PR89-016

EXPLORATION
OREX inc.
[illegible] STREET
ROUYN-NORANDA QUEBEC
[illegible]
CENTENNIAL BUSINESS CENTER
UPPER PENTHOUSE
1660 HOLLIS STREET
HALIFAX, NOVA SCOTIA
B 3 G [illegible]

REGISTRATION OF THE GOLDBORO PROJECT

with the Nova Scotia Department of Environment

AUGUST 1989

TABLE OF CONTENTS

LIST OF FIGURES

NAME OF THE UNDERTAKING

Goldboro Project

LOCATION OF UNDERTAKING

About 3 km north of the villages of Goldboro and Isaac's Harbour, in Guysborough County, on the east coast of Nova Scotia (Figure 1).

PROPONENT

(i) Name of Proponent:

Exploration Orex Inc.

(ii) Address:

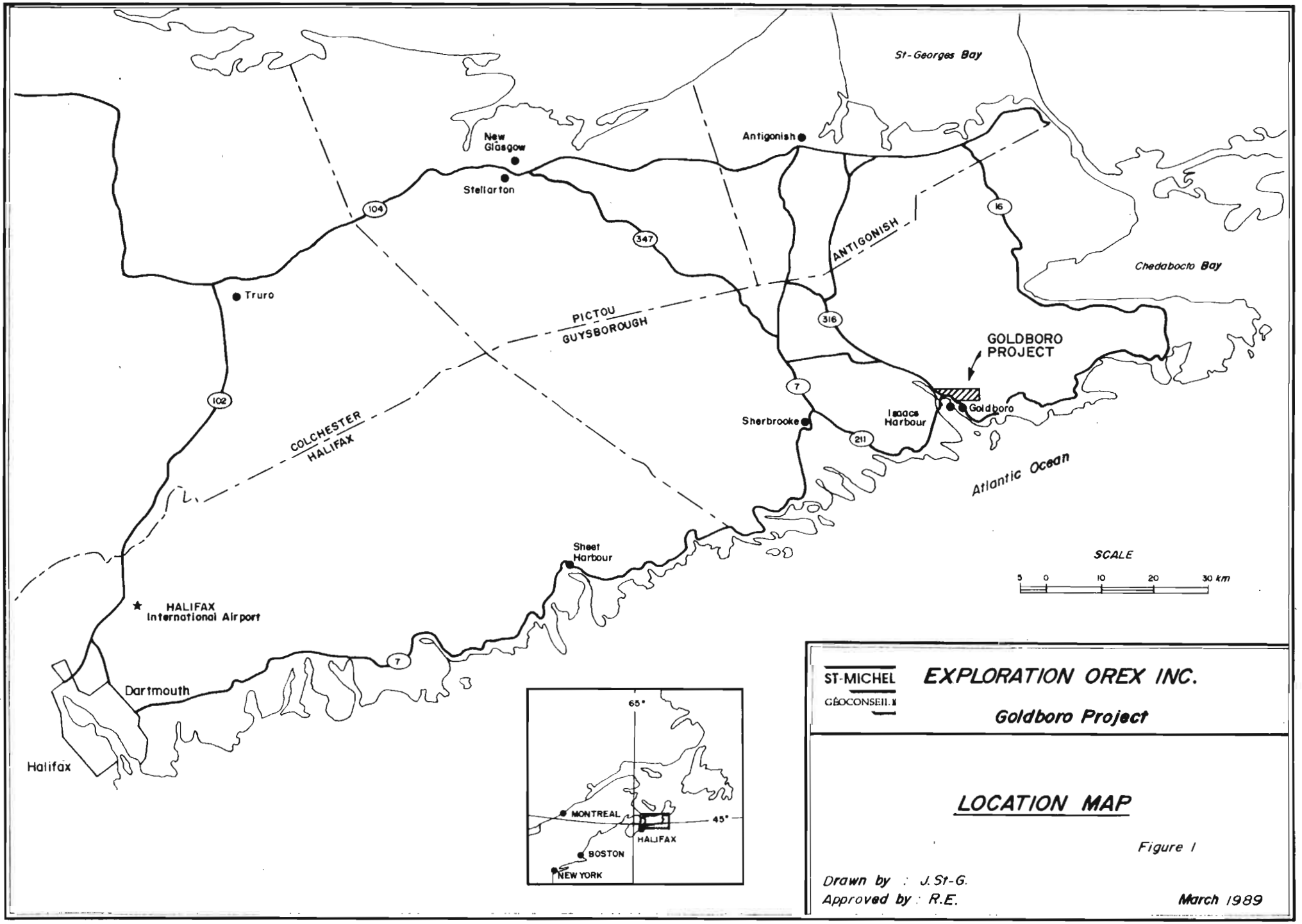
67, Perreault st. East,
Rouyn-Noranda, Quebec
J9X 3C1

