Big Tı	Environmental Preview Report riangle Pond Mineral Exploration Access Road Eagleridge International Limited
	February 2014
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REGISTRATION FORM

Environmental Preview Report

1. NAME OF UNDERTAKING:

Big Triangle Pond Mineral Exploration Access Road

2. PROPONENT:

(i) Name of Corporate Body:

Eagleridge International Limited

(ii) Address:

P.O. Box 14063, Station Manuels Conception Bay South, NL A1W 3J1

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(iii) Chief Executive Officer:

Albert Chislett

(iv) Principal Contact:

Albert Chislett Chief Executive Officer P.O. Box 14063, Station Manuels Conception Bay South, NL A1W 3J1

3. THE UNDERTAKING:

The primary purpose of the Undertaking is to construct a mineral exploration access road for safe, secure, reliable, environmentally friendly and efficient daily access throughout a mineral exploration project site in the Big Triangle Pond area for Eagleridge International Limited (Eagleridge) as well as its hired contractors. This exploration project is the culmination of focused grassroots exploration work that has been responsibly conducted in this area for the last 25 years. The potential of the project has currently grown to a point where more advanced exploration activities are now needed in order to further assess the economic mineral potential of the area.

Eagleridge and its affiliated company, Vinland Resources Limited (Vinland), have been doing exploration work in the Big Triangle Pond property off and on for the best part of 25 years, beginning in 1988. The Licenses have been previously optioned to:

- o Inco: which is now called Vale Inco, owner and operator of the Voisey's Bay mine.
- O Cominco: which is now Teck Resources Limited, owner and operator of the Duck Pond copper mine in the central Island portion of Newfoundland and Labrador.
- o Alaska Fern Mines.

The data collected to date on the Big Triangle Pond property has reached a level where a resource road is now required to conduct rigorous grassroots and advanced exploration activities. In order to conduct a range of varied grassroots and advanced exploration activities in a safe, effective, environmentally responsible and timely manner over an estimated period of 6 years, the project requires an efficient, reliable means of daily access to key areas in and around the exploration project site.

The proposed resource access road would extend 11 kilometers (km) through the center of the project site with most of the exploration activity taking place no more than 1 km to the east and 1 km to the west of the proposed resource access road. Please refer to the map **Appendix B.** Contractors and industry professionals have demanding dawn to dusk schedules, and their daily work often requires the use of equipment that ranges from sensitive and sophisticated to large and heavy. The proposed resource access road would provide long-term enhanced mobility for exploration professionals and their equipment throughout the project site, reducing the potential environmental footprint while facilitating the expeditious and timely completion of contractual obligations.

Easy and frequent accessibility is key to conducting exploration activities. Being able to visit a target site frequently over an extended period of time allows the possibility of making new economic mineral discoveries by facilitating the collection of more data in the field. Bringing in heavy equipment such as drill rigs and generators for ground geophysics without the road would potentially be more adverse to the environment and may pose a safety risk to heavy equipment operators and contractors. Without the road it would be difficult to access areas further in the country without potentially increasing the probability of creating a greater environmental footprint in and around the mineral exploration project site.

Approval of the undertaking would be essential for mapping the geology of the exploration project site by facilitating trenching activity alongside the road. Most of the geology in the area is not exposed due to thick overburden and tree cover. The proposed access road will be built in dry areas avoiding wetlands while running down the center of the 11 km strike-length of the targeted geology in the exploration project site. Building the resource access road will provide an opportunity to naturally uncover bedrock during the construction process. The class C-2 resource access road is more robust than a trail system for travelling on, especially when using heavy equipment such as excavators and transport trucks with flatbeds. If the undertaking were to be approved, it would reduce the probability of a potentially greater environmental footprint.

The proposed class C-2 resource access road will be constructed according to the Department of Natural Resources specified standards. These specified standards are tried and proven methods in the province of Newfoundland and Labrador for many years now. Without the road, workers would frequently have to traverse wetlands and bogs in order to reach targeted areas from different locations on the Salmonier Line. Having to frequently cross wetlands with heavy equipment, such as excavators, could potentially be very dangerous and can lead to loss of life, as occurred in an incident 2½ years ago in the province. Working under these conditions could potentially be environmentally unfriendly, creating a larger environmental footprint while posing a safety hazard to Eagleridge's employees and hired contractors. It would be similar to asking a company in the forestry industry to harvest and remove timber by heavy equipment while being 11 km from any drivable road. Additionally, accessing the Big Triangle Pond exploration site from multiple locations on the Salmonier Line could potentially be disruptive and pose a safety risk to the residents of the area.

Exploration Activity in the Avalon Region

The Avalon geology runs West from St. John's to Gambo, South through the Burin Peninsula and along the South coast of Newfoundland. The mineralization at Big Triangle Pond is very similar to other prospects in the Avalon geology:

- o Lamaline Point May property, Puddle Pond Resources.
- o Thorburn Lake property, Silver Spruce Resources.

- o Hickey's Pond property, Individual.
- o Stewart property, Individual.
- o Butler Pond property, Individual.

Potential data collected in the future from the Big Triangle Pond exploration project could give greater insight into how mineralization is formed in the Avalon region. This new insight could lead to a breakthrough in discovering new economic mineral deposits in the province. The work planned around the Big Triangle Pond area is comprehensive and precise. It is based on Eagleridge's, and its affiliate Vinland's, 25 years of experience of conducting environmentally responsible exploration activities in the area. Exploration is a value-added industry. The discovery of the Voisey's Bay deposit triggered over 500 million dollars of investment in the exploration industry in our province. This in turn helped create hundreds of direct and thousands of indirect jobs for the people of Newfoundland and Labrador. A potential discovery at the Big Triangle Pond exploration project could trigger another big exploration play in the province while creating new direct and indirect jobs and wealth for Newfoundlanders and Labradorians.

4. DESCRIPTION OF THE UNDERTAKING:

4.1 Geographic Location/Physical Components/Existing Environment:

As indicated on the attached **Mineral License map Appendix A**, the proposed resource access road is located on the Avalon Peninsula within the general vicinity of Big Triangle Pond, Southern Peak and Conns Ponds, and within the Town of Holyrood's municipal limits. As well, to the North of this resource access road proposal is Highway 1 (Trans Canada Highway) and to the West is Highway 90 (Salmonier Line). To the South is the Salmonier Nature Park and to the South East is the Avalon Wilderness Reserve. The proposed road will not be constructed within a half kilometer from the Salmonier Nature Park. The proposed access road will be a minimum of approximately 3 km away from the Avalon Wilderness Reserve area. Please refer to the attached aerial photograph in **Appendix B** showing the following features:

- Proposed access road
- Proposed stream crossings
- Mineral exploration target areas
- Equipment laydown area
- Proposed fuel storage areas
- Existing trails
- Town of Holyrood Town Limits
- Salmonier Nature Park boundary
- Avalon Wilderness Area boundary

- Salmonier Line (Route 90)
- Trans Canada Highway (Route 1)
- Existing NL Hydro transmission power lines
- Proposed Muskrat Falls power line for the Labrador-Island Transmission Link
- Existing Bell Aliant fiber optics line

The proposed resource access road surface rights are held by the Department of Crown Lands with no other known landowners within the project area. We are not aware of any zoning restrictions in the area, other than a land restriction imposed by Crown Lands, see Appendix H prohibiting development of about 800 meters of the southwest end of the proposed resource access road. There are easements in place for an existing transmission line owned by NL Hydro and an easement for a fiber optics line owned by Bell-Aliant. Please refer to Section 4.2 of this report in regards to safety measures and best practices that will be implemented during construction over the fiber optic line and transmission line. Both of these features are included and indicated on the attached high-resolution aerial photograph, see Appendix B. A digital format with a separate layer for the proposed road is included with this package in Arcview format. If your GIS system is not compatible with this format, we will kindly provide the EPR committee with the appropriate format upon request.

The proposed exploration activities will be conducted within the boundaries of Mineral Licenses 20215M, 20141M, 17545M, 20905M, 21339M, 21340M, 21341M, 21522M and 21899M. Please refer to the attached map titled *Mineral License Areas* in Appendix A. These Mineral Licenses are in good standing and are held by the proponent. The general area in the Mineral License area consists of forested land comprising low volume stands, ponds and streams and wetlands.

4.2 Construction:

The proposed start date for the resource access road construction is estimated to take place in spring 2014, subject to the Minister of Environment and Conservation's EPR decision. The start date for mineral exploration activities is also subject to the EPR decision. It would follow exploration-permitting approval and the beginning of road construction through the Big Triangle Pond mineral exploration site. The planned construction of the resource access road is estimated to have a duration time of approximately 3 to 4 months. Once construction begins, it is estimated to continue until the resource access road is completed, barring any technical or permitting issues.

Mineral exploration activities will be completed in phases spanning a period of approximately 6 years. Each phase will have an initial application stage for exploration approvals through the Department of Natural Resources. The applications are then forwarded to affected and interested Federal, Provincial and Municipal Government departments for consultation and feedback, ie.

The Department of Environment and Conservation and the Town of Holyrood. Once exploration approvals are secured, the work will be carried out until completed either by Eagleridge personnel or hired contractors or both.

The duration of each phase is subject to permitting approval processing time, the type of work being applied for, the amount of work planned, contractor availability as well as processing and interpretation of collected exploration data. The duration time of the next phase of exploration activity is subject to the interpretation of previously collected data. The interpreted results are then used to design and plan for the next phase of exploration activities. The permitting application process repeats each time and, pending the outcome of permitting, the next phase of exploration activity continues. This cycle is expected to continue for an estimated time of 6 years until Eagleridge completes its planned exploration project.

The proposed resource access road is approximately 11 km in length (including 2 small spur roads) and will be constructed following class C-2 road guidelines set by the Department of Natural Resources. The guidelines specifically set the Right-of-Way clearing to be 20 meters in width and the surface of the road to be 6 meters wide. Please refer to *Typical Access Road Cross-Section* below. Any wood harvested from the Right-of-Way will be utilized in accordance with the Department of Natural Resources guidelines. Please refer to **Appendix C** for contractor's specifics on permitting and best practices.



Typical Access Road X-Section

Typical Access Road Cross-Section

The road will be constructed with an excavator using established road building techniques that minimize potential environmental concerns and will be located a minimum of 20 meters away from any water bodies. In the event that there is insufficient road building material present within the road Right-of-Way, we will apply for a suitable and acceptable borrow pit through the appropriate Government Agencies. To ensure natural drainage of the area, proper culverts will be installed where necessary. Please refer to **Appendix C** for particulars regarding the chosen contractor and details pertaining to traffic control and signage measures during the beginning

stages of construction for initial access from the Trans-Canada Highway (TCH). For additional information related to signage standards, safety protocols and best management practices during any stage of construction, please see **Appendix C**.

The access point for the resource access road from the TCH has been applied for and approved by the Department of Government Services, please see **Appendix G.** A Government Services representative has visited the proposed location and designated an access location with a greater than 1000 meter line-of-sight to the west for eastbound traffic.

Approval to cross under the existing transmission line in the Big Triangle Pond area has been discussed with Newfoundland Hydro (NL Hydro). The region supervisor for NL Hydro made a site visit to determine the crossing location and required safety standards. A NL Hydro representative will be present during the transmission line crossing to supervise construction activity.

Approval to cross over the fiber optics line has been discussed with Bell Aliant and the crossing will be constructed to their standard. Two Bell Aliant representatives have made a site visit to determine what safety measures are to be practiced during this phase of construction. A Bell Aliant representative will be present on site during this phase of construction activity.

There are two stream crossings on the proposed access road that have been determined to be non-navigable, please see **Appendix B**. The first crossing will require a bridge, while the second is significantly smaller and will only require a culvert. Applications have been submitted and will be determined pending a decision on the EPR, please see **Appendix F**.

In the event that the full road will require decommissioning and rehabilitation, grubbed material and organic matter will be retained in windrows at the extremities of the cleared right-of-way for potential future use. In the event that the project is unsuccessful in finding an economic mineral deposit, the resource access road would either be decommissioned or its potential future use responsibly evaluated with various stakeholders. For a more detailed description of the planned decommissioning of the resource access road, please refer to **Section 8** of this report.

4.3 Operations and Maintenance:

Egressing users of the proposed resource access road will have a line of sight to the west >1000 meters of on-coming eastbound traffic to reduce the probability of danger while exiting onto the TCH. It has been determined that a sign is not needed to alert eastbound TCH traffic users of potential exiting resource road traffic users. A sign will be erected, however, to inform traffic users exiting the proposed resource access road to exit right onto the TCH eastbound, double-lane, one-way traffic. As there are two lanes of traffic travelling in one direction, a merge lane for the proposed access road is not required.

The road layout and construction phases will be contracted to a qualified contractor who has experience in Forest Access Road construction with the Department of Natural Resources. Please refer to **Appendix C** for the contractor's qualifications. To further reduce traffic and to protect valuable exploration equipment, Eagleridge would request a security gate be permitted at the extent of the TCH corridor.

As indicated, the road layout and construction will be contracted out. For additional information on traffic volume and types of vehicles used during the construction stage of the resource access road, please refer to **Appendix C**. It is anticipated the following occupations will be utilized during the resource access road construction;

- 1 Forestry Field Technician, NOC 2223
- 1 Mechanical Harvester Operator, NOC 8241
- 1 Mechanical Forwarder Operator, NOC 8241
- 3 Truck Drivers, NOC 7521
- 2 Drillers, NOC 7372
- 1 Geologist, NOC 2113
- 2 Excavator Operators, NOC 7521
- 1 On site Foreman / Supervisor, NOC 8211

Eagleridge's employees will usually access and exit the proposed resource access road for exploration work at times following a normal 9 to 5, 5-day work week schedule. If, however, Eagleridge's employees have to access the proposed resource access road with contractors, access and exit times would begin at daylight and end at dusk. Traffic volume and vehicle types could consist of several half-tonne or heavy-duty pick-up trucks on any given day due to and subject to the nature of the work and depending on if contractors and/or Eagleridge employees are accessing the site. Transport trucks towing heavy equipment on flatbeds, such as drill rigs and excavators may be accessing the proposed access road on any given day, due to and subject to the nature of the work.

The approval of the proposed resource access road will provide Eagleridge with safe, efficient, environmentally friendly and reliable daily access to potential exploration target sites in and around the Big Triangle Pond exploration project area. The reason and rationale for the undertaking is not intended for any potential commercial production during exploration activities or in the future. Only if exploration activities have ceased and it has been determined that there is a feasible economic mineral deposit would a mining lease and further development approvals be sought. This process would have to take place over an extended period of time spanning years. Only after such an arduous process was thoughtfully and meticulously carried out and completed, with various other governmental standards and regulations being met, would a company begin to consider a commercial production scenario. The exploration industry is characterized by high-risk venture capital investment with little chance of a return on investment.

Only in very few cases are exploration companies successful in finding commercially viable economic mineral deposits.

It is acknowledged that there exists a no-development reserve, which prohibits construction on approximately the last 800 meters of the southern section of the proposed resource access road. This reserve area is nevertheless accessed via an existing 4500 meter ATV trail. As is discussed more fully below, in the Alternatives section of this Environmental Preview Report, the existing 4500 meter ATV trail is insufficiently robust to handle the higher and heavier load of traffic which would be necessary for the transport of the heavy equipment required by Eagleridge for its mineral exploration program. Also, it is understood that applications to cut additional or wider trails, or even to widen this existing trail, cannot proceed in this area.

It is Eagleridge's respectful submission that, in all the circumstances, the proposed resource access road extending into the area of the 800 meter reserve would constitute a safe, reliable, efficient and environmentally friendly access, available on a daily basis to the potential exploration targets located in this area. Eagleridge believes that attempted use of the existing 4500 meter ATV trail would likely leave a larger environmental footprint and be more environmentally intrusive than the extension of the proposed resource road in this area.

Exploration activities will involve line cutting, soil sampling, ground geophysics, trenching and diamond drilling. The line cutting will be cut in a grid formation with lines being no more than 1 meter wide. Any drill trails will be kept to a maximum width of 4 meters to minimize disturbance and will take advantage of open dry areas reducing the need for any cutting. Any trenching and disturbed lands will be remediated upon completion of each activity. Please see **Section 8** for a more complete description of reclamation practices.

Exploration work such as ground geophysics and drilling will be contracted to companies that are professionally qualified to perform the work. Pease refer to **Appendices C**, **D**, **E** and **M** in reference to descriptions of equipment and vehicles used. Eagleridge will perform other work such as prospecting, mapping and most other grassroots exploration activities in-house. Before any exploration activities commence, all necessary permits will be obtained from the Department of Natural Resources, Mineral Lands Division. It is understood that exploration applications will be sent to the Department of Environment and Conservation and the Town of Holyrood for consultation and feedback before Eagleridge is granted approval to proceed.

Planned Exploration Activities

- o Line cutting, approximately 140 km remaining (35 km completed last year).
- O Soil sampling, approximately 10,000 samples remaining (900 soil samples collected last year. Sample sizes range from a ½ to a ½ pound in weight.

- o Shallow Induced Polarization (IP) ground geophysics, approximately 120 km remaining (30.5 km completed last winter). Please refer to **Appendix D**.
- O Deep IP ground geophysics required, approximately 100 km. Large heavy generators need to be located near the center of the grid lines. Please refer to **Appendix D.**
- o Trenching along the side of the proposed resource access road to test and map the geology. Please refer to *Environmental Guidelines for Construction and Exploration Companies* in **Appendix I** and **Section 8** of this report.
- Extensive prospecting of exposed bedrock and boulders. Samples approximately fist size or slightly larger.
- Consulting with experts from around the world to help understand the geology and mineralization to help pinpoint target areas through collaborative efforts, as was done during the Voisey's Bay project.
- Reverse Circular (RC) drill program to test overburden mineralization. Please refer to **Appendix E.**
- o Intensive drill program to locate mineralization in bedrock. Numbers and locations of drill holes will be determined based on current and potential future data collected and analyzed by Eagleridge and industry professionals. Please refer to the *Environmental Guidelines for Construction and Exploration Companies* in Appendix I of this report for environmental standards and guidelines for drilling.
- Evaluation of the RC drill and bedrock drill results through collaborating with experts from different parts of the world. Through these combined efforts, the potential of the Big Triangle Pond property will be determined.
- Eagleridge currently estimates that its mineral exploration project will have a duration time of approximately six (6) years.
- All permits related to mineral exploration activities will be obtained from the Department of Natural Resources, Mineral Lands Division (respecting which relevant applications will be vetted through The Department of Environment and Conservation and the Town Council for Holyrood before approval).

