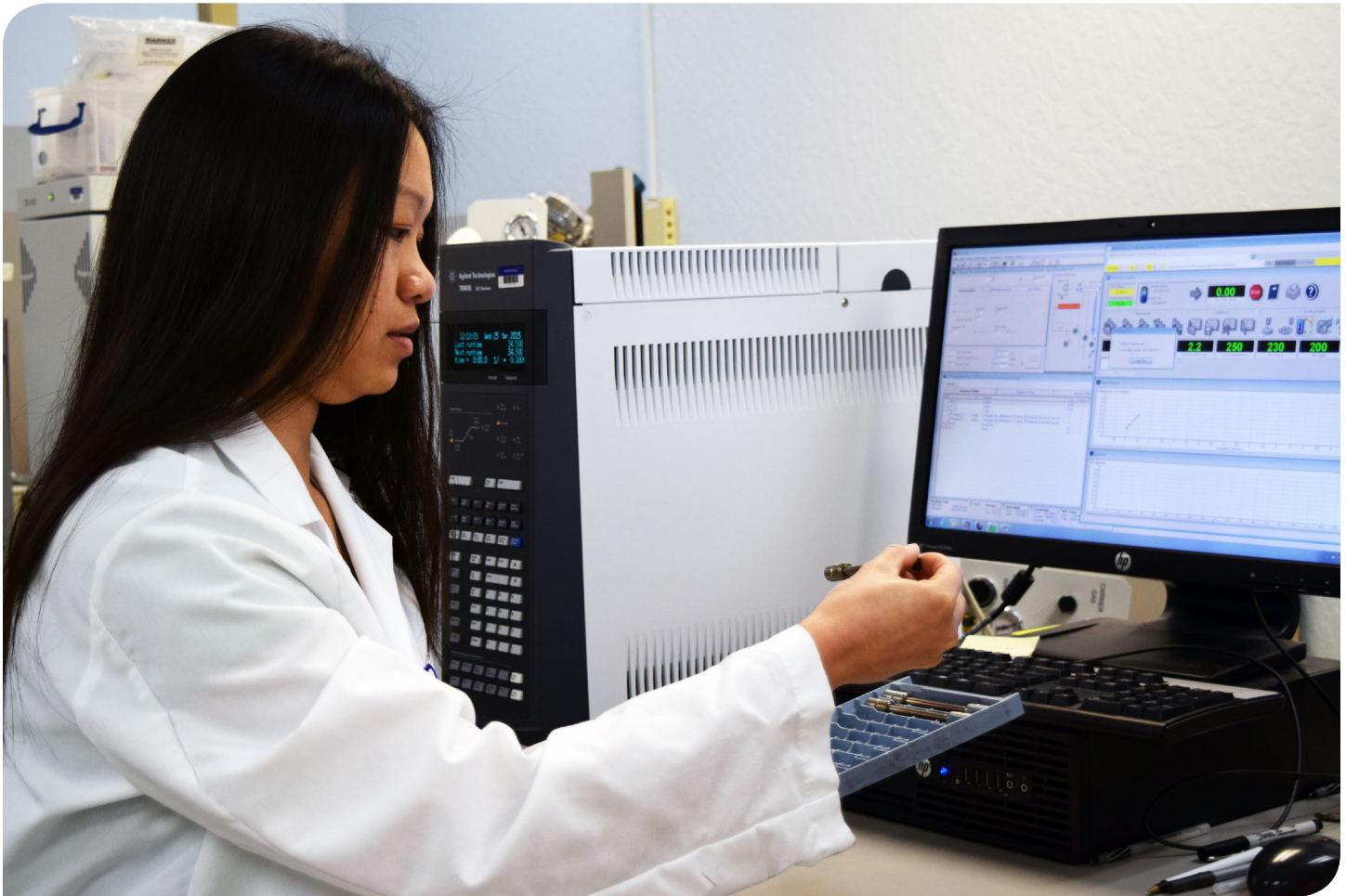




## Air Toxics



Eurofins Air Toxics, Inc., is the global expert in environmental air testing. With more than 25 years of air expertise, we have analyzed a wide range of matrices for both routine and specialty air testing programs. Our capabilities extend from trace level measurements required for indoor air testing to identifying and quantifying organics in high-level sources. Eurofins Air Toxics provides you with the benefits of technical expertise to meet your project and quality objectives, production capacity to meet delivery timelines and highly skilled project managers to provide superior customer service.



Eurofins Air Toxics' 45,000-square-foot facility is custom-designed to suit the specifications of an air laboratory including segregation of conflicting tests to prevent cross contamination and work flow to encourage cross-functional work teams. We also have an isolated negative pressure room for solvent handling and extraction activities. Our 2,000-square-foot method development area is allocated specifically for research and development activities. We also have sorbent tube preparation and canister cleaning operations located in segregated areas to prevent cross-contamination, and all sample media are stored in a secured area.

