

## **CASE STUDY: KEMESS SOUTH MINE SITE RECLAMATION AND CLOSURE – CONTAMINATED SITES ASSESSMENT & REMEDIATION (NON-CORE AREAS)**

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The Kemess South mine site in northern BC is a large porphyry gold and copper open-pit mine that is scheduled for closure in 2011. Hemmera was engaged to assess non-core areas of the mine to facilitate closure. The mine is not a typical contaminated site given the geographic scale and remote location. As such, a risk-based approach was implemented to facilitate the development of an appropriate level of field investigation that would be responsive not only to the direct needs/expectations of the client, but of other relevant stakeholders, including regulators. Using available mine site data, a conceptual model was developed prior to intrusive investigations that considered contaminant sources, evaluated migration pathways, and assessed whether contamination had reached, or was likely to reach the receiving environment. A suitable data-gap driven intrusive investigation was initiated to support a screening-level risk assessment of the non-core areas. The assessment found that the mine contamination in non-core areas was not extensive when a site specific risk-based approach was implemented. Consequently, Hemmera completed a remedial action plan for the non-core areas in which extensive remediation was neither required nor recommended as part of the overall mine site closure. This unique approach was successful in preventing an unnecessary allocation of resources (i.e., money, time, and labour via contaminant remediation) that was not essential to achieving the mine closure goals and objectives.