Preliminary Project Description
Doris Hinge Project
Hope Bay Joint Venture

Submitted to the Kitkimeot Inuit Association
and
Nunavut Water Board

By:
Hope Bay Joint Venture

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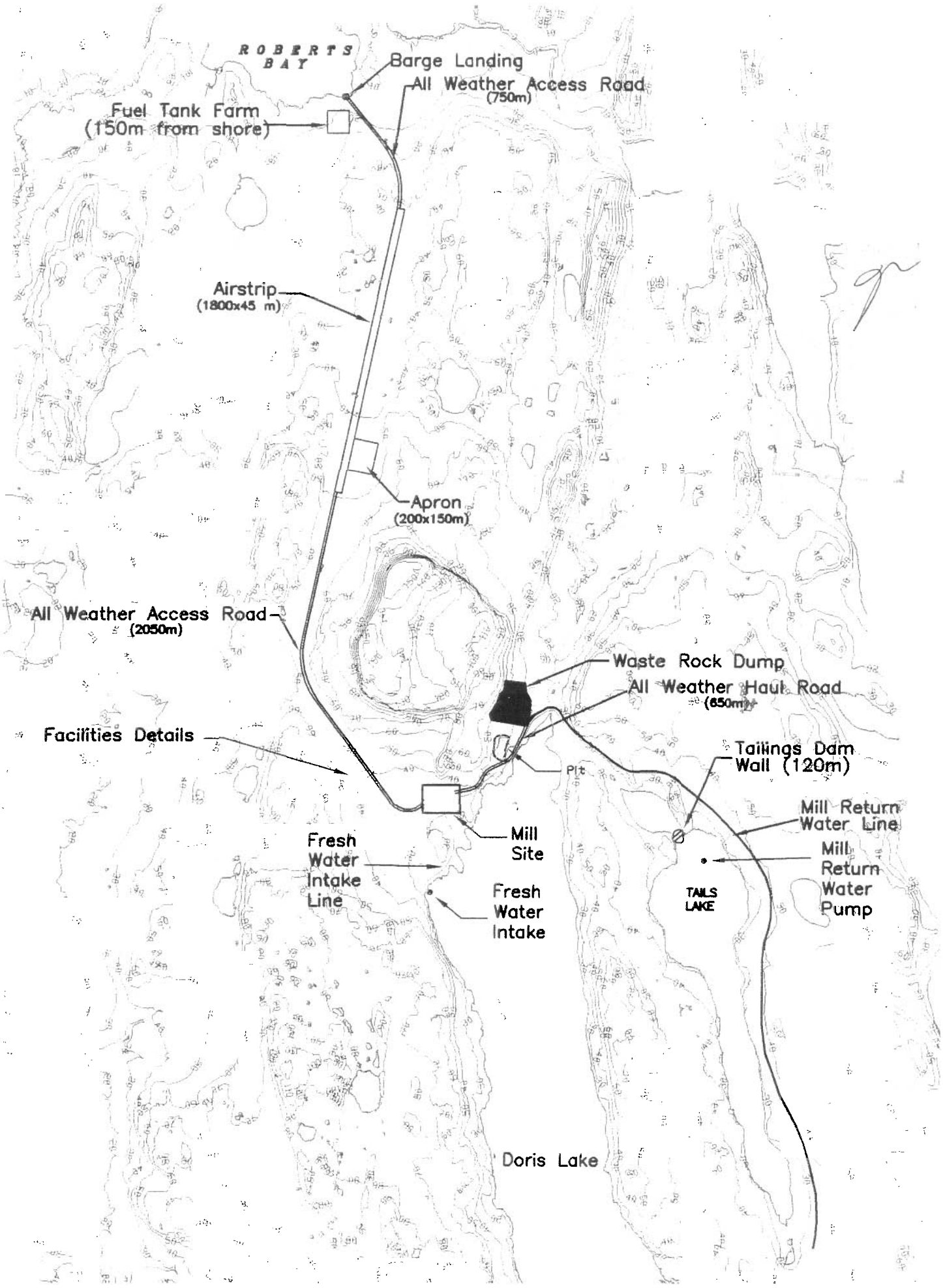
ROBERTS BAY
Barge Landing
All Weather Access Road (750m)
Fuel Tank Farm (150m from shore)
Airstrip (1800x45 m)
Apron (200x150m)
All Weather Access Road (2050m)
Waste Rock Dump
All Weather Haul Road (650m)
Facilities Details
Pit
Tailings Dam Wall (120m)
Mill Return Water Line
Mill Site
Fresh Water Intake Line
Fresh Water Intake
TAILS LAKE
Mill Return Water Pump
Doris Lake

EXECUTIVE SUMMARY
DORIS HINGE PRELIMINARY PROJECT DESCRIPTION

Mineral exploration on the Hope Bay belt over the past 10 years has identified numerous locations with potential for profitable gold production. This Preliminary Project Description outlines the Doris Hinge Project which could be the first of several gold mines in the area. The Doris Hinge Project is located on Inuit Owned Land approximately 5 km south of Roberts Bay. A small Project is described that can extract approximately 450,000 tonnes of ore and produce approximately 255,000 ounces of gold over a period of roughly 30 months.

The Project is proposed to begin with initial equipment and a camp arriving by sea-lift in the fall of 2003. Site work and surface mining would begin in February 2004. Surface mining will produce a stockpile of 90,000 tonnes of ore over a 4 month period. In that period waste rock removed from the pit to expose the ore material, will be used to build a road to the beach, an airstrip as part of the road, a six million litre tank farm near the beach, and an access road to the tailings containment area (Tail Lake). A modular portable mill and processing plant will arrive at Roberts Bay by sealift in September 2004. The mill is designed for crushing and processing approximately 600 tonnes of ore per day. Milling and processing ore from the stockpile will commence within 60 days of the mill and processing plant arrival.

Underground mining equipment will be shipped to the site in September 2004. Construction of the portal and ramp to mine the underground ore of the Doris Hinge deposit will commence as soon as possible. Approximately 350,000 tonnes of ore will be extracted from underground between the fall of 2004 and the fall of 2006. Milling and processing ore will be completed in December 2006.

An initial workforce of 47 will complete camp construction, surface mining and site development work from February to August 2004. Milling and processing will need an on site workforce of 42 from October 2004 to December 2006. Underground mining will require a workforce of 27 from September 2004 through September 2006.The Project will generate approximately 2000 man-months employment. Workers will live in a 70+ person camp and work on a 14 day in and 14 day out rotation. Water for the camp will be pumped from Doris Lake. All liquid effluent from the camp will be discharged with the mill tailings. All organic combustible camp waste will be incinerated. Waste oil will be consumed in a waste oil burner.

Although, the Project is small, Project management will undertake a comprehensive program of environmental management. Approximately 34 ha of land will be disturbed during the course of developing and operating the Project. Water for processing the ore will be recycled from Tail Lake. Roughly 10% of the total ore will be treated with cyanide for gold extraction. All tailings that have been treated with cyanide will undergo cyanide destruction before discharge to Tail Lake. All hazardous waste will be disposed of appropriately. Hunting by workers will be prohibited; recreational angling will be discouraged.

As the Project proceeds, approximately 9000 tonnes of ore from the Boston Project will be transferred to the Doris Project for processing. The Boston and Windy exploration camps will be cleaned up. On the conclusion of the Project it is proposed to seal the underground mine, remove the mill and processing plant, and allow the tailings pond to return to its normal flow. The camp, airstrip and road to the beach will remain to support mineral exploration that is required to develop the full potential of the Hope Bay belt.

NAINARHIMAYUQ
DORIS HINGE HIVULLIQ HAVARIYAUNIAQTUP MIHAGUT

Uyagaqhiuqtut Kapihiliktuumi kulini ukiuni avatquliqqut naunairutiut amigavyaktunik nakuniarunarhiunik maniliurutihanik gultalirumik. Una hivulliq nainarhimayuq havariyauniaqtumi unipkaktuq Doris Hinge-ngunigaqtauyumik havariyauniaqtumik hivulliuniarunarhiuq tahamani gulmik uyagaqtarviuluni. Doris Hinge havariyauniaqtut Inuit Nunaqutauniittuq 5 km-ngupluni pingangnanganit Kapihiliktuumit. Una angivalangittuq unipkariyauyuq uyagaqtarvihaq 450,000 tonnes-nik haviuyumik uyaqqanik gultarviulunilu 255,000 ounces-nik 30-ni tatqirhiutini.

Havalirniarnahugiut ukiakhami 2003 umiakut tikitpata akhalutit igluqpahallu. February-mittauq 2004-mi havalirlugu uyagaqtarvihak nunap qanganillu uyagaqtalirlutik. Nunap qanganit uyagaqtaqtut kattittilutik 90,000 tonnes-nik haviuyunik uyaqqanik hitamani tatqihiutini. Talvani uyagavaluinnait haviyakut atuqtauniaqtut apquhiurlutik hinaanut, milviliurlutiglu apqutip ilagilugu, hinanilu nappahivihamik kataryukyuanik urhuryuaqarvihanik 6 miliat litres-nguyunik, apquhiurlutiglu uyagaqtaqtut ikakuinik makittailivihamik (Tails Lake). Saptampami 2004-mi umiakkut tikittuhaqtauq Kapihiliktuumut agyaqtauttaqtuq uyaqqanik ahiguqtuityutikhak katitigiviharlu nakuyunik uyaqqanik iqqarlutgit hungittut. Ahiguqtuivihak uyaqqiqittaqtuq ahiguqtuiluni 600 tonnes-nik ublumi atauhirmi. Uyaqqanik ahiguqtuilirlutik nakuyuhiulirlutik uyagaqvalungnit 60-tit ublut aniguqniannit tikinianit ahiguqtuityutikhap.

