DOMINION

August 12, 2025

Mr. Mason Meade
Kyrene Elementary School District No. 28
8700 S. Kyrene Road
Tempe, AZ 852894

RE: Preliminary Air Quality Data Summary
Kyrene Sierra Elementary School
1122 E. Liberty Lane
Phoenix, AZ 85048

Dominion Project Number: AZ1418.64

Dear Mr. Meade,

Attached is the laboratory report for the air sample collected from Classroom 3 on August 5, 2025. Classroom 3 was selected for sampling as it was the location with the highest total Volatile Organic Compounds (tVOCs) levels identified by the handheld photoionization detector (PID).

Consistent with our preliminary readings the laboratory reported the high tVOC levels and reported twenty-one compounds that are considered primary contributors to the tVOCs reported. The compounds were all reported by the laboratory to be in parts per billion (ppb). All compounds with published exposure limits were all well below the established exposure limits.

Sincerely,

Ryan Kuhn, Ph.D., CIH

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ENTHALPY ANALYTICAL
formerly *Prism Analytical Technologies*

IAQ *Commercial Survey™*
Predict™

Client Sample ID: Classroom 3
Laboratory ID: 119969-1

Client: Dominion Environmental Consultants
7330 N. 16th St. Suite B-101 Suite B-101
Phoenix, AZ 85020

Report Number: 119969

Thank you for using IAQ Commercial Survey!
If you have questions about your report, please contact your service provider who performed this test.

Sampled By: Xin Lou
Project: -
Location: -
-

Client Sample ID: Classroom 3
Sample Volume (L): 24.0
Date Sampled: 08/04/2025
Sample Type: TDT AJ637
Sample Condition: Acceptable

Receive Date: 08/05/2025
Approve Date: 08/05/2025
Scan Date: 08/07/2025
Report Date: 08/11/2025

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 **14000 ng/L**

Total Mold Volatile Organic Compounds (TMVOC) Level

TMVOC is an assessment of the actively growing mold (see page 3).

Total MVOCs **5 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 5 and 6). These levels are estimates based on common products and activities.

Building Sources

See page 5 for more detail.

S	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 6 for more detail.

N	HFCs and CFCs (FreonsTM)
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 and Commercial 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

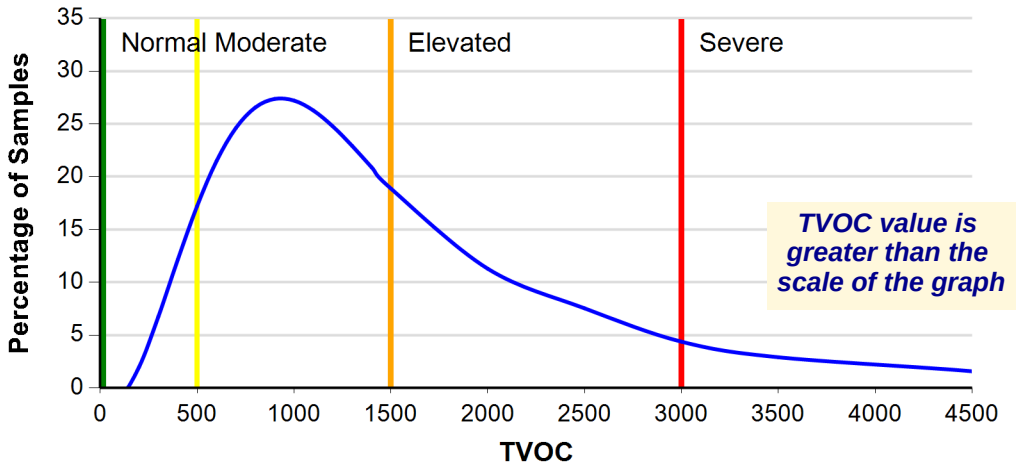
Your TVOC Level is: 14000 ng/L

IAQ needs improvement; effect on occupants probable; reduce potential sources and increase ventilation; investigate other causes of poor IAQ.

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 Survey methodology.

The presence of chemicals in your indoor environment 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 could be problematic for your IAQ, and will provide some recommendations to help reduce or eliminate them.

