

Job Description

Job Title:	Water Quality Research Technician
Department:	Earth & Environmental Sciences
Reports To:	Philippe Van Cappellen
Jobs Reporting:	Undergraduate work/study students
Salary Grade:	USG 6
Effective Date:	June 14, 2019

Primary Purpose

The Water Quality Research Technician will work closely with graduate and undergraduate students, staff and faculty and supports the research activities of Ecohydrology Research Group and Global Water Futures Program.

Key Accountabilities

Field Work

- Operate and maintain highly instrumented watershed observatories, for example, those located in Southern Ontario
- Support, develop and coordinate sampling programs involving deployment of equipment and sensors in groundwater, streams, beaches, reservoirs/lakes, soils and sediments.
- Ensure proficient basic field collections and operations including use of university vehicles and trailers, groundwater and surface water samplers, sediment traps, corers and grabs.
- Responsible for the safe execution of field work in accordance with regulations and UW safety policies. Provide safety training to students and other researchers conducting field work.

Analytical work

- Perform chemical analyses of a variety of water and sediment quality parameters, particularly the concentration, molecular form and elemental association of different nutrients including, but not limited to, phosphorus, nitrogen and silicon
- Operate, calibrate, maintain and update documentation of a variety of laboratory instruments and field equipment (e.g. ICP-OES, TOC-L, UV-Vis, IC, anaerobic glove boxes, portable field sensors)
- Aid in the development and implementation of experimental designs and/or analytical procedures for research projects.

Data Management

- Prepare raw data from field and laboratory measurements into a consistent format compatible with the CUAHSI observation data model; prepare graphical reports, prepare and share data on appropriate platforms for publication
- Prepare reports and consolidate data for internal and external clients.

Laboratory Management and Quality Control

- Support core laboratory day-to-day operations including but not limited to ordering supplies, obtaining quotes for equipment, conducting monthly safety inspections and supervising casual staff.
- Maintain laboratory safety records and train new users on the safe and competent use of laboratory equipment.
- Ensure superior Quality Assurance and Quality Control (QA/QC) and Good Laboratory Practices (GLP) on all laboratory and field procedures. Modify and maintain technical procedures (SOPs) as required.

Job Description



**All employees of the University are expected to follow University and departmental health and safety policy, procedures and work practices at all times. Employees are also responsible for the completion of all health and safety training, as assigned. Employees with staff supervision and/or management responsibilities will ensure that assigned staff abide by the above, and actively identify, assess and correct health and safety hazards, as required.*

Required Qualifications

Education <ul style="list-style-type: none">• MSc degree in Geochemistry, Biology, or Environmental Sciences
Experience <ul style="list-style-type: none">• 3+ years of experience performing field and laboratory technical duties, including operation of state-of-the-art environmental technologies• Practical knowledge of a wide range of analytical techniques, including sample handling and preparation• Knowledge and experience in Quality Assurance and Quality Control (QA/QC) and Good Laboratory Practices (GLP)
Knowledge/Skills/Abilities <ul style="list-style-type: none">• Intermediate MS Office skills plus experience with data processing and management• Considerable problem-solving skills• Ability to work independently with minimal supervision• Must possess a full G driving license and be willing to occasionally drive university owned vehicles• Qualified and willing to operate small water craft

Nature and Scope

- **Contacts:** Primarily works with UW researchers (students, staff, faculty, visiting researchers); may occasionally need to work and coordinate with external partners/stakeholders
- **Level of Responsibility:** Safety and equipment training of students and research staff; some supervision of casual staff
- **Decision-Making Authority:** Decisions related to the day-to-day operation of the laboratory (e.g. ordering supplies)
- **Physical and Sensory Demands:** Requires careful attention to detail and safety considerations; some lifting/carrying required, particularly in field work;
- **Working Environment:** office, laboratory, and field