Completing more than 40,000 air analyses per year, Eurofins Air Toxics is the leading air lab in the United States. We continually abide by the following principles:

#### **Customer Service**

Our Project Management team has significant depth of experience both in technical and industry requirements. Each Project Manager (PM) is a degreed scientist with years of project management experience. The team is focused on meeting client objectives and communicating relevant information in a clear and timely manner. Each project manager can walk new

customers through the intricacies associated with air testing as well as facilitate analytical solutions for complex and non-routine projects. While a single PM is assigned as the primary point of contact for each project, any of our PMs can step in to maintain continuity of the project.

We provide sampling guides for both whole air (canisters and bags) and sorbent methods, which include useful information on media operation, common field sampling occurrences, and method guidance to complement our Project Managers' extensive knowledge.

#### **Data Integrity and Quality**

"We get the right answers" is a statement that is supported by our audit records and exemplary sample testing success. Accuracy and precision are highly dependent on lab instrumentation and the analysts' skills and commitment to adhering to a comprehensive QA/QC program. Unique in design, our equipment is dedicated to specific air methods. We've optimized our equipment to efficiently handle the wide range of concentrations often encountered at a vapor intrusion site. All vapor samples are screened by GC/MS prior to analysis to ensure the appropriate instrumentation is used to generate

reliable results. We have instruments dedicated to analysis in the part per trillion (ppt), part per billion (ppb) and part per million (ppm) ranges. This approach to sample analysis minimizes sample dilutions and contamination from sample carryover, thereby providing the highest level of data quality available.

Our data is reviewed by a sophisticated software package known as LUMEN that is unique to Eurofins Air Toxics. This validation program is a rules-based, logic driven, independent validation engine to assess completeness, evaluate pass/fail of relevant project quality control requirements and verify all quantified results. The Data Assessor reviews 100% of the raw analytical data against established validation criteria for compliance, ensuring accurate, complete and timely results.

### Technical Services

Our laboratory is staffed by experienced chemists who have worked with all types of air samples, and it is equipped with equipment specifically designed or modified for the analysis of air. This unique combination of experience and equipment ensures that “special projects” become routine, and data quality objectives are met. In addition, Eurofins Air Toxics is one of the few commercial environmental laboratories with a Research Group devoted to method development. This group works to refine and extend existing methodologies and develop innovative sampling and analysis procedures in order to simplify sampling or enhance data quality.

### Experience

Eurofins Air Toxics has established national relationships with numerous environmental engineering and consulting firms, as well as many industrial clients. We also support a wide variety of clients in both the private and government sectors. Public sector clients include the U.S. EPA, Department of Defense (DoD), Department of Energy (DOE), Army Corps of Engineers, Air Force Center for Environmental Excellence (AFCEE) and the U.S. Navy. Our laboratory has provided analytical support for many high-profile projects nationwide, including extensive vapor intrusion investigations, indoor air quality evaluations, ambient air monitoring programs and soil vapor surveys.

In order to ensure that we are providing our clients with the best available service, we continually work to stay abreast of new technology. This means constantly evaluating and adopting new sampling and analytical techniques or developing our own in-house equipment.

### Deliverables

Eurofins Air Toxics continues to provide a wide range of deliverables through our custom-designed Laboratory Information Management System (LIMS). All reports are generated directly from the LIMS database preventing common

data entry errors. Our proprietary tools allow us to provide Electronic Data Deliverables (EDDs) in hundreds of industry and client-specific formats. Examples include, but are not limited to, a variety of spreadsheet, XML and database formats. Our ability to create original print quality, Level IV Electronic Comprehensive Validation Packages (eCVP), reduces the effort required for data review and validation.

### Online Data Access

As part of our standard product offerings, your data is accessible 24/7 via a secure internet browser. Complete access to your results, includes:

- Sample Receipt Notifications
- Chain-of-Custody (COC) form
- Final Data Report
- eCVP
- EDDs
- Invoices
- Shipment Information and Tracking
- Project follow-up

### Quality Assurance

Eurofins Air Toxics maintains a comprehensive Quality Assurance and Quality Control program to assess data quality, ensure analytical data is within method-specified control limits, and comply with project-specific QAPP requirements. Wherever possible, the quality control measures used are those specified in the most current NELAC Quality Systems. We participate in ERA’s Air and Emissions (AE) performance evaluation program. We routinely undergo on-site audits and analyze proficiency samples submitted by certifying agencies as well as independent clients. Few states currently have certification programs for air analysis. Eurofins Air Toxics is certified by the states and agencies outlined below:

| Agency  |
|---|
| Arizona Department of Health Services             |
| State of New Jersey                               |
| New York State Department of Health               |
| Utah State Department of Health                   |
| Texas Commission on Environmental Quality         |
| Oregon State Department of Environmental Quality  |
| Washington Department of Ecology                  |
| DoD-ELAP and ISO/IEC 17025:2005                   |
| Commonwealth of Virginia                          |
| State of Louisiana Dept. of Environmental Quality |

Eurofins Air Toxics is classified under NAICS Code 541380. We have received our Certification of Accreditation from the Department of Defense (DoD) ELAP for multiple air methods, including TO-3, ASTM D1946/1945, TO-15, and TO-17.