Client Sample ID: Classroom 3
Laboratory ID: 119969-1

Total Mold Volatile Organic Compound (TMVOC) Summary

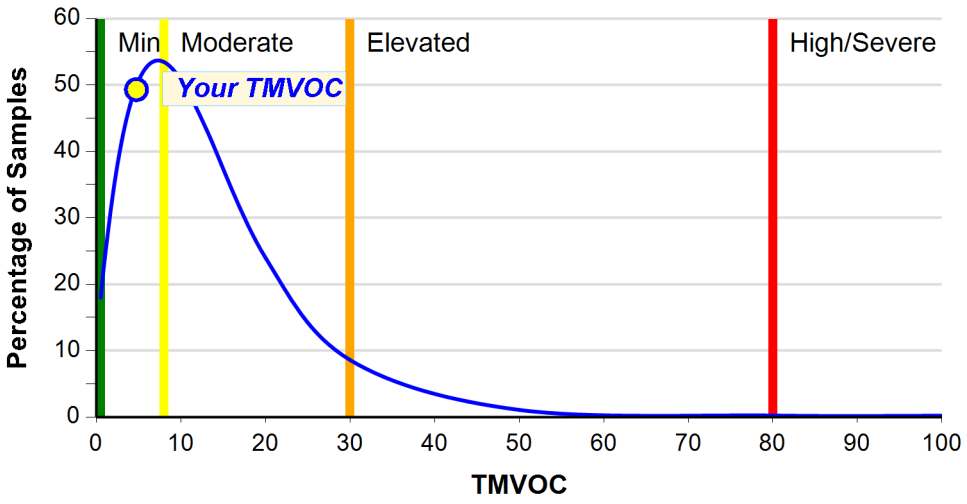
Your TMVOC Level is: 5 ng/L

Actively growing molds may be present, but are at or below levels found in most homes and working environments.

Your Active Mold Level (Highlighted)

Minimal	Active-Moderate	Active-Elevated	Active-High	Active-Severe
< 8 ng/L	8 - 30 ng/L	30-80 ng/L	80 - 150 ng/L	> 150 ng/L

All IAQ Survey TMVOC
Active Mold Growth Indicator



The average TMVOC is 10 ng/L

This chart represents the TMVOC distribution of over 45,000 samples. Approximately half the samples indicate that some active mold growth is occurring at the time of sample collection.

The chart above shows the TMVOC level 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 TMVOC level (indicated on the horizontal x-axis). For example, a TMVOC of 20 ng/L is reported in ~20% of the samples. The green, yellow, orange, and red vertical bars represent divisions between Minimal, Moderate, Elevated, and High/Severe TMVOC levels.

Molds can be found anywhere in the indoor environment as long as there is a source of water or moisture. Molds produce spores, VOCs (during the metabolic or digestive processes of mold), and mycotoxins (typically when the mold is threatened).

This test detects only the VOCs produced by actively growing molds and does not represent spores or mycotoxins. The TMVOC value is the sum of a select set of VOCs emitted by most molds while growing (when mold is in an inactive or dormant state it does not produce many MVOCs).

The presence of moisture is the primary factor in mold growth, controlling moisture and dampness is the only way to consistently control or limit mold growth.

Click here for more information about molds and mold VOCs.

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.

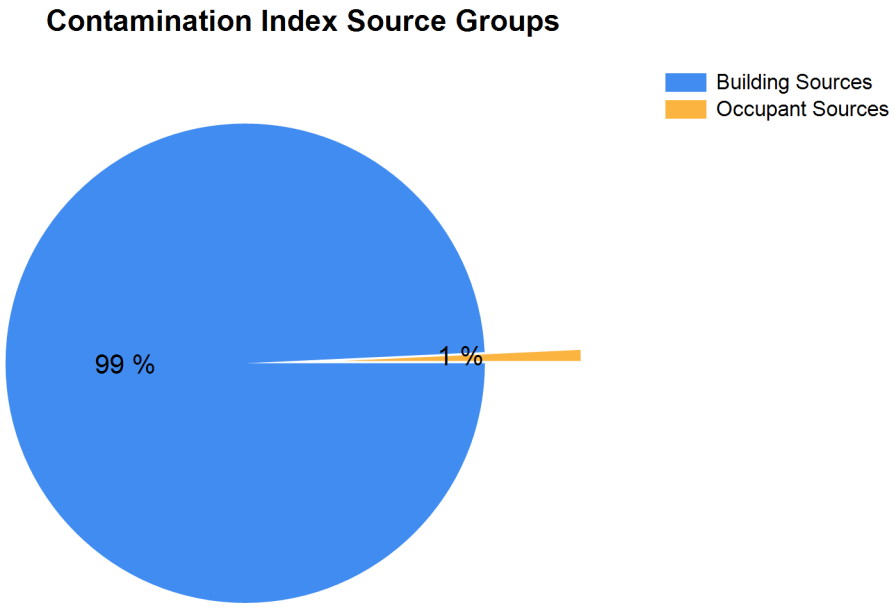
2. Occupant Sources are those that the occupants of the building bring into the building and can usually be more readily identified and remediated. Recent construction or renovation can often contribute to other source categories in addition to Building Sources.

