

Air Quality Report

This report has been compiled utilizing data provided by San Diego County HAZMAT/ San Diego City Fire Rescue HAZMAT and Haley & Aldrich, Inc.

The information obtained from these sources has been carefully analyzed and incorporated to ensure the accuracy and reliability of the findings.

SDG&E Battery Fire
571 Enterprise Street
Start 9/5/2024 12:09
Repopulate 9/7/2024 12:00

Air quality monitored by San Diego County HAZMAT

- Three types of monitoring units
- First reading taken at 14:30 on 9/5/2024
- Final reading taken at 18:32 on 9/6/2024

Air monitoring equipment (SD HAZMAT)

1. EAGLE 2 CGI

Last calibrated on 8/30/2024 and was “zeroed” prior to use on incident.

Standard 4 gas monitor which measures:

Lower Explosive Limit -**LEL**

Oxygen -**O2**

Hydrogen Sulfide-**H2S**

Carbon Monoxide-**CO**

2. RedWave XplorIR

Self-Calibrates at device startup.

Identifies over 5,500 gases at low part per million (ppm) concentrations

3. MultiRAE Pro

Last calibrated on 8/30/2024 and “zeroed” prior to use on the incident.

Monitors both chemical threats and gamma radiation and is the only multi-threat monitor with parts per billion

Gases monitored

1. **PH3 (Phosphine)**
2. **Cl2 (Chlorine)**
3. **H2S (Hydrogen Sulfide)**
4. **CO2 (Carbon Dioxide)**
5. **HCN (Hydrogen Cyanide)**
6. **CO (Carbon Monoxide)**
7. **HF (Hydrofluoric Acid)**

Hazmat Exposure Terms

1. TWA (Time-Weighted Average)

- **Definition:** TWA refers to the average exposure to a hazardous substance (usually airborne) over a standard workday, typically 8 hours, and a 40-hour workweek.
- **Purpose:** It is used to assess the cumulative exposure a person may experience and is compared against permissible limits to ensure safety over long-term exposure.

2. STEL (Short-Term Exposure Limit)

- **Definition:** STEL is the maximum concentration to which a person can be exposed to a chemical substance for a short period, typically **15 minutes**, without suffering adverse effects like irritation, chronic or irreversible tissue damage, or narcosis.
- **Purpose:** It helps control exposure to hazardous substances during short bursts of high exposure within a workday.

3. PEL (Permissible Exposure Limit)

- **Definition:** PEL is the maximum amount or concentration of a substance that a person can be exposed to under OSHA (Occupational Safety and Health Administration) regulations over an 8-hour work shift (TWA) or a 40-hour workweek.
- **Purpose:** These are legally enforceable limits to protect workers from the harmful effects of hazardous chemicals and substances in the workplace.

4. REL (Recommended Exposure Limit)

- **Definition:** REL is a recommended exposure limit set by NIOSH (National Institute for Occupational Safety and Health) that suggests maximum allowable concentrations for exposure to substances over a workday or workweek.
- **Purpose:** These limits are non-enforceable but serve as guidelines for employers and regulators to ensure worker safety. They are typically more stringent than PELs.

5. IDLH (Immediately Dangerous to Life or Health)

- **Definition:** the maximum concentration of a chemical in the air to which a person can be exposed for **30 minutes** without suffering life-threatening health effects or death.
- **Purpose:** Determines when workers need to wear protective equipment, such as respirators, and **when emergency evacuation is necessary**. It is critical for ensuring worker safety in hazardous environments.

Summary:

- **TWA** refers to the average exposure over time.
- **STEL** refers to the limit for short-term exposures.
- **PEL** is a legally enforceable limit by OSHA.
- **REL** is a recommended limit by NIOSH (often more conservative than PEL).
- **IDLH** refers to the maximum level of a toxic substance in the air that a person can be exposed to for 30 minutes without experiencing life-threatening effects or being unable to escape.

OSHA and NIOSH exposure limits

1. Phosphine (PH₃):

- OSHA PEL: 0.3 ppm (TWA)
- NIOSH REL: 0.3 ppm (TWA) / 1 ppm (STEL)
- IDLH 50 ppm

2. Chlorine (Cl₂):

- OSHA PEL: 1 ppm (TWA) 3 ppm (STEL)
- NIOSH REL: 0.5 ppm (TWA) / 1 ppm (STEL)
- IDLH 10 ppm

3. Hydrogen Sulfide (H₂S):

- OSHA PEL: 20 ppm (TWA) / 50 ppm (STEL)
- NIOSH REL: 10 ppm (TWA) / 15 ppm (STEL)
- IDLH 100 PPM

4. Carbon Dioxide (CO₂):

- OSHA PEL: 5,000 ppm
- NIOSH REL: 5,000 ppm (TWA) / 30,000 ppm (STEL)
- IDLH 40,000 ppm

5. Hydrogen Cyanide (HCN):

- OSHA PEL: 10 ppm (TWA)
- NIOSH REL: 4.7 ppm (not to be exceeded)
- IDLH 50 ppm

6. Carbon Monoxide (CO):

- OSHA PEL: 50 ppm (TWA)
- NIOSH REL: 35 ppm (TWA) / 200 ppm (STEL)
- IDLH 1,200 ppm

7. Hydrofluoric Acid (HF):

- OSHA PEL: 3 ppm (TWA) 6 ppm (STEL)
- NIOSH REL: 3 ppm (TWA) 6 ppm (STEL)
- IDLH 30 ppm

SD County Hazmat Readings in Parts Per Million (PPM)

Location	Distance from Incident (ft)	Time	PH3	CL2	H2S	CO2	HCN	CO
Main Gate	315	14:30	0	0	0	0	0	0
Venture and Simpson	784	14:35	0	0	0	0	0	0
State St (All	1447	14:36	0	0	0	0	0	0
Enterprise and Auto Park	776	18:15	0	0	0	0	0.5	0
Enterprise Gate	262	18:16	0	0	0	18	2	0
Venture and Simpson	784	18:21	0	0	0	0	0.5	0
Venture and State	1108	18:22	0	0	0	0	0.5	0
Market and Auto Park	2227	18:25	0	0	0	0	0	0
Vinewood and Industrial	2280	18:27	0	0	0	0	0.5	0
Andreasen and Simpson	2522	18:29	0	0	0	0	0.5	0
1287 Simpson	3943	18:32	0	0	0	0	0.5	0

*****Above readings are the peak (highest detected) readings during the entire incident*****

***** CO2 sensors are calibrated to account for typical atmospheric CO2 levels, which generally range between 400-420ppm. This ensures that variations above normal levels are easily detectable*****

*****Negative reading on Fluoride paper at all locations. Non detect for Hydrofluoric Acid (HF) at all sites*****

***** All readings taken were well below acceptable exposure limits and considered expected readings during a routine structure fire*****

Air quality monitored by SDG&E

- Via 3rd party contractor; Haley & Aldrich, INC.
- Two types of monitoring units
- First reading taken at 20:30 on 9/5/2024
- Final reading taken at 21:36 on 9/6/2024

Air monitoring equipment

1. RAE Systems MultiRAE with P2P
Calibrated on 9/5/2024.
Multi-threat chemical detector and gas monitor
2. TSI 7575-x Indoor air quality monitor utilizing the TSI 982 Sensor probe
Monitor calibrated on 8/29/2024.
Probe calibrated on 3/11/2024.
Used to monitor indoor air quality

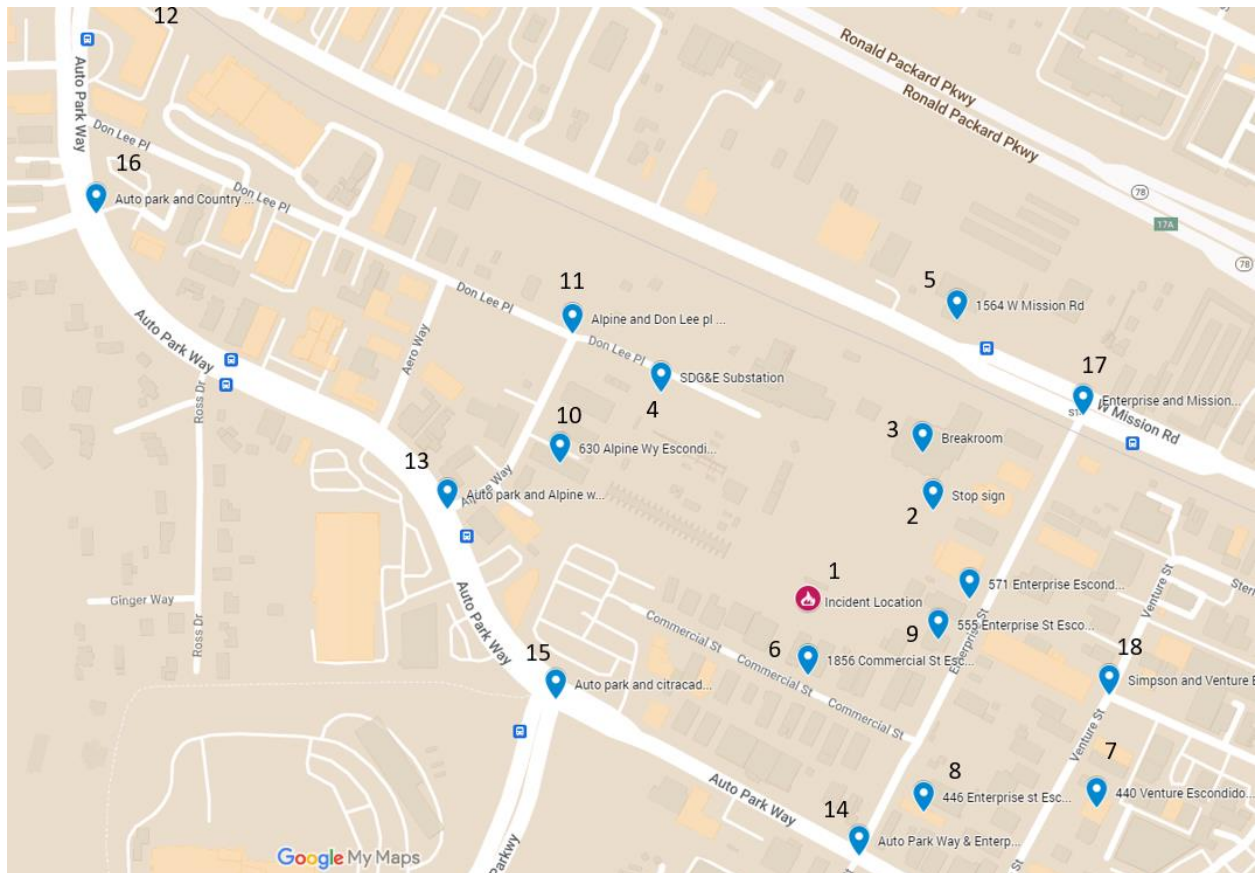
Gases Monitored

- LEL (Lower Explosive Limit)
- HCN (Hydrogen Cyanide)
- CO (Carbon Monoxide)
- H₂S (Hydrogen Sulfide)
- O₂ (Oxygen)

***** Only Carbon Monoxide (CO) levels were detected and had readings above 0 but remained well below acceptable exposure limits. Elevated CO readings are expected result during a structure fire*****

*****Carbon monoxide (CO) levels may be detected in the environment due to various sources of incomplete combustion, including vehicle emissions*****

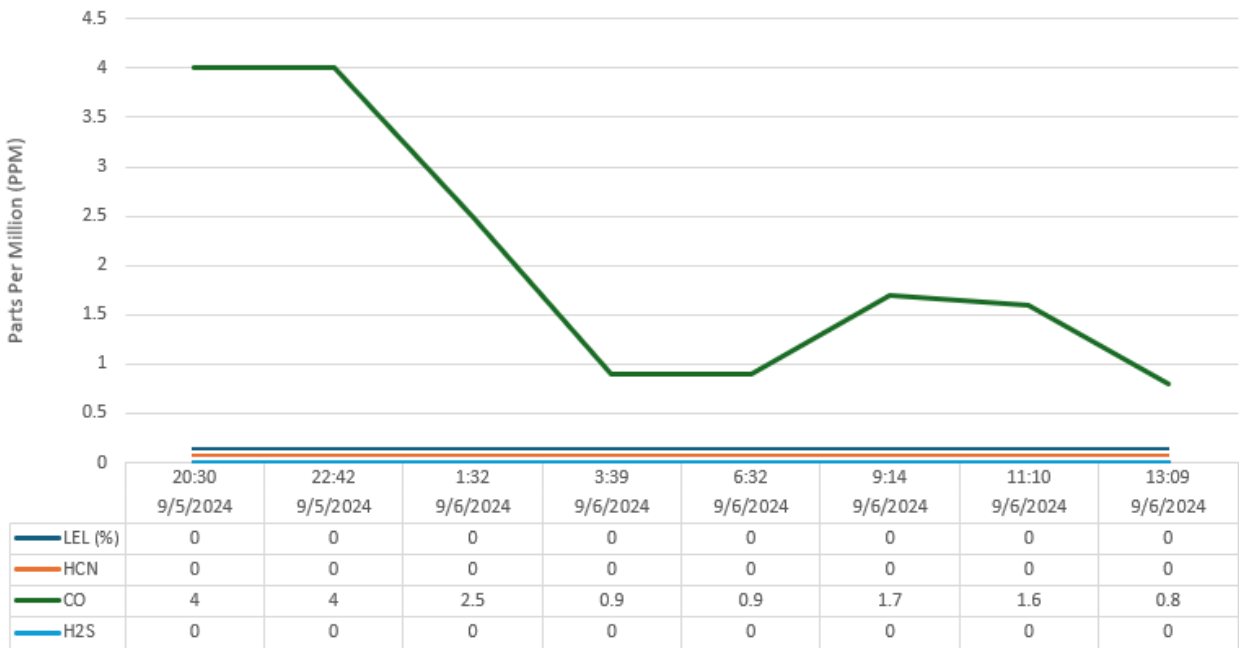
Haley & Aldrich, INC (SDG&E) Monitoring locations denoted in blue



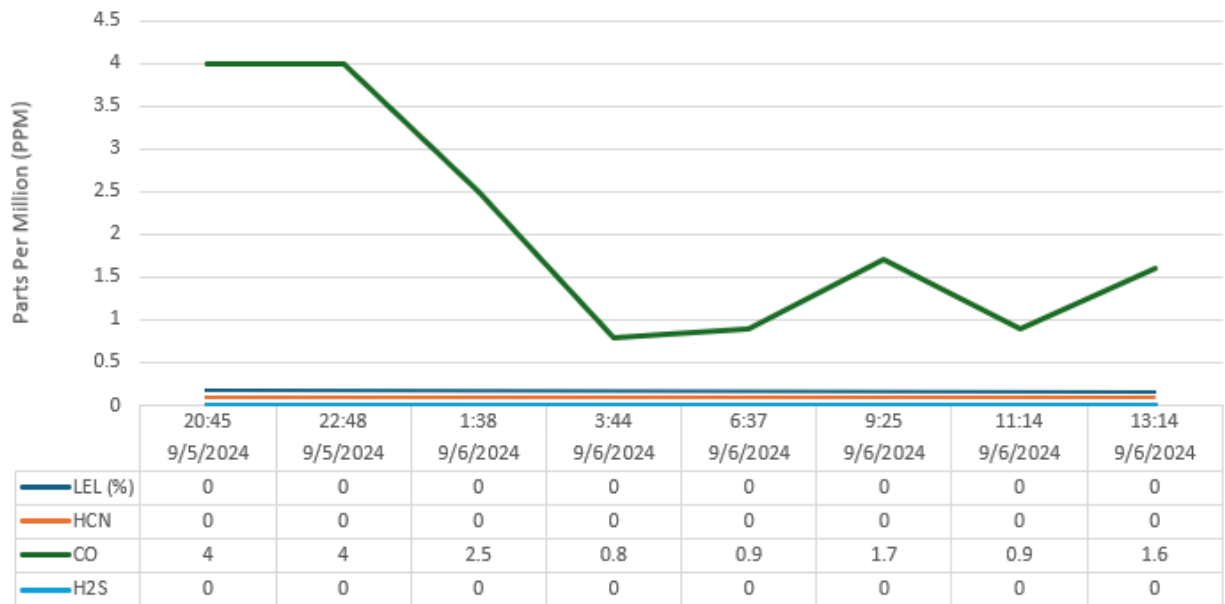
Monitoring Locations

1. **Incident location:** 571 Enterprise St South side of property
2. 571 Enterprise St: Stop sign in equipment yard
3. 571 Enterprise St: Breakroom
4. 571 Enterprise St: Substation
5. 1564 Mission Rd
6. 1856 Commercial St
7. 440 Venture
8. 446 Enterprise St
9. 555 Enterprise St
10. 630 Alpine Wy
11. Alpine Wy and Don Lee
12. Auto Park and Mission Rd
13. Auto Park and Alpine Wy
14. Auto Park and Enterprise
15. Auto Park and Citracado
16. Auto Park and Country Club Dr
17. Enterprise St and Mission Rd
18. Simpson Wy and Ventrure St

1. Air monitoring at SDG&E site location

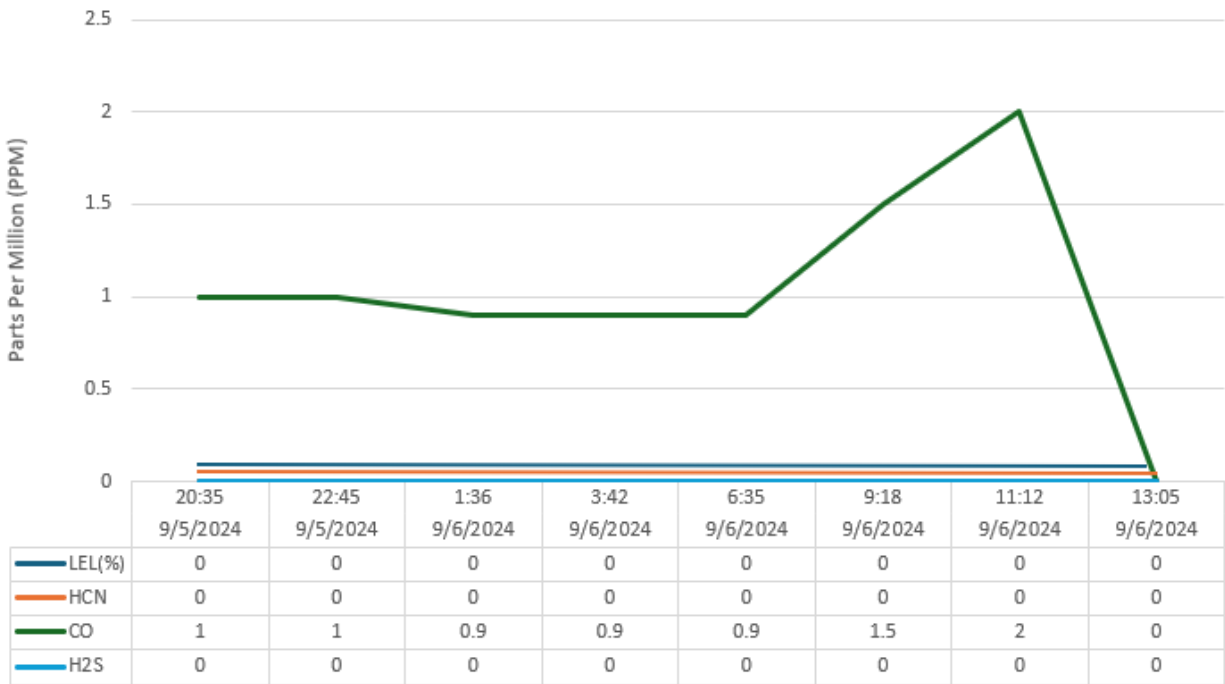


2. Air monitoring at Stop Sign NE corner of Equipment Storage yard

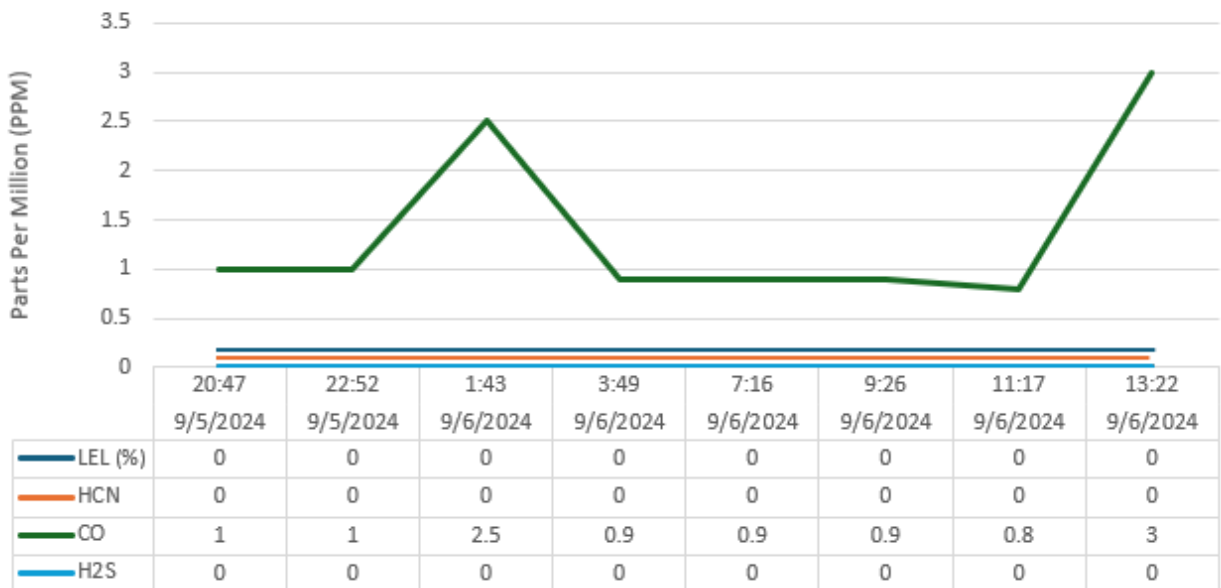


****Urban CO levels are typically higher than in rural areas due to vehicle emissions and industrial processes. Although average concentrations are low (0.5 to 5 ppm), they can increase near heavy traffic or industrial sites, especially during rush hours. The concentrations shown on the graphs remained significantly below harmful thresholds and do not pose any significant health risks ****

3. Air monitoring at SDG&E Breakroom

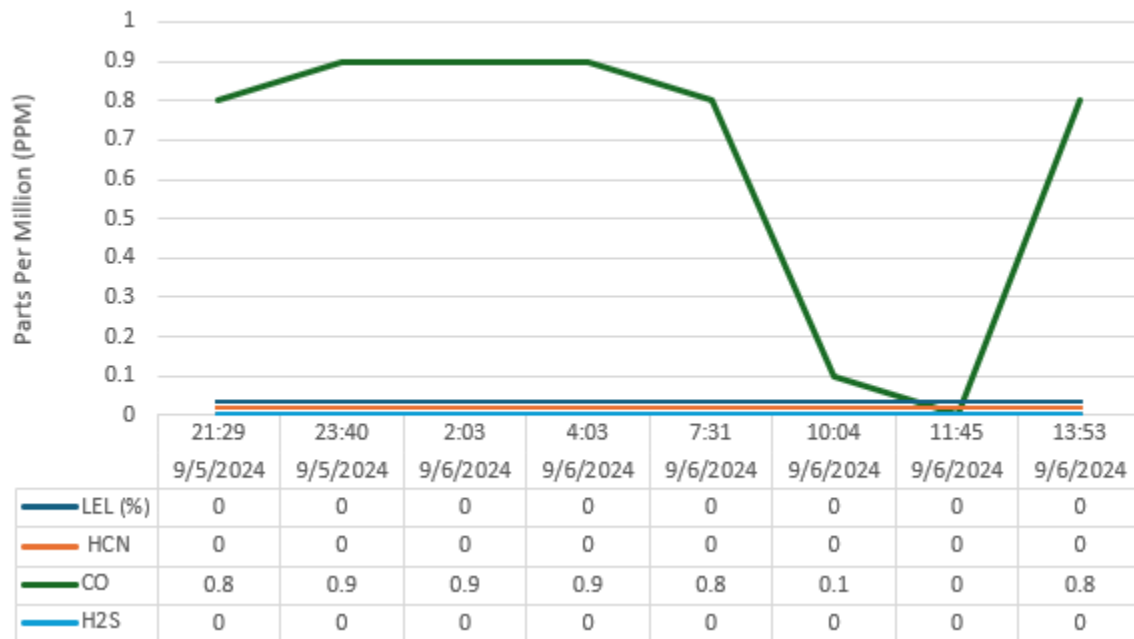


4. Air Monitoring at North SDG&E substation

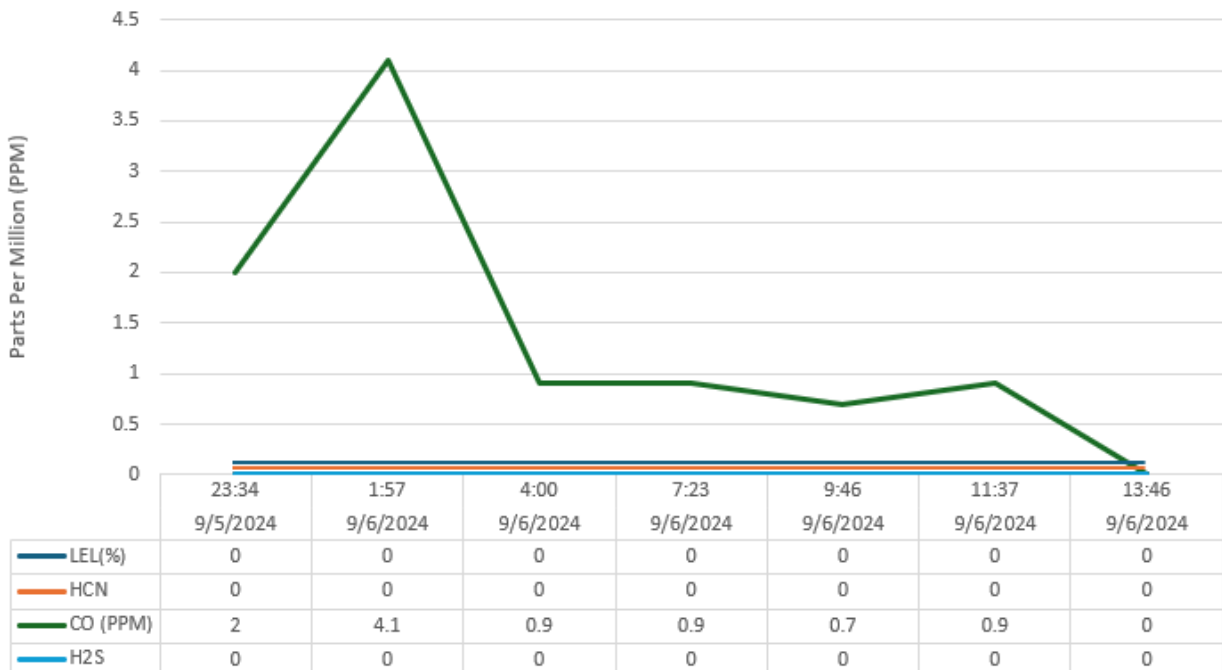


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5. Air monitoring at 1564 Mission Rd

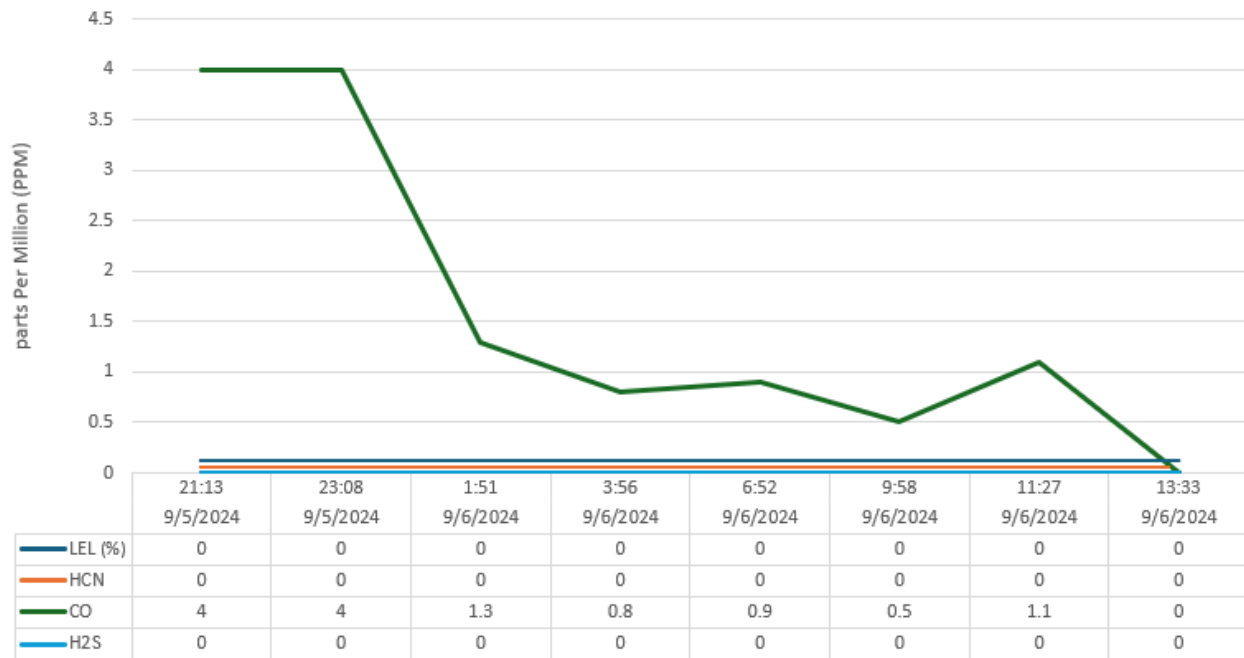


6. Air monitoring at 1856 Commercial St

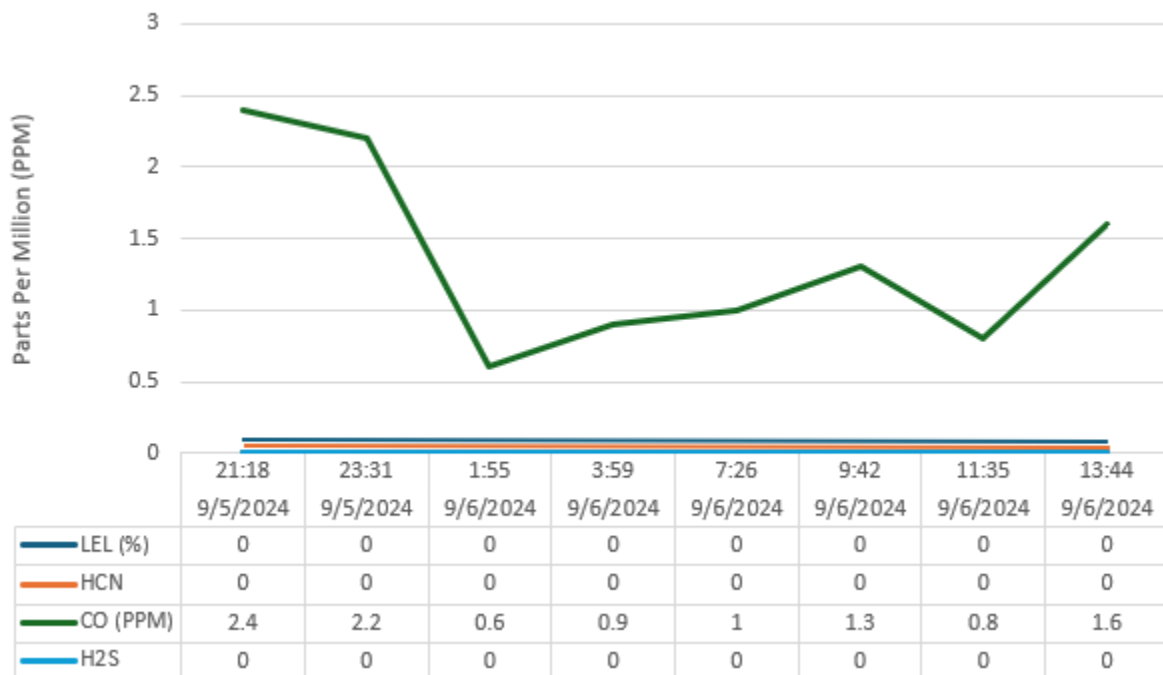


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7. Air monitoring at 440 Venture Rd

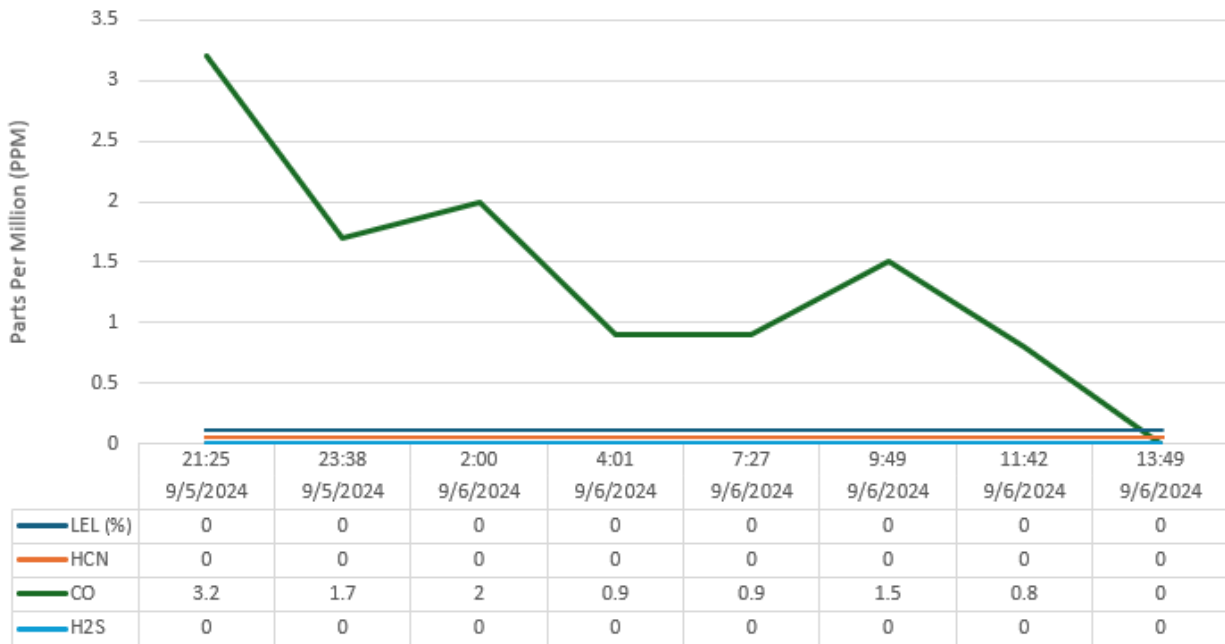


8. Air monitoring at 446 Enterprise

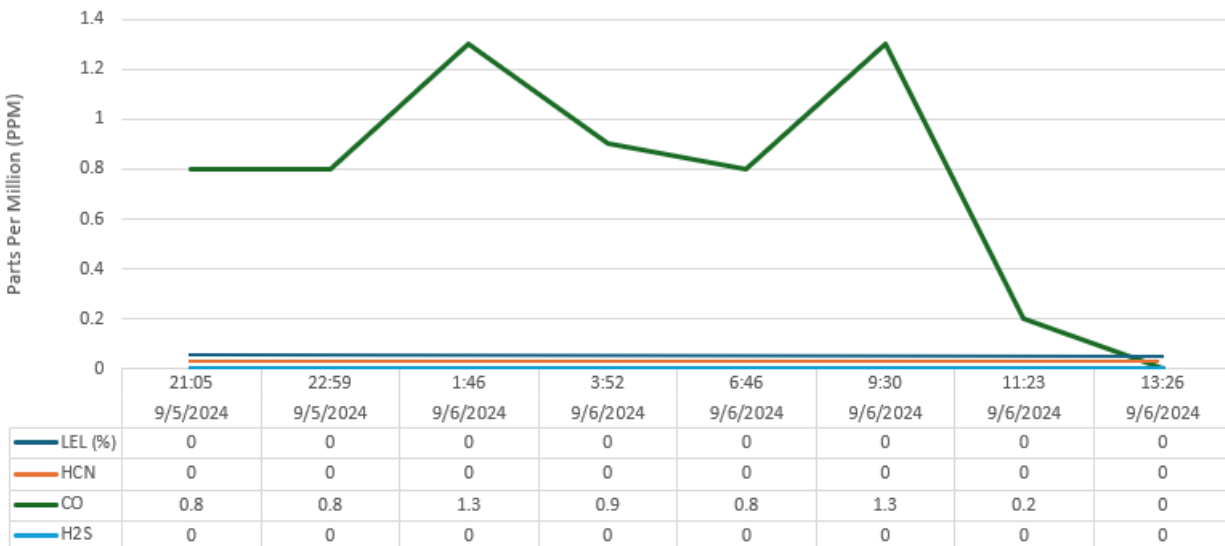


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9. Air monitoring at 555 Enterprise St

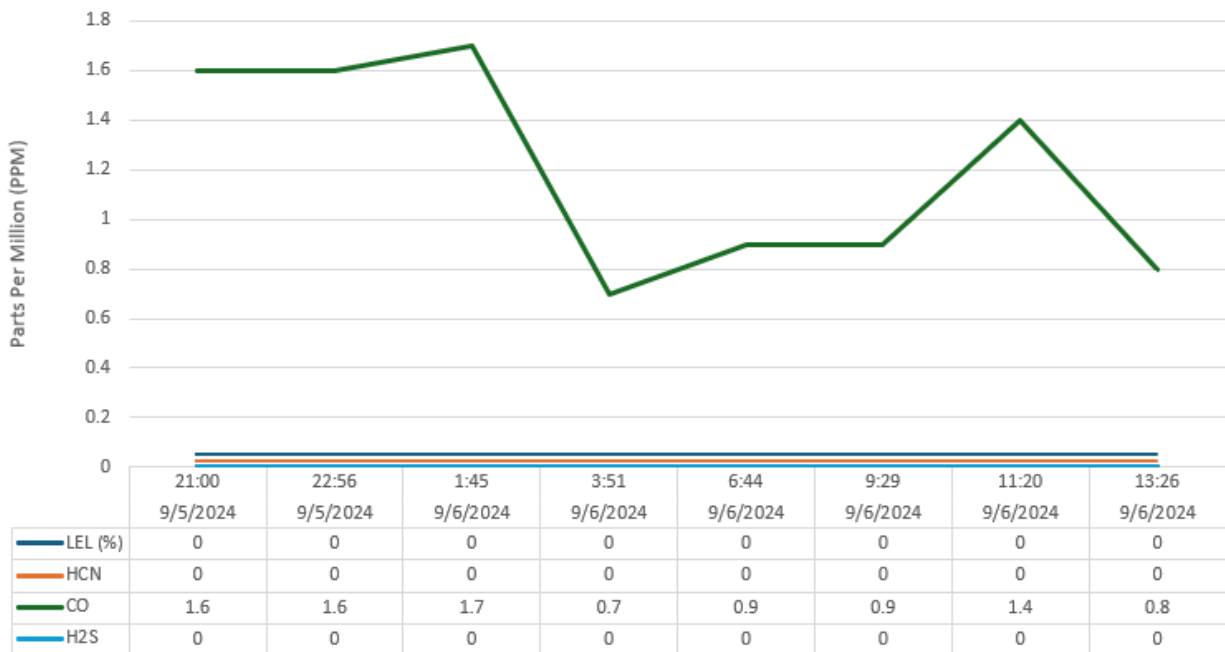


10. Air monitoring at 630 Alpine Wy

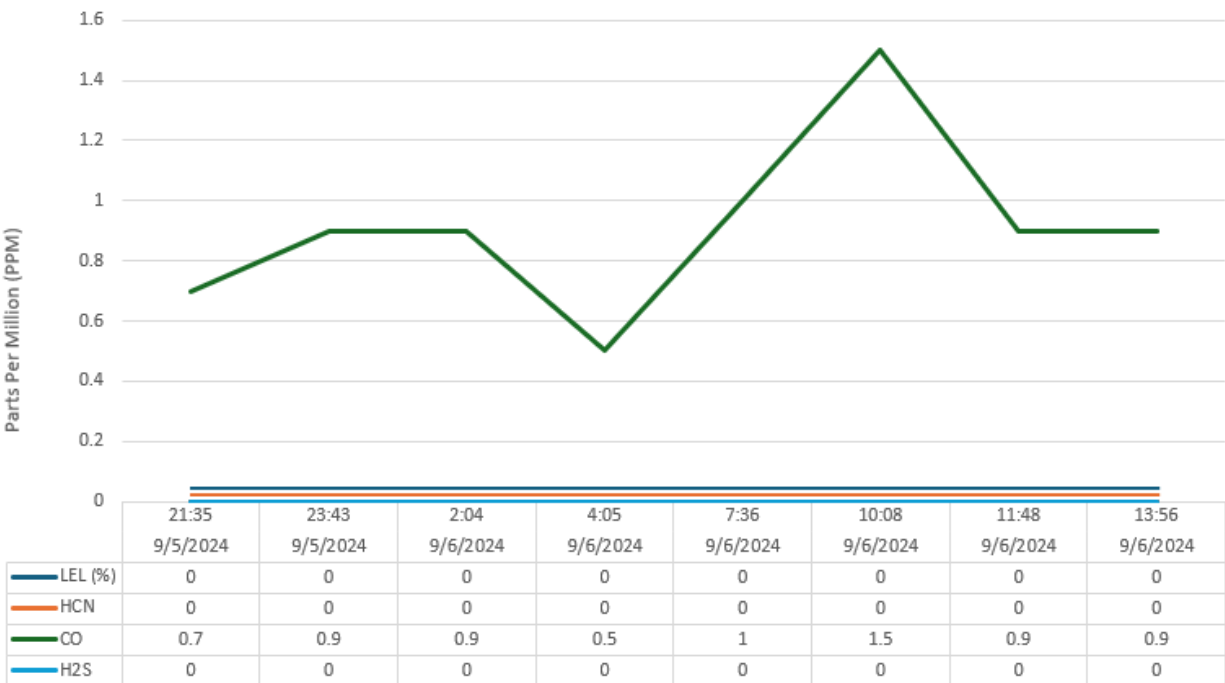


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11. Air monitoring at Alpine Wy and Don Lee

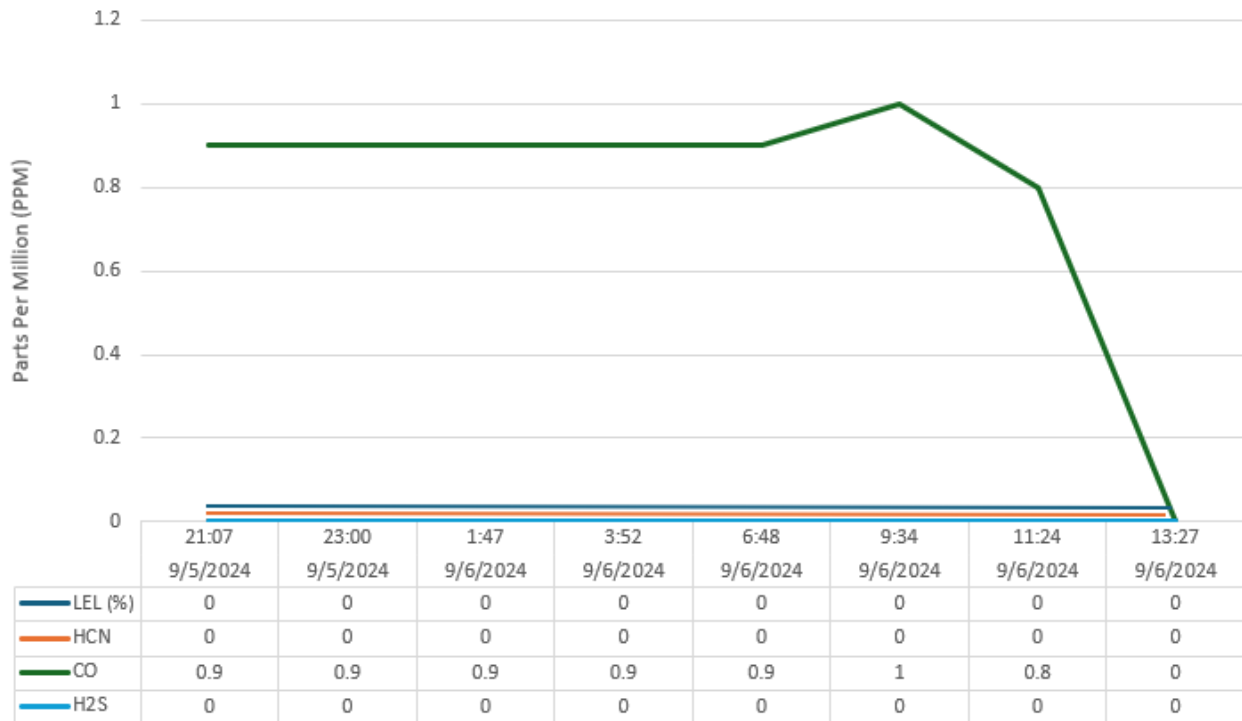


12. Air monitoring at Auto Park Way and Mission Rd

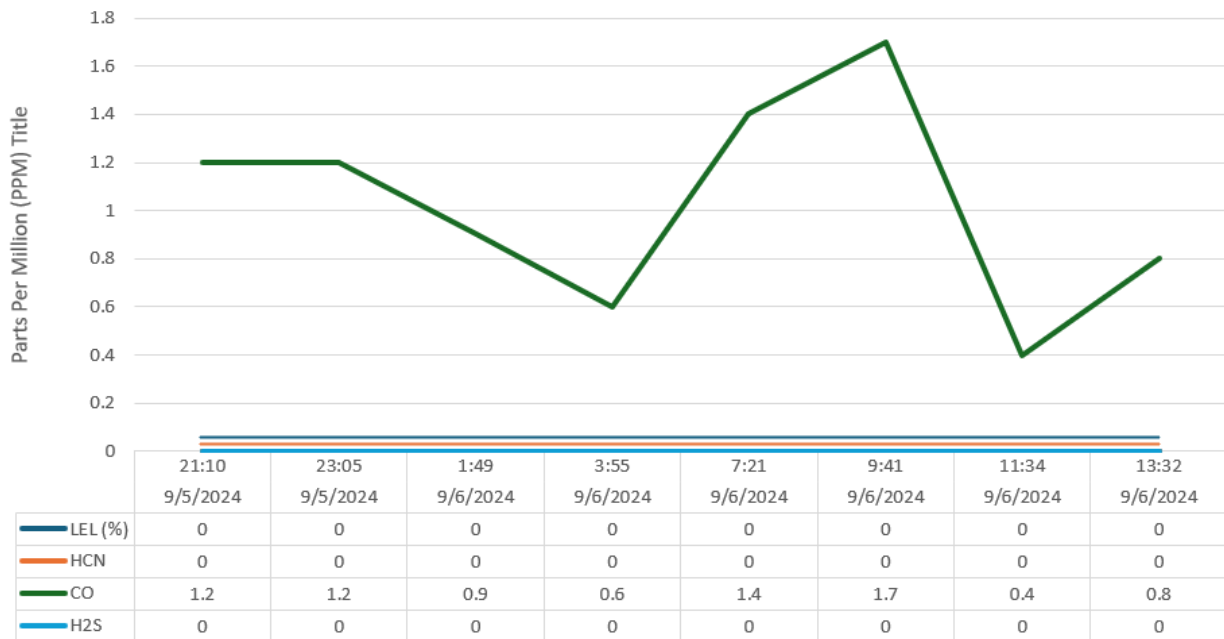


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13. Air monitoring at Auto Park and Alpine Wy

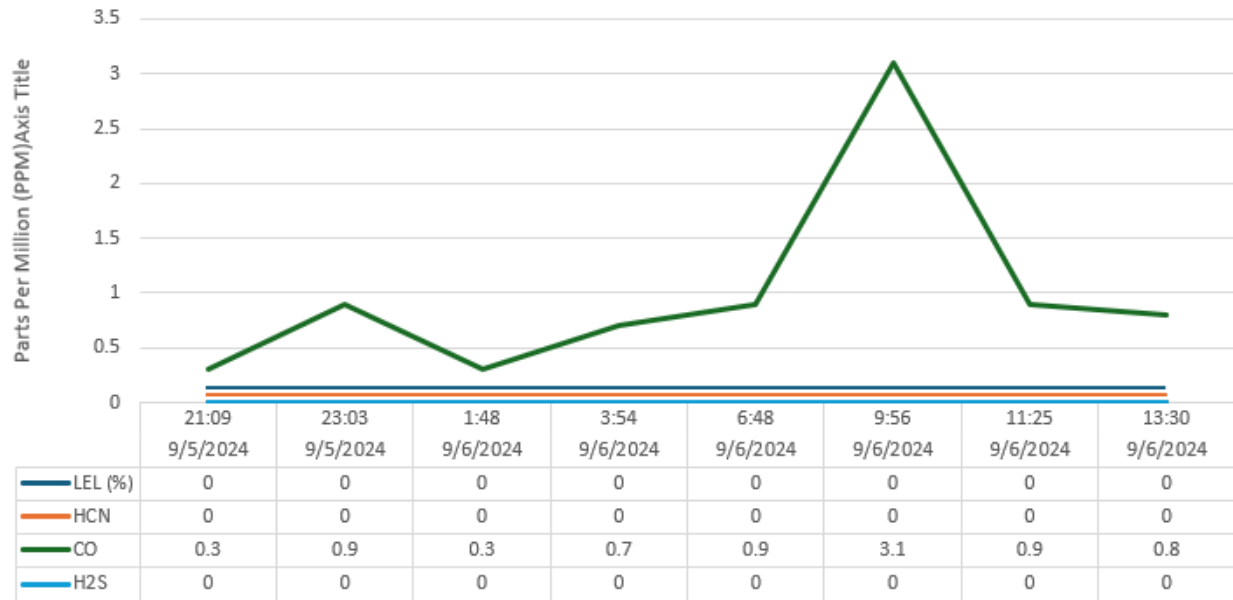


14. Air monitoring at Auto Park and Enterprise St

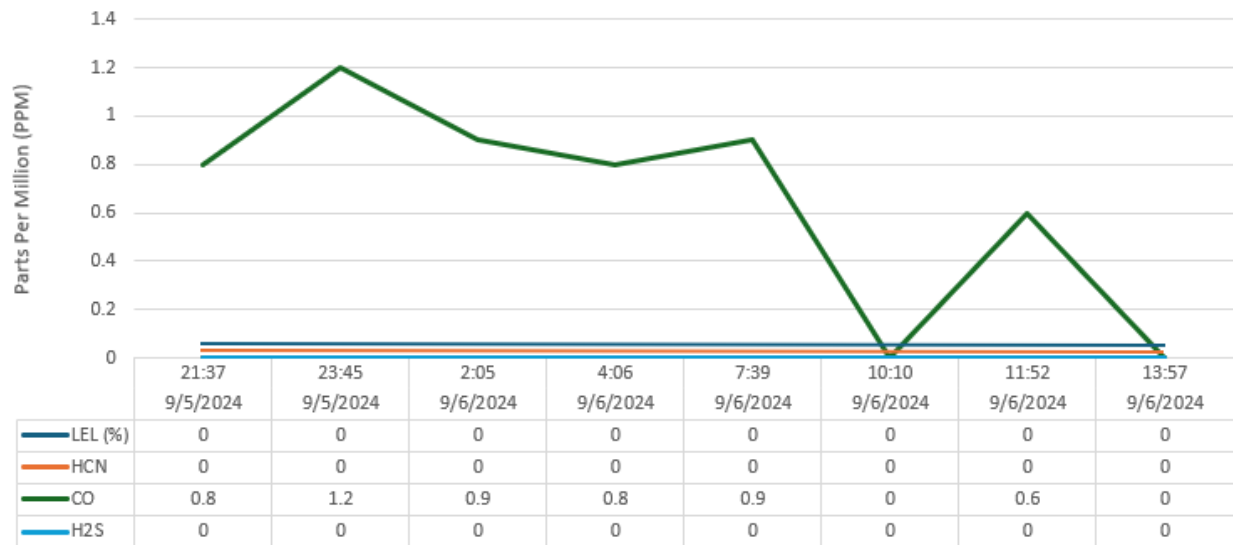


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15. Air monitoring at Auto Park and Citracado

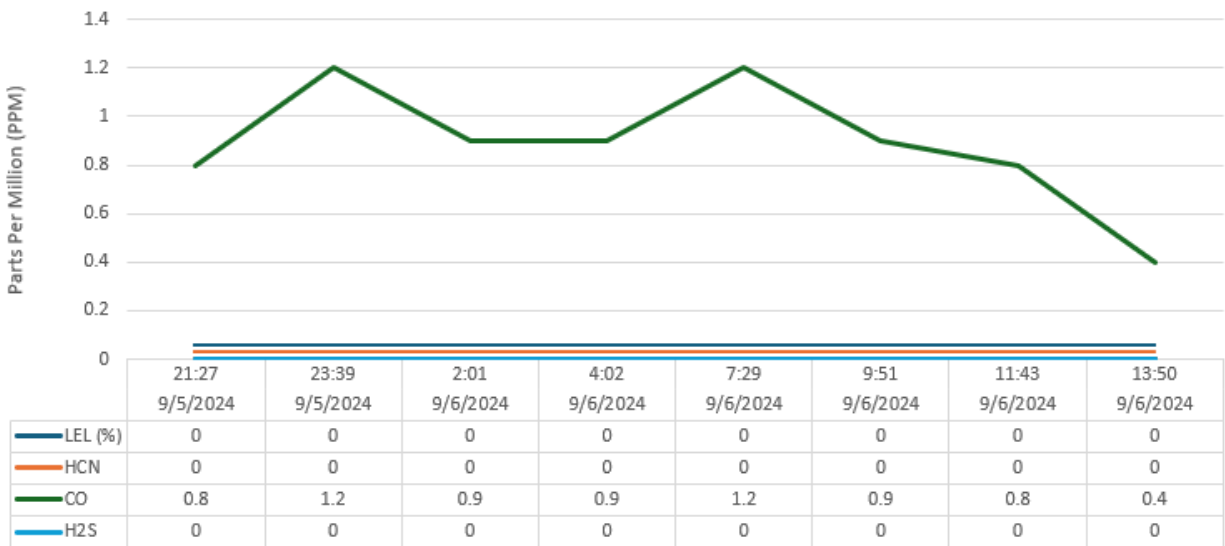


16. Air monitoring at Auto Park Way/Country Club Dr

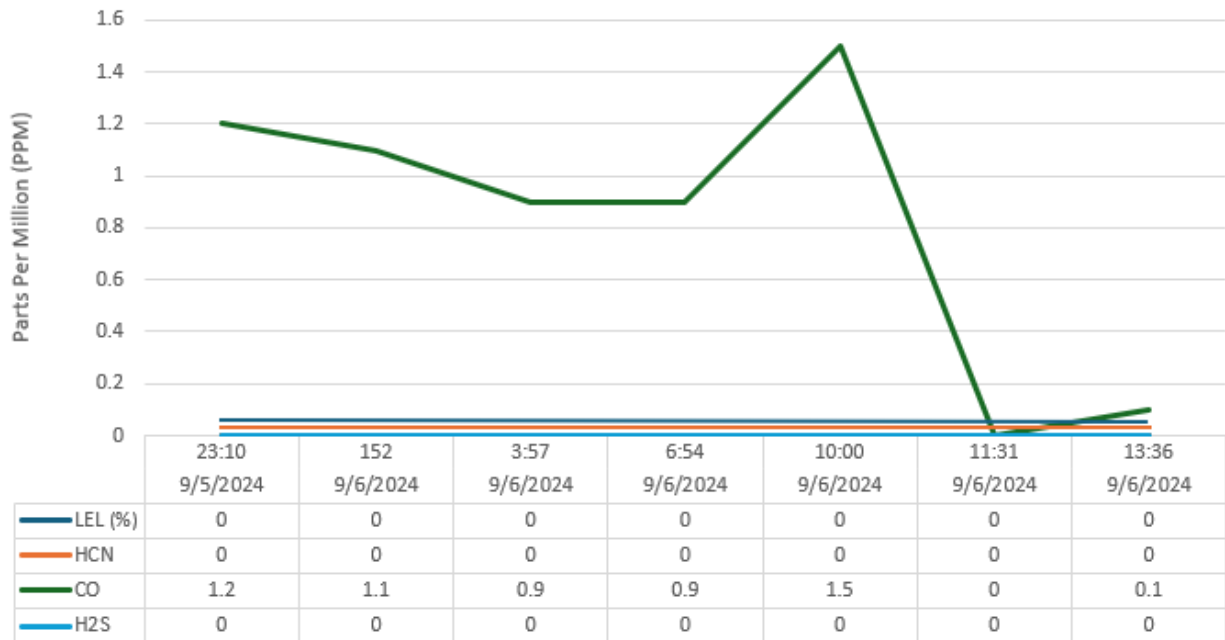


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17. Air monitoring at Enterprise and Mission



18. Air monitoring at Simpson and Venture



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Findings:

On September 5 at 12:09, units from the Escondido Fire Department responded to a fire at the SDG&E battery storage facility at 571 Enterprise Street. Upon arrival, crews found an active fire in a Lithium-Ion battery bank. Due to the specific hazards of such fires, a defensive strategy was employed, focusing on protecting adjacent structures containing additional batteries by applying water to those adjacent structures. Evacuations of the surrounding area began at approximately 13:00 on September 5 and remained in effect until September 7. San Diego County Hazmat arrived to conduct air monitoring from 14:30 to 18:30 at which time only normal products combustion of a structure fire were detected and at levels considered by NIOSH and OSHA to be well below exposure thresholds. Haley & Aldrich Inc., SDG&E's third-party contractor, began air quality monitoring later that evening and concluded on September 7. The fire was fully extinguished at 01:10 on September 6, with precautionary air monitoring continuing for an additional 12 hours into the afternoon of September 7. At no time during the incident did the levels of Oxygen deviate from 20.9 percent which is considered normal atmospheric level. Any decrease in the percentage of Oxygen would indicate that there was some unknown gas in the atmosphere that was not able to be detected by monitoring equipment. Fortunately, no such deviation was detected. The use of Fluoride reactive test strips was negative at all locations. Additionally, Hydrofluoric acid was not detected at any of the sampling locations.

Information Requests:

San Diego County HAZMAT/ San Diego City Fire Department HAZMAT
(619) 595-4633

San Diego Gas & Electric/ Haley & Aldrich INC
(877) 866-20266



IDAHO POWER
AIR MONITORING AND SAMPLING
SUMMARY

Melba, Idaho Fire Incident
October 2 – October 6, 2023
Project #031332

1.0 INTRODUCTION

Idaho Power requested that CTEH®, LLC (CTEH) provide air monitoring and sampling support in response to a lithium iron phosphate battery fire occurring at an electrical substation near Melba, Idaho. The fire started at approximately 05:00 Mountain Daylight Time (MDT) on October 2, 2023 and appeared to be fully extinguished on October 5, 2023. Prior to CTEH's arrival on site, Industrial Hygiene Services conducted air sampling on site around the impacted substation. CTEH personnel mobilized to the incident site and began real-time air monitoring in the surrounding community at approximately 19:17 MDT on October 3, 2023. This report summarizes analytical air sampling data collected by Industrial Hygiene Services on October 2, 2023, real-time air monitoring data collected by CTEH from 19:17 on October 3 to 04:24 on October 6, 2023, and analytical air sampling data collected by CTEH from October 3, 2023 through October 5, 2023.

Summary of Conclusions

- There were no detections observed during real-time air monitoring that exceeded health-based action levels for chemicals potentially associated with the fire.
- There were no constituent detections observed during analytical air sampling by either monitoring group that would represent a public health concern.

2.0 AIR MONITORING AND SAMPLING METHODS

CTEH personnel developed and implemented an air Sampling and Analysis Plan (SAP) (**Attachment A**). Real-time air monitoring was conducted in accordance with the Community Monitoring plan outlined in the SAP. Community Monitoring was conducted at breathing zone level in publicly accessible residential areas near the substation.

During this reporting period, CTEH personnel conducted handheld real-time air monitoring for atmospheric flammability measured as a percentage of the lower explosive limit (%LEL), carbon monoxide (CO), carbon dioxide (CO₂), hydrogen fluoride (HF), hydrogen chloride (HCl), acid gases, particulate matter with a mean diameter of 2.5 micrometers (PM_{2.5}), and volatile organic compounds (VOCs). Handheld air monitoring was conducted using RAE Systems by Honeywell MultiRAE Pro instruments, TSI SidePak AM520 instruments, ChemLogic CLPx Portable Gas Detectors, and Gastec piston pumps with chemical-specific colorimetric detector tubes. All instrumentation was calibrated once per day or per manufacturer recommendation.

CTEH personnel also deployed stationary radio-telemetry real-time air monitoring instruments (RAE Systems by Honeywell AreaRAE instruments) at multiple locations surrounding the substation. AreaRAE

instruments were used to monitor VOCs, HF, HCl, CO, %LEL, and oxygen (O₂) every 15 seconds. VOC instrumentation drift was confirmed with a secondary instrument on multiple occasions, indicating that at least some detections of VOCs were due to instrument error and not the presence of VOCs in the air. Drift events were documented at station AS03 on October 3 at 23:50, October 4 at 1:19, and October 5 at 7:19.

CTEH was provided laboratory reports from analytical air sampling performed by Industrial Hygiene Services and a map of sampling locations utilized. CTEH was not present at the time of work performed by Industrial Hygiene Services. Industrial Hygiene Services conducted sampling for total dust, total metals particulates, metals particulates with an average particulate size of 4µm, and total volatile organic compounds (TVOCs). Sampling for these constituents was conducted during the afternoon of October 2, 2023 at four locations in a general downwind direction from the substation. Samples for total dust and metals particulates were analyzed by the Wisconsin Occupational Health Laboratory using NIOSH Method 0500 NIOSH Method 7303, respectively. Samples for TVOCs were analyzed by Enthalpy Analytical by a laboratory in-house IAQ Commercial Survey method. Within the laboratory reports for TVOC analysis, Enthalpy Analytical provides a list of “Significant VOCs” contributing to the TVOC analysis. This “Significant VOCs” list for each sample was used as the list of individual VOC detections discussed in this report.

CTEH personnel deployed analytical air sampling at five discrete locations around the substation which were co-located with stationary radio-telemetry real-time air monitoring instruments. Analytical air sampling was conducted for VOCs, metals particulates¹, and polycyclic aromatic hydrocarbons (PAHs). Air samples for VOCs were collected with 1.4-liter evacuated Minican canisters equipped with 24-hour flow controllers. Samples for metals particulates and PAHs were collected using analytical sampling pumps with mixed cellulose ester membrane filters or 37mm PTFE membrane filters, respectively. The sampling strategy for metals particulates and PAHs involved deploying samples for approximately 12 hours, with new sample deployment at the time of previous sample pick-up to provide continuous analytical sampling coverage. Samples for VOCs were analyzed by Pace Analytical, an American Industrial Hygiene Association (AIHA)-accredited laboratory, by United States Environmental Protection Agency (USEPA) Method TO-15 with Tentatively Identified Compounds (TICs). Samples for metals particulates and PAHs were analyzed by SGS Galson by NIOSH Method 7303 and NIOSH Method 5506, respectively.

To assess analytical sampling results, two types of reference values were utilized. The first type of reference values are health-based screening values (HBSVs). HBSVs are highly conservative reference concentrations, below which health effects are highly unlikely to be observed even in sensitive subpopulations. HBSVs were selected from two primary sources. Priority was given to the acute Minimal Risk Levels (MRLs) derived by the Agency for Toxic Substances and Disease Registry (ATSDR). If ATSDR

¹ Ni, Co, Li, Cu, P, Pb, Fe, Al, Fe Oxide

MRLs were not available for a constituent, HBSVs were selected from the short-term Air Monitoring Comparison Values (AMCVs) derived by the Texas Commission on Environmental Quality (TCEQ).

If a constituent detection was observed above the concentration of a HBSV or an HBSV was not available from ATSDR or TCEQ, the second reference value type was selected. These reference values are emergency guideline values (EGVs). EGVs are created for emergency scenarios and are tiered based upon the potential health effects associated with exposure. For the current report, the EGVs referenced are the most conservative and represent concentrations at which odors or irritation may be noticeable, but effects are expected to be transient and reversible upon cessation of exposure. Priority was given to the Acute Exposure Guideline Level-1 values (AEGL-1) derived by the United States Environmental Protection Agency (USEPA). If USEPA AEGL-1 values were not available, the Protective Action Criteria-1 value (PAC-1) from the PAC database maintained by the Office of Environment, Health, Safety, and Security was utilized. The PAC database provides EGVs from multiple sources, including the USEPA AEGL values, the Temporary Emergency Exposure Limits (TEELs) derived by the Department of Energy (DOE), and the Emergency Response Planning Guidelines (ERPGs) derived by the American Industrial Hygiene Association (AIHA).

3.0 AIR MONITORING RESULTS

A summary of handheld real-time readings by location is provided in **Table 1**. Maps of the incident location and handheld air monitoring locations are provided in **Attachment B**. A summary of stationary radio-telemetering real-time air monitoring data is provided in **Table 2**. A map of locations and graphical representations of radio-telemetering real-time air monitoring data are provided in **Attachment C**.

Table 1: Handheld Real-Time Community Monitoring Results

Analyte	Instrument	Count of Readings	Count of Detects	Concentration Range*	Action Level Exceedance?	Represents Health Concern?
Acid Gases (ppm)	Gastec #80	141	0	< 0.5 ppm	No	No
CO (ppm)	MultiRAE	120	0	< 1 ppm	No	No
CO ₂ (ppm)	MultiRAE	61	61	300 - 600 ppm	No	No
HCl (ppm)	CLPx	11	0	< 0.1 ppm	No	No
HF (ppm)	CLPx	8	0	< 0.2 ppm	No	No
%LEL (%)	MultiRAE	105	0	< 1 %	No	No
PM _{2.5} (mg/m ³)	AM520	101	101	0.002 - 0.126 mg/m ³	No	No
VOCs (ppm)	MultiRAE	165	0	< 0.1 ppm	No	No

* If no detectable concentration was observed, the instrument detection limit preceded by a "<" is listed.

ppm = parts per million; mg/m³ = milligrams per cubic meter

During Community Monitoring, no detections of VOCs, %LEL, HF, HCL, CO, or acid gases were observed. No concentrations of PM_{2.5} exceeding the health-based action level of 0.138 mg/m³ were observed. All detections of CO₂ were within normal atmospheric levels.

Table 2. Radio-Telemetered Real-Time Air Monitoring Results

Station ID	Location	Analyte	Count of Readings	Count of Detections	Range of Detections*	Action Level Exceedance?	Represents Health Concern?
AS01	North of fire	%LEL	7,308	0	< 1 %	No	No
		CO (ppm)	7,311	0	< 1 ppm	No	No
		HCL (ppm)	7,311	0	< 1 ppm	No	No
		HF	7,311	0	< 0.1 ppm	No	No
		O ₂ (%)	7,311	7,311	20.9 - 21.3 %	-	No
		VOCs (ppm)	7,311	0	< 0.1 ppm	No	No
AS02	East of fire	%LEL	7,609	0	< 1 %	No	No
		CO (ppm)	7,609	12	2 - 4 ppm	No	No
		HCL (ppm)	7,609	0	< 1 ppm	No	No
		HF	7,609	0	< 0.1 ppm	No	No
		O ₂ (%)	7,609	7,609	20.9 - 21.3 %	-	No
		VOCs (ppm)	7,609	3	0.1 - 0.2 ppm	No	No
AS03	South of fire	%LEL	7,611	0	< 1 %	No	No
		CO (ppm)	7,611	0	< 1 ppm	No	No
		HCL (ppm)	7,611	0	< 1 ppm	No	No
		O ₂ (%)	7,611	7,611	20.9 - 21.4 %	-	No
		VOCs (ppm)	7,611	1,167	0.1 - 0.3 ppm	No	No
AS04	West of fire	%LEL	6,500	0	< 1 %	No	No
		CO (ppm)	6,500	0	< 1 ppm	No	No
		HCL (ppm)	5,379	0	< 1 ppm	No	No
		O ₂ (%)	6,500	6,500	20.3 - 21.7 %	-	No
		VOCs (ppm)	6,500	1	0.1 ppm	No	No
AS05	Southeast of fire	%LEL	1,545	0	< 1 %	No	No
		HCL (ppm)	1,545	0	< 1 ppm	No	No
		O ₂ (%)	1,545	1,545	20.9 %	-	No
		VOCs (ppm)	1,545	0	< 0.1 ppm	No	No

*If no detection was observed, the instrument detection limit preceded by a "<" symbol is listed; ppm = parts per million

During this reporting period, there were twelve detections of CO. All twelve CO detections were detected at a single station, AS02, which was in a general downwind direction of the substation during the fire. No detections of CO exceeding the on-site action level of 25 ppm were observed. Detections of VOCs were observed at three locations: three detections at AS02, 1,167 detections at AS03, and one detection at AS04. No VOC detections above the on-site action level of 0.5 ppm were observed.

There were no detections of %LEL, HF, or HCl during this reporting period and all detections of O₂ were within normal atmospheric levels.

4.0 AIR SAMPLING RESULTS AND DISCUSSION

4.1 Air Sampling by Industrial Hygiene Resources

Prior to CTEH's arrival on site, Industrial Hygiene Resources conducted air sampling on the afternoon of October 2, 2023 in four general downwind locations from the substation. Industrial Hygiene Resources conducted air sampling for particulates and VOCs. A map of Industrial Hygiene Resources air sampling locations and analytical laboratory results are included in **Attachment D**. A summary of detections from analytical sampling results collected by Industrial Hygiene Resources are included in **Tables 3 and 4**. If the detected concentration of a constituent exceeded the HBSV concentration or no HBSV was available for a given constituent, EGV values were included for comparison.

Table 3: Summary of Industrial Hygiene Resources Analytical Sampling Detections – Particulates

Sampling Station ID	Location	Analyte	Sample Type	Detected Concentration (µg/m ³)	HBSV (µg/m ³)	Exceeded HBSV Concentration?	EGV (µg/m ³)	Exceeded EGV Concentration?
1	South side of Hill Rd downwind of substation	Total Dust	Particles < 4µm	400	-	-	-	-
			Total particles	410	-	-	-	-
		Copper ²	Particles < 4µm	4.5	10	No	-	-
			Total particles	4.7	10	No	-	-
		Zinc Oxide ²	Particles < 4µm	18	20	No	-	-
			Total particles	20	20	No	-	-
2	On southeast corner of substation property line	Total Dust	Particles < 4µm	1,400	-	-	-	-
			Total particles	1,400	-	-	-	-
		Antimony ^{1,3}	Particles < 4µm	6.3	1	Yes	1,500	No
			Total particles	6.5	1	Yes	1,500	No
		Copper ^{2,3}	Particles < 4µm	14	10	Yes	3,000	No
			Total particles	15	10	Yes	3,000	No
		Lithium ³	Particles < 4µm	0.86	NA	-	3,300	No
			Total particles	0.98	NA	-	3,300	No
		Zinc Oxide ^{2,3}	Particles < 4µm	71	20	Yes	10,000	No
			Total particles	73	20	Yes	10,000	No

NA – Not Available

¹Health-Based Screening Value – ATSDR Acute MRL

²Health-Based Screening Value – TCEQ Short-Term AMCV

³Emergency Guideline Value – DOE TEEL-1

Table 4: Summary of Industrial Hygiene Resources Analytical Sampling Detections – TVOCs

Sampling Station ID	Location	Analyte	Detected Concentration (ppb)	HBSV (ppb)	Exceeded HBSV Concentration?	EGV (ppb)	Exceeded EGV Concentration?
1	South side of Hill Rd downwind of substation	Benzene ¹	21	9	Yes	9,000	No
		Styrene ¹	6	5,000	No	-	-
		Toluene ¹	4	2,000	No	-	-
		Naphthalene ²	3	95	No	-	-
2	On southeast corner of substation property line	Benzene ¹	72	9	Yes	9,000	No
		Styrene ¹	20	5,000	No	-	-
		Toluene ¹	12	2,000	No	-	-
		Naphthalene ²	8	95	No	-	-
		Ethylbenzene ¹	5	5,000	No	-	-
		Acetonitrile	6	NA	-	13,000	No

NA – Not Available

¹Health-Based Screening Value – ATSDR Acute MRL

²Health-Based Screening Value – TCEQ Short-Term AMCV

³Emergency Guideline Value – USEPA 8hr AEGL-1

The four sampling stations deployed by Industrial Hygiene Resources were placed in general downwind directions from the impacted substation. The sampling station located closest to the impacted substation was sampling station 2. This sampling station was located within the substation fenceline on the southeast corner of the substation property. While this station provides useful information regarding constituents potentially within the fire smoke, this sampling location is not representative of potential exposures to community members. Detections of antimony, copper, zinc, and benzene were observed above HBSV concentrations at sampling station 2 but were below EGVs. Additionally, while HBSVs were not identified for lithium or acetonitrile, detections of both constituents were below their respective EGVs.

There were six constituent detections at sampling station 1, which was placed on the south side of Hill Road downwind of the impacted substation. These detections were of copper, zinc oxide, benzene, styrene, toluene, and naphthalene. Detections of all constituents but one, benzene, were below their respective HBSVs. The detection of benzene at sampling station 1 was over 400 times lower than the EGV of 9,000 ppb.

Sampling station 3 was located between the impacted substation and the closest home to the east. Sampling station 4 was in a downwind location on the southeast corner of the agricultural field across Hill Road from the impacted substation. No detections of any constituent measured by Industrial Hygiene Resources were observed at sampling stations 3 or 4.

Based on these results, data collected by Industrial Hygiene Services on October 2, 2023 indicate that the constituents measured did not represent a public health concern for nearby community members during the fire.

4.2 CTEH

Following arrival on site, CTEH initially conducted air sampling on the evening of October 3, 2023 in four locations (AS01 – AS04) in the cardinal directions around the substation for VOCs, metals particulates, and PAHs. On the evening of October 4, 2023, a fifth sampling location was added on the southeast corner of the agricultural field across Hill Road from the impacted substation (AS05). Summaries of detections from CTEH analytical sampling for metals particulates and PAHs are included in **Tables 5 and 6**, respectively. A summary of detections from CTEH analytical sampling for VOCs is included in **Attachment E**. If the detected concentration of a constituent exceeded the HBSV concentration or no HBSV was available for a given constituent, EGV values were included for comparison. Sample deployment dates for detections of VOCs are indicated within the table in **Attachment E**. A map of CTEH air sampling locations and analytical laboratory results are included in **Attachment F**.

