RADIATION HAZARD CONTROL PLAN
YATH PROPERTY
GENERATION URANIUM INC.

Effective Date: March 10, 2025

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1. Introduction

This Radiation Hazard Control Plan (RHCP) applies specifically to the Generation Uranium Inc. Yath Property (the Property or the Project) and is in effect as of March 10, 2025.

The purpose of this RHCP is to establish procedures to provide a safe workplace for employees while using best practices to minimize disturbance to the environment. A copy of this RHCP will be kept in the office at site and at the head office in Vancouver. Copies of this RHCP may be obtained from Generation Uranium.

Generation Uranium endeavors to take every reasonable precaution toward ensuring the protection and conservation of the natural environment, and the safety and health of all employees, contractors, and the public from any potential harmful effects of materials and operations on the Project.

This RHCP should be used in conjunction with other Property plans and Best Management Practices (BMP). Other plans at the Yath Property include:

- Waste Management Plan (WMP)
- Emergency Response Plan (ERP)
- Environmental and Wildlife Management Plan (EWMP)
- Abandonment and Restoration Plan (ARP)
- Spill Contingency Plan (SCP)
- Fuel Management Plan (FMP)

1.1. Corporate Details

Generation Uranium Inc.
6th Floor- 905 West Pender Street
Vancouver, British Columbia, V6C 1L6
Tel: 604.773.0992
https://generationuranium.com/

1.2. Project Description

The Yath Property (the Property or the Project), owned and operated by Generation Uranium Inc. ('Generation Uranium' or the Company), is located 350 kilometres west of Kangiqtiniq (Rankin Inlet) and 230 kilometres southwest of Qamani'tuaq (Baker Lake), in the Kivalliq Region of Nunavut. The Project comprises 9 mineral claims and encompasses 14085.4 hectares of Crown Land on NTS map sheets 65 J/10 and 65 J/11. The Property extends north, south, east and west between latitudes 62°32' and 62°40' North and longitudes 98°36' and 99°12' West or Universal Transverse Mercator (UTM) coordinates 6935036mN to 6947575mN and 490334mE to 520419mE, North American Datum (NAD 83, Zone 14).

Activities at the Property will include general exploration activities (geological mapping, prospecting, geochemical sampling, ground and airborne geophysical surveys) and drilling. Drillhole locations are still to be determined, but locations will be submitted to NWB and CIRNAC for approval prior to any ground disturbance.

A 10-to-15-person seasonal exploration camp with a fuel cache will be established to support the exploration and drilling programs. The location of the camp is still to be determined, but suitable locations will be submitted to NWB and CIRNAC for approval prior to establishment.

Exploration activities are anticipated to be conducted annually from January to September. In-person consultation visits will be conducted annually, prior to the commencement of operations, to discuss the proposed exploration program, any concerns the KIA, Hamlets, HTO's, and community members may have, and to incorporate any available Inuit Qaujimajatuqangit traditional knowledge.

2. Regulatory Sources and Guidelines

Exploration activities in Nunavut must comply with the *Territorial Land Use Act* and *Territorial Land Use Regulations* as well as the *Mine Health and Safety Act* of the Northwest Territories and Nunavut. In addition, uranium exploration is subject to the Canadian Guidelines for the Management of Naturally Occurring Radioactive Material (NORM). Transportation of mineralized core and samples is governed by the *Packaging and Transportation of Nuclear Substance Regulations*, administered by the CNSC, as well as Transport Canada's *Transportation of Dangerous Goods Regulations*.

3. Radiation

During mineral exploration activities, the source of radiation is from naturally occurring radioactive material (NORM). NORM primarily contains uranium and thorium (which can release radon gas during decay) and potassium. Radiation is energy that is transmitted in the form of waves or particles and can be divided into two types: ionizing and non-ionizing. Ionizing radiation has enough energy to remove electrons from an atom, creating ions which can be harmful to human health. While humans are exposed to radiation from a number of natural (e.g., soil, rocks, sun) and artificial sources (e.g., x-rays, smoke detectors), the goal is to keep exposure to ionizing radiation as low as reasonably achievable.