Typical Drill Rig to be Used



5. ALTERNATIVES:

Alternative Access

There is a rough ATV trail approximately 4.5 km long that runs from the Salmonier Line across the southern tip of the proposed resource access road named the Holyrood ATV Association Trail, as identified on the attached aerial photograph in **Appendix B and Appendix N.** The ATV Trail is limited to use by recreational all-terrain vehicles, thereby precluding the acceptance of any Crown Land applications for exploration work. The Schedule C in **Appendix N** limits the physical parameters of the trail, preventing Eagleridge from applying to have the ATV Trail widened or reinforced to allow practical, safe access for contractors using heavy equipment. Please refer to **Appendices D, E and M** to view potential exploration equipment to be used. If

the undertaking is not approved, the use of the ATV Trails are restricted by Crown Lands so as to preclude any practical use for exploration work, please refer to **Appendix N, Schedule C**.

At present, only smaller size ATV's are able to traverse the ATV Trail Systems. There are also wetlands areas along the ATV Trail systems that would restrict or limit the kinds of ATV's and/or heavy exploration equipment capable of traversing it. Using the ATV Trail for this purpose would potentially leave a greater environmental footprint in the area and the trail would no doubt quickly deteriorate from a light ATV Trail to an unsightly heavy equipment forage trail.

At present, the public uses these approved and permitted ATV Trails for recreational purposes. If Eagleridge were permitted to use the ATV Trails as its only means of access to its planned exploration target area, it could potentially interfere with the public's recreational use of the trial. Operating under these conditions and under this scenario could also potentially increase the risk to public safety in the area. If the undertaking were to be approved, it would eliminate any potential interference with public recreational needs and potential safety concerns. Eagleridge's planned exploration activities, while using the proposed resource access road, would not affect the Licensed ATV Trails' recreational use. Please refer to the map **Appendix B**.

If Eagleridge were to access the southern extreme of the targeted exploration site via the Holyrood ATV Association Trail or any other location on the Salmonier Line, please refer to **Appendix B**, the company would have to potentially apply for numerous Environmental Assessment (EA) applications for a trail system. There is a stretch of approximately 11 km of the targeted exploration activities to the north of the Holyrood ATV Association Trail. The targeted geology runs from the Holyrood ATV Association Trail 11 km northeast towards the TCH, see **Appendix B**. Without the proposed access road, one would have to construct campsites in numerous locations along this stretch. Dozens of kilometers of trails would have to be constructed to the northeast in order to access the target geology towards the TCH. As was mentioned before, this would trigger numerous EA Applications, and would be cumbersome and time consuming as well as ineffective and inefficient.

Accessing the targeted exploration sites from numerous locations on the Salmonier Line could potentially be disruptive to the residents in the area. Under this scenario, Eagleridge would have to traverse numerous wetlands and bogs to access the targeted exploration sites. This could pose a safety concern for exploration professionals trying to access the work sites with heavy equipment over an extended period of time. Under these conditions, a potentially larger aggregate environmental footprint could be left behind from exploration activities. The logistics to travel that distance by trails on a daily basis by ATV, nodwells and/or excavators would be unproductive, inefficient and impractical, and would potentially be environmentally adverse to the area.

Alternate Access by Helicopter

Neither Universal nor Canadian Helicopters have helicopters stationed in St. John's or the surrounding area on the Avalon Peninsula. Helicopters and any related equipment would have to be brought in from central Newfoundland and;

- o Availability during summer months is uncertain.
- The Avalon Peninsula is well known for its fog, low ceiling, and low visibility that can last for long periods of time. Downtime is very expensive; scheduling contract work as a result of downtime is impossible.
- O Long-lining heavy equipment with helicopters is dangerous work. There have been three major accidents in Newfoundland from long lining heavy loads with helicopters in the past 12 years, resulting in two pilots being killed and one helicopter pilot being paralyzed.
- o Some equipment, such as excavators, cannot be moved by helicopter.
- Exploration activities would be highly restricted due to bad weather conditions limiting helicopter-flying time. In this scenario, more capital would be spent on helicopter down time, which is very expensive, as opposed to exploration working time.
- Working under these conditions could double or even triple the amount of time needed to complete the Triangle Pond project.

Eagleridge strongly feels that the presence of the proposed class C-2 resource access road would, over time, minimize any potential environmental impact to the Big Triangle Pond area. A resource access road is by far the most efficient and least environmentally disruptive means for conveying heavy equipment through the proposed work area. The least preferred alternative would be to build a series of individual trails through the 11 km work area, which, given the varied nature of the individual work requirements of each contractor, could potentially be more invasive, less efficient, impractical, unfeasible and potentially more damaging to the environment. Under this scenario, contractors would often be working in multiple locations using a large number of trails for basic access. The length of each trail would be dependent on the topography of the land and other natural obstacles, with each phase of the project requiring numerous trails to access multiple sites. This would require numerous EA proposals, creating a lengthy application process. Trails are much less robust than a class C-2 resource access road and

less able to withstand the environmental impact of high traffic from heavy equipment accessing work sites. Conducting the exploration activities under these conditions would be unproductive, inefficient and could potentially have a far greater cumulative negative environmental impact on the Big Triangle Pond area. The proposed resource access road would eliminate much of the potential for needless environmental damage, by granting environmentally friendly, safe and reliable access to the project work area.

6. POTENTIAL ENVIRONMENTAL EFFECTS and MITIGATION:

Eagleridge and its affiliate, Vinland, have been conducting mineral exploration activities in the Big Triangle Pond area in a responsible and environmentally friendly manner since 1988. All permits that have been approved and issued in the past for exploration work clearly state the environmental guidelines for mitigation and reclamation that have to be carried out before, during and after work is approved and completed. Eagleridge and its affiliate have a proven track record of meeting and exceeding all environmental guidelines and standards. None of the company's previous work has left any lasting environmental footprint in and around the Big Triangle Pond area. Please refer to aerial photo in **Appendix B.**

Even the most advanced exploration activity sites that have been established by Eagleridge and Vinland in the past have been restored to their original, natural state. Any minor clearing of timber or brush for the purpose of exploration work sites grows in to a natural looking state in approximately 3 to 5 years. All environmental guidelines for construction and exploration work will be responsibly carried out to the best abilities of Eagleridge's employees and its contractors. Please refer to **Appendix I** for environmental mitigation and reclamation guidelines.

The company, which Eagleridge has tentatively contracted to perform future drilling and trenching activities, has a proven track record of conducting itself in a responsible and environmentally friendly manner. A list of possible environmental mitigation measures by the contractor can be seen by referencing **Appendix M**. Potential sources of pollution could be leaks or spills from trenching or drilling equipment. Emergency response spill kits will be in place to eliminate any potential environmental impacts.

A potential source of pollution during construction could be leaks or spills from construction equipment and bulk fuel storage tanks. The fuel tanks will be certified, double-walled and GAP registered. Emergency response spill kits will be in place to eliminate any potential environmental impacts. Another potential source of pollution could be siltation from road construction. Constructing proper takeoff ditches at any water crossings and the diligent use of silt control fabrics in drainage ditches will control siltation and surface run-off.

Eagleridge does not foresee any interference with the rights of any landowners or users. The proposed resource access road surface rights are held by the Department of Crown Lands with no other known landowners within the project area. As has been mentioned above, Eagleridge and its affiliate, Vinland, have been conducting exploration activities in the Big Triangle Pond area for 25 years and have had no issues with other landowners or users. Exploration activities are not environmentally adverse and do not manifest large and long lasting environmental footprints. This can be observed by viewing the attached aerial photo. **Please refer to Appendix B map** of the Big Triangle Pond mineral exploration target areas.

7. PROJECT-RELATED DOCUMENTS:

Appendix A: Mineral Licenses held by Eagleridge in the Big Triangle Pond Area

Appendix B: Detailed Features on Aerial Photograph

Appendix C: Biography of the selected road construction contractor and their accompanying diagrams regarding traffic control, signage, etc.

Appendix D: Geophysics Methods and Equipment Required

Appendix E: Overburden Drilling and Sampling Proposal

Appendix F: Stream crossing application

Appendix G: Trans-Canada Highway (TCH) resource road access point application and approval documents.

Appendix H: Crown Land Reserve map

Appendix I: Environmental Guidelines for Construction and Mineral Exploration Companies

Appendix J: Email from NL Hydro in response to request for safety guidelines for road construction under transmission lines.

Appendix K: Email from Bell Aliant in response to request for safety guidelines for road construction crossing fiber optic line.

Appendix L: Town of Holyrood Municipal Resource Access Road application

Appendix M: Drilling Methods and Equipment Required

Appendix N: Approved ATV Trails in the Vicinity of Big Triangle Pond

8. DECOMMISSIONING and REHABILITATION:

Road Decommissioning

When exploration activities in the area have been completed, the resource road can be left intact, including bridges and culverts to be utilized for other resource purposes. Alternatively, all culverts and bridges can be removed and the 500 meters of road closest to the TCH can be made inaccessible which will help allow the road to naturally decommission. Future discussions with appropriate government departments will influence this decision.

Standard restoration measures would be adhered to if it were decided to decommission the road to its original state. As was stated above, all culverts and bridges would be removed and affected stream banks would be restored to their original state. Erosion control measures would be engineered, constructed and left until proper root anchoring occurred. To promote re-vegetation, the resource access road would be ripped and re-graded to blend in with the natural contours of the land. Stockpiled overburden and topsoil would be spread evenly over the area. A seeding and sapling planting campaign would be conducted to help bring the proposed resource access road back to its original state. These activities would occur with ongoing consultation with all stakeholders.

Reclamation of Exploration Activities

Drill Sites

Drill sites will be properly cleared and any salvageable wood will be stacked for use by local people. Any material brought to the drill site by the drilling company will be removed. If the drill casing is left in the ground, it will be left at ground level and capped off. All necessary precautions will be taken to prevent silt run off from each drill site. All environmental standards of reclamation will be met that are set according to federal and provincial departments. Please refer to **Appendix I.**

Trenching

The process of constructing the resource access road will expose bedrock in many places, allowing us to sample and map the geology. For example, in order to sample and map the geology at 150 meter intervals along the proposed access road, we may need to temporarily deepen the trenching in places along the proposed resource access road. The deepened trenches would be filled in immediately after sampling and mapping the bedrock has occurred. The proposed resource access road will appear uniform end to end. If trenching is required in areas off the proposed access road, the following procedures will be implemented:

- o The topsoil will be removed and placed to one side of the trench.
- The grey till that extends to the bedrock will be removed and placed to the other side of the trench.
- The bedrock will be sampled and mapped.
- The grey till will then be placed back in the trench.
- The topsoil will be placed over the grey till and the trench will be leveled off to its natural even state.
- o All materials brought to the trenching site will be removed.

All reclamation and environmental standards are issued upon receiving approval of permits to carry out exploration activities. These standards have been responsibly carried out by Eagleridge and its affiliate, Vinland, in the past around the Big Triangle Pond area and these practices will continue into the future. Environmental standards for mitigation and reclamation for exploration activities have been designed by Federal and Provincial levels of Government such as the Department of Environment and Conservation, Department of Natural Resources, Fisheries and Oceans Canada, Environment Canada and many more. Please refer to **Appendix I**. Site inspections by the Department of Natural Resources are common practice to ensure the integrity of the environmental mitigation and reclamation practices being conducted by any exploration company. Eagleridge and its affiliate, Vinland, have proven track records of conducting themselves in a responsible and environmentally friendly manner during their almost 30 years of exploration experience.

9. APPROVAL OF THE UNDERTAKING:

All permits related to mineral exploration activities will be obtained from the Department of Natural Resources, Mineral Lands Division. Before the permits are approved, they are vetted through the Department of Environment and Conservation for consultation as well as any other government departments that may be affected. The Town of Holyrood will also be notified for consultation before any work permits can be approved. This has been standard practice for exploration permitting for years.

There are two known water crossings located on this road. Provincial and Federal approvals from the Department of Environment (Water Resources) and Fisheries and Oceans will be obtained prior to installation, where appropriate. Please refer to **Appendix F.**

A Commercial Cutting Permit from the Department of Natural Resources will be obtained to harvest any trees within the Road Right-of-Way. If any activity is to occur within the forest fire season, an Operating Permit will be obtained from the Department of Natural Resources. All harvesting related permits will be obtained by the contractor. Please refer to **Appendix C and I.**

To gain access to the Trans-Canada Highway and allow construction of a road within 400 meters of a protected highway, approval from the Department of Government Services will be obtained. Please refer to **Appendix G.**

Approval to cross under the existing transmission line has been discussed with NL Hydro and the crossing will be constructed to their standard with a NL Hydro representative on site during this phase of activity. Please refer to **Appendix J.**

Approval to cross over the fiber optics line has been discussed with Bell Aliant and the crossing will be constructed to their standard with a Bell Aliant representative on site during this activity. Please refer to **Appendix K.**

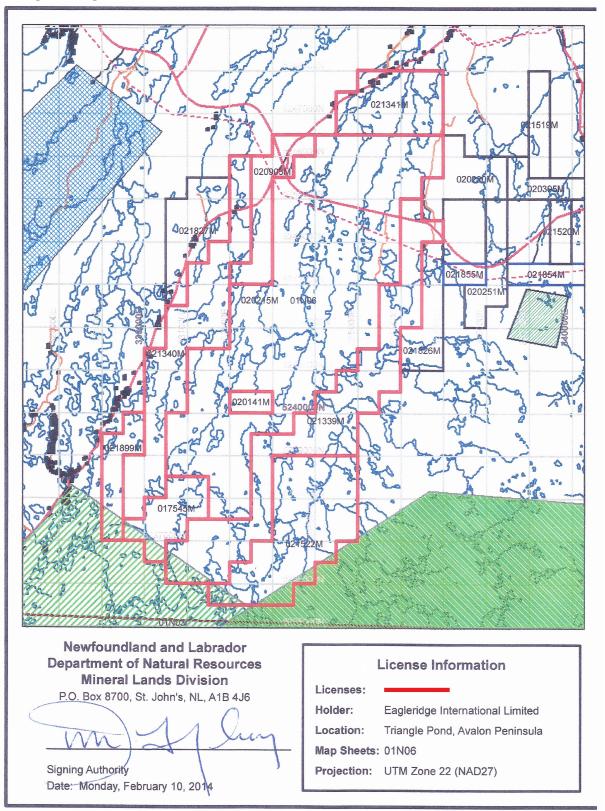
Water Use Licenses will be obtained from the Water Resources Division of the Department of Environment and Conservation when applying for drilling permits on the Big Triangle Pond Exploration Project.

The Town of Holyrood will make a decision regarding the municipal application for the Big Triangle Pond Resource Access Road pending a decision on the EPR from the Minister of Environment and Conservation. Please refer to **Appendix L.**

10. APPENDICES

- Appendix A: Mineral Licenses held by Eagleridge in the Big Triangle Pond Area
- Appendix B: Detailed Features on Aerial Photograph
- Appendix C: Biography of the selected road construction contractor and their accompanying diagrams regarding traffic control, signage, etc.
- Appendix D: Geophysics Methods and Equipment Required
- Appendix E: Overburden Drilling and Sampling Proposal
- Appendix F: Stream crossing application
- Appendix G: Trans-Canada Highway (TCH) resource road access point application and approval documents.
- Appendix H: Crown Land Reserve map
- Appendix I: Environmental Guidelines for Construction and Mineral Exploration Companies
- Appendix J: Email from NL Hydro in response to request for safety guidelines for road construction under transmission lines.
- Appendix K: Email from Bell Aliant in response to request for safety guidelines for road construction crossing fiber optic line.
- Appendix L: Town of Holyrood Municipal Resource Access Road application
- Appendix M: Drilling Methods and Equipment Required
- Appendix N: Approved ATV Trails in the Vicinity of Big Triangle Pond

Appendix A: Mineral Licenses Held by Eagleridge International in the Vicinity of Big Triangle Pond.



Appendix B: Detailed Features on Aerial Photograph

Please refer to the 34" x 44" map attached at the end of this report, which includes the following features:

- Proposed access road
- Proposed stream crossings
- Mineral exploration target areas
- Equipment laydown area
- Proposed fuel storage areas
- Existing trails
- Town of Holyrood Town Limits
- Salmonier Nature Park boundary
- Avalon Wilderness Area boundary
- Salmonier Line (Route 90)
- Trans-Canada Highway (Route 1)
- Existing power lines
- Proposed power line for the Labrador-Island Transmission Link
- Bell Aliant's buried fiber optic cable

Appendix C: Biography of the selected road construction contractor and their accompanying diagrams regarding traffic control, signage, etc.



Hi Albert,

As per your email dated January 27, 2014 relative to the Big Triangle Pond Resource road, please note the following:

Construction Signage:

Springdale Forest Resources Inc. will be following the safety procedures as outlined in Department of Transportation & Works' **Traffic Control Manual**. The Department has detailed procedures on what signage to use, the use of Control and Service Vehicles to aid in the setting up of signage and establishing work zones. The Manual also outlines the steps that must be followed when removing delineation devices from the work zone as well as signage removal from both sides(Right hand shoulder and left hand shoulder [Median)) of the divided highway. I have attached the following documents:

- 1. Signage Plan (Diagram 752-6) One LANE CLOSED Divided Highway.
- 2. Sign Setup (Four Lane Divided Highway)
- 3. Work Zone Setup (Four Lane Divided Highway)
- 4. Work Zone Removal (Four Lane Divided Highway)
- 5. **Sign Removal** (Four Lane Divided Highway)

The traffic control person involved in the project will possess a Traffic Control Person certificate from a WHSCC approved provider.

The only equipment that will be off-loaded from the highway will be two excavators and one harvester. It is anticipated that this can be accomplished during a two hour period (9 AM-11AM) during the regular workday.