Table 5: Summary of CTEH Analytical Sampling Detections – Particulates

Sampling Station ID	Location	Analyte	Detected Concentration (µg/m ³)	HBSV (µg/m ³)	Exceeded HBSV Concentration?	EGV (µg/m ³)	Exceeded EGV Concentration?
AS02	East of substation	Copper ¹	1.1	10	No	-	-
		Lithium ²	0.077	NA	-	3,300	No
		Phosphorus Particulate ³	8.6	20	No	-	-

NA – Not Available

¹ Health-Based Screening Value – TCEQ Short-Term AMCV

²Emergency Guideline Value – USEPA 8hr AEGL-1

³ Health-Based Screening Value – ATSDR Acute MRL

Table 6: Summary of CTEH Analytical Sampling Detections – PAHs

Sampling Station ID	Location	Analyte	Detected Concentration (ppb)	HBSV (ppb)	Exceeded HBSV Concentration?	EGV (µg/m ³)	Exceeded EGV Concentration?
AS01	North of substation	Naphthalene ¹	0.076	95	No	-	-
AS02	East of substation	Napthalene ¹	0.31	95	No	-	-

NA – Not Available

¹ Health-Based Screening Value – TCEQ Short-Term AMCV

Detections of metals particulates and PAHs were only observed in the first samples deployed by CTEH on the evening of October 3, 2023, which represent the data included in **Tables 5 and 6**. No detections were observed in any other metals particulates or PAH samples collected by CTEH. Additionally, there were no detections of metals particulates observed at sampling stations AS01 and AS03 or detections of PAHs at AS03 on the evening of October 3, 2023².

² During this sampling period, a sample was deployed at AS04. However, an analyzable sample was not collected due to a pump failure in the analytical sampling equipment.

There were three metals particulates detections at sampling station AS02, located on the north side of Hill Road in front of the closest residence east of the substation. These detections were of copper, lithium, and phosphorus (**Table 5**). Detections of copper and phosphorus were below their respective HBSVs. While an HBSV was not available for lithium, the detected concentration of lithium was well below its respective EGV. There was a single PAH detected at sampling stations AS01 and AS02 on the evening of October 3, 2023, which was naphthalene (**Table 6**). Both detections were below the HBSV for naphthalene. Overall, these results indicate that concentrations of metals particulates and PAHs around the impacted substation did not present a public health concern.

A summary table of VOC detections observed during air sampling by CTEH is included in **Attachment E**. There were no VOC detections above their respective HBSV or EGV values in any of the samples collected by CTEH, indicating that concentrations of VOCs around the impacted substation did not present a public health concern.

5.0 CONCLUSIONS

Results of both real-time air monitoring and analytical air sampling conducted between October 2 and October 6, 2023 from both monitoring groups indicate that all chemical constituents measured around the impacted substation were not at levels that would represent a public health concern.

6.0 METEOROLOGICAL CONDITIONS

Attachment G contains a wind rose depicting wind speed and direction from the evening of October 3 to the afternoon of October 5, 2023. Wind data is obtained from publicly available information collected at the Nampa Municipal Weather Station located in Nampa, Idaho.

Attachment A

CTEH Sampling and Analysis Plan (SAP)



Lithium Iron Phosphate Battery Fire

Air Sampling and Analysis Plan (SAP)

Version 1.2


Prepared on Behalf of:

Idaho Power

Prepared By:

CTEH, LLC
5120 Northshore Drive
Little Rock, AR 72118
501-801-8500

October 6, 2023

	Name/Organization	Signature	Date Signed
Prepared by:	Scott Malm, PhD, CIH		10/5/2023
Reviewed by:			
Approved by:			
Approved by:			
Approved by:			

Air Monitoring and Sampling Strategy

CTEH®, LLC is focusing on the mixtures, chemicals, and indicators of flammability chosen below because they are among the most important and readily monitored hazards of burning lithium iron phosphate batteries. Monitoring and sampling for some chemicals or indicators of the presence of lithium iron phosphate battery components may be conducted less frequently or even discontinued as product-specific information becomes available or as initial monitoring and sampling results indicate that these chemicals and indicators do not pose a health concern.

The strategy is to utilize two broadly-defined monitoring plans: **1) Community Monitoring**; and **2) Site Assessment**. Community Monitoring may take place in those residential and commercial locations immediately surrounding the incident site, not necessarily currently occupied by members of the community. Unlike Community Monitoring, Site Assessment does not necessarily represent ambient air monitoring near breathing zone level. Site Assessment may involve a variety of different monitoring tasks intended to provide information that may help to delineate the nature and extent of the release (e.g. fence line monitoring, worst case determination, container head space, ground level, etc.).

Free-roaming handheld real-time air monitoring may be conducted in a variety of areas based on levels of activity, proximity to the release, and site conditions. Fixed-location handheld real-time locations may be established in the community in order to provide concentration averages that may be observed and analyzed over time in distinct geographic locations in the community.

Radio-telemetry RAE Systems® AreaRAE/AreaRAE Plus units may be deployed in all monitoring plans to allow for continuous air monitoring in multiple areas. AreaRAE/AreaRAE Plus readings may be received and monitored in a centralized location by CTEH® personnel to allow for recognition, communication, and response to changing conditions.

Discrete air samples may be collected in all monitoring areas and sent to an off-site laboratory for chemical analysis. These analytical air sampling techniques may be used to provide air quality data beyond the scope of real-time instruments. When necessary, discrete air samples may be collected on individual workers (personal sampling) to provide exposure data over the course of a work shift for more direct comparison to occupational exposure values.

CTEH Site-Specific Action Levels

CTEH site-specific action levels may be employed in all air monitoring plans to provide information for corrective action to limit potential exposures. These values do not replace occupational or community exposure standards or guidelines but are intended to represent a concentration limit that triggers a course of action to better address worker and public safety. Action level exceedances will be communicated to Site Management and the CTEH Project Technical Director by the CTEH Project Manager (PM). Work practice may be assessed and then altered if necessary. Site-Specific Action Levels are not utilized for Site Assessment monitoring.

Plan 1: Community Monitoring

Objective: Report air levels before they reach those causing nuisance or health issues

Analyte	Action Level	Action to be Taken	Basis	Instrument	Detection Limit	Notes	Correction Factor
Total VOCs	0.5 ppm 5 minutes	Report reading to PM and PTD	Approximate background level - Reading sustained for 5 minutes	MultiRAE PID AreaRAE PID	0.1 ppm	Measuring range: 0 – 5,000	NA
Hydrogen Chloride	3 ppm	Egress, Report reading to PM and PTD	ERPG-1 value	CLPx	0.1 ppm	Measuring range: 0 – 15 ppm	NA
				AreaRAE Sensor	1 ppm	Measuring range: 0 – 30 ppm	NA
				Gastec #80	2 ppm	Measuring range: 4 – 320 ppm	Var.
Hydrogen Fluoride	1 ppm 5 minutes	Egress, Report reading to PM and PTD	Acute Exposure Guideline Level (AEG-1)	CLPx	0.2 ppm	Measuring range: 0 – 10 ppm	NA
				AreaRAE Sensor	0.5 ppm	Measuring range: 0 – 10 ppm	NA

Combustion Products*

Analyte	Action Level	Action to be Taken	Basis	Instrument	Detection Limit	Notes	Correction Factor
Particulate Matter (PM _{2.5} or PM ₁₀)†	138 µg/m ³ 5 min.	Report reading to PM	Wildfire Smoke Guidelines for 1 hr. avg. upper-bound breakpoint for unhealthy for sensitive groups AQI	SidePak AM520	0.001 mg/m ³	PM _{2.5} impactor – 50% cut-off at 2.5 micron PM ₁₀ impactor – 50% cut-off at 10 micron	NA
PM _{2.5} or PM ₁₀	79 µg/m ³ 8 hr.	Report reading to PM	See above - 8 hr. guideline	SidePak AM520	0.001 mg/m ³	See above	NA
Carbon monoxide	25 ppm 5 min.	Egress, Report reading to PM	Inform PM/PTD of potential off-site issues	MultiRAE Sensor AreaRAE Sensor	1 ppm	Range: 0 – 500 ppm	NA
Carbon Dioxide	5,000 ppm 5 min.	Egress, Report reading to PM	Inform PM/PTD of potential off-site issues	MultiRAE Sensor	250 ppm	Range: 250 – 25,000 ppm	NA
Nitrogen dioxide	Detection	Report reading to PM	Inform PM/PTD of potential off-site issues	Gastec #80	0.05 ppm	Range: 0.1 – 8 ppm	Var.
Sulfur dioxide	Detection	Report reading to PM	Inform PM/PTD of potential off-site issues	Gastec #80	0.375 ppm	Range: 0.75 – 60 ppm	Var.

*Monitoring for combustion products may be discontinued when the fire is extinguished.

†PM_{2.5} is especially prone to interference from high humidity, in cases of high humidity, PM₁₀ impactors may be used which are not as sensitive to humidity. In general, correction factors may be used to adjust PM readings for humidity.

Flammability*

Analyte	Action Level	Corrected Value	Action to be Taken	Basis	Instrument	Detection Limit	Notes	Correction Factor
LEL	1%	1.3%	Notify PM	1% LEL	MultiRAE Sensor AreaRAE Sensor	1%	Action Level Based on Largest Correction Factor	1.3
LEL	7%	10%	Exit area and Notify PM	10% LEL	MultiRAE Sensor AreaRAE Sensor	1%	Range: 1 ppb – 10,000 ppm	1.3

*%LEL sensor can measure for presence of methane, ethane, and hydrogen. Correction factors are 1.0, 1.3, and 1.0, respectively.

Plan 3: Site Assessment

Objective: Characterize nature and extent of release

Analyte	Action Level	Action to be Taken	Basis	Instrument	Detection Limit	Notes	Correction Factor
Total VOCs	NA.	Report reading to PM	NA	See above	See above	See above	NA
Hydrogen Fluoride	NA	Report reading to PM	NA	See above	See above	See above	NA
Hydrogen Chloride	NA	Report reading to PM	NA	See above	See above	See above	NA
Carbon monoxide	NA	Report reading to PM	NA	See above	See above	See above	NA
Carbon dioxide	NA	Report reading to PM	NA	See above	See above	See above	NA
Acid Gases	NA	Report reading to PM	NA	See above	See above	See above	NA
LEL	NA	Report reading to PM	NA	See above	See above	See above	NA

Analytical Methods

Analyte	Media/Can	Method	Notes
VOCs	MiniCans (1L)	EPA TO-15 with TICs	
PAHs (18 PNAH Profile - Galson)	37PTFE 2.0/Treated Amberlite XAD-2	Method 5506	
Metals (Ni, Co, Li, Cu, P, Pb, Fe, Al, Fe Oxide)	MCE filter (35-5,000L; 1-4 lpm)	Mod NIOSH 7303 (ICP/MS)	Will have to specify Li in the panel as it is not typically included in the 21 panel by Galson

Li: lithium; Co: cobalt; Ni: nickel; Cu: copper; P: Phosphorus; Pb: Lead; Fe: Iron; Al: Aluminum

General Information on Procedures (Assessment Techniques) Used

Procedure	Description
Guardian Network	A Guardian network may be established with AreaRAEs equipped with electrochemical sensors at locations around the work zone perimeter. The AreaRAEs will be telemetering instantaneous data at 15-second intervals to a computer console. MultiRAE Pros may also be used in the network. The data will be visible in real-time at the computer console and will be monitored 24 hours per day by CTEH personnel.
Real-Time Handheld Survey	CTEH staff members may utilize handheld instruments (e.g. MultiRAE Plus; ppbRAE, Gastec colorimetric detector tubes, etc.) to measure airborne chemical concentrations. CTEH will use these handheld instruments primarily to monitor the ambient air quality at breathing zone level. Additionally, measurements may be made at grade level, as well as in elevated workspaces, as indicated by chemical properties or site conditions. CTEH may also use these techniques to verify detections observed by the AreaRAE network.
Fixed Real-Time Monitoring locations	Multiple community locations may be identified and monitored at the same location approximately once per hour using handheld instruments. This allows the use of statistical analysis more effectively than with a random approach.
Analytical sampling	Analytical sampling may be used to validate the fixed and handheld real-time monitoring data, or to provide data beyond the scope of the real-time instruments. Analytical samples may be collected as whole air samples in evacuated canisters or on specific collection media and sent to an off-site laboratory for further chemical analysis.
Particulate Monitoring Network	A network of data-logging particulate monitors may be set up and positioned around the community.

Quality Assurance/Quality Control Procedures


Method	Procedure
Real-Time	Real-time instruments may be calibrated in excess of the manufacturer's recommendations. At a minimum whenever indicated by site conditions or instrument readings. Co-located sampling for analytical analysis may be conducted, if necessary, to assess accuracy and precision in the field. Lot numbers and expiration dates may be recorded with use of Gastec colorimetric tubes.
Analytical	Chain of custody documents may be completed for each sample. Level IV data validation may be performed on the first sample group analyzed. Level II data validation may be performed on 20% of all samples. Level IV data validation may be performed on 10% of all samples.
Reporting	Daily data summaries may be provided for informational purposes using data that have not undergone complete QA/QC. Comprehensive reports of real-time and/or analytical data may be generated following QA/QC and may be delivered 60 days following receipt of validated results, if applicable.

Glossary

Term	Definition
Sustained	Instrument reading above the action level continuously for the listed time period.
Excursion Limit	Whenever a reading exceeds an ACGIH TLV by 5 times (if the chemical does not have a STEL- or Ceiling-based action level), exit the area and notify the PM
Breathing zone	The area within an approximate 10-inch radius of an individual's nose and mouth.
Ambient Air	That portion of the atmosphere (indoor or outdoor) to which workers and the general public have access.


Change from version 1.0 to 1.1

In the section titled: Included Gastec 80 in analytes and monitoring equipment, corrected metals sampling analyte error by updating potassium to phosphorus, added lead as an analyte in metals sampling

Name/Organization		Signature	Date Signed
Prepared by:	Scott Malm, PhD, CIH		10/5/2023
Review by:			
Approved by:			
Approved by:			
Approved by:			
Approved by:			

Change from version 1.1 to 1.2

In the section titled: Corrected error in Community Monitoring action level for VOCs. Field team had been operating off a VOC action level of 0.5 ppm VOCs, however the SAP listed 30 ppm.

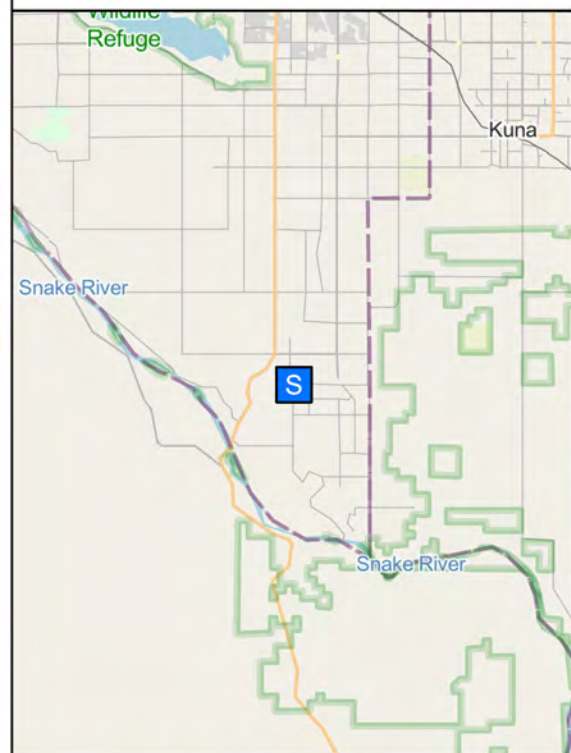
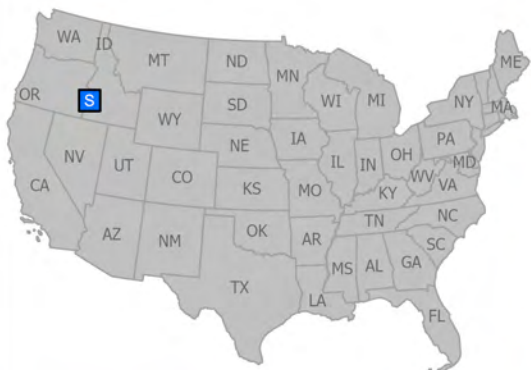
Name/Organization		Signature	Date Signed
Prepared by:	Scott Malm, PhD, CIH		10/6/2023
Review by:			
Approved by:			
Approved by:			
Approved by:			
Approved by:			

Attachment B

CTEH Handheld Real-time Air Monitoring Locations

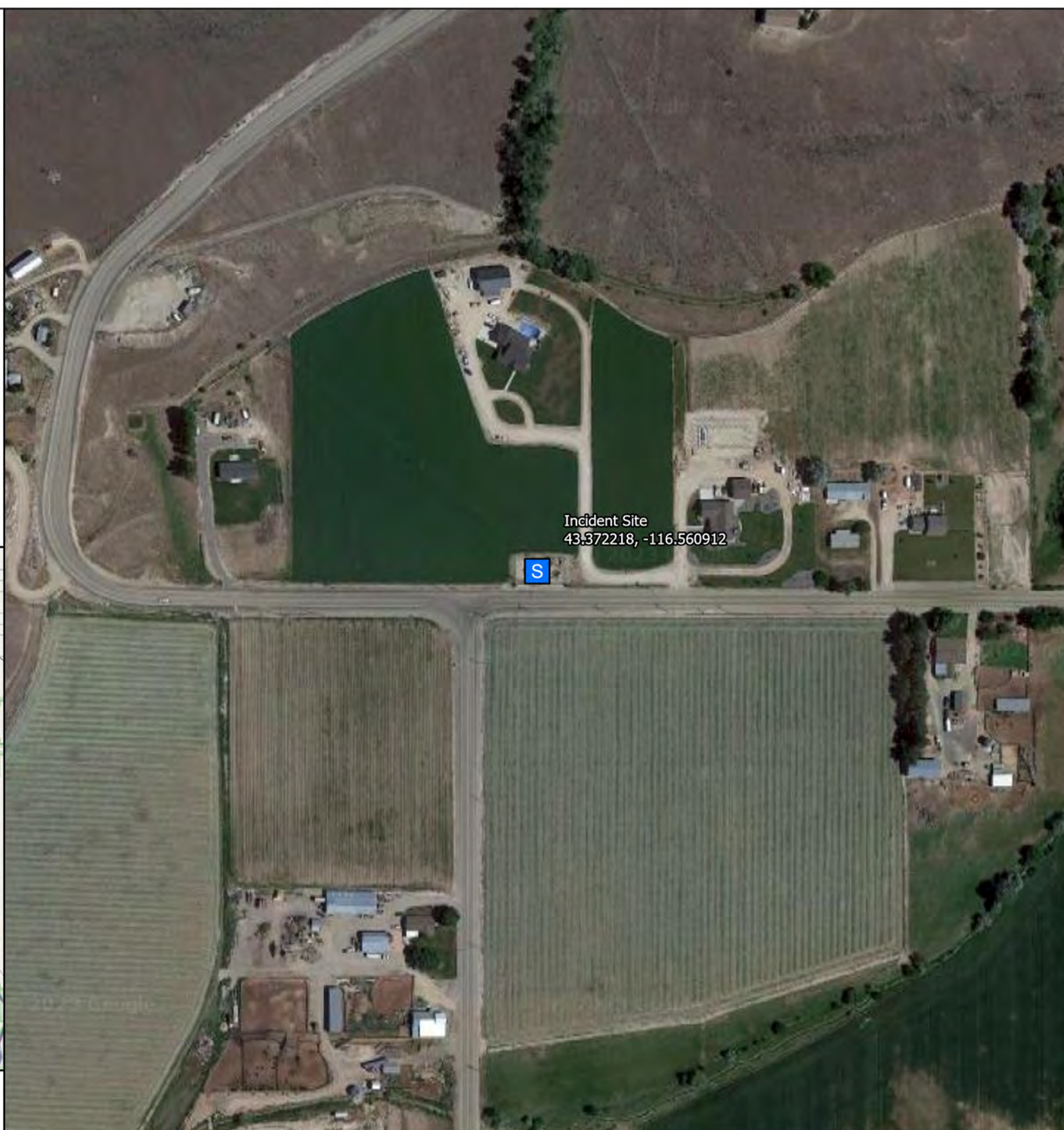
CTEH[®]

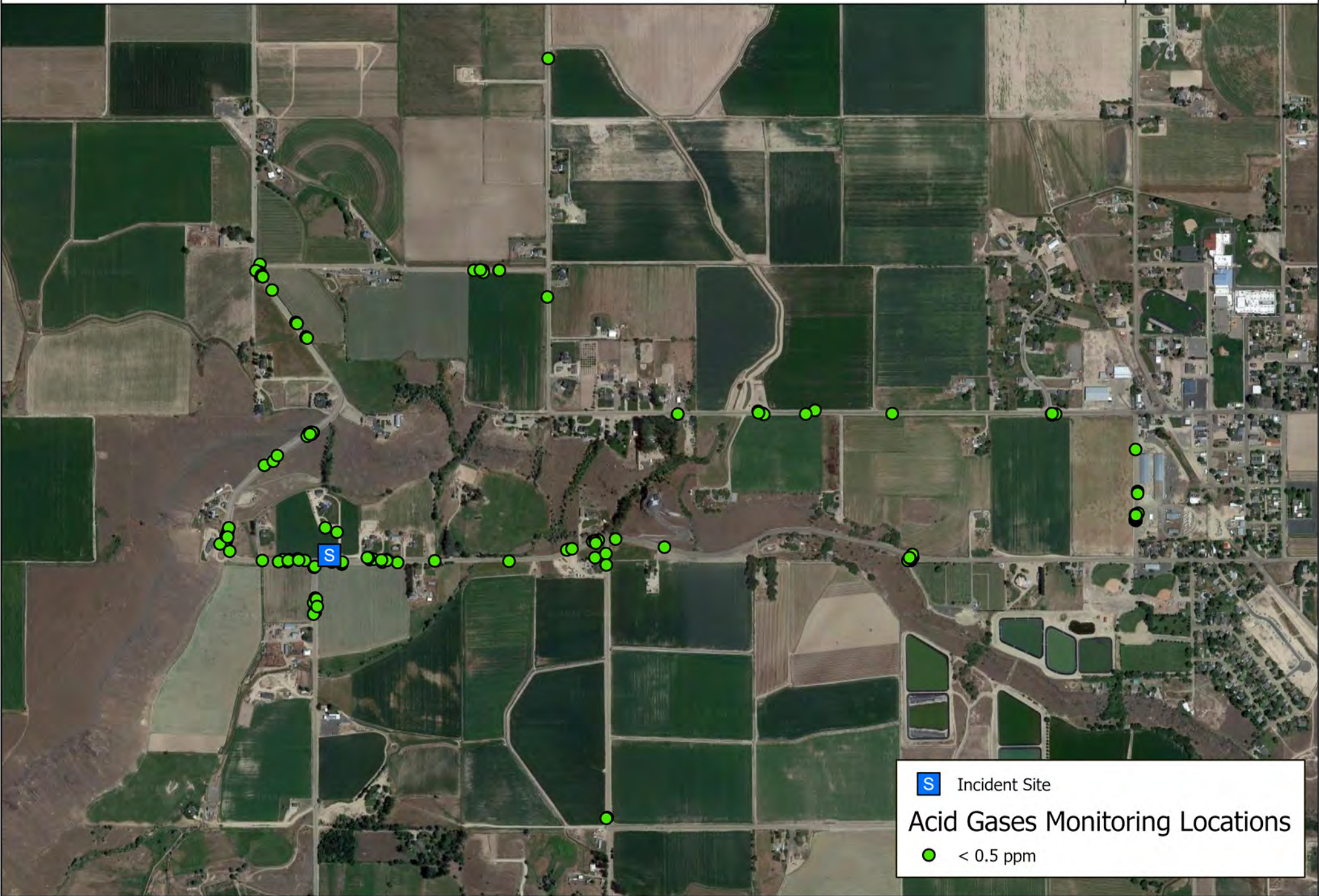
Site Location



Updated At: 10/16/2023 4:04 PM

Projection: WGS 1984 Web Mercator Auxiliary Sphere

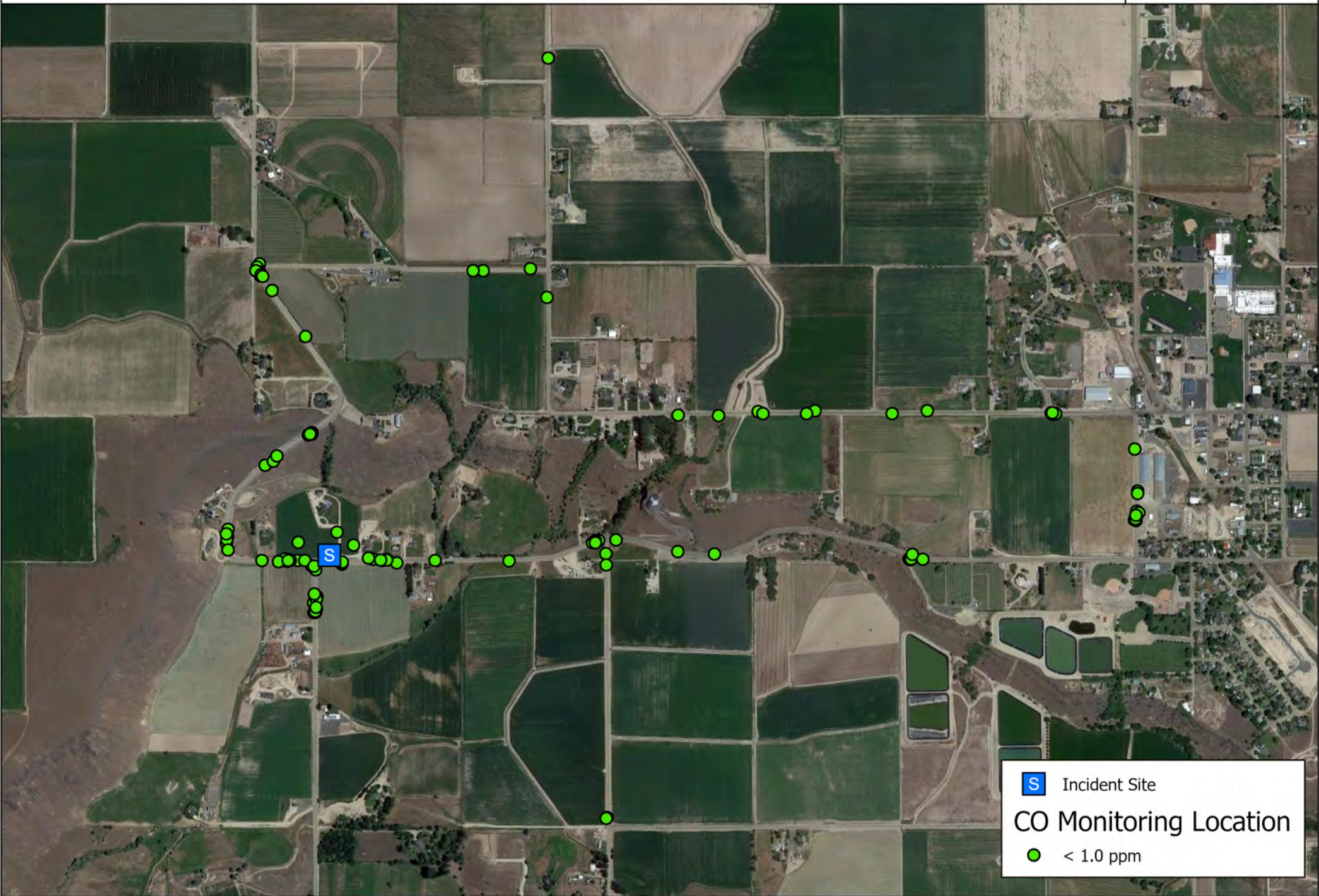





S Incident Site


Acid Gases Monitoring Locations

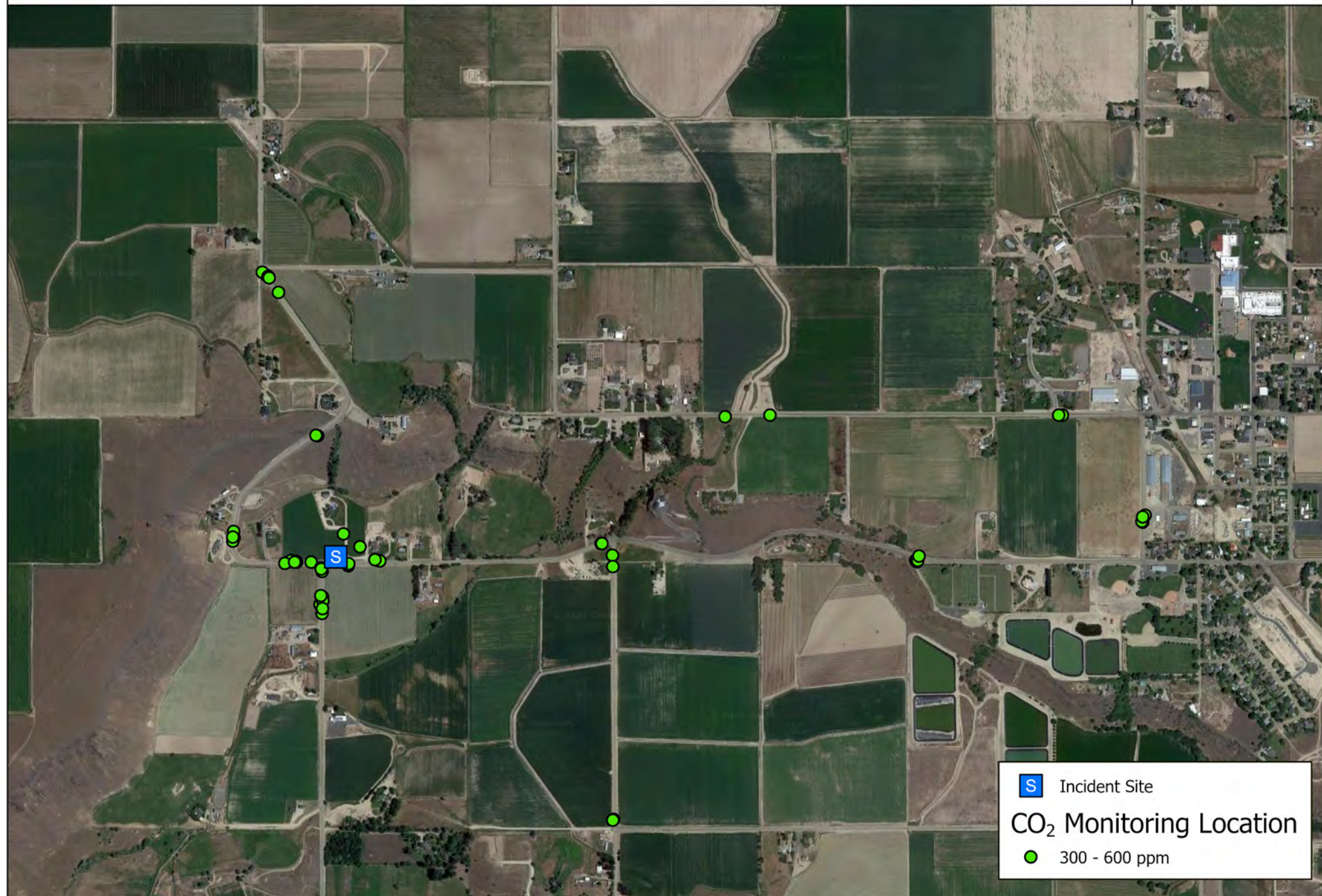
● < 0.5 ppm



 Incident Site

CO Monitoring Location

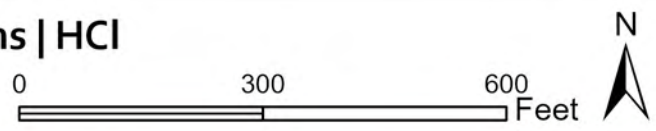
 < 1.0 ppm



S Incident Site


CO₂ Monitoring Location


● 300 - 600 ppm




Project: PROJ-031332
Client: Idaho Power
City: Melba, ID
County: Canyon



 Incident Site

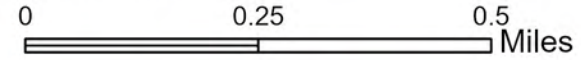
 HCI Monitoring Location

 < 0.1 ppm





Hand-held Real-time Air Monitoring Locations | %LEL



Project: PROJ-031332
Client: Idaho Power
City: Melba, ID
County: Canyon



Incident Site

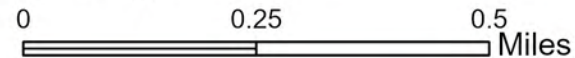
%LEL Monitoring Location



< 1.0 %LEL



Hand-held Real-time Air Monitoring Locations | PM_{2.5}



Project: PROJ-031332
Client: Idaho Power
City: Melba, ID
County: Canyon

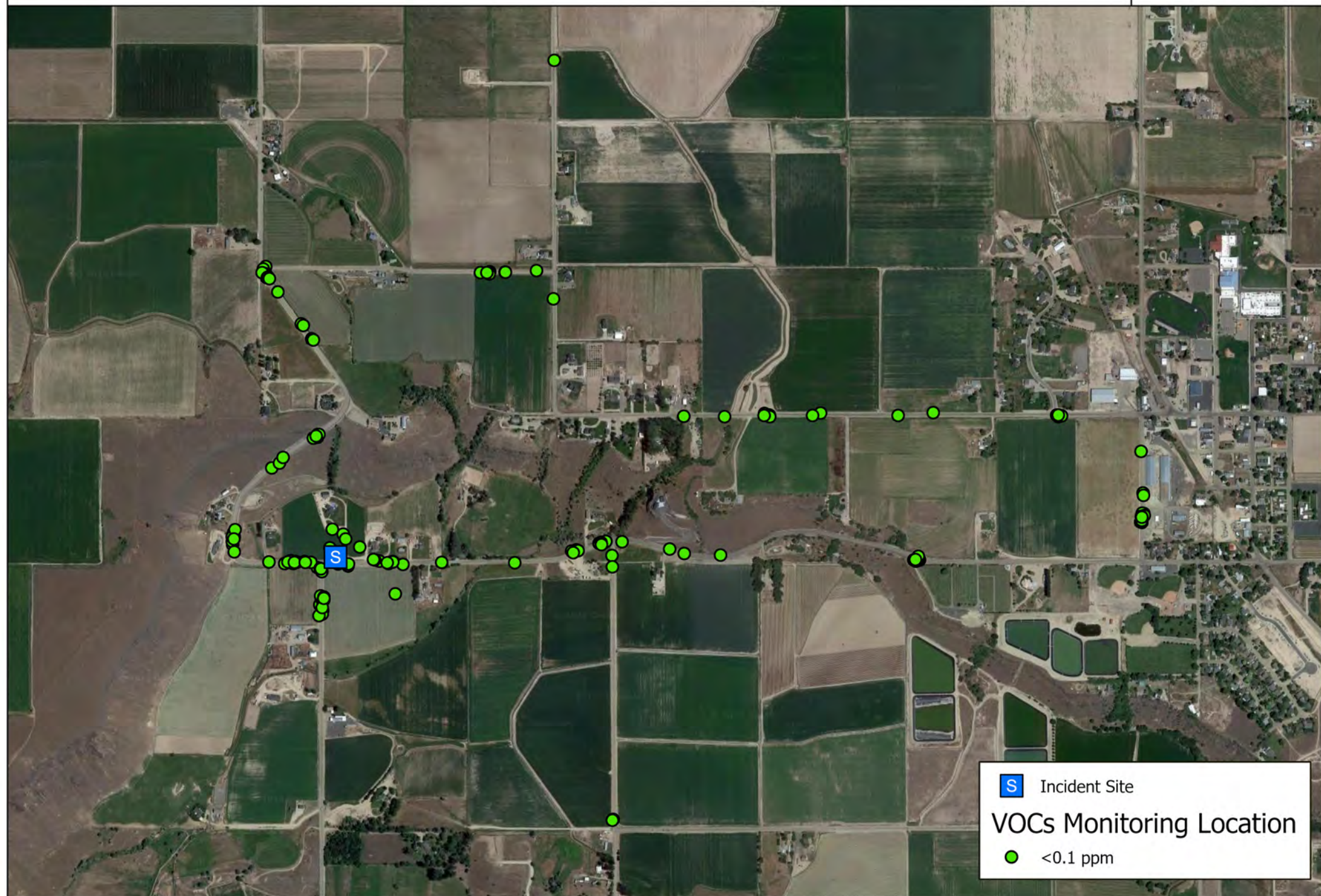


Incident Site

PM_{2.5} Monitoring Location



0.002 - 0.126 mg/m³



Incident Site

VOCs Monitoring Location



<0.1 ppm

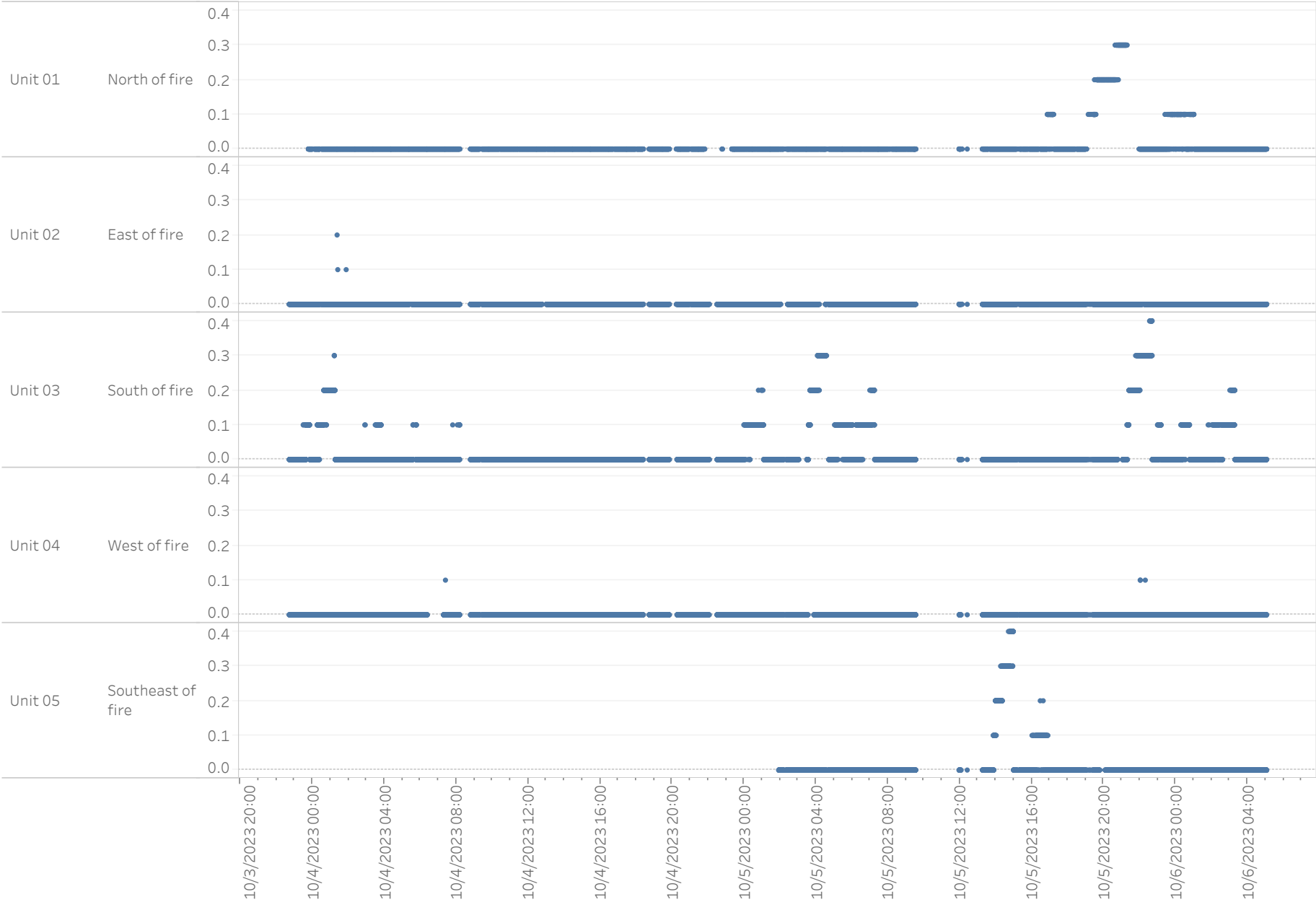
Attachment C

CTEH Radio-Telemetering Air Monitoring Locations and Results

Preliminary Remote-telemetered Real-time Air Monitoring Readings

PROJ-031332 | Melba, ID

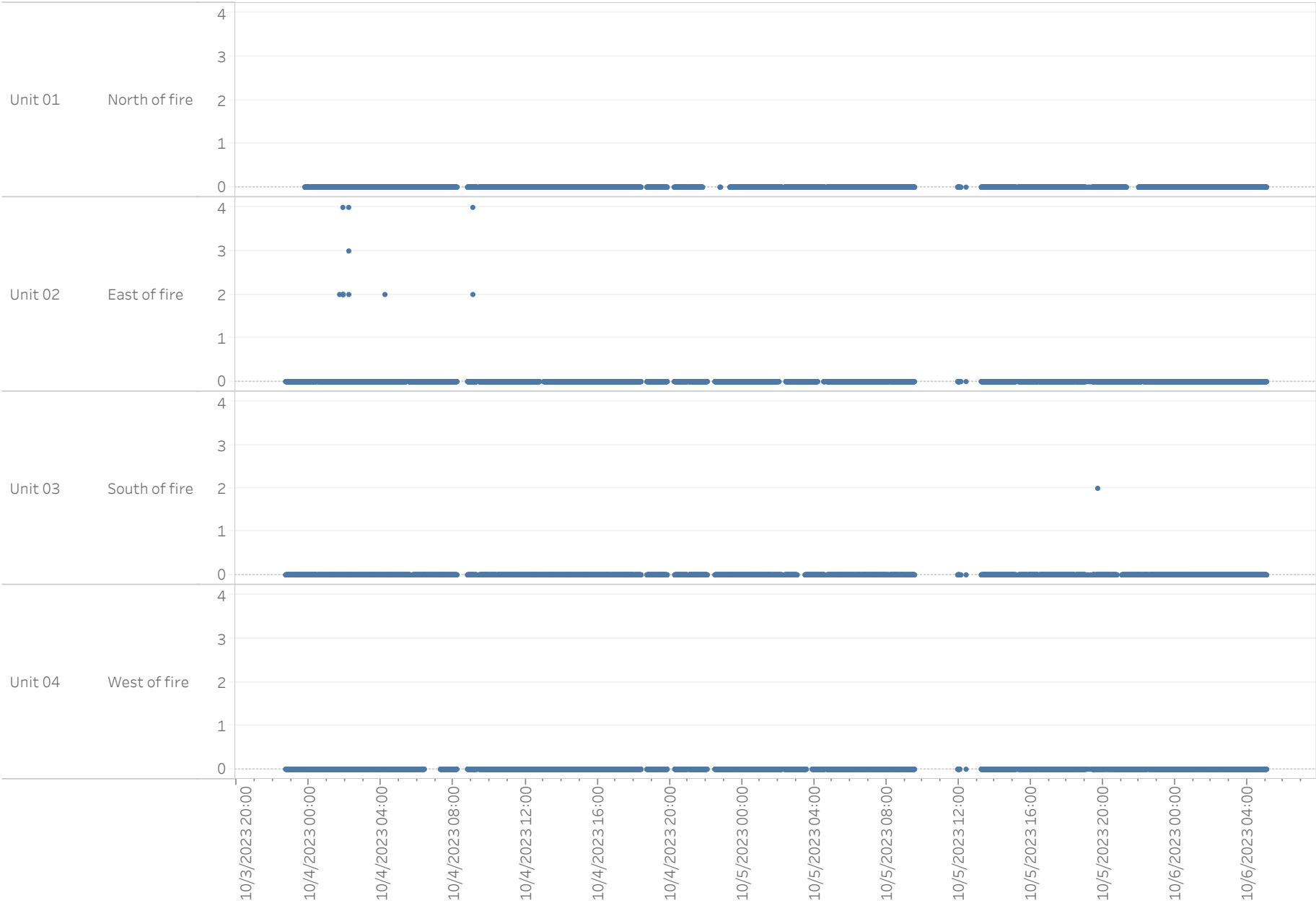
10/3/2023 22:40 to 10/6/2023 05:02 | Analyte: VOCs (ppm)



Preliminary Remote-telemetered Real-time Air Monitoring Readings

PROJ-031332 | Melba, ID

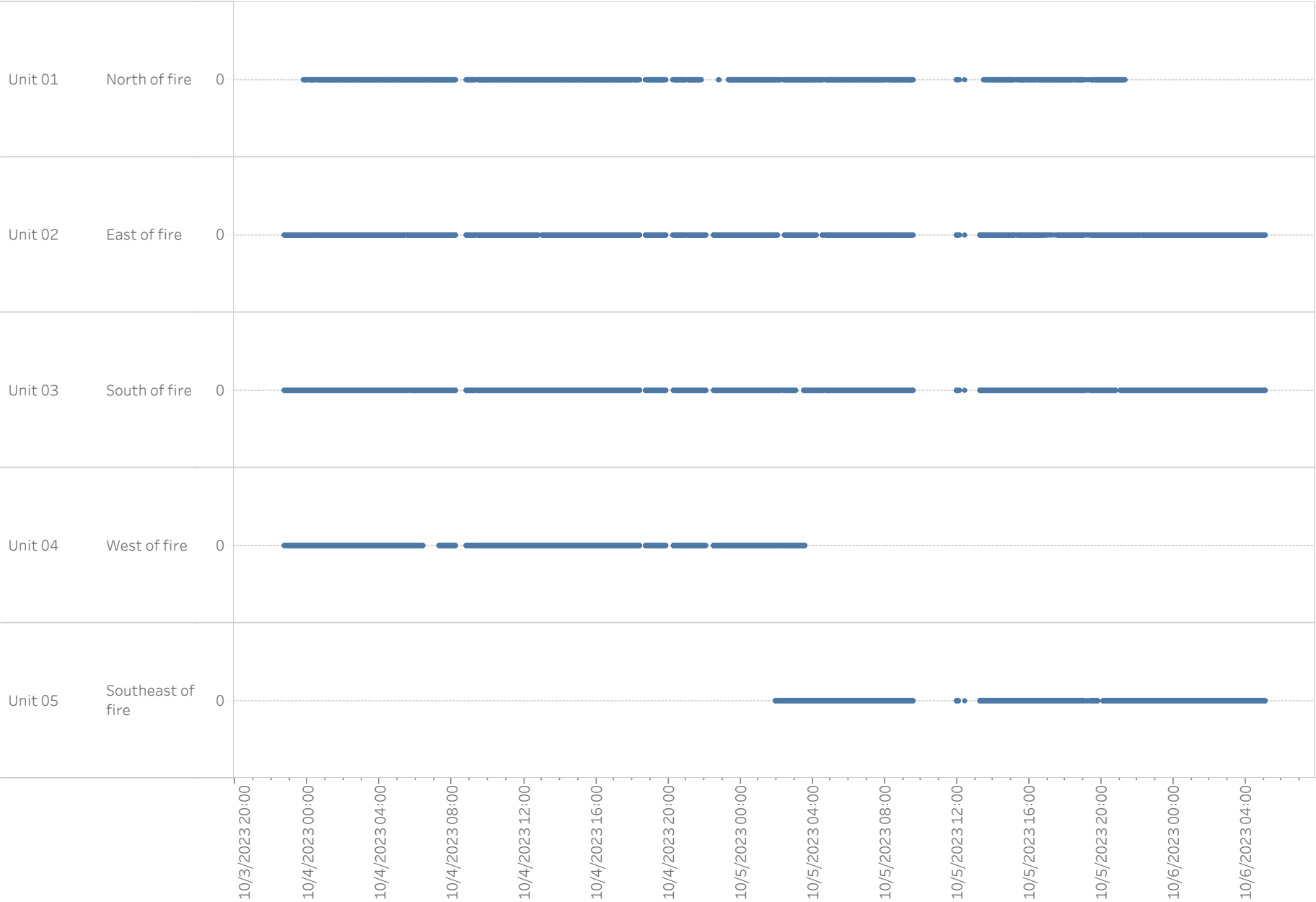
10/3/2023 22:40 to 10/6/2023 05:02| Analyte: CO (ppm)



Preliminary Remote-telemetered Real-time Air Monitoring Readings

PROJ-031332 | Melba, ID

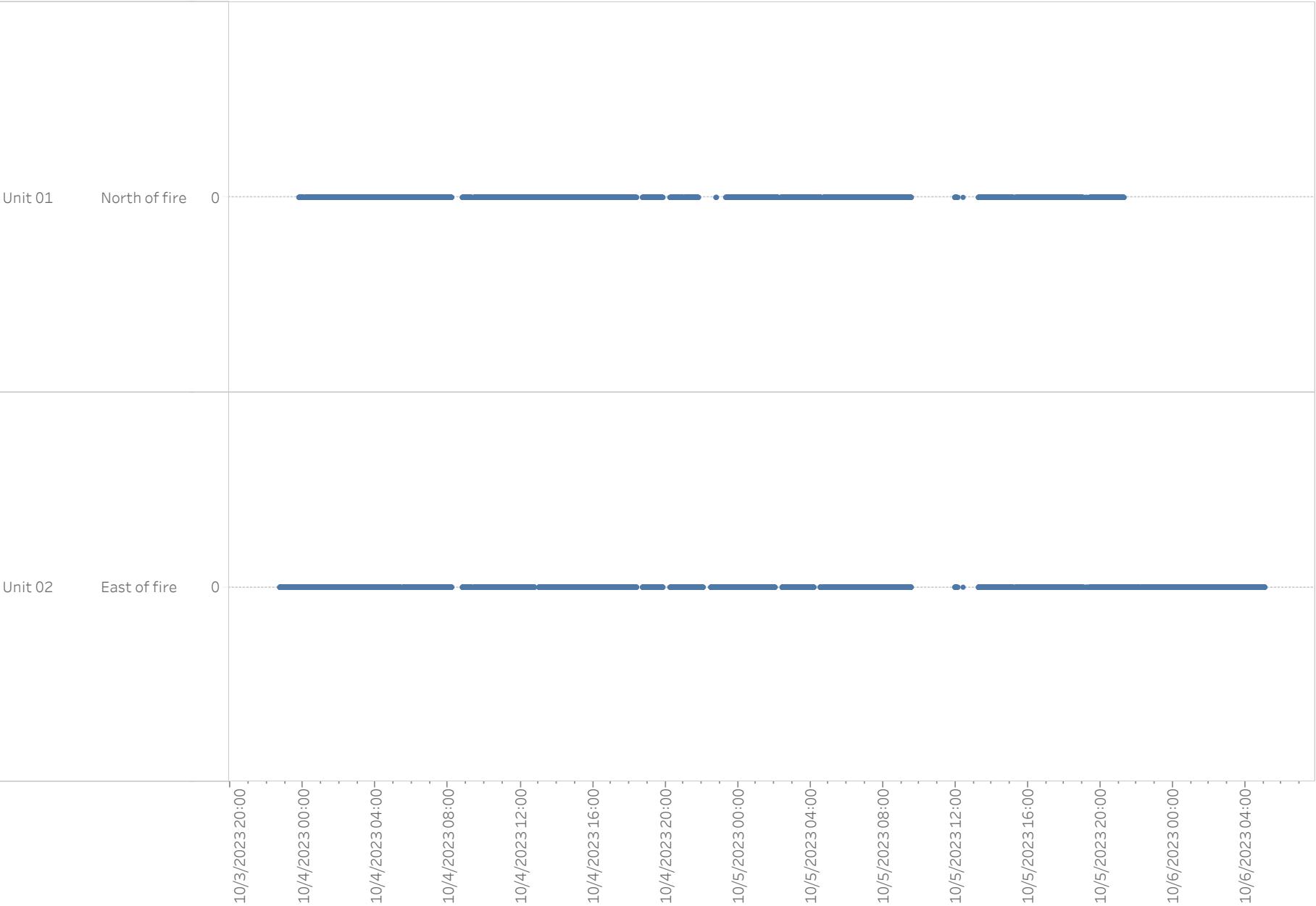
10/3/2023 22:40 to 10/6/2023 05:02| Analyte: HCL (ppm)



Preliminary Remote-telemetered Real-time Air Monitoring Readings

PROJ-031332 | Melba, ID

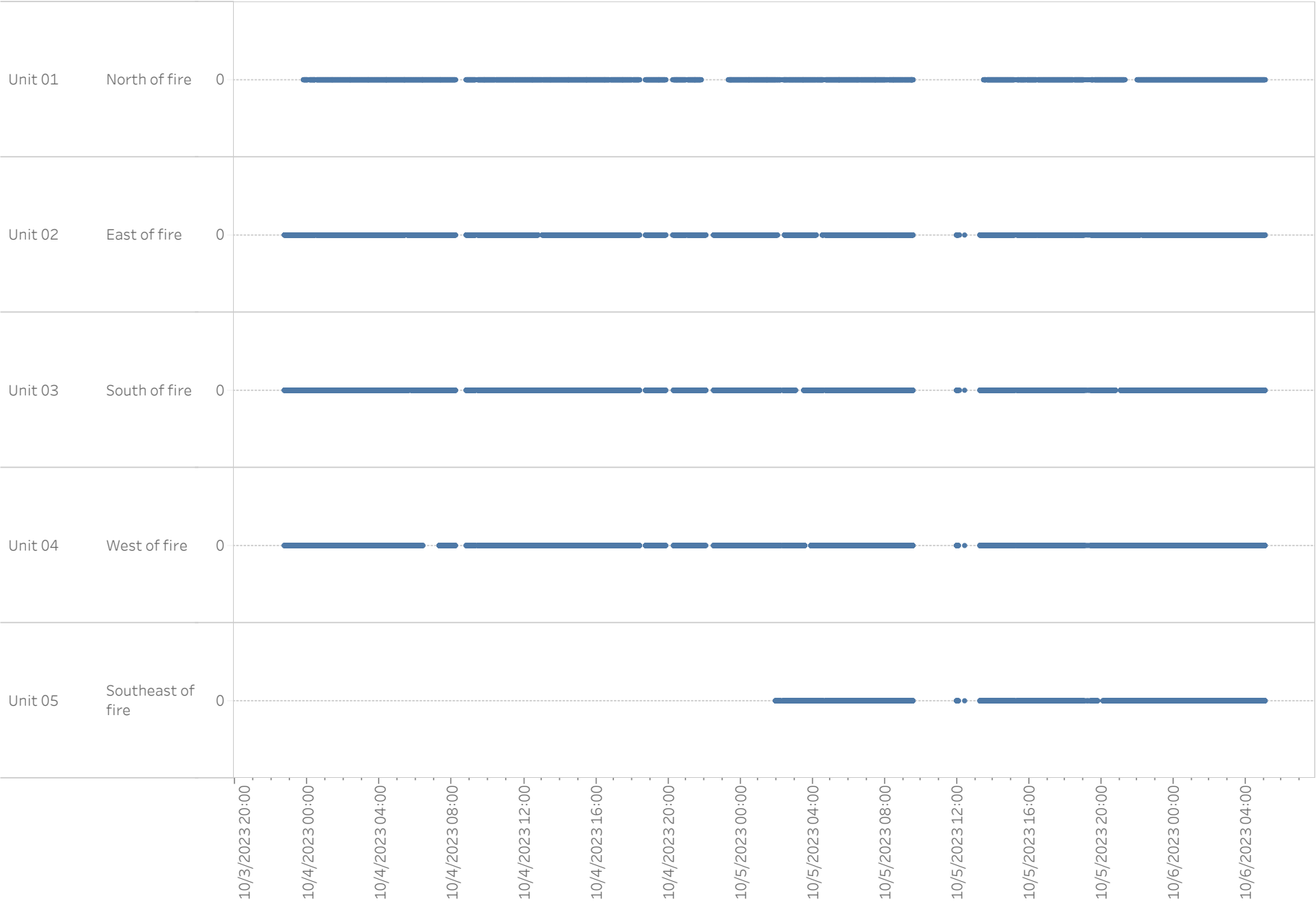
10/3/2023 22:40 to 10/6/2023 05:02| Analyte: HF



Preliminary Remote-telemetered Real-time Air Monitoring Readings

PROJ-031332 | Melba, ID

10/3/2023 22:40 to 10/6/2023 05:02| Analyte: %LEL



Attachment D

Analytical Sampling Locations and Laboratory Reports – Industrial Hygiene Resources





**Wisconsin Occupational
Health Laboratory**

WISCONSIN STATE LABORATORY OF HYGIENE
UNIVERSITY OF WISCONSIN-MADISON

2601 Agriculture Drive
Madison, WI 53718
Phone: (800) 446-0403
Web: wohl-lab.org
AIHA LAP, LLC Laboratory ID: LAP-101070

MATTHEW CALL
INDUSTIAL HYGIENE RESOURCES
8312 W. NORTHVIEW ST. #100
BOISE, ID 83704

Lab Workorder ID 704238
Visit/Project ID IPC-BATTERY FIRE, MELBA
PO 7144
Received October 4, 2023
Reported October 5, 2023
Report ID 11270205

Previous Report IDs

Dear MATTHEW CALL:

Enclosed are the analytical results for sample(s) received by the laboratory on October 4, 2023. All samples/specimens received by the laboratory were acceptable for testing. Sample results were not blank corrected, and all quality control met laboratory standards unless otherwise noted in the report narrative. All results apply to the samples as received and reported concentrations were calculated with information supplied by the sample submitter.

Please contact the lab if you have any questions concerning this report.

Sincerely,

Steve Strebel, Laboratory Director

Analyst - RJ MESSLING

Final Report

Lab ID: **704238001**

Sample ID: **RD-1**

Media: **PVC filter (Weighed or unweighed)**

Sampling Date:

Matrix: **Air**

Sampled Time:

RESULTS								
Analyte	Method	Analysis Date	Air Volume	Reporting Limit	Front	Rear	Total	Air Concentration
Total Dust	NIOSH 0500	10/4/2023	706 L	53 ug			280 ug	0.40 mg/m3
Aluminum	NIOSH 7303	10/5/2023	706 L	10 ug			<10 ug	<0.014 mg/m3
Antimony		10/5/2023	706 L	1.5 ug			<1.5 ug	<0.0021 mg/m3
Arsenic		10/5/2023	706 L	0.75 ug			<0.75 ug	<0.0011 mg/m3
Barium		10/5/2023	706 L	0.15 ug			<0.15 ug	<0.00021 mg/m3
Beryllium		10/5/2023	706 L	0.013 ug			<0.013 ug	<0.000018 mg/m3
Bismuth		10/5/2023	706 L	2.3 ug			<2.3 ug	<0.0033 mg/m3
Boron		10/5/2023	706 L	1.5 ug			<1.5 ug	<0.0021 mg/m3
Cadmium fume		10/5/2023	706 L	0.25 ug			<0.25 ug	<0.00035 mg/m3
Calcium oxide		10/5/2023	706 L	28 ug			<28 ug	<0.040 mg/m3
Chromium		10/5/2023	706 L	4.0 ug			<4.0 ug	<0.0057 mg/m3
Cobalt		10/5/2023	706 L	0.25 ug			<0.25 ug	<0.00035 mg/m3
Copper fume		10/5/2023	706 L	1.5 ug			3.2 ug	0.0045 mg/m3
Iron oxide		10/5/2023	706 L	7.2 ug			<7.2 ug	<0.010 mg/m3
Lead		10/5/2023	706 L	1.8 ug			<1.8 ug	<0.0025 mg/m3
Lithium		10/5/2023	706 L	0.50 ug			<0.50 ug	<0.00071 mg/m3
Magnesium oxide		10/5/2023	706 L	8.3 ug			<8.3 ug	<0.012 mg/m3
Manganese fume		10/5/2023	706 L	0.25 ug			<0.25 ug	<0.00035 mg/m3
Molybdenum		10/5/2023	706 L	0.50 ug			<0.50 ug	<0.00071 mg/m3
Nickel		10/5/2023	706 L	1.0 ug			<1.0 ug	<0.0014 mg/m3
Selenium		10/5/2023	706 L	5.0 ug			<5.0 ug	<0.0071 mg/m3
Strontium		10/5/2023	706 L	0.15 ug			<0.15 ug	<0.00021 mg/m3
Thallium		10/5/2023	706 L	2.5 ug			<2.5 ug	<0.0035 mg/m3
Tin		10/5/2023	706 L	5.0 ug			<5.0 ug	<0.0071 mg/m3
Titanium		10/5/2023	706 L	0.50 ug			<0.50 ug	<0.00071 mg/m3
Vanadium		10/5/2023	706 L	0.25 ug			<0.25 ug	<0.00035 mg/m3

Final Report

Zinc oxide 10/5/2023 706 L 2.2 ug 13 ug 0.018 mg/m3

Lab ID: **704238002** Sample ID: **RD-2** Media: **PVC filter (Weighed or unweighed)**
Sampling Date: Matrix: **Air** Sampled Time:

								RESULTS		
Analyte	Method	Analysis Date	Air Volume	Reporting Limit	Front	Rear	Total	Air Concentration	TWA	
Total Dust	NIOSH 0500	10/4/2023	688 L	53 ug			990 ug	1.4 mg/m3		
Aluminum	NIOSH 7303	10/5/2023	688 L	10 ug			<10 ug	<0.015 mg/m3		
Antimony		10/5/2023	688 L	1.5 ug			4.3 ug	0.0063 mg/m3		
Arsenic		10/5/2023	688 L	0.75 ug			<0.75 ug	<0.0011 mg/m3		
Barium		10/5/2023	688 L	0.15 ug			<0.15 ug	<0.00022 mg/m3		
Beryllium		10/5/2023	688 L	0.013 ug			<0.013 ug	<0.000019 mg/m3		
Bismuth		10/5/2023	688 L	2.3 ug			<2.3 ug	<0.0033 mg/m3		
Boron		10/5/2023	688 L	1.5 ug			<1.5 ug	<0.0022 mg/m3		
Cadmium fume		10/5/2023	688 L	0.25 ug			<0.25 ug	<0.00036 mg/m3		
Calcium oxide		10/5/2023	688 L	28 ug			<28 ug	<0.041 mg/m3		
Chromium		10/5/2023	688 L	4.0 ug			<4.0 ug	<0.0058 mg/m3		
Cobalt		10/5/2023	688 L	0.25 ug			<0.25 ug	<0.00036 mg/m3		
Copper fume		10/5/2023	688 L	1.5 ug			9.6 ug	0.014 mg/m3		
Iron oxide		10/5/2023	688 L	7.2 ug			<7.2 ug	<0.010 mg/m3		
Lead		10/5/2023	688 L	1.8 ug			<1.8 ug	<0.0026 mg/m3		
Lithium		10/5/2023	688 L	0.50 ug			0.59 ug	0.00086 mg/m3		
Magnesium oxide		10/5/2023	688 L	8.3 ug			<8.3 ug	<0.012 mg/m3		
Manganese fume		10/5/2023	688 L	0.25 ug			<0.25 ug	<0.00036 mg/m3		
Molybdenum		10/5/2023	688 L	0.50 ug			<0.50 ug	<0.00073 mg/m3		
Nickel		10/5/2023	688 L	1.0 ug			<1.0 ug	<0.0015 mg/m3		
Selenium		10/5/2023	688 L	5.0 ug			<5.0 ug	<0.0073 mg/m3		
Strontium		10/5/2023	688 L	0.15 ug			<0.15 ug	<0.00022 mg/m3		
Thallium		10/5/2023	688 L	2.5 ug			<2.5 ug	<0.0036 mg/m3		
Tin		10/5/2023	688 L	5.0 ug			<5.0 ug	<0.0073 mg/m3		
Titanium		10/5/2023	688 L	0.50 ug			<0.50 ug	<0.00073 mg/m3		

Final Report

Vanadium	10/5/2023	688 L	0.25 ug	<0.25 ug	<0.00036 mg/m3
Zinc oxide	10/5/2023	688 L	2.2 ug	49 ug	0.071 mg/m3

Lab ID: 704238003	Sample ID: RD-3	Media: PVC filter (Weighed or unweighed)
Sampling Date:	Matrix: Air	Sampled Time:

							RESULTS		
Analyte	Method	Analysis Date	Air Volume	Reporting Limit	Front	Rear	Total	Air Concentration	TWA
Total Dust	NIOSH 0500	10/4/2023	655 L	53 ug			<53 ug	<0.081 mg/m3	
Aluminum	NIOSH 7303	10/5/2023	655 L	10 ug			<10 ug	<0.015 mg/m3	
Antimony		10/5/2023	655 L	1.5 ug			<1.5 ug	<0.0023 mg/m3	
Arsenic		10/5/2023	655 L	0.75 ug			<0.75 ug	<0.0011 mg/m3	
Barium		10/5/2023	655 L	0.15 ug			<0.15 ug	<0.00023 mg/m3	
Beryllium		10/5/2023	655 L	0.013 ug			<0.013 ug	<0.000020 mg/m3	
Bismuth		10/5/2023	655 L	2.3 ug			<2.3 ug	<0.0035 mg/m3	
Boron		10/5/2023	655 L	1.5 ug			<1.5 ug	<0.0023 mg/m3	
Cadmium fume		10/5/2023	655 L	0.25 ug			<0.25 ug	<0.00038 mg/m3	
Calcium oxide		10/5/2023	655 L	28 ug			<28 ug	<0.043 mg/m3	
Chromium		10/5/2023	655 L	4.0 ug			<4.0 ug	<0.0061 mg/m3	
Cobalt		10/5/2023	655 L	0.25 ug			<0.25 ug	<0.00038 mg/m3	
Copper fume		10/5/2023	655 L	1.5 ug			<1.5 ug	<0.0023 mg/m3	
Iron oxide		10/5/2023	655 L	7.2 ug			<7.2 ug	<0.011 mg/m3	
Lead		10/5/2023	655 L	1.8 ug			<1.8 ug	<0.0027 mg/m3	
Lithium		10/5/2023	655 L	0.50 ug			<0.50 ug	<0.00076 mg/m3	
Magnesium oxide		10/5/2023	655 L	8.3 ug			<8.3 ug	<0.013 mg/m3	
Manganese fume		10/5/2023	655 L	0.25 ug			<0.25 ug	<0.00038 mg/m3	
Molybdenum		10/5/2023	655 L	0.50 ug			<0.50 ug	<0.00076 mg/m3	
Nickel		10/5/2023	655 L	1.0 ug			<1.0 ug	<0.0015 mg/m3	
Selenium		10/5/2023	655 L	5.0 ug			<5.0 ug	<0.0076 mg/m3	
Strontium		10/5/2023	655 L	0.15 ug			<0.15 ug	<0.00023 mg/m3	
Thallium		10/5/2023	655 L	2.5 ug			<2.5 ug	<0.0038 mg/m3	
Tin		10/5/2023	655 L	5.0 ug			<5.0 ug	<0.0076 mg/m3	

Final Report

Titanium	10/5/2023	655 L	0.50 ug	<0.50 ug	<0.00076 mg/m3
Vanadium	10/5/2023	655 L	0.25 ug	<0.25 ug	<0.00038 mg/m3
Zinc oxide	10/5/2023	655 L	2.2 ug	<2.2 ug	<0.0034 mg/m3

Lab ID: 704238004	Sample ID: RD-4	Media: PVC filter (Weighed or unweighed)
Sampling Date:	Matrix: Air	Sampled Time:

							RESULTS		
Analyte	Method	Analysis Date	Air Volume	Reporting Limit	Front	Rear	Total	Air Concentration	TWA
Total Dust	NIOSH 0500	10/4/2023	188 L	53 ug			<53 ug	<0.28 mg/m3	
Aluminum	NIOSH 7303	10/5/2023	188 L	10 ug			<10 ug	<0.053 mg/m3	
Antimony		10/5/2023	188 L	1.5 ug			<1.5 ug	<0.0080 mg/m3	
Arsenic		10/5/2023	188 L	0.75 ug			<0.75 ug	<0.0040 mg/m3	
Barium		10/5/2023	188 L	0.15 ug			<0.15 ug	<0.00080 mg/m3	
Beryllium		10/5/2023	188 L	0.013 ug			<0.013 ug	<0.000069 mg/m3	
Bismuth		10/5/2023	188 L	2.3 ug			<2.3 ug	<0.012 mg/m3	
Boron		10/5/2023	188 L	1.5 ug			<1.5 ug	<0.0080 mg/m3	
Cadmium fume		10/5/2023	188 L	0.25 ug			<0.25 ug	<0.0013 mg/m3	
Calcium oxide		10/5/2023	188 L	28 ug			<28 ug	<0.15 mg/m3	
Chromium		10/5/2023	188 L	4.0 ug			<4.0 ug	<0.021 mg/m3	
Cobalt		10/5/2023	188 L	0.25 ug			<0.25 ug	<0.0013 mg/m3	
Copper fume		10/5/2023	188 L	1.5 ug			<1.5 ug	<0.0080 mg/m3	
Iron oxide		10/5/2023	188 L	7.2 ug			<7.2 ug	<0.038 mg/m3	
Lead		10/5/2023	188 L	1.8 ug			<1.8 ug	<0.0096 mg/m3	
Lithium		10/5/2023	188 L	0.50 ug			<0.50 ug	<0.0027 mg/m3	
Magnesium oxide		10/5/2023	188 L	8.3 ug			<8.3 ug	<0.044 mg/m3	
Manganese fume		10/5/2023	188 L	0.25 ug			<0.25 ug	<0.0013 mg/m3	
Molybdenum		10/5/2023	188 L	0.50 ug			<0.50 ug	<0.0027 mg/m3	
Nickel		10/5/2023	188 L	1.0 ug			<1.0 ug	<0.0053 mg/m3	
Selenium		10/5/2023	188 L	5.0 ug			<5.0 ug	<0.027 mg/m3	
Strontium		10/5/2023	188 L	0.15 ug			<0.15 ug	<0.00080 mg/m3	
Thallium		10/5/2023	188 L	2.5 ug			<2.5 ug	<0.013 mg/m3	

Final Report

Tin	10/5/2023	188 L	5.0 ug	<5.0 ug	<0.027 mg/m3
Titanium	10/5/2023	188 L	0.50 ug	<0.50 ug	<0.0027 mg/m3
Vanadium	10/5/2023	188 L	0.25 ug	<0.25 ug	<0.0013 mg/m3
Zinc oxide	10/5/2023	188 L	2.2 ug	<2.2 ug	<0.012 mg/m3

Lab ID: 704238005	Sample ID: RD-5	Media: PVC filter (Weighed or unweighed)
Sampling Date:	Matrix: Air	Sampled Time:

							RESULTS			
Analyte	Method	Analysis Date	Air Volume	Reporting Limit	Front	Rear	Total	Air Concentration	TWA	
Total Dust	NIOSH 0500	10/4/2023		53 ug			<53 ug	n/a		
Aluminum	NIOSH 7303	10/5/2023		10 ug			<10 ug	n/a		
Antimony		10/5/2023		1.5 ug			<1.5 ug	n/a		
Arsenic		10/5/2023		0.75 ug			<0.75 ug	n/a		
Barium		10/5/2023		0.15 ug			<0.15 ug	n/a		
Beryllium		10/5/2023		0.013 ug			<0.013 ug	n/a		
Bismuth		10/5/2023		2.3 ug			<2.3 ug	n/a		
Boron		10/5/2023		1.5 ug			<1.5 ug	n/a		
Cadmium fume		10/5/2023		0.25 ug			<0.25 ug	n/a		
Calcium oxide		10/5/2023		28 ug			<28 ug	n/a		
Chromium		10/5/2023		4.0 ug			<4.0 ug	n/a		
Cobalt		10/5/2023		0.25 ug			<0.25 ug	n/a		
Copper fume		10/5/2023		1.5 ug			<1.5 ug	n/a		
Iron oxide		10/5/2023		7.2 ug			<7.2 ug	n/a		
Lead		10/5/2023		1.8 ug			<1.8 ug	n/a		
Lithium		10/5/2023		0.50 ug			<0.50 ug	n/a		
Magnesium oxide		10/5/2023		8.3 ug			<8.3 ug	n/a		
Manganese fume		10/5/2023		0.25 ug			<0.25 ug	n/a		
Molybdenum		10/5/2023		0.50 ug			<0.50 ug	n/a		
Nickel		10/5/2023		1.0 ug			<1.0 ug	n/a		
Selenium		10/5/2023		5.0 ug			<5.0 ug	n/a		
Strontium		10/5/2023		0.15 ug			<0.15 ug	n/a		

Final Report

Thallium	10/5/2023	2.5 ug	<2.5 ug	n/a
Tin	10/5/2023	5.0 ug	<5.0 ug	n/a
Titanium	10/5/2023	0.50 ug	<0.50 ug	n/a
Vanadium	10/5/2023	0.25 ug	<0.25 ug	n/a
Zinc oxide	10/5/2023	2.2 ug	<2.2 ug	n/a

Lab ID: 704238006	Sample ID: M-1	Media: PVC filter (Weighed or unweighed)
Sampling Date:	Matrix: Air	Sampled Time:

							RESULTS	
Analyte	Method	Analysis Date	Air Volume	Reporting Limit	Front	Rear	Total	TWA
Total Dust	NIOSH 0500	10/4/2023	654 L	53 ug			270 ug	0.41 mg/m3
Aluminum	NIOSH 7303	10/5/2023	654 L	10 ug			<10 ug	<0.015 mg/m3
Antimony		10/5/2023	654 L	1.5 ug			<1.5 ug	<0.0023 mg/m3
Arsenic		10/5/2023	654 L	0.75 ug			<0.75 ug	<0.0011 mg/m3
Barium		10/5/2023	654 L	0.15 ug			<0.15 ug	<0.00023 mg/m3
Beryllium		10/5/2023	654 L	0.013 ug			<0.013 ug	<0.000020 mg/m3
Bismuth		10/5/2023	654 L	2.3 ug			<2.3 ug	<0.0035 mg/m3
Boron		10/5/2023	654 L	1.5 ug			<1.5 ug	<0.0023 mg/m3
Cadmium fume		10/5/2023	654 L	0.25 ug			<0.25 ug	<0.00038 mg/m3
Calcium oxide		10/5/2023	654 L	28 ug			<28 ug	<0.043 mg/m3
Chromium		10/5/2023	654 L	4.0 ug			<4.0 ug	<0.0061 mg/m3
Cobalt		10/5/2023	654 L	0.25 ug			<0.25 ug	<0.00038 mg/m3
Copper fume		10/5/2023	654 L	1.5 ug			3.1 ug	0.0047 mg/m3
Iron oxide		10/5/2023	654 L	7.2 ug			<7.2 ug	<0.011 mg/m3
Lead		10/5/2023	654 L	1.8 ug			<1.8 ug	<0.0028 mg/m3
Lithium		10/5/2023	654 L	0.50 ug			<0.50 ug	<0.00076 mg/m3
Magnesium oxide		10/5/2023	654 L	8.3 ug			<8.3 ug	<0.013 mg/m3
Manganese fume		10/5/2023	654 L	0.25 ug			<0.25 ug	<0.00038 mg/m3
Molybdenum		10/5/2023	654 L	0.50 ug			<0.50 ug	<0.00076 mg/m3
Nickel		10/5/2023	654 L	1.0 ug			<1.0 ug	<0.0015 mg/m3
Selenium		10/5/2023	654 L	5.0 ug			<5.0 ug	<0.0076 mg/m3

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Strontium	10/5/2023	654 L	0.15 ug	<0.15 ug	<0.00023 mg/m3
Thallium	10/5/2023	654 L	2.5 ug	<2.5 ug	<0.0038 mg/m3
Tin	10/5/2023	654 L	5.0 ug	<5.0 ug	<0.0076 mg/m3
Titanium	10/5/2023	654 L	0.50 ug	<0.50 ug	<0.00076 mg/m3
Vanadium	10/5/2023	654 L	0.25 ug	<0.25 ug	<0.00038 mg/m3
Zinc oxide	10/5/2023	654 L	2.2 ug	13 ug	0.020 mg/m3

