



Analytical Instrument Technician

Wood Buffalo Environmental Association

The Wood Buffalo Environmental Association (WBEA) monitors the environment of the Regional Municipality of Wood Buffalo in north-eastern Alberta. Our environmental monitoring work is the most integrated and intensive focus on air and terrestrial monitoring in any one area, anywhere in Canada. The WBEA is committed to reporting accurate and timely high-quality data from our Ambient Air Monitoring (AAM), Terrestrial Environmental Effects Monitoring (TEEM), and Community Odour Monitoring (COMP) Programs to ensure regional stakeholders have the information they need to make informed environmental decisions. For more information, visit: <http://www.wbea.org>

The Role

The Analytical Instrument Technician position is a full-time technical role at the WBEA. The Analytical Instrument Technician reports to the Laboratory Coordinator and will work within the Analytical Services Group (ASG) and the Ambient Air Monitoring Group (AAM). The WBEA ASG is an environmental analytical laboratory and is responsible for the sample preparation, extraction, analysis, data validation, and reporting of time-integrated air samples from the WBEA network. The WBEA AAM is responsible for continuous ambient air monitoring across the WBEA network, which includes two field-based gas chromatography (GC) systems. The Analytical Instrument Technician's core responsibilities are to ensure ASG instrumentation and equipment and AAM GC systems are operating in an effective and efficient manner; to provide instrument and equipment training to ASG members; and to continually learn and grow in the position through experience and manufacturer training.

Laboratory Responsibilities

- Complete or assist manufacturer service technicians with analytical instrument and equipment installations.
- Perform preventative maintenance, troubleshoot, and diagnostic maintenance on analytical instrumentation including:
 - Automated Filter Weighing System (MTL AH500E)
 - Ion Chromatography Systems (Dionex ICS-3000, Dionex ICS-6000)
 - Inductively Coupled Plasma Mass Spectrometry (Agilent 8900)
- Perform preventative maintenance, troubleshoot, and diagnostic maintenance on ASG analytical equipment including:
 - Microwave Digestor (CEM MARS 6)
 - Water Purification System
 - Fume Hoods and Flow Hoods
 - Chillers and Vacuum Pumps
- Train ASG personnel on instrument and equipment usage.
- Work with the Laboratory Coordinator to ensure analytical instrumentation and equipment have appropriate warranties, schedule preventative maintenance, and have parts and tools available for diagnostic maintenance.
- Assist with method development for gravimetric, ion, and elemental analysis for particulate matter (PM) filters, ion exchange resins (IERS), and annular denuders.
- Assist the Information System Analyst with laboratory IT support including laboratory data back-ups, workstation patching and back-ups, and instrument software diagnostics and updates.



- Work with ASG members and external parties to implement and maintain a Laboratory Information Management System (LIMS).
- Work with ASG members and external parties to implement and maintain ISO 17025 accreditation.

GC Responsibilities

- Travel to and from the GC trailer transporting gas cylinders and tools, as required.
- Perform routine troubleshooting and user maintenance on field-based GC analytical instrumentation including the Agilent 7890B VOC GC, Markes Thermal Desorption Sampler, and the AMA Instruments GC 5000 Sulphur GC.
- Perform daily system checks on the VOC GC and Sulphur GC.
- Continually work on VOC GC and Sulphur GC method development.
- Assist with the development of the GC QA/QC data program (e.g., data transfer, archiving and review).
- Assist with GC data validation (e.g., chromatogram peak integration, calibration curve validation, trends in analyte signal, etc.).
- Maintain backup GC analytical instrumentation at the WBEA Centre.

Additional Tasks

- Perform procurement duties for laboratory and GC instrumentation.
- Complete and maintain all WBEA required safety training and certifications (e.g., WHMIS) and ensure completion of applicable safety documentation.
- Follow general laboratory hygiene practices.
- Adhere to the WBEA Employee Manual and the WBEA Safety Manual.
- Perform various other duties as required.

Qualifications:

- Post-secondary education in chemistry, instrumentation, environmental science, atmospheric science, or similar technical field.
- 10+ years of experience with hands-on maintenance and usage of analytical instrumentation including chromatography systems.
- Have a strong aptitude for self-learning and technological skills.
- Strong organizational and time management skills, including the ability to prioritize tasks and responsibilities.
- Be able to work with minimal supervision and take initiative.
- Maintain quality work with attention to detail and accuracy.
- A broad understanding of environmental testing and possible sources of contamination in sample media, an asset.
- Possess excellent computer skills, including use of MS Office at an intermediate level.
- Possess a basic understanding of information technology.

Schedule: Full-time, 40 hours per week at 8 hours per day from Monday to Friday. Overtime may be required periodically, depending on operational needs.

Employment Status: Full-time, permanent



Salary: \$103,000.00 - \$122,500.00

Work Location: This is a local position, reporting to the WBEA Centre in Fort McMurray, Alberta.

Pre-Employment Requirements:

- Drug & Alcohol testing
- Fit Test
- Valid Class 5 Driver's license, a clean driving record, and the ability to travel throughout the Regional Municipality of Wood Buffalo
- Criminal record check

For more information, visit: <https://www.wbea.org>

Application Instructions: Please submit a resume and cover letter that outlines why your skills, experience, and personality would make you an excellent candidate for the Analytical Instrument Technician role at the WBEA. If you are interested in joining our growing technical team, please apply here: <https://www.fitzii.com/apply/85648>

Application Deadline: Open until position is filled.

We offer our employees an attractive compensation package that includes a competitive salary, above-market group health benefits, a group RRSP plan, a northern allowance, and a commitment to career development.

We thank all applicants for their interest. Only those selected for an interview will be contacted.