Nunap ikkiangani uyagaqhiurutikhat tikinniaqtut Saptampa 2004-mi. Nappaqtirilirniaqtut kilamik angmanihanik iluanilu anmuvihanik nunap ikiagani havikhiuliriagini Doris Hinge-ngunigaqtauyumi haviqarnirmi. 350,000-nguniarnahuriyauyuq havivalunik uyagaqtarniarnahugiut nunap ikianganit ukiahamit 2004-mi ukiakhamut 2006-mut. Ahiqutirinik havivaluktarnik inirluni Tisapa 2006-mi.

Hivulliit 47-nguniaqtut havaktuhat nappaqtigilutik igluqpanik, nunap qanganillu uyagaqtalirlutik havarviharlu havalirlugu February-mit Agasimut 2004-mi. Ahiqutiginiaqtut uyaqqanik havaktiqariaqarniaqtut 42-nik Aktupamit 2004-mi Tisapamut 2006. Nunap ikiangani uyagaqtaqtut havaktiqariaqaqtut 27-nik Saptapamit 2004 Saptampamut 2006. Havavihak havarviuniaqtuq tatqihiutinik 2000-nik katillugit tamaita havaktit. Havaktit nayugaqarniaqtut 70+ inulingnik havarlutiglu 14-nik ubluni 14-niktauq havaguikhimaqattarlutik. Imaqarniaqtut pampiktauniaqtumik Doris Lake-mit. Aturhimayuq imaq annakuillu iqqaqtauniaqtut uyagaqtaqtut iqqaqurvianut. Iqqakuit ikualaqtaqtut ikipkaktauvangniaqtut. Iqqakut kiniqtavaluit urhuryuavaluillu ikualaqtitaulutik.

Havariyauniaqtut mikigaluaqtillugu, Havariyauyumi atanguyait qauyihaittiarniaqtut avatilirilutik kammaginiarlugu. 34 ha-nguniraqtauyuq nuna atuqtauniaqtuq havarvihaliutilugit havaligumiglu. Imaq uyagaqtarvingmi atuqtauhimarniaqtuq iqqaquriyauyumit aturhimarlugu Tail Lake-mit. 10%-ngunirungnarhiuq havaliit uyaqqat cyanide-mik aturhunguyut gulngiyaulutik. Gulngiyaiyunit iqqakut cyanide-lirityutit cyanide-ngiyaqtauniaqtut iqqakuqtautinagit Tail Lake-mut. Qayangnaqtut tamaita iqqakut iqqakuqtauniaqtut qanuq iqqakuktauquniitigut. Anngunahualimaittut havaktut; iqalurhiuquyaungilutiglu.

Havariyauhimaqtilugu, 9000 tonnes havivaluqaqtut Boston-mi Havariyauyumit agyaqtauniaqtut Doris Hinge Havariyauyumut havaktauyangini. Boston-mi Windy Lake-milu tangmavigaluit

halummaqtiqtauniaqtut. Tamaiqtaukpat hamna Havariyauyuq himingniarhimayaat nunap ikianganit uyagaqtarviup angmania, unguvalugu agyalugulu uyaqqanik ahiqutuityut, makittaqtuniglu iqqakukvigaluat tahigat aulanigaluamingut utiktilugit. Igluqpaqarvik, milvik, apqullu hinaanut aulayunaittut ikayuqturniarmata uyagaqtarniaqtunik havaktauhimarniaqqat Kapihiliktuumi uyagariingnik.

ᐊᕐᕋᐃᓇᑦ ᖃᓕᓇᑦ ᓴᓇᕆᒃᓴᖅᓯᐅᖅᑎᓪᓗᑎᑦ ᕿᐅᑉ ᐃᑉ ᓴᓂᐊᓂ ᑕᐃᒪ ᔪᓕᓯᐅᕆᓇᐃᐅᕙᒥᓇᖅᓯᖅᓴᖅᑉᓕᐊᓕᖅᓯᖅ.
ᐅᕐᓇ ᓴᓇᕆᒃᓴᖅᓯᐅᕆᓂᐅᕙᒡᓕᖅᑐᒍᓱᑦ ᑐᓴᒃᓴᐅᑎᒃᓴᓕᐊᖅᑎᔪᑦ ᐅᖃᐅᓯᖃᖅᑐᓄ ᑐᐊᓗᓵ ᕿᐃᓐᒥ-ᒥ
ᐱᓕᓵᐊᓵᐅᐅᓂᐅᓴᓕᐊᔪᑦ ᓯᘐᓕᐅᑐᐃᐅᓕᓪᓂ ᔪᓕᓯᐅᕆᓇᐃᐅᓕᓵᕆᖅᑐᒍᓱᓄᑦ ᑕᒪᑐᒪ ᓴᓂᐊᓂ. ᑐᐊᓗᓵ ᕿᐃᓐᒥ-ᒥ
ᔪᓕᓯᐅᕆᓇᐃᐅᓂᐅᓴᓕᐊᖅᖃᖅ ᐃᓇᐃᐅᐃᑦ ᓇᓐᓕᓯᐅᕆᓇᐃᐅᓂᐅᖅᑎᓯᓂᖅ ᐃᒪᓕᖅᑐᑦ 5 ᑭᓕᒫᑕᓄᑦ ᐅᖃᓕᓯᐊᖃᖅᓄᑦ ᕿᑦᑐᓕ ᐃᑉ. ᒥᑭᔨᖅ ᒡᓐᓇ
ᔪᓕᓯᐅᕆᓇᐃᐅᓕᒥᐅᖅᖃᖅᑐᒍᓱᑦ ᐃᓇᐃᐅᐃᑦ 450,000 ᑕᓐᓄᑦ ᓴᓇᕆᒃᓴᖅᓯᑕᕆᐃᐅᓂᐊᕐᓯᐅᕆᓂᐅᓪᓗ ᐊᖏᓪᓗ
ᐃᖅᓚᖅᑑ 255000 ᐊᐅᓐᓯᓄᑦ ᔪᓕᒥᑦ ᐱᖅᑎᕆᓂᐊᕐᓯᓕᓂᑦᑕᐅᖅ ᑕᕿᑦ ᐊᓐᑎᑦ ᖃᓕᓂᓪᓗ ᓇᓕᓪᓗ
ᐃᖅᓚᖅᑑ 255000 ᐊᐅᓐᓯᓄᑦ ᔪᓕᒥᑦ ᐱᖅᑎᕆᓂᐊᕐᓯᓕᓂᑦᑕᐅᖅ ᑕᕿᑦ ᐊᓐᑎᑦ ᖃᓕᓂᓪᓗ ᓇᓕᓪᓗ

ᔪᓕᓯᐅᕆᓂᐅᓴᖅᓵᓂᑦ ᑕᐃᒪ ᐊᑐᖅᑕᕿᒪᖅᑕᕿᑦ ᐊᖏᓪᓗ ᑐᐱᓪᓗ ᑐᐱᐊᖅᓯᐊᐅᓴᖅᑐᓂ ᐅᒥᐊᖅᓴᓇᖅᓴᖅᓄᑦ
2003-ᖅᔪᓂᖅᓯᑦ ᔪᓕᓯᐅᕆᓂᐊᕐᓯᐅᓂᖅᑕᕿᖅᓄᓪᓗ ᑎᑭᐅᑎᓪᓗᖅᑐᑦ. ᔪᓕᓯᐅᕆᓂᐊᕐᓯᖅᑕᕿᖅᓄᑦ ᐊᖏᓪᓗ ᓄᓇᐅᓯᑦ ᖁᖅᓴᓄᑦ
ᐅᓴᕆᓯᐅᓂᖅᓯᓕᓵᓂᖅᑐᒍᓱᑦ ᓇᓱᐊᓇ 2004-ᖅᔪᓂᖅᓯᑦ. ᓄᓇᐅᓯᑦ ᖁᖅᓴᓄᑦ 90000 ᑕᓐᓄᑦ ᓴᓇᕆᒃᓴᖅᓯᑕᕆᓂᖅᑐᒍᓱᑦ ᑕᑭᑦᑕ
ᓯᑕᒪᐃᑦ ᓇᓪᓕᓯᓗᓂᑦ. ᓴᓇᕆᒃᓴᖅᓯᐅᓂᖅᑎᓪᓗᓂᑦ ᐅᓴᕆᑕᒪᐅᕙᓇᐃᓂᑦ ᐊᑐᓂᖅᑕᕿᖅᓄᑦᑐᒍᓱᑦ ᐃᑎᖅᑕᐅᖅᑕᕆᑦᑐᒍᓱᑦ
ᓴᓇᕆᒃᓴᖅᓴᐃᑦ ᐃᓕᖅᑕᐅᕙᓐᓂᒪᓕᒐᒪ, ᐊᑐᖅᑕᐅᕙᓐᓇᖅᓯᓂᑦ ᑕᒪᒃᑯᐊ ᐅᓴᕆᑕᒪᐅᕙᓇᐃᓂᑦ ᓯᓚᕻᒪᓕᒪᔪᒧᑦ
ᐊᕐᑯᓯᐅᕆᐅᓪᓗᑦ, ᒥᑦᑕᐃᒃᓴᓕᓂᐊᕐᑕᐅᓪᓗᑎᓪᓗ ᑕᐱᓪᓗᓄᑦ ᒡᓗᑯᐊ ᐊᕐᑯᑎᒃᓴᓕᓂᐊᕐᓯᐅᕆᓂᐅᓪᓗ, ᐊᖏᓪᓗ 6 ᒥᓕᐊᓐ ᓵᑕᓄᑦ
ᐃᒪᖅᑎᑎᒥᓐᓇᖅᑐᒍᓱᑦ ᐅᖅᓯᖅᐅᑎᖅᓴᐃᒃᓴᖅᑕᖅᑕᐅᖅᑐᑦ ᓯᓚᕻᐅᑦ ᓴᓇᕆᐊᓂᑦᑕᖅᑕᕆᑦᑐᓕᓕᒫᓂᑦ ᐅᓴᕆᑕᒪᐅᕙᓇᐃᓂᑦ,
ᐊᕐᑯᓯᐅᕆᐅᓵᓂᓪᓗᑎᒃ ᓯᖅᓕᖅᑐᒍᓱᑦᑕᐅᓯᒪᓕᕆᓇᖅᓂᑦ ᐅᓴᕆᑕᖅᑕᐃᓇᓂᓕᑦ ᐊᑐᖅᑕᕿᖅᓄᑦᑐᒍᓱᑦ ᐊᑦᑕᐃᒃᓴᓕᓚᓯᖅᓄᑦ
ᒡᓐᓇ ᐊᕐᑯᓯᐊᖅ 9+ᖅᔪᓂᓪᓗᐅ ᓄᖅᔪᓄᑉᖅᓚᑦ0. ᓯᖅᓕᖅᑐᐃᑦ ᓯᕐᑯᑎᓪᓚᓴᑎᑎᒃᓴᖅ ᕿᐃᓐᒥ ᐊᑎᑦ ᑎᑭᑐᑐᖅᓯᖅᓵᖅᑐᒍᓱᑦ
2004-ᖅᔪᓂᖅᓯᑦ. ᓯᕐᑯᑎᑭᑕᐅᖅᖁᖅᓯᖅᓵᖅᑐᒍᓱᑦ ᒡᓐᓇ ᐅᓴᕆᑕᒪᐅᕙᓇᐃᓂᑦᑕᐅᖅ ᓯᖅᓕᖅᑐᑦ ᓴᓇᕆᐊᓂᑦᑕᖅᑕᕆᑦᑐᓕᓕᒫᓂᑦ
ᐃᓕᖅᑕᐅᖅᖁᖅᑕᕿᑦᑕᐅᖅᖁᖅᑕᕿᓕᓂᓪᓗ ᐃᓚᖅᑑ 600 ᑕᓐᓄ ᐅᑦᓗ ᑕᒪᖅ. ᓯᖅᓕᖅᑎᑭᑦ ᓯᕐᑯᑎᑭᑦ ᐊᖏᓪᓗ ᓴᓇᕆᒃᓴᖅᓯᑕᕆᑦᑐᓕᓕᒫᓂᑦ
ᐅᓴᕆᓂᖅ ᐃᓕᖅᑕᐅᖅᖁᖅᑕᕿᖅᑕᕿᓵᓕᓵᓕᒡᓕᓂᑦ ᐅᑦᓗᐃᑦ ᐊᑐᖅᑕᑦ ᐱᓪᓚᖅᑑ ᓴᓇᕆᒃᓴᖅᓯᑕᕆᑦᑐᓕᓕᒫᓂᑦ ᐃᓕᖅᑕᐅᖅᖁᖅᑕᕿᑦ

