

Memorandum

DRAFT

April 16, 2021

To	Peter Ramanauskas/U.S. EPA		
Copy to	Dave Favero, RACER Tom Kinney, GHD Julie Luzwick, GHD		
From	Sam Belisle, GHD/ds/MEM-1	Tel	734-657-5839
Subject	Soil Gas Sampling – March 2021 RACER Trust PCC Validation Pontiac, Michigan	Project no.	11223416

1. Introduction

GHD is providing this memorandum on behalf of Revitalizing Auto Communities Environmental Response (RACER) Trust for the former PCC-Validation property in Pontiac, Michigan (Site). The purpose of this memorandum is to summarize results from the March 2021 on and off-Site soil gas sampling.

In July 2020, GHD installed and sampled three soil gas probes for volatile organic compounds (VOCs) along the southern perimeter of the Site. The activities were completed after SME, on behalf of M1 Concourse, found elevated trichloroethylene (TCE) in soil gas samples collected north of the southern perimeter. A copy of the SME soil gas results is provided in Attachment A. The July 2020 soil gas sampling results detected elevated concentrations of TCE at one of the soil gas probes. The sampling results and proposed supplemental activities were presented to USEPA in a memorandum dated September 29, 2020. USEPA approved the supplemental activities during a follow-up call between GHD, RACER, and USEPA on October 2, 2020.

In December 2020 five additional soil gas probes were installed, two on-Site and three off-Site in the right of way on South Boulevard West and Howland Ave. The new and existing probes were sampled following the December installation activities. The results were summarized in a memorandum provided to EPA on February 10, 2021. In that memorandum GHD proposed quarterly soil gas samples be collected from three on-Site probes (SG-02-20, SG-03-20, SG-04-20) and two off-Site probes (SG-06-20 and SG-07-20) until four consecutive rounds of sampling with no VOC exceedances have occurred. EPA concurred with that proposal via email on February 11, 2021. The following sections present details regarding the soil gas sampling and analytical results.

2. Soil Gas Sampling Summary

Soil gas samples were collected on March 15, 2021 from five soil gas probes, SG-02-20, SG-03-20, SG-04-20, SG-06-20, and SG-07-20. Samples were collected using evacuated certified clean 1-liter Summa™ canisters. The Summa™ canisters were fitted with a laboratory calibrated critical orifice flow regulation device sized to restrict the maximum soil gas sample collection flow rate to 100 milliliters per minute (mL/min). After the soil

gas samples were collected, the Summa™ canisters were disconnected from the regulator and an identification tag was attached to each Summa™ canister.

Leak testing was performed as a quality control check before sample collection to ensure ambient air did not leak into the soil gas probe or sampling assembly, which may affect (i.e., dilute) the analytical results. Contaminants in ambient air can also enter the sampling system and be detected in a sample from a non-contaminated sampling probe resulting in a "false positive" result. Leak testing consisted of a vacuum test used to ensure that the tubing and fittings/valves that make up the sampling assembly are airtight and a helium tracer test to ensure that ambient air during soil gas sample collection is not drawn down the soil gas probe annulus through an incomplete seal between the subsurface materials and the soil gas probe casing. Leak testing was performed according to GHD standard operating procedures. Leaks were not detected at the seven probes prior to sampling.

Duplicate samples were collected using a certified clean laboratory provided duplicate T-fitting. Samples were shipped under Chain-of-Custody protocols to Pace Analytical Services, Inc. laboratory and were analyzed using Method TO-15 for VOCs. The sample analysis summary is presented on Table 1.

During the March 2021 sampling activities, it was noted that on-Site probe SG-05-20 was damaged over the winter and no longer appears operational for sampling. There are no current plans to reinstall the probe. SG-05-20 was proactively installed in the event additional delineation was required and it has not been sampled nor are there plans to do so provided results stay consistent with current detection levels.

3. Soil Gas Results

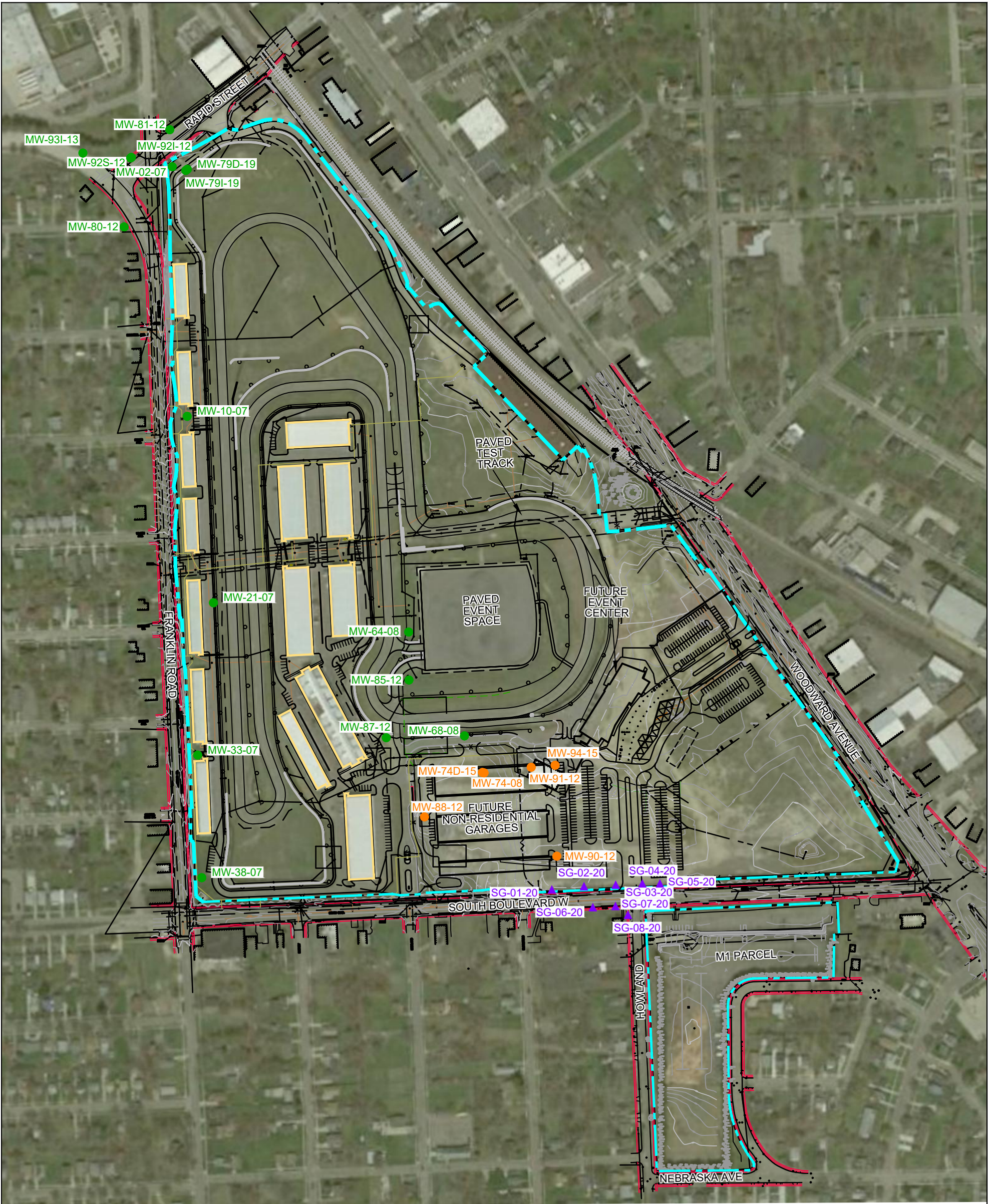
The results were compared to the September 2020 Michigan Department of Environment, Great Lakes and Energy (EGLE) Volatilization to Indoor Air (VIAP) Screening Levels (SLs), March 2021 Media-Specific Volatilization to Indoor Air Interim Action Screening Levels (MSSLs) for Soil Vapor, and March 2020 EGLE Site-Specific Criteria for the M1 Concourse Building 16. Documentation for the EGLE Site-specific criteria is presented in Attachment B.

No locations exceeded screening levels or criteria during the March 2021 event. The soil gas results for TCE from July 2020 through March 2021 is presented on Figure 2. Comprehensive results compared against the screening levels and criteria outlined above are provided on Table 2. The Laboratory Analytical Report is presented in Attachment C.

4. Discussion

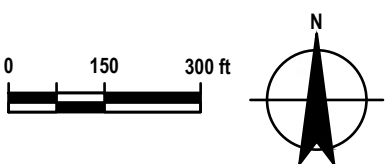
Given the lack of exceedances during the March 2021 event, additional delineation of the TCE impacts is not recommended at this time. In accordance with the proposed activities in the February 2021 memorandum, another round of quarterly soil gas samples will be collected in June 2021 from SG-02-20, SG-03-20, SG-04-20, SG-06-20, and SG-07-20. The quarterly sampling is scheduled to continue at these locations until four consecutive rounds of sampling with no VOC exceedances have occurred. The results and any recommendations related to this investigation will be submitted in quarterly reports to USEPA.

Encl:	Figure 1:	Site Plan with Current and Proposed Monitoring Locations
	Figure 2:	Soil Gas Results - VOC Exceedances
	Table 1:	Sample Analysis Summary
	Table 2:	Soil Gas Analytical Results – July 2020 through March 2021
	Attachment A:	SME Soil Gas Sampling Results
	Attachment B:	M1 Concourse Phase 4 - Building 16 Site-Specific Criteria Evaluation –March 2020
	Attachment C:	Laboratory Analytical Report



- LEGEND**
- APPROXIMATE PROPERTY BOUNDARY
 - RAILROAD
 - MW-80-12 ACTIVE MONITORING WELL LOCATION
 - MW-90-12 PROPOSED MONITORING WELL LOCATION
 - ▲ SG-01-20 SOIL GAS PROBE LOCATION
 - PRIVATE NON-RESIDENTIAL GARAGES

Source: GOOGLE EARTH (DIGITAL GLOBE 4/23/2019)

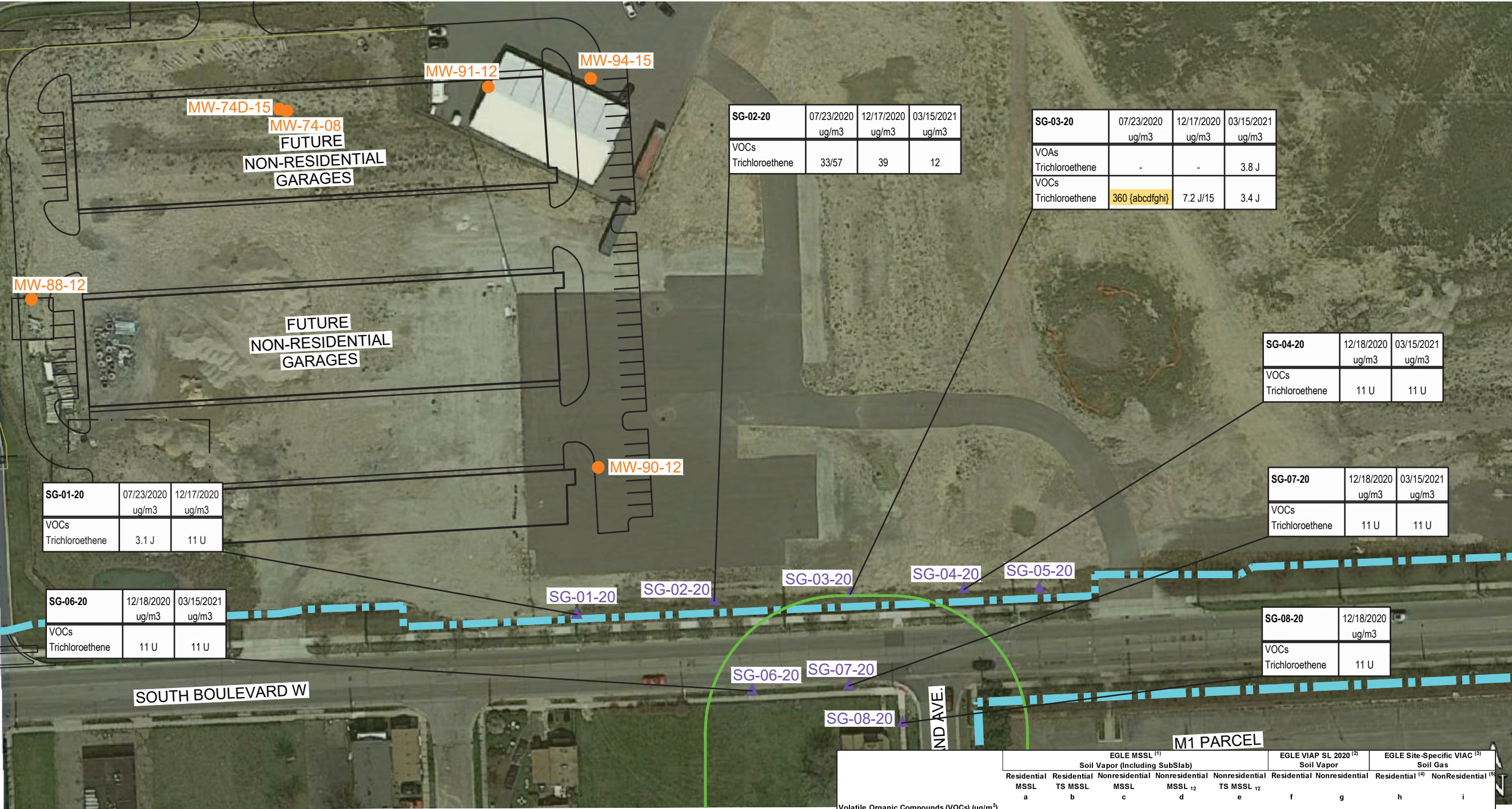


RACER
1 CONCOURSE DRIVE
PONTIAC, MICHIGAN

Project No. 11223416
Date March 2021

DESCRIPTION

FIGURE 1



LEGEND

APPROXIMATE PROPERTY BOUNDARY

RAILROAD

PROPOSED MONITORING WELL LOCATION

SOIL GAS PROBE LOCATION

100 FT BUFFER DISTANCE FROM EDGE OF STRUCTURE

Source: GOOGLE EARTH (DIGITAL GLOBE 4/23/2019)

	EGLE MSSSL ⁽¹⁾					EGLE VIAP SL 2020 ⁽²⁾		EGLE Site-Specific VIAC ⁽³⁾	
	Soil Vapor (Including SubSlab)					Soil Vapor		Soil Gas	
	Residential MSSSL	Residential TS MSSSL	Nonresidential MSSSL	Nonresidential MSSSL ₁₂	Nonresidential TS MSSSL ₁₂	Residential	Nonresidential	Residential ⁽⁴⁾	NonResidential ⁽⁵⁾
Volatile Organic Compounds (VOCs) (ug/m ³)	a	b	c	d	e	f	g	h	i
Trichloroethene	67	200	67	130	400	67	67	67	67

Notes:

(1) EGLE MSSSL - Michigan Department of Environment, Great Lakes and Energy (EGLE) Media-Specific Volatilization to Indoor Air Interim Action Screening Levels (MSSL) - March 2021

(2) EGLE VIAP SL: Michigan Department of Environment, Great Lakes and Energy (EGLE) Volatilization to Indoor Air (VIAP) Screening Levels (SL), September 2020

(3) EGLE Site-Specific Volatilization to Indoor Air Criteria (VIAC) for M1 Concourse Phase 4 - Building 16, March 2020

(4) Unrestricted site-specific criteria that apply to a residential house with a basement, the depth to groundwater submitted for this site (i.e. 15 ft), and USDA soil type of sand.

(5) Restricted site-specific criteria that apply to a nonresidential structure < 50,000 ft2 with a slab-on-grade, the depth to groundwater submitted for this site (i.e. 15 ft), and USDA soil type of sand.

TS MSSSL - Time Sensitive Media-Specific Volatilization to Indoor Air Interim Action Screening Levels

MSSL ₁₂ - 12-hour workday MSSSLs

TS MSSSL ₁₂ - Time Sensitive 12-hour workday MSSSLs

U - Not detected at the associated reporting limit.

J - Estimated concentration.

04080 ft

N

GHD

RACER
1 CONCOURSE DRIVE
PONTIAC, MICHIGAN

Project No. 11223416
Date April 2021

SOIL GAS RESULTS - VOC EXCEEDANCES

FIGURE 2

Table 1

**Sample Analysis Summary
RACER PCC- Validation
Pontiac, Michigan**

Matrix	Sample ID	Sample Location	Date	QA/QC	Analysis
Soil Gas	SG-11223416-031521-SK-001	SG-04-20	3/15/2021	NA	TO-15 VOCs
Soil Gas	SG-11223416-031521-SK-002	SG-03-20	3/15/2021	NA	TO-15 VOCs
Soil Gas	SG-11223416-031521-SK-003	SG-03-20	3/15/2021	Duplicate	TO-15 VOCs
Soil Gas	SG-11223416-031521-SK-004	SG-02-20	3/15/2021	NA	TO-15 VOCs
Soil Gas	SG-11223416-031521-SK-005	SG-07-20	3/15/2021	NA	TO-15 VOCs
Soil Gas	SG-11223416-031521-SK-006	SG-06-20	3/15/2021	NA	TO-15 VOCs

Notes:

SG - Soil Gas Probe

NA - Not applicable

TO-15 VOCs - Compendium Method TO-15 for Volatile Organic Compounds

Table 2
Soil Gas Analytical Results - July 2020 through March 2021
RACER PCC - Validation
Pontiac, Michigan

Sample Location		EGLE MSSL ⁽¹⁾					EGLE VIAP SL 2020 ⁽²⁾		EGLE Site Specific ⁽³⁾		SG-01-20	SG-01-20	SG-02-20	SG-02-20	SG-02-20
Sample Identification		Soil Vapor (Including SubSlab)					Residential	Nonresidential	Table 2 - Residential	Table 1 - NonResidential	SG-17322-072320- DA-001	SG-17322-121720- SK-001	SG-17322-072320- DA-002	SG-17322-072320- DA-003	SG-17322-121720- SK-002
Sample Date		Residential	Residential	NonResidential	NonResidential	NonResidential	Soil Vapor	Soil Vapor	Volatilization to Indoor Air	Volatilization to Indoor Air	07/23/2020	12/17/2020	07/23/2020	07/23/2020	12/17/2020
Sample Type	Units	MSSL	TS MSSL	MSSL	MSSL ₁₂	TS MSSL ₁₂			Basement	<50,000 ft ² , slab-on-grade				Duplicate	
Volatile Organic Compounds (VOCs)		a	b	c	d	e	f	g	h	i					
1,1,1-Trichloroethane	ug/m3	170000	170000	230000	230000	230000	170000	230000	170000	230000	5.7 J	11 U	7.1 J	12	6.3 J
1,1,2,2-Tetrachloroethane	ug/m3						15	34	15	34	14 U	14 U	14 U	14 U	14 U
1,1,2-Trichloroethane	ug/m3						7.0	10	7.0	10	11 U	11 U	11 U	11 U	11 U
1,1-Dichloroethane	ug/m3	530	5300	1200	2500	25000	530	1200	530	1200	8.1 U	8.1 U	1.6 J	2.1 J	8.1 U
1,1-Dichloroethene	ug/m3	7000	21000	10000	20000	61000	7000	10000	7000	10000	7.9 U	7.9 U	7.9 U	7.9 U	7.9 U
1,2,4-Trichlorobenzene	ug/m3	70	210	100	200	610	70	100			150 U	150 U	150 U	150 U	150 U
1,2,4-Trimethylbenzene	ug/m3	2100	6300	3100	6100	18000	2100	3100	2100	3100	4.2 JB	9.8 U	3.9 JB	6.7 JB	9.8 U
1,2-Dibromoethane (Ethylene dibromide)	ug/m3						1.4	3.3	1.4	3.3	15 U	15 U	15 U	15 U	15 U
1,2-Dichlorobenzene	ug/m3						10000	15000			12 U	12 U	12 U	12 U	12 U
1,2-Dichloroethane	ug/m3						33	77	33	77	8.1 U	8.1 U	8.1 U	8.1 U	8.1 U
1,2-Dichloropropane	ug/m3	140	420	200	410	1200	140	200			9.2 U	9.2 U	9.2 U	9.2 U	9.2 U
1,2-Dichlorotetrafluoroethane (CFC 114)	ug/m3										14 U	14 U	14 U	14 U	14 U
1,3,5-Trimethylbenzene	ug/m3	2100	6300	3100	6100	18000	2100	3100	2100	3100	0.94 J	9.8 U	9.8 U	9.8 U	9.8 U
1,3-Dichlorobenzene	ug/m3	100	310	150	310	920	100	150			12 U	12 U	12 U	12 U	12 U
1,4-Dichlorobenzene	ug/m3	220	2200	510	1000	10000	220	510			12 U	12 U	12 U	12 U	12 U
1,4-Dioxane	ug/m3	170	1700	400	800	8000	170	400			180 U	180 U	180 U	180 U	180 U
2-Butanone (Methyl ethyl ketone) (MEK)	ug/m3	170000	500000	170000	330000	1000000	170000	170000			170	29 U	11 J	15 J	29 U
4-Methyl-2-pentanone (Methyl isobutyl ketone) (M	ug/m3	27000	27000	27000	27000	27000	27000	27000			20 U	20 U	20 U	20 U	20 U
Acetone	ug/m3	1000000	1000000	1000000	1000000	1000000	1000000	1000000			100 J	120 U	75 J	86 J	120 U
Benzene	ug/m3	110	630	260	510	1800	110	260	110	260	4.1 J	6.4 U	3.1 J	4.1 J	6.4 U
Benzyl chloride	ug/m3						17	40			41 U	41 U	41 U	41 U	41 U
Bromodichloromethane	ug/m3						48	100			13 U	13 U	13 U	13 U	13 U
Bromoform	ug/m3						770	1800			21 U	21 U	21 U	21 U	21 U
Bromomethane (Methyl bromide)	ug/m3						350	510			7.8 U	7.8 U	7.8 U	7.8 U	7.8 U
Carbon disulfide	ug/m3						24000	36000			10 J	16 U	6.9 J	8.9 J	5.2 J
Carbon tetrachloride	ug/m3	150	1500	360	710	7100	150	360			13 U	13 U	13 U	13 U	13 U
Chlorobenzene	ug/m3	1700	5200	2600	5100	15000	1700	2600	1700	2600	9.2 U	9.2 U	9.2 U	9.2 U	9.2 U
Chloroethane	ug/m3	140000	420000	200000	410000	1200000	140000	200000	140000	200000	21 U	21 U	21 U	21 U	21 U
Chloroform (Trichloromethane)	ug/m3	37	370	87	170	1700	37	87	37	87	9.8 U	9.8 U	9.8 U	9.8 U	9.8 U
Chloromethane (Methyl chloride)	ug/m3	3100	9400	4600	9200	28000	3100	4600	3100	4600	1.2 J	10 U	1.4 J	10 U	10 U
cis-1,2-Dichloroethene	ug/m3	280	830	410	820	2500	280	410	280	410	7.9 U	7.9 U	7.9 U	7.9 U	7.9 U
cis-1,3-Dichloropropene	ug/m3										9.1 U	9.1 U	9.1 U	9.1 U	9.1 U
Cyclohexane	ug/m3						210000	310000	210000	310000	3.0 J	17 U	5.0 J	6.6 J	17 U
Dibromochloromethane	ug/m3						14	83			17 U	17 U	17 U	17 U	17 U
Dichlorodifluoromethane (CFC-12)	ug/m3						11000	17000			25 U	25 U	3.5 J	4.3 J	3.0 J
Ethylbenzene	ug/m3	340	3400	800	1600	16000	340	800	340	800	3.7 JB	1.7 J	3.9 JB	4.0 JB	1.9 J
Hexachlorobutadiene	ug/m3						39	91			210 U	210 U	210 U	210 U	210 U
Hexane	ug/m3	24000	73000	36000	72000	210000	24000	36000	24000	36000	31	28 U	14 J	15 J	28 U
Isopropyl alcohol	ug/m3						7000	10000	7000	10000	120 U	120 U	120 U	3.8 J	120 U
Isopropyl benzene	ug/m3						81	190	81	190	39 U	39 U	39 U	39 U	39 U
m&p-Xylenes	ug/m3										9.5 J	35 U	9.7 J	11 J	35 U
Methyl tert butyl ether (MTBE)	ug/m3	3300	33000	7700	15000	150000	3300	7700	3300	7700	36 U	36 U	36 U	36 U	36 U
Methylene chloride	ug/m3	21000	33000	31000	61000	97000	21000	31000			17 U	17 U	17 U	17 U	17 U
Naphthalene	ug/m3						25	59	25	59	26 U	26 U	26 U	26 U	26 U
o-Xylene	ug/m3										4.6 JB	2.1 J	4.3 JB	5.4 JB	1.0 J
Styrene	ug/m3						1500	3500	1500	3500	8.5 U	8.5 U	8.5 U	8.5 U	8.5 U
Tetrachloroethene	ug/m3	1400	1400	1400	2700	2700	1400	1400	1400	1400	14 U	14 U	14 U	14 U	14 U
Tetrahydrofuran	ug/m3						70000	100000			150 U	150 U	150 U	150 U	150 U
Toluene	ug/m3	170000	250000	250000	250000	250000	170000	250000	170000	250000	13 B	7.5 U	8.2 B	10 B	2.1 J
trans-1,2-Dichloroethene	ug/m3	2800	8300	4100	8200	25000	2800	4100	2800	4100	7.9 U	7.9 U	7.9 U	7.9 U	7.9 U
trans-1,3-Dichloropropene	ug/m3										9.1 U	9.1 U	9.1 U	9.1 U	9.1 U
Trichloroethene	ug/m3	67	200	67	130	400	67	67	67	67	3.1 J	11 U	33	57	39
Trichlorofluoromethane (CFC-11)	ug/m3						15000	22000			870	590	240	380	250
Trifluorotrichloroethane (CFC-113)	ug/m3						660000	970000			15 U	15 U	15 U	15 U	15 U
Vinyl acetate	ug/m3	7000	21000	10000	20000	61000	7000	10000			180 U	180 U	180 U	180 U	180 U
Vinyl bromide (Bromoethene)	ug/m3										8.7 U	8.7 U	8.7 U	8.7 U	8.7 U
Vinyl chloride	ug/m3	54	540	450	910	9100	54	450	54	450	5.1 U	5.1 U	5.1 U	5.1 U	5.1 U

Notes:

⁽¹⁾ EGLE MSSL - Michigan Department of Environment, Great Lakes and Energy (EGLE) Media-Specific Volatilization to Indoor Air Interim Action Screening Levels (MSSL) - March 202

⁽²⁾ EGLE VIAP SL: Michigan Department of Environment, Great Lakes and Energy (EGLE) Volatilization to Indoor Air (VIAP) Screening Levels (SL), September 2020.

⁽³⁾ EGLE Site-Specific Volatilization to Indoor Air Criteria (VIAC) for M1 Concourse Phase 4 - Building 16, March 2020.

U - Not detected at the associated reporting limit.

J - Estimated concentration.

B - Result detected in associated method blank.

MSSL - Media-Specific Volatilization to Indoor Air Interim Action Screening Levels

TS - Time Sensitive

MSSL₁₂ - 12-hour workday MSSLs

Table 2
Soil Gas Analytical Results - July 2020 through March 2021
RACER PCC - Validation
Pontiac, Michigan

Sample Location		SG-02-20	SG-03-20	SG-03-20	SG-03-20	SG-03-20	SG-03-20	SG-04-20	SG-04-20	SG-06-20	SG-06-20	SG-07-20	SG-07-20	SG-08-20
Sample Identification		SG-11223416-031521-SK-004	SG-17322-072320-DA-004	SG-17322-121720-SK-003	SG-17322-121720-SK-004	SG-11223416-031521-SK-002	SG-11223416-031521-SK-003	SG-17322-121820-SK-005	SG-11223416-031521-SK-001	SG-17322-121820-SK-006	SG-11223416-031521-SK-006	SG-17322-121820-SK-007	SG-11223416-031521-SK-005	SG-17322-121820-SK-008
Sample Date		03/15/2021	07/23/2020	12/17/2020	12/17/2020	03/15/2021	03/15/2021	12/18/2020	03/15/2021	12/18/2020	03/15/2021	12/18/2020	03/15/2021	12/18/2020
Sample Type					Duplicate		Duplicate							
Units														
Volatile Organic Compounds (VOCs)														
1,1,1-Trichloroethane	ug/m3	4.5 J	32 J	25	31	12 J	12 J	9.3 J	10 J	11 U	2.5 J	11 U	11 U	11 U
1,1,2,2-Tetrachloroethane	ug/m3	14 U	55 U	14 U	14 U	21 U	21 U	14 U	14 U	14 U	14 U	14 U	14 U	14 U
1,1,2-Trichloroethane	ug/m3	11 U	44 U	11 U	11 U	16 U	16 U	11 U	11 U	11 U	11 U	11 U	11 U	11 U
1,1-Dichloroethane	ug/m3	8.1 U	32 U	8.2 U	8.2 U	12 U	12 U	8.1 U	8.1 U	8.1 U	8.1 U	8.1 U	8.1 U	8.1 U
1,1-Dichloroethene	ug/m3	7.9 U	32 U	8.0 U	8.0 U	12 U	12 U	7.9 U	7.9 U	7.9 U	7.9 U	0.51 J	7.9 U	7.9 U
1,2,4-Trichlorobenzene	ug/m3	150 U	590 U	150 U	150 U	220 U	220 U	150 U	150 U	2.5 J	150 U	150 U	150 U	150 U
1,2,4-Trimethylbenzene	ug/m3	9.8 U	7.1 JB	9.9 U	9.9 U	15 U	15 U	9.8 U	9.8 U	9.8 U	12	9.8 U	1.1 J	9.8 U
1,2-Dibromoethane (Ethylene dibromide)	ug/m3	15 U	61 U	16 U	16 U	23 U	23 U	15 U	15 U	15 U	15 U	15 U	15 U	15 U
1,2-Dichlorobenzene	ug/m3	12 U	48 U	12 U	12 U	18 U	18 U	12 U	12 U	12 U	12 U	12 U	12 U	12 U
1,2-Dichloroethane	ug/m3	8.1 U	32 U	8.2 U	8.2 U	12 U	12 U	8.1 U	8.1 U	8.1 U	8.1 U	8.1 U	8.1 U	8.1 U
1,2-Dichloropropane	ug/m3	9.2 U	37 U	9.3 U	9.3 U	14 U	14 U	9.2 U	9.2 U	9.2 U	9.2 U	9.2 U	9.2 U	9.2 U
1,2-Dichlorotetrafluoroethane (CFC 114)	ug/m3	14 U	56 U	14 U	14 U	21 U	21 U	14 U	14 U	14 U	14 U	14 U	14 U	14 U
1,3,5-Trimethylbenzene	ug/m3	9.8 U	39 U	9.9 U	9.9 U	15 U	15 U	9.8 U	9.8 U	9.8 U	5.0 J	9.8 U	9.8 U	9.8 U
1,3-Dichlorobenzene	ug/m3	12 U	48 U	12 U	12 U	18 U	18 U	12 U	12 U	12 U	12 U	12 U	12 U	12 U
1,4-Dichlorobenzene	ug/m3	12 U	48 U	12 U	12 U	18 U	18 U	12 U	12 U	12 U	12 U	12 U	12 U	12 U
1,4-Dioxane	ug/m3	180 U	720 U	180 U	180 U	270 U	270 U	180 U	180 U	180 U	180 U	180 U	180 U	180 U
2-Butanone (Methyl ethyl ketone) (MEK)	ug/m3	29 U	120 U	30 U	30 U	44 U	44 U	29 U	29 U	29 U	22 J	29 U	29 U	29 U
4-Methyl-2-pentanone (Methyl isobutyl ketone) (M	ug/m3	20 U	82 U	21 U	21 U	31 U	31 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U
Acetone	ug/m3	22 J	480 U	120 U	120 U	34 J	180 U	120 U	24 J	120 U	400	120 U	52 J	120 U
Benzene	ug/m3	6.4 U	5.2 J	6.5 U	6.5 U	9.6 U	9.6 U	6.4 U	6.4 U	11	5.4 J	9.4	6.4 U	7.6
Benzyl chloride	ug/m3	41 U	170 U	42 U	42 U	62 U	62 U	41 U	41 U	41 U	41 U	41 U	41 U	41 U
Bromodichloromethane	ug/m3	13 U	54 U	14 U	14 U	20 U	20 U	13 U	13 U	13 U	13 U	13 U	13 U	13 U
Bromoform	ug/m3	21 U	83 U	21 U	21 U	31 U	31 U	21 U	21 U	21 U	21 U	21 U	21 U	21 U
Bromomethane (Methyl bromide)	ug/m3	7.8 U	31 U	7.8 U	7.8 U	12 U	12 U	7.8 U	7.8 U	7.8 U	3.4 J	7.8 U	7.8 U	7.8 U
Carbon disulfide	ug/m3	5.2 J	19 J	16 U	16 U	23 U	23 U	16 U	16 U	29	33	51	16 U	9.2 J
Carbon tetrachloride	ug/m3	13 U	50 U	13 U	13 U	19 U	19 U	13 U	13 U	13 U	1.7 J	13 U	13 U	13 U
Chlorobenzene	ug/m3	9.2 U	37 U	9.3 U	9.3 U	14 U	14 U	9.2 U	9.2 U	9.2 U	9.2 U	9.2 U	9.2 U	9.2 U
Chloroethane	ug/m3	21 U	84 U	21 U	21 U	32 U	32 U	21 U	21 U	21 U	21 U	21 U	21 U	21 U
Chloroform (Trichloromethane)	ug/m3	9.8 U	39 U	9.9 U	9.9 U	15 U	15 U	9.8 U	9.8 U	9.8 U	9.7 U	9.8 U	9.8 U	9.8 U
Chloromethane (Methyl chloride)	ug/m3	10 U	41 U	10 U	10 U	15 U	15 U	10 U	10 U	1.3 J	6.3 J	10 U	10 U	10 U
cis-1,2-Dichloroethene	ug/m3	7.9 U	9.0 J	8.0 U	8.0 U	12 U	12 U	7.9 U	7.9 U	7.9 U	7.9 U	7.9 U	7.9 U	7.9 U
cis-1,3-Dichloropropene	ug/m3	9.1 U	36 U	9.2 U	9.2 U	14 U	14 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U
Cyclohexane	ug/m3	21	7.5 J	17 U	17 U	7.1 J	6.5 J	17 U	17 U	3.4 J	32	4.6 J	8.0 J	6.4 J
Dibromochloromethane	ug/m3	17 U	68 U	17 U	17 U	26 U	26 U	17 U	17 U	17 U	17 U	17 U	17 U	17 U
Dichlorodifluoromethane (CFC-12)	ug/m3	3.4 J	99 U	8.7 J	8.6 J	4.5 J	5.8 J	3.4 J	3.3 J	25 U	24 J	25 U	5.7 J	25 U
Ethylbenzene	ug/m3	3.1 J	10 JB	8.8 U	2.7 J	4.1 J	2.2 J	2.1 J	2.5 J	8.9	21	8.0 J	8.3 J	4.8 J
Hexachlorobutadiene	ug/m3	210 U	850 U	220 U	220 U	320 U	320 U	210 U	210 U	210 U	210 U	210 U	210 U	210 U
Hexane	ug/m3	28 U	96 J	28 U	28 U	42 U	42 U	28 U	28 U	23 J	51	23 J	4.7 J	38
Isopropyl alcohol	ug/m3	4.4 J	490 U	120 U	120 U	180 U	180 U	120 U	120 U	120 U	46 J	120 U	10 J	120 U
Isopropyl benzene	ug/m3	39 U	160 U	40 U	40 U	59 U	59 U	39 U	39 U	39 U	2.3 J	39 U	39 U	39 U
m&p-Xylenes	ug/m3	8.7 J	11 J	35 U	35 U	14 J	7.2 J	35 U	9.5 J	10 J	72	7.9 J	32 J	4.2 J
Methyl tert butyl ether (MTBE)	ug/m3	36 U	140 U	36 U	36 U	54 U	54 U	36 U	36 U	36 U	36 U	36 U	36 U	36 U
Methylene chloride	ug/m3	17 U	69 U	18 U	18 U	26 U	26 U	17 U	17 U	17 U	54	17 U	4.8 J	17 U
Naphthalene	ug/m3	26 U	100 U	26 U	26 U	39 U	39 U	26 U	26 U	26 U	26 U	26 U	26 U	26 U
o-Xylene	ug/m3	2.9 J	9.7 JB	8.8 U	2.7 J	4.1 J	2.6 J	3.1 J	1.5 J	6.5 J	26	3.3 J	11	1.4 J
Styrene	ug/m3	2.4 JB	34 U	8.6 U	8.6 U	1.9 J	2.3 J	8.5 U	8.5 U	8.5 U	3.7 JB	8.5 U	3.1 JB	8.5 U
Tetrachloroethene	ug/m3	14 U	8.0 J	14 U	3.3 J	20 U	20 U	14 U	14 U	14 U	3.5 J	14 U	14 U	14 U
Tetrahydrofuran	ug/m3	150 U	590 U	150 U	150 U	220 U	220 U	150 U	150 U	150 U	150 U	150 U	150 U	150 U
Toluene	ug/m3	5.2 J	13 JB	3.1 J	2.5 J	2.6 J	2.8 J	1.3 J	7.5 U	35	18	38	4.2 J	15
trans-1,2-Dichloroethene	ug/m3	7.9 U	32 U	8.0 U	8.0 U	12 U	12 U	7.9 U	7.9 U	7.9 U	7.9 U	7.9 U	7.9 U	7.9 U
trans-1,3-Dichloropropene	ug/m3	9.1 U	36 U	9.2 U	9.2 U	14 U	14 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U
Trichloroethene	ug/m3	12	360 ^{abccdfghi}	7.2 J	15	3.4 J	3.8 J	11 U	11 U	11 U	11 U	11 U	11 U	11 U
Trichlorofluoromethane (CFC-11)	ug/m3	380	5200	5500	5700	2600	2600	100	90	11 U	150	11 U	170	11 U
Trifluorotrichloroethane (CFC-113)	ug/m3	15 U	61 U	15 U	15 U	23 U	23 U	15 U	15 U	15 U	15 U	15 U	15 U	15 U
Vinyl acetate	ug/m3	180 U	700 U	180 U	180 U	260 U	260 U	180 U	180 U	180 U	180 U	180 U	180 U	180 U
Vinyl bromide (Bromoethene)	ug/m3	8.7 U	35 U	8.8 U	8.8 U	13 U	13 U	8.7 U	8.7 U	8.7 U	8.7 U	8.7 U	8.7 U	8.7 U
Vinyl chloride	ug/m3	5.1 U	20 U	5.2 U	5.2 U	7.7 U	7.7 U	5.1 U	5.1 U	5.1 U	5.1 U	5.1 U	5.1 U	5.1 U

Attachment A

SME Soil Gas Sampling Results



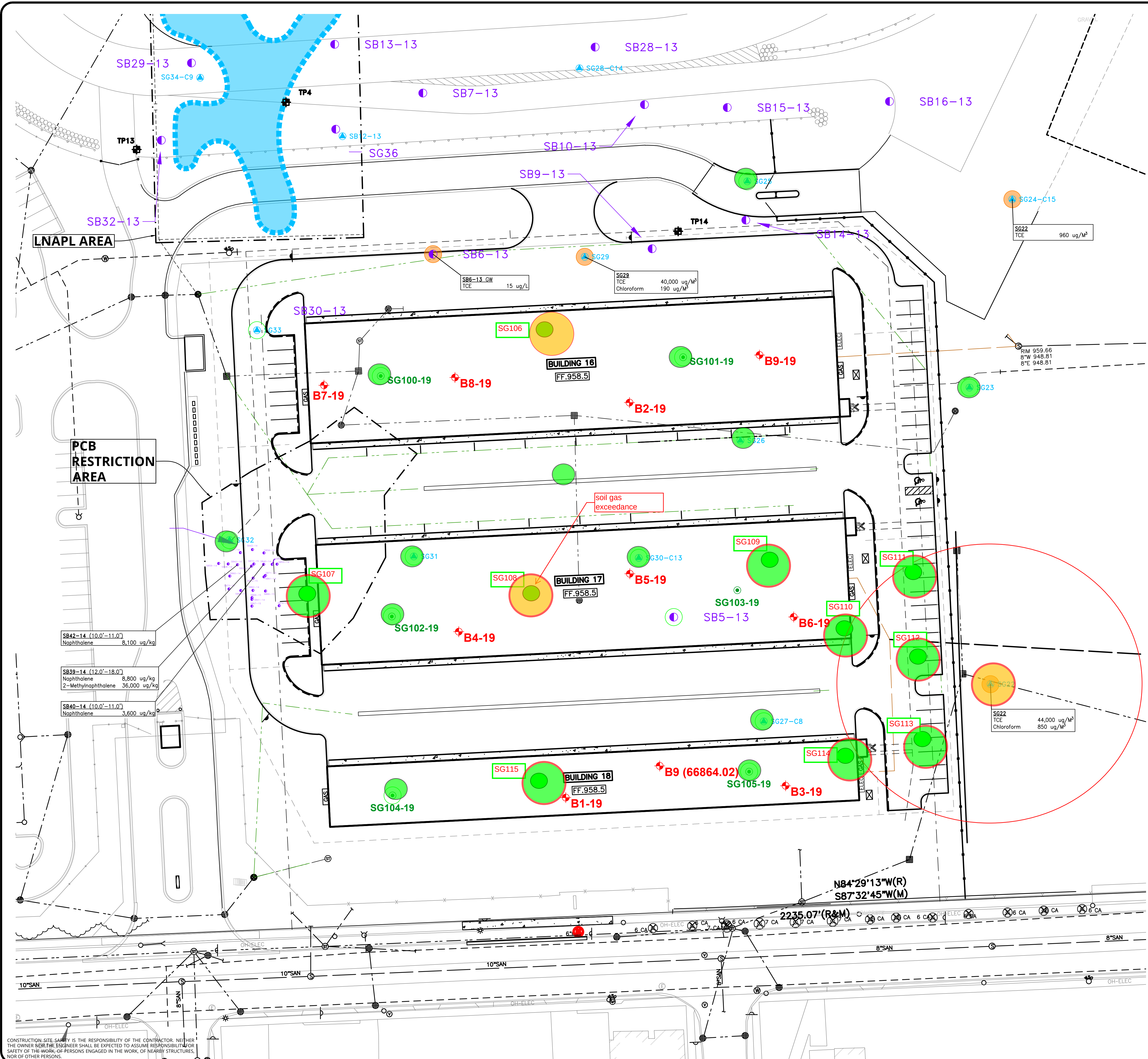
TABLE 3.
SUMMARY OF ANALYTICAL RESULTS - SOIL GAS
M1 CONCOURSE - PHASE 4 DEVELOPMENT
PONTIAC, MICHIGAN
PAGE 1 OF 1

DRAFT DOCUMENT

Constituent	Chemical Abstract Service Number	Proposed Part 201 Generic Screening Levels	Media Specific Volatilization to Indoor Air Interim Action Screening Levels (RIASL)	Chemical Analytical Results											
				Sample Identification											
		Depth (feet)													
		Date Collected													
SG106	SG107	SG108	SG109	SG110	SG111	SG112	SG113	SG114	SG115	SG116					
5-5.5	5-5.5	5-5.5	5-5.5	5-5.5	5-5.5	5-5.5	5-5.5	5-5.5	5-5.5	5-5.5	4.5-5				
1/21/20	1/21/20	1/21/20	1/21/20	1/21/20	1/21/20	1/21/20	1/21/20	1/21/20	1/21/20	1/21/20	1/21/20				
VOCs (TO-15)		ppbv	(µg/m3)	µg/m³	µg/m³	µg/m³	µg/m³	µg/m³	µg/m³	µg/m³	µg/m³	µg/m³	µg/m³	µg/m³	
Benzene	71-43-2	110	260	<21	35	<19	<19	<19	30	21	<19	<38	<19	<19	
1,3 Butadiene	106-99-0	NA	NA	<14	<0.66	<0.66	<0.66	6.6	7.3	17	1.4	<26	<0.66	<1.5	
Carbon Disulfide	75-15-0	24,000	NA	<240	<37	<37	<37	46	82	40	<37	<420	<37	56	
Carbon Tetrachloride	56-23-5	150	NA	<16	<7.5	<7.5	<7.5	<7.5	<7.5	<7.5	<7.5	<29	16	<7.5	
Chloroethane	75-00-3	140,000	200,000	63	<16	<16	<16	<16	<16	<16	<16	<47	<16	<16	
Cyclohexane	110-82-7	210,000	NA	<91	<41	<41	<41	68	110	83	<41	<160	<41	<41	
Dichlorodifluoromethane	75-71-8	11,000	NA	<380	160	<30	<30	<30	<30	<30	<30	<670	<30	<39	
1,1-Dichloroethane	75-34-3	530	1,200	750	<24	<24	<24	<24	<24	<24	<24	<47	<24	<24	
1,1-Dichloroethene	75-35-4	10,000	10,000	470	<24	<24	<24	<24	<24	<24	<24	<48	<24	120	
cis-1,2-Dichloroethene	156-59-2	280	410	490	<24	<24	<24	<24	<24	<24	<24	<47	<24	18,000	
trans-1,2-Dichloroethene	156-60-5	280	26,000	<26	<24	<24	<24	<24	<24	<24	<24	<47	<24	350	
n-Heptane	142-82-5	120,00	NA	<49	<49	<49	110	300	210	160	<49	<78	<49	<49	
n-Hexane	110-54-3	24,000	36,000	<93	<42	<42	55	880	380	290	<42	<170	<42	<42	
Tetrachloroethene	127-18-4	1,400	1,400	130	<41	<41	<41	<41	<41	<41	<41	<81	<41	<41	
Tetrahydrofuran	109-99-9	100,000	NA	<31	<3.5	47	<3.5	<3.5	<3.5	<3.5	<3.5	<55	<3.5	<3.5	
Toluene	108-88-3	250,000	250,000	<40	<23	<23	<23	<23	100	59	<23	<71	<23	<23	
1,1,1-Trichloroethane	71-55-6	NA	NA	2,800	<33	<33	<33	<33	<33	<33	<33	<100	<33	<33	
Trichloroethene	79-01-6	67	67	32,000	3.0	140	49	4.9	2.6	23	31	<25	<1.6	580	
Trichlorofluoromethane	75-69-4	15,000	NA	<37	130	<34	<34	<34	<34	65	1,200	10,000	<34	<34	
Vinyl Chloride	75-01-4	450	450	<26	<15	<15	<15	<15	<15	<15	<15	<46	<15	140	
m&p-Xylene	136777-61-2	NA	NA	<220	<52	<52	<52	<52	83	<52	<52	<400	<52	<52	
Xylenes	1330-20-7	7,600	11,000	<340	<100	<100	<100	<100	110	<100	<100	<610	<100	<100	
Other VOCs	CS	CS	CS	CS<RL	CS<RL	CS<RL	CS<RL	CS<RL	CS<RL	CS<RL	CS<RL	CS<RL	CS<RL	CS<RL	

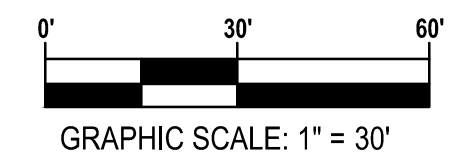
Notes:

1. Only constituents measured at concentrations above their respective Method Reporting Limit (RL) in at least on sample are listed.
2. Concentrations are reported in micrograms per cubic meter (µg/m3).
3. Results exceeding laboratory reporting limits are bold.
4. Results exceeding Proposed Part 201 Screening Levels are shaded orange, as are the criteria exceeded. Results exceeding RIASL are shaded blue.
5. VOCs -Volatile Organic Compounds. Refer to the analytical report for the full list of VOC constituents.
6. CS - Criterion is specific to individual constituent.
7. <RL - concentrations of all non-listed constituents were below their respective Method Reporting Limits.
8. NA - No criteria available.



LEGEND

- Geotechnical Boring Location (SME, 2019)
- Environmental Boring Location (SME, 2013-2015)
- Test Pit Location (SME, 2013)
- Geotech Boring Location (SME, 2013, 2014)
- Soil Gas Implant Location (SME, 2013)
- Approximate Soil Gas (SME, 2019) Sample Location
- Concrete Sample Location (SME, 2013)
- Test Pit Location (CRA, 2007)
- Monitoring Well Location (CRA, 2007-2012)
- Temporary Monitoring Well Location (CRA, 2008)
- Environmental Soil Boring Location (CRA, 2007)
- Sample Result Exceeds Vapor Intrusion Screening Level/Criteria
- Sample Result Below Vapor Intrusion Screening Level/Criteria



SME
www.sme-usa.com

Orientation	Scale

Project
**M1 CONCOURSE
PHASE 4
DEVELOPMENT**

Project Location
PONTIAC, MICHIGAN

Sheet Name
**SAMPLE LOCATION AND
RESULTS DIAGRAM**

Engineer's Seal

REV	ISSUED FOR	DATE	BY

Date

SME Project No.
082458.00

Project Manager:

Technician:

CADD:

Checked By:

Sheet No.
FIGURE 1



PETROLEUM PRODUCT AREA

NOTE:
DRAWING INFORMATION TAKEN FROM AN ALTA
SURVEY PREPARED BY KEM-TECH & ASSOCIATES,
DATED JULY 29, 2013, JOB# 13-02059.

CONSTRUCTION SITE SAFETY IS THE RESPONSIBILITY OF THE CONTRACTOR. NEITHER THE OWNER NOR THE ENGINEER SHALL BE EXPECTED TO ASSUME RESPONSIBILITY FOR SAFETY OF THE WORK OF PERSONS ENGAGED IN THE WORK, OF NEARBY STRUCTURES, NOR OF OTHER PERSONS.

FILE LOCATION: I:\SME\HQ\WIP\082458_00\CADD\DWG\SS\Drawings\082458_00-BLD-FIG1.BNVP.dwg
PLOT DATE: Dec 17, 2019 12:25pm
PLOTTER: HP DesignJet T1200

Attachment B

**M1 Concourse Phase 4 - Building 16
Site-Specific Criteria Evaluation – March
2020**

DEPARTMENT OF ENVIRONMENT, GREAT LAKES, AND ENERGY

INTEROFFICE COMMUNICATION

TO: Matt Williams, Vapor Intrusion Specialist, RRD

FROM: Shane Morrison, Senior Toxicologist, RRD

DATE: March 6, 2020

SUBJECT: M1 Concourse Phase 4 - Building 16 Site-Specific Criteria Evaluation

The following site-specific volatilization to indoor air criteria (VIAC) are the Michigan Department of Environment, Great Lakes, and Energy's (EGLE's) determination of values that reflect best available information regarding the toxicity and exposure risks posed by the hazardous substances present at the facility. These values are based upon the information provided with the request to develop site-specific VIAC for this facility. These values may be used provided it is documented that the conditions used to develop the site-specific criteria are met at the facility. Other values may be developed by a person consistent with the statutory provisions for development of site-specific criteria and provided for EGLE review and approval.

Correspondence transmitting these values to the submitter/consultant as part of a report, review, or other request must incorporate the appropriate sections of the volatilization to indoor air pathway (VIAP) model document language. As indicated in this document, when groundwater volatilization to indoor air inhalation criteria (GVIIC) and soil volatilization to indoor air inhalation criteria (SVIIC) are not applicable, the correspondence must include language indicating the requirement to satisfy the site-specific VIAC for all three media i.e., groundwater, soil, and soil gas. In addition, all of the following site-specific VIAC tables must be copied into the correspondence or letter as part of your response to the submitter/consultant.

Unrestricted residential site-specific criteria were included in the evaluation based on information provided and EGLE's residential conceptual site model. Exceedance of the site-specific unrestricted residential criteria will require restrictions or institutional controls for closure or aid in the determination of off-site migration.

Nonresidential site-specific criteria may be adjusted for some hazardous substances to reflect a reasonable maximum worker exposure of 12-hour per day; however, if a person does not exceed the provided nonresidential site-specific criteria, no adjustment is necessary.

The site-specific criteria were generated using the United States Department of Agriculture (USDA) soil type of sand. Other site-specific criteria can be generated using a different soil type by providing soil characterization results from department approved methods on soils collected at the site.

Additional hazardous substances were included in the site-specific evaluation that were not explicitly requested. These hazardous substances may be components of recent petroleum. The preemptive site-specific evaluation of these substances was provided to limit the potential need for future resubmittal for this facility.

Please contact me at MorrisonS5@michigan.gov or 517-284-5063 if you require any clarification of these comments and criterion or have additional questions.

cc: Eric Wildfang, Toxicology Unit Supervisor, RRD
Paul Owens, District Supervisor, RRD
Cheryl Wilson, Assistant District Supervisor, RRD
Kevin Wojciechowski, Senior Environmental Quality Analyst, RRD

Table 1. Nonresidential Volatilization to Indoor Air Criteria (VIAC). The following are **restricted** site-specific criteria that apply to a nonresidential structure **< 50,000 ft²** with a **slab-on-grade**, the depth to groundwater submitted for this site (i.e. 15 ft), and USDA soil type of **sand**.

CAS#	Hazardous Substance	Groundwater Not In Contact (GWNIC) (µg/L)	Soil (µg/kg)	Soil Gas** (µg/m ³)
83329	Acenaphthene	3,900 (S) sol	3.6E+06 nc	11,000 nc
208968	Acenaphthylene	710 (CC) nc	DATA	11,000 nc
994058	t-Amyl methyl ether (TAME)	34,000 nc	600 nc	3,200 nc
120127	Anthracene	43 (S) sol	2.2E+08 nc	51,000 nc
71432	Benzene	520 ca	47 (M) ca	260 ca
56553	Benzo(a)anthracene	9.4 (S) sol	1.1E+07 ca	33 ca
75650	t-Butyl alcohol	4.0E+06 nc	57,000 nc	3,700 nc
104518	n-Butylbenzene	12,000 (S) sol	9,800 nc	10,000 nc
135988	sec-Butylbenzene	18,000 (S) sol	66,000 (C) nc (49,000)	20 nc
98066	t-Butylbenzene	31 nc	11 (M) nc	20 nc
108907	Chlorobenzene	13,000 nc	1,400 nc	2,600 nc
75003	Chloroethane	1.5E+05 nc	5,800 nc	2.0E+05 nc
67663	Chloroform	280 ca	7.4 (M) ca	87 ca
74873	Chloromethane	3,500 nc	120 (M) nc	4,600 nc
110827	Cyclohexane	25,000 nc	5,600 nc	3.1E+05 nc
75343	1,1-Dichloroethane	2,500 ca	74 ca	1,200 ca
107062	1,2-Dichloroethane	770 ca	23 (M) ca	77 ca
75354	1,1-Dichloroethylene	3,900 nc	220 nc	10,000 nc
156592	cis-1,2-Dichloroethylene	1,100 nc	37 (M) nc	410 nc
156605	trans-1,2-Dichloroethylene	4,600 nc	210 nc	4,100 nc
60297	Diethyl ether	4.2E+05 nc	6,200 nc	51,000 nc
108203	Diisopropyl ether	1.3E+05 (DD) dev	2,300 (DD) dev	23,000 (DD) dev
64175	Ethanol	9.7E+08 (EE) st	1.6E+07 (EE) st	6.3E+05 (EE) st
637923	Ethyl-tert-butyl ether (ETBE)	580 (CC) nc	DATA	19,000 nc
100414	Ethylbenzene	1,700 ca	340 ca	800 ca
106934	Ethylene dibromide	120 ca	2.1 (M) ca	3.3 ca

Table 1. Nonresidential Volatilization to Indoor Air Criteria (VIAC). The following are **restricted** site-specific criteria that apply to a nonresidential structure **< 50,000 ft²** with a **slab-on-grade**, the depth to groundwater submitted for this site (i.e. 15 ft), and USDA soil type of **sand**.

CAS#	Hazardous Substance	Groundwater Not In Contact (GWNIC) (µg/L)	Soil (µg/kg)	Soil Gas** (µg/m ³)
86737	Fluorene	1,700 (S) sol	8.3E+06 nc	7,200 nc
142825	n-Heptane	3,400 (S) (GW) sol	2,300 nc	1.8E+05 nc
110543	n-Hexane	1,000 (GW) nc	440 nc	36,000 nc
67630	Isopropyl alcohol	1.1E+07 nc	1.7E+05 nc	10,000 nc
98828	Isopropyl benzene	380 ca	110 (M) ca	190 ca
Varies	Mercury (Total)	34 nc	390 nc	15 nc
1634044	Methyl-tert-butyl ether (MTBE)	1.5E+05 ca	2,100 ca	7,700 ca
96377	Methylcyclopentane	1,200 nc	510 (M) nc	36,000 nc
91576	2-Methylnaphthalene	25,000 (S) sol	30,000 nc	510 nc
91203	Naphthalene	2,900 ca	1,900 ca	59 ca
109660	Pentane	1,400 (GW) nc	630 (M) nc	51,000 nc
85018	Phenanthrene	1,200 (S) sol	29,000 nc	5.1 nc
1336363	Polychlorinated biphenyls (PCBs)	0.97 (CC) (J) ca	DATA	20 (J) ca
103651	n-Propylbenzene	52,000 (S) (DD) sol	21,000 (DD) dev	33,000 (DD) dev
129000	Pyrene	140 (S) sol	4.4E+08 nc	5,100 nc
100425	Styrene	21,000 ca	4,300 ca	3,500 ca
630206	1,1,1,2-Tetrachloroethane	2,600 ca	91 (M) ca	270 ca
79345	1,1,2,2-Tetrachloroethane	1,900 ca	77 ca	34 ca
127184	Tetrachloroethylene	1,600 (EE) st	74 (EE) st	1,400 (EE) st
108883	Toluene	5.2E+05 (EE) st	64,000 (EE) st	2.5E+05 (EE) st
71556	1,1,1-Trichloroethane	1.9E+05 (EE) st	7,500 (EE) st	2.3E+05 (EE) st
79005	1,1,2-Trichloroethane	190 nc	6.6 (M) nc	10 nc
79016	Trichloroethylene	98 (DD) dev	4.0 (M) (DD) dev	67 (DD) dev
540841	2,2,4-Trimethyl pentane	2,400 (S) (GW) sol	2,200 (M) nc	1.8E+05 nc
526738	1,2,3-Trimethylbenzene	19,000 (JT) nc	4,800 (JT) nc	3,100 (JT) nc
95636	1,2,4-Trimethylbenzene	10,000 (JT) nc	2,600 (JT) nc	3,100 (JT) nc

Table 1. Nonresidential Volatilization to Indoor Air Criteria (VIAC). The following are **restricted** site-specific criteria that apply to a nonresidential structure **< 50,000 ft²** with a **slab-on-grade**, the depth to groundwater submitted for this site (i.e. 15 ft), and USDA soil type of **sand**.

CAS#	Hazardous Substance	Groundwater Not In Contact (GWNIC) (µg/L)	Soil (µg/kg)	Soil Gas** (µg/m ³)
108678	1,3,5-Trimethylbenzene	7,400 (JT) nc	1,800 (JT) nc	3,100 (JT) nc
75014	Vinyl chloride	120 ca	8.2 (M) ca	450 ca
1330207	Xylenes	28,000 (J) nc	5,000 (J) nc	11,000 (J) nc

Table 2. Residential Volatilization to Indoor Air Criteria (VIAC). The following are unrestricted site-specific criteria that apply to a residential house with a basement, the depth to groundwater submitted for this site (i.e. 15 ft), and USDA soil type of sand.

CAS#	Hazardous Substance	Groundwater Not In Contact (GWNIC) (µg/L)	Soil (µg/kg)	Soil Gas** (µg/m ³)
83329	Acenaphthene	3,900 (S) sol	2.0E+05 nc	7,300 nc
208968	Acenaphthylene	65 (CC) nc	DATA	7,300 nc
994058	t-Amyl methyl ether (TAME)	1,800 nc	34 (M) nc	2,200 nc
120127	Anthracene	43 (S) sol	1.3E+07 nc	35,000 nc
71432	Benzene	17 ca	1.7 (M) ca	110 ca
56553	Benzo(a)anthracene	9.4 (S) (MM) sol	1.6E+05 (MM) mut	5.8 (MM) mut
75650	t-Butyl alcohol	1.8E+05 nc	3,200 nc	2,500 nc
104518	n-Butylbenzene	970 nc	550 nc	7,000 nc
135988	sec-Butylbenzene	3,700 nc	3,800 nc	14 nc
98066	t-Butylbenzene	1.6 nc	0.64 (M) nc	14 nc
108907	Chlorobenzene	660 nc	82 nc	1,700 nc
75003	Chloroethane	8,000 nc	330 nc	1.4E+05 nc
67663	Chloroform	9.2 ca	0.26 (M) ca	37 ca
74873	Chloromethane	180 nc	6.9 (M) nc	3,100 nc
110827	Cyclohexane	1,300 nc	320 (M) nc	2.1E+05 nc
75343	1,1-Dichloroethane	81 ca	2.6 (M) ca	530 ca
107062	1,2-Dichloroethane	25 ca	0.82 (M) ca	33 ca
75354	1,1-Dichloroethylene	200 nc	12 (M) nc	7,000 nc
156592	cis-1,2-Dichloroethylene	58 nc	2.1 (M) nc	280 nc
156605	trans-1,2-Dichloroethylene	240 nc	12 (M) nc	2,800 nc
60297	Diethyl ether	22,000 nc	350 nc	35,000 nc
108203	Diisopropyl ether	9,700 (DD) dev	190 (M) (DD) dev	23,000 (DD) dev
64175	Ethanol	6.7E+07 (EE) st	1.3E+06 (EE) st	6.3E+05 (EE) st
637923	Ethyl-tert-butyl ether (ETBE)	22 (CC) nc	DATA	13,000 nc
100414	Ethylbenzene	55 ca	12 (M) ca	340 ca
106934	Ethylene dibromide	3.6 ca	7.4E-02 (M) ca	1.4 ca

Table 2. Residential Volatilization to Indoor Air Criteria (VIAC). The following are unrestricted site-specific criteria that apply to a residential house with a basement, the depth to groundwater submitted for this site (i.e. 15 ft), and USDA soil type of sand.

CAS#	Hazardous Substance	Groundwater Not In Contact (GWNIC) (µg/L)	Soil (µg/kg)	Soil Gas** (µg/m ³)
86737	Fluorene	1,700 (S) sol	4.7E+05 nc	4,900 nc
142825	n-Heptane	150 (GW) nc	130 nc	1.2E+05 nc
110543	n-Hexane	29 (GW) nc	25 nc	24,000 nc
67630	Isopropyl alcohol	5.3E+05 nc	9,800 nc	7,000 nc
98828	Isopropyl benzene	12 ca	3.8 (M) ca	81 ca
Varies	Mercury (Total)	1.8 nc	22 nc	10 nc
1634044	Methyl-tert-butyl ether (MTBE)	4,900 ca	74 (M) ca	3,300 ca
96377	Methylcyclopentane	62 nc	29 (M) nc	24,000 nc
91576	2-Methylnaphthalene	1,600 nc	1,700 nc	350 nc
91203	Naphthalene	92 ca	67 (M) ca	25 ca
109660	Pentane	40 (M) (GW) nc	36 (M) nc	35,000 nc
85018	Phenanthrene	180 nc	1,700 nc	3.5 nc
1336363	Polychlorinated biphenyls (PCBs)	3.1E-02 (M) (CC) (J) ca	DATA	8.5 (J) ca
103651	n-Propylbenzene	5,000 (DD) dev	1,800 (DD) dev	33,000 (DD) dev
129000	Pyrene	140 (S) sol	2.5E+07 nc	3,500 nc
100425	Styrene	680 ca	150 ca	1,500 ca
630206	1,1,1,2-Tetrachloroethane	85 ca	3.2 (M) ca	110 ca
79345	1,1,2,2-Tetrachloroethane	59 ca	2.7 (M) ca	15 ca
127184	Tetrachloroethylene	120 (EE) st	6.2 (M) (EE) st	1,400 (EE) st
108883	Toluene	28,000 nc	3,700 nc	1.7E+05 nc
71556	1,1,1-Trichloroethane	11,000 (EE) st	450 (EE) st	1.7E+05 (EE) st
79005	1,1,2-Trichloroethane	9.9 nc	0.37 (M) nc	7.0 nc
79016	Trichloroethylene	7.5 (DD) dev	0.33 (M) (DD) dev	67 (DD) dev
540841	2,2,4-Trimethyl pentane	160 (GW) nc	130 (M) nc	1.2E+05 nc
526738	1,2,3-Trimethylbenzene	980 (JT) nc	270 (JT) nc	2,100 (JT) nc
95636	1,2,4-Trimethylbenzene	540 (JT) nc	150 (JT) nc	2,100 (JT) nc

Table 2. Residential Volatilization to Indoor Air Criteria (VIAC). The following are unrestricted site-specific criteria that apply to a residential house with a basement, the depth to groundwater submitted for this site (i.e. 15 ft), and USDA soil type of sand.