As it relates to NORM, there are three relevant types of radiation:

- **Alpha particles**: relatively heavy charged particles (i.e. helium nuclei) that are readily stopped by material such as a sheet of paper. Alpha particles are of concern to human health or safety if they are ingested or inhaled.
- **Beta particles**: lighter charged particles (i.e. electrons or positrons) with slightly more penetrating power, however, can be stopped by a small amount of shielding such as clothing or a sheet of plastic. Some beta particles can penetrate the skin, however, as with alpha particles, are primarily a concern when they are inhaled or ingested.
- **Gamma rays**: electromagnetic radiation with high penetrating ability. Gamma rays can easily pass completely through the human body or be absorbed by tissue, causing a radiation hazard for the entire body. Gamma rays can be absorbed by denser materials such as concrete or lead.

In general, exposure to radiation can be reduced by minimizing the time spent close to radioactive sources, increasing the distance from the source, and by shielding. These principles of radiation protection are known

as “time, distance and shielding”. The protective measures outlined in this Plan take these principles into account.

The maximum amount of radiation people are allowed to receive in the workplace is regulated. For people involved in uranium exploration, the exposure limit allowed in the workplace is 1 mSv which is the same limit as members of the general public. In contrast, a nuclear energy worker (e.g., someone working in a uranium mine or a nuclear power plant), the annual limit is 50 mSv per year and 100 mSv over 5 years (an average of 20 mSv per year).

4. Radiation Protection Basics

The greatest potential of external exposure to radiation during uranium exploration is from uranium mineralization. Simple radiation protection is achieved by adhering to the three principles of Time, Distance, and Shielding:

- **Time** - radiation exposure is reduced by minimizing your time spent close to a radioactive material;
- **Distance** - radiation exposure falls off drastically as the distance between you and the radioactive material is increased; and
- **Shielding** - radiation is absorbed by materials. External exposure is reduced by introducing thick steel sheeting, or concrete structures, between you and the radioactive material.

Good radiation protection practice during uranium exploration is not to loiter in the vicinity of uranium mineralization and radioactive sources. Uranium mineralization and radioactive sources should be stored 30 metres or more away from active work areas. When there is cause for an employee to approach uranium mineralization while undertaking core drilling, core inspection, core stacking, labeling, packing, or transporting, work should be planned standing at least 2 metres away from the material. The task should be carried out in close proximity to the material in minimum time. The employee should then withdraw 2 metres away to plan the next task. Always minimize time spent in close proximity to, and maintain distance from, radioactive material.

5. Radiation in Uranium Exploration

The potential sources of mineralized material encountered during exploration for uranium include naturally occurring mineralized outcrop or boulder fields, drill core, and drill cuttings. From these sources, radiation exposure may come from:

- Gamma radiation emitted from the uranium mineralization
- The inhalation of radon (and the resulting radon progeny decay products) emanating from the drill core and drill cuttings
- The inhalation of radioactive dust
- The ingestion of radioactive dust

The level of exposure when handling mineralization will depend on:

- The grade of the mineralization
- The amount of time spent with the mineralization
- The proximity to the mineralization
- The amount or volume of mineralization

The NORM Guidelines define four categories for annual worker radiation exposures in order of increasing radiological concern. The radiation protection requirements for the different annual doses are summarized in the table below:

Table 1 Annual Worker Radiation Exposure Categories

Annual Dose (mSv/y)	Radiation Protection Program
Dose < 0.3	**None - Unrestricted**
	No requirements for dose management.
0.3 < Dose < 1.0	**NORM Management**
	Radiation Surveys of work areas.
1.0 < Dose < 5.0	**Dose Management**
	Dose estimates via radiation surveys and worker occupancy times. Worker dose to be reported to National Dose Registry.
	Expert advice recommended.
Dose > 5.0	**Radiation Management**
	Formal radiation protection program and the use of Thermoluminescent Dosimeters (TLDs) for worker dose measurement. Expert advice will be necessary.

