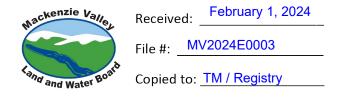
Government of Gouvernement des Northwest Territories Territoires du Nord-Ouest

Mackenzie Valley Land and Water Board P.O. Box 2130 4922 - 48th Street 7th Floor YK Centre Mall Yellowknife, NT. X1A 2P6



Land Use Permit Application: Renewal of NWT Highway 3 & 4 Operations and Maintenance Land Use Permit MV2017X0008

The Government of the Northwest Territories' Department of Infrastructure (GNWT-INF) is pleased to submit a land use permit renewal for the operations and maintenance activities for NWT Highway 3&4, currently issued under MV2017X0008.

It is believed that preliminary screening is not required as there is no change in scope from the MMV2017X0008 permit. Please find included the following:

- 1. Land Use Permit Application
- 2. Maps and Images
- 3. Quarry Information
- 4. Spill Contingency Plan
- 5. Waste Management Plan
- 6. Engagement Plan
- 7. Engagement Record

If you have any questions please contact Alexis Campbell via email at alexis campbell@gov.nt.ca or by phone at 867-767-9083 ext 31055.

Sincerely,

Terry Brookes Manager, Transportation **Design and Technical Services** Department of Infrastructure

Land and Water Boards of the Mackenzie Valley









LAND USE PERMIT APPLICATION FORM

Subsection 19(2) and Schedule 2 of the Mackenzie Valley Land Use Regulations

Use an "X" to indicate which	Mackenzie Valley Land and Water Board:	X	Sahtu Land and Water Board:	
Board the Application is being made to:	Wek'èezhìı Land and Water Board:		Gwich'in Land and Water Board:	

To complete this Form, please refer to the LWB <u>Guide to the Land Use Permitting Process</u> (Guide) and fill in the grey fields; attach additional pages, as necessary. Indicate N/A in the grey fields for Items or parts of Items that are not applicable. An application package checklist is provided in the Guide. Review the following LWB guidance for formatting your Application Package:

- <u>Document Submission Standards</u>
- <u>Standard Outline for Management Plans</u>

If applicable, provide the existing or current Land Use Permit file number:	MV2017X0008		
Use an "X" to indicate if this Application is a	Water Licence – in a non-federal area:		
by an Application for a Water Licence:	Water Licence – in a federal area:		

1. NAME AND CONTACT INFORMATION - APPLICANT

Project Name:	NWT Highway 3&4 Operations and Maintenance							
Applicant's Name:	Terry Brookes	erry Brookes						
Position:	Manager, Transportation	Vanager, Transportation						
Company Name:	Government of the Northwest Territories, Department of Infrastructure							
Mailing Address:	PO Box 1320							
Community:	/ellowknife Telephone: 867-767-9084 ext 31065							
Prov/Terr:	NT Email: Terry_Brookes@gov.nt.ca							
Postal Code:	X1A 2L9	Other:						

2. NAME AND CONTACT INFORMATION – APPLICANT'S HEAD OFFICE

Include a Certificate of Corporate Registration from the Government of the Northwest Territories in your Application Package.

Use an "X" to indic	X	
Name:		
Position:		
Company Name:		
Mailing Address:		
Community:		
Prov/Terr:	Telephone:	
Postal Code:	Email:	
Field Supervisor:	Other:	

3. NAME AND CONTACT INFORMATION - CONTRACTORS AND SUB-CONTRACTORS

Include relevant names, responsibilities, and contact information. An additional table should be added for each contractor and sub-contractor.

Name:		
Position:		
Company Name:		
Mailing Address:		
Community:	٦	Telephone:
Prov/Terr:	E	Email:
Postal Code:		Other:

X Use an "X" to indicate that contractor and/or subcontractor information is not available at this time.

4. LOCATION OF ACTIVITIES

Use the grey fields below to provide or reference the following information:

Traditional Place Name:

<u>Maps and Geographic Information System (GIS) Data:</u> Include a map in your Application Package identifying local geographic features, watercourses and water sources, project structures, and location(s) of any proposed waste deposits. Provide geographic coordinates (latitude and longitude) of project features, and the maximum and minimum project boundary in degrees, minutes, seconds, or decimal degrees. Include GIS data in your Application Package, if applicable. Refer to the LWB <u>Geospatial Data</u> <u>Submission Standards</u> for providing geographic information.

Minimum latitude:	62° 24' 12.0'' N	Maximum latitude:	62° 50' 32.0" N
Minimum longitude:	113° 19' 25.0" W	Maximum longitude:	116° 30' 02.0''W

NTS Map Sheet No.: Provide the map sheet number:

085F15,085K09,085K16,085J13,085J12,085J11,0 85J10,085J09,085J08,085J07,085I05,085I06,085I 11

<u>GIS Data:</u> <u>Use an "X" to indicate if GIS data is attached.</u> Attached:

Not Available:

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Page 2 of 13

Land Use Permit – Application

Land Types: Use an "X" to indicate the type(s) of the land on which the activities are proposed:

Free Hold/	Commissioner's/	v	Federal Land	Municipal Land	
Private:	Territorial Lands:	^	Federal Land:	Municipal Land:	

5. ELIGIBILITY

Refer to section 18 of the <u>Mackenzie Valley Land Use Regulations</u>. Use an "X" to indicate which one applies:

6. RIGHTS AND/OR CONTRACTS TO SUPPORT ELIGIBILITY

Contact Indigenous, federal, and territorial governments, and other parties to ensure all appropriate rights, authorizations, permissions, dispositions, and contracts have been obtained or are in the process of being obtained (e.g., mineral exploration rights, quarry permits, licences of occupation, leases, access agreements and authorizations, etc.). List and provide confirmation of other authorizations that relate to the proposed activities; reference these in your Application Package (e.g., rights, permits, licences, etc.).

Quarry permits are obtained by GNWT-Environment and Climate Change as required. A list of up to date quarry locations have been included and attached.

Current quarry permits are:

- HWY 4 km 32.5
- Hwy 3 km 310
- HWY 3 km 285
- HWY 3 km 272
- HWY 3 km 246

Quarry permits we plan on applying for within the next month:

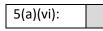
- HWY 3 km 154
- HWY 4 km 55
- HWY 4 km 11
- Possibly B.A.R. km 5 as a back up

7. PERMIT TYPE AND CRITERIA

Refer to sections 4 and 5 of the <u>Mackenzie Valley Land Use Regulations</u>. Use an "X" to indicate which permitting criteria apply:

	Т	ype A		Гуре В		Туре С	
4(a)(i):	Χ	4(b)(i):	5(a)(i):		5(b)(i):		(SLWB and WLWB only):
4(a)(ii):	Χ	4(b)(ii):	5(a)(ii):		5(b)(ii):		
4(a)(iii):	Χ	4(b)(iii):	5(a)(iii):				
4(a)(iv):	Χ	4(b)(iv):	5(a)(iv):				
4(a)(v):	Χ		5(a)(v):				

.....



8. PROJECT DESCRIPTION

Include a project description in your Application Package, or for small-scale projects, describe the proposed activities in the grey field provided below. For each and all proposed water uses, include the name and type (e.g., lake, river) of water source(s), and the purpose and quantity of water to be used (rates, volumes (m³/day)).

. . . .

The 'Operation' will consist of the following:

- The continuous and ongoing operation and maintenance of the existing NWT Public Highway system within the permit corridor along the Yellowknife Highway (NWT No.3) between kilometer 124 and kilometer 338.8 (end of highway #4) and along the Ingraham Trail (NWT No.4) between kilometer 0 (intersection with the Yellowknife Highway at km 337.3) and km 69.2 (Tibbitt Lake – the end of the highway) and includes the Community Access Roads for Behchokò and Dettah and other minor roads along the Yellowknife Highway – Ingraham Trail Corridor and as listed under the Public highways Act and Commissions Land for the Government of the NWT and includes all highways, roadways and other transportation infrastructure (i.e. roadway embankment maintenance, rehabilitation and reconstruction; bridge structures maintenance and replacement: culvert maintenance and replacement; establishment and maintenance of drainage channels, winter roads construction and maintenance; etc.). All operations and maintenance activities will be undertaken following the standards for highway maintenance as outlined in the Highway Maintenance Standards Manual, normal construction practices and in accordance with the various regulatory agencies, as applicable:

- The Permit area will be two (2) kilometer in width, one (I) kilometer on each side of the existing public highway/roadway centerline through the entire length of the permit corridor including access and minor roads as listed in the Public Highways Act;

- To access existing or future quarry areas within and outside the two (2) kilometer corridor;

- To develop new or further develop existing borrow areas to obtain granular borrow materials, common materials, blast rock (including use of explosives). rip-rap, clay, sand and gravel, from areas outside the existing 60 metre wide Public Highway corridors through applications to GNWT-ECC for Quarrying Permits;

- To carry out geotechnical investigations in the search for gravels and rock and for gathering preliminary engineering information for the design of foundations for roadways, bridges and other structures {as required};

-To place and maintain granular stockpiles at existing or approved quarry sites for the purpose of ongoing operations and maintenance or the public highway system within the permit corridor;

-To place temporary construction/work camps at existing quarries or previously developed sites within the permit corridor for the purpose of carrying out operations and maintenance of the public highway system and other roadways within the permit corridor;

-To temporarily store construction, operations and maintenance equipment at the various existing quarries or other previously developed sites within the permit corridor while carrying out these activities in the area;

-To access water sources for the ongoing operations and maintenance of the public highway system within the permit corridor:

-To have right of access to one kilometre (I 000 metres) on each side (left and right) to the public highway/roadway center line for the purpose of carrying out granular and geotechnical investigations, quarry pit development. drainage channel construction, stockpiling granular and other construction materials and placement of temporary construction/work camps;

-To construct and maintain sand and sand/salt storage facilities at strategic locations along the designated highway corridor; and,

-To construct, operate and maintain pullouts/rest areas at strategic locations along the designated highway corridor.

Indicate the total number of hectares to be used in each phase of the project, as well as through the life of the project.

9. CAMP

Describe the proposed camp size and layout. Indicate the number of person-days; explain, with rationale,

The placement of temporary construction/work camps may he required to carry out temporary construction/roadway improvement activities with regards to the ongoing operation and maintenance of the public highway system within the permit area (i.e. gravel production, granular resurfacing, chip seal overlays, culvert maintenance and replacement, embankment widening and improvements, right-of way maintenance). These temporary construction/work camps will be set up in existing or previously developed quarry areas. The layout of each camp can vary greatly depending on the number of people needed onsite but may require trailers to be used for accommodations, cooking, etc.

The exact location of the camps is not able to be determined at this time and will be chosen when/if a camp is required. The regional lands inspector will be notified if a camp is required.