CAS#	Hazardous Substance	Groundwater Not In Contact (GWNIC) (µg/L)	Soil (µg/kg)	Soil Gas** (µg/m ³)
108678	1,3,5-Trimethylbenzene	380 (JT) nc	100 (JT) nc	2,100 (JT) nc
75014	Vinyl chloride	1.1 (MM) mut	8.2E-02 (MM) (M) mut	54 (MM) mut
1330207	Xylenes	1,500 (J) nc	280 (J) nc	7,600 (J) nc

FOOTNOTES

**Soil gas site-specific volatilization to indoor air (SSVIAC) are applicable for all depths.

- Acceptable Air Values (AAV) endpoint basis used for SSVIAC: **(ca)** = Carcinogenic; **(nc)** = Non-Carcinogenic; **(dev)** = Developmental; **(mut)** = Mutagenic cancer; **(st)** = Short-term (i.e., less than chronic exposure).
- Footnote **(#)**: Acceptable air concentrations (AAC) cannot be adjusted to a 12-hour exposure time for hazardous substance.
- Footnote **AA**: Health-based groundwater SSVIAC are not available due to insufficient toxicological data. Dissolved-phase methane in groundwater is not explosive; however, if liberated and allowed to accumulate in an enclosed structure the principle health and safety concerns are explosive, flammable, and asphyxiant properties of gas phase methane. The acceptable groundwater concentration is the flammability and explosivity screening level (**FESL**) of 10,000 µg/L.
- Footnote **C**: The health-based SSVIAC exceeds the chemical-specific soil saturation screening level (**Csat**). The person proposing or implementing response activity must document whether additional response activity is required to control non aqueous phase liquid (**NAPL**) to protect against risks associated with NAPL by using methods appropriate for the NAPL present.
- Footnote **CC**: Insufficient chemical-physical input parameters have been identified to allow the development of a health-based SSVIAC using standard methods. The health based SSVIAC for groundwater is developed based solely on the approach that the department uses for shallow groundwater. If groundwater detections are present, soil vapor may be the most appropriate media to evaluate risk posed from the VIAP.
- Footnote **DATA**: Insufficient physical chemical parameters to calculate a health based SSVIAC for specified media. If detections are present in specified media, health-based soil vapor SSVIAC should be used to evaluate risk.
- Footnote **DD**: Hazardous substance causes developmental effects. Residential SSVIAC are protective of both prenatal exposure using a pregnant female receptor and postnatal exposure using a child receptor. Nonresidential SSVIAC are protective of prenatal exposure using a pregnant female receptor. Prenatal developmental effects may occur after an acute (i.e. short-term) or full-term exposure.
- Footnote **EE**: The acceptable air concentration (**AAC**) for the volatile hazardous substances is not derived using standard methods. The hazardous substance may cause adverse human health effects for less than chronic exposures (i.e. short-term or acute). The AAC for these hazardous substances is the acute or intermediate minimum risk level (MRL) developed by the Agency for Toxic Substances and Disease Registry (ATSDR), a United States Environmental Protection Agency Integrated Risk Information System (IRIS) acute reference concentration, or EGLE's Air Quality Division acute initial threshold screening level (ITSL).
- Footnote **FF**: The AAC for the volatile hazardous substances are based on toxicity values that have been identified to have the potential to cause adverse human health effects for less than chronic exposures (i.e. short-term or acute). The short-term exposure for shallow groundwater health based SSVIAC are based on modification of the standard methods by the department to develop applicable shallow groundwater values.
- Footnote **GG**: Health-based SSVIAC for soil vapor are not available due to insufficient toxicological data. The soil vapor value addresses the health and safety concerns of explosive, flammable, and asphyxiant properties of gas phase methane. The acceptable soil vapor concentration is derived based on 25% of the lower explosive level (**LEL**) for methane.
- Footnote **GW**: The calculated health based SSVIAC for a hazardous substance based upon shallow groundwater is considered protective when it is greater than the calculated value for groundwater.
- Footnote **ID**: Requires further evaluation to determine the appropriate media to sample.
- Footnote **J**: Hazardous substance may be present in several isomer forms. Isomer-specific concentrations must be added together for comparison to criteria.
- Footnote **JT**: Hazardous substance may be present in several isomer forms. The health-based SSVIAC may be used for the individual isomer provided that it is the sole isomer detected; however, when multiple isomers are detected in a medium, the isomer-specific concentrations must be added together and compared to the most restrictive health-based SSVIAC of the detected isomers.
- Footnote **M**: The health based SSVIAC may be below target detection limits (**TDL**). In accordance with Sec. 20120a(10) when the TDL for a hazardous substance is greater than the developed health-based SSVIAC, the TDL is used to evaluate the risk posed from the pathway.
- Footnote **MM**: Hazardous substance is a carcinogen with a mutagenic mode of action. The cancer potency values used in calculating health-based SSVIAC are modified using age-dependent adjustment factors for those carcinogenic chemicals identified as mutagenic.
- Footnote **NA**: The hazardous substance does not meet the department's definition of a volatile; therefore, no health based SSVIAC were developed.
- Footnote **NR**: The hazardous substance has not been previously evaluated by the Remediation and Redevelopment Division Toxicology Unit. The identification, collection, and evaluation of toxicological literature and chemical-physical data cannot be completed within the timeframe requested.
- Footnote **S**: Calculated health-based SSVIAC exceeds the hazardous substance-specific water solubility limit; therefore, the water solubility limit is used to evaluate the risk posed from the pathway.
- Footnote **TX**: The Remediation and Redevelopment Division Toxicology Unit has not identified an inhalation toxicity value for the hazardous substance.

Attachment C

Laboratory Analytical Report

ANALYTICAL REPORT

Eurofins TestAmerica, Burlington
530 Community Drive
Suite 11
South Burlington, VT 05403
Tel: (802)660-1990

Laboratory Job ID: 200-57695-1

Client Project/Site: 11223416, PCC Validation

For:

GHD Services Inc.
26850 Haggerty Rd.
Farmington Hills, Michigan 48331

Attn: Mr. James Abston



Authorized for release by:
3/27/2021 12:41:57 PM

Denise Heckler, Project Manager II
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The test results in this report meet all 2003 NELAC, 2009 TNI, and 2016 TNI requirements for accredited parameters, exceptions are noted in this report. 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.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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Definitions/Glossary

Client: GHD Services Inc.
Project/Site: 11223416, PCC Validation

Job ID: 200-57695-1

Qualifiers

Air - GC/MS VOA

Qualifier	Qualifier Description
*+	LCS and/or LCSD is outside acceptance limits, high biased.
B	Compound was found in the blank and sample.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
U	Indicates the analyte was analyzed for but not detected.

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: GHD Services Inc.
Project/Site: 11223416, PCC Validation

Job ID: 200-57695-1

Job ID: 200-57695-1

Laboratory: Eurofins TestAmerica, Burlington

Narrative

Job Narrative 200-57695-1

Comments

No additional comments.

Receipt

The samples were received on 3/17/2021 10:35 AM. Unless otherwise noted below, the samples arrived in good condition.

Receipt Exceptions

During the canister pressure check performed upon receipt, it was observed that the following sample was received at an elevated residual vacuum level: SG-11223416-031521-SK-006 (200-57695-6). The associated flow controller was evaluated upon receipt and was found to be within the acceptable flow range as compared to the original set flow rate.

Air Toxics

Method TO-15: The continuing calibration verification (CCV) associated with batch 200-165168 recovered above the upper control limit for Bromoform and Chlorodibromomethane. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported. The associated samples are impacted: SG-11223416-031521-SK-004 (200-57695-4), SG-11223416-031521-SK-005 (200-57695-5) and SG-11223416-031521-SK-006 (200-57695-6).

Method TO-15: The laboratory control sample (LCS) for analytical batch 200-165168 recovered outside control limits for the following analytes: Bromoform and Chlorodibromomethane. These analytes were biased high in the LCS and were 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: GHD Services Inc.
Project/Site: 11223416, PCC Validation

Job ID: 200-57695-1

Client Sample ID: SG-11223416-031521-SK-001

Lab Sample ID: 200-57695-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1,1-Trichloroethane	1.9	J	2.0	0.30	ppb v/v	10		TO-15	Total/NA
Acetone	10	J	50	6.9	ppb v/v	10		TO-15	Total/NA
Dichlorodifluoromethane	0.67	J	5.0	0.56	ppb v/v	10		TO-15	Total/NA
Ethylbenzene	0.59	J	2.0	0.20	ppb v/v	10		TO-15	Total/NA
m-Xylene & p-Xylene	2.2	J	8.0	0.25	ppb v/v	10		TO-15	Total/NA
o-Xylene	0.34	J	2.0	0.18	ppb v/v	10		TO-15	Total/NA
Trichlorofluoromethane	16		2.0	0.45	ppb v/v	10		TO-15	Total/NA
Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1,1-Trichloroethane	10	J	11	1.6	ug/m3	10		TO-15	Total/NA
Acetone	24	J	120	16	ug/m3	10		TO-15	Total/NA
Dichlorodifluoromethane	3.3	J	25	2.8	ug/m3	10		TO-15	Total/NA
Ethylbenzene	2.5	J	8.7	0.87	ug/m3	10		TO-15	Total/NA
m-Xylene & p-Xylene	9.5	J	35	1.1	ug/m3	10		TO-15	Total/NA
o-Xylene	1.5	J	8.7	0.78	ug/m3	10		TO-15	Total/NA
Trichlorofluoromethane	90		11	2.5	ug/m3	10		TO-15	Total/NA

Client Sample ID: SG-11223416-031521-SK-002

Lab Sample ID: 200-57695-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1,1-Trichloroethane	2.3	J	3.0	0.45	ppb v/v	15		TO-15	Total/NA
Acetone	14	J	75	10	ppb v/v	15		TO-15	Total/NA
Cyclohexane	2.1	J	7.5	0.15	ppb v/v	15		TO-15	Total/NA
Dichlorodifluoromethane	0.91	J	7.5	0.84	ppb v/v	15		TO-15	Total/NA
Ethylbenzene	0.95	J	3.0	0.30	ppb v/v	15		TO-15	Total/NA
m-Xylene & p-Xylene	3.2	J	12	0.38	ppb v/v	15		TO-15	Total/NA
o-Xylene	0.95	J	3.0	0.27	ppb v/v	15		TO-15	Total/NA
Styrene	0.44	J	3.0	0.24	ppb v/v	15		TO-15	Total/NA
Toluene	0.70	J	3.0	0.38	ppb v/v	15		TO-15	Total/NA
Trichloroethene	0.64	J	3.0	0.45	ppb v/v	15		TO-15	Total/NA
Trichlorofluoromethane	460		3.0	0.68	ppb v/v	15		TO-15	Total/NA
Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1,1-Trichloroethane	12	J	16	2.5	ug/m3	15		TO-15	Total/NA
Acetone	34	J	180	25	ug/m3	15		TO-15	Total/NA
Cyclohexane	7.1	J	26	0.52	ug/m3	15		TO-15	Total/NA
Dichlorodifluoromethane	4.5	J	37	4.2	ug/m3	15		TO-15	Total/NA
Ethylbenzene	4.1	J	13	1.3	ug/m3	15		TO-15	Total/NA
m-Xylene & p-Xylene	14	J	52	1.6	ug/m3	15		TO-15	Total/NA
o-Xylene	4.1	J	13	1.2	ug/m3	15		TO-15	Total/NA
Styrene	1.9	J	13	1.0	ug/m3	15		TO-15	Total/NA
Toluene	2.6	J	11	1.4	ug/m3	15		TO-15	Total/NA
Trichloroethene	3.4	J	16	2.4	ug/m3	15		TO-15	Total/NA
Trichlorofluoromethane	2600		17	3.8	ug/m3	15		TO-15	Total/NA

Client Sample ID: SG-11223416-031521-SK-003

Lab Sample ID: 200-57695-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1,1-Trichloroethane	2.3	J	3.0	0.45	ppb v/v	15		TO-15	Total/NA
Cyclohexane	1.9	J	7.5	0.15	ppb v/v	15		TO-15	Total/NA
Dichlorodifluoromethane	1.2	J	7.5	0.84	ppb v/v	15		TO-15	Total/NA
Ethylbenzene	0.51	J	3.0	0.30	ppb v/v	15		TO-15	Total/NA
m-Xylene & p-Xylene	1.7	J	12	0.38	ppb v/v	15		TO-15	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins TestAmerica, Burlington

Detection Summary

Client: GHD Services Inc.
Project/Site: 11223416, PCC Validation

Job ID: 200-57695-1

Client Sample ID: SG-11223416-031521-SK-003 (Continued)

Lab Sample ID: 200-57695-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
o-Xylene	0.61	J	3.0	0.27	ppb v/v	15		TO-15	Total/NA
Styrene	0.55	J	3.0	0.24	ppb v/v	15		TO-15	Total/NA
Toluene	0.75	J	3.0	0.38	ppb v/v	15		TO-15	Total/NA
Trichloroethene	0.70	J	3.0	0.45	ppb v/v	15		TO-15	Total/NA
Trichlorofluoromethane	470		3.0	0.68	ppb v/v	15		TO-15	Total/NA
Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1,1-Trichloroethane	12	J	16	2.5	ug/m3	15		TO-15	Total/NA
Cyclohexane	6.5	J	26	0.52	ug/m3	15		TO-15	Total/NA
Dichlorodifluoromethane	5.8	J	37	4.2	ug/m3	15		TO-15	Total/NA
Ethylbenzene	2.2	J	13	1.3	ug/m3	15		TO-15	Total/NA
m-Xylene & p-Xylene	7.2	J	52	1.6	ug/m3	15		TO-15	Total/NA
o-Xylene	2.6	J	13	1.2	ug/m3	15		TO-15	Total/NA
Styrene	2.3	J	13	1.0	ug/m3	15		TO-15	Total/NA
Toluene	2.8	J	11	1.4	ug/m3	15		TO-15	Total/NA
Trichloroethene	3.8	J	16	2.4	ug/m3	15		TO-15	Total/NA
Trichlorofluoromethane	2600		17	3.8	ug/m3	15		TO-15	Total/NA

Client Sample ID: SG-11223416-031521-SK-004

Lab Sample ID: 200-57695-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1,1-Trichloroethane	0.82	J	2.0	0.30	ppb v/v	10		TO-15	Total/NA
Acetone	9.2	J	50	6.9	ppb v/v	10		TO-15	Total/NA
Carbon disulfide	1.7	J	5.0	0.30	ppb v/v	10		TO-15	Total/NA
Cyclohexane	6.2		5.0	0.10	ppb v/v	10		TO-15	Total/NA
Dichlorodifluoromethane	0.69	J	5.0	0.56	ppb v/v	10		TO-15	Total/NA
Ethylbenzene	0.71	J	2.0	0.20	ppb v/v	10		TO-15	Total/NA
Isopropyl alcohol	1.8	J	50	1.5	ppb v/v	10		TO-15	Total/NA
m-Xylene & p-Xylene	2.0	J	8.0	0.25	ppb v/v	10		TO-15	Total/NA
o-Xylene	0.66	J	2.0	0.18	ppb v/v	10		TO-15	Total/NA
Styrene	0.57	J B	2.0	0.16	ppb v/v	10		TO-15	Total/NA
Toluene	1.4	J	2.0	0.25	ppb v/v	10		TO-15	Total/NA
Trichloroethene	2.2		2.0	0.30	ppb v/v	10		TO-15	Total/NA
Trichlorofluoromethane	68		2.0	0.45	ppb v/v	10		TO-15	Total/NA
Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1,1-Trichloroethane	4.5	J	11	1.6	ug/m3	10		TO-15	Total/NA
Acetone	22	J	120	16	ug/m3	10		TO-15	Total/NA
Carbon disulfide	5.2	J	16	0.93	ug/m3	10		TO-15	Total/NA
Cyclohexane	21		17	0.34	ug/m3	10		TO-15	Total/NA
Dichlorodifluoromethane	3.4	J	25	2.8	ug/m3	10		TO-15	Total/NA
Ethylbenzene	3.1	J	8.7	0.87	ug/m3	10		TO-15	Total/NA
Isopropyl alcohol	4.4	J	120	3.7	ug/m3	10		TO-15	Total/NA
m-Xylene & p-Xylene	8.7	J	35	1.1	ug/m3	10		TO-15	Total/NA
o-Xylene	2.9	J	8.7	0.78	ug/m3	10		TO-15	Total/NA
Styrene	2.4	J B	8.5	0.68	ug/m3	10		TO-15	Total/NA
Toluene	5.2	J	7.5	0.94	ug/m3	10		TO-15	Total/NA
Trichloroethene	12		11	1.6	ug/m3	10		TO-15	Total/NA
Trichlorofluoromethane	380		11	2.5	ug/m3	10		TO-15	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins TestAmerica, Burlington

Detection Summary

Client: GHD Services Inc.
Project/Site: 11223416, PCC Validation

Job ID: 200-57695-1

Client Sample ID: SG-11223416-031521-SK-005

Lab Sample ID: 200-57695-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,2,4-Trimethylbenzene	0.22	J	2.0	0.16	ppb v/v	10		TO-15	Total/NA
Acetone	22	J	50	6.9	ppb v/v	10		TO-15	Total/NA
Cyclohexane	2.3	J	5.0	0.10	ppb v/v	10		TO-15	Total/NA
Dichlorodifluoromethane	1.2	J	5.0	0.56	ppb v/v	10		TO-15	Total/NA
Ethylbenzene	1.9	J	2.0	0.20	ppb v/v	10		TO-15	Total/NA
Hexane	1.3	J	8.0	0.28	ppb v/v	10		TO-15	Total/NA
Isopropyl alcohol	4.1	J	50	1.5	ppb v/v	10		TO-15	Total/NA
m-Xylene & p-Xylene	7.3	J	8.0	0.25	ppb v/v	10		TO-15	Total/NA
Methylene Chloride	1.4	J	5.0	1.2	ppb v/v	10		TO-15	Total/NA
o-Xylene	2.6		2.0	0.18	ppb v/v	10		TO-15	Total/NA
Styrene	0.73	J B	2.0	0.16	ppb v/v	10		TO-15	Total/NA
Toluene	1.1	J	2.0	0.25	ppb v/v	10		TO-15	Total/NA
Trichlorofluoromethane	31		2.0	0.45	ppb v/v	10		TO-15	Total/NA
Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,2,4-Trimethylbenzene	1.1	J	9.8	0.79	ug/m3	10		TO-15	Total/NA
Acetone	52	J	120	16	ug/m3	10		TO-15	Total/NA
Cyclohexane	8.0	J	17	0.34	ug/m3	10		TO-15	Total/NA
Dichlorodifluoromethane	5.7	J	25	2.8	ug/m3	10		TO-15	Total/NA
Ethylbenzene	8.3	J	8.7	0.87	ug/m3	10		TO-15	Total/NA
Hexane	4.7	J	28	0.99	ug/m3	10		TO-15	Total/NA
Isopropyl alcohol	10	J	120	3.7	ug/m3	10		TO-15	Total/NA
m-Xylene & p-Xylene	32	J	35	1.1	ug/m3	10		TO-15	Total/NA
Methylene Chloride	4.8	J	17	4.2	ug/m3	10		TO-15	Total/NA
o-Xylene	11		8.7	0.78	ug/m3	10		TO-15	Total/NA
Styrene	3.1	J B	8.5	0.68	ug/m3	10		TO-15	Total/NA
Toluene	4.2	J	7.5	0.94	ug/m3	10		TO-15	Total/NA
Trichlorofluoromethane	170		11	2.5	ug/m3	10		TO-15	Total/NA

Client Sample ID: SG-11223416-031521-SK-006

Lab Sample ID: 200-57695-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1,1-Trichloroethane	0.47	J	2.0	0.30	ppb v/v	9.98		TO-15	Total/NA
1,2,4-Trimethylbenzene	2.5		2.0	0.16	ppb v/v	9.98		TO-15	Total/NA
1,3,5-Trimethylbenzene	1.0	J	2.0	0.19	ppb v/v	9.98		TO-15	Total/NA
2-Butanone (MEK)	7.6	J	10	0.92	ppb v/v	9.98		TO-15	Total/NA
Acetone	170		50	6.9	ppb v/v	9.98		TO-15	Total/NA
Benzene	1.7	J	2.0	0.29	ppb v/v	9.98		TO-15	Total/NA
Bromomethane	0.88	J	2.0	0.44	ppb v/v	9.98		TO-15	Total/NA
Carbon disulfide	11		5.0	0.30	ppb v/v	9.98		TO-15	Total/NA
Carbon tetrachloride	0.28	J	2.0	0.11	ppb v/v	9.98		TO-15	Total/NA
Chloromethane	3.0	J	5.0	0.60	ppb v/v	9.98		TO-15	Total/NA
Cyclohexane	9.4		5.0	0.10	ppb v/v	9.98		TO-15	Total/NA
Dichlorodifluoromethane	4.8	J	5.0	0.56	ppb v/v	9.98		TO-15	Total/NA
Ethylbenzene	4.8		2.0	0.20	ppb v/v	9.98		TO-15	Total/NA
Hexane	15		8.0	0.28	ppb v/v	9.98		TO-15	Total/NA
Isopropyl alcohol	19	J	50	1.5	ppb v/v	9.98		TO-15	Total/NA
Isopropylbenzene	0.46	J	8.0	0.19	ppb v/v	9.98		TO-15	Total/NA
m-Xylene & p-Xylene	16		8.0	0.25	ppb v/v	9.98		TO-15	Total/NA
Methylene Chloride	15		5.0	1.2	ppb v/v	9.98		TO-15	Total/NA
o-Xylene	5.9		2.0	0.18	ppb v/v	9.98		TO-15	Total/NA
Styrene	0.86	J B	2.0	0.16	ppb v/v	9.98		TO-15	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins TestAmerica, Burlington

Detection Summary

Client: GHD Services Inc.
Project/Site: 11223416, PCC Validation

Job ID: 200-57695-1

Client Sample ID: SG-11223416-031521-SK-006 (Continued)

Lab Sample ID: 200-57695-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Tetrachloroethene	0.52	J	2.0	0.30	ppb v/v	9.98		TO-15	Total/NA
Toluene	4.7		2.0	0.25	ppb v/v	9.98		TO-15	Total/NA
Trichlorofluoromethane	26		2.0	0.45	ppb v/v	9.98		TO-15	Total/NA
Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1,1-Trichloroethane	2.5	J	11	1.6	ug/m3	9.98		TO-15	Total/NA
1,2,4-Trimethylbenzene	12		9.8	0.79	ug/m3	9.98		TO-15	Total/NA
1,3,5-Trimethylbenzene	5.0	J	9.8	0.93	ug/m3	9.98		TO-15	Total/NA
2-Butanone (MEK)	22	J	29	2.7	ug/m3	9.98		TO-15	Total/NA
Acetone	400		120	16	ug/m3	9.98		TO-15	Total/NA
Benzene	5.4	J	6.4	0.92	ug/m3	9.98		TO-15	Total/NA
Bromomethane	3.4	J	7.8	1.7	ug/m3	9.98		TO-15	Total/NA
Carbon disulfide	33		16	0.93	ug/m3	9.98		TO-15	Total/NA
Carbon tetrachloride	1.7	J	13	0.69	ug/m3	9.98		TO-15	Total/NA
Chloromethane	6.3	J	10	1.2	ug/m3	9.98		TO-15	Total/NA
Cyclohexane	32		17	0.34	ug/m3	9.98		TO-15	Total/NA
Dichlorodifluoromethane	24	J	25	2.8	ug/m3	9.98		TO-15	Total/NA
Ethylbenzene	21		8.7	0.87	ug/m3	9.98		TO-15	Total/NA
Hexane	51		28	0.98	ug/m3	9.98		TO-15	Total/NA
Isopropyl alcohol	46	J	120	3.7	ug/m3	9.98		TO-15	Total/NA
Isopropylbenzene	2.3	J	39	0.93	ug/m3	9.98		TO-15	Total/NA
m-Xylene & p-Xylene	72		35	1.1	ug/m3	9.98		TO-15	Total/NA
Methylene Chloride	54		17	4.2	ug/m3	9.98		TO-15	Total/NA
o-Xylene	26		8.7	0.78	ug/m3	9.98		TO-15	Total/NA
Styrene	3.7	J B	8.5	0.68	ug/m3	9.98		TO-15	Total/NA
Tetrachloroethene	3.5	J	14	2.0	ug/m3	9.98		TO-15	Total/NA
Toluene	18		7.5	0.94	ug/m3	9.98		TO-15	Total/NA
Trichlorofluoromethane	150		11	2.5	ug/m3	9.98		TO-15	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins TestAmerica, Burlington

Client Sample Results

Client: GHD Services Inc.
Project/Site: 11223416, PCC Validation

Job ID: 200-57695-1

Client Sample ID: SG-11223416-031521-SK-001

Lab Sample ID: 200-57695-1

Date Collected: 03/15/21 12:05

Matrix: Air

Date Received: 03/17/21 10:35

Sample Container: Summa Canister 1L

Method: TO-15 - Volatile Organic Compounds in Ambient Air

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	1.9	J	2.0	0.30	ppb v/v			03/25/21 03:46	10
1,1,2,2-Tetrachloroethane	2.0	U	2.0	0.34	ppb v/v			03/25/21 03:46	10
1,1,2-Trichloro-1,2,2-trifluoroethane	2.0	U	2.0	0.41	ppb v/v			03/25/21 03:46	10
1,1,2-Trichloroethane	2.0	U	2.0	0.37	ppb v/v			03/25/21 03:46	10
1,1-Dichloroethane	2.0	U	2.0	0.28	ppb v/v			03/25/21 03:46	10
1,1-Dichloroethene	2.0	U	2.0	0.10	ppb v/v			03/25/21 03:46	10
1,2,4-Trichlorobenzene	20	U	20	0.34	ppb v/v			03/25/21 03:46	10
1,2,4-Trimethylbenzene	2.0	U	2.0	0.16	ppb v/v			03/25/21 03:46	10
1,2-Dichloro-1,1,2,2-tetrafluoroethane	2.0	U	2.0	0.52	ppb v/v			03/25/21 03:46	10
1,2-Dichlorobenzene	2.0	U	2.0	0.18	ppb v/v			03/25/21 03:46	10
1,2-Dichloroethane	2.0	U	2.0	0.52	ppb v/v			03/25/21 03:46	10
1,2-Dichloropropane	2.0	U	2.0	0.35	ppb v/v			03/25/21 03:46	10
1,3,5-Trimethylbenzene	2.0	U	2.0	0.19	ppb v/v			03/25/21 03:46	10
1,3-Dichlorobenzene	2.0	U	2.0	0.20	ppb v/v			03/25/21 03:46	10
1,4-Dichlorobenzene	2.0	U	2.0	0.19	ppb v/v			03/25/21 03:46	10
1,4-Dioxane	50	U	50	1.6	ppb v/v			03/25/21 03:46	10
2-Butanone (MEK)	10	U	10	0.92	ppb v/v			03/25/21 03:46	10
4-Methyl-2-pentanone (MIBK)	5.0	U	5.0	1.8	ppb v/v			03/25/21 03:46	10
Acetone	10	J	50	6.9	ppb v/v			03/25/21 03:46	10
Benzene	2.0	U	2.0	0.29	ppb v/v			03/25/21 03:46	10
Benzyl chloride	8.0	U	8.0	0.18	ppb v/v			03/25/21 03:46	10
Bromoform	2.0	U	2.0	0.25	ppb v/v			03/25/21 03:46	10
Bromomethane	2.0	U	2.0	0.44	ppb v/v			03/25/21 03:46	10
Carbon disulfide	5.0	U	5.0	0.30	ppb v/v			03/25/21 03:46	10
Carbon tetrachloride	2.0	U	2.0	0.11	ppb v/v			03/25/21 03:46	10
Chlorobenzene	2.0	U	2.0	0.18	ppb v/v			03/25/21 03:46	10
Dibromochloromethane	2.0	U	2.0	0.20	ppb v/v			03/25/21 03:46	10
Chloroethane	8.0	U	8.0	0.61	ppb v/v			03/25/21 03:46	10
Chloroform	2.0	U	2.0	0.38	ppb v/v			03/25/21 03:46	10
Chloromethane	5.0	U	5.0	0.60	ppb v/v			03/25/21 03:46	10
cis-1,2-Dichloroethene	2.0	U	2.0	0.30	ppb v/v			03/25/21 03:46	10
cis-1,3-Dichloropropene	2.0	U	2.0	0.29	ppb v/v			03/25/21 03:46	10
Cyclohexane	5.0	U	5.0	0.10	ppb v/v			03/25/21 03:46	10
Bromodichloromethane	2.0	U	2.0	0.29	ppb v/v			03/25/21 03:46	10
Dichlorodifluoromethane	0.67	J	5.0	0.56	ppb v/v			03/25/21 03:46	10
Ethylbenzene	0.59	J	2.0	0.20	ppb v/v			03/25/21 03:46	10
1,2-Dibromoethane (EDB)	2.0	U	2.0	0.18	ppb v/v			03/25/21 03:46	10
Hexachlorobutadiene	20	U	20	0.36	ppb v/v			03/25/21 03:46	10
Hexane	8.0	U	8.0	0.28	ppb v/v			03/25/21 03:46	10
Isopropyl alcohol	50	U	50	1.5	ppb v/v			03/25/21 03:46	10
Isopropylbenzene	8.0	U	8.0	0.19	ppb v/v			03/25/21 03:46	10
m-Xylene & p-Xylene	2.2	J	8.0	0.25	ppb v/v			03/25/21 03:46	10
Methyl tert-butyl ether	10	U	10	0.22	ppb v/v			03/25/21 03:46	10
Methylene Chloride	5.0	U	5.0	1.2	ppb v/v			03/25/21 03:46	10
Naphthalene	5.0	U	5.0	0.30	ppb v/v			03/25/21 03:46	10
o-Xylene	0.34	J	2.0	0.18	ppb v/v			03/25/21 03:46	10
Styrene	2.0	U	2.0	0.16	ppb v/v			03/25/21 03:46	10
Tetrachloroethene	2.0	U	2.0	0.30	ppb v/v			03/25/21 03:46	10

Eurofins TestAmerica, Burlington

Client Sample Results

Client: GHD Services Inc.
Project/Site: 11223416, PCC Validation

Job ID: 200-57695-1

Client Sample ID: SG-11223416-031521-SK-001

Lab Sample ID: 200-57695-1

Date Collected: 03/15/21 12:05

Matrix: Air

Date Received: 03/17/21 10:35

Sample Container: Summa Canister 1L

Method: TO-15 - Volatile Organic Compounds in Ambient Air (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Tetrahydrofuran	50	U	50	1.8	ppb v/v			03/25/21 03:46	10
Toluene	2.0	U	2.0	0.25	ppb v/v			03/25/21 03:46	10
trans-1,2-Dichloroethene	2.0	U	2.0	0.27	ppb v/v			03/25/21 03:46	10
trans-1,3-Dichloropropene	2.0	U	2.0	0.26	ppb v/v			03/25/21 03:46	10
Trichloroethene	2.0	U	2.0	0.30	ppb v/v			03/25/21 03:46	10
Trichlorofluoromethane	16		2.0	0.45	ppb v/v			03/25/21 03:46	10
Vinyl acetate	50	U	50	0.83	ppb v/v			03/25/21 03:46	10
Vinyl bromide	2.0	U	2.0	0.20	ppb v/v			03/25/21 03:46	10
Vinyl chloride	2.0	U	2.0	0.26	ppb v/v			03/25/21 03:46	10
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	10	J	11	1.6	ug/m3			03/25/21 03:46	10
1,1,1,2-Tetrachloroethane	14	U	14	2.3	ug/m3			03/25/21 03:46	10
1,1,2-Trichloro-1,2,2-trifluoroethane	15	U	15	3.1	ug/m3			03/25/21 03:46	10
1,1,2-Trichloroethane	11	U	11	2.0	ug/m3			03/25/21 03:46	10
1,1-Dichloroethane	8.1	U	8.1	1.1	ug/m3			03/25/21 03:46	10
1,1-Dichloroethene	7.9	U	7.9	0.40	ug/m3			03/25/21 03:46	10
1,2,4-Trichlorobenzene	150	U	150	2.5	ug/m3			03/25/21 03:46	10
1,2,4-Trimethylbenzene	9.8	U	9.8	0.79	ug/m3			03/25/21 03:46	10
1,2-Dichloro-1,1,2,2-tetrafluoroethane	14	U	14	3.6	ug/m3			03/25/21 03:46	10
1,2-Dichlorobenzene	12	U	12	1.1	ug/m3			03/25/21 03:46	10
1,2-Dichloroethane	8.1	U	8.1	2.1	ug/m3			03/25/21 03:46	10
1,2-Dichloropropane	9.2	U	9.2	1.6	ug/m3			03/25/21 03:46	10
1,3,5-Trimethylbenzene	9.8	U	9.8	0.93	ug/m3			03/25/21 03:46	10
1,3-Dichlorobenzene	12	U	12	1.2	ug/m3			03/25/21 03:46	10
1,4-Dichlorobenzene	12	U	12	1.1	ug/m3			03/25/21 03:46	10
1,4-Dioxane	180	U	180	5.8	ug/m3			03/25/21 03:46	10
2-Butanone (MEK)	29	U	29	2.7	ug/m3			03/25/21 03:46	10
4-Methyl-2-pentanone (MIBK)	20	U	20	7.4	ug/m3			03/25/21 03:46	10
Acetone	24	J	120	16	ug/m3			03/25/21 03:46	10
Benzene	6.4	U	6.4	0.93	ug/m3			03/25/21 03:46	10
Benzyl chloride	41	U	41	0.93	ug/m3			03/25/21 03:46	10
Bromoform	21	U	21	2.6	ug/m3			03/25/21 03:46	10
Bromomethane	7.8	U	7.8	1.7	ug/m3			03/25/21 03:46	10
Carbon disulfide	16	U	16	0.93	ug/m3			03/25/21 03:46	10
Carbon tetrachloride	13	U	13	0.69	ug/m3			03/25/21 03:46	10
Chlorobenzene	9.2	U	9.2	0.83	ug/m3			03/25/21 03:46	10
Dibromochloromethane	17	U	17	1.7	ug/m3			03/25/21 03:46	10
Chloroethane	21	U	21	1.6	ug/m3			03/25/21 03:46	10
Chloroform	9.8	U	9.8	1.9	ug/m3			03/25/21 03:46	10
Chloromethane	10	U	10	1.2	ug/m3			03/25/21 03:46	10
cis-1,2-Dichloroethene	7.9	U	7.9	1.2	ug/m3			03/25/21 03:46	10
cis-1,3-Dichloropropene	9.1	U	9.1	1.3	ug/m3			03/25/21 03:46	10
Cyclohexane	17	U	17	0.34	ug/m3			03/25/21 03:46	10
Bromodichloromethane	13	U	13	1.9	ug/m3			03/25/21 03:46	10
Dichlorodifluoromethane	3.3	J	25	2.8	ug/m3			03/25/21 03:46	10
Ethylbenzene	2.5	J	8.7	0.87	ug/m3			03/25/21 03:46	10
1,2-Dibromoethane (EDB)	15	U	15	1.4	ug/m3			03/25/21 03:46	10
Hexachlorobutadiene	210	U	210	3.8	ug/m3			03/25/21 03:46	10

Eurofins TestAmerica, Burlington

Client Sample Results

Client: GHD Services Inc.
Project/Site: 11223416, PCC Validation

Job ID: 200-57695-1

Client Sample ID: SG-11223416-031521-SK-001

Lab Sample ID: 200-57695-1

Date Collected: 03/15/21 12:05

Matrix: Air

Date Received: 03/17/21 10:35

Sample Container: Summa Canister 1L

Method: TO-15 - Volatile Organic Compounds in Ambient Air (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Hexane	28	U	28	0.99	ug/m3			03/25/21 03:46	10
Isopropyl alcohol	120	U	120	3.7	ug/m3			03/25/21 03:46	10
Isopropylbenzene	39	U	39	0.93	ug/m3			03/25/21 03:46	10
m-Xylene & p-Xylene	9.5	J	35	1.1	ug/m3			03/25/21 03:46	10
Methyl tert-butyl ether	36	U	36	0.79	ug/m3			03/25/21 03:46	10
Methylene Chloride	17	U	17	4.2	ug/m3			03/25/21 03:46	10
Naphthalene	26	U	26	1.6	ug/m3			03/25/21 03:46	10
o-Xylene	1.5	J	8.7	0.78	ug/m3			03/25/21 03:46	10
Styrene	8.5	U	8.5	0.68	ug/m3			03/25/21 03:46	10
Tetrachloroethene	14	U	14	2.0	ug/m3			03/25/21 03:46	10
Tetrahydrofuran	150	U	150	5.3	ug/m3			03/25/21 03:46	10
Toluene	7.5	U	7.5	0.94	ug/m3			03/25/21 03:46	10
trans-1,2-Dichloroethene	7.9	U	7.9	1.1	ug/m3			03/25/21 03:46	10
trans-1,3-Dichloropropene	9.1	U	9.1	1.2	ug/m3			03/25/21 03:46	10
Trichloroethene	11	U	11	1.6	ug/m3			03/25/21 03:46	10
Trichlorofluoromethane	90		11	2.5	ug/m3			03/25/21 03:46	10
Vinyl acetate	180	U	180	2.9	ug/m3			03/25/21 03:46	10
Vinyl bromide	8.7	U	8.7	0.87	ug/m3			03/25/21 03:46	10
Vinyl chloride	5.1	U	5.1	0.66	ug/m3			03/25/21 03:46	10

Client Sample ID: SG-11223416-031521-SK-002

Lab Sample ID: 200-57695-2

Date Collected: 03/15/21 13:44

Matrix: Air

Date Received: 03/17/21 10:35

Sample Container: Summa Canister 1L

Method: TO-15 - Volatile Organic Compounds in Ambient Air

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	2.3	J	3.0	0.45	ppb v/v			03/25/21 04:40	15
1,1,2,2-Tetrachloroethane	3.0	U	3.0	0.51	ppb v/v			03/25/21 04:40	15
1,1,2-Trichloro-1,2,2-trifluoroethane	3.0	U	3.0	0.62	ppb v/v			03/25/21 04:40	15
1,1,2-Trichloroethane	3.0	U	3.0	0.56	ppb v/v			03/25/21 04:40	15
1,1-Dichloroethane	3.0	U	3.0	0.42	ppb v/v			03/25/21 04:40	15
1,1-Dichloroethene	3.0	U	3.0	0.15	ppb v/v			03/25/21 04:40	15
1,2,4-Trichlorobenzene	30	U	30	0.51	ppb v/v			03/25/21 04:40	15
1,2,4-Trimethylbenzene	3.0	U	3.0	0.24	ppb v/v			03/25/21 04:40	15
1,2-Dichloro-1,1,2,2-tetrafluoroethane	3.0	U	3.0	0.78	ppb v/v			03/25/21 04:40	15
1,2-Dichlorobenzene	3.0	U	3.0	0.27	ppb v/v			03/25/21 04:40	15
1,2-Dichloroethane	3.0	U	3.0	0.78	ppb v/v			03/25/21 04:40	15
1,2-Dichloropropane	3.0	U	3.0	0.53	ppb v/v			03/25/21 04:40	15
1,3,5-Trimethylbenzene	3.0	U	3.0	0.29	ppb v/v			03/25/21 04:40	15
1,3-Dichlorobenzene	3.0	U	3.0	0.30	ppb v/v			03/25/21 04:40	15
1,4-Dichlorobenzene	3.0	U	3.0	0.29	ppb v/v			03/25/21 04:40	15
1,4-Dioxane	75	U	75	2.4	ppb v/v			03/25/21 04:40	15
2-Butanone (MEK)	15	U	15	1.4	ppb v/v			03/25/21 04:40	15
4-Methyl-2-pentanone (MIBK)	7.5	U	7.5	2.7	ppb v/v			03/25/21 04:40	15
Acetone	14	J	75	10	ppb v/v			03/25/21 04:40	15
Benzene	3.0	U	3.0	0.44	ppb v/v			03/25/21 04:40	15
Benzyl chloride	12	U	12	0.27	ppb v/v			03/25/21 04:40	15
Bromoform	3.0	U	3.0	0.38	ppb v/v			03/25/21 04:40	15

Eurofins TestAmerica, Burlington

Client Sample Results

Client: GHD Services Inc.
Project/Site: 11223416, PCC Validation

Job ID: 200-57695-1

Client Sample ID: SG-11223416-031521-SK-002

Lab Sample ID: 200-57695-2

Date Collected: 03/15/21 13:44

Matrix: Air

Date Received: 03/17/21 10:35

Sample Container: Summa Canister 1L

Method: TO-15 - Volatile Organic Compounds in Ambient Air (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bromomethane	3.0	U	3.0	0.66	ppb v/v			03/25/21 04:40	15
Carbon disulfide	7.5	U	7.5	0.45	ppb v/v			03/25/21 04:40	15
Carbon tetrachloride	3.0	U	3.0	0.17	ppb v/v			03/25/21 04:40	15
Chlorobenzene	3.0	U	3.0	0.27	ppb v/v			03/25/21 04:40	15
Dibromochloromethane	3.0	U	3.0	0.30	ppb v/v			03/25/21 04:40	15
Chloroethane	12	U	12	0.92	ppb v/v			03/25/21 04:40	15
Chloroform	3.0	U	3.0	0.57	ppb v/v			03/25/21 04:40	15
Chloromethane	7.5	U	7.5	0.90	ppb v/v			03/25/21 04:40	15
cis-1,2-Dichloroethene	3.0	U	3.0	0.45	ppb v/v			03/25/21 04:40	15
cis-1,3-Dichloropropene	3.0	U	3.0	0.44	ppb v/v			03/25/21 04:40	15
Cyclohexane	2.1	J	7.5	0.15	ppb v/v			03/25/21 04:40	15
Bromodichloromethane	3.0	U	3.0	0.44	ppb v/v			03/25/21 04:40	15
Dichlorodifluoromethane	0.91	J	7.5	0.84	ppb v/v			03/25/21 04:40	15
Ethylbenzene	0.95	J	3.0	0.30	ppb v/v			03/25/21 04:40	15
1,2-Dibromoethane (EDB)	3.0	U	3.0	0.27	ppb v/v			03/25/21 04:40	15
Hexachlorobutadiene	30	U	30	0.54	ppb v/v			03/25/21 04:40	15
Hexane	12	U	12	0.42	ppb v/v			03/25/21 04:40	15
Isopropyl alcohol	75	U	75	2.3	ppb v/v			03/25/21 04:40	15
Isopropylbenzene	12	U	12	0.29	ppb v/v			03/25/21 04:40	15
m-Xylene & p-Xylene	3.2	J	12	0.38	ppb v/v			03/25/21 04:40	15
Methyl tert-butyl ether	15	U	15	0.33	ppb v/v			03/25/21 04:40	15
Methylene Chloride	7.5	U	7.5	1.8	ppb v/v			03/25/21 04:40	15
Naphthalene	7.5	U	7.5	0.45	ppb v/v			03/25/21 04:40	15
o-Xylene	0.95	J	3.0	0.27	ppb v/v			03/25/21 04:40	15
Styrene	0.44	J	3.0	0.24	ppb v/v			03/25/21 04:40	15
Tetrachloroethene	3.0	U	3.0	0.45	ppb v/v			03/25/21 04:40	15
Tetrahydrofuran	75	U	75	2.7	ppb v/v			03/25/21 04:40	15
Toluene	0.70	J	3.0	0.38	ppb v/v			03/25/21 04:40	15
trans-1,2-Dichloroethene	3.0	U	3.0	0.41	ppb v/v			03/25/21 04:40	15
trans-1,3-Dichloropropene	3.0	U	3.0	0.39	ppb v/v			03/25/21 04:40	15
Trichloroethene	0.64	J	3.0	0.45	ppb v/v			03/25/21 04:40	15
Trichlorofluoromethane	460		3.0	0.68	ppb v/v			03/25/21 04:40	15
Vinyl acetate	75	U	75	1.2	ppb v/v			03/25/21 04:40	15
Vinyl bromide	3.0	U	3.0	0.30	ppb v/v			03/25/21 04:40	15
Vinyl chloride	3.0	U	3.0	0.39	ppb v/v			03/25/21 04:40	15
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	12	J	16	2.5	ug/m3			03/25/21 04:40	15
1,1,2,2-Tetrachloroethane	21	U	21	3.5	ug/m3			03/25/21 04:40	15
1,1,2-Trichloro-1,2,2-trifluoroethane	23	U	23	4.7	ug/m3			03/25/21 04:40	15
1,1,2-Trichloroethane	16	U	16	3.0	ug/m3			03/25/21 04:40	15
1,1-Dichloroethane	12	U	12	1.7	ug/m3			03/25/21 04:40	15
1,1-Dichloroethene	12	U	12	0.59	ug/m3			03/25/21 04:40	15
1,2,4-Trichlorobenzene	220	U	220	3.8	ug/m3			03/25/21 04:40	15
1,2,4-Trimethylbenzene	15	U	15	1.2	ug/m3			03/25/21 04:40	15
1,2-Dichloro-1,1,2,2-tetrafluoroethane	21	U	21	5.5	ug/m3			03/25/21 04:40	15
1,2-Dichlorobenzene	18	U	18	1.6	ug/m3			03/25/21 04:40	15
1,2-Dichloroethane	12	U	12	3.2	ug/m3			03/25/21 04:40	15
1,2-Dichloropropane	14	U	14	2.4	ug/m3			03/25/21 04:40	15

Eurofins TestAmerica, Burlington

Client Sample Results

Client: GHD Services Inc.
Project/Site: 11223416, PCC Validation

Job ID: 200-57695-1

Client Sample ID: SG-11223416-031521-SK-002

Lab Sample ID: 200-57695-2

Date Collected: 03/15/21 13:44

Matrix: Air

Date Received: 03/17/21 10:35

Sample Container: Summa Canister 1L

Method: TO-15 - Volatile Organic Compounds in Ambient Air (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,3,5-Trimethylbenzene	15	U	15	1.4	ug/m3			03/25/21 04:40	15
1,3-Dichlorobenzene	18	U	18	1.8	ug/m3			03/25/21 04:40	15
1,4-Dichlorobenzene	18	U	18	1.7	ug/m3			03/25/21 04:40	15
1,4-Dioxane	270	U	270	8.6	ug/m3			03/25/21 04:40	15
2-Butanone (MEK)	44	U	44	4.1	ug/m3			03/25/21 04:40	15
4-Methyl-2-pentanone (MIBK)	31	U	31	11	ug/m3			03/25/21 04:40	15
Acetone	34	J	180	25	ug/m3			03/25/21 04:40	15
Benzene	9.6	U	9.6	1.4	ug/m3			03/25/21 04:40	15
Benzyl chloride	62	U	62	1.4	ug/m3			03/25/21 04:40	15
Bromoform	31	U	31	3.9	ug/m3			03/25/21 04:40	15
Bromomethane	12	U	12	2.6	ug/m3			03/25/21 04:40	15
Carbon disulfide	23	U	23	1.4	ug/m3			03/25/21 04:40	15
Carbon tetrachloride	19	U	19	1.0	ug/m3			03/25/21 04:40	15
Chlorobenzene	14	U	14	1.2	ug/m3			03/25/21 04:40	15
Dibromochloromethane	26	U	26	2.6	ug/m3			03/25/21 04:40	15
Chloroethane	32	U	32	2.4	ug/m3			03/25/21 04:40	15
Chloroform	15	U	15	2.8	ug/m3			03/25/21 04:40	15
Chloromethane	15	U	15	1.9	ug/m3			03/25/21 04:40	15
cis-1,2-Dichloroethene	12	U	12	1.8	ug/m3			03/25/21 04:40	15
cis-1,3-Dichloropropene	14	U	14	2.0	ug/m3			03/25/21 04:40	15
Cyclohexane	7.1	J	26	0.52	ug/m3			03/25/21 04:40	15
Bromodichloromethane	20	U	20	2.9	ug/m3			03/25/21 04:40	15
Dichlorodifluoromethane	4.5	J	37	4.2	ug/m3			03/25/21 04:40	15
Ethylbenzene	4.1	J	13	1.3	ug/m3			03/25/21 04:40	15
1,2-Dibromoethane (EDB)	23	U	23	2.1	ug/m3			03/25/21 04:40	15
Hexachlorobutadiene	320	U	320	5.8	ug/m3			03/25/21 04:40	15
Hexane	42	U	42	1.5	ug/m3			03/25/21 04:40	15
Isopropyl alcohol	180	U	180	5.5	ug/m3			03/25/21 04:40	15
Isopropylbenzene	59	U	59	1.4	ug/m3			03/25/21 04:40	15
m-Xylene & p-Xylene	14	J	52	1.6	ug/m3			03/25/21 04:40	15
Methyl tert-butyl ether	54	U	54	1.2	ug/m3			03/25/21 04:40	15
Methylene Chloride	26	U	26	6.3	ug/m3			03/25/21 04:40	15
Naphthalene	39	U	39	2.4	ug/m3			03/25/21 04:40	15
o-Xylene	4.1	J	13	1.2	ug/m3			03/25/21 04:40	15
Styrene	1.9	J	13	1.0	ug/m3			03/25/21 04:40	15
Tetrachloroethene	20	U	20	3.1	ug/m3			03/25/21 04:40	15
Tetrahydrofuran	220	U	220	8.0	ug/m3			03/25/21 04:40	15
Toluene	2.6	J	11	1.4	ug/m3			03/25/21 04:40	15
trans-1,2-Dichloroethene	12	U	12	1.6	ug/m3			03/25/21 04:40	15
trans-1,3-Dichloropropene	14	U	14	1.8	ug/m3			03/25/21 04:40	15
Trichloroethene	3.4	J	16	2.4	ug/m3			03/25/21 04:40	15
Trichlorofluoromethane	2600		17	3.8	ug/m3			03/25/21 04:40	15
Vinyl acetate	260	U	260	4.4	ug/m3			03/25/21 04:40	15
Vinyl bromide	13	U	13	1.3	ug/m3			03/25/21 04:40	15
Vinyl chloride	7.7	U	7.7	1.0	ug/m3			03/25/21 04:40	15

Eurofins TestAmerica, Burlington

Client Sample Results

Client: GHD Services Inc.
Project/Site: 11223416, PCC Validation

Job ID: 200-57695-1

Client Sample ID: SG-11223416-031521-SK-003

Lab Sample ID: 200-57695-3

Date Collected: 03/15/21 13:46

Matrix: Air

Date Received: 03/17/21 10:35

Sample Container: Summa Canister 1L

Method: TO-15 - Volatile Organic Compounds in Ambient Air

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	2.3	J	3.0	0.45	ppb v/v			03/25/21 05:34	15
1,1,2,2-Tetrachloroethane	3.0	U	3.0	0.51	ppb v/v			03/25/21 05:34	15
1,1,2-Trichloro-1,2,2-trifluoroethane	3.0	U	3.0	0.62	ppb v/v			03/25/21 05:34	15
1,1,2-Trichloroethane	3.0	U	3.0	0.56	ppb v/v			03/25/21 05:34	15
1,1-Dichloroethane	3.0	U	3.0	0.42	ppb v/v			03/25/21 05:34	15
1,1-Dichloroethene	3.0	U	3.0	0.15	ppb v/v			03/25/21 05:34	15
1,2,4-Trichlorobenzene	30	U	30	0.51	ppb v/v			03/25/21 05:34	15
1,2,4-Trimethylbenzene	3.0	U	3.0	0.24	ppb v/v			03/25/21 05:34	15
1,2-Dichloro-1,1,2,2-tetrafluoroethane	3.0	U	3.0	0.78	ppb v/v			03/25/21 05:34	15
1,2-Dichlorobenzene	3.0	U	3.0	0.27	ppb v/v			03/25/21 05:34	15
1,2-Dichloroethane	3.0	U	3.0	0.78	ppb v/v			03/25/21 05:34	15
1,2-Dichloropropane	3.0	U	3.0	0.53	ppb v/v			03/25/21 05:34	15
1,3,5-Trimethylbenzene	3.0	U	3.0	0.29	ppb v/v			03/25/21 05:34	15
1,3-Dichlorobenzene	3.0	U	3.0	0.30	ppb v/v			03/25/21 05:34	15
1,4-Dichlorobenzene	3.0	U	3.0	0.29	ppb v/v			03/25/21 05:34	15
1,4-Dioxane	75	U	75	2.4	ppb v/v			03/25/21 05:34	15
2-Butanone (MEK)	15	U	15	1.4	ppb v/v			03/25/21 05:34	15
4-Methyl-2-pentanone (MIBK)	7.5	U	7.5	2.7	ppb v/v			03/25/21 05:34	15
Acetone	75	U	75	10	ppb v/v			03/25/21 05:34	15
Benzene	3.0	U	3.0	0.44	ppb v/v			03/25/21 05:34	15
Benzyl chloride	12	U	12	0.27	ppb v/v			03/25/21 05:34	15
Bromoform	3.0	U	3.0	0.38	ppb v/v			03/25/21 05:34	15
Bromomethane	3.0	U	3.0	0.66	ppb v/v			03/25/21 05:34	15
Carbon disulfide	7.5	U	7.5	0.45	ppb v/v			03/25/21 05:34	15
Carbon tetrachloride	3.0	U	3.0	0.17	ppb v/v			03/25/21 05:34	15
Chlorobenzene	3.0	U	3.0	0.27	ppb v/v			03/25/21 05:34	15
Dibromochloromethane	3.0	U	3.0	0.30	ppb v/v			03/25/21 05:34	15
Chloroethane	12	U	12	0.92	ppb v/v			03/25/21 05:34	15
Chloroform	3.0	U	3.0	0.57	ppb v/v			03/25/21 05:34	15
Chloromethane	7.5	U	7.5	0.90	ppb v/v			03/25/21 05:34	15
cis-1,2-Dichloroethene	3.0	U	3.0	0.45	ppb v/v			03/25/21 05:34	15
cis-1,3-Dichloropropene	3.0	U	3.0	0.44	ppb v/v			03/25/21 05:34	15
Cyclohexane	1.9	J	7.5	0.15	ppb v/v			03/25/21 05:34	15
Bromodichloromethane	3.0	U	3.0	0.44	ppb v/v			03/25/21 05:34	15
Dichlorodifluoromethane	1.2	J	7.5	0.84	ppb v/v			03/25/21 05:34	15
Ethylbenzene	0.51	J	3.0	0.30	ppb v/v			03/25/21 05:34	15
1,2-Dibromoethane (EDB)	3.0	U	3.0	0.27	ppb v/v			03/25/21 05:34	15
Hexachlorobutadiene	30	U	30	0.54	ppb v/v			03/25/21 05:34	15
Hexane	12	U	12	0.42	ppb v/v			03/25/21 05:34	15
Isopropyl alcohol	75	U	75	2.3	ppb v/v			03/25/21 05:34	15
Isopropylbenzene	12	U	12	0.29	ppb v/v			03/25/21 05:34	15
m-Xylene & p-Xylene	1.7	J	12	0.38	ppb v/v			03/25/21 05:34	15
Methyl tert-butyl ether	15	U	15	0.33	ppb v/v			03/25/21 05:34	15
Methylene Chloride	7.5	U	7.5	1.8	ppb v/v			03/25/21 05:34	15
Naphthalene	7.5	U	7.5	0.45	ppb v/v			03/25/21 05:34	15
o-Xylene	0.61	J	3.0	0.27	ppb v/v			03/25/21 05:34	15
Styrene	0.55	J	3.0	0.24	ppb v/v			03/25/21 05:34	15
Tetrachloroethene	3.0	U	3.0	0.45	ppb v/v			03/25/21 05:34	15

Eurofins TestAmerica, Burlington

Client Sample Results

Client: GHD Services Inc.
Project/Site: 11223416, PCC Validation

Job ID: 200-57695-1

Client Sample ID: SG-11223416-031521-SK-003

Lab Sample ID: 200-57695-3

Date Collected: 03/15/21 13:46

Matrix: Air

Date Received: 03/17/21 10:35

Sample Container: Summa Canister 1L

Method: TO-15 - Volatile Organic Compounds in Ambient Air (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Tetrahydrofuran	75	U	75	2.7	ppb v/v			03/25/21 05:34	15
Toluene	0.75	J	3.0	0.38	ppb v/v			03/25/21 05:34	15
trans-1,2-Dichloroethene	3.0	U	3.0	0.41	ppb v/v			03/25/21 05:34	15
trans-1,3-Dichloropropene	3.0	U	3.0	0.39	ppb v/v			03/25/21 05:34	15
Trichloroethene	0.70	J	3.0	0.45	ppb v/v			03/25/21 05:34	15
Trichlorofluoromethane	470		3.0	0.68	ppb v/v			03/25/21 05:34	15
Vinyl acetate	75	U	75	1.2	ppb v/v			03/25/21 05:34	15
Vinyl bromide	3.0	U	3.0	0.30	ppb v/v			03/25/21 05:34	15
Vinyl chloride	3.0	U	3.0	0.39	ppb v/v			03/25/21 05:34	15
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	12	J	16	2.5	ug/m3			03/25/21 05:34	15
1,1,2,2-Tetrachloroethane	21	U	21	3.5	ug/m3			03/25/21 05:34	15
1,1,2-Trichloro-1,2,2-trifluoroethane	23	U	23	4.7	ug/m3			03/25/21 05:34	15
1,1,2-Trichloroethane	16	U	16	3.0	ug/m3			03/25/21 05:34	15
1,1-Dichloroethane	12	U	12	1.7	ug/m3			03/25/21 05:34	15
1,1-Dichloroethene	12	U	12	0.59	ug/m3			03/25/21 05:34	15
1,2,4-Trichlorobenzene	220	U	220	3.8	ug/m3			03/25/21 05:34	15
1,2,4-Trimethylbenzene	15	U	15	1.2	ug/m3			03/25/21 05:34	15
1,2-Dichloro-1,1,2,2-tetrafluoroethane	21	U	21	5.5	ug/m3			03/25/21 05:34	15
1,2-Dichlorobenzene	18	U	18	1.6	ug/m3			03/25/21 05:34	15
1,2-Dichloroethane	12	U	12	3.2	ug/m3			03/25/21 05:34	15
1,2-Dichloropropane	14	U	14	2.4	ug/m3			03/25/21 05:34	15
1,3,5-Trimethylbenzene	15	U	15	1.4	ug/m3			03/25/21 05:34	15
1,3-Dichlorobenzene	18	U	18	1.8	ug/m3			03/25/21 05:34	15
1,4-Dichlorobenzene	18	U	18	1.7	ug/m3			03/25/21 05:34	15
1,4-Dioxane	270	U	270	8.6	ug/m3			03/25/21 05:34	15
2-Butanone (MEK)	44	U	44	4.1	ug/m3			03/25/21 05:34	15
4-Methyl-2-pentanone (MIBK)	31	U	31	11	ug/m3			03/25/21 05:34	15
Acetone	180	U	180	25	ug/m3			03/25/21 05:34	15
Benzene	9.6	U	9.6	1.4	ug/m3			03/25/21 05:34	15
Benzyl chloride	62	U	62	1.4	ug/m3			03/25/21 05:34	15
Bromoform	31	U	31	3.9	ug/m3			03/25/21 05:34	15
Bromomethane	12	U	12	2.6	ug/m3			03/25/21 05:34	15
Carbon disulfide	23	U	23	1.4	ug/m3			03/25/21 05:34	15
Carbon tetrachloride	19	U	19	1.0	ug/m3			03/25/21 05:34	15
Chlorobenzene	14	U	14	1.2	ug/m3			03/25/21 05:34	15
Dibromochloromethane	26	U	26	2.6	ug/m3			03/25/21 05:34	15
Chloroethane	32	U	32	2.4	ug/m3			03/25/21 05:34	15
Chloroform	15	U	15	2.8	ug/m3			03/25/21 05:34	15
Chloromethane	15	U	15	1.9	ug/m3			03/25/21 05:34	15
cis-1,2-Dichloroethene	12	U	12	1.8	ug/m3			03/25/21 05:34	15
cis-1,3-Dichloropropene	14	U	14	2.0	ug/m3			03/25/21 05:34	15
Cyclohexane	6.5	J	26	0.52	ug/m3			03/25/21 05:34	15
Bromodichloromethane	20	U	20	2.9	ug/m3			03/25/21 05:34	15
Dichlorodifluoromethane	5.8	J	37	4.2	ug/m3			03/25/21 05:34	15
Ethylbenzene	2.2	J	13	1.3	ug/m3			03/25/21 05:34	15
1,2-Dibromoethane (EDB)	23	U	23	2.1	ug/m3			03/25/21 05:34	15
Hexachlorobutadiene	320	U	320	5.8	ug/m3			03/25/21 05:34	15

Eurofins TestAmerica, Burlington

Client Sample Results

Client: GHD Services Inc.
Project/Site: 11223416, PCC Validation

Job ID: 200-57695-1

Client Sample ID: SG-11223416-031521-SK-003

Lab Sample ID: 200-57695-3

Date Collected: 03/15/21 13:46

Matrix: Air

Date Received: 03/17/21 10:35

Sample Container: Summa Canister 1L

Method: TO-15 - Volatile Organic Compounds in Ambient Air (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Hexane	42	U	42	1.5	ug/m3			03/25/21 05:34	15
Isopropyl alcohol	180	U	180	5.5	ug/m3			03/25/21 05:34	15
Isopropylbenzene	59	U	59	1.4	ug/m3			03/25/21 05:34	15
m-Xylene & p-Xylene	7.2	J	52	1.6	ug/m3			03/25/21 05:34	15
Methyl tert-butyl ether	54	U	54	1.2	ug/m3			03/25/21 05:34	15
Methylene Chloride	26	U	26	6.3	ug/m3			03/25/21 05:34	15
Naphthalene	39	U	39	2.4	ug/m3			03/25/21 05:34	15
o-Xylene	2.6	J	13	1.2	ug/m3			03/25/21 05:34	15
Styrene	2.3	J	13	1.0	ug/m3			03/25/21 05:34	15
Tetrachloroethene	20	U	20	3.1	ug/m3			03/25/21 05:34	15
Tetrahydrofuran	220	U	220	8.0	ug/m3			03/25/21 05:34	15
Toluene	2.8	J	11	1.4	ug/m3			03/25/21 05:34	15
trans-1,2-Dichloroethene	12	U	12	1.6	ug/m3			03/25/21 05:34	15
trans-1,3-Dichloropropene	14	U	14	1.8	ug/m3			03/25/21 05:34	15
Trichloroethene	3.8	J	16	2.4	ug/m3			03/25/21 05:34	15
Trichlorofluoromethane	2600		17	3.8	ug/m3			03/25/21 05:34	15
Vinyl acetate	260	U	260	4.4	ug/m3			03/25/21 05:34	15
Vinyl bromide	13	U	13	1.3	ug/m3			03/25/21 05:34	15
Vinyl chloride	7.7	U	7.7	1.0	ug/m3			03/25/21 05:34	15

Client Sample ID: SG-11223416-031521-SK-004

Lab Sample ID: 200-57695-4

Date Collected: 03/15/21 15:20

Matrix: Air

Date Received: 03/17/21 10:35

Sample Container: Summa Canister 1L

Method: TO-15 - Volatile Organic Compounds in Ambient Air

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	0.82	J	2.0	0.30	ppb v/v			03/25/21 14:18	10
1,1,2,2-Tetrachloroethane	2.0	U	2.0	0.34	ppb v/v			03/25/21 14:18	10
1,1,2-Trichloro-1,2,2-trifluoroethane	2.0	U	2.0	0.41	ppb v/v			03/25/21 14:18	10
1,1,2-Trichloroethane	2.0	U	2.0	0.37	ppb v/v			03/25/21 14:18	10
1,1-Dichloroethane	2.0	U	2.0	0.28	ppb v/v			03/25/21 14:18	10
1,1-Dichloroethene	2.0	U	2.0	0.10	ppb v/v			03/25/21 14:18	10
1,2,4-Trichlorobenzene	20	U	20	0.34	ppb v/v			03/25/21 14:18	10
1,2,4-Trimethylbenzene	2.0	U	2.0	0.16	ppb v/v			03/25/21 14:18	10
1,2-Dichloro-1,1,2,2-tetrafluoroethane	2.0	U	2.0	0.52	ppb v/v			03/25/21 14:18	10
1,2-Dichlorobenzene	2.0	U	2.0	0.18	ppb v/v			03/25/21 14:18	10
1,2-Dichloroethane	2.0	U	2.0	0.52	ppb v/v			03/25/21 14:18	10
1,2-Dichloropropane	2.0	U	2.0	0.35	ppb v/v			03/25/21 14:18	10
1,3,5-Trimethylbenzene	2.0	U	2.0	0.19	ppb v/v			03/25/21 14:18	10
1,3-Dichlorobenzene	2.0	U	2.0	0.20	ppb v/v			03/25/21 14:18	10
1,4-Dichlorobenzene	2.0	U	2.0	0.19	ppb v/v			03/25/21 14:18	10
1,4-Dioxane	50	U	50	1.6	ppb v/v			03/25/21 14:18	10
2-Butanone (MEK)	10	U	10	0.92	ppb v/v			03/25/21 14:18	10
4-Methyl-2-pentanone (MIBK)	5.0	U	5.0	1.8	ppb v/v			03/25/21 14:18	10
Acetone	9.2	J	50	6.9	ppb v/v			03/25/21 14:18	10
Benzene	2.0	U	2.0	0.29	ppb v/v			03/25/21 14:18	10
Benzyl chloride	8.0	U	8.0	0.18	ppb v/v			03/25/21 14:18	10
Bromoform	2.0	U **	2.0	0.25	ppb v/v			03/25/21 14:18	10