ᓄᓇᐅᓯᑦ ᐃᑭᐊᖅᓂᓕ ᐅᓴᕆᓯᐅᑭᐅᓂᑦ ᐅᒥᐊᖅᓴᓇᕆᐊᓂᑦᑕᖅᑕᕆᑦᑐᓕᓕᒫᓂᑦ ᐅᒥᐊᖅᓴᓇᕆᐊᓂᑦᑕᖅᑕᕆᑦᑐᓕᓕᒫᓂᑦ ᓯᑎᐱᓪ
2004-ᖅᔪᓂᖅᓯᑦ. ᐅᓴᕆᓯᐅᓂᖅᓴᐃᑦ ᑮᓇᐅᖅ ᐊᖏᓪᓗ ᐃᓗᒪᓗᑦ ᐃᖅᑭᒪᓂᖅᑕᕿᖅᑕᕆᑦᑐᓕᓕᒫᓂᑦ ᓴᓇᓕᐅᑦᓯᓕᐅᑎᑎᒃᓴᖅᓄᑦ
ᓄᓇᐅᓯᑦ ᐃᑭᐊᖅᓂᓕ ᓴᓇᕆᒃᓴᖅᓯᐅᕆᓂᐅᓴᖅᓯᓕᒫᓂᑦ 2004 ᐊᖏᓪᓗ 2006 ᐅᑭᐅᖅᑎᖅᓂᖅᓯᓗᓄᑦ. ᓯᖅᓕᖅᑎᓂᓪᓂᖅ ᐊᖏᓪᓗ
ᓴᓇᕆᒃᓴᖅᓯᑕᕆᑦᑐᓕᓕᒫᓂᑦ ᐅᓴᕆᓯᐅᓂᖅᑐᒍᓱᑦ ᐃᓕᖅᑕᐅᓂᖅᑐᑦ ᑭᓚᓕᓕᒫᓂᑦ ᑎᑎᕋᖅᑕᐅᖅ 2006-ᖅᔪᓂᖅᓯᑦ.

ᐱᒋᐊᓯᖅᓂᓕ 47-ᖅᔪᓕᖅᑐᒍᓱᑦ ᑐᐱᔪᒃᓴᓕᐅᖅᑎᑎᒃᓯᒪᓕᖅᑐᒍᓱᑦ, ᓄᓇᐅᓯᓪᓗ ᖁᖅᓴᓄᑦ ᐅᓴᕆᓯᐅᖅᑎᓪᓗ ᐊᖏᓪᓗ
ᐅᓴᕆᓯᐅᓂᐊᕐᓯᐅᓕᖅᑐᒍᓱᑦᑕᐅᓪᓗ ᓇᓱᐊᓇ ᒥᑦ ᐊᐅᓚᔪᓯ 2004-ᒥ. ᓯᖅᓕᖅᑎᑎᓪᓚᓴᑦ ᐊᖏᓪᓗ ᐅᓴᕆᓯᓄᑦ ᓴᓇᕆᒃᓴᖅᓯᓄᓪᓗ
ᓯᕐᑯᑎᓪᓚᓴᑦ ᑲᑦ%ᖅᔪᓕᖅᑐᒍᓱᑦ ᐅᑐᐱᓇ 2004-ᒥᑦ ᑎᓯᔪᒥᓪᓚ 2006-ᒧᖅᓴᓯᓯᓗᔪ. ᓄᓇᐅᓯᑦ ᐃᑭᐊᖅᓂᓕ
ᐅᓴᕆᓯᓄᖅᓴᖅᑐᒍᓱᑦᑕᐅᖅ 27-ᓄᑦ ᓯᑎᐱᓇ 2004-ᒥᑦ ᓯᑎᐱᓇ 2006-ᒧᑦ. ᐅᓴᕆᓯᐅᓂᖅᓴᐃᖅᒥ ᓴᓇᓵᖅᑎᑦ
70-ᐅᖅᑕᓂᐅᓂᐊᕐᓯᔪᓕᐅᓕᓂ ᐊᖏᓪᓗ ᐊᑐᓂ ᐅᑦᓗᓄᑦ 14-ᓄᑦ ᓴᓇᓗᑎᒃ ᐊᖏᓪᓗ ᐃᓗᒪᓗᑦ 14-ᓄᑦᑕᐅᖅ ᐅᑦᓗᓄᑦ
ᓴᓇᖅᑐᒃᑲᓪᓇᖅᑕᕆᑦᑐᒍᓱᑦ ᓂᐱᑕᖅᑕᕆᑦᑐᓗᑎᒃ. ᐃᒥᖅᑕᖅᑕᕆᑦᑐᒍᓱᑦ ᑐᐊᓗᓵ ᒡᓕᓂᒥᓪᓚᓴᑦ. ᐱᒪᐃᑦ ᐊᑐᖅᑕᐅᖅᑲᓂᑦ
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ᒥᑭᓪᓗᐊᖅᑎᓪᓗᒍ ᑕᒪᓐᓇ ᐅᓴᕆᓯᐅᓯᐅᓂᖅᓴᐃᑦ, ᐊᕐᑯᑎᒥᐅᑕᓕᓚᓂᓯᓪᓗᒪᐊᓕᓚᓂᖅᓯᓄᑦ ᑲᒪᑦᓯᐊᖅᑐᓪᓗᒪᓕᓚᓂᖅᑐᒍᓱᑦ. ᐃᒪᓕᖅᑑ 3
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ᐊᖏᓪᓗ ᐃᓕᓴᐅᖅᑎᓪᓗᒪᓕᓚᓂᖅᑐᒍᓱᑦᑕᐅᓂᖅᑐᑦ ᐊᑐᖅᑕᐅᖅᑲᓂᖅᑕᕆᑦᑐᒍᓱᑦ ᓄᓇᖅᑎᑦᓯᐅᓂᖅᑐᒍᓱᑦ ᑕᐃᒪᓕᕆᓇᖅ. ᓇᓇᖅᑕᐅᖅᑐᑦ ᑕᐃᑲᓂᖅᑕᕆᑦᑐᒍᓱᑦ
ᐅᓴᕆᓯᐅᓂᖅᓴᐃᖅᒥ ᐊᖅᓯᓂᖅᑕᐅᖅᑐᒍᓱᑦ ᓄᖅᑎᑎᕐᑕᐅᖅᑕᕆᑦᑐᒍᓱᑦ ᑕᐃᒪᓕᕆᓇᖅᑐᒍᓱᑦᑕᐅᓂᖅᑐᑦ ᐃᓕᓴᐅᖅᑎᓪᓗᒪᓕᓚᓂᖅᑐᒍᓱᑦ
ᐊᖏᓪᓗ ᐃᓕᐅᖅᑎᓪᓗᒪᓕᓚᓂᖅᑐᒍᓱᑦᑕᐅᓂᖅᑐᑦ ᐊᑐᖅᑕᐅᖅᑲᓂᖅᑕᕆᑦᑐᒍᓱᑦᑕᐅᓂᖅᑐᑦ ᐊᑦᑕᐃᒃᓴᓕᓚᓯᖅᓄᑦ ᐃᓕᓴᐅᖅᑎᓪᓗᒪᓕᓚᓂᖅᑐᒍᓱᑦ
ᐊᑐᖅᑕᐅᖅᑕᕆᑦᑐᒍᓱᑦᑕᐅᓂᖅᑐᑦ ᐃᓕᖅᑕᐅᖅᑕᕆᑦᑐᒍᓱᑦ ᐊᑐᖅᑕᐅᖅᑕᕆᑦᑐᒍᓱᑦ ᐊᑐᖅᑕᐅᖅᑕᕆᑦᑐᒍᓱᑦ.

