EES Environmental Consulting, Inc.

514 NW 11th Ave, Suite 209
Portland, OR 97209
(503) 847-2740 ees-environmental.com

Technical Memorandum

Remedial Action Status Report

Date: May 18, 2022

To: Aaren Fiedler, LG, Washington Department of Ecology Voluntary Cleanup Program

Copies: Jonathan Polonsky and Brent Chadwick, Plaid Pantries, Inc.
Mr. Brian Fallon, Southwest Clean Air Agency

From: Steve Roberts; Daniele Peters, PE; and Paul Ecker, LHG

Regarding: Plaid Pantry Store #112
1002 W. Fourth Plain Boulevard
Vancouver, Washington
Department of Ecology Cleanup Site ID 11759 and VCP #SW1314
EES Project 1179-04

This memorandum provides a summary of Site cleanup progress through April 2022 for the Plaid Pantry Store #112 subject property (Property). The remedial action technology being applied is soil vapor extraction (SVE), which is being conducted in general accordance with the EES *Work Plan for Soil Vapor Extraction System Expansion* dated June 27, 2019.

During 2021, temporary SVE shutdown and contaminant rebound monitoring tasks were conducted to evaluate cleanup progress in May to July, and again between December 2021 and January 2022. Based on recent findings that indicate diminishing contaminant concentrations, the SVE system was temporarily disabled March 31, 2022. The SVE system will be re-activated for continued evaluation during dry seasonal conditions in mid-2022.

BACKGROUND

The nature and extent of gasoline contamination at the Site were previously characterized, and cleanup levels were established as detailed in the EES *Remedial Investigation Report* dated September 19, 2018.

On a parallel track, EES installed and operated an SVE system at the Property's source area between August 2013 and December 2018 as an interim action to mitigate readily accessible gasoline-impacted soils. The SVE system was operated using a five-well array (SVE-1 through SVE-5) screened at depths between 5 and 20 feet below ground surface (bgs) in the vicinity of the fuel distribution island near the southern Property margin. The SVE operations appear to have adequately mitigated on-Property soil and related subsurface vapor impacts with respect to MTCA compliance criteria, and the original SVE components were shut down in December 2018.

The zone of initial SVE operations was generally limited to the primary source area within Property boundaries and did not fully address residual gasoline impacts extending into the adjacent West Fourth

Plain Boulevard right-of-way (ROW). In December 2019 and January 2020, SVE infrastructure was expanded beyond the southern Property boundary to focus on gasoline-impacted subsurface soil located in the ROW (Figure 1). On-Property SVE components remain inactive, and SVE is currently only applied to the off-Property well infrastructure.

The expanded SVE system is plumbed to a three-horsepower regenerative blower that applies vacuum to the three horizontal wells (SVE-6 through -8) with 15- to 20-foot-long screened intervals intended to target the known 5- to 10-foot-deep pocket of soil contamination within the ROW. The three horizontal well components provide overlapping vacuum influence within the targeted off-Property treatment area. This SVE well configuration is shown on Figures 2 and 3.

SVE OPERATIONS 2020-2022

On-Property gasoline contaminant concentrations were adequately addressed through prior SVE operations, conducted using well infrastructure located on the subject Property (Remedial Investigation Report, EES 2018). SVE is therefore applied solely to off-Property well infrastructure.

The expanded off-Property SVE system has operated continuously since startup in January 2020, except for periodic short-term shutdowns occurring during maintenance, power loss, and intentional contaminant rebound monitoring activity. Routine SVE performance is monitored during monthly system operations and maintenance visits, with quarterly performance vapor sampling events scheduled for January, April, July, and December while the system is in operation. System flow and vacuum are periodically modified to optimize contaminant mass removal. Operational data collected through 1Q-2022 (end of March), are presented on the attached tables, figures, and charts, and summarized below.

AIR FLOW

Since startup in January 2020, the system has produced between approximately 28 and 62 cubic feet per minute (cfm) of air flow from the subsurface (see Table 1, “AWS Inlet”). Individual horizontal wells typically produce extraction flow rates ranging between 10 and 50 cfm.

RADIUS OF INFLUENCE

Performance metrics including vacuum, volatile organic compound (VOC) concentrations, and biological degradation parameters were measured at nearby vertical monitoring wells to evaluate the SVE system’s radius of influence (ROI; Table 2). Based on observations at nearby vadose-zone monitoring wells, vapor extraction operations have established an ROI that generally covers the identified areas of contamination within the West Fourth Plain Boulevard right-of-way (Figure 2). The lateral ROI for each individual horizontal SVE well is estimated at 10 feet between 5 and 20 feet below ground surface (bgs). Vertically, the influence for each SVE well extends at least as deep as 20 feet in the target cleanup area (i.e., about 10 feet below the horizontal wells).

BIOGENIC DEGRADATION OF GASOLINE

One goal of SVE is to increase subsurface oxygen inflow and concentrations that promote natural biological degradation of gasoline vapors. Before operation of the SVE system, subsurface oxygen concentrations at wells within the targeted treatment area ranged between approximately 9 and 20%. As intended, active SVE operations have established and maintained more highly aerobic conditions (18-21% oxygen) at wells SVE-6 through SVE-8 and at monitoring wells within the SVE zone of influence (B-17, B-18, and SVE-1 through SVE-5), indicating the remedial system is promoting biodegradation of gasoline contaminants by increasing oxygen flow into the subsurface.

During the May to July 2021 rebound monitoring period when the system was shut down, subsurface oxygen concentrations dropped to approximately 7-15% within this treatment area. Aerobic conditions were re-established during system operations, with highly aerobic conditions (approximately 19% oxygen) observed in the active treatment wells during the March 2022 monitoring event, prior to seasonal shutdown. Biogenic vapor monitoring data are presented in Table 2.

CONTAMINANT CONCENTRATIONS AND OBSERVED MASS REMOVAL

Regular monitoring data is collected during SVE operations to evaluate the performance of this remedial action and as a basis to consider system adjustments. Vapor samples were most recently collected on March 1, 2022, from SVE-6, SVE-7, and SVE-8 and submitted for laboratory analysis.

Monitoring data indicate the horizontal SVE wells are effective and have lateral and vertical influence that extends throughout the known contaminated portions of the ROW. Subsurface gasoline and related constituent vapor concentrations are exhibiting an overall decreasing trend within the off-Property treatment zone. One exception is an apparently anomalous and short-term gasoline “spike” detected at SVE-7 during the December 2021 rebound sampling event. EES resampled the three primary wells SVE-6, SVE-7, and SVE-8 on March 1, 2022, and the results at all three wells were below laboratory reporting limits for gasoline.

Findings for 2021 and 1Q-2022 operations are summarized below, presented in Tables 3, 4A and 4B, and illustrated on Figure 3 and Chart sets 1 and 2. Copies of the laboratory analytical reports for the 2021-2022 monitoring events are presented in Attachment A.

GASOLINE CONCENTRATIONS & CONTAMINANT REBOUND MONITORING

Overall, gasoline and related constituent concentrations have greatly diminished since SVE startup in January 2020 and represent an overall decreasing contaminant concentration trend, with some short-term fluctuations observed (Table 3, Charts 1A/1B, Figure 3).

Initial Rebound Monitoring (May-July 2021). EES temporarily shut down the SVE system between May 27 and July 9, 2021, to evaluate contaminant rebound under undisturbed versus active conditions. At the beginning and end of this shutdown period, and again after two weeks of resumed SVE operation (July 24), EES collected vapor samples from all ROW SVE well laterals (SVE-6, SVE-7, SVE-8), as well as at the system piping manifold. Gasoline-related vapor concentrations measured following the shutdown

period exceeded target screening thresholds, indicating residual contaminant mass remained within the targeted ROW treatment area.

- At SVE-6, gasoline and benzene were not observed measured upon shutdown on May 27, 2021. Following the six-week shutdown and upon resumed SVE activity in July, benzene (32 micrograms per cubic meter [ug/m^3]) was initially observed above MTCA screening criteria (11 ug/m^3) at startup on July 9, then quickly diminished approximately two hours after the restart. No gasoline or related constituents were detected in the sample collected two weeks following startup, on July 24. These observations indicate that minimal residual benzene mass persists near SVE-6.
- At SVE-7, gasoline and benzene concentrations were below screening thresholds at SVE shutdown and startup, and were not detected after two weeks of operation, indicating preliminary treatment criteria appeared to be achieved within this well's radius of influence.
- At SVE-8, gasoline concentrations were near or below MTCA screening criteria (4,700 ug/m^3) at system shutdown and upon initial startup, but gasoline concentrations increased to 32,000 ug/m^3 two hours after system restart on July 9, indicating gasoline mass remained within the influence of this well, at apparently moderate concentrations that still exceeded the cleanup target level. The gasoline concentration at SVE-8 decreased over time but was also detected on July 24 (8,200 ug/m^3), slightly above the MTCA screening criteria after two weeks of resumed SVE operation.

Resumed SVE Operations (August-December 2021). Based on the results of the May-July rebound monitoring period, EES initiated biweekly cycling of wells SVE-6 and SVE-8 to address the observed residual off-Property contamination. Biweekly cycling of these two wells was conducted from August 9 through November 22, 2021. On November 22, all three ROW SVE wells (SVE-6, SVE-7, and SVE-8) were activated simultaneously to restore equilibrium conditions prior to sampling. Two weeks later, on December 6, 2021, EES collected vapor samples from each active SVE well to evaluate contaminant concentrations under operating conditions. As previously scoped, EES shut down and winterized the SVE system after rebound sampling on December 6, 2021.

During the December 6th monitoring event (with the system in operation), gasoline vapors were not detected at SVE-6 or SVE-8, but vapor concentrations at SVE-7 (previously very low) were observed to be relatively high and exceeded target screening thresholds at that location. December 2021 analytical findings indicated:

- At SVE-6 and SVE-8, gasoline and benzene vapors were not detected, indicating good treatment performance as expected based on the interim seasonal data.
- At SVE-7, the gasoline concentration (650,000 ug/m^3) was significantly above the MTCA screening threshold (4,700 ug/m^3). Such high gasoline concentrations had not previously been measured at this well location, nor elsewhere at the Site, since February 2020 at wells SVE-7 and SVE-8.

Supplemental Rebound Monitoring Event (February-March 2022). Given the unexpected and significant vapor rebound observed at SVE-7 in December 2021, EES conducted supplemental rebound monitoring evaluation during February and March 2022. The SVE system was re-activated on February 15, 2022, to achieve equilibrium conditions prior to analytical testing. After a two-week operational period, EES conducted follow-up vapor sampling on March 1, 2022. Findings indicated:

- Concentrations of gasoline and benzene in each of the three individual wells SVE-6, SVE-7 and SVE-8 were all below laboratory detection limits, and related constituent concentrations were all below MTCA Method B soil gas screening levels.
- Gasoline vapor was detected in the combined system total sample (4,000 ug/m^3), but at a concentration below the MTCA screening level.

Based on overall decreasing vapor concentration trends observed during the 2020-2022 timeframe to date, and over the course of a series of rebound monitoring events through March 2022, gasoline contaminant mass in the ROW area continues to diminish as a result of successful SVE activity. The uniquely elevated gasoline concentration observed at SVE-7 in December 2021 is regarded as anomalous and has not been repeated. The system is currently shut down for the remainder of the wet season as previously planned but will be re-activated midyear in 2022 when drier conditions predominate. Additional contaminant rebound evaluation is anticipated for 3Q-2022 operations.

Gasoline Mass Extraction Rate

Gasoline mass removal rates in 2021-2022 ranged from 0.002 to 0.09 pounds per day, with approximately 14 pounds of gasoline removed during this biennium. Since startup of the off-Property SVE component in January 2020, cumulative removal of gasoline range hydrocarbons is estimated to be 140 pounds, or approximately 23 gallons (Table 4A). Combined with prior on-Property system operations conducted between 2013 and 2019, a total of approximately 341 pounds of (~56 gallons) gasoline mass have been removed from the Site since the start of SVE operations (Table 4B and Chart set 3).

The calculated gasoline mass removal rates for December 2021 and March 2022 (Tables 4A and 4B) appear to be leveling off, as expected and intended. This performance leveling trend will be re-evaluated when operations and rebound analysis resume in mid-2022.

Air Discharge Compliance

Since air emissions from the SVE system are expected to remain below Southwest Clean Air Authority (SWCAA) treatment criteria (SWCAA 400-109), SWCAA authorized system startup and continued operation of the system without the use of air emission controls. EES has continued to update the SWCAA on the operation of this system periodically.

In addition to gasoline, chlorinated solvent vapors, primarily tetrachloroethylene (PCE), are removed from the subsurface during SVE operations (Table 4A and 4B). Although not attributed to the gasoline source or Plaid operations, total PCE concentrations in SVE system air emissions are monitored to demonstrate compliance with SWCAA discharge criteria. Gasoline constituents and PCE vapor emissions remain far below maximum allowable discharge limits, confirming that exhaust treatment is not required (Tables 4A and 4B).

2022 SVE OPERATIONS GOING FORWARD

Monitoring data collected in 2021 and 2022 indicate that the SVE system has been effective in the treatment area at removing gasoline contaminant mass, promoting hydrocarbon biodegradation, and limiting potential vapor migration. Gasoline mass at off-Property ROW locations has been greatly mitigated and diminished as a result of the horizontal SVE well operations. The most recent gasoline vapor concentrations as measured in March 2022 are below the operational reference standards for gasoline, benzene, and related constituents (MTCA's Method B vapor intrusion screening levels) and confirm that expanded SVE operations in the West Fourth Plain Boulevard ROW have been effective in removing petroleum hydrocarbon mass from the subsurface in that area.

As indicated in the 2018 RI Report, vapor concentrations inform our understanding of cleanup progress, but final cleanup compliance is governed by demonstrating that protective gasoline concentrations are achieved in **soil** (2,619 mg/kg cleanup criteria). This will be demonstrated by soil sampling in the ROW when vapor screening criteria are reliably achieved. EES will continue with rebound monitoring protocols until gasoline concentrations remain below operational reference standards for three consecutive quarters. Once this metric is achieved, and assuming biodegradation indicators and mass removal rates corroborate the assessment, confirmation soil sampling will be conducted, as described above.

ATTACHMENTS

Figure 1: SVE System Layout
Figure 2: Radius of Influence
Figure 3: Gasoline Vapor Concentrations During SVE Operations

Table 1: Soil Vapor Extraction Monitoring Data
Table 2: Biodegradation Parameter and Zone of Influence Data
Table 3: Soil Vapor Analytical Results – Volatile Organic Compounds
Table 4A: Soil Vapor Extraction Mass Removal in Right-of-Way
Table 4B: Site Total Soil Vapor Extraction Mass Removal

Chart 1A: System Total Gasoline Vapor Concentrations During SVE Operations in ROW (Linear Scale)
Chart 1B: System Total Gasoline Vapor Concentrations During SVE Operations in ROW (Log Scale)
Chart 1C: System Total Gasoline Vapor Concentrations During SVE Operations (Sitewide – Log Scale)
Chart 2A: Gasoline Vapor Concentrations & Removal Rates During SVE Operations in ROW (Linear Scale)
Chart 2B: Gasoline Vapor Concentrations & Removal Rates During SVE Operations in ROW (Log Scale)
Chart 3A: Site Total Gasoline Mass Extraction Rates & Cumulative Mass Removal (Linear Scale)
Chart 3B: Site Total Gasoline Mass Extraction Rates & Cumulative Mass Removal (Log Scale)

Attachment A: Laboratory Analytical Data

Figures

LEGEND

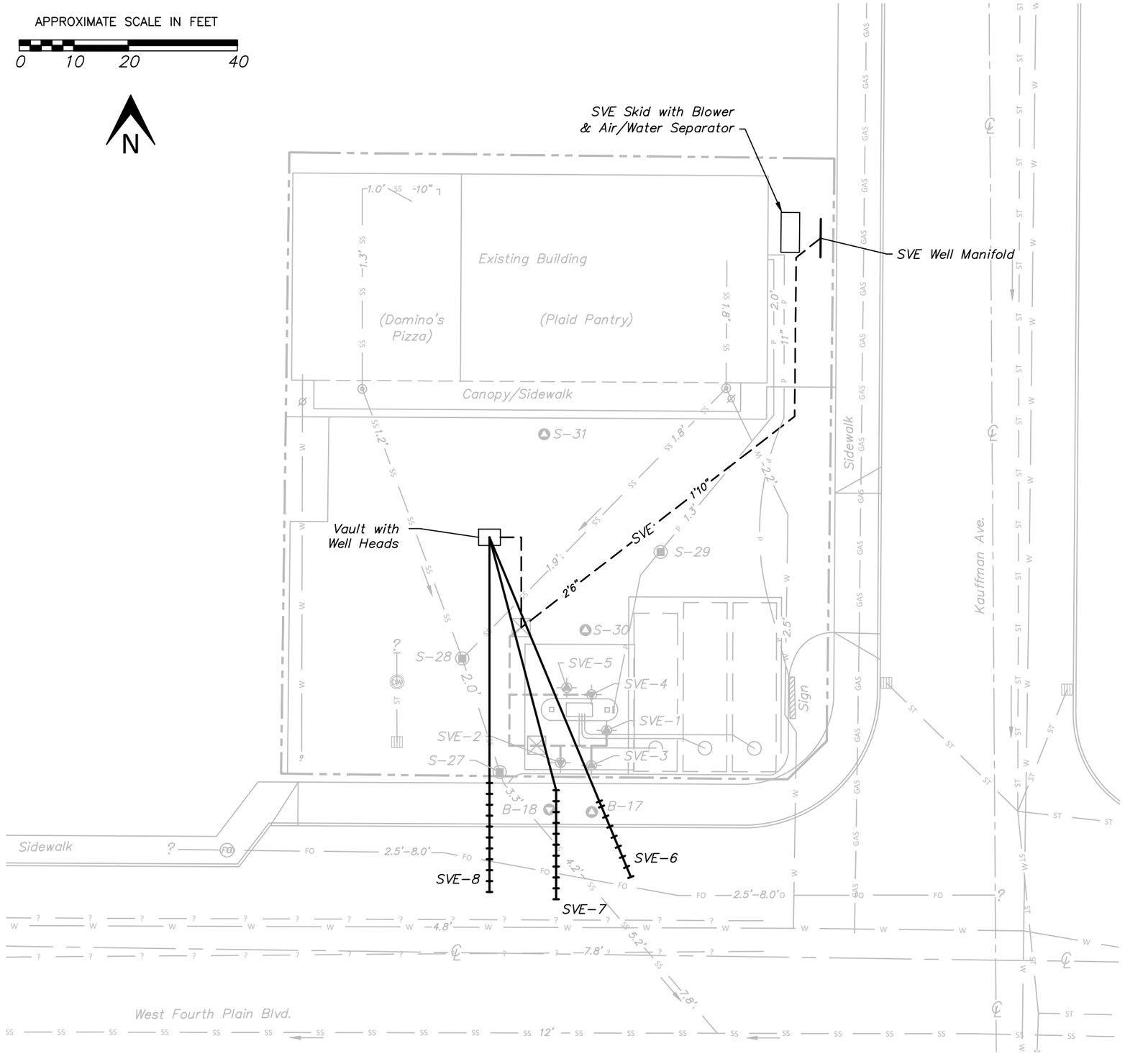
- Property Boundary
- Roadway Centerline
- Catch Basin
- DW — Dry Well
- Vault
- SVE–1 — Inactive Shallow SVE Well (Screened 5–10' bgs)
- SVE–2 — Inactive Deep SVE Well (Screened 15–20' bgs)
- S–28 — Utility Vapor Monitoring Well (Screened at Various Shallow Depths in Trench Backfill)
- B–17 — Shallow Vapor Monitoring Well (Screened 5–10' bgs)
- B–18 — Deep Vapor Monitoring Well (Screened 15–20' bgs)
- SVE — SVE–1 through SVE–5 Conveyance Piping
- SVE — SVE Conveyance Piping
- W — Water Line
- SS — Sanitary Sewer & Flow Direction
- ST — Storm Sewer & Flow Direction
- P — Power
- GAS — Natural Gas
- ? — Unknown Utility
- FO — Fiber Optic
- Arrows Indicate Flow Direction Where Known
- Approximate Utility Depths Indicated Where Known (Feet)
- SVE Well Casing
- SVE Screens

SITE FEATURES ARE APPROXIMATE.

APPROXIMATE SCALE IN FEET

0 10 20 40

N



PROJECT NO.	1179–04
DATE: 1–5–21	FIGURE NO. 1
FILE: 1179–04	
DRAWN: JJT	
APPROVED: DBP	

SVE SYSTEM LAYOUT

PLAID PANTRY #112
1002 W. FOURTH PLAIN BLVD.
VANCOUVER, WA.

EES Environmental Consulting, Inc.
240 N. Broadway, Suite 203 • Portland, Oregon 97227
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LEGEND

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- B–18 — Deep Vapor Monitoring Well (Screened 15–20' bgs)
- Vault
- 10 — Approximate Gasoline Isoconcentration Contour (mg/kg, Sept 2015)
- -·SVE·- — SVE–1 through SVE–5 Conveyance Piping
- -·SVE·- — SVE Conveyance Piping
- SVE Well Casing
- SVE Screen
- ** = With all wells enabled

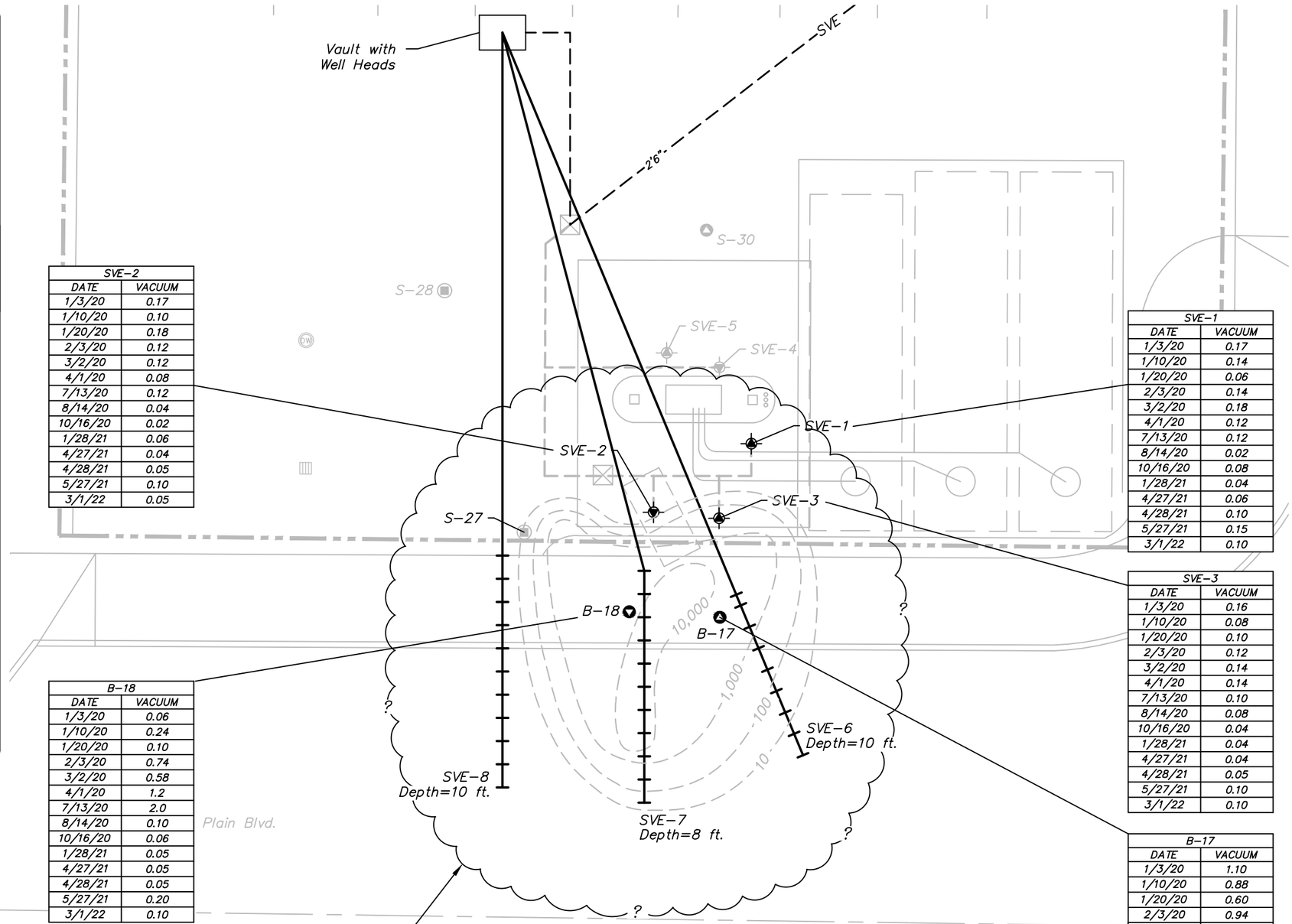
Vacuum measurements in inches of water column.

SITE FEATURES ARE APPROXIMATE.

APPROXIMATE SCALE IN FEET

0 10 20

N



SVE–2	
DATE	VACUUM
1/3/20	0.17
1/10/20	0.10
1/20/20	0.18
2/3/20	0.12
3/2/20	0.12
4/1/20	0.08
7/13/20	0.12
8/14/20	0.04
10/16/20	0.02
1/28/21	0.06
4/27/21	0.04
4/28/21	0.05
5/27/21	0.10
3/1/22	0.05

SVE–1	
DATE	VACUUM
1/3/20	0.17
1/10/20	0.14
1/20/20	0.06
2/3/20	0.14
3/2/20	0.18
4/1/20	0.12
7/13/20	0.12
8/14/20	0.02
10/16/20	0.08
1/28/21	0.04
4/27/21	0.06
4/28/21	0.10
5/27/21	0.15
3/1/22	0.10

SVE–3	
DATE	VACUUM
1/3/20	0.16
1/10/20	0.08
1/20/20	0.10
2/3/20	0.12
3/2/20	0.14
4/1/20	0.14
7/13/20	0.10
8/14/20	0.08
10/16/20	0.04
1/28/21	0.04
4/27/21	0.04
4/28/21	0.05
5/27/21	0.10
3/1/22	0.10

B–18	
DATE	VACUUM
1/3/20	0.06
1/10/20	0.24
1/20/20	0.10
2/3/20	0.74
3/2/20	0.58
4/1/20	1.2
7/13/20	2.0
8/14/20	0.10
10/16/20	0.06
1/28/21	0.05
4/27/21	0.05
4/28/21	0.05
5/27/21	0.20
3/1/22	0.10

B–17	
DATE	VACUUM
1/3/20	1.10
1/10/20	0.88
1/20/20	0.60
2/3/20	0.94
3/2/20	1.3
4/1/20	1.1
7/13/20	1.2
8/14/20	1.6
10/16/20	1.0
1/28/21	2.2
4/27/21	0.40
4/28/21	1.6
5/27/21	0.15
3/1/22	1.8

**Radius of Influence at 5–20 feet depth

PROJECT NO. 1179–04
FIGURE NO. 2
DATE: 5–16–22
FILE: 1179–04
DRAWN: JJT
APPROVED: SR

RADIUS OF INFLUENCE

PLAID PANTRY #112
1002 W. FOURTH PLAIN BLVD.
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240 N. Broadway, Suite 203 • Portland, Oregon 97227
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- Vault
- 10 — Approximate Gasoline Isoconcentration Contour (mg/kg, Sept 2015)
- -SVE- — SVE–1 through SVE–5 Conveyance Piping
- -SVE- — SVE Conveyance Piping
- SVE Well Casing
- SVE Screen
- ** = SVE system turned off on May 27 and restarted on July 9 for contaminant rebound monitoring

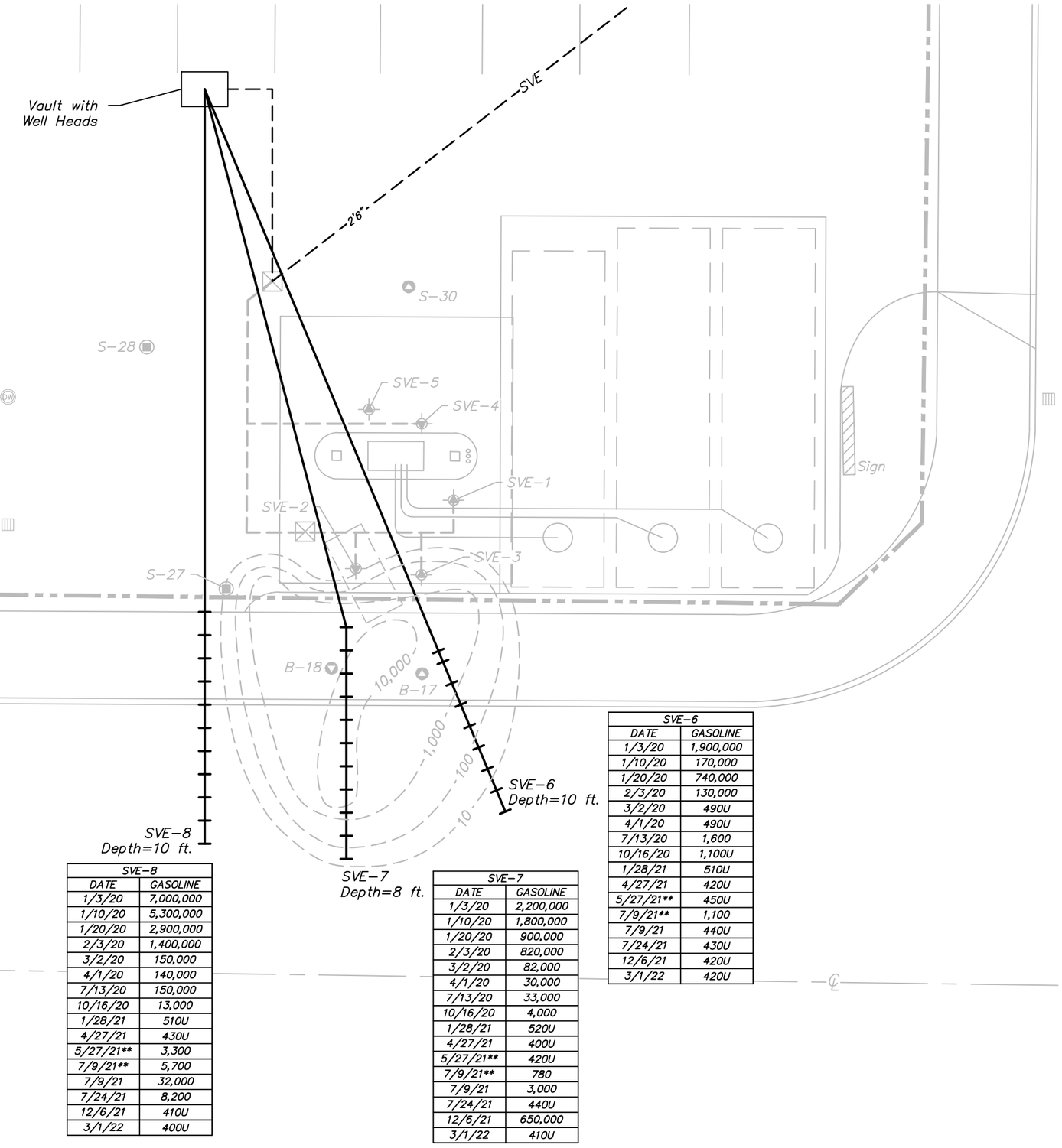
Soil Vapor Analytical Results in ug/m³

SITE FEATURES ARE APPROXIMATE.

APPROXIMATE SCALE IN FEET

0 10 20

N



SVE–8	
DATE	GASOLINE
1/3/20	7,000,000
1/10/20	5,300,000
1/20/20	2,900,000
2/3/20	1,400,000
3/2/20	150,000
4/1/20	140,000
7/13/20	150,000
10/16/20	13,000
1/28/21	510U
4/27/21	430U
5/27/21**	3,300
7/9/21**	5,700
7/9/21	32,000
7/24/21	8,200
12/6/21	410U
3/1/22	400U

SVE–7	
DATE	GASOLINE
1/3/20	2,200,000
1/10/20	1,800,000
1/20/20	900,000
2/3/20	820,000
3/2/20	82,000
4/1/20	30,000
7/13/20	33,000
10/16/20	4,000
1/28/21	520U
4/27/21	400U
5/27/21**	420U
7/9/21**	780
7/9/21	3,000
7/24/21	440U
12/6/21	650,000
3/1/22	410U

SVE–6	
DATE	GASOLINE
1/3/20	1,900,000
1/10/20	170,000
1/20/20	740,000
2/3/20	130,000
3/2/20	490U
4/1/20	490U
7/13/20	1,600
10/16/20	1,100U
1/28/21	510U
4/27/21	420U
5/27/21**	450U
7/9/21**	1,100
7/9/21	440U
7/24/21	430U
12/6/21	420U
3/1/22	420U

PROJECT NO.	1179–04
DATE: 5–16–22	FIGURE NO. 3
FILE: 1179–04	
DRAWN: JJT	
APPROVED: SR	

GASOLINE VAPOR CONCENTRATIONS DURING SVE OPERATIONS

PLAID PANTRY #112
1002 W. FOURTH PLAIN BLVD.
VANCOUVER, WA.

EES Environmental Consulting, Inc.
240 N. Broadway, Suite 203 • Portland, Oregon 97227
(503) 847–2740 • ees-environmental.com

Tables

TABLE 1
Soil Vapor Extraction Monitoring Data
Plaid Pantry No. 112
Vancouver, Washington

Well ID	Date	Analytical Sampling	Induced Vacuum (inches H_2O)[a]	PID (ppmv)[a]	Approximate Velocity (fpm)[a]	Flow (scfm)[b]
SVE-6	01/03/2020	-	20	133	1,431	22
	01/03/2020	-	20	145	1,344	22
	01/03/2020	-	20	-	1,283	18
	01/03/2020	Yes	20	75	1,256	20
	01/06/2020	-	21	-	877	14
	01/10/2020	Yes	21	4.5	859	15
	01/10/2020	-	21	6.8	922	15
	01/17/2020	-	20	75	-	-
	01/17/2020	-	20	120	-	-
	01/20/2020	Yes	19	17	-	-
	01/20/2020	-	19	38	807	16
	02/03/2020	-	18	2.3	802	16
	02/03/2020	Yes	19	3.6	917	17
	02/17/2020	-	20	2.8	943	15
	02/17/2020	-	20	9.2	927	17
	03/02/2020	Yes	20	0.8	921	17
	03/16/2020	-	20	37	610	14
	04/01/2020	Yes	19	0.9	650	15
	04/01/2020	-	20	0.8	800	15
	05/01/2020	-	20	0.7	717	13
	05/19/2020	-	20	1.7	539	12
	05/26/2020	-	20	7.8	760	12
	06/12/2020	-	20	1.8	738	17
	07/13/2020	Yes	20	1.8	702	14
	08/14/2020	-	20	8.0	710	10
	08/14/2020[d]	-	0.10	-	-	-
	08/14/2020[d]	-	0.10	-	-	-
	08/14/2020[d]	-	0.10	-	-	-
	08/18/2020[d]	-	0.10	-	-	-
	09/18/2020[d]	-	0.00	-	-	-
	09/18/2020	-	20	3.1	654	13
	09/18/2020[d]	-	0.14	-	-	-
	10/16/2020[d]	-	0.12	-	-	-
	10/16/2020	Yes	20	9.3	762	14
	10/16/2020[d]	-	0.22	-	-	-
	12/01/2020[d]	-	0.12	-	-	-
	12/28/2020[d]	-	0.12	-	-	-
	01/28/2021[d]	-	0.12	-	-	-
	01/28/2021	Yes	20	4.8	611	12
	01/28/2021[d]	-	0.10	-	-	-
	02/27/2021[d]	-	0.04	-	-	-
	02/27/2021[d]	-	0.15	-	-	-
	02/27/2021[d]	-	0.12	-	-	-
	03/01/2021[d]	-	0.12	-	-	-
	03/25/2021[d]	-	0.10	-	-	-

TABLE 1
Soil Vapor Extraction Monitoring Data
Plaid Pantry No. 112
Vancouver, Washington

Well ID	Date	Analytical Sampling	Induced Vacuum (inches H_2O)[a]	PID (ppmv)[a]	Approximate Velocity (fpm)[a]	Flow (scfm)[b]
SVE-6 (cont'd)	03/25/2021[d]	-	0.05	-	-	-
	04/27/2021[d]	-	0.10	-	-	-
	04/27/2021	-	12	1.2	421	15
	04/27/2021	-	12	1.1	440	15
	04/27/2021	-	12	1.1	448	15
	04/28/2021	-	18	5.0	794	19
	04/28/2021	Yes	18	3.5	781	18
	05/06/2021	-	18	0.9	648	17
	05/14/2021	-	18	1.4	645	15
	05/19/2021	-	18	1.8	662	16
	05/27/2021	Yes	18	1.1	652	17
	07/09/2021	Yes	18	7.2	660	16
	07/09/2021	-	18	2.6	761	16
	07/09/2021	-	18	1.9	652	15
	07/09/2021	-	18	2.8	674	15
	07/09/2021	-	18	3.6	698	15
	07/09/2021	Yes	18	4.1	683	15
	07/10/2021	-	18	4.3	740	16
	07/11/2021	-	18	3.1	658	15
	07/12/2021	-	18	2.9	623	15
	07/13/2021	-	18	2.8	637	15
	07/24/2021	Yes	18	1.5	651	16
	07/30/2021	-	18	3.6	614	15
	08/05/2021	-	18	1.7	639	15
	08/05/2021[d]	-	0	-	0	0
	08/23/2021	-	20	2.2	753	49
	09/03/2021	-	20	1.1	788	46
	09/03/2021[d]	-	0	-	0	0
	09/22/2021	-	20	3.3	806	49
	10/08/2021	-	20	2.3	797	50
	10/08/2021[d]	-	-	-	0	0
	10/22/2021[d]	-	-	-	0	0
	11/09/2021	-	20	2.3	694	47
	11/09/2021[d]	-	-	-	0	0
	11/22/2021	-	20	2.4	652	16
	12/06/2021	Yes	20	2.5	640	14
	02/15/2022	-	20	0.8	1,049	16
	02/16/2022	-	20	0.9	981	16
	02/25/2022	-	20	0.6	-	-
	02/28/2022	-	20	0.8	936	16
	03/01/2022	Yes	20	0.6	940	16
	03/15/2022	-	20	1.3	827	15
	03/31/2022	-	20	0.9	840	15
SVE-7	01/03/2020	-	20	283	1,311	20
	01/03/2020	-	20	245	1,150	18

TABLE 1
Soil Vapor Extraction Monitoring Data
Plaid Pantry No. 112
Vancouver, Washington

Well ID	Date	Analytical Sampling	Induced Vacuum (inches H_2O)[a]	PID (ppmv)[a]	Approximate Velocity (fpm)[a]	Flow (scfm)[b]
SVE-7 (cont'd)	01/03/2020	-	20	-	1,152	16
	01/03/2020	Yes	20	166	1,055	17
	01/06/2020	-	21	-	827	14
	01/10/2020	Yes	21	211	836	14
	01/10/2020	-	21	197	841	14
	01/17/2020	-	21	71	-	-
	01/17/2020	-	21	170	-	-
	01/20/2020	Yes	20	41	-	-
	01/20/2020	-	20	62	792	16
	02/03/2020	-	19	6.6	799	16
	02/03/2020	Yes	20	7.1	841	15
	02/17/2020	-	21	6.1	949	15
	02/17/2020	-	20	13	909	17
	03/02/2020	Yes	20	3.3	851	15
	03/16/2020	-	20	16	679	16
	04/01/2020	Yes	20	1.4	752	17
	04/01/2020	-	20	1.5	862	16
	05/01/2020	-	20	1.4	785	15
	05/19/2020	-	20	3.1	620	14
	05/26/2020	-	20	4.7	807	12
	06/12/2020	-	21	1.6	781	18
	07/13/2020	Yes	21	1.1	776	16
	08/14/2020	-	20	8.8	739	11
	08/14/2020	-	22	10	835	22
	08/14/2020	-	28	14	900	15
	08/14/2020	-	23	-	778	15
	08/18/2020	-	23	12	802	15
	09/18/2020	-	7.0	1.9	193	26
	09/18/2020	-	20	3.2	624	22
	10/16/2020	Yes	24	2.9	816	20
	10/16/2020	-	20	2.5	824	22
	12/01/2020	-	30	1.2	861	23
	12/28/2020	-	31	0.2	920	20
	01/28/2021	Yes	25	2.3	645	22
	01/28/2021[d]	-	0.20	-	-	-
	01/28/2021[d]	-	0.20	-	-	-
	02/27/2021[d]	-	0.20	-	-	-
	02/27/2021	-	30	2.4	-	-
	02/27/2021	-	12	0.7	-	-
	02/27/2021	-	12	0.7	-	-
	02/27/2021	-	12	0.8	-	-
	02/27/2021	-	12	0.9	-	-
	03/01/2021	-	12	3.7	-	-
	03/25/2021	-	12	1.3	-	-
	03/25/2021[d]	-	0.05	-	-	-
	04/27/2021[d]	-	0.10	-	-	-

TABLE 1
Soil Vapor Extraction Monitoring Data
Plaid Pantry No. 112
Vancouver, Washington

Well ID	Date	Analytical Sampling	Induced Vacuum (inches H_2O)[a]	PID (ppmv)[a]	Approximate Velocity (fpm)[a]	Flow (scfm)[b]
SVE-7 (cont'd)	04/27/2021	-	12	2.0	485	17
	04/27/2021	-	12	1.4	472	16
	04/27/2021	-	12	1.3	494	16
	04/28/2021	-	20	3.0	734	17
	04/28/2021	Yes	20	1.2	807	18
	05/06/2021	-	20	1.0	612	16
	05/14/2021	-	20	2.3	707	16
	05/19/2021	-	20	1.9	691	16
	05/27/2021	Yes	20	0.8	641	17
	07/09/2021	Yes	20	4.0	739	18
	07/09/2021	-	20	2.5	816	18
	07/09/2021	-	20	2.0	848	19
	07/09/2021	-	20	2.7	784	18
	07/09/2021	-	20	3.8	857	19
	07/09/2021	Yes	20	4.2	830	18
	07/10/2021	-	20	4.0	797	17
	07/11/2021	-	20	2.8	703	16
	07/12/2021	-	20	2.7	696	17
	07/13/2021	-	20	2.5	714	17
	07/24/2021	Yes	20	3.8	607	15
	07/30/2021	-	20	2.1	597	14
	08/05/2021	-	20	1.5	644	15
	08/05/2021[d]	-	0	-	0	0
	11/22/2021	-	20	2.3	681	16
	12/06/2021	Yes	20	2.1	699	15
	02/15/2022	-	20	0.1	1,043	15
	02/16/2022	-	20	0.3	1,020	16
	02/25/2022	-	21	7.5	-	-
	02/28/2022	-	20	4.9	983	17
	03/01/2022	Yes	20	50	950	16
	03/15/2022	-	20	16	962	17
	03/31/2022	-	20	3.9	921	17
SVE-8	01/03/2020	-	20	928	1,366	21
	01/03/2020	-	20	388	1,378	22
	01/03/2020	-	20	-	1,354	19
	01/03/2020	Yes	20	385	1,270	21
	01/06/2020	-	21	-	825	14
	01/10/2020	Yes	21	372	842	15
	01/10/2020	-	21	360	810	14
	01/17/2020	-	20	65	-	-
	01/17/2020	-	20	284	-	-
	01/20/2020	Yes	20	89	-	-
	01/20/2020	-	20	110	796	16
	02/03/2020	-	19	37	777	16
	02/03/2020	Yes	20	36	848	15
	02/17/2020	-	21	10	928	15

TABLE 1
Soil Vapor Extraction Monitoring Data
Plaid Pantry No. 112
Vancouver, Washington