Eurofins TestAmerica, Burlington

Client Sample Results

Client: GHD Services Inc.
Project/Site: 11223416, PCC Validation

Job ID: 200-57695-1

Client Sample ID: SG-11223416-031521-SK-004

Lab Sample ID: 200-57695-4

Date Collected: 03/15/21 15:20

Matrix: Air

Date Received: 03/17/21 10:35

Sample Container: Summa Canister 1L

Method: TO-15 - Volatile Organic Compounds in Ambient Air (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bromomethane	2.0	U	2.0	0.44	ppb v/v			03/25/21 14:18	10
Carbon disulfide	1.7	J	5.0	0.30	ppb v/v			03/25/21 14:18	10
Carbon tetrachloride	2.0	U	2.0	0.11	ppb v/v			03/25/21 14:18	10
Chlorobenzene	2.0	U	2.0	0.18	ppb v/v			03/25/21 14:18	10
Dibromochloromethane	2.0	U *	2.0	0.20	ppb v/v			03/25/21 14:18	10
Chloroethane	8.0	U	8.0	0.61	ppb v/v			03/25/21 14:18	10
Chloroform	2.0	U	2.0	0.38	ppb v/v			03/25/21 14:18	10
Chloromethane	5.0	U	5.0	0.60	ppb v/v			03/25/21 14:18	10
cis-1,2-Dichloroethene	2.0	U	2.0	0.30	ppb v/v			03/25/21 14:18	10
cis-1,3-Dichloropropene	2.0	U	2.0	0.29	ppb v/v			03/25/21 14:18	10
Cyclohexane	6.2		5.0	0.10	ppb v/v			03/25/21 14:18	10
Bromodichloromethane	2.0	U	2.0	0.29	ppb v/v			03/25/21 14:18	10
Dichlorodifluoromethane	0.69	J	5.0	0.56	ppb v/v			03/25/21 14:18	10
Ethylbenzene	0.71	J	2.0	0.20	ppb v/v			03/25/21 14:18	10
1,2-Dibromoethane (EDB)	2.0	U	2.0	0.18	ppb v/v			03/25/21 14:18	10
Hexachlorobutadiene	20	U	20	0.36	ppb v/v			03/25/21 14:18	10
Hexane	8.0	U	8.0	0.28	ppb v/v			03/25/21 14:18	10
Isopropyl alcohol	1.8	J	50	1.5	ppb v/v			03/25/21 14:18	10
Isopropylbenzene	8.0	U	8.0	0.19	ppb v/v			03/25/21 14:18	10
m-Xylene & p-Xylene	2.0	J	8.0	0.25	ppb v/v			03/25/21 14:18	10
Methyl tert-butyl ether	10	U	10	0.22	ppb v/v			03/25/21 14:18	10
Methylene Chloride	5.0	U	5.0	1.2	ppb v/v			03/25/21 14:18	10
Naphthalene	5.0	U	5.0	0.30	ppb v/v			03/25/21 14:18	10
o-Xylene	0.66	J	2.0	0.18	ppb v/v			03/25/21 14:18	10
Styrene	0.57	J B	2.0	0.16	ppb v/v			03/25/21 14:18	10
Tetrachloroethene	2.0	U	2.0	0.30	ppb v/v			03/25/21 14:18	10
Tetrahydrofuran	50	U	50	1.8	ppb v/v			03/25/21 14:18	10
Toluene	1.4	J	2.0	0.25	ppb v/v			03/25/21 14:18	10
trans-1,2-Dichloroethene	2.0	U	2.0	0.27	ppb v/v			03/25/21 14:18	10
trans-1,3-Dichloropropene	2.0	U	2.0	0.26	ppb v/v			03/25/21 14:18	10
Trichloroethene	2.2		2.0	0.30	ppb v/v			03/25/21 14:18	10
Trichlorofluoromethane	68		2.0	0.45	ppb v/v			03/25/21 14:18	10
Vinyl acetate	50	U	50	0.83	ppb v/v			03/25/21 14:18	10
Vinyl bromide	2.0	U	2.0	0.20	ppb v/v			03/25/21 14:18	10
Vinyl chloride	2.0	U	2.0	0.26	ppb v/v			03/25/21 14:18	10
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	4.5	J	11	1.6	ug/m3			03/25/21 14:18	10
1,1,2,2-Tetrachloroethane	14	U	14	2.3	ug/m3			03/25/21 14:18	10
1,1,2-Trichloro-1,2,2-trifluoroethane	15	U	15	3.1	ug/m3			03/25/21 14:18	10
1,1,2-Trichloroethane	11	U	11	2.0	ug/m3			03/25/21 14:18	10
1,1-Dichloroethane	8.1	U	8.1	1.1	ug/m3			03/25/21 14:18	10
1,1-Dichloroethene	7.9	U	7.9	0.40	ug/m3			03/25/21 14:18	10
1,2,4-Trichlorobenzene	150	U	150	2.5	ug/m3			03/25/21 14:18	10
1,2,4-Trimethylbenzene	9.8	U	9.8	0.79	ug/m3			03/25/21 14:18	10
1,2-Dichloro-1,1,2,2-tetrafluoroethane	14	U	14	3.6	ug/m3			03/25/21 14:18	10
1,2-Dichlorobenzene	12	U	12	1.1	ug/m3			03/25/21 14:18	10
1,2-Dichloroethane	8.1	U	8.1	2.1	ug/m3			03/25/21 14:18	10
1,2-Dichloropropane	9.2	U	9.2	1.6	ug/m3			03/25/21 14:18	10

Eurofins TestAmerica, Burlington

Client Sample Results

Client: GHD Services Inc.
Project/Site: 11223416, PCC Validation

Job ID: 200-57695-1

Client Sample ID: SG-11223416-031521-SK-004

Lab Sample ID: 200-57695-4

Date Collected: 03/15/21 15:20

Matrix: Air

Date Received: 03/17/21 10:35

Sample Container: Summa Canister 1L

Method: TO-15 - Volatile Organic Compounds in Ambient Air (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,3,5-Trimethylbenzene	9.8	U	9.8	0.93	ug/m3			03/25/21 14:18	10
1,3-Dichlorobenzene	12	U	12	1.2	ug/m3			03/25/21 14:18	10
1,4-Dichlorobenzene	12	U	12	1.1	ug/m3			03/25/21 14:18	10
1,4-Dioxane	180	U	180	5.8	ug/m3			03/25/21 14:18	10
2-Butanone (MEK)	29	U	29	2.7	ug/m3			03/25/21 14:18	10
4-Methyl-2-pentanone (MIBK)	20	U	20	7.4	ug/m3			03/25/21 14:18	10
Acetone	22	J	120	16	ug/m3			03/25/21 14:18	10
Benzene	6.4	U	6.4	0.93	ug/m3			03/25/21 14:18	10
Benzyl chloride	41	U	41	0.93	ug/m3			03/25/21 14:18	10
Bromoform	21	U *	21	2.6	ug/m3			03/25/21 14:18	10
Bromomethane	7.8	U	7.8	1.7	ug/m3			03/25/21 14:18	10
Carbon disulfide	5.2	J	16	0.93	ug/m3			03/25/21 14:18	10
Carbon tetrachloride	13	U	13	0.69	ug/m3			03/25/21 14:18	10
Chlorobenzene	9.2	U	9.2	0.83	ug/m3			03/25/21 14:18	10
Dibromochloromethane	17	U *	17	1.7	ug/m3			03/25/21 14:18	10
Chloroethane	21	U	21	1.6	ug/m3			03/25/21 14:18	10
Chloroform	9.8	U	9.8	1.9	ug/m3			03/25/21 14:18	10
Chloromethane	10	U	10	1.2	ug/m3			03/25/21 14:18	10
cis-1,2-Dichloroethene	7.9	U	7.9	1.2	ug/m3			03/25/21 14:18	10
cis-1,3-Dichloropropene	9.1	U	9.1	1.3	ug/m3			03/25/21 14:18	10
Cyclohexane	21		17	0.34	ug/m3			03/25/21 14:18	10
Bromodichloromethane	13	U	13	1.9	ug/m3			03/25/21 14:18	10
Dichlorodifluoromethane	3.4	J	25	2.8	ug/m3			03/25/21 14:18	10
Ethylbenzene	3.1	J	8.7	0.87	ug/m3			03/25/21 14:18	10
1,2-Dibromoethane (EDB)	15	U	15	1.4	ug/m3			03/25/21 14:18	10
Hexachlorobutadiene	210	U	210	3.8	ug/m3			03/25/21 14:18	10
Hexane	28	U	28	0.99	ug/m3			03/25/21 14:18	10
Isopropyl alcohol	4.4	J	120	3.7	ug/m3			03/25/21 14:18	10
Isopropylbenzene	39	U	39	0.93	ug/m3			03/25/21 14:18	10
m-Xylene & p-Xylene	8.7	J	35	1.1	ug/m3			03/25/21 14:18	10
Methyl tert-butyl ether	36	U	36	0.79	ug/m3			03/25/21 14:18	10
Methylene Chloride	17	U	17	4.2	ug/m3			03/25/21 14:18	10
Naphthalene	26	U	26	1.6	ug/m3			03/25/21 14:18	10
o-Xylene	2.9	J	8.7	0.78	ug/m3			03/25/21 14:18	10
Styrene	2.4	J B	8.5	0.68	ug/m3			03/25/21 14:18	10
Tetrachloroethene	14	U	14	2.0	ug/m3			03/25/21 14:18	10
Tetrahydrofuran	150	U	150	5.3	ug/m3			03/25/21 14:18	10
Toluene	5.2	J	7.5	0.94	ug/m3			03/25/21 14:18	10
trans-1,2-Dichloroethene	7.9	U	7.9	1.1	ug/m3			03/25/21 14:18	10
trans-1,3-Dichloropropene	9.1	U	9.1	1.2	ug/m3			03/25/21 14:18	10
Trichloroethene	12		11	1.6	ug/m3			03/25/21 14:18	10
Trichlorofluoromethane	380		11	2.5	ug/m3			03/25/21 14:18	10
Vinyl acetate	180	U	180	2.9	ug/m3			03/25/21 14:18	10
Vinyl bromide	8.7	U	8.7	0.87	ug/m3			03/25/21 14:18	10
Vinyl chloride	5.1	U	5.1	0.66	ug/m3			03/25/21 14:18	10

Eurofins TestAmerica, Burlington

Client Sample Results

Client: GHD Services Inc.
Project/Site: 11223416, PCC Validation

Job ID: 200-57695-1

Client Sample ID: SG-11223416-031521-SK-005

Lab Sample ID: 200-57695-5

Date Collected: 03/15/21 16:02

Matrix: Air

Date Received: 03/17/21 10:35

Sample Container: Summa Canister 1L

Method: TO-15 - Volatile Organic Compounds in Ambient Air

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	2.0	U	2.0	0.30	ppb v/v			03/25/21 15:11	10
1,1,2,2-Tetrachloroethane	2.0	U	2.0	0.34	ppb v/v			03/25/21 15:11	10
1,1,2-Trichloro-1,2,2-trifluoroethane	2.0	U	2.0	0.41	ppb v/v			03/25/21 15:11	10
1,1,2-Trichloroethane	2.0	U	2.0	0.37	ppb v/v			03/25/21 15:11	10
1,1-Dichloroethane	2.0	U	2.0	0.28	ppb v/v			03/25/21 15:11	10
1,1-Dichloroethene	2.0	U	2.0	0.10	ppb v/v			03/25/21 15:11	10
1,2,4-Trichlorobenzene	20	U	20	0.34	ppb v/v			03/25/21 15:11	10
1,2,4-Trimethylbenzene	0.22	J	2.0	0.16	ppb v/v			03/25/21 15:11	10
1,2-Dichloro-1,1,2,2-tetrafluoroethane	2.0	U	2.0	0.52	ppb v/v			03/25/21 15:11	10
1,2-Dichlorobenzene	2.0	U	2.0	0.18	ppb v/v			03/25/21 15:11	10
1,2-Dichloroethane	2.0	U	2.0	0.52	ppb v/v			03/25/21 15:11	10
1,2-Dichloropropane	2.0	U	2.0	0.35	ppb v/v			03/25/21 15:11	10
1,3,5-Trimethylbenzene	2.0	U	2.0	0.19	ppb v/v			03/25/21 15:11	10
1,3-Dichlorobenzene	2.0	U	2.0	0.20	ppb v/v			03/25/21 15:11	10
1,4-Dichlorobenzene	2.0	U	2.0	0.19	ppb v/v			03/25/21 15:11	10
1,4-Dioxane	50	U	50	1.6	ppb v/v			03/25/21 15:11	10
2-Butanone (MEK)	10	U	10	0.92	ppb v/v			03/25/21 15:11	10
4-Methyl-2-pentanone (MIBK)	5.0	U	5.0	1.8	ppb v/v			03/25/21 15:11	10
Acetone	22	J	50	6.9	ppb v/v			03/25/21 15:11	10
Benzene	2.0	U	2.0	0.29	ppb v/v			03/25/21 15:11	10
Benzyl chloride	8.0	U	8.0	0.18	ppb v/v			03/25/21 15:11	10
Bromoform	2.0	U **	2.0	0.25	ppb v/v			03/25/21 15:11	10
Bromomethane	2.0	U	2.0	0.44	ppb v/v			03/25/21 15:11	10
Carbon disulfide	5.0	U	5.0	0.30	ppb v/v			03/25/21 15:11	10
Carbon tetrachloride	2.0	U	2.0	0.11	ppb v/v			03/25/21 15:11	10
Chlorobenzene	2.0	U	2.0	0.18	ppb v/v			03/25/21 15:11	10
Dibromochloromethane	2.0	U **	2.0	0.20	ppb v/v			03/25/21 15:11	10
Chloroethane	8.0	U	8.0	0.61	ppb v/v			03/25/21 15:11	10
Chloroform	2.0	U	2.0	0.38	ppb v/v			03/25/21 15:11	10
Chloromethane	5.0	U	5.0	0.60	ppb v/v			03/25/21 15:11	10
cis-1,2-Dichloroethene	2.0	U	2.0	0.30	ppb v/v			03/25/21 15:11	10
cis-1,3-Dichloropropene	2.0	U	2.0	0.29	ppb v/v			03/25/21 15:11	10
Cyclohexane	2.3	J	5.0	0.10	ppb v/v			03/25/21 15:11	10
Bromodichloromethane	2.0	U	2.0	0.29	ppb v/v			03/25/21 15:11	10
Dichlorodifluoromethane	1.2	J	5.0	0.56	ppb v/v			03/25/21 15:11	10
Ethylbenzene	1.9	J	2.0	0.20	ppb v/v			03/25/21 15:11	10
1,2-Dibromoethane (EDB)	2.0	U	2.0	0.18	ppb v/v			03/25/21 15:11	10
Hexachlorobutadiene	20	U	20	0.36	ppb v/v			03/25/21 15:11	10
Hexane	1.3	J	8.0	0.28	ppb v/v			03/25/21 15:11	10
Isopropyl alcohol	4.1	J	50	1.5	ppb v/v			03/25/21 15:11	10
Isopropylbenzene	8.0	U	8.0	0.19	ppb v/v			03/25/21 15:11	10
m-Xylene & p-Xylene	7.3	J	8.0	0.25	ppb v/v			03/25/21 15:11	10
Methyl tert-butyl ether	10	U	10	0.22	ppb v/v			03/25/21 15:11	10
Methylene Chloride	1.4	J	5.0	1.2	ppb v/v			03/25/21 15:11	10
Naphthalene	5.0	U	5.0	0.30	ppb v/v			03/25/21 15:11	10
o-Xylene	2.6		2.0	0.18	ppb v/v			03/25/21 15:11	10
Styrene	0.73	J B	2.0	0.16	ppb v/v			03/25/21 15:11	10
Tetrachloroethene	2.0	U	2.0	0.30	ppb v/v			03/25/21 15:11	10

Eurofins TestAmerica, Burlington

Client Sample Results

Client: GHD Services Inc.
Project/Site: 11223416, PCC Validation

Job ID: 200-57695-1

Client Sample ID: SG-11223416-031521-SK-005

Lab Sample ID: 200-57695-5

Date Collected: 03/15/21 16:02

Matrix: Air

Date Received: 03/17/21 10:35

Sample Container: Summa Canister 1L

Method: TO-15 - Volatile Organic Compounds in Ambient Air (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Tetrahydrofuran	50	U	50	1.8	ppb v/v			03/25/21 15:11	10
Toluene	1.1	J	2.0	0.25	ppb v/v			03/25/21 15:11	10
trans-1,2-Dichloroethene	2.0	U	2.0	0.27	ppb v/v			03/25/21 15:11	10
trans-1,3-Dichloropropene	2.0	U	2.0	0.26	ppb v/v			03/25/21 15:11	10
Trichloroethene	2.0	U	2.0	0.30	ppb v/v			03/25/21 15:11	10
Trichlorofluoromethane	31		2.0	0.45	ppb v/v			03/25/21 15:11	10
Vinyl acetate	50	U	50	0.83	ppb v/v			03/25/21 15:11	10
Vinyl bromide	2.0	U	2.0	0.20	ppb v/v			03/25/21 15:11	10
Vinyl chloride	2.0	U	2.0	0.26	ppb v/v			03/25/21 15:11	10
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	11	U	11	1.6	ug/m3			03/25/21 15:11	10
1,1,2,2-Tetrachloroethane	14	U	14	2.3	ug/m3			03/25/21 15:11	10
1,1,2-Trichloro-1,2,2-trifluoroethane	15	U	15	3.1	ug/m3			03/25/21 15:11	10
1,1,2-Trichloroethane	11	U	11	2.0	ug/m3			03/25/21 15:11	10
1,1-Dichloroethane	8.1	U	8.1	1.1	ug/m3			03/25/21 15:11	10
1,1-Dichloroethene	7.9	U	7.9	0.40	ug/m3			03/25/21 15:11	10
1,2,4-Trichlorobenzene	150	U	150	2.5	ug/m3			03/25/21 15:11	10
1,2,4-Trimethylbenzene	1.1	J	9.8	0.79	ug/m3			03/25/21 15:11	10
1,2-Dichloro-1,1,2,2-tetrafluoroethane	14	U	14	3.6	ug/m3			03/25/21 15:11	10
1,2-Dichlorobenzene	12	U	12	1.1	ug/m3			03/25/21 15:11	10
1,2-Dichloroethane	8.1	U	8.1	2.1	ug/m3			03/25/21 15:11	10
1,2-Dichloropropane	9.2	U	9.2	1.6	ug/m3			03/25/21 15:11	10
1,3,5-Trimethylbenzene	9.8	U	9.8	0.93	ug/m3			03/25/21 15:11	10
1,3-Dichlorobenzene	12	U	12	1.2	ug/m3			03/25/21 15:11	10
1,4-Dichlorobenzene	12	U	12	1.1	ug/m3			03/25/21 15:11	10
1,4-Dioxane	180	U	180	5.8	ug/m3			03/25/21 15:11	10
2-Butanone (MEK)	29	U	29	2.7	ug/m3			03/25/21 15:11	10
4-Methyl-2-pentanone (MIBK)	20	U	20	7.4	ug/m3			03/25/21 15:11	10
Acetone	52	J	120	16	ug/m3			03/25/21 15:11	10
Benzene	6.4	U	6.4	0.93	ug/m3			03/25/21 15:11	10
Benzyl chloride	41	U	41	0.93	ug/m3			03/25/21 15:11	10
Bromoform	21	U *+	21	2.6	ug/m3			03/25/21 15:11	10
Bromomethane	7.8	U	7.8	1.7	ug/m3			03/25/21 15:11	10
Carbon disulfide	16	U	16	0.93	ug/m3			03/25/21 15:11	10
Carbon tetrachloride	13	U	13	0.69	ug/m3			03/25/21 15:11	10
Chlorobenzene	9.2	U	9.2	0.83	ug/m3			03/25/21 15:11	10
Dibromochloromethane	17	U *+	17	1.7	ug/m3			03/25/21 15:11	10
Chloroethane	21	U	21	1.6	ug/m3			03/25/21 15:11	10
Chloroform	9.8	U	9.8	1.9	ug/m3			03/25/21 15:11	10
Chloromethane	10	U	10	1.2	ug/m3			03/25/21 15:11	10
cis-1,2-Dichloroethene	7.9	U	7.9	1.2	ug/m3			03/25/21 15:11	10
cis-1,3-Dichloropropene	9.1	U	9.1	1.3	ug/m3			03/25/21 15:11	10
Cyclohexane	8.0	J	17	0.34	ug/m3			03/25/21 15:11	10
Bromodichloromethane	13	U	13	1.9	ug/m3			03/25/21 15:11	10
Dichlorodifluoromethane	5.7	J	25	2.8	ug/m3			03/25/21 15:11	10
Ethylbenzene	8.3	J	8.7	0.87	ug/m3			03/25/21 15:11	10
1,2-Dibromoethane (EDB)	15	U	15	1.4	ug/m3			03/25/21 15:11	10
Hexachlorobutadiene	210	U	210	3.8	ug/m3			03/25/21 15:11	10

Eurofins TestAmerica, Burlington

Client Sample Results

Client: GHD Services Inc.
Project/Site: 11223416, PCC Validation

Job ID: 200-57695-1

Client Sample ID: SG-11223416-031521-SK-005

Lab Sample ID: 200-57695-5

Date Collected: 03/15/21 16:02

Matrix: Air

Date Received: 03/17/21 10:35

Sample Container: Summa Canister 1L

Method: TO-15 - Volatile Organic Compounds in Ambient Air (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Hexane	4.7	J	28	0.99	ug/m3			03/25/21 15:11	10
Isopropyl alcohol	10	J	120	3.7	ug/m3			03/25/21 15:11	10
Isopropylbenzene	39	U	39	0.93	ug/m3			03/25/21 15:11	10
m-Xylene & p-Xylene	32	J	35	1.1	ug/m3			03/25/21 15:11	10
Methyl tert-butyl ether	36	U	36	0.79	ug/m3			03/25/21 15:11	10
Methylene Chloride	4.8	J	17	4.2	ug/m3			03/25/21 15:11	10
Naphthalene	26	U	26	1.6	ug/m3			03/25/21 15:11	10
o-Xylene	11		8.7	0.78	ug/m3			03/25/21 15:11	10
Styrene	3.1	J B	8.5	0.68	ug/m3			03/25/21 15:11	10
Tetrachloroethene	14	U	14	2.0	ug/m3			03/25/21 15:11	10
Tetrahydrofuran	150	U	150	5.3	ug/m3			03/25/21 15:11	10
Toluene	4.2	J	7.5	0.94	ug/m3			03/25/21 15:11	10
trans-1,2-Dichloroethene	7.9	U	7.9	1.1	ug/m3			03/25/21 15:11	10
trans-1,3-Dichloropropene	9.1	U	9.1	1.2	ug/m3			03/25/21 15:11	10
Trichloroethene	11	U	11	1.6	ug/m3			03/25/21 15:11	10
Trichlorofluoromethane	170		11	2.5	ug/m3			03/25/21 15:11	10
Vinyl acetate	180	U	180	2.9	ug/m3			03/25/21 15:11	10
Vinyl bromide	8.7	U	8.7	0.87	ug/m3			03/25/21 15:11	10
Vinyl chloride	5.1	U	5.1	0.66	ug/m3			03/25/21 15:11	10

Client Sample ID: SG-11223416-031521-SK-006

Lab Sample ID: 200-57695-6

Date Collected: 03/15/21 16:50

Matrix: Air

Date Received: 03/17/21 10:35

Sample Container: Summa Canister 1L

Method: TO-15 - Volatile Organic Compounds in Ambient Air

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	0.47	J	2.0	0.30	ppb v/v			03/25/21 16:04	9.98
1,1,2,2-Tetrachloroethane	2.0	U	2.0	0.34	ppb v/v			03/25/21 16:04	9.98
1,1,2-Trichloro-1,2,2-trifluoroethane	2.0	U	2.0	0.41	ppb v/v			03/25/21 16:04	9.98
1,1,2-Trichloroethane	2.0	U	2.0	0.37	ppb v/v			03/25/21 16:04	9.98
1,1-Dichloroethane	2.0	U	2.0	0.28	ppb v/v			03/25/21 16:04	9.98
1,1-Dichloroethene	2.0	U	2.0	0.10	ppb v/v			03/25/21 16:04	9.98
1,2,4-Trichlorobenzene	20	U	20	0.34	ppb v/v			03/25/21 16:04	9.98
1,2,4-Trimethylbenzene	2.5		2.0	0.16	ppb v/v			03/25/21 16:04	9.98
1,2-Dichloro-1,1,2,2-tetrafluoroethane	2.0	U	2.0	0.52	ppb v/v			03/25/21 16:04	9.98
1,2-Dichlorobenzene	2.0	U	2.0	0.18	ppb v/v			03/25/21 16:04	9.98
1,2-Dichloroethane	2.0	U	2.0	0.52	ppb v/v			03/25/21 16:04	9.98
1,2-Dichloropropane	2.0	U	2.0	0.35	ppb v/v			03/25/21 16:04	9.98
1,3,5-Trimethylbenzene	1.0	J	2.0	0.19	ppb v/v			03/25/21 16:04	9.98
1,3-Dichlorobenzene	2.0	U	2.0	0.20	ppb v/v			03/25/21 16:04	9.98
1,4-Dichlorobenzene	2.0	U	2.0	0.19	ppb v/v			03/25/21 16:04	9.98
1,4-Dioxane	50	U	50	1.6	ppb v/v			03/25/21 16:04	9.98
2-Butanone (MEK)	7.6	J	10	0.92	ppb v/v			03/25/21 16:04	9.98
4-Methyl-2-pentanone (MIBK)	5.0	U	5.0	1.8	ppb v/v			03/25/21 16:04	9.98
Acetone	170		50	6.9	ppb v/v			03/25/21 16:04	9.98
Benzene	1.7	J	2.0	0.29	ppb v/v			03/25/21 16:04	9.98
Benzyl chloride	8.0	U	8.0	0.18	ppb v/v			03/25/21 16:04	9.98
Bromoform	2.0	U **	2.0	0.25	ppb v/v			03/25/21 16:04	9.98

Eurofins TestAmerica, Burlington

Client Sample Results

Client: GHD Services Inc.
Project/Site: 11223416, PCC Validation

Job ID: 200-57695-1

Client Sample ID: SG-11223416-031521-SK-006

Lab Sample ID: 200-57695-6

Date Collected: 03/15/21 16:50

Matrix: Air

Date Received: 03/17/21 10:35

Sample Container: Summa Canister 1L

Method: TO-15 - Volatile Organic Compounds in Ambient Air (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bromomethane	0.88	J	2.0	0.44	ppb v/v			03/25/21 16:04	9.98
Carbon disulfide	11		5.0	0.30	ppb v/v			03/25/21 16:04	9.98
Carbon tetrachloride	0.28	J	2.0	0.11	ppb v/v			03/25/21 16:04	9.98
Chlorobenzene	2.0	U	2.0	0.18	ppb v/v			03/25/21 16:04	9.98
Dibromochloromethane	2.0	U *	2.0	0.20	ppb v/v			03/25/21 16:04	9.98
Chloroethane	8.0	U	8.0	0.61	ppb v/v			03/25/21 16:04	9.98
Chloroform	2.0	U	2.0	0.38	ppb v/v			03/25/21 16:04	9.98
Chloromethane	3.0	J	5.0	0.60	ppb v/v			03/25/21 16:04	9.98
cis-1,2-Dichloroethene	2.0	U	2.0	0.30	ppb v/v			03/25/21 16:04	9.98
cis-1,3-Dichloropropene	2.0	U	2.0	0.29	ppb v/v			03/25/21 16:04	9.98
Cyclohexane	9.4		5.0	0.10	ppb v/v			03/25/21 16:04	9.98
Bromodichloromethane	2.0	U	2.0	0.29	ppb v/v			03/25/21 16:04	9.98
Dichlorodifluoromethane	4.8	J	5.0	0.56	ppb v/v			03/25/21 16:04	9.98
Ethylbenzene	4.8		2.0	0.20	ppb v/v			03/25/21 16:04	9.98
1,2-Dibromoethane (EDB)	2.0	U	2.0	0.18	ppb v/v			03/25/21 16:04	9.98
Hexachlorobutadiene	20	U	20	0.36	ppb v/v			03/25/21 16:04	9.98
Hexane	15		8.0	0.28	ppb v/v			03/25/21 16:04	9.98
Isopropyl alcohol	19	J	50	1.5	ppb v/v			03/25/21 16:04	9.98
Isopropylbenzene	0.46	J	8.0	0.19	ppb v/v			03/25/21 16:04	9.98
m-Xylene & p-Xylene	16		8.0	0.25	ppb v/v			03/25/21 16:04	9.98
Methyl tert-butyl ether	10	U	10	0.22	ppb v/v			03/25/21 16:04	9.98
Methylene Chloride	15		5.0	1.2	ppb v/v			03/25/21 16:04	9.98
Naphthalene	5.0	U	5.0	0.30	ppb v/v			03/25/21 16:04	9.98
o-Xylene	5.9		2.0	0.18	ppb v/v			03/25/21 16:04	9.98
Styrene	0.86	J B	2.0	0.16	ppb v/v			03/25/21 16:04	9.98
Tetrachloroethene	0.52	J	2.0	0.30	ppb v/v			03/25/21 16:04	9.98
Tetrahydrofuran	50	U	50	1.8	ppb v/v			03/25/21 16:04	9.98
Toluene	4.7		2.0	0.25	ppb v/v			03/25/21 16:04	9.98
trans-1,2-Dichloroethene	2.0	U	2.0	0.27	ppb v/v			03/25/21 16:04	9.98
trans-1,3-Dichloropropene	2.0	U	2.0	0.26	ppb v/v			03/25/21 16:04	9.98
Trichloroethene	2.0	U	2.0	0.30	ppb v/v			03/25/21 16:04	9.98
Trichlorofluoromethane	26		2.0	0.45	ppb v/v			03/25/21 16:04	9.98
Vinyl acetate	50	U	50	0.83	ppb v/v			03/25/21 16:04	9.98
Vinyl bromide	2.0	U	2.0	0.20	ppb v/v			03/25/21 16:04	9.98
Vinyl chloride	2.0	U	2.0	0.26	ppb v/v			03/25/21 16:04	9.98
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	2.5	J	11	1.6	ug/m3			03/25/21 16:04	9.98
1,1,2,2-Tetrachloroethane	14	U	14	2.3	ug/m3			03/25/21 16:04	9.98
1,1,2-Trichloro-1,2,2-trifluoroethane	15	U	15	3.1	ug/m3			03/25/21 16:04	9.98
1,1,2-Trichloroethane	11	U	11	2.0	ug/m3			03/25/21 16:04	9.98
1,1-Dichloroethane	8.1	U	8.1	1.1	ug/m3			03/25/21 16:04	9.98
1,1-Dichloroethene	7.9	U	7.9	0.40	ug/m3			03/25/21 16:04	9.98
1,2,4-Trichlorobenzene	150	U	150	2.5	ug/m3			03/25/21 16:04	9.98
1,2,4-Trimethylbenzene	12		9.8	0.79	ug/m3			03/25/21 16:04	9.98
1,2-Dichloro-1,1,2,2-tetrafluoroethane	14	U	14	3.6	ug/m3			03/25/21 16:04	9.98
1,2-Dichlorobenzene	12	U	12	1.1	ug/m3			03/25/21 16:04	9.98
1,2-Dichloroethane	8.1	U	8.1	2.1	ug/m3			03/25/21 16:04	9.98
1,2-Dichloropropane	9.2	U	9.2	1.6	ug/m3			03/25/21 16:04	9.98

Eurofins TestAmerica, Burlington

Client Sample Results

Client: GHD Services Inc.
Project/Site: 11223416, PCC Validation

Job ID: 200-57695-1

Client Sample ID: SG-11223416-031521-SK-006

Lab Sample ID: 200-57695-6

Date Collected: 03/15/21 16:50

Matrix: Air

Date Received: 03/17/21 10:35

Sample Container: Summa Canister 1L

Method: TO-15 - Volatile Organic Compounds in Ambient Air (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,3,5-Trimethylbenzene	5.0	J	9.8	0.93	ug/m3			03/25/21 16:04	9.98
1,3-Dichlorobenzene	12	U	12	1.2	ug/m3			03/25/21 16:04	9.98
1,4-Dichlorobenzene	12	U	12	1.1	ug/m3			03/25/21 16:04	9.98
1,4-Dioxane	180	U	180	5.8	ug/m3			03/25/21 16:04	9.98
2-Butanone (MEK)	22	J	29	2.7	ug/m3			03/25/21 16:04	9.98
4-Methyl-2-pentanone (MIBK)	20	U	20	7.4	ug/m3			03/25/21 16:04	9.98
Acetone	400		120	16	ug/m3			03/25/21 16:04	9.98
Benzene	5.4	J	6.4	0.92	ug/m3			03/25/21 16:04	9.98
Benzyl chloride	41	U	41	0.93	ug/m3			03/25/21 16:04	9.98
Bromoform	21	U *+	21	2.6	ug/m3			03/25/21 16:04	9.98
Bromomethane	3.4	J	7.8	1.7	ug/m3			03/25/21 16:04	9.98
Carbon disulfide	33		16	0.93	ug/m3			03/25/21 16:04	9.98
Carbon tetrachloride	1.7	J	13	0.69	ug/m3			03/25/21 16:04	9.98
Chlorobenzene	9.2	U	9.2	0.83	ug/m3			03/25/21 16:04	9.98
Dibromochloromethane	17	U *+	17	1.7	ug/m3			03/25/21 16:04	9.98
Chloroethane	21	U	21	1.6	ug/m3			03/25/21 16:04	9.98
Chloroform	9.7	U	9.7	1.9	ug/m3			03/25/21 16:04	9.98
Chloromethane	6.3	J	10	1.2	ug/m3			03/25/21 16:04	9.98
cis-1,2-Dichloroethene	7.9	U	7.9	1.2	ug/m3			03/25/21 16:04	9.98
cis-1,3-Dichloropropene	9.1	U	9.1	1.3	ug/m3			03/25/21 16:04	9.98
Cyclohexane	32		17	0.34	ug/m3			03/25/21 16:04	9.98
Bromodichloromethane	13	U	13	1.9	ug/m3			03/25/21 16:04	9.98
Dichlorodifluoromethane	24	J	25	2.8	ug/m3			03/25/21 16:04	9.98
Ethylbenzene	21		8.7	0.87	ug/m3			03/25/21 16:04	9.98
1,2-Dibromoethane (EDB)	15	U	15	1.4	ug/m3			03/25/21 16:04	9.98
Hexachlorobutadiene	210	U	210	3.8	ug/m3			03/25/21 16:04	9.98
Hexane	51		28	0.98	ug/m3			03/25/21 16:04	9.98
Isopropyl alcohol	46	J	120	3.7	ug/m3			03/25/21 16:04	9.98
Isopropylbenzene	2.3	J	39	0.93	ug/m3			03/25/21 16:04	9.98
m-Xylene & p-Xylene	72		35	1.1	ug/m3			03/25/21 16:04	9.98
Methyl tert-butyl ether	36	U	36	0.79	ug/m3			03/25/21 16:04	9.98
Methylene Chloride	54		17	4.2	ug/m3			03/25/21 16:04	9.98
Naphthalene	26	U	26	1.6	ug/m3			03/25/21 16:04	9.98
o-Xylene	26		8.7	0.78	ug/m3			03/25/21 16:04	9.98
Styrene	3.7	J B	8.5	0.68	ug/m3			03/25/21 16:04	9.98
Tetrachloroethene	3.5	J	14	2.0	ug/m3			03/25/21 16:04	9.98
Tetrahydrofuran	150	U	150	5.3	ug/m3			03/25/21 16:04	9.98
Toluene	18		7.5	0.94	ug/m3			03/25/21 16:04	9.98
trans-1,2-Dichloroethene	7.9	U	7.9	1.1	ug/m3			03/25/21 16:04	9.98
trans-1,3-Dichloropropene	9.1	U	9.1	1.2	ug/m3			03/25/21 16:04	9.98
Trichloroethene	11	U	11	1.6	ug/m3			03/25/21 16:04	9.98
Trichlorofluoromethane	150		11	2.5	ug/m3			03/25/21 16:04	9.98
Vinyl acetate	180	U	180	2.9	ug/m3			03/25/21 16:04	9.98
Vinyl bromide	8.7	U	8.7	0.87	ug/m3			03/25/21 16:04	9.98
Vinyl chloride	5.1	U	5.1	0.66	ug/m3			03/25/21 16:04	9.98

Eurofins TestAmerica, Burlington

QC Sample Results

Client: GHD Services Inc.
Project/Site: 11223416, PCC Validation

Job ID: 200-57695-1

Method: TO-15 - Volatile Organic Compounds in Ambient Air

Lab Sample ID: MB 200-165134/4

Matrix: Air

Analysis Batch: 165134

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	0.20	U	0.20	0.030	ppb v/v			03/24/21 13:13	1
1,1,2,2-Tetrachloroethane	0.20	U	0.20	0.034	ppb v/v			03/24/21 13:13	1
1,1,2-Trichloro-1,2,2-trifluoroethane	0.20	U	0.20	0.041	ppb v/v			03/24/21 13:13	1
1,1,2-Trichloroethane	0.20	U	0.20	0.037	ppb v/v			03/24/21 13:13	1
1,1-Dichloroethane	0.20	U	0.20	0.028	ppb v/v			03/24/21 13:13	1
1,1-Dichloroethene	0.20	U	0.20	0.010	ppb v/v			03/24/21 13:13	1
1,2,4-Trichlorobenzene	0.0448	J	2.0	0.034	ppb v/v			03/24/21 13:13	1
1,2,4-Trimethylbenzene	0.20	U	0.20	0.016	ppb v/v			03/24/21 13:13	1
1,2-Dichloro-1,1,2,2-tetrafluoroethane	0.20	U	0.20	0.052	ppb v/v			03/24/21 13:13	1
1,2-Dichlorobenzene	0.20	U	0.20	0.018	ppb v/v			03/24/21 13:13	1
1,2-Dichloroethane	0.20	U	0.20	0.052	ppb v/v			03/24/21 13:13	1
1,2-Dichloropropane	0.20	U	0.20	0.035	ppb v/v			03/24/21 13:13	1
1,3,5-Trimethylbenzene	0.20	U	0.20	0.019	ppb v/v			03/24/21 13:13	1
1,3-Dichlorobenzene	0.20	U	0.20	0.020	ppb v/v			03/24/21 13:13	1
1,4-Dichlorobenzene	0.20	U	0.20	0.019	ppb v/v			03/24/21 13:13	1
1,4-Dioxane	5.0	U	5.0	0.16	ppb v/v			03/24/21 13:13	1
2-Butanone (MEK)	1.0	U	1.0	0.092	ppb v/v			03/24/21 13:13	1
4-Methyl-2-pentanone (MIBK)	0.50	U	0.50	0.18	ppb v/v			03/24/21 13:13	1
Acetone	5.0	U	5.0	0.69	ppb v/v			03/24/21 13:13	1
Benzene	0.20	U	0.20	0.029	ppb v/v			03/24/21 13:13	1
Benzyl chloride	0.80	U	0.80	0.018	ppb v/v			03/24/21 13:13	1
Bromoform	0.20	U	0.20	0.025	ppb v/v			03/24/21 13:13	1
Bromomethane	0.20	U	0.20	0.044	ppb v/v			03/24/21 13:13	1
Carbon disulfide	0.50	U	0.50	0.030	ppb v/v			03/24/21 13:13	1
Carbon tetrachloride	0.20	U	0.20	0.011	ppb v/v			03/24/21 13:13	1
Chlorobenzene	0.20	U	0.20	0.018	ppb v/v			03/24/21 13:13	1
Dibromochloromethane	0.20	U	0.20	0.020	ppb v/v			03/24/21 13:13	1
Chloroethane	0.80	U	0.80	0.061	ppb v/v			03/24/21 13:13	1
Chloroform	0.20	U	0.20	0.038	ppb v/v			03/24/21 13:13	1
Chloromethane	0.50	U	0.50	0.060	ppb v/v			03/24/21 13:13	1
cis-1,2-Dichloroethene	0.20	U	0.20	0.030	ppb v/v			03/24/21 13:13	1
cis-1,3-Dichloropropene	0.20	U	0.20	0.029	ppb v/v			03/24/21 13:13	1
Cyclohexane	0.50	U	0.50	0.010	ppb v/v			03/24/21 13:13	1
Bromodichloromethane	0.20	U	0.20	0.029	ppb v/v			03/24/21 13:13	1
Dichlorodifluoromethane	0.50	U	0.50	0.056	ppb v/v			03/24/21 13:13	1
Ethylbenzene	0.20	U	0.20	0.020	ppb v/v			03/24/21 13:13	1
1,2-Dibromoethane (EDB)	0.20	U	0.20	0.018	ppb v/v			03/24/21 13:13	1
Hexachlorobutadiene	2.0	U	2.0	0.036	ppb v/v			03/24/21 13:13	1
Hexane	0.80	U	0.80	0.028	ppb v/v			03/24/21 13:13	1
Isopropyl alcohol	5.0	U	5.0	0.15	ppb v/v			03/24/21 13:13	1
Isopropylbenzene	0.80	U	0.80	0.019	ppb v/v			03/24/21 13:13	1
m-Xylene & p-Xylene	0.80	U	0.80	0.025	ppb v/v			03/24/21 13:13	1
Methyl tert-butyl ether	1.0	U	1.0	0.022	ppb v/v			03/24/21 13:13	1
Methylene Chloride	0.50	U	0.50	0.12	ppb v/v			03/24/21 13:13	1
Naphthalene	0.0428	J	0.50	0.030	ppb v/v			03/24/21 13:13	1
o-Xylene	0.20	U	0.20	0.018	ppb v/v			03/24/21 13:13	1
Styrene	0.20	U	0.20	0.016	ppb v/v			03/24/21 13:13	1
Tetrachloroethene	0.20	U	0.20	0.030	ppb v/v			03/24/21 13:13	1

Eurofins TestAmerica, Burlington

QC Sample Results

Client: GHD Services Inc.
Project/Site: 11223416, PCC Validation

Job ID: 200-57695-1

Method: TO-15 - Volatile Organic Compounds in Ambient Air (Continued)

Lab Sample ID: MB 200-165134/4

Matrix: Air

Analysis Batch: 165134

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Tetrahydrofuran	5.0	U	5.0	0.18	ppb v/v			03/24/21 13:13	1
Toluene	0.20	U	0.20	0.025	ppb v/v			03/24/21 13:13	1
trans-1,2-Dichloroethene	0.20	U	0.20	0.027	ppb v/v			03/24/21 13:13	1
trans-1,3-Dichloropropene	0.20	U	0.20	0.026	ppb v/v			03/24/21 13:13	1
Trichloroethene	0.20	U	0.20	0.030	ppb v/v			03/24/21 13:13	1
Trichlorofluoromethane	0.20	U	0.20	0.045	ppb v/v			03/24/21 13:13	1
Vinyl acetate	5.0	U	5.0	0.083	ppb v/v			03/24/21 13:13	1
Vinyl bromide	0.20	U	0.20	0.020	ppb v/v			03/24/21 13:13	1
Vinyl chloride	0.20	U	0.20	0.026	ppb v/v			03/24/21 13:13	1

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	1.1	U	1.1	0.16	ug/m3			03/24/21 13:13	1
1,1,2,2-Tetrachloroethane	1.4	U	1.4	0.23	ug/m3			03/24/21 13:13	1
1,1,2-Trichloro-1,2,2-trifluoroethane	1.5	U	1.5	0.31	ug/m3			03/24/21 13:13	1
1,1,2-Trichloroethane	1.1	U	1.1	0.20	ug/m3			03/24/21 13:13	1
1,1-Dichloroethane	0.81	U	0.81	0.11	ug/m3			03/24/21 13:13	1
1,1-Dichloroethene	0.79	U	0.79	0.040	ug/m3			03/24/21 13:13	1
1,2,4-Trichlorobenzene	0.332	J	15	0.25	ug/m3			03/24/21 13:13	1
1,2,4-Trimethylbenzene	0.98	U	0.98	0.079	ug/m3			03/24/21 13:13	1
1,2-Dichloro-1,1,2,2-tetrafluoroethane	1.4	U	1.4	0.36	ug/m3			03/24/21 13:13	1
1,2-Dichlorobenzene	1.2	U	1.2	0.11	ug/m3			03/24/21 13:13	1
1,2-Dichloroethane	0.81	U	0.81	0.21	ug/m3			03/24/21 13:13	1
1,2-Dichloropropane	0.92	U	0.92	0.16	ug/m3			03/24/21 13:13	1
1,3,5-Trimethylbenzene	0.98	U	0.98	0.093	ug/m3			03/24/21 13:13	1
1,3-Dichlorobenzene	1.2	U	1.2	0.12	ug/m3			03/24/21 13:13	1
1,4-Dichlorobenzene	1.2	U	1.2	0.11	ug/m3			03/24/21 13:13	1
1,4-Dioxane	18	U	18	0.58	ug/m3			03/24/21 13:13	1
2-Butanone (MEK)	2.9	U	2.9	0.27	ug/m3			03/24/21 13:13	1
4-Methyl-2-pentanone (MIBK)	2.0	U	2.0	0.74	ug/m3			03/24/21 13:13	1
Acetone	12	U	12	1.6	ug/m3			03/24/21 13:13	1
Benzene	0.64	U	0.64	0.093	ug/m3			03/24/21 13:13	1
Benzyl chloride	4.1	U	4.1	0.093	ug/m3			03/24/21 13:13	1
Bromoform	2.1	U	2.1	0.26	ug/m3			03/24/21 13:13	1
Bromomethane	0.78	U	0.78	0.17	ug/m3			03/24/21 13:13	1
Carbon disulfide	1.6	U	1.6	0.093	ug/m3			03/24/21 13:13	1
Carbon tetrachloride	1.3	U	1.3	0.069	ug/m3			03/24/21 13:13	1
Chlorobenzene	0.92	U	0.92	0.083	ug/m3			03/24/21 13:13	1
Dibromochloromethane	1.7	U	1.7	0.17	ug/m3			03/24/21 13:13	1
Chloroethane	2.1	U	2.1	0.16	ug/m3			03/24/21 13:13	1
Chloroform	0.98	U	0.98	0.19	ug/m3			03/24/21 13:13	1
Chloromethane	1.0	U	1.0	0.12	ug/m3			03/24/21 13:13	1
cis-1,2-Dichloroethene	0.79	U	0.79	0.12	ug/m3			03/24/21 13:13	1
cis-1,3-Dichloropropene	0.91	U	0.91	0.13	ug/m3			03/24/21 13:13	1
Cyclohexane	1.7	U	1.7	0.034	ug/m3			03/24/21 13:13	1
Bromodichloromethane	1.3	U	1.3	0.19	ug/m3			03/24/21 13:13	1
Dichlorodifluoromethane	2.5	U	2.5	0.28	ug/m3			03/24/21 13:13	1
Ethylbenzene	0.87	U	0.87	0.087	ug/m3			03/24/21 13:13	1
1,2-Dibromoethane (EDB)	1.5	U	1.5	0.14	ug/m3			03/24/21 13:13	1
Hexachlorobutadiene	21	U	21	0.38	ug/m3			03/24/21 13:13	1

Eurofins TestAmerica, Burlington

QC Sample Results

Client: GHD Services Inc.
Project/Site: 11223416, PCC Validation

Job ID: 200-57695-1

Method: TO-15 - Volatile Organic Compounds in Ambient Air (Continued)

Lab Sample ID: MB 200-165134/4

Matrix: Air

Analysis Batch: 165134

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Hexane	2.8	U	2.8	0.099	ug/m3			03/24/21 13:13	1
Isopropyl alcohol	12	U	12	0.37	ug/m3			03/24/21 13:13	1
Isopropylbenzene	3.9	U	3.9	0.093	ug/m3			03/24/21 13:13	1
m-Xylene & p-Xylene	3.5	U	3.5	0.11	ug/m3			03/24/21 13:13	1
Methyl tert-butyl ether	3.6	U	3.6	0.079	ug/m3			03/24/21 13:13	1
Methylene Chloride	1.7	U	1.7	0.42	ug/m3			03/24/21 13:13	1
Naphthalene	0.225	J	2.6	0.16	ug/m3			03/24/21 13:13	1
o-Xylene	0.87	U	0.87	0.078	ug/m3			03/24/21 13:13	1
Styrene	0.85	U	0.85	0.068	ug/m3			03/24/21 13:13	1
Tetrachloroethene	1.4	U	1.4	0.20	ug/m3			03/24/21 13:13	1
Tetrahydrofuran	15	U	15	0.53	ug/m3			03/24/21 13:13	1
Toluene	0.75	U	0.75	0.094	ug/m3			03/24/21 13:13	1
trans-1,2-Dichloroethene	0.79	U	0.79	0.11	ug/m3			03/24/21 13:13	1
trans-1,3-Dichloropropene	0.91	U	0.91	0.12	ug/m3			03/24/21 13:13	1
Trichloroethene	1.1	U	1.1	0.16	ug/m3			03/24/21 13:13	1
Trichlorofluoromethane	1.1	U	1.1	0.25	ug/m3			03/24/21 13:13	1
Vinyl acetate	18	U	18	0.29	ug/m3			03/24/21 13:13	1
Vinyl bromide	0.87	U	0.87	0.087	ug/m3			03/24/21 13:13	1
Vinyl chloride	0.51	U	0.51	0.066	ug/m3			03/24/21 13:13	1

Lab Sample ID: LCS 200-165134/3

Matrix: Air

Analysis Batch: 165134

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1,1-Trichloroethane	10.3	10.3		ppb v/v		100	72 - 127
1,1,2,2-Tetrachloroethane	10.3	10.6		ppb v/v		102	74 - 126
1,1,2-Trichloro-1,2,2-trifluoroethane	10.7	10.4		ppb v/v		98	70 - 121
1,1,2-Trichloroethane	10.5	10.3		ppb v/v		98	75 - 126
1,1-Dichloroethane	10.3	9.51		ppb v/v		93	66 - 130
1,1-Dichloroethene	10.2	10.0		ppb v/v		98	68 - 120
1,2,4-Trichlorobenzene	11.0	12.5		ppb v/v		114	50 - 150
1,2,4-Trimethylbenzene	10.4	11.6		ppb v/v		111	71 - 129
1,2-Dichloro-1,1,2,2-tetrafluoroethane	10.6	11.0		ppb v/v		104	71 - 141
1,2-Dichlorobenzene	10.8	12.0		ppb v/v		111	68 - 129
1,2-Dichloroethane	10.5	10.4		ppb v/v		100	68 - 135
1,2-Dichloropropane	10.3	10.4		ppb v/v		100	69 - 128
1,3,5-Trimethylbenzene	10.5	10.9		ppb v/v		104	72 - 126
1,3-Dichlorobenzene	10.2	11.9		ppb v/v		117	69 - 131
1,4-Dichlorobenzene	10.4	11.9		ppb v/v		115	67 - 132
1,4-Dioxane	10.3	10.7		ppb v/v		104	66 - 129
2-Butanone (MEK)	10.4	10.4		ppb v/v		100	72 - 124
4-Methyl-2-pentanone (MIBK)	10.2	9.59		ppb v/v		94	58 - 144
Acetone	10.4	9.05		ppb v/v		87	54 - 154
Benzene	10.4	10.7		ppb v/v		103	73 - 119
Benzyl chloride	10.2	10.8		ppb v/v		106	60 - 136
Bromoform	10.3	9.42		ppb v/v		91	53 - 149

Eurofins TestAmerica, Burlington

QC Sample Results

Client: GHD Services Inc.
Project/Site: 11223416, PCC Validation

Job ID: 200-57695-1

Method: TO-15 - Volatile Organic Compounds in Ambient Air (Continued)

Lab Sample ID: LCS 200-165134/3

Matrix: Air

Analysis Batch: 165134

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Bromomethane	10.4	9.69		ppb v/v		93	72 - 124
Carbon disulfide	10.4	10.9		ppb v/v		105	71 - 138
Carbon tetrachloride	10.0	10.3		ppb v/v		102	71 - 133
Chlorobenzene	10.5	10.4		ppb v/v		100	76 - 119
Dibromochloromethane	10.6	9.42		ppb v/v		89	73 - 125
Chloroethane	10.6	10.3		ppb v/v		98	68 - 130
Chloroform	10.3	9.35		ppb v/v		91	73 - 124
Chloromethane	9.94	10.9		ppb v/v		109	56 - 141
cis-1,2-Dichloroethene	10.4	9.14		ppb v/v		88	72 - 121
cis-1,3-Dichloropropene	9.94	9.73		ppb v/v		98	74 - 125
Cyclohexane	10.2	10.4		ppb v/v		102	76 - 124
Bromodichloromethane	10.3	9.86		ppb v/v		96	75 - 127
Dichlorodifluoromethane	10.6	10.5		ppb v/v		99	61 - 142
Ethylbenzene	10.2	10.0		ppb v/v		98	74 - 122
1,2-Dibromoethane (EDB)	10.7	10.3		ppb v/v		96	78 - 122
Hexachlorobutadiene	10.8	11.2		ppb v/v		103	58 - 130
Hexane	10.5	9.94		ppb v/v		95	63 - 138
Isopropyl alcohol	10.2	9.44		ppb v/v		93	53 - 142
Isopropylbenzene	10.5	10.3		ppb v/v		99	73 - 123
m-Xylene & p-Xylene	20.0	21.2		ppb v/v		106	76 - 121
Methyl tert-butyl ether	10.6	9.76		ppb v/v		92	70 - 127
Methylene Chloride	10.2	9.86		ppb v/v		96	59 - 137
Naphthalene	10.5	12.4		ppb v/v		118	50 - 150
o-Xylene	10.4	10.4		ppb v/v		101	73 - 123
Styrene	10.3	10.8		ppb v/v		105	74 - 125
Tetrachloroethene	10.5	9.60		ppb v/v		92	70 - 125
Tetrahydrofuran	9.81	10.4		ppb v/v		106	60 - 149
Toluene	10.2	9.80		ppb v/v		96	75 - 122
trans-1,2-Dichloroethene	10.3	10.4		ppb v/v		101	69 - 137
trans-1,3-Dichloropropene	9.85	9.31		ppb v/v		95	74 - 128
Trichloroethene	10.3	9.73		ppb v/v		95	73 - 122
Trichlorofluoromethane	10.4	9.78		ppb v/v		94	70 - 129
Vinyl acetate	10.1	9.21		ppb v/v		91	59 - 149
Vinyl bromide	10.0	9.82		ppb v/v		98	75 - 125
Vinyl chloride	9.99	9.78		ppb v/v		98	61 - 135
Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1,1-Trichloroethane	56	56.1		ug/m3		100	72 - 127
1,1,2,2-Tetrachloroethane	71	72.8		ug/m3		102	74 - 126
1,1,2-Trichloro-1,2,2-trifluoroethane	82	79.9		ug/m3		98	70 - 121
1,1,2-Trichloroethane	57	56.0		ug/m3		98	75 - 126
1,1-Dichloroethane	42	38.5		ug/m3		93	66 - 130
1,1-Dichloroethene	40	39.7		ug/m3		98	68 - 120
1,2,4-Trichlorobenzene	81	93.1		ug/m3		114	50 - 150
1,2,4-Trimethylbenzene	51	56.9		ug/m3		111	71 - 129
1,2-Dichloro-1,1,2,2-tetrafluoroethane	74	77.1		ug/m3		104	71 - 141
1,2-Dichlorobenzene	65	72.0		ug/m3		111	68 - 129

Eurofins TestAmerica, Burlington

QC Sample Results

Client: GHD Services Inc.
Project/Site: 11223416, PCC Validation

Job ID: 200-57695-1

Method: TO-15 - Volatile Organic Compounds in Ambient Air (Continued)

Lab Sample ID: LCS 200-165134/3

Matrix: Air

Analysis Batch: 165134

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,2-Dichloroethane	42	42.2		ug/m3		100	68 - 135
1,2-Dichloropropane	48	48.0		ug/m3		100	69 - 128
1,3,5-Trimethylbenzene	52	53.7		ug/m3		104	72 - 126
1,3-Dichlorobenzene	61	71.3		ug/m3		117	69 - 131
1,4-Dichlorobenzene	63	71.8		ug/m3		115	67 - 132
1,4-Dioxane	37	38.7		ug/m3		104	66 - 129
2-Butanone (MEK)	31	30.6		ug/m3		100	72 - 124
4-Methyl-2-pentanone (MIBK)	42	39.3		ug/m3		94	58 - 144
Acetone	25	21.5		ug/m3		87	54 - 154
Benzene	33	34.2		ug/m3		103	73 - 119
Benzyl chloride	53	55.9		ug/m3		106	60 - 136
Bromoform	110	97.4		ug/m3		91	53 - 149
Bromomethane	40	37.6		ug/m3		93	72 - 124
Carbon disulfide	32	33.8		ug/m3		105	71 - 138
Carbon tetrachloride	63	64.5		ug/m3		102	71 - 133
Chlorobenzene	48	48.1		ug/m3		100	76 - 119
Dibromochloromethane	90	80.2		ug/m3		89	73 - 125
Chloroethane	28	27.2		ug/m3		98	68 - 130
Chloroform	50	45.6		ug/m3		91	73 - 124
Chloromethane	21	22.5		ug/m3		109	56 - 141
cis-1,2-Dichloroethene	41	36.3		ug/m3		88	72 - 121
cis-1,3-Dichloropropene	45	44.2		ug/m3		98	74 - 125
Cyclohexane	35	35.8		ug/m3		102	76 - 124
Bromodichloromethane	69	66.1		ug/m3		96	75 - 127
Dichlorodifluoromethane	52	51.9		ug/m3		99	61 - 142
Ethylbenzene	44	43.6		ug/m3		98	74 - 122
1,2-Dibromoethane (EDB)	82	79.0		ug/m3		96	78 - 122
Hexachlorobutadiene	120	119		ug/m3		103	58 - 130
Hexane	37	35.0		ug/m3		95	63 - 138
Isopropyl alcohol	25	23.2		ug/m3		93	53 - 142
Isopropylbenzene	51	50.8		ug/m3		99	73 - 123
m-Xylene & p-Xylene	87	92.2		ug/m3		106	76 - 121
Methyl tert-butyl ether	38	35.2		ug/m3		92	70 - 127
Methylene Chloride	36	34.3		ug/m3		96	59 - 137
Naphthalene	55	65.0		ug/m3		118	50 - 150
o-Xylene	45	45.3		ug/m3		101	73 - 123
Styrene	44	46.1		ug/m3		105	74 - 125
Tetrachloroethene	71	65.1		ug/m3		92	70 - 125
Tetrahydrofuran	29	30.6		ug/m3		106	60 - 149
Toluene	38	36.9		ug/m3		96	75 - 122
trans-1,2-Dichloroethene	41	41.2		ug/m3		101	69 - 137
trans-1,3-Dichloropropene	45	42.2		ug/m3		95	74 - 128
Trichloroethene	55	52.3		ug/m3		95	73 - 122
Trichlorofluoromethane	58	55.0		ug/m3		94	70 - 129
Vinyl acetate	35	32.4		ug/m3		91	59 - 149
Vinyl bromide	44	43.0		ug/m3		98	75 - 125
Vinyl chloride	26	25.0		ug/m3		98	61 - 135

Eurofins TestAmerica, Burlington

QC Sample Results

Client: GHD Services Inc.
Project/Site: 11223416, PCC Validation

Job ID: 200-57695-1

Method: TO-15 - Volatile Organic Compounds in Ambient Air (Continued)

Lab Sample ID: MB 200-165168/4

Matrix: Air

Analysis Batch: 165168

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	0.20	U	0.20	0.030	ppb v/v			03/25/21 09:51	1
1,1,2,2-Tetrachloroethane	0.20	U	0.20	0.034	ppb v/v			03/25/21 09:51	1
1,1,2-Trichloro-1,2,2-trifluoroethane	0.20	U	0.20	0.041	ppb v/v			03/25/21 09:51	1
1,1,2-Trichloroethane	0.20	U	0.20	0.037	ppb v/v			03/25/21 09:51	1
1,1-Dichloroethane	0.20	U	0.20	0.028	ppb v/v			03/25/21 09:51	1
1,1-Dichloroethene	0.20	U	0.20	0.010	ppb v/v			03/25/21 09:51	1
1,2,4-Trichlorobenzene	0.134	J	2.0	0.034	ppb v/v			03/25/21 09:51	1
1,2,4-Trimethylbenzene	0.20	U	0.20	0.016	ppb v/v			03/25/21 09:51	1
1,2-Dichloro-1,1,2,2-tetrafluoroethane	0.20	U	0.20	0.052	ppb v/v			03/25/21 09:51	1
1,2-Dichlorobenzene	0.0489	J	0.20	0.018	ppb v/v			03/25/21 09:51	1
1,2-Dichloroethane	0.20	U	0.20	0.052	ppb v/v			03/25/21 09:51	1
1,2-Dichloropropane	0.20	U	0.20	0.035	ppb v/v			03/25/21 09:51	1
1,3,5-Trimethylbenzene	0.20	U	0.20	0.019	ppb v/v			03/25/21 09:51	1
1,3-Dichlorobenzene	0.0486	J	0.20	0.020	ppb v/v			03/25/21 09:51	1
1,4-Dichlorobenzene	0.0571	J	0.20	0.019	ppb v/v			03/25/21 09:51	1
1,4-Dioxane	5.0	U	5.0	0.16	ppb v/v			03/25/21 09:51	1
2-Butanone (MEK)	1.0	U	1.0	0.092	ppb v/v			03/25/21 09:51	1
4-Methyl-2-pentanone (MIBK)	0.50	U	0.50	0.18	ppb v/v			03/25/21 09:51	1
Acetone	5.0	U	5.0	0.69	ppb v/v			03/25/21 09:51	1
Benzene	0.20	U	0.20	0.029	ppb v/v			03/25/21 09:51	1
Benzyl chloride	0.0570	J	0.80	0.018	ppb v/v			03/25/21 09:51	1
Bromoform	0.0569	J	0.20	0.025	ppb v/v			03/25/21 09:51	1
Bromomethane	0.20	U	0.20	0.044	ppb v/v			03/25/21 09:51	1
Carbon disulfide	0.50	U	0.50	0.030	ppb v/v			03/25/21 09:51	1
Carbon tetrachloride	0.20	U	0.20	0.011	ppb v/v			03/25/21 09:51	1
Chlorobenzene	0.20	U	0.20	0.018	ppb v/v			03/25/21 09:51	1
Dibromochloromethane	0.20	U	0.20	0.020	ppb v/v			03/25/21 09:51	1
Chloroethane	0.80	U	0.80	0.061	ppb v/v			03/25/21 09:51	1
Chloroform	0.20	U	0.20	0.038	ppb v/v			03/25/21 09:51	1
Chloromethane	0.50	U	0.50	0.060	ppb v/v			03/25/21 09:51	1
cis-1,2-Dichloroethene	0.20	U	0.20	0.030	ppb v/v			03/25/21 09:51	1
cis-1,3-Dichloropropene	0.20	U	0.20	0.029	ppb v/v			03/25/21 09:51	1
Cyclohexane	0.50	U	0.50	0.010	ppb v/v			03/25/21 09:51	1
Bromodichloromethane	0.20	U	0.20	0.029	ppb v/v			03/25/21 09:51	1
Dichlorodifluoromethane	0.50	U	0.50	0.056	ppb v/v			03/25/21 09:51	1
Ethylbenzene	0.20	U	0.20	0.020	ppb v/v			03/25/21 09:51	1
1,2-Dibromoethane (EDB)	0.20	U	0.20	0.018	ppb v/v			03/25/21 09:51	1
Hexachlorobutadiene	2.0	U	2.0	0.036	ppb v/v			03/25/21 09:51	1
Hexane	0.80	U	0.80	0.028	ppb v/v			03/25/21 09:51	1
Isopropyl alcohol	5.0	U	5.0	0.15	ppb v/v			03/25/21 09:51	1
Isopropylbenzene	0.80	U	0.80	0.019	ppb v/v			03/25/21 09:51	1
m-Xylene & p-Xylene	0.80	U	0.80	0.025	ppb v/v			03/25/21 09:51	1
Methyl tert-butyl ether	1.0	U	1.0	0.022	ppb v/v			03/25/21 09:51	1
Methylene Chloride	0.50	U	0.50	0.12	ppb v/v			03/25/21 09:51	1
Naphthalene	0.103	J	0.50	0.030	ppb v/v			03/25/21 09:51	1
o-Xylene	0.20	U	0.20	0.018	ppb v/v			03/25/21 09:51	1
Styrene	0.0186	J	0.20	0.016	ppb v/v			03/25/21 09:51	1
Tetrachloroethene	0.20	U	0.20	0.030	ppb v/v			03/25/21 09:51	1

Eurofins TestAmerica, Burlington

QC Sample Results

Client: GHD Services Inc.
Project/Site: 11223416, PCC Validation

Job ID: 200-57695-1

Method: TO-15 - Volatile Organic Compounds in Ambient Air (Continued)

