoring event were shared with the USEPA on December 6, and the USEPA is copied on this letter.

Ms. Rebecca Armbruster
Aramark Uniform & Career Apparel, LLC
January 9, 2023
Page 2

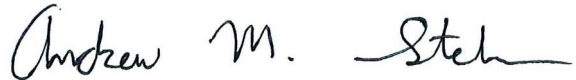
Please contact John at 608-279-7496 or jtweddale@trccompanies.com if you have questions.

Sincerely,

TRC



John B. Tweddale, PG (WI, IL, IN), CHMM
Project Manager



Andrew M. Stehn
Senior Project Engineer

Attachments: 1. Figure 1 – AUCA Vapor Sample Locations
2. Table 1 – Aramark Uniform and Career Apparel Sub-Slab Vapor Sampling Results
3. Laboratory Analytical Report

cc: Stephanie Walter, AUCA
Brianne Stubblefield, USEPA
William Curtis, Polsinelli
Yvette Nadgir, Chubb
Susan Ferrel, Rimkus
Eric Livingston RG, TRC

Attachment 1
Figure 1 – AUCA Vapor Sample Locations



LEGEND

SHALLOW MONITORING WELL
(≤ 50 FEET BELOW GROUND SURFACE)

INTERMEDIATE MONITORING WELL
(> 50 FEET AND ≤ 110 FEET BELOW GROUND SURFACE)

DEEP MONITORING WELL
(> 110 FEET BELOW GROUND SURFACE)

PROPERTY BOUNDARY LINE

AUCA SUB-SLAB SAMPLE

SAMPLES HIGHLIGHTED IN ORANGE DEPICT AN ACTION
LEVEL EXCEEDANCE FOR ONE OR MORE CONSTITUENTS

SAMPLES HIGHLIGHTED IN YELLOW DEPICT A SCREENING
LEVEL EXCEEDANCE FOR ONE OR MORE CONSTITUENTS

SAMPLES HIGHLIGHTED IN GREEN DEPICT NO ACTION OR SCREENING
LEVEL EXCEEDANCES FOR ANY CONSTITUENTS ANALYZED

AUCA

ARAMARK UNIFORM & CAREER APPAREL, LLC.

NOTES

1.

BASE MAP IMAGERY FROM GOOGLE, NOVEMBER 2016.

2.

VAPOR ACTION AND SCREENING LEVELS FROM USEPA VAPOR INTRUSION SCREENING LEVEL (VISL) CALCULATOR (OCTOBER 2022) AND THE USEPA REGION 7'S 2017 MEMO REGARDING REVISED VAPOR ACTION LEVELS FOR TCE.

3.

VAPOR ACTION LEVELS BASED ON A COMMERCIAL FACILITY AND ASSUME A TARGET CANCER RISK OF 1X10-4, TARGET HAZARD QUOTIENT OF 1.0, AND ATTENUATION FACTOR OF 0.03.

4.

VAPOR SCREENING AND LEVELS BASED ON A COMMERCIAL FACILITY AND ASSUME A TARGET CANCER RISK OF 1X10-6, TARGET HAZARD QUOTIENT OF 0.1, AND ATTENUATION FACTOR OF 0.03.

PROJECT:

**ARAMARK FACILITY
400 NORTH WEST STREET
SIKESTON, MISSOURI**

TITLE:

AUCA - VAPOR SAMPLE LOCATIONS

DRAWN BY:

R. SUEMNICHT

CHECKED BY:

A. STEHN

APPROVED BY:

J. TWEDDALE

DATE:

JANUARY 2023

PROJ NO.:

255308

FIGURE 1

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Madison, WI 53717
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FILE NO.:

255308-028_VI_AUCA.mxd

Attachment 2

Table 1 – Aramark Uniform and Career Apparel Sub-Slab Vapor Sampling Results

Table 1
Aramark Uniform and Career Apparel Sub-Slab Vapor Sampling Results
Aramark Uniform - Sikeston, Missouri

Chemical ⁽³⁾	Toxicity Basis	Screening Level ⁽⁴⁾	Action Level ⁽⁴⁾		Sub-Slab Vapor Sample ID ⁽⁵⁾									
		(TCR= 1E ⁻⁰⁶ or THQ =0.1)	(TCR= 1E ⁻⁰⁴ or THQ =1)	Units	AUCA-VP-1	AUCA-VP-2	AUCA-VP-3	AUCA-VP-4	AUCA-VP-5	AUCA-VP-DUP-1 ⁽⁶⁾	AUCA-VP-6	AUCA-VP-7	AUCA-VP-8	AUCA-VP-9
		Target Sub-Slab ^(1,2) (µg/m ³)	Target Sub-Slab ^(1,2) (µg/m ³)	Date	11/16/2022	11/16/2022	11/16/2022	11/16/2022	11/16/2022	11/16/2022	11/16/2022	11/16/2022	11/16/2022	11/16/2022
				Time	9:47 AM	10:50 AM	11:34 AM	2:05 PM	1:08 PM	-	12:23 PM	3:04 PM	3:37 PM	4:18 PM
				PID (ppm)	3.0	1.0	0.0	0.0	60	60	2.6	0.3	1.2	275
cis-1,2-Dichloroethene	NC	584	5,800		14 U	380 U	3.2 U	3.2 U	2,300 U	490 J	4,600	3.2 U	66 U	330,000
Tetrachloroethene	NC	584	5,800		1,000	53,000	660	140	270,000	340,000	300,000	96	7,900	490,000
trans-1,2-Dichloroethene	NC	584	5,800		14 U	380 U	3.2 U	3.2 U	2,300 U	1,900 U	2,200 U	3.2 U	66 U	11,000 U
Trichloroethene	NC	29.2	200		9.8 U	1,200	2.1 U	2.9	10,000	14,000	17,000	2.1 U	24 J	640,000
Vinyl chloride	CA	92.9	9,300		4.6 U	120 U	1.0 U	1.0 U	740 U	620 U	710 U	1.0 U*+	21 U	13,000

Notes:

BOLD = exceeds vapor screening level

BOLD UNDERLINED = exceeds action level

BLUE SHADED = result reported below the laboratory reporting limit and reporting limit exceeds the screening and/or action level.

NC = Noncarcinogen

CA = Carcinogen

TCR = target cancer risk

THQ = target hazard quotient

µg/m³ = micrograms per cubic meter

U = Result was not detected above the laboratory reporting limit.

J = Result is less than the reporting limit but greater than or equal to the method detection limit and the concentration is an approximate value.

*+ = Laboratory control sample (LCS) and/or Laboratory Control Sample Duplicate (LCSD) was reported outside acceptance limits, high biased.

- = data not recorded or not applicable

Prepared By: A. Enright 11/30/22

Checked By: C. Frauen 11/30/2022

Updated By: A. Stehn 12/5/2022

Footnotes:

⁽¹⁾ Assumes USEPA industrial/commercial default exposure (8 hrs/day; 250 days/yr; 25 years).

⁽²⁾ Attenuation Factor - sub-slab soil gas – 0.03.

⁽³⁾ Reporting Limits and Method Detection Limits provided by Eurofins Environment Testing America - Knoxville.

⁽⁴⁾ Vapor Action and Screening Levels from USEPA Vapor Intrusion Screening Level (VISL) calculator (October 2022) and the USEPA Region 7's 2017 Memo regarding revised vapor action levels for TCE.

⁽⁵⁾ Sub-slab vapor samples collected using 1-Liter Summa canisters fitted with flow controllers set to 200 milliliters/minute.

⁽⁶⁾ Duplicate sample AUCA-VP-DUP-1 was collected from vapor sample point AUCA-VP-5.

Attachment 3
Laboratory Analytical Report

ANALYTICAL REPORT

PREPARED FOR

Attn: Andrew Stehn
TRC Environmental Corporation
41 Spring Street
New Providence, New Jersey 07974

Generated 11/30/2022 8:18:05 AM

JOB DESCRIPTION

TO15

JOB NUMBER

140-29698-1

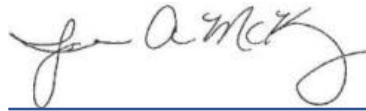
Eurofins Knoxville

Job Notes

This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins TestAmerica Project Manager.

Authorization



Generated
11/30/2022 8:18:05 AM

Authorized for release by
Jamie McKinney, Senior Project Manager
Jamie.McKinney@et.eurofinsus.com
(865)291-3000

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Definitions/Glossary

Client: TRC Environmental Corporation
Project/Site: TO15

Job ID: 140-29698-1

Qualifiers

Air - GC/MS VOA

Qualifier	Qualifier Description
*+	LCS and/or LCSD is outside acceptance limits, high biased.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Case Narrative

Client: TRC Environmental Corporation
Project/Site: TO15

Job ID: 140-29698-1

Job ID: 140-29698-1

Laboratory: Eurofins Knoxville

Narrative

Job Narrative 140-29698-1

Comments

No additional comments.

Receipt

The samples were received on 11/21/2022 10:00 AM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice.

Air - GC/MS VOA

Methods TO 15 LL, TO-15: EPA methods TO-14A and TO-15 specify the use of humidified "zero air" as the blank reagent for canister cleaning, instrument calibration and sample analysis. Ultra-high purity humidified nitrogen from a cryogenic reservoir is used in place of "zero air" by Eurofins TestAmerica Knoxville.

Method TO 15 LL: The continuing calibration verification (CCV) associated with batch 140-67823 recovered above the upper control limit for Vinyl chloride. The samples associated with this CCV were non-detects for the affected analyte; therefore, the data have been reported.

Method TO 15 LL: The laboratory control sample (LCS) for analytical batch 140-67823 recovered outside control limits for the following analyte: Vinyl chloride. This analyte was biased high in the LCS and was not detected in the associated samples; therefore, the data have been reported.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Detection Summary

Client: TRC Environmental Corporation
Project/Site: TO15

Job ID: 140-29698-1

Client Sample ID: BMU-IA-1

Lab Sample ID: 140-29698-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
cis-1,2-Dichloroethene	0.25		0.080	0.010	ppb v/v	1		TO 15 LL	Total/NA
Tetrachloroethene	0.21		0.080	0.012	ppb v/v	1		TO 15 LL	Total/NA
Trichloroethene	0.39		0.040	0.013	ppb v/v	1		TO 15 LL	Total/NA
Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
cis-1,2-Dichloroethene	0.99		0.32	0.040	ug/m3	1		TO 15 LL	Total/NA
Tetrachloroethene	1.4		0.54	0.081	ug/m3	1		TO 15 LL	Total/NA
Trichloroethene	2.1		0.21	0.070	ug/m3	1		TO 15 LL	Total/NA

Client Sample ID: BMU-IA-2

Lab Sample ID: 140-29698-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
cis-1,2-Dichloroethene	0.17		0.080	0.010	ppb v/v	1		TO 15 LL	Total/NA
Tetrachloroethene	4.2		0.080	0.012	ppb v/v	1		TO 15 LL	Total/NA
Trichloroethene	0.45		0.040	0.013	ppb v/v	1		TO 15 LL	Total/NA
Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
cis-1,2-Dichloroethene	0.67		0.32	0.040	ug/m3	1		TO 15 LL	Total/NA
Tetrachloroethene	28		0.54	0.081	ug/m3	1		TO 15 LL	Total/NA
Trichloroethene	2.4		0.21	0.070	ug/m3	1		TO 15 LL	Total/NA

Client Sample ID: BMU-IA-3

Lab Sample ID: 140-29698-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
cis-1,2-Dichloroethene	0.026	J	0.080	0.010	ppb v/v	1		TO 15 LL	Total/NA
Tetrachloroethene	0.10		0.080	0.012	ppb v/v	1		TO 15 LL	Total/NA
Trichloroethene	0.064		0.040	0.013	ppb v/v	1		TO 15 LL	Total/NA
Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
cis-1,2-Dichloroethene	0.10	J	0.32	0.040	ug/m3	1		TO 15 LL	Total/NA
Tetrachloroethene	0.70		0.54	0.081	ug/m3	1		TO 15 LL	Total/NA
Trichloroethene	0.34		0.21	0.070	ug/m3	1		TO 15 LL	Total/NA

Client Sample ID: BMU-AMB-1

Lab Sample ID: 140-29698-4

No Detections.