The annual exposure limit from both internal and external radiation for a uranium exploration worker is *1 mSv.*

6. Radiation Safety

Worker radiation exposures from the inhalation or ingestion of radioactive dust (or dirt) should not be a concern since enclosed areas such as core shacks are suitably ventilated, and all work areas will be kept clean. Workers should wash their hands after handling radioactive drill core and cuttings and before eating or smoking.

6.1.Training

All employees and contractors arriving on the Property are to be provided with an orientation that includes training on identifying radiation hazards and radiation protection appropriate for their job duties.

6.2.Radiation Protection (RP) Controls

Uranium exploration and drilling programs involve various grades of uranium ore and various levels of potential radiological hazards. A radiation level has been determined above which Radiation Protection (RP) controls are

initiated and all the elements of the Radiation Protection Guidelines described below come into effect. If the ore being handled is below this action level, general health and safety-related practices are to be in effect.

The RP level has been determined on the basis of available Federal and Provincial guidelines that address uranium exploration and radiological safety controls in mining areas. This indicates that areas with exposure rates that are less than 1 µSv/h don't require controls. An exposure rate greater than 1 µSv/h corresponds to a reading of 1000 cps at one metre on an exploration scintillometer and triggers Radiation Protection (RP) controls.

6.3.Radiation Protection Guidelines

Worker Responsibilities

All employees and contractors, collectively referred to as workers, active on the Property must:

- Attend required training, safety meetings and briefing sessions
- Be familiar with and adhere to this Plan
- Perform only those tasks that can be performed safely
- Report any unsafe conditions to their supervisor or Project Manager
- Wear a TLD (dosimeter) badge if assigned, store the badge appropriately when not in use, and immediately report if lost or damaged

Personal Protective Equipment

When working with uranium mineralization, the following personal protective equipment (PPE) is to be worn, as appropriate for the task at hand:

- Coveralls and gloves to protect from and minimize the spread of radioactive dust
- Safety glasses to protect eyes from beta radiation
- Use a ½ face particulate respirator when radioactive dust is expected (e.g., core splitting). Store respirator in a clean plastic bag away from the work area when not in use

General Protection Guidelines

The following measures are mandatory when working directly with or in an environment that may contain radioactive materials:

- Minimize time handling radioactive material and maximize distance from radioactive material
- Use shielding to block radioactive material (e.g. core lids on boxes not actively being logged)
- Do not wear work clothes or footwear that may have been in contact with mineralized material in non-work settings (kitchen tent, sleep tent, common areas, etc.)
- Maintain good hygiene by washing hands regularly (including after handing mineralized material and before eating or smoking), washing hair and clothes regularly
- Do not lick any rock
- Bandage open wounds

- Do not eat, drink or smoke in core shacks, splitting shacks, the dry, on the drill platform or any other location with elevated radiation levels
- Reduce dust by wetting the area with water on a regular basis
- Always work in well-ventilated environment
- Store radioactive material at least 30 metres away from where people regularly work or congregate (e.g., the drill shack and the core logging tent)

Personnel are expected to maintain personal hygiene as preventative measure to avoid the accumulation of radioactive material on their person. There is no expected risk of radiated water from the practice of personal hygiene. In the event PPE becomes exposed and measures 100 CPS or higher, all affected equipment will be sealed in 205 litre steel drums and stored in the radioactive waste storage area until it can be transported for proper disposal.

7. Activity-Based Precautions

7.1. Mapping, Prospecting and Geophysics

Exposure to uranium mineralization is predicted to be negligible during geological field mapping, prospecting and geophysical surveys. No additional radiation-related measures are required during these activities.

