# DETAILED PROJECT DESCRIPTION

## CRAWFORD NICKEL PROJECT

CANADA NICKEL COMPANY

DECEMBER 2022

PREPARED BY:
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# ABBREVIATIONS

| | |
|---|---|
| ABA | Acid-Base Accounting |
| ATV | All-terrain vehicle |
| BMP | Best Management Practice |
| CAD | Canadian Dollar |
| CCUS | Carbon Capture, Utilization and Storage |
| $CH_4$ | Methane |
| CIRNAC | Crown-Indigenous Relations and Northern Affairs Canada |
| CNC | Canada Nickel Company Inc. |
| $CO_2$ | Carbon Dioxide |
| $CO_2Eq$ | Carbon Dioxide Equivalent |
| COVID | Coronavirus disease of 2019 |
| DFO | Fisheries and Oceans Canada |
| EA | Environmental Assessment |
| ECCC | Environment and Climate Change Canada |
| FM | Frequency Modulation |
| GBA+ | Gender Based Assessment Plus |
| IA | Impact Assessment |
| IAAC | Impact Assessment Agency of Canada |
| IBA | Impact and Benefit Agreement |
| IPD | Initial Project Description |
| km | kilometres |
| m | Metres |
| m/s | Metres per Second |
| masl | Metres Above Sea Level |
| mbgs | Metres Below Ground Surface |
| MECP | Ministry of the Environment, Conservation, and Parks |
| MIC | Matheson, Iroquois Falls, and Cochrane |
| MINES | Ministry of Mines |
| mm | Millimetres |
| MNO | Métis Nation of Ontario |
| MNRF | Ministry of Natural Resources and Forestry |
| MOU | Memorandum of Understanding |
| Mt | Million Tonnes |
| MTCS | Ministry of Tourism, Culture and Sport |
| MTO | Ontario Ministry of Transportation |
| $N_2O$ | Nitrous Oxide |
| NAD | North American Datum |
| NRCan | Natural Resources Canada |
| PHU | Porcupine Health Unit |
| TEDC | Timmins Economic Development Corporation |
| TMF | Tailings Mining Facility |
| t | Tonnes |
| tpd | Tonnes per day |
| TSX | Toronto Stock Exchange |
| TTN | Taykwa Tagamou Nation |
| USA | United States of America |
| UTM | Universal Transverse Mercator |
| VPA | Victor M. Power station |

# A. GENERAL INFORMATION

## A.1 PROJECT NAME, SECTOR AND LOCATION

| | |
|---|---|
| Project Name | Crawford Nickel Project (Crawford Project) |
| Sector | Mines and minerals - base metal mine |
| Location | 43 kilometres (km) north of Timmins, Ontario; see Figure A.1 |

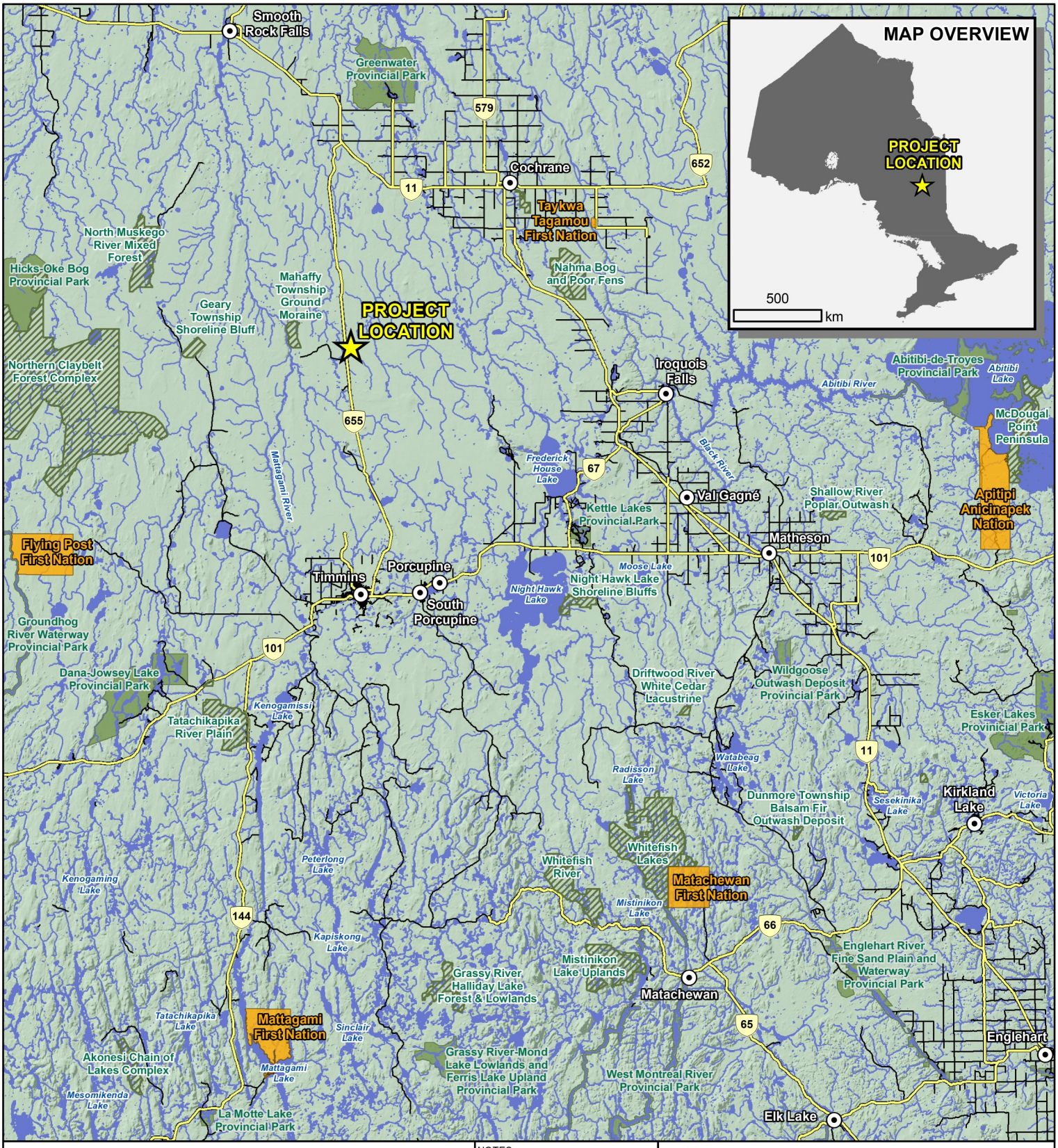
## A.2 PROPONENT


| | |
|---|---|
| Proponent | Canada Nickel Company<br>https: / / www.canadanickel.com / |
| Corporate Contact | Pierre Philippe Dupont, Vice-President, Sustainability<br>Canada Nickel Company<br>130 King St West, Suite 1900<br>Toronto, Ontario, Canada M5X 1E3<br>T: (647) 256-1955 M: (819) 442-0494<br>pierrephilippedupont@canadanickel.com |
| Supporting Consultant | Dan Russell, Associate Geoscientist<br>WSP E&I Canada<br>2020 Winston Park Drive, Suite 600<br>Oakville, Ontario, Canada L6H 6X7<br>M: (416) 458-1699<br>dan.russell@wsp.com |


Canada Nickel Company Inc. (Canada Nickel) is a junior exploration company advancing its 100% owned flagship Crawford Nickel Project (Crawford Project or the Project) as a next generation operation aimed at delivering the nickel required to feed the high growth electric vehicle battery and stainless-steel markets. It is Canada Nickel's intention to provide responsibly sourced critical minerals in support of sustainable technology and the future of the low carbon Canadian economy while establishing a new benchmark for community engagement and environmental best practice in the mining industry.

Canada Nickel plans to leverage the Crawford Project's advantageous position in the heart of the prolific Timmins-Cochrane mining camp to become a leading producer of the net zero nickel, cobalt, and iron needed to meet Canada and Ontario's ambitious critical minerals strategies.

To emphasize these sustainably driven objectives, Canada Nickel has applied in multiple jurisdictions to trademark the terms NetZero Nickel™, NetZero Cobalt™, and NetZero Iron™, supported by extensive and ongoing research into carbon sequestration enhancement and the hydro electrification of large-scale mine sites.

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## LEGEND

- Project Location
- First Nation Reserve
- Town / Community
- Conservation Reserve
- Provincial Park
- Local Street
- Highway
- Watercourse
- Waterbody

NOTES:
- Topographic map information extracted from Land Information Ontario (MNRF), Queen's Printer for Ontario, 2019/2020.

Datum: NAD83
Projection: UTM Zone 17N

0 5 10 20 30 40 50 Kilometres

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# CRAWFORD NICKEL PROJECT

## Project Location

PROJECT N°:OMEMA2002

**FIGURE: A.1**

SCALE: 1:830,000

DATE: December 2022

# B. PLANNING PHASE RESULTS

## B.1 SUMMARY OF ENGAGEMENT WITH STAKEHOLDERS

### *B.1.1 OVERVIEW*

Canada Nickel was created at the end of 2019 and listed on the TSX Venture Exchange in early 2020. Canada Nickel set the basis of its stakeholder engagement strategy by hiring a Vice-President, Sustainability at the end of 2020 and a Community Relations and Communications Coordinator in June 2021. Initial discussions with Project stakeholders began in June 2021.

Canada Nickel has established a core set of guidelines on which engagement activities have and will continue to be based. These guidelines include:

- Early, ongoing, and proactive engagement that is tailored to the community's interests and expectations;
- Engaging stakeholders by proximity to the Project and relevance to potential Project impacts, and providing all interested stakeholders with a chance to obtain information and share feedback;
- Sharing Project information that transparently addresses issues, concerns, and opportunities, and helps develop solutions suited to all involved parties;
- Taking Project decisions per engineering and regulatory requirements, in addition to Indigenous and stakeholder feedback; and
- Obtaining a plurality of perspectives from the community by reaching out to groups not often involved in mining projects.

### *B.1.2 ENGAGEMENT WITH STAKEHOLDERS*

Various means of communication have been established, or are in the process of full development, to initiate and maintain dialogue between Canada Nickel and the surrounding communities and stakeholders of the Crawford Project. Note, Indigenous engagement has had its own process, detailed in Section B.2.

- Information sharing by email regarding proposed activities, meetings, and Project updates;
- Newsletters (published quarterly, with the first issue released in October 2021);
- Project website with a community specific page (www.canadanickel.com / sustainability), which includes general Project information, Project documents (including publicly available meeting reports and summarized factsheets, as they become available), and an inquiry submission form;
- An email address dedicated to community relations (administered daily by the Community Relations and Communications Coordinator);
- Individual and group meetings (held primarily virtually during the COVID-19 Pandemic) with stakeholders;
- Meeting reports produced by the consulting firm Transfert Environnement et Société following scheduled meetings, distributed to participants for validation, and shared on Project website;

- Anonymous feedback surveys to collect stakeholder feedback on various subjects (the summary results of the feedback surveys were shared during early meetings and used in the development of the Project's Preliminary Engagement Plan);
- Factsheet summarizing the federal Impact Assessment (IA) Process and how Canada Nickel will integrate it into the Project's engagement process, made available at the Timmins Office and on the Project website;
- Factsheet summarizing the Project's Preliminary Economic Assessment, made available at the Timmins Office;
- Summary document for the Initial Project Description (IPD), made available on the Project website and distributed to public meeting registrants and to interested communities;
- Formation of a Community Contributions and Procurement Committee, consisting of select stakeholders (chosen by demonstrated interest or expertise) and focused on the implementation of informed strategies and policies concerning local procurement and contributions, with meetings held quarterly;
- Formation of an Environmental Committee, consisted of select stakeholders (chosen by demonstrated expertise) and focused on review of the Crawford Project's potential environmental impacts and planned mitigation measures, with meetings held quarterly;
- A plan to establish a Labour and Training Committee, pending availability of sufficient information; and
- Letters posted to known cabins, hunting blinds, and other evidence of activity on all Canada Nickel properties inviting the user(s) to contact Canada Nickel for information on exploration activities and safe coordination of property use.

## PRELIMINARY PROJECT INTRODUCTION MEETINGS – SUMMER 2021 (M1)

In June 2021, Canada Nickel began engagement activities with stakeholders associated with the Project. The objective of these meetings was to share preliminary information regarding Canada Nickel, the Crawford Project, company values and objectives, and to identify how Canada Nickel should proceed with its future engagement activities. Initially-engaged stakeholders were identified by proximity to the Project and its potentially affected areas, by specific perceived interests, and by past or current interest in similar projects or major project development.

Following the June / July meetings, a feedback survey was distributed to the participants. The intent of the survey was to gauge stakeholder preferences for engagement activities and frequency of engagement, primary areas of interest / concern relating to the Crawford Project, and perceived opportunities for Canada Nickel to contribute to regional successes. Results of the survey can be found in Appendix B. Given the importance of Indigenous and stakeholder feedback in establishing the Project's design and its engagement process, Canada Nickel used the stakeholder feedback shared in the surveys to develop a comprehensive yet tailored stakeholder engagement plan that was then presented for further review and validation.

## PROJECT BASELINE MEETINGS – FALL 2021 (M2)

A second round of meetings was held in September / October 2021, to share the preliminary baseline results of the environmental studies, and to present the Preliminary Engagement Plan, its proposed tools, and estimated timeline.

A feedback survey was also shared after this second round of meetings. The intent was again to obtain detailed feedback on the Engagement Plan Proposal, such as the proposed activities and engagement

tools, including thematic committees and a potential open house. Respondents were also invited to share and identify other groups that they felt should be part of the engagement process.

## INITIAL PROJECT DESCRIPTION MEETINGS – SPRING 2022 (M3)

In May and June 2022, Canada Nickel held small group meetings with stakeholders and two virtual public meetings, to present the IPD and obtain feedback. All meeting reports will be made publicly available on the project website once validated by the meeting attendees.

The public meetings were held on May 13 and May 16, 2022 and had 34 and 27 registrants respectively. Approximately 50% of registrants were from the four core communities (Timmins, Cochrane, Smooth Rock Falls and Iroquois Falls), with the remainder joining from outside the region (per the postal codes attendees provided upon registration). These meetings were advertised in advance on Canada Nickel's social media and website, on appropriate social media platforms / websites of stakeholder volunteers, and on local radio stations and in local newspapers (print and digital), as follows:

- Moose FM radio (Timmins, Cochrane, and Iroquois Falls);
- Moose FM digital advertising (Timmins, Cochrane, and Iroquois Falls);
- The Enterprise (Iroquois Falls); and
- The Daily Press (Timmins Daily Press, Timmins Times, and Cochrane Times-Post).

Meeting registrants were provided with the IPD summary document in advance of the meeting. A recording of the public presentation and a copy of the presentation file are available on the project website. [1]

## STAKEHOLDER CONTACTS

The following is a list of all stakeholders who have been contacted throughout Canada Nickel's engagement process. The meetings listed in the brackets (M1 for meetings in summer 2021, M2 for meetings in fall 2021, and M3 for the IPD meetings held in spring 2022) indicate those meetings to which the stakeholder group was invited, with notes indicating additional meetings. If the meeting is **bolded**, the group responded to the invitation and attended the meeting, otherwise there was either no response to the invitation, the meeting was declined, or the group did not attend the scheduled meeting.

- Abitibi Institute (**M2, M3**);
- Access Better Living (M2, M3);
- Apatisiwin Employment and Training Program (M2, M3);
- Arctic Riders of Smooth Rock Falls (with whom introductory correspondence had been previously shared) (**M3**);
- Big Water Campground (offer for introductory meeting extended, engagement efforts ongoing);
- Black River-Matheson Township (introductory letter shared October 2022);
- Canadian Mental Health Association Cochrane-Timiskaming Branch (M3);
- Canadian Parks and Wilderness Society – Wildlands League (M2, M3);
- City of Timmins (**M1,** M2, M3);
- Cochrane Board of Trade (with whom a previous introduction meeting had been held, and a Memorandum of Understanding (MOU) signed outlining the potential for mutual support and

[1] Feedback arising from Stakeholder Engagement is provided in Appendix A, with associated engagement relating to Stakeholder Engagement provided in Appendix A, pages A33 – A43..

collaboration on initiatives, partnerships, and Canada Nickel's community engagement activities in Cochrane) (**M3**);

- Cochrane District Social Planning Council (**M1, M2, M3**);
- Cochrane District Social Services Administration Board (**M1, M2, M3**);
- Cochrane Economic Steering Board (M2, M3);
- Cochrane Local Citizens Committee (**M2, M3**);
- Collège Boréal (tour of Sudbury Campus) (**M2, M3**);
- Ellevive (M2, M3);
- Far Northeast Training Board (**M1, M2, M3**);
- Friends of the Porcupine River Watershed (**M1, M2,** M3);
- Hardwood Lake Hunt Club (M3);
- Ininew Friendship Centre (visit to the facility) (**M2,** M3);
- Iroquois Falls Cross Country Ski Club (M2, M3);
- Jackpine Snowmobile Club (M2, M3);
- Jubilee Centre (M2, M3);
- Keepers of the Circle (with whom a previous introduction meeting had been held) (**M3**);
- Living Space Timmins (**M2,** M3);
- Mattagami Region Conservation Authority (**M1,** M2, M3);
- Mattagami Region Source Protection Committee (**M3**);
- Mushkegowuk Environmental Research Centre (M3);
- Nature and Outdoor Tourism Ontario (introductory meeting held in July 2022);
- NORCAT (**M2,** M3);
- Northern Claybelt Complex Conservation Reserve (M3);
- Northern College (Timmins campus tour) (**M1, M2, M3**);
- Northglen Community (introductory meeting held in June 2022) (M3);
- Northwatch (M2, M3);
- Ojibway and Cree Cultural Centre (M3);
- Ontario Federation of Anglers and Hunters (M2, M3);
- Polar Bear Riders (Cochrane) Snowmobile Club (**M2,** M3);
- Porcupine Health Unit (**M1, M2, M3**);
- Porcupine Prospectors and Developers Association (with whom introductory correspondence had been previously shared, and to who the community relations coordinator is a member) (M3);
- Porcupine Ski Runners (M2, M3);
- Land users around the Project footprint, including, though not limited to, land owners, trappers, bear management area operators, and bait harvesters (in-person, one-on-one introduction meetings);
- South Cochrane Addiction Services (M2, M3);
- The Venture Center (M2, M3);
- Timmins and Area Women in Crisis (M2, M3);
- Timmins and District Multicultural Centre (M2, M3);

- Timmins ATV Club (contacted – the club expressed that they do not believe there will be an impact to their activities at this time, but is interested in future updates);
- Timmins Chamber of Commerce (**M1, M2, M3**);
- Timmins Community Development Committee (**M1,** M2, M3);
- Timmins Downtown Association (BIA) (with whom introductory correspondence had been previously shared, and of which Canada Nickel is a member) (M3);
- Timmins Economic Development Corporation (**M1, M2, M3**);
- Timmins Fur Council (M2, M3);
- Timmins Local Citizens Committee (**M3**);
- Timmins Native Friendship Centre (M2, M3);
- Timmins Snowmobile Club (**M1, M2,** M3);
- Town of Cochrane (**M1, M2, M3**);
- Town of Iroquois Falls (**M1, M2, M3**);
- Town of Smooth Rock Falls (an introductory meeting was held with Mayor and Council in February 2022, and an in-person town meeting with more than 70 attendees in April 2022 aimed at introducing Canada Nickel and the Crawford Project) (**M3**); and
- Workplace Safety North – Ontario Mine Rescue (**M2**).

Government groups spoken with to date include:

- Hydro One Networks Inc. (Hydro One);
- Impact Assessment Agency of Canada (IAAC);
- Ontario Ministry of Natural Resources and Forestry (MNRF);
- Ontario Ministry of Mines (MINES);
- Ontario Ministry of the Environment, Conservation and Parks (MECP);
- Ontario Ministry of Tourism, Culture, and Sport (MTCS);
- Ontario Ministry of Transportation (MTO);
- Ontario Northland Transportation Commission (ONTC);
- Ontario Power Generation.;

### *B.1.3 MAIN ISSUES*

Open discussions, feedback surveys, and the presentations given during summer 2021, fall 2021, and for the initial project description in spring 2022 are the primary sources of feedback collection to date, in addition to some comments received via the community email address and during Canada Nickel's attendance at community and industry events. Input received to date is set out in Appendix A to show feedback received and Canada Nickel's direct responses and actions taken. Comments and concerns voiced by Project stakeholders will be taken into consideration during Project design and implementation.

Additional feedback identified by the IAAC during engagement following the approval of the Initial Project Description, as well as Canada Nickel's responses, can be found in Appendix D. Comments submitted to IAAC throughout the IA Process will be fully considered and addressed in the Impact Statement, if an IA is required.

Key issues raised to date by Project stakeholders to date include:

- Water management practices and discharge into the surrounding environment;
- Project's potential impact on land use, mainly hunting and fishing;
- Surface and ground water quality and flow;
- Equitable distribution of Project's economic and social benefits;
- Project footprint and potential impacts on wildlife;
- Workforce requirements and early planning; and
- Project's potential impacts to socio-economic conditions, including housing availability and healthcare.

### *B.1.4 PLAN FOR FUTURE ENGAGEMENT*

Those communication methods previously mentioned will continue to be implemented, alongside additional activities expected to include:

- Openness to initiating discussion with newly interested groups and individuals;
- Formation of the Labour and Training Committee, and consolidation of committee information through an annual joint-committee meeting;
- Interviews, focus groups, and discussions, as appropriate, to facilitate socio-economic primary research; and
- Potentially hosting a public open house.

Canada Nickel has and will continue to pursue engagement with diverse population groups to support an understanding of unique perspectives and socio-economic conditions. To date, this has included efforts to contact organizations focused on representation of some of these populations for engagement opportunities (including a presentation to the Non-Profit Hub), and approaching such organizations at community events. In the event that an IA is required, this engagement will support the gender-based analysis plus (GBA+) framework that will be completed to illustrate the unique experiences (including potential impacts and benefits from the Project) of diverse population groups.

## B.2 SUMMARY OF ENGAGEMENT WITH INDIGENOUS PEOPLES

### *B.2.1 ENGAGEMENT PRIOR TO CANADA NICKEL OWNERSHIP*

The Crawford property was previously owned by Noble Mineral Exploration Inc. (Noble). Canada Nickel now owns 100% interest in the Crawford Project. On January 9, 2012, Noble signed a MOU with Matachewan First Nation and Mattagami First Nation in relation to exploration to be conducted on its Project 81, located in the Timmins area and including the Crawford property. Under the exploration agreement, Noble and these First Nations agreed to terms that underline each party's mutual respect for the land and a responsible approach to exploring in their Traditional Territory. The agreement was to remain in effect during the initial program and until such time as Noble and the First Nations enter into an Impact and Benefit Agreement (IBA).

An exploration agreement was also endorsed between Noble and Taykwa Tagamou Nation on May 20, 2013. This agreement was aimed at acknowledging the exploration activities pursued by Noble on Taykwa Tagamou Nation Traditional land and at setting the basis of the negotiation of an IBA if Noble intends to increase its activities beyond grassroot exploration. Following Canada Nickel's acquisition of the property, discussions with Taykwa Tagamou Nation have led to an agreement for another approach, with details provided below.

## *B.2.2 ENGAGEMENT WITH INDIGENOUS PEOPLES*

Canada Nickel will work in partnership with Indigenous Peoples to establish a mutually beneficial, cooperative, and productive relationship centred around transparent information sharing, respectful engagement, open dialogue, and meaningful partnerships[2]. The following list and Figure B.1 shows Indigenous Peoples that have specific interest in the Project and with whom Canada Nickel has engaged with prior to and during preparation of this Detailed Project Description. Canada Nickel will continue to engage with these groups for the remainder of the Crawford Project's IA process:

- Taykwa Tagamou Nation;
- Flying Post First Nation;
- Matachewan First Nation;
- Mattagami First Nation; and
- Métis Nation of Ontario - Region 3.

Per feedback received during IAAC's engagement on the Initial Project Description and incorporated into the Summary of Issues, contextual information for Apitipi Anicinapek Nation has been incorporated into the Detailed Project Description. Further conversations between Apitipi Anicinapek Nation and Canada Nickel are ongoing.

Canada Nickel conducts a number of information sharing and engagement activities with Indigenous communities, which vary from community to community, depending on the stage of the relationship and specific community interests. In addition to those activities mentioned for Stakeholder Engagement which also apply to Indigenous Engagement, Canada Nickel community specific activities include:

- Participation in community events, including open houses and community meetings;
- Exploration agreements, business MOUs, IBAs, and other agreements as relevant under development, signed or upcoming, as appropriate;
- Formation of committees, hiring of community liaisons, and initiation of regularly scheduled meetings, as appropriate, requested, and / or included in agreements
- Participation in baseline studies, including site visits, field work accompaniment, and review of baseline work plans and schedules, as appropriate, requested, and / or included in agreements;
- Provision of draft impact documents for review, such as sharing of the draft Initial Project Description prior to formal submission;
- Sharing of maps and other material to support identification by community members, specifically Elders, of culturally significant or potential archeological sites;

[2] Associated engagement relating to Indigenous Engagement is provided in Appendix A, page A33 and Appendix C, pages C7-C9 and C11, and feedback arising from Indigenous Engagement is provided in Appendix C.

- Provision of funding, support, and opportunities for participation relating to the IA and a number of baseline study programs, including Traditional Knowledge and Land Use, to support capacity building, information sharing, and meaningful collaboration;
- Sharing of job opportunities and contracts. Future training opportunities and programs, job postings, and business opportunities will also be shared, with an emphasis in Canada Nickel's procurement and hiring programs placed upon Indigenous Peoples, Indigenous owned businesses, and joint ventures;
- Regular reporting of environmental incidents and activities;
- Sponsorship and contributions to community activities and organizations, including support provided to date for sporting events / teams, POW WOWs, youth programs, etc.; and
- Community meetings led by Canada Nickel, hosted in the community when appropriate, to present the Detailed Project Description and other project updates, with opportunities for comprehensive question and answer periods.

Canada Nickel's engagement with Matachewan First Nation, Mattagami First Nation, and Flying Post First Nation is regularly supported by the Wabun Tribal Council.

Canada Nickel has provided introductory notification of project letters to a number of Indigenous communities identified by the IAAC as having potential interest in the Project. Conversations are ongoing with Apitipi Anicinapek Nation. The Cree Nation Government has responded to IAAC via the IAAC website and will continue to be provided with information regarding the Project. No responses have been received by Canada Nickel from the remaining communities to date. The list of identified communities are as follows:

- Algonquins of Barriere Lake;
- Apitipi Anicinapek Nation;
- Cree Nation Government;
- Kebaowek First Nation;
- Kitcisakik Anishinabeg;
- Kitigan Zibi Anishinabeg;
- La Premiere Nation Abitibiwinni;
- Long Point First Nation;
- Nation Anishnabe de Lac Simon;
- Timiskaming First Nation; and
- Wolf Lake First Nation.

### *B.2.3 MAIN ISSUES*

Primary topics of interest expressed to date are set out in Appendix C. Input received to date is set out in Appendix A to show feedback received and Canada Nickel's direct responses and actions taken. All comments and concerns voiced by Indigenous Peoples will be taken into consideration during Project design and implementation.

Additional feedback identified by the IAAC during engagement following the approval of the IPD, as well as Canada Nickel's responses, can be found in Appendix D. Comments submitted to IAAC throughout the IA Process will be considered and addressed in the Impact Statement, if an IA is required.

The main topics discussed to date are:

- Training and employment opportunities, in particular opportunities for women and youth (to be addressed, in part, through discussion with, where appropriate, the community primary contacts, IA committee and coordinator training, community training, retention, and recruitment coordinators, local training institutes, Keepers of the Circle, Apatisiwin Training and Employment, and other avenues appropriate to specific communities);
- Capacity building as it relates to participation in business opportunities;
- Involvement in environmental and IA studies;
- Environmental topics, relating to transparent reporting, potential impacts to water quality and aquatic species, and potential impacts to wildlife from site activities;
- Project impacts on practices, activities, and ways of life, including trap lines, fishing and hunting; and
- Discretionary sharing of Traditional Knowledge.

### *B.2.4 PLANS FOR FUTURE ENGAGEMENT*

Canada Nickel intends to continue engagement activities with interested Indigenous Peoples, with an emphasis on open, respectful dialogue, clear communication channels and meaningful participation. A specific plan for future engagement in connection with the IA process will be designed and reviewed with Indigenous Peoples and IAAC at an appropriate time.

Main topics and objectives of future engagement activities, to occur alongside those activities already outlined above, are:

- Involvement of Indigenous Peoples in the environmental baseline studies process according to each community or group's interests, expectations, and capacity for participation, with particular emphasis on the archeology program;
- Validating the interpretation and use of Traditional Knowledge in IA documentation (accounted for or to be accounted for in the relevant Agreement and plans for engagement);
- Identification of Indigenous land use activities through ongoing community engagement and TKLU studies, and discussion with primary community contacts and IA committees, where appropriate;;
- To confirm and validate the engagement activities planned for communities and to adjust activities and methods of engagement according to feedback and government and community COVID-19 pandemic restrictions; and
- Information sharing by email regarding proposed activities, meetings and Project updates.

These activities are in addition to those global communication strategies outlined in Section B.1.2, including the Project website.

Canada Nickel has and will continue to pursue engagement with diverse population groups to support an understanding of unique perspectives and socio-economic conditions. In the event that an IA is required, this engagement will support the GBA+ framework. Identification of diverse population groups and associated information gathering will be co-defined with the communities.

## B.3 SUMMARY OF ISSUES

Following submission of the IPD to initiate the federal IA Planning Process for the Crawford Project, IAAC undertook consultation on the submission and has provided Canada Nickel with a Summary of Issues based on the feedback received.

A copy of the comments provided in the Summary of Issues and responses from Canada Nickel are provided in Appendix D, with additional information provided within the text of this Detailed Project Description, where appropriate.

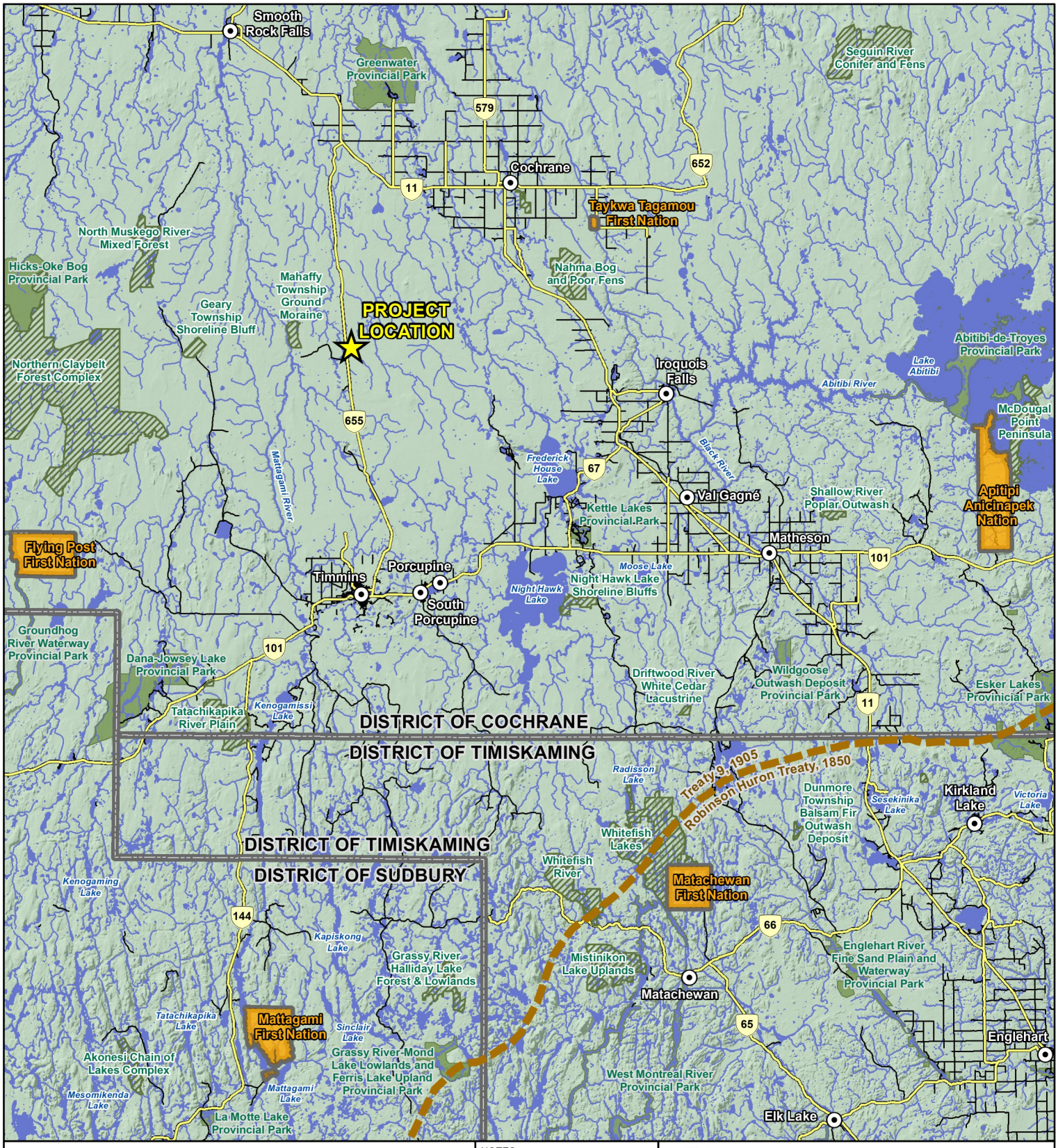
## B.4 REGIONAL STUDIES / ASSESSMENTS

There are no other applicable regional studies / assessments. There are no regional studies or Regional Assessments close to the location of the proposed Project, including any Regional Assessment carried out under the *Impact Assessment Act*, or by any jurisdiction including by or on behalf of an Indigenous governing body, where the study or plan is available to the public.

## B.5 STRATEGIC ASSESSMENTS

This Detailed Project Description has considered the Strategic Assessment of Climate Change as developed by Environment and Climate Change Canada (ECCC), including assessment of net greenhouse gas emissions associated with the Project (see Section F.6).

There are no other known applicable strategic assessments.

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## LEGEND

- Project Location
- First Nation Reserve
- First Nation Treaty Boundary (historical)
- Town / Community
- Upper Tier Municipal Boundary
- Conservation Reserve
- Provincial Park
- Local Street
- Highway
- Watercourse
- Waterbody

NOTES:
- Topographic map information extracted from Land Information Ontario (MNRF), Queen's Printer for Ontario, 2019/2020
- First Nation Treaty Boundaries (historic) extracted from "Historic First Nations Treaties in Canada - GIS dataset of pre 1930 treaty boundaries", 2000, Global Forest Watch Canada.

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# CRAWFORD NICKEL PROJECT

## Local Communities and First Nations

Datum: NAD83
Projection: UTM Zone 17N

0 5 10 20 30 40 50 Kilometres

PROJECT N°:OMEMA2002 | FIGURE: B.1

SCALE: 1:830,000 | DATE: December 2022

# C. PROJECT INFORMATION

## C.1 PURPOSE AND NEED FOR PROJECT, AND POTENTIAL BENEFITS

Canada Nickel plans to leverage the Crawford Project's advantageous position in the heart of the prolific Timmins-Cochrane mining camp to become a leading producer of net zero critical minerals.

The Crawford Project represents a domestic, strategically positioned source of nickel, iron, and cobalt intended to meet the increasing global demand from the stainless steel and lithium-ion battery markets. In the move toward decarbonization of the global transportation economy, Canada Nickel is committed to the responsible and sustainable mining and processing of the critical minerals of nickel and cobalt, as well as chromium, palladium and platinum. In so doing, the Project has the potential to contribute to strengthening Canada's economy through job creation and positive economic impact, while advancing global efforts to address climate change.

The World Bank Group, in its report titled, *Minerals for Climate Action: The Mineral Intensity of the Clean Energy Transition (World Bank Group, 2020)*, states that the production of minerals such as nickel, iron and cobalt could increase by as much as 500% by 2050 to meet the growing demand for clean energy technologies (WBG 2020). The report estimates that over 3 billion tons of minerals and metals will be needed to deploy the wind, solar and geothermal power, as well as energy storage supplies, required to achieve a below 2° Celsius future. Currently, a substantial part of the world's nickel supply for stainless steel and batteries is sourced from China or China-owned operations in Indonesia, with numerous suppliers operating in opaque, unsustainable, and carbon-intensive ways. The World Bank Group's report clearly highlights the need to expand current and future mined production of nickel, iron, and cobalt, while ensuring that it does not come at the cost of the climate, environment, or society, particularly those communities directly affected by mining activities.

On March 11, 2021, Natural Resources Canada (NRCan) announced Canada's critical minerals list, which included nickel and cobalt. Nickel and cobalt, also designated as strategic critical minerals in the USA, the European Union, and Japan, are considered critical for the sustainable economic success of Canada and its allies, and are needed to support important sectors such as communications manufacturing, aerospace, national security, and low-carbon technologies. Canada's then acting Minister of NRCan noted that global demand for critical minerals is increasing to support the transition to a low emissions global economy. The announcement also noted the important role Canada can play to leverage its mineral resources, mining expertise and world leading environmental, social and governance credentials to become the global supplier of choice for these critical minerals (NRCan, 2021).

Canada's critical minerals list was developed through collaboration between NRCan, other federal departments, exploration, mining and manufacturing companies, and extensive consultation with the provinces and territories. As a leading mining nation backed by a rich endowment of mineral resources, supported by free markets, political stability, and preferred access to global markets, NRCan expects that Canada will lead in supplying the world of its highly in-demand critical minerals (NRCan, 2021). Provincially, the Government of Ontario presented its first Critical Minerals Strategy on March 17, 2022 to help generate investment, increase the Province's competitiveness in the global market, and create jobs and opportunities in the mining sector. Located in the Cochrane District mining camp, the Crawford Project can leverage these provincial and federal advantages, along with its approximately 12-hour drive from Canada's main automotive industry and cross-border location to the United States of America's

automotive and stainless-steel industries, to be a reliable, leading producer of the critical minerals needed to secure North America's sustainable manufacturing supply chains.

Canada's 2022 Federal Budget emphasized that those proponents able to help address supply chain weaknesses, critical mineral extraction and processing, or driving climate change-oriented innovation, could receive support from government representatives. As a Canadian owned and operated business with a strategically positioned, potentially net zero critical mineral operation on the horizon, Canada Nickel has the opportunity to meet not one, but all three of these objectives. This potential support is evidenced by an 8-year commitment to CAD$3.8 billion to implement the Critical Minerals Strategy, with a portion of the funds oriented towards supply chain infrastructure investments for priority deposits, of which the Crawford Project, positioned to be the largest base metal mine in Canada and one of the largest suppliers of nickel in the world, could be. Another key takeaway from the Federal Budget was the focus on the recently announced 2030 Emissions Reductions Plan, which included a tax credit for Carbon Capture, Utilization and Storage (CCUS), a primary focus of Canada Nickel's ongoing research into the carbon sequestration potential of the Crawford Project.

In addition to job creation and its associated economic contributions to the region, the project is expected to generate government revenue through taxation. In Ontario, taxable profit from mining is subject to a mining tax of 10% for non-remote mines, as the Crawford Project could be, and 5% for remote mines (Ontario Ministry of Finance, 2022a). This is in addition to tertiary tax revenue from the Project generated from personal income, corporate taxation, and sales tax related to goods and services.

The objective of sustainable growth - economic, societal, environmental, and technological - is a core component of Canada Nickel's operating strategy and purpose, with the Crawford Project ideally positioned to meet rising global demand for accountable, dependable, and sustainable nickel, iron, chromium, cobalt, palladium and platinum.[3]

## C.2 APPLICABLE PHYSICAL ACTIVITIES REGULATION CONDITIONS

The Physical Activities Regulations (SOR / 2019-285) of the *Impact Assessment Act* requires that if stated conditions are met, documentation (a DPD) must be provided to the IAAC to assess whether an IA is required. The following conditions of the Physical Activities Regulation may apply to the Crawford Project based on the preliminary Project design:

> *18 The construction, operation, decommissioning and abandonment of one of the following:*
>
> *(c) a new metal mine, other than a rare earth element mine, placer mine or uranium mine, with an ore production capacity of 5,000 tonnes per day (tpd) or more*
>
> *(d) a new metal mill, other than a uranium mill, with an ore input capacity of 5,000 tpd or more.*

Based on the current Project design, the maximum rate of ore processing at the Crawford Project is expected to start at 60,000 tpd for the first few years of operation before increasing to up to an anticipated 120,000 tpd for the remainder of operations.

[3] Associated engagement relating to critical minerals and project purpose is provided in Appendix A, pages A1-A4 and page A31.

The Crawford Project is therefore expected to meet the conditions listed above of the Physical Activities Regulations, and Canada Nickel has therefore previously submitted an IPD and currently this Detailed Project Description for review by IAAC.

The Crawford Project is not part of a larger Project that is not listed on the Project List.

# C.3 ACTIVITIES, INFRASTRUCTURE, STRUCTURES AND PHYSICAL WORKS

Canada Nickel is planning to develop, operate, and eventually reclaim a new open pit mine at the Crawford Project site. The Crawford Project consists of an open pit mine, with associated processing and mine waste management facilities, and related infrastructure. A preliminary Site Plan is shown in Figure C.1. A summary listing of activities to be undertaken for the Crawford Project by Project phase is provided in Table C.1.

## *C.3.1 ONGOING EXPLORATION (NOT PART OF DESIGNATED PROJECT)*

The Crawford Project is located on a greenfield site with no history of mining or advanced exploration activity. Surface drilling programs have been ongoing for approximately three years at the Crawford Project site and are anticipated to continue as needed to support resource delineation (exploration) and to collect technical information (such as geotechnical and hydrogeological information). These programs are typically supported by temporary mobile trailer(s) and drill rig(s). With the exception of a gravel exploration road and trails for drill rigs, there is currently no fixed infrastructure on site.

Other ongoing activities related to exploration, environmental, and engineering studies have included or are expected to include:

- Continuing baseline studies such as: Air quality, noise, light, and vibration; socio-economic; aquatic resources, including water and sediment quality; terrestrial resources; hydrology; geochemistry; hydrogeology and groundwater quality; Indigenous Traditional Knowledge and Traditional Land Use studies, and archaeology and cultural heritage resources;
- Ongoing consultation and engagement regarding the Project;
- Completion of engineering studies, advanced exploration, laboratory and small scale pilot testing, and / or field investigations associated with: siting and design of various Project components; highway and transmission line relocation; and metallurgical test work;
- Obtaining environmental approvals for exploration activities, as / if required;
- Completion of legal / business / land agreements, if any;
- Corporate (internal) decision to proceed to mining based on results of a Feasibility Study; and
- Hiring of individuals and contractors.

## *C.3.2 PROPOSED MINE FACILITIES AND INFRASTRUCTURE (DESIGNATED PROJECT)*

Canada Nickel is planning to develop, operate and progressively reclaim a new open pit nickel mine and processing facility at the Crawford Project site. The open pit and associated surface facilities are proposed to be placed on lands held by Canada Nickel. The mine will operate continuously, with

extracted ore processed in an on site plant. Based on the proposed processing rate and current information regarding the ore body, the current life of the proposed project is expected to be approximately 43 years. Mining would be completed at a faster pace than milling, thus mining of ore would occur for about 30 years, then milling alone for the last 13 years.

The property is currently bisected by provincial Highway 655, a 500 kilovolt (kV) transmission line, and a 115 kV transmission line (both transmission lines owned and operated by Hydro One). It is anticipated that Highway 655 and the 500 kV transmission line will require relocation in order for the Crawford Project to proceed. [4]

The following is a list of the major facilities based on the current preliminary design and is subject to change with additional engineering or technical information[5]:

- Staged open pit mine;
- Stockpiles: ore, low grade ore, waste rock, and overburden;
- Process plant area: primary and secondary crushers, transfer conveyors, crushed ore dome, mill, office, warehouses, laboratory and electrical / mechanical shop;
- Tailings management facility (TMF), including tailings feed lines and water recovery lines;
- Other primary buildings and facilities: trade / maintenance shop, warehouse and storage building(s), offices, laydown areas, contractor offices, and explosive storage;
- Water management: primary collection pond, tailings collection ponds, ditching and secondary collection ponds, water management infrastructures, water treatment plant (if needed), polishing pond, freshwater pumphouse, potable water treatment plant, water pumps and pipelines, and effluent discharge pipeline;
- Waste management: temporary solid waste storage, domestic sewage treatment and demolition landfill;
- Power supply: emergency generator(s), on site distribution lines and electrical substation(s);
- Fuel and reagent storage: reagents / chemicals and diesel fuel farm (including storage and dispensary);
- Other on site infrastructure: other pipelines, on site access / haul roads, scale, security gatehouse / fencing, core shack and parking areas;
- Off-site infrastructure: access road(s) off Highway 655, 230 kV transmission line and rail line; and
- Relocation of existing infrastructure: Highway 655 and 500 kV transmission line and fibre-optic communications lines.

## OPEN PIT

The deposit at the Crawford Project is planned to be mined by open pit methods, with two immediately adjacent and intersecting pits currently proposed – the Main Zone and East Zone. Total material to be mined consists of approximately 5.9 billion tonnes (Bt), including 1.7 Bt of ore, 3.6 Bt of waste rock, and the remainder consisting of overburden to be stripped. The breakdown of ore and total excavated material by zone is shown below:

[4] Associated engagement relating to Highway 655 relocation is provided in Appendix A, pages A52-A27.
[5] Associated engagement relating to project infrastructure is provided in Appendix A, pages A14-A16 and A28 – A31, and Appendix C, pages C6, C7, C10, and C13-C15.

| | ORE | | TOTAL | |
|---|---|---|---|---|
| | Mt | % | Mt | % |
| Main Zone | 843 | 49% | 2,651 | 41% |
| East Zone | 863 | 51% | 3,281 | 49% |
| Total | 1,706 | | 5,932 | |

*Totals may not add due to rounding*

The approximate dimension of the open pits, recognizing there will be some overlap of the boundaries between the zones once fully developed are:

- Main Zone open pit: dimensions of approximately 3,300 metres (m) by 1,700 m, with a depth of approximately 690 m below ground surface (mbgs);
- East Zone open pit: approximately 3,800 m by 1,500 m with a depth of approximately 615 mbgs; and

The Main Zone underlies the current alignment of Highway 655 and the adjacent 500 kV transmission line, both of which will require realignment to allow for full development of that open pit.

## STOCKPILES

Mining at the Crawford Project will require removal of surface overburden and waste rock to access and remove the ore. Ore, waste rock and overburden from the open pits will be stored in surface stockpiles on site. Overburden stripped during general site development will also be stockpiled on site, including for future use in site reclamation as needed.

Preliminary storage capacities of the stockpiles for the Crawford Project are as follows, subject to revision during ongoing engineering:

- Ore stockpiles: two stockpiles totalling approximately 234 million cubic metres ($Mm^3$);
- Mine rock and overburden stockpiles: two anticipated at approximately 961 Mt and 1,024 Mt; and
- Overburden and topsoil / organics stockpiles: Combined volume of approximately 318 $Mm^3$, including smaller temporary stockpiles, anticipated to be used during site reclamation activities.

Low grade ore stockpiles will be developed in the early years of mine production, as ore will be produced at a faster rate in the mine than the throughput of the process plant, allowing for the early delivery of higher value ore.

A primary waste rock and overburden stockpile will be developed north of the Main Zone open pit. A second storage area for waste rock will also be developed to the west of the Main Zone open pit and the relocated Highway 655 (Figure C.1).

Overburden material stripped from the open pit and other Project development areas will be stockpiled primarily on the Waste Rock Stockpile #1 just north of the open pit. Small organic material stockpiles will also be located at strategic locations in planning of the reclamation of the impoundments.

Mine rock and low-grade stockpiles could reach over 100 m high at their maximum capacity.

## ORE PROCESSING

The process plant and associated service facilities will process run of mine ore delivered to primary crushers to produce nickel concentrate, iron concentrate and tailings. Ore processing will occur at a rate of approximately 60,000 tonnes per day (tpd) at the start of mine life, ramping up to a maximum of 120,000 tpd.

The proposed ore process encompasses:

- Secondary crushing and grinding of the ore;
- Desliming within cyclones;
- Rougher and cleaning flotation;
- Regrinding of intermediate flotation concentrates;
- Magnetic recovery of fine flotation tailings; and
- Acid washing of intermediate magnetic concentrate.

Concentrate will be thickened, filtered and stockpiled on site prior to being transported to third-party processing facilities located off site. Three types of concentrate would be produced, namely a normal-grade nickel concentrate, a high-grade nickel concentrate, and an iron concentrate. The current estimation is that over the life of the project, approximately 8.5 Mt of high-grade and standard grade nickel concentrate would be produced, and over 100 Mt of iron concentrate. These concentrates are slightly wet, dark-grey, fine- to coarse-grained material. Other valuable metals such as cobalt, chromium, palladium and platinum would be recovered indirectly in the different concentrate streams. A cobalt, chromium, palladium and platinum concentrate will not be produced.

At this time, there is no specific location identified or commercial agreement concluded for downstream processing of ore concentrate. The concentrate is anticipated to be sold on the open market and transported to processing facilities either in Canada or abroad. Potential destinations in Canada include the Sudbury region (nickel processing), southern Ontario (stainless steel industry), a port in eastern Canada for shipment abroad, or a new processing facility that could be built by a third party at some point before or after the beginning of the operation at the Crawford Project. On-land transport is anticipated to occur by rail, considering the yearly average production of above 2 Mt of concentrate per year.[6]

## TAILINGS STORAGE

Tailings, consisting of ground rock and process water, are the primary by-product from processing of the Crawford Project ore. Canada Nickel is currently planning for tailings from the processing of the Main Zone ore to be stored in an on-surface TMF, with design details subject to further engineering study. Once the Main Zone pit has been mined out, tailings from processing the East Zone ore will be stored within the Main Zone pit. The tailings from the processing of low grade ore temporarily stockpiled during mining operation will be stored in the East Zone pit. Storage of these mine wastes within the pit will help to reduce the overall Project footprint.

On-site processing is expected to include thickening of the tailings to reduce the water content, with recovered water recycled for re-use in the process plant.

The TMF design will be in accordance with the Canadian Dam Association Dam Safety Guidelines, and will be designed to accommodate the recommended seismic exceedance probability and inflow design flood according to the expected hazard potential classification. The TMF dam design is proposed to consist of the following components:

- Core – serves to reduce seepage through the dam and reduce the volume of contact water that must be managed in the seepage collection ditch at the dam downstream toe;
- Filter – protects the core from internal erosion that may result from seepage gradients;
- Transition – protect the filter from internal erosion that may result from seepage gradients;

[6] Associated engagement relating to downstream processing is provided in Appendix A, pages A4, A10, A11, A22, and A25, and Appendix C page C13.

- Upstream and downstream shell – structural fill that contributes to dam stability;
- Rip rap – provides erosion protection;
- Drainage blanket – provides a working platform for wick drain installation and termination point for the wick drain tails;
- Wick drains –help dissipate excess pore water pressures in the foundation clay, increasing increases the strength of the clay foundation and improving dam stability; and
- Frost protection – insulate the dam core from freeze / thaw cycles and resultant increase in permeability.

Further detail on TMF dam designs will be developed as detailed project engineering progresses.

Ditching will collect runoff from the TMF for direction to collection ponds for further management. Ditching and water management ponds will be sized to convey flows arising from a 1 in 100 year storm event. A road will be developed at the dam toe to provide access for construction, maintenance and observation. [7]

## BUILDINGS AND YARD AREAS

The following primary permanent buildings or facilities are planned for the Crawford Project:

- Process plant, and primary and secondary crushing system;
- Workshop, warehouse, core shack, laboratory and offices;
- Supporting buildings (e.g. security, pumphouses) and laydown areas; and
- Explosives storage facilities.

A preliminary plant site location has been identified to avoid potential ore resources. Geotechnical investigations are in progress to confirm the location and optimize placement of critical facilities including the plant and crusher. Associated tankage will be designed to contain / capture potential spills and prevent release to the environment. Process reagents and other chemicals used on site will be handled following applicable handling and safety requirements as outlined by the manufacturer, applicable regulations, and site procedures. A workshop and warehouse will be provided on site to allow for indoor maintenance on heavy equipment.

Access and haul roads will be established within the site as needed, minimizing water crossings as practical. New roads will be constructed of waste rock or aggregate. Waste rock is non-acid generating and does not show a high potential for metal leaching, as suggested in preliminary baseline geochemical assessments.

Related piping and power infrastructure will be provided as needed.

Explosives needed for open pit mining (and potentially for construction) will be prepared by a contractor off site and delivered to site under their care and control as required. An explosives manufacturing facility is not expected to be developed on site, due to the proximity of the site to surrounding operations. The location of any explosives-related storage facility (magazines) on site will follow all federal siting guidance.

[7] Associated engagement relating to tailings management is provided in Appendix A, pages A14 – A16, A17 and A18 and Appendix C, pages C5 and C16.

## DOMESTIC AND INDUSTRIAL WASTES

Domestic sewage during the construction and operating phases will be treated by an appropriately sized, technically acceptable method, such as a sewage treatment plant. A different method may be used during early construction and later in the closure phase, when there are fewer people on site.

Domestic and special management / hazardous materials resulting from the construction and operation of the Crawford Project will be periodically shipped off site to appropriate facilities. A demolition landfill may be established on site for disposal of non-hazardous demolition wastes during the closure phase.

## WATER MANAGEMENT FACILITIES AND DRAINAGE WORKS

The open pit will collect groundwater, runoff and direct precipitation. Canada Nickel proposes to collect minewater from the dewatering of the open pit in sumps and pump it to a primary collection pond for additional management, including for re-use as make up water for the process plant. Precipitation and surface runoff that come into contact with mine-related facilities will be collected in ditches and secondary collection ponds, and also pumped to the primary collection pond. The primary collection pond and all secondary collection ponds will be designed with sufficient capacity to support the retention and treatment of contact water, and to provide water for processing operations. Seepage from impoundments will be collected in peripheral ditches and channelled to the collection ponds. The integrated water management system will ensure that site effluent meets all regulatory requirements and can be discharged safely to the environment. If required, an effluent treatment plant may be installed for additional treatment on some of the water sources to ensure effluent quality can be consistently achieved.

Canada Nickel is currently investigating potential effluent discharge locations, including the Mattagami River, North Driftwood River and / or West Buskegau River, or potentially a combination of watercourses over the life of the Project. Each watercourse has different attributes, with the Mattagami River location requiring approximately 10 km of pipeline. After different consultation meetings with stakeholders and Indigenous Peoples, the currently preferred option for the operation phase is a single discharge to the Mattagami River, as it has a large assimilative capacity. Temporary discharge to the West Buskegau and North Driftwood rivers are currently being considered as well, due to their proximity to the Project, for the construction and closure phases. The final location(s) will be selected with care to ensure that the watercourse can receive this effluent and all related regulatory requirements are met. Further consultation including with regulatory authorities is planned on this topic.

Process water will be obtained primarily by recycling site runoff and open pit minewater. If additional fresh water is required, such as for process make up and a fire water supply, it may be sourced from a local watercourse. If needed, a potable water treatment plant will be constructed to treat water for use on site.[8]

## ACCESS

The Project site is accessible by Highway 655, which provides year-round access and leads directly north from Timmins to Ontario Highway 11 (Caracle Creek, 2020). Supplies, such as food, fuel, lodgings and equipment required for mining and exploration work, are available in Timmins, Cochrane, Iroquois Falls and Smooth Rock Falls (Figure A.1). It is approximately 20 km to the nearest railhead from the Project site.

The Project site is bisected by Highway 655 and approximately 20 km of the highway will need to be rerouted for the full development of the East Zone and Main Zone portions of open pit. The existing highway will continue to be used during the first years of mining operations until a new bypass route is

[8] Associated engagement relating to water management and aquatic species is provided in Appendix A, pages A11 – A16, A19 – A21, A24, and A25, and Appendix C, pages C3 – C5, C12, C16, and C17.

constructed and fully available to the public. [9] An overpass will be constructed to allow Canada Nickel to cross over existing Highway 655 rather than at ground level. A permanent overpass is also proposed as part of the highway realignment to allow the mining haul fleet to go under the relocated Highway 655, to access Waste Rock Stockpile #2.

It is assumed that the relocation of Highway 655 will be undertaken by Canada Nickel, although a definitive agreement is not in place with MTO. Once complete, Canada Nickel intends to pursue a transfer of ownership to MTO, for continued operation of the new bypass route by the Province.

An approximately 20 km rail line is proposed to be constructed to connect the Project site to the regional rail network, to allow for transport of freight to and from the Project site.[10] At this stage, the estimation is that trains would come in and out of the site once a day or every two days, pending the outcome of ongoing logistics studies. Materials that would be transported by train include diesel, concentrate, explosives, acid, and grinding media. Construction of this spur line, which will connect the Crawford Project site with the existing Kidd Mine rail line, is planned to be undertaken by Canada Nickel, with subsequent ownership transferred to ONTC (a Crown agency reporting to the MTO). Transportation of materials by train, including concentrate, would be in the care and control of third parties. No definitive agreement has been reached at this stage and is subject to further discussions with the relevant stakeholders.

Additional regional transportation includes the Timmins Victor M. Power municipal airport, which is located 45 km by road from the Project site and offers several daily flights to and from southern Ontario.

## POWER SUPPLY

Parallel to Highway 655 is a major 500 kilovolt (kV) hydro transmission line; this transmission line also runs through Crawford Township. Another hydro transmission line (230 kV) runs parallel to the Project site, approximately 4 km east of the site. A hydro-electric generating station, Lower Sturgeon, is located along Mattagami River to the west, within the boundaries of Mahaffy Township.

Power for the Crawford Project will be supplied through development of a new 230 kV transmission line from the Porcupine substation near Timmins to the Crawford Project site where it will intercept the Crawford property edge and interface with the site electrical system via a Ring-Bus. The Ring-Bus will allow the service provider to deliver power to not only the Crawford site but other customers as well. A preliminary route for this line is shown on Figure C.2. The transmission line is proposed to follow existing rights of ways for Highway 655 and the 500 kV transmission line that goes from the Porcupine substation through the proposed site location. Ownership of this transmission line will rest with Transmission Infrastructure Partnerships 1 (TIP-1), a joint venture business of Taykwa Tagamou Nation, with Canada Nickel involved as a customer once construction is complete and the line is operational. TIP-1 will be responsible for all aspects related to provincial Environmental Assessment (EA) and permitting requirements, design, construction, connection, and operation / maintenance. This component will be subject to the provincial Class EA for Minor Transmission Facilities under either the Class EA Screening process or the Full Class EA process. The provincial Class EA processes were developed to streamline frequently occurring projects with similar characteristics and predictable environmental effects with well-defined mitigation measures.

A portion of the 500 kV transmission line (approximately 20 km) which runs parallel to Highway 655 will need to be relocated west of the property along the corridor for the Highway 655 realignment. Hydro One is the owner of the existing transmission line, and will undertake all aspects of the relocation, including

[9] Associated engagement relating to Highway 655 relocation is provided in Appendix A, pages A52-A27.
[10] Associated engagement relating to railway access is provided in Appendix A, pages A32 and A33 and Appendix C, page C10.

provincial EA requirements, design, construction, connection and operation / maintenance. With a capacity of 500 kV and a length of less than 75 km, this component is expected to be subject to the Full Class EA process under the provincial Class EA for Minor Transmission Facilities.

Diesel-fired generation may be used early in the construction phase and during the closure phase when grid power is not available to site. Emergency diesel generators will also be present on site, however the Project does not anticipate the use of diesel generators as a significant power source once grid power is available.[11]

### ACCOMMODATION

An accommodations complex (or similar) is not proposed to be developed as part of the Crawford Project due to the close proximity of local communities. Canada Nickel anticipates that workers will commute daily from existing communities / residences which are located within approximately an hour drive of the Project site.[12]

### COMPENSATORY AQUATIC HABITAT

Construction of facilities for the Crawford Project is expected to require overprinting of tributaries to the North Driftwood River and West Buskegau River. Where practical and needed, these tributaries will be diverted around Project facilities. A plan for habitat compensation will be developed which will be consulted upon and approved through the rigorous federal process. When implemented, the plan will mitigate effects to aquatic resources, including direct habitat loss due to overprinting by Project facilities, and indirect impacts such as potential flow reductions. [13]

### AGGREGATE OPERATIONS

The primary material to be used for site construction will be mineral wastes (overburden and waste rock) removed from the open pit area. A sand and gravel deposit located within the property boundary, which has historically been used as a source of aggregate, may also be utilized. Other sources of aggregate may be needed, including before the Crawford Project can produce the required material. These additional sources may include existing or new pits and quarries operated by third parties or new operations developed and operated by Canada Nickel. To reduce the amount of aggregate required, Canada Nickel may consider using lime addition to stabilize clays in roads foundations and overburden stockpiles.

## *C.3.3 PRELIMINARY DECOMMISSIONING APPROACH (DESIGNATED PROJECT)*

Reclamation and closure of the Project will be governed by the Ontario *Mining Act* and its associated Regulations and Codes, and informed by ongoing engagement, including with Indigenous Peoples. A regulatory Closure Plan will be filed for the Crawford Project before construction, and financial assurance be provided to ensure that sufficient funds are in place to carry out the decommissioning activities.

[11] Associated engagement relating to power usage is provided in Appendix A, pages A28 – A29 and Appendix C pages C6 and C15.
[12] Associated engagement relating to housing and worker accommodation is provided in Appendix A, pagesA2, A24, A27, A40, A43, A46 – AA49, and A51.
[13] Associated engagement relating to water management and aquatic species is provided in Appendix A, pages A11 – A16, A19 – A21, A24, and A25, and Appendix C, pages C3 – C5, C12, C16, and C17.

Progressive reclamation during operation will be completed as practicable. Overburden stockpile(s) developed from open pit stripping and other site construction activities will be graded and revegetated progressively during the construction and operations phases to minimize erosion as needed.

A preliminary description of the proposed final closure measures is provided in the text that follows. The active phase of reclamation is currently expected to be completed within approximately three years of operations ceasing, pending additional project planning studies. Environmental monitoring will continue after reclamation is completed until such time as the closure objectives as determined in the Closure Plan have been achieved.[14]

## OPEN PIT

A portion of the tailings produced during the mine life will be stored in the mined-out Main Zone and East Zone of the pit. Natural refilling of the pit with precipitation and localized runoff will occur at the end of mine life, forming a pit lake above these materials. There is the potential that enhanced flooding could occur, such as by transferring a portion of the spring melt water into the pit at closure, pending regulatory approval. The approach to refilling the pit with water will be assessed further through the relevant regulatory processes and detailed in the future regulatory Closure Plan. During pit filling, water quality will be monitored and pit slopes above the final pit lake level will be reclaimed as needed. Measures will be taken to ensure public / wildlife safety while the pit floods to create a permanent lake. Hydrogeological studies are in progress which will inform the final anticipated level of pit filling. The final pit lakes may be reconnected to the North Driftwood system to potentially restore aquatic habitats if the pit lake elevation and water quality are appropriate.

## STOCKPILES AND TMF

The primary potential closure concern with respect to reclamation of the waste rock stockpiles and TMF is the quality of runoff and seepage from the facilities. Preliminary geochemical investigations indicated that these materials are not potentially acid generating. These areas will be reclaimed, reshaped as needed for stability and to reduce potential for erosion, and revegetated to improve soil stability and long term aesthetics.

Areas of the stockpiles and TMF which are no longer required for active deposition of mine waste materials are planned to be progressively reclaimed during mine operations. This approach will provide the following benefits:

- Allow for ongoing re-use of stripped overburden and organic material rather than stockpiling, thereby reducing storage requirements and project footprint, as well as reducing double-handling of material over the project life;
- Provide opportunities for progressive reduction in seepage and runoff management requirements;
- Actively managing ongoing reclamation liabilities; and
- Helping to establish supporting evidence during the mine life that the proposed closure measures will be effective

Runoff from the reclaimed portions of the TMF will be monitored for quality, and once deemed suitable for discharge to the environment without additional treatment, will be redirected from the runoff collection system and returned to the North Driftwood River watershed.

[14] Associated engagement relating to project closure planning is provided in Appendix A pagesA21, A22, and A41, and Appendix C pages C6, C7, and C14.

### WATER MANAGEMENT FACILITIES

Once dewatering of the open pit ceases and surface water no longer needs to be treated or managed on site, the surface water management system will be decommissioned. Water holding structures will be sampled to ensure acceptable water quality and drained. Surrounding dams, berms and ditches may be breached and recontoured to allow natural drainage to the environment.

### GENERAL SITE AREA

Equipment, tankage, machinery, pipelines, building and infrastructure waste materials generated through demolition, will be sold for re-use, or recycled as scrap metal, where reasonable. Demolition wastes and equipment wastes that cannot be sold for re-use, or scrap, will be handled according to environmental regulations at that time, and are expected to be transported to an off-site waste management facility, although an on-site demolition landfill could be developed. On-site roads not required for long term monitoring will be revegetated.

### TRANSMISSION LINES, RAIL SPUR AND HIGHWAY 655

Future decommissioning (or relocation of facilities back to original locations) for the 230 kV transmission line, the 500 kV transmission line, the rail spur and the Highway 655 are out of the care and control of Canada Nickel.

## C.4 CAPACITY ESTIMATE

The anticipated size, or production capacity, of the Crawford Project as required for comparison against the thresholds set out in the Physical Activities Regulations, is as follows:

- Metal ore extraction for the open pits is planned at a maximum rate of up to 275,000 tpd in year 5, and a nominal rate of 150,000 tpd over the life of mine; and
- Processing of metal ore is planned at a maximum rate of 60,000 tpd for the first four years of operation, increasing to up to 120,000 tpd from the first half of year 5 to the end of operation.

## C.5 PRELIMINARY SCHEDULE

The preliminary timeline for the Project is outlined briefly below[15]:

| PROJECT PHASE / ACTIVITY | TIMING |
|---|---|
| Engineering Studies (Feasibility) | 2021 to 2023 |
| Impact Statement Process and Environmental Approvals | 2022 to 2025 (1) |
| Construction | 2025 to 2027 (2) |
| Operation (mining) | 2027 to 2057 (3) |
| Operation (processing) | 2027 to 2070 |
| Decommissioning and Closure (3) | 2070 to 2073 |
| Post-closure and Monitoring (3) | 2073+ |

[15] Associated engagement relating to preliminary Project scheduling is provided in Appendix A, pages A30-A31, and Appendix C pages C2, C14, and C15.

*(1) The environmental and social permitting duration is based on Canada Nickel's internal evaluation integrating Canada Nickel's consultant's experience, recently permitted project timelines and a realistic appreciation of IAAC's proposed IA schedule. It is not based on the maximal extent of the IA schedule suggested by IAAC.*
*(2) Relocation of Highway 655 and the 500 kV transmission line will be initiated after the main construction phase and completed after the beginning of operations (about 2032)*
*(3) Timing may be extended with additional viable ore resources not currently identified.*

# C.6 LIST OF POTENTIAL ALTERNATIVES

Alternatives to the Project, and alternative means of completing the Project, are typically considered during regulatory reviews. There are no alternatives to development of the Crawford Project (such as abandoning the Project or delaying the Project), that meet the needs of Canada Nickel, particularly given the growing interest in critical minerals for the battery and stainless-steel markets.

Alternative means of completing the Crawford Project that are technically and economically feasible will be considered during future studies and regulatory documentation. A preliminary list of alternatives that may be considered has been provided below, which will be subject to the results of ongoing engagement, regulatory advice and engineering studies:

- Mine rock, overburden and organics / topsoil segregation and storage (re-use as construction and reclamation material, storage in open pit, and various stockpile locations based on geotechnical and geochemical properties);
- Tailings storage methods and locations (conventional slurry, thickened, filtered tailings facility, various locations and re-use as partial pit backfill; to also be considered in Alternatives Assessment for Mine Waste Disposal);
- Tailings management techniques and strategies to improve $CO_2$ sequestration (e.g. mechanical enhancement and sparging);
- Water management and treatment (water re-use and applicable treatment technologies);
- Effluent discharge locations (Mattagami River and other locations for operations phase discharges; temporary discharges to the North Driftwood River and West Buskegau River during the construction phase);
- Watercourse realignments and structures (as needed; these realignments will be coordinated with the aquatic offsetting and compensation measures, below);
- Aquatic offsetting and compensation measures (to be determined through engagement activities and regulatory advice);
- Solid waste management location (appropriate licenced existing landfill and other disposal facilities located off site / on site);
- Domestic sewage treatment method (package treatment plant and septic tile field);
- Water supply source (surface water and groundwater);
- Aggregate supply source (develop a dedicated aggregate resource on or near the site, re-use waste rock and purchase aggregate from suppliers);
- Alternative means of stabilization, such as wick drains within the TMF, lime stabilization of clays on the roads if material from an environmental perspective;
- Site access road location (connection location for Highway 655); and
- Mine decommissioning and closure methods.

Currently, no alternative methods that are economically viable have been identified for:

- Mining methods (constrained by orebody location, which is near-surface, orebody geometry, and land ownership and tenure); and
- Ore processing methods (controlled by laboratory testing and analyses to obtain optimal recovery utilizing full scale proven technologies).

A single corridor enclosing the relocated Highway 655, rail spur, relocated 500 kV and the new 230 kV transmission line is the preferred option for linear components (Figure C.2). This represents the shortest route with no major water crossings as the project is constrained by the Mattagami River to the west and the 115 kV transmission lines and West Buskegau River to the east. An alternate alignment corridor to the east would overprint the West Buskegau river, requiring additional flow diversions, potential flow reductions, and extending project impacts to aquatic habitat and expanded terrestrial habitat. There would also be additional considerations for alignment of the 230 kV and 500 kV transmissions lines to avoid interference with the existing 115 kV transmission line along this side of the project. Alternate alignment to the west would overprint a portion of Jocko Creek, requiring additional flow diversions, potential flow reductions, and extending project impacts to aquatic habitat and expanded terrestrial habitat. The alignment would also be closer to the Mahaffey Township Ground Moraine Conservation Reserve.

**Table C.1 Preliminary List of Activities for the Crawford Project**

| CONSTRUCTION PHASE | OPERATIONS PHASE | DECOMMISSIONING AND CLOSURE PHASE |
|---|---|---|
| Continuation and completion of engineering studies | Development and implementation of environmental protection and monitoring plan(s) for operation | Development and implementation of environmental protection and monitoring plan(s) for closure |
| Corporate decision to proceed | Ongoing engagement and consultation | Ongoing engagement and consultation |
| Development and implementation of environmental protection and monitoring plan(s) for construction | Overburden and waste rock extracted from the open pit will be either stockpiled or used for progressive reclamation | Remove mine equipment and allow open pit to flood |
| Ongoing engagement and consultation | Ore will be extracted from the open pit, and will be either temporarily stockpiled, or will be transported directly to the primary crusher for sizing | Removal of reagents and chemicals for proper disposal |
| Application for, and receipt of environment-related permits | Sized ore will be processed to recover metals in the same processing facility, and produce concentrate that will be periodically shipped off site for sale | Potential establishment of on-site demolition landfill for inert waste, and / or contracts for demolition waste removal |
| Hiring of individuals and contractors, and procurement of material and equipment | Tailings produced from processing Main Zone ore will be stored in a surface facility which will expand as needed | Demolish facilities as no longer needed with waste disposed of in accordance with all regulatory requirements |
| Mitigation for heritage resources and other effects, if / as needed | Once the Main Zone is mined out and mining has moved to the East Zone, tailings will be stored in the Main Zone pit | Investigate and remediate residual ground with spillage if any, such as near liquid fuel storage areas |
| Construction of rail spur line | Progressive reclamation will occur for Project components when no longer needed / depleted | Remove site power infrastructure when no longer needed |
| Upgrade of local access roads to site and installation of culverts / bridges as needed | Progressive reclamation of the open pit slopes and studies to ensure long term success of pit lake | Break up concrete, scarify compacted grounds etc. to establish free drainage |
| Additional land clearing and implementation of erosion and sediment control measures | Ongoing management and treatment of waters for discharge of excess waters that meet regulatory requirements | Regrade areas (plant site, stockpiles, TMF) as needed for long term stability and establish final surface drainage |
| Excavation and grading as needed | Ongoing management of chemicals and wastes, including remediation of any incidental spillage during operations | Place a growth material over affected areas (including TMF, plant site, overburden piles) as needed to ensure long term vegetation success |
| Movement of construction materials to site | Environmental monitoring and reporting, as applicable | Environmental monitoring and reporting, as applicable |
| Construction of new site facilities | Follow up environmental studies | Revocation of approvals to operate when no longer required |
| Development of aquatic habitat offset and compensation features as needed (project scheduling may allow some aspects of this component to be deferred to late in the construction phase or early operations phase) | Periodic updates / amendments of the Closure Plan as needed to reflect changes to the Project and site activities | If appropriate, connect the flooded open pit to the local drainage system once the flooded pit lake quality meets regulatory requirements |
| Construction of diversion of local watercourses and stabilization | Expansion of mine waste management facilities as mine development proceeds | Return of reclamation financial assurance |
| Stripping of overburden and initiation of open pit mine development | Rail transportation of material to and from the site | |
| Establishment of water management and treatment works, including ponds, pipelines and treatment facilities | | |
| Environmental monitoring and reporting | | |
| Relocation of Highway 655 (will be initiated after the main construction phase and completed after the beginning of operations (around 2032)) | | |
| Construction of 230 kV transmission line | | |
| Relocation of 500 kV transmission line (Project scheduling may allow to be deferred to late in the construction phase or early operations phase) | | |

465000 470000 475000 480000

5415000 5410000 5405000 5400000 5395000 5390000

Diversion Channel
Collection Pond 2
Waste Rock Stockpile 1
(Waste Rock Stockpile 1 to provide storage for both open pit mine rock as well as overburden from stripping for site development)
Collection Pond 3
Collection Pond 4
Waste Rock Stockpile 2
Collection Pond 1
Reclaim Stockpile 3
Collection Pond 6
East Zone
Diversion Channel
Effluent Discharge Pipeline
LG Stockpile West
Main Zone
Collection Pond 5
Reclaim Stockpile 2
LG Stockpile East
Northeast Pond
Process Plant Area
Contact Water Pond
Polishing Pond
Effluent Treatment Plant
Reclaim Stockpile 1 Northwest Pond
Tailings Management Facility
Diversion Channel
New Rail Line to Site (Connected to Existing Spur)
Highway 655 Relocation
Exsiting Trasnsmission Line
Exsiting Trasnsmission Line
Potential Aggregate Source
New 230 kV Transmission Line to Site
500 kV Transmission Line Relocation
KIDD CREEK MINE

AUBIN TOWNSHIP
NESBITT TOWNSHIP
BECK TOWNSHIP
MAHAFFY TOWNSHIP
LUCAS TOWNSHIP
REID TOWNSHIP
CRAWFORD TOWNSHIP
CARNEGIE TOWNSHIP
PROSSER TOWNSHIP
KESAGAMI CARIBOU RANGE
MACDIARMID TOWNSHIP
KIDD TOWNSHIP
WARK TOWNSHIP

Nesbitt Creek
Mattagami River
Lower Sturgeon Dam Road
Martin Lake
Gerry Lake
Jack Lake
Sutherland Lake
Davis Lake
Prosser Lake
Jocko Creek
Kidd Creek
Macdiarmid Creek
Feldman Lake
Buskegau River
West Buskegau River

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## LEGEND

- Kesagami Caribou Range
- Township Boundary
- Existing Transmission Line
- Existing Primary Road / Highway
- Secondary Road (resource road)
- Existing Railway
- Contours (10 m interval)

**Site Plan Features**

- Preliminary Project Boundary
- Open Pit
- Access/Haul Road
- Tailings Management Facility
- Pond
- Waste Rock Stockpile (WRS)
- Reclaim Stockpile
- Low Grade Ore Stockpile (LG)
- Process Plant Area / Ancillary Buildings
- Diversion Channel
- Effluent Discharge Pipeline
- New Rail Line to Site
- New 230 kV Transmission Line to Site
- Highway 655 Relocation
- 500 kV Transmission Line Relocation
- Water Crossing Location
- Potential Aggregate Source

NOTES:
- Topographic map information extracted from Land Information Ontario (MNRF), Queen's Printer for Ontario, 2019/2020
- Preliminary site plan data provided by Canada Nickel Company, November 21, 2022.
- Preliminary project boundary provided by Canada Nickel Company, November 30, 2022.
- Aerial imagery provided by CNC, scene date, summer 2021 and ESRI online mapping service, 2019.

Datum: NAD83
Projection: UTM Zone 17N

0 1 2 4 6 8 10 Kilometres

CANADA NICKEL COMPANY

WSP

# CRAWFORD NICKEL PROJECT

## Preliminary Site Plan Layout

| | |
|---|---|
| PROJECT N°:OMEMA2002 | **FIGURE: C.1** |
| SCALE: 1:80,000 | DATE: December 2022 |

470000 480000 490000 500000

5420000 5410000 5400000 5390000 5380000 5370000

PROJECT LOCATION

East Alternative

West Alternative

D501P: 500 kV

D2H: 115 kV

P91G: 230 kV

KIDD CREEK MINE

TIMMINS

Mattagami River
North Driftwood River
Gerry Lake
655
Jocko Creek
Kidd Creek
Macdiarmid Creek
Mattagami River
Murphy Creek
Prosser Creek
Prosser Lake
Crawfish Lake
Buskegau River
West Buskegau River
Frederick House River
Nerandeau Lake
Feldman Lake
Gowanmarsh Lake
North Procupine River
Bigwater Lake
Rota Lake
Little Goose Lake
Bell Creek
Porcupine River
Three Nations Lake
Night Hawk Lake
Pearl Lake
101
Porcupine Lake
Simpson Lake

## LEGEND

- Project Location
- Watercourse
- Waterbody

**Existing Infrastructure**

- Airport
- Transmission Station (115 kV, 230 kV, 500 kV)
- Transmission Line
- Railway
- Highway
- Secondary / Local Road
- Resource / Recreation Road

**Planned Infrastructure**

- 230 kV Transmission Line to Site
- New Rail Line to Site
- Highway 655 Relocation
- 500 kV Transmission Line Relocation
- 500 kV Transmission Line Relocation Alternative

NOTES:
- Aerial imagery provided by ESRI online mapping service.
- Topographic map information extracted from Land Information Ontario (MNRF), Queen's Printer for Ontario, 2019/2020

Datum: NAD83
Projection: UTM Zone 17N

0 2.5 5 10 15 20 Kilometres

CANADA NICKEL COMPANY

WSP

# CRAWFORD NICKEL PROJECT

## Regional Existing and Planned Infrastructure

PROJECT N°: OMEMA2002 | **FIGURE: C.2**

SCALE: 1:150,000 | DATE: December 2022

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# D. LOCATION INFORMATION AND CONTEXT

## D.1 GEOGRAPHIC COORDINATES

The Crawford Project site is located approximately 40 km north of the City of Timmins, Ontario, in the geographic townships of Crawford, Carnegie, Kidd, Lucas and Prosser. A small portion of the Project extent within Kidd Township also lies within the municipal boundary of the City of Timmins. The approximate centre of the property is located at coordinates:

- Universal Transverse Mercator (UTM) 5408504N, 473380E, (NAD 83 Zone 17N); and
- Latitude / longitude 81° 21' 46" W, 48° 49' 44" N.

## D.2 SITE MAPS

Mapping provided in this Detailed Project Description includes:

- Project location (Figure A.1);
- Location of local communities and First Nation Reserves / communities (Figure B.1); and
- Watersheds, watercourses and waterbodies (Figures D.1 and D.2); and
- Nearby seasonal-use properties (Figure D.3).

## D.3 DESCRIPTION OF LANDS

The Crawford Project property consists primarily of patented mining claims with surface and mining rights, mineral leases with surface and mining rights, and unpatented mining claims with mining rights only. Most of the Project mining facilities are planned to be placed on patent mining lands, although some infrastructures may be located on unpatented lands (provincial Crown lands).

Preliminary land tenure information for the Project and immediate surrounding areas is presented in Appendix E.

## D.4 PROXIMITY TO RESIDENCES AND COMMUNITIES

The Crawford Project is located in an area well-connected by regional infrastructure. There are no known permanent residences in the vicinity of the Project, however a few seasonal-use properties are located in the area (Figure D.3).

The nearest larger communities are the Town of Cochrane (35 km to the northeast), the City of Timmins (40 km to the south), the Town of Smooth Rock Falls (50 km to the northwest), and the Town of Iroquois Falls (50 km to the east), as seen in Figure A.1. All distances provided in this document are cross-country distances. It is expected that workers may live in these communities and commute daily to the site.

# D.5 PROXIMITY TO INDIGENOUS LANDS AND COMMUNITIES

Canada Nickel is in ongoing discussions with local Indigenous Peoples to determine historic and current land and resource uses.

The Crawford Project site is located within the Treaty No. 9, 1905-1906 lands. The closest Indigenous community to the Project site is Taykwa Tagamou Nation. Taykwa Tagamou Nation, a Mushkegowuk Cree Nation, signed Treaty No. 9, also known as the James Bay Treaty, in 1905 and 1906. The primary Reserve lands of the Taykwa Tagamou Nation are the 166.8 ha New Post 69A Reserve located 14 km southeast of Cochrane and 68 km northeast of Timmins.

Based on research and publicly available information, Canada Nickel is aware of several land claims and / or assertions of the Indigenous Peoples that overlap or are near the site (Table D.1). Canada Nickel will continue to engage with Indigenous Peoples to determine any assertions and whether they have assertions related to the Crawford Project. Through continuing engagement activities with Indigenous Peoples, Canada Nickel will determine whether the Project will affect any Indigenous land codes / Community Land Use Plans and will support the framework set out in the land code, if applicable.

There are no First Nation Reserve lands proximal to the site (see Figure B.1, Table D.1), although the Project site is anticipated to be within proximity to the Traditional or operating region of several Indigenous Peoples that have expressed interest in the Project:

- Taykwa Tagamou Nation, located approximately 45 km northeast from the Project site in the Cochrane District along the Abitibi River;
- Flying Post First Nation, located approximately 59 km southwest of the Project site;
- Matachewan First Nation, located approximately 100 km southeast of the Project site;
- Mattagami First Nation, located approximately 115 km south of the Project Site along the Mattagami River;
- Apitipi Anicinapek Nation, located approximately 104 km southeast of the Project site; and
- Métis Nation of Ontario – Region 3.[16]

Regional Indigenous Peoples are shown in Figure B.1.

# D.6 PROXIMITY TO FEDERAL LANDS

The Crawford Project is not located near any federal lands. The closest lands under federal jurisdiction are the Taykwa Tagamou Nation Reserve lands located approximately 45 km away (straight line) from the Project site (14 km southeast of Cochrane).

The Crawford Project site is located inland, and there are no related marine or port aspects for the Project.

[16] Associated engagement for project location is provided in Appendix A, pages A13 and A29 and Appendix C, page C10 and C13.

# D.7 PHYSICAL AND BIOLOGICAL ENVIRONMENTAL SETTING

The Crawford Project site is located in a remote part of northeastern Ontario, with existing provincial infrastructure including the highway and transmission lines that overlap part of the site, and prior impacts from exploration or forestry operations. The primary disturbance on site to date is related to exploration activities and engineering investigations. Canada Nickel has been conducting environmental baseline investigations associated with the Crawford Project since early 2021, which remain ongoing. The physical and biological environmental settings presented in the section below are based on baseline studies completed in consideration of all of the designated project components presented in C.3.2.

## *D.7.1 CLIMATE, AIR QUALITY, NOISE AND LIGHT*

The nearest ECCC climate station for which long term, current records are available is located at Timmins Victor M. Power Airport (VPA). This station is located approximately 24 km south of the site. Mean monthly temperatures range from a low of -16.8°C in January to a high of 17.5°C in July. The mean annual precipitation for Timmins is 834.6 mm, with 558.3 mm falling as rain and 311.3 mm as snowfall.

The regional design storm (Timmins Storm) occurred from August 31 to September 1, 1961. At the areal center of the storm, the 6, 12, 18, 24 and 30/36 hour durations produced accumulated precipitation values of approximately 102, 156, 175, 187 and 201 mm, respectively (Environment Canada, 1961). The probable maximum precipitation value for the Timmins area is estimated at approximately 450 mm (Ministry of Natural Resources, 2006). The Hydrological Atlas of Canada (NRCan, 1978) estimates that over most recent years assessed (1957 to 1966), the Crawford Project region experiences 400 to 500 mm / year of lake evaporation and approximately 400 mm / year of evapotranspiration. A detailed climate study is in progress for the Crawford Project.

The 25-year wind rise for Timmins has a predominantly westerly wind direction, with an overall west-northwest vector. The highest average wind speeds occur in February, May, and November with an average annual wind speed of 3.28 m/s. Maximum monthly wind gusts ranged from 85 km/h (July) to 158 km/h (June)

There are no continuous air emissions currently from the Crawford Project site, although there may be periodic emissions associated with exploration. Baseline air quality will be influenced by existing operations at a base metal mine (located approximately 17 km south along Highway 655), traffic along Highway 655, as well as natural sources such as volatile organic emissions from vegetation, pollen or natural fires.

There may be localized areas where noise emissions reflect road noises and recreational and exploration activities. The existing wilderness areas surrounding the Project site may be considered as Class 3 (a rural area with an acoustical environment that is dominated by natural sounds having little or no road traffic).

Ambient light at the site at night is currently primarily from natural sources (moon). There are no local man-made sources of existing light, although there will be light given off by the Crawford Project during

the construction, operation, and closure phases, and periodically along Highway 655. Air quality, ambient light, and noise baseline studies have been initiated for the site and will continue through 2022.[17]

## D.7.2 AMBIENT RADIOACTIVITY

Not applicable to the Crawford Project.

## D.7.3 PHYSIOGRAPHY AND GEOLOGY

### D.7.3.1 PHYSIOGRAPHY

The Project is located in an area of gently rolling topography typical of the glaciated Canadian Shield.. Site elevations range from about 265 and 290 metres above sea level (masl), with topographic relief averaging about 15 m.

Higher ground usually has a thin veneer (<1 m) of glacial till over bedrock. There is only a small proportion of outcrop exposure, mostly confined to higher ground, with thicker overburden present in the low-lying areas. Low-lying ground is covered by deeper glacial till and muskeg / swamps. Overburden is predominantly glacial till consisting of sand, clay, loose gravel and boulders, and varies in thickness from less than 10 m to as much as 85 m, with an average thickness of about 50 m.

As with most of northern Ontario, the site is crossed by a number of minor waterbodies and tributaries to larger rivers. The Project site is located primarily between the North Driftwood River and the West Buskegau River.

### D.7.3.2 GEOLOGY

Work carried out by the Ontario Geological Survey suggests that the geological formations in the area of the Project site are part of the Deloro Assemblage, consisting mainly of mafic to felsic calc-alkaline volcanic rocks with local tholeiitic mafic volcanic units and an iron formation cap which is typically iron-poor chert-magnetite (Ayer et al., 2005; Thurston et al., 2008). This assemblage (volcanic episode) is host to the Crawford Ultramafic Complex on the property (Crawford and Lucas townships) and other ultramafic sills in the area.

Regional lithologies consist mainly of tholeiitic mafic volcanic rocks with isolated units of tholeiitic felsic volcanic rocks and turbiditic sedimentary rocks (Ayer et al., 2005; Thurston et al., 2008). This assemblage, also referred to as the Blake River Group, hosts to several mafic-ultramafic sills in the northern part of Crawford Township and in neighbouring Lucas, Mahaffy and Aubin townships.

The rocks have undergone greenschist facies metamorphism with widespread carbonate, chlorite and sericite alteration in volcanic rocks and serpentinization in ultramafic rocks (i.e., dunite, peridotite). Serpentinization of the ultramafic rocks has resulted in the formation of chrysotile within the deposit.

The site is in an area of relatively low seismic activity.

### D.7.3.3 GEOCHEMISTRY

Canada Nickel has initiated geochemical assessments of anticipated mineral wastes from the Project, including both waste rock and tailings. Geochemical characterization to evaluate acid rock drainage and metal leaching (ARD / ML) characteristics of ore and waste rock is being completed in stages. The

[17] Associated engagement relating to climate, air quality, noise, and light is provided in Appendix A, pages A11, A17, A18, A23, A25, A45, and A53

objective of the initial phase, which started in March 2021, was to gain an understating of the geochemistry of main rock types. During this stage, acid-base accounting, metals, and shake flask extraction analyses were completed on fifty-five drill core samples representing the five major waste rock and ore lithologies: dunite; peridotite; pyroxenite; gabbro; and metavolcanics. Kinetic testing to assess the potential for metal leaching from waste rock was initiated on one sample for each lithology in October 2021; the tests have been running for more than twenty weeks. Early results from the static and kinetic test work completed to date are favourable, suggesting that ARD / ML will not be a significant concern. A more comprehensive program, including static and kinetic testing on approximately 300 samples, is ongoing to confirm the initial results on the waste rock and to collect data on tailings, overburden, and low grade ore.

## D.7.4 SURFACE WATER AND GROUNDWATER

### D.7.4.1 HYDROLOGY

All streams and rivers in the Project area are part of the Hudson Bay watershed. The Project site is mainly located in the headwaters of the West Buskegau River and North Driftwood River watersheds, with a small portion of the site extending into the Jocko Creek watershed. The West Buskegau River has a total drainage area of approximately 167 km2 where it crosses the Project site and drains north into the Buskegau River that ultimately drains into the Frederick House River and Abitibi River. The North Driftwood River has a total drainage area of approximately 97 km2 where it crosses the Project site and drains north into the Lower Abitibi River that ultimately drains into the Abitibi River. Jocko Creek has a drainage area of approximately 116 km2 at the confluence with Kidd Creek, which flows into the Mattagami River. The Lower Sturgeon dam is located on the Mattagami River and controls the flow rate of the river downstream from the dam.

Each of the watercourses are characterized by slow flowing, low-gradient channels with steep sides and active beaver dam activity. For the West Buskegau River and North Driftwood River, substrate of the main channels consists of fine materials, predominately clay and organics. Runoff and stream flow is highest in the spring and the fall, with more than 57% of the annual total occurring between April and June and approximately 22% of the annual total occurring between October and December. The response to the spring freshet commences in April with peak flows evident in May. Jocko Creek was not evaluated in the 2021 baseline studies but has been integrated in the 2022 program.

Results of summer and fall water sampling results indicate waters are generally typical of natural environments in northeastern Ontario. Sampled sites are generally of circumneutral pH, low to moderate hardness, and have low concentrations of nutrients (i.e., nitrate, nitrite, ammonia) and anions (e.g., chloride, sulphate). Levels of total suspended solids and total dissolved solids are low.

Similarly, concentrations of total and dissolved metals are very low, often at or below analytical detection limits, with results for most parameters consistently below applicable water quality guidelines for the protection of aquatic life. [18]

### D.7.4.2 HYDROGEOLOGY

The surficial geology of the regional area is dominated by organics overlying deposits of the Barlow-Ojibway Formation (consisting of massive to varved silts and clays) and till of the Cochrane formation and up to 5 other distinct till units (consisting of clayey silt till, including minor glaciolacustrine sediments, and

[18] Associated engagement relating to water management and aquatic species is provided in Appendix A, pages A11 – A16, A19 – A21, A24, and A25, and Appendix C, pages C3 – C5, C12, C16, and C17.

sand and gravel) overlying bedrock. In some areas, the varved silts and clays are capped by irregularly distributed nearshore sand and gravel deposits that are still considered part of the Barlow-Ojibway deposits (Smith, 1992). A deposit, consisting of coarse sands and gravel has also been mapped in the southwest corner of the property boundary (OGS, 2005).

Local groundwater flow is anticipated to follow local topography and watershed divides and may also be influenced by bedrock topography below the overburden deposits. Shallow groundwater flow in the eastern portion of the site is interpreted to flow east towards the West Buskegau River while the western portion of the site is interpreted to report to the North Driftwood River, in line with surface water flow. Local groundwater flow directions will be confirmed once groundwater modelling has been completed.

A drilling program has been completed and consisted of logging of overburden at select locations in the vicinity of the proposed open pit, TMF, and waste rock management areas. Additional drilling may be undertaken as or if required to address data gaps which may arise. Monitoring wells have been installed at select locations in both the overburden and shallow bedrock in order to obtain groundwater elevations, conduct hydraulic testing, and sample groundwater quality. In addition, a packer testing program was completed to assess bedrock hydraulic conductivity with depth in the vicinity of the open pit. All the information collected is currently being compiled and analyzed to support the preparation of a groundwater numerical model.

## D.7.5 TERRESTRIAL ENVIRONMENT[19]

### D.7.5.1 FLORA AND VEGETATION COMMUNITIES

Extensive vegetation inventories have been undertaken. A total of 238 species of vascular and non-vascular plants were identified during field investigations, and provincially rare plants were documented. Twenty-five distinct plant communities (upland and wetland) were recorded. Coniferous forest and swamp communities dominate the area within the Property Boundary.

Of the species present, 85% are native to Ontario, and 15% are non-native species. One species of conservation concern, Black Ash, was recorded at two locations. Black Ash is a tree species that is widespread and common but in rapid decline due to the invasive Emerald Ash Borer Beetle.

### D.7.5.2 MAMMALS

Aerial surveys identified a total of six mammal species. Moose were directly observed during the surveys. Tracks of Moose, River Otter, Wolf, Lynx, American Marten and Snowshoe Hare were observed throughout the investigation area.

#### WOODLAND CARIBOU

Although the Project is located along the southern boundary of the Kesagami Caribou Range for Woodland Caribou (Figure C.1), field studies initiated in 2021 and continued in 2022 have not identified the presence of Woodland Caribou in the area. The Study Area intersects the most southerly portion of the Kesagami Woodland Caribou range. This range which was last assessed provincially in 2010 (MNRF, 2014), is 43.8% disturbed, with a minimum animal count of 178 caribou and a declining population trend. ECCC (2020) categorizes the disturbance level to be 40%, with a declining population trend. Currently Caribou occupancy in Kesagami is concentrated more than 150 km north of the Project in areas that are still comprised of intact mature coniferous forest habitat. The southern portion of the range in the area of

[19] Associated engagement relating to the terrestrial environment is provided in Appendix A, pages A19 and A22 and Appendix C, pages C2, C4, C10, C12, and C17.

the Crawford Project has been previously impacted by human activity, most notably timber harvest and settlement, with highly fragmented mature coniferous forest areas remaining and consequently the likelihood of occurrence of Caribou is minimal.

Discussion on additional species of conservation concern is provided in Section D.7.7.

### D.7.5.3 BAT SURVEYS

Surveys were conducted across the study area in 2021 for bat maternity roosting habitat. In general, snag density was highly variable, with findings indicating that nearly all deciduous or mixed forests in the investigation area have a relatively high number of cavity trees to support bat maternity roosts.

None of the locations of exposed bedrock identified through desktop mapping were assessed as suitable overwintering habitat for bats during field surveys.

During bat detector surveys, the most frequently recorded species was Silver-haired Bat, followed by the Hoary Bat. No passes of Big Brown Bat could be confirmed.

Although the presence of Northern Myotis could not be confirmed through studies to date, the presence of this species cannot yet be ruled out.

Data from the 2022 field investigation are being analyzed, with results not available yet.

### D.7.5.4 MIGRATORY BREEDING BIRDS

A total of 81 bird species were recorded during targeted surveys for migratory breeding birds in 2021. From the 81 bird species documented in 2021, the most abundant species were White-throated Sparrow, Swainson's Thrush, and Blue-headed Vireo. An additional 15 bird species were recorded incidentally during other investigations. Two avian species of conservation concern were documented, Olive-sided Flycatcher and Canada Warbler, both provincially designated as Special Concern in Ontario; species of conservation concern are discussed in Section D.7.7.

Data collected at acoustic monitoring stations specifically targeted avian species of conservation concern (Canada Warbler, Rusty Blackbird, Common Nighthawk, Eastern Whip-poor-will, Evening Grosbeak, Olive-sided Flycatcher, and Yellow Rail). The bird detector analysis did not detect any avian species of conservation concern, and no Eastern Whip-poor-will or Common Nighthawk were found during crepuscular bird surveys.

Data from the 2022 field investigation are being analyzed, with results not available yet.

### D.7.5.5 OTHER BIRDS

Many large birds, including some raptors (i.e., hawks, eagles, osprey, falcons, vultures, and owls), Common Ravens, and herons, typically nest in large trees. These species, as well as their nests, were searched for during aerial surveys.

Two Bald Eagles were recorded during targeted aerial surveys for stick nests in 2021, although none were found within the proposed development area.

### D.7.5.6 CULTURALLY IMPORTANT SPECIES

Canada Nickel understands that there are culturally important species to Indigenous Peoples. As such, Canada Nickel is working with Indigenous Peoples to identify these important species and will ensure they are carried through the IA, as applicable. These will be identified through engagement activities, country foods assessments, and Indigenous Knowledge studies on which Canada Nickel is currently engaging with Indigenous Peoples.

## D.7.6 AQUATIC ENVIRONMENT

Aquatic baseline studies were undertaken since 2021 on the Crawford Project site and nearby, including of the following watercourses and associated tributaries:

- West Buskegau River;
- North Driftwood River; and
- Mattagami River.

The studies included fish habitat and community assessments, fish collection for fish tissue analyses, and benthic invertebrate and sediment analyses.

The fish habitat within the river systems in the area of the Crawford Project is typical of northeastern Ontario, composed of channels with dense shrubby riparian vegetation, wetland segments with ponds, as well as abundant evidence of beaver activity. The substrate is primarily composed of fine-grained sediment with high organic content attributed to the wetland habitats and also beaver inputs. Beaver dams provide some seasonal fragmentation of these watercourses; however, they do not pose year-round barriers to fish passage as demonstrated by fish presence throughout the sampled areas of the Project.

Preliminary observations from the initial baseline studies have documented the presence of 17 fish species within the investigation areas. The local fish communities are mostly represented by small bodied, forage fish species such as dace, shiners and minnows that prefer a cool water thermal regime. Some cold-water species such as Burbot are also present within these inland tributaries. Other large bodied fish species, including Northern Pike and White Sucker, are found mostly in their juvenile life stages, whereas adults of these species can be found within the larger waterbodies such as Gerry Lake and Martin Lake, as well as the Mattagami River to the west of the Project.

Lake Sturgeon of the Southern Hudson Bay – James Bay population are listed as Special Concern under the federal *Species at Risk Act* and are known to occur within the Mattagami River. The baseline studies to date have not detected Lake Sturgeon within the study areas. In addition, fish community study results from surveys provided by the MNRF do not include the presence of Lake Sturgeon within the reach of the Mattagami River downstream of the Lower Sturgeon generating dam. Additional studies are planned by Canada Nickel for the 2023 field season.[20]

## D.7.7 SPECIES OF CONSERVATION CONCERN

Species of conservation concern, including Species at Risk, have been identified as present or potentially present within the Project site and in the local area, through desktop review and field observations. Discussions have been initiated with MECP regarding information sharing for species of conservation concern, and determination of next steps to be undertaken in support of mitigation measures which may be required for development of the Project.

While aerial surveys have not identified the presences of Woodland Caribou in the Project area, the Crawford Project is situated at the southern boundary of the Kesagami Caribou range. Woodland Caribou are listed as Threatened under both federal (Species at Risk Act; SARA) and provincial (Endangered Species Act; ESA) legislation. Additional information on this species is provided in Section 7.5.2.

[20] Associated engagement relating to water management and aquatic species is provided in Appendix A, pages A11 – A16, A19 – A21, A24, and A25, and Appendix C, pages C3 – C5, C12, C16, and C17.

### D.7.7.1 PRESENT IN THE PROJECT AREA

Species currently known to be present within Project footprint or locally, as observed during field investigations:

- Little Brown Myotis (SARA: Endangered; ESA: Endangered);
- Canada Warbler (SARA: Threatened; ESA: Special Concern);
- Olive-sided Flycatcher (SARA: Threatened; ESA: Special Concern);
- Bald Eagle (SARA: no status; ESA: Special Concern); and
- Black Ash (currently no protection under SARA or ESA);

#### LITTLE BROWN MYOTIS

This species roosts in tree cavities, including small spaces or crevices found in loose bark, hollow trees, rock faces and is widespread throughout the southern half of Canada. It hibernates in caves and abandoned mines during the winter months. Little Brown Myotis forages over water where their diet consists of aquatic insects, mainly midges, mosquitoes, mayflies, and caddisflies. They also feed over forest trails, cliff faces, meadows, and farmland where they consume a wide variety of insects, from moths and beetles to crane flies. Maternity roosts are primarily live deciduous trees and males, juveniles, and non-reproductive females can be found in dead trees. A single confirmed recording of Little Brown Myotis was obtained during field investigations in 2021. Results from 2022 investigations are pending.

#### CANADA WARBLER

The Canada Warblers is found in a variety of upland and wetland forest types, but it is most abundant in wet, mixed deciduous-coniferous forests with a well-developed shrub layer. Nests are typically located on or near the ground on mossy logs or roots, along stream banks or on hummocks. One individual was observed during 2021 field investigations.

#### OLIVE-SIDED FLYCATCHER

Olive-sided Flycatchers are most often found in open areas containing tall trees or snags for perching. Open areas include forest openings, forest edges, burned forest or open to semi-open mature forest stands. Generally, forest habitat is either coniferous or mixed coniferous. This species was recorded incidentally during vegetation surveys in 2021 and suitable habitat exists locally.

#### BALD EAGLE

Two Bald Eagles were recorded during targeted aerial surveys for stick nests in 2021. The Bald Eagles were observed at one location along the Mattagami River, near the Lower Sturgeon dam. The flow of this dam creates open hunting habitat for Bald Eagles and other wildlife. A Bald Eagle nest was found approximately 550 m southwest of where the two Bald Eagles were observed. A second nest was located along the Mattagami River approximately 20 to 25 km northwest of the Project site and is thought to be a possible Bald Eagle nest.

#### BLACK ASH

Black Ash prefer wet areas and are commonly found in northern swampy woodlands, from eastern Manitoba, through Ontario to as far east as Newfoundland. The Emerald Ash Borer is currently threatening the species across its entire range. Two observations of Black Ash were made during terrestrial baseline investigations in 2021. One  tree was identified  adjacent to the proposed TMF and may be affected by the Project. The second  tree was observed approximately 7 km to the west of the Project footprint and is not expected to be impacted by Project development activities.

### D.7.7.2 POTENTIALLY PRESENT IN THE PROJECT AREA

Other species potentially present based on desktop review and / or comments received, but not observed during field investigations are listed below. Canada Nickel is mindful that observations may occur, however based on the extent of the field studies conducted so far, the likelihood of observing these species during additional field campaigns is limited. As such, apart from the Lake Sturgeon, no additional field campaigns are planned regarding these species.

The species include:

- Northern Myotis (SARA: Endangered; ESA: Endangered);
- Tricolored Bat (SARA: Endangered; ESA: Endangered);
- Bank Swallow (SARA: Threatened; ESA: Threatened);
- Blanding's Turtle (SARA: Threatened; ESA: Threatened);
- Common Nighthawk (SARA: Threatened; ESA: Special Concern);
- Monarch Butterfly (SARA: Special Concern; ESA: Special Concern);
- Yellow-banded Bumble Bee (SARA: Special Concern; ESA: Special Concern); and
- Lake Sturgeon (SARA: Special Concern; ESA: Special Concern).

#### NORTHERN MYOTIS

Roosts in canopies of deciduous trees, including small spaces or crevices found in loose bark, hollow trees. Rock faces and human structures can also be used though less frequently than Little Brown Myotis. It hibernates in caves and abandoned mines during the winter months and typically forages over water. The Northern Myotis is one of the less common species found to hibernate in Ontario. This species is closely associated with woodlands and uses trees as maternity sites. The presence of Northern Myotis has not been confirmed, though locally, although it may be present.

#### TRICOLORED BAT

Within treed habitats, Tricolored Bat primarily roosts in tree foliage (mainly within oak leaves). Studies have shown that oak leaves are a preferred roost site. Maple leaves are also selected, although less commonly. No Tricolored bat was identified by automated or manual methods in the 2021 survey, suggesting that that this species does not occur in the Project area. Results from 2022 investigations are pending.

#### BANK SWALLOW

While there were abundant watercourses located within the area studied, none contain suitable bank habitats. Neither the species nor nests of the species were observed during targeted field investigations, including within the historic sand and gravel deposit documented in the area, where suitable faces for habitat were not present.

#### BLANDING'S TURTLE

Blanding's Turtles are found in a variety of productive wetlands, occurring primarily in shallow-water habitats, shallow lakes, ponds and wetlands with mucky bottoms. This species hibernates in the soft bottoms of waterbodies. Other habitat features include rocks, logs or substrates in sunny locations that provide basking opportunities. Females nest on various substrates on land, while overwintering occurs underwater in permanent pools. There has been a community observation of Blanding's Turtle in the region; however, the location was outside of the proposed project footprint. Presence of this species locally has not been confirmed during field investigations to date.

### COMMON NIGHTHAWK

No individuals have been identified in field investigations to date, although this species is considered as having a moderate potential for occurrence. The local area consists of forested areas, wetlands, and recently logged areas; which may be considered suitable habitat for the species.

### MONARCH BUTTERFLY

The Monarch Butterfly is very widely distributed across North America and found in a wide variety of habitats. Populations fluctuate dramatically but have been generally declining likely due to habitat destruction on the hibernation grounds in Mexico, as well as pesticide use and other factors on the vast breeding grounds. This species is considered as having a moderate potential for occurrence in the project area, as potentially suitable habitat may be present.

### YELLOW-BANDED BUMBLE BEE

This species is a forage and habitat generalist, able to use a variety of nectaring plants and environmental conditions. The Yellow-banded Bumble Bee has a large range throughout much of Canada and parts of the United States. It can be found in mixed woodlands, particularly for nesting and overwintering, as well as a variety of open habitat such as native grasslands, farmlands, and urban areas. Potentially suitable habitat may be present locally.

### LAKE STURGEON

No evidence has been found for occurrence of Lake Sturgeon in local watercourses (West Buskegau River and North Driftwood River, and their tributaries). Further, fish community study results from surveys provided by the MNRF do not include the presence of Lake Sturgeon within the reach of the Mattagami River downstream of the Lower Sturgeon generating dam. Additional studies are planned for the 2023 season to further evaluate this area.

## *D.7.7.3 NOT CURRENTLY CONSIDERED PRESENT IN THE PROJECT AREA*

Species which are not anticipated to be present in the Project area based on habitat suitability or other information are listed below. Canada Nickel is mindful that observations may occur, however based on the current lack of observations during field investigations, additional targeted studies for these species are not warranted.

The species include:

- Red-headed Woodpecker (SARA: Threatened; ESA: Special Concern).
- Yellow Rail (SARA: Special Concern; ESA: Special Concern);
- Peregrine Falcon (SARA: no status; ESA: Special Concern);

### RED-HEADED WOODPECKER

Red-headed Woodpecker is not expected to occur in the area of Crawford Lake. Red-headed Woodpeckers nest in woodlands more common in southern Ontario such as oak savannahs or river side forests and need large dead, and decaying trees for breeding. The Project area is about 300km north of the northern range of Red-head Woodpecker. Most of the forest in the area consists of Spruce forest that is not appropriate for nesting Red-head Woodpecker.

### YELLOW RAIL

Nesting Yellow Rails are typically found in marshes dominated by sedges, true grasses, and rushes, where there is little or no standing water, and where the substrate remains saturated throughout the summer. They can be found in damp fields and meadows, on the floodplains of rivers and streams, in the

herbaceous vegetation of bogs. In Ontario, it is mainly found in the Hudson Bay Lowlands region and is only found in localized marshes in southern Ontario.

### PEREGRINE FALCON

Most Peregrine Falcons nest on cliff ledges or crevices, but some will also use tall buildings and bridges near good foraging areas. Habitat for Peregrine Falcons has three scales: a nest site with associated perching sites, a nesting territory, and a home range. The local area lacks appropriate nest sites for this species and no individuals have been noted during field investigations. This species is considered as not potentially occurring in the Project area.

## *D.7.8 MARINE ENVIRONMENT AND MARINE GEOHAZARDS*

The Crawford Project is situated inland and will therefore have no associated marine components. This aspect is not applicable to the Project.

# D.8 SOCIAL, ECONOMIC AND HEALTH CONTEXT

## *D.8.1 SITE HISTORY*

Crawford Township has been an area of interest for its mineral potential since 1955, with many mining companies and government bodies investigating the area. A rich base metal deposit in Kidd Township, now the site of the Kidd Creek Mine was discovered in 1963, which led to significant exploration in Crawford Township between the 1960s and 1970s. The inaugural exploration team was the International Nickel Company of Canada Limited, who began exploring Crawford Township in the 1960s by testing several geophysical anomalies. This was followed by a few diamond drilling programs, including by Abitibi-Price Mineral Resources in the 1980s. The Project site was more actively explored starting in 2017, with airborne surveys undertaken by Noble Exploration in the area in 2017 and 2018. Additional diamond drilling on the Project site was carried out under a joint venture agreement by Noble Exploration and Spruce Ridge Resources starting in November 2018 with a 2,000 m program, followed by a second 4,000 m drill program starting in September 2019. In October of 2019, Noble Exploration announced the creation of Canada Nickel Company, with a 100% interest in the Crawford property, and with interests of Spruce Ridge Resources sold to Canada Nickel Company. Since that time, work undertaken on the Project site has consisted of exploration and resource definition drilling, and geotechnical drilling in support of ongoing engineering studies.

## *D.8.2 SOCIAL CONTEXT*

Municipality and township data reported across section D.7 includes data from the 2022 and 2016 Statistics Canada Census. The 2016 Census Data does not distinguish between sex and gender identity. Additionally, the census data for Indigenous Nations is limited as it functions as a federal tool to document the profiles of municipalities and townships. As the 1996 Report of the Royal Commission on Indigenous Peoples provided data ownership and sovereignty rights to Indigenous Peoples, lower participation rates

for census survey collection and research fatigue results in unreliable census data for Indigenous Peoples (RCAP, 1996).[21]

The Crown Land Use Policy Atlas identifies the Project site within land use code G1822 (Kidd Creek Complex). Mineral exploration and development with some limitations are encouraged within this land use code.

The Project site is located within the Abitibi River Forest, which encompasses approximately 35,000 km$^2$, extending westward from the Ontario / Québec border for 190 km to the southern limit, south of Timmins, to the northern most extent of the Province's managed forest land (ARFMI, 2022). The Abitibi River Forest is currently managed by Abitibi River Forest Management Inc., which is made up of forest resource management partners that are responsible for forest management planning and operations.

Hunting and fishing activities are managed by the MNRF, whose administration for this forest is led by their District offices, including in Cochrane, Timmins, and Kirkland Lake. The project site is located within Wildlife Management Unit 30, which encompasses Kapuskasing to the north, Iroquois Falls to the east, the intersection of Highway 616 and Highway 101 to the south, and Agate to the west (MNRF, 2022). The Project site also falls within Fisheries Management Zone 8 (MNRF, 2021).

There are no federal parks near the Project site. The closest provincial parks are Greenwater Provincial Park (a non-operating, natural environment park with no facilities) approximately 49 km to the north, and Kettle Lakes Park (day use and overnight camping facilities), located approximately 80 km away from the Project site. There are several provincial Conservation Reserves in the region, including the Mahaffy Township Ground Moraine Conservation Reserve located approximately 10 km to the northwest of the Project site, and the Northern Claybelt Forest Complex Conservation Reserve, approximately 50 km to the west.

### *D.8.2.1 MUNICIPALITIES*

The Crawford Project site is located in the geographic townships of Crawford, Carnegie, Kidd, Lucas and Prosser within the Cochrane District in northeastern Ontario. A small portion of the Project extent within Kidd Township also lies within the municipal boundary of the City of Timmins. This project is anticipated to affect or be of interest to the following municipalities:

- City of Timmins;
- Town of Cochrane;
- Town of Iroquois Falls; and
- Town of Smooth Rock Falls.

Table D.2 provides population age characteristics of municipalities and townships in 2021.

## COCHRANE DISTRICT

The total population of Cochrane District is 77,965, and is projected to decline between 2021 to 2046 (Ontario Ministry of Finance, 2022). Furthermore, the population aged 65 years and above is projected to grow by 22% to 27% and the number of children aged 0 to 14 years are projected to decline between 2021 to 2046 (Ontario Ministry of Finance, 2022). International migration to Cochrane District (1%) and domestic migration (14%) were below the provincial average (5% and 16% respectively) between 2016 and 2021 (Statistics Canada, 2022c, d). However, domestic migration was above the district and provincial averages in the towns of Cochrane (18%), Iroquois Falls (18%) and Smooth Rock Falls (19%)

[21] Associated engagement relating to municipal social, economic, and health context is provided in Appendix A, pages A1 – A9, A24, A25, A27, A28, A31, A32, and A43 – A53 and Appendix C, pages C1, C6, C8, C9, C14, and C15.

between 2016 and 2021. This was largely driven by intra-provincial migrants, as there is little to no international immigration to these towns (<1%). In Timmins, international migration levels were similar to those in Cochrane District (2%) between 2016 and 2021 while domestic migration (9%) was below the district average. This may indicate a labour shortage in the working age group population within the region. Recent federal programs have extended immigration programs to rural and northern communities, including Timmins, to help address labour shortage issues, enhance job growth, and develop businesses (Immigration, Refugees and Citizenship Canada, 2022).

## TIMMINS

The City of Timmins is located approximately 43 km south of the Project by road, and is the regional mining centre and largest municipality in the area. There are a number of well-established operating mines in the area, as well as businesses which provide supporting goods and services for the industry. The City of Timmins is readily accessed by the provincial highway network (Highway 144, Highway 655 and Highway 101), as well as by air with several commercial flights per day from Toronto servicing the Victor M. Power airport, which is approximately 45 km from the Project site by road.

In 2021, Timmins had a population of 41,145, which is a decline of 1.5% from 2016, and a density of approximately 14 people per $km^2$, compared to the provincial average for population density of 16 people per $km^2$ (Statistics Canada, 2022a). The median age in Timmins is 42 years, which is similar to the Province's median age. The city has a balanced sex ratio, and over 66% of the population is in the age group of 15 to 64 years (Statistics Canada, 2017a). Approximately 51% of the population in Timmins also knows both official languages (Statistics Canada, 2017a). Timmins features recreational activities such as fishing, camping, trapping, hunting, snowmobiling, and skiing. In addition, there are sporting events, music festivals and cultural gatherings.

## COCHRANE

The Crawford Project is also close to the Town of Cochrane, which is located along Highway 11 in the Cochrane District, 63 km northeast by road from the Project site. Cochrane had a population of 5,390 in 2021, which indicates a 1.3% increase in population since 2016. According to the 2021 Census, the median age in the town was 44 years, with 61.5% of the population between the ages of 15 and 64 and about 21% of the population over age 65. The total population has an equal proportion of women and men. Approximately 52% of the population in Cochrane know both official languages (Statistics Canada, 2017a). The local area surrounding Cochrane supports several recreational activities such as camping and fishing (Tourism Cochrane, 2022). Furthermore, Cochrane is easily accessible by air, rail, and bus service. Cochrane has a municipal airport, which serves as a hub for passengers and freight to the James Bay Coastline, as well as private and executive charters and medivac flights. The Cochrane Railway Station is operated by ONTC and is part of the Polar Bear Express route (Town of Cochrane, n.d.). ONTC also provides an out-of-town motor coach bus service.

## IROQUOIS FALLS

The Town of Iroquois Falls is located 112 km by road from the Crawford Project. Iroquois Falls had a population of 4,418 in 2021 which is a 3% decline from the 2016 population (Statistics Canada, 2022a). The median age was 48 years, with 61% of the population within the 15 to 64 years age group and 23% of the population in the age group of 65 and over. The overall population has an equal proportion of women and men. However, women represent a higher proportion of those aged 65 and older. Approximately 55.3% of the population in Iroquois Falls know both official languages (Statistics Canada, 2017b). In terms of recreational activities and facilities, the Town of Iroquois Falls has many snowmobile and skiing trails, along with several other recreational venues and annual festivals. ONTC serves Iroquois Falls, primarily providing freight and bus services and the municipality also features a regional airport.

This airport is primarily used for medical transfers, private users and flying club (Town of Iroquois Falls, 2018).

## SMOOTH ROCK FALLS

The Town of Smooth Rock Falls is located 63 km by road from the Crawford Project. Smooth Rock Falls had a population of 1,200 in 2021, which is a population decrease of 10% from 2016 (Statistics Canada, 2022a). The median age in Smooth Rock Falls is 58 years, with approximately 54% of the population between the ages of 15 to 64 years old. Men represent a higher proportion of the total population of Smooth Rock Falls, except for those aged 0 to 14 where there is an equal proportion of men and women. Approximately 69.9% of the population Smooth Rock Falls know both official languages (Statistics Canada, 2017b). Smooth Rock Falls offers a variety of recreational activities. The snowmobile trails include a French program called Aventure Nord (Town of Smooth Rock Falls, 2022a) and some trails include the Northern Corridor du Nord. ONTC also provides transportation and freight to Smooth Rock Falls (ONTC, 2022)

### *D.8.2.2 INDIGENOUS PEOPLES*

There are no First Nation Reserve lands proximal to the site (see Figure B.1, Table D.1), although the Project site is anticipated to be within proximity to the Traditional or operating region of several Indigenous Peoples that have expressed interest in the Project:

- Taykwa Tagamou Nation, located approximately 45 km northeast from the Project site in the Cochrane District along the Abitibi River;
- Flying Post First Nation, located approximately 59 km southwest of the Project site; and
- Matachewan First Nation, located approximately 100 km southeast of the Project site;
- Mattagami First Nation, located approximately 115 km south of the Project Site along the Mattagami River;
- Apitipi Anicinapek Nation, located approximately 104 km southeast of the Project site;
- Métis Nation of Ontario – Region 3.[22]

## TAYKWA TAGAMOU NATION

Taykwa Tagamou Nation has two Reserves: New Post 69 and New Post 69A. They are a signatory to Treaty No. 9 and are members of the Mushkegowuk Council and Nishnawbe Aski Nation (Nishnawbe Aski Nation, n.d.; CIRNAC, 2021a)

The registered population of Taykwa Tagamou Nation as reported to Crown-Indigenous and Northern Affairs Canada (CIRNAC) as of October 2022 is 664, with 22% of the population registered on Own Reserve, 76% living Off Reserve, and 2% on Other Reserves. There was one individual registered on No Band Crown Land (CIRNAC, 2022a). In comparison, the 2016 Census indicates a total on-reserve population of 90, which is a 20% increase from data reported in 2006. The gender breakdown in 2016 was almost equally split, with the majority of the population within the 15 to 64 age group. As of the 2016 Census, the median age of the population was approximately 26 years, while men had a median age of 27 and women of 23 (Statistics Canada, 2018a).

## FLYING POST FIRST NATION

The Reserve lands of Flying Post First Nation result from the signing of Treaty #9 in 1905, 1906 and adhesions in 1929 and 1930. The Reserve lands are located approximately 75 km northwest of Timmins

[22] Associated engagement relating to Indigenous community context and engagement is provided in Appendix C.

(Wabun Tribal Council, 2020). Flying Post First Nation is a member of the Wabun Tribal Council and the Nishnawbe Aski Nation (Nishnawbe Aski Nation, n.d.; CIRNAC, 2021b). Most of the First Nation members live near Nipigon (Wabun Tribal Council, 2020). The registered population of Flying Post First Nation as reported to CIRNAC is 313 people, most of whom are registered Off Reserve. There is one person registered and living On Reserve land (CIRNAC, 2022c).

## MATACHEWAN FIRST NATION

Matachewan First Nation is located approximately 30 km north of the Town of Matachewan, Ontario and about 60 km west of Kirkland Lake, off Highway 66. Matachewan First Nation is a signatory to Treaty No. 9, signed by Matachewan First Nation on June 19, 1906 (Matachewan First Nation, n.d.) Matachewan First Nation is a member of the Wabun Tribal Council and the Nishnawbe Aski Nation (Nishnawbe Aski Nation, n.d.; CIRNAC, 2021b).

The registered population of Matachewan First Nation as reported to CIRNAC as of October 2022 is 990, with 5% of the population registered on Own Reserve and 94% (921) registered Off Reserve. There were 3 individuals registered on Other Reserves, 3 individuals registered on Own Crown Land, and 3 individuals registered on No Band Crown Land (CIRNAC, 2022b). In comparison, the 2016 Census indicates a total on-reserve population of 60 individuals, which is a 20% decrease from data reported in 2006. The gender breakdown in 2016 was equally split, with the majority of the population within the 15 to 64 age group. As per the 2016 Census, the median age of the population was approximately 37 years, while men had a median age of 37 years and women of 35 years (Statistics Canada, 2018b).Mattagami First Nation

## MATTAGAMI FIRST NATION

Mattagami First Nation is located approximately 20 km northeast of Gogama and is accessible by road 5 km from Highway 144. Mattagami First Nation is a signatory to Treaty No. 9, signed by Mattagami First Nation on July 7, 1906. Mattagami First Nation is a member of the Wabun Tribal Council and the Nishnawbe Aski Nation (Nishnawbe Aski Nation, n.d.; CIRNAC, 2021b).

The registered population of Mattagami First Nation as reported to CIRNAC as of October 2022 is 666, with 25% of the population registered on Own Reserve and 73% of the population registered Off Reserve. There are six individuals registered on Other Reserves and six individuals registered on No Band Crown Land (CIRNAC, 2022d). In comparison, the 2016 Census indicates a total on-reserve population of 190, which did not change from the data reported in the 2006 Census estimate. The overall population gender ratio in 2016 was balanced, with majority of the population within the 15 to 64 age group. As per the 2016 Census, the median age of the population was approximately 30 years, while men had a median age of 28 years and women of 31 years (Statistics Canada, 2018c).

## APITIPI ANICINAPEK NATION

Apitipi Anicinapek Nation is an Algonquin First Nation near Abitibi Lake. The Apitipi Anicinapek Nation in Ontario and the Pikogan in Québec (both historically part of the Apitipi Anicinapek band) signed Treaty No. 9 on June 1, 1906. In 1979, the Ontario community changed its name from the Abitibi Ontario Band of Abitibi Indians to Wahgoshig First Nation and on March 27, 2022, changed its name to Apitipi Anicinapek Nation (Apitipi Anicinapek Nation, 2022). Apitipi Anicinapek Nation is part of the Anicinape Nation and is a member of the Algonquin Anishinabeg Tribal Council in Québec, and the Nishnawbe Aski Nation in Ontario.

The registered population of Apitipi Anicinapek Nation as reported to CIRNAC as of October 2022 is 412, with 36% of the population on Own Reserve and 61% Off Reserve. There are 12 individuals registered on Other Reserves and 2 individuals registered on No Band Crown Land (CIRNAC, 2022e). However, 2016 Census data indicates a total on-reserve population of 145, with a 26% increase in population size

between 2006 and 2016. The overall population gender ratio in 2016 was favorable to men, with 80 men to 60 women. A majority of the population was within the 20 to 64 age group. The median age of the population was 30.8 years, while men had a median age of 32.4 years and women of 25.9 years (Statistics Canada, 2018d).

### MÉTIS NATION OF ONTARIO

The Crawford Project site is located within Region 3, as defined by the Métis Nation of Ontario. The Métis Nation of Ontario has a Province-wide governance structure and is a Governing Member of the Métis National Council. The Métis Nation of Ontario exists to represent and advance the interests of the Métis Peoples of Ontario. The Métis Nation of Ontario has a Consultation Agreement with the Province of Ontario signed on July 31, 2015, that establishes a consultation process with members represented by Métis Nation of Ontario to consult on proposed actions and decisions that may impact asserted or established Indigenous rights (Métis Nation of Ontario, n.d.). Although demographic information specific to Ontario Region 3 Métis is currently unavailable, there are 120,585 self-identifying Métis people in Ontario, which notes a 40% increase from 2011 and an increase of 64% since 2006 (MIRR, n.d.).

## *D.8.3 ECONOMIC CONTEXT*

This section summarizes labour force characteristics of the municipalities and Indigenous Nations near the Crawford Project and outlines key industries and labor force participation rates.[23]

### *D.8.3.1 MUNICIPALITIES*

The Crawford Project is situated within Cochrane District. Nearby municipalities within the Cochrane District include Timmins, Cochrane, Iroquois Falls, and Smooth Rock Falls. where the Crawford Project is located. The primary industries include mining, healthcare and social assistance, education, construction and retail trade (Statistics Canada, 2017c). Major public and private sector employers or Industries in Timmins, Cochrane, Iroquois Falls and Smooth Rock Falls are shown in Table D.3.

The average weekly earnings for mining, quarrying, and oil and gas extraction in Ontario in 2021 was $1,934 which is 1.66 times the average earnings across industries (Statistics Canada, 2022b). Men made up a larger proportion of the population in mining, while women made up a higher proportion of the population in health care and social assistance for all four municipalities (Statistics Canada, 2017a, b,c). Barriers can exist to pursuit of employment opportunities in the mining industry.

The risk of sexual harassment can limit participation rates of women within certain industries (Kansake et al., 2021). Women faced the highest risk of sexual harassment in the mining industry, with a rate of 72 reports per 100,000 workers according to a 2011 study of sexual harassment filed with the Equal Employment Opportunity Commission (PDAC, n.d.). However, the experience of sexual harassment is not the same for all women or all men. For example, immigrant workers, who make up a large proportion of the mineral sector workforce in Canada, can face additional obstacles in reporting through potential language barriers and unfamiliarity with rights and laws against sexual harassment (PDAC, n.d.).

There are several mining operations within the District, including Newmont Porcupine and Glencore's Kidd Creek, as well as exploration programs, such as the West Cache Gold Project (Galleon Gold) and Fenn-Gib Project (Mayfair Gold). Canada Nickel cannot comment on the anticipated timelines, probabilities for these projects to move forward, the scale of their operations, or status of mine closure.

[23] Associated engagement relating to municipal social, economic, and health context is provided in Appendix A, pages A1 – A9, A24, A25, A27, A28, A31, A32, and A43 – A53 and Appendix C, pages C1, C6, C8, C9, C14, and C15.

Eco-tourism is a popular recreational activity in the District, with activities including snowmobiling, ATV touring, camping, and water sports. A snowmobile trail crosses the Project footprint in the area of Mine Rock Stockpile #1. Available information indicates that there are no designated ATV trails, canoe or trail routes which overlap with the Project site (Adventure North Ontario, 2022). According to the Abitibi River Forest 2022-2032 Forest Management Plan, there are no recorded trapper cabins, access points, beaches, boat caches, clubhouses, designated camp sites, fishing access points, commercial campgrounds, main base lodges, outpost camps, shooting ranges, recreation camps, or youth camps in the Project site footprint.

## TIMMINS

Health care and social assistance and mining are the primary industries in Timmins, employing 14% of the labour force respectively, followed by retail trade which employs 13% of the labour force (Statistics Canada, 2017a). Other industries include accommodation and food services, construction, public administration, and education services. Although not recognized in Census data from 2016, there are several forestry operations in the region that also contribute to the local economy (Grech, 2019).

Census data for Timmins indicates labour force participation rates to be around 65% in 2016, with employment rates at approximately 60% (Statistics Canada, 2017a). The 2016 unemployment rate is higher in Timmins (8%) compared to Ontario (7%) (Statistics Canada, 2017c). Men report higher rates of labour force participation (69%), employment (63%), and unemployment (9%) than women, who had a labour force participation rate of 61%, employment rate of 58%, and unemployment rate of 6% (Statistics Canada, 2017a).

The average employment income in Timmins in 2015 for full-time workers was $67,673 with men earning 1.5 times more than women (Statistics Canada, 2017a). While the average employment income was higher in Ontario ($68,628) compared to Timmins in 2015 ($67,673), the median employment income was higher in Timmins ($59,025 compared to $55,121) (Statistics Canada, 2017c).

## COCHRANE

Construction is primary industry for employment in the Town of Cochrane (11%) (Statistics Canada, 2017a). Other industries include manufacturing, transportation and warehousing, and mining. The railway station is key infrastructure for the regional economy, as it provides freight and cargo services for several industrial sectors, including forestry, mining, and agriculture.

Census data for the Town of Cochrane indicates participation rates to be at 64% in 2016, with an employment rate at 56%. The 2016 unemployment rate is higher in the Town of Cochrane (11.5%) compared to Ontario (7%). Men report higher rates of labour force participation (70%), employment (60%), and unemployment (14%) than women, who had a labour force participation rate of 58%, employment rate of 53%, and unemployment rate of 9% (Statistics Canada, 2017a).

The average employment income in the Town of Cochrane in 2015 for full-time workers was $61,144, with men earning 1.5 times more than women (Statistics Canada, 2017a). While the average employment income was higher in Ontario ($68,628) compared to the Town of Cochrane in 2015 ($61,144), the median employment income was higher in the Town of Cochrane compared to Ontario ($56,671 and $55,121 respectively) (Statistics Canada, 2017c).

## IROQUOIS FALLS

The major industries employing residents in Iroquois Falls include health care and social assistance (18%), mining (13%), retail trade (11.5%), and educational services (10%) (Statistics Canada, 2017b). Census data for Iroquois Falls indicates participation rates to be at 50% in 2016, with an employment rate of 44%. The unemployment rate is higher in Iroquois Falls (11%) compared to Ontario (7%). Regarding

gender differences, men report higher participation rates and unemployment rates than women in Iroquois Falls, with employment rates being equal for both men and women (Statistics Canada, 2017b). The average employment income in Iroquois Falls in 2015 for full-time workers was $64,324 with men earning 1.3 times more than women (Statistics Canada, 2022a). While the average employment income was higher in Ontario ($68,628) compared to Iroquois Falls in 2015 ($64,324), the median employment income was higher in Iroquois Falls compared to an Ontario average ($61,052 and $55,121, respectively) (Statistics Canada, 2017c).

### SMOOTH ROCK FALLS

The main industries employing residents in Smooth Rock Falls are mining (12%), construction (12%), educational services (12%), and health care and social assistance (11%) (Statistics Canada, 2017b). Census data for Smooth Rock Falls indicates labour force participation rates to be at 39.6% in 2016, with an employment rate of 32.4% (Statistics Canada, 2017b). The unemployment rate is higher in Smooth Rock Falls (18%) compared to Ontario (7.4%). Regarding gender differences, men report higher participation rates and unemployment rates than women in Smooth Rock Falls, with women having a higher employment rate (32.7%) compared to men (31.6%) (Statistics Canada, 2017c). The average employment income in Smooth Rock Falls in 2015 for full-time workers was $67,417 with men earning 1.8 times more than women (Statistics Canada, 2022a). While the average employment income was higher in Ontario ($68,628) compared to Smooth Rock Falls in 2015 ($67,417), the median employment income was higher in Smooth Rock Falls compared to Ontario ($65,140 and $55,121 respectively) (Statistics Canada, 2017c).

## *D.8.3.2 INDIGENOUS NATIONS*

Approximately 57% of the population 15 years and over in Taykwa Tagamou Nation participated in the labour force, according to the 2016 Census. The primary employment industries are evenly split between the following: mining, construction, retail trade, health care and social assistance, public administration, and those classified as other services (Statistics Canada, 2018a).

Census data on labour characteristics was unavailable for Flying Post First Nation.

According to the 2016 Census, in Matachewan First Nation 89% of the population of aged 15 years and over participated in the labour force. Approximately 50% of those in the workforce were in the mining industry. Other employment industries include construction, public administration, and “other services” (Statistics Canada, 2018b).

Mattagami First Nation had 50% of the population 15 years and over participate in the labour force, according to the 2016 Census. The main sectors of employment included public administration (27%), agriculture, forestry, fishing and hunting (13%), retail trade (13%), educational services (13%), and healthcare and social assistance (13%) (Statistics Canada, 2018c).

Approximately 73% of the population in Apitipi Anicinapek Nation aged 15 years and older participated in the labour force, according to the 2016 Census. The main sectors of employment included agriculture, forestry, fishing and hunting (13%), mining (13%), utilities (13%), construction (13%), retail trade (13%), administrative and support services, waste management services, and remediation services (13%), educational services (13%), health care and social assistance (13%), and accommodation and food services (13%) (Statistics Canada, 2018e).

The major industries employing Métis peoples in Timmins include mining, quarrying, and oil and gas extraction, retail trade, health care and social assistance, and construction (Statistics Canada, 2018d). Census data for Métis peoples in Timmins indicates participation rates in the workforce to be at 66% in 2016, with an employment rate of 60% (Statistics Canada, 2018d).

Through engagement activities and primary research, Canada Nickel will continue to engage and work with communities and Indigenous Nations to gather information on economic activities and better understand the potential impacts of project related activities in these areas. The economic context of Indigenous Nations and Peoples will be further assessed in the IA process.

## D.8.4 HEALTH CONTEXT

The Porcupine Health Unit (PHU) is in northeastern Ontario, primarily serving Cochrane District and the Town of Hornepayne. The head office is located in Timmins, with eight branch offices located throughout the serviced area.

It has been identified by the PHU that people in the District of Cochrane and surrounding area fare better than the Provincial average on some measures of well-being, such as:

- Higher levels of a strong, or somewhat strong, sense of community belonging (73.2% in PHU versus 70.9% in Ontario);
- Higher levels of self-reported physical activity during leisure time (60.9% PHU vs. 54.7% Ontario); and
- Higher compliance rates for vaccination of school-aged children (over 90% PHU).

However, in comparison to provincial averages, the residents with PHU service are experience the following challenges:

- Higher rates of population obesity (72.3% PHU vs. 61.5% Ontario), alcohol use (54.4% PHU vs. 44.4% Ontario) and smoking (27.8% PHU vs. 18.1% Ontario);
- Lower percentage of food secure households (86.5% PHU vs. 91.4% Ontario); and
- Higher rates of teenage pregnancy (2.5 times the Ontario average)

Residents within the PHU service area have a lower life expectancy with 4.4 years less than the provincial average for men and 4.1 years less for women. Residents also have heightened risks for potentially avoidable mortality issues e.g., deaths due to smoking, excessive drinking, or injuries (1.6 times Ontario). Residents within the PHU service area are also more likely to experience the following health events:

- Higher rates of hospitalization for conditions associated with lifestyle factors such as heart disease, diabetes, and injuries;
- Higher rates of chronic diseases such as asthma, diabetes, high blood pressure, mood and anxiety disorders; and
- Higher rates of sexually transmitted and blood-borne diseases such as chlamydia, hepatitis C, and gonorrhea (Porcupine Health Unit, 2021)[24]

There is a significant gap in available data on First Nations on Reserve and Indigenous People living off-reserve within the PHU area (Porcupine Health Unit, 2021).

There are multiple effects pathways between mining and individual and social health, with gainful employment leading to positive health outcomes such as reduced economic stress and lower rates of mental health illness on one hand and conversely increased workplace stress and spending on gambling,

[24] Associated engagement relating to municipal social, economic, and health context is provided in Appendix A, pages A1 – A9, A24, A25, A27, A28, A31, A32, and A43 – A53 and Appendix C, pages C1, C6, C8, C9, C14, and C15.

drug and alcohol addiction, and prostitution and consequential sexually transmitted diseases. These problems can be amplified due to the influx of a migrant workforce with different economic, social and cultural values, and can adversely impact families and Indigenous women (Gibson and Klinck, 2005).

## OPIOID CRISIS IN NORTHERN ONTARIO

The rates of emergency department visits for opioid toxicity and opioid-related mortality in Ontario doubled from 2017 to 2021. During the same period, the rates of emergency department visits for opioid toxicity increased by five times and rate of opioid-related mortality increased by 20 times in the Porcupine Health Unit (Ontario Agency for Health Protection and Promotion, 2022). This may be due to lower availability of services in rural and remote regions, making it difficult to reach those at highest risk of overdose (Gomes, et al., 2021). The rate of opioid-related deaths during the Covid-19 pandemic in northern Ontario was three times that of southern Ontario (Gomes, et al., 2022).

### *D.8.4.1 MUNICIPALITIES*

Timmins, Cochrane, Iroquois Falls, and Smooth Rock Falls are serviced by the PHU. The following sections provide publicly available information on health and well-being services available in these municipalities. Through engagement activities and primary research, Canada Nickel will evaluate health effects to human receptors from air and noise emissions, effluent discharges to waterbodies, and increased use of socio-economic infrastructure, such as schools, hospitals, emergency services, municipal services, transportation and communication networks, as a result of Project activities.

## TIMMINS

The Timmins and District Hospital is located within Timmins and serves the Cochrane District as well as the Temiskaming, Sudbury, and Algoma Districts, and is also a teaching hospital (Timmins and District Hospital, 2022; TADH, 2021). The following are strategic priorities identified in the Timmins Community Safety and Well-being Plan 2021-2022 (City of Timmins, n.d.):

- “Unified and innovative community system approach to end homelessness.
- Harmonized mindset and action to improve care, respect, and outcomes for mental health and addictions.
- Youth-focused community aiming to improve well-being, inclusivity, resiliency, pride, and success of all youth.
- Shared responsibility and effort to improve safety and belongingness of all residents while in their homes, at work, and in the community.”

Additional information on health services in Timmins is provided in Table D.4.

## COCHRANE

Through the services provided by the PHU, Cochrane has access to their own branch of clinical services provided through regularly scheduled visits. Appointments for immunizations, travel vaccinations, sexual health and wellness, and dental services are provided, while emergency care services can be reached at any time (i.e. without appointment). According to the Town of Cochrane’s 2018 Final Community Improvement Plan, their growth strategy prioritizes human, economic, and environmental health, focusing on the improvement of socially responsible infrastructure, such as active transportation, which have direct implications on community health and well-being. Cochrane and Iroquois Falls are also members of the Matheson, Iroquois Falls, and Cochrane Groups network of hospitals, consisting of both emergency and long-term care services. The Group’s three hospitals, each in their respective regions, provide a variety of services to the region including, but not limited to:

- Emergency;
- Laboratory;
- Diagnostic Imaging;
- Clinical Nutrition;
- Specialist Clinics;
- Physiotherapy;
- General Surgery; and
- Oncology.

Additional information on health services in Cochrane is provided in Table D.5.

### IROQUOIS FALLS

Through the PHU, Iroquois Falls is also provided with regularly scheduled clinical appointments which offer the same range of routine and emergency care services. The Ministry of Health has also made investments in Iroquois Falls, supporting programs provided by the Family Health Team. This group is comprised of physicians, nurse practitioners, registered and practical nurses, and mental health workers offering general care services and specialized programs designed for women's wellness, mobility clinics, infant care, and dietary / nutritional counselling. According to the Iroquois Falls 2017 Community Profile, 12.4% of their regional labour force worked in the health care and social assistance industry, compared to the 10.3% provincial average. This is reflected in their community profile, listing over 20 health related organizations ranging from emergency care services, such as the Anson General Hospital, to smaller private practices such as the Atlas Chiropractic Clinic (Town of Iroquois Falls, 2018). Additional information on health services in Iroquois Falls is provided in Table D.6.

### SMOOTH ROCK FALLS

Smooth Rock Falls has a hospital and detoxification centre. Services are bilingual with emergency services available 24 hours per day, including patient medical, palliative care, chronic care, long-term care, laboratory and radiology services (Town of Smooth Rock Falls, 2022d. The Falls Medical Clinic focuses on family and community health by appointment only and provides care for minor illnesses and injuries. There is a full-time nurse on staff at the Smooth Rock Falls PHU. Additional information on health services in Smooth Rock Falls is provided in Table D.7.

## *D.8.4.2 INDIGENOUS NATIONS*

Through engagement activities and primary research, Canada Nickel will engage and work with Indigenous Peoples to gather information on health of Indigenous Peoples, including social determinants of health and community well-being, and how the Indigenous Peoples define these aspects. The Impact Statement, if required, will include a health impact assessment that examines the health and well-being of Indigenous Peoples and will use a gender-based framework to assess potential impacts from project activities utilizing the information available. Canada Nickel will be completing additional primary research to understand community-specific plans that support improving well-being. This may include research with nearby municipalities, Indigenous Peoples, healthcare providers, and diverse population groups.

**Table D.1 Land Claims and Assertions of Indigenous Peoples**

| INDIGENOUS PEOPLES | CLAIM AND ASSERTIONS |
|---|---|
| Taykwa Tagamou Nation | There is no publicly available information available about land claims and assertions by the Taykwa Tagamou Nation at this time. |
| Flying Post First Nation | In 2020, there was final settlement of a 115-year-old land claim due to a shortfall of land as a result of James Bay Treaty (Treaty #9). |
| Matachewan First Nation | In 2009, Matachewan First Nation filed a Treaty Land Entitlement claim indicating that the Nation did not receive all the land it was entitled to under Treaty #9 (1906). It is understood from the federal government that this claim has been settled. |
| Mattagami First Nation | There is no publicly available information available about land claims and assertions by the Mattagami First Nation at this time. |
| Apitipi Anicinapek Nation | In April 2010, the Algonquin Anishinabeg Nation Tribal Council made assertions of their rights in their ancestral territory to the federal government. The claim included a map of boundaries of the traditional territory which is the same as presented in their comprehensive land claim of 1989. The boundaries extend into Ontario and in the vicinity of the project. |
| Cree Nation of Eeyou | In 2016, the Cree Nation filed an action in the Ontario Superior Court of Justice to obtain recognition of its rights over certain lands in northeastern Ontario (Matthew Coon Come et al v. Ontario and Canada, Ontario Superior Court File Nos. CV-16-547938 and CV-16-552834). |
| Métis Nation of Ontario – Region 3 | Métis assert a right to harvest in large areas of Ontario. The government has accommodated Métis rights on a regional basis within the Métis harvesting territories identified by the Métis Nation of Ontario. An interim agreement between the Métis Nation of Ontario and the Ontario government recognizes the Métis Nation of Ontario's Harvester Card system. On April 30, 2018, the Métis Nation of Ontario and Ontario signed a new Framework Agreement on Métis Harvesting that advanced the recognition of Métis' rights in Ontario. |

*Sources: (Queen's Printer for Ontario, 2020; Métis Nation of Ontario, 2021; Matachewan First Nation, n.d.)*

**Table D.2 Population Age Characteristics of Municipalities and Townships, 2021**

| AGE CHARACTERISTICS | TOTAL | MEN | WOMEN |
|---|---|---|---|
| Cochrane District | | | |
| Total Population | 77,965 | 38,985 | 38,975 |
| Average Age | 42.6 | 41.9 | 43.2 |
| Median Age | 43.6 | 42.8 | 44.4 |
| Timmins | | | |
| Total Population | 41,145 | 20,555 | 20,590 |
| Average Age | 41.8 | 40.9 | 42.6 |
| Median Age | 42.0 | 40.8 | 43.2 |
| Cochrane | | | |
| Total Population | 5,390 | 2,695 | 2,700 |
| Average Age | 42.3 | 41.7 | 42.9 |
| Median Age | 43.6 | 43.6 | 43.6 |
| Iroquois Falls | | | |
| Total Population | 4,420 | 2,210 | 2,210 |
| Average Age | 45.2 | 43.8 | 46.6 |
| Median Age | 48.0 | 45.2 | 49.6 |
| Smooth Rock Falls | | | |
| Total Population | 1,200 | 610 | 590 |
| Average Age | 51.4 | 51.1 | 51.7 |
| Median Age | 58.0 | 58.0 | 58.4 |
| Ontario | | | |
| Total Population | 14,223,945 | 6,970,855 | 7,253,085 |
| Average Age | 41.8 | 40.7 | 42.8 |
| Median Age | 41.6 | 40.0 | 42.8 |

*Sources: (Statistics Canada 2022c, d)*

**Table D.3 Major Public and Private Sector Employers / Industries in Timmins, Cochrane, Iroquois Falls and Smooth Rock Falls**

| TIMMINS | COCHRANE | IROQUOIS FALLS | SMOOTH ROCK FALLS |
|---|---|---|---|
| **Public Sector** | | | |
| Corporation of the City of Timmins | Town of Cochrane | Monteith Correctional Complex | Smooth Rock Falls Hospital |
| Timmins and District Hospital | Cochrane District Social Services Administration Board | Anson General Hospital and South Centennial Manor | District School Board Ontario North East |
| District School Board Ontario North East | Lady Minto Hospital | Town of Iroquois Falls | Conseil scolaire catholique de District des Grandes Rivières[1] |
| Conseil Scolaire Catholique du District des Grandes-Rivières | | Conseil scolaire public du Nord Est de L'Ontario | District School Board Ontario North |
| Northern College | | District School Board Ontario Northeast | The Town of Smooth Rock Falls |
| Ontario Power Generation | | | |
| Hydro One | | | |
| Ontario Government | | | |
| **Private Sector** | | | |
| Newmont Goldcorp | Rockshield Engineered Wood Products | Iroquois Falls Power | Blanchette Hardware |
| Glencore Canada | Kirkland Lake Gold (Agnico Eagle Mines) | Community Living | |
| Lakeshore Gold | ONTC | Iroquois Falls Foodland | |
| Dumas Mining Contracting | Villeneuve Construction | Seguin's Valu-Mart | |
| Extendicare Timmins (health care) | GreenFirst Forest Products | Tim Hortons | |

*Source: (Town of Smooth Rock Falls, 2016; Town of Smooth Rock Falls, 2022; Town of Iroquois Falls, 2018; Timmins Chamber of Commerce, n.d.)*

## Table D.4 Timmins Health Services

| HEALTH SERVICE | DETAILS |
|---|---|
| Timmins and District Hospital | Hospital with 850 staff and 74 physicians and offering services ranging from medical, surgical, critical care, maternity, newborn, pediatric, long-term care, and mental health services. Has 154 beds, with an additional 29 surge beds, which were created due to the demands of the COVID-19 pandemic. |
| PHU | Has 120 staff in nine different offices delivering the following programs and services: dental hygienists, speech-language pathologists, geneticists, nurse practitioners, public health nutritionists, dietitians, inspectors, public health nurses, health promoters, and outreach workers. |
| Timmins Academic Family Health Team | Teaching family clinic with five locations about 19 nurse practitioners, nurses, dieticians, social workers, health promoters, child psychologist and a pharmacist. The health team provides online booking for collaborative health care, and group programs. |
| Family Eye Care Timmins | Eye team has four optometrists, six optometric assistants and a licensed optician providing exams, surgery and dry eye care. |
| Rainville Foot Health | Chiropodist providing foot care services. Molding of orthotics and range of orthopedic footwear available. |
| Shoppers Drug Mart (two locations) | Pharmacy, blood pressure checks, flu vaccinations, and blood sugar testing, |
| Health Care Guardian Pharmacy | Pharmacy, home health supplies, delivery of prescriptions, blood pressure screening, medscheck, sharps disposal, alcohol use disorder program, Benzodiazepine use disorder program, and Opioid use disorder program. |
| Pharmasave Timmins | Pharmacy, home health supplies, delivery of prescriptions, blood pressure screening, flu vaccines, medscheck, and sharps disposal program. |
| Rexall | Pharmacy, home health supplies, delivery of prescriptions, blood pressure screening, flu vaccines, medscheck, and sharps disposal program. |
| Independent Grocer DRUGStore Pharmacy Timmins | Pharmacy, home health care supplies, blood pressure screening, diabetes, vascular and cardiovascular assessments, food allergy program, delivery and flu vaccine. |
| Medigas | Provides medical supplies and equipment such as home oxygen supplies and continuous positive airway pressure therapy. |
| Wellwise by Shoppers | Medical supply store with continuous positive airway pressure and sleep therapy, braces and support products. |
| Walmart Pharmacy | Home Health supplies, medication, delivery, blood pressure screening, wellness clinics, and flu vaccines. |

*Source: (Timmins and District Hospital, 2022; Shoppers Drug Mart , 2022; thehealthline.ca, 2021a; thehealthline.ca, 2021b; Family Health Team Solutions, 2022; Rainville Foot Health, 2022; Pharmasave Timmins, 2022; Family Eye Care, 2022a) (Timmins and District Hospital, 2022; Shoppers Drug Mart , 2022; thehealthline.ca, 2021a; thehealthline.ca, 2021b; Family Health Team Solutions, 2022; Rainville Foot Health, 2022; Pharmasave Timmins, 2022; Family Eye Care, 2022a)*

### Table D.5 Cochrane Health Services

| HEALTH SERVICE | DETAILS |
|---|---|
| Lady Minto Hospital | General hospital provides in-patient, complex ongoing care, emergency, out-patient, ambulatory care, general surgery and long-term care, with 25 acute, 8 continuing care, and 37 long term care beds available. |
| Cochrane – Porcupine Health Unit | Regularly scheduled clinics for immunization, sexual health and dental services. Toll free after hours telephone support. |
| Cochrane Chiropractic | Chiropractic care. |
| Centre De Counselling Minto | Free bilingual mental health services to 16 years of age and over. |

*Source: (Porcupine Health Unit, 2022a; YellowPages, 2022a; MICS Group of Health Services, 2021a; Minto Counselling Centre, 2017)*

### Table D.6 Iroquois Falls Health Services

| HEALTH SERVICE | DETAILS |
|---|---|
| Anson General Hospital | 34-bed hospital: 19 acute, 15 continuing care and 69 long-term care beds providing 24 hours a day, 7 days a week emergency support. Visiting speciality clinics provided for: general surgery, internal medicine, urology, gynecology, neurology. |
| Iroquois Falls Family Health Team | Family Health Team consists of family physicians, Nurse Practitioners, Registered Nurses, Registered Practical Nurses, a mental health worker and a Dietitian, supported by administrative staff and a medical assistant. This is a teaching site for the Northern Ontario School of Medicine. |
| Iroquois Falls Dental Hygiene Clinic | Provides fluoride treatments open on Thursdays. |
| Iroquois Falls Family Dental | Dentistry for all ages. |
| Vockeroth Family Dentistry | Dentistry for all ages. |
| Family Eye Care | Three optometrists and three optometric assistants provide family eye care. |
| Iroquois Falls Chiropractic | Chiropractic care. |
| Atlas Chiropractic Clinic | Chiropractic care. |

*Source: (Iroquois Falls Family Health Team, 2018; MICs Group of Health Services , 2021b; Vockeroth Family Dentistry, 2022; YellowPages, 2022b; Family Eye Care, 2022b; Iroquois Falls Chamber of Commerce, n. d.)*

### Table D.7 Smooth Rock Falls Health Services

| HEALTH SERVICE | DETAILS |
|---|---|
| Smooth Rock Falls Hospital | Hospital with one full-time physician and three part-time physicians. 24-hr bilingual emergency services, primary care, and long-term care provided. 85 people are employed including those at the Detox Centre. |
| Falls Medical Clinic | Family and community health. |
| Smooth Rock Falls Porcupine Health Unit | Food and water safety, environmental risks such as toxic waste handling and pollution, second-hand smoke, public sanitation, vaccinations, and controlling spread of rabies. |
| Cochrane District Detoxification Centre | Non-medical detoxification services and physical and psychological stabilization to clients suffering from abuse / dependence on alcohol, drugs or medications. |
| PharmaChoice Pharmacy | Pharmacy available on weekdays. |
| Optometrist, Dr. Lucy Harbor | Once a month office hours. A notice is sent to all residents in their mailboxes to notify when the optometrist will be available. |

*Source: (Smooth Rock Falls, 2022)*

470000 480000 490000

5430000 5420000 5410000 5400000 5390000

BRADBURN TOWNSHIP
CALDER TOWNSHIP
CLUTE TOWNSHIP
GLACKMEYER TOWNSHIP
TOWN OF COCHRANE
DARGAVEL TOWNSHIP
LENNOX TOWNSHIP
OTTAWAY TOWNSHIP
FOURNIER TOWNSHIP
LAMARCHE TOWNSHIP
AUBIN TOWNSHIP
NESBITT TOWNSHIP
BECK TOWNSHIP
REAUME TOWNSHIP
HANNA TOWNSHIP
MAHAFFY TOWNSHIP
MAHAFFY TOWNSHIP GROUND MORAINE
CRAWFORD TOWNSHIP
LUCAS TOWNSHIP
DUFF TOWNSHIP
MANN TOWNSHIP
REID TOWNSHIP
CARNEGIE TOWNSHIP
PROSSER TOWNSHIP
TULLY TOWNSHIP
LITTLE TOWNSHIP
CITY OF TIMMINS
MACDIARMID TOWNSHIP
KIDD TOWNSHIP
WARK TOWNSHIP
GOWAN TOWNSHIP
EVELYN TOWNSHIP

North Driftwood River Watershed
West Buskegau River Watershed
Jocko Creek Watershed

Lennox Creek
Deception Lake
DECEPTION LAKE ROAD
Clute Lake
BRADETTE ROAD
FEAR ROAD
PELTOLA ROAD
Nault Lake
Fredrick House River
Fournier Lake
Crown Lake
Hall Lake
Reaume Creek
REAUME LOOP ROAD
Reaume Lake
CAMP 40 ROAD
North Driftwood River
Nesbitt Creek
Gerry Lake
Davis Lake
Mattagami River
Prosser Creek
Prosser Lake
West Buskegau River
DUFF SOUTH ROAD
Crawfish Lake
Pickerel Lake
Flint Creek
Little Lake
Jocko Creek
Macdiarmid Creek
Kidd Creek Mine
Kidd Creek
Feldman Lake
Gowanmarsh Lake
Nerandeau Lake

668 11 636 579 655

P:\2020\Projects\OMEMA2002_Canada Nickel_Crawford Lake\11_GIS\Detailed_Project_Description\MXD\Watersheds_3.mxd

## LEGEND

- Watershed Boundary
- Township Boundary
- Lower Tier Municipal Boundary
- Existing Resource / Recreation Trail
- Existing Local Street
- Existing Highway
- Conservation Reserve
- Existing Transmission Line
- Watercourse
- Waterbody
- Contours (10 m interval)
- Flow Direction

Site Plan Features

- Project Footprint
- 230 kV Transmission Line to Site
- New Rail Line to Site
- Highway 655 Relocation
- 500 kV Transmission Line Relocation

NOTES:
- Topographic map information extracted from Land Information Ontario (MNRF), Queen's Printer for Ontario, 2019/2020
- Preliminary site plan data provided by Canada Nickel Company, November 21, 2022.

Datum: NAD83
Projection: UTM Zone 17N

0 2.5 5 10 15 20 Kilometres

CANADA NICKEL COMPANY

WSP

**CRAWFORD NICKEL PROJECT**

**Watershed Boundaries**

PROJECT N°:OMEMA2002 | **FIGURE: D.1**

SCALE: 1:135,000 | DATE: December 2022

455000 460000 465000 470000 475000 480000 485000 490000 495000

5415000 5410000 5405000 5400000 5395000

P:\2020\Projects\OMEMA2002_Canada Nickel_Crawford Lake\11_GIS\Detailed_Project_Description\MXD\Waterbodies_and_Watercourses_3.mxd

Geary Creek
Nesbitt Creek
Mattagami River
CAMP 40 ROAD
North Driftwood River
West Buskegau River
Buskegau River
REAUME LOOP ROAD
Reaume Lake
HANNA WEST ROAD
BLUFF SOUTH ROAD
Crawfish Lake
REAUME ESKER ROAD
Pickerel Lake
655
LOWER STURGEON RAILROAD
Martin Lake
Gerry Lake
Jack Lake
Sutherland Lake
Davis Lake
Zed Lake
Jocko Creek
Kidd Creek
Prosser Creek
Prosser Lake
Little Lake
Sawmill Lake
Roy Lake
Thorburn Creek
Jocko Creek

## LEGEND

- Existing Transmission Line
- Existing Highway
- Existing Local Street
- Existing Resource / Recreation Trail
- Low-lying Area
- Contours (10 m interval)
- Watercourse
- Waterbody
- Flow Direction

**Site Plan Features**

- Project Footprint
- 230 kV Transmission Line to Site
- New Rail Line to Site
- Highway 655 Relocation
- 500 kV Transmission Line Relocation
- Potential Watercouse Crossing

0 5 10 20 Kilometres

NOTES:
- Topographic map information extracted from Land Information Ontario (MNRF), Queen's Printer for Ontario, 2019/2020
- Preliminary site plan data provided by Canada Nickel Company, November 21, 2022.

Datum: NAD83
Projection: UTM Zone 17N

N W E S

CANADA NICKEL COMPANY

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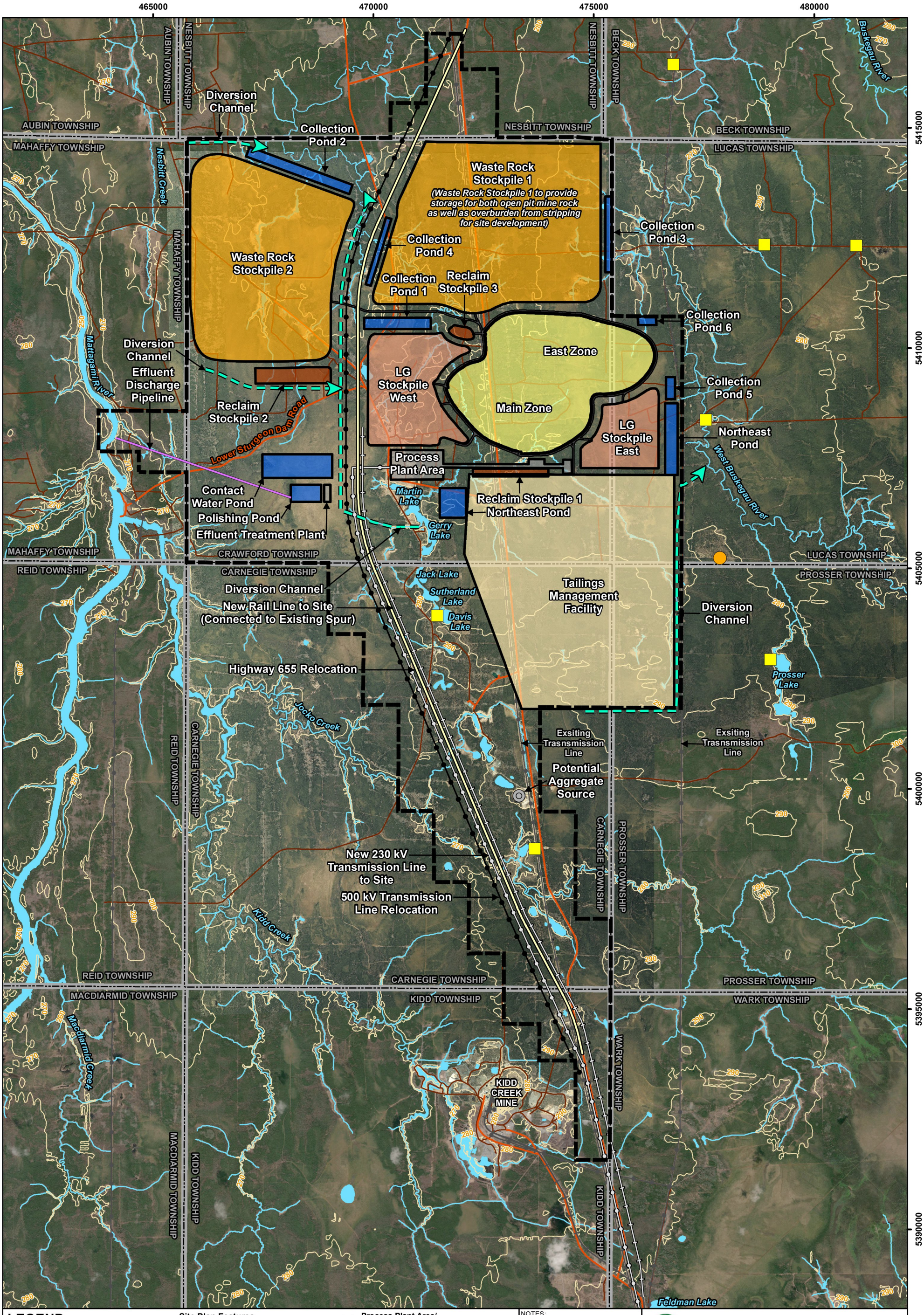
# CRAWFORD NICKEL PROJECT

## Local Watercourses and Waterbodies

PROJECT N°:OMEMA2002 | **FIGURE: D.2**

SCALE: 1:110,000 | DATE: December 2022

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## LEGEND

- Camp / Cabin
- Hunting Blind
- Township Boundary
- Existing Transmission Line
- Existing Primary Road / Highway
- Secondary Road (resource road)
- Existing Railway
- Contours (10 m interval)

**Site Plan Features**

- Preliminary Project Boundary
- Open Pit
- Access/Haul Road
- Tailings Management Facility
- Pond
- Waste Rock Stockpile (WRS)
- Reclaim Stockpile
- Low Grade Ore Stockpile (LG)
- Process Plant Area/ Ancillary Buildings
- Diversion Channel
- Effluent Discharge Pipeline
- New Rail Line to Site
- New 230 kV Transmission Line to Site
- Highway 655 Relocation
- 500 kV Transmission Line Relocation
- Potential Aggregate Source

NOTES:
- Topographic map information extracted from Land Information Ontario (MNRF), Queen's Printer for Ontario, 2019/2020
- Preliminary site plan data provided by Canada Nickel Company, November 21, 2022.
- Preliminary project boundary provided by Canada Nickel Company, November 30, 2022.
- Aerial imagery provided by CNC, scene date, summer 2021 and ESRI online mapping service, 2019.

Datum: NAD83
Projection: UTM Zone 17N

0 1 2 4 6 8 10 Kilometres

CANADA NICKEL COMPANY

WSP

# CRAWFORD NICKEL PROJECT

## Preliminary Site Plan Layout with Cabins and Hunting Blinds

PROJECT N°:OMEMA2002 | **FIGURE: D.3**

SCALE: 1:80,000 | DATE: December 2022

# E. FEDERAL, PROVINCIAL, INDIGENOUS AND MUNICIPAL INVOLVEMENT AND EFFECTS

## E.1 FEDERAL FUNDING

There is no anticipated federal funding for the Crawford Project.

## E.2 FEDERAL LANDS NEEDED

There are no federal lands required to carry out the Project, including Reserve lands.

## E.3 FEDERAL, PROVINCIAL AND MUNICIPAL ENVIRONMENTAL APPROVALS

A variety of environmental approvals will be required at both the federal and provincial levels to allow for development of the Crawford Project. A summary of these approvals as currently understood is provided in Tables E.1 and E.2.

For stakeholder and Indigenous Peoples voiced issues, concerns, suggestions, and comments relating to federal, provincial, Indigenous, and municipal involvement and effects, and for the associated actions taken by Canada Nickel, refer to Appendix A and Appendix C.[25]

### *E.3.1 FEDERAL*

In addition to the potential requirement for completion of an IA pursuant to the *Impact Assessment Act*, the Crawford Project may require federal approvals related to the *Fisheries Act*, *Canada Navigable Waters Act* and *Aeronautics Act*, pending additional regulatory guidance. Fisheries and Oceans Canada (DFO), ECCC, Transport Canada and NRCan have a broad range of responsibilities, and are the federal departments primarily involved with approvals under the above statutes.

Table E.1 provides a preliminary list of federal environmental approvals that could potentially be required for the Crawford Project. Others may arise through consultation with federal agencies.

[25] Associated engagement relating to permitting and regulation is provided in Appendix A pagesA19, A22, A30, A31, A33 and Appendix C pages C6, C14, and C15.

## E.3.2 PROVINCIAL

The Crawford Project may require completion of one or more provincial environmental assessment (EA) processes pursuant to the Ontario Environmental Assessment Act, depending on the final Project design. It is anticipated that an EA will be required for the disposition of Crown resources (Class EA for Resource Stewardship and Facility Development Project, Category B or C). There is also the potential that there could be an EA requirement related to the provision of grid power to the site. A Class EA for Minor Transmission Facilities is expected to be required based on the preliminary design of a 230 kV transmission line of less than 50 km length, the relocation of the 500 kV transmission line, transformers and diesel generators. The same body of knowledge is commonly used to meet both the federal and these provincial process needs in accordance with the existing Canada-Ontario Agreement on Environmental Assessment Cooperation.

A MTO Class EA for Provincial Transportation Facilities for the relocation of Highway 655 (Group B or C) is also expected to be required. This process is more strongly engineering-driven while having an environmental component, and may require separate documentation from the Impact Statement, pending regulatory advice.

The Ontario *Mining Act*, *Ontario Water Resources Act*, *Environmental Protection Act*, *Lakes and Rivers Improvement Act*, *Public Lands Act* and the *Ontario Heritage Act* contain associated regulations, guidelines and policies stipulating that relevant aspects of the natural and / or human use environments are to be protected against undue disturbance from industrial and other sources, except as provided through the granting of permits, approvals and authorizations.

There are three primary provincial agencies are expected to be involved with approvals for the Crawford Project:

- MINES has a responsibility to ensure the orderly development of mineral resources in Ontario, including responsibilities for the disposition of provincial Crown lands for mining, and primary responsibility for mine closure activities and approval for mining-related dams located on land; as well as, the wise use of Crown resources not otherwise disposed, such as through the *Mining Act*, including natural heritage features;
- MECP grants permits and approvals that address Project aspects related to water and air quality (including sound), waste management, and Species at Risk; and
- MNRF is responsible for authorizations related to the disposition of some provincial Crown resources (such as aggregate and timber resources), issuing approval for dam construction and other works within water, activities which may affect aquatic species (such as relocation of fish and diversion of watercourses), and authorization of works occurring on provincial Crown Land.

The MTCS may also be involved with permitting of Project components, although no permits are expected to be issued. MTCS provides confirmation that appropriate archeological studies and mitigation, if required, have been completed for the Project.

The Ontario Energy Board has responsibility for energy-related approvals, including approval to construct transmission lines, and operates as an adjudicative tribunal, carrying out its regulatory function through oral or written public hearings.

Table E.2 provides a preliminary listing of the provincial environmental approvals that are expected to be required to construct, operate and close the Crawford Project site based on the preliminary Project design.

There are no facilities planned in the Province of Québec, and no transboundary effects from the Crawford Project are anticipated with Québec or the United States of America.

### *E.3.3 MUNICIPAL*

A small portion of the Project footprint is located within Kidd Township and within the municipal boundary of the City of Timmins. Project components within this area include portions of the Highway 655 realignment and the rail spur line. It is also noted that as part of the linear infrastructure corridor, the 230 kV transmission line proposed by TIP-1 will also pass through this area.

Canada Nickel will engage with the City of Timmins for any required municipal approvals associated with the infrastructure occurring on municipal lands.

**Table E.1 Preliminary List of Potential Federal Approvals**

| DEPARTMENT | ACT, APPROVAL AND PROJECT-RELATED ACTIVITIES |
|---|---|
| ECCC | *Fisheries Act*, Schedule 2 Listing (Metal and Diamond Mining Effluent Regulations):<br>- Storage of potentially deleterious mineral waste covering minor tributaries that are frequented by fish<br>- An alternative assessment for mineral waste disposal in the prescribed format could be required along with an approved fish habitat compensation plan |
| DFO | *Fisheries Act*, Authorization for Harmful Alteration, Disruption or Destruction of Fish Habitat or Death of Fish by means other than Fishing:<br>- Direct impacts to fish habitat including overprinting of waterbodies and construction of structures in waterbodies / watercourses<br>- Indirect impacts to fish habitat, including flow reductions<br>- An approved fisheries offset plan will be required |
| NAV Canada | *Aeronautics Act,* Land Use Clearance:<br>- Construction of tall structures, use of cranes, transmission line towers. |
| Transport Canada | *Aeronautics Act,* aeronautical obstruction clearance Canadian Aviation Regulations (SOR / 96-433)<br>- Marking and lighting for structures that could interfere with aeronautical navigation.<br>*Canada Navigable Waters Act, approval under the Navigation Protection Program:*<br>- Alteration of navigable waters and crossing of navigable waters with infrastructure<br>- Diversion of unscheduled watercourse to provide for safe mining |

*Note: Although not expected, a federal Species at Risk Act permit could be required, pending the results of ongoing environmental baseline investigations.*

**Table E.2 Preliminary List of Potential Provincial Approvals**

| MINISTRY | ACT, APPROVAL AND PROJECT-RELATED ACTIVITIES |
|---|---|
| MINES | *Mining Act*, Closure Plan:<br>- Progressive reclamation and final closure of the site<br>- Construction of dams above the high-water mark of watercourses if any |
| MECP | *Ontario Water Resources Act*, Permit to Take Water:<br>- Dewatering activities in support of construction and longer term mine dewatering<br>Fresh water supply |
| | *Environmental Protection Act*, Environmental Compliance Approval for Industrial Sewage Works:<br>- Mine water, process water and contact water, and tailings management |
| | *Environmental Protection Act*, Environmental Compliance Approval for Domestic Sewage:<br>- Management and treatment of grey water, domestic sewage, etc. |
| | *Environmental Protection Act*, Environmental Compliance Approval for Air and Noise:<br>- Atmospheric emissions from Project |
| | *Environmental Protection Act*, Environmental Compliance Approval<br>- For establishment of a waste disposal site, if required |
| | Ontario *Environmental Assessment Act*, Class EA(s) for Minor Transmission Facilities:<br>- Based on the preliminary Project design, the Crawford Project is expected to require completion of this Class Environmental Assessment, based on the anticipated length of the line (greater than 2 km length) in comparison to the Electricity Projects Regulation. |
| | *Endangered Species Act*, Overall Benefit Agreement<br>- To address impacts to habitat for Species at Risk. |
| MNRF | Ontario *Environmental Assessment Act*, Class EA(s) for Resource Stewardship and Facility Development Projects:<br>- Based on the preliminary Project design, the Crawford Project is expected to require completion of this - Class Environmental Assessment, subject to regulatory confirmation. |
| | *Public Lands Act* or *Lakes and Rivers Improvement Act*, Work Permits:<br>- Construction of facilities on Crown land including below the high-water mark of waterbodies / watercourses |
| | *Public Lands Act*, Land Use Permit:<br>- Temporary land tenure for facilities off the mining lease if required |
| | *Crown Forest Sustainability Act*, Forest Resource Licence:<br>- For cutting of merchantable timber for site development |
| | *Fish and Wildlife Conservation Act*, Permit to Collect Fish for Scientific Purpose:<br>- Potential fish transfer during construction<br>- Fisheries investigations during construction, operation and closure<br>- Authority to remove beavers and / or beaver dams |
| | *Aggregate Resources Act*:<br>- If the proposed field investigations are successful in finding an appropriate resource, Canada Nickel may pursue an aggregate resource permit to provide a source of aggregate to support the mine construction and operation |

# F. POTENTIAL EFFECTS OF THE PROJECT

Potential effects which may arise from development of the Crawford Project based on current information are presented in Tables F.1 and F.2.

Table F.1 presents potential effects which may be subject to regulation under various federal environmental instruments, including the *Fisheries Act*, the *Migratory Birds Convention Act, 1994*, the *Species at Risk Act,* and the *Canadian Navigable Waters Act*.

Table F.2 presents a preliminary listing of additional potential environmental and socio-economic effects which may arise from development of the Crawford Project.

These tables are preliminary and may be revised as a result of ongoing engagement activities, as well as the comprehensive effects assessment that will be completed as part of the IA process, if required.

## F.1 CHANGES TO THE MARINE ENVIRONMENT

The Crawford Project is located inland, therefore this aspect is not applicable.

## F.2 CHANGES TO FISH AND FISH HABITAT, AQUATIC PLANTS AND MIGRATORY BIRDS

A preliminary listing of changes to the following that may result from the construction, operation and closure of the Crawford Project associated with the following legislation is provided in Table F.1:[26,27]

- Fish and fish habitat as defined in subsection 2(1) of the *Fisheries Act*, through the overprinting of local watercourses and potential downstream flow reductions; and
- Migratory birds, as defined in subsection 2(1) of the *Migratory Birds Convention Act, 1994*, through the overprinting of terrestrial habitat which may support parts of the life cycle of affected species.

The timing of construction activities will be arranged in accordance with the appropriate freshwater fisheries timing and breeding bird windows for the Project area, unless otherwise approved by the applicable regulatory agency. Preliminary Project construction scheduling is currently in development.

As the Project is located inland, there are no associated ports or other marine facilities, and there will not be any risk associated with the introduction of aquatic invasive species arising from ballast water discharge, ship wash, or other similar activities.

[26] Associated engagement relating to water management and aquatic species is provided in Appendix A, pages A11 – A16, A19 – A21, A24, and A25, and Appendix C, pages C3 – C5, C12, C16, and C17.
[27] Associated engagement relating to the terrestrial environment is provided in Appendix A, pagesA19 and A22 and Appendix C, pages C2, C4, C10, C12, and C17.

There are no effects expected to federal fish Species at Risk as defined in subsection 2(1) of the *Species at Risk Act* (marine plants). None are known or expected to be present within the immediately adjacent watercourses based on the environmental baseline studies completed to date and published information.

Marine environments are not present. As such, there are no effects to other marine organisms such as sea turtles, marine benthic organisms or shellfish, or coral.

Water takings during construction and operations will comply with applicable guidance from DFO to avoid entrainment and impingement of fish.

Water will not be used for cooling purposes, and as such there will be no effects to the aquatic environment arising from the discharge of heated effluent.

## F.3 POTENTIAL CHANGES TO THE ENVIRONMENT ON FEDERAL LANDS OR LANDS OUTSIDE ONTARIO

There are no federal lands near the Crawford Project site, and no development is planned to occur on federal lands. The Crawford Project is not expected to result in changes to federal lands, including Reserve lands.

The Crawford Project is not of a scale or location that could result in changes to the environment outside of Ontario or Canada.

## F.4 POTENTIAL EFFECTS TO INDIGENOUS PEOPLES – HERITAGE, TRADITIONAL LANDS AND OTHER

Section B.2 provides a summary of comments from Indigenous Peoples that arose during engagement activities to date. Canada Nickel acknowledges that the Crawford Project may result in effects to Indigenous Peoples and their culture, Treaty rights, and Traditional and current land uses. This could include potential changes to land access, loss of Traditional lands and ability to hunt, fish, gather and / or trap, as well as the ability to practice their culture. These potential effects will be investigated through the environmental approvals process for the Project, including during the IA process, if required, and ongoing engagement activities.[28] Traditional Knowledge and Land Use studies will provide insights into Indigenous land use activities, such as approximate locations, frequency, and duration, to help identify sensitive receptor locations for the evaluation of effects from biophysical pathways of exposure and the human health risk assessment.

There is the potential that structures, sites or objects that are of historical, archaeological, paleontological or architectural significance to Indigenous Peoples could be affected by the Crawford Project, if present within the development area. None are currently known to be present but may be identified through ongoing engagement with potentially impacted Indigenous Peoples and the Project engineering and design process.

Initial preliminary desktop studies have identified areas of higher archeological potential, mostly on the banks of watercourses. A Stage 2 archeological field program is planned in 2023 to confirm the presence

[28] Associated engagement relating to Indigenous Engagement is provided in Appendix A, page A33 and Appendix C, pages C7-C9 and C11, and feedback arising from Indigenous Engagement is provided in Appendix C.

or absence of archeological features, and will be informed by Traditional Knowledge / Traditional Land Use studies which are currently ongoing.

In addition, the area comprising the project footprint shown on Figure C.1 can be considered as an estimation of lands that would no longer be accessible for traditional land use. To address this, the site layout has been developed with an effort to reduce the footprint as practical.

Background research, information gathering, and checklist for the Project identified one potential cultural heritage landscape and two properties in the study area with buildings or structures more than 40 years old:

- The Mattagami River, used as a transportation route during the post-contact period and likely also utilized throughout the pre-contact period by Indigenous Peoples;
- Lower Sturgeon Generating Station, built 1923; and
- Kidd Creek Mine, began operations in 1964.

However, none of these are predicted to be directly or indirectly impacted by the Project.

## F.5 POTENTIAL EFFECTS TO INDIGENOUS PEOPLES – SOCIAL, ECONOMIC AND HEALTH CONDITIONS

Canada Nickel is engaging with Indigenous Peoples to determine the potential impacts to health, social and economic conditions which may arise as a result of development of the Crawford Project. Section B.2 summarizes comments raised by Indigenous Peoples during engagement activities undertaken to date (with a more detailed list in Appendix C).[29]

Canada Nickel believes that the Crawford Project can provide an overall positive benefit to Indigenous Peoples, particularly regarding economic opportunities and the associated outcomes arising from improvements in economic circumstances. Key initiatives to support this effect include opportunities for employment, commerce, and contribution programs. Engagement with Indigenous Peoples throughout the assessment will help Canada Nickel understand the needs of diverse population groups to potentially help enhance employment opportunities through strategic, targeted programs.

Canada Nickel acknowledges the potential for impacts to Indigenous Peoples, including diverse population groups (such as Indigenous women, youth, elders) and localized effects to individuals or groups of individuals who may exercise Traditional land use rights in the area, connected with development of the Crawford Project. Potential impacts will be assessed in the Impact Statement, and may include:

- The effect of developments on historic and current lands and resource uses, and ways of life / culture;
- Effects of Project emissions and effluents to human health through biophysical pathways including quality of air, recreational and drinking water, noise and country foods;
- Changes to community well-being;
- Contribution to cumulative effects already being experienced in the region; and

[29] Associated engagement relating to Indigenous Engagement is provided in Appendix A, page A33 and Appendix C, pages C7-C9 and C11, and feedback arising from Indigenous Engagement is provided in Appendix C.

- Impacts to physical and social infrastructure in the region, including road safety, availability of social services, increased pressure on recreational facilities, etc.

These potential effects will be determined through ongoing engagement activities and the environmental approvals process for the mine. Canada Nickel is engaging with Indigenous Peoples to develop Traditional Knowledge and Land Use studies and country foods studies to document the socio-economic baseline and to understand the culture and history of Indigenous Peoples within the local and regional area of the Crawford Project. Information gathered through the Traditional Knowledge and Land Use studies will be used to inform baseline conditions, identify impacts through effects pathways, and define mitigation measures as appropriate. Traditional Knowledge will be validated with Indigenous Peoples to ensure information is reflected and used appropriately.

## F.6 ESTIMATE OF GREENHOUSE GAS EMISSIONS

The Crawford Project will include sources of direct (Scope 1 and 2) and indirect (Scope 3) greenhouse gas emissions. Combustion of fossil fuels will produce carbon dioxide ($CO_2$), nitrous oxide ($N_2O$), and methane ($CH_4$). Primary sources of emissions are as follows:

- Construction phase: diesel combustion in mobile equipment, blasting, and indirect emissions from purchased electricity;
- Operation phase: diesel combustion in mobile equipment, blasting in the open pit, processing of ore, and indirect emissions from purchased grid power; and
- Closure phase: diesel combustion in mobile equipment.

In accordance with the Strategic Assessment of Climate Change guidelines (ECCC 2020), and the Draft Technical Guide Related to the Strategic Assessment of Climate Change (ECCC 2021) net greenhouse gas emissions associated with the Crawford Project were estimated for each of the construction, operation, and closure phases. Sources, sinks and reservoirs relevant to the project were considered in order to estimate net greenhouse gas emissions for each year, as well as the total greenhouse gas emissions for the life of the Project.

The following sources and sinks were considered:

- Direct (Scope 1) emissions included diesel combustion in stationary power and heat equipment, for mobile equipment used onsite, and released from explosive detonation;
- Acquired energy (Scope 2) emissions are the purchased electricity that will be supplied for the Project; and
- Land use changes at the Project.

Emissions of each greenhouse gas were converted to units of carbon dioxide equivalent ($CO_2Eq$) using the Intergovernmental Panel on Climate Change Fourth Assessment Report AR4 (IPCC 2007), and consistent with Schedule 3 in the *Greenhouse Gas Pollution Pricing Act*. It is important to note that no carbon capture and storage was considered in the current estimation.

Greenhouse gas emissions were calculated for all phases of the Project life. The maximum net greenhouse gas emissions per year are estimated to be 470 kilotonne-$CO_2Eq$ / year, which includes 440 kilotonne-$CO_2Eq$ / year of direct emissions, and 30 kilotonne-$CO_2Eq$ / year acquired electricity. The cumulative net greenhouse gas emissions for the total Project life are estimated to be 9,800 kilotonne-$CO_2Eq$. The potential loss of carbon uptake due to changes in land use were estimated at 110 kilotonne-$CO_2Eq$ / year.

Should an Impact Statement be required, a detailed assessment of greenhouse gas emissions and mitigation measures will be undertaken in support of that document.

The Crawford Project has a number of design elements aimed at reducing greenhouse gas emissions, including:

- the use of electricity from the provincial grid will provide the project with low carbon intensity energy;
- grid power will be used to meet project stationary equipment power demands, thereby reducing direct greenhouse gas emissions at site;
- mine planning will optimize distances travelled by haul trucks;
- the use of energy-efficiency equipment such as electric trolley assist and electric rope shovels; and
- an equipment maintenance program will also reduce fuel consumption and the associated greenhouse gas emissions.

Canada Nickel also understands that carbon offset and carbon capture projects can be a practical and complementary option to support the organization's efforts to reduce greenhouse gas emissions, and ultimately achieve a net zero carbon target for 2050. One measure includes the mineral carbonation of tailings, discussed in the following section. Based on the research completed so far, this measure itself has the potential to offset carbon emissions from the project. However, the estimation of net emissions presented above does not consider any carbon capture and storage from the mineral carbonation.[30]

## F.6.1 MINERAL CARBONATION OF THE CRAWFORD TAILINGS

The tailings and waste rock produced by the Crawford Project spontaneously and permanently capture $CO_2$ when exposed to the atmosphere. Canada Nickel is developing processes anticipated to optimize the carbon capture potential of the Project to offset Project emissions. Though some degree of carbon capture will occur regardless of additional actions taken by Canada Nickel, research and development around methods for enhanced carbon capture at the Crawford Project is ongoing at this stage, leaving results for total potential sequestration quantities unconfirmed. Therefore, no carbon capture is included in the estimation of net emissions. However, Canada Nickel is actively reassessing the potential to include carbon capture in the net emissions calculation. Globally, Canada Nickel is working towards developing the Crawford Project as a potentially carbon negative mining operation.

The key minerals that are responsible for this spontaneous reaction at the Crawford Project are serpentine, olivine, and brucite, which make up more than 80% of the resource material of the Project. Brucite is the most reactive mineral, with an average content of 1.9% in Crawford based on 999 distinct QEMSCAN mineralogy analyses across the Crawford Main and East Zones as reported in the Preliminary Economic Assessment (Ausenco, 2021).

Results from the experimental work that was completed at Queen's University (Ontario) to measure the effect of time and tailings deposition depth on the progress of mineral carbonation reactions using tailings produced from the Canada Nickel metallurgical test program (Figure F.1).[31] Additional research is currently in progress at Kingston Process Metallurgy to further demonstrate the potential and optimize the carbon capture and storage that can be achieved with the tailings.

[30] Associated engagement relating to greenhouse gas emissions is provided in Appendix A, pages A17 and A18.
[31] Associated engagement relating to mineral carbonation is provided in Appendix A, page A17.

# F.7 WASTES AND EMISSIONS

A brief summary of the types of wastes and emissions that may be generated from the Crawford Project, in the air, in or on water, and in or on land, during the construction, operation, closure phase of the Project is provided in Table F.3.

## *F.7.1 ATMOSPHERIC EMISSIONS*

### AIR EMISSIONS

Air emissions for the Crawford Project will largely be derived from fugitive sources, with additional smaller quantities derived from point sources.

Fugitive dust can be expected to be released from:

- Drilling and blasting operations;
- Loading and offloading of overburden, waste rock and ore;
- Vehicle and heavy equipment travel; and
- Wind entrainment from the TMF / stockpiles and other exposed earth materials.

Due to the natural presence of chrysotile within the deposit, quantification of chrysotile will be completed and, if required, programs developed for managing chrysotile in airborne dust.

Suspended particulate from conveyors and crushing equipment is expected to be the primary point source emission for the Crawford Project. Measures will be taken to minimize dust creation at the plant site including during crushing, and to utilize dust collection devices where practical. Additional dust control will be installed if needed.

Diesel fuel combustion, such as in vehicle and heavy equipment during all Project phases will release particulates, sulphur dioxide, and nitrogen oxides from the combustion of fuel. Nitrogen gases, carbon dioxide and other trace gases will also be released from explosives usage.

Dust control for vehicle and heavy equipment travel will be implemented to minimize airborne dust generation from roads on site. [32]

### GREENHOUSE GAS EMISSIONS

Greenhouse gas emissions will be derived principally from diesel fuel combustion in heavy equipment operation, with lesser amount arising from other fuel sources such as gasoline. Grid power will be used to meet Project stationary equipment power demands, thereby reducing direct greenhouse gas emissions at the site. Please see the discussion in Section F.6. [33]

### NOISE EMISSIONS

Noise source modeling will be carried out to ensure that noise and noise related effects and mitigation are fully considered during engineering design.

The principal anthropogenic noise sources during the operation of the Crawford Project are expected to be from the operation of heavy equipment for construction and handling of mine materials (mine trucks,

[32] Associated engagement relating to air quality is provided in Appendix A, pages A11 and A18.
[33] Associated engagement relating to greenhouse gas emissions is provided in Appendix A, A17 and A18.

shovels, loaders, etc.). Plant site operations, including crushing and grinding operations, will be enclosed and emissions are expected to be minor in comparison to open air noise sources. Blasting from open pit operations will also contribute to noise emissions. Blasts are expected to occur at a maximum rate of once per day, with a very limited duration of one to two minutes.

During the mine construction and closure phases, there will be heavy equipment operation that will contribute to noise emissions, albeit at a lower expected level than during the operations phase of the Crawford Project.[34]

## *F.7.2 LIQUID DISCHARGES*

### MINE WATER AND SURFACE CONTACT WATER

Contact water on the site, coming from direct precipitation and groundwater inflows will be collected using ditches and sumps. It will then be directed to a system of collection and sedimentation ponds for management. Modelling will be completed to assess the quantity of water to be managed, which will be used in the design of the water management facilities on site.

More specifically, mine water, including both direct precipitation and groundwater inflows into the pit, will potentially contain:

- Suspended solids from general mining and earthmoving activities;
- Ammonia residuals from ammonia-based explosives; and
- Residual hydrocarbons from heavy equipment operation.

Mine water may also receive minor loadings of dissolved metals from runoff contact with the pit walls (leaching).

The majority of site runoff (contact water other than mine water) is not anticipated to pose a water quality concern. Runoff from the ore, waste rock, TMF, and overburden stockpiles may contain suspended solids as well as some level of dissolved metals (ore, tailings, and waste rock only). Preliminary geochemistry results suggest very low dissolved metal concentrations; water quality monitoring will include a wide range of parameters including arsenic, copper, lead, nickel, zinc, selenium, mercury, chromium, cobalt, and iron.

Contact water will be used as the primary freshwater supply to the process plant. When required, excess water will be discharged to the environment after treatment. A water management plan is currently being developed to ensure that excess water meets all regulatory requirements and can be discharged to the environment. A water treatment plant will be established, if required.[35]

### PROCESS PLANT AND TAILINGS WATER

Excess process plant water, including water resulting from tailings thickening, is expected to contain metals and residual processing reagent products. Effluent may be treated within the plant and recycled in the process or may be directed to a sedimentation pond. All effluent discharged from the site will be managed and treated such that it will meet regulatory requirements.

[34] Associated engagement relating to noise emissions is provided in Appendix A, pages A19, A45, and A53.
[35] Associated engagement relating to water management and aquatic species is provided in Appendix A, pages A11 – A16, A19 – A21, A24, and A25, and Appendix C, pages C3 – C5, C12, C16, and C17.

### DOMESTIC SEWAGE

Domestic sewage waste will be limited at the Crawford Project as there will not be a permanent accommodations complex at the site. Waste will be generated from washroom facilities in the office and administrative complex as well as the mine dry. During the construction and operations phases domestic sewage will be treated by an appropriately sized method, such as a sewage treatment plant. Effluent meeting regulatory requirements will be either directed to a pond on site or discharged to the environment.

## *F.7.3 SOLID WASTES*

### DOMESTIC WASTE

Domestic wastes produced at the Project site during all Project phases are anticipated to include:

- Food waste;
- Clothing;
- Scrap metal;
- Glass;
- Plastic; and
- Fibrous material (wood and paper).

These materials are expected to be transported off site for management according to regulations. Canada Nickel will evaluate the feasibility of segregating waste streams (domestic waste, recyclable materials) and available facilities in order to reduce the amount of material directed to a landfill.

### SPECIAL MANAGEMENT WASTE

Special management wastes at the site are expected to include:

- Vehicle maintenance wastes (waste petroleum products, waste glycol, and packaging);
- Petroleum contaminated soil (in case of a spill);
- Waste explosives; and
- Biomedical waste.

Special management wastes produced during the construction, operations, and closure phases of the Crawford Project will be stored indoors and / or in sealed containers in an area with secondary containment until they can be transported to an appropriately licensed facility off site.

### DEMOLITION WASTE

Salvageable machinery, equipment and other materials will be dismantled and taken off site for sale or re-use if economically feasible. A dedicated non-hazardous landfill may be developed on site during the closure phase for storage of demolition wastes, such as concrete, steel, wallboard and similar materials.

# F.8 LAND AND RESOURCE USE

### RESIDENTIAL LAND USE

There are no anticipated effects to residential land use as there are no residential properties near the area to be developed by the Crawford Project.

## AGRICULTURE

There are no agricultural properties situated near the area to be developed by the Crawford Project. As such, there are no anticipated effects to agricultural land use, including effects to livestock health and productivity.

## VIEWSCAPES

Highway 655 between Timmins and Cochrane will be re-routed around Project components, as it currently runs through the area which will become an open pit. Waste rock stockpiles, which will rise up to 100 m above the generally low-relief terrain in the area, will be visible from the re-routed highway. As there are no permanent residents in the area, this change would be experienced for a brief duration as drivers transit through the immediate area of the Crawford Project and is not anticipated to have an effect on the well-being of residents of the surrounding communities.[36]

## TOURISM

A snowmobile trail has been identified which crosses through the footprint of the Crawford Project. Through communications to date with local snowmobile clubs, it is determined that some trails may require relocation for the construction and operation of the Crawford Project. These trails are planned for relocation off-season to reduce interruptions to participant activities.

Based on information available through online tourism and municipal platforms as well as the 2022-2023 Forest Management Plan, there are no designated canoe routes, hiking or biking trails, ATV trails, outfitters, outdoor experiences, tours, provincial parks, or other resource-based tourism activities, aside from the snowmobile trails, situated in the area to be developed by the Crawford Project. There is a Bear Management Area located in proximity to the project, though through preliminary discussions with the owner it is believed there will be no impact to any associated activities. As such, there are no anticipated direct effects to the aforementioned tourism activities.[37] Refer to section D.8.3.1 for further details.

## TRAFFIC

A potential increase in traffic volume is expected on Highway 655 due to the commuting of the workforce needed at site. There is a potential effect on health and safety, travel time, noise, and on the durability of the road pavement.[38]

# F.9 COMMUNITY WELL-BEING

## EFFECTS TO LANGUAGE

The workforce for the Crawford Project is expected to largely be drawn from the surrounding communities. As such, there is not expected to be an anticipated effect on language in the region arising from the development of the Crawford Project.

## EMPLOYMENT OPPORTUNITIES

Canada Nickel will place an emphasis on hiring Indigenous Peoples and from local communities as practical to meet anticipated workforce demands. Canada Nickel is working with local training, education, immigration, and recruitment institutes to begin early planning to meet project workforce requirements.

[36] Associated engagement relating to viewscapes is provided in Appendix A, page A22.
[37] Associated engagement relating to tourism is provided in Appendix A, pages A23, A28, A43, A44, and A51-A53.
[38] Associated engagement relating to traffic is provided in Appendix A, pages A26 – A28.

Relating to these institutions, particularly those for education and training, this collaboration includes review of available programs, potential development of new programs, and support from Canada Nickel in developing or enhancing the relevant programs where necessary, for example, supplied through letters of support and provision of subject matter expertise.

Canada Nickel is committed to Diversity and Inclusion in its hiring and day-to-day operations, and has discussed with education and training partners, as well as knowledgeable local organizations such as Keepers of the Circle, the Stardust Alliance, the Far Northeast Training Board, and the Rural Northern Immigration Pilot, the importance of emphasizing opportunities for those groups underrepresented in the labour market, including but not limited to youth and Indigenous women. Canada Nickel has and will continue to participate in events centred around raising awareness in underrepresented groups of opportunities in mining and encouraging engagement in local training programs already tailored to managing diverse, unique needs and access requirements.

Canada Nickel's own programs for training and hiring, as well as more formalized partnerships with local institutions, will be further developed at a date closer to Project initiation.[39]

## TAXATION AND INFRASTRUCTURE

With an increased population resulting from new mine operations, there is a potential for strain on existing infrastructure (Pembina Institute, 2008), however, the Province accrues tax revenue from mining, which can be used to offset some of this potential added strain. In 2020, mining contributed $7.5 billion dollars to Ontario's gross domestic product of which approximately 73% stayed in Ontario according to the Ontario Mining Association (Ontario Mining Association, 2021). Ontario taxes non-remote mines at 10% of annual operator's profit that exceeds $500,000 (Ministry of Finance, 2022). In addition, 1.5% of royalties were collected by the government of Ontario from mining in the previous decade (Celli, 2015). The Province is also able to recover tertiary tax dollars through personal income tax generated from a mine's active labour force. Tertiary tax dollars also include those generated from corporate taxation and Ontario's harmonized sales tax at 13%, a portion of which currently offsets infrastructure needs that may experience additional burden such as healthcare and transportation. The Province proposes expenditures to grow from $174.1 billion in 2021–22 to $188.1 billion in 2024–25, primarily to support services including health care, education and other critical investments (Ministry of Finance, 2022b).

## BARRIERS TO EMPLOYMENT

The availability of affordable childcare is a barrier to employment. The average cost of childcare in Ontario as of 2018 was $11,500 per child, per annum. Accordingly, the average income earner in local municipalities and townships would spend between 17 to 19% of their income on childcare (Statistics Canada, 2017a ). Furthermore, there are 23 childcare services in Timmins but 2 each in Cochrane and Iroquois Falls, and 1 in Smooth Rock Falls (PHU, n.d.). A combination of affordability issues and accessibility have a disproportionately negative effects on women, whose work hours decrease more than men with the presence of a child in the household (Moyser, 2017).

## SUBSTANCE ABUSE

Residents within the catchment area of the PHU (which includes the project study area) experience significantly higher rates of illicit drug use compared to Ontario (50.6% PHU versus 39.8% Ontario average). In addition, an influx of male transient workers likely for employment in mining is correlated with increased rates of drug and alcohol consumption (Brown, 2003; Cullen, n.d.; Goldenberg et al., 2010).

[39] Associated engagement relating to workforce requirements and employment is provided in Appendix A, pages A1, A3 – A9, A24, A25, A27, A30, A33, A44, A46-A51, and A53 and Appendix C pages C1, C2, C9, C12, and C15.

Given that there are nine health care facilities in the study area, with one specializing in substance abuse detoxification within Smooth Rock Falls, there is an increased risk to overwhelming current health care infrastructure (Porcupine Health Unit, 2022b). Potential mitigation measures could include workplace policies to discourage alcohol and drug abuse and support rehabilitation through drug testing and employee assistance programs designed to support treatment of workers with substance abuse problems (Lee, 2020).

## F.10 OVERVIEW OF POTENTIAL ENVIRONMENTAL EFFECTS

Tables F.1 and F.2 provides an overview of changes to the environment and preliminary assessment of the potential effects of the Crawford Project.

Cumulative effects will be assessed in the Impact Statement in accordance with IAAC guidance, if required. The Impact Assessment Act requires that cumulative effects be considered that are likely to result from the designated Project in combination with other physical activities that have been or will be carried out. For the Crawford Project, it is anticipated this would include cumulative effects associated with the ongoing exploration program. Cumulative effects may also arise from other industrial developments in the area, including the Kidd Mine, which discharges effluent to Kidd Creek and ultimately the Mattagami River, as well as the North Timmins Gold Project (Gowest Gold) which discharges effluent to the West Buskegau River.[40]

[40] Associated engagement relating to potential environmental effects of the Project is provided in Appendix A, pages A11 – A23, A44, and A45 and Appendix C, pages C2 – C6, C10 – C14, C16, and C17.

**Table F.1 Preliminary List of Changes to the Environment under Federal Jurisdiction**

| ENVIRONMENTAL COMPONENT | PROJECT PHASE | POTENTIAL SOURCE OF EFFECT | POTENTIAL CHANGE TO THE ENVIRONMENT | PRELIMINARY AREA OF INFLUENCE |
|---|---|---|---|---|
| Fish and fish habitat, as defined in subsection 2(1) of the *Fisheries Act* | Construction | Diversion of non-contact waterbodies / watercourses, (including lakes west of the tailings management facility, in the North Driftwood watershed<br>Installation of temporary and permanent infrastructure<br>Uncontrolled spill | Alteration, disruption and destruction of fish and benthic fauna habitat<br>Change to the natural surface water flow pattern<br>Surface water quality alteration | Project footprint<br>Downstream flow reductions (North Driftwood River) |
| | Operations | Water management and treatment<br>Uncontrolled spill | Surface water quality alteration | Project Footprint<br>Downstream flow reductions (North Driftwood River)<br>Short mixing zone downstream of effluent discharge point |
| | Closure | Site reclamation and closure<br>Uncontrolled spill | Surface water quality alteration (improvement) | Project Footprint<br>Downstream flow reductions (North Driftwood River)<br>Short mixing zone downstream of effluent discharge point |
| Migratory birds, as defined in subsection 2(1) of the *Migratory Birds Convention Act, 1994* | Construction | Clearing of habitat to allow for site construction<br>Installation of permanent facilities<br>Additional vehicle traffic | Habitat loss<br>Disturbance of species<br>Increased risk of collision or mortality | Project footprint<br>Potential limited distance from project footprint due to localized noise effects<br>Project roads |
| | Operations | Operation of permanent facilities<br>Additional vehicle traffic | Disturbance of species<br>Increased risk of collision or mortality | Project footprint<br>Potential limited distance from project footprint due to localized noise effects<br>Project roads |
| | Closure | Site reclamation and closure | Habitat redevelopment | Project footprint |
| Navigable Waters, as defined in subsection 2 of the *Canadian Navigable Waters Act* | Construction | Diversion of potentially navigable waterbodies / watercourses (North Driftwood River) | Project components overprinting watercourse which may have historic or future use as a navigable waterway. | Project footprint<br>Downstream flow reductions (North Driftwood River) |
| | Operations | Diversion of potentially navigable waterbodies / watercourses (North Driftwood River) | Project components overprinting watercourse which may have historic or future use as a navigable waterway. | Project footprint<br>Downstream flow reductions (North Driftwood River) |
| | Closure | None | None | None |

**Table F.2 Preliminary Summary of Potential Environmental Effects**

| ENVIRONMENTAL COMPONENT | POTENTIAL EFFECT (PRELIMINARY) | PROPOSED MITIGATION (PRELIMINARY) | PROJECT PHASE | | | PRELIMINARY AREA OF INFLUENCE |
|---|---|---|---|---|---|---|
| | | | CONSTRUCTION | OPERATION | CLOSURE | |
| Air Quality, Greenhouse Gases, Noise and Light | Air emissions (point source at the plant or diffuse from roads and blasting) have the potential to generate dust or products of petroleum hydrocarbon combustion that could potentially affect human health, and plant and animal health.<br>Due to the presence of chrysotile within the formation, there is a potential that airborne dust from the mining operations and the TMF might contain chrysotile.<br>Noise emissions from the Project have the potential to disturb other area users although the site is remote from residences<br>Greenhouse gas emissions from Project have the potential to contribute to global carbon dioxide ($CO_2$) emissions and the associated phenomenon of climate change<br>Operation of an industrial facility will require provision of continuous localized and appropriately aimed lighting to ensure effective operations and the safety of workers and others which will result in an increase in the ambient light at the Project site and a localized glow off-site<br>Impacts on how and where Indigenous Peoples' Rights are exercised | Provincial regulatory requirements will be met for on site emissions and air quality at the property boundary<br>An assessment will be made on the quantity of chrysotile in the orebody. Asbestos safety will be a consideration in site design as needed. Canada Nickel has decided not to use chrysotile bearing material for road surface building.<br>Provincial regulatory criteria will be met for on site emissions and at surrounding noise sensitive locations (i.e., points of reception)<br>Development and implementation of Project specific Air Quality and Noise Best Management Practice (BMP) Plans<br>Water sprays will be used to control dust emissions from haul roads and construction areas, and best management practices will be followed for dust control during operations<br>Measures to be used to reduce sound emission effects on other area land users and wildlife, and are expected to include maintaining tree screens around work areas as practical<br>Other sound reduction measures to be employed are expected to include maintaining equipment in good working order and utilizing efficient mufflers to reduce sound emissions at source<br>Development of a compact overall site as practical will reduces haulage / transportation distances for greater fuel economy and reduce greenhouse gas emissions<br>Usage of electric trolley-assist for mining trucks and electric shovels to reduce fuel consumption and greenhouse gas emissions.<br>Assessing the different options to optimize carbon capture from waste rock and tailings, and consider the implementation of the best alternatives.<br>Maintaining equipment and vehicles in good working order also improves fuel combustion efficiency<br>Care will be taken to ensure lights are appropriately aimed to minimize off-site disturbance | X | X | X | Project footprint and area up to approximately 10 km from centroid of open pit |

| ENVIRONMENTAL COMPONENT | POTENTIAL EFFECT (PRELIMINARY) | PROPOSED MITIGATION (PRELIMINARY) | PROJECT PHASE | | | PRELIMINARY AREA OF INFLUENCE |
|---|---|---|---|---|---|---|
| | | | CONSTRUCTION | OPERATION | CLOSURE | |
| Local waterbodies / watercourses | Project development will overprint watercourses, including small creeks and beaver ponds in the North Driftwood and West Buskegau watersheds, and have the potential to reduce downstream flow<br>Vibration (such as from explosives use) may disturb aquatic species<br>An intake / discharge location is proposed which has the potential for habitat disturbance and may affect water quality and flows<br>Water crossings will be needed which has the potential for aquatic habitat disturbance<br>Uncontrolled spills (diesel, hydraulic oil, untreated water)<br>Impacts on how and where Indigenous Peoples' Rights are exercised | Efforts will be made to develop to limit the overprinting of watercourses, where feasible<br>The tailings management strategy will aim to maximize tailings impounded in the pits, to reduce the footprint of the tailings impoundment at surface<br>Effluent discharge to the environment will meet all federal and provincial regulatory requirements<br>Effluent discharge location will be analyzed and consulted upon to ensure the acceptability and to limit overall impacts<br>Water from waterbodies located upstream from the Project will be diverted to a downstream waterbody within the same catchment, if feasible<br>In-water structures will be designed to avoid effects to fish, as reasonable<br>Design will be realized to contain spills in storage and high-risk areas<br>Intervention plans will be developed in case of uncontrolled spills<br>Compensatory plan for aquatic habitat, which will be consulted upon and approved through a rigorous federal process, will be provided to mitigate effects on aquatic resources including habitat loss | X | X | X | Project Footprint<br>Downstream flow reductions (North Driftwood River) |
| Groundwater System | Open pit dewatering will affect the local groundwater levels and may affect surface water flows<br>Groundwater quality could be affected by the seepage from the impoundments at surface and in the pit<br>Risk that groundwater could be affected by spills and fuel storage | Modelling investigations will fully assess potential effects, to support mitigation if needed<br>Groundwater levels will return after the open pit re-fills with water at closure<br>Geochemistry program on waste rock and tailings will help assess the potential for metal leaching over time<br>Design of fuel storage areas will be realized to contain spills and prevent leaks<br>Intervention plans will be developed in case of uncontrolled spills | X | X | X | Project footprint<br>Area adjacent to project footprint affected by drawdown cone from pit dewatering (est. 1-2 km) |

| ENVIRONMENTAL COMPONENT | POTENTIAL EFFECT (PRELIMINARY) | PROPOSED MITIGATION (PRELIMINARY) | PROJECT PHASE | | | PRELIMINARY AREA OF INFLUENCE |
|---|---|---|---|---|---|---|
| | | | CONSTRUCTION | OPERATION | CLOSURE | |
| Natural Vegetation and Wildlife | Mine site and related infrastructure development if any, will displace existing terrestrial habitat<br>Wildlife may be affected by site activities and disturbances, including noise<br>Mine site development may displace existing terrestrial habitat for species of conservation concern, if present<br>Impacts on how and where Indigenous Peoples' Rights are exercised | Efforts will be made to develop a compact site as practical for the new mine to limit disturbance to new areas as reasonable<br>Tree clearing will be avoided during the bird nesting season<br>The site will be reclaimed after mining ends to support future productive habitat<br>If Species at Risk or associated habitat are present, an Overall Benefits Agreement and associated compensation measures will be negotiated with the Province, if appropriate | X | X | | Project footprint<br>Potential limited distance from project footprint due to localized noise effects<br>Project roads |
| Hunting, Fishing and Tourism | Limited effect as the mine is to be located on an active exploration program site, where access is controlled / restricted for safety of workers.<br>There will be a more extensive disruption to the local experience in the immediate vicinity of the site from the larger scale mining operation<br>There is no anticipated effect to known tourism activities, aside from potential relocation of one snowmobile trail | Canada Nickel intends to continue work with the Project stakeholders to mitigate potential localized effects during the operation<br>Hunting will continue to be restricted on the Project site in order to ensure the safety of workers and others<br>Impacted snowmobile trails will be relocated as necessary and in collaboration with the appropriate snowmobile club | X | X | X | Project footprint<br>Potential limited distance from project footprint due to localized noise effects |
| Commercial Operations | Could limit access to people and resources for other operations and industries; could potentially draw local people back to the area for jobs | No mitigation measures are proposed other than to optimize economic benefits to the local and regional economies, including to local Indigenous Peoples as reasonable | X | X | X | N / A |

| ENVIRONMENTAL COMPONENT | POTENTIAL EFFECT (PRELIMINARY) | PROPOSED MITIGATION (PRELIMINARY) | PROJECT PHASE | | | PRELIMINARY AREA OF INFLUENCE |
|---|---|---|---|---|---|---|
| | | | CONSTRUCTION | OPERATION | CLOSURE | |
| Traditional use of lands and resources | Effects on spiritual relationships and connection with the environment<br>Effects on locations of sentimental, Traditional and heritage value<br>Effects on Traditional use of lands and resources as sites of value and interest to Indigenous Peoples<br>Effects on cultural practices<br>Changes to land and resources resulting in effect on exercising rights | Ongoing engagement with Indigenous Peoples to mitigate potential effects<br>Archeological Stage 2 field campaign to identify potential archeological features of interest | X | X | X | Project footprint |

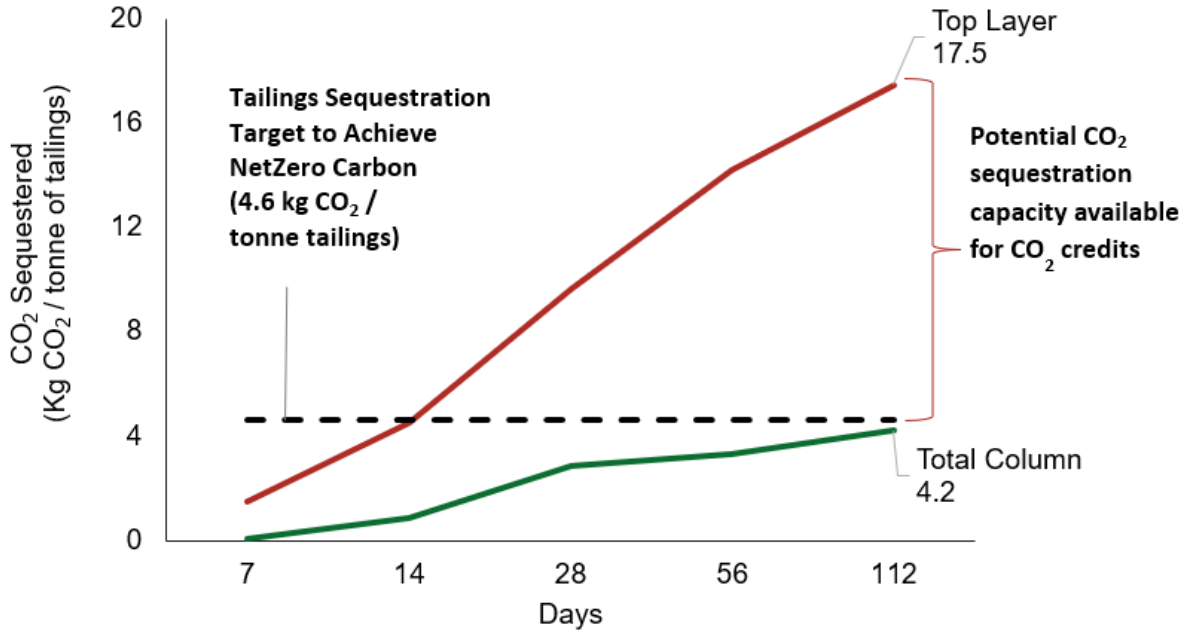
| ENVIRONMENTAL COMPONENT | POTENTIAL EFFECT (PRELIMINARY) | PROPOSED MITIGATION (PRELIMINARY) | PROJECT PHASE | | | PRELIMINARY AREA OF INFLUENCE |
|---|---|---|---|---|---|---|
| | | | CONSTRUCTION | OPERATION | CLOSURE | |
| Indigenous / Public Health and Safety | All regulatory requirements will be met, although there will be release of air contaminants associated with processing operations, fuel combustion and fugitive dust; and release of contaminants in process plant and mine water effluents, and from stockpile drainage<br>Effects on Indigenous women's safety<br>Effects on Indigenous women, youth, elders, etc.<br>Changes to community safety, well-being, and health<br>Changes to Indigenous Peoples' safety, well-being, and health<br>Increased risk of vehicle collision due to increased traffic<br>Increased concerns regarding risk to human health (air emissions, water quality, tailings dam failure, diesel and chemicals storage and transportation, stress) | Canada Nickel will work with communities and local Indigenous Peoples with an aim of helping ensure the Project will provide an overall positive benefit<br>Traffic management and awareness will reduce potential for accidents on public roads; design changes may also be incorporated in the highway re-routing, such as turn lanes(s)<br>Regulatory requirements will be met for all potential emissions / releases that could impact air or water quality<br>Design, construction, operation, and maintenance and decommissioning of tailings management facility, diesel storage, chemical storage based on all applicable criteria and international best practice<br>Canada Nickel will work collaboratively with community and Indigenous representatives to address social and health concerns that could arise as a biproduct of the Project's development and operation | X | X | X | N / A |
| Socio-economics | Benefits including employment and procurement opportunities<br>Benefits for education and training opportunities<br>Effects on healthcare services and providers<br>Effects on traffic due to mine personnel commuting to site<br>Pressure on local housing and effects to vulnerable populations | Canada Nickel will work with local Indigenous Peoples and Non-Indigenous communities with an aim of helping ensure the Project will provide a positive benefit<br>Canada Nickel intends to implement an extensive community contribution program designed in collaboration with relevant local stakeholders to specifically address local needs and challenges.<br>Canada Nickel has made, and will continue to make, contributions to support social, economic, health, and other activities / programs for specific Indigenous communities<br>Canada Nickel is working with local training, education, and recruitment institutes to begin early planning for project workforce requirements. This includes review of available programs, potential development of new programs, and support from Canada Nickel in developing or enhancing the relevant programs (done through letters of support, provision of subject matter expertise, etc.) | X | X | X | Regional municipalities, Reserve lands |
| Physical and cultural heritage | No anticipated effect to known archaeology site<br>Effects to cultural heritage to be determined | Archaeological studies are ongoing and no cultural heritage features or artefacts have been identified in proposed development areas so far.<br>Archeological Stage 2 field campaign to identify potential archeological features of interest.<br>Measures will be put in place to identify any as yet undetected features or artefacts during construction | X | X | X | Project footprint |
| Identified structures or sites * | No effect expected, pending determination of diversion routing / water levels | None expected to be required<br>Archeological Stage 2 field campaign to identify potential archeological features of interest. | N / A | N / A | N / A | N / A |

*Note: * Structures or sites of historical, archaeological, palaeontological or architectural significance.*

**Table F.3 Preliminary Listing of Types of Wastes or Emissions**

| ENVIRONMENTAL COMPONENT | PROJECT PHASE | ANTICIPATED WASTE OR EMISSION |
|---|---|---|
| In the air | Construction | Dust emissions<br>Emissions from machinery and equipment<br>Noise<br>Light |
| | Operations | Dust emissions<br>Emissions from machinery and equipment<br>Noise<br>Light |
| | Closure | Dust emissions<br>Emissions from machinery and equipment including greenhouse gases<br>Noise<br>Light |
| In or on land | Construction | Domestic solid waste<br>Regulated and non-regulated, industrial solid and liquid waste<br>Mineral waste (overburden and waste rock)<br>Vibration |
| | Operations | Domestic solid waste<br>Regulated and non-regulated, industrial solid and liquid waste<br>Mineral waste (overburden, waste rock and tailings)<br>Vibration |
| | Closure | Domestic solid waste<br>Regulated and non-regulated, industrial solid and liquid waste |
| In or on water | Construction | Treated contact runoff<br>Treated domestic sewage |
| | Operations | Treated contact runoff and effluent<br>Treated domestic sewage |
| | Closure | Treated contact runoff and effluent<br>Treated domestic sewage |

**Figure F.1: Carbon Sequestration Potential of Crawford Tailings**



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# Appendix A

## Community Input And Outcomes – Stakeholders

**Table 1 Results of Community Input and Outcomes - Stakeholders**

| TOPICS | CATEGORY OF STAKEHOLDER | KEY ISSUES | UNDERTAKEN ACTION |
|---|---|---|---|
| **ECONOMY** | | | |
| **Economic Benefit Distribution** | **Community Group**<br>**Economic Group**<br>**Municipal Institution**<br>**Recreational Group** | • Local economic distribution | Formation of Contributions and Procurement Committee comprised of representatives from select stakeholder groups from all primary communities and conversations with municipal, social, and economic reps to coordinate project goals and community planning. |
| | | • Interest in the project and local benefits | NA |
| | | • Interest in sponsorship and donation opportunities | Formation of Contributions and Procurement Committee comprised of representatives from select stakeholder groups from all primary communities and conversations with municipal, social, and economic reps to coordinate project goals and community planning.<br>The Contributions and Procurement Committee advised on development of the Contributions Program, including guidelines and application forms. |
| | | • Offers to provide support in reiterating the importance of the project's regional benefits | NA |

| TOPICS | CATEGORY OF STAKEHOLDER | KEY ISSUES | UNDERTAKEN ACTION |
|---|---|---|---|
| **Economic Benefit Distribution (Continued)** | | • Canada Nickel's added workforce will bring significant benefits to the region, in terms of the impact of added population and the associated services that will necessarily accompany it | NA |
| | | • Community Contributions and Procurement Committee feedback on benefit distribution and procurement | Formation of Contributions and Procurement Committee comprised of representatives from select stakeholder groups from all primary communities and conversations with municipal, social, and economic reps to coordinate project goals and community planning.<br>All advice regarding local procurement has been taken into consideration when drafting Canada Nickel's local procurement policy and contributions guidelines, and will be reviewed on an ongoing basis by the Contributions and Procurement committee at the Committee's future meetings. |
| | | • Approval of Canada Nickel's proposal to contribute to long-term legacy projects | NA |
| | | • Look to the legacy projects initiated by | This information has been reviewed. |

| TOPICS | CATEGORY OF STAKEHOLDER | KEY ISSUES | UNDERTAKEN ACTION |
|---|---|---|---|
| **Economic Benefit Distribution (Continued)** | | Laurentian University and the Northern Policy Institute for old iron ore projects | |
| | | • Canada Nickel should consider both the healthcare and housing sectors for its community contributions and benefits | Healthcare and housing are sectors being considered for Canada Nickel's short term and legacy contributions programs. |
| **Economic Opportunities** | **Community Group**<br>**Municipal Institution**<br>**Economic Group** | • Local infrastructure development opportunities associated with the project | Infrastructure will be developed to support operation and construction of the Crawford Project. Secondary infrastructure, such as social, healthcare, and other community infrastructure, will be considered for the legacy contributions program, which was developed alongside the Contributions and Procurement Committee. |
| | | • A 40-year life of mine is positive for the community | NA |

| TOPICS | CATEGORY OF STAKEHOLDER | KEY ISSUES | UNDERTAKEN ACTION |
|---|---|---|---|
| **Economic Opportunities (Continued)** | | • Procurement and employment opportunities for the region | Canada Nickel's Local Procurement policy, developed with the Community Contributions and Local Procurement committee made up of municipal, social, and economic representatives from Cochrane, Timmins, Smooth Rock Falls, and Iroquois Falls, highlights an emphasis on local procurement.<br>Canada Nickel will place a priority on hiring from local municipalities and Indigenous communities and expects the size of the workforce will enable opportunities for all surrounding communities. |
| | | • Partnerships to develop peripheral projects | Separate meetings have been held with those interested in forming partnerships at later stages of the project to open early, productive communication channels |
| | | • Project benefits to Smooth Rock Falls (employment, procurement, etc.) and equitable work opportunities for the community of Smooth Rock Falls | Canada Nickel will place a priority on hiring from local municipalities and Indigenous communities and expects the size of the workforce will enable opportunities for all surrounding communities.<br>Smooth Rock Falls has a seat on the Community Contributions and Local Procurement committee and is noted in the local procurement policy. |
| | | • Review of Timmins' Master Plan (for the airport) by Canada Nickel to ensure project | This document has been reviewed and shared with Canada Nickel's consultation team. |

| TOPICS | CATEGORY OF STAKEHOLDER | KEY ISSUES | UNDERTAKEN ACTION |
|---|---|---|---|
| **Economic Opportunities (Continued)** | | alignment with local policies | |
| | | • Voiced interest and desire for regional refinement of the ores | Canada Nickel is presently considering all potential options for downstream processing of its products. While preference would be given to downstream processing in northeastern Ontario, this avenue would require significant strategic partnerships and local support. |
| | | • Work to attract partners and supply chain businesses for a local battery development industry | Canada Nickel has committed support to a regional effort pursuing a position in the battery and electric vehicle development industry. |
| **Labor and Training Requirements** | **Community Group**<br>**Educational Institution**<br>**Municipal Institution**<br>**Economic Group** | • Reach out to local high schools to prepare future training needs and workforce | Discussions held with training partners generated suggestions that outreach happen through said partners.<br>Canada Nickel employees were participants in the Far Northeast Training Boards *Youth in Mining* outreach program to high schools. |
| | | • Local training availability in relation to the project's labour requirements | Canada Nickel is in regular communication with Northern College, Collège Boréal, and other local training/education institutions regarding existing, upcoming, and potential course and training offerings, and how this aligns with Canada Nickel's anticipated needs. |

| TOPICS | CATEGORY OF STAKEHOLDER | KEY ISSUES | UNDERTAKEN ACTION |
|---|---|---|---|
| **Labor and Training Requirements (Continued)** | | | Canada Nickel's Labour and Training: Planning for the Future document incorporated local training programs that aligned with anticipated employment opportunities. |
| | | • Share insights on business, sustainability for Northern College's Business Mining course | Canada Nickel's community relations coordinator has been brought on as a subject matter expert assisting with course material development for the Mining department. Canada Nickel is happy to assist with the development of additional courses and their material as opportunities arise.<br>Potential partnerships and collaboration efforts relating to training/education programs will be considered as opportunities arise. |
| | | • Northern College has many relevant training programs that could be of interest to Canada Nickel, including water management, mining engineering technicians, battery and electric vehicle mechanics, business in mining, etc. | |
| | | • Project Labour requirements | Early discussions are being held with local training partners and Indigenous communities regarding training, recruitment, and retention to plan for Canada Nickel's future employment needs. Supported by planned formation of the Labour and Training Committee and release of the Labour and Training: Planning for the Future document. |
| | | • Project labour requirements and workforce planning | |
| | | • If local labour and training opportunities | |

| TOPICS | CATEGORY OF STAKEHOLDER | KEY ISSUES | UNDERTAKEN ACTION |
|---|---|---|---|
| **Labor and Training Requirements (Continued)** | | can meet Canada Nickel's requirements, and challenges regarding those needs | |
| | | • Canada Nickel should partner with local training and education institutions, and Indigenous communities to manage the project's labour requirements | |
| | | • Canada Nickel could participate in a high school job fair or local industries event | Canada Nickel is happy to participate in such events, and would ask that organizers contact the community relations coordinator should there be an interest in having CNC attend such activities.<br>During the Canadian Mining Expo, Canada Nickel participated in a *Youth in Mining* event held by the Far Northeast Training Board and supported by Collège Boréal and Northern College. |
| | | • Share workforce and training requirements at the earliest opportunity | All updated information is shared with training partners when available, and will be further facilitated through planned formation of the Labour and Training Committee.<br>A summary document of estimated jobs, titled Planning for the Future, was prepared in partnership with local institutions and is available on the project website. |

| TOPICS | CATEGORY OF STAKEHOLDER | KEY ISSUES | UNDERTAKEN ACTION |
|---|---|---|---|
| **Labor and Training Requirements (Continued)** | | • Share the project's workforce requirements to Collège Boréal, per type of worker | A document outlining preliminarily anticipated workforce numbers, broken down into specific roles and categories, has been shared with local training/education institutions and organizations. |
| | | • Share the detailed workforce needs document when it is available | This information has been shared and made public on CNC's website. |
| | | • By planning its labour requirements with local training institutions, Canada Nickel will have done its due diligence to the community | NA |
| | | • Important advantages for Canada Nickel to plan its labour requirements in advance | NA |
| | | • Collège Boréal has specialized training programs that will meet Canada Nickel's training needs (immigrant & Indigenous workers, environmental | NA |

| TOPICS | CATEGORY OF STAKEHOLDER | KEY ISSUES | UNDERTAKEN ACTION |
|---|---|---|---|
| **Labor and Training Requirements (Continued)** | | management, mining technicians, etc.) | |
| | | • Training goals (potential future partnerships with Apitisawin to ensure Indigenous youth are aware of upcoming jobs and where they can get the necessary training for them) | Apitisawin and other training partners will be invited to a position on the Labor and Training committee, if they are interested, and contacted in the future as planning for training and employment arises. |
| | | • Hold joint discussions with the mining industry to discuss needs | Occurring through participation in local committees/organizations/events with shared interests, including the Far Northeast Training Board. |
| **Workforce Availability and Impacts of External Workers** | **Community Group**<br>**Economic Group**<br>**Municipal Institution**<br>**Educational Institution**<br>**Environmental Group** | • Access to trained labour pool | Early discussions being held with local training partners and Indigenous communities regarding training, recruitment, and retention to plan for Canada Nickel's future employment needs. Supported by planned formation of the Labour and Training Committee |
| | | • Concerns regarding the difficulty of proponents to attract workers that | Community planning in partnership with local immigration, workforce, municipal, social, and economic groups to accomplish this objective. |

| TOPICS | CATEGORY OF STAKEHOLDER | KEY ISSUES | UNDERTAKEN ACTION |
|---|---|---|---|
| **Workforce Availability and Impacts of External Workers (Continued)** | | wish to stay and live in the region | |
| | | • Need for fly in fly out workforce | Canada Nickel will place a priority on hiring from local municipalities and Indigenous communities, but expects that the size of the workforce may necessitate hiring from outside of the region. In these instances, Canada Nickel hopes to encourage long term relocation to the region as opposed to fly in fly out. |
| | | • Origin of project workforce (local, regional, external) | |
| | | • Partnership potential with Cochrane District Social Services Administration Board (CDSSAB) for local workforce availability | Early discussions had with CDSSAB to establish an effective working relationship and communication channels for future potential collaboration. CDSSAB will be invited to nominate a representative to the Labour and Training committee. |
| | | • Local workforce meeting Canada Nickels needs | All updated information is shared with training partners when available, and will be further facilitated through planned formation of the Labour and Training Committee.<br><br>A summary document of estimated jobs, titled Planning for the Future, was prepared in partnership with local institutions and is available on the project website. As advised by a number of local training institutes, Canada Nickel will not speak to high schools independently, but is eager to participate in events with other |
| | | • Project workforce requirements and workforce availability in the region, due to ongoing shortages | |
| | | • Challenges around workforce (appreciation that positions are not | |

| TOPICS | CATEGORY OF STAKEHOLDER | KEY ISSUES | UNDERTAKEN ACTION |
|---|---|---|---|
| **Workforce Availability and Impacts of External Workers (Continued)** | | planned to be fly in fly out at this time) | institutions or members of industry to encourage general consideration for careers in and around the mining industry |
| | | • Consider partnerships with local schools for workforce training | |
| | | • Attracting workers to stay and live in the region | Community planning in partnership with local immigration, workforce, municipal, social, and economic groups to accomplish this objective |
| **Project Feasibility** | **Community Group**<br>**Municipal Institution**<br>**Economic Group** | • Vulnerability to non-nickel battery development | Looking to supply multiple industries with diverse concentration streams, including battery production and the stainless-steel market. Crawford will produce three concentration streams, two nickel and one iron. |
| | | • Impact of currently fluctuating and all time high nickel prices on the project | Canada Nickel's preliminary economic assessment was completed, and the project determined to be economically viable, at a nickel price of 7.75USD/lb. As of June 2022, the price of nickel is above that dollar value. The life of mine all inclusive sustaining cost of 1.94 USD/lb will make Crawford a very robust project once in production. |
| | | • Project economics and financing | Recently obtained financing, as of spring 2022, is sufficient to carry Canada Nickel through the Crawford Project's feasibility study. Multiple avenues are being considered for financing the construction of the Crawford Project, and will be disclosed as they are finalized and made public information. Rising demand for nickel to feed next-generation technologies like electric vehicles, and the current |

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| **Project Feasibility (Continued)** | | | price of nickel are positive catalysts to support financing of the Crawford Project. |
| | | • Economic feasibility (recovery rate and financing) | Economic feasibility is being assessed as a key criteria in the Feasibility Study |
| **Processing Plan** | **Community Group**<br>**Municipal Institution**<br>**Economic Group** | • Location of potential downstream processing in the region | Canada Nickel is presently considering all potential options for downstream processing of its products. While preference would be given to downstream processing in northeastern Ontario, this avenue would require significant strategic partnerships and local support. |
| | | • Project connectivity to the global supply market | It is Canada Nickel's objective to be a carbon neutral, Canadian, world-leading supplier of some critical minerals, particularly nickel, to meet the global and increasing demand for such materials from the stainless steel supply chain and electric vehicle battery markets |
| | | • Offer of City of Timmins support for nickel ore downstream processing in the region | NA |

| TOPICS | CATEGORY OF STAKEHOLDER | KEY ISSUES | UNDERTAKEN ACTION |
|---|---|---|---|
| **ENVIRONMENT** | | | |
| **Air Quality** | **Health Institution** | • Impacts of the project on air quality | An air quality monitoring station has been installed on site to run for a minimum of 1-year to gather baseline data, which will be used comparatively with ongoing collection during operation and to support modelling of changes in air quality at the project boundary. Design of the project will ensure that all applicable ambient air quality criteria are met at the project limit. |
| | | • Project environmental and safety impacts, namely on local air and water quality | Project environmental and safety impacts will be evaluated in the impact assessment process, and mitigation measures discussed in future engagement meetings and with the Environmental Committee. Baseline studies for air and water conditions are underway. |
| **Waterflow and Availability** | **Municipal Institution**<br>**Educational Institution**<br>**Environmental Group** | • Certain areas have been drying up in recent years (North Porcupine River & Bigwater Lake) | Stakeholder and Indigenous feedback has been collected regarding plans for water discharge.<br>Currently, it is expected that all water required for mineral processing will be recovered from water recycling within the plant, and the rest will be collected in the open pit and collection ponds on site. Water withdrawal is not an anticipated requirement at this time. Impact on the natural flowrate of waterbodies in the project area will be assessed, and the results will support the decision on the water management plan, including the water discharge location, and to prepare compensation plans if necessary. Non-contact water will also be diverted where possible. |

| TOPICS | CATEGORY OF STAKEHOLDER | KEY ISSUES | UNDERTAKEN ACTION |
|---|---|---|---|
| **Waterflow and Availability (Continued)** | | | The Crawford Project is outside of the North Porcupine River or Bigwater Lake watershed. |
| | | • Project impacts on groundwater | Potential impacts on groundwater flow and quality will be evaluated and modelled during the impact assessment process and feasibility study for the project. |
| | | • Project impacts on local waterbodies and wetlands, including mining drainage into nearby wetlands | To be evaluated in the Impact Assessment, should an Impact Assessment be required, particularly hydrogeological and hydrological studies and modelling. Contact water from site will be collected and treated as necessary prior to release back into the environment. Any water being discharged from site will meet regulatory requirements. These regulatory requirements can vary on a project-to-project basis and will be tailored specifically to Crawford and the region. |
| | | • Significant water usage by the mining industry | Currently, it is expected that all water required to supply the processing facilities will be drawn from within the open pit and collected as runoff on site. A focus will also be placed on recycling water through the processing flow sheet. Water withdrawal is not an anticipated requirement at this time. |
| **Drinking Water and Watershed Quality** | **Health Institution**<br>**Municipal Institution**<br>**Educational Institution** | • Impacts of the project on water quality | Baseline studies and water discharge considerations were discussed with Indigenous communities, stakeholders, and the public during the IPD meetings. To be further discussed with the relevant environment and/or impact assessment committees. Full impact and |

| TOPICS | CATEGORY OF STAKEHOLDER | KEY ISSUES | UNDERTAKEN ACTION |
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| **Drinking Water and Watershed Quality (Continued)** | **Land User** | | engineering assessments to be completed on the potential discharge locations to determine the optimal option, combined with feedback received during all engagement around the discharge location. To date, there was no significant concerned raised by Stakeholders or Indigenous Groups when mentioning that the Mattagami River will be used as the discharge location for the upcoming feasibility study.<br><br>Potential impacts to water quality will be assessed in the Impact Assessment. Any water being discharged from site will meet regulatory requirements. These regulatory requirements can vary on a project-to-project basis and will be tailored specifically to Crawford and the region.<br><br>Project environmental and safety impacts will be evaluated in the impact assessment process, and mitigation measures discussed in future engagement meetings and with the Environmental Impact Committee |
| | | • Project's location relative to the Mattagami River | The project is located approximately 10 km from the Mattagami River. |
| | | • Cumulative effects of existing mining projects on the local watershed | Environmental baseline data will intrinsically incorporate impacts from other mining operations, if any, and will be the baseline to which all future collected data is compared to assess overall impacts of the Project.<br><br>Cumulative impacts will also be assessed as part of the impact assessment process, should an impact assessment be required. |

| TOPICS | CATEGORY OF STAKEHOLDER | KEY ISSUES | UNDERTAKEN ACTION |
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| **Drinking Water and Watershed Quality (Continued)** | | • Nickel Sulphide toxicity and impacts | Initial study results have indicated no anticipated risk of acid mine drainage or other leaching from the mined or processed material on site. Ongoing geochemical studies to validate these initial understandings are underway. Water seepage collection will also be installed to ensure that all contact water with the tailings, and other on-site material, is collected and treated as necessary. |
| **Tailings Management and Acid Drainage** | **Community Group**<br>**Municipal Institution**<br>**Educational Institution**<br>**Environmental Group** | • Impacts of tailings on local watershed | Stakeholders and Indigenous communities will have an opportunity to comment on the design for the tailings management plan, primarily through the Environmental Committee, IA Committees, and future engagement activities.<br>Potential impacts from the tailings and all other design aspects will be evaluated in the impact assessment process, should an Impact Assessment be required. |
| | | • Glencore's capacity to accept Canada Nickel's tailings | Relevant options to optimize the use of Crawford's tailing for reclamation purposes will be assessed for technical, financial, and environmental feasibility |

| TOPICS | CATEGORY OF STAKEHOLDER | KEY ISSUES | UNDERTAKEN ACTION |
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| **Tailings Management and Acid Drainage (Continued)** | | • Tailings size, management and potential impacts | Canada Nickel has looked at opportunities to reduce the footprint of the tailings management facility. For example, the current intention is to store tailings from the East zone in the mined out Main Zone pit to reduce the tailings management facility's footprint. Ore will be mined faster than the plant processing capacity. The tailings from the ore stockpiled will be stored in the East zone. In addition, tailings will be thickened before discharge, allowing increased storage capacity in the same footprint. The tailings management facility will not be used as a water management facility at the Crawford Project. Potential impacts relating to the tailings management facility, including environmental footprint and water management, will be evaluated in the impact assessment and with the Environmental Impacts Committee. |
| | | • Climate change impacts to the project and its tailings management | The tailings and waste rock of the project have the ability to naturally absorb CO2 from the atmosphere. Research is in progress to optimize the design of the project to maximize carbon capture in pursuit of the potential for a carbon neutral or carbon negative project.<br><br>The Crawford Project's potential impact on Climate change is a category that will be evaluated in detail in the impact assessment process.<br><br>Note that the tailings management facility will be designed to account for the potential changes that could occur due to climate change. |

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| **Tailings Management and Acid Drainage (Continued)** | | • Likeliness of chemical or metal leaching from the tailings storage area | Initial study results have indicated no anticipated risk of acid mine drainage or other leaching from the mined or processed material on site. Ongoing geochemical studies to validate these initial understandings are underway. Water seepage collection will also be installed to ensure that all contact water with the tailings is collected and treated as necessary. |
| | | • Shared interest in Canada Nickel working to recycle or reuse its tailings as a tailing management tool in the region | Relevant options to optimize the use of Crawford's tailing for reclamation or management purposes will be assessed for technical, financial, and environmental feasibility |
| **Environmental Footprint** | **Environmental Group**<br>**Municipal Institution** | • Large scale open pit environmental impacts | Environment and Impact Assessment results and proposed mitigation measures will be discussed with stakeholders and Indigenous communities, as well as the Environmental Committee.<br>Efforts have been made to reduce the site footprint where feasible. For example, the proposed in-pit storage of some tailings, and efforts to remain as compact as feasible. |
| | | • Project environmental footprint and associated compensation measures | Canada Nickel has made efforts to reduce the overall footprint of the project, and will try to reduce it further, where feasible.<br>The surface impacts of the project, relating to its footprint, will be evaluated in the impact assessment, should an impact assessment be required. |

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| **Environmental Footprint (Continued)** | | | Compensation measures, where deemed necessary, will be developed in collaboration with regulators, stakeholders, and Indigenous Peoples. |
| | | • Actions should be taken to minimize project footprint | Canada Nickel has taken actions to reduce the project footprint, including such design considerations and efforts as: partial in-pit tailings disposal, design of a compact site, and avoidance of the Mahaffy Conservation Reserve |
| | | • Share environmental impacts and footprint of the Project | Baseline and impact findings will be shared throughout the Impact and Environmental Assessment processes, with the appropriate committees, and in summarized reports. |
| **Greenhouse Gases, Climate Change, Carbon Neutrality & Net Zero** | **Municipal Institution**<br>**Community Group**<br>**Health Institution**<br>**Environmental Group**<br>**Economic Group**<br>**Educational Group** | • Environmental claims towards carbon neutrality and sequestration validity | Multiple news releases, including "Canada Nickel Demonstrates Carbon Sequestration Potential of Tailings from the Crawford Nickel Sulphide Project", have and will continue to be distributed to address ongoing study results. Significant results will continue to be published as they arise. R&D programs are being completed in partnership industry leading experts, including Kingston Process Metallurgy, Queen's University, and WSP. |
| | | • Climate change impacts to the project and its tailings management | The tailings and waste rock of the project have the ability to naturally absorb CO2 from the atmosphere. Research is in progress to optimize the design of the project to maximize carbon capture in pursuit of the potential for aa carbon neutral or carbon negative project. |

| TOPICS | CATEGORY OF STAKEHOLDER | KEY ISSUES | UNDERTAKEN ACTION |
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| **Greenhouse Gases, Climate Change, Carbon Neutrality & Net Zero**<br>**(Continued)** | | | The Crawford Project's potential impact on Climate change is a category that will be evaluated in detail in the impact assessment process, should an impact assessment be required.<br>The tailings management facility will be designed to account for the potential changes that could occur due to climate change. |
| | | • Project air and greenhouse gas (GHG) emissions | Canada Nickel is making efforts to be a carbon neutral project, with emphasis placed on electrification of the mine site and ongoing research and development into enhancing the natural carbon sequestration potential of the mine rock and tailings. |
| | | • Forest fire and climate change risks in the Impact Assessment | The Crawford Project's detailed potential impact on Climate change is a category that will be evaluated in the impact assessment process, should an impact assessment be required |
| | | • Appreciation and support of the project's environmental ambitions | NA |
| | | • Coordination of efforts with municipal and government discussions on sustainable mining practices and policies | Canada Nickel's community relations and communications coordinator is a member of the Advocacy in Action committee for the Timmins Chamber of Commerce addressing policy initiatives.<br>Canada Nickel is in ongoing communication with the municipal, provincial, and federal governments. |
| | | • Accounting method for GHG emissions | The GHG emissions calculation was prepared according to the Strategic Assessment of Climate Change as developed by Environment and Climate Change Canada (ECCC). |

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| **Wildlife and Species At-Risk** | **Land User**<br>**Recreational Group**<br>**Community Group**<br>**Environmental Group**<br>**Municipal Institution**<br>**Land User** | • Sensitive areas near the site, especially for moose | Ongoing terrestrial studies underway to determine presence of wildlife and wildlife habitat in the project area, the results of which will be shared with stakeholders and Indigenous communities through the Environmental and Impact Assessment processes. |
| | | • Local awareness about the unlikely presence of woodland caribou in the area | Noted and information shared with the federal and provincial regulatory bodies, and internal teams. |
| | | • Potential impacts of wildlife venturing onto the mining site | While there is always potential for this at mining operations based in forested/wild areas, wildlife are typically deterred by general noise and other activity occurring on site. There will be plans on site for how to manage wildlife, with built in precautions included for such potential hazards as, for example, settling ponds. |
| | | • Project impacts on wildlife and associated compensation plans and mitigation actions | Canada Nickel will follow regulatory guidance regarding compensation measures for wildlife, and will use the Impact Assessment process, if one is required, and completed baseline studies to fully evaluate potential impacts on project wildlife |
| | | • Offer from individuals to manage nuisance bears on site | This offer is appreciated and has been noted for when Crawford enters into construction and operation. |
| **Water Discharge** | **Community Group**<br>**Heath Institution** | • Water discharge regulatory requirements | Potential impacts will be assessed in the Impact Assessment, should an impact assessment be required. Any water being discharged from site will meet regulatory requirements. These regulatory |

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| **Water Discharge (Continued)** | **Economic Group**<br>**Municipal Institution**<br>**Educational Institution**<br>**Environmental Group** | | requirements can vary on a project-to-project basis and will be tailored specifically to Crawford and the region. |
| | | • Water discharge location and potential contaminants in the discharge | Water discharge was discussed with Indigenous communities, stakeholders, and the public during the IPD meetings. To be further discussed with the relevant environment and/or impact assessment committees, as necessary. Full impact and engineering assessments to be completed on the potential locations to determine the optimal option, combined with feedback received during all engagement around the discharge location. To date, there was no significant concerned raised by Stakeholders or Indigenous Groups when mentioning that the Mattagami River will be used as the discharge location for the upcoming feasibility study.<br><br>Potential impacts will be assessed in the Impact Assessment, should an impact assessment be required. Any water being discharged from site will meet regulatory requirements. These regulatory requirements can vary on a project-to-project basis and will be tailored specifically to Crawford and the region. |
| | | • Safety of Canada Nickel's water discharge, in terms of drinking water requirements | |
| | | • Impacts of Canada Nickel's water discharge to the chosen river system(s) | |
| | | • Project impacts, including its water discharge | |
| | | • The Mattagami River seems like the most logical water discharge location | |

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| **Water Discharge (Continued)** | | • Project's water discharge and contact water management | |
| | | • Smooth Rock Falls gets its water from the Mattagami River | This has been noted. Smooth Rock Falls has a representative on the Environmental Committee to ensure this fact is raised during discussion.<br>Potential impacts to the Mattagami River's water quality will be evaluated in the impact assessment process, should an impact assessment be required. |
| | | • Canada Nickel should reach out to Boralex to discuss its potential water discharge plans in the Mattagami River | Initial informal contact was made with a Boralex representative regarding the potential discharge to the Mattagami River. Communication channels for future correspondence will be established if required. |
| | | • Water discharge impacts on the Mattagami River dam operations | It is not anticipated that discharge to the Mattagami River would significantly impact dam operations, with current estimates predicting around 1% change in flow for the river after discharge. Dam operators downstream from the discharge location will be contacted and informed of the potential discharge to the Mattagami, if required. |
| | | • The PHU may be interested in participating in the upcoming Environmental | The Porcupine Health Unit has a representative on the Environmental Committee. |

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| | | Impact Committee. In any case, they would like to be made aware of the study results for water discharge | |
| **Closure & Rehabilitation** | **Community Group**<br>**Educational Institution**<br>**Environmental Group** | • Closure Plan and area rehabilitation<br>• Closure Plan alternatives, anticipated rehabilitation plans and the project's legacy impacts on the local wildlife | Proposed closure measures are still preliminary, and will be discussed comprehensively with Indigenous communities, the public, and stakeholders during development of the formal Closure plan with the Ministry of MINES. |
| **Impacts to Landscape** | **Educational Institution** | • Visibility from and proximity of on-site infrastructure to Highway 655 | Some on-site infrastructure will likely be visible when traversing the neighboring stretch of the highway. |
| **General Environmental Concerns** | **Community Group**<br>**Municipal Institution** | • Transparency in regards of environmental impacts | Canada Nickel will be transparent, timely, and open to discussion regarding Project environmental impacts. In addition to ongoing engagement activities and regular environmental reporting to Indigenous communities, Canada Nickel has formed an Environmental Committee and Impact Assessment Committees to further discuss potential environmental impacts. |

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| **General Environmental Concerns (continued)** | | • Recognition that Canada Nickel has done significant efforts to reduce the project's environmental impacts. | NA |
| | | • Impacts of nickel processing in the region | The Crawford project's scope does not include downstream processing. If downstream processing were to be developed and if it were to occur in the region, this project would be under the care and control of a third party and would require a distinct environmental assessment process |
| | | • Regulatory decision-making more focused on project's economic benefits rather than environmental impacts | The Federal Impact Assessment ensures that regulatory decisions are being taken per environmental considerations as well as economic, social, and technical impacts and benefits. Provincial environmental assessments are also predominantly focused on potential environmental impacts of a proposed project. |
| **HEALTH** | | | |
| **Asbestos Management** | **Economic Group** | • Presence of asbestos in the orebody | Conducting assessment on the presence of chrysotile in the orebody. Asbestos safety is a consideration in site design, with the decision made to not use chrysotile bearing material for the running surface of road building |

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| **Emergency and Safety Measures** | **Community Group**<br>**Health Institution**<br>**Recreational Group** | • Workplace Safety North would like to be involved in the preparation of the project's Emergency Management Plan | Involvement to begin when project is closer to construction |
| | | • Drilling work to be coordinated with recreational usage | Drilling will, when possible, be kept distant from snowmobile trails. When this is not possible, all snowmobile clubs will be alerted prior to drilling commencement to ensure coordination of safety efforts for Canada Nickel employees/contractors and recreational trail users. |
| | | • The Health Unit can provide public health recommendations for an eventual in-person gathering (related to COVID-19 precautions) | To be consulted when appropriate |
| **Insufficient Health Resources** | **Community Group**<br>**Municipal Institution** | • Access to medical services in Northern Ontario, notably medical doctors | Noted as an existing social condition to be aware of, and a topic of consideration for the community contributions program, which was developed in partnership with the community contributions and local procurement committee. |
| | | • Project social impacts, including housing, access to social and health | Though Canada Nickel wishes to hire primarily from local and Indigenous communities, workers from outside of the region may be required to meet the workforce demand of the Crawford Project. |

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| **Insufficient Health Resources (Continued)** | | services, and homelessness | This relocation could impact social conditions in the region, including housing availability and pricing .<br>Social impacts, including housing availability, wellbeing, etc., are to be assessed in the impact assessment, should an impact assessment be required. Once project certainty is more established and the extent of the impact known, necessary mitigation measures will be developed alongside the appropriate municipal, economic, and social community representatives. |
| **Public Health** | **Community Group**<br>**Municipal Institution**<br>**Health Institution** | • Toxicity of nickel sulphide on communities | Human health will be assessed in detail during the impact assessment through a human health environment risk assessment, should an impact assessment be required.<br>Initial study results have indicated no anticipated risk of acid mine drainage or other leaching from the mined or processed material on site. Ongoing geochemical studies to validate these initial understandings are underway. Water seepage collection will also be installed to ensure that all contact water with the tailings is collected and treated as necessary. |
| | | • Food and drink inspection requirements in the event of a work camp or cafeteria on site | To be further discussed with the Porcupine Health Unit, should a work camp be considered for site. At this time, Canada Nickel is not considering a work camp on site. |
| | | • Impacts of nickel processing in the region | The Crawford project does not include downstream processing. If downstream processing were to be developed and occur in the |

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| | | | region, this project would require a distinct environmental assessment process |
| **Public Health (Continued)** | | • Concerns regarding the social impacts of a mining project and the necessary social infrastructure to support such a large-scale project | Social/economic impacts and benefits will be assessed in the impact assessment process, should an impact assessment be required.<br><br>Secondary infrastructure, such as social, healthcare, and other community infrastructure, will be considered for the legacy contributions program, which was developed alongside the Contributions and Procurement Committee.<br><br>Once project certainty is more established and the extent of the potential impact known, necessary mitigation measures will be developed alongside the appropriate municipal, economic, and social community representatives. |
| **PROJECT** | | | |
| **Highway 655 Relocation** | **Community Group**<br>**Economic Group**<br>**Environmental Group**<br>**Municipal Institution**<br>**Health Institution** | • Road displacement and construction impacts | The proposed relocation has been presented to stakeholders and Indigenous Peoples, with additional conversations to be had once plans are further developed. Conversations with the Ministry of Transportation around the logistics of the relocation are productive and ongoing.<br><br>Construction of the new highway will be completed before closing the existing road. |

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| **Highway 655 Relocation**<br>**(Continued)** | | | Potential impacts to traffic and travel times will be evaluated in the impact assessment process, should an impact assessment be required.<br>The new highway will also require a provincial environmental assessment, which will evaluate potential impacts of the development. |
| | | • Highway 655 relocation planning, costs, and traffic impacts | Planning for Highway 655's relocation is being done with select consultants and the Ministry of Transportation. Given that the highway is being moved to accommodate Canada Nickel's project, it is anticipated that the cost of the relocation will fall to Canada Nickel.<br>While the new stretch of highway will be completed prior to closing the current highway, there could be traffic impacts from changes in length resulting from the relocation. This impact will be evaluated in the impact assessment process, should an impact assessment be required. |
| | | • Process for relocation of the highway | At this early stage, Canada Nickel is meeting with the Ministry of Transportation and the selected consultants tasked with the highway relocation to determine the timeline and process around the project. |
| | | • Highway 655 relocation (east rather than west) and its buffering | The current plan to reroute the highway to the west of the project was developed to reduce the length of the new stretch of highway, and to avoid impact on the West Buskegau river system. This design |

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| **Highway 655 Relocation (Continued)** | | | is not finalized, and consideration will be given to all potential outcomes, to be developed in collaboration with MTO. |
| | | • Potential impacts to travel and commute time following the Highway 655 relocation | Potential impacts to traffic and travel times will be evaluated in the impact assessment process, should an impact assessment be required. |
| | | • Impact of relocation on Glencore Kidd mine site | At present, it is expected there will be no impact on Glencore Kidd mine site from relocation of the highway |
| **Traffic caused by Project** | **Community Group**<br>**Municipal Institution** | • Shuttles to transport workers will have a positive impact on local traffic (Highway 655) | NA |
| | | • Potential impacts of transportation (workers, materials, concentrate) on local traffic | To be evaluated in the Impact Assessment, should an impact assessment be required. |
| | | • Project's social impacts, including housing, road and airport usage, parking availability, local ATV and snowmobile trails, road service levels (Highway 655) | These potential impacts are to be evaluated in the impact assessment process, should an impact assessment be required, and through communication with the relevant communities/groups/organizations.<br>Communication with recreational, social, economic, municipal, and health groups has been initiated, and good relationships developed |

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| **Traffic caused by Project (continued)** | | | for future collaboration around impact identification and development of mitigation measures. These mitigation measures may include programs/projects through the Community Contributions program, discussions to coordinate community planning, and early planning for potential trail relocation or infrastructure accommodations/updates. |
| | | • Comment that traffic changes on Highway 655 may result in the necessity of a traffic light or added turning lane | Potential impacts to traffic and travel times will be evaluated in the impact assessment process, should an impact assessment be required. |
| **Power Usage** | **Community Group**<br>**Economic Group**<br>**Municipal Institution** | • Should reach out to Five Nations Energy for hydro requirements | Taykwa Tagamou Nation is a member of 5 Nations Energy, and is being incorporated into Canada Nickel's hydro plan |
| | | • Electrical feed and megawatt requirements | Estimated requirements to be determined in the Feasibility Study. |
| | | • Consider feeding from Iroquois Falls electrical grid | All relevant options for electrical supply will be taken into consideration during the feasibility study for the Crawford Project |
| | | • Power availability in the region and Canada Nickel's plans to power the Crawford Project (500 kV and 230 kV | The current plan is for the Crawford Project to be powered by a new 230 kV powerline connecting to the Porcupine Substation. At this time, that line is anticipated to be sufficient to supply the Crawford Project with the necessary operating power. This is not anticipated |

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| **Power Usage (Continued)** | | powerlines relocation and construction) | to impact local power availability, and may encourage greater availability through new or improved infrastructure and rise to meet increased demand. |
| | | • Project power requirements and the electric grid's ability to provide power to the project | |
| | | • Project power requirements and planning | |
| | | • Crawford Project energy requirements, power availability in the region and project impacts on the price of electricity | |
| | | • Offer to help lobby for lower energy prices for large industrial users | NA |
| | | • Should initiate electrical grid planning as early as possible | Discussions with IESO, Hydro One, and other electricity partners are underway to determine optimal opportunities to meet Crawford's power needs |

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| **Project Design and Layout** | **Community Group**<br>**Economic Group**<br>**Environmental Group**<br>**Municipal Institution** | • Project optimization with local mining infrastructures | Relationships have been built with some mining-related industry participants to explore potential for project optimization |
| | | • Location of the project | Crawford is located along Highway 655 between Timmins and Cochrane/Smooth Rock Falls. Additional information on project location is available in the detailed project description. |
| | | • Project size and footprint | Canada Nickel will make reasonable efforts to reduce the overall footprint of the project, where feasible.<br>The surface impacts of the project, relating to its footprint, will be evaluated in the impact assessment, should an impact assessment be required. |
| | | • Plans for bunk houses or other accommodations on site during construction period | There is currently no plan for accommodations on site, with the intention of encouraging workers to settle in the surrounding communities |
| | | • Intentions regarding Canada Nickel's other deposits | Canada Nickel will continue exploration efforts to expand their district scale potential. Note that all possible future operations will involve further engagement and distinct assessment processes. The current Impact Assessment only addresses development of the Crawford deposit. |

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| **Project Development Timeline** | **Community Group**<br>**Economic Group**<br>**Educational Institution**<br>**Municipal Institution** | • Project's pace with regards to the Impact Assessment Process | Canada Nickel has established a good communication channel with the Impact Assessment Agency of Canada to facilitate efficient completion of the IA permitting process. Canada Nickel is making an effort to initiate, early on, all baseline studies that may be requirements of the impact and environmental assessments for the project. |
| | | • Project pace and development timeline, in the context of government interest in critical mineral development | Canada Nickel has established good communication channels with members of municipal, provincial, and federal government discussing the importance of the Project and efforts to establish efficient timelines for project permitting. |
| | | • Project timeline | Updates on the project timeline will be shared on an ongoing basis as they become available, with an updated timeline to be provided in the feasibility study |
| **Project Partnerships** | **Community Group**<br>**Economic Group**<br>**Educational Institution** | • Iroquois Falls has available office, stockpiling and airport space for Canada Nickel's usage | NA |
| | | • Partnerships between Canada Nickel and the Timmins Chamber of Commerce to facilitate | Canada Nickel is a member of the Timmins Chamber of Commerce and holds a seat on the Advocacy in Action Committee to facilitate such collaboration. |

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| **Project Partnerships (Continued)** | | common goals (project regulatory approval and stricter short-seller regulations) | |
| | | • Northern College has connections with the community and the electric vehicle battery industry. | Canada Nickel has an effective relationship with Northern College and will continue to communicate with them for training, communication, and project development objectives |
| | | • TEDC and other local stakeholders are available to actively support the Crawford Project | NA |
| | | • Indigenous and business partnerships and joint ventures | Canada Nickel will put an emphasis on procurement from Indigenous businesses, as outlined in Canada Nickel's local procurement policy. |
| | | • Offer of support for spreading the word about IPD meetings and engagement activities | Canada Nickel shared advertising for the public IPD meetings with stakeholder groups who volunteered their support in spreading word about the event. |
| | | • Multiple opportunities for partnerships between Northern College and | To be further discussed on a case-by-case basis and as the project further progress/develops. |

| TOPICS | CATEGORY OF STAKEHOLDER | KEY ISSUES | UNDERTAKEN ACTION |
|---|---|---|---|
| **Project Partnerships (Continued)** | | Canada Nickel, regarding wastewater management software for mining, training improvement, applied research, employment laddering | |
| | | • Porcupine Health Unit proposition to contribute to the social determinants of health | To be approached once requirements for social determinants of health have been outlined in the Tailored Impact Guidelines from the Impact Assessment Agency of Canada. A meeting has been held with the PHU to begin early planning for these requirements. |
| **Project Sale and Ownership** | **Community Group**<br>**Economic Group** | • Potential of the Crawford Project being sold | Canada Nickel will remain open to all opportunities regarding the future of the Crawford Project |
| **Railway Usage** | **Municipal Institution** | • Local rail capacity | Canada Nickel is in discussion with regional rail parties to ensure sufficient capacity to support the Crawford Project |
| | | • Usage of Iroquois Falls railway system | All relevant options for rail transport will be evaluated throughout the feasibility study and construction |
| **Regulatory Roadblocks** | **Economic Group** | • Project's development affected by regulatory roadblocks | Engaging in early conversations with IAAC and various other ministries and regulatory bodies to optimize communication channels to aid overall process efficiency |

| TOPICS | CATEGORY OF STAKEHOLDER | KEY ISSUES | UNDERTAKEN ACTION |
|---|---|---|---|
| **Indigenous Engagement Process** | **Economic Group**<br>**Educational Institution**<br>**Environmental Group**<br>**Municipal Institution**<br>**Health Institution** | • Importance of proactive and transparent engagement with Indigenous groups and communities | Canada Nickel has begun extensive, productive, and transparent conversations with preliminarily identified Indigenous Peoples. |
| **Indigenous Involvement in the Project** | **Economic Group**<br>**Educational Institution** | • Joint discussions with the mining industry to discuss local indigenous workforce | Preliminary conversations held with Keepers of the Circle, NORCAT, the Far Northeast Training Board, and other training/education institutes regarding Indigenous training and employment in the mining industry. |
| **Stakeholder Engagement Process** | **General** | | |
| | **Community Group**<br>**Economic Group**<br>**Educational Institution**<br>**Environmental Group**<br>**Municipal Institution**<br>**Health Institution**<br>**Recreational Group** | • Canada Nickel should work with neighbouring communities to plan its project and manage its impacts | Canada Nickel has and will continue to engage with surrounding municipalities, stakeholders, and Indigenous communities on the design and operation of the Crawford Project, and the various stages of the Impact Assessment. This engagement is further facilitated by the formation of topic specific committees. |
| | | • Challenge to provide feedback on a project if it hasn't been fully assessed or designed yet | The availability and comprehensiveness of information is a challenge of early engagement, however, it also presents opportunities to integrate feedback at very early stages in project design and in the impact assessment process. |
| | | • Support and appreciation towards the | NA |

| TOPICS | CATEGORY OF STAKEHOLDER | KEY ISSUES | UNDERTAKEN ACTION |
|---|---|---|---|
| **Stakeholder Engagement Process (Continued)** | | early engagement approach and the project | |
| | | • Concerns on engagement safeguards | Maintaining a record of engagement activities and meeting reports that are and will continue to be publicly available |
| | | • Some people would be interested to learn more about the project and to work with Canada Nickel, but many of them lack time and/or knowledge to participate in the process | Tailoring engagement activities and information sharing to the expectations and needs of specific communities and groups, in addition to outreach to marginalized/vulnerable/specialized groups not often involved in the mining process |
| | | • Offer to provide support in reaching out to local social and community health groups | NA |
| | | • General positive comment regarding Canada Nickel's presentations and the importance of repeating the information to the community. Smooth Rock Falls will also share | |

| TOPICS | CATEGORY OF STAKEHOLDER | KEY ISSUES | UNDERTAKEN ACTION |
|---|---|---|---|
| **Stakeholder Engagement Process (Continued)** | | the information within its community | |
| | | • In person meetings are useful tools for reaching out to different population groups | Open house will be considered in the next year per stakeholder feedback, interest, and public health restrictions. |
| | | • Importance of transparent and proactive engagement with local communities | Tailoring engagement activities and information sharing to the expectations and needs of specific communities and groups, while conducting meetings in various formats regarding topics of interest that suit those expectations. |
| | | • Importance of being transparent with the project's study results and findings | Baseline and impact findings will be shared throughout the Impact and Environmental Assessment processes, with the appropriate committees, and in summarized reports. |
| | | • The more Canada Nickel shares information, the better the feedback will be | NA |
| | | • General comment of appreciation towards Canada Nickel's early and ongoing engagement with the community | |

| TOPICS | CATEGORY OF STAKEHOLDER | KEY ISSUES | UNDERTAKEN ACTION |
|---|---|---|---|
| **Stakeholder Engagement Process**<br>**(Continued)** | | • Canada Nickel has had exemplary engagement so far with the community | |
| | | • General appreciation towards the engagement process and Canada Nickel's intention to partner with Collège Boréal for its labour planning | |
| | **Suggested groups to reach out to** | | |
| | **Economic Group**<br>**Environmental Group**<br>**Municipal Institution**<br>**Recreational Group** | • Suggestion to reach out to other stakeholders and/or community groups:<br>1. Local Water Liaison Committee<br>2. Timmins Wildlife Facebook Group<br>3. Timmins Chamber of Commerce | 1. Canada Nickel's community relations and communications coordinator is a member of the Public Liaison Committee for the Porcupine Watershed.<br>2. Community Relations coordinator is a member of the Facebook page.<br>3. Canada Nickel is a member of the Chamber of Commerce<br>4. Canada Nickel is a member of the BIA<br>5. Community relations coordinator is a member of the Cochrane LCC. Presentation of the IPD was given to both the Timmins and Cochrane LCCs.<br>6. Canada Nickel's community relations and communications coordinator is a member of the Advocacy in Action committee |

| TOPICS | CATEGORY OF STAKEHOLDER | KEY ISSUES | UNDERTAKEN ACTION |
|---|---|---|---|
| **Stakeholder Engagement Process**<br>**(Continued)** | | 4. Downtown Timmins Association (BIA)<br>5. Local Citizens Committee<br>6. Advocacy in action committee<br>7. Rural Northern Immigration Pilot<br>8. Arctic Riders from Smooth Rock Falls | 7. Canada Nickel has spoken with a representative of the Rural Northern Immigration pilot<br>8. Canada Nickel has established communication with the Arctic Riders. |
| | | • Engagement of neighbouring communities (Northglen Community, Big Water Campgrounds) | Introductory meetings have been held or scheduled with the identified communities. |
| | | • Participation in Chamber of Commerce' events such as Inside your Business and local community events | Relationship built with Chamber of Commerce to facilitate such participation in the future |

| TOPICS | CATEGORY OF STAKEHOLDER | KEY ISSUES | UNDERTAKEN ACTION |
|---|---|---|---|
| **Stakeholder Engagement Process (Continued)** | | • Canada Nickel should present the Crawford Project during a regular Cochrane Council meeting and Timmins Council meeting | Tentatively planned for after completion of the IPD. Presentation given to the Cochrane Town Council in September 2022. |
| | | • Canada Nickel should hold a short meeting with Cochrane's Town Council to present the IPD document | Completed in September 2022. |
| | | • Participate in a meeting with the Health Unit to share information about the project and the new federal Impact Assessment Process | A meeting has been held to discuss these topics. |
| | **Communication tools** | | |
| | **Economic Group**<br>**Municipal Institution**<br>**Community Group** | • Local media (TV, radio, newspapers) can be an effective tool to reach out to the community | A variety of sources were used to advertise the public IPD meetings, including newspaper, radio, social media, email chains, partnerships with stakeholders, and online targeted advertising. |

| TOPICS | CATEGORY OF STAKEHOLDER | KEY ISSUES | UNDERTAKEN ACTION |
|---|---|---|---|
| **Stakeholder Engagement Process (Continued)** | | • Use targeted and specialized media to reach out to the community members interested in the project | A variety of sources were used to advertise the public IPD meetings, including newspaper, radio, social media, email chains, partnerships with stakeholders, and online targeted advertising. |
| | | • Offer to advertise for public virtual IPD meeting | Canada Nickel shared formal invitations for the public IPD meetings with stakeholders who volunteered their support in spreading word about the event. |
| | **Open house** | | |
| | **Community Group**<br>**Economic Group**<br>**Educational Institution**<br>**Recreational Group** | • Open house events are effective engagement tools when they are properly announced to the community. | Virtual community meetings for the IPD were held in May 2022. A variety of sources were used to advertise the public IPD meetings, including newspaper, radio, social media, email chains, partnerships with stakeholders, and online targeted advertising.<br>Open house will be considered in the next year per stakeholder feedback, interest, and public health restrictions. |
| | | • Consider public information and consultation sessions to reach out to residents | Virtual community meetings held in 2022 to review the Initial Project Description. |

| TOPICS | CATEGORY OF STAKEHOLDER | KEY ISSUES | UNDERTAKEN ACTION |
|---|---|---|---|
| **Stakeholder Engagement Process**<br>**(Continued)** | | • Should hold an open house event<br>• Should avoid an open house and concentrate on sharing information and gathering feedback online | Virtual community meetings held in May 2022 to review the IPD.<br>Open house will be considered in the next year per stakeholder feedback, interest, and public health restrictions.<br>Information will be shared and opportunities for feedback provision provided, via online avenues (i.e., project website, email address) to ensure all interested parties have an opportunity to participate. |
| | | • Should hold committee meetings before an open house | The Contributions and Procurement Committee and Environmental Committee have been formed, with meetings underway. The Labour and Training Committee will be launched in 2023. |
| | | • The open house proposal was appreciated by the participant | Virtual community meetings held in May 2022 to review the IPD. Open house will be considered in the next year per stakeholder feedback, interest, and public health restrictions. |
| | | • Recognition of Canada Nickel's ongoing | NA |

| TOPICS | CATEGORY OF STAKEHOLDER | KEY ISSUES | UNDERTAKEN ACTION |
|---|---|---|---|
| **Stakeholder Engagement Process (Continued)** | | proactiveness regarding early engagement | |
| | | • Some people would be interested to learn more about the project and to work with Canada Nickel, but many of them lack time and/or knowledge to participate in the process | Tailoring engagement activities and information sharing to the expectations and needs of specific communities and groups, in addition to outreach to marginalized/vulnerable/specialized groups not often involved in the mining process |
| | | • Northglen would like to be included in future communications and opportunities for engagement | This has been arranged. |
| | | • Iroquois Falls wishes to support Canada Nickel in its process and encourages Canada Nickel to consider use of infrastructures such as the airport and new housing to meet the project's need | NA |

| TOPICS | CATEGORY OF STAKEHOLDER | KEY ISSUES | UNDERTAKEN ACTION |
|---|---|---|---|
| **Stakeholder Engagement Process (Continued)** | | • Recommendation to hold an open house with expert-led booths and flexible time slots | An open house will be considered in the next year per stakeholder feedback, interest, and public health restrictions. This option for such a meeting will be considered. |
| | | • Creation of an advisory committee with local community organizations can be an effective tool in managing the various community issues and concerns | Community Contribution and Procurement committee and Environmental Committee have been formed. Committee for Labour and Training will be developed in the near future. |
| **Thematic Committee** | **Community Group**<br>**Economic Group**<br>**Educational Institution**<br>**Environmental Group**<br>**Municipal Institution**<br>**Health Institution** | • Canada Nickel's closure plan could be a potential topic for a committee | Closure plan will be discussed through the Environmental Committee |
| | | • Expressed interest in participating in some committees | Those that expressed an interest in committee participation have been, or will be upon relevant committee formation, contacted for nominations |
| | | • Canada Nickel should organize its own committees if it aims to use such an engagement tool | Canada Nickel will form committees for topics specific to the Crawford Project, including Contributions and Procurement, Environment, and Labour and Training. |

| TOPICS | CATEGORY OF STAKEHOLDER | KEY ISSUES | UNDERTAKEN ACTION |
|---|---|---|---|
| **Thematic Committee (Continued)** | | • Canada Nickel should focus on gathering feedback through the community's existing committees rather than creating its own. | Canada Nickel is participating on both Canada Nickel specific committees and existing community committees, such as the Watershed's Public Liaison Committee |
| | | • If Canada Nickel creates committees for its project, it should choose the membership | Canada Nickel selected stakeholder groups according to interest or expertise, and requested that those groups nominate their own representatives |
| | | • Agreements with the use of thematic committees as an engagement tool | Thematic committees formed or planned for formation for Labour and Training, Community Contributions and Local Procurement, and Environmental Impacts |
| | | • Strong interest in participating in the Labour and Training Committee | Collège Boréal will be invited to nominate a representative to the Labour and Training committee |
| | | • The new Community Contributions and Procurement Committee representative for the Town of Cochrane should be the Director of Corporate Services | This change to the committee's composition has been made |

| TOPICS | CATEGORY OF STAKEHOLDER | KEY ISSUES | UNDERTAKEN ACTION |
|---|---|---|---|
| **Thematic Committee (Continued)** | | • The Smooth Rock Falls water treatment plant manager should join Canada Nickel's Environmental Committee | Smooth Rock Falls, and all groups contacted to hold a position on the Environmental Committee, will be asked to select their own representatives when the committee is formed. |
| | | • Agreement regarding the use of smaller, topic-specific committees, and Canada Nickel's proposed committee topics | Thematic committees formed or planned for formation for Labour and Training, Community Contributions and Local Procurement, and Environmental Impacts |
| | | • Strong interest in participating in discussions regarding Canada Nickel's labour and employment needs, and its community contributions | Those that expressed an interest in committee participation have been, or will be upon relevant committee formation, contacted for nominations |
| | | • The PHU may be interested in participating in the upcoming Environmental Committee. In any case, they would like to be made aware of the study | The Porcupine Health Unit has a representative on the committee |

| TOPICS | CATEGORY OF STAKEHOLDER | KEY ISSUES | UNDERTAKEN ACTION |
|---|---|---|---|
| | | results for water discharge | |
| **Open pit** | **Municipal Institution** | • Justification of an open pit mine versus an underground mine | The potential to go underground was considered and evaluated with the available exploration results, but was deemed technically and economically unfeasible for this operation at this time. |
| | | • Project's social impacts, including housing, road and airport usage, parking availability, local ATV and snowmobile trails, road service levels (Highway 655) | These potential impacts are to be evaluated in the impact assessment process and through communication with the relevant communities/groups/organizations.<br>Communication with recreational, social, economic, municipal, and health groups have been initiated, and good relationships developed for future collaboration around impact identification and developed of mitigation measures. These mitigation measures may include programs/projects through the Community Contributions program, discussions to coordinate community planning, and early planning for potential trail relocation or infrastructure accommodations/updates. |
| **Impacts on recreotourism** | **Municipal Institution** | • Recreotourism activities, such as hiking and biking, should be added to the recreational activities listed as potentially affected by project's development. | This change has been made in the IPD and DPD. |

| TOPICS | CATEGORY OF STAKEHOLDER | KEY ISSUES | UNDERTAKEN ACTION |
|---|---|---|---|
| **Baseline studies** | **Economic Group**<br>**Municipal Institution**<br>**Health Institution** | • Add forestry, culture, live music and recreotourism as relevant economic sectors or recreational activities for Timmins | This change has been made in the IPD and DPD. |
| | | • Add Ontario Power Generation, Hydro One and the Ontario government as public sector employers | This change has been made in the IPD and DPD. |
| | | • Assess project impacts on airport usage | As the workforce is anticipated to be drawn from local communities and given the readily available access to surface transportation routes (highways and rail lines), it is not anticipated that there will be an increase in airport usage due to the Project. |
| | | • Smooth Rock Falls can share its internal social profile to Canada Nickel, to further its understanding of the community | This profile has been shared with Canada Nickel and reviewed for the DPD. |
| | | • The Northern Policy Institute has significant baseline data regarding the different | This document has been reviewed and shared with Canada Nickel's consultation team. |

| TOPICS | CATEGORY OF STAKEHOLDER | KEY ISSUES | UNDERTAKEN ACTION |
|---|---|---|---|
| **Baseline studies (Continued)** | | community's concerned by the Crawford Project | |
| | | • Add passenger rail service, health care services and retail as economic sectors in Timmins | This change has been made to the IPD and DPD. |
| | | • Scope of the vibration assessment being sufficient to evaluate potential impacts to Iroquois Falls' infrastructure (airport, trailer park, farming land, etc.) | Vibration will be assessed as part of the Impact Assessment process, should an impact assessment be required. The range of the assessment will be adjusted as deemed necessary based on initial assessment results. |
| | | • Offer to provide CNC with information on social, economic and health data for Iroquois Falls, such as the community safety plan | NA |
| | | • Contact the Health Unit to share and discuss the Impact Assessment's | A meeting has been held to discuss these topics. The PHU is also a member of the Environmental Committee, and will be invited to future engagement activities. |

| TOPICS | CATEGORY OF STAKEHOLDER | KEY ISSUES | UNDERTAKEN ACTION |
|---|---|---|---|
| **Baseline studies (Continued)** | | socioeconomic and health determinants | |
| | | • The project's light and noise emissions may be of lesser concern. this should be reviewed with local post-secondary institutions regarding astronomical observations | This information has been shared with the Impact Assessment Agency of Canada. |
| **General Project feedback** | **Economic Group**<br>**Environmental Group**<br>**Municipal Institution** | • A 40-year mine lifecycle is good news | NA |
| | | • Timmins generally has a positive attitude towards mining | NA |
| | | • Project financing | Recently obtained financing, as of spring 2022, is sufficient to carry Canada Nickel through the Crawford Project's feasibility study. Multiple avenues are being considered for financing the construction of the Crawford Project, and will be disclosed as they are finalized and made public information. Rising demand for nickel to feed next-generation technologies like electric vehicles, and the current price of nickel are positive catalysts to support the financing of the Crawford Project. |

| TOPICS | CATEGORY OF STAKEHOLDER | KEY ISSUES | UNDERTAKEN ACTION |
|---|---|---|---|
| **SOCIAL** | | | |
| **Housing Availability and Affordability** | **Economic Group**<br>**Municipal Institution**<br>**Recreational Group**<br>**Community Groupe** | • Potential impacts of outside workers on housing availability | These potential impacts are to be evaluated in the impact assessment process, should an impact assessment be required, and through communication with the relevant communities/groups/organizations.<br><br>Communication with recreational, social, economic, municipal, and health groups have been initiated, and good relationships developed for future collaboration around impact identification and developed of mitigation measures. These mitigation measures may include programs/projects through the Community Contributions program, discussions to coordinate community planning, and early planning for potential trail relocation or infrastructure accommodations/updates.<br><br>Though Canada Nickel wishes to hire primarily from local and Indigenous communities, workers from outside of the region may be required to meet the workforce demand of the Crawford Project. This relocation could impact housing availability and pricing in the region.<br><br>Housing availability is to be assessed in the impact assessment, should an impact assessment be required. Once project certainty is more established and the extent of the impact known, necessary |
| | | • Project's social impacts, including housing, road and airport usage, parking availability, local ATV and snowmobile trails, road service levels (Highway 655) | |
| | | • Project's labour requirements and the necessary housing to host the workforce, especially low-income housing | |
| | | • Canada Nickel should look to encourage various types of housing to host different types of workers | |

| TOPICS | CATEGORY OF STAKEHOLDER | KEY ISSUES | UNDERTAKEN ACTION |
|---|---|---|---|
| **Housing Availability and Affordability (Continued)** | | • Project impacts on housing and associated mitigation measures and proponent investments into the issue | mitigation measures will be developed alongside the appropriate municipal, economic, and social community representatives.<br>Early discussions had with CDSSAB to establish an effective working relationship and communication channels for future potential collaboration |
| | | • Partnership potential with CDSSAB, and support, for housing issues | |
| | | • Review of Timmins' housing and highway policies (Official Plan) by Canada Nickel to ensure a proper assessment of the project's impacts | These documents have been reviewed and shared with Canada Nickel's consultation team. |
| | | • New housing subdivisions are planned for the City of Timmins | NA |
| | | • Canada Nickel and Living Space Timmins should partner to address common issues, especially through existing programs, for | Early discussions had with Living Space Timmins to establish productive relationship to facilitate future conversations when Canada Nickel's operations more closely align with Living Space's programs. |

| TOPICS | CATEGORY OF STAKEHOLDER | KEY ISSUES | UNDERTAKEN ACTION |
|---|---|---|---|
| **Housing Availability and Affordability (Continued)** | | example Pathways to Potential | |
| | | • Iroquois Falls has cheaper housing compared to the region | NA |
| | | • Concerns for housing access in Timmins | Though Canada Nickel wishes to hire primarily from local and Indigenous communities, workers from outside of the region may be required to meet the workforce demand of the Crawford Project. This relocation could impact housing availability and pricing in the region.<br><br>Housing availability is to be assessed in the impact assessment, should an impact assessment be required. Once project certainty is more established and the extent of the impact known, necessary mitigation measures will be developed alongside the appropriate municipal, economic, and social community representatives. |
| | | • Concerns regarding displacement of vulnerable citizens with regards of housing access in Timmins | Communication with recreational, social, economic, municipal, and health groups have been initiated, and good relationships developed for future collaboration around impact identification and developed of mitigation measures. These mitigation measures may include programs/projects through the Community Contributions program, discussions to coordinate community planning, and early planning for potential trail relocation or infrastructure accommodations/updates. |

| TOPICS | CATEGORY OF STAKEHOLDER | KEY ISSUES | UNDERTAKEN ACTION |
|---|---|---|---|
| **Housing Availability and Affordability (Continued)** | | | Though Canada Nickel wishes to hire primarily from local and Indigenous communities, workers from outside of the region may be required to meet the workforce demand of the Crawford Project. This relocation could impact housing availability and pricing in the region.<br><br>Housing availability is to be assessed in the impact assessment. Once project certainty is more established and the extent of the impact known, necessary mitigation measures will be developed alongside the appropriate municipal, economic, and social community representatives. |
| | | • Plans for bunk houses or other accommodations on site during construction period | There is currently no plan for accommodations on site, with the intention of encouraging workers to settle in the surrounding communities |
| | | • Northglen is looking to expand - requests a letter of support from Canada Nickel explaining anticipated project size and workforce and how that could impact housing requirements, to support desire for expansion from Northglen | The letter of support has been provided. |

| TOPICS | CATEGORY OF STAKEHOLDER | KEY ISSUES | UNDERTAKEN ACTION |
|---|---|---|---|
| **Project Impacts on Women & Vulnerable & Marginalized Groups** | **Community Group**<br>**Educational Group** | • Existence of sexual harassment policy | Canada Nickel has a Workplace Violence and Harassment policy in which all employees have been trained |
| | | • Project ability to attract local, immigrant, and Indigenous workers | Canada Nickel will place an emphasis on hiring locally and from Indigenous Communities wherever possible. Given the size of the potential workforce at Crawford, Canada Nickel may need to employ from outside of the region, with the hope of encouraging long term relocation to the area.<br>Canada Nickel has spoken with members of the rural northern immigration pilot and members of the international programs at Northern College and Collège Boréal regarding the potential for drawing from immigrant workers |
| | | • Choice of indicators and instruments for the GBA+, during the baseline studies and the Impact Assessment | The specific indicators and instruments have not yet been selected for the GBA+ study. This is to be further evaluated for later stages of the impact assessment process, should an impact assessment be required. |
| | | • Appreciation regarding the inclusion of a GBA+ into the federal Impact Assessment Process | NA |

| TOPICS | CATEGORY OF STAKEHOLDER | KEY ISSUES | UNDERTAKEN ACTION |
|---|---|---|---|
| **Project Impacts on Women & Vulnerable & Marginalized Groups**<br>**(Continued)** | | • Concerns regarding displacement of vulnerable citizens with regards to housing access in Timmins | Communication with recreational, social, economic, municipal, and health groups have been initiated, and good relationships developed for future collaboration around impact identification and developed of mitigation measures. These mitigation measures may include programs/projects through the Community Contributions program, discussions to coordinate community planning, and early planning for potential trail relocation or infrastructure accommodations/updates.<br>Though Canada Nickel wishes to hire primarily from local and Indigenous communities, workers from outside of the region may be required to meet the workforce demand of the Crawford Project. This relocation could impact housing availability and pricing in the region.<br>Housing availability is to be assessed in the impact assessment, should an impact assessment be required. Once project certainty is more established and the extent of the impact known, necessary mitigation measures will be developed alongside the appropriate municipal, economic, and social community representatives. |
| **Recreational Usage** | **Land User**<br>**Recreational Group** | • Impacts on snowmobile trails | Relationships have been established with regional snowmobile clubs to facilitate both safe exploration activities and potential trail relocation for when Crawford enters into construction and operation. |

| TOPICS | CATEGORY OF STAKEHOLDER | KEY ISSUES | UNDERTAKEN ACTION |
|---|---|---|---|
| **Recreational Usage (Continued)** | | • Establish a joint engagement agreement with both the Timmins and Cochrane Snowmobile clubs | Timmins and Cochrane Snowmobile clubs are comfortable sending a single representative to Canada Nickel meetings |
| | | • Drilling activity coordination with local snowmobile clubs | Drilling will, when possible, be kept distant from snowmobile trails. When this is not possible, all snowmobile clubs will be alerted prior to drilling commencement to ensure coordination of health and safety efforts for Canada Nickel employees/contractors and recreational trail users |
| | | • Establish trail modifications in a timely matter to make sure season's maps are accurate | To be discussed with Snowmobile clubs when a clearer timeline for construction has been established |
| | | • One of the planned stockpiles is located on an intersection of several snowmobile tracks | Discussed with snowmobile clubs, who expressed willingness to relocate trails around the site. To be discussed further as project layout evolves. |
| | | • Sign three-year land-use agreement for the joint trails, to minimize paperwork and legal matters | Club interest in this option to be confirmed. |

| TOPICS | CATEGORY OF STAKEHOLDER | KEY ISSUES | UNDERTAKEN ACTION |
|---|---|---|---|
| **Recreational Usage (Continued)** | | • Impacts to trapping along Lower Sturgeon Dam Road | Communication channel established with concerned trapper to facilitate mitigation planning and impact evaluation, as well as potential opportunities for collaboration. |
| | | • Impact to trapping along North Driftwood | Communication channel established with concerned trapper to facilitate mitigation planning and impact evaluation, as well as potential opportunities for collaboration. |
| | | • Access for hunting purposes, particularly to get to far side of property | Access opportunities to be established with relevant individuals/groups once the project moves into construction/operation. Communication channels have been established to facilitate such collaboration. |
| | | • One of the planned stockpiles is located on an intersection of several snowmobile tracks | Discussed with snowmobile clubs, who expressed willingness to relocate trails around the site. To be discussed further as project layout evolves. |
| **Worker Unionization** | **Educational Institution** | • Unionized workforce | To be determined by the workforce. |
| **Nuisances** | **Community Group** | • Verify with local education institutions concerning the potential location of astronomical observation points near the project area | An inquiry into observation activities in the region has been conducted. To date, it is not believed that any astronomical studies are conducted in or around the project footprint. |

| TOPICS | CATEGORY OF STAKEHOLDER | KEY ISSUES | UNDERTAKEN ACTION |
|---|---|---|---|
| **Nuisances (continued)** | | • Northglen notes that they do not anticipate direct impacts from the project relating to light, noise, vibration, etc. | NA |

# Appendix B

## Preliminary Feedback Survey Results – Stakeholders

## IDENTIFICATION OF SURVEY PARTICIPANTS

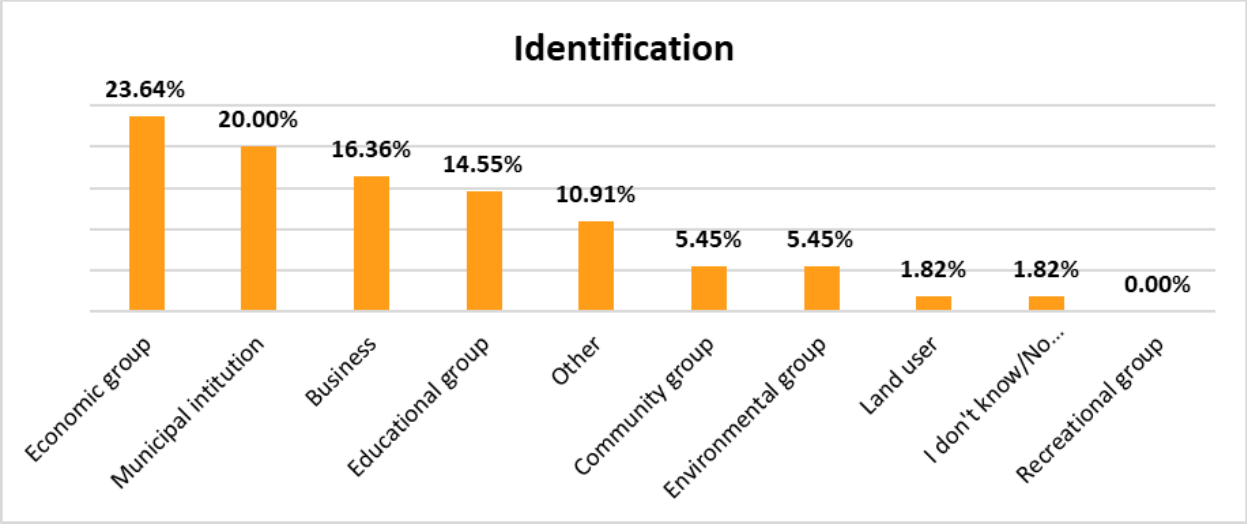


**Figure Ap.2. Identification of Respondents**

*Six respondents answered "Other" and provided the following groups:* **Government, Workforce Planning, Employment and Training Delivery, Employment Services, Métis Nation Advocate and Public Health.**

## TYPES OF ENGAGEMENT ACTIVITIES, LEVEL OF ENGAGEMENT, AND FREQUENCY OF INFORMATION

The top 5 desired types of engagement activities are:

Open house – **42.59%**

Web-based engagement platform – **40.74%**

Private meetings or small groups meetings (in person or virtual) – **31.48%**

Email – **27.78%**

Newsletter – **22.22%**

A few comments emphasized the importance of a transparent and informative process, where complex information is summarized (ex. baseline studies, technical studies, etc.) and available for review.

Regