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Teck

June 19, 2014

Phyllis Beaulieu Manager of Licensing Nunavut Water Board P.O Box 119 Gjoa Haven, NU XOB 1J0

Re: Former Polaris Mine Long Term Monitoring Program

Application to renew and amend Water Licence 1AR-POL0911

Response to Completeness Check

Dear Ms. Beaulieu;

On June, 2, 2014 Teck Resources Limited (Teck) received comments from Aboriginal Affairs and Northern Development Canada's (AANDC) regarding the completeness and information request concerning Teck's Former Polaris Mine Long Term Monitoring Program and application to renew and amend water licence 1AR-POL0911. Teck is pleased to provide the following responses to AANDC's comments:

## 1. Company Name Change Certificates

<u>Request:</u> Teck Metals Ltd. submitted to the NWB all applicable name change certificates. The current licence states Teck Cominco Ltd. as the licensee with no name change certificate indicating that Teck Metals Ltd. is now the licensee.

#### Response:

- Water Licence NWB1POL0311 was issued to Teck Cominco Limited. However, the corporation
  has changed its name from Teck Cominco Limited to Teck Resources Limited.
- As part of the water licence application package, a certificate of name change was submitted. It was submitted as Attachment #2 of the application package.
- A correction is required to the name of the Licensee in Block 1 of the Application for Water Licence Amendment form. "Teck Metals Ltd." should be changed to "Teck Resources Limited".
- While not key to the application, for information, Teck Metals Ltd. is fully owned by Teck Resources Limited.

# 2. Geotechnical Inspection Report Submissions

<u>Request:</u> AANDC requests that the licensee provide annual reports for 2012 and 2013 as required under Part B Item 6, Part H Item 27 and Part H Item 6 respectively of the current (expired) licence 1AR-POL0311 as all terms and conditions remain as per article 46 of the Nunavut Waters and Nunavut Surface Rights Tribunal Act.

### Response:

Teck did not conduct any activity at the site in 2012 or 2013. As described in the cover letter to the water licence application package as well as the Proposed Long Term Monitoring Plan for Garrow Creek and the Proposed Long Term Geotechnical Monitoring Plan, Teck has adopted the approach outlined in the Department of Indian and Northern Affairs Canada Contaminated Sites Program guidance document entitled Abandoned Military Site Remediation Protocol (INAC, 2009).

Post-closure monitoring of the site has been separated into two phases; Phase 1 during years 1 through 5 and Phase 2 in years 7, 10, 15, and 25. Given that annual geotechnical inspections and monitoring has already occurred for 7 straight years since remediation of the Polaris mine site was completed in 2004 (year 0) and demonstrates that post closure objectives have been met, Phase 1 monitoring has been completed successfully and it is reasonable to continue Phase 2 monitoring as planned. Given that 2004 was Year 0, the completed 2011 annual inspection corresponds to Year 7. Therefore the next geotechnical inspection event would have been scheduled to occur in Year 10 (2014) with subsequent inspection events in Year 15 (2019) and Year 25 (2029). However, with the approval of the current water licence application not expected until early 2015, it is assumed these monitoring dates will be adjusted so that Year 10 monitoring will be required in 2015, Year 15 in 2020, and Year 25 in 2030.

# 3. Water Monitoring Data Submissions

<u>Request:</u> AANDC requests that the licensee provide the monitoring data for 2012 and 2013 as required under Part H Item 37 of the current (expired) licence 1AR-POL0311 as all terms and conditions remain as per article 46 of the Nunavut Waters and Nunavut Surface Rights Tribunal Act.

Response: Please see response to item #2 above.

#### 4. Mitigation Measure - Fence Use

<u>Request:</u> AANDC notes that the erecting of fencing as a mitigation measure to reduce harm to people and wildlife may not be the best option in a northern climate (i.e, frost jacking, etc). Fencing would likely require long-term maintenance and is therefore not a good choice for mine closure. AANDC requests that the licensee provide a detailed estimate of an alternative low maintenance mitigation measure, such as a boulder ring and signage.

# Response:

 Based on the geotechnical reporting to date, Teck notes that there is a low probability of any further subsidence occurring, and that mitigation around the area of potential subsidence would

- only be required if future geotechnical inspections observe additional surface cracking and depressions that pose a hazard to humans or wildlife.
- Teck agrees with the recommendations provided by its expert geotechnical consultants, Darrin Johnson, P.Eng. and Ross Hammett, P.Eng., (CV's attached to water licence application package as Attachments 8b and 8c) who have extensive geotechnical experience with Polaris through their involvement in underground rock mechanic reviews during operations and surface inspections over the past number of years. As noted in the Proposed Long Term Geotechnical Monitoring Program submitted as Attachment 8a of the water licence application package, the recommended fencing mitigation measure is a contingency in the event subsidence and instability occurs in the future and would only be required around the actual extents of subsidence observations. However the cost to construct a fence surrounding the entire underground mining area has been included in the Financial Security Assessment.
- In response to the option of constructing a boulder ring, large rocks would need to be moved requiring heavy equipment. There is no heavy equipment at the site and mobilization of equipment and explosives to site is not feasible. A more feasible alternative is to erect metal signage secured in pre-poured concrete bases which could be made in Resolute Bay and flown to site via Twin Otter. Cost for this would be less than the originally proposed fencing.

# 5. Security

<u>Request:</u> The licensee is requesting a \$2,215,000 reduction in security (from \$3,539,000 to \$1,324,000). The security estimate should be revised to include a cost for placing a boulder ring around possible future subsidence as an alternative to the costs for fencing (see Item 7, noted above).

Response: Please see response to item #4 above.

Furthermore, in response to the Board's request for comments regarding the type of Technical Meeting (TM)/ Pre-Hearing Conference (PHC), Teck prefers the timeliness of a teleconference TM/PHC to avoid potential delays associated with a written style TM/PHC.

Teck trusts that the application is complete and looks forward to participating in the next steps of the review process. If you have any questions please feel free to contact me at <a href="mailto:bruce.donald@teck.com">bruce.donald@teck.com</a>.

Sincerely,

Bruce Donald Manager Dormant Properties, Environment

C.c. David Hohnstein, Nunavut Water Board (david.hohnstein@nwb-oen.ca)
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