



# CANADA NICKEL COMPANY'S CRAWFORD NICKEL PROJECT

## Summary Initial Project Description

A preliminary overview of Canada Nickel's flagship Crawford Nickel Project, including project information and early identification of potential impacts and mitigation measures.

*This summary document was compiled in reference to a draft of the Project's Initial Project Description, the initiating phase for the federal Impact Assessment Process. The draft Initial Project Description is subject to change following feedback from the Impact Assessment Agency of Canada and Canada Nickel's own engagement activities, and is not yet fully available to the public.*

# Project Overview



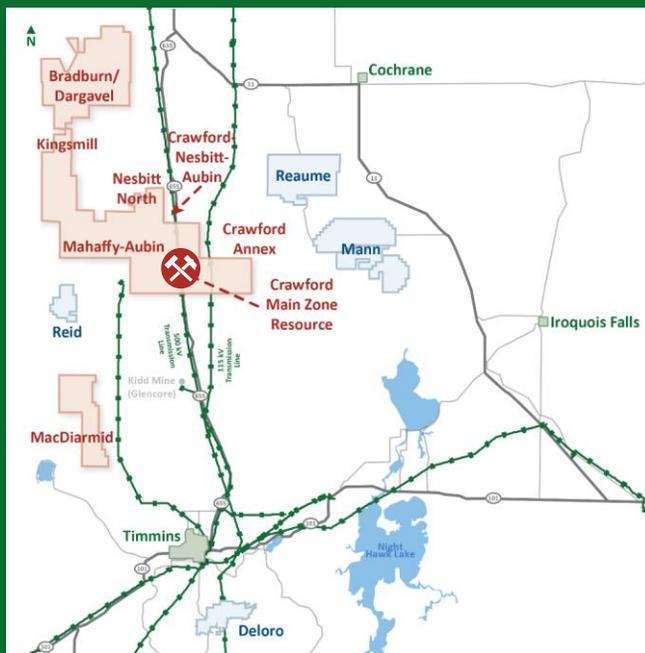
Canada Nickel Company is a junior exploration company advancing the Crawford Nickel Project (the Crawford Project) as a carbon neutral source of some of Canada’s critical minerals: nickel, iron, and cobalt. Canada Nickel plans to feed into the low carbon technology revolution through the electric vehicle battery and stainless-steel markets. Work on the Crawford Project’s Feasibility Study is underway, scheduled for completion in Q4 2022.

## Key Points:

- ✓ Estimated 40+ year life of mine
- ✓ Greenfield site with no history of mining or advanced exploration
- ✓ Ongoing surface drilling program active for approximately 3 years, beginning in 2019

## Ongoing Activities:

- Continued environmental baseline studies
- Detailed engineering studies towards completion of Feasibility study
  - Project design
  - Highway and transmission relocation
  - Metallurgical test work
  - Net Zero/carbon sequestration research and testing
- Continued engagement with Indigenous Peoples, stakeholders, and the public



## COMMUNITY ENGAGEMENT

### PHASE 1 STAKEHOLDER

*Summer/Fall 2021*

- ✓ Preliminary stakeholder meetings – General Project Information
- ✓ Feedback Survey – Topics of Interest and Engagement Preferences
- ✓ Opening of regional office
- ✓ Stakeholder meetings – Baseline Study Results and Engagement Plans
- ✓ Feedback Survey – Engagement Strategy
- ✓ Release of first Community Newsletter

### PHASE 2 STAKEHOLDER

*2022*

- ✓ Stakeholder and public meetings to review and obtain feedback/comments on the Initial Project Description and Detailed Project Description
- ✓ Formation of advisory committees (Environment, Labour and Training, Local Contributions and Procurement)

### INDIGENOUS ENGAGEMENT

- ✓ Transparent, open, and ongoing dialogue with Indigenous Peoples
- ✓ Collaborative approaches to engagement strategies, completion of environmental, socio-economic, and traditional knowledge and land use studies
- ✓ Focus on capacity building and meaningful discussion around project impacts, design, and operation

# Mine Layout and Infrastructure



### Processing Capacity:

First 4-5 Years: 42,500 tonnes per day  
 Remainder: 120,000 tonnes per day

### Total Material to be mined:

Total: 5,186 million tonnes  
 Ore: 1,671 million tonnes

### Stockpile storage capacity

Ore stockpiles: 295 Mm<sup>3</sup>  
 Mine rock stockpiles: 963 Mm<sup>3</sup> and 461 Mm<sup>3</sup>  
 Overburden/Topsoil stockpiles: 318 Mm<sup>3</sup>  
 \* Mm<sup>3</sup> = million cubic metres

