

October 12, 2022

Mr. Collin Monsour
BARDAS Investment Group
cmonsour@bardasig.com

**Subject: Vapor Intrusion Assessment Report
1200 Cahuenga Boulevard
Los Angeles, California**

Mr. Monsour:

This *Vapor Intrusion Assessment Report* (Report) has been prepared by RMD Environmental Solutions, Inc. (RMD) for the property located at 1200 Cahuenga Boulevard in Los Angeles, California (the Project Site; Figures 1 and 2). This Report documents results of a vapor intrusion assessment completed by RMD in March 2021. The vapor intrusion assessment was conducted in response to recommendations presented in a Phase I Environmental Site Assessment (Phase I), completed by Partner Engineering and Science, Inc., dated September 24, 2020

The Phase I findings identified a recognized environmental condition (REC) associated with the Project Site based on the presence of a tetrachloroethene (PCE) release from the hydrologically upgradient Paragon Cleaners property located at 1310 Vine Street (Paragon Cleaners). Paragon Cleaners is under Los Angeles Regional Water Quality Control Board (LARWQCB) Oversight, case SL0603766574 (https://geotracker.waterboards.ca.gov/profile_report?global_id=SL0603766574). As reported in the Phase I, groundwater underlying the Project Site has been impacted by migration PCE in groundwater, originating from releases associated with upgradient Paragon Cleaners. During the Third Quarter 2020 monitoring at the Paragon Cleaners, depth to groundwater north of the Project Site along La Mirada Avenue was measured between approximately 24 and 26 feet below the top of the casing¹. Based on groundwater elevations, the groundwater gradient is towards the southwest. Concentrations of PCE detected in groundwater in September 2020 in the vicinity of the Project Site are shown on Figure 2. Concentrations of PCE detected in soil vapor samples collected at 5 feet below ground surface (bgs) in December 2016² in the vicinity of the Project Site are also shown on Figure 2. The soil vapor concentrations upgradient from the Project Site along La Mirada Avenue

¹ Murex Environmental, Inc., 2020. Third Quarter 2020, Groundwater Monitoring Report, Paragon Cleaners, 1310 Vine Street, Los Angeles, California. October 1.

² Murex Environmental, Inc., 2017. Additional Soil Vapor and Groundwater Characterization Report, Paragon Cleaners, 1310 Vine Street, Los Angeles, California. March 1.

exceed the current soil vapor criteria for commercial use. These elevated PCE concentrations in groundwater and soil vapor in the vicinity of the Project Site are being remediated and monitored under a Cleanup and Abatement Order issued by LARWQCB addressed to Ms. Varty Mazlemian as the discharger and the identified responsible party associated with contaminant releases at Paragon Cleaners.

The Project Site is currently developed as a private school complex, which is no longer operating. BARDAS Investment Group (BARDAS) is redeveloping the property. The proposed project (Project) includes reusing a portion of one existing building as commercial and constructing two new commercial buildings, summarized as follows:

- Building A will be a new structure constructed along the northern border of the Project Site, including the area where a structure containing recreational fields over a subterranean garage is currently located. The building footprint will include one level of subterranean garage, one level of at grade parking, and three stories of office space above. The at grade parking garage at Building A will be constructed as an open air garage and not a fully enclosed space.
- Building B consists of a portion of the existing two story building located on the east and southeast portion of the Project Site. The existing subterranean garage beneath the building would remain in place and continue to be used as part of the new development. The occupied space above the garage will be used as office space. The subterranean garage for Building B will be connected with Building A's subterranean garage.
- The existing building located on the southwest portion of the Project Site will be demolished and will be replaced with Building C. The majority of Building C will include one level of an at grade parking garage with three levels of office space above. The at grade parking garage at Building C will be constructed as an open air garage and not a fully enclosed space. Building C also includes an 1,887 square foot area with retail and office space constructed at grade that is outside of the parking garage footprint.

SCOPE OF WORK

To assess the potential for intrusion of PCE into the existing on-Site buildings and subterranean garage, a total of eight subslab Vapor Pins® were installed and subsequently sampled on March 4, 2021. Laboratory analytical data was compared to applicable screening levels published by Department of Toxic Substance Control (DTSC) and United States Environmental Protection Agency (USEPA). As further detailed below, based on the findings of the subslab vapor investigation, seven indoor air samples and two ambient air samples were collected on March 27, 2021.

Sampling locations are shown on Figure 2.

Further details are provided as follows.

PRE-FIELD ACTIVITIES

Prior to initiating field work, RMD performed the following pre-field activities:

- Marked the proposed sampling locations for Underground Service Alert (USA);
- Updated the Site-specific Health and Safety Plan (HASP) with task-specific job safety analysis (JSA) forms; and,
- Conducted an underground utility survey to clear the proposed drilling locations of underground utilities and other possible subsurface obstructions.

SUBSLAB VAPOR PIN® INSTALLATION

On March 3, 2021, eight subslab vapor sampling points (SS-1 through SS-8) were installed throughout the Site as shown in Figure 2. Points SS-1 through SS-4 were installed beneath the slab at grade and points SS-5 and SS-6 were installed beneath the subterranean garage slab, situated approximately 4 feet below grade. Points SS-7 and SS-8 were installed beneath the subterranean garage slab, situated approximately 8 feet below grade. The Vapor Pins® were installed by Millennium Environmental, Inc. (MEI), a C-57 licensed contractor, under the oversight of RMD personnel. At each subslab vapor sampling location, a hand-held rotary-hammer was used to drill a 1½-inch diameter pilot hole in the concrete slab, then a 5/8-inch diameter hole was drilled through the entire thickness of the concrete slab using a drill guide, exposing the underlying fill material. A silicone sleeve, which forms a seal against the concrete slab, was placed around each stainless-steel Vapor Pin® before tapping the pin into place using a dead blow hammer. A flush-mounted cap was installed to cover each Vapor Pin®.

SUBSLAB SAMPLING

The subslab vapor points were sampled on March 4, 2021. Each sample was collected in accordance with the DTSC *Final Vapor Mitigation Advisory* (DTSC Advisory)³. At each sampling point a shut-in test was conducted and a total of three system volumes were removed prior to sampling. After the sampling assembly was purged and immediately before the sample was collected, a leak check compound (LCC), 1,1-difluoroethane (1,1-DFA), was used to saturate a paper towel that was placed in a sealable plastic bag near all locations where ambient air could enter the sampling system or where cross contamination could occur. Subslab samples were collected from each location in 1-liter SUMMA™ canisters, labeled, handled under standard chain-of-custody (COC) protocols, and transported to Pace Analytical (Pace) for analysis. The samples were analyzed for volatile organic compounds (VOCs) using USEPA Method TO-15. Field data sheets are provided in Attachment A.

³ DTSC, 2011. *Vapor Intrusion Mitigation Advisory*. October.

BUILDING SURVEY

On March 27, 2021, RMD personnel completed a building survey in preparation for indoor air sampling. The survey was conducted in accordance with the DTSC Advisory and the *Vapor Intrusion Guidance* (DTSC Guidance)⁴. The western portion of the Site has a two-story above-ground building. The eastern portion of the Site is developed with a two-story above-ground building with a subterranean garage. The buildings consist classrooms, bathrooms, and offices typical of a school. The subterranean garage is open to ambient air with two automobile entrances and 10 openings in the walls letting in ambient air. No PCE use or storage was observed on the property. A copy of the building survey is included in Attachment B.

INDOOR AND AMBIENT AIR SAMPLING

On March 27, 2021 RMD collected seven indoor air samples and two ambient air samples. Three indoor air samples were collected within classrooms on the first floor of the western portion of the Site. Four indoor air samples were collected from the subterranean garage on the eastern portion of the Site. Approximate sample locations are presented on Figure 2 and photographs documenting locations of the sample cannisters are provided in Attachment C. At the start of the building survey, no wind was measured March 27, 2021 at weather station KCALOSAN7125 as recorded in Attachment B. The average wind direction listed at the weather station on the morning of March 27, 2021 was northeast, which was used for conducting the ambient air sampling. Samples were collected in accordance with the DTSC Advisory and Guidance.

The indoor air samples were collected from the breathing zone at approximately 3 to 5 feet above the floor. Two ambient air samples were collected to assess outdoor air quality, which could influence and contribute to the air quality within the buildings. The ambient air sample locations were selected based on the findings of the building surveys and the prevailing wind direction. The ambient air samples were located approximately 6 feet above ground surface.

Indoor and ambient air samples were collected over an approximate 8-hour period. The samples were collected in lab-certified 6-liter SUMMA® canisters with lab-calibrated flow controllers (with particulate filters) and vacuum gauges. Upon completion of the approximate 8-hour sampling interval, sample canisters were prepared for submittal to Enthalpy Analytical (Enthalpy) under standard COC protocols. The air samples were analyzed for VOCs using USEPA Method TO-15 in selective ion mode (SIM).

⁴ DTSC, 2011. *Guidance for the Evaluation and Mitigation of Subsurface Vapor Intrusion to Indoor Air (Vapor Intrusion Guidance)*. October.

⁵ <https://www.wunderground.com/weather/us/ca/los-angeles/KCALOSAN712>

The building windows were closed during the sampling period and the heating, ventilation, and air conditioning (HVAC) system was not in operation during the sampling period.

Field data sheets are provided in Attachment A.

INVESTIGATION RESULTS

A summary of investigation results is provided as follows.

SUBSLAB

Table 1 summarizes the subslab analytical results. VOC constituents were compared to the DTSC Screening Levels (DTSC SLs)⁶ and USEPA Regional Screening Levels (USEPA RSLs)⁷ based on commercial land use. The more conservative of the two values for each chemical is designated as the screening level (SL).

All reported soil vapor concentrations were below the SLs with the following exception:

- PCE was reported above the Commercial/Industrial SL of 67 micrograms per cubic meter ($\mu\text{g}/\text{m}^3$) in all but one of the subslab samples at concentrations up to 28,200 $\mu\text{g}/\text{m}^3$. Figure 2 summarizes the analytical results for PCE. Concentrations from deeper subslab points installed beneath the parking garage were significantly higher than concentrations collected from the shallower points. This is expected as volatilization of PCE from groundwater vertically attenuates with distance from the groundwater table.

1,1-DFA was used as a LCC for collection of the soil vapor samples for analysis of VOCs by USEPA Method TO-15. As shown in Table 1, 1,1-DFA was detected at concentrations of 2,530 $\mu\text{g}/\text{m}^3$ and 786 $\mu\text{g}/\text{m}^3$ in samples SS-1 and SS-6, respectively. The DTSC Advisory allows the concentration of the LCC at 10 times the reporting limit of the target analyte, which is 1.36 $\mu\text{g}/\text{m}^3$ for PCE corresponding to an allowable 1,1-DFA concentration of 13.6 $\mu\text{g}/\text{m}^3$. The values exceed the allowable concentration and indicate potential dilution from atmospheric air during sampling. The results from SS-1 and SS-6 are considered biased low. However, these results do not change RMD's overall conclusions, discussed below.

The laboratory analytical report is included in Attachment D.

INDOOR AND AMBIENT AIR

Table 2 summarizes the indoor and ambient air analytical results. VOC constituents were compared to the Commercial/Industrial SLs.

⁶ DTSC. 2020. Human Health Risk Assessment (HHRA) Note Number 3, DTSC-modified Screening Levels (DTSC SLs). Human and Ecological Risk Office (HERO). June.

⁷ USEPA. 2020. Regional Screening Levels (TR=1E-06, HQ=1). May.

All reported soil vapor concentrations were below the SLs with the following exceptions:

- PCE was reported above the Commercial/Industrial SL of 2.0 ug/m³ in IA-1 (4.5 µg/m³) and IA-2 (3.3 µg/m³), as shown in Figure 2. These two locations were collected from inside of the building.
- Other VOCs (benzene, chloroform, methylene chloride, and naphthalene) were reported above their respective commercial SLs in at least one indoor sample collected. Concentrations of these chemicals are not present at significant concentrations in subslab samples and are a result of ambient, background concentrations and/or use of on-Site chemical use, such as cleaning products.

The laboratory analytical report is included in Attachment D.

DISCUSSION OF KEY RESULTS AND RECOMMENDED MITIGATION MEASURES

Subslab vapor concentrations of PCE exceed the commercial vapor intrusion SLs due to migration of PCE-impacted groundwater from an off-site upgradient source. These subsurface concentrations result in an exceedance of PCE above Commercial/Industrial SLs beneath the current building at grade located on the southwestern portion of the Site. Air concentrations in the subterranean garage located on the eastern and northern portions of the Site do not exceed PCE SLs, likely due to the open air nature of the garage which allows diffusion of PCE.

BARDAS contracted with GeoKinetics to design a vapor intrusion mitigation system (VIMS) considering the elevated concentrations of PCE in soil vapor. A copy of the GeoKinetics letter, dated October 4, 2022 and summarizing the conceptual VIMS design, is provided as Attachment E. As summarized in the letter the following vapor intrusion mitigation measures have been incorporated into and made a part of the Project:

- MM-1: Building A shall install a vapor barrier that includes a subslab collection and ventilation system along the base and walls of the enclosed subterranean parking garage to reduce the risk values below the DTSC risk management criteria for commercial uses.
- MM-2: Building B shall install a vapor barrier that includes a subslab collection and ventilation system along the base of the enclosed subterranean parking garage. The existing waterproofing system installed for the walls of the subterranean garage are expected to provide adequate protection from vapor intrusion. Upon completion of the Building B vapor barrier, testing shall be conducted to confirm that risk values are below the DTSC risk management criteria for commercial uses, and results shall be evaluated by a qualified environmental professional experienced in VIMS design and interpretation. If required based on results of the test, additional measures to protect against vapor intrusion shall be installed

and additional testing shall be conducted until the risk values have been reduced to below the DTSC risk management criteria for commercial uses. Such additional measures may include, for example:

- Applying epoxy coating to the walls;
 - Providing an increase to indoor air exchange rates within the garage; or
 - Converting the passive vent system to active ventilation (subsurface depressurization).
- MM-3: Building C shall install a vapor barrier that includes a subslab collection and ventilation system beneath the 1,887 square feet of retail and office space constructed at grade to reduce the risk values below the DTSC risk management criteria for commercial uses.
- MM-4: Building C stairwells and elevators going from the at grade parking garage into overlying spaces shall install localized mitigation, pursuant to standard practice, to reduce the risk values below the DTSC risk management criteria for commercial uses. As detailed in the attached Geokinetics letter, vapor barriers will be installed beneath stairwells and elevators extending into overlying enclosed spaces with the exception of the stairwell between gridlines C9-C11 & CM. This stairwell is shown to be located entirely on a structural footing.

CLOSING

If you have any questions or comments, please do not hesitate to contact Ms. Kirsten Duey at (925) 683-8177 or kduey@rmdes.net.

Sincerely,

RMD ENVIRONMENTAL SOLUTIONS, INC.



Kirsten Duey
Principal Engineer

- Figures: Figure 1 – Site Location Map
 Figure 2 – PCE Concentrations in Subslab Vapor, Indoor Air, and Ambient Air
- Tables: Table 1 – Summary of Subslab Vapor Analytical Results – VOCs
 Table 2 – Summary of Indoor and Ambient Air Analytical Results – VOCs
- Attachments: A – Field Sampling Forms
 B – Building Survey Forms
 C – Photograph Log
 D – Laboratory Analytical Reports
 E – GeoKinetics VIMS Conceptual Design Letter, October 4, 2022

FIGURES

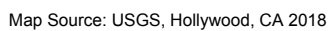


FIGURE
1



LEGEND

- Property Boundary
- Shallow Groundwater PCE Concentration Contour (Dashed Where Inferred), 9/1/2020
- W-9A** Historic Soil Vapor Probe Location
- W-22** Groundwater Monitoring Well Location
- 690 Shallow Soil Vapor PCE Concentration ($\mu\text{g}/\text{m}^3$), 12/22/2016
- 41 Shallow Groundwater PCE Concentration ($\mu\text{g}/\text{L}$), 9/1/2020

- 40.5 Subslab Vapor PCE Concentration ($\mu\text{g}/\text{m}^3$), 3/4/2021
- PCE Tetrachloroethene
- SS-2** Subslab Vapor Sample Location, collected beneath Slab at Grade
- SS-8** Subslab Vapor Sample Location, collected beneath subterranean Garage slab
- Subterranean Garage
- IA-1 Indoor Air Sample
- AA-1 Ambient Air Sample

*Leak Check Compound concentrations exceeded the threshold. Concentration may be biased low.

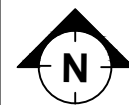


1200 CAHUENGA BLVD
LOS ANGELES, CALIFORNIA

PROJECT NO.	DATE	DR. BY:	APP. BY:
01-BAR-002	04/2021	DCB	PGB

**PCE CONCENTRATIONS IN
SUBSLAB VAPOR, INDOOR AIR,
AND AMBIENT AIR**

0 60 120
SCALE: 1" = 60'



**FIGURE
2**

TABLES

Table 1
Summary of Subslab Vapor Analytical Results - VOCs
1200 Cahuenga Boulevard
Los Angeles, California

Probe	Type	Probe Depth (feet bgs)	Date Sampled	PCE (µg/m ³)	TCE (µg/m ³)	Freon-11 (µg/m ³)	Freon-12 (µg/m ³)	Benzene (µg/m ³)	Toluene (µg/m ³)	Ethylbenzene (µg/m ³)	m,p-xylene (µg/m ³)	o-xylene (µg/m ³)	Acetone (µg/m ³)	Chloroform (µg/m ³)	Chloromethane (µg/m ³)	1,4-Dioxane (µg/m ³)	Ethanol (µg/m ³)	4-Ethyltoluene (µg/m ³)	n-Heptane (µg/m ³)	Isopropylbenzene (µg/m ³)	2-Butanone (MEK) (µg/m ³)	4-Methyl-2-Pentanone (MIBK) (µg/m ³)	2-Propanol (µg/m ³)	Propene (µg/m ³)	Tetrahydrofuran (µg/m ³)	Styrene (µg/m ³)	1,1,1-Trichloroethane (µg/m ³)	1,2,4-Trimethylbenzene (µg/m ³)	1,3,5-Trimethylbenzene (µg/m ³)	2,2,4-Trimethylpentane (µg/m ³)	1,1-Difluoroethane (Leak Check Compound) (µg/m ³)
DTSC SL / USEPA RSL - Soil Vapor & Subslab Vapor Vapor Intrusion to Indoor Air - Commercial / Industrial ¹				67	100	180,000	15,000	14	43,000	160	15,000	15,000	4,700,000	18	13,000	83	--	--	60,000	60,000	730,000	430,000	29,000	430,000	290,000	130,000	150,000	8,700	8,700	--	6,000,000
SS-1 ²	Soil Vapor Probe	Subslab ³	03/04/2021	40.5	<1.07	1.42	2.37	2.84	21.4	4.19	16.3	6.24	80.6	<0.973	1.27	<0.721	54.3	3.23	1.06	<0.983	4.51	<5.12	18.8	<0.689	<0.590	<0.851	<1.09	3.91	1.06	1.54	2,530
SS-2	Soil Vapor Probe	Subslab ³	03/04/2021	1,380	<1.07	3.21	2.83	<0.639	2.75	1.60	3.61	1.59	677	<0.973	<0.413	13.7	737	<0.982	<0.818	7.03	56.9	9.74	46.7	1.01	<0.590	1.85	<1.09	3.26	<0.982	22.5	10.7
SS-3	Soil Vapor Probe	Subslab ³	03/04/2021	473	<1.07	1.62	2.73	<0.639	<1.88	<0.867	1.95	0.928	17.2	1.00	<0.413	1.86	36.6	<0.982	<0.818	<0.983	<3.69	<5.12	<3.07	0.823	0.690	0.949	<1.09	1.28	<0.982	<0.934	<2.70
SS-4	Soil Vapor Probe	Subslab ³	03/04/2021	561	<1.07	4.37	2.44	<0.639	<1.88	<0.867	2.09	1.04	45.4	<0.973	<0.413	1.86	168	<0.982	<0.818	<0.983	<3.69	<5.12	5.95	<0.689	<0.590	1.04	<1.09	1.61	<0.982	<0.934	<2.70
SS-5	Soil Vapor Probe	Subslab ³	03/04/2021	28,200	4.90	3.25	2.74	<0.639	<1.88	2.32	11.9	4.86	25.2	<0.973	<0.413	<0.721	137	<0.982	<0.818	<0.983	<3.69	<5.12	5.43	<0.689	<0.590	<0.851	<1.09	1.01	<0.982	<0.934	<2.70
SS-6 ²	Soil Vapor Probe	Subslab ³	03/04/2021	7,400	2.11	3.44	2.77	<0.639	<1.88	8.5	45.5	16.9	40.2	<0.973	<0.413	<0.721	156	<0.982	<0.818	<0.983	4.28	<5.12	4.99	<0.689	<0.590	<0.851	<1.09	1.34	<0.982	<0.934	786
SS-7	Soil Vapor Probe	Subslab ³	03/04/2021	11,600	4.70	8.20	3.00	<0.639	2.17	<0.867	3.78	1.48	45.6	<0.973	<0.413	<0.721	150	<0.982	<0.818	<0.983	<3.69	<5.12	23.3	<0.689	<0.590	1.04	3.67	1.49	<0.982	<0.934	3.35
SS-8	Soil Vapor Probe	Subslab ³	03/04/2021	11,100	14.7	5.30	2.75	<0.639	<1.88	<0.867	<1.73	<0.867	15.1	<0.973	<0.413	<0.721	91.6	<0.982	<0.818	<0.983	<3.69	<5.12	13.6	<0.689	<0.590	<0.851	6.09	1.21	<0.982	<0.934	<2.70

Notes:
Detections are indicated in **bold**.
Shaded cells exceed the DTSC / USEPA Commercial Soil Vapor Screening Level.
Italicized cells exceed the allowable leak check compound concentration of 13.6 µg/m³ (10-times the reporting limit of target analyte PCE [CalEPA, 2015]).
Volatile organic compounds (VOCs) measured by EPA Method TO-15.
-- = No available DTSC SL or USEPA RSL
µg/m³ = micrograms per cubic meter.
<1.00 = Not detected above indicated laboratory reporting limit.
PCE = Tetrachloroethene.
TCE = Trichloroethene.
DTSC SL = Department of Toxic Substances Control Screening Level
USEPA RSL = United States Environmental Protection Agency Regional Screening Level

¹ The soil vapor screening level is calculated by dividing the air screening level by the USEPA default attenuation factor of 0.03 (USEPA, 2015). In order of priority, the screening level represents the DTSC-modified screening level (DTSC, 2020) followed by USEPA Regional Screening Level (RSL; USEPA, 2020).
² The analytical results indicated for SV-1 and SV-6 may be biased low due to potential ambient air leakage during sampling.
³ Probes SS-1 through SS-4 were installed beneath slab at grade. Probes SS-5 and SS-6 were installed beneath the subterranean garage slab, situated approximately 4 feet below grade. Probes SS-7 and SS-8 were installed beneath the subterranean garage slab, situated approximately 8 feet below grade.

References:
Department of Toxic Substances Control, Los Angeles Regional Water Quality Control Board, and San Francisco Regional Water Quality Control Board (CalEPA). 2015. Advisory – Active Soil Gas
DTSC. 2020. Human Health Risk Assessment (HHRA) Note Number 3, DTSC-modified Screening Levels (DTSC SLs). Human and Ecological Risk Office (HERO). June.
U.S. Environmental Protection Agency (USEPA). 2015. OSWER Technical Guide for Assessing and Mitigating the Vapor Intrusion Pathway from Subsurface Vapor Sources to Indoor Air. Office of Solid Waste and Emergency Response. June.
U.S. Environmental Protection Agency (USEPA). 2020. Regional Screening Levels (TR=1E-06, HQ=1). November.

Table 2 Summary of Indoor and Ambient Air Analytical Results - VOCs 1200 Cahuenga Boulevard Los Angeles, California																																		
Sample	Type	Date Sampled	PCE (µg/m³)	TCE (µg/m³)	Benzene (µg/m³)	Carbon Tetrachloride (µg/m³)	Chloroethane (µg/m³)	Chloroform (µg/m³)	Chloromethane (µg/m³)	1,4-Dichlorobenzene (µg/m³)	1,2-Dichloroethane (µg/m³)	1,4-Dioxane (µg/m³)	Ethylbenzene (µg/m³)	4-Ethyltoluene (µg/m³)	Freon 113 (µg/m³)	Freon 114 (µg/m³)	Freon-11 (µg/m³)	Freon 12 (µg/m³)	Isopropylbenzene (µg/m³)	m,p-Xylenes (µg/m³)	o-Xylene (µg/m³)	Methylene Chloride (µg/m³)	n-Heptane (µg/m³)	n-Hexane (µg/m³)	Naphtthalene (µg/m³)	Propylbenzene (µg/m³)	Styrene (µg/m³)	trans-1,2-Dichloroethene (µg/m³)	1,2,4-Trimethylbenzene (µg/m³)	1,3,5-Trimethylbenzene (µg/m³)	2,2,4-Trimethylpentane (µg/m³)	Toluene (µg/m³)		
DTSC SL/USEPA RSL - Indoor Air - Commercial/Industrial ¹			2.0	3.0	0.42	2.0	44,000	0.53	390	1.1	0.47	2.5	4.9	--	22,000	--	5,300	440	1,800	440	440	12	1,800	3,100	0.36	4,400	3,900	350	260	260	--	1,300		
IA-1	Indoor Air	03/27/2021	4.5	<0.059	1.2	0.52	0.033	1.2	1.3	0.16	0.16	0.096	0.52	0.15	0.53	0.12	1.2	2.5	0.086	1.5	0.63	1.6	0.47	0.87	0.16	0.093	0.28	0.52	0.58	0.14	1.3	2.5		
IA-2	Indoor Air	03/27/2021	3.3	<0.054	1.2	0.52	0.036	2.8	1.3	0.15	0.20	0.13	0.55	0.22	0.54	0.12	1.2	2.5	0.14	1.7	0.70	0.64	0.51	0.87	0.14	0.13	0.24	0.21	0.97	0.22	1.4	2.8		
IA-3	Indoor Air	03/27/2021	1.6	0.083	1.0	0.53	0.029	0.65	1.3	0.14	0.12	<0.040	0.47	0.16	0.54	0.12	1.2	2.5	0.067	1.4	0.58	1.8	0.38	0.88	0.55	0.10	0.19	0.089	0.54	0.12	1.0	2.2		
IA-4	Indoor Air	03/27/2021	0.072	<0.054	0.65	0.52	<0.026	0.13	1.2	0.078	0.088	<0.036	0.23	0.065	0.54	0.12	1.2	2.5	<0.049	0.56	0.25	1.6	0.21	0.40	0.067	<0.049	<0.043	<0.040	0.21	<0.049	0.66	1.2		
IA-5	Indoor Air	03/27/2021	<0.068	<0.054	0.65	0.52	<0.026	0.13	1.2	0.079	0.089	<0.036	0.23	0.068	0.54	0.12	1.2	2.5	<0.049	0.60	0.26	1.5	0.21	0.37	0.066	<0.049	<0.043	<0.040	0.22	<0.049	0.67	1.2		
IA-6	Indoor Air	03/27/2021	<0.068	<0.054	0.62	0.51	<0.026	0.13	1.2	0.079	0.088	<0.036	0.21	0.061	0.52	0.11	1.2	2.4	<0.049	0.53	0.24	3.4	0.19	0.93	0.068	<0.049	<0.043	<0.040	0.20	<0.049	0.63	1.1		
IA-7	Indoor Air	03/27/2021	<0.068	<0.054	0.63	0.52	<0.026	0.13	1.2	0.077	0.090	<0.036	0.21	0.060	0.53	0.12	1.2	2.4	<0.049	0.53	0.23	1.2	0.20	0.39	0.054	<0.049	<0.043	<0.040	0.19	<0.049	0.64	1.1		
AA-1	Ambient Air	03/27/2021	<0.068	<0.054	0.63	0.52	<0.026	0.13	1.2	0.070	0.089	<0.036	0.22	0.065	0.54	0.12	1.2	2.4	<0.049	0.55	0.24	1.1	0.20	0.36	0.062	<0.049	<0.043	<0.040	0.20	<0.049	0.65	1.1		
AA-2	Ambient Air	03/27/2021	<0.075	<0.059	0.63	0.52	<0.029	0.14	1.2	0.076	0.088	<0.040	0.23	0.064	0.54	0.12	1.2	2.5	<0.054	0.56	0.24	1.4	0.20	0.40	0.098	<0.054	0.061	<0.044	0.23	<0.054	0.67	1.1		

Notes:
Detections are indicated in **bold**.
Shaded cells exceed the DTSC / USEPA Commercial Indoor Air Screening Level.
Volatile organic compounds (VOCs) measured by EPA Method TO-15-SIM.
-- = No available DTSC SL or USEPA RSL
µg/m³ = micrograms per cubic meter.
<1.00 = Not detected above indicated laboratory reporting limit.
PCE = Tetrachloroethene.
TCE = Trichloroethene.
DTSC SL = Department of Toxic Substances Control Screening Level
USEPA RSL = United States Environmental Protection Agency Regional Screening Level
¹ In order of priority, the screening level represents the DTSC-modified screening level (DTSC, 2020) followed by USEPA Regional Screening Level (RSL; USEPA, 2020).

References:
DTSC. 2020. Human Health Risk Assessment (HHRA) Note Number 3, DTSC-modified Screening Levels (DTSC SLs). Human and Ecological Risk Office (HERO). June.
U.S. Environmental Protection Agency (USEPA). 2020. Regional Screening Levels (TR=1E-06, HQ=1). November.

ATTACHMENT A
FIELD SAMPLING FORMS

Soil Vapor Field Measurement Log

Date:	3/4/21	Sampler:	Paola Gomez - Birenbaum
Client:	Bardas	Project #:	01-BAR-002 Task 2
Container Type:	1L Summa	Container ID:	011905
Sample ID:	SS-1	Manifold ID:	006372
Duplicate Sample ID			
Weather:	Temperature: 60°F	Precipitation:	0"
Sampling Device:	Summa		
Leak Test:	Shut-In 2min 5"Hg	Leak Check Compound:	1,1-DFA
Purge Volume:	151		
Purge Start Time:	1853	Purge End Time:	1855
Sample Start Time:	1855	Sample End Time:	1900
Start Vacuum:	-29	End Vacuum:	-5

Field Measurements			
Time	Flow (mL/min)	Vacuum (in Hg)	Comments
	200		

Notes

Sampler's Signature: sgols



Soil Vapor Field Measurement Log

Date:	3/4/2021	Sampler:	Paola Gomez-Birenbaum
Client:	Bardas	Project #:	01-BAR-002 Task 2
Container Type:	1L - Summa	Container ID:	010714
Sample ID:	SS-2	Manifold ID:	008371
Duplicate Sample ID:			
Weather:	Temperature: 60°F	Precipitation:	0"
Sampling Device:			
Leak Test:	Shut-In 2min @ -5"Hg	Leak Check Compound:	1,1-DFA
Purge Volume:	157 cc		
Purge Start Time:	1911	Purge End Time:	1913
Sample Start Time:	1913	Sample End Time:	1919
Start Vacuum:	-30	End Vacuum:	-5

Field Measurements			
Time	Flow (mL/min)	Vacuum (in Hg)	Comments
	200		

Notes

Sampler's Signature: Paola

Soil Vapor Field Measurement Log

Date:	3/4/2021	Sampler:	Paola Gomez-Birenbaum
Client:	Bardas	Project #:	01-BAR-002 Task 2
Container Type:	1L - Summa	Container ID:	007373
Sample ID:	SS-3	Manifold ID:	0073-006824
Duplicate Sample ID:			
Weather:	Temperature: 60°F	Precipitation:	0"
Sampling Device:	Summa		
Leak Test:	Shut-In 2min 5Hg	Leak Check Compound:	1,1-DFA
Purge Volume:	151cc		
Purge Start Time:	19:34	Purge End Time:	1936
Sample Start Time:	1937	Sample End Time:	1941
Start Vacuum:	-29	End Vacuum:	-5

Field Measurements			
Time	Flow (mL/min)	Vacuum (in Hg)	Comments
	200		

Notes

Sampler's Signature: pgob



Date:	3/4/21	Sampler:	Paola Gomez-Birnbaum
Client:	Bardas	Project #:	01-BAR-002 Task 2
Container Type:	1-L Summa	Container ID:	009023
Sample ID:	SS-4	Manifold ID:	008370
Duplicate Sample ID			
Weather:	Temperature: 60°F	Precipitation:	0"
Sampling Device:	Summa		
Leak Test:	Shut-In 2min 5" Hg	Leak Check Compound: 1,1-DFA	
Purge Volume:	151 cc		
Purge Start Time:	1828	Purge End Time:	1830
Sample Start Time:	1830	Sample End Time:	1834
Start Vacuum:	-30	End Vacuum:	-5

[illegible][illegible]

Sampler's Signature:

gō's



Date:	3/4/21	Sampler:	Paola Gomez-Birenbaum
Client:	Bardas	Project #:	01-BAR-002 Task 2
Container Type:	Summa 1-L	Container ID:	010757
Sample ID:	SS-5	Manifold ID:	007441
Duplicate Sample ID			
Weather:	Temperature: 60°F	Precipitation:	0"
Sampling Device:	Summa		
Leak Test:	Shut-In 5" Hg - 2 min	Leak Check Compound: 1,1-DFA	
Purge Volume:	151 cc		
Purge Start Time:	1716	Purge End Time:	1718
Sample Start Time:	1718	Sample End Time:	1723
Start Vacuum:	-30	End Vacuum:	-5

[illegible][illegible]

Sampler's Signature: _____

gob

Soil Vapor Field Measurement Log

Date:	3/4/21	Sampler:	Paola Gomez - Birenbaum
Client:	Bardas	Project #:	01-BAR-002 Task 2
Container Type:	1-L Summa	Container ID:	011998
Sample ID:	SS-7	Manifold ID:	007727
Duplicate Sample ID			
Weather:	Temperature: 60°F	Precipitation:	0"
Sampling Device:	1-L Summa		
Leak Test:	Shut-In -5" 2min	Leak Check Compound:	1,1-DFA
Purge Volume:	151 cc		
Purge Start Time:	1737	Purge End Time:	1739
Sample Start Time:	1739	Sample End Time:	1743
Start Vacuum:	-29	End Vacuum:	-5

Field Measurements			
Time	Flow (mL/min)	Vacuum (in Hg)	Comments
	200		

Notes

Sampler's Signature: Paola Gomez

Soil Vapor Field Measurement Log

Date:	3/4/21	Sampler:	Paola Gomez-Breitbart
Client:	Bardas	Project #:	01-BAR-002 Task 2
Container Type:	1-L Summa	Container ID:	01213
Sample ID:	SS-8	Manifold ID:	007860
Duplicate Sample ID			
Weather:	Temperature: 60°F	Precipitation:	0"
Sampling Device:	Summa		
Leak Test:	Shut-In 5" Hg - 2 min	Leak Check Compound:	1,1-DFA
Purge Volume:	151 cc		
Purge Start Time:	1800	Purge End Time:	1802
Sample Start Time:	1802	Sample End Time:	1807
Start Vacuum:	-29	End Vacuum:	-5

Field Measurements			
Time	Flow (mL/min)	Vacuum (in Hg)	Comments
	200		

Notes

Sampler's Signature: sgob



Indoor Air Sampling Form

Project Name: Cahuenga
 Project Number: 01-BAR-002 Task 3
 Location: Los Angeles

Sample ID	Canister ID	Location at Site	Date	Time	Summa Vacuum (in. Hg)	Internal HVAC System Position (On/Auto/Off)	Remodeling since last sampling? (Yes/No)	Airflow Observed (Yes/No)	Comments
1A-1	C70061	Room 101	Start	3/27/21	845	-30	off	N/A	A70099
			Finish	↓	1445	-5			
1A-2	C70026	Room 103	Start	3/27/21	839	-30	off	N/A	SAM 4384 A70098
			Finish	↓	1639	-5			
1A-3	C70082	Room 104	Start	3/27/21	850	-30	off	N/A	A70097
			Finish	↓	1650	-6			
1A-4	C70191	NW parking garage	Start	3/27/21	902	-30	N/A	N/A	A70092
			Finish	↓	1702	-5			
1A-5	C70063	NE parking garage	Start	3/27/21	904	-30	N/A	N/A	A70095
			Finish	↓	1705	-5			
1A-6	C70142	central parking garage	Start	3/27/21	907	-30	N/A	N/A	A70094
			Finish	↓	1707	-4			
1A-7	C70032	South parking garage	Start	3/27/21	908	-29.5	N/A	N/A	A70075
			Finish	↓	1708	-5			
AA-1	C70177	South of building	Start	3/27/21	909	-30	N/A	N/A	A70096
			Finish	↓	1709	-5			



Indoor Air Sampling Form

Project Name: Cahuenga
 Project Number: 01-BAR-002 Task 3
 Location: Los Angeles.

Sample ID	Canister ID	Location at Site	Date	Time	Summa Vacuum (in. Hg)	Internal HVAC System Position (On/Auto/Off)	Remodeling since last sampling? (Yes/No)	Airflow Observed (Yes/No)	Comments
AA-2	C10678	playground	Start	3/28/21	856	-30	N/A	N/A	A70100
			Finish	↓	1656	-5			
			Start						
			Finish						
			Start						
			Finish						
			Start						
			Finish						
			Start						
			Finish						
			Start						
			Finish						
			Start						
			Finish						
			Start						
			Finish						

ATTACHMENT B
BUILDING SURVEY FORMS

APPENDIX L - BUILDING SURVEY FORM

Preparer's Name: Paola Gomez-Birenbaum Date/Time Prepared: 3/27/21 8-
Affiliation: RMD Environmental Solutions Inc Phone Number: 310 678 9367

Occupant Information

Occupant Name: Stratford School Interviewed: ☐ Yes ☒ No
Mailing Address: 1200 Cahuenga Blvd
City: Los Angeles State: CA Zip Code: 90038
Phone: 323 462 3075 Email: _____

Owner/Landlord Information (Check if same as occupant ☐)

Occupant Name: _____ Interviewed: ☐ Yes ☐ No
Mailing Address: _____
City: _____ State: _____ Zip Code: _____
Phone: _____ Email: _____

Building Type (Check appropriate boxes)

☐ Residential ☐ Residential Duplex ☐ Apartment Building ☐ Mobile Home ☐ Commercial (office)
☐ Commercial (warehouse) ☐ Industrial ☐ Strip Mall ☐ Split Level ☐ Church ☒ School

Building Characteristics

Approximate Building Age (years): 30 yrs Number of Stories: western portion (2), eastern (2+ garage)
Approximate Building Area (square feet): 13,500 Number of Elevators: 1

Foundation Type (Check appropriate boxes)

☒ Slab-on-Grade ☐ Crawl Space ☐ Basement eastern portion has subterranean garage.

