HPAR Upgrade Project
TOR Scoping Sessions
Date: Oct 15, 2015
Location: Yellowknife
**Yunan Chihong Zinc & Germanium Ltd.**

**Chihong Canada Mining Ltd.**
Vancouver BC based subsidiary of Yunan Chihong Zinc & Germanium Ltd.

**Selwyn Chihong Mining Ltd (SCML).**
Operating company owned by Chihong Canada Mining Ltd., with offices in Vancouver, Whitehorse and Watson Lake.
Howard’s Pass Access Road (HPAR)

- An existing 79 km long single-lane gravel road in southwestern NWT.
- The HPAR branches off the Nahanni Range Road, near Tungsten, and ends at Howard’s Pass at the NWT–Yukon border.
- The HPAR was originally built in 1978-79 to access the extensive zinc-lead deposit that straddles the Yukon–NWT border at Howard’s Pass.
- SCML has applied to upgrade the HPAR to a two-lane all-season mine access road and to use the road to support the Selwyn Project.
- The HPAR is part of the ~1000 km haul route to the Port of Stewart.
HPAR Development History

- **1970s**
  - HPAR built to access major zinc-lead deposit at Howard’s Pass

- **1980s**
  - Mineral exploration declined
  - Road fell into disuse and deteriorated

- **2005**
  - Interest in exploration and development of deposit renewed

- **2009**
  - Nahanni National Park Reserve expanded

- **2011**
  - HPAR used as winter road to bring equipment to Seiwyn Project
  - HPAR reconstructed to single-lane all-season road for original purpose

- **2014**
  - Na’áts’ihch’oh National Park Reserve created

- **2015**
  - Upgrade to two-lane road for mine development and operation proposed
Political Boundaries

- The southern portion of the HPAR (km 0 to 36) is within traditional territory asserted by DehCho First Nations.
- The northern portion (km 36 to 79) is within the Sahtu Settlement Area.
- The HPAR is also within traditional territory asserted by Kaska First Nations.
- Nahanni and Naats'ihch'oh National Park Reserves overlap the HPAR between km 14 and km 60.

How far away is the HPAR from NWT and Yukon communities (as the crow flies)?

<table>
<thead>
<tr>
<th>Location</th>
<th>Distance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tulita</td>
<td>340 kms</td>
</tr>
<tr>
<td>Norman Wells</td>
<td>350 kms</td>
</tr>
<tr>
<td>Nahanni Butte</td>
<td>310 kms</td>
</tr>
<tr>
<td>Watson Lake</td>
<td>240 kms</td>
</tr>
<tr>
<td>Yellowknife</td>
<td>750 kms</td>
</tr>
<tr>
<td>Ross River</td>
<td>190 kms</td>
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</tbody>
</table>
Community Cooperation Agreements

- SCML has entered into Cooperation Agreements with:
  - Sahtu Dene and Metis First Nations of the Tulita District (2010).

- SCML has signed an Interim Measures Agreement with the Kaska First Nations. SCML and Kaska have completed negotiations on a comprehensive Socio-Economic Participation Agreement. A community ratification vote is scheduled for November 30, 2015.

- SCML has also signed a Memorandum of Understanding (MoU) with Parks Canada on the operation of HPAR within Nahanni and Nááts’ihch’oh National Park Reserves.
Community Involvement

- Sahtu and DehCho communities have been involved in all significant activities undertaken by SCML on the HPAR, including:
  - 2011 winter road construction/operations
  - 2014 reconstruction
  - 2015 maintenance
Community Involvement

- SCML has been engaging with NWT and Yukon communities since 2006.
- SCML consulted with potentially affected communities on the HPAR Upgrade Project during 2014-15. This was done following MVLWB guidelines and the process set out in the Cooperation Agreements.
- SCML has received letters of support from:
  - Norman Wells Land Corp
  - Tulita Land Corp
  - Fort Norman Metis Land Corp
  - Nahēņ Dehé Dene Band
Why Upgrade the HPAR?