A list of existing and previously developed quarry areas are included in the quarry information attached.

any variations in the number of people that may be on site over the life of the project.

10. ROADS AND ACCESSES

Provide detailed information about the construction, location, and decommissioning of any roads and accesses.

Use an "X" to indicate if this is to	Yes		Use an "X" to indicate if the route	Yes	X
be a pioneered road or access:	No	Х	has been laid out or ground-truthed:	No	

Access to NWT Highway 3 and 4 is established through the NWT Highway system

11. PROPOSED WASTE MANAGEMENT METHODS

Use the grey fields below to provide or reference the following information:

<u>Waste Management Plan</u>: Include a Waste Management Plan in your Application Package, if applicable, or for small-scale projects, describe the proposed waste management activities in the grey fields provided below. A template for the Plan can be found in the LWB <u>Guidelines for Developing a Waste Management</u> <u>Plan</u>.

Waste Type	Management Method(s)
Garbage:	Please see attached WMP
Sewage (Sanitary and greywater):	Please see attached WMP
Brush and trees:	Please see attached WMP
Overburden (Organic soils, waste material, etc.):	Please see attached WMP

Land Use Permit – Application

Page 6 of 13

Other (describe):	Please see attached WMP
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<u>Off-site Disposal</u>: If waste is proposed to be disposed of off-site within the NWT, written confirmation (e.g., an email, letter, etc.) from the facility/facilities indicating they will accept the waste is required. Include it/these in your Application Package. Please note this information will be required by the Board prior to commencement of activities.

12. EQUIPMENT

Identify the types of equipment proposed to be used.

Number	Type/Description	Size (weight in tonnes)	Proposed use
	Please see attached		
	equipment list		

13. FUEL

Identify all fuel types proposed to be used.

Type of Fuel	Number of containers	Capacity of containers (e.g., litres, pounds)	Type of container (e.g., barrel, tank, tidy- tank)	Proposed storage or staging location(s)
Diesel:	Varies- All containers are non- permanent/port able	Up to 50,000L combined total	Doubled walled enviro- tanks, Tidy tank, Jerry Cans, etc.	Temporary camps and worksites along the ROW. The exact location of the camps is not able to be determined at this time and will be chosen when/if a camp is required. The regional lands inspector will be notified if a camp is required.
Gasoline:	Varies- All containers are non- permanent/port able		Doubled walled enviro- tanks, Tidy tank, Jerry Cans, etc.	Temporary camps and worksites along the ROW. The exact location of the camps is not able to be determined at this time and will be chosen when/if a camp is required.

Land Use Permit – Application

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Page 7 of 13

		The regional lands
		inspector will be
		notified if a camp is
		required.
Aviation Fuel:		
Propane:		
Other: (describe)		

14. METHODS OF FUEL TRANSFER

Describe the proposed methods to transfer fuel.

Fuel tanks vary in size, fuel will be delivered by a certified carrier (as per current and future contract arrangements). Tanker delivery trucks of bulk fuel will deliver the fuel to the Departments or Contractors enviro-tanks, staged at various locations along the highway system. These are portable, doubled walled fuel tanks and are transported to and from temporary construction/work camp locations established to carry out the undertakings, as described herein, for the ongoing operations and maintenance of the public highway system and other transportation infrastructure within the permit area as required. Secondary containment will be used at all refueling locations.

Fuel will be stored at various locations along the highway system at temporary construction/work camps. These temporary construction/work camps will be set up in existing or previously developed quarry areas. The layout of each camp can vary greatly depending on the number of people needed onsite but may require trailers to be used for accommodations, cooking, etc.

The exact location of the camps is not able to be determined at this time and will be chosen when/if a camp is required. The regional lands inspector will be notified if a camp is required.

A list of existing and previously developed quarry areas are included in the quarry information attached

15. SPILL CONTINGENCY PLAN

S.S.S.S.S.

Include a Spill Contingency Plan in your Application Package, if applicable, or for small-scale projects, provide relevant details in the grey field provided below. An example of this Plan can be found in the INAC *Guidelines for Spill Contingency Planning*.

Please see attached Spill Contingency Plan

16. PROPOSED PROJECT SCHEDULE AND TERM

Indicate the proposed project start and completion dates and the time of year the project activities are planned to occur. Describe any anticipated temporary closure(s) or seasonal shutdowns. Indicate the term requested.

Start Date:	April 19, 2024	Completion Date:	April 19, 2031
•	intenance of the highway sy requesting a 2 year extension		ement. INF is seeking a 5
Land Use Permit – Applica	ation		Page 8 of 13

Term of Permit Requested:	5 year permit

17. POTENTIAL ENVIRONMENTAL IMPACTS OF THE PROJECT AND PROPOSED MITIGATIONS

If the proposed project, or parts of the proposed project, may be exempt from preliminary screening, describe the rationale for the exemption in the grey field below. Include the date of the most recent screening, and/or the environmental assessment or impact review number.

The operations and maintenance of the highway has been previously screened under current permit MV2017X0008 and no change in scope is requested. Therefore project is exempt from preliminary screening

Unless the project could be exempt from preliminary screening, using the Impact-Mitigation Table below, or the more detailed Table in Appendix D of the <u>Guide</u>, identify all potential impacts and possible mitigations that are relevant to the proposed project, and indicate whether any of the mitigation measures have been developed as a result of input from affected parties. Possible potential impacts are listed below; however, these lists are not exhaustive and may not apply to all projects. All information provided should reflect the size, scale, and nature of the proposed project. Cumulative impacts and climate change must be considered. Attach additional pages if needed. Use landscape orientation if preferred.

Potential Impacts Use an "X" to indicate which apply	X	Potential Project Impacts and Proposed Mitigations Describe the potential impact(s) and the proposed measure(s) to reduce each of these impacts.			
	ABIOTIC COMPONENTS				
Soil contamination					
Soil compaction					
Destabilization/erosion					
Change in soil structure					
Inability to support vegetation					
Other					
<u>۱</u>	Vat	er			
Grou	Ind	water			
Water table alteration					
Infiltration changes					
Changes in water quality					
Temperature changes					
Other					
Permafrost					
Loss or change in extent					
Changes in seasonal fluctuations					
Change in persistence					
Other					

Land Use Permit – Application

Page 9 of 13

Potential Impacts Use an "X" to indicate which apply	x	Potential Project Impacts and Proposed Mitigations Describe the potential impact(s) and the proposed
		measure(s) to reduce each of these impacts.
Surfa	ice V	/ater
Water flow or level changes (permanent, temporary, seasonal)		
Drainage pattern changes		
Temperature changes		
Changes in water quality		
Wetland impairment		
Changes to aquatic habitat (see Biotic section below)		
Other		
	Air	
Changes in air quality		
Harm to living things		
Increased greenhouse gases		
Other		
BIOTIC C	ОМР	PONENTS
	getat	
Direct loss of vegetation	setat	
Loss of Species at Risk or may-be-at-risk plants		
Change in species composition		
Introduction of non-native (invasive) species		
Effects on plant health (dust, metals, toxins)		
Increased risk of fire		
Compaction of vegetation		
Other		
Terrestrial	Wildl	ife Habitat
Direct loss or removal of habitat, dens, or nests		
Loss or removal of keystone species and/or Species at Risk habitat		
Fragmentation of wildlife corridor		
Direct injury or mortality		
Disturbances to key lifecycle stages: breeding, feeding, nesting, staging		
Effects on population abundance		
Change in species diversity		
Effects on wildlife health (toxins, metals, etc.)		
Changes to migratory movement patterns		
Changes to predator-prey relationships		
Human-wildlife conflicts		
Other		
Aquat	tic Ha	abitat
Breeding disturbances		
Change in species diversity		

Potential Impacts Use an "X" to indicate which apply Changes to migratory movement patterns Changes to predator-prey relationships Effects on population abundance	x	Potential Project Impacts and Proposed Mitigations Describe the potential impact(s) and the proposed measure(s) to reduce each of these impacts.
Change in species diversity		
Other		
		MPONENTS
Wildlife	На	rvesting
Loss or reduction in game species populations		
Effects on traditional land use, subsistence, and harvesting rights		
Other		
Cultural Integrity a	nd I	Heritage Resources
Change to or loss of cultural integrity		
Change to or loss of traditional lifestyle		
Change to or loss of heritage resource		
Other		
Social and Eco	nor	nic Well-being
Increased human health hazard and risk		
Economic opportunities or losses (employment, training)		
Change in ecological, cultural, social, or economic values identified for protection in approved Land Use Plans		
Impairment of the recreational or traditional uses of the land or water		
Impairment of the aesthetic quality of the land or water		
Changes to the use of the area by other non- Indigenous people (e.g., trappers, outfitters, residents, hunters, forest harvesters, other authorized projects) Other		

18. CLOSURE AND RECLAMATION

Use the grey field below to provide or reference the following information:

<u>Closure and Reclamation Plan</u>: Include a Closure and Reclamation Plan in the Application Package, if applicable, or for small-scale projects, describe the proposed closure and reclamation activities in the grey field provided below. Describe any temporary closure(s) and seasonal shutdowns. Please also refer to the LWB/AANDC <u>Guidelines for the Closure and Reclamation of Advanced Mineral Exploration and Mine Sites in the Northwest Territories</u>.

<u>Closure Cost Estimate</u>: Prepare a Closure Cost Estimate and include it in your Application Package. Applicants are encouraged to contact Board staff, prior to applying, to determine which closure-costestimate template is most suited to the activities being applied for. Guidance is provided in section 2.2 of the LWB/GNWT/CIRNAC <u>Guidelines for Closure and Reclamation Cost Estimates for Mines</u>. If the

Land Use Permit – Application

Page 11 of 13

Application is submitted concurrently with a Water Licence Application, the estimate should include a breakdown of water- and land-related activities and liabilities.

Areas that have been stripped of the organic or vegetative layer will be allowed to re-vegetate with area shrubs and bushes naturally. Any sumps or other excavations will be filled in and graded to match the surrounding area. All temporary camp locations that have been stripped or compacted will be re-graded to loosen any compacted soils and allowed to re-vegetate natural with grasses, shrubs, and bushes.

19. ADDITIONAL SUPPORTING INFORMATION

Use the grey field below to provide or reference the following information:

<u>Engagement</u>: Conduct engagement, prepare an Engagement Record and Engagement Plan in accordance with the LWB <u>Engagement Guidelines for Applicants and Holders of Water Licences and Land Use Permits</u>, and include them in your Application Package. Templates are provided in the Guidelines. Please also refer to <u>Information for Proponents on MVLWB's Engagement Requirements</u>.

<u>Land Use Plans</u>: Contact the applicable Land Use Planning Board or the Tłįchǫ Government for assistance in interpreting the requirements of the relevant land use plan(s). Include a Land Use Plan Conformity Table, or if applicable, written confirmation of conformity from the Tłįchǫ Government, in your Application Package, demonstrating how the project meets the requirements of the Land Use Plan, if applicable.

