

PERMIT TO ALTER A BODY OF WATER

Pursuant to the *Water Resources Act*, SNL 2002 cW-4.01, specifically Section(s) 48

Date: **JULY 17, 2020**

File No: **534-06**

Permit No: **ALT11070-2020**

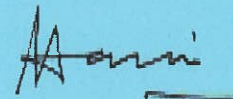
Permit Holder: **Rambler Metals and Mining Canada Ltd.**
PO Box 610
Baie Verte NL A0K 1B0
pmercerc@ramblermines.com

Attention: **Peter Mercer**

Re: **Nugget Pond Mine Tailings Dam Expansion- Rambler Metals and Mining Ltd.**

Permission is hereby given for : **the construction of a new tailings dam at Camp Pond, a new saddle dam on Fly Pond and the raising of Dam 1 and 2 at Fly Pond at the Nugget Pond Mine Tailings Management Facility (TMF) as per the design brief "Design Brief for New Dam at Camp Pond and 2 m Lift on Existing Fly Pond Dam" prepared by West Coast Engineering Ltd., and associated activities outlined in the application received on March 31, 2020 with additional information received on May 12, 2020 and June 28, 2020.**

- This Permit does not release the Permit Holder from the obligation to obtain appropriate approvals from other concerned municipal, provincial and federal agencies.
- The Permit Holder must obtain the approval of the Crown Lands Administration Division if the project is being carried out on Crown Land.
- This Permit is subject to the terms and conditions indicated in Appendices A and B (attached).
- It should be noted that prior to any significant changes in the design or installation of the proposed works, or in event of changes in ownership or management of the project, an amendment to this Permit must be obtained from the Department of Municipal Affairs and Environment under Section 49 of the *Water Resources Act*.



(for) MINISTER

APPENDIX A
Terms and Conditions for Permit

Dam/Reservoir Design

1. Reservoirs must be provided with a spillway of adequate capacity to safely discharge design flows at non-erosive velocities without causing flooding of the reservoir or damage to the spillway or downstream channel.
2. Alteration of the natural minimum streamflow is not permitted in order to preserve aquatic life.
3. The dam and appurtenant structures shall be constructed at the following coordinates:

Name	Datum	Northing (m)	Easting (m)	Zone
Dam #1 & Dam #2	NAD83	5522111.6	588069.4	21
South Saddle Dam	NAD83	5521535.3	588256.3	21
Camp Pond Dam	NAD83	5521256.1	588688.4	21

4. The dam(s) must have the following dimensions:

Name	Height/Elev of Dam (m)	Elev of Spillway (m)	Maximum Water Elevation (m)	Minimum Water Elevation (m)	Minimum Freeboard (m)
Dam #1 & Dam #2	5/122	120.5	120.5	119	1.5
South Saddle Dam	3/122	N/A	120.5	119	1.5
Camp Pond Dam	5/93	91.5	91.5	88	1.5

5. To safely convey peak flows the dam(s) must be designed according to the following hydraulic criteria:

Name	Design Return Period (years)	Inflow Design Flood (m ³ /s)	Environmental Design Flood (m ³ /s)
Dam #1 & Dam #2	1000	7.16	2.50
Camp Pond Dam	1000	8.03	2.50

6. The dam and associated works must be designed and constructed under the direct supervision of an engineer eligible for membership with the Professional Engineers and Geoscientists of Newfoundland and Labrador (or equivalent Canadian organization) who is able to demonstrate competence in the design, construction, and surveillance of dams.
7. The dam and associated works shall be designed according to the Canadian Dam Association Dam Safety Guidelines and associated Bulletins (most recent edition).

