



*Client Focused*  
*Worldwide Experience*  
*Innovative, Value Added*  
*Practical Solutions*

## Ivanhoe-Ledcor Multi –User Access Road – Fort McMurray, AB

GES Geotech was retained by Allnorth Consultants to carry out a preliminary Terrain Stability Assessment for the Ivanhoe-Ledcor multi user access road (approximately 22 km long) in Fort McMurray, AB. After reviewing previous data and geological maps, GES performed a site reconnaissance of the proposed alignment and identified a preferred route. This project was carried out between 2009 to 2012.

The preferred route alignment was selected based on slope stability considerations and evidence of previous mass movements.



Following our site reconnaissance, boreholes were advanced along the road alignment to assess subsurface conditions. Later through consultation with various stakeholders, the preferred alignment was changed, thus requiring further geotechnical investigation.



The subsurface conditions were confirmed to consist of aeolian sand, lacustrine deposits and ground moraine till, as well as shale, siltstone and sandstone bedrock. Evaluation of two previous landslides was completed through sonic drilling, triaxial testing and instrumentation installations and monitoring.

Further, GES provided pile bearing capacity for bridge foundations as well as slope stability analysis in the areas where previous landslides had recently occurred. Sources of gravel were identified from air photo interpretation, site reconnaissance and field investigation.