Well ID	Date	Analytical Sampling	Induced Vacuum (inches H_2O)[a]	PID (ppmv)[a]	Approximate Velocity (fpm)[a]	Flow (scfm)[b]
SVE-8 (cont'd)	02/17/2020	-	20	29	915	17
	03/02/2020	Yes	20	12	855	15
	03/16/2020	-	20	15	701	17
	04/01/2020	Yes	20	1.8	653	15
	04/01/2020	-	20	7.8	973	18
	05/01/2020	-	20	2.8	733	14
	05/19/2020	-	20	8.1	650	14
	05/26/2020	-	20	16	817	12
	06/12/2020	-	21	2.3	803	18
	07/13/2020	Yes	20	1.6	787	16
	08/14/2020	-	20	21	750	11
	08/14/2020	-	22	14	762	20
	08/14/2020	-	27	18	773	13
	08/14/2020	-	22	-	721	13
	08/18/2020	-	22	30	739	13
	09/18/2020	-	6.0	1.6	138	19
	09/18/2020	-	23	5.4	709	25
	10/16/2020	Yes	26	3.1	853	21
	10/16/2020	-	23	3.5	763	20
	12/01/2020	-	29	1.4	906	24
	12/28/2020	-	30	0.3	897	19
	01/28/2021	Yes	24	1.4	690	24
	01/28/2021[d]	-	0.05	-	-	-
	01/28/2021	-	30	2.8	907	44
	02/27/2021	-	30	4.6	785	47
	02/27/2021[d]	-	0.05	-	-	-
	02/27/2021[d]	-	0.02	-	-	-
	02/27/2021[d]	-	0.02	-	-	-
	03/25/2021[d]	-	0.02	-	-	-
	03/25/2021	-	30	2.2	863	45
	04/27/2021	Yes	30	0.7	1,112	49
	04/27/2021	-	12	1.1	467	16
	04/27/2021	-	12	1.1	476	16
	04/27/2021	-	12	1.0	480	16
	04/28/2021	-	18	2.0	724	17
	04/28/2021	-	18	2.3	746	17
	05/06/2021	-	18	1.3	598	16
	05/14/2021	-	18	3.1	763	18
	05/19/2021	-	18	1.7	741	18
	05/27/2021	Yes	18	0.9	615	16
	07/09/2021	Yes	18	3.3	626	15
	07/09/2021	-	18	2.7	675	15
	07/09/2021	-	18	2.4	678	15
	07/09/2021	-	18	2.9	670	15
	07/09/2021	-	18	4.1	643	14
	07/09/2021	Yes	18	4.4	657	15
	07/10/2021	-	18	4.2	594	13

TABLE 1
Soil Vapor Extraction Monitoring Data
Plaid Pantry No. 112
Vancouver, Washington

Well ID	Date	Analytical Sampling	Induced Vacuum (inches H_2O)[a]	PID (ppmv)[a]	Approximate Velocity (fpm)[a]	Flow (scfm)[b]
SVE-8 (cont'd)	07/11/2021	-	18	2.9	617	14
	07/12/2021	-	18	2.6	634	15
	07/13/2021	-	18	2.6	647	15
	07/24/2021	Yes	18	4.3	671	16
	07/30/2021	-	18	1.9	633	15
	08/05/2021	-	18	1.5	702	16
	08/05/2021	-	20	1.6	817	49
	08/23/2021	-	20	1.8	695	49
	08/23/2021[d]	-	0	-	0	0
	09/03/2021	-	20	1.8	751	46
	09/22/2021	-	20	4.1	492	49
	09/22/2021[d]	-	0	-	0	0
	10/08/2021	-	20	2.8	890	50
	10/22/2021	-	20	2.6	868	50
	10/22/2021[d]	-	-	-	0	0
	11/09/2021	-	20	2.6	782	47
	11/22/2021	-	20	2.8	777	19
	12/06/2021	Yes	20	2.7	818	18
	02/15/2022	-	20	0.3	1,290	19
	02/16/2022	-	20	0.3	1,147	18
	02/25/2022	-	21	0.6	-	-
	02/28/2022	-	20	0.8	1,026	18
	03/01/2022	Yes	20	1.1	1,019	18
	03/15/2022	-	20	0.9	979	18
	03/31/2022	-	20	0.7	957	18
AWS Inlet	01/03/2020	-	20	-	1,425	62
	01/03/2020	-	20	118	1,418	62
	01/03/2020	-	20	386	1,237	54
	01/03/2020	Yes	20	-	1,340	58
	01/06/2020	-	21	-	943	42
	01/10/2020	Yes	20	-	991	44
	01/10/2020	-	20	-	974	43
	01/17/2020	-	20	40	758	48
	01/17/2020	-	21	114	703	45
	01/20/2020	Yes	20	86	803	50
	01/20/2020	-	20	95	819	47
	02/03/2020	-	20	30	842	47
	02/03/2020	Yes	22	33	853	47
	02/17/2020	-	21	7.2	1,147	45
	02/17/2020	-	20	25	875	50
	03/02/2020	Yes	20	8.4	859	47
	03/16/2020	-	20	16	635	47
	04/01/2020	Yes	20	1.4	737	47
	04/01/2020	-	20	12	829	49
	05/01/2020	-	20	2.1	715	42
	05/19/2020	-	20	6.4	721	40

TABLE 1
Soil Vapor Extraction Monitoring Data
Plaid Pantry No. 112
Vancouver, Washington

Well ID	Date	Analytical Sampling	Induced Vacuum (inches H_2O)[a]	PID (ppmv)[a]	Approximate Velocity (fpm)[a]	Flow (scfm)[b]
AWS Inlet (cont'd)	05/26/2020	-	21	10	759	36
	06/12/2020	-	21	2.9	744	52
	07/13/2020	Yes	20	2.9	762	46
	08/14/2020	-	20	23	767	32
	08/14/2020	-	22	18	765	43
	08/14/2020	-	27	19	715	28
	08/14/2020	-	23	-	753	28
	08/18/2020	-	22	32	774	28
	09/18/2020	-	4.8	5.5	145	45
	09/18/2020	-	24	6.5	795	46
	10/16/2020	Yes	26	1.5	809	41
	10/16/2020	-	26	4.6	786	41
	12/01/2020	-	30	1.3	1,097	47
	12/28/2020	-	30	0.1	950	39
	01/28/2021	Yes	24	1.8	718	46
	01/28/2021	-	20	3.5	750	48
	01/28/2021	-	30	2.2	907	44
	02/27/2021	-	30	3.8	793	47
	02/27/2021	-	30	1.2	762	41
	02/27/2021	-	12	0.9	906	45
	03/01/2021	-	12	2.5	831	46
	03/25/2021	-	12	1.0	499	46
	03/25/2021	-	30	1.3	907	45
	04/27/2021	-	30	0.6	984	49
	04/27/2021	-	12	1.0	517	48
	04/27/2021	-	12	0.9	529	47
	04/27/2021	-	12	0.9	535	47
	04/28/2021	-	18	1.6	763	53
	04/28/2021	Yes	18	2.4	759	52
	05/06/2021	-	18	1.1	810	50
	05/14/2021	-	18	3.1	707	49
	05/19/2021	-	18	1.6	692	50
	05/27/2021	Yes	18	0.8	732	51
	07/09/2021	-	18	2.8	740	49
	07/09/2021	-	18	2.3	727	49
	07/09/2021	-	18	2.4	850	49
	07/09/2021	-	18	2.9	785	48
	07/09/2021	-	18	3.7	814	48
	07/09/2021	Yes	18	4.0	817	48
	07/10/2021	-	18	4.2	648	45
	07/11/2021	-	18	2.8	636	46
	07/12/2021	-	18	2.7	684	48
	07/13/2021	-	18	2.5	690	48
	07/24/2021	Yes	18	1.9	631	46
	07/30/2021	-	18	3.5	575	44
	08/05/2021	-	18	1.5	693	46
	08/05/2021	-	20	1.9	760	49

TABLE 1
Soil Vapor Extraction Monitoring Data
Plaid Pantry No. 112
Vancouver, Washington

Well ID	Date	Analytical Sampling	Induced Vacuum (inches H_2O)[a]	PID (ppmv)[a]	Approximate Velocity (fpm)[a]	Flow (scfm)[b]
AWS Inlet (cont'd)	08/22/2021	-	20	1.7	687	49
	08/22/2021	-	20	1.9	727	49
	09/03/2021	-	20	1.2	644	46
	09/03/2021	-	20	1.7	660	46
	09/22/2021	-	20	3.9	797	49
	09/22/2021	-	20	3.1	744	49
	10/08/2021	-	20	2.2	730	50
	10/08/2021	-	20	2.6	752	50
	10/22/2021	-	20	2.5	783	50
	10/22/2021	-	20	2.7	690	47
	11/09/2021	-	20	2.3	698	47
	11/09/2021	-	20	2.5	721	47
	11/22/2021	-	20	2.7	830	50
	12/06/2021	Yes	20	2.4	763	48
	02/15/2022	-	20	0.3	979	50
	02/16/2022	-	20	0.4	956	50
	02/25/2022	-	21	2.9	-	-
	02/28/2022	-	20	1.2	904	50
	03/01/2022	Yes	20	2.6	927	50
	03/15/2022	-	20	9.1	858	50
	03/31/2022	-	20	3.3	839	50
AWS Outlet	01/03/2020	-	22	-	-	-
	01/03/2020	-	22	-	-	-
	01/03/2020	-	22	-	-	-
	01/03/2020	-	22	-	-	-
	01/06/2020	-	23	-	-	-
	01/10/2020	-	23	-	-	-
	01/10/2020	-	23	-	-	-
	01/17/2020	-	21	-	-	-
	01/17/2020	-	19	-	-	-
	01/20/2020	-	22	-	-	-
	01/20/2020	-	22	-	-	-
	02/03/2020	-	23	-	-	-
	02/03/2020	-	25	-	-	-
	02/17/2020	-	25	-	-	-
	02/17/2020	-	23	-	-	-
	03/02/2020	-	23	-	-	-
	03/16/2020	-	24	-	-	-
	04/01/2020	-	25	-	-	-
	04/01/2020	-	26	-	-	-
	05/01/2020	-	23	-	-	-
	05/19/2020	-	23	-	-	-
	05/26/2020	-	23	-	-	-
	06/12/2020	-	25	-	-	-
	07/13/2020	-	25	-	-	-
	08/14/2020	-	25	-	-	-

TABLE 1
Soil Vapor Extraction Monitoring Data
Plaid Pantry No. 112
Vancouver, Washington

Well ID	Date	Analytical Sampling	Induced Vacuum (inches H_2O)[a]	PID (ppmv)[a]	Approximate Velocity (fpm)[a]	Flow (scfm)[b]
AWS Outlet (cont'd)	08/14/2020	-	26	-	-	-
	08/14/2020	-	33	-	-	-
	08/14/2020	-	27	-	-	-
	08/18/2020	-	27	-	-	-
	09/18/2020	-	64	-	-	-
	09/18/2020	-	26	-	-	-
	10/16/2020	-	29	-	-	-
	10/16/2020	-	28	-	-	-
	12/01/2020	-	34	-	-	-
	12/28/2020	-	32	-	-	-
	01/28/2021	-	26	-	-	-
	01/28/2021	-	24	-	-	-
	01/28/2021	-	33	-	-	-
	02/27/2021	-	33	-	-	-
	02/27/2021	-	32	-	-	-
	02/27/2021	-	14	-	-	-
	03/01/2021	-	14	-	-	-
	03/25/2021	-	15	-	-	-
	03/25/2021	-	33	-	-	-
	04/27/2021	-	34	-	-	-
	04/27/2021	-	16	-	-	-
	04/27/2021	-	16	-	-	-
	04/27/2021	-	16	-	-	-
	04/28/2021	-	23	-	-	-
	04/28/2021	-	23	-	-	-
	05/06/2021	-	23	-	-	-
	05/14/2021	-	23	-	-	-
	05/19/2021	-	21	-	-	-
	05/27/2021	-	21	-	-	-
	07/09/2021	-	22	-	-	-
	07/09/2021	-	22	-	-	-
	07/09/2021	-	22	-	-	-
	07/09/2021	-	22	-	-	-
	07/09/2021	-	22	-	-	-
	07/09/2021	-	21	-	-	-
	07/10/2021	-	21	-	-	-
	07/11/2021	-	21	-	-	-
	07/12/2021	-	21	-	-	-
	07/13/2021	-	21	-	-	-
	07/24/2021	-	22	-	-	-
	07/30/2021	-	22	-	-	-
	08/05/2021	-	22	-	-	-
	08/05/2021	-	24	-	-	-
	08/22/2021	-	24	-	-	-
	08/22/2021	-	24	-	-	-
	09/03/2021	-	24	-	-	-
	09/03/2021	-	24	-	-	-

TABLE 1
Soil Vapor Extraction Monitoring Data
Plaid Pantry No. 112
Vancouver, Washington

Well ID	Date	Analytical Sampling	Induced Vacuum (inches H_2O)[a]	PID (ppmv)[a]	Approximate Velocity (fpm)[a]	Flow (scfm)[b]
AWS Outlet (cont'd)	09/22/2021	-	24	-	-	-
	09/22/2021	-	25	-	-	-
	10/08/2021	-	25	-	-	-
	10/08/2021	-	25	-	-	-
	10/22/2021	-	25	-	-	-
	10/22/2021	-	25	-	-	-
	11/09/2021	-	24	-	-	-
	11/09/2021	-	24	-	-	-
	11/22/2021	-	24	-	-	-
	12/06/2021	-	24	-	-	-
	02/15/2022	-	24	-	-	-
	02/16/2022	-	24	-	-	-
	02/25/2022	-	26	-	-	-
	02/28/2022	-	24	-	-	-
	03/01/2022	-	24	-	-	-
	03/15/2022	-	24	-	-	-
	03/31/2022	-	24	-	-	-
Stack[c]	01/03/2020	-	0.15	77	-	-
	01/03/2020	-	0.14	71	2,153	166
	01/03/2020	-	0.08	64	2,305	177
	01/03/2020	-	0.06	61	2,285	174
	01/06/2020	-	0.15	44	2,404	187
	01/10/2020	-	0.14	31	2,267	178
	01/10/2020	-	0.13	34	2,306	180
	01/17/2020	-	0.12	14	2,337	187
	01/17/2020	-	0.14	10	2,489	200
	01/20/2020	-	0.14	55	2,262	175
	01/20/2020	-	0.14	53	2,096	161
	02/03/2020	-	0.16	30	2,235	175
	02/03/2020	-	0.16	30	2,186	171
	02/17/2020	-	0.16	6.4	2,091	161
	02/17/2020	-	0.10	13	2,159	167
	03/02/2020	-	0.12	6.4	2,217	174
	03/16/2020	-	0.10	9.7	2,052	157
	04/01/2020	-	0.09	1.3	2,234	174
	04/01/2020	-	0.10	8.5	2,121	164
	05/01/2020	-	0.06	1.3	1,922	147
	05/19/2020	-	0.08	12	1,889	140
	05/26/2020	-	0.10	7.3	1,890	138
	06/12/2020	-	0.08	2.0	1,826	140
	07/13/2020	-	0.10	2.0	1,816	132
	08/14/2020	-	0.05	10	1,977	142
	08/14/2020	-	0.05	13	1,870	134
	08/14/2020	-	0.05	16	1,778	127
	08/14/2020	-	0.05	-	-	-
	08/18/2020	-	0.06	16	1,878	137

TABLE 1
Soil Vapor Extraction Monitoring Data
Plaid Pantry No. 112
Vancouver, Washington

Well ID	Date	Analytical Sampling	Induced Vacuum (inches H_2O)[a]	PID (ppmv)[a]	Approximate Velocity (fpm)[a]	Flow (scfm)[b]
Stack[c] (cont'd)	09/18/2020	-	0.04	7.0	840	65
	09/18/2020	-	0.06	3.9	1,789	134
	10/16/2020	-	0.05	1.3	1,902	146
	10/16/2020	-	0.06	2.2	1,817	135
	12/01/2020	-	0.05	1.1	1,906	150
	12/28/2020	-	0.04	0.0	1,877	145
	01/28/2021	-	0.05	1.2	1,992	153
	01/28/2021	-	0.06	2.8	2,114	163
	01/28/2021	-	0.06	1.8	1,897	146
	02/27/2021	-	0.05	2.3	1,933	148
	02/27/2021	-	0.06	1.0	1,999	153
	02/27/2021	-	0.08	0.8	2,318	179
	03/01/2021	-	0.08	1.8	2,329	176
	03/25/2021	-	0.07	0.7	2,347	180
	03/25/2021	-	0.06	1.0	1,808	135
	04/27/2021	-	0.12	0.4	1,822	136
	04/27/2021	-	0.08	1.0	2,071	157
	04/27/2021	-	0.08	1.0	2,133	161
	04/27/2021	-	0.08	0.8	2,104	159
	04/28/2021	-	0.10	0.9	2,127	161
	04/28/2021	-	0.10	1.5	2,116	160
	05/06/2021	-	0.10	0.8	2,096	157
	05/14/2021	-	0.10	2.8	1,912	139
	05/19/2021	-	0.11	1.4	2,133	159
	05/27/2021	-	0.12	0.6	2,001	149
	07/09/2021	-	0.12	2.5	1,993	146
	07/09/2021	-	0.12	2.0	2,031	148
	07/09/2021	-	0.12	2.0	1,984	144
	07/09/2021	-	0.12	2.5	1,998	144
	07/09/2021	-	0.12	3.3	2,086	149
	07/09/2021	-	0.12	3.6	2,037	145
	07/10/2021	-	0.11	3.8	2,115	151
	07/11/2021	-	0.12	2.7	2,087	152
	07/12/2021	-	0.11	2.5	2,059	152
	07/13/2021	-	0.10	2.1	2,073	155
	07/24/2021	-	0.10	1.2	1,849	134
	07/30/2021	-	0.10	3.0	1,896	134
	08/05/2021	-	0.10	1.0	1,973	148
	08/05/2021	-	0.10	0.9	1,909	142
	08/22/2021	-	0.10	1.1	1,876	138
	08/22/2021	-	0.10	1.5	1,914	140
	09/03/2021	-	0.10	0.9	1,877	138
	09/03/2021	-	0.10	1.1	1,794	132
	09/22/2021	-	0.10	2.9	1,823	131

TABLE 1
Soil Vapor Extraction Monitoring Data
Plaid Pantry No. 112
Vancouver, Washington

Well ID	Date	Analytical Sampling	Induced Vacuum (inches H_2O)[a]	PID (ppmv)[a]	Approximate Velocity (fpm)[a]	Flow (scfm)[b]
Stack[c] (cont'd)	09/22/2021	-	0.10	2.7	1,846	133
	10/08/2021	-	0.10	1.9	1,781	134
	10/08/2021	-	0.10	2.0	1,820	136
	10/22/2021	-	0.10	2.2	1,874	141
	10/22/2021	-	0.10	2.6	1,833	138
	11/09/2021	-	0.10	2.1	1,901	144
	11/09/2021	-	0.10	2.2	1,876	142
	11/22/2021	-	0.10	2.5	1,844	141
	12/06/2021	Yes	0.10	2.2	1,829	141
	02/15/2022	-	0.10	0.4	2,104	161
	02/16/2022	-	0.10	0.4	2,085	158
	02/25/2022	-	0.05	0.2	-	-
	02/28/2022	-	0.10	0.4	1,953	150
	03/01/2022	Yes	0.10	0.4	2,034	156
	03/15/2022	-	0.10	0.9	2,070	157
	03/31/2022	-	0.10	0.6	1,984	149

Notes:
[a] Measured at SVE system manifold.
[b] Air flow calculated at individual well laterals (SVE-6 through -8), and measured at AWS Inlet (system total) using a pitot tube. Individual well air flow calculations corrected to reflect proportional contribution to the system total.
[c] Values in the vacuum column are positive pressure at the stack (inches H_2O).
[d] Well disabled.
AWS = air/water separator
scfm = standard cubic feet per minute
fpm = feet per minute
ppmv = parts per million vapor
- = Not measured
cont'd = continued

TABLE 2
Biodegradation Parameter and Zone of Influence Data
Plaid Pantry No. 112
Vancouver, Washington

Well ID	Date	Time	Vacuum (inches H_2O)[a]	Flow Observed (Yes/No)[c]	PID (ppmv)[a]	O_2 (%)[a]	CO_2 (%)[a]	CH_4 (%)[a]
Active SVE Wells								
SVE-6	*1/2/2020*	*10:30*	*0.45*	-	*1,166*	*19.3*	*0.0*	*0.6*
	1/3/2020[b]	12:00	-	-	133	20.7	0.1	0.0
	1/3/2020	12:25	5.9	-	-	-	-	-
	1/3/2020	14:00	7.0	-	-	-	-	-
	2/3/2020[b]	14:30	-	-	2.9	20.7	0.1	0.1
	3/2/2020[b]	12:30	-	-	0.8	20.8	0.0	0.0
	4/1/2020[b]	14:00	-	-	0.8	20.8	0.0	0.0
	7/13/2020[b]	14:00	-	-	1.8	20.8	0.0	0.0
	8/14/2020[b,d]	13:50	0.10	Yes	-	-	-	-
	10/16/2020[b,d]	10:30	0.14	Yes	3.2	20.9	0.0	0.0
	1/28/2021[b,d]	12:00	0.12	Yes	2.1	20.7	0.0	0.0
	4/27/2021[d]	12:30	0.12	No	2.1	18.9	0.9	0.0
	4/28/2021	10:30	16	Yes	-	-	-	-
	5/27/2021	13:00	17	Yes	1.4	20.6	0.2	0.0
	5/27/2021	*14:30*	*0.00*	-	*1.3*	*20.6*	*0.1*	*0.0*
	6/11/2021	*11:30*	*0.00*	-	*2.1*	-	-	-
	6/21/2021	*12:30*	*0.00*	-	*3.2*	-	-	-
	7/9/2021	*10:00*	*0.00*	-	*11*	*14.9*	*1.7*	*0.0*
	3/1/2022	13:30	16	Yes	1.2	18.6	0.5	0.0
SVE-7	*1/2/2020*	*10:30*	*0.00*	-	*1,951*	*20.4*	*0.0*	*1.1*
	1/3/2020[b]	12:00	-	-	283	20.3	0.5	0.0
	1/3/2020	12:25	20	-	-	-	-	-
	1/3/2020	14:00	20	-	-	-	-	-
	2/3/2020[b]	14:30	-	-	7.4	19.6	1.4	0.3
	3/2/2020[b]	12:30	-	-	3.3	19.9	1.0	0.0
	4/1/2020[b]	14:00	-	-	1.5	19.4	1.3	0.0
	7/13/2020[b]	14:00	-	-	1.1	19.5	1.5	0.0
	10/16/2020[b]	10:30	-	-	2.9	19.8	1.3	0.0
	1/28/2021[b]	12:00	-	-	2.3	20.1	1.5	0.0
	4/27/2021[d]	12:30	0.20	No	2.1	17.8	1.0	0.0
	4/28/2021	10:30	16	Yes	-	-	-	-
	5/27/2021	13:00	17	Yes	1.2	19.7	0.7	0.0
	5/27/2021	*14:30*	*0.00*	-	*1.0*	*20.0*	*0.6*	*0.0*
	6/11/2021	*11:30*	*0.00*	-	*1.9*	-	-	-
	6/21/2021	*12:30*	*0.00*	-	*3.1*	-	-	-
	7/9/2021	*10:00*	*0.00*	-	*14*	*6.7*	*6.5*	*0.0*
	3/1/2022	13:30	17	Yes	36	19.1	1.4	0.0
SVE-8	*1/2/2020*	*10:30*	*0.00*	-	*10,899*	*19.9*	*0.0*	*4.9*
	1/3/2020[b]	12:00	-	-	928	19.2	0.9	0.0
	1/3/2020	12:25	20	-	-	-	-	-
	1/3/2020	14:00	20	-	-	-	-	-
	2/3/2020[b]	14:30	-	-	36	19.8	1.1	0.4

TABLE 2
Biodegradation Parameter and Zone of Influence Data
Plaid Pantry No. 112
Vancouver, Washington

Well ID	Date	Time	Vacuum (inches H_2O)[a]	Flow Observed (Yes/No)[c]	PID (ppmv)[a]	O_2 (%)[a]	CO_2 (%)[a]	CH_4 (%)[a]
SVE-8 (cont'd)	3/2/2020[b]	12:30	-	-	12	19.2	1.6	0.1
	4/1/2020[b]	14:00	-	-	7.8	19.0	1.6	0.0
	7/13/2020[b]	14:00	-	-	1.6	18.7	2.3	0.0
	10/16/2020[b]	10:30	-	-	3.1	18.9	2.1	0.0
	1/28/2021[b]	12:00	-	-	1.4	19.2	1.7	0.0
	4/27/2021[d]	12:30	0.20	No	2.1	17.8	1.0	0.0
	4/28/2021	10:30	14	Yes	-	-	-	-
	5/27/2021	13:00	17	Yes	1.1	19.0	1.1	0.0
	5/27/2021	*14:30*	*0.00*	-	*1.1*	*19.2*	*0.9*	*0.0*
	6/11/2021	*11:30*	*0.00*	-	*2.2*	-	-	-
	6/21/2021	*12:30*	*0.00*	-	*3.6*	-	-	-
	7/9/2021	*10:00*	*0.00*	-	*15*	*7.2*	*3.3*	*0.0*
	3/1/2022	13:30	17	Yes	1.8	19.3	0.4	0.0
Inactive SVE Wells								
SVE-1	*1/2/2020*	*10:30*	*0.00*	-	*127*	*14.6*	*6.0*	*0.0*
	1/3/2020	12:25	0.16	-	-	-	-	-
	1/3/2020	14:00	0.17	-	4.8	15.5	4.6	0.1
	1/3/2020	16:00	0.17	-	-	14.0	6.3	0.0
	1/10/2020	13:00	0.14	-	-	-	-	-
	1/20/2020	14:30	0.06	-	-	-	-	-
	2/3/2020	14:30	0.14	Yes	1.2	21.1	0.5	0.0
	3/2/2020	12:30	0.18	-	6.4	20.5	0.6	0.0
	4/1/2020	14:00	0.12	-	2.6	20.9	0.0	0.0
	7/13/2020	14:00	0.12	-	2.0	20.9	0.0	0.0
	8/14/2020	13:50	0.02	No	-	-	-	-
	10/16/2020	10:30	0.08	No	1.5	20.6	0.5	0.0
	1/28/2021	12:00	0.04	No	2.2	19.8	0.4	0.0
	4/27/2021	12:30	0.06	No	1.8	20.1	0.4	0.0
	4/28/2021	10:30	0.10	No	-	-	-	-
	5/27/2021	13:00	0.15	No	1.0	20.6	0.2	0.0
	5/27/2021	*14:30*	*0.05*	-	*1.3*	*20.7*	*0.1*	*0.0*
	6/11/2021	*11:30*	*0.00*	-	*1.7*	-	-	-
	6/21/2021	*12:30*	*0.00*	-	*2.6*	-	-	-
	7/9/2021	*10:00*	*0.00*	-	*1.1*	*13.3*	*7.6*	*0.0*
	3/1/2022	13:30	0.10	No	0.9	12.0	8.1	0.0
SVE-2	*1/2/2020*	*10:30*	*0.00*	-	*184*	*20.4*	*0.6*	*0.0*
	1/3/2020	12:25	0.06	-	-	-	-	-
	1/3/2020	14:00	0.17	-	4.4	18.1	2.1	0.0
	1/3/2020	16:00	-	-	-	18.1	2.2	0.0
	1/10/2020	13:00	0.10	-	-	-	-	-
	1/20/2020	14:30	0.18	-	-	-	-	-
	2/3/2020	14:30	0.12	Yes	2.2	20.9	0.1	0.0
	3/2/2020	12:30	0.12	-	4.8	18.6	2.1	0.0
	4/1/2020	14:00	0.08	-	2.1	18.6	1.9	0.0
	7/13/2020	14:00	0.12	-	1.7	18.9	2.3	0.0
	8/14/2020	13:50	0.04	No	-	-	-	-

TABLE 2
Biodegradation Parameter and Zone of Influence Data
Plaid Pantry No. 112
Vancouver, Washington

Well ID	Date	Time	Vacuum (inches H_2O)[a]	Flow Observed (Yes/No)[c]	PID (ppmv)[a]	O_2 (%)[a]	CO_2 (%)[a]	CH_4 (%)[a]
SVE-2 (cont'd)	10/16/2020	10:30	0.02	No	1.0	18.0	3.1	0.0
	1/28/2021	12:00	0.06	No	1.6	19.8	0.7	0.0
	4/27/2021	12:30	0.04	No	1.4	19.3	1.4	0.0
	4/28/2021	10:30	0.05	No	-	-	-	-
	5/27/2021	13:00	0.10	No	0.7	20.8	0.1	0.0
	5/27/2021	*14:30*	*0.02*	-	*1.3*	*20.7*	*0.1*	*0.0*
	6/11/2021	*11:30*	*0.00*	-	*1.9*	-	-	-
	6/21/2021	*12:30*	*0.00*	-	*2.6*	-	-	-
	7/9/2021	*10:00*	*0.00*	-	*1.3*	*16.9*	*3.4*	*0.0*
	3/1/2022	13:30	0.05	No	1.6	17.8	2.0	0.0
SVE-3	*1/2/2020*	*10:30*	*0.00*	-	*153*	*16.6*	*4.2*	*0.0*
	1/3/2020	12:25	0.15	-	-	-	-	-
	1/3/2020	14:00	0.16	-	4.4	17.7	3.4	0.0
	1/3/2020	16:00	-	-	-	18.3	3.2	0.0
	1/10/2020	13:00	0.08	-	-	-	-	-
	1/20/2020	14:30	0.10	-	-	-	-	-
	2/3/2020	14:30	0.12	Yes	2.0	20.6	0.9	0.0
	3/2/2020	12:30	0.14	-	6.7	20.1	0.9	0.0
	4/1/2020	14:00	0.14	-	2.0	20.3	0.6	0.0
	7/13/2020	14:00	0.10	-	1.6	20.5	0.6	0.0
	8/14/2020	13:50	0.08	No	-	-	-	-
	10/16/2020	10:30	0.04	No	1.2	20.6	0.6	0.0
	1/28/2021	12:00	0.04	No	1.7	19.2	1.4	0.0
	4/27/2021	12:30	0.04	No	2.0	19.7	1.6	0.0
	4/28/2021	10:30	0.05	No	-	-	-	-
	5/27/2021	13:00	0.10	No	0.9	20.8	0.1	0.0
	5/27/2021	*14:30*	*0.05*	-	*1.2*	*20.8*	*0.1*	*0.0*
	6/11/2021	*11:30*	*0.00*	-	*2.1*	-	-	-
	6/21/2021	*12:30*	*0.00*	-	*2.8*	-	-	-
	7/9/2021	*10:00*	*0.00*	-	*1.2*	*14.7*	*5.3*	*0.0*
	3/1/2022	13:30	0.10	No	1.8	18.2	1.1	0.0
SVE-4	*1/2/2020*	*10:30*	*0.00*	-	*52*	*19.2*	*1.5*	*0.0*
	1/3/2020	12:25	0.02	-	-	-	-	-
	1/3/2020	14:00	0.00	-	2.9	18.1	1.9	0.0
	1/10/2020	13:00	0.12	-	-	-	-	-
	1/20/2020	14:30	0.12	-	-	-	-	-
	2/3/2020	14:30	0.08	No	1.5	20.6	0.3	0.0
	3/2/2020	12:30	0.06	-	5.8	19.0	1.5	0.0
	4/1/2020	14:00	0.08	-	1.6	19.0	0.4	0.0
	7/13/2020	14:00	0.06	-	2.1	19.9	0.9	0.0
	6/11/2021	*11:30*	*0.00*	-	*1.4*	-	-	-
	6/21/2021	*12:30*	*0.00*	-	*2.2*	-	-	-
	7/9/2021	*10:00*	*0.00*	-	*5.0*	*17.5*	*2.8*	*0.0*
	3/1/2022	13:30	0.00	-	4.2	18.0	1.9	0.0
SVE-5	*1/2/2020*	*10:30*	*0.02*	-	*33*	*20.8*	*0.2*	*0.0*
	1/3/2020	12:25	0.10	-	-	-	-	-

TABLE 2
Biodegradation Parameter and Zone of Influence Data
Plaid Pantry No. 112
Vancouver, Washington

Well ID	Date	Time	Vacuum (inches H_2O)[a]	Flow Observed (Yes/No)[c]	PID (ppmv)[a]	O_2 (%)[a]	CO_2 (%)[a]	CH_4 (%)[a]
SVE-5 (cont'd)	1/3/2020	14:00	0.06	-	2.8	20.1	0.3	0.0
	1/10/2020	13:00	0.02	-	-	-	-	-
	1/20/2020	14:30	0.22	-	-	-	-	-
	2/3/2020	14:30	0+	No	1.4	17.8	1.8	0.0
	3/2/2020	12:30	0.04	-	4.4	18.2	1.2	0.0
	4/1/2020	14:00	0.10	-	1.8	17.9	0.7	0.0
	7/13/2020	14:00	0.10	-	3.0	20.4	0.4	0.0
	6/11/2021	*11:30*	*0.00*	-	*1.4*	-	-	-
	6/21/2021	*12:30*	*0.00*	-	*2.1*	-	-	-
	7/9/2021	*10:00*	*0.00*	-	*4.6*	*18.7*	*1.5*	*0.0*
	3/1/2022	13:30	0+	-	3.0	19.2	1.1	0.0
Vapor Monitoring Wells								
B-17	*1/2/2020*	*10:30*	*0.00*	-	*27.5*	*8.9*	*9.1*	*0.0*
	1/3/2020	12:25	1.20	-	-	-	-	-
	1/3/2020	14:00	1.10	-	3.0	19.4	2.8	0.0
	1/3/2020	16:00	-	-	-	20.9	0.5	0.0
	1/10/2020	13:00	0.88	-	-	-	-	-
	1/20/2020	14:30	0.60	-	-	-	-	-
	2/3/2020	14:30	0.94	Yes	3.7	20.1	1.3	0.0
	3/2/2020	12:30	1.3	-	3.6	20.4	0.7	0.0
	4/1/2020	14:00	1.1	-	1.8	20.2	0.8	0.0
	7/13/2020	14:00	1.2	-	2.3	20.8	1.3	0.0
	8/14/2020	13:50	1.6	Yes	-	-	-	-
	10/16/2020	10:30	1.0	Yes	1.0	20.4	0.8	0.0
	1/28/2021	12:00	2.2	Yes	1.4	20.2	0.3	0.0
	4/27/2021	12:30	0.40	Yes	1.0	20.4	0.4	0.0
	4/28/2021	10:30	1.6	Yes	-	-	-	-
	5/27/2021	13:00	1.9	Yes	0.8	19.9	0.7	0.0
	5/27/2021	*14:30*	*0.15*	-	*0.9*	*19.9*	*0.7*	*0.0*
	6/11/2021	*11:30*	*0.00*	-	*1.4*	-	-	-
	6/21/2021	*12:30*	*0.00*	-	*2.7*	-	-	-
	7/9/2021	*10:00*	*0.00*	-	*2.9*	*9.8*	*6.9*	*0.0*
	3/1/2022	13:30	1.8	Yes	2.2	10.3	7.2	0.0
B-18	*1/2/2020*	*10:30*	*0.00*	-	*31*	*18.5*	*1.9*	*0.0*
	1/3/2020	12:25	0.04	-	-	-	-	-
	1/3/2020	14:00	0.06	-	3.3	19.2	1.2	0.0
	1/3/2020	16:00	-	-	-	18.1	2.3	0.0
	1/10/2020	13:00	0.24	-	-	-	-	-
	1/20/2020	14:30	0.10	-	-	-	-	-
	2/3/2020	14:30	0.74	Yes	2.2	18.0	2.6	0.0
	3/2/2020	12:30	0.58	-	2.7	18.8	1.9	0.0
	4/1/2020	14:00	1.2	-	2.0	18.4	2.0	0.0
	7/13/2020	14:00	2.0	-	2.7	17.8	2.3	0.0
	8/14/2020	13:50	0.10	No	-	-	-	-
	10/16/2020	10:30	0.06	No	1.2	17.7	3.1	0.0
	1/28/2021	12:00	0.05	No	1.4	20.2	0.8	0.0

TABLE 2
Biodegradation Parameter and Zone of Influence Data
Plaid Pantry No. 112
Vancouver, Washington

Well ID	Date	Time	Vacuum (inches H_2O)[a]	Flow Observed (Yes/No)[c]	PID (ppmv)[a]	O_2 (%)[a]	CO_2 (%)[a]	CH_4 (%)[a]
B-18 (cont'd)	4/27/2021	12:30	0.05	No	2.0	19.4	1.3	0.0
	4/28/2021	10:30	0.05	No	-	-	-	-
	5/27/2021	13:00	0.20	No	0.6	18.3	2.3	0.0
	5/27/2021	*14:30*	*0.05*	*No*	*1.0*	*18.1*	*2.4*	*0.0*
	6/11/2021	*11:30*	*0.00*	-	*1.3*	-	-	-
	6/21/2021	*12:30*	*0.00*	-	*2.1*	-	-	-
	7/9/2021	*10:00*	*0.00*	-	*1.2*	*16.6*	*3.4*	*0.0*
	3/1/2022	13:30	0.10	No	1.0	18.3	2.8	0.0
S-27	*1/2/2020*	*10:30*	*0.00*	-	*42*	*19.7*	*0.8*	*0.0*
	1/3/2020	12:25	0.13	-	-	-	-	-
	1/3/2020	14:00	0.12	-	3.4	20.3	0.9	0.0
	1/10/2020	13:00	0.04	-	-	-	-	-
	1/20/2020	14:30	0.04	-	-	-	-	-
	2/3/2020	14:30	0.04	No	1.9	20.8	0.4	0.0
	3/2/2020	12:30	0.00	-	3.9	20.7	0.4	0.0
	4/1/2020	14:00	0.00	-	2.9	19.6	0.6	0.0
	7/13/2020	14:00	0.00	-	3.1	19.8	0.9	0.0
S-28	*1/2/2020*	*10:30*	*0.11*	-	*53*	*17.7*	*0.6*	*0.0*
	1/3/2020	12:25	0+	-	-	-	-	-
	1/3/2020	14:00	0+	-	3.2	17.6	0.7	0.0
	1/10/2020	13:00	0+	-	-	-	-	-
	1/20/2020	14:30	0+	-	-	-	-	-
	2/3/2020	14:30	0+	-	-	-	-	-
S-30	1/10/2020	13:00	0.12	-	-	-	-	-
	1/17/2020	11:00	0.12	-	-	-	-	-
	1/20/2020	14:30	0.06	-	-	-	-	-
	2/3/2020	14:30	0.46	-	-	-	-	-
	3/2/2020	11:00	0.96	-	-	-	-	-
	4/1/2020	14:00	1.3	-	-	-	-	-
	7/13/2020	14:00	1.0	-	-	-	-	-

Notes:

[a] Vacuum, PID and biodegradation parameters measured at wellhead unless otherwise indicated.

[b] Measured at SVE system manifold.

[c] Qualitative field observation based on relative deflation rate of a 1-liter tedlar bag.

[d] Well disabled.