<u>Traditional Knowledge (TK)</u>: Provision of TK is mandatory for applications to the SLWB. Other applicants are strongly encouraged to include TK.

<u>Studies Undertaken to Date</u>: List any relevant studies that support the proposed activities and include them in your Application Package.

Please see attached engagement plan

<u>Traditional Knowledge (TK)</u>: Provision of TK is mandatory for applications to the SLWB. Other applicants are strongly encouraged to include TK.

<u>Studies Undertaken to Date</u>: List any relevant studies that support the proposed activities and include them in your Application Package.

Please see attached engagement plan

20. FEES

Refer to the Guide_for assistance in determining relevant fees.

Type of Fee	Amount (\$)
Application fee (if applicable):	\$150
Land-use fees (for federal areas only):	\$
Total Fees:	\$

If fees are submitted separately, indicate how and when they will be delivered to the Board's office.

21. SIGNATURE

Terry Brookes	Manager, Transportation
Applicant's Name (print) or	Position (print)
Company Name	

-Bill-	25 th January 2024
Signature	Date

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Page 11 of 12

Review the application package checklist provided in the Guide, and submit completed applications to the Regulatory Manager or Executive Director identified on the "Contact Us" pages of the respective Land and Water Board (www.mvlwb.com, www.wlwb.ca, www.slwb.com, www.glwb.com).

Equipment	Size	Purpose
Tracked Dozers	D3 through D9	Clearing right-of-way, drainage channels and granular borrow site, clearing granular investigation cutlines, pushing roadway construction material on the roadway and in borrow area, pushing borrow materials and leveling stockpiles, etc.
Hydraulic Excavators (Wheeled and Tracked)	E70 through 245B	Excavating drainage channels, excavating at culvert removal and installation sites, excavating at bridge sites, excavating borrow sites and loading haul vehicles, making repairs to roadway embankment, clearing right-of-way, granular investigations (test pitting), etc.
Loaders (Wheeled and Tracked)	Various	For loading haul trucks, moving granular materials at work areas, stockpiling granular materials, feeding crusher and asphalt plants, etc.
Motor Graders	Various	For roadway maintenance and road repairs, grading granular surfacing, right-of-way maintenance, snow ploughing, borrow source maintenance, etc.
Compaction Equipment	Various	To compact roadway surface and surfacing, compact roadway embankment, compact around culvert installations, etc.
Asphaltic Pavers	Various	To place asphaltic surfacing.
Rotary Drills	Various	To carry out granular and geotechnical investigations, prepare for piling installations at bridge or ferry sites, to prepare for blasting at quarry sites, etc.
Gravel Crushing Plants (Cone and Jaw)	Various	To produce specified granular materials
Single Axle, Tandem Axle and Tridem Axle Haul Trucks	Various	For snow ploughing and road maintenance, watering on the road, hauling granular and rock materials to work site, stockpiling granular materials, gravel surfacing, sanding on the road, hauling construction

		materials, hauling water for work camps, sewage and waste removal.
Tractor Trailers	Various	To move equipment to, from and within work site and borrow areas (low/high boys), etc.
Rock Trucks	Various	To move rock between quarry areas, to haul construction materials within work area, etc.
Tractor Mowing Machines	Various	To clear right-of-ways.
Fuel Tankers	Various – to 40,000L	To resupply fuel storage tank, to refuel equipment, etc.
Pile Drivers	Various	For installing piles at bridge sites and ferry facilities, etc.
Draglines	Various	For recovering granular materials dredging at bridge sites and ferry crossings, etc.
Cranes	Various	For hoisting and placing bridge components, removing and installing culverts, setting up asphalt and crushing plants, loading and unloading equipment, loading, unloading and placing temporary camp facilities, etc.
Service Vehicles	Various – Pickup trucks, utility service trucks, etc.	To support and maintain all equipment required for the ongoing operation and maintenance of the public highway system, roadways, access roads and airports/airstrips, etc.
Temporary Construction/Work Camp Facilities	2 to 40 man camps	To support delivery of the ongoing operation and maintenance of the public highway system, roadways, access roads and airports/airstrips, short term construction activities, temporary ice/winter road construction and maintenance camps along potential winter road portions of the permit area, etc.
Tree Harvesters/Mulchers	Various	For right-of-way clearing, borrow site clearing, etc.
Generators	Various	For temporary camps, lighting

		units, crusher plants, asphalt plants, to power small tools and equipment, etc.
Various small equipment – rock pickers, soil cultivators, roadway sweepers, post hole drills, post drivers, water pumps, rig mats, patching units, tar pots, tampers, compressors, jack hammers, etc.	Various	To support the delivery of the ongoing operation and maintenance of the public highway system, access roads, airports/airstrips, temporary construction camps, temporary ice/winter road construction and maintenance camps, etc.

List of Quarries/Pit Run on Highway 3 Km 124 - 338 & Highway 4 Km 0-69.2 2024 LUP Renewal: MV2017X0008

Hwy 3 KM 154.8 Rt – Limestone Bedrock & Stockpile Area

Quarry Permit Application Yellowknife Highway (No. 3) Km 154.8		
CORNER	Co-ordinates (expressed in degrees, minutes and seconds)	
	LAT	LONG
LUP Area		
NW Corner	62° 7'58.11"N	116°15'15.80"W
NE Corner	62° 7'54.79"N	116°14'36.22"W
SE Corner	62° 7'36.49"N	116°14'44.70"W
SW Corner	62° 7'32.43"N	116°15'3.46"W

Hwy 3 KM 155.2 Lt – Limestone Bedrock & Stockpile Area

Quarry Perm	it Application Yellowknife Highw	/ay (No. 3) Km 155.2
CORNER	Co-ordinates (expressed in degrees, minutes and seconds)	
CONNER	LAT	LONG
LUP Area		
NW Corner	62° 8'4.00"N	116°16'13.40"W
NE Corner	62° 8'11.50"N	116°15'27.50"W
SE Corner	62° 7'36.20"N	116°15'9.80"W
SW Corner	62° 7'30.70"N	116°15'54.90"W

Hwy 3 KM 155.4 Rt – Pit Run & Stockpile Area

Quarry Permit Application Yellowknife Highway (No. 3) Km 155.4		
CORNER	Co-ordinates (expressed in degrees, minutes and seconds)	
00111211	LAT	LONG
LUP Area		
NW Corner	62° 8'19.10"N	116°13'53.30"W
NE Corner	62° 9'7.10"N	116°10'32.40"W
SE Corner	62° 8'46.10"N	116°10'19.70"W
SW Corner	62° 8'0.30"N	116°13'34.60"W

Hwy 3 KM 175.4 Lt – Pit Run & Stockpile Area

Quarry Permit Application Yellowknife Highway (No. 3) Km 175.4		
CORNER	Co-ordinates (expressed in degrees, minutes and seconds)	
CONTEN	LAT	LONG
LUP Area		
NW Corner	62°17'48.10"N	116°26'24.80"W
NE Corner	62°18'2.50"N	116°25'45.30"W
SE Corner	62°17'28.70"N	116°24'54.50"W
SW Corner	62°17'17.10"N	116°25'41.50"W

Hwy 3 KM 185.5 Rt – Pit Run & Stockpile Area

Quarry Permit Application Yellowknife Highway (No. 3) Km 185.5		
CORNER	Co-ordinates (expressed in degrees, minutes and seconds)	
CONVEN	LAT	LONG
LUP Area		
NW Corner	62°23'51.20"N	116°29'51.20"W
NE Corner	62°23'44.50"N	116°27'27.40"W
SE Corner	62°22'26.00"N	116°27'36.70"W
SW Corner	62°22'28.50"N	116°29'44.90"W

Hwy 3 KM 201 Rt – Pit Run, Limestone Bedrock & Stockpile Area

Quarry Permit Application Yellowknife Highway (No. 3) Km 201		
CORNER —	Co-ordinates (expressed in degrees, minutes and seconds)	
	LAT	LONG
LUP Area		
NW Corner	62°31'18.10"N	116°27'46.40"W
NE Corner	62°30'52.00"N	116°25'40.60"W
SE Corner	62°29'52.60"N	116°26'30.40"W
SW Corner	62°30'13.20"N	116°28'25.30"W

Hwy 3 KM 209 Rt – Pit Run & Stockpile Area

Quarry Permit Application Yellowknife Highway (No. 3) Km 209		
CORNER	Co-ordinates (expressed in degrees, minutes and seconds)	
CONVER	LAT	LONG
LUP Area		
NE Corner	62°34'33.00"N	116°20'36.40"W
SE Corner	62°34'2.80"N	116°20'38.20"W
NW Corner	62°34'37.60"N	116°21'57.60"W
SW Corner	62°34'10.20"N	116°22'32.00"W

Hwy 3 KM 217.5 Rt – Pit Run & Stockpile Area 1

Quarry Permit Application Yellowknife Highway (No. 3) Km 217.5		
CORNER	Co-ordinates (expressed in degrees, minutes and seconds)	
CONTER	LAT	LONG
LUP Area		
NE Corner	62°37'22.60"N	116°16'1.50"W
NW Corner	62°37'12.70"N	116°14'52.00"W
SW Corner	62°36'50.70"N	116°15'3.60"W
SE Corner	62°37'0.30"N	116°16'9.50"W

Hwy 3 KM 217.5 Rt – Pit Run & Stockpile Area 2

Quarry Permit Application Yellowknife Highway (No. 3) Km 217.5		
CORNER	Co-ordinates (expressed in degrees, minutes and seconds)	
	LAT	LONG
LUP Area		
NE Corner	62°37'14.20"N	116°10'52.90"W
NW Corner	62°37'36.90"N	116°11'45.40"W
SW Corner	62°35'42.70"N	116°15'12.60"W
SE Corner	62°35'22.80"N	116°14'21.20"W

HWY 3 Km 225.5 Rt – Pit Run, Bedrock & Stockpile Area

Quarry Permit Application Yellowknife Highway (No. 3) Km 225.5		
CORNER	Co-ordinates (expressed in degrees, minutes and seconds)	
CONTER	LAT	LONG
LUP Area		
NW Corner	62°41'9.00"N	116°11'0.70"W
NE Corner	62°40'44.80"N	116° 6'36.10"W
SE Corner	62°39'59.90"N	116°11'12.00"W
SW Corner	62°39'59.90"N	116°11'12.00"W

HWY 3 Km 246.2 Rt – Granite Bedrock & Stockpile Area

Quarry Permit Application Yellowknife Highway (No. 3) Km 246.2		
CORNER	Co-ordinates (expressed in degrees, minutes and seconds)	
CONTEN	LAT	LONG
LUP Area		
NW Corner	62°46'32.82"N	115°55'40.84"W
NE Corner	62°46'37.19"N	115°55'27.09"W
SE Corner	62°46'25.97"N	115°54'46.80"W
SW Corner	62°46'14.96"N	115°55'17.12"W

