

Crown-Indigenous Relations and Northern Affairs Canada Relations Couronne-Autochtones et Affaires du Nord Canada

Ms. Dawn Keim Acting Senior Manager Contaminants and Remediation Directorate P.O. Box 1500 4923 52nd Street Yellowknife, NT X1A 2R3

January 2, 2025

CIRNAC-CARD Rayrock Remediation Project

RE: Land Use Permit W2020X005, Water License W2020L8-0003 – Rayrock Remediation Project

Dear Ms. Keim,

An inspection of CIRNAC-CARD Rayrock Remediation Project was completed by Resource Management Officer Erika Nissen and Environmental Specialist Megan Larose on October 18th, 2024. The inspection was conducted to ensure compliance with the terms and conditions of the land use permit, water licence, and approved management plans prior to seasonal shut down.

The attached inspection report contains details and photos that were taken during the inspection.

If you have any questions or concerns, please contact me at (867) 669-2442.

Thank you,

Erika Nissen Resource Management Officer (Inspector) Resource and Land Management Crown-Indigenous Relations and Northern Affairs Canada

cc. WLWB – via email CIRNAC Resource and Land Management – via email CIRNAC CARD – via email



INSPECTION DATE –October 18th, 2024

ENVIRONMENTAL INSPECTION REPORT (W2020X0005 & W2020L8-0003)

Permittee:		RNAC- CARD Rayrock	November 17 th 2026	August 31, 2024			
			Permit Expiry Date	Last Previous Inspection			
Land Use Permit No.		2020X0005					
Quarrying Permit No.		23QP0001					
Water Licence No.		2020L8-0003					
Contractor:		nexen Environmental Services					
Location(s) Inspected: Camp, Facilities, Fuel Storage, Unauthorized Wastewater Containment Structure, Mill Lake Water Treatment Plant							
Current Stage of Operation: Seasonal shut down at end of construction season, preparation for winter road staging							
Program Modifications Approve	ed:	None					

Condition of Operation "A" - Acceptable "U" - Unacceptable "N/A" - Not Applicable "N/I" - Not Inspected

	Operating Condition	Aspect Inspected			Condition Reference	
		Camp/Activities				
А	Location and Area	А				
В	Time	А				
С	Type and Size of Equipment	А				
D	Methods & Techniques	А				
E	Type, Location, Capacity, and Operation of All Facilities	А				
F	Control or Prevention of Ponding of Water, Flooding, Erosion, Slides, and Subsidence of Land	А				
G	Use, Storage, Handling, and Ultimate Disposal of Any Chemical or Toxic Material	А				
н	Wildlife and Fish Habitat	А				
I	Storage and Handling of Refuse and Sewage	А*				C54
J	Historical / Archaeological Sites	А				
к	Objects and Places of Recreational, Scenic, and Ecological Value	N/A				
L	Security Deposit	N/A				
М	Fuel Storage	А*				C64, C75
N	Methods and Techniques for Debris and Brush Disposal	А				
0	Restoration of Lands	А				
Р	Display of Permits and Permit Numbers	A				
Q	Biological and Physical Protection of the Land	A				
R	Sections 8 to 12 / 14 to 16 M.V.L.U.R.	A				
S	Quarrying Methods	A				



ENVIRONMENTAL INSPECTION REPORT

(Continued)

Date:	October 18 st , 2024	Permit #:	W2020X0005; W2020L8-0003

Explanatory Remarks:

An inspection of the CIRNAC-CARD Rayrock remediation project was completed by Erika Nissen and Megan Larose on October 18th, 2024. The inspection was conducted to assess compliance with the terms and conditions outlined in the relevant land use permit, water license, quarry permit, and approved management plans. Additionally, the inspection aimed to monitor the status of an unauthorized wastewater containment structure and observe the condition of the site prior to seasonal shut down.

The main camp area at Rayrock remains well-maintained and appeared to be in good condition in advance of the seasonal shut down. As site operations shut down temporarily over the late fall and early winter season, most personnel were already off site. Camp accommodations, including the camp wastewater treatment plant had been closed and winterized, and will be reopened in the spring of 2025. A small winter camp is expected to open in advance of winter road construction and winter resupply activities. It is understood that a new wastewater treatment plant will be mobilized to site by winter road.

Camp wastewater that was not treated, or treated but did not meet Effluent Quality Criteria (EQC) during the 2024 construction season was added to a second bladder tank and contained within the wastewater containment structure. Two bladder tanks currently occupy the structure, one filled close to capacity, and the second, partially filled, with a small amount of freestanding water at the bottom of the structure (Photo #1). During the inspection, several tears were observed in the liner of the the wastewater containment structure (Photo #2, 3). Repairs to the liner must be addressed in the spring 2025 construction season so that the structure continues to function as secondary containment.

The Inspectors observed the waste material that has accumulated on site and applicable waste management efforts in place. Photo #4 shows the camp waste incinerator and waste materials. Waste materials were well organized and contained in white double-walled bags and aggregated for removal via winter road in early 2025 (Photo #5). Several secondary containment berms containing waste materials and fuel drums were observed to be filled with water and ice during the inspection, making them ineffective per condition 64 of the land use permit (Photo #6). The Inspectors reminded on-site personnel that berms must be dry and regularly maintained to effectively function as secondary containment in accordance with the approved Spill Contingency Plan. On October 19, 2024, a photograph of the temporary measures implemented to address the berms over-winter condion were received by the Inspectors, which included reinforcements to berm walls (Photo #7). Additional effort to maintain all secondary containment on-site is required during the 2025 construction season.

Erosion control measures on site were observed to be in good condition at the time of the inspection, including road adjacent silt curtains that will be relied on during spring freshet conditions to mitigate erosion from melting snow (Photo #8).

The Inspectors visited the partially constructed Confined Disposal Facility (CDF) and Mill Lake water treatment plant. Two geotube structures filled with contaminated sediment from Mill Lake were observed in the lined portion of the CDF (Photo #9). Inside the Mill Lake water treatment plant, measures had been taken to winterize and shelter equipment. A missing drip tray was noted under a stationary vehicle (Photo #10), but all other vehicles and machinery on site had secondary containment (Photo #11). On-site personnel provided an update that sorbent pads were added to machinery missing them as of October 19, 2024.

During the inspection, additional downed and leaning timber was noted along some of the access roads and by one of the dock locations (Photo #12). The Inspectors reminded on-site personnel to avoid taking down trees unnecessarily and in instances where trees must be removed, fallen timber should be approriately disposed of, including removal of leaning trees and brush.



Crown-Indigenous Relations and Northern Affairs Canada

A fly-over of Mill Lake when departing site displayed the significant construction progress undertaken this past season (Photo #13). The Inspectors extend their gratitude to Nicolas Robichaud at Sanexen for facilitating the end of season site visit and implementing corrective actions prior to closing down the camp. The Inspectors look forward to the upcoming 2025 winter road season.

For any inquiries or concerns, please contact Erika Nissen at (867) 669-2442.

Eilen Mon

*

Crown-Indigenous Relations and Northern Affairs Canada

Relations Couronne-Autochtones et Affaires du Nord Canada









Crown-Indigenous Relations and Northern Affairs Canada

Relations Couronne-Autochtones et Affaires du Nord Canada



Photo #13: Overview of Mill Lake, the CDF, and the Mill Lake water treatment facility.