



***NUCLEAR. The Clean Air Energy.***

**CAMECO CORPORATION**  
**ABANDONMENT AND RESTORATION PLAN**  
**for the**  
**NUELTIN LAKE PROJECT, NUNAVUT**

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# **Abandonment and Restoration Plan for the Nueltin Lake Project, Nunavut**

## **1.0 PREAMBLE**

This Abandonment and Restoration (AR) Plan relates to exploration activities on the Nueltin Lake exploration project of Cameco Corporation located in southern Nunavut approximately 15 km north of the Manitoba border. It is located approximately 185 km northeast of Lac Brochet, MB and 350 km west-southwest of Arviat, NU. The project, consisting of 1 mineral lease and 34 mineral claims is centered at 60° 7' N, 99° 59' 30" W. There is no exploration camp, as all field crews will stay at the Treeline Lodge of Nueltin Lake Lodge in northwestern Manitoba. The plan shall be in effect from the present (under land use permit N2008C0006 and a pending water permit) until May 24, 2010 or until expiry of permit renewals. The location of the project area is shown in Figures 1 and 2.

## **2.0 INTRODUCTION**

This AR plan applies to the exploration activities on the Nueltin Lake uranium exploration project operated by Cameco Corporation. The exploration activities are based out of a commercial camp, Treeline Lodge of Nueltin Lake Lodge in northwestern Manitoba, which has a 30 person exploration camp in addition to the recreational fishing camp. This plan covers exploration activities (including exploration drilling) and fuel caches and their required reclamation.

Questions regarding this plan should be addressed to Kristl Hoksbergen, the geologist managing the project (306-956-6427 or kristl\_hoksbergen@cameco.com) or Gerard Zaluski, District Geologist – Nunavut and Northwest Territories (306-956-6359 or gerard\_zaluski@cameco.com).

## **3.0 SCHEDULE**

As a grassroots exploration project, the site will be seasonally occupied and temporary. A nearby commercial camp will be used for accommodation. This plan therefore addresses exploration activities and impacts only. Routine or progressive restoration practices will be used wherever possible, including garbage disposal, removal of empty fuel drums, and restoration of drill sites. This will minimize the scale of the final reclamation. Final restoration will begin upon completion or cessation of exploration activities. No buildings, equipment, or waste will remain beyond the expiration date of the permits unless new permits are being obtained.

## **4.0 SITE INFRASTRUCTURE**

As there is no camp on the project, no buildings or other infrastructure exists. Drilling supplies and other components (eg. drill shack) will be removed upon completion of the seasonal exploration programs.

## **5.0 ROUTINE AND PROGRESSIVE RESTORATION**

### **5.1 Camp Waste**

No camp wastes will be directly related to this project as no camp is present.

### **5.2 Fuel and Chemicals**

Empty fuel drums, propane cylinders, and chemical containers will be removed from camp and returned to Nueltin Lake Lodge.

### **5.3 Drill Sites**

Progressive reclamation will be undertaken during drilling programs, where sites will be restored as soon as possible after the drill has been removed. The timbers from the drill pad will all be removed from the site and the area leveled with a hand rake. Efforts will be made to return the site to as natural a condition as possible.

#### **5.3.1 Drill Holes**

After completion of the drill holes casing will be removed or cut off at ground level. Drill holes will be sealed by cementing the top 30 m of the bedrock.

#### **5.3.2 Sumps**

Sumps shall be constructed to collect all drill waste including water, cuttings, salts, and mud and will be at least 30 m away from the ordinary high water mark of a water body. Upon completion of the hole, the cuttings will be backfilled into the holes and/or sumps. Sumps will be scanned to ensure that gamma radiation is <1 uSv/hr. Radioactive cuttings will be disposed of as the proceeding section. The sumps will be filled and leveled.

#### **5.3.3 Radioactivity**

Drill mud solids and cuttings with a uranium concentration greater than 0.05%  $U_3O_8$  will be collected and backfilled down the drill hole. Any drill hole with mineralization greater than 1.0%  $U_3O_8$  over 1.0 m and with a meter-percent > 5.0 will be sealed by grouting throughout the mineralized interval (at least 10 m above and below).

#### **5.3.4 Waste**

All wastes will be removed from the drill site and flown to camp. Combustible wastes will be incinerated and non-combustible wastes will be removed to an authorized disposal site.