ᐅᖅᓯᓪᓗᐊᖅᑎᓪᓗᒍ ᑕᒪᓐᓇ ᐅᓴᕆᓯᐅᓂᖅᑐᒍᓱᑦ, ᐊᕐᑯᑎᒥᐅᑕᓕᓚᓂᓯᓪᓗᒪᓕᓚᓂᖅᑐᒍᓱᑦ ᑲᒪᑦᓯᐊᖅᑐᓪᓗᒪᓕᓚᓂᖅᑐᒍᓱᑦ. ᐃᒪᓕᖅᑑ 3
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ᐊᑐᖅᑕᐅᖅᑲᓂᖅᑕᕆᑦᑐᒍᓱᑦ. 10 >ᓯᐊᓂᓪᓗᐊᖅ ᑐᐊᓂᓵᖅᑐᒍᓱᑦ ᐅᓴᕆᑕᒪᐅᕙᓇᐃᓂᑦ ᓴᓇᕆᒃᓴᖅᓯᐅᕆᓂᐅᓴᖅᓯᓕᒫᓂᑦ
ᔪᓕᑦ ᐃᓕᖅᑕᐅᖅᑕᕆᑦᑐᒍᓱᑦᑕᐅᓂᓵᓂᓪᓗᑎᓪᓗ ᓯᖅᓕᖅᑐᒍᓱᑦᑕᐅᓯᒪᓕᕆᓇᖅᓂᑦ ᐊᑦᑕᐃᒃᓴᓕᓚᓯᖅᓄᑦ. ᐊᑦᑕᓇᖅᑐᒍᓱᑦᑕᐅᓂᖅᑐᑦ
ᐊᖏᓪᓗ ᐃᓕᓴᐅᖅᑎᓪᓗᒪᓕᓚᓂᖅᑐᒍᓱᑦᑕᐅᓂᖅᑐᑦ ᐊᑐᖅᑕᐅᖅᑲᓂᖅᑕᕆᑦᑐᒍᓱᑦᑕᐅᓂᖅᑐᑦ ᐊᑦᑕᐃᒃᓴᓕᓚᓯᖅᓄᑦ ᐃᓕᓴᐅᖅᑎᓪᓗᒪᓕᓚᓂᖅᑐᒍᓱᑦ
ᐊᑐᖅᑕᐅᖅᑕᕆᑦᑐᒍᓱᑦᑕᐅᓂᖅᑐᑦ ᐃᓕᖅᑕᐅᖅᑕᕆᑦᑐᒍᓱᑦ ᐊᑐᖅᑕᐅᖅᑕᕆᑦᑐᒍᓱᑦ ᐊᑐᖅᑕᐅᖅᑕᕆᑦᑐᒍᓱᑦ.

ᐅᓴᕆᓯᐅᓂᖅᓴᐃᑦ, 9000 ᑕᓐᓄᑦᑐᒍᓱᑦᑕᐅᓂᖅᑐᑦ ᐊᑐᖅᑕᐅᖅᑲᓂᖅᑕᕆᑦᑐᒍᓱᑦᑕᐅᓂᖅᑐᑦ ᐊᑦᑕᐃᒃᓴᓕᓚᓯᖅᓄᑦ ᐃᓕᓴᐅᖅᑎᓪᓗᒪᓕᓚᓂᖅᑐᒍᓱᑦ
ᐊᑐᖅᑕᐅᖅᑕᕆᑦᑐᒍᓱᑦᑕᐅᓂᖅᑐᑦ ᐃᓕᖅᑕᐅᖅᑕᕆᑦᑐᒍᓱᑦ ᐊᑐᖅᑕᐅᖅᑕᕆᑦᑐᒍᓱᑦ ᐊᑐᖅᑕᐅᖅᑕᕆᑦᑐᒍᓱᑦ ᐊᑐᖅᑕᐅᖅᑕᕆᑦᑐᒍᓱᑦ.

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ERRATUM:

Please note that the production from the proposed Doris Hinge project is approximately 270,000 ounces. In reading the Executive Summary and translated versions, please note this erratum.

March 20,2002.

1.0 Project Background

The Doris Hinge Project is the first commercial mineral development proposed for the Hope Bay greenstone belt. Mineral prospecting in the general area was first reported in the 1970's (GNWT, 1997). The Doris ore body was discovered in the mid-1990's as part of BHP's regional exploration over the entire Hope Bay belt. The overall Hope Bay Project was sold by BHP to the Hope Bay Joint Venture in late 1999, who focused further exploration on the Doris target and have defined the Doris Hinge Project; an orebody that shows strong commercial potential. The Preliminary Project Description that follows is presented in a format and sequence suggested by the Nunavut Impact Review Board.

1.1 Project Ownership

The Doris Hinge Project is wholly contained within the Hope Bay Joint Venture. The Hope Bay Joint Venture is owned 50 / 50 by Miramar Hope Bay Limited and Hope Bay Gold Corporation (HGC - TSE). Miramar Hope Bay Limited is wholly owned by Miramar Mining Corporation (MAE- TSE). The division of Project responsibilities between these two joint venture partners has Hope Bay Gold Corp. responsible for Project exploration, and Miramar Mining Corporation responsible for Project development and operations. Miramar has significant northern gold mining experience in that they own and operate the Con Mine at Yellowknife which produced 129,607 oz. of gold in 2001 (Miramar, 2001). Miramar Mining also operates the Giant Mine at Yellowknife where ore is extracted and processed at the Con Mine.

1.1.2 Project contacts

Corporate:

Anthony Walsh
President and CEO
Miramar Mining Corporation
Tel. 604 985 2572 / Fax 604 980 0731

David Fennell
Chairman & CEO
Hope Bay Gold Corporation Inc.
Tel. 450 677 2585 / Fax 450 677 2601

Doris Hinge Project:

Brian Labadie
Senior Vice President Operations and Project Manager
Miramar Mining Corporation
Tel. 604 985 2572 / Fax 604 980 0731

Hugh R. Wilson
Manager - Environment Affairs
Doris Project and Miramar Mining Corporation
Tel. 604 985 2572 / Fax 604 980 0731
Cell 780 975 2550

1.1.3 Project Policies

The Project will adopt the relevant policies in place at Miramar's Con Mine at Yellowknife. The Hope Bay Joint Venture Safety and Environment policies are provided in Appendix 1.

1.2 Approval Agencies and required Approvals, Licences, and Permits

The Doris Hinge Project is situated entirely on lands owned by the Kitikmeot Inuit Association (KIA) with management authority for the minerals under those lands vested with Nunavut Tungavik Inc. (NTI). All applications for land use will be submitted to KIA for initial examination and if found to be complete these would be forwarded to NIRB and be subject to the environmental screening, review, and approval process as set out in the Article 12 of the Nunavut Land Claim Agreement (NLCA).As well, an application for a water licence will be submitted /included in this submission for Nunavut Water Board (NWB) consideration.

1.2.1 Construction Phase: Project proposal environmental screening, and Project review

Nunavut Tungavik Inc. (NTI) James Eetoolok, 1st Vice-President ph. 867 983 2715

- A mineral production lease to the subsurface ore body must be issued prior to production. The current exploration program on the mineral deposit proposed for development has been conducted under NTI Exploration Agreements BB60-00-01(TOK 1) and BB60-00-02 (TOK 3). The mineral production lease is a schedule in the existing exploration agreement with NTI and all that remains to be negotiated is the area currently under the exploration agreement that will be transferred to be included in the Mineral Production Lease.

Kitikmeot Inuit Association Charlie Evalik, President ph. 867 983 2458

- Land use licence pursuant to NLCA Article 21 for commercial access, and developing roads and quarries on Inuit Owned Land (IOL).
- Surface lease pursuant to NLCA Article 21 for exclusive use of IOL for developing and operating Project infrastructure.
- Negotiate an Inuit Impact and Benefit Agreement (IIBA) pursuant to NLCA Article 26.

The Project is located entirely on Inuit Owned Land (block 77A-BB-60). Land use related to mineral exploration is currently authorized by KIA Class III Land Use Licence KTL399CO29.

Nunavut Planning Commission Robert (Bobby) Lyall, Chair ph. 867 983 2730

- Review Project for compliance with regional land use plan pursuant to NLCA Article 11 and 12.

The Draft West Kitikmeot Regional Land Use Plan is currently under review.

Nunavut Impact Review Board Elizabeth Copland, Chair ph. 867 983 2691

- Project screening, EIS Guidelines, and Project Certificate pursuant to NLCA Article 12.

An environmental screening and review by NIRB would be initiated at the request of the Kitikmeot Inuit Association and/or the Nunavut Water Board.

Nunavut Water Board Thomas Kudloo, Chair ph. 867 360 6338

- Project review and Water Use Licence pursuant to NLCA Article 13.
- Set and hold financial security required for the Project.

All water use for the current Project exploration activities in the Doris Project area are subject to Water Use Licence NWB2HOP0207 issued by the Nunavut Water Board.

Fisheries and Oceans Canada (Iqaluit) Bert Hunt, District Manager ph. 867 979 8009

- Authorization for works affecting fish habitat pursuant to the Fisheries Act (Canada).
- Approval to construct water crossings for road route and or alter water courses pursuant to the Navigable Waters Protection Act (Canada).
- Designation of Tail Lake to allow tailings disposal/

1.2.2 Operations Phase: required operating licences and permits

The overall proposed configuration of required Project infrastructure will be a mine, mill, and camp site with an all weather road (which includes an airstrip) connecting the tank farm and lay down area on Roberts Bay. Tailings are proposed for deposition in Tail Lake.