Italics indicate measurements were collected while the SVE system was off for contaminant rebound monitoring

ppmv = parts per million vapor

- = Not measured

TABLE 3

Soil Vapor Analytical Results - Volatile Organic Compounds (µg/m^3)

Plaid Pantry No. 112

Vancouver, Washington

Location	Date	Sample Depth (feet bgs)	Gasoline	Benzene	Toluene	Ethylbenzene	m,p-Xylene	o-Xylene	EDB	EDC	MTBE	Naphthalene	PCE	TCE	2-Butanone	Carbon Tetrachloride	1,1,1-Trichloroethane
Soil Gas Screening Levels																	
MTCA Method B[1]			4,700/14,000	11/32	76,000/230,000	15,000/46,000	1,500/4,600[2]	1,500/4,600[2]	0.14/0.42	3.2/9.6	320/960	2.5/7.4	320/960	11/33	76,000/230,000	14/42	76,000/230,000
August 2012 Soil Vapor Sampling																	
S-1	08/14/2012	5	-	6.1	50	9.6	37	12	*1.3 U*	0.68 U	0.60 U	**4.4**	3.7	0.90 U	30	3.8	0.92 U
S-2	08/15/2012	5	-	8.7	72	31	120	43	*1.2 U*	0.65 U	0.58 U	**4.4**	32	0.86 U	52	10	0.88 U
S-3	08/15/2012	5	-	3.8	18	2.6	8.2	3.3	*1.2 U*	0.62 U	0.55 U	**4.4**	28	0.82 U	16	8.4	0.83 U
S-4	08/14/2012	5	-	10	130	49	180	66	*1.2 U*	0.63 U	0.56 U	**6.2**	2.5	0.83 U	38	0.98 U	0.84 U
S-5/SVE-3	08/17/2012	5-10	-	**82,000**	**860,000**	**210,000**	**900,000**	**340,000**	*2,000 U*	*1,100 U*	*950 U*	*5,500 U*	**2,200**	*1,400 U*	3,100 U	*1,600 U*	1,400 U
S-6	08/14/2012	5	-	2.9	11	2.0	6.6	2.6	*1.4 U*	0.74 U	0.66 U	*4.8 U*	1.7	0.98 U	33	1.2 U	1.0 U
S-7	08/16/2012	5	-	7.7	14	3.1	9.0	5.0	*1.3 U*	0.71 U	0.63 U	**19**	2.0	0.94 U	32	1.1 U	0.95 U
S-8/SVE-5	08/17/2012	5-10	-	**7,900**	**220,000**	**86,000**	**340,000**	**160,000**	*1,000 U*	*530 U*	*470 U*	**7,700**	**2,500**	*710 U*	1,600 U	*830 U*	720 U
S-9	08/15/2012	5	-	2.1	8.1	1.7	6.0	2.5	*1.3 U*	0.66 U	0.59 U	*4.3 U*	6.8	0.88 U	16	1.2	0.89 U
S-10	08/14/2012	5	-	1.7	7.0	1.8	7.1	2.6	*1.1 U*	0.59 U	0.53 U	**6.4**	22	0.78 U	19	0.92 U	0.80 U
S-11	08/14/2012	15	-	1.3	9.7	2.2	6.6	2.1	*1.3 U*	0.69 U	0.62 U	4.5 U	100	0.92 U	12	3.5	1.1
S-12/SVE-2	08/20/2012	15-20	-	**3,900**	22,000	1,400	**25,000**	**17,000**	*120 U*	*65 U*	75	*340 U*	130	17 U	47 U	20 U	17 U
S-13	08/15/2012	15	-	1.1	11	0.71	3.1	1.2	*1.2 U*	0.65 U	0.58 U	4.2 U	230	0.86 U	5.9	**52**	0.88 U
SVE-4	08/17/2012	15-20	-	**560**	12,000	4,800	**22,000**	**9,300**	*130 U*	*66 U*	59 U	**620**	170	*88 U*	190 U	*100 U*	89 U
October 2012 SVE Pilot Test																	
SVE-1 START	10/04/2012	5-10	**59,000,000**	**240,000**	**2,100,000**	**200,000**	**1,100,000**	**380,000**	*14,000 U*	*7,300 U*	*6,500 U*	-	*12,000 U*	*9,700 U*	21,000 U	*11,000 U*	9,800 U
SVE-1 STOP	10/04/2012	5-10	**74,000,000**	**330,000**	**3,400,000**	**490,000**	**2,800,000**	**1,000,000**	*19,000 U*	*10,000 U*	*8,900 U*	-	*17,000 U*	*13,000 U*	29,000 U	*16,000 U*	13,000 U
SVE-2 START	10/05/2012	5-10	**20,000**	**50**	1,100	230	1,200	460	*91 U*	*48 U*	43 U	-	120	*64 U*	140 U	*75 U*	65 U
SVE-2 STOP	10/05/2012	5-10	**42,000**	**36**	1,300	410	**3,000**	1,200	*18 U*	*9.3 U*	8.3 U	-	130	12 U	27 U	**18**	12 U
SVE System Monitoring																	
SVE-1	08/22/2013	5-10	**11,000,000**	**97,000**	**350,000**	15,000	**82,000**	**25,000**	*2,400 U*	*1,200 U*	*1,100 U*	-	*2,100 U*	*1,600 U*	6,900	*1,900 U*	1,700 U
	12/04/2013	5-10	**2,000,000**	*360 U*	2,000	2,200	**62,000**	**31,000**	*860 U*	*450 U*	*400 U*	-	*760 U*	*600 U*	1,300 U	*700 U*	610 U
	02/10/2014	5-10	**1,600,000**	**710**	3,300	3,600	**38,000**	**15,000**	*710 U*	*370 U*	*330 U*	-	*630 U*	*500 U*	1,100 U	*580 U*	500 U
	05/08/2014	5-10	**2,100,000**	**220**	1,100	3,400	**60,000**	**34,000**	*460 U*	*240 U*	220 U	-	*410 U*	*320 U*	710 U	*380 U*	330 U
	08/08/2014	5-10	**420,000**	*40 U*	96	77	**3,700**	**3,300**	*95 U*	*50 U*	45 U	-	**620**	**73**	150 U	*78 U*	68 U
	11/14/2014	5-10	**460,000** [a]	**65**	44 U	50 U	50 U	50 U	*90 U*	*47 U*	42 U	-	79 U	*63 U*	140 U	*73 U*	64 U
	02/06/2015	5-10	**65,000**	*77 U*	91 U	100 U	100 U	100 U	*190 U*	*98 U*	87 U	*510 U*	160 U	*130 U*	290 U	*150 U*	130 U
	03/06/2015	5-10	660	3.8 U	13	5.2	11	5.2 U	*9.2 U*	*4.8 U*	4.3 U	*25 U*	**580**	6.4 U	14 U	7.6 U	6.5 U
	06/19/2015	5-10	3,300	4.2 U	8.0	5.8 U	5.8 U	5.8 U	*10 U*	*5.4 U*	4.8 U	*14 U*	67	7.1 U	17	8.3 U	7.2 U
	08/18/2015	5-10	**8,600**	**19**	71	6.8	27	11	*10 U*	*5.5 U*	4.9 U	*14 U*	160	7.3 U	24	8.6 U	7.4 U
	11/20/2015	5-10	**140,000**	**140**	100 U	120 U	120 U	120 U	-	-	-	*570 U*	-	-	-	-	-
	03/16/2016	5-10	3,200	**12**	14 U	16 U	16 U	16 U	-	-	-	*39 U*	-	-	-	-	-
	04/01/2016	5-10	780 U	6.0 U	7.1 U	8.2 U	8.2 U	8.2 U	-	-	-	*40 U*	-	-	-	-	-
	04/13/2016	5-10	1,800	4.2 U	5.0 U	5.7 U	5.7 U	5.7 U	-	-	-	*14 U*	-	-	-	-	-
	07/12/2016	5-10	650	4.0 U	4.8 U	5.5 U	5.5 U	5.5 U	-	-	-	*13 U*	-	-	-	-	-
	10/21/2016	5-10	**11,000**	**70**	140	13	28	22	-	-	-	*27 U*	**1,200**	-	-	-	-
	01/30/2017	5-10	**3,100,000** [a]	*190 U*	230 U	260 U	260 U	260 U	-	-	-	*1,300 U*	-	-	-	-	-
	03/21/2017	5-10	550 U	4.3 UJ	37 J	5.8 U	7.2	5.8 U	-	-	-	*14 U*	-	-	-	-	-
	04/13/2017	5-10	**11,000**	**120**	120	55	360	330	-	-	-	*14 U*	-	-	-	-	-
	07/06/2017	5-10	**16,000**	4.3 U	16	5.8 U	12	5.8 U	-	-	-	*14 U*	-	-	-	-	-
	10/28/2017	5-10	**20,000** [a]	4.3	10	5.7 U	6.4	5.7 U	-	-	-	*14 U*	-	-	-	-	-
	02/13/2018	5-10	**5,700**	3.8 U	4.5 U	5.2 U	6.0	5.2 U	-	-	-	*12 U*	-	-	-	-	-
	04/27/2018	5-10	740 [a]	3.8 U	4.4 U	5.1 U	5.1 U	5.1 U	-	-	-	*12 U*	-	-	-	-	-
	07/06/2018	5-10	1,000	4.0 U	7.0	5.4 U	14	5.4 U	-	-	-	*13 U*	-	-	-	-	-

TABLE 3

Soil Vapor Analytical Results - Volatile Organic Compounds (µg/m^3)

Plaid Pantry No. 112

Vancouver, Washington

Location	Date	Sample Depth (feet bgs)	Gasoline	Benzene	Toluene	Ethylbenzene	m,p-Xylene	o-Xylene	EDB	EDC	MTBE	Naphthalene	PCE	TCE	2-Butanone	Carbon Tetrachloride	1,1,1-Trichloroethane
Soil Gas Screening Levels MTCA Method B[1]			4,700/14,000	11/32	76,000/230,000	15,000/46,000	1,500/4,600[2]	1,500/4,600[2]	0.14/0.42	3.2/9.6	320/960	2.5/7.4	320/960	11/33	76,000/230,000	14/42	76,000/230,000
SVE-1 (cont'd)	10/04/2018	5-10	1,400	4.0 U	19	5.4 U	11	5.4 U	-	-	-	*13 U*	-	-	-	-	-
SVE-2	08/22/2013	15-20	250 U	3.9 U	4.6 U	5.3 U	5.3 U	5.3 U	*9.4 U*	5.0 U	4.4 U	-	14	6.6 U	290	7.7 U	6.7 U
	03/07/2014	15-20	560	4.0 U	4.7 U	5.4 U	5.6	5.4 U	*9.6 U*	5.1 U	4.5 U	-	94	6.7 U	86	7.9 U	6.8 U
	05/08/2014	15-20	1,600 U	26 U	30 U	35 U	35 U	35 U	*62 U*	*32 U*	29 U	-	87	*43 U*	95 U	*51 U*	44 U
	08/08/2014	15-20	1,700	3.9 U	17	5.3 U	16	6.6	*9.3 U*	4.9 U	4.4 U	-	170	20	28	7.6 U	6.6 U
	11/14/2014	15-20	240 U	3.8 U	4.5 U	5.2 U	6.7	5.2 U	*9.1 U*	4.8 U	4.3 U	-	26	6.4 U	14	7.5 U	6.5 U
	02/06/2015	15-20	520 U	4.0 U	4.8	5.5 U	5.5 U	5.5 U	*9.7 U*	5.1 U	4.5 U	*26 U*	23	6.8 U	15 U	7.9 U	6.9 U
	03/06/2015	15-20	510 U	4.0 U	4.8	5.4 U	5.9	5.4 U	*9.6 U*	5.0 U	4.5 U	*26 U*	98	6.7 U	15 U	7.9 U	6.8 U
	06/19/2015	15-20	530 U	4.2 U	4.9 U	5.6 U	5.6 U	5.6 U	*10 U*	5.3 U	4.7 U	*14 U*	20	7.0 U	15 U	8.2 U	7.1 U
	08/18/2015	15-20	550 U	4.3 U	5.1 U	5.9 U	5.9 U	5.9 U	*10 U*	5.5 U	4.9 U	*14 U*	64	7.2 U	16 U	8.5 U	7.4 U
	11/20/2015	15-20	540 U	4.2 U	4.9 U	5.7 U	5.7 U	5.7 U	-	-	-	*27 U*	-	-	-	-	-
	03/16/2016	15-20	940 U	7.4 U	8.7 U	10 U	10 U	10 U	-	-	-	*24 U*	-	-	-	-	-
	04/01/2016	15-20	550 U	4.3 U	5.1 U	5.9 U	5.9 U	5.9 U	-	-	-	*28 U*	-	-	-	-	-
	04/13/2016	15-20	580 U	4.5 U	5.3 U	6.1 U	6.1 U	6.1 U	-	-	-	*15 U*	-	-	-	-	-
	07/12/2016	15-20	510 U	4.0 U	4.7 U	5.4 U	5.4 U	5.4 U	-	-	-	*13 U*	-	-	-	-	-
	10/21/2016	15-20	500 U	3.9 U	4.6 U	5.4 U	5.4 U	5.4 U	-	-	-	*26 U*	220	-	-	-	-
	01/30/2017	15-20	490 U	3.9 U	4.6 U	5.2 U	5.2 U	5.2 U	-	-	-	*13 U*	-	-	-	-	-
	04/13/2017	15-20	600 U	4.7 U	42	6.4 U	9.5	6.4 U	-	-	-	*15 U*	-	-	-	-	-
	07/06/2017	15-20	1,600	4.2 U	19	5.7 U	12	5.7 U	-	-	-	*14 U*	-	-	-	-	-
	10/28/2017	15-20	490 U	3.8 U	6.9	5.2 U	5.2	5.2 U	-	-	-	*12 U*	-	-	-	-	-
	04/27/2018	15-20	490 U	3.9 U	4.6 U	5.2 U	5.2 U	5.2 U	-	-	-	*13 U*	-	-	-	-	-
	07/06/2018	15-20	510 U	4.0 U	4.7 U	5.4 U	5.6	5.4 U	-	-	-	*13 U*	-	-	-	-	-
	10/04/2018	15-20	510 U	4.0 U	17	5.4 U	11	5.4 U	-	-	-	*13 U*	-	-	-	-	-
SVE-3	08/22/2013	5-10	**16,000**	**55**	15	5.3 U	8.3	5.3 U	*9.4 U*	*4.9 U*	4.4 U	-	8.3 U	6.6 U	1,600 E	7.7 U	6.6 U
	12/04/2013	5-10	**160,000**	**72**	720	57	730	360	*9.1 U*	*4.8 U*	4.3 U	-	8.1 U	6.4 U	38	7.5 U	6.5 U
	02/10/2014	5-10	**91,000**	**36**	130	30	240	150	*35 U*	*19 U*	16 U	-	31 U	*25 U*	54 U	*29 U*	25 U
	05/08/2014	5-10	1,300 U	*20 U*	24 U	27 U	27 U	27 U	*48 U*	*25 U*	23 U	-	43 U	*34 U*	74 U	*40 U*	34 U
	08/08/2014	5-10	1,600	4.0 U	17	5.5 U	16	6.7	*9.8 U*	*5.1 U*	4.6 U	-	8.6 U	6.8 U	25	8.0 U	6.9 U
	11/14/2014	5-10	240 U	3.7 U	4.4 U	5.0 U	5.0 U	5.0 U	*8.9 U*	*4.7 U*	4.2 U	-	8.8	6.2 U	14 U	7.3 U	6.3 U
	02/06/2015	5-10	**380,000**	*80 U*	95 U	110 U	110 U	110 U	*190 U*	*100 U*	91 U	*530 U*	170 U	*140 U*	300 U	*160 U*	140 U
	03/06/2015	5-10	**25,000**	4.0 U	5.7	5.4 U	5.9	5.4 U	*9.6 U*	*5.1 U*	4.5 U	*26 U*	8.5 U	6.7 U	15 U	7.9 U	6.8 U
	06/19/2015	5-10	1,000	4.2 U	5.4	5.8 U	5.8 U	5.8 U	*10 U*	*5.4 U*	4.8 U	*14 U*	9.0 U	7.1 U	16 U	8.4 U	7.2 U
	08/18/2015	5-10	3,600	4.3 U	5.1 U	5.9 U	5.9 U	5.9 U	*10 U*	*5.5 U*	4.9 U	*14 U*	9.2 U	7.3 U	23	8.6 U	7.4 U
	11/20/2015	5-10	2,000	3.8 U	12	5.2 U	5.2 U	5.2 U	-	-	-	*25 U*	-	-	-	-	-
	03/16/2016	5-10	**99,000**	**700**	7,800	360	1,300	510	-	-	-	*54 U*	-	-	-	-	-
	04/01/2016	5-10	1,600	4.4 U	5.2 U	6.0 U	6.0 U	6.0 U	-	-	-	*29 U*	-	-	-	-	-
	04/13/2016	5-10	**5,300**	**12**	160	17	74	97	-	-	-	*14 U*	-	-	-	-	-
	07/12/2016	5-10	740	4.1 U	4.8 U	5.5 U	5.5 U	5.5 U	-	-	-	*13 U*	-	-	-	-	-
	10/21/2016	5-10	**4,900**	4.5 U	7.0	6.1 U	6.1 U	6.1 U	-	-	-	*30 U*	9.6 U	-	-	-	-
	01/30/2017	5-10	1,700	4.0 U	4.7 U	5.4 U	5.4 U	5.4 U	-	-	-	*13 U*	-	-	-	-	-
	04/13/2017	5-10	1,200	4.0 U	30	5.4 U	6.6	5.4 U	-	-	-	*13 U*	-	-	-	-	-
	07/06/2017[d]	5-10	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	10/28/2017	5-10	1,200	3.4 U	9.1	4.7 U	6.2	4.7 U	-	-	-	*11 U*	-	-	-	-	-
	02/13/2018	5-10	520 U	4.0 U	5.4	5.5 U	6.7	5.5 U	-	-	-	*13 U*	-	-	-	-	-
	04/27/2018	5-10	480 U	3.7 U	4.4 U	5.0 U	5.0 U	5.0 U	-	-	-	*12 U*	-	-	-	-	-

TABLE 3

Soil Vapor Analytical Results - Volatile Organic Compounds (µg/m^3)

Plaid Pantry No. 112

Vancouver, Washington

Location	Date	Sample Depth (feet bgs)	Gasoline	Benzene	Toluene	Ethylbenzene	m,p-Xylene	o-Xylene	EDB	EDC	MTBE	Naphthalene	PCE	TCE	2-Butanone	Carbon Tetrachloride	1,1,1-Trichloroethane
Soil Gas Screening Levels MTCA Method B[1]			4,700/14,000	11/32	76,000/230,000	15,000/46,000	1,500/4,600[2]	1,500/4,600[2]	0.14/0.42	3.2/9.6	320/960	2.5/7.4	320/960	11/33	76,000/230,000	14/42	76,000/230,000
SVE-3 (cont'd)	07/06/2018	5-10	570	4.0 U	5.9	5.5 U	11	5.5 U	-	-	-	*13 U*	-	-	-	-	-
	10/04/2018	5-10	530	3.8 U	14	5.1 U	11	5.1 U	-	-	-	*12 U*	-	-	-	-	-
SVE-4	08/22/2013	15-20	250 U	3.9 U	4.6 U	5.3 U	5.3 U	5.3 U	*9.4 U*	5.0 U	4.4 U	-	8.5	6.6 U	450	7.7 U	6.7 U
	12/04/2013	15-20	**53,000**	15 U	460	21 U	21 U	21 U	*36 U*	*19 U*	17 U	-	**3,600**	26 U	56 U	30 U	26 U
	03/07/2014	15-20	670	4.0 U	4.7 U	5.4 U	6.5	5.4 U	*9.5 U*	5.0 U	4.5 U	-	**1,200**	6.7 U	21	7.8 U	6.8 U
	05/08/2014	15-20	950 U	15 U	18 U	20 U	20 U	20 U	*36 U*	*19 U*	17 U	-	**2,700**	25 U	55 U	29 U	25 U
	08/08/2014	15-20	2,700	4.0 U	35	6.7	24	8.7	*9.6 U*	5.0 U	4.5 U	-	**3,200**	6.7 U	46	7.9 U	6.8 U
	11/14/2014	15-20	240 U	3.8 U	4.5 U	5.2 U	6.0	5.2 U	*9.2 U*	4.8 U	4.3 U	-	130	6.4 U	14 U	7.5 U	6.5 U
	02/06/2015	15-20	**140,000**	*79 U*	93 U	110 U	110 U	110 U	*190 U*	*100 U*	89 U	*520 U*	220	*130 U*	290 U	*160 U*	130 U
	03/06/2015	15-20	520 U	4.0 U	4.7 U	5.5 U	5.5 U	5.5 U	*9.7 U*	5.1 U	4.5 U	*26 U*	**2,500**	6.8 U	15 U	7.9 U	6.9 U
	06/19/2015	15-20	540 U	4.2 U	5.0	5.7 U	5.7 U	5.7 U	*10 U*	5.3 U	4.8 U	*14 U*	400	7.1 U	16 U	8.3 U	7.2 U
	08/18/2015	15-20	520 U	4.1 U	4.8 U	5.6 U	5.6 U	5.6 U	*9.9 U*	5.2 U	4.6 U	*13 U*	19	6.9 U	15 U	8.1 U	7.0 U
	11/20/2015	15-20	510 U	4.0 U	5.0	5.4 U	5.4 U	5.4 U	-	-	-	*26 U*	-	-	-	-	-
	03/16/2016	15-20	530 U	4.2 U	4.9 U	5.7 U	5.7 U	5.7 U	-	-	-	*14 U*	-	-	-	-	-
	04/01/2016	15-20	550 U	4.3 U	5.1 U	5.9 U	5.9 U	5.9 U	-	-	-	*28 U*	-	-	-	-	-
	04/13/2016	15-20	980	4.3 U	5.1 U	5.9 U	5.9 U	5.9 U	-	-	-	*14 U*	-	-	-	-	-
	07/12/2016	15-20	520 U	4.0 U	4.8 U	5.5 U	5.5 U	5.5 U	-	-	-	*13 U*	-	-	-	-	-
	10/21/2016	15-20	850 U	6.7 U	22	9.1 U	10	9.1 U	-	-	-	*44 U*	**4,000**	-	-	-	-
	01/30/2017	15-20	**39,000**	*40 U*	47 U	55 U	55 U	55 U	-	-	-	*130 U*	-	-	-	-	-
	04/13/2017	15-20	6,500	3.7 U	37	5.0 U	10	5.0 U	-	-	-	*12 U*	-	-	-	-	-
	07/06/2017	15-20	**24,000**	*17 U*	20 U	23 U	23 U	23 U	-	-	-	*55 U*	-	-	-	-	-
	10/28/2017	15-20	3,600	3.6 U	24	5.0 U	6.7	5.0 U	-	-	-	*12 U*	-	-	-	-	-
	02/13/2018	15-20	11,000	3.9 U	7.9	5.3 U	6.6	5.3 U	-	-	-	*13 U*	-	-	-	-	-
	04/27/2018	15-20	5,700 [a]	3.9 U	4.6 U	5.4 U	5.4 U	5.4 U	-	-	-	*13 U*	-	-	-	-	-
	07/06/2018	15-20	610	4.0 U	7.8	5.5 U	12	5.5 U	-	-	-	*13 U*	-	-	-	-	-
	10/04/2018	15-20	500 U	3.9 U	12	5.3 U	8.0	5.3 U	-	-	-	*13 U*	-	-	-	-	-
SVE-5	08/22/2013	5-10	**8,600**	*17 U*	20 U	23 U	23 U	23 U	*41 U*	*21 U*	19 U	-	36 U	*28 U*	4,500	*33 U*	29 U
	12/04/2013	5-10	**8,100**	**19**	640	53	180	92	*8.8 U*	*4.6 U*	4.1 U	-	18	6.2 U	20	7.2 U	6.2 U
	02/10/2014	5-10	**110,000**	**4,000**	8,400	810	**2,800**	970	*71 U*	*38 U*	34 U	-	63 U	*50 U*	110 U	*58 U*	51 U
	05/08/2014	5-10	3,200 U	*51 U*	60 U	69 U	69 U	69 U	*120 U*	*64 U*	57 U	-	280	*85 U*	200	*100 U*	86 U
	08/08/2014	5-10	2,000	4.1 U	18	5.6 U	18	7.8	*9.8 U*	*5.2 U*	4.6 U	-	8.7 U	6.9 U	37	8.0 U	7.0 U
	11/14/2014	5-10	230 U	3.6 U	4.3 U	5.0 U	13	5.0 U	*8.8 U*	*4.6 U*	4.1 U	-	87	6.2 U	14 U	7.2 U	6.2 U
	02/06/2015	5-10	**74,000**	*41 U*	49 U	56 U	56 U	56 U	*99 U*	*52 U*	46 U	*270 U*	88 U	*69 U*	150 U	*81 U*	70 U
	03/06/2015	5-10	**41,000**	**13**	990	69	760	330	*14 U*	*7.6 U*	6.8 U	*39 U*	13 U	10 U	22 U	12 U	10 U
	06/19/2015	5-10	560 U	4.3 U	5.1 U	5.9 U	5.9 U	5.9 U	*10 U*	*5.5 U*	4.9 U	*14 U*	9.2 U	7.3 U	18	8.6 U	7.4 U
	08/18/2015	5-10	530 U	4.1 U	4.9 U	5.6 U	5.6 U	5.6 U	*9.9 U*	*5.2 U*	4.6 U	*14 U*	8.8 U	6.9 U	21	8.1 U	7.0 U
	11/20/2015	5-10	510 U	4.0 U	4.7 U	5.4 U	5.4 U	5.4 U	-	-	-	*26 U*	-	-	-	-	-
	03/16/2016	5-10	1,300 U	9.8 U	12 U	13 U	13 U	13 U	-	-	-	*32 U*	-	-	-	-	-
	04/01/2016	5-10	**37,000**	**760**	1,200	40	170	67	-	-	-	*26 U*	-	-	-	-	-
	04/13/2016	5-10	1,900	4.4 U	5.2	6.0 U	82	100	-	-	-	*14 U*	-	-	-	-	-
	07/12/2016	5-10	940	3.8 U	7.1	5.2 U	10	12	-	-	-	*12 U*	-	-	-	-	-
	10/21/2016	5-10	830 U	6.5 U	8.6	8.8 U	8.8 U	8.8 U	-	-	-	*42 U*	**4,200**	-	-	-	-
	01/30/2017	5-10	**31,000**	*26 U*	31 U	36 U	36 U	36 U	-	-	-	*86 U*	-	-	-	-	-
	04/13/2017	5-10	**5,700**	3.8 U	33	5.2 U	8.9	5.2 U	-	-	-	*13 U*	-	-	-	-	-
	07/06/2017	5-10	**360,000**	**140**	4,300	1,400	**9,000**	**4,600**	-	-	-	*66 U*	-	-	-	-	-
	10/28/2017	5-10	1,900	4.4 U	8.2	6.0 U	6.0 U	6.0 U	-	-	-	*14 U*	-	-	-	-	-

TABLE 3

Soil Vapor Analytical Results - Volatile Organic Compounds (µg/m^3)

Plaid Pantry No. 112

Vancouver, Washington

Location	Date	Sample Depth (feet bgs)	Gasoline	Benzene	Toluene	Ethylbenzene	m,p-Xylene	o-Xylene	EDB	EDC	MTBE	Naphthalene	PCE	TCE	2-Butanone	Carbon Tetrachloride	1,1,1-Trichloroethane
Soil Gas Screening Levels MTCA Method B[1]			4,700/14,000	11/32	76,000/230,000	15,000/46,000	1,500/4,600[2]	1,500/4,600[2]	0.14/0.42	3.2/9.6	320/960	2.5/7.4	320/960	11/33	76,000/230,000	14/42	76,000/230,000
SVE-5 (cont'd)	02/13/2018	5-10	**10,000**	4.0 U	40	5.4 U	6.3	5.4 U	-	-	-	*13 U*	-	-	-	-	-
	04/27/2018	5-10	500 U	3.9 U	4.6 U	5.3 U	5.5	5.3 U	-	-	-	*13 U*	-	-	-	-	-
	07/06/2018	5-10	520 U	4.0 U	4.8 U	5.5 U	5.5 U	5.5 U	-	-	-	*13 U*	-	-	-	-	-
	10/04/2018	5-10	540 U	4.2 U	5.0 U	5.7 U	5.7 U	5.7 U	-	-	-	*14 U*	-	-	-	-	-
SVE-6	01/03/2020	10	**1,900,000**	*100 U*	120 U	140 U	140 U	140 U	-	-	-	*680 U*	-	-	-	-	-
	01/10/2020	10	**170,000**	*39 U*	46 U	52 U	52 U	52 U	-	-	-	*250 U*	-	-	-	-	-
	01/20/2020	10	**740,000**	*67 U*	79 U	91 U	91 U	91 U	-	-	-	*220 U*	-	-	-	-	-
	02/03/2020	10	**130,000**	*52 U*	62 U	71 U	71 U	71 U	-	-	-	*170 U*	-	-	-	-	-
	03/02/2020	10	490 U	3.8 U	4.5 U	5.2 U	5.2 U	5.2 U	-	-	-	*13 U*	-	-	-	-	-
	04/01/2020	10	490 U	3.8 U	4.5 U	5.2 U	5.2 U	5.2 U	-	-	-	*13 U*	-	-	-	-	-
	07/13/2020	10	1,600	4.1 U	14	18	66	34	-	-	-	*14 U*	-	-	-	-	-
	10/16/2020	10	1,100 U	8.4 U	9.9 U	11 U	11 U	11 U	-	-	-	*28 U*	-	-	-	-	-
	01/28/2021	10	510 U	4.0 U	4.7 U	5.4 U	5.4 U	5.4 U	-	-	-	*13 U*	-	-	-	-	-
	04/28/2021	10	420 U	3.2 U	3.8 U	4.4 U	4.4 U	4.4 U	-	-	-	*11 U*	-	-	-	-	-
	05/27/2021[f]	10	450 U	3.5 U	4.1 U	4.8 U	4.8 U	4.8 U	-	-	-	*11 U*	-	-	-	-	-
	07/09/2021[f]	10	1,100 [a]	**32**	33	4.5 U	4.5 U	4.5 U	-	-	-	*11 U*	-	-	-	-	-
	07/09/2021	10	440 U	3.5 U	4.1 U	4.7 U	4.7 U	4.7 U	-	-	-	*11 U*	-	-	-	-	-
	07/24/2021	10	430 U	3.4 U	4.0 U	4.6 U	4.6 U	4.6 U	-	-	-	*11 U*	-	-	-	-	-
	12/06/2021	10	420 U	3.2 U	3.8 U	4.4 U	4.4 U	4.4 U	-	-	-	*11 U*	-	-	-	-	-
	03/01/2022	10	420 U	3.3 U	3.9 U	4.5 U	5.0	4.5 U	-	-	-	*11 U*	-	-	-	-	-
SVE-7	01/03/2020	8	**2,200,000**	*140 U*	160 U	190 U	190 U	190 U	-	-	-	*900 U*	-	-	-	-	-
	01/10/2020	8	**1,800,000**	*36 U*	43 U	50 U	50 U	50 U	-	-	-	*240 U*	-	-	-	-	-
	01/20/2020	8	**900,000**	9.9 U	12 U	13 U	13 U	13 U	-	-	-	*32 U*	-	-	-	-	-
	02/03/2020	8	**820,000**	*53 U*	63 U	72 U	72 U	72 U	-	-	-	*180 U*	-	-	-	-	-
	03/02/2020	8	**82,000**	*78 U*	92 U	100 U	100 U	100 U	-	-	-	*260 U*	-	-	-	-	-
	04/01/2020	8	**30,000**	3.9 U	4.6 U	5.2 U	5.2 U	5.2 U	-	-	-	*13 U*	-	-	-	-	-
	07/13/2020	8	**33,000**	4.1 U	14	25	100	52	-	-	-	*14 U*	-	-	-	-	-
	10/16/2020	8	4,000	4.3 U	6.0	5.8 U	5.8 U	5.8 U	-	-	-	*14 U*	-	-	-	-	-
	01/28/2021	8	520 U	4.0 U	4.8 U	5.5 U	5.5 U	5.5 U	-	-	-	*13 U*	-	-	-	-	-
	04/28/2021	8	400 U	3.2 U	3.7 U	4.3 U	4.3 U	4.3 U	-	-	-	*10 U*	-	-	-	-	-
	05/27/2021[f]	8	420 U	3.3 U	3.9 U	4.5 U	4.5 U	4.5 U	-	-	-	*11 U*	-	-	-	-	-
	07/09/2021[f]	8	780 [a]	4.1	4.1	4.8 U	4.8 U	4.8 U	-	-	-	*11 U*	-	-	-	-	-
	07/09/2021	8	3,000	3.4 U	4.0 U	4.6 U	4.6 U	4.6 U	-	-	-	*11 U*	-	-	-	-	-
	07/24/2021	8	440 U	3.4 U	4.0 U	4.6 U	4.6 U	4.6 U	-	-	-	*11 U*	-	-	-	-	-
	12/06/2021	8	**650,000**	*110 U*	130 U	150 U	150 U	150 U	-	-	-	*710 U*	-	-	-	-	-
	03/01/2022	8	410 U	3.2 U	8.5	4.4 U	6.0	4.4 U	-	-	-	*10 U*	-	-	-	-	-
SVE-8	01/03/2020	10	**7,000,000**	*130 U*	160 U	180 U	180 U	180 U	-	-	-	*880 U*	-	-	-	-	-
	01/10/2020	10	**5,300,000**	*39 U*	46 U	54 U	54 U	54 U	-	-	-	*260 U*	-	-	-	-	-
	01/20/2020	10	**2,900,000**	*27 U*	32 U	36 U	36 U	36 U	-	-	-	*88 U*	-	-	-	-	-
	02/03/2020	10	**1,400,000**	*52 U*	61 U	70 U	70 U	70 U	-	-	-	*170 U*	-	-	-	-	-
	03/02/2020	10	**150,000**	*78 U*	92 U	100 U	100 U	100 U	-	-	-	*260 U*	-	-	-	-	-
	04/01/2020	10	**140,000**	7.7 U	9.1 U	10 U	10 U	10 U	-	-	-	*25 U*	-	-	-	-	-
	07/13/2020	10	**150,000**	4.0 U	16	27	100	56	-	-	-	*13 U*	-	-	-	-	-
	10/16/2020	10	**13,000**	3.9 U	5.6	5.3 U	5.3 U	5.3 U	-	-	-	*13 U*	-	-	-	-	-
	01/28/2021	10	510 U	4.0 U	4.7 U	5.4 U	5.4 U	5.4 U	-	-	-	*13 U*	-	-	-	-	-

TABLE 3

Soil Vapor Analytical Results - Volatile Organic Compounds (µg/m^3)

Plaid Pantry No. 112

Vancouver, Washington

Location	Date	Sample Depth (feet bgs)	Gasoline	Benzene	Toluene	Ethylbenzene	m,p-Xylene	o-Xylene	EDB	EDC	MTBE	Naphthalene	PCE	TCE	2-Butanone	Carbon Tetrachloride	1,1,1-Trichloroethane
Soil Gas Screening Levels MTCA Method B[1]			4,700/14,000	11/32	76,000/230,000	15,000/46,000	1,500/4,600[2]	1,500/4,600[2]	0.14/0.42	3.2/9.6	320/960	2.5/7.4	320/960	11/33	76,000/230,000	14/42	76,000/230,000
SVE-8 (cont'd)	04/27/2021	10	430 U	3.3 U	3.9 U	4.5 U	4.5 U	4.5 U	-	-	-	*11 U*	-	-	-	-	-
	05/27/2021[f]	10	3,300	3.4 U	4.0 U	4.7 U	4.7 U	4.7 U	-	-	-	*11 U*	-	-	-	-	-
	07/09/2021[f]	10	**5,700** [a, e]	4.7 U	5.5 U	6.4 U	6.4 U	6.4 U	-	-	-	*15 U*	-	-	-	-	-
	07/09/2021	10	**32,000**	3.5 U	4.1 U	4.8 U	4.8 U	4.8 U	-	-	-	*11 U*	-	-	-	-	-
	07/24/2021	10	**8,200**	3.4 U	4.0 U	4.6 U	4.6 U	4.6 U	-	-	-	*11 U*	-	-	-	-	-
	12/06/2021	10	410 U	3.2 U	3.7 U	4.3 U	4.3 U	4.3 U	-	-	-	*10 U*	-	-	-	-	-
	03/01/2022	10	400 U	3.2 U	3.7 U	4.3 U	4.3 U	4.3 U	-	-	-	*10 U*	-	-	-	-	-
SVE Blower Inlet	08/22/2013	NA	**160,000**	**2,100**	2,100	65	290	85	*92 U*	*48 U*	43 U	-	81 U	*64 U*	140 U	*76 U*	65 U
	09/27/2013	NA	**24,000**	**95**	92	5.2	18	5.2 U	*9.2 U*	*4.8 U*	4.3 U	-	8.1 U	6.4 U	14 U	7.5 U	6.5 U
	11/01/2013	NA	**68,000**	**200**	1,200	450	**2,200**	630	*18 U*	*9.7 U*	8.6 U	-	300	*13 U*	28 U	*15 U*	13 U
	12/04/2013	NA	**26,000**	**12**	1,500	16	130	52	*8.8 U*	*4.6 U*	4.1 U	-	**1,200**	6.2 U	14 U	7.2 U	6.2 U
	03/07/2014	NA	**50,000**	8.3	65	70	1,100	470	*18 U*	*9.7 U*	8.6 U	-	**410**	*13 U*	28 U	*15 U*	13 U
	05/08/2014	NA	**24,000**	*39 U*	46 U	54 U	510	290	*95 U*	*50 U*	44 U	-	**1,200**	*66 U*	140 U	*78 U*	67 U
	08/08/2014	NA	**25,000**	3.8 U	35	8.3	130	100	*9.1 U*	*4.8 U*	4.2 U	-	**1,200**	9.4	21	7.4 U	6.4 U
	11/14/2014	NA	**19,000** [a]	*36 U*	43 U	49 U	50 U	50 U	*88 U*	*46 U*	41 U	-	77 U	*61 U*	130 U	*72 U*	62 U
	02/06/2015	NA	**94,000**	*79 U*	93 U	110 U	110 U	110 U	*190 U*	*100 U*	89 U	*520 U*	170 U	**150**	290 U	*160 U*	140 U
	06/19/2015	NA	590 U	4.6 U	5.4 U	6.2 U	6.2 U	6.2 U	*11 U*	*5.8 U*	5.2 U	*15 U*	38	7.7 U	17 U	9.1 U	7.8 U
	08/18/2015	NA	540 U	4.2 U	5.0 U	5.8 U	5.8 U	5.8 U	*10 U*	*5.4 U*	4.8 U	*14 U*	26	7.1 U	16 U	8.3 U	7.2 U
	11/20/2015	NA	**13,000**	10 U	12 U	14 U	14 U	14 U	*24 U*	*13 U*	11 U	*33 U*	90	*17 U*	37 U	*20 U*	17 U
	04/13/2016	NA	540 U	4.2 U	10	5.7 U	5.7 U	5.7 U	*10 U*	*5.3 U*	4.7 U	*14 U*	**390**	7.1 U	16 U	8.3 U	7.2 U
	07/12/2016	NA	560 U	4.3 U	5.1 U	5.9 U	5.9 U	5.9 U	-	-	-	*14 U*	**2,200**	-	-	-	-
	10/21/2016	NA	2,400	9.5	29	5.8 U	6.7	5.8 U	*10 U*	*5.4 U*	19 U	*14 U*	**1,800**	7.2 U	16 U	8.5 U	7.3 U
	01/30/2017	NA	**34,000**	*40 U*	48 U	55 U	55 U	55 U	*97 U*	*51 U*	180 U	*130 U*	**600**	*68 U*	150 U	*80 U*	69 U
	03/21/2017	NA	520 U	4.0 UJ	25 J	5.5 U	5.5 U	5.5 U	-	-	-	*13 U*	-	-	-	-	-
	04/13/2017	NA	3,600	4.4 U	39	5.9 U	13	5.9 U	*10 U*	*5.5 U*	20 U	*14 U*	**690**	7.3 U	16 U	8.6 U	7.4 U
	07/06/2017	NA	**16,000**	5.5 U	75	18	130	59	*13 U*	*7.0 U*	25 U	*18 U*	**1,100**	9.2 U	20 U	11 U	9.4 U
	10/28/2017	NA	3,600	4.0 U	12	5.4 U	7.8	5.4 U	*9.6 U*	*5.0 U*	18 U	*13 U*	**980**	6.7 U	15 U	7.8 U	6.8 U
	02/13/2018	NA	**4,900**	4.2 U	5.0 U	5.8 U	5.8	5.8 U	*10 U*	*5.4 U*	19 U	*14 U*	73	7.1 U	16 U	8.3 U	7.2 U
	04/27/2018	NA	2,600 [a]	3.9 U	4.6 U	5.3 U	5.3 U	5.3 U	*9.4 U*	*4.9 U*	18 U	*13 U*	**400**	6.6 U	180	7.7 U	6.6 U
	07/06/2018	NA	520 U	4.0 U	5.2	5.5 U	8.0	5.5 U	*9.8 U*	*5.1 U*	18 U	*13 U*	**720**	6.8 U	56	8.0 U	6.9 U
	10/04/2018	NA	520 U	4.0 U	5.2	5.5 U	5.5 U	5.5 U	*9.7 U*	*5.1 U*	18 U	*13 U*	**580**	6.8 U	17	8.0 U	6.9 U
	01/03/2020	NA	**2,800,000**	*200 U*	240 U	270 U	270 U	270 U	*480 U*	*250 U*	230 U	*1,300 U*	*430 U*	*340 U*	6,600	*400 U*	340 U
	01/10/2020	NA	**1,300,000**	*38 U*	45 U	52 U	52 U	52 U	*91 U*	*48 U*	43 U	*250 U*	81 U	*64 U*	400	*75 U*	65 U
	01/20/2020	NA	**130,000**	3.7 U	4.4 U	5.0 U	5.0 U	5.0 U	*9.0 U*	*4.7 U*	17 U	*12 U*	33	6.3 U	170	7.3 U	6.4 U
	02/03/2020	NA	**13,000**	4.0 U	4.7 U	5.4 U	5.4 U	5.4 U	*9.5 U*	*5.0 U*	18 U	*13 U*	8.4 U	6.7 U	15 U	7.8 U	6.8 U
	03/02/2020	NA	**13,000**	7.6 U	9.0 U	10 U	10 U	10 U	*18 U*	*9.7 U*	34 U	*25 U*	16 U	*13 U*	28 U	*15 U*	13 U
	04/01/2020	NA	**18,000**	3.8 U	4.4 U	5.1 U	5.1 U	5.1 U	*9.1 U*	*4.8 U*	17 U	*12 U*	8.0 U	6.3 U	14 U	7.4 U	6.4 U
	07/13/2020	NA	**20,000**	4.0 U	5.7	10	36	20	*9.7 U*	*5.1 U*	18 U	*13 U*	8.5 U	6.8 U	19	7.9 U	6.9 U
	10/16/2020	NA	**13,000**	4.0 U	4.7 U	5.4 U	5.4 U	5.4 U	*9.5 U*	*5.0 U*	18 U	*13 U*	16	6.7 U	100	7.8 U	6.8 U
	01/28/2021	NA	*7,000 U*	*55 U*	64 U	74 U	74 U	74 U	*130 U*	*69 U*	250 U	*180 U*	120 U	*92 U*	200 U	*110 U*	93 U
	04/28/2021	NA	420 U	3.3 U	3.9 U	4.4 U	4.4 U	4.4 U	*7.9 U*	*4.1 U*	15 U	*11 U*	7.0 U	5.5 U	12 U	6.4 U	5.6 U
	05/27/2021[f]	NA	460 U	3.6 U	4.2 U	4.9 U	4.9 U	4.9 U	*8.6 U*	*4.5 U*	16 U	*12 U*	7.6 U	6.0 U	13 U	7.0 U	6.1 U
	07/09/2021[f]	NA	740	3.6 U	4.2 U	4.9 U	4.9 U	4.9 U	*8.6 U*	*4.5 U*	16 U	*12 U*	7.6 U	6.0 U	13 U	7.0 U	6.1 U
	07/24/2021	NA	430 U	3.4 U	4.0 U	4.6 U	4.6 U	4.6 U	*8.1 U*	*4.2 U*	15 U	*11 U*	7.1 U	5.6 U	12 U	6.6 U	5.7 U
	12/06/2021	NA	**37,000**	*33 U*	39 U	45 U	45 U	45 U	*80 U*	*42 U*	150 U	*110 U*	70 U	*56 U*	120 U	*65 U*	56 U
	03/01/2022	NA	4,000	3.3 U	3.9 U	4.5 U	7.9	4.5 U	*7.9 U*	*4.2 U*	15 U	*11 U*	7.0 U	5.5 U	14	6.5 U	5.6 U

TABLE 3

Soil Vapor Analytical Results - Volatile Organic Compounds (µg/m^3)

Plaid Pantry No. 112

Vancouver, Washington

Location	Date	Sample Depth (feet bgs)	Gasoline	Benzene	Toluene	Ethylbenzene	m,p-Xylene	o-Xylene	EDB	EDC	MTBE	Naphthalene	PCE	TCE	2-Butanone	Carbon Tetrachloride	1,1,1-Trichloroethane
Soil Gas Screening Levels																	
MTCA Method B[1]			4,700/14,000	11/32	76,000/230,000	15,000/46,000	1,500/4,600[2]	1,500/4,600[2]	0.14/0.42	3.2/9.6	320/960	2.5/7.4	320/960	11/33	76,000/230,000	14/42	76,000/230,000
Post-GAC	08/22/2013	NA	230 U	3.6 U	4.3 U	4.9 U	4.9 U	4.9 U	*8.7 U*	*4.6 U*	4.1 U	-	7.7 U	6.1 U	13	7.1 U	6.2 U
	09/27/2013	NA	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	11/01/2013	NA	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	12/04/2013	NA	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	12/18/2013	NA	1,900	3.8 U	5.4	5.2 U	5.2 U	5.2 U	*9.2 U*	*4.8 U*	4.3 U	-	8.1 U	6.4 U	14 U	7.6 U	6.5 U
	03/07/2014	NA	43,000	*37 U*	44 U	51 U	51 U	51 U	*90 U*	*47 U*	42 U	-	79 U	*63 U*	140 U	*74 U*	64 U
	05/08/2014[b]	NA	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:

[1] Washington Department of Ecology (WDOE), CLARC database values (August 2020).

The numerator value is the screening level for sub-slab (<15 foot depth) soil gas measurements; the denominator value is for deep (>=15 foot depth) soil gas measurements.

[2] Screening levels for total xylenes.

[a] The hydrocarbon profile present did not resemble that of commercial gasoline. Results calculated using the response factor derived from the gasoline calibration.

[b] Carbon treatment for system exhaust discontinued on March 28, 2014.

[c] Reporting limits were raised due to high levels of non-target analytes.

[d] This sample was not analyzed due to canister vacuum issues.

[e] Dilution was performed on sample due to the presence of high level target species.

[f] SVE system turned off between May 27 and July 9, 2021 for contaminant rebound monitoring.

Volatiles by EPA Method TO-15

MTBE = Methyl tert-butyl ether

EDB = 1,2-Dibromoethane

EDC = 1,2-Dichloroethane

PCE = Tetrachloroethene

TCE = Trichloroethene

µg/m^3 = Micrograms per cubic meter

Bold values indicate concentrations exceed the Method B soil gas screening level for representative sample depth.

Italics indicate analytical reporting limits exceed Method B soil gas screening level for representative sample depth.

U = Undetected at method reporting limit shown

J = Estimated concentration. The associated numerical value is the approximate concentration of the analyte in the sample. See data validation report for additional information.

NA = Not Applicable/Not Available

E = Estimated concentration. Result exceeds calibration range for the instrument.

- = not analyzed for this parameter

TABLE 4A
Soil Vapor Extraction Mass Removal in Right-of-Way
Plaid Pantry No. 112
Vancouver, Washington

Date	Cumulative Operating Days	Total System Flow (ft^3/min)	Pre-Treatment Lab Analysis (mg/m^3)			Estimated Mass Removal Rate Per Cycle (Pounds/Day)[a]			Estimated Cumulative Mass Removed & Discharge Emissions (Pounds)		
			Gasoline	Benzene	PCE	Gasoline	Benzene	PCE	Gasoline	Benzene	PCE
01/03/2020	0.4	58	2,800	0.20 U	0.43 U	15	0.0010	0.0023	6.0	0.00043	0.00092
01/10/2020	7	44	1,300	0.038 U	0.081 U	9.4	0.00055	0.0012	70	0.0042	0.0089
01/20/2020	17	50	130	0.0037 U	0.033	3.0	0.000088	0.00024	101	0.0050	0.011
02/03/2020	31	47	13	0.0040 U	0.0084 U	0.31	0.000017	0.000091	105	0.0053	0.013
03/02/2020	59	47	13	0.0076 U	0.016 U	0.055	0.000025	0.000052	107	0.0060	0.014
04/01/2020	80	47	18	0.0038 U	0.0080 U	0.066	0.000024	0.000051	108	0.0065	0.015
07/13/2020	183	46	20	0.0040 U	0.0085 U	0.080	0.000016	0.000035	116	0.0082	0.019
10/16/2020	278	41	13	0.0040 U	0.016	0.065	0.000016	0.000048	122	0.0097	0.023
01/28/2021	382	46	7.0 U	0.055 U	0.12 U	0.039	0.00011	0.00026	126	0.022	0.051
04/28/2021	472	52	0.42 U	0.0033 U	0.0070 U	0.016	0.00013	0.00028	128	0.033	0.076
05/27/2021 [d]	501	51	0.46 U	0.0036 U	0.0076 U	0.0020	0.000016	0.000034	128	0.034	0.077
07/09/2021 [d]	501	48	0.74	0.0036 U	0.0076 U	-	-	-	128	0.034	0.077
07/24/2021	516	46	0.43 U	0.0034 U	0.0071 U	0.0025	0.000015	0.000031	128	0.034	0.077
12/06/2021 [d]	651	48	37	0.033 U	0.070 U	0.079	0.000077	0.00016	139	0.044	0.099
03/01/2022 [d]	665	50	4.0	0.0033 U	0.0070 U	0.090	0.000080	0.00017	140	0.045	0.10
								Estimated Emissions During Last 12 Months (Pounds/Year):	13	0.024	0.051
								Annual Emissions Threshold (Pounds/Year):	NE[b]	20[c]	500[c]

Notes:

[a] Concentrations are averaged between start and end of each time period

[b] No emission threshold established for gasoline. Registration exemption threshold for the sum of total criteria pollutants and VOCs is 2,000 pounds per year, per SWCAA Chapter 400-109, Air Discharge Permits - Exempt Emission Thresholds, dated 03/21/2020.