7.2. Drilling

Drill hole setups are to be located by GPS to facilitate future inspection and monitoring. Photos are to be taken before and after drilling. Scintillometer readings are to be taken around the drill site to determine the radiation levels before drilling occurs.

Upon commencement of drilling, the drill crews are to be notified of the depth mineralization is expected. While awaiting transportation, mineralized core is to be stored 30 metres from the drill shack and at least 30 m away from the ordinary high-water mark of any water body. A placard noting radiation is to be posted at the drill site core storage area.

For handling of mineralized cuttings, please refer to Generation Uranium's *Waste Management Plan*. For information on drill hole grouting requirements, please refer to Generation Uranium's *Abandonment and Restoration Plan*.

7.3. Core Logging

Drill core with radioactivity of >25 µSv/h, or with a NORM content greater than 0.5% uranium oxide equivalent (eU_3O_8) over one meter is to be logged in a "hot tent" at least 30 m away from other common work areas. A radiation warning sign must be placed on the core shack door when while radioactive core is inside.

8. Shipping and Transport

8.1.On-Site Transportation and Storage

Radioactive core may be temporarily stored on the Property in core stacks (e.g., while awaiting transport from the drill). Boxes of radioactive core will be secured using a wood or Plexiglass lid. Radioactive core will not be transported unless it is secured with a lid.

Once the uranium content has been established by assaying, a decision will be made on the long-range storage of the core. If stored on the Property, it will be located in the long-term core storage area for radioactive rocks that is a minimum of 100 meters away from the normal high-water mark of any water body. This core storage area will be located at a minimum of 31 metres from other working structures. Radiation levels must be reduced to less than 1.0 µSv measured at 1 metre from the surface and in no instance will be allowed to exceed 2.5 µSv. Core storage areas are to have signs indicating a radioactive hazard.

8.2. Off-site Transportation

The shipping of radioactive materials (Class 7) from the Project site is controlled by the CNSC Packaging and Transport of Nuclear Substances Regulations (PTNSR) and Transport Canada's Transportation of Dangerous Goods Act and Regulations.

The Project Manager, or designate, will supervise the shipping of radioactive materials and will ensure those shipping are certified to the standards required by the Transport of Dangerous Goods Regulations.

The Regulations stipulate that Low Specific Activity consignments are to be shipped as Excepted Packages if the radiation on the external surface does not exceed 5µSv/hr. The container must bear the UN Number as per PTNSR 17(2) and contain a marking of "radioactive" on an internal surface that is visible upon opening the package.

The transportation of uranium mineralization and ores that have an average specific activity in excess of 70 kBq/kg conforming to the requirements of the Packaging and Transport of Nuclear Substances Regulations.

Exploration camps have one exemption to the Transport of Dangerous Goods Regulations and are permitted to transport core samples by air, providing they are less than 100 mm in diameter and are packaged in accordance with the Packaging and Transport of Nuclear Substances Regulations.

8.3.Requirements for an Excepted Package

If the radiation intensity is < 5 µSv/hr, then the shipment may be considered an "Excepted Package" under CNSC regulations and the TDG regulations do not apply. Therefore, if the dose rate on the exterior of the package is <5 µSv/hr, it can be shipped under routine conditions of transportation – it can be considered a non-dangerous good. The following procedures must be followed when shipping an Excepted Package:

- A label marked "Radioactive Samples" must be placed inside the package in such a manner that the label is visible to the person opening the package.
- Removable radioactive contamination on the outside of the package must not exceed 0.4 Bq/cm2 averaged over 300 cm2.
- The United Nations Number "UN2910" is attached to one vertical side of the container.