Kitikmeot Inuit Association Charlie Evalik, President ph. 867 983 2458

- Land use licence pursuant to NLCA Article 21 for roads, a tank farm and lay down area, site development for the camp, mill, and related facilities, development of a pit for ore production, a waste rock area and a tailings line and adjacent road the full length of Tails Lake. These facilities are all on land owned by KIA.
- Surface leases on Inuit Owned Lands pursuant to NLCA Article 21 for exclusive use of lands to operate the camp, mine, mill, tank farm, and transportation terminal and related facilities.
- Implement and execute IIBA as negotiated, agreed, and approved pursuant to NLCA Article 26.

Nunavut Water Board Thomas Kudloo. Chair ph. 867 360 6338

- Water Use Licence pursuant to NLCA Article 13 for all Project water needs and tailings disposal.

1.2.3 Closure and abandonment: approvals

Kitikmeot Inuit Association Charlie Evalik, President ph... 867 983 2458

- appropriate closure and abandonment plan for buildings and works on IOL.

Nunavut Impact Review Board Elizabeth Copland, Chair ph. 867 983 2691

- review of closure and abandonment plan and certificate of approval.

Nunavut Water Board Thomas Kudloo, Chair ph. 867 360 6338

- approval for closure and abandonment plan.
- release financial security of sign-off

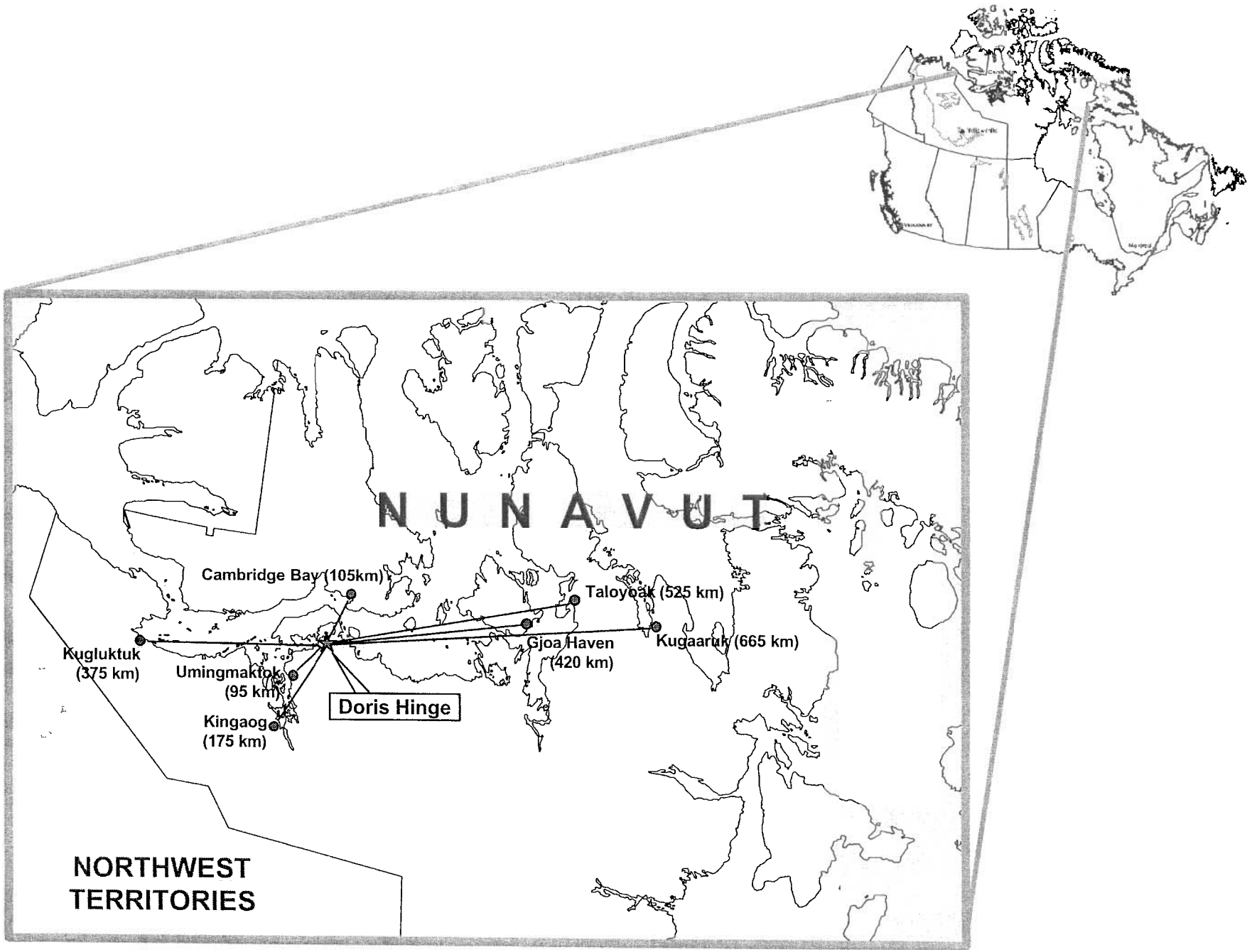

Figure 1: General Project Location

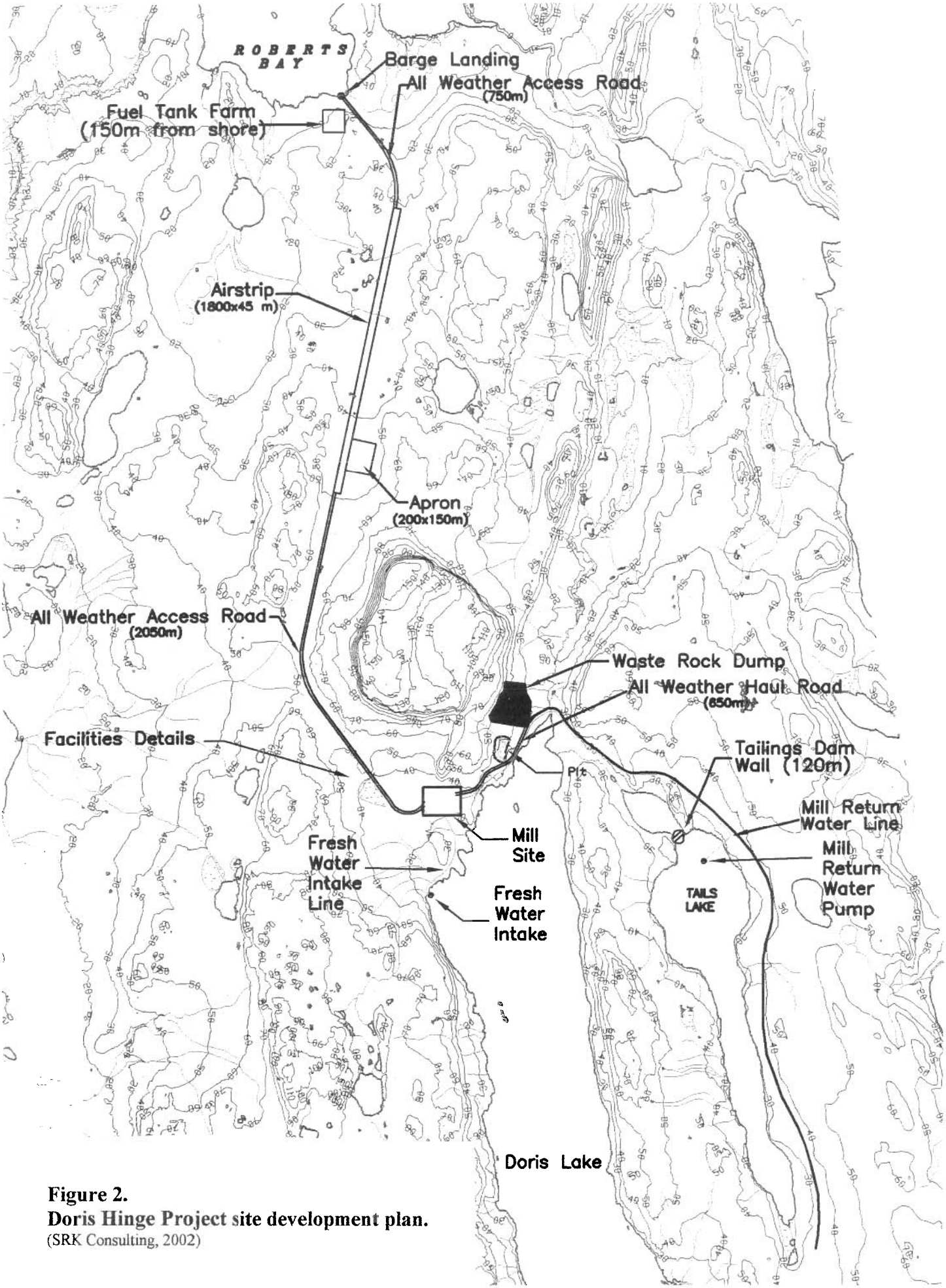

Figure 2.
Doris Hinge Project site development plan.
(SRK Consulting, 2002)

2.0 Doris Hinge Project Overview

2.1 Project Development Rationale

Mineral exploration on the Hope Bay greenstone belt has been ongoing since the early 1990's. Numerous prospective gold deposits have been identified. Intense exploration of the Doris deposit has shown the potential for commercial development at the current global price for gold. While there are numerous other gold deposits with strong commercial potential, the capital necessary for the exploration to prove their commercial feasibility can be financed by revenues from developing the Doris Hinge deposit.

2.2 Summary of Project Construction and Operations

2.2.1 Project Location

The Doris Hinge Project proposed in this Preliminary Project Description (PPD) is a modest gold mining venture located on the Canadian mainland in West Kitikmeot, Nunavut approximately 110 km south west of Cambridge Bay and 75 km northeast of Umingmaktok. The Project site is at 68 09" deg. N x 106 40" deg. W, 4 km south of the head of Roberts Bay, an extension of Melville Sound which connects with Bathurst Inlet about 80 km west of the Project (please see Figure 1 for a location map and Figure 2 for a local site plan).