The only other vehicles involved in the initial construction period would be two pickups that may have to be parked on the shoulder of the highway for a couple of days. Although the vehicles would be off the travelled portion of the highway, the area would be delineated by the use of construction cones.

Once the harvester has cut the road right-of-way, the excavators will be used to build the section of the new road back to the highway. The culvert pipe will be installed by using fill found on site. Once this is

completed all other vehicles will simply turn right off the divided highway unto the newly constructed road. An unloading/loading area will also be constructed within a suitable distance from the highway. Equipment leaving the site will be loaded unto trailers in this area. Traffic leaving the construction zone would turn right upon entering the divided highway. A STOP sign will be erected near the entrance to the highway from the newly constructed road. Only a few vehicles per day will be entering and leaving this area.

Permits:

- (a) Prior to commencing any work, Springdale Forest Resources Inc. will obtain a Work Permit from the Department of Transportation and Works, Foxtrap depot. The Department has indicated that all other permits must be in place prior to the Work Permit being issued.
- (b) Newfoundland and Labrador Hydro will also be contacted to determine the requirements of an Energized Power Line Permit. All noted stipulations will be followed by the owner and employees of Springdale Forest Resources Inc.

Resource Road Building Experience:

During the past 25 years, Springdale Forest Resources Inc. has constructed hundreds of kilometres of forest access roads along with the necessary bridge constructions. Projects have been completed for the following clients:

- > Department of Natural Resources, Government of Newfoundland and Labrador.
- Corner Brook Pulp and Paper.
- Newfoundland and Labrador Hydro

Springdale Forest Resources Inc. has experience working in watershed areas as well as environmental rehabilitation. For many years the company worked under the stringent requirements of ISO 14001 (Environmental Management System) as a sub-contractor of Corner Brook Pulp and Paper. During this time, the company won the following awards.

- In 2004, our harvesting division won the Atlantic Canada's Contractor of the Year Award for "Outstanding Contributions to Safety, Quality, Environment and Production". This award was presented by the Canadian Woodlands Forum.
- Mechanical Contractor of the Year Award, 2004, sponsored by Corner Brook Pulp and Paper.
- Mechanical Contractor of the Year Award, 2005, sponsored by Corner Brook Pulp and Paper
- Springdale Forest Resources Inc. won the Logging Contractor of the Year for 2005 in "Recognition of outstanding performance and contribution to managing the forest resource in a sustainable manner through business excellence and professionalism".

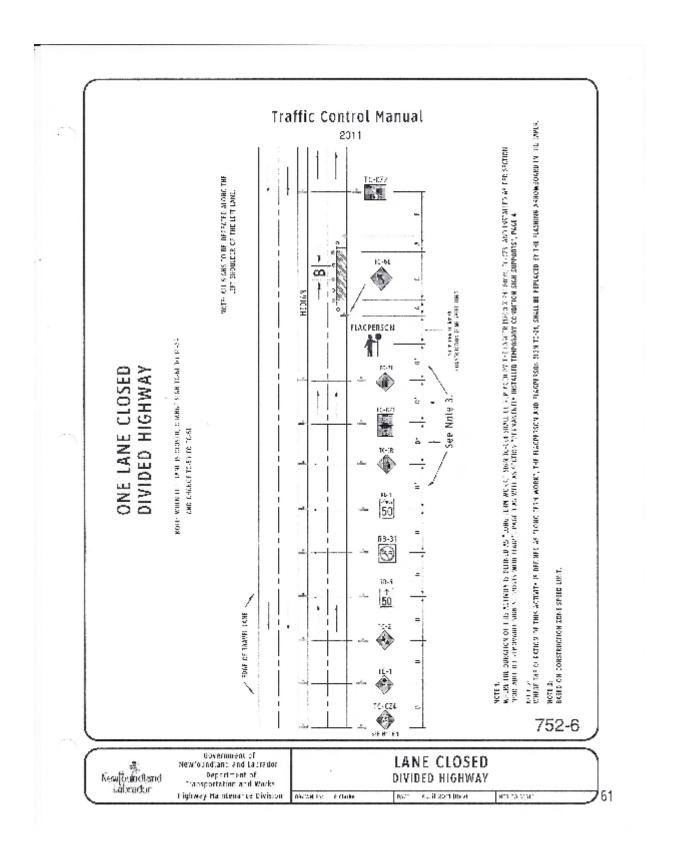
It should be noted that, in addition to its regular insurance coverage, Springdale Forest Resources Inc. also carries a \$2,000,000.00 Environmental Impairment Insurance.

Should you require a reference concerning the quality of work performed by Springdale Forest Resources Inc, please contact Mr. Pat Tompkins, Woodlands Manager, Corner Brook Pulp and Paper (709-637-3000).

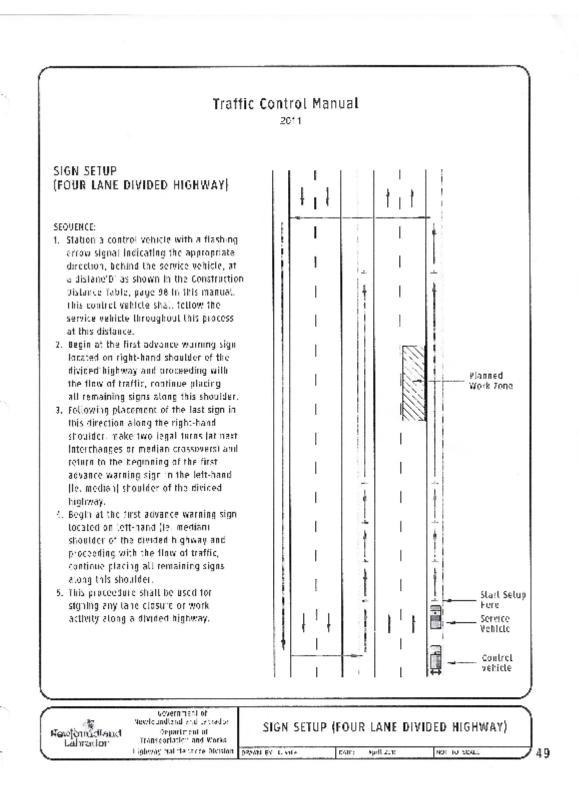
Thanks.

Regards,

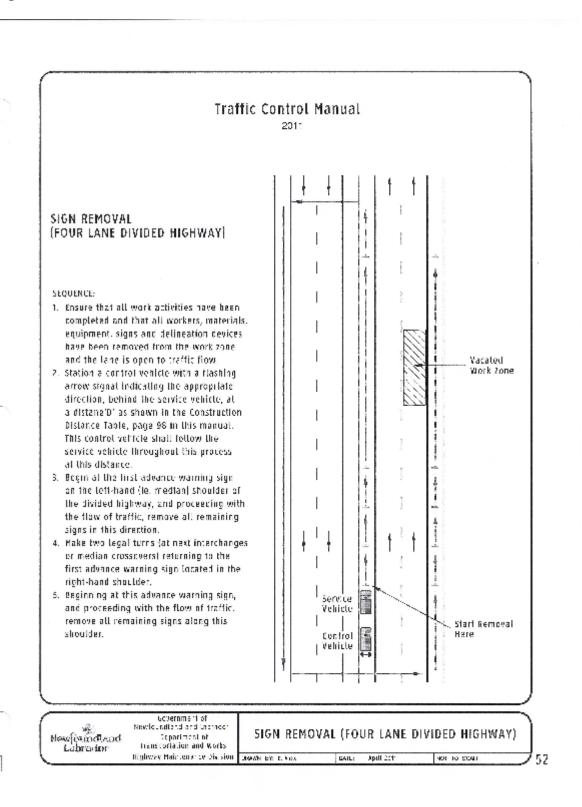
Harvey Rice Health and Safety/HR



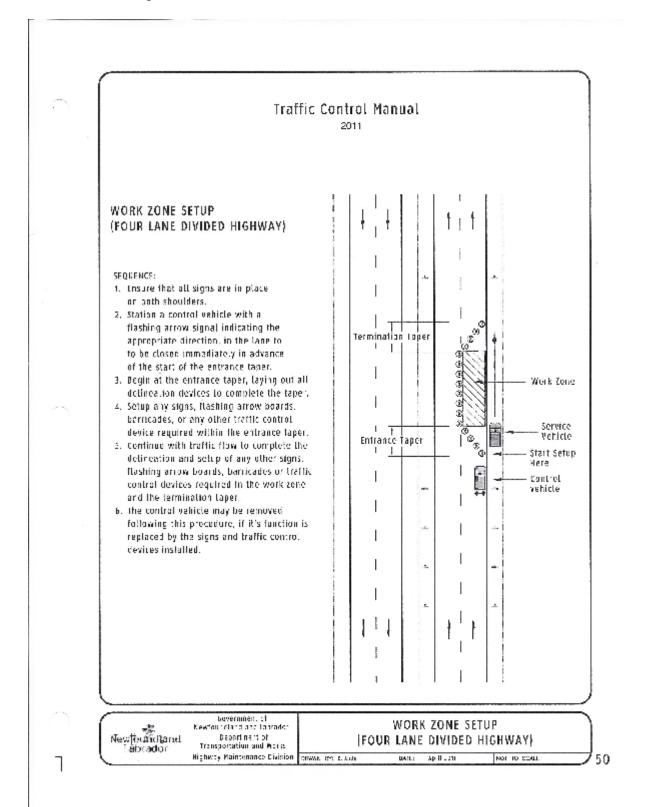
Signage Set-up



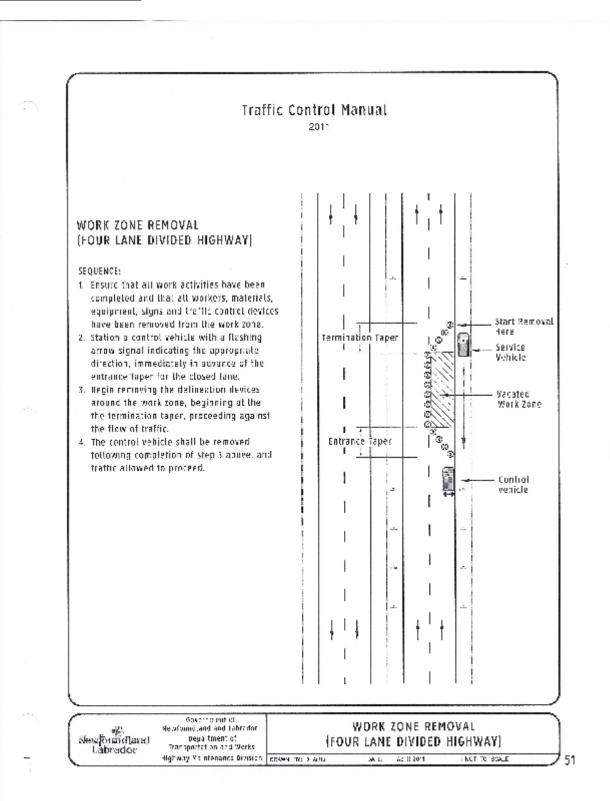
Signage Removal



Work Zone Set-up



Work Zone Removal



Appendix D: Geophysics Methods and Equipment Required



EASTERN GEOPHYSICS LIMITED

33 Pratt Street, Corner Brook, NL A2H 7E1

January 9, 2014

Mr. Albert Chislet Vinland Resources Ltd. P.O. Box 14068, Stn. Manuels Conception Bay South, NL A1W 3J1

Re: Geophysical surveys on your properties near Triangle Pond.

Attention Al,

This letter is in response to our recent conversations concerning the logistics associated with carrying out deep seeking geophysical surveys on your Triangle pond property.

Two possible geophysical methods that will be effective on your property are Induced Polarization (IP) and Time Domain EM (TDEM). As you know, in order to penetrate to depths of 300 to 400 meters, both systems have to be large and powerful to accomplish these tasks. These powerful systems are heavy and bulky with large transmitters and motor generators. I have included the list of items required to carry out a surface and borehole TDEM survey along with the dimensions and weights of the equipment. (See attachment)

This is where the issue of logistics comes into play. The location of the Triangle Pond property presents many challenges. The traditional method of transporting the equipment and crew to a remote property would be via helicopter. However, given the local weather conditions, I would have to estimate a very high number of standby days due to poor flying conditions in this area. Our standby rate for these surveys is approximately \$ per day. As you know, there will be helicopter minimum charges on top of that as well. For these reasons, I do not believe that a helicopter supported geophysical program would be a good option.

I agree with the second scenario that you presented in building a road of approximately 11 kilometers to the back of the property. This road will not only greatly improve our efficiency, but also for any other contractors that you may hire to further develop your property.

It is your decision to choose on the method of access, but my job of providing you with sound costs estimates for our work will be made much easier if there is a road to the back of the property. Let me know if there will be a road or if you will entertain a helicopter supported program. We are looking forward in working with you on this project.

Please contact me if you have any questions concerning this letter or for any other inquiries you may have.

Regards,

Brian d'Entremont

Required Geophysics Equipment

Crone Time Domain EM System

Borehole and Surface

вох	DESCRIPTION	Quantity	Total Weight (Kg)	Dimensions (cm)
1	Dummy Probe	4	16	165x8x8
2	Dummy Probe	2	8	159x7x7
3	Heavy Dummy Probe	2	28	183x8x8
4	Dummy Cable	1	39	35x35x27
5	Retrieval Tool	1	8	224x7x7
6	Digital Borehole Counter	1	13	39x33x39
7	Borehole Cable-980 m	1	98	71x71x34
8	Z Probe	1	17	183x18x18
9	XY Probe	1	24	244x18x18
10	RAD Tool Probe	1	14	121x18x18
11	RAD Tool B Probe	1	14	121x18x18
12	PEM Receiver	1	25	45x28x45
13	PEM 4.8kW Transmitter	1	36	71x41x51
14	PEM 4.8kW Voltage Regulator	1	18	64x34x32
15	Motor Generator	1	55	85x44x48
16	Resistor Box	1	14.5	46x30x78
17	Loop Wire Spool	20	500	28x28x30 Each
18	Synchronization Wire Spool	1	12	28x28x30
19	Crystal Clock	1	16	40x25x35
20	PEM Surface Coil & Tripod	1	14	76x22x22
21	PEM Surface Coil & Tripod	1	14	76x22x22
22	Voltage Transformer	2	34	46x29x43
23	Wire Winder	1	6	72x40x53
24	Wire Winder Wire Winder	1	6	72x40x53
25	Slip Ring	2	4	35x35x27
26	Borehole Winch Frame w/ Gear	1	10	
	Box			64x34x32
27	Misc Tool Box	1	20	76x52x59
28	Misc Safety Gear	25		
29	Tent	1	12	28x28x132
30	Receiver Pack Frame	1	5	71x41x31
31	Automatic Loop Damping Box	1	14	45x28x45
30	TOTAL	81	1094.5	

Typical Ground Loop Induced Polarization (IP) Geophysics Equipment





Typical Ground Loop Induced Polarization (IP) Geophysics Equipment



Appendix E: Overburden Drilling and Sampling Proposal

Vinland Resources Ltd.

Triangle Pond Property, Newfoundland

Proposal for Reverse Circulation Drilling

by
Stuart A. Averill
Overburden Drilling Management Limited
Ottawa, Ontario, Canada
January 20, 2014



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1. Executive Summary

A proposal is presented for an initial reconnaissance test of the gold potential of the Triangle Pond property of Vineland Resources Limited on the Avalon Peninsula, Newfoundland. The proposed test will involve systematic sampling of the surficial glacial deposits, mainly till, and of the directly underlying bedrock with a mobile reverse circulation rotary drill that is designed specifically for this purpose.

Approximately 110 drill holes at 100 x 500 to 100 x 1000 m spacing are required. The geological foundations of the program and the reasons for employing reverse circulation drilling are described. Drilling, geological and sample treatment costs are expected to total

However most of the property is presently inaccessible and the proposed program is dependent upon construction of an access road along the axis of the drill area.

2. Introduction

In early January, 2014, the author Stuart Averill, P.Geo. (Newfoundland and Labrador) of Overburden Drilling Management Limited ("ODM"), received a written request from Mr. Bradley Chislett on behalf of Vinland Resources Limited ("Vinland"), a private family company, to prepare a preliminary proposal to test the mineral potential of the Triangle Pond property in Newfoundland. The requested program would involve systematic testing of the unconsolidated surficial sediments, which mantle most of the bedrock on the property and consist mainly of glacial till, for high concentrations of glacially dispersed gold grains and sulphide minerals indicative of covered mineralization up the glacial ice flow path along which the till was transported.

The till samples were to be collected by a purpose-built, mobile reverse circulation ("RC") drill of the type that ODM has successfully employed under contract to identify numerous gold deposits (Table 1) including the major Golden Pond deposits in the Casa Berardi region of Quebec. The proposal was to include an outline of the recommended drilling pattern, access requirements for the drill rig and estimated costs for the program.

3. Property Location

The Triangle Pond property is located on the Avalon Peninsula, ~50 km southwest of St. John's, Newfoundland. It covers ~12 km of prospective, ENE trending (~030°) volcanic rock formations. These volcanics are mainly of Late Proterozoic age and were erupted from terrestrial rather than submarine vents, suggesting a significant potential for epithermal gold deposits in addition to the usual shear-hosted deposits. The Trans-Canada Highway ("TCH") crosses the northern end of the property (Fig. 2) but there is presently no road access into the rest of the property. This lack of access has limited previous exploration to surface programs even though the results obtained have been sufficiently positive to warrant subsurface drilling.

4. Previous Exploration

Various parts of the Triangle Pond property have been held by Chislett interests since the 1980s. The property was initially optioned to Cominco Ltd. and then, in 1990, to Inco. Cominco established a grid on the property (Fig. 2) and performed ground magnetic and electromagnetic surveys on this grid. They also collected till samples from shallow, hand-dug pits and submitted the samples to ODM for gold grain testing. This sampling showed that the gold grain background along the central axis of the property is significantly higher than in the surrounding region. Prospecting by Mr. Al Chislett during the same period located a small outcrop of silicified volcanics near the southern end of the property, between Conns Pond and Old Sea Pond. A nearby till sample collected by Cominco yielded a 180-grain gold anomaly. Approximately 700 m to the northeast along the projected strike of the silicified horizon, a sample from another pit dug by Chislett yielded hundreds of gold grains.