### Power Supply

Supplied through development of 230 kV line extending to Porcupine sub station in Timmins

Emergency diesel fuel generators on site

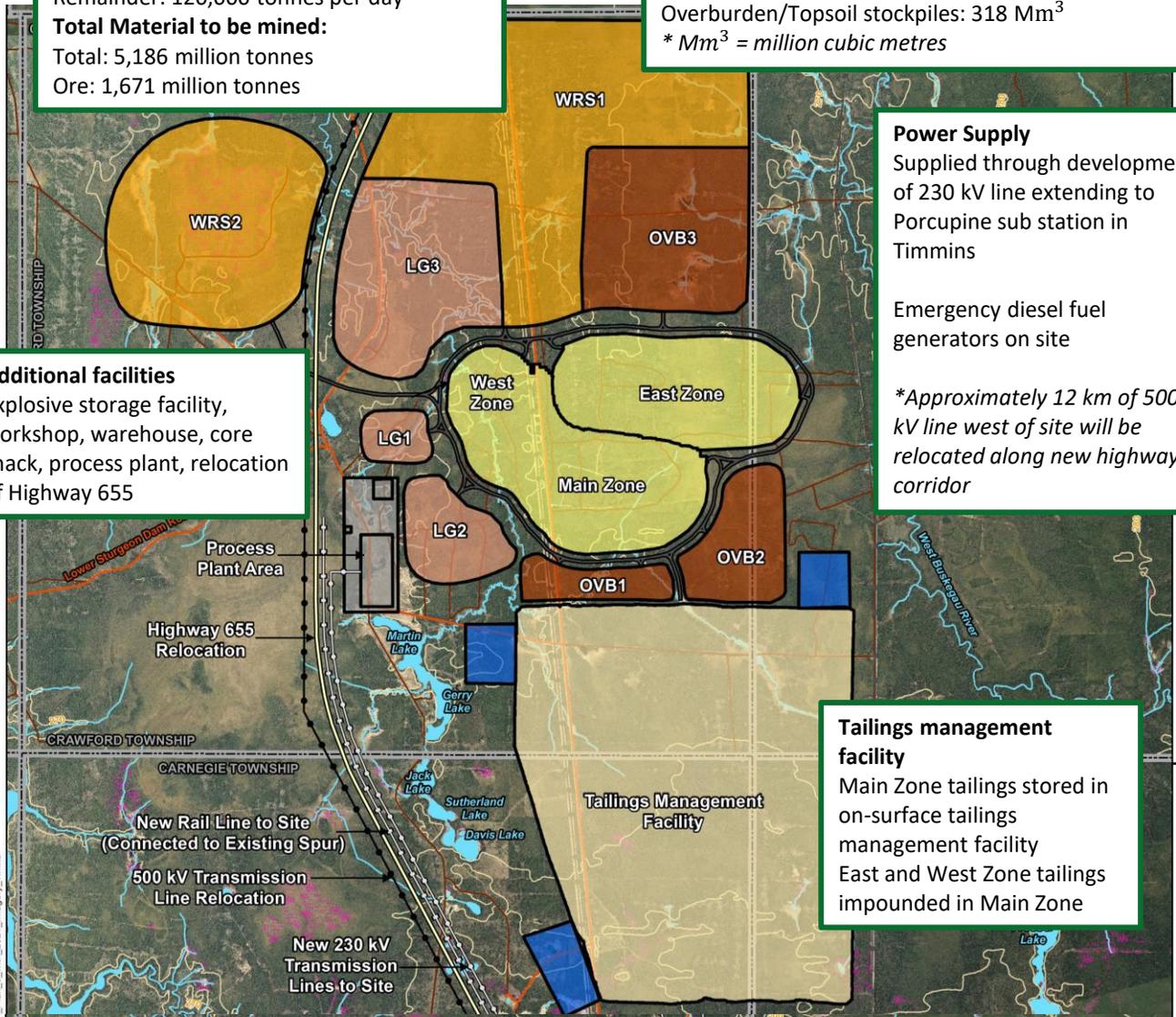
\*Approximately 12 km of 500 kV line west of site will be relocated along new highway corridor

### Additional facilities

Explosive storage facility, workshop, warehouse, core shack, process plant, relocation of Highway 655