Hwy 3 Km 250 Lt – Stockpile Area

Quarry Permit Application Yellowknife Highway (No. 3) Km 250		
CORNER	Co-ordinates (expressed in degrees, minutes and seconds)	
CONTEN	LAT	LONG
LUP Area		
NW Corner	62°45'56.79"N	115°50'15.17"W
NE Corner	62°45'56.69"N	115°50'4.43"W
SE Corner	62°45'52.65"N	115°50'4.51"W
SW Corner	62°45'52.73"N	115°50'14.93"W

Hwy 3 Km 259.4 Lt –Granite Bedrock & Stockpile Area

Quarry Permit Application Yellowknife Highway (No. 3) Km 259.4		
CORNER	Co-ordinates (expressed in degrees, minutes and seconds)	
CONNER	LAT	LONG
LUP Area		
NW Corner	62°44'2.00"N	115°40'40.10"W
NE Corner	62°44'1.10"N	115°40'14.20"W
SE Corner	62°43'55.40"N	115°40'15.80"W
SW Corner	62°43'56.30"N	115°40'39.40"W

Hwy 3 Km 272.2 Lt – Granite Bedrock & Stockpile Area

Quarry Permit Application Yellowknife Highway (No. 3) Km 272.7		
CORNER	Co-ordinates (expressed in degrees, minutes and seconds)	
	LAT	LONG
LUP Area		
NE Corner	62°41'37.50"N	115°27'39.20"W
NW Corner	62°41'36.00"N	115°27'54.60"W
SE Corner	62°41'11.90"N	115°27'21.70"W
SW Corner	62°41'16.10"N	115°27'48.20"W
E Corner	62°41'26.14"N	115°27'15.20"W

Hwy 3 Km 285 Rt – Granite Bedrock & Stockpile Area

Quarry Permit Application Yellowknife Highway (No. 3) Km 285		
CORNER	Co-ordinates (expressed in degrees, minutes and seconds)	
00111211	LAT	LONG
LUP Area		
NW Corner	62°38'7.60"N	115°14'23.60"W
NE Corner	62°37'52.30"N	115°15'6.00"W
SE Corner	62°37'37.00"N	115°14'40.00"W
SW Corner	62°37'50.70"N	115°13'55.50"W

Hwy 3 Km 297.6 Lt/Rt – Granite Bedrock & Stockpile Area

Quarry Permit Application Yellowknife Highway (No. 3) Km 297.6		
CORNER	Co-ordinates (expressed in degrees, minutes and seconds)	
CONVEN	LAT	LONG
LUP Area		
NW Corner	62°33'50.10"N	115° 5'31.40"W
NE Corner	62°33'49.60"N	115° 4'53.20"W
SE Corner	62°33'32.10"N	115° 4'52.70"W
SW Corner	62°33'33.00"N	115° 5'26.30"W

Hwy 3 Km 310.6 Rt – Granite Bedrock & Stockpile Area

Quarry Permit Application Yellowknife Highway (No. 3) Km 310.6		
CORNER	Co-ordinates (expressed in degrees, minutes and seconds)	
CONTEN	LAT	LONG
LUP Area		
NW Corner	62°31'5.77"N	114°52'38.17"W
NE Corner	62°30'55.47"N	114°51'42.63"W
SE Corner	62°30'26.06"N	114°52'2.44"W
SW Corner	62°30'31.44"N	114°52'42.71"W
E Corner	62°30'36.10"N	114°51'31.40"W

Quarry Permit Application Yellowknife Highway (No. 3) Km 310.6		
CORNER	Co-ordinates (expressed in degrees, minutes and seconds)	
CONVER	LAT	LONG
LUP Area		
NW Corner	62°31'21.32"N	114°52'8.43"W
NE Corner	62°31'21.49"N	114°51'39.71"W
SE Corner	62°31'7.85"N	114°51'37.43"W
SW Corner	62°31'10.98"N	114°51'59.01"W

Hwy 3 Km 310.6 Lt – Granite Bedrock & Stockpile Area

Hwy 3 Km 315 Rt – Granite Bedrock & Stockpile Area

Quarry Permit Application Yellowknife Highway (No. 3) Km 315		
CORNER	Co-ordinates (expressed in degrees, minutes and seconds)	
COMMEN	LAT	LONG
LUP Area		
NE Corner	62°29'49.30"N	114°46'59.40"W
NW Corner	62°29'39.40"N	114°47'31.00"W
SE Corner	62°29'41.60"N	114°46'53.40"W
SW Corner	62°29'32.50"N	114°47'21.40"W

Hwy 3 Km 325 Lt – Granite Bedrock & Stockpile Area

Quarry Permit Application Yellowknife Highway (No. 3) Km 325		
CORNER	Co-ordinates (expressed in degrees, minutes and seconds)	
CONTRACT	LAT	LONG
LUP Area		
NW Corner	62°28'13.80"N	114°38'9.60"W
NE Corner	62°28'24.80"N	114°37'29.50"W
SE Corner	62°28'11.50"N	114°37'15.30"W
SW Corner	62°28'1.30"N	114°37'53.60"W

Hwy 4 Km 6.9 Lt – Stockpile Area

Quarry Permit Application Ingraham Highway (No. 4) Km 6.9		
CORNER	Co-ordinates (expressed in degrees, minutes and seconds)	
CONNER	LAT	LONG
LUP Area		
NW Corner	62°31'22.30"N	114°19'42.10"W
NE Corner	62°31'18.60"N	114°19'27.40"W
SE Corner	62°31'14.80"N	114°19'30.70"W
SW Corner	62°31'18.10"N	114°19'45.20"W

Hwy 4 Km 11.3 Rt – Granite Bedrock & Stockpile Area

Quarry Permit Application Ingraham Highway (No. 4) Km 11.3		
CORNER	Co-ordinates (expressed in degrees, minutes and seconds)	
CONVER	LAT	LONG
LUP Area		
NW Corner	62°30'9.10"N	114°16'3.60"W
NE Corner	62°30'7.60"N	114°15'33.50"W
SE Corner	62°29'43.40"N	114°15'35.60"W
SW Corner	62°29'43.90"N	114°16'4.10"W

Hwy 4 Km 21 Rt – Granite Bedrock & Stockpile Area

Quarry Permit Application Ingraham Highway (No. 4) Km 21						
CORNER	Co-ordinates (expressed in degrees, minutes and seconds)					
CONVER	LAT	LONG				
LUP Area						
NW Corner	62°32'14.50"N	114° 8'10.00"W				
NE Corner	62°31'56.40"N	114° 7'11.40"W				
SE Corner	62°32'2.30"N	114° 8'20.50"W				
SW Corner	62°31'44.50"N	114° 7'22.60"W				

Quarry Permit Application Ingraham Highway (No. 4) Km 32.5					
CORNER	Co-ordinates (expressed in degrees, minutes and seconds)				
CONVER	LAT	LONG			
LUP Area					
NW Corner	62°33'0.80"N	113°55'43.30"W			
NE Corner	62°32'52.30"N	113°54'11.90"W			
SE Corner	62°32'44.50"N	113°55'43.00"W			
SW Corner	62°32'37.70"N	113°54'20.30"W			

Hwy 4 Km 32.5 Rt – Granite Bedrock & Stockpile Area

Hwy 4 Km 55.3 Lt – Granite Bedrock, Pit Run Sand & Stockpile Area

Quarry Permit Application Ingraham Highway (No. 4) Km 55.3						
CORNER	Co-ordinates (expressed in degrees, minutes and seconds)					
CONNER	LAT	LONG				
LUP Area						
NW Corner	62°29'52.00"N	113°32'29.70"W				
NE Corner	62°29'45.40"N	113°31'48.70"W				
SE Corner	62°29'35.80"N	113°31'55.20"W				
SW Corner	62°29'41.50"N	113°32'33.50"W				

Hwy 4 Km 63.4 Lt – Granite Bedrock & Stockpile Area

Quarry Permit Application Ingraham Highway (No. 4) Km 63.4						
CORNER	Co-ordinates (expressed in degrees, minutes and seconds)					
CONVEN	LAT	LONG				
LUP Area						
NW Corner	62°30'29.90"N	113°24'44.50"W				
NE Corner	62°30'48.60"N	113°24'3.50"W				
SE Corner	62°30'24.00"N	113°23'43.10"W				
SW Corner	62°30'14.00"N	113°24'9.70"W				

Quarry Permit Application Behchoko Access Road Km 1.2						
CORNER	Co-ordinates (expressed in degrees, minutes and seconds)					
CONVER	LAT	LONG				
LUP Area						
NW Corner	62°47'41.33"N	115°55'29.96"W				
NE Corner	62°47'40.55"N	115°55'12.80"W				
SE Corner	62°47'30.82"N	115°55'7.67"W				
SW Corner	62°47'26.65"N	115°55'41.21"W				

B.A.R Km 1.2 – Granite Bedrock & Stockpile Area

B.A.R Km 5.0 – Granite Bedrock & Stockpile Area

Quarry Permit Application Behchoko Access Road Km 5.0						
CORNER	Co-ordinates (expressed in degrees, minutes and seconds)					
CONNER	LAT	LONG				
LUP Area						
NW Corner	62°49'37.14"N	115°57'0.75"W				
NE Corner	62°49'26.23"N	115°56'40.47"W				
SE Corner	62°49'16.13"N	115°57'15.45"W				
SW Corner	62°49'24.38"N	115°57'29.28"W				

D.A.R Km 6.5 – Granite Bedrock & Stockpile Area (DOT Reserve)

Quarry Permit Application Behchoko Access Road Km 6.5						
CORNER	Co-ordinates (expressed in degrees, minutes and seconds)					
	LAT	LONG				
LUP Area						
NW Corner	62°27'21.18"N	114°19'15.11"W				
NE Corner	62°27'15.17"N	114°18'39.10"W				
SE Corner	62°27'5.33"N	114°18'38.60"W				
SW Corner	62°27'6.52"N	114°19'11.81"W				
W Corner	62°27'16.74"N	114°19'28.24"W				