Basement Characteristics (Check appropriate boxes)

☐ Dirt Floor ☐ Sealed ☐ Wet Surfaces ☐ Sump Pump ☐ Concrete Cracks ☐ Floor Drains

Factors Influencing Indoor Air Quality

Is there an attached garage?	☐ Yes ☒ No	
Is there smoking in the building?	☐ Yes ☒ No	
Is there new carpet or furniture?	☐ Yes ☒ No	Describe: _____
Have clothes or drapes been recently dry cleaned?	☐ Yes ☒ No	Describe: _____
Has painting or staining been done with the last six months?	☐ Yes ☒ No	Describe: _____
Has the building been recently remodeled?	☐ Yes ☒ No	Describe: _____
Has the building ever had a fire?	☐ Yes ☒ No	
Is there a hobby or craft area in the building?	☒ Yes ☐ No	Describe: <u>art supplies for children in class rooms</u>
Is gun cleaner stored in the building?	☐ Yes ☒ No	
Is there a fuel oil tank on the property?	☐ Yes ☒ No	
Is there a septic tank on the property?	☐ Yes ☒ No	
Has the building been fumigated or sprayed for pests recently?	☐ Yes ☒ No	Describe: _____
Do any building occupants use solvents at work?	☐ Yes ☒ No	Describe: _____

Sampling Locations

Draw the general floor plan of the building and denote locations of sample collection. Indicate locations of doors, windows, indoor air contaminant sources and field instrument readings.

See attached maps

Primary Type of Energy Used (Check appropriate boxes)

☐ Natural Gas ☐ Fuel Oil ☐ Propane ☒ Electricity ☐ Wood ☐ Kerosene

Meteorological Conditions

Describe the general weather conditions during the indoor air sampling event.

63°F; clear, no wind

General Comments

Provide any other information that may be of importance in understanding the indoor air quality of this building.

APPENDIX M – BUILDING SCREENING FORM

Occupant of Building Stratford School

Address 1200 Cahuenga Blvd,

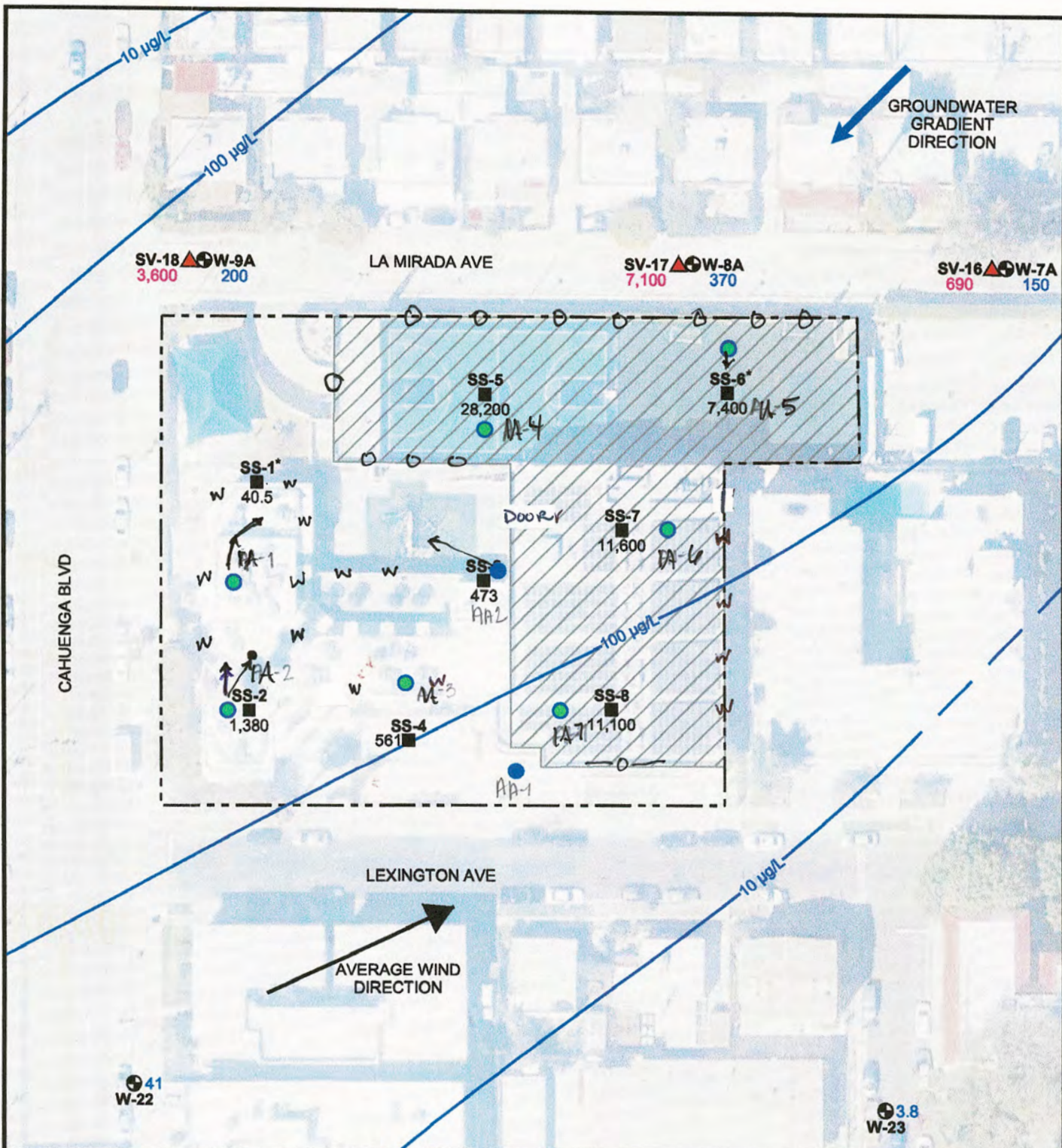
City Los Angeles

Field Investigator Paola Gomez-Buenbaum Date 8/27/2021

Field Instrument Reading	Measurement Location (Ambient Air, Foundation Opening, or Consumer Product)	If Consumer Product, Potential Volatile Ingredients
0.0	Room 101, 1A-1, Classroom	
0.0	Room 103, 1A-2, Classroom	
0.0	Room 106, 1A-3, Classroom	
0.0	Garage NW, 1A-4	
0.0	Garage NE, 1A-5	
0.0	Garage Central 1A-6	
0.0	Garage South 1A-7	
0.0	Room 102, Classroom	
0.0	Room 105 Classroom	
0.0	Room 104, Classroom	
0.0	Restroom E of 104	
0.0	AA-1, playground	
0.0	AA-2, S of building	
0.0	multipurpose room	

Comments:

No access to custodial room; women's restroom.



LEGEND

- Property Boundary
- Shallow Groundwater PCE Concentration Contour (Dashed Where Inferred), 9/1/2020
- W-9B▲ Historic Soil Vapor Probe Location
- W-22● Groundwater Monitoring Well Location
- 690 Shallow Soil Vapor PCE Concentration ($\mu\text{g}/\text{m}^3$), 12/22/2016
- first story W-window / 0-opening to outside

41

40.5

PCE

SS-8■

Subterranean Garage

●

●

Shallow Groundwater PCE Concentration ($\mu\text{g}/\text{L}$), 9/1/2020

Subslab Vapor PCE Concentration ($\mu\text{g}/\text{m}^3$), 3/4/2021

Tetrachloroethene

Subslab Vapor Sample Location

Approximate Proposed Indoor Air Sample Location

Approximate Location Proposed Ambient Air Sample Location

DTSC Residential PCE Screening Levels, Vapor Intrusion to Indoor Air

Soil Vapor 15 $\mu\text{g}/\text{m}^3$

Groundwater 2.8 $\mu\text{g}/\text{L}$

*Leak Check Compound concentrations exceeded the threshold. Concentration may be biased low.

RMD
ENVIRONMENTAL
SOLUTIONS

1200 CAHUENGA BLVD
LOS ANGELES, CALIFORNIA

**SUBSLAB VAPOR
SAMPLE LOCATIONS**

PROJECT NO. 01-BAR-002
DATE 03/2021
DR. BY: DCB
APP. BY: PGB

0 60 120
SCALE: 1" = 60'



**FIGURE
1**

ATTACHMENT C
PHOTOGRAPH LOG

ATTACHMENT C PHOTOGRAPH LOG

Project Name: 1200 Cahuenga Boulevard
Project Number: 01-BAR-002

Client: Bardas Investment Group
Location: Los Angeles, California

Photo No: 1	
Photo Date: 3/27/2021	
Orientation: Southwest	
Description: Sample IA-1	
Photo No: 2	
Photo Date: 3/27/2021	
Orientation: North	
Description: Sample IA-2	

ATTACHMENT C PHOTOGRAPH LOG

Project Name: 1200 Cahuenga Boulevard
Project Number: 01-BAR-002

Client: Bardas Investment Group
Location: Los Angeles, California

Photo No: 3	
Photo Date: 3/27/2021	
Orientation: Southeast	
Description: Sample IA-3	
Photo No: 4	
Photo Date: 3/27/2021	
Orientation: West	
Description: Sample IA-4	

ATTACHMENT C PHOTOGRAPH LOG

Project Name: 1200 Cahuenga Boulevard
Project Number: 01-BAR-002

Client: Bardas Investment Group
Location: Los Angeles, California

Photo No: 5	
Photo Date: 3/27/2021	
Orientation: East	
Description: Sample IA-5	
Photo No: 6	
Photo Date: 3/27/2021	
Orientation: North	
Description: Sample IA-6	

ATTACHMENT C PHOTOGRAPH LOG

Project Name: 1200 Cahuenga Boulevard
Project Number: 01-BAR-002

Client: Bardas Investment Group
Location: Los Angeles, California

Photo No: 7	
Photo Date: 3/27/2021	
Orientation: Southeast	
Description: Sample IA-7	
Photo No: 8	
Photo Date: 3/27/2021	
Orientation: North	
Description: Sample AA-1	

ATTACHMENT C PHOTOGRAPH LOG

Project Name: 1200 Cahuenga Boulevard
Project Number: 01-BAR-002

Client: Bardas Investment Group
Location: Los Angeles, California

Photo No: 9	
Photo Date: 3/27/2021	
Orientation: Northeast	
Description: Sample AA-2	

ATTACHMENT D
LABORATORY ANALYTICAL REPORTS

March 09, 2021

RMD Environmental - Walnut Creek, CA

Sample Delivery Group: L1323978
Samples Received: 03/06/2021
Project Number: 01-BAR-002
Description: Baridas-Cahuenga

Report To: Paola Gomez-Birenbaum
1371 Oakland Blvd.
Suite 200
Walnut Creek, CA 94596

Entire Report Reviewed By:



Jared Starkey
Project Manager

Results relate only to the items tested or calibrated and are reported as rounded values. This test report shall not be reproduced, except in full, without written approval of the laboratory. Where applicable, sampling conducted by Pace Analytical National is performed per guidance provided in laboratory standard operating procedures ENV-SOP-MTJL-0067 and ENV-SOP-MTJL-0068. Where sampling conducted by the customer, results relate to the accuracy of the information provided, and as the samples are received.

Pace Analytical National

12065 Lebanon Rd Mount Juliet, TN 37122 615-758-5858 800-767-5859 www.pacenational.com



Cp: Cover Page	1
Tc: Table of Contents	2
Ss: Sample Summary	3
Cn: Case Narrative	5
Ds: Detection Summary	6
Sr: Sample Results	9
SS-1 L1323978-01	9
SS-2 L1323978-02	11
SS-3 L1323978-03	13
SS-4 L1323978-04	15
SS-5 L1323978-05	17
SS-6 L1323978-06	19
SS-7 L1323978-07	21
SS-8 L1323978-08	23
Qc: Quality Control Summary	25
Volatile Organic Compounds (MS) by Method TO-15	25
Gl: Glossary of Terms	30
Al: Accreditations & Locations	31
Sc: Sample Chain of Custody	32



SAMPLE SUMMARY

ONE LAB. NATIONWIDE.



SS-1 L1323978-01 Air

				Collected by PGB	Collected date/time 03/04/21 19:00	Received date/time 03/06/21 10:10
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (MS) by Method TO-15	WG1630780	1	03/07/21 12:53	03/07/21 12:53	CAW	Mt. Juliet, TN
Volatile Organic Compounds (MS) by Method TO-15	WG1631111	100	03/08/21 12:13	03/08/21 12:13	CAW	Mt. Juliet, TN

¹ Cp² Tc³ Ss

SS-2 L1323978-02 Air

				Collected by PGB	Collected date/time 03/04/21 19:19	Received date/time 03/06/21 10:10
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (MS) by Method TO-15	WG1630780	1	03/07/21 13:35	03/07/21 13:35	CAW	Mt. Juliet, TN
Volatile Organic Compounds (MS) by Method TO-15	WG1631111	10	03/08/21 12:54	03/08/21 12:54	CAW	Mt. Juliet, TN

⁴ Cn⁵ Ds⁶ Sr

SS-3 L1323978-03 Air

				Collected by PGB	Collected date/time 03/04/21 19:41	Received date/time 03/06/21 10:10
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (MS) by Method TO-15	WG1630780	1	03/07/21 14:17	03/07/21 14:17	CAW	Mt. Juliet, TN

⁷ Qc⁸ Gl

SS-4 L1323978-04 Air

				Collected by PGB	Collected date/time 03/04/21 18:34	Received date/time 03/06/21 10:10
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (MS) by Method TO-15	WG1630780	1	03/07/21 14:59	03/07/21 14:59	CAW	Mt. Juliet, TN

⁹ Al¹⁰ Sc

SS-5 L1323978-05 Air

				Collected by PGB	Collected date/time 03/04/21 17:23	Received date/time 03/06/21 10:10
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (MS) by Method TO-15	WG1630780	1	03/07/21 15:40	03/07/21 15:40	CAW	Mt. Juliet, TN
Volatile Organic Compounds (MS) by Method TO-15	WG1631111	100	03/08/21 13:32	03/08/21 13:32	CAW	Mt. Juliet, TN

SS-6 L1323978-06 Air

				Collected by PGB	Collected date/time 03/04/21 16:59	Received date/time 03/06/21 10:10
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (MS) by Method TO-15	WG1630780	1	03/07/21 16:22	03/07/21 16:22	CAW	Mt. Juliet, TN
Volatile Organic Compounds (MS) by Method TO-15	WG1631111	20	03/08/21 14:12	03/08/21 14:12	CAW	Mt. Juliet, TN

SS-7 L1323978-07 Air

				Collected by PGB	Collected date/time 03/04/21 17:43	Received date/time 03/06/21 10:10
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (MS) by Method TO-15	WG1630780	1	03/07/21 17:04	03/07/21 17:04	CAW	Mt. Juliet, TN
Volatile Organic Compounds (MS) by Method TO-15	WG1631111	100	03/08/21 14:49	03/08/21 14:49	CAW	Mt. Juliet, TN

ACCOUNT:

RMD Environmental - Walnut Creek, CA

PROJECT:

01-BAR-002

SDG:

L1323978

DATE/TIME:

03/09/21 12:39

PAGE:

3 of 32

SS-8 L1323978-08 Air

Collected by
PGB

Collected date/time
03/04/21 18:07

Received date/time
03/06/21 10:10

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (MS) by Method TO-15	WG1630780	1	03/07/21 17:47	03/07/21 17:47	CAW	Mt. Juliet, TN
Volatile Organic Compounds (MS) by Method TO-15	WG1631111	100	03/08/21 15:27	03/08/21 15:27	CAW	Mt. Juliet, TN

¹Cp

²Tc

³Ss

⁴Cn

⁵Ds

⁶Sr

⁷Qc

⁸Gl

⁹Al

¹⁰Sc



All sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times, unless qualified or notated within the report. Where applicable, all MDL (LOD) and RDL (LOQ) values reported for environmental samples have been corrected for the dilution factor used in the analysis. All Method and Batch Quality Control are within established criteria except where addressed in this case narrative, a non-conformance form or properly qualified within the sample results. By my digital signature below, I affirm to the best of my knowledge, all problems/anomalies observed by the laboratory as having the potential to affect the quality of the data have been identified by the laboratory, and no information or data have been knowingly withheld that would affect the quality of the data.

Jared Starkey
Project Manager

¹ Cp² Tc³ Ss⁴ Cn⁵ Ds⁶ Sr⁷ Qc⁸ Gl⁹ Al¹⁰ Sc



Volatile Organic Compounds (MS) by Method TO-15

Client ID	Lab Sample ID	Analyte	CAS #	Mol. Wt.	RDL1 ppbv	RDL2 ug/m3	Result ppbv	Result ug/m3	Qualifier	Dilutio n	Batch
SS-1	L1323978-01	Acetone	67-64-1	58.10	1.25	2.97	33.9	80.6		1	WG1630780
SS-1	L1323978-01	Benzene	71-43-2	78.10	0.200	0.639	0.890	2.84		1	WG1630780
SS-1	L1323978-01	Chloromethane	74-87-3	50.50	0.200	0.413	0.616	1.27		1	WG1630780
SS-1	L1323978-01	Ethanol	64-17-5	46.10	0.630	1.19	28.8	54.3		1	WG1630780
SS-1	L1323978-01	Ethylbenzene	100-41-4	106	0.200	0.867	0.967	4.19		1	WG1630780
SS-1	L1323978-01	4-Ethyltoluene	622-96-8	120	0.200	0.982	0.659	3.23		1	WG1630780
SS-1	L1323978-01	Trichlorofluoromethane	75-69-4	137.40	0.200	1.12	0.252	1.42		1	WG1630780
SS-1	L1323978-01	Dichlorodifluoromethane	75-71-8	120.92	0.200	0.989	0.479	2.37		1	WG1630780
SS-1	L1323978-01	Heptane	142-82-5	100	0.200	0.818	0.259	1.06		1	WG1630780
SS-1	L1323978-01	2-Butanone (MEK)	78-93-3	72.10	1.25	3.69	1.53	4.51		1	WG1630780
SS-1	L1323978-01	2-Propanol	67-63-0	60.10	1.25	3.07	7.65	18.8		1	WG1630780
SS-1	L1323978-01	Tetrachloroethylene	127-18-4	166	0.200	1.36	5.96	40.5		1	WG1630780
SS-1	L1323978-01	Toluene	108-88-3	92.10	0.500	1.88	5.69	21.4		1	WG1630780
SS-1	L1323978-01	1,2,4-Trimethylbenzene	95-63-6	120	0.200	0.982	0.796	3.91		1	WG1630780
SS-1	L1323978-01	1,3,5-Trimethylbenzene	108-67-8	120	0.200	0.982	0.216	1.06		1	WG1630780
SS-1	L1323978-01	2,2,4-Trimethylpentane	540-84-1	114.22	0.200	0.934	0.329	1.54		1	WG1630780
SS-1	L1323978-01	m&p-Xylene	1330-20-7	106	0.400	1.73	3.75	16.3		1	WG1630780
SS-1	L1323978-01	o-Xylene	95-47-6	106	0.200	0.867	1.44	6.24		1	WG1630780
SS-1	L1323978-01	1,1-Difluoroethane	75-37-6	66.05	100	270	936	2530		100	WG1631111
SS-2	L1323978-02	Acetone	67-64-1	58.10	12.5	29.7	285	677		10	WG1631111
SS-2	L1323978-02	1,4-Dioxane	123-91-1	88.10	0.200	0.721	3.81	13.7		1	WG1630780
SS-2	L1323978-02	Ethanol	64-17-5	46.10	6.30	11.9	391	737		10	WG1631111
SS-2	L1323978-02	Ethylbenzene	100-41-4	106	0.200	0.867	0.370	1.60		1	WG1630780
SS-2	L1323978-02	Trichlorofluoromethane	75-69-4	137.40	0.200	1.12	0.571	3.21		1	WG1630780
SS-2	L1323978-02	Dichlorodifluoromethane	75-71-8	120.92	0.200	0.989	0.572	2.83		1	WG1630780
SS-2	L1323978-02	Isopropylbenzene	98-82-8	120.20	0.200	0.983	1.43	7.03		1	WG1630780
SS-2	L1323978-02	2-Butanone (MEK)	78-93-3	72.10	1.25	3.69	19.3	56.9		1	WG1630780
SS-2	L1323978-02	4-Methyl-2-pentanone (MIBK)	108-10-1	100.10	1.25	5.12	2.38	9.74		1	WG1630780
SS-2	L1323978-02	2-Propanol	67-63-0	60.10	1.25	3.07	19.0	46.7		1	WG1630780
SS-2	L1323978-02	Propene	115-07-1	42.10	0.400	0.689	0.585	1.01		1	WG1630780
SS-2	L1323978-02	Styrene	100-42-5	104	0.200	0.851	0.436	1.85		1	WG1630780
SS-2	L1323978-02	Tetrachloroethylene	127-18-4	166	2.00	13.6	203	1380		10	WG1631111
SS-2	L1323978-02	Toluene	108-88-3	92.10	0.500	1.88	0.730	2.75		1	WG1630780
SS-2	L1323978-02	1,2,4-Trimethylbenzene	95-63-6	120	0.200	0.982	0.665	3.26		1	WG1630780
SS-2	L1323978-02	2,2,4-Trimethylpentane	540-84-1	114.22	0.200	0.934	4.82	22.5		1	WG1630780
SS-2	L1323978-02	m&p-Xylene	1330-20-7	106	0.400	1.73	0.832	3.61		1	WG1630780
SS-2	L1323978-02	o-Xylene	95-47-6	106	0.200	0.867	0.367	1.59		1	WG1630780
SS-2	L1323978-02	1,1-Difluoroethane	75-37-6	66.05	1.00	2.70	3.97	10.7		1	WG1630780
SS-3	L1323978-03	Acetone	67-64-1	58.10	1.25	2.97	7.25	17.2		1	WG1630780
SS-3	L1323978-03	Chloroform	67-66-3	119	0.200	0.973	0.206	1.00		1	WG1630780
SS-3	L1323978-03	1,4-Dioxane	123-91-1	88.10	0.200	0.721	0.515	1.86		1	WG1630780
SS-3	L1323978-03	Ethanol	64-17-5	46.10	0.630	1.19	19.4	36.6		1	WG1630780
SS-3	L1323978-03	Trichlorofluoromethane	75-69-4	137.40	0.200	1.12	0.288	1.62		1	WG1630780
SS-3	L1323978-03	Dichlorodifluoromethane	75-71-8	120.92	0.200	0.989	0.553	2.73		1	WG1630780
SS-3	L1323978-03	Propene	115-07-1	42.10	0.400	0.689	0.478	0.823		1	WG1630780
SS-3	L1323978-03	Styrene	100-42-5	104	0.200	0.851	0.223	0.949		1	WG1630780
SS-3	L1323978-03	Tetrachloroethylene	127-18-4	166	0.200	1.36	69.7	473		1	WG1630780
SS-3	L1323978-03	Tetrahydrofuran	109-99-9	72.10	0.200	0.590	0.234	0.690		1	WG1630780
SS-3	L1323978-03	1,2,4-Trimethylbenzene	95-63-6	120	0.200	0.982	0.261	1.28		1	WG1630780
SS-3	L1323978-03	m&p-Xylene	1330-20-7	106	0.400	1.73	0.450	1.95		1	WG1630780
SS-3	L1323978-03	o-Xylene	95-47-6	106	0.200	0.867	0.214	0.928		1	WG1630780



DETECTION SUMMARY

ONE LAB. NATIONWIDE.



Volatile Organic Compounds (MS) by Method TO-15

Client ID	Lab Sample ID	Analyte	CAS #	Mol. Wt.	RDL1 ppbv	RDL2 ug/m3	Result ppbv	Result ug/m3	Qualifier	Dilutio n	Batch
SS-4	L1323978-04	Acetone	67-64-1	58.10	1.25	2.97	19.1	45.4		1	WG1630780
SS-4	L1323978-04	1,4-Dioxane	123-91-1	88.10	0.200	0.721	0.515	1.86		1	WG1630780
SS-4	L1323978-04	Ethanol	64-17-5	46.10	0.630	1.19	89.1	168		1	WG1630780
SS-4	L1323978-04	Trichlorofluoromethane	75-69-4	137.40	0.200	1.12	0.777	4.37		1	WG1630780
SS-4	L1323978-04	Dichlorodifluoromethane	75-71-8	120.92	0.200	0.989	0.493	2.44		1	WG1630780
SS-4	L1323978-04	2-Propanol	67-63-0	60.10	1.25	3.07	2.42	5.95		1	WG1630780
SS-4	L1323978-04	Styrene	100-42-5	104	0.200	0.851	0.245	1.04		1	WG1630780
SS-4	L1323978-04	Tetrachloroethylene	127-18-4	166	0.200	1.36	82.6	561		1	WG1630780
SS-4	L1323978-04	1,2,4-Trimethylbenzene	95-63-6	120	0.200	0.982	0.328	1.61		1	WG1630780
SS-4	L1323978-04	m&p-Xylene	1330-20-7	106	0.400	1.73	0.481	2.09		1	WG1630780
SS-4	L1323978-04	o-Xylene	95-47-6	106	0.200	0.867	0.240	1.04		1	WG1630780
SS-5	L1323978-05	Acetone	67-64-1	58.10	1.25	2.97	10.6	25.2		1	WG1630780
SS-5	L1323978-05	Ethanol	64-17-5	46.10	0.630	1.19	72.6	137		1	WG1630780
SS-5	L1323978-05	Ethylbenzene	100-41-4	106	0.200	0.867	0.534	2.32		1	WG1630780
SS-5	L1323978-05	Trichlorofluoromethane	75-69-4	137.40	0.200	1.12	0.578	3.25		1	WG1630780
SS-5	L1323978-05	Dichlorodifluoromethane	75-71-8	120.92	0.200	0.989	0.555	2.74		1	WG1630780
SS-5	L1323978-05	2-Propanol	67-63-0	60.10	1.25	3.07	2.21	5.43		1	WG1630780
SS-5	L1323978-05	Tetrachloroethylene	127-18-4	166	20.0	136	4160	28200		100	WG1631111
SS-5	L1323978-05	Trichloroethylene	79-01-6	131	0.200	1.07	0.915	4.90		1	WG1630780
SS-5	L1323978-05	1,2,4-Trimethylbenzene	95-63-6	120	0.200	0.982	0.206	1.01		1	WG1630780
SS-5	L1323978-05	m&p-Xylene	1330-20-7	106	0.400	1.73	2.75	11.9		1	WG1630780
SS-5	L1323978-05	o-Xylene	95-47-6	106	0.200	0.867	1.12	4.86		1	WG1630780
SS-6	L1323978-06	Acetone	67-64-1	58.10	1.25	2.97	16.9	40.2		1	WG1630780
SS-6	L1323978-06	Ethanol	64-17-5	46.10	0.630	1.19	82.6	156		1	WG1630780
SS-6	L1323978-06	Ethylbenzene	100-41-4	106	0.200	0.867	1.96	8.50		1	WG1630780
SS-6	L1323978-06	Trichlorofluoromethane	75-69-4	137.40	0.200	1.12	0.613	3.44		1	WG1630780
SS-6	L1323978-06	Dichlorodifluoromethane	75-71-8	120.92	0.200	0.989	0.561	2.77		1	WG1630780
SS-6	L1323978-06	2-Butanone (MEK)	78-93-3	72.10	1.25	3.69	1.45	4.28		1	WG1630780
SS-6	L1323978-06	2-Propanol	67-63-0	60.10	1.25	3.07	2.03	4.99		1	WG1630780
SS-6	L1323978-06	Tetrachloroethylene	127-18-4	166	4.00	27.2	1090	7400		20	WG1631111
SS-6	L1323978-06	Trichloroethylene	79-01-6	131	0.200	1.07	0.393	2.11		1	WG1630780
SS-6	L1323978-06	1,2,4-Trimethylbenzene	95-63-6	120	0.200	0.982	0.273	1.34		1	WG1630780
SS-6	L1323978-06	m&p-Xylene	1330-20-7	106	0.400	1.73	10.5	45.5		1	WG1630780
SS-6	L1323978-06	o-Xylene	95-47-6	106	0.200	0.867	3.89	16.9		1	WG1630780
SS-6	L1323978-06	1,1-Difluoroethane	75-37-6	66.05	20.0	54.0	291	786		20	WG1631111
SS-7	L1323978-07	Acetone	67-64-1	58.10	1.25	2.97	19.2	45.6		1	WG1630780
SS-7	L1323978-07	Ethanol	64-17-5	46.10	0.630	1.19	79.4	150		1	WG1630780
SS-7	L1323978-07	Trichlorofluoromethane	75-69-4	137.40	0.200	1.12	1.46	8.20		1	WG1630780
SS-7	L1323978-07	Dichlorodifluoromethane	75-71-8	120.92	0.200	0.989	0.607	3.00		1	WG1630780
SS-7	L1323978-07	2-Propanol	67-63-0	60.10	1.25	3.07	9.46	23.3		1	WG1630780
SS-7	L1323978-07	Styrene	100-42-5	104	0.200	0.851	0.244	1.04		1	WG1630780
SS-7	L1323978-07	Tetrachloroethylene	127-18-4	166	20.0	136	1710	11600		100	WG1631111
SS-7	L1323978-07	Toluene	108-88-3	92.10	0.500	1.88	0.575	2.17		1	WG1630780
SS-7	L1323978-07	1,1,1-Trichloroethane	71-55-6	133	0.200	1.09	0.675	3.67		1	WG1630780
SS-7	L1323978-07	Trichloroethylene	79-01-6	131	0.200	1.07	0.877	4.70		1	WG1630780
SS-7	L1323978-07	1,2,4-Trimethylbenzene	95-63-6	120	0.200	0.982	0.304	1.49		1	WG1630780
SS-7	L1323978-07	m&p-Xylene	1330-20-7	106	0.400	1.73	0.871	3.78		1	WG1630780
SS-7	L1323978-07	o-Xylene	95-47-6	106	0.200	0.867	0.341	1.48		1	WG1630780
SS-7	L1323978-07	1,1-Difluoroethane	75-37-6	66.05	1.00	2.70	1.24	3.35		1	WG1630780

1 Cp
2 Tc
3 Ss
4 Cn
5 Ds
6 Sr
7 Qc
8 Gl
9 Al
10 Sc

ACCOUNT:

RMD Environmental - Walnut Creek, CA

PROJECT:

01-BAR-002

SDG:

L1323978

DATE/TIME:

03/09/21 12:39

PAGE:

7 of 32



Volatile Organic Compounds (MS) by Method TO-15

Client ID	Lab Sample ID	Analyte	CAS #	Mol. Wt.	RDL1 ppbv	RDL2 ug/m3	Result ppbv	Result ug/m3	Qualifier	Dilutio n	Batch
SS-8	L1323978-08	Acetone	67-64-1	58.10	1.25	2.97	6.34	15.1		1	WG1630780
SS-8	L1323978-08	Ethanol	64-17-5	46.10	0.630	1.19	48.6	91.6		1	WG1630780
SS-8	L1323978-08	Trichlorofluoromethane	75-69-4	137.40	0.200	1.12	0.944	5.30		1	WG1630780
SS-8	L1323978-08	Dichlorodifluoromethane	75-71-8	120.92	0.200	0.989	0.557	2.75		1	WG1630780
SS-8	L1323978-08	2-Propanol	67-63-0	60.10	1.25	3.07	5.55	13.6		1	WG1630780
SS-8	L1323978-08	Tetrachloroethylene	127-18-4	166	20.0	136	1640	11100		100	WG1631111
SS-8	L1323978-08	1,1,1-Trichloroethane	71-55-6	133	0.200	1.09	1.12	6.09		1	WG1630780
SS-8	L1323978-08	Trichloroethylene	79-01-6	131	0.200	1.07	2.74	14.7		1	WG1630780
SS-8	L1323978-08	1,2,4-Trimethylbenzene	95-63-6	120	0.200	0.982	0.247	1.21		1	WG1630780

¹ Cp² Tc³ Ss⁴ Cn⁵ Ds⁶ Sr⁷ Qc⁸ Gl⁹ Al¹⁰ Sc



Collected date/time: 03/04/21 19:00

L1323978

Volatile Organic Compounds (MS) by Method TO-15

Analyte	CAS #	Mol. Wt.	RDL1 ppbv	RDL2 ug/m3	Result ppbv	Result ug/m3	Qualifier	Dilution	Batch
Acetone	67-64-1	58.10	1.25	2.97	33.9	80.6		1	WG1630780
Allyl chloride	107-05-1	76.53	0.200	0.626	ND	ND		1	WG1630780
Benzene	71-43-2	78.10	0.200	0.639	0.890	2.84		1	WG1630780
Benzyl Chloride	100-44-7	127	0.200	1.04	ND	ND		1	WG1630780
Bromodichloromethane	75-27-4	164	0.200	1.34	ND	ND		1	WG1630780
Bromoform	75-25-2	253	0.600	6.21	ND	ND		1	WG1630780
Bromomethane	74-83-9	94.90	0.200	0.776	ND	ND		1	WG1630780
1,3-Butadiene	106-99-0	54.10	2.00	4.43	ND	ND		1	WG1630780
Carbon disulfide	75-15-0	76.10	0.200	0.622	ND	ND		1	WG1630780
Carbon tetrachloride	56-23-5	154	0.200	1.26	ND	ND		1	WG1630780
Chlorobenzene	108-90-7	113	0.200	0.924	ND	ND		1	WG1630780
Chloroethane	75-00-3	64.50	0.200	0.528	ND	ND		1	WG1630780
Chloroform	67-66-3	119	0.200	0.973	ND	ND		1	WG1630780
Chloromethane	74-87-3	50.50	0.200	0.413	0.616	1.27		1	WG1630780
2-Chlorotoluene	95-49-8	126	0.200	1.03	ND	ND		1	WG1630780
Cyclohexane	110-82-7	84.20	0.200	0.689	ND	ND		1	WG1630780
Dibromochloromethane	124-48-1	208	0.200	1.70	ND	ND		1	WG1630780
1,2-Dibromoethane	106-93-4	188	0.200	1.54	ND	ND		1	WG1630780
1,2-Dichlorobenzene	95-50-1	147	0.200	1.20	ND	ND		1	WG1630780
1,3-Dichlorobenzene	541-73-1	147	0.200	1.20	ND	ND		1	WG1630780
1,4-Dichlorobenzene	106-46-7	147	0.200	1.20	ND	ND		1	WG1630780
1,2-Dichloroethane	107-06-2	99	0.200	0.810	ND	ND		1	WG1630780
1,1-Dichloroethane	75-34-3	98	0.200	0.802	ND	ND		1	WG1630780
1,1-Dichloroethene	75-35-4	96.90	0.200	0.793	ND	ND		1	WG1630780
cis-1,2-Dichloroethene	156-59-2	96.90	0.200	0.793	ND	ND		1	WG1630780
trans-1,2-Dichloroethene	156-60-5	96.90	0.200	0.793	ND	ND		1	WG1630780
1,2-Dichloropropane	78-87-5	113	0.200	0.924	ND	ND		1	WG1630780
cis-1,3-Dichloropropene	10061-01-5	111	0.200	0.908	ND	ND		1	WG1630780
trans-1,3-Dichloropropene	10061-02-6	111	0.200	0.908	ND	ND		1	WG1630780
1,4-Dioxane	123-91-1	88.10	0.200	0.721	ND	ND		1	WG1630780
Ethanol	64-17-5	46.10	0.630	1.19	28.8	54.3		1	WG1630780
Ethylbenzene	100-41-4	106	0.200	0.867	0.967	4.19		1	WG1630780
4-Ethyltoluene	622-96-8	120	0.200	0.982	0.659	3.23		1	WG1630780
Trichlorofluoromethane	75-69-4	137.40	0.200	1.12	0.252	1.42		1	WG1630780
Dichlorodifluoromethane	75-71-8	120.92	0.200	0.989	0.479	2.37		1	WG1630780
1,1,2-Trichlorotrifluoroethane	76-13-1	187.40	0.200	1.53	ND	ND		1	WG1630780
1,2-Dichlorotetrafluoroethane	76-14-2	171	0.200	1.40	ND	ND		1	WG1630780
Heptane	142-82-5	100	0.200	0.818	0.259	1.06		1	WG1630780
Hexachloro-1,3-butadiene	87-68-3	261	0.630	6.73	ND	ND		1	WG1630780
n-Hexane	110-54-3	86.20	0.630	2.22	ND	ND		1	WG1630780
Isopropylbenzene	98-82-8	120.20	0.200	0.983	ND	ND		1	WG1630780
Methylene Chloride	75-09-2	84.90	0.200	0.694	ND	ND		1	WG1630780
Methyl Butyl Ketone	591-78-6	100	1.25	5.11	ND	ND		1	WG1630780
2-Butanone (MEK)	78-93-3	72.10	1.25	3.69	1.53	4.51		1	WG1630780
4-Methyl-2-pentanone (MIBK)	108-10-1	100.10	1.25	5.12	ND	ND		1	WG1630780
Methyl methacrylate	80-62-6	100.12	0.200	0.819	ND	ND		1	WG1630780
MTBE	1634-04-4	88.10	0.200	0.721	ND	ND		1	WG1630780
Naphthalene	91-20-3	128	0.630	3.30	ND	ND		1	WG1630780
2-Propanol	67-63-0	60.10	1.25	3.07	7.65	18.8		1	WG1630780
Propene	115-07-1	42.10	0.400	0.689	ND	ND		1	WG1630780
Styrene	100-42-5	104	0.200	0.851	ND	ND		1	WG1630780
1,1,2,2-Tetrachloroethane	79-34-5	168	0.200	1.37	ND	ND		1	WG1630780
Tetrachloroethylene	127-18-4	166	0.200	1.36	5.96	40.5		1	WG1630780
Tetrahydrofuran	109-99-9	72.10	0.200	0.590	ND	ND		1	WG1630780
Toluene	108-88-3	92.10	0.500	1.88	5.69	21.4		1	WG1630780
1,2,4-Trichlorobenzene	120-82-1	181	0.630	4.66	ND	ND		1	WG1630780