2.2.2 Project Construction

Site construction is planned to begin in September 2003 when a fleet of surface mining and construction equipment will arrive by sea-lift which could be by tug and barge from Hay River or ships originating from the eastern Canada. Equipment and materials will be off loaded at the landing and laydown site used in both 2000 and 2001. After freeze-up the equipment will be moved to the Doris Hinge site and begin site development by first developing the surface pit where the Doris orebody is exposed at the surface. The rock extracted from the pit development will be used for site development, and road and airstrip construction. An initial camp will be brought in with the construction equipment and materials The existing camp from the Boston site will be relocated to the Doris Hinge Project site and upgraded to have the capacity for 70+ persons. The first year's construction - September 2003 to August 2004 - will include:

- 70+ person camp;
- the 6 million litre engineered and lined tank farm at Roberts Bay;
- approximately 5,000 m^2 lay down area at Roberts Bay;
- 4.6 km of road that incorporates a 1800 m airstrip;
- the Doris Hinge mine and mill site preparation;
- a tailings disposal line and road to Tail Lake;
- 85,000 tonnes of ore from the surface pit will be stock piled for processing;
- transferring the camp from the Boston Project site to Doris and upgrading
- transferring 9,000 tonnes of high grade ore from the Boston Project site to Doris.

The remaining equipment and supplies for mill and process plant start-up will be arrive at Roberts Bay in August 2004 by sea-lift and could from Hay River or ships originating from the East coast in September 2004. It will include a Sprung type building to house the mill, the mill in modular form, reagents for year 1, and underground mining equipment. The mill will be in full operation within 60 days of arrival. Due to economics, quantities of non fuel consumables may be increased during the first sealift.

Project construction is expected to begin in December 2003 and be complete in October 2004.

2.2.3 Project Operations - please see figures 7 and 8 for charts showing the ore milling and gold recovery process, and water balance respectively.

Project operations will have the small modular mill processing approximately 600 tonnes of ore per day. On mill start-up, ore will be taken from the stockpile from the surface pit. Underground mining will commence with the arrival of the equipment in September 2004. The mine will be operated by a contractor with a work force of approximately 20 living in the camp on site. Milling, site support, technical and supervisory functions will be carried out by the HBJV. The work force rotation will be 14 days on-site and 14 days off-site. All personnel on site will work 12 hours per day and seven days per week for the duration of the roster rotation. A full time Project employee would put in approximately 2184 hours per year on this rotation.

Ore processing begins with crushing and grinding the rock and recovering the free gold that is released in a gravity circuit. Gold recovery from this stage alone is expected to be 40%. The remaining gold will be recovered by way of flotation followed by a cyanide leach followed by a steel wool electrode in leach sequence. An overall gold recovery rate in excess of 95% using these procedures and technology is expected. All recovered gold will be smelted onsite to produce gold dore bars (unrefined gold) which will be taken to southern Canada for refining and sale (Batemen, 2002).

Tailings will be treated by a conventional decyanidation process prior to subaqeuous disposal in Tails Lake.

Power for the Project will be generated by four 850 kW diesel electric generators. Diesel fuel will be stored in four 1.5 million litre tanks in the tank farm at Roberts Bay. Fuel will be transferred from the tank farm to tanks at the Doris Hinge site by conventional tanker truck. Fuel and other bulk supplies will continue to be brought into Roberts Bay on an annual sealift by conventional tug and barge or other ocean going vessel. Flights for personnel rotation and resupply will be at least weekly.

This Project is expected to operate for 30 months, process approximately 470,000 tonnes of ore, and produce approximately 270,000 ounces of gold (1 troy ounce = 31.103 grams).

No new processes or technologies are proposed for any aspect of this Project.

2.3 Major Project Interactions with the Environment

2.3.1 Air Quality

Power house and mobile equipment exhaust will contain greenhouse gasses; road transport and open pit mining activities will produce dust.

2.3.2 Water quality

Tailings disposal, including the tertiary treated sewage from camp, may alter water quality in Tail Lake.

Doris Project ore is characterized as ore having an uncertain acid generation potential (Knight Piesold, 2001). Although, there is the potential risk that the ore stockpile may generate acid during the period of storage, it should be noted that the ore material will be on the pad for a relatively short time and the kinetics of acid generation occurring during this time is considered minimal. However, any run off, if acidic, would be neutralized as it percolates through the carbonate rich wallrock of the ore pad. Examination of the wall rock that will be used for pad and road construction showed that it poses no risk of acid generation on exposure to the atmosphere (Knight Piesold, 2001).

2.3.3 Site development and tundra alteration

Constructing Project support and production infrastructure will cause terrain alteration. Preliminary estimates of areas required for site development needs are:

beach lay down area and tank farm at Roberts Bay	1 ha
access road including airstrip	16.2 ha
pump house, sewage treatment and lines	0.1 ha
camp, offices, power house, mill, maintenance facility, ore stockpile	5 ha
pit, haul and service roads	7 ha
waste rock dump	4 ha
Total (estimate)	**33.3 ha.**

2.3.4 Tailings disposal and aquatic life

Tailings are proposed for subaqueous disposal in Tail Lake at a rate of 600 tonnes (dry weight) per day. The total proposed mass for disposal during the life of the Project is 486,000 tonnes (dry weight). The capacity for tailings storage at current water levels in Tail Lake is 2.38 million cubic metres for 3.5 million tonnes of tailings. Fish populations studies using gill nets showed that lake trout was the only fish species captured in Tail Lake (ninespine stickleback were found as stomach contents in lake trout caught in Tail Lake; Rescan, 2001).

2.3.5 Project operations and wildlife

A full complement of tundra wildlife have been documented in and adjacent to the Project area has been documented in Project sponsored environmental baseline studies. No critical habitat for any species is at risk. Direct interactions with both large herbivores (caribou and muskox), and carnivores (grizzly bear, wolverine, and wolf) are probable and will be subject to contingency plans. The Project area includes the mainland winter range of the Victoria Island caribou herd, the summer range of the mainland Bathurst herd, and, perhaps, margins of the annual range of the Queen Maude Gulf herd which has yet to be completely documented. Raptors are common in the Project area and one known nest site is within 2 km of the Project camp and mill site facilities. Searches for tundra swan and other water fowl have not identified any nests on the north end of Doris Lake or on Tail Lake.

No endangered species have been noted in the course of baseline studies. Also, no wildlife population that ranges over the Project area is at risk due to Project activities and related habitat alteration.

3.0 Project Description

The Project Description which follows is based on the recently completed Project scoping study with contributions by various parties including Bateman Engineering, SRK Consulting, Nuna Logistics, and Project personnel (Bateman Engineering PTY Ltd., 2002; Nuna Logistics, 2002; SRK Consulting, 2002;). These studies provide a preliminary assessment on the overall requirements for, and the commercial potential of developing the Doris Hinge orebody. Refinements to the Project are anticipated as a result of a detailed feasibility study expected to be completed in September 2002, and engineering studies and designs at the Project site in the summer of 2002. These studies are not expected to change the scope or size of the Project that is described here. Nevertheless, in the absence of a detailed feasibility study this Project Description must remain "Preliminary".

3.1 Project Construction

Site construction will commence with off loading the mining equipment at Roberts Bay arriving by sea-lift in September 2003.The barge will be beached at high tide, as it has been done in both 2000 and 2001, and the equipment and supplies transferred directly to the beach where it will be in storage until Project construction begins, expected in February 2004.

Equipment required for development work during the first year of the Project include:

4 Cat 773 (50t) haul trucks
2 Cat 988 loaders
1 Ingersoll Rand production blasthole drill
2 Cat D-8 dozers
1 Cat 330 excavator
1 24 X 36 portable jaw crusher
1 Cat 14G grader
1 service / fuel truck
1 plow truck
5 crew cabs
3 lighting plants
7 heaters
1 3.3 mW power plant consisting of 4 X 850 kW diesel electric generators
1 40 person camp and sewage treatment plant
1 12m X 24 m fold-away shop
1 Sprung type shelter for mill and processing.
1 administration and mine services trailer

Bulk supplies for the first year of development work include:

- 2 million litres diesel fuel
- 210 tonnes ammonium nitrate explosive in one tonne tote bags.

3.1.1 Mining and ore storage

Pit development will proceed as soon as the equipment can be mobilized to the Doris site. Development rock extracted to expose the ore from the pit will be used for all road and site construction needs. Ore from the pit will be stored on prepared storage pads of development rock. Pit development and mining is estimated to be completed in approximately four months. On

pit completion approximately 611,000 tonnes of development rock will be in place as engineered roads, airstrip, and site development pads and 85,000 tonnes of ore will be in storage near the mill site. It is planned to transfer up to 9,000 tonnes of ore from the Boston Project site for processing in the Doris mill.

3.1.2 Roads and site development

The ore storage pad, roads, and other site development areas will be constructed of rock taken out to expose the ore body (wallrock). Immediately on freeze-up work on developing the pit would begin with the waste rock used for building the road to the port and widening an 1800 m section of the road so it can also serve as an airstrip.

Developing the pit at Doris will yield sufficient rock for all site development needs:

Access road to Roberts Bay	38,626 m^3
Haul road	8,967 m^3
Service roads	28,566 m^3
Airstrip and apron	157,690 m^3
Total	**233,849 m^3**

The access road to Roberts Bay will be approximately 4.6 km long (including the 1800 m airstrip). The road will have a 10 m wide running surface; the 1800 m airstrip will have a 45 m wide surface and be capable of serving Hercules and Boeing 737 aircraft. It will have an approved runway lighting system in place that will be powered by a portable power plant on an as required basis. The haul road from the pit and underground mine to the waste rock dump and mill site will be 650 m long with a 10 m wide surface. The service road along the tailings pipeline at Tail Lake will be approximately 4.6 km long with a stream crossing over the Doris Lake outflow. It will be a single lane road with 10 m wide turnouts for passing every 1500 m.

Roads will generally have three distinct layers of rock; the subgrade will have rock up to 1 metre, the middle layer will have crushed rock up to 200 mm, and the surface will be up to 38 mm in size. Approximately 43 % of the rock in the roads and airstrip will be crushed to 200 mm and 14% crushed to 38 mm. A typical road cross section is shown by Figure 5.