- Both the Consignor and Consignee addresses are to be displayed on the exterior of the package.
- The weight must be shown on the exterior of the package if it exceeds 50 kilograms.
- The waybill requires the shipping name (Radioactive material, Excepted Package – Limited Quantity of Material) and the UN number.
- 3 copies of the documentation is required; one for the shipper, the carrier and the receiver

8.4.Requirements for Shipping Low Specific Activity – (LSA-1) Packages

If the dose rate on the exterior of the package is **>** 5 µSv/hr then the package will be shipped as a Low Specific Activity – (LSA-1) shipment. The following procedures must be followed when shipping any Low Specific Activity Package:

- Both the Consignor and Consignee addresses are to be displayed on the exterior of the package
- The weight must be shown on the exterior of the package if it exceeds 50 kilograms.
- The Shipping Name (Radioactive Material, Low Specific Activity) and the UN Number "UN2912" is attached to two (2) vertical and opposite sides of the shipping container.
- Three copies of the documentation is required; one for the shipper, the carrier, and the receiver.
- An LSA-1 shipment will require a shipper's document identifying the shipment as a Class 7 dangerous good.
- Radioactive Yellow II labels are attached next to the shipping name and UN number labels.
- On the Radioactive Yellow II Labels the following must be written:
    - Radioactive contents section write "LSA – 1"
    - Transportation Index - Estimate the activity in the package in Bq (this number must be in Bq units)
    - The Transportation Index is the gamma radiation intensity in µSv/hr at a distance of 1 metre from the exterior of the package divided by 10. For example the Transport Index for 4.5 µSv/hr will be 0.5 The package for an LSA-I Shipment must satisfy the IAEA Requirements for Type 1 Industrial Packages (Type IP-1) which are the same as for an Excepted Package plus:
    - The smallest external dimension of the package cannot be less than 10 centimetres
    - The container must be durable and legally marked on the outside "Type IP-1"

8.5.Standard Units of Measure

The standard unit of measure of the activity (number of atoms decaying per second) is the becquerel (Bq). Since 1 Bq is a very small quantity, larger multiples are used as follows:

1kBq	= kilobecquerel	= 1000 Bq	= 1 x 10^3 Bq
1MBq	= megabecquerel	= 1,000,000 Bq	= 1 x 10^6 Bq
1GBq	= gigabecquerel	= 1,000,000,000 Bq	= 1 x 10^9 Bq
1TBq	= terabecquerel	= 1,000,000,000,000 Bq	= 1 x 10^{12} Bq

Becquerels replace the curie (Ci) as the unit of measure of activity. The radiation dose-equivalent is expressed in units of sieverts (Sv). Smaller fractions are often used as follows:

1 mSv = millisievert = 0.001 Sv = 1 x 10-3 Sv

1 µSv = microsievert = 0.000001 Sv = 1 x 10-6 Sv

The sievert replaces the older unit for dose-equivalent, the “rem”.

9. Additional Information

Workers are encouraged to consult regulatory guidelines for additional Radiation Safety information. Copies of the Canadian Guideline for the Management of Naturally Occurring Radioactive Materials (NORM) from Health Canada, the Radiation Protection Guidelines for Uranium Exploration from Saskatchewan Labour, Occupational Health and Safety, the CNSC Radiation Protection Regulations and the CNSC Packaging and Transport of Nuclear Substance Regulations will be available for review from the Project Manager.

10. References and Resources

Associations

Prospectors and Developers Association

Federal Government

Canadian Guidelines for Management of Naturally Occurring Radioactive Materials (NORM)

Canadian Council of Ministers of the Environment, Canadian Water Quality Guidelines

Canadian Nuclear Safety Commission Occupational Exposure to Radiation

National Dosimetry Services (NDS)

Provincial Governments

Saskatchewan Labour - Occupational Health and Safety

Saskatchewan Environment – Mineral Exploration Guidelines for Saskatchewan

Other

Cameco Corporation

Aurora Energy Resources Inc.