1 Cp

2 Tc

3 Ss

4 Cn

5 Ds

6 Sr

7 Qc

8 Gl

9 Al

10 Sc

Volatile Organic Compounds (MS) by Method TO-15

Analyte	CAS #	Mol. Wt.	RDL1 ppbv	RDL2 ug/m3	Result ppbv	Result ug/m3	Qualifier	Dilution	Batch
1,1,1-Trichloroethane	71-55-6	133	0.200	1.09	ND	ND		1	WG1630780
1,1,2-Trichloroethane	79-00-5	133	0.200	1.09	ND	ND		1	WG1630780
Trichloroethylene	79-01-6	131	0.200	1.07	ND	ND		1	WG1630780
1,2,4-Trimethylbenzene	95-63-6	120	0.200	0.982	0.796	3.91		1	WG1630780
1,3,5-Trimethylbenzene	108-67-8	120	0.200	0.982	0.216	1.06		1	WG1630780
2,2,4-Trimethylpentane	540-84-1	114.22	0.200	0.934	0.329	1.54		1	WG1630780
Vinyl chloride	75-01-4	62.50	0.200	0.511	ND	ND		1	WG1630780
Vinyl Bromide	593-60-2	106.95	0.200	0.875	ND	ND		1	WG1630780
Vinyl acetate	108-05-4	86.10	0.200	0.704	ND	ND		1	WG1630780
m&p-Xylene	1330-20-7	106	0.400	1.73	3.75	16.3		1	WG1630780
o-Xylene	95-47-6	106	0.200	0.867	1.44	6.24		1	WG1630780
1,1-Difluoroethane	75-37-6	66.05	100	270	936	2530		100	WG1631111
(S) 1,4-Bromofluorobenzene	460-00-4	175	60.0-140		96.9				WG1630780
(S) 1,4-Bromofluorobenzene	460-00-4	175	60.0-140		94.1				WG1631111

1Cp

2Tc

3Ss

4Cn

5Ds

6Sr

7Qc

8Gl

9Al

10Sc



Volatile Organic Compounds (MS) by Method TO-15

Analyte	CAS #	Mol. Wt.	RDL1 ppbv	RDL2 ug/m3	Result ppbv	Result ug/m3	Qualifier	Dilution	Batch
Acetone	67-64-1	58.10	12.5	29.7	285	677		10	WG1631111
Allyl chloride	107-05-1	76.53	0.200	0.626	ND	ND		1	WG1630780
Benzene	71-43-2	78.10	0.200	0.639	ND	ND		1	WG1630780
Benzyl Chloride	100-44-7	127	0.200	1.04	ND	ND		1	WG1630780
Bromodichloromethane	75-27-4	164	0.200	1.34	ND	ND		1	WG1630780
Bromoform	75-25-2	253	0.600	6.21	ND	ND		1	WG1630780
Bromomethane	74-83-9	94.90	0.200	0.776	ND	ND		1	WG1630780
1,3-Butadiene	106-99-0	54.10	2.00	4.43	ND	ND		1	WG1630780
Carbon disulfide	75-15-0	76.10	0.200	0.622	ND	ND		1	WG1630780
Carbon tetrachloride	56-23-5	154	0.200	1.26	ND	ND		1	WG1630780
Chlorobenzene	108-90-7	113	0.200	0.924	ND	ND		1	WG1630780
Chloroethane	75-00-3	64.50	0.200	0.528	ND	ND		1	WG1630780
Chloroform	67-66-3	119	0.200	0.973	ND	ND		1	WG1630780
Chloromethane	74-87-3	50.50	0.200	0.413	ND	ND		1	WG1630780
2-Chlorotoluene	95-49-8	126	0.200	1.03	ND	ND		1	WG1630780
Cyclohexane	110-82-7	84.20	0.200	0.689	ND	ND		1	WG1630780
Dibromochloromethane	124-48-1	208	0.200	1.70	ND	ND		1	WG1630780
1,2-Dibromoethane	106-93-4	188	0.200	1.54	ND	ND		1	WG1630780
1,2-Dichlorobenzene	95-50-1	147	0.200	1.20	ND	ND		1	WG1630780
1,3-Dichlorobenzene	541-73-1	147	0.200	1.20	ND	ND		1	WG1630780
1,4-Dichlorobenzene	106-46-7	147	0.200	1.20	ND	ND		1	WG1630780
1,2-Dichloroethane	107-06-2	99	0.200	0.810	ND	ND		1	WG1630780
1,1-Dichloroethane	75-34-3	98	0.200	0.802	ND	ND		1	WG1630780
1,1-Dichloroethene	75-35-4	96.90	0.200	0.793	ND	ND		1	WG1630780
cis-1,2-Dichloroethene	156-59-2	96.90	0.200	0.793	ND	ND		1	WG1630780
trans-1,2-Dichloroethene	156-60-5	96.90	0.200	0.793	ND	ND		1	WG1630780
1,2-Dichloropropane	78-87-5	113	0.200	0.924	ND	ND		1	WG1630780
cis-1,3-Dichloropropene	10061-01-5	111	0.200	0.908	ND	ND		1	WG1630780
trans-1,3-Dichloropropene	10061-02-6	111	0.200	0.908	ND	ND		1	WG1630780
1,4-Dioxane	123-91-1	88.10	0.200	0.721	3.81	13.7		1	WG1630780
Ethanol	64-17-5	46.10	6.30	11.9	391	737		10	WG1631111
Ethylbenzene	100-41-4	106	0.200	0.867	0.370	1.60		1	WG1630780
4-Ethyltoluene	622-96-8	120	0.200	0.982	ND	ND		1	WG1630780
Trichlorofluoromethane	75-69-4	137.40	0.200	1.12	0.571	3.21		1	WG1630780
Dichlorodifluoromethane	75-71-8	120.92	0.200	0.989	0.572	2.83		1	WG1630780
1,1,2-Trichlorotrifluoroethane	76-13-1	187.40	0.200	1.53	ND	ND		1	WG1630780
1,2-Dichlorotetrafluoroethane	76-14-2	171	0.200	1.40	ND	ND		1	WG1630780
Heptane	142-82-5	100	0.200	0.818	ND	ND		1	WG1630780
Hexachloro-1,3-butadiene	87-68-3	261	0.630	6.73	ND	ND		1	WG1630780
n-Hexane	110-54-3	86.20	0.630	2.22	ND	ND		1	WG1630780
Isopropylbenzene	98-82-8	120.20	0.200	0.983	1.43	7.03		1	WG1630780
Methylene Chloride	75-09-2	84.90	0.200	0.694	ND	ND		1	WG1630780
Methyl Butyl Ketone	591-78-6	100	1.25	5.11	ND	ND		1	WG1630780
2-Butanone (MEK)	78-93-3	72.10	1.25	3.69	19.3	56.9		1	WG1630780
4-Methyl-2-pentanone (MIBK)	108-10-1	100.10	1.25	5.12	2.38	9.74		1	WG1630780
Methyl methacrylate	80-62-6	100.12	0.200	0.819	ND	ND		1	WG1630780
MTBE	1634-04-4	88.10	0.200	0.721	ND	ND		1	WG1630780
Naphthalene	91-20-3	128	0.630	3.30	ND	ND		1	WG1630780
2-Propanol	67-63-0	60.10	1.25	3.07	19.0	46.7		1	WG1630780
Propene	115-07-1	42.10	0.400	0.689	0.585	1.01		1	WG1630780
Styrene	100-42-5	104	0.200	0.851	0.436	1.85		1	WG1630780
1,1,2,2-Tetrachloroethane	79-34-5	168	0.200	1.37	ND	ND		1	WG1630780
Tetrachloroethylene	127-18-4	166	2.00	13.6	203	1380		10	WG1631111
Tetrahydrofuran	109-99-9	72.10	0.200	0.590	ND	ND		1	WG1630780
Toluene	108-88-3	92.10	0.500	1.88	0.730	2.75		1	WG1630780
1,2,4-Trichlorobenzene	120-82-1	181	0.630	4.66	ND	ND		1	WG1630780



Volatile Organic Compounds (MS) by Method TO-15

Analyte	CAS #	Mol. Wt.	RDL1 ppbv	RDL2 ug/m3	Result ppbv	Result ug/m3	Qualifier	Dilution	Batch
1,1,1-Trichloroethane	71-55-6	133	0.200	1.09	ND	ND		1	WG1630780
1,1,2-Trichloroethane	79-00-5	133	0.200	1.09	ND	ND		1	WG1630780
Trichloroethylene	79-01-6	131	0.200	1.07	ND	ND		1	WG1630780
1,2,4-Trimethylbenzene	95-63-6	120	0.200	0.982	0.665	3.26		1	WG1630780
1,3,5-Trimethylbenzene	108-67-8	120	0.200	0.982	ND	ND		1	WG1630780
2,2,4-Trimethylpentane	540-84-1	114.22	0.200	0.934	4.82	22.5		1	WG1630780
Vinyl chloride	75-01-4	62.50	0.200	0.511	ND	ND		1	WG1630780
Vinyl Bromide	593-60-2	106.95	0.200	0.875	ND	ND		1	WG1630780
Vinyl acetate	108-05-4	86.10	0.200	0.704	ND	ND		1	WG1630780
m&p-Xylene	1330-20-7	106	0.400	1.73	0.832	3.61		1	WG1630780
o-Xylene	95-47-6	106	0.200	0.867	0.367	1.59		1	WG1630780
1,1-Difluoroethane	75-37-6	66.05	1.00	2.70	3.97	10.7		1	WG1630780
(S) 1,4-Bromofluorobenzene	460-00-4	175	60.0-140		99.2				WG1630780
(S) 1,4-Bromofluorobenzene	460-00-4	175	60.0-140		93.0				WG1631111

1Cp

2Tc

3Ss

4Cn

5Ds

6Sr

7Qc

8Gl

9Al

10Sc



Volatile Organic Compounds (MS) by Method TO-15

Analyte	CAS #	Mol. Wt.	RDL1 ppbv	RDL2 ug/m3	Result ppbv	Result ug/m3	Qualifier	Dilution	Batch
Acetone	67-64-1	58.10	1.25	2.97	7.25	17.2		1	WG1630780
Allyl chloride	107-05-1	76.53	0.200	0.626	ND	ND		1	WG1630780
Benzene	71-43-2	78.10	0.200	0.639	ND	ND		1	WG1630780
Benzyl Chloride	100-44-7	127	0.200	1.04	ND	ND		1	WG1630780
Bromodichloromethane	75-27-4	164	0.200	1.34	ND	ND		1	WG1630780
Bromoform	75-25-2	253	0.600	6.21	ND	ND		1	WG1630780
Bromomethane	74-83-9	94.90	0.200	0.776	ND	ND		1	WG1630780
1,3-Butadiene	106-99-0	54.10	2.00	4.43	ND	ND		1	WG1630780
Carbon disulfide	75-15-0	76.10	0.200	0.622	ND	ND		1	WG1630780
Carbon tetrachloride	56-23-5	154	0.200	1.26	ND	ND		1	WG1630780
Chlorobenzene	108-90-7	113	0.200	0.924	ND	ND		1	WG1630780
Chloroethane	75-00-3	64.50	0.200	0.528	ND	ND		1	WG1630780
Chloroform	67-66-3	119	0.200	0.973	0.206	1.00		1	WG1630780
Chloromethane	74-87-3	50.50	0.200	0.413	ND	ND		1	WG1630780
2-Chlorotoluene	95-49-8	126	0.200	1.03	ND	ND		1	WG1630780
Cyclohexane	110-82-7	84.20	0.200	0.689	ND	ND		1	WG1630780
Dibromochloromethane	124-48-1	208	0.200	1.70	ND	ND		1	WG1630780
1,2-Dibromoethane	106-93-4	188	0.200	1.54	ND	ND		1	WG1630780
1,2-Dichlorobenzene	95-50-1	147	0.200	1.20	ND	ND		1	WG1630780
1,3-Dichlorobenzene	541-73-1	147	0.200	1.20	ND	ND		1	WG1630780
1,4-Dichlorobenzene	106-46-7	147	0.200	1.20	ND	ND		1	WG1630780
1,2-Dichloroethane	107-06-2	99	0.200	0.810	ND	ND		1	WG1630780
1,1-Dichloroethane	75-34-3	98	0.200	0.802	ND	ND		1	WG1630780
1,1-Dichloroethene	75-35-4	96.90	0.200	0.793	ND	ND		1	WG1630780
cis-1,2-Dichloroethene	156-59-2	96.90	0.200	0.793	ND	ND		1	WG1630780
trans-1,2-Dichloroethene	156-60-5	96.90	0.200	0.793	ND	ND		1	WG1630780
1,2-Dichloropropane	78-87-5	113	0.200	0.924	ND	ND		1	WG1630780
cis-1,3-Dichloropropene	10061-01-5	111	0.200	0.908	ND	ND		1	WG1630780
trans-1,3-Dichloropropene	10061-02-6	111	0.200	0.908	ND	ND		1	WG1630780
1,4-Dioxane	123-91-1	88.10	0.200	0.721	0.515	1.86		1	WG1630780
Ethanol	64-17-5	46.10	0.630	1.19	19.4	36.6		1	WG1630780
Ethylbenzene	100-41-4	106	0.200	0.867	ND	ND		1	WG1630780
4-Ethyltoluene	622-96-8	120	0.200	0.982	ND	ND		1	WG1630780
Trichlorofluoromethane	75-69-4	137.40	0.200	1.12	0.288	1.62		1	WG1630780
Dichlorodifluoromethane	75-71-8	120.92	0.200	0.989	0.553	2.73		1	WG1630780
1,1,2-Trichlorotrifluoroethane	76-13-1	187.40	0.200	1.53	ND	ND		1	WG1630780
1,2-Dichlorotetrafluoroethane	76-14-2	171	0.200	1.40	ND	ND		1	WG1630780
Heptane	142-82-5	100	0.200	0.818	ND	ND		1	WG1630780
Hexachloro-1,3-butadiene	87-68-3	261	0.630	6.73	ND	ND		1	WG1630780
n-Hexane	110-54-3	86.20	0.630	2.22	ND	ND		1	WG1630780
Isopropylbenzene	98-82-8	120.20	0.200	0.983	ND	ND		1	WG1630780
Methylene Chloride	75-09-2	84.90	0.200	0.694	ND	ND		1	WG1630780
Methyl Butyl Ketone	591-78-6	100	1.25	5.11	ND	ND		1	WG1630780
2-Butanone (MEK)	78-93-3	72.10	1.25	3.69	ND	ND		1	WG1630780
4-Methyl-2-pentanone (MIBK)	108-10-1	100.10	1.25	5.12	ND	ND		1	WG1630780
Methyl methacrylate	80-62-6	100.12	0.200	0.819	ND	ND		1	WG1630780
MTBE	1634-04-4	88.10	0.200	0.721	ND	ND		1	WG1630780
Naphthalene	91-20-3	128	0.630	3.30	ND	ND		1	WG1630780
2-Propanol	67-63-0	60.10	1.25	3.07	ND	ND		1	WG1630780
Propene	115-07-1	42.10	0.400	0.689	0.478	0.823		1	WG1630780
Styrene	100-42-5	104	0.200	0.851	0.223	0.949		1	WG1630780
1,1,2,2-Tetrachloroethane	79-34-5	168	0.200	1.37	ND	ND		1	WG1630780
Tetrachloroethylene	127-18-4	166	0.200	1.36	69.7	473		1	WG1630780
Tetrahydrofuran	109-99-9	72.10	0.200	0.590	0.234	0.690		1	WG1630780
Toluene	108-88-3	92.10	0.500	1.88	ND	ND		1	WG1630780
1,2,4-Trichlorobenzene	120-82-1	181	0.630	4.66	ND	ND		1	WG1630780

1 Cp

2 Tc

3 Ss

4 Cn

5 Ds

6 Sr

7 Qc

8 Gl

9 Al

10 Sc

Volatile Organic Compounds (MS) by Method TO-15

Analyte	CAS #	Mol. Wt.	RDL1 ppbv	RDL2 ug/m3	Result ppbv	Result ug/m3	Qualifier	Dilution	Batch
1,1,1-Trichloroethane	71-55-6	133	0.200	1.09	ND	ND		1	WG1630780
1,1,2-Trichloroethane	79-00-5	133	0.200	1.09	ND	ND		1	WG1630780
Trichloroethylene	79-01-6	131	0.200	1.07	ND	ND		1	WG1630780
1,2,4-Trimethylbenzene	95-63-6	120	0.200	0.982	0.261	1.28		1	WG1630780
1,3,5-Trimethylbenzene	108-67-8	120	0.200	0.982	ND	ND		1	WG1630780
2,2,4-Trimethylpentane	540-84-1	114.22	0.200	0.934	ND	ND		1	WG1630780
Vinyl chloride	75-01-4	62.50	0.200	0.511	ND	ND		1	WG1630780
Vinyl Bromide	593-60-2	106.95	0.200	0.875	ND	ND		1	WG1630780
Vinyl acetate	108-05-4	86.10	0.200	0.704	ND	ND		1	WG1630780
m&p-Xylene	1330-20-7	106	0.400	1.73	0.450	1.95		1	WG1630780
o-Xylene	95-47-6	106	0.200	0.867	0.214	0.928		1	WG1630780
1,1-Difluoroethane	75-37-6	66.05	1.00	2.70	ND	ND		1	WG1630780
(S) 1,4-Bromofluorobenzene	460-00-4	175	60.0-140		96.1				WG1630780

1

Cp

2

Tc

3

Ss

4

Cn

5

Ds

6

Sr

7

Qc

8

Gl

9

Al

10

Sc



Collected date/time: 03/04/21 18:34

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Volatile Organic Compounds (MS) by Method TO-15

Analyte	CAS #	Mol. Wt.	RDL1 ppbv	RDL2 ug/m3	Result ppbv	Result ug/m3	Qualifier	Dilution	Batch
Acetone	67-64-1	58.10	1.25	2.97	19.1	45.4		1	WG1630780
Allyl chloride	107-05-1	76.53	0.200	0.626	ND	ND		1	WG1630780
Benzene	71-43-2	78.10	0.200	0.639	ND	ND		1	WG1630780
Benzyl Chloride	100-44-7	127	0.200	1.04	ND	ND		1	WG1630780
Bromodichloromethane	75-27-4	164	0.200	1.34	ND	ND		1	WG1630780
Bromoform	75-25-2	253	0.600	6.21	ND	ND		1	WG1630780
Bromomethane	74-83-9	94.90	0.200	0.776	ND	ND		1	WG1630780
1,3-Butadiene	106-99-0	54.10	2.00	4.43	ND	ND		1	WG1630780
Carbon disulfide	75-15-0	76.10	0.200	0.622	ND	ND		1	WG1630780
Carbon tetrachloride	56-23-5	154	0.200	1.26	ND	ND		1	WG1630780
Chlorobenzene	108-90-7	113	0.200	0.924	ND	ND		1	WG1630780
Chloroethane	75-00-3	64.50	0.200	0.528	ND	ND		1	WG1630780
Chloroform	67-66-3	119	0.200	0.973	ND	ND		1	WG1630780
Chloromethane	74-87-3	50.50	0.200	0.413	ND	ND		1	WG1630780
2-Chlorotoluene	95-49-8	126	0.200	1.03	ND	ND		1	WG1630780
Cyclohexane	110-82-7	84.20	0.200	0.689	ND	ND		1	WG1630780
Dibromochloromethane	124-48-1	208	0.200	1.70	ND	ND		1	WG1630780
1,2-Dibromoethane	106-93-4	188	0.200	1.54	ND	ND		1	WG1630780
1,2-Dichlorobenzene	95-50-1	147	0.200	1.20	ND	ND		1	WG1630780
1,3-Dichlorobenzene	541-73-1	147	0.200	1.20	ND	ND		1	WG1630780
1,4-Dichlorobenzene	106-46-7	147	0.200	1.20	ND	ND		1	WG1630780
1,2-Dichloroethane	107-06-2	99	0.200	0.810	ND	ND		1	WG1630780
1,1-Dichloroethane	75-34-3	98	0.200	0.802	ND	ND		1	WG1630780
1,1-Dichloroethene	75-35-4	96.90	0.200	0.793	ND	ND		1	WG1630780
cis-1,2-Dichloroethene	156-59-2	96.90	0.200	0.793	ND	ND		1	WG1630780
trans-1,2-Dichloroethene	156-60-5	96.90	0.200	0.793	ND	ND		1	WG1630780
1,2-Dichloropropane	78-87-5	113	0.200	0.924	ND	ND		1	WG1630780
cis-1,3-Dichloropropene	10061-01-5	111	0.200	0.908	ND	ND		1	WG1630780
trans-1,3-Dichloropropene	10061-02-6	111	0.200	0.908	ND	ND		1	WG1630780
1,4-Dioxane	123-91-1	88.10	0.200	0.721	0.515	1.86		1	WG1630780
Ethanol	64-17-5	46.10	0.630	1.19	89.1	168		1	WG1630780
Ethylbenzene	100-41-4	106	0.200	0.867	ND	ND		1	WG1630780
4-Ethyltoluene	622-96-8	120	0.200	0.982	ND	ND		1	WG1630780
Trichlorofluoromethane	75-69-4	137.40	0.200	1.12	0.777	4.37		1	WG1630780
Dichlorodifluoromethane	75-71-8	120.92	0.200	0.989	0.493	2.44		1	WG1630780
1,1,2-Trichlorotrifluoroethane	76-13-1	187.40	0.200	1.53	ND	ND		1	WG1630780
1,2-Dichlorotetrafluoroethane	76-14-2	171	0.200	1.40	ND	ND		1	WG1630780
Heptane	142-82-5	100	0.200	0.818	ND	ND		1	WG1630780
Hexachloro-1,3-butadiene	87-68-3	261	0.630	6.73	ND	ND		1	WG1630780
n-Hexane	110-54-3	86.20	0.630	2.22	ND	ND		1	WG1630780
Isopropylbenzene	98-82-8	120.20	0.200	0.983	ND	ND		1	WG1630780
Methylene Chloride	75-09-2	84.90	0.200	0.694	ND	ND		1	WG1630780
Methyl Butyl Ketone	591-78-6	100	1.25	5.11	ND	ND		1	WG1630780
2-Butanone (MEK)	78-93-3	72.10	1.25	3.69	ND	ND		1	WG1630780
4-Methyl-2-pentanone (MIBK)	108-10-1	100.10	1.25	5.12	ND	ND		1	WG1630780
Methyl methacrylate	80-62-6	100.12	0.200	0.819	ND	ND		1	WG1630780
MTBE	1634-04-4	88.10	0.200	0.721	ND	ND		1	WG1630780
Naphthalene	91-20-3	128	0.630	3.30	ND	ND		1	WG1630780
2-Propanol	67-63-0	60.10	1.25	3.07	2.42	5.95		1	WG1630780
Propene	115-07-1	42.10	0.400	0.689	ND	ND		1	WG1630780
Styrene	100-42-5	104	0.200	0.851	0.245	1.04		1	WG1630780
1,1,2,2-Tetrachloroethane	79-34-5	168	0.200	1.37	ND	ND		1	WG1630780
Tetrachloroethylene	127-18-4	166	0.200	1.36	82.6	561		1	WG1630780
Tetrahydrofuran	109-99-9	72.10	0.200	0.590	ND	ND		1	WG1630780
Toluene	108-88-3	92.10	0.500	1.88	ND	ND		1	WG1630780
1,2,4-Trichlorobenzene	120-82-1	181	0.630	4.66	ND	ND		1	WG1630780

1 Cp

2 Tc

3 Ss

4 Cn

5 Ds

6 Sr

7 Qc

8 Gl

9 Al

10 Sc

Volatile Organic Compounds (MS) by Method TO-15

Analyte	CAS #	Mol. Wt.	RDL1 ppbv	RDL2 ug/m3	Result ppbv	Result ug/m3	Qualifier	Dilution	Batch
1,1,1-Trichloroethane	71-55-6	133	0.200	1.09	ND	ND		1	WG1630780
1,1,2-Trichloroethane	79-00-5	133	0.200	1.09	ND	ND		1	WG1630780
Trichloroethylene	79-01-6	131	0.200	1.07	ND	ND		1	WG1630780
1,2,4-Trimethylbenzene	95-63-6	120	0.200	0.982	0.328	1.61		1	WG1630780
1,3,5-Trimethylbenzene	108-67-8	120	0.200	0.982	ND	ND		1	WG1630780
2,2,4-Trimethylpentane	540-84-1	114.22	0.200	0.934	ND	ND		1	WG1630780
Vinyl chloride	75-01-4	62.50	0.200	0.511	ND	ND		1	WG1630780
Vinyl Bromide	593-60-2	106.95	0.200	0.875	ND	ND		1	WG1630780
Vinyl acetate	108-05-4	86.10	0.200	0.704	ND	ND		1	WG1630780
m&p-Xylene	1330-20-7	106	0.400	1.73	0.481	2.09		1	WG1630780
o-Xylene	95-47-6	106	0.200	0.867	0.240	1.04		1	WG1630780
1,1-Difluoroethane	75-37-6	66.05	1.00	2.70	ND	ND		1	WG1630780
(S) 1,4-Bromofluorobenzene	460-00-4	175	60.0-140		96.8				WG1630780

1

Cp

2

Tc

3

Ss

4

Cn

5

Ds

6

Sr

7

Qc

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Gl

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Al

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Sc



Volatile Organic Compounds (MS) by Method TO-15

Analyte	CAS #	Mol. Wt.	RDL1 ppbv	RDL2 ug/m3	Result ppbv	Result ug/m3	Qualifier	Dilution	Batch
Acetone	67-64-1	58.10	1.25	2.97	10.6	25.2		1	WG1630780
Allyl chloride	107-05-1	76.53	0.200	0.626	ND	ND		1	WG1630780
Benzene	71-43-2	78.10	0.200	0.639	ND	ND		1	WG1630780
Benzyl Chloride	100-44-7	127	0.200	1.04	ND	ND		1	WG1630780
Bromodichloromethane	75-27-4	164	0.200	1.34	ND	ND		1	WG1630780
Bromoform	75-25-2	253	0.600	6.21	ND	ND		1	WG1630780
Bromomethane	74-83-9	94.90	0.200	0.776	ND	ND		1	WG1630780
1,3-Butadiene	106-99-0	54.10	2.00	4.43	ND	ND		1	WG1630780
Carbon disulfide	75-15-0	76.10	0.200	0.622	ND	ND		1	WG1630780
Carbon tetrachloride	56-23-5	154	0.200	1.26	ND	ND		1	WG1630780
Chlorobenzene	108-90-7	113	0.200	0.924	ND	ND		1	WG1630780
Chloroethane	75-00-3	64.50	0.200	0.528	ND	ND		1	WG1630780
Chloroform	67-66-3	119	0.200	0.973	ND	ND		1	WG1630780
Chloromethane	74-87-3	50.50	0.200	0.413	ND	ND		1	WG1630780
2-Chlorotoluene	95-49-8	126	0.200	1.03	ND	ND		1	WG1630780
Cyclohexane	110-82-7	84.20	0.200	0.689	ND	ND		1	WG1630780
Dibromochloromethane	124-48-1	208	0.200	1.70	ND	ND		1	WG1630780
1,2-Dibromoethane	106-93-4	188	0.200	1.54	ND	ND		1	WG1630780
1,2-Dichlorobenzene	95-50-1	147	0.200	1.20	ND	ND		1	WG1630780
1,3-Dichlorobenzene	541-73-1	147	0.200	1.20	ND	ND		1	WG1630780
1,4-Dichlorobenzene	106-46-7	147	0.200	1.20	ND	ND		1	WG1630780
1,2-Dichloroethane	107-06-2	99	0.200	0.810	ND	ND		1	WG1630780
1,1-Dichloroethane	75-34-3	98	0.200	0.802	ND	ND		1	WG1630780
1,1-Dichloroethene	75-35-4	96.90	0.200	0.793	ND	ND		1	WG1630780
cis-1,2-Dichloroethene	156-59-2	96.90	0.200	0.793	ND	ND		1	WG1630780
trans-1,2-Dichloroethene	156-60-5	96.90	0.200	0.793	ND	ND		1	WG1630780
1,2-Dichloropropane	78-87-5	113	0.200	0.924	ND	ND		1	WG1630780
cis-1,3-Dichloropropene	10061-01-5	111	0.200	0.908	ND	ND		1	WG1630780
trans-1,3-Dichloropropene	10061-02-6	111	0.200	0.908	ND	ND		1	WG1630780
1,4-Dioxane	123-91-1	88.10	0.200	0.721	ND	ND		1	WG1630780
Ethanol	64-17-5	46.10	0.630	1.19	72.6	137		1	WG1630780
Ethylbenzene	100-41-4	106	0.200	0.867	0.534	2.32		1	WG1630780
4-Ethyltoluene	622-96-8	120	0.200	0.982	ND	ND		1	WG1630780
Trichlorofluoromethane	75-69-4	137.40	0.200	1.12	0.578	3.25		1	WG1630780
Dichlorodifluoromethane	75-71-8	120.92	0.200	0.989	0.555	2.74		1	WG1630780
1,1,2-Trichlorotrifluoroethane	76-13-1	187.40	0.200	1.53	ND	ND		1	WG1630780
1,2-Dichlorotetrafluoroethane	76-14-2	171	0.200	1.40	ND	ND		1	WG1630780
Heptane	142-82-5	100	0.200	0.818	ND	ND		1	WG1630780
Hexachloro-1,3-butadiene	87-68-3	261	0.630	6.73	ND	ND		1	WG1630780
n-Hexane	110-54-3	86.20	0.630	2.22	ND	ND		1	WG1630780
Isopropylbenzene	98-82-8	120.20	0.200	0.983	ND	ND		1	WG1630780
Methylene Chloride	75-09-2	84.90	0.200	0.694	ND	ND		1	WG1630780
Methyl Butyl Ketone	591-78-6	100	1.25	5.11	ND	ND		1	WG1630780
2-Butanone (MEK)	78-93-3	72.10	1.25	3.69	ND	ND		1	WG1630780
4-Methyl-2-pentanone (MIBK)	108-10-1	100.10	1.25	5.12	ND	ND		1	WG1630780
Methyl methacrylate	80-62-6	100.12	0.200	0.819	ND	ND		1	WG1630780
MTBE	1634-04-4	88.10	0.200	0.721	ND	ND		1	WG1630780
Naphthalene	91-20-3	128	0.630	3.30	ND	ND		1	WG1630780
2-Propanol	67-63-0	60.10	1.25	3.07	2.21	5.43		1	WG1630780
Propene	115-07-1	42.10	0.400	0.689	ND	ND		1	WG1630780
Styrene	100-42-5	104	0.200	0.851	ND	ND		1	WG1630780
1,1,2,2-Tetrachloroethane	79-34-5	168	0.200	1.37	ND	ND		1	WG1630780
Tetrachloroethylene	127-18-4	166	20.0	136	4160	28200		100	WG1631111
Tetrahydrofuran	109-99-9	72.10	0.200	0.590	ND	ND		1	WG1630780
Toluene	108-88-3	92.10	0.500	1.88	ND	ND		1	WG1630780
1,2,4-Trichlorobenzene	120-82-1	181	0.630	4.66	ND	ND		1	WG1630780

¹ Cp
² Tc
³ Ss
⁴ Cn
⁵ Ds
⁶ Sr
⁷ Qc
⁸ Gl
⁹ Al
¹⁰ Sc



Volatile Organic Compounds (MS) by Method TO-15

Analyte	CAS #	Mol. Wt.	RDL1 ppbv	RDL2 ug/m3	Result ppbv	Result ug/m3	Qualifier	Dilution	Batch
1,1,1-Trichloroethane	71-55-6	133	0.200	1.09	ND	ND		1	WG1630780
1,1,2-Trichloroethane	79-00-5	133	0.200	1.09	ND	ND		1	WG1630780
Trichloroethylene	79-01-6	131	0.200	1.07	0.915	4.90		1	WG1630780
1,2,4-Trimethylbenzene	95-63-6	120	0.200	0.982	0.206	1.01		1	WG1630780
1,3,5-Trimethylbenzene	108-67-8	120	0.200	0.982	ND	ND		1	WG1630780
2,2,4-Trimethylpentane	540-84-1	114.22	0.200	0.934	ND	ND		1	WG1630780
Vinyl chloride	75-01-4	62.50	0.200	0.511	ND	ND		1	WG1630780
Vinyl Bromide	593-60-2	106.95	0.200	0.875	ND	ND		1	WG1630780
Vinyl acetate	108-05-4	86.10	0.200	0.704	ND	ND		1	WG1630780
m&p-Xylene	1330-20-7	106	0.400	1.73	2.75	11.9		1	WG1630780
o-Xylene	95-47-6	106	0.200	0.867	1.12	4.86		1	WG1630780
1,1-Difluoroethane	75-37-6	66.05	1.00	2.70	ND	ND		1	WG1630780
(S) 1,4-Bromofluorobenzene	460-00-4	175	60.0-140		100				WG1630780
(S) 1,4-Bromofluorobenzene	460-00-4	175	60.0-140		92.3				WG1631111

¹ Cp

² Tc

³ Ss

⁴ Cn

⁵ Ds

⁶ Sr

⁷ Qc

⁸ Gl

⁹ Al

¹⁰ Sc



Volatile Organic Compounds (MS) by Method TO-15

Analyte	CAS #	Mol. Wt.	RDL1 ppbv	RDL2 ug/m3	Result ppbv	Result ug/m3	Qualifier	Dilution	Batch
Acetone	67-64-1	58.10	1.25	2.97	16.9	40.2		1	WG1630780
Allyl chloride	107-05-1	76.53	0.200	0.626	ND	ND		1	WG1630780
Benzene	71-43-2	78.10	0.200	0.639	ND	ND		1	WG1630780
Benzyl Chloride	100-44-7	127	0.200	1.04	ND	ND		1	WG1630780
Bromodichloromethane	75-27-4	164	0.200	1.34	ND	ND		1	WG1630780
Bromoform	75-25-2	253	0.600	6.21	ND	ND		1	WG1630780
Bromomethane	74-83-9	94.90	0.200	0.776	ND	ND		1	WG1630780
1,3-Butadiene	106-99-0	54.10	2.00	4.43	ND	ND		1	WG1630780
Carbon disulfide	75-15-0	76.10	0.200	0.622	ND	ND		1	WG1630780
Carbon tetrachloride	56-23-5	154	0.200	1.26	ND	ND		1	WG1630780
Chlorobenzene	108-90-7	113	0.200	0.924	ND	ND		1	WG1630780
Chloroethane	75-00-3	64.50	0.200	0.528	ND	ND		1	WG1630780
Chloroform	67-66-3	119	0.200	0.973	ND	ND		1	WG1630780
Chloromethane	74-87-3	50.50	0.200	0.413	ND	ND		1	WG1630780
2-Chlorotoluene	95-49-8	126	0.200	1.03	ND	ND		1	WG1630780
Cyclohexane	110-82-7	84.20	0.200	0.689	ND	ND		1	WG1630780
Dibromochloromethane	124-48-1	208	0.200	1.70	ND	ND		1	WG1630780
1,2-Dibromoethane	106-93-4	188	0.200	1.54	ND	ND		1	WG1630780
1,2-Dichlorobenzene	95-50-1	147	0.200	1.20	ND	ND		1	WG1630780
1,3-Dichlorobenzene	541-73-1	147	0.200	1.20	ND	ND		1	WG1630780
1,4-Dichlorobenzene	106-46-7	147	0.200	1.20	ND	ND		1	WG1630780
1,2-Dichloroethane	107-06-2	99	0.200	0.810	ND	ND		1	WG1630780
1,1-Dichloroethane	75-34-3	98	0.200	0.802	ND	ND		1	WG1630780
1,1-Dichloroethene	75-35-4	96.90	0.200	0.793	ND	ND		1	WG1630780
cis-1,2-Dichloroethene	156-59-2	96.90	0.200	0.793	ND	ND		1	WG1630780
trans-1,2-Dichloroethene	156-60-5	96.90	0.200	0.793	ND	ND		1	WG1630780
1,2-Dichloropropane	78-87-5	113	0.200	0.924	ND	ND		1	WG1630780
cis-1,3-Dichloropropene	10061-01-5	111	0.200	0.908	ND	ND		1	WG1630780
trans-1,3-Dichloropropene	10061-02-6	111	0.200	0.908	ND	ND		1	WG1630780
1,4-Dioxane	123-91-1	88.10	0.200	0.721	ND	ND		1	WG1630780
Ethanol	64-17-5	46.10	0.630	1.19	82.6	156		1	WG1630780
Ethylbenzene	100-41-4	106	0.200	0.867	1.96	8.50		1	WG1630780
4-Ethyltoluene	622-96-8	120	0.200	0.982	ND	ND		1	WG1630780
Trichlorofluoromethane	75-69-4	137.40	0.200	1.12	0.613	3.44		1	WG1630780
Dichlorodifluoromethane	75-71-8	120.92	0.200	0.989	0.561	2.77		1	WG1630780
1,1,2-Trichlorotrifluoroethane	76-13-1	187.40	0.200	1.53	ND	ND		1	WG1630780
1,2-Dichlorotetrafluoroethane	76-14-2	171	0.200	1.40	ND	ND		1	WG1630780
Heptane	142-82-5	100	0.200	0.818	ND	ND		1	WG1630780
Hexachloro-1,3-butadiene	87-68-3	261	0.630	6.73	ND	ND		1	WG1630780
n-Hexane	110-54-3	86.20	0.630	2.22	ND	ND		1	WG1630780
Isopropylbenzene	98-82-8	120.20	0.200	0.983	ND	ND		1	WG1630780
Methylene Chloride	75-09-2	84.90	0.200	0.694	ND	ND		1	WG1630780
Methyl Butyl Ketone	591-78-6	100	1.25	5.11	ND	ND		1	WG1630780
2-Butanone (MEK)	78-93-3	72.10	1.25	3.69	1.45	4.28		1	WG1630780
4-Methyl-2-pentanone (MIBK)	108-10-1	100.10	1.25	5.12	ND	ND		1	WG1630780
Methyl methacrylate	80-62-6	100.12	0.200	0.819	ND	ND		1	WG1630780
MTBE	1634-04-4	88.10	0.200	0.721	ND	ND		1	WG1630780
Naphthalene	91-20-3	128	0.630	3.30	ND	ND		1	WG1630780
2-Propanol	67-63-0	60.10	1.25	3.07	2.03	4.99		1	WG1630780
Propene	115-07-1	42.10	0.400	0.689	ND	ND		1	WG1630780
Styrene	100-42-5	104	0.200	0.851	ND	ND		1	WG1630780
1,1,2,2-Tetrachloroethane	79-34-5	168	0.200	1.37	ND	ND		1	WG1630780
Tetrachloroethylene	127-18-4	166	4.00	27.2	1090	7400		20	WG1631111
Tetrahydrofuran	109-99-9	72.10	0.200	0.590	ND	ND		1	WG1630780
Toluene	108-88-3	92.10	0.500	1.88	ND	ND		1	WG1630780
1,2,4-Trichlorobenzene	120-82-1	181	0.630	4.66	ND	ND		1	WG1630780