Lab ID: **704238007**

Sample ID: **M-2**

Media: **PVC filter (Weighed or unweighed)**

Sampling Date:

Matrix: **Air**

Sampled Time:

RESULTS							
Analyte	Method	Analysis Date	Air Volume	Reporting Limit	Front	Rear	TWA
Total Dust	NIOSH 0500	10/4/2023	644 L	53 ug			930 ug 1.4 mg/m3
Aluminum	NIOSH 7303	10/5/2023	644 L	10 ug			<10 ug <0.016 mg/m3
Antimony		10/5/2023	644 L	1.5 ug			4.2 ug 0.0065 mg/m3
Arsenic		10/5/2023	644 L	0.75 ug			<0.75 ug <0.0012 mg/m3
Barium		10/5/2023	644 L	0.15 ug			<0.15 ug <0.00023 mg/m3
Beryllium		10/5/2023	644 L	0.013 ug			<0.013 ug <0.000020 mg/m3
Bismuth		10/5/2023	644 L	2.3 ug			<2.3 ug <0.0036 mg/m3
Boron		10/5/2023	644 L	1.5 ug			<1.5 ug <0.0023 mg/m3
Cadmium fume		10/5/2023	644 L	0.25 ug			<0.25 ug <0.00039 mg/m3
Calcium oxide		10/5/2023	644 L	28 ug			<28 ug <0.043 mg/m3
Chromium		10/5/2023	644 L	4.0 ug			<4.0 ug <0.0062 mg/m3
Cobalt		10/5/2023	644 L	0.25 ug			<0.25 ug <0.00039 mg/m3
Copper fume		10/5/2023	644 L	1.5 ug			9.4 ug 0.015 mg/m3
Iron oxide		10/5/2023	644 L	7.2 ug			<7.2 ug <0.011 mg/m3
Lead		10/5/2023	644 L	1.8 ug			<1.8 ug <0.0028 mg/m3
Lithium		10/5/2023	644 L	0.50 ug			0.63 ug 0.00098 mg/m3
Magnesium oxide		10/5/2023	644 L	8.3 ug			<8.3 ug <0.013 mg/m3
Manganese fume		10/5/2023	644 L	0.25 ug			<0.25 ug <0.00039 mg/m3
Molybdenum		10/5/2023	644 L	0.50 ug			<0.50 ug <0.00078 mg/m3
Nickel		10/5/2023	644 L	1.0 ug			<1.0 ug <0.0016 mg/m3

Final Report

Selenium	10/5/2023	644 L	5.0 ug	<5.0 ug	<0.0078 mg/m3
Strontium	10/5/2023	644 L	0.15 ug	<0.15 ug	<0.00023 mg/m3
Thallium	10/5/2023	644 L	2.5 ug	<2.5 ug	<0.0039 mg/m3
Tin	10/5/2023	644 L	5.0 ug	<5.0 ug	<0.0078 mg/m3
Titanium	10/5/2023	644 L	0.50 ug	<0.50 ug	<0.00078 mg/m3
Vanadium	10/5/2023	644 L	0.25 ug	<0.25 ug	<0.00039 mg/m3
Zinc oxide	10/5/2023	644 L	2.2 ug	47 ug	0.073 mg/m3

Lab ID: **704238008**

Sample ID: **M-3**

Media: **PVC filter (Weighed or unweighed)**

Sampling Date:

Matrix: **Air**

Sampled Time:

							RESULTS		
Analyte	Method	Analysis Date	Air Volume	Reporting Limit	Front	Rear	Total	Air Concentration	TWA
Total Dust	NIOSH 0500	10/4/2023	645 L	53 ug			<53 ug	<0.082 mg/m3	
Aluminum	NIOSH 7303	10/5/2023	645 L	10 ug			<10 ug	<0.016 mg/m3	
Antimony		10/5/2023	645 L	1.5 ug			<1.5 ug	<0.0023 mg/m3	
Arsenic		10/5/2023	645 L	0.75 ug			<0.75 ug	<0.0012 mg/m3	
Barium		10/5/2023	645 L	0.15 ug			<0.15 ug	<0.00023 mg/m3	
Beryllium		10/5/2023	645 L	0.013 ug			<0.013 ug	<0.000020 mg/m3	
Bismuth		10/5/2023	645 L	2.3 ug			<2.3 ug	<0.0036 mg/m3	
Boron		10/5/2023	645 L	1.5 ug			<1.5 ug	<0.0023 mg/m3	
Cadmium fume		10/5/2023	645 L	0.25 ug			<0.25 ug	<0.00039 mg/m3	
Calcium oxide		10/5/2023	645 L	28 ug			<28 ug	<0.043 mg/m3	
Chromium		10/5/2023	645 L	4.0 ug			<4.0 ug	<0.0062 mg/m3	
Cobalt		10/5/2023	645 L	0.25 ug			<0.25 ug	<0.00039 mg/m3	
Copper fume		10/5/2023	645 L	1.5 ug			<1.5 ug	<0.0023 mg/m3	
Iron oxide		10/5/2023	645 L	7.2 ug			<7.2 ug	<0.011 mg/m3	
Lead		10/5/2023	645 L	1.8 ug			<1.8 ug	<0.0028 mg/m3	
Lithium		10/5/2023	645 L	0.50 ug			<0.50 ug	<0.00078 mg/m3	
Magnesium oxide		10/5/2023	645 L	8.3 ug			<8.3 ug	<0.013 mg/m3	
Manganese fume		10/5/2023	645 L	0.25 ug			<0.25 ug	<0.00039 mg/m3	
Molybdenum		10/5/2023	645 L	0.50 ug			<0.50 ug	<0.00078 mg/m3	

Final Report

Nickel	10/5/2023	645 L	1.0 ug	<1.0 ug	<0.0016 mg/m3
Selenium	10/5/2023	645 L	5.0 ug	<5.0 ug	<0.0078 mg/m3
Strontium	10/5/2023	645 L	0.15 ug	<0.15 ug	<0.00023 mg/m3
Thallium	10/5/2023	645 L	2.5 ug	<2.5 ug	<0.0039 mg/m3
Tin	10/5/2023	645 L	5.0 ug	<5.0 ug	<0.0078 mg/m3
Titanium	10/5/2023	645 L	0.50 ug	<0.50 ug	<0.00078 mg/m3
Vanadium	10/5/2023	645 L	0.25 ug	<0.25 ug	<0.00039 mg/m3
Zinc oxide	10/5/2023	645 L	2.2 ug	<2.2 ug	<0.0034 mg/m3

Lab ID: **704238009**

Sample ID: **M-4**

Media: **PVC filter (Weighed or unweighed)**

Sampling Date:

Matrix: **Air**

Sampled Time:

RESULTS

Analyte	Method	Analysis Date	Air Volume	Reporting Limit	Front	Rear	Total	Air Concentration	TWA
Total Dust	NIOSH 0500	10/4/2023	206 L	53 ug			<53 ug	<0.26 mg/m3	
Aluminum	NIOSH 7303	10/5/2023	206 L	10 ug			<10 ug	<0.049 mg/m3	
Antimony		10/5/2023	206 L	1.5 ug			<1.5 ug	<0.0073 mg/m3	
Arsenic		10/5/2023	206 L	0.75 ug			<0.75 ug	<0.0036 mg/m3	
Barium		10/5/2023	206 L	0.15 ug			<0.15 ug	<0.00073 mg/m3	
Beryllium		10/5/2023	206 L	0.013 ug			<0.013 ug	<0.000063 mg/m3	
Bismuth		10/5/2023	206 L	2.3 ug			<2.3 ug	<0.011 mg/m3	
Boron		10/5/2023	206 L	1.5 ug			<1.5 ug	<0.0073 mg/m3	
Cadmium fume		10/5/2023	206 L	0.25 ug			<0.25 ug	<0.0012 mg/m3	
Calcium oxide		10/5/2023	206 L	28 ug			<28 ug	<0.14 mg/m3	
Chromium		10/5/2023	206 L	4.0 ug			<4.0 ug	<0.019 mg/m3	
Cobalt		10/5/2023	206 L	0.25 ug			<0.25 ug	<0.0012 mg/m3	
Copper fume		10/5/2023	206 L	1.5 ug			<1.5 ug	<0.0073 mg/m3	
Iron oxide		10/5/2023	206 L	7.2 ug			<7.2 ug	<0.035 mg/m3	
Lead		10/5/2023	206 L	1.8 ug			<1.8 ug	<0.0087 mg/m3	
Lithium		10/5/2023	206 L	0.50 ug			<0.50 ug	<0.0024 mg/m3	
Magnesium oxide		10/5/2023	206 L	8.3 ug			<8.3 ug	<0.040 mg/m3	
Manganese fume		10/5/2023	206 L	0.25 ug			<0.25 ug	<0.0012 mg/m3	

Final Report

Molybdenum	10/5/2023	206 L	0.50 ug	<0.50 ug	<0.0024 mg/m3
Nickel	10/5/2023	206 L	1.0 ug	<1.0 ug	<0.0049 mg/m3
Selenium	10/5/2023	206 L	5.0 ug	<5.0 ug	<0.024 mg/m3
Strontium	10/5/2023	206 L	0.15 ug	<0.15 ug	<0.00073 mg/m3
Thallium	10/5/2023	206 L	2.5 ug	<2.5 ug	<0.012 mg/m3
Tin	10/5/2023	206 L	5.0 ug	<5.0 ug	<0.024 mg/m3
Titanium	10/5/2023	206 L	0.50 ug	<0.50 ug	<0.0024 mg/m3
Vanadium	10/5/2023	206 L	0.25 ug	<0.25 ug	<0.0012 mg/m3
Zinc oxide	10/5/2023	206 L	2.2 ug	<2.2 ug	<0.011 mg/m3

Lab ID: **704238010**

Sample ID: **M-5**

Media: **PVC filter (Weighed or unweighed)**

Sampling Date:

Matrix: **Air**

Sampled Time:

RESULTS									
Analyte	Method	Analysis Date	Air Volume	Reporting Limit	Front	Rear	Total	Air Concentration	TWA
Total Dust	NIOSH 0500	10/4/2023		53 ug			<53 ug	n/a	
Aluminum	NIOSH 7303	10/5/2023		10 ug			<10 ug	n/a	
Antimony		10/5/2023		1.5 ug			<1.5 ug	n/a	
Arsenic		10/5/2023		0.75 ug			<0.75 ug	n/a	
Barium		10/5/2023		0.15 ug			<0.15 ug	n/a	
Beryllium		10/5/2023		0.013 ug			<0.013 ug	n/a	
Bismuth		10/5/2023		2.3 ug			<2.3 ug	n/a	
Boron		10/5/2023		1.5 ug			<1.5 ug	n/a	
Cadmium fume		10/5/2023		0.25 ug			<0.25 ug	n/a	
Calcium oxide		10/5/2023		28 ug			<28 ug	n/a	
Chromium		10/5/2023		4.0 ug			<4.0 ug	n/a	
Cobalt		10/5/2023		0.25 ug			<0.25 ug	n/a	
Copper fume		10/5/2023		1.5 ug			<1.5 ug	n/a	
Iron oxide		10/5/2023		7.2 ug			<7.2 ug	n/a	
Lead		10/5/2023		1.8 ug			<1.8 ug	n/a	
Lithium		10/5/2023		0.50 ug			<0.50 ug	n/a	
Magnesium oxide		10/5/2023		8.3 ug			<8.3 ug	n/a	

Final Report

Manganese fume	10/5/2023	0.25 ug	<0.25 ug	n/a
Molybdenum	10/5/2023	0.50 ug	<0.50 ug	n/a
Nickel	10/5/2023	1.0 ug	<1.0 ug	n/a
Selenium	10/5/2023	5.0 ug	<5.0 ug	n/a
Strontium	10/5/2023	0.15 ug	<0.15 ug	n/a
Thallium	10/5/2023	2.5 ug	<2.5 ug	n/a
Tin	10/5/2023	5.0 ug	<5.0 ug	n/a
Titanium	10/5/2023	0.50 ug	<0.50 ug	n/a
Vanadium	10/5/2023	0.25 ug	<0.25 ug	n/a
Zinc oxide	10/5/2023	2.2 ug	<2.2 ug	n/a

Abbreviations:

mg = milligrams ppm or ppmv = parts per million /m³ = per cubic meter
ug = micrograms ppb or ppbv = parts per billion ng = nanograms
< Less Than. The analyte, if present, is at a level too low to be accurately quantitated by the method used

Displayed values on report have been rounded to 2 significant figures. Please contact the laboratory if you have any questions regarding our result calculation or rounding. All samples were received by the laboratory in acceptable condition unless otherwise noted.

The results in this report apply only to the samples, specifically listed above, and tested at the Wisconsin Occupational Health Laboratory

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End of Analytical Report

Client Sample ID: Baseline Rd Downwind, S.E
Laboratory ID: 109694-1

Client: INDUSTRIAL HYGIENE RESOURCES
8312 W NORTHVIEW ST STE 100
BOISE, ID 83704-7188
US

Sampled By: Rachel Albertson & Matthew Call
Project: IPC - Battery Fire 7144
Location: Melba, ID
-

Report Number: 109694

**Thank you for using
IAQ Commercial Survey!**

If you have questions about your report,
please contact your service provider who
performed this test.

Client Sample ID: Baseline Rd Downwind, S.E
Sample Volume (L): 12.3
Date Sampled: 10/02/2023
Sample Type: TDT A1720
Sample Condition: Acceptable

Receive Date: 10/04/2023
Approve Date: 10/04/2023
Scan Date: 10/04/2023
Report Date: 10/06/2023

IAQ Commercial Survey™ is one of the most advanced, trusted air testing products on the market today for identifying chemical sources and active mold growth. Many indoor air quality (IAQ) issues identified by IAQ Commercial Survey can be easily remediated or eliminated. This test is an invaluable tool for improving air quality because it provides important information on potential contamination issues that cannot be detected by a visual inspection alone. Acting upon the information in this report will enable you to dramatically improve the air quality, creating a healthier environment.

Your Indoor Air Quality Report Summary

Your Indoor Air Quality Report has several sections describing different aspects of your air quality. A summary of this data is provided below, additional information and descriptions are included in the full report.

Total Volatile Organic Compounds (TVOC) Level

TVOC is a general indicator of the IAQ (see page 2).

Total VOCs 1100 ng/L

Contamination Index (CI) Level

The CI shows the types of air-contaminating products and materials that are present in the sampled area (see pages 4 and 5). These levels are estimates based on common home products and activities.

Building Sources

See page 4 for more detail.

M	Coatings (Paints, Varnishes, etc.)
N	PVC Cement
N	Building Materials-Toluene Based
N	Gasoline
N	Fuel Oil, Diesel Fuel, Kerosene
N	Light Hydrocarbons
N	Light Solvents

Occupant Sources

See page 5 for more detail.

N	HFCs and CFCs (Freons™)
N	Personal Care and Cleaning Products
N	Odorants and Fragrances
N	Dry Cleaning Solvents

Note: Severity levels begin at Normal or Minimal and progress through Moderate, Elevated, High and/or Severe. The color progression from green to red indicates results that are increasingly atypical and suggest potentially higher risk.

All Severity classifications are based on empirical data and should not be taken as a pass/fail or conformance to a published specified limit.

Normal Moderate Elevated High Severe

Enthalpy Analytical, LLC (MTP), the creator of IAQ Home Survey, has been performing air quality assessments to industry and environmental consultants since 1995. Enthalpy Analytical, LLC (MTP) (ID 166272) is accredited by the AIHA Laboratory Accreditation Programs (AIHA-LAP), LLC in the Industrial Hygiene accreditation program for GC-MS Field of Testing as documented by the Scope of Accreditation [Certificate](#) and associated Scope. This analysis references methods EPA TO-17 and ISO 16000-6, which fall within the Scope of Accreditation.

Total Volatile Organic Compound (TVOC) Summary

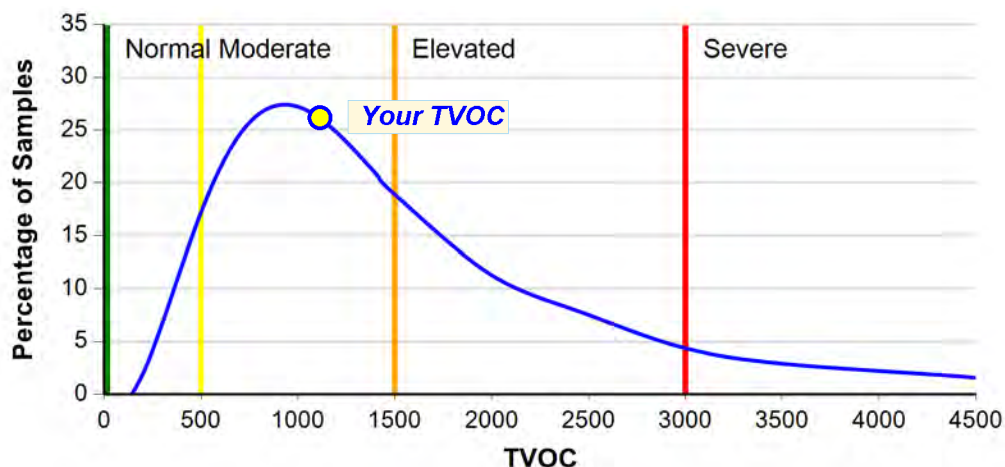
Your TVOC Level is: 1100 ng/L

IAQ is borderline acceptable; some effect on occupants is possible; reduce potential sources and consider increasing ventilation.

Your Indoor Air Quality Level (Highlighted)

Normal < 500 ng/L	Moderate 500 - 1500 ng/L	Elevated 1500 - 3000 ng/L	Severe > 3000 ng/L
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**All IAQ Survey TVOC
Air Quality Indicator**



**The average TVOC is
1900 ng/L**

This chart represents the TVOC distribution of over 45,000 samples. Over 80% of these samples indicate improvements in IAQ are necessary to achieve the goal of TVOC less than 500 ng/L.

The chart above shows the TVOC levels for all locations tested using IAQ Survey. Results for this air sample are displayed on the chart as a yellow circle. The blue curved line represents the relationship between the percentage of locations (indicated on the vertical y-axis) and the TVOC level (indicated on the horizontal x-axis). The green, yellow, orange, and red vertical bars represent divisions between Normal, Moderate, Elevated, and Severe TVOC levels. As the TVOC value increases, individuals may experience aggravated health problems, and therefore, the need to address VOC issues becomes more critical. However, reductions in VOCs can be made at any level.

No government or organization has specified a TVOC limit for indoor air. However, the U.S. Green Building Council (USGBC) has set 500 ng/L as the recommended TVOC limit.

In general:

- < 500 ng/L IAQ is acceptable for most individuals; however, chemically sensitive persons may require lower levels.
- 500 - 1,500 ng/L some effects on the occupants is possible.
- > 1,500 ng/L IAQ should be improved.

Note: These levels are based on observed health effects and have been determined from a combination of published data and the statistical distribution of TVOC concentrations from the IAQ Home Survey methodology.

The presence of chemicals in your home can cause a wide range of problems, from an unpleasant odor to physical symptoms (burning and irritation in the eyes, nose, and throat; headaches; nausea; nervous system effects; severe illness; etc.). Anyone with respiratory issues like asthma or allergies, as well as children, the elderly, and pregnant women are more susceptible to poor indoor air quality than healthy individuals.

Click [here](#) for more information about VOCs.

The Contamination Index (CI) in the next pages of this report will help guide you through determining what types of products or materials in the home could be problematic for your IAQ, and will provide some recommendations to help reduce or eliminate them.

Contamination Index™

The Contamination Index™ (CI) shows the types of air-contaminating products and materials that are present in the sampled area. Each CI category shows the approximate contribution of that category to the TVOC level, indicates how your location compares to thousands of other locations, and provides some suggestions about which products and materials might be the source for the VOCs. The CI is divided into two main source groups: Building Sources and Occupant Sources.

1. Building Sources are those that are typically part of the structure of the building and may be more difficult to reduce in the short term. Recent construction or renovation often increases the CI categories in this group to the Elevated, High, or Severe levels. VOCs from these activities often decrease substantially in the month following use or application of these products, especially if the area is flushed with air to dissipate the VOCs off gassed from the new products or materials.

2. Occupant Sources are those that the occupants of the building bring into the building and can usually be more readily identified and remediated. Recent construction or renovation can often contribute to other source categories in addition to Building Sources.

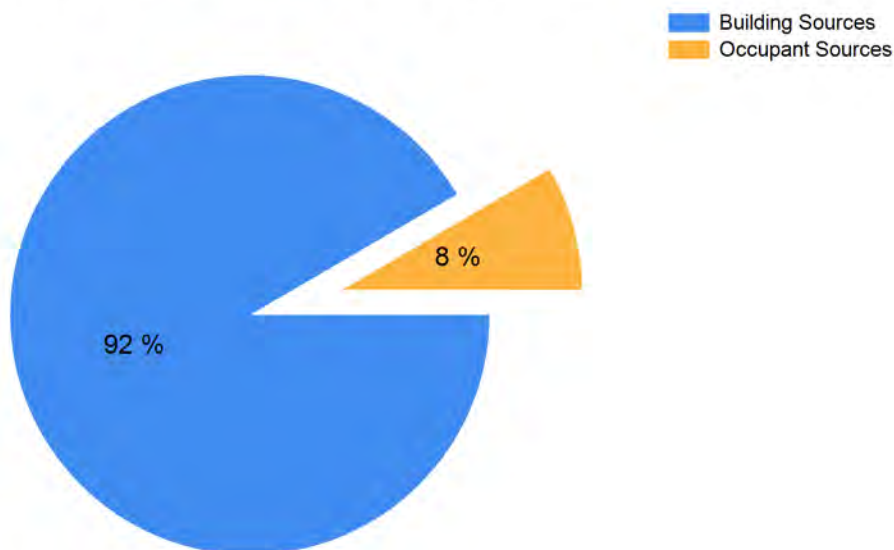
It is possible for a category listed in one source group to belong to another source group. For example, the 'Coatings' category is in the Building Sources group because the largest contribution is typically the paint on the walls, but cans of paint stored in a basement or storage area could be considered part of the Occupant Sources group. Always consider all possible sources for a particular CI category.

The CI categories comprise the most common sources but other products or activities may be present that are not included in the CI. The values assigned to each category are approximations based on typical office and commercial spaces. Locations with additional or atypical sources may require additional investigation to determine the source of certain chemicals that are not accurately represented by the CI.

Since there are potentially many sources of VOCs, buildings can often be re-contaminated even after sources have been removed because new products are constantly being brought into the building. Occupants should take note of this fact, and view IAQ as a continuous improvement process.

The chart below depicts the distribution of the Contamination Index source groups. These source groups are estimates and may not indicate all of the VOCs in your air sample.

Contamination Index Source Groups



Contamination Index™ Building Sources

Use the Contamination Index (CI) below to help you find products and materials in the sampled area that may be affecting your indoor air quality. Removing or reducing these products will improve your air quality. The concentrations reported here are approximate and may not add up to the TVOC value on page 2 of this report. These categories are typically part of the structure of the building and may be more difficult to reduce in the short term. Recent construction or renovation will often cause these categories to be elevated. Increased ventilation will help to reduce VOCs from construction or renovation sources. Levels indicated as Elevated, High, or Severe should be addressed immediately, and those listed as Moderate are areas that can be improved over time.

Building Sources	Contamination Index Category	Estimated VOC Level (ng/L)	Severity	Source Prediction & Suggestions for VOC Reduction
	Coatings (Paints, Varnishes, etc.)	380	Moderate	Includes interior and exterior paints (including low- or no-VOC paints), varnishes, lacquers, some sealants, and other products that can be classified as a coating over a surface. Typically, VOCs from these products are in the 10 to 14 carbon size range and can linger for several months, sometimes longer. Ventilate as much as possible during and after application of these products. Dispose of opened but unused products and related supplies if possible or store in areas that will minimize off gassing. Additional sources include fuel oil or diesel fuel.
	PVC Cement	1	Normal	PVC cement is used to join pieces of PVC pipe together, usually for plumbing.
	Building Materials-Toluene Based	0	Normal	Adhesives and glues used in construction and maintenance, arts and crafts; adhesive removers; contact cement; sealants; coatings (paint, polyurethane, lacquer, thinner); automotive products, including parts cleaners. Additional sources include gasoline and other fuels.
	Gasoline	130	Normal	VOCs from gasoline are typically a result of off-gassing from gas containers, small spills, and gas-powered equipment used in facilities maintenance in nearby garage or storage areas. Most vehicles in good operating condition do not emit gasoline vapors due to the tightly sealed gas tank. This category does not include exhaust emissions. Gasoline VOCs can linger on clothing after refueling at a gas station. Gasoline includes chemical compounds that are also included in the Light Solvents category.
	Fuel Oil, Diesel Fuel, Kerosene	130	Normal	Typically found in garages and facilities maintenance areas. These fuels are not very volatile so they will not readily get into the air, but they can linger for a long time and produce a strong, unpleasant odor. This category does not include exhaust emissions. Additional sources include coatings such as paints, varnishes, sealants, waxes, etc.
	Light Hydrocarbons	3	Normal	Building materials; aerosol cans; liquefied petroleum gas (LPG); refrigerant; natural gas; propellant; blowing agent. Includes chemical compounds such as propane, butane, and isobutane.
	Light Solvents	43	Normal	Stoddard solvent; mineral spirits; some coatings (paints, varnish, enamels, etc.); wax remover; adhesives; automotive products; light oils. Typically, VOCs from these products are in the 6 to 9 carbon size range.

Contamination Index™ Occupant Sources

Use the Contamination Index (CI) below to help you find products and materials in the sampled area that may be affecting your indoor air quality. Removing or reducing these products will improve your air quality. The concentrations reported here are approximate and may not add up to the TVOC value on page 2 of this report. These categories are typically brought into the building by the occupants and can often be readily identified and removed or contained. Levels indicated as Elevated, High, or Severe should be addressed immediately, and those listed as Moderate are areas that can be improved over time.

Occupant Sources	Contamination Index Category	Estimated VOC Level (ng/L)	Severity	Source Prediction & Suggestions for VOC Reduction
	HFCs and CFCs (Freons™)	5	Normal	Most often used as refrigerants for air conditioners and refrigerator/freezers and propellants for blown-in insulation, cushions, aerosol cans, etc. Many of these chemical compounds are being phased out because of the Montreal Protocol.
	Personal Care and Cleaning Products	35	Normal	Personal care products such as soap, deodorant, lotions, perfumes, hair coloring supplies, nail care supplies, oral hygiene products, etc. Cleaning agents such as surface, window, and flooring products, also restroom and antibacterial products. These products contain many VOCs that will dissipate if use is discontinued or reduced.
	Odorants and Fragrances	20	Normal	Air fresheners, scented cleaning products, and scented personal care products.
	Dry Cleaning Solvents	4	Normal	Typical dry-cleaning methods employ the use of carcinogenic chemicals. Dry-cleaning should be allowed to vent outside, without plastics bags, before being placed inside.

Significant VOCs

Based upon your specific air analysis, the chemical compounds listed below are significant contributors to the TVOC level reported on page 2 of your IAQ Commercial Survey Report or are indicative of specific types of products or problems. Compounds from a variety of chemical classes are represented here, although only the most common or most notable are specifically listed. These chemical compounds may come from a variety of sources as shown in the Contamination Index section of this report.

Locating and removing the source of the chemical compound is the most effective way to reduce the concentration of that chemical compound. If removing the source is not possible, try to contain it in some way (e.g., placing the source in an air-tight container when not in use). In addition, the ventilation system in some locations may not be optimized so evaluate the ventilation system and make adjustments to increase the amount of fresh air. Filter or purify re-circulated inside air to help reduce the TVOC. Since VOCs may continue to off-gas even when the sources are stored, ventilation and air-purification methods will need to be employed continuously in order to keep the VOC levels low.

The Chemical Abstracts Service (CAS) registry number after the chemical compound name in the table below is a unique identifier for that chemical compound and is often the best means to search for additional information. The two VOC levels in the table below (ng/L and ppb) are different ways of describing the same concentration, in some cases exposure limits or other information may be described using one or both of these concentration units.

Compound	CAS	Estimated VOC Level (ng/L)	Estimated VOC Level (ppb)	Description
Benzene	71-43-2	70	21	Gasoline. Less common sources include some discontinued solvents; printing and lithography; paints and coatings; rubber; dry cleaning; adhesives; detergents
Styrene	100-42-5	26	6	Polystyrene foam; synthetic rubber; flavoring agent
Toluene	108-88-3	15	4	Gasoline; adhesives (building and arts/crafts); contact cement; solvent; heavy duty cleaner
Naphthalene	91-20-3	14	3	Gasoline; diesel; Moth balls/crystals; insecticide

Supplemental Information: Odorants

Many chemical compounds have odors associated with them, some pleasant and some unpleasant. These odors can combine to create different odors, making odor identification more difficult. The odor descriptions for the compounds reported in this air sample are listed below as well as some of the more common sources.

Compound	CAS	Conc. (ppb)	Odor Range (ppb)	Odor Description
Benzene	71-43-2	21	470 - 313,000	aromatic, sweet, solvent, empyreumatic
Naphthalene	91-20-3	3	2 - 1,012	tar, creosote, mothballs, empyreumatic
Styrene	100-42-5	6	3 - 61,000	sharp, sweet
Toluene	108-88-3	4	21 - 157,000	sour, burnt

Supplemental Information: EPA Hazardous Air Pollutants (HAPs)

Hazardous air pollutants, also known as toxic air pollutants or air toxics, are those pollutants that are known or suspected to cause cancer or other serious health effects, such as reproductive effects or birth defects, or adverse environmental effects. Listed below are those HAPs that were detected with the IAQ Commercial Survey VOC test. This list does not include all HAPs. The '<' (less than) symbol in the 'Estimated VOC Level' columns indicates the compound is below the reporting limit for this air sample and therefore can be considered absent from the air sample. For more information about HAPs visit the EPA [Air Toxics website](#). The exposure limits listed below can also be found in the [NIOSH Guide to Chemical Hazards](#). The HAPs in the table below may also be listed as Significant VOCs if the concentration of that chemical compound is greater than the threshold level for a Significant VOC.

Compound	CAS	Estimated VOC Level (ng/L)	Estimated VOC Level (ppb)	NIOSH Exposure Limit	Description
Hexane (C 6)	110-54-3	4	1	180,000 ng/L (50,000 ppb)	Solvent; adhesive; grease; lubricant; paints and coatings; petroleum fuel component
Benzene	71-43-2	70	21	320 ng/L (100 ppb)	Gasoline. Less common sources include some discontinued solvents; printing and lithography; paints and coatings; rubber; dry cleaning; adhesives; detergents
Toluene	108-88-3	15	4	375,000 ng/L (100,000 ppb)	Gasoline; adhesives (building and arts/crafts); contact cement; solvent; heavy duty cleaner
Tetrachloroethene	127-18-4	4	0.5	Carcinogen	Dry cleaning; adhesives, automotive cleaners, polishes
Ethylbenzene	100-41-4	6	1	435,000 ng/L (100,000 ppb)	Gasoline; paints and coatings; solvent; pesticide
m,p-Xylene	108-38-3; 106-42-3	2	0.4	435,000 ng/L (100,000 ppb)	Gasoline; paints and coatings; adhesives and cements; solvent; print cartridges
Styrene	100-42-5	26	6	215,000 ng/L (50,000 ppb)	Polystyrene foam; synthetic rubber; flavoring agent
Naphthalene	91-20-3	14	3	50,000 ng/L (10,000 ppb)	Gasoline; diesel; Moth balls/crystals; insecticide

These results pertain only to this sample as it was collected and to the items reported.
These results have been reviewed and approved by the Laboratory Director or approved representative.

This analysis was performed by Enthalpy Analytical, LLC (MTP). The results contained in this report are dependent upon a number of factors over which Enthalpy Analytical, LLC (MTP) has no control, which may include, but are not limited to, the sampling technique utilized, the size or source of sample, the ability of the sampler to collect a proper or suitable sample, the compounds which make up the TVOC, and/or the type of mold(s) present. Therefore, the opinions contained in this report may be invalid and cannot be considered or construed as definitive and neither Enthalpy Analytical, LLC (MTP), nor its agents, officers, directors, employees, or successors shall be liable for any claims, actions, causes of action, costs, loss of service, medical or other expenses or any compensation whatsoever which may now or hereafter occur or accrue based upon the information or opinions contained herein.

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Client Sample ID: Fence Line, E.
Laboratory ID: 109694-2

Client: INDUSTRIAL HYGIENE RESOURCES
8312 W NORTHVIEW ST STE 100
BOISE, ID 83704-7188
US

Sampled By: Rachel Albertson & Matthew Call
Project: IPC - Battery Fire 7144
Location: Melba, ID
-

Report Number: 109694

**Thank you for using
IAQ Commercial Survey!**

If you have questions about your report,
please contact your service provider who
performed this test.

Receive Date: 10/04/2023
Approve Date: 10/04/2023
Scan Date: 10/04/2023
Report Date: 10/06/2023

Client Sample ID: Fence Line, E.
Sample Volume (L): 10.9
Date Sampled: 10/02/2023
Sample Type: TDT A0473
Sample Condition: Acceptable

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Your Indoor Air Quality Report has several sections describing different aspects of your air quality. A summary of this data is provided below, additional information and descriptions are included in the full report.

Total Volatile Organic Compounds (TVOC) Level

TVOC is a general indicator of the IAQ (see page 2).

 **Total VOCs** **2700 ng/L**

Contamination Index (CI) Level

The CI shows the types of air-contaminating products and materials that are present in the sampled area (see pages 4 and 5). These levels are estimates based on common home products and activities.

Building Sources

See page 4 for more detail.

M	Coatings (Paints, Varnishes, etc.)
N	PVC Cement
N	Building Materials-Toluene Based
N	Gasoline
N	Fuel Oil, Diesel Fuel, Kerosene
N	Light Hydrocarbons
N	Light Solvents

Occupant Sources

See page 5 for more detail.

N	HFCs and CFCs (Freons™)
N	Personal Care and Cleaning Products
N	Odorants and Fragrances
N	Dry Cleaning Solvents

Note: Severity levels begin at Normal or Minimal and progress through Moderate, Elevated, High and/or Severe. The color progression from green to red indicates results that are increasingly atypical and suggest potentially higher risk.

All Severity classifications are based on empirical data and should not be taken as a pass/fail or conformance to a published specified limit.

Normal **Moderate** **Elevated** **High** **Severe**

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Total Volatile Organic Compound (TVOC) Summary

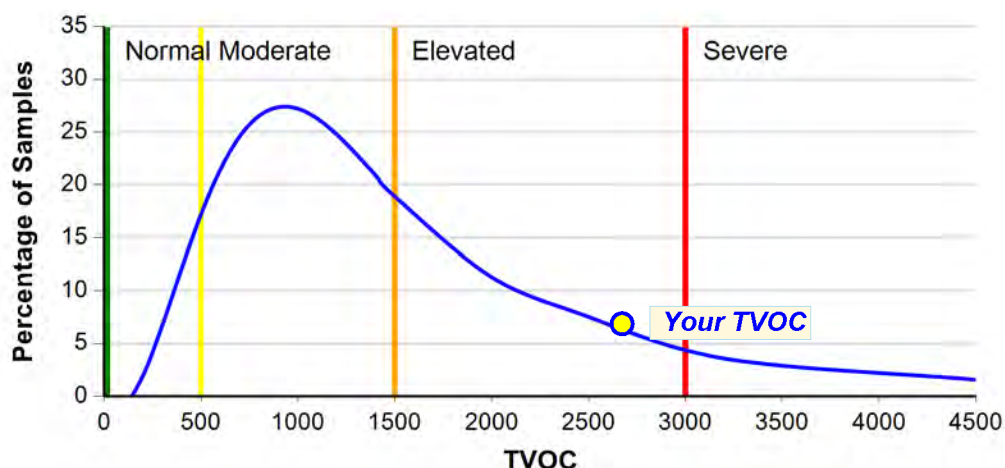
Your TVOC Level is: 2700 ng/L

IAQ needs improvement; effect on occupants is possible; reduce potential sources and increase ventilation.

Your Indoor Air Quality Level (Highlighted)

Normal < 500 ng/L	Moderate 500 - 1500 ng/L	Elevated 1500 - 3000 ng/L	Severe > 3000 ng/L
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**All IAQ Survey TVOC
Air Quality Indicator**



**The average TVOC is
1900 ng/L**

This chart represents the TVOC distribution of over 45,000 samples. Over 80% of these samples indicate improvements in IAQ are necessary to achieve the goal of TVOC less than 500 ng/L.

The chart above shows the TVOC levels for all locations tested using IAQ Survey. Results for this air sample are displayed on the chart as a yellow circle. The blue curved line represents the relationship between the percentage of locations (indicated on the vertical y-axis) and the TVOC level (indicated on the horizontal x-axis). The green, yellow, orange, and red vertical bars represent divisions between Normal, Moderate, Elevated, and Severe TVOC levels. As the TVOC value increases, individuals may experience aggravated health problems, and therefore, the need to address VOC issues becomes more critical. However, reductions in VOCs can be made at any level.

No government or organization has specified a TVOC limit for indoor air. However, the U.S. Green Building Council (USGBC) has set 500 ng/L as the recommended TVOC limit.

In general:

- < 500 ng/L IAQ is acceptable for most individuals; however, chemically sensitive persons may require lower levels.
- 500 - 1,500 ng/L some effects on the occupants is possible.
- > 1,500 ng/L IAQ should be improved.

Note: These levels are based on observed health effects and have been determined from a combination of published data and the statistical distribution of TVOC concentrations from the IAQ Home Survey methodology.

The presence of chemicals in your home can cause a wide range of problems, from an unpleasant odor to physical symptoms (burning and irritation in the eyes, nose, and throat; headaches; nausea; nervous system effects; severe illness; etc.). Anyone with respiratory issues like asthma or allergies, as well as children, the elderly, and pregnant women are more susceptible to poor indoor air quality than healthy individuals.

Click [here](#) for more information about VOCs.

The Contamination Index (CI) in the next pages of this report will help guide you through determining what types of products or materials in the home could be problematic for your IAQ, and will provide some recommendations to help reduce or eliminate them.

Contamination Index™

The Contamination Index™ (CI) shows the types of air-contaminating products and materials that are present in the sampled area. Each CI category shows the approximate contribution of that category to the TVOC level, indicates how your location compares to thousands of other locations, and provides some suggestions about which products and materials might be the source for the VOCs. The CI is divided into two main source groups: Building Sources and Occupant Sources.

1. Building Sources are those that are typically part of the structure of the building and may be more difficult to reduce in the short term. Recent construction or renovation often increases the CI categories in this group to the Elevated, High, or Severe levels. VOCs from these activities often decrease substantially in the month following use or application of these products, especially if the area is flushed with air to dissipate the VOCs off gassed from the new products or materials.

2. Occupant Sources are those that the occupants of the building bring into the building and can usually be more readily identified and remediated. Recent construction or renovation can often contribute to other source categories in addition to Building Sources.

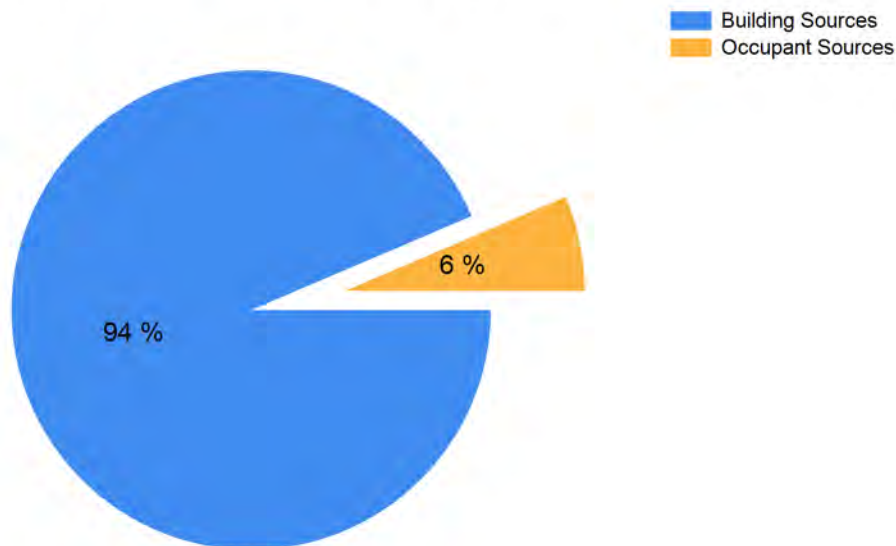
It is possible for a category listed in one source group to belong to another source group. For example, the 'Coatings' category is in the Building Sources group because the largest contribution is typically the paint on the walls, but cans of paint stored in a basement or storage area could be considered part of the Occupant Sources group. Always consider all possible sources for a particular CI category.

The CI categories comprise the most common sources but other products or activities may be present that are not included in the CI. The values assigned to each category are approximations based on typical office and commercial spaces. Locations with additional or atypical sources may require additional investigation to determine the source of certain chemicals that are not accurately represented by the CI.

Since there are potentially many sources of VOCs, buildings can often be re-contaminated even after sources have been removed because new products are constantly being brought into the building. Occupants should take note of this fact, and view IAQ as a continuous improvement process.

The chart below depicts the distribution of the Contamination Index source groups. These source groups are estimates and may not indicate all of the VOCs in your air sample.

Contamination Index Source Groups



Contamination Index™ Building Sources

Use the Contamination Index (CI) below to help you find products and materials in the sampled area that may be affecting your indoor air quality. Removing or reducing these products will improve your air quality. The concentrations reported here are approximate and may not add up to the TVOC value on page 2 of this report. These categories are typically part of the structure of the building and may be more difficult to reduce in the short term. Recent construction or renovation will often cause these categories to be elevated. Increased ventilation will help to reduce VOCs from construction or renovation sources. Levels indicated as Elevated, High, or Severe should be addressed immediately, and those listed as Moderate are areas that can be improved over time.

Building Sources	Contamination Index Category	Estimated VOC Level (ng/L)	Severity	Source Prediction & Suggestions for VOC Reduction
	Coatings (Paints, Varnishes, etc.)	760	Moderate	Includes interior and exterior paints (including low- or no-VOC paints), varnishes, lacquers, some sealants, and other products that can be classified as a coating over a surface. Typically, VOCs from these products are in the 10 to 14 carbon size range and can linger for several months, sometimes longer. Ventilate as much as possible during and after application of these products. Dispose of opened but unused products and related supplies if possible or store in areas that will minimize off gassing. Additional sources include fuel oil or diesel fuel.
	PVC Cement	3	Normal	PVC cement is used to join pieces of PVC pipe together, usually for plumbing.
	Building Materials-Toluene Based	0	Normal	Adhesives and glues used in construction and maintenance, arts and crafts; adhesive removers; contact cement; sealants; coatings (paint, polyurethane, lacquer, thinner); automotive products, including parts cleaners. Additional sources include gasoline and other fuels.
	Gasoline	140	Normal	VOCs from gasoline are typically a result of off-gassing from gas containers, small spills, and gas-powered equipment used in facilities maintenance in nearby garage or storage areas. Most vehicles in good operating condition do not emit gasoline vapors due to the tightly sealed gas tank. This category does not include exhaust emissions. Gasoline VOCs can linger on clothing after refueling at a gas station. Gasoline includes chemical compounds that are also included in the Light Solvents category.
	Fuel Oil, Diesel Fuel, Kerosene	110	Normal	Typically found in garages and facilities maintenance areas. These fuels are not very volatile so they will not readily get into the air, but they can linger for a long time and produce a strong, unpleasant odor. This category does not include exhaust emissions. Additional sources include coatings such as paints, varnishes, sealants, waxes, etc.
	Light Hydrocarbons	18	Normal	Building materials; aerosol cans; liquefied petroleum gas (LPG); refrigerant; natural gas; propellant; blowing agent. Includes chemical compounds such as propane, butane, and isobutane.
	Light Solvents	76	Normal	Stoddard solvent; mineral spirits; some coatings (paints, varnish, enamels, etc.); wax remover; adhesives; automotive products; light oils. Typically, VOCs from these products are in the 6 to 9 carbon size range.

Contamination Index™ Occupant Sources

Use the Contamination Index (CI) below to help you find products and materials in the sampled area that may be affecting your indoor air quality. Removing or reducing these products will improve your air quality. The concentrations reported here are approximate and may not add up to the TVOC value on page 2 of this report. These categories are typically brought into the building by the occupants and can often be readily identified and removed or contained. Levels indicated as Elevated, High, or Severe should be addressed immediately, and those listed as Moderate are areas that can be improved over time.

Occupant Sources	Contamination Index Category	Estimated VOC Level (ng/L)	Severity	Source Prediction & Suggestions for VOC Reduction
	HFCs and CFCs (Freons™)	7	Normal	Most often used as refrigerants for air conditioners and refrigerator/freezers and propellants for blown-in insulation, cushions, aerosol cans, etc. Many of these chemical compounds are being phased out because of the Montreal Protocol.
	Personal Care and Cleaning Products	32	Normal	Personal care products such as soap, deodorant, lotions, perfumes, hair coloring supplies, nail care supplies, oral hygiene products, etc. Cleaning agents such as surface, window, and flooring products, also restroom and antibacterial products. These products contain many VOCs that will dissipate if use is discontinued or reduced.
	Odorants and Fragrances	34	Normal	Air fresheners, scented cleaning products, and scented personal care products.
	Dry Cleaning Solvents	4	Normal	Typical dry-cleaning methods employ the use of carcinogenic chemicals. Dry-cleaning should be allowed to vent outside, without plastics bags, before being placed inside.

Significant VOCs

Based upon your specific air analysis, the chemical compounds listed below are significant contributors to the TVOC level reported on page 2 of your IAQ Commercial Survey Report or are indicative of specific types of products or problems. Compounds from a variety of chemical classes are represented here, although only the most common or most notable are specifically listed. These chemical compounds may come from a variety of sources as shown in the Contamination Index section of this report.

Locating and removing the source of the chemical compound is the most effective way to reduce the concentration of that chemical compound. If removing the source is not possible, try to contain it in some way (e.g., placing the source in an air-tight container when not in use). In addition, the ventilation system in some locations may not be optimized so evaluate the ventilation system and make adjustments to increase the amount of fresh air. Filter or purify re-circulated inside air to help reduce the TVOC. Since VOCs may continue to off-gas even when the sources are stored, ventilation and air-purification methods will need to be employed continuously in order to keep the VOC levels low.

The Chemical Abstracts Service (CAS) registry number after the chemical compound name in the table below is a unique identifier for that chemical compound and is often the best means to search for additional information. The two VOC levels in the table below (ng/L and ppb) are different ways of describing the same concentration, in some cases exposure limits or other information may be described using one or both of these concentration units.

Compound	CAS	Estimated VOC Level (ng/L)	Estimated VOC Level (ppb)	Description
Benzene	71-43-2	230	72	Gasoline. Less common sources include some discontinued solvents; printing and lithography; paints and coatings; rubber; dry cleaning; adhesives; detergents
Styrene	100-42-5	87	20	Polystyrene foam; synthetic rubber; flavoring agent
Toluene	108-88-3	46	12	Gasoline; adhesives (building and arts/crafts); contact cement; solvent; heavy duty cleaner
Naphthalene	91-20-3	44	8	Gasoline; diesel; Moth balls/crystals; insecticide
Ethylbenzene	100-41-4	21	5	Gasoline; paints and coatings; solvent; pesticide
Acetonitrile	75-05-8	11	6	Solvent

Supplemental Information: Odorants

Many chemical compounds have odors associated with them, some pleasant and some unpleasant. These odors can combine to create different odors, making odor identification more difficult. The odor descriptions for the compounds reported in this air sample are listed below as well as some of the more common sources.

Compound	CAS	Conc. (ppb)	Odor Range (ppb)	Odor Description
Acetonitrile	75-05-8	6	13,000 - 1,161,000	etherish
Benzene	71-43-2	72	470 - 313,000	aromatic, sweet, solvent, empyreumatic
Ethylbenzene	100-41-4	5	2 - 18,000	oily, solvent
Naphthalene	91-20-3	8	2 - 1,012	tar, creosote, mothballs, empyreumatic
Styrene	100-42-5	20	3 - 61,000	sharp, sweet
Toluene	108-88-3	12	21 - 157,000	sour, burnt

Supplemental Information: EPA Hazardous Air Pollutants (HAPs)

Hazardous air pollutants, also known as toxic air pollutants or air toxics, are those pollutants that are known or suspected to cause cancer or other serious health effects, such as reproductive effects or birth defects, or adverse environmental effects. Listed below are those HAPs that were detected with the IAQ Commercial Survey VOC test. This list does not include all HAPs. The '<' (less than) symbol in the 'Estimated VOC Level' columns indicates the compound is below the reporting limit for this air sample and therefore can be considered absent from the air sample. For more information about HAPs visit the EPA [Air Toxics website](#). The exposure limits listed below can also be found in the [NIOSH Guide to Chemical Hazards](#). The HAPs in the table below may also be listed as Significant VOCs if the concentration of that chemical compound is greater than the threshold level for a Significant VOC.

Compound	CAS	Estimated VOC Level (ng/L)	Estimated VOC Level (ppb)	NIOSH Exposure Limit	Description
Hexane (C 6)	110-54-3	3	0.9	180,000 ng/L (50,000 ppb)	Solvent; adhesive; grease; lubricant; paints and coatings; petroleum fuel component
Benzene	71-43-2	230	72	320 ng/L (100 ppb)	Gasoline. Less common sources include some discontinued solvents; printing and lithography; paints and coatings; rubber; dry cleaning; adhesives; detergents
Toluene	108-88-3	46	12	375,000 ng/L (100,000 ppb)	Gasoline; adhesives (building and arts/crafts); contact cement; solvent; heavy duty cleaner
Tetrachloroethene	127-18-4	4	0.5	Carcinogen	Dry cleaning; adhesives, automotive cleaners, polishes
Ethylbenzene	100-41-4	21	5	435,000 ng/L (100,000 ppb)	Gasoline; paints and coatings; solvent; pesticide
m,p-Xylene	108-38-3; 106-42-3	4	0.8	435,000 ng/L (100,000 ppb)	Gasoline; paints and coatings; adhesives and cements; solvent; print cartridges
o-Xylene	95-47-6	2	0.4	435,000 ng/L (100,000 ppb)	Gasoline; paints and coatings; adhesives and cements; solvent; print cartridges
Styrene	100-42-5	87	20	215,000 ng/L (50,000 ppb)	Polystyrene foam; synthetic rubber; flavoring agent
Naphthalene	91-20-3	44	8	50,000 ng/L (10,000 ppb)	Gasoline; diesel; Moth balls/crystals; insecticide

*These results pertain only to this sample as it was collected and to the items reported.
 These results have been reviewed and approved by the Laboratory Director or approved representative.*

This analysis was performed by Enthalpy Analytical, LLC (MTP). The results contained in this report are dependent upon a number of factors over which Enthalpy Analytical, LLC (MTP) has no control, which may include, but are not limited to, the sampling technique utilized, the size or source of sample, the ability of the sampler to collect a proper or suitable sample, the compounds which make up the TVOC, and/or the type of mold(s) present. Therefore, the opinions contained in this report may be invalid and cannot be considered or construed as definitive and neither Enthalpy Analytical, LLC (MTP), nor its agents, officers, directors, employees, or successors shall be liable for any claims, actions, causes of action, costs, loss of service, medical or other expenses or any compensation whatsoever which may now or hereafter occur or accrue based upon the information or opinions contained herein.

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Client Sample ID: Private Residence, N.E.

Laboratory ID: 109694-3

Less Than Recommended Volume

Client: INDUSTRIAL HYGIENE RESOURCES
8312 W NORTHVIEW ST STE 100
BOISE, ID 83704-7188
US

Sampled By: Rachel Albertson & Matthew Call

Project: IPC - Battery Fire 7144

Location: Melba, ID

-

Report Number: 109694

**Thank you for using
IAQ Commercial Survey!**

If you have questions about your report,
please contact your service provider who
performed this test.

Client Sample ID: Private Residence, N.E.

Sample Volume (L): 9.5

Date Sampled: 10/02/2023

Sample Type: TDT A1596

Sample Condition: Acceptable

Receive Date: 10/04/2023

Approve Date: 10/04/2023

Scan Date: 10/04/2023

Report Date: 10/06/2023

IAQ Commercial Survey™ is one of the most advanced, trusted air testing products on the market today for identifying chemical sources and active mold growth. Many indoor air quality (IAQ) issues identified by IAQ Commercial Survey can be easily remediated or eliminated. This test is an invaluable tool for improving air quality because it provides important information on potential contamination issues that cannot be detected by a visual inspection alone. Acting upon the information in this report will enable you to dramatically improve the air quality, creating a healthier environment.

Your Indoor Air Quality Report Summary

Your Indoor Air Quality Report has several sections describing different aspects of your air quality. A summary of this data is provided below, additional information and descriptions are included in the full report.

Total Volatile Organic Compounds (TVOC) Level

TVOC is a general indicator of the IAQ (see page 2).

Total VOCs 570 ng/L

Contamination Index (CI) Level

The CI shows the types of air-contaminating products and materials that are present in the sampled area (see pages 4 and 5). These levels are estimates based on common home products and activities.

Building Sources

See page 4 for more detail.

N	Coatings (Paints, Varnishes, etc.)
N	PVC Cement
N	Building Materials-Toluene Based
N	Gasoline
N	Fuel Oil, Diesel Fuel, Kerosene
N	Light Hydrocarbons
N	Light Solvents

Occupant Sources

See page 5 for more detail.

N	HFCs and CFCs (Freons™)
N	Personal Care and Cleaning Products
N	Odorants and Fragrances
N	Dry Cleaning Solvents

Note: Severity levels begin at Normal or Minimal and progress through Moderate, Elevated, High and/or Severe. The color progression from green to red indicates results that are increasingly atypical and suggest potentially higher risk.

All Severity classifications are based on empirical data and should not be taken as a pass/fail or conformance to a published specified limit.

Normal Moderate Elevated High Severe

Enthalpy Analytical, LLC (MTP), the creator of IAQ Home Survey, has been performing air quality assessments to industry and environmental consultants since 1995. Enthalpy Analytical, LLC (MTP) (ID 166272) is accredited by the AIHA Laboratory Accreditation Programs (AIHA-LAP), LLC in the Industrial Hygiene accreditation program for GC-MS Field of Testing as documented by the Scope of Accreditation [Certificate](#) and associated Scope. This analysis references methods EPA TO-17 and ISO 16000-6, which fall within the Scope of Accreditation.

Total Volatile Organic Compound (TVOC) Summary

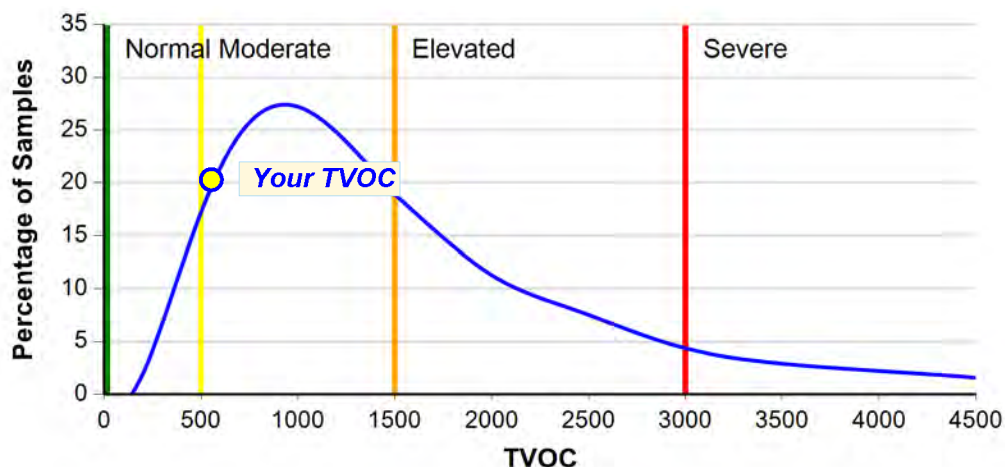
Your TVOC Level is: 570 ng/L

IAQ is borderline acceptable; some effect on occupants is possible; reduce potential sources and consider increasing ventilation.

Your Indoor Air Quality Level (Highlighted)

Normal < 500 ng/L	Moderate 500 - 1500 ng/L	Elevated 1500 - 3000 ng/L	Severe > 3000 ng/L
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**All IAQ Survey TVOC
Air Quality Indicator**



**The average TVOC is
1900 ng/L**

This chart represents the TVOC distribution of over 45,000 samples. Over 80% of these samples indicate improvements in IAQ are necessary to achieve the goal of TVOC less than 500 ng/L.

The chart above shows the TVOC levels for all locations tested using IAQ Survey. Results for this air sample are displayed on the chart as a yellow circle. The blue curved line represents the relationship between the percentage of locations (indicated on the vertical y-axis) and the TVOC level (indicated on the horizontal x-axis). The green, yellow, orange, and red vertical bars represent divisions between Normal, Moderate, Elevated, and Severe TVOC levels. As the TVOC value increases, individuals may experience aggravated health problems, and therefore, the need to address VOC issues becomes more critical. However, reductions in VOCs can be made at any level.

No government or organization has specified a TVOC limit for indoor air. However, the U.S. Green Building Council (USGBC) has set 500 ng/L as the recommended TVOC limit.

In general:

- < 500 ng/L IAQ is acceptable for most individuals; however, chemically sensitive persons may require lower levels.
- 500 - 1,500 ng/L some effects on the occupants is possible.
- > 1,500 ng/L IAQ should be improved.

Note: These levels are based on observed health effects and have been determined from a combination of published data and the statistical distribution of TVOC concentrations from the IAQ Home Survey methodology.

The presence of chemicals in your home can cause a wide range of problems, from an unpleasant odor to physical symptoms (burning and irritation in the eyes, nose, and throat; headaches; nausea; nervous system effects; severe illness; etc.). Anyone with respiratory issues like asthma or allergies, as well as children, the elderly, and pregnant women are more susceptible to poor indoor air quality than healthy individuals.

Click [here](#) for more information about VOCs.

The Contamination Index (CI) in the next pages of this report will help guide you through determining what types of products or materials in the home could be problematic for your IAQ, and will provide some recommendations to help reduce or eliminate them.

Contamination Index™

The Contamination Index™ (CI) shows the types of air-contaminating products and materials that are present in the sampled area. Each CI category shows the approximate contribution of that category to the TVOC level, indicates how your location compares to thousands of other locations, and provides some suggestions about which products and materials might be the source for the VOCs. The CI is divided into two main source groups: Building Sources and Occupant Sources.

1. Building Sources are those that are typically part of the structure of the building and may be more difficult to reduce in the short term. Recent construction or renovation often increases the CI categories in this group to the Elevated, High, or Severe levels. VOCs from these activities often decrease substantially in the month following use or application of these products, especially if the area is flushed with air to dissipate the VOCs off gassed from the new products or materials.

2. Occupant Sources are those that the occupants of the building bring into the building and can usually be more readily identified and remediated. Recent construction or renovation can often contribute to other source categories in addition to Building Sources.

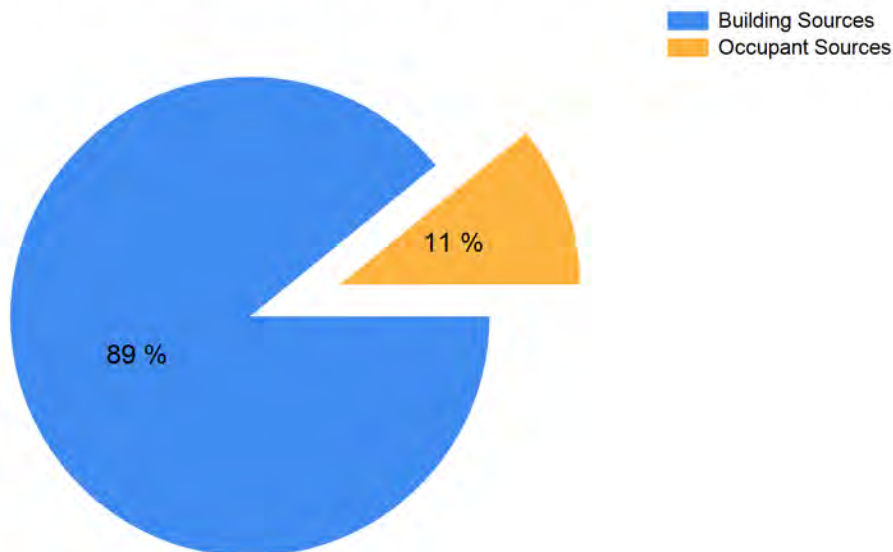
It is possible for a category listed in one source group to belong to another source group. For example, the 'Coatings' category is in the Building Sources group because the largest contribution is typically the paint on the walls, but cans of paint stored in a basement or storage area could be considered part of the Occupant Sources group. Always consider all possible sources for a particular CI category.

The CI categories comprise the most common sources but other products or activities may be present that are not included in the CI. The values assigned to each category are approximations based on typical office and commercial spaces. Locations with additional or atypical sources may require additional investigation to determine the source of certain chemicals that are not accurately represented by the CI.

Since there are potentially many sources of VOCs, buildings can often be re-contaminated even after sources have been removed because new products are constantly being brought into the building. Occupants should take note of this fact, and view IAQ as a continuous improvement process.

The chart below depicts the distribution of the Contamination Index source groups. These source groups are estimates and may not indicate all of the VOCs in your air sample.

Contamination Index Source Groups



Contamination Index™ Building Sources

Use the Contamination Index (CI) below to help you find products and materials in the sampled area that may be affecting your indoor air quality. Removing or reducing these products will improve your air quality. The concentrations reported here are approximate and may not add up to the TVOC value on page 2 of this report. These categories are typically part of the structure of the building and may be more difficult to reduce in the short term. Recent construction or renovation will often cause these categories to be elevated. Increased ventilation will help to reduce VOCs from construction or renovation sources. Levels indicated as Elevated, High, or Severe should be addressed immediately, and those listed as Moderate are areas that can be improved over time.

Building Sources	Contamination Index Category	Estimated VOC Level (ng/L)	Severity	Source Prediction & Suggestions for VOC Reduction
	Coatings (Paints, Varnishes, etc.)	220	Normal	Includes interior and exterior paints (including low- or no-VOC paints), varnishes, lacquers, some sealants, and other products that can be classified as a coating over a surface. Typically, VOCs from these products are in the 10 to 14 carbon size range and can linger for several months after application, sometimes longer. Ventilate as much as possible during and after application of any of these products. Dispose of opened but unused products and related supplies if possible or store in areas that will minimize off gassing. Additional sources include fuel oil or diesel fuel.
	PVC Cement	0	Normal	PVC cement is used to join pieces of PVC pipe together, usually for plumbing.
	Building Materials-Toluene Based	0	Normal	Adhesives and glues used in construction and maintenance, arts and crafts; adhesive removers; contact cement; sealants; coatings (paint, polyurethane, lacquer, thinner); automotive products, including parts cleaners. Additional sources include gasoline and other fuels.
	Gasoline	18	Normal	VOCs from gasoline are typically a result of off-gassing from gas containers, small spills, and gas-powered equipment used in facilities maintenance in nearby garage or storage areas. Most vehicles in good operating condition do not emit gasoline vapors due to the tightly sealed gas tank. This category does not include exhaust emissions. Gasoline VOCs can linger on clothing after refueling at a gas station. Gasoline includes chemical compounds that are also included in the Light Solvents category.
	Fuel Oil, Diesel Fuel, Kerosene	0	Normal	Typically found in garages and facilities maintenance areas. These fuels are not very volatile so they will not readily get into the air, but they can linger for a long time and produce a strong, unpleasant odor. This category does not include exhaust emissions. Additional sources include coatings such as paints, varnishes, sealants, waxes, etc.
	Light Hydrocarbons	1	Normal	Building materials; aerosol cans; liquefied petroleum gas (LPG); refrigerant; natural gas; propellant; blowing agent. Includes chemical compounds such as propane, butane, and isobutane.
	Light Solvents	21	Normal	Stoddard solvent; mineral spirits; some coatings (paints, varnish, enamels, etc.); wax remover; adhesives; automotive products; light oils. Typically, VOCs from these products are in the 6 to 9 carbon size range.

Client Sample ID: Private Residence, N.E.

Laboratory ID: 109694-3

Less Than Recommended Volume

Contamination Index™ Occupant Sources

Use the Contamination Index (CI) below to help you find products and materials in the sampled area that may be affecting your indoor air quality. Removing or reducing these products will improve your air quality. The concentrations reported here are approximate and may not add up to the TVOC value on page 2 of this report. These categories are typically brought into the building by the occupants and can often be readily identified and removed or contained. Levels indicated as Elevated, High, or Severe should be addressed immediately, and those listed as Moderate are areas that can be improved over time.

Occupant Sources	Contamination Index Category	Estimated VOC Level (ng/L)	Severity	Source Prediction & Suggestions for VOC Reduction
	HFCs and CFCs (Freons™)	6	Normal	Most often used as refrigerants for air conditioners and refrigerator/freezers and propellants for blown-in insulation, cushions, aerosol cans, etc. Many of these chemical compounds are being phased out because of the Montreal Protocol.
	Personal Care and Cleaning Products	15	Normal	Personal care products such as soap, deodorant, lotions, perfumes, hair coloring supplies, nail care supplies, oral hygiene products, etc. Cleaning agents such as surface, window, and flooring products, also restroom and antibacterial products. These products contain many VOCs that will dissipate if use is discontinued or reduced.
	Odorants and Fragrances	10	Normal	Air fresheners, scented cleaning products, and scented personal care products.
	Dry Cleaning Solvents	2	Normal	Typical dry-cleaning methods employ the use of carcinogenic chemicals. Dry-cleaning should be allowed to vent outside, without plastics bags, before being placed inside.

Significant VOCs

Based upon your specific air analysis, the chemical compounds listed below are significant contributors to the TVOC level reported on page 2 of your IAQ Commercial Survey Report or are indicative of specific types of products or problems. Compounds from a variety of chemical classes are represented here, although only the most common or most notable are specifically listed. These chemical compounds may come from a variety of sources as shown in the Contamination Index section of this report.

Locating and removing the source of the chemical compound is the most effective way to reduce the concentration of that chemical compound. If removing the source is not possible, try to contain it in some way (e.g., placing the source in an air-tight container when not in use). In addition, the ventilation system in some locations may not be optimized so evaluate the ventilation system and make adjustments to increase the amount of fresh air. Filter or purify re-circulated inside air to help reduce the TVOC. Since VOCs may continue to off-gas even when the sources are stored, ventilation and air-purification methods will need to be employed continuously in order to keep the VOC levels low.

The Chemical Abstracts Service (CAS) registry number after the chemical compound name in the table below is a unique identifier for that chemical compound and is often the best means to search for additional information. The two VOC levels in the table below (ng/L and ppb) are different ways of describing the same concentration, in some cases exposure limits or other information may be described using one or both of these concentration units.

Compound	CAS	Estimated VOC Level (ng/L)	Estimated VOC Level (ppb)	Description
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The notes below indicate any additional significant compounds present in this air sample or other noteworthy information.

No significant VOCs were detected in this air sample.

Client Sample ID: Private Residence, N.E.

Laboratory ID: 109694-3

Less Than Recommended Volume

Supplemental Information: Odorants

Many chemical compounds have odors associated with them, some pleasant and some unpleasant. These odors can combine to create different odors, making odor identification more difficult. The odor descriptions for the compounds reported in this air sample are listed below as well as some of the more common sources.

Client Sample ID: Private Residence, N.E.

Laboratory ID: 109694-3

Less Than Recommended Volume

Supplemental Information: EPA Hazardous Air Pollutants (HAPs)

Hazardous air pollutants, also known as toxic air pollutants or air toxics, are those pollutants that are known or suspected to cause cancer or other serious health effects, such as reproductive effects or birth defects, or adverse environmental effects. Listed below are those HAPs that were detected with the IAQ Commercial Survey VOC test. This list does not include all HAPs. The '<' (less than) symbol in the 'Estimated VOC Level' columns indicates the compound is below the reporting limit for this air sample and therefore can be considered absent from the air sample. For more information about HAPs visit the EPA [Air Toxics website](#). The exposure limits listed below can also be found in the [NIOSH Guide to Chemical Hazards](#). The HAPs in the table below may also be listed as Significant VOCs if the concentration of that chemical compound is greater than the threshold level for a Significant VOC.

Compound	CAS	Estimated VOC Level (ng/L)	Estimated VOC Level (ppb)	NIOSH Exposure Limit	Description
Hexane (C 6)	110-54-3	2	0.5	180,000 ng/L (50,000 ppb)	Solvent; adhesive; grease; lubricant; paints and coatings; petroleum fuel component
Tetrachloroethene	127-18-4	2	0.2	Carcinogen	Dry cleaning; adhesives, automotive cleaners, polishes

*These results pertain only to this sample as it was collected and to the items reported.
These results have been reviewed and approved by the Laboratory Director or approved representative.*

This analysis was performed by Enthalpy Analytical, LLC (MTP). The results contained in this report are dependent upon a number of factors over which Enthalpy Analytical, LLC (MTP) has no control, which may include, but are not limited to, the sampling technique utilized, the size or source of sample, the ability of the sampler to collect a proper or suitable sample, the compounds which make up the TVOC, and/or the type of mold(s) present. Therefore, the opinions contained in this report may be invalid and cannot be considered or construed as definitive and neither Enthalpy Analytical, LLC (MTP), nor its agents, officers, directors, employees, or successors shall be liable for any claims, actions, causes of action, costs, loss of service, medical or other expenses or any compensation whatsoever which may now or hereafter occur or accrue based upon the information or opinions contained herein.

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Client Sample ID: Corner of Field, S.
Laboratory ID: 109694-4

Client: INDUSTRIAL HYGIENE RESOURCES
8312 W NORTHVIEW ST STE 100
BOISE, ID 83704-7188
US

Sampled By: Rachel Albertson & Matthew Call
Project: IPC - Battery Fire 7144
Location: Melba, ID
-

Report Number: 109694

**Thank you for using
IAQ Commercial Survey!**

If you have questions about your report,
please contact your service provider who
performed this test.

Client Sample ID: Corner of Field, S.
Sample Volume (L): 14.9
Date Sampled: 10/02/2023
Sample Type: TDT A1130
Sample Condition: Acceptable

Receive Date: 10/04/2023
Approve Date: 10/04/2023
Scan Date: 10/04/2023
Report Date: 10/06/2023

IAQ Commercial Survey™ is one of the most advanced, trusted air testing products on the market today for identifying chemical sources and active mold growth. Many indoor air quality (IAQ) issues identified by IAQ Commercial Survey can be easily remediated or eliminated. This test is an invaluable tool for improving air quality because it provides important information on potential contamination issues that cannot be detected by a visual inspection alone. Acting upon the information in this report will enable you to dramatically improve the air quality, creating a healthier environment.

Your Indoor Air Quality Report Summary

Your Indoor Air Quality Report has several sections describing different aspects of your air quality. A summary of this data is provided below, additional information and descriptions are included in the full report.

Total Volatile Organic Compounds (TVOC) Level

TVOC is a general indicator of the IAQ (see page 2).

 **Total VOCs** **380 ng/L**

Contamination Index (CI) Level

The CI shows the types of air-contaminating products and materials that are present in the sampled area (see pages 4 and 5). These levels are estimates based on common home products and activities.

Building Sources

See page 4 for more detail.

N	Coatings (Paints, Varnishes, etc.)
N	PVC Cement
N	Building Materials-Toluene Based
N	Gasoline
N	Fuel Oil, Diesel Fuel, Kerosene
N	Light Hydrocarbons
N	Light Solvents

Occupant Sources

See page 5 for more detail.

N	HFCs and CFCs (Freons™)
N	Personal Care and Cleaning Products
N	Odorants and Fragrances
N	Dry Cleaning Solvents

Note: Severity levels begin at Normal or Minimal and progress through Moderate, Elevated, High and/or Severe. The color progression from green to red indicates results that are increasingly atypical and suggest potentially higher risk.

All Severity classifications are based on empirical data and should not be taken as a pass/fail or conformance to a published specified limit.

Normal **Moderate** **Elevated** **High** **Severe**

Enthalpy Analytical, LLC (MTP), the creator of IAQ Home Survey, has been performing air quality assessments to industry and environmental consultants since 1995. Enthalpy Analytical, LLC (MTP) (ID 166272) is accredited by the AIHA Laboratory Accreditation Programs (AIHA-LAP), LLC in the Industrial Hygiene accreditation program for GC-MS Field of Testing as documented by the Scope of Accreditation [Certificate](#) and associated Scope. This analysis references methods EPA TO-17 and ISO 16000-6, which fall within the Scope of Accreditation.

Total Volatile Organic Compound (TVOC) Summary

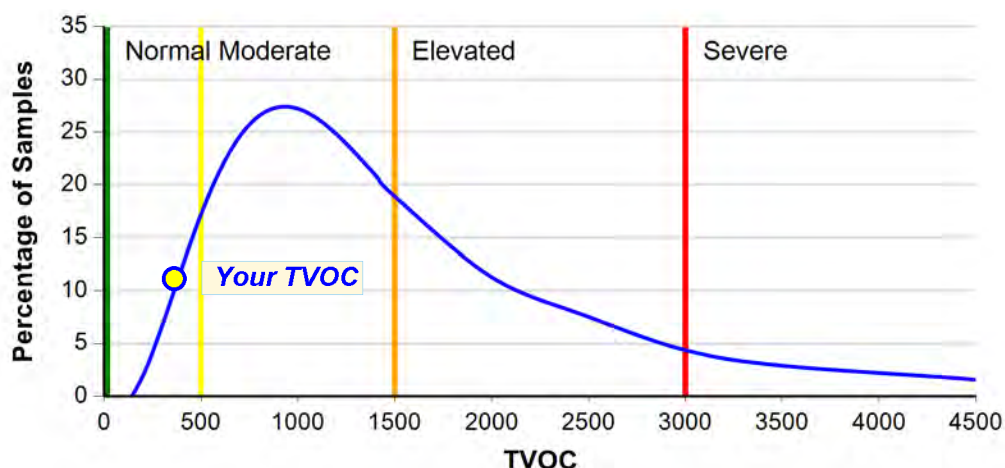
Your TVOC Level is: 380 ng/L

IAQ is acceptable for most individuals; chemically sensitive persons may require lower levels.

Your Indoor Air Quality Level (Highlighted)

Normal	Moderate	Elevated	Severe
< 500 ng/L	500 - 1500 ng/L	1500 - 3000 ng/L	> 3000 ng/L

**All IAQ Survey TVOC
Air Quality Indicator**



**The average TVOC is
1900 ng/L**

This chart represents the TVOC distribution of over 45,000 samples. Over 80% of these samples indicate improvements in IAQ are necessary to achieve the goal of TVOC less than 500 ng/L.

The chart above shows the TVOC levels for all locations tested using IAQ Survey. Results for this air sample are displayed on the chart as a yellow circle. The blue curved line represents the relationship between the percentage of locations (indicated on the vertical y-axis) and the TVOC level (indicated on the horizontal x-axis). The green, yellow, orange, and red vertical bars represent divisions between Normal, Moderate, Elevated, and Severe TVOC levels. As the TVOC value increases, individuals may experience aggravated health problems, and therefore, the need to address VOC issues becomes more critical. However, reductions in VOCs can be made at any level.

No government or organization has specified a TVOC limit for indoor air. However, the U.S. Green Building Council (USGBC) has set 500 ng/L as the recommended TVOC limit.

