

MSc. Position available :



UNIVERSITÉ
LAVAL

Numerical Modelling of Shale Gas Impacts on Groundwater

DESCRIPTION of PROJECT : The research team in quantitative hydrogeology in the Department of Geology & Geological Engineering at Université Laval (www.ggl.ulaval.ca) is searching for a Master's student in the field of numerical modelling of hydrogeological systems related to shale gas development. The MSc. research project is financed through Environment Canada via the Eco Energy Initiative. The objectives are to determine spatial and time scales of gas and contaminant leakage risks related to exploration and development of shale gas resources throughout Canada.

In the framework of these projects, the following tasks will be realized :

- Compilation of existing hydrogeological data and preparation of conceptual hydrogeological models, at the local (well) scale and at the regional (watershed) scale.
- Development of numerical models of basin-scale flow and of various leakage scenarios of methane gas and/or injection (fracking) fluids.
- Verify the conceptual models
- Complete simulations, prepare graphic results and analyze data.

Location : Université Laval, Québec, Canada. Department of Geology & Geological Engineering (www.ggl.ulaval.ca)

Planned start date : Spring 2013

Duration : MSc : 2 years

Financial support : A base financial support of 15k/yr is offered for the MSc position, which can be supplemented with scholarships or Teaching Assistantships.

Profile: We are looking for motivated and independent candidates with experience in hydrogeology and numerical modelling. A solid background in geology or geological engineering is also desired. The candidate must demonstrate experience or interest in quantitative hydrogeology. Knowledge of French is desired but not a pre-requisite.

How to submit your candidature ? Please send a letter of interest, a cv and the names and contact information of three references to John W. Molson (john.molson@ggl.ulaval.ca). Only those candidates selected will be contacted.

Research Team: John W. Molson, Jean-Michel Lemieux, René Therrien

CONTACT :

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