General Alterations

8. Any work that must be performed below the high water mark must be carried out during a period of low water levels.
9. Any flowing or standing water must be diverted around work sites so that work is carried out in the dry.
10. Water pumped from excavations or work areas, or any runoff or effluent directed out of work sites, must have silt and turbidity removed by settling ponds, filtration, or other suitable treatment before discharging to a body of water. Effluent discharged into receiving waters must comply with the *Environmental Control Water and Sewage Regulations, 2003*.
11. All operations must be carried out in a manner that prevents damage to land, vegetation, and watercourses, and which prevents pollution of bodies of water.
12. The use of heavy equipment in streams or bodies of water is not permitted. The operation of heavy equipment must be confined to dry stable areas.
13. All vehicles and equipment must be clean and in good repair, free of mud and oil, or other harmful substances that could impair water quality.
14. During the construction of concrete components, formwork must be properly constructed to prevent any fresh concrete from entering a body of water. Dumping of concrete or washing of tools and equipment in any body of water is prohibited.
15. Wood preservatives such as penta, CCA or other such chemicals must not be applied to timber near a body of water. All treated wood or timber must be thoroughly dry before being brought to any work site and installed.
16. Any areas adversely affected by this project must be restored to a state that resembles local natural conditions. Further remedial measures to mitigate environmental impacts on water resources can and will be specified, if considered necessary in the opinion of this Department.
17. The bed, banks and floodplains of watercourses, or other vulnerable areas affected by this project, must be adequately protected from erosion by seeding, sodding or placing of rip-rap.
18. All waste materials resulting from this project must be disposed of at a site approved by the Department of Service NL.
19. Care must be taken to prevent spillage of pollutants into the water.
20. The owners of structures are responsible for any environmental damage resulting from dislodgement caused by wind, wave, ice action, or structural failure.

21. Sediment and erosion control measures must be installed before starting work. All control measures must be inspected regularly and any necessary repairs made if damage is discovered.
22. Fill material must be of good quality, free of fines or other substances including metals, organics, or chemicals that may be harmful to the receiving waters.
23. The attached Completion Report (Appendix C) for Permit No. 11070 must be completed and returned to this Department upon completion of the approved works. Pictures must be submitted along with the completion report, showing the project site prior to and after development.
24. This Permit is valid for two years from the date of issue. Work must be completed by that date or the application and approval procedure must be repeated. The following terms are valid for the life cycle of the dam structures: 27 and 29.
25. The location of the work is highlighted on the Location Map for this Permit attached as Appendix D.
26. All work must be carried out within the Permit Holder's legal property boundaries.

Dam Safety

27. The dams have been conditionally classified in the SIGNIFICANT Consequence category based on the 2007 Canadian Dam Association (CDA) guidelines. To meet the CDA's Dam Safety guidelines (Current Edition) for dams of this classification, the owner must:
 - Carry out an annual Dam Safety Inspection and provide the results to this Department,
 - Carry out a Dam Safety Review and submit a Dam Safety Report to this Department within three years of the start of the initial filling of the dam and a maximum of every **ten years** after that,
 - Update within one year of the issuance of this permit, and in consultation with this Department, the Operation, Maintenance and Surveillance (OMS) Manual for the operation and closure phases of the mine,
 - Update the Emergency Preparedness and Response Plan (EPRP) within one year of the issuance of this permit.

Special Conditions

28. The tailings dam and management area (TMA) must meet the requirements of the Environmental Protection Plan (latest version) and mine Rehabilitation and Closure Plan for the project.
29. The Permit Holder is required to adhere to the Memorandum of Agreement as set forth by the Department of Municipal Affairs and Environment. This agreement relates to the operation of a hydrometric and water quality station in the vicinity of the mine site. The following monitoring stations must remain active for the life of the project through the renewal of the Memorandum of Agreement with the Department of Municipal Affairs and Environment: Outlet of the Steady at Rambler Mines (NLENHM002). The Department may require the setup of additional monitoring stations in the Memorandum of Agreement as per provisions of Section 31 of the Water Resources Act, SNL2002 Chapter W-4.01.
30. The following instrumentation shall be included for long term monitoring of the tailings dams at Nugget Pond Mine site: 1 piezometers installed in the Camp Pond dam; 3 survey monuments/permanent plugs installed at the Camp Pond Dam; 1 piezometer installed in Dam #1.