- An upgraded HPAR is needed to support the evolving needs of the Selwyn Project:
  - **MINE CONSTRUCTION** – the HPAR will be used to haul equipment and supplies in to the Yukon to support mine site construction activities.
  - **MINE OPERATIONS** – the HPAR will be used to haul zinc and lead mineral concentrates out to port and to haul supplies in to the mine site.

<table>
<thead>
<tr>
<th>Hauling</th>
<th>Approximate Trucks/Day</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lead concentrate</td>
<td>11</td>
</tr>
<tr>
<td>Zinc concentrate</td>
<td>56</td>
</tr>
<tr>
<td>LNG</td>
<td>12</td>
</tr>
<tr>
<td>Diesel fuel</td>
<td>5</td>
</tr>
<tr>
<td>Mill Supplies</td>
<td>7</td>
</tr>
<tr>
<td>Other supplies</td>
<td>3</td>
</tr>
</tbody>
</table>
Why Upgrade the HPAR?

- The HPAR needs to be improved so that it is safe and efficient to use.
- The existing alignment will be followed, with some minor sections of realignment.
- Upgrades will include:
  - Widening to two full lanes;
  - Reducing curves to improve visibility and travel speeds;
  - Extending culverts for wider road.
- Bridges were replaced in 2014. No changes needed.
Developer’s Assessment Report (DAR)

- SCML’s proposed terms of reference is based on the template provided by the MVEIRB.
- DPToR builds on information and plans presented in the application package including the Project Description Report.
- SCML will continue to consult with communities and government throughout preparation of the DAR.
Developer’s Assessment Report will:

• Incorporate Traditional Knowledge.

• Use Valued Components used for assessment of impacts, with:
  • Key Lines of Inquiry- highest priority.
  • Subjects of Note- lower priority.

• Include management, monitoring and mitigation plans.

• Include assessment of Project Alternative and Cumulative Effects.

• Cover construction, operation and decommissioning phases.

• Provide rationale for proposed geographic and temporal scopes.
Proposed Key Lines of Inquiry based on input from Communities and Parks Canada:

1. **Nahanni caribou herd:**
   - direct and indirect effects on individual caribou and on the caribou herd from road traffic and road access.

**Key Facts:**

- Northern mountain woodland caribou (‘stable’ in NWT; ‘special concern’ under SARA)
- Nahanni caribou are in the HPAR corridor mainly spring to fall
- Baseline data collection and community consultation programs since 2007
- Caribou are a focus for road planning to date, with ongoing monitoring, and mitigation planning well underway
Proposed Key Lines of Inquiry based on input from Communities and Parks Canada:

2. **Risk of spills**
   - risk of spills from hauling concentrates, fuels and mine reagents during mine operation;
   - potential impacts on aquatic and terrestrial ecosystems.

3. **National park reserves**
   - visitor access to park areas and visitor experience;
   - park heritage and cultural resources;
   - ecological integrity.
Proposed Key Lines of Inquiry based on input from Communities and Parks Canada:

4. **Benefits and effects on communities**
   - direct and indirect effects on employment and contracting opportunities;
   - wage and salary income;
   - training and skill development;
   - business opportunities;
   - overall community wellness.
Proposed Subjects of Note:

- Bedrock geology and surficial geology
- Air quality
- Water and sediment quality (excluding the impacts of accidents and malfunctions)
- Vegetation
- Fish and aquatic habitat (excluding the impacts of accidents and malfunctions)
- Wildlife and wildlife habitat (excluding caribou)
- Species at risk
- Traditional land use and harvesting
- Cultural resources
- Heritage resources
- Road, lake and river access and use
Impact Assessment methodology will consider:

- Identification of potential effects.
- Mitigation measures and residual effects.
- Assessment of cumulative effects.
- Each predicted impact the following will be described:
  - type of impact.
  - geographic extent.
  - timing.
  - magnitude.
  - reversibility.
  - likelihood.
Closure:

• SCML looks forward to working closely with government, communities and the Board throughout the assessment of the HPAR Upgrade Project.

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