On November 8, 1990, at the request of Inco, the author visited the property, examined the above gold occurrences and assessed the nature of the glacial deposits and landforms and their potential influence on the observed gold grain dispersal patterns. It was determined that the direction of ice flow was ~015°, or slightly oblique to the 030° bedrock structural and stratigraphic trend. The terrain surface slopes WNW, roughly perpendicular to the ice flow direction. At ~200 m intervals, this surface is interrupted by 5 to 10 high till ridges which also strike WNW, parallel to the slope and perpendicular to the ice flow direction. These are ribbed moraines that were deposited annually along the front of the progressively southwestward-melting ice sheet. The meltwater from the receding ice sheet flowed downslope to the WNW between the moraine ridges. It winnowed the then-unvegetated and unstable till of its fines, including the gold grains which in till are mostly silt sized (<63 microns wide; Table 1), leaving a gold-depleted

lag gravel. Chislitt's gold-rich pit was found to be in this lag gravel rather than in till as

thought, and the gold grains were found to have been liberated not from bedrock during glaciation but rather post-glacially by oxidation of a mineralized clast in the gravel. Other auriferous clasts were found nearby but the matrix of the gravel was predictably depleted in gold grains.

While small, short-lived meltwater spillways probably occur between many of the moraines in the area between Conns Pond and Old Sea Pond, the area north of Conns Pond is crossed obliquely by a major,

~2 km wide spillway through which meltwater flowed NNW for tens to hundreds of years from a residual ice cap atop a granitic highland to the east. The spillway area is littered with large boulders, some several metres across, that represent the residual lag from a similar thickness of till. Many of Cominco's samples appear to have consisted of this gold-depleted lag gravel rather than of till and thus were of little exploration value.

5. Potential Benefits of RC Drilling

Sampling the till at depth by RC drilling rather than at surface as was done by Cominco and Inco has five major benefits:

- 1. In areas where the surface of the till has been winnowed, leaving a gold-depleted layer of lag gravel which is unsuitable for sampling, very useful samples would be obtained from the underlying, unwinnowed, undepleted till.
- 2. The till section would be sampled from top to bottom, not just at the top. Therefore the thickness and vertical position of any gold grain anomalies within the section would be determined. Anomaly thickness is related to the size of the bedrock source and the vertical position of an anomaly is related to the distance of glacial transport of the mineral grains from their bedrock source. Therefore the potential significance of each anomaly and the approximate location of its bedrock source would be apparent.
- 3. Due to post-glacial weathering, the top 2 to 3 m of the till has been depleted of any sulphide mineral grains that accompanied the gold grains during glacial transport. However, the till at depth is fresh and retains its

sulphides. Therefore the drilling would reveal key gold-sulphide associations which may indicate the style of the source mineralization.

- 4. The drills sample not only the till but also the underlying bedrock. On the Triangle Pond property the bedrock rarely crops out. Therefore the drill intercepts would provide the first reliable stratigraphic, structural, alteration and lithogeochemical maps of the property and a solid foundation on which to interpret the till anomalies.
- 5. The thickness and conductivity of the till and other surficial sediments, which are important for interpreting electromagnetic surveys, would also be determined.

6. Drill Hole Pattern

The typical length of a gold dispersal train emanating from a significant mineralized zone is 500 to 1000 metres. The width of the train is more dependent on the orientation of the mineralized zone relative to the ice flow direction but is generally >200 m. It is recommended that the initial drilling on the Triangle Pond property utilize a 100 m hole spacing on WNW-ESE trending lines 1000 m apart as shown in Figure 2. With this spacing some small gold zones may be missed but the most fertile areas of the property will be outlined along with infertile areas that warrant no further work. Follow-up infill drilling at a closer line spacing can then be done within the most fertile areas to pinpoint the best mineralized zones.

7. Drilling Rig

There are many types of RC drill rigs but only two types are designed specifically for till sampling – one rotary and the other down-the-hole hammer. Only the rotary type is suitable for the Triangle Pond program. Three contractors operate these rigs. All are based in central Canada and only two have modern rigs. The rigs are track-mounted, highly mobile, self- contained and enclosed for all-weather operation. The drilling and geological crews work together inside the rig. The drill water is recirculated, limiting consumption. Make-up water is hauled in a smaller mobile unit.

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The drill rigs weigh ~20 mt with a full water tank and supply of drill pipe. However, their tracks are very wide, resulting in a low ground pressure of just 4 psi, similar to that on a person's feet. Where the terrain consists of a mix of low, boggy barrens and higher, forested patches as on the Triangle Pond property, the drill traverses are normally routed through open, scrubby corridors along the edges of the barrens rather than following straight lines. This avoids unnecessary damage to both the bogs and standing timber – one year later, some parts of the trail are almost invisible.

While the above approach is suitable for the individual drill traverses, both the drill and personnel must still be able to reach the drill sites under varied weather conditions throughout both the initial reconnaissance and later follow-up programs, each of which is expected to last for about two months. This will require repeatedly travelling the same route, not only with the drill rig and water transporter but also with trucks. Therefore a Class C-type resource road on solid ground along the central geological axis of the property is required. One possible route is shown in Figure 2.

8. Program Costs

The initial reconnaissance program will total ~110 holes as shown in Figure 2. This program is expected to cost ~\$ including all geological and sample treatment costs but excluding the roadwork

StuartAverill, P.Geo.

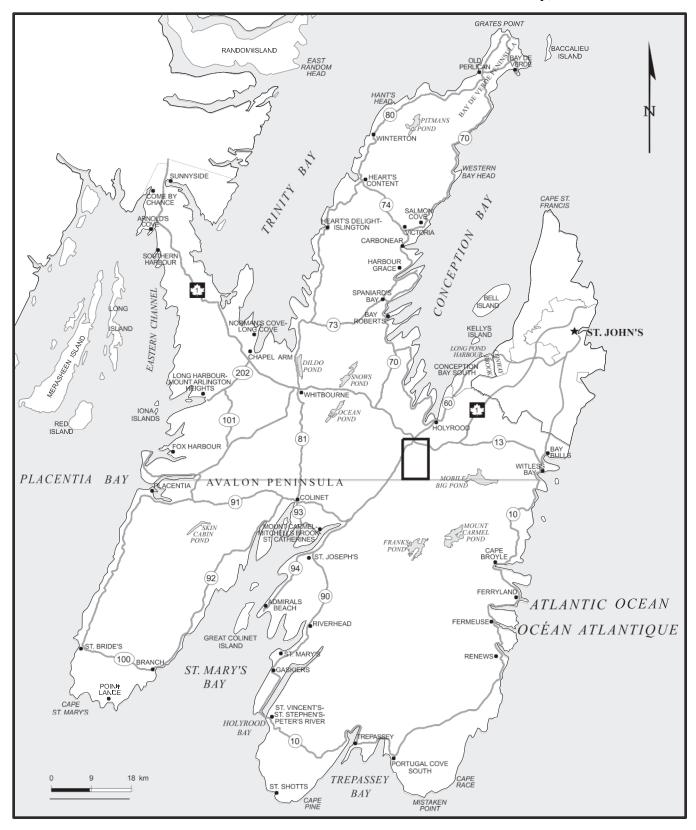


Figure 1 - Geographic location of the Triangle Pond property.

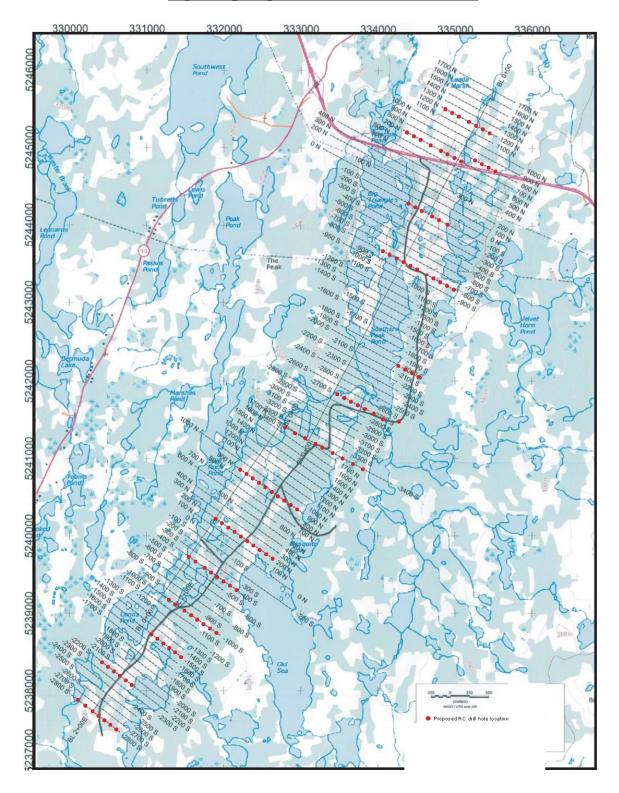


Figure 2 Proposed RC drill hole locations.

Figure 3 – Photos of two modern reverse circulation rotary drill rigs designed for till sampling





Appendix F: Stream Crossing Application



Government of Newfoundland and Labrador Department of Environment and Conservation Water Resources Management Division

Application for Permit to Alter a Body of Water

As required under Section 48 of the Water Resources Act, SNL 2002 c W-4.01

Please mail completed Application Forms to:

Department of Environment and Conservation Water Resources Management Division PO Box 8700, St. John's NL A1B 4J6 Attention: Manager, Investigations Section Email: waterinvestigations@gov.nl.ca

Fax: 709-729-0320

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Name/Company/Agency: Eagleridge International Limited

Contact Person: Mr. Albert Chislett

Address: Street/PO Box: P.O. Box 14063, Station Manuels

City/Town: Conception Bay South

Province: NI Postal Code: A1W 3J1

Telephone No.: (709) Fax No.: (709)

E-mail Address*:

Applicant Information: Name/Company/Agency:	X Same as above, or
Contact Person:	
Address: Street/PO Box:	
City/Town:	
Province:	Postal Code:
Telephone No.:	() Fax No.: ()
E-mail Address*:	

Please Note:

Originals of the Permit will be mailed to the "Owner".

Copies of the Permit will be mailed to the "Applicant".

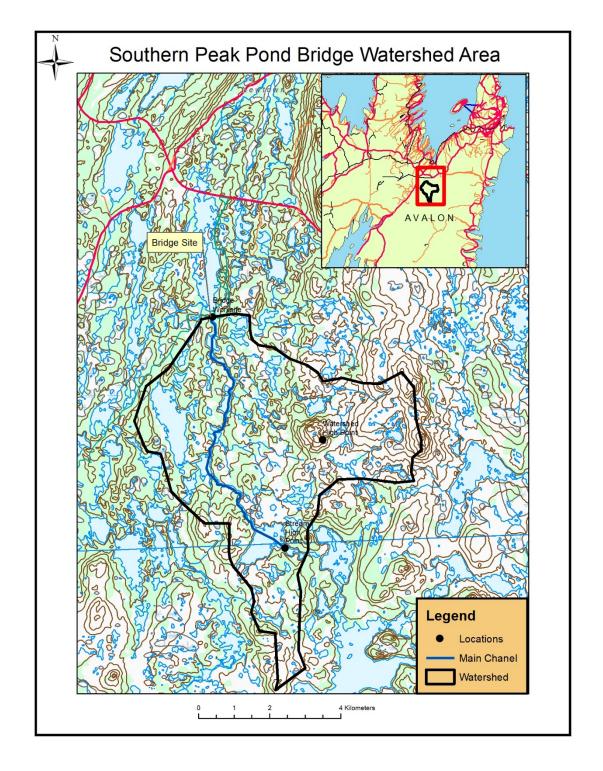
*If providing an e-mail address, please ensure that it is active and checked often.

Schedule B - Bridge

Project Description (Please complete one Schedule for each crossing)

Location

Crossing Name/No: Southern Peak Pond, near Salmonier Line (route 90)					
Please mark location on a copy of a topographic map (preferably at 1:50,000 scale) and include with the application:					
1:50,000 Topo	graphic Map No:	:			
or provide UTM Coo	rdinates:				
N 5,241,725.12	N 5,241,725.12 E 334,228.12 NAD ZONE 22				
Design					
Drainage Area Prof	íle:		Drainage Ar	ea Clas	sification:
Drainage Area:	36.95	km^2	Forest:	40	%
Main Channel Length:			Barren:	28	%
Slope of Drainage Area			Wetland:	32	
Stope of Dramage race			Urban:	0	%
Hydrologic Details:					
Return Period:	1: 100 years				
Estimation Method:	X Rational	TD55	X RFFA		Other
Maximum Flow:	A Kationai		Design Flow:	ш	m ³ /s
Maximum Flow:		m /s	Design Flow:		m/s
Description of Estimation: Please show calculation(s) below or attach separate sheets, if required.					
RFFA and Rational Formulas, see attached sheet					





Government of Newfoundland and Labrador Department of Environment and Conservation Water Resources Management Division

Application No:
(for department use only)

Application Fee Schedule

In accordance with Section 21 of the Executive Council Act, the following application fee(s) must be paid to obtain a Permit as required under Section 48 of the Water Resources Act. SNL 2002 cW-4.01:

Permit as required	unger 5	ection 48 of the Water Resources Act, SNL 2002 cW-4.01:	
Bridges:	(a) (b) (c) (d) (e)	Bridge spanning less than 5 metres Bridge spanning 5 metres or more but less than 10 metres Bridge spanning 10 metres or more but less than 30 metres Bridge spanning 30 metres or more Small bridges (ATV, snowmobile or pedestrian bridges)	\$100 \$200 \$500 \$1000 \$50
Culverts:	(f) (g)	Culvert less than 1200 mm in width, or diameter Culvert greater than, or equal to, 1200 mm in width, or diameter	\$50 \$100
Fording:	(h) (l)	Fording (per site) or transmission line inspection Winter or ice road across any body of water	\$50 \$50
Dams & Related Works:	(J) (k) (l) (m)	Hydro-electric power project control dam Other control dams including dykes and berms Water intake greater than 100 mm diameter or an inflitration gallery Pipe or conduit installed under any body of water including intakes less than 100 mm In diameter	\$2,000 \$500 \$500 \$50
Drainage Works:	(n) (o) (p)	Storm drainage works involving discharge into a body of water Ditching system for peat mining or agriculture Settling basin	\$200 \$200 \$100
Other Works:	(q) (r) (s) (t)	dredging Water course diversion, channelization or infilling Exploratory drilling within a waterbody, or within 15 metres of a waterbody Other construction, grubbing, clearing or installation of structures within 15 m of the high water mark of a body of water if not specifically carried out in conjunction with any other category of this fee schedule	\$100 \$500 \$100 \$50

The above permit fees must accompany each separate application for approval and the fee is non-refundable. Please enclose your cheque or money order made out to the <u>Newfoundland Exchequer Account</u> or attach a cashier's receipt for the correct amount. The application cannot be reviewed until payment in full has been received.

This section mu	ist be completed so that a receipt can be issued
Type of Project: Installation of a 16 meter clear span bridge Location: Southern Peak Pond, near Holyrood, near Salmonier Line	Fee: \$ 500 +13% HST: \$ 565 Total Enclosed: \$ 565
For Department's Use Only	Revenue Centre #: 1226 500 4150 2764
Payment Enclosed:Verified b	y: Date: Receipt#:

Application for Permit to Alter a Body of Water

As required under Section 48 of the Water Resources Act, SNL 2002 c W-4.01

Alteration Type:

Please select the Applicable Type(s) and attach completed Schedule(s) for each:

Type	Check (x)	Required Schedule
Culvert	G	Schedule A
Bridge	X	Schedule B
Dam	G	Schedule C
Fording	G	Schedule D
Pipe Crossing/Water Intake	G	Schedule E
Stream Modification or Diversion	G	Schedule F
Pedestrian/ATV/Snowmobile Bridge	G	Schedule G
Other works within 15 metres of a body of water	G	Schedule H

Other works within 15 metres of a body of water G ie: Infilling, Dredging, Debris Removal,

Drainage Works, Settling Ponds, Other Minor

Works in Freshwater bodies

Project Information:

Project Name: Clear Span Bridge Crossing

Water Body Name: Stream running into Southern Peak Pond

Community Name: Nearest Community is Holyrood

Area (if outside a community): Southern Peak Pond is located east of Salmonier Line (Route 90)

Is this project located in a Protected Public Water Supply Area? Yes

Proposed Start Date: <u>Late Fall 2013</u> Estimated Completion Date: <u>Late Fall 2013</u>

Reason(s) for the Project:

Gain access to mineral exploration area

Date: Jan 24 2014

Signature:

Allo Chisted



Recewied & cheque for 565.00 by B. Welsher Jan. 24/14

Government of Newfoundland and Labrador Department of Environment and Conservation Water Resources Management Division

Application for Permit to Alter a Body of Water

As required under Section 48 of the Water Resources Act, SNL 2002 c W-4.01

Please mail completed Application Forms to:

Department of Environment and Conservation Water Resources Management Division PO Box 8700, St. John's NL A1B 4J6 Attention: Manager, Investigations Section

Email: waterinvestigations@gov.nl.ca Fax: 709-729-0320

Owner Information:			
Name/Company/Agency:	Eagleridge Inter	national Limited	
Contact Person:	Mr. Albert Chis	lett	
Address: Street/PO Box:	P.O. Box 14063	, Station Manuels	
City/Town:	Conception Bay	South	
Province:	NI	Postal Code: A1W 3J1	
Telephone No.:	(709)	Fax No.: (709)	
E-mail Address*:			
2			

Applicant Information:	X Same as above, or
Name/Company/Agency:	
Contact Person:	
Address: Street/PO Box:	
City/Town:	
Province:	Postal Code:
Telephone No.:	() Fax No.: ()
E-mail Address*:	· Co. A sa podero

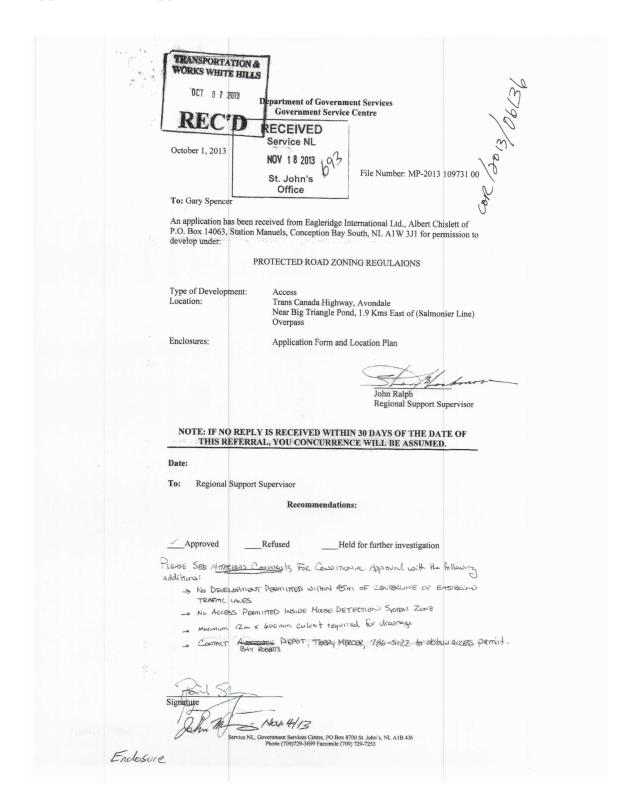
Please Note:

Originals of the Permit will be mailed to the "Owner".

