



Mackenzie Valley Land and Water Board
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Mackenzie Valley Land
& Water Board

Application for:

New Land Use Permit ☒

Amendment ☐ to

File

APR 26 2010

Application # **MY201000017**

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1. Applicant's name and mailing address: Avalon Rare Metals Inc. 6165 Highway 17, unit 330 Delta, BC V4K 5B8	Fax number: 604-940-3808
	Telephone number: 604-940-3800
2. Head office address: Avalon Rare Metals Inc. 130 Adelaide Street West, Suite 1901 Toronto, Ontario M5H 3P5	Fax number: 416-364-5162
Field supervisor: Chris Pederson, P.Geo Radiotelephone: 600-700-1222	Telephone number: 416-364-4938
3. Other personnel (subcontractor, contractors, company staff etc.) Geologist/Alt Site Supervisor: Martin Heiligmann Drilling Subcontractor: Foraco Drilling Limited Contract Labourers Camp/Expeditor: Discovery Mining Services & Deton Cho Logistics TOTAL: A total of 16 persons currently on site during 2010 Winter Drill Program for 86 days =1,376 person-days & 8 persons on site during Airstrip Construction for 30 days =240 person-days.	
4. Eligibility: (Refer to section 18 of the <i>Mackenzie Valley Land Use Regulations</i>) a)(i) Yes a)(ii) a)(iii) b)(i) b)(ii)	
5. a) Summary of operation (Describe purpose, nature and location of all activities.) <p>Avalon Rare Metals Inc. ('Avalon') is a publicly traded company engaged in the exploration and development of rare metal deposits in Canada. Avalon proposes to mine, mill and produce a number of rare earth metals including, niobium, zirconium, tantalum and possibly gallium from the Nechalacho deposit, located on its Thor Lake Property. The proposed project is referred to as the Thor Lake Project (TLP).</p> <p>The TLP has two proposed site components: an underground mine and flotation plant (Nechalacho Mine and Flotation Plant site), to be located at the Thor Lake Property, and a hydrometallurgical plant (Hydrometallurgical Plant site) to be located at the existing brownfields site of the former Pine Point Mine.</p> <p>The Nechalacho Mine and Flotation Plant will have an operating life of approximately 14 years. The initial expected daily mill throughput is approximately 1,000 tpd. Mill throughput is planned to ramp up to 2,000 tpd by year 4. Camp facilities will be constructed and operated at the site for the life of the Thor Lake Project. The rare metals concentrate produced at the Nechalacho Mine and Flotation Plant will be barged across Great Slave Lake for further processing at the Hydrometallurgical Plant. No permanent camp facilities will be needed at the</p>	

Hydrometallurgical Plant site.

Avalon has produced a Project Description Report (PDR) to support its application for a Water License and Land Use Permit for the development of the Thor Lake Project. The application is in the name of Avalon Rare Metals Inc., which will also be the Project operator. The Project Description Report is divided into the following six sections:

- Introduction
- Project Description
- Public Engagement and Communications
- Environmental Overview
- Potential Environmental Effects and Mitigation Measures
- Closure and Reclamation

This report provides the information required for the technical review of the Thor Lake Project. Avalon Rare Metals Inc. was assisted by EBA Engineering Consultants Ltd. (their lead consultant). The report identifies the technical aspects and environmental interactions the Project may have during the design, construction and operation phases of the Project. It also delineates the mitigation measures proposed to effectively address these matters. The appendices provide the technical information collected to support the report.

6. Summary of potential environmental and resource impacts (describe the effects of the proposed land-use operation on land, water, flora & fauna and related socio-economic impacts). Use separate page if necessary.

For the duration of the Thor Lake Project, all anticipated environmental impacts will be of a highly localized, generally short-term, reversible nature. No significant impacts are predicted. Further details can be found in section 4.0 of the Project Description Report.

7. Proposed restoration plan (please use a separate page if necessary).

The project site has been subject to regular inspection by INAC since it began in 2007. Avalon has conducted its operations to minimize environmental effects and has complied with permit conditions and direction provided by INAC inspectors.