### Tailings management facility

Main Zone tailings stored in on-surface tailings management facility  
 East and West Zone tailings impounded in Main Zone



<b>LEGEND</b> Township Boundary Existing Transmission Line Existing Primary Road / Highway Secondary Road (resource road) Contours (10 m interval) Waterbody Watercourse Low-lying Area	<b>Site Plan Features</b> Open Pit Access/Haul Road Tailings Management Facility Pond Waste Rock Stockpile (WRS) Overburden Stockpile (OVB) Low Grade Ore Stockpile (LG) Process Plant Area	New Rail Line to Site New 230 kV Transmission Line to Site Highway 655 Relocation 500 kV Transmission Line Relocation	<b>NOTES:</b> - Topographic map information extracted from Land Information Ontario (MNR), Queen's Printer for Ontario, 2019/2020 - Preliminary site plan data extracted from Canada Nickel Company, April 5, 2022. - Aerial imagery provided by CNC, scene date: summer 2021 and ESRI online mapping service, 2019.	 <b>CRAWFORD NICKEL PROJECT</b>  Preliminary Site Plan Layout

Engineering Studies

Permitting and Approvals

Construction

Operation

Decommissioning and Closure

Post-closure and Monitoring

2021 - 2022

2022 - 2025

2025 - 2027

2027 - 2067

2067 - 2070

2070 +



## Preliminary Baseline Studies

AIR, NOISE, VIBRATION, LIGHT	Air quality baseline monitoring commenced November 2021 and is ongoing. Additional studies planned for 2022 for noise, vibration, and light emissions.
HYDROLOGY	Sampling completed in North Driftwood and West Buskegau rivers , studies ongoing
HYDROGEOLOGY	Drilling program and permeability testing completed, monitoring wells installed
GEOCHEMISTRY	Indicate that ore and waste rock are non-acid generating, testing to be continued
TERRESTRIAL	Studies ongoing, results to date consistent with regional norms and expectations
AQUATICS	Completed in West Buskegau, North Driftwood, and Mattagami rivers, and tributaries Studies ongoing, results consistent with regional norms and expectations
SPECIES AT RISK	Though not observed, project located along southern boundary of Woodland Caribou. Observed species of conservation concern: Black Ash, Bald Eagle, Canada Warbler. Studies ongoing.
SOCIO-ECONOMIC	Preliminary desktop analysis of community social, economic, and health contexts completed Studies ongoing – community feedback requested to inform study results
CULTURAL HERITAGE AND ARCHEOLOGY	Preliminary desktop analysis completed. Field assessment to be conducted in areas of increased potential (ex. bodies of water)

## Preliminary List of Activities



- Environmental permitting and mitigation of effects, as required
- Complete engineering studies, corporate decision to proceed
- Hiring and procurement
- Relocation of Highway 655 and 500 kV transmission line, construction of rail spur
- Site preparation, construct new site facilities, open pit development, water management/treatment works, mine waste management facilities
- Develop aquatic habitat offset and compensation features, as needed
- Overburden/mine rock stockpiled, or used in progressive reclamation
- Ore extracted from open pit temporarily stockpiled, or transported to primary crusher
- Ore processing, produce concentrate for shipping
- Tailings from Main Zone stored in surface facility (once Main Zone emptied and mining in East Zone, tailings and overburden will be stored in Main Zone)
- Ongoing water discharge management and treatment, waste management
- Progressive reclamation where and when possible
- Updates/amendments of Closure Plan as needed
- Remove from site, once no longer needed; mine equipment, reagents and chemicals for proper disposal, site power infrastructure
- Allow open pit to flood (If appropriate, connect flooded open pit to local drainage system)
- Prepare site for closure (Demolish facilities, remediate residual ground spillage, if any, etc.)
- Revoke approvals to operate when no longer required
- Return of reclamation financial assurance

*The following will be ongoing throughout all stages of the project: development/implementation/continuation of relevant environmental protection and monitoring plans; and meaningful engagement and consultation.*