(iii) Chief Executive Officer:

Name:	Yves Morissette
Official title:	President
Telephone no.:	(819) 797-1400

(iv) Contact person for purposes of environmental assessment:

Name:	Guy Duchesne
Official title:	Environmental consultant
Telephone no.:	(819) 797-1061



ST-MICHEL GÉOCONSEIL

EXPLORATION OREX INC.

Goldboro Project

LOCATION MAP

Figure 1

Drawn by : J. St-G.
Approved by : R.E.

March 1989

THE UNDERTAKING

(i) Nature of the undertaking

The Goldboro Project aims at bringing the Exploration Orex Goldboro Mining Property into production. It would consist in underground mining of some one million metric tons of gold bearing ore and the use of a mill on site to treat this ore and extract the gold contained therein.

(ii) Purpose/Rationale/Need for the undertaking

As a result of surface exploration as well as underground exploration and development, sufficient ore reserves were confirmed to start planning the production stage.

In order for the project to be viable, the pre-planning study established that, initially, the extraction of ore should be carried out using underground low-cost mining methods. Also, considering the low diluted grade of the ore, transportation and custom treatment of the ore at an outside mill would be prohibitive which explains the need for an on-site mill.

SCHEDULE

Considering the limited speculative investment available for the long process of exploring and developing a mine, the time factor, to bring it into production and obtain a return from the investment, becomes of prime importance. Consequently, planning the production stage in line with Government requirements and Public acceptance becomes the determining time factor. As a result of this, we believe the following starting dates could be realistic:

Starting the construction of the mill:	February 1990
Starting to treat the ore in the mill:	August 1990
Starting to extract the ore underground:	May 1990

DESCRIPTION OF UNDERTAKING

(i) Geographical Location

The mining and proposed milling areas, including service buildings et al, will be located close to and to the south-southwest of Gold Brook Lake (west of the Gold Brook River). The proposed tailings impoundment on surface would be possibly north of the mining site, in an area draining easterly towards Gold Brook Lake. Both areas are in slightly rolling terrain, some 65 to 80 m above sea level.

The mine road is accessed from Highway 316, about 3 km southeast from the tip of Isaacs Harbour's Bay.

The mining site and surrounding area has already been partially disturbed by previous mining operations the first of which dates back to 1893.