Client Sample ID: BMU-IA-DUP-1

Lab Sample ID: 140-29698-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
cis-1,2-Dichloroethene	0.027	J	0.080	0.010	ppb v/v	1		TO 15 LL	Total/NA
Tetrachloroethene	0.097		0.080	0.012	ppb v/v	1		TO 15 LL	Total/NA
Trichloroethene	0.063		0.040	0.013	ppb v/v	1		TO 15 LL	Total/NA
Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
cis-1,2-Dichloroethene	0.11	J	0.32	0.040	ug/m3	1		TO 15 LL	Total/NA
Tetrachloroethene	0.66		0.54	0.081	ug/m3	1		TO 15 LL	Total/NA
Trichloroethene	0.34		0.21	0.070	ug/m3	1		TO 15 LL	Total/NA

Client Sample ID: BMU-VP-1

Lab Sample ID: 140-29698-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Tetrachloroethene	0.29	J	0.80	0.12	ppb v/v	1		TO 15 LL	Total/NA
Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Tetrachloroethene	2.0	J	5.4	0.81	ug/m3	1		TO 15 LL	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins Knoxville

Detection Summary

Client: TRC Environmental Corporation
Project/Site: TO15

Job ID: 140-29698-1

Client Sample ID: BMU-VP-2

Lab Sample ID: 140-29698-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Tetrachloroethene	2.9		0.80	0.12	ppb v/v	1		TO 15 LL	Total/NA
Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Tetrachloroethene	20		5.4	0.81	ug/m3	1		TO 15 LL	Total/NA

Client Sample ID: BMU-VP-3

Lab Sample ID: 140-29698-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Tetrachloroethene	2.0		0.80	0.12	ppb v/v	1		TO 15 LL	Total/NA
Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Tetrachloroethene	14		5.4	0.81	ug/m3	1		TO 15 LL	Total/NA

Client Sample ID: BMU-VP-DUP-1

Lab Sample ID: 140-29698-9

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Tetrachloroethene	2.1		0.80	0.12	ppb v/v	1		TO 15 LL	Total/NA
Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Tetrachloroethene	14		5.4	0.81	ug/m3	1		TO 15 LL	Total/NA

Client Sample ID: AUCA-VP-1

Lab Sample ID: 140-29698-10

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Tetrachloroethene	150		3.6	0.55	ppb v/v	1		TO 15 LL	Total/NA
Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Tetrachloroethene	1000		25	3.7	ug/m3	1		TO 15 LL	Total/NA

Client Sample ID: AUCA-VP-2

Lab Sample ID: 140-29698-11

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Tetrachloroethene	7900		97	14	ppb v/v	48.27		TO 15 LL	Total/NA
Trichloroethene	220		48	16	ppb v/v	48.27		TO 15 LL	Total/NA
Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Tetrachloroethene	53000		650	98	ug/m3	48.27		TO 15 LL	Total/NA
Trichloroethene	1200		260	84	ug/m3	48.27		TO 15 LL	Total/NA

Client Sample ID: AUCA-VP-3

Lab Sample ID: 140-29698-12

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Tetrachloroethene	97		0.80	0.12	ppb v/v	1		TO 15 LL	Total/NA
Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Tetrachloroethene	660		5.4	0.81	ug/m3	1		TO 15 LL	Total/NA

Client Sample ID: AUCA-VP-4

Lab Sample ID: 140-29698-13

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Tetrachloroethene	20		0.80	0.12	ppb v/v	2.62		TO 15 LL	Total/NA
Trichloroethene	0.54		0.40	0.13	ppb v/v	2.62		TO 15 LL	Total/NA
Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Tetrachloroethene	140		5.4	0.81	ug/m3	2.62		TO 15 LL	Total/NA
Trichloroethene	2.9		2.1	0.70	ug/m3	2.62		TO 15 LL	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins Knoxville

Detection Summary

Client: TRC Environmental Corporation
Project/Site: TO15

Job ID: 140-29698-1

Client Sample ID: AUCA-VP-5

Lab Sample ID: 140-29698-14

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Tetrachloroethene	40000		580	87	ppb v/v	582.58		TO 15 LL	Total/NA
Trichloroethene	1900		290	95	ppb v/v	582.58		TO 15 LL	Total/NA
Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Tetrachloroethene	270000		4000	590	ug/m3	582.58		TO 15 LL	Total/NA
Trichloroethene	10000		1600	510	ug/m3	582.58		TO 15 LL	Total/NA

Client Sample ID: AUCA-VP-6

Lab Sample ID: 140-29698-15

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
cis-1,2-Dichloroethene	1100		550	69	ppb v/v	554.11		TO 15 LL	Total/NA
Tetrachloroethene	44000		550	83	ppb v/v	554.11		TO 15 LL	Total/NA
Trichloroethene	3100		280	90	ppb v/v	554.11		TO 15 LL	Total/NA
Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
cis-1,2-Dichloroethene	4600		2200	270	ug/m3	554.11		TO 15 LL	Total/NA
Tetrachloroethene	300000		3800	560	ug/m3	554.11		TO 15 LL	Total/NA
Trichloroethene	17000		1500	480	ug/m3	554.11		TO 15 LL	Total/NA

Client Sample ID: AUCA-VP-7

Lab Sample ID: 140-29698-16

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Tetrachloroethene	14		0.80	0.12	ppb v/v	3.99		TO 15 LL	Total/NA
Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Tetrachloroethene	96		5.4	0.81	ug/m3	3.99		TO 15 LL	Total/NA

Client Sample ID: AUCA-VP-8

Lab Sample ID: 140-29698-17

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Tetrachloroethene	1200		17	2.5	ppb v/v	4.19		TO 15 LL	Total/NA
Trichloroethene	4.5	J	8.4	2.7	ppb v/v	4.19		TO 15 LL	Total/NA
Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Tetrachloroethene	7900		110	17	ug/m3	4.19		TO 15 LL	Total/NA
Trichloroethene	24	J	45	15	ug/m3	4.19		TO 15 LL	Total/NA

Client Sample ID: AUCA-VP-9

Lab Sample ID: 140-29698-18

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
cis-1,2-Dichloroethene	84000		2800	350	ppb v/v	5612.3		TO 15 LL	Total/NA
Tetrachloroethene	72000		2800	420	ppb v/v	5612.3		TO 15 LL	Total/NA
Trichloroethene	120000		1400	460	ppb v/v	5612.3		TO 15 LL	Total/NA
Vinyl chloride	5200		1400	910	ppb v/v	5612.3		TO 15 LL	Total/NA
Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
cis-1,2-Dichloroethene	330000		11000	1400	ug/m3	5612.3		TO 15 LL	Total/NA
Tetrachloroethene	490000		19000	2900	ug/m3	5612.3		TO 15 LL	Total/NA
Trichloroethene	640000		7500	2500	ug/m3	5612.3		TO 15 LL	Total/NA
Vinyl chloride	13000		3600	2300	ug/m3	5612.3		TO 15 LL	Total/NA

Client Sample ID: AUCA-VP-DUP-1

Lab Sample ID: 140-29698-19

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
cis-1,2-Dichloroethene	120	J	480	60	ppb v/v	181.14		TO 15 LL	Total/NA
Tetrachloroethene	50000		480	72	ppb v/v	181.14		TO 15 LL	Total/NA
Trichloroethene	2600		240	78	ppb v/v	181.14		TO 15 LL	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins Knoxville

Detection Summary

Client: TRC Environmental Corporation
Project/Site: TO15

Job ID: 140-29698-1

Client Sample ID: AUCA-VP-DUP-1 (Continued)

Lab Sample ID: 140-29698-19

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
cis-1,2-Dichloroethene	490	J	1900	240	ug/m3	181.14		TO 15 LL	Total/NA
Tetrachloroethene	340000		3300	490	ug/m3	181.14		TO 15 LL	Total/NA
Trichloroethene	14000		1300	420	ug/m3	181.14		TO 15 LL	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins Knoxville

Client Sample Results

Client: TRC Environmental Corporation
Project/Site: TO15

Job ID: 140-29698-1

Client Sample ID: BMU-IA-1

Lab Sample ID: 140-29698-1

Date Collected: 11/15/22 16:08

Matrix: Air

Date Received: 11/21/22 10:00

Sample Container: Summa Canister 6L

Method: EPA TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
cis-1,2-Dichloroethene	0.25		0.080	0.010	ppb v/v			11/22/22 23:13	1
Tetrachloroethene	0.21		0.080	0.012	ppb v/v			11/22/22 23:13	1
trans-1,2-Dichloroethene	ND		0.080	0.013	ppb v/v			11/22/22 23:13	1
Trichloroethene	0.39		0.040	0.013	ppb v/v			11/22/22 23:13	1
Vinyl chloride	ND		0.040	0.026	ppb v/v			11/22/22 23:13	1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
cis-1,2-Dichloroethene	0.99		0.32	0.040	ug/m3			11/22/22 23:13	1
Tetrachloroethene	1.4		0.54	0.081	ug/m3			11/22/22 23:13	1
trans-1,2-Dichloroethene	ND		0.32	0.052	ug/m3			11/22/22 23:13	1
Trichloroethene	2.1		0.21	0.070	ug/m3			11/22/22 23:13	1
Vinyl chloride	ND		0.10	0.066	ug/m3			11/22/22 23:13	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	93		60 - 140		11/22/22 23:13	1

Client Sample ID: BMU-IA-2

Lab Sample ID: 140-29698-2

Date Collected: 11/15/22 16:32

Matrix: Air

Date Received: 11/21/22 10:00

Sample Container: Summa Canister 6L

Method: EPA TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
cis-1,2-Dichloroethene	0.17		0.080	0.010	ppb v/v			11/23/22 00:03	1
Tetrachloroethene	4.2		0.080	0.012	ppb v/v			11/23/22 00:03	1
trans-1,2-Dichloroethene	ND		0.080	0.013	ppb v/v			11/23/22 00:03	1
Trichloroethene	0.45		0.040	0.013	ppb v/v			11/23/22 00:03	1
Vinyl chloride	ND		0.040	0.026	ppb v/v			11/23/22 00:03	1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
cis-1,2-Dichloroethene	0.67		0.32	0.040	ug/m3			11/23/22 00:03	1
Tetrachloroethene	28		0.54	0.081	ug/m3			11/23/22 00:03	1
trans-1,2-Dichloroethene	ND		0.32	0.052	ug/m3			11/23/22 00:03	1
Trichloroethene	2.4		0.21	0.070	ug/m3			11/23/22 00:03	1
Vinyl chloride	ND		0.10	0.066	ug/m3			11/23/22 00:03	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	93		60 - 140		11/23/22 00:03	1