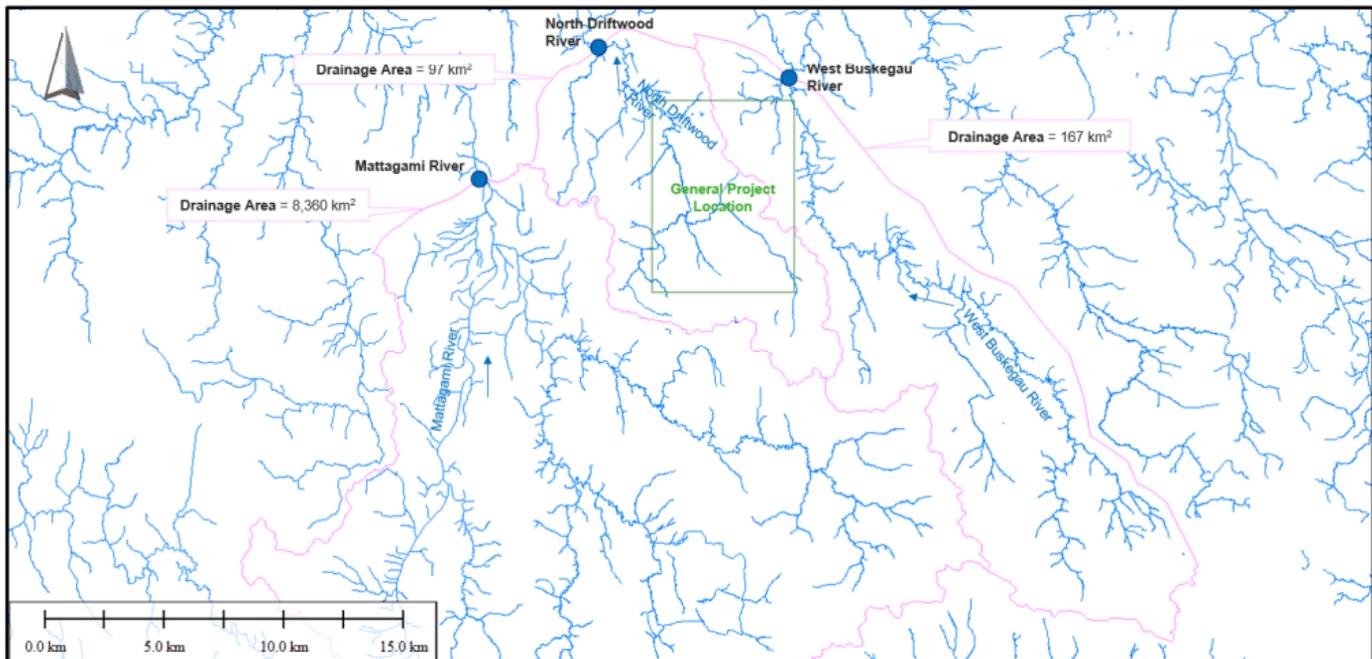
The proposed water management plan includes collection of groundwater, runoff, and direct precipitation in the open pits. This water will be collected during dewatering, pumped to a sedimentation pond, and used as additional water for the process plant. General surface runoff and precipitation will be collected in ditches/collection ponds and pumped to the sedimentation pond.

Potential effluent discharge locations under consideration are:

- **Mattagami River** (*located approximately 10 km from site*),
- **North Driftwood River**,
- **West Buskegau River**, or
- **A combination of locations**

*Regardless of location, site effluent will meet regulatory requirements for safe discharge to the environment. This may involve, if necessary, construction and operation of a water treatment plant on site*

Effluent discharge could impact the flow and water levels of the selected location. The water management system will ensure that site effluent meets all regulatory requirements and can be safely discharged to the environment. If required, a water treatment plant may be installed to ensure effluent quality can be consistently achieved. The final location will be selected with care to make sure that the receiving watercourse can receive this effluent and all related regulatory requirements are met.



# Potential Project Impacts



*Note that this is not a full impact assessment, merely a preliminary evaluation.*

**IMPACT:** Potential Effect (Preliminary) **PROPOSAL:** Proposed Mitigation (Preliminary)

## **AIR AND NOISE EMISSIONS**

**IMPACT:** Release of airborne particles, noise disturbance to other area users (note that site is remote from residences)

**PROPOSAL:** Meet regulatory requirements, implement necessary control measures, measure to identify areas with opportunities to reduce sound emissions effects

## **GREENHOUSE GAS EMISSIONS**

**IMPACT:** Potential to contribute to global carbon dioxide emissions

**PROPOSAL:** Reduce site footprint, apply results of carbon sequestration research and testing, use of electric equipment