[c] Small Quantity Emissions Rate (SQER), per SWCAA 400, General Regulations for Air Pollution Sources, dated 03/21/2020.

[d] System disabled 05/27/2021-07/09/2021, 12/06/2021-02/15/2022, and 03/31/2022-present for contaminant rebound monitoring.

ft^3/min = cubic feet per minute

mg/m^3 = milligrams per cubic meter

NE = not established

Sample Calculations:

Estimated Gasoline Mass Removal Rate on 01/10/2020:

$$\left(\frac{58\ \frac{ft^3}{min}+44\ \frac{ft^3}{min}}{2}\right)\times\left(\frac{2{,}800\frac{mg}{m^3}+1{,}300\frac{mg}{m^3}}{2}\right)\times\frac{1\ m^3}{35.3146667\ ft^3}\times\frac{1\ pound}{453592.37\ mg}\times\frac{1440\ min}{day}=9.4\ \frac{pounds}{day}$$

Estimated Cumulative Gasoline Emissions on 01/10/2020:

$$(7\ days\ -0.4\ day)\times\left(\frac{58\ \frac{ft^3}{min}+44\ \frac{ft^3}{min}}{2}\right)\times\left(\frac{2{,}800\frac{mg}{m^3}+1{,}300\frac{mg}{m^3}}{2}\right)\times\frac{1\ m^3}{35.3146667\ ft^3}\times\frac{1\ pound}{453592.37\ mg}\times\frac{1440\ min}{day}+6.0\ pounds=70\ pounds$$

TABLE 4B
Site Total Soil Vapor Extraction Mass Removal
Plaid Pantry No. 112
Vancouver, Washington

Date	Cumulative Operating Days	Total System Flow (ft^3/min)	Pre-Treatment Lab Analysis (mg/m^3)		Estimated Mass Removal Rate Per Cycle (Pounds/Day)[a]		Estimated Cumulative Mass Removed (Pounds)		Estimated Cumulative Discharge Emissions (Pounds)[b]	
			Gasoline	PCE	Gasoline	PCE	Gasoline	PCE	Gasoline	PCE
08/22/2013 [f]	0.25	95	160	0.081 U	1.4	0.00069	0.34	0.00017	0.00049	0.000016
09/27/2013	23	79	24	0.0081 U	0.72	0.00035	17	0.0081	0.042	0.0014
11/01/2013	57	54	68	0.30	0.28	0.00092	26	0.039	0.088	0.0029
12/04/2013	89	98	26	1.2	0.32	0.0051	36	0.20	0.32	0.0047
03/07/2014	160	55	50	0.41	0.26	0.0055	55	0.60	11	0.026
05/08/2014	223	88	24	1.2	0.24	0.0052	70	0.92	25	0.28
08/08/2014	314	87	25	1.2	0.19	0.0095	87	1.8	42	1.1
11/14/2014	412	97	19	0.077 U	0.18	0.0053	105	2.3	60	1.7
02/06/2015	475	88	94	0.17 U	0.47	0.0010	135	2.4	90	1.7
03/06/2015	503	88	2.5 [e]	1.0 [e]	0.38	0.0047	145	2.5	101	1.9
06/19/2015	607	87	0.59 U	0.038	0.012	0.0041	147	2.9	102	2.3
08/18/2015	667	96	0.54 U	0.026	0.0047	0.00026	147	2.9	102	2.3
11/20/2015	758	89	13	0.090	0.056	0.00048	152	3.0	107	2.4
04/13/2016	803	112	0.54 U	0.39	0.061	0.0022	155	3.1	110	2.5
07/12/2016	881	96	0.56 U	2.2	0.0052	0.012	155	4.0	110	3.4
10/21/2016	975	97	2.4	1.8	0.013	0.017	156	5.7	112	5.0
01/30/2017	1,052	89	34	0.60	0.15	0.010	168	6.4	123	5.8
03/21/2017	1,102	89	0.52	-	0.14	0.0053	175	6.7	130	6.1
04/13/2017	1,125	97	3.6	0.69	0.017	0.0054	175	6.8	131	6.2
07/06/2017	1,209	116	16	1.1	0.094	0.0085	183	7.5	138	6.9
10/28/2017	1,323	110	3.6	0.98	0.099	0.011	195	8.7	150	8.1
02/13/2018	1,403	93	4.9	0.073	0.039	0.0048	198	9.1	153	8.5
04/27/2018	1,468	105	2.6	0.40	0.033	0.0021	200	9.3	155	8.6
07/06/2018	1,538	104	0.52 U	0.72	0.015	0.0053	201	9.6	156	9.0
10/04/2018 [f]	1,592	109	0.52 U	0.58	0.0050	0.0062	201	10	156	9.3
01/03/2020 [g]	1,592	58	2,800	0.43 U	15	0.0023	207	10	162	9.3
01/10/2020	1,599	44	1,300	0.081 U	9.4	0.0012	271	10	227	9.3
01/20/2020	1,609	50	130	0.033 U	3.0	0.00024	302	10	257	9.3
02/03/2020	1,623	47	13	0.0084 U	0.31	0.000091	306	10	261	9.3
03/02/2020	1,651	47	13	0.016 U	0.055	0.000052	308	10	263	9.3
04/01/2020	1,672	47	18	0.0080 U	0.066	0.000051	309	10	264	9.3
07/13/2020	1,775	46	20	0.0085 U	0.080	0.000035	317	10	273	9.3
10/16/2020	1,870	41	13	0.016	0.065	0.000048	324	10	279	9.3
01/28/2021	1,974	46	7.0 U	0.12 U	0.039	0.00026	328	10	283	9.4

TABLE 4B

Site Total Soil Vapor Extraction Mass Removal

Plaid Pantry No. 112

Vancouver, Washington

Date	Cumulative Operating Days	Total System Flow (ft^3/min)	Pre-Treatment Lab Analysis (mg/m^3)		Estimated Mass Removal Rate Per Cycle (Pounds/Day)[a]		Estimated Cumulative Mass Removed (Pounds)		Estimated Cumulative Discharge Emissions (Pounds)[b]	
			Gasoline	PCE	Gasoline	PCE	Gasoline	PCE	Gasoline	PCE
04/28/2021	2,064	52	0.42 U	0.0070 U	0.016	0.00028	329	10	284	9.4
05/27/2021 [h]	2,093	51	0.46 U	0.0076 U	0.0020	0.000034	329	10	284	9.4
07/09/2021 [h]	2,093	48	0.74 U	0.0076 U	-	-	329	10	284	9.4
07/24/2021	2,108	46	0.43 U	0.0071 U	0.0025	0.000031	329	10	284	9.4
12/06/2021 [h]	2,243	48	37	0.070 U	0.079	0.00016	340	10	295	9.4
03/01/2022 [h]	2,257	50	4.0	0.0070 U	0.090	0.00017	341	10	296	9.4
								Estimated Emissions During Last 12 Months (Pounds/Year):	13	0.051
								Annual Emissions Threshold (Pounds/Year):	NE[c]	500[d]

Notes:

[a] Concentrations are averaged between start and end of each time period

[b] Granular activated carbon used to treat emissions prior to discharge between 8/22/13 and 3/28/14. Emissions treatment discontinued on 3/28/14.

[c] No emission threshold established for gasoline. Registration exemption threshold for the sum of total criteria pollutants and VOCs is 2,000 pounds per year, per SWCAA Chapter 400-109, Air Discharge Permits - Exempt Emission Thresholds, dated 03/21/2020.

[d] Small Quantity Emissions Rate (SQER), per SWCAA 400, General Regulations for Air Pollution Sources, dated 03/21/2020.

[e] Estimated mass based upon historic data trends.

[f] SVE operated on-Property between August 2013 and December 2018.

[g] Off-property SVE operations in the West Fourth Plain Boulevard right-of-way began January 3, 2020.

[h] System disabled 05/27/2021-07/09/2021, 12/06/2021-02/15/2022, and 03/31/2022-present for contaminant rebound monitoring.

ft^3/min = Cubic feet per minute

mg/m^3 = Milligrams per cubic meter

NE = not established

- = Not measured

SVE system off from December 2015 through March 2016 for rebound monitoring and perched GW evaluation.

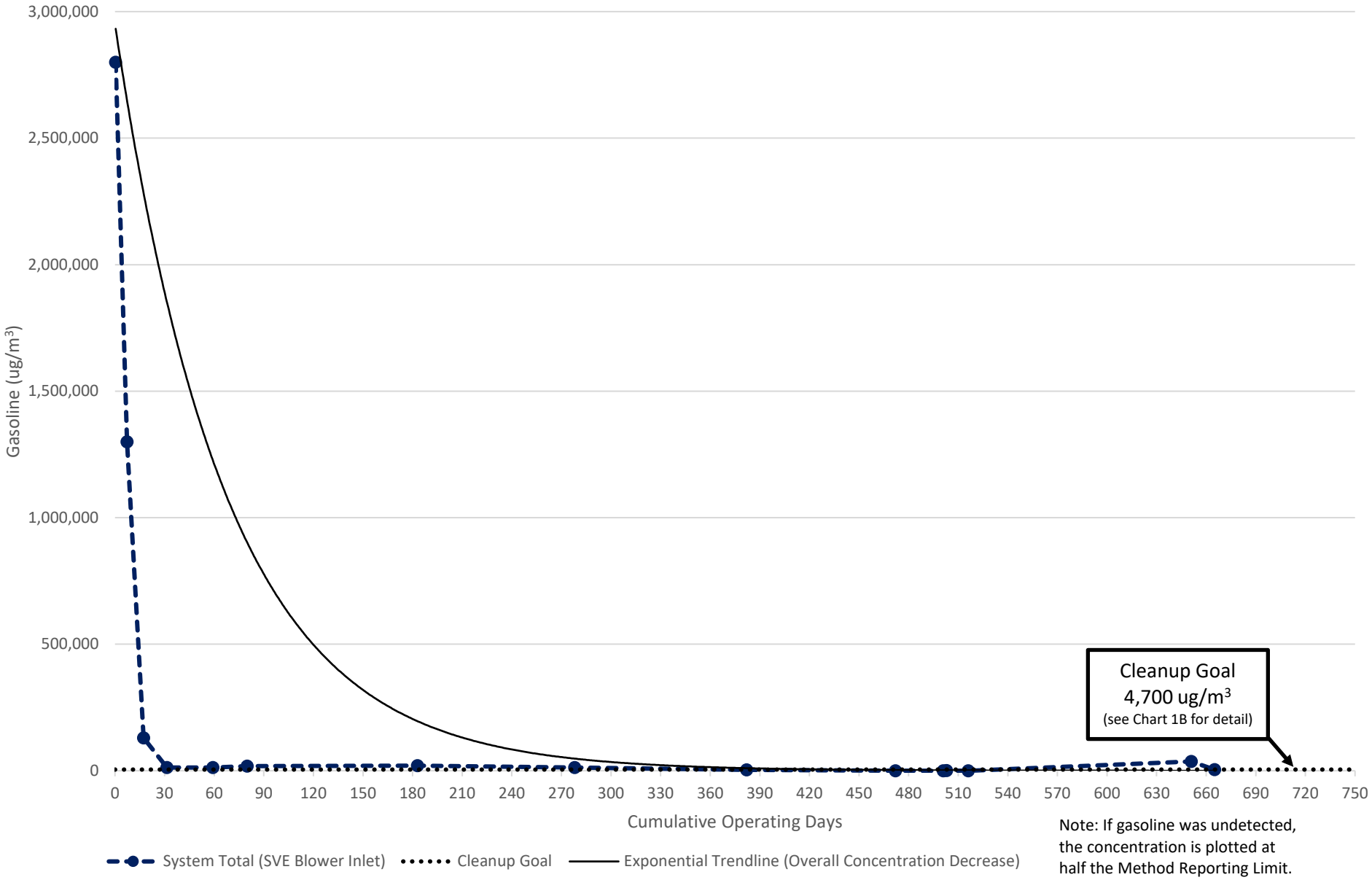
Charts

CHART 1A

System Total Gasoline Vapor Concentrations During SVE Operations in Right-of-Way (Linear Scale)

Plaid Pantry No. 112

Vancouver, Washington



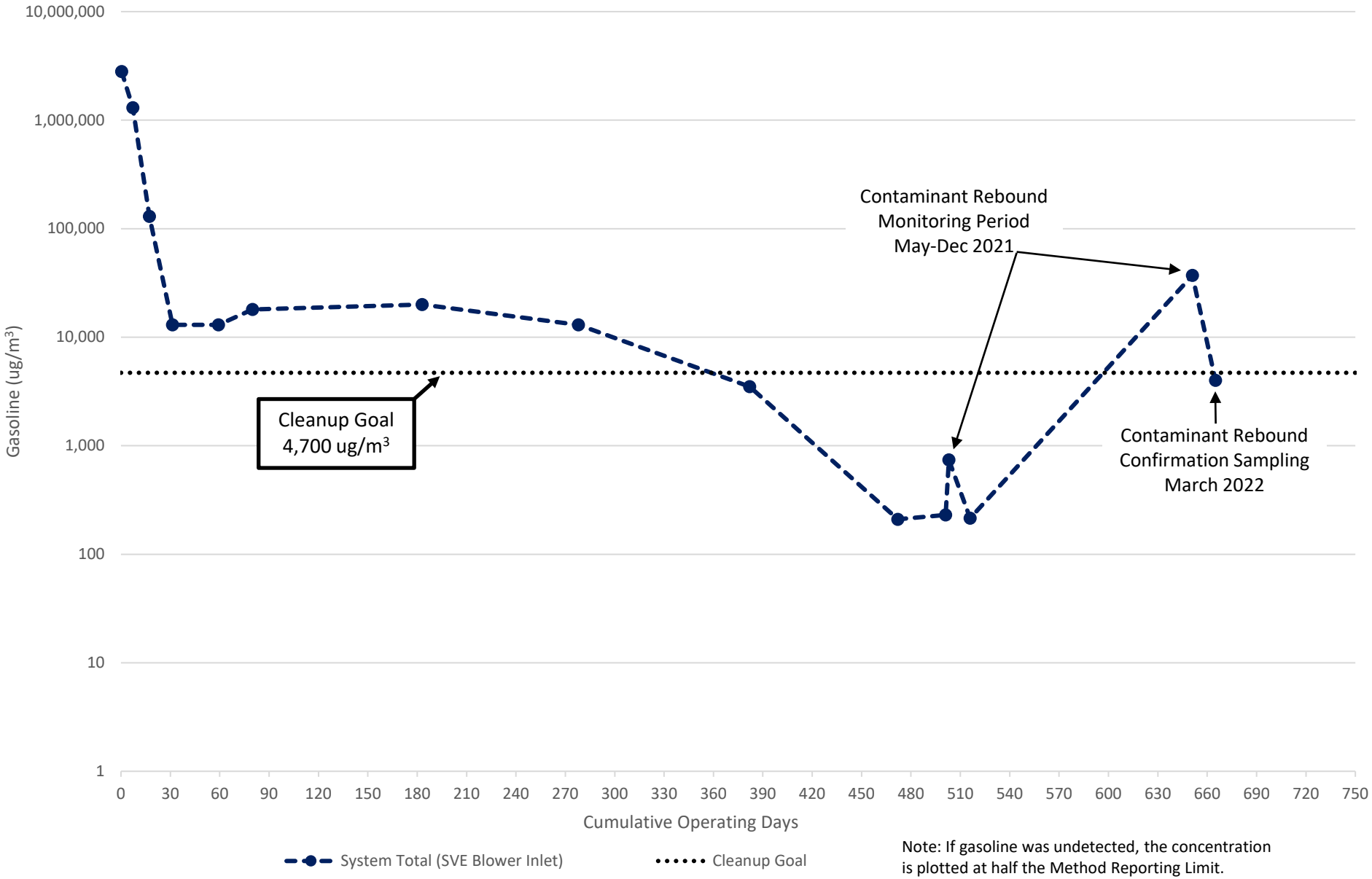
Note: If gasoline was undetected, the concentration is plotted at half the Method Reporting Limit.

CHART 1B

System Total Gasoline Vapor Concentrations During SVE Operations in Right-of-Way (Log Scale)

Plaid Pantry No. 112

Vancouver, Washington



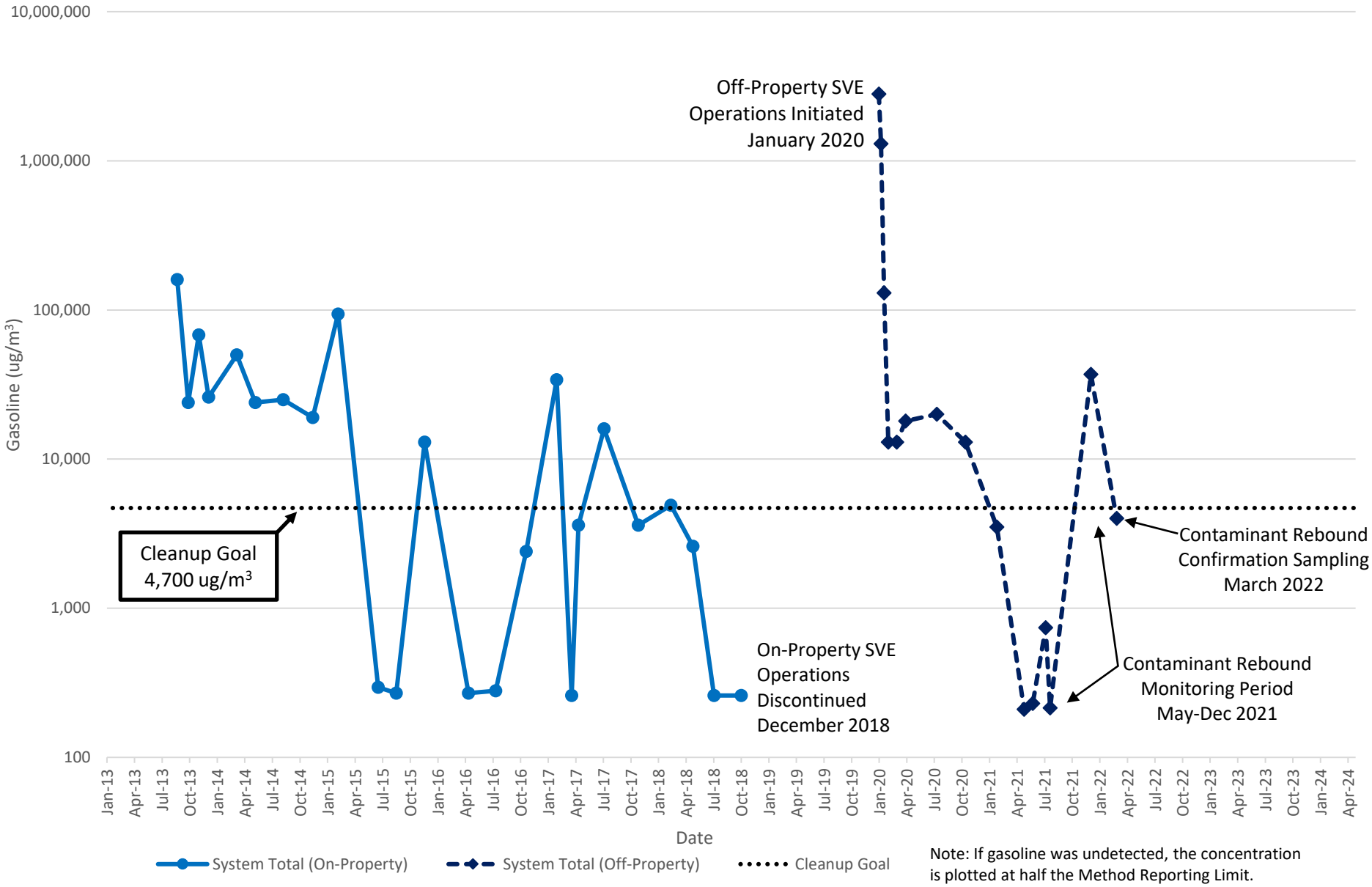
Note: If gasoline was undetected, the concentration is plotted at half the Method Reporting Limit.

CHART 1C

System Total Gasoline Vapor Concentrations During SVE Operations (Sitewide - Log Scale)

Plaid Pantry No. 112

Vancouver, Washington



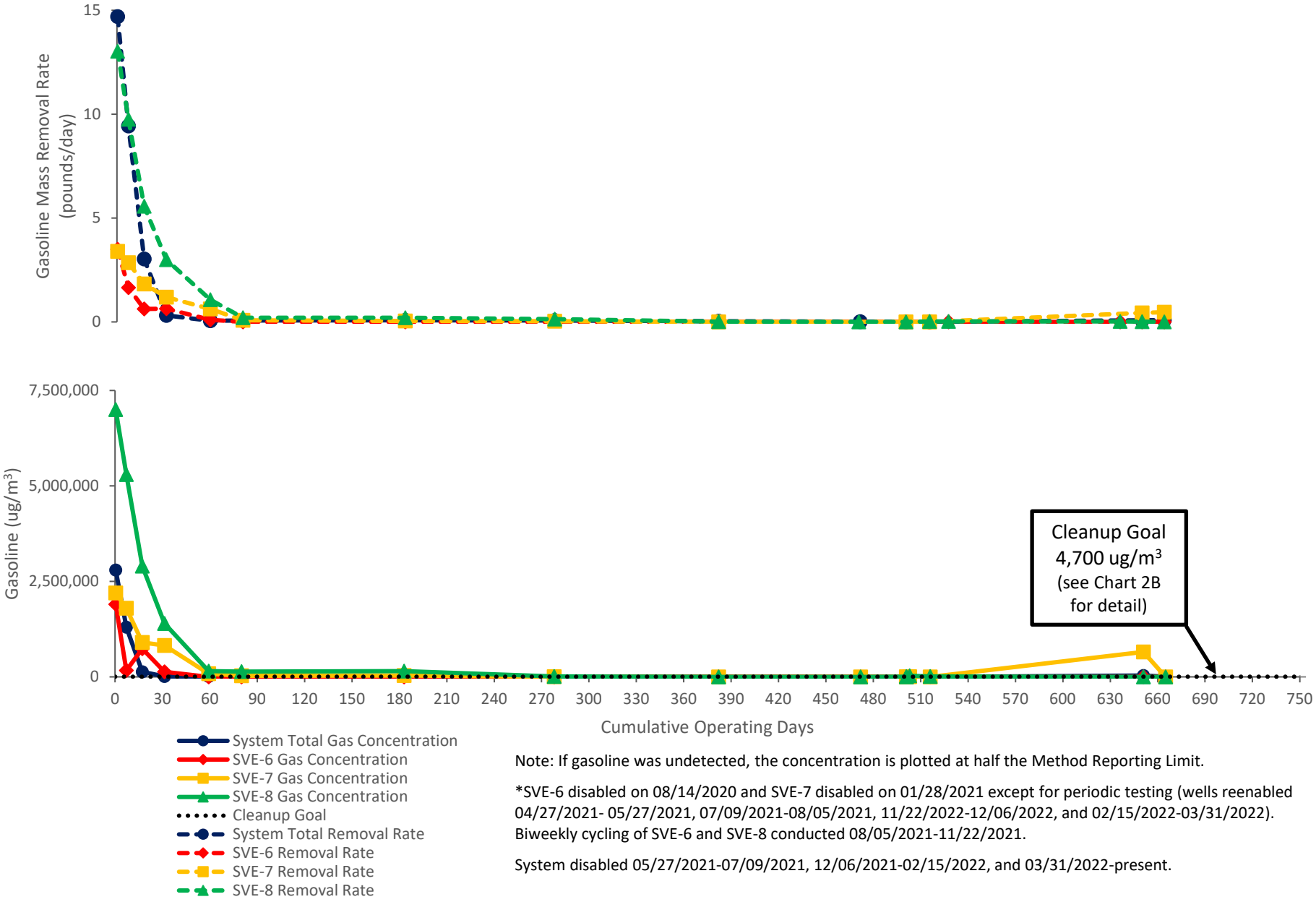
Note: If gasoline was undetected, the concentration is plotted at half the Method Reporting Limit.

CHART 2A

Gasoline Vapor Concentrations and Removal Rates During SVE Operations in Right-of-Way (Linear Scale)

Plaid Pantry No. 112

Vancouver, Washington



Note: If gasoline was undetected, the concentration is plotted at half the Method Reporting Limit.

*SVE-6 disabled on 08/14/2020 and SVE-7 disabled on 01/28/2021 except for periodic testing (wells reenabled 04/27/2021- 05/27/2021, 07/09/2021-08/05/2021, 11/22/2022-12/06/2022, and 02/15/2022-03/31/2022). Biweekly cycling of SVE-6 and SVE-8 conducted 08/05/2021-11/22/2021.

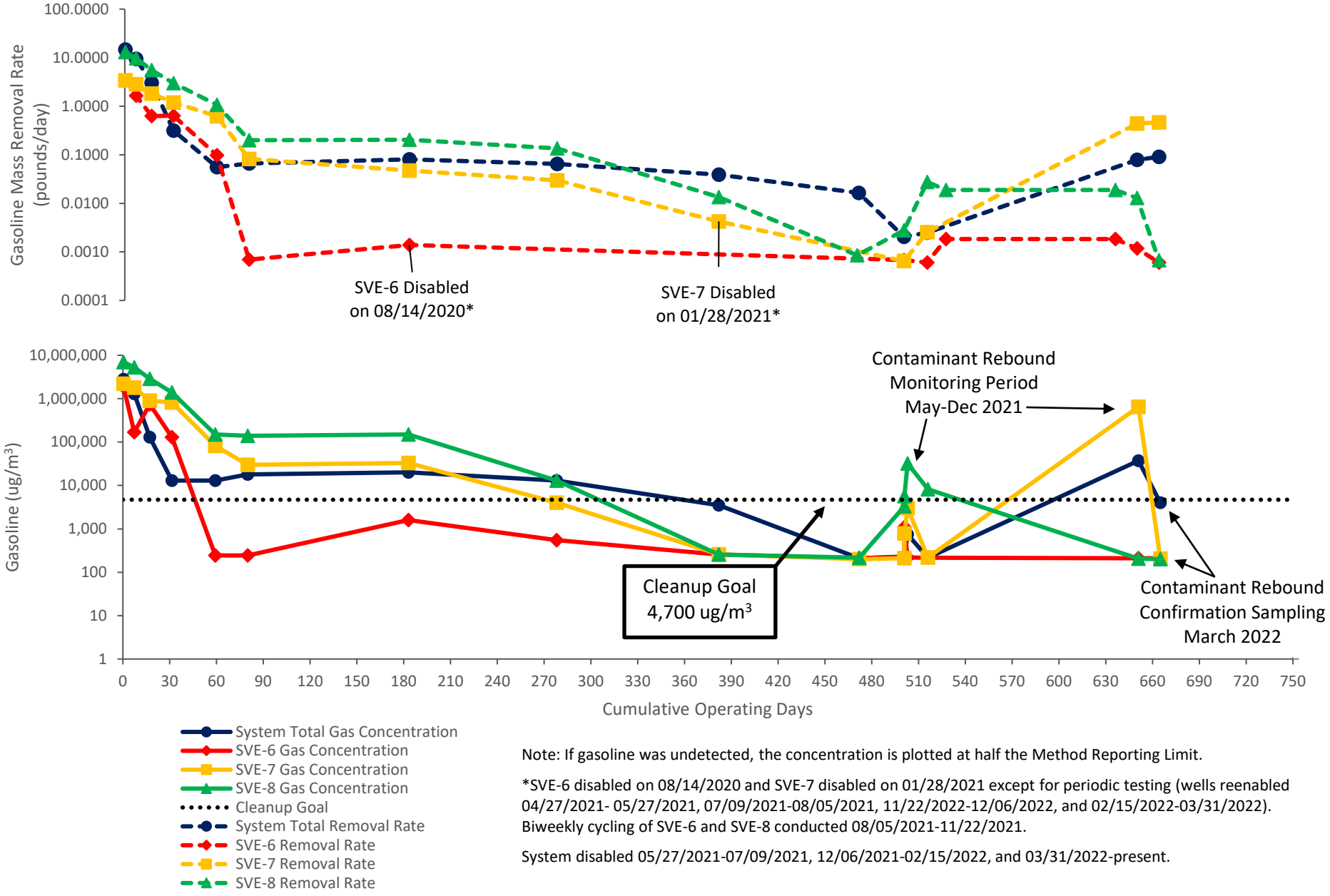
System disabled 05/27/2021-07/09/2021, 12/06/2021-02/15/2022, and 03/31/2022-present.

CHART 2B

Gasoline Vapor Concentrations and Removal Rates During SVE Operations in Right-of-Way (Log Scale)

Plaid Pantry No. 112

Vancouver, Washington



Note: If gasoline was undetected, the concentration is plotted at half the Method Reporting Limit.

*SVE-6 disabled on 08/14/2020 and SVE-7 disabled on 01/28/2021 except for periodic testing (wells reenabled 04/27/2021- 05/27/2021, 07/09/2021-08/05/2021, 11/22/2022-12/06/2022, and 02/15/2022-03/31/2022). Biweekly cycling of SVE-6 and SVE-8 conducted 08/05/2021-11/22/2021.

System disabled 05/27/2021-07/09/2021, 12/06/2021-02/15/2022, and 03/31/2022-present.

CHART 3A

Site Total Gasoline Mass Extraction Rates and Cumulative Mass Removal (Linear Scale)

Plaid Pantry No. 112

Vancouver, Washington

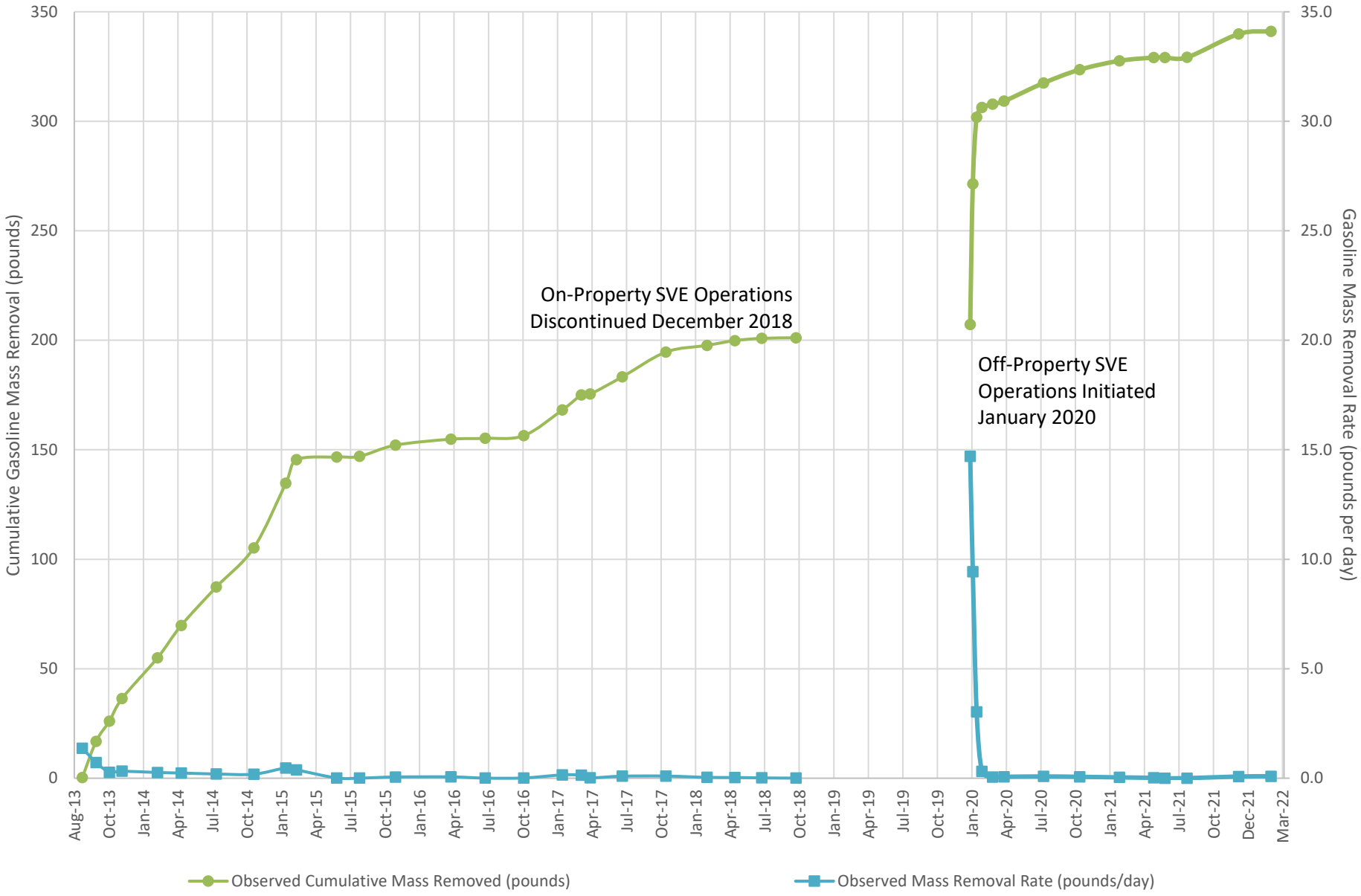
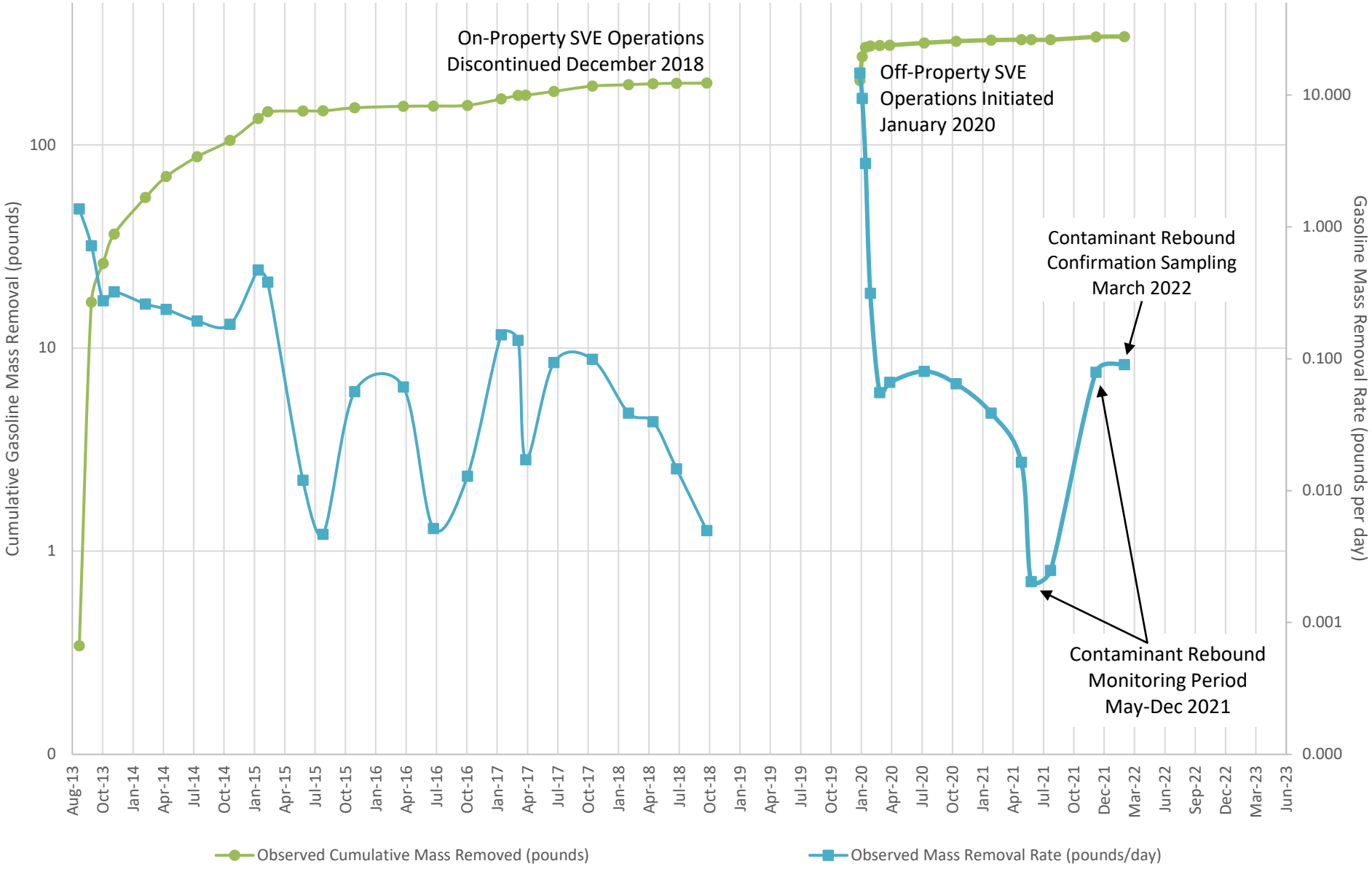


CHART 3B

Site Total Gasoline Mass Extraction Rates and Cumulative Mass Removal (Log Scale)

Plaid Pantry No. 112

Vancouver, Washington



Attachment A

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2/22/2021
Mr. Chris Rhea
EES Environmental Consulting, Inc.
240 N Broadway
Suite 203
Portland OR 97227

Project Name: PP#112
Project #: 1179-04
Workorder #: 2102073AR1

Dear Mr. Chris Rhea

The following report includes the data for the above referenced project for sample(s) received on 2/1/2021 at Eurofins Air Toxics LLC.

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

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

Regards,

Alexandra Winslow

Project Manager

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WORK ORDER #: 2102073AR1

Work Order Summary

CLIENT:	Mr. Chris Rhea EES Environmental Consulting, Inc. 240 N Broadway Suite 203 Portland, OR 97227	**BILL TO:**	Mr. Chris Rhea EES Environmental Consulting, Inc. 240 N Broadway Suite 203 Portland, OR 97227
PHONE:	530-847-2740	**P.O. #**	
FAX:		**PROJECT #**	1179-04 PP#112
DATE RECEIVED:	02/01/2021	**CONTACT:**	Alexandra Winslow
DATE COMPLETED:	02/12/2021		
DATE REISSUED:	02/22/2021		

FRACTION #	NAME	TEST	RECEIPT VAC./PRES.	FINAL PRESSURE
01A	SVE-7	TO-15	6.1 "Hg	14.9 psi
02A	SVE-8	TO-15	5.9 "Hg	14.9 psi
03A	AWS INLET	TO-15	6.5 "Hg	14.8 psi
04A(cancelled)	STACK	TO-15	4.9 "Hg	15 psi
05A	SVE-6	TO-15	5.7 "Hg	14.9 psi
06A	Lab Blank	TO-15	NA	NA
07A	CCV	TO-15	NA	NA
08A	LCS	TO-15	NA	NA
08AA	LCSD	TO-15	NA	NA

CERTIFIED BY: Heidi Hayes DATE: 02/22/21

Technical Director

Certification numbers: AZ Licensure AZ0775, FL NELAP – E87680, LA NELAP – 02089, NH NELAP - 209220, NJ NELAP - CA016, NY NELAP - 11291, TX NELAP - T104704434-20-16, UT NELAP – CA009332020-12, VA NELAP - 10615, WA NELAP - C935
Name of Accreditation Body: NELAP/ORELAP (Oregon Environmental Laboratory Accreditation Program)
Accreditation number: CA300005-014, Effective date: 10/18/2020, Expiration date: 10/17/2021.
Eurofins Air Toxics, LLC certifies that the test results contained in this report meet all requirements of the NELAC standards

180 BLUE RAVINE ROAD, SUITE B FOLSOM, CA - 95630
(916) 985-1000 . (800) 985-5955 . FAX (916) 351-8279

LABORATORY NARRATIVE
EPA Method TO-15
EES Environmental Consulting, Inc.
Workorder# 2102073AR1

Five 1 Liter Summa Canister samples were received on February 01, 2021. The laboratory performed analysis via EPA Method TO-15 using GC/MS in the full scan mode.

Receiving Notes

The Chain of Custody was missing method information. EATL proceeded with the analysis as per the original contract or verbal agreement.

A revised Chain of Custody (COC) was provided by the client on 2/15/21.

Sample STACK was cancelled on 2/15/21 per client's request.

Analytical Notes

A single point calibration for TPH referenced to Gasoline was performed for each daily analytical batch. Recovery is reported as 100% in the associated results for each CCV.

Dilution was performed on sample AWS INLET due to the presence of high level target species.

All Quality Control Limit exceedances and affected sample results are noted by flags. Each flag is defined at the bottom of this Case Narrative and on each Sample Result Summary page.

The workorder was reissued on 2/22/21 per client's request for the following reasons:

1. To amend the compound list for samples SVE-7, SVE-8 and SVE-6. Changing the list caused some previously reported compounds to become not reported.

2. To remove sample STACK from the final report.

Definition of Data Qualifying Flags

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

B - Compound present in laboratory blank greater than reporting limit (background subtraction not performed).

J - Estimated value.

E - Exceeds instrument calibration range.

S - Saturated peak.

Q - Exceeds quality control limits.

U - Compound analyzed for but not detected above the reporting limit, LOD, or MDL value. See data page for project specific U-flag definition.

UJ- Non-detected compound associated with low bias in the CCV

N - The identification is based on presumptive evidence.

M - Reported value may be biased due to apparent matrix interferences.

CN - See Case Narrative.

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

a-File was requantified

b-File was quantified by a second column and detector

r1-File was requantified for the purpose of reissue

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

Client Sample ID: SVE-7

Lab ID#: 2102073AR1-01A

No Detections Were Found.

Client Sample ID: SVE-8

Lab ID#: 2102073AR1-02A

No Detections Were Found.

Client Sample ID: AWS INLET

Lab ID#: 2102073AR1-03A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
2-Propanol	68	9300 E	170	23000 E

Client Sample ID: SVE-6

Lab ID#: 2102073AR1-05A

No Detections Were Found.