#### **5.3.5 Site Inspection and Documentation**

Each drill hole location will be located by GPS. Photos will be taken of each site both before and after drilling in order to monitor the restoration. This information will be provided in annual permit reports.

## **6.0 SEASONAL SHUTDOWN**

Exploration activities will be seasonal in nature (May through September). Upon completion of the field season all exploration equipment will be removed from the project area.

### **6.1 Buildings**

No buildings are present.

### **6.2 Water System**

Water pumps for drilling will be disconnected, drained, and removed from the site.

### **6.3 Fuel and Chemicals**

An inventory of all fuel in caches will be made at the end of each season. All empty containers will be removed from the site (including fuel drums, propane cylinders, and chemical containers). All chemicals (including cleaning supplies) will be removed from the site for the winter. Bulky items for drilling such as salt and cement will be removed from the project area.

### **6.4 Waste**

#### **6.4.1 Combustible Waste**

All combustible waste will be removed to Nueltin Lake Lodge for incineration.

#### **6.4.2 Non-combustible Waste**

All non-combustible waste will be collected and removed to an authorized disposal or recycling facility.

### **6.5 Core Shack and Racks**

No core shack will be situated on the claims, as core logging will be undertaken on a site near Nueltin Lake Lodge.

All drill core will be properly stored in proper core racks. Gamma radiation levels at long term core storage facilities shall not exceed 1.0 uSv measured 1 m from the surface and in no instance shall exceed 2.5 uSv.

### **6.6 Drill Sites**

At the completion of the drill program the drill will be dismantled and all drilling supplies will be removed from the drill site. The drill will either be demobilized from the project (back to its base of operation) or wintered at the camp site if such arrangements are made with the drilling contractor. In this latter case, the drill will be winterized and all components secured.

As discussed above, drill sites will be progressively restored immediately after the

drill has been removed. However, at the end of the season all drill sites will be inspected to ensure they have been adequately cleaned and reclaimed.

#### **6.7 Contamination Clean-Up**

Drill sites, the camp, and fuel caches will be inspected for soil contamination that was not noted previously. Any contaminated soil will be treated as outlined in the Spill Response Plan.

#### **6.8 Inspection and Documentation**

All disturbed sites (drill sites, camp, and fuel caches) will be catalogued and inspected prior to the seasonal closure. The final state of these sites will be documented and photographed. The results of these inspections will be provided in annual reports to the water resource inspector, NWB, and INAC.

### **7.0 FINAL ABANDONMENT AND RESTORATION**

The following plans are made for final abandonment and restoration of the project once all exploration on the projects ceases and prior to expiration of the land and water use permits.

#### **7.1 Buildings and Contents**

No buildings are present or planned for the project area and therefore will not require removal. All equipment will be removed from the site.

Final inspection will be made after restoration of the project to ensure that no waste or materials remain. Photos will be taken to record the final condition.

#### **7.2 Fuel Caches and Chemical Containers**

Since containers will be removed throughout the program, final remediation will be minimal. All remaining containers from fuel caches or drill sites will be removed. Fuel cache sites will be inspected, all debris and berms removed, and final photos will be taken of all sites. Any contaminated soils will be treated as outlined in the Spill Contingency Plan.

#### **7.3 Sumps**

All sumps will be filled, inspected, and leveled. Final photos and GPS locations will be collected and the information supplied to the Nunavut Water Board.

#### **7.4 Drill Sites**

Final inspection will be made to ensure that all drilling equipment, rods, and timbers have been removed from the project area. Sites will be inspected for contamination (treated according to the spill response plan if necessary), leveled, and covered.