## **LIGHT**

**IMPACT:** Increase in ambient light on site and localized glow off-site

**PROPOSAL:** Care to ensure appropriate aim for lights to minimize off-site disturbance

## **INDIGENOUS RIGHTS**

**IMPACT:** Impacts on how and where Indigenous Peoples' Rights are exercised

**PROPOSAL:** Collaborative development of management practices/plans to be implemented

## **LOCAL WATERBODIES/WATERCOURSES**

**IMPACT:** Overprinting of small creeks/ponds, species/habitat disturbance (vibration, crossings, discharge)

**PROPOSAL:** Meet regulatory requirements, compensatory aquatic habitat (consulted upon and approved)

## **GROUNDWATER SYSTEM**

**IMPACT:** Open pit dewatering affecting local groundwater levels and surface water flows

**PROPOSAL:** Modelling to assess effects, flows to return after open pit refills, geochemistry program underway

## **NATURAL VEGETATION AND WILDLIFE**

**IMPACT:** Displacement of habitat, wildlife disturbance

**PROPOSAL:** Reduce site footprint, avoid clearing during nesting season, reclaimed to support future habitat

## **HUNTING, FISHING, AND TOURISM**

**IMPACT:** Disruption to local experience in immediate vicinity of site

**PROPOSAL:** Collaboration with relevant stakeholders to mitigate effects during operation

## **COMMERICAL OPERATIONS**

**IMPACT:** Limit access to people/resources for other industries, however could draw workers to area

**PROPOSAL:** Optimize economic benefits to local and regional economies, including Indigenous Peoples

## **TRADITIONAL USE OF LANDS AND RESOURCES**

**IMPACT:** Effects on spiritual connections, experiences, locations of value, and cultural practices

**PROPOSAL:** Ongoing engagement with Indigenous Peoples to identify and mitigate potential effects

## **INDIGENOUS/PUBLIC HEALTH AND SAFETY**

**IMPACT:** Impacts to air and water quality, changes to community safety, well-being, and health

**PROPOSAL:** Monitoring quality and implementing control measures. Working with local communities and Indigenous Peoples to fully understand impacts on health and safety and develop collaborative management programs or projects

## **SOCIO-ECONOMICS**

**IMPACT:** Benefits, such as employment, procurement, and education/training, and effects including strain on healthcare services, increased traffic, and decreased housing availability

**PROPOSAL:** Collaborate to ensure positive benefits, implement community contributions and procurement program

## **PHYSICAL AND CULTURAL HERITAGE**

**IMPACT:** No anticipated effect to known archeological sites, effect on cultural heritage to be determined

**PROPOSAL:** Identifying any as yet undetected features or artefacts during construction

# Contact Us



**HEAD OFFICE** 130 King Street West, Suite 1900  
Toronto, ON M5X 1E3

TEL. 647-256-1955  
info@canadanickel.com

**REGIONAL OFFICE** 250 Third Ave.  
Timmins, ON P4N 1E3

TEL. 705-363-7322  
community@canadanickel.com



Canada Nickel Company



@CanadaNickel



canadanickel.com

---

## Qualified Person and Data Verification

All technical information contained herein has been reviewed and approved on behalf of Canada Nickel Company Inc. by a "qualified person" as such term is defined by National Instrument 43-101 – *Standards of Disclosure for Mineral Projects*.

## Cautionary Statement Concerning Forward Looking Statements

This document contains certain information that may constitute "forward-looking information" under applicable Canadian securities legislation. Forward looking information includes, but is not limited to, future exploration and development results, completion of acquisitions and corporate and technical objectives. Forward-looking information is necessarily based upon a number of assumptions that, while considered reasonable, are subject to known and unknown risks, uncertainties, and other factors which may cause the actual results and future events to differ materially from those expressed or implied by such forward-looking information. Factors that could affect the outcome include, among others: future prices and the supply of metals, the future demand for metals, the results of drilling, inability to raise the money necessary to incur the expenditures required to retain and advance the property, environmental liabilities (known and unknown), general business, economic, competitive, political and social uncertainties, results of exploration programs, risks of the mining industry, delays in obtaining governmental approvals, failure to obtain regulatory or shareholder approvals, and the impact of COVID-19 related disruptions in relation to Canada Nickel Company Inc.'s business operations including upon its employees, suppliers, facilities and other stakeholders. There can be no assurance that such information will prove to be accurate, as actual results and future events could differ materially from those anticipated in such information. Accordingly, readers should not place undue reliance on forward-looking information. All forward-looking information contained in this document is given as of the date hereof and is based upon the opinions and estimates of management and information available to management as at the date hereof. Canada Nickel Company Inc. disclaims any intention or obligation to update or revise any forward-looking information, whether as a result of new information, future events or otherwise, except as required by law.