Dam Construction

31. A 1 m wide by 1 m deep impervious cutoff trench must be constructed at the original ground level following the highest contour of the existing pond bedrock edge, into the impervious solid rock below for all dams.

32. Fill material must be obtained from an approved quarry site. It must not be taken from beaches or streams, and must not be dredged from a body of water. Armour stone or rip-rap material must be of good quality, free of fines or other substances including metals, organics, or chemicals that may be harmful to the receiving waters.
33. Reservoir shorelines with moderately steep slopes or vulnerability to wave induced erosion, must be adequately protected with armour stone, rip-rap, or by other suitable measures.
34. The finished downstream side of the Camp Pond Dam shall have a slope of 1.5 horizontal to 1 vertical. The finished upstream side of Camp Pond Dam shall have a slope of 3 horizontal to 1 vertical. The finished downstream side of the Fly Pond Dam (Dam #1 & #2) shall have a slope of 2 horizontal to 1 vertical. The finished upstream side of Fly Pond Dam (Dam #1 & #2) shall have a slope of 3 horizontal to 1 vertical. The finished downstream side of the South Saddle Dam shall have a slope of 3 horizontal to 1 vertical on the Fly Pond side. The finished upstream side of South Saddle Dam shall have a slope of 2 horizontal to 1 vertical on the Little Horseshoe Pond side.
35. The spillway at the Camp Pond Dam and Fly Pond Dam (Dam #1) will be prepared by clearing and grubbing vegetation and organic soil from the flow path down to bedrock. Spillway width shall be 6 m and shall have a minimum 2% grade. The upstream invert of the Fly Pond Dam (Dam #1) spillway shall be excavated down 1 m at the low point at the pond's edge. The spillway at Camp Pond shall connect to the original Camp Pond outflow stream.
36. The concrete cutoff wall shall be encased in a 600 mm wide layer of 20 mm minus material. The dam shell layer will be comprised of 8 inch minus material. The rockfill shall be constructed in compacted lifts.
37. Where pumping is used to bypass flow, cofferdams must be installed both above and below areas of construction. The Permit Holder must provide pumps with sufficient capacity to prevent washout of cofferdams.
38. Cofferdams must be properly designed and constructed of suitable materials to prevent leakage and to resist loss of any material as a result of erosion. Cofferdams must be removed upon completion of their intended function. All material must be removed carefully to prevent disturbance of the water body and to prevent water quality degradation.
39. The area to be flooded by the reservoir must be prepared by removing timber, brush, and slash up to the maximum water elevation.
40. The transportation of labour and materials to the site must be along existing access roads.
41. The upstream and downstream face of the Camp Pond Dam shall be covered in a layer of 12-20 inch armour stone. The upstream face of the Fly Pond Dam (Dam #1 & #2) shall be covered in a layer of 12-20 inch armour stone. The Fly Pond face of the South Saddle Dam shall be covered in a layer of 12-20 inch armour stone.
42. The work must meet the requirements of the Environmental Protection Plan (latest approved version) for the project.
43. All areas of the existing rockface that are to come in contact with the new concrete cutoff wall shall be treated with high pressure water to clean and remove any unsound materials. Dental concrete shall be used to level off and fill in any fractures in the bedrock surface to be in contact with concrete. All new concrete shall be well bonded to the surface of the rockface against which it is cast.

44. The existing box culvert shall be removed from Dam #1, and a new concrete cutoff dam with wing walls shall be constructed at this location against the existing bedrock. The wing walls shall tie into the new concrete cutoff.
45. Work must be conducted in dry conditions. The water level in Camp Pond and Fly Pond shall be pumped down to a level necessary for construction, but which does not exposing tailings. Any exposed tailings shall be continuously wetted in order to control tailings dust.
46. Hydraulic breakers should be used to create a tie in notch in the vertical rock faces for the termination of the concrete cutoff walls, and to construct the keyway for the concrete cutoff.