Site development (Figures 2 and 3) and a 120 m tailings containment dam built in Tail Lake will take most of the remaining country rock produced in pit development, an overall volume of 611,000 tonnes. Country rock that is produced in excess of site development needs will be placed in the waste rock area north of the pit, a haul distance of 200 m. The location of the dam in Tail Lake is shown in Figure 2 with a cross section of the dam in Figure 6. This concept is subject to final design and engineering following the Project feasibility study.

3.1.3 Camp construction

A modular camp and kitchen for 40 persons will be part of the initial barge shipment. It will be erected as soon as site development allows the trailers to be set up - expected in February 2004. As soon as ice thickness on lakes allows overland travel to the Hope Bay Boston Project the 36 person camp from Boston will be relocated to Doris and integrated into the camp there for a total capacity of 70 - 80 persons. The camp will be electrically heated.

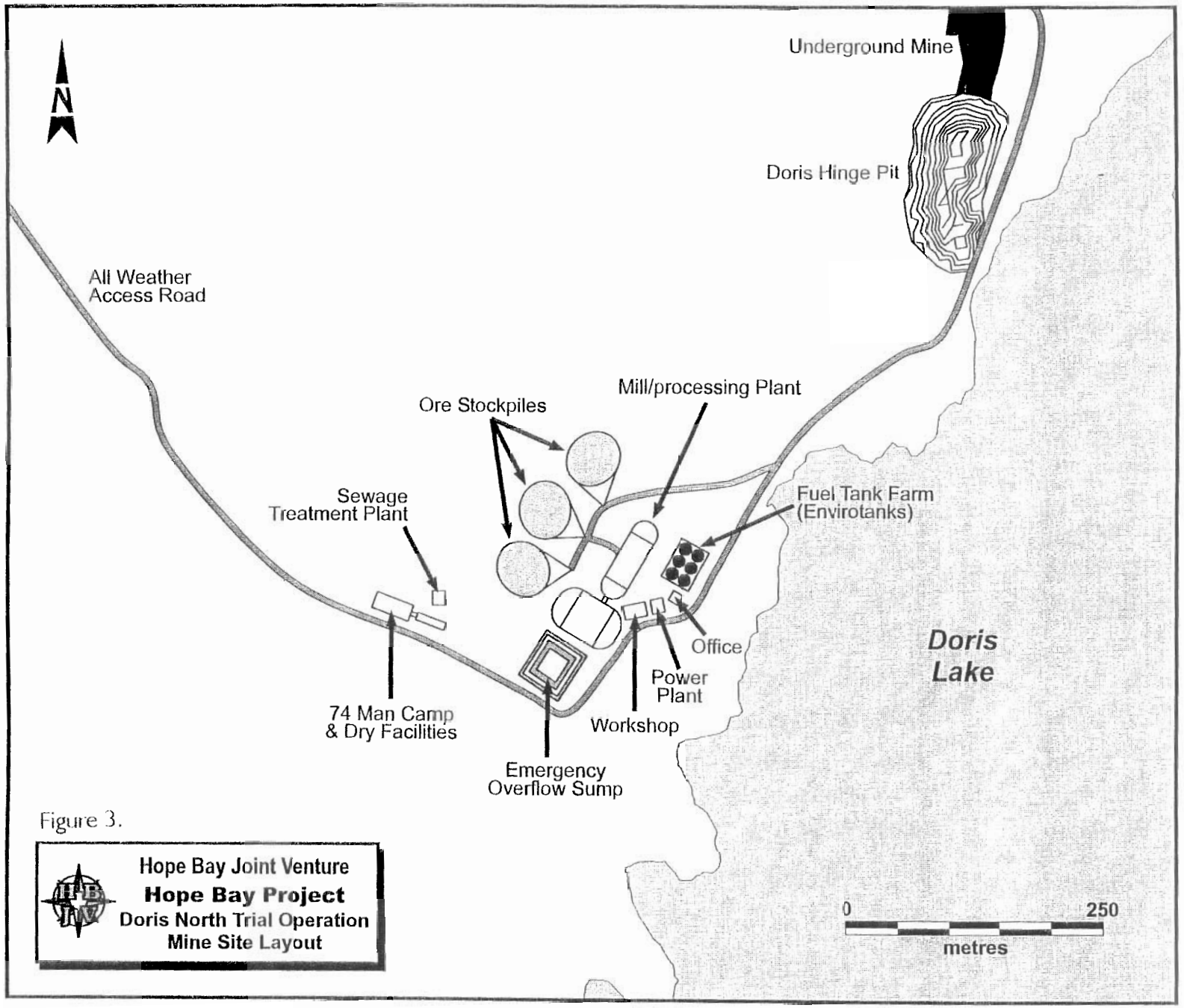
N
Underground Mine
Doris Hinge Pit
All Weather
Access Road
Mill/processing Plant
Ore Stockpiles
Sewage
Treatment Plant
Fuel Tank Farm
(Envirotanks)
Office
Power
Plant
Workshop
74 Man Camp
& Dry Facilities
Emergency
Overflow Sump
Doris
Lake
0
250
metres
Hope Bay Joint Venture
Hope Bay Project
Doris North Trial Operation
Mine Site Layout

Figure 3.

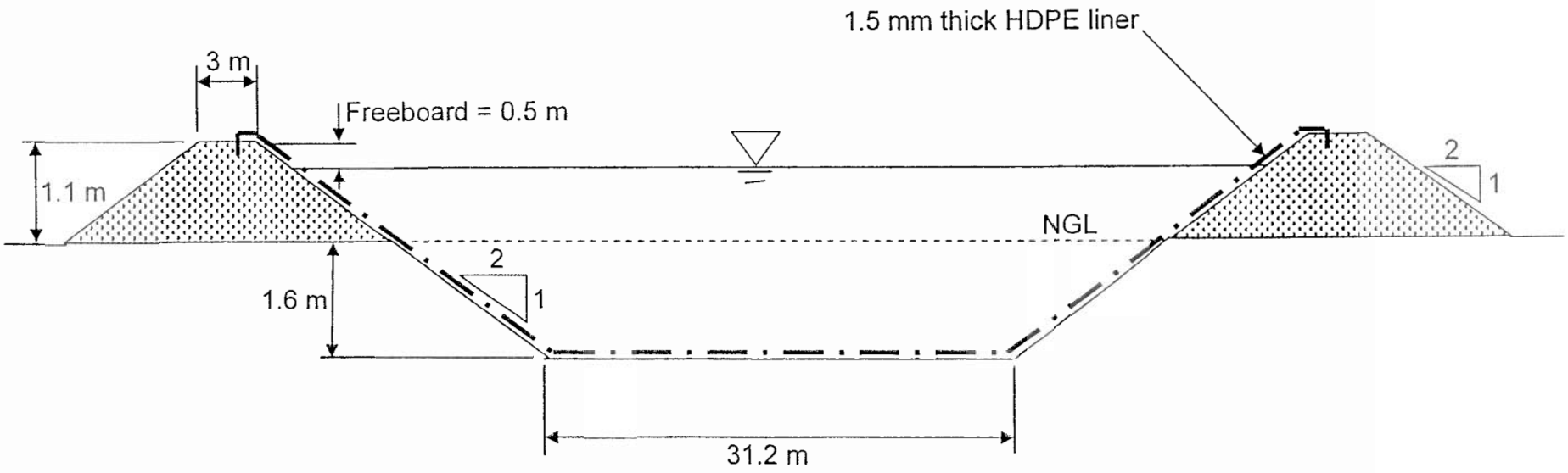

Figure 4.

Drawing not to scale

SRK Consulting
Engineers and Scientists

HOPE BAY JOINT VENTURE

Project Name: Doris North Trial Operation
Project Location: Hope Bay, Nunavut, Canada

Typical cross-section through Mill emergency sump overflow

PROJECT:	DATE:	APPROVED:	FIGURE:
2CH005.02	Jan 2002	MR	3.9

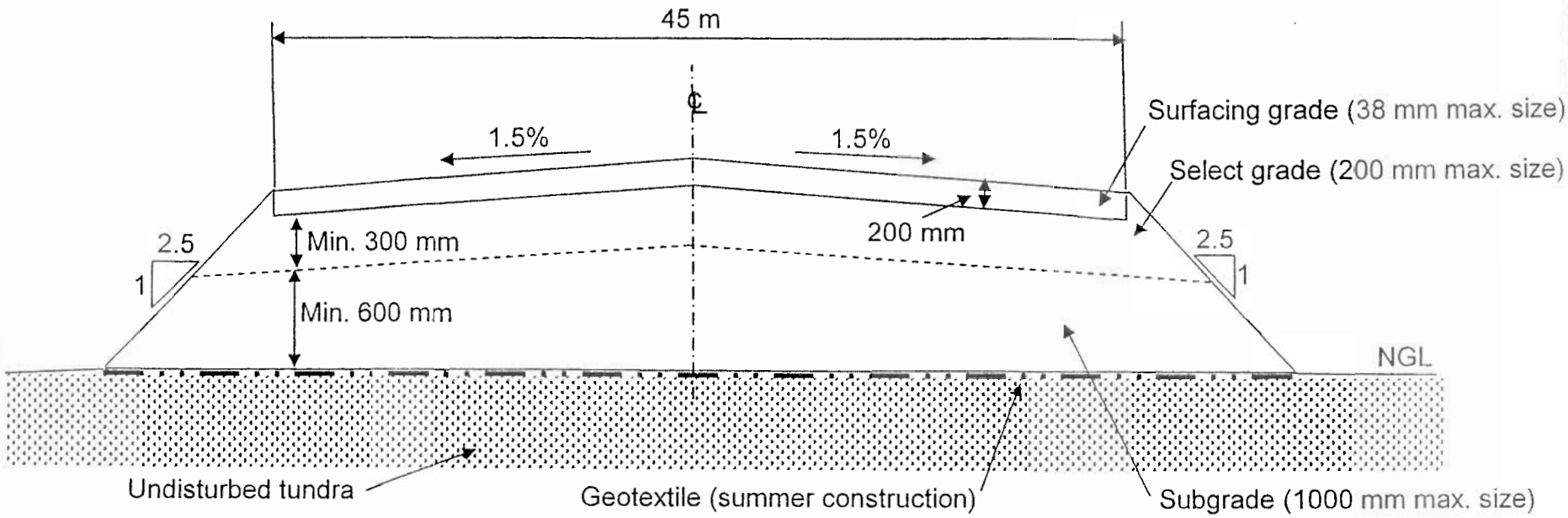

Figure 5.

