

Patrick Watt
70 rue d'Argenson, Québec, QC, G1K 1R5
647-462-9070 ▪ p.wattage@gmail.com

SUMMARY OF QUALIFICATIONS

- Environmental scientist with 3 years of experience in water science programs.
- Versed in current analytical instrumentation for water investigations in field and laboratory.
- Experienced using python and R for statistics, and graphical analysis, also familiar with Java, HTML, CSS, Javascript, SQL.

EDUCATION

M.Sc. specializing in isotope geochemistry, Department of Earth Sciences, University of Toronto, 2015-2016

- Thesis Supervisor: Dr. Barbara Sherwood Lollar

B.Sc. Honours, Environmental Geoscience, University of Toronto, 2011-2015

- Thesis Supervisor: Dr. Grant Ferris

PROFESSIONAL EXPERIENCE

Chemist-2, Natural Resources Canada, Québec, QC, Dec. 2018 to present.

- Planned, organized and prepared various environmental samples for isotopic analysis using IC, and GC-IRMS systems.
- Processed data using computer software, increasing the efficiency of data analysis.
- Demonstrated and enforced procedures for laboratory health and safety, including the handling of hazardous products.

Staff Scientist, SLR Consulting, Nov. 2016-May. 2018

- Planned and carried out field investigations, requiring effective decision making and troubleshooting skills.
- Analyzed environmental data using quality assurance and quality control procedures.
- Collected and prepared geological samples for laboratory analysis of organic and inorganic geochemistry.
- Ensured health and safety principles were followed by team of staff and contractors.
- Communicated ideas with clarity to clients, orally and in writing.

Graduate Researcher, Stable Isotope Laboratory, University of Toronto, May 2015-Sept. 2016

- Analyzed geological samples using gas chromatograph isotope ratio mass spectrometry (GC-IR-MS).
- Used software to perform statistical analyses ensuring reliability and reproducibility.
- Collaborated with a multidisciplinary lab group to solve analytical challenges.
- Coordinated purchases of lab supplies and equipment.
- Utilized knowledge of organic and inorganic chemistry to solve unique characterization problems.

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PROFESSIONAL EXPERIENCE CONTINUED:

Industry Research Intern, Nuclear Waste Management Organization, May 2015-Sept. 2015

- Contributed to a collaborative international experiment through chemical and microbiological analyses.
- Planned and organized a sampling expedition at the Grimsel Test Site, Switzerland.
- Ensured quality control of data from contracted laboratories to meet stringent quality standards.

Teaching Assistant, Structural Geology/ Paleontology/ Hydrogeochemistry, 2015-2016

- Designed and presented lessons for laboratory practical sessions.
- Provided constructive feedback on student reports and presentations.
- Facilitated discussion on the social implications of environmental science.

Undergrad Researcher, Microbial Geochemistry Laboratory, University of Toronto, 2014-2015

- Characterized the geochemistry of surface water and groundwater.
- Modelled redox reaction rates using geochemical modelling software.
- Presented thesis research to the Department of Earth Sciences and public audience.

Student Lab Technician, Jack Satterly Geochronology Lab, University of Toronto, 2014-2015

- Extracted zircon crystals from rock samples for isotopic age dating analysis.
- Ensured quality control by applying clean lab techniques vital for age dating.
- Demonstrated ability to work efficiently during periods of high demand.
- Operated rock crushing machinery using proper practices and procedures to prioritize health and safety in the laboratory.

Wilderness Guide/ Leadership Trainer, YMCA Camp Pinecrest, 2010-2014

- Planned and guided extended canoe trips in Ontario and Quebec.
- Taught high school students about teamwork, interpersonal relations, and leadership.
- Visited northern communities and participated in community activities.

RELEVANT COURSEWORK

Physics and the Environment, ENV235, University of Toronto, 2013

Environmental Biology, ENV234, University of Toronto, 2013

Practice of Statistics for Scientists, STA220, University of Toronto, 2013

Introduction to Computer Science for Scientists, CSC148, University of Toronto, 2014

Analytical Techniques, ESS425, University of Toronto, 2015

Environmental Chemistry, CHM210, University of Toronto, 2015

Isotope Geochemistry, ESS2704, University of Toronto, 2016

Hydrogeological Field School, EARTH 671, University of Waterloo, 2016

SOFTWARE PROFICIENCIES

- Experienced in Python, R
- Familiar with Java, HTML, CSS, Javascript, SQL
- Microsoft Office Suite

INSTRUMENT PROFICIENCIES

- High degree of expertise in Gas Chromatography (GC) and Mass Spectrometry.
- Experience using Inductively Coupled Plasma Spectrometry (ICPMS), High Performance Liquid Chromatography (HPLC), Ion Chromatography (IC), and Atomic Emission Spectroscopy (AES).
- Fiddle player.

CERTIFICATIONS

- Standard First Aid and CPR-C (2017)
- Ontario G Driver's License

REFERENCES

Barbara Sherwood Lollar
University Professor
Stable Isotope Laboratory, University of Toronto
Relationship: Master's thesis supervisor
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Lisa Tomlinson
Senior Project Manager
SLR Consulting
Relationship: Supervisor of staff scientist position
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Jack Satterly Geochronology Laboratory
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