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Client Sample ID: SVE-7

Lab ID#: 2102073AR1-01A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**p021024r1**	**Date of Collection: 1/28/21 1:20:00 PM**	
Dil. Factor:	**2.53**	**Date of Analysis: 2/11/21 02:25 AM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Benzene	1.3	Not Detected	4.0	Not Detected
Ethyl Benzene	1.3	Not Detected	5.5	Not Detected
Toluene	1.3	Not Detected	4.8	Not Detected
m,p-Xylene	1.3	Not Detected	5.5	Not Detected
o-Xylene	1.3	Not Detected	5.5	Not Detected
Naphthalene	2.5	Not Detected	13	Not Detected
TPH ref. to Gasoline (MW=100)	130	Not Detected	520	Not Detected

Container Type: 1 Liter Summa Canister

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	107	70-130
Toluene-d8	100	70-130
4-Bromofluorobenzene	110	70-130

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Client Sample ID: SVE-8

Lab ID#: 2102073AR1-02A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**p021025r1**	**Date of Collection: 1/28/21 1:27:00 PM**	
Dil. Factor:	**2.51**	**Date of Analysis: 2/11/21 02:54 AM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Benzene	1.2	Not Detected	4.0	Not Detected
Ethyl Benzene	1.2	Not Detected	5.4	Not Detected
Toluene	1.2	Not Detected	4.7	Not Detected
m,p-Xylene	1.2	Not Detected	5.4	Not Detected
o-Xylene	1.2	Not Detected	5.4	Not Detected
Naphthalene	2.5	Not Detected	13	Not Detected
TPH ref. to Gasoline (MW=100)	120	Not Detected	510	Not Detected

Container Type: 1 Liter Summa Canister

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	107	70-130
Toluene-d8	100	70-130
4-Bromofluorobenzene	107	70-130

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Client Sample ID: AWS INLET

Lab ID#: 2102073AR1-03A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**p021028r1**	**Date of Collection:**	**1/28/21 1:35:00 PM**
Dil. Factor:	**34.2**	**Date of Analysis:**	**2/11/21 04:21 AM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	17	Not Detected	84	Not Detected
Freon 114	17	Not Detected	120	Not Detected
Chloromethane	170	Not Detected	350	Not Detected
Vinyl Chloride	17	Not Detected	44	Not Detected
1,3-Butadiene	17	Not Detected	38	Not Detected
Bromomethane	170	Not Detected	660	Not Detected
Chloroethane	68	Not Detected	180	Not Detected
Freon 11	17	Not Detected	96	Not Detected
Ethanol	170	Not Detected	320	Not Detected
Freon 113	17	Not Detected	130	Not Detected
1,1-Dichloroethene	17	Not Detected	68	Not Detected
Acetone	170	Not Detected	410	Not Detected
2-Propanol	68	9300 E	170	23000 E
Carbon Disulfide	68	Not Detected	210	Not Detected
3-Chloropropene	68	Not Detected	210	Not Detected
Methylene Chloride	170	Not Detected	590	Not Detected
Methyl tert-butyl ether	68	Not Detected	250	Not Detected
trans-1,2-Dichloroethene	17	Not Detected	68	Not Detected
Hexane	17	Not Detected	60	Not Detected
1,1-Dichloroethane	17	Not Detected	69	Not Detected
2-Butanone (Methyl Ethyl Ketone)	68	Not Detected	200	Not Detected
cis-1,2-Dichloroethene	17	Not Detected	68	Not Detected
Tetrahydrofuran	17	Not Detected	50	Not Detected
Chloroform	17	Not Detected	83	Not Detected
1,1,1-Trichloroethane	17	Not Detected	93	Not Detected
Cyclohexane	17	Not Detected	59	Not Detected
Carbon Tetrachloride	17	Not Detected	110	Not Detected
2,2,4-Trimethylpentane	17	Not Detected	80	Not Detected
Benzene	17	Not Detected	55	Not Detected
1,2-Dichloroethane	17	Not Detected	69	Not Detected
Heptane	17	Not Detected	70	Not Detected
Trichloroethene	17	Not Detected	92	Not Detected
1,2-Dichloropropane	17	Not Detected	79	Not Detected
1,4-Dioxane	68	Not Detected	250	Not Detected
Bromodichloromethane	17	Not Detected	110	Not Detected
cis-1,3-Dichloropropene	17	Not Detected	78	Not Detected
4-Methyl-2-pentanone	17	Not Detected	70	Not Detected
Toluene	17	Not Detected	64	Not Detected
trans-1,3-Dichloropropene	17	Not Detected	78	Not Detected
1,1,2-Trichloroethane	17	Not Detected	93	Not Detected
Tetrachloroethene	17	Not Detected	120	Not Detected
2-Hexanone	68	Not Detected	280	Not Detected

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Client Sample ID: AWS INLET

Lab ID#: 2102073AR1-03A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**p021028r1**	**Date of Collection:**	**1/28/21 1:35:00 PM**
Dil. Factor:	**34.2**	**Date of Analysis:**	**2/11/21 04:21 AM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Dibromochloromethane	17	Not Detected	140	Not Detected
1,2-Dibromoethane (EDB)	17	Not Detected	130	Not Detected
Chlorobenzene	17	Not Detected	79	Not Detected
Ethyl Benzene	17	Not Detected	74	Not Detected
m,p-Xylene	17	Not Detected	74	Not Detected
o-Xylene	17	Not Detected	74	Not Detected
Styrene	17	Not Detected	73	Not Detected
Bromoform	17	Not Detected	180	Not Detected
Cumene	17	Not Detected	84	Not Detected
1,1,2,2-Tetrachloroethane	17	Not Detected	120	Not Detected
Propylbenzene	17	Not Detected	84	Not Detected
4-Ethyltoluene	17	Not Detected	84	Not Detected
1,3,5-Trimethylbenzene	17	Not Detected	84	Not Detected
1,2,4-Trimethylbenzene	17	Not Detected	84	Not Detected
1,3-Dichlorobenzene	17	Not Detected	100	Not Detected
1,4-Dichlorobenzene	17	Not Detected	100	Not Detected
alpha-Chlorotoluene	17	Not Detected	88	Not Detected
1,2-Dichlorobenzene	17	Not Detected	100	Not Detected
1,2,4-Trichlorobenzene	68	Not Detected	510	Not Detected
Hexachlorobutadiene	68	Not Detected	730	Not Detected
Naphthalene	34	Not Detected	180	Not Detected
TPH ref. to Gasoline (MW=100)	1700	Not Detected	7000	Not Detected

E = Exceeds instrument calibration range.

Container Type: 1 Liter Summa Canister

Surrogates	%Recovery	Method Limits
Toluene-d8	100	70-130
1,2-Dichloroethane-d4	102	70-130
4-Bromofluorobenzene	106	70-130

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Client Sample ID: SVE-6

Lab ID#: 2102073AR1-05A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**p021026r1**	**Date of Collection: 1/28/21 3:10:00 PM**	
Dil. Factor:	**2.48**	**Date of Analysis: 2/11/21 03:24 AM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Benzene	1.2	Not Detected	4.0	Not Detected
Ethyl Benzene	1.2	Not Detected	5.4	Not Detected
Toluene	1.2	Not Detected	4.7	Not Detected
m,p-Xylene	1.2	Not Detected	5.4	Not Detected
o-Xylene	1.2	Not Detected	5.4	Not Detected
Naphthalene	2.5	Not Detected	13	Not Detected
TPH ref. to Gasoline (MW=100)	120	Not Detected	510	Not Detected

Container Type: 1 Liter Summa Canister

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	107	70-130
Toluene-d8	101	70-130
4-Bromofluorobenzene	105	70-130

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Client Sample ID: Lab Blank

Lab ID#: 2102073AR1-06A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**p021009**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 2/10/21 02:33 PM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.50	Not Detected	2.5	Not Detected
Freon 114	0.50	Not Detected	3.5	Not Detected
Chloromethane	5.0	Not Detected	10	Not Detected
Vinyl Chloride	0.50	Not Detected	1.3	Not Detected
1,3-Butadiene	0.50	Not Detected	1.1	Not Detected
Bromomethane	5.0	Not Detected	19	Not Detected
Chloroethane	2.0	Not Detected	5.3	Not Detected
Freon 11	0.50	Not Detected	2.8	Not Detected
Ethanol	5.0	Not Detected	9.4	Not Detected
Freon 113	0.50	Not Detected	3.8	Not Detected
1,1-Dichloroethene	0.50	Not Detected	2.0	Not Detected
Acetone	5.0	Not Detected	12	Not Detected
2-Propanol	2.0	Not Detected	4.9	Not Detected
Carbon Disulfide	2.0	Not Detected	6.2	Not Detected
3-Chloropropene	2.0	Not Detected	6.3	Not Detected
Methylene Chloride	5.0	Not Detected	17	Not Detected
Methyl tert-butyl ether	2.0	Not Detected	7.2	Not Detected
trans-1,2-Dichloroethene	0.50	Not Detected	2.0	Not Detected
Hexane	0.50	Not Detected	1.8	Not Detected
1,1-Dichloroethane	0.50	Not Detected	2.0	Not Detected
2-Butanone (Methyl Ethyl Ketone)	2.0	Not Detected	5.9	Not Detected
cis-1,2-Dichloroethene	0.50	Not Detected	2.0	Not Detected
Tetrahydrofuran	0.50	Not Detected	1.5	Not Detected
Chloroform	0.50	Not Detected	2.4	Not Detected
1,1,1-Trichloroethane	0.50	Not Detected	2.7	Not Detected
Cyclohexane	0.50	Not Detected	1.7	Not Detected
Carbon Tetrachloride	0.50	Not Detected	3.1	Not Detected
2,2,4-Trimethylpentane	0.50	Not Detected	2.3	Not Detected
Benzene	0.50	Not Detected	1.6	Not Detected
1,2-Dichloroethane	0.50	Not Detected	2.0	Not Detected
Heptane	0.50	Not Detected	2.0	Not Detected
Trichloroethene	0.50	Not Detected	2.7	Not Detected
1,2-Dichloropropane	0.50	Not Detected	2.3	Not Detected
1,4-Dioxane	2.0	Not Detected	7.2	Not Detected
Bromodichloromethane	0.50	Not Detected	3.4	Not Detected
cis-1,3-Dichloropropene	0.50	Not Detected	2.3	Not Detected
4-Methyl-2-pentanone	0.50	Not Detected	2.0	Not Detected
Toluene	0.50	Not Detected	1.9	Not Detected
trans-1,3-Dichloropropene	0.50	Not Detected	2.3	Not Detected
1,1,2-Trichloroethane	0.50	Not Detected	2.7	Not Detected
Tetrachloroethene	0.50	Not Detected	3.4	Not Detected
2-Hexanone	2.0	Not Detected	8.2	Not Detected

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Client Sample ID: Lab Blank

Lab ID#: 2102073AR1-06A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**p021009**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 2/10/21 02:33 PM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Dibromochloromethane	0.50	Not Detected	4.2	Not Detected
1,2-Dibromoethane (EDB)	0.50	Not Detected	3.8	Not Detected
Chlorobenzene	0.50	Not Detected	2.3	Not Detected
Ethyl Benzene	0.50	Not Detected	2.2	Not Detected
m,p-Xylene	0.50	Not Detected	2.2	Not Detected
o-Xylene	0.50	Not Detected	2.2	Not Detected
Styrene	0.50	Not Detected	2.1	Not Detected
Bromoform	0.50	Not Detected	5.2	Not Detected
Cumene	0.50	Not Detected	2.4	Not Detected
1,1,2,2-Tetrachloroethane	0.50	Not Detected	3.4	Not Detected
Propylbenzene	0.50	Not Detected	2.4	Not Detected
4-Ethyltoluene	0.50	Not Detected	2.4	Not Detected
1,3,5-Trimethylbenzene	0.50	Not Detected	2.4	Not Detected
1,2,4-Trimethylbenzene	0.50	Not Detected	2.4	Not Detected
1,3-Dichlorobenzene	0.50	Not Detected	3.0	Not Detected
1,4-Dichlorobenzene	0.50	Not Detected	3.0	Not Detected
alpha-Chlorotoluene	0.50	Not Detected	2.6	Not Detected
1,2-Dichlorobenzene	0.50	Not Detected	3.0	Not Detected
1,2,4-Trichlorobenzene	2.0	Not Detected	15	Not Detected
Hexachlorobutadiene	2.0	Not Detected	21	Not Detected
Naphthalene	1.0	Not Detected	5.2	Not Detected
TPH ref. to Gasoline (MW=100)	50	Not Detected	200	Not Detected

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
Toluene-d8	102	70-130
1,2-Dichloroethane-d4	107	70-130
4-Bromofluorobenzene	108	70-130

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Client Sample ID: CCV

Lab ID#: 2102073AR1-07A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**p021002**	**Date of Collection: NA**
Dil. Factor:	**1.00**	**Date of Analysis: 2/10/21 09:54 AM**

Compound	%Recovery
Freon 12	117
Freon 114	106
Chloromethane	75
Vinyl Chloride	91
1,3-Butadiene	99
Bromomethane	99
Chloroethane	92
Freon 11	117
Ethanol	81
Freon 113	104
1,1-Dichloroethene	104
Acetone	84
2-Propanol	83
Carbon Disulfide	94
3-Chloropropene	99
Methylene Chloride	93
Methyl tert-butyl ether	104
trans-1,2-Dichloroethene	105
Hexane	95
1,1-Dichloroethane	105
2-Butanone (Methyl Ethyl Ketone)	101
cis-1,2-Dichloroethene	109
Tetrahydrofuran	87
Chloroform	114
1,1,1-Trichloroethane	111
Cyclohexane	101
Carbon Tetrachloride	121
2,2,4-Trimethylpentane	93
Benzene	101
1,2-Dichloroethane	113
Heptane	100
Trichloroethene	108
1,2-Dichloropropane	95
1,4-Dioxane	98
Bromodichloromethane	112
cis-1,3-Dichloropropene	108
4-Methyl-2-pentanone	93
Toluene	104
trans-1,3-Dichloropropene	107
1,1,2-Trichloroethane	104
Tetrachloroethene	110
2-Hexanone	94

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Client Sample ID: CCV

Lab ID#: 2102073AR1-07A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**p021002**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 2/10/21 09:54 AM**	

Compound	%Recovery
Dibromochloromethane	111
1,2-Dibromoethane (EDB)	106
Chlorobenzene	105
Ethyl Benzene	106
m,p-Xylene	109
o-Xylene	107
Styrene	112
Bromoform	116
Cumene	109
1,1,2,2-Tetrachloroethane	96
Propylbenzene	110
4-Ethyltoluene	108
1,3,5-Trimethylbenzene	110
1,2,4-Trimethylbenzene	112
1,3-Dichlorobenzene	111
1,4-Dichlorobenzene	112
alpha-Chlorotoluene	113
1,2-Dichlorobenzene	110
1,2,4-Trichlorobenzene	109
Hexachlorobutadiene	114
Naphthalene	93
TPH ref. to Gasoline (MW=100)	100

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
Toluene-d8	102	70-130
1,2-Dichloroethane-d4	110	70-130
4-Bromofluorobenzene	113	70-130

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Client Sample ID: LCS

Lab ID#: 2102073AR1-08A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**p021003**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 2/10/21 10:24 AM**	

Compound	%Recovery	Method Limits
Freon 12	116	70-130
Freon 114	106	70-130
Chloromethane	61 Q	70-130
Vinyl Chloride	91	70-130
1,3-Butadiene	102	70-130
Bromomethane	93	70-130
Chloroethane	92	70-130
Freon 11	117	70-130
Ethanol	70	70-130
Freon 113	104	70-130
1,1-Dichloroethene	110	70-130
Acetone	86	70-130
2-Propanol	87	70-130
Carbon Disulfide	94	70-130
3-Chloropropene	92	70-130
Methylene Chloride	91	70-130
Methyl tert-butyl ether	104	70-130
trans-1,2-Dichloroethene	104	70-130
Hexane	96	70-130
1,1-Dichloroethane	103	70-130
2-Butanone (Methyl Ethyl Ketone)	102	70-130
cis-1,2-Dichloroethene	112	70-130
Tetrahydrofuran	87	70-130
Chloroform	113	70-130
1,1,1-Trichloroethane	111	70-130
Cyclohexane	101	70-130
Carbon Tetrachloride	122	70-130
2,2,4-Trimethylpentane	91	70-130
Benzene	97	70-130
1,2-Dichloroethane	108	70-130
Heptane	95	70-130
Trichloroethene	103	70-130
1,2-Dichloropropane	89	70-130
1,4-Dioxane	96	70-130
Bromodichloromethane	105	70-130
cis-1,3-Dichloropropene	103	70-130
4-Methyl-2-pentanone	86	70-130
Toluene	98	70-130
trans-1,3-Dichloropropene	104	70-130
1,1,2-Trichloroethane	99	70-130
Tetrachloroethene	106	70-130
2-Hexanone	90	70-130

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Client Sample ID: LCS

Lab ID#: 2102073AR1-08A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**p021003**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 2/10/21 10:24 AM**	

Compound	%Recovery	Method Limits
Dibromochloromethane	107	70-130
1,2-Dibromoethane (EDB)	102	70-130
Chlorobenzene	101	70-130
Ethyl Benzene	101	70-130
m,p-Xylene	104	70-130
o-Xylene	103	70-130
Styrene	108	70-130
Bromoform	111	70-130
Cumene	103	70-130
1,1,2,2-Tetrachloroethane	92	70-130
Propylbenzene	104	70-130
4-Ethyltoluene	104	70-130
1,3,5-Trimethylbenzene	104	70-130
1,2,4-Trimethylbenzene	109	70-130
1,3-Dichlorobenzene	105	70-130
1,4-Dichlorobenzene	108	70-130
alpha-Chlorotoluene	108	70-130
1,2-Dichlorobenzene	103	70-130
1,2,4-Trichlorobenzene	115	70-130
Hexachlorobutadiene	121	70-130
Naphthalene	104	60-140
TPH ref. to Gasoline (MW=100)	Not Spiked	

Q = Exceeds Quality Control limits.

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
Toluene-d8	100	70-130
1,2-Dichloroethane-d4	112	70-130
4-Bromofluorobenzene	110	70-130

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Client Sample ID: LCSD

Lab ID#: 2102073AR1-08AA

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**p021004**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 2/10/21 10:53 AM**	

Compound	%Recovery	Method Limits
Freon 12	118	70-130
Freon 114	109	70-130
Chloromethane	62 Q	70-130
Vinyl Chloride	96	70-130
1,3-Butadiene	100	70-130
Bromomethane	93	70-130
Chloroethane	95	70-130
Freon 11	119	70-130
Ethanol	68 Q	70-130
Freon 113	108	70-130
1,1-Dichloroethene	112	70-130
Acetone	91	70-130
2-Propanol	86	70-130
Carbon Disulfide	96	70-130
3-Chloropropene	96	70-130
Methylene Chloride	92	70-130
Methyl tert-butyl ether	108	70-130
trans-1,2-Dichloroethene	108	70-130
Hexane	97	70-130
1,1-Dichloroethane	104	70-130
2-Butanone (Methyl Ethyl Ketone)	104	70-130
cis-1,2-Dichloroethene	112	70-130
Tetrahydrofuran	90	70-130
Chloroform	116	70-130
1,1,1-Trichloroethane	112	70-130
Cyclohexane	105	70-130
Carbon Tetrachloride	124	70-130
2,2,4-Trimethylpentane	94	70-130
Benzene	97	70-130
1,2-Dichloroethane	108	70-130
Heptane	96	70-130
Trichloroethene	103	70-130
1,2-Dichloropropane	89	70-130
1,4-Dioxane	96	70-130
Bromodichloromethane	106	70-130
cis-1,3-Dichloropropene	104	70-130
4-Methyl-2-pentanone	87	70-130
Toluene	99	70-130
trans-1,3-Dichloropropene	107	70-130
1,1,2-Trichloroethane	99	70-130
Tetrachloroethene	106	70-130
2-Hexanone	91	70-130

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Client Sample ID: LCSD

Lab ID#: 2102073AR1-08AA

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**p021004**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 2/10/21 10:53 AM**	

Compound	%Recovery	Method Limits
Dibromochloromethane	108	70-130
1,2-Dibromoethane (EDB)	102	70-130
Chlorobenzene	102	70-130
Ethyl Benzene	102	70-130
m,p-Xylene	106	70-130
o-Xylene	103	70-130
Styrene	108	70-130
Bromoform	112	70-130
Cumene	105	70-130
1,1,2,2-Tetrachloroethane	92	70-130
Propylbenzene	105	70-130
4-Ethyltoluene	104	70-130
1,3,5-Trimethylbenzene	105	70-130
1,2,4-Trimethylbenzene	111	70-130
1,3-Dichlorobenzene	105	70-130
1,4-Dichlorobenzene	109	70-130
alpha-Chlorotoluene	109	70-130
1,2-Dichlorobenzene	105	70-130
1,2,4-Trichlorobenzene	120	70-130
Hexachlorobutadiene	128	70-130
Naphthalene	109	60-140
TPH ref. to Gasoline (MW=100)	Not Spiked	

Q = Exceeds Quality Control limits.

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
Toluene-d8	100	70-130
1,2-Dichloroethane-d4	114	70-130
4-Bromofluorobenzene	111	70-130

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5/14/2021
Mr. Chris Rhea
EES Environmental Consulting, Inc.
240 N Broadway
Suite 203
Portland OR 97227

Project Name: PLAID PANTRY #112
Project #: 1179-04
Workorder #: 2105007A

Dear Mr. Chris Rhea

The following report includes the data for the above referenced project for sample(s) received on 5/3/2021 at Eurofins Air Toxics LLC.

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

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

Regards,

Monica Tran

Project Manager

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WORK ORDER #: 2105007A

Work Order Summary

CLIENT:	Mr. Chris Rhea EES Environmental Consulting, Inc. 240 N Broadway Suite 203 Portland, OR 97227	**BILL TO:**	Mr. Chris Rhea EES Environmental Consulting, Inc. 240 N Broadway Suite 203 Portland, OR 97227
PHONE:	530-847-2740	**P.O. #**	
FAX:		**PROJECT #**	1179-04 PLAID PANTRY #112
DATE RECEIVED:	05/03/2021	**CONTACT:**	Monica Tran
DATE COMPLETED:	05/14/2021		

FRACTION #	NAME	TEST	RECEIPT VAC./PRES.	FINAL PRESSURE
01A	SVE-8	TO-15	5.7 "Hg	10.2 psi
02A	SVE-6	TO-15	5.1 "Hg	10.2 psi
03A	SVE-7	TO-15	4.9 "Hg	9.7 psi
05A	AWS INFLET	TO-15	5.5 "Hg	9.9 psi
06A	Lab Blank	TO-15	NA	NA
07A	CCV	TO-15	NA	NA
08A	LCS	TO-15	NA	NA
08AA	LCSD	TO-15	NA	NA

CERTIFIED BY: Heidi Hayes DATE: 05/14/21

Technical Director

Certification numbers: AZ Licensure AZ0775, FL NELAP – E87680, LA NELAP – 02089, NH NELAP - 209220, NJ NELAP - CA016, NY NELAP - 11291, TX NELAP - T104704434-20-16, UT NELAP – CA009332020-12, VA NELAP - 10615, WA NELAP - C935
Name of Accreditation Body: NELAP/ORELAP (Oregon Environmental Laboratory Accreditation Program)
Accreditation number: CA300005-014, Effective date: 10/18/2020, Expiration date: 10/17/2021.
Eurofins Air Toxics, LLC certifies that the test results contained in this report meet all requirements of the NELAC standards

180 BLUE RAVINE ROAD, SUITE B FOLSOM, CA - 95630
(916) 985-1000 . (800) 985-5955 . FAX (916) 351-8279

LABORATORY NARRATIVE
EPA Method TO-15
EES Environmental Consulting, Inc.
Workorder# 2105007A

Four 1 Liter Summa Canister samples were received on May 03, 2021. The laboratory performed analysis via EPA Method TO-15 using GC/MS in the full scan mode.

Receiving Notes

There were no receiving discrepancies.

Analytical Notes

A single point calibration for TPH referenced to Gasoline was performed for each daily analytical batch. Recovery is reported as 100% in the associated results for each CCV.

All Quality Control Limit exceedances and affected sample results are noted by flags. Each flag is defined at the bottom of this Case Narrative and on each Sample Result Summary page.

Definition of Data Qualifying Flags

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

B - Compound present in laboratory blank greater than reporting limit (background subtraction not performed).

J - Estimated value.

E - Exceeds instrument calibration range.

S - Saturated peak.

Q - Exceeds quality control limits.

U - Compound analyzed for but not detected above the reporting limit, LOD, or MDL value. See data page for project specific U-flag definition.

UJ- Non-detected compound associated with low bias in the CCV

N - The identification is based on presumptive evidence.

M - Reported value may be biased due to apparent matrix interferences.

CN - See Case Narrative.

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

a-File was requantified

b-File was quantified by a second column and detector

r1-File was requantified for the purpose of reissue

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

Client Sample ID: SVE-8

Lab ID#: 2105007A-01A

No Detections Were Found.

Client Sample ID: SVE-6

Lab ID#: 2105007A-02A

No Detections Were Found.

Client Sample ID: SVE-7

Lab ID#: 2105007A-03A

No Detections Were Found.

Client Sample ID: AWS INFLET

Lab ID#: 2105007A-05A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
2-Propanol	4.1	4.4	10	11

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Client Sample ID: SVE-8

Lab ID#: 2105007A-01A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**a050709**	**Date of Collection:**	**4/27/21 12:31:00 PM**
Dil. Factor:	**2.09**	**Date of Analysis:**	**5/7/21 02:34 PM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Benzene	1.0	Not Detected	3.3	Not Detected
Ethyl Benzene	1.0	Not Detected	4.5	Not Detected
Toluene	1.0	Not Detected	3.9	Not Detected
m,p-Xylene	1.0	Not Detected	4.5	Not Detected
o-Xylene	1.0	Not Detected	4.5	Not Detected
Naphthalene	2.1	Not Detected	11	Not Detected
TPH ref. to Gasoline (MW=100)	100	Not Detected	430	Not Detected

Container Type: 1 Liter Summa Canister

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	96	70-130
Toluene-d8	110	70-130
4-Bromofluorobenzene	97	70-130

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Client Sample ID: SVE-6

Lab ID#: 2105007A-02A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**a050710**	**Date of Collection:**	**4/28/21 11:32:00 AM**
Dil. Factor:	**2.04**	**Date of Analysis:**	**5/7/21 03:00 PM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Benzene	1.0	Not Detected	3.2	Not Detected
Ethyl Benzene	1.0	Not Detected	4.4	Not Detected
Toluene	1.0	Not Detected	3.8	Not Detected
m,p-Xylene	1.0	Not Detected	4.4	Not Detected
o-Xylene	1.0	Not Detected	4.4	Not Detected
Naphthalene	2.0	Not Detected	11	Not Detected
TPH ref. to Gasoline (MW=100)	100	Not Detected	420	Not Detected

Container Type: 1 Liter Summa Canister

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	97	70-130
Toluene-d8	109	70-130
4-Bromofluorobenzene	98	70-130

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Client Sample ID: SVE-7

Lab ID#: 2105007A-03A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**a050711**	**Date of Collection:**	**4/28/21 11:36:00 AM**
Dil. Factor:	**1.98**	**Date of Analysis:**	**5/7/21 03:27 PM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Benzene	0.99	Not Detected	3.2	Not Detected
Ethyl Benzene	0.99	Not Detected	4.3	Not Detected
Toluene	0.99	Not Detected	3.7	Not Detected
m,p-Xylene	0.99	Not Detected	4.3	Not Detected
o-Xylene	0.99	Not Detected	4.3	Not Detected
Naphthalene	2.0	Not Detected	10	Not Detected
TPH ref. to Gasoline (MW=100)	99	Not Detected	400	Not Detected

Container Type: 1 Liter Summa Canister

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	98	70-130
Toluene-d8	111	70-130
4-Bromofluorobenzene	99	70-130

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Client Sample ID: AWS INFLET

Lab ID#: 2105007A-05A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**a050712**	**Date of Collection:**	**4/28/21 11:47:00 AM**
Dil. Factor:	**2.05**	**Date of Analysis:**	**5/7/21 03:53 PM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	1.0	Not Detected	5.1	Not Detected
Freon 114	1.0	Not Detected	7.2	Not Detected
Chloromethane	10	Not Detected	21	Not Detected
Vinyl Chloride	1.0	Not Detected	2.6	Not Detected
1,3-Butadiene	1.0	Not Detected	2.3	Not Detected
Bromomethane	10	Not Detected	40	Not Detected
Chloroethane	4.1	Not Detected	11	Not Detected
Freon 11	1.0	Not Detected	5.8	Not Detected
Ethanol	10	Not Detected	19	Not Detected
Freon 113	1.0	Not Detected	7.8	Not Detected
1,1-Dichloroethene	1.0	Not Detected	4.1	Not Detected
Acetone	10	Not Detected	24	Not Detected
2-Propanol	4.1	4.4	10	11
Carbon Disulfide	4.1	Not Detected	13	Not Detected
3-Chloropropene	4.1	Not Detected	13	Not Detected
Methylene Chloride	10	Not Detected	36	Not Detected
Methyl tert-butyl ether	4.1	Not Detected	15	Not Detected
trans-1,2-Dichloroethene	1.0	Not Detected	4.1	Not Detected
Hexane	1.0	Not Detected	3.6	Not Detected
1,1-Dichloroethane	1.0	Not Detected	4.1	Not Detected
2-Butanone (Methyl Ethyl Ketone)	4.1	Not Detected	12	Not Detected
cis-1,2-Dichloroethene	1.0	Not Detected	4.1	Not Detected
Tetrahydrofuran	1.0	Not Detected	3.0	Not Detected
Chloroform	1.0	Not Detected	5.0	Not Detected
1,1,1-Trichloroethane	1.0	Not Detected	5.6	Not Detected
Cyclohexane	1.0	Not Detected	3.5	Not Detected
Carbon Tetrachloride	1.0	Not Detected	6.4	Not Detected
2,2,4-Trimethylpentane	1.0	Not Detected	4.8	Not Detected
Benzene	1.0	Not Detected	3.3	Not Detected
1,2-Dichloroethane	1.0	Not Detected	4.1	Not Detected
Heptane	1.0	Not Detected	4.2	Not Detected
Trichloroethene	1.0	Not Detected	5.5	Not Detected
1,2-Dichloropropane	1.0	Not Detected	4.7	Not Detected
1,4-Dioxane	4.1	Not Detected	15	Not Detected
Bromodichloromethane	1.0	Not Detected	6.9	Not Detected
cis-1,3-Dichloropropene	1.0	Not Detected	4.6	Not Detected
4-Methyl-2-pentanone	1.0	Not Detected	4.2	Not Detected
Toluene	1.0	Not Detected	3.9	Not Detected
trans-1,3-Dichloropropene	1.0	Not Detected	4.6	Not Detected
1,1,2-Trichloroethane	1.0	Not Detected	5.6	Not Detected
Tetrachloroethene	1.0	Not Detected	7.0	Not Detected
2-Hexanone	4.1	Not Detected	17	Not Detected

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Client Sample ID: AWS INFLET

Lab ID#: 2105007A-05A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**a050712**	**Date of Collection:**	**4/28/21 11:47:00 AM**
Dil. Factor:	**2.05**	**Date of Analysis:**	**5/7/21 03:53 PM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Dibromochloromethane	1.0	Not Detected	8.7	Not Detected
1,2-Dibromoethane (EDB)	1.0	Not Detected	7.9	Not Detected
Chlorobenzene	1.0	Not Detected	4.7	Not Detected
Ethyl Benzene	1.0	Not Detected	4.4	Not Detected
m,p-Xylene	1.0	Not Detected	4.4	Not Detected
o-Xylene	1.0	Not Detected	4.4	Not Detected
Styrene	1.0	Not Detected	4.4	Not Detected
Bromoform	1.0	Not Detected	10	Not Detected
Cumene	1.0	Not Detected	5.0	Not Detected
1,1,2,2-Tetrachloroethane	1.0	Not Detected	7.0	Not Detected
Propylbenzene	1.0	Not Detected	5.0	Not Detected
4-Ethyltoluene	1.0	Not Detected	5.0	Not Detected
1,3,5-Trimethylbenzene	1.0	Not Detected	5.0	Not Detected
1,2,4-Trimethylbenzene	1.0	Not Detected	5.0	Not Detected
1,3-Dichlorobenzene	1.0	Not Detected	6.2	Not Detected
1,4-Dichlorobenzene	1.0	Not Detected	6.2	Not Detected
alpha-Chlorotoluene	1.0	Not Detected	5.3	Not Detected
1,2-Dichlorobenzene	1.0	Not Detected	6.2	Not Detected
1,2,4-Trichlorobenzene	4.1	Not Detected	30	Not Detected
Hexachlorobutadiene	4.1	Not Detected	44	Not Detected
Naphthalene	2.0	Not Detected	11	Not Detected
TPH ref. to Gasoline (MW=100)	100	Not Detected	420	Not Detected

Container Type: 1 Liter Summa Canister

Surrogates	%Recovery	Method Limits
Toluene-d8	108	70-130
1,2-Dichloroethane-d4	98	70-130
4-Bromofluorobenzene	96	70-130

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Client Sample ID: Lab Blank

Lab ID#: 2105007A-06A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**a050707**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 5/7/21 12:40 PM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.50	Not Detected	2.5	Not Detected
Freon 114	0.50	Not Detected	3.5	Not Detected
Chloromethane	5.0	Not Detected	10	Not Detected
Vinyl Chloride	0.50	Not Detected	1.3	Not Detected
1,3-Butadiene	0.50	Not Detected	1.1	Not Detected
Bromomethane	5.0	Not Detected	19	Not Detected
Chloroethane	2.0	Not Detected	5.3	Not Detected
Freon 11	0.50	Not Detected	2.8	Not Detected
Ethanol	5.0	Not Detected	9.4	Not Detected
Freon 113	0.50	Not Detected	3.8	Not Detected
1,1-Dichloroethene	0.50	Not Detected	2.0	Not Detected
Acetone	5.0	Not Detected	12	Not Detected
2-Propanol	2.0	Not Detected	4.9	Not Detected
Carbon Disulfide	2.0	Not Detected	6.2	Not Detected
3-Chloropropene	2.0	Not Detected	6.3	Not Detected
Methylene Chloride	5.0	Not Detected	17	Not Detected
Methyl tert-butyl ether	2.0	Not Detected	7.2	Not Detected
trans-1,2-Dichloroethene	0.50	Not Detected	2.0	Not Detected
Hexane	0.50	Not Detected	1.8	Not Detected
1,1-Dichloroethane	0.50	Not Detected	2.0	Not Detected
2-Butanone (Methyl Ethyl Ketone)	2.0	Not Detected	5.9	Not Detected
cis-1,2-Dichloroethene	0.50	Not Detected	2.0	Not Detected
Tetrahydrofuran	0.50	Not Detected	1.5	Not Detected
Chloroform	0.50	Not Detected	2.4	Not Detected
1,1,1-Trichloroethane	0.50	Not Detected	2.7	Not Detected
Cyclohexane	0.50	Not Detected	1.7	Not Detected
Carbon Tetrachloride	0.50	Not Detected	3.1	Not Detected
2,2,4-Trimethylpentane	0.50	Not Detected	2.3	Not Detected
Benzene	0.50	Not Detected	1.6	Not Detected
1,2-Dichloroethane	0.50	Not Detected	2.0	Not Detected
Heptane	0.50	Not Detected	2.0	Not Detected
Trichloroethene	0.50	Not Detected	2.7	Not Detected
1,2-Dichloropropane	0.50	Not Detected	2.3	Not Detected
1,4-Dioxane	2.0	Not Detected	7.2	Not Detected
Bromodichloromethane	0.50	Not Detected	3.4	Not Detected
cis-1,3-Dichloropropene	0.50	Not Detected	2.3	Not Detected
4-Methyl-2-pentanone	0.50	Not Detected	2.0	Not Detected
Toluene	0.50	Not Detected	1.9	Not Detected
trans-1,3-Dichloropropene	0.50	Not Detected	2.3	Not Detected
1,1,2-Trichloroethane	0.50	Not Detected	2.7	Not Detected
Tetrachloroethene	0.50	Not Detected	3.4	Not Detected
2-Hexanone	2.0	Not Detected	8.2	Not Detected

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Client Sample ID: Lab Blank

Lab ID#: 2105007A-06A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**a050707**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 5/7/21 12:40 PM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Dibromochloromethane	0.50	Not Detected	4.2	Not Detected
1,2-Dibromoethane (EDB)	0.50	Not Detected	3.8	Not Detected
Chlorobenzene	0.50	Not Detected	2.3	Not Detected
Ethyl Benzene	0.50	Not Detected	2.2	Not Detected
m,p-Xylene	0.50	Not Detected	2.2	Not Detected
o-Xylene	0.50	Not Detected	2.2	Not Detected
Styrene	0.50	Not Detected	2.1	Not Detected
Bromoform	0.50	Not Detected	5.2	Not Detected
Cumene	0.50	Not Detected	2.4	Not Detected
1,1,2,2-Tetrachloroethane	0.50	Not Detected	3.4	Not Detected
Propylbenzene	0.50	Not Detected	2.4	Not Detected
4-Ethyltoluene	0.50	Not Detected	2.4	Not Detected
1,3,5-Trimethylbenzene	0.50	Not Detected	2.4	Not Detected
1,2,4-Trimethylbenzene	0.50	Not Detected	2.4	Not Detected
1,3-Dichlorobenzene	0.50	Not Detected	3.0	Not Detected
1,4-Dichlorobenzene	0.50	Not Detected	3.0	Not Detected
alpha-Chlorotoluene	0.50	Not Detected	2.6	Not Detected
1,2-Dichlorobenzene	0.50	Not Detected	3.0	Not Detected
1,2,4-Trichlorobenzene	2.0	Not Detected	15	Not Detected
Hexachlorobutadiene	2.0	Not Detected	21	Not Detected
Naphthalene	1.0	Not Detected	5.2	Not Detected
TPH ref. to Gasoline (MW=100)	50	Not Detected	200	Not Detected

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
Toluene-d8	110	70-130
1,2-Dichloroethane-d4	98	70-130
4-Bromofluorobenzene	94	70-130

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Client Sample ID: CCV

Lab ID#: 2105007A-07A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**a050702**	**Date of Collection: NA**
Dil. Factor:	**1.00**	**Date of Analysis: 5/7/21 09:57 AM**

Compound	%Recovery
Freon 12	79
Freon 114	81
Chloromethane	87
Vinyl Chloride	92
1,3-Butadiene	99
Bromomethane	81
Chloroethane	91
Freon 11	77
Ethanol	111
Freon 113	79
1,1-Dichloroethene	87
Acetone	94
2-Propanol	107
Carbon Disulfide	90
3-Chloropropene	91
Methylene Chloride	104
Methyl tert-butyl ether	90
trans-1,2-Dichloroethene	92
Hexane	111
1,1-Dichloroethane	96
2-Butanone (Methyl Ethyl Ketone)	95
cis-1,2-Dichloroethene	96
Tetrahydrofuran	128
Chloroform	93
1,1,1-Trichloroethane	91
Cyclohexane	105
Carbon Tetrachloride	93
2,2,4-Trimethylpentane	124
Benzene	99
1,2-Dichloroethane	86
Heptane	106
Trichloroethene	96
1,2-Dichloropropane	106
1,4-Dioxane	106
Bromodichloromethane	98
cis-1,3-Dichloropropene	109
4-Methyl-2-pentanone	128
Toluene	104
trans-1,3-Dichloropropene	100
1,1,2-Trichloroethane	100
Tetrachloroethene	89
2-Hexanone	123

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Client Sample ID: CCV

Lab ID#: 2105007A-07A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**a050702**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 5/7/21 09:57 AM**	

Compound	%Recovery
Dibromochloromethane	96
1,2-Dibromoethane (EDB)	98
Chlorobenzene	97
Ethyl Benzene	100
m,p-Xylene	107
o-Xylene	112
Styrene	112
Bromoform	103
Cumene	105
1,1,2,2-Tetrachloroethane	104
Propylbenzene	104
4-Ethyltoluene	106
1,3,5-Trimethylbenzene	105
1,2,4-Trimethylbenzene	108
1,3-Dichlorobenzene	98
1,4-Dichlorobenzene	98
alpha-Chlorotoluene	119
1,2-Dichlorobenzene	99
1,2,4-Trichlorobenzene	100
Hexachlorobutadiene	105
Naphthalene	119
TPH ref. to Gasoline (MW=100)	100

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
Toluene-d8	108	70-130
1,2-Dichloroethane-d4	97	70-130
4-Bromofluorobenzene	97	70-130

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Client Sample ID: LCS

Lab ID#: 2105007A-08A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**a050703**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 5/7/21 10:23 AM**	

Compound	%Recovery	Method Limits
Freon 12	79	70-130
Freon 114	82	70-130
Chloromethane	89	70-130
Vinyl Chloride	92	70-130
1,3-Butadiene	99	70-130
Bromomethane	81	70-130
Chloroethane	92	70-130
Freon 11	79	70-130
Ethanol	97	70-130
Freon 113	82	70-130
1,1-Dichloroethene	87	70-130
Acetone	92	70-130
2-Propanol	110	70-130
Carbon Disulfide	92	70-130
3-Chloropropene	91	70-130
Methylene Chloride	104	70-130
Methyl tert-butyl ether	91	70-130
trans-1,2-Dichloroethene	91	70-130
Hexane	112	70-130
1,1-Dichloroethane	97	70-130
2-Butanone (Methyl Ethyl Ketone)	99	70-130
cis-1,2-Dichloroethene	98	70-130
Tetrahydrofuran	131 Q	70-130
Chloroform	95	70-130
1,1,1-Trichloroethane	94	70-130
Cyclohexane	108	70-130
Carbon Tetrachloride	94	70-130
2,2,4-Trimethylpentane	122	70-130
Benzene	99	70-130
1,2-Dichloroethane	87	70-130
Heptane	106	70-130
Trichloroethene	96	70-130
1,2-Dichloropropane	107	70-130
1,4-Dioxane	102	70-130
Bromodichloromethane	98	70-130
cis-1,3-Dichloropropene	109	70-130
4-Methyl-2-pentanone	122	70-130
Toluene	104	70-130
trans-1,3-Dichloropropene	98	70-130
1,1,2-Trichloroethane	99	70-130
Tetrachloroethene	89	70-130
2-Hexanone	115	70-130

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Client Sample ID: LCS

Lab ID#: 2105007A-08A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**a050703**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 5/7/21 10:23 AM**	

Compound	%Recovery	Method Limits
Dibromochloromethane	95	70-130
1,2-Dibromoethane (EDB)	97	70-130
Chlorobenzene	98	70-130
Ethyl Benzene	100	70-130
m,p-Xylene	110	70-130
o-Xylene	109	70-130
Styrene	112	70-130
Bromoform	101	70-130
Cumene	102	70-130
1,1,2,2-Tetrachloroethane	105	70-130
Propylbenzene	103	70-130
4-Ethyltoluene	108	70-130
1,3,5-Trimethylbenzene	105	70-130
1,2,4-Trimethylbenzene	108	70-130
1,3-Dichlorobenzene	98	70-130
1,4-Dichlorobenzene	99	70-130
alpha-Chlorotoluene	112	70-130
1,2-Dichlorobenzene	100	70-130
1,2,4-Trichlorobenzene	111	70-130
Hexachlorobutadiene	125	70-130
Naphthalene	115	60-140
TPH ref. to Gasoline (MW=100)	Not Spiked	

Q = Exceeds Quality Control limits.

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
Toluene-d8	109	70-130
1,2-Dichloroethane-d4	97	70-130
4-Bromofluorobenzene	99	70-130

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Client Sample ID: LCSD

Lab ID#: 2105007A-08AA

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**a050704**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 5/7/21 10:48 AM**	

Compound	%Recovery	Method Limits
Freon 12	79	70-130
Freon 114	82	70-130
Chloromethane	88	70-130
Vinyl Chloride	93	70-130
1,3-Butadiene	100	70-130
Bromomethane	83	70-130
Chloroethane	92	70-130
Freon 11	78	70-130
Ethanol	100	70-130
Freon 113	82	70-130
1,1-Dichloroethene	90	70-130
Acetone	94	70-130
2-Propanol	108	70-130
Carbon Disulfide	92	70-130
3-Chloropropene	95	70-130
Methylene Chloride	103	70-130
Methyl tert-butyl ether	91	70-130
trans-1,2-Dichloroethene	89	70-130
Hexane	110	70-130
1,1-Dichloroethane	99	70-130
2-Butanone (Methyl Ethyl Ketone)	99	70-130
cis-1,2-Dichloroethene	101	70-130
Tetrahydrofuran	129	70-130
Chloroform	95	70-130
1,1,1-Trichloroethane	93	70-130
Cyclohexane	107	70-130
Carbon Tetrachloride	95	70-130
2,2,4-Trimethylpentane	123	70-130
Benzene	100	70-130
1,2-Dichloroethane	87	70-130
Heptane	107	70-130
Trichloroethene	98	70-130
1,2-Dichloropropane	106	70-130
1,4-Dioxane	103	70-130
Bromodichloromethane	97	70-130
cis-1,3-Dichloropropene	107	70-130
4-Methyl-2-pentanone	122	70-130
Toluene	103	70-130
trans-1,3-Dichloropropene	100	70-130
1,1,2-Trichloroethane	100	70-130
Tetrachloroethene	90	70-130
2-Hexanone	114	70-130

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Client Sample ID: LCSD

Lab ID#: 2105007A-08AA

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**a050704**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 5/7/21 10:48 AM**	

Compound	%Recovery	Method Limits
Dibromochloromethane	95	70-130
1,2-Dibromoethane (EDB)	97	70-130
Chlorobenzene	98	70-130
Ethyl Benzene	100	70-130
m,p-Xylene	110	70-130
o-Xylene	112	70-130
Styrene	110	70-130
Bromoform	102	70-130
Cumene	103	70-130
1,1,2,2-Tetrachloroethane	105	70-130
Propylbenzene	103	70-130
4-Ethyltoluene	109	70-130
1,3,5-Trimethylbenzene	105	70-130
1,2,4-Trimethylbenzene	110	70-130
1,3-Dichlorobenzene	99	70-130
1,4-Dichlorobenzene	100	70-130
alpha-Chlorotoluene	114	70-130
1,2-Dichlorobenzene	101	70-130
1,2,4-Trichlorobenzene	115	70-130
Hexachlorobutadiene	129	70-130
Naphthalene	121	60-140
TPH ref. to Gasoline (MW=100)	Not Spiked	

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
Toluene-d8	108	70-130
1,2-Dichloroethane-d4	97	70-130
4-Bromofluorobenzene	98	70-130

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6/14/2021
Mr. Chris Rhea
EES Environmental Consulting, Inc.
240 N Broadway
Suite 203
Portland OR 97227

Project Name: PP#112
Project #: 1179-04
Workorder #: 2106026A

Dear Mr. Chris Rhea

The following report includes the data for the above referenced project for sample(s) received on 6/1/2021 at Eurofins Air Toxics LLC.

