



Navigator Exploration Corporation
ORO mineral claims, Hope Bay
Executive Summary

Navigator Exploration Corporation is planning a program of geological mapping and ground geophysics on five mineral claims in the Hope Bay area during the summer 2003. If the results of this initial program are positive, a short exploration drilling program may be conducted in late 2003 or 2004.

Previous exploration of the property by Navigator has included geophysics, bedrock mapping and exploration drilling. Results of this work have confirmed the potential for the property to host gold mineralization similar in style to deposits mined in the Yellowknife area.

The proposed three week mapping and ground geophysical program will be based from a six to seven person camp on Robert's Lake and consist of detailed mapping of the geological formations in the northern part of the claim area. Ground geophysical surveys will be intended to measure the magnetic signatures of rock units lying beneath overburden. Crews will be set out each day by helicopter and work will be performed on foot. Personnel required for this program will include 3-4 geologists, 1 cook, 1 helicopter pilot and 1 engineer.

If initial results indicate the potential for gold mineralisation, a small exploration drill program will be considered. The drilling would consist of six to twelve short drill holes designed to test for possible mineralisation. All drilling will be performed with a small diamond drill. A helicopter will be required for moving the drill rig between drill hole locations. The drilling program would run for approximately three to four weeks. Personnel for the drilling program will include a helicopter pilot and engineer, five drillers, one or two geologists and one cook.

At the end of the proposed program, all camp materials, fuel drums and the drill (if required) will be removed from the site. All garbage will be incinerated at site, with non-combustible garbage (scrap metal etc.) collected and removed. Once the clean up is complete, there will be no remaining evidence of the camp.

November, 2002

Project Description

ORO Mineral Claims, Hope Bay, Nunavut

1.0 Introduction

The ORO mineral claims lie at the northern tip of the Hope Bay Volcanic Belt within in the Territory of Nunavut, approximately 130km southwest of Cambridge Bay. More specifically the property is located on NTS map sheets 77A/03 and 77A/06, centred at approximately $68^{\circ} 15' N$ and $106^{\circ} 32' W$. The property consists of five mineral claims (ORO 1 – 5) covering approximately 4121ha. The claims are currently recorded in the name of Navigator Exploration Corp. of Vancouver, BC. Exploration activities conducted by Navigator to date include prospecting, gridding, ground geophysical surveys, an airborne geophysical survey, and exploration drilling. Exploration has focused on identifying Archean lode gold mineralisation similar in style to that found in the Doris Lake, Madrid, and Boston gold deposits located elsewhere within the Hope Bay Volcanic Belt.

The area of the ORO claims has been explored intermittently since the late 1960's, with exploration focussing on gold, silver, and base metals. Two small high grade silver deposits (Robert's Bay Silver Mine and the Ida Bay Silver deposit) located within the project area were briefly mined in the early 1970's. Some of the materials used for this exploration and mining activity remain within the Project area.

Most recently, Navigator completed a summer program of exploration drilling which tested two target areas within the property. The results of this program were encouraging in that gold bearing structures were identified, however gold grades were generally disappointing. Further evaluation of the results from this program are required, however Navigator has identified several additional target areas within the property which warrant further exploration work.

2.0 Proposed Program

Timing and General Description

Navigator is currently planning a multi-phased exploration program for the ORO claims. An initial (Phase I) program of detailed mapping, prospecting and ground geophysics is planned for late July or August of 2003. This three to four week program will be based out of a 6-12 person camp re-established at the site of a pre-existing exploration camp on Robert's Lake (see below). Personnel required for this program will be limited to 4-5 geologists/geotechnicians, 1 cook, 1 pilot and 1 engineer. If results of the mapping and geophysics warrant further work, a short 3-4 week exploration drilling program would be considered for late summer 2003 or 2004. Personnel requirements for a Phase II drilling program will include 10-12 persons (5 drillers, 1 cook, 1 pilot, 1 engineer, 1 geologists, 1 geotechnician). Continuation of any work on the project will be results oriented.