¹ Cp
² Tc
³ Ss
⁴ Cn
⁵ Ds
⁶ Sr
⁷ Qc
⁸ Gl
⁹ Al
¹⁰ Sc

Volatile Organic Compounds (MS) by Method TO-15

Analyte	CAS #	Mol. Wt.	RDL1 ppbv	RDL2 ug/m3	Result ppbv	Result ug/m3	Qualifier	Dilution	Batch
1,1,1-Trichloroethane	71-55-6	133	0.200	1.09	ND	ND		1	WG1630780
1,1,2-Trichloroethane	79-00-5	133	0.200	1.09	ND	ND		1	WG1630780
Trichloroethylene	79-01-6	131	0.200	1.07	0.393	2.11		1	WG1630780
1,2,4-Trimethylbenzene	95-63-6	120	0.200	0.982	0.273	1.34		1	WG1630780
1,3,5-Trimethylbenzene	108-67-8	120	0.200	0.982	ND	ND		1	WG1630780
2,2,4-Trimethylpentane	540-84-1	114.22	0.200	0.934	ND	ND		1	WG1630780
Vinyl chloride	75-01-4	62.50	0.200	0.511	ND	ND		1	WG1630780
Vinyl Bromide	593-60-2	106.95	0.200	0.875	ND	ND		1	WG1630780
Vinyl acetate	108-05-4	86.10	0.200	0.704	ND	ND		1	WG1630780
m&p-Xylene	1330-20-7	106	0.400	1.73	10.5	45.5		1	WG1630780
o-Xylene	95-47-6	106	0.200	0.867	3.89	16.9		1	WG1630780
1,1-Difluoroethane	75-37-6	66.05	20.0	54.0	291	786		20	WG1631111
(S) 1,4-Bromofluorobenzene	460-00-4	175	60.0-140		98.4				WG1630780
(S) 1,4-Bromofluorobenzene	460-00-4	175	60.0-140		90.2				WG1631111

1Cp

2Tc

3Ss

4Cn

5Ds

6Sr

7Qc

8Gl

9Al

10Sc



Volatile Organic Compounds (MS) by Method TO-15

Analyte	CAS #	Mol. Wt.	RDL1 ppbv	RDL2 ug/m3	Result ppbv	Result ug/m3	Qualifier	Dilution	Batch
Acetone	67-64-1	58.10	1.25	2.97	19.2	45.6		1	WG1630780
Allyl chloride	107-05-1	76.53	0.200	0.626	ND	ND		1	WG1630780
Benzene	71-43-2	78.10	0.200	0.639	ND	ND		1	WG1630780
Benzyl Chloride	100-44-7	127	0.200	1.04	ND	ND		1	WG1630780
Bromodichloromethane	75-27-4	164	0.200	1.34	ND	ND		1	WG1630780
Bromoform	75-25-2	253	0.600	6.21	ND	ND		1	WG1630780
Bromomethane	74-83-9	94.90	0.200	0.776	ND	ND		1	WG1630780
1,3-Butadiene	106-99-0	54.10	2.00	4.43	ND	ND		1	WG1630780
Carbon disulfide	75-15-0	76.10	0.200	0.622	ND	ND		1	WG1630780
Carbon tetrachloride	56-23-5	154	0.200	1.26	ND	ND		1	WG1630780
Chlorobenzene	108-90-7	113	0.200	0.924	ND	ND		1	WG1630780
Chloroethane	75-00-3	64.50	0.200	0.528	ND	ND		1	WG1630780
Chloroform	67-66-3	119	0.200	0.973	ND	ND		1	WG1630780
Chloromethane	74-87-3	50.50	0.200	0.413	ND	ND		1	WG1630780
2-Chlorotoluene	95-49-8	126	0.200	1.03	ND	ND		1	WG1630780
Cyclohexane	110-82-7	84.20	0.200	0.689	ND	ND		1	WG1630780
Dibromochloromethane	124-48-1	208	0.200	1.70	ND	ND		1	WG1630780
1,2-Dibromoethane	106-93-4	188	0.200	1.54	ND	ND		1	WG1630780
1,2-Dichlorobenzene	95-50-1	147	0.200	1.20	ND	ND		1	WG1630780
1,3-Dichlorobenzene	541-73-1	147	0.200	1.20	ND	ND		1	WG1630780
1,4-Dichlorobenzene	106-46-7	147	0.200	1.20	ND	ND		1	WG1630780
1,2-Dichloroethane	107-06-2	99	0.200	0.810	ND	ND		1	WG1630780
1,1-Dichloroethane	75-34-3	98	0.200	0.802	ND	ND		1	WG1630780
1,1-Dichloroethene	75-35-4	96.90	0.200	0.793	ND	ND		1	WG1630780
cis-1,2-Dichloroethene	156-59-2	96.90	0.200	0.793	ND	ND		1	WG1630780
trans-1,2-Dichloroethene	156-60-5	96.90	0.200	0.793	ND	ND		1	WG1630780
1,2-Dichloropropane	78-87-5	113	0.200	0.924	ND	ND		1	WG1630780
cis-1,3-Dichloropropene	10061-01-5	111	0.200	0.908	ND	ND		1	WG1630780
trans-1,3-Dichloropropene	10061-02-6	111	0.200	0.908	ND	ND		1	WG1630780
1,4-Dioxane	123-91-1	88.10	0.200	0.721	ND	ND		1	WG1630780
Ethanol	64-17-5	46.10	0.630	1.19	79.4	150		1	WG1630780
Ethylbenzene	100-41-4	106	0.200	0.867	ND	ND		1	WG1630780
4-Ethyltoluene	622-96-8	120	0.200	0.982	ND	ND		1	WG1630780
Trichlorofluoromethane	75-69-4	137.40	0.200	1.12	1.46	8.20		1	WG1630780
Dichlorodifluoromethane	75-71-8	120.92	0.200	0.989	0.607	3.00		1	WG1630780
1,1,2-Trichlorotrifluoroethane	76-13-1	187.40	0.200	1.53	ND	ND		1	WG1630780
1,2-Dichlorotetrafluoroethane	76-14-2	171	0.200	1.40	ND	ND		1	WG1630780
Heptane	142-82-5	100	0.200	0.818	ND	ND		1	WG1630780
Hexachloro-1,3-butadiene	87-68-3	261	0.630	6.73	ND	ND		1	WG1630780
n-Hexane	110-54-3	86.20	0.630	2.22	ND	ND		1	WG1630780
Isopropylbenzene	98-82-8	120.20	0.200	0.983	ND	ND		1	WG1630780
Methylene Chloride	75-09-2	84.90	0.200	0.694	ND	ND		1	WG1630780
Methyl Butyl Ketone	591-78-6	100	1.25	5.11	ND	ND		1	WG1630780
2-Butanone (MEK)	78-93-3	72.10	1.25	3.69	ND	ND		1	WG1630780
4-Methyl-2-pentanone (MIBK)	108-10-1	100.10	1.25	5.12	ND	ND		1	WG1630780
Methyl methacrylate	80-62-6	100.12	0.200	0.819	ND	ND		1	WG1630780
MTBE	1634-04-4	88.10	0.200	0.721	ND	ND		1	WG1630780
Naphthalene	91-20-3	128	0.630	3.30	ND	ND		1	WG1630780
2-Propanol	67-63-0	60.10	1.25	3.07	9.46	23.3		1	WG1630780
Propene	115-07-1	42.10	0.400	0.689	ND	ND		1	WG1630780
Styrene	100-42-5	104	0.200	0.851	0.244	1.04		1	WG1630780
1,1,2,2-Tetrachloroethane	79-34-5	168	0.200	1.37	ND	ND		1	WG1630780
Tetrachloroethylene	127-18-4	166	20.0	136	1710	11600		100	WG1631111
Tetrahydrofuran	109-99-9	72.10	0.200	0.590	ND	ND		1	WG1630780
Toluene	108-88-3	92.10	0.500	1.88	0.575	2.17		1	WG1630780
1,2,4-Trichlorobenzene	120-82-1	181	0.630	4.66	ND	ND		1	WG1630780

¹ Cp
² Tc
³ Ss
⁴ Cn
⁵ Ds
⁶ Sr
⁷ Qc
⁸ Gl
⁹ Al
¹⁰ Sc



Volatile Organic Compounds (MS) by Method TO-15

Analyte	CAS #	Mol. Wt.	RDL1 ppbv	RDL2 ug/m3	Result ppbv	Result ug/m3	Qualifier	Dilution	Batch
1,1,1-Trichloroethane	71-55-6	133	0.200	1.09	0.675	3.67		1	WG1630780
1,1,2-Trichloroethane	79-00-5	133	0.200	1.09	ND	ND		1	WG1630780
Trichloroethylene	79-01-6	131	0.200	1.07	0.877	4.70		1	WG1630780
1,2,4-Trimethylbenzene	95-63-6	120	0.200	0.982	0.304	1.49		1	WG1630780
1,3,5-Trimethylbenzene	108-67-8	120	0.200	0.982	ND	ND		1	WG1630780
2,2,4-Trimethylpentane	540-84-1	114.22	0.200	0.934	ND	ND		1	WG1630780
Vinyl chloride	75-01-4	62.50	0.200	0.511	ND	ND		1	WG1630780
Vinyl Bromide	593-60-2	106.95	0.200	0.875	ND	ND		1	WG1630780
Vinyl acetate	108-05-4	86.10	0.200	0.704	ND	ND		1	WG1630780
m&p-Xylene	1330-20-7	106	0.400	1.73	0.871	3.78		1	WG1630780
o-Xylene	95-47-6	106	0.200	0.867	0.341	1.48		1	WG1630780
1,1-Difluoroethane	75-37-6	66.05	1.00	2.70	1.24	3.35		1	WG1630780
(S) 1,4-Bromofluorobenzene	460-00-4	175	60.0-140		98.6				WG1630780
(S) 1,4-Bromofluorobenzene	460-00-4	175	60.0-140		93.5				WG1631111

¹ Cp

² Tc

³ Ss

⁴ Cn

⁵ Ds

⁶ Sr

⁷ Qc

⁸ Gl

⁹ Al

¹⁰ Sc



Volatile Organic Compounds (MS) by Method TO-15

Analyte	CAS #	Mol. Wt.	RDL1 ppbv	RDL2 ug/m3	Result ppbv	Result ug/m3	Qualifier	Dilution	Batch
Acetone	67-64-1	58.10	1.25	2.97	6.34	15.1		1	WG1630780
Allyl chloride	107-05-1	76.53	0.200	0.626	ND	ND		1	WG1630780
Benzene	71-43-2	78.10	0.200	0.639	ND	ND		1	WG1630780
Benzyl Chloride	100-44-7	127	0.200	1.04	ND	ND		1	WG1630780
Bromodichloromethane	75-27-4	164	0.200	1.34	ND	ND		1	WG1630780
Bromoform	75-25-2	253	0.600	6.21	ND	ND		1	WG1630780
Bromomethane	74-83-9	94.90	0.200	0.776	ND	ND		1	WG1630780
1,3-Butadiene	106-99-0	54.10	2.00	4.43	ND	ND		1	WG1630780
Carbon disulfide	75-15-0	76.10	0.200	0.622	ND	ND		1	WG1630780
Carbon tetrachloride	56-23-5	154	0.200	1.26	ND	ND		1	WG1630780
Chlorobenzene	108-90-7	113	0.200	0.924	ND	ND		1	WG1630780
Chloroethane	75-00-3	64.50	0.200	0.528	ND	ND		1	WG1630780
Chloroform	67-66-3	119	0.200	0.973	ND	ND		1	WG1630780
Chloromethane	74-87-3	50.50	0.200	0.413	ND	ND		1	WG1630780
2-Chlorotoluene	95-49-8	126	0.200	1.03	ND	ND		1	WG1630780
Cyclohexane	110-82-7	84.20	0.200	0.689	ND	ND		1	WG1630780
Dibromochloromethane	124-48-1	208	0.200	1.70	ND	ND		1	WG1630780
1,2-Dibromoethane	106-93-4	188	0.200	1.54	ND	ND		1	WG1630780
1,2-Dichlorobenzene	95-50-1	147	0.200	1.20	ND	ND		1	WG1630780
1,3-Dichlorobenzene	541-73-1	147	0.200	1.20	ND	ND		1	WG1630780
1,4-Dichlorobenzene	106-46-7	147	0.200	1.20	ND	ND		1	WG1630780
1,2-Dichloroethane	107-06-2	99	0.200	0.810	ND	ND		1	WG1630780
1,1-Dichloroethane	75-34-3	98	0.200	0.802	ND	ND		1	WG1630780
1,1-Dichloroethene	75-35-4	96.90	0.200	0.793	ND	ND		1	WG1630780
cis-1,2-Dichloroethene	156-59-2	96.90	0.200	0.793	ND	ND		1	WG1630780
trans-1,2-Dichloroethene	156-60-5	96.90	0.200	0.793	ND	ND		1	WG1630780
1,2-Dichloropropane	78-87-5	113	0.200	0.924	ND	ND		1	WG1630780
cis-1,3-Dichloropropene	10061-01-5	111	0.200	0.908	ND	ND		1	WG1630780
trans-1,3-Dichloropropene	10061-02-6	111	0.200	0.908	ND	ND		1	WG1630780
1,4-Dioxane	123-91-1	88.10	0.200	0.721	ND	ND		1	WG1630780
Ethanol	64-17-5	46.10	0.630	1.19	48.6	91.6		1	WG1630780
Ethylbenzene	100-41-4	106	0.200	0.867	ND	ND		1	WG1630780
4-Ethyltoluene	622-96-8	120	0.200	0.982	ND	ND		1	WG1630780
Trichlorofluoromethane	75-69-4	137.40	0.200	1.12	0.944	5.30		1	WG1630780
Dichlorodifluoromethane	75-71-8	120.92	0.200	0.989	0.557	2.75		1	WG1630780
1,1,2-Trichlorotrifluoroethane	76-13-1	187.40	0.200	1.53	ND	ND		1	WG1630780
1,2-Dichlorotetrafluoroethane	76-14-2	171	0.200	1.40	ND	ND		1	WG1630780
Heptane	142-82-5	100	0.200	0.818	ND	ND		1	WG1630780
Hexachloro-1,3-butadiene	87-68-3	261	0.630	6.73	ND	ND		1	WG1630780
n-Hexane	110-54-3	86.20	0.630	2.22	ND	ND		1	WG1630780
Isopropylbenzene	98-82-8	120.20	0.200	0.983	ND	ND		1	WG1630780
Methylene Chloride	75-09-2	84.90	0.200	0.694	ND	ND		1	WG1630780
Methyl Butyl Ketone	591-78-6	100	1.25	5.11	ND	ND		1	WG1630780
2-Butanone (MEK)	78-93-3	72.10	1.25	3.69	ND	ND		1	WG1630780
4-Methyl-2-pentanone (MIBK)	108-10-1	100.10	1.25	5.12	ND	ND		1	WG1630780
Methyl methacrylate	80-62-6	100.12	0.200	0.819	ND	ND		1	WG1630780
MTBE	1634-04-4	88.10	0.200	0.721	ND	ND		1	WG1630780
Naphthalene	91-20-3	128	0.630	3.30	ND	ND		1	WG1630780
2-Propanol	67-63-0	60.10	1.25	3.07	5.55	13.6		1	WG1630780
Propene	115-07-1	42.10	0.400	0.689	ND	ND		1	WG1630780
Styrene	100-42-5	104	0.200	0.851	ND	ND		1	WG1630780
1,1,2,2-Tetrachloroethane	79-34-5	168	0.200	1.37	ND	ND		1	WG1630780
Tetrachloroethylene	127-18-4	166	20.0	136	1640	11100		100	WG1631111
Tetrahydrofuran	109-99-9	72.10	0.200	0.590	ND	ND		1	WG1630780
Toluene	108-88-3	92.10	0.500	1.88	ND	ND		1	WG1630780
1,2,4-Trichlorobenzene	120-82-1	181	0.630	4.66	ND	ND		1	WG1630780

1 Cp

2 Tc

3 Ss

4 Cn

5 Ds

6 Sr

7 Qc

8 Gl

9 Al

10 Sc

Volatile Organic Compounds (MS) by Method TO-15

Analyte	CAS #	Mol. Wt.	RDL1 ppbv	RDL2 ug/m3	Result ppbv	Result ug/m3	Qualifier	Dilution	Batch
1,1,1-Trichloroethane	71-55-6	133	0.200	1.09	1.12	6.09		1	WG1630780
1,1,2-Trichloroethane	79-00-5	133	0.200	1.09	ND	ND		1	WG1630780
Trichloroethylene	79-01-6	131	0.200	1.07	2.74	14.7		1	WG1630780
1,2,4-Trimethylbenzene	95-63-6	120	0.200	0.982	0.247	1.21		1	WG1630780
1,3,5-Trimethylbenzene	108-67-8	120	0.200	0.982	ND	ND		1	WG1630780
2,2,4-Trimethylpentane	540-84-1	114.22	0.200	0.934	ND	ND		1	WG1630780
Vinyl chloride	75-01-4	62.50	0.200	0.511	ND	ND		1	WG1630780
Vinyl Bromide	593-60-2	106.95	0.200	0.875	ND	ND		1	WG1630780
Vinyl acetate	108-05-4	86.10	0.200	0.704	ND	ND		1	WG1630780
m&p-Xylene	1330-20-7	106	0.400	1.73	ND	ND		1	WG1630780
o-Xylene	95-47-6	106	0.200	0.867	ND	ND		1	WG1630780
1,1-Difluoroethane	75-37-6	66.05	1.00	2.70	ND	ND		1	WG1630780
(S) 1,4-Bromofluorobenzene	460-00-4	175	60.0-140		99.1				WG1630780
(S) 1,4-Bromofluorobenzene	460-00-4	175	60.0-140		92.5				WG1631111

1Cp

2Tc

3Ss

4Cn

5Ds

6Sr

7Qc

8Gl

9Al

10Sc



Method Blank (MB)

(MB) R3628260-3 03/07/21 09:58

Analyte	MB Result ppbv	MB Qualifier	MB MDL ppbv	MB RDL ppbv
Acetone	U		0.584	1.25
Allyl Chloride	U		0.114	0.200
Benzene	U		0.0715	0.200
Benzyl Chloride	U		0.0598	0.200
Bromodichloromethane	U		0.0702	0.200
Bromoform	U		0.0732	0.600
Bromomethane	U		0.0982	0.200
1,3-Butadiene	U		0.104	2.00
Carbon disulfide	U		0.102	0.200
Carbon tetrachloride	U		0.0732	0.200
Chlorobenzene	U		0.0832	0.200
Chloroethane	U		0.0996	0.200
Chloroform	U		0.0717	0.200
Chloromethane	U		0.103	0.200
2-Chlorotoluene	U		0.0828	0.200
Cyclohexane	U		0.0753	0.200
Dibromochloromethane	U		0.0727	0.200
1,2-Dibromoethane	U		0.0721	0.200
1,2-Dichlorobenzene	U		0.128	0.200
1,3-Dichlorobenzene	U		0.182	0.200
1,4-Dichlorobenzene	U		0.0557	0.200
1,2-Dichloroethane	U		0.0700	0.200
1,1-Dichloroethane	U		0.0723	0.200
1,1-Dichloroethene	U		0.0762	0.200
cis-1,2-Dichloroethene	U		0.0784	0.200
trans-1,2-Dichloroethene	U		0.0673	0.200
1,2-Dichloropropane	U		0.0760	0.200
cis-1,3-Dichloropropene	U		0.0689	0.200
trans-1,3-Dichloropropene	U		0.0728	0.200
1,4-Dioxane	U		0.0833	0.200
Ethylbenzene	U		0.0835	0.200
4-Ethyltoluene	U		0.0783	0.200
Trichlorofluoromethane	U		0.0819	0.200
Dichlorodifluoromethane	U		0.137	0.200
1,1,2-Trichlorotrifluoroethane	U		0.0793	0.200
1,2-Dichlorotetrafluoroethane	U		0.0890	0.200
Heptane	U		0.104	0.200
Hexachloro-1,3-butadiene	U		0.105	0.630
n-Hexane	U		0.206	0.630
Isopropylbenzene	U		0.0777	0.200

¹Cp

²Tc

³Ss

⁴Cn

⁵Ds

⁶Sr

⁷Qc

⁸Gl

⁹Al

¹⁰Sc



Method Blank (MB)

(MB) R3628260-3 03/07/21 09:58

Analyte	MB Result ppbv	MB Qualifier	MB MDL ppbv	MB RDL ppbv
Methylene Chloride	U		0.0979	0.200
Methyl Butyl Ketone	U		0.133	1.25
2-Butanone (MEK)	U		0.0814	1.25
4-Methyl-2-pentanone (MIBK)	U		0.0765	1.25
Methyl Methacrylate	U		0.0876	0.200
MTBE	U		0.0647	0.200
Naphthalene	U		0.350	0.630
2-Propanol	U		0.264	1.25
Propene	U		0.0932	0.400
Styrene	U		0.0788	0.200
1,1,2,2-Tetrachloroethane	U		0.0743	0.200
Tetrachloroethylene	U		0.0814	0.200
Tetrahydrofuran	U		0.0734	0.200
Toluene	U		0.0870	0.500
1,2,4-Trichlorobenzene	U		0.148	0.630
1,1,1-Trichloroethane	U		0.0736	0.200
1,1,2-Trichloroethane	U		0.0775	0.200
Trichloroethylene	U		0.0680	0.200
1,2,4-Trimethylbenzene	U		0.0764	0.200
1,3,5-Trimethylbenzene	U		0.0779	0.200
2,2,4-Trimethylpentane	U		0.133	0.200
Vinyl chloride	U		0.0949	0.200
Vinyl Bromide	U		0.0852	0.200
Vinyl acetate	U		0.116	0.200
m&p-Xylene	U		0.135	0.400
o-Xylene	U		0.0828	0.200
Ethanol	U		0.265	0.630
1,1-Difluoroethane	U		0.129	1.00
(S) 1,4-Bromofluorobenzene	96.9			60.0-140

1Cp

2Tc

3Ss

4Cn

5Ds

6Sr

7Qc

8Gl

9Al

10Sc

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3628260-1 03/07/21 08:34 • (LCSD) R3628260-2 03/07/21 09:17

Analyte	Spike Amount ppbv	LCS Result ppbv	LCSD Result ppbv	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Ethanol	3.75	4.17	3.96	111	106	55.0-148			5.17	25
Propene	3.75	3.97	3.89	106	104	64.0-144			2.04	25
Dichlorodifluoromethane	3.75	4.64	4.50	124	120	64.0-139			3.06	25
1,2-Dichlorotetrafluoroethane	3.75	4.50	4.37	120	117	70.0-130			2.93	25

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3628260-1 03/07/21 08:34 • (LCSD) R3628260-2 03/07/21 09:17

Analyte	Spike Amount ppbv	LCS Result ppbv	LCSD Result ppbv	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Chloromethane	3.75	4.38	4.28	117	114	70.0-130			2.31	25
Vinyl chloride	3.75	4.17	4.14	111	110	70.0-130			0.722	25
1,3-Butadiene	3.75	3.84	3.89	102	104	70.0-130			1.29	25
Bromomethane	3.75	4.47	4.35	119	116	70.0-130			2.72	25
Chloroethane	3.75	4.45	4.26	119	114	70.0-130			4.36	25
Trichlorofluoromethane	3.75	4.39	4.34	117	116	70.0-130			1.15	25
1,1,2-Trichlorotrifluoroethane	3.75	4.38	4.33	117	115	70.0-130			1.15	25
1,1-Dichloroethene	3.75	4.27	4.20	114	112	70.0-130			1.65	25
1,1-Dichloroethane	3.75	4.32	4.25	115	113	70.0-130			1.63	25
Acetone	3.75	4.35	4.27	116	114	70.0-130			1.86	25
2-Propanol	3.75	4.31	4.14	115	110	70.0-139			4.02	25
Carbon disulfide	3.75	4.33	4.22	115	113	70.0-130			2.57	25
Methylene Chloride	3.75	4.21	4.05	112	108	70.0-130			3.87	25
MTBE	3.75	4.36	4.31	116	115	70.0-130			1.15	25
trans-1,2-Dichloroethene	3.75	4.30	4.22	115	113	70.0-130			1.88	25
n-Hexane	3.75	4.20	4.13	112	110	70.0-130			1.68	25
Vinyl acetate	3.75	4.08	4.00	109	107	70.0-130			1.98	25
Methyl Ethyl Ketone	3.75	4.57	4.48	122	119	70.0-130			1.99	25
cis-1,2-Dichloroethene	3.75	4.23	4.21	113	112	70.0-130			0.474	25
Chloroform	3.75	4.23	4.24	113	113	70.0-130			0.236	25
Cyclohexane	3.75	4.32	4.30	115	115	70.0-130			0.464	25
1,1,1-Trichloroethane	3.75	4.30	4.22	115	113	70.0-130			1.88	25
Carbon tetrachloride	3.75	4.25	4.23	113	113	70.0-130			0.472	25
Benzene	3.75	4.32	4.27	115	114	70.0-130			1.16	25
1,2-Dichloroethane	3.75	4.20	4.19	112	112	70.0-130			0.238	25
Heptane	3.75	3.85	3.82	103	102	70.0-130			0.782	25
Trichloroethylene	3.75	4.28	4.29	114	114	70.0-130			0.233	25
1,2-Dichloropropane	3.75	4.15	4.14	111	110	70.0-130			0.241	25
1,4-Dioxane	3.75	4.27	4.15	114	111	70.0-140			2.85	25
Bromodichloromethane	3.75	4.24	4.25	113	113	70.0-130			0.236	25
cis-1,3-Dichloropropene	3.75	4.27	4.22	114	113	70.0-130			1.18	25
4-Methyl-2-pentanone (MIBK)	3.75	4.38	4.33	117	115	70.0-139			1.15	25
Toluene	3.75	4.28	4.30	114	115	70.0-130			0.466	25
trans-1,3-Dichloropropene	3.75	4.31	4.33	115	115	70.0-130			0.463	25
1,1,2-Trichloroethane	3.75	4.27	4.22	114	113	70.0-130			1.18	25
Tetrachloroethylene	3.75	4.28	4.31	114	115	70.0-130			0.698	25
Methyl Butyl Ketone	3.75	4.45	4.37	119	117	70.0-149			1.81	25
Dibromochloromethane	3.75	4.29	4.30	114	115	70.0-130			0.233	25
1,2-Dibromoethane	3.75	4.34	4.33	116	115	70.0-130			0.231	25
Chlorobenzene	3.75	4.36	4.37	116	117	70.0-130			0.229	25

1Cp

2Tc

3Ss

4Cn

5Ds

6Sr

7Qc

8Gl

9Al

10Sc

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3628260-1 03/07/21 08:34 • (LCSD) R3628260-2 03/07/21 09:17

Analyte	Spike Amount ppbv	LCS Result ppbv	LCSD Result ppbv	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Ethylbenzene	3.75	4.41	4.38	118	117	70.0-130			0.683	25
m&p-Xylene	7.50	8.77	8.70	117	116	70.0-130			0.801	25
o-Xylene	3.75	4.25	4.22	113	113	70.0-130			0.708	25
Styrene	3.75	4.43	4.40	118	117	70.0-130			0.679	25
Bromoform	3.75	4.29	4.27	114	114	70.0-130			0.467	25
1,1,2,2-Tetrachloroethane	3.75	4.28	4.25	114	113	70.0-130			0.703	25
4-Ethyltoluene	3.75	4.40	4.38	117	117	70.0-130			0.456	25
1,3,5-Trimethylbenzene	3.75	4.46	4.44	119	118	70.0-130			0.449	25
1,2,4-Trimethylbenzene	3.75	4.43	4.38	118	117	70.0-130			1.14	25
1,3-Dichlorobenzene	3.75	4.53	4.49	121	120	70.0-130			0.887	25
1,4-Dichlorobenzene	3.75	4.56	4.54	122	121	70.0-130			0.440	25
Benzyl Chloride	3.75	4.58	4.53	122	121	70.0-152			1.10	25
1,2-Dichlorobenzene	3.75	4.46	4.44	119	118	70.0-130			0.449	25
1,2,4-Trichlorobenzene	3.75	4.39	4.34	117	116	70.0-160			1.15	25
Hexachloro-1,3-butadiene	3.75	4.42	4.43	118	118	70.0-151			0.226	25
Naphthalene	3.75	4.34	4.27	116	114	70.0-159			1.63	25
Allyl Chloride	3.75	4.22	4.18	113	111	70.0-130			0.952	25
2-Chlorotoluene	3.75	4.32	4.26	115	114	70.0-130			1.40	25
Methyl Methacrylate	3.75	4.33	4.31	115	115	70.0-130			0.463	25
Tetrahydrofuran	3.75	4.22	4.16	113	111	70.0-137			1.43	25
2,2,4-Trimethylpentane	3.75	4.19	4.12	112	110	70.0-130			1.68	25
Vinyl Bromide	3.75	4.48	4.35	119	116	70.0-130			2.94	25
Isopropylbenzene	3.75	4.35	4.29	116	114	70.0-130			1.39	25
1,1-Difluoroethane	3.75	4.43	4.36	118	116	70.0-130			1.59	25
(S) 1,4-Bromofluorobenzene				98.4	99.0	60.0-140				

1Cp

2Tc

3Ss

4Cn

5Ds

6Sr

7Qc

8Gl

9Al

10Sc



Method Blank (MB)

(MB) R3628648-3 03/08/21 10:23

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
	ppbv		ppbv	ppbv
Acetone	U		0.584	1.25
Tetrachloroethylene	U		0.0814	0.200
Ethanol	U		0.265	0.630
1,1-Difluoroethane	U		0.129	1.00
(S) 1,4-Bromofluorobenzene	92.2			60.0-140

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3628648-1 03/08/21 09:04 • (LCSD) R3628648-2 03/08/21 09:44

Analyte	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	LCS Qualifier	LCSD Qualifier	RPD	RPD Limits
	ppbv	ppbv	ppbv	%	%	%			%	%
Ethanol	3.75	3.12	3.08	83.2	82.1	55.0-148			1.29	25
Acetone	3.75	3.41	3.48	90.9	92.8	70.0-130			2.03	25
Tetrachloroethylene	3.75	4.67	4.63	125	123	70.0-130			0.860	25
1,1-Difluoroethane	3.75	3.75	3.73	100	99.5	70.0-130			0.535	25
(S) 1,4-Bromofluorobenzene				98.8	98.2	60.0-140				

1Cp

2Tc

3Ss

4Cn

5Ds

6Sr

7Qc

8Gl

9Al

10Sc



Guide to Reading and Understanding Your Laboratory Report

The information below is designed to better explain the various terms used in your report of analytical results from the Laboratory. This is not intended as a comprehensive explanation, and if you have additional questions please contact your project representative.

Results Disclaimer - Information that may be provided by the customer, and contained within this report, include Permit Limits, Project Name, Sample ID, Sample Matrix, Sample Preservation, Field Blanks, Field Spikes, Field Duplicates, On-Site Data, Sampling Collection Dates/Times, and Sampling Location. Results relate to the accuracy of this information provided, and as the samples are received.

Abbreviations and Definitions

MDL	Method Detection Limit.
ND	Not detected at the Reporting Limit (or MDL where applicable).
RDL	Reported Detection Limit.
Rec.	Recovery.
RPD	Relative Percent Difference.
SDG	Sample Delivery Group.
(S)	Surrogate (Surrogate Standard) - Analytes added to every blank, sample, Laboratory Control Sample/Duplicate and Matrix Spike/Duplicate; used to evaluate analytical efficiency by measuring recovery. Surrogates are not expected to be detected in all environmental media.
U	Not detected at the Reporting Limit (or MDL where applicable).
Analyte	The name of the particular compound or analysis performed. Some Analyses and Methods will have multiple analytes reported.
Dilution	If the sample matrix contains an interfering material, the sample preparation volume or weight values differ from the standard, or if concentrations of analytes in the sample are higher than the highest limit of concentration that the laboratory can accurately report, the sample may be diluted for analysis. If a value different than 1 is used in this field, the result reported has already been corrected for this factor.
Limits	These are the target % recovery ranges or % difference value that the laboratory has historically determined as normal for the method and analyte being reported. Successful QC Sample analysis will target all analytes recovered or duplicated within these ranges.
Qualifier	This column provides a letter and/or number designation that corresponds to additional information concerning the result reported. If a Qualifier is present, a definition per Qualifier is provided within the Glossary and Definitions page and potentially a discussion of possible implications of the Qualifier in the Case Narrative if applicable.
Result	The actual analytical final result (corrected for any sample specific characteristics) reported for your sample. If there was no measurable result returned for a specific analyte, the result in this column may state "ND" (Not Detected) or "BDL" (Below Detectable Levels). The information in the results column should always be accompanied by either an MDL (Method Detection Limit) or RDL (Reporting Detection Limit) that defines the lowest value that the laboratory could detect or report for this analyte.
Uncertainty (Radiochemistry)	Confidence level of 2 sigma.
Case Narrative (Cn)	A brief discussion about the included sample results, including a discussion of any non-conformances to protocol observed either at sample receipt by the laboratory from the field or during the analytical process. If present, there will be a section in the Case Narrative to discuss the meaning of any data qualifiers used in the report.
Quality Control Summary (Qc)	This section of the report includes the results of the laboratory quality control analyses required by procedure or analytical methods to assist in evaluating the validity of the results reported for your samples. These analyses are not being performed on your samples typically, but on laboratory generated material.
Sample Chain of Custody (Sc)	This is the document created in the field when your samples were initially collected. This is used to verify the time and date of collection, the person collecting the samples, and the analyses that the laboratory is requested to perform. This chain of custody also documents all persons (excluding commercial shippers) that have had control or possession of the samples from the time of collection until delivery to the laboratory for analysis.
Sample Results (Sr)	This section of your report will provide the results of all testing performed on your samples. These results are provided by sample ID and are separated by the analyses performed on each sample. The header line of each analysis section for each sample will provide the name and method number for the analysis reported.
Sample Summary (Ss)	This section of the Analytical Report defines the specific analyses performed for each sample ID, including the dates and times of preparation and/or analysis.

Qualifier Description

The remainder of this page intentionally left blank, there are no qualifiers applied to this SDG.





Pace National is the only environmental laboratory accredited/certified to support your work nationwide from one location. One phone call, one point of contact, one laboratory. No other lab is as accessible or prepared to handle your needs throughout the country. Our capacity and capability from our single location laboratory is comparable to the collective totals of the network laboratories in our industry. The most significant benefit to our one location design is the design of our laboratory campus. The model is conducive to accelerated productivity, decreasing turn-around time, and preventing cross contamination, thus protecting sample integrity. Our focus on premium quality and prompt service allows us to be YOUR LAB OF CHOICE.

* Not all certifications held by the laboratory are applicable to the results reported in the attached report.

* Accreditation is only applicable to the test methods specified on each scope of accreditation held by Pace National.

Pace Analytical National 12065 Lebanon Rd Mount Juliet, TN, 37122

Alabama	40660	Nebraska	NE-OS-15-05
Alaska	17-026	Nevada	TN000032021-1
Arizona	AZ0612	New Hampshire	2975
Arkansas	88-0469	New Jersey–NELAP	TN002
California	2932	New Mexico ¹	TN00003
Colorado	TN00003	New York	11742
Connecticut	PH-0197	North Carolina	Env375
Florida	E87487	North Carolina ¹	DW21704
Georgia	NELAP	North Carolina ³	41
Georgia ¹	923	North Dakota	R-140
Idaho	TN00003	Ohio–VAP	CL0069
Illinois	200008	Oklahoma	9915
Indiana	C-TN-01	Oregon	TN200002
Iowa	364	Pennsylvania	68-02979
Kansas	E-10277	Rhode Island	LAO00356
Kentucky ^{1 6}	KY90010	South Carolina	84004002
Kentucky ²	16	South Dakota	n/a
Louisiana	AI30792	Tennessee ^{1 4}	2006
Louisiana	LA018	Texas	T104704245-20-18
Maine	TN00003	Texas ⁵	LAB0152
Maryland	324	Utah	TN000032021-11
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	110033
Minnesota	047-999-395	Washington	C847
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	998093910
Montana	CERT0086	Wyoming	A2LA
A2LA – ISO 17025	1461.01	AIHA-LAP, LLC EMLAP	100789
A2LA – ISO 17025 ⁵	1461.02	DOD	1461.01
Canada	1461.01	USDA	P330-15-00234
EPA–Crypto	TN00003		

¹ Drinking Water ² Underground Storage Tanks ³ Aquatic Toxicity ⁴ Chemical/Microbiological ⁵ Mold ⁶ Wastewater n/a Accreditation not applicable





Enthalpy Analytical
931 West Barkley Ave
Orange, CA 92868
(714) 771-6900

enthalpy.com

Lab Job Number: 443172
Report Level: II
Report Date: 04/01/2021

Analytical Report *prepared for:*

Paola Gomez-Birenbaum
RMD Environmental Solutions
609 Gregory Lane
Suite 200
Pleasant Hill, CA 94523

Location: Cahuenga, 01-BAR-002 Task 3

Authorized for release by:

Patty Mata, Project Manager
patty.mata@enthalpy.com

This data package has been reviewed for technical correctness and completeness. Release of this data has been authorized by the Laboratory Manager or the Manager's designee, as verified by the above signature which applies to this PDF file as well as any associated electronic data deliverable files. The results contained in this report meet all requirements of NELAP and pertain only to those samples which were submitted for analysis. This report may be reproduced only in its entirety.