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

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

Regards,

Monica Tran

Project Manager

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WORK ORDER #: 2106026A

Work Order Summary

CLIENT:	Mr. Chris Rhea EES Environmental Consulting, Inc. 240 N Broadway Suite 203 Portland, OR 97227	**BILL TO:**	Mr. Chris Rhea EES Environmental Consulting, Inc. 240 N Broadway Suite 203 Portland, OR 97227
PHONE:	530-847-2740	**P.O. #**	
FAX:		**PROJECT #**	1179-04 PP#112
DATE RECEIVED:	06/01/2021	**CONTACT:**	Monica Tran
DATE COMPLETED:	06/14/2021		

FRACTION #	NAME	TEST	RECEIPT VAC./PRES.	FINAL PRESSURE
01A	SVE-6	TO-15	7.1 "Hg	9.9 psi
02A	SVE-7	TO-15	5.9 "Hg	9.8 psi
03A	SVE-8	TO-15	6.7 "Hg	9.9 psi
04A	MANIFOLD	TO-15	7.6 "Hg	9.9 psi
05A	Lab Blank	TO-15	NA	NA
06A	CCV	TO-15	NA	NA
07A	LCS	TO-15	NA	NA
07AA	LCSD	TO-15	NA	NA

CERTIFIED BY: Heidi Hayes DATE: 06/14/21

Technical Director

Certification numbers: AZ Licensure AZ0775, FL NELAP – E87680, LA NELAP – 02089, NH NELAP - 209220, NJ NELAP - CA016, NY NELAP - 11291, TX NELAP - T104704434-20-16, UT NELAP – CA009332020-12, VA NELAP - 10615, WA NELAP - C935
Name of Accreditation Body: NELAP/ORELAP (Oregon Environmental Laboratory Accreditation Program)
Accreditation number: CA300005-014, Effective date: 10/18/2020, Expiration date: 10/17/2021.
Eurofins Air Toxics, LLC certifies that the test results contained in this report meet all requirements of the NELAC standards

180 BLUE RAVINE ROAD, SUITE B FOLSOM, CA - 95630
(916) 985-1000 . (800) 985-5955 . FAX (916) 351-8279

LABORATORY NARRATIVE
EPA Method TO-15
EES Environmental Consulting, Inc.
Workorder# 2106026A

Four 1 Liter Summa Canister samples were received on June 01, 2021. The laboratory performed analysis via EPA Method TO-15 using GC/MS in the full scan mode.

Receiving Notes

There were no receiving discrepancies.

Analytical Notes

A single point calibration for TPH referenced to Gasoline was performed for each daily analytical batch. Recovery is reported as 100% in the associated results for each CCV.

Definition of Data Qualifying Flags

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

B - Compound present in laboratory blank greater than reporting limit (background subtraction not performed).

J - Estimated value.

E - Exceeds instrument calibration range.

S - Saturated peak.

Q - Exceeds quality control limits.

U - Compound analyzed for but not detected above the reporting limit, LOD, or MDL value. See data page for project specific U-flag definition.

UJ- Non-detected compound associated with low bias in the CCV

N - The identification is based on presumptive evidence.

M - Reported value may be biased due to apparent matrix interferences.

CN - See Case Narrative.

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

a-File was requantified

b-File was quantified by a second column and detector

r1-File was requantified for the purpose of reissue

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

Client Sample ID: SVE-6

Lab ID#: 2106026A-01A

No Detections Were Found.

Client Sample ID: SVE-7

Lab ID#: 2106026A-02A

No Detections Were Found.

Client Sample ID: SVE-8

Lab ID#: 2106026A-03A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
TPH ref. to Gasoline (MW=100)	110	810	440	3300

Client Sample ID: MANIFOLD

Lab ID#: 2106026A-04A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Acetone	11	14	27	33

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Client Sample ID: SVE-6

Lab ID#: 2106026A-01A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**p061013**	**Date of Collection: 5/27/21 12:12:00 PM**	
Dil. Factor:	**2.19**	**Date of Analysis: 6/10/21 04:46 PM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Benzene	1.1	Not Detected	3.5	Not Detected
Ethyl Benzene	1.1	Not Detected	4.8	Not Detected
Toluene	1.1	Not Detected	4.1	Not Detected
m,p-Xylene	1.1	Not Detected	4.8	Not Detected
o-Xylene	1.1	Not Detected	4.8	Not Detected
Naphthalene	2.2	Not Detected	11	Not Detected
TPH ref. to Gasoline (MW=100)	110	Not Detected	450	Not Detected

Container Type: 1 Liter Summa Canister

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	105	70-130
Toluene-d8	101	70-130
4-Bromofluorobenzene	98	70-130

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Client Sample ID: SVE-7

Lab ID#: 2106026A-02A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**p061014**	**Date of Collection:**	**5/27/21 12:17:00 PM**
Dil. Factor:	**2.07**	**Date of Analysis:**	**6/10/21 05:15 PM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Benzene	1.0	Not Detected	3.3	Not Detected
Ethyl Benzene	1.0	Not Detected	4.5	Not Detected
Toluene	1.0	Not Detected	3.9	Not Detected
m,p-Xylene	1.0	Not Detected	4.5	Not Detected
o-Xylene	1.0	Not Detected	4.5	Not Detected
Naphthalene	2.1	Not Detected	11	Not Detected
TPH ref. to Gasoline (MW=100)	100	Not Detected	420	Not Detected

Container Type: 1 Liter Summa Canister

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	105	70-130
Toluene-d8	100	70-130
4-Bromofluorobenzene	100	70-130

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Client Sample ID: SVE-8

Lab ID#: 2106026A-03A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**p061015**	**Date of Collection:**	**5/27/21 12:26:00 PM**
Dil. Factor:	**2.15**	**Date of Analysis:**	**6/10/21 05:44 PM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Benzene	1.1	Not Detected	3.4	Not Detected
Ethyl Benzene	1.1	Not Detected	4.7	Not Detected
Toluene	1.1	Not Detected	4.0	Not Detected
m,p-Xylene	1.1	Not Detected	4.7	Not Detected
o-Xylene	1.1	Not Detected	4.7	Not Detected
Naphthalene	2.2	Not Detected	11	Not Detected
TPH ref. to Gasoline (MW=100)	110	810	440	3300

Container Type: 1 Liter Summa Canister

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	105	70-130
Toluene-d8	101	70-130
4-Bromofluorobenzene	98	70-130

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Client Sample ID: MANIFOLD

Lab ID#: 2106026A-04A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**p061021**	**Date of Collection:**	**5/27/21 12:32:00 PM**
Dil. Factor:	**2.24**	**Date of Analysis:**	**6/11/21 12:21 AM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	1.1	Not Detected	5.5	Not Detected
Freon 114	1.1	Not Detected	7.8	Not Detected
Chloromethane	11	Not Detected	23	Not Detected
Vinyl Chloride	1.1	Not Detected	2.9	Not Detected
1,3-Butadiene	1.1	Not Detected	2.5	Not Detected
Bromomethane	11	Not Detected	43	Not Detected
Chloroethane	4.5	Not Detected	12	Not Detected
Freon 11	1.1	Not Detected	6.3	Not Detected
Ethanol	11	Not Detected	21	Not Detected
Freon 113	1.1	Not Detected	8.6	Not Detected
1,1-Dichloroethene	1.1	Not Detected	4.4	Not Detected
Acetone	11	14	27	33
2-Propanol	4.5	Not Detected	11	Not Detected
Carbon Disulfide	4.5	Not Detected	14	Not Detected
3-Chloropropene	4.5	Not Detected	14	Not Detected
Methylene Chloride	11	Not Detected	39	Not Detected
Methyl tert-butyl ether	4.5	Not Detected	16	Not Detected
trans-1,2-Dichloroethene	1.1	Not Detected	4.4	Not Detected
Hexane	1.1	Not Detected	3.9	Not Detected
1,1-Dichloroethane	1.1	Not Detected	4.5	Not Detected
2-Butanone (Methyl Ethyl Ketone)	4.5	Not Detected	13	Not Detected
cis-1,2-Dichloroethene	1.1	Not Detected	4.4	Not Detected
Tetrahydrofuran	1.1	Not Detected	3.3	Not Detected
Chloroform	1.1	Not Detected	5.5	Not Detected
1,1,1-Trichloroethane	1.1	Not Detected	6.1	Not Detected
Cyclohexane	1.1	Not Detected	3.8	Not Detected
Carbon Tetrachloride	1.1	Not Detected	7.0	Not Detected
2,2,4-Trimethylpentane	1.1	Not Detected	5.2	Not Detected
Benzene	1.1	Not Detected	3.6	Not Detected
1,2-Dichloroethane	1.1	Not Detected	4.5	Not Detected
Heptane	1.1	Not Detected	4.6	Not Detected
Trichloroethene	1.1	Not Detected	6.0	Not Detected
1,2-Dichloropropane	1.1	Not Detected	5.2	Not Detected
1,4-Dioxane	4.5	Not Detected	16	Not Detected
Bromodichloromethane	1.1	Not Detected	7.5	Not Detected
cis-1,3-Dichloropropene	1.1	Not Detected	5.1	Not Detected
4-Methyl-2-pentanone	1.1	Not Detected	4.6	Not Detected
Toluene	1.1	Not Detected	4.2	Not Detected
trans-1,3-Dichloropropene	1.1	Not Detected	5.1	Not Detected
1,1,2-Trichloroethane	1.1	Not Detected	6.1	Not Detected
Tetrachloroethene	1.1	Not Detected	7.6	Not Detected
2-Hexanone	4.5	Not Detected	18	Not Detected

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Client Sample ID: MANIFOLD

Lab ID#: 2106026A-04A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**p061021**	**Date of Collection:**	**5/27/21 12:32:00 PM**
Dil. Factor:	**2.24**	**Date of Analysis:**	**6/11/21 12:21 AM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Dibromochloromethane	1.1	Not Detected	9.5	Not Detected
1,2-Dibromoethane (EDB)	1.1	Not Detected	8.6	Not Detected
Chlorobenzene	1.1	Not Detected	5.2	Not Detected
Ethyl Benzene	1.1	Not Detected	4.9	Not Detected
m,p-Xylene	1.1	Not Detected	4.9	Not Detected
o-Xylene	1.1	Not Detected	4.9	Not Detected
Styrene	1.1	Not Detected	4.8	Not Detected
Bromoform	1.1	Not Detected	12	Not Detected
Cumene	1.1	Not Detected	5.5	Not Detected
1,1,2,2-Tetrachloroethane	1.1	Not Detected	7.7	Not Detected
Propylbenzene	1.1	Not Detected	5.5	Not Detected
4-Ethyltoluene	1.1	Not Detected	5.5	Not Detected
1,3,5-Trimethylbenzene	1.1	Not Detected	5.5	Not Detected
1,2,4-Trimethylbenzene	1.1	Not Detected	5.5	Not Detected
1,3-Dichlorobenzene	1.1	Not Detected	6.7	Not Detected
1,4-Dichlorobenzene	1.1	Not Detected	6.7	Not Detected
alpha-Chlorotoluene	1.1	Not Detected	5.8	Not Detected
1,2-Dichlorobenzene	1.1	Not Detected	6.7	Not Detected
1,2,4-Trichlorobenzene	4.5	Not Detected	33	Not Detected
Hexachlorobutadiene	4.5	Not Detected	48	Not Detected
Naphthalene	2.2	Not Detected	12	Not Detected
TPH ref. to Gasoline (MW=100)	110	Not Detected	460	Not Detected

Container Type: 1 Liter Summa Canister

Surrogates	%Recovery	Method Limits
Toluene-d8	100	70-130
1,2-Dichloroethane-d4	108	70-130
4-Bromofluorobenzene	98	70-130

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Client Sample ID: Lab Blank

Lab ID#: 2106026A-05A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**p061006**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 6/10/21 12:39 PM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.50	Not Detected	2.5	Not Detected
Freon 114	0.50	Not Detected	3.5	Not Detected
Chloromethane	5.0	Not Detected	10	Not Detected
Vinyl Chloride	0.50	Not Detected	1.3	Not Detected
1,3-Butadiene	0.50	Not Detected	1.1	Not Detected
Bromomethane	5.0	Not Detected	19	Not Detected
Chloroethane	2.0	Not Detected	5.3	Not Detected
Freon 11	0.50	Not Detected	2.8	Not Detected
Ethanol	5.0	Not Detected	9.4	Not Detected
Freon 113	0.50	Not Detected	3.8	Not Detected
1,1-Dichloroethene	0.50	Not Detected	2.0	Not Detected
Acetone	5.0	Not Detected	12	Not Detected
2-Propanol	2.0	Not Detected	4.9	Not Detected
Carbon Disulfide	2.0	Not Detected	6.2	Not Detected
3-Chloropropene	2.0	Not Detected	6.3	Not Detected
Methylene Chloride	5.0	Not Detected	17	Not Detected
Methyl tert-butyl ether	2.0	Not Detected	7.2	Not Detected
trans-1,2-Dichloroethene	0.50	Not Detected	2.0	Not Detected
Hexane	0.50	Not Detected	1.8	Not Detected
1,1-Dichloroethane	0.50	Not Detected	2.0	Not Detected
2-Butanone (Methyl Ethyl Ketone)	2.0	Not Detected	5.9	Not Detected
cis-1,2-Dichloroethene	0.50	Not Detected	2.0	Not Detected
Tetrahydrofuran	0.50	Not Detected	1.5	Not Detected
Chloroform	0.50	Not Detected	2.4	Not Detected
1,1,1-Trichloroethane	0.50	Not Detected	2.7	Not Detected
Cyclohexane	0.50	Not Detected	1.7	Not Detected
Carbon Tetrachloride	0.50	Not Detected	3.1	Not Detected
2,2,4-Trimethylpentane	0.50	Not Detected	2.3	Not Detected
Benzene	0.50	Not Detected	1.6	Not Detected
1,2-Dichloroethane	0.50	Not Detected	2.0	Not Detected
Heptane	0.50	Not Detected	2.0	Not Detected
Trichloroethene	0.50	Not Detected	2.7	Not Detected
1,2-Dichloropropane	0.50	Not Detected	2.3	Not Detected
1,4-Dioxane	2.0	Not Detected	7.2	Not Detected
Bromodichloromethane	0.50	Not Detected	3.4	Not Detected
cis-1,3-Dichloropropene	0.50	Not Detected	2.3	Not Detected
4-Methyl-2-pentanone	0.50	Not Detected	2.0	Not Detected
Toluene	0.50	Not Detected	1.9	Not Detected
trans-1,3-Dichloropropene	0.50	Not Detected	2.3	Not Detected
1,1,2-Trichloroethane	0.50	Not Detected	2.7	Not Detected
Tetrachloroethene	0.50	Not Detected	3.4	Not Detected
2-Hexanone	2.0	Not Detected	8.2	Not Detected

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Client Sample ID: Lab Blank

Lab ID#: 2106026A-05A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**p061006**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 6/10/21 12:39 PM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Dibromochloromethane	0.50	Not Detected	4.2	Not Detected
1,2-Dibromoethane (EDB)	0.50	Not Detected	3.8	Not Detected
Chlorobenzene	0.50	Not Detected	2.3	Not Detected
Ethyl Benzene	0.50	Not Detected	2.2	Not Detected
m,p-Xylene	0.50	Not Detected	2.2	Not Detected
o-Xylene	0.50	Not Detected	2.2	Not Detected
Styrene	0.50	Not Detected	2.1	Not Detected
Bromoform	0.50	Not Detected	5.2	Not Detected
Cumene	0.50	Not Detected	2.4	Not Detected
1,1,2,2-Tetrachloroethane	0.50	Not Detected	3.4	Not Detected
Propylbenzene	0.50	Not Detected	2.4	Not Detected
4-Ethyltoluene	0.50	Not Detected	2.4	Not Detected
1,3,5-Trimethylbenzene	0.50	Not Detected	2.4	Not Detected
1,2,4-Trimethylbenzene	0.50	Not Detected	2.4	Not Detected
1,3-Dichlorobenzene	0.50	Not Detected	3.0	Not Detected
1,4-Dichlorobenzene	0.50	Not Detected	3.0	Not Detected
alpha-Chlorotoluene	0.50	Not Detected	2.6	Not Detected
1,2-Dichlorobenzene	0.50	Not Detected	3.0	Not Detected
1,2,4-Trichlorobenzene	2.0	Not Detected	15	Not Detected
Hexachlorobutadiene	2.0	Not Detected	21	Not Detected
Naphthalene	1.0	Not Detected	5.2	Not Detected
TPH ref. to Gasoline (MW=100)	50	Not Detected	200	Not Detected

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
Toluene-d8	100	70-130
1,2-Dichloroethane-d4	106	70-130
4-Bromofluorobenzene	96	70-130

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Client Sample ID: CCV

Lab ID#: 2106026A-06A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**p061002**	**Date of Collection: NA**
Dil. Factor:	**1.00**	**Date of Analysis: 6/10/21 10:07 AM**

Compound	%Recovery
Freon 12	109
Freon 114	105
Chloromethane	102
Vinyl Chloride	94
1,3-Butadiene	113
Bromomethane	98
Chloroethane	96
Freon 11	107
Ethanol	100
Freon 113	98
1,1-Dichloroethene	93
Acetone	101
2-Propanol	103
Carbon Disulfide	96
3-Chloropropene	92
Methylene Chloride	110
Methyl tert-butyl ether	92
trans-1,2-Dichloroethene	97
Hexane	97
1,1-Dichloroethane	104
2-Butanone (Methyl Ethyl Ketone)	94
cis-1,2-Dichloroethene	101
Tetrahydrofuran	106
Chloroform	106
1,1,1-Trichloroethane	99
Cyclohexane	92
Carbon Tetrachloride	104
2,2,4-Trimethylpentane	97
Benzene	102
1,2-Dichloroethane	115
Heptane	96
Trichloroethene	103
1,2-Dichloropropane	100
1,4-Dioxane	95
Bromodichloromethane	109
cis-1,3-Dichloropropene	102
4-Methyl-2-pentanone	95
Toluene	100
trans-1,3-Dichloropropene	104
1,1,2-Trichloroethane	103
Tetrachloroethene	102
2-Hexanone	100

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Client Sample ID: CCV

Lab ID#: 2106026A-06A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**p061002**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 6/10/21 10:07 AM**	

Compound	%Recovery
Dibromochloromethane	106
1,2-Dibromoethane (EDB)	105
Chlorobenzene	101
Ethyl Benzene	98
m,p-Xylene	96
o-Xylene	97
Styrene	94
Bromoform	102
Cumene	97
1,1,2,2-Tetrachloroethane	101
Propylbenzene	97
4-Ethyltoluene	96
1,3,5-Trimethylbenzene	99
1,2,4-Trimethylbenzene	96
1,3-Dichlorobenzene	101
1,4-Dichlorobenzene	101
alpha-Chlorotoluene	98
1,2-Dichlorobenzene	99
1,2,4-Trichlorobenzene	97
Hexachlorobutadiene	98
Naphthalene	86
TPH ref. to Gasoline (MW=100)	100

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
Toluene-d8	100	70-130
1,2-Dichloroethane-d4	106	70-130
4-Bromofluorobenzene	102	70-130

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Client Sample ID: LCS

Lab ID#: 2106026A-07A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**p061003**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 6/10/21 10:36 AM**	

Compound	%Recovery	Method Limits
Freon 12	110	70-130
Freon 114	106	70-130
Chloromethane	102	70-130
Vinyl Chloride	94	70-130
1,3-Butadiene	113	70-130
Bromomethane	97	70-130
Chloroethane	98	70-130
Freon 11	108	70-130
Ethanol	85	70-130
Freon 113	100	70-130
1,1-Dichloroethene	102	70-130
Acetone	102	70-130
2-Propanol	103	70-130
Carbon Disulfide	97	70-130
3-Chloropropene	96	70-130
Methylene Chloride	110	70-130
Methyl tert-butyl ether	94	70-130
trans-1,2-Dichloroethene	98	70-130
Hexane	99	70-130
1,1-Dichloroethane	106	70-130
2-Butanone (Methyl Ethyl Ketone)	96	70-130
cis-1,2-Dichloroethene	102	70-130
Tetrahydrofuran	104	70-130
Chloroform	106	70-130
1,1,1-Trichloroethane	102	70-130
Cyclohexane	94	70-130
Carbon Tetrachloride	107	70-130
2,2,4-Trimethylpentane	98	70-130
Benzene	103	70-130
1,2-Dichloroethane	114	70-130
Heptane	98	70-130
Trichloroethene	106	70-130
1,2-Dichloropropane	100	70-130
1,4-Dioxane	92	70-130
Bromodichloromethane	110	70-130
cis-1,3-Dichloropropene	103	70-130
4-Methyl-2-pentanone	91	70-130
Toluene	100	70-130
trans-1,3-Dichloropropene	105	70-130
1,1,2-Trichloroethane	103	70-130
Tetrachloroethene	103	70-130
2-Hexanone	92	70-130

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Client Sample ID: LCS

Lab ID#: 2106026A-07A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**p061003**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 6/10/21 10:36 AM**	

Compound	%Recovery	Method Limits
Dibromochloromethane	108	70-130
1,2-Dibromoethane (EDB)	106	70-130
Chlorobenzene	102	70-130
Ethyl Benzene	100	70-130
m,p-Xylene	99	70-130
o-Xylene	98	70-130
Styrene	94	70-130
Bromoform	105	70-130
Cumene	97	70-130
1,1,2,2-Tetrachloroethane	102	70-130
Propylbenzene	98	70-130
4-Ethyltoluene	97	70-130
1,3,5-Trimethylbenzene	99	70-130
1,2,4-Trimethylbenzene	98	70-130
1,3-Dichlorobenzene	102	70-130
1,4-Dichlorobenzene	104	70-130
alpha-Chlorotoluene	98	70-130
1,2-Dichlorobenzene	100	70-130
1,2,4-Trichlorobenzene	112	70-130
Hexachlorobutadiene	114	70-130
Naphthalene	97	60-140
TPH ref. to Gasoline (MW=100)	Not Spiked	

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
Toluene-d8	100	70-130
1,2-Dichloroethane-d4	107	70-130
4-Bromofluorobenzene	102	70-130

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Client Sample ID: LCSD

Lab ID#: 2106026A-07AA

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**p061004**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 6/10/21 11:05 AM**	

Compound	%Recovery	Method Limits
Freon 12	110	70-130
Freon 114	110	70-130
Chloromethane	102	70-130
Vinyl Chloride	101	70-130
1,3-Butadiene	117	70-130
Bromomethane	95	70-130
Chloroethane	99	70-130
Freon 11	110	70-130
Ethanol	85	70-130
Freon 113	102	70-130
1,1-Dichloroethene	102	70-130
Acetone	103	70-130
2-Propanol	104	70-130
Carbon Disulfide	99	70-130
3-Chloropropene	94	70-130
Methylene Chloride	111	70-130
Methyl tert-butyl ether	96	70-130
trans-1,2-Dichloroethene	100	70-130
Hexane	101	70-130
1,1-Dichloroethane	106	70-130
2-Butanone (Methyl Ethyl Ketone)	97	70-130
cis-1,2-Dichloroethene	105	70-130
Tetrahydrofuran	107	70-130
Chloroform	108	70-130
1,1,1-Trichloroethane	104	70-130
Cyclohexane	95	70-130
Carbon Tetrachloride	108	70-130
2,2,4-Trimethylpentane	100	70-130
Benzene	103	70-130
1,2-Dichloroethane	115	70-130
Heptane	100	70-130
Trichloroethene	106	70-130
1,2-Dichloropropane	102	70-130
1,4-Dioxane	94	70-130
Bromodichloromethane	110	70-130
cis-1,3-Dichloropropene	105	70-130
4-Methyl-2-pentanone	91	70-130
Toluene	100	70-130
trans-1,3-Dichloropropene	104	70-130
1,1,2-Trichloroethane	101	70-130
Tetrachloroethene	102	70-130
2-Hexanone	91	70-130

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Client Sample ID: LCSD

Lab ID#: 2106026A-07AA

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**p061004**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 6/10/21 11:05 AM**	

Compound	%Recovery	Method Limits
Dibromochloromethane	107	70-130
1,2-Dibromoethane (EDB)	105	70-130
Chlorobenzene	101	70-130
Ethyl Benzene	99	70-130
m,p-Xylene	98	70-130
o-Xylene	96	70-130
Styrene	93	70-130
Bromoform	104	70-130
Cumene	95	70-130
1,1,2,2-Tetrachloroethane	101	70-130
Propylbenzene	98	70-130
4-Ethyltoluene	97	70-130
1,3,5-Trimethylbenzene	97	70-130
1,2,4-Trimethylbenzene	98	70-130
1,3-Dichlorobenzene	101	70-130
1,4-Dichlorobenzene	102	70-130
alpha-Chlorotoluene	98	70-130
1,2-Dichlorobenzene	99	70-130
1,2,4-Trichlorobenzene	118	70-130
Hexachlorobutadiene	122	70-130
Naphthalene	104	60-140
TPH ref. to Gasoline (MW=100)	Not Spiked	

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
Toluene-d8	101	70-130
1,2-Dichloroethane-d4	107	70-130
4-Bromofluorobenzene	100	70-130

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7/26/2021
Mr. Chris Rhea
EES Environmental Consulting, Inc.
240 N Broadway
Suite 203
Portland OR 97227

Project Name: PP #112
Project #: 1179-04
Workorder #: 2107262

Dear Mr. Chris Rhea

The following report includes the data for the above referenced project for sample(s) received on 7/13/2021 at Eurofins Air Toxics LLC.

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

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

Regards,

Monica Tran

Project Manager

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WORK ORDER #: 2107262

Work Order Summary

CLIENT:	Mr. Chris Rhea EES Environmental Consulting, Inc. 240 N Broadway Suite 203 Portland, OR 97227	**BILL TO:**	Mr. Chris Rhea EES Environmental Consulting, Inc. 240 N Broadway Suite 203 Portland, OR 97227
PHONE:	530-847-2740	**P.O. #**	
FAX:		**PROJECT #**	1179-04 PP #112
DATE RECEIVED:	07/13/2021	**CONTACT:**	Monica Tran
DATE COMPLETED:	07/26/2021		

FRACTION #	NAME	TEST	RECEIPT VAC./PRES.	FINAL PRESSURE
01A	SVE-6 A	TO-15	5.5 "Hg	10 psi
02A	SVE-7 A	TO-15	7.0 "Hg	10 psi
03A	SVE-8 A	TO-15	5.5 "Hg	10 psi
04A	SVE-6 B	TO-15	6.5 "Hg	10.4 psi
05A	SVE-7 B	TO-15	6.5 "Hg	10 psi
06A	SVE-8 B	TO-15	7.0 "Hg	10 psi
07A	MANIFOLD	TO-15	7.5 "Hg	10 psi
08A	Lab Blank	TO-15	NA	NA
09A	CCV	TO-15	NA	NA
10A	LCS	TO-15	NA	NA
10AA	LCSD	TO-15	NA	NA

CERTIFIED BY: Heidi Hayes DATE: 07/26/21

Technical Director

Certification numbers: AZ Licensure AZ0775, FL NELAP – E87680, LA NELAP – 02089, NH NELAP - 209220, NJ NELAP - CA016, NY NELAP - 11291, TX NELAP - T104704434-20-16, UT NELAP – CA009332020-12, VA NELAP - 10615, WA NELAP - C935
Name of Accreditation Body: NELAP/ORELAP (Oregon Environmental Laboratory Accreditation Program)
Accreditation number: CA300005-014, Effective date: 10/18/2020, Expiration date: 10/17/2021.
Eurofins Air Toxics, LLC certifies that the test results contained in this report meet all requirements of the NELAC standards

180 BLUE RAVINE ROAD, SUITE B FOLSOM, CA - 95630
(916) 985-1000 . (800) 985-5955 . FAX (916) 351-8279

LABORATORY NARRATIVE
EPA Method TO-15
EES Environmental Consulting, Inc.
Workorder# 2107262

Seven 1 Liter Summa Canister samples were received on July 13, 2021. The laboratory performed analysis via EPA Method TO-15 using GC/MS in the full scan mode.

Receiving Notes

There were no receiving discrepancies.

Analytical Notes

A single point calibration for TPH referenced to Gasoline was performed for each daily analytical batch. Recovery is reported as 100% in the associated results for each CCV.

The hydrocarbon profile present in samples SVE-6 A, SVE-7 A, and SVE-8 A did not resemble that of commercial gasoline. Results were calculated using the response factor derived from the gasoline calibration.

Dilution was performed on sample SVE-8 A due to the presence of high level target species.

Definition of Data Qualifying Flags

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

B - Compound present in laboratory blank greater than reporting limit (background subtraction not performed).

J - Estimated value.

E - Exceeds instrument calibration range.

S - Saturated peak.

Q - Exceeds quality control limits.

U - Compound analyzed for but not detected above the reporting limit, LOD, or MDL value. See data page for project specific U-flag definition.

UJ- Non-detected compound associated with low bias in the CCV

N - The identification is based on presumptive evidence.

M - Reported value may be biased due to apparent matrix interferences.

CN - See Case Narrative.

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

a-File was requantified

b-File was quantified by a second column and detector

r1-File was requantified for the purpose of reissue

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

Client Sample ID: SVE-6 A

Lab ID#: 2107262-01A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Benzene	1.0	10	3.3	32
Toluene	1.0	8.8	3.9	33
TPH ref. to Gasoline (MW=100)	100	270	420	1100

Client Sample ID: SVE-7 A

Lab ID#: 2107262-02A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Benzene	1.1	1.3	3.5	4.1
Toluene	1.1	1.1	4.1	4.1
TPH ref. to Gasoline (MW=100)	110	190	450	780

Client Sample ID: SVE-8 A

Lab ID#: 2107262-03A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
TPH ref. to Gasoline (MW=100)	150	1400	600	5700

Client Sample ID: SVE-6 B

Lab ID#: 2107262-04A

No Detections Were Found.

Client Sample ID: SVE-7 B

Lab ID#: 2107262-05A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
TPH ref. to Gasoline (MW=100)	110	730	440	3000

Client Sample ID: SVE-8 B

Lab ID#: 2107262-06A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)

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

Client Sample ID: SVE-8 B

Lab ID#: 2107262-06A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
TPH ref. to Gasoline (MW=100)	110	7800	450	32000

Client Sample ID: MANIFOLD

Lab ID#: 2107262-07A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Acetone	11	27	27	64
2-Propanol	4.5	5.1	11	12
Tetrahydrofuran	1.1	17	3.3	50
TPH ref. to Gasoline (MW=100)	110	180	460	740

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Client Sample ID: SVE-6 A

Lab ID#: 2107262-01A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**p072510**	**Date of Collection: 7/9/21 12:13:00 PM**	
Dil. Factor:	**2.06**	**Date of Analysis: 7/25/21 04:26 PM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Benzene	1.0	10	3.3	32
Ethyl Benzene	1.0	Not Detected	4.5	Not Detected
Toluene	1.0	8.8	3.9	33
m,p-Xylene	1.0	Not Detected	4.5	Not Detected
o-Xylene	1.0	Not Detected	4.5	Not Detected
Naphthalene	2.1	Not Detected	11	Not Detected
TPH ref. to Gasoline (MW=100)	100	270	420	1100

Container Type: 1 Liter Summa Canister

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	105	70-130
Toluene-d8	98	70-130
4-Bromofluorobenzene	98	70-130

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Client Sample ID: SVE-7 A

Lab ID#: 2107262-02A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**p072511**	**Date of Collection: 7/9/21 12:13:00 PM**	
Dil. Factor:	**2.19**	**Date of Analysis: 7/25/21 04:55 PM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Benzene	1.1	1.3	3.5	4.1
Ethyl Benzene	1.1	Not Detected	4.8	Not Detected
Toluene	1.1	1.1	4.1	4.1
m,p-Xylene	1.1	Not Detected	4.8	Not Detected
o-Xylene	1.1	Not Detected	4.8	Not Detected
Naphthalene	2.2	Not Detected	11	Not Detected
TPH ref. to Gasoline (MW=100)	110	190	450	780

Container Type: 1 Liter Summa Canister

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	105	70-130
Toluene-d8	100	70-130
4-Bromofluorobenzene	99	70-130

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Client Sample ID: SVE-8 A

Lab ID#: 2107262-03A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**p072515**	**Date of Collection: 7/9/21 12:13:00 PM**	
Dil. Factor:	**2.94**	**Date of Analysis: 7/25/21 06:53 PM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Benzene	1.5	Not Detected	4.7	Not Detected
Ethyl Benzene	1.5	Not Detected	6.4	Not Detected
Toluene	1.5	Not Detected	5.5	Not Detected
m,p-Xylene	1.5	Not Detected	6.4	Not Detected
o-Xylene	1.5	Not Detected	6.4	Not Detected
Naphthalene	2.9	Not Detected	15	Not Detected
TPH ref. to Gasoline (MW=100)	150	1400	600	5700

Container Type: 1 Liter Summa Canister

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	104	70-130
Toluene-d8	102	70-130
4-Bromofluorobenzene	99	70-130

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Client Sample ID: SVE-6 B

Lab ID#: 2107262-04A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**p072512**	**Date of Collection: 7/9/21 2:40:00 PM**	
Dil. Factor:	**2.18**	**Date of Analysis: 7/25/21 05:24 PM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Benzene	1.1	Not Detected	3.5	Not Detected
Ethyl Benzene	1.1	Not Detected	4.7	Not Detected
Toluene	1.1	Not Detected	4.1	Not Detected
m,p-Xylene	1.1	Not Detected	4.7	Not Detected
o-Xylene	1.1	Not Detected	4.7	Not Detected
Naphthalene	2.2	Not Detected	11	Not Detected
TPH ref. to Gasoline (MW=100)	110	Not Detected	440	Not Detected

Container Type: 1 Liter Summa Canister

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	104	70-130
Toluene-d8	100	70-130
4-Bromofluorobenzene	100	70-130

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Client Sample ID: SVE-7 B

Lab ID#: 2107262-05A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**p072513**	**Date of Collection: 7/9/21 2:42:00 PM**	
Dil. Factor:	**2.14**	**Date of Analysis: 7/25/21 05:54 PM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Benzene	1.1	Not Detected	3.4	Not Detected
Ethyl Benzene	1.1	Not Detected	4.6	Not Detected
Toluene	1.1	Not Detected	4.0	Not Detected
m,p-Xylene	1.1	Not Detected	4.6	Not Detected
o-Xylene	1.1	Not Detected	4.6	Not Detected
Naphthalene	2.1	Not Detected	11	Not Detected
TPH ref. to Gasoline (MW=100)	110	730	440	3000

Container Type: 1 Liter Summa Canister

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	106	70-130
Toluene-d8	101	70-130
4-Bromofluorobenzene	99	70-130

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Client Sample ID: SVE-8 B

Lab ID#: 2107262-06A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**p072516**	**Date of Collection: 7/9/21 2:43:00 PM**	
Dil. Factor:	**2.19**	**Date of Analysis: 7/25/21 07:22 PM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Benzene	1.1	Not Detected	3.5	Not Detected
Ethyl Benzene	1.1	Not Detected	4.8	Not Detected
Toluene	1.1	Not Detected	4.1	Not Detected
m,p-Xylene	1.1	Not Detected	4.8	Not Detected
o-Xylene	1.1	Not Detected	4.8	Not Detected
Naphthalene	2.2	Not Detected	11	Not Detected
TPH ref. to Gasoline (MW=100)	110	7800	450	32000

Container Type: 1 Liter Summa Canister

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	106	70-130
Toluene-d8	102	70-130
4-Bromofluorobenzene	102	70-130

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Client Sample ID: MANIFOLD

Lab ID#: 2107262-07A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**p072514**	**Date of Collection:**	**7/9/21 2:43:00 PM**
Dil. Factor:	**2.24**	**Date of Analysis:**	**7/25/21 06:23 PM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	1.1	Not Detected	5.5	Not Detected
Freon 114	1.1	Not Detected	7.8	Not Detected
Chloromethane	11	Not Detected	23	Not Detected
Vinyl Chloride	1.1	Not Detected	2.9	Not Detected
1,3-Butadiene	1.1	Not Detected	2.5	Not Detected
Bromomethane	11	Not Detected	43	Not Detected
Chloroethane	4.5	Not Detected	12	Not Detected
Freon 11	1.1	Not Detected	6.3	Not Detected
Ethanol	11	Not Detected	21	Not Detected
Freon 113	1.1	Not Detected	8.6	Not Detected
1,1-Dichloroethene	1.1	Not Detected	4.4	Not Detected
Acetone	11	27	27	64
2-Propanol	4.5	5.1	11	12
Carbon Disulfide	4.5	Not Detected	14	Not Detected
3-Chloropropene	4.5	Not Detected	14	Not Detected
Methylene Chloride	11	Not Detected	39	Not Detected
Methyl tert-butyl ether	4.5	Not Detected	16	Not Detected
trans-1,2-Dichloroethene	1.1	Not Detected	4.4	Not Detected
Hexane	1.1	Not Detected	3.9	Not Detected
1,1-Dichloroethane	1.1	Not Detected	4.5	Not Detected
2-Butanone (Methyl Ethyl Ketone)	4.5	Not Detected	13	Not Detected
cis-1,2-Dichloroethene	1.1	Not Detected	4.4	Not Detected
Tetrahydrofuran	1.1	17	3.3	50
Chloroform	1.1	Not Detected	5.5	Not Detected
1,1,1-Trichloroethane	1.1	Not Detected	6.1	Not Detected
Cyclohexane	1.1	Not Detected	3.8	Not Detected
Carbon Tetrachloride	1.1	Not Detected	7.0	Not Detected
2,2,4-Trimethylpentane	1.1	Not Detected	5.2	Not Detected
Benzene	1.1	Not Detected	3.6	Not Detected
1,2-Dichloroethane	1.1	Not Detected	4.5	Not Detected
Heptane	1.1	Not Detected	4.6	Not Detected
Trichloroethene	1.1	Not Detected	6.0	Not Detected
1,2-Dichloropropane	1.1	Not Detected	5.2	Not Detected
1,4-Dioxane	4.5	Not Detected	16	Not Detected
Bromodichloromethane	1.1	Not Detected	7.5	Not Detected
cis-1,3-Dichloropropene	1.1	Not Detected	5.1	Not Detected
4-Methyl-2-pentanone	1.1	Not Detected	4.6	Not Detected
Toluene	1.1	Not Detected	4.2	Not Detected
trans-1,3-Dichloropropene	1.1	Not Detected	5.1	Not Detected
1,1,2-Trichloroethane	1.1	Not Detected	6.1	Not Detected
Tetrachloroethene	1.1	Not Detected	7.6	Not Detected
2-Hexanone	4.5	Not Detected	18	Not Detected

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Client Sample ID: MANIFOLD

Lab ID#: 2107262-07A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**p072514**	**Date of Collection: 7/9/21 2:43:00 PM**	
Dil. Factor:	**2.24**	**Date of Analysis: 7/25/21 06:23 PM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Dibromochloromethane	1.1	Not Detected	9.5	Not Detected
1,2-Dibromoethane (EDB)	1.1	Not Detected	8.6	Not Detected
Chlorobenzene	1.1	Not Detected	5.2	Not Detected
Ethyl Benzene	1.1	Not Detected	4.9	Not Detected
m,p-Xylene	1.1	Not Detected	4.9	Not Detected
o-Xylene	1.1	Not Detected	4.9	Not Detected
Styrene	1.1	Not Detected	4.8	Not Detected
Bromoform	1.1	Not Detected	12	Not Detected
Cumene	1.1	Not Detected	5.5	Not Detected
1,1,2,2-Tetrachloroethane	1.1	Not Detected	7.7	Not Detected
Propylbenzene	1.1	Not Detected	5.5	Not Detected
4-Ethyltoluene	1.1	Not Detected	5.5	Not Detected
1,3,5-Trimethylbenzene	1.1	Not Detected	5.5	Not Detected
1,2,4-Trimethylbenzene	1.1	Not Detected	5.5	Not Detected
1,3-Dichlorobenzene	1.1	Not Detected	6.7	Not Detected
1,4-Dichlorobenzene	1.1	Not Detected	6.7	Not Detected
alpha-Chlorotoluene	1.1	Not Detected	5.8	Not Detected
1,2-Dichlorobenzene	1.1	Not Detected	6.7	Not Detected
1,2,4-Trichlorobenzene	4.5	Not Detected	33	Not Detected
Hexachlorobutadiene	4.5	Not Detected	48	Not Detected
Naphthalene	2.2	Not Detected	12	Not Detected
TPH ref. to Gasoline (MW=100)	110	180	460	740

Container Type: 1 Liter Summa Canister

Surrogates	%Recovery	Method Limits
Toluene-d8	101	70-130
1,2-Dichloroethane-d4	104	70-130
4-Bromofluorobenzene	98	70-130

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Client Sample ID: Lab Blank

Lab ID#: 2107262-08A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**p072507**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 7/25/21 02:25 PM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.50	Not Detected	2.5	Not Detected
Freon 114	0.50	Not Detected	3.5	Not Detected
Chloromethane	5.0	Not Detected	10	Not Detected
Vinyl Chloride	0.50	Not Detected	1.3	Not Detected
1,3-Butadiene	0.50	Not Detected	1.1	Not Detected
Bromomethane	5.0	Not Detected	19	Not Detected
Chloroethane	2.0	Not Detected	5.3	Not Detected
Freon 11	0.50	Not Detected	2.8	Not Detected
Ethanol	5.0	Not Detected	9.4	Not Detected
Freon 113	0.50	Not Detected	3.8	Not Detected
1,1-Dichloroethene	0.50	Not Detected	2.0	Not Detected
Acetone	5.0	Not Detected	12	Not Detected
2-Propanol	2.0	Not Detected	4.9	Not Detected
Carbon Disulfide	2.0	Not Detected	6.2	Not Detected
3-Chloropropene	2.0	Not Detected	6.3	Not Detected
Methylene Chloride	5.0	Not Detected	17	Not Detected
Methyl tert-butyl ether	2.0	Not Detected	7.2	Not Detected
trans-1,2-Dichloroethene	0.50	Not Detected	2.0	Not Detected
Hexane	0.50	Not Detected	1.8	Not Detected
1,1-Dichloroethane	0.50	Not Detected	2.0	Not Detected
2-Butanone (Methyl Ethyl Ketone)	2.0	Not Detected	5.9	Not Detected
cis-1,2-Dichloroethene	0.50	Not Detected	2.0	Not Detected
Tetrahydrofuran	0.50	Not Detected	1.5	Not Detected
Chloroform	0.50	Not Detected	2.4	Not Detected
1,1,1-Trichloroethane	0.50	Not Detected	2.7	Not Detected
Cyclohexane	0.50	Not Detected	1.7	Not Detected
Carbon Tetrachloride	0.50	Not Detected	3.1	Not Detected
2,2,4-Trimethylpentane	0.50	Not Detected	2.3	Not Detected
Benzene	0.50	Not Detected	1.6	Not Detected
1,2-Dichloroethane	0.50	Not Detected	2.0	Not Detected
Heptane	0.50	Not Detected	2.0	Not Detected
Trichloroethene	0.50	Not Detected	2.7	Not Detected
1,2-Dichloropropane	0.50	Not Detected	2.3	Not Detected
1,4-Dioxane	2.0	Not Detected	7.2	Not Detected
Bromodichloromethane	0.50	Not Detected	3.4	Not Detected
cis-1,3-Dichloropropene	0.50	Not Detected	2.3	Not Detected
4-Methyl-2-pentanone	0.50	Not Detected	2.0	Not Detected
Toluene	0.50	Not Detected	1.9	Not Detected
trans-1,3-Dichloropropene	0.50	Not Detected	2.3	Not Detected
1,1,2-Trichloroethane	0.50	Not Detected	2.7	Not Detected
Tetrachloroethene	0.50	Not Detected	3.4	Not Detected
2-Hexanone	2.0	Not Detected	8.2	Not Detected