(ii) Physical Features

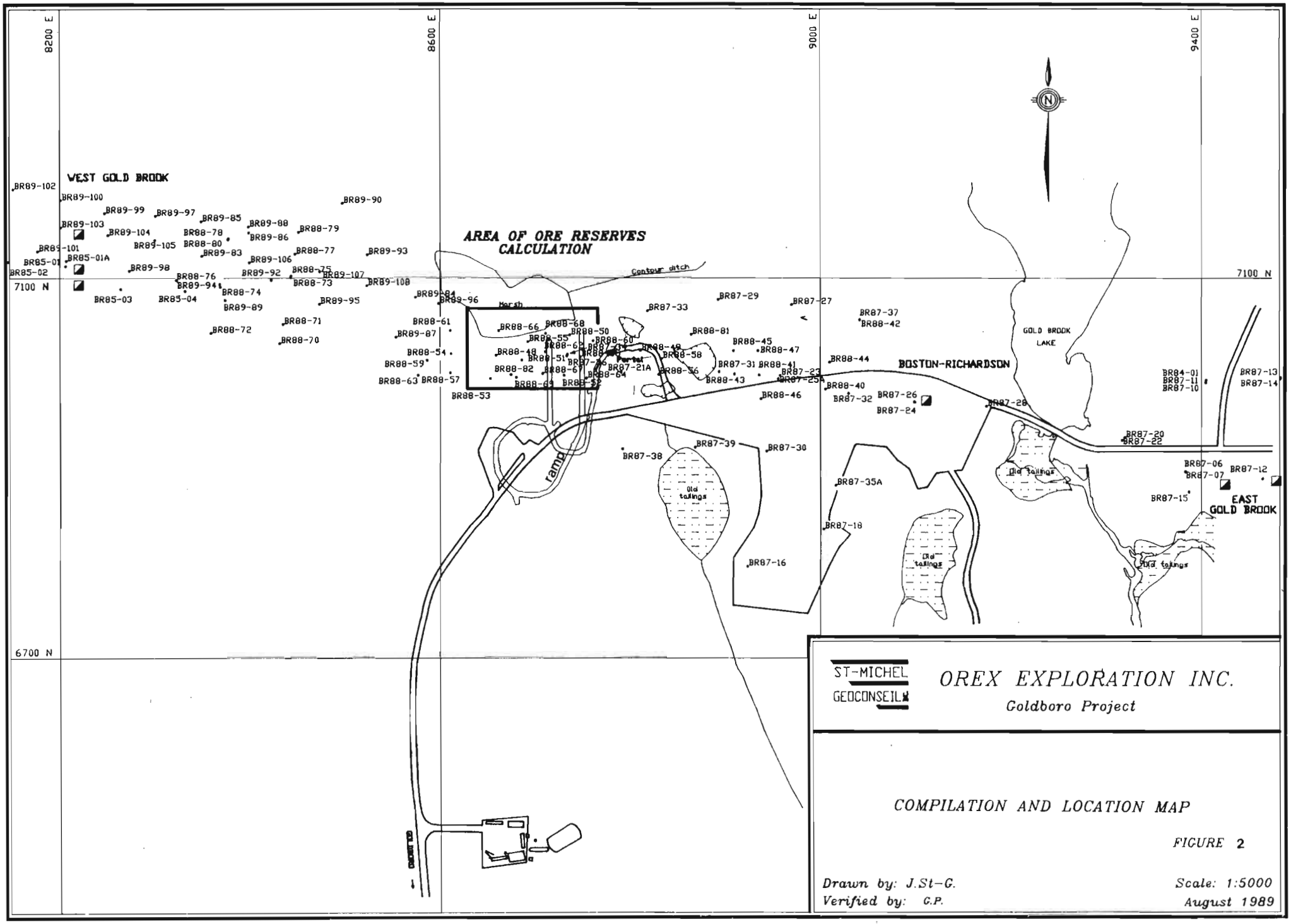
As regards the mining operation, an underground access ramp, which was driven for underground exploration purposes under a previous authorization, is going to be the access to the stoping area (Figure 2).

The existing sedimentation and polishing ponds for the mine waters will continue to be used for the same purpose. The existing ore storage pad may be used to store about 20,000 metric tons of waste rock while the ore would be stored elsewhere on a temporary basis.

In the vicinity of the ramp are the service buildings, dryhouse, office and other ancillary buildings. They are accessible from the existing mine road.

The mill building should preferably be in the vicinity of the above service buildings though it could be located elsewhere. A crusher installation would be located near the mill to reduce the size of the ore coming from underground. A tailings line would carry the pulped tailings towards the tailings pond to the north if it is installed in that direction (the ongoing Environmental Impact Study should provide choices and preferences for the location of the tailings pond).

The above-mentioned tailings pond, which would discharge into a polishing pond, is reserved for tailings only slightly contaminated.


8200 E
8600 E
9000 E
9400 E
7100 N
6700 N
WEST GOLD BROOK
AREA OF ORE RESERVES CALCULATION
Contour ditch
Marsh
BOSTON-RICHARDSON
GOLD BROOK LAKE
EAST GOLD BROOK
ramp
Old tailings
Old tailings
Old tailings
Old tailings
ST-MICHEL GEOCONSEIL
OREX EXPLORATION INC.
Goldboro Project
COMPILATION AND LOCATION MAP
FIGURE 2
Drawn by: J.St-G.
Verified by: C.P.
Scale: 1:5000
August 1989

(iii) Construction Details

The mill, which will be the only new important building, should take some six months plus to build and put into operation. It is hoped that we are allowed to start the foundations by February 1990. The tailings and polishing ponds dykes would be started at about the same time. Water works and Sewage systems will be part of the mill construction project. The tailings pond project will require some deforestration.

The underground stope preparation and the temporary ore storage pad installation would also coincide with that period. These should be completed in a period of about three months. Very little contamination is expected during the construction period except for some suspended solids in effluents (some of which could be captured in the existing sedimentation pond) and some noise and dust caused by the transport of construction materials on unpaved roads. Solid wastes will be deposited in established areas to be eventually restored (see Operation).