Lab Sample ID: MB 200-165168/4

Matrix: Air

Analysis Batch: 165168

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Tetrahydrofuran	5.0	U	5.0	0.18	ppb v/v			03/25/21 09:51	1
Toluene	0.20	U	0.20	0.025	ppb v/v			03/25/21 09:51	1
trans-1,2-Dichloroethene	0.20	U	0.20	0.027	ppb v/v			03/25/21 09:51	1
trans-1,3-Dichloropropene	0.20	U	0.20	0.026	ppb v/v			03/25/21 09:51	1
Trichloroethene	0.20	U	0.20	0.030	ppb v/v			03/25/21 09:51	1
Trichlorofluoromethane	0.20	U	0.20	0.045	ppb v/v			03/25/21 09:51	1
Vinyl acetate	5.0	U	5.0	0.083	ppb v/v			03/25/21 09:51	1
Vinyl bromide	0.20	U	0.20	0.020	ppb v/v			03/25/21 09:51	1
Vinyl chloride	0.20	U	0.20	0.026	ppb v/v			03/25/21 09:51	1
Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	1.1	U	1.1	0.16	ug/m3			03/25/21 09:51	1
1,1,2,2-Tetrachloroethane	1.4	U	1.4	0.23	ug/m3			03/25/21 09:51	1
1,1,2-Trichloro-1,2,2-trifluoroethane	1.5	U	1.5	0.31	ug/m3			03/25/21 09:51	1
1,1,2-Trichloroethane	1.1	U	1.1	0.20	ug/m3			03/25/21 09:51	1
1,1-Dichloroethane	0.81	U	0.81	0.11	ug/m3			03/25/21 09:51	1
1,1-Dichloroethene	0.79	U	0.79	0.040	ug/m3			03/25/21 09:51	1
1,2,4-Trichlorobenzene	0.995	J	15	0.25	ug/m3			03/25/21 09:51	1
1,2,4-Trimethylbenzene	0.98	U	0.98	0.079	ug/m3			03/25/21 09:51	1
1,2-Dichloro-1,1,2,2-tetrafluoroethane	1.4	U	1.4	0.36	ug/m3			03/25/21 09:51	1
1,2-Dichlorobenzene	0.294	J	1.2	0.11	ug/m3			03/25/21 09:51	1
1,2-Dichloroethane	0.81	U	0.81	0.21	ug/m3			03/25/21 09:51	1
1,2-Dichloropropane	0.92	U	0.92	0.16	ug/m3			03/25/21 09:51	1
1,3,5-Trimethylbenzene	0.98	U	0.98	0.093	ug/m3			03/25/21 09:51	1
1,3-Dichlorobenzene	0.292	J	1.2	0.12	ug/m3			03/25/21 09:51	1
1,4-Dichlorobenzene	0.343	J	1.2	0.11	ug/m3			03/25/21 09:51	1
1,4-Dioxane	18	U	18	0.58	ug/m3			03/25/21 09:51	1
2-Butanone (MEK)	2.9	U	2.9	0.27	ug/m3			03/25/21 09:51	1
4-Methyl-2-pentanone (MIBK)	2.0	U	2.0	0.74	ug/m3			03/25/21 09:51	1
Acetone	12	U	12	1.6	ug/m3			03/25/21 09:51	1
Benzene	0.64	U	0.64	0.093	ug/m3			03/25/21 09:51	1
Benzyl chloride	0.295	J	4.1	0.093	ug/m3			03/25/21 09:51	1
Bromoform	0.588	J	2.1	0.26	ug/m3			03/25/21 09:51	1
Bromomethane	0.78	U	0.78	0.17	ug/m3			03/25/21 09:51	1
Carbon disulfide	1.6	U	1.6	0.093	ug/m3			03/25/21 09:51	1
Carbon tetrachloride	1.3	U	1.3	0.069	ug/m3			03/25/21 09:51	1
Chlorobenzene	0.92	U	0.92	0.083	ug/m3			03/25/21 09:51	1
Dibromochloromethane	1.7	U	1.7	0.17	ug/m3			03/25/21 09:51	1
Chloroethane	2.1	U	2.1	0.16	ug/m3			03/25/21 09:51	1
Chloroform	0.98	U	0.98	0.19	ug/m3			03/25/21 09:51	1
Chloromethane	1.0	U	1.0	0.12	ug/m3			03/25/21 09:51	1
cis-1,2-Dichloroethene	0.79	U	0.79	0.12	ug/m3			03/25/21 09:51	1
cis-1,3-Dichloropropene	0.91	U	0.91	0.13	ug/m3			03/25/21 09:51	1
Cyclohexane	1.7	U	1.7	0.034	ug/m3			03/25/21 09:51	1
Bromodichloromethane	1.3	U	1.3	0.19	ug/m3			03/25/21 09:51	1
Dichlorodifluoromethane	2.5	U	2.5	0.28	ug/m3			03/25/21 09:51	1
Ethylbenzene	0.87	U	0.87	0.087	ug/m3			03/25/21 09:51	1
1,2-Dibromoethane (EDB)	1.5	U	1.5	0.14	ug/m3			03/25/21 09:51	1
Hexachlorobutadiene	21	U	21	0.38	ug/m3			03/25/21 09:51	1

Eurofins TestAmerica, Burlington

QC Sample Results

Client: GHD Services Inc.
Project/Site: 11223416, PCC Validation

Job ID: 200-57695-1

Method: TO-15 - Volatile Organic Compounds in Ambient Air (Continued)

Lab Sample ID: MB 200-165168/4

Matrix: Air

Analysis Batch: 165168

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Hexane	2.8	U	2.8	0.099	ug/m3			03/25/21 09:51	1
Isopropyl alcohol	12	U	12	0.37	ug/m3			03/25/21 09:51	1
Isopropylbenzene	3.9	U	3.9	0.093	ug/m3			03/25/21 09:51	1
m-Xylene & p-Xylene	3.5	U	3.5	0.11	ug/m3			03/25/21 09:51	1
Methyl tert-butyl ether	3.6	U	3.6	0.079	ug/m3			03/25/21 09:51	1
Methylene Chloride	1.7	U	1.7	0.42	ug/m3			03/25/21 09:51	1
Naphthalene	0.539	J	2.6	0.16	ug/m3			03/25/21 09:51	1
o-Xylene	0.87	U	0.87	0.078	ug/m3			03/25/21 09:51	1
Styrene	0.0793	J	0.85	0.068	ug/m3			03/25/21 09:51	1
Tetrachloroethene	1.4	U	1.4	0.20	ug/m3			03/25/21 09:51	1
Tetrahydrofuran	15	U	15	0.53	ug/m3			03/25/21 09:51	1
Toluene	0.75	U	0.75	0.094	ug/m3			03/25/21 09:51	1
trans-1,2-Dichloroethene	0.79	U	0.79	0.11	ug/m3			03/25/21 09:51	1
trans-1,3-Dichloropropene	0.91	U	0.91	0.12	ug/m3			03/25/21 09:51	1
Trichloroethene	1.1	U	1.1	0.16	ug/m3			03/25/21 09:51	1
Trichlorofluoromethane	1.1	U	1.1	0.25	ug/m3			03/25/21 09:51	1
Vinyl acetate	18	U	18	0.29	ug/m3			03/25/21 09:51	1
Vinyl bromide	0.87	U	0.87	0.087	ug/m3			03/25/21 09:51	1
Vinyl chloride	0.51	U	0.51	0.066	ug/m3			03/25/21 09:51	1

Lab Sample ID: LCS 200-165168/3

Matrix: Air

Analysis Batch: 165168

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1,1-Trichloroethane	10.3	11.1		ppb v/v		107	72 - 127
1,1,2,2-Tetrachloroethane	10.3	11.0		ppb v/v		107	74 - 126
1,1,2-Trichloro-1,2,2-trifluoroethane	10.7	11.1		ppb v/v		104	70 - 121
1,1,2-Trichloroethane	10.5	11.1		ppb v/v		106	75 - 126
1,1-Dichloroethane	10.3	10.2		ppb v/v		100	66 - 130
1,1-Dichloroethene	10.2	10.1		ppb v/v		99	68 - 120
1,2,4-Trichlorobenzene	11.0	11.2		ppb v/v		102	50 - 150
1,2,4-Trimethylbenzene	10.4	11.0		ppb v/v		106	71 - 129
1,2-Dichloro-1,1,2,2-tetrafluoroethane	10.6	11.1		ppb v/v		104	71 - 141
1,2-Dichlorobenzene	10.8	10.8		ppb v/v		101	68 - 129
1,2-Dichloroethane	10.5	11.9		ppb v/v		113	68 - 135
1,2-Dichloropropane	10.3	11.3		ppb v/v		109	69 - 128
1,3,5-Trimethylbenzene	10.5	11.0		ppb v/v		105	72 - 126
1,3-Dichlorobenzene	10.2	11.1		ppb v/v		109	69 - 131
1,4-Dichlorobenzene	10.4	11.0		ppb v/v		106	67 - 132
1,4-Dioxane	10.3	11.9		ppb v/v		115	66 - 129
2-Butanone (MEK)	10.4	11.0		ppb v/v		106	72 - 124
4-Methyl-2-pentanone (MIBK)	10.2	11.6		ppb v/v		114	58 - 144
Acetone	10.4	12.0		ppb v/v		115	54 - 154
Benzene	10.4	10.9		ppb v/v		105	73 - 119
Benzyl chloride	10.2	12.3		ppb v/v		121	60 - 136
Bromoform	10.3	36.2	*+	ppb v/v		352	53 - 149

Eurofins TestAmerica, Burlington

QC Sample Results

Client: GHD Services Inc.
Project/Site: 11223416, PCC Validation

Job ID: 200-57695-1

Method: TO-15 - Volatile Organic Compounds in Ambient Air (Continued)

Lab Sample ID: LCS 200-165168/3

Matrix: Air

Analysis Batch: 165168

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Bromomethane	10.4	11.2		ppb v/v		108	72 - 124
Carbon disulfide	10.4	9.90		ppb v/v		96	71 - 138
Carbon tetrachloride	10.0	10.4		ppb v/v		103	71 - 133
Chlorobenzene	10.5	10.9		ppb v/v		104	76 - 119
Dibromochloromethane	10.6	14.1	*+	ppb v/v		133	73 - 125
Chloroethane	10.6	11.3		ppb v/v		107	68 - 130
Chloroform	10.3	11.1		ppb v/v		108	73 - 124
Chloromethane	9.94	11.7		ppb v/v		117	56 - 141
cis-1,2-Dichloroethene	10.4	9.67		ppb v/v		93	72 - 121
cis-1,3-Dichloropropene	9.94	11.6		ppb v/v		117	74 - 125
Cyclohexane	10.2	10.9		ppb v/v		106	76 - 124
Bromodichloromethane	10.3	12.4		ppb v/v		121	75 - 127
Dichlorodifluoromethane	10.6	10.9		ppb v/v		103	61 - 142
Ethylbenzene	10.2	10.7		ppb v/v		105	74 - 122
1,2-Dibromoethane (EDB)	10.7	11.4		ppb v/v		107	78 - 122
Hexachlorobutadiene	10.8	11.2		ppb v/v		103	58 - 130
Hexane	10.5	12.0		ppb v/v		114	63 - 138
Isopropyl alcohol	10.2	11.4		ppb v/v		112	53 - 142
Isopropylbenzene	10.5	11.0		ppb v/v		105	73 - 123
m-Xylene & p-Xylene	20.0	21.7		ppb v/v		108	76 - 121
Methyl tert-butyl ether	10.6	11.7		ppb v/v		111	70 - 127
Methylene Chloride	10.2	11.4		ppb v/v		111	59 - 137
Naphthalene	10.5	9.66		ppb v/v		92	50 - 150
o-Xylene	10.4	10.9		ppb v/v		105	73 - 123
Styrene	10.3	11.3		ppb v/v		110	74 - 125
Tetrachloroethene	10.5	9.77		ppb v/v		93	70 - 125
Tetrahydrofuran	9.81	11.1		ppb v/v		113	60 - 149
Toluene	10.2	10.7		ppb v/v		105	75 - 122
trans-1,2-Dichloroethene	10.3	11.5		ppb v/v		112	69 - 137
trans-1,3-Dichloropropene	9.85	11.4		ppb v/v		115	74 - 128
Trichloroethene	10.3	10.3		ppb v/v		100	73 - 122
Trichlorofluoromethane	10.4	11.8		ppb v/v		114	70 - 129
Vinyl acetate	10.1	12.2		ppb v/v		121	59 - 149
Vinyl bromide	10.0	11.7		ppb v/v		116	75 - 125
Vinyl chloride	9.99	10.8		ppb v/v		108	61 - 135
Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1,1-Trichloroethane	56	60.3		ug/m3		107	72 - 127
1,1,2,2-Tetrachloroethane	71	75.7		ug/m3		107	74 - 126
1,1,2-Trichloro-1,2,2-trifluoroethane	82	85.4		ug/m3		104	70 - 121
1,1,2-Trichloroethane	57	60.6		ug/m3		106	75 - 126
1,1-Dichloroethane	42	41.5		ug/m3		100	66 - 130
1,1-Dichloroethene	40	39.9		ug/m3		99	68 - 120
1,2,4-Trichlorobenzene	81	83.3		ug/m3		102	50 - 150
1,2,4-Trimethylbenzene	51	54.2		ug/m3		106	71 - 129
1,2-Dichloro-1,1,2,2-tetrafluoroethane	74	77.3		ug/m3		104	71 - 141
1,2-Dichlorobenzene	65	65.0		ug/m3		101	68 - 129

Eurofins TestAmerica, Burlington

QC Sample Results

Client: GHD Services Inc.
Project/Site: 11223416, PCC Validation

Job ID: 200-57695-1

Method: TO-15 - Volatile Organic Compounds in Ambient Air (Continued)

Lab Sample ID: LCS 200-165168/3

Matrix: Air

Analysis Batch: 165168

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,2-Dichloroethane	42	48.0		ug/m3		113	68 - 135
1,2-Dichloropropane	48	52.2		ug/m3		109	69 - 128
1,3,5-Trimethylbenzene	52	54.2		ug/m3		105	72 - 126
1,3-Dichlorobenzene	61	66.6		ug/m3		109	69 - 131
1,4-Dichlorobenzene	63	66.3		ug/m3		106	67 - 132
1,4-Dioxane	37	42.8		ug/m3		115	66 - 129
2-Butanone (MEK)	31	32.5		ug/m3		106	72 - 124
4-Methyl-2-pentanone (MIBK)	42	47.4		ug/m3		114	58 - 144
Acetone	25	28.4		ug/m3		115	54 - 154
Benzene	33	34.9		ug/m3		105	73 - 119
Benzyl chloride	53	63.7		ug/m3		121	60 - 136
Bromoform	110	374	*+	ug/m3		352	53 - 149
Bromomethane	40	43.6		ug/m3		108	72 - 124
Carbon disulfide	32	30.8		ug/m3		96	71 - 138
Carbon tetrachloride	63	65.4		ug/m3		103	71 - 133
Chlorobenzene	48	50.0		ug/m3		104	76 - 119
Dibromochloromethane	90	120	*+	ug/m3		133	73 - 125
Chloroethane	28	29.7		ug/m3		107	68 - 130
Chloroform	50	54.3		ug/m3		108	73 - 124
Chloromethane	21	24.1		ug/m3		117	56 - 141
cis-1,2-Dichloroethene	41	38.3		ug/m3		93	72 - 121
cis-1,3-Dichloropropene	45	52.6		ug/m3		117	74 - 125
Cyclohexane	35	37.4		ug/m3		106	76 - 124
Bromodichloromethane	69	83.4		ug/m3		121	75 - 127
Dichlorodifluoromethane	52	54.0		ug/m3		103	61 - 142
Ethylbenzene	44	46.5		ug/m3		105	74 - 122
1,2-Dibromoethane (EDB)	82	87.9		ug/m3		107	78 - 122
Hexachlorobutadiene	120	119		ug/m3		103	58 - 130
Hexane	37	42.2		ug/m3		114	63 - 138
Isopropyl alcohol	25	28.0		ug/m3		112	53 - 142
Isopropylbenzene	51	54.2		ug/m3		105	73 - 123
m-Xylene & p-Xylene	87	94.0		ug/m3		108	76 - 121
Methyl tert-butyl ether	38	42.2		ug/m3		111	70 - 127
Methylene Chloride	36	39.6		ug/m3		111	59 - 137
Naphthalene	55	50.6		ug/m3		92	50 - 150
o-Xylene	45	47.1		ug/m3		105	73 - 123
Styrene	44	48.2		ug/m3		110	74 - 125
Tetrachloroethene	71	66.2		ug/m3		93	70 - 125
Tetrahydrofuran	29	32.7		ug/m3		113	60 - 149
Toluene	38	40.3		ug/m3		105	75 - 122
trans-1,2-Dichloroethene	41	45.7		ug/m3		112	69 - 137
trans-1,3-Dichloropropene	45	51.6		ug/m3		115	74 - 128
Trichloroethene	55	55.3		ug/m3		100	73 - 122
Trichlorofluoromethane	58	66.5		ug/m3		114	70 - 129
Vinyl acetate	35	42.8		ug/m3		121	59 - 149
Vinyl bromide	44	51.2		ug/m3		116	75 - 125
Vinyl chloride	26	27.6		ug/m3		108	61 - 135

Eurofins TestAmerica, Burlington

QC Association Summary

Client: GHD Services Inc.
Project/Site: 11223416, PCC Validation

Job ID: 200-57695-1

Air - GC/MS VOA

Analysis Batch: 165134

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
200-57695-1	SG-11223416-031521-SK-001	Total/NA	Air	TO-15	
200-57695-2	SG-11223416-031521-SK-002	Total/NA	Air	TO-15	
200-57695-3	SG-11223416-031521-SK-003	Total/NA	Air	TO-15	
MB 200-165134/4	Method Blank	Total/NA	Air	TO-15	
LCS 200-165134/3	Lab Control Sample	Total/NA	Air	TO-15	

Analysis Batch: 165168

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
200-57695-4	SG-11223416-031521-SK-004	Total/NA	Air	TO-15	
200-57695-5	SG-11223416-031521-SK-005	Total/NA	Air	TO-15	
200-57695-6	SG-11223416-031521-SK-006	Total/NA	Air	TO-15	
MB 200-165168/4	Method Blank	Total/NA	Air	TO-15	
LCS 200-165168/3	Lab Control Sample	Total/NA	Air	TO-15	

Lab Chronicle

Client: GHD Services Inc.
Project/Site: 11223416, PCC Validation

Job ID: 200-57695-1

Client Sample ID: SG-11223416-031521-SK-001

Lab Sample ID: 200-57695-1

Date Collected: 03/15/21 12:05

Matrix: Air

Date Received: 03/17/21 10:35

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO-15		10	165134	03/25/21 03:46	K1P	TAL BUR

Client Sample ID: SG-11223416-031521-SK-002

Lab Sample ID: 200-57695-2

Date Collected: 03/15/21 13:44

Matrix: Air

Date Received: 03/17/21 10:35

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO-15		15	165134	03/25/21 04:40	K1P	TAL BUR

Client Sample ID: SG-11223416-031521-SK-003

Lab Sample ID: 200-57695-3

Date Collected: 03/15/21 13:46

Matrix: Air

Date Received: 03/17/21 10:35

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO-15		15	165134	03/25/21 05:34	K1P	TAL BUR

Client Sample ID: SG-11223416-031521-SK-004

Lab Sample ID: 200-57695-4

Date Collected: 03/15/21 15:20

Matrix: Air

Date Received: 03/17/21 10:35

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO-15		10	165168	03/25/21 14:18	TPB	TAL BUR

Client Sample ID: SG-11223416-031521-SK-005

Lab Sample ID: 200-57695-5

Date Collected: 03/15/21 16:02

Matrix: Air

Date Received: 03/17/21 10:35

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO-15		10	165168	03/25/21 15:11	TPB	TAL BUR

Client Sample ID: SG-11223416-031521-SK-006

Lab Sample ID: 200-57695-6

Date Collected: 03/15/21 16:50

Matrix: Air

Date Received: 03/17/21 10:35

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO-15		9.98	165168	03/25/21 16:04	TPB	TAL BUR

Laboratory References:

TAL BUR = Eurofins TestAmerica, Burlington, 530 Community Drive, Suite 11, South Burlington, VT 05403, TEL (802)660-1990

Accreditation/Certification Summary

Client: GHD Services Inc.
Project/Site: 11223416, PCC Validation

Job ID: 200-57695-1

Laboratory: Eurofins TestAmerica, Burlington

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

Authority	Program	Identification Number	Expiration Date
ANAB	Dept. of Defense ELAP	L2336	02-25-23
Connecticut	State	PH-0751	09-30-21
DE Haz. Subst. Cleanup Act (HSCA)	State	N/A	05-16-21
Florida	NELAP	E87467	06-30-21
Minnesota	NELAP	050-999-436	12-31-21
New Hampshire	NELAP	2006	12-18-21
New Jersey	NELAP	VT972	06-30-21
New York	NELAP	10391	04-01-21
Pennsylvania	NELAP	68-00489	04-30-21
Rhode Island	State	LAO00298	12-30-21
US Fish & Wildlife	US Federal Programs	058448	07-31-21
USDA	US Federal Programs	P330-17-00272	10-30-23
Vermont	State	VT4000	02-10-22
Virginia	NELAP	460209	12-14-21
Wisconsin	State	399133350	08-31-21

Method Summary

Client: GHD Services Inc.
Project/Site: 11223416, PCC Validation

Job ID: 200-57695-1

Method	Method Description	Protocol	Laboratory
TO-15	Volatile Organic Compounds in Ambient Air	EPA	TAL BUR

Protocol References:

EPA = US Environmental Protection Agency

Laboratory References:

TAL BUR = Eurofins TestAmerica, Burlington, 530 Community Drive, Suite 11, South Burlington, VT 05403, TEL (802)660-1990

Sample Summary

Client: GHD Services Inc.
Project/Site: 11223416, PCC Validation

Job ID: 200-57695-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
200-57695-1	SG-11223416-031521-SK-001	Air	03/15/21 12:05	03/17/21 10:35	Air Canister (1-Liter) #3812
200-57695-2	SG-11223416-031521-SK-002	Air	03/15/21 13:44	03/17/21 10:35	Air Canister (1-Liter) #6420
200-57695-3	SG-11223416-031521-SK-003	Air	03/15/21 13:46	03/17/21 10:35	Air Canister (1-Liter) #5919
200-57695-4	SG-11223416-031521-SK-004	Air	03/15/21 15:20	03/17/21 10:35	Air Canister (1-Liter) #34001949
200-57695-5	SG-11223416-031521-SK-005	Air	03/15/21 16:02	03/17/21 10:35	Air Canister (1-Liter) #4652
200-57695-6	SG-11223416-031521-SK-006	Air	03/15/21 16:50	03/17/21 10:35	Air Canister (1-Liter) #34000660



Environment Testing
Test America

ORIGIN ID: BTVA (802) 923-1058
SCOTT KIPREN
GHD SERVICES INC.
26850 HAGGERTY RD.

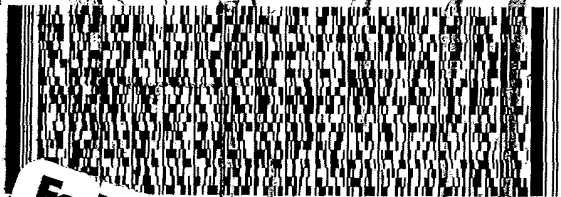
FARMINGTON HILLS, MI 48331
UNITED STATES US

SHIP DATE: 04MAR21
ACTWGT: 10.00 LB MAX
CAD: 000890364/CAFE9313

TO **SAMPLE MANAGEMENT**
EUROFINS TESTAMERICA BURLINGTON
30 COMMUNITY DRIVE
SUITE 11
SOUTH BURLINGTON VT 05403

(802) 923-1058
REF: S240-80666

RMA. 11-11-11



FedEx
Express



FedEx
TRK#
0221

9785 6691 7271

NL BTVA

RETURNS MON-SAT
PRIORITY OVERNIGHT
WED - 17 MAR '21
PRIORITY OVERNIGHT

05403
VT-US
BTVA



600660 16Mar2021 DE0A 56DG3/AC39/1B23

Login Sample Receipt Checklist

Client: GHD Services Inc.

Job Number: 200-57695-1

Login Number: 57695

List Source: Eurofins TestAmerica, Burlington

List Number: 1

Creator: Dawicki, Don C

Question	Answer	Comment
Radioactivity wasn't checked or is $\leq$ background as measured by a survey meter.	N/A	Lab does not accept radioactive samples.
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	N/A	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	N/A	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is $<6\text{mm}$ (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Canister Cleaning & Pre-Shipment Leak Test

Batch Certification: The reading is taken on the "batch" canister and this value is used as the initial pressure for all canisters in the batch.

Difference = Final Pressure - Initial Pressure. Acceptance Criteria: (1) The difference must be less than or equal to + 0.25psi. (2) Pressure readings must be at least 24 hours apart.

If time frame was not met, the PM must authorize shipment of canister

PM Authorization

Date:

Clean Canister Certification Analysis & Authorization of Release to Inventory

Test Method: ☒ T015 Routine ☐ T015 LL

Test Method: ☒ TO15 Routine ☐ TO15 LL			
Can ID	Date	Sequence	Analyst

Inv

Inventory Level

1

Secondary Review

Review

200-56862-A-5

6430

Location: Air-Storage

Bottle: Summa Canister 1L

Sampled: 1/14/2021 12:00 AM 200-1460317

Loc: 200

56862

#5 A

Air-Storage

Inventory Level 1: Individual Canister Certification (TO15LL 0.01).

Inventory Level 2: Individual or Batch Certification (TO15 0.04 ppbv).

Inventory Level 3: Individual or Batch Certification (TO15 0.2 ppbv).

Inventory Level Limited: Canisters may only be used for certain projects.

Dup Tees/Vac gauges (enter IDs if included):

Comments:

Form ID: FAI023:12

Revision Date: 12/18/2018

TestAmerica Burlington

Canister Cleaning & Pre-Shipment Leak Test

¹ Batch Certification: The reading is taken on the "batch" canister and this value is used as the initial pressure for all canisters in the batch.

If time frame was not met, the PM must authorize shipment of canister

PM Authorization

Date:

Clean Canister Certification Analysis & Authorization of Release to Inventory

Inventory Level 1: Individual Canister Certification (TO15LL 0.01).

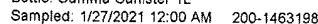
Inventory Level 2: Individual or Batch Certification (TO15 0.04 ppbv).

Inventory Level 3: Individual or Batch Certification (TO15 0.2 ppbv).

Inventory Level Limited: Canisters may only be used for certain projects.

Dup Tees/Vac gauges (enter IDs if included):

Comments:



Air-Storage

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Burlington Job No.: 200-56862-1
 SDG No.: _____
 Client Sample ID: 6430 Lab Sample ID: 200-56862-5
 Matrix: Air Lab File ID: 200-44474-007.D
 Analysis Method: TO-15 Date Collected: 01/14/2021 00:00
 Sample wt/vol: 200 (mL) Date Analyzed: 01/18/2021 12:39
 Soil Aliquot Vol: _____ Dilution Factor: 1
 Soil Extract Vol.: _____ GC Column: RTX-624 ID: 0.32 (mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 163023 Units: ppb v/v

CAS NO.	COMPOUND NAME	RESULT	Q	RL	RL
115-07-1	Propylene	5.0	U	5.0	5.0
75-71-8	Dichlorodifluoromethane	0.50	U	0.50	0.50
75-45-6	Freon 22	0.50	U	0.50	0.50
76-14-2	1,2-Dichlorotetrafluoroethane	0.20	U	0.20	0.20
74-87-3	Chloromethane	0.50	U	0.50	0.50
106-97-8	n-Butane	0.50	U	0.50	0.50
75-01-4	Vinyl chloride	0.20	U	0.20	0.20
106-99-0	1,3-Butadiene	0.20	U	0.20	0.20
74-83-9	Bromomethane	0.20	U	0.20	0.20
75-00-3	Chloroethane	0.50	U	0.50	0.50
593-60-2	Bromoethene (Vinyl Bromide)	0.20	U	0.20	0.20
75-69-4	Trichlorofluoromethane	0.20	U	0.20	0.20
64-17-5	Ethanol	5.0	U	5.0	5.0
76-13-1	Freon TF	0.20	U	0.20	0.20
75-35-4	1,1-Dichloroethene	0.20	U	0.20	0.20
67-64-1	Acetone	5.0	U	5.0	5.0
67-63-0	Isopropyl alcohol	5.0	U	5.0	5.0
75-15-0	Carbon disulfide	0.50	U	0.50	0.50
107-05-1	3-Chloropropene	0.50	U	0.50	0.50
75-09-2	Methylene Chloride	0.50	U	0.50	0.50
75-65-0	tert-Butyl alcohol	5.0	U	5.0	5.0
1634-04-4	Methyl tert-butyl ether	0.20	U	0.20	0.20
156-60-5	trans-1,2-Dichloroethene	0.20	U	0.20	0.20
110-54-3	n-Hexane	0.20	U	0.20	0.20
75-34-3	1,1-Dichloroethane	0.20	U	0.20	0.20
108-05-4	Vinyl acetate	5.0	U	5.0	5.0
141-78-6	Ethyl acetate	5.0	U	5.0	5.0
78-93-3	Methyl Ethyl Ketone	0.50	U	0.50	0.50
156-59-2	cis-1,2-Dichloroethene	0.20	U	0.20	0.20
540-59-0	1,2-Dichloroethene, Total	0.40	U	0.40	0.40
67-66-3	Chloroform	0.20	U	0.20	0.20
109-99-9	Tetrahydrofuran	5.0	U	5.0	5.0
71-55-6	1,1,1-Trichloroethane	0.20	U **	0.20	0.20
110-82-7	Cyclohexane	0.20	U	0.20	0.20
56-23-5	Carbon tetrachloride	0.20	U **	0.20	0.20
540-84-1	2,2,4-Trimethylpentane	0.20	U	0.20	0.20

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Burlington Job No.: 200-56862-1
 SDG No.: _____
 Client Sample ID: 6430 Lab Sample ID: 200-56862-5
 Matrix: Air Lab File ID: 200-44474-007.D
 Analysis Method: TO-15 Date Collected: 01/14/2021 00:00
 Sample wt/vol: 200 (mL) Date Analyzed: 01/18/2021 12:39
 Soil Aliquot Vol: _____ Dilution Factor: 1
 Soil Extract Vol.: _____ GC Column: RTX-624 ID: 0.32 (mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 163023 Units: ppb v/v

CAS NO.	COMPOUND NAME	RESULT	Q	RL	RL
71-43-2	Benzene	0.20	U	0.20	0.20
107-06-2	1,2-Dichloroethane	0.20	U **	0.20	0.20
142-82-5	n-Heptane	0.20	U	0.20	0.20
79-01-6	Trichloroethene	0.20	U	0.20	0.20
80-62-6	Methyl methacrylate	0.50	U	0.50	0.50
78-87-5	1,2-Dichloropropane	0.20	U	0.20	0.20
123-91-1	1,4-Dioxane	5.0	U	5.0	5.0
75-27-4	Bromodichloromethane	0.20	U	0.20	0.20
10061-01-5	cis-1,3-Dichloropropene	0.20	U	0.20	0.20
108-10-1	methyl isobutyl ketone	0.50	U	0.50	0.50
108-88-3	Toluene	0.20	U	0.20	0.20
10061-02-6	trans-1,3-Dichloropropene	0.20	U	0.20	0.20
79-00-5	1,1,2-Trichloroethane	0.20	U	0.20	0.20
127-18-4	Tetrachloroethene	0.20	U	0.20	0.20
591-78-6	Methyl Butyl Ketone (2-Hexanone)	0.50	U	0.50	0.50
124-48-1	Dibromochloromethane	0.20	U	0.20	0.20
106-93-4	1,2-Dibromoethane	0.20	U	0.20	0.20
108-90-7	Chlorobenzene	0.20	U	0.20	0.20
100-41-4	Ethylbenzene	0.20	U	0.20	0.20
179601-23-1	m,p-Xylene	0.50	U	0.50	0.50
95-47-6	Xylene, o-	0.20	U	0.20	0.20
1330-20-7	Xylene (total)	0.70	U	0.70	0.70
100-42-5	Styrene	0.20	U	0.20	0.20
75-25-2	Bromoform	0.20	U	0.20	0.20
98-82-8	Cumene	0.20	U	0.20	0.20
79-34-5	1,1,2,2-Tetrachloroethane	0.20	U	0.20	0.20
103-65-1	n-Propylbenzene	0.20	U	0.20	0.20
622-96-8	4-Ethyltoluene	0.20	U	0.20	0.20
108-67-8	1,3,5-Trimethylbenzene	0.20	U	0.20	0.20
95-49-8	2-Chlorotoluene	0.20	U	0.20	0.20
98-06-6	tert-Butylbenzene	0.20	U	0.20	0.20
95-63-6	1,2,4-Trimethylbenzene	0.20	U	0.20	0.20
135-98-8	sec-Butylbenzene	0.20	U	0.20	0.20
99-87-6	4-Isopropyltoluene	0.20	U	0.20	0.20
541-73-1	1,3-Dichlorobenzene	0.20	U	0.20	0.20
106-46-7	1,4-Dichlorobenzene	0.20	U	0.20	0.20

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Burlington Job No.: 200-56862-1
 SDG No.: _____
 Client Sample ID: 6430 Lab Sample ID: 200-56862-5
 Matrix: Air Lab File ID: 200-44474-007.D
 Analysis Method: TO-15 Date Collected: 01/14/2021 00:00
 Sample wt/vol: 200 (mL) Date Analyzed: 01/18/2021 12:39
 Soil Aliquot Vol: _____ Dilution Factor: 1
 Soil Extract Vol.: _____ GC Column: RTX-624 ID: 0.32 (mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 163023 Units: ppb v/v

CAS NO.	COMPOUND NAME	RESULT	Q	RL	RL
100-44-7	Benzyl chloride	0.20	U	0.20	0.20
104-51-8	n-Butylbenzene	0.20	U	0.20	0.20
95-50-1	1,2-Dichlorobenzene	0.20	U	0.20	0.20
120-82-1	1,2,4-Trichlorobenzene	0.50	U	0.50	0.50
87-68-3	Hexachlorobutadiene	0.20	U	0.20	0.20
91-20-3	Naphthalene	0.50	U	0.50	0.50

Eurofins TestAmerica, Burlington
Target Compound Quantitation Report

Data File: \\chromfs\Burlington\ChromData\CHG.i\20210118-44474.b\200-44474-007.D
 Lims ID: 200-56862-A-5
 Client ID: 6430
 Sample Type: Client
 Inject. Date: 18-Jan-2021 12:39:30 ALS Bottle#: 6 Worklist Smp#: 7
 Purge Vol: 200.000 mL Dil. Factor: 1.0000
 Sample Info: 200-0044474-007
 Operator ID: ggg Instrument ID: CHG.i
 Method: \\chromfs\Burlington\ChromData\CHG.i\20210118-44474.b\TO15_MasterMethod_(v1)_G.m
 Limit Group: AI_TO15_ICAL
 Last Update: 19-Jan-2021 08:26:32 Calib Date: 09-Dec-2020 17:31:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\chromfs\Burlington\ChromData\CHG.i\202101209-43976.b\200-43976-009.D
 Column 1 : RTX-624 (0.32 mm) Det: MS SCAN
 Process Host: CTX1603

First Level Reviewer: bunmaa

Date: 19-Jan-2021 08:26:32

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ppb v/v	Flags
1 Propene	41		3.049				ND	U
2 Dichlorodifluoromethane	85	3.107	3.102	0.005	95	3459	0.1071	
3 Chlorodifluoromethane	51	3.123	3.123	0.005	61	1177	0.0853	M
4 1,2-Dichloro-1,1,2,2-tetrafluoro	85	3.321	3.311	0.010	83	3451	0.1233	
5 Chloromethane	50		3.386				ND	U
7 Vinyl chloride	62		3.573				ND	U
6 Butane	43		3.584				ND	U
8 Butadiene	54	3.648	3.648	0.000	46	811	0.1720	
10 Bromomethane	94	4.113	4.113	-0.006	38	853	0.0898	M
11 Chloroethane	64		4.306				ND	U
13 Vinyl bromide	106		4.621				ND	U
14 Trichlorofluoromethane	101	4.750	4.750	0.000	32	3800	0.1254	
17 Ethanol	45		4.969				ND	7
21 1,1-Dichloroethene	96		5.616				ND	MU
22 Acetone	43		5.638				ND	7
20 112TCTFE	101	5.659	5.659	0.000	54	2048	0.0969	M
24 Isopropyl alcohol	45		5.873				ND	7
23 Carbon disulfide	76	5.996	5.996	0.005	66	1798	0.0743	M
25 3-Chloro-1-propene	41	6.232	6.232	0.016	22	745	0.0915	M
27 Methylene Chloride	49		6.419				ND	U
28 2-Methyl-2-propanol	59		6.590				ND	MU
31 trans-1,2-Dichloroethene	61	6.922	6.916	0.006	28	777	0.0594	
29 Methyl tert-butyl ether	73		6.932				ND	U
33 Hexane	57	7.441	7.441	0.006	59	423	0.0455	M
34 1,1-Dichloroethane	63	7.639	7.639	0.000	6	649	0.0439	M
35 Vinyl acetate	43		7.649				ND	7
38 2-Butanone (MEK)	72		8.564				ND	U
37 cis-1,2-Dichloroethene	96		8.602				ND	U
39 Ethyl acetate	88		8.677				ND	
* 40 Chlorobromomethane	128	9.013	9.008	0.005	79	110111	10.0	
41 Tetrahydrofuran	42		9.088				ND	7
42 Chloroform	83	9.190	9.184	0.000	35	915	0.0394	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ppb v/v	Flags
44 1,1,1-Trichloroethane	97		9.532				ND	MU
S 30 1,2-Dichloroethene, Total	61				0		0.0594	
43 Cyclohexane	84		9.704				ND	MU
45 Carbon tetrachloride	117	9.821	9.821	-0.016	50	1757	0.0582	M
47 Benzene	78		10.180				ND	U
48 1,2-Dichloroethane	62	10.239	10.239	0.006	40	906	0.0626	M
46 Isooctane	57	10.485	10.485	0.016	59	2955	0.0692	M
49 n-Heptane	43		10.811				ND	U
* 50 1,4-Difluorobenzene	114	10.982	10.982	0.000	95	604747	10.0	
53 Trichloroethene	95	11.490	11.490	0.016	9	1725	0.0846	M
54 1,2-Dichloropropane	63		11.956				ND	
55 Methyl methacrylate	69		12.095				ND	
56 1,4-Dioxane	88		12.116				ND	7
57 Dibromomethane	174	12.116	12.132	-0.006	65	1231	0.0605	
58 Dichlorobromomethane	83	12.475	12.475	0.000	27	2167	0.0710	M
60 cis-1,3-Dichloropropene	75		13.374				ND	MU
61 4-Methyl-2-pentanone (MIBK)	43		13.673				ND	7
65 Toluene	92	14.106	14.106	0.016	39	2823	0.1210	M
66 trans-1,3-Dichloropropene	75		14.518				ND	U
67 1,1,2-Trichloroethane	83		14.909				ND	MU
68 Tetrachloroethene	166	15.176	15.176	0.000	57	2545	0.0997	M
69 2-Hexanone	43		15.385				ND	MU
71 Chlorodibromomethane	129	15.701	15.701	-0.005	35	2933	0.0875	M
72 Ethylene Dibromide	107	15.968	15.968	0.021	38	2260	0.0967	M
* 74 Chlorobenzene-d5	117	16.942	16.942	0.000	89	530975	10.0	
75 Chlorobenzene	112	17.006	17.006	0.000	68	3094	0.0924	
76 Ethylbenzene	91	17.241	17.241	0.005	47	6823	0.1294	M
78 m-Xylene & p-Xylene	106	17.520	17.520	0.011	0	3220	0.1689	M
79 o-Xylene	106	18.338	18.338	0.016	28	2538	0.1294	M
80 Styrene	104	18.343	18.343	-0.011	23	1571	0.0540	M
81 Bromoform	173	18.696	18.696	-0.006	42	2245	0.0755	M
82 Isopropylbenzene	105	19.119	19.119	0.011	12	4032	0.0751	M
S 73 Xylenes, Total	106				0		0.2983	
84 1,1,2,2-Tetrachloroethane	83	19.654	19.654	0.005	1	2305	0.0776	M
85 N-Propylbenzene	91	19.911	19.911	0.000	51	3668	0.0570	M
89 2-Chlorotoluene	91		20.045				ND	U
88 4-Ethyltoluene	105	20.130	20.125	0.005	26	4374	0.0816	
90 1,3,5-Trimethylbenzene	105	20.237	20.232	0.005	28	3834	0.0796	
92 tert-Butylbenzene	119	20.745	20.745	0.000	69	4270	0.0968	
93 1,2,4-Trimethylbenzene	105	20.842	20.836	0.006	25	4443	0.0931	
94 sec-Butylbenzene	105	21.093	21.093	0.000	36	5343	0.0809	
96 1,3-Dichlorobenzene	146	21.259	21.254	0.005	33	3988	0.1137	
95 4-Isopropyltoluene	119	21.318	21.318	-0.005	33	5136	0.0882	M
97 1,4-Dichlorobenzene	146	21.409	21.409	0.006	32	4502	0.1264	M
98 Benzyl chloride	91	21.553	21.553	0.000	0	3171	0.0892	M
100 n-Butylbenzene	91	21.901	21.901	0.000	88	3506	0.0698	
101 1,2-Dichlorobenzene	146	21.901	21.901	0.000	79	3365	0.0970	
103 1,2,4-Trichlorobenzene	180		24.303				ND	U
104 Hexachlorobutadiene	225		24.570				ND	U
105 Naphthalene	128	24.752	24.752	0.000	23	4379	0.0860	M

QC Flag Legend

Processing Flags

7 - Failed Limit of Detection

Review Flags

M - Manually Integrated

U - Marked Undetected

Reagents:

ATTO15GIS_00017

Amount Added: 20.00

Units: mL

Run Reagent

1
2
3
4
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6
7
8
9
10
11
12
13
14
15
16

Eurofins TestAmerica, Burlington

Data File: \\chromfs\Burlington\ChromData\CHG.i\20210118-44474.b\200-44474-007.D

Injection Date: 18-Jan-2021 12:39:30

Instrument ID: CHG.i

Operator ID: ggg

Lims ID: 200-56862-A-5

Lab Sample ID: 200-56862-5

Worklist Smp#: 7

Client ID: 6430

Purge Vol: 200.000 mL

Dil. Factor: 1.0000

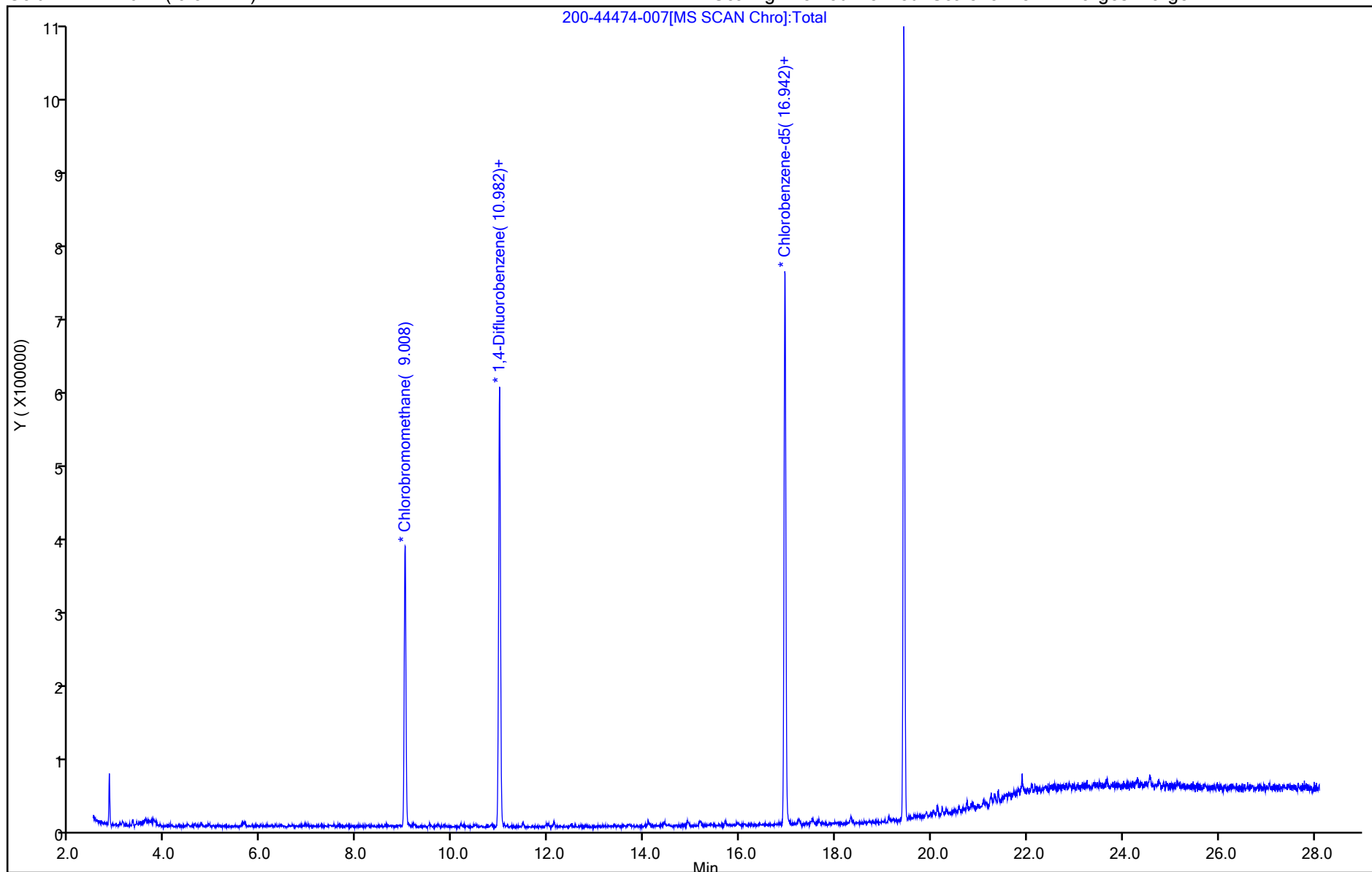
ALS Bottle#: 6

Method: TO15_MasterMethod_(v1)_G

Limit Group: AI_TO15_ICAL

Column: RTX-624 (0.32 mm)

Y Scaling: Method Defined: Scale to the Nth Largest Target: 1

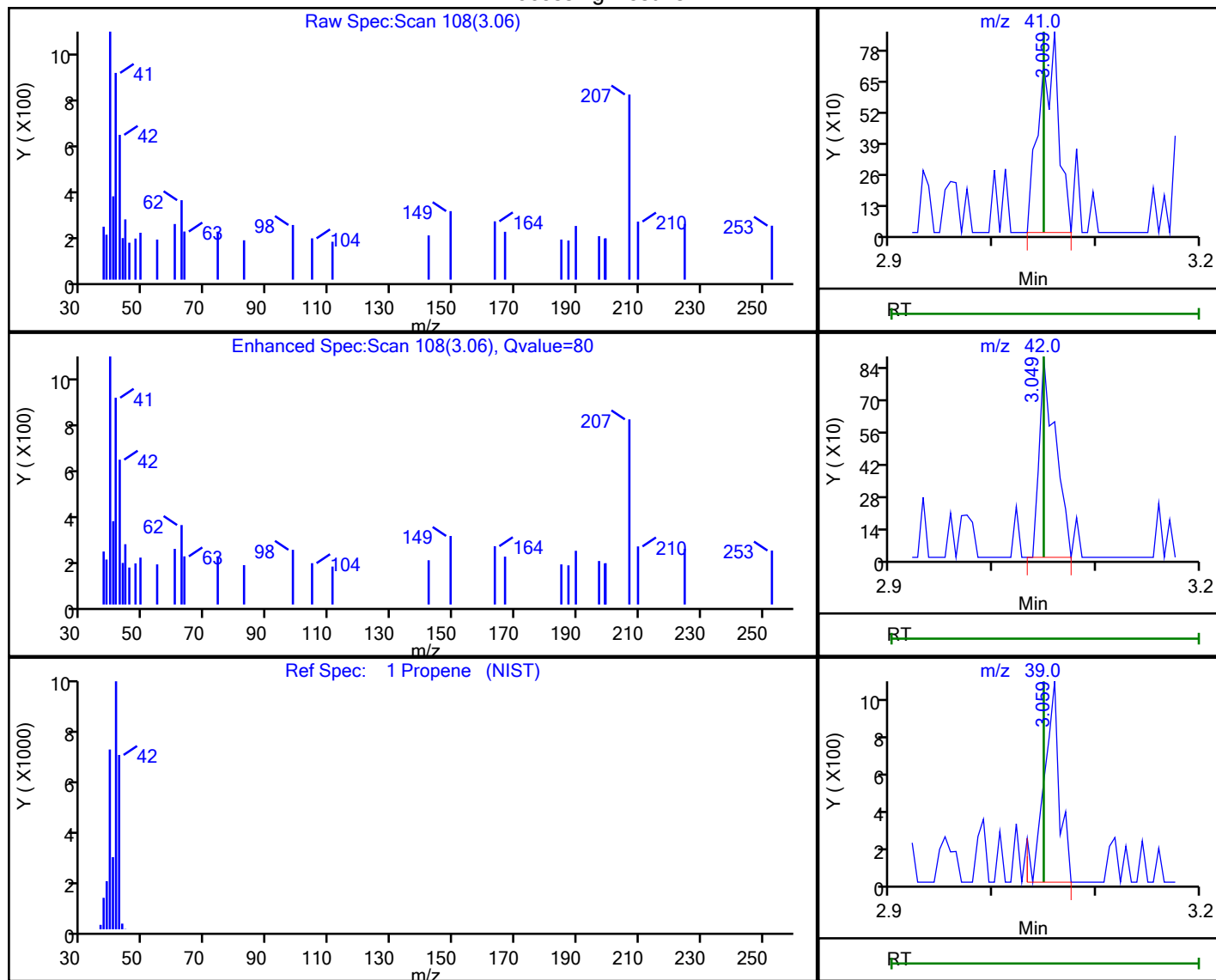


Eurofins TestAmerica, Burlington

Data File: \\chromfs\Burlington\ChromData\CHG.i\20210118-44474.b\200-44474-007.D
Injection Date: 18-Jan-2021 12:39:30 Instrument ID: CHG.i
Lims ID: 200-56862-A-5 Lab Sample ID: 200-56862-5
Client ID: 6430
Operator ID: ggg ALS Bottle#: 6 Worklist Smp#: 7
Purge Vol: 200.000 mL Dil. Factor: 1.0000
Method: TO15_MasterMethod_(v1)_G Limit Group: AI_TO15_ICAL
Column: RTX-624 (0.32 mm) Detector MS SCAN

1 Propene, CAS: 115-07-1

Processing Results



RT	Mass	Response	Amount
3.06	41.00	1083	0.224283
3.05	42.00	963	
3.06	39.00	1075	

Reviewer: bunmaa, 19-Jan-2021 07:57:30

Audit Action: Marked Compound Undetected

Audit Reason: Invalid Compound ID

Eurofins TestAmerica, Burlington

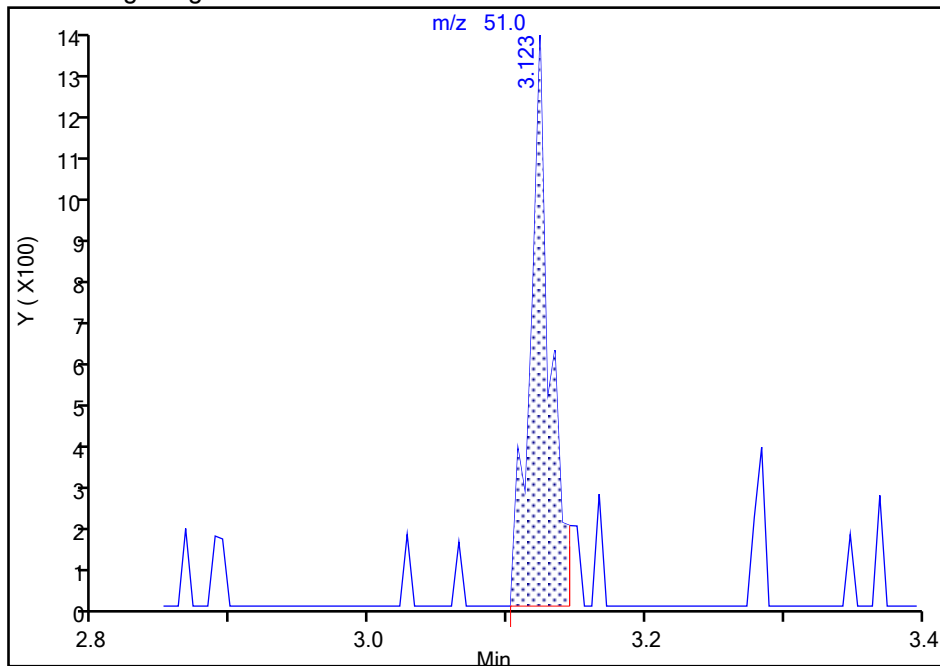
Data File:	\\chromfs\Burlington\ChromData\CHG.i\20210118-44474.b\200-44474-007.D		
Injection Date:	18-Jan-2021 12:39:30	Instrument ID:	CHG.i
Lims ID:	200-56862-A-5	Lab Sample ID:	200-56862-5
Client ID:	6430		
Operator ID:	ggg	ALS Bottle#:	6
Purge Vol:	200.000 mL	Dil. Factor:	1.0000
Method:	TO15_MasterMethod_(v1)_G	Limit Group:	AI_TO15_ICAL
Column:	RTX-624 (0.32 mm)	Detector:	MS SCAN
		Worklist Smp#:	7

3 Chlorodifluoromethane, CAS: 75-45-6

Signal: 1

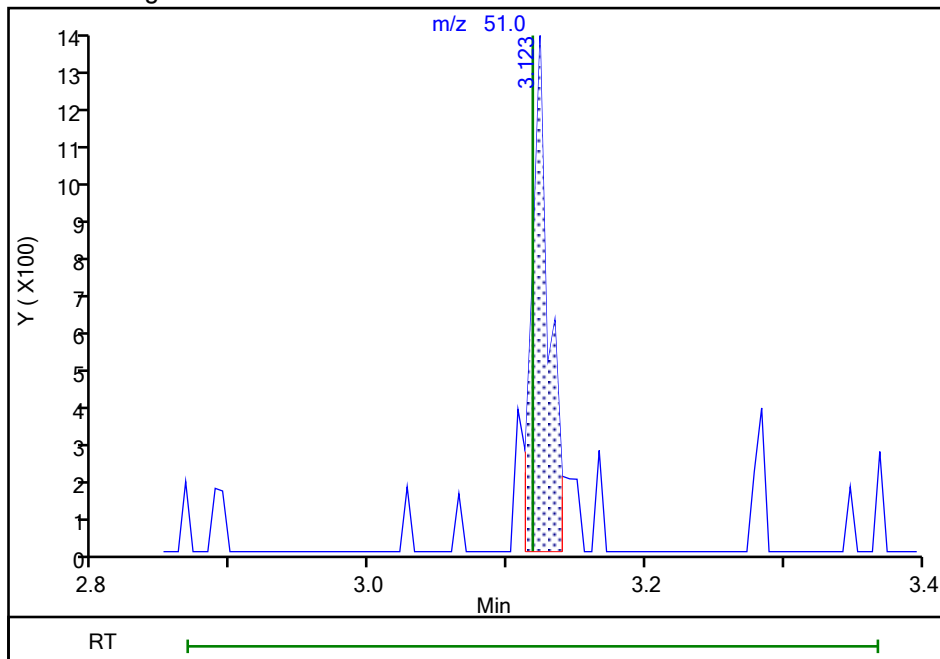
RT: 3.12
Area: 1359
Amount: 0.098449
Amount Units: ppb v/v

Processing Integration Results



RT: 3.12
Area: 1177
Amount: 0.085264
Amount Units: ppb v/v

Manual Integration Results



Reviewer: bunmaa, 19-Jan-2021 07:57:56

Audit Action: Manually Integrated

Audit Reason: Assign Peak

Eurofins TestAmerica, Burlington

Data File: \\chromfs\Burlington\ChromData\CHG.i\20210118-44474.b\200-44474-007.D

Injection Date: 18-Jan-2021 12:39:30

Instrument ID: CHG.i

Lims ID: 200-56862-A-5

Lab Sample ID: 200-56862-5

Client ID: 6430

Operator ID: ggg

ALS Bottle#: 6

Worklist Smp#: 7

Purge Vol: 200.000 mL

Dil. Factor: 1.0000

Method: TO15_MasterMethod_(v1)_G

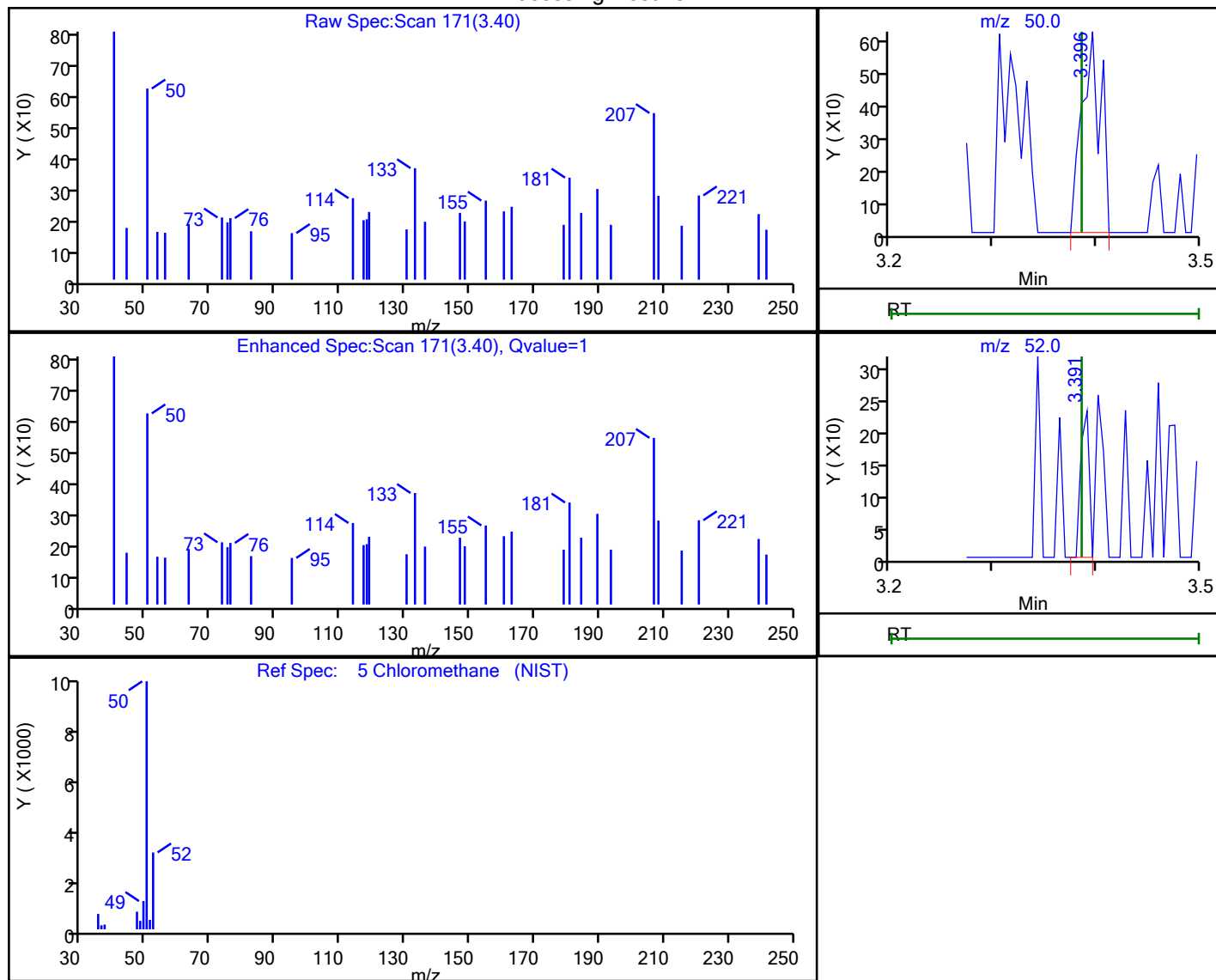
Limit Group: AI_TO15_ICAL

Column: RTX-624 (0.32 mm)

Detector: MS SCAN

5 Chloromethane, CAS: 74-87-3

Processing Results



RT	Mass	Response	Amount
3.40	50.00	791	0.144878
3.39	52.00	131	

Reviewer: bunmaa, 19-Jan-2021 07:58:33

Audit Action: Marked Compound Undetected

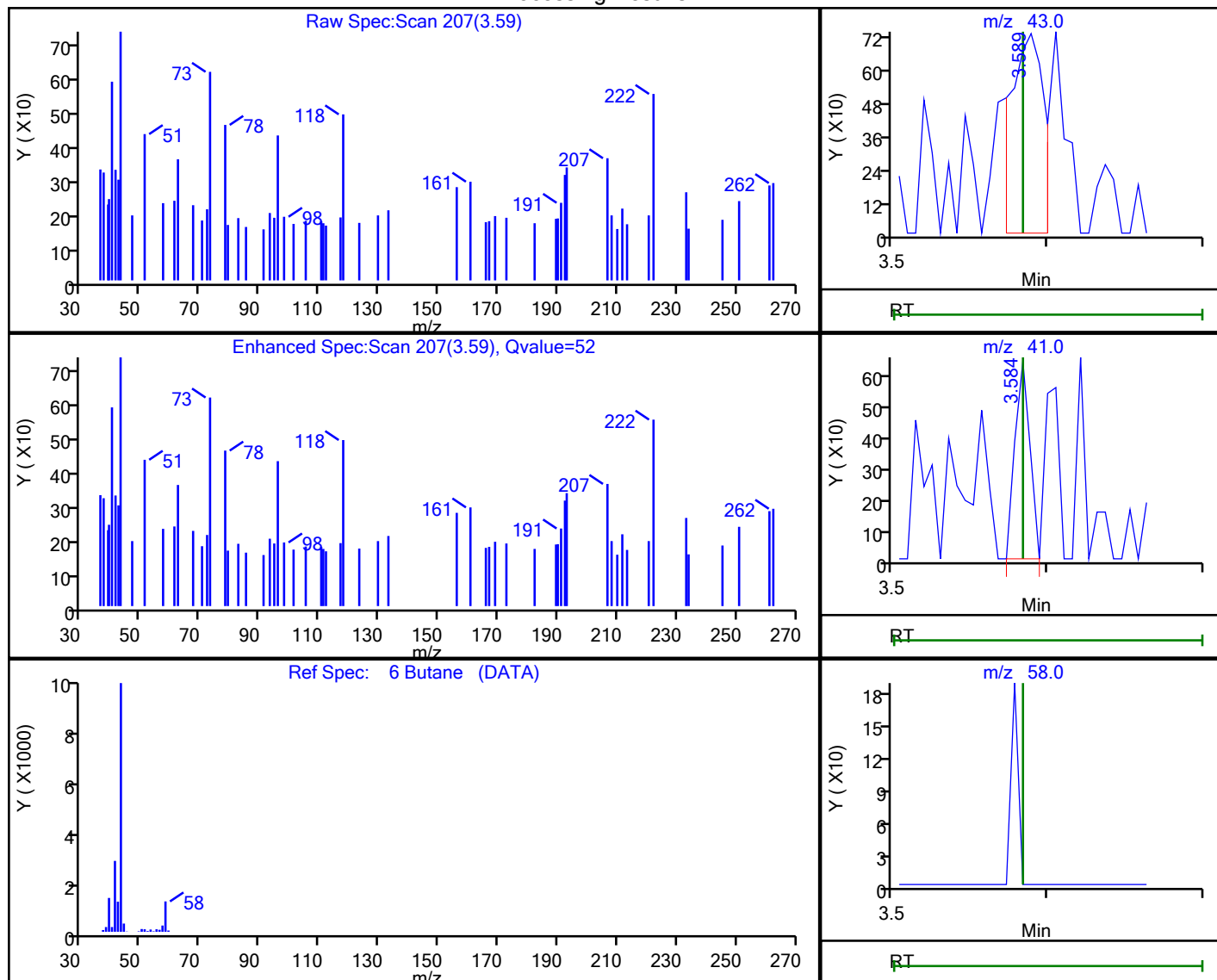
Audit Reason: Invalid Compound ID

Eurofins TestAmerica, Burlington

Data File: \\chromfs\Burlington\ChromData\CHG.i\20210118-44474.b\200-44474-007.D
Injection Date: 18-Jan-2021 12:39:30 Instrument ID: CHG.i
Lims ID: 200-56862-A-5 Lab Sample ID: 200-56862-5
Client ID: 6430
Operator ID: ggg ALS Bottle#: 6 Worklist Smp#: 7
Purge Vol: 200.000 mL Dil. Factor: 1.0000
Method: TO15_MasterMethod_(v1)_G Limit Group: AI_TO15_ICAL
Column: RTX-624 (0.32 mm) Detector MS SCAN