In general:

- < 500 ng/L IAQ is acceptable for most individuals; however, chemically sensitive persons may require lower levels.
- 500 - 1,500 ng/L some effects on the occupants is possible.
- > 1,500 ng/L IAQ should be improved.

Note: These levels are based on observed health effects and have been determined from a combination of published data and the statistical distribution of TVOC concentrations from the IAQ Home Survey methodology.

The presence of chemicals in your home can cause a wide range of problems, from an unpleasant odor to physical symptoms (burning and irritation in the eyes, nose, and throat; headaches; nausea; nervous system effects; severe illness; etc.). Anyone with respiratory issues like asthma or allergies, as well as children, the elderly, and pregnant women are more susceptible to poor indoor air quality than healthy individuals.

Click [here](#) for more information about VOCs.

The Contamination Index (CI) in the next pages of this report will help guide you through determining what types of products or materials in the home could be problematic for your IAQ, and will provide some recommendations to help reduce or eliminate them.

Contamination Index™

The Contamination Index™ (CI) shows the types of air-contaminating products and materials that are present in the sampled area. Each CI category shows the approximate contribution of that category to the TVOC level, indicates how your location compares to thousands of other locations, and provides some suggestions about which products and materials might be the source for the VOCs. The CI is divided into two main source groups: Building Sources and Occupant Sources.

1. Building Sources are those that are typically part of the structure of the building and may be more difficult to reduce in the short term. Recent construction or renovation often increases the CI categories in this group to the Elevated, High, or Severe levels. VOCs from these activities often decrease substantially in the month following use or application of these products, especially if the area is flushed with air to dissipate the VOCs off gassed from the new products or materials.

2. Occupant Sources are those that the occupants of the building bring into the building and can usually be more readily identified and remediated. Recent construction or renovation can often contribute to other source categories in addition to Building Sources.

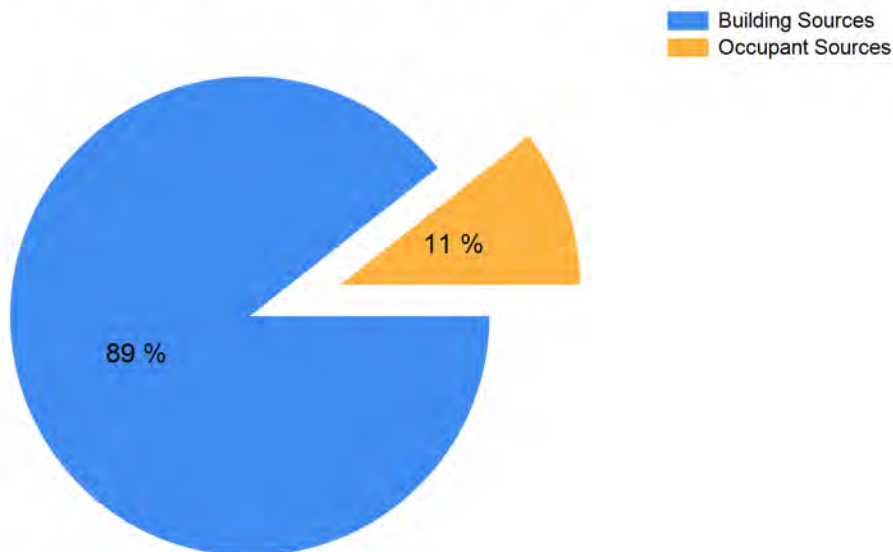
It is possible for a category listed in one source group to belong to another source group. For example, the 'Coatings' category is in the Building Sources group because the largest contribution is typically the paint on the walls, but cans of paint stored in a basement or storage area could be considered part of the Occupant Sources group. Always consider all possible sources for a particular CI category.

The CI categories comprise the most common sources but other products or activities may be present that are not included in the CI. The values assigned to each category are approximations based on typical office and commercial spaces. Locations with additional or atypical sources may require additional investigation to determine the source of certain chemicals that are not accurately represented by the CI.

Since there are potentially many sources of VOCs, buildings can often be re-contaminated even after sources have been removed because new products are constantly being brought into the building. Occupants should take note of this fact, and view IAQ as a continuous improvement process.

The chart below depicts the distribution of the Contamination Index source groups. These source groups are estimates and may not indicate all of the VOCs in your air sample.

Contamination Index Source Groups



Contamination Index™ Building Sources

Use the Contamination Index (CI) below to help you find products and materials in the sampled area that may be affecting your indoor air quality. Removing or reducing these products will improve your air quality. The concentrations reported here are approximate and may not add up to the TVOC value on page 2 of this report. These categories are typically part of the structure of the building and may be more difficult to reduce in the short term. Recent construction or renovation will often cause these categories to be elevated. Increased ventilation will help to reduce VOCs from construction or renovation sources. Levels indicated as Elevated, High, or Severe should be addressed immediately, and those listed as Moderate are areas that can be improved over time.

Building Sources	Contamination Index Category	Estimated VOC Level (ng/L)	Severity	Source Prediction & Suggestions for VOC Reduction
	Coatings (Paints, Varnishes, etc.)	160	Normal	Includes interior and exterior paints (including low- or no-VOC paints), varnishes, lacquers, some sealants, and other products that can be classified as a coating over a surface. Typically, VOCs from these products are in the 10 to 14 carbon size range and can linger for several months after application, sometimes longer. Ventilate as much as possible during and after application of any of these products. Dispose of opened but unused products and related supplies if possible or store in areas that will minimize off gassing. Additional sources include fuel oil or diesel fuel.
	PVC Cement	0	Normal	PVC cement is used to join pieces of PVC pipe together, usually for plumbing.
	Building Materials-Toluene Based	0	Normal	Adhesives and glues used in construction and maintenance, arts and crafts; adhesive removers; contact cement; sealants; coatings (paint, polyurethane, lacquer, thinner); automotive products, including parts cleaners. Additional sources include gasoline and other fuels.
	Gasoline	60	Normal	VOCs from gasoline are typically a result of off-gassing from gas containers, small spills, and gas-powered equipment used in facilities maintenance in nearby garage or storage areas. Most vehicles in good operating condition do not emit gasoline vapors due to the tightly sealed gas tank. This category does not include exhaust emissions. Gasoline VOCs can linger on clothing after refueling at a gas station. Gasoline includes chemical compounds that are also included in the Light Solvents category.
	Fuel Oil, Diesel Fuel, Kerosene	0	Normal	Typically found in garages and facilities maintenance areas. These fuels are not very volatile so they will not readily get into the air, but they can linger for a long time and produce a strong, unpleasant odor. This category does not include exhaust emissions. Additional sources include coatings such as paints, varnishes, sealants, waxes, etc.
	Light Hydrocarbons	0	Normal	Building materials; aerosol cans; liquefied petroleum gas (LPG); refrigerant; natural gas; propellant; blowing agent. Includes chemical compounds such as propane, butane, and isobutane.
	Light Solvents	19	Normal	Stoddard solvent; mineral spirits; some coatings (paints, varnish, enamels, etc.); wax remover; adhesives; automotive products; light oils. Typically, VOCs from these products are in the 6 to 9 carbon size range.

Contamination Index™ Occupant Sources

Use the Contamination Index (CI) below to help you find products and materials in the sampled area that may be affecting your indoor air quality. Removing or reducing these products will improve your air quality. The concentrations reported here are approximate and may not add up to the TVOC value on page 2 of this report. These categories are typically brought into the building by the occupants and can often be readily identified and removed or contained. Levels indicated as Elevated, High, or Severe should be addressed immediately, and those listed as Moderate are areas that can be improved over time.

Occupant Sources	Contamination Index Category	Estimated VOC Level (ng/L)	Severity	Source Prediction & Suggestions for VOC Reduction
	HFCs and CFCs (Freons™)	4	Normal	Most often used as refrigerants for air conditioners and refrigerator/freezers and propellants for blown-in insulation, cushions, aerosol cans, etc. Many of these chemical compounds are being phased out because of the Montreal Protocol.
	Personal Care and Cleaning Products	15	Normal	Personal care products such as soap, deodorant, lotions, perfumes, hair coloring supplies, nail care supplies, oral hygiene products, etc. Cleaning agents such as surface, window, and flooring products, also restroom and antibacterial products. These products contain many VOCs that will dissipate if use is discontinued or reduced.
	Odorants and Fragrances	8	Normal	Air fresheners, scented cleaning products, and scented personal care products.
	Dry Cleaning Solvents	1	Normal	Typical dry-cleaning methods employ the use of carcinogenic chemicals. Dry-cleaning should be allowed to vent outside, without plastics bags, before being placed inside.

Significant VOCs

Based upon your specific air analysis, the chemical compounds listed below are significant contributors to the TVOC level reported on page 2 of your IAQ Commercial Survey Report or are indicative of specific types of products or problems. Compounds from a variety of chemical classes are represented here, although only the most common or most notable are specifically listed. These chemical compounds may come from a variety of sources as shown in the Contamination Index section of this report.

Locating and removing the source of the chemical compound is the most effective way to reduce the concentration of that chemical compound. If removing the source is not possible, try to contain it in some way (e.g., placing the source in an air-tight container when not in use). In addition, the ventilation system in some locations may not be optimized so evaluate the ventilation system and make adjustments to increase the amount of fresh air. Filter or purify re-circulated inside air to help reduce the TVOC. Since VOCs may continue to off-gas even when the sources are stored, ventilation and air-purification methods will need to be employed continuously in order to keep the VOC levels low.

The Chemical Abstracts Service (CAS) registry number after the chemical compound name in the table below is a unique identifier for that chemical compound and is often the best means to search for additional information. The two VOC levels in the table below (ng/L and ppb) are different ways of describing the same concentration, in some cases exposure limits or other information may be described using one or both of these concentration units.

Compound	CAS	Estimated VOC Level (ng/L)	Estimated VOC Level (ppb)	Description
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The notes below indicate any additional significant compounds present in this air sample or other noteworthy information.

No significant VOCs were detected in this air sample.

Supplemental Information: Odorants

Many chemical compounds have odors associated with them, some pleasant and some unpleasant. These odors can combine to create different odors, making odor identification more difficult. The odor descriptions for the compounds reported in this air sample are listed below as well as some of the more common sources.

Supplemental Information: EPA Hazardous Air Pollutants (HAPs)

Hazardous air pollutants, also known as toxic air pollutants or air toxics, are those pollutants that are known or suspected to cause cancer or other serious health effects, such as reproductive effects or birth defects, or adverse environmental effects. Listed below are those HAPs that were detected with the IAQ Commercial Survey VOC test. This list does not include all HAPs. The '<' (less than) symbol in the 'Estimated VOC Level' columns indicates the compound is below the reporting limit for this air sample and therefore can be considered absent from the air sample. For more information about HAPs visit the EPA [Air Toxics website](#). The exposure limits listed below can also be found in the [NIOSH Guide to Chemical Hazards](#). The HAPs in the table below may also be listed as Significant VOCs if the concentration of that chemical compound is greater than the threshold level for a Significant VOC.

Compound	CAS	Estimated VOC Level (ng/L)	Estimated VOC Level (ppb)	NIOSH Exposure Limit	Description
Benzene	71-43-2	3	0.9	320 ng/L (100 ppb)	Gasoline. Less common sources include some discontinued solvents; printing and lithography; paints and coatings; rubber; dry cleaning; adhesives; detergents
Tetrachloroethene	127-18-4	1	0.2	Carcinogen	Dry cleaning; adhesives, automotive cleaners, polishes

*These results pertain only to this sample as it was collected and to the items reported.
These results have been reviewed and approved by the Laboratory Director or approved representative.*

This analysis was performed by Enthalpy Analytical, LLC (MTP). The results contained in this report are dependent upon a number of factors over which Enthalpy Analytical, LLC (MTP) has no control, which may include, but are not limited to, the sampling technique utilized, the size or source of sample, the ability of the sampler to collect a proper or suitable sample, the compounds which make up the TVOC, and/or the type of mold(s) present. Therefore, the opinions contained in this report may be invalid and cannot be considered or construed as definitive and neither Enthalpy Analytical, LLC (MTP), nor its agents, officers, directors, employees, or successors shall be liable for any claims, actions, causes of action, costs, loss of service, medical or other expenses or any compensation whatsoever which may now or hereafter occur or accrue based upon the information or opinions contained herein.

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Attachment E

Summary Table of VOC Air Sampling Detections – CTEH

PROJ-031332 | Summary of CTEH Analytical Sampling Detections - VOCs

Sampling Station ID	Location	Day of Date Time	Analyte	Detected Concentration	HBSV (ppb)	HBSV Source	Exceeded HBSV Concentration?	EGV (ppb)	EGV Source	Eceeded EGV Concentration?
AS01	North of Fire	October 5, 2023	2-Butanone (MEK)	0.996 ppbv (J)	1,000	ATSDR Acute MRL	No	-	-	-
			2-Propanol	1.32 ppbv	-	NA	-	400,000	DOE TEEL-1	No
			Acetone	22.1 ppbv	8,000	ATSDR Acute MRL	No	-	-	-
			Benzene	0.56 ppbv	9	ATSDR Acute MRL	No	-	-	-
			Bromoethane	0.24 ppbv (J)	-	NA	-	15,000	DOE TEEL-1	No
			Butane	0.32 ppbv	92,000	TCEQ Short-Term AMCV	No	-	-	-
			Carbon disulfide	0.381 ppbv	-	NA	-	13,000	USEPA AEGL-1	No
			Chloroethane	0.919 ppbv	15,000	ATSDR Acute MRL	No	-	-	-
			Chloromethane	0.86 ppbv	500	ATSDR Acute MRL	No	-	-	-
			cis-1,3-Dichloropropene	0.236 ppbv	9.9	TCEQ Short-Term AMCV	No	-	-	-
			Dichlorodifluoromethane	0.444 ppbv	10,000	TCEQ Short-Term AMCV	No	-	-	-
			Ethanol	67.3 ppbv	-	NA	-	1,800,000	AIHA ERPG-1	No
			Heptane	0.203 ppbv	8,300	TCEQ Short-Term AMCV	No	-	-	-
			Isopropylbenzene	0.134 ppbv (J)	510	TCEQ Short-Term AMCV	No	-	-	-
			Methylene Chloride	0.151 ppbv (J)	600	ATSDR Acute MRL	No	-	-	-
			Pentane	0.251 ppbv	68,000	TCEQ Short-Term AMCV	No	-	-	-
			Styrene	0.151 ppbv (J)	5,000	ATSDR Acute MRL	No	-	-	-
			Toluene	2.44 ppbv	2,000	ATSDR Acute MRL	No	-	-	-
			trans-1,3-Dichloropropene	0.394 ppbv	9.9	TCEQ Short-Term AMCV	No	-	-	-
			Trichlorofluoromethane	0.197 ppbv (J)	10,000	TCEQ Short-Term AMCV	No	-	-	-
		October 10, 2023	2-Butanone (MEK)	0.634 ppbv (J)	1,000	ATSDR Acute MRL	No	-	-	-
			2-Propanol	1.04 ppbv (J)	-	NA	-	400,000	DOE TEEL-1	No
			Acetone	12 ppbv	8,000	ATSDR Acute MRL	No	-	-	-
			Benzene	0.447 ppbv	9	ATSDR Acute MRL	No	-	-	-
			Bromoethane	0.218 ppbv (J)	-	NA	-	15,000	DOE TEEL-1	No
			Carbon disulfide	0.226 ppbv	-	NA	-	13,000	USEPA AEGL-1	No
			Chloroethane	0.623 ppbv	15,000	ATSDR Acute MRL	No	-	-	-
			Chloromethane	0.861 ppbv	500	ATSDR Acute MRL	No	-	-	-
			Dichlorodifluoromethane	0.454 ppbv	10,000	TCEQ Short-Term AMCV	No	-	-	-
			Ethanol	61.9 ppbv	-	NA	-	1,800,000	AIHA ERPG-1	No
			Heptane	0.17 ppbv (J)	8,300	TCEQ Short-Term AMCV	No	-	-	-
			Methylene Chloride	0.21 ppbv	600	ATSDR Acute MRL	No	-	-	-
			Pentane	0.258 ppbv	68,000	TCEQ Short-Term AMCV	No	-	-	-
			Styrene	0.0844 ppbv (J)	5,000	ATSDR Acute MRL	No	-	-	-
			Toluene	1.79 ppbv	2,000	ATSDR Acute MRL	No	-	-	-
			trans-1,3-Dichloropropene	0.0809 ppbv (J)	9.9	TCEQ Short-Term AMCV	No	-	-	-
			Trichlorofluoromethane	0.187 ppbv (J)	10,000	TCEQ Short-Term AMCV	No	-	-	-
AS02	East of Fire	October 5, 2023	2-Butanone (MEK)	0.183 ppbv (J)	1,000	ATSDR Acute MRL	No	-	-	-
			2-Propanol	11.9 ppbv	-	NA	-	400,000	DOE TEEL-1	No
			Acetone	7.1 ppbv	8,000	ATSDR Acute MRL	No	-	-	-
			Benzene	0.168 ppbv (J)	9	ATSDR Acute MRL	No	-	-	-
			Butane	1.17 ppbv	92,000	TCEQ Short-Term AMCV	No	-	-	-
			Carbon disulfide	0.157 ppbv (J)	-	NA	-	13,000	USEPA AEGL-1	No
			Chloromethane	0.45 ppbv	500	ATSDR Acute MRL	No	-	-	-
			Dichlorodifluoromethane	0.413 ppbv	10,000	TCEQ Short-Term AMCV	No	-	-	-
			Ethanol	180 ppbv (E)	-	NA	-	1,800,000	AIHA ERPG-1	No
			Methylene Chloride	5.59 ppbv	600	ATSDR Acute MRL	No	-	-	-
			Pentane	10.3 ppbv	68,000	TCEQ Short-Term AMCV	No	-	-	-
			Styrene	0.0932 ppbv (J)	5,000	ATSDR Acute MRL	No	-	-	-
			Toluene	0.673 ppbv	2,000	ATSDR Acute MRL	No	-	-	-
			Trichlorofluoromethane	0.224 ppbv	10,000	TCEQ Short-Term AMCV	No	-	-	-
		October 10, 2023	2-Butanone (MEK)	1.11 ppbv (J)	1,000	ATSDR Acute MRL	No	-	-	-
			2-Propanol	0.639 ppbv (J)	-	NA	-	400,000	DOE TEEL-1	No
			Acetone	14 ppbv	8,000	ATSDR Acute MRL	No	-	-	-
			Benzene	2.8 ppbv	9	ATSDR Acute MRL	No	-	-	-
			Bromomethane	0.122 ppbv (J)	30	TCEQ Short-Term AMCV	No	-	-	-
			Butane	0.253 ppbv	92,000	TCEQ Short-Term AMCV	No	-	-	-
			Carbon disulfide	0.175 ppbv (J)	-	NA	-	13,000	USEPA AEGL-1	No
			Chloroethane	0.3 ppbv	15,000	ATSDR Acute MRL	No	-	-	-
			Chloromethane	1.01 ppbv	500	ATSDR Acute MRL	No	-	-	-
			Dichlorodifluoromethane	0.429 ppbv	10,000	TCEQ Short-Term AMCV	No	-	-	-
			Ethanol	25.3 ppbv	-	NA	-	1,800,000	AIHA ERPG-1	No
			Isopropylbenzene	1.23 ppbv	510	TCEQ Short-Term AMCV	No	-	-	-
			Methylene Chloride	0.17 ppbv (J)	600	ATSDR Acute MRL	No	-	-	-
			Pentane	0.804 ppbv	68,000	TCEQ Short-Term AMCV	No	-	-	-
			Styrene	0.366 ppbv	5,000	ATSDR Acute MRL	No	-	-	-
			Toluene	1.85 ppbv	2,000	ATSDR Acute MRL	No	-	-	-
			Trichlorofluoromethane	0.182 ppbv (J)	10,000	TCEQ Short-Term AMCV	No	-	-	-
AS03	South of Fire	October 4, 2023	2-Butanone (MEK)	0.801 ppbv (J)	1,000	ATSDR Acute MRL	No	-	-	-
			2-Propanol	0.922 ppbv (J)	-	NA	-	400,000	DOE TEEL-1	No

Laboratory result qualifiers are reported to the right of corresponding detections (in parentheses). Definitions of reported qualifiers are below:
J: Result is estimated between the laboratory method detection limit and reporting limit.

PROJ-031332 | Summary of CTEH Analytical Sampling Detections - VOCs

Sampling Station ID	Location	Day of Date Time	Analyte	Detected Concentration	HBSV (ppb)	HBSV Source	Exceeded HBSV Concentration?	EGV (ppb)	EGV Source	Eceeded EGV Concentration?
AS03	South of Fire	October 4, 2023	Acetone	9.63 ppbv	8,000	ATSDR Acute MRL	No	-	-	-
			Benzene	0.459 ppbv	9	ATSDR Acute MRL	No	-	-	-
			Butane	0.278 ppbv	92,000	TCEQ Short-Term AMCV	No	-	-	-
			Carbon disulfide	0.226 ppbv	-	NA	-	13,000	USEPA AEGL-1	No
			Chloroethane	0.658 ppbv	15,000	ATSDR Acute MRL	No	-	-	-
			Chloromethane	0.752 ppbv	500	ATSDR Acute MRL	No	-	-	-
			Dichlorodifluoromethane	0.447 ppbv	10,000	TCEQ Short-Term AMCV	No	-	-	-
			Ethanol	65 ppbv	-	NA	-	1,800,000	AIHA ERPG-1	No
			Heptane	0.152 ppbv (J)	8,300	TCEQ Short-Term AMCV	No	-	-	-
			Methylene Chloride	0.125 ppbv (J)	600	ATSDR Acute MRL	No	-	-	-
			Pentane	0.195 ppbv (J)	68,000	TCEQ Short-Term AMCV	No	-	-	-
			Styrene	0.176 ppbv (J)	5,000	ATSDR Acute MRL	No	-	-	-
			Toluene	1.71 ppbv	2,000	ATSDR Acute MRL	No	-	-	-
		October 5, 2023	Trichlorofluoromethane	0.193 ppbv (J)	10,000	TCEQ Short-Term AMCV	No	-	-	-
			2-Butanone (MEK)	0.542 ppbv (J)	1,000	ATSDR Acute MRL	No	-	-	-
			2-Propanol	0.78 ppbv (J)	-	NA	-	400,000	DOE TEEL-1	No
			Acetone	6.59 ppbv	8,000	ATSDR Acute MRL	No	-	-	-
			Benzene	0.202 ppbv	9	ATSDR Acute MRL	No	-	-	-
			Butane	0.27 ppbv	92,000	TCEQ Short-Term AMCV	No	-	-	-
			Carbon disulfide	0.129 ppbv (J)	-	NA	-	13,000	USEPA AEGL-1	No
			Chloroethane	0.215 ppbv	15,000	ATSDR Acute MRL	No	-	-	-
			Chloromethane	0.581 ppbv	500	ATSDR Acute MRL	No	-	-	-
			cis-1,3-Dichloropropene	0.294 ppbv	9.9	TCEQ Short-Term AMCV	No	-	-	-
			Dichlorodifluoromethane	0.421 ppbv	10,000	TCEQ Short-Term AMCV	No	-	-	-
			Ethanol	25.5 ppbv	-	NA	-	1,800,000	AIHA ERPG-1	No
			Pentane	0.449 ppbv	68,000	TCEQ Short-Term AMCV	No	-	-	-
			Toluene	1.14 ppbv	2,000	ATSDR Acute MRL	No	-	-	-
			trans-1,3-Dichloropropene	0.488 ppbv	9.9	TCEQ Short-Term AMCV	No	-	-	-
			Trichlorofluoromethane	0.196 ppbv (J)	10,000	TCEQ Short-Term AMCV	No	-	-	-
AS04	West of Fire	October 4, 2023	2-Butanone (MEK)	0.688 ppbv (J)	1,000	ATSDR Acute MRL	No	-	-	-
			2-Propanol	0.511 ppbv (J)	-	NA	-	400,000	DOE TEEL-1	No
			Acetone	22.8 ppbv	8,000	ATSDR Acute MRL	No	-	-	-
			Acrylonitrile	8.87 ppbv	900	ATSDR Intermediate MRL	No	-	-	-
			Benzene	0.523 ppbv	9	ATSDR Acute MRL	No	-	-	-
			Butane	0.274 ppbv	92,000	TCEQ Short-Term AMCV	No	-	-	-
			Carbon disulfide	0.145 ppbv (J)	-	NA	-	13,000	USEPA AEGL-1	No
			Chloroethane	0.178 ppbv (J)	15,000	ATSDR Acute MRL	No	-	-	-
			Chloromethane	0.517 ppbv	500	ATSDR Acute MRL	No	-	-	-
			Dichlorodifluoromethane	0.421 ppbv	10,000	TCEQ Short-Term AMCV	No	-	-	-
			Ethanol	37.6 ppbv	-	NA	-	1,800,000	AIHA ERPG-1	No
			Heptane	0.114 ppbv (J)	8,300	TCEQ Short-Term AMCV	No	-	-	-
			Methylene Chloride	0.167 ppbv (J)	600	ATSDR Acute MRL	No	-	-	-
		October 5, 2023	Pentane	0.306 ppbv	68,000	TCEQ Short-Term AMCV	No	-	-	-
			Toluene	2.04 ppbv	2,000	ATSDR Acute MRL	No	-	-	-
			Trichlorofluoromethane	0.183 ppbv (J)	10,000	TCEQ Short-Term AMCV	No	-	-	-
			2-Butanone (MEK)	0.679 ppbv (J)	1,000	ATSDR Acute MRL	No	-	-	-
			2-Propanol	0.853 ppbv (J)	-	NA	-	400,000	DOE TEEL-1	No
			Acetone	11.4 ppbv	8,000	ATSDR Acute MRL	No	-	-	-
			Benzene	0.321 ppbv	9	ATSDR Acute MRL	No	-	-	-
			Butane	0.283 ppbv	92,000	TCEQ Short-Term AMCV	No	-	-	-
			Carbon disulfide	0.196 ppbv (J)	-	NA	-	13,000	USEPA AEGL-1	No
			Chloroethane	0.52 ppbv	15,000	ATSDR Acute MRL	No	-	-	-
			Chloromethane	0.73 ppbv	500	ATSDR Acute MRL	No	-	-	-
			cis-1,3-Dichloropropene	0.421 ppbv	9.9	TCEQ Short-Term AMCV	No	-	-	-
			Dichlorodifluoromethane	0.402 ppbv	10,000	TCEQ Short-Term AMCV	No	-	-	-
			Ethanol	43.1 ppbv	-	NA	-	1,800,000	AIHA ERPG-1	No
			Heptane	0.157 ppbv (J)	8,300	TCEQ Short-Term AMCV	No	-	-	-
			Methylene Chloride	0.163 ppbv (J)	600	ATSDR Acute MRL	No	-	-	-
			Pentane	0.22 ppbv	68,000	TCEQ Short-Term AMCV	No	-	-	-
			Styrene	0.0945 ppbv (J)	5,000	ATSDR Acute MRL	No	-	-	-
			Tetrachloroethylene	0.254 ppbv	6	ATSDR Acute MRL	No	-	-	-
			Toluene	1.69 ppbv	2,000	ATSDR Acute MRL	No	-	-	-
			trans-1,3-Dichloropropene	0.744 ppbv	9.9	TCEQ Short-Term AMCV	No	-	-	-
			Trichlorofluoromethane	0.183 ppbv (J)	10,000	TCEQ Short-Term AMCV	No	-	-	-
AS05	Southeast of fire	October 6, 2023	2-Butanone (MEK)	1.24 ppbv (J)	1,000	ATSDR Acute MRL	No	-	-	-
			2-Propanol	0.959 ppbv (J)	-	NA	-	400,000	DOE TEEL-1	No
			Acetone	16.1 ppbv	8,000	ATSDR Acute MRL	No	-	-	-
			Benzene	0.376 ppbv	9	ATSDR Acute MRL	No	-	-	-
			Butane	0.335 ppbv	92,000	TCEQ Short-Term AMCV	No	-	-	-
			Carbon disulfide	0.3 ppbv	-	NA	-	13,000	USEPA AEGL-1	No

Laboratory result qualifiers are reported to the right of corresponding detections (in parentheses). Definitions of reported qualifiers are below:
J: Result is estimated between the laboratory method detection limit and reporting limit.

PROJ-031332 | Summary of CTEH Analytical Sampling Detections - VOCs

Sampling Station ID	Location	Day of Date Time	Analyte	Detected Concentration	HBSV (ppb)	HBSV Source	Exceeded HBSV Concentration?	EGV (ppb)	EGV Source	Eceeded EGV Concentration?
AS05	Southeast of fire	October 6, 2023	Chloroethane	0.614 ppbv	15,000	ATSDR Acute MRL	No	-	-	-
			Chloromethane	1.13 ppbv	500	ATSDR Acute MRL	No	-	-	-
			cis-1,3-Dichloropropene	0.116 ppbv (J)	9.9	TCEQ Short-Term AMCV	No	-	-	-
			Dichlorodifluoromethane	0.452 ppbv	10,000	TCEQ Short-Term AMCV	No	-	-	-
			Ethanol	51 ppbv	-	NA	-	1,800,000	AIHA ERPG-1	No
			Heptane	0.174 ppbv (J)	8,300	TCEQ Short-Term AMCV	No	-	-	-
			Methylene Chloride	0.167 ppbv (J)	600	ATSDR Acute MRL	No	-	-	-
			Pentane	0.252 ppbv	68,000	TCEQ Short-Term AMCV	No	-	-	-
			Styrene	0.0975 ppbv (J)	5,000	ATSDR Acute MRL	No	-	-	-
			Tetrachloroethylene	0.224 ppbv	6	ATSDR Acute MRL	No	-	-	-
			Toluene	1.73 ppbv	2,000	ATSDR Acute MRL	No	-	-	-
			Trichlorofluoromethane	0.205 ppbv	10,000	TCEQ Short-Term AMCV	No	-	-	-

Laboratory result qualifiers are reported to the right of corresponding detections (in parentheses). Definitions of reported qualifiers are below:
J: Result is estimated between the laboratory method detection limit and reporting limit.

Attachment F

Analytical Sampling Locations and Laboratory Reports – CTEH





JT Wilson
Center for Toxicology & Env. Health LLC
5120 North Shore Drive
North Little Rock, AR 72118

October 09, 2023

Account# 13913

Login# L606869

Dear JT Wilson:

Enclosed are the analytical results for the samples received by our laboratory on October 05, 2023. All samples on the chain of custody were received in good condition unless otherwise noted. Any additional observations will be noted on the chain of custody.

Please contact client services at (888) 432-5227 if you would like any additional information regarding this report. Thank you for using SGS Galson.

Sincerely,

SGS Galson

A handwritten signature in black ink that reads "Lisa Swab". The signature is written in a cursive, flowing style.

Lisa Swab
Laboratory Director

Enclosure(s)

Terms and Conditions & General Disclaimers

- This document is issued by the Company under its General Conditions of Service accessible at <http://www.sgs.com/en/Terms-and-Conditions.aspx>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein.
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Analytical Disclaimers

- Unless otherwise noted within the report, all quality control results associated with the samples were within established control limits or did not impact reported results.
- Note: The findings recorded within this report were drawn from analysis of the sample(s) provided to the laboratory by the Client (or a third party acting at the Client's direction). The laboratory does not have control over the sampling process, including but not limited to the use of field equipment and collection media, as well as the sampling duration, collection volume or any other collection parameter used by the Client. The findings herein constitute no warranty of the sample's representativeness of any sampled environment, and strictly relate to the samples as they were presented to the laboratory. For recommended sampling collection parameters, please refer to the Sampling and Analysis Guide at www.sgsgalson.com.
- Unrounded results are carried through the calculations that yield the final result and the final result is rounded to the number of significant figures appropriate to the accuracy of the analytical method. Please note that results appearing in the columns preceding the final result column may have been rounded and therefore, if carried through the calculations, may not yield an identical final result to the one reported.
- The stated LOQs for each analyte represent the demonstrated LOQ concentrations prior to correction for desorption efficiency (if applicable).
- Unless otherwise noted within the report, results have not been blank corrected for any field blank or method blank data.

Accreditations SGS Galson holds a variety of accreditations and recognitions. Our quality management system conforms with the requirements of ISO/IEC 17025. Where applicable, samples may also be analyzed in accordance with the requirements of ELAP, NELAC, or LELAP under one of the state accrediting bodies listed below. Current Scopes of Accreditation can be viewed at <http://www.sgsgalson.com> in the accreditations section of the "About" page. To determine if the analyte tested falls under our scope of accreditation, please visit our website or call Client Services at (888) 432-5227.

National/International	Accreditation/Recognition	Lab ID#	Program/Sector
AIHA-LAP, LLC - IHLAP, ELLAP, EMLAP	ISO/IEC 17025 and USEPA NLLAP	Lab ID 100324	Industrial Hygiene, Environmental Lead, Environmental Microbiology

State	Accreditation/Recognition	Lab ID#	Program/Sector
New York (NYSDOH)	ELAP and NELAC (TNI)	Lab ID: 11626	Air Analysis, Solid and Hazardous Waste
Louisiana (LDEQ)	LELAP	Lab ID: 04083	Air Analysis, Solid Chemical Materials

Legend

< - Less than	mg - Milligrams	MDL - Method Detection Limit	ppb - Parts per Billion
> - Greater than	ug - Micrograms	NA - Not Applicable	ppm - Parts per Million
l - Liters	m3 - Cubic Meters	NS - Not Specified	ppbv - ppb Volume
LOQ - Limit of Quantitation	kg - Kilograms	ND - Not Detected	ppmv - ppm Volume
ft2 - Square Feet	cm2 - Square Centimeters	in2 - Square Inches	ng - Nanograms



LABORATORY ANALYSIS REPORT

6601 Kirkville Road
East Syracuse, NY 13057
(315) 432-5227
FAX: (315) 437-0571
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Client : Center for Toxicology & Env. H
Site : NS
Project No. : 031332
Date Sampled : NS
Date Received : 05-OCT-23
Account No.: 13913
Login No. : L606869
Date Analyzed : 05-OCT-23
Report ID : 1384175

Client ID : MEID1003MET01 Lab ID : L606869-8 Air Volume : 2736.5 L
Date Sampled : Date Analyzed : 10/05/23

<u>Parameter</u>	<u>LOQ</u> <u>ug</u>	<u>Total</u> <u>ug</u>	<u>Conc</u>	<u>Units</u>
Aluminum	7.5	<7.5	<0.0027	mg/m3
Cobalt	0.45	<0.45	<0.00016	mg/m3
Copper	0.30	<0.30	<0.00011	mg/m3
Iron	7.5	<7.5	<0.0027	mg/m3
Iron Oxide	11.	<11	<0.0039	mg/m3
Lead	0.38	<0.38	<0.00014	mg/m3
Lithium	0.15	<0.15	<0.000055	mg/m3
Nickel	0.30	<0.30	<0.00011	mg/m3
Phosphorus Particulate	15.	<15	<0.0055	mg/m3

COMMENTS: Please see attached lab footnote report for any applicable footnotes.

Collection Media: MCE UW 37mm
Date : 05-OCT-23

Submitted by: CAW/EJB/MWS
Supervisor : JJL

Approved by: JJL



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Project No. : 031332
Date Sampled : NS
Date Received : 05-OCT-23

Account No.: 13913
Login No. : L606869
Date Analyzed : 05-OCT-23
Report ID : 1384175

Client ID : MEID1003MET02

Lab ID : L606869-9

Air Volume : 1969.7 L

Date Sampled :

Date Analyzed : 10/05/23

<u>Parameter</u>	<u>LOQ</u> <u>ug</u>	<u>Total</u> <u>ug</u>	<u>Conc</u>	<u>Units</u>
Aluminum	7.5	<7.5	<0.0038	mg/m3
Cobalt	0.45	<0.45	<0.00023	mg/m3
Copper	0.30	2.1	0.0011	mg/m3
Iron	7.5	<7.5	<0.0038	mg/m3
Iron Oxide	11.	<11	<0.0054	mg/m3
Lead	0.38	<0.38	<0.00019	mg/m3
Lithium	0.15	0.15	0.000077	mg/m3
Nickel	0.30	<0.30	<0.00015	mg/m3
Phosphorus Particulate	15.	17	0.0086	mg/m3

COMMENTS: Please see attached lab footnote report for any applicable footnotes.

Collection Media: MCE UW 37mm
Date : 05-OCT-23

Submitted by: CAW/EJB/MWS
Supervisor : JJL

Approved by: JJL



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Client : Center for Toxicology & Env. H
Site : NS
Project No. : 031332
Date Sampled : NS
Date Received : 05-OCT-23
Account No.: 13913
Login No. : L606869
Date Analyzed : 05-OCT-23
Report ID : 1384175

Client ID : MEID1003MET03 Lab ID : L606869-10 Air Volume : 2277.7 L
Date Sampled : Date Analyzed : 10/05/23

<u>Parameter</u>	<u>LOQ</u> <u>ug</u>	<u>Total</u> <u>ug</u>	<u>Conc</u>	<u>Units</u>
Aluminum	7.5	<7.5	<0.0033	mg/m3
Cobalt	0.45	<0.45	<0.00020	mg/m3
Copper	0.30	<0.30	<0.00013	mg/m3
Iron	7.5	<7.5	<0.0033	mg/m3
Iron Oxide	11.	<11	<0.0047	mg/m3
Lead	0.38	<0.38	<0.00016	mg/m3
Lithium	0.15	<0.15	<0.000066	mg/m3
Nickel	0.30	<0.30	<0.00013	mg/m3
Phosphorus Particulate	15.	<15	<0.0066	mg/m3

COMMENTS: Please see attached lab footnote report for any applicable footnotes.

Collection Media: MCE UW 37mm
Date : 05-OCT-23

Submitted by: CAW/EJB/MWS
Supervisor : JJL

Approved by: JJL



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Site : NS
Project No. : 031332
Date Sampled : NS
Date Received : 05-OCT-23

Account No.: 13913
Login No. : L606869
Date Analyzed : 05-OCT-23
Report ID : 1384175

Client ID : MEID1003MET05 Lab ID : L606869-11 Air Volume : NA
Date Sampled : Date Analyzed : 10/05/23

<u>Parameter</u>	<u>LOQ</u> <u>ug</u>	<u>Total</u> <u>ug</u>	<u>Conc</u>	<u>Units</u>
Aluminum	7.5	<7.5	NA	mg/m3
Cobalt	0.45	<0.45	NA	mg/m3
Copper	0.30	<0.30	NA	mg/m3
Iron	7.5	<7.5	NA	mg/m3
Iron Oxide	11.	<11	NA	mg/m3
Lead	0.38	<0.38	NA	mg/m3
Lithium	0.15	<0.15	NA	mg/m3
Nickel	0.30	<0.30	NA	mg/m3
Phosphorus Particulate	15.	<15	NA	mg/m3

COMMENTS: Please see attached lab footnote report for any applicable footnotes.

Collection Media: MCE UW 37mm Submitted by: CAW/EJB/MWS Approved by: JJL
Date : 05-OCT-23 Supervisor : JJL



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Site : NS
Project No. : 031332
Date Sampled : NS
Date Received : 05-OCT-23

Account No.: 13913
Login No. : L606869
Date Analyzed : 05-OCT-23
Report ID : 1384175

Client ID : MEID1003MET06

Lab ID : L606869-12

Air Volume : NA

Date Sampled :

Date Analyzed : 10/05/23

<u>Parameter</u>	<u>LOQ</u> <u>ug</u>	<u>Total</u> <u>ug</u>	<u>Conc</u>	<u>Units</u>
Aluminum	7.5	<7.5	NA	mg/m3
Cobalt	0.45	<0.45	NA	mg/m3
Copper	0.30	<0.30	NA	mg/m3
Iron	7.5	<7.5	NA	mg/m3
Iron Oxide	11.	<11	NA	mg/m3
Lead	0.38	<0.38	NA	mg/m3
Lithium	0.15	<0.15	NA	mg/m3
Nickel	0.30	<0.30	NA	mg/m3
Phosphorus Particulate	15.	<15	NA	mg/m3

COMMENTS: Please see attached lab footnote report for any applicable footnotes.

Collection Media: MCE UW 37mm
Date : 05-OCT-23

Submitted by: CAW/EJB/MWS
Supervisor : JJL

Approved by: JJL



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Site : NS
Project No. : 031332
Date Sampled : NS
Date Received : 05-OCT-23

Account No.: 13913
Login No. : L606869
Date Analyzed : 05-OCT-23
Report ID : 1384337

Client ID : MEID1003PAH01 Lab ID : L606869-1 Air Volume : 899.2 L
Date Sampled : Date Analyzed : 10/05/23

Parameter	LOQ ug	Filter ug	Front ug	Back ug	Total ug	Conc mg/m3	ppm
1-Methylnaphthalene	0.30	<0.30	<0.30	<0.30	<0.32	<0.00035	<0.000060
2-Methylnaphthalene	0.30	<0.30	<0.30	<0.30	<0.33	<0.00037	<0.000063
Acenaphthene	0.30	<0.30	<0.30	<0.30	<0.33	<0.00037	<0.000059
Acenaphthylene	0.30	<0.30	<0.30	<0.30	<0.31	<0.00035	<0.000056
Anthracene	0.30	<0.30	<0.30	<0.30	<0.35	<0.00039	<0.000054
Benzo(a)anthracene	0.30	<0.30	<0.30	<0.30	<0.38	<0.00043	<0.000046
Benzo(a)pyrene	0.30	<0.30	<0.30	<0.30	<0.45	<0.00051	<0.000049
Benzo(b)fluoranthene	0.30	<0.30	<0.30	<0.30	<0.42	<0.00046	<0.000045
Benzo(g,h,i)perylene	0.30	<0.30	<0.30	<0.30	<0.51	<0.00057	<0.000050
Benzo(k)fluoranthene	0.30	<0.30	<0.30	<0.30	<0.42	<0.00046	<0.000045
Chrysene	0.30	<0.30	<0.30	<0.30	<0.39	<0.00043	<0.000046
Dibenz(a,h)anthracene	0.30	<0.30	<0.30	<0.30	<0.42	<0.00046	<0.000041
Fluoranthene	0.30	<0.30	<0.30	<0.30	<0.36	<0.00040	<0.000049
Fluorene	0.30	<0.30	<0.30	<0.30	<0.33	<0.00037	<0.000055
Indeno(1,2,3-cd)pyrene	0.30	<0.30	<0.30	<0.30	<0.47	<0.00052	<0.000046

COMMENTS: Please see attached lab footnote report for any applicable footnotes.

Collection Media: FilterTube
Date : 09-OCT-23

Submitted by: JLL
Supervisor : SMM

Approved by: KLS



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Site : NS
Project No. : 031332
Date Sampled : NS
Date Received : 05-OCT-23

Account No.: 13913
Login No. : L606869
Date Analyzed : 05-OCT-23
Report ID : 1384337

Client ID : MEID1003PAH01 Lab ID : L606869-1 Air Volume : 899.2 L
Date Sampled : Date Analyzed : 10/05/23

Parameter	LOQ ug	Filter ug	Front ug	Back ug	Total ug	Conc mg/m3	ppm
Naphthalene	0.30	<0.30	0.33	<0.30	0.36	0.00040	0.000076
Phenanthrene	0.30	<0.30	<0.30	<0.30	<0.35	<0.00039	<0.000053
Pyrene	0.30	<0.30	<0.30	<0.30	<0.37	<0.00041	<0.000049

COMMENTS: Please see attached lab footnote report for any applicable footnotes.

Collection Media: FilterTube
Date : 09-OCT-23

Submitted by: JLL
Supervisor : SMM

Approved by: KLS



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Client : Center for Toxicology & Env. H
Site : NS
Project No. : 031332
Date Sampled : NS
Date Received : 05-OCT-23

Account No.: 13913
Login No. : L606869
Date Analyzed : 05-OCT-23
Report ID : 1384337

Client ID : MEID1003PAH02 Lab ID : L606869-2 Air Volume : 704.6 L
Date Sampled : Date Analyzed : 10/05/23

Parameter	LOQ ug	Filter ug	Front ug	Back ug	Total ug	Conc mg/m3	ppm
1-Methylnaphthalene	0.30	<0.30	<0.30	<0.30	<0.32	<0.00045	<0.000077
2-Methylnaphthalene	0.30	<0.30	<0.30	<0.30	<0.33	<0.00047	<0.000080
Acenaphthene	0.30	<0.30	<0.30	<0.30	<0.33	<0.00047	<0.000075
Acenaphthylene	0.30	<0.30	<0.30	<0.30	<0.31	<0.00044	<0.000071
Anthracene	0.30	<0.30	<0.30	<0.30	<0.35	<0.00050	<0.000069
Benzo(a)anthracene	0.30	<0.30	<0.30	<0.30	<0.38	<0.00055	<0.000058
Benzo(a)pyrene	0.30	<0.30	<0.30	<0.30	<0.45	<0.00065	<0.000063
Benzo(b)fluoranthene	0.30	<0.30	<0.30	<0.30	<0.42	<0.00059	<0.000057
Benzo(g,h,i)perylene	0.30	<0.30	<0.30	<0.30	<0.51	<0.00072	<0.000064
Benzo(k)fluoranthene	0.30	<0.30	<0.30	<0.30	<0.42	<0.00059	<0.000057
Chrysene	0.30	<0.30	<0.30	<0.30	<0.39	<0.00055	<0.000059
Dibenz(a,h)anthracene	0.30	<0.30	<0.30	<0.30	<0.42	<0.00059	<0.000052
Fluoranthene	0.30	<0.30	<0.30	<0.30	<0.36	<0.00051	<0.000062
Fluorene	0.30	<0.30	<0.30	<0.30	<0.33	<0.00047	<0.000070
Indeno(1,2,3-cd)pyrene	0.30	<0.30	<0.30	<0.30	<0.47	<0.00067	<0.000059

COMMENTS: Please see attached lab footnote report for any applicable footnotes.

Collection Media: FilterTube
Date : 09-OCT-23

Submitted by: JLL
Supervisor : SMM

Approved by: KLS



LABORATORY ANALYSIS REPORT

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Client : Center for Toxicology & Env. H
Site : NS
Project No. : 031332
Date Sampled : NS
Date Received : 05-OCT-23

Account No.: 13913
Login No. : L606869
Date Analyzed : 05-OCT-23
Report ID : 1384337

Client ID : MEID1003PAH02 Lab ID : L606869-2 Air Volume : 704.6 L
Date Sampled : Date Analyzed : 10/05/23

Parameter	LOQ ug	Filter ug	Front ug	Back ug	Total ug	Conc mg/m3	ppm
Naphthalene	0.30	<0.30	1.0	<0.30	1.1	0.0016	0.00031
Phenanthrene	0.30	<0.30	<0.30	<0.30	<0.35	<0.00050	<0.000068
Pyrene	0.30	<0.30	<0.30	<0.30	<0.37	<0.00052	<0.000063

COMMENTS: Please see attached lab footnote report for any applicable footnotes.

Collection Media: FilterTube
Date : 09-OCT-23

Submitted by: JLL
Supervisor : SMM

Approved by: KLS



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Project No. : 031332
Date Sampled : NS
Date Received : 05-OCT-23
Account No.: 13913
Login No. : L606869
Date Analyzed : 05-OCT-23
Report ID : 1384337

Client ID : MEID1003PAH03 Lab ID : L606869-3 Air Volume : 960.8 L
Date Sampled : Date Analyzed : 10/05/23

Parameter	LOQ ug	Filter ug	Front ug	Back ug	Total ug	Conc mg/m3	ppm
1-Methylnaphthalene	0.30	<0.30	<0.30	<0.30	<0.32	<0.00033	<0.000057
2-Methylnaphthalene	0.30	<0.30	<0.30	<0.30	<0.33	<0.00034	<0.000059
Acenaphthene	0.30	<0.30	<0.30	<0.30	<0.33	<0.00035	<0.000055
Acenaphthylene	0.30	<0.30	<0.30	<0.30	<0.31	<0.00033	<0.000052
Anthracene	0.30	<0.30	<0.30	<0.30	<0.35	<0.00037	<0.000050
Benzo(a)anthracene	0.30	<0.30	<0.30	<0.30	<0.38	<0.00040	<0.000043
Benzo(a)pyrene	0.30	<0.30	<0.30	<0.30	<0.45	<0.00047	<0.000046
Benzo(b)fluoranthene	0.30	<0.30	<0.30	<0.30	<0.42	<0.00043	<0.000042
Benzo(g,h,i)perylene	0.30	<0.30	<0.30	<0.30	<0.51	<0.00053	<0.000047
Benzo(k)fluoranthene	0.30	<0.30	<0.30	<0.30	<0.42	<0.00043	<0.000042
Chrysene	0.30	<0.30	<0.30	<0.30	<0.39	<0.00041	<0.000043
Dibenz(a,h)anthracene	0.30	<0.30	<0.30	<0.30	<0.42	<0.00043	<0.000038
Fluoranthene	0.30	<0.30	<0.30	<0.30	<0.36	<0.00038	<0.000045
Fluorene	0.30	<0.30	<0.30	<0.30	<0.33	<0.00035	<0.000051
Indeno(1,2,3-cd)pyrene	0.30	<0.30	<0.30	<0.30	<0.47	<0.00049	<0.000043

COMMENTS: Please see attached lab footnote report for any applicable footnotes.

Collection Media: FilterTube
Date : 09-OCT-23

Submitted by: JLL
Supervisor : SMM

Approved by: KLS



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FAX: (315) 437-0571
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Site : NS
Project No. : 031332
Date Sampled : NS
Date Received : 05-OCT-23

Account No.: 13913
Login No. : L606869
Date Analyzed : 05-OCT-23
Report ID : 1384337

Client ID : MEID1003PAH03 Lab ID : L606869-3 Air Volume : 960.8 L
Date Sampled : Date Analyzed : 10/05/23

Parameter	LOQ ug	Filter ug	Front ug	Back ug	Total ug	Conc mg/m3	ppm
Naphthalene	0.30	<0.30	<0.30	<0.30	<0.33	<0.00034	<0.000065
Phenanthrene	0.30	<0.30	<0.30	<0.30	<0.35	<0.00036	<0.000050
Pyrene	0.30	<0.30	<0.30	<0.30	<0.37	<0.00038	<0.000046

COMMENTS: Please see attached lab footnote report for any applicable footnotes.

Collection Media: FilterTube
Date : 09-OCT-23

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Supervisor : SMM

Approved by: KLS



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Site : NS
Project No. : 031332
Date Sampled : NS
Date Received : 05-OCT-23

Account No.: 13913
Login No. : L606869
Date Analyzed : 05-OCT-23
Report ID : 1384337

Client ID : MEID1003PAH04 Lab ID : L606869-4 Air Volume : 852.5 L
Date Sampled : Date Analyzed : 10/05/23

Parameter	LOQ ug	Filter ug	Front ug	Back ug	Total ug	Conc mg/m3	ppm
1-Methylnaphthalene	0.30	<0.30	<0.30	<0.30	<0.32	<0.00037	<0.000064
2-Methylnaphthalene	0.30	<0.30	<0.30	<0.30	<0.33	<0.00039	<0.000066
Acenaphthene	0.30	<0.30	<0.30	<0.30	<0.33	<0.00039	<0.000062
Acenaphthylene	0.30	<0.30	<0.30	<0.30	<0.31	<0.00037	<0.000059
Anthracene	0.30	<0.30	<0.30	<0.30	<0.35	<0.00041	<0.000057
Benzo(a)anthracene	0.30	<0.30	<0.30	<0.30	<0.38	<0.00045	<0.000048
Benzo(a)pyrene	0.30	<0.30	<0.30	<0.30	<0.45	<0.00053	<0.000052
Benzo(b)fluoranthene	0.30	<0.30	<0.30	<0.30	<0.42	<0.00049	<0.000047
Benzo(g,h,i)perylene	0.30	<0.30	<0.30	<0.30	<0.51	<0.00060	<0.000053
Benzo(k)fluoranthene	0.30	<0.30	<0.30	<0.30	<0.42	<0.00049	<0.000047
Chrysene	0.30	<0.30	<0.30	<0.30	<0.39	<0.00046	<0.000049
Dibenz(a,h)anthracene	0.30	<0.30	<0.30	<0.30	<0.42	<0.00049	<0.000043
Fluoranthene	0.30	<0.30	<0.30	<0.30	<0.36	<0.00042	<0.000051
Fluorene	0.30	<0.30	<0.30	<0.30	<0.33	<0.00039	<0.000058
Indeno(1,2,3-cd)pyrene	0.30	<0.30	<0.30	<0.30	<0.47	<0.00055	<0.000049

COMMENTS: Please see attached lab footnote report for any applicable footnotes.

Collection Media: FilterTube
Date : 09-OCT-23

Submitted by: JLL
Supervisor : SMM

Approved by: KLS



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Site : NS
Project No. : 031332
Date Sampled : NS
Date Received : 05-OCT-23

Account No.: 13913
Login No. : L606869
Date Analyzed : 05-OCT-23
Report ID : 1384337

Client ID : MEID1003PAH04 Lab ID : L606869-4 Air Volume : 852.5 L
Date Sampled : Date Analyzed : 10/05/23

Parameter	LOQ ug	Filter ug	Front ug	Back ug	Total ug	Conc mg/m3	ppm
Naphthalene	0.30	<0.30	<0.30	<0.30	<0.33	<0.00038	<0.000073
Phenanthrene	0.30	<0.30	<0.30	<0.30	<0.35	<0.00041	<0.000056
Pyrene	0.30	<0.30	<0.30	<0.30	<0.37	<0.00043	<0.000052

COMMENTS: Please see attached lab footnote report for any applicable footnotes.

Collection Media: FilterTube
Date : 09-OCT-23

Submitted by: JLL
Supervisor : SMM

Approved by: KLS



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Site : NS
Project No. : 031332
Date Sampled : NS
Date Received : 05-OCT-23

Account No.: 13913
Login No. : L606869
Date Analyzed : 05-OCT-23
Report ID : 1384337

Client ID : MEID1003PAH05

Lab ID : L606869-5

Air Volume : NA

Date Sampled :

Date Analyzed : 10/05/23

Parameter	LOQ ug	Filter ug	Front ug	Back ug	Total ug	Conc mg/m3	ppm
1-Methylnaphthalene	0.30	<0.30	<0.30	<0.30	<0.32	NA	NA
2-Methylnaphthalene	0.30	<0.30	<0.30	<0.30	<0.33	NA	NA
Acenaphthene	0.30	<0.30	<0.30	<0.30	<0.33	NA	NA
Acenaphthylene	0.30	<0.30	<0.30	<0.30	<0.31	NA	NA
Anthracene	0.30	<0.30	<0.30	<0.30	<0.35	NA	NA
Benzo(a)anthracene	0.30	<0.30	<0.30	<0.30	<0.38	NA	NA
Benzo(a)pyrene	0.30	<0.30	<0.30	<0.30	<0.45	NA	NA
Benzo(b)fluoranthene	0.30	<0.30	<0.30	<0.30	<0.42	NA	NA
Benzo(g,h,i)perylene	0.30	<0.30	<0.30	<0.30	<0.51	NA	NA
Benzo(k)fluoranthene	0.30	<0.30	<0.30	<0.30	<0.42	NA	NA
Chrysene	0.30	<0.30	<0.30	<0.30	<0.39	NA	NA
Dibenz(a,h)anthracene	0.30	<0.30	<0.30	<0.30	<0.42	NA	NA
Fluoranthene	0.30	<0.30	<0.30	<0.30	<0.36	NA	NA
Fluorene	0.30	<0.30	<0.30	<0.30	<0.33	NA	NA
Indeno(1,2,3-cd)pyrene	0.30	<0.30	<0.30	<0.30	<0.47	NA	NA

COMMENTS: Please see attached lab footnote report for any applicable footnotes.

Collection Media: FilterTube
Date : 09-OCT-23

Submitted by: JLL
Supervisor : SMM

Approved by: KLS



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Client : Center for Toxicology & Env. H
Site : NS
Project No. : 031332
Date Sampled : NS
Date Received : 05-OCT-23

Account No.: 13913
Login No. : L606869
Date Analyzed : 05-OCT-23
Report ID : 1384337

Client ID : MEID1003PAH05

Lab ID : L606869-5

Air Volume : NA

Date Sampled :

Date Analyzed : 10/05/23

Parameter	LOQ ug	Filter ug	Front ug	Back ug	Total ug	Conc mg/m3	ppm
Naphthalene	0.30	<0.30	<0.30	<0.30	<0.33	NA	NA
Phenanthrene	0.30	<0.30	<0.30	<0.30	<0.35	NA	NA
Pyrene	0.30	<0.30	<0.30	<0.30	<0.37	NA	NA

COMMENTS: Please see attached lab footnote report for any applicable footnotes.

Collection Media: FilterTube
Date : 09-OCT-23

Submitted by: JLL
Supervisor : SMM

Approved by: KLS



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Client : Center for Toxicology & Env. H
Site : NS
Project No. : 031332
Date Sampled : NS
Date Received : 05-OCT-23

Account No.: 13913
Login No. : L606869
Date Analyzed : 05-OCT-23
Report ID : 1384337

Client ID : MEID1003PAH06

Lab ID : L606869-6

Air Volume : NA

Date Sampled :

Date Analyzed : 10/05/23

Parameter	LOQ ug	Filter ug	Front ug	Back ug	Total ug	Conc mg/m3	ppm
1-Methylnaphthalene	0.30	<0.30	<0.30	<0.30	<0.32	NA	NA
2-Methylnaphthalene	0.30	<0.30	<0.30	<0.30	<0.33	NA	NA
Acenaphthene	0.30	<0.30	<0.30	<0.30	<0.33	NA	NA
Acenaphthylene	0.30	<0.30	<0.30	<0.30	<0.31	NA	NA
Anthracene	0.30	<0.30	<0.30	<0.30	<0.35	NA	NA
Benzo(a)anthracene	0.30	<0.30	<0.30	<0.30	<0.38	NA	NA
Benzo(a)pyrene	0.30	<0.30	<0.30	<0.30	<0.45	NA	NA
Benzo(b)fluoranthene	0.30	<0.30	<0.30	<0.30	<0.42	NA	NA
Benzo(g,h,i)perylene	0.30	<0.30	<0.30	<0.30	<0.51	NA	NA
Benzo(k)fluoranthene	0.30	<0.30	<0.30	<0.30	<0.42	NA	NA
Chrysene	0.30	<0.30	<0.30	<0.30	<0.39	NA	NA
Dibenz(a,h)anthracene	0.30	<0.30	<0.30	<0.30	<0.42	NA	NA
Fluoranthene	0.30	<0.30	<0.30	<0.30	<0.36	NA	NA
Fluorene	0.30	<0.30	<0.30	<0.30	<0.33	NA	NA
Indeno(1,2,3-cd)pyrene	0.30	<0.30	<0.30	<0.30	<0.47	NA	NA

COMMENTS: Please see attached lab footnote report for any applicable footnotes.

Collection Media: FilterTube
Date : 09-OCT-23

Submitted by: JLL
Supervisor : SMM

Approved by: KLS



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Site : NS
Project No. : 031332
Date Sampled : NS
Date Received : 05-OCT-23

Account No.: 13913
Login No. : L606869
Date Analyzed : 05-OCT-23
Report ID : 1384337

Client ID : MEID1003PAH06 Lab ID : L606869-6 Air Volume : NA
Date Sampled : Date Analyzed : 10/05/23

<u>Parameter</u>	<u>LOQ</u> <u>ug</u>	<u>Filter</u> <u>ug</u>	<u>Front</u> <u>ug</u>	<u>Back</u> <u>ug</u>	<u>Total</u> <u>ug</u>	<u>Conc</u> <u>mg/m3</u>	<u>ppm</u>
Naphthalene	0.30	<0.30	<0.30	<0.30	<0.33	NA	NA
Phenanthrene	0.30	<0.30	<0.30	<0.30	<0.35	NA	NA
Pyrene	0.30	<0.30	<0.30	<0.30	<0.37	NA	NA

COMMENTS: Please see attached lab footnote report for any applicable footnotes.

Collection Media: FilterTube Submitted by: JLL Approved by: KLS
Date : 09-OCT-23 Supervisor : SMM



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Date Sampled : NS
Date Received : 05-OCT-23
Account No.: 13913
Login No. : L606869
Date Analyzed : 05-OCT-23
Report ID : 1384337

Client ID : MEID1003PAH07

Lab ID : L606869-7

Air Volume : NA

Date Sampled :

Date Analyzed : 10/05/23

Parameter	LOQ ug	Filter ug	Front ug	Back ug	Total ug	Conc mg/m3	ppm
1-Methylnaphthalene	0.30	<0.30	<0.30	<0.30	<0.32	NA	NA
2-Methylnaphthalene	0.30	<0.30	<0.30	<0.30	<0.33	NA	NA
Acenaphthene	0.30	<0.30	<0.30	<0.30	<0.33	NA	NA
Acenaphthylene	0.30	<0.30	<0.30	<0.30	<0.31	NA	NA
Anthracene	0.30	<0.30	<0.30	<0.30	<0.35	NA	NA
Benzo(a)anthracene	0.30	<0.30	<0.30	<0.30	<0.38	NA	NA
Benzo(a)pyrene	0.30	<0.30	<0.30	<0.30	<0.45	NA	NA
Benzo(b)fluoranthene	0.30	<0.30	<0.30	<0.30	<0.42	NA	NA
Benzo(g,h,i)perylene	0.30	<0.30	<0.30	<0.30	<0.51	NA	NA
Benzo(k)fluoranthene	0.30	<0.30	<0.30	<0.30	<0.42	NA	NA
Chrysene	0.30	<0.30	<0.30	<0.30	<0.39	NA	NA
Dibenz(a,h)anthracene	0.30	<0.30	<0.30	<0.30	<0.42	NA	NA
Fluoranthene	0.30	<0.30	<0.30	<0.30	<0.36	NA	NA
Fluorene	0.30	<0.30	<0.30	<0.30	<0.33	NA	NA
Indeno(1,2,3-cd)pyrene	0.30	<0.30	<0.30	<0.30	<0.47	NA	NA

COMMENTS: Please see attached lab footnote report for any applicable footnotes.

Collection Media: FilterTube
Date : 09-OCT-23

Submitted by: JLL
Supervisor : SMM

Approved by: KLS



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Project No. : 031332
Date Sampled : NS
Date Received : 05-OCT-23

Account No.: 13913
Login No. : L606869
Date Analyzed : 05-OCT-23
Report ID : 1384337

Client ID : MEID1003PAH07 Lab ID : L606869-7 Air Volume : NA
Date Sampled : Date Analyzed : 10/05/23

Parameter	LOQ ug	Filter ug	Front ug	Back ug	Total ug	Conc mg/m3	ppm
Naphthalene	0.30	<0.30	<0.30	<0.30	<0.33	NA	NA
Phenanthrene	0.30	<0.30	<0.30	<0.30	<0.35	NA	NA
Pyrene	0.30	<0.30	<0.30	<0.30	<0.37	NA	NA

COMMENTS: Please see attached lab footnote report for any applicable footnotes.

Collection Media: FilterTube Submitted by: JLL Approved by: KLS
Date : 09-OCT-23 Supervisor : SMM



GALSON

LABORATORY FOOTNOTE REPORT

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Client Name : Center for Toxicology & Env. Health LLC
Site :
Project No. : 031332

Date Sampled :
Date Received: 05-OCT-23
Date Analyzed: 05-OCT-23

Account No.: 13913
Login No. : L606869

L606869 (Report ID: 1384175):

For applicable NYS sampling events, laboratory accreditation through NYSDOH applies only to Lead results.
Reported results reflect elemental analysis of the requested metals. Certain compounds may not be solubilized during digestion, resulting in data that is biased low.
SOPs: MT-SOP-27(20), MT-SOP-28(15), MT-SOP-29(12)
Reported Iron Oxide(Fe2O3) results assume that all detected Iron is present as Iron Oxide.
ICP analysis does not differentiate allotropes of phosphorus.

L606869 (Report ID: 1384175):

Accuracy and mean recovery data presented below is based on a 95% confidence interval (k=2). The estimated accuracy applies to the media, technology, and SOP referenced in this report and does not account for the uncertainty associated with the sampling process. The accuracy is based solely on spike recovery data from internal quality control samples. Where N/A appears below, insufficient data is available to provide statistical accuracy and mean recovery values for the associated analyte.

Parameter	Accuracy	Mean Recovery
Aluminum	+/-9.5%	99.6%
Cobalt	+/-8.8%	105%
Copper	+/-9.3%	105%
Iron	+/-9.3%	108%
Iron Oxide	+/-9.3%	108%
Lead	+/-9.6%	102%
Lithium	+/-11.9%	102%
Nickel	+/-10.3%	104%
Phosphorus Particulate	+/-9.6%	106%

Parameter	Method
Aluminum	mod. NIOSH 7303; ICP
Cobalt	mod. NIOSH 7303; ICP
Copper	mod. NIOSH 7303; ICP
Iron	mod. NIOSH 7303; ICP
Iron Oxide	mod. NIOSH 7303; ICP
Lead	mod. NIOSH 7303; ICP
Lithium	mod NIOSH 7303; ICP/MS
Nickel	mod. NIOSH 7303; ICP
Phosphorus Particulate	mod. NIOSH 7303; ICP

L606869 (Report ID: 1384337):

SOPs: il-n5506(17)
Results have been corrected for matrix and compound-specific desorption efficiencies, which



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Client Name : Center for Toxicology & Env. Health LLC
Site :
Project No. : 031332

Date Sampled :
Date Received: 05-OCT-23
Date Analyzed: 05-OCT-23

Account No.: 13913
Login No. : L606869

L606869 (Report ID: 1384337):
are attached.

L606869 (Report ID: 1384337):

Accuracy and mean recovery data presented below is based on a 95% confidence interval (k=2). The estimated accuracy applies to the media, technology, and SOP referenced in this report and does not account for the uncertainty associated with the sampling process. The accuracy is based solely on spike recovery data from internal quality control samples. Where N/A appears below, insufficient data is available to provide statistical accuracy and mean recovery values for the associated analyte.

Parameter	Accuracy	Mean Recovery
1-Methylnaphthalene	+/-12.7%	102%
2-Methylnaphthalene	+/-11.5%	101%
Acenaphthene	+/-11.7%	103%
Acenaphthylene	+/-13.6%	96.5%
Anthracene	+/-9.9%	107%
Benzo(a)anthracene	+/-13.7%	102%
Benzo(a)pyrene	+/-19.1%	113%
Benzo(b)fluoranthene	+/-13.2%	106%
Benzo(g,h,i)perylene	+/-17.9%	102%
Benzo(k)fluoranthene	+/-14.8%	104%
Chrysene	+/-15.6%	103%
Dibenz(a,h)anthracene	+/-18%	98.8%
Fluoranthene	+/-11.7%	104%
Fluorene	+/-10.1%	103%
Indeno(1,2,3-cd)pyrene	+/-17.1%	98%
Naphthalene	+/-10.2%	106%
Phenanthrene	+/-11.3%	104%
Pyrene	+/-14%	98.3%

Parameter	Method
1-Methylnaphthalene	mod. NIOSH 5506; HPLC/UV
2-Methylnaphthalene	mod. NIOSH 5506; HPLC/UV
Acenaphthene	mod. NIOSH 5506; HPLC/UV
Acenaphthylene	mod. NIOSH 5506; HPLC/UV
Anthracene	mod. NIOSH 5506; HPLC/UV
Benzo(a)anthracene	mod. NIOSH 5506; HPLC/UV
Benzo(a)pyrene	mod. NIOSH 5506; HPLC/UV
Benzo(b)fluoranthene	mod. NIOSH 5506; HPLC/UV
Benzo(g,h,i)perylene	mod. NIOSH 5506; HPLC/UV
Benzo(k)fluoranthene	mod. NIOSH 5506; HPLC/UV
Chrysene	mod. NIOSH 5506; HPLC/UV
Dibenz(a,h)anthracene	mod. NIOSH 5506; HPLC/UV



GALSON

LABORATORY FOOTNOTE REPORT

6601 Kirkville Road
East Syracuse, NY 13057
(315) 432-5227
FAX: (315) 437-0571
www.sgsgalson.com

Client Name : Center for Toxicology & Env. Health LLC
Site :
Project No. : 031332

Date Sampled :
Date Received: 05-OCT-23
Date Analyzed: 05-OCT-23

Account No.: 13913
Login No. : L606869

L606869 (Report ID: 1384337):

Parameter	Method
Fluoranthene	mod. NIOSH 5506; HPLC/UV
Fluorene	mod. NIOSH 5506; HPLC/UV
Indeno(1,2,3-cd)pyrene	mod. NIOSH 5506; HPLC/UV
Naphthalene	mod. NIOSH 5506; HPLC/UV
Phenanthrene	mod. NIOSH 5506; HPLC/UV
Pyrene	mod. NIOSH 5506; HPLC/UV

Analyte	PTFE DE	XAD DE
BENZO(B)FLUORANTHENE	97	72
BENZO(K)FLUORANTHENE	97	72
BENZO(A)PYRENE	98	66
DIBENZO(A,H)ANTHRACENE	99	72
BENZO(G,H,I)PERYLENE	96	59
INDENO-1,2,3-CD-PYRENE	98	64
NAPHTHALENE	99	92
ACENAPHTHYLENE	102	96
ACENAPHTHENE	102	90
FLUORENE	97	90
PHENANTHRENE	98	86
ANTHRACENE	98	85
FLUORANTHENE	98	83
PYRENE	99	82
BENZO(A)ANTHRACENE	98	78
CHRYSENE	98	77
1-METHYLNAPHTHALENE	98	95
2-METHYLNAPHTHALENE	99	91



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ORGANICS QC RECOVERY REPORT

Work Group: WG571683

Sample: WG571683-1

Spikelot: IH730610-2

QC Type: DLS

Raw File: WG571683-

1A.UV_VIS_1.0002_1127086_LC6_20231

Analysis date: 10/05/23 12:05:46

Approval Status: YES

Instrument: LC6

Parameter	Found	True	Rec.	Limits	DE Rec. Limits	RPD	Limits
NAPHTHALENE	.0985015	.1008	97.7	70.0 to 130.			
PYRENE	.0911830	.1004	90.8	70.0 to 130.			
BENZO(A)ANTHRACENE	.0922151	.1006	91.7	70.0 to 130.			
CHRYSENE	.0901487	.1002	90	70.0 to 130.			
BENZO(B)FLUORANTHENE	.0992770	.1002	99.1	70.0 to 130.			
BENZO(K)FLUORANTHENE	.0906690	.1006	90.1	70.0 to 130.			
BENZO(A)PYRENE	.1045876	.1002	104	70.0 to 130.			
DIBENZ(A,H)ANTHRACENE	.0886600	.1004	88.3	70.0 to 130.			
BENZO(G,H,I)PERYLENE	.0949356	.1002	94.7	70.0 to 130.			
INDENO-1,2,3-CD-PYRENE	.0823986	.1006	81.9	70.0 to 130.			
ACENAPHTHYLENE	.0867073	.1005	86.3	70.0 to 130.			
1-METHYLNAPHTHALENE	.0960661	.1004	95.7	70.0 to 130.			
2-METHYLNAPHTHALENE	.0952657	.1004	94.9	70.0 to 130.			
ACENAPHTHENE	.0986892	.1008	97.9	70.0 to 130.			
FLUORENE	.0945021	.1008	93.8	70.0 to 130.			
PHENANTHRENE	.0894580	.1004	89.1	70.0 to 130.			
ANTHRACENE	.0916779	.1004	91.3	70.0 to 130.			
FLUORANTHENE	.0849477	.1004	84.6	70.0 to 130.			

Sample: WG571683-2

Spikelot: IH730610-1

QC Type: CCV

Raw File: WG571683-

2A.UV_VIS_1.0003_1127086_LC6_20231

Analysis date: 10/05/23 12:18:06

Approval Status: YES

Instrument: LC6

Parameter	Found	True	Rec.	Limits	DE Rec. Limits	RPD	Limits
NAPHTHALENE	5.150501	5.04	102	80.0 to 120.			
PYRENE	4.923276	5.02	98.1	80.0 to 120.			
BENZO(A)ANTHRACENE	5.045195	5.03	100	80.0 to 120.			
CHRYSENE	4.921294	5.01	98.2	80.0 to 120.			
BENZO(B)FLUORANTHENE	5.174862	5.01	103	80.0 to 120.			
BENZO(K)FLUORANTHENE	5.067124	5.03	101	80.0 to 120.			
BENZO(A)PYRENE	5.285004	5.01	105	80.0 to 120.			
DIBENZ(A,H)ANTHRACENE	4.886187	5.02	97.3	80.0 to 120.			
ACENAPHTHYLENE	4.886140	5.026	97.2	80.0 to 120.			
BENZO(G,H,I)PERYLENE	4.893110	5.01	97.7	80.0 to 120.			
INDENO-1,2,3-CD-PYRENE	4.693576	5.03	93.3	80.0 to 120.			

Sample: WG571683-2

Spikelot: IH730610-1

QC Type: CCV

Raw File: WG571683-

2A.UV_VIS_1.0003_1127086_LC6_20231

Analysis date: 10/05/23 12:18:06

Approval Status: YES

Instrument: LC6

Parameter	Found	True	Rec.	Limits	DE Rec. Limits	RPD	Limits
1-METHYLNAPHTHALENE	5.063196	5.02	101	80.0 to 120.			
2-METHYLNAPHTHALENE	4.956403	5.02	98.7	80.0 to 120.			
ACENAPHTHENE	5.105508	5.04	101	80.0 to 120.			
FLUORENE	4.958904	5.04	98.4	80.0 to 120.			
PHENANTHRENE	4.968385	5.02	99	80.0 to 120.			
ANTHRACENE	5.034381	5.02	100	80.0 to 120.			
FLUORANTHENE	5.007722	5.02	99.8	80.0 to 120.			