	Temporary Construction/Work Camp	Stockpile Site	Geotechnical Testing	Bedrock Quarry	Pitrun Granular	Map Sheet	Size (Ha)	Site Location
								HWY 3
	x	х	x	x		85K/01	28.8	Km 154.8 Right
New Bedrock expans	x	х	x	Х		85K/01	75.3	Km 155.2 Left
Previous esker ridge	x	х	x		х	85K/01	209.6	Km 155.4 Right
Very Lim	x	х			х	85K/08	90.2	Km 175.4 Left
	x	х			х	85K/08	483	Km 185.5 Right
Requires expansion	x	х		Х	х	85K/09	377.2	Km 201 Right
	x	х				85K/09	148.8	KM 209 Right
	x	х			х	85K/09	70.3	KM 217.5 Right
U	х	х	х		х	85K/09	453	KM 217.5 Right
Existing qua	х	х		x	х	85K/09	718.2	KM 225.5 Right
Primary	x	х		x		85J/13	24.6	Km 246.2 Right
	x	х				85J/13	1.9	KM 250 Left
	x	х		х		85J/12	6.2	KM 259.4 Left
Expa	x	х		х		85J/11	29	KM 272.2 Left
Expa	х	х		х		85J/11	48.2	KM 285 Right

Comments

Existing Quarry bedrock

ansion of existing quarry on opposite side of road. Needs testing to suitability

dge developed. Main granular material recovered

imited granular Resource with reserve

Previous pit

ion from cleared areas. Previous pit with reserve potential for Bedrock

Pit Run source

Undeveloped Granular Source

uarry bedrock of granular on Tlicho Lands

ry bedrock source for HWY 3 currently

Stockpile only site

xpansion of current development

xpansion of current development

KM 297.6 Left/ Right	27.3	85J/11				х	х	
KM 310.6 Right	87	85J/10		x	x	x	х	Current quarry ne
KM 310.6 Left	13	85J/10		x	x	x	x	U
Km 315 Right	13	85J/07		x	x	x	x	Ur
KM 325 Left	29.6	85J/07		x	x	x	x	
НWY 4 КМ	•		•	•	•	•	•	
KM 6.9 Left	3.1	85J/09				x	х	
KM 11.3 Right	32.1	85J/08-09		x	x	x	х	
KM 21 Right	39.8	85J/09		x		x	х	U
KM 32.5 Right	61	851/12		x	x	x	х	
KM 55.3 Left	19.4	851/05		x		x	х	
KM 63.4 Left	47.8	851/11		x	x	x	х	Ur
Behchoko Access Road (B	B.A.R.)	•	•		•	•		
KM 1.2	13.3	85J/13		x		x	x	
KM 5.0	22	85J/13		x		x	х	
Dettah Access Road (D.A	R.)	•	•	•	•	•	•	
KM 6.5	23	85J/08		x		х	Х	

Salt Shed Storage
near depleted, need to chase bedrock outcrop
Undeveloped bedrock source
Indeveloped Bedrock Prospect
Large reserve area/volume
Stockpile Only
DOT RESERVE R-613T
Undeveloped Bedrock Source
Indeveloped Bedrock Prospect
DOT RESERVE R09-0518072

KM 154.8 R, 155.2 L & 155.4 R

Hwy #3, Km 157 🗖

Hwy #3, Km 156 🗖

SW

25

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NW KM 155.2 L NV Hwy #3, Km 155 **P**

NE

0.

KM 154.8 R

SÉ

SE

SW

NE

NW

SW

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KM 175.4

Hwy #3, Km 178

Hwy #3, Km 177 🗖

Hwy #3, Km 176 NE

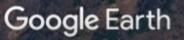
NW

Hwy #3, Km 175 □ SE

sw

Hwy #3, Km 174

it



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NW Hwy #3, Km 188

Hwy #3, Km 187 📮

Hwy #3, Km 186 🗖

Hwy #3, Km 185

R.M.

SE

Hwy #3, Km 184

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S.

Hwy #3, Km 202

Hwy #3, Km 201 9/

SW

Hwy #3, Km 200

Hwy #3, Km 199 📮

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KM 217.5

Hwy #3, Km 219

Hwy #3, Km 218 🗨

NE

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AREA

Hwy #3, Km 217 🗖

Hwy #3, Km 216 🗖

Hwy #3, Km 215 🗖

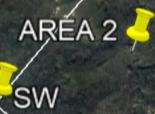
Hwy #3, Km 214 🖳

Hwy #3, Km 213

Hwy #3, Km 212

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NW

S.W



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Hwy #3, Km 228

SW

Hwy #3, Km 227

Hwy #3, Km 226

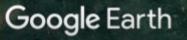
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SW

NW-

Hwy #3, Km 224

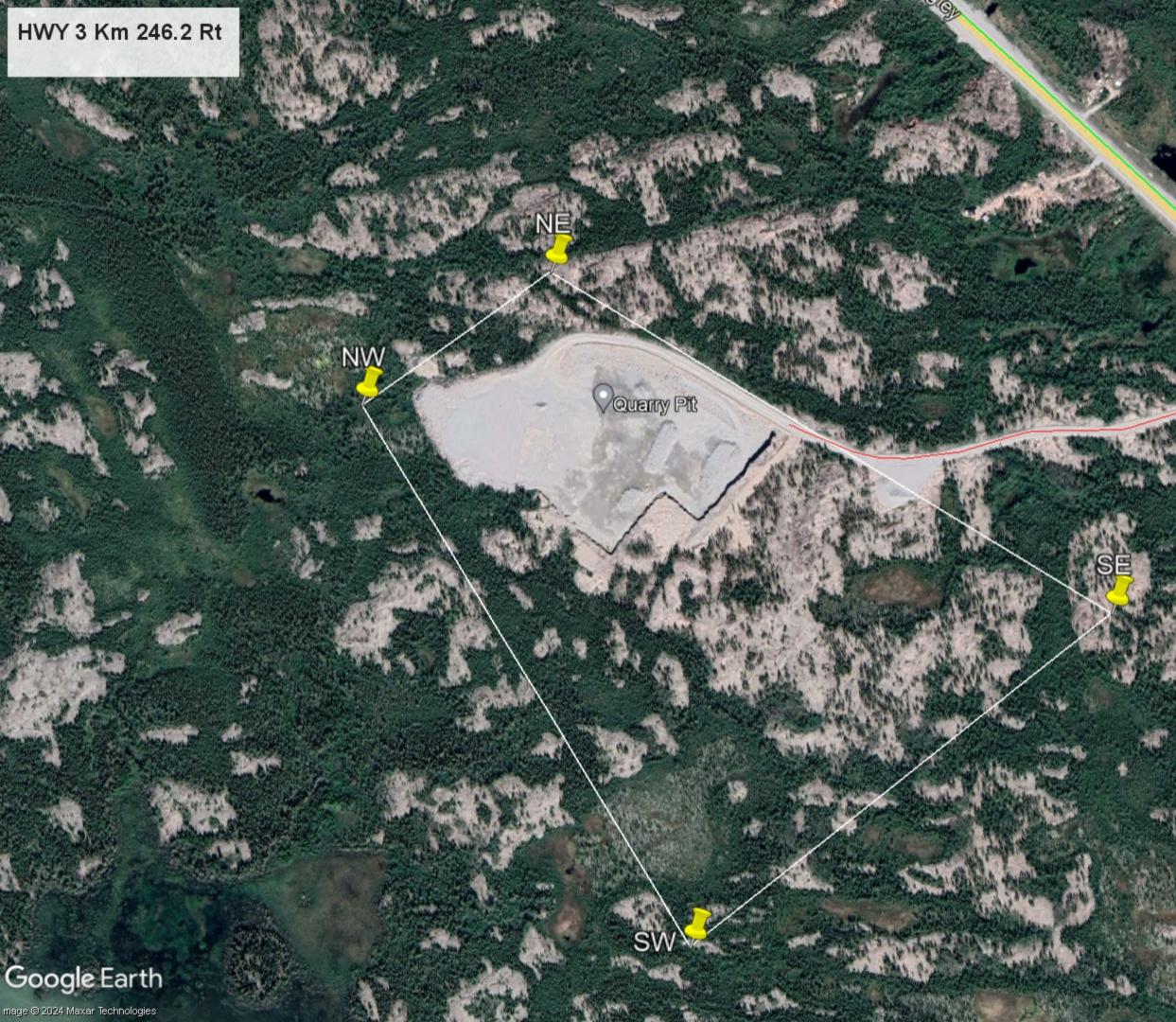
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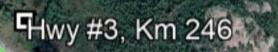


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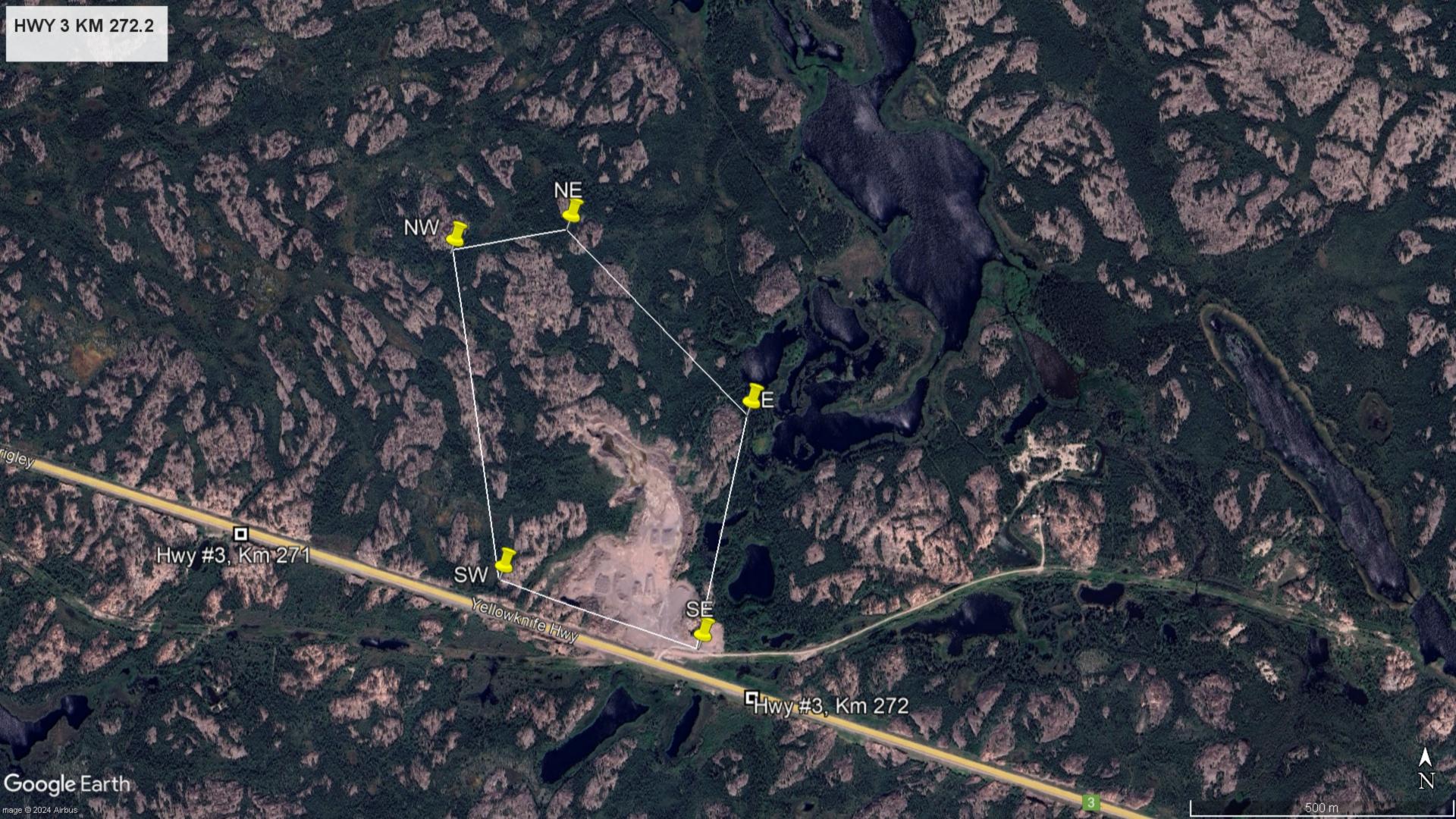




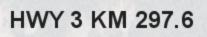
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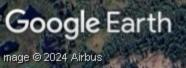


12

Hwy #3, Km 297 🗖

SW

NE.





