Two PhD positions in "Stimulating the in-situ bioremediation of persistent chlorinated solvents in complex contaminated legacy sites"

We invite applications for two PhD positions to participate in a collaborative research project to quantitatively identify the biogeochemical processes and environmental factors (temperature, redox state, pH, salinity, nutrient availability, and aquifer properties) controlling the fate of chlorinated solvents in groundwater plumes. In this project, the acquisition of hydrogeological, geochemical, and microbial data during the field and controlled laboratory experiments will be integrated with the development and calibration of a reaction network model to derive the optimal field-calibrated reaction network that can be used in the scaling up of the reactive transport of chlorinated solvents, from contamination source to downstream environmental receptors. The experimental findings (PhD#1) will inform the development of a numerical reaction network model (PhD#2) that can be coupled to groundwater transport calculations to simulate the subsurface fate of chlorinated solvents under various remediation scenarios.

Applicants with degrees in any field of science or engineering are welcome to apply but preference will be given to candidates with demonstrated skills and experience in (environmental) chemistry, biogeochemistry, soil science, hydro(geo)logy, numerical and reactive transport modeling, and environmental engineering. MSc student position can be created in lieu of a PhD position for exceptional candidates who prefer to undertake a Master's degree.

Please submit your application package electronically as a single pdf file to Fereidoun Rezanezhad (frezanez@uwaterloo.ca). In your email, include "PhD#_yourname" in the subject line. Your applications should contain:

- A letter explaining your motivation to apply
- Curriculum vitae
- Copy of transcripts (unofficial transcripts will be accepted at the application stage)

Closing date: Applications will be reviewed as they are received. Preference will be given to applications submitted before July 31, 2026.

We thank all applicants for their interest, however, only those individuals selected for an interview will be contacted.

The partnering universities in this project are committed to implementing the Calls to Action framed by the Truth and Reconciliation Commission. We regard equity, diversity, and inclusion (EDI) as an integral part of academic excellence. We are committed to removing barriers that have been historically encountered by some people in our society. We strive to recruit individuals who will further enhance our diversity and will support their academic

and professional success while they are here. In particular, we encourage members of the designated groups (women, Indigenous peoples, persons with disabilities, members of visible/racialized minorities, and diverse sexual orientation and gender identities) to apply. To ensure a fair and equitable assessment, we offer accommodation at any stage during the recruitment process to applicants with disabilities.

If you have any questions regarding the application process, eligibility, or a request for accommodation during the selection process, please contact frezanez@uwaterloo.ca