Client Sample ID: BMU-IA-3

Lab Sample ID: 140-29698-3

Date Collected: 11/15/22 16:44

Matrix: Air

Date Received: 11/21/22 10:00

Sample Container: Summa Canister 6L

Method: EPA TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
cis-1,2-Dichloroethene	0.026	J	0.080	0.010	ppb v/v			11/23/22 00:53	1
Tetrachloroethene	0.10		0.080	0.012	ppb v/v			11/23/22 00:53	1
trans-1,2-Dichloroethene	ND		0.080	0.013	ppb v/v			11/23/22 00:53	1
Trichloroethene	0.064		0.040	0.013	ppb v/v			11/23/22 00:53	1
Vinyl chloride	ND		0.040	0.026	ppb v/v			11/23/22 00:53	1

Eurofins Knoxville

Client Sample Results

Client: TRC Environmental Corporation
Project/Site: TO15

Job ID: 140-29698-1

Client Sample ID: BMU-IA-3

Lab Sample ID: 140-29698-3

Date Collected: 11/15/22 16:44

Matrix: Air

Date Received: 11/21/22 10:00

Sample Container: Summa Canister 6L

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
cis-1,2-Dichloroethene	0.10	J	0.32	0.040	ug/m3			11/23/22 00:53	1
Tetrachloroethene	0.70		0.54	0.081	ug/m3			11/23/22 00:53	1
trans-1,2-Dichloroethene	ND		0.32	0.052	ug/m3			11/23/22 00:53	1
Trichloroethene	0.34		0.21	0.070	ug/m3			11/23/22 00:53	1
Vinyl chloride	ND		0.10	0.066	ug/m3			11/23/22 00:53	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	96		60 - 140					11/23/22 00:53	1

Client Sample ID: BMU-AMB-1

Lab Sample ID: 140-29698-4

Date Collected: 11/15/22 14:16

Matrix: Air

Date Received: 11/21/22 10:00

Sample Container: Summa Canister 6L

Method: EPA TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
cis-1,2-Dichloroethene	ND		0.080	0.010	ppb v/v			11/23/22 01:42	1
Tetrachloroethene	ND		0.080	0.012	ppb v/v			11/23/22 01:42	1
trans-1,2-Dichloroethene	ND		0.080	0.013	ppb v/v			11/23/22 01:42	1
Trichloroethene	ND		0.040	0.013	ppb v/v			11/23/22 01:42	1
Vinyl chloride	ND		0.040	0.026	ppb v/v			11/23/22 01:42	1
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
cis-1,2-Dichloroethene	ND		0.32	0.040	ug/m3			11/23/22 01:42	1
Tetrachloroethene	ND		0.54	0.081	ug/m3			11/23/22 01:42	1
trans-1,2-Dichloroethene	ND		0.32	0.052	ug/m3			11/23/22 01:42	1
Trichloroethene	ND		0.21	0.070	ug/m3			11/23/22 01:42	1
Vinyl chloride	ND		0.10	0.066	ug/m3			11/23/22 01:42	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	93		60 - 140					11/23/22 01:42	1

Client Sample ID: BMU-IA-DUP-1

Lab Sample ID: 140-29698-5

Date Collected: 11/15/22 00:00

Matrix: Air

Date Received: 11/21/22 10:00

Sample Container: Summa Canister 6L

Method: EPA TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
cis-1,2-Dichloroethene	0.027	J	0.080	0.010	ppb v/v			11/23/22 02:32	1
Tetrachloroethene	0.097		0.080	0.012	ppb v/v			11/23/22 02:32	1
trans-1,2-Dichloroethene	ND		0.080	0.013	ppb v/v			11/23/22 02:32	1
Trichloroethene	0.063		0.040	0.013	ppb v/v			11/23/22 02:32	1
Vinyl chloride	ND		0.040	0.026	ppb v/v			11/23/22 02:32	1
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
cis-1,2-Dichloroethene	0.11	J	0.32	0.040	ug/m3			11/23/22 02:32	1
Tetrachloroethene	0.66		0.54	0.081	ug/m3			11/23/22 02:32	1
trans-1,2-Dichloroethene	ND		0.32	0.052	ug/m3			11/23/22 02:32	1
Trichloroethene	0.34		0.21	0.070	ug/m3			11/23/22 02:32	1
Vinyl chloride	ND		0.10	0.066	ug/m3			11/23/22 02:32	1

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Client Sample Results

Client: TRC Environmental Corporation
Project/Site: TO15

Job ID: 140-29698-1

Client Sample ID: BMU-IA-DUP-1

Lab Sample ID: 140-29698-5

Date Collected: 11/15/22 00:00

Matrix: Air

Date Received: 11/21/22 10:00

Sample Container: Summa Canister 6L

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	96		60 - 140		11/23/22 02:32	1

Client Sample ID: BMU-VP-1

Lab Sample ID: 140-29698-6

Date Collected: 11/16/22 17:43

Matrix: Air

Date Received: 11/21/22 10:00

Sample Container: Summa Canister 1L

Method: EPA TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
cis-1,2-Dichloroethene	ND		0.80	0.10	ppb v/v			11/23/22 03:16	1
Tetrachloroethene	0.29	J	0.80	0.12	ppb v/v			11/23/22 03:16	1
trans-1,2-Dichloroethene	ND		0.80	0.13	ppb v/v			11/23/22 03:16	1
Trichloroethene	ND		0.40	0.13	ppb v/v			11/23/22 03:16	1
Vinyl chloride	ND		0.40	0.26	ppb v/v			11/23/22 03:16	1
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
cis-1,2-Dichloroethene	ND		3.2	0.40	ug/m3			11/23/22 03:16	1
Tetrachloroethene	2.0	J	5.4	0.81	ug/m3			11/23/22 03:16	1
trans-1,2-Dichloroethene	ND		3.2	0.52	ug/m3			11/23/22 03:16	1
Trichloroethene	ND		2.1	0.70	ug/m3			11/23/22 03:16	1
Vinyl chloride	ND		1.0	0.66	ug/m3			11/23/22 03:16	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	95		60 - 140					11/23/22 03:16	1

Client Sample ID: BMU-VP-2

Lab Sample ID: 140-29698-7

Date Collected: 11/16/22 18:14

Matrix: Air

Date Received: 11/21/22 10:00

Sample Container: Summa Canister 1L

Method: EPA TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
cis-1,2-Dichloroethene	ND		0.80	0.10	ppb v/v			11/23/22 04:02	1
Tetrachloroethene	2.9		0.80	0.12	ppb v/v			11/23/22 04:02	1
trans-1,2-Dichloroethene	ND		0.80	0.13	ppb v/v			11/23/22 04:02	1
Trichloroethene	ND		0.40	0.13	ppb v/v			11/23/22 04:02	1
Vinyl chloride	ND		0.40	0.26	ppb v/v			11/23/22 04:02	1
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
cis-1,2-Dichloroethene	ND		3.2	0.40	ug/m3			11/23/22 04:02	1
Tetrachloroethene	20		5.4	0.81	ug/m3			11/23/22 04:02	1
trans-1,2-Dichloroethene	ND		3.2	0.52	ug/m3			11/23/22 04:02	1
Trichloroethene	ND		2.1	0.70	ug/m3			11/23/22 04:02	1
Vinyl chloride	ND		1.0	0.66	ug/m3			11/23/22 04:02	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	93		60 - 140					11/23/22 04:02	1

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Client Sample Results

Client: TRC Environmental Corporation
Project/Site: TO15

Job ID: 140-29698-1

Client Sample ID: BMU-VP-3

Lab Sample ID: 140-29698-8

Date Collected: 11/16/22 18:47

Matrix: Air

Date Received: 11/21/22 10:00

Sample Container: Summa Canister 1L

Method: EPA TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
cis-1,2-Dichloroethene	ND		0.80	0.10	ppb v/v			11/23/22 04:48	1
Tetrachloroethene	2.0		0.80	0.12	ppb v/v			11/23/22 04:48	1
trans-1,2-Dichloroethene	ND		0.80	0.13	ppb v/v			11/23/22 04:48	1
Trichloroethene	ND		0.40	0.13	ppb v/v			11/23/22 04:48	1
Vinyl chloride	ND		0.40	0.26	ppb v/v			11/23/22 04:48	1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
cis-1,2-Dichloroethene	ND		3.2	0.40	ug/m3			11/23/22 04:48	1
Tetrachloroethene	14		5.4	0.81	ug/m3			11/23/22 04:48	1
trans-1,2-Dichloroethene	ND		3.2	0.52	ug/m3			11/23/22 04:48	1
Trichloroethene	ND		2.1	0.70	ug/m3			11/23/22 04:48	1
Vinyl chloride	ND		1.0	0.66	ug/m3			11/23/22 04:48	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	93		60 - 140		11/23/22 04:48	1

Client Sample ID: BMU-VP-DUP-1

Lab Sample ID: 140-29698-9

Date Collected: 11/16/22 00:00

Matrix: Air

Date Received: 11/21/22 10:00

Sample Container: Summa Canister 1L

Method: EPA TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
cis-1,2-Dichloroethene	ND		0.80	0.10	ppb v/v			11/23/22 05:33	1
Tetrachloroethene	2.1		0.80	0.12	ppb v/v			11/23/22 05:33	1
trans-1,2-Dichloroethene	ND		0.80	0.13	ppb v/v			11/23/22 05:33	1
Trichloroethene	ND		0.40	0.13	ppb v/v			11/23/22 05:33	1
Vinyl chloride	ND		0.40	0.26	ppb v/v			11/23/22 05:33	1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
cis-1,2-Dichloroethene	ND		3.2	0.40	ug/m3			11/23/22 05:33	1
Tetrachloroethene	14		5.4	0.81	ug/m3			11/23/22 05:33	1
trans-1,2-Dichloroethene	ND		3.2	0.52	ug/m3			11/23/22 05:33	1
Trichloroethene	ND		2.1	0.70	ug/m3			11/23/22 05:33	1
Vinyl chloride	ND		1.0	0.66	ug/m3			11/23/22 05:33	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	92		60 - 140		11/23/22 05:33	1

Client Sample ID: AUCA-VP-1

Lab Sample ID: 140-29698-10

Date Collected: 11/16/22 09:47

Matrix: Air

Date Received: 11/21/22 10:00

Sample Container: Summa Canister 1L

Method: EPA TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
cis-1,2-Dichloroethene	ND		3.6	0.45	ppb v/v			11/25/22 13:28	1
Tetrachloroethene	150		3.6	0.55	ppb v/v			11/25/22 13:28	1
trans-1,2-Dichloroethene	ND		3.6	0.59	ppb v/v			11/25/22 13:28	1
Trichloroethene	ND		1.8	0.59	ppb v/v			11/25/22 13:28	1
Vinyl chloride	ND		1.8	1.2	ppb v/v			11/25/22 13:28	1

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Client Sample Results

Client: TRC Environmental Corporation
Project/Site: TO15

Job ID: 140-29698-1

Client Sample ID: AUCA-VP-1

Lab Sample ID: 140-29698-10

Date Collected: 11/16/22 09:47

Matrix: Air

Date Received: 11/21/22 10:00

Sample Container: Summa Canister 1L

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
cis-1,2-Dichloroethene	ND		14	1.8	ug/m3			11/25/22 13:28	1
Tetrachloroethene	1000		25	3.7	ug/m3			11/25/22 13:28	1
trans-1,2-Dichloroethene	ND		14	2.3	ug/m3			11/25/22 13:28	1
Trichloroethene	ND		9.8	3.2	ug/m3			11/25/22 13:28	1
Vinyl chloride	ND		4.6	3.0	ug/m3			11/25/22 13:28	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	86		60 - 140					11/25/22 13:28	1