HWY 3 KM 310.6 RT & LT

Hwy #3, Km 309



NE

SW SE

NW _

N/W Hwy #3, Km 310

KM 310.6 Rt Hwy #3, Km 311

SE-

SW

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Hwy #3, Km 316

10 MANUTO

diale.



#3, Km 323 🗖

SW Hwy #3, Km 324 orth of 60 Aurora Advetures

NE

SE

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Yellowknife River Bridge

Velowknife River Territorial Park Day...

HWY 4 KM 11.3

Cinnamon Island Scenic Viewpoint Trailhead

SW



Hwy #4, Km_11

NE

SE

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HWY 4 KM 21 /y #4, Km 20

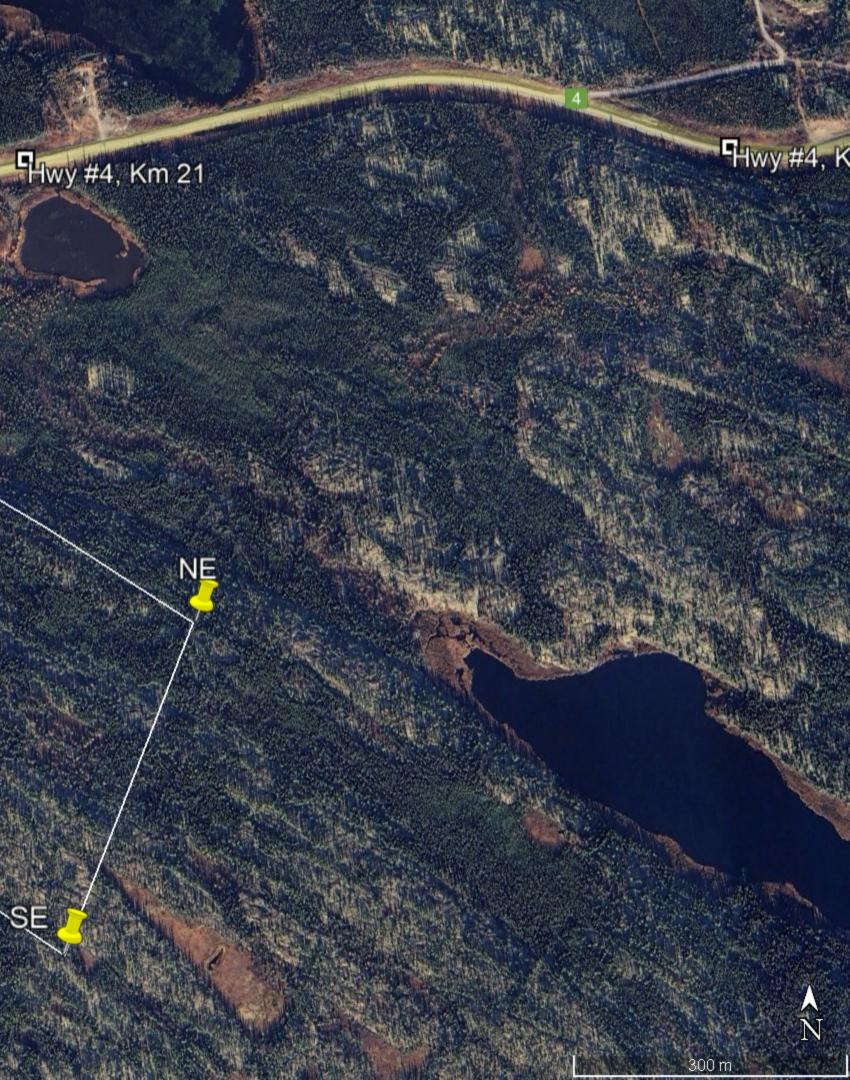
Prosperous Lake Territorial Park Day ..

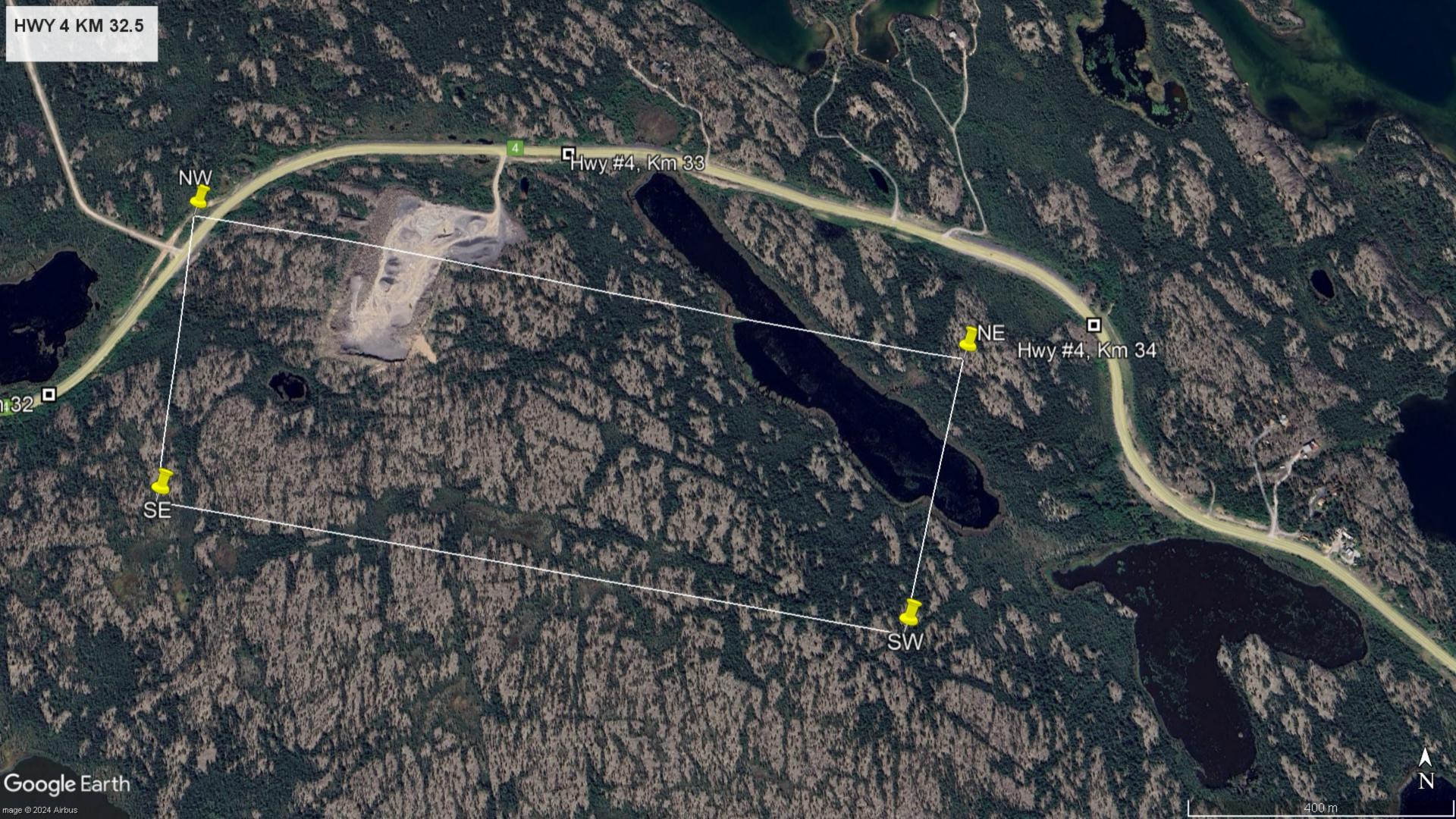
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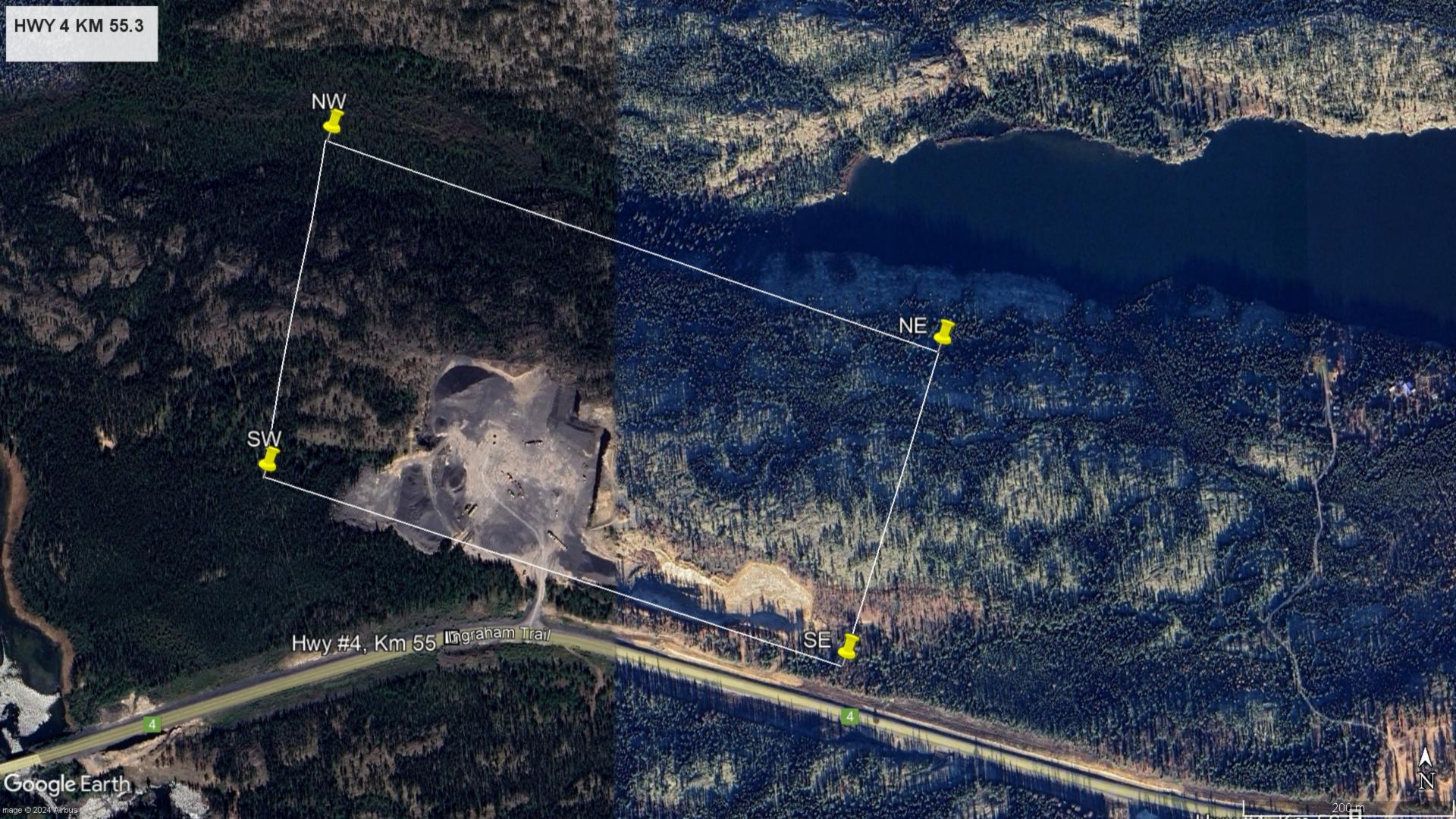
SW