6 Butane, CAS: 106-97-8

Processing Results



RT	Mass	Response	Amount
3.59	43.00	1107	0.128368
3.58	41.00	433	
3.58	58.00	0	

Reviewer: bunmaa, 19-Jan-2021 07:59:00

Audit Action: Marked Compound Undetected

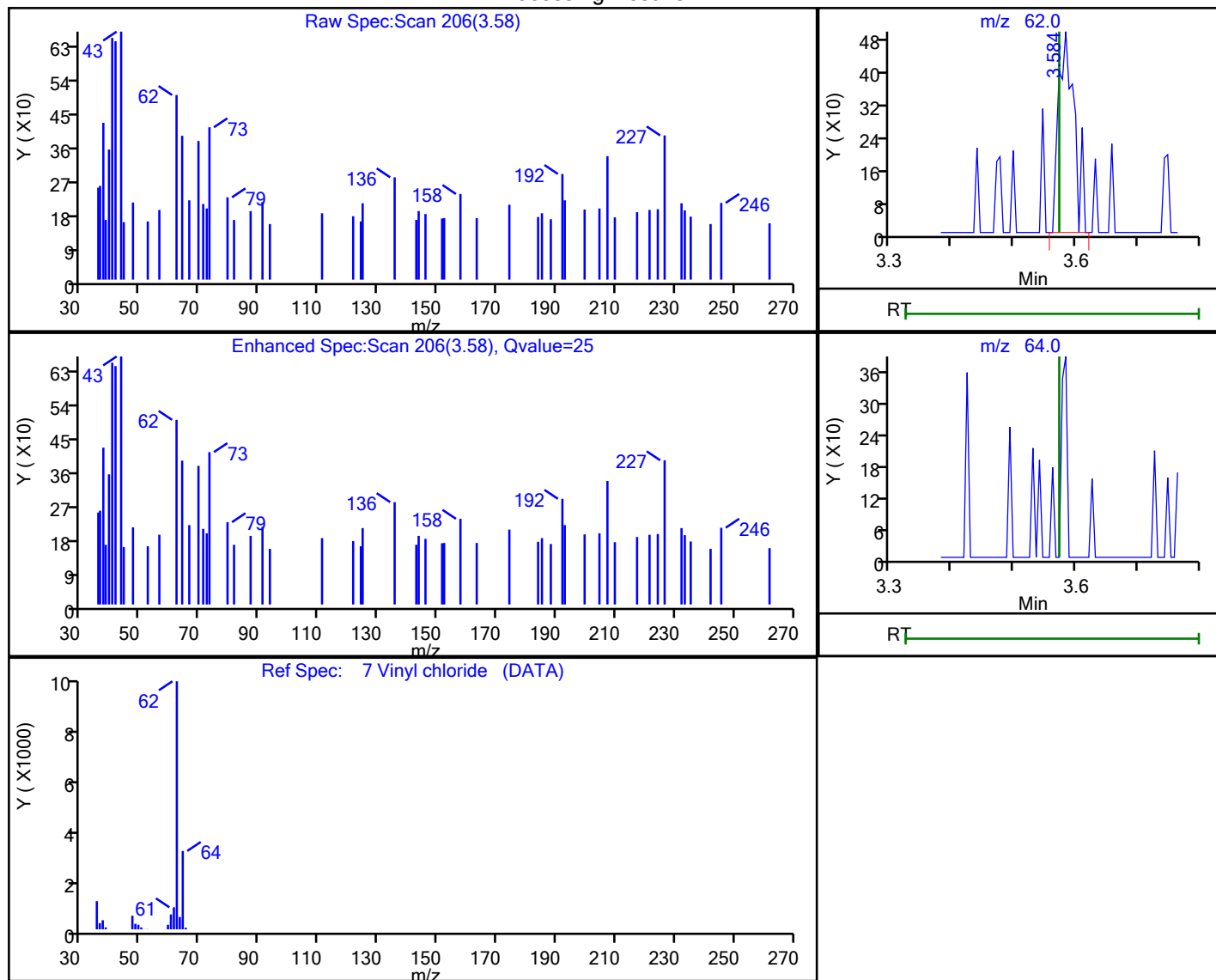
Audit Reason: Invalid Compound ID

Eurofins TestAmerica, Burlington

Data File: \\chromfs\Burlington\ChromData\CHG.i\20210118-44474.b\200-44474-007.D
Injection Date: 18-Jan-2021 12:39:30 Instrument ID: CHG.i
Lims ID: 200-56862-A-5 Lab Sample ID: 200-56862-5
Client ID: 6430
Operator ID: ggg ALS Bottle#: 6 Worklist Smp#: 7
Purge Vol: 200.000 mL Dil. Factor: 1.0000
Method: TO15_MasterMethod_(v1)_G Limit Group: AI_TO15_ICAL
Column: RTX-624 (0.32 mm) Detector: MS SCAN

7 Vinyl chloride, CAS: 75-01-4

Processing Results



RT	Mass	Response	Amount
3.58	62.00	884	0.129503
3.57	64.00	0	

Reviewer: bunmaa, 19-Jan-2021 07:58:39

Audit Action: Marked Compound Undetected

Audit Reason: Invalid Compound ID

Eurofins TestAmerica, Burlington

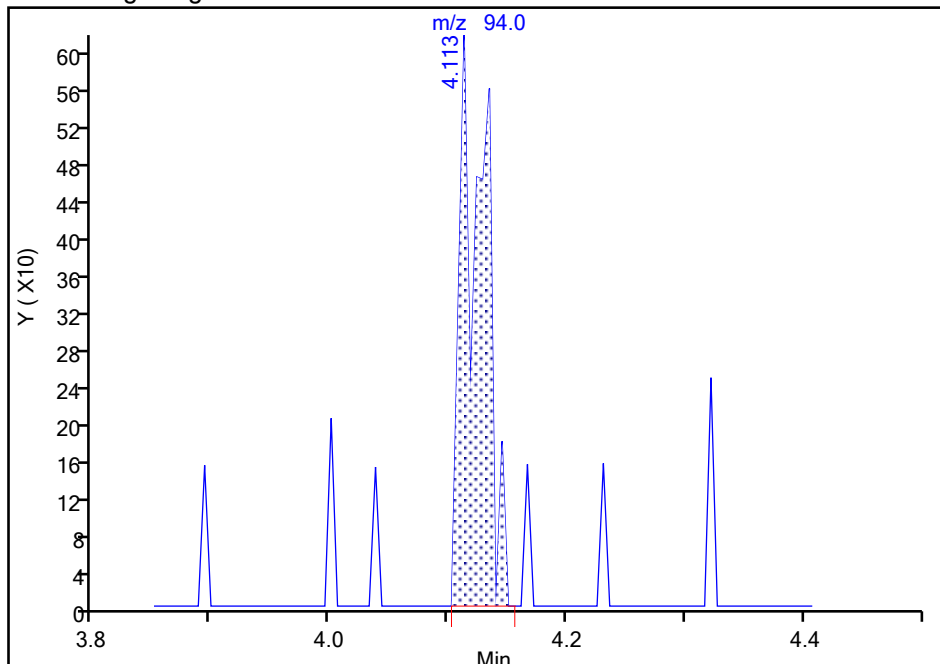
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Injection Date:	18-Jan-2021 12:39:30	Instrument ID:	CHG.i
Lims ID:	200-56862-A-5	Lab Sample ID:	200-56862-5
Client ID:	6430		
Operator ID:	ggg	ALS Bottle#:	6
Purge Vol:	200.000 mL	Dil. Factor:	1.0000
Method:	TO15_MasterMethod_(v1)_G	Limit Group:	AI_TO15_ICAL
Column:	RTX-624 (0.32 mm)	Detector:	MS SCAN
		Worklist Smp#:	7

10 Bromomethane, CAS: 74-83-9

Signal: 1

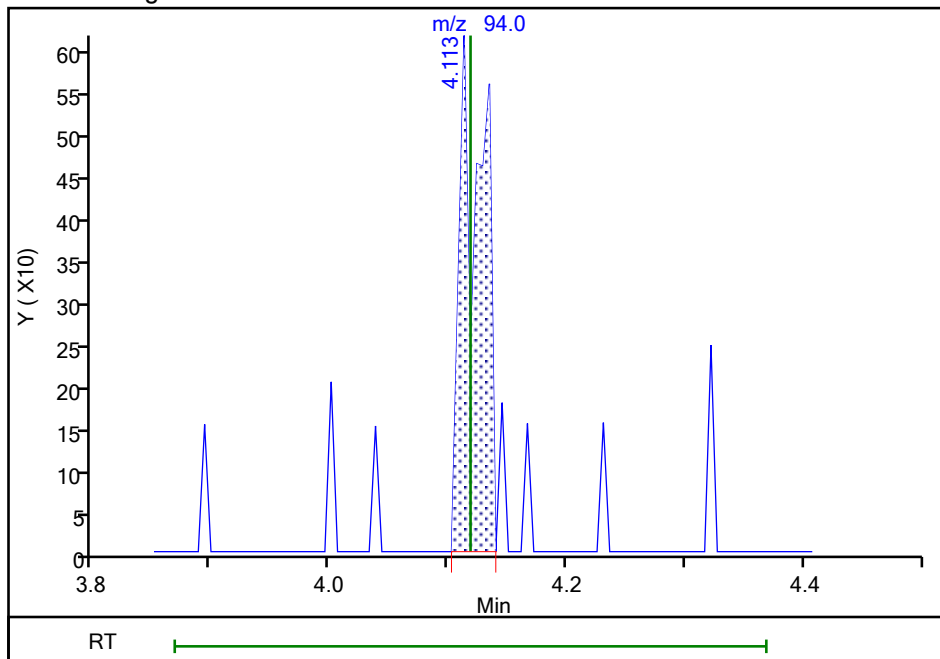
RT: 4.11
Area: 910
Amount: 0.095798
Amount Units: ppb v/v

Processing Integration Results



RT: 4.11
Area: 853
Amount: 0.089797
Amount Units: ppb v/v

Manual Integration Results



Reviewer: bunmaa, 19-Jan-2021 07:59:16

Audit Action: Manually Integrated

Audit Reason: Assign Peak

Eurofins TestAmerica, Burlington

Data File: \\chromfs\Burlington\ChromData\CHG.i\20210118-44474.b\200-44474-007.D

Injection Date: 18-Jan-2021 12:39:30

Instrument ID: CHG.i

Lims ID: 200-56862-A-5

Lab Sample ID: 200-56862-5

Client ID: 6430

Operator ID: ggg

ALS Bottle#: 6

Worklist Smp#: 7

Purge Vol: 200.000 mL

Dil. Factor: 1.0000

Method: TO15_MasterMethod_(v1)_G

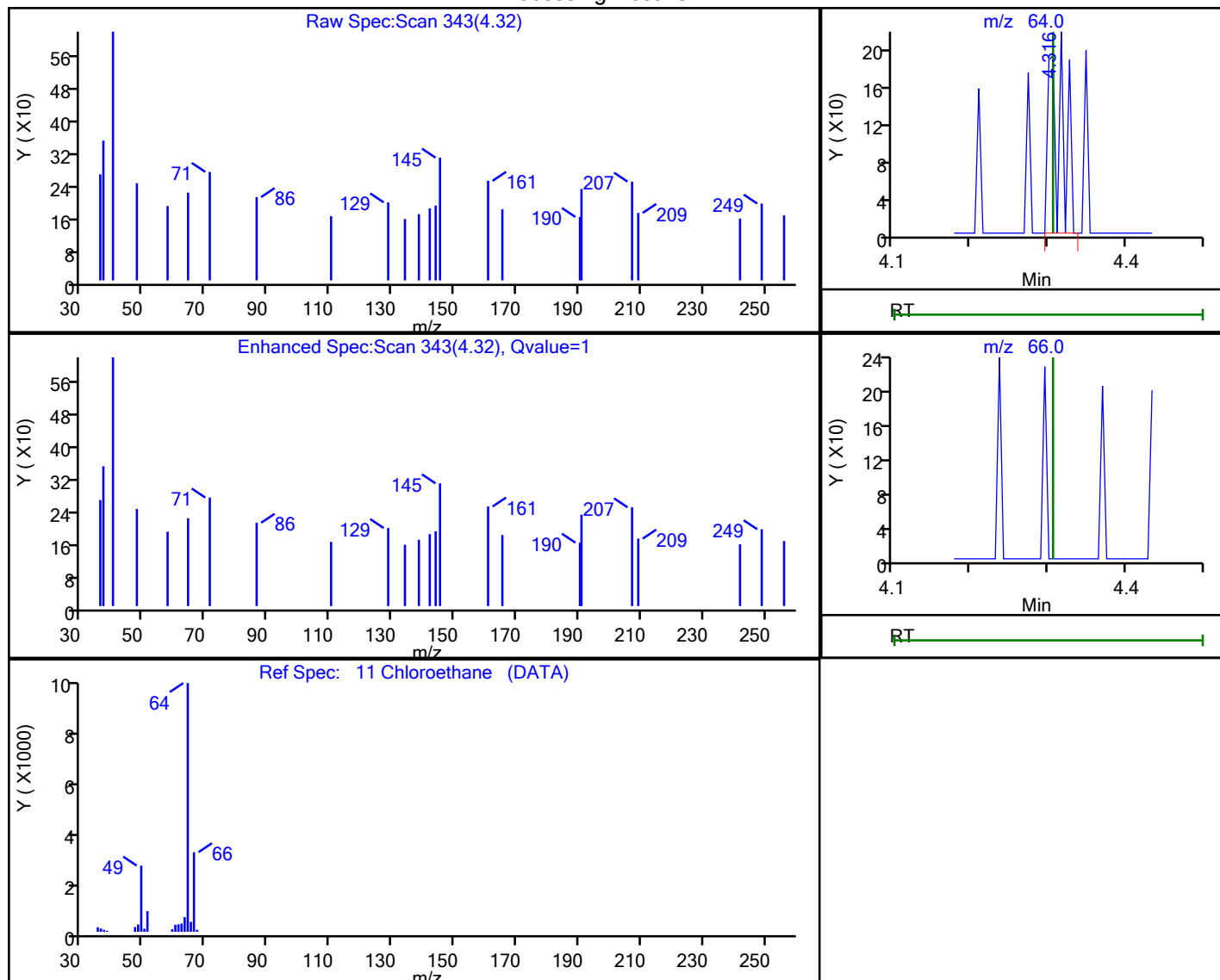
Limit Group: AI_TO15_ICAL

Column: RTX-624 (0.32 mm)

Detector: MS SCAN

11 Chloroethane, CAS: 75-00-3

Processing Results



RT	Mass	Response	Amount
4.32	64.00	250	0.087703
4.31	66.00	0	

Reviewer: bunmaa, 19-Jan-2021 07:59:49

Audit Action: Marked Compound Undetected

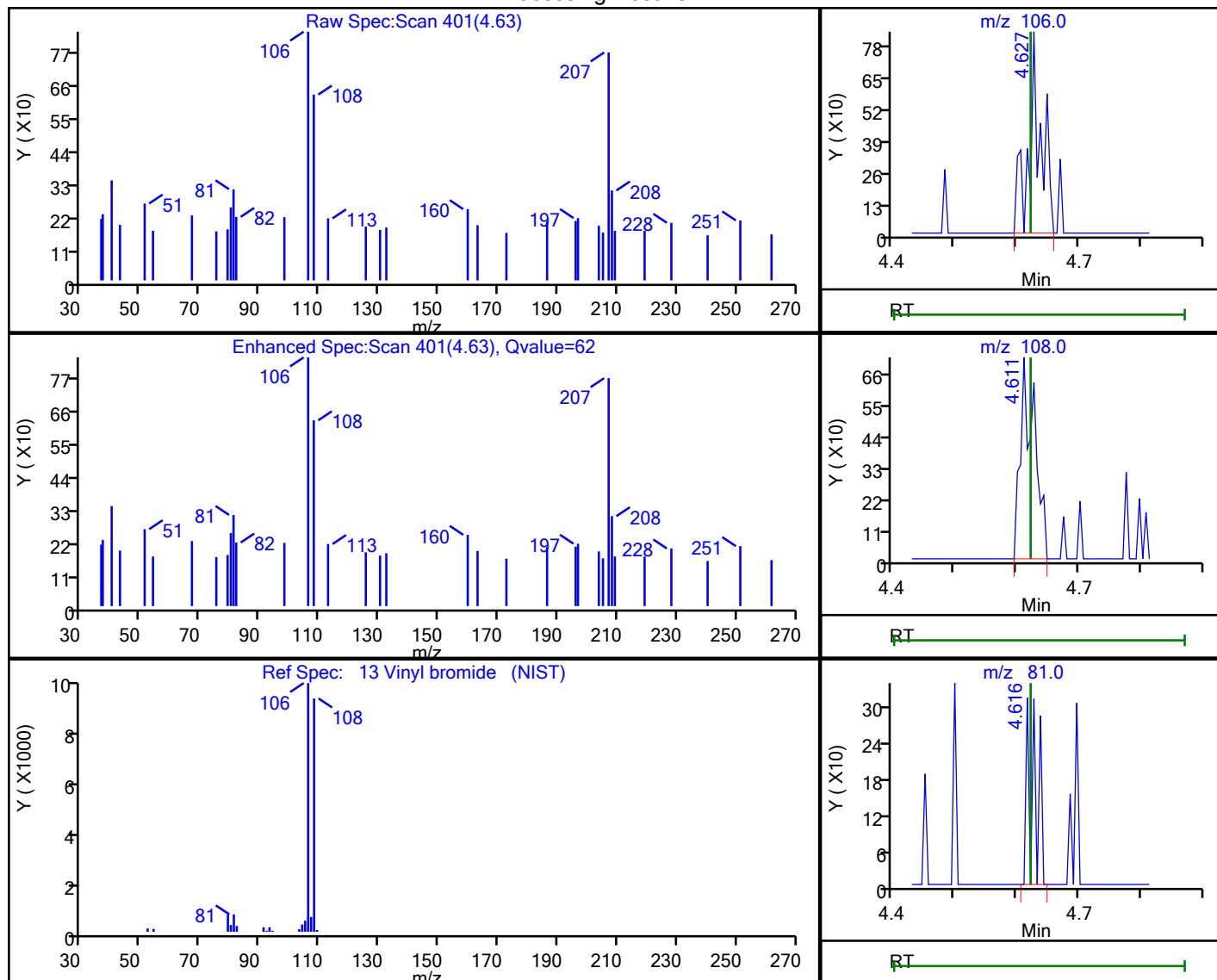
Audit Reason: Invalid Compound ID

Eurofins TestAmerica, Burlington

Data File: \\chromfs\Burlington\ChromData\CHG.i\20210118-44474.b\200-44474-007.D
Injection Date: 18-Jan-2021 12:39:30 Instrument ID: CHG.i
Lims ID: 200-56862-A-5 Lab Sample ID: 200-56862-5
Client ID: 6430
Operator ID: ggg ALS Bottle#: 6 Worklist Smp#: 7
Purge Vol: 200.000 mL Dil. Factor: 1.0000
Method: TO15_MasterMethod_(v1)_G Limit Group: AI_TO15_ICAL
Column: RTX-624 (0.32 mm) Detector: MS SCAN

13 Vinyl bromide, CAS: 593-60-2

Processing Results



RT	Mass	Response	Amount
4.63	106.00	1176	0.122517
4.61	108.00	1136	
4.62	81.00	287	

Reviewer: bunmaa, 19-Jan-2021 08:00:01

Audit Action: Marked Compound Undetected

Audit Reason: Invalid Compound ID

Eurofins TestAmerica, Burlington

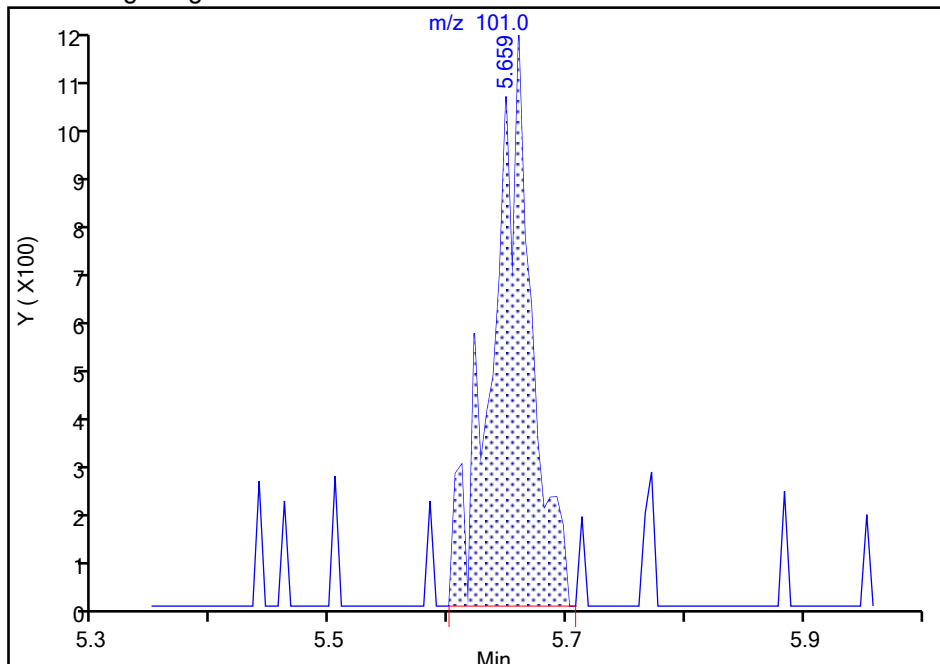
Data File:	\\chromfs\Burlington\ChromData\CHG.i\20210118-44474.b\200-44474-007.D		
Injection Date:	18-Jan-2021 12:39:30	Instrument ID:	CHG.i
Lims ID:	200-56862-A-5	Lab Sample ID:	200-56862-5
Client ID:	6430		
Operator ID:	ggg	ALS Bottle#:	6
Purge Vol:	200.000 mL	Dil. Factor:	1.0000
Method:	TO15_MasterMethod_(v1)_G	Limit Group:	AI_TO15_ICAL
Column:	RTX-624 (0.32 mm)	Detector:	MS SCAN
		Worklist Smp#:	7

20 112CTFE, CAS: 76-13-1

Signal: 1

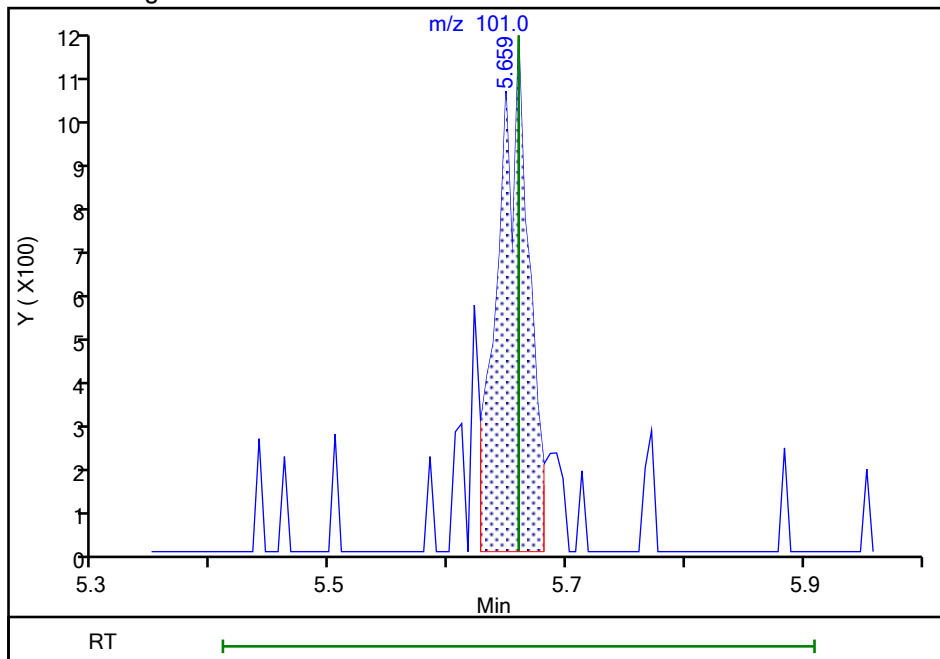
RT: 5.66
Area: 2583
Amount: 0.122266
Amount Units: ppb v/v

Processing Integration Results



RT: 5.66
Area: 2048
Amount: 0.096942
Amount Units: ppb v/v

Manual Integration Results



Reviewer: bunmaa, 19-Jan-2021 08:02:06

Audit Action: Manually Integrated

Audit Reason: Assign Peak

Eurofins TestAmerica, Burlington

Data File: \\chromfs\Burlington\ChromData\CHG.i\20210118-44474.b\200-44474-007.D

Injection Date: 18-Jan-2021 12:39:30

Instrument ID: CHG.i

Lims ID: 200-56862-A-5

Lab Sample ID: 200-56862-5

Client ID: 6430

Operator ID: ggg

ALS Bottle#: 6

Worklist Smp#: 7

Purge Vol: 200.000 mL

Dil. Factor: 1.0000

Method: TO15_MasterMethod_(v1)_G

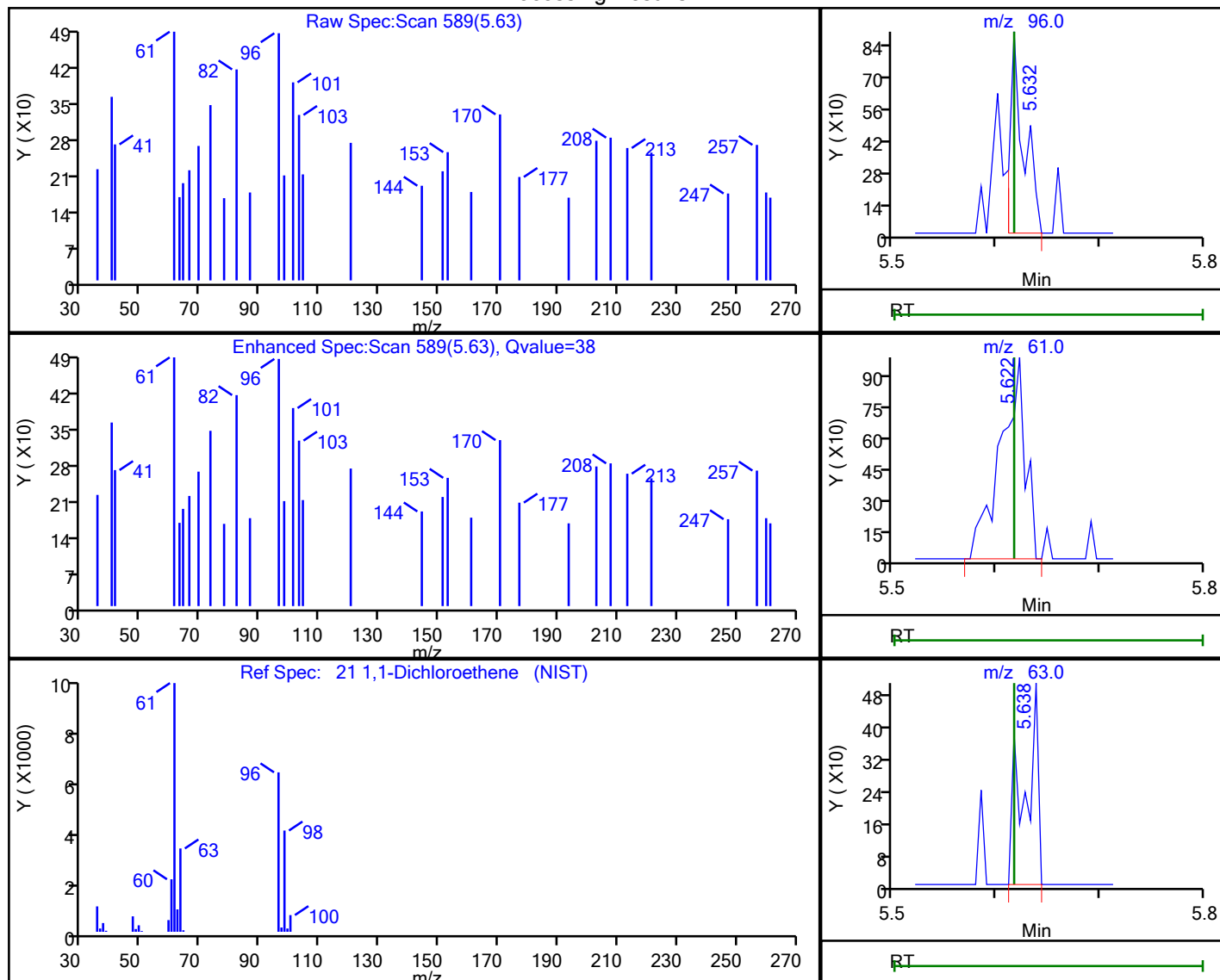
Limit Group: AI_TO15_ICAL

Column: RTX-624 (0.32 mm)

Detector: MS SCAN

21 1,1-Dichloroethene, CAS: 75-35-4

Processing Results



RT	Mass	Response	Amount
5.63	96.00	805	0.088390
5.62	61.00	1651	
5.64	63.00	460	

Reviewer: bunmaa, 19-Jan-2021 08:01:49

Audit Action: Marked Compound Undetected

Audit Reason: Invalid Compound ID

Eurofins TestAmerica, Burlington

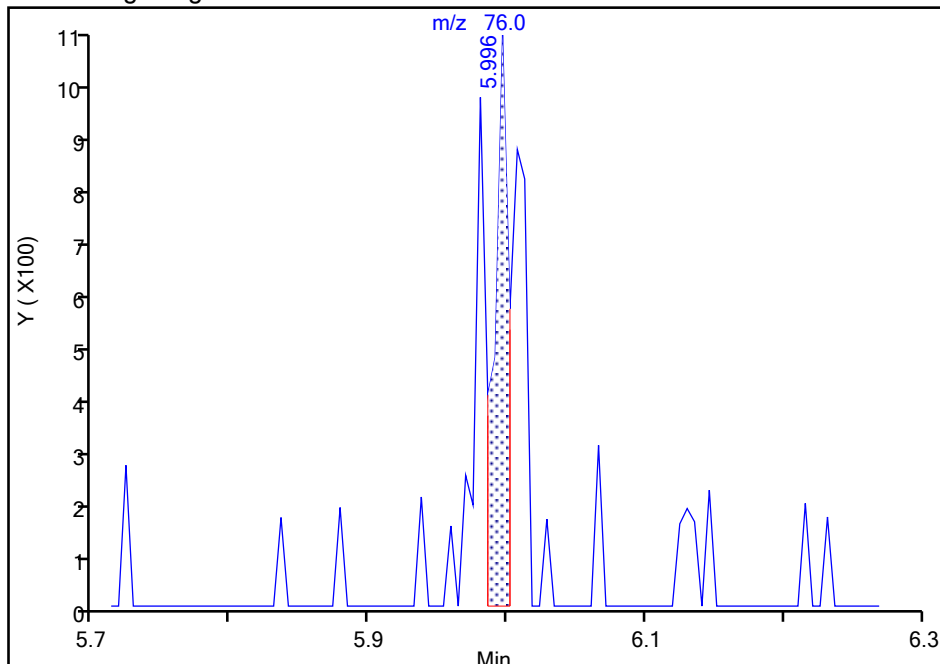
Data File:	\\chromfs\Burlington\ChromData\CHG.i\20210118-44474.b\200-44474-007.D		
Injection Date:	18-Jan-2021 12:39:30	Instrument ID:	CHG.i
Lims ID:	200-56862-A-5	Lab Sample ID:	200-56862-5
Client ID:	6430		
Operator ID:	ggg	ALS Bottle#:	6
Purge Vol:	200.000 mL	Dil. Factor:	1.0000
Method:	TO15_MasterMethod_(v1)_G	Limit Group:	AI_TO15_ICAL
Column:	RTX-624 (0.32 mm)	Detector:	MS SCAN
		Worklist Smp#:	7

23 Carbon disulfide, CAS: 75-15-0

Signal: 1

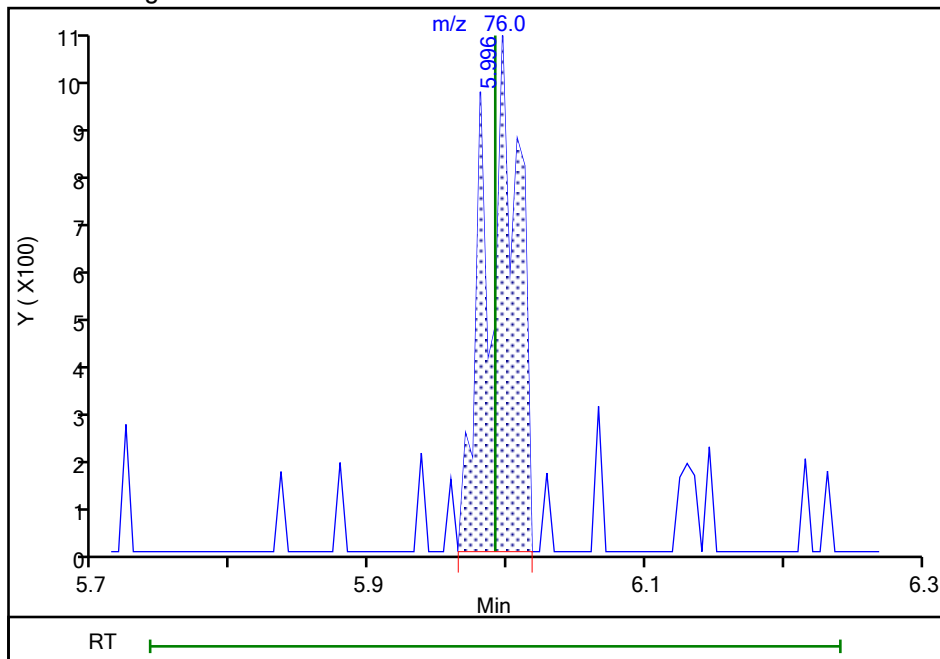
RT: 6.00
Area: 809
Amount: 0.033435
Amount Units: ppb v/v

Processing Integration Results



RT: 6.00
Area: 1798
Amount: 0.074309
Amount Units: ppb v/v

Manual Integration Results



Reviewer: bunmaa, 19-Jan-2021 08:05:05

Audit Action: Manually Integrated

Audit Reason: Assign Peak

Eurofins TestAmerica, Burlington

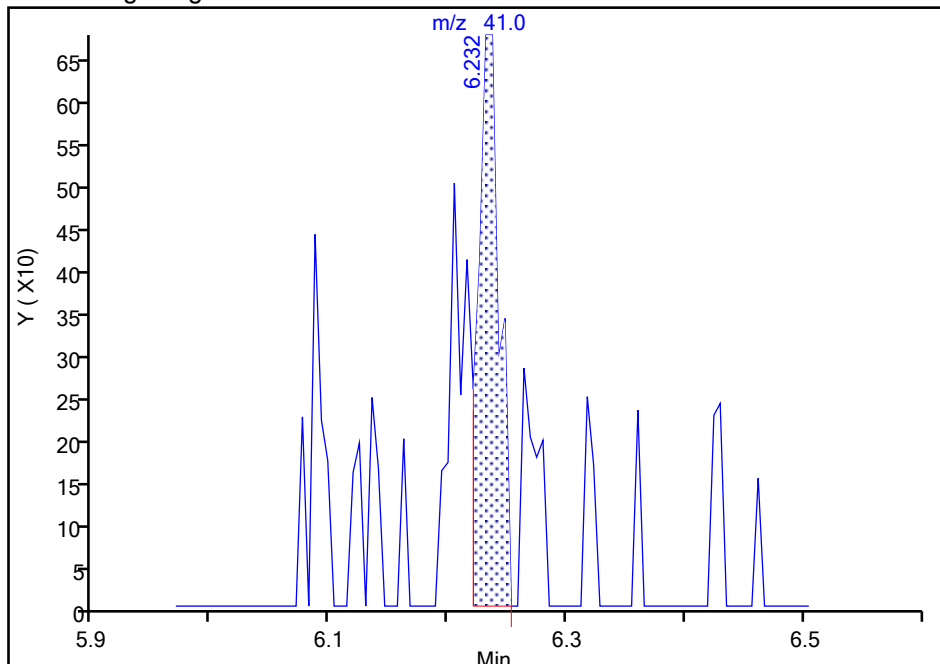
Data File:	\\chromfs\Burlington\ChromData\CHG.i\20210118-44474.b\200-44474-007.D		
Injection Date:	18-Jan-2021 12:39:30	Instrument ID:	CHG.i
Lims ID:	200-56862-A-5	Lab Sample ID:	200-56862-5
Client ID:	6430		
Operator ID:	ggg	ALS Bottle#:	6
Purge Vol:	200.000 mL	Dil. Factor:	1.0000
Method:	TO15_MasterMethod_(v1)_G	Limit Group:	AI_TO15_ICAL
Column:	RTX-624 (0.32 mm)	Detector:	MS SCAN
		Worklist Smp#:	7

25 3-Chloro-1-propene, CAS: 107-05-1

Signal: 1

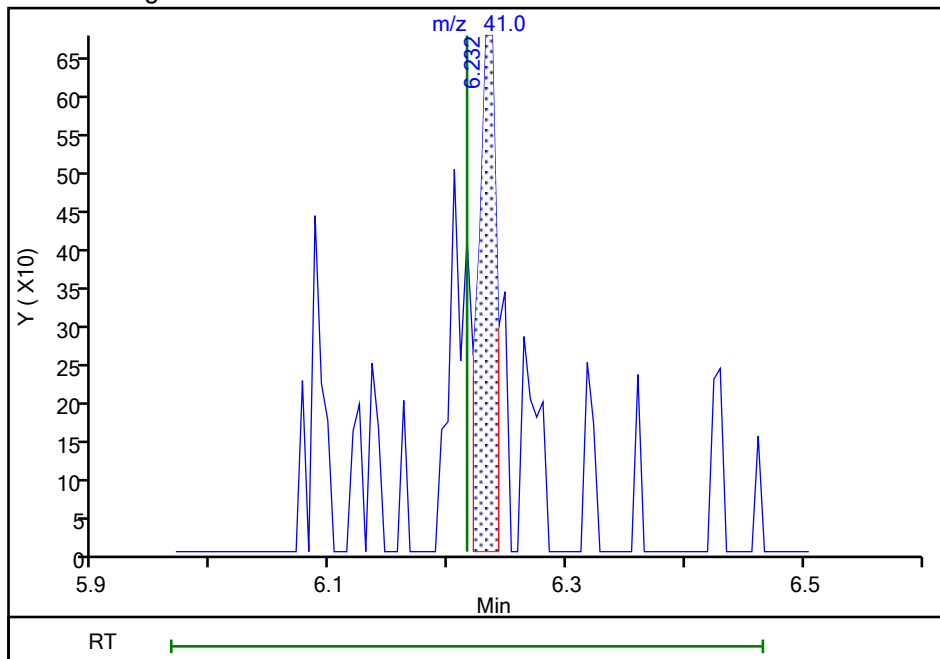
RT: 6.23
Area: 855
Amount: 0.105013
Amount Units: ppb v/v

Processing Integration Results



RT: 6.23
Area: 745
Amount: 0.091503
Amount Units: ppb v/v

Manual Integration Results



Reviewer: bunmaa, 19-Jan-2021 08:06:51

Audit Action: Manually Integrated

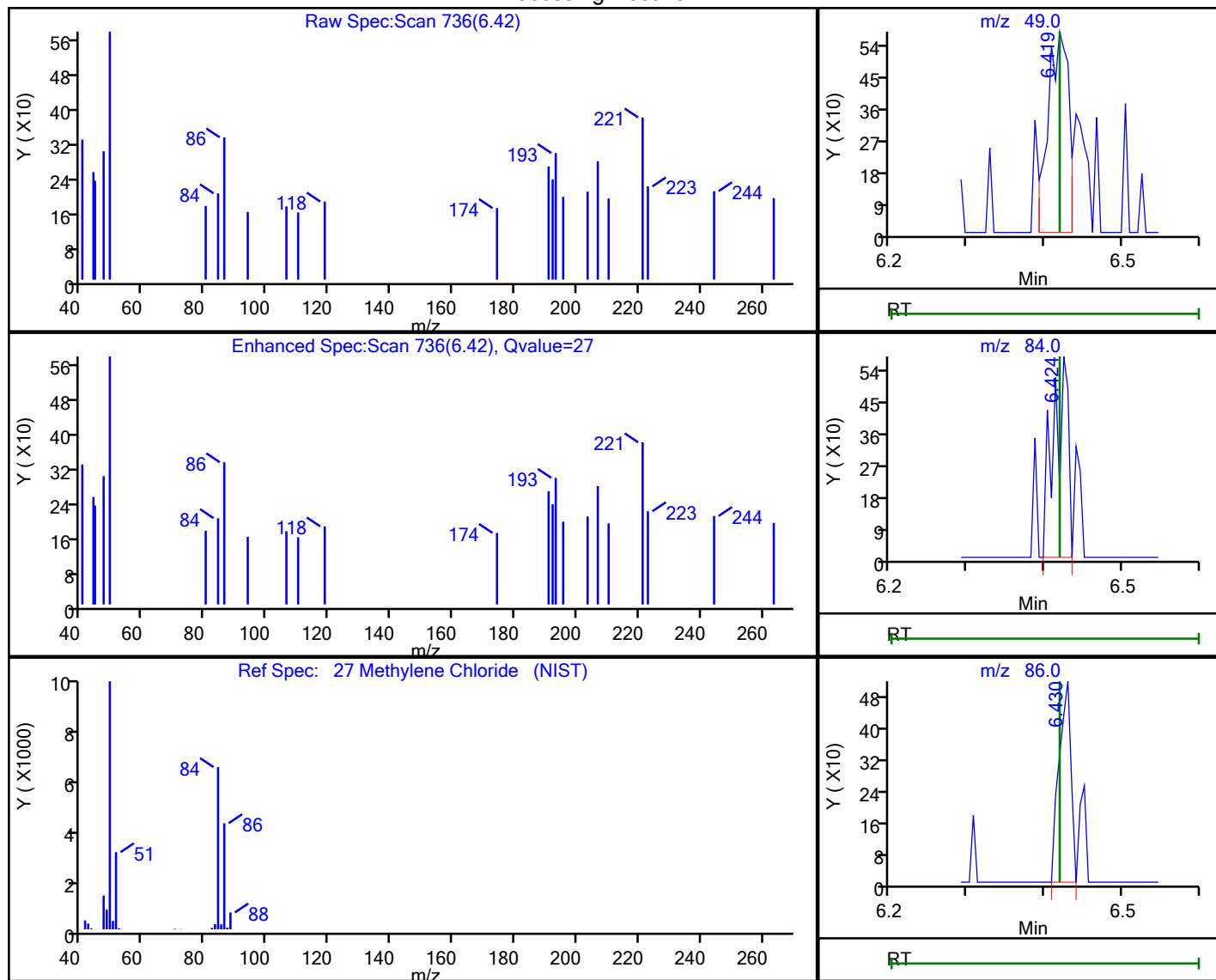
Audit Reason: Assign Peak

Eurofins TestAmerica, Burlington

Data File: \\chromfs\Burlington\ChromData\CHG.i\20210118-44474.b\200-44474-007.D
Injection Date: 18-Jan-2021 12:39:30 Instrument ID: CHG.i
Lims ID: 200-56862-A-5 Lab Sample ID: 200-56862-5
Client ID: 6430
Operator ID: ggg ALS Bottle#: 6 Worklist Smp#: 7
Purge Vol: 200.000 mL Dil. Factor: 1.0000
Method: TO15_MasterMethod_(v1)_G Limit Group: AI_TO15_ICAL
Column: RTX-624 (0.32 mm) Detector: MS SCAN

27 Methylene Chloride, CAS: 75-09-2

Processing Results



RT	Mass	Response	Amount
6.42	49.00	1080	0.114110
6.42	84.00	755	
6.43	86.00	555	

Reviewer: bunmaa, 19-Jan-2021 08:07:06

Audit Action: Marked Compound Undetected

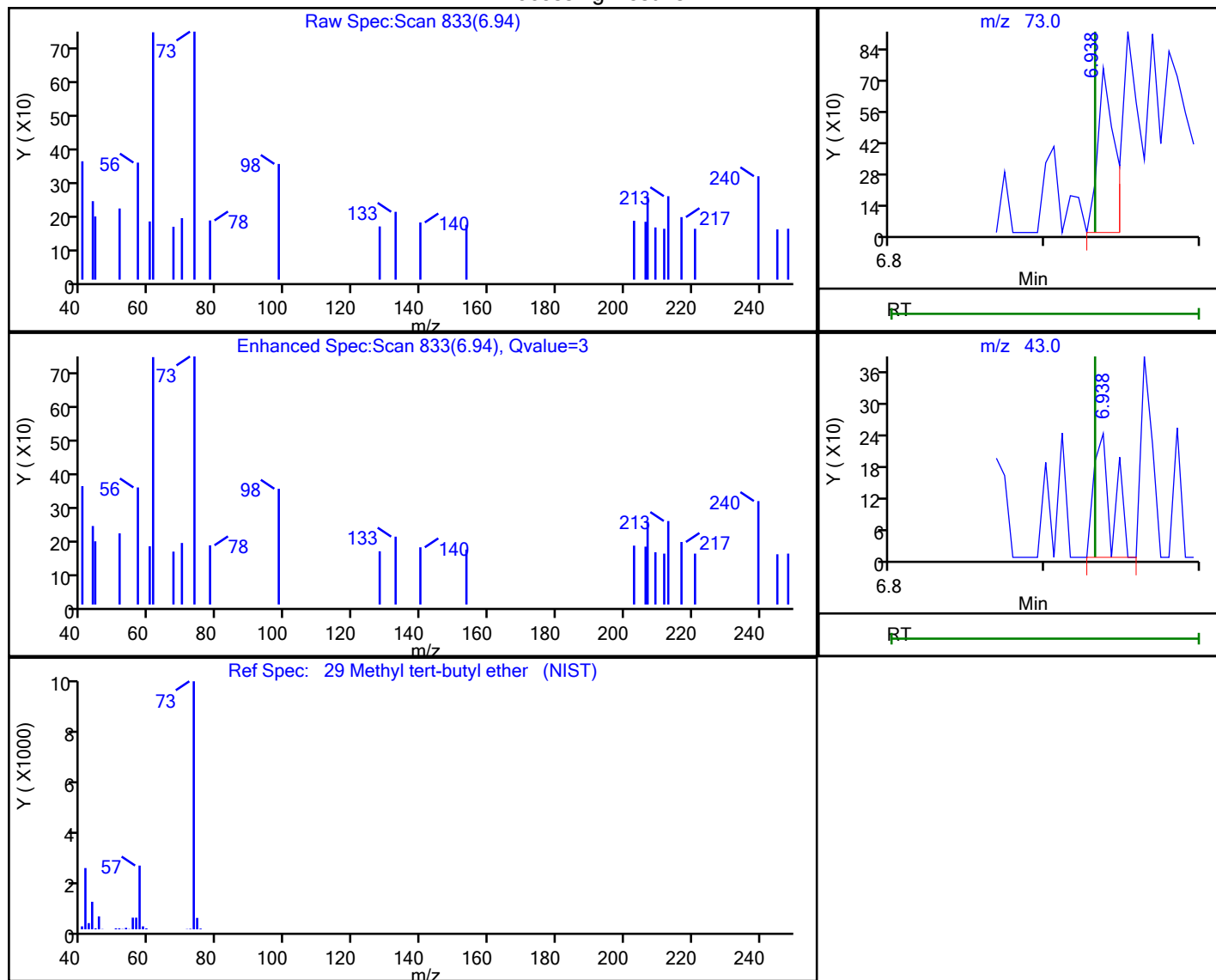
Audit Reason: Invalid Compound ID

Eurofins TestAmerica, Burlington

Data File: \\chromfs\Burlington\ChromData\CHG.i\20210118-44474.b\200-44474-007.D
Injection Date: 18-Jan-2021 12:39:30 Instrument ID: CHG.i
Lims ID: 200-56862-A-5 Lab Sample ID: 200-56862-5
Client ID: 6430
Operator ID: ggg ALS Bottle#: 6 Worklist Smp#: 7
Purge Vol: 200.000 mL Dil. Factor: 1.0000
Method: TO15_MasterMethod_(v1)_G Limit Group: AI_TO15_ICAL
Column: RTX-624 (0.32 mm) Detector: MS SCAN

29 Methyl tert-butyl ether, CAS: 1634-04-4

Processing Results



RT	Mass	Response	Amount
6.94	73.00	562	0.029458
6.94	43.00	196	

Reviewer: bunmaa, 19-Jan-2021 08:08:02

Audit Action: Marked Compound Undetected

Audit Reason: Invalid Compound ID

Eurofins TestAmerica, Burlington

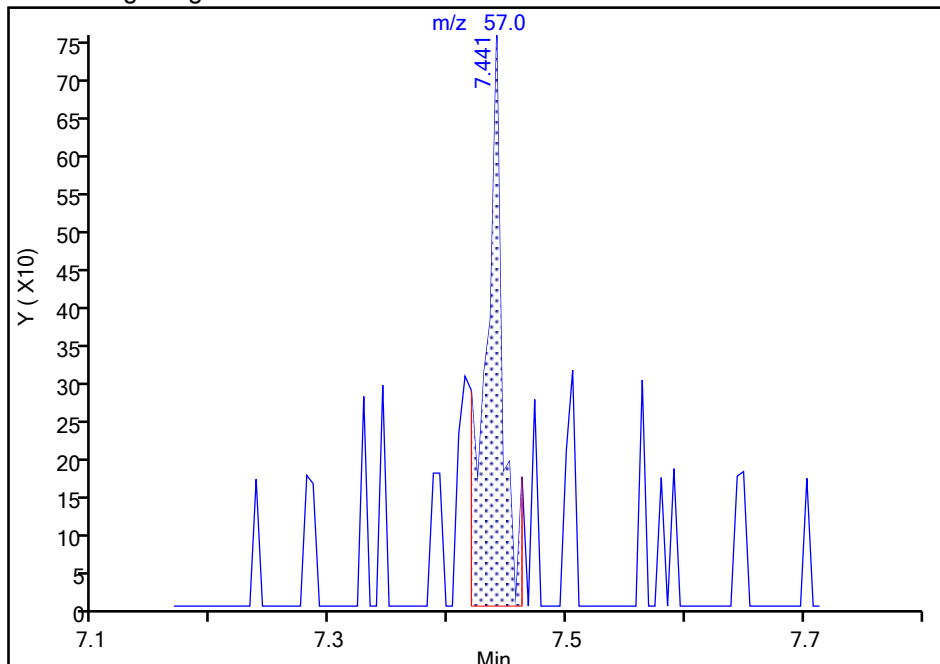
Data File:	\\chromfs\Burlington\ChromData\CHG.i\20210118-44474.b\200-44474-007.D		
Injection Date:	18-Jan-2021 12:39:30	Instrument ID:	CHG.i
Lims ID:	200-56862-A-5	Lab Sample ID:	200-56862-5
Client ID:	6430		
Operator ID:	ggg	ALS Bottle#:	6
Purge Vol:	200.000 mL	Dil. Factor:	1.0000
Method:	TO15_MasterMethod_(v1)_G	Limit Group:	AI_TO15_ICAL
Column:	RTX-624 (0.32 mm)	Detector:	MS SCAN
		Worklist Smp#:	7

33 Hexane, CAS: 110-54-3

Signal: 1

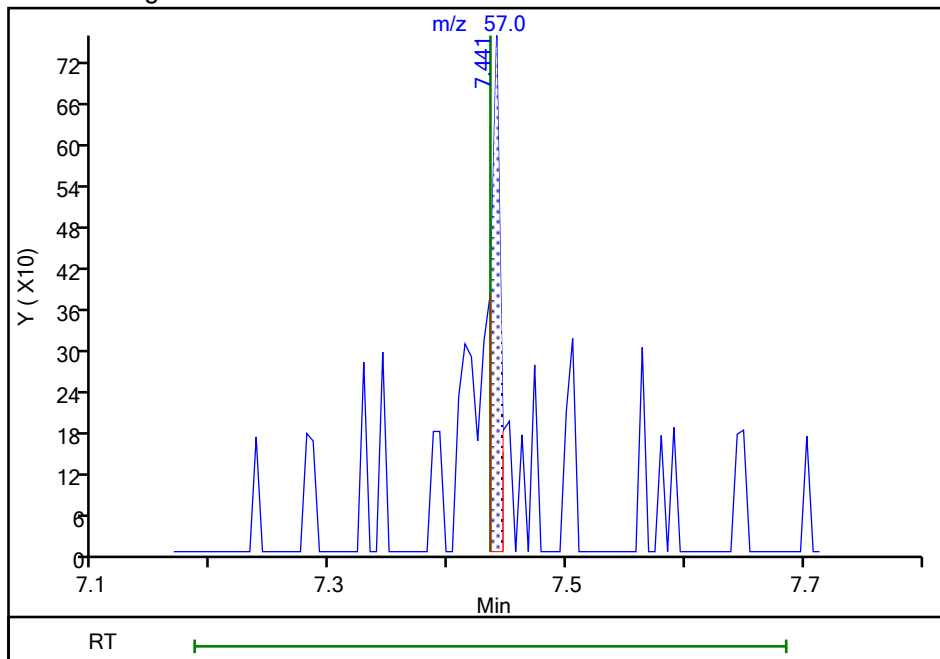
RT: 7.44
Area: 785
Amount: 0.084518
Amount Units: ppb v/v

Processing Integration Results



RT: 7.44
Area: 423
Amount: 0.045543
Amount Units: ppb v/v

Manual Integration Results



Reviewer: bunmaa, 19-Jan-2021 08:08:32

Audit Action: Manually Integrated

Audit Reason: Assign Peak

Eurofins TestAmerica, Burlington

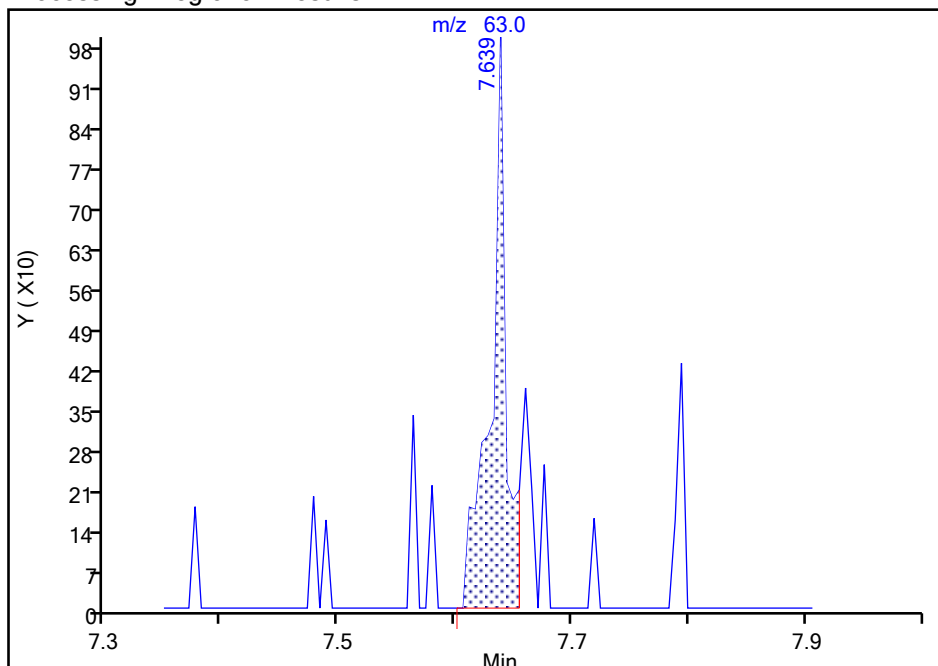
Data File:	\\chromfs\Burlington\ChromData\CHG.i\20210118-44474.b\200-44474-007.D		
Injection Date:	18-Jan-2021 12:39:30	Instrument ID:	CHG.i
Lims ID:	200-56862-A-5	Lab Sample ID:	200-56862-5
Client ID:	6430		
Operator ID:	ggg	ALS Bottle#:	6
Purge Vol:	200.000 mL	Dil. Factor:	1.0000
Method:	TO15_MasterMethod_(v1)_G	Limit Group:	AI_TO15_ICAL
Column:	RTX-624 (0.32 mm)	Detector:	MS SCAN
		Worklist Smp#:	7

34 1,1-Dichloroethane, CAS: 75-34-3

Signal: 1

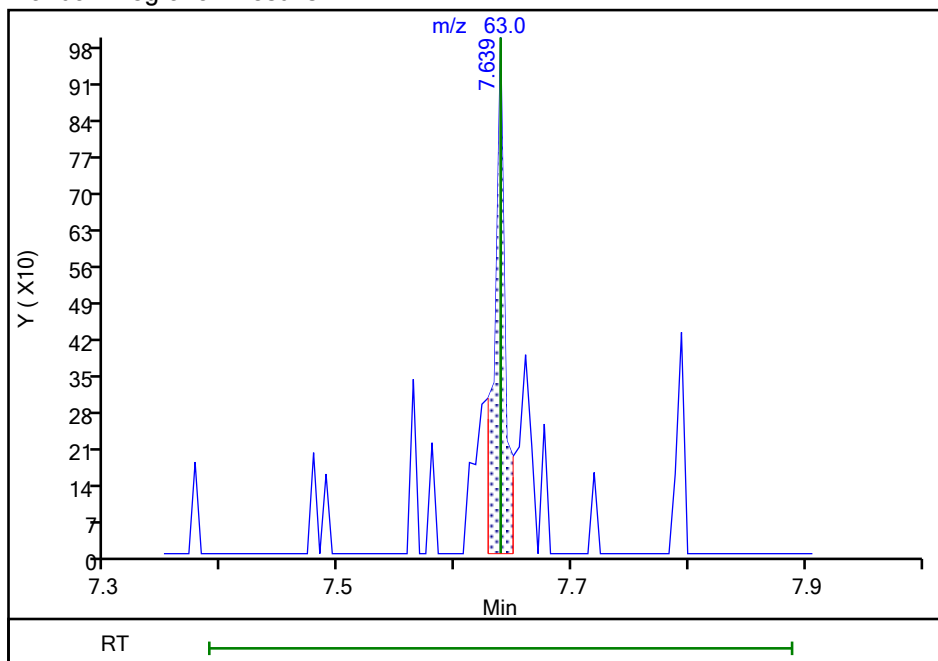
RT: 7.64
Area: 918
Amount: 0.062152
Amount Units: ppb v/v

Processing Integration Results



RT: 7.64
Area: 649
Amount: 0.043940
Amount Units: ppb v/v

Manual Integration Results



Reviewer: bunmaa, 19-Jan-2021 08:08:52

Audit Action: Manually Integrated

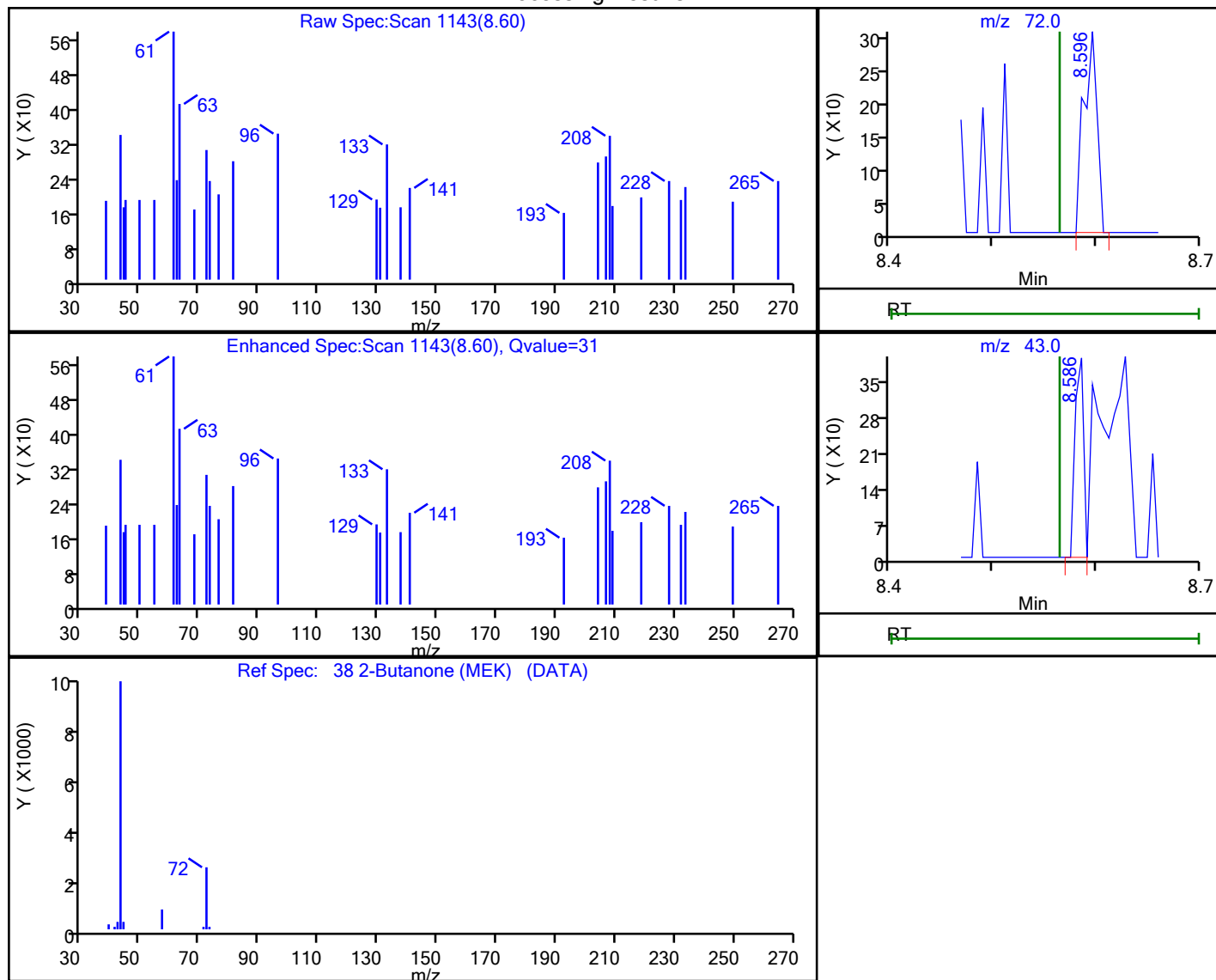
Audit Reason: Assign Peak

Eurofins TestAmerica, Burlington

Data File: \\chromfs\Burlington\ChromData\CHG.i\20210118-44474.b\200-44474-007.D
Injection Date: 18-Jan-2021 12:39:30 Instrument ID: CHG.i
Lims ID: 200-56862-A-5 Lab Sample ID: 200-56862-5
Client ID: 6430
Operator ID: ggg ALS Bottle#: 6 Worklist Smp#: 7
Purge Vol: 200.000 mL Dil. Factor: 1.0000
Method: TO15_MasterMethod_(v1)_G Limit Group: AI_TO15_ICAL
Column: RTX-624 (0.32 mm) Detector: MS SCAN

38 2-Butanone (MEK), CAS: 78-93-3

Processing Results



RT	Mass	Response	Amount
8.60	72.00	271	0.087116
8.59	43.00	224	

Reviewer: bunmaa, 19-Jan-2021 08:09:23

Audit Action: Marked Compound Undetected

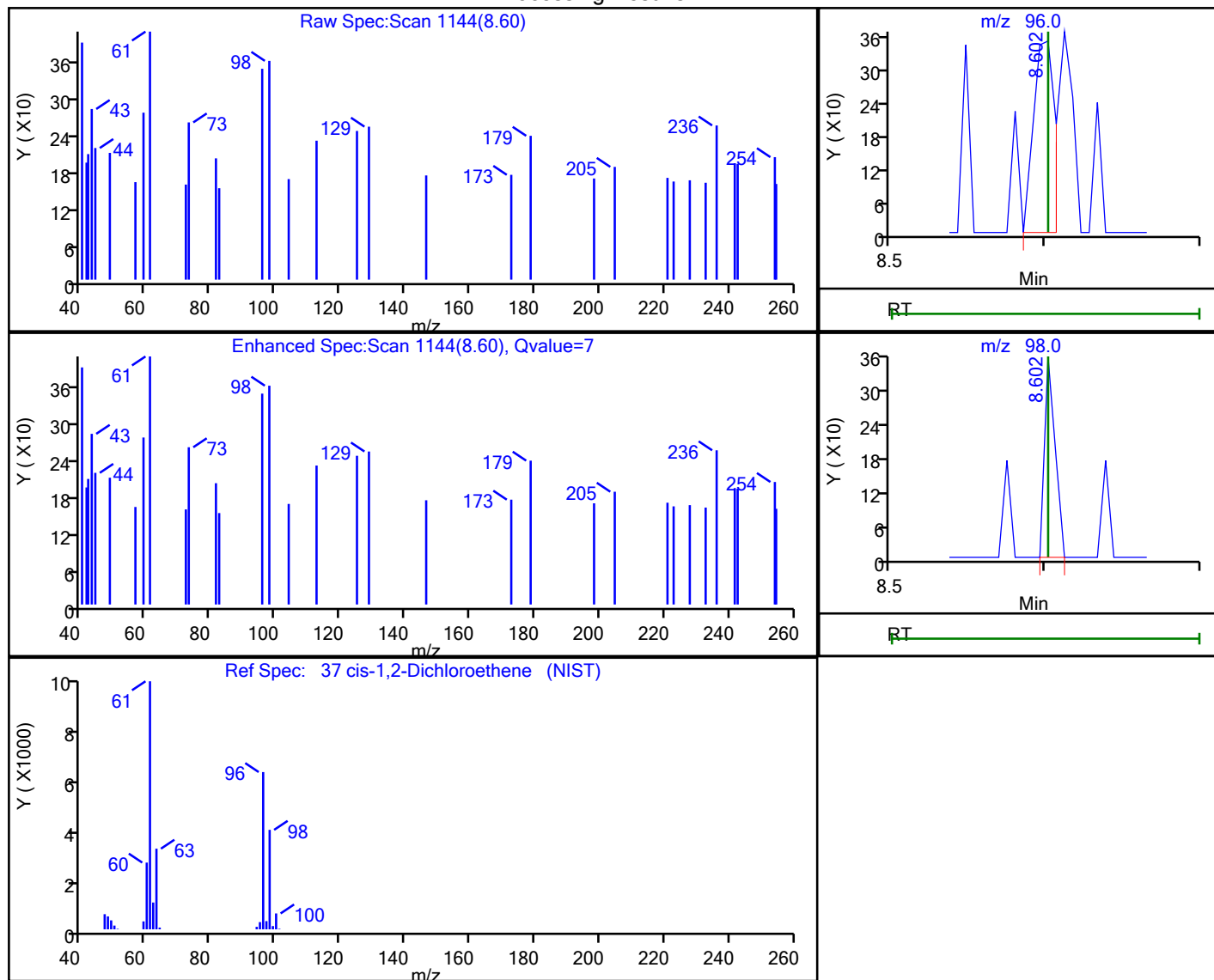
Audit Reason: Invalid Compound ID

Eurofins TestAmerica, Burlington

Data File: \\chromfs\Burlington\ChromData\CHG.i\20210118-44474.b\200-44474-007.D
Injection Date: 18-Jan-2021 12:39:30 Instrument ID: CHG.i
Lims ID: 200-56862-A-5 Lab Sample ID: 200-56862-5
Client ID: 6430
Operator ID: ggg ALS Bottle#: 6 Worklist Smp#: 7
Purge Vol: 200.000 mL Dil. Factor: 1.0000
Method: TO15_MasterMethod_(v1)_G Limit Group: AI_TO15_ICAL
Column: RTX-624 (0.32 mm) Detector MS SCAN