Client Sample ID: AUCA-VP-2

Lab Sample ID: 140-29698-11

Date Collected: 11/16/22 10:50

Matrix: Air

Date Received: 11/21/22 10:00

Sample Container: Summa Canister 1L

Method: EPA TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
cis-1,2-Dichloroethene	ND		97	12	ppb v/v			11/24/22 01:32	48.27
Tetrachloroethene	7900		97	14	ppb v/v			11/24/22 01:32	48.27
trans-1,2-Dichloroethene	ND		97	16	ppb v/v			11/24/22 01:32	48.27
Trichloroethene	220		48	16	ppb v/v			11/24/22 01:32	48.27
Vinyl chloride	ND		48	31	ppb v/v			11/24/22 01:32	48.27
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
cis-1,2-Dichloroethene	ND		380	48	ug/m3			11/24/22 01:32	48.27
Tetrachloroethene	53000		650	98	ug/m3			11/24/22 01:32	48.27
trans-1,2-Dichloroethene	ND		380	62	ug/m3			11/24/22 01:32	48.27
Trichloroethene	1200		260	84	ug/m3			11/24/22 01:32	48.27
Vinyl chloride	ND		120	80	ug/m3			11/24/22 01:32	48.27
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	88		60 - 140					11/24/22 01:32	48.27

Client Sample ID: AUCA-VP-3

Lab Sample ID: 140-29698-12

Date Collected: 11/16/22 11:34

Matrix: Air

Date Received: 11/21/22 10:00

Sample Container: Summa Canister 1L

Method: EPA TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
cis-1,2-Dichloroethene	ND		0.80	0.10	ppb v/v			11/24/22 02:17	1
Tetrachloroethene	97		0.80	0.12	ppb v/v			11/24/22 02:17	1
trans-1,2-Dichloroethene	ND		0.80	0.13	ppb v/v			11/24/22 02:17	1
Trichloroethene	ND		0.40	0.13	ppb v/v			11/24/22 02:17	1
Vinyl chloride	ND		0.40	0.26	ppb v/v			11/24/22 02:17	1
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
cis-1,2-Dichloroethene	ND		3.2	0.40	ug/m3			11/24/22 02:17	1
Tetrachloroethene	660		5.4	0.81	ug/m3			11/24/22 02:17	1
trans-1,2-Dichloroethene	ND		3.2	0.52	ug/m3			11/24/22 02:17	1
Trichloroethene	ND		2.1	0.70	ug/m3			11/24/22 02:17	1
Vinyl chloride	ND		1.0	0.66	ug/m3			11/24/22 02:17	1

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Client Sample Results

Client: TRC Environmental Corporation
Project/Site: TO15

Job ID: 140-29698-1

Client Sample ID: AUCA-VP-3

Lab Sample ID: 140-29698-12

Date Collected: 11/16/22 11:34

Matrix: Air

Date Received: 11/21/22 10:00

Sample Container: Summa Canister 1L

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	91		60 - 140		11/24/22 02:17	1

Client Sample ID: AUCA-VP-4

Lab Sample ID: 140-29698-13

Date Collected: 11/16/22 14:05

Matrix: Air

Date Received: 11/21/22 10:00

Sample Container: Summa Canister 1L

Method: EPA TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
cis-1,2-Dichloroethene	ND		0.80	0.10	ppb v/v			11/24/22 03:03	2.62
Tetrachloroethene	20		0.80	0.12	ppb v/v			11/24/22 03:03	2.62
trans-1,2-Dichloroethene	ND		0.80	0.13	ppb v/v			11/24/22 03:03	2.62
Trichloroethene	0.54		0.40	0.13	ppb v/v			11/24/22 03:03	2.62
Vinyl chloride	ND		0.40	0.26	ppb v/v			11/24/22 03:03	2.62
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
cis-1,2-Dichloroethene	ND		3.2	0.40	ug/m3			11/24/22 03:03	2.62
Tetrachloroethene	140		5.4	0.81	ug/m3			11/24/22 03:03	2.62
trans-1,2-Dichloroethene	ND		3.2	0.52	ug/m3			11/24/22 03:03	2.62
Trichloroethene	2.9		2.1	0.70	ug/m3			11/24/22 03:03	2.62
Vinyl chloride	ND		1.0	0.66	ug/m3			11/24/22 03:03	2.62
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	90		60 - 140					11/24/22 03:03	2.62

Client Sample ID: AUCA-VP-5

Lab Sample ID: 140-29698-14

Date Collected: 11/16/22 13:08

Matrix: Air

Date Received: 11/21/22 10:00

Sample Container: Summa Canister 1L

Method: EPA TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
cis-1,2-Dichloroethene	ND		580	73	ppb v/v			11/24/22 03:48	582.58
Tetrachloroethene	40000		580	87	ppb v/v			11/24/22 03:48	582.58
trans-1,2-Dichloroethene	ND		580	95	ppb v/v			11/24/22 03:48	582.58
Trichloroethene	1900		290	95	ppb v/v			11/24/22 03:48	582.58
Vinyl chloride	ND		290	190	ppb v/v			11/24/22 03:48	582.58
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
cis-1,2-Dichloroethene	ND		2300	290	ug/m3			11/24/22 03:48	582.58
Tetrachloroethene	270000		4000	590	ug/m3			11/24/22 03:48	582.58
trans-1,2-Dichloroethene	ND		2300	380	ug/m3			11/24/22 03:48	582.58
Trichloroethene	10000		1600	510	ug/m3			11/24/22 03:48	582.58
Vinyl chloride	ND		740	480	ug/m3			11/24/22 03:48	582.58
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	89		60 - 140					11/24/22 03:48	582.58

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Client Sample Results

Client: TRC Environmental Corporation
Project/Site: TO15

Job ID: 140-29698-1

Client Sample ID: AUCA-VP-6

Lab Sample ID: 140-29698-15

Date Collected: 11/16/22 12:23

Matrix: Air

Date Received: 11/21/22 10:00

Sample Container: Summa Canister 1L

Method: EPA TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
cis-1,2-Dichloroethene	1100		550	69	ppb v/v			11/25/22 14:12	554.11
Tetrachloroethene	44000		550	83	ppb v/v			11/25/22 14:12	554.11
trans-1,2-Dichloroethene	ND		550	90	ppb v/v			11/25/22 14:12	554.11
Trichloroethene	3100		280	90	ppb v/v			11/25/22 14:12	554.11
Vinyl chloride	ND		280	180	ppb v/v			11/25/22 14:12	554.11

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
cis-1,2-Dichloroethene	4600		2200	270	ug/m3			11/25/22 14:12	554.11
Tetrachloroethene	300000		3800	560	ug/m3			11/25/22 14:12	554.11
trans-1,2-Dichloroethene	ND		2200	360	ug/m3			11/25/22 14:12	554.11
Trichloroethene	17000		1500	480	ug/m3			11/25/22 14:12	554.11
Vinyl chloride	ND		710	460	ug/m3			11/25/22 14:12	554.11

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	90		60 - 140		11/25/22 14:12	554.11

Client Sample ID: AUCA-VP-7

Lab Sample ID: 140-29698-16

Date Collected: 11/16/22 15:04

Matrix: Air

Date Received: 11/21/22 10:00

Sample Container: Summa Canister 1L

Method: EPA TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
cis-1,2-Dichloroethene	ND		0.80	0.10	ppb v/v			11/28/22 11:26	3.99
Tetrachloroethene	14		0.80	0.12	ppb v/v			11/28/22 11:26	3.99
trans-1,2-Dichloroethene	ND		0.80	0.13	ppb v/v			11/28/22 11:26	3.99
Trichloroethene	ND		0.40	0.13	ppb v/v			11/28/22 11:26	3.99
Vinyl chloride	ND	+	0.40	0.26	ppb v/v			11/28/22 11:26	3.99

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
cis-1,2-Dichloroethene	ND		3.2	0.40	ug/m3			11/28/22 11:26	3.99
Tetrachloroethene	96		5.4	0.81	ug/m3			11/28/22 11:26	3.99
trans-1,2-Dichloroethene	ND		3.2	0.52	ug/m3			11/28/22 11:26	3.99
Trichloroethene	ND		2.1	0.70	ug/m3			11/28/22 11:26	3.99
Vinyl chloride	ND	+	1.0	0.66	ug/m3			11/28/22 11:26	3.99

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	95		60 - 140		11/28/22 11:26	3.99

Client Sample ID: AUCA-VP-8

Lab Sample ID: 140-29698-17

Date Collected: 11/16/22 15:37

Matrix: Air

Date Received: 11/21/22 10:00

Sample Container: Summa Canister 1L

Method: EPA TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
cis-1,2-Dichloroethene	ND		17	2.1	ppb v/v			11/25/22 15:44	4.19
Tetrachloroethene	1200		17	2.5	ppb v/v			11/25/22 15:44	4.19
trans-1,2-Dichloroethene	ND		17	2.7	ppb v/v			11/25/22 15:44	4.19
Trichloroethene	4.5	J	8.4	2.7	ppb v/v			11/25/22 15:44	4.19
Vinyl chloride	ND		8.4	5.4	ppb v/v			11/25/22 15:44	4.19

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Client Sample Results

Client: TRC Environmental Corporation
Project/Site: TO15

Job ID: 140-29698-1

Client Sample ID: AUCA-VP-8

Lab Sample ID: 140-29698-17

Date Collected: 11/16/22 15:37

Matrix: Air

Date Received: 11/21/22 10:00

Sample Container: Summa Canister 1L

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
cis-1,2-Dichloroethene	ND		66	8.3	ug/m3			11/25/22 15:44	4.19
Tetrachloroethene	7900		110	17	ug/m3			11/25/22 15:44	4.19
trans-1,2-Dichloroethene	ND		66	11	ug/m3			11/25/22 15:44	4.19
Trichloroethene	24	J	45	15	ug/m3			11/25/22 15:44	4.19
Vinyl chloride	ND		21	14	ug/m3			11/25/22 15:44	4.19
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	87		60 - 140					11/25/22 15:44	4.19

Client Sample ID: AUCA-VP-9

Lab Sample ID: 140-29698-18

Date Collected: 11/16/22 16:18

Matrix: Air

Date Received: 11/21/22 10:00

Sample Container: Summa Canister 1L

Method: EPA TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
cis-1,2-Dichloroethene	84000		2800	350	ppb v/v			11/25/22 16:29	5612.3
Tetrachloroethene	72000		2800	420	ppb v/v			11/25/22 16:29	5612.3
trans-1,2-Dichloroethene	ND		2800	460	ppb v/v			11/25/22 16:29	5612.3
Trichloroethene	120000		1400	460	ppb v/v			11/25/22 16:29	5612.3
Vinyl chloride	5200		1400	910	ppb v/v			11/25/22 16:29	5612.3
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
cis-1,2-Dichloroethene	330000		11000	1400	ug/m3			11/25/22 16:29	5612.3
Tetrachloroethene	490000		19000	2900	ug/m3			11/25/22 16:29	5612.3
trans-1,2-Dichloroethene	ND		11000	1800	ug/m3			11/25/22 16:29	5612.3
Trichloroethene	640000		7500	2500	ug/m3			11/25/22 16:29	5612.3
Vinyl chloride	13000		3600	2300	ug/m3			11/25/22 16:29	5612.3
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	90		60 - 140					11/25/22 16:29	5612.3