## Sample Media

With more than 4,400 canisters and 1,800 flow controllers, Eurofins Air Toxics maintains one of the largest, single-location canister inventories of any laboratory in the United States. Every year, we purchase hundreds of new canisters and flow controllers and budget significant dollars to the maintenance of this inventory.

| Description                                 | Quantity |
|---|----------|
| Air sampling canisters                      |          |
| 6-Liter Summa canister                      | 2,400    |
| 1-Liter Summa canister                      | 1,600    |
| PAC250 (250mL) Summa Canister               | 450      |
| Flow controllers for air sampling canisters | 1,800    |

We maintain a staff dedicated to cleaning and certifying our canisters, and we also draw on the resources of our GC/MS Volatiles Team for large-scale projects requiring individually certified canisters. Our canister-cleaning program is one of the most comprehensive in the industry. Canisters are certified using GC/MS and analyzed for Eurofins Air Toxics' standard TO-15 compound list. Certification by GC/MS adds another layer of data defensibility when compared to certification by GC/FID, which may miss the detection of chlorinated compounds. Eurofins Air Toxics is also able to certify canister sampling trains for low level and SIM level projects.

## Instrumentation and Capacity

Laboratory success is evaluated against specific performance measures, one of which is on-time reporting. Our efforts are focused on providing data that meets the highest quality standards and is delivered to our clients within the promised time frame. To achieve this goal, Eurofins Air Toxics has invested resources toward expanding our capacity with state-of-the-art instrumentation, in-house developed technology and a workforce that is cross-trained among teams.

### Major Air Instrumentation

| Description | Quantity |
|-------------|----------|
| GC/MS VOC   | 19       |
| GC/MS SVOC  | 2        |
| GC          | 9        |
| HPLC        | 2        |



## Analytical Capabilities

Eurofins Air Toxics supports numerous EPA methods described in the Compendium of Methods for the Determination of Toxic Organic Compounds in Ambient Air, commonly referred to as the “TO” methods. Additionally, we

have implemented various ASTM methods in the laboratory. The following analyses are currently performed routinely at Eurofins Air Toxics. Special project requirements, including method development, are accommodated, and new methods are evaluated and validated as needs arise.

### US EPA Compendium Ambient Air Methods

| Method     | Analysis  | Media                  |
|------------|---|------------------------|
| EPA TO-3   | BTEX/TPH by GC/PID/FID                                | Canister or Tedlar bag |
| EPA TO-11A | Aldehydes and Ketones by HPLC/UV                      | DNPH cartridge         |
| EPA TO-12  | Non-methane Organic Compounds                         | Canister or Tedlar bag |
| EPA TO-13A | Polynuclear Aromatic Hydrocarbons (PAHs) by GC/MS     | PUF/XAD cartridge      |
| EPA TO-14A | Volatile Organic Compounds (VOCs) by GC/MS or PID/FID | Canister or Tedlar bag |
| EPA TO-15  | Volatile Organic Compounds (VOCs) by GC/MS SIM/Scan   | Canister or Tedlar bag |
| EPA TO-17  | Volatile Organic Compounds (VOCs) and SVOCs by GC/MS  | Sorbent tube           |

### ASTM Methods

| Method     | Analysis   | Media           |
|------------|--|-----------------|
| ASTM D1945 | C1-C5 Hydrocarbon Speciation and atmospheric gases by GC/FID/TCD | Canister or bag |
| ASTM D1946 | Atmospheric Gases, Ethane, Ethene by GC/FID/TCD                  | Canister or bag |
| ASTM D5504 | Speciated and Reduced Sulfur Compounds by GC/SCD                 | Tedlar bag      |

### NIOSH Methods

| Method     | Analysis  | Media    |
|------------|---|----------|
| NIOSH 5515 | Polynuclear Aromatic Hydrocarbons (PAHs) by GC/MS | XAD tube |

### Passive Sorbent Methods

| Method                                     | Analysis                                | Media   |
|--|---|---|
| Modified TO-17                             | VOCs by Thermal Desorption (TD) - GS/MS | Radiello 145<br>WMST™ vial  |
| Solvent Extraction GC/MS by Modified TO-17 | VOCs by GC/MS                           | Radiello 130<br>WMST™ vial - charcoal<br>SKC Ultra<br>SKC 575<br>3M OVM |
| EPA 325B                                   | Benzene and VOCs by TD - GC/MS          | Sorbent Tube  |

### Miscellaneous Methods

| Method                       | Analysis     | Media  |
|------------------------------|--------------|--------|
| 40 CFR Part 50 APP. J (PM10) | Particulates | Filter |

*Custom Method Development, per client request.*





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