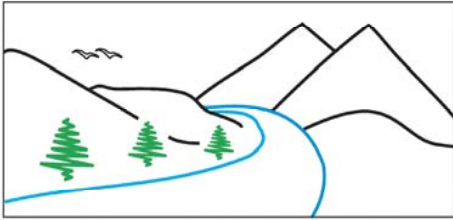


NRESi



"Our environment is our future"

Friday

Feb. 6, 2009

3:30 - 4:30

LECTURE THEATRE

7 - 238

**LIGHT REFRESHMENTS
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UNBC UNIVERSITY OF
NORTHERN BRITISH COLUMBIA

RESEARCH COLLOQUIUM SERIES



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Water quality & well construction in private wells: Omineca Region

The BC Ministry of Environment conducted an operational survey of 48 private wells in the northern interior region of BC in 2007. We compare the present state of drinking water from private wells in 5 priority aquifers in terms of two sets of variables: water quality and well construction. The objectives of the survey were two-fold: to obtain baseline data on private wells, which are often not studied because of the perceived greater importance of public water supply systems, and to gauge the effectiveness of the Ministry's Ground Water Protection Regulation, which specifies construction standards for new wells. Key findings include the following: approximately 18% of wells were found to contain some total coliform bacteria, but none contained the indicator of fecal contamination *E.coli*. Relatively few exceedances of Canadian Drinking Water Guidelines were found for metals, with the most prevalent parameters of concern being: Iron, Manganese, Turbidity, Hardness, and Arsenic. None of the well construction aspects regulated under the Ground Water Protection Regulation were found to have a statistically significant reduction on the incidence of total coliform bacteria, although the statistical power was low due to sample size limitations. A similar study is planned for the Peace Region of north-eastern BC pending funding approval in 2009-2010.