#### **7.5 Core Storage**

The core storage site (off property) will be properly cleaned and maintained to

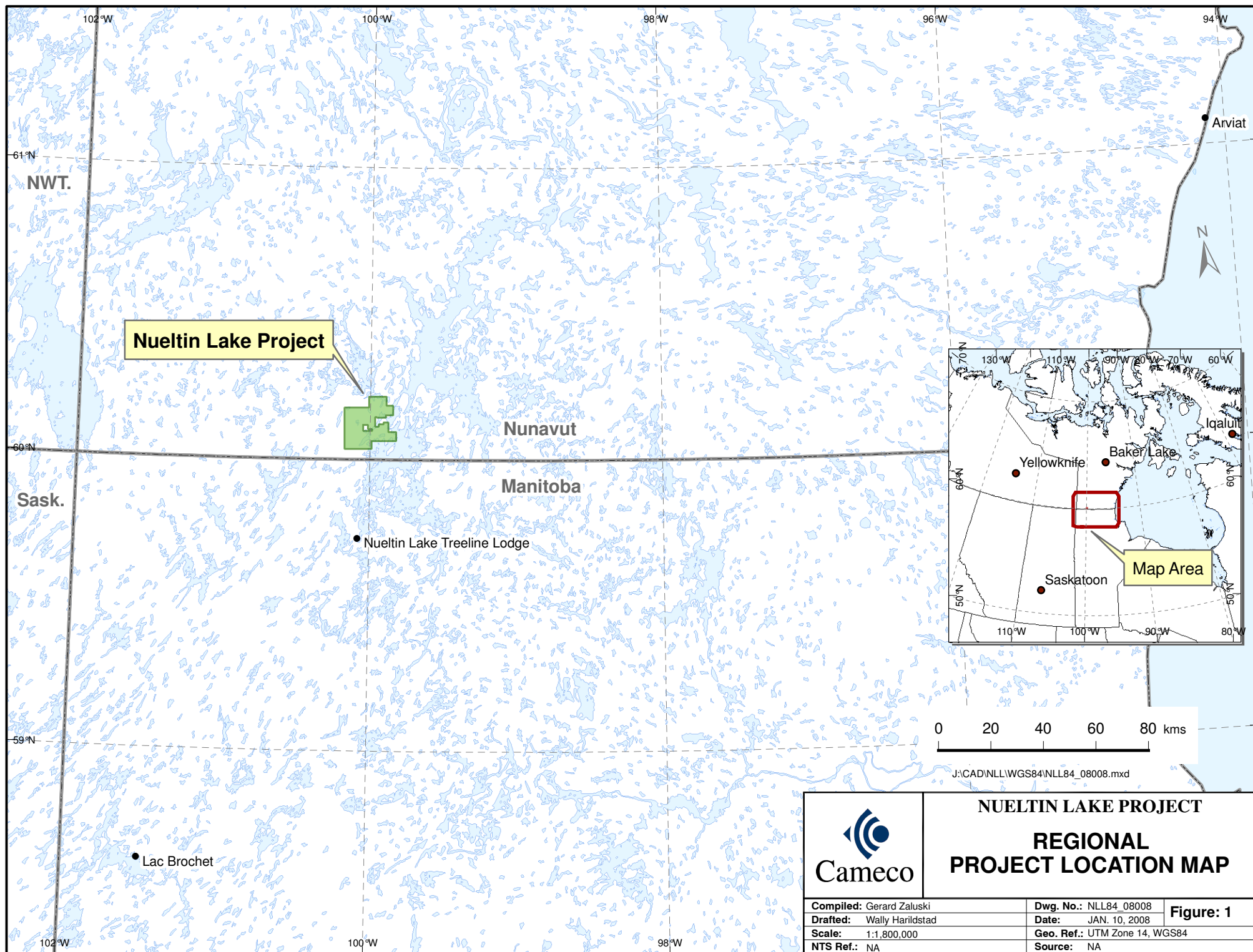
ensure longevity. Radiation levels will be ensured to be below regulation limits (1 uSv/hr at 1 m).

#### **7.6 Contamination Clean-up**

All sites will be inspected for contamination and if necessary treated according to the Spill Contingency Plan. Any sites requiring cleanup will be documented by GPS locations and photographs. All chemicals will be removed from the site at the end of the project.

#### **7.7 Final Inspection and Documentation**

Upon completion of the final abandonment and restoration, photos will be taken and activities documented. This information will be provided in a final report of the appropriate licensing agencies.



**Cameco**

## NUELTIN LAKE PROJECT

### REGIONAL PROJECT LOCATION MAP

<b>Compiled:</b> Gerard Zaluski	<b>Dwg. No.:</b> NLL84_08008	<b>Figure: 1</b>
<b>Drafted:</b> Wally Harildstad	<b>Date:</b> JAN. 10, 2008	
<b>Scale:</b> 1:1,800,000	<b>Geo. Ref.:</b> UTM Zone 14, WGS84	
<b>NTS Ref.:</b> NA	<b>Source:</b> NA	