Copies of the Permit will be mailed to the "Applicant".

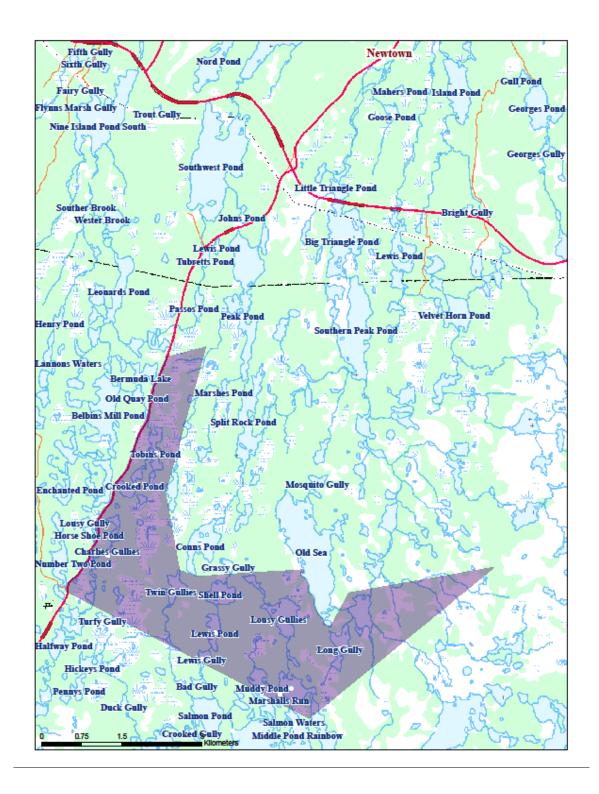
*If providing an e-mail address, please ensure that it is active and checked often.

Appendix G: Trans-Canada Highway (TCH) resource road access point application and approval documents.



EA Registration Comments lay No. 1725	Enclosii e
Regulatory requirements:	
Proponent is required to obtain a "Highway Access Permit" and a "Permit the Highway Right of Way" from the Department's Bay Roberts Highway Mair Supervisor. The location of the proposed access point will be required to be low where sight distance to approaching traffic is at least 370 meters. This may readjustment of the access location shown in the EA registration. The access location shown in the EA registration. The access location to be in the area of the Moose Detection System which is close to this locatic Controls and signage must be put in place to prevent access road users from to the Trans Canada Highway in the wrong direction on the divided highway. Approval is for exploration only. If the use of the access road changes a new 'Access Permit" will be required to be obtained by the proponent. Specifically it volume of traffic is anticipated in a production stage of development an access have to be developed for safe exit and re-entry to the highway. All costs of addevelopment and final decommissioning will have to be borne by the proponer Additional information that you require on the proposal and/or environmental planning of the proposal:	tenance scated squire action must sn. returning Access Highway is la large is plan will
5	
Original impact research:	
Comments based	
Comments based on your experience and expertise, but not directly related to y Departmental Mandate:	our
A Francisco Carta a Ca	

Appendix H: Crown Land Reserve map



Appendix I: Environmental Guidelines for Construction and Mineral Exploration Companies

Environmental Guidelines for Construction and Mineral Exploration Companies

PREFACE

The following guidelines were prepared to assist construction contractors and mineral exploration companies to carry out their activities so that the least damage to the environment results. The first four sections are aimed primarily at construction contractors who may be building linear facilities such as access roads, but may also be of use to mineral exploration companies. Sections 5 to 8 are applicable to both mineral exploration companies and construction companies, while sections 9 to 11 deal specifically with mineral exploration issues such as drilling and trenching.

The guidelines presented here are not legally binding; they simply represent good practices that should be followed by construction and mineral exploration companies, although failure to follow these guidelines could result in situations for which legal action could be taken. They are based on current construction practices and should not be regarded as the last word in environmental protection. Under unusual conditions, impacts not covered in these guidelines may occur. Throughout the text, there are other sources and guidelines mentioned. If a procedure is not completely covered, these other publications should be consulted for further details.

There are several acts and statutes which may govern certain aspects of mineral exploration. Approval may be required from various agencies depending on the location and nature of the exploration program. Most of these agencies are mentioned in the guidelines; however, the responsibility for obtaining approval rests with the proponent.

CLEARING AND TIMBER SALVAGE

Planning should include mitigative measures to minimize the number of stream crossings and promote cut-and-fill operations to minimize borrowing operations outside of the right-of-way, buffer zones, etc. Once planning has been completed, all required permits and approvals obtained, and the route flagged, the first step in construction will normally be clearing. The importance of this phase will depend on the type of road being constructed and the nature of the existing vegetation. If an existing right-of-way is being used, clearing may be minimal or not required at all.

WHERE TO CLEAR

Clearing should be carried out only along the approved right-of-way. Trails need only to be cleared to the width of the vehicles travelling the road. Haul roads may require a single lane supplemented by turnouts or a right-of-way wide enough to handle traffic in two directions. In all cases individual farms, regional pastures, blueberry management units, silviculture plots and plant quarantine areas should be avoided. Buffers from 15 to 150 metres must be left along bodies of water for both erosion protection and aesthetic reasons. The width of the buffer zone will depend on soil characteristics (clay rich soil is more susceptible to solifluction), the steepness of the slope leading to bodies of water and the type of road construction. A recommended formula for determining buffer zone width is:

12 metres + 1.5 metres x slope (%)
The following buffer zones must be maintained around protected water supply areas:

Body of Water Width of Buffer Zone

Intake Pond/Lake 150 metres

River Intake 150 metres for a distance of 1 kilometre upstream and 100 metres downstream

Main River Channel 75 metres

Main Tributaries/lakes/ponds 50 metres

Other bodies of water 30 metres

In addition, no clearing activity is to occur within 800 metres of a bald eagle or osprey nest during the nesting season (May 15 to July 31) and 200 metres outside the nesting season. All hardwoods within 30 metres of a body of water occupied by a beaver are to be left standing. For known waterfowl staging areas, a minimum 30 metre buffer from the water's edge with at least 20 metres of forest will be

established. These areas will be identified by the Canadian Wildlife Service.

HOW TO CLEAR

Clearing by axe, saw, bulldozer, etc. should be carried out in a manner that will minimize surface disturbance and prevent erosion. Ground vegetation loss should be kept to a minimum and low ground shrubs should be preserved along the right-of-way. This vegetation preserves soil stability and acts as a sediment filter near waterways.

Trees should be felled onto the right-of-way to minimize disturbance to the adjoining forest. Trees should always be felled away from watercourses. A watercourse is defined to include:

a. any pond, lake, river, stream, brook, creek or marsh that visibly feeds into a water system; or b. any pond greater than 0.25 hectares in area

Debris and brush should not be disposed of within 30 metres of the high water mark of any watercourse or body of water. Care should be taken to ensure that leaners are not left along the right-of-way. Leaners are trees that have been partially knocked over during clearing, but which are left leaning over the right-of-way or hanging in the surrounding forest. Sensitive slopes, unstable soils and water crossings require special clearing procedures - hand clearing instead of machine clearing - to prevent surface disturbance and reduce erosion.

Merchantable timber should be cut, trimmed and piled along the right-of-way. A Timber Cutting Permit, obtained from the Department of Forest Resources and Agrifoods, is required. Specific conditions included with the permit are: (1) no cutting within 100 metres of the centerline of a public highway; (2) no cutting within 15 metres of any stream or body of water; (3) the holder of a permit shall not deposit any trees, logs, slash or other logging debris likely to cause pollution in or when frozen on any stream or body of water; and (4) the permit holder shall not operate in or disturb streams or waterways with skidders or other logging equipment unless written permission has been obtained from the Provincial Department of Environment and Labour and the Federal Department of Fisheries and Oceans.

Tops and limbs (brush) can be lopped and scattered, windrowed along the sides of the right-of-way or piled for burning. A Burning Permit can be obtained from a local Department of Forest Resources and Agrifoods office. When crossing bogs and wet areas, brush may be spread on the right-of-way before fill is dumped.

STRIPPING AND STOCKPILING

Stripping involves the removal of topsoil and overburden before the construction of the road or facilities. The material that should be stripped is that portion of the soil with the majority of plant roots. This is usually the top 15 to 40 centimetres. Stripping should be done in 2 stages:

- 1. removal of the organic layer (top soil);
- 2. removal of the inorganic layer (overburden).

Topsoil and organics must be stockpiled separately from the rest of the overburden for later revegetation purposes and to prevent mixing. All stockpiles must be easily accessible, on well drained ground, away from bodies of water (minimum of 50 metres) and standing timber. A working space of at least 5 metres around stockpiles is recommended. Topsoil and organics should be stored in low (1-2 metre high) stable piles to decrease compaction effects, and if they are to be stored for extended periods, they should be vegetated to minimize nutrient loss, erosion of fines and structure change.

QUARRIES AND BORROW AREAS

PLANNING

Advanced planning by a qualified person, engineer/geoscientist, is essential for a pit operation to run smoothly. The operator must know the type and quantity of material required and where to get it. There should be an understanding of how to search for a new location of aggregate material and why some sources cannot be excavated because of such factors as local drainage patterns, important wildlife areas, present and planned parks and reserves etc.

An existing pit should be used if it can meet the requirements. Numerous pits in a small area are unsightly and harmful to the environment.

A Quarry Permit from the Department of Mines and Energy is required to develop a quarry or borrow pit and it contains several specific conditions which must be followed. These include: (1) no quarrying within 50 metres of any roadway, body of water or watercourse; (2) no quarrying within 300 metres of any residential development without the permission of the Minister in writing; (3) no quarrying within 90 metres of the centerline of Protected Road Zone Areas; (4) no quarrying within 15 metres of private property

unless prior written consent of the owner is obtained and a copy of this consent forwarded to the Department of Mines and Energy; and (5) the permit holder shall leave tree screens where they exist between the workings and adjacent roads, highways or other land uses or earthen berms shall be constructed to screen the operation.

DESIGN

To develop a pit in an orderly and efficient manner, it must first be well designed. Remember that boundary edges (which should be flagged) are the absolute limits of the excavation - all work including stockpiling and restoration must take place within these limits. Therefore, a well designed pit will allow for:

- controlled access in and out of the pit;
- work ing space in which to move equipment;
- storage areas for stockpiling topsoil and overburden separately;
- space to form a final grade;
- visual screening;
- dust control by washing, etc. when required; and
- space for an acceptable settling pond system(s) to remove suspended solids from any water used.

The best protection that can be given to the environment is to limit the amount of land disturbed. Staking and flagging the boundary is an important first step in containing work activities. Any slash generated from the clearing phase should be placed in a com pact windrow at least 5 metres away from standing timber. All organics and topsoil must be stripped from the cleared area and saved for restoration purposes. It must be piled in its own separate location and must not be mixed with the overburden. Ample working space should be left behind the pile to allow equipment to re-spread the material at the restoration stage. Excavated material should be stockpiled on well drained ground and a minimum 50 metres away from waterbodies.

Open pits should be visually screened if possible. Ideally, the pit should be developed on the downhill side of the road where it is completely concealed from view. Visual screening can be done in a well vegetated area by leaving a buffer strip of a variety of natural vegetation including trees between the road and the pit by doglegging the access to the pit area. If a pit is near a watercourse or a body of water, a 50 metre wide buffer zone of natural vegetation including trees is required, as the natural vegetation serves to filter runoff and protect fish. The pit access road should also be screened from highways. During operations, it is essential that the pit site not be used as a disposal place for oil, oil cans, fuel containers, etc. When engine oil is changed, the spent oil must be completely contained and either removed to an approved waste disposal site or delivered to a reprocessing facility so it does not pollute the soil or water or destroy vegetation. If oil changes have to be carried out in pit, an oil absorbent should be used and removed to an approved waste disposal site. In no case shall oil changes, lubrication and repair of vehicles be carried out within 100 metres of any body of water - Federal Department of Fisheries and Oceans.

RESTORATION

Regardless of location or size, all pits must be restored before abandonment. Restoration steps to be taken before abandonment are:

- clean up;
- drainage and erosion control;
- recontouring;
- overburden replacement;
- revegetation.

Although the pit and surrounding areas should be kept as clean as possible throughout the operation, any garbage or debris must be completely disposed of at an approved waste disposal site prior to pit abandonment. When revegetation is required, adequate drainage control measures must be taken. These might include:

- 1. constructing a berm at the top of the slope to stop water from running into the pit;
- 2. laying brush and slash across the slope to slow run-off and hold back sediment; and
- 3. directing run-off away from the pit by cutting drainage ditches or pumping.

When the pit is totally abandoned, the slopes of the pit should be graded to a suitable angle of repose no steeper than two horizontal to one vertical (2:1). The final shape of the pit should blend into the natural contour of the land. If pit walls cannot be graded to the suitable angle of repose (2:1), the recontoured slope should be gently stepped to help reduce erosion.

All overburden removed and stockpiled when the pit was opened up must be spread evenly over the pit floor and the recontoured side walls. If the pit was designed properly, there should have been a space left between the overburden stockpile and the surrounding forest so that equipment can easily get behind the

overburden to push it down into the pit. The topsoil stored/salvaged, if any, when the pit was opened, must now be spread over the overburden. The topsoil contains seeds and organic hen crossing a stream, there are four environmental goals:

- 1. the prevention of bank erosion and sedimentation into the stream;
- 2. the protection of fisheries and wildlife habitat in and along the stream;
- 3. the preservation of water quality and its physical characteristics; and
- 4. the prevention of flooding and water diversion.

Proposed stream alterations require approval from the Water Resources Division, Provincial Department of Environment and Labour and the Federal Department of Fisheries and Oceans, i.e. Authorization for Works or Undertakings Affecting Fish Habitat.

In planning linear facilities such as roads, pipelines or transmission lines which require crossing of watercourses, consideration should be given to route selection and corridor location in order to mitigate the impact of the development on water resources. In selecting a crossing site, it is important to examine the physical characteristics of the watercourse and its drainage basin, and to identify the site with the best features and conditions for a crossing. The following points should be kept in mind:

Select gentle approaches, whether naturally occurring or constructed. If construction of approaches is necessary, coarse-grained material should be used.

Avoid cutting stream banks as this results in stream sedimentation.

Avoid using any machinery in streams. Rubber-tired or broad-tracked vehicles working from streambanks are preferable.

Minimize or eliminate in-stream activities as these can stir up sediment, restrict stream flow, impact upon fish and fish habitat, injure or kill beaver and muskrat, disturb nesting waterfowl and divert the course of a stream. If in-stream activities are necessary and unavoidable, rubber tired vehicles should be used and the work should be scheduled between June 1 and September 30 to minimize the effect upon the incubation, hatching and survival of juvenile fish.

Prevent the deposition of debris, soil and organic material in the stream. Do not fill an intermittent stream channel or gully with soil to serve as a crossing.

Streams can be crossed by creating a ford, by installing a culvert or by constructing a bridge.

FORDS

Carefully selected stream fording sites will serve to minimize the impact to fish and fish habitat provided traffic volume is low. When choosing a fording location, a site with stable bed material such as natural bedrock is preferable. Otherwise, the ford area should be stabilized with coarse material. All vehicles using the site should be mechanically sound and free of mud, and should approach the watercourse at right angles. If any right-of-way clearing is needed in the stream buffer zone, it should be done by hand and all slash and debris kept from entering the watercourse. Further guidelines can be found in the document "Environmental Guidelines for Fording", by Water Resources Division, Water Investigations Branch, Provincial Department of Environment and Labour. This document is also available from the Federal Department of Fisheries and Oceans.

CULVERTS

On many access roads, culverts are the most common method of crossing smaller streams. They must be installed in such a manner that disruption to the stream bed and stream flow is minimized and fish passage is not obstructed. The culvert should be designed to adequately contain peak flow s and should always maintain the original velocity and direction of streamflow. They should also be of sufficient length to extend a short distance beyond the toe of the fill material and should be protected by rip-rap to prevent blockage of the culvert ends by erosion.

Specific guidelines on culvert design and placement can be found in the publication "Resource Road Construction; Fish Habitat Protection Guidelines" by McCubbin, Case, Rowe and Scruton 1990.

BRIDGES

Larger, faster-flowing streams m ay require the construction of a bridge in order to cross them. It is environmentally desirable, even on small streams, to construct bridges instead of other alternatives such as culverts because only bridges can avoid the alteration of flow regimes. Such problems as flooding, erosion and siltation are avoided through the use of properly designed and constructed bridges. Bridges are recommended for all watercourses supporting fish because there is no need to disturb the streambed and sufficient capacity will ensure that flow velocities are kept to a level where fish passage is maintained. Bridges are also recommended where the natural channel is too steep to accommodate maximum culvert

slopes, or where steep banks would necessitate a great deal of infilling if culverts were used. The completed bridge should safely accommodate reasonably predictable levels of flow and ice buildup, as well as the forces of moving water and ice on the structure, without causing any adverse environmental impact at the crossing or in upstream or downstream areas. Further guidelines can be found in the document "Environment Guidelines for Bridges", by Water Resources Division, Water Investigations Section, Department of Environment and Labour, 1989.