(iv) Operation

The ore extraction operation is expected to start in May 1990. This is following the bulk sampling of 5,000 short tons of ore already authorized. The mine waters will continue to be collected in a combination sedimentation pond - polishing pond, with acceptable levels of contaminants at the final effluents.

The waste storage on surface should produce minor amounts of contaminants in its liquid effluent and the drainage would be towards the mine water ponds. Airborne contamination should be minimal considering the size of the material.

The ore storage on surface would be of a temporary nature. The airborne and liquid effluent contaminations would be also collected with the mine waters.

Essentially, after driving the necessary drifts, crosscuts, subdrifts, drawpoints and raises, the ore will be mined using a modified long hole sub-level retreat method and carried by truck via the ramp to surface, either to the temporary storage pad, or directly at the crusher. At this latter place, a dust collecting system will pick up airborne particles.

In the mill, various chemical substances will be used, specially for the flotation process, including cyanide for the gold extraction from the gold concentrate produced by flotation (about 10% of the total mill feed).

The residue of gold extraction from the concentrate will contain high amounts of sulphide, arsenic and cyanide compounds. This will serve to backfill old stopes in the Boston-Richardson Mine. The available space for storage is sufficient for the expected three years of production (10% of 1,000,000 metric tons). The sulphides will be kept submerged to prevent eventual acid production and arsenic oxidation and dissolution in water. The cyanide contaminated water will be pumped to a surface pond eventually for complete cyanide destruction, eliminating all possibility of migration of stope contaminated water towards surface and into the water table.

The rest of the residue (90% of total mill feed) should be relatively inert. A tailings pond of adequate size will be erected for the anticipated three years of production with extra space projected for future expansion. This latter residue is from the flotation process. It is considered very low in gold and not worth treating further. It will go directly to the tailings pond.

For a very small amount of mill feed (less than 1%), the gold will be recovered by gravity. The residue of this process will go to the agitators with the concentrate for cyanidation.

The collected gold in all processes will go to the mill refinery.

(v) Occupations

During construction of the mill and tailings pond and of the preparation work underground, the overall number of employees should be around the following:

Contractors	50
Company	10
Total	60

During normal operations, employees should total the following:

Mill	27
Underground	25
Services	10
Administration	15
Total	77

(vi) Project-Related Documents

ST-MICHEL GEOCONSEIL INC. 1988. Environmental Study for the Goldboro Project.

ST-MICHEL GEOCONSEIL INC. 1988 Addendum to the Environmental Study for the Goldboro Project.

ST-MICHEL GEOCONSEIL INC. 1988 Addendum to the Environmental Study for the Goldboro Project (Second Part).

ENVIRONMENT CANADA 1977. Metal Mining Liquid Effluent Regulation and Guidelines: Regulations Codes and Protocols.

NOVA SCOTIA DEPARTMENT OF HEALTH 1986. On Site Sewage Disposal Systems Technical Guidelines.

QUEEN'S PRINTER, NOVA SCOTIA, 1988. Bill No. 10. An Act Respecting Environmental Assessment.

APPROVAL OF THE UNDERTAKING

The following is a list of the main permits and licenses that are required:

- Industrial Wastes Approval Permit,
  Nova Scotia Department of Environment.
- License Under the Water Act,
  Nova Scotia Department of Environment.
- Permit for On-Site Sewage Disposal,
  Nova Scotia Department of Health.
- Mining Lease,
  Nova Scotia Department of Mines and Energy.
- Mill License,
  Nova Scotia Department of Mines and Energy.
- Various permits,
  Nova Scotia Department of Lands and Forests.