The Thor Lake Project anticipates further expansion beyond the currently proposed 14 year operating life therefore, progressive reclamation activities will begin prior to completion of the Project and in full when the program ends. The underground access decline will be sealed and all equipment will be removed. Surface infrastructure will be dismantled and eliminated. All surface equipment will be removed. Building sites will be re-contoured and reseeded using regulatory agency guidelines. Reclamation activities will be designed to promote site restoration that is consistent with the site's condition before the sampling program. Avalon will abide by Section 15 of the Mackenzie Valley Land Use Regulations.

Further details can be found in section 6.0 of the Project Description Report.

8. Other rights, licences or permits related to this permit application (mineral rights, timber permits, water licences, etc.)

Avalon Ventures holds the following mining leases in the project area: 3178, 3179, 3265, 3266 and 3267. Also see Section 1.5, page 6 of the Project Description Report.

Roads: **Is this to be a pioneered road?** **Has the route been laid out or ground truthed?**

See section 2.7.6.5 and 2.8.5 of the Project Description Report.

9. Proposed disposal methods. As per current approved procedures in LUP# MV2007C0039 and discussed in Project Description Report sections 2.7.4 and 2.8.3.

a) Garbage:

c) Brush & trees:

b) Sewage (Sanitary & Grey Water):

d) Overburden (Organic soils, waste material, etc.):

10. Equipment (includes drills, pumps, etc.) (Please use separate page if necessary.)

The size and scoping of specific equipment is unknown at this time due to the finalization of equipment estimations, quotations and contractor requirements.

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11. Fuels	()	Number of containers	Capacity of containers	Location
Diesel TLP	X	8	1.5 M litres	Engineered & Lined enclosure outlined in Project Description Report Section 2.7.6.3
Diesel HydroMet	X	1	20,000 litres	Engineered & Lined enclosure outlined in Project Description Report Section 2.8.5.3
Gasoline TLP	X	-----	Non anticipated at this time due to Avalon operating all diesel equipment	-----
Gasoline HydroMet	X	-----	Non anticipated at this time due to close proximity to Fort Resolution & Hay River Gas sources.	-----
Aviation fuel	X	-----	Non anticipated at this time due to Avalon not owning or operating aircraft	-----
Propane TLP	X	10	80,000 litre	Required for underground ventilation heating only, which is estimated at 1.5 M litres/year. Two filling periods/year

12. Containment fuel spill contingency plans. (Please attach separate contingency plan if necessary).

A spills contingency plan already exists with the Mackenzie Valley Land and Water Board under permit #MV2007C0039.

13. Methods of fuel transfer (to other tanks, vehicles, etc.)

Fuel for Underground usage will be piped directly from Surface Storage facility to an underground day use tank. Incoming fuel shipments via barge will transfer fuel to intermediary tanks which will then be hauled by tanker to site. All connections will be quick connect couplings. Vehicle fuel transfer will be by quick connect couplings where applicable or no-spill nozzle in designated area.

14. Period of operation (includes time to cover all phases of project work applied for, including restoration)

Total period is currently estimated at 22 years according to section 2.6 of Project Description Report however, on-going work by Avalon anticipates a much longer Project life.

15. Period of permit (up to five years, with maximum of two years of extension). Minimum 5 year permit required would prefer 20 year permit.

16. Location of activities by map co-ordinates (attach maps and sketches) - NAD83 - See Project Description Report

Minimum latitude (degrees, minutes, seconds) 62°05'38" N	Maximum latitude (degrees, minutes, seconds) 62°06'44" N
Minimum longitude (degrees, minutes, seconds) 118°34'17" W	Maximum longitude (degrees, minutes, seconds) 118°37'06" W

Map Sheet no. _85 I/2 The property is centered at latitude of 62° 06'30"N and longitude of 112° 45'30" W

17. Applicant

David Swisher

Signature



Date April 23rd, 2010

18. Fees	Type A - \$150.00 **	Type B - \$150.00 **	(**Application Fees are Non-Refundable**)
Land use fee:	138 x \$50	hectares @ \$50.00/hectare	\$ __\$6,900.00__
		Assignment fee \$50.00	\$ __\$50.00__
		Total application and land use fees	\$ __\$6,950.00__

Please make all cheques payable to "Receiver General of Canada"