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Client Sample ID: Lab Blank

Lab ID#: 2107262-08A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**p072507**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 7/25/21 02:25 PM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Dibromochloromethane	0.50	Not Detected	4.2	Not Detected
1,2-Dibromoethane (EDB)	0.50	Not Detected	3.8	Not Detected
Chlorobenzene	0.50	Not Detected	2.3	Not Detected
Ethyl Benzene	0.50	Not Detected	2.2	Not Detected
m,p-Xylene	0.50	Not Detected	2.2	Not Detected
o-Xylene	0.50	Not Detected	2.2	Not Detected
Styrene	0.50	Not Detected	2.1	Not Detected
Bromoform	0.50	Not Detected	5.2	Not Detected
Cumene	0.50	Not Detected	2.4	Not Detected
1,1,2,2-Tetrachloroethane	0.50	Not Detected	3.4	Not Detected
Propylbenzene	0.50	Not Detected	2.4	Not Detected
4-Ethyltoluene	0.50	Not Detected	2.4	Not Detected
1,3,5-Trimethylbenzene	0.50	Not Detected	2.4	Not Detected
1,2,4-Trimethylbenzene	0.50	Not Detected	2.4	Not Detected
1,3-Dichlorobenzene	0.50	Not Detected	3.0	Not Detected
1,4-Dichlorobenzene	0.50	Not Detected	3.0	Not Detected
alpha-Chlorotoluene	0.50	Not Detected	2.6	Not Detected
1,2-Dichlorobenzene	0.50	Not Detected	3.0	Not Detected
1,2,4-Trichlorobenzene	2.0	Not Detected	15	Not Detected
Hexachlorobutadiene	2.0	Not Detected	21	Not Detected
Naphthalene	1.0	Not Detected	5.2	Not Detected
TPH ref. to Gasoline (MW=100)	50	Not Detected	200	Not Detected

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
Toluene-d8	100	70-130
1,2-Dichloroethane-d4	103	70-130
4-Bromofluorobenzene	99	70-130

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Client Sample ID: CCV

Lab ID#: 2107262-09A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**p072502**	**Date of Collection: NA**
Dil. Factor:	**1.00**	**Date of Analysis: 7/25/21 11:00 AM**

Compound	%Recovery
Freon 12	106
Freon 114	103
Chloromethane	114
Vinyl Chloride	94
1,3-Butadiene	115
Bromomethane	93
Chloroethane	95
Freon 11	104
Ethanol	104
Freon 113	97
1,1-Dichloroethene	91
Acetone	102
2-Propanol	109
Carbon Disulfide	94
3-Chloropropene	88
Methylene Chloride	118
Methyl tert-butyl ether	90
trans-1,2-Dichloroethene	97
Hexane	99
1,1-Dichloroethane	104
2-Butanone (Methyl Ethyl Ketone)	97
cis-1,2-Dichloroethene	100
Tetrahydrofuran	114
Chloroform	106
1,1,1-Trichloroethane	100
Cyclohexane	93
Carbon Tetrachloride	109
2,2,4-Trimethylpentane	103
Benzene	104
1,2-Dichloroethane	117
Heptane	100
Trichloroethene	106
1,2-Dichloropropane	105
1,4-Dioxane	102
Bromodichloromethane	112
cis-1,3-Dichloropropene	106
4-Methyl-2-pentanone	106
Toluene	102
trans-1,3-Dichloropropene	107
1,1,2-Trichloroethane	105
Tetrachloroethene	104
2-Hexanone	110

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Client Sample ID: CCV

Lab ID#: 2107262-09A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**p072502**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 7/25/21 11:00 AM**	

Compound	%Recovery
Dibromochloromethane	110
1,2-Dibromoethane (EDB)	108
Chlorobenzene	103
Ethyl Benzene	100
m,p-Xylene	99
o-Xylene	99
Styrene	97
Bromoform	105
Cumene	99
1,1,2,2-Tetrachloroethane	105
Propylbenzene	101
4-Ethyltoluene	99
1,3,5-Trimethylbenzene	102
1,2,4-Trimethylbenzene	98
1,3-Dichlorobenzene	104
1,4-Dichlorobenzene	103
alpha-Chlorotoluene	99
1,2-Dichlorobenzene	102
1,2,4-Trichlorobenzene	98
Hexachlorobutadiene	102
Naphthalene	88
TPH ref. to Gasoline (MW=100)	100

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
Toluene-d8	99	70-130
1,2-Dichloroethane-d4	105	70-130
4-Bromofluorobenzene	101	70-130

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Client Sample ID: LCS

Lab ID#: 2107262-10A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**p072503**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 7/25/21 11:29 AM**	

Compound	%Recovery	Method Limits
Freon 12	109	70-130
Freon 114	107	70-130
Chloromethane	108	70-130
Vinyl Chloride	96	70-130
1,3-Butadiene	119	70-130
Bromomethane	92	70-130
Chloroethane	96	70-130
Freon 11	108	70-130
Ethanol	91	70-130
Freon 113	100	70-130
1,1-Dichloroethene	97	70-130
Acetone	106	70-130
2-Propanol	113	70-130
Carbon Disulfide	97	70-130
3-Chloropropene	93	70-130
Methylene Chloride	120	70-130
Methyl tert-butyl ether	93	70-130
trans-1,2-Dichloroethene	97	70-130
Hexane	103	70-130
1,1-Dichloroethane	106	70-130
2-Butanone (Methyl Ethyl Ketone)	97	70-130
cis-1,2-Dichloroethene	103	70-130
Tetrahydrofuran	117	70-130
Chloroform	108	70-130
1,1,1-Trichloroethane	102	70-130
Cyclohexane	95	70-130
Carbon Tetrachloride	112	70-130
2,2,4-Trimethylpentane	105	70-130
Benzene	103	70-130
1,2-Dichloroethane	115	70-130
Heptane	99	70-130
Trichloroethene	107	70-130
1,2-Dichloropropane	105	70-130
1,4-Dioxane	98	70-130
Bromodichloromethane	111	70-130
cis-1,3-Dichloropropene	104	70-130
4-Methyl-2-pentanone	101	70-130
Toluene	101	70-130
trans-1,3-Dichloropropene	107	70-130
1,1,2-Trichloroethane	104	70-130
Tetrachloroethene	105	70-130
2-Hexanone	102	70-130

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Client Sample ID: LCS

Lab ID#: 2107262-10A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**p072503**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 7/25/21 11:29 AM**	

Compound	%Recovery	Method Limits
Dibromochloromethane	110	70-130
1,2-Dibromoethane (EDB)	109	70-130
Chlorobenzene	103	70-130
Ethyl Benzene	100	70-130
m,p-Xylene	100	70-130
o-Xylene	98	70-130
Styrene	94	70-130
Bromoform	107	70-130
Cumene	97	70-130
1,1,2,2-Tetrachloroethane	104	70-130
Propylbenzene	101	70-130
4-Ethyltoluene	99	70-130
1,3,5-Trimethylbenzene	100	70-130
1,2,4-Trimethylbenzene	100	70-130
1,3-Dichlorobenzene	104	70-130
1,4-Dichlorobenzene	104	70-130
alpha-Chlorotoluene	98	70-130
1,2-Dichlorobenzene	102	70-130
1,2,4-Trichlorobenzene	118	70-130
Hexachlorobutadiene	125	70-130
Naphthalene	104	60-140
TPH ref. to Gasoline (MW=100)	Not Spiked	

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
Toluene-d8	100	70-130
1,2-Dichloroethane-d4	106	70-130
4-Bromofluorobenzene	103	70-130

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Client Sample ID: LCSD

Lab ID#: 2107262-10AA

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**p072504**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 7/25/21 11:58 AM**	

Compound	%Recovery	Method Limits
Freon 12	106	70-130
Freon 114	101	70-130
Chloromethane	104	70-130
Vinyl Chloride	96	70-130
1,3-Butadiene	114	70-130
Bromomethane	91	70-130
Chloroethane	95	70-130
Freon 11	107	70-130
Ethanol	92	70-130
Freon 113	99	70-130
1,1-Dichloroethene	97	70-130
Acetone	102	70-130
2-Propanol	110	70-130
Carbon Disulfide	95	70-130
3-Chloropropene	91	70-130
Methylene Chloride	116	70-130
Methyl tert-butyl ether	91	70-130
trans-1,2-Dichloroethene	96	70-130
Hexane	101	70-130
1,1-Dichloroethane	105	70-130
2-Butanone (Methyl Ethyl Ketone)	96	70-130
cis-1,2-Dichloroethene	103	70-130
Tetrahydrofuran	115	70-130
Chloroform	105	70-130
1,1,1-Trichloroethane	101	70-130
Cyclohexane	95	70-130
Carbon Tetrachloride	110	70-130
2,2,4-Trimethylpentane	102	70-130
Benzene	102	70-130
1,2-Dichloroethane	115	70-130
Heptane	99	70-130
Trichloroethene	107	70-130
1,2-Dichloropropane	104	70-130
1,4-Dioxane	96	70-130
Bromodichloromethane	111	70-130
cis-1,3-Dichloropropene	104	70-130
4-Methyl-2-pentanone	102	70-130
Toluene	100	70-130
trans-1,3-Dichloropropene	105	70-130
1,1,2-Trichloroethane	102	70-130
Tetrachloroethene	104	70-130
2-Hexanone	100	70-130

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Client Sample ID: LCSD

Lab ID#: 2107262-10AA

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**p072504**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 7/25/21 11:58 AM**	

Compound	%Recovery	Method Limits
Dibromochloromethane	108	70-130
1,2-Dibromoethane (EDB)	106	70-130
Chlorobenzene	101	70-130
Ethyl Benzene	98	70-130
m,p-Xylene	99	70-130
o-Xylene	96	70-130
Styrene	93	70-130
Bromoform	106	70-130
Cumene	96	70-130
1,1,2,2-Tetrachloroethane	103	70-130
Propylbenzene	98	70-130
4-Ethyltoluene	98	70-130
1,3,5-Trimethylbenzene	98	70-130
1,2,4-Trimethylbenzene	98	70-130
1,3-Dichlorobenzene	102	70-130
1,4-Dichlorobenzene	102	70-130
alpha-Chlorotoluene	98	70-130
1,2-Dichlorobenzene	100	70-130
1,2,4-Trichlorobenzene	121	70-130
Hexachlorobutadiene	124	70-130
Naphthalene	108	60-140
TPH ref. to Gasoline (MW=100)	Not Spiked	

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
Toluene-d8	102	70-130
1,2-Dichloroethane-d4	106	70-130
4-Bromofluorobenzene	101	70-130

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8/9/2021
Mr. Chris Rhea
EES Environmental Consulting, Inc.
240 N Broadway
Suite 203
Portland OR 97227

Project Name: PP# 112
Project #: 1179-04
Workorder #: 2107646A

Dear Mr. Chris Rhea

The following report includes the data for the above referenced project for sample(s) received on 7/28/2021 at Eurofins Air Toxics LLC.

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

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

Regards,

Monica Tran

Project Manager

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WORK ORDER #: 2107646A

Work Order Summary

CLIENT:	Mr. Chris Rhea EES Environmental Consulting, Inc. 240 N Broadway Suite 203 Portland, OR 97227	**BILL TO:**	Mr. Chris Rhea EES Environmental Consulting, Inc. 240 N Broadway Suite 203 Portland, OR 97227
PHONE:	530-847-2740	**P.O. #**	
FAX:		**PROJECT #**	1179-04 PP# 112
DATE RECEIVED:	07/28/2021	**CONTACT:**	Monica Tran
DATE COMPLETED:	08/09/2021		

FRACTION #	NAME	TEST	RECEIPT VAC./PRES.	FINAL PRESSURE
01A	SVE-6	TO-15	6.1 "Hg	9.9 psi
02A	SVE-7	TO-15	6.5 "Hg	9.9 psi
03A	SVE-8	TO-15	6.3 "Hg	9.9 psi
04A	MANIFOLD	TO-15	6.1 "Hg	9.9 psi
05A	Lab Blank	TO-15	NA	NA
06A	CCV	TO-15	NA	NA
07A	LCS	TO-15	NA	NA
07AA	LCSD	TO-15	NA	NA

CERTIFIED BY: Heidi Hayes DATE: 08/09/21

Technical Director

Certification numbers: AZ Licensure AZ0775, FL NELAP – E87680, LA NELAP – 02089, NH NELAP - 209220, NJ NELAP - CA016, NY NELAP - 11291, TX NELAP - T104704434-20-16, UT NELAP – CA009332020-12, VA NELAP - 10615, WA NELAP - C935
Name of Accreditation Body: NELAP/ORELAP (Oregon Environmental Laboratory Accreditation Program)
Accreditation number: CA300005-014, Effective date: 10/18/2020, Expiration date: 10/17/2021.
Eurofins Air Toxics, LLC certifies that the test results contained in this report meet all requirements of the NELAC standards

180 BLUE RAVINE ROAD, SUITE B FOLSOM, CA - 95630
(916) 985-1000 . (800) 985-5955 . FAX (916) 351-8279

LABORATORY NARRATIVE
EPA Method TO-15
EES Environmental Consulting, Inc.
Workorder# 2107646A

Four 1 Liter Summa Canister samples were received on July 28, 2021. The laboratory performed analysis via EPA Method TO-15 using GC/MS in the full scan mode.

Receiving Notes

Samples SVE-6, SVE-7, SVE-8 and MANIFOLD were removed from "Hold" and placed on "Active" status per client request on 07/30/2021.

Analytical Notes

A single point calibration for TPH referenced to Gasoline was performed for each daily analytical batch. Recovery is reported as 100% in the associated results for each CCV.

Definition of Data Qualifying Flags

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

B - Compound present in laboratory blank greater than reporting limit (background subtraction not performed).

J - Estimated value.

E - Exceeds instrument calibration range.

S - Saturated peak.

Q - Exceeds quality control limits.

U - Compound analyzed for but not detected above the reporting limit, LOD, or MDL value. See data page for project specific U-flag definition.

UJ- Non-detected compound associated with low bias in the CCV

N - The identification is based on presumptive evidence.

M - Reported value may be biased due to apparent matrix interferences.

CN - See Case Narrative.

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

a-File was requantified

b-File was quantified by a second column and detector

r1-File was requantified for the purpose of reissue

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

Client Sample ID: SVE-6

Lab ID#: 2107646A-01A

No Detections Were Found.

Client Sample ID: SVE-7

Lab ID#: 2107646A-02A

No Detections Were Found.

Client Sample ID: SVE-8

Lab ID#: 2107646A-03A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
TPH ref. to Gasoline (MW=100)	110	2000	430	8200

Client Sample ID: MANIFOLD

Lab ID#: 2107646A-04A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Acetone	10	21	25	50
2-Propanol	4.2	4.2	10	10

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Client Sample ID: SVE-6

Lab ID#: 2107646A-01A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**3080621**	**Date of Collection:**	**7/24/21 10:55:00 AM**
Dil. Factor:	**2.10**	**Date of Analysis:**	**8/6/21 11:59 PM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Benzene	1.0	Not Detected	3.4	Not Detected
Ethyl Benzene	1.0	Not Detected	4.6	Not Detected
Toluene	1.0	Not Detected	4.0	Not Detected
m,p-Xylene	1.0	Not Detected	4.6	Not Detected
o-Xylene	1.0	Not Detected	4.6	Not Detected
Naphthalene	2.1	Not Detected	11	Not Detected
TPH ref. to Gasoline (MW=100)	100	Not Detected	430	Not Detected

Container Type: 1 Liter Summa Canister

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	92	70-130
Toluene-d8	99	70-130
4-Bromofluorobenzene	98	70-130

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Client Sample ID: SVE-7

Lab ID#: 2107646A-02A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**3080622**	**Date of Collection: 7/24/21 10:57:00 AM**	
Dil. Factor:	**2.14**	**Date of Analysis: 8/7/21 12:28 AM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Benzene	1.1	Not Detected	3.4	Not Detected
Ethyl Benzene	1.1	Not Detected	4.6	Not Detected
Toluene	1.1	Not Detected	4.0	Not Detected
m,p-Xylene	1.1	Not Detected	4.6	Not Detected
o-Xylene	1.1	Not Detected	4.6	Not Detected
Naphthalene	2.1	Not Detected	11	Not Detected
TPH ref. to Gasoline (MW=100)	110	Not Detected	440	Not Detected

Container Type: 1 Liter Summa Canister

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	92	70-130
Toluene-d8	100	70-130
4-Bromofluorobenzene	98	70-130

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Client Sample ID: SVE-8

Lab ID#: 2107646A-03A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**3080623**	**Date of Collection:**	**7/24/21 10:57:00 AM**
Dil. Factor:	**2.12**	**Date of Analysis:**	**8/7/21 12:58 AM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Benzene	1.1	Not Detected	3.4	Not Detected
Ethyl Benzene	1.1	Not Detected	4.6	Not Detected
Toluene	1.1	Not Detected	4.0	Not Detected
m,p-Xylene	1.1	Not Detected	4.6	Not Detected
o-Xylene	1.1	Not Detected	4.6	Not Detected
Naphthalene	2.1	Not Detected	11	Not Detected
TPH ref. to Gasoline (MW=100)	110	2000	430	8200

Container Type: 1 Liter Summa Canister

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	94	70-130
Toluene-d8	102	70-130
4-Bromofluorobenzene	96	70-130

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Client Sample ID: MANIFOLD

Lab ID#: 2107646A-04A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**3080624**	**Date of Collection:**	**7/24/21 11:03:00 AM**
Dil. Factor:	**2.10**	**Date of Analysis:**	**8/7/21 01:27 AM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	1.0	Not Detected	5.2	Not Detected
Freon 114	1.0	Not Detected	7.3	Not Detected
Chloromethane	10	Not Detected	22	Not Detected
Vinyl Chloride	1.0	Not Detected	2.7	Not Detected
1,3-Butadiene	1.0	Not Detected	2.3	Not Detected
Bromomethane	10	Not Detected	41	Not Detected
Chloroethane	4.2	Not Detected	11	Not Detected
Freon 11	1.0	Not Detected	5.9	Not Detected
Ethanol	10	Not Detected	20	Not Detected
Freon 113	1.0	Not Detected	8.0	Not Detected
1,1-Dichloroethene	1.0	Not Detected	4.2	Not Detected
Acetone	10	21	25	50
2-Propanol	4.2	4.2	10	10
Carbon Disulfide	4.2	Not Detected	13	Not Detected
3-Chloropropene	4.2	Not Detected	13	Not Detected
Methylene Chloride	10	Not Detected	36	Not Detected
Methyl tert-butyl ether	4.2	Not Detected	15	Not Detected
trans-1,2-Dichloroethene	1.0	Not Detected	4.2	Not Detected
Hexane	1.0	Not Detected	3.7	Not Detected
1,1-Dichloroethane	1.0	Not Detected	4.2	Not Detected
2-Butanone (Methyl Ethyl Ketone)	4.2	Not Detected	12	Not Detected
cis-1,2-Dichloroethene	1.0	Not Detected	4.2	Not Detected
Tetrahydrofuran	1.0	Not Detected	3.1	Not Detected
Chloroform	1.0	Not Detected	5.1	Not Detected
1,1,1-Trichloroethane	1.0	Not Detected	5.7	Not Detected
Cyclohexane	1.0	Not Detected	3.6	Not Detected
Carbon Tetrachloride	1.0	Not Detected	6.6	Not Detected
2,2,4-Trimethylpentane	1.0	Not Detected	4.9	Not Detected
Benzene	1.0	Not Detected	3.4	Not Detected
1,2-Dichloroethane	1.0	Not Detected	4.2	Not Detected
Heptane	1.0	Not Detected	4.3	Not Detected
Trichloroethene	1.0	Not Detected	5.6	Not Detected
1,2-Dichloropropane	1.0	Not Detected	4.8	Not Detected
1,4-Dioxane	4.2	Not Detected	15	Not Detected
Bromodichloromethane	1.0	Not Detected	7.0	Not Detected
cis-1,3-Dichloropropene	1.0	Not Detected	4.8	Not Detected
4-Methyl-2-pentanone	1.0	Not Detected	4.3	Not Detected
Toluene	1.0	Not Detected	4.0	Not Detected
trans-1,3-Dichloropropene	1.0	Not Detected	4.8	Not Detected
1,1,2-Trichloroethane	1.0	Not Detected	5.7	Not Detected
Tetrachloroethene	1.0	Not Detected	7.1	Not Detected
2-Hexanone	4.2	Not Detected	17	Not Detected

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Client Sample ID: MANIFOLD

Lab ID#: 2107646A-04A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**3080624**	**Date of Collection: 7/24/21 11:03:00 AM**	
Dil. Factor:	**2.10**	**Date of Analysis: 8/7/21 01:27 AM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Dibromochloromethane	1.0	Not Detected	8.9	Not Detected
1,2-Dibromoethane (EDB)	1.0	Not Detected	8.1	Not Detected
Chlorobenzene	1.0	Not Detected	4.8	Not Detected
Ethyl Benzene	1.0	Not Detected	4.6	Not Detected
m,p-Xylene	1.0	Not Detected	4.6	Not Detected
o-Xylene	1.0	Not Detected	4.6	Not Detected
Styrene	1.0	Not Detected	4.5	Not Detected
Bromoform	1.0	Not Detected	11	Not Detected
Cumene	1.0	Not Detected	5.2	Not Detected
1,1,2,2-Tetrachloroethane	1.0	Not Detected	7.2	Not Detected
Propylbenzene	1.0	Not Detected	5.2	Not Detected
4-Ethyltoluene	1.0	Not Detected	5.2	Not Detected
1,3,5-Trimethylbenzene	1.0	Not Detected	5.2	Not Detected
1,2,4-Trimethylbenzene	1.0	Not Detected	5.2	Not Detected
1,3-Dichlorobenzene	1.0	Not Detected	6.3	Not Detected
1,4-Dichlorobenzene	1.0	Not Detected	6.3	Not Detected
alpha-Chlorotoluene	1.0	Not Detected	5.4	Not Detected
1,2-Dichlorobenzene	1.0	Not Detected	6.3	Not Detected
1,2,4-Trichlorobenzene	4.2	Not Detected	31	Not Detected
Hexachlorobutadiene	4.2	Not Detected	45	Not Detected
Naphthalene	2.1	Not Detected	11	Not Detected
TPH ref. to Gasoline (MW=100)	100	Not Detected	430	Not Detected

Container Type: 1 Liter Summa Canister

Surrogates	%Recovery	Method Limits
Toluene-d8	99	70-130
1,2-Dichloroethane-d4	94	70-130
4-Bromofluorobenzene	97	70-130

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Client Sample ID: Lab Blank

Lab ID#: 2107646A-05A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**3080606**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 8/6/21 01:18 PM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.50	Not Detected	2.5	Not Detected
Freon 114	0.50	Not Detected	3.5	Not Detected
Chloromethane	5.0	Not Detected	10	Not Detected
Vinyl Chloride	0.50	Not Detected	1.3	Not Detected
1,3-Butadiene	0.50	Not Detected	1.1	Not Detected
Bromomethane	5.0	Not Detected	19	Not Detected
Chloroethane	2.0	Not Detected	5.3	Not Detected
Freon 11	0.50	Not Detected	2.8	Not Detected
Ethanol	5.0	Not Detected	9.4	Not Detected
Freon 113	0.50	Not Detected	3.8	Not Detected
1,1-Dichloroethene	0.50	Not Detected	2.0	Not Detected
Acetone	5.0	Not Detected	12	Not Detected
2-Propanol	2.0	Not Detected	4.9	Not Detected
Carbon Disulfide	2.0	Not Detected	6.2	Not Detected
3-Chloropropene	2.0	Not Detected	6.3	Not Detected
Methylene Chloride	5.0	Not Detected	17	Not Detected
Methyl tert-butyl ether	2.0	Not Detected	7.2	Not Detected
trans-1,2-Dichloroethene	0.50	Not Detected	2.0	Not Detected
Hexane	0.50	Not Detected	1.8	Not Detected
1,1-Dichloroethane	0.50	Not Detected	2.0	Not Detected
2-Butanone (Methyl Ethyl Ketone)	2.0	Not Detected	5.9	Not Detected
cis-1,2-Dichloroethene	0.50	Not Detected	2.0	Not Detected
Tetrahydrofuran	0.50	Not Detected	1.5	Not Detected
Chloroform	0.50	Not Detected	2.4	Not Detected
1,1,1-Trichloroethane	0.50	Not Detected	2.7	Not Detected
Cyclohexane	0.50	Not Detected	1.7	Not Detected
Carbon Tetrachloride	0.50	Not Detected	3.1	Not Detected
2,2,4-Trimethylpentane	0.50	Not Detected	2.3	Not Detected
Benzene	0.50	Not Detected	1.6	Not Detected
1,2-Dichloroethane	0.50	Not Detected	2.0	Not Detected
Heptane	0.50	Not Detected	2.0	Not Detected
Trichloroethene	0.50	Not Detected	2.7	Not Detected
1,2-Dichloropropane	0.50	Not Detected	2.3	Not Detected
1,4-Dioxane	2.0	Not Detected	7.2	Not Detected
Bromodichloromethane	0.50	Not Detected	3.4	Not Detected
cis-1,3-Dichloropropene	0.50	Not Detected	2.3	Not Detected
4-Methyl-2-pentanone	0.50	Not Detected	2.0	Not Detected
Toluene	0.50	Not Detected	1.9	Not Detected
trans-1,3-Dichloropropene	0.50	Not Detected	2.3	Not Detected
1,1,2-Trichloroethane	0.50	Not Detected	2.7	Not Detected
Tetrachloroethene	0.50	Not Detected	3.4	Not Detected
2-Hexanone	2.0	Not Detected	8.2	Not Detected

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Client Sample ID: Lab Blank

Lab ID#: 2107646A-05A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**3080606**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 8/6/21 01:18 PM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Dibromochloromethane	0.50	Not Detected	4.2	Not Detected
1,2-Dibromoethane (EDB)	0.50	Not Detected	3.8	Not Detected
Chlorobenzene	0.50	Not Detected	2.3	Not Detected
Ethyl Benzene	0.50	Not Detected	2.2	Not Detected
m,p-Xylene	0.50	Not Detected	2.2	Not Detected
o-Xylene	0.50	Not Detected	2.2	Not Detected
Styrene	0.50	Not Detected	2.1	Not Detected
Bromoform	0.50	Not Detected	5.2	Not Detected
Cumene	0.50	Not Detected	2.4	Not Detected
1,1,2,2-Tetrachloroethane	0.50	Not Detected	3.4	Not Detected
Propylbenzene	0.50	Not Detected	2.4	Not Detected
4-Ethyltoluene	0.50	Not Detected	2.4	Not Detected
1,3,5-Trimethylbenzene	0.50	Not Detected	2.4	Not Detected
1,2,4-Trimethylbenzene	0.50	Not Detected	2.4	Not Detected
1,3-Dichlorobenzene	0.50	Not Detected	3.0	Not Detected
1,4-Dichlorobenzene	0.50	Not Detected	3.0	Not Detected
alpha-Chlorotoluene	0.50	Not Detected	2.6	Not Detected
1,2-Dichlorobenzene	0.50	Not Detected	3.0	Not Detected
1,2,4-Trichlorobenzene	2.0	Not Detected	15	Not Detected
Hexachlorobutadiene	2.0	Not Detected	21	Not Detected
Naphthalene	1.0	Not Detected	5.2	Not Detected
TPH ref. to Gasoline (MW=100)	50	Not Detected	200	Not Detected

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
Toluene-d8	95	70-130
1,2-Dichloroethane-d4	90	70-130
4-Bromofluorobenzene	98	70-130

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Client Sample ID: CCV

Lab ID#: 2107646A-06A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**3080602**	**Date of Collection: NA**
Dil. Factor:	**1.00**	**Date of Analysis: 8/6/21 10:18 AM**

Compound	%Recovery
Freon 12	101
Freon 114	108
Chloromethane	110
Vinyl Chloride	92
1,3-Butadiene	91
Bromomethane	102
Chloroethane	108
Freon 11	103
Ethanol	91
Freon 113	104
1,1-Dichloroethene	95
Acetone	104
2-Propanol	96
Carbon Disulfide	104
3-Chloropropene	96
Methylene Chloride	107
Methyl tert-butyl ether	94
trans-1,2-Dichloroethene	95
Hexane	104
1,1-Dichloroethane	103
2-Butanone (Methyl Ethyl Ketone)	105
cis-1,2-Dichloroethene	99
Tetrahydrofuran	106
Chloroform	102
1,1,1-Trichloroethane	96
Cyclohexane	99
Carbon Tetrachloride	108
2,2,4-Trimethylpentane	111
Benzene	109
1,2-Dichloroethane	102
Heptane	101
Trichloroethene	108
1,2-Dichloropropane	97
1,4-Dioxane	104
Bromodichloromethane	102
cis-1,3-Dichloropropene	106
4-Methyl-2-pentanone	104
Toluene	111
trans-1,3-Dichloropropene	106
1,1,2-Trichloroethane	110
Tetrachloroethene	115
2-Hexanone	117

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Client Sample ID: CCV

Lab ID#: 2107646A-06A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**3080602**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 8/6/21 10:18 AM**	

Compound	%Recovery
Dibromochloromethane	117
1,2-Dibromoethane (EDB)	114
Chlorobenzene	112
Ethyl Benzene	114
m,p-Xylene	112
o-Xylene	112
Styrene	112
Bromoform	117
Cumene	112
1,1,2,2-Tetrachloroethane	110
Propylbenzene	114
4-Ethyltoluene	113
1,3,5-Trimethylbenzene	112
1,2,4-Trimethylbenzene	110
1,3-Dichlorobenzene	116
1,4-Dichlorobenzene	113
alpha-Chlorotoluene	106
1,2-Dichlorobenzene	114
1,2,4-Trichlorobenzene	88
Hexachlorobutadiene	91
Naphthalene	64
TPH ref. to Gasoline (MW=100)	100

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
Toluene-d8	99	70-130
1,2-Dichloroethane-d4	90	70-130
4-Bromofluorobenzene	104	70-130

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Client Sample ID: LCS

Lab ID#: 2107646A-07A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**3080603**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 8/6/21 11:17 AM**	

Compound	%Recovery	Method Limits
Freon 12	100	70-130
Freon 114	109	70-130
Chloromethane	101	70-130
Vinyl Chloride	94	70-130
1,3-Butadiene	91	70-130
Bromomethane	104	70-130
Chloroethane	106	70-130
Freon 11	103	70-130
Ethanol	79	70-130
Freon 113	106	70-130
1,1-Dichloroethene	99	70-130
Acetone	103	70-130
2-Propanol	102	70-130
Carbon Disulfide	105	70-130
3-Chloropropene	97	70-130
Methylene Chloride	104	70-130
Methyl tert-butyl ether	95	70-130
trans-1,2-Dichloroethene	96	70-130
Hexane	107	70-130
1,1-Dichloroethane	104	70-130
2-Butanone (Methyl Ethyl Ketone)	105	70-130
cis-1,2-Dichloroethene	104	70-130
Tetrahydrofuran	107	70-130
Chloroform	104	70-130
1,1,1-Trichloroethane	97	70-130
Cyclohexane	102	70-130
Carbon Tetrachloride	108	70-130
2,2,4-Trimethylpentane	110	70-130
Benzene	110	70-130
1,2-Dichloroethane	101	70-130
Heptane	100	70-130
Trichloroethene	107	70-130
1,2-Dichloropropane	91	70-130
1,4-Dioxane	108	70-130
Bromodichloromethane	102	70-130
cis-1,3-Dichloropropene	106	70-130
4-Methyl-2-pentanone	103	70-130
Toluene	108	70-130
trans-1,3-Dichloropropene	106	70-130
1,1,2-Trichloroethane	108	70-130
Tetrachloroethene	114	70-130
2-Hexanone	114	70-130

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Client Sample ID: LCS

Lab ID#: 2107646A-07A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**3080603**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 8/6/21 11:17 AM**	

Compound	%Recovery	Method Limits
Dibromochloromethane	115	70-130
1,2-Dibromoethane (EDB)	112	70-130
Chlorobenzene	111	70-130
Ethyl Benzene	112	70-130
m,p-Xylene	110	70-130
o-Xylene	108	70-130
Styrene	107	70-130
Bromoform	116	70-130
Cumene	106	70-130
1,1,2,2-Tetrachloroethane	109	70-130
Propylbenzene	111	70-130
4-Ethyltoluene	111	70-130
1,3,5-Trimethylbenzene	106	70-130
1,2,4-Trimethylbenzene	108	70-130
1,3-Dichlorobenzene	114	70-130
1,4-Dichlorobenzene	113	70-130
alpha-Chlorotoluene	106	70-130
1,2-Dichlorobenzene	111	70-130
1,2,4-Trichlorobenzene	119	70-130
Hexachlorobutadiene	123	70-130
Naphthalene	91	60-140
TPH ref. to Gasoline (MW=100)	Not Spiked	

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
Toluene-d8	98	70-130
1,2-Dichloroethane-d4	92	70-130
4-Bromofluorobenzene	103	70-130

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Client Sample ID: LCSD

Lab ID#: 2107646A-07AA

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**3080604**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 8/6/21 11:44 AM**	

Compound	%Recovery	Method Limits
Freon 12	100	70-130
Freon 114	108	70-130
Chloromethane	101	70-130
Vinyl Chloride	96	70-130
1,3-Butadiene	97	70-130
Bromomethane	102	70-130
Chloroethane	106	70-130
Freon 11	103	70-130
Ethanol	77	70-130
Freon 113	105	70-130
1,1-Dichloroethene	97	70-130
Acetone	103	70-130
2-Propanol	103	70-130
Carbon Disulfide	104	70-130
3-Chloropropene	98	70-130
Methylene Chloride	102	70-130
Methyl tert-butyl ether	95	70-130
trans-1,2-Dichloroethene	96	70-130
Hexane	106	70-130
1,1-Dichloroethane	103	70-130
2-Butanone (Methyl Ethyl Ketone)	105	70-130
cis-1,2-Dichloroethene	102	70-130
Tetrahydrofuran	106	70-130
Chloroform	103	70-130
1,1,1-Trichloroethane	96	70-130
Cyclohexane	100	70-130
Carbon Tetrachloride	108	70-130
2,2,4-Trimethylpentane	110	70-130
Benzene	109	70-130
1,2-Dichloroethane	101	70-130
Heptane	101	70-130
Trichloroethene	108	70-130
1,2-Dichloropropane	90	70-130
1,4-Dioxane	106	70-130
Bromodichloromethane	101	70-130
cis-1,3-Dichloropropene	105	70-130
4-Methyl-2-pentanone	103	70-130
Toluene	107	70-130
trans-1,3-Dichloropropene	106	70-130
1,1,2-Trichloroethane	107	70-130
Tetrachloroethene	113	70-130
2-Hexanone	113	70-130

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Client Sample ID: LCSD

Lab ID#: 2107646A-07AA

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**3080604**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 8/6/21 11:44 AM**	

Compound	%Recovery	Method Limits
Dibromochloromethane	114	70-130
1,2-Dibromoethane (EDB)	111	70-130
Chlorobenzene	109	70-130
Ethyl Benzene	111	70-130
m,p-Xylene	111	70-130
o-Xylene	108	70-130
Styrene	106	70-130
Bromoform	114	70-130
Cumene	107	70-130
1,1,2,2-Tetrachloroethane	106	70-130
Propylbenzene	110	70-130
4-Ethyltoluene	110	70-130
1,3,5-Trimethylbenzene	107	70-130
1,2,4-Trimethylbenzene	108	70-130
1,3-Dichlorobenzene	112	70-130
1,4-Dichlorobenzene	110	70-130
alpha-Chlorotoluene	105	70-130
1,2-Dichlorobenzene	111	70-130
1,2,4-Trichlorobenzene	123	70-130
Hexachlorobutadiene	128	70-130
Naphthalene	94	60-140
TPH ref. to Gasoline (MW=100)	Not Spiked	

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
Toluene-d8	99	70-130
1,2-Dichloroethane-d4	90	70-130
4-Bromofluorobenzene	102	70-130

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12/21/2021
Ms. Daniele Peters
EES Environmental Consulting, Inc.
240 N Broadway
Suite 203
Portland OR 97227

Project Name: PP#112
Project #: 1179-04
Workorder #: 2112290A

Dear Ms. Daniele Peters

The following report includes the data for the above referenced project for sample(s) received on 12/8/2021 at Eurofins Air Toxics LLC.

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

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

Regards,

Monica Tran

Project Manager

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WORK ORDER #: 2112290A

Work Order Summary

CLIENT:	Ms. Daniele Peters EES Environmental Consulting, Inc. 240 N Broadway Suite 203 Portland, OR 97227	**BILL TO:**	Ms. Daniele Peters EES Environmental Consulting, Inc. 240 N Broadway Suite 203 Portland, OR 97227
PHONE:	530-847-2740	**P.O. #**	
FAX:		**PROJECT #**	1179-04 PP#112
DATE RECEIVED:	12/08/2021	**CONTACT:**	Monica Tran
DATE COMPLETED:	12/21/2021		

FRACTION #	NAME	TEST	RECEIPT VAC./PRES.	FINAL PRESSURE
01A	SVE-6	TO-15	5.3 "Hg	9.9 psi
02A	SVE-7	TO-15	5.1 "Hg	10.1 psi
03A	SVE-8	TO-15	4.7 "Hg	10 psi
04A	MANIFOLD	TO-15	5.9 "Hg	9.8 psi
05A	Lab Blank	TO-15	NA	NA
05B	Lab Blank	TO-15	NA	NA
06A	CCV	TO-15	NA	NA
06B	CCV	TO-15	NA	NA
07A	LCS	TO-15	NA	NA
07AA	LCSD	TO-15	NA	NA
07B	LCS	TO-15	NA	NA
07BB	LCSD	TO-15	NA	NA

CERTIFIED BY:  DATE: 12/21/21

Technical Director

Certification numbers: AZ Licensure AZ0775, FL NELAP – E87680, LA NELAP – 02089, NH NELAP - 209221, NJ NELAP - CA016, NY NELAP - 11291, TX NELAP - T104704434-21-17, UT NELAP – CA009332021-13, VA NELAP - 10615, WA NELAP - C935
Name of Accreditation Body: NELAP/ORELAP (Oregon Environmental Laboratory Accreditation Program)
Accreditation number: CA300005-015, Effective date: 10/18/2021, Expiration date: 10/17/2022.
Eurofins Air Toxics, LLC certifies that the test results contained in this report meet all requirements of the NELAC standards

180 BLUE RAVINE ROAD, SUITE B FOLSOM, CA - 95630
(916) 985-1000 . (800) 985-5955 . FAX (916) 351-8279

LABORATORY NARRATIVE
EPA Method TO-15
EES Environmental Consulting, Inc.
Workorder# 2112290A

Four 1 Liter Summa Canister samples were received on December 08, 2021. The laboratory performed analysis via EPA Method TO-15 using GC/MS in the full scan mode.

Receiving Notes

There were no receiving discrepancies.

Analytical Notes

A single point calibration for TPH referenced to Gasoline was performed for each daily analytical batch. Recovery is reported as 100% in the associated results for each CCV.

Dilution was performed on samples SVE-7 and MANIFOLD due to the presence of high level non-target species.

Definition of Data Qualifying Flags

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

B - Compound present in laboratory blank greater than reporting limit (background subtraction not performed).

J - Estimated value.

E - Exceeds instrument calibration range.

S - Saturated peak.

Q - Exceeds quality control limits.

U - Compound analyzed for but not detected above the reporting limit, LOD, or MDL value. See data page for project specific U-flag definition.

UJ- Non-detected compound associated with low bias in the CCV

N - The identification is based on presumptive evidence.

M - Reported value may be biased due to apparent matrix interferences.

CN - See Case Narrative.

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

a-File was requantified

b-File was quantified by a second column and detector

r1-File was requantified for the purpose of reissue

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

Client Sample ID: SVE-6

Lab ID#: 2112290A-01A

No Detections Were Found.

Client Sample ID: SVE-7

Lab ID#: 2112290A-02A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
TPH ref. to Gasoline (MW=100)	3400	160000	14000	650000

Client Sample ID: SVE-8

Lab ID#: 2112290A-03A

No Detections Were Found.