MARSHALLING YARDS / LAYDOWN AREAS

Site selection is an important aspect of locating marshalling yards, laydown areas and equipment storage areas. The site should be of low value with respect to its potential for other uses when compared to other lands in the area. Abandoned gravel pits, abandoned commercial enterprises, or other previously disturbed areas are preferred locations. The site should be located to minimize potential traffic hazards. Incoming and outgoing vehicles should be able to merge safely with other traffic. If no previously disturbed site can be utilized, then an area could be cleared and stripped, providing all organic material and topsoil is stockpiled in a separate, accessible location for future rehabilitation purposes. An adequate buffer zone of at least 30 metres should be maintained between the yard or laydown area and the nearest body of water.

Marshalling yards/laydown areas are not permitted within protected water supply areas.

TEMPORARY CAMPS

From an environmental standpoint, selection of an acceptable location for a camp site is of paramount importance and proper planning will reduce the need for future mitigation. The location of the first camp is often the site of all later camps. A Licence of Occupation is required for the purpose of road construction and temporary work camps (Department of Government Services and Lands).

Some variables to consider when selecting a campsite are slope, wind exposure, available area, water supply, drainage conditions and access. Available area is a major consideration. Leave enough room so the original camp can form the nucleus from which larger camps grow. When more facilities are needed, all operational and environmental protection measures are simplified if the camp can be expanded, rather than opening a new camp. A flat site facilitates camp construction. When a sloping site must be used, choose slopes facing south or west. These are the warmest and driest locations. Slopes that face north or east are cooler and wetter. Camps should be located on previously cleared sites or areas where other land use possibilities are low. Keeping excavation to a minimum will pay dividends later by reducing restoration costs and problems when work ends.

Campsites should be sheltered from strong winds; crew comfort and aircraft safety being the chief reasons. Gusty winds can cause serious problems for aircraft.

When camps cannot be located on dry ground, the area should be drained by shallow (30 + centimeter) trenches/drains to create a dry site. On slopes with substantial near-surface water flows (common on north-facing slopes), it will be difficult to keep the camp dry; these areas should be avoided. Flat but wet areas may be dried by clearing and leveling the area and then letting natural drainage remove excess water. This is the process of surface discharge of water from an area by streamflow and sheet flow and the removal of excess water from soil by downward flow. Clearing the area and building a dry elevated gravel pad is more likely to be successful. In either case, organic matter and topsoil removed from the site should be used later for site restoration. Boardwalks between buildings may be desirable in areas that drain slowly. Besides making camp life more pleasant boardwalks reduce trampling of in-camp vegetation. Access is a major factor in camp location. W here access is overland, camps must be located adjacent to the road. When camps rely on helicopters there must be room to build a helipad nearby. Access to the helipad should be along gentle gradients to facilitate movement of supplies. If float planes provides access, camps must be located near a sheltered lake shore where planes can land and take off without taxiing long distances. A 30 metre buffer zone must be obtained between the camp area and the nearest body of water. A fire break and the appropriate fire-fighting equipment as stipulated by the Department of Forest Resources and Agrifoods should be established around and located on site. Before any actual construction of the camp begins, a Permit-to-Occupy must be obtained from the

Department of Government Services and Lands, Lands Branch. (Exception - Fly Camps)

OPERATION

The camp at all times should be operated in a safe, clean and orderly condition. A suitable potable water supply must be chosen and a permit for water withdrawal obtained from the Department of Environment and Labour. A permit is required from the Department of Government Services and Lands, for the installation of on-site sewage disposal systems.

Most camps generate a variety of solid wastes most of which is wet or dry garbage. All solid matter must be disposed of in an environmentally acceptable manner approved by the Department of Environment and Labour. The major environmental problem with dry garbage such as paper, wood and packaging materials is one of aesthetics: blowing paper and litter can visually degrade wide areas.

Burning in an incinerator or pit is one way of disposing of this material; however, it should be discouraged wherever possible. Because open burning is usually forbidden during forest fire season, incineration in a screened unit or container is the preferred method.

A Burning Permit is required from the Forestry Branch of Forest Resources and Agrifoods during the fire season as declared by the Minister. This is usually between early May and late September. Wet garbage, which consist mainly of waste food and food packaging may attract wildlife, provide a breeding ground for flies and represent a source of disease. To limit these problems, food wastes must be properly disposed of, preferably by incineration. Burning in an open pit is not recommended and because of fire hazards, it is often not permitted. Also, wet garbage is unlikely to burn completely, and "cooking" it in a fire attracts animals. If garbage cannot be incinerated, it may be backhauled on the return leg of supply flights, if the camp is fly-in. It will need to be carefully packaged and stored so it does not break open in the aircraft. Ordinary garbage bags are not adequate, especially in winter. Heavy duty bags and metal or plastic garbage bins should function well.

In summer, ashes and noncombustible material can be placed in a landfill area. Pits should be excavated in deep, stable dry soils. Filling should begin at one end and progress steadily along the pit. Each day garbage should be covered by a thin layer of soil, about 10 centimetres thick. When a pit is full, it must be covered by 1 metre of compacted soil. This will usually be sufficient to prevent animals from burrowing into the pit.

When landfill disposal is used, some animals will visit the dump. Every effort must be made to handle and store food and garbage so that animals do not seek food in the camp itself. Animals that visit a camp should not be fed. All predators are a potential threat, and limiting contact with them is the only safe course. Bears are the greatest hazard. At present, there is no truly effective and safe way to scare bears away. Killing them is prohibited except in cases of immediate threat to human safety or property. Camp operators should contact the local office of the Wildlife Division of the Department of Forest Resources and Agrifoods which should be able to provide current information on bear hazards in the area and advise on the best deterrent methods available. A permit for Waste Disposal is required and can be obtained from the Department of Government Services and Lands.

The major source of sewage in most exploration camps and small construction camps is washwater and human waste. Except in the largest camps, pit privies are used for human waste. The privy should be downslope of the camp and must be downslope of the water intake. Only human waste and chemicals used to promote decay and/or reduce fly populations should be put in privies. When pits are full, they should be covered with at least 30 centimetres of thoroughly compacted soil. Pit privies require approval by the Department of Government Services and Lands.

Washwater from the kitchen and washing facilities must also be disposed of in an approved manner. For small camps, the best method is to discharge the wastewater to a kitchen sump located at least 15 metres from any body of water. Sump capacity should be at least 1.3 times the maximum volume of wastewater to be discharged. The bottom of the pit should be filled with coarse gravel and the sides shored up with board, etc. to prevent erosion and collapse of the pit. Wastewater must not be discharged directly onto the shore or into a body of water. In large camps (greater than 6 men) washwater can be handled by sewage treatment facilities.

Minimize the danger of fire by taking such precautions as mounting spark arresters on stovepipes, incinerator stacks and motorized equipment. Adequate quantities of fire-fighting equipment must be available to deal with accidental fires. Details of the type and amount of equipment required at a camp can be obtained from the local District Office of the Forestry Branch of the Department of Forest Resources and Agrifoods.

ABANDONMENT

Removal of material is the most basic task. It means taking away everything from tent frames to fuel containers and this applies to all work sites and camps.

Many mineral exploration camps are used for only part of the year, and material or equipment m ay be left on-site for the next field season. If m aterial is properly stored, environmental or property damage is unlikely to occur while the camp is pty.

Equipment can be protected from damage by storing it in secure, inaccessible locations. Tents and other structures should be taken down, but tent frames can stay up. Food should be removed and nonperishable items stored in a weather-tight building.

Fuel drums must be secured by removing nozzles and hoses, re-sealing them, and returning them to the main fuel storage area. When a camp is closed for the season, all garbage must be properly disposed of.

Materials that cannot be burned should be removed to an approved waste disposal site. Diamond drill core left in the field must be properly and securely stored. Owners of drill core must preserve the technical integrity of drill core in their possession. Persons intending to dispose of drill core must contact the Department of Mines and Energy - Core Storage Program and the core will be considered for

FUEL STORAGE

collection.

Fuel storage in Newfoundland and Labrador is regulated by The Storage and Handling of Gasoline & Associated Products Regulations, 1982, and a Certificate of Approval for a fuel storage system must be obtained from the Department of Government Services and Lands. Fuel caches in remote areas of Newfoundland and Labrador should abide by the Environmental Guidelines for Fuel Cache Operations as stipulated by the Department of Environment and Labour.

A Certificate of Approval may not be required for a diamond drill or trenching program where only one or two barrels are necessary to complete the job - helicopter supported reconnaissance drill job. Regardless of the size of any fuel caches, all containers should be marked, indicating their content, and must be handled carefully.

Fuel caches should be located on flat stable terrain at least 30 metres from the highwater mark of the nearest body of water whenever possible. Exceptions will be considered for approval (if justified). Dyking of fuel caches is required at temporary or permanent sites when:

- 1. fuel is to be located in sensitive areas (domestic water supply areas, sensitive wildlife areas, ecological reserves, archaeological sites, etc.)
- 2. where filling/refilling of drums is proposed or carried out.

Dyking is recommended at a fuel cache when:

- 1. the size of storage is 100 drums or more, and
- 2. the duration of storage is permanent

Dykes should be built of clay or other impermeable material. A liner may be used if it is protected from punctures during installation. The preferred method for the elimination of water accumulation inside dykes is the use of a portable pump. If a valved system is used, the valve must be padlocked in the closed position when not supervised.

Any spill in excess of 70 litres must be reported through the 24 hour Spill Report Number 709-772-2083. In addition, a fuel/oil spill clean up kit must be kept on site within the protected area to facilitate any clean up in the event of a spill.

This kit must include absorbent pads, loose absorbent materials such as dried peat, speedi-dry or sawdust and a container such as an empty drum for recovering the fuel/oil.

If there is a bulk fuel storage facility within the protected area, the clean-up kit must include the following list of fuel/oil spill clean-up equipment:

- 1. Wajax fire pump and 100 metres of hose;
- 2. Two hand operated fuel pumps;
- 3. Six recovery containers such as empty drums;
- 4. Four long handled shovels;
- 5. Two pick axes:
- 6. Fifteen cubic metres of impervious soil (a silt or clay bearing gravel);
- 7. Fifty metres of low density rope;
- 8. Ten metres of containment boom;
- 9. Twenty-five absorbent pads; and
- 10. Two 60-kilogram packages of loose absorbent material such as dried peat, speedi-dry or sawdust.

When any fuel spill occurs, stop the flow immediately if possible. This may entail repairing a leak, pumping out a tank or shutting off a valve. If oil is spilled onto soil, dyking may be necessary. If fuel enters water, absorbent booms or barriers such as fencing or netting with loose absorbent or straw must be used to contain the spill. If necessary, culverts may be blocked off by earth or wooden barriers to contain fuel, provided the threat of flooding is addressed.

All empty fuel containers must be removed from work areas and campsites. When an operation is shut down for the season, all unused fuel must be retrieved and either stored at the main fuel storage area or removed from the site. Contaminated soil or snow must be disposed of at an approved waste disposal site.

MINERAL EXPLORATION AND BLASTING

Blasting is sometimes required in mineral exploration to (1) aid in access route developments and (2) expose fresh rock for sampling.

No person shall be allowed to conduct or direct a blasting operation unless they are the holder of a valid blasters safety certificate issued by the Department of Environment and Labour. Every certificate is normally granted for a period of 5 years. In all cases, explosives shall be stored a distance of at least 22.86 metres from a road and 30.48 metres from an occupied building. Explosives in excess of 68.04 kilograms shall be kept only on premises which have been licensed under the Explosives Act. All transportation of explosives must conform with The Fire Commissioners Act and The Explosives Act (Canada).

In general all trenches and other pits excavated by blasting methods should be backfilled. The material should be replaced in reverse order than it was excavated, the surface area compacted, stabilized and revegetated if natural revegetation appears unlikely. If the trenches have to be left open for a period of time, the piles of excavated material should be contoured and stabilized. Abandoned access roads should have permanent erosion control. All culverts are to be removed and suitable drainage structures installed. Erosion bars shall be placed at frequent intervals to ensure stability. Permanent access roads shall be maintained annually with cutbacks and fill slopes revegetated.

MINERAL EXPLORATION - DRILL SITES

Drill sites and water lines should be located as much as possible in areas where access to them and their operation will create the least amount of disturbance. Use the smallest drill pad area consistent with safe working practices. If clearing and levelling is required, the areas levelled should be no larger than necessary. Trees should be felled, bucked and piled neatly. A permit obtained from the Water Resources Division of the Department of Environment and Labour is required before drilling can take place on any watercourse or body of water. Diamond drilling cannot be carried out within buffer zones in protected water supply areas as follows:

Body of Water Width of Buffer Zone

Intake Pond/Lake 150 metres

River Intake 150 metres for a distance of 1 kilometre upstream and 100 metres downstream

Main River Channel 75 metres

Main Tributaries/lakes/ponds 50 metres

Other bodies of water 30 metres

These buffer zones may be broadened at the discretion of Environment and Labour. Buffer zones may also be imposed around sensitive areas such as steep slopes, bogs and marshes and any other area deemed necessary by Environment and Labour.

Careful planning is needed to minimize the length and number of access trails. Fewer trails reduce operational costs and erosion problems and simplify site restoration if an area is abandoned. An adequate closed circuit facility must be provided for drilling mud and flocculating agents. This facility can consist of a series of settling tanks and/or a small well constructed settling pond or sump a short distance down slope from the drill. All fuel and hazardous materials present on the site must be handled with care so as to minimize the possibility of spills. The area cleared for a storage site should be the minimum size required, be at least 100 metres from the nearest waterbody and dyked. In general, drilling waste shall not be allowed to enter streams or lakes or to run uncontrolled. If drilling is performed on a frozen waterbody, only sufficient fuel for one refueling shall be brought on the ice at one time. All pump units shall be located on land or shall be contained in a shelter with absorbent pads to absorb any oil, etc. that may leak. In the case of winter drilling, pumps will be allowed on the ice provided there is a provision to collect drippings. These provisions will be stipulated under the Certificate of Approval. All maintenance of a drill rig or any other equipment involving any work other than emergency repairs shall be carried out on land and at least 100 metres from the nearest body of water.

At the termination of exploration all fuel or hazardous materials are to be removed from the area, the site resloped and revegetated only if natural revegetation appears unlikely. All waste (garbage, sanitary waste, broken tools, drill pipe, scrap, used drill mud, grout, etc.) shall be collected, transported and disposed of at a site approved by Environment and Labour and in no case shall this site be within 100 metres of any body of water

In the event of a spill of fuel and/or hazardous materials, in excess of 70 litres, it must be reported through the 24 hour Spill Report Number 709-772-2083. Immediate steps should be taken to ensure that the spill is contained in dykes and/or booms and cleaned up by oil absorbent materials.

Drill holes are often inadequately plugged by leaving a piece of drill stem in the hole or by stuffing a branch of convenient size into it. Proper final abandonment of exploration holes should require the use of commercially available high swelling clays such as bentonite. In particular, holes through which water flows and deep drill holes should be plugged. Occasionally a drill hole is deepened after core interpretation or the hole is logged at a future date. Capping the borehole until all work has been completed, and then

final abandonment should be the procedure followed.

Racks of drill core should be stored at one central location and m ust be protected to the extent necessary to preserve the core's original technical value. The necessary protection is going to depend on the nature and physical characteristics of the drill core.

MINERAL EXPLORATION - TRENCHING

Surface disturbance occurs when excavating test trenches or pits. Serious problems that may arise can be minimized if simple precautions are employed.

Hand excavation is preferable to mechanical excavation because disturbance is limited to the trench and its vicinity, however, if mechanical means are necessary backhoes are the most suitable machines as they are m ore efficient and cause less damage to the local environment than bulldozers. Consideration should be given to selecting the most appropriate type of off-road vehicle for the job and the terrain. Vehicles with the optimum traction and load distribution characteristics can greatly reduce disturbance in travelling from site to site and thereby reduce rehabilitation costs upon completion of the work. Equipment should be brought in on carefully prepared trails (See Section 4). Mechanical excavations and stripping with Wajax water pump cannot be carried out within buffer zones of protected water supply areas.

The first step is to selectively remove and stockpile the topsoil and organic aterial. If the trenches have to be left open for a period of time, the piles of excavated material should be contoured and stabilized. When a trench is backfilled, the material should be replaced in the reverse order than it was excavated. After backfilling and compaction is completed, the surface should be stabilized. If natural regeneration appears unlikely, then the entire site should be revegetated.

Important geological features - mineral occurrences, fossil sites, etc. - may be left open for future viewing if industry in consultation with officials of the Departments of Mines and Energy and Environment and Labour, deem them to be unique.

In the event of the discovery of a possible historic resources or archaeological object, all work should cease in the immediate area of the discovery until Historic Resources Division of the Department of Tourism and Culture advises the contractor, etc. as to the disposition of the discovery and/or authorizes the renewal of the work. A Historic resource is defined as a work of nature or of humans that is primarily of value for its archaeological, prehistoric, historic, cultural, natural, scientific or aesthetic interest and includes an archaeological, prehistoric, historic or natural site, structure or object. An archaeological object means an object showing evidence of manufacture, alteration or use by humans that is found in or on land and is of value for the information that it may give on prehistoric or historic human activity in the province and includes human remains. Archaeological Investigation Permits from the Historic Resources Division of the Department of Tourism and Culture are required for archaeological surveying, archaeological excavation and historic resource impact assessments.

ALL-TERRAIN VEHICLE USE

Persons wishing to establish ATV trails will be required to obtain a licence of occupation. Areas where ATV use is permitted includes (1) areas underlain by forested mineral soils (2) trails constructed under licence pursuant to the Lands Act (3) abandoned railway corridors, beaches, abandoned highways, forest access roads, roads constructed under licence pursuant to the Lands Act and any other road constructed for the purpose of providing vehicle access to resources where ATV use may be prohibited by virtue of other requirements (in reserved area, etc.) (4) privately owned land less than ten hectares (5) working farms (6) land in Labrador north of latitude 54 and (7) any lands when snow-covered and frozen below ground surface.

ATV use in wetland and barren areas is restricted to approved, properly constructed trails. A licence of occupation for trail construction must be obtained from the Department of Government Services and Lands.