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™ 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.)	12000	**Severe**	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. If application was performed within 2 weeks of your air test, begin ventilating the area immediately. Locate and dispose of product containers and related supplies. If application was performed more than 4 weeks before your air test, please contact your service provider for further discussion and recommendations. 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	34	**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	41	**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	48	**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	64	**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 (FreonsTM)	3	**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	34	**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	56	**Normal**	Air fresheners, scented cleaning products, and scented personal care products.
Dry Cleaning Solvents	0	**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
Pentane (C 5)	109-66-0	710	240	Aerosol propellant; blowing agent; gasoline fuel component
Nonane (C 9)	111-84-2	530	100	Gasoline; diesel; solvent
Decane (C 10)	124-18-5	470	80	Gasoline; diesel, fuel oil, kerosene; solvent; paints and coatings
Undecane (C 11)	1120-21-4	320	50	Gasoline; diesel, fuel oil, kerosene; solvent; printing ink; degreaser
1,2,4-Trimethylbenzene	95-63-6	290	57	Gasoline; solvent; some paints and coatings; engine cleaners
2-Methylbutane	78-78-4	250	84	Blowing agent (e.g., foam insulation, fragrance products, air fresheners, etc.); personal care products; solvents
Propylcyclohexane	1678-92-8	140	26	Paints and coatings; solvent; gasoline component
1,3,5-Trimethylbenzene	108-67-8	120	25	Gasoline; solvent; some paints and coatings; engine cleaners
Octane (C 8)	111-65-9	89	19	Gasoline; diesel; solvent; lacquer diluent; blowing agent for foam rubber
m,p-Xylene	108-38-3; 106-42-3	83	19	Gasoline; paints and coatings; adhesives and cements; solvent; print cartridges
Dodecane (C 12)	112-40-3	82	12	Gasoline; diesel, fuel oil, kerosene; solvent
Isobutane	75-28-5	45	19	Gasoline and fuel additive; aerosol propellant; refrigerant; cooking/camping/lighter fluids
o-Xylene	95-47-6	39	9	Gasoline; paints and coatings; adhesives and cements; solvent; print cartridges
Methylcyclohexane	108-87-2	38	9	Solvent; fuels; correction fluid; paints and coatings; thinners
Tridecane (C 13)	629-50-5	30	4	Gasoline; diesel, fuel oil, kerosene; solvent

Ethanol	64-17-5	21	11	Cleaners, especially antiseptic wipes; personal care; consumable alcohol; some solvents; renewable gasoline component; pharmaceuticals
Tetradecane (C 14)	629-59-4	16	2	Gasoline; diesel, fuel oil, kerosene; solvent; pesticide
Ethylbenzene	100-41-4	13	3	Gasoline; paints and coatings; solvent; pesticide
p-Isopropyltoluene	99-87-6	13	2	Fragrances; solvent; thinners; gasoline component
Toluene	108-88-3	11	3	Gasoline; adhesives (building and arts/crafts); contact cement; solvent; heavy duty cleaner
Naphthalene	91-20-3	5	0.9	Gasoline; diesel; Moth balls/crystals; insecticide

The notes below indicate any additional significant compounds present in this air sample or other noteworthy information.

The sorbent tube contained very heavy sample loading; this may have affected the accuracy of the results.