CA ELAP# 1338, NELAP# 4038, SCAQMD LAP# 18LA0518, LACSD ID# 10105, CDC ELITE
Member



Sample Summary

Paola Gomez-Birenbaum
RMD Environmental Solutions
609 Gregory Lane
Suite 200
Pleasant Hill, CA 94523

Lab Job #: 443172
Location: Cahuenga, 01-BAR-002 Task 3
Date Received: 03/29/21

Sample ID	Lab ID	Collected	Matrix
IA-1	443172-001	03/27/21 16:45	Air
IA-2	443172-002	03/27/21 16:39	Air
IA-3	443172-003	03/27/21 16:50	Air
IA-4	443172-004	03/27/21 17:02	Air
IA-5	443172-005	03/27/21 17:05	Air
IA-6	443172-006	03/27/21 17:07	Air
IA-7	443172-007	03/27/21 17:08	Air
AA-1	443172-008	03/27/21 17:09	Air
AA-2	443172-009	03/27/21 16:56	Air

		Air Chain of Custody Record		Turn Around Time (rush by advanced notice only)				
		Lab No: 443172	Standard:	5 Day:	3 Day:	X		
#N/A #N/A		Page: 1 of 1	2 Day:	1 Day:	Custom TAT:			
Special Instructions: 3-day TAT (Data end of Day 4/1/21)		CUSTOMER INFORMATION		PROJECT INFORMATION				
		Company:	RMD Environmental Solutions	Name:	Cahuenga			
		Report To:	P. Gomez - Birenbaum	Number:	01-BAR-002 Task 3			
		Email:	pgomez@rmdes.net	P.O. #:				
		Address:	Torrance, CA	Address:	1200 Cahuenga Blvd. LA			
		Phone:	310-678-9367	Global ID:				
		Fax:		Sampled By:	P. Gomez - Birenbaum			

Sample ID	Type	Equipment Information		Sampling Information				Vacuum End (H ₂ O)	Analysis Requested		
		Canister ID	Size (1L, 3L, 6L, 15L)	Flow Controller ID	Sample Start Date	Sample Start Time	Vacuum Start (H ₂ O)			Sample End Date	Sample End Time
1	IA-1	C70061	6L	A70099	3/27/21	845	-30	3/27/21	1645	-5	X
2	IA-2	C70026	6L	A70098		839	-30		1639	-5	X
3	IA-3	C70082	6L	A70097		850	-30		1650	-6	X
4	IA-4	C70091	6L	A70092		902	-30		1702	-5	X
5	IA-5	C70063	6L	A70095		904	-30		1705	-5	X
6	IA-6	C70042	6L	A70094		907	-30		1707	-4	X
7	IA-7	C70032	6L	A70075		908	-29.5		1708	-5	X
8	AA-1	C70077	6L	A70096		909	-30		1709	-6	X
9	AA-2	C70078	6L	A70100		956	-30		1656	-5	X
10											

Signature	Print Name	Company / Title	Date / Time
	Paola Gomez-Birenbaum	RMD / Senior Geologist	3/29/2021 1310
	Henri Cahuenga	Enthalpy	3/29/21 1310
	Henri Cahuenga	Enthalpy	3/29/21 1745
	Christine A.	EA	3/29/21 1745



ENTHALPY ANALYTICAL

SAMPLE ACCEPTANCE CHECKLIST

Section 1

Client: RMD Environ. Solutions

Project: _____

Date Received: 3/29/21

Sampler's Name Present: ☒ Yes ☐ No

Section 2

Sample(s) received in a cooler? ☐ Yes, How many? _____ ☒ No (skip section 2)

Sample Temp (°C) N/A
(No Cooler)

Sample Temp (°C), One from each cooler: #1: _____ #2: _____ #3: _____ #4: _____
(Acceptance range is < 6°C but not frozen (for Microbiology samples, acceptance range is < 10°C but not frozen). It is acceptable for samples collected the same day as sample receipt to have a higher temperature as long as there is evidence that cooling has begun.)

Shipping Information: ambient

Section 3

Was the cooler packed with: ☐ Ice ☐ Ice Packs ☐ Bubble Wrap ☐ Styrofoam
☐ Paper ☐ None ☐ Other _____

Cooler Temp (°C): #1: _____ #2: _____ #3: _____ #4: _____

Section 4

	YES	NO	N/A
Was a COC received?	☒		
Are sample IDs present?	☒		
Are sampling dates & times present?	☒		
Is a relinquished signature present?	☒		
Are the tests required clearly indicated on the COC?	☒		
Are custody seals present?		☒	
If custody seals are present, were they intact?			☒
Are all samples sealed in plastic bags? (Recommended for Microbiology samples)			☒
Did all samples arrive intact? If no, indicate in Section 4 below.	☒		
Did all bottle labels agree with COC? (ID, dates and times)	☒		
Were the samples collected in the correct containers for the required tests?	☒		
Are the containers labeled with the correct preservatives?			☒
Is there headspace in the VOA vials greater than 5-6 mm in diameter?			☒
Was a sufficient amount of sample submitted for the requested tests?	☒		

Section 5 Explanations/Comments

Section 6

For discrepancies, how was the Project Manager notified? ☐ Verbal PM Initials: _____ Date/Time _____
☐ Email (email sent to/on): _____ / _____

Project Manager's response:

Completed By: Mike Cane Date: 3/29/21

Analysis Results for 443172

Paola Gomez-Birenbaum
RMD Environmental Solutions
609 Gregory Lane
Suite 200
Pleasant Hill, CA 94523

Lab Job #: 443172
Location: Cahuenga, 01-BAR-002 Task 3
Date Received: 03/29/21

Sample ID: IA-1

Lab ID: 443172-001

Collected: 03/27/21 16:45

Matrix: Air

443172-001 Analyte	Result	Qual	Units	RL	DF	Batch	Prepared	Analyzed	Chemist
Method: EPA TO-15 SIM									
Prep Method: METHOD									
1,4-Dioxane	27		pptv	11	1.1	264334	03/31/21 13:37	03/31/21 13:37	CAO
1,4-Dioxane	0.096		ug/m3	0.040	1.1	264334	03/31/21 13:37	03/31/21 13:37	CAO
Freon 12	500		pptv	11	1.1	264334	03/31/21 13:37	03/31/21 13:37	CAO
Freon 12	2.5		ug/m3	0.054	1.1	264334	03/31/21 13:37	03/31/21 13:37	CAO
Freon 114	17		pptv	11	1.1	264334	03/31/21 13:37	03/31/21 13:37	CAO
Freon 114	0.12		ug/m3	0.077	1.1	264334	03/31/21 13:37	03/31/21 13:37	CAO
Chloromethane	620		pptv	11	1.1	264334	03/31/21 13:37	03/31/21 13:37	CAO
Chloromethane	1.3		ug/m3	0.023	1.1	264334	03/31/21 13:37	03/31/21 13:37	CAO
Vinyl Chloride	ND		pptv	11	1.1	264334	03/31/21 13:37	03/31/21 13:37	CAO
Vinyl Chloride	ND		ug/m3	0.028	1.1	264334	03/31/21 13:37	03/31/21 13:37	CAO
1,3-Butadiene	ND		pptv	11	1.1	264334	03/31/21 13:37	03/31/21 13:37	CAO
1,3-Butadiene	ND		ug/m3	0.024	1.1	264334	03/31/21 13:37	03/31/21 13:37	CAO
Bromomethane	ND		pptv	11	1.1	264334	03/31/21 13:37	03/31/21 13:37	CAO
Bromomethane	ND		ug/m3	0.043	1.1	264334	03/31/21 13:37	03/31/21 13:37	CAO
Chloroethane	12		pptv	11	1.1	264334	03/31/21 13:37	03/31/21 13:37	CAO
Chloroethane	0.033		ug/m3	0.029	1.1	264334	03/31/21 13:37	03/31/21 13:37	CAO
Trichlorofluoromethane	220		pptv	11	1.1	264334	03/31/21 13:37	03/31/21 13:37	CAO
Trichlorofluoromethane	1.2		ug/m3	0.062	1.1	264334	03/31/21 13:37	03/31/21 13:37	CAO
1,1-Dichloroethene	ND		pptv	11	1.1	264334	03/31/21 13:37	03/31/21 13:37	CAO
1,1-Dichloroethene	ND		ug/m3	0.044	1.1	264334	03/31/21 13:37	03/31/21 13:37	CAO
Freon 113	69		pptv	11	1.1	264334	03/31/21 13:37	03/31/21 13:37	CAO
Freon 113	0.53		ug/m3	0.084	1.1	264334	03/31/21 13:37	03/31/21 13:37	CAO
Methylene Chloride	460		pptv	11	1.1	264334	03/31/21 13:37	03/31/21 13:37	CAO
Methylene Chloride	1.6		ug/m3	0.038	1.1	264334	03/31/21 13:37	03/31/21 13:37	CAO
trans-1,2-Dichloroethene	130		pptv	11	1.1	264334	03/31/21 13:37	03/31/21 13:37	CAO
trans-1,2-Dichloroethene	0.52		ug/m3	0.044	1.1	264334	03/31/21 13:37	03/31/21 13:37	CAO
n-Hexane	250		pptv	11	1.1	264334	03/31/21 13:37	03/31/21 13:37	CAO
n-Hexane	0.87		ug/m3	0.039	1.1	264334	03/31/21 13:37	03/31/21 13:37	CAO
1,1-Dichloroethane	ND		pptv	11	1.1	264334	03/31/21 13:37	03/31/21 13:37	CAO
1,1-Dichloroethane	ND		ug/m3	0.045	1.1	264334	03/31/21 13:37	03/31/21 13:37	CAO
cis-1,2-Dichloroethene	ND		pptv	11	1.1	264334	03/31/21 13:37	03/31/21 13:37	CAO
cis-1,2-Dichloroethene	ND		ug/m3	0.044	1.1	264334	03/31/21 13:37	03/31/21 13:37	CAO
Chloroform	240		pptv	11	1.1	264334	03/31/21 13:37	03/31/21 13:37	CAO
Chloroform	1.2		ug/m3	0.054	1.1	264334	03/31/21 13:37	03/31/21 13:37	CAO

Analysis Results for 443172

443172-001 Analyte	Result	Qual	Units	RL	DF	Batch	Prepared	Analyzed	Chemist
1,1,1-Trichloroethane	ND		pptv	11	1.1	264334	03/31/21 13:37	03/31/21 13:37	CAO
1,1,1-Trichloroethane	ND		ug/m3	0.060	1.1	264334	03/31/21 13:37	03/31/21 13:37	CAO
Carbon Tetrachloride	82		pptv	11	1.1	264334	03/31/21 13:37	03/31/21 13:37	CAO
Carbon Tetrachloride	0.52		ug/m3	0.069	1.1	264334	03/31/21 13:37	03/31/21 13:37	CAO
Benzene	370		pptv	11	1.1	264334	03/31/21 13:37	03/31/21 13:37	CAO
Benzene	1.2		ug/m3	0.035	1.1	264334	03/31/21 13:37	03/31/21 13:37	CAO
1,2-Dichloroethane	40		pptv	11	1.1	264334	03/31/21 13:37	03/31/21 13:37	CAO
1,2-Dichloroethane	0.16		ug/m3	0.045	1.1	264334	03/31/21 13:37	03/31/21 13:37	CAO
n-Heptane	110		pptv	11	1.1	264334	03/31/21 13:37	03/31/21 13:37	CAO
n-Heptane	0.47		ug/m3	0.045	1.1	264334	03/31/21 13:37	03/31/21 13:37	CAO
Trichloroethene	ND		pptv	11	1.1	264334	03/31/21 13:37	03/31/21 13:37	CAO
Trichloroethene	ND		ug/m3	0.059	1.1	264334	03/31/21 13:37	03/31/21 13:37	CAO
1,2-Dichloropropane	ND		pptv	11	1.1	264334	03/31/21 13:37	03/31/21 13:37	CAO
1,2-Dichloropropane	ND		ug/m3	0.051	1.1	264334	03/31/21 13:37	03/31/21 13:37	CAO
Bromodichloromethane	ND		pptv	11	1.1	264334	03/31/21 13:37	03/31/21 13:37	CAO
Bromodichloromethane	ND		ug/m3	0.074	1.1	264334	03/31/21 13:37	03/31/21 13:37	CAO
cis-1,3-Dichloropropene	ND		pptv	11	1.1	264334	03/31/21 13:37	03/31/21 13:37	CAO
cis-1,3-Dichloropropene	ND		ug/m3	0.050	1.1	264334	03/31/21 13:37	03/31/21 13:37	CAO
Toluene	670		pptv	11	1.1	264334	03/31/21 13:37	03/31/21 13:37	CAO
Toluene	2.5		ug/m3	0.041	1.1	264334	03/31/21 13:37	03/31/21 13:37	CAO
trans-1,3-Dichloropropene	ND		pptv	11	1.1	264334	03/31/21 13:37	03/31/21 13:37	CAO
trans-1,3-Dichloropropene	ND		ug/m3	0.050	1.1	264334	03/31/21 13:37	03/31/21 13:37	CAO
1,1,2-Trichloroethane	ND		pptv	11	1.1	264334	03/31/21 13:37	03/31/21 13:37	CAO
1,1,2-Trichloroethane	ND		ug/m3	0.060	1.1	264334	03/31/21 13:37	03/31/21 13:37	CAO
Tetrachloroethene	660		pptv	11	1.1	264334	03/31/21 13:37	03/31/21 13:37	CAO
Tetrachloroethene	4.5		ug/m3	0.075	1.1	264334	03/31/21 13:37	03/31/21 13:37	CAO
Dibromochloromethane	ND		pptv	11	1.1	264334	03/31/21 13:37	03/31/21 13:37	CAO
Dibromochloromethane	ND		ug/m3	0.094	1.1	264334	03/31/21 13:37	03/31/21 13:37	CAO
1,2-Dibromoethane	ND		pptv	11	1.1	264334	03/31/21 13:37	03/31/21 13:37	CAO
1,2-Dibromoethane	ND		ug/m3	0.085	1.1	264334	03/31/21 13:37	03/31/21 13:37	CAO
Chlorobenzene	ND		pptv	11	1.1	264334	03/31/21 13:37	03/31/21 13:37	CAO
Chlorobenzene	ND		ug/m3	0.051	1.1	264334	03/31/21 13:37	03/31/21 13:37	CAO
Ethylbenzene	120		pptv	11	1.1	264334	03/31/21 13:37	03/31/21 13:37	CAO
Ethylbenzene	0.52		ug/m3	0.048	1.1	264334	03/31/21 13:37	03/31/21 13:37	CAO
m,p-Xylenes	360		pptv	11	1.1	264334	03/31/21 13:37	03/31/21 13:37	CAO
m,p-Xylenes	1.5		ug/m3	0.048	1.1	264334	03/31/21 13:37	03/31/21 13:37	CAO
o-Xylene	150		pptv	11	1.1	264334	03/31/21 13:37	03/31/21 13:37	CAO
o-Xylene	0.63		ug/m3	0.048	1.1	264334	03/31/21 13:37	03/31/21 13:37	CAO
Styrene	66		pptv	11	1.1	264334	03/31/21 13:37	03/31/21 13:37	CAO
Styrene	0.28		ug/m3	0.047	1.1	264334	03/31/21 13:37	03/31/21 13:37	CAO
Bromoform	ND		pptv	11	1.1	264334	03/31/21 13:37	03/31/21 13:37	CAO
Bromoform	ND		ug/m3	0.11	1.1	264334	03/31/21 13:37	03/31/21 13:37	CAO
4-Ethyltoluene	30		pptv	11	1.1	264334	03/31/21 13:37	03/31/21 13:37	CAO
4-Ethyltoluene	0.15		ug/m3	0.054	1.1	264334	03/31/21 13:37	03/31/21 13:37	CAO
1,3,5-Trimethylbenzene	28		pptv	11	1.1	264334	03/31/21 13:37	03/31/21 13:37	CAO
1,3,5-Trimethylbenzene	0.14		ug/m3	0.054	1.1	264334	03/31/21 13:37	03/31/21 13:37	CAO

Analysis Results for 443172

443172-001 Analyte	Result	Qual	Units	RL	DF	Batch	Prepared	Analyzed	Chemist
1,2,4-Trimethylbenzene	120		pptv	11	1.1	264334	03/31/21 13:37	03/31/21 13:37	CAO
1,2,4-Trimethylbenzene	0.58		ug/m3	0.054	1.1	264334	03/31/21 13:37	03/31/21 13:37	CAO
1,3-Dichlorobenzene	ND		pptv	11	1.1	264334	03/31/21 13:37	03/31/21 13:37	CAO
1,3-Dichlorobenzene	ND		ug/m3	0.066	1.1	264334	03/31/21 13:37	03/31/21 13:37	CAO
1,4-Dichlorobenzene	26		pptv	11	1.1	264334	03/31/21 13:37	03/31/21 13:37	CAO
1,4-Dichlorobenzene	0.16		ug/m3	0.066	1.1	264334	03/31/21 13:37	03/31/21 13:37	CAO
Benzyl chloride	ND		pptv	11	1.1	264334	03/31/21 13:37	03/31/21 13:37	CAO
Benzyl chloride	ND		ug/m3	0.057	1.1	264334	03/31/21 13:37	03/31/21 13:37	CAO
1,2-Dichlorobenzene	ND		pptv	11	1.1	264334	03/31/21 13:37	03/31/21 13:37	CAO
1,2-Dichlorobenzene	ND		ug/m3	0.066	1.1	264334	03/31/21 13:37	03/31/21 13:37	CAO
1,2,4-Trichlorobenzene	ND		pptv	11	1.1	264334	03/31/21 13:37	03/31/21 13:37	CAO
1,2,4-Trichlorobenzene	ND		ug/m3	0.082	1.1	264334	03/31/21 13:37	03/31/21 13:37	CAO
Hexachlorobutadiene	ND		pptv	11	1.1	264334	03/31/21 13:37	03/31/21 13:37	CAO
Hexachlorobutadiene	ND		ug/m3	0.12	1.1	264334	03/31/21 13:37	03/31/21 13:37	CAO
2,2,4-Trimethylpentane	280		pptv	11	1.1	264334	03/31/21 13:37	03/31/21 13:37	CAO
2,2,4-Trimethylpentane	1.3		ug/m3	0.051	1.1	264334	03/31/21 13:37	03/31/21 13:37	CAO
2-Chlorotoluene	ND		pptv	11	1.1	264334	03/31/21 13:37	03/31/21 13:37	CAO
2-Chlorotoluene	ND		ug/m3	0.057	1.1	264334	03/31/21 13:37	03/31/21 13:37	CAO
Isopropylbenzene	18		pptv	11	1.1	264334	03/31/21 13:37	03/31/21 13:37	CAO
Isopropylbenzene	0.086		ug/m3	0.054	1.1	264334	03/31/21 13:37	03/31/21 13:37	CAO
Naphthalene	30		pptv	11	1.1	264334	03/31/21 13:37	03/31/21 13:37	CAO
Naphthalene	0.16		ug/m3	0.058	1.1	264334	03/31/21 13:37	03/31/21 13:37	CAO
Propylbenzene	19		pptv	11	1.1	264334	03/31/21 13:37	03/31/21 13:37	CAO
Propylbenzene	0.093		ug/m3	0.054	1.1	264334	03/31/21 13:37	03/31/21 13:37	CAO
Vinyl bromide	ND		pptv	11	1.1	264334	03/31/21 13:37	03/31/21 13:37	CAO
Vinyl bromide	ND		ug/m3	0.048	1.1	264334	03/31/21 13:37	03/31/21 13:37	CAO
Xylene (total)	500		pptv	11	1.1	264334	03/31/21 13:37	03/31/21 13:37	CAO
Xylene (total)	2.2		ug/m3	0.048	1.1	264334	03/31/21 13:37	03/31/21 13:37	CAO
Surrogates				Limits					
Bromofluorobenzene	99%		%REC	60-140	1.1	264334	03/31/21 13:37	03/31/21 13:37	CAO

Analysis Results for 443172

Sample ID: IA-2
Lab ID: 443172-002
Collected: 03/27/21 16:39
Matrix: Air

443172-002 Analyte	Result	Qual	Units	RL	DF	Batch	Prepared	Analyzed	Chemist
Method: EPA TO-15 SIM									
Prep Method: METHOD									
1,4-Dioxane	35		pptv	10	1	264334	03/31/21 15:15	03/31/21 15:15	CAO
1,4-Dioxane	0.13		ug/m3	0.036	1	264334	03/31/21 15:15	03/31/21 15:15	CAO
Freon 12	500		pptv	10	1	264334	03/31/21 15:15	03/31/21 15:15	CAO
Freon 12	2.5		ug/m3	0.049	1	264334	03/31/21 15:15	03/31/21 15:15	CAO
Freon 114	17		pptv	10	1	264334	03/31/21 15:15	03/31/21 15:15	CAO
Freon 114	0.12		ug/m3	0.070	1	264334	03/31/21 15:15	03/31/21 15:15	CAO
Chloromethane	640		pptv	10	1	264334	03/31/21 15:15	03/31/21 15:15	CAO
Chloromethane	1.3		ug/m3	0.021	1	264334	03/31/21 15:15	03/31/21 15:15	CAO
Vinyl Chloride	ND		pptv	10	1	264334	03/31/21 15:15	03/31/21 15:15	CAO
Vinyl Chloride	ND		ug/m3	0.026	1	264334	03/31/21 15:15	03/31/21 15:15	CAO
1,3-Butadiene	ND		pptv	10	1	264334	03/31/21 15:15	03/31/21 15:15	CAO
1,3-Butadiene	ND		ug/m3	0.022	1	264334	03/31/21 15:15	03/31/21 15:15	CAO
Bromomethane	ND		pptv	10	1	264334	03/31/21 15:15	03/31/21 15:15	CAO
Bromomethane	ND		ug/m3	0.039	1	264334	03/31/21 15:15	03/31/21 15:15	CAO
Chloroethane	14		pptv	10	1	264334	03/31/21 15:15	03/31/21 15:15	CAO
Chloroethane	0.036		ug/m3	0.026	1	264334	03/31/21 15:15	03/31/21 15:15	CAO
Trichlorofluoromethane	220		pptv	10	1	264334	03/31/21 15:15	03/31/21 15:15	CAO
Trichlorofluoromethane	1.2		ug/m3	0.056	1	264334	03/31/21 15:15	03/31/21 15:15	CAO
1,1-Dichloroethene	ND		pptv	10	1	264334	03/31/21 15:15	03/31/21 15:15	CAO
1,1-Dichloroethene	ND		ug/m3	0.040	1	264334	03/31/21 15:15	03/31/21 15:15	CAO
Freon 113	70		pptv	10	1	264334	03/31/21 15:15	03/31/21 15:15	CAO
Freon 113	0.54		ug/m3	0.077	1	264334	03/31/21 15:15	03/31/21 15:15	CAO
Methylene Chloride	190		pptv	10	1	264334	03/31/21 15:15	03/31/21 15:15	CAO
Methylene Chloride	0.64		ug/m3	0.035	1	264334	03/31/21 15:15	03/31/21 15:15	CAO
trans-1,2-Dichloroethene	54		pptv	10	1	264334	03/31/21 15:15	03/31/21 15:15	CAO
trans-1,2-Dichloroethene	0.21		ug/m3	0.040	1	264334	03/31/21 15:15	03/31/21 15:15	CAO
n-Hexane	250		pptv	10	1	264334	03/31/21 15:15	03/31/21 15:15	CAO
n-Hexane	0.87		ug/m3	0.035	1	264334	03/31/21 15:15	03/31/21 15:15	CAO
1,1-Dichloroethane	ND		pptv	10	1	264334	03/31/21 15:15	03/31/21 15:15	CAO
1,1-Dichloroethane	ND		ug/m3	0.040	1	264334	03/31/21 15:15	03/31/21 15:15	CAO
cis-1,2-Dichloroethene	ND		pptv	10	1	264334	03/31/21 15:15	03/31/21 15:15	CAO
cis-1,2-Dichloroethene	ND		ug/m3	0.040	1	264334	03/31/21 15:15	03/31/21 15:15	CAO
Chloroform	570		pptv	10	1	264334	03/31/21 15:15	03/31/21 15:15	CAO
Chloroform	2.8		ug/m3	0.049	1	264334	03/31/21 15:15	03/31/21 15:15	CAO
1,1,1-Trichloroethane	ND		pptv	10	1	264334	03/31/21 15:15	03/31/21 15:15	CAO
1,1,1-Trichloroethane	ND		ug/m3	0.055	1	264334	03/31/21 15:15	03/31/21 15:15	CAO
Carbon Tetrachloride	83		pptv	10	1	264334	03/31/21 15:15	03/31/21 15:15	CAO
Carbon Tetrachloride	0.52		ug/m3	0.063	1	264334	03/31/21 15:15	03/31/21 15:15	CAO
Benzene	380		pptv	10	1	264334	03/31/21 15:15	03/31/21 15:15	CAO
Benzene	1.2		ug/m3	0.032	1	264334	03/31/21 15:15	03/31/21 15:15	CAO

Analysis Results for 443172

443172-002 Analyte	Result	Qual	Units	RL	DF	Batch	Prepared	Analyzed	Chemist
1,2-Dichloroethane	49		pptv	10	1	264334	03/31/21 15:15	03/31/21 15:15	CAO
1,2-Dichloroethane	0.20		ug/m3	0.040	1	264334	03/31/21 15:15	03/31/21 15:15	CAO
n-Heptane	130		pptv	10	1	264334	03/31/21 15:15	03/31/21 15:15	CAO
n-Heptane	0.51		ug/m3	0.041	1	264334	03/31/21 15:15	03/31/21 15:15	CAO
Trichloroethene	ND		pptv	10	1	264334	03/31/21 15:15	03/31/21 15:15	CAO
Trichloroethene	ND		ug/m3	0.054	1	264334	03/31/21 15:15	03/31/21 15:15	CAO
1,2-Dichloropropane	ND		pptv	10	1	264334	03/31/21 15:15	03/31/21 15:15	CAO
1,2-Dichloropropane	ND		ug/m3	0.046	1	264334	03/31/21 15:15	03/31/21 15:15	CAO
Bromodichloromethane	ND		pptv	10	1	264334	03/31/21 15:15	03/31/21 15:15	CAO
Bromodichloromethane	ND		ug/m3	0.067	1	264334	03/31/21 15:15	03/31/21 15:15	CAO
cis-1,3-Dichloropropene	ND		pptv	10	1	264334	03/31/21 15:15	03/31/21 15:15	CAO
cis-1,3-Dichloropropene	ND		ug/m3	0.045	1	264334	03/31/21 15:15	03/31/21 15:15	CAO
Toluene	750		pptv	10	1	264334	03/31/21 15:15	03/31/21 15:15	CAO
Toluene	2.8		ug/m3	0.038	1	264334	03/31/21 15:15	03/31/21 15:15	CAO
trans-1,3-Dichloropropene	ND		pptv	10	1	264334	03/31/21 15:15	03/31/21 15:15	CAO
trans-1,3-Dichloropropene	ND		ug/m3	0.045	1	264334	03/31/21 15:15	03/31/21 15:15	CAO
1,1,2-Trichloroethane	ND		pptv	10	1	264334	03/31/21 15:15	03/31/21 15:15	CAO
1,1,2-Trichloroethane	ND		ug/m3	0.055	1	264334	03/31/21 15:15	03/31/21 15:15	CAO
Tetrachloroethene	480		pptv	10	1	264334	03/31/21 15:15	03/31/21 15:15	CAO
Tetrachloroethene	3.3		ug/m3	0.068	1	264334	03/31/21 15:15	03/31/21 15:15	CAO
Dibromochloromethane	ND		pptv	10	1	264334	03/31/21 15:15	03/31/21 15:15	CAO
Dibromochloromethane	ND		ug/m3	0.085	1	264334	03/31/21 15:15	03/31/21 15:15	CAO
1,2-Dibromoethane	ND		pptv	10	1	264334	03/31/21 15:15	03/31/21 15:15	CAO
1,2-Dibromoethane	ND		ug/m3	0.077	1	264334	03/31/21 15:15	03/31/21 15:15	CAO
Chlorobenzene	ND		pptv	10	1	264334	03/31/21 15:15	03/31/21 15:15	CAO
Chlorobenzene	ND		ug/m3	0.046	1	264334	03/31/21 15:15	03/31/21 15:15	CAO
Ethylbenzene	130		pptv	10	1	264334	03/31/21 15:15	03/31/21 15:15	CAO
Ethylbenzene	0.55		ug/m3	0.043	1	264334	03/31/21 15:15	03/31/21 15:15	CAO
m,p-Xylenes	390		pptv	10	1	264334	03/31/21 15:15	03/31/21 15:15	CAO
m,p-Xylenes	1.7		ug/m3	0.043	1	264334	03/31/21 15:15	03/31/21 15:15	CAO
o-Xylene	160		pptv	10	1	264334	03/31/21 15:15	03/31/21 15:15	CAO
o-Xylene	0.70		ug/m3	0.043	1	264334	03/31/21 15:15	03/31/21 15:15	CAO
Styrene	55		pptv	10	1	264334	03/31/21 15:15	03/31/21 15:15	CAO
Styrene	0.24		ug/m3	0.043	1	264334	03/31/21 15:15	03/31/21 15:15	CAO
Bromoform	ND		pptv	10	1	264334	03/31/21 15:15	03/31/21 15:15	CAO
Bromoform	ND		ug/m3	0.10	1	264334	03/31/21 15:15	03/31/21 15:15	CAO
4-Ethyltoluene	44		pptv	10	1	264334	03/31/21 15:15	03/31/21 15:15	CAO
4-Ethyltoluene	0.22		ug/m3	0.049	1	264334	03/31/21 15:15	03/31/21 15:15	CAO
1,3,5-Trimethylbenzene	45		pptv	10	1	264334	03/31/21 15:15	03/31/21 15:15	CAO
1,3,5-Trimethylbenzene	0.22		ug/m3	0.049	1	264334	03/31/21 15:15	03/31/21 15:15	CAO
1,2,4-Trimethylbenzene	200		pptv	10	1	264334	03/31/21 15:15	03/31/21 15:15	CAO
1,2,4-Trimethylbenzene	0.97		ug/m3	0.049	1	264334	03/31/21 15:15	03/31/21 15:15	CAO
1,3-Dichlorobenzene	ND		pptv	10	1	264334	03/31/21 15:15	03/31/21 15:15	CAO
1,3-Dichlorobenzene	ND		ug/m3	0.060	1	264334	03/31/21 15:15	03/31/21 15:15	CAO
1,4-Dichlorobenzene	26		pptv	10	1	264334	03/31/21 15:15	03/31/21 15:15	CAO
1,4-Dichlorobenzene	0.15		ug/m3	0.060	1	264334	03/31/21 15:15	03/31/21 15:15	CAO

Analysis Results for 443172

443172-002 Analyte	Result	Qual	Units	RL	DF	Batch	Prepared	Analyzed	Chemist
Benzyl chloride	ND		pptv	10	1	264334	03/31/21 15:15	03/31/21 15:15	CAO
Benzyl chloride	ND		ug/m3	0.052	1	264334	03/31/21 15:15	03/31/21 15:15	CAO
1,2-Dichlorobenzene	ND		pptv	10	1	264334	03/31/21 15:15	03/31/21 15:15	CAO
1,2-Dichlorobenzene	ND		ug/m3	0.060	1	264334	03/31/21 15:15	03/31/21 15:15	CAO
1,2,4-Trichlorobenzene	ND		pptv	10	1	264334	03/31/21 15:15	03/31/21 15:15	CAO
1,2,4-Trichlorobenzene	ND		ug/m3	0.074	1	264334	03/31/21 15:15	03/31/21 15:15	CAO
Hexachlorobutadiene	ND		pptv	10	1	264334	03/31/21 15:15	03/31/21 15:15	CAO
Hexachlorobutadiene	ND		ug/m3	0.11	1	264334	03/31/21 15:15	03/31/21 15:15	CAO
2,2,4-Trimethylpentane	290		pptv	10	1	264334	03/31/21 15:15	03/31/21 15:15	CAO
2,2,4-Trimethylpentane	1.4		ug/m3	0.047	1	264334	03/31/21 15:15	03/31/21 15:15	CAO
2-Chlorotoluene	ND		pptv	10	1	264334	03/31/21 15:15	03/31/21 15:15	CAO
2-Chlorotoluene	ND		ug/m3	0.052	1	264334	03/31/21 15:15	03/31/21 15:15	CAO
Isopropylbenzene	28		pptv	10	1	264334	03/31/21 15:15	03/31/21 15:15	CAO
Isopropylbenzene	0.14		ug/m3	0.049	1	264334	03/31/21 15:15	03/31/21 15:15	CAO
Naphthalene	26		pptv	10	1	264334	03/31/21 15:15	03/31/21 15:15	CAO
Naphthalene	0.14		ug/m3	0.052	1	264334	03/31/21 15:15	03/31/21 15:15	CAO
Propylbenzene	26		pptv	10	1	264334	03/31/21 15:15	03/31/21 15:15	CAO
Propylbenzene	0.13		ug/m3	0.049	1	264334	03/31/21 15:15	03/31/21 15:15	CAO
Vinyl bromide	ND		pptv	10	1	264334	03/31/21 15:15	03/31/21 15:15	CAO
Vinyl bromide	ND		ug/m3	0.044	1	264334	03/31/21 15:15	03/31/21 15:15	CAO
Xylene (total)	550		pptv	10	1	264334	03/31/21 15:15	03/31/21 15:15	CAO
Xylene (total)	2.4		ug/m3	0.043	1	264334	03/31/21 15:15	03/31/21 15:15	CAO
Surrogates			Limits						
Bromofluorobenzene	100%		%REC	60-140	1	264334	03/31/21 15:15	03/31/21 15:15	CAO

Analysis Results for 443172

Sample ID: IA-3
Lab ID: 443172-003
Collected: 03/27/21 16:50
Matrix: Air

443172-003 Analyte	Result	Qual	Units	RL	DF	Batch	Prepared	Analyzed	Chemist
Method: EPA TO-15 SIM									
Prep Method: METHOD									
1,4-Dioxane	ND		pptv	11	1.1	264334	03/31/21 16:03	03/31/21 16:03	CAO
1,4-Dioxane	ND		ug/m3	0.040	1.1	264334	03/31/21 16:03	03/31/21 16:03	CAO
Freon 12	500		pptv	11	1.1	264334	03/31/21 16:03	03/31/21 16:03	CAO
Freon 12	2.5		ug/m3	0.054	1.1	264334	03/31/21 16:03	03/31/21 16:03	CAO
Freon 114	17		pptv	11	1.1	264334	03/31/21 16:03	03/31/21 16:03	CAO
Freon 114	0.12		ug/m3	0.077	1.1	264334	03/31/21 16:03	03/31/21 16:03	CAO
Chloromethane	620		pptv	11	1.1	264334	03/31/21 16:03	03/31/21 16:03	CAO
Chloromethane	1.3		ug/m3	0.023	1.1	264334	03/31/21 16:03	03/31/21 16:03	CAO
Vinyl Chloride	ND		pptv	11	1.1	264334	03/31/21 16:03	03/31/21 16:03	CAO
Vinyl Chloride	ND		ug/m3	0.028	1.1	264334	03/31/21 16:03	03/31/21 16:03	CAO
1,3-Butadiene	ND		pptv	11	1.1	264334	03/31/21 16:03	03/31/21 16:03	CAO
1,3-Butadiene	ND		ug/m3	0.024	1.1	264334	03/31/21 16:03	03/31/21 16:03	CAO
Bromomethane	ND		pptv	11	1.1	264334	03/31/21 16:03	03/31/21 16:03	CAO
Bromomethane	ND		ug/m3	0.043	1.1	264334	03/31/21 16:03	03/31/21 16:03	CAO
Chloroethane	11		pptv	11	1.1	264334	03/31/21 16:03	03/31/21 16:03	CAO
Chloroethane	0.029		ug/m3	0.029	1.1	264334	03/31/21 16:03	03/31/21 16:03	CAO
Trichlorofluoromethane	220		pptv	11	1.1	264334	03/31/21 16:03	03/31/21 16:03	CAO
Trichlorofluoromethane	1.2		ug/m3	0.062	1.1	264334	03/31/21 16:03	03/31/21 16:03	CAO
1,1-Dichloroethene	ND		pptv	11	1.1	264334	03/31/21 16:03	03/31/21 16:03	CAO
1,1-Dichloroethene	ND		ug/m3	0.044	1.1	264334	03/31/21 16:03	03/31/21 16:03	CAO
Freon 113	70		pptv	11	1.1	264334	03/31/21 16:03	03/31/21 16:03	CAO
Freon 113	0.54		ug/m3	0.084	1.1	264334	03/31/21 16:03	03/31/21 16:03	CAO
Methylene Chloride	520		pptv	11	1.1	264334	03/31/21 16:03	03/31/21 16:03	CAO
Methylene Chloride	1.8		ug/m3	0.038	1.1	264334	03/31/21 16:03	03/31/21 16:03	CAO
trans-1,2-Dichloroethene	22		pptv	11	1.1	264334	03/31/21 16:03	03/31/21 16:03	CAO
trans-1,2-Dichloroethene	0.089		ug/m3	0.044	1.1	264334	03/31/21 16:03	03/31/21 16:03	CAO
n-Hexane	250		pptv	11	1.1	264334	03/31/21 16:03	03/31/21 16:03	CAO
n-Hexane	0.88		ug/m3	0.039	1.1	264334	03/31/21 16:03	03/31/21 16:03	CAO
1,1-Dichloroethane	ND		pptv	11	1.1	264334	03/31/21 16:03	03/31/21 16:03	CAO
1,1-Dichloroethane	ND		ug/m3	0.045	1.1	264334	03/31/21 16:03	03/31/21 16:03	CAO
cis-1,2-Dichloroethene	ND		pptv	11	1.1	264334	03/31/21 16:03	03/31/21 16:03	CAO
cis-1,2-Dichloroethene	ND		ug/m3	0.044	1.1	264334	03/31/21 16:03	03/31/21 16:03	CAO
Chloroform	130		pptv	11	1.1	264334	03/31/21 16:03	03/31/21 16:03	CAO
Chloroform	0.65		ug/m3	0.054	1.1	264334	03/31/21 16:03	03/31/21 16:03	CAO
1,1,1-Trichloroethane	ND		pptv	11	1.1	264334	03/31/21 16:03	03/31/21 16:03	CAO
1,1,1-Trichloroethane	ND		ug/m3	0.060	1.1	264334	03/31/21 16:03	03/31/21 16:03	CAO
Carbon Tetrachloride	83		pptv	11	1.1	264334	03/31/21 16:03	03/31/21 16:03	CAO
Carbon Tetrachloride	0.53		ug/m3	0.069	1.1	264334	03/31/21 16:03	03/31/21 16:03	CAO
Benzene	330		pptv	11	1.1	264334	03/31/21 16:03	03/31/21 16:03	CAO
Benzene	1.0		ug/m3	0.035	1.1	264334	03/31/21 16:03	03/31/21 16:03	CAO