ABANDONMENT AND REHABILITATION

The most basic task in abandoning any site is removal of material. All waste and other discarded material should be removed from pits, quarries, laydown areas, camps and any other disturbed sites to an approved waste disposal area. Camp sites in particular must be carefully cleaned up. Tent frames and out-buildings should be dismantled and removed, along with any fuel or fuel containers. Any oil saturated soil, snow or ice should be excavated and disposed of at a site approved by the Department of Government Services and Lands.

If access roads are to be abandoned, they must have a system of permanent erosion control, with erosion bars placed at frequent intervals to ensure stability. All bridges and culverts should be removed and stream banks restored after obtaining approval from the federal Department of Fisheries and Oceans and the provincial Department of Environment and Labour. The road surface itself should be scarified or

ripped to promote natural regeneration, or to provide a suitable site for revegetation. Abandoned roads must be blocked to vehicular access to prevent watercourse fordings which could lead to serious soil erosion problems.

When local topography has been disturbed, the original contours should be restored, preferably to grades 2:1 or less. Erosion-prone areas may require revegetation to limit future problems. This begins with providing a fertile surface dressing of topsoil and organic material, which should have been stockpiled when the area was originally cleared. Until new growth is established, erosion can be controlled by using a mulch to stabilize the bare ground. One popular method is hydroseeding, whereby a slurry composed of seed, fertilizer, mulch and water is pumped through a nozzle and sprayed over the ground. When planning any revegetation program, the Departments of Environment and Labour and Mines and Energy should be consulted.

APPENDIX

Permits and approvals that m ay be required for Mineral Exploration Projects.

(This permit/licence list is based on information obtained from the agencies named and is not necessarily complete).

GOVERNMENT OF NEWFOUNDLAND AND LABRADOR

Department of Environment and Labour

The Occupational Health and Safety Act 1978 - places specific obligations on government, employers, workers and self employed persons to protect the health and safety of workers and all other persons at or near the workplace.

Occupational Health and Safety Act 1990 - requires employers to register prior to construction, any new construction project or industrial enterprise.

Contact: Director of Occupational Health and Safety Services - 729-5548.

Occupational Health and Safety Committees - are required to be established in each workplace where ten or more workers are employed, to monitor the health, safety and welfare of the workers employed at the workplace.

Contact: Director of Education and Committees - 729-2703.

First Aid Regulations, 1986 - requires employers to provide and maintain first aid supplies and services in each workplace.

Contact: Director of Occupational Health and Safety Services - 729-5548.

Right of worker to refuse to work - a worker may refuse to do any work that he has reasonable grounds to believe is dangerous to health or safety, or the health and safety of any other person in the workplace.

Contact: Director of Occupational Health and Safety Services - 729-5548.

The Regulation of Mines Act, Chapter 330 - prescribes standards for the design, use and safe operation of equipment used at mines, in accordance with adopted codes and negotiated national and international agreements.

Contact: Director of Occupational Health and Safety Inspections - 729-5548.

The Mines (Safety of Workers) Regulations 1957 - provides for the occupational health and safety of workers at mines.

Approvals - are required for the use and storage of explosives at mines and the use of internal combustion equipment underground.

Permits - are required for the storage of explosives used at mines and internal combustion equipment used underground.

Contact: Director of Occupational Health and Safety Inspections - 729-5548.

The Radiation Health and Safety Act Chapter R-1 - the purpose of this Act is the protection of persons exposed to radiation and the regulation of the use and installation of radiation equipment.

Approval - is required for permanent installation of radiation equipment.

Registration - is required for all radiation equipment, whether operated or not, and annually thereafter.

Contact: Manager, Medical and Hygiene Services - 729-2644

Surveys - are required for a new installation or modification and every two years thereafter.

Registration - is required by persons selling, supplying or servicing radiation equipment.

Certification - as a medical or dental practitioner is required for those who prescribe the use of radiation equipment for the irradiation of human subjects.

Registration - is required before any person is permitted to operate radiation equipment for the irradiation of human subjects.

Certification - by the Canadian Government Specifications Board or registration as a veterinarian is required for any person prescribing the use of radiation equipment for irradiation of other than human subjects.

Asbestos Abatement Code of Practice - the purpose of this code is to regulate the use or removal of asbestos or products containing asbestos and the protection of the individuals exposed to asbestos fibers. Contact: Manager, Medical and Hygiene Services - 729-2644

Registration - is required by any person, firm, corporation or other entity before they may engage or work at the business of asbestos rem oval.

Contact: Manager, Medical and Hygiene Services - 729-2644.

The Environment Act, 1995 - written approval is required before proceeding with any alterations to any body of water or flow therein. Eq. Bridges, Culverts, etc.

Contact: Manager, Water Investigations Section - 729-5713.

The Environment Act, 1995 - written approval is required for all development activities within protected as well as unprotected public water supply areas.

Contact: Manager, Surface Water Section - 729-2535.

A water use authorization - will be required for any beneficial use or diversion of SURFACE, GROUND and SHORE W ATERS.

Contact: Water Resources Management Engineer, Water Rights Section - 729-4795.

The Well Drilling Act, 1981 - provides for licencing of well drillers, requirements for the location of wells from sources of pollution, well records, construction, testing and abandonment.

Contact: Groundwater Manager - 729-2539.

A Certificate of Approval - is required for any sewage works, with the exception of on site systems.

A Certificate of Approval - is also required for any water distribution system.

Contact: Director of Environmental Management Division - 729-2556.

A Certificate of Approval - may be required for any industrial or processing works.

Contact: Director, Industrial Environmental Engineering Division - 729-2555.

The Pesticides Control Act, RSN 1990, c. P. 8 and Regulations, 1984 - a licence is required by individuals or companies involved in the sale, use, and handling of commercial and restricted categories of pesticide products.

Contact: Manager of Pesticides Control Section - 729-3395.

Department of Fisheries and Aquaculture

The Aquaculture Act - a permit is required for any water based activity related to aquaculture.

Contact: Provincial Aquaculturalist - 729-3726.

Department of Finance

Retail Sales Tax (RST) Act - outlines the tax status and responsibilities of a non-resident business entering Newfoundland to perform contracts or engage in other business activities of a temporary nature. Contact: St. John's - 729-3831; Grand Falls-Windsor - 292-4357; Clarenville - 466-2611; Corner Brook - 637-2470.

Department of Forest Resources and Agrifoods

Meat Inspection Act - A licence is required to establish and operate a slaughtering facility for animals to be consumed as food, unless the facility is operated solely for the provision of food for the operator and the operator's family.

Contact: Director, Animal Health Division - 729-6879.

The Forestry Act, 1990 - a permit is required to light fires out-of-doors during the forest fire season as outlined in the regulations.

The Forestry Act, 1990 - an operating permit is required to carry on logging or sawmill operations on forest land during the forest fire season.

The Forestry Act, 1990 - a permit is required to cut timber on Crown land.

 $\label{lem:contact:Regional Director (Eastern) - 729-2641; (Central) - 256-7131; (Western) - 637-2409; and (Labrador) - 896-9377.$

The Sawmill Act - a permit is required for the operation of a sawmill.

Contact: Refer to contacts for the Forestry Act.

The Wildlife Act, 1970 and Amendments - a permit is required for the control of nuisance animals.

A permit - is required to collect, import and export any wild animals.

Contact: Director of Wildlife Division - 729-2817.

Department of Government Services and Lands

Urban and Rural Planning Act 1970 - A development permit is required for development alongside all Protected Roads and within Development Control Areas in the Province.

The Crown Lands Act, 1970 - a permit is required to occupy Crown land, including the sea bed and column of water above it, within three miles offshore of the high water mark.

Contact: Customer Support of the Department of Government Services and Lands Offices - St. John's - 729-5392. Clarenville - 466-4060. Gander - 256-1436. Corner Brook - 637-2207. Goose Bay - 896-2661.

The Environment Act, 1995 - a Certificate of Approval is required for any commercial sewage works in an unserviced area and not covered under a municipality.

Boilers, Pressure Vessels and Compressed Gas Act - the purpose of this Act is to regulate the design and

installation of boilers, pressure vessels, pressure plants and compressed gas systems.

Approval - is required for the design of boilers, pressure vessels, pressure plants and compressed gas systems.

Contact: Engineering Services, Government Services and Lands - 729-2747

Permits - are required for the installation, alteration or repairs to boilers, pressure vessels and pressure systems.

Licences - are required by persons engaged in the installations, repair, or alteration to boilers, pressure vessels, or compressed gas systems.

Certification - is required for power engineers, gas installers and welders.

Contact: Engineering Services, Department of Government Services and Lands - 729-2747

The Buildings Accessibility Act 1981 - requires that entrance and facilities available to and accessible by members of the public for lawful purposes to be available to and accessible by physically disabled persons.

The Buildings Accessibility Regulations, 1982 - drawings and specifications of design must be submitted for registration and approval to ensure compliance with the applicable Codes and Standards.

The Elevators Act - regulates the installation of an apparatus, appliance or device used for lifting, lowering, or transporting persons or goods from one perm anent level floor, landing or point to another.

Approval - must be granted for drawings and specifications of an elevator before the installation or major alterations commences. If the design meets the requirements of the Act and the applicable Safety Code, a Registration Number is issued.

Contact: Engineering Services, Department of Government Services and Lands - 729-2747.

Boiler, Pressure Vessel and Compressed Gas Act - A Certificate of Inspection is required for the operation of boilers, pressure vessels and pressure systems when the installation or repair work has been completed. The Inspection Certificate is renewed annually.

The Electrical (Inspection Fees) Regulations 1986 - establishes the fees to be paid for the inspecting, testing and approval of electrical wiring and equipment.

The Electrical Regulations, 1982 - adopts the Canadian Electrical Code C22.1, as the safety standard for electrical wiring and equipment. In addition, it ensures that only individuals who are qualified to do electrical work are permitted to do so, and restricts the purchase of electrical permits to qualified electrical contractors.

Permit - is required for the installation, alteration or repair and inspection of electrical wiring system or equipment. This perm it is only issued to a Registered Electrical Contractor.

Electrical Registration Certificate - required by an individual who performs electrical work and who qualifies in accordance with section 4 and 5 of the Regulations.

Contact: Mechanical and Building Inspections, Department of Government Services and Lands - St. John's - 729 2746, Clarenville - 466-4060, Gander - 256-1428, Corner Brook - 637 2446, Goose Bay - 896-2661

Electrical Contractors Registration Certificate - required by an individual who wishes to purchase an electrical permit and is only issued to individuals who meet the requirements of Section 6 of the Electrical Regulations, 1994.

Contact: Mechanical and Building Inspections, Department of Government Services and Lands - St. John's - 729 2746, Clarenville - 466-4060, Gander - 256-1428, Corner Brook - 637 2446, Goose Bay - 896-2661

The Elevators Act - A Certificate of Inspection is required to be issued and prominently displayed before an elevator is put in use by the owner.

Contact: Mechanical and Building Inspections, Department of Government Services and Lands - St. John's - 729 2746, Clarenville - 466-4060, Gander - 256-1428, Corner Brook - 637 2446, Goose Bay - 896-2661

The Waste Material (Disposal) Act, 1973 - a permit is required to establish or alter the boundaries of a waste management and disposal system.

The Storage and Handling of Gasoline and Associated Products Regulations, 1982 and Amendments - a Certificate of Approval is required for the storage and handling of gasoline and associated products. The Storage of PCB Wastes Regulations, 1988 - a permit is required for the transportation or storage of PCB waste materials.

The Environment Act - A Certificate of Approval may be required for any industrial or processing works. A Certificate of Approval - is required for Asphalt Plant Set-Up and for Asphalt Plant Operation. Contact: Regional Operations, Department of Government Services and Lands - St. John's - 729-3084, Clarenville - 466-4060, Gander - 256-1420, Corner Brook - 637-2204, Goose Bay - 896-2661. Department of Health Act, 1990

Public Health Sanitation Regulations (1991) - approval is required for the installation of a well to supply drinking water.

Sewage Disposal System Regulations (1985) - a permit is required for the installation of on site sewage

disposal systems.

Contact: Operations Division, Department of Government Services and Lands - St. John's - 729-0485, Carbonear - 786-5032, Clarenville - 466-4060, Gander - 256-1428, Corner Brook - 637-2446, Goose Bay - 896-2661.

Swimming Pool Regulations (1978/93) - a license is required for the construction and operation of a swimming pool, waterslide, etc. for any facility that is involved with providing swimming or recreational bathing subject to compliance with pertinent legislation. License is renewed annually.

Food and Drug Act, Food and Drug Eating Establishment Regulations, 1966 - a Food Establishment License may be issued to any premise that is involved in the sale, production, manufacturing, preparation, storage and/or distribution of food subject to compliance with all pertinent legislation.

Department of Health Act, 1990 - Approval is required for the development of all Cemetery Sites. Public Health (Sanitation) Regulations, 1991 - Bacteriological analysis of private water samples will be performed on a demand basis.

Contact: Operations Division, Department of Government Services and Lands - St. John's - 729-0485, Carbonear - 786-5032, Clarenville - 466-4060, Gander - 256-1428, Corner Brook - 637-2446, Goose Bay - 896-2661.

Salvage Dealers Act - a licence is required by individuals or companies to operate a salvage yard. Contact: Supervisor of Licencing and Enforcement - 729-2595.

Department of Industry, Trade and Technology

Development Areas (Lands) Act - permission is required for any development activity, whether domestic, industrial or commercial within the Bull Arm Development Area.

Contact: Director, Business Analysis Division - 729-5066.

Department of Justice

The Corporations Act, Section 433 (1) - a domestic or extra-provincial company shall not begin or carry on an undertaking in this province until it is registered under this Act. Note - extra-provincial companies are "registered" and local (Newfoundland and Labrador) companies are "incorporated".

Contact: Registrar of Deeds and Companies - 729-3316

Municipal/Community Councils

The Municipalities Act, 1979 - a building permit is required for any building proposal which falls within a municipal jurisdiction.

Urban and Rural Planning Act - a development permit is required for all development within a Regional, Municipal or local planning area or in a protected area.

Contact: Town Clerk of Council concerned.

Department of Mines and Energy

Petroleum and Natural Gas Act, 1970, and Draft Regulations - a permit is required for petroleum exploration, development and production activities on land.

Contact: Director of Petroleum Resource Development - 729-2323.

The Quarry Materials Act, 1976 and Regulations - a permit is required for the removal of any quarry materials.

Contact: Manager of Quarry Materials Administration - 729-6410.

The Mineral Act, 1976 and Regulations - a mining lease is required for all mining activities.

Contact: Manager of Mineral Rights - 729-6418.

The Mineral Regulations 1983, (Amendment) under the Mineral Act (O.C. 95-730) - a person who intends to conduct a detailed systematic search for minerals on areas either licenced or leased under the Mineral Act, or granted or issued by another Act, must submit a description of the planned exploration before commencing the work.

When mineral exploration work involves heavy machinery, airborne surveys, extensive use of off-road vehicles or establishment of camps or other activities capable of impacting the environment, an exploration approval is required.

Contact: Director of Mineral Lands Division - 729-6425

Department of Social Services

Day Care and Homemaker Services Act, R.S.N., 1990 - a licence is required to operate a day care centre where four or more children are being cared for. A licence is also required to operate Homemaker - Home Support Services.

Contacts:

re: Day Care: Director, Family and Rehabilitative Services Division - 729-2436.

re: Homemaker Service Agency: Nursing Consultant - 729-3113.

Department of Tourism, Culture and Recreation Tourism Establishment Act - Tourist Establishment Regulations. A permit is required to build any accommodations. A licence is required to operate an accommodations facility. Accommodations include hotels, motels, hospitality homes, hunting/fishing camps, trailer parks and cabins. Recent policy requires only that vessels possess Safety Compliance from Coast Guard. Contact: Director of Tourism Development - 729-2822.

The Wilderness and Ecological Reserves Act, 1980 and Amendments - a permit is required for any travel or proposed activity within an ecological or wilderness area. A Scientific Research Permit is required for any research conducted within an Ecological or Wilderness Reserve.

Provincial Parks Act - A Permit is required for most activities within a Provincial Park.

Contact: Director of Parks Division - 729-2424.

The Historic Resources Act - an archaeological investigation m ay be required for any undertaking. A permit is required for any archaeological investigation on land or under water.

Archaeological Investigations Permit Regulations (1991) - These specify the professional qualifications that an archaeologist must have in order to qualify for a permit to survey for and/or excavate archaeological sites in the province. The regulations also delineate the methods and procedures to be followed by the archaeologist in the field.

Contact: Resource Archaeologist - 729-2460.

Department of Works, Services and Transportation

Transportation of Dangerous Goods Act - those handling, offering for transport or transporting any dangerous goods must comply with the Act. No actual permit issued.

Contact: Manager of Transportation Regulation Enforcement - 729-3454

Department of Transportation and Communications Act, 1983 - a permit may be required for any development within a highway reservation established by the Department of Works, Services and Transportation. Access off any highway under the Department of Works, Services and Transportation's jurisdiction m ay require a perm it.

Contact: District Manager, St. John's - 729-2381, Clarenville - 466-7953, Grand Falls - 292-4300 and Deer Lake - 635-2162.

GOVERNMENT OF CANADA

Agriculture Canada

Plant Protection Act - Plant Protection Regulations: permission is required for any activity which might transport plant debris and soil into an area designated as a disease free area under the Plant Quarantine Regulations.

Contact: Program Officer, Plant Protection - 772-5030.

Environment Canada

The Canadian Environmental Protection Act - Part VI, a permit is required for any ocean disposal. A Letter of Authorization - by the Minister is required for PCB destruction technology and treatment technology.

The Dangerous Goods Transportation Act, 1982 - Environmental Protection is required to inspect any cargo of waste material being shipped out of Canada from Newfoundland and Labrador.

Contact: Manager, Compliance and Enforcement - 772-4047.

The Fisheries Act (Section 36 - 42) - deleterious substances cannot be discharged into fish-bearing waters. Plans and specifications may be required.

Contact: Manager, Pollution Prevention - 772-4005.

Fisheries And Oceans Canada

Newfoundland Fisheries Regulations under Section 35 of The Fisheries Act - development plans may have to be reviewed by Fisheries and Oceans Canada.