Most of the ground covered by the ORO claims is Crown Land. A thin wedge of ground in the southeast corner of the property on the ORO 4 claim lies within IOL Parcel BB-58. The portion of this IOL Parcel within the ORO 4 claim falls within the granitic terrain that borders the entire eastern margin of the Hope Bay Volcanic Belt. As the exploration target for the proposed program is Archean style lode gold mineralisation within mafic volcanic rocks, this portion of the ORO 4 claim is not presently of exploration interest and will not be accessed during the program. Should Navigator decide to pursue exploration on IOL Parcel BB-58, an application will be made to the Kitikmeot Inuit Association for the required permit to access this area.

Mapping, Prospecting and Ground Geophysics (Phase I)

An initial program of mapping, prospecting and ground geophysics is planned for a 3-4 week period commencing in late July or August 2003. The main focus of this program will be to map, using a two person crew, the volcanic rocks at the northern end of the property at a detailed scale of 1:5,000 or better. This will involve daily traverses on foot, cataloguing bedrock formations within the property with the aid of air photos and satellite images. Rock samples of 1-5kg may be collected for geochemical assays.

Ground geophysical surveys may also be conducted over areas with significant overburden coverage. As part of the surveys, ground grids will be erected by placing small wood lath/stakes at regular intervals along surveyed lines. Surveys would likely be conducted along lines erected between 25m and 50m apart. The grids will be surveyed with a magnetometer which collects measurements of the relative magnetic signature of the underlying rock formations.

Drilling Program (Phase II)

Based on the results of the summer mapping and ground geophysics programs, a small drilling program may be considered for late summer 2003 or later in 2004. An initial program of drilling would consist of 6 to 12 exploration drill holes, each likely extending to no more than 150m depth. The program would last approximately 3-4 weeks. As a decision to proceed with such a program will be based on the results of the Phase I program, it is not possible to determine collar positions for proposed drill holes. The drill used would be a Boyles 25 or equivalent. Drill moves and crew changes will be accomplished with the use of a Hughes 500 helicopter. Drilling sludges will be stored in sumps and later buried. Garbage will be collected and returned to camp daily for incineration. Non-combustible garbage will be flown out from site for proper disposal.

Camp

The proposed exploration program will involve re-establishing a camp located on the property at the western end of Robert's Lake (68° 10' N, 106° 34' W). Navigator originally established a camp at this location in 1998 under previous DIAND Land Use Permit N98C865 and Nunavut Water License NWB2ROB9899. Most of the materials

related to the original camp have been removed, however the tent frames and floors remain at the site under the authority of DIAND Land Use Permit N2001J0023.

For the Phase I mapping and prospecting program, 4 or 5 of the 14' x 16' Jutland style tents will be re-established. The overall requirements for this camp will be minimal (~120-140 person days total) and include two sleeping tents, an office tent, a kitchen, and a dry (the sleeping and office tents may be combined depending on logistics) and a small generator for power. Use of a helicopter would be required to set crews out each day.

A Phase II drilling program would involve re-establishing the Robert's Lake camp site in same manner as set up under the previous land use permits. The camp will consist of six or seven 14'x16' Jutland-style tents with wooden floors and frames (1 kitchen, 1 dry, 1 office, 3-4 sleeping tents). All sewage and grey-water will be buried in pits, and garbage will be incinerated daily in burn barrels. Scrap metal and other non-combustible garbage will be collected and removed from the site by back-hauls during the program and as part of the demobilisation from site at the end of the program. Empty fuel drums and other remaining equipment from the present program and the earlier 1998 Navigator exploration programs will be removed from site during and at the end of the present proposed land use operation.

Fuel

Fuel requirements for the Phase I program are relatively modest, consisting of 6 drums diesel and 2 cylinders propane for use at the camp and ~10 drums Jet B fuel for the helicopter. A later Phase II drilling program would increase fuel requirements to include approximately a further 30 drums Jet B (6000l; for helicopter); 20 drums diesel (4000l; for drill and camp); 4-5 100lb propane tanks (for cooking and drill); 300l drill mud/polymer. All fuel will be stored and used as per Navigator Exploration Corp's Spill Contingency Plan (attached).