Client Sample ID: AUCA-VP-DUP-1

Lab Sample ID: 140-29698-19

Date Collected: 11/16/22 00:00

Matrix: Air

Date Received: 11/21/22 10:00

Sample Container: Summa Canister 1L

Method: EPA TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
cis-1,2-Dichloroethene	120	J	480	60	ppb v/v			11/25/22 17:14	181.14
Tetrachloroethene	50000		480	72	ppb v/v			11/25/22 17:14	181.14
trans-1,2-Dichloroethene	ND		480	78	ppb v/v			11/25/22 17:14	181.14
Trichloroethene	2600		240	78	ppb v/v			11/25/22 17:14	181.14
Vinyl chloride	ND		240	160	ppb v/v			11/25/22 17:14	181.14
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
cis-1,2-Dichloroethene	490	J	1900	240	ug/m3			11/25/22 17:14	181.14
Tetrachloroethene	340000		3300	490	ug/m3			11/25/22 17:14	181.14
trans-1,2-Dichloroethene	ND		1900	310	ug/m3			11/25/22 17:14	181.14
Trichloroethene	14000		1300	420	ug/m3			11/25/22 17:14	181.14
Vinyl chloride	ND		620	400	ug/m3			11/25/22 17:14	181.14

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Client Sample Results

Client: TRC Environmental Corporation
Project/Site: TO15

Job ID: 140-29698-1

Client Sample ID: AUCA-VP-DUP-1

Lab Sample ID: 140-29698-19

Date Collected: 11/16/22 00:00

Matrix: Air

Date Received: 11/21/22 10:00

Sample Container: Summa Canister 1L

<i>Surrogate</i>	<i>%Recovery</i>	<i>Qualifier</i>	<i>Limits</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Dil Fac</i>
4-Bromofluorobenzene (Surr)	85		60 - 140		11/25/22 17:14	181.14

Default Detection Limits

Client: TRC Environmental Corporation
Project/Site: TO15

Job ID: 140-29698-1

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS)

Analyte	RL	MDL	Units
cis-1,2-Dichloroethene	0.080	0.010	ppb v/v
cis-1,2-Dichloroethene	0.32	0.040	ug/m3
Tetrachloroethene	0.080	0.012	ppb v/v
Tetrachloroethene	0.54	0.081	ug/m3
trans-1,2-Dichloroethene	0.080	0.013	ppb v/v
trans-1,2-Dichloroethene	0.32	0.052	ug/m3
Trichloroethene	0.040	0.013	ppb v/v
Trichloroethene	0.21	0.070	ug/m3
Vinyl chloride	0.040	0.026	ppb v/v
Vinyl chloride	0.10	0.066	ug/m3

Surrogate Summary

Client: TRC Environmental Corporation
Project/Site: TO15

Job ID: 140-29698-1

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS)

Matrix: Air

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	BFB
		(60-140)
140-29698-1	BMU-IA-1	93
140-29698-2	BMU-IA-2	93
140-29698-3	BMU-IA-3	96
140-29698-4	BMU-AMB-1	93
140-29698-5	BMU-IA-DUP-1	96
140-29698-6	BMU-VP-1	95
140-29698-7	BMU-VP-2	93
140-29698-8	BMU-VP-3	93
140-29698-9	BMU-VP-DUP-1	92
140-29698-10	AUCA-VP-1	86
140-29698-11	AUCA-VP-2	88
140-29698-12	AUCA-VP-3	91
140-29698-13	AUCA-VP-4	90
140-29698-14	AUCA-VP-5	89
140-29698-15	AUCA-VP-6	90
140-29698-16	AUCA-VP-7	95
140-29698-17	AUCA-VP-8	87
140-29698-18	AUCA-VP-9	90
140-29698-19	AUCA-VP-DUP-1	85
LCS 140-67714/1002	Lab Control Sample	98
LCS 140-67721/1002	Lab Control Sample	98
LCS 140-67815/1002	Lab Control Sample	98
LCS 140-67823/1002	Lab Control Sample	122
MB 140-67714/4	Method Blank	92
MB 140-67721/4	Method Blank	92
MB 140-67815/4	Method Blank	90
MB 140-67823/5	Method Blank	93

Surrogate Legend

BFB = 4-Bromofluorobenzene (Surr)

QC Sample Results

Client: TRC Environmental Corporation
Project/Site: TO15

Job ID: 140-29698-1

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS)

Lab Sample ID: MB 140-67714/4

Matrix: Air

Analysis Batch: 67714

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
cis-1,2-Dichloroethene	ND		0.080	0.010	ppb v/v			11/22/22 10:00	1
Tetrachloroethene	ND		0.080	0.012	ppb v/v			11/22/22 10:00	1
trans-1,2-Dichloroethene	ND		0.080	0.013	ppb v/v			11/22/22 10:00	1
Trichloroethene	ND		0.040	0.013	ppb v/v			11/22/22 10:00	1
Vinyl chloride	ND		0.040	0.026	ppb v/v			11/22/22 10:00	1

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
cis-1,2-Dichloroethene	ND		0.32	0.040	ug/m3			11/22/22 10:00	1
Tetrachloroethene	ND		0.54	0.081	ug/m3			11/22/22 10:00	1
trans-1,2-Dichloroethene	ND		0.32	0.052	ug/m3			11/22/22 10:00	1
Trichloroethene	ND		0.21	0.070	ug/m3			11/22/22 10:00	1
Vinyl chloride	ND		0.10	0.066	ug/m3			11/22/22 10:00	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	92		60 - 140		11/22/22 10:00	1

Lab Sample ID: LCS 140-67714/1002

Matrix: Air

Analysis Batch: 67714

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
cis-1,2-Dichloroethene	2.00	1.96		ppb v/v		98	70 - 130
Tetrachloroethene	2.00	2.05		ppb v/v		103	70 - 130
trans-1,2-Dichloroethene	2.00	2.04		ppb v/v		102	70 - 130
Trichloroethene	2.00	2.12		ppb v/v		106	70 - 130
Vinyl chloride	2.00	2.52		ppb v/v		126	70 - 130

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
cis-1,2-Dichloroethene	7.9	7.78		ug/m3		98	70 - 130
Tetrachloroethene	14	13.9		ug/m3		103	70 - 130
trans-1,2-Dichloroethene	7.9	8.09		ug/m3		102	70 - 130
Trichloroethene	11	11.4		ug/m3		106	70 - 130
Vinyl chloride	5.1	6.44		ug/m3		126	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene (Surr)	98		60 - 140

Lab Sample ID: MB 140-67721/4

Matrix: Air

Analysis Batch: 67721

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
cis-1,2-Dichloroethene	ND		0.080	0.010	ppb v/v			11/23/22 10:36	1
Tetrachloroethene	ND		0.080	0.012	ppb v/v			11/23/22 10:36	1
trans-1,2-Dichloroethene	ND		0.080	0.013	ppb v/v			11/23/22 10:36	1
Trichloroethene	ND		0.040	0.013	ppb v/v			11/23/22 10:36	1
Vinyl chloride	ND		0.040	0.026	ppb v/v			11/23/22 10:36	1

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QC Sample Results

Client: TRC Environmental Corporation
Project/Site: TO15

Job ID: 140-29698-1

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS) (Continued)

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
cis-1,2-Dichloroethene	ND		0.32	0.040	ug/m3			11/23/22 10:36	1
Tetrachloroethene	ND		0.54	0.081	ug/m3			11/23/22 10:36	1
trans-1,2-Dichloroethene	ND		0.32	0.052	ug/m3			11/23/22 10:36	1
Trichloroethene	ND		0.21	0.070	ug/m3			11/23/22 10:36	1
Vinyl chloride	ND		0.10	0.066	ug/m3			11/23/22 10:36	1
Surrogate	MB %Recovery	MB Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	92		60 - 140					11/23/22 10:36	1

Lab Sample ID: LCS 140-67721/1002
Matrix: Air
Analysis Batch: 67721

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
cis-1,2-Dichloroethene	2.00	1.81		ppb v/v		91	70 - 130
Tetrachloroethene	2.00	1.95		ppb v/v		98	70 - 130
trans-1,2-Dichloroethene	2.00	1.94		ppb v/v		97	70 - 130
Trichloroethene	2.00	1.95		ppb v/v		98	70 - 130
Vinyl chloride	2.00	2.38		ppb v/v		119	70 - 130
Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
cis-1,2-Dichloroethene	7.9	7.20		ug/m3		91	70 - 130
Tetrachloroethene	14	13.2		ug/m3		98	70 - 130
trans-1,2-Dichloroethene	7.9	7.70		ug/m3		97	70 - 130
Trichloroethene	11	10.5		ug/m3		98	70 - 130
Vinyl chloride	5.1	6.08		ug/m3		119	70 - 130
Surrogate	LCS %Recovery	LCS Qualifier	Limits				
4-Bromofluorobenzene (Surr)	98		60 - 140				

Lab Sample ID: MB 140-67815/4
Matrix: Air
Analysis Batch: 67815

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
cis-1,2-Dichloroethene	ND		0.080	0.010	ppb v/v			11/25/22 10:28	1
Tetrachloroethene	ND		0.080	0.012	ppb v/v			11/25/22 10:28	1
trans-1,2-Dichloroethene	ND		0.080	0.013	ppb v/v			11/25/22 10:28	1
Trichloroethene	ND		0.040	0.013	ppb v/v			11/25/22 10:28	1
Vinyl chloride	ND		0.040	0.026	ppb v/v			11/25/22 10:28	1
Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
cis-1,2-Dichloroethene	ND		0.32	0.040	ug/m3			11/25/22 10:28	1
Tetrachloroethene	ND		0.54	0.081	ug/m3			11/25/22 10:28	1
trans-1,2-Dichloroethene	ND		0.32	0.052	ug/m3			11/25/22 10:28	1
Trichloroethene	ND		0.21	0.070	ug/m3			11/25/22 10:28	1
Vinyl chloride	ND		0.10	0.066	ug/m3			11/25/22 10:28	1

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QC Sample Results

Client: TRC Environmental Corporation
Project/Site: TO15

Job ID: 140-29698-1

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS) (Continued)

Lab Sample ID: MB 140-67815/4

Matrix: Air

Analysis Batch: 67815

Client Sample ID: Method Blank

Prep Type: Total/NA

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	90		60 - 140		11/25/22 10:28	1

Lab Sample ID: LCS 140-67815/1002

Matrix: Air

Analysis Batch: 67815

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
cis-1,2-Dichloroethene	2.00	1.83		ppb v/v		92	70 - 130
Tetrachloroethene	2.00	1.97		ppb v/v		98	70 - 130
trans-1,2-Dichloroethene	2.00	1.95		ppb v/v		97	70 - 130
Trichloroethene	2.00	2.00		ppb v/v		100	70 - 130
Vinyl chloride	2.00	2.42		ppb v/v		121	70 - 130
Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
cis-1,2-Dichloroethene	7.9	7.26		ug/m3		92	70 - 130
Tetrachloroethene	14	13.4		ug/m3		98	70 - 130
trans-1,2-Dichloroethene	7.9	7.73		ug/m3		97	70 - 130
Trichloroethene	11	10.8		ug/m3		100	70 - 130
Vinyl chloride	5.1	6.19		ug/m3		121	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene (Surr)	98		60 - 140