37 cis-1,2-Dichloroethene, CAS: 156-59-2

Processing Results



RT	Mass	Response	Amount
8.60	96.00	336	0.034613
8.60	98.00	171	

Reviewer: bunmaa, 19-Jan-2021 08:09:27

Audit Action: Marked Compound Undetected

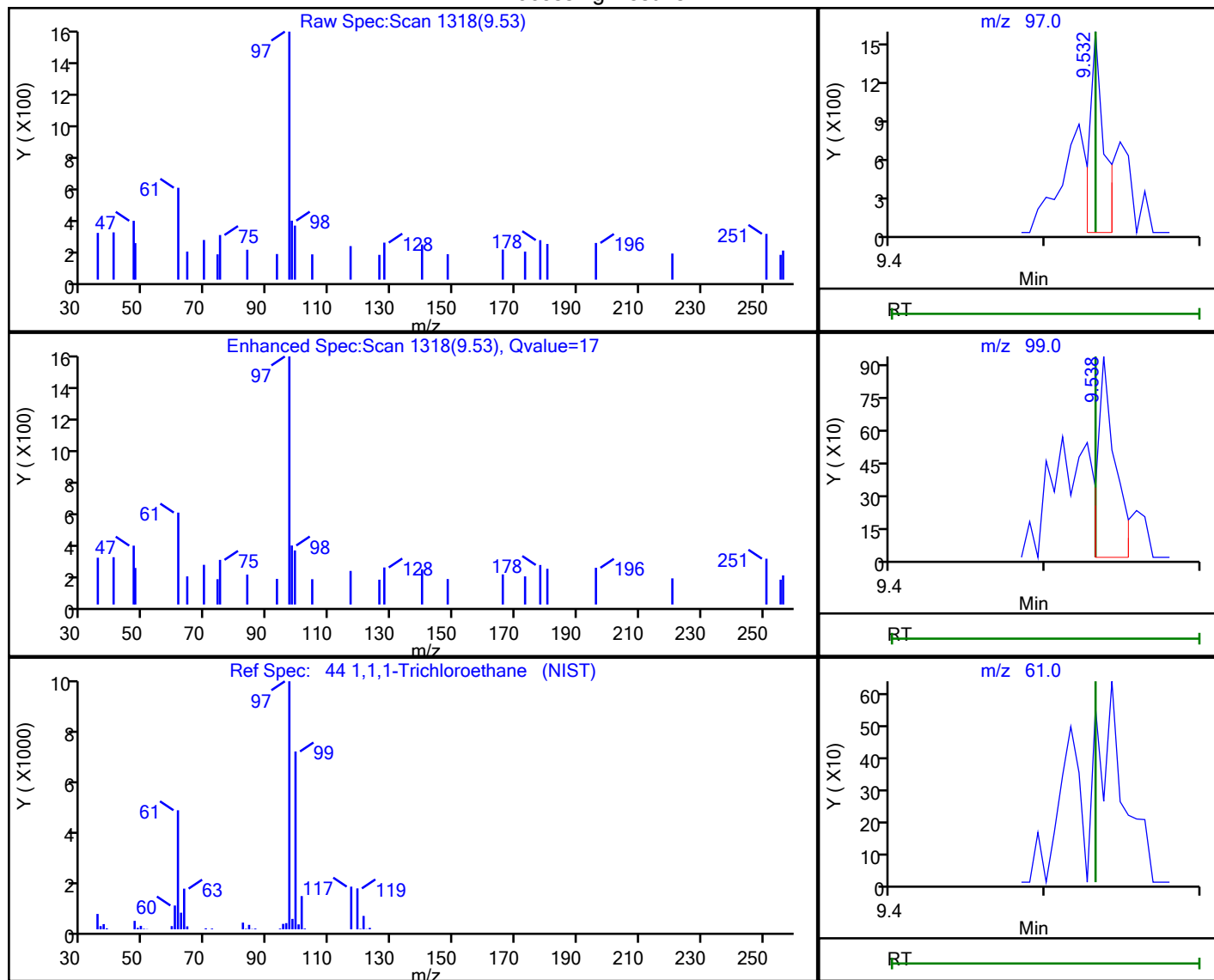
Audit Reason: Invalid Compound ID

Eurofins TestAmerica, Burlington

Data File: \\chromfs\Burlington\ChromData\CHG.i\20210118-44474.b\200-44474-007.D
Injection Date: 18-Jan-2021 12:39:30 Instrument ID: CHG.i
Lims ID: 200-56862-A-5 Lab Sample ID: 200-56862-5
Client ID: 6430
Operator ID: ggg ALS Bottle#: 6 Worklist Smp#: 7
Purge Vol: 200.000 mL Dil. Factor: 1.0000
Method: TO15_MasterMethod_(v1)_G Limit Group: AI_TO15_ICAL
Column: RTX-624 (0.32 mm) Detector: MS SCAN

44 1,1,1-Trichloroethane, CAS: 71-55-6

Processing Results



RT	Mass	Response	Amount
9.53	97.00	990	0.037748
9.54	99.00	735	
9.53	61.00	0	

Reviewer: bunmaa, 19-Jan-2021 08:10:39

Audit Action: Marked Compound Undetected

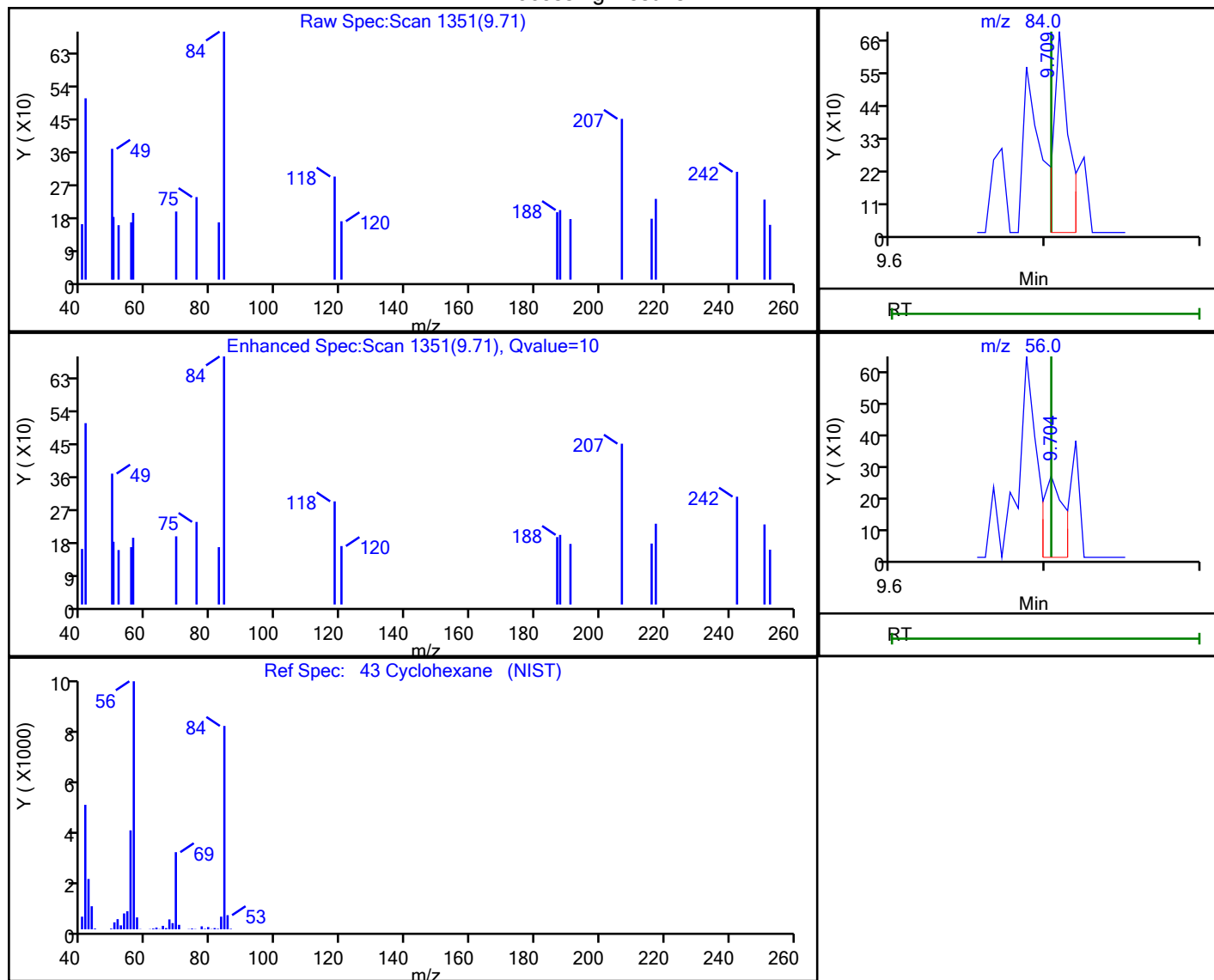
Audit Reason: Invalid Compound ID

Eurofins TestAmerica, Burlington

Data File: \\chromfs\Burlington\ChromData\CHG.i\20210118-44474.b\200-44474-007.D
Injection Date: 18-Jan-2021 12:39:30 Instrument ID: CHG.i
Lims ID: 200-56862-A-5 Lab Sample ID: 200-56862-5
Client ID: 6430
Operator ID: ggg ALS Bottle#: 6 Worklist Smp#: 7
Purge Vol: 200.000 mL Dil. Factor: 1.0000
Method: TO15_MasterMethod_(v1)_G Limit Group: AI_TO15_ICAL
Column: RTX-624 (0.32 mm) Detector: MS SCAN

43 Cyclohexane, CAS: 110-82-7

Processing Results



RT	Mass	Response	Amount
9.71	84.00	465	0.040440
9.70	56.00	250	

Reviewer: bunmaa, 19-Jan-2021 08:11:06

Audit Action: Marked Compound Undetected

Audit Reason: Invalid Compound ID

Eurofins TestAmerica, Burlington

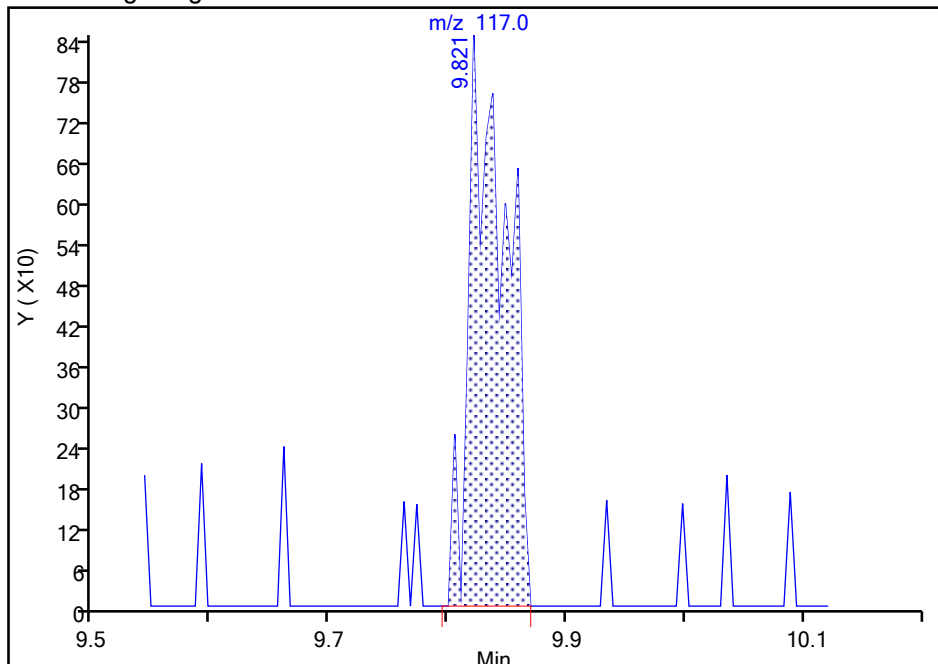
Data File:	\\chromfs\Burlington\ChromData\CHG.i\20210118-44474.b\200-44474-007.D		
Injection Date:	18-Jan-2021 12:39:30	Instrument ID:	CHG.i
Lims ID:	200-56862-A-5	Lab Sample ID:	200-56862-5
Client ID:	6430		
Operator ID:	ggg	ALS Bottle#:	6
Purge Vol:	200.000 mL	Dil. Factor:	1.0000
Method:	TO15_MasterMethod_(v1)_G	Limit Group:	AI_TO15_ICAL
Column:	RTX-624 (0.32 mm)	Detector:	MS SCAN
		Worklist Smp#:	7

45 Carbon tetrachloride, CAS: 56-23-5

Signal: 1

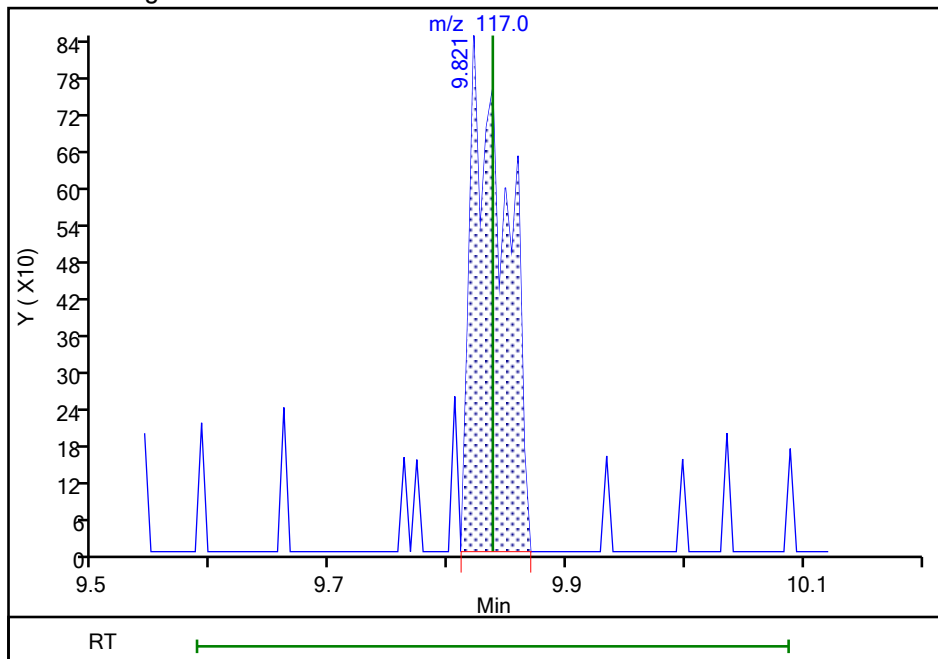
RT: 9.82
Area: 1838
Amount: 0.060877
Amount Units: ppb v/v

Processing Integration Results



RT: 9.82
Area: 1757
Amount: 0.058194
Amount Units: ppb v/v

Manual Integration Results



Reviewer: bunmaa, 19-Jan-2021 08:11:15

Audit Action: Manually Integrated

Audit Reason: Assign Peak

Eurofins TestAmerica, Burlington

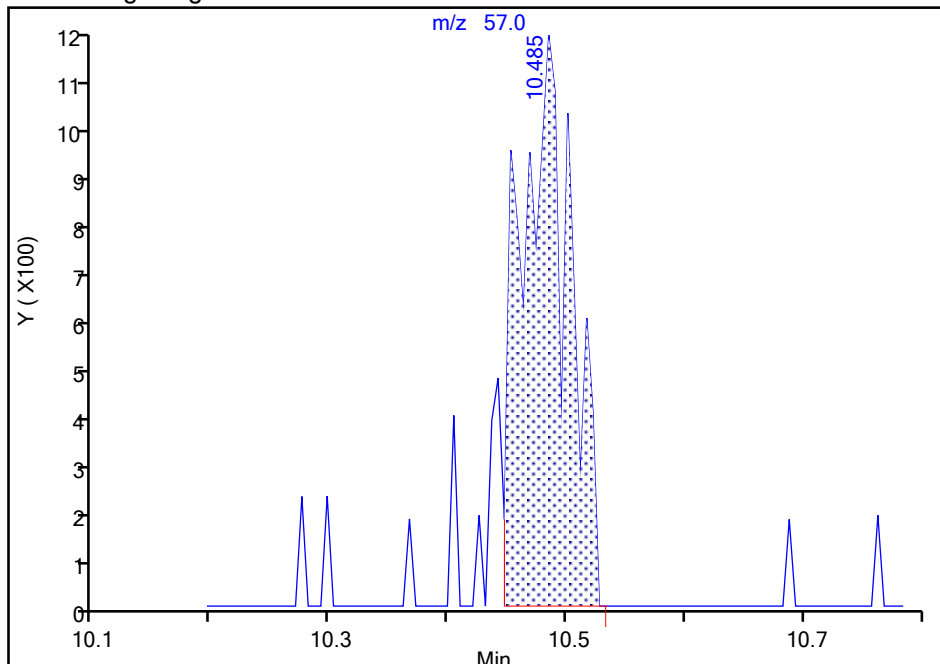
Data File:	\\chromfs\Burlington\ChromData\CHG.i\20210118-44474.b\200-44474-007.D		
Injection Date:	18-Jan-2021 12:39:30	Instrument ID:	CHG.i
Lims ID:	200-56862-A-5	Lab Sample ID:	200-56862-5
Client ID:	6430		
Operator ID:	ggg	ALS Bottle#:	6
Purge Vol:	200.000 mL	Dil. Factor:	1.0000
Method:	TO15_MasterMethod_(v1)_G	Limit Group:	AI_TO15_ICAL
Column:	RTX-624 (0.32 mm)	Detector:	MS SCAN
		Worklist Smp#:	7

46 Isooctane, CAS: 540-84-1

Signal: 1

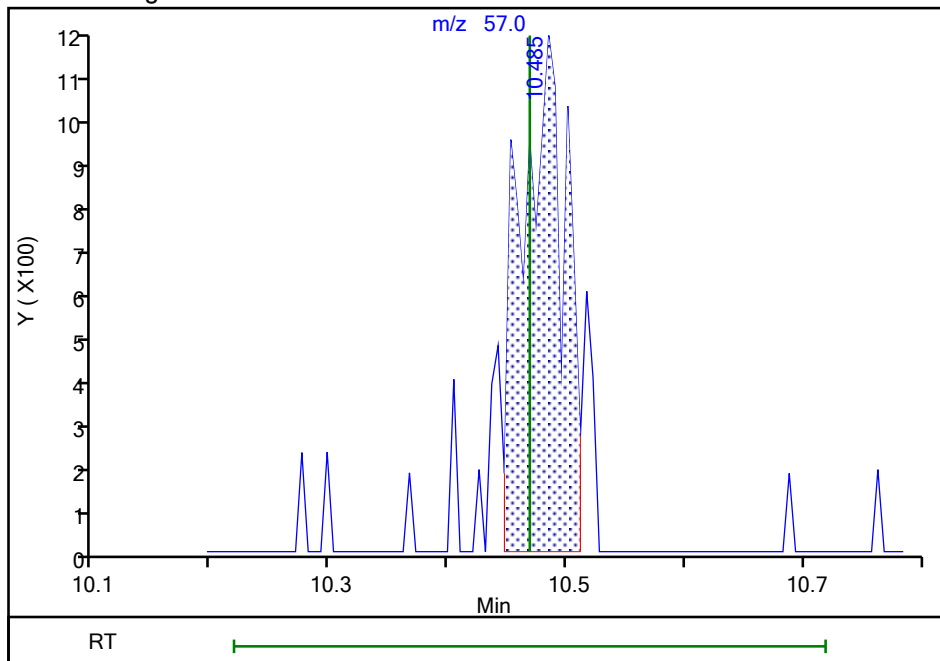
RT: 10.48
Area: 3257
Amount: 0.076261
Amount Units: ppb v/v

Processing Integration Results



RT: 10.48
Area: 2955
Amount: 0.069189
Amount Units: ppb v/v

Manual Integration Results



Reviewer: bunmaa, 19-Jan-2021 08:12:40

Audit Action: Manually Integrated

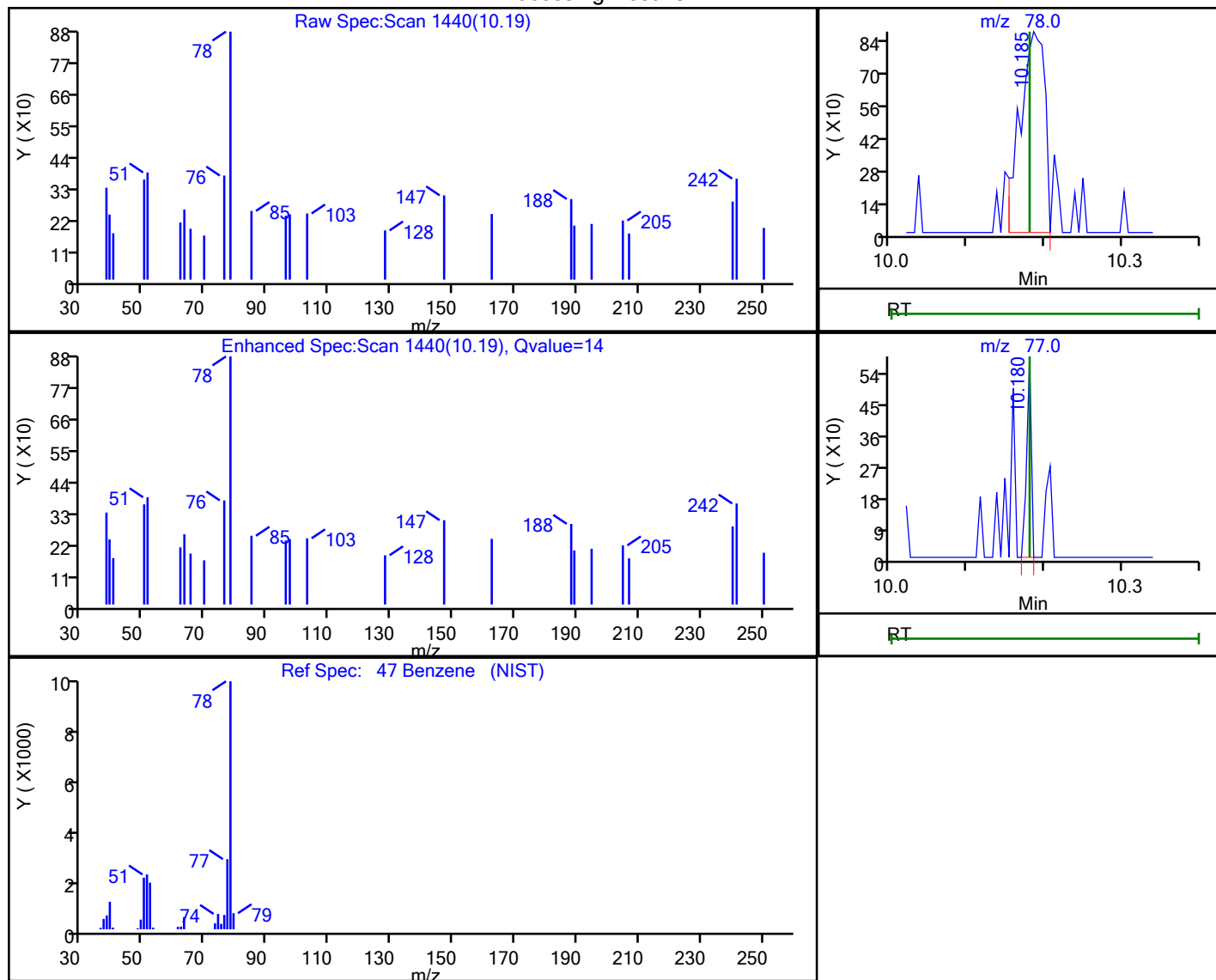
Audit Reason: Assign Peak

Eurofins TestAmerica, Burlington

Data File: \\chromfs\Burlington\ChromData\CHG.i\20210118-44474.b\200-44474-007.D
Injection Date: 18-Jan-2021 12:39:30 Instrument ID: CHG.i
Lims ID: 200-56862-A-5 Lab Sample ID: 200-56862-5
Client ID: 6430
Operator ID: ggg ALS Bottle#: 6 Worklist Smp#: 7
Purge Vol: 200.000 mL Dil. Factor: 1.0000
Method: TO15_MasterMethod_(v1)_G Limit Group: AI_TO15_ICAL
Column: RTX-624 (0.32 mm) Detector: MS SCAN

47 Benzene, CAS: 71-43-2

Processing Results



RT	Mass	Response	Amount
10.19	78.00	1938	0.066872
10.18	77.00	246	

Reviewer: bunmaa, 19-Jan-2021 08:11:34

Audit Action: Marked Compound Undetected

Audit Reason: Invalid Compound ID

Eurofins TestAmerica, Burlington

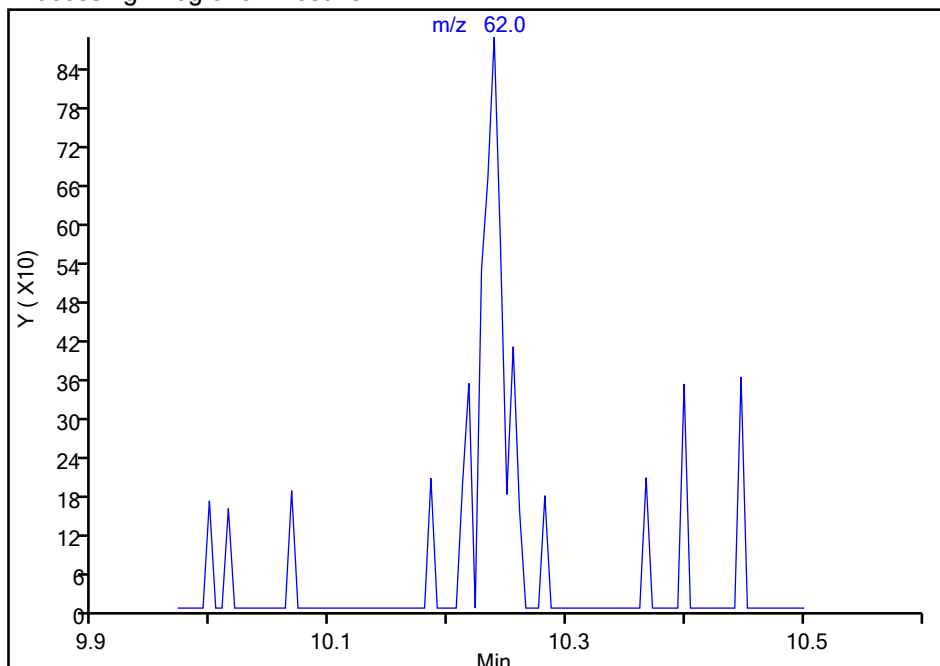
Data File:	\\chromfs\Burlington\ChromData\CHG.i\20210118-44474.b\200-44474-007.D		
Injection Date:	18-Jan-2021 12:39:30	Instrument ID:	CHG.i
Lims ID:	200-56862-A-5	Lab Sample ID:	200-56862-5
Client ID:	6430		
Operator ID:	ggg	ALS Bottle#:	6
Purge Vol:	200.000 mL	Dil. Factor:	1.0000
Method:	TO15_MasterMethod_(v1)_G	Limit Group:	AI_TO15_ICAL
Column:	RTX-624 (0.32 mm)	Detector:	MS SCAN
		Worklist Smp#:	7

48 1,2-Dichloroethane, CAS: 107-06-2

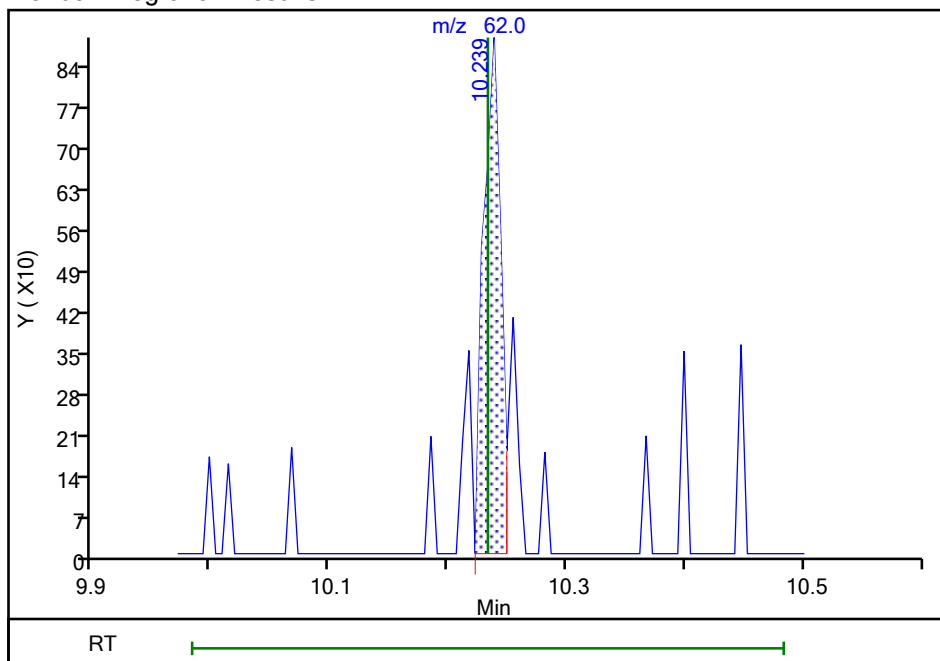
Signal: 1

Not Detected
Expected RT: 10.23

Processing Integration Results



Manual Integration Results



RT: 10.24
Area: 906
Amount: 0.062610
Amount Units: ppb v/v

Reviewer: bunmaa, 19-Jan-2021 08:11:44

Audit Action: Manually Integrated

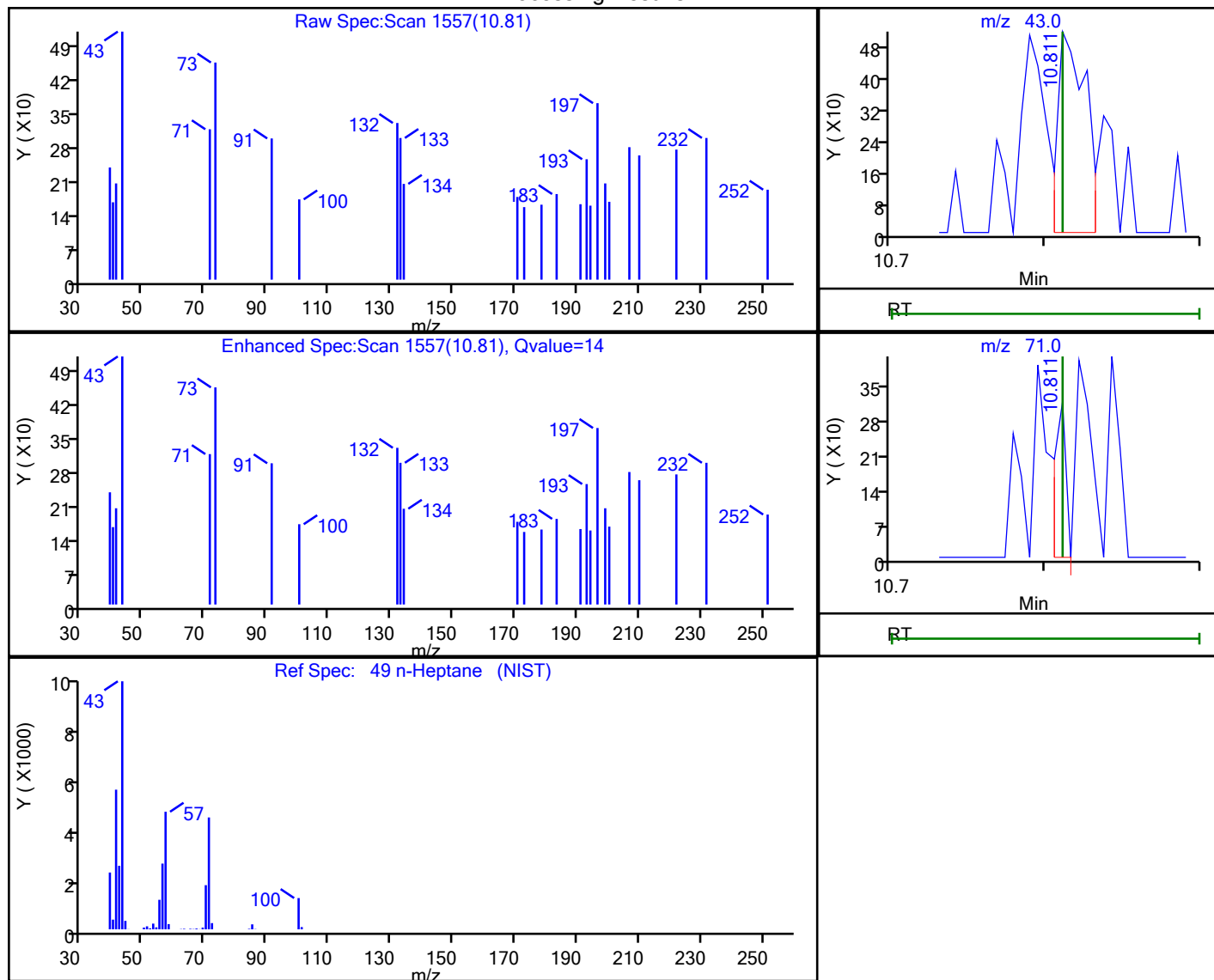
Audit Reason: Assign Peak

Eurofins TestAmerica, Burlington

Data File: \\chromfs\Burlington\ChromData\CHG.i\20210118-44474.b\200-44474-007.D
Injection Date: 18-Jan-2021 12:39:30 Instrument ID: CHG.i
Lims ID: 200-56862-A-5 Lab Sample ID: 200-56862-5
Client ID: 6430
Operator ID: ggg ALS Bottle#: 6 Worklist Smp#: 7
Purge Vol: 200.000 mL Dil. Factor: 1.0000
Method: TO15_MasterMethod_(v1)_G Limit Group: AI_TO15_ICAL
Column: RTX-624 (0.32 mm) Detector MS SCAN

49 n-Heptane, CAS: 142-82-5

Processing Results



RT	Mass	Response	Amount
10.81	43.00	661	0.038199
10.81	71.00	163	

Reviewer: bunmaa, 19-Jan-2021 08:13:05

Audit Action: Marked Compound Undetected

Audit Reason: Invalid Compound ID

Eurofins TestAmerica, Burlington

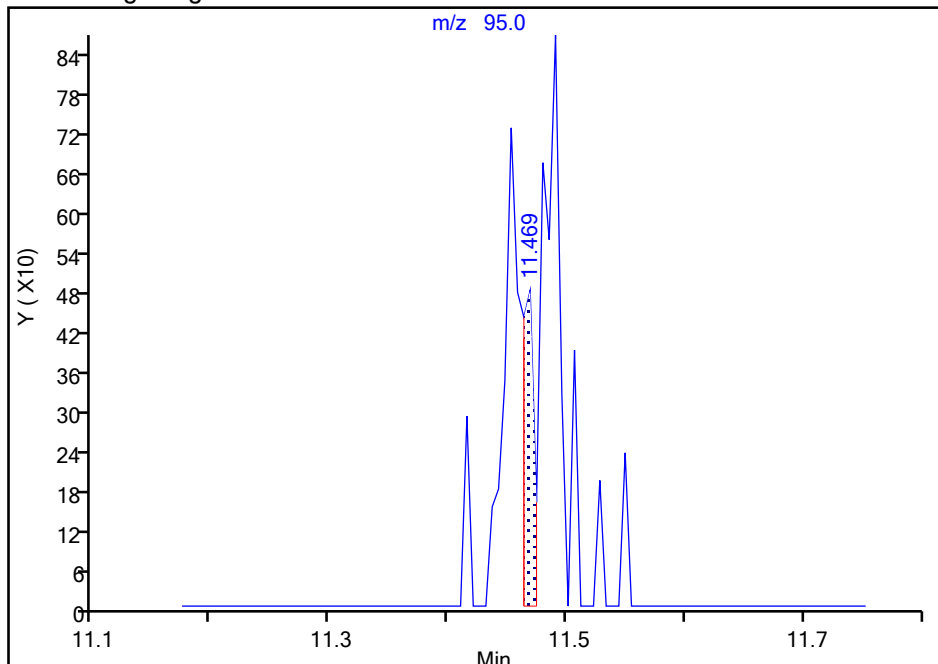
Data File:	\\chromfs\Burlington\ChromData\CHG.i\20210118-44474.b\200-44474-007.D		
Injection Date:	18-Jan-2021 12:39:30	Instrument ID:	CHG.i
Lims ID:	200-56862-A-5	Lab Sample ID:	200-56862-5
Client ID:	6430		
Operator ID:	ggg	ALS Bottle#:	6
Purge Vol:	200.000 mL	Dil. Factor:	1.0000
Method:	TO15_MasterMethod_(v1)_G	Limit Group:	AI_TO15_ICAL
Column:	RTX-624 (0.32 mm)	Detector:	MS SCAN
		Worklist Smp#:	7

53 Trichloroethene, CAS: 79-01-6

Signal: 1

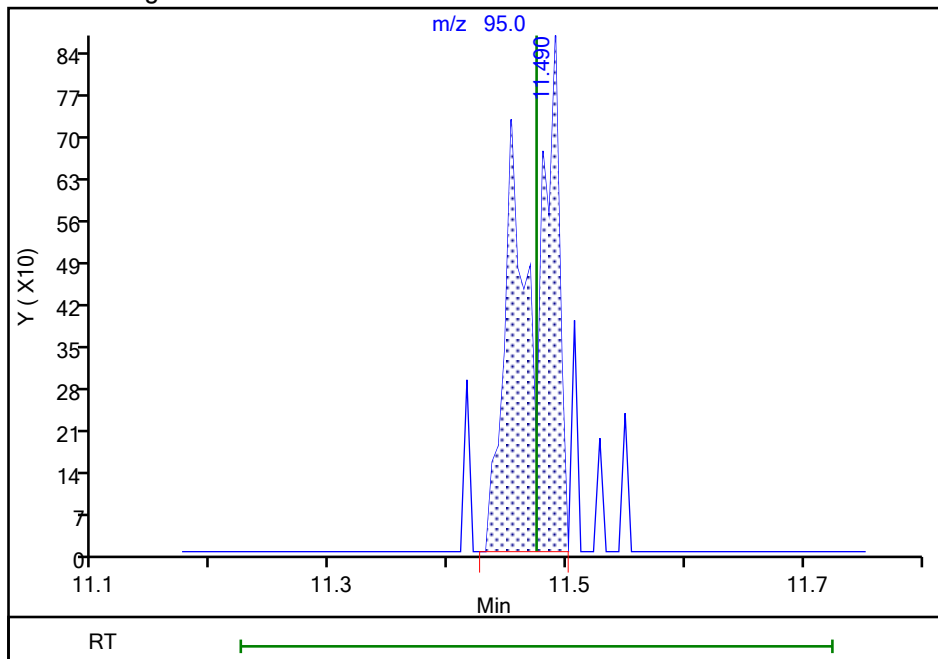
RT: 11.47
Area: 346
Amount: 0.016978
Amount Units: ppb v/v

Processing Integration Results



RT: 11.49
Area: 1725
Amount: 0.084643
Amount Units: ppb v/v

Manual Integration Results



Reviewer: bunmaa, 19-Jan-2021 08:13:17

Audit Action: Manually Integrated

Audit Reason: Assign Peak

Eurofins TestAmerica, Burlington

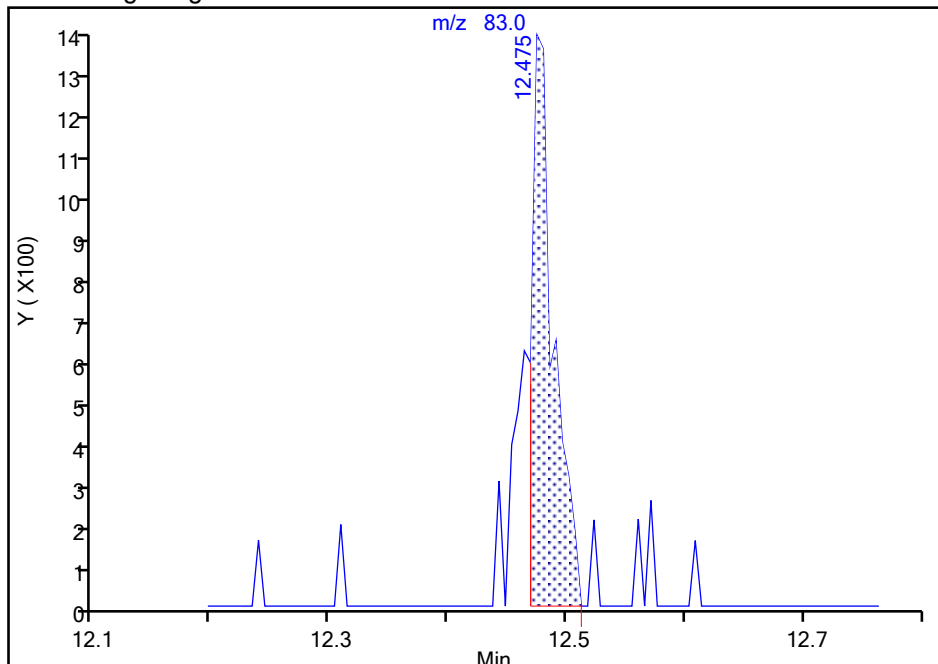
Data File:	\\chromfs\Burlington\ChromData\CHG.i\20210118-44474.b\200-44474-007.D		
Injection Date:	18-Jan-2021 12:39:30	Instrument ID:	CHG.i
Lims ID:	200-56862-A-5	Lab Sample ID:	200-56862-5
Client ID:	6430		
Operator ID:	ggg	ALS Bottle#:	6
Purge Vol:	200.000 mL	Dil. Factor:	1.0000
Method:	TO15_MasterMethod_(v1)_G	Limit Group:	AI_TO15_ICAL
Column:	RTX-624 (0.32 mm)	Detector:	MS SCAN
		Worklist Smp#:	7

58 Dichlorobromomethane, CAS: 75-27-4

Signal: 1

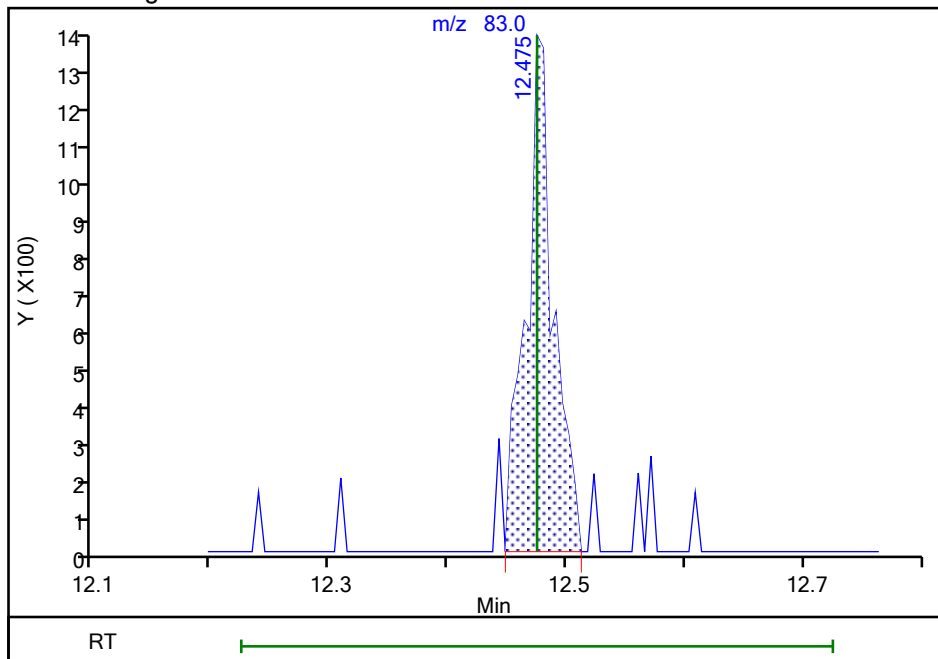
RT: 12.47
Area: 1702
Amount: 0.055775
Amount Units: ppb v/v

Processing Integration Results



RT: 12.47
Area: 2167
Amount: 0.071014
Amount Units: ppb v/v

Manual Integration Results



Reviewer: bunmaa, 19-Jan-2021 08:14:07

Audit Action: Manually Integrated

Audit Reason: Assign Peak

Eurofins TestAmerica, Burlington

Data File: \\chromfs\Burlington\ChromData\CHG.i\20210118-44474.b\200-44474-007.D

Injection Date: 18-Jan-2021 12:39:30

Instrument ID: CHG.i

Lims ID: 200-56862-A-5

Lab Sample ID: 200-56862-5

Client ID: 6430

Operator ID: ggg

ALS Bottle#: 6

Worklist Smp#: 7

Purge Vol: 200.000 mL

Dil. Factor: 1.0000

Method: TO15_MasterMethod_(v1)_G

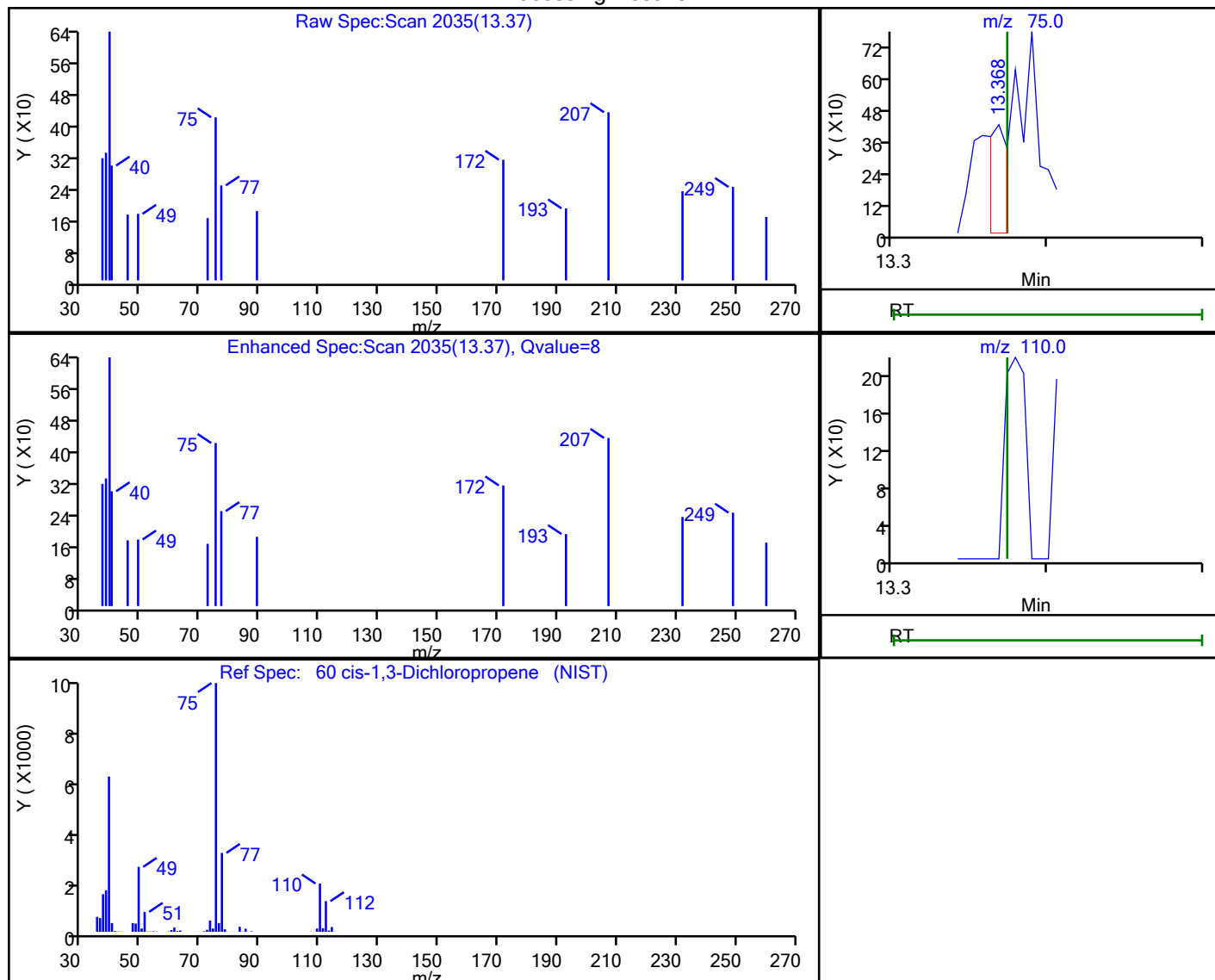
Limit Group: AI_TO15_ICAL

Column: RTX-624 (0.32 mm)

Detector: MS SCAN

60 cis-1,3-Dichloropropene, CAS: 10061-01-5

Processing Results



RT	Mass	Response	Amount
13.37	75.00	360	0.016819
13.37	110.00	0	

Reviewer: bunmaa, 19-Jan-2021 08:14:44

Audit Action: Marked Compound Undetected

Audit Reason: Invalid Compound ID

Eurofins TestAmerica, Burlington

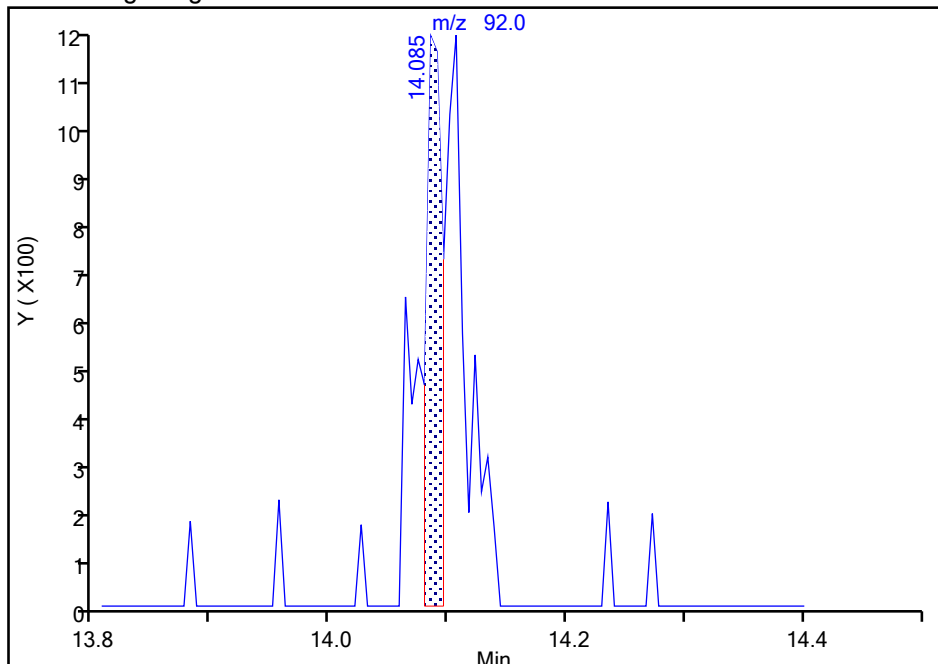
Data File:	\\chromfs\Burlington\ChromData\CHG.i\20210118-44474.b\200-44474-007.D		
Injection Date:	18-Jan-2021 12:39:30	Instrument ID:	CHG.i
Lims ID:	200-56862-A-5	Lab Sample ID:	200-56862-5
Client ID:	6430		
Operator ID:	ggg	ALS Bottle#:	6
Purge Vol:	200.000 mL	Dil. Factor:	1.0000
Method:	TO15_MasterMethod_(v1)_G	Limit Group:	AI_TO15_ICAL
Column:	RTX-624 (0.32 mm)	Detector:	MS SCAN
		Worklist Smp#:	7

65 Toluene, CAS: 108-88-3

Signal: 1

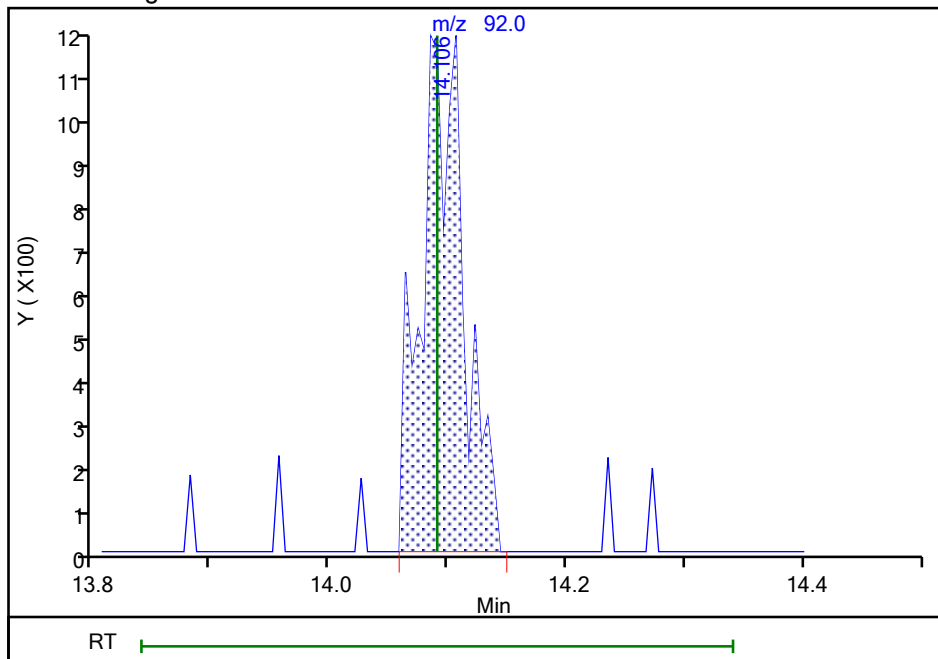
RT: 14.09
Area: 1068
Amount: 0.045775
Amount Units: ppb v/v

Processing Integration Results



RT: 14.11
Area: 2823
Amount: 0.120995
Amount Units: ppb v/v

Manual Integration Results



Reviewer: bunmaa, 19-Jan-2021 08:14:59

Audit Action: Manually Integrated

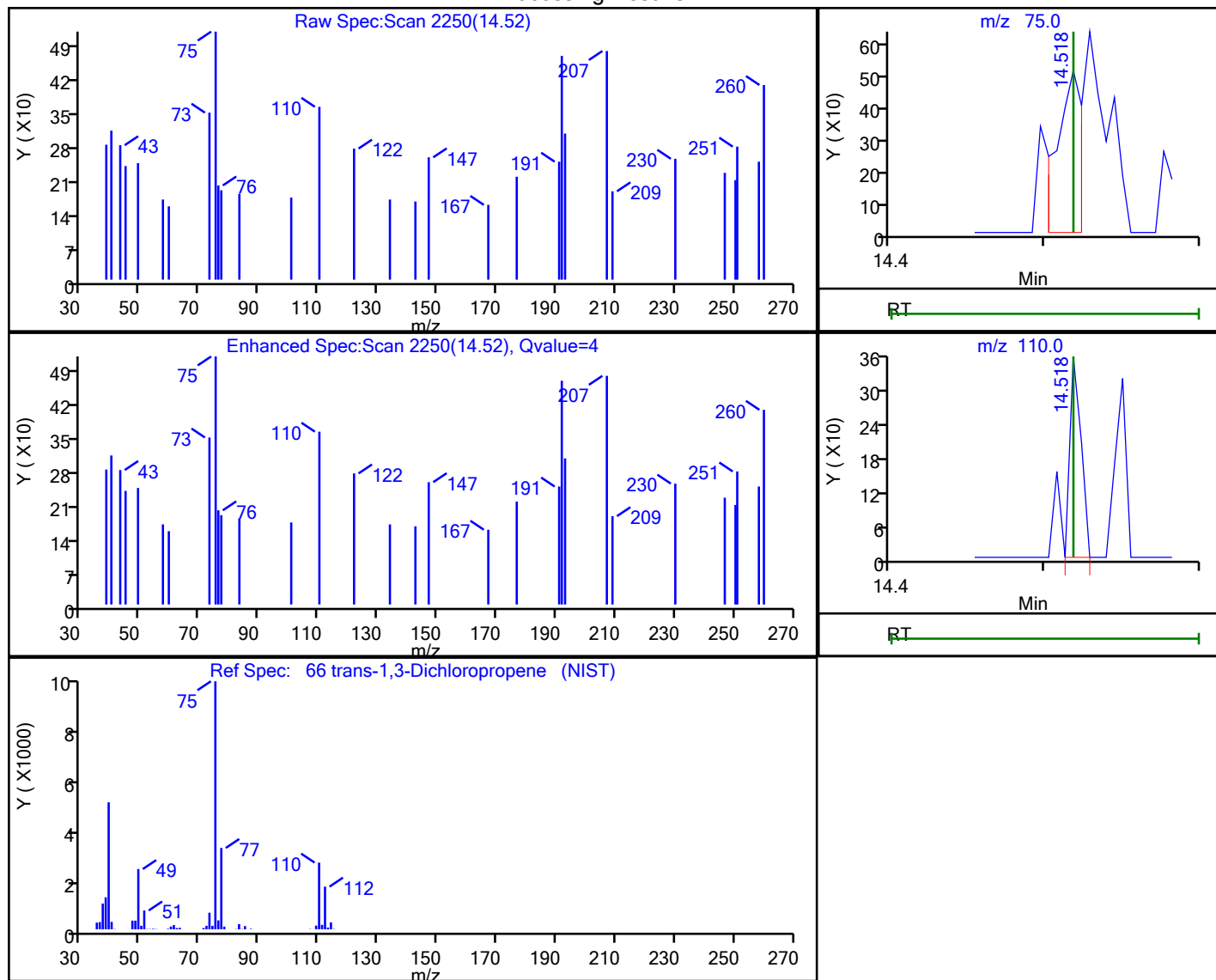
Audit Reason: Assign Peak

Eurofins TestAmerica, Burlington

Data File: \\chromfs\Burlington\ChromData\CHG.i\20210118-44474.b\200-44474-007.D
Injection Date: 18-Jan-2021 12:39:30 Instrument ID: CHG.i
Lims ID: 200-56862-A-5 Lab Sample ID: 200-56862-5
Client ID: 6430
Operator ID: ggg ALS Bottle#: 6 Worklist Smp#: 7
Purge Vol: 200.000 mL Dil. Factor: 1.0000
Method: TO15_MasterMethod_(v1)_G Limit Group: AI_TO15_ICAL
Column: RTX-624 (0.32 mm) Detector: MS SCAN

66 trans-1,3-Dichloropropene, CAS: 10061-02-6

Processing Results



RT	Mass	Response	Amount
14.52	75.00	579	0.029607
14.52	110.00	179	

Reviewer: bunmaa, 19-Jan-2021 08:18:34

Audit Action: Marked Compound Undetected

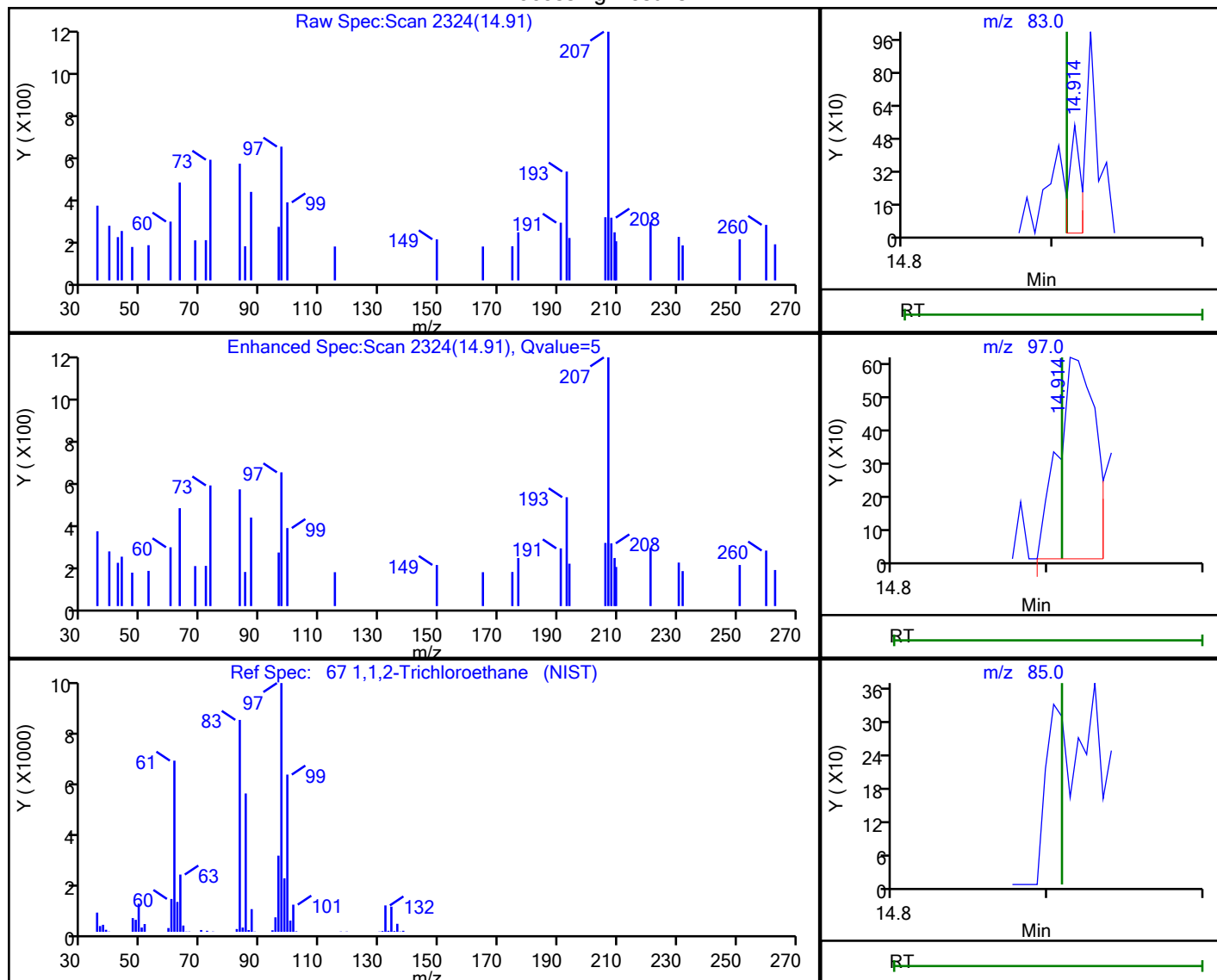
Audit Reason: Invalid Compound ID

Eurofins TestAmerica, Burlington

Data File: \\chromfs\Burlington\ChromData\CHG.i\20210118-44474.b\200-44474-007.D
Injection Date: 18-Jan-2021 12:39:30 Instrument ID: CHG.i
Lims ID: 200-56862-A-5 Lab Sample ID: 200-56862-5
Client ID: 6430
Operator ID: ggg ALS Bottle#: 6 Worklist Smp#: 7
Purge Vol: 200.000 mL Dil. Factor: 1.0000
Method: TO15_MasterMethod_(v1)_G Limit Group: AI_TO15_ICAL
Column: RTX-624 (0.32 mm) Detector: MS SCAN

67 1,1,2-Trichloroethane, CAS: 79-00-5

Processing Results



RT	Mass	Response	Amount
14.91	83.00	291	0.022739
14.91	97.00	1037	
14.91	85.00	0	

Reviewer: bunmaa, 19-Jan-2021 08:16:17

Audit Action: Marked Compound Undetected

Audit Reason: Invalid Compound ID

Eurofins TestAmerica, Burlington

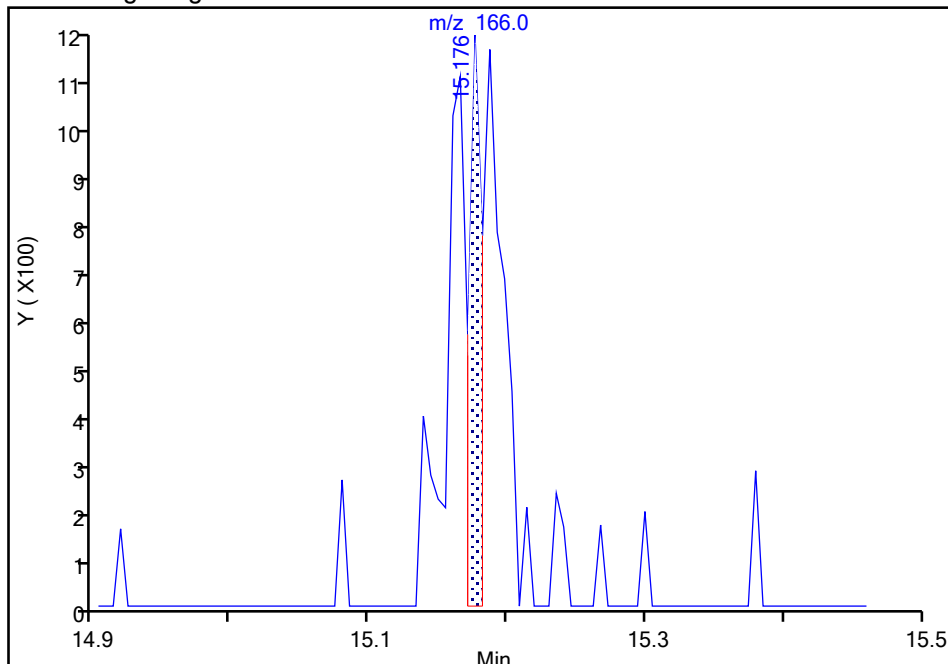
Data File:	\\chromfs\Burlington\ChromData\CHG.i\20210118-44474.b\200-44474-007.D		
Injection Date:	18-Jan-2021 12:39:30	Instrument ID:	CHG.i
Lims ID:	200-56862-A-5	Lab Sample ID:	200-56862-5
Client ID:	6430		
Operator ID:	ggg	ALS Bottle#:	6
Purge Vol:	200.000 mL	Dil. Factor:	1.0000
Method:	TO15_MasterMethod_(v1)_G	Limit Group:	AI_TO15_ICAL
Column:	RTX-624 (0.32 mm)	Detector:	MS SCAN
		Worklist Smp#:	7