Contact: Section Head, Habitat Evaluation Section - 772-4912.

Fisheries Act - an approval may be required for any activity which may impact on fish and/or fish habitat. Contact: Area Habitat Coordinator; Area 1 (Eastern) 772-5597; Area 2 (Southern) 832-0010; Area 3 (Central) 292-5197; Area 4 (Labrador) 896-2642; Area 5 (Western) 637-4349; or Section Head, Habitat Evaluation, Marine Environment and Habitat Management 772-4912.

Transport Canada

The Transportation of Dangerous Goods Act - those handling, offering for transport or transport of any dangerous goods must comply with the Act. No actual permit issued.

Contact: Department of Transportation - 729-3454 or Transport Canada anutech - 613-992-4642 (Emergencies) - 613-996-6666.

The Navigable Waters Protection Act - a permit is required for any works or construction activity located below the high water mark, either over, under, through or across any navigable coastal waters.

Contact: Regional Superintendent of the Navigable Waters Protection Act - 772-2284

Appendix J: Email from NL Hydro in response to request for safety guidelines for road construction under transmission lines.

Sent: Monday, January 27, 2014 10:31 AM

To: 'ijdean@nlh.nl.ca'

Subject: RE: Big Triangle Pond Resource Access Road

Hi Ingemar

Thanks ,we will contact you when we are ready for the permit.

Regards AL

From: <u>ijdean@nlh.nl.ca</u> [<u>mailto:ijdean@nlh.nl.ca</u>]

Sent: Monday, January 27, 2014 10:13 AM

To: Al Chislett; ChrisO'Driscoll@nlh.nl.ca

Cc: MichaelChurchill@nlh.nl.ca

Subject: Re: Big Triangle Pond Resource Access Road

Hi Al;

Happy New Year;

In reply to working under Transmission Lines,

contractors and other peoples who are needing to work under our lines must first get a permit to do so.

It is called "Energized Power Line Permit" This can be issued from myself or a designate for this company.

This is to insure that ECC " Energy Control Center" Know who is in an area just in case of accidental contact of a line.

Hope this is helpful, Regards; Ingemar



Ingemar J.Dean Lines Supervisor East TRO Central Region

Newfoundland and Labrador Hydro - a Nalcor Energy company t. 709 759-2700 ext.228 c. 1-709-682-0580 f. 1-709-759-2105

e. <u>ij**dean@nlh.nl.ca**</u>

w. www.nlh.nl.ca

From: "Al Chislett" < ac4924@nl.rogers.com>

To: <<u>iijdean@nlh.nl.ca</u>>
Date: 01/27/2014 09:32 AM

Subject: Big Triangle Pond Resource Access Road

Hi Igmar,

In regards to our conversation on the phone last week, Eagleridge International Limited would like to request something in writing on the safety protocols needed for the contractors around the Transmission line by the Big Triangle Pond area while constructing Eagleridge's proposed resource access road. Could you please include where you would be interested in having a turn around constructed so that NL Hydro could bring in its heavy equipment to work on the transmission lines.

Regards,

Albert Chislett

Appendix K: Email from Bell Aliant in response to request for safety guidelines for road construction crossing fiber optic line.

Sent: Friday, January 24, 2014 2:16 PM

To: 'ac4924@nl.rogers.com'

Subject: Re: Big Triange Pond Resource Access Road

Hello Al, as per our conversation, Bell Aliant would like to be present when this construction begins to ensure we maintain adequate fill and proper procedures are followed while excavating in that area. Please contact me when you get closer to the date of doing this work and we will gladly meet on site.

From: Al Chislett [mailto:ac4924@nl.rogers.com]
Sent: Thursday, January 23, 2014 02:59 PM

To: Fleming, Angus

Subject: Big Triange Pond Resource Access Road

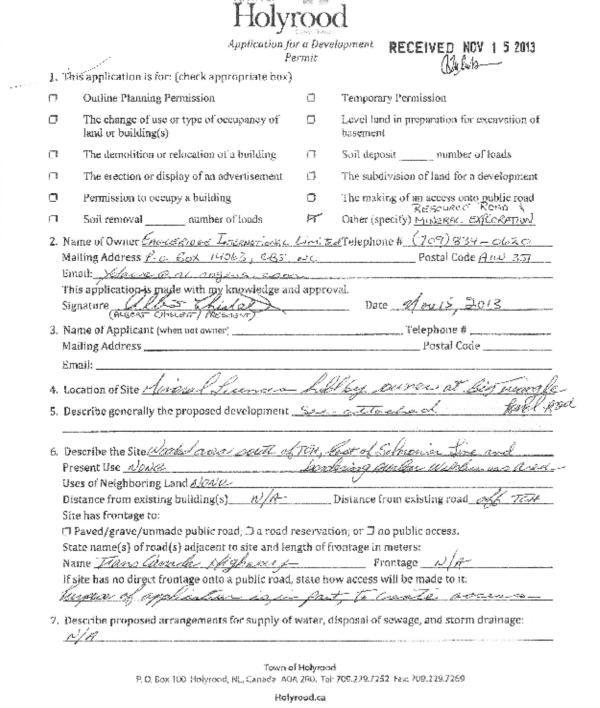
Angus,

As per our telephone conversation, could you please confirm by email that in the fall of 2013 David Baird and Jim Wyatt visited the proposed Big Triangle Pond Resource Access Road where it crosses the Bell Aliant cable near the TCH. Also, could you confirm that Bell Aliant will be present during the construction of the proposed road over the Bell Aliant cable sometime this coming spring.

Thank you.

Albert Chislett President Eagleridge International Limited

Appendix L: Town of Holyrood Municipal Resource Access Road Application



8. Name of Contractor springsble towsty hesovres Telephone # (209) 673 - 4695
8. Name of Contractor Joingtole Jousty Resources Telephone #(209) 1673 - 4695 9. Estimated value of development \$\frac{\psi \frac{100}{200}}{200}\$ Estimated date of completion \(\frac{100}{200} \) Estimated \(\frac{100}{200} \) Estima
I, ALBERT CHISLATT hereby apply for permission to carry out the development herein described. I declare that all information given by me in connection with this application is true and correct to the best of my belief and that the development described in this application if permitted will be carried out in accordance with all applicable laws and regulations of the Province and the Municipality.
Date: Nov 15, 2013 Signature Alls Child
Work must not commence until all permits have been issued and conditions adhered. The land or building must not be used or occupied without an occupancy permit. Any permit issued does not authorize use of crown land or other land without a lease or grant from the crown or permission from the owner. This application must be accompanied by a stamped survey.
What do you plan to do?
How will the work be completed?
Appropriate timeline for commencing and completion?
Name of Contractor:
Location of where the fill will be coming from:
Signature of Contractor:
Date:
Have pre site pictures been provided? Yes/ No Photographed by:

Town of Holyrood Application for a Development Permit

Re: Eagleridge International Limited – Resource Road Development

5. Describe generally the proposed development:

Eagleridge International Limited plans to construct an 11 kilometre Class C Resource Road as per the Environmental Assessment Application to the Department of Environment and Conservation on September 6, 2013 and to carry out mineral exploration on licences 20215M, 20141M, 17545M, 20905M, 21339M, 21522M, 21341M, and 21340M. The mineral exploration activities expected to be carried out on these licences are prospecting, line cutting, soil sampling, ground geophysics, drilling and trenching in accordance with the rules and regulations of the Mineral Act, Department of Natural Resources, Government of Newfoundland and Labrador.

Appendix M: Drilling Methods and Equipment Required



Diamond Drilling Division:

Springdale Diamond Drilling, a subsidiary of Springdale Forest Resources Inc., was formed in 2006 and has had experience in drilling in Nunavut, Quebec and throughout Newfoundland and Labrador. The company owns nine light-weight aluminum drilling rigs. These consist of seven Duralite 500 rigs, which drill to depths of 600 metres, one Duralite 800 rig capable of drilling to 1000 metres and one Duralite 1000 rig, which is able to drill to depths of 1200 metres..

Springdale Diamond Drilling customers have included:

- Baffinland Iron Mines Corp., Mary River Iron Ore deposit, Nunavut
- Commander Resources in Dewar Lake, Gold deposit, Nunavut
- Vale Inco, Gold deposit near Sept Iles, Quebec
- Marathon PGM Corp, Gold deposit, Valentine Lake, Newfoundland and Labrador
- Aurora Resources, Uranium deposit, Postville, Labrador
- Thundermin Resources Inc., Copper deposit near Springdale, Newfoundland
- Crosshair Exploration and Mining, Golden Promise property near Badger, Newfoundland
- Beaver Brook Antimony Mine Inc., near Glenwood, Newfoundland
- Mountain Lake Resources, near Bay D'Espoir Rd., Newfoundland
- Copper Hill Resources Inc., Powderhorn property near Badger, Newfoundland
- Royal Roads Resources, near Buchans and Daniel's Pond (Millertown)
- Paragon Minerals Corp., near Gander, Newfoundland
- Abitibi Mining, near Jackson Arm, White Bay, Newfoundland
- Teck Resources, Duck Pond, Newfoundland
- Canada Fluorspar , St. Lawrence, Newfoundland
- Vinland Resources, Millertown, Newfoundland

Springdale Diamond Drilling is capable of performing the following:

- Geotechnical Overburden Sampling (SPT)
- Packer Testing
- Wedging
- Drilling holes as low as 18 degrees from horizontal

- Drilling in permafrost
- Using NQ and HQ size drilling [HQ used for bulk samples up to 300 metres, NQ to depths of 600 metres}
- Drilling on Ice

Environmental Considerations:

Springdale Forest Resources Inc. is committed to protecting the environment through regulatory compliance as well as a continuous review of our operations. Prior to the commencement of any project, the potential environmental risk are recognized, evaluated and appropriate control measures are put in place. An effective communication and reporting system plays an integral part of the environmental plan.

At the Big Triangle Pond project, Springdale Diamond Drilling is proposing that a Nodwell drilling rig be used. These rigs are especially adaptable to an environment where marshy or boggy areas are predominant. In addition, a wide pad excavator will be used to reduce impact on the soils.

Depending on the results on an environmental assessment of the drilling sites, one of the following systems of dealing with return water could be instituted:

- (a) In marsh or boggy areas, a re-circulating system may be recommended to deal with return water. When filled, the sludge tank would be cleaned and the waste material transported to an approved disposal site.
- (b) In a wooded area, sump holes may be used to filter out cuttings. Upon completion of the drill hole, the sump hole would be in-filled.

As with all of our projects, there will be an appropriate number of spill kits, filter fabric and hay maintained on site. Fuel will be stored in approved double walled tanks with the necessary GAP numbers and symbols affixed. In addition, the removal of any vegetation will only be done with the approval of the Department of Natural Resources and the Department of Environment and Conservation. When drilling is completed at each site, the area will be rehabilitated using hay or other appropriate materials.

In addition to the above, Springdale Forest Resources Inc. also carries a \$2,000,000.00 Environmental Impairment Insurance.

Typical Springdale Forest Resources Inc. Exploration Drill Rig

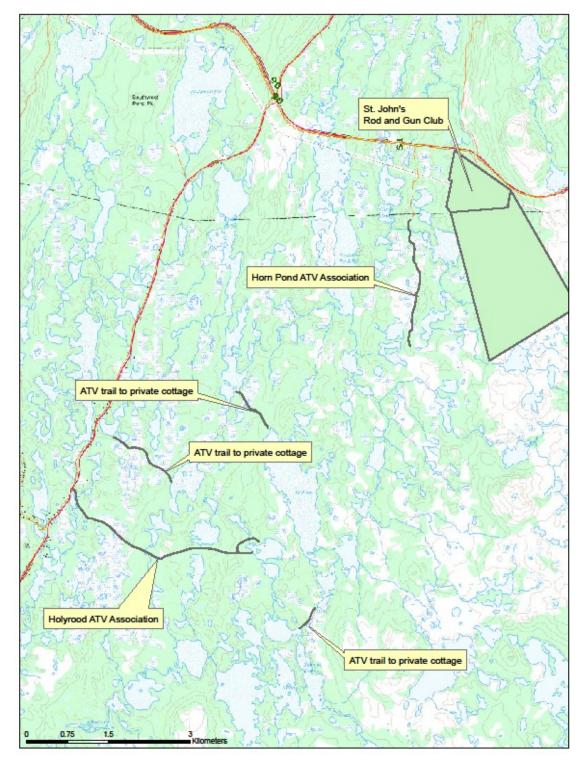


Typical Water Pump Set-up

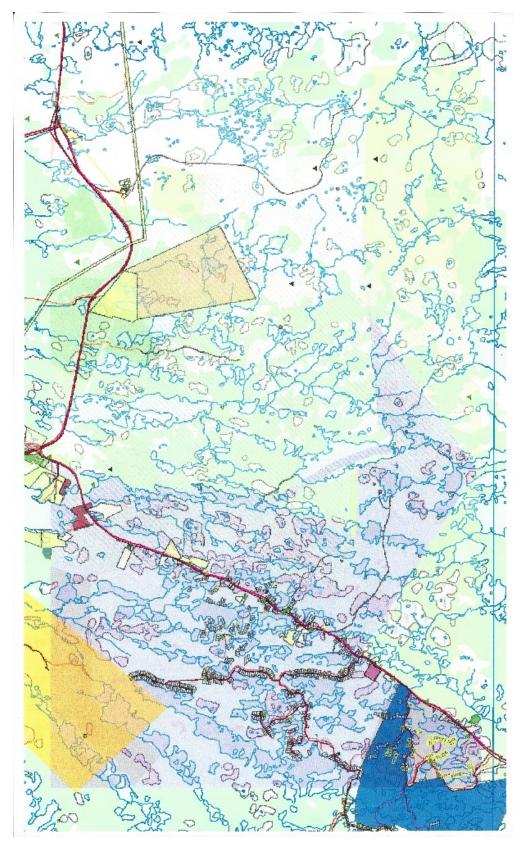


Appendix N: Approved ATV Trails in the Vicinity of Big Triangle Pond

Crown Lands Map of Approved Trails in the Big Triangle Pond Area



Crown Land Use Map - North is to the left



Schedule C Conditions for ATV Trails

SCHEDULE C

- The Licence is valid for the location of the trail as shown in Schedule A. Relocation of the trail or any portion thereof is prohibited unless prior approval in writing is received from the Regional Lands Manager, Lands Branch, Department of Government Services and Lands.
- The trail shall be constructed within one year from the date of issuance of the Licence.
- The trail shall be constructed and maintained at a width of a maximum of two (2) metres. The Department
 of Government Services and Lands will not be responsible for any construction or maintenance costs.
- The trail shall be marked by erecting wooden posts a maximum of three hundred (300) metres apart in open terrain so that consecutive posts are visible from each other.
- The posts shall be located on the right side of the trail identified from the point of beginning.
- 6. #The posts shall be anchored firmly in the ground with 1.25 metres to 1.50 metres being visible above the ground surface. The top half of the visible portion of the posts shall be painted with a red or blaze orange (preferably fluorescent) coloured paint.
- 7. The beginning and end of the trail shall be identified by erecting wooden posts, ten (10) cm X ten (10) cm square in accordance with 2(d) above. A sign, thirty (30) cm wide by forty (40) cm high, containing the words Approved ATV Trail must be affixed to the posts. The Licence number must be painted on the post in a vertical fashion beneath the sign. A temporary sign shall be used during construction of the trail.
- The Licence Holder shall ensure that the trail and all marker posts and signs are maintained in good condition.
- Travel through sensitive areas such as peat bogs, marshes or barrens is restricted to the trail and must be undertaken with caution by avoiding excessive speeds, acceleration and unnecessary braking to minimize damage to the trail surface.
- 10. Sensitive areas which deteriorate through continued use must be upgraded to the satisfaction of the Minister. The upgrading may consist of constructing a corduror surface, brush matting or by using gravel. Under no circumstances are creosoted or chemically treated wood products to be used.
- All water crossings must be authorized by a certificate of Environmental approval issued by the Minister of Environment.
- 12. Pursuant to Subsection 7(1) of the Lands Act, a reservation, fifteen (15) metres wide, is to be maintained around all water bodies and the Licence Holder covenants and agrees that:
 - A. the Licence does not authorize the Licence Holder to occupy the said reservation.
 - B. except for stream crossings approved in accordance with condition 5 above, cutting of trees or development of any type on the reservation is prohibited unless previously approved by the Minister.
- 13. The Licence does not convey exclusive use of the trail and the Licence Holder must not restrict or prevent public use of the trail.

SCHEDULE C

- 14. The Licence is not a guarantee that all lands identified in Schedule A are Crown Lands. It is the responsibility of the Licence Holder to obtain permission from private land owners before constructing any portion of the trail across private land.
- 15 The Licence does not authorize the Licence Holder to erect any buildings.
- 16. A cutting permit is required from the local Forestry Office of the Department of Forest Resources and Agrifoods before any trees are cut for the construction of the trail or the clearing of the right of way.
- 17. When it is in the public interest to do so the Department of Government Services and Lands reserves the right to prohibit use of the trail for specified periods upon forty-eight (48) hours notice.

<u>AFFIDAVIT</u> NO YES Q' The trail has been constructed. Q' The trail location has deviated from the original site location. The trail has been constructed and maintained at a width of not less than 2 metres and not greater than 4 metres except where the trail is constructed through forested area where the maximum width is 2 metres. The trail has been marked by erecting wooden posts a maximum of 300 metres apart in open terrain so that consecutive posts are visible from each other. The posts are located on the right side of the trail identified from the point of beginning. The posts are anchored firmly in the ground with 1.25 metres to 1.50 metres being visible above the ground surface. The top half of the visible portion of the posts are painted with a red or blaze orange (preferably fluorescent) coloured paint. The beginning and end of the trail is identified by erecting wooden posts, 10cm x 10cm square. A sign, 30cm wide by 40cm high, containing the words "Approved ATV Trail" is affixed to the posts. The Licence number is painted on the post in a vertical fashion beneath the sign. Ø The trail and all marker posts and signs are maintained in good condition. Sensitive areas are upgraded with corduroy surface, brush matting or by using gravel. A reservation, 10 metres wide is maintained around all water bodies.