

ENVIRONMENTAL AND SOCIAL SERVICES TO MINING

Environmental and social management is a key component of mine design, operation and closure, and is needed in order to acquire permits and licences for mine operation and to meet international development and operating standards. Micon's mining environmental and social projects can be grouped under the following headings.

INDEPENDENT ENGINEER SERVICES

Micon provides Independent Engineer services to lenders in the initial review of mining project feasibility studies, and ongoing monitoring of construction and development. Assessment of the environmental and social aspects of mining projects may include review of conformance with Equator Principles and International Finance Corporation environmental and social performance standards.

Voskhod Chromite Project, Kazakhstan: Review of the initial feasibility study for an underground chromite mining facility in a region of existing chromite operations in Kazakhstan included assessment of the status of the Environmental and Social Impact Assessment in the context of Equator Principles and IFC Performance Standards; assessment of sponsor's planned program of public consultation; review of tailings management plan; assessment of water supply.

Bisha Project, Eritrea: Review of the environmental and social aspects of an open pit polymetallic project in Eritrea included review of conformance to 2006 Equator Principles and International Finance Corporation Performance Standards on Environmental and Social Sustainability.

Çaldağ Nickel-Cobalt Project, Turkey: Review of the initial feasibility study for an open pit lateritic nickel-cobalt mining and heap leach processing facility in Turkey included an assessment of conformance to Equator Principles and IFC performance standards and Turkish environmental regulations; environmental management plans; assessment of surface and groundwater supply.

Minas Rio Project, Brazil: Review of the social and environmental aspects for a proposed iron ore mine, 525 km pipeline, and port facility in Minas Gerais, Brazil. Included review of conformance to Equator Principles and International Finance Corporation environmental and social performance standards.

Goldfields Project, Saskatchewan, Canada: Review of the environmental and social aspects of a proposed 5,000 t/d open pit gold mine included assessment against the requirements of the Equator Principles, review of applicable federal and provincial permits and regulations, waste rock and tailings disposal and community engagement.

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Las Brisas Gold Project, Venezuela: Review of the environmental and social aspects of a proposed open pit, 70,000 t/d copper gold project included review of conformance to 2006 Equator Principles and 2006 International Finance Corporation environmental and social performance standards.

Lihir Gold Project, Papua New Guinea: Comprehensive due diligence review of feasibility study and environmental impact assessment. Independent environmental audits were conducted during project construction and into operation to assess environmental management practices and occupational health and safety issues.

Tamboraque Project, Peru: Review of the environmental and social aspects of an underground gold mine in Peru. Fatal flaw analysis to International Finance Corporation environmental and social performance standards.

AUDITS AND INDEPENDENT DUE DILIGENCE

Norilsk Nickel: Due diligence review of the environmental, social, health and safety components of nickel mines and processing facilities in Western Australia, Southern Africa, USA, Finland and Russia in connection with preparation of the Competent Person's Report on behalf of Norilsk Nickel.

Antamina Project, Peru: Retained to provide an independent review of the feasibility study and environmental impact assessment of the copper project on behalf of a potential investor.

Tarkwa Gold Project, Ghana: Full technical due diligence review of the gold heap leach operation, including environmental, socio-economic, health and safety, and mine closure and rehabilitation aspects of the feasibility study, on behalf of NM Rothschild & Sons.

Kaolin/Silica Sand Operations, Bulgaria: Review of environmental liabilities associated with the acquisition of a series of operations and subsequent preparation of closure plans and costs for selected sites, on behalf of SCR-Sibelco.

MANAGEMENT

Portland Canal Aggregates, British Columbia: Provision of management for a social and environmental impact assessment for a proposed aggregate quarry and marine loadout facility in north coastal British Columbia, Canada.

Golden Patricia Mine, Canada: Provision of technical environmental support after closure of the underground gold mine, including PCB testing, preparation of post-closure report and quarterly water quality reports, on behalf of Barrick Gold.

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Confidential Client, Underground Gold Mine, Canada: Review of spill response procedures and preparation of a spill report for submission to government after a surface diesel fuel spill.

Ararat Tailings Gold Recovery Project, Armenia: Preparation of an environmental management plan and provision of general environmental management assistance; design and implementation of a surface water quality monitoring program; provision of quarterly and annual reports, on behalf of Kilborn SNC Lavalin.

Lac Properties, Milton Quarry, Canada: Acted as site environmental coordinator for the limestone quarry including preparation of Environmental Management Manual, response to corporate environmental audits, periodic inspections and environmental training of site personnel.

RECLAMATION

Boliden Apirsa, Los Frailes Mine, Spain: Project management assistance was provided following a tailings dam failure at the base metal mine.

Cerro Castillo, Mina Angela, Argentina: Technical guidance and project management assistance were provided for reclamation and closure of the underground gold mine including: development of a closure strategy, acting as site engineer during closure activities, pre- and post-closure document preparation, and presentation to local, provincial and federal government agencies of the strategy (pre-closure) and summary and presentation of closure activities (post-closure) to government agencies.

Jiangxi Copper Company, China: Provision of advice on the characterization, control and treatment of acid rock drainage, and review of international practices in mine closure as part of a multi-disciplinary program of technical assistance.

Lac Properties, Abandoned Mines, Canada: Technical assistance was provided to develop and implement closure strategies for 15 abandoned mines (14 gold, one molybdenum) in northern Ontario and northern Quebec. The work spanned more than five years and included: review and compilation of historical environmental data; design, implementation and reporting of environmental monitoring programs (water, soil, acid generation potential); scoping and management of an environmental and geotechnical review of two tailings management facilities; and preparation of appropriate post-closure documentation for submission to government agencies.

STUDIES AND ASSESSMENTS

Confidential Client, CVRD Gold Properties, Brazil: Conducted an environmental review as part of a prefeasibility study for a proposed buy-in to the Igarape Hahia open pit gold mine and heap leach. A review was also conducted of two advanced exploration properties: Serra Leste (also know as Serra Pelada) and Aguas Claras. The focus at Serra Leste was on mercury

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contamination of the water (surface and ground water) and soil associated with recent *garimpeiro* activity, and samples were collected to support the review.

Labrador Inuit Association, Voisey's Bay Project, Canada: Provided technical assistance regarding the environmental aspects of the project including acid mine drainage issues, and tailings and waste rock management. Expert testimony was provided during Environmental Assessment public hearings regarding project design, environmental impacts and proposed mitigation measures.

Riddarhyttan Resources, Suurikuusikko Project, Finland: Scoping of environmental, health and safety components of a bankable feasibility study completed for a proposed open pit gold mine.