Wildlife

Both the camp and, if applicable, drill sites will be kept as clean as possible in order to limit the potential of attracting wildlife. To reduce the chances for bear/human interaction the guidelines will be followed that were established in the GNWT Renewable Resources pamphlets 'Safety in Grizzly and Black Bear country' and Black Bears and Grizzlies of the NWT'. To avoid disturbance of caribou and nesting birds, all contract aircraft (helicopters and fixed-wing) will fly at altitudes of greater than 300m above ground level whenever possible.

Reclamation

Upon completion of the land use operation, all materials (drill, tents, pumps, fuel barrels, etc.) will be removed from the site. The wooden tent floors will be burned and buried and the sumps and sewage pits will be filled in. After the clean up has been completed there will be little/no indication of the previous land use operation.

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Abandonment and Restoration Plan

Upon completion of the Land Use Operation on the ORO claims, the following steps and procedures will be followed to allow proper abandonment and reclamation of the area:

1. Gray water sumps and sewage pits at the camp will be back-filled.
2. All remaining garbage will be incinerated in a burn barrel.
3. All wood (tent floors, frames etc.) will be burned. The coals and ash will be raked for non-combustible items (i.e. nails etc) which will be collected and removed from the site. The remaining coals will be buried.
4. All camping materials, fuel drums, and drilling equipment (if applicable) will be removed from the site.
5. If the drilling program is conducted, all drilling sumps will be back-filled, burying the cuttings and sludges.
6. Each drill site will be inspected to ensure that all garbage (combustible and non-combustible) has been collected and removed from the area.
7. A last inspection will ensure there are no remaining materials at the site and that there is little/no evidence for Navigator's land use activity.

Navigator Exploration Corporation

Spill Response Plan

A spill is classified as the discharge of petroleum products or other dangerous substances into the environment. Potential hazards created by the spill for humans, vegetation, water resources, fish and wildlife vary in severity, depending on several factors, including nature of the material, quantity spilled, location and season. The general response to be followed in the event of a spill is:

- identify the product* - check container design, warning labels, markings, etc.
- protect people* - prevent personnel from approaching the site and keep them at a distance sufficiently removed that they will not be injured by, or cause, a fire or explosion
- stop the flow at the source* - reduce or terminate the flow of product without endangering anyone
- assess the seriousness of the spill* - evaluate potential dangers of the spill to human health and safety, the aquatic environment, wildlife, ground water, vegetation and other land resources
- report the spill* - provide basic information such as location of spill, name of polluter, type and amount of material spilled, date and time of the spill and any perceived threat to human health or the environment (complete NWT Spill Report form)
- clean up the spill* - follow procedures appropriate for the location, environment, material and time of year

24-Hour Spill Report Line (867) 920-8130 or fax (867) 920-8127
DIAND Water Resources Inspector (867) 979-4405

Detailed Response Plan

(a) *On-site person in charge, management or control of contaminants*

Ken Armstrong; Navigator Exploration Corp. (403-997-2797)

(b) *Name and address of employer of personnel described in part (a)*

Navigator Exploration Corp.
Suite 1300 – 409 Granville Street
Vancouver, BC
V6C 1T2
phone: (604) 682-8355
fax: (604) 685-8366

(c) Description of the facility

Facility - temporary, 12 person mineral exploration camp (tents) with above ground fuel storage facility

Location - Camp: northwest shore of Robert's Lake ($68^{\circ} 10' \text{ N}$; $106^{\circ} 34' \text{ W}$). Fuel: stored on naturally vegetation free site located a safe distance from the tents and well away (>50m) from water bodies

Size - fuel stored at above ground facility in sealed 205 l (45 gal.) steel drums

Storage Capacity - Maximum estimated fuel requirements are 51 drums (10200l) plus 6 100lb propane tanks. If possible, deliver fuel to site in stages so that complete fuel requirements are not stored at site at one time.