Lab Sample ID: MB 140-67823/5

Matrix: Air

Analysis Batch: 67823

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
cis-1,2-Dichloroethene	ND		0.080	0.010	ppb v/v			11/28/22 10:33	1
Tetrachloroethene	ND		0.080	0.012	ppb v/v			11/28/22 10:33	1
trans-1,2-Dichloroethene	ND		0.080	0.013	ppb v/v			11/28/22 10:33	1
Trichloroethene	ND		0.040	0.013	ppb v/v			11/28/22 10:33	1
Vinyl chloride	ND		0.040	0.026	ppb v/v			11/28/22 10:33	1
Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
cis-1,2-Dichloroethene	ND		0.32	0.040	ug/m3			11/28/22 10:33	1
Tetrachloroethene	ND		0.54	0.081	ug/m3			11/28/22 10:33	1
trans-1,2-Dichloroethene	ND		0.32	0.052	ug/m3			11/28/22 10:33	1
Trichloroethene	ND		0.21	0.070	ug/m3			11/28/22 10:33	1
Vinyl chloride	ND		0.10	0.066	ug/m3			11/28/22 10:33	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	93		60 - 140		11/28/22 10:33	1

Eurofins Knoxville

QC Sample Results

Client: TRC Environmental Corporation
Project/Site: TO15

Job ID: 140-29698-1

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS) (Continued)

Lab Sample ID: LCS 140-67823/1002

Matrix: Air

Analysis Batch: 67823

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
cis-1,2-Dichloroethene	2.00	1.79		ppb v/v		89	70 - 130
Tetrachloroethene	2.00	2.09		ppb v/v		104	70 - 130
trans-1,2-Dichloroethene	2.00	2.10		ppb v/v		105	70 - 130
Trichloroethene	2.00	1.92		ppb v/v		96	70 - 130
Vinyl chloride	2.00	3.66	*+	ppb v/v		183	70 - 130

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
cis-1,2-Dichloroethene	7.9	7.08		ug/m3		89	70 - 130
Tetrachloroethene	14	14.2		ug/m3		104	70 - 130
trans-1,2-Dichloroethene	7.9	8.32		ug/m3		105	70 - 130
Trichloroethene	11	10.3		ug/m3		96	70 - 130
Vinyl chloride	5.1	9.36	*+	ug/m3		183	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene (Surr)	122		60 - 140

QC Association Summary

Client: TRC Environmental Corporation
Project/Site: TO15

Job ID: 140-29698-1

Air - GC/MS VOA

Analysis Batch: 67714

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
140-29698-1	BMU-IA-1	Total/NA	Air	TO 15 LL	
140-29698-2	BMU-IA-2	Total/NA	Air	TO 15 LL	
140-29698-3	BMU-IA-3	Total/NA	Air	TO 15 LL	
140-29698-4	BMU-AMB-1	Total/NA	Air	TO 15 LL	
140-29698-5	BMU-IA-DUP-1	Total/NA	Air	TO 15 LL	
140-29698-6	BMU-VP-1	Total/NA	Air	TO 15 LL	
140-29698-7	BMU-VP-2	Total/NA	Air	TO 15 LL	
140-29698-8	BMU-VP-3	Total/NA	Air	TO 15 LL	
140-29698-9	BMU-VP-DUP-1	Total/NA	Air	TO 15 LL	
MB 140-67714/4	Method Blank	Total/NA	Air	TO 15 LL	
LCS 140-67714/1002	Lab Control Sample	Total/NA	Air	TO 15 LL	

Analysis Batch: 67721

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
140-29698-11	AUCA-VP-2	Total/NA	Air	TO 15 LL	
140-29698-12	AUCA-VP-3	Total/NA	Air	TO 15 LL	
140-29698-13	AUCA-VP-4	Total/NA	Air	TO 15 LL	
140-29698-14	AUCA-VP-5	Total/NA	Air	TO 15 LL	
MB 140-67721/4	Method Blank	Total/NA	Air	TO 15 LL	
LCS 140-67721/1002	Lab Control Sample	Total/NA	Air	TO 15 LL	

Analysis Batch: 67815

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
140-29698-10	AUCA-VP-1	Total/NA	Air	TO 15 LL	
140-29698-15	AUCA-VP-6	Total/NA	Air	TO 15 LL	
140-29698-17	AUCA-VP-8	Total/NA	Air	TO 15 LL	
140-29698-18	AUCA-VP-9	Total/NA	Air	TO 15 LL	
140-29698-19	AUCA-VP-DUP-1	Total/NA	Air	TO 15 LL	
MB 140-67815/4	Method Blank	Total/NA	Air	TO 15 LL	
LCS 140-67815/1002	Lab Control Sample	Total/NA	Air	TO 15 LL	

Analysis Batch: 67823

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
140-29698-16	AUCA-VP-7	Total/NA	Air	TO 15 LL	
MB 140-67823/5	Method Blank	Total/NA	Air	TO 15 LL	
LCS 140-67823/1002	Lab Control Sample	Total/NA	Air	TO 15 LL	

Lab Chronicle

Client: TRC Environmental Corporation
Project/Site: TO15

Job ID: 140-29698-1

Client Sample ID: BMU-IA-1

Lab Sample ID: 140-29698-1

Date Collected: 11/15/22 16:08

Matrix: Air

Date Received: 11/21/22 10:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO 15 LL		1	500 mL	500 mL	67714	11/22/22 23:13	S1K	EET KNX
Instrument ID: MS										

Client Sample ID: BMU-IA-2

Lab Sample ID: 140-29698-2

Date Collected: 11/15/22 16:32

Matrix: Air

Date Received: 11/21/22 10:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO 15 LL		1	500 mL	500 mL	67714	11/23/22 00:03	S1K	EET KNX
Instrument ID: MS										

Client Sample ID: BMU-IA-3

Lab Sample ID: 140-29698-3

Date Collected: 11/15/22 16:44

Matrix: Air

Date Received: 11/21/22 10:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO 15 LL		1	500 mL	500 mL	67714	11/23/22 00:53	S1K	EET KNX
Instrument ID: MS										

Client Sample ID: BMU-AMB-1

Lab Sample ID: 140-29698-4

Date Collected: 11/15/22 14:16

Matrix: Air

Date Received: 11/21/22 10:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO 15 LL		1	500 mL	500 mL	67714	11/23/22 01:42	S1K	EET KNX
Instrument ID: MS										

Client Sample ID: BMU-IA-DUP-1

Lab Sample ID: 140-29698-5

Date Collected: 11/15/22 00:00

Matrix: Air

Date Received: 11/21/22 10:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO 15 LL		1	500 mL	500 mL	67714	11/23/22 02:32	S1K	EET KNX
Instrument ID: MS										

Client Sample ID: BMU-VP-1

Lab Sample ID: 140-29698-6

Date Collected: 11/16/22 17:43

Matrix: Air

Date Received: 11/21/22 10:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO 15 LL		1	50 mL	500 mL	67714	11/23/22 03:16	S1K	EET KNX
Instrument ID: MS										

Lab Chronicle

Client: TRC Environmental Corporation
Project/Site: TO15

Job ID: 140-29698-1

Client Sample ID: BMU-VP-2

Lab Sample ID: 140-29698-7

Date Collected: 11/16/22 18:14

Matrix: Air

Date Received: 11/21/22 10:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO 15 LL		1	50 mL	500 mL	67714	11/23/22 04:02	S1K	EET KNX
Instrument ID: MS										

Client Sample ID: BMU-VP-3

Lab Sample ID: 140-29698-8

Date Collected: 11/16/22 18:47

Matrix: Air

Date Received: 11/21/22 10:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO 15 LL		1	50 mL	500 mL	67714	11/23/22 04:48	S1K	EET KNX
Instrument ID: MS										

Client Sample ID: BMU-VP-DUP-1

Lab Sample ID: 140-29698-9

Date Collected: 11/16/22 00:00

Matrix: Air

Date Received: 11/21/22 10:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO 15 LL		1	50 mL	500 mL	67714	11/23/22 05:33	S1K	EET KNX
Instrument ID: MS										

Client Sample ID: AUCA-VP-1

Lab Sample ID: 140-29698-10

Date Collected: 11/16/22 09:47

Matrix: Air

Date Received: 11/21/22 10:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO 15 LL		1	11 mL	500 mL	67815	11/25/22 13:28	S1K	EET KNX
Instrument ID: MS										

Client Sample ID: AUCA-VP-2

Lab Sample ID: 140-29698-11

Date Collected: 11/16/22 10:50

Matrix: Air

Date Received: 11/21/22 10:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO 15 LL		48.27	20 mL	500 mL	67721	11/24/22 01:32	S1K	EET KNX
Instrument ID: MS										

Client Sample ID: AUCA-VP-3

Lab Sample ID: 140-29698-12

Date Collected: 11/16/22 11:34

Matrix: Air

Date Received: 11/21/22 10:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO 15 LL		1	50 mL	500 mL	67721	11/24/22 02:17	S1K	EET KNX
Instrument ID: MS										

Lab Chronicle

Client: TRC Environmental Corporation
Project/Site: TO15

Job ID: 140-29698-1

Client Sample ID: AUCA-VP-4

Lab Sample ID: 140-29698-13

Date Collected: 11/16/22 14:05

Matrix: Air

Date Received: 11/21/22 10:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO 15 LL		2.62	131 mL	500 mL	67721	11/24/22 03:03	S1K	EET KNX
Instrument ID: MS										

Client Sample ID: AUCA-VP-5

Lab Sample ID: 140-29698-14

Date Collected: 11/16/22 13:08

Matrix: Air

Date Received: 11/21/22 10:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO 15 LL		582.58	40 mL	500 mL	67721	11/24/22 03:48	S1K	EET KNX
Instrument ID: MS										

Client Sample ID: AUCA-VP-6

Lab Sample ID: 140-29698-15

Date Collected: 11/16/22 12:23

Matrix: Air

Date Received: 11/21/22 10:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO 15 LL		554.11	40 mL	500 mL	67815	11/25/22 14:12	S1K	EET KNX
Instrument ID: MS										

Client Sample ID: AUCA-VP-7

Lab Sample ID: 140-29698-16

Date Collected: 11/16/22 15:04

Matrix: Air

Date Received: 11/21/22 10:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO 15 LL		3.99	199.5 mL	500 mL	67823	11/28/22 11:26	S1K	EET KNX
Instrument ID: MG										

Client Sample ID: AUCA-VP-8

Lab Sample ID: 140-29698-17

Date Collected: 11/16/22 15:37

Matrix: Air

Date Received: 11/21/22 10:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO 15 LL		4.19	10 mL	500 mL	67815	11/25/22 15:44	S1K	EET KNX
Instrument ID: MS										

Client Sample ID: AUCA-VP-9

Lab Sample ID: 140-29698-18

Date Collected: 11/16/22 16:18

Matrix: Air

Date Received: 11/21/22 10:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO 15 LL		5612.3	80 mL	500 mL	67815	11/25/22 16:29	S1K	EET KNX
Instrument ID: MS										

Lab Chronicle

Client: TRC Environmental Corporation
Project/Site: TO15

Job ID: 140-29698-1

Client Sample ID: AUCA-VP-DUP-1

Lab Sample ID: 140-29698-19

Date Collected: 11/16/22 00:00

Matrix: Air

Date Received: 11/21/22 10:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO 15 LL		181.14	15 mL	500 mL	67815	11/25/22 17:14	S1K	EET KNX
Instrument ID: MS										