Sample: WG571681-2

Spikelot: NA

QC Type: MBLANK

Raw File: WG571681-

2A.UV_VIS_1.0006_1127089_LC6_20231

Analysis date: 10/05/23 12:55:09

Approval Status: YES

Instrument: LC6

Parameter	Found	True	Rec.	Limits	DE Rec. Limits	RPD	Limits
1-METHYLNAPHTHALENE (FRONT)	0	<0.30					
1-METHYLNAPHTHALENE (BACK)	0	<0.30					
2-METHYLNAPHTHALENE (FRONT)	0	<0.30					
2-METHYLNAPHTHALENE (BACK)	0	<0.30					
ACENAPHTHENE (FRONT)	0	<.30					
ACENAPHTHENE (BACK)	0	<.30					
ACENAPHTHYLENE (FRONT)	0	<.30					
ACENAPHTHYLENE (BACK)	0	<.30					
ANTHRACENE (FRONT)	0	<.30					
ANTHRACENE (BACK)	0	<.30					
BENZO(A)ANTHRACENE (FRONT)	0	<.30					
BENZO(A)ANTHRACENE (BACK)	0	<.30					
BENZO(A)PYRENE (FRONT)	0	<.30					
BENZO(A)PYRENE (BACK)	0	<.30					
BENZO(B)FLUORANTHENE (FRONT)	0	<.30					
BENZO(B)FLUORANTHENE (BACK)	0	<.30					
BENZO(G,H,I)PERYLENE (FRONT)	0	<.30					
BENZO(G,H,I)PERYLENE (BACK)	.2072955	<.30					
BENZO(K)FLUORANTHENE (FRONT)	0	<.30					
BENZO(K)FLUORANTHENE (BACK)	0	<.30					
CHRYSENE (FRONT)	0	<.30					
CHRYSENE (BACK)	0	<.30					



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ORGANICS QC RECOVERY REPORT

Work Group: WG571683

Sample: WG571681-2

Spikelot: NA

QC Type: MBLANK

Raw File: WG571681-
2A.UV_VIS_1.0006_1127089_LC6_20231

Analysis date: 10/05/23 12:55:09

Approval Status: YES

Instrument: LC6

Parameter	Found	True	Rec.	Limits	DE Rec. Limits	RPD	Limits
DIBENZ (A,H) ANTHRACENE (FRONT)	0	<.30					
DIBENZ (A,H) ANTHRACENE (BACK)	0	<.30					
FLUORANTHENE (FRONT)	0	<.30					
FLUORANTHENE (BACK)	0	<.30					
FLUORENE (FRONT)	0	<.30					
FLUORENE (BACK)	0	<.30					
INDENO-1,2,3-CD-PYRENE (FRONT)	0	<.30					
INDENO-1,2,3-CD-PYRENE (BACK)	0	<.30					
NAPHTHALENE (FRONT)	0	<.30					
NAPHTHALENE (BACK)	0	<.30					
PHENANTHRENE (FRONT)	0	<.30					
PHENANTHRENE (BACK)	0	<.30					
PYRENE (FRONT)	0	<.30					
PYRENE (BACK)	0	<.30					

Sample: WG571681-3

Spikelot: IH730610

QC Type: BS

Raw File: WG571681-
3F.UV_VIS_1.0008_1127089_LC6_20231

Analysis date: 10/05/23 13:19:51

Approval Status: YES

Instrument: LC6

Parameter	Found	True	Rec.	Limits	DE Rec. Limits	RPD	Limits
NAPHTHALENE	5.319670	5.04	106		107 90.2 to 123.		
PYRENE	5.078584	5.02	101		102 75.0 to 125.		
BENZO(A) ANTHRACENE	5.141721	5.03	102		104 75.0 to 125.		
CHRYSENE	5.013992	5.01	100		102 75.0 to 125.		
BENZO(B) FLUORANTHENE	5.282565	5.01	105		109 85.1 to 127.		
BENZO(K) FLUORANTHENE	5.142098	5.03	102		105 75.0 to 125.		
BENZO(A) PYRENE	5.386745	5.01	108		110 75.0 to 125.		
DIBENZ (A,H) ANTHRACENE	4.997583	5.02	99.6		101 72.1 to 125.		
BENZO(G,H,I) PERYLENE	4.985463	5.01	99.5		104 75.0 to 125.		
ACENAPHTHYLENE	5.006060	5.026	99.6		97.7 76.8 to 116.		
INDENO-1,2,3-CD-PYRENE	4.628352	5.03	92		92.9 72.8 to 123.		
1-METHYLNAPHTHALENE	5.237565	5.02	104		106 82.7 to 122.		
2-METHYLNAPHTHALENE	5.124770	5.02	102		103 83.7 to 119.		
ACENAPHTHENE	5.254973	5.04	104		102 75.0 to 125.		
FLUORENE	5.067964	5.04	101		104 75.0 to 125.		



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ORGANICS QC RECOVERY REPORT

Work Group: WG571683

Sample: WG571681-3

Spikelot: IH730610

QC Type: BS

Raw File: WG571681-
3F.UV_VIS_1.0008_1127089_LC6_20231

Analysis date: 10/05/23 13:19:51

Approval Status: YES

Instrument: LC6

Parameter	Found	True	Rec.	Limits	DE Rec. Limits	RPD	Limits
PHENANTHRENE	5.101746	5.02	102		104 75.0 to 125.		
ANTHRACENE	5.224936	5.02	104		106 75.0 to 125.		
FLUORANTHENE	5.037566	5.02	100		102 75.0 to 125.		

Sample: WG571681-4

Spikelot: IH730610

QC Type: BSD

Raw File: WG571681-
4F.UV_VIS_1.0009_1127089_LC6_20231

Analysis date: 10/05/23 13:32:12

Approval Status: YES

Instrument: LC6

Parameter	Found	True	Rec.	Limits	DE Rec. Limits	RPD	Limits
NAPHTHALENE	5.401545	5.04	107		108 90.2 to 123.	.93	-20 to 20.0
PYRENE	5.152293	5.02	103		104 75.0 to 125.	1.94	-20 to 20.0
BENZO(A)ANTHRACENE	5.211710	5.03	104		106 75.0 to 125.	1.9	-20 to 20.0
CHRYSENE	5.095881	5.01	102		104 75.0 to 125.	1.94	-20 to 20.0
BENZO(B)FLUORANTHENE	5.347964	5.01	107		110 85.1 to 127.	.913	0 to 13.8
BENZO(K)FLUORANTHENE	5.220283	5.03	104		107 75.0 to 125.	1.89	-20 to 20.0
BENZO(A)PYRENE	5.469490	5.01	109		111 75.0 to 125.	.905	-20 to 20.0
DIBENZ(A,H)ANTHRACENE	5.134831	5.02	102		103 72.1 to 125.	1.96	-20 to 20.0
ACENAPHTHYLENE	5.061373	5.026	101		98.7 76.8 to 116.	1.02	-20 to 20.0
BENZO(G,H,I)PERYLENE	5.155531	5.01	103		107 75.0 to 125.	2.84	-20 to 20.0
INDENO-1,2,3-CD-PYRENE	4.809629	5.03	95.6		96.6 72.8 to 123.	3.91	-20 to 20.0
1-METHYLNAPHTHALENE	5.298264	5.02	106		108 82.7 to 122.	1.87	0 to 13.4
2-METHYLNAPHTHALENE	5.172345	5.02	103		104 83.7 to 119.	.966	0 to 13.2
ACENAPHTHENE	5.322001	5.04	106		104 75.0 to 125.	1.94	-20 to 20.0
FLUORENE	5.148497	5.04	102		105 75.0 to 125.	.957	-20 to 20.0
PHENANTHRENE	5.150157	5.02	103		105 75.0 to 125.	.957	-20 to 20.0
ANTHRACENE	5.279556	5.02	105		107 75.0 to 125.	.939	-20 to 20.0
FLUORANTHENE	5.112559	5.02	102		104 75.0 to 125.	1.94	-20 to 20.0

Sample: WG571681-5

Spikelot: IH730610

QC Type: BS

Raw File: WG571681-
5A.UV_VIS_1.0010_1127089_LC6_20231

Analysis date: 10/05/23 13:44:36

Approval Status: YES

Instrument: LC6

Parameter	Found	True	Rec.	Limits	DE Rec. Limits	RPD	Limits
NAPHTHALENE	5.083775	5.04	101		110 90.2 to 123.		
FLUORANTHENE	4.506039	5.02	89.8		108 75.0 to 125.		

Sample: WG571681-5

Spikelot: IH730610

QC Type: BS

Raw File: WG571681-

5A.UV_VIS_1.0010_1127089_LC6_20231

Analysis date: 10/05/23 13:44:36

Approval Status: YES

Instrument: LC6

Parameter	Found	True	Rec.	Limits	DE Rec. Limits	RPD	Limits
PYRENE	4.482812	5.02	89.3		109 75.0 to 125.		
BENZO(A)ANTHRACENE	4.404234	5.03	87.6		112 75.0 to 125.		
CHRYSENE	4.279597	5.01	85.4		111 75.0 to 125.		
BENZO(B)FLUORANTHENE	4.280479	5.01	85.4		119 85.1 to 127.		
BENZO(K)FLUORANTHENE	4.171278	5.03	82.9		115 75.0 to 125.		
BENZO(A)PYRENE	4.138461	5.01	82.6		125 75.0 to 125.		
ACENAPHTHYLENE	4.597451	5.026	91.5		95.3 76.8 to 116.		
DIBENZ(A,H)ANTHRACENE	3.864700	5.02	77		107 72.1 to 125.		
BENZO(G,H,I)PERYLENE	3.571644	5.01	71.3		121 75.0 to 125.		
INDENO-1,2,3-CD-PYRENE	3.582715	5.03	71.2		111 72.8 to 123.		
1-METHYLNAPHTHALENE	4.912507	5.02	97.9		103 82.7 to 122.		
2-METHYLNAPHTHALENE	4.799572	5.02	95.6		105 83.7 to 119.		
ACENAPHTHENE	5.132123	5.04	102		113 75.0 to 125.		
FLUORENE	4.735346	5.04	94		104 75.0 to 125.		
PHENANTHRENE	4.671897	5.02	93.1		108 75.0 to 125.		
ANTHRACENE	4.737698	5.02	94.4		111 75.0 to 125.		

Sample: WG571681-6

Spikelot: IH730610

QC Type: BSD

Raw File: WG571681-

6A.UV_VIS_1.0011_1127089_LC6_20231

Analysis date: 10/05/23 13:56:59

Approval Status: YES

Instrument: LC6

Parameter	Found	True	Rec.	Limits	DE Rec. Limits	RPD	Limits
NAPHTHALENE	5.341265	5.04	106		115 90.2 to 123.	4.44	-20 to 20.0
PYRENE	4.599354	5.02	91.6		112 75.0 to 125.	2.71	-20 to 20.0
BENZO(A)ANTHRACENE	4.470809	5.03	88.9		114 75.0 to 125.	1.77	-20 to 20.0
CHRYSENE	4.347554	5.01	86.8		113 75.0 to 125.	1.79	-20 to 20.0
BENZO(B)FLUORANTHENE	4.321302	5.01	86.3		120 85.1 to 127.	.837	0 to 13.8
BENZO(K)FLUORANTHENE	4.195131	5.03	83.4		116 75.0 to 125.	.866	-20 to 20.0
BENZO(A)PYRENE	4.093951	5.01	81.7		124 75.0 to 125.	.803	-20 to 20.0
DIBENZ(A,H)ANTHRACENE	3.890266	5.02	77.5		108 72.1 to 125.	.93	-20 to 20.0
ACENAPHTHYLENE	4.976524	5.026	99		103 76.8 to 116.	7.77	-20 to 20.0
BENZO(G,H,I)PERYLENE	3.452863	5.01	68.9		117 75.0 to 125.	3.36	-20 to 20.0
INDENO-1,2,3-CD-PYRENE	3.359361	5.03	66.8		104 72.8 to 123.	6.51	-20 to 20.0
1-METHYLNAPHTHALENE	5.243253	5.02	104		110 82.7 to 122.	6.57	0 to 13.4
2-METHYLNAPHTHALENE	5.097817	5.02	102		112 83.7 to 119.	6.45	0 to 13.2



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ORGANICS QC RECOVERY REPORT

Work Group: WG571683

Sample: WG571681-6

Spikelot: IH730610

QC Type: BSD

Raw File: WG571681-
6A.UV_VIS_1.0011_1127089_LC6_20231

Analysis date: 10/05/23 13:56:59

Approval Status: YES

Instrument: LC6

Parameter	Found	True	Rec.	Limits	DE Rec. Limits	RPD	Limits
ACENAPHTHENE	5.146279	5.04	102		113 75.0 to 125.	0	-20 to 20.0
FLUORENE	4.999383	5.04	99.2		110 75.0 to 125.	5.61	-20 to 20.0
PHENANTHRENE	4.881607	5.02	97.2		113 75.0 to 125.	4.52	-20 to 20.0
ANTHRACENE	4.977748	5.02	99.2		117 75.0 to 125.	5.26	-20 to 20.0
FLUORANTHENE	4.656431	5.02	92.8		112 75.0 to 125.	3.64	-20 to 20.0

Sample: WG571683-3

Spikelot: IH730610-1

QC Type: CCV

Raw File: WG571683-
3A.UV_VIS_1.0021_1127183_LC6_20231

Analysis date: 10/05/23 16:00:29

Approval Status: YES

Instrument: LC6

Parameter	Found	True	Rec.	Limits	DE Rec. Limits	RPD	Limits
NAPHTHALENE	5.222278	5.04	104	80.0 to 120.			
PYRENE	4.984928	5.02	99.3	80.0 to 120.			
BENZO(A)ANTHRACENE	5.081565	5.03	101	80.0 to 120.			
CHRYSENE	4.959813	5.01	99	80.0 to 120.			
BENZO(B)FLUORANTHENE	5.240074	5.01	105	80.0 to 120.			
BENZO(K)FLUORANTHENE	5.165543	5.03	103	80.0 to 120.			
BENZO(A)PYRENE	5.460497	5.01	109	80.0 to 120.			
ACENAPHTHYLENE	4.923350	5.026	98	80.0 to 120.			
DIBENZ(A,H)ANTHRACENE	4.880654	5.02	97.2	80.0 to 120.			
BENZO(G,H,I)PERYLENE	4.955763	5.01	98.9	80.0 to 120.			
INDENO-1,2,3-CD-PYRENE	4.728500	5.03	94	80.0 to 120.			
1-METHYLNAPHTHALENE	5.118017	5.02	102	80.0 to 120.			
2-METHYLNAPHTHALENE	5.011621	5.02	99.8	80.0 to 120.			
ACENAPHTHENE	5.156935	5.04	102	80.0 to 120.			
FLUORENE	5.017189	5.04	99.5	80.0 to 120.			
PHENANTHRENE	5.020994	5.02	100	80.0 to 120.			
ANTHRACENE	5.098624	5.02	102	80.0 to 120.			
FLUORANTHENE	5.043162	5.02	100	80.0 to 120.			

Sample: WG571683-4

Spikelot: IH730610-1

QC Type: CCV

Raw File: WG571683-
4A.UV_VIS_1.0034_1127183_LC6_20231

Analysis date: 10/05/23 18:41:04

Approval Status: YES

Instrument: LC6

Parameter	Found	True	Rec.	Limits	DE Rec. Limits	RPD	Limits
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ORGANICS QC RECOVERY REPORT

Work Group: WG571683

Sample: WG571683-4

Spikelot: IH730610-1

QC Type: CCV

Raw File: WG571683-

4A.UV_VIS_1.0034_1127183_LC6_20231

Analysis date: 10/05/23 18:41:04

Approval Status: YES

Instrument: LC6

Parameter	Found	True	Rec.	Limits	DE Rec. Limits	RPD	Limits
NAPHTHALENE	5.234297	5.04	104	80.0 to 120.			
PYRENE	4.983040	5.02	99.3	80.0 to 120.			
BENZO(A)ANTHRACENE	5.102914	5.03	101	80.0 to 120.			
CHRYSENE	4.979346	5.01	99.4	80.0 to 120.			
BENZO(B)FLUORANTHENE	5.233689	5.01	104	80.0 to 120.			
BENZO(K)FLUORANTHENE	5.106779	5.03	102	80.0 to 120.			
BENZO(A)PYRENE	5.447804	5.01	109	80.0 to 120.			
ACENAPHTHYLENE	4.948648	5.026	98.5	80.0 to 120.			
DIBENZ(A,H)ANTHRACENE	4.916050	5.02	97.9	80.0 to 120.			
BENZO(G,H,I)PERYLENE	4.965692	5.01	99.1	80.0 to 120.			
INDENO-1,2,3-CD-PYRENE	4.745203	5.03	94.3	80.0 to 120.			
1-METHYLNAPHTHALENE	5.143996	5.02	102	80.0 to 120.			
2-METHYLNAPHTHALENE	5.030713	5.02	100	80.0 to 120.			
ACENAPHTHENE	5.181497	5.04	103	80.0 to 120.			
FLUORENE	5.037725	5.04	100	80.0 to 120.			
PHENANTHRENE	5.044167	5.02	100	80.0 to 120.			
ANTHRACENE	5.109986	5.02	102	80.0 to 120.			
FLUORANTHENE	5.064762	5.02	101	80.0 to 120.			

INITIAL/CONTINUING CALIBRATION REPORT

Client : Center for Toxicology & Env. Health LLC
Account No: 13913
Login No. : L606869

Lab Sample ID Type Spike Lot # Instrument Analysis Date			WG571648-2 ICVD IH730611 ICPMS2 Oct 05, 2023 12:04								
		Limits (%)	True Value (ppb)	Found (ppb)	Recovery (%)	True Value ()	Found ()	Recovery (%)	True Value ()	Found ()	Recovery (%)
Lithium	90.0 to 110.	90.0 to 120.	1250	1300	104.						
JL 10/5/2023											

Client : Center for Toxicology & Env. Health LLC
Account No: 13913
Login No. : L606869

Lab Sample ID Type Spike Lot # Instrument Analysis Date		WG571648-32 CCVD IH728953 ICPMS2 Oct 05, 2023 16:20								
	Limits (%)	True Value (ppb)	Found (ppb)	Recovery (%)	True Value ()	Found ()	Recovery (%)	True Value ()	Found ()	Recovery (%)
Lithium	80.0 to 120.	1250	1300	104.						

Client : Center for Toxicology & Env. Health LLC
Account No: 13913
Login No. : L606869

[illegible]

DETECTION LIMIT STANDARD RECOVERY REPORT

Client : Center for Toxicology & Env. Health LLC
Account No: 13913
Login No. : L606869

Lab Sample ID Type Spike Lot # Instrument Analysis Date	Limits (%)	True Value (ppb)	Found (ppb)	Recovery (%)	True Value ()	Found ()	Recovery (%)	True Value ()	Found ()	Recovery (%)
WG571648-9 DLSLOW IH730606 ICPMS2 Oct 05, 2023 12:48										
Aluminum	80.0 to 120.0	500.0	470.0	95.0						
Cobalt	80.0 to 120.0	2.00	2.17	106						
Copper	80.0 to 120.0	20.0	21.4	107						
Iron	80.0 to 120.0	500.0	480.0	96.0						
Lead	80.0 to 120.0	5.00	5.15	103						
Lithium	80.0 to 120.0	10.0	10.2	102.						
Nickel	80.0 to 120.0	10.0	10.6	106						
JJL 10/5/2023										

BLANK SPIKE/BLANK SPIKE DUPLICATE REPORT

Client : Center for Toxicology & Env. Health LLC
Account No: 13913
Login No. : L606869

Lab Sample ID Type Spike Lot # Instrument Analysis Date	Limits (%)	WG571672-2 BS IH729039 ICPMS2 Oct 05, 2023 15:47			WG571672-3 BSD IH729039 ICPMS2 Oct 05, 2023 15:53				
		True Value (ug/sample)	Found (ug/sample)	Recovery (%)	True Value (ug/sample)	Found (ug/sample)	Recovery (%)	RPD	RPD Limits
Copper	87.8 to 118.	15.0	14.8	97.4	15.0	14.8	98.8	1.33	18.9
Lead	87.0 to 115	15.0	15.1	101	15.0	15.1	101	0.222	20.0
Lithium	83.6 to 120.	15.0	15.1	101.	15.0	15.4	103.	1.90	12.3
JJL 10/5/2023									

METHOD BLANK REPORT

Client : Center for Toxicology & Env. Health LLC
Account No: 13913
Login No. : L606869

Lab Sample ID Type Instrument Analysis Date Analysis Time		WG571672-1 MBLANK ICPMS2 10/05/23 14:09							
	LOQ (ug)	Found (ug)							
Lead	0.075	<0.075							
Lithium	0.15	<0.15							
JL 10/5/2023									

INITIAL/CONTINUING CALIBRATION REPORT

Client : Center for Toxicology & Env. Health LLC
Account No: 13913
Login No. : L606869

Lab Sample ID Type Spike Lot # Instrument Analysis Date	Limits (%)	WG571643-1 ICVA IH729829 ICP4 Oct 05, 2023 09:03			WG571643-3 ICVB IH726965 ICP4 Oct 05, 2023 09:10			WG571643-2 ICVF IH728310 ICP4 Oct 05, 2023 09:06		
		True Value (mg/l)	Found (mg/l)	Recovery (%)	True Value (mg/l)	Found (mg/l)	Recovery (%)	True Value (mg/l)	Found (mg/l)	Recovery (%)
Aluminum 90.0 to 110.	80.0 to 120.				250.	249.	99.6			
Cobalt for all	80.0 to 120.	12.5	12.6	101.						
Copper	80.0 to 120.	12.5	12.6	101.						
Iron	80.0 to 120.				250.	252.	101.			
Lead	90.0 to 110.	12.5	12.6	101.						
Nickel	80.0 to 120.	10.0	10.3	103.						
Phosphorus	80.0 to 120.							2.5	2.52	101.
JL 10/5/2023										

INITIAL/CONTINUING CALIBRATION REPORT

Client : Center for Toxicology & Env. Health LLC
Account No: 13913
Login No. : L606869

Lab Sample ID Type Spike Lot # Instrument Analysis Date		WG571643-5 CCVA IH730505 ICP4 Oct 05, 2023 09:17			WG571643-6 CCVB IH730506 ICP4 Oct 05, 2023 09:21			WG571643-11 CCVA IH730505 ICP4 Oct 05, 2023 09:43		
	Limits (%)	True Value (mg/l)	Found (mg/l)	Recovery (%)	True Value (mg/l)	Found (mg/l)	Recovery (%)	True Value (mg/l)	Found (mg/l)	Recovery (%)
Aluminum	80.0 to 120.				250.	255.	102.			
Cobalt	80.0 to 120.	12.5	12.7	101.				12.5	12.7	101.
Copper	80.0 to 120.	12.5	12.7	101.				12.5	12.7	102.
Iron	80.0 to 120.				250.	263.	105.			
Lead	90.0 to 110.	12.5	12.7	101.				12.5	12.7	102.
Nickel	80.0 to 120.	10.0	10.2	102.				10.0	10.2	102.
Phosphorus	80.0 to 120.	2.50	2.55	102.				2.50	2.56	103.

INITIAL/CONTINUING CALIBRATION REPORT

Client : Center for Toxicology & Env. Health LLC
Account No: 13913
Login No. : L606869

Lab Sample ID Type Spike Lot # Instrument Analysis Date		WG571643-12 CCVB IH730506 ICP4 Oct 05, 2023 09:47			WG571643-18 CCVA IH730505 ICP4 Oct 05, 2023 10:09			WG571643-19 CCVB IH730506 ICP4 Oct 05, 2023 10:13		
	Limits (%)	True Value (mg/l)	Found (mg/l)	Recovery (%)	True Value (mg/l)	Found (mg/l)	Recovery (%)	True Value (mg/l)	Found (mg/l)	Recovery (%)
Aluminum	80.0 to 120.	250.	250.	100.				250.	248.	99.2
Cobalt	80.0 to 120.				12.5	12.6	100.			
Copper	80.0 to 120.				12.5	12.6	100.			
Iron	80.0 to 120.	250.	258.	103.				250.	258.	103.
Lead	90.0 to 110.				12.5	12.6	101.			
Nickel	80.0 to 120.				10.0	10.1	101.			
Phosphorus	80.0 to 120.				2.50	2.54	102.			

INITIAL/CONTINUING CALIBRATION REPORT

Client : Center for Toxicology & Env. Health LLC
Account No: 13913
Login No. : L606869

Lab Sample ID Type Spike Lot # Instrument Analysis Date	Limits (%)	WG571643-24 CCVA IH730505 ICP4 Oct 05, 2023 11:16			WG571643-25 CCVB IH730506 ICP4 Oct 05, 2023 11:20			WG571643-27 CCVA IH730505 ICP4 Oct 05, 2023 11:38		
		True Value (mg/l)	Found (mg/l)	Recovery (%)	True Value (mg/l)	Found (mg/l)	Recovery (%)	True Value (mg/l)	Found (mg/l)	Recovery (%)
Aluminum	80.0 to 120.				250.	250.	99.9			
Cobalt	80.0 to 120.	12.5	12.5	99.7				12.5	12.6	100.
Copper	80.0 to 120.	12.5	12.5	100.				12.5	12.5	100.
Iron	80.0 to 120.				250.	256.	102.			
Lead	90.0 to 110.	12.5	12.5	100.				12.5	12.6	101.
Nickel	80.0 to 120.	10.0	10.1	101.				10.0	10.1	101.
Phosphorus	80.0 to 120.	2.50	2.54	102.				2.50	2.55	102.

INITIAL/CONTINUING CALIBRATION REPORT

Client : Center for Toxicology & Env. Health LLC
Account No: 13913
Login No. : L606869

Lab Sample ID Type Spike Lot # Instrument Analysis Date	Limits (%)	WG571643-28 CCVB IH730506 ICP4 Oct 05, 2023 11:42			WG571643-30 CCVA IH730505 ICP4 Oct 05, 2023 13:35			WG571643-31 CCVB IH730506 ICP4 Oct 05, 2023 13:39		
		True Value (mg/l)	Found (mg/l)	Recovery (%)	True Value (mg/l)	Found (mg/l)	Recovery (%)	True Value (mg/l)	Found (mg/l)	Recovery (%)
Aluminum	80.0 to 120.	250.	247.	98.8				250.	248.	99.2
Cobalt	80.0 to 120.				12.5	12.6	101.			
Copper	80.0 to 120.				12.5	12.6	101.			
Iron	80.0 to 120.	250.	258.	103.				250.	251.	100.
Lead	90.0 to 110.				12.5	12.4	99.2			
Nickel	80.0 to 120.				10.0	9.98	99.8			
Phosphorus	80.0 to 120.				2.50	2.52	101.			

Client : Center for Toxicology & Env. Health LLC
Account No: 13913
Login No. : L606869

Lab Sample ID Type Spike Lot # Instrument Analysis Date		WG571643-36 CCVA IH730505 ICP4 Oct 05, 2023 14:19			WG571643-37 CCVB IH730506 ICP4 Oct 05, 2023 14:23					
	Limits (%)	True Value (mg/l)	Found (mg/l)	Recovery (%)	True Value (mg/l)	Found (mg/l)	Recovery (%)	True Value ()	Found ()	Recovery (%)
Aluminum	80.0 to 120.				250.	254.	101.			
Cobalt	80.0 to 120.	12.5	12.9	103.						
Copper	80.0 to 120.	12.5	13.1	105.						
Iron	80.0 to 120.				250.	249.	99.5			
Lead	90.0 to 110.	12.5	12.5	99.9						
Nickel	80.0 to 120.	10.0	10.1	101.						
Phosphorus	80.0 to 120.	2.50	2.55	102.						

INITIAL/CONTINUING BLANK REPORT

Client Center for Toxicology & Env. Health LLC
Account No: 13913
Login No. 1606869

Lab Sample ID Type Instrument Analysis Date Analysis Time		WG571643-4 CCB ICB ICP4 10/05/23 09:14	WG571643-7 CCB ICP4 10/05/23 09:25	WG571643-13 CCB ICP4 10/05/23 09:51	WG571643-20 CCB ICP4 10/05/23 10:17	WG571643-26 CCB ICP4 10/05/23 11:24	WG571643-32 CCB ICP4 10/05/23 13:43	WG571643-38 CCB ICP4 10/05/23 14:27	
	LOQ ppm	Found (ppm)	Found (ppm)	Found (ppm)	Found (ppm)	Found (ppm)	Found (ppm)	Found (ppm)	
Aluminum	0.5	<0.5 <0.25	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	
Cobalt	0.03	<0.03 <0.015	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	
Copper	0.02	<0.02 <0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	
Iron	0.5	<0.5 <0.25	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	
Lead	0.01	<0.01 <0.005	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	
Nickel	0.02	<0.02 <0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	
Phosphorus	1	<1 <0.5	<1	<1	<1	<1	<1	<1	
JL 10/5/2023									

Client : Center for Toxicology & Env. Health LLC
Account No: 13913
Login No. : L606869

[illegible]

BLANK SPIKE/BLANK SPIKE DUPLICATE REPORT

Client : Center for Toxicology & Env. Health LLC
Account No: 13913
Login No. : L606869

Lab Sample ID Type Spike Lot # Instrument Analysis Date	Limits (%)	True Value (ug/sample)	Found (ug/sample)	Recovery (%)	True Value (ug/sample)	Found (ug/sample)	Recovery (%)	RPD	RPD Limits
WG571672-2 BS IH729039 ICP4 Oct 05, 2023 13:21					WG571672-3 BSD IH729039 ICP4 Oct 05, 2023 13:25				
Aluminum	85.4 to 114.	150.	144.	95.9	150.	149.	99.4	3.54	15.0
Cobalt	91.4 to 119.	15.0	15.0	100.	15.0	15.4	103.	2.57	11.7
Copper	90.4 to 120.	15.0	15.0	100.	15.0	15.5	103.	2.95	11.8
Iron	93.0 to 123.	75.0	76.2	102.	75.0	79.1	105.	3.63	10.4
Iron Oxide	93.0 to 123.	75.0	76.2	102.	75.0	79.1	105.	3.63	10.4
Lead	87.6 to 117.	15.0	14.5	96.9	15.0	14.9	99.0	2.21	20.0
Nickel	88.3 to 121.	15.0	14.7	97.7	15.0	15.0	99.9	2.22	10.0
Phosphorus	90.4 to 121.	50.0	50.0	100.	50.0	50.9	102.	1.81	10.0

Lab Sample ID Type Instrument Analysis Date Analysis Time		WG571672-1 MBLANK ICP4 10/05/23 12:59							
	LOQ (ug)	Found (ug)							
Aluminum	7.5	<7.5							
Cobalt	0.45	<0.45							
Copper	0.30	<0.30							
Iron	7.5	<7.5							
Iron Oxide	11.	<11.							
Lead	0.38	<0.38							
Nickel	0.30	<0.30							
Phosphorus	15.	<15.							



784629500527
Date: 10/05/23
Shipper: FEDEX
Initials: AMF
Prep: UNKNOWN

1600809
TODY AND ANALYSIS REQUEST FORM

36

Send Report to JT W. N. & Son 200011/11/11
Company CTEH, LLC
Address 5120 North Shore Drive, North Little Rock, Arkansas 72118
Phone (501)801-8500
e-mail labresults@cteh.com; jtwilson@cteh.com; s.malmed@cteh.com
Accounting Send invoices to CTEHAP@montrose-env.com with Invoice # and Vendor name in subject line

CTEH Project # 031332 11/11
Turnaround Requested: ☐ Normal ☒ Same Day ☐ Next Day
☐ Two Day ☐ Other (Specify) _____
Data Packet Requested: ☒ Standard Level II ☐ Other _____
Sample and Extract Retention/Disposal:
Dispose after 2X hold time ☒
Retain w/ storage fees after 2X hold time ☐

Lab Contact Information		Samples Received in Light-Protective Material						Method				Matrix	
Primary Sample Identification	Secondary Sample Identification	Sample Size	Units	Sample Start Date	Sample Start Time	Sample Stop Date	Sample Stop Time	Initials	10/5H 506 PNAH + 506 11/05H 7303	11/05H 7303			A = air B = bulk S = soil SW = wipe T = tape W = water
MEID1003 PAH01		899.2	L					JT W. N. & Son	X				A
MEID1003 PAH02		704.6	L						X				A
MEID1003 PAH03		960.8	L						X				A
MEID1003 PAH04		852.5	L						X				A
MEID1003 PAH05		—	—						X				A
MEID1003 PAH06		—	—						X				A
MEID1003 PAH07		—	—						X				A
MEID1003 MET01		2,736.5	L	Rec'd intact & accounted for? Yes or No Rec'd w/custody seals intact? Yes, No, NA Rec'd in light sensitive packaging? Yes, No, NA Rec'd with ice pack? Yes or No				JT W. N. & Son	X	—	—	—	A
MEID1003 MET02	1,969.7	L	X						—	—	—	A	
MEID1003 MET03	2,277.7	L	X						—	—	—	A	

RELINQUISHED BY	DATE/TIME	RECEIVED BY	DATE/TIME	COMMENTS
JT W. N. & Son	10/4/23	Fed Ex	10/4/23	7303: Ni, Co, Pb, Li, Cu, K, Fe, Al, Fe Oxide
FedEx		Ava Ferreira	10/5/23	Remove potassium add phosphorus.

*orbo 43 and PFE amp 10/5/23
* UW MCE amp 10/5/23



CHAIN OF CUSTODY AND ANALYSIS REQUEST FORM

Send Report to ST Wilson Scott Malm
Company CTEH, LLC
Address 5120 North Shore Drive, North Little Rock, Arkansas 72118
Phone (501)801-8500
e-mail labresults@cteh.com; j.wilson@cteh.com; s.malm@cteh.com
Accounting Send invoices to CTEHAP@montrose-env.com with Invoice # and Vendor name in subject line

CTEH Project # 031332

Turnaround Requested: ☐ Normal ☒ Same Day ☐ Next Day

☐ Two Day ☐ Other (Specify) _____

Data Packet Requested: ☒ Standard Level II ☐ Other _____

Sample and Extract Retention/Disposal:

Dispose after 2X hold time ☒

Retain w/ storage fees after 2X hold time ☐

Lab Contact Information		Secondary Sample Identification	Sample Size	Units	Sample Start Date	Sample Start Time	Sample Stop Date	Sample Stop Time	Initials	NIGHT 7303	Method			Matrix
SGS Gaban 6601 Knoxville Rd East Syracuse, NY Primary Sample Identification														
MEID1003MET05			—	—	—	—	—	—	JA	X				A
MEID1003MET06			—	—	—	—	—	—	JA	X				A
<div>Do Not Use</div>														
<div>Do Not Use</div>														
<div>Do Not Use</div>														
<div>Do Not Use</div>														
<div>Do Not Use</div>														
<div>Do Not Use</div>														

Rec'd intact & accounted for? Yes or No ☒
Rec'd w/custody seals intact? Yes, No, NA ☒
Rec'd in light sensitive packaging? Yes, No, NA ☒
Rec'd with ice pack? Yes or No ☒
Rec'd temperature compliant? Yes, No, NA ☒

RELINQUISHED BY	DATE/TIME	RECEIVED BY	DATE/TIME	COMMENTS
ST Wilson FedEx	10/4/23	Fed Ex 1500 Ana Ferreira	10/4/23 1500 10/5/23 8:42	7303: Ni, Co, Pb, Li, Cu, K, Fe, Al, Fe Oxide Remove potassium add phosphorus. KMS 10/05/23



Lab Results
Center for Toxicology & Env. Health LLC
5120 North Shore Drive
North Little Rock, AR 72118

October 16, 2023

Account# 13913

Login# L607156

Dear Lab Results:

Enclosed are the analytical results for the samples received by our laboratory on October 07, 2023. All samples on the chain of custody were received in good condition unless otherwise noted. Any additional observations will be noted on the chain of custody.

Please contact client services at (888) 432-5227 if you would like any additional information regarding this report. Thank you for using SGS Galson.

Sincerely,

SGS Galson

A handwritten signature in black ink that reads "Lisa Swab". The signature is written in a cursive, flowing style.

Lisa Swab
Laboratory Director

Enclosure(s)

Terms and Conditions & General Disclaimers

- This document is issued by the Company under its General Conditions of Service accessible at <http://www.sgs.com/en/Terms-and-Conditions.aspx>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein.
- Any holder of this document is advised that information contained herein reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law.

Analytical Disclaimers

- Unless otherwise noted within the report, all quality control results associated with the samples were within established control limits or did not impact reported results.
- Note: The findings recorded within this report were drawn from analysis of the sample(s) provided to the laboratory by the Client (or a third party acting at the Client's direction). The laboratory does not have control over the sampling process, including but not limited to the use of field equipment and collection media, as well as the sampling duration, collection volume or any other collection parameter used by the Client. The findings herein constitute no warranty of the sample's representativeness of any sampled environment, and strictly relate to the samples as they were presented to the laboratory. For recommended sampling collection parameters, please refer to the Sampling and Analysis Guide at www.sgsgalson.com.
- Unrounded results are carried through the calculations that yield the final result and the final result is rounded to the number of significant figures appropriate to the accuracy of the analytical method. Please note that results appearing in the columns preceding the final result column may have been rounded and therefore, if carried through the calculations, may not yield an identical final result to the one reported.
- The stated LOQs for each analyte represent the demonstrated LOQ concentrations prior to correction for desorption efficiency (if applicable).
- Unless otherwise noted within the report, results have not been blank corrected for any field blank or method blank data.

Accreditations SGS Galson holds a variety of accreditations and recognitions. Our quality management system conforms with the requirements of ISO/IEC 17025. Where applicable, samples may also be analyzed in accordance with the requirements of ELAP, NELAC, or LELAP under one of the state accrediting bodies listed below. Current Scopes of Accreditation can be viewed at <http://www.sgsgalson.com> in the accreditations section of the "About" page. To determine if the analyte tested falls under our scope of accreditation, please visit our website or call Client Services at (888) 432-5227.

National/International	Accreditation/Recognition	Lab ID#	Program/Sector
AIHA-LAP, LLC - IHLAP, ELLAP, EMLAP	ISO/IEC 17025 and USEPA NLLAP	Lab ID 100324	Industrial Hygiene, Environmental Lead, Environmental Microbiology

State	Accreditation/Recognition	Lab ID#	Program/Sector
New York (NYSDOH)	ELAP and NELAC (TNI)	Lab ID: 11626	Air Analysis, Solid and Hazardous Waste
Louisiana (LDEQ)	LELAP	Lab ID: 04083	Air Analysis, Solid Chemical Materials

Legend

< - Less than	mg - Milligrams	MDL - Method Detection Limit	ppb - Parts per Billion
> - Greater than	ug - Micrograms	NA - Not Applicable	ppm - Parts per Million
l - Liters	m3 - Cubic Meters	NS - Not Specified	ppbv - ppb Volume
LOQ - Limit of Quantitation	kg - Kilograms	ND - Not Detected	ppmv - ppm Volume
ft2 - Square Feet	cm2 - Square Centimeters	in2 - Square Inches	ng - Nanograms



LABORATORY ANALYSIS REPORT

6601 Kirkville Road
East Syracuse, NY 13057
(315) 432-5227
FAX: (315) 437-0571
www.sgsgalson.com

Client : Center for Toxicology & Env. H
Site : NS
Project No. : 031332
Date Sampled : 04-OCT-23 - 05-OCT-23
Date Received : 07-OCT-23
Account No.: 13913
Login No. : L607156
Date Analyzed : 13-OCT-23 - 14-OCT-23
Report ID : 1385979

Client ID : MEID1004MET01A
Date Sampled : 10/04/23

Lab ID : L607156-5
Date Analyzed : 10/13/23
Air Volume : 2579.995 L

Parameter	LOQ ug	Total ug	Conc	Units
Aluminum	7.5	<7.5	<0.0029	mg/m3
Cobalt	0.45	<0.45	<0.00017	mg/m3
Copper	0.30	<0.30	<0.00012	mg/m3
Iron	7.5	<7.5	<0.0029	mg/m3
Iron Oxide	11.	<11	<0.0042	mg/m3
Lead	0.38	<0.38	<0.00015	mg/m3
Lithium	0.15	<0.15	<0.000058	mg/m3
Nickel	0.30	<0.30	<0.00012	mg/m3
Phosphorus Particulate	15.	<15	<0.0058	mg/m3

COMMENTS: Please see attached lab footnote report for any applicable footnotes.

Collection Media: MCE UW 37mm
Date : 16-OCT-23

Submitted by: EJB/MSC/CAW/MWS
Supervisor : JJL

Approved by: JJL



LABORATORY ANALYSIS REPORT

6601 Kirkville Road
East Syracuse, NY 13057
(315) 432-5227
FAX: (315) 437-0571
www.sgsgalson.com

Client : Center for Toxicology & Env. H
Site : NS
Project No. : 031332
Date Sampled : 04-OCT-23 - 05-OCT-23
Date Received : 07-OCT-23
Account No.: 13913
Login No. : L607156
Date Analyzed : 13-OCT-23 - 14-OCT-23
Report ID : 1385979

Client ID : MEID1004MET02A
Date Sampled : 10/04/23

Lab ID : L607156-6
Date Analyzed : 10/13/23
Air Volume : 2823.195 L

<u>Parameter</u>	<u>LOQ</u> <u>ug</u>	<u>Total</u> <u>ug</u>	<u>Conc</u>	<u>Units</u>
Aluminum	7.5	<7.5	<0.0027	mg/m3
Cobalt	0.45	<0.45	<0.00016	mg/m3
Copper	0.30	<0.30	<0.00011	mg/m3
Iron	7.5	<7.5	<0.0027	mg/m3
Iron Oxide	11.	<11	<0.0038	mg/m3
Lead	0.38	<0.38	<0.00013	mg/m3
Lithium	0.15	<0.15	<0.000053	mg/m3
Nickel	0.30	<0.30	<0.00011	mg/m3
Phosphorus Particulate	15.	<15	<0.0053	mg/m3

COMMENTS: Please see attached lab footnote report for any applicable footnotes.

Collection Media: MCE UW 37mm
Date : 16-OCT-23

Submitted by: EJB/MS/CAW/MWS
Supervisor : JJL

Approved by: JJL



LABORATORY ANALYSIS REPORT

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Client : Center for Toxicology & Env. H
Site : NS
Project No. : 031332
Date Sampled : 04-OCT-23 - 05-OCT-23
Date Received : 07-OCT-23
Account No.: 13913
Login No. : L607156
Date Analyzed : 13-OCT-23 - 14-OCT-23
Report ID : 1385979

Client ID : MEID1004MET03A
Date Sampled : 10/04/23

Lab ID : L607156-7
Date Analyzed : 10/13/23
Air Volume : 3120.064 L

<u>Parameter</u>	<u>LOQ</u> <u>ug</u>	<u>Total</u> <u>ug</u>	<u>Conc</u>	<u>Units</u>
Aluminum	7.5	<7.5	<0.0024	mg/m3
Cobalt	0.45	<0.45	<0.00014	mg/m3
Copper	0.30	<0.30	<0.000096	mg/m3
Iron	7.5	<7.5	<0.0024	mg/m3
Iron Oxide	11.	<11	<0.0034	mg/m3
Lead	0.38	<0.38	<0.00012	mg/m3
Lithium	0.15	<0.15	<0.000048	mg/m3
Nickel	0.30	<0.30	<0.000096	mg/m3
Phosphorus Particulate	15.	<15	<0.0048	mg/m3

COMMENTS: Please see attached lab footnote report for any applicable footnotes.

Collection Media: MCE UW 37mm
Date : 16-OCT-23

Submitted by: EJB/MS/CAW/MWS
Supervisor : JJL

Approved by: JJL



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Date Received : 07-OCT-23
Account No.: 13913
Login No. : L607156
Date Analyzed : 13-OCT-23 - 14-OCT-23
Report ID : 1385979

Client ID : MEID1004MET04A
Date Sampled : 10/04/23

Lab ID : L607156-8
Date Analyzed : 10/14/23
Air Volume : 2981.775 L

<u>Parameter</u>	<u>LOQ</u> <u>ug</u>	<u>Total</u> <u>ug</u>	<u>Conc</u>	<u>Units</u>
Aluminum	7.5	<7.5	<0.0025	mg/m3
Cobalt	0.45	<0.45	<0.00015	mg/m3
Copper	0.30	<0.30	<0.00010	mg/m3
Iron	7.5	<7.5	<0.0025	mg/m3
Iron Oxide	11.	<11	<0.0036	mg/m3
Lead	0.38	<0.38	<0.00013	mg/m3
Lithium	0.15	<0.15	<0.000050	mg/m3
Nickel	0.30	<0.30	<0.00010	mg/m3
Phosphorus Particulate	15.	<15	<0.0050	mg/m3

COMMENTS: Please see attached lab footnote report for any applicable footnotes.

Collection Media: MCE UW 37mm
Date : 16-OCT-23

Submitted by: EJB/MS/CAW/MWS
Supervisor : JJL

Approved by: JJL



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Date Sampled : 04-OCT-23 - 05-OCT-23
Date Received : 07-OCT-23
Account No.: 13913
Login No. : L607156
Date Analyzed : 13-OCT-23 - 14-OCT-23
Report ID : 1385979

Client ID : MEID1004MET01
Date Sampled : 10/05/23

Lab ID : L607156-14
Date Analyzed : 10/14/23
Air Volume : 3133.939 L

<u>Parameter</u>	<u>LOQ</u> <u>ug</u>	<u>Total</u> <u>ug</u>	<u>Conc</u>	<u>Units</u>
Aluminum	7.5	<7.5	<0.0024	mg/m3
Cobalt	0.45	<0.45	<0.00014	mg/m3
Copper	0.30	<0.30	<0.000096	mg/m3
Iron	7.5	<7.5	<0.0024	mg/m3
Iron Oxide	11.	<11	<0.0034	mg/m3
Lead	0.38	<0.38	<0.00012	mg/m3
Lithium	0.15	<0.15	<0.000048	mg/m3
Nickel	0.30	<0.30	<0.000096	mg/m3
Phosphorus Particulate	15.	<15	<0.0048	mg/m3

COMMENTS: Please see attached lab footnote report for any applicable footnotes.

Collection Media: MCE UW 37mm
Date : 16-OCT-23

Submitted by: EJB/MS/CAW/MWS
Supervisor : JJL

Approved by: JJL



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Date Sampled : 04-OCT-23 - 05-OCT-23
Date Received : 07-OCT-23
Account No.: 13913
Login No. : L607156
Date Analyzed : 13-OCT-23 - 14-OCT-23
Report ID : 1385979

Client ID : MEID1004MET02
Date Sampled : 10/05/23

Lab ID : L607156-15
Date Analyzed : 10/14/23
Air Volume : 2520.5 L

<u>Parameter</u>	<u>LOQ</u> <u>ug</u>	<u>Total</u> <u>ug</u>	<u>Conc</u>	<u>Units</u>
Aluminum	7.5	<7.5	<0.0030	mg/m3
Cobalt	0.45	<0.45	<0.00018	mg/m3
Copper	0.30	<0.30	<0.00012	mg/m3
Iron	7.5	<7.5	<0.0030	mg/m3
Iron Oxide	11.	<11	<0.0043	mg/m3
Lead	0.38	<0.38	<0.00015	mg/m3
Lithium	0.15	<0.15	<0.000060	mg/m3
Nickel	0.30	<0.30	<0.00012	mg/m3
Phosphorus Particulate	15.	<15	<0.0060	mg/m3

COMMENTS: Please see attached lab footnote report for any applicable footnotes.

Collection Media: MCE UW 37mm
Date : 16-OCT-23

Submitted by: EJB/MS/CAW/MWS
Supervisor : JJL

Approved by: JJL



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Client : Center for Toxicology & Env. H Account No.: 13913
Site : NS Login No. : L607156
Project No. : 031332
Date Sampled : 04-OCT-23 - 05-OCT-23 Date Analyzed : 13-OCT-23 - 14-OCT-23
Date Received : 07-OCT-23 Report ID : 1385979

Client ID : MEID1004MET04
Date Sampled : 10/05/23

Lab ID : L607156-16 Air Volume : 2074.697 L
Date Analyzed : 10/14/23

<u>Parameter</u>	<u>LOQ</u> <u>ug</u>	<u>Total</u> <u>ug</u>	<u>Conc</u>	<u>Units</u>
Aluminum	7.5	<7.5	<0.0036	mg/m3
Cobalt	0.45	<0.45	<0.00022	mg/m3
Copper	0.30	<0.30	<0.00014	mg/m3
Iron	7.5	<7.5	<0.0036	mg/m3
Iron Oxide	11.	<11	<0.0052	mg/m3
Lead	0.38	<0.38	<0.00018	mg/m3
Lithium	0.15	<0.15	<0.000072	mg/m3
Nickel	0.30	<0.30	<0.00014	mg/m3
Phosphorus Particulate	15.	<15	<0.0072	mg/m3

COMMENTS: Please see attached lab footnote report for any applicable footnotes.

Collection Media: MCE UW 37mm
Date : 16-OCT-23

Submitted by: EJB/MS/CAW/MWS
Supervisor : JJL

Approved by: JJL



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Date Received : 07-OCT-23
Account No.: 13913
Login No. : L607156
Date Analyzed : 13-OCT-23 - 14-OCT-23
Report ID : 1385979

Client ID : MEID1004MET05
Date Sampled : 10/05/23

Lab ID : L607156-17
Date Analyzed : 10/14/23
Air Volume : 3053.262 L

<u>Parameter</u>	<u>LOQ</u> <u>ug</u>	<u>Total</u> <u>ug</u>	<u>Conc</u>	<u>Units</u>
Aluminum	7.5	<7.5	<0.0025	mg/m3
Cobalt	0.45	<0.45	<0.00015	mg/m3
Copper	0.30	<0.30	<0.000098	mg/m3
Iron	7.5	<7.5	<0.0025	mg/m3
Iron Oxide	11.	<11	<0.0035	mg/m3
Lead	0.38	<0.38	<0.00012	mg/m3
Lithium	0.15	<0.15	<0.000049	mg/m3
Nickel	0.30	<0.30	<0.000098	mg/m3
Phosphorus Particulate	15.	<15	<0.0049	mg/m3

COMMENTS: Please see attached lab footnote report for any applicable footnotes.

Collection Media: MCE UW 37mm
Date : 16-OCT-23

Submitted by: EJB/MSC/CAW/MWS
Supervisor : JJL

Approved by: JJL



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Date Received : 07-OCT-23

Account No.: 13913
Login No. : L607156
Date Analyzed : 13-OCT-23 - 14-OCT-23
Report ID : 1385979

Client ID : MEID1005MET01FB Lab ID : L607156-21 Air Volume : NA
Date Sampled : Date Analyzed : 10/14/23

<u>Parameter</u>	<u>LOQ</u> <u>ug</u>	<u>Total</u> <u>ug</u>	<u>Conc</u>	<u>Units</u>
Aluminum	7.5	<7.5	NA	mg/m3
Cobalt	0.45	<0.45	NA	mg/m3
Copper	0.30	<0.30	NA	mg/m3
Iron	7.5	<7.5	NA	mg/m3
Iron Oxide	11.	<11	NA	mg/m3
Lead	0.38	<0.38	NA	mg/m3
Lithium	0.15	<0.15	NA	mg/m3
Nickel	0.30	<0.30	NA	mg/m3
Phosphorus Particulate	15.	<15	NA	mg/m3

COMMENTS: Please see attached lab footnote report for any applicable footnotes.

Collection Media: MCE UW 37mm Submitted by: EJB/MS/CAW/MWS Approved by: JJL
Date : 16-OCT-23 Supervisor : JJL



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Date Sampled : 04-OCT-23 - 05-OCT-23
Date Received : 07-OCT-23

Account No.: 13913
Login No. : L607156
Date Analyzed : 13-OCT-23 - 14-OCT-23
Report ID : 1385979

Client ID : MEID1005MET02FB Lab ID : L607156-22 Air Volume : NA
Date Sampled : Date Analyzed : 10/14/23

<u>Parameter</u>	<u>LOQ</u> <u>ug</u>	<u>Total</u> <u>ug</u>	<u>Conc</u>	<u>Units</u>
Aluminum	7.5	<7.5	NA	mg/m3
Cobalt	0.45	<0.45	NA	mg/m3
Copper	0.30	<0.30	NA	mg/m3
Iron	7.5	<7.5	NA	mg/m3
Iron Oxide	11.	<11	NA	mg/m3
Lead	0.38	<0.38	NA	mg/m3
Lithium	0.15	<0.15	NA	mg/m3
Nickel	0.30	<0.30	NA	mg/m3
Phosphorus Particulate	15.	<15	NA	mg/m3

COMMENTS: Please see attached lab footnote report for any applicable footnotes.

Collection Media: MCE UW 37mm Submitted by: EJB/MS/CAW/MWS Approved by: JJL
Date : 16-OCT-23 Supervisor : JJL



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Project No. : 031332
Date Sampled : 04-OCT-23 - 05-OCT-23
Date Received : 07-OCT-23

Account No.: 13913
Login No. : L607156
Date Analyzed : 11-OCT-23 - 12-OCT-23
Report ID : 1385539

Client ID : MEID1004PAH01A
Date Sampled : 10/04/23

Lab ID : L607156-1
Date Analyzed : 10/11/23

Air Volume : 1074.442 L

Parameter	LOQ ug	Filter ug	Front ug	Back ug	Total ug	Conc mg/m3	ppm
1-Methylnaphthalene	0.30	<0.30	<0.30	<0.30	<0.32	<0.00029	<0.000051
2-Methylnaphthalene	0.30	<0.30	<0.30	<0.30	<0.33	<0.00031	<0.000053
Acenaphthene	0.30	<0.30	<0.30	<0.30	<0.33	<0.00031	<0.000049
Acenaphthylene	0.30	<0.30	<0.30	<0.30	<0.31	<0.00029	<0.000047
Anthracene	0.30	<0.30	<0.30	<0.30	<0.35	<0.00033	<0.000045
Benzo(a)anthracene	0.30	<0.30	<0.30	<0.30	<0.38	<0.00036	<0.000038
Benzo(a)pyrene	0.30	<0.30	<0.30	<0.30	<0.45	<0.00042	<0.000041
Benzo(b)fluoranthene	0.30	<0.30	<0.30	<0.30	<0.42	<0.00039	<0.000038
Benzo(g,h,i)perylene	0.30	<0.30	<0.30	<0.30	<0.51	<0.00047	<0.000042
Benzo(k)fluoranthene	0.30	<0.30	<0.30	<0.30	<0.42	<0.00039	<0.000038
Chrysene	0.30	<0.30	<0.30	<0.30	<0.39	<0.00036	<0.000039
Dibenz(a,h)anthracene	0.30	<0.30	<0.30	<0.30	<0.42	<0.00039	<0.000034
Fluoranthene	0.30	<0.30	<0.30	<0.30	<0.36	<0.00034	<0.000041
Fluorene	0.30	<0.30	<0.30	<0.30	<0.33	<0.00031	<0.000046
Indeno(1,2,3-cd)pyrene	0.30	<0.30	<0.30	<0.30	<0.47	<0.00044	<0.000039

COMMENTS: Please see attached lab footnote report for any applicable footnotes.

Collection Media: FilterTube
Date : 16-OCT-23

Submitted by: JLL
Supervisor : SMM

Approved by: KLS



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Account No.: 13913
Login No. : L607156
Date Analyzed : 11-OCT-23 - 12-OCT-23
Report ID : 1385539

Client ID : MEID1004PAH01A
Date Sampled : 10/04/23

Lab ID : L607156-1
Date Analyzed : 10/11/23
Air Volume : 1074.442 L

Parameter	LOQ ug	Filter ug	Front ug	Back ug	Total ug	Conc mg/m3	ppm
Naphthalene	0.30	<0.30	<0.30	<0.30	<0.33	<0.00030	<0.000058
Phenanthrene	0.30	<0.30	<0.30	<0.30	<0.35	<0.00032	<0.000045
Pyrene	0.30	<0.30	<0.30	<0.30	<0.37	<0.00034	<0.000041

COMMENTS: Please see attached lab footnote report for any applicable footnotes.

Collection Media: FilterTube
Date : 16-OCT-23

Submitted by: JLL
Supervisor : SMM

Approved by: KLS



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Date Received : 07-OCT-23

Account No.: 13913
Login No. : L607156
Date Analyzed : 11-OCT-23 - 12-OCT-23
Report ID : 1385539

Client ID : MEID1004PAH02A
Date Sampled : 10/04/23

Lab ID : L607156-2
Date Analyzed : 10/11/23

Air Volume : 940.08 L

Parameter	LOQ ug	Filter ug	Front ug	Back ug	Total ug	Conc mg/m3	ppm
1-Methylnaphthalene	0.30	<0.30	<0.30	<0.30	<0.32	<0.00034	<0.000058
2-Methylnaphthalene	0.30	<0.30	<0.30	<0.30	<0.33	<0.00035	<0.000060
Acenaphthene	0.30	<0.30	<0.30	<0.30	<0.33	<0.00035	<0.000056
Acenaphthylene	0.30	<0.30	<0.30	<0.30	<0.31	<0.00033	<0.000053
Anthracene	0.30	<0.30	<0.30	<0.30	<0.35	<0.00038	<0.000052
Benzo(a)anthracene	0.30	<0.30	<0.30	<0.30	<0.38	<0.00041	<0.000044
Benzo(a)pyrene	0.30	<0.30	<0.30	<0.30	<0.45	<0.00048	<0.000047
Benzo(b)fluoranthene	0.30	<0.30	<0.30	<0.30	<0.42	<0.00044	<0.000043
Benzo(g,h,i)perylene	0.30	<0.30	<0.30	<0.30	<0.51	<0.00054	<0.000048
Benzo(k)fluoranthene	0.30	<0.30	<0.30	<0.30	<0.42	<0.00044	<0.000043
Chrysene	0.30	<0.30	<0.30	<0.30	<0.39	<0.00041	<0.000044
Dibenz(a,h)anthracene	0.30	<0.30	<0.30	<0.30	<0.42	<0.00044	<0.000039
Fluoranthene	0.30	<0.30	<0.30	<0.30	<0.36	<0.00038	<0.000046
Fluorene	0.30	<0.30	<0.30	<0.30	<0.33	<0.00035	<0.000052
Indeno(1,2,3-cd)pyrene	0.30	<0.30	<0.30	<0.30	<0.47	<0.00050	<0.000044

COMMENTS: Please see attached lab footnote report for any applicable footnotes.

Collection Media: FilterTube
Date : 16-OCT-23

Submitted by: JLL
Supervisor : SMM

Approved by: KLS



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Date Received : 07-OCT-23

Account No.: 13913
Login No. : L607156
Date Analyzed : 11-OCT-23 - 12-OCT-23
Report ID : 1385539

Client ID : MEID1004PAH02A
Date Sampled : 10/04/23

Lab ID : L607156-2
Date Analyzed : 10/11/23

Air Volume : 940.08 L

Parameter	LOQ ug	Filter ug	Front ug	Back ug	Total ug	Conc mg/m3	ppm
Naphthalene	0.30	<0.30	<0.30	<0.30	<0.33	<0.00035	<0.000066
Phenanthrene	0.30	<0.30	<0.30	<0.30	<0.35	<0.00037	<0.000051
Pyrene	0.30	<0.30	<0.30	<0.30	<0.37	<0.00039	<0.000047

COMMENTS: Please see attached lab footnote report for any applicable footnotes.

Collection Media: FilterTube
Date : 16-OCT-23

Submitted by: JLL
Supervisor : SMM

Approved by: KLS



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Date Received : 07-OCT-23
Account No.: 13913
Login No. : L607156
Date Analyzed : 11-OCT-23 - 12-OCT-23
Report ID : 1385539

Client ID : MEID1004PAH03A
Date Sampled : 10/04/23

Lab ID : L607156-3
Date Analyzed : 10/11/23
Air Volume : 943.464 L

Parameter	LOQ ug	Filter ug	Front ug	Back ug	Total ug	Conc mg/m3	ppm
1-Methylnaphthalene	0.30	<0.30	<0.30	<0.30	<0.32	<0.00033	<0.000058
2-Methylnaphthalene	0.30	<0.30	<0.30	<0.30	<0.33	<0.00035	<0.000060
Acenaphthene	0.30	<0.30	<0.30	<0.30	<0.33	<0.00035	<0.000056
Acenaphthylene	0.30	<0.30	<0.30	<0.30	<0.31	<0.00033	<0.000053
Anthracene	0.30	<0.30	<0.30	<0.30	<0.35	<0.00037	<0.000051
Benzo(a)anthracene	0.30	<0.30	<0.30	<0.30	<0.38	<0.00041	<0.000044
Benzo(a)pyrene	0.30	<0.30	<0.30	<0.30	<0.45	<0.00048	<0.000047
Benzo(b)fluoranthene	0.30	<0.30	<0.30	<0.30	<0.42	<0.00044	<0.000043
Benzo(g,h,i)perylene	0.30	<0.30	<0.30	<0.30	<0.51	<0.00054	<0.000048
Benzo(k)fluoranthene	0.30	<0.30	<0.30	<0.30	<0.42	<0.00044	<0.000043
Chrysene	0.30	<0.30	<0.30	<0.30	<0.39	<0.00041	<0.000044
Dibenz(a,h)anthracene	0.30	<0.30	<0.30	<0.30	<0.42	<0.00044	<0.000039
Fluoranthene	0.30	<0.30	<0.30	<0.30	<0.36	<0.00038	<0.000046
Fluorene	0.30	<0.30	<0.30	<0.30	<0.33	<0.00035	<0.000052
Indeno(1,2,3-cd)pyrene	0.30	<0.30	<0.30	<0.30	<0.47	<0.00050	<0.000044

COMMENTS: Please see attached lab footnote report for any applicable footnotes.

Collection Media: FilterTube
Date : 16-OCT-23

Submitted by: JLL
Supervisor : SMM

Approved by: KLS



LABORATORY ANALYSIS REPORT

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Client : Center for Toxicology & Env. H
Site : NS
Project No. : 031332
Date Sampled : 04-OCT-23 - 05-OCT-23
Date Received : 07-OCT-23

Account No.: 13913
Login No. : L607156
Date Analyzed : 11-OCT-23 - 12-OCT-23
Report ID : 1385539

Client ID : MEID1004PAH03A
Date Sampled : 10/04/23

Lab ID : L607156-3
Date Analyzed : 10/11/23

Air Volume : 943.464 L

Parameter	LOQ ug	Filter ug	Front ug	Back ug	Total ug	Conc mg/m3	ppm
Naphthalene	0.30	<0.30	<0.30	<0.30	<0.33	<0.00035	<0.000066
Phenanthrene	0.30	<0.30	<0.30	<0.30	<0.35	<0.00037	<0.000051
Pyrene	0.30	<0.30	<0.30	<0.30	<0.37	<0.00039	<0.000047

COMMENTS: Please see attached lab footnote report for any applicable footnotes.

Collection Media: FilterTube
Date : 16-OCT-23

Submitted by: JLL
Supervisor : SMM

Approved by: KLS



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Site : NS
Project No. : 031332
Date Sampled : 04-OCT-23 - 05-OCT-23
Date Received : 07-OCT-23
Account No.: 13913
Login No. : L607156
Date Analyzed : 11-OCT-23 - 12-OCT-23
Report ID : 1385539

Client ID : MEID1004PAH04A
Date Sampled : 10/04/23

Lab ID : L607156-4
Date Analyzed : 10/12/23
Air Volume : 920.64 L

Parameter	LOQ ug	Filter ug	Front ug	Back ug	Total ug	Conc mg/m3	ppm
1-Methylnaphthalene	0.30	<0.30	<0.30	<0.30	<0.32	<0.00034	<0.000059
2-Methylnaphthalene	0.30	<0.30	<0.30	<0.30	<0.33	<0.00036	<0.000062
Acenaphthene	0.30	<0.30	<0.30	<0.30	<0.33	<0.00036	<0.000057
Acenaphthylene	0.30	<0.30	<0.30	<0.30	<0.31	<0.00034	<0.000055
Anthracene	0.30	<0.30	<0.30	<0.30	<0.35	<0.00038	<0.000053
Benzo(a)anthracene	0.30	<0.30	<0.30	<0.30	<0.38	<0.00042	<0.000045
Benzo(a)pyrene	0.30	<0.30	<0.30	<0.30	<0.45	<0.00049	<0.000048
Benzo(b)fluoranthene	0.30	<0.30	<0.30	<0.30	<0.42	<0.00045	<0.000044
Benzo(g,h,i)perylene	0.30	<0.30	<0.30	<0.30	<0.51	<0.00055	<0.000049
Benzo(k)fluoranthene	0.30	<0.30	<0.30	<0.30	<0.42	<0.00045	<0.000044
Chrysene	0.30	<0.30	<0.30	<0.30	<0.39	<0.00042	<0.000045
Dibenz(a,h)anthracene	0.30	<0.30	<0.30	<0.30	<0.42	<0.00045	<0.000040
Fluoranthene	0.30	<0.30	<0.30	<0.30	<0.36	<0.00039	<0.000047
Fluorene	0.30	<0.30	<0.30	<0.30	<0.33	<0.00036	<0.000053
Indeno(1,2,3-cd)pyrene	0.30	<0.30	<0.30	<0.30	<0.47	<0.00051	<0.000045

COMMENTS: Please see attached lab footnote report for any applicable footnotes.

Collection Media: FilterTube
Date : 16-OCT-23

Submitted by: JLL
Supervisor : SMM

Approved by: KLS



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Date Received : 07-OCT-23
Account No.: 13913
Login No. : L607156
Date Analyzed : 11-OCT-23 - 12-OCT-23
Report ID : 1385539

Client ID : MEID1004PAH04A
Date Sampled : 10/04/23

Lab ID : L607156-4
Date Analyzed : 10/12/23
Air Volume : 920.64 L

Parameter	LOQ ug	Filter ug	Front ug	Back ug	Total ug	Conc mg/m3	ppm
Naphthalene	0.30	<0.30	<0.30	<0.30	<0.33	<0.00035	<0.000068
Phenanthrene	0.30	<0.30	<0.30	<0.30	<0.35	<0.00038	<0.000052
Pyrene	0.30	<0.30	<0.30	<0.30	<0.37	<0.00040	<0.000048

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Supervisor : SMM

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Date Received : 07-OCT-23

Account No.: 13913
Login No. : L607156
Date Analyzed : 11-OCT-23 - 12-OCT-23
Report ID : 1385539

Client ID : MEID1004PAH01
Date Sampled : 10/05/23

Lab ID : L607156-9
Date Analyzed : 10/12/23

Air Volume : 799.637 L

Parameter	LOQ ug	Filter ug	Front ug	Back ug	Total ug	Conc mg/m3	ppm
1-Methylnaphthalene	0.30	<0.30	<0.30	<0.30	<0.32	<0.00039	<0.000068
2-Methylnaphthalene	0.30	<0.30	<0.30	<0.30	<0.33	<0.00041	<0.000071
Acenaphthene	0.30	<0.30	<0.30	<0.30	<0.33	<0.00042	<0.000066
Acenaphthylene	0.30	<0.30	<0.30	<0.30	<0.31	<0.00039	<0.000063
Anthracene	0.30	<0.30	<0.30	<0.30	<0.35	<0.00044	<0.000061
Benzo(a)anthracene	0.30	<0.30	<0.30	<0.30	<0.38	<0.00048	<0.000052
Benzo(a)pyrene	0.30	<0.30	<0.30	<0.30	<0.45	<0.00057	<0.000055
Benzo(b)fluoranthene	0.30	<0.30	<0.30	<0.30	<0.42	<0.00052	<0.000050
Benzo(g,h,i)perylene	0.30	<0.30	<0.30	<0.30	<0.51	<0.00064	<0.000056
Benzo(k)fluoranthene	0.30	<0.30	<0.30	<0.30	<0.42	<0.00052	<0.000050
Chrysene	0.30	<0.30	<0.30	<0.30	<0.39	<0.00049	<0.000052
Dibenz(a,h)anthracene	0.30	<0.30	<0.30	<0.30	<0.42	<0.00052	<0.000046
Fluoranthene	0.30	<0.30	<0.30	<0.30	<0.36	<0.00045	<0.000055
Fluorene	0.30	<0.30	<0.30	<0.30	<0.33	<0.00042	<0.000061
Indeno(1,2,3-cd)pyrene	0.30	<0.30	<0.30	<0.30	<0.47	<0.00059	<0.000052

COMMENTS: Please see attached lab footnote report for any applicable footnotes.

Collection Media: FilterTube
Date : 16-OCT-23

Submitted by: JLL
Supervisor : SMM

Approved by: KLS



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Date Received : 07-OCT-23

Account No.: 13913
Login No. : L607156
Date Analyzed : 11-OCT-23 - 12-OCT-23
Report ID : 1385539

Client ID : MEID1004PAH01
Date Sampled : 10/05/23

Lab ID : L607156-9
Date Analyzed : 10/12/23

Air Volume : 799.637 L

Parameter	LOQ ug	Filter ug	Front ug	Back ug	Total ug	Conc mg/m3	ppm
Naphthalene	0.30	<0.30	<0.30	<0.30	<0.33	<0.00041	<0.000078
Phenanthrene	0.30	<0.30	<0.30	<0.30	<0.35	<0.00044	<0.000060
Pyrene	0.30	<0.30	<0.30	<0.30	<0.37	<0.00046	<0.000055

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Collection Media: FilterTube
Date : 16-OCT-23

Submitted by: JLL
Supervisor : SMM

Approved by: KLS



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Date Received : 07-OCT-23

Account No.: 13913
Login No. : L607156
Date Analyzed : 11-OCT-23 - 12-OCT-23
Report ID : 1385539

Client ID : MEID1004PAH02
Date Sampled : 10/05/23

Lab ID : L607156-10
Date Analyzed : 10/12/23

Air Volume : 935.064 L

Parameter	LOQ ug	Filter ug	Front ug	Back ug	Total ug	Conc mg/m3	ppm
1-Methylnaphthalene	0.30	<0.30	<0.30	<0.30	<0.32	<0.00034	<0.000058
2-Methylnaphthalene	0.30	<0.30	<0.30	<0.30	<0.33	<0.00035	<0.000061
Acenaphthene	0.30	<0.30	<0.30	<0.30	<0.33	<0.00036	<0.000057
Acenaphthylene	0.30	<0.30	<0.30	<0.30	<0.31	<0.00033	<0.000054
Anthracene	0.30	<0.30	<0.30	<0.30	<0.35	<0.00038	<0.000052
Benzo(a)anthracene	0.30	<0.30	<0.30	<0.30	<0.38	<0.00041	<0.000044
Benzo(a)pyrene	0.30	<0.30	<0.30	<0.30	<0.45	<0.00049	<0.000047
Benzo(b)fluoranthene	0.30	<0.30	<0.30	<0.30	<0.42	<0.00045	<0.000043
Benzo(g,h,i)perylene	0.30	<0.30	<0.30	<0.30	<0.51	<0.00054	<0.000048
Benzo(k)fluoranthene	0.30	<0.30	<0.30	<0.30	<0.42	<0.00045	<0.000043
Chrysene	0.30	<0.30	<0.30	<0.30	<0.39	<0.00042	<0.000045
Dibenz(a,h)anthracene	0.30	<0.30	<0.30	<0.30	<0.42	<0.00045	<0.000039
Fluoranthene	0.30	<0.30	<0.30	<0.30	<0.36	<0.00039	<0.000047
Fluorene	0.30	<0.30	<0.30	<0.30	<0.33	<0.00036	<0.000052
Indeno(1,2,3-cd)pyrene	0.30	<0.30	<0.30	<0.30	<0.47	<0.00050	<0.000044

COMMENTS: Please see attached lab footnote report for any applicable footnotes.

Collection Media: FilterTube
Date : 16-OCT-23

Submitted by: JLL
Supervisor : SMM

Approved by: KLS



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Project No. : 031332
Date Sampled : 04-OCT-23 - 05-OCT-23
Date Received : 07-OCT-23

Account No.: 13913
Login No. : L607156
Date Analyzed : 11-OCT-23 - 12-OCT-23
Report ID : 1385539

Client ID : MEID1004PAH02
Date Sampled : 10/05/23

Lab ID : L607156-10 Air Volume : 935.064 L
Date Analyzed : 10/12/23

Parameter	LOQ ug	Filter ug	Front ug	Back ug	Total ug	Conc mg/m3	ppm
Naphthalene	0.30	<0.30	<0.30	<0.30	<0.33	<0.00035	<0.000067
Phenanthrene	0.30	<0.30	<0.30	<0.30	<0.35	<0.00037	<0.000051
Pyrene	0.30	<0.30	<0.30	<0.30	<0.37	<0.00039	<0.000047

COMMENTS: Please see attached lab footnote report for any applicable footnotes.

Collection Media: FilterTube
Date : 16-OCT-23

Submitted by: JLL
Supervisor : SMM

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Site : NS
Project No. : 031332
Date Sampled : 04-OCT-23 - 05-OCT-23
Date Received : 07-OCT-23
Account No.: 13913
Login No. : L607156
Date Analyzed : 11-OCT-23 - 12-OCT-23
Report ID : 1385539

Client ID : MEID1004PAH03
Date Sampled : 10/05/23

Lab ID : L607156-11
Date Analyzed : 10/12/23
Air Volume : 966.888 L

Parameter	LOQ ug	Filter ug	Front ug	Back ug	Total ug	Conc mg/m3	ppm
1-Methylnaphthalene	0.30	<0.30	<0.30	<0.30	<0.32	<0.00033	<0.000056
2-Methylnaphthalene	0.30	<0.30	<0.30	<0.30	<0.33	<0.00034	<0.000059
Acenaphthene	0.30	<0.30	<0.30	<0.30	<0.33	<0.00034	<0.000055
Acenaphthylene	0.30	<0.30	<0.30	<0.30	<0.31	<0.00032	<0.000052
Anthracene	0.30	<0.30	<0.30	<0.30	<0.35	<0.00037	<0.000050
Benzo(a)anthracene	0.30	<0.30	<0.30	<0.30	<0.38	<0.00040	<0.000043
Benzo(a)pyrene	0.30	<0.30	<0.30	<0.30	<0.45	<0.00047	<0.000046
Benzo(b)fluoranthene	0.30	<0.30	<0.30	<0.30	<0.42	<0.00043	<0.000042
Benzo(g,h,i)perylene	0.30	<0.30	<0.30	<0.30	<0.51	<0.00053	<0.000047
Benzo(k)fluoranthene	0.30	<0.30	<0.30	<0.30	<0.42	<0.00043	<0.000042
Chrysene	0.30	<0.30	<0.30	<0.30	<0.39	<0.00040	<0.000043
Dibenz(a,h)anthracene	0.30	<0.30	<0.30	<0.30	<0.42	<0.00043	<0.000038
Fluoranthene	0.30	<0.30	<0.30	<0.30	<0.36	<0.00037	<0.000045
Fluorene	0.30	<0.30	<0.30	<0.30	<0.33	<0.00034	<0.000051
Indeno(1,2,3-cd)pyrene	0.30	<0.30	<0.30	<0.30	<0.47	<0.00048	<0.000043

COMMENTS: Please see attached lab footnote report for any applicable footnotes.

Collection Media: FilterTube
Date : 16-OCT-23

Submitted by: JLL
Supervisor : SMM

Approved by: KLS



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Login No. : L607156
Date Analyzed : 11-OCT-23 - 12-OCT-23
Report ID : 1385539

Client ID : MEID1004PAH03
Date Sampled : 10/05/23

Lab ID : L607156-11
Date Analyzed : 10/12/23
Air Volume : 966.888 L

Parameter	LOQ ug	Filter ug	Front ug	Back ug	Total ug	Conc mg/m3	ppm
Naphthalene	0.30	<0.30	<0.30	<0.30	<0.33	<0.00034	<0.000064
Phenanthrene	0.30	<0.30	<0.30	<0.30	<0.35	<0.00036	<0.000049
Pyrene	0.30	<0.30	<0.30	<0.30	<0.37	<0.00038	<0.000046

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Supervisor : SMM

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Account No.: 13913
Login No. : L607156
Date Analyzed : 11-OCT-23 - 12-OCT-23
Report ID : 1385539

Client ID : MEID1004PAH04
Date Sampled : 10/05/23

Lab ID : L607156-12
Date Analyzed : 10/12/23

Air Volume : 932.472 L

Parameter	LOQ ug	Filter ug	Front ug	Back ug	Total ug	Conc mg/m3	ppm
1-Methylnaphthalene	0.30	<0.30	<0.30	<0.30	<0.32	<0.00034	<0.000058
2-Methylnaphthalene	0.30	<0.30	<0.30	<0.30	<0.33	<0.00035	<0.000061
Acenaphthene	0.30	<0.30	<0.30	<0.30	<0.33	<0.00036	<0.000057
Acenaphthylene	0.30	<0.30	<0.30	<0.30	<0.31	<0.00034	<0.000054
Anthracene	0.30	<0.30	<0.30	<0.30	<0.35	<0.00038	<0.000052
Benzo(a)anthracene	0.30	<0.30	<0.30	<0.30	<0.38	<0.00041	<0.000044
Benzo(a)pyrene	0.30	<0.30	<0.30	<0.30	<0.45	<0.00049	<0.000047
Benzo(b)fluoranthene	0.30	<0.30	<0.30	<0.30	<0.42	<0.00045	<0.000043
Benzo(g,h,i)perylene	0.30	<0.30	<0.30	<0.30	<0.51	<0.00055	<0.000048
Benzo(k)fluoranthene	0.30	<0.30	<0.30	<0.30	<0.42	<0.00045	<0.000043
Chrysene	0.30	<0.30	<0.30	<0.30	<0.39	<0.00042	<0.000045
Dibenz(a,h)anthracene	0.30	<0.30	<0.30	<0.30	<0.42	<0.00045	<0.000039
Fluoranthene	0.30	<0.30	<0.30	<0.30	<0.36	<0.00039	<0.000047
Fluorene	0.30	<0.30	<0.30	<0.30	<0.33	<0.00036	<0.000053
Indeno(1,2,3-cd)pyrene	0.30	<0.30	<0.30	<0.30	<0.47	<0.00050	<0.000044

COMMENTS: Please see attached lab footnote report for any applicable footnotes.