(d) Description of the type and amount of potential contaminants normally stored on-site

JET B fuel for the helicopter – 6000 l (30 drums)

diesel for the drill and camp - 4000 l (20 drums)

gasoline for camp generator and misc. small pumps - 205 l (1 drum)

propane for cooking, etc. - five (5) 100 lb. tanks

(e) Steps to be taken to report, contain, clean up and dispose of a contaminant in the case of a spill

Preventative Measures

Fuel drums will be monitored for any signs of leakage:

- (i) immediately after they arrive on-site,
- (ii) once they have been transported to the designated storage area, and
- (iii) periodically after that time (i.e. as the stocks are accessed).

Drums will be stored upright on flat stable terrain during the summer to reduce chances of a leak. If available a natural depression situated well away from water bodies will be utilized for storage. The contents of any drum that leaks, or shows the potential to leak, will be transferred by wobble pump to a different drum. With the exception of the container in use, all fuel container outlets will be kept sealed to prevent leakage. On-site equipment (e.g. helicopter) will be refueled at some distance from the main storage facilities to reduce potential damage should a fire occur.

Reporting

- (i) identify the product - check container design, warning labels, markings, etc.
- (ii) protect people - prevent personnel from approaching the site and keep them at a distance sufficiently removed that they will not be injured by, or cause, a fire or explosion

- (iii) stop the flow at the source - reduce or terminate the flow of product without endangering anyone
- (iv) assess the seriousness of the spill - evaluate potential dangers of the spill to human health and safety, the aquatic environment, wildlife, ground water, vegetation and other land resources
- (v) report the spill to the Yellowknife 24-Hour Spill Report Line (867) 920-8130 - provide basic information such as location of spill, direction of motion if any, name of contact on-site, type and amount of material spilled, cause of spill, date and time of the spill and any perceived threat to human health or the environment (complete Spill Report form - attached)
- (vi) report the spill to Navigator's office in Vancouver
- (vii) depending on severity of the spill, report to the other appropriate authorities (i.e. Nunavut Water Board, Department of Fisheries and Oceans; Regional Inuit Association)

Containment

Oil spill containment techniques include:

- (i) earth dams - simple and effective control means for surface and small streams
- (ii) interceptor trenches - control on land and shallow subsurface seepage
- (iii) culvert weirs - not applicable
- (iv) underflow dams - effective in narrow ditch or stream
- (v) net and absorbent barriers - effective in tundra area and slow moving water
- (vi) containment booms - commercial product for large bodies of water
- (vii) space spraying or 'herding' - using a very fine water spray as a means of cleaning vegetation, shorelines, lake surface, etc.
- (viii) absorbent materials - include fine sand, soil or snow; commercial sorbents include sheets, rolls, pillows and booms that can be rapidly deployed with no preparation

Clean up

The most likely spill scenario is the partial loss of petroleum products from one of the 205 1 (45 gal.) drums. Drums will be checked on arrival in camp, after transfer to the designated storage facility and periodically thereafter. Contents of any leaking drum will be immediately transferred via wobble pump to an empty, leak free drum. It is unlikely that more than one drum will leak at any time. Any spills will be contained, and pumped into empty barrels.

Disposal

No organic soils are present at the proposed storage site, and if possible, any sands and gravels contaminated by a significant spill of petroleum products will be excavated by hand, incinerated to remove hydrocarbons, and returned to their natural site.

Consultations:

Contingency Planning and Spill Reporting in the NWT - A guide to the new regulations, GNWT, 8pp.

Oil Spill Containment and Clean up Techniques - 22 minute instructional video prepared by NWT Renewable Resources Pollution Control Division, 1988.

Report All Spills - Environment Series, GNWT Renewable Resources, Pollution Control Division, 1988.

Spill Containment and Clean-up Course, GNWT Renewable Resources, Pollution Control Division, 1991, 74pp.

Spill Contingency Planning and Reporting Regulations - Environmental Protection Act - Northwest Territories, July 22, 1993, 11pp.

Spills, Our Record in the Northwest Territories - Environment Series, GNWT Renewable Resources, Culture and Communications, 1990

Hazardous Substance Coordinator
Environmental Protection Division
Renewable Resources
Government of the NWT
600, 5102-50th Ave.
Yellowknife NWT
X1A 3S8

telephone: (403) 873-7654
facsimile: (403) 873-0221