Drawing not to scale

SRK Consulting
Engineers and Scientists

HOPE BAY JOINT VENTURE

Project Name: Doris North Trial Operation
Project Location: Hope Bay, Nunavut, Canada

Typical cross-section for HBJV airstrip (Class 3-D)

PROJECT:	DATE:	APPROVED:	FIGURE:
2CH005.02	Jan 2002	MR	3.2.2(a)

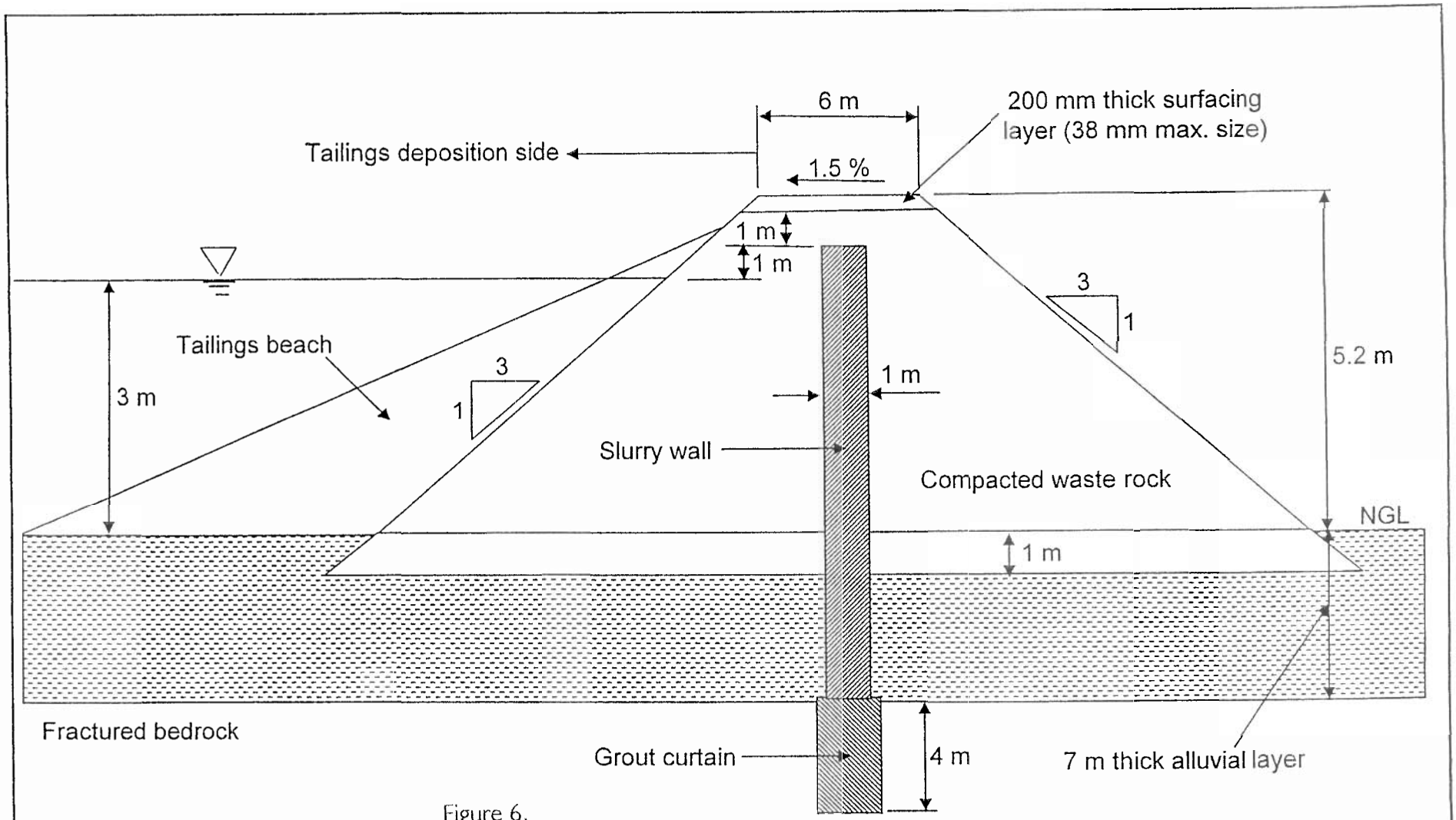

Figure 6.

Drawing not to scale

SRK Consulting
Engineers and Scientists

HOPE BAY JOINT VENTURE

Project Name: Doris North Trial Operation
Project Location: Hope Bay, Nunavut, Canada

Typical section through tailings impoundment dam

PROJECT:	DATE:	APPROVED:	FIGURE:
2CH005.02	Jan 2002	MR	3.7.7

3.1.4 Water source and distribution

Water for all camp and fire protection purposes will be drawn from Doris Lake (Figure 2). All water drawn from Doris Lake will be pumped directly to a 76 m^3 holding tank at the mill and from there distributed automatically on demand for camp use, mill use and fire protection. All water lines will be insulated and heat traced. Potable water will be drawn from a 24 m^3 holding tank in the camp, chlorinated and distributed to the kitchen, accommodations, and site service building including the mine dry. Fire protection will include sprinklers in personnel accommodations quarters and the service building.

Process water will be taken from Tail Lake by a pump on a floating barge near the north end of the lake (Figure 2). Water for the mill will be drawn from the 76 m^3 holding tank only in case of a shortage from Tail Lake. The reclaim water from Tail Lake will keep Tail Lake in a negative water balance for most of the year.

3.1.5 Sewage treatment

A sewage treatment plant with a capacity of 23 m^3 per day will be installed. It will be a fully assembled skid mounted modular unit. Treated effluent will either be discharged onto the tundra via aerial irrigation or into the tailing line for discharge to Tail Lake. Final design and preliminary engineering will be completed and submitted with the Project EIS.

3.1.6 Administration and mine services complex

The equipment services and maintenance shop will be a heated 12m x 24m fold-away shop erected onsite capable of serving both the pit and underground mining fleet.

Site offices will be provided by a single trailer with space and satellite communications capacity for both Project and contractors' managers.

A portable trailer unit attached to the mine services complex will provide change rooms and dry for staff on site.

3.1.7 Mill complex, power house, and fuel storage

The mill, floatation circuit, gold recovery circuit, and smelter will be housed in a Sprung type metal frame and insulated fabric cover designed building. The processing circuits and leach tanks will be set on a bunded concrete floor. The concrete floor will have embedded sumps for capturing and containing washdown water. Sump contents will be sent through the cyanide detox unit and discharged to tailings. The portable trailer " power house" will be in close proximity of the mill/processing complex with adjacent fuel storage in double walled "enviro-tank" fuel vaults with 21 day fuel capacity.

3.1.8 Tank farm and laydown area

The tank farm will be located at least 150 m from the normal highwater mark near the beach landing site for the barge. The tanks will be filled by floating hose pipeline. The tank farm will be 4 X 1.5 million litre welded in place steel tanks inside an engineered and lined enclosure with capacity of approximately 2 million litres.

Spill clean-up gear for both land and marine spills will be on hand at the fuel dispensing terminal at the tank farm.

The resupply lay down area will consist of a 5,000 m^2 crushed mine waste rock pad extension to the tank farm.

3.1.9 Site emergency overflow sump

An emergency overflow sump will be constructed adjacent to the mill complex. It will have a capacity of 2000 m^3 (approximately 1200 tonnes of tailings or 48 hours operations at full capacity). The sump will be an engineered excavation with an impervious liner (Figure 3 and 4). It will be engineered to receive site runoff. Contents will be treated as required and pumped into the tailings discharge line.

3.1.10 Tailings storage

Tailings will be pumped to the south end of Tail Lake in a 5,250 m long 6 " pipeline. The pipeline will run parallel to the tailings service road. Control in Tail Lake will be established by an engineered dam built near the north end of the lake (Figure 6). The dam will be built of crushed rock to a crest height of 2.2 m above the natural high water mark. On completion of the dam, a slot will be excavated down to bedrock along its centre line for placing a slurry wall. The slurry wall will top at 1 m above the natural high water mark (SRK, 2002). Final design and preliminary engineering will be prepared for the Project feasibility study and reviewed in the Project EIS.

3.1.11 Waste rock disposal

Pit and underground mining development rock in excess of site infrastructure construction needs will be placed 200 m north of the pit. It will be placed in rows with the surface leveled to prepare for the next layer. Side slopes will be at the natural angle of repose for waste rock. Final waste rock volume estimates will be included in the Project EIS.

The surface mining equipment will have completed all the pit mining tasks by the end of the first year and be shipped out on the barge that brings in the mill and underground mining fleet in September 2004.

3.1.12 Underground mining

The underground mining equipment will arrive by sea-lift in September 2004. Portal and ramp construction will start immediately. The 5m X 5m portal will be located near the completed pit, and lead to the Doris Lakeshore and Doris Central veins by way of a 900 m decline. The decline will have a 10% slope. Underground mining equipment shipped to the site will include:

1 2 or 3 boom jumbo
1 6 yard scoop tram
1 2 yard scoop tram
1 long hole drill
1 26 tonne underground haul truck
1 modular mill and processing circuits including leach tank
1 calcine furnace
1 gold smelting furnace
1 cyanide detox unit