GOVERNMENT OF NEWFOUNDLAND AND LABRADOR
Department of Municipal Affairs and Environment

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APPENDIX B
Special Terms and Conditions for Permit

1. The Permit Holder and its agent(s), subcontractor(s), and consultant(s) shall keep all systems and works in good condition and repair and in accordance with all laws, by-laws, directions, rules and regulations of any governmental authority. The Permit Holder or its agent(s), subcontractor(s), or consultant(s) shall immediately notify the Minister if any problem arises which may threaten the structural stability of the systems and works, endanger public safety and/or the environment or adversely affect others and/or any body of water either in or outside the said Project areas. The Permit Holder and its agent(s), subcontractor(s), and consultant(s) shall be responsible for all damages suffered by the Minister and Government resulting from any defect in the systems and works, operational deficiencies/inadequacies, or structural failure.
2. The Permit Holder and its agent(s), subcontractor(s), and consultant(s) shall operate the said Project and its systems and works in a manner which does not cause any water related and/or environmental problems, including but not limited to problems of erosion, deposition, flooding, and deterioration of water quality and groundwater depletion, in or outside the said Project areas. The Permit Holder and its agent(s), subcontractor(s), and consultant(s) shall be responsible for any and all damages associated with these problems caused as a result of changes, deficiencies, and inadequacies in the operational procedures by the Permit Holder or its agent(s), subcontractor(s), or consultant(s).
3. If the Permit Holder or its agent(s), subcontractor(s), or consultant(s) fails to perform, fulfil, or observe any of the terms and conditions, or provisions of this Permit, as determined by this Department, the Minister may, without notice, amend, modify, suspend or cancel this Permit in accordance with the *Water Resources Act*.
4. The Permit Holder and its agent(s), subcontractor(s), and consultant(s) indemnify and hold the Minister and Government harmless against any and all liabilities, losses, claims, demands, damages or expenses including legal expenses of any nature whatsoever whether arising in tort, contract, statute, trust or otherwise resulting directly or indirectly from granting this Permit, systems and works in or outside the said Project areas, or any act or omission of the Permit Holder or its agent(s), subcontractor(s), or consultant(s) in or outside the said Project areas, or arising out of a breach or non-performance of any of the terms and conditions, or provisions of this Permit by the Permit Holder or its agent(s), subcontractor(s), or consultant(s).
5. This Permit is subject to all provisions of the *Water Resources Act* and any regulations in effect either at the date of this Permit or hereafter made pursuant thereto or any other relevant legislation enacted by the Province of Newfoundland and Labrador in the future.
6. This Permit shall be construed and interpreted in accordance with the laws of the Province of Newfoundland and Labrador.

File No: 534-06
Permit No: ALT11070-2020

- cc: Overton Colbourne, P.Eng
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Department of Natural Resources
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Government of Newfoundland and Labrador
Department of Municipal Affairs and Environment
Water Resources Management Division

Appendix C - Completion Report

Pursuant to the *Water Resources Act*, SNL 2002 cW-4.01, specifically Section(s) 48

Date: **JULY 17, 2020**

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Permit Holder: **Rambler Metals and Mining Canada Ltd.**
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I (the Permit Holder named above or agent authorized to represent the Permit Holder) do hereby certify that the project described above was completed in accordance with the plans and specifications submitted to the Department of Municipal Affairs and Environment and that the work was carried out in strict compliance with the terms and conditions of the Permit issued for this project.

Date: _____ Signature: _____

This completion report must be completed and forwarded to the following address upon completion of the approved work.

Department of Municipal Affairs and Environment
Water Resources Management Division
PO Box 8700
St. John's NL A1B 4J6

APPENDIX D
Location Map for Permit

