Dr. Rick Frank, Environment Canada

Date: Thursday, April 24, 2014
Time: 3:00-4:00pm
Place: 221 Wallace Building

Abstract: This seminar will explore current research in support of the Canada-Alberta Joint Oil Sands Monitoring Program (JOSMP) that attempts to identify chemical signatures in order to distinguish oil sands process-affected water (OSPW) from bitumen-impacted groundwaters resulting from natural weathering processes. Recently published in the journal *Environmental Science and Technology*, our group’s work on polar organic chemicals in groundwater and OSPW has demonstrated consistent trends in the diagnostic ability of certain chemical classes. Since the chemical composition of tailings closely resembles what is present naturally in ground and surface waters from bitumen erosion, determining if OSPW seepage is occurring had not been previously achieved, and this current work is a critical first step in the monitoring of water quality in the oil sands region.

Biography: Richard Frank earned his PhD in 2008 from the University of Guelph where he characterized the toxicity of naphthenic acids found in OSPW. Subsequently, he was a post-doctoral fellow: first at the University of Waterloo investigating the remediation potential of algae indigenous to OSPW, and then with Environment Canada investigating the chemical mixture composition of natural waters in the oil sands region. Richard is currently a Research Scientist with Environment Canada (Burlington, Ontario) where he investigates the aquatic toxicity of complex mixtures, with a current focus on bitumen-impacted waters originating from natural and tailings pond sources.

12:30 p.m.  Free pizza lunch for graduate students with Dr. Frank, Dean’s Office Boardroom - 440 Wallace Building