Collection Media: FilterTube
Date : 16-OCT-23

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Supervisor : SMM

Approved by: KLS



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Date Received : 07-OCT-23
Account No.: 13913
Login No. : L607156
Date Analyzed : 11-OCT-23 - 12-OCT-23
Report ID : 1385539

Client ID : MEID1004PAH04
Date Sampled : 10/05/23

Lab ID : L607156-12
Date Analyzed : 10/12/23
Air Volume : 932.472 L

Parameter	LOQ ug	Filter ug	Front ug	Back ug	Total ug	Conc mg/m3	ppm
Naphthalene	0.30	<0.30	<0.30	<0.30	<0.33	<0.00035	<0.000067
Phenanthrene	0.30	<0.30	<0.30	<0.30	<0.35	<0.00037	<0.000051
Pyrene	0.30	<0.30	<0.30	<0.30	<0.37	<0.00039	<0.000047

COMMENTS: Please see attached lab footnote report for any applicable footnotes.

Collection Media: FilterTube
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Supervisor : SMM

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Site : NS Login No. : L607156
Project No. : 031332
Date Sampled : 04-OCT-23 - 05-OCT-23 Date Analyzed : 11-OCT-23 - 12-OCT-23
Date Received : 07-OCT-23 Report ID : 1385539

Client ID : MEID1004PAH05
Date Sampled : 10/05/23

Lab ID : L607156-13 Air Volume : 945.024 L
Date Analyzed : 10/12/23

Parameter	LOQ ug	Filter ug	Front ug	Back ug	Total ug	Conc mg/m3	ppm
1-Methylnaphthalene	0.30	<0.30	<0.30	<0.30	<0.32	<0.00033	<0.000057
2-Methylnaphthalene	0.30	<0.30	<0.30	<0.30	<0.33	<0.00035	<0.000060
Acenaphthene	0.30	<0.30	<0.30	<0.30	<0.33	<0.00035	<0.000056
Acenaphthylene	0.30	<0.30	<0.30	<0.30	<0.31	<0.00033	<0.000053
Anthracene	0.30	<0.30	<0.30	<0.30	<0.35	<0.00037	<0.000051
Benzo(a)anthracene	0.30	<0.30	<0.30	<0.30	<0.38	<0.00041	<0.000044
Benzo(a)pyrene	0.30	<0.30	<0.30	<0.30	<0.45	<0.00048	<0.000047
Benzo(b)fluoranthene	0.30	<0.30	<0.30	<0.30	<0.42	<0.00044	<0.000043
Benzo(g,h,i)perylene	0.30	<0.30	<0.30	<0.30	<0.51	<0.00054	<0.000048
Benzo(k)fluoranthene	0.30	<0.30	<0.30	<0.30	<0.42	<0.00044	<0.000043
Chrysene	0.30	<0.30	<0.30	<0.30	<0.39	<0.00041	<0.000044
Dibenz(a,h)anthracene	0.30	<0.30	<0.30	<0.30	<0.42	<0.00044	<0.000039
Fluoranthene	0.30	<0.30	<0.30	<0.30	<0.36	<0.00038	<0.000046
Fluorene	0.30	<0.30	<0.30	<0.30	<0.33	<0.00035	<0.000052
Indeno(1,2,3-cd)pyrene	0.30	<0.30	<0.30	<0.30	<0.47	<0.00050	<0.000044

COMMENTS: Please see attached lab footnote report for any applicable footnotes.

Collection Media: FilterTube
Date : 16-OCT-23

Submitted by: JLL
Supervisor : SMM

Approved by: KLS



LABORATORY ANALYSIS REPORT

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FAX: (315) 437-0571
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Client : Center for Toxicology & Env. H
Site : NS
Project No. : 031332
Date Sampled : 04-OCT-23 - 05-OCT-23
Date Received : 07-OCT-23
Account No.: 13913
Login No. : L607156
Date Analyzed : 11-OCT-23 - 12-OCT-23
Report ID : 1385539

Client ID : MEID1004PAH05
Date Sampled : 10/05/23

Lab ID : L607156-13
Date Analyzed : 10/12/23
Air Volume : 945.024 L

Parameter	LOQ ug	Filter ug	Front ug	Back ug	Total ug	Conc mg/m3	ppm
Naphthalene	0.30	<0.30	<0.30	<0.30	<0.33	<0.00035	<0.000066
Phenanthrene	0.30	<0.30	<0.30	<0.30	<0.35	<0.00037	<0.000051
Pyrene	0.30	<0.30	<0.30	<0.30	<0.37	<0.00039	<0.000047

COMMENTS: Please see attached lab footnote report for any applicable footnotes.

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Supervisor : SMM

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Site : NS
Project No. : 031332
Date Sampled : 04-OCT-23 - 05-OCT-23
Date Received : 07-OCT-23
Account No.: 13913
Login No. : L607156
Date Analyzed : 11-OCT-23 - 12-OCT-23
Report ID : 1385539

Client ID : MEID1005PAH01FB Lab ID : L607156-18 Air Volume : NA
Date Sampled : Date Analyzed : 10/12/23

Parameter	LOQ ug	Filter ug	Front ug	Back ug	Total ug	Conc mg/m3	ppm
1-Methylnaphthalene	0.30	<0.30	<0.30	<0.30	<0.32	NA	NA
2-Methylnaphthalene	0.30	<0.30	<0.30	<0.30	<0.33	NA	NA
Acenaphthene	0.30	<0.30	<0.30	<0.30	<0.33	NA	NA
Acenaphthylene	0.30	<0.30	<0.30	<0.30	<0.31	NA	NA
Anthracene	0.30	<0.30	<0.30	<0.30	<0.35	NA	NA
Benzo(a)anthracene	0.30	<0.30	<0.30	<0.30	<0.38	NA	NA
Benzo(a)pyrene	0.30	<0.30	<0.30	<0.30	<0.45	NA	NA
Benzo(b)fluoranthene	0.30	<0.30	<0.30	<0.30	<0.42	NA	NA
Benzo(g,h,i)perylene	0.30	<0.30	<0.30	<0.30	<0.51	NA	NA
Benzo(k)fluoranthene	0.30	<0.30	<0.30	<0.30	<0.42	NA	NA
Chrysene	0.30	<0.30	<0.30	<0.30	<0.39	NA	NA
Dibenz(a,h)anthracene	0.30	<0.30	<0.30	<0.30	<0.42	NA	NA
Fluoranthene	0.30	<0.30	<0.30	<0.30	<0.36	NA	NA
Fluorene	0.30	<0.30	<0.30	<0.30	<0.33	NA	NA
Indeno(1,2,3-cd)pyrene	0.30	<0.30	<0.30	<0.30	<0.47	NA	NA

COMMENTS: Please see attached lab footnote report for any applicable footnotes.

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Account No.: 13913
Login No. : L607156
Date Analyzed : 11-OCT-23 - 12-OCT-23
Report ID : 1385539

Client ID : MEID1005PAH01FB Lab ID : L607156-18 Air Volume : NA
Date Sampled : Date Analyzed : 10/12/23

<u>Parameter</u>	<u>LOQ</u> <u>ug</u>	<u>Filter</u> <u>ug</u>	<u>Front</u> <u>ug</u>	<u>Back</u> <u>ug</u>	<u>Total</u> <u>ug</u>	<u>Conc</u> <u>mg/m3</u>	<u>ppm</u>
Naphthalene	0.30	<0.30	<0.30	<0.30	<0.33	NA	NA
Phenanthrene	0.30	<0.30	<0.30	<0.30	<0.35	NA	NA
Pyrene	0.30	<0.30	<0.30	<0.30	<0.37	NA	NA

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Date Received : 07-OCT-23

Account No.: 13913
Login No. : L607156
Date Analyzed : 11-OCT-23 - 12-OCT-23
Report ID : 1385539

Client ID : MEID1005PAH02FB Lab ID : L607156-19 Air Volume : NA
Date Sampled : Date Analyzed : 10/12/23

Parameter	LOQ ug	Filter ug	Front ug	Back ug	Total ug	Conc mg/m3	ppm
1-Methylnaphthalene	0.30	<0.30	<0.30	<0.30	<0.32	NA	NA
2-Methylnaphthalene	0.30	<0.30	<0.30	<0.30	<0.33	NA	NA
Acenaphthene	0.30	<0.30	<0.30	<0.30	<0.33	NA	NA
Acenaphthylene	0.30	<0.30	<0.30	<0.30	<0.31	NA	NA
Anthracene	0.30	<0.30	<0.30	<0.30	<0.35	NA	NA
Benzo(a)anthracene	0.30	<0.30	<0.30	<0.30	<0.38	NA	NA
Benzo(a)pyrene	0.30	<0.30	<0.30	<0.30	<0.45	NA	NA
Benzo(b)fluoranthene	0.30	<0.30	<0.30	<0.30	<0.42	NA	NA
Benzo(g,h,i)perylene	0.30	<0.30	<0.30	<0.30	<0.51	NA	NA
Benzo(k)fluoranthene	0.30	<0.30	<0.30	<0.30	<0.42	NA	NA
Chrysene	0.30	<0.30	<0.30	<0.30	<0.39	NA	NA
Dibenz(a,h)anthracene	0.30	<0.30	<0.30	<0.30	<0.42	NA	NA
Fluoranthene	0.30	<0.30	<0.30	<0.30	<0.36	NA	NA
Fluorene	0.30	<0.30	<0.30	<0.30	<0.33	NA	NA
Indeno(1,2,3-cd)pyrene	0.30	<0.30	<0.30	<0.30	<0.47	NA	NA

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Account No.: 13913
Login No. : L607156
Date Analyzed : 11-OCT-23 - 12-OCT-23
Report ID : 1385539

Client ID : MEID1005PAH02FB Lab ID : L607156-19 Air Volume : NA
Date Sampled : Date Analyzed : 10/12/23

Parameter	LOQ ug	Filter ug	Front ug	Back ug	Total ug	Conc mg/m3	ppm
Naphthalene	0.30	<0.30	<0.30	<0.30	<0.33	NA	NA
Phenanthrene	0.30	<0.30	<0.30	<0.30	<0.35	NA	NA
Pyrene	0.30	<0.30	<0.30	<0.30	<0.37	NA	NA

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Date Received : 07-OCT-23

Account No.: 13913
Login No. : L607156
Date Analyzed : 11-OCT-23 - 12-OCT-23
Report ID : 1385539

Client ID : MEID1005PAH03FB Lab ID : L607156-20 Air Volume : NA
Date Sampled : Date Analyzed : 10/12/23

Parameter	LOQ ug	Filter ug	Front ug	Back ug	Total ug	Conc mg/m3	ppm
1-Methylnaphthalene	0.30	<0.30	<0.30	<0.30	<0.32	NA	NA
2-Methylnaphthalene	0.30	<0.30	<0.30	<0.30	<0.33	NA	NA
Acenaphthene	0.30	<0.30	<0.30	<0.30	<0.33	NA	NA
Acenaphthylene	0.30	<0.30	<0.30	<0.30	<0.31	NA	NA
Anthracene	0.30	<0.30	<0.30	<0.30	<0.35	NA	NA
Benzo(a)anthracene	0.30	<0.30	<0.30	<0.30	<0.38	NA	NA
Benzo(a)pyrene	0.30	<0.30	<0.30	<0.30	<0.45	NA	NA
Benzo(b)fluoranthene	0.30	<0.30	<0.30	<0.30	<0.42	NA	NA
Benzo(g,h,i)perylene	0.30	<0.30	<0.30	<0.30	<0.51	NA	NA
Benzo(k)fluoranthene	0.30	<0.30	<0.30	<0.30	<0.42	NA	NA
Chrysene	0.30	<0.30	<0.30	<0.30	<0.39	NA	NA
Dibenz(a,h)anthracene	0.30	<0.30	<0.30	<0.30	<0.42	NA	NA
Fluoranthene	0.30	<0.30	<0.30	<0.30	<0.36	NA	NA
Fluorene	0.30	<0.30	<0.30	<0.30	<0.33	NA	NA
Indeno(1,2,3-cd)pyrene	0.30	<0.30	<0.30	<0.30	<0.47	NA	NA

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Account No.: 13913
Login No. : L607156
Date Analyzed : 11-OCT-23 - 12-OCT-23
Report ID : 1385539

Client ID : MEID1005PAH03FB Lab ID : L607156-20 Air Volume : NA
Date Sampled : Date Analyzed : 10/12/23

Parameter	LOQ ug	Filter ug	Front ug	Back ug	Total ug	Conc mg/m3	ppm
Naphthalene	0.30	<0.30	<0.30	<0.30	<0.33	NA	NA
Phenanthrene	0.30	<0.30	<0.30	<0.30	<0.35	NA	NA
Pyrene	0.30	<0.30	<0.30	<0.30	<0.37	NA	NA

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Project No. : 031332
Date Sampled : 04-OCT-23 - 05-OCT-23
Date Received : 07-OCT-23
Account No.: 13913
Login No. : L607156
Date Analyzed : 11-OCT-23 - 12-OCT-23
Report ID : 1385539

Client ID : LAB BLANK
Date Sampled :

Lab ID : L607156-23
Date Analyzed : 10/12/23

Air Volume : NA

Parameter	LOQ ug	Filter ug	Front ug	Back ug	Total ug	Conc mg/m3	ppm
1-Methylnaphthalene	0.30	<0.30	<0.30	<0.30	<0.32	NA	NA
2-Methylnaphthalene	0.30	<0.30	<0.30	<0.30	<0.33	NA	NA
Acenaphthene	0.30	<0.30	<0.30	<0.30	<0.33	NA	NA
Acenaphthylene	0.30	<0.30	<0.30	<0.30	<0.31	NA	NA
Anthracene	0.30	<0.30	<0.30	<0.30	<0.35	NA	NA
Benzo(a)anthracene	0.30	<0.30	<0.30	<0.30	<0.38	NA	NA
Benzo(a)pyrene	0.30	<0.30	<0.30	<0.30	<0.45	NA	NA
Benzo(b)fluoranthene	0.30	<0.30	<0.30	<0.30	<0.42	NA	NA
Benzo(g,h,i)perylene	0.30	<0.30	<0.30	<0.30	<0.51	NA	NA
Benzo(k)fluoranthene	0.30	<0.30	<0.30	<0.30	<0.42	NA	NA
Chrysene	0.30	<0.30	<0.30	<0.30	<0.39	NA	NA
Dibenz(a,h)anthracene	0.30	<0.30	<0.30	<0.30	<0.42	NA	NA
Fluoranthene	0.30	<0.30	<0.30	<0.30	<0.36	NA	NA
Fluorene	0.30	<0.30	<0.30	<0.30	<0.33	NA	NA
Indeno(1,2,3-cd)pyrene	0.30	<0.30	<0.30	<0.30	<0.47	NA	NA

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Login No. : L607156
Date Analyzed : 11-OCT-23 - 12-OCT-23
Report ID : 1385539

Client ID : LAB BLANK
Date Sampled :

Lab ID : L607156-23
Date Analyzed : 10/12/23

Air Volume : NA

Parameter	LOQ ug	Filter ug	Front ug	Back ug	Total ug	Conc mg/m3	ppm
Naphthalene	0.30	<0.30	<0.30	<0.30	<0.33	NA	NA
Phenanthrene	0.30	<0.30	<0.30	<0.30	<0.35	NA	NA
Pyrene	0.30	<0.30	<0.30	<0.30	<0.37	NA	NA

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Date Received : 07-OCT-23

Account No.: 13913
Login No. : L607156
Date Analyzed : 11-OCT-23 - 12-OCT-23
Report ID : 1385539

Client ID : LAB BLANK

Lab ID : L607156-24

Air Volume : NA

Date Sampled :

Date Analyzed : 10/12/23

Parameter	LOQ ug	Filter ug	Front ug	Back ug	Total ug	Conc mg/m3	ppm
1-Methylnaphthalene	0.30	<0.30	<0.30	<0.30	<0.32	NA	NA
2-Methylnaphthalene	0.30	<0.30	<0.30	<0.30	<0.33	NA	NA
Acenaphthene	0.30	<0.30	<0.30	<0.30	<0.33	NA	NA
Acenaphthylene	0.30	<0.30	<0.30	<0.30	<0.31	NA	NA
Anthracene	0.30	<0.30	<0.30	<0.30	<0.35	NA	NA
Benzo(a)anthracene	0.30	<0.30	<0.30	<0.30	<0.38	NA	NA
Benzo(a)pyrene	0.30	<0.30	<0.30	<0.30	<0.45	NA	NA
Benzo(b)fluoranthene	0.30	<0.30	<0.30	<0.30	<0.42	NA	NA
Benzo(g,h,i)perylene	0.30	<0.30	<0.30	<0.30	<0.51	NA	NA
Benzo(k)fluoranthene	0.30	<0.30	<0.30	<0.30	<0.42	NA	NA
Chrysene	0.30	<0.30	<0.30	<0.30	<0.39	NA	NA
Dibenz(a,h)anthracene	0.30	<0.30	<0.30	<0.30	<0.42	NA	NA
Fluoranthene	0.30	<0.30	<0.30	<0.30	<0.36	NA	NA
Fluorene	0.30	<0.30	<0.30	<0.30	<0.33	NA	NA
Indeno(1,2,3-cd)pyrene	0.30	<0.30	<0.30	<0.30	<0.47	NA	NA

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Date Received : 07-OCT-23
Account No.: 13913
Login No. : L607156
Date Analyzed : 11-OCT-23 - 12-OCT-23
Report ID : 1385539

Client ID : LAB BLANK
Date Sampled :

Lab ID : L607156-24
Date Analyzed : 10/12/23

Air Volume : NA

Parameter	LOQ ug	Filter ug	Front ug	Back ug	Total ug	Conc mg/m3	ppm
Naphthalene	0.30	<0.30	<0.30	<0.30	<0.33	NA	NA
Phenanthrene	0.30	<0.30	<0.30	<0.30	<0.35	NA	NA
Pyrene	0.30	<0.30	<0.30	<0.30	<0.37	NA	NA

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Date Received : 07-OCT-23
Account No.: 13913
Login No. : L607156
Date Analyzed : 11-OCT-23 - 12-OCT-23
Report ID : 1385539

Client ID : LAB BLANK
Date Sampled :

Lab ID : L607156-25
Date Analyzed : 10/12/23

Air Volume : NA

Parameter	LOQ ug	Filter ug	Front ug	Back ug	Total ug	Conc mg/m3	ppm
1-Methylnaphthalene	0.30	<0.30	<0.30	<0.30	<0.32	NA	NA
2-Methylnaphthalene	0.30	<0.30	<0.30	<0.30	<0.33	NA	NA
Acenaphthene	0.30	<0.30	<0.30	<0.30	<0.33	NA	NA
Acenaphthylene	0.30	<0.30	<0.30	<0.30	<0.31	NA	NA
Anthracene	0.30	<0.30	<0.30	<0.30	<0.35	NA	NA
Benzo(a)anthracene	0.30	<0.30	<0.30	<0.30	<0.38	NA	NA
Benzo(a)pyrene	0.30	<0.30	<0.30	<0.30	<0.45	NA	NA
Benzo(b)fluoranthene	0.30	<0.30	<0.30	<0.30	<0.42	NA	NA
Benzo(g,h,i)perylene	0.30	<0.30	<0.30	<0.30	<0.51	NA	NA
Benzo(k)fluoranthene	0.30	<0.30	<0.30	<0.30	<0.42	NA	NA
Chrysene	0.30	<0.30	<0.30	<0.30	<0.39	NA	NA
Dibenz(a,h)anthracene	0.30	<0.30	<0.30	<0.30	<0.42	NA	NA
Fluoranthene	0.30	<0.30	<0.30	<0.30	<0.36	NA	NA
Fluorene	0.30	<0.30	<0.30	<0.30	<0.33	NA	NA
Indeno(1,2,3-cd)pyrene	0.30	<0.30	<0.30	<0.30	<0.47	NA	NA

COMMENTS: Please see attached lab footnote report for any applicable footnotes.

Collection Media: FilterTube
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Supervisor : SMM

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Date Received : 07-OCT-23

Account No.: 13913
Login No. : L607156
Date Analyzed : 11-OCT-23 - 12-OCT-23
Report ID : 1385539

Client ID : LAB BLANK

Lab ID : L607156-25

Air Volume : NA

Date Sampled :

Date Analyzed : 10/12/23

Parameter	LOQ ug	Filter ug	Front ug	Back ug	Total ug	Conc mg/m3	ppm
Naphthalene	0.30	<0.30	<0.30	<0.30	<0.33	NA	NA
Phenanthrene	0.30	<0.30	<0.30	<0.30	<0.35	NA	NA
Pyrene	0.30	<0.30	<0.30	<0.30	<0.37	NA	NA

COMMENTS: Please see attached lab footnote report for any applicable footnotes.

Collection Media: FilterTube
Date : 16-OCT-23

Submitted by: JLL
Supervisor : SMM

Approved by: KLS



LABORATORY ANALYSIS REPORT

6601 Kirkville Road
East Syracuse, NY 13057
(315) 432-5227
FAX: (315) 437-0571
www.sgsgalson.com

Client : Center for Toxicology & Env. H
Site : NS
Project No. : 031332
Date Sampled : 04-OCT-23 - 05-OCT-23
Date Received : 07-OCT-23
Account No.: 13913
Login No. : L607156
Date Analyzed : 11-OCT-23 - 12-OCT-23
Report ID : 1385539

Client ID : LAB BLANK
Date Sampled :

Lab ID : L607156-26
Date Analyzed : 10/12/23

Air Volume : NA

Parameter	LOQ ug	Filter ug	Front ug	Back ug	Total ug	Conc mg/m3	ppm
1-Methylnaphthalene	0.30	<0.30	<0.30	<0.30	<0.32	NA	NA
2-Methylnaphthalene	0.30	<0.30	<0.30	<0.30	<0.33	NA	NA
Acenaphthene	0.30	<0.30	<0.30	<0.30	<0.33	NA	NA
Acenaphthylene	0.30	<0.30	<0.30	<0.30	<0.31	NA	NA
Anthracene	0.30	<0.30	<0.30	<0.30	<0.35	NA	NA
Benzo(a)anthracene	0.30	<0.30	<0.30	<0.30	<0.38	NA	NA
Benzo(a)pyrene	0.30	<0.30	<0.30	<0.30	<0.45	NA	NA
Benzo(b)fluoranthene	0.30	<0.30	<0.30	<0.30	<0.42	NA	NA
Benzo(g,h,i)perylene	0.30	<0.30	<0.30	<0.30	<0.51	NA	NA
Benzo(k)fluoranthene	0.30	<0.30	<0.30	<0.30	<0.42	NA	NA
Chrysene	0.30	<0.30	<0.30	<0.30	<0.39	NA	NA
Dibenz(a,h)anthracene	0.30	<0.30	<0.30	<0.30	<0.42	NA	NA
Fluoranthene	0.30	<0.30	<0.30	<0.30	<0.36	NA	NA
Fluorene	0.30	<0.30	<0.30	<0.30	<0.33	NA	NA
Indeno(1,2,3-cd)pyrene	0.30	<0.30	<0.30	<0.30	<0.47	NA	NA

COMMENTS: Please see attached lab footnote report for any applicable footnotes.

Collection Media: FilterTube
Date : 16-OCT-23

Submitted by: JLL
Supervisor : SMM

Approved by: KLS



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Account No.: 13913
Login No. : L607156
Date Analyzed : 11-OCT-23 - 12-OCT-23
Report ID : 1385539

Client ID : LAB BLANK

Lab ID : L607156-26

Air Volume : NA

Date Sampled :

Date Analyzed : 10/12/23

Parameter	LOQ ug	Filter ug	Front ug	Back ug	Total ug	Conc mg/m3	ppm
Naphthalene	0.30	<0.30	<0.30	<0.30	<0.33	NA	NA
Phenanthrene	0.30	<0.30	<0.30	<0.30	<0.35	NA	NA
Pyrene	0.30	<0.30	<0.30	<0.30	<0.37	NA	NA

COMMENTS: Please see attached lab footnote report for any applicable footnotes.

Collection Media: FilterTube
Date : 16-OCT-23

Submitted by: JLL
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Date Received : 07-OCT-23
Account No.: 13913
Login No. : L607156
Date Analyzed : 11-OCT-23 - 12-OCT-23
Report ID : 1385539

Client ID : LAB BLANK
Date Sampled :

Lab ID : L607156-27
Date Analyzed : 10/12/23

Air Volume : NA

Parameter	LOQ ug	Filter ug	Front ug	Back ug	Total ug	Conc mg/m3	ppm
1-Methylnaphthalene	0.30	<0.30	<0.30	<0.30	<0.32	NA	NA
2-Methylnaphthalene	0.30	<0.30	<0.30	<0.30	<0.33	NA	NA
Acenaphthene	0.30	<0.30	<0.30	<0.30	<0.33	NA	NA
Acenaphthylene	0.30	<0.30	<0.30	<0.30	<0.31	NA	NA
Anthracene	0.30	<0.30	<0.30	<0.30	<0.35	NA	NA
Benzo(a)anthracene	0.30	<0.30	<0.30	<0.30	<0.38	NA	NA
Benzo(a)pyrene	0.30	<0.30	<0.30	<0.30	<0.45	NA	NA
Benzo(b)fluoranthene	0.30	<0.30	<0.30	<0.30	<0.42	NA	NA
Benzo(g,h,i)perylene	0.30	<0.30	<0.30	<0.30	<0.51	NA	NA
Benzo(k)fluoranthene	0.30	<0.30	<0.30	<0.30	<0.42	NA	NA
Chrysene	0.30	<0.30	<0.30	<0.30	<0.39	NA	NA
Dibenz(a,h)anthracene	0.30	<0.30	<0.30	<0.30	<0.42	NA	NA
Fluoranthene	0.30	<0.30	<0.30	<0.30	<0.36	NA	NA
Fluorene	0.30	<0.30	<0.30	<0.30	<0.33	NA	NA
Indeno(1,2,3-cd)pyrene	0.30	<0.30	<0.30	<0.30	<0.47	NA	NA

COMMENTS: Please see attached lab footnote report for any applicable footnotes.

Collection Media: FilterTube
Date : 16-OCT-23

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Supervisor : SMM

Approved by: KLS



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Login No. : L607156
Date Analyzed : 11-OCT-23 - 12-OCT-23
Report ID : 1385539

Client ID : LAB BLANK

Lab ID : L607156-27

Air Volume : NA

Date Sampled :

Date Analyzed : 10/12/23

Parameter	LOQ ug	Filter ug	Front ug	Back ug	Total ug	Conc mg/m3	ppm
Naphthalene	0.30	<0.30	<0.30	<0.30	<0.33	NA	NA
Phenanthrene	0.30	<0.30	<0.30	<0.30	<0.35	NA	NA
Pyrene	0.30	<0.30	<0.30	<0.30	<0.37	NA	NA

COMMENTS: Please see attached lab footnote report for any applicable footnotes.

Collection Media: FilterTube
Date : 16-OCT-23

Submitted by: JLL
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Site : NS
Project No. : 031332
Date Sampled : 04-OCT-23 - 05-OCT-23
Date Received : 07-OCT-23

Account No.: 13913
Login No. : L607156
Date Analyzed : 11-OCT-23 - 12-OCT-23
Report ID : 1385539

Client ID : LAB BLANK

Lab ID : L607156-28

Air Volume : NA

Date Sampled :

Date Analyzed : 10/12/23

Parameter	LOQ ug	Filter ug	Front ug	Back ug	Total ug	Conc mg/m3	ppm
1-Methylnaphthalene	0.30	<0.30	<0.30	<0.30	<0.32	NA	NA
2-Methylnaphthalene	0.30	<0.30	<0.30	<0.30	<0.33	NA	NA
Acenaphthene	0.30	<0.30	<0.30	<0.30	<0.33	NA	NA
Acenaphthylene	0.30	<0.30	<0.30	<0.30	<0.31	NA	NA
Anthracene	0.30	<0.30	<0.30	<0.30	<0.35	NA	NA
Benzo(a)anthracene	0.30	<0.30	<0.30	<0.30	<0.38	NA	NA
Benzo(a)pyrene	0.30	<0.30	<0.30	<0.30	<0.45	NA	NA
Benzo(b)fluoranthene	0.30	<0.30	<0.30	<0.30	<0.42	NA	NA
Benzo(g,h,i)perylene	0.30	<0.30	<0.30	<0.30	<0.51	NA	NA
Benzo(k)fluoranthene	0.30	<0.30	<0.30	<0.30	<0.42	NA	NA
Chrysene	0.30	<0.30	<0.30	<0.30	<0.39	NA	NA
Dibenz(a,h)anthracene	0.30	<0.30	<0.30	<0.30	<0.42	NA	NA
Fluoranthene	0.30	<0.30	<0.30	<0.30	<0.36	NA	NA
Fluorene	0.30	<0.30	<0.30	<0.30	<0.33	NA	NA
Indeno(1,2,3-cd)pyrene	0.30	<0.30	<0.30	<0.30	<0.47	NA	NA

COMMENTS: Please see attached lab footnote report for any applicable footnotes.

Collection Media: FilterTube
Date : 16-OCT-23

Submitted by: JLL
Supervisor : SMM

Approved by: KLS



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Account No.: 13913
Login No. : L607156
Date Analyzed : 11-OCT-23 - 12-OCT-23
Report ID : 1385539

Client ID : LAB BLANK

Lab ID : L607156-28

Air Volume : NA

Date Sampled :

Date Analyzed : 10/12/23

Parameter	LOQ ug	Filter ug	Front ug	Back ug	Total ug	Conc mg/m3	ppm
Naphthalene	0.30	<0.30	<0.30	<0.30	<0.33	NA	NA
Phenanthrene	0.30	<0.30	<0.30	<0.30	<0.35	NA	NA
Pyrene	0.30	<0.30	<0.30	<0.30	<0.37	NA	NA

COMMENTS: Please see attached lab footnote report for any applicable footnotes.

Collection Media: FilterTube
Date : 16-OCT-23

Submitted by: JLL
Supervisor : SMM

Approved by: KLS



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LABORATORY FOOTNOTE REPORT

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(315) 432-5227
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Client Name : Center for Toxicology & Env. Health LLC
Site :
Project No. : 031332

Date Sampled : 04-OCT-23 - 05-OCT-23 Account No.: 13913
Date Received: 07-OCT-23 Login No. : L607156
Date Analyzed: 11-OCT-23 - 14-OCT-23

L607156 (Report ID: 1385979):

For applicable NYS sampling events, laboratory accreditation through NYSDOH applies only to Lead results.
Reported results reflect elemental analysis of the requested metals. Certain compounds may not be solubilized during digestion, resulting in data that is biased low.
SOPs: MT-SOP-27(20), MT-SOP-28(15), MT-SOP-29(12)
Reported Iron Oxide(Fe2O3) results assume that all detected Iron is present as Iron Oxide.
ICP analysis does not differentiate allotropes of phosphorus.

L607156-8 (Report ID: 1385979):

Particulate present on the back-up pad. Back-up pad was included in the digestion and analysis.
Reported results greater than LOQ may be biased high due to possible background from back-up pad.
Statistical accuracy statements do not apply to samples that include back-up pad media.

L607156 (Report ID: 1385979):

Accuracy and mean recovery data presented below is based on a 95% confidence interval (k=2). The estimated accuracy applies to the media, technology, and SOP referenced in this report and does not account for the uncertainty associated with the sampling process. The accuracy is based solely on spike recovery data from internal quality control samples. Where N/A appears below, insufficient data is available to provide statistical accuracy and mean recovery values for the associated analyte.

Parameter	Accuracy	Mean Recovery
Aluminum	+/-9.5%	99.6%
Cobalt	+/-8.8%	105%
Copper	+/-9.3%	105%
Iron	+/-9.3%	108%
Iron Oxide	+/-9.3%	108%
Lead	+/-9.6%	102%
Lithium	+/-9.7%	102%
Nickel	+/-10.3%	104%
Phosphorus Particulate	+/-9.6%	106%

Parameter	Method
Aluminum	mod. NIOSH 7303; ICP
Cobalt	mod. NIOSH 7303; ICP
Copper	mod. NIOSH 7303; ICP
Iron	mod. NIOSH 7303; ICP
Iron Oxide	mod. NIOSH 7303; ICP
Lead	mod. NIOSH 7303; ICP
Lithium	mod NIOSH 7303; ICP/MS
Nickel	mod. NIOSH 7303; ICP



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Site :
Project No. : 031332

Date Sampled : 04-OCT-23 - 05-OCT-23 Account No.: 13913
Date Received: 07-OCT-23 Login No. : L607156
Date Analyzed: 11-OCT-23 - 14-OCT-23

L607156 (Report ID: 1385979):

Parameter	Method
Phosphorus Particulate	mod. NIOSH 7303; ICP

L607156 (Report ID: 1385539):

Results have been corrected for matrix and compound-specific desorption efficiencies, which are attached.
SOPs: il-n5506(17)

The Blank Spike Duplicate (BSD) recovery was outside the control limits of 82.7 to 122.%
at 35.9% recovery for 1-METHYLNAPHTHALENE on the tube media.

The Blank Spike Duplicate (BSD) recovery was outside the control limits of 75.0 to 125.%
at 35.7% recovery for ACENAPHTHENE on the tube media.

The Blank Spike Duplicate (BSD) recovery was outside the control limits of 85.1 to 127.%
at 37.7% recovery for BENZO(B)FLUORANTHENE on the tube media.

The Blank Spike Duplicate (BSD) recovery was outside the control limits of 90.2 to 123.%
at 72.0% recovery for NAPHTHALENE on the tube media.

The Blank Spike Duplicate (BSD) recovery was outside the control limits of 75.0 to 125.%
at 35.3% recovery for BENZO(K)FLUORANTHENE on the tube media.

The Blank Spike Duplicate (BSD) recovery was outside the control limits of 75.0 to 125.%
at 35.8% recovery for PHENANTHRENE on the tube media.

The Blank Spike Duplicate (BSD) recovery was outside the control limits of 75.0 to 125.%
at 39.5% recovery for ANTHRACENE on the tube media.

The Blank Spike Duplicate (BSD) recovery was outside the control limits of 75.0 to 125.%
at 44.1% recovery for BENZO(A)PYRENE on the tube media.

The Blank Spike Duplicate (BSD) recovery was outside the control limits of 75.0 to 125.%
at 35.7% recovery for PYRENE on the tube media.

The Blank Spike Duplicate (BSD) recovery was outside the control limits of 76.8 to 116.%
at 53.7% recovery for ACENAPHTHYLENE on the tube media.

The Blank Spike Duplicate (BSD) recovery was outside the control limits of 75.0 to 125.%
at 34.8% recovery for CHRYSENE on the tube media.

The Blank Spike Duplicate (BSD) recovery was outside the control limits of 72.1 to 125.%
at 33.2% recovery for DIBENZ(A,H)ANTHRACENE on the tube media.

The Blank Spike Duplicate (BSD) recovery was outside the control limits of 72.8 to 123.%
at 31.7% recovery for INDENO-1,2,3-CD-PYRENE on the tube media.

The Blank Spike Duplicate (BSD) recovery was outside the control limits of 83.7 to 119.%
at 39.5% recovery for 2-METHYLNAPHTHALENE on the tube media.

The Blank Spike Duplicate (BSD) recovery was outside the control limits of 75.0 to 125.%
at 32.9% recovery for BENZO(A)ANTHRACENE on the tube media.

The Blank Spike Duplicate (BSD) recovery was outside the control limits of 75.0 to 125.%
at 39.6% recovery for BENZO(G,H,I)PERYLENE on the tube media.

The Blank Spike Duplicate (BSD) recovery was outside the control limits of 75.0 to 125.%
at 35.2% recovery for FLUORANTHENE on the tube media.

The Blank Spike Duplicate (BSD) recovery was outside the control limits of 75.0 to 125.%



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Site :
Project No. : 031332

Date Sampled : 04-OCT-23 - 05-OCT-23 Account No.: 13913
Date Received: 07-OCT-23 Login No. : L607156
Date Analyzed: 11-OCT-23 - 14-OCT-23

L607156 (Report ID: 1385539):

at 35.0% recovery for FLUORENE on the tube media.
Where possible, control limits are statistically generated in-house.
In the absence of statistical limits, BS/BSD guidance default limits of 75-125% are used.

L607156 (Report ID: 1385539):

Accuracy and mean recovery data presented below is based on a 95% confidence interval (k=2). The estimated accuracy applies to the media, technology, and SOP referenced in this report and does not account for the uncertainty associated with the sampling process. The accuracy is based solely on spike recovery data from internal quality control samples. Where N/A appears below, insufficient data is available to provide statistical accuracy and mean recovery values for the associated analyte.

Parameter	Accuracy	Mean Recovery
1-Methylnaphthalene	+/-12.7%	102%
2-Methylnaphthalene	+/-11.5%	101%
Acenaphthene	+/-11.7%	103%
Acenaphthylene	+/-13.6%	96.5%
Anthracene	+/-9.9%	107%
Benzo(a)anthracene	+/-13.7%	102%
Benzo(a)pyrene	+/-19.1%	113%
Benzo(b)fluoranthene	+/-13.2%	106%
Benzo(g,h,i)perylene	+/-17.9%	102%
Benzo(k)fluoranthene	+/-14.8%	104%
Chrysene	+/-15.6%	103%
Dibenz(a,h)anthracene	+/-18%	98.8%
Fluoranthene	+/-11.7%	104%
Fluorene	+/-10.1%	103%
Indeno(1,2,3-cd)pyrene	+/-17.1%	98%
Naphthalene	+/-10.2%	106%
Phenanthrene	+/-11.3%	104%
Pyrene	+/-14%	98.3%

Parameter	Method
1-Methylnaphthalene	mod. NIOSH 5506; HPLC/UV
2-Methylnaphthalene	mod. NIOSH 5506; HPLC/UV
Acenaphthene	mod. NIOSH 5506; HPLC/UV
Acenaphthylene	mod. NIOSH 5506; HPLC/UV
Anthracene	mod. NIOSH 5506; HPLC/UV
Benzo(a)anthracene	mod. NIOSH 5506; HPLC/UV
Benzo(a)pyrene	mod. NIOSH 5506; HPLC/UV
Benzo(b)fluoranthene	mod. NIOSH 5506; HPLC/UV
Benzo(g,h,i)perylene	mod. NIOSH 5506; HPLC/UV
Benzo(k)fluoranthene	mod. NIOSH 5506; HPLC/UV



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Date Sampled : 04-OCT-23 - 05-OCT-23 Account No.: 13913
Date Received: 07-OCT-23 Login No. : L607156
Date Analyzed: 11-OCT-23 - 14-OCT-23

L607156 (Report ID: 1385539):

Parameter	Method
Chrysene	mod. NIOSH 5506; HPLC/UV
Dibenz(a,h)anthracene	mod. NIOSH 5506; HPLC/UV
Fluoranthene	mod. NIOSH 5506; HPLC/UV
Fluorene	mod. NIOSH 5506; HPLC/UV
Indeno(1,2,3-cd)pyrene	mod. NIOSH 5506; HPLC/UV
Naphthalene	mod. NIOSH 5506; HPLC/UV
Phenanthrene	mod. NIOSH 5506; HPLC/UV
Pyrene	mod. NIOSH 5506; HPLC/UV

INITIAL/CONTINUING CALIBRATION REPORT

Client : Center for Toxicology & Env. Health LLC
Account No: 13913
Login No. : L607156

Lab Sample ID Type Spike Lot # Instrument Analysis Date		WG572449-2 ICVD IH730611 ICPMS2 Oct 13, 2023 13:36								
	Limits (%)	True Value (ppb)	Found (ppb)	Recovery (%)	True Value ()	Found ()	Recovery (%)	True Value ()	Found ()	Recovery (%)
Copper	90.0 to 120.	0.0200	0.730	3600						
Lead	90.0 to 110.	0.0250	1.01	4040						
Lithium	90.0 to 110.	80.0 to 120.	1250	1220	97.7					
JL 10/16/2023										

INITIAL/CONTINUING CALIBRATION REPORT

Client : Center for Toxicology & Env. Health LLC
Account No: 13913
Login No. : L607156

Lab Sample ID Type Spike Lot # Instrument Analysis Date		WG572449-5 CCVD IH728953 ICPMS2 Oct 13, 2023 14:12			WG572449-12 CCVD IH728953 ICPMS2 Oct 13, 2023 15:57			WG572449-16 CCVD IH728953 ICPMS2 Oct 13, 2023 17:13		
	Limits (%)	True Value (ppb)	Found (ppb)	Recovery (%)	True Value (ppb)	Found (ppb)	Recovery (%)	True Value (ppb)	Found (ppb)	Recovery (%)
Copper	80.0 to 120	0.0200	1.00	5010	0.0200	1.02	5120	0.0200	1.02	5110
Lead	80.0 to 110	0.0250	1.27	5480	0.0250	1.01	7620	0.0250	1.02	7700
Lithium	80.0 to 120.	1250	1270	101.	1250	1260	101.	1250	1260	101.
JUL 10/16/2023										

INITIAL/CONTINUING CALIBRATION REPORT

Client : Center for Toxicology & Env. Health LLC
Account No: 13913
Login No. : L607156

Lab Sample ID Type Spike Lot # Instrument Analysis Date		WG572449-20 CCVD IH728953 ICPMS2 Oct 13, 2023 18:29			WG572449-32 CCVD IH728953 ICPMS2 Oct 13, 2023 19:26			WG572449-25 CCVD IH728953 ICPMS2 Oct 13, 2023 20:43		
	Limits (%)	True Value (ppb)	Found (ppb)	Recovery (%)	True Value (ppb)	Found (ppb)	Recovery (%)	True Value (ppb)	Found (ppb)	Recovery (%)
Copper	88.0 to 120.	0.0200	0.000	5000	0.0200	1.01	5010	0.0200	0.012	1710
Lead	88.0 to 110.	0.0250	1.02	7670	0.0250	1.00	7530	0.0250	1.02	7660
Lithium	80.0 to 120.	1250	1260	101.	1250	1240	99.1	1250	1220	97.3

INITIAL/CONTINUING CALIBRATION REPORT

Client : Center for Toxicology & Env. Health LLC
Account No: 13913
Login No. : L607156

Lab Sample ID Type Spike Lot # Instrument Analysis Date		WG572449-36 CCVD IH728953 ICPMS2 Oct 13, 2023 21:59			WG572449-40 CCVD IH728953 ICPMS2 Oct 13, 2023 23:15			WG572449-47 CCVD IH728953 ICPMS2 Oct 14, 2023 00:32		
	Limits (%)	True Value (ppb)	Found (ppb)	Recovery (%)	True Value (ppb)	Found (ppb)	Recovery (%)	True Value (ppb)	Found (ppb)	Recovery (%)
Copper	80.0 to 120.0	0.0200	1.00	5010	0.0200	1.25	6210	0.0200	0.000	1050
Lead	80.0 to 110.0	0.0250	1.07	7800	0.0250	2.01	8050	0.0250	2.05	8100
Lithium	80.0 to 120.0	1250	1200	95.6	1250	1210	96.8	1250	1200	96.2
JL 10/16/2023										

INITIAL/CONTINUING CALIBRATION REPORT

Client : Center for Toxicology & Env. Health LLC
Account No: 13913
Login No. : L607156

Lab Sample ID Type Spike Lot # Instrument Analysis Date	Limits (%)	WG572449-51 CCVD IH728953 ICPMS2 Oct 14, 2023 01:48			WG572449-70 CCVD IH728953 ICPMS2 Oct 14, 2023 03:04			WG572449-81 CCVD IH728953 ICPMS2 Oct 14, 2023 04:21		
		True Value (ppb)	Found (ppb)	Recovery (%)	True Value (ppb)	Found (ppb)	Recovery (%)	True Value (ppb)	Found (ppb)	Recovery (%)
Copper	80.0 to 120.	0.0200	1.93	98.10	0.0200	1.10	50.10	0.0200	1.17	50.70
Lead	80.0 to 110.	0.0250	2.01	11200	0.0250	2.20	8020	0.0250	2.10	8000
Lithium	80.0 to 120.	1250	1130	90.5	1250	1240	98.9	1250	1260	101.
JJL 10/16/2023										

INITIAL/CONTINUING CALIBRATION REPORT

Client : Center for Toxicology & Env. Health LLC
Account No: 13913
Login No. : L607156

Lab Sample ID Type Spike Lot # Instrument Analysis Date		WG572449-85 CCVD IH728953 ICPMS2 Oct 14, 2023 05:37			WG572449-100 CCVD IH728953 ICPMS2 Oct 14, 2023 06:54			WG572449-92 CCVD IH728953 ICPMS2 Oct 14, 2023 08:10		
	Limits (%)	True Value (ppb)	Found (ppb)	Recovery (%)	True Value (ppb)	Found (ppb)	Recovery (%)	True Value (ppb)	Found (ppb)	Recovery (%)
Copper	80.0 to 120.	0.0200	1.11	5550	0.0200	1.16	5780	0.0200	1.27	6330
Lead	30.0 to 110.	0.0250	2.27	9080	0.0250	2.23	8930	0.0250	2.26	9040
Lithium	80.0 to 120.	1250	1230	98.5	1250	1230	98.5	1250	1260	101.
JUL 10/16/2023										

INITIAL/CONTINUING CALIBRATION REPORT

Client : Center for Toxicology & Env. Health LLC
Account No: 13913
Login No. : L607156

Lab Sample ID Type Spike Lot # Instrument Analysis Date	Limits (%)	WG572449-77 CCVD IH728953 ICPMS2 Oct 14, 2023 09:08								
		True Value (ppb)	Found (ppb)	Recovery (%)	True Value ()	Found ()	Recovery (%)	True Value ()	Found ()	Recovery (%)
Copper	80.0 to 120	0.0200	1.20	6450						
Lead	80.0 to 110	0.0250	2.20	8820						
Lithium	80.0 to 120	1250	1240	99.4						
JL 10/16/2023										

INITIAL/CONTINUING BLANK REPORT

Client Center for Toxicology & Env. Health LLC
Account No: 13913
Login No. L607156

Lab Sample ID Type Instrument Analysis Date Analysis Time		WG572468-4 CCB ICB ICP5 10/13/23 10:26	WG572468-7 CCB ICP5 10/13/23 10:36	WG572468-13 CCB ICP5 10/13/23 10:59	WG572468-20 CCB ICP5 10/13/23 11:23	WG572468-26 CCB ICP5 10/13/23 11:53	WG572468-29 CCB ICP5 10/13/23 12:03	WG572468-32 CCB ICP5 10/13/23 12:13	WG572468-38 CCB ICP5 10/13/23 12:51
	LOQ ppm	Found (ppm)	Found (ppm)	Found (ppm)	Found (ppm)	Found (ppm)	Found (ppm)	Found (ppm)	Found (ppm)
Aluminum	0.5	<0.5 <0.25	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Cobalt	0.03	<0.03 <0.015	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03
Copper	0.02	<0.02 <0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Iron	0.5	<0.5 <0.25	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Lead	0.01	<0.01 <0.005	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Nickel	0.02	<0.02 <0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Phosphorus	1	<1 <0.5	<1	<1	<1	<1	<1	<1	<1
JJL 10/16/2023									

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INITIAL/CONTINUING CALIBRATION REPORT

Client : Center for Toxicology & Env. Health LLC
Account No: 13913
Login No. : L607156

Lab Sample ID Type Spike Lot # Instrument Analysis Date	Limits (%)	WG572468-1 ICVA IH729829 ICP5 Oct 13, 2023 10:16			WG572468-3 ICVB IH726965 ICP5 Oct 13, 2023 10:23			WG572468-2 ICVF IH728310 ICP5 Oct 13, 2023 10:20		
		True Value (mg/l)	Found (mg/l)	Recovery (%)	True Value (mg/l)	Found (mg/l)	Recovery (%)	True Value ()	Found ()	Recovery (%)
Aluminum 90.0 to 110.	90.0 to 120.				250.	250.	99.9			
Cobalt	90.0 to 120.	12.5	12.8	102.						
Copper for all	90.0 to 120.	12.5	12.4	99.2						
Iron	90.0 to 120.				250.	251.	101.			
Lead	90.0 to 110.	12.5	12.6	100.						
Nickel	90.0 to 120.	10.0	10.4	104.						
Phosphorus	90.0 to 120.							2.5	2.44	97.6
JJL 10/16/2023										

INITIAL/CONTINUING CALIBRATION REPORT

Client : Center for Toxicology & Env. Health LLC
Account No: 13913
Login No. : L607156

Lab Sample ID Type Spike Lot # Instrument Analysis Date		WG572468-5 CCVA IH730721 ICP5 Oct 13, 2023 10:30			WG572468-6 CCVB IH730506 ICP5 Oct 13, 2023 10:33			WG572468-11 CCVA IH730721 ICP5 Oct 13, 2023 10:53		
	Limits (%)	True Value (mg/l)	Found (mg/l)	Recovery (%)	True Value (mg/l)	Found (mg/l)	Recovery (%)	True Value (mg/l)	Found (mg/l)	Recovery (%)
Aluminum	80.0 to 120.				250.	251.	100.			
Cobalt	80.0 to 120.	12.5	12.6	101.				12.5	12.7	101.
Copper	80.0 to 120.	12.5	12.8	102.				12.5	12.9	104.
Iron	80.0 to 120.				250.	255.	102.			
Lead	90.0 to 110.	12.5	12.6	101.				12.5	12.7	101.
Nickel	80.0 to 120.	10.0	10.1	101.				10.0	10.1	101.
Phosphorus	80.0 to 120.	2.50	2.53	101.				2.50	2.51	101.

INITIAL/CONTINUING CALIBRATION REPORT

Client : Center for Toxicology & Env. Health LLC
Account No: 13913
Login No. : L607156

Lab Sample ID Type Spike Lot # Instrument Analysis Date	Limits (%)	WG572468-12 CCVB IH730506 ICP5 Oct 13, 2023 10:56			WG572468-18 CCVA IH730721 ICP5 Oct 13, 2023 11:16			WG572468-19 CCVB IH730506 ICP5 Oct 13, 2023 11:20		
		True Value (mg/l)	Found (mg/l)	Recovery (%)	True Value (mg/l)	Found (mg/l)	Recovery (%)	True Value (mg/l)	Found (mg/l)	Recovery (%)
Aluminum	80.0 to 120.	250.	247.	98.8				250.	248.	99.2
Cobalt	80.0 to 120.				12.5	12.6	101.			
Copper	80.0 to 120.				12.5	12.8	102.			
Iron	80.0 to 120.	250.	252.	101.				250.	252.	101.
Lead	90.0 to 110.				12.5	12.6	101.			
Nickel	80.0 to 120.				10.0	10.1	101.			
Phosphorus	80.0 to 120.				2.50	2.53	101.			

INITIAL/CONTINUING CALIBRATION REPORT

Client : Center for Toxicology & Env. Health LLC
Account No: 13913
Login No. : L607156

Lab Sample ID Type Spike Lot # Instrument Analysis Date		WG572468-24 CCVA IH730721 ICP5 Oct 13, 2023 11:46			WG572468-25 CCVB IH730506 ICP5 Oct 13, 2023 11:50			WG572468-27 CCVA IH730721 ICP5 Oct 13, 2023 11:56		
	Limits (%)	True Value (mg/l)	Found (mg/l)	Recovery (%)	True Value (mg/l)	Found (mg/l)	Recovery (%)	True Value (mg/l)	Found (mg/l)	Recovery (%)
Aluminum	80.0 to 120.				250.	249.	99.7			
Cobalt	80.0 to 120.	12.5	12.6	101.				12.5	12.6	101.
Copper	80.0 to 120.	12.5	13.1	104.				12.5	13.3	106.
Iron	80.0 to 120.				250.	253.	101.			
Lead	90.0 to 110.	12.5	12.6	100.				12.5	12.6	101.
Nickel	80.0 to 120.	10.0	10.1	101.				10.0	10.1	101.
Phosphorus	80.0 to 120.	2.50	2.53	101.				2.50	2.53	101.

INITIAL/CONTINUING CALIBRATION REPORT

Client : Center for Toxicology & Env. Health LLC
Account No: 13913
Login No. : L607156

Lab Sample ID Type Spike Lot # Instrument Analysis Date	Limits (%)	WG572468-28 CCVB IH730506 ICP5 Oct 13, 2023 11:59			WG572468-30 CCVA IH730721 ICP5 Oct 13, 2023 12:06			WG572468-31 CCVB IH730506 ICP5 Oct 13, 2023 12:09		
		True Value (mg/l)	Found (mg/l)	Recovery (%)	True Value (mg/l)	Found (mg/l)	Recovery (%)	True Value (mg/l)	Found (mg/l)	Recovery (%)
Aluminum	80.0 to 120.	250.	247.	98.8				250.	246.	98.6
Cobalt	80.0 to 120.				12.5	12.6	101.			
Copper	80.0 to 120.				12.5	13.1	105.			
Iron	80.0 to 120.	250.	251.	100.				250.	250.	100.
Lead	90.0 to 110.				12.5	12.6	101.			
Nickel	80.0 to 120.				10.0	10.1	101.			
Phosphorus	80.0 to 120.				2.50	2.53	102.			

INITIAL/CONTINUING CALIBRATION REPORT

Client : Center for Toxicology & Env. Health LLC
Account No: 13913
Login No. : L607156

Lab Sample ID Type Spike Lot # Instrument Analysis Date		WG572468-36 CCVA IH730721 ICP5 Oct 13, 2023 12:26			WG572468-37 CCVB IH730506 ICP5 Oct 13, 2023 12:29			WG572468-42 CCVA IH730721 ICP5 Oct 13, 2023 13:24		
	Limits (%)	True Value (mg/l)	Found (mg/l)	Recovery (%)	True Value (mg/l)	Found (mg/l)	Recovery (%)	True Value (mg/l)	Found (mg/l)	Recovery (%)
Aluminum	80.0 to 120.				250.	246.	98.2			
Cobalt	80.0 to 120.	12.5	12.6	101.				12.5	12.5	99.8
Copper	80.0 to 120.	12.5	13.2	106.				12.5	13.0	104.
Iron	80.0 to 120.				250.	249.	99.6			
Lead	90.0 to 110.	12.5	12.6	101.				12.5	12.5	99.7
Nickel	80.0 to 120.	10.0	10.1	101.				10.0	9.93	99.3
Phosphorus	80.0 to 120.	2.50	2.52	101.				2.50	2.50	100.

INITIAL/CONTINUING CALIBRATION REPORT

Client : Center for Toxicology & Env. Health LLC
Account No: 13913
Login No. : L607156

Lab Sample ID Type Spike Lot # Instrument Analysis Date		WG572468-48 CCVA IH730721 ICP5 Oct 13, 2023 13:44			WG572468-49 CCVB IH730506 ICP5 Oct 13, 2023 13:47			WG572468-39 CCVA IH730721 ICP5 Oct 13, 2023 14:27		
	Limits (%)	True Value (mg/l)	Found (mg/l)	Recovery (%)	True Value (mg/l)	Found (mg/l)	Recovery (%)	True Value (mg/l)	Found (mg/l)	Recovery (%)
Aluminum	80.0 to 120.				250.	247.	98.6			
Cobalt	80.0 to 120.	12.5	12.6	101.				12.5	12.5	100.
Copper	80.0 to 120.	12.5	13.3	107.				12.5	13.0	104.
Iron	80.0 to 120.				250.	250.	100.			
Lead	90.0 to 110.	12.5	12.6	101.				12.5	12.5	99.8
Nickel	80.0 to 120.	10.0	10.1	101.				10.0	9.94	99.4
Phosphorus	80.0 to 120.	2.50	2.53	101.				2.50	2.50	100.

INITIAL/CONTINUING CALIBRATION REPORT

Client : Center for Toxicology & Env. Health LLC
Account No: 13913
Login No. : L607156

Lab Sample ID Type Spike Lot # Instrument Analysis Date	Limits (%)	WG572468-40 CCVB IH730506 ICP5 Oct 13, 2023 14:31			WG572468-60 CCVA IH730721 ICP5 Oct 13, 2023 15:07			WG572468-61 CCVB IH730506 ICP5 Oct 13, 2023 15:10		
		True Value (mg/l)	Found (mg/l)	Recovery (%)	True Value (mg/l)	Found (mg/l)	Recovery (%)	True Value (mg/l)	Found (mg/l)	Recovery (%)
Aluminum	80.0 to 120.	250.	243.	97.3				250.	245.	97.9
Cobalt	80.0 to 120.				12.5	12.5	100.			
Copper	80.0 to 120.				12.5	13.4	107.			
Iron	80.0 to 120.	250.	247.	98.6				250.	249.	99.6
Lead	90.0 to 110.				12.5	12.6	100.			
Nickel	80.0 to 120.				10.0	9.93	99.3			
Phosphorus	80.0 to 120.				2.50	2.50	100.			

INITIAL/CONTINUING CALIBRATION REPORT

Client : Center for Toxicology & Env. Health LLC
Account No: 13913
Login No. : L607156

Lab Sample ID Type Spike Lot # Instrument Analysis Date		WG572468-96 CCVA IH730721 ICP5 Oct 13, 2023 15:30			WG572468-97 CCVB IH730506 ICP5 Oct 13, 2023 15:34			WG572468-51 CCVA IH730721 ICP5 Oct 13, 2023 16:09		
	Limits (%)	True Value (mg/l)	Found (mg/l)	Recovery (%)	True Value (mg/l)	Found (mg/l)	Recovery (%)	True Value (mg/l)	Found (mg/l)	Recovery (%)
Aluminum	80.0 to 120.				250.	249.	99.4			
Cobalt	80.0 to 120.	12.5	12.8	102.				12.5	12.8	102.
Copper	80.0 to 120.	12.5	12.4	99.4				12.5	12.4	99.0
Iron	80.0 to 120.				250.	255.	102.			
Lead	90.0 to 110.	12.5	12.7	102.				12.5	12.7	102.
Nickel	80.0 to 120.	10.0	10.1	101.				10.0	10.0	100.
Phosphorus	80.0 to 120.	2.50	2.52	101.				2.50	2.47	99.1

INITIAL/CONTINUING CALIBRATION REPORT

Client : Center for Toxicology & Env. Health LLC
Account No: 13913
Login No. : L607156

Lab Sample ID Type Spike Lot # Instrument Analysis Date		WG572468-52 CCVB IH730506 ICP5 Oct 13, 2023 16:13			WG572468-54 CCVA IH730721 ICP5 Oct 13, 2023 16:53			WG572468-55 CCVB IH730506 ICP5 Oct 13, 2023 16:56		
	Limits (%)	True Value (mg/l)	Found (mg/l)	Recovery (%)	True Value (mg/l)	Found (mg/l)	Recovery (%)	True Value (mg/l)	Found (mg/l)	Recovery (%)
Aluminum	80.0 to 120.	250.	240.	96.1				250.	243.	97.1
Cobalt	80.0 to 120.				12.5	12.8	102.			
Copper	80.0 to 120.				12.5	12.8	102.			
Iron	80.0 to 120.	250.	247.	98.6				250.	249.	99.5
Lead	90.0 to 110.				12.5	12.7	102.			
Nickel	80.0 to 120.				10.0	10.0	100.			
Phosphorus	80.0 to 120.				2.50	2.47	98.8			

INITIAL/CONTINUING CALIBRATION REPORT

Client : Center for Toxicology & Env. Health LLC
Account No: 13913
Login No. : L607156

Lab Sample ID Type Spike Lot # Instrument Analysis Date		WG572468-72 CCVA IH730721 ICP5 Oct 13, 2023 17:37			WG572468-73 CCVB IH730506 ICP5 Oct 13, 2023 17:40			WG572468-63 CCVA IH730721 ICP5 Oct 13, 2023 18:13		
	Limits (%)	True Value (mg/l)	Found (mg/l)	Recovery (%)	True Value (mg/l)	Found (mg/l)	Recovery (%)	True Value (mg/l)	Found (mg/l)	Recovery (%)
Aluminum	80.0 to 120.				250.	242.	96.7			
Cobalt	80.0 to 120.	12.5	12.8	102.				12.5	12.8	102.
Copper	80.0 to 120.	12.5	12.8	103.				12.5	12.7	101.
Iron	80.0 to 120.				250.	247.	98.9			
Lead	90.0 to 110.	12.5	12.7	102.				12.5	12.8	102.
Nickel	80.0 to 120.	10.0	10.0	100.				10.0	10.0	100.
Phosphorus	80.0 to 120.	2.50	2.47	99.1				2.50	2.49	99.6

INITIAL/CONTINUING CALIBRATION REPORT

Client : Center for Toxicology & Env. Health LLC
Account No: 13913
Login No. : L607156

Lab Sample ID Type Spike Lot # Instrument Analysis Date	Limits (%)	WG572468-64 CCVB IH730506 ICP5 Oct 13, 2023 18:16			WG572468-66 CCVA IH730721 ICP5 Oct 13, 2023 18:46			WG572468-67 CCVB IH730506 ICP5 Oct 13, 2023 18:49		
		True Value (mg/l)	Found (mg/l)	Recovery (%)	True Value (mg/l)	Found (mg/l)	Recovery (%)	True Value (mg/l)	Found (mg/l)	Recovery (%)
Aluminum	80.0 to 120.	250.	242.	96.9				250.	240.	96.1
Cobalt	80.0 to 120.				12.5	12.8	103.			
Copper	80.0 to 120.				12.5	12.9	104.			
Iron	80.0 to 120.	250.	248.	99.0				250.	246.	98.6
Lead	90.0 to 110.				12.5	12.8	102.			
Nickel	80.0 to 120.				10.0	10.1	101.			
Phosphorus	80.0 to 120.				2.50	2.48	99.2			

Client : Center for Toxicology & Env. Health LLC
Account No: 13913
Login No. : L607156

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BLANK SPIKE/BLANK SPIKE DUPLICATE REPORT

Client : Center for Toxicology & Env. Health LLC
Account No: 13913
Login No. : L607156

Lab Sample ID Type Spike Lot # Instrument Analysis Date	Limits (%)	True Value (ug/sample)	Found (ug/sample)	Recovery (%)	True Value (ug/sample)	Found (ug/sample)	Recovery (%)	RPD	RPD Limits
WG572485-2 BS IH729039 ICP5 Oct 13, 2023 14:21					WG572485-3 BSD IH729039 ICP5 Oct 13, 2023 14:24				
Aluminum	85.4 to 114.	150.	147.	98.3	150.	151.	100.	2.15	15.0
Cobalt	91.4 to 119.	15.0	15.9	106.	15.0	16.2	108.	1.68	11.7
Copper	90.4 to 120.	15.0	16.0	106.	15.0	16.3	109.	2.05	11.8
Iron	93.0 to 123.	75.0	78.5	105.	75.0	80.0	107.	1.95	10.4
Iron Oxide	93.0 to 123.	75.0	78.5	105.	75.0	80.0	107.	1.95	10.4
Lead	87.6 to 117.	15.0	15.7	105.	15.0	16.0	107.	1.80	20.0
Nickel	88.3 to 121.	15.0	15.9	106.	15.0	16.2	108.	1.69	10.0
Phosphorus	90.4 to 121.	50.0	53.3	107.	50.0	54.3	109.	1.87	10.0

BLANK SPIKE/BLANK SPIKE DUPLICATE REPORT

Client : Center for Toxicology & Env. Health LLC
Account No: 13913
Login No. : L607156

Lab Sample ID Type Spike Lot # Instrument Analysis Date	Limits (%)	WG572510-2 BS IH729039 ICP5 Oct 13, 2023 18:30			WG572510-3 BSD IH729039 ICP5 Oct 13, 2023 18:33			RPD Limits	
		True Value (ug/sample)	Found (ug/sample)	Recovery (%)	True Value (ug/sample)	Found (ug/sample)	Recovery (%)		
Aluminum	85.4 to 114.	150.	147.	98.0	150.	148.	98.7	0.711	15.0
Cobalt	91.4 to 119.	15.0	16.5	110.	15.0	16.5	110.	0	11.7
Copper	90.4 to 120.	15.0	15.8	106.	15.0	15.9	106.	0.284	11.8
Iron	93.0 to 123.	75.0	80.0	107.	75.0	80.5	107.	0.598	10.4
Iron Oxide	93.0 to 123.	75.0	80.0	107.	75.0	80.5	107.	0.598	10.4
Lead	87.6 to 117.	15.0	16.3	108.	15.0	16.3	109.	0.0922	20.0
Nickel	88.3 to 121.	15.0	16.2	108.	15.0	16.2	108.	0.0926	10.0
Phosphorus	90.4 to 121.	50.0	54.5	109.	50.0	54.4	109.	0.331	10.0

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INITIAL/CONTINUING BLANK REPORT

Client Center for Toxicology & Env. Health LLC
Account No: 13913
Login No. L607156

Lab Sample ID Type Instrument Analysis Date Analysis Time		WG572449-4 CCB ICB ICPMS2 10/13/23 13:46	WG572449-7 CCB ICPMS2 10/13/23 14:24	WG572449-14 CCB ICPMS2 10/13/23 16:08	WG572449-18 CCB ICPMS2 10/13/23 17:24	WG572449-23 CCB ICPMS2 10/13/23 18:40	WG572449-34 CCB ICPMS2 10/13/23 19:37	WG572449-27 CCB ICPMS2 10/13/23 20:54	WG572449-38 CCB ICPMS2 10/13/23 22:10
	LOQ ppm	Found (ppm)	Found (ppm)	Found (ppm)	Found (ppm)	Found (ppm)	Found (ppm)	Found (ppm)	Found (ppm)
Aluminum	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
Cobalt	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03
Copper	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03
Iron	0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Iron Oxide	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
Lead	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025
Lithium	0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Nickel	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02
JL 10/16/2023									

INITIAL/CONTINUING BLANK REPORT

Client Center for Toxicology & Env. Health LLC
Account No: 13913
Login No. 1607156

Lab Sample ID Type Instrument Analysis Date Analysis Time		WG572449-42 CCB ICPMS2 10/13/23 23:26	WG572449-49 CCB ICPMS2 10/14/23 00:42	WG572449-53 CCB ICPMS2 10/14/23 01:59	WG572449-72 CCB ICPMS2 10/14/23 03:15	WG572449-83 CCB ICPMS2 10/14/23 04:31	WG572449-87 CCB ICPMS2 10/14/23 05:48	WG572449-102 CCB ICPMS2 10/14/23 07:04	WG572449-94 CCB ICPMS2 10/14/23 08:21
	LOQ ppm	Found (ppm)	Found (ppm)	Found (ppm)	Found (ppm)	Found (ppm)	Found (ppm)	Found (ppm)	Found (ppm)
Aluminum	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
Cobalt	0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03
Copper	0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Iron	0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Iron Oxide	0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Lead	0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025
Lithium	0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Nickel	0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
JJL 10/16/2023									

INITIAL/CONTINUING BLANK REPORT

Client :Center for Toxicology & Env. Health LLC
Account No:13913
Login No. :L607156

Lab Sample ID Type Instrument Analysis Date Analysis Time		WG572449-79 CCB ICPMS2 10/14/23 09:19							
	LOQ ppm	Found (ppm)							
Aluminum	0.2	<0.2							
Cobalt	0.02	<0.02							
Copper	0.02	<0.02							
Iron	0.5	<0.5							
Iron Oxide	0.5	<0.5							
Lead	0.025	<0.025							
Lithium	0.1	<0.1							
Nickel	0.02	<0.02							
JUL 10/16/2023									

Client : Center for Toxicology & Env. Health LLC
Account No: 13913
Login No. : L607156

[illegible]

BLANK SPIKE/BLANK SPIKE DUPLICATE REPORT

Client : Center for Toxicology & Env. Health LLC
Account No: 13913
Login No. : L607156

Lab Sample ID Type Spike Lot # Instrument Analysis Date	Limits (%)	True Value (ug/sample)	Found (ug/sample)	Recovery (%)	True Value (ug/sample)	Found (ug/sample)	Recovery (%)	RPD	RPD Limits
WG572485-2 BS IH729039 ICPMS2 Oct 14, 2023 00:15					WG572485-3 BSD IH729039 ICPMS2 Oct 14, 2023 00:21				
Aluminum	88.2 to 113.	150.	150.	100.	150.	151.	100.	2.51	10.0
Cobalt	97.5 to 113.	15.0	14.5	96.4	15.0	15.3	102.	5.55	12.0
Copper	97.0 to 116.	15.0	15.0	100.	15.0	15.0	100.	5.33	10.0
Iron	81.0 to 110.	75.0	82.7	110.	75.0	88.0	118.	1.88	12.0
Lead	97.0 to 115.	15.0	14.0	93.5	15.0	15.1	101.	1.36	20.0
Lithium	87.0 to 117.	15.0	14.3	95.2	15.0	14.6	97.3	2.11	12.3
Nickel	88.1 to 111.	15.0	15.0	100.	15.0	15.0	100.	3.15	11.0
JJL 10/16/2023									

Example Calculation:
Formula: ug/L x L = Total ug / Air Vol. (L) = mg/m3
Sample : L607156-8 Analyte: LITHIUM < 10 ug/L x 0.015 L = <0.15 ug / 2981.775 L = <0.000050 mg/m3

BLANK SPIKE/BLANK SPIKE DUPLICATE REPORT

Client : Center for Toxicology & Env. Health LLC
Account No: 13913
Login No. : L607156

Lab Sample ID Type Spike Lot # Instrument Analysis Date	Limits (%)	True Value (ug/sample)	Found (ug/sample)	Recovery (%)	True Value (ug/sample)	Found (ug/sample)	Recovery (%)	RPD	RPD Limits
WG572510-2 BS IH729039 ICPMS2 Oct 14, 2023 07:59					WG572510-3 BSD IH729039 ICPMS2 Oct 14, 2023 08:37				
Aluminum	88.2 to 113.	150.	150.	100.	150.	157.	111.	5.54	10.0
Cobalt	97.5 to 113.	15.0	15.0	100.	15.0	15.5	103.	3.45	12.0
Copper	97.0 to 116.	15.0	15.6	104.	15.0	16.0	107.	2.33	10.0
Iron	84.8 to 118.	75.0	88.4	118.	75.0	88.4	121.	4.82	12.0
Lead	97.0 to 115.	15.0	15.4	103.	15.0	15.7	105.	3.45	20.0
Lithium	87.0 to 117.	15.0	15.8	106.	15.0	14.6	97.5	8.06	12.3
Nickel	88.1 to 114.	13.0	10.3	113.	13.0	10.3	113.	0.343	11.0
JL 10/16/2023									

page 2 of 2

Example Calculation:
Formula: ug/L x L = Total ug / Air Vol. (L) = mg/m3
Sample : L607156-8 Analyte: LITHIUM < 10 ug/L x 0.015 L = <0.15 ug / 2981.775 L = <0.000050 mg/m3

METHOD BLANK REPORT

Client : Center for Toxicology & Env. Health LLC
Account No: 13913
Login No. : L607156

Lab Sample ID Type Instrument Analysis Date Analysis Time	LOQ (ug)	WG572485-1 MBLANK ICPMS2 10/13/23 23:37 Found (ug)	WG572510-1 MBLANK ICPMS2 10/14/23 08:27 Found (ug)						
Lithium	0.15	<0.15	<0.15						

Analyte	PTFE DE	XAD DE
BENZO(B)FLUORANTHENE	97	72
BENZO(K)FLUORANTHENE	97	72
BENZO(A)PYRENE	98	66
DIBENZO(A,H)ANTHRACENE	99	72
BENZO(G,H,I)PERYLENE	96	59
INDENO-1,2,3-CD-PYRENE	98	64
NAPHTHALENE	99	92
ACENAPHTHYLENE	102	96
ACENAPHTHENE	102	90
FLUORENE	97	90
PHENANTHRENE	98	86
ANTHRACENE	98	85
FLUORANTHENE	98	83
PYRENE	99	82
BENZO(A)ANTHRACENE	98	78
CHRYSENE	98	77
1-METHYLNAPHTHALENE	98	95
2-METHYLNAPHTHALENE	99	91

Sample: WG572147-1

Spikelot: IH730610-2

QC Type: DLS

Raw File: WG572147-

1A.UV_VIS_1.0004_1127528_LC6_20231

Analysis date: 10/11/23 16:53:51

Approval Status: YES

Instrument: LC6

Parameter	Found	True	Rec.	Limits	DE Rec. Limits	RPD	Limits
NAPHTHALENE	.1011546	.1008	100	70.0 to 130.			
PYRENE	.1081910	.1004	108	70.0 to 130.			
BENZO(A)ANTHRACENE	.0855750	.1006	85.1	70.0 to 130.			
CHRYSENE	.1004439	.1002	100	70.0 to 130.			
BENZO(B)FLUORANTHENE	.1023833	.1002	102	70.0 to 130.			
BENZO(K)FLUORANTHENE	.0850980	.1006	84.6	70.0 to 130.			
BENZO(A)PYRENE	.1101939	.1002	110	70.0 to 130.			
DIBENZ(A,H)ANTHRACENE	.0964638	.1004	96.1	70.0 to 130.			
BENZO(G,H,I)PERYLENE	.0963825	.1002	96.2	70.0 to 130.			
ACENAPHTHYLENE	.0982104	.1005	97.7	70.0 to 130.			
INDENO-1,2,3-CD-PYRENE	.0890218	.1006	88.5	70.0 to 130.			
1-METHYLNAPHTHALENE	.0972671	.1004	96.9	70.0 to 130.			
2-METHYLNAPHTHALENE	.0936353	.1004	93.3	70.0 to 130.			
ACENAPHTHENE	.0958579	.1008	95.1	70.0 to 130.			
FLUORENE	.0937106	.1008	93	70.0 to 130.			
PHENANTHRENE	.0965132	.1004	96.1	70.0 to 130.			
ANTHRACENE	.1019465	.1004	102	70.0 to 130.			
FLUORANTHENE	.0948306	.1004	94.5	70.0 to 130.			

Sample: WG572147-2

Spikelot: IH730610-1

QC Type: CCV

Raw File: WG572147-

2A.UV_VIS_1.0005_1127528_LC6_20231

Analysis date: 10/11/23 17:06:11

Approval Status: YES

Instrument: LC6

Parameter	Found	True	Rec.	Limits	DE Rec. Limits	RPD	Limits
NAPHTHALENE	5.327149	5.04	106	80.0 to 120.			
PYRENE	5.074331	5.02	101	80.0 to 120.			
BENZO(A)ANTHRACENE	5.228197	5.03	104	80.0 to 120.			
CHRYSENE	5.129509	5.01	102	80.0 to 120.			
BENZO(B)FLUORANTHENE	5.364785	5.01	107	80.0 to 120.			
BENZO(K)FLUORANTHENE	5.222346	5.03	104	80.0 to 120.			
ACENAPHTHYLENE	5.012948	5.026	99.7	80.0 to 120.			
BENZO(A)PYRENE	5.652949	5.01	113	80.0 to 120.			
DIBENZ(A,H)ANTHRACENE	5.098379	5.02	102	80.0 to 120.			
BENZO(G,H,I)PERYLENE	5.145562	5.01	103	80.0 to 120.			
INDENO-1,2,3-CD-PYRENE	4.871397	5.03	96.8	80.0 to 120.			