Client Sample ID: Method Blank

Lab Sample ID: MB 140-67714/4

Date Collected: N/A

Matrix: Air

Date Received: N/A

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO 15 LL		1	500 mL	500 mL	67714	11/22/22 10:00	S1K	EET KNX
Instrument ID: MS										

Client Sample ID: Method Blank

Lab Sample ID: MB 140-67721/4

Date Collected: N/A

Matrix: Air

Date Received: N/A

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO 15 LL		1	500 mL	500 mL	67721	11/23/22 10:36	S1K	EET KNX
Instrument ID: MS										

Client Sample ID: Method Blank

Lab Sample ID: MB 140-67815/4

Date Collected: N/A

Matrix: Air

Date Received: N/A

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO 15 LL		1	500 mL	500 mL	67815	11/25/22 10:28	S1K	EET KNX
Instrument ID: MS										

Client Sample ID: Method Blank

Lab Sample ID: MB 140-67823/5

Date Collected: N/A

Matrix: Air

Date Received: N/A

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO 15 LL		1	500 mL	500 mL	67823	11/28/22 10:33	S1K	EET KNX
Instrument ID: MG										

Client Sample ID: Lab Control Sample

Lab Sample ID: LCS 140-67714/1002

Date Collected: N/A

Matrix: Air

Date Received: N/A

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO 15 LL		1	500 mL	500 mL	67714	11/22/22 08:32	S1K	EET KNX
Instrument ID: MS										

Lab Chronicle

Client: TRC Environmental Corporation
Project/Site: TO15

Job ID: 140-29698-1

Client Sample ID: Lab Control Sample

Lab Sample ID: LCS 140-67721/1002

Date Collected: N/A

Matrix: Air

Date Received: N/A

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO 15 LL		1	500 mL	500 mL	67721	11/23/22 09:03	S1K	EET KNX
Instrument ID: MS										

Client Sample ID: Lab Control Sample

Lab Sample ID: LCS 140-67815/1002

Date Collected: N/A

Matrix: Air

Date Received: N/A

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO 15 LL		1	500 mL	500 mL	67815	11/25/22 08:43	S1K	EET KNX
Instrument ID: MS										

Client Sample ID: Lab Control Sample

Lab Sample ID: LCS 140-67823/1002

Date Collected: N/A

Matrix: Air

Date Received: N/A

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO 15 LL		1	500 mL	500 mL	67823	11/28/22 08:27	S1K	EET KNX
Instrument ID: MG										

Laboratory References:

EET KNX = Eurofins Knoxville, 5815 Middlebrook Pike, Knoxville, TN 37921, TEL (865)291-3000

Accreditation/Certification Summary

Client: TRC Environmental Corporation
Project/Site: TO15

Job ID: 140-29698-1

Laboratory: Eurofins Knoxville

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
	AFCEE	N/A	
ANAB	Dept. of Defense ELAP	L2311	02-13-25
ANAB	Dept. of Energy	L2311.01	02-13-25
ANAB	ISO/IEC 17025	L2311	02-13-25
Arkansas DEQ	State	88-0688	06-16-23
California	State	2423	06-30-23
Colorado	State	TN00009	02-28-23
Connecticut	State	PH-0223	09-30-23
Florida	NELAP	E87177	06-30-23
Georgia (DW)	State	906	12-11-22
Hawaii	State	NA	07-27-23
Kansas	NELAP	E-10349	10-31-23
Kentucky (DW)	State	90101	12-31-22
Louisiana	NELAP	83979	06-30-23
Louisiana (All)	NELAP	83979	06-30-23
Louisiana (DW)	State	LA019	12-31-22
Maryland	State	277	03-31-23
Michigan	State	9933	12-11-22
Nevada	State	TN00009	07-31-23
New Hampshire	NELAP	299919	01-17-23
New Jersey	NELAP	TN001	06-30-23
New York	NELAP	10781	03-31-23
North Carolina (DW)	State	21705	07-31-23
North Carolina (WW/SW)	State	64	12-31-22
Ohio VAP	State	CL0059	06-02-23
Oklahoma	State	9415	08-31-23
Oregon	NELAP	TNI0189	12-31-22
Pennsylvania	NELAP	68-00576	12-01-23
Tennessee	State	02014	07-27-25
Texas	NELAP	T104704380-22-17	08-31-23
US Fish & Wildlife	US Federal Programs	058448	07-31-23
USDA	US Federal Programs	P330-19-00236	12-31-22
Utah	NELAP	TN00009	07-31-23
Virginia	NELAP	460176	09-14-23
Washington	State	C593	01-19-23
West Virginia (DW)	State	9955C	12-31-22
West Virginia DEP	State	345	04-30-23
Wisconsin	State	998044300	08-31-23

Method Summary

Client: TRC Environmental Corporation
Project/Site: TO15

Job ID: 140-29698-1

Method	Method Description	Protocol	Laboratory
TO 15 LL	Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS)	EPA	EET KNX

Protocol References:

EPA = US Environmental Protection Agency

Laboratory References:

EET KNX = Eurofins Knoxville, 5815 Middlebrook Pike, Knoxville, TN 37921, TEL (865)291-3000

Sample Summary

Client: TRC Environmental Corporation
Project/Site: TO15

Job ID: 140-29698-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
140-29698-1	BMU-IA-1	Air	11/15/22 16:08	11/21/22 10:00	Air Canister (6-Liter) #34000110
140-29698-2	BMU-IA-2	Air	11/15/22 16:32	11/21/22 10:00	Air Canister (6-Liter) #09917
140-29698-3	BMU-IA-3	Air	11/15/22 16:44	11/21/22 10:00	Air Canister (6-Liter) #34001384
140-29698-4	BMU-AMB-1	Air	11/15/22 14:16	11/21/22 10:00	Air Canister (6-Liter) #10123
140-29698-5	BMU-IA-DUP-1	Air	11/15/22 00:00	11/21/22 10:00	Air Canister (6-Liter) #11474
140-29698-6	BMU-VP-1	Air	11/16/22 17:43	11/21/22 10:00	Air Canister (1-Liter) #34001625
140-29698-7	BMU-VP-2	Air	11/16/22 18:14	11/21/22 10:00	Air Canister (1-Liter) #34000663
140-29698-8	BMU-VP-3	Air	11/16/22 18:47	11/21/22 10:00	Air Canister (1-Liter) #34000909
140-29698-9	BMU-VP-DUP-1	Air	11/16/22 00:00	11/21/22 10:00	Air Canister (1-Liter) #34001651
140-29698-10	AUCA-VP-1	Air	11/16/22 09:47	11/21/22 10:00	Air Canister (1-Liter) #09668
140-29698-11	AUCA-VP-2	Air	11/16/22 10:50	11/21/22 10:00	Air Canister (1-Liter) #09798
140-29698-12	AUCA-VP-3	Air	11/16/22 11:34	11/21/22 10:00	Air Canister (1-Liter) #11126
140-29698-13	AUCA-VP-4	Air	11/16/22 14:05	11/21/22 10:00	Air Canister (1-Liter) #34000806
140-29698-14	AUCA-VP-5	Air	11/16/22 13:08	11/21/22 10:00	Air Canister (1-Liter) #11670
140-29698-15	AUCA-VP-6	Air	11/16/22 12:23	11/21/22 10:00	Air Canister (1-Liter) #11749
140-29698-16	AUCA-VP-7	Air	11/16/22 15:04	11/21/22 10:00	Air Canister (1-Liter) #34002445
140-29698-17	AUCA-VP-8	Air	11/16/22 15:37	11/21/22 10:00	Air Canister (1-Liter) #11810
140-29698-18	AUCA-VP-9	Air	11/16/22 16:18	11/21/22 10:00	Air Canister (1-Liter) #11704, Air Canister (6-Liter) #34001362
140-29698-19	AUCA-VP-DUP-1	Air	11/16/22 00:00	11/21/22 10:00	Air Canister (1-Liter) #34002415

Eurofins TestAmerica, Knoxville
5815 Middlebrook Pike

Canister Samples Chain of Custody Record

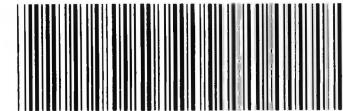


Knoxville, TN 37921-5947
phone 865.291.3000 fax 865.584.4315

TestAmerica Laboratories, Inc. assumes no liability with respect to the collection and shipment of these samples.

TestAmerica Laboratories, Inc. d/b/a Eurofins TestAmerica

Client Contact Information		Client Project Manager: John Tweddala		Samples Collected By: Tom W. Perkins		COC No: 12 of 2 COCs																	
Company Name: TRC		Phone: 608-279-7496				TALS Project #:																	
Address: 999 Gower Drive		Email: jtweddala@trc.com				For Lab Use Only:																	
City/State/Zip: Madison, WI 53717		Site Contact:				Walk-in Client:																	
Phone:		Tel/Fax:				Lab Sampling:																	
FAX:		Analysis Turnaround Time				Job / SDG No.:																	
Project Name: Aramark Silo Station - VI		Standard (Specific): X				(See below for Add'l Items)																	
Site/Location: Silo Station, MO Sampling		Rush (Specify):				Sample Specific Notes:																	
P O #																							
Sample Identification	Sample Start Date	Time Start	Sample End Date	Time Stop	Canister Vacuum in Field, "Hg (Start)	Canister Vacuum in Field, "Hg (Stop)	Flow Controller ID	Canister ID	TO-14 (5) Standard / Low Level	TO-15 SIM	EPA 3C	EPA 25C	ASTM D-1946	EPA 15/16	Other (Please specify in notes section)	Sample Type	Indoor Air/Ambient Air	Sub-Slab	Soil Gas	Soil Vapor Extraction (SVE)	Landfill Gas	Other (Please specify in notes section)	
BMU-IA-1	11/15/22	0808	11/15/22	1608	-30	-6	10583	3400110	X								X						Unlabeled COCs,
BMU-IA-2	11/15/22	0832	11/15/22	1632	-30	-5.5	10657	09917	X								X						See instructions.
BMU-IA-3	11/15/22	0844	11/15/22	1644	-28.5	-5	11733	34001384	X								X						
BMU-AMB-1	11/15/22	0844	11/15/22	1416	-30	-3.5	7145	10123	X								X						
BMU-IA-Dup-1	11/15/22	—	11/15/22	—	-27	-5	7441	11474	X								X						
BMU-VP-1	11/16/22	1809	11/16/22	1814	-30	-6	10943	34001625	X									X					
BMU-VP-2	11/16/22	1809	11/16/22	1814	-30	-6	10035	34006663	X									X					
BMU-VP-3	11/16/22	1812	11/16/22	1847	-30	-4	11905	34000909	X									X					
BMU-DUP-1																							
BMU-VP-DUP-1	11/16/22	—	11/16/22	—	-30	-48	9015	34002115	X									X					FL: 7775 Cen ID: 34001651
		Temperature (Fahrenheit)																					
		Start	Interior	Ambient																			
		Stop																					
		Pressure (inches of Hg)																					
		Start	Interior	Ambient																			
		Stop																					
Special Instructions/QC Requirements & Comments:																							
* PLE, TCE, CDCE, + DCE, VC																							
Samples Shipped by:		Date / Time:		Samples Received by:																			
Tom W. Perkins / E-K		11/18/2022 / 1800		Rupaman ETX KX		11-21-22 10:00																	
Samples Relinquished by:		Date / Time:		Received by:																			
Relinquished by:		Date / Time:		Received by:																			
Lab Use Only:		Shipper Name:		Opened by:		Condition:																	



140-29698 Chain of Custody



Eurofins TestAmerica, Knoxville
5815 Middlebrook Pike

Canister Samples Chain of Custody Record



Knoxville, TN 37921-5947
phone 865.291.3000 fax 865.584.4315

TestAmerica Laboratories, Inc. assumes no liability with respect to the collection and shipment of these samples.