Analysis Results for 443172

443172-003 Analyte	Result	Qual	Units	RL	DF	Batch	Prepared	Analyzed	Chemist
1,2-Dichloroethane	30		pptv	11	1.1	264334	03/31/21 16:03	03/31/21 16:03	CAO
1,2-Dichloroethane	0.12		ug/m3	0.045	1.1	264334	03/31/21 16:03	03/31/21 16:03	CAO
n-Heptane	93		pptv	11	1.1	264334	03/31/21 16:03	03/31/21 16:03	CAO
n-Heptane	0.38		ug/m3	0.045	1.1	264334	03/31/21 16:03	03/31/21 16:03	CAO
Trichloroethene	15		pptv	11	1.1	264334	03/31/21 16:03	03/31/21 16:03	CAO
Trichloroethene	0.083		ug/m3	0.059	1.1	264334	03/31/21 16:03	03/31/21 16:03	CAO
1,2-Dichloropropane	ND		pptv	11	1.1	264334	03/31/21 16:03	03/31/21 16:03	CAO
1,2-Dichloropropane	ND		ug/m3	0.051	1.1	264334	03/31/21 16:03	03/31/21 16:03	CAO
Bromodichloromethane	ND		pptv	11	1.1	264334	03/31/21 16:03	03/31/21 16:03	CAO
Bromodichloromethane	ND		ug/m3	0.074	1.1	264334	03/31/21 16:03	03/31/21 16:03	CAO
cis-1,3-Dichloropropene	ND		pptv	11	1.1	264334	03/31/21 16:03	03/31/21 16:03	CAO
cis-1,3-Dichloropropene	ND		ug/m3	0.050	1.1	264334	03/31/21 16:03	03/31/21 16:03	CAO
Toluene	580		pptv	11	1.1	264334	03/31/21 16:03	03/31/21 16:03	CAO
Toluene	2.2		ug/m3	0.041	1.1	264334	03/31/21 16:03	03/31/21 16:03	CAO
trans-1,3-Dichloropropene	ND		pptv	11	1.1	264334	03/31/21 16:03	03/31/21 16:03	CAO
trans-1,3-Dichloropropene	ND		ug/m3	0.050	1.1	264334	03/31/21 16:03	03/31/21 16:03	CAO
1,1,2-Trichloroethane	ND		pptv	11	1.1	264334	03/31/21 16:03	03/31/21 16:03	CAO
1,1,2-Trichloroethane	ND		ug/m3	0.060	1.1	264334	03/31/21 16:03	03/31/21 16:03	CAO
Tetrachloroethene	230		pptv	11	1.1	264334	03/31/21 16:03	03/31/21 16:03	CAO
Tetrachloroethene	1.6		ug/m3	0.075	1.1	264334	03/31/21 16:03	03/31/21 16:03	CAO
Dibromochloromethane	ND		pptv	11	1.1	264334	03/31/21 16:03	03/31/21 16:03	CAO
Dibromochloromethane	ND		ug/m3	0.094	1.1	264334	03/31/21 16:03	03/31/21 16:03	CAO
1,2-Dibromoethane	ND		pptv	11	1.1	264334	03/31/21 16:03	03/31/21 16:03	CAO
1,2-Dibromoethane	ND		ug/m3	0.085	1.1	264334	03/31/21 16:03	03/31/21 16:03	CAO
Chlorobenzene	ND		pptv	11	1.1	264334	03/31/21 16:03	03/31/21 16:03	CAO
Chlorobenzene	ND		ug/m3	0.051	1.1	264334	03/31/21 16:03	03/31/21 16:03	CAO
Ethylbenzene	110		pptv	11	1.1	264334	03/31/21 16:03	03/31/21 16:03	CAO
Ethylbenzene	0.47		ug/m3	0.048	1.1	264334	03/31/21 16:03	03/31/21 16:03	CAO
m,p-Xylenes	320		pptv	11	1.1	264334	03/31/21 16:03	03/31/21 16:03	CAO
m,p-Xylenes	1.4		ug/m3	0.048	1.1	264334	03/31/21 16:03	03/31/21 16:03	CAO
o-Xylene	130		pptv	11	1.1	264334	03/31/21 16:03	03/31/21 16:03	CAO
o-Xylene	0.58		ug/m3	0.048	1.1	264334	03/31/21 16:03	03/31/21 16:03	CAO
Styrene	43		pptv	11	1.1	264334	03/31/21 16:03	03/31/21 16:03	CAO
Styrene	0.19		ug/m3	0.047	1.1	264334	03/31/21 16:03	03/31/21 16:03	CAO
Bromoform	ND		pptv	11	1.1	264334	03/31/21 16:03	03/31/21 16:03	CAO
Bromoform	ND		ug/m3	0.11	1.1	264334	03/31/21 16:03	03/31/21 16:03	CAO
4-Ethyltoluene	32		pptv	11	1.1	264334	03/31/21 16:03	03/31/21 16:03	CAO
4-Ethyltoluene	0.16		ug/m3	0.054	1.1	264334	03/31/21 16:03	03/31/21 16:03	CAO
1,3,5-Trimethylbenzene	25		pptv	11	1.1	264334	03/31/21 16:03	03/31/21 16:03	CAO
1,3,5-Trimethylbenzene	0.12		ug/m3	0.054	1.1	264334	03/31/21 16:03	03/31/21 16:03	CAO
1,2,4-Trimethylbenzene	110		pptv	11	1.1	264334	03/31/21 16:03	03/31/21 16:03	CAO
1,2,4-Trimethylbenzene	0.54		ug/m3	0.054	1.1	264334	03/31/21 16:03	03/31/21 16:03	CAO
1,3-Dichlorobenzene	ND		pptv	11	1.1	264334	03/31/21 16:03	03/31/21 16:03	CAO
1,3-Dichlorobenzene	ND		ug/m3	0.066	1.1	264334	03/31/21 16:03	03/31/21 16:03	CAO
1,4-Dichlorobenzene	23		pptv	11	1.1	264334	03/31/21 16:03	03/31/21 16:03	CAO
1,4-Dichlorobenzene	0.14		ug/m3	0.066	1.1	264334	03/31/21 16:03	03/31/21 16:03	CAO

Analysis Results for 443172

443172-003 Analyte	Result	Qual	Units	RL	DF	Batch	Prepared	Analyzed	Chemist
Benzyl chloride	ND		pptv	11	1.1	264334	03/31/21 16:03	03/31/21 16:03	CAO
Benzyl chloride	ND		ug/m3	0.057	1.1	264334	03/31/21 16:03	03/31/21 16:03	CAO
1,2-Dichlorobenzene	ND		pptv	11	1.1	264334	03/31/21 16:03	03/31/21 16:03	CAO
1,2-Dichlorobenzene	ND		ug/m3	0.066	1.1	264334	03/31/21 16:03	03/31/21 16:03	CAO
1,2,4-Trichlorobenzene	ND		pptv	11	1.1	264334	03/31/21 16:03	03/31/21 16:03	CAO
1,2,4-Trichlorobenzene	ND		ug/m3	0.082	1.1	264334	03/31/21 16:03	03/31/21 16:03	CAO
Hexachlorobutadiene	ND		pptv	11	1.1	264334	03/31/21 16:03	03/31/21 16:03	CAO
Hexachlorobutadiene	ND		ug/m3	0.12	1.1	264334	03/31/21 16:03	03/31/21 16:03	CAO
2,2,4-Trimethylpentane	220		pptv	11	1.1	264334	03/31/21 16:03	03/31/21 16:03	CAO
2,2,4-Trimethylpentane	1.0		ug/m3	0.051	1.1	264334	03/31/21 16:03	03/31/21 16:03	CAO
2-Chlorotoluene	ND		pptv	11	1.1	264334	03/31/21 16:03	03/31/21 16:03	CAO
2-Chlorotoluene	ND		ug/m3	0.057	1.1	264334	03/31/21 16:03	03/31/21 16:03	CAO
Isopropylbenzene	14		pptv	11	1.1	264334	03/31/21 16:03	03/31/21 16:03	CAO
Isopropylbenzene	0.067		ug/m3	0.054	1.1	264334	03/31/21 16:03	03/31/21 16:03	CAO
Naphthalene	110		pptv	11	1.1	264334	03/31/21 16:03	03/31/21 16:03	CAO
Naphthalene	0.55		ug/m3	0.058	1.1	264334	03/31/21 16:03	03/31/21 16:03	CAO
Propylbenzene	20		pptv	11	1.1	264334	03/31/21 16:03	03/31/21 16:03	CAO
Propylbenzene	0.10		ug/m3	0.054	1.1	264334	03/31/21 16:03	03/31/21 16:03	CAO
Vinyl bromide	ND		pptv	11	1.1	264334	03/31/21 16:03	03/31/21 16:03	CAO
Vinyl bromide	ND		ug/m3	0.048	1.1	264334	03/31/21 16:03	03/31/21 16:03	CAO
Xylene (total)	450		pptv	11	1.1	264334	03/31/21 16:03	03/31/21 16:03	CAO
Xylene (total)	2.0		ug/m3	0.048	1.1	264334	03/31/21 16:03	03/31/21 16:03	CAO
Surrogates			Limits						
Bromofluorobenzene	101%		%REC	60-140	1.1	264334	03/31/21 16:03	03/31/21 16:03	CAO

Analysis Results for 443172

Sample ID: IA-4
Lab ID: 443172-004
Collected: 03/27/21 17:02
Matrix: Air

443172-004 Analyte	Result	Qual	Units	RL	DF	Batch	Prepared	Analyzed	Chemist
Method: EPA TO-15 SIM									
Prep Method: METHOD									
1,4-Dioxane	ND		pptv	10	1	264334	03/31/21 16:51	03/31/21 16:51	CAO
1,4-Dioxane	ND		ug/m3	0.036	1	264334	03/31/21 16:51	03/31/21 16:51	CAO
Freon 12	500		pptv	10	1	264334	03/31/21 16:51	03/31/21 16:51	CAO
Freon 12	2.5		ug/m3	0.049	1	264334	03/31/21 16:51	03/31/21 16:51	CAO
Freon 114	17		pptv	10	1	264334	03/31/21 16:51	03/31/21 16:51	CAO
Freon 114	0.12		ug/m3	0.070	1	264334	03/31/21 16:51	03/31/21 16:51	CAO
Chloromethane	600		pptv	10	1	264334	03/31/21 16:51	03/31/21 16:51	CAO
Chloromethane	1.2		ug/m3	0.021	1	264334	03/31/21 16:51	03/31/21 16:51	CAO
Vinyl Chloride	ND		pptv	10	1	264334	03/31/21 16:51	03/31/21 16:51	CAO
Vinyl Chloride	ND		ug/m3	0.026	1	264334	03/31/21 16:51	03/31/21 16:51	CAO
1,3-Butadiene	ND		pptv	10	1	264334	03/31/21 16:51	03/31/21 16:51	CAO
1,3-Butadiene	ND		ug/m3	0.022	1	264334	03/31/21 16:51	03/31/21 16:51	CAO
Bromomethane	ND		pptv	10	1	264334	03/31/21 16:51	03/31/21 16:51	CAO
Bromomethane	ND		ug/m3	0.039	1	264334	03/31/21 16:51	03/31/21 16:51	CAO
Chloroethane	ND		pptv	10	1	264334	03/31/21 16:51	03/31/21 16:51	CAO
Chloroethane	ND		ug/m3	0.026	1	264334	03/31/21 16:51	03/31/21 16:51	CAO
Trichlorofluoromethane	220		pptv	10	1	264334	03/31/21 16:51	03/31/21 16:51	CAO
Trichlorofluoromethane	1.2		ug/m3	0.056	1	264334	03/31/21 16:51	03/31/21 16:51	CAO
1,1-Dichloroethene	ND		pptv	10	1	264334	03/31/21 16:51	03/31/21 16:51	CAO
1,1-Dichloroethene	ND		ug/m3	0.040	1	264334	03/31/21 16:51	03/31/21 16:51	CAO
Freon 113	70		pptv	10	1	264334	03/31/21 16:51	03/31/21 16:51	CAO
Freon 113	0.54		ug/m3	0.077	1	264334	03/31/21 16:51	03/31/21 16:51	CAO
Methylene Chloride	460		pptv	10	1	264334	03/31/21 16:51	03/31/21 16:51	CAO
Methylene Chloride	1.6		ug/m3	0.035	1	264334	03/31/21 16:51	03/31/21 16:51	CAO
trans-1,2-Dichloroethene	ND		pptv	10	1	264334	03/31/21 16:51	03/31/21 16:51	CAO
trans-1,2-Dichloroethene	ND		ug/m3	0.040	1	264334	03/31/21 16:51	03/31/21 16:51	CAO
n-Hexane	110		pptv	10	1	264334	03/31/21 16:51	03/31/21 16:51	CAO
n-Hexane	0.40		ug/m3	0.035	1	264334	03/31/21 16:51	03/31/21 16:51	CAO
1,1-Dichloroethane	ND		pptv	10	1	264334	03/31/21 16:51	03/31/21 16:51	CAO
1,1-Dichloroethane	ND		ug/m3	0.040	1	264334	03/31/21 16:51	03/31/21 16:51	CAO
cis-1,2-Dichloroethene	ND		pptv	10	1	264334	03/31/21 16:51	03/31/21 16:51	CAO
cis-1,2-Dichloroethene	ND		ug/m3	0.040	1	264334	03/31/21 16:51	03/31/21 16:51	CAO
Chloroform	27		pptv	10	1	264334	03/31/21 16:51	03/31/21 16:51	CAO
Chloroform	0.13		ug/m3	0.049	1	264334	03/31/21 16:51	03/31/21 16:51	CAO
1,1,1-Trichloroethane	ND		pptv	10	1	264334	03/31/21 16:51	03/31/21 16:51	CAO
1,1,1-Trichloroethane	ND		ug/m3	0.055	1	264334	03/31/21 16:51	03/31/21 16:51	CAO
Carbon Tetrachloride	83		pptv	10	1	264334	03/31/21 16:51	03/31/21 16:51	CAO
Carbon Tetrachloride	0.52		ug/m3	0.063	1	264334	03/31/21 16:51	03/31/21 16:51	CAO
Benzene	200		pptv	10	1	264334	03/31/21 16:51	03/31/21 16:51	CAO
Benzene	0.65		ug/m3	0.032	1	264334	03/31/21 16:51	03/31/21 16:51	CAO

Analysis Results for 443172

443172-004 Analyte	Result	Qual	Units	RL	DF	Batch	Prepared	Analyzed	Chemist
1,2-Dichloroethane	22		pptv	10	1	264334	03/31/21 16:51	03/31/21 16:51	CAO
1,2-Dichloroethane	0.088		ug/m3	0.040	1	264334	03/31/21 16:51	03/31/21 16:51	CAO
n-Heptane	51		pptv	10	1	264334	03/31/21 16:51	03/31/21 16:51	CAO
n-Heptane	0.21		ug/m3	0.041	1	264334	03/31/21 16:51	03/31/21 16:51	CAO
Trichloroethene	ND		pptv	10	1	264334	03/31/21 16:51	03/31/21 16:51	CAO
Trichloroethene	ND		ug/m3	0.054	1	264334	03/31/21 16:51	03/31/21 16:51	CAO
1,2-Dichloropropane	ND		pptv	10	1	264334	03/31/21 16:51	03/31/21 16:51	CAO
1,2-Dichloropropane	ND		ug/m3	0.046	1	264334	03/31/21 16:51	03/31/21 16:51	CAO
Bromodichloromethane	ND		pptv	10	1	264334	03/31/21 16:51	03/31/21 16:51	CAO
Bromodichloromethane	ND		ug/m3	0.067	1	264334	03/31/21 16:51	03/31/21 16:51	CAO
cis-1,3-Dichloropropene	ND		pptv	10	1	264334	03/31/21 16:51	03/31/21 16:51	CAO
cis-1,3-Dichloropropene	ND		ug/m3	0.045	1	264334	03/31/21 16:51	03/31/21 16:51	CAO
Toluene	310		pptv	10	1	264334	03/31/21 16:51	03/31/21 16:51	CAO
Toluene	1.2		ug/m3	0.038	1	264334	03/31/21 16:51	03/31/21 16:51	CAO
trans-1,3-Dichloropropene	ND		pptv	10	1	264334	03/31/21 16:51	03/31/21 16:51	CAO
trans-1,3-Dichloropropene	ND		ug/m3	0.045	1	264334	03/31/21 16:51	03/31/21 16:51	CAO
1,1,2-Trichloroethane	ND		pptv	10	1	264334	03/31/21 16:51	03/31/21 16:51	CAO
1,1,2-Trichloroethane	ND		ug/m3	0.055	1	264334	03/31/21 16:51	03/31/21 16:51	CAO
Tetrachloroethene	11		pptv	10	1	264334	03/31/21 16:51	03/31/21 16:51	CAO
Tetrachloroethene	0.072		ug/m3	0.068	1	264334	03/31/21 16:51	03/31/21 16:51	CAO
Dibromochloromethane	ND		pptv	10	1	264334	03/31/21 16:51	03/31/21 16:51	CAO
Dibromochloromethane	ND		ug/m3	0.085	1	264334	03/31/21 16:51	03/31/21 16:51	CAO
1,2-Dibromoethane	ND		pptv	10	1	264334	03/31/21 16:51	03/31/21 16:51	CAO
1,2-Dibromoethane	ND		ug/m3	0.077	1	264334	03/31/21 16:51	03/31/21 16:51	CAO
Chlorobenzene	ND		pptv	10	1	264334	03/31/21 16:51	03/31/21 16:51	CAO
Chlorobenzene	ND		ug/m3	0.046	1	264334	03/31/21 16:51	03/31/21 16:51	CAO
Ethylbenzene	52		pptv	10	1	264334	03/31/21 16:51	03/31/21 16:51	CAO
Ethylbenzene	0.23		ug/m3	0.043	1	264334	03/31/21 16:51	03/31/21 16:51	CAO
m,p-Xylenes	130		pptv	10	1	264334	03/31/21 16:51	03/31/21 16:51	CAO
m,p-Xylenes	0.56		ug/m3	0.043	1	264334	03/31/21 16:51	03/31/21 16:51	CAO
o-Xylene	57		pptv	10	1	264334	03/31/21 16:51	03/31/21 16:51	CAO
o-Xylene	0.25		ug/m3	0.043	1	264334	03/31/21 16:51	03/31/21 16:51	CAO
Styrene	ND		pptv	10	1	264334	03/31/21 16:51	03/31/21 16:51	CAO
Styrene	ND		ug/m3	0.043	1	264334	03/31/21 16:51	03/31/21 16:51	CAO
Bromoform	ND		pptv	10	1	264334	03/31/21 16:51	03/31/21 16:51	CAO
Bromoform	ND		ug/m3	0.10	1	264334	03/31/21 16:51	03/31/21 16:51	CAO
4-Ethyltoluene	13		pptv	10	1	264334	03/31/21 16:51	03/31/21 16:51	CAO
4-Ethyltoluene	0.065		ug/m3	0.049	1	264334	03/31/21 16:51	03/31/21 16:51	CAO
1,3,5-Trimethylbenzene	ND		pptv	10	1	264334	03/31/21 16:51	03/31/21 16:51	CAO
1,3,5-Trimethylbenzene	ND		ug/m3	0.049	1	264334	03/31/21 16:51	03/31/21 16:51	CAO
1,2,4-Trimethylbenzene	42		pptv	10	1	264334	03/31/21 16:51	03/31/21 16:51	CAO
1,2,4-Trimethylbenzene	0.21		ug/m3	0.049	1	264334	03/31/21 16:51	03/31/21 16:51	CAO
1,3-Dichlorobenzene	ND		pptv	10	1	264334	03/31/21 16:51	03/31/21 16:51	CAO
1,3-Dichlorobenzene	ND		ug/m3	0.060	1	264334	03/31/21 16:51	03/31/21 16:51	CAO
1,4-Dichlorobenzene	13		pptv	10	1	264334	03/31/21 16:51	03/31/21 16:51	CAO
1,4-Dichlorobenzene	0.078		ug/m3	0.060	1	264334	03/31/21 16:51	03/31/21 16:51	CAO

Analysis Results for 443172

443172-004 Analyte	Result	Qual	Units	RL	DF	Batch	Prepared	Analyzed	Chemist
Benzyl chloride	ND		pptv	10	1	264334	03/31/21 16:51	03/31/21 16:51	CAO
Benzyl chloride	ND		ug/m3	0.052	1	264334	03/31/21 16:51	03/31/21 16:51	CAO
1,2-Dichlorobenzene	ND		pptv	10	1	264334	03/31/21 16:51	03/31/21 16:51	CAO
1,2-Dichlorobenzene	ND		ug/m3	0.060	1	264334	03/31/21 16:51	03/31/21 16:51	CAO
1,2,4-Trichlorobenzene	ND		pptv	10	1	264334	03/31/21 16:51	03/31/21 16:51	CAO
1,2,4-Trichlorobenzene	ND		ug/m3	0.074	1	264334	03/31/21 16:51	03/31/21 16:51	CAO
Hexachlorobutadiene	ND		pptv	10	1	264334	03/31/21 16:51	03/31/21 16:51	CAO
Hexachlorobutadiene	ND		ug/m3	0.11	1	264334	03/31/21 16:51	03/31/21 16:51	CAO
2,2,4-Trimethylpentane	140		pptv	10	1	264334	03/31/21 16:51	03/31/21 16:51	CAO
2,2,4-Trimethylpentane	0.66		ug/m3	0.047	1	264334	03/31/21 16:51	03/31/21 16:51	CAO
2-Chlorotoluene	ND		pptv	10	1	264334	03/31/21 16:51	03/31/21 16:51	CAO
2-Chlorotoluene	ND		ug/m3	0.052	1	264334	03/31/21 16:51	03/31/21 16:51	CAO
Isopropylbenzene	ND		pptv	10	1	264334	03/31/21 16:51	03/31/21 16:51	CAO
Isopropylbenzene	ND		ug/m3	0.049	1	264334	03/31/21 16:51	03/31/21 16:51	CAO
Naphthalene	13		pptv	10	1	264334	03/31/21 16:51	03/31/21 16:51	CAO
Naphthalene	0.067		ug/m3	0.052	1	264334	03/31/21 16:51	03/31/21 16:51	CAO
Propylbenzene	ND		pptv	10	1	264334	03/31/21 16:51	03/31/21 16:51	CAO
Propylbenzene	ND		ug/m3	0.049	1	264334	03/31/21 16:51	03/31/21 16:51	CAO
Vinyl bromide	ND		pptv	10	1	264334	03/31/21 16:51	03/31/21 16:51	CAO
Vinyl bromide	ND		ug/m3	0.044	1	264334	03/31/21 16:51	03/31/21 16:51	CAO
Xylene (total)	190		pptv	10	1	264334	03/31/21 16:51	03/31/21 16:51	CAO
Xylene (total)	0.81		ug/m3	0.043	1	264334	03/31/21 16:51	03/31/21 16:51	CAO
Surrogates			Limits						
Bromofluorobenzene	97%		%REC	60-140	1	264334	03/31/21 16:51	03/31/21 16:51	CAO

Analysis Results for 443172

Sample ID: IA-5
Lab ID: 443172-005
Collected: 03/27/21 17:05
Matrix: Air

443172-005 Analyte	Result	Qual	Units	RL	DF	Batch	Prepared	Analyzed	Chemist
Method: EPA TO-15 SIM									
Prep Method: METHOD									
1,4-Dioxane	ND		pptv	10	1	264334	03/31/21 17:39	03/31/21 17:39	CAO
1,4-Dioxane	ND		ug/m3	0.036	1	264334	03/31/21 17:39	03/31/21 17:39	CAO
Freon 12	500		pptv	10	1	264334	03/31/21 17:39	03/31/21 17:39	CAO
Freon 12	2.5		ug/m3	0.049	1	264334	03/31/21 17:39	03/31/21 17:39	CAO
Freon 114	17		pptv	10	1	264334	03/31/21 17:39	03/31/21 17:39	CAO
Freon 114	0.12		ug/m3	0.070	1	264334	03/31/21 17:39	03/31/21 17:39	CAO
Chloromethane	590		pptv	10	1	264334	03/31/21 17:39	03/31/21 17:39	CAO
Chloromethane	1.2		ug/m3	0.021	1	264334	03/31/21 17:39	03/31/21 17:39	CAO
Vinyl Chloride	ND		pptv	10	1	264334	03/31/21 17:39	03/31/21 17:39	CAO
Vinyl Chloride	ND		ug/m3	0.026	1	264334	03/31/21 17:39	03/31/21 17:39	CAO
1,3-Butadiene	ND		pptv	10	1	264334	03/31/21 17:39	03/31/21 17:39	CAO
1,3-Butadiene	ND		ug/m3	0.022	1	264334	03/31/21 17:39	03/31/21 17:39	CAO
Bromomethane	ND		pptv	10	1	264334	03/31/21 17:39	03/31/21 17:39	CAO
Bromomethane	ND		ug/m3	0.039	1	264334	03/31/21 17:39	03/31/21 17:39	CAO
Chloroethane	ND		pptv	10	1	264334	03/31/21 17:39	03/31/21 17:39	CAO
Chloroethane	ND		ug/m3	0.026	1	264334	03/31/21 17:39	03/31/21 17:39	CAO
Trichlorofluoromethane	220		pptv	10	1	264334	03/31/21 17:39	03/31/21 17:39	CAO
Trichlorofluoromethane	1.2		ug/m3	0.056	1	264334	03/31/21 17:39	03/31/21 17:39	CAO
1,1-Dichloroethene	ND		pptv	10	1	264334	03/31/21 17:39	03/31/21 17:39	CAO
1,1-Dichloroethene	ND		ug/m3	0.040	1	264334	03/31/21 17:39	03/31/21 17:39	CAO
Freon 113	71		pptv	10	1	264334	03/31/21 17:39	03/31/21 17:39	CAO
Freon 113	0.54		ug/m3	0.077	1	264334	03/31/21 17:39	03/31/21 17:39	CAO
Methylene Chloride	430		pptv	10	1	264334	03/31/21 17:39	03/31/21 17:39	CAO
Methylene Chloride	1.5		ug/m3	0.035	1	264334	03/31/21 17:39	03/31/21 17:39	CAO
trans-1,2-Dichloroethene	ND		pptv	10	1	264334	03/31/21 17:39	03/31/21 17:39	CAO
trans-1,2-Dichloroethene	ND		ug/m3	0.040	1	264334	03/31/21 17:39	03/31/21 17:39	CAO
n-Hexane	100		pptv	10	1	264334	03/31/21 17:39	03/31/21 17:39	CAO
n-Hexane	0.37		ug/m3	0.035	1	264334	03/31/21 17:39	03/31/21 17:39	CAO
1,1-Dichloroethane	ND		pptv	10	1	264334	03/31/21 17:39	03/31/21 17:39	CAO
1,1-Dichloroethane	ND		ug/m3	0.040	1	264334	03/31/21 17:39	03/31/21 17:39	CAO
cis-1,2-Dichloroethene	ND		pptv	10	1	264334	03/31/21 17:39	03/31/21 17:39	CAO
cis-1,2-Dichloroethene	ND		ug/m3	0.040	1	264334	03/31/21 17:39	03/31/21 17:39	CAO
Chloroform	28		pptv	10	1	264334	03/31/21 17:39	03/31/21 17:39	CAO
Chloroform	0.13		ug/m3	0.049	1	264334	03/31/21 17:39	03/31/21 17:39	CAO
1,1,1-Trichloroethane	ND		pptv	10	1	264334	03/31/21 17:39	03/31/21 17:39	CAO
1,1,1-Trichloroethane	ND		ug/m3	0.055	1	264334	03/31/21 17:39	03/31/21 17:39	CAO
Carbon Tetrachloride	83		pptv	10	1	264334	03/31/21 17:39	03/31/21 17:39	CAO
Carbon Tetrachloride	0.52		ug/m3	0.063	1	264334	03/31/21 17:39	03/31/21 17:39	CAO
Benzene	200		pptv	10	1	264334	03/31/21 17:39	03/31/21 17:39	CAO
Benzene	0.65		ug/m3	0.032	1	264334	03/31/21 17:39	03/31/21 17:39	CAO

Analysis Results for 443172

443172-005 Analyte	Result	Qual	Units	RL	DF	Batch	Prepared	Analyzed	Chemist
1,2-Dichloroethane	22		pptv	10	1	264334	03/31/21 17:39	03/31/21 17:39	CAO
1,2-Dichloroethane	0.089		ug/m3	0.040	1	264334	03/31/21 17:39	03/31/21 17:39	CAO
n-Heptane	51		pptv	10	1	264334	03/31/21 17:39	03/31/21 17:39	CAO
n-Heptane	0.21		ug/m3	0.041	1	264334	03/31/21 17:39	03/31/21 17:39	CAO
Trichloroethene	ND		pptv	10	1	264334	03/31/21 17:39	03/31/21 17:39	CAO
Trichloroethene	ND		ug/m3	0.054	1	264334	03/31/21 17:39	03/31/21 17:39	CAO
1,2-Dichloropropane	ND		pptv	10	1	264334	03/31/21 17:39	03/31/21 17:39	CAO
1,2-Dichloropropane	ND		ug/m3	0.046	1	264334	03/31/21 17:39	03/31/21 17:39	CAO
Bromodichloromethane	ND		pptv	10	1	264334	03/31/21 17:39	03/31/21 17:39	CAO
Bromodichloromethane	ND		ug/m3	0.067	1	264334	03/31/21 17:39	03/31/21 17:39	CAO
cis-1,3-Dichloropropene	ND		pptv	10	1	264334	03/31/21 17:39	03/31/21 17:39	CAO
cis-1,3-Dichloropropene	ND		ug/m3	0.045	1	264334	03/31/21 17:39	03/31/21 17:39	CAO
Toluene	320		pptv	10	1	264334	03/31/21 17:39	03/31/21 17:39	CAO
Toluene	1.2		ug/m3	0.038	1	264334	03/31/21 17:39	03/31/21 17:39	CAO
trans-1,3-Dichloropropene	ND		pptv	10	1	264334	03/31/21 17:39	03/31/21 17:39	CAO
trans-1,3-Dichloropropene	ND		ug/m3	0.045	1	264334	03/31/21 17:39	03/31/21 17:39	CAO
1,1,2-Trichloroethane	ND		pptv	10	1	264334	03/31/21 17:39	03/31/21 17:39	CAO
1,1,2-Trichloroethane	ND		ug/m3	0.055	1	264334	03/31/21 17:39	03/31/21 17:39	CAO
Tetrachloroethene	ND		pptv	10	1	264334	03/31/21 17:39	03/31/21 17:39	CAO
Tetrachloroethene	ND		ug/m3	0.068	1	264334	03/31/21 17:39	03/31/21 17:39	CAO
Dibromochloromethane	ND		pptv	10	1	264334	03/31/21 17:39	03/31/21 17:39	CAO
Dibromochloromethane	ND		ug/m3	0.085	1	264334	03/31/21 17:39	03/31/21 17:39	CAO
1,2-Dibromoethane	ND		pptv	10	1	264334	03/31/21 17:39	03/31/21 17:39	CAO
1,2-Dibromoethane	ND		ug/m3	0.077	1	264334	03/31/21 17:39	03/31/21 17:39	CAO
Chlorobenzene	ND		pptv	10	1	264334	03/31/21 17:39	03/31/21 17:39	CAO
Chlorobenzene	ND		ug/m3	0.046	1	264334	03/31/21 17:39	03/31/21 17:39	CAO
Ethylbenzene	54		pptv	10	1	264334	03/31/21 17:39	03/31/21 17:39	CAO
Ethylbenzene	0.23		ug/m3	0.043	1	264334	03/31/21 17:39	03/31/21 17:39	CAO
m,p-Xylenes	140		pptv	10	1	264334	03/31/21 17:39	03/31/21 17:39	CAO
m,p-Xylenes	0.60		ug/m3	0.043	1	264334	03/31/21 17:39	03/31/21 17:39	CAO
o-Xylene	59		pptv	10	1	264334	03/31/21 17:39	03/31/21 17:39	CAO
o-Xylene	0.26		ug/m3	0.043	1	264334	03/31/21 17:39	03/31/21 17:39	CAO
Styrene	ND		pptv	10	1	264334	03/31/21 17:39	03/31/21 17:39	CAO
Styrene	ND		ug/m3	0.043	1	264334	03/31/21 17:39	03/31/21 17:39	CAO
Bromoform	ND		pptv	10	1	264334	03/31/21 17:39	03/31/21 17:39	CAO
Bromoform	ND		ug/m3	0.10	1	264334	03/31/21 17:39	03/31/21 17:39	CAO
4-Ethyltoluene	14		pptv	10	1	264334	03/31/21 17:39	03/31/21 17:39	CAO
4-Ethyltoluene	0.068		ug/m3	0.049	1	264334	03/31/21 17:39	03/31/21 17:39	CAO
1,3,5-Trimethylbenzene	ND		pptv	10	1	264334	03/31/21 17:39	03/31/21 17:39	CAO
1,3,5-Trimethylbenzene	ND		ug/m3	0.049	1	264334	03/31/21 17:39	03/31/21 17:39	CAO
1,2,4-Trimethylbenzene	44		pptv	10	1	264334	03/31/21 17:39	03/31/21 17:39	CAO
1,2,4-Trimethylbenzene	0.22		ug/m3	0.049	1	264334	03/31/21 17:39	03/31/21 17:39	CAO
1,3-Dichlorobenzene	ND		pptv	10	1	264334	03/31/21 17:39	03/31/21 17:39	CAO
1,3-Dichlorobenzene	ND		ug/m3	0.060	1	264334	03/31/21 17:39	03/31/21 17:39	CAO
1,4-Dichlorobenzene	13		pptv	10	1	264334	03/31/21 17:39	03/31/21 17:39	CAO
1,4-Dichlorobenzene	0.079		ug/m3	0.060	1	264334	03/31/21 17:39	03/31/21 17:39	CAO

Analysis Results for 443172

443172-005 Analyte	Result	Qual	Units	RL	DF	Batch	Prepared	Analyzed	Chemist
Benzyl chloride	ND		pptv	10	1	264334	03/31/21 17:39	03/31/21 17:39	CAO
Benzyl chloride	ND		ug/m3	0.052	1	264334	03/31/21 17:39	03/31/21 17:39	CAO
1,2-Dichlorobenzene	ND		pptv	10	1	264334	03/31/21 17:39	03/31/21 17:39	CAO
1,2-Dichlorobenzene	ND		ug/m3	0.060	1	264334	03/31/21 17:39	03/31/21 17:39	CAO
1,2,4-Trichlorobenzene	ND		pptv	10	1	264334	03/31/21 17:39	03/31/21 17:39	CAO
1,2,4-Trichlorobenzene	ND		ug/m3	0.074	1	264334	03/31/21 17:39	03/31/21 17:39	CAO
Hexachlorobutadiene	ND		pptv	10	1	264334	03/31/21 17:39	03/31/21 17:39	CAO
Hexachlorobutadiene	ND		ug/m3	0.11	1	264334	03/31/21 17:39	03/31/21 17:39	CAO
2,2,4-Trimethylpentane	140		pptv	10	1	264334	03/31/21 17:39	03/31/21 17:39	CAO
2,2,4-Trimethylpentane	0.67		ug/m3	0.047	1	264334	03/31/21 17:39	03/31/21 17:39	CAO
2-Chlorotoluene	ND		pptv	10	1	264334	03/31/21 17:39	03/31/21 17:39	CAO
2-Chlorotoluene	ND		ug/m3	0.052	1	264334	03/31/21 17:39	03/31/21 17:39	CAO
Isopropylbenzene	ND		pptv	10	1	264334	03/31/21 17:39	03/31/21 17:39	CAO
Isopropylbenzene	ND		ug/m3	0.049	1	264334	03/31/21 17:39	03/31/21 17:39	CAO
Naphthalene	13		pptv	10	1	264334	03/31/21 17:39	03/31/21 17:39	CAO
Naphthalene	0.066		ug/m3	0.052	1	264334	03/31/21 17:39	03/31/21 17:39	CAO
Propylbenzene	ND		pptv	10	1	264334	03/31/21 17:39	03/31/21 17:39	CAO
Propylbenzene	ND		ug/m3	0.049	1	264334	03/31/21 17:39	03/31/21 17:39	CAO
Vinyl bromide	ND		pptv	10	1	264334	03/31/21 17:39	03/31/21 17:39	CAO
Vinyl bromide	ND		ug/m3	0.044	1	264334	03/31/21 17:39	03/31/21 17:39	CAO
Xylene (total)	200		pptv	10	1	264334	03/31/21 17:39	03/31/21 17:39	CAO
Xylene (total)	0.86		ug/m3	0.043	1	264334	03/31/21 17:39	03/31/21 17:39	CAO
Surrogates			Limits						
Bromofluorobenzene	100%		%REC	60-140	1	264334	03/31/21 17:39	03/31/21 17:39	CAO