Sample: WG572147-2

Spikelot: IH730610-1

QC Type: CCV

Raw File: WG572147-

2A.UV_VIS_1.0005_1127528_LC6_20231

Analysis date: 10/11/23 17:06:11

Approval Status: YES

Instrument: LC6

Parameter	Found	True	Rec.	Limits	DE Rec. Limits	RPD	Limits
1-METHYLNAPHTHALENE	5.226472	5.02	104	80.0 to 120.			
2-METHYLNAPHTHALENE	5.129718	5.02	102	80.0 to 120.			
ACENAPHTHENE	5.284556	5.04	105	80.0 to 120.			
FLUORENE	5.145719	5.04	102	80.0 to 120.			
PHENANTHRENE	5.154192	5.02	103	80.0 to 120.			
ANTHRACENE	5.195284	5.02	103	80.0 to 120.			
FLUORANTHENE	5.161034	5.02	103	80.0 to 120.			

Sample: WG572136-2

Spikelot: NA

QC Type: MBLANK

Raw File: WG572136-

2A.UV_VIS_1.0008_1127531_LC6_20231

Analysis date: 10/11/23 17:43:14

Approval Status: YES

Instrument: LC6

Parameter	Found	True	Rec.	Limits	DE Rec. Limits	RPD	Limits
1-METHYLNAPHTHALENE (FRONT)	0	<0.30					
1-METHYLNAPHTHALENE (BACK)	0	<0.30					
2-METHYLNAPHTHALENE (FRONT)	0	<0.30					
2-METHYLNAPHTHALENE (BACK)	0	<0.30					
ACENAPHTHENE (FRONT)	0	<.30					
ACENAPHTHENE (BACK)	0	<.30					
ACENAPHTHYLENE (FRONT)	0	<.30					
ACENAPHTHYLENE (BACK)	0	<.30					
ANTHRACENE (FRONT)	0	<.30					
ANTHRACENE (BACK)	0	<.30					
BENZO(A) ANTHRACENE (FRONT)	0	<.30					
BENZO(A) ANTHRACENE (BACK)	0	<.30					
BENZO(A) PYRENE (FRONT)	0	<.30					
BENZO(A) PYRENE (BACK)	0	<.30					
BENZO(B) FLUORANTHENE (FRONT)	0	<.30					
BENZO(B) FLUORANTHENE (BACK)	0	<.30					
BENZO(G,H,I) PERYLENE (FRONT)	0	<.30					
BENZO(G,H,I) PERYLENE (BACK)	0	<.30					
BENZO(K) FLUORANTHENE (FRONT)	0	<.30					
BENZO(K) FLUORANTHENE (BACK)	0	<.30					
CHRYSENE (FRONT)	0	<.30					
CHRYSENE (BACK)	0	<.30					



GALSON

ORGANICS QC RECOVERY REPORT

Work Group: WG572147

Sample: WG572136-2

Spikelot: NA

QC Type: MBLANK

Raw File: WG572136-

2A.UV_VIS_1.0008_1127531_LC6_20231

Analysis date: 10/11/23 17:43:14

Approval Status: YES

Instrument: LC6

Parameter	Found	True	Rec.	Limits	DE Rec. Limits	RPD	Limits
DIBENZ(A,H)ANTHRACENE(FRONT)	0	<.30					
DIBENZ(A,H)ANTHRACENE(BACK)	0	<.30					
FLUORANTHENE(FRONT)	0	<.30					
FLUORANTHENE(BACK)	0	<.30					
FLUORENE(FRONT)	0	<.30					
FLUORENE(BACK)	0	<.30					
INDENO-1,2,3-CD-PYRENE(FRONT)	0	<.30					
INDENO-1,2,3-CD-PYRENE(BACK)	0	<.30					
NAPHTHALENE(FRONT)	0	<.30					
NAPHTHALENE(BACK)	0	<.30					
PHENANTHRENE(FRONT)	0	<.30					
PHENANTHRENE(BACK)	0	<.30					
PYRENE(FRONT)	0	<.30					
PYRENE(BACK)	0	<.30					

Sample: WG572136-3

Spikelot: IH730610

QC Type: BS

Raw File: WG572136-

3F.UV_VIS_1.0010_1127531_LC6_20231

Analysis date: 10/11/23 18:07:54

Approval Status: YES

Instrument: LC6

Parameter	Found	True	Rec.	Limits	DE Rec. Limits	RPD	Limits
NAPHTHALENE	5.300471	5.04	105		106 90.2 to 123.		
PYRENE	5.029427	5.02	100		101 75.0 to 125.		
BENZO(A)ANTHRACENE	5.037373	5.03	100		102 75.0 to 125.		
CHRYSENE	4.967753	5.01	99.2		101 75.0 to 125.		
BENZO(B)FLUORANTHENE	5.261034	5.01	105		108 85.1 to 127.		
ACENAPHTHYLENE	4.878897	5.026	97.1		95.2 76.8 to 116.		
BENZO(K)FLUORANTHENE	5.186530	5.03	103		106 75.0 to 125.		
BENZO(A)PYRENE	5.565064	5.01	111		113 75.0 to 125.		
DIBENZ(A,H)ANTHRACENE	5.036055	5.02	100		101 72.1 to 125.		
BENZO(G,H,I)PERYLENE	5.006864	5.01	99.9		104 75.0 to 125.		
INDENO-1,2,3-CD-PYRENE	4.734536	5.03	94.1		95.1 72.8 to 123.		
1-METHYLNAPHTHALENE	5.075160	5.02	101		103 82.7 to 122.		
2-METHYLNAPHTHALENE	5.033070	5.02	100		101 83.7 to 119.		
ACENAPHTHENE	5.137927	5.04	102		99.9 75.0 to 125.		
FLUORENE	4.984528	5.04	98.9		102 75.0 to 125.		



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ORGANICS QC RECOVERY REPORT

Work Group: WG572147

Sample: WG572136-3

Spikelot: IH730610

QC Type: BS

Raw File: WG572136-
3F.UV_VIS_1.0010_1127531_LC6_20231

Analysis date: 10/11/23 18:07:54

Approval Status: YES

Instrument: LC6

Parameter	Found	True	Rec.	Limits	DE Rec. Limits	RPD	Limits
PHENANTHRENE	5.062590	5.02	101		103 75.0 to 125.		
ANTHRACENE	5.199190	5.02	104		106 75.0 to 125.		
FLUORANTHENE	4.961364	5.02	98.8		101 75.0 to 125.		

Sample: WG572136-4

Spikelot: IH730610

QC Type: BSD

Raw File: WG572136-
4F.UV_VIS_1.0011_1127531_LC6_20231

Analysis date: 10/11/23 18:20:14

Approval Status: YES

Instrument: LC6

Parameter	Found	True	Rec.	Limits	DE Rec. Limits	RPD	Limits
NAPHTHALENE	5.029060	5.04	99.8		101 90.2 to 123.	4.83	-20 to 20.0
PYRENE	4.736818	5.02	94.4		95.3 75.0 to 125.	5.81	-20 to 20.0
BENZO(A)ANTHRACENE	4.739733	5.03	94.2		96.2 75.0 to 125.	5.85	-20 to 20.0
CHRYSENE	4.712291	5.01	94.1		96 75.0 to 125.	5.08	-20 to 20.0
BENZO(B)FLUORANTHENE	4.989550	5.01	99.6		103 85.1 to 127.	4.74	0 to 13.8
ACENAPHTHYLENE	4.640092	5.026	92.3		90.5 76.8 to 116.	5.06	-20 to 20.0
BENZO(K)FLUORANTHENE	4.795436	5.03	95.3		98.3 75.0 to 125.	7.54	-20 to 20.0
BENZO(A)PYRENE	5.300211	5.01	106		108 75.0 to 125.	4.52	-20 to 20.0
DIBENZ(A,H)ANTHRACENE	4.760630	5.02	94.8		95.8 72.1 to 125.	5.28	-20 to 20.0
BENZO(G,H,I)PERYLENE	4.754917	5.01	94.9		98.9 75.0 to 125.	5.03	-20 to 20.0
INDENO-1,2,3-CD-PYRENE	4.481607	5.03	89.1		90 72.8 to 123.	5.51	-20 to 20.0
1-METHYLNAPHTHALENE	4.837751	5.02	96.4		98.3 82.7 to 122.	4.67	0 to 13.4
2-METHYLNAPHTHALENE	4.808099	5.02	95.8		96.7 83.7 to 119.	4.35	0 to 13.2
ACENAPHTHENE	4.875438	5.04	96.7		94.8 75.0 to 125.	5.24	-20 to 20.0
FLUORENE	4.710579	5.04	93.5		96.4 75.0 to 125.	5.65	-20 to 20.0
PHENANTHRENE	4.781814	5.02	95.3		97.2 75.0 to 125.	5.79	-20 to 20.0
ANTHRACENE	4.956745	5.02	98.7		101 75.0 to 125.	4.83	-20 to 20.0
FLUORANTHENE	4.689692	5.02	93.4		95.3 75.0 to 125.	5.81	-20 to 20.0

Sample: WG572136-5

Spikelot: IH730610

QC Type: BS

Raw File: WG572136-
5A.UV_VIS_1.0012_1127531_LC6_20231

Analysis date: 10/11/23 18:32:38

Approval Status: YES

Instrument: LC6

Parameter	Found	True	Rec.	Limits	DE Rec. Limits	RPD	Limits
NAPHTHALENE	4.949475	5.04	98.2		107 90.2 to 123.		
PYRENE	4.300001	5.02	85.7		104 75.0 to 125.		



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ORGANICS QC RECOVERY REPORT

Work Group: WG572147

Sample: WG572136-5

Spikelot: IH730610

QC Type: BS

Raw File: WG572136-

5A.UV_VIS_1.0012_1127531_LC6_20231

Analysis date: 10/11/23 18:32:38

Approval Status: YES

Instrument: LC6

Parameter	Found	True	Rec.	Limits	DE Rec. Limits	RPD	Limits
BENZO(A)ANTHRACENE	4.123260	5.03	82		105 75.0 to 125.		
CHRYSENE	3.999747	5.01	79.8		104 75.0 to 125.		
BENZO(B)FLUORANTHENE	3.998747	5.01	79.8		111 85.1 to 127.		
BENZO(K)FLUORANTHENE	3.855698	5.03	76.7		106 75.0 to 125.		
BENZO(A)PYRENE	3.768136	5.01	75.2		114 75.0 to 125.		
DIBENZ(A,H)ANTHRACENE	3.581297	5.02	71.3		99.1 72.1 to 125.		
BENZO(G,H,I)PERYLENE	3.079654	5.01	61.5		104 75.0 to 125.		
ACENAPHTHYLENE	4.537444	5.026	90.3		94 76.8 to 116.		
INDENO-1,2,3-CD-PYRENE	3.141195	5.03	62.4		97.6 72.8 to 123.		
1-METHYLNAPHTHALENE	4.771485	5.02	95		100 82.7 to 122.		
2-METHYLNAPHTHALENE	4.645824	5.02	92.5		102 83.7 to 119.		
ACENAPHTHENE	4.668590	5.04	92.6		103 75.0 to 125.		
FLUORENE	4.609341	5.04	91.5		102 75.0 to 125.		
PHENANTHRENE	4.566707	5.02	91		106 75.0 to 125.		
ANTHRACENE	4.600017	5.02	91.6		108 75.0 to 125.		
FLUORANTHENE	4.344370	5.02	86.5		104 75.0 to 125.		

Sample: WG572136-6

Spikelot: IH730610

QC Type: BSD

Raw File: WG572136-

6A.UV_VIS_1.0013_1127531_LC6_20231

Analysis date: 10/11/23 18:44:59

Approval Status: YES

Instrument: LC6

Parameter	Found	True	Rec.	Limits	DE Rec. Limits	RPD	Limits
ANTHRACENE	1.683994	5.02	33.5		39.5 75.0 to 125.	92.9	-20 to 20.0
FLUORANTHENE	1.465321	5.02	29.2		35.2 75.0 to 125.	98.9	-20 to 20.0
PYRENE	1.470162	5.02	29.3		35.7 75.0 to 125.	97.8	-20 to 20.0
BENZO(A)ANTHRACENE	1.289127	5.03	25.6		32.9 75.0 to 125.	105	-20 to 20.0
CHRYSENE	1.342681	5.01	26.8		34.8 75.0 to 125.	99.7	-20 to 20.0
NAPHTHALENE	3.336543	5.04	66.2		72 90.2 to 123.	39.1	-20 to 20.0
BENZO(B)FLUORANTHENE	1.360399	5.01	27.2		37.7 85.1 to 127.	98.6	0 to 13.8
BENZO(K)FLUORANTHENE	1.280139	5.03	25.5		35.3 75.0 to 125.	100	-20 to 20.0
BENZO(A)PYRENE	1.459380	5.01	29.1		44.1 75.0 to 125.	88.4	-20 to 20.0
DIBENZ(A,H)ANTHRACENE	1.198539	5.02	23.9		33.2 72.1 to 125.	99.6	-20 to 20.0
BENZO(G,H,I)PERYLENE	1.170356	5.01	23.4		39.6 75.0 to 125.	89.7	-20 to 20.0
INDENO-1,2,3-CD-PYRENE	1.019857	5.03	20.3		31.7 72.8 to 123.	102	-20 to 20.0
ACENAPHTHYLENE	2.589777	5.026	51.5		53.7 76.8 to 116.	54.6	-20 to 20.0

Sample: WG572136-6

Spikelot: IH730610

QC Type: BSD

Raw File: WG572136-

6A.UV_VIS_1.0013_1127531_LC6_20231

Analysis date: 10/11/23 18:44:59

Approval Status: YES

Instrument: LC6

Parameter	Found	True	Rec.	Limits	DE Rec. Limits	RPD	Limits
1-METHYLNAPHTHALENE	1.711038	5.02	34.1		35.9 82.7 to 122.	94.3	0 to 13.4
2-METHYLNAPHTHALENE	1.803041	5.02	35.9		39.5 83.7 to 119.	88.3	0 to 13.2
ACENAPHTHENE	1.617378	5.04	32.1		35.7 75.0 to 125.	97	-20 to 20.0
FLUORENE	1.588732	5.04	31.5		35 75.0 to 125.	97.8	-20 to 20.0
PHENANTHRENE	1.545324	5.02	30.8		35.8 75.0 to 125.	99	-20 to 20.0

Sample: WG572147-3

Spikelot: IH730610-1

QC Type: CCV

Raw File: WG572147-

3A.UV_VIS_1.0023_1127528_LC6_20231

Analysis date: 10/11/23 20:48:25

Approval Status: YES

Instrument: LC6

Parameter	Found	True	Rec.	Limits	DE Rec. Limits	RPD	Limits
NAPHTHALENE	5.342948	5.04	106	80.0 to 120.			
PYRENE	5.100619	5.02	102	80.0 to 120.			
BENZO(A)ANTHRACENE	5.242802	5.03	104	80.0 to 120.			
CHRYSENE	5.089403	5.01	102	80.0 to 120.			
BENZO(B)FLUORANTHENE	5.379702	5.01	107	80.0 to 120.			
BENZO(K)FLUORANTHENE	5.280011	5.03	105	80.0 to 120.			
ACENAPHTHYLENE	5.029273	5.026	100	80.0 to 120.			
BENZO(A)PYRENE	5.683165	5.01	113	80.0 to 120.			
DIBENZ(A,H)ANTHRACENE	5.115849	5.02	102	80.0 to 120.			
BENZO(G,H,I)PERYLENE	5.175591	5.01	103	80.0 to 120.			
INDENO-1,2,3-CD-PYRENE	4.901481	5.03	97.4	80.0 to 120.			
1-METHYLNAPHTHALENE	5.245343	5.02	104	80.0 to 120.			
2-METHYLNAPHTHALENE	5.147477	5.02	103	80.0 to 120.			
ACENAPHTHENE	5.297642	5.04	105	80.0 to 120.			
FLUORENE	5.159912	5.04	102	80.0 to 120.			
PHENANTHRENE	5.167461	5.02	103	80.0 to 120.			
ANTHRACENE	5.211162	5.02	104	80.0 to 120.			
FLUORANTHENE	5.181672	5.02	103	80.0 to 120.			

Sample: WG572147-4

Spikelot: IH730610-1

QC Type: CCV

Raw File: WG572147-

4A.UV_VIS_1.0042_1127528_LC6_20231

Analysis date: 10/12/23 00:42:59

Approval Status: YES

Instrument: LC6

Parameter	Found	True	Rec.	Limits	DE Rec. Limits	RPD	Limits
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GALSON

ORGANICS QC RECOVERY REPORT

Work Group: WG572147

Sample: WG572147-4

Spikelot: IH730610-1

QC Type: CCV

Raw File: WG572147-

4A.UV_VIS_1.0042_1127528_LC6_20231

Analysis date: 10/12/23 00:42:59

Approval Status: YES

Instrument: LC6

Parameter	Found	True	Rec.	Limits	DE Rec. Limits	RPD	Limits
NAPHTHALENE	5.359034	5.04	106	80.0 to 120.			
PYRENE	5.108085	5.02	102	80.0 to 120.			
BENZO(A)ANTHRACENE	5.286799	5.03	105	80.0 to 120.			
CHRYSENE	5.105827	5.01	102	80.0 to 120.			
BENZO(B)FLUORANTHENE	5.405262	5.01	108	80.0 to 120.			
BENZO(K)FLUORANTHENE	5.305297	5.03	105	80.0 to 120.			
ACENAPHTHYLENE	5.042765	5.026	100	80.0 to 120.			
BENZO(A)PYRENE	5.702408	5.01	114	80.0 to 120.			
DIBENZ(A,H)ANTHRACENE	5.128480	5.02	102	80.0 to 120.			
BENZO(G,H,I)PERYLENE	5.197112	5.01	104	80.0 to 120.			
INDENO-1,2,3-CD-PYRENE	4.918003	5.03	97.8	80.0 to 120.			
1-METHYLNAPHTHALENE	5.262911	5.02	105	80.0 to 120.			
2-METHYLNAPHTHALENE	5.167655	5.02	103	80.0 to 120.			
ACENAPHTHENE	5.313622	5.04	105	80.0 to 120.			
FLUORENE	5.172699	5.04	103	80.0 to 120.			
PHENANTHRENE	5.183620	5.02	103	80.0 to 120.			
ANTHRACENE	5.230517	5.02	104	80.0 to 120.			
FLUORANTHENE	5.200014	5.02	104	80.0 to 120.			

Sample: WG572147-5

Spikelot: IH730610-1

QC Type: CCV

Raw File: WG572147-

5A.UV_VIS_1.0061_1127528_LC6_20231

Analysis date: 10/12/23 04:37:51

Approval Status: YES

Instrument: LC6

Parameter	Found	True	Rec.	Limits	DE Rec. Limits	RPD	Limits
NAPHTHALENE	5.378309	5.04	107	80.0 to 120.			
PYRENE	5.111690	5.02	102	80.0 to 120.			
BENZO(A)ANTHRACENE	5.310571	5.03	106	80.0 to 120.			
CHRYSENE	5.122955	5.01	102	80.0 to 120.			
BENZO(B)FLUORANTHENE	5.423780	5.01	108	80.0 to 120.			
BENZO(K)FLUORANTHENE	5.326432	5.03	106	80.0 to 120.			
ACENAPHTHYLENE	5.054211	5.026	101	80.0 to 120.			
BENZO(A)PYRENE	5.727753	5.01	114	80.0 to 120.			
DIBENZ(A,H)ANTHRACENE	5.140981	5.02	102	80.0 to 120.			
BENZO(G,H,I)PERYLENE	5.214112	5.01	104	80.0 to 120.			
INDENO-1,2,3-CD-PYRENE	4.923919	5.03	97.9	80.0 to 120.			



GALSON

ORGANICS QC RECOVERY REPORT

Work Group: WG572147

Sample: WG572147-5

Spikelot: IH730610-1

QC Type: CCV

Raw File: WG572147-

5A.UV_VIS_1.0061_1127528_LC6_20231

Analysis date: 10/12/23 04:37:51

Approval Status: YES

Instrument: LC6

Parameter	Found	True	Rec.	Limits	DE Rec. Limits	RPD	Limits
1-METHYLNAPHTHALENE	5.276458	5.02	105	80.0 to 120.			
2-METHYLNAPHTHALENE	5.180560	5.02	103	80.0 to 120.			
ACENAPHTHENE	5.329079	5.04	106	80.0 to 120.			
FLUORENE	5.182083	5.04	103	80.0 to 120.			
PHENANTHRENE	5.193900	5.02	103	80.0 to 120.			
ANTHRACENE	5.239336	5.02	104	80.0 to 120.			
FLUORANTHENE	5.212067	5.02	104	80.0 to 120.			

Sample: WG572147-6

Spikelot: IH730610-1

QC Type: CCV

Raw File: WG572147-

6A.UV_VIS_1.0074_1127528_LC6_20231

Analysis date: 10/12/23 07:18:29

Approval Status: YES

Instrument: LC6

Parameter	Found	True	Rec.	Limits	DE Rec. Limits	RPD	Limits
NAPHTHALENE	5.397512	5.04	107	80.0 to 120.			
PYRENE	5.141313	5.02	102	80.0 to 120.			
BENZO(A)ANTHRACENE	5.301939	5.03	105	80.0 to 120.			
CHRYSENE	5.134038	5.01	102	80.0 to 120.			
BENZO(B)FLUORANTHENE	5.427154	5.01	108	80.0 to 120.			
BENZO(K)FLUORANTHENE	5.328418	5.03	106	80.0 to 120.			
ACENAPHTHYLENE	5.067031	5.026	101	80.0 to 120.			
BENZO(A)PYRENE	5.739531	5.01	115	80.0 to 120.			
DIBENZ(A,H)ANTHRACENE	5.151476	5.02	103	80.0 to 120.			
BENZO(G,H,I)PERYLENE	5.219825	5.01	104	80.0 to 120.			
INDENO-1,2,3-CD-PYRENE	4.930793	5.03	98	80.0 to 120.			
1-METHYLNAPHTHALENE	5.288648	5.02	105	80.0 to 120.			
2-METHYLNAPHTHALENE	5.203246	5.02	104	80.0 to 120.			
ACENAPHTHENE	5.341064	5.04	106	80.0 to 120.			
FLUORENE	5.197222	5.04	103	80.0 to 120.			
PHENANTHRENE	5.207613	5.02	104	80.0 to 120.			
ANTHRACENE	5.250889	5.02	105	80.0 to 120.			
FLUORANTHENE	5.233433	5.02	104	80.0 to 120.			

Sample: WG572147-7

Spikelot: IH730610-1

QC Type: CCV

Raw File: WG572147-

7A.UV_VIS_1.0087_1127528_LC6_20231

Analysis date: 10/12/23 09:59:42

Approval Status: YES

Instrument: LC6



GALSON

ORGANICS QC RECOVERY REPORT

Work Group: WG572147

Sample: WG572147-7

Spikelot: IH730610-1

QC Type: CCV

Raw File: WG572147-

7A.UV_VIS_1.0087_1127528_LC6_20231

Analysis date: 10/12/23 09:59:42

Approval Status: YES

Instrument: LC6

Parameter	Found	True	Rec.	Limits	DE Rec. Limits	RPD	Limits
NAPHTHALENE	5.393266	5.04	107	80.0 to 120.			
PYRENE	5.159620	5.02	103	80.0 to 120.			
BENZO(A)ANTHRACENE	5.316771	5.03	106	80.0 to 120.			
CHRYSENE	5.143249	5.01	103	80.0 to 120.			
BENZO(B)FLUORANTHENE	5.444819	5.01	109	80.0 to 120.			
BENZO(K)FLUORANTHENE	5.345148	5.03	106	80.0 to 120.			
ACENAPHTHYLENE	5.087555	5.026	101	80.0 to 120.			
BENZO(A)PYRENE	5.757906	5.01	115	80.0 to 120.			
DIBENZ(A,H)ANTHRACENE	5.165162	5.02	103	80.0 to 120.			
BENZO(G,H,I)PERYLENE	5.229096	5.01	104	80.0 to 120.			
INDENO-1,2,3-CD-PYRENE	4.950081	5.03	98.4	80.0 to 120.			
1-METHYLNAPHTHALENE	5.298307	5.02	106	80.0 to 120.			
2-METHYLNAPHTHALENE	5.196697	5.02	104	80.0 to 120.			
ACENAPHTHENE	5.354152	5.04	106	80.0 to 120.			
FLUORENE	5.211504	5.04	103	80.0 to 120.			
PHENANTHRENE	5.227149	5.02	104	80.0 to 120.			
ANTHRACENE	5.261727	5.02	105	80.0 to 120.			
FLUORANTHENE	5.237719	5.02	104	80.0 to 120.			



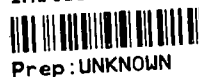
Please provide 6 media blanks for PNAH only. Thank You!

CHAIN OF CUSTODY AND ANALYSIS REQUEST FORM

Samples Received in Light Protective Material.

KMS 10/16/23

784722819554
Date: 10/07/23
Shipper: FEDEX
Initials: AMF



Prep: UNKNOWN

CTEH Project # 031332

Turnaround Requested: ☒ Normal ☐ Same Day ☐ Next Day

☐ Two Day ☐ Other (Specify) _____

Data Packet Requested: ☒ Standard Level II ☐ Other _____

Sample and Extract Retention/Disposal:

Dispose after 2X hold time ☒

Retain w/ storage fees after 2X hold time ☐

Send Report to: jtwilson@cteh.com; lclawitter@cteh.com
Company: CTEH, LLC
Address: 5120 North Shore Drive, North Little Rock, Arkansas 721
Phone: (501)801-8500
e-mail: labresults@cteh.com;
Accounting: Send invoices to CTEHAP@montrose-env.com with Invoice # and Vendor name in subject line

Lab Contact Information		Secondary Sample Identification		Sample Size	Units	Sample Start Date	Sample Start Time	Sample Stop Date	Sample Stop Time	Initials	Method				Matrix
Primary Sample Identification		Secondary Sample Identification		Sample Size	Units	Sample Start Date	Sample Start Time	Sample Stop Date	Sample Stop Time	Initials	NIDSH 500b	NIDSH 7303			
* MEID1004PAH01A		PAH01A		1074.442	L	10/4/23	1118	10/4/23	2234	KD	X				A
MEID1004PAH02A		PAH02A		940.08	L	10/4/23	1018	10/4/23	2218	KD	X				A
MEID1004PAH03A		PAH03A		943.464	L	10/4/23	1001	10/4/23	2201	KD	X				A
MEID1004PAH04A		PAH04A		920.64	L	10/4/23	0921	10/4/23	2121	KD	X				A
* MEID1004MET01A		MET01A		2579.995	L	10/4/23	1123	10/4/23	2234	KD		X			A
MEID1004MET02A		MET02A		2823.195	L	10/4/23	1026	10/4/23	2218	KD		X			A
MEID1004MET03A		MET03A		3120.064	L	10/4/23	0946	10/4/23	2313	KD		X			A
MEID1004MET04A		MET04A		2981.775	L	10/4/23	0928	10/4/23	2158	KD		X			A
* MEID1004PAH01		PAH01		799.637	L	10/4/23	2259	10/5/23	0916	KD	X				A
MEID1004PAH02		PAH02		935.064	L	10/5/23	0251	10/6/23	1451	KD	X				A

RELINQUISHED BY	DATE/TIME	RECEIVED BY	DATE/TIME
Kimberly Odum	10/6/2023		
FedEx	10/7/23	Ava Ferreira	10/7/23 9:50

KMS 10/16/23

Rec'd intact & accounted for? Yes or No
Rec'd w/custody seals intact? Yes, No, NA
Rec'd in light sensitive packaging? Yes, No, NA
Rec'd with ice pack? Yes or No
Rec'd temperature compliant? Yes, No, NA



CHAIN OF CUSTODY AND ANALYSIS REQUEST FORM

Samples Received in Light Protective Material.

KMS 10/16/23

Send Report to	jtwillson@cteh.com; lclawitter@cteh.com
Company	CTEH, LLC
Address	5120 North Shore Drive, North Little Rock, Arkansas 72118
Phone	(501)801-8500
e-mail	labresults@cteh.com;
Accounting	Send invoices to CTEHAP@montrose-env.com with Invoice # and Vendor name in subject line

CTEH Project # 031332	
Turnaround Requested: <input checked="" type="checkbox"/> Normal <input type="checkbox"/> Same Day <input type="checkbox"/> Next Day	
<input type="checkbox"/> Two Day <input type="checkbox"/> Other (Specify) _____	
Data Packet Requested: <input checked="" type="checkbox"/> Standard Level II <input type="checkbox"/> Other _____	
Sample and Extract Retention/Disposal:	
Dispose after 2X hold time	<input checked="" type="checkbox"/>
Retain w/ storage fees after 2X hold time	<input type="checkbox"/>

Lab Contact Information									Method				Matrix
Primary Sample Identification	Secondary Sample Identification	Sample Size	Units	Sample Start Date	Sample Start Time	Sample Stop Date	Sample Stop Time	Initials	NHSH	SW	NHSH	SW	Matrix
MEID1004PAH03	PAH03	916.888	L	10/5/23	0003	10/5/23	1203	KD	X				A
MEID1004PAH04	PAH04	932.472	L	10/4/23	2156	10/5/23	0956	KD	X				A
MEID1004PAH05	PAH05	945.024	L	10/5/23	2156 ⁰¹²⁸	10/5/23	1328	KD	X				A
MEID1004MET01	MET01	3133.939	L	10/4/23	2301	10/5/23	1207	KD		X			A
MEID1004MET02	MET02	2520.5	L	10/5/23	0252	10/5/23	1336	KD		X			A
MEID1004MET04	MET04	2074.697	L	10/4/23	2157	10/5/23	0648	KD		X			A
MEID1004MET05	MET05	3053.262	L	10/5/23	0130	10/5/23	1410	KD		X			A
MEID1005PAH01FB	PAH01FB	—	—	—	—	—	—	KD	X				A
MEID1005PAH02FB	PAH02FB	—	—	—	—	—	—	KD	X				A
MEID1005PAH03FB	PAH03FB	—	—	—	—	—	—	KD	X				A

RELINQUISHED BY	DATE/TIME	RECEIVED BY	DATE/TIME
Kimberly Ddam	10/16/2023		
FedEx	10/17/23	Ava Ferreira	10/17/23

KMS 10/16/23

Rec'd intact & accounted for? ☒ Yes or No
Rec'd w/custody seals intact? ☒ Yes, No, NA
Rec'd in light sensitive packaging? ☒ Yes No, NA
Rec'd with ice pack? Yes or No
Rec'd temperature compliant? Yes, No, NA

SDG #

CTEH - ER

Sample Delivery Group: L1664005

Samples Received: 10/07/2023

Project Number: 031332

Description:

Report To: CTEH
5120 North Shore Drive
North Little Rock, AR 72118

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 National12065 Lebanon Rd Mount Juliet, TN 37122 615-758-5858 800-767-5859 www.pacenational.com

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¹ Cp

² Tc

³ Ss

⁴ Cn

⁵ Sr

⁶ Qc

⁷ Gl

⁸ Al

⁹ Sc

SAMPLE SUMMARY

MEID1003MC01 L1664005-01 Air

				Collected by KD	Collected date/time 10/04/23 22:35	Received date/time 10/07/23 09:00
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (MS) by Method TO-15	WG2147373	1	10/08/23 15:20	10/08/23 15:20	SDS	Mt. Juliet, TN

¹ Cp

² Tc

³ Ss

⁴ Cn

⁵ Sr

⁶ Qc

⁷ Gl

⁸ Al

⁹ Sc

MEID1003MC02 L1664005-02 Air

				Collected by KD	Collected date/time 10/04/23 23:25	Received date/time 10/07/23 09:00
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (MS) by Method TO-15	WG2147373	1	10/08/23 15:51	10/08/23 15:51	SDS	Mt. Juliet, TN

MEID1003MC04 L1664005-03 Air

				Collected by KD	Collected date/time 10/04/23 21:40	Received date/time 10/07/23 09:00
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (MS) by Method TO-15	WG2147373	1	10/08/23 16:22	10/08/23 16:22	SDS	Mt. Juliet, TN

MEID1003MC03 L1664005-04 Air

				Collected by KD	Collected date/time 10/04/23 23:41	Received date/time 10/07/23 09:00
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (MS) by Method TO-15	WG2147373	1	10/08/23 16:53	10/08/23 16:53	SDS	Mt. Juliet, TN

CASE NARRATIVE

Unless qualified or notated within the narrative below, all sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times. 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.

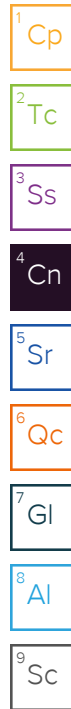


Jared Starkey
Project Manager

Volatile Organic Compounds (MS) by Method TO-15

The associated batch QC was below the established quality control range for accuracy.

Batch	Lab Sample ID	Analytes
WG2147373	(LCS) R3984901-1, (LCSD) R3984901-3, L1664005-01, 02, 03, 04	1,2,4-Trichlorobenzene and Naphthalene



Volatile Organic Compounds (MS) by Method TO-15

Analyte	CAS #	Mol. Wt.	MDL1 ppbv	RDL1 ppbv	RDL2 ug/m3	Result ppbv	Result ug/m3	Qualifier	Dilution	Batch
Acetone	67-64-1	58.10	0.584	1.25	2.97	12.0	28.5		1	WG2147373
Acetonitrile	75-05-8	41.05	0.235	5.00	8.39	U	U		1	WG2147373
Acrylonitrile	107-13-1	53	0.226	5.00	10.8	U	U		1	WG2147373
Allyl chloride	107-05-1	76.53	0.114	0.200	0.626	U	U		1	WG2147373
Benzene	71-43-2	78.10	0.0715	0.200	0.639	0.447	1.43		1	WG2147373
Benzyl Chloride	100-44-7	127	0.0598	0.200	1.04	U	U		1	WG2147373
Bromodichloromethane	75-27-4	164	0.0702	0.200	1.34	U	U		1	WG2147373
Bromoform	75-25-2	253	0.0732	0.600	6.21	U	U		1	WG2147373
Bromomethane	74-83-9	94.90	0.0982	0.200	0.776	U	U		1	WG2147373
Bromoethane	74-96-4	108.97	0.216	5.00	22.3	0.218	0.972	J	1	WG2147373
1,3-Butadiene	106-99-0	54.10	0.104	2.00	4.43	U	U		1	WG2147373
Butane	106-97-8	58	0.0522	0.200	0.474	U	U		1	WG2147373
Carbon disulfide	75-15-0	76.10	0.102	0.200	0.622	0.226	0.703		1	WG2147373
Carbon tetrachloride	56-23-5	154	0.0732	0.200	1.26	U	U		1	WG2147373
Chlorobenzene	108-90-7	113	0.0832	0.200	0.924	U	U		1	WG2147373
Chloroethane	75-00-3	64.50	0.0996	0.200	0.528	0.623	1.64		1	WG2147373
Chloroform	67-66-3	119	0.0717	0.200	0.973	U	U		1	WG2147373
Chloromethane	74-87-3	50.50	0.103	0.200	0.413	0.861	1.78		1	WG2147373
2-Chlorotoluene	95-49-8	126	0.0828	0.200	1.03	U	U		1	WG2147373
Cyclohexane	110-82-7	84.20	0.0753	0.200	0.689	U	U		1	WG2147373
n-Decane	124-18-5	142.28	0.0784	0.200	1.16	U	U		1	WG2147373
Dibromochloromethane	124-48-1	208	0.0727	0.200	1.70	U	U		1	WG2147373
1,2-Dibromoethane	106-93-4	188	0.0721	0.200	1.54	U	U		1	WG2147373
1,2-Dichlorobenzene	95-50-1	147	0.128	0.200	1.20	U	U		1	WG2147373
1,3-Dichlorobenzene	541-73-1	147	0.182	0.200	1.20	U	U		1	WG2147373
1,4-Dichlorobenzene	106-46-7	147	0.0557	0.200	1.20	U	U		1	WG2147373
1,2-Dichloroethane	107-06-2	99	0.0700	0.200	0.810	U	U		1	WG2147373
1,1-Dichloroethane	75-34-3	98	0.0723	0.200	0.802	U	U		1	WG2147373
1,1-Dichloroethene	75-35-4	96.90	0.0762	0.200	0.793	U	U		1	WG2147373
cis-1,2-Dichloroethene	156-59-2	96.90	0.0784	0.200	0.793	U	U		1	WG2147373
trans-1,2-Dichloroethene	156-60-5	96.90	0.0673	0.200	0.793	U	U		1	WG2147373
1,2-Dichloropropane	78-87-5	113	0.0760	0.200	0.924	U	U		1	WG2147373
cis-1,3-Dichloropropene	10061-01-5	111	0.0689	0.200	0.908	U	U		1	WG2147373
trans-1,3-Dichloropropene	10061-02-6	111	0.0728	0.200	0.908	0.0809	0.367	J	1	WG2147373
1,4-Dioxane	123-91-1	88.10	0.0833	0.200	0.721	U	U		1	WG2147373
Ethanol	64-17-5	46.10	0.265	2.50	4.71	61.9	117		1	WG2147373
Ethylbenzene	100-41-4	106	0.0835	0.200	0.867	U	U		1	WG2147373
4-Ethyltoluene	622-96-8	120	0.0783	0.200	0.982	U	U		1	WG2147373
Trichlorofluoromethane	75-69-4	137.40	0.0819	0.200	1.12	0.187	1.05	J	1	WG2147373
Dichlorodifluoromethane	75-71-8	120.92	0.137	0.200	0.989	0.454	2.25		1	WG2147373
1,1,2-Trichlorotrifluoroethane	76-13-1	187.40	0.0793	0.200	1.53	U	U		1	WG2147373
1,2-Dichlorotetrafluoroethane	76-14-2	171	0.0890	0.200	1.40	U	U		1	WG2147373
Heptane	142-82-5	100	0.104	0.200	0.818	0.170	0.695	J	1	WG2147373
Hexachloro-1,3-butadiene	87-68-3	261	0.105	0.630	6.73	U	U		1	WG2147373
n-Hexane	110-54-3	86.20	0.206	0.630	2.22	U	U		1	WG2147373
Isopropylbenzene	98-82-8	120.20	0.0777	0.200	0.983	U	U		1	WG2147373
Methylene Chloride	75-09-2	84.90	0.0979	0.200	0.694	0.210	0.729		1	WG2147373
Methyl Butyl Ketone	591-78-6	100	0.133	1.25	5.11	U	U		1	WG2147373
2-Butanone (MEK)	78-93-3	72.10	0.0814	1.25	3.69	0.634	1.87	J	1	WG2147373
4-Methyl-2-pentanone (MIBK)	108-10-1	100.10	0.0765	1.25	5.12	U	U		1	WG2147373
Methyl methacrylate	80-62-6	100.12	0.0876	0.200	0.819	U	U		1	WG2147373
MTBE	1634-04-4	88.10	0.0647	0.200	0.721	U	U		1	WG2147373
Naphthalene	91-20-3	128	0.350	0.630	3.30	U	U	J4	1	WG2147373
Nonane	111-84-2	128.26	0.0363	0.200	1.05	U	U		1	WG2147373
Pentane	109-66-0	72.15	0.0503	0.200	0.590	0.258	0.761		1	WG2147373
2-Propanol	67-63-0	60.10	0.264	1.25	3.07	1.04	2.56	J	1	WG2147373

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc

Volatile Organic Compounds (MS) by Method TO-15

Analyte	CAS #	Mol. Wt.	MDL1 ppbv	RDL1 ppbv	RDL2 ug/m3	Result ppbv	Result ug/m3	Qualifier	Dilution	Batch
Propene	115-07-1	42.10	0.0932	1.25	2.15	U	U		1	WG2147373
Styrene	100-42-5	104	0.0788	0.200	0.851	0.0844	0.359	J	1	WG2147373
1,1,2,2-Tetrachloroethane	79-34-5	168	0.0743	0.200	1.37	U	U		1	WG2147373
Tetrachloroethylene	127-18-4	166	0.0814	0.200	1.36	U	U		1	WG2147373
Tetrahydrofuran	109-99-9	72.10	0.0734	0.200	0.590	U	U		1	WG2147373
Toluene	108-88-3	92.10	0.0870	0.500	1.88	1.79	6.74		1	WG2147373
1,2,4-Trichlorobenzene	120-82-1	181	0.148	0.630	4.66	U	U	J4	1	WG2147373
1,1,1-Trichloroethane	71-55-6	133	0.0736	0.200	1.09	U	U		1	WG2147373
1,1,2-Trichloroethane	79-00-5	133	0.0775	0.200	1.09	U	U		1	WG2147373
Trichloroethylene	79-01-6	131	0.0680	0.200	1.07	U	U		1	WG2147373
1,2,4-Trimethylbenzene	95-63-6	120	0.0764	0.200	0.982	U	U		1	WG2147373
1,3,5-Trimethylbenzene	108-67-8	120	0.0779	0.200	0.982	U	U		1	WG2147373
2,2,4-Trimethylpentane	540-84-1	114.22	0.133	0.200	0.934	U	U		1	WG2147373
Vinyl chloride	75-01-4	62.50	0.0949	0.200	0.511	U	U		1	WG2147373
Vinyl Bromide	593-60-2	106.95	0.0852	0.200	0.875	U	U		1	WG2147373
Vinyl acetate	108-05-4	86.10	0.116	0.200	0.704	U	U		1	WG2147373
m&p-Xylene	1330-20-7	106	0.135	0.400	1.73	U	U		1	WG2147373
o-Xylene	95-47-6	106	0.0828	0.200	0.867	U	U		1	WG2147373
(S) 1,4-Bromofluorobenzene	460-00-4	175		60.0-140		86.4				WG2147373

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc

Volatile Organic Compounds (MS) by Method TO-15 - TENTATIVELY IDENTIFIED COMPOUNDS

Analyte	CAS #	Mol. Wt.	MDL1 ppbv	RDL1 ppbv	RDL2 ug/m3	Result ppbv	Result ug/m3	Qualifier	Dilution	Batch	RT
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Number of TICs found: 0

Tentatively Identified compounds (TIC) refers to substances not present in the list of target compounds. Therefore, not all TICs are identified and quantitated using individual standards. TIC listings are prepared utilizing a computerized library search routine of electron impact mass spectral data and evaluation of the relevant data by a mass spectral data specialist. Quantitation is accomplished by relative peak area of the TIC compared to that of the nearest internal standard from the total ion chromatogram. TICs are identified and quantitated only if the peak area is 10% or more of that of the nearest internal standard.

Volatile Organic Compounds (MS) by Method TO-15

Analyte	CAS #	Mol. Wt.	MDL1 ppbv	RDL1 ppbv	RDL2 ug/m3	Result ppbv	Result ug/m3	Qualifier	Dilution	Batch
Acetone	67-64-1	58.10	0.584	1.25	2.97	14.0	33.3		1	WG2147373
Acetonitrile	75-05-8	41.05	0.235	5.00	8.39	U	U		1	WG2147373
Acrylonitrile	107-13-1	53	0.226	5.00	10.8	U	U		1	WG2147373
Allyl chloride	107-05-1	76.53	0.114	0.200	0.626	U	U		1	WG2147373
Benzene	71-43-2	78.10	0.0715	0.200	0.639	2.80	8.94		1	WG2147373
Benzyl Chloride	100-44-7	127	0.0598	0.200	1.04	U	U		1	WG2147373
Bromodichloromethane	75-27-4	164	0.0702	0.200	1.34	U	U		1	WG2147373
Bromoform	75-25-2	253	0.0732	0.600	6.21	U	U		1	WG2147373
Bromomethane	74-83-9	94.90	0.0982	0.200	0.776	0.122	0.474	J	1	WG2147373
Bromoethane	74-96-4	108.97	0.216	5.00	22.3	U	U		1	WG2147373
1,3-Butadiene	106-99-0	54.10	0.104	2.00	4.43	U	U		1	WG2147373
Butane	106-97-8	58	0.0522	0.200	0.474	0.253	0.600		1	WG2147373
Carbon disulfide	75-15-0	76.10	0.102	0.200	0.622	0.175	0.545	J	1	WG2147373
Carbon tetrachloride	56-23-5	154	0.0732	0.200	1.26	U	U		1	WG2147373
Chlorobenzene	108-90-7	113	0.0832	0.200	0.924	U	U		1	WG2147373
Chloroethane	75-00-3	64.50	0.0996	0.200	0.528	0.300	0.791		1	WG2147373
Chloroform	67-66-3	119	0.0717	0.200	0.973	U	U		1	WG2147373
Chloromethane	74-87-3	50.50	0.103	0.200	0.413	1.01	2.09		1	WG2147373
2-Chlorotoluene	95-49-8	126	0.0828	0.200	1.03	U	U		1	WG2147373
Cyclohexane	110-82-7	84.20	0.0753	0.200	0.689	U	U		1	WG2147373
n-Decane	124-18-5	142.28	0.0784	0.200	1.16	U	U		1	WG2147373
Dibromochloromethane	124-48-1	208	0.0727	0.200	1.70	U	U		1	WG2147373
1,2-Dibromoethane	106-93-4	188	0.0721	0.200	1.54	U	U		1	WG2147373
1,2-Dichlorobenzene	95-50-1	147	0.128	0.200	1.20	U	U		1	WG2147373
1,3-Dichlorobenzene	541-73-1	147	0.182	0.200	1.20	U	U		1	WG2147373
1,4-Dichlorobenzene	106-46-7	147	0.0557	0.200	1.20	U	U		1	WG2147373
1,2-Dichloroethane	107-06-2	99	0.0700	0.200	0.810	U	U		1	WG2147373
1,1-Dichloroethane	75-34-3	98	0.0723	0.200	0.802	U	U		1	WG2147373
1,1-Dichloroethene	75-35-4	96.90	0.0762	0.200	0.793	U	U		1	WG2147373
cis-1,2-Dichloroethene	156-59-2	96.90	0.0784	0.200	0.793	U	U		1	WG2147373
trans-1,2-Dichloroethene	156-60-5	96.90	0.0673	0.200	0.793	U	U		1	WG2147373
1,2-Dichloropropane	78-87-5	113	0.0760	0.200	0.924	U	U		1	WG2147373
cis-1,3-Dichloropropene	10061-01-5	111	0.0689	0.200	0.908	U	U		1	WG2147373
trans-1,3-Dichloropropene	10061-02-6	111	0.0728	0.200	0.908	U	U		1	WG2147373
1,4-Dioxane	123-91-1	88.10	0.0833	0.200	0.721	U	U		1	WG2147373
Ethanol	64-17-5	46.10	0.265	2.50	4.71	25.3	47.7		1	WG2147373
Ethylbenzene	100-41-4	106	0.0835	0.200	0.867	U	U		1	WG2147373
4-Ethyltoluene	622-96-8	120	0.0783	0.200	0.982	U	U		1	WG2147373
Trichlorofluoromethane	75-69-4	137.40	0.0819	0.200	1.12	0.182	1.02	J	1	WG2147373
Dichlorodifluoromethane	75-71-8	120.92	0.137	0.200	0.989	0.429	2.12		1	WG2147373
1,1,2-Trichlorotrifluoroethane	76-13-1	187.40	0.0793	0.200	1.53	U	U		1	WG2147373
1,2-Dichlorotetrafluoroethane	76-14-2	171	0.0890	0.200	1.40	U	U		1	WG2147373
Heptane	142-82-5	100	0.104	0.200	0.818	U	U		1	WG2147373
Hexachloro-1,3-butadiene	87-68-3	261	0.105	0.630	6.73	U	U		1	WG2147373
n-Hexane	110-54-3	86.20	0.206	0.630	2.22	U	U		1	WG2147373
Isopropylbenzene	98-82-8	120.20	0.0777	0.200	0.983	1.23	6.05		1	WG2147373
Methylene Chloride	75-09-2	84.90	0.0979	0.200	0.694	0.170	0.590	J	1	WG2147373
Methyl Butyl Ketone	591-78-6	100	0.133	1.25	5.11	U	U		1	WG2147373
2-Butanone (MEK)	78-93-3	72.10	0.0814	1.25	3.69	1.11	3.27	J	1	WG2147373
4-Methyl-2-pentanone (MIBK)	108-10-1	100.10	0.0765	1.25	5.12	U	U		1	WG2147373
Methyl methacrylate	80-62-6	100.12	0.0876	0.200	0.819	U	U		1	WG2147373
MTBE	1634-04-4	88.10	0.0647	0.200	0.721	U	U		1	WG2147373
Naphthalene	91-20-3	128	0.350	0.630	3.30	U	U	J4	1	WG2147373
Nonane	111-84-2	128.26	0.0363	0.200	1.05	U	U		1	WG2147373
Pentane	109-66-0	72.15	0.0503	0.200	0.590	0.804	2.37		1	WG2147373
2-Propanol	67-63-0	60.10	0.264	1.25	3.07	0.639	1.57	J	1	WG2147373

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc

Volatile Organic Compounds (MS) by Method TO-15

Analyte	CAS #	Mol. Wt.	MDL1 ppbv	RDL1 ppbv	RDL2 ug/m3	Result ppbv	Result ug/m3	Qualifier	Dilution	Batch
Propene	115-07-1	42.10	0.0932	1.25	2.15	U	U		1	WG2147373
Styrene	100-42-5	104	0.0788	0.200	0.851	0.366	1.56		1	WG2147373
1,1,2,2-Tetrachloroethane	79-34-5	168	0.0743	0.200	1.37	U	U		1	WG2147373
Tetrachloroethylene	127-18-4	166	0.0814	0.200	1.36	U	U		1	WG2147373
Tetrahydrofuran	109-99-9	72.10	0.0734	0.200	0.590	U	U		1	WG2147373
Toluene	108-88-3	92.10	0.0870	0.500	1.88	1.85	6.97		1	WG2147373
1,2,4-Trichlorobenzene	120-82-1	181	0.148	0.630	4.66	U	U	J4	1	WG2147373
1,1,1-Trichloroethane	71-55-6	133	0.0736	0.200	1.09	U	U		1	WG2147373
1,1,2-Trichloroethane	79-00-5	133	0.0775	0.200	1.09	U	U		1	WG2147373
Trichloroethylene	79-01-6	131	0.0680	0.200	1.07	U	U		1	WG2147373
1,2,4-Trimethylbenzene	95-63-6	120	0.0764	0.200	0.982	U	U		1	WG2147373
1,3,5-Trimethylbenzene	108-67-8	120	0.0779	0.200	0.982	U	U		1	WG2147373
2,2,4-Trimethylpentane	540-84-1	114.22	0.133	0.200	0.934	U	U		1	WG2147373
Vinyl chloride	75-01-4	62.50	0.0949	0.200	0.511	U	U		1	WG2147373
Vinyl Bromide	593-60-2	106.95	0.0852	0.200	0.875	U	U		1	WG2147373
Vinyl acetate	108-05-4	86.10	0.116	0.200	0.704	U	U		1	WG2147373
m&p-Xylene	1330-20-7	106	0.135	0.400	1.73	U	U		1	WG2147373
o-Xylene	95-47-6	106	0.0828	0.200	0.867	U	U		1	WG2147373
(S) 1,4-Bromofluorobenzene	460-00-4	175		60.0-140		87.9				WG2147373

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc

Volatile Organic Compounds (MS) by Method TO-15 - TENTATIVELY IDENTIFIED COMPOUNDS

Analyte	CAS #	Mol. Wt.	MDL1 ppbv	RDL1 ppbv	RDL2 ug/m3	Result ppbv	Result ug/m3	Qualifier	Dilution	Batch	RT
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Number of TICs found: 0

Tentatively Identified compounds (TIC) refers to substances not present in the list of target compounds. Therefore, not all TICs are identified and quantitated using individual standards. TIC listings are prepared utilizing a computerized library search routine of electron impact mass spectral data and evaluation of the relevant data by a mass spectral data specialist. Quantitation is accomplished by relative peak area of the TIC compared to that of the nearest internal standard from the total ion chromatogram. TICs are identified and quantitated only if the peak area is 10% or more of that of the nearest internal standard.

Volatile Organic Compounds (MS) by Method TO-15

Analyte	CAS #	Mol. Wt.	MDL1 ppbv	RDL1 ppbv	RDL2 ug/m3	Result ppbv	Result ug/m3	Qualifier	Dilution	Batch
Acetone	67-64-1	58.10	0.584	1.25	2.97	22.8	54.2		1	WG2147373
Acetonitrile	75-05-8	41.05	0.235	5.00	8.39	U	U		1	WG2147373
Acrylonitrile	107-13-1	53	0.226	5.00	10.8	8.87	19.2		1	WG2147373
Allyl chloride	107-05-1	76.53	0.114	0.200	0.626	U	U		1	WG2147373
Benzene	71-43-2	78.10	0.0715	0.200	0.639	0.523	1.67		1	WG2147373
Benzyl Chloride	100-44-7	127	0.0598	0.200	1.04	U	U		1	WG2147373
Bromodichloromethane	75-27-4	164	0.0702	0.200	1.34	U	U		1	WG2147373
Bromoform	75-25-2	253	0.0732	0.600	6.21	U	U		1	WG2147373
Bromomethane	74-83-9	94.90	0.0982	0.200	0.776	U	U		1	WG2147373
Bromoethane	74-96-4	108.97	0.216	5.00	22.3	U	U		1	WG2147373
1,3-Butadiene	106-99-0	54.10	0.104	2.00	4.43	U	U		1	WG2147373
Butane	106-97-8	58	0.0522	0.200	0.474	0.274	0.650		1	WG2147373
Carbon disulfide	75-15-0	76.10	0.102	0.200	0.622	0.145	0.451	J	1	WG2147373
Carbon tetrachloride	56-23-5	154	0.0732	0.200	1.26	U	U		1	WG2147373
Chlorobenzene	108-90-7	113	0.0832	0.200	0.924	U	U		1	WG2147373
Chloroethane	75-00-3	64.50	0.0996	0.200	0.528	0.178	0.470	J	1	WG2147373
Chloroform	67-66-3	119	0.0717	0.200	0.973	U	U		1	WG2147373
Chloromethane	74-87-3	50.50	0.103	0.200	0.413	0.517	1.07		1	WG2147373
2-Chlorotoluene	95-49-8	126	0.0828	0.200	1.03	U	U		1	WG2147373
Cyclohexane	110-82-7	84.20	0.0753	0.200	0.689	U	U		1	WG2147373
n-Decane	124-18-5	142.28	0.0784	0.200	1.16	U	U		1	WG2147373
Dibromochloromethane	124-48-1	208	0.0727	0.200	1.70	U	U		1	WG2147373
1,2-Dibromoethane	106-93-4	188	0.0721	0.200	1.54	U	U		1	WG2147373
1,2-Dichlorobenzene	95-50-1	147	0.128	0.200	1.20	U	U		1	WG2147373
1,3-Dichlorobenzene	541-73-1	147	0.182	0.200	1.20	U	U		1	WG2147373
1,4-Dichlorobenzene	106-46-7	147	0.0557	0.200	1.20	U	U		1	WG2147373
1,2-Dichloroethane	107-06-2	99	0.0700	0.200	0.810	U	U		1	WG2147373
1,1-Dichloroethane	75-34-3	98	0.0723	0.200	0.802	U	U		1	WG2147373
1,1-Dichloroethene	75-35-4	96.90	0.0762	0.200	0.793	U	U		1	WG2147373
cis-1,2-Dichloroethene	156-59-2	96.90	0.0784	0.200	0.793	U	U		1	WG2147373
trans-1,2-Dichloroethene	156-60-5	96.90	0.0673	0.200	0.793	U	U		1	WG2147373
1,2-Dichloropropane	78-87-5	113	0.0760	0.200	0.924	U	U		1	WG2147373
cis-1,3-Dichloropropene	10061-01-5	111	0.0689	0.200	0.908	U	U		1	WG2147373
trans-1,3-Dichloropropene	10061-02-6	111	0.0728	0.200	0.908	U	U		1	WG2147373
1,4-Dioxane	123-91-1	88.10	0.0833	0.200	0.721	U	U		1	WG2147373
Ethanol	64-17-5	46.10	0.265	2.50	4.71	37.6	70.9		1	WG2147373
Ethylbenzene	100-41-4	106	0.0835	0.200	0.867	U	U		1	WG2147373
4-Ethyltoluene	622-96-8	120	0.0783	0.200	0.982	U	U		1	WG2147373
Trichlorofluoromethane	75-69-4	137.40	0.0819	0.200	1.12	0.183	1.03	J	1	WG2147373
Dichlorodifluoromethane	75-71-8	120.92	0.137	0.200	0.989	0.421	2.08		1	WG2147373
1,1,2-Trichlorotrifluoroethane	76-13-1	187.40	0.0793	0.200	1.53	U	U		1	WG2147373
1,2-Dichlorotetrafluoroethane	76-14-2	171	0.0890	0.200	1.40	U	U		1	WG2147373
Heptane	142-82-5	100	0.104	0.200	0.818	0.114	0.466	J	1	WG2147373
Hexachloro-1,3-butadiene	87-68-3	261	0.105	0.630	6.73	U	U		1	WG2147373
n-Hexane	110-54-3	86.20	0.206	0.630	2.22	U	U		1	WG2147373
Isopropylbenzene	98-82-8	120.20	0.0777	0.200	0.983	U	U		1	WG2147373
Methylene Chloride	75-09-2	84.90	0.0979	0.200	0.694	0.167	0.580	J	1	WG2147373
Methyl Butyl Ketone	591-78-6	100	0.133	1.25	5.11	U	U		1	WG2147373
2-Butanone (MEK)	78-93-3	72.10	0.0814	1.25	3.69	0.688	2.03	J	1	WG2147373
4-Methyl-2-pentanone (MIBK)	108-10-1	100.10	0.0765	1.25	5.12	U	U		1	WG2147373
Methyl methacrylate	80-62-6	100.12	0.0876	0.200	0.819	U	U		1	WG2147373
MTBE	1634-04-4	88.10	0.0647	0.200	0.721	U	U		1	WG2147373
Naphthalene	91-20-3	128	0.350	0.630	3.30	U	U	J4	1	WG2147373
Nonane	111-84-2	128.26	0.0363	0.200	1.05	U	U		1	WG2147373
Pentane	109-66-0	72.15	0.0503	0.200	0.590	0.306	0.903		1	WG2147373
2-Propanol	67-63-0	60.10	0.264	1.25	3.07	0.511	1.26	J	1	WG2147373

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc

Volatile Organic Compounds (MS) by Method TO-15

Analyte	CAS #	Mol. Wt.	MDL1 ppbv	RDL1 ppbv	RDL2 ug/m3	Result ppbv	Result ug/m3	Qualifier	Dilution	Batch
Propene	115-07-1	42.10	0.0932	1.25	2.15	U	U		1	WG2147373
Styrene	100-42-5	104	0.0788	0.200	0.851	U	U		1	WG2147373
1,1,2,2-Tetrachloroethane	79-34-5	168	0.0743	0.200	1.37	U	U		1	WG2147373
Tetrachloroethylene	127-18-4	166	0.0814	0.200	1.36	U	U		1	WG2147373
Tetrahydrofuran	109-99-9	72.10	0.0734	0.200	0.590	U	U		1	WG2147373
Toluene	108-88-3	92.10	0.0870	0.500	1.88	2.04	7.68		1	WG2147373
1,2,4-Trichlorobenzene	120-82-1	181	0.148	0.630	4.66	U	U	J4	1	WG2147373
1,1,1-Trichloroethane	71-55-6	133	0.0736	0.200	1.09	U	U		1	WG2147373
1,1,2-Trichloroethane	79-00-5	133	0.0775	0.200	1.09	U	U		1	WG2147373
Trichloroethylene	79-01-6	131	0.0680	0.200	1.07	U	U		1	WG2147373
1,2,4-Trimethylbenzene	95-63-6	120	0.0764	0.200	0.982	U	U		1	WG2147373
1,3,5-Trimethylbenzene	108-67-8	120	0.0779	0.200	0.982	U	U		1	WG2147373
2,2,4-Trimethylpentane	540-84-1	114.22	0.133	0.200	0.934	U	U		1	WG2147373
Vinyl chloride	75-01-4	62.50	0.0949	0.200	0.511	U	U		1	WG2147373
Vinyl Bromide	593-60-2	106.95	0.0852	0.200	0.875	U	U		1	WG2147373
Vinyl acetate	108-05-4	86.10	0.116	0.200	0.704	U	U		1	WG2147373
m&p-Xylene	1330-20-7	106	0.135	0.400	1.73	U	U		1	WG2147373
o-Xylene	95-47-6	106	0.0828	0.200	0.867	U	U		1	WG2147373
(S) 1,4-Bromofluorobenzene	460-00-4	175		60.0-140		83.8				WG2147373

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc

Volatile Organic Compounds (MS) by Method TO-15 - TENTATIVELY IDENTIFIED COMPOUNDS

Analyte	CAS #	Mol. Wt.	MDL1 ppbv	RDL1 ppbv	RDL2 ug/m3	Result ppbv	Result ug/m3	Qualifier	Dilution	Batch	RT
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Number of TICs found: 0

Tentatively Identified compounds (TIC) refers to substances not present in the list of target compounds. Therefore, not all TICs are identified and quantitated using individual standards. TIC listings are prepared utilizing a computerized library search routine of electron impact mass spectral data and evaluation of the relevant data by a mass spectral data specialist. Quantitation is accomplished by relative peak area of the TIC compared to that of the nearest internal standard from the total ion chromatogram. TICs are identified and quantitated only if the peak area is 10% or more of that of the nearest internal standard.

Volatile Organic Compounds (MS) by Method TO-15

Analyte	CAS #	Mol. Wt.	MDL1 ppbv	RDL1 ppbv	RDL2 ug/m3	Result ppbv	Result ug/m3	Qualifier	Dilution	Batch
Acetone	67-64-1	58.10	0.584	1.25	2.97	9.63	22.9		1	WG2147373
Acetonitrile	75-05-8	41.05	0.235	5.00	8.39	U	U		1	WG2147373
Acrylonitrile	107-13-1	53	0.226	5.00	10.8	U	U		1	WG2147373
Allyl chloride	107-05-1	76.53	0.114	0.200	0.626	U	U		1	WG2147373
Benzene	71-43-2	78.10	0.0715	0.200	0.639	0.459	1.47		1	WG2147373
Benzyl Chloride	100-44-7	127	0.0598	0.200	1.04	U	U		1	WG2147373
Bromodichloromethane	75-27-4	164	0.0702	0.200	1.34	U	U		1	WG2147373
Bromoform	75-25-2	253	0.0732	0.600	6.21	U	U		1	WG2147373
Bromomethane	74-83-9	94.90	0.0982	0.200	0.776	U	U		1	WG2147373
Bromoethane	74-96-4	108.97	0.216	5.00	22.3	U	U		1	WG2147373
1,3-Butadiene	106-99-0	54.10	0.104	2.00	4.43	U	U		1	WG2147373
Butane	106-97-8	58	0.0522	0.200	0.474	0.278	0.659		1	WG2147373
Carbon disulfide	75-15-0	76.10	0.102	0.200	0.622	0.226	0.703		1	WG2147373
Carbon tetrachloride	56-23-5	154	0.0732	0.200	1.26	U	U		1	WG2147373
Chlorobenzene	108-90-7	113	0.0832	0.200	0.924	U	U		1	WG2147373
Chloroethane	75-00-3	64.50	0.0996	0.200	0.528	0.658	1.74		1	WG2147373
Chloroform	67-66-3	119	0.0717	0.200	0.973	U	U		1	WG2147373
Chloromethane	74-87-3	50.50	0.103	0.200	0.413	0.752	1.55		1	WG2147373
2-Chlorotoluene	95-49-8	126	0.0828	0.200	1.03	U	U		1	WG2147373
Cyclohexane	110-82-7	84.20	0.0753	0.200	0.689	U	U		1	WG2147373
n-Decane	124-18-5	142.28	0.0784	0.200	1.16	U	U		1	WG2147373
Dibromochloromethane	124-48-1	208	0.0727	0.200	1.70	U	U		1	WG2147373
1,2-Dibromoethane	106-93-4	188	0.0721	0.200	1.54	U	U		1	WG2147373
1,2-Dichlorobenzene	95-50-1	147	0.128	0.200	1.20	U	U		1	WG2147373
1,3-Dichlorobenzene	541-73-1	147	0.182	0.200	1.20	U	U		1	WG2147373
1,4-Dichlorobenzene	106-46-7	147	0.0557	0.200	1.20	U	U		1	WG2147373
1,2-Dichloroethane	107-06-2	99	0.0700	0.200	0.810	U	U		1	WG2147373
1,1-Dichloroethane	75-34-3	98	0.0723	0.200	0.802	U	U		1	WG2147373
1,1-Dichloroethene	75-35-4	96.90	0.0762	0.200	0.793	U	U		1	WG2147373
cis-1,2-Dichloroethene	156-59-2	96.90	0.0784	0.200	0.793	U	U		1	WG2147373
trans-1,2-Dichloroethene	156-60-5	96.90	0.0673	0.200	0.793	U	U		1	WG2147373
1,2-Dichloropropane	78-87-5	113	0.0760	0.200	0.924	U	U		1	WG2147373
cis-1,3-Dichloropropene	10061-01-5	111	0.0689	0.200	0.908	U	U		1	WG2147373
trans-1,3-Dichloropropene	10061-02-6	111	0.0728	0.200	0.908	U	U		1	WG2147373
1,4-Dioxane	123-91-1	88.10	0.0833	0.200	0.721	U	U		1	WG2147373
Ethanol	64-17-5	46.10	0.265	2.50	4.71	65.0	123		1	WG2147373
Ethylbenzene	100-41-4	106	0.0835	0.200	0.867	U	U		1	WG2147373
4-Ethyltoluene	622-96-8	120	0.0783	0.200	0.982	U	U		1	WG2147373
Trichlorofluoromethane	75-69-4	137.40	0.0819	0.200	1.12	0.193	1.08	J	1	WG2147373
Dichlorodifluoromethane	75-71-8	120.92	0.137	0.200	0.989	0.447	2.21		1	WG2147373
1,1,2-Trichlorotrifluoroethane	76-13-1	187.40	0.0793	0.200	1.53	U	U		1	WG2147373
1,2-Dichlorotetrafluoroethane	76-14-2	171	0.0890	0.200	1.40	U	U		1	WG2147373
Heptane	142-82-5	100	0.104	0.200	0.818	0.152	0.622	J	1	WG2147373
Hexachloro-1,3-butadiene	87-68-3	261	0.105	0.630	6.73	U	U		1	WG2147373
n-Hexane	110-54-3	86.20	0.206	0.630	2.22	U	U		1	WG2147373
Isopropylbenzene	98-82-8	120.20	0.0777	0.200	0.983	U	U		1	WG2147373
Methylene Chloride	75-09-2	84.90	0.0979	0.200	0.694	0.125	0.434	J	1	WG2147373
Methyl Butyl Ketone	591-78-6	100	0.133	1.25	5.11	U	U		1	WG2147373
2-Butanone (MEK)	78-93-3	72.10	0.0814	1.25	3.69	0.801	2.36	J	1	WG2147373
4-Methyl-2-pentanone (MIBK)	108-10-1	100.10	0.0765	1.25	5.12	U	U		1	WG2147373
Methyl methacrylate	80-62-6	100.12	0.0876	0.200	0.819	U	U		1	WG2147373
MTBE	1634-04-4	88.10	0.0647	0.200	0.721	U	U		1	WG2147373
Naphthalene	91-20-3	128	0.350	0.630	3.30	U	U	J4	1	WG2147373
Nonane	111-84-2	128.26	0.0363	0.200	1.05	U	U		1	WG2147373
Pentane	109-66-0	72.15	0.0503	0.200	0.590	0.195	0.575	J	1	WG2147373
2-Propanol	67-63-0	60.10	0.264	1.25	3.07	0.922	2.27	J	1	WG2147373

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc

Volatile Organic Compounds (MS) by Method TO-15

Analyte	CAS #	Mol. Wt.	MDL1 ppbv	RDL1 ppbv	RDL2 ug/m3	Result ppbv	Result ug/m3	Qualifier	Dilution	Batch
Propene	115-07-1	42.10	0.0932	1.25	2.15	U	U		1	WG2147373
Styrene	100-42-5	104	0.0788	0.200	0.851	0.176	0.749	J	1	WG2147373
1,1,2,2-Tetrachloroethane	79-34-5	168	0.0743	0.200	1.37	U	U		1	WG2147373
Tetrachloroethylene	127-18-4	166	0.0814	0.200	1.36	U	U		1	WG2147373
Tetrahydrofuran	109-99-9	72.10	0.0734	0.200	0.590	U	U		1	WG2147373
Toluene	108-88-3	92.10	0.0870	0.500	1.88	1.71	6.44		1	WG2147373
1,2,4-Trichlorobenzene	120-82-1	181	0.148	0.630	4.66	U	U	J4	1	WG2147373
1,1,1-Trichloroethane	71-55-6	133	0.0736	0.200	1.09	U	U		1	WG2147373
1,1,2-Trichloroethane	79-00-5	133	0.0775	0.200	1.09	U	U		1	WG2147373
Trichloroethylene	79-01-6	131	0.0680	0.200	1.07	U	U		1	WG2147373
1,2,4-Trimethylbenzene	95-63-6	120	0.0764	0.200	0.982	U	U		1	WG2147373
1,3,5-Trimethylbenzene	108-67-8	120	0.0779	0.200	0.982	U	U		1	WG2147373
2,2,4-Trimethylpentane	540-84-1	114.22	0.133	0.200	0.934	U	U		1	WG2147373
Vinyl chloride	75-01-4	62.50	0.0949	0.200	0.511	U	U		1	WG2147373
Vinyl Bromide	593-60-2	106.95	0.0852	0.200	0.875	U	U		1	WG2147373
Vinyl acetate	108-05-4	86.10	0.116	0.200	0.704	U	U		1	WG2147373
m&p-Xylene	1330-20-7	106	0.135	0.400	1.73	U	U		1	WG2147373
o-Xylene	95-47-6	106	0.0828	0.200	0.867	U	U		1	WG2147373
(S) 1,4-Bromofluorobenzene	460-00-4	175		60.0-140		85.0				WG2147373

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc

Volatile Organic Compounds (MS) by Method TO-15 - TENTATIVELY IDENTIFIED COMPOUNDS

Analyte	CAS #	Mol. Wt.	MDL1 ppbv	RDL1 ppbv	RDL2 ug/m3	Result ppbv	Result ug/m3	Qualifier	Dilution	Batch	RT
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Number of TICs found: 0

Tentatively Identified compounds (TIC) refers to substances not present in the list of target compounds. Therefore, not all TICs are identified and quantitated using individual standards. TIC listings are prepared utilizing a computerized library search routine of electron impact mass spectral data and evaluation of the relevant data by a mass spectral data specialist. Quantitation is accomplished by relative peak area of the TIC compared to that of the nearest internal standard from the total ion chromatogram. TICs are identified and quantitated only if the peak area is 10% or more of that of the nearest internal standard.

Method Blank (MB)

(MB) R3984901-2 10/08/23 12:28

Analyte	MB Result ppbv	MB Qualifier	MB MDL ppbv	MB RDL ppbv
Acetone	U		0.584	1.25
Acetonitrile	U		0.235	5.00
Acrylonitrile	U		0.226	5.00
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
Bromoethane	U		0.216	5.00
1,3-Butadiene	U		0.104	2.00
Butane	U		0.0522	0.200
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
n-Decane	U		0.0784	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
Ethanol	0.351	U	0.265	2.50
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

¹Cp

²Tc

³Ss

⁴Cn

⁵Sr

⁶Qc

⁷Gl

⁸Al

⁹Sc

Method Blank (MB)

(MB) R3984901-2 10/08/23 12:28

Analyte	MB Result ppbv	MB Qualifier	MB MDL ppbv	MB RDL ppbv
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
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
Nonane	U		0.0363	0.200
Pentane	U		0.0503	0.200
2-Propanol	U		0.264	1.25
Propene	U		0.0932	1.25
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
(S) 1,4-Bromofluorobenzene	76.6			60.0-140

¹Cp

²Tc

³Ss

⁴Cn

⁵Sr

⁶Qc

⁷Gl

⁸Al

⁹Sc

Method Blank (MB) - TENTATIVELY IDENTIFIED COMPOUNDS

(MB) R3984901-2 10/08/23 12:28

Analyte	MB Result ppbv	MB Qualifier	MB MDL ppbv	MB RDL ppbv	CAS #
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Number of TICs found: 0

Tentatively Identified compounds (TIC) refers to substances not present in the list of target compounds. Therefore, not all TICs are identified and quantitated using individual standards. TIC listings are prepared utilizing a computerized library search routine of electron impact mass spectral data and evaluation of the relevant data by a mass spectral data specialist. Quantitation is accomplished by relative peak area of the TIC compared to that of the nearest internal standard from the total ion chromatogram. TICs are identified and quantitated only if the peak area is 10% or more of that of the nearest internal standard.