Ingraham Trail

SE









Hwy #4 Km 65

700 m

B.A.R. 1.2

Rae Access, Km 2

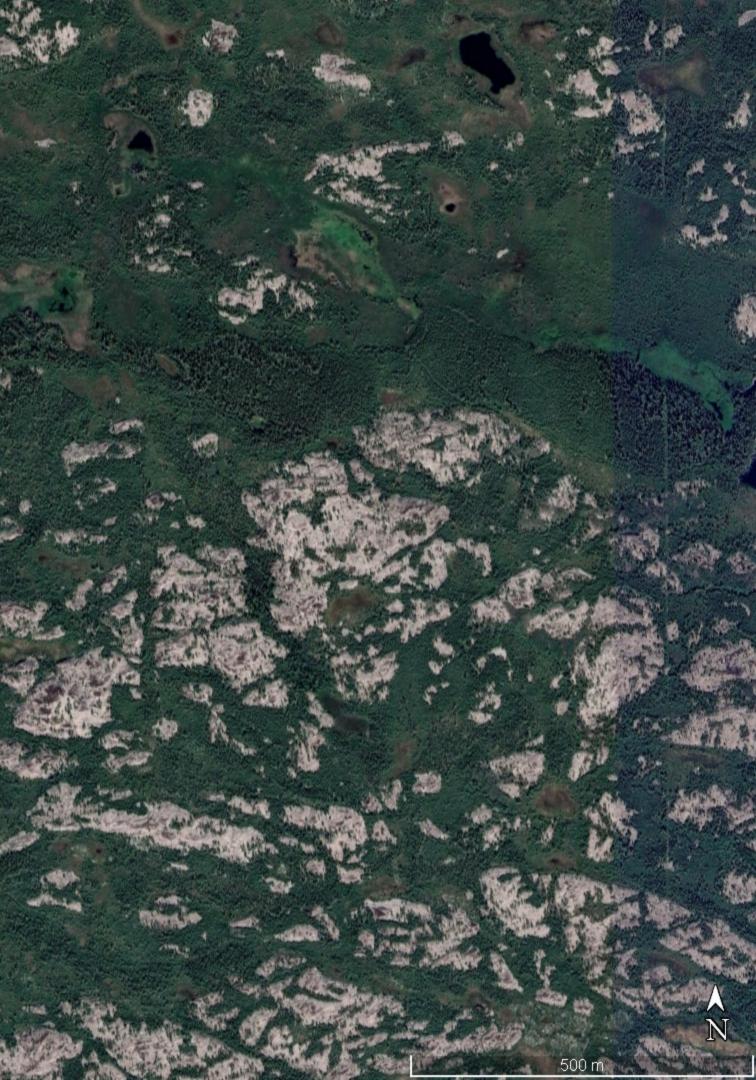
NW 7

PowerCorp Substation

Rae Access, Km 1

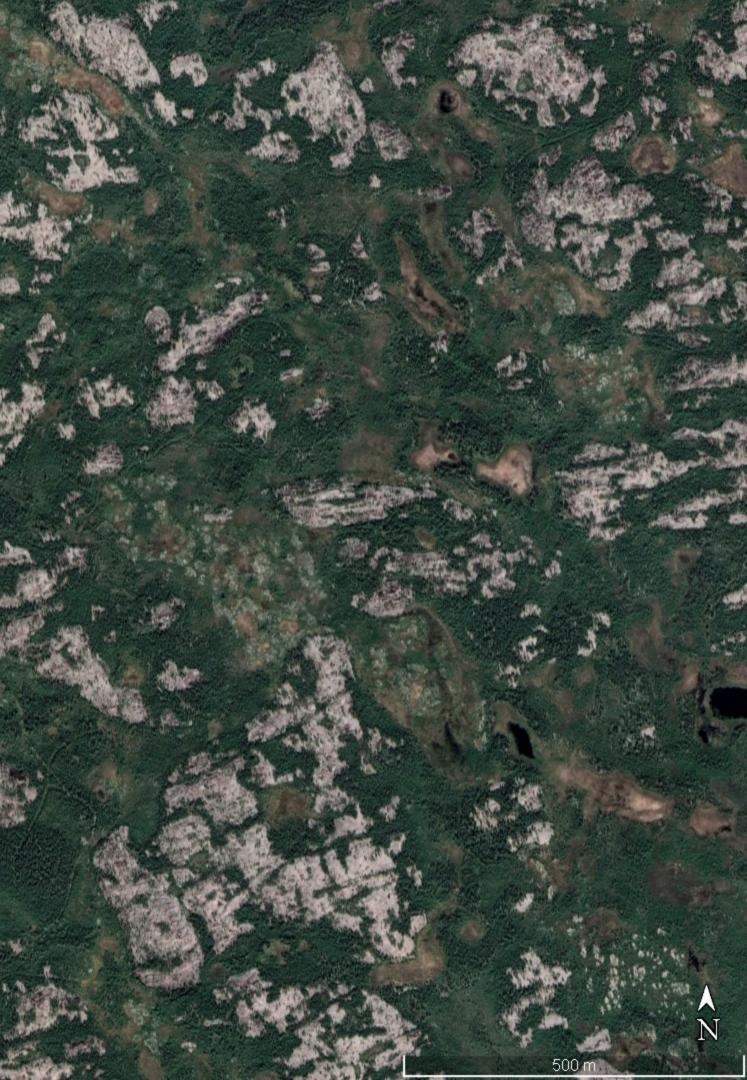
13

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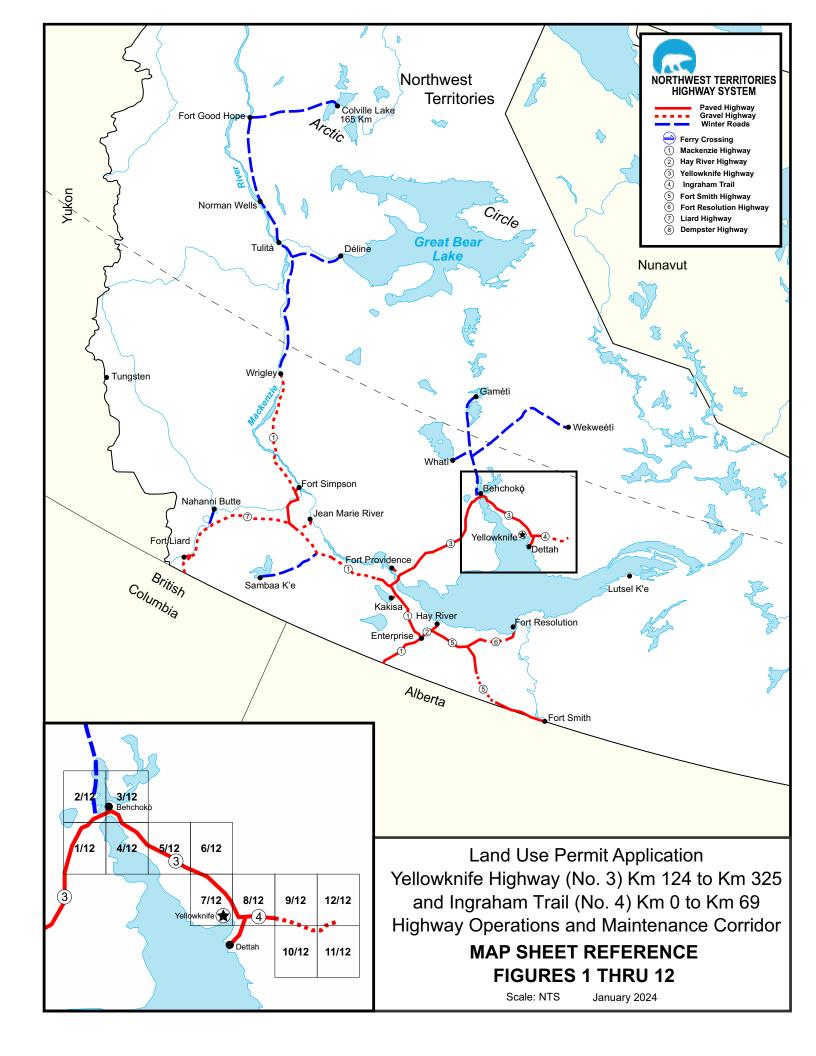


