

SEABRIDGE GOLD

Backgrounder

About the KSM (Kerr Sulphurets Mitchell) Project

- World's largest undeveloped gold/copper project (by reserves – see Economics section).
- Located 65 km northwest of Stewart, BC and approximately 35 km northeast of the Alaska border.
- Combined open pit and underground operation:
 - Kerr and Sulphurets deposits will be mined as open pits
 - Mitchell deposit will be mined as a combined open pit and underground block cave operation
 - Iron Cap deposit will only be mined underground
- KSM is divided into two areas that will be joined by twin parallel 23 km tunnels:
 - The Mine Site: includes the pits, Mitchell Ore preparation complex, water treatment plant, rock storage areas, employee housing, and storage
 - The Processing and Tailing Management Area (PTMA): includes the Treaty Ore Preparation Complex and Tailing Management Facility (TMF) and will be located in the Treaty Valley
- Seabridge Gold holds a 100% interest in several North American gold resource projects. The Company's principal assets are the KSM property and the Courageous Lake gold project located in Canada's Northwest Territories.
- Learn more about the project: [Project website](#)

Environmental Assessment Process

- CEEA's July 21, 2014 Comprehensive Study Report (CSR) concluded *"the KSM Project is not likely to cause significant adverse environmental affects taking into account implementation of the mitigation measures described in the report."* The CSR can be viewed at: [KSM_CEEA_CSR](#)
- July 30, 2014 the BC Ministers of Environment and Energy and Mines issued the Environmental Assessment Certificate for the KSM Project, concluding it will not result in significant adverse effects and the Treaty and First Nations were adequately consulted.
- Joint harmonized environmental assessment (EA):
 - Canadian Environmental Assessment Agency (CEAA)
 - British Columbia Environmental Assessment Office (EAO)
 - Initiated in March 2008
- Submission:
 - Five years to prepare.
 - Involvement of 20 world-class consulting firms.
 - 35,000 pages in length.
 - Design changes to address and accommodate the concerns of the local citizens, including Treaty Nation and First Nations, and government regulators, are reflected in final project design.
 - Seabridge will require approximately 150 permits to operate the mine. Applications for permits to begin early stage construction were received in September 2014 from the BC Government.

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Economics

- 52-year mine life.
- Will provide jobs for multiple generations:
 - 1,800 direct and 4,770 indirect jobs during a five-year construction period
 - 1,040 direct jobs annually during 52 years of production
- \$3.5 billion of direct spending for British Columbia and \$6 billion of direct spending for Canada during construction.
- During production, more than \$400 million in GDP will be produced for British Columbia and more than \$42 billion for Canada over the life of the mine.
- Proven and probable reserves:
 - 38.2 million ounces of gold, 9.9 billion pounds of copper, 191 million ounces of silver and 213 million pounds of molybdenum
 - 2.16 billion tonnes of reserves at a throughput of 130,000 tonnes per day (tpd)
- Since 2006, more than \$176 million spent in exploration, engineering and environmental work:
 - Approximately 80 percent (\$140 million) spent in local BC communities
 - The estimated budget for 2014 is \$29 million

Community Engagement

- Through extensive engagement with BC First Nations, the Nisga'a Treaty Nation and local communities, Seabridge has gained trust and the social license to operate the KSM Project within BC.
- Seabridge has undertaken more than six years of community, government and aboriginal engagement in both British Columbia and Alaska for the KSM Project, including 32 working group meetings, 23 open houses in Northwest BC and Alaska communities, and 57 visits with Treaty and First Nations.

Treaty Nation and First Nations Engagement

- Engagement with Gitanyow, Gitxsan (including Wilp Skii km Lax Ha) and Tahltan First Nations and Nisga'a Lisims Government.
- Approximately \$500 million of design changes added to accommodate the concerns of the local aboriginal groups:
 - Consideration of 14 alternative tailing management facility locations.
 - Addition of a liner to the centre cell of the Tailing Management Facility (TMF) to minimize potential downstream water effects on wildlife and fisheries.
 - Relocation of the mine's access road from Teigen Creek to Treaty Creek to minimize potential effects on fisheries and wildlife.
 - Re-design of the TMF so that the discharge point will now be situated in Treaty Creek as opposed to South Teigen Creek.
- Benefits Agreement with the Nisga'a Lisims Government:
 - Nisga'a will support project development, participate in economic benefits, and provide ongoing advice.
 - Seabridge will provide jobs and contracting opportunities, education and training, and financial payments.
- Agreement with the Gitanyow:
 - Seabridge will provide funding for certain wildlife, fish and water quality monitoring programs to address some of the concerns raised and to maintain communications about KSM related issues.

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Environmental Sustainability

- Protection of the environment, including downstream waters was a guiding principle throughout the design of the project.
 - Water quality in the area is poor due to naturally occurring acid rock drainage.
 - The water management system design process was influenced by concerns associated with potential downstream effects both in the Unuk and Nass rivers.
 - During operation, KSM will fully meet applicable water quality standards established by the Canadian and Provincial governments.
- Detailed water management and wildlife plans to minimize potential impacts.
- Comprehensive reclamation and post-operation monitoring plans.
- Seabridge has conducted environmental baseline studies, including fish and fish habitat, wildlife, aquatics and water quality, and vegetation, since the fall of 2007.
- Learn more about the [environment studies and environmental management plans](#).
- View the entire [KSM Project EA application](#) on the BC EAO website.

Social Sustainability

- Seabridge is committed to responsible development and mining, and wants to ensure KSM contributes positively to local communities by providing well-paid, permanent jobs, access to education and support for other services, including health care, roads and access to reliable power.
- Seabridge already employs many aboriginal and non-aboriginal men and women from local communities near KSM.
- Seabridge has been actively contributing to education and training programs in the region to help create skilled, local labour with donations to the BC Aboriginal Mine Training Association and the Northwest Community College focusing on skills' upgrading and trades training.

Tailings and Dam Structures

- KSM's tailings dam design is world class and designed using the most modern technology with an emphasis on safeguards.
- Designed to work within a natural valley which provides containment, with extensive and comprehensive monitoring throughout and, in particular, at the two ends of the valley.
- In 2011 and 2013, Seabridge Gold used an External Review Board who reviewed the work of engineering firm, Klohn Crippen Berger, on both the KSM Project tailing facility and the water storage reservoir.
- In August 2014, Seabridge announced it is undertaking a fully independent, experienced and technically qualified Third-Party Review Board to ensure the dams proposed for its KSM Project Tailings Management and Water Storage facilities have been designed and will be constructed and operated within Canadian Dam standards, which are similar to US standards.
 - The Review Board's findings will be provided to the BC Ministry of Energy and Mines and the local Aboriginal groups who have a vested interest in the safe and responsible operation of KSM and to Seabridge for information purposes.
- KSM tailings structures are designed to the same standards as tailing structures in Chile, which survived an 8.8+ earthquake with no damage, a credit to how they were engineered and designed.