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

(LCS) R3984901-1 10/08/23 09:23 • (LCSD) R3984901-3 10/08/23 13:00

Analyte	Spike Amount ppbv	LCS Result ppbv	LCSD Result ppbv	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Acetone	3.75	3.65	3.88	97.3	103	70.0-130			6.11	25
Acetonitrile	18.8	18.9	19.6	101	104	70.0-130			3.64	25
Acrylonitrile	3.75	3.67	3.84	97.9	102	70.0-130			4.53	25
Allyl chloride	3.75	3.09	3.26	82.4	86.9	70.0-130			5.35	25
Benzene	3.75	3.37	3.43	89.9	91.5	70.0-130			1.76	25
Benzyl Chloride	3.75	3.47	3.58	92.5	95.5	70.0-152			3.12	25
Bromodichloromethane	3.75	3.07	3.18	81.9	84.8	70.0-130			3.52	25
Bromoform	3.75	3.46	3.48	92.3	92.8	70.0-130			0.576	25
Bromomethane	3.75	3.56	3.65	94.9	97.3	70.0-130			2.50	25
Bromoethane	3.75	3.48	3.62	92.8	96.5	70.0-130			3.94	25
1,3-Butadiene	3.75	3.21	3.41	85.6	90.9	70.0-130			6.04	25
Butane	3.75	3.39	3.51	90.4	93.6	70.0-130			3.48	25
Carbon disulfide	3.75	3.63	3.77	96.8	101	70.0-130			3.78	25
Carbon tetrachloride	3.75	3.36	3.49	89.6	93.1	70.0-130			3.80	25
Chlorobenzene	3.75	3.44	3.58	91.7	95.5	70.0-130			3.99	25
Chloroethane	3.75	3.49	3.65	93.1	97.3	70.0-130			4.48	25
Chloroform	3.75	3.44	3.55	91.7	94.7	70.0-130			3.15	25
Chloromethane	3.75	3.39	3.52	90.4	93.9	70.0-130			3.76	25
2-Chlorotoluene	3.75	3.42	3.51	91.2	93.6	70.0-130			2.60	25
Cyclohexane	3.75	3.21	3.34	85.6	89.1	70.0-130			3.97	25
n-Decane	3.75	3.29	3.46	87.7	92.3	70.0-130			5.04	25
Dibromochloromethane	3.75	3.31	3.43	88.3	91.5	70.0-130			3.56	25
1,2-Dibromoethane	3.75	3.30	3.40	88.0	90.7	70.0-130			2.99	25
1,2-Dichlorobenzene	3.75	3.63	3.72	96.8	99.2	70.0-130			2.45	25
1,3-Dichlorobenzene	3.75	3.72	3.77	99.2	101	70.0-130			1.34	25
1,4-Dichlorobenzene	3.75	3.76	3.87	100	103	70.0-130			2.88	25
1,2-Dichloroethane	3.75	2.86	2.98	76.3	79.5	70.0-130			4.11	25
1,1-Dichloroethane	3.75	3.49	3.65	93.1	97.3	70.0-130			4.48	25
1,1-Dichloroethene	3.75	3.44	3.55	91.7	94.7	70.0-130			3.15	25
cis-1,2-Dichloroethene	3.75	3.13	3.32	83.5	88.5	70.0-130			5.89	25

¹Cp

²Tc

³Ss

⁴Cn

⁵Sr

⁶Qc

⁷Gl

⁸Al

⁹Sc

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

(LCS) R3984901-1 10/08/23 09:23 • (LCSD) R3984901-3 10/08/23 13:00

Analyte	Spike Amount ppbv	LCS Result ppbv	LCSD Result ppbv	LCS Rec. %	LCSD Rec. %	Rec. Limits %	<u>LCS Qualifier</u>	<u>LCSD Qualifier</u>	RPD %	RPD Limits %
trans-1,2-Dichloroethene	3.75	3.21	3.33	85.6	88.8	70.0-130			3.67	25
1,2-Dichloropropane	3.75	3.09	3.16	82.4	84.3	70.0-130			2.24	25
cis-1,3-Dichloropropene	3.75	2.63	2.69	70.1	71.7	70.0-130			2.26	25
trans-1,3-Dichloropropene	3.75	3.01	3.04	80.3	81.1	70.0-130			0.992	25
1,4-Dioxane	3.75	2.87	2.80	76.5	74.7	70.0-140			2.47	25
Ethanol	3.75	3.83	3.82	102	102	55.0-148			0.261	25
Ethylbenzene	3.75	3.37	3.37	89.9	89.9	70.0-130			0.000	25
4-Ethyltoluene	3.75	3.68	3.66	98.1	97.6	70.0-130			0.545	25
Trichlorofluoromethane	3.75	3.44	3.69	91.7	98.4	70.0-130			7.01	25
Dichlorodifluoromethane	3.75	3.54	3.64	94.4	97.1	64.0-139			2.79	25
1,1,2-Trichlorotrifluoroethane	3.75	3.52	3.74	93.9	99.7	70.0-130			6.06	25
1,2-Dichlorotetrafluoroethane	3.75	3.68	3.90	98.1	104	70.0-130			5.80	25
Heptane	3.75	2.87	2.92	76.5	77.9	70.0-130			1.73	25
Hexachloro-1,3-butadiene	3.75	3.73	3.81	99.5	102	70.0-151			2.12	25
n-Hexane	3.75	3.24	3.35	86.4	89.3	70.0-130			3.34	25
Isopropylbenzene	3.75	3.60	3.64	96.0	97.1	70.0-130			1.10	25
Methylene Chloride	3.75	3.28	3.42	87.5	91.2	70.0-130			4.18	25
Methyl Butyl Ketone	3.75	2.65	2.74	70.7	73.1	70.0-149			3.34	25
2-Butanone (MEK)	3.75	3.36	3.56	89.6	94.9	70.0-130			5.78	25
4-Methyl-2-pentanone (MIBK)	3.75	2.95	3.02	78.7	80.5	70.0-139			2.35	25
Methyl methacrylate	3.75	3.02	3.10	80.5	82.7	70.0-130			2.61	25
MTBE	3.75	3.27	3.43	87.2	91.5	70.0-130			4.78	25
Naphthalene	3.75	2.72	2.62	72.5	69.9	70.0-159		J4	3.75	25
Nonane	3.75	3.14	3.24	83.7	86.4	70.0-130			3.13	25
Pentane	3.75	3.56	3.69	94.9	98.4	70.0-130			3.59	25
2-Propanol	3.75	3.61	3.76	96.3	100	70.0-139			4.07	25
Propene	3.75	3.49	3.47	93.1	92.5	64.0-144			0.575	25
Styrene	3.75	3.39	3.48	90.4	92.8	70.0-130			2.62	25
1,1,2,2-Tetrachloroethane	3.75	3.58	3.67	95.5	97.9	70.0-130			2.48	25
Tetrachloroethylene	3.75	3.33	3.58	88.8	95.5	70.0-130			7.24	25
Tetrahydrofuran	3.75	2.90	3.02	77.3	80.5	70.0-137			4.05	25
Toluene	3.75	3.24	3.30	86.4	88.0	70.0-130			1.83	25
1,2,4-Trichlorobenzene	3.75	2.52	2.49	67.2	66.4	70.0-160	J4	J4	1.20	25
1,1,1-Trichloroethane	3.75	3.24	3.34	86.4	89.1	70.0-130			3.04	25
1,1,2-Trichloroethane	3.75	3.36	3.60	89.6	96.0	70.0-130			6.90	25
Trichloroethylene	3.75	3.20	3.26	85.3	86.9	70.0-130			1.86	25
1,2,4-Trimethylbenzene	3.75	3.62	3.69	96.5	98.4	70.0-130			1.92	25
1,3,5-Trimethylbenzene	3.75	3.56	3.76	94.9	100	70.0-130			5.46	25
2,2,4-Trimethylpentane	3.75	3.46	3.59	92.3	95.7	70.0-130			3.69	25
Vinyl chloride	3.75	3.63	3.77	96.8	101	70.0-130			3.78	25

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc

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

(LCS) R3984901-1 10/08/23 09:23 • (LCSD) R3984901-3 10/08/23 13:00

Analyte	Spike Amount ppbv	LCS Result ppbv	LCSD Result ppbv	LCS Rec. %	LCSD Rec. %	Rec. Limits %	<u>LCS Qualifier</u>	<u>LCSD Qualifier</u>	RPD %	RPD Limits %
Vinyl Bromide	3.75	3.60	3.82	96.0	102	70.0-130			5.93	25
Vinyl acetate	3.75	3.02	3.08	80.5	82.1	70.0-130			1.97	25
m&p-Xylene	7.50	7.01	7.13	93.5	95.1	70.0-130			1.70	25
o-Xylene	3.75	3.51	3.69	93.6	98.4	70.0-130			5.00	25
(S) 1,4-Bromofluorobenzene				92.5	94.6	60.0-140				

1
Cp

2
Tc

3
Ss

4
Cn

5
Sr

6
Qc

7
Gl

8
Al

9
Sc

GLOSSARY OF TERMS

Guide to Reading and Understanding Your Laboratory Report

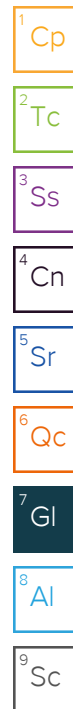
The information below is designed to better explain the various terms used in your report of analytical results from the Laboratory. This is not intended as a comprehensive explanation, and if you have additional questions please contact your project representative.

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.
RDL	Reported Detection Limit.
Rec.	Recovery.
RT	Retention Time.
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
J	The identification of the analyte is acceptable; the reported value is an estimate.
J4	The associated batch QC was outside the established quality control range for accuracy.



ACCREDITATIONS & LOCATIONS

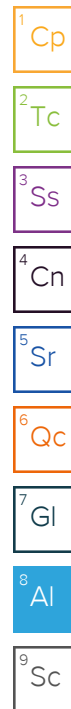
Pace Analytical National 12065 Lebanon Rd Mount Juliet, TN 37122

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	LA000356
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

* 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 Analytical.





CHAIN OF CUSTODY AND ANALYSIS REQUEST FORM

M090

Send Report to jt.wilson@cteh.com; lclawitter@cteh.com
Company CTEH, LLC
Address 5120 North Shore Drive, North Little Rock, Arkansas 72118
Phone (501)801-8500
e-mail labresults@cteh.com;
Accounting Send invoices to CTEHAP@montrose-env.com with Invoice # and Vendor name in subject line

CTEH Project # 031332Turnaround Requested: ☐ Normal ☐ Same Day ☐ Next Day☒ Two Day ☐ Other (Specify) _____Data Packet Requested: ☒ Standard Level II ☐ Other _____

Sample and Extract Retention/Disposal:

Dispose after 2X hold time ☒Retain w/ storage fees after 2X hold time ☐UL64005

Lab Contact Information									Method				Matrix
Primary Sample Identification	Secondary Sample Identification	Sample Size	Units	Sample Start Date	Sample Start Time	Sample Stop Date	Sample Stop Time	Initials	TD-15 + TICS				A = air B = bulk S = soil SW = wipe T = tape W = water
MEID1003MC01	MC01	1.4	L	10/4/23	0008	10/4/23	2235	KD	X				A -01
MEID1003-KD													A-KD
MEID1003MC02	MC02	1.4	L	10/3/23	2312	10/4/23	2325	KD	X				A-02
MEID1003MC04	MC04	1.4	L	10/3/23	2136	10/4/23	2140	KD	X				A-03
MEID1003MC03	MC03	1.4	L	10/3/23	2212	10/4/23	2341	KD	X				A-04
<div>Sample Receipt Checklist</div> <div><div>COC Seal Present/Intact: <input checked="" type="checkbox"/> Y <input type="checkbox"/> N</div><div>COC Signed/Accurate: <input checked="" type="checkbox"/> Y <input type="checkbox"/> N</div><div>Bottles arrive intact: <input checked="" type="checkbox"/> Y <input type="checkbox"/> N</div><div>Correct bottles used: <input checked="" type="checkbox"/> Y <input type="checkbox"/> N</div><div>Sufficient volume sent: <input checked="" type="checkbox"/> Y <input type="checkbox"/> N</div><div>RA Screen <0.5 mR/hr: <input checked="" type="checkbox"/> Y <input type="checkbox"/> N</div></div> <div>If Applicable</div> <div><div>VOA Zero Headspace: <input type="checkbox"/> Y <input checked="" type="checkbox"/> N</div><div>Pres. Correct/Check: <input type="checkbox"/> Y <input checked="" type="checkbox"/> N</div></div>													

RELINQUISHED BY	DATE/TIME	RECEIVED BY	DATE/TIME	COMMENTS
Kimberly Ddem	10/6/2023	Elmer White	10/7 0900	

10/7-NCF-L1664005 CTEHER

R5

Time estimate: 0h

Time spent: 0h

Members

 Hailey Melson (responsible)  JS Jared Starkey

Due on 11 October 2023 8:00 AM for target Done

- ☒ Login Clarification needed
- ☐ Chain of custody is incomplete
- ☐ Please specify Metals requested
- ☐ Please specify TCLP requested
- ☐ Received additional samples not listed on COC
- ☐ Sample IDs on containers do not match IDs on COC
- ☐ Client did not "X" analysis
- ☐ Chain of Custody is missing
- ☐ If no COC: Received by: _____
- ☐ If no COC: Date/Time: _____
- ☐ If no COC: Temp./Cont.Rec./pH: _____
- ☐ If no COC: Carrier: _____
- ☐ If no COC: Tracking #: _____
- ☐ Client informed by call
- ☐ Client informed by Email
- ☐ Client informed by Voicemail
- ☐ Date/Time: _____
- ☐ PM initials: _____
- ☐ Client Contact: _____

Comments

Hailey Melson 7 October 2023 12:47 PM
Received 2 canisters with ID: MEID1003MCo3 written on them but no canister for ID: MEID1003MCo2. One canister has time 2325 and the other has 2341. Currently logged per the times on the canisters. 2325 (MEID1003MC2), 2341 (MEID1003MCo3).

Jared Starkey 9 October 2023 11:35 AM
Continue as logged

Hailey Melson 10 October 2023 8:06 AM
Done

CTEH - ER

Sample Delivery Group: L1664006

Samples Received: 10/07/2023

Project Number: 031332

Description:

Report To: CTEH
5120 North Shore Drive
North Little Rock, AR 72118

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 National12065 Lebanon Rd Mount Juliet, TN 37122 615-758-5858 800-767-5859 www.pacenational.com

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Cn: Case Narrative	4	
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SAMPLE SUMMARY

MEID1004MC01 L1664006-01 Air

				Collected by KD	Collected date/time 10/05/23 23:21	Received date/time 10/07/23 09:00
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (MS) by Method TO-15	WG2147373	1	10/08/23 17:23	10/08/23 17:23	SDS	Mt. Juliet, TN

MEID1004MC02 L1664006-02 Air

				Collected by KD	Collected date/time 10/05/23 23:29	Received date/time 10/07/23 09:00
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (MS) by Method TO-15	WG2147373	1	10/08/23 17:54	10/08/23 17:54	SDS	Mt. Juliet, TN

MEID1004MC03 L1664006-03 Air

				Collected by KD	Collected date/time 10/05/23 23:41	Received date/time 10/07/23 09:00
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (MS) by Method TO-15	WG2147373	1	10/08/23 18:25	10/08/23 18:25	SDS	Mt. Juliet, TN

MEID1004MC04 L1664006-04 Air

				Collected by KD	Collected date/time 10/05/23 23:12	Received date/time 10/07/23 09:00
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (MS) by Method TO-15	WG2147373	1	10/08/23 18:56	10/08/23 18:56	SDS	Mt. Juliet, TN

MEID1004MC05 L1664006-05 Air

				Collected by KD	Collected date/time 10/06/23 01:35	Received date/time 10/07/23 09:00
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (MS) by Method TO-15	WG2147373	1	10/08/23 19:26	10/08/23 19:26	SDS	Mt. Juliet, TN

¹ Cp

² Tc

³ Ss

⁴ Cn

⁵ Sr

⁶ Qc

⁷ Gl

⁸ Al

⁹ Sc

CASE NARRATIVE

Unless qualified or notated within the narrative below, all sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times. 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

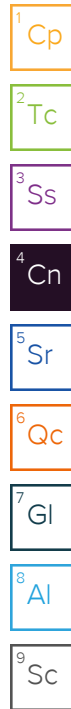
Volatile Organic Compounds (MS) by Method TO-15

The analyte concentration exceeds the upper limit of the calibration range of the instrument established by the initial calibration (ICAL).

Batch	Lab Sample ID	Analytes
WG2147373	L1664006-02	Ethanol

The associated batch QC was below the established quality control range for accuracy.

Batch	Lab Sample ID	Analytes
WG2147373	(LCS) R3984901-1, (LCSD) R3984901-3, L1664006-01, 02, 03, 04, 05	1,2,4-Trichlorobenzene and Naphthalene



Volatile Organic Compounds (MS) by Method TO-15

Analyte	CAS #	Mol. Wt.	MDL1 ppbv	RDL1 ppbv	RDL2 ug/m3	Result ppbv	Result ug/m3	Qualifier	Dilution	Batch
Acetone	67-64-1	58.10	0.584	1.25	2.97	22.1	52.5		1	WG2147373
Acetonitrile	75-05-8	41.05	0.235	5.00	8.39	U	U		1	WG2147373
Acrylonitrile	107-13-1	53	0.226	5.00	10.8	U	U		1	WG2147373
Allyl chloride	107-05-1	76.53	0.114	0.200	0.626	U	U		1	WG2147373
Benzene	71-43-2	78.10	0.0715	0.200	0.639	0.560	1.79		1	WG2147373
Benzyl Chloride	100-44-7	127	0.0598	0.200	1.04	U	U		1	WG2147373
Bromodichloromethane	75-27-4	164	0.0702	0.200	1.34	U	U		1	WG2147373
Bromoform	75-25-2	253	0.0732	0.600	6.21	U	U		1	WG2147373
Bromomethane	74-83-9	94.90	0.0982	0.200	0.776	U	U		1	WG2147373
Bromoethane	74-96-4	108.97	0.216	5.00	22.3	0.240	1.07	J	1	WG2147373
1,3-Butadiene	106-99-0	54.10	0.104	2.00	4.43	U	U		1	WG2147373
Butane	106-97-8	58	0.0522	0.200	0.474	0.320	0.759		1	WG2147373
Carbon disulfide	75-15-0	76.10	0.102	0.200	0.622	0.381	1.19		1	WG2147373
Carbon tetrachloride	56-23-5	154	0.0732	0.200	1.26	U	U		1	WG2147373
Chlorobenzene	108-90-7	113	0.0832	0.200	0.924	U	U		1	WG2147373
Chloroethane	75-00-3	64.50	0.0996	0.200	0.528	0.919	2.42		1	WG2147373
Chloroform	67-66-3	119	0.0717	0.200	0.973	U	U		1	WG2147373
Chloromethane	74-87-3	50.50	0.103	0.200	0.413	0.860	1.78		1	WG2147373
2-Chlorotoluene	95-49-8	126	0.0828	0.200	1.03	U	U		1	WG2147373
Cyclohexane	110-82-7	84.20	0.0753	0.200	0.689	U	U		1	WG2147373
n-Decane	124-18-5	142.28	0.0784	0.200	1.16	U	U		1	WG2147373
Dibromochloromethane	124-48-1	208	0.0727	0.200	1.70	U	U		1	WG2147373
1,2-Dibromoethane	106-93-4	188	0.0721	0.200	1.54	U	U		1	WG2147373
1,2-Dichlorobenzene	95-50-1	147	0.128	0.200	1.20	U	U		1	WG2147373
1,3-Dichlorobenzene	541-73-1	147	0.182	0.200	1.20	U	U		1	WG2147373
1,4-Dichlorobenzene	106-46-7	147	0.0557	0.200	1.20	U	U		1	WG2147373
1,2-Dichloroethane	107-06-2	99	0.0700	0.200	0.810	U	U		1	WG2147373
1,1-Dichloroethane	75-34-3	98	0.0723	0.200	0.802	U	U		1	WG2147373
1,1-Dichloroethene	75-35-4	96.90	0.0762	0.200	0.793	U	U		1	WG2147373
cis-1,2-Dichloroethene	156-59-2	96.90	0.0784	0.200	0.793	U	U		1	WG2147373
trans-1,2-Dichloroethene	156-60-5	96.90	0.0673	0.200	0.793	U	U		1	WG2147373
1,2-Dichloropropane	78-87-5	113	0.0760	0.200	0.924	U	U		1	WG2147373
cis-1,3-Dichloropropene	10061-01-5	111	0.0689	0.200	0.908	0.236	1.07		1	WG2147373
trans-1,3-Dichloropropene	10061-02-6	111	0.0728	0.200	0.908	0.394	1.79		1	WG2147373
1,4-Dioxane	123-91-1	88.10	0.0833	0.200	0.721	U	U		1	WG2147373
Ethanol	64-17-5	46.10	0.265	2.50	4.71	67.3	127		1	WG2147373
Ethylbenzene	100-41-4	106	0.0835	0.200	0.867	U	U		1	WG2147373
4-Ethyltoluene	622-96-8	120	0.0783	0.200	0.982	U	U		1	WG2147373
Trichlorofluoromethane	75-69-4	137.40	0.0819	0.200	1.12	0.197	1.11	J	1	WG2147373
Dichlorodifluoromethane	75-71-8	120.92	0.137	0.200	0.989	0.444	2.20		1	WG2147373
1,1,2-Trichlorotrifluoroethane	76-13-1	187.40	0.0793	0.200	1.53	U	U		1	WG2147373
1,2-Dichlorotetrafluoroethane	76-14-2	171	0.0890	0.200	1.40	U	U		1	WG2147373
Heptane	142-82-5	100	0.104	0.200	0.818	0.203	0.830		1	WG2147373
Hexachloro-1,3-butadiene	87-68-3	261	0.105	0.630	6.73	U	U		1	WG2147373
n-Hexane	110-54-3	86.20	0.206	0.630	2.22	U	U		1	WG2147373
Isopropylbenzene	98-82-8	120.20	0.0777	0.200	0.983	0.134	0.659	J	1	WG2147373
Methylene Chloride	75-09-2	84.90	0.0979	0.200	0.694	0.151	0.524	J	1	WG2147373
Methyl Butyl Ketone	591-78-6	100	0.133	1.25	5.11	U	U		1	WG2147373
2-Butanone (MEK)	78-93-3	72.10	0.0814	1.25	3.69	0.996	2.94	J	1	WG2147373
4-Methyl-2-pentanone (MIBK)	108-10-1	100.10	0.0765	1.25	5.12	U	U		1	WG2147373
Methyl methacrylate	80-62-6	100.12	0.0876	0.200	0.819	U	U		1	WG2147373
MTBE	1634-04-4	88.10	0.0647	0.200	0.721	U	U		1	WG2147373
Naphthalene	91-20-3	128	0.350	0.630	3.30	U	U	J4	1	WG2147373
Nonane	111-84-2	128.26	0.0363	0.200	1.05	U	U		1	WG2147373
Pentane	109-66-0	72.15	0.0503	0.200	0.590	0.251	0.741		1	WG2147373
2-Propanol	67-63-0	60.10	0.264	1.25	3.07	1.32	3.24		1	WG2147373

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc

Volatile Organic Compounds (MS) by Method TO-15

Analyte	CAS #	Mol. Wt.	MDL1 ppbv	RDL1 ppbv	RDL2 ug/m3	Result ppbv	Result ug/m3	Qualifier	Dilution	Batch
Propene	115-07-1	42.10	0.0932	1.25	2.15	U	U		1	WG2147373
Styrene	100-42-5	104	0.0788	0.200	0.851	0.151	0.642	J	1	WG2147373
1,1,2,2-Tetrachloroethane	79-34-5	168	0.0743	0.200	1.37	U	U		1	WG2147373
Tetrachloroethylene	127-18-4	166	0.0814	0.200	1.36	U	U		1	WG2147373
Tetrahydrofuran	109-99-9	72.10	0.0734	0.200	0.590	U	U		1	WG2147373
Toluene	108-88-3	92.10	0.0870	0.500	1.88	2.44	9.19		1	WG2147373
1,2,4-Trichlorobenzene	120-82-1	181	0.148	0.630	4.66	U	U	J4	1	WG2147373
1,1,1-Trichloroethane	71-55-6	133	0.0736	0.200	1.09	U	U		1	WG2147373
1,1,2-Trichloroethane	79-00-5	133	0.0775	0.200	1.09	U	U		1	WG2147373
Trichloroethylene	79-01-6	131	0.0680	0.200	1.07	U	U		1	WG2147373
1,2,4-Trimethylbenzene	95-63-6	120	0.0764	0.200	0.982	U	U		1	WG2147373
1,3,5-Trimethylbenzene	108-67-8	120	0.0779	0.200	0.982	U	U		1	WG2147373
2,2,4-Trimethylpentane	540-84-1	114.22	0.133	0.200	0.934	U	U		1	WG2147373
Vinyl chloride	75-01-4	62.50	0.0949	0.200	0.511	U	U		1	WG2147373
Vinyl Bromide	593-60-2	106.95	0.0852	0.200	0.875	U	U		1	WG2147373
Vinyl acetate	108-05-4	86.10	0.116	0.200	0.704	U	U		1	WG2147373
m&p-Xylene	1330-20-7	106	0.135	0.400	1.73	U	U		1	WG2147373
o-Xylene	95-47-6	106	0.0828	0.200	0.867	U	U		1	WG2147373
(S) 1,4-Bromofluorobenzene	460-00-4	175		60.0-140		86.0				WG2147373

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc

Volatile Organic Compounds (MS) by Method TO-15 - TENTATIVELY IDENTIFIED COMPOUNDS

Analyte	CAS #	Mol. Wt.	MDL1 ppbv	RDL1 ppbv	RDL2 ug/m3	Result ppbv	Result ug/m3	Qualifier	Dilution	Batch	RT
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Number of TICs found: 0

Tentatively Identified compounds (TIC) refers to substances not present in the list of target compounds. Therefore, not all TICs are identified and quantitated using individual standards. TIC listings are prepared utilizing a computerized library search routine of electron impact mass spectral data and evaluation of the relevant data by a mass spectral data specialist. Quantitation is accomplished by relative peak area of the TIC compared to that of the nearest internal standard from the total ion chromatogram. TICs are identified and quantitated only if the peak area is 10% or more of that of the nearest internal standard.

Volatile Organic Compounds (MS) by Method TO-15

Analyte	CAS #	Mol. Wt.	MDL1 ppbv	RDL1 ppbv	RDL2 ug/m3	Result ppbv	Result ug/m3	Qualifier	Dilution	Batch
Acetone	67-64-1	58.10	0.584	1.25	2.97	7.10	16.9		1	WG2147373
Acetonitrile	75-05-8	41.05	0.235	5.00	8.39	U	U		1	WG2147373
Acrylonitrile	107-13-1	53	0.226	5.00	10.8	U	U		1	WG2147373
Allyl chloride	107-05-1	76.53	0.114	0.200	0.626	U	U		1	WG2147373
Benzene	71-43-2	78.10	0.0715	0.200	0.639	0.168	0.537	J	1	WG2147373
Benzyl Chloride	100-44-7	127	0.0598	0.200	1.04	U	U		1	WG2147373
Bromodichloromethane	75-27-4	164	0.0702	0.200	1.34	U	U		1	WG2147373
Bromoform	75-25-2	253	0.0732	0.600	6.21	U	U		1	WG2147373
Bromomethane	74-83-9	94.90	0.0982	0.200	0.776	U	U		1	WG2147373
Bromoethane	74-96-4	108.97	0.216	5.00	22.3	U	U		1	WG2147373
1,3-Butadiene	106-99-0	54.10	0.104	2.00	4.43	U	U		1	WG2147373
Butane	106-97-8	58	0.0522	0.200	0.474	1.17	2.78		1	WG2147373
Carbon disulfide	75-15-0	76.10	0.102	0.200	0.622	0.157	0.489	J	1	WG2147373
Carbon tetrachloride	56-23-5	154	0.0732	0.200	1.26	U	U		1	WG2147373
Chlorobenzene	108-90-7	113	0.0832	0.200	0.924	U	U		1	WG2147373
Chloroethane	75-00-3	64.50	0.0996	0.200	0.528	U	U		1	WG2147373
Chloroform	67-66-3	119	0.0717	0.200	0.973	U	U		1	WG2147373
Chloromethane	74-87-3	50.50	0.103	0.200	0.413	0.450	0.929		1	WG2147373
2-Chlorotoluene	95-49-8	126	0.0828	0.200	1.03	U	U		1	WG2147373
Cyclohexane	110-82-7	84.20	0.0753	0.200	0.689	U	U		1	WG2147373
n-Decane	124-18-5	142.28	0.0784	0.200	1.16	U	U		1	WG2147373
Dibromochloromethane	124-48-1	208	0.0727	0.200	1.70	U	U		1	WG2147373
1,2-Dibromoethane	106-93-4	188	0.0721	0.200	1.54	U	U		1	WG2147373
1,2-Dichlorobenzene	95-50-1	147	0.128	0.200	1.20	U	U		1	WG2147373
1,3-Dichlorobenzene	541-73-1	147	0.182	0.200	1.20	U	U		1	WG2147373
1,4-Dichlorobenzene	106-46-7	147	0.0557	0.200	1.20	U	U		1	WG2147373
1,2-Dichloroethane	107-06-2	99	0.0700	0.200	0.810	U	U		1	WG2147373
1,1-Dichloroethane	75-34-3	98	0.0723	0.200	0.802	U	U		1	WG2147373
1,1-Dichloroethene	75-35-4	96.90	0.0762	0.200	0.793	U	U		1	WG2147373
cis-1,2-Dichloroethene	156-59-2	96.90	0.0784	0.200	0.793	U	U		1	WG2147373
trans-1,2-Dichloroethene	156-60-5	96.90	0.0673	0.200	0.793	U	U		1	WG2147373
1,2-Dichloropropane	78-87-5	113	0.0760	0.200	0.924	U	U		1	WG2147373
cis-1,3-Dichloropropene	10061-01-5	111	0.0689	0.200	0.908	U	U		1	WG2147373
trans-1,3-Dichloropropene	10061-02-6	111	0.0728	0.200	0.908	U	U		1	WG2147373
1,4-Dioxane	123-91-1	88.10	0.0833	0.200	0.721	U	U		1	WG2147373
Ethanol	64-17-5	46.10	0.265	2.50	4.71	180	339	E	1	WG2147373
Ethylbenzene	100-41-4	106	0.0835	0.200	0.867	U	U		1	WG2147373
4-Ethyltoluene	622-96-8	120	0.0783	0.200	0.982	U	U		1	WG2147373
Trichlorofluoromethane	75-69-4	137.40	0.0819	0.200	1.12	0.224	1.26		1	WG2147373
Dichlorodifluoromethane	75-71-8	120.92	0.137	0.200	0.989	0.413	2.04		1	WG2147373
1,1,2-Trichlorotrifluoroethane	76-13-1	187.40	0.0793	0.200	1.53	U	U		1	WG2147373
1,2-Dichlorotetrafluoroethane	76-14-2	171	0.0890	0.200	1.40	U	U		1	WG2147373
Heptane	142-82-5	100	0.104	0.200	0.818	U	U		1	WG2147373
Hexachloro-1,3-butadiene	87-68-3	261	0.105	0.630	6.73	U	U		1	WG2147373
n-Hexane	110-54-3	86.20	0.206	0.630	2.22	U	U		1	WG2147373
Isopropylbenzene	98-82-8	120.20	0.0777	0.200	0.983	U	U		1	WG2147373
Methylene Chloride	75-09-2	84.90	0.0979	0.200	0.694	5.59	19.4		1	WG2147373
Methyl Butyl Ketone	591-78-6	100	0.133	1.25	5.11	U	U		1	WG2147373
2-Butanone (MEK)	78-93-3	72.10	0.0814	1.25	3.69	0.183	0.540	J	1	WG2147373
4-Methyl-2-pentanone (MIBK)	108-10-1	100.10	0.0765	1.25	5.12	U	U		1	WG2147373
Methyl methacrylate	80-62-6	100.12	0.0876	0.200	0.819	U	U		1	WG2147373
MTBE	1634-04-4	88.10	0.0647	0.200	0.721	U	U		1	WG2147373
Naphthalene	91-20-3	128	0.350	0.630	3.30	U	U	J4	1	WG2147373
Nonane	111-84-2	128.26	0.0363	0.200	1.05	U	U		1	WG2147373
Pentane	109-66-0	72.15	0.0503	0.200	0.590	10.3	30.4		1	WG2147373
2-Propanol	67-63-0	60.10	0.264	1.25	3.07	11.9	29.3		1	WG2147373

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc

Volatile Organic Compounds (MS) by Method TO-15

Analyte	CAS #	Mol. Wt.	MDL1 ppbv	RDL1 ppbv	RDL2 ug/m3	Result ppbv	Result ug/m3	Qualifier	Dilution	Batch
Propene	115-07-1	42.10	0.0932	1.25	2.15	U	U		1	WG2147373
Styrene	100-42-5	104	0.0788	0.200	0.851	0.0932	0.396	<u>J</u>	1	WG2147373
1,1,2,2-Tetrachloroethane	79-34-5	168	0.0743	0.200	1.37	U	U		1	WG2147373
Tetrachloroethylene	127-18-4	166	0.0814	0.200	1.36	U	U		1	WG2147373
Tetrahydrofuran	109-99-9	72.10	0.0734	0.200	0.590	U	U		1	WG2147373
Toluene	108-88-3	92.10	0.0870	0.500	1.88	0.673	2.54		1	WG2147373
1,2,4-Trichlorobenzene	120-82-1	181	0.148	0.630	4.66	U	U	<u>J4</u>	1	WG2147373
1,1,1-Trichloroethane	71-55-6	133	0.0736	0.200	1.09	U	U		1	WG2147373
1,1,2-Trichloroethane	79-00-5	133	0.0775	0.200	1.09	U	U		1	WG2147373
Trichloroethylene	79-01-6	131	0.0680	0.200	1.07	U	U		1	WG2147373
1,2,4-Trimethylbenzene	95-63-6	120	0.0764	0.200	0.982	U	U		1	WG2147373
1,3,5-Trimethylbenzene	108-67-8	120	0.0779	0.200	0.982	U	U		1	WG2147373
2,2,4-Trimethylpentane	540-84-1	114.22	0.133	0.200	0.934	U	U		1	WG2147373
Vinyl chloride	75-01-4	62.50	0.0949	0.200	0.511	U	U		1	WG2147373
Vinyl Bromide	593-60-2	106.95	0.0852	0.200	0.875	U	U		1	WG2147373
Vinyl acetate	108-05-4	86.10	0.116	0.200	0.704	U	U		1	WG2147373
m&p-Xylene	1330-20-7	106	0.135	0.400	1.73	U	U		1	WG2147373
o-Xylene	95-47-6	106	0.0828	0.200	0.867	U	U		1	WG2147373
^(S) 1,4-Bromofluorobenzene	460-00-4	175		60.0-140		84.5				WG2147373

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

Volatile Organic Compounds (MS) by Method TO-15 - TENTATIVELY IDENTIFIED COMPOUNDS

Analyte	CAS #	Mol. Wt.	MDL1 ppbv	RDL1 ppbv	RDL2 ug/m3	Result ppbv	Result ug/m3	Qualifier	Dilution	Batch	RT
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Number of TICs found: 0

Tentatively Identified compounds (TIC) refers to substances not present in the list of target compounds. Therefore, not all TICs are identified and quantitated using individual standards. TIC listings are prepared utilizing a computerized library search routine of electron impact mass spectral data and evaluation of the relevant data by a mass spectral data specialist. Quantitation is accomplished by relative peak area of the TIC compared to that of the nearest internal standard from the total ion chromatogram. TICs are identified and quantitated only if the peak area is 10% or more of that of the nearest internal standard.

Volatile Organic Compounds (MS) by Method TO-15

Analyte	CAS #	Mol. Wt.	MDL1 ppbv	RDL1 ppbv	RDL2 ug/m3	Result ppbv	Result ug/m3	Qualifier	Dilution	Batch
Acetone	67-64-1	58.10	0.584	1.25	2.97	6.59	15.7		1	WG2147373
Acetonitrile	75-05-8	41.05	0.235	5.00	8.39	U	U		1	WG2147373
Acrylonitrile	107-13-1	53	0.226	5.00	10.8	U	U		1	WG2147373
Allyl chloride	107-05-1	76.53	0.114	0.200	0.626	U	U		1	WG2147373
Benzene	71-43-2	78.10	0.0715	0.200	0.639	0.202	0.645		1	WG2147373
Benzyl Chloride	100-44-7	127	0.0598	0.200	1.04	U	U		1	WG2147373
Bromodichloromethane	75-27-4	164	0.0702	0.200	1.34	U	U		1	WG2147373
Bromoform	75-25-2	253	0.0732	0.600	6.21	U	U		1	WG2147373
Bromomethane	74-83-9	94.90	0.0982	0.200	0.776	U	U		1	WG2147373
Bromoethane	74-96-4	108.97	0.216	5.00	22.3	U	U		1	WG2147373
1,3-Butadiene	106-99-0	54.10	0.104	2.00	4.43	U	U		1	WG2147373
Butane	106-97-8	58	0.0522	0.200	0.474	0.270	0.640		1	WG2147373
Carbon disulfide	75-15-0	76.10	0.102	0.200	0.622	0.129	0.402	J	1	WG2147373
Carbon tetrachloride	56-23-5	154	0.0732	0.200	1.26	U	U		1	WG2147373
Chlorobenzene	108-90-7	113	0.0832	0.200	0.924	U	U		1	WG2147373
Chloroethane	75-00-3	64.50	0.0996	0.200	0.528	0.215	0.567		1	WG2147373
Chloroform	67-66-3	119	0.0717	0.200	0.973	U	U		1	WG2147373
Chloromethane	74-87-3	50.50	0.103	0.200	0.413	0.581	1.20		1	WG2147373
2-Chlorotoluene	95-49-8	126	0.0828	0.200	1.03	U	U		1	WG2147373
Cyclohexane	110-82-7	84.20	0.0753	0.200	0.689	U	U		1	WG2147373
n-Decane	124-18-5	142.28	0.0784	0.200	1.16	U	U		1	WG2147373
Dibromochloromethane	124-48-1	208	0.0727	0.200	1.70	U	U		1	WG2147373
1,2-Dibromoethane	106-93-4	188	0.0721	0.200	1.54	U	U		1	WG2147373
1,2-Dichlorobenzene	95-50-1	147	0.128	0.200	1.20	U	U		1	WG2147373
1,3-Dichlorobenzene	541-73-1	147	0.182	0.200	1.20	U	U		1	WG2147373
1,4-Dichlorobenzene	106-46-7	147	0.0557	0.200	1.20	U	U		1	WG2147373
1,2-Dichloroethane	107-06-2	99	0.0700	0.200	0.810	U	U		1	WG2147373
1,1-Dichloroethane	75-34-3	98	0.0723	0.200	0.802	U	U		1	WG2147373
1,1-Dichloroethene	75-35-4	96.90	0.0762	0.200	0.793	U	U		1	WG2147373
cis-1,2-Dichloroethene	156-59-2	96.90	0.0784	0.200	0.793	U	U		1	WG2147373
trans-1,2-Dichloroethene	156-60-5	96.90	0.0673	0.200	0.793	U	U		1	WG2147373
1,2-Dichloropropane	78-87-5	113	0.0760	0.200	0.924	U	U		1	WG2147373
cis-1,3-Dichloropropene	10061-01-5	111	0.0689	0.200	0.908	0.294	1.33		1	WG2147373
trans-1,3-Dichloropropene	10061-02-6	111	0.0728	0.200	0.908	0.488	2.22		1	WG2147373
1,4-Dioxane	123-91-1	88.10	0.0833	0.200	0.721	U	U		1	WG2147373
Ethanol	64-17-5	46.10	0.265	2.50	4.71	25.5	48.1		1	WG2147373
Ethylbenzene	100-41-4	106	0.0835	0.200	0.867	U	U		1	WG2147373
4-Ethyltoluene	622-96-8	120	0.0783	0.200	0.982	U	U		1	WG2147373
Trichlorofluoromethane	75-69-4	137.40	0.0819	0.200	1.12	0.196	1.10	J	1	WG2147373
Dichlorodifluoromethane	75-71-8	120.92	0.137	0.200	0.989	0.421	2.08		1	WG2147373
1,1,2-Trichlorotrifluoroethane	76-13-1	187.40	0.0793	0.200	1.53	U	U		1	WG2147373
1,2-Dichlorotetrafluoroethane	76-14-2	171	0.0890	0.200	1.40	U	U		1	WG2147373
Heptane	142-82-5	100	0.104	0.200	0.818	U	U		1	WG2147373
Hexachloro-1,3-butadiene	87-68-3	261	0.105	0.630	6.73	U	U		1	WG2147373
n-Hexane	110-54-3	86.20	0.206	0.630	2.22	U	U		1	WG2147373
Isopropylbenzene	98-82-8	120.20	0.0777	0.200	0.983	U	U		1	WG2147373
Methylene Chloride	75-09-2	84.90	0.0979	0.200	0.694	U	U		1	WG2147373
Methyl Butyl Ketone	591-78-6	100	0.133	1.25	5.11	U	U		1	WG2147373
2-Butanone (MEK)	78-93-3	72.10	0.0814	1.25	3.69	0.542	1.60	J	1	WG2147373
4-Methyl-2-pentanone (MIBK)	108-10-1	100.10	0.0765	1.25	5.12	U	U		1	WG2147373
Methyl methacrylate	80-62-6	100.12	0.0876	0.200	0.819	U	U		1	WG2147373
MTBE	1634-04-4	88.10	0.0647	0.200	0.721	U	U		1	WG2147373
Naphthalene	91-20-3	128	0.350	0.630	3.30	U	U	J4	1	WG2147373
Nonane	111-84-2	128.26	0.0363	0.200	1.05	U	U		1	WG2147373
Pentane	109-66-0	72.15	0.0503	0.200	0.590	0.449	1.32		1	WG2147373
2-Propanol	67-63-0	60.10	0.264	1.25	3.07	0.780	1.92	J	1	WG2147373

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc

Volatile Organic Compounds (MS) by Method TO-15

Analyte	CAS #	Mol. Wt.	MDL1 ppbv	RDL1 ppbv	RDL2 ug/m3	Result ppbv	Result ug/m3	Qualifier	Dilution	Batch
Propene	115-07-1	42.10	0.0932	1.25	2.15	U	U		1	WG2147373
Styrene	100-42-5	104	0.0788	0.200	0.851	U	U		1	WG2147373
1,1,2,2-Tetrachloroethane	79-34-5	168	0.0743	0.200	1.37	U	U		1	WG2147373
Tetrachloroethylene	127-18-4	166	0.0814	0.200	1.36	U	U		1	WG2147373
Tetrahydrofuran	109-99-9	72.10	0.0734	0.200	0.590	U	U		1	WG2147373
Toluene	108-88-3	92.10	0.0870	0.500	1.88	1.14	4.29		1	WG2147373
1,2,4-Trichlorobenzene	120-82-1	181	0.148	0.630	4.66	U	U	J4	1	WG2147373
1,1,1-Trichloroethane	71-55-6	133	0.0736	0.200	1.09	U	U		1	WG2147373
1,1,2-Trichloroethane	79-00-5	133	0.0775	0.200	1.09	U	U		1	WG2147373
Trichloroethylene	79-01-6	131	0.0680	0.200	1.07	U	U		1	WG2147373
1,2,4-Trimethylbenzene	95-63-6	120	0.0764	0.200	0.982	U	U		1	WG2147373
1,3,5-Trimethylbenzene	108-67-8	120	0.0779	0.200	0.982	U	U		1	WG2147373
2,2,4-Trimethylpentane	540-84-1	114.22	0.133	0.200	0.934	U	U		1	WG2147373
Vinyl chloride	75-01-4	62.50	0.0949	0.200	0.511	U	U		1	WG2147373
Vinyl Bromide	593-60-2	106.95	0.0852	0.200	0.875	U	U		1	WG2147373
Vinyl acetate	108-05-4	86.10	0.116	0.200	0.704	U	U		1	WG2147373
m&p-Xylene	1330-20-7	106	0.135	0.400	1.73	U	U		1	WG2147373
o-Xylene	95-47-6	106	0.0828	0.200	0.867	U	U		1	WG2147373
^(S) 1,4-Bromofluorobenzene	460-00-4	175		60.0-140		80.5				WG2147373

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

Volatile Organic Compounds (MS) by Method TO-15 - TENTATIVELY IDENTIFIED COMPOUNDS

Analyte	CAS #	Mol. Wt.	MDL1 ppbv	RDL1 ppbv	RDL2 ug/m3	Result ppbv	Result ug/m3	Qualifier	Dilution	Batch	RT
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Number of TICs found: 0

Tentatively Identified compounds (TIC) refers to substances not present in the list of target compounds. Therefore, not all TICs are identified and quantitated using individual standards. TIC listings are prepared utilizing a computerized library search routine of electron impact mass spectral data and evaluation of the relevant data by a mass spectral data specialist. Quantitation is accomplished by relative peak area of the TIC compared to that of the nearest internal standard from the total ion chromatogram. TICs are identified and quantitated only if the peak area is 10% or more of that of the nearest internal standard.

Volatile Organic Compounds (MS) by Method TO-15

Analyte	CAS #	Mol. Wt.	MDL1 ppbv	RDL1 ppbv	RDL2 ug/m3	Result ppbv	Result ug/m3	Qualifier	Dilution	Batch
Acetone	67-64-1	58.10	0.584	1.25	2.97	11.4	27.1		1	WG2147373
Acetonitrile	75-05-8	41.05	0.235	5.00	8.39	U	U		1	WG2147373
Acrylonitrile	107-13-1	53	0.226	5.00	10.8	U	U		1	WG2147373
Allyl chloride	107-05-1	76.53	0.114	0.200	0.626	U	U		1	WG2147373
Benzene	71-43-2	78.10	0.0715	0.200	0.639	0.321	1.03		1	WG2147373
Benzyl Chloride	100-44-7	127	0.0598	0.200	1.04	U	U		1	WG2147373
Bromodichloromethane	75-27-4	164	0.0702	0.200	1.34	U	U		1	WG2147373
Bromoform	75-25-2	253	0.0732	0.600	6.21	U	U		1	WG2147373
Bromomethane	74-83-9	94.90	0.0982	0.200	0.776	U	U		1	WG2147373
Bromoethane	74-96-4	108.97	0.216	5.00	22.3	U	U		1	WG2147373
1,3-Butadiene	106-99-0	54.10	0.104	2.00	4.43	U	U		1	WG2147373
Butane	106-97-8	58	0.0522	0.200	0.474	0.283	0.671		1	WG2147373
Carbon disulfide	75-15-0	76.10	0.102	0.200	0.622	0.196	0.610	J	1	WG2147373
Carbon tetrachloride	56-23-5	154	0.0732	0.200	1.26	U	U		1	WG2147373
Chlorobenzene	108-90-7	113	0.0832	0.200	0.924	U	U		1	WG2147373
Chloroethane	75-00-3	64.50	0.0996	0.200	0.528	0.520	1.37		1	WG2147373
Chloroform	67-66-3	119	0.0717	0.200	0.973	U	U		1	WG2147373
Chloromethane	74-87-3	50.50	0.103	0.200	0.413	0.730	1.51		1	WG2147373
2-Chlorotoluene	95-49-8	126	0.0828	0.200	1.03	U	U		1	WG2147373
Cyclohexane	110-82-7	84.20	0.0753	0.200	0.689	U	U		1	WG2147373
n-Decane	124-18-5	142.28	0.0784	0.200	1.16	U	U		1	WG2147373
Dibromochloromethane	124-48-1	208	0.0727	0.200	1.70	U	U		1	WG2147373
1,2-Dibromoethane	106-93-4	188	0.0721	0.200	1.54	U	U		1	WG2147373
1,2-Dichlorobenzene	95-50-1	147	0.128	0.200	1.20	U	U		1	WG2147373
1,3-Dichlorobenzene	541-73-1	147	0.182	0.200	1.20	U	U		1	WG2147373
1,4-Dichlorobenzene	106-46-7	147	0.0557	0.200	1.20	U	U		1	WG2147373
1,2-Dichloroethane	107-06-2	99	0.0700	0.200	0.810	U	U		1	WG2147373
1,1-Dichloroethane	75-34-3	98	0.0723	0.200	0.802	U	U		1	WG2147373
1,1-Dichloroethene	75-35-4	96.90	0.0762	0.200	0.793	U	U		1	WG2147373
cis-1,2-Dichloroethene	156-59-2	96.90	0.0784	0.200	0.793	U	U		1	WG2147373
trans-1,2-Dichloroethene	156-60-5	96.90	0.0673	0.200	0.793	U	U		1	WG2147373
1,2-Dichloropropane	78-87-5	113	0.0760	0.200	0.924	U	U		1	WG2147373
cis-1,3-Dichloropropene	10061-01-5	111	0.0689	0.200	0.908	0.421	1.91		1	WG2147373
trans-1,3-Dichloropropene	10061-02-6	111	0.0728	0.200	0.908	0.744	3.38		1	WG2147373
1,4-Dioxane	123-91-1	88.10	0.0833	0.200	0.721	U	U		1	WG2147373
Ethanol	64-17-5	46.10	0.265	2.50	4.71	43.1	81.3		1	WG2147373
Ethylbenzene	100-41-4	106	0.0835	0.200	0.867	U	U		1	WG2147373
4-Ethyltoluene	622-96-8	120	0.0783	0.200	0.982	U	U		1	WG2147373
Trichlorofluoromethane	75-69-4	137.40	0.0819	0.200	1.12	0.183	1.03	J	1	WG2147373
Dichlorodifluoromethane	75-71-8	120.92	0.137	0.200	0.989	0.402	1.99		1	WG2147373
1,1,2-Trichlorotrifluoroethane	76-13-1	187.40	0.0793	0.200	1.53	U	U		1	WG2147373
1,2-Dichlorotetrafluoroethane	76-14-2	171	0.0890	0.200	1.40	U	U		1	WG2147373
Heptane	142-82-5	100	0.104	0.200	0.818	0.157	0.642	J	1	WG2147373
Hexachloro-1,3-butadiene	87-68-3	261	0.105	0.630	6.73	U	U		1	WG2147373
n-Hexane	110-54-3	86.20	0.206	0.630	2.22	U	U		1	WG2147373
Isopropylbenzene	98-82-8	120.20	0.0777	0.200	0.983	U	U		1	WG2147373
Methylene Chloride	75-09-2	84.90	0.0979	0.200	0.694	0.163	0.566	J	1	WG2147373
Methyl Butyl Ketone	591-78-6	100	0.133	1.25	5.11	U	U		1	WG2147373
2-Butanone (MEK)	78-93-3	72.10	0.0814	1.25	3.69	0.679	2.00	J	1	WG2147373
4-Methyl-2-pentanone (MIBK)	108-10-1	100.10	0.0765	1.25	5.12	U	U		1	WG2147373
Methyl methacrylate	80-62-6	100.12	0.0876	0.200	0.819	U	U		1	WG2147373
MTBE	1634-04-4	88.10	0.0647	0.200	0.721	U	U		1	WG2147373
Naphthalene	91-20-3	128	0.350	0.630	3.30	U	U	J4	1	WG2147373
Nonane	111-84-2	128.26	0.0363	0.200	1.05	U	U		1	WG2147373
Pentane	109-66-0	72.15	0.0503	0.200	0.590	0.220	0.649		1	WG2147373
2-Propanol	67-63-0	60.10	0.264	1.25	3.07	0.853	2.10	J	1	WG2147373

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc

Volatile Organic Compounds (MS) by Method TO-15

Analyte	CAS #	Mol. Wt.	MDL1 ppbv	RDL1 ppbv	RDL2 ug/m3	Result ppbv	Result ug/m3	Qualifier	Dilution	Batch
Propene	115-07-1	42.10	0.0932	1.25	2.15	U	U		1	WG2147373
Styrene	100-42-5	104	0.0788	0.200	0.851	0.0945	0.402	<u>J</u>	1	WG2147373
1,1,2,2-Tetrachloroethane	79-34-5	168	0.0743	0.200	1.37	U	U		1	WG2147373
Tetrachloroethylene	127-18-4	166	0.0814	0.200	1.36	0.254	1.72		1	WG2147373
Tetrahydrofuran	109-99-9	72.10	0.0734	0.200	0.590	U	U		1	WG2147373
Toluene	108-88-3	92.10	0.0870	0.500	1.88	1.69	6.37		1	WG2147373
1,2,4-Trichlorobenzene	120-82-1	181	0.148	0.630	4.66	U	U	<u>J4</u>	1	WG2147373
1,1,1-Trichloroethane	71-55-6	133	0.0736	0.200	1.09	U	U		1	WG2147373
1,1,2-Trichloroethane	79-00-5	133	0.0775	0.200	1.09	U	U		1	WG2147373
Trichloroethylene	79-01-6	131	0.0680	0.200	1.07	U	U		1	WG2147373
1,2,4-Trimethylbenzene	95-63-6	120	0.0764	0.200	0.982	U	U		1	WG2147373
1,3,5-Trimethylbenzene	108-67-8	120	0.0779	0.200	0.982	U	U		1	WG2147373
2,2,4-Trimethylpentane	540-84-1	114.22	0.133	0.200	0.934	U	U		1	WG2147373
Vinyl chloride	75-01-4	62.50	0.0949	0.200	0.511	U	U		1	WG2147373
Vinyl Bromide	593-60-2	106.95	0.0852	0.200	0.875	U	U		1	WG2147373
Vinyl acetate	108-05-4	86.10	0.116	0.200	0.704	U	U		1	WG2147373
m&p-Xylene	1330-20-7	106	0.135	0.400	1.73	U	U		1	WG2147373
o-Xylene	95-47-6	106	0.0828	0.200	0.867	U	U		1	WG2147373
^(S) 1,4-Bromofluorobenzene	460-00-4	175		60.0-140		84.0				WG2147373

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

Volatile Organic Compounds (MS) by Method TO-15 - TENTATIVELY IDENTIFIED COMPOUNDS

Analyte	CAS #	Mol. Wt.	MDL1 ppbv	RDL1 ppbv	RDL2 ug/m3	Result ppbv	Result ug/m3	Qualifier	Dilution	Batch	RT
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Number of TICs found: 0

Tentatively Identified compounds (TIC) refers to substances not present in the list of target compounds. Therefore, not all TICs are identified and quantitated using individual standards. TIC listings are prepared utilizing a computerized library search routine of electron impact mass spectral data and evaluation of the relevant data by a mass spectral data specialist. Quantitation is accomplished by relative peak area of the TIC compared to that of the nearest internal standard from the total ion chromatogram. TICs are identified and quantitated only if the peak area is 10% or more of that of the nearest internal standard.

Volatile Organic Compounds (MS) by Method TO-15

Analyte	CAS #	Mol. Wt.	MDL1 ppbv	RDL1 ppbv	RDL2 ug/m3	Result ppbv	Result ug/m3	Qualifier	Dilution	Batch
Acetone	67-64-1	58.10	0.584	1.25	2.97	16.1	38.3		1	WG2147373
Acetonitrile	75-05-8	41.05	0.235	5.00	8.39	U	U		1	WG2147373
Acrylonitrile	107-13-1	53	0.226	5.00	10.8	U	U		1	WG2147373
Allyl chloride	107-05-1	76.53	0.114	0.200	0.626	U	U		1	WG2147373
Benzene	71-43-2	78.10	0.0715	0.200	0.639	0.376	1.20		1	WG2147373
Benzyl Chloride	100-44-7	127	0.0598	0.200	1.04	U	U		1	WG2147373
Bromodichloromethane	75-27-4	164	0.0702	0.200	1.34	U	U		1	WG2147373
Bromoform	75-25-2	253	0.0732	0.600	6.21	U	U		1	WG2147373
Bromomethane	74-83-9	94.90	0.0982	0.200	0.776	U	U		1	WG2147373
Bromoethane	74-96-4	108.97	0.216	5.00	22.3	U	U		1	WG2147373
1,3-Butadiene	106-99-0	54.10	0.104	2.00	4.43	U	U		1	WG2147373
Butane	106-97-8	58	0.0522	0.200	0.474	0.335	0.795		1	WG2147373
Carbon disulfide	75-15-0	76.10	0.102	0.200	0.622	0.300	0.934		1	WG2147373
Carbon tetrachloride	56-23-5	154	0.0732	0.200	1.26	U	U		1	WG2147373
Chlorobenzene	108-90-7	113	0.0832	0.200	0.924	U	U		1	WG2147373
Chloroethane	75-00-3	64.50	0.0996	0.200	0.528	0.614	1.62		1	WG2147373
Chloroform	67-66-3	119	0.0717	0.200	0.973	U	U		1	WG2147373
Chloromethane	74-87-3	50.50	0.103	0.200	0.413	1.13	2.33		1	WG2147373
2-Chlorotoluene	95-49-8	126	0.0828	0.200	1.03	U	U		1	WG2147373
Cyclohexane	110-82-7	84.20	0.0753	0.200	0.689	U	U		1	WG2147373
n-Decane	124-18-5	142.28	0.0784	0.200	1.16	U	U		1	WG2147373
Dibromochloromethane	124-48-1	208	0.0727	0.200	1.70	U	U		1	WG2147373
1,2-Dibromoethane	106-93-4	188	0.0721	0.200	1.54	U	U		1	WG2147373
1,2-Dichlorobenzene	95-50-1	147	0.128	0.200	1.20	U	U		1	WG2147373
1,3-Dichlorobenzene	541-73-1	147	0.182	0.200	1.20	U	U		1	WG2147373
1,4-Dichlorobenzene	106-46-7	147	0.0557	0.200	1.20	U	U		1	WG2147373
1,2-Dichloroethane	107-06-2	99	0.0700	0.200	0.810	U	U		1	WG2147373
1,1-Dichloroethane	75-34-3	98	0.0723	0.200	0.802	U	U		1	WG2147373
1,1-Dichloroethene	75-35-4	96.90	0.0762	0.200	0.793	U	U		1	WG2147373
cis-1,2-Dichloroethene	156-59-2	96.90	0.0784	0.200	0.793	U	U		1	WG2147373
trans-1,2-Dichloroethene	156-60-5	96.90	0.0673	0.200	0.793	U	U		1	WG2147373
1,2-Dichloropropane	78-87-5	113	0.0760	0.200	0.924	U	U		1	WG2147373
cis-1,3-Dichloropropene	10061-01-5	111	0.0689	0.200	0.908	0.116	0.527	J	1	WG2147373
trans-1,3-Dichloropropene	10061-02-6	111	0.0728	0.200	0.908	U	U		1	WG2147373
1,4-Dioxane	123-91-1	88.10	0.0833	0.200	0.721	U	U		1	WG2147373
Ethanol	64-17-5	46.10	0.265	2.50	4.71	51.0	96.2		1	WG2147373
Ethylbenzene	100-41-4	106	0.0835	0.200	0.867	U	U		1	WG2147373
4-Ethyltoluene	622-96-8	120	0.0783	0.200	0.982	U	U		1	WG2147373
Trichlorofluoromethane	75-69-4	137.40	0.0819	0.200	1.12	0.205	1.15		1	WG2147373
Dichlorodifluoromethane	75-71-8	120.92	0.137	0.200	0.989	0.452	2.24		1	WG2147373
1,1,2-Trichlorotrifluoroethane	76-13-1	187.40	0.0793	0.200	1.53	U	U		1	WG2147373
1,2-Dichlorotetrafluoroethane	76-14-2	171	0.0890	0.200	1.40	U	U		1	WG2147373
Heptane	142-82-5	100	0.104	0.200	0.818	0.174	0.712	J	1	WG2147373
Hexachloro-1,3-butadiene	87-68-3	261	0.105	0.630	6.73	U	U		1	WG2147373
n-Hexane	110-54-3	86.20	0.206	0.630	2.22	U	U		1	WG2147373
Isopropylbenzene	98-82-8	120.20	0.0777	0.200	0.983	U	U		1	WG2147373
Methylene Chloride	75-09-2	84.90	0.0979	0.200	0.694	0.167	0.580	J	1	WG2147373
Methyl Butyl Ketone	591-78-6	100	0.133	1.25	5.11	U	U		1	WG2147373
2-Butanone (MEK)	78-93-3	72.10	0.0814	1.25	3.69	1.24	3.66	J	1	WG2147373
4-Methyl-2-pentanone (MIBK)	108-10-1	100.10	0.0765	1.25	5.12	U	U		1	WG2147373
Methyl methacrylate	80-62-6	100.12	0.0876	0.200	0.819	U	U		1	WG2147373
MTBE	1634-04-4	88.10	0.0647	0.200	0.721	U	U		1	WG2147373
Naphthalene	91-20-3	128	0.350	0.630	3.30	U	U	J4	1	WG2147373
Nonane	111-84-2	128.26	0.0363	0.200	1.05	U	U		1	WG2147373
Pentane	109-66-0	72.15	0.0503	0.200	0.590	0.252	0.744		1	WG2147373
2-Propanol	67-63-0	60.10	0.264	1.25	3.07	0.959	2.36	J	1	WG2147373

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc

Volatile Organic Compounds (MS) by Method TO-15

Analyte	CAS #	Mol. Wt.	MDL1 ppbv	RDL1 ppbv	RDL2 ug/m3	Result ppbv	Result ug/m3	Qualifier	Dilution	Batch
Propene	115-07-1	42.10	0.0932	1.25	2.15	U	U		1	WG2147373
Styrene	100-42-5	104	0.0788	0.200	0.851	0.0975	0.415	<u>J</u>	1	WG2147373
1,1,2,2-Tetrachloroethane	79-34-5	168	0.0743	0.200	1.37	U	U		1	WG2147373
Tetrachloroethylene	127-18-4	166	0.0814	0.200	1.36	0.224	1.52		1	WG2147373
Tetrahydrofuran	109-99-9	72.10	0.0734	0.200	0.590	U	U		1	WG2147373
Toluene	108-88-3	92.10	0.0870	0.500	1.88	1.73	6.52		1	WG2147373
1,2,4-Trichlorobenzene	120-82-1	181	0.148	0.630	4.66	U	U	<u>J4</u>	1	WG2147373
1,1,1-Trichloroethane	71-55-6	133	0.0736	0.200	1.09	U	U		1	WG2147373
1,1,2-Trichloroethane	79-00-5	133	0.0775	0.200	1.09	U	U		1	WG2147373
Trichloroethylene	79-01-6	131	0.0680	0.200	1.07	U	U		1	WG2147373
1,2,4-Trimethylbenzene	95-63-6	120	0.0764	0.200	0.982	U	U		1	WG2147373
1,3,5-Trimethylbenzene	108-67-8	120	0.0779	0.200	0.982	U	U		1	WG2147373
2,2,4-Trimethylpentane	540-84-1	114.22	0.133	0.200	0.934	U	U		1	WG2147373
Vinyl chloride	75-01-4	62.50	0.0949	0.200	0.511	U	U		1	WG2147373
Vinyl Bromide	593-60-2	106.95	0.0852	0.200	0.875	U	U		1	WG2147373
Vinyl acetate	108-05-4	86.10	0.116	0.200	0.704	U	U		1	WG2147373
m&p-Xylene	1330-20-7	106	0.135	0.400	1.73	U	U		1	WG2147373
o-Xylene	95-47-6	106	0.0828	0.200	0.867	U	U		1	WG2147373
^(S) 1,4-Bromofluorobenzene	460-00-4	175		60.0-140		85.6				WG2147373

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

Volatile Organic Compounds (MS) by Method TO-15 - TENTATIVELY IDENTIFIED COMPOUNDS

Analyte	CAS #	Mol. Wt.	MDL1 ppbv	RDL1 ppbv	RDL2 ug/m3	Result ppbv	Result ug/m3	Qualifier	Dilution	Batch	RT
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Number of TICs found: 0

Tentatively Identified compounds (TIC) refers to substances not present in the list of target compounds. Therefore, not all TICs are identified and quantitated using individual standards. TIC listings are prepared utilizing a computerized library search routine of electron impact mass spectral data and evaluation of the relevant data by a mass spectral data specialist. Quantitation is accomplished by relative peak area of the TIC compared to that of the nearest internal standard from the total ion chromatogram. TICs are identified and quantitated only if the peak area is 10% or more of that of the nearest internal standard.

Method Blank (MB)

(MB) R3984901-2 10/08/23 12:28

Analyte	MB Result ppbv	MB Qualifier	MB MDL ppbv	MB RDL ppbv
Acetone	U		0.584	1.25
Acetonitrile	U		0.235	5.00
Acrylonitrile	U		0.226	5.00
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
Bromoethane	U		0.216	5.00
1,3-Butadiene	U		0.104	2.00
Butane	U		0.0522	0.200
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
n-Decane	U		0.0784	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
Ethanol	0.351	U	0.265	2.50
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

¹Cp

²Tc

³Ss

⁴Cn

⁵Sr

⁶Qc

⁷Gl

⁸Al

⁹Sc

Method Blank (MB)

(MB) R3984901-2 10/08/23 12:28

Analyte	MB Result ppbv	MB Qualifier	MB MDL ppbv	MB RDL ppbv
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
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
Nonane	U		0.0363	0.200
Pentane	U		0.0503	0.200
2-Propanol	U		0.264	1.25
Propene	U		0.0932	1.25
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
(S) 1,4-Bromofluorobenzene	76.6			60.0-140

¹Cp

²Tc

³Ss

⁴Cn

⁵Sr

⁶Qc

⁷Gl

⁸Al

⁹Sc

Method Blank (MB) - TENTATIVELY IDENTIFIED COMPOUNDS

(MB) R3984901-2 10/08/23 12:28

Analyte	MB Result ppbv	MB Qualifier	MB MDL ppbv	MB RDL ppbv	CAS #
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Number of TICs found: 0

Tentatively Identified compounds (TIC) refers to substances not present in the list of target compounds. Therefore, not all TICs are identified and quantitated using individual standards. TIC listings are prepared utilizing a computerized library search routine of electron impact mass spectral data and evaluation of the relevant data by a mass spectral data specialist. Quantitation is accomplished by relative peak area of the TIC compared to that of the nearest internal standard from the total ion chromatogram. TICs are identified and quantitated only if the peak area is 10% or more of that of the nearest internal standard.

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

(LCS) R3984901-1 10/08/23 09:23 • (LCSD) R3984901-3 10/08/23 13:00

Analyte	Spike Amount ppbv	LCS Result ppbv	LCSD Result ppbv	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Acetone	3.75	3.65	3.88	97.3	103	70.0-130			6.11	25
Acetonitrile	18.8	18.9	19.6	101	104	70.0-130			3.64	25
Acrylonitrile	3.75	3.67	3.84	97.9	102	70.0-130			4.53	25
Allyl chloride	3.75	3.09	3.26	82.4	86.9	70.0-130			5.35	25
Benzene	3.75	3.37	3.43	89.9	91.5	70.0-130			1.76	25
Benzyl Chloride	3.75	3.47	3.58	92.5	95.5	70.0-152			3.12	25
Bromodichloromethane	3.75	3.07	3.18	81.9	84.8	70.0-130			3.52	25
Bromoform	3.75	3.46	3.48	92.3	92.8	70.0-130			0.576	25
Bromomethane	3.75	3.56	3.65	94.9	97.3	70.0-130			2.50	25
Bromoethane	3.75	3.48	3.62	92.8	96.5	70.0-130			3.94	25
1,3-Butadiene	3.75	3.21	3.41	85.6	90.9	70.0-130			6.04	25
Butane	3.75	3.39	3.51	90.4	93.6	70.0-130			3.48	25
Carbon disulfide	3.75	3.63	3.77	96.8	101	70.0-130			3.78	25
Carbon tetrachloride	3.75	3.36	3.49	89.6	93.1	70.0-130			3.80	25
Chlorobenzene	3.75	3.44	3.58	91.7	95.5	70.0-130			3.99	25
Chloroethane	3.75	3.49	3.65	93.1	97.3	70.0-130			4.48	25
Chloroform	3.75	3.44	3.55	91.7	94.7	70.0-130			3.15	25
Chloromethane	3.75	3.39	3.52	90.4	93.9	70.0-130			3.76	25
2-Chlorotoluene	3.75	3.42	3.51	91.2	93.6	70.0-130			2.60	25
Cyclohexane	3.75	3.21	3.34	85.6	89.1	70.0-130			3.97	25
n-Decane	3.75	3.29	3.46	87.7	92.3	70.0-130			5.04	25
Dibromochloromethane	3.75	3.31	3.43	88.3	91.5	70.0-130			3.56	25
1,2-Dibromoethane	3.75	3.30	3.40	88.0	90.7	70.0-130			2.99	25
1,2-Dichlorobenzene	3.75	3.63	3.72	96.8	99.2	70.0-130			2.45	25
1,3-Dichlorobenzene	3.75	3.72	3.77	99.2	101	70.0-130			1.34	25
1,4-Dichlorobenzene	3.75	3.76	3.87	100	103	70.0-130			2.88	25
1,2-Dichloroethane	3.75	2.86	2.98	76.3	79.5	70.0-130			4.11	25
1,1-Dichloroethane	3.75	3.49	3.65	93.1	97.3	70.0-130			4.48	25
1,1-Dichloroethene	3.75	3.44	3.55	91.7	94.7	70.0-130			3.15	25
cis-1,2-Dichloroethene	3.75	3.13	3.32	83.5	88.5	70.0-130			5.89	25

¹Cp

²Tc

³Ss

⁴Cn

⁵Sr

⁶Qc

⁷Gl

⁸Al

⁹Sc

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

(LCS) R3984901-1 10/08/23 09:23 • (LCSD) R3984901-3 10/08/23 13:00

Analyte	Spike Amount ppbv	LCS Result ppbv	LCSD Result ppbv	LCS Rec. %	LCSD Rec. %	Rec. Limits %	<u>LCS Qualifier</u>	<u>LCSD Qualifier</u>	RPD %	RPD Limits %
trans-1,2-Dichloroethene	3.75	3.21	3.33	85.6	88.8	70.0-130			3.67	25
1,2-Dichloropropane	3.75	3.09	3.16	82.4	84.3	70.0-130			2.24	25
cis-1,3-Dichloropropene	3.75	2.63	2.69	70.1	71.7	70.0-130			2.26	25
trans-1,3-Dichloropropene	3.75	3.01	3.04	80.3	81.1	70.0-130			0.992	25
1,4-Dioxane	3.75	2.87	2.80	76.5	74.7	70.0-140			2.47	25
Ethanol	3.75	3.83	3.82	102	102	55.0-148			0.261	25
Ethylbenzene	3.75	3.37	3.37	89.9	89.9	70.0-130			0.000	25
4-Ethyltoluene	3.75	3.68	3.66	98.1	97.6	70.0-130			0.545	25
Trichlorofluoromethane	3.75	3.44	3.69	91.7	98.4	70.0-130			7.01	25
Dichlorodifluoromethane	3.75	3.54	3.64	94.4	97.1	64.0-139			2.79	25
1,1,2-Trichlorotrifluoroethane	3.75	3.52	3.74	93.9	99.7	70.0-130			6.06	25
1,2-Dichlorotetrafluoroethane	3.75	3.68	3.90	98.1	104	70.0-130			5.80	25
Heptane	3.75	2.87	2.92	76.5	77.9	70.0-130			1.73	25
Hexachloro-1,3-butadiene	3.75	3.73	3.81	99.5	102	70.0-151			2.12	25
n-Hexane	3.75	3.24	3.35	86.4	89.3	70.0-130			3.34	25
Isopropylbenzene	3.75	3.60	3.64	96.0	97.1	70.0-130			1.10	25
Methylene Chloride	3.75	3.28	3.42	87.5	91.2	70.0-130			4.18	25
Methyl Butyl Ketone	3.75	2.65	2.74	70.7	73.1	70.0-149			3.34	25
2-Butanone (MEK)	3.75	3.36	3.56	89.6	94.9	70.0-130			5.78	25
4-Methyl-2-pentanone (MIBK)	3.75	2.95	3.02	78.7	80.5	70.0-139			2.35	25
Methyl methacrylate	3.75	3.02	3.10	80.5	82.7	70.0-130			2.61	25
MTBE	3.75	3.27	3.43	87.2	91.5	70.0-130			4.78	25
Naphthalene	3.75	2.72	2.62	72.5	69.9	70.0-159		J4	3.75	25
Nonane	3.75	3.14	3.24	83.7	86.4	70.0-130			3.13	25
Pentane	3.75	3.56	3.69	94.9	98.4	70.0-130			3.59	25
2-Propanol	3.75	3.61	3.76	96.3	100	70.0-139			4.07	25
Propene	3.75	3.49	3.47	93.1	92.5	64.0-144			0.575	25
Styrene	3.75	3.39	3.48	90.4	92.8	70.0-130			2.62	25
1,1,2,2-Tetrachloroethane	3.75	3.58	3.67	95.5	97.9	70.0-130			2.48	25
Tetrachloroethylene	3.75	3.33	3.58	88.8	95.5	70.0-130			7.24	25
Tetrahydrofuran	3.75	2.90	3.02	77.3	80.5	70.0-137			4.05	25
Toluene	3.75	3.24	3.30	86.4	88.0	70.0-130			1.83	25
1,2,4-Trichlorobenzene	3.75	2.52	2.49	67.2	66.4	70.0-160	J4	J4	1.20	25
1,1,1-Trichloroethane	3.75	3.24	3.34	86.4	89.1	70.0-130			3.04	25
1,1,2-Trichloroethane	3.75	3.36	3.60	89.6	96.0	70.0-130			6.90	25
Trichloroethylene	3.75	3.20	3.26	85.3	86.9	70.0-130			1.86	25
1,2,4-Trimethylbenzene	3.75	3.62	3.69	96.5	98.4	70.0-130			1.92	25
1,3,5-Trimethylbenzene	3.75	3.56	3.76	94.9	100	70.0-130			5.46	25
2,2,4-Trimethylpentane	3.75	3.46	3.59	92.3	95.7	70.0-130			3.69	25
Vinyl chloride	3.75	3.63	3.77	96.8	101	70.0-130			3.78	25

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc

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

(LCS) R3984901-1 10/08/23 09:23 • (LCSD) R3984901-3 10/08/23 13:00

Analyte	Spike Amount ppbv	LCS Result ppbv	LCSD Result ppbv	LCS Rec. %	LCSD Rec. %	Rec. Limits %	<u>LCS Qualifier</u>	<u>LCSD Qualifier</u>	RPD %	RPD Limits %
Vinyl Bromide	3.75	3.60	3.82	96.0	102	70.0-130			5.93	25
Vinyl acetate	3.75	3.02	3.08	80.5	82.1	70.0-130			1.97	25
m&p-Xylene	7.50	7.01	7.13	93.5	95.1	70.0-130			1.70	25
o-Xylene	3.75	3.51	3.69	93.6	98.4	70.0-130			5.00	25
(S) 1,4-Bromofluorobenzene				92.5	94.6	60.0-140				

¹Cp

²Tc

³Ss

⁴Cn

⁵Sr

⁶Qc

⁷Gl

⁸Al

⁹Sc

GLOSSARY OF TERMS

Guide to Reading and Understanding Your Laboratory Report

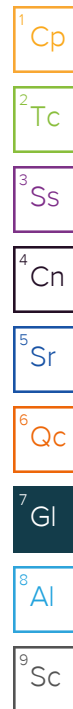
The information below is designed to better explain the various terms used in your report of analytical results from the Laboratory. This is not intended as a comprehensive explanation, and if you have additional questions please contact your project representative.

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.
RDL	Reported Detection Limit.
Rec.	Recovery.
RT	Retention Time.
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
E	The analyte concentration exceeds the upper limit of the calibration range of the instrument established by the initial calibration (ICAL).
J	The identification of the analyte is acceptable; the reported value is an estimate.
J4	The associated batch QC was outside the established quality control range for accuracy.



ACCREDITATIONS & LOCATIONS

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	LA000356
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

* 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 Analytical.





CHAIN OF CUSTODY AND ANALYSIS REQUEST FORM

M091

Send Report to jt.wilson@cteh.com; lclawitter@cteh.com
Company CTEH, LLC
Address 5120 North Shore Drive, North Little Rock, Arkansas 72118
Phone (501)801-8500
e-mail labresults@cteh.com;
Accounting Send invoices to CTEHAP@montrose-env.com with Invoice # and Vendor name in subject line

CTEH Project # 031332Turnaround Requested: ☒ Normal ☐ Same Day ☐ Next Day☐ Two Day ☐ Other (Specify) _____Data Packet Requested: ☒ Standard Level II ☐ Other _____

Sample and Extract Retention/Disposal:

Dispose after 2X hold time ☒Retain w/ storage fees after 2X hold time ☐11664006

Lab Contact Information									Method			Matrix		
Primary Sample Identification	Secondary Sample Identification	Sample Size	Units	Sample Start Date	Sample Start Time	Sample Stop Date	Sample Stop Time	Initials	T0-15+ TICS				A = air B = bulk S = soil SW = wipe T = tape W = water	
MEID1004MCD1	MCD1	1.4	L	10/4/23	2312	10/5/23	2321	KD	X				A-01	
MEID1004MCD2	MCD2	1.4	L	10/4/23	2329	10/5/23	2329	KD	X				A-02	
MEID1004MCD3	MCD3	1.4	L	10/4/23	2345	10/5/23	2341	KD	X				A-03	
MEID1004MCD4	MCD4	1.4	L	10/4/23	2141	10/5/23	2312	KD	X				A-04	
MEID1004MCD5	MCD5	1.4	L	10/5/23	0132	10/6/23	0135	KD	X				A-05	

Attachment G

Meteorological Conditions