68 Tetrachloroethene, CAS: 127-18-4

Signal: 1

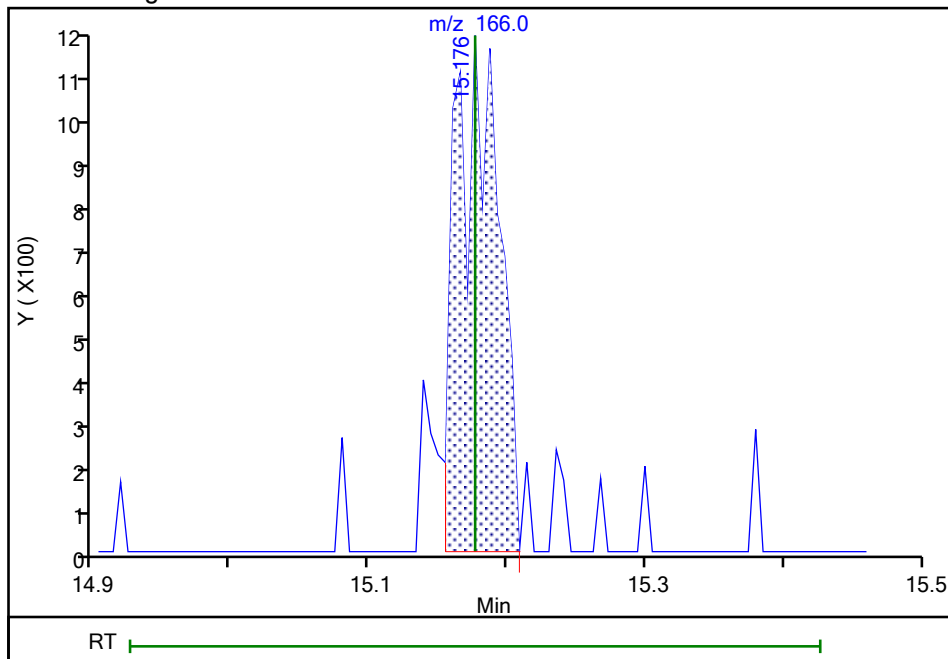
RT: 15.18
Area: 811
Amount: 0.031759
Amount Units: ppb v/v

Processing Integration Results



RT: 15.18
Area: 2545
Amount: 0.099662
Amount Units: ppb v/v

Manual Integration Results



Reviewer: bunmaa, 19-Jan-2021 08:16:26

Audit Action: Manually Integrated

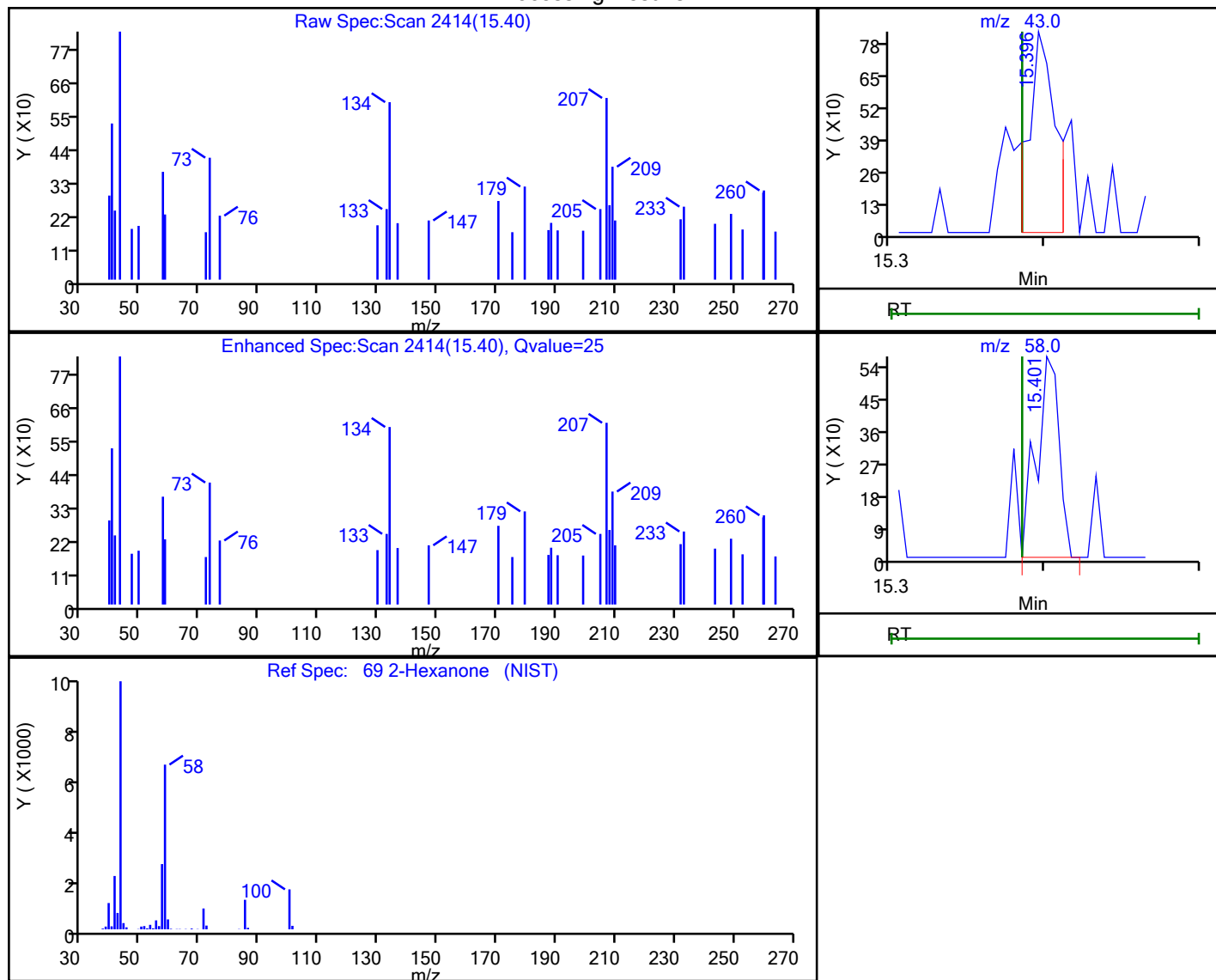
Audit Reason: Assign Peak

Eurofins TestAmerica, Burlington

Data File: \\chromfs\Burlington\ChromData\CHG.i\20210118-44474.b\200-44474-007.D
Injection Date: 18-Jan-2021 12:39:30 Instrument ID: CHG.i
Lims ID: 200-56862-A-5 Lab Sample ID: 200-56862-5
Client ID: 6430
Operator ID: ggg ALS Bottle#: 6 Worklist Smp#: 7
Purge Vol: 200.000 mL Dil. Factor: 1.0000
Method: TO15_MasterMethod_(v1)_G Limit Group: AI_TO15_ICAL
Column: RTX-624 (0.32 mm) Detector: MS SCAN

69 2-Hexanone, CAS: 591-78-6

Processing Results



RT	Mass	Response	Amount
15.40	43.00	991	0.049806
15.40	58.00	577	

Reviewer: bunmaa, 19-Jan-2021 08:18:58

Audit Action: Marked Compound Undetected

Audit Reason: Invalid Compound ID

Eurofins TestAmerica, Burlington

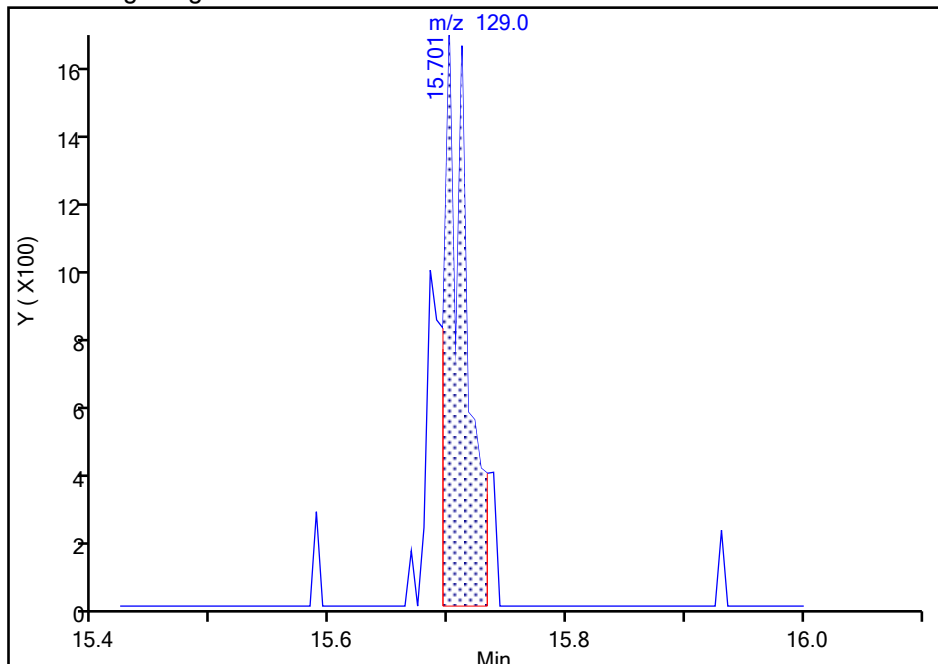
Data File:	\\chromfs\Burlington\ChromData\CHG.i\20210118-44474.b\200-44474-007.D		
Injection Date:	18-Jan-2021 12:39:30	Instrument ID:	CHG.i
Lims ID:	200-56862-A-5	Lab Sample ID:	200-56862-5
Client ID:	6430		
Operator ID:	ggg	ALS Bottle#:	6
Purge Vol:	200.000 mL	Dil. Factor:	1.0000
Method:	TO15_MasterMethod_(v1)_G	Limit Group:	AI_TO15_ICAL
Column:	RTX-624 (0.32 mm)	Detector:	MS SCAN
		Worklist Smp#:	7

71 Chlorodibromomethane, CAS: 124-48-1

Signal: 1

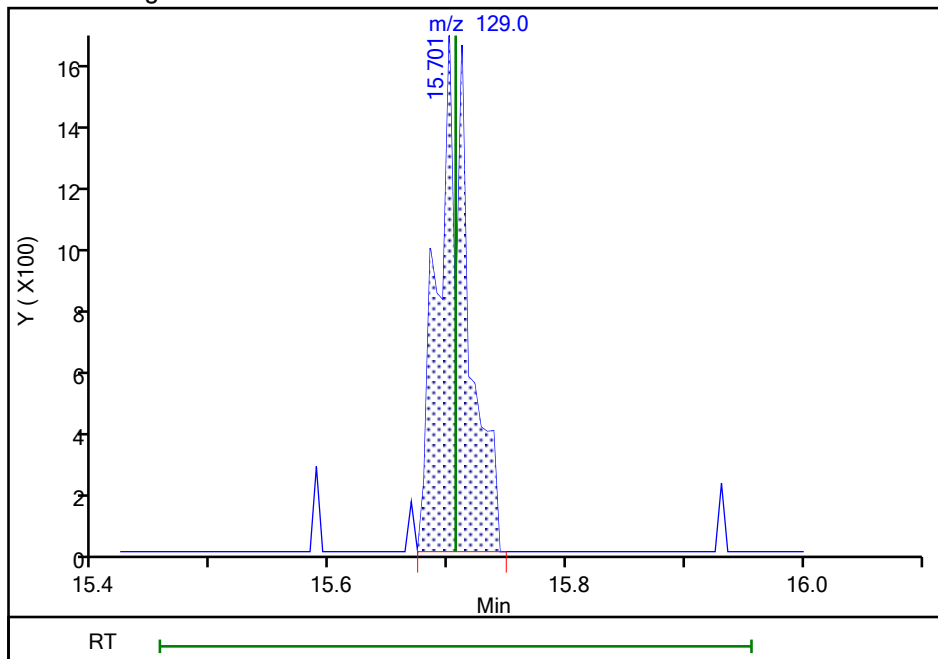
RT: 15.70
Area: 2152
Amount: 0.064222
Amount Units: ppb v/v

Processing Integration Results



RT: 15.70
Area: 2933
Amount: 0.087530
Amount Units: ppb v/v

Manual Integration Results



Reviewer: bunmaa, 19-Jan-2021 08:19:05

Audit Action: Manually Integrated

Audit Reason: Assign Peak

Eurofins TestAmerica, Burlington

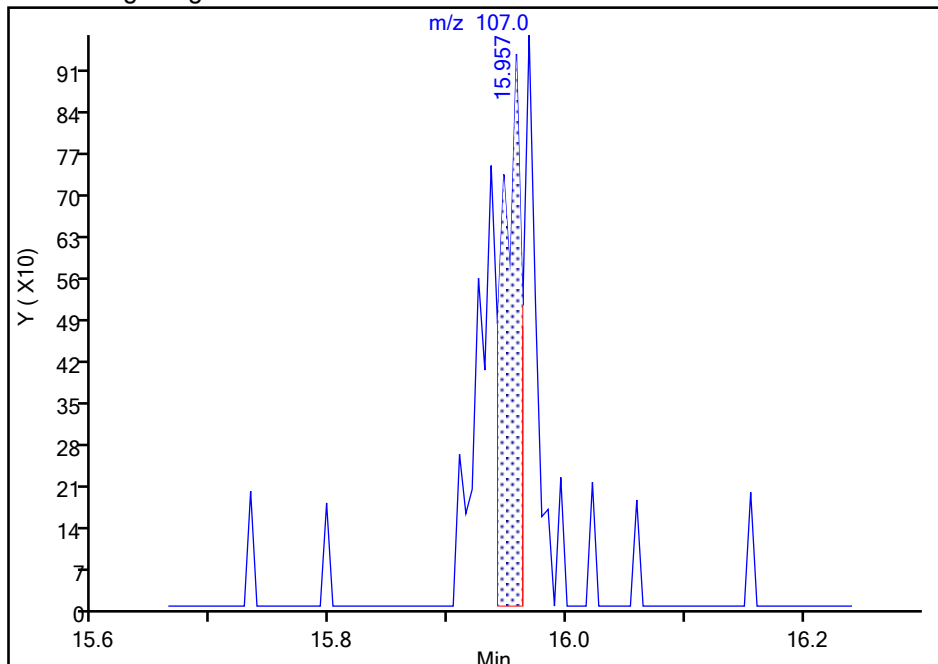
Data File:	\\chromfs\Burlington\ChromData\CHG.i\20210118-44474.b\200-44474-007.D		
Injection Date:	18-Jan-2021 12:39:30	Instrument ID:	CHG.i
Lims ID:	200-56862-A-5	Lab Sample ID:	200-56862-5
Client ID:	6430		
Operator ID:	ggg	ALS Bottle#:	6
Purge Vol:	200.000 mL	Dil. Factor:	1.0000
Method:	TO15_MasterMethod_(v1)_G	Limit Group:	AI_TO15_ICAL
Column:	RTX-624 (0.32 mm)	Detector:	MS SCAN
		Worklist Smp#:	7

72 Ethylene Dibromide, CAS: 106-93-4

Signal: 1

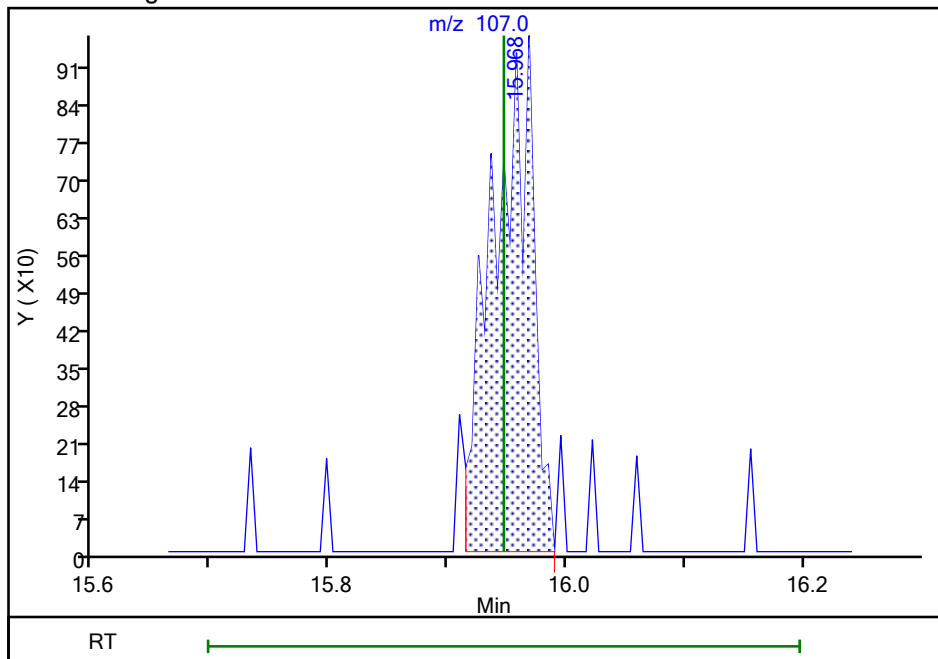
RT: 15.96
Area: 1029
Amount: 0.044009
Amount Units: ppb v/v

Processing Integration Results



RT: 15.97
Area: 2260
Amount: 0.096656
Amount Units: ppb v/v

Manual Integration Results



Reviewer: bunmaa, 19-Jan-2021 08:19:24

Audit Action: Manually Integrated

Audit Reason: Assign Peak

Eurofins TestAmerica, Burlington

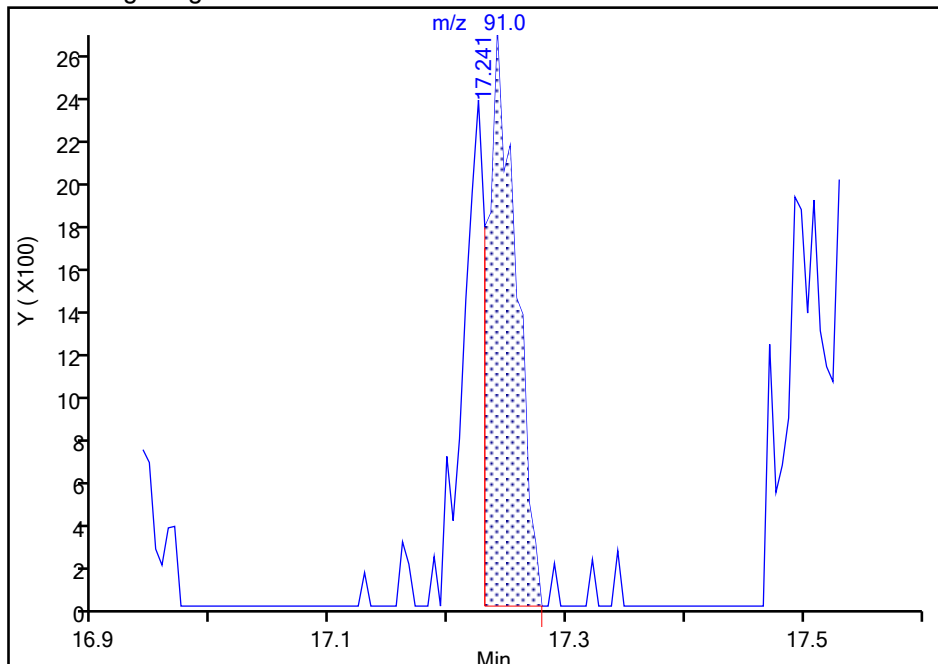
Data File:	\\chromfs\Burlington\ChromData\CHG.i\20210118-44474.b\200-44474-007.D		
Injection Date:	18-Jan-2021 12:39:30	Instrument ID:	CHG.i
Lims ID:	200-56862-A-5	Lab Sample ID:	200-56862-5
Client ID:	6430		
Operator ID:	ggg	ALS Bottle#:	6
Purge Vol:	200.000 mL	Dil. Factor:	1.0000
Method:	TO15_MasterMethod_(v1)_G	Limit Group:	AI_TO15_ICAL
Column:	RTX-624 (0.32 mm)	Detector:	MS SCAN
		Worklist Smp#:	7

76 Ethylbenzene, CAS: 100-41-4

Signal: 1

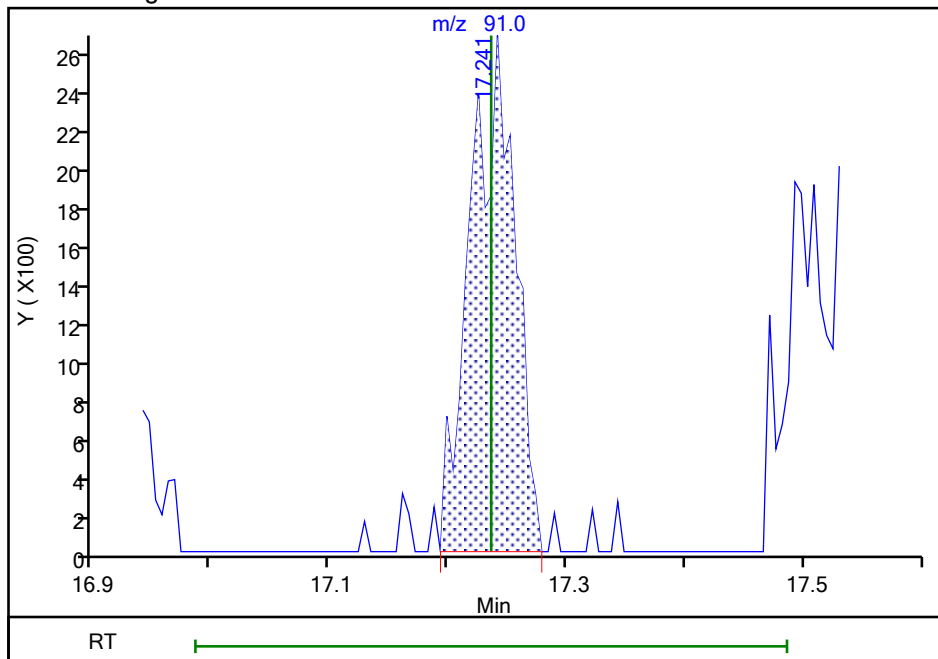
RT: 17.24
Area: 4424
Amount: 0.083915
Amount Units: ppb v/v

Processing Integration Results



RT: 17.24
Area: 6823
Amount: 0.129419
Amount Units: ppb v/v

Manual Integration Results



Reviewer: bunmaa, 19-Jan-2021 08:19:52

Audit Action: Manually Integrated

Audit Reason: Assign Peak

Eurofins TestAmerica, Burlington

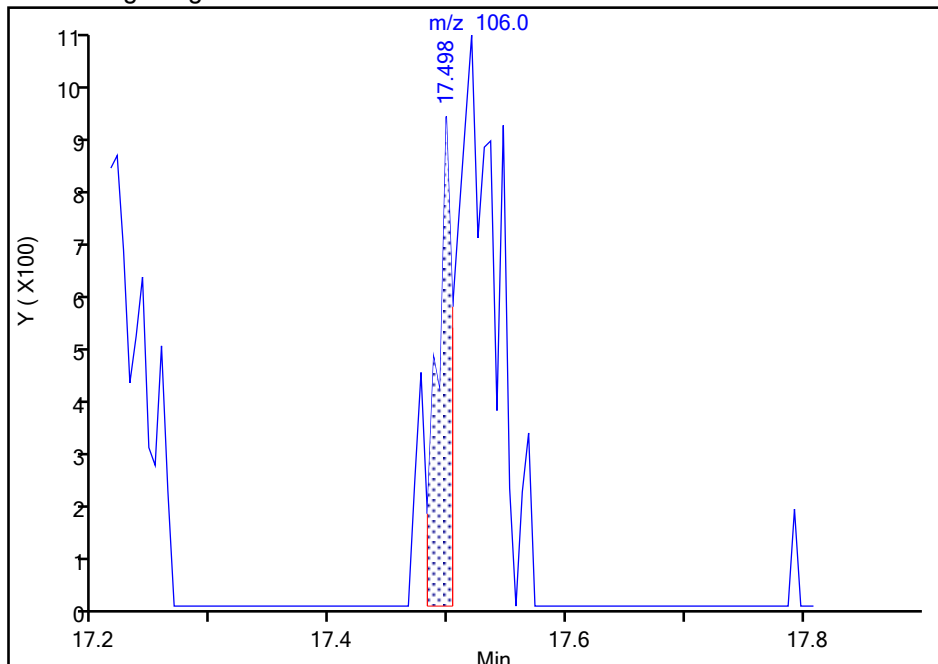
Data File:	\\chromfs\Burlington\ChromData\CHG.i\20210118-44474.b\200-44474-007.D		
Injection Date:	18-Jan-2021 12:39:30	Instrument ID:	CHG.i
Lims ID:	200-56862-A-5	Lab Sample ID:	200-56862-5
Client ID:	6430		
Operator ID:	ggg	ALS Bottle#:	6
Purge Vol:	200.000 mL	Dil. Factor:	1.0000
Method:	TO15_MasterMethod_(v1)_G	Limit Group:	AI_TO15_ICAL
Column:	RTX-624 (0.32 mm)	Detector:	MS SCAN
		Worklist Smp#:	7

78 m-Xylene & p-Xylene, CAS: 179601-23-1

Signal: 1

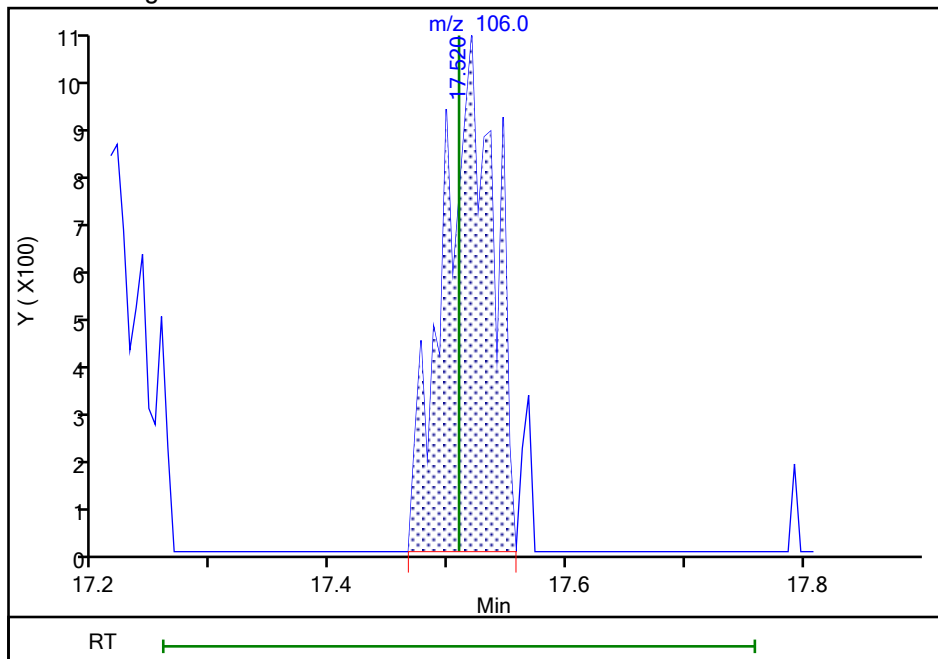
RT: 17.50
Area: 827
Amount: 0.043387
Amount Units: ppb v/v

Processing Integration Results



RT: 17.52
Area: 3220
Amount: 0.168932
Amount Units: ppb v/v

Manual Integration Results



Reviewer: bunmaa, 19-Jan-2021 08:20:21

Audit Action: Manually Integrated

Audit Reason: Assign Peak

Eurofins TestAmerica, Burlington

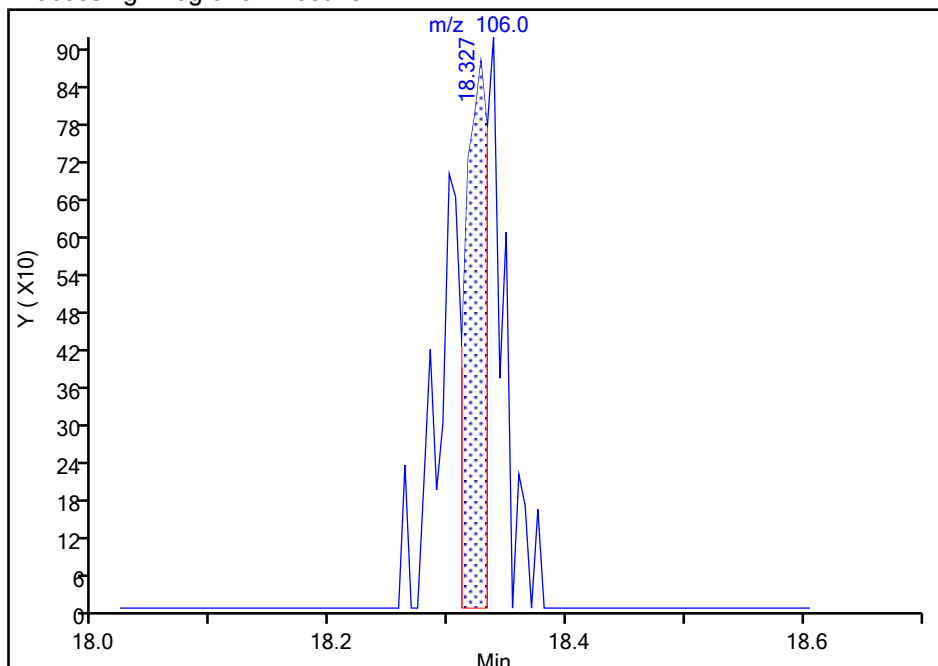
Data File:	\\chromfs\Burlington\ChromData\CHG.i\20210118-44474.b\200-44474-007.D		
Injection Date:	18-Jan-2021 12:39:30	Instrument ID:	CHG.i
Lims ID:	200-56862-A-5	Lab Sample ID:	200-56862-5
Client ID:	6430		
Operator ID:	ggg	ALS Bottle#:	6
Purge Vol:	200.000 mL	Dil. Factor:	1.0000
Method:	TO15_MasterMethod_(v1)_G	Limit Group:	AI_TO15_ICAL
Column:	RTX-624 (0.32 mm)	Detector:	MS SCAN
		Worklist Smp#:	7

79 o-Xylene, CAS: 95-47-6

Signal: 1

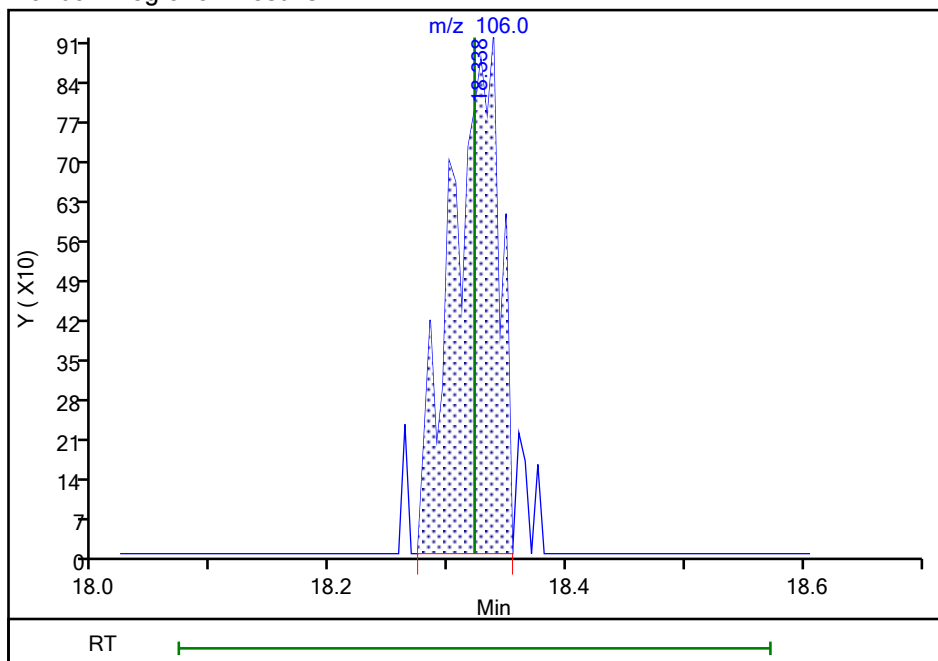
RT: 18.33
Area: 1146
Amount: 0.058435
Amount Units: ppb v/v

Processing Integration Results



RT: 18.34
Area: 2538
Amount: 0.129413
Amount Units: ppb v/v

Manual Integration Results



Reviewer: bunmaa, 19-Jan-2021 08:20:34

Audit Action: Manually Integrated

Audit Reason: Assign Peak

Eurofins TestAmerica, Burlington

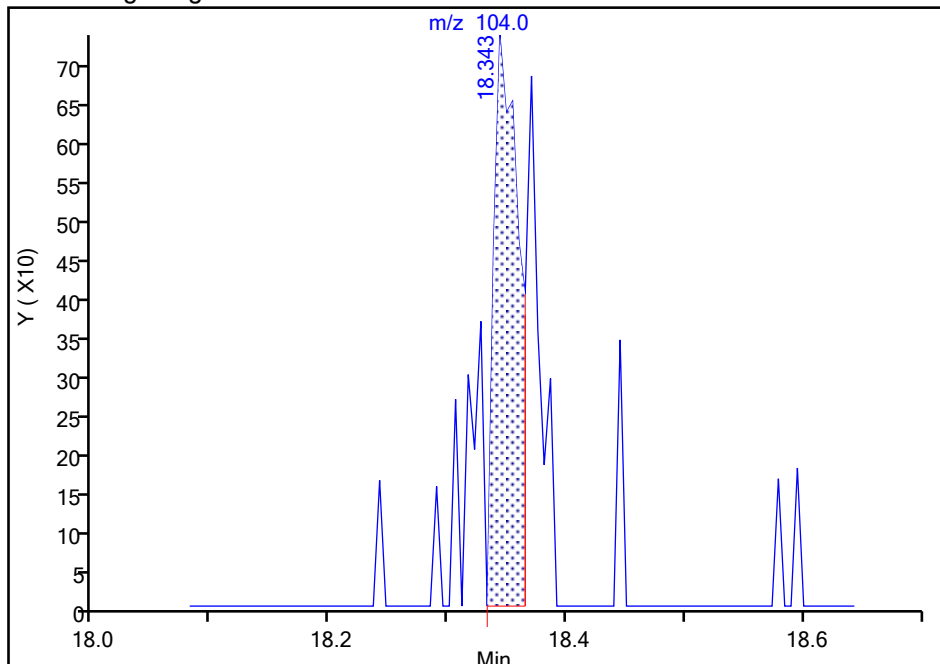
Data File:	\\chromfs\Burlington\ChromData\CHG.i\20210118-44474.b\200-44474-007.D		
Injection Date:	18-Jan-2021 12:39:30	Instrument ID:	CHG.i
Lims ID:	200-56862-A-5	Lab Sample ID:	200-56862-5
Client ID:	6430		
Operator ID:	ggg	ALS Bottle#:	6
Purge Vol:	200.000 mL	Dil. Factor:	1.0000
Method:	TO15_MasterMethod_(v1)_G	Limit Group:	AI_TO15_ICAL
Column:	RTX-624 (0.32 mm)	Detector:	MS SCAN
		Worklist Smp#:	7

80 Styrene, CAS: 100-42-5

Signal: 1

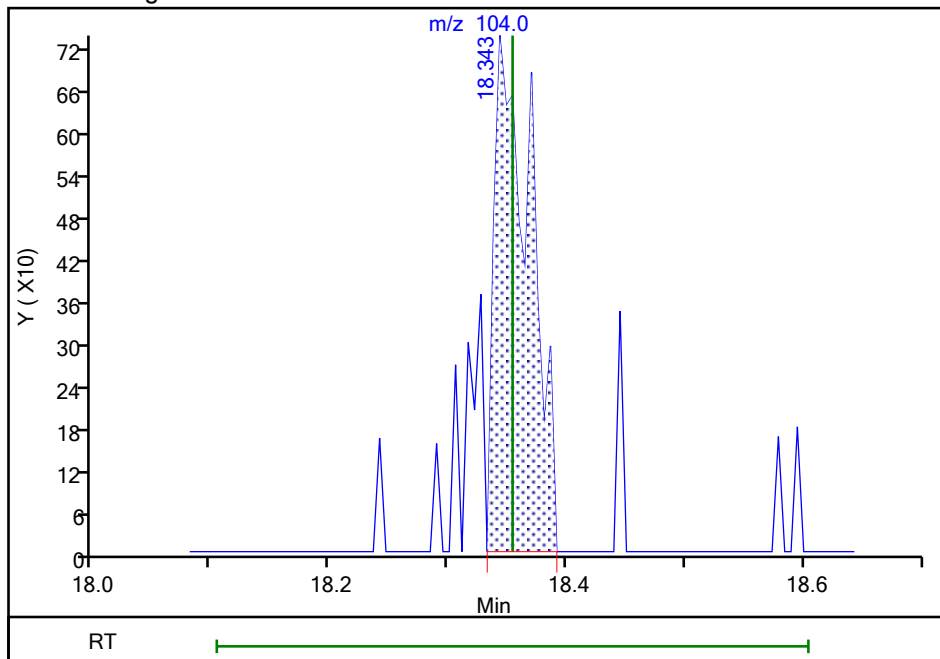
RT: 18.34
Area: 1083
Amount: 0.037204
Amount Units: ppb v/v

Processing Integration Results



RT: 18.34
Area: 1571
Amount: 0.053968
Amount Units: ppb v/v

Manual Integration Results



Reviewer: bunmaa, 19-Jan-2021 08:20:57

Audit Action: Manually Integrated

Audit Reason: Assign Peak

Eurofins TestAmerica, Burlington

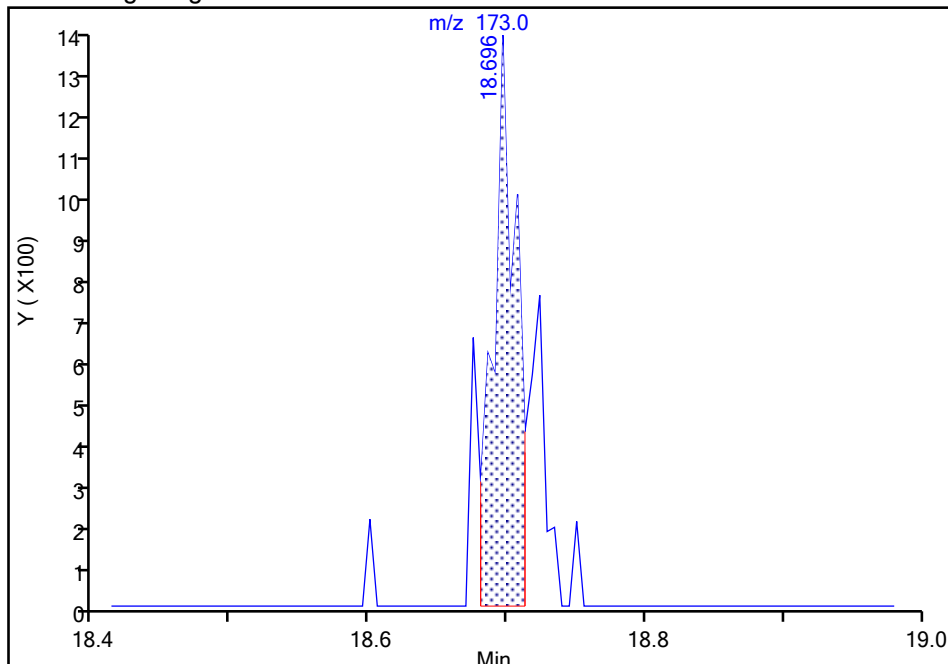
Data File:	\\chromfs\Burlington\ChromData\CHG.i\20210118-44474.b\200-44474-007.D		
Injection Date:	18-Jan-2021 12:39:30	Instrument ID:	CHG.i
Lims ID:	200-56862-A-5	Lab Sample ID:	200-56862-5
Client ID:	6430		
Operator ID:	ggg	ALS Bottle#:	6
Purge Vol:	200.000 mL	Dil. Factor:	1.0000
Method:	TO15_MasterMethod_(v1)_G	Limit Group:	AI_TO15_ICAL
Column:	RTX-624 (0.32 mm)	Detector:	MS SCAN
		Worklist Smp#:	7

81 Bromoform, CAS: 75-25-2

Signal: 1

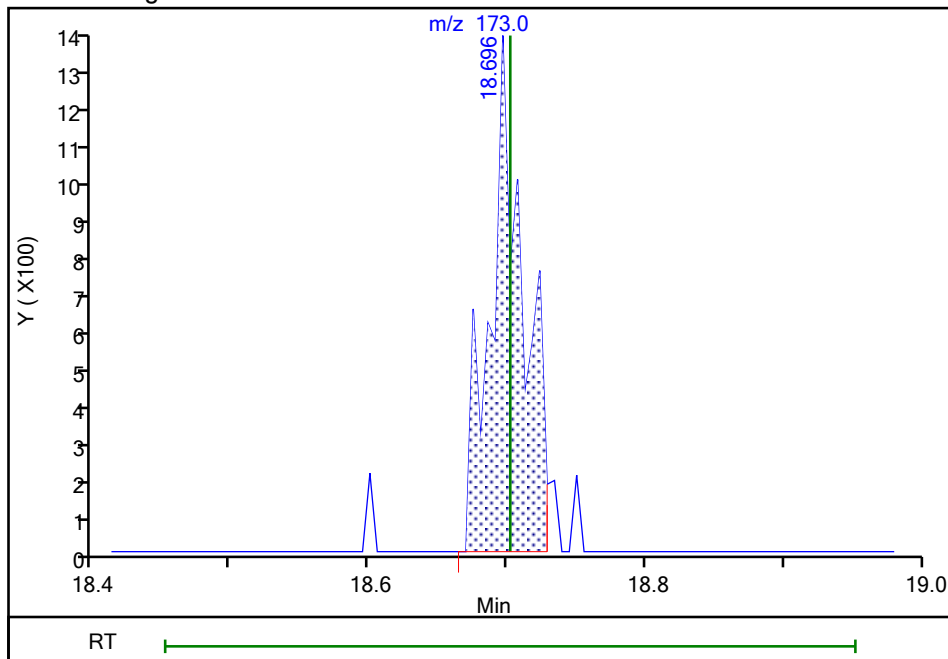
RT: 18.70
Area: 1574
Amount: 0.052919
Amount Units: ppb v/v

Processing Integration Results



RT: 18.70
Area: 2245
Amount: 0.075478
Amount Units: ppb v/v

Manual Integration Results



Reviewer: bunmaa, 19-Jan-2021 08:21:21

Audit Action: Manually Integrated

Audit Reason: Assign Peak

Eurofins TestAmerica, Burlington

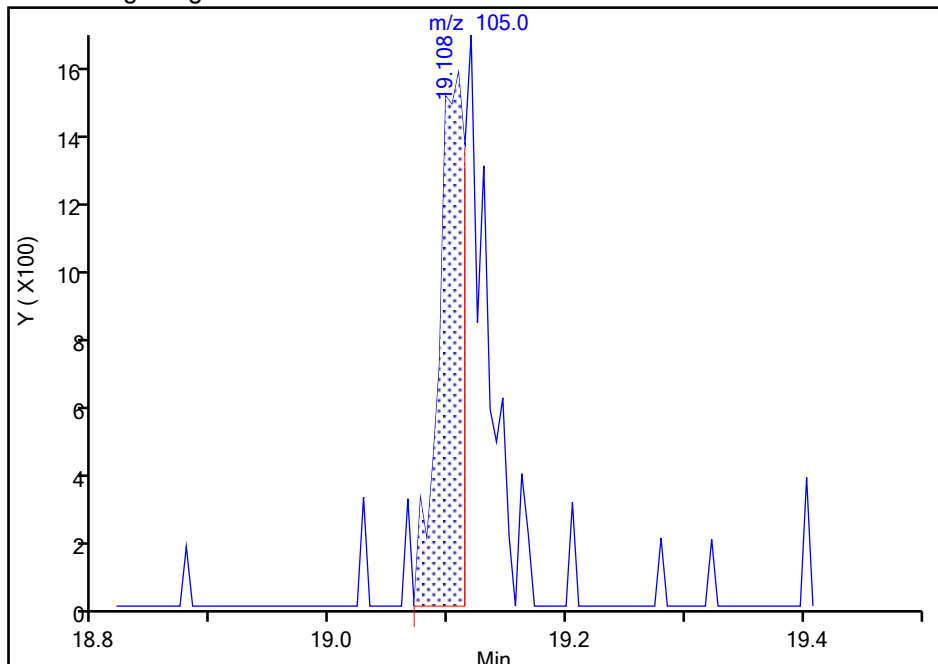
Data File:	\\chromfs\Burlington\ChromData\CHG.i\20210118-44474.b\200-44474-007.D		
Injection Date:	18-Jan-2021 12:39:30	Instrument ID:	CHG.i
Lims ID:	200-56862-A-5	Lab Sample ID:	200-56862-5
Client ID:	6430		
Operator ID:	ggg	ALS Bottle#:	6
Purge Vol:	200.000 mL	Dil. Factor:	1.0000
Method:	TO15_MasterMethod_(v1)_G	Limit Group:	AI_TO15_ICAL
Column:	RTX-624 (0.32 mm)	Detector:	MS SCAN
		Worklist Smp#:	7

82 Isopropylbenzene, CAS: 98-82-8

Signal: 1

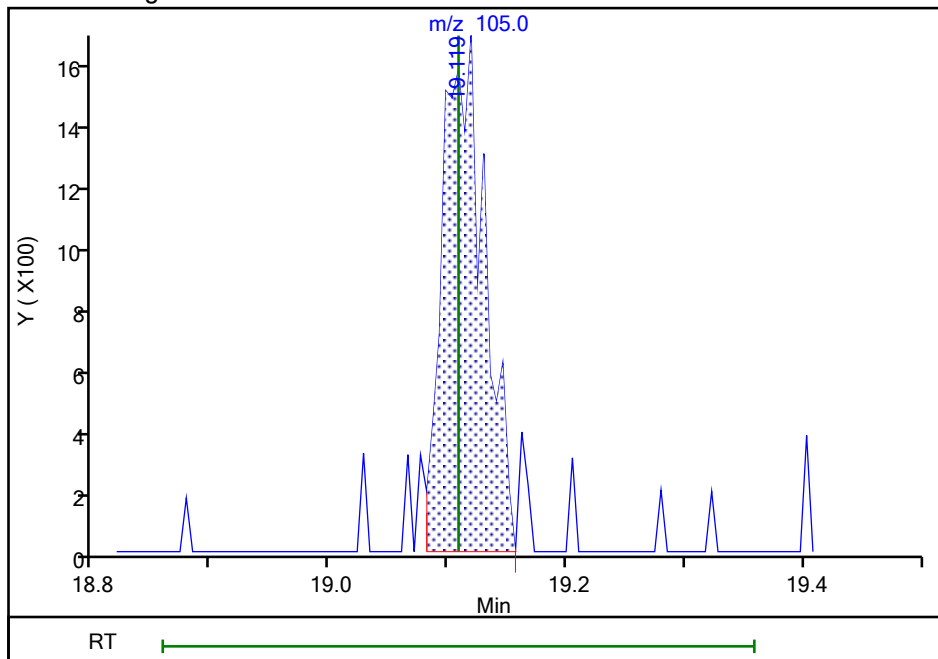
RT: 19.11
Area: 2355
Amount: 0.043840
Amount Units: ppb v/v

Processing Integration Results



RT: 19.12
Area: 4032
Amount: 0.075058
Amount Units: ppb v/v

Manual Integration Results



Reviewer: bunmaa, 19-Jan-2021 08:21:45

Audit Action: Manually Integrated

Audit Reason: Assign Peak

Eurofins TestAmerica, Burlington

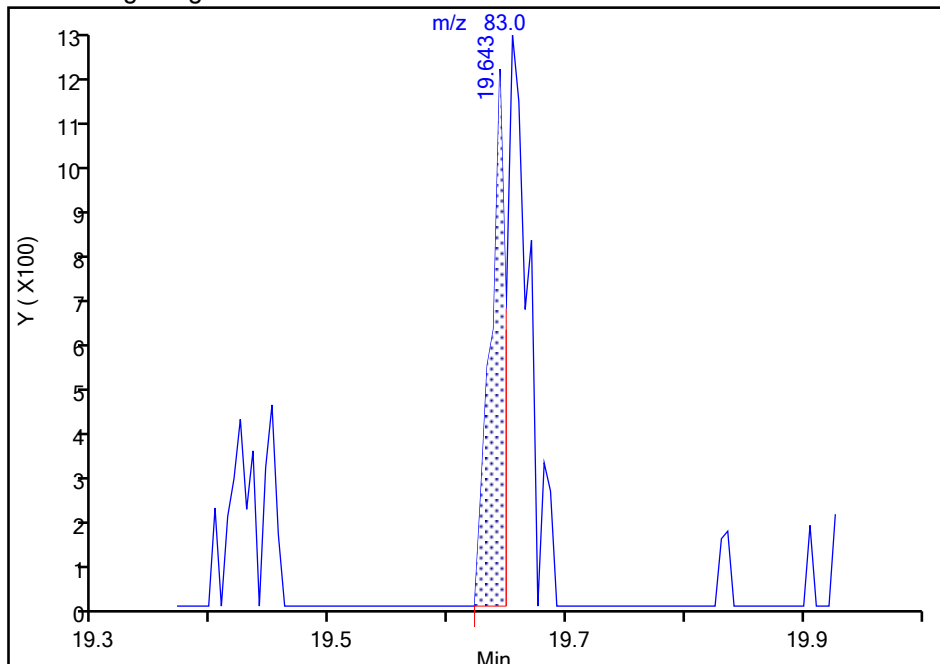
Data File:	\\chromfs\Burlington\ChromData\CHG.i\20210118-44474.b\200-44474-007.D		
Injection Date:	18-Jan-2021 12:39:30	Instrument ID:	CHG.i
Lims ID:	200-56862-A-5	Lab Sample ID:	200-56862-5
Client ID:	6430		
Operator ID:	ggg	ALS Bottle#:	6
Purge Vol:	200.000 mL	Dil. Factor:	1.0000
Method:	TO15_MasterMethod_(v1)_G	Limit Group:	AI_TO15_ICAL
Column:	RTX-624 (0.32 mm)	Detector:	MS SCAN
		Worklist Smp#:	7

84 1,1,2,2-Tetrachloroethane, CAS: 79-34-5

Signal: 1

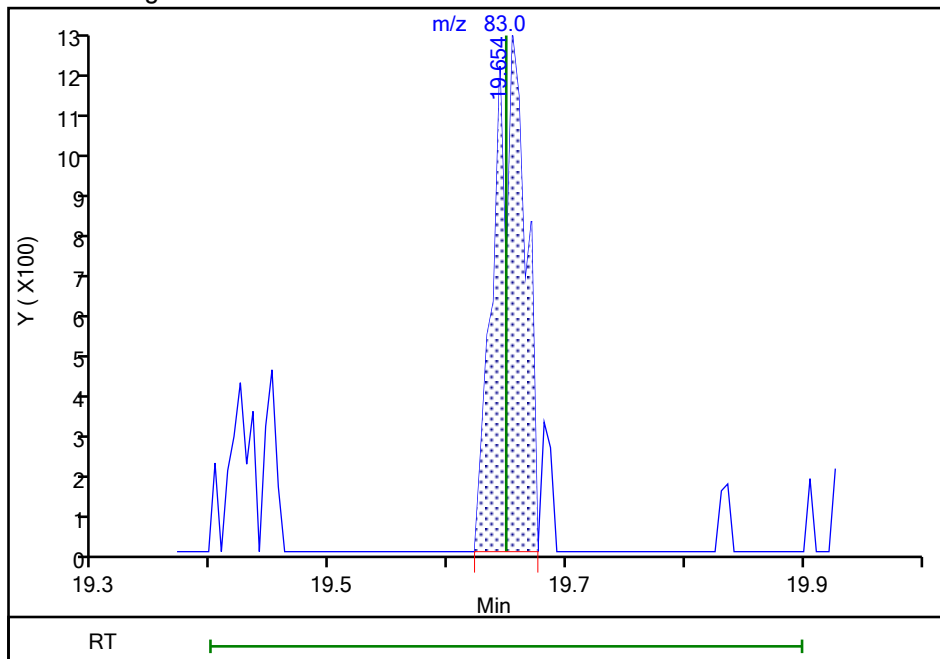
RT: 19.64
Area: 1054
Amount: 0.035463
Amount Units: ppb v/v

Processing Integration Results



RT: 19.65
Area: 2305
Amount: 0.077553
Amount Units: ppb v/v

Manual Integration Results



Reviewer: bunmaa, 19-Jan-2021 08:22:08

Audit Action: Manually Integrated

Audit Reason: Assign Peak

Eurofins TestAmerica, Burlington

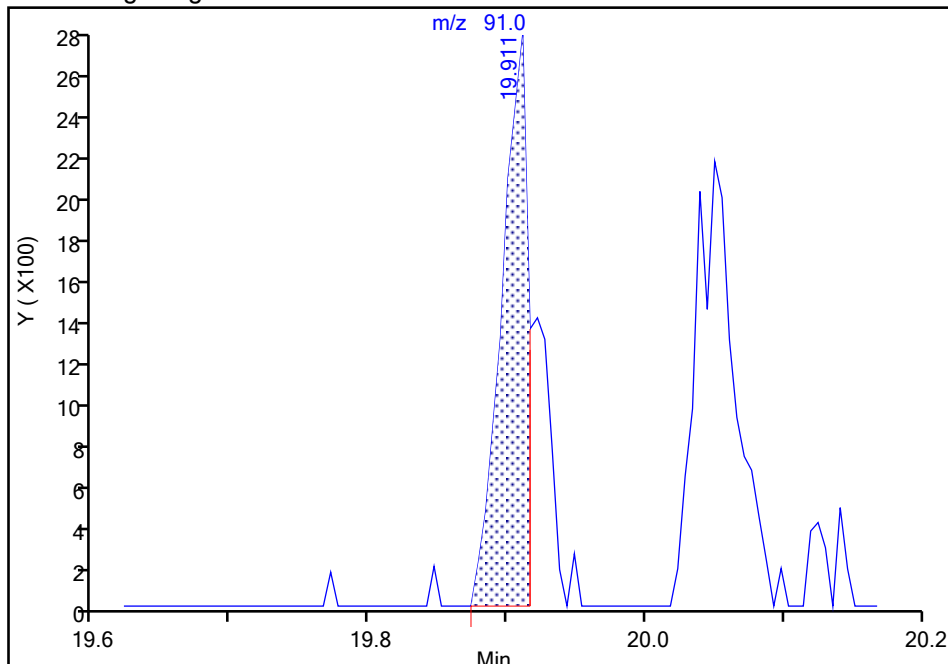
Data File:	\\chromfs\Burlington\ChromData\CHG.i\20210118-44474.b\200-44474-007.D		
Injection Date:	18-Jan-2021 12:39:30	Instrument ID:	CHG.i
Lims ID:	200-56862-A-5	Lab Sample ID:	200-56862-5
Client ID:	6430		
Operator ID:	ggg	ALS Bottle#:	6
Purge Vol:	200.000 mL	Dil. Factor:	1.0000
Method:	TO15_MasterMethod_(v1)_G	Limit Group:	AI_TO15_ICAL
Column:	RTX-624 (0.32 mm)	Detector:	MS SCAN
		Worklist Smp#:	7

85 N-Propylbenzene, CAS: 103-65-1

Signal: 1

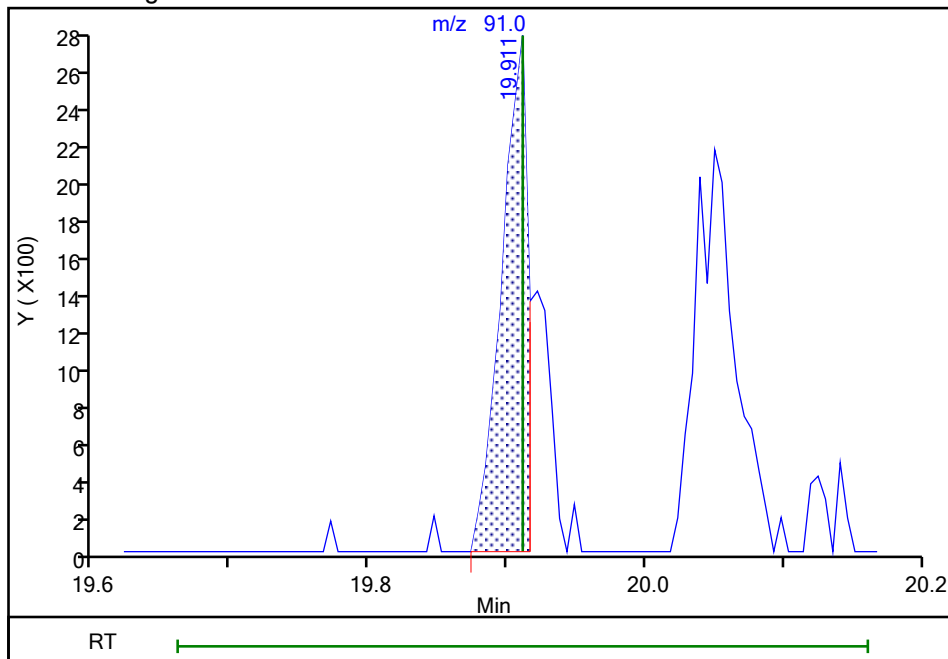
RT: 19.91
Area: 3668
Amount: 0.057023
Amount Units: ppb v/v

Processing Integration Results



RT: 19.91
Area: 3668
Amount: 0.057023
Amount Units: ppb v/v

Manual Integration Results



Reviewer: bunmaa, 19-Jan-2021 08:23:22

Audit Action: Manually Integrated

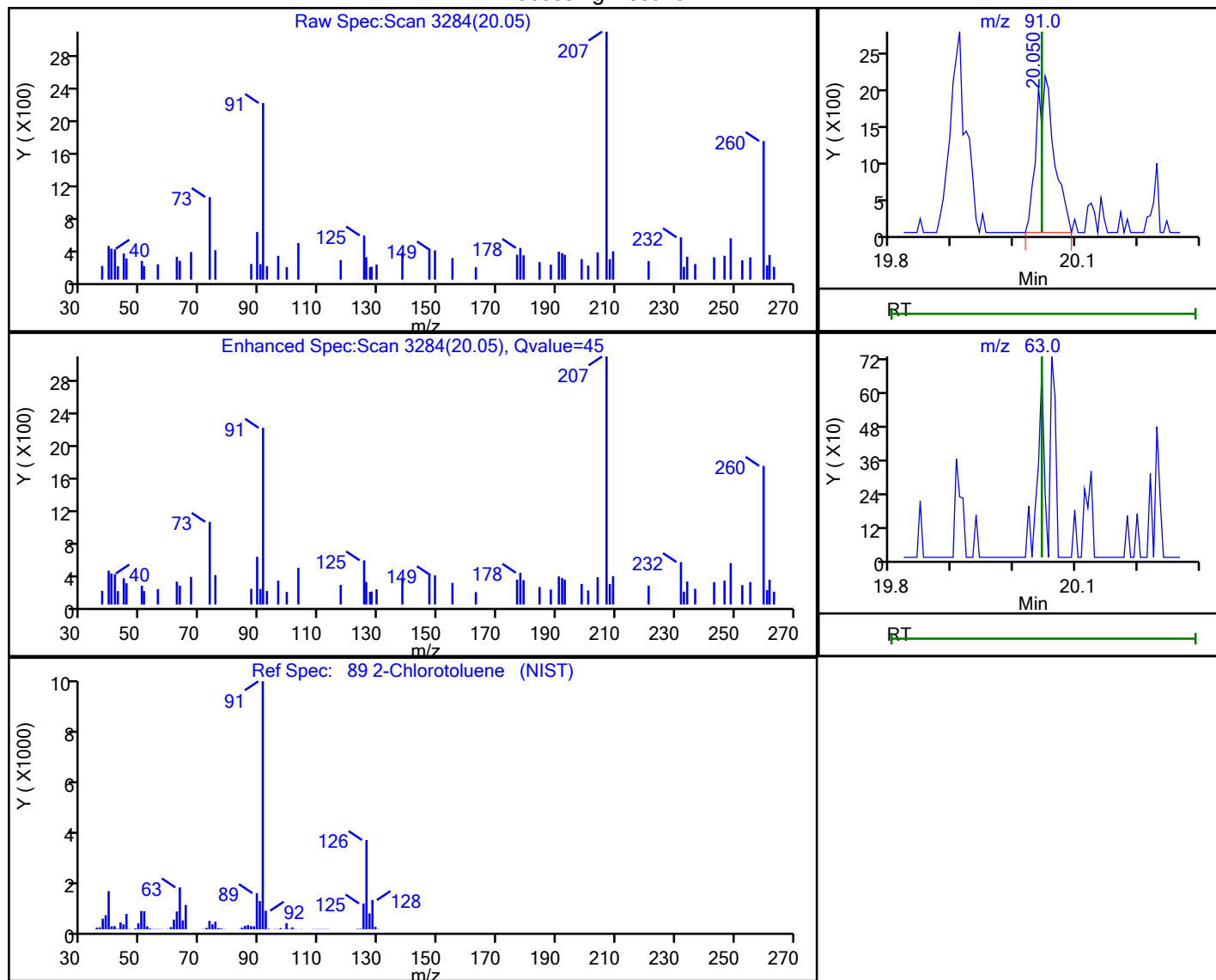
Audit Reason: Assign Peak

Eurofins TestAmerica, Burlington

Data File: \\chromfs\Burlington\ChromData\CHG.i\20210118-44474.b\200-44474-007.D
Injection Date: 18-Jan-2021 12:39:30 Instrument ID: CHG.i
Lims ID: 200-56862-A-5 Lab Sample ID: 200-56862-5
Client ID: 6430
Operator ID: ggg ALS Bottle#: 6 Worklist Smp#: 7
Purge Vol: 200.000 mL Dil. Factor: 1.0000
Method: TO15_MasterMethod_(v1)_G Limit Group: AI_TO15_ICAL
Column: RTX-624 (0.32 mm) Detector: MS SCAN

89 2-Chlorotoluene, CAS: 95-49-8

Processing Results



RT	Mass	Response	Amount
20.05	91.00	4354	0.100454
20.04	63.00	0	

Reviewer: bunmaa, 19-Jan-2021 08:23:50

Audit Action: Marked Compound Undetected

Audit Reason: Invalid Compound ID

Eurofins TestAmerica, Burlington

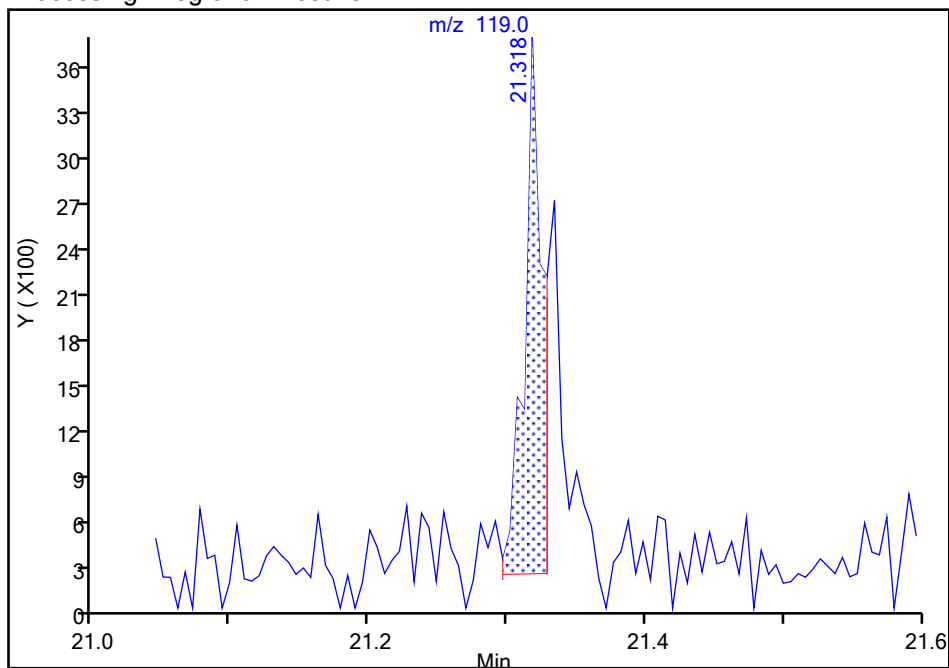
Data File:	\\chromfs\Burlington\ChromData\CHG.i\20210118-44474.b\200-44474-007.D		
Injection Date:	18-Jan-2021 12:39:30	Instrument ID:	CHG.i
Lims ID:	200-56862-A-5	Lab Sample ID:	200-56862-5
Client ID:	6430		
Operator ID:	ggg	ALS Bottle#:	6
Purge Vol:	200.000 mL	Dil. Factor:	1.0000
Method:	TO15_MasterMethod_(v1)_G	Limit Group:	AI_TO15_ICAL
Column:	RTX-624 (0.32 mm)	Detector:	MS SCAN
		Worklist Smp#:	7