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
Ethanol	64-17-5	11	90 - 40,334,000	vinous, alcohol
Ethylbenzene	100-41-4	3	2 - 18,000	oily, solvent
Methylcyclohexane	108-87-2	9	149 -	petroleum
Naphthalene	91-20-3	0.9	2 - 1,012	tar, creosote, mothballs, empyreumatic
Nonane (C 9)	111-84-2	100	2,300 - 21,000	gasoline
Octane (C 8)	111-65-9	19	660 - 235,000	gasoline, oil
Pentane (C 5)	109-66-0	240	1,290 - 1,147,000	sweet
Toluene	108-88-3	3	21 - 157,000	sour, burnt
1,3,5-Trimethylbenzene	108-67-8	25	6 - 2,400	aromatic
1,2,4-Trimethylbenzene	95-63-6	57	6 - 2,400	aromatic
m,p-Xylene	108-38-3; 106-42-3	19	12 - 316,000	sweet, empyreumatic
o-Xylene	95-47-6	9	12 - 316,000	sweet, empyreumatic

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
Naphthalene	91-20-3	5	0.9	50,000 ng/L (10,000 ppb)	Gasoline; diesel; Moth balls/crystals; insecticide
Hexane (C 6)	110-54-3	2	0.6	180,000 ng/L (50,000 ppb)	Solvent; adhesive; grease; lubricant; paints and coatings; petroleum fuel component
Toluene	108-88-3	11	3	375,000 ng/L (100,000 ppb)	Gasoline; adhesives (building and arts/crafts); contact cement; solvent; heavy duty cleaner
Ethylbenzene	100-41-4	13	3	435,000 ng/L (100,000 ppb)	Gasoline; paints and coatings; solvent; pesticide
m,p-Xylene	108-38-3; 106-42-3	83	19	435,000 ng/L (100,000 ppb)	Gasoline; paints and coatings; adhesives and cements; solvent; print cartridges
o-Xylene	95-47-6	39	9	435,000 ng/L (100,000 ppb)	Gasoline; paints and coatings; adhesives and cements; solvent; print cartridges

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.

ENTHALPY ANALYTICAL
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Chain of Custody

IAQ *Home Survey*™ IAQ *Commercial Survey*™

COC No. 1199169
Enthalpy Use Only – Do Not Fill In

CONTACT INFORMATION	
Sampling Professional: Xin Lan	Phone: 612-810-8781
Company: Dominion Environmental	Email: xlan@dominion-env.com
Billing Address:	

LOCATION TESTED	
Project Name:	Project No.
Address:	

It is important to fill out all information so your results can be correctly calculated and returned to you.
Please notify lab when a sample is shipped for any 1 business day (1 BD) rush turnaround request and by checking the box at bottom of page.

*Required Field - Please Write Legibly

	Sample Information						Analysis Requested*									Sample Name
							Residential			Commercial			Other			
Sample Number Enthalpy Use Only	Tube Number* Ex: AA123	Date Collected*	Pump Start Time*	Pump Stop Time*	Temperature	Humidity	A2-IAQHSB (IAQHS – Basic)	A2-IAQHSP (IAQHS – Predict)	A14-IAQHSF (Formaldehyde) *Max. 30 min. sample*	A2-IAQCSB (IAQCS – Basic)	A2-IAQCSP (IAQCS – Predict)	A14-IAQCSF (Formaldehyde) *Max. 30 min. sample*	A2-TSC (Tobacco Smoke)	Trimethylbenzene A2 - MSXADD	Stoddard Solvent A2 - MSX (TPH C9-C12)	Note: Briefly describe the actual sample collection location. Ex. Kitchen
1	AJ687	8/4/2025	1314	1514	96.6	25					X					Classroom 3
																↳ both 1,2,4 & 1,3,5-Trimethylbenzen ok

Location, notes, and comments about testing:

Sample Condition: ✓ OK ___ See Notes
Box Condition: ✓ OK ___ See Notes
Carrier: FEC

Custody

Turn Around Time (TAT):	Requested Service:
STD: Within 2 business days of receipt for Basic, Predict, Formaldehyde. Within 5 business days for TSC. STD is default. **1 BD**: 1 Business Day (2x $)	☒ Standard ☐ 1 BD Note: *STD is default*

	Date:	Time:
Sent By:	8/4/2025	1600
Received By: (At Prism)	8/5/25	11 AM

[form: IAQS-COC-1221]

Retention of records is seven years. Records older than seven years will be destroyed without notification.