

# AIR QUALITY MONITORING



**AGAT** Laboratories

Service Beyond Analysis ■ [www.agatlabs.com](http://www.agatlabs.com)



AGAT Laboratories is a highly specialized, Canadian-based company that provides analytical laboratory services worldwide. We offer services to the Environmental, Energy, Mining, Industrial, Transportation, Agri-Food and Life Science sectors. With world-class facilities and state-of-the-art instrumentation, our qualified personnel adhere to our mission statement, delivering "Service Beyond Analysis".

# AIR QUALITY MONITORING

AGAT Laboratories has a 40 year history of providing a full range of air services to industries and the government making us a recognized leader throughout Canada. We assist clients in achieving regulatory compliance by evaluating the effectiveness of their air monitoring management systems and providing accurate assessments for their environmental impact studies. We specialize in source emissions testing, ambient air monitoring, meteorological monitoring, passive air monitoring and data acquisition.

## Source Emissions Testing

### Relative Accuracy Test

**Audits:** Our mobile *Continuous Emissions Monitoring System (CEMS)* extracts continuous gas samples from the source through dilution or a straight extractive system. The *CEMS* provides real-time measuring and trending for the continuous monitoring of emissions from processing and industrial stacks.



## Source Testing Services

Our field personnel take on-site samples of emission source gas using iso-kinetic or proportional rate methods. The collected gasses are passed through filter media, sorbent traps and various chemical reagents and then quantified in the laboratory using reference test methods.

### Applications

- Routine compliance testing
- Manual Stack surveys
- Performance testing
- Continuous Emissions Monitoring Systems (CEMS)
- Fugitive Emissions measurement
- Pollution control
- System optimization

### Capabilities

- Total Particular Matter
- PM<sub>10</sub> / PM<sub>2.5</sub>
- NO<sub>x</sub>
- SO<sub>2</sub>
- VOC
- NH<sub>3</sub>
- PAH
- Metals
- Mercury
- Dioxins and Furans
- CO

# Passive Monitoring

## Passive Air Quality Sampler (PAQS)

Our PAQS is composed of chemically treated filters that absorb target compounds. After filters are exposed to the environment, they are analyzed in our Clean Air Laboratory to measure pollution concentrations collected for the duration of exposure.



The sampling system has a protective rain shelter and is a cost-effective solution when conducting passive air monitoring. The system is portable, does not require electricity, data loggers or pumps, and ensures that there is no active movement of air through the sample.

### Applications

- Measures large areas for spatial variation of pollutant levels.
- Studies long-term trends.
- Includes occupational and industrial hygiene studies.

### Capabilities

- SO<sub>2</sub>
- H<sub>2</sub>S
- NO<sub>2</sub>
- O<sub>3</sub>
- VOCs

# Ambient Air Monitoring

## Continuous Air Monitoring Stations

AGAT Laboratories maintains one of the largest fleets of Air Monitoring stations in North America. We offer fully equipped Ambient Air Quality Monitoring stations on a rent, lease or purchase basis.

These stations are equipped with the following features:

- Varied chemical monitoring configurations.
- PC-based data acquisition and control systems with enhanced remote access capabilities.
- Monthly calibration, servicing, data validation and reporting services.
- *WebAIR*, our online enhanced reporting and notification software.

### Applications

- Non-point source testing.
- Community exposure assessments.
- Industrial Fence-line Studies.
- Industrial compliance monitoring.

### Capabilities

- |                    |                   |                   |  |
|--------------------|-------------------|-------------------|--|
| ▪ SO <sub>2</sub>  | ▪ NO <sub>2</sub> | ▪ CO <sub>2</sub> | ▪ PM <sub>10</sub> / PM <sub>2.5</sub> |
| ▪ H <sub>2</sub> S | ▪ NH <sub>3</sub> | ▪ TSP             | ▪ Fine particulates                    |
| ▪ TRS              | ▪ O <sub>3</sub>  | ▪ THC             | ▪ Complex Volatile Organics            |
| ▪ NO <sub>x</sub>  | ▪ CO              | ▪ NMHC            | ▪ Meteorological indicators            |



## Meteorological Monitoring

We provide complementary and stand-alone meteorological monitoring stations that are solar-powered with PC-based or remote accessed data acquisition and data logging systems. With monthly servicing, we provide data validation and reporting services.

### Applications

- Forecast poor air quality days
- Vending index
- Air advisories
- Air Quality Dispersion Modeling

### Capabilities

- Ambient temperature
- Relative humidity
- Wind speed and direction
- Precipitation

## Integrative Monitoring

We offer various integrated sampling programs based on drawing air through filters and absorbents.

### Applications

- Environmental monitoring
- Industrial hygiene
- Odour profiling
- Chemical warfare agents
- Material Emission Studies

We use specialized sampling techniques as per EPA TO Methods that can be supplied for multiple components including:

Sampler	Capabilities
Filters	High Volume Sampling for TSP and PM <sub>10</sub>
PUF Tubes	High Volume Sampling for PCBs PAHs
Sep – Pak Cartridges and Gastec Tubes	Formaldehyde and Phenol
SILONITE Canisters and Tedlar Bags	VOCs

## WebAIR | [webair.agatlabs.com](http://webair.agatlabs.com)



This secure website is used for ambient air monitoring data applications. Some features include daily reports consisting of hourly recorded and trended calibration data. This dramatically improves the efficiency of report generation and enhances the overall alarming structure.