Analysis Results for 443172

Sample ID: IA-6
Lab ID: 443172-006
Collected: 03/27/21 17:07
Matrix: Air

443172-006 Analyte	Result	Qual	Units	RL	DF	Batch	Prepared	Analyzed	Chemist
Method: EPA TO-15 SIM									
Prep Method: METHOD									
1,4-Dioxane	ND		pptv	10	1	264334	03/31/21 18:27	03/31/21 18:27	CAO
1,4-Dioxane	ND		ug/m3	0.036	1	264334	03/31/21 18:27	03/31/21 18:27	CAO
Freon 12	490		pptv	10	1	264334	03/31/21 18:27	03/31/21 18:27	CAO
Freon 12	2.4		ug/m3	0.049	1	264334	03/31/21 18:27	03/31/21 18:27	CAO
Freon 114	16		pptv	10	1	264334	03/31/21 18:27	03/31/21 18:27	CAO
Freon 114	0.11		ug/m3	0.070	1	264334	03/31/21 18:27	03/31/21 18:27	CAO
Chloromethane	570		pptv	10	1	264334	03/31/21 18:27	03/31/21 18:27	CAO
Chloromethane	1.2		ug/m3	0.021	1	264334	03/31/21 18:27	03/31/21 18:27	CAO
Vinyl Chloride	ND		pptv	10	1	264334	03/31/21 18:27	03/31/21 18:27	CAO
Vinyl Chloride	ND		ug/m3	0.026	1	264334	03/31/21 18:27	03/31/21 18:27	CAO
1,3-Butadiene	ND		pptv	10	1	264334	03/31/21 18:27	03/31/21 18:27	CAO
1,3-Butadiene	ND		ug/m3	0.022	1	264334	03/31/21 18:27	03/31/21 18:27	CAO
Bromomethane	ND		pptv	10	1	264334	03/31/21 18:27	03/31/21 18:27	CAO
Bromomethane	ND		ug/m3	0.039	1	264334	03/31/21 18:27	03/31/21 18:27	CAO
Chloroethane	ND		pptv	10	1	264334	03/31/21 18:27	03/31/21 18:27	CAO
Chloroethane	ND		ug/m3	0.026	1	264334	03/31/21 18:27	03/31/21 18:27	CAO
Trichlorofluoromethane	210		pptv	10	1	264334	03/31/21 18:27	03/31/21 18:27	CAO
Trichlorofluoromethane	1.2		ug/m3	0.056	1	264334	03/31/21 18:27	03/31/21 18:27	CAO
1,1-Dichloroethene	ND		pptv	10	1	264334	03/31/21 18:27	03/31/21 18:27	CAO
1,1-Dichloroethene	ND		ug/m3	0.040	1	264334	03/31/21 18:27	03/31/21 18:27	CAO
Freon 113	68		pptv	10	1	264334	03/31/21 18:27	03/31/21 18:27	CAO
Freon 113	0.52		ug/m3	0.077	1	264334	03/31/21 18:27	03/31/21 18:27	CAO
Methylene Chloride	980		pptv	10	1	264334	03/31/21 18:27	03/31/21 18:27	CAO
Methylene Chloride	3.4		ug/m3	0.035	1	264334	03/31/21 18:27	03/31/21 18:27	CAO
trans-1,2-Dichloroethene	ND		pptv	10	1	264334	03/31/21 18:27	03/31/21 18:27	CAO
trans-1,2-Dichloroethene	ND		ug/m3	0.040	1	264334	03/31/21 18:27	03/31/21 18:27	CAO
n-Hexane	260		pptv	10	1	264334	03/31/21 18:27	03/31/21 18:27	CAO
n-Hexane	0.93		ug/m3	0.035	1	264334	03/31/21 18:27	03/31/21 18:27	CAO
1,1-Dichloroethane	ND		pptv	10	1	264334	03/31/21 18:27	03/31/21 18:27	CAO
1,1-Dichloroethane	ND		ug/m3	0.040	1	264334	03/31/21 18:27	03/31/21 18:27	CAO
cis-1,2-Dichloroethene	ND		pptv	10	1	264334	03/31/21 18:27	03/31/21 18:27	CAO
cis-1,2-Dichloroethene	ND		ug/m3	0.040	1	264334	03/31/21 18:27	03/31/21 18:27	CAO
Chloroform	27		pptv	10	1	264334	03/31/21 18:27	03/31/21 18:27	CAO
Chloroform	0.13		ug/m3	0.049	1	264334	03/31/21 18:27	03/31/21 18:27	CAO
1,1,1-Trichloroethane	ND		pptv	10	1	264334	03/31/21 18:27	03/31/21 18:27	CAO
1,1,1-Trichloroethane	ND		ug/m3	0.055	1	264334	03/31/21 18:27	03/31/21 18:27	CAO
Carbon Tetrachloride	81		pptv	10	1	264334	03/31/21 18:27	03/31/21 18:27	CAO
Carbon Tetrachloride	0.51		ug/m3	0.063	1	264334	03/31/21 18:27	03/31/21 18:27	CAO
Benzene	190		pptv	10	1	264334	03/31/21 18:27	03/31/21 18:27	CAO
Benzene	0.62		ug/m3	0.032	1	264334	03/31/21 18:27	03/31/21 18:27	CAO

Analysis Results for 443172

443172-006 Analyte	Result	Qual	Units	RL	DF	Batch	Prepared	Analyzed	Chemist
1,2-Dichloroethane	22		pptv	10	1	264334	03/31/21 18:27	03/31/21 18:27	CAO
1,2-Dichloroethane	0.088		ug/m3	0.040	1	264334	03/31/21 18:27	03/31/21 18:27	CAO
n-Heptane	47		pptv	10	1	264334	03/31/21 18:27	03/31/21 18:27	CAO
n-Heptane	0.19		ug/m3	0.041	1	264334	03/31/21 18:27	03/31/21 18:27	CAO
Trichloroethene	ND		pptv	10	1	264334	03/31/21 18:27	03/31/21 18:27	CAO
Trichloroethene	ND		ug/m3	0.054	1	264334	03/31/21 18:27	03/31/21 18:27	CAO
1,2-Dichloropropane	ND		pptv	10	1	264334	03/31/21 18:27	03/31/21 18:27	CAO
1,2-Dichloropropane	ND		ug/m3	0.046	1	264334	03/31/21 18:27	03/31/21 18:27	CAO
Bromodichloromethane	ND		pptv	10	1	264334	03/31/21 18:27	03/31/21 18:27	CAO
Bromodichloromethane	ND		ug/m3	0.067	1	264334	03/31/21 18:27	03/31/21 18:27	CAO
cis-1,3-Dichloropropene	ND		pptv	10	1	264334	03/31/21 18:27	03/31/21 18:27	CAO
cis-1,3-Dichloropropene	ND		ug/m3	0.045	1	264334	03/31/21 18:27	03/31/21 18:27	CAO
Toluene	290		pptv	10	1	264334	03/31/21 18:27	03/31/21 18:27	CAO
Toluene	1.1		ug/m3	0.038	1	264334	03/31/21 18:27	03/31/21 18:27	CAO
trans-1,3-Dichloropropene	ND		pptv	10	1	264334	03/31/21 18:27	03/31/21 18:27	CAO
trans-1,3-Dichloropropene	ND		ug/m3	0.045	1	264334	03/31/21 18:27	03/31/21 18:27	CAO
1,1,2-Trichloroethane	ND		pptv	10	1	264334	03/31/21 18:27	03/31/21 18:27	CAO
1,1,2-Trichloroethane	ND		ug/m3	0.055	1	264334	03/31/21 18:27	03/31/21 18:27	CAO
Tetrachloroethene	ND		pptv	10	1	264334	03/31/21 18:27	03/31/21 18:27	CAO
Tetrachloroethene	ND		ug/m3	0.068	1	264334	03/31/21 18:27	03/31/21 18:27	CAO
Dibromochloromethane	ND		pptv	10	1	264334	03/31/21 18:27	03/31/21 18:27	CAO
Dibromochloromethane	ND		ug/m3	0.085	1	264334	03/31/21 18:27	03/31/21 18:27	CAO
1,2-Dibromoethane	ND		pptv	10	1	264334	03/31/21 18:27	03/31/21 18:27	CAO
1,2-Dibromoethane	ND		ug/m3	0.077	1	264334	03/31/21 18:27	03/31/21 18:27	CAO
Chlorobenzene	ND		pptv	10	1	264334	03/31/21 18:27	03/31/21 18:27	CAO
Chlorobenzene	ND		ug/m3	0.046	1	264334	03/31/21 18:27	03/31/21 18:27	CAO
Ethylbenzene	49		pptv	10	1	264334	03/31/21 18:27	03/31/21 18:27	CAO
Ethylbenzene	0.21		ug/m3	0.043	1	264334	03/31/21 18:27	03/31/21 18:27	CAO
m,p-Xylenes	120		pptv	10	1	264334	03/31/21 18:27	03/31/21 18:27	CAO
m,p-Xylenes	0.53		ug/m3	0.043	1	264334	03/31/21 18:27	03/31/21 18:27	CAO
o-Xylene	54		pptv	10	1	264334	03/31/21 18:27	03/31/21 18:27	CAO
o-Xylene	0.24		ug/m3	0.043	1	264334	03/31/21 18:27	03/31/21 18:27	CAO
Styrene	ND		pptv	10	1	264334	03/31/21 18:27	03/31/21 18:27	CAO
Styrene	ND		ug/m3	0.043	1	264334	03/31/21 18:27	03/31/21 18:27	CAO
Bromoform	ND		pptv	10	1	264334	03/31/21 18:27	03/31/21 18:27	CAO
Bromoform	ND		ug/m3	0.10	1	264334	03/31/21 18:27	03/31/21 18:27	CAO
4-Ethyltoluene	12		pptv	10	1	264334	03/31/21 18:27	03/31/21 18:27	CAO
4-Ethyltoluene	0.061		ug/m3	0.049	1	264334	03/31/21 18:27	03/31/21 18:27	CAO
1,3,5-Trimethylbenzene	ND		pptv	10	1	264334	03/31/21 18:27	03/31/21 18:27	CAO
1,3,5-Trimethylbenzene	ND		ug/m3	0.049	1	264334	03/31/21 18:27	03/31/21 18:27	CAO
1,2,4-Trimethylbenzene	40		pptv	10	1	264334	03/31/21 18:27	03/31/21 18:27	CAO
1,2,4-Trimethylbenzene	0.20		ug/m3	0.049	1	264334	03/31/21 18:27	03/31/21 18:27	CAO
1,3-Dichlorobenzene	ND		pptv	10	1	264334	03/31/21 18:27	03/31/21 18:27	CAO
1,3-Dichlorobenzene	ND		ug/m3	0.060	1	264334	03/31/21 18:27	03/31/21 18:27	CAO
1,4-Dichlorobenzene	13		pptv	10	1	264334	03/31/21 18:27	03/31/21 18:27	CAO
1,4-Dichlorobenzene	0.079		ug/m3	0.060	1	264334	03/31/21 18:27	03/31/21 18:27	CAO

Analysis Results for 443172

443172-006 Analyte	Result	Qual	Units	RL	DF	Batch	Prepared	Analyzed	Chemist
Benzyl chloride	ND		pptv	10	1	264334	03/31/21 18:27	03/31/21 18:27	CAO
Benzyl chloride	ND		ug/m3	0.052	1	264334	03/31/21 18:27	03/31/21 18:27	CAO
1,2-Dichlorobenzene	ND		pptv	10	1	264334	03/31/21 18:27	03/31/21 18:27	CAO
1,2-Dichlorobenzene	ND		ug/m3	0.060	1	264334	03/31/21 18:27	03/31/21 18:27	CAO
1,2,4-Trichlorobenzene	ND		pptv	10	1	264334	03/31/21 18:27	03/31/21 18:27	CAO
1,2,4-Trichlorobenzene	ND		ug/m3	0.074	1	264334	03/31/21 18:27	03/31/21 18:27	CAO
Hexachlorobutadiene	ND		pptv	10	1	264334	03/31/21 18:27	03/31/21 18:27	CAO
Hexachlorobutadiene	ND		ug/m3	0.11	1	264334	03/31/21 18:27	03/31/21 18:27	CAO
2,2,4-Trimethylpentane	130		pptv	10	1	264334	03/31/21 18:27	03/31/21 18:27	CAO
2,2,4-Trimethylpentane	0.63		ug/m3	0.047	1	264334	03/31/21 18:27	03/31/21 18:27	CAO
2-Chlorotoluene	ND		pptv	10	1	264334	03/31/21 18:27	03/31/21 18:27	CAO
2-Chlorotoluene	ND		ug/m3	0.052	1	264334	03/31/21 18:27	03/31/21 18:27	CAO
Isopropylbenzene	ND		pptv	10	1	264334	03/31/21 18:27	03/31/21 18:27	CAO
Isopropylbenzene	ND		ug/m3	0.049	1	264334	03/31/21 18:27	03/31/21 18:27	CAO
Naphthalene	13		pptv	10	1	264334	03/31/21 18:27	03/31/21 18:27	CAO
Naphthalene	0.068		ug/m3	0.052	1	264334	03/31/21 18:27	03/31/21 18:27	CAO
Propylbenzene	ND		pptv	10	1	264334	03/31/21 18:27	03/31/21 18:27	CAO
Propylbenzene	ND		ug/m3	0.049	1	264334	03/31/21 18:27	03/31/21 18:27	CAO
Vinyl bromide	ND		pptv	10	1	264334	03/31/21 18:27	03/31/21 18:27	CAO
Vinyl bromide	ND		ug/m3	0.044	1	264334	03/31/21 18:27	03/31/21 18:27	CAO
Xylene (total)	180		pptv	10	1	264334	03/31/21 18:27	03/31/21 18:27	CAO
Xylene (total)	0.77		ug/m3	0.043	1	264334	03/31/21 18:27	03/31/21 18:27	CAO
Surrogates			Limits						
Bromofluorobenzene	99%		%REC	60-140	1	264334	03/31/21 18:27	03/31/21 18:27	CAO

Analysis Results for 443172

Sample ID: IA-7
Lab ID: 443172-007
Collected: 03/27/21 17:08
Matrix: Air

443172-007 Analyte	Result	Qual	Units	RL	DF	Batch	Prepared	Analyzed	Chemist
Method: EPA TO-15 SIM									
Prep Method: METHOD									
1,4-Dioxane	ND		pptv	10	1	264334	03/31/21 19:15	03/31/21 19:15	CAO
1,4-Dioxane	ND		ug/m3	0.036	1	264334	03/31/21 19:15	03/31/21 19:15	CAO
Freon 12	490		pptv	10	1	264334	03/31/21 19:15	03/31/21 19:15	CAO
Freon 12	2.4		ug/m3	0.049	1	264334	03/31/21 19:15	03/31/21 19:15	CAO
Freon 114	17		pptv	10	1	264334	03/31/21 19:15	03/31/21 19:15	CAO
Freon 114	0.12		ug/m3	0.070	1	264334	03/31/21 19:15	03/31/21 19:15	CAO
Chloromethane	580		pptv	10	1	264334	03/31/21 19:15	03/31/21 19:15	CAO
Chloromethane	1.2		ug/m3	0.021	1	264334	03/31/21 19:15	03/31/21 19:15	CAO
Vinyl Chloride	ND		pptv	10	1	264334	03/31/21 19:15	03/31/21 19:15	CAO
Vinyl Chloride	ND		ug/m3	0.026	1	264334	03/31/21 19:15	03/31/21 19:15	CAO
1,3-Butadiene	ND		pptv	10	1	264334	03/31/21 19:15	03/31/21 19:15	CAO
1,3-Butadiene	ND		ug/m3	0.022	1	264334	03/31/21 19:15	03/31/21 19:15	CAO
Bromomethane	ND		pptv	10	1	264334	03/31/21 19:15	03/31/21 19:15	CAO
Bromomethane	ND		ug/m3	0.039	1	264334	03/31/21 19:15	03/31/21 19:15	CAO
Chloroethane	ND		pptv	10	1	264334	03/31/21 19:15	03/31/21 19:15	CAO
Chloroethane	ND		ug/m3	0.026	1	264334	03/31/21 19:15	03/31/21 19:15	CAO
Trichlorofluoromethane	220		pptv	10	1	264334	03/31/21 19:15	03/31/21 19:15	CAO
Trichlorofluoromethane	1.2		ug/m3	0.056	1	264334	03/31/21 19:15	03/31/21 19:15	CAO
1,1-Dichloroethene	ND		pptv	10	1	264334	03/31/21 19:15	03/31/21 19:15	CAO
1,1-Dichloroethene	ND		ug/m3	0.040	1	264334	03/31/21 19:15	03/31/21 19:15	CAO
Freon 113	69		pptv	10	1	264334	03/31/21 19:15	03/31/21 19:15	CAO
Freon 113	0.53		ug/m3	0.077	1	264334	03/31/21 19:15	03/31/21 19:15	CAO
Methylene Chloride	360		pptv	10	1	264334	03/31/21 19:15	03/31/21 19:15	CAO
Methylene Chloride	1.2		ug/m3	0.035	1	264334	03/31/21 19:15	03/31/21 19:15	CAO
trans-1,2-Dichloroethene	ND		pptv	10	1	264334	03/31/21 19:15	03/31/21 19:15	CAO
trans-1,2-Dichloroethene	ND		ug/m3	0.040	1	264334	03/31/21 19:15	03/31/21 19:15	CAO
n-Hexane	110		pptv	10	1	264334	03/31/21 19:15	03/31/21 19:15	CAO
n-Hexane	0.39		ug/m3	0.035	1	264334	03/31/21 19:15	03/31/21 19:15	CAO
1,1-Dichloroethane	ND		pptv	10	1	264334	03/31/21 19:15	03/31/21 19:15	CAO
1,1-Dichloroethane	ND		ug/m3	0.040	1	264334	03/31/21 19:15	03/31/21 19:15	CAO
cis-1,2-Dichloroethene	ND		pptv	10	1	264334	03/31/21 19:15	03/31/21 19:15	CAO
cis-1,2-Dichloroethene	ND		ug/m3	0.040	1	264334	03/31/21 19:15	03/31/21 19:15	CAO
Chloroform	26		pptv	10	1	264334	03/31/21 19:15	03/31/21 19:15	CAO
Chloroform	0.13		ug/m3	0.049	1	264334	03/31/21 19:15	03/31/21 19:15	CAO
1,1,1-Trichloroethane	ND		pptv	10	1	264334	03/31/21 19:15	03/31/21 19:15	CAO
1,1,1-Trichloroethane	ND		ug/m3	0.055	1	264334	03/31/21 19:15	03/31/21 19:15	CAO
Carbon Tetrachloride	82		pptv	10	1	264334	03/31/21 19:15	03/31/21 19:15	CAO
Carbon Tetrachloride	0.52		ug/m3	0.063	1	264334	03/31/21 19:15	03/31/21 19:15	CAO
Benzene	200		pptv	10	1	264334	03/31/21 19:15	03/31/21 19:15	CAO
Benzene	0.63		ug/m3	0.032	1	264334	03/31/21 19:15	03/31/21 19:15	CAO

Analysis Results for 443172

443172-007 Analyte	Result	Qual	Units	RL	DF	Batch	Prepared	Analyzed	Chemist
1,2-Dichloroethane	22		pptv	10	1	264334	03/31/21 19:15	03/31/21 19:15	CAO
1,2-Dichloroethane	0.090		ug/m3	0.040	1	264334	03/31/21 19:15	03/31/21 19:15	CAO
n-Heptane	50		pptv	10	1	264334	03/31/21 19:15	03/31/21 19:15	CAO
n-Heptane	0.20		ug/m3	0.041	1	264334	03/31/21 19:15	03/31/21 19:15	CAO
Trichloroethene	ND		pptv	10	1	264334	03/31/21 19:15	03/31/21 19:15	CAO
Trichloroethene	ND		ug/m3	0.054	1	264334	03/31/21 19:15	03/31/21 19:15	CAO
1,2-Dichloropropane	ND		pptv	10	1	264334	03/31/21 19:15	03/31/21 19:15	CAO
1,2-Dichloropropane	ND		ug/m3	0.046	1	264334	03/31/21 19:15	03/31/21 19:15	CAO
Bromodichloromethane	ND		pptv	10	1	264334	03/31/21 19:15	03/31/21 19:15	CAO
Bromodichloromethane	ND		ug/m3	0.067	1	264334	03/31/21 19:15	03/31/21 19:15	CAO
cis-1,3-Dichloropropene	ND		pptv	10	1	264334	03/31/21 19:15	03/31/21 19:15	CAO
cis-1,3-Dichloropropene	ND		ug/m3	0.045	1	264334	03/31/21 19:15	03/31/21 19:15	CAO
Toluene	290		pptv	10	1	264334	03/31/21 19:15	03/31/21 19:15	CAO
Toluene	1.1		ug/m3	0.038	1	264334	03/31/21 19:15	03/31/21 19:15	CAO
trans-1,3-Dichloropropene	ND		pptv	10	1	264334	03/31/21 19:15	03/31/21 19:15	CAO
trans-1,3-Dichloropropene	ND		ug/m3	0.045	1	264334	03/31/21 19:15	03/31/21 19:15	CAO
1,1,2-Trichloroethane	ND		pptv	10	1	264334	03/31/21 19:15	03/31/21 19:15	CAO
1,1,2-Trichloroethane	ND		ug/m3	0.055	1	264334	03/31/21 19:15	03/31/21 19:15	CAO
Tetrachloroethene	ND		pptv	10	1	264334	03/31/21 19:15	03/31/21 19:15	CAO
Tetrachloroethene	ND		ug/m3	0.068	1	264334	03/31/21 19:15	03/31/21 19:15	CAO
Dibromochloromethane	ND		pptv	10	1	264334	03/31/21 19:15	03/31/21 19:15	CAO
Dibromochloromethane	ND		ug/m3	0.085	1	264334	03/31/21 19:15	03/31/21 19:15	CAO
1,2-Dibromoethane	ND		pptv	10	1	264334	03/31/21 19:15	03/31/21 19:15	CAO
1,2-Dibromoethane	ND		ug/m3	0.077	1	264334	03/31/21 19:15	03/31/21 19:15	CAO
Chlorobenzene	ND		pptv	10	1	264334	03/31/21 19:15	03/31/21 19:15	CAO
Chlorobenzene	ND		ug/m3	0.046	1	264334	03/31/21 19:15	03/31/21 19:15	CAO
Ethylbenzene	49		pptv	10	1	264334	03/31/21 19:15	03/31/21 19:15	CAO
Ethylbenzene	0.21		ug/m3	0.043	1	264334	03/31/21 19:15	03/31/21 19:15	CAO
m,p-Xylenes	120		pptv	10	1	264334	03/31/21 19:15	03/31/21 19:15	CAO
m,p-Xylenes	0.53		ug/m3	0.043	1	264334	03/31/21 19:15	03/31/21 19:15	CAO
o-Xylene	54		pptv	10	1	264334	03/31/21 19:15	03/31/21 19:15	CAO
o-Xylene	0.23		ug/m3	0.043	1	264334	03/31/21 19:15	03/31/21 19:15	CAO
Styrene	ND		pptv	10	1	264334	03/31/21 19:15	03/31/21 19:15	CAO
Styrene	ND		ug/m3	0.043	1	264334	03/31/21 19:15	03/31/21 19:15	CAO
Bromoform	ND		pptv	10	1	264334	03/31/21 19:15	03/31/21 19:15	CAO
Bromoform	ND		ug/m3	0.10	1	264334	03/31/21 19:15	03/31/21 19:15	CAO
4-Ethyltoluene	12		pptv	10	1	264334	03/31/21 19:15	03/31/21 19:15	CAO
4-Ethyltoluene	0.060		ug/m3	0.049	1	264334	03/31/21 19:15	03/31/21 19:15	CAO
1,3,5-Trimethylbenzene	ND		pptv	10	1	264334	03/31/21 19:15	03/31/21 19:15	CAO
1,3,5-Trimethylbenzene	ND		ug/m3	0.049	1	264334	03/31/21 19:15	03/31/21 19:15	CAO
1,2,4-Trimethylbenzene	38		pptv	10	1	264334	03/31/21 19:15	03/31/21 19:15	CAO
1,2,4-Trimethylbenzene	0.19		ug/m3	0.049	1	264334	03/31/21 19:15	03/31/21 19:15	CAO
1,3-Dichlorobenzene	ND		pptv	10	1	264334	03/31/21 19:15	03/31/21 19:15	CAO
1,3-Dichlorobenzene	ND		ug/m3	0.060	1	264334	03/31/21 19:15	03/31/21 19:15	CAO
1,4-Dichlorobenzene	13		pptv	10	1	264334	03/31/21 19:15	03/31/21 19:15	CAO
1,4-Dichlorobenzene	0.077		ug/m3	0.060	1	264334	03/31/21 19:15	03/31/21 19:15	CAO

Analysis Results for 443172

443172-007 Analyte	Result	Qual	Units	RL	DF	Batch	Prepared	Analyzed	Chemist
Benzyl chloride	ND		pptv	10	1	264334	03/31/21 19:15	03/31/21 19:15	CAO
Benzyl chloride	ND		ug/m3	0.052	1	264334	03/31/21 19:15	03/31/21 19:15	CAO
1,2-Dichlorobenzene	ND		pptv	10	1	264334	03/31/21 19:15	03/31/21 19:15	CAO
1,2-Dichlorobenzene	ND		ug/m3	0.060	1	264334	03/31/21 19:15	03/31/21 19:15	CAO
1,2,4-Trichlorobenzene	ND		pptv	10	1	264334	03/31/21 19:15	03/31/21 19:15	CAO
1,2,4-Trichlorobenzene	ND		ug/m3	0.074	1	264334	03/31/21 19:15	03/31/21 19:15	CAO
Hexachlorobutadiene	ND		pptv	10	1	264334	03/31/21 19:15	03/31/21 19:15	CAO
Hexachlorobutadiene	ND		ug/m3	0.11	1	264334	03/31/21 19:15	03/31/21 19:15	CAO
2,2,4-Trimethylpentane	140		pptv	10	1	264334	03/31/21 19:15	03/31/21 19:15	CAO
2,2,4-Trimethylpentane	0.64		ug/m3	0.047	1	264334	03/31/21 19:15	03/31/21 19:15	CAO
2-Chlorotoluene	ND		pptv	10	1	264334	03/31/21 19:15	03/31/21 19:15	CAO
2-Chlorotoluene	ND		ug/m3	0.052	1	264334	03/31/21 19:15	03/31/21 19:15	CAO
Isopropylbenzene	ND		pptv	10	1	264334	03/31/21 19:15	03/31/21 19:15	CAO
Isopropylbenzene	ND		ug/m3	0.049	1	264334	03/31/21 19:15	03/31/21 19:15	CAO
Naphthalene	10		pptv	10	1	264334	03/31/21 19:15	03/31/21 19:15	CAO
Naphthalene	0.054		ug/m3	0.052	1	264334	03/31/21 19:15	03/31/21 19:15	CAO
Propylbenzene	ND		pptv	10	1	264334	03/31/21 19:15	03/31/21 19:15	CAO
Propylbenzene	ND		ug/m3	0.049	1	264334	03/31/21 19:15	03/31/21 19:15	CAO
Vinyl bromide	ND		pptv	10	1	264334	03/31/21 19:15	03/31/21 19:15	CAO
Vinyl bromide	ND		ug/m3	0.044	1	264334	03/31/21 19:15	03/31/21 19:15	CAO
Xylene (total)	180		pptv	10	1	264334	03/31/21 19:15	03/31/21 19:15	CAO
Xylene (total)	0.76		ug/m3	0.043	1	264334	03/31/21 19:15	03/31/21 19:15	CAO
Surrogates			Limits						
Bromofluorobenzene	100%		%REC	60-140	1	264334	03/31/21 19:15	03/31/21 19:15	CAO

Analysis Results for 443172

Sample ID: AA-1
Lab ID: 443172-008
Collected: 03/27/21 17:09
Matrix: Air

443172-008 Analyte	Result	Qual	Units	RL	DF	Batch	Prepared	Analyzed	Chemist
Method: EPA TO-15 SIM									
Prep Method: METHOD									
1,4-Dioxane	ND		pptv	10	1	264334	03/31/21 20:03	03/31/21 20:03	CAO
1,4-Dioxane	ND		ug/m3	0.036	1	264334	03/31/21 20:03	03/31/21 20:03	CAO
Freon 12	500		pptv	10	1	264334	03/31/21 20:03	03/31/21 20:03	CAO
Freon 12	2.4		ug/m3	0.049	1	264334	03/31/21 20:03	03/31/21 20:03	CAO
Freon 114	17		pptv	10	1	264334	03/31/21 20:03	03/31/21 20:03	CAO
Freon 114	0.12		ug/m3	0.070	1	264334	03/31/21 20:03	03/31/21 20:03	CAO
Chloromethane	560		pptv	10	1	264334	03/31/21 20:03	03/31/21 20:03	CAO
Chloromethane	1.2		ug/m3	0.021	1	264334	03/31/21 20:03	03/31/21 20:03	CAO
Vinyl Chloride	ND		pptv	10	1	264334	03/31/21 20:03	03/31/21 20:03	CAO
Vinyl Chloride	ND		ug/m3	0.026	1	264334	03/31/21 20:03	03/31/21 20:03	CAO
1,3-Butadiene	ND		pptv	10	1	264334	03/31/21 20:03	03/31/21 20:03	CAO
1,3-Butadiene	ND		ug/m3	0.022	1	264334	03/31/21 20:03	03/31/21 20:03	CAO
Bromomethane	ND		pptv	10	1	264334	03/31/21 20:03	03/31/21 20:03	CAO
Bromomethane	ND		ug/m3	0.039	1	264334	03/31/21 20:03	03/31/21 20:03	CAO
Chloroethane	ND		pptv	10	1	264334	03/31/21 20:03	03/31/21 20:03	CAO
Chloroethane	ND		ug/m3	0.026	1	264334	03/31/21 20:03	03/31/21 20:03	CAO
Trichlorofluoromethane	220		pptv	10	1	264334	03/31/21 20:03	03/31/21 20:03	CAO
Trichlorofluoromethane	1.2		ug/m3	0.056	1	264334	03/31/21 20:03	03/31/21 20:03	CAO
1,1-Dichloroethene	ND		pptv	10	1	264334	03/31/21 20:03	03/31/21 20:03	CAO
1,1-Dichloroethene	ND		ug/m3	0.040	1	264334	03/31/21 20:03	03/31/21 20:03	CAO
Freon 113	70		pptv	10	1	264334	03/31/21 20:03	03/31/21 20:03	CAO
Freon 113	0.54		ug/m3	0.077	1	264334	03/31/21 20:03	03/31/21 20:03	CAO
Methylene Chloride	320		pptv	10	1	264334	03/31/21 20:03	03/31/21 20:03	CAO
Methylene Chloride	1.1		ug/m3	0.035	1	264334	03/31/21 20:03	03/31/21 20:03	CAO
trans-1,2-Dichloroethene	ND		pptv	10	1	264334	03/31/21 20:03	03/31/21 20:03	CAO
trans-1,2-Dichloroethene	ND		ug/m3	0.040	1	264334	03/31/21 20:03	03/31/21 20:03	CAO
n-Hexane	100		pptv	10	1	264334	03/31/21 20:03	03/31/21 20:03	CAO
n-Hexane	0.36		ug/m3	0.035	1	264334	03/31/21 20:03	03/31/21 20:03	CAO
1,1-Dichloroethane	ND		pptv	10	1	264334	03/31/21 20:03	03/31/21 20:03	CAO
1,1-Dichloroethane	ND		ug/m3	0.040	1	264334	03/31/21 20:03	03/31/21 20:03	CAO
cis-1,2-Dichloroethene	ND		pptv	10	1	264334	03/31/21 20:03	03/31/21 20:03	CAO
cis-1,2-Dichloroethene	ND		ug/m3	0.040	1	264334	03/31/21 20:03	03/31/21 20:03	CAO
Chloroform	26		pptv	10	1	264334	03/31/21 20:03	03/31/21 20:03	CAO
Chloroform	0.13		ug/m3	0.049	1	264334	03/31/21 20:03	03/31/21 20:03	CAO
1,1,1-Trichloroethane	ND		pptv	10	1	264334	03/31/21 20:03	03/31/21 20:03	CAO
1,1,1-Trichloroethane	ND		ug/m3	0.055	1	264334	03/31/21 20:03	03/31/21 20:03	CAO
Carbon Tetrachloride	82		pptv	10	1	264334	03/31/21 20:03	03/31/21 20:03	CAO
Carbon Tetrachloride	0.52		ug/m3	0.063	1	264334	03/31/21 20:03	03/31/21 20:03	CAO
Benzene	200		pptv	10	1	264334	03/31/21 20:03	03/31/21 20:03	CAO
Benzene	0.63		ug/m3	0.032	1	264334	03/31/21 20:03	03/31/21 20:03	CAO

Analysis Results for 443172

443172-008 Analyte	Result	Qual	Units	RL	DF	Batch	Prepared	Analyzed	Chemist
1,2-Dichloroethane	22		pptv	10	1	264334	03/31/21 20:03	03/31/21 20:03	CAO
1,2-Dichloroethane	0.089		ug/m3	0.040	1	264334	03/31/21 20:03	03/31/21 20:03	CAO
n-Heptane	48		pptv	10	1	264334	03/31/21 20:03	03/31/21 20:03	CAO
n-Heptane	0.20		ug/m3	0.041	1	264334	03/31/21 20:03	03/31/21 20:03	CAO
Trichloroethene	ND		pptv	10	1	264334	03/31/21 20:03	03/31/21 20:03	CAO
Trichloroethene	ND		ug/m3	0.054	1	264334	03/31/21 20:03	03/31/21 20:03	CAO
1,2-Dichloropropane	ND		pptv	10	1	264334	03/31/21 20:03	03/31/21 20:03	CAO
1,2-Dichloropropane	ND		ug/m3	0.046	1	264334	03/31/21 20:03	03/31/21 20:03	CAO
Bromodichloromethane	ND		pptv	10	1	264334	03/31/21 20:03	03/31/21 20:03	CAO
Bromodichloromethane	ND		ug/m3	0.067	1	264334	03/31/21 20:03	03/31/21 20:03	CAO
cis-1,3-Dichloropropene	ND		pptv	10	1	264334	03/31/21 20:03	03/31/21 20:03	CAO
cis-1,3-Dichloropropene	ND		ug/m3	0.045	1	264334	03/31/21 20:03	03/31/21 20:03	CAO
Toluene	290		pptv	10	1	264334	03/31/21 20:03	03/31/21 20:03	CAO
Toluene	1.1		ug/m3	0.038	1	264334	03/31/21 20:03	03/31/21 20:03	CAO
trans-1,3-Dichloropropene	ND		pptv	10	1	264334	03/31/21 20:03	03/31/21 20:03	CAO
trans-1,3-Dichloropropene	ND		ug/m3	0.045	1	264334	03/31/21 20:03	03/31/21 20:03	CAO
1,1,2-Trichloroethane	ND		pptv	10	1	264334	03/31/21 20:03	03/31/21 20:03	CAO
1,1,2-Trichloroethane	ND		ug/m3	0.055	1	264334	03/31/21 20:03	03/31/21 20:03	CAO
Tetrachloroethene	ND		pptv	10	1	264334	03/31/21 20:03	03/31/21 20:03	CAO
Tetrachloroethene	ND		ug/m3	0.068	1	264334	03/31/21 20:03	03/31/21 20:03	CAO
Dibromochloromethane	ND		pptv	10	1	264334	03/31/21 20:03	03/31/21 20:03	CAO
Dibromochloromethane	ND		ug/m3	0.085	1	264334	03/31/21 20:03	03/31/21 20:03	CAO
1,2-Dibromoethane	ND		pptv	10	1	264334	03/31/21 20:03	03/31/21 20:03	CAO
1,2-Dibromoethane	ND		ug/m3	0.077	1	264334	03/31/21 20:03	03/31/21 20:03	CAO
Chlorobenzene	ND		pptv	10	1	264334	03/31/21 20:03	03/31/21 20:03	CAO
Chlorobenzene	ND		ug/m3	0.046	1	264334	03/31/21 20:03	03/31/21 20:03	CAO
Ethylbenzene	51		pptv	10	1	264334	03/31/21 20:03	03/31/21 20:03	CAO
Ethylbenzene	0.22		ug/m3	0.043	1	264334	03/31/21 20:03	03/31/21 20:03	CAO
m,p-Xylenes	130		pptv	10	1	264334	03/31/21 20:03	03/31/21 20:03	CAO
m,p-Xylenes	0.55		ug/m3	0.043	1	264334	03/31/21 20:03	03/31/21 20:03	CAO
o-Xylene	56		pptv	10	1	264334	03/31/21 20:03	03/31/21 20:03	CAO
o-Xylene	0.24		ug/m3	0.043	1	264334	03/31/21 20:03	03/31/21 20:03	CAO
Styrene	ND		pptv	10	1	264334	03/31/21 20:03	03/31/21 20:03	CAO
Styrene	ND		ug/m3	0.043	1	264334	03/31/21 20:03	03/31/21 20:03	CAO
Bromoform	ND		pptv	10	1	264334	03/31/21 20:03	03/31/21 20:03	CAO
Bromoform	ND		ug/m3	0.10	1	264334	03/31/21 20:03	03/31/21 20:03	CAO
4-Ethyltoluene	13		pptv	10	1	264334	03/31/21 20:03	03/31/21 20:03	CAO
4-Ethyltoluene	0.065		ug/m3	0.049	1	264334	03/31/21 20:03	03/31/21 20:03	CAO
1,3,5-Trimethylbenzene	ND		pptv	10	1	264334	03/31/21 20:03	03/31/21 20:03	CAO
1,3,5-Trimethylbenzene	ND		ug/m3	0.049	1	264334	03/31/21 20:03	03/31/21 20:03	CAO
1,2,4-Trimethylbenzene	41		pptv	10	1	264334	03/31/21 20:03	03/31/21 20:03	CAO
1,2,4-Trimethylbenzene	0.20		ug/m3	0.049	1	264334	03/31/21 20:03	03/31/21 20:03	CAO
1,3-Dichlorobenzene	ND		pptv	10	1	264334	03/31/21 20:03	03/31/21 20:03	CAO
1,3-Dichlorobenzene	ND		ug/m3	0.060	1	264334	03/31/21 20:03	03/31/21 20:03	CAO
1,4-Dichlorobenzene	12		pptv	10	1	264334	03/31/21 20:03	03/31/21 20:03	CAO
1,4-Dichlorobenzene	0.070		ug/m3	0.060	1	264334	03/31/21 20:03	03/31/21 20:03	CAO