TestAmerica Laboratories, Inc. d/b/a Eurofins TestAmerica

Client Contact Information		Client Project Manager: John Tweeddale		Samples Collected By: Tam W. Perkins		COC No: 7 of 2 COCs																	
Company Name: TRC		Phone: 608-279-7496				TALS Project #:																	
Address: 999 Foxcar Drive		Email: J.Tweeddale@talco.com				For Lab Use Only:																	
City/State/Zip: Madison, WI 53717						Walk-in Client:																	
Phone:		Site Contact:				Lab Sampling:																	
FAX:		Tel/Fax:																					
Project Name: Aramark Site - VI		Analysis Turnaround Time:				Job / SDG No.:																	
Site/Location: Site - VI Sampling		Standard (Specific): X				(See below for Add'l Items)																	
P O #:		Rush (Specify):																					
Sample Identification	Sample Start Date	Time Start	Sample End Date	Time Stop	Canister Vacuum in Field, "Hg (Start)	Canister Vacuum in Field, "Hg (Stop)	Flow Controller ID	Canister ID	TO-14 (Standard Low Level)	TO-15 SIM	EPA 3C	EPA 25C	ASTM D-1946	EPA 15/16	Other (Please specify in notes section)	Sample Type	Indoor Air/Ambient Air	Sub-Slab	Soil Gas	Soil Vapor Extraction (SVE)	Landfill Gas	Other (Please specify in notes section)	Sample Specific Notes:
AUCA-VP-1	11/16/22	0942	11/16/22	0947	-30	-4	7378	09668	X									X					* Limited COCs,
AUCA-VP-2	11/16/22	1045	11/16/22	1050	-30	-6	10908	09798	X									X					See instructions
AUCA-VP-3	11/16/22	1129	11/16/22	1134	-30	-6	10246	11126	X									X					
AUCA-VP-4	11/16/22	1400	11/16/22	1405	-29	-7	12070	3400886	X									X					
AUCA-VP-5	11/16/22	1303	11/16/22	1308	-27.5	-5	10611	11670	X									X					
AUCA-VP-6	11/16/22	1218	11/16/22	1223	-28	-5	10285	11749	X									X					
AUCA-VP-7	11/16/22	1459	11/16/22	1459	-30	-5	7171	34002415	X									X					
AUCA-VP-8	11/16/22	1532	11/16/22	1537	-29	-4	7690	11810	X									X					
AUCA-VP-9	11/16/22	1613	11/16/22	1618	-30	-6	10905	11704	X									X					
AUCA-VP-DUP-1	11/16/22	--	11/16/22	--	-30	-5	9015	34062415	X									X					
		Temperature (Fahrenheit)																					
		Start	Interior	Ambient																			
		Stop																					
		Pressure (inches of Hg)																					
		Start	Interior	Ambient																			
		Stop																					
Special Instructions/QC Requirements & Comments:																							
* PCE, TCE, cDCE, tDCE, VC																							
Samples Shipped by:		Date / Time:		Samples Received by:																			
Tam W. Perkins / Z		11/18/2022 / 1800		Randy Danner		11/21/22		10:00															
Samples Relinquished by:		Date / Time:		Received by:																			
Relinquished by:		Date / Time:		Received by:																			
Lab Use Only:		Shipper Name:		Opened by:		Condition:																	

Form No. CA-C-WI-003, Rev. 2.23, dated 5/4/2020



EUROFINS/TESTAMERICA KNOXVILLE SAMPLE RECEIPT/CONDITION UPON RECEIPT ANOMALY CHECKLIST

Log In Number:

Review Items	Yes	No	NA	If No, what was the problem?	Comments/Actions Taken
1. Are the shipping containers intact?	/		/	<input type="checkbox"/> Containers, Broken	CUSTODY SEALS INTACT RECEIVED AMBIENT AND 11-21-22 2 BOXES FAX # 390845165346 m PO 22 CANS / 6 BOWLS / 16 MS / 3 T'S
2. Were ambient air containers received intact?	/		/	<input checked="" type="checkbox"/> Checked in lab	
3. The coolers/containers custody seal if present, is it intact?	/			<input type="checkbox"/> Yes <input type="checkbox"/> NA	
4. Is the cooler temperature within limits? (> freezing temp. of water to 6°C, VOST: 10°C) Thermometer ID : _____ Correction factor: _____	/		/	<input type="checkbox"/> Cooler Out of Temp, Client Contacted, Proceed/Cancel <input type="checkbox"/> Cooler Out of Temp, Same Day Receipt	
5. Were all of the sample containers received intact?	/			<input type="checkbox"/> Containers, Broken	
6. Were samples received in appropriate containers?	/			<input type="checkbox"/> Containers, Improper; Client Contacted; Proceed/Cancel	
7. Do sample container labels match COC? (IDs, Dates, Times)	/			<input type="checkbox"/> COC & Samples Do Not Match <input type="checkbox"/> COC Incorrect/Incomplete <input type="checkbox"/> COC Not Received	
8. Were all of the samples listed on the COC received?	/			<input type="checkbox"/> Sample Received, Not on COC <input type="checkbox"/> Sample on COC, Not Received	
9. Is the date/time of sample collection noted?	/			<input type="checkbox"/> COC; No Date/Time; Client Contacted	
10. Was the sampler identified on the COC?	/			<input type="checkbox"/> Sampler Not Listed on COC	Labeling Verified by: _____ Date: _____
11. Is the client and project name/# identified?	/			<input type="checkbox"/> COC Incorrect/Incomplete	pH test strip lot number: _____
12. Are tests/parameters listed for each sample?	/			<input type="checkbox"/> COC No tests on COC	
13. Is the matrix of the samples noted?	/			<input type="checkbox"/> COC Incorrect/Incomplete	
14. Was COC relinquished? (Signed/Dated/Timed)	/			<input type="checkbox"/> COC Incorrect/Incomplete	
15. Were samples received within holding time?	/			<input type="checkbox"/> Holding Time - Receipt	Box 16A: pH Preservation Preservative: _____
16. Were samples received with correct chemical preservative (excluding Encore)?			/	<input type="checkbox"/> pH Adjusted, pH Included (See box 16A) <input type="checkbox"/> Incorrect Preservative	Box 18A: Residual Chlorine Lot Number: _____
17. Were VOA samples received without headspace?			/	<input type="checkbox"/> Headspace (VOA only)	Exp Date: _____
18. Did you check for residual chlorine, if necessary? (e.g. 1613B, 1668) Chlorine test strip lot number: _____			/	<input type="checkbox"/> Residual Chlorine	Analyst: _____
19. For 1613B water samples is pH<9?			/	<input type="checkbox"/> If no, notify lab to adjust	Date: _____
20. For rad samples was sample activity info. Provided?			/	<input type="checkbox"/> Project missing info	Time: _____
Project #: _____ PM Instructions: _____					

Sample Receiving Associate: Rump Danner Date: 11-21-22

QA026R32.doc, 062719

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Gauge ID: G5
Date/Time: 11/21/22 1500

[illegible]

Summa Canister Dilution Worksheet

Client: TRC Environmental Corporation
Project/Site: TO15

Job No.: 140-29698-1

Lab Sample ID	Canister Volume (L)	Preadjusted Pressure ("Hg)	Preadjusted Pressure (atm)	Preadjusted Volume (L)	Adjusted Pressure (psig)	Adjusted Pressure (atm)	Adjusted Volume (L)	Initial Volume (mL)	Dilution Factor	Final Dilution Factor	Pressure Gauge ID	Date	Analyst Initials
140-29698-11	1	-4.9	0.84	0.84	37.0	3.52	3.52		4.21	4.21	g5	11/22/22 15:22	AFB
140-29698-11	1	0	1.00	1.00	35.1	3.39	3.39		3.39	14.25		11/22/22 16:07	AFB
140-29698-11	1	0	1.00	1.00	35.1	3.39	3.39		3.39	48.27		11/22/22 17:02	AFB
140-29698-13	1	-7.5	0.75	0.75	14.2	1.97	1.97		2.62	2.62	g5	11/21/22 16:08	AFB
140-29698-14	1	-5.6	0.81	0.81	38.0	3.59	3.59		4.41	4.41	g5	11/22/22 16:11	AFB
140-29698-14	1	0	1.00	1.00	36.5	3.48	3.48		3.48	15.36		11/22/22 17:02	AFB
140-29698-14	1	0	1.00	1.00	35.9	3.44	3.44		3.44	52.88	g5	11/23/22 10:29	AFB
140-29698-14	1	0	1.00	1.00	33.3	3.27	3.27		3.27	172.66		11/23/22 12:40	AFB
140-29698-14	1	0	1.00	1.00	34.9	3.37	3.37		3.37	582.58		11/23/22 14:04	AFB
140-29698-15	1	-5.6	0.81	0.81	36.1	3.46	3.46		4.25	4.25	g5	11/22/22 17:06	AFB
140-29698-15	1	0	1.00	1.00	35.3	3.40	3.40		3.40	14.46	g5	11/23/22 10:29	AFB
140-29698-15	1	0	1.00	1.00	36.0	3.45	3.45		3.45	49.88		11/23/22 12:39	AFB
140-29698-15	1	0	1.00	1.00	33.8	3.30	3.30		3.30	164.56		11/23/22 14:05	AFB
140-29698-15	1	0	1.00	1.00	34.8	3.37	3.37		3.37	554.11		11/23/22 14:49	AFB
140-29698-16	1	-3.8	0.87	0.87	36.5	3.48	3.48		3.99	3.99	g5	11/22/22 17:07	AFB
140-29698-17	1	-4.9	0.84	0.84	36.8	3.50	3.50		4.19	4.19	g5	11/22/22 17:07	AFB
140-29698-18	1	-5.4	0.82	0.82	34.6	3.35	3.35		4.09	4.09	g5	11/23/22 10:29	AFB
140-29698-18	6	0	1.00	6.00	2.1	1.14	6.86	5	1371.43	5612.30	g5 34001362	11/23/22 12:51	AFB
140-29698-19	1	-4.2	0.86	0.86	37.9	3.58	3.58		4.16	4.16	g5	11/23/22 10:30	AFB
140-29698-19	1	0	1.00	1.00	39.2	3.67	3.67		3.67	15.26		11/23/22 12:40	AFB
140-29698-19	1	0	1.00	1.00	35.0	3.38	3.38		3.38	51.60		11/23/22 14:05	AFB
140-29698-19	1	0	1.00	1.00	36.9	3.51	3.51		3.51	181.14		11/23/22 14:50	AFB

Eurofins Knoxville

Summa Canister Dilution Worksheet

Client: TRC Environmental Corporation
Project/Site: TO15

Job No.: 140-29698-1

Formulae:

Preadjusted Volume (L) = ((Preadjusted Pressure ("Hg) + 29.92 "Hg) * Vol L) / 29.92 "Hg

Adjusted Volume (L) = ((Adjusted Pressure (psig) + 14.7 psig) * Vol L) / 14.7 psig

Dilution Factor = Adjusted Volume (L) / Preadjusted Volume (L)

Where:

29.92 "Hg = Standard atmospheric pressure in inches of Mercury ("Hg)

14.7 psig = Standard atmospheric pressure in pounds per square inch gauge (psig)