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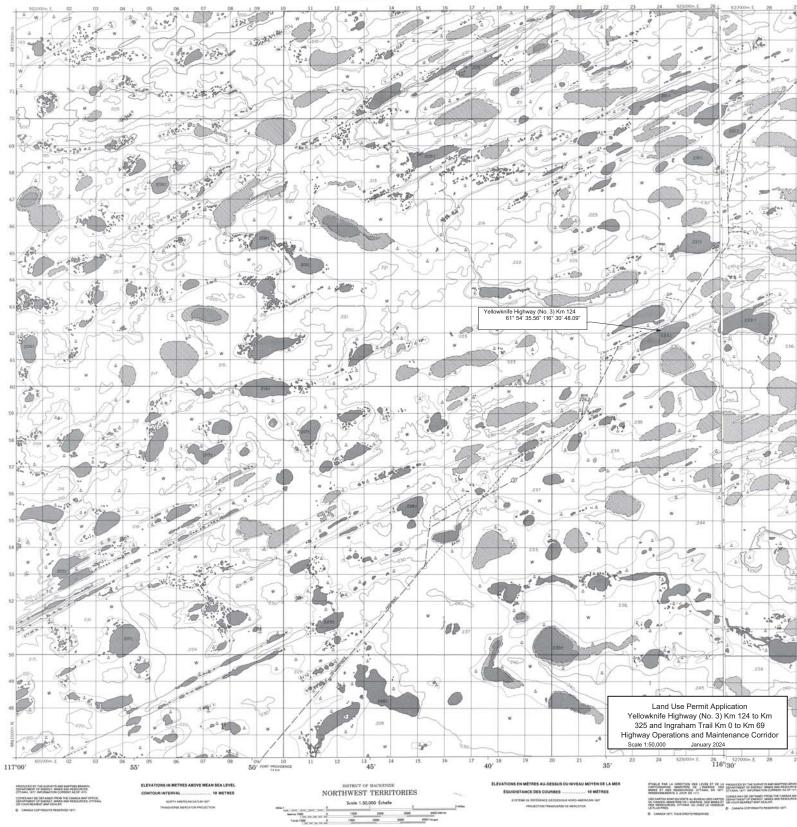


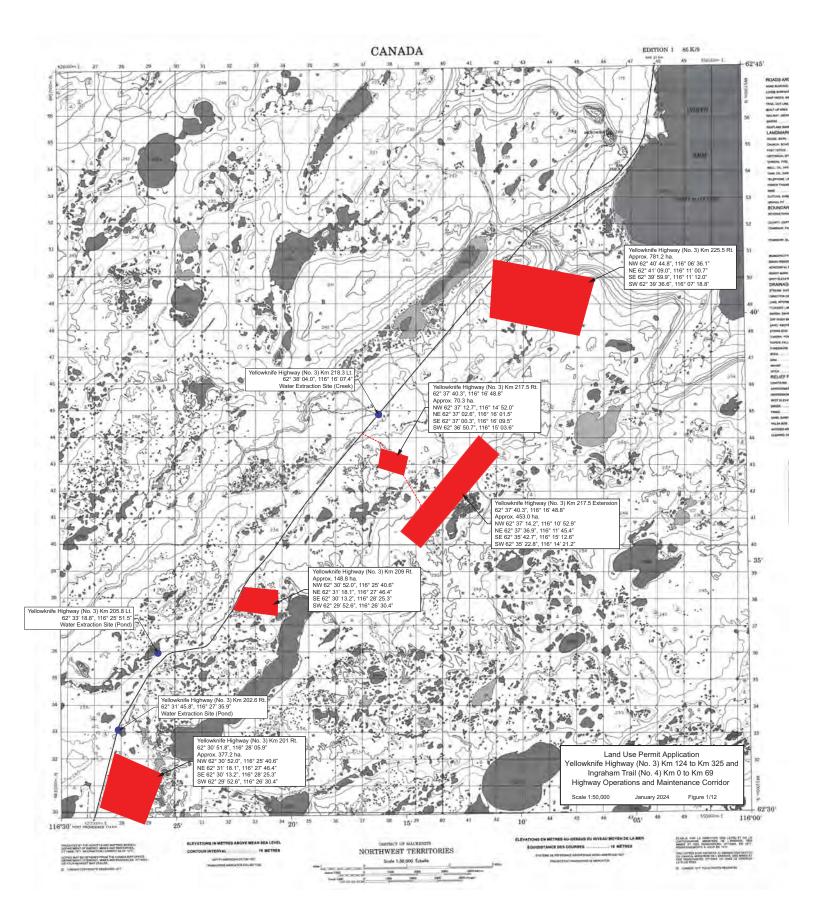
Dettah Access, Km 6

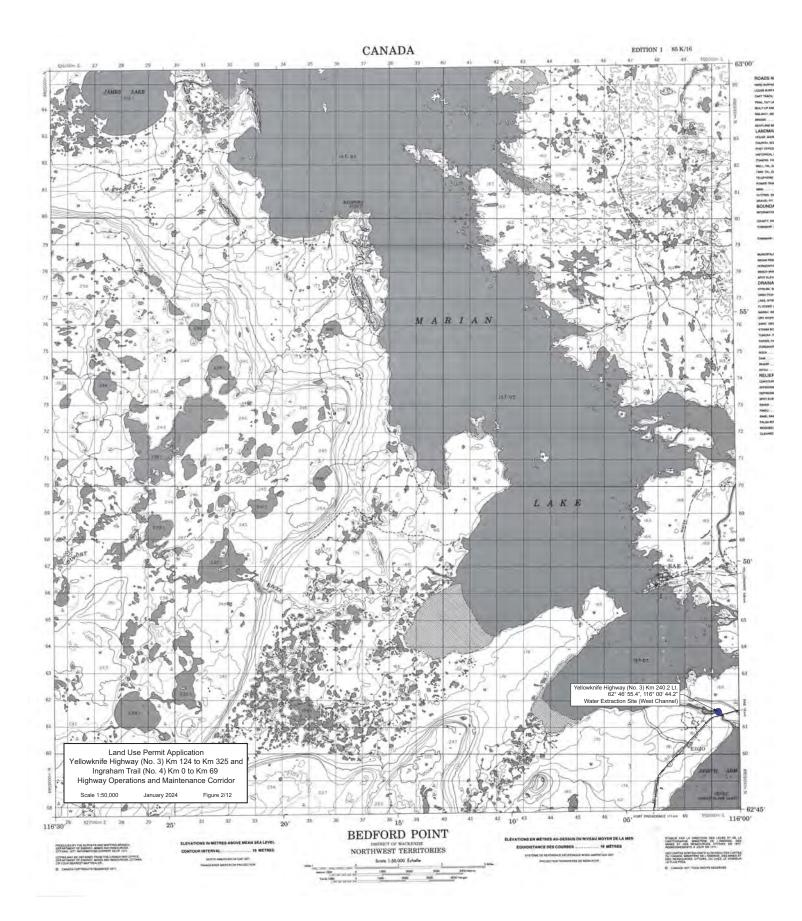


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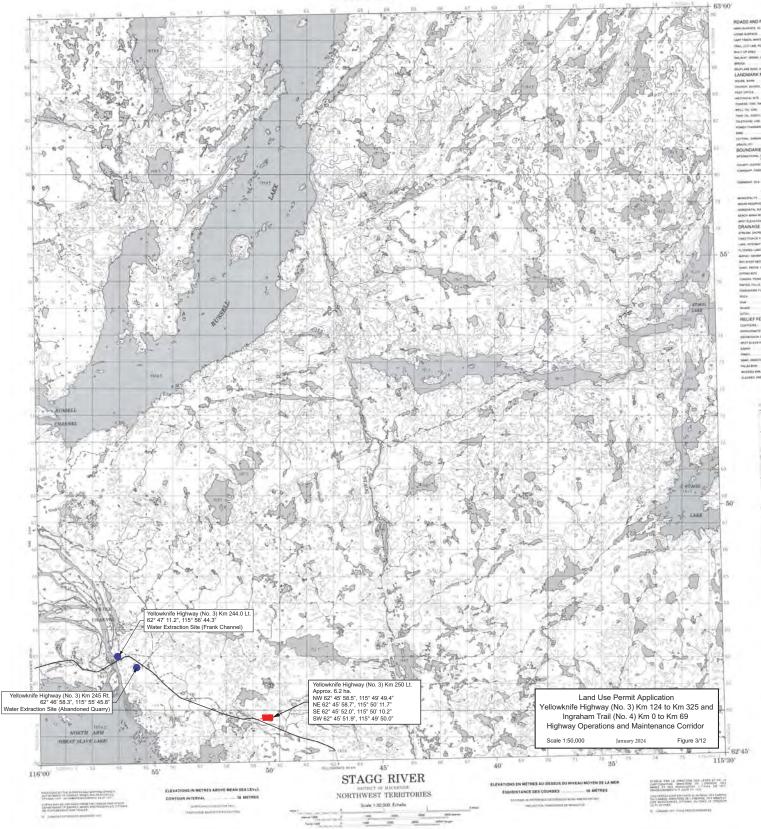


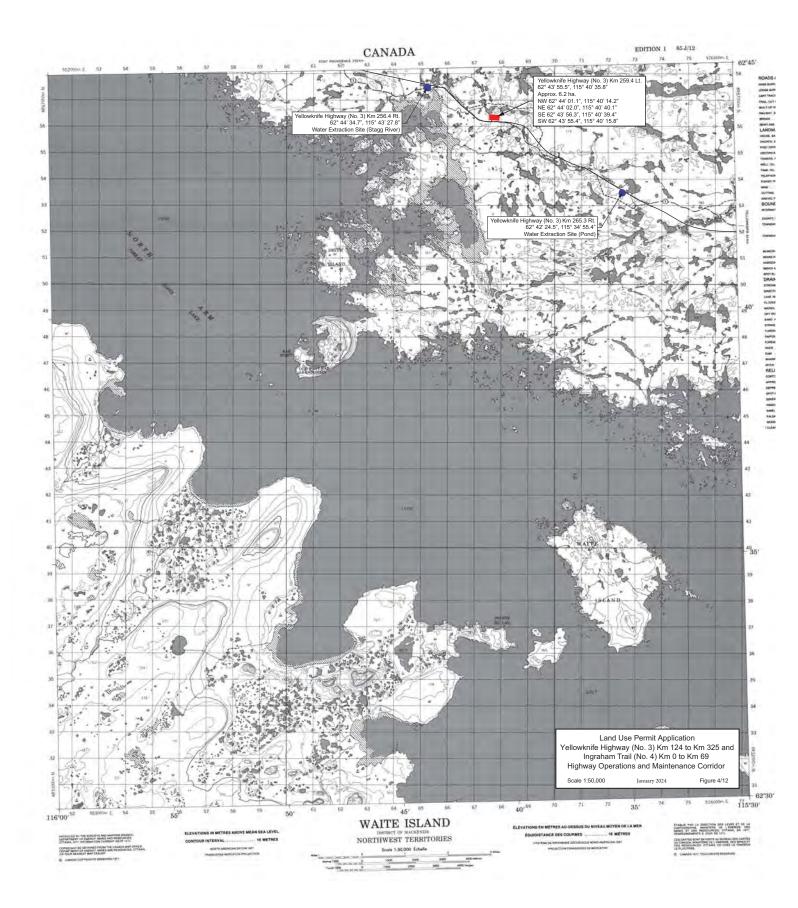




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