95 4-Isopropyltoluene, CAS: 99-87-6

Signal: 1

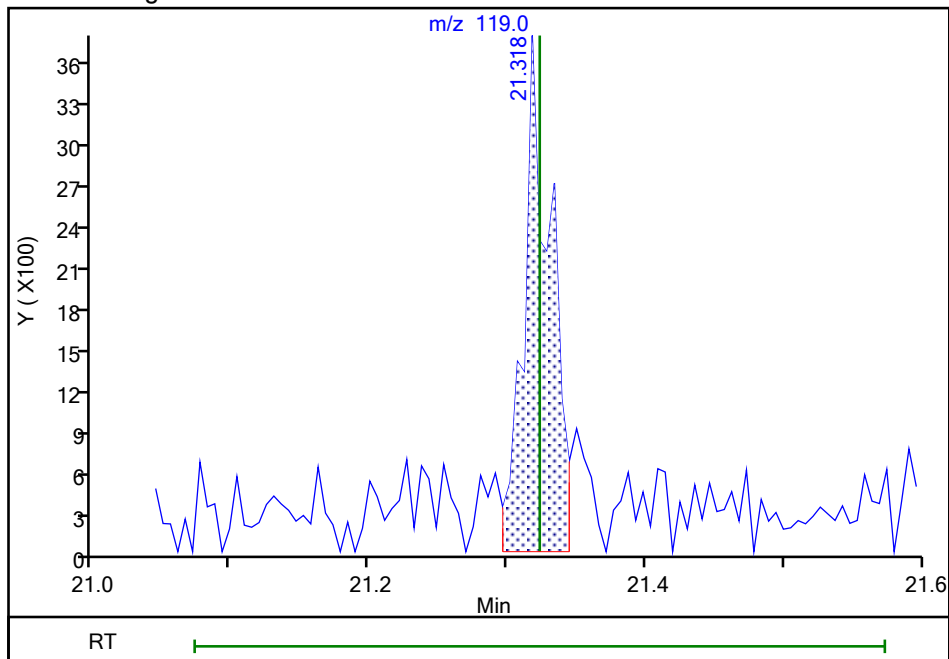
RT: 21.32
Area: 3223
Amount: 0.055322
Amount Units: ppb v/v

Processing Integration Results



RT: 21.32
Area: 5136
Amount: 0.088158
Amount Units: ppb v/v

Manual Integration Results



Reviewer: bunmaa, 19-Jan-2021 08:24:36

Audit Action: Manually Integrated

Audit Reason: Assign Peak

Eurofins TestAmerica, Burlington

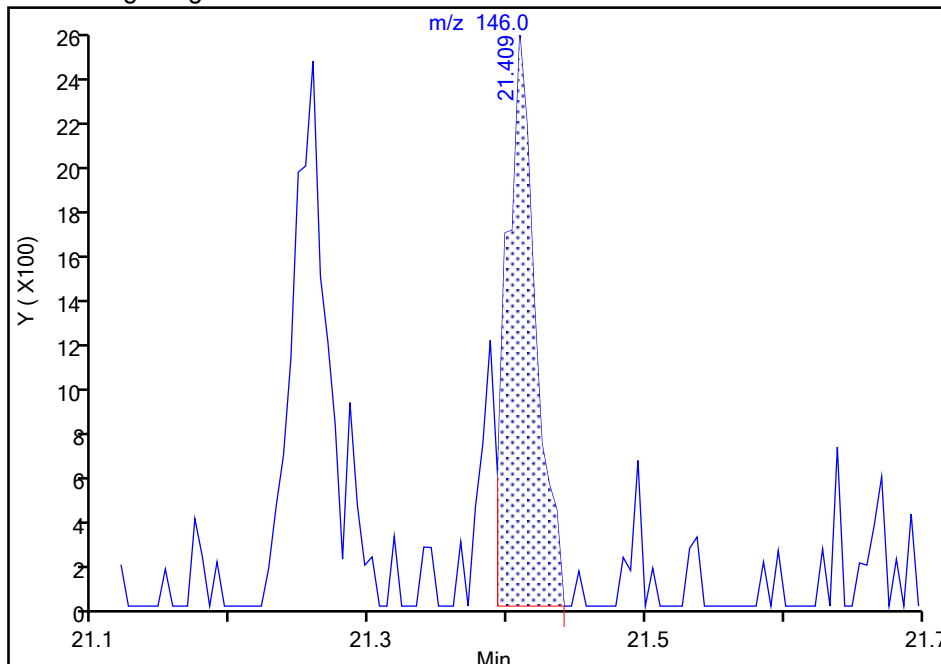
Data File:	\\chromfs\Burlington\ChromData\CHG.i\20210118-44474.b\200-44474-007.D		
Injection Date:	18-Jan-2021 12:39:30	Instrument ID:	CHG.i
Lims ID:	200-56862-A-5	Lab Sample ID:	200-56862-5
Client ID:	6430		
Operator ID:	ggg	ALS Bottle#:	6
Purge Vol:	200.000 mL	Dil. Factor:	1.0000
Method:	TO15_MasterMethod_(v1)_G	Limit Group:	AI_TO15_ICAL
Column:	RTX-624 (0.32 mm)	Detector:	MS SCAN
		Worklist Smp#:	7

97 1,4-Dichlorobenzene, CAS: 106-46-7

Signal: 1

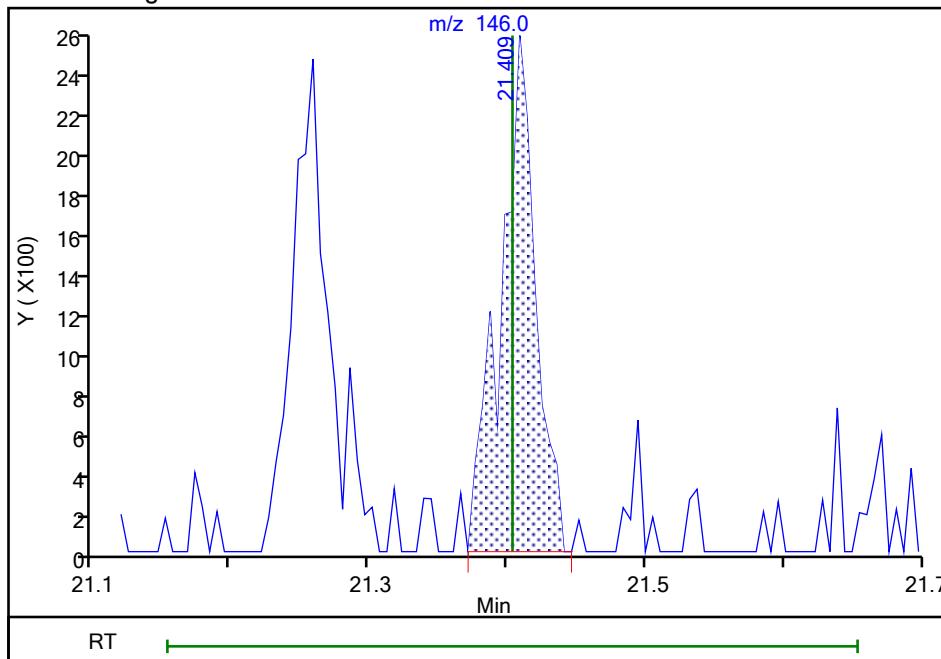
RT: 21.41
Area: 3744
Amount: 0.105124
Amount Units: ppb v/v

Processing Integration Results



RT: 21.41
Area: 4502
Amount: 0.126408
Amount Units: ppb v/v

Manual Integration Results



Reviewer: bunmaa, 19-Jan-2021 08:25:07

Audit Action: Manually Integrated

Audit Reason: Assign Peak

Eurofins TestAmerica, Burlington

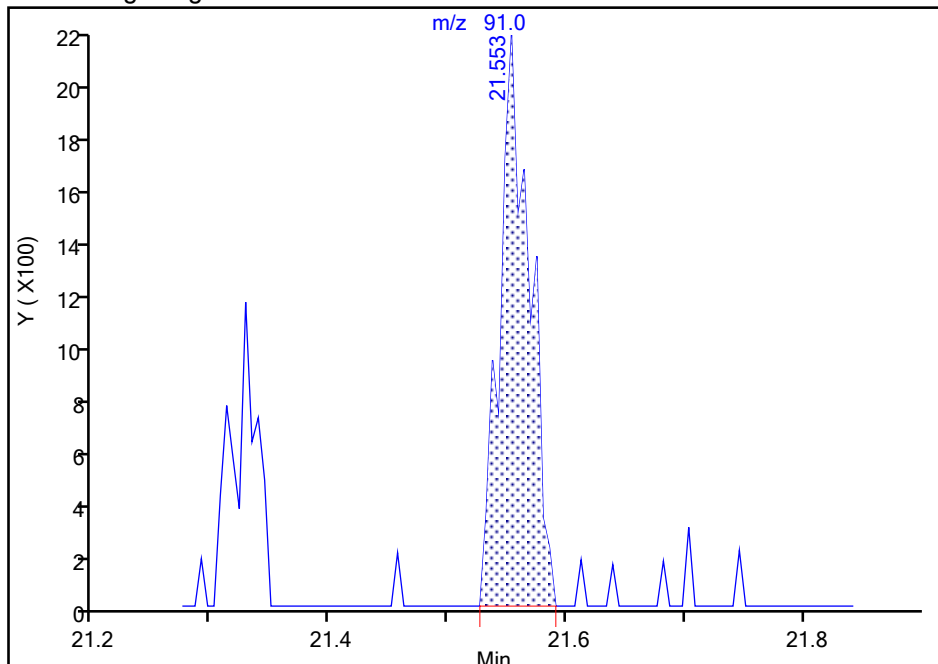
Data File:	\\chromfs\Burlington\ChromData\CHG.i\20210118-44474.b\200-44474-007.D		
Injection Date:	18-Jan-2021 12:39:30	Instrument ID:	CHG.i
Lims ID:	200-56862-A-5	Lab Sample ID:	200-56862-5
Client ID:	6430		
Operator ID:	ggg	ALS Bottle#:	6
Purge Vol:	200.000 mL	Dil. Factor:	1.0000
Method:	TO15_MasterMethod_(v1)_G	Limit Group:	AI_TO15_ICAL
Column:	RTX-624 (0.32 mm)	Detector:	MS SCAN
		Worklist Smp#:	7

98 Benzyl chloride, CAS: 100-44-7

Signal: 1

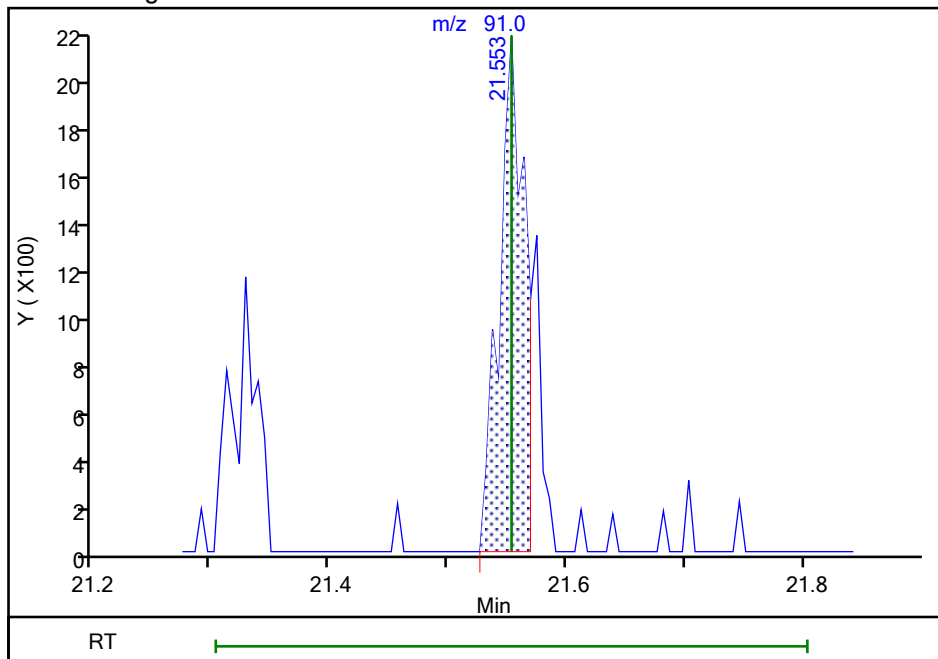
RT: 21.55
Area: 3766
Amount: 0.105990
Amount Units: ppb v/v

Processing Integration Results



RT: 21.55
Area: 3171
Amount: 0.089244
Amount Units: ppb v/v

Manual Integration Results



Reviewer: bunmaa, 19-Jan-2021 08:25:39

Audit Action: Manually Integrated

Audit Reason: Assign Peak

Eurofins TestAmerica, Burlington

Data File: \\chromfs\Burlington\ChromData\CHG.i\20210118-44474.b\200-44474-007.D

Injection Date: 18-Jan-2021 12:39:30

Instrument ID: CHG.i

Lims ID: 200-56862-A-5

Lab Sample ID: 200-56862-5

Client ID: 6430

Operator ID: ggg

ALS Bottle#: 6

Worklist Smp#: 7

Purge Vol: 200.000 mL

Dil. Factor: 1.0000

Method: TO15_MasterMethod_(v1)_G

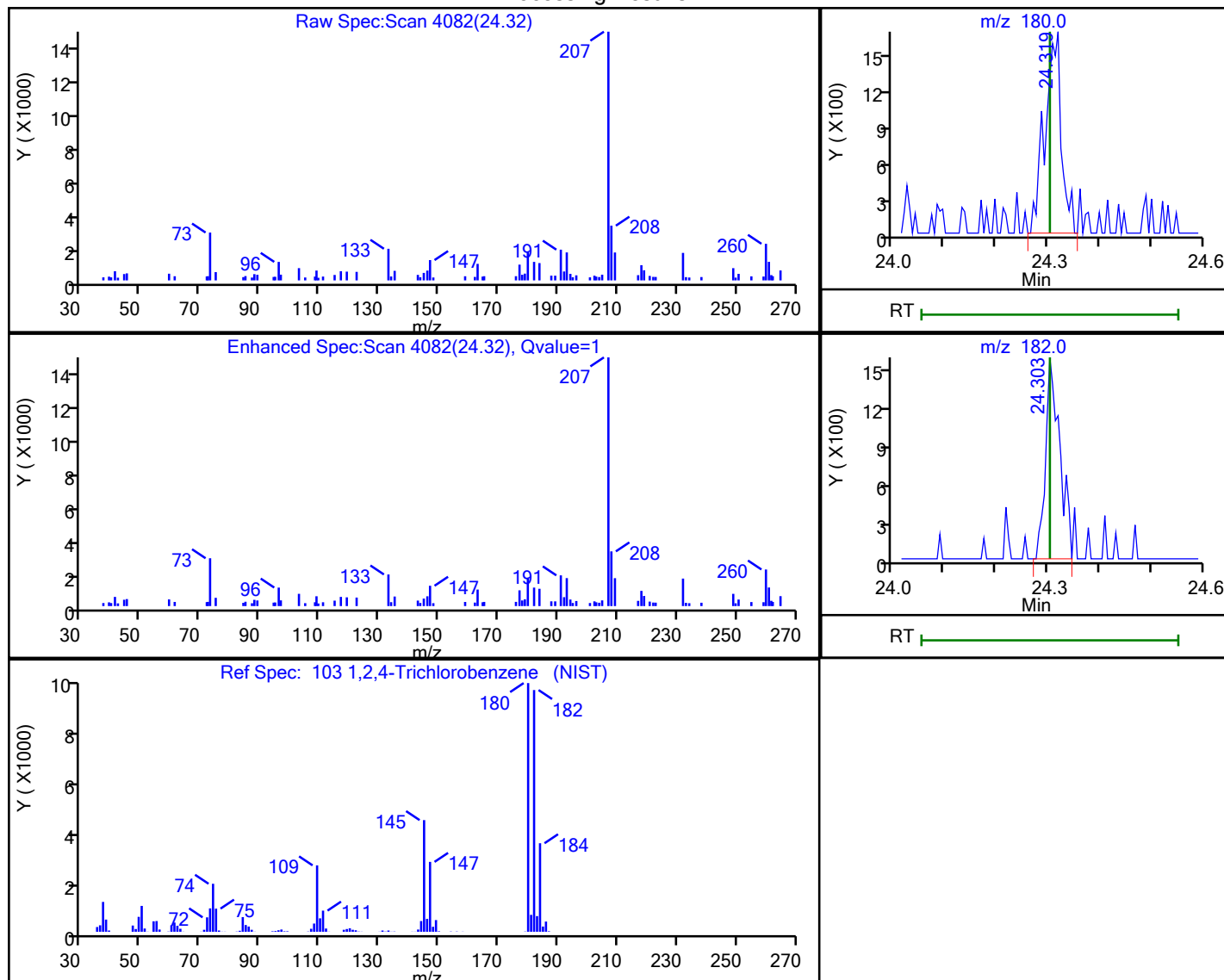
Limit Group: AI_TO15_ICAL

Column: RTX-624 (0.32 mm)

Detector: MS SCAN

103 1,2,4-Trichlorobenzene, CAS: 120-82-1

Processing Results



RT	Mass	Response	Amount
24.32	180.00	3652	0.139403
24.30	182.00	2893	

Reviewer: bunmaa, 19-Jan-2021 08:26:06

Audit Action: Marked Compound Undetected

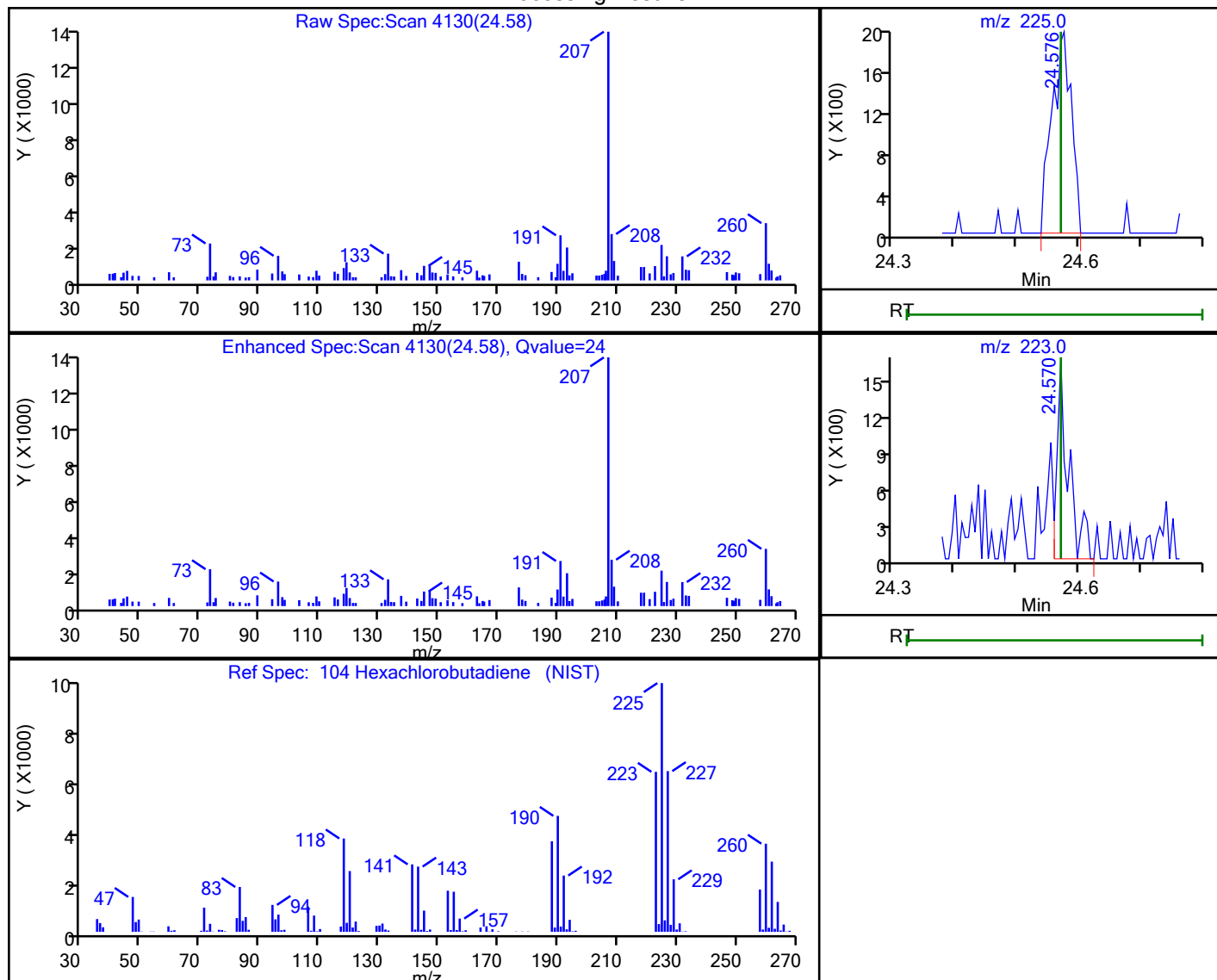
Audit Reason: Invalid Compound ID

Eurofins TestAmerica, Burlington

Data File: \\chromfs\Burlington\ChromData\CHG.i\20210118-44474.b\200-44474-007.D
Injection Date: 18-Jan-2021 12:39:30 Instrument ID: CHG.i
Lims ID: 200-56862-A-5 Lab Sample ID: 200-56862-5
Client ID: 6430
Operator ID: ggg ALS Bottle#: 6 Worklist Smp#: 7
Purge Vol: 200.000 mL Dil. Factor: 1.0000
Method: TO15_MasterMethod_(v1)_G Limit Group: AI_TO15_ICAL
Column: RTX-624 (0.32 mm) Detector MS SCAN

104 Hexachlorobutadiene, CAS: 87-68-3

Processing Results



RT	Mass	Response	Amount
24.58	225.00	4226	0.127422
24.57	223.00	2050	

Reviewer: bunmaa, 19-Jan-2021 08:26:11

Audit Action: Marked Compound Undetected

Audit Reason: Invalid Compound ID

Eurofins TestAmerica, Burlington

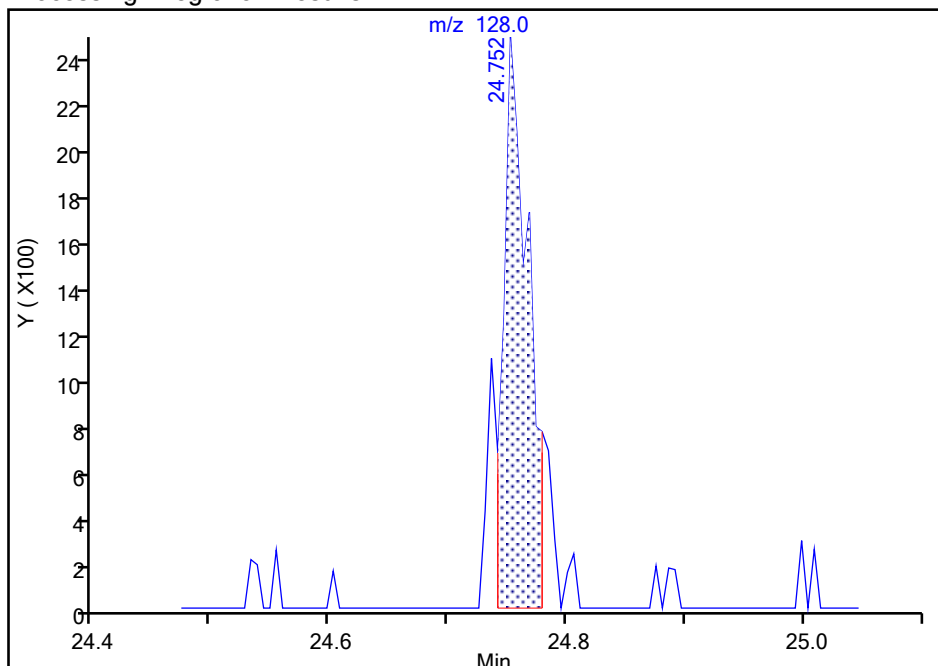
Data File:	\\chromfs\Burlington\ChromData\CHG.i\20210118-44474.b\200-44474-007.D		
Injection Date:	18-Jan-2021 12:39:30	Instrument ID:	CHG.i
Lims ID:	200-56862-A-5	Lab Sample ID:	200-56862-5
Client ID:	6430		
Operator ID:	ggg	ALS Bottle#:	6
Purge Vol:	200.000 mL	Dil. Factor:	1.0000
Method:	TO15_MasterMethod_(v1)_G	Limit Group:	AI_TO15_ICAL
Column:	RTX-624 (0.32 mm)	Detector:	MS SCAN
		Worklist Smp#:	7

105 Naphthalene, CAS: 91-20-3

Signal: 1

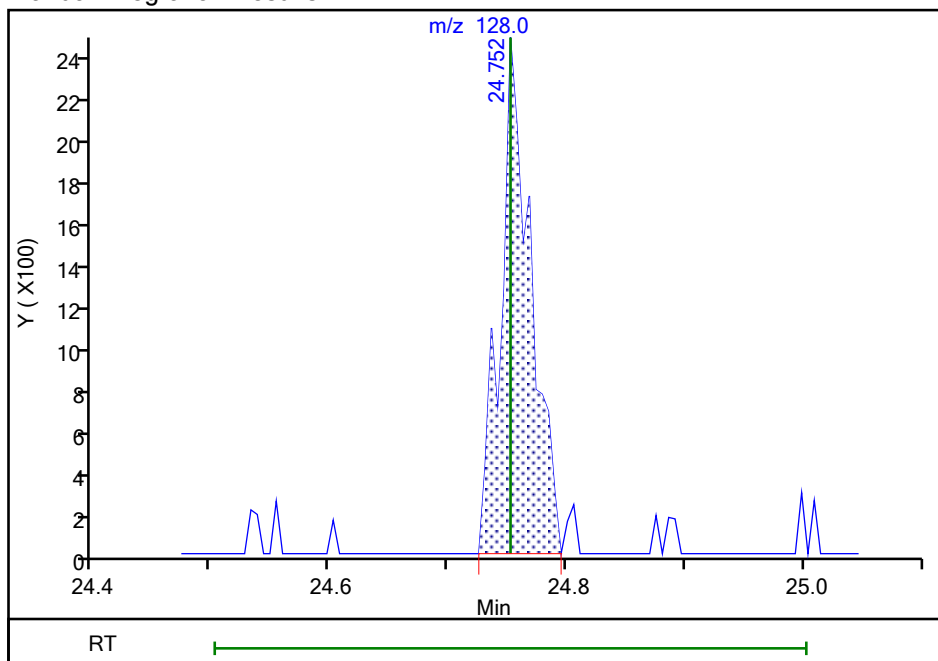
RT: 24.75
Area: 3586
Amount: 0.070414
Amount Units: ppb v/v

Processing Integration Results



RT: 24.75
Area: 4379
Amount: 0.085985
Amount Units: ppb v/v

Manual Integration Results



Reviewer: bunmaa, 19-Jan-2021 08:26:22

Audit Action: Manually Integrated

Audit Reason: Assign Peak

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Burlington Job No.: 200-57019-1
 SDG No.: _____
 Client Sample ID: 6436 Lab Sample ID: 200-57019-12
 Matrix: Air Lab File ID: 44637-05.D
 Analysis Method: TO-15 Date Collected: 01/27/2021 00:00
 Sample wt/vol: 200 (mL) Date Analyzed: 01/29/2021 10:20
 Soil Aliquot Vol: _____ Dilution Factor: 1
 Soil Extract Vol.: _____ GC Column: RTX-624 ID: 0.32 (mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 163437 Units: ppb v/v

CAS NO.	COMPOUND NAME	RESULT	Q	RL	RL
115-07-1	Propylene	5.0	U	5.0	5.0
75-71-8	Dichlorodifluoromethane	0.50	U	0.50	0.50
75-45-6	Freon 22	0.50	U	0.50	0.50
76-14-2	1,2-Dichlorotetrafluoroethane	0.20	U	0.20	0.20
74-87-3	Chloromethane	0.50	U	0.50	0.50
106-97-8	n-Butane	0.50	U	0.50	0.50
75-01-4	Vinyl chloride	0.20	U	0.20	0.20
106-99-0	1,3-Butadiene	0.20	U	0.20	0.20
74-83-9	Bromomethane	0.20	U	0.20	0.20
75-00-3	Chloroethane	0.50	U	0.50	0.50
593-60-2	Bromoethene (Vinyl Bromide)	0.20	U	0.20	0.20
75-69-4	Trichlorofluoromethane	0.20	U	0.20	0.20
64-17-5	Ethanol	5.0	U	5.0	5.0
76-13-1	Freon TF	0.20	U	0.20	0.20
75-35-4	1,1-Dichloroethene	0.20	U	0.20	0.20
67-64-1	Acetone	5.0	U	5.0	5.0
67-63-0	Isopropyl alcohol	5.0	U	5.0	5.0
75-15-0	Carbon disulfide	0.50	U	0.50	0.50
107-05-1	3-Chloropropene	0.50	U	0.50	0.50
75-09-2	Methylene Chloride	0.50	U	0.50	0.50
75-65-0	tert-Butyl alcohol	5.0	U	5.0	5.0
1634-04-4	Methyl tert-butyl ether	0.20	U	0.20	0.20
156-60-5	trans-1,2-Dichloroethene	0.20	U	0.20	0.20
110-54-3	n-Hexane	0.20	U	0.20	0.20
75-34-3	1,1-Dichloroethane	0.20	U	0.20	0.20
108-05-4	Vinyl acetate	5.0	U	5.0	5.0
141-78-6	Ethyl acetate	5.0	U	5.0	5.0
78-93-3	Methyl Ethyl Ketone	0.50	U	0.50	0.50
156-59-2	cis-1,2-Dichloroethene	0.20	U	0.20	0.20
540-59-0	1,2-Dichloroethene, Total	0.40	U	0.40	0.40
67-66-3	Chloroform	0.20	U	0.20	0.20
109-99-9	Tetrahydrofuran	5.0	U	5.0	5.0
71-55-6	1,1,1-Trichloroethane	0.20	U	0.20	0.20
110-82-7	Cyclohexane	0.20	U	0.20	0.20
56-23-5	Carbon tetrachloride	0.20	U	0.20	0.20
540-84-1	2,2,4-Trimethylpentane	0.20	U	0.20	0.20

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Burlington Job No.: 200-57019-1
 SDG No.: _____
 Client Sample ID: 6436 Lab Sample ID: 200-57019-12
 Matrix: Air Lab File ID: 44637-05.D
 Analysis Method: TO-15 Date Collected: 01/27/2021 00:00
 Sample wt/vol: 200 (mL) Date Analyzed: 01/29/2021 10:20
 Soil Aliquot Vol: _____ Dilution Factor: 1
 Soil Extract Vol.: _____ GC Column: RTX-624 ID: 0.32 (mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 163437 Units: ppb v/v

CAS NO.	COMPOUND NAME	RESULT	Q	RL	RL
71-43-2	Benzene	0.20	U	0.20	0.20
107-06-2	1,2-Dichloroethane	0.20	U	0.20	0.20
142-82-5	n-Heptane	0.20	U	0.20	0.20
79-01-6	Trichloroethene	0.20	U	0.20	0.20
80-62-6	Methyl methacrylate	0.50	U	0.50	0.50
78-87-5	1,2-Dichloropropane	0.20	U	0.20	0.20
123-91-1	1,4-Dioxane	5.0	U	5.0	5.0
75-27-4	Bromodichloromethane	0.20	U	0.20	0.20
10061-01-5	cis-1,3-Dichloropropene	0.20	U	0.20	0.20
108-10-1	methyl isobutyl ketone	0.50	U	0.50	0.50
108-88-3	Toluene	0.20	U	0.20	0.20
10061-02-6	trans-1,3-Dichloropropene	0.20	U	0.20	0.20
79-00-5	1,1,2-Trichloroethane	0.20	U	0.20	0.20
127-18-4	Tetrachloroethene	0.20	U	0.20	0.20
591-78-6	Methyl Butyl Ketone (2-Hexanone)	0.50	U	0.50	0.50
124-48-1	Dibromochloromethane	0.20	U	0.20	0.20
106-93-4	1,2-Dibromoethane	0.20	U	0.20	0.20
108-90-7	Chlorobenzene	0.20	U	0.20	0.20
100-41-4	Ethylbenzene	0.20	U	0.20	0.20
179601-23-1	m,p-Xylene	0.50	U	0.50	0.50
95-47-6	Xylene, o-	0.20	U	0.20	0.20
1330-20-7	Xylene (total)	0.70	U	0.70	0.70
100-42-5	Styrene	0.20	U	0.20	0.20
75-25-2	Bromoform	0.20	U	0.20	0.20
98-82-8	Cumene	0.20	U	0.20	0.20
79-34-5	1,1,2,2-Tetrachloroethane	0.20	U	0.20	0.20
103-65-1	n-Propylbenzene	0.20	U	0.20	0.20
622-96-8	4-Ethyltoluene	0.20	U	0.20	0.20
108-67-8	1,3,5-Trimethylbenzene	0.20	U	0.20	0.20
95-49-8	2-Chlorotoluene	0.20	U	0.20	0.20
98-06-6	tert-Butylbenzene	0.20	U	0.20	0.20
95-63-6	1,2,4-Trimethylbenzene	0.20	U	0.20	0.20
135-98-8	sec-Butylbenzene	0.20	U	0.20	0.20
99-87-6	4-Isopropyltoluene	0.20	U	0.20	0.20
541-73-1	1,3-Dichlorobenzene	0.20	U	0.20	0.20
106-46-7	1,4-Dichlorobenzene	0.20	U	0.20	0.20

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Burlington Job No.: 200-57019-1
 SDG No.: _____
 Client Sample ID: 6436 Lab Sample ID: 200-57019-12
 Matrix: Air Lab File ID: 44637-05.D
 Analysis Method: TO-15 Date Collected: 01/27/2021 00:00
 Sample wt/vol: 200 (mL) Date Analyzed: 01/29/2021 10:20
 Soil Aliquot Vol: _____ Dilution Factor: 1
 Soil Extract Vol.: _____ GC Column: RTX-624 ID: 0.32 (mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 163437 Units: ppb v/v

CAS NO.	COMPOUND NAME	RESULT	Q	RL	RL
100-44-7	Benzyl chloride	0.20	U	0.20	0.20
104-51-8	n-Butylbenzene	0.20	U	0.20	0.20
95-50-1	1,2-Dichlorobenzene	0.20	U	0.20	0.20
120-82-1	1,2,4-Trichlorobenzene	0.50	U	0.50	0.50
87-68-3	Hexachlorobutadiene	0.20	U	0.20	0.20
91-20-3	Naphthalene	0.50	U	0.50	0.50

Eurofins TestAmerica, Burlington
Target Compound Quantitation Report

Data File: \\chromfs\Burlington\ChromData\CHX.i\20210129-44637.b\44637-05.D
 Lims ID: 200-57019-A-12
 Client ID: 6436
 Sample Type: Client
 Inject. Date: 29-Jan-2021 10:20:30 ALS Bottle#: 4 Worklist Smp#: 5
 Purge Vol: 200.000 mL Dil. Factor: 1.0000
 Sample Info: 200-0044637-005
 Operator ID: ggg Instrument ID: CHX.i
 Method: \\chromfs\Burlington\ChromData\CHX.i\20210129-44637.b\TO15_MasterMethod_X.m.m
 Limit Group: AI_TO15_ICAL
 Last Update: 01-Feb-2021 08:24:49 Calib Date: 21-Jan-2021 09:50:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\chromfs\Burlington\ChromData\CHX.i\20210120-44516.b\44516-22.D
 Column 1 : RTX-624 (0.32 mm) Det: MS SCAN
 Process Host: CTX1652

First Level Reviewer: puangmaleek

Date:

01-Feb-2021 13:06:54

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ppb v/v	Flags
1 Propene	41		4.343				ND	7
2 Dichlorodifluoromethane	85	4.439	4.439	0.000	97	2551	0.0762	
3 Chlorodifluoromethane	51		4.482				ND	U
4 1,2-Dichloro-1,1,2,2-tetrafluoro	85		4.798				ND	
5 Chloromethane	50	4.921	4.921	0.000	93	1012	0.0890	
6 Butane	43		5.237				ND	7
7 Vinyl chloride	62		5.242				ND	
8 Butadiene	54		5.354				ND	
10 Bromomethane	94		6.071				ND	
11 Chloroethane	64		6.333				ND	
13 Vinyl bromide	106		6.756				ND	
14 Trichlorofluoromethane	101	6.922	6.911	0.011	93	854	0.0272	M
17 Ethanol	45	7.285	7.243	0.042	98	2949	0.4177	
21 1,1-Dichloroethene	96		7.970				ND	
20 112TCTFE	101		8.002				ND	
22 Acetone	43	8.056	8.029	0.027	96	12461	0.7380	
24 Isopropyl alcohol	45	8.345	8.302	0.043	97	2902	0.1598	
23 Carbon disulfide	76		8.388				ND	
25 3-Chloro-1-propene	41		8.671				ND	
27 Methylene Chloride	49		8.901				ND	7
28 2-Methyl-2-propanol	59		9.062				ND	
29 Methyl tert-butyl ether	73		9.377				ND	
31 trans-1,2-Dichloroethene	61		9.399				ND	
S 30 1,2-Dichloroethene, Total	61		9.665				ND	7
33 Hexane	57		9.891				ND	
35 Vinyl acetate	43		10.158				ND	
34 1,1-Dichloroethane	63		10.169				ND	
38 2-Butanone (MEK)	72		11.116				ND	
37 cis-1,2-Dichloroethene	96		11.164				ND	
39 Ethyl acetate	88		11.196				ND	
* 40 Chlorobromomethane	128	11.581	11.581	0.000	88	93684	10.0	
41 Tetrahydrofuran	42		11.592				ND	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ppb v/v	Flags
42 Chloroform	83		11.753				ND	
44 1,1,1-Trichloroethane	97		12.052				ND	
43 Cyclohexane	84		12.186				ND	
45 Carbon tetrachloride	117		12.330				ND	
47 Benzene	78		12.678				ND	U
48 1,2-Dichloroethane	62		12.764				ND	
46 Isooctane	57		12.876				ND	
49 n-Heptane	43		13.181				ND	
* 50 1,4-Difluorobenzene	114	13.416	13.416	0.000	93	495524	10.0	
53 Trichloroethene	95		13.844				ND	
54 1,2-Dichloropropane	63		14.310				ND	
55 Methyl methacrylate	69		14.374				ND	
56 1,4-Dioxane	88		14.417				ND	
57 Dibromomethane	174		14.470				ND	
58 Dichlorobromomethane	83		14.775				ND	
60 cis-1,3-Dichloropropene	75		15.572				ND	
61 4-Methyl-2-pentanone (MIBK)	43		15.813				ND	
65 Toluene	92		16.209				ND	7
66 trans-1,3-Dichloropropene	75		16.631				ND	
67 1,1,2-Trichloroethane	83		17.011				ND	
68 Tetrachloroethene	166		17.193				ND	
69 2-Hexanone	43		17.391				ND	
71 Chlorodibromomethane	129		17.755				ND	
72 Ethylene Dibromide	107		17.996				ND	
* 74 Chlorobenzene-d5	117	18.894	18.889	0.005	84	381955	10.0	
75 Chlorobenzene	112		18.948				ND	
76 Ethylbenzene	91		19.135				ND	7
78 m-Xylene & p-Xylene	106		19.392				ND	
S 73 Xylenes, Total	106		19.600				ND	7
79 o-Xylene	106		20.168				ND	
80 Styrene	104		20.210				ND	
81 Bromoform	173		20.569				ND	
82 Isopropylbenzene	105		20.852				ND	
84 1,1,2,2-Tetrachloroethane	83		21.371				ND	
85 N-Propylbenzene	91		21.559				ND	7
89 2-Chlorotoluene	91		21.714				ND	7
88 4-Ethyltoluene	105		21.756				ND	7
90 1,3,5-Trimethylbenzene	105		21.847				ND	7
92 tert-Butylbenzene	119		22.324				ND	
93 1,2,4-Trimethylbenzene	105		22.409				ND	7
94 sec-Butylbenzene	105		22.645				ND	7
96 1,3-Dichlorobenzene	146		22.826				ND	7
95 4-Isopropyltoluene	119		22.859				ND	
97 1,4-Dichlorobenzene	146	22.971	22.971	0.000	85	436	0.0173	
98 Benzyl chloride	91		23.115				ND	U
100 n-Butylbenzene	91		23.415				ND	7
101 1,2-Dichlorobenzene	146	23.463	23.458	0.005	81	332	0.0127	
103 1,2,4-Trichlorobenzene	180		25.913				ND	7
104 Hexachlorobutadiene	225		26.149				ND	
105 Naphthalene	128	26.405	26.400	0.005	93	495	0.0200	

QC Flag Legend

Processing Flags

7 - Failed Limit of Detection

Review Flags

M - Manually Integrated

U - Marked Undetected

Reagents:

ATTO15XISs_00002

Amount Added: 20.00

Units: mL

Run Reagent

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16

Eurofins TestAmerica, Burlington

Data File: \\chromfs\Burlington\ChromData\CHX.i\20210129-44637.b\44637-05.D

Injection Date: 29-Jan-2021 10:20:30

Instrument ID: CHX.i

Operator ID: ggg

Lims ID: 200-57019-A-12

Lab Sample ID: 200-57019-12

Worklist Smp#: 5

Client ID: 6436

Purge Vol: 200.000 mL

Dil. Factor: 1.0000

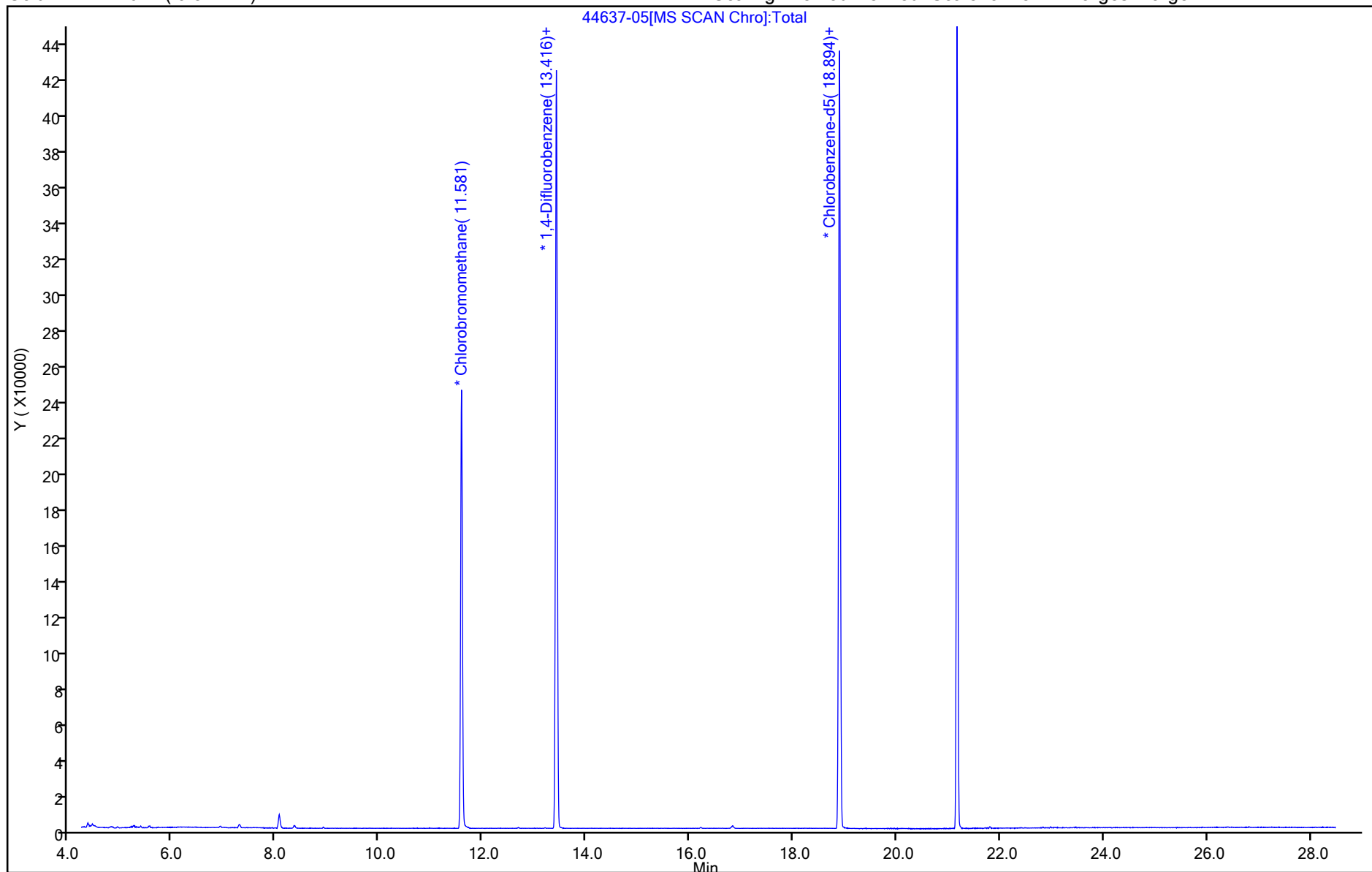
ALS Bottle#: 4

Method: TO15_MasterMethod_X.m

Limit Group: AI_TO15_ICAL

Column: RTX-624 (0.32 mm)

Y Scaling: Method Defined: Scale to the Nth Largest Target: 1

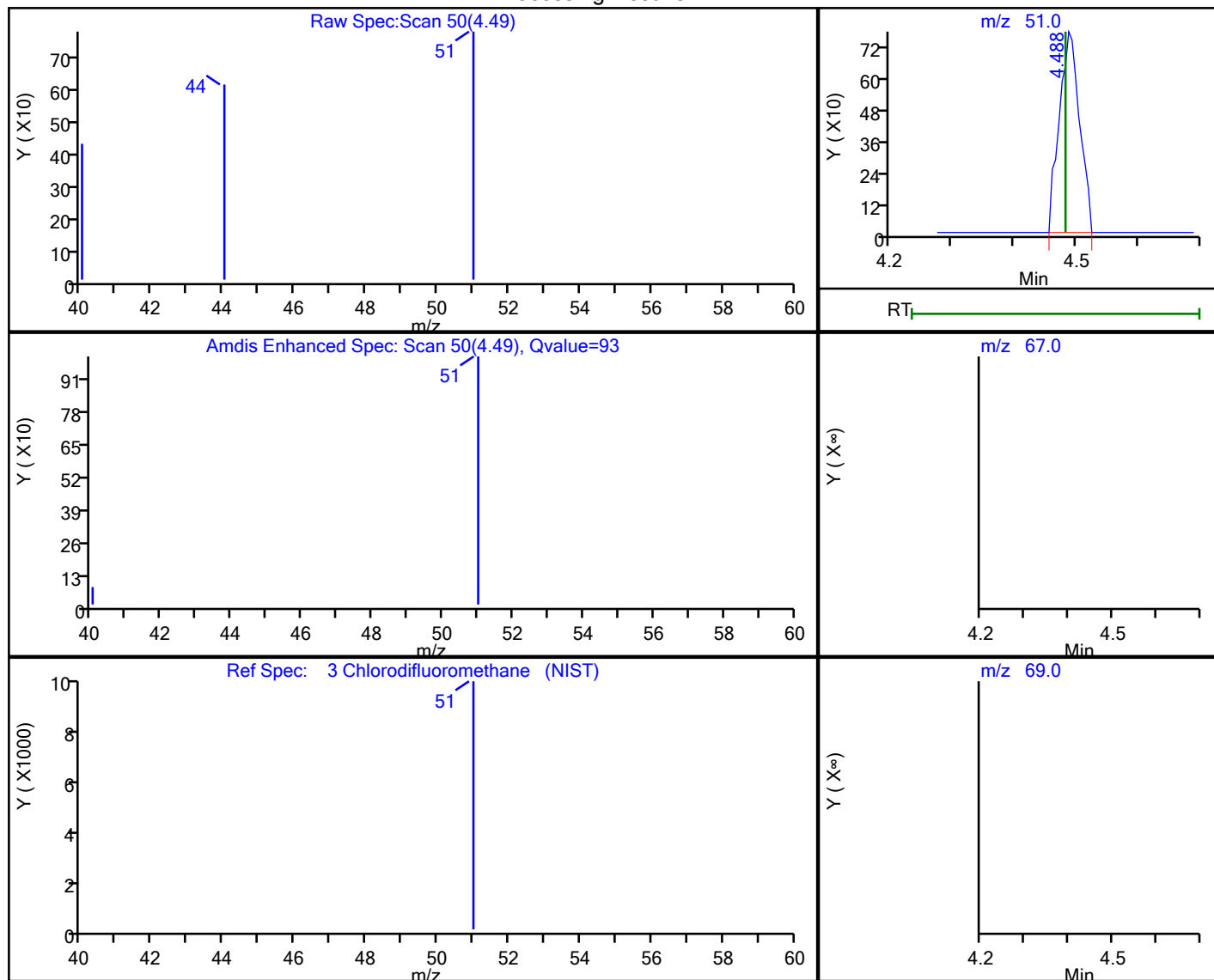


Eurofins TestAmerica, Burlington

Data File: \\chromfs\Burlington\ChromData\CHX.i\20210129-44637.b\44637-05.D
Injection Date: 29-Jan-2021 10:20:30 Instrument ID: CHX.i
Lims ID: 200-57019-A-12 Lab Sample ID: 200-57019-12
Client ID: 6436
Operator ID: ggg ALS Bottle#: 4 Worklist Smp#: 5
Purge Vol: 200.000 mL Dil. Factor: 1.0000
Method: TO15_MasterMethod_X.m Limit Group: AI_TO15_ICAL
Column: RTX-624 (0.32 mm) Detector: MS SCAN

3 Chlorodifluoromethane, CAS: 75-45-6

Processing Results



RT	Mass	Response	Amount
4.49	51.00	1782	0.081871
4.51	67.00	0	
4.51	69.00	0	

Reviewer: puangmaleek, 01-Feb-2021 13:03:56

Audit Action: Marked Compound Undetected

Audit Reason: Invalid Compound ID

Eurofins TestAmerica, Burlington

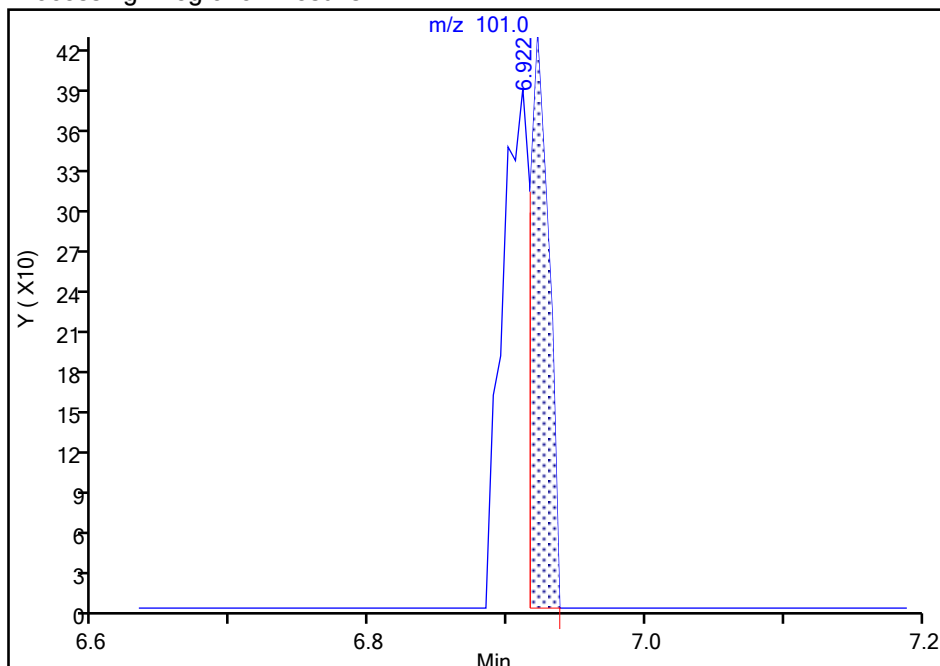
Data File:	\\chromfs\Burlington\ChromData\CHX.i\20210129-44637.b\44637-05.D		
Injection Date:	29-Jan-2021 10:20:30	Instrument ID:	CHX.i
Lims ID:	200-57019-A-12	Lab Sample ID:	200-57019-12
Client ID:	6436		
Operator ID:	ggg	ALS Bottle#:	4
Purge Vol:	200.000 mL	Dil. Factor:	1.0000
Method:	TO15_MasterMethod_X.m	Limit Group:	AI_TO15_ICAL
Column:	RTX-624 (0.32 mm)	Detector:	MS SCAN
		Worklist Smp#:	5

14 Trichlorofluoromethane, CAS: 75-69-4

Signal: 1

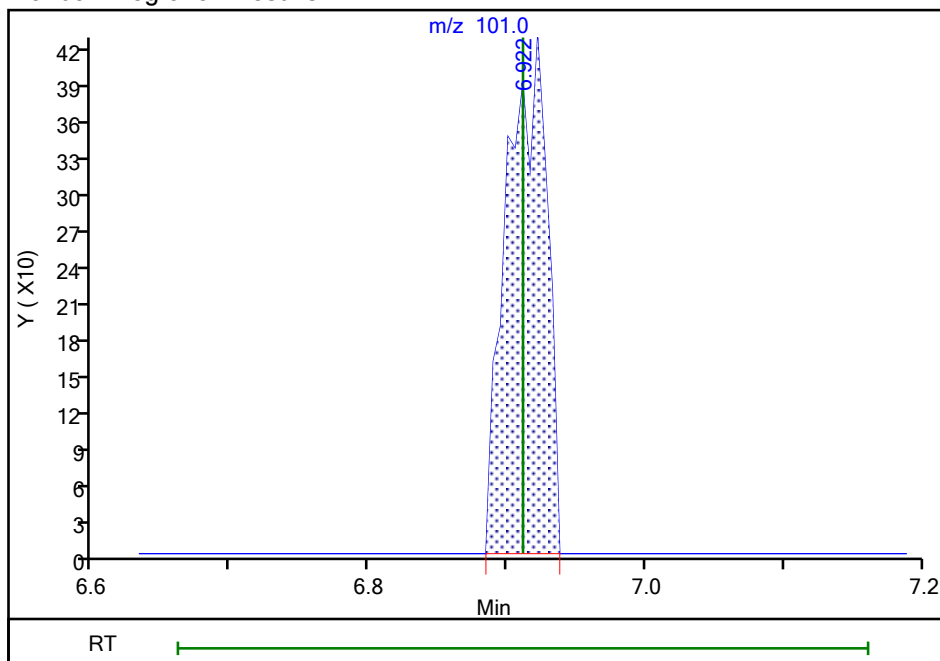
RT: 6.92
Area: 406
Amount: 0.012926
Amount Units: ppb v/v

Processing Integration Results



RT: 6.92
Area: 854
Amount: 0.027188
Amount Units: ppb v/v

Manual Integration Results



Reviewer: puangmaleek, 01-Feb-2021 13:04:48

Audit Action: Manually Integrated

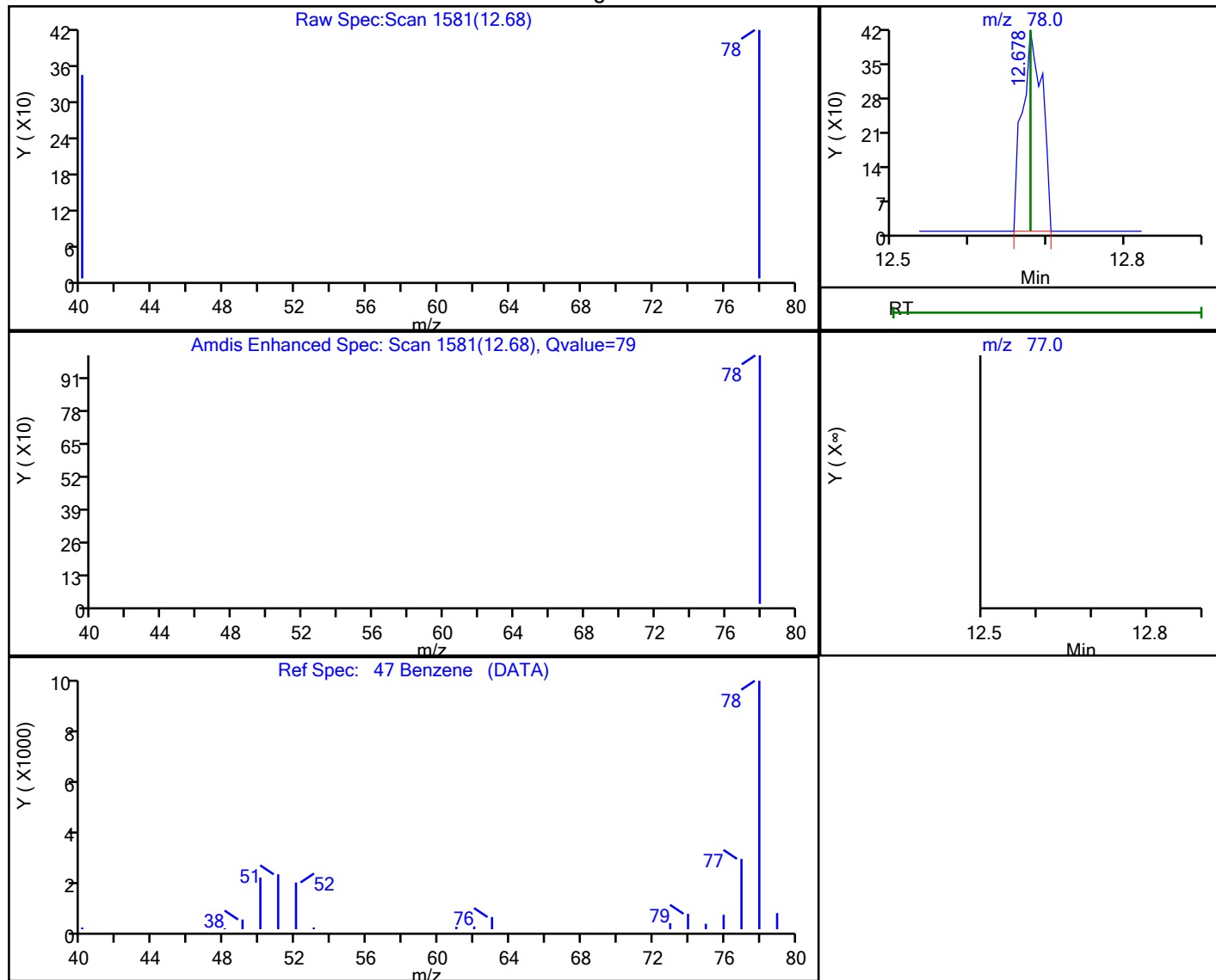
Audit Reason: Assign Peak

Eurofins TestAmerica, Burlington

Data File: \\chromfs\Burlington\ChromData\CHX.i\20210129-44637.b\44637-05.D
Injection Date: 29-Jan-2021 10:20:30 Instrument ID: CHX.i
Lims ID: 200-57019-A-12 Lab Sample ID: 200-57019-12
Client ID: 6436
Operator ID: ggg ALS Bottle#: 4 Worklist Smp#: 5
Purge Vol: 200.000 mL Dil. Factor: 1.0000
Method: TO15_MasterMethod_X.m Limit Group: AI_TO15_ICAL
Column: RTX-624 (0.32 mm) Detector: MS SCAN

47 Benzene, CAS: 71-43-2

Processing Results



RT	Mass	Response	Amount
12.68	78.00	742	0.016887
12.68	77.00	0	

Reviewer: puangmaleek, 01-Feb-2021 13:05:55

Audit Action: Marked Compound Undetected

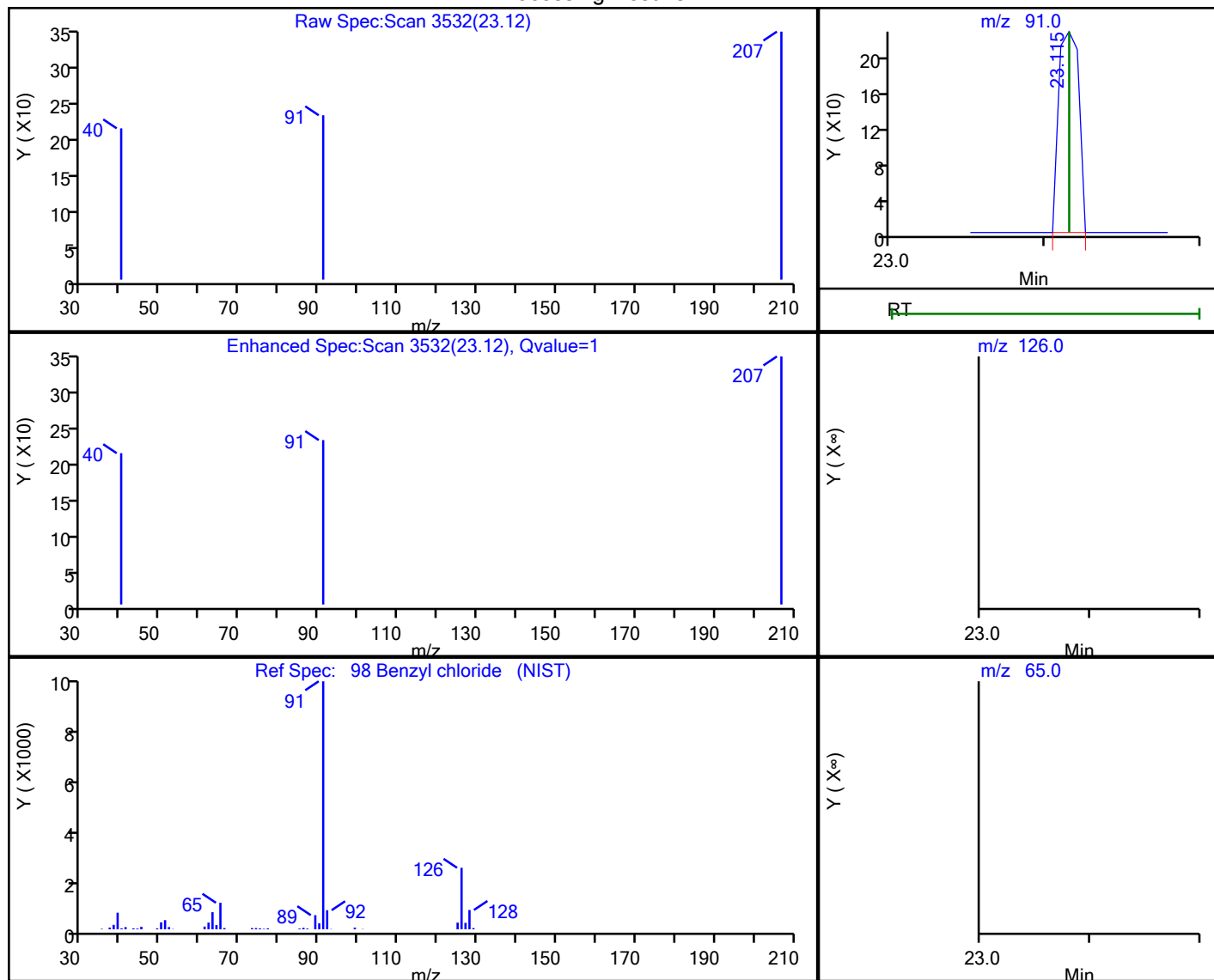
Audit Reason: Invalid Compound ID

Eurofins TestAmerica, Burlington

Data File: \\chromfs\Burlington\ChromData\CHX.i\20210129-44637.b\44637-05.D
Injection Date: 29-Jan-2021 10:20:30 Instrument ID: CHX.i
Lims ID: 200-57019-A-12 Lab Sample ID: 200-57019-12
Client ID: 6436
Operator ID: ggg ALS Bottle#: 4 Worklist Smp#: 5
Purge Vol: 200.000 mL Dil. Factor: 1.0000
Method: TO15_MasterMethod_X.m Limit Group: AI_TO15_ICAL
Column: RTX-624 (0.32 mm) Detector MS SCAN

98 Benzyl chloride, CAS: 100-44-7

Processing Results



RT	Mass	Response	Amount
23.12	91.00	206	0.009001
23.12	126.00	0	
23.12	65.00	0	

Reviewer: puangmaleek, 01-Feb-2021 13:06:18

Audit Action: Marked Compound Undetected

Audit Reason: Invalid Compound ID

Summa Canister Dilution Worksheet

Client: GHD Services Inc.
Project/Site: 11223416, PCC Validation

Job No.: 200-57695-1

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
200-57695-6	1	-23.4	0.22	0.22	0	1.00	1.00		4.59	4.59	G21	03/25/21 9:57	TPB

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)