



Water Resources
Nunavut Regional Office
P.O. Box 100
Iqaluit, NU, X0A 0H0

January 30, 2012

Phyllis Beaulieu
Licensing Administrator
Nunavut Water Board
P.O. Box 119
Gjoa Haven, NU, X0A 1J0

Your file - Votre référence
2BE-EDE0608
Our file - Notre référence
CIDM# 502879

**Re: 2BE-EDE0608 - Edehon Lake – Tri Origin Exploration Ltd – Application
for Water Licence Cancellation**

Dear Phyllis Beaulieu:

Aboriginal Affairs and Northern Development Canada (AANDC) have completed a review of the request for cancellation of Water Licence 2BE-EDE0608 submitted by Tri Origin Exploration Limited to the Nunavut Water Board (NWB). In conducting our review, AANDC referred to the documents on the NWB's FTP-site under 2BE-EDE0608. In response to your letter dated January 16, 2012 regarding the request for cancellation of water licence 2BE-EDE060, please find enclosed a Technical Review Memorandum for your consideration.

Should you have any questions or comments, please do not hesitate to contact me at (867) 975-4738 or by e-mail at Jean.Allen@aadnc-aadnc.gc.ca

Sincerely,

Original Signed By

Jean Allen
Water Management Specialist

Cc. Murray Ball, Manager of Water Resources, AANDC
Andrew Keim, A/Manager of Field Operations, AANDC

Enclosure



Technical Review Memorandum

To: Phyllis Beaulieu – Manager of Licensing, Nunavut Water Board

From: Jean Allen – Water Management Specialist, Aboriginal Affairs and
Northern Development Canada

**Re: 2BE-EDE0608 - Edehon Lake – Tri Origin Exploration Ltd – Application
for Water Licence Cancellation**

A. Project Description

On January 16, 2012, the Nunavut Water Board (NWB) distributed Tri Origin Exploration Ltd's (Tri Origin) application for cancellation of Water Licence 2BE-EDE0608. Tri Origin last worked on the Edehon Lake Project in 2007 and no further work is planned.

In June 2006, Tri Origin was issued a water licence for water use and waste disposal at Edehon Lake in the Kivalliq Region of Nunavut. The project is located on Crown land, approximately 191 km from Arviat, NU. According to the Abandonment and Restoration Plan, site restoration mainly applies to drill hole site rehabilitation as no camp facilities were present on the property.

In the Application for Water Licence Cancellation, Tri Origin indicates that drill sites were restored to pre-drill conditions, drill water was filtered through sands in natural depressions, and foreign material was removed from site.

B. Results of Review

The AANDC Water Resources Division offers the following comments/ recommendations for the Board's consideration.

- The inspection report for the land use permit states that the Edehon Lake Property is not clean and that the site was littered with empty and partial drums. According to pictures taken of the site by the Inspector in September 2011, it appears as though fuel drums, propane tanks, wood, metal, piping, calcium chloride, and other solid waste were present on the site. Whether or not this material has been removed since the inspection is unknown. AANDC recommends that all foreign material be removed from the site and properly disposed at an approved solid waste facility. All disturbed areas shall be restored to a pre-disturbed state.



- According to pictures submitted with the 2006 Annual Report (as well as 2011 Inspection pictures), it appears as though the fuel drums at the camp site were not stored within secondary containment. The 2011 inspection pictures show fuel drums scattered throughout the property. AANDC recommends that these areas be tested for hydrocarbons to ensure that no soil in the area is contaminated. Any areas contaminated by hydrocarbons shall be reclaimed according to Part H, Item 4 of the water licence.
- Some 2011 Inspection pictures reveal the use of open burning of solid waste. According to Part D Item 2 of the Water Licence, no open burning is permitted. Upon final reclamation of the site, AANDC recommends that all solid waste be removed from the site and disposed in an approved solid waste facility. AANDC further recommends that Tri Origin conduct soil sampling for polycyclic aromatic hydrocarbons (PAHs) at each burn location and that any soil contaminated with PAHs above CCME levels be removed from site and disposed of in an approved fashion.
- The application indicates that drill water was filtered through sands in natural depressions. More detail regarding the disposal of drill water is required. It is noted in the Site Restoration Plan that drill cuttings will be buried within sumps or removed from the site and disposed at an approved landfill. AANDC requires more detail and recommends that the applicant provide more information to supplement Section 8 of the Application for Water Licence Cancellation (Abandonment Measures) regarding the disposal method of drill cuttings, the reclamation of sumps, and the removal and disposal of solid waste.
- AANDC recommends that Tri Origin submit GPS co-ordinates of all locations where waste was deposited, required under Part I, Item 3 of the Water Licence.

The Water Resources Division further recommends that Water Licence 2BE-EDE0608 not be cancelled until the requested work is complete and a final inspection of the Edehon Lake Property is conducted by a Water Resource Officer.

Should you have any questions or comments, please do not hesitate to contact me at (867) 975-4738 or by e-mail at Jean.Allen@aandc-aadnc.gc.ca

Sincerely,

Jean Allen
Water Management Specialist

Cc. Murray Ball, Manager of Water Resources, AANDC
Andrew Keim, A/Manager of Field Operations, AANDC