Saskatchewan Research Council (SRC)

APPENDIX I

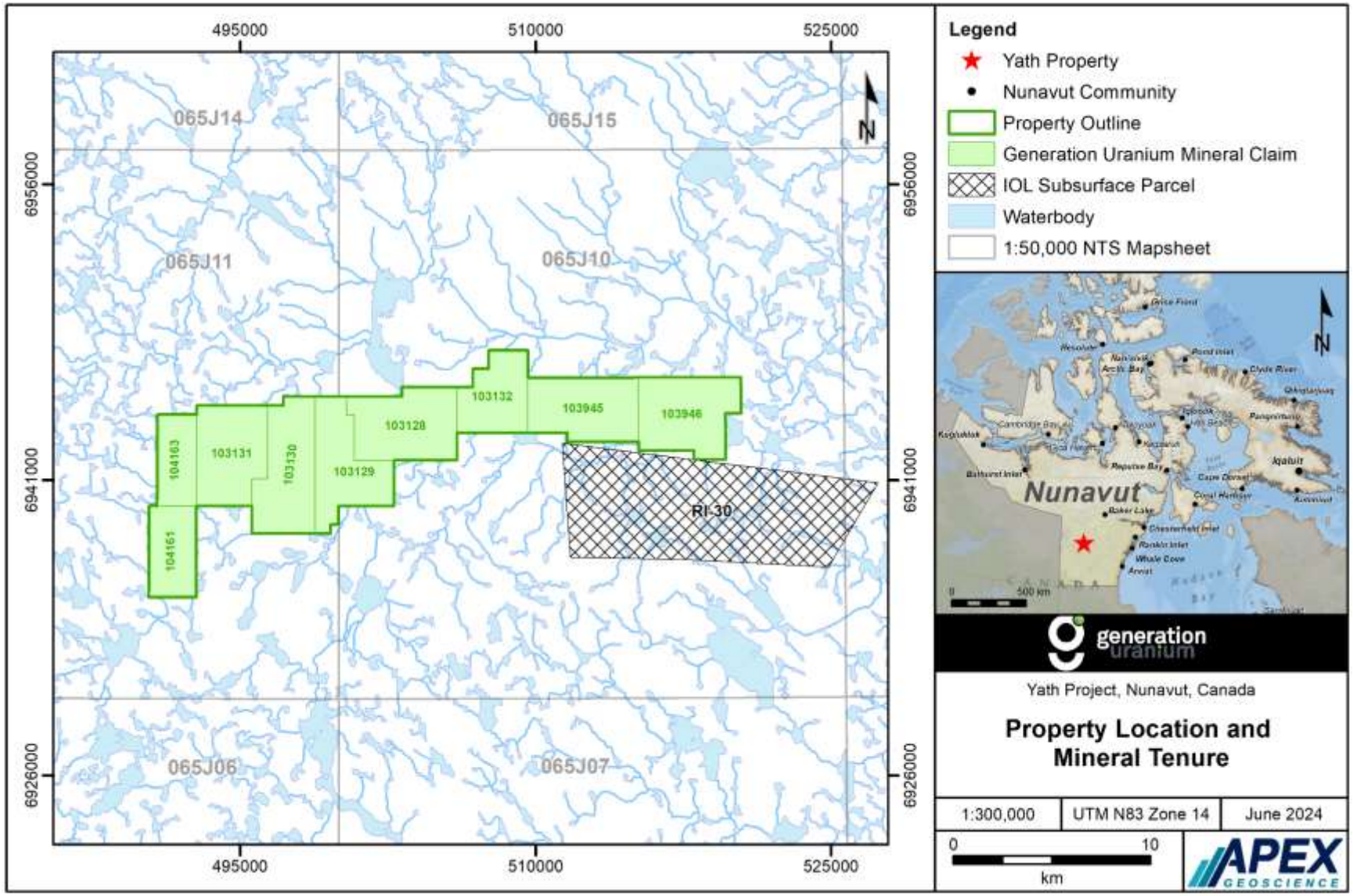

Figure 1: Yath Property Location and Mineral Tenure