Client Sample ID: MANIFOLD

Lab ID#: 2112290A-04A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
2,2,4-Trimethylpentane	10	22	48	100
TPH ref. to Gasoline (MW=100)	1000	9000	4200	37000

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Client Sample ID: SVE-6

Lab ID#: 2112290A-01A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**p121907**	**Date of Collection: 12/6/21 2:06:00 PM**	
Dil. Factor:	**2.03**	**Date of Analysis: 12/19/21 02:05 PM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Benzene	1.0	Not Detected	3.2	Not Detected
Ethyl Benzene	1.0	Not Detected	4.4	Not Detected
Toluene	1.0	Not Detected	3.8	Not Detected
m,p-Xylene	1.0	Not Detected	4.4	Not Detected
o-Xylene	1.0	Not Detected	4.4	Not Detected
Naphthalene	2.0	Not Detected	11	Not Detected
TPH ref. to Gasoline (MW=100)	100	Not Detected	420	Not Detected

Container Type: 1 Liter Summa Canister

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	89	70-130
Toluene-d8	99	70-130
4-Bromofluorobenzene	99	70-130

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Client Sample ID: SVE-7

Lab ID#: 2112290A-02A

EPA METHOD TO-15 GC/MS

File Name:	**14121931**	**Date of Collection: 12/6/21 2:15:00 PM**	
Dil. Factor:	**6.77**	**Date of Analysis: 12/20/21 11:21 AM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Benzene	34	Not Detected	110	Not Detected
Toluene	34	Not Detected	130	Not Detected
Ethyl Benzene	34	Not Detected	150	Not Detected
m,p-Xylene	34	Not Detected	150	Not Detected
o-Xylene	34	Not Detected	150	Not Detected
Naphthalene	140	Not Detected	710	Not Detected
TPH ref. to Gasoline (MW=100)	3400	160000	14000	650000

Container Type: 1 Liter Summa Canister

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	109	70-130
Toluene-d8	101	70-130
4-Bromofluorobenzene	88	70-130

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Client Sample ID: SVE-8

Lab ID#: 2112290A-03A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**p121908**	**Date of Collection: 12/6/21 2:26:00 PM**	
Dil. Factor:	**1.99**	**Date of Analysis: 12/19/21 02:34 PM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Benzene	1.0	Not Detected	3.2	Not Detected
Ethyl Benzene	1.0	Not Detected	4.3	Not Detected
Toluene	1.0	Not Detected	3.7	Not Detected
m,p-Xylene	1.0	Not Detected	4.3	Not Detected
o-Xylene	1.0	Not Detected	4.3	Not Detected
Naphthalene	2.0	Not Detected	10	Not Detected
TPH ref. to Gasoline (MW=100)	100	Not Detected	410	Not Detected

Container Type: 1 Liter Summa Canister

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	89	70-130
Toluene-d8	98	70-130
4-Bromofluorobenzene	100	70-130

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Client Sample ID: MANIFOLD

Lab ID#: 2112290A-04A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**p121909**	**Date of Collection: 12/6/21 2:36:00 PM**	
Dil. Factor:	**20.7**	**Date of Analysis: 12/19/21 03:02 PM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	10	Not Detected	51	Not Detected
Freon 114	10	Not Detected	72	Not Detected
Chloromethane	100	Not Detected	210	Not Detected
Vinyl Chloride	10	Not Detected	26	Not Detected
1,3-Butadiene	10	Not Detected	23	Not Detected
Bromomethane	100	Not Detected	400	Not Detected
Chloroethane	41	Not Detected	110	Not Detected
Freon 11	10	Not Detected	58	Not Detected
Ethanol	100	Not Detected	200	Not Detected
Freon 113	10	Not Detected	79	Not Detected
1,1-Dichloroethene	10	Not Detected	41	Not Detected
Acetone	100	Not Detected	240	Not Detected
2-Propanol	41	Not Detected	100	Not Detected
Carbon Disulfide	41	Not Detected	130	Not Detected
3-Chloropropene	41	Not Detected	130	Not Detected
Methylene Chloride	100	Not Detected	360	Not Detected
Methyl tert-butyl ether	41	Not Detected	150	Not Detected
trans-1,2-Dichloroethene	10	Not Detected	41	Not Detected
Hexane	10	Not Detected	36	Not Detected
1,1-Dichloroethane	10	Not Detected	42	Not Detected
2-Butanone (Methyl Ethyl Ketone)	41	Not Detected	120	Not Detected
cis-1,2-Dichloroethene	10	Not Detected	41	Not Detected
Tetrahydrofuran	10	Not Detected	30	Not Detected
Chloroform	10	Not Detected	50	Not Detected
1,1,1-Trichloroethane	10	Not Detected	56	Not Detected
Cyclohexane	10	Not Detected	36	Not Detected
Carbon Tetrachloride	10	Not Detected	65	Not Detected
2,2,4-Trimethylpentane	10	22	48	100
Benzene	10	Not Detected	33	Not Detected
1,2-Dichloroethane	10	Not Detected	42	Not Detected
Heptane	10	Not Detected	42	Not Detected
Trichloroethene	10	Not Detected	56	Not Detected
1,2-Dichloropropane	10	Not Detected	48	Not Detected
1,4-Dioxane	41	Not Detected	150	Not Detected
Bromodichloromethane	10	Not Detected	69	Not Detected
cis-1,3-Dichloropropene	10	Not Detected	47	Not Detected
4-Methyl-2-pentanone	10	Not Detected	42	Not Detected
Toluene	10	Not Detected	39	Not Detected
trans-1,3-Dichloropropene	10	Not Detected	47	Not Detected
1,1,2-Trichloroethane	10	Not Detected	56	Not Detected
Tetrachloroethene	10	Not Detected	70	Not Detected
2-Hexanone	41	Not Detected	170	Not Detected

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Client Sample ID: MANIFOLD

Lab ID#: 2112290A-04A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**p121909**	**Date of Collection: 12/6/21 2:36:00 PM**	
Dil. Factor:	**20.7**	**Date of Analysis: 12/19/21 03:02 PM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Dibromochloromethane	10	Not Detected	88	Not Detected
1,2-Dibromoethane (EDB)	10	Not Detected	80	Not Detected
Chlorobenzene	10	Not Detected	48	Not Detected
Ethyl Benzene	10	Not Detected	45	Not Detected
m,p-Xylene	10	Not Detected	45	Not Detected
o-Xylene	10	Not Detected	45	Not Detected
Styrene	10	Not Detected	44	Not Detected
Bromoform	10	Not Detected	110	Not Detected
Cumene	10	Not Detected	51	Not Detected
1,1,2,2-Tetrachloroethane	10	Not Detected	71	Not Detected
Propylbenzene	10	Not Detected	51	Not Detected
4-Ethyltoluene	10	Not Detected	51	Not Detected
1,3,5-Trimethylbenzene	10	Not Detected	51	Not Detected
1,2,4-Trimethylbenzene	10	Not Detected	51	Not Detected
1,3-Dichlorobenzene	10	Not Detected	62	Not Detected
1,4-Dichlorobenzene	10	Not Detected	62	Not Detected
alpha-Chlorotoluene	10	Not Detected	54	Not Detected
1,2-Dichlorobenzene	10	Not Detected	62	Not Detected
1,2,4-Trichlorobenzene	41	Not Detected	310	Not Detected
Hexachlorobutadiene	41	Not Detected	440	Not Detected
Naphthalene	21	Not Detected	110	Not Detected
TPH ref. to Gasoline (MW=100)	1000	9000	4200	37000

Container Type: 1 Liter Summa Canister

Surrogates	%Recovery	Method Limits
Toluene-d8	98	70-130
1,2-Dichloroethane-d4	86	70-130
4-Bromofluorobenzene	98	70-130

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Client Sample ID: Lab Blank

Lab ID#: 2112290A-05A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**p121906**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 12/19/21 12:14 PM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.50	Not Detected	2.5	Not Detected
Freon 114	0.50	Not Detected	3.5	Not Detected
Chloromethane	5.0	Not Detected	10	Not Detected
Vinyl Chloride	0.50	Not Detected	1.3	Not Detected
1,3-Butadiene	0.50	Not Detected	1.1	Not Detected
Bromomethane	5.0	Not Detected	19	Not Detected
Chloroethane	2.0	Not Detected	5.3	Not Detected
Freon 11	0.50	Not Detected	2.8	Not Detected
Ethanol	5.0	Not Detected	9.4	Not Detected
Freon 113	0.50	Not Detected	3.8	Not Detected
1,1-Dichloroethene	0.50	Not Detected	2.0	Not Detected
Acetone	5.0	Not Detected	12	Not Detected
2-Propanol	2.0	Not Detected	4.9	Not Detected
Carbon Disulfide	2.0	Not Detected	6.2	Not Detected
3-Chloropropene	2.0	Not Detected	6.3	Not Detected
Methylene Chloride	5.0	Not Detected	17	Not Detected
Methyl tert-butyl ether	2.0	Not Detected	7.2	Not Detected
trans-1,2-Dichloroethene	0.50	Not Detected	2.0	Not Detected
Hexane	0.50	Not Detected	1.8	Not Detected
1,1-Dichloroethane	0.50	Not Detected	2.0	Not Detected
2-Butanone (Methyl Ethyl Ketone)	2.0	Not Detected	5.9	Not Detected
cis-1,2-Dichloroethene	0.50	Not Detected	2.0	Not Detected
Tetrahydrofuran	0.50	Not Detected	1.5	Not Detected
Chloroform	0.50	Not Detected	2.4	Not Detected
1,1,1-Trichloroethane	0.50	Not Detected	2.7	Not Detected
Cyclohexane	0.50	Not Detected	1.7	Not Detected
Carbon Tetrachloride	0.50	Not Detected	3.1	Not Detected
2,2,4-Trimethylpentane	0.50	Not Detected	2.3	Not Detected
Benzene	0.50	Not Detected	1.6	Not Detected
1,2-Dichloroethane	0.50	Not Detected	2.0	Not Detected
Heptane	0.50	Not Detected	2.0	Not Detected
Trichloroethene	0.50	Not Detected	2.7	Not Detected
1,2-Dichloropropane	0.50	Not Detected	2.3	Not Detected
1,4-Dioxane	2.0	Not Detected	7.2	Not Detected
Bromodichloromethane	0.50	Not Detected	3.4	Not Detected
cis-1,3-Dichloropropene	0.50	Not Detected	2.3	Not Detected
4-Methyl-2-pentanone	0.50	Not Detected	2.0	Not Detected
Toluene	0.50	Not Detected	1.9	Not Detected
trans-1,3-Dichloropropene	0.50	Not Detected	2.3	Not Detected
1,1,2-Trichloroethane	0.50	Not Detected	2.7	Not Detected
Tetrachloroethene	0.50	Not Detected	3.4	Not Detected
2-Hexanone	2.0	Not Detected	8.2	Not Detected

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Client Sample ID: Lab Blank

Lab ID#: 2112290A-05A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**p121906**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 12/19/21 12:14 PM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Dibromochloromethane	0.50	Not Detected	4.2	Not Detected
1,2-Dibromoethane (EDB)	0.50	Not Detected	3.8	Not Detected
Chlorobenzene	0.50	Not Detected	2.3	Not Detected
Ethyl Benzene	0.50	Not Detected	2.2	Not Detected
m,p-Xylene	0.50	Not Detected	2.2	Not Detected
o-Xylene	0.50	Not Detected	2.2	Not Detected
Styrene	0.50	Not Detected	2.1	Not Detected
Bromoform	0.50	Not Detected	5.2	Not Detected
Cumene	0.50	Not Detected	2.4	Not Detected
1,1,2,2-Tetrachloroethane	0.50	Not Detected	3.4	Not Detected
Propylbenzene	0.50	Not Detected	2.4	Not Detected
4-Ethyltoluene	0.50	Not Detected	2.4	Not Detected
1,3,5-Trimethylbenzene	0.50	Not Detected	2.4	Not Detected
1,2,4-Trimethylbenzene	0.50	Not Detected	2.4	Not Detected
1,3-Dichlorobenzene	0.50	Not Detected	3.0	Not Detected
1,4-Dichlorobenzene	0.50	Not Detected	3.0	Not Detected
alpha-Chlorotoluene	0.50	Not Detected	2.6	Not Detected
1,2-Dichlorobenzene	0.50	Not Detected	3.0	Not Detected
1,2,4-Trichlorobenzene	2.0	Not Detected	15	Not Detected
Hexachlorobutadiene	2.0	Not Detected	21	Not Detected
Naphthalene	1.0	Not Detected	5.2	Not Detected
TPH ref. to Gasoline (MW=100)	50	Not Detected	200	Not Detected

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
Toluene-d8	100	70-130
1,2-Dichloroethane-d4	90	70-130
4-Bromofluorobenzene	100	70-130

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Client Sample ID: Lab Blank

Lab ID#: 2112290A-05B

EPA METHOD TO-15 GC/MS

File Name:	**14121905**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 12/19/21 03:51 PM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Benzene	5.0	Not Detected	16	Not Detected
Toluene	5.0	Not Detected	19	Not Detected
Ethyl Benzene	5.0	Not Detected	22	Not Detected
m,p-Xylene	5.0	Not Detected	22	Not Detected
o-Xylene	5.0	Not Detected	22	Not Detected
Naphthalene	20	Not Detected	100	Not Detected
TPH ref. to Gasoline (MW=100)	500	Not Detected	2000	Not Detected

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	105	70-130
Toluene-d8	99	70-130
4-Bromofluorobenzene	90	70-130

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Client Sample ID: CCV

Lab ID#: 2112290A-06A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**p121902**	**Date of Collection: NA**
Dil. Factor:	**1.00**	**Date of Analysis: 12/19/21 09:38 AM**

Compound	%Recovery
Freon 12	91
Freon 114	95
Chloromethane	92
Vinyl Chloride	93
1,3-Butadiene	103
Bromomethane	79
Chloroethane	94
Freon 11	91
Ethanol	98
Freon 113	95
1,1-Dichloroethene	90
Acetone	94
2-Propanol	91
Carbon Disulfide	96
3-Chloropropene	97
Methylene Chloride	100
Methyl tert-butyl ether	85
trans-1,2-Dichloroethene	95
Hexane	97
1,1-Dichloroethane	102
2-Butanone (Methyl Ethyl Ketone)	96
cis-1,2-Dichloroethene	94
Tetrahydrofuran	99
Chloroform	101
1,1,1-Trichloroethane	94
Cyclohexane	88
Carbon Tetrachloride	102
2,2,4-Trimethylpentane	99
Benzene	103
1,2-Dichloroethane	98
Heptane	98
Trichloroethene	102
1,2-Dichloropropane	100
1,4-Dioxane	93
Bromodichloromethane	104
cis-1,3-Dichloropropene	99
4-Methyl-2-pentanone	87
Toluene	101
trans-1,3-Dichloropropene	101
1,1,2-Trichloroethane	105
Tetrachloroethene	109
2-Hexanone	94

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Client Sample ID: CCV

Lab ID#: 2112290A-06A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**p121902**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 12/19/21 09:38 AM**	

Compound	%Recovery
Dibromochloromethane	110
1,2-Dibromoethane (EDB)	106
Chlorobenzene	105
Ethyl Benzene	97
m,p-Xylene	98
o-Xylene	97
Styrene	98
Bromoform	109
Cumene	97
1,1,2,2-Tetrachloroethane	96
Propylbenzene	100
4-Ethyltoluene	101
1,3,5-Trimethylbenzene	99
1,2,4-Trimethylbenzene	96
1,3-Dichlorobenzene	101
1,4-Dichlorobenzene	100
alpha-Chlorotoluene	94
1,2-Dichlorobenzene	97
1,2,4-Trichlorobenzene	82
Hexachlorobutadiene	90
Naphthalene	70
TPH ref. to Gasoline (MW=100)	100

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
Toluene-d8	97	70-130
1,2-Dichloroethane-d4	91	70-130
4-Bromofluorobenzene	104	70-130

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Client Sample ID: CCV

Lab ID#: 2112290A-06B

EPA METHOD TO-15 GC/MS

File Name:	**14121902**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 12/19/21 02:21 PM**	

Compound	%Recovery
Benzene	100
Toluene	103
Ethyl Benzene	98
m,p-Xylene	101
o-Xylene	98
Naphthalene	111
TPH ref. to Gasoline (MW=100)	100

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	108	70-130
Toluene-d8	100	70-130
4-Bromofluorobenzene	99	70-130

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Client Sample ID: LCS

Lab ID#: 2112290A-07A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**p121903**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 12/19/21 10:07 AM**	

Compound	%Recovery	Method Limits
Freon 12	91	70-130
Freon 114	95	70-130
Chloromethane	95	70-130
Vinyl Chloride	96	70-130
1,3-Butadiene	102	70-130
Bromomethane	81	70-130
Chloroethane	94	70-130
Freon 11	91	70-130
Ethanol	107	70-130
Freon 113	94	70-130
1,1-Dichloroethene	88	70-130
Acetone	93	70-130
2-Propanol	100	70-130
Carbon Disulfide	96	70-130
3-Chloropropene	93	70-130
Methylene Chloride	98	70-130
Methyl tert-butyl ether	88	70-130
trans-1,2-Dichloroethene	96	70-130
Hexane	96	70-130
1,1-Dichloroethane	101	70-130
2-Butanone (Methyl Ethyl Ketone)	96	70-130
cis-1,2-Dichloroethene	93	70-130
Tetrahydrofuran	98	70-130
Chloroform	98	70-130
1,1,1-Trichloroethane	96	70-130
Cyclohexane	90	70-130
Carbon Tetrachloride	101	70-130
2,2,4-Trimethylpentane	101	70-130
Benzene	102	70-130
1,2-Dichloroethane	99	70-130
Heptane	99	70-130
Trichloroethene	103	70-130
1,2-Dichloropropane	100	70-130
1,4-Dioxane	94	70-130
Bromodichloromethane	102	70-130
cis-1,3-Dichloropropene	101	70-130
4-Methyl-2-pentanone	91	70-130
Toluene	101	70-130
trans-1,3-Dichloropropene	102	70-130
1,1,2-Trichloroethane	109	70-130
Tetrachloroethene	110	70-130
2-Hexanone	98	70-130

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Client Sample ID: LCS

Lab ID#: 2112290A-07A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**p121903**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 12/19/21 10:07 AM**	

Compound	%Recovery	Method Limits
Dibromochloromethane	112	70-130
1,2-Dibromoethane (EDB)	108	70-130
Chlorobenzene	104	70-130
Ethyl Benzene	100	70-130
m,p-Xylene	98	70-130
o-Xylene	97	70-130
Styrene	98	70-130
Bromoform	110	70-130
Cumene	97	70-130
1,1,2,2-Tetrachloroethane	99	70-130
Propylbenzene	102	70-130
4-Ethyltoluene	102	70-130
1,3,5-Trimethylbenzene	101	70-130
1,2,4-Trimethylbenzene	98	70-130
1,3-Dichlorobenzene	102	70-130
1,4-Dichlorobenzene	100	70-130
alpha-Chlorotoluene	95	70-130
1,2-Dichlorobenzene	100	70-130
1,2,4-Trichlorobenzene	82	70-130
Hexachlorobutadiene	90	70-130
Naphthalene	74	60-140
TPH ref. to Gasoline (MW=100)	Not Spiked	

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
Toluene-d8	98	70-130
1,2-Dichloroethane-d4	89	70-130
4-Bromofluorobenzene	103	70-130

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Client Sample ID: LCSD

Lab ID#: 2112290A-07AA

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**p121904**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 12/19/21 10:36 AM**	

Compound	%Recovery	Method Limits
Freon 12	91	70-130
Freon 114	96	70-130
Chloromethane	94	70-130
Vinyl Chloride	97	70-130
1,3-Butadiene	103	70-130
Bromomethane	80	70-130
Chloroethane	94	70-130
Freon 11	90	70-130
Ethanol	102	70-130
Freon 113	95	70-130
1,1-Dichloroethene	90	70-130
Acetone	95	70-130
2-Propanol	100	70-130
Carbon Disulfide	97	70-130
3-Chloropropene	98	70-130
Methylene Chloride	97	70-130
Methyl tert-butyl ether	89	70-130
trans-1,2-Dichloroethene	97	70-130
Hexane	100	70-130
1,1-Dichloroethane	102	70-130
2-Butanone (Methyl Ethyl Ketone)	96	70-130
cis-1,2-Dichloroethene	94	70-130
Tetrahydrofuran	99	70-130
Chloroform	98	70-130
1,1,1-Trichloroethane	97	70-130
Cyclohexane	92	70-130
Carbon Tetrachloride	103	70-130
2,2,4-Trimethylpentane	102	70-130
Benzene	103	70-130
1,2-Dichloroethane	99	70-130
Heptane	98	70-130
Trichloroethene	102	70-130
1,2-Dichloropropane	102	70-130
1,4-Dioxane	96	70-130
Bromodichloromethane	102	70-130
cis-1,3-Dichloropropene	102	70-130
4-Methyl-2-pentanone	91	70-130
Toluene	100	70-130
trans-1,3-Dichloropropene	104	70-130
1,1,2-Trichloroethane	112	70-130
Tetrachloroethene	112	70-130
2-Hexanone	99	70-130

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Client Sample ID: LCSD

Lab ID#: 2112290A-07AA

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**p121904**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 12/19/21 10:36 AM**	

Compound	%Recovery	Method Limits
Dibromochloromethane	113	70-130
1,2-Dibromoethane (EDB)	110	70-130
Chlorobenzene	106	70-130
Ethyl Benzene	100	70-130
m,p-Xylene	100	70-130
o-Xylene	99	70-130
Styrene	100	70-130
Bromoform	111	70-130
Cumene	99	70-130
1,1,2,2-Tetrachloroethane	100	70-130
Propylbenzene	103	70-130
4-Ethyltoluene	105	70-130
1,3,5-Trimethylbenzene	103	70-130
1,2,4-Trimethylbenzene	100	70-130
1,3-Dichlorobenzene	104	70-130
1,4-Dichlorobenzene	101	70-130
alpha-Chlorotoluene	97	70-130
1,2-Dichlorobenzene	101	70-130
1,2,4-Trichlorobenzene	93	70-130
Hexachlorobutadiene	100	70-130
Naphthalene	84	60-140
TPH ref. to Gasoline (MW=100)	Not Spiked	

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
Toluene-d8	97	70-130
1,2-Dichloroethane-d4	90	70-130
4-Bromofluorobenzene	104	70-130

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Client Sample ID: LCS

Lab ID#: 2112290A-07B

EPA METHOD TO-15 GC/MS

File Name:	**14121903**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 12/19/21 02:45 PM**	

Compound	%Recovery	Method Limits
Benzene	101	70-130
Toluene	101	70-130
Ethyl Benzene	104	70-130
m,p-Xylene	104	70-130
o-Xylene	96	70-130
Naphthalene	97	60-140
TPH ref. to Gasoline (MW=100)	Not Spiked	

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	104	70-130
Toluene-d8	101	70-130
4-Bromofluorobenzene	102	70-130

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Client Sample ID: LCSD

Lab ID#: 2112290A-07BB

EPA METHOD TO-15 GC/MS

File Name:	**14121904**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 12/19/21 03:26 PM**	

Compound	%Recovery	Method Limits
Benzene	100	70-130
Toluene	101	70-130
Ethyl Benzene	101	70-130
m,p-Xylene	100	70-130
o-Xylene	95	70-130
Naphthalene	87	60-140
TPH ref. to Gasoline (MW=100)	Not Spiked	

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	106	70-130
Toluene-d8	100	70-130
4-Bromofluorobenzene	97	70-130

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3/16/2022
Ms. Daniele Peters
EES Environmental Consulting, Inc.
240 N Broadway
Suite 203
Portland OR 97227

Project Name: PP # 112
Project #: 1179-04
Workorder #: 2203205A

Dear Ms. Daniele Peters

The following report includes the data for the above referenced project for sample(s) received on 3/3/2022 at Eurofins Air Toxics LLC.

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

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

Regards,

Monica Tran

Project Manager

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WORK ORDER #: 2203205A

Work Order Summary

CLIENT:	Ms. Daniele Peters EES Environmental Consulting, Inc. 240 N Broadway Suite 203 Portland, OR 97227	**BILL TO:**	Ms. Daniele Peters EES Environmental Consulting, Inc. 240 N Broadway Suite 203 Portland, OR 97227
PHONE:	530-847-2740	**P.O. #**	
FAX:		**PROJECT #**	1179-04 PP # 112
DATE RECEIVED:	03/03/2022	**CONTACT:**	Monica Tran
DATE COMPLETED:	03/16/2022		

FRACTION #	NAME	TEST	RECEIPT VAC./PRES.	FINAL PRESSURE
01A	SVE-6	TO-15	5.5 "Hg	10 psi
02A	SVE-7	TO-15	5.0 "Hg	10 psi
03A	SVE-8	TO-15	4.5 "Hg	10 psi
04A	MANIFOLD	TO-15	5.5 "Hg	10 psi
05A	Lab Blank	TO-15	NA	NA
06A	CCV	TO-15	NA	NA
07A	LCS	TO-15	NA	NA
07AA	LCSD	TO-15	NA	NA

CERTIFIED BY: Heidi Hayes DATE: 03/16/22

Technical Director

Certification numbers: AZ Licensure AZ0775, FL NELAP – E87680, LA NELAP – 02089, NH NELAP - 209221, NJ NELAP - CA016, NY NELAP - 11291, TX NELAP - T104704434-21-17, UT NELAP – CA009332021-13, VA NELAP - 10615, WA NELAP - C935
Name of Accreditation Body: NELAP/ORELAP (Oregon Environmental Laboratory Accreditation Program)
Accreditation number: CA300005-015, Effective date: 10/18/2021, Expiration date: 10/17/2022.
Eurofins Air Toxics, LLC certifies that the test results contained in this report meet all requirements of the NELAC standards

180 BLUE RAVINE ROAD, SUITE B FOLSOM, CA - 95630
(916) 985-1000 . (800) 985-5955 . FAX (916) 351-8279

LABORATORY NARRATIVE
EPA Method TO-15
EES Environmental Consulting, Inc.
Workorder# 2203205A

Four 1 Liter Summa Canister samples were received on March 03, 2022. The laboratory performed analysis via EPA Method TO-15 using GC/MS in the full scan mode.

Receiving Notes

There were no receiving discrepancies.

Analytical Notes

A single point calibration for TPH referenced to Gasoline was performed for each daily analytical batch. Recovery is reported as 100% in the associated results for each CCV.

Definition of Data Qualifying Flags

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

B - Compound present in laboratory blank greater than reporting limit (background subtraction not performed).

J - Estimated value.

E - Exceeds instrument calibration range.

S - Saturated peak.

Q - Exceeds quality control limits.

U - Compound analyzed for but not detected above the reporting limit, LOD, or MDL value. See data page for project specific U-flag definition.

UJ- Non-detected compound associated with low bias in the CCV

N - The identification is based on presumptive evidence.

M - Reported value may be biased due to apparent matrix interferences.

CN - See Case Narrative.

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

a-File was requantified

b-File was quantified by a second column and detector

r1-File was requantified for the purpose of reissue

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

Client Sample ID: SVE-6

Lab ID#: 2203205A-01A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
m,p-Xylene	1.0	1.1	4.5	5.0

Client Sample ID: SVE-7

Lab ID#: 2203205A-02A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Toluene	1.0	2.3	3.8	8.5
m,p-Xylene	1.0	1.4	4.4	6.0

Client Sample ID: SVE-8

Lab ID#: 2203205A-03A

No Detections Were Found.

Client Sample ID: MANIFOLD

Lab ID#: 2203205A-04A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Acetone	10	18	24	42
2-Propanol	4.1	6.1	10	15
2-Butanone (Methyl Ethyl Ketone)	4.1	4.6	12	14
Tetrahydrofuran	1.0	15	3.0	43
m,p-Xylene	1.0	1.8	4.5	7.9
4-Ethyltoluene	1.0	1.2	5.1	6.0
1,2,4-Trimethylbenzene	1.0	1.2	5.1	6.0
TPH ref. to Gasoline (MW=100)	100	980	420	4000

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Client Sample ID: SVE-6

Lab ID#: 2203205A-01A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**p031507**	**Date of Collection: 3/1/22 12:39:00 PM**	
Dil. Factor:	**2.06**	**Date of Analysis: 3/15/22 02:17 PM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Benzene	1.0	Not Detected	3.3	Not Detected
Ethyl Benzene	1.0	Not Detected	4.5	Not Detected
Toluene	1.0	Not Detected	3.9	Not Detected
m,p-Xylene	1.0	1.1	4.5	5.0
o-Xylene	1.0	Not Detected	4.5	Not Detected
Naphthalene	2.1	Not Detected	11	Not Detected
TPH ref. to Gasoline (MW=100)	100	Not Detected	420	Not Detected

Container Type: 1 Liter Summa Canister

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	93	70-130
Toluene-d8	101	70-130
4-Bromofluorobenzene	96	70-130

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Client Sample ID: SVE-7

Lab ID#: 2203205A-02A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**p031508**	**Date of Collection: 3/1/22 12:40:00 PM**	
Dil. Factor:	**2.02**	**Date of Analysis: 3/15/22 02:46 PM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Benzene	1.0	Not Detected	3.2	Not Detected
Ethyl Benzene	1.0	Not Detected	4.4	Not Detected
Toluene	1.0	2.3	3.8	8.5
m,p-Xylene	1.0	1.4	4.4	6.0
o-Xylene	1.0	Not Detected	4.4	Not Detected
Naphthalene	2.0	Not Detected	10	Not Detected
TPH ref. to Gasoline (MW=100)	100	Not Detected	410	Not Detected

Container Type: 1 Liter Summa Canister

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	93	70-130
Toluene-d8	99	70-130
4-Bromofluorobenzene	95	70-130

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Client Sample ID: SVE-8

Lab ID#: 2203205A-03A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**p031509**	**Date of Collection: 3/1/22 12:45:00 PM**	
Dil. Factor:	**1.98**	**Date of Analysis: 3/15/22 03:16 PM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Benzene	0.99	Not Detected	3.2	Not Detected
Ethyl Benzene	0.99	Not Detected	4.3	Not Detected
Toluene	0.99	Not Detected	3.7	Not Detected
m,p-Xylene	0.99	Not Detected	4.3	Not Detected
o-Xylene	0.99	Not Detected	4.3	Not Detected
Naphthalene	2.0	Not Detected	10	Not Detected
TPH ref. to Gasoline (MW=100)	99	Not Detected	400	Not Detected

Container Type: 1 Liter Summa Canister

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	92	70-130
Toluene-d8	100	70-130
4-Bromofluorobenzene	99	70-130

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Client Sample ID: MANIFOLD

Lab ID#: 2203205A-04A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**p031510**	**Date of Collection: 3/1/22 12:50:00 PM**	
Dil. Factor:	**2.06**	**Date of Analysis: 3/15/22 03:45 PM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	1.0	Not Detected	5.1	Not Detected
Freon 114	1.0	Not Detected	7.2	Not Detected
Chloromethane	10	Not Detected	21	Not Detected
Vinyl Chloride	1.0	Not Detected	2.6	Not Detected
1,3-Butadiene	1.0	Not Detected	2.3	Not Detected
Bromomethane	10	Not Detected	40	Not Detected
Chloroethane	4.1	Not Detected	11	Not Detected
Freon 11	1.0	Not Detected	5.8	Not Detected
Ethanol	10	Not Detected	19	Not Detected
Freon 113	1.0	Not Detected	7.9	Not Detected
1,1-Dichloroethene	1.0	Not Detected	4.1	Not Detected
Acetone	10	18	24	42
2-Propanol	4.1	6.1	10	15
Carbon Disulfide	4.1	Not Detected	13	Not Detected
3-Chloropropene	4.1	Not Detected	13	Not Detected
Methylene Chloride	10	Not Detected	36	Not Detected
Methyl tert-butyl ether	4.1	Not Detected	15	Not Detected
trans-1,2-Dichloroethene	1.0	Not Detected	4.1	Not Detected
Hexane	1.0	Not Detected	3.6	Not Detected
1,1-Dichloroethane	1.0	Not Detected	4.2	Not Detected
2-Butanone (Methyl Ethyl Ketone)	4.1	4.6	12	14
cis-1,2-Dichloroethene	1.0	Not Detected	4.1	Not Detected
Tetrahydrofuran	1.0	15	3.0	43
Chloroform	1.0	Not Detected	5.0	Not Detected
1,1,1-Trichloroethane	1.0	Not Detected	5.6	Not Detected
Cyclohexane	1.0	Not Detected	3.5	Not Detected
Carbon Tetrachloride	1.0	Not Detected	6.5	Not Detected
2,2,4-Trimethylpentane	1.0	Not Detected	4.8	Not Detected
Benzene	1.0	Not Detected	3.3	Not Detected
1,2-Dichloroethane	1.0	Not Detected	4.2	Not Detected
Heptane	1.0	Not Detected	4.2	Not Detected
Trichloroethene	1.0	Not Detected	5.5	Not Detected
1,2-Dichloropropane	1.0	Not Detected	4.8	Not Detected
1,4-Dioxane	4.1	Not Detected	15	Not Detected
Bromodichloromethane	1.0	Not Detected	6.9	Not Detected
cis-1,3-Dichloropropene	1.0	Not Detected	4.7	Not Detected
4-Methyl-2-pentanone	1.0	Not Detected	4.2	Not Detected
Toluene	1.0	Not Detected	3.9	Not Detected
trans-1,3-Dichloropropene	1.0	Not Detected	4.7	Not Detected
1,1,2-Trichloroethane	1.0	Not Detected	5.6	Not Detected
Tetrachloroethene	1.0	Not Detected	7.0	Not Detected
2-Hexanone	4.1	Not Detected	17	Not Detected

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Client Sample ID: MANIFOLD

Lab ID#: 2203205A-04A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**p031510**	**Date of Collection: 3/1/22 12:50:00 PM**	
Dil. Factor:	**2.06**	**Date of Analysis: 3/15/22 03:45 PM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Dibromochloromethane	1.0	Not Detected	8.8	Not Detected
1,2-Dibromoethane (EDB)	1.0	Not Detected	7.9	Not Detected
Chlorobenzene	1.0	Not Detected	4.7	Not Detected
Ethyl Benzene	1.0	Not Detected	4.5	Not Detected
m,p-Xylene	1.0	1.8	4.5	7.9
o-Xylene	1.0	Not Detected	4.5	Not Detected
Styrene	1.0	Not Detected	4.4	Not Detected
Bromoform	1.0	Not Detected	11	Not Detected
Cumene	1.0	Not Detected	5.1	Not Detected
1,1,2,2-Tetrachloroethane	1.0	Not Detected	7.1	Not Detected
Propylbenzene	1.0	Not Detected	5.1	Not Detected
4-Ethyltoluene	1.0	1.2	5.1	6.0
1,3,5-Trimethylbenzene	1.0	Not Detected	5.1	Not Detected
1,2,4-Trimethylbenzene	1.0	1.2	5.1	6.0
1,3-Dichlorobenzene	1.0	Not Detected	6.2	Not Detected
1,4-Dichlorobenzene	1.0	Not Detected	6.2	Not Detected
alpha-Chlorotoluene	1.0	Not Detected	5.3	Not Detected
1,2-Dichlorobenzene	1.0	Not Detected	6.2	Not Detected
1,2,4-Trichlorobenzene	4.1	Not Detected	30	Not Detected
Hexachlorobutadiene	4.1	Not Detected	44	Not Detected
Naphthalene	2.1	Not Detected	11	Not Detected
TPH ref. to Gasoline (MW=100)	100	980	420	4000

Container Type: 1 Liter Summa Canister

Surrogates	%Recovery	Method Limits
Toluene-d8	101	70-130
1,2-Dichloroethane-d4	95	70-130
4-Bromofluorobenzene	94	70-130

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Client Sample ID: Lab Blank

Lab ID#: 2203205A-05A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**p031506c**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 3/15/22 12:30 PM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.50	Not Detected	2.5	Not Detected
Freon 114	0.50	Not Detected	3.5	Not Detected
Chloromethane	5.0	Not Detected	10	Not Detected
Vinyl Chloride	0.50	Not Detected	1.3	Not Detected
1,3-Butadiene	0.50	Not Detected	1.1	Not Detected
Bromomethane	5.0	Not Detected	19	Not Detected
Chloroethane	2.0	Not Detected	5.3	Not Detected
Freon 11	0.50	Not Detected	2.8	Not Detected
Ethanol	5.0	Not Detected	9.4	Not Detected
Freon 113	0.50	Not Detected	3.8	Not Detected
1,1-Dichloroethene	0.50	Not Detected	2.0	Not Detected
Acetone	5.0	Not Detected	12	Not Detected
2-Propanol	2.0	Not Detected	4.9	Not Detected
Carbon Disulfide	2.0	Not Detected	6.2	Not Detected
3-Chloropropene	2.0	Not Detected	6.3	Not Detected
Methylene Chloride	5.0	Not Detected	17	Not Detected
Methyl tert-butyl ether	2.0	Not Detected	7.2	Not Detected
trans-1,2-Dichloroethene	0.50	Not Detected	2.0	Not Detected
Hexane	0.50	Not Detected	1.8	Not Detected
1,1-Dichloroethane	0.50	Not Detected	2.0	Not Detected
2-Butanone (Methyl Ethyl Ketone)	2.0	Not Detected	5.9	Not Detected
cis-1,2-Dichloroethene	0.50	Not Detected	2.0	Not Detected
Tetrahydrofuran	0.50	Not Detected	1.5	Not Detected
Chloroform	0.50	Not Detected	2.4	Not Detected
1,1,1-Trichloroethane	0.50	Not Detected	2.7	Not Detected
Cyclohexane	0.50	Not Detected	1.7	Not Detected
Carbon Tetrachloride	0.50	Not Detected	3.1	Not Detected
2,2,4-Trimethylpentane	0.50	Not Detected	2.3	Not Detected
Benzene	0.50	Not Detected	1.6	Not Detected
1,2-Dichloroethane	0.50	Not Detected	2.0	Not Detected
Heptane	0.50	Not Detected	2.0	Not Detected
Trichloroethene	0.50	Not Detected	2.7	Not Detected
1,2-Dichloropropane	0.50	Not Detected	2.3	Not Detected
1,4-Dioxane	2.0	Not Detected	7.2	Not Detected
Bromodichloromethane	0.50	Not Detected	3.4	Not Detected
cis-1,3-Dichloropropene	0.50	Not Detected	2.3	Not Detected
4-Methyl-2-pentanone	0.50	Not Detected	2.0	Not Detected
Toluene	0.50	Not Detected	1.9	Not Detected
trans-1,3-Dichloropropene	0.50	Not Detected	2.3	Not Detected
1,1,2-Trichloroethane	0.50	Not Detected	2.7	Not Detected
Tetrachloroethene	0.50	Not Detected	3.4	Not Detected
2-Hexanone	2.0	Not Detected	8.2	Not Detected

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Client Sample ID: Lab Blank

Lab ID#: 2203205A-05A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**p031506c**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 3/15/22 12:30 PM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Dibromochloromethane	0.50	Not Detected	4.2	Not Detected
1,2-Dibromoethane (EDB)	0.50	Not Detected	3.8	Not Detected
Chlorobenzene	0.50	Not Detected	2.3	Not Detected
Ethyl Benzene	0.50	Not Detected	2.2	Not Detected
m,p-Xylene	0.50	Not Detected	2.2	Not Detected
o-Xylene	0.50	Not Detected	2.2	Not Detected
Styrene	0.50	Not Detected	2.1	Not Detected
Bromoform	0.50	Not Detected	5.2	Not Detected
Cumene	0.50	Not Detected	2.4	Not Detected
1,1,2,2-Tetrachloroethane	0.50	Not Detected	3.4	Not Detected
Propylbenzene	0.50	Not Detected	2.4	Not Detected
4-Ethyltoluene	0.50	Not Detected	2.4	Not Detected
1,3,5-Trimethylbenzene	0.50	Not Detected	2.4	Not Detected
1,2,4-Trimethylbenzene	0.50	Not Detected	2.4	Not Detected
1,3-Dichlorobenzene	0.50	Not Detected	3.0	Not Detected
1,4-Dichlorobenzene	0.50	Not Detected	3.0	Not Detected
alpha-Chlorotoluene	0.50	Not Detected	2.6	Not Detected
1,2-Dichlorobenzene	0.50	Not Detected	3.0	Not Detected
1,2,4-Trichlorobenzene	2.0	Not Detected	15	Not Detected
Hexachlorobutadiene	2.0	Not Detected	21	Not Detected
Naphthalene	1.0	Not Detected	5.2	Not Detected
TPH ref. to Gasoline (MW=100)	50	Not Detected	200	Not Detected

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
Toluene-d8	102	70-130
1,2-Dichloroethane-d4	93	70-130
4-Bromofluorobenzene	97	70-130

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Client Sample ID: CCV

Lab ID#: 2203205A-06A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**p031502**	**Date of Collection: NA**
Dil. Factor:	**1.00**	**Date of Analysis: 3/15/22 10:13 AM**

Compound	%Recovery
Freon 12	102
Freon 114	108
Chloromethane	112
Vinyl Chloride	118
1,3-Butadiene	121
Bromomethane	94
Chloroethane	109
Freon 11	96
Ethanol	109
Freon 113	97
1,1-Dichloroethene	110
Acetone	105
2-Propanol	106
Carbon Disulfide	104
3-Chloropropene	116
Methylene Chloride	102
Methyl tert-butyl ether	106
trans-1,2-Dichloroethene	112
Hexane	112
1,1-Dichloroethane	109
2-Butanone (Methyl Ethyl Ketone)	108
cis-1,2-Dichloroethene	111
Tetrahydrofuran	117
Chloroform	106
1,1,1-Trichloroethane	98
Cyclohexane	106
Carbon Tetrachloride	99
2,2,4-Trimethylpentane	112
Benzene	109
1,2-Dichloroethane	98
Heptane	116
Trichloroethene	110
1,2-Dichloropropane	105
1,4-Dioxane	113
Bromodichloromethane	105
cis-1,3-Dichloropropene	114
4-Methyl-2-pentanone	106
Toluene	106
trans-1,3-Dichloropropene	108
1,1,2-Trichloroethane	106
Tetrachloroethene	103
2-Hexanone	110

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Client Sample ID: CCV

Lab ID#: 2203205A-06A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**p031502**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 3/15/22 10:13 AM**	

Compound	%Recovery
Dibromochloromethane	103
1,2-Dibromoethane (EDB)	109
Chlorobenzene	104
Ethyl Benzene	107
m,p-Xylene	108
o-Xylene	109
Styrene	116
Bromoform	103
Cumene	112
1,1,2,2-Tetrachloroethane	101
Propylbenzene	102
4-Ethyltoluene	105
1,3,5-Trimethylbenzene	104
1,2,4-Trimethylbenzene	107
1,3-Dichlorobenzene	100
1,4-Dichlorobenzene	101
alpha-Chlorotoluene	107
1,2-Dichlorobenzene	99
1,2,4-Trichlorobenzene	97
Hexachlorobutadiene	94
Naphthalene	103
TPH ref. to Gasoline (MW=100)	100

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
Toluene-d8	100	70-130
1,2-Dichloroethane-d4	97	70-130
4-Bromofluorobenzene	100	70-130

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Client Sample ID: LCS

Lab ID#: 2203205A-07A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**p031503**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 3/15/22 10:42 AM**	

Compound	%Recovery	Method Limits
Freon 12	107	70-130
Freon 114	107	70-130
Chloromethane	105	70-130
Vinyl Chloride	117	70-130
1,3-Butadiene	120	70-130
Bromomethane	97	70-130
Chloroethane	116	70-130
Freon 11	101	70-130
Ethanol	111	70-130
Freon 113	100	70-130
1,1-Dichloroethene	115	70-130
Acetone	105	70-130
2-Propanol	120	70-130
Carbon Disulfide	109	70-130
3-Chloropropene	121	70-130
Methylene Chloride	104	70-130
Methyl tert-butyl ether	113	70-130
trans-1,2-Dichloroethene	121	70-130
Hexane	116	70-130
1,1-Dichloroethane	117	70-130
2-Butanone (Methyl Ethyl Ketone)	117	70-130
cis-1,2-Dichloroethene	118	70-130
Tetrahydrofuran	123	70-130
Chloroform	110	70-130
1,1,1-Trichloroethane	103	70-130
Cyclohexane	113	70-130
Carbon Tetrachloride	105	70-130
2,2,4-Trimethylpentane	118	70-130
Benzene	106	70-130
1,2-Dichloroethane	96	70-130
Heptane	114	70-130
Trichloroethene	111	70-130
1,2-Dichloropropane	104	70-130
1,4-Dioxane	108	70-130
Bromodichloromethane	100	70-130
cis-1,3-Dichloropropene	113	70-130
4-Methyl-2-pentanone	104	70-130
Toluene	102	70-130
trans-1,3-Dichloropropene	112	70-130
1,1,2-Trichloroethane	110	70-130
Tetrachloroethene	106	70-130
2-Hexanone	113	70-130

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Client Sample ID: LCS

Lab ID#: 2203205A-07A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**p031503**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 3/15/22 10:42 AM**	

Compound	%Recovery	Method Limits
Dibromochloromethane	105	70-130
1,2-Dibromoethane (EDB)	111	70-130
Chlorobenzene	106	70-130
Ethyl Benzene	109	70-130
m,p-Xylene	110	70-130
o-Xylene	110	70-130
Styrene	117	70-130
Bromoform	104	70-130
Cumene	112	70-130
1,1,2,2-Tetrachloroethane	100	70-130
Propylbenzene	105	70-130
4-Ethyltoluene	105	70-130
1,3,5-Trimethylbenzene	105	70-130
1,2,4-Trimethylbenzene	108	70-130
1,3-Dichlorobenzene	101	70-130
1,4-Dichlorobenzene	101	70-130
alpha-Chlorotoluene	107	70-130
1,2-Dichlorobenzene	100	70-130
1,2,4-Trichlorobenzene	107	70-130
Hexachlorobutadiene	104	70-130
Naphthalene	107	60-140
TPH ref. to Gasoline (MW=100)	Not Spiked	

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
Toluene-d8	97	70-130
1,2-Dichloroethane-d4	98	70-130
4-Bromofluorobenzene	98	70-130

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Client Sample ID: LCSD

Lab ID#: 2203205A-07AA

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**p031504**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 3/15/22 11:11 AM**	

Compound	%Recovery	Method Limits
Freon 12	104	70-130
Freon 114	105	70-130
Chloromethane	103	70-130
Vinyl Chloride	122	70-130
1,3-Butadiene	121	70-130
Bromomethane	96	70-130
Chloroethane	111	70-130
Freon 11	98	70-130
Ethanol	113	70-130
Freon 113	99	70-130
1,1-Dichloroethene	112	70-130
Acetone	106	70-130
2-Propanol	116	70-130
Carbon Disulfide	107	70-130
3-Chloropropene	116	70-130
Methylene Chloride	103	70-130
Methyl tert-butyl ether	111	70-130
trans-1,2-Dichloroethene	117	70-130
Hexane	114	70-130
1,1-Dichloroethane	114	70-130
2-Butanone (Methyl Ethyl Ketone)	111	70-130
cis-1,2-Dichloroethene	118	70-130
Tetrahydrofuran	121	70-130
Chloroform	107	70-130
1,1,1-Trichloroethane	101	70-130
Cyclohexane	110	70-130
Carbon Tetrachloride	102	70-130
2,2,4-Trimethylpentane	116	70-130
Benzene	108	70-130
1,2-Dichloroethane	96	70-130
Heptane	116	70-130
Trichloroethene	111	70-130
1,2-Dichloropropane	106	70-130
1,4-Dioxane	111	70-130
Bromodichloromethane	101	70-130
cis-1,3-Dichloropropene	114	70-130
4-Methyl-2-pentanone	107	70-130
Toluene	103	70-130
trans-1,3-Dichloropropene	108	70-130
1,1,2-Trichloroethane	106	70-130
Tetrachloroethene	104	70-130
2-Hexanone	112	70-130

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Client Sample ID: LCSD

Lab ID#: 2203205A-07AA

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**p031504**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 3/15/22 11:11 AM**	

Compound	%Recovery	Method Limits
Dibromochloromethane	102	70-130
1,2-Dibromoethane (EDB)	109	70-130
Chlorobenzene	104	70-130
Ethyl Benzene	106	70-130
m,p-Xylene	108	70-130
o-Xylene	107	70-130
Styrene	115	70-130
Bromoform	101	70-130
Cumene	110	70-130
1,1,2,2-Tetrachloroethane	100	70-130
Propylbenzene	103	70-130
4-Ethyltoluene	100	70-130
1,3,5-Trimethylbenzene	104	70-130
1,2,4-Trimethylbenzene	105	70-130
1,3-Dichlorobenzene	98	70-130
1,4-Dichlorobenzene	99	70-130
alpha-Chlorotoluene	106	70-130
1,2-Dichlorobenzene	97	70-130
1,2,4-Trichlorobenzene	112	70-130
Hexachlorobutadiene	108	70-130
Naphthalene	113	60-140
TPH ref. to Gasoline (MW=100)	Not Spiked	

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
Toluene-d8	101	70-130
1,2-Dichloroethane-d4	98	70-130
4-Bromofluorobenzene	97	70-130