Analysis Results for 443172

443172-008 Analyte	Result	Qual	Units	RL	DF	Batch	Prepared	Analyzed	Chemist
Benzyl chloride	ND		pptv	10	1	264334	03/31/21 20:03	03/31/21 20:03	CAO
Benzyl chloride	ND		ug/m3	0.052	1	264334	03/31/21 20:03	03/31/21 20:03	CAO
1,2-Dichlorobenzene	ND		pptv	10	1	264334	03/31/21 20:03	03/31/21 20:03	CAO
1,2-Dichlorobenzene	ND		ug/m3	0.060	1	264334	03/31/21 20:03	03/31/21 20:03	CAO
1,2,4-Trichlorobenzene	ND		pptv	10	1	264334	03/31/21 20:03	03/31/21 20:03	CAO
1,2,4-Trichlorobenzene	ND		ug/m3	0.074	1	264334	03/31/21 20:03	03/31/21 20:03	CAO
Hexachlorobutadiene	ND		pptv	10	1	264334	03/31/21 20:03	03/31/21 20:03	CAO
Hexachlorobutadiene	ND		ug/m3	0.11	1	264334	03/31/21 20:03	03/31/21 20:03	CAO
2,2,4-Trimethylpentane	140		pptv	10	1	264334	03/31/21 20:03	03/31/21 20:03	CAO
2,2,4-Trimethylpentane	0.65		ug/m3	0.047	1	264334	03/31/21 20:03	03/31/21 20:03	CAO
2-Chlorotoluene	ND		pptv	10	1	264334	03/31/21 20:03	03/31/21 20:03	CAO
2-Chlorotoluene	ND		ug/m3	0.052	1	264334	03/31/21 20:03	03/31/21 20:03	CAO
Isopropylbenzene	ND		pptv	10	1	264334	03/31/21 20:03	03/31/21 20:03	CAO
Isopropylbenzene	ND		ug/m3	0.049	1	264334	03/31/21 20:03	03/31/21 20:03	CAO
Naphthalene	12		pptv	10	1	264334	03/31/21 20:03	03/31/21 20:03	CAO
Naphthalene	0.062		ug/m3	0.052	1	264334	03/31/21 20:03	03/31/21 20:03	CAO
Propylbenzene	ND		pptv	10	1	264334	03/31/21 20:03	03/31/21 20:03	CAO
Propylbenzene	ND		ug/m3	0.049	1	264334	03/31/21 20:03	03/31/21 20:03	CAO
Vinyl bromide	ND		pptv	10	1	264334	03/31/21 20:03	03/31/21 20:03	CAO
Vinyl bromide	ND		ug/m3	0.044	1	264334	03/31/21 20:03	03/31/21 20:03	CAO
Xylene (total)	180		pptv	10	1	264334	03/31/21 20:03	03/31/21 20:03	CAO
Xylene (total)	0.79		ug/m3	0.043	1	264334	03/31/21 20:03	03/31/21 20:03	CAO
Surrogates			Limits						
Bromofluorobenzene	99%		%REC	60-140	1	264334	03/31/21 20:03	03/31/21 20:03	CAO

Analysis Results for 443172

Sample ID: AA-2
Lab ID: 443172-009
Collected: 03/27/21 16:56
Matrix: Air

443172-009 Analyte	Result	Qual	Units	RL	DF	Batch	Prepared	Analyzed	Chemist
Method: EPA TO-15 SIM									
Prep Method: METHOD									
1,4-Dioxane	ND		pptv	11	1.1	264334	03/31/21 20:51	03/31/21 20:51	CAO
1,4-Dioxane	ND		ug/m3	0.040	1.1	264334	03/31/21 20:51	03/31/21 20:51	CAO
Freon 12	500		pptv	11	1.1	264334	03/31/21 20:51	03/31/21 20:51	CAO
Freon 12	2.5		ug/m3	0.054	1.1	264334	03/31/21 20:51	03/31/21 20:51	CAO
Freon 114	17		pptv	11	1.1	264334	03/31/21 20:51	03/31/21 20:51	CAO
Freon 114	0.12		ug/m3	0.077	1.1	264334	03/31/21 20:51	03/31/21 20:51	CAO
Chloromethane	590		pptv	11	1.1	264334	03/31/21 20:51	03/31/21 20:51	CAO
Chloromethane	1.2		ug/m3	0.023	1.1	264334	03/31/21 20:51	03/31/21 20:51	CAO
Vinyl Chloride	ND		pptv	11	1.1	264334	03/31/21 20:51	03/31/21 20:51	CAO
Vinyl Chloride	ND		ug/m3	0.028	1.1	264334	03/31/21 20:51	03/31/21 20:51	CAO
1,3-Butadiene	ND		pptv	11	1.1	264334	03/31/21 20:51	03/31/21 20:51	CAO
1,3-Butadiene	ND		ug/m3	0.024	1.1	264334	03/31/21 20:51	03/31/21 20:51	CAO
Bromomethane	ND		pptv	11	1.1	264334	03/31/21 20:51	03/31/21 20:51	CAO
Bromomethane	ND		ug/m3	0.043	1.1	264334	03/31/21 20:51	03/31/21 20:51	CAO
Chloroethane	ND		pptv	11	1.1	264334	03/31/21 20:51	03/31/21 20:51	CAO
Chloroethane	ND		ug/m3	0.029	1.1	264334	03/31/21 20:51	03/31/21 20:51	CAO
Trichlorofluoromethane	220		pptv	11	1.1	264334	03/31/21 20:51	03/31/21 20:51	CAO
Trichlorofluoromethane	1.2		ug/m3	0.062	1.1	264334	03/31/21 20:51	03/31/21 20:51	CAO
1,1-Dichloroethene	ND		pptv	11	1.1	264334	03/31/21 20:51	03/31/21 20:51	CAO
1,1-Dichloroethene	ND		ug/m3	0.044	1.1	264334	03/31/21 20:51	03/31/21 20:51	CAO
Freon 113	71		pptv	11	1.1	264334	03/31/21 20:51	03/31/21 20:51	CAO
Freon 113	0.54		ug/m3	0.084	1.1	264334	03/31/21 20:51	03/31/21 20:51	CAO
Methylene Chloride	410		pptv	11	1.1	264334	03/31/21 20:51	03/31/21 20:51	CAO
Methylene Chloride	1.4		ug/m3	0.038	1.1	264334	03/31/21 20:51	03/31/21 20:51	CAO
trans-1,2-Dichloroethene	ND		pptv	11	1.1	264334	03/31/21 20:51	03/31/21 20:51	CAO
trans-1,2-Dichloroethene	ND		ug/m3	0.044	1.1	264334	03/31/21 20:51	03/31/21 20:51	CAO
n-Hexane	110		pptv	11	1.1	264334	03/31/21 20:51	03/31/21 20:51	CAO
n-Hexane	0.40		ug/m3	0.039	1.1	264334	03/31/21 20:51	03/31/21 20:51	CAO
1,1-Dichloroethane	ND		pptv	11	1.1	264334	03/31/21 20:51	03/31/21 20:51	CAO
1,1-Dichloroethane	ND		ug/m3	0.045	1.1	264334	03/31/21 20:51	03/31/21 20:51	CAO
cis-1,2-Dichloroethene	ND		pptv	11	1.1	264334	03/31/21 20:51	03/31/21 20:51	CAO
cis-1,2-Dichloroethene	ND		ug/m3	0.044	1.1	264334	03/31/21 20:51	03/31/21 20:51	CAO
Chloroform	28		pptv	11	1.1	264334	03/31/21 20:51	03/31/21 20:51	CAO
Chloroform	0.14		ug/m3	0.054	1.1	264334	03/31/21 20:51	03/31/21 20:51	CAO
1,1,1-Trichloroethane	ND		pptv	11	1.1	264334	03/31/21 20:51	03/31/21 20:51	CAO
1,1,1-Trichloroethane	ND		ug/m3	0.060	1.1	264334	03/31/21 20:51	03/31/21 20:51	CAO
Carbon Tetrachloride	83		pptv	11	1.1	264334	03/31/21 20:51	03/31/21 20:51	CAO
Carbon Tetrachloride	0.52		ug/m3	0.069	1.1	264334	03/31/21 20:51	03/31/21 20:51	CAO
Benzene	200		pptv	11	1.1	264334	03/31/21 20:51	03/31/21 20:51	CAO
Benzene	0.63		ug/m3	0.035	1.1	264334	03/31/21 20:51	03/31/21 20:51	CAO

Analysis Results for 443172

443172-009 Analyte	Result	Qual	Units	RL	DF	Batch	Prepared	Analyzed	Chemist
1,2-Dichloroethane	22		pptv	11	1.1	264334	03/31/21 20:51	03/31/21 20:51	CAO
1,2-Dichloroethane	0.088		ug/m3	0.045	1.1	264334	03/31/21 20:51	03/31/21 20:51	CAO
n-Heptane	50		pptv	11	1.1	264334	03/31/21 20:51	03/31/21 20:51	CAO
n-Heptane	0.20		ug/m3	0.045	1.1	264334	03/31/21 20:51	03/31/21 20:51	CAO
Trichloroethene	ND		pptv	11	1.1	264334	03/31/21 20:51	03/31/21 20:51	CAO
Trichloroethene	ND		ug/m3	0.059	1.1	264334	03/31/21 20:51	03/31/21 20:51	CAO
1,2-Dichloropropane	ND		pptv	11	1.1	264334	03/31/21 20:51	03/31/21 20:51	CAO
1,2-Dichloropropane	ND		ug/m3	0.051	1.1	264334	03/31/21 20:51	03/31/21 20:51	CAO
Bromodichloromethane	ND		pptv	11	1.1	264334	03/31/21 20:51	03/31/21 20:51	CAO
Bromodichloromethane	ND		ug/m3	0.074	1.1	264334	03/31/21 20:51	03/31/21 20:51	CAO
cis-1,3-Dichloropropene	ND		pptv	11	1.1	264334	03/31/21 20:51	03/31/21 20:51	CAO
cis-1,3-Dichloropropene	ND		ug/m3	0.050	1.1	264334	03/31/21 20:51	03/31/21 20:51	CAO
Toluene	300		pptv	11	1.1	264334	03/31/21 20:51	03/31/21 20:51	CAO
Toluene	1.1		ug/m3	0.041	1.1	264334	03/31/21 20:51	03/31/21 20:51	CAO
trans-1,3-Dichloropropene	ND		pptv	11	1.1	264334	03/31/21 20:51	03/31/21 20:51	CAO
trans-1,3-Dichloropropene	ND		ug/m3	0.050	1.1	264334	03/31/21 20:51	03/31/21 20:51	CAO
1,1,2-Trichloroethane	ND		pptv	11	1.1	264334	03/31/21 20:51	03/31/21 20:51	CAO
1,1,2-Trichloroethane	ND		ug/m3	0.060	1.1	264334	03/31/21 20:51	03/31/21 20:51	CAO
Tetrachloroethene	ND		pptv	11	1.1	264334	03/31/21 20:51	03/31/21 20:51	CAO
Tetrachloroethene	ND		ug/m3	0.075	1.1	264334	03/31/21 20:51	03/31/21 20:51	CAO
Dibromochloromethane	ND		pptv	11	1.1	264334	03/31/21 20:51	03/31/21 20:51	CAO
Dibromochloromethane	ND		ug/m3	0.094	1.1	264334	03/31/21 20:51	03/31/21 20:51	CAO
1,2-Dibromoethane	ND		pptv	11	1.1	264334	03/31/21 20:51	03/31/21 20:51	CAO
1,2-Dibromoethane	ND		ug/m3	0.085	1.1	264334	03/31/21 20:51	03/31/21 20:51	CAO
Chlorobenzene	ND		pptv	11	1.1	264334	03/31/21 20:51	03/31/21 20:51	CAO
Chlorobenzene	ND		ug/m3	0.051	1.1	264334	03/31/21 20:51	03/31/21 20:51	CAO
Ethylbenzene	52		pptv	11	1.1	264334	03/31/21 20:51	03/31/21 20:51	CAO
Ethylbenzene	0.23		ug/m3	0.048	1.1	264334	03/31/21 20:51	03/31/21 20:51	CAO
m,p-Xylenes	130		pptv	11	1.1	264334	03/31/21 20:51	03/31/21 20:51	CAO
m,p-Xylenes	0.56		ug/m3	0.048	1.1	264334	03/31/21 20:51	03/31/21 20:51	CAO
o-Xylene	56		pptv	11	1.1	264334	03/31/21 20:51	03/31/21 20:51	CAO
o-Xylene	0.24		ug/m3	0.048	1.1	264334	03/31/21 20:51	03/31/21 20:51	CAO
Styrene	14		pptv	11	1.1	264334	03/31/21 20:51	03/31/21 20:51	CAO
Styrene	0.061		ug/m3	0.047	1.1	264334	03/31/21 20:51	03/31/21 20:51	CAO
Bromoform	ND		pptv	11	1.1	264334	03/31/21 20:51	03/31/21 20:51	CAO
Bromoform	ND		ug/m3	0.11	1.1	264334	03/31/21 20:51	03/31/21 20:51	CAO
4-Ethyltoluene	13		pptv	11	1.1	264334	03/31/21 20:51	03/31/21 20:51	CAO
4-Ethyltoluene	0.064		ug/m3	0.054	1.1	264334	03/31/21 20:51	03/31/21 20:51	CAO
1,3,5-Trimethylbenzene	ND		pptv	11	1.1	264334	03/31/21 20:51	03/31/21 20:51	CAO
1,3,5-Trimethylbenzene	ND		ug/m3	0.054	1.1	264334	03/31/21 20:51	03/31/21 20:51	CAO
1,2,4-Trimethylbenzene	47		pptv	11	1.1	264334	03/31/21 20:51	03/31/21 20:51	CAO
1,2,4-Trimethylbenzene	0.23		ug/m3	0.054	1.1	264334	03/31/21 20:51	03/31/21 20:51	CAO
1,3-Dichlorobenzene	ND		pptv	11	1.1	264334	03/31/21 20:51	03/31/21 20:51	CAO
1,3-Dichlorobenzene	ND		ug/m3	0.066	1.1	264334	03/31/21 20:51	03/31/21 20:51	CAO
1,4-Dichlorobenzene	13		pptv	11	1.1	264334	03/31/21 20:51	03/31/21 20:51	CAO
1,4-Dichlorobenzene	0.076		ug/m3	0.066	1.1	264334	03/31/21 20:51	03/31/21 20:51	CAO

Analysis Results for 443172

443172-009 Analyte	Result	Qual	Units	RL	DF	Batch	Prepared	Analyzed	Chemist
Benzyl chloride	ND		pptv	11	1.1	264334	03/31/21 20:51	03/31/21 20:51	CAO
Benzyl chloride	ND		ug/m3	0.057	1.1	264334	03/31/21 20:51	03/31/21 20:51	CAO
1,2-Dichlorobenzene	ND		pptv	11	1.1	264334	03/31/21 20:51	03/31/21 20:51	CAO
1,2-Dichlorobenzene	ND		ug/m3	0.066	1.1	264334	03/31/21 20:51	03/31/21 20:51	CAO
1,2,4-Trichlorobenzene	ND		pptv	11	1.1	264334	03/31/21 20:51	03/31/21 20:51	CAO
1,2,4-Trichlorobenzene	ND		ug/m3	0.082	1.1	264334	03/31/21 20:51	03/31/21 20:51	CAO
Hexachlorobutadiene	ND		pptv	11	1.1	264334	03/31/21 20:51	03/31/21 20:51	CAO
Hexachlorobutadiene	ND		ug/m3	0.12	1.1	264334	03/31/21 20:51	03/31/21 20:51	CAO
2,2,4-Trimethylpentane	140		pptv	11	1.1	264334	03/31/21 20:51	03/31/21 20:51	CAO
2,2,4-Trimethylpentane	0.67		ug/m3	0.051	1.1	264334	03/31/21 20:51	03/31/21 20:51	CAO
2-Chlorotoluene	ND		pptv	11	1.1	264334	03/31/21 20:51	03/31/21 20:51	CAO
2-Chlorotoluene	ND		ug/m3	0.057	1.1	264334	03/31/21 20:51	03/31/21 20:51	CAO
Isopropylbenzene	ND		pptv	11	1.1	264334	03/31/21 20:51	03/31/21 20:51	CAO
Isopropylbenzene	ND		ug/m3	0.054	1.1	264334	03/31/21 20:51	03/31/21 20:51	CAO
Naphthalene	19		pptv	11	1.1	264334	03/31/21 20:51	03/31/21 20:51	CAO
Naphthalene	0.098		ug/m3	0.058	1.1	264334	03/31/21 20:51	03/31/21 20:51	CAO
Propylbenzene	ND		pptv	11	1.1	264334	03/31/21 20:51	03/31/21 20:51	CAO
Propylbenzene	ND		ug/m3	0.054	1.1	264334	03/31/21 20:51	03/31/21 20:51	CAO
Vinyl bromide	ND		pptv	11	1.1	264334	03/31/21 20:51	03/31/21 20:51	CAO
Vinyl bromide	ND		ug/m3	0.048	1.1	264334	03/31/21 20:51	03/31/21 20:51	CAO
Xylene (total)	180		pptv	11	1.1	264334	03/31/21 20:51	03/31/21 20:51	CAO
Xylene (total)	0.80		ug/m3	0.048	1.1	264334	03/31/21 20:51	03/31/21 20:51	CAO
Surrogates			Limits						
Bromofluorobenzene	97%		%REC	60-140	1.1	264334	03/31/21 20:51	03/31/21 20:51	CAO

ND Not Detected

Batch QC

Type: Lab Control Sample	Lab ID: QC917151	Batch: 264334
Matrix: Air	Method: EPA TO-15 SIM	Prep Method: METHOD

QC917151 Analyte	Result	Spiked	Units	Recovery	Qual	Limits
1,4-Dioxane	187.4	200.0	pptv	94%		70-130
Freon 12	212.5	200.0	pptv	106%		70-130
Freon 114	214.4	200.0	pptv	107%		70-130
Chloromethane	201.8	200.0	pptv	101%		70-130
Vinyl Chloride	211.1	200.0	pptv	106%		70-130
1,3-Butadiene	209.3	200.0	pptv	105%		70-130
Bromomethane	216.6	200.0	pptv	108%		70-130
Chloroethane	211.5	200.0	pptv	106%		70-130
Trichlorofluoromethane	211.9	200.0	pptv	106%		70-130
1,1-Dichloroethene	205.8	200.0	pptv	103%		70-130
Freon 113	212.9	200.0	pptv	106%		70-130
Methylene Chloride	192.0	200.0	pptv	96%		70-130
trans-1,2-Dichloroethene	207.2	200.0	pptv	104%		70-130
n-Hexane	196.1	200.0	pptv	98%		70-130
1,1-Dichloroethane	209.5	200.0	pptv	105%		70-130
cis-1,2-Dichloroethene	205.7	200.0	pptv	103%		70-130
Chloroform	212.1	200.0	pptv	106%		70-130
1,1,1-Trichloroethane	210.7	200.0	pptv	105%		70-130
Carbon Tetrachloride	211.8	200.0	pptv	106%		70-130
Benzene	199.4	200.0	pptv	100%		70-130
1,2-Dichloroethane	210.1	200.0	pptv	105%		70-130
n-Heptane	215.7	200.0	pptv	108%		70-130
Trichloroethene	216.2	200.0	pptv	108%		70-130
1,2-Dichloropropane	215.0	200.0	pptv	108%		70-130
Bromodichloromethane	216.0	200.0	pptv	108%		70-130
cis-1,3-Dichloropropene	212.2	200.0	pptv	106%		70-130
Toluene	201.9	200.0	pptv	101%		70-130
trans-1,3-Dichloropropene	215.9	200.0	pptv	108%		70-130
1,1,2-Trichloroethane	216.0	200.0	pptv	108%		70-130
Tetrachloroethene	212.3	200.0	pptv	106%		70-130
Dibromochloromethane	216.9	200.0	pptv	108%		70-130
1,2-Dibromoethane	209.6	200.0	pptv	105%		70-130
Chlorobenzene	210.1	200.0	pptv	105%		70-130
Ethylbenzene	203.0	200.0	pptv	101%		70-130
m,p-Xylenes	418.2	400.0	pptv	105%		70-130
o-Xylene	217.9	200.0	pptv	109%		70-130
Styrene	206.6	200.0	pptv	103%		70-130
Bromoform	220.5	200.0	pptv	110%		70-130
4-Ethyltoluene	215.9	200.0	pptv	108%		70-130
1,3,5-Trimethylbenzene	224.5	200.0	pptv	112%		70-130
1,2,4-Trimethylbenzene	208.1	200.0	pptv	104%		70-130
1,3-Dichlorobenzene	228.8	200.0	pptv	114%		70-130

Batch QC

QC917151 Analyte	Result	Spiked	Units	Recovery	Qual	Limits
1,4-Dichlorobenzene	226.2	200.0	pptv	113%		70-130
Benzyl chloride	216.2	200.0	pptv	108%		70-130
1,2-Dichlorobenzene	217.4	200.0	pptv	109%		70-130
1,2,4-Trichlorobenzene	213.2	200.0	pptv	107%		70-130
Hexachlorobutadiene	206.2	200.0	pptv	103%		70-130
2,2,4-Trimethylpentane	218.8	200.0	pptv	109%		70-130
2-Chlorotoluene	210.5	200.0	pptv	105%		70-130
Isopropylbenzene	215.9	200.0	pptv	108%		70-130
Naphthalene	182.6	200.0	pptv	91%		70-130
Propylbenzene	213.8	200.0	pptv	107%		70-130
Vinyl bromide	209.5	200.0	pptv	105%		70-130
Surrogates						
Bromofluorobenzene	276.8	250.0	pptv	111%		70-130

Batch QC

Type: Blank	Lab ID: QC917152	Batch: 264334
Matrix: Air	Method: EPA TO-15 SIM	Prep Method: METHOD

QC917152 Analyte	Result	Qual	Units	RL	Prepared	Analyzed
1,4-Dioxane	ND		pptv	10	03/31/21 12:02	03/31/21 12:02
Freon 12	ND		pptv	10	03/31/21 12:02	03/31/21 12:02
Freon 114	ND		pptv	10	03/31/21 12:02	03/31/21 12:02
Chloromethane	ND		pptv	10	03/31/21 12:02	03/31/21 12:02
Vinyl Chloride	ND		pptv	10	03/31/21 12:02	03/31/21 12:02
1,3-Butadiene	ND		pptv	10	03/31/21 12:02	03/31/21 12:02
Bromomethane	ND		pptv	10	03/31/21 12:02	03/31/21 12:02
Chloroethane	ND		pptv	10	03/31/21 12:02	03/31/21 12:02
Trichlorofluoromethane	ND		pptv	10	03/31/21 12:02	03/31/21 12:02
1,1-Dichloroethene	ND		pptv	10	03/31/21 12:02	03/31/21 12:02
Freon 113	ND		pptv	10	03/31/21 12:02	03/31/21 12:02
Methylene Chloride	ND		pptv	10	03/31/21 12:02	03/31/21 12:02
trans-1,2-Dichloroethene	ND		pptv	10	03/31/21 12:02	03/31/21 12:02
n-Hexane	ND		pptv	10	03/31/21 12:02	03/31/21 12:02
1,1-Dichloroethane	ND		pptv	10	03/31/21 12:02	03/31/21 12:02
cis-1,2-Dichloroethene	ND		pptv	10	03/31/21 12:02	03/31/21 12:02
Chloroform	ND		pptv	10	03/31/21 12:02	03/31/21 12:02
1,1,1-Trichloroethane	ND		pptv	10	03/31/21 12:02	03/31/21 12:02
Carbon Tetrachloride	ND		pptv	10	03/31/21 12:02	03/31/21 12:02
Benzene	ND		pptv	10	03/31/21 12:02	03/31/21 12:02
1,2-Dichloroethane	ND		pptv	10	03/31/21 12:02	03/31/21 12:02
n-Heptane	ND		pptv	10	03/31/21 12:02	03/31/21 12:02
Trichloroethene	ND		pptv	10	03/31/21 12:02	03/31/21 12:02
1,2-Dichloropropane	ND		pptv	10	03/31/21 12:02	03/31/21 12:02
Bromodichloromethane	ND		pptv	10	03/31/21 12:02	03/31/21 12:02
cis-1,3-Dichloropropene	ND		pptv	10	03/31/21 12:02	03/31/21 12:02
Toluene	ND		pptv	10	03/31/21 12:02	03/31/21 12:02
trans-1,3-Dichloropropene	ND		pptv	10	03/31/21 12:02	03/31/21 12:02
1,1,2-Trichloroethane	ND		pptv	10	03/31/21 12:02	03/31/21 12:02
Tetrachloroethene	ND		pptv	10	03/31/21 12:02	03/31/21 12:02
Dibromochloromethane	ND		pptv	10	03/31/21 12:02	03/31/21 12:02
1,2-Dibromoethane	ND		pptv	10	03/31/21 12:02	03/31/21 12:02
Chlorobenzene	ND		pptv	10	03/31/21 12:02	03/31/21 12:02
Ethylbenzene	ND		pptv	10	03/31/21 12:02	03/31/21 12:02
m,p-Xylenes	ND		pptv	10	03/31/21 12:02	03/31/21 12:02
o-Xylene	ND		pptv	10	03/31/21 12:02	03/31/21 12:02
Styrene	ND		pptv	10	03/31/21 12:02	03/31/21 12:02
Bromoform	ND		pptv	10	03/31/21 12:02	03/31/21 12:02
4-Ethyltoluene	ND		pptv	10	03/31/21 12:02	03/31/21 12:02
1,3,5-Trimethylbenzene	ND		pptv	10	03/31/21 12:02	03/31/21 12:02
1,2,4-Trimethylbenzene	ND		pptv	10	03/31/21 12:02	03/31/21 12:02
1,3-Dichlorobenzene	ND		pptv	10	03/31/21 12:02	03/31/21 12:02

Batch QC

QC917152 Analyte	Result	Qual	Units	RL	Prepared	Analyzed
1,4-Dichlorobenzene	ND		pptv	10	03/31/21 12:02	03/31/21 12:02
Benzyl chloride	ND		pptv	10	03/31/21 12:02	03/31/21 12:02
1,2-Dichlorobenzene	ND		pptv	10	03/31/21 12:02	03/31/21 12:02
1,2,4-Trichlorobenzene	ND		pptv	10	03/31/21 12:02	03/31/21 12:02
Hexachlorobutadiene	ND		pptv	10	03/31/21 12:02	03/31/21 12:02
2,2,4-Trimethylpentane	ND		pptv	10	03/31/21 12:02	03/31/21 12:02
2-Chlorotoluene	ND		pptv	10	03/31/21 12:02	03/31/21 12:02
Isopropylbenzene	ND		pptv	10	03/31/21 12:02	03/31/21 12:02
Naphthalene	ND		pptv	10	03/31/21 12:02	03/31/21 12:02
Propylbenzene	ND		pptv	10	03/31/21 12:02	03/31/21 12:02
Vinyl bromide	ND		pptv	10	03/31/21 12:02	03/31/21 12:02
Xylene (total)	ND		pptv	10	03/31/21 12:02	03/31/21 12:02
Surrogates				Limits		
Bromofluorobenzene	92%		%REC	70-130	03/31/21 12:02	03/31/21 12:02

Batch QC

Type: Sample Duplicate	Lab ID: QC917153	Batch: 264334
Matrix (Source ID): Air (443172-001)	Method: EPA TO-15 SIM	Prep Method: METHOD

QC917153 Analyte	Result	Source Sample Result	Units	Qual	RPD	RPD Lim	DF
1,4-Dioxane	28.03	26.54	pptv		5	30	1.1
Freon 12	497.5	497.4	pptv		0	30	1.1
Freon 114	16.70	16.77	pptv		0	30	1.1
Chloromethane	621.6	615.6	pptv		1	30	1.1
Vinyl Chloride	ND	ND	pptv			30	1.1
1,3-Butadiene	ND	ND	pptv			30	1.1
Bromomethane	ND	ND	pptv			30	1.1
Chloroethane	12.11	12.36	pptv		2	30	1.1
Trichlorofluoromethane	219.7	219.6	pptv		0	30	1.1
1,1-Dichloroethene	ND	ND	pptv			30	1.1
Freon 113	69.79	69.36	pptv		1	30	1.1
Methylene Chloride	466.2	458.9	pptv		2	30	1.1
trans-1,2-Dichloroethene	134.0	130.7	pptv		3	30	1.1
n-Hexane	253.5	245.8	pptv		3	30	1.1
1,1-Dichloroethane	ND	ND	pptv			30	1.1
cis-1,2-Dichloroethene	ND	ND	pptv			30	1.1
Chloroform	246.9	244.5	pptv		1	30	1.1
1,1,1-Trichloroethane	ND	ND	pptv			30	1.1
Carbon Tetrachloride	83.64	82.35	pptv		2	30	1.1
Benzene	374.5	368.5	pptv		2	30	1.1
1,2-Dichloroethane	41.57	39.99	pptv		4	30	1.1
n-Heptane	115.9	114.3	pptv		1	30	1.1
Trichloroethene	ND	ND	pptv			30	1.1
1,2-Dichloropropane	ND	ND	pptv			30	1.1
Bromodichloromethane	ND	ND	pptv			30	1.1
cis-1,3-Dichloropropene	ND	ND	pptv			30	1.1
Toluene	672.4	668.7	pptv		1	30	1.1
trans-1,3-Dichloropropene	ND	ND	pptv			30	1.1
1,1,2-Trichloroethane	ND	ND	pptv			30	1.1
Tetrachloroethene	655.3	663.0	pptv		1	30	1.1
Dibromochloromethane	ND	ND	pptv			30	1.1
1,2-Dibromoethane	ND	ND	pptv			30	1.1
Chlorobenzene	ND	ND	pptv			30	1.1
Ethylbenzene	121.0	118.7	pptv		2	30	1.1
m,p-Xylenes	362.3	355.2	pptv		2	30	1.1
o-Xylene	145.9	145.2	pptv		0	30	1.1
Styrene	65.84	65.76	pptv		0	30	1.1
Bromoform	ND	ND	pptv			30	1.1
4-Ethyltoluene	30.12	30.30	pptv		1	30	1.1
1,3,5-Trimethylbenzene	28.55	28.28	pptv		1	30	1.1

Batch QC

QC917153 Analyte	Result	Source Sample Result	Units	Qual	RPD	RPD Lim	DF
1,2,4-Trimethylbenzene	122.0	118.1	pptv		3	30	1.1
1,3-Dichlorobenzene	ND	ND	pptv			30	1.1
1,4-Dichlorobenzene	26.09	25.93	pptv		1	30	1.1
Benzyl chloride	ND	ND	pptv			30	1.1
1,2-Dichlorobenzene	ND	ND	pptv			30	1.1
1,2,4-Trichlorobenzene	ND	ND	pptv			30	1.1
Hexachlorobutadiene	ND	ND	pptv			30	1.1
2,2,4-Trimethylpentane	277.5	280.0	pptv		1	30	1.1
2-Chlorotoluene	ND	ND	pptv			30	1.1
Isopropylbenzene	17.81	17.56	pptv		1	30	1.1
Naphthalene	30.65	29.66	pptv		3	30	1.1
Propylbenzene	19.01	18.92	pptv		0	30	1.1
Vinyl bromide	ND	ND	pptv			30	1.1
Surrogates							
Bromofluorobenzene	100%		%REC				1.1

ND Not Detected

ATTACHMENT E
GEOKINETICS VIMS CONCEPTUAL DESIGN LETTER, OCTOBER 4, 2022

October 4, 2022

Mr. Collin Monsour
Bardas Investment Group
1015 North Fairfax Ave
West Hollywood, California 90046

SUBJECT: VAPOR INTRUSION MITIGATION SYSTEM (VIMS) CONCEPTUAL DESIGN AND EXPECTED PERFORMANCE FOR THE PROPOSED OFFICE BUILDINGS AT 1200 CAHUENGA BOULEVARD - LOS ANGELES, CALIFORNIA

Dear Mr. Monsour:

As requested, the purpose of this letter is to discuss the expected performance and overall conceptual design of the proposed Vapor Intrusion Mitigation System (VIMS) to be installed at the above referenced site. We understand the proposed buildings are being constructed in an area of extensive commercial / industrial development. As such, it is our understanding that Volatile Organic Compounds (VOCs), most notably PCE (Tetrachloroethylene), exist in soil gas and groundwater on site. GeoKinetics has reviewed the soil vapor data collected in March 2021 by RMD Environmental Solutions (RMD). The maximum PCE soil gas detection on site was found to be 28,200 $\mu\text{g}/\text{m}^3$, approximately 420 times the commercial / industrial screening level. A vapor intrusion mitigation system (VIMS) was recommended to be installed under the buildings due to the recently collected PCE soil gas detections.

Based on discussions with RMD and considering the planned project development, the following conceptual VIMS is recommended:

1. Building A shall have a vapor barrier and sub-slab collection / ventilation system under the slab and on the walls of the structures.
2. Building B shall have a vapor barrier and sub-slab collection / ventilation system under the slab. It is expected that the existing waterproofing barrier along the walls of Building B's subterranean garage is sufficient for vapor intrusion mitigation purposes. Follow up testing should be conducted to confirm.
3. Building C shall have a vapor barrier and sub-slab collection / ventilation system beneath the retail and office space.

4. For the portion of Building C which overlies an open-air subterranean parking garage, localized mitigation consisting of a vapor barrier should be considered under the stairwells and elevators that extend to overlying spaces in the building.

GeoKinetics has prepared plans and specifications for the proposed VIMS system at the site. Key considerations regarding bullets 2 and 4 above are summarized in the following pages.

CONSIDERATIONS REGARDING VIMS DESIGN AT BUILDING B

Although the slab of Building B will be provided with a new barrier and venting, the walls of existing Building B are required to remain in place as originally constructed. Although no investigation has been performed, it is our understanding that an existing waterproofing barrier exists on the walls of Building B. It is standard practice to install a waterproofing barrier on all subterranean garages. It is also standard construction practice to install a drainboard between the soil and the barrier. It is also our understanding that no evidence of efflorescence has been observed against the walls of the subterranean portions of the structure. Because of this, it is likely that the barrier and drainboard are in good shape and continue to protect the building from water infiltration. It is our opinion that this waterproofing barrier will likely be sufficient for the expected project soil gas vapors. The barrier and venting system under the slab of Building B will provide most of the protection from vapor intrusion and any vapor trapped against the side of the building will be vented to the surface by the drainboard.

In order to confirm the protection provided by the existing walls, we recommend that radon testing be performed in the garage of the existing building B after the VIMS installation beneath the slab. We have found that the measurement of the concentrations of radon gas beneath the vapor barrier and in the indoor air of a building provides a more reliable means of evaluating the soil gas-to-indoor air attenuation factor that is associated with a passive barrier system immediately following building construction. Radon is a naturally-occurring gas that is present in the subsurface at detectable levels at most locations. It is generally not found in building materials so there are few, if any, potential sources of radon gas on the interiors of buildings. Radon is not sorbed onto soil or building materials so it can serve as a conservative tracer. The concentration of radon gas can be quantified easily, reliably, and relatively inexpensively.

October 4, 2022

The concentrations of radon in the soil gas beneath each building, in the indoor air, and in the outdoor air will be measured using DurrIDGE RAD7 Electronic Radon Detectors. This instrument detects alpha particles associated with the natural decay of radon gas isotopes. Radon-222 is the most plentiful isotope with a half-life of approximately 3.8 days. Since radon gas concentrations can vary to some degree over time, the sub-slab soil gas and indoor/outdoor air samples will be collected through the detector for a period of approximately 24-hours in order to obtain representative average concentrations with a high confidence level. The indoor radon samples will be collected from as close to the center of the unit as possible. The RAD7 units will be programmed to output the radon concentrations detected over 5-minute intervals. The effective attenuation factor (and attenuation rate) will then be estimated using the average measured radon concentrations.

CONSIDERATIONS REGARDING VIMS DESIGN AT BUILDING C

A completed VIMS system will be installed beneath the portion of the building with at-grade retail and office space. For the portion of the building which sits above an open-air parking garage, vapor barriers will be installed beneath stairwells and elevators extending into overlying enclosed spaces with the exception of the stairwell between gridlines C9-C11 & CM. This stairwell is shown to be located entirely on a structural footing. Per standard practice, vapor barriers typically are installed under the floor slab and extend approximately 6" onto the top of structural footing, but not under the footings.

We hope this information is helpful to you. Please do not hesitate to contact the undersigned if you have any questions or comments.

Sincerely,
GEOKINETICS, INC.

Kevin Lea, RCE
Senior Engineer

attachments