FUNDING

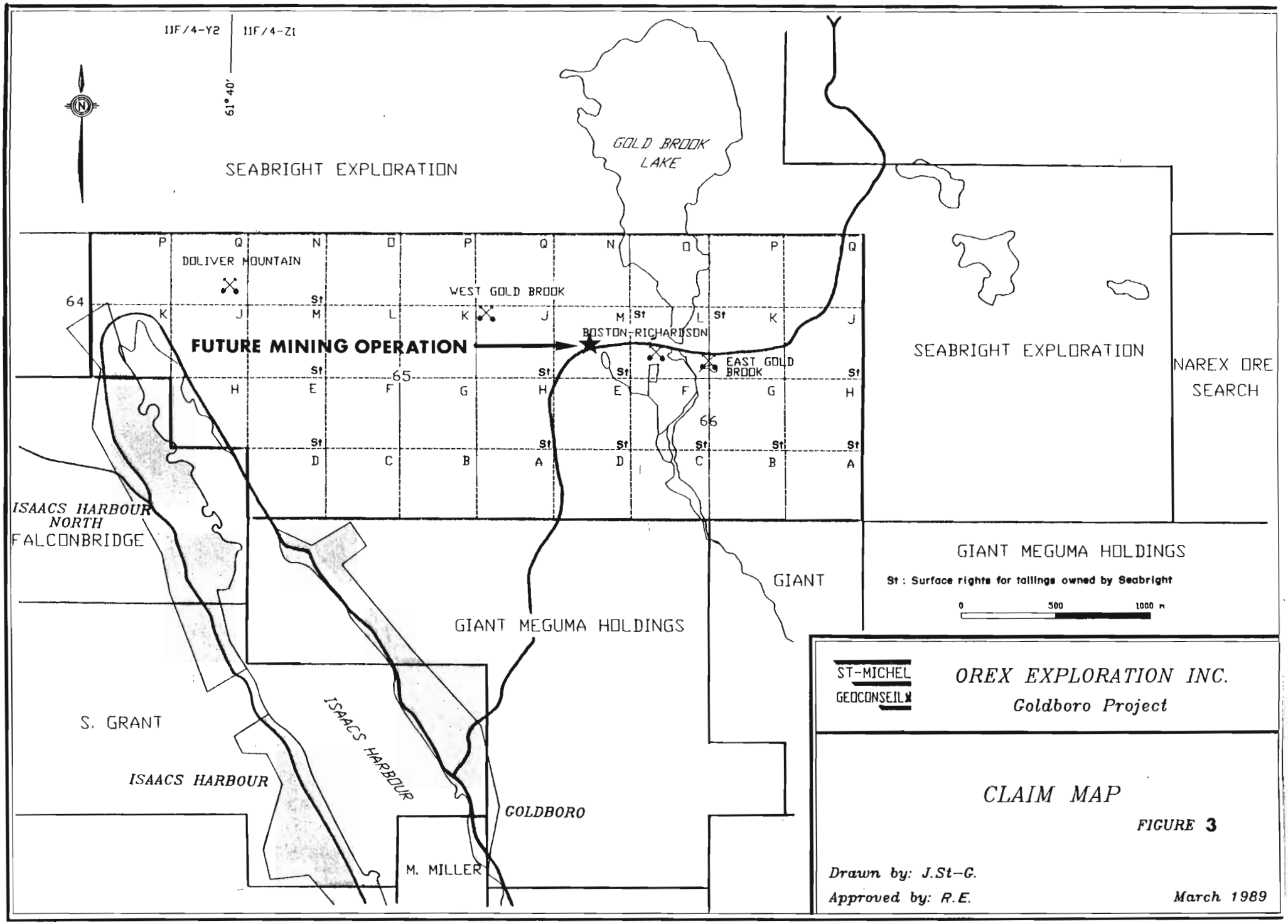
There is no grant or loan of any kind from any Government Agency whatsoever, nor has there been any requested.

Date

Yves Morissette, President

ADDENDUM

FIGURE 3 1:25000 SCALE MAP


11F/4-Y2
11F/4-Z1
61°40'
SEABRIGHT EXPLORATION
GOLD BROOK LAKE
DOLIVER MOUNTAIN
WEST GOLD BROOK
BOSTON-RICHARDSON
EAST GOLD BROOK
FUTURE MINING OPERATION
SEABRIGHT EXPLORATION
NAREX ORE SEARCH
64
65
66
ISAACS HARBOUR NORTH
FALCONBRIDGE
GIANT MEGUMA HOLDINGS
GIANT
GIANT MEGUMA HOLDINGS
St : Surface rights for tailings owned by Seabright
0 500 1000 m
S. GRANT
ISAACS HARBOUR
ISAACS HARBOUR
GOLDBORO
M. MILLER
ST-MICHEL GEOCONSEIL
OREX EXPLORATION INC.
Goldboro Project
CLAIM MAP
FIGURE 3
Drawn by: J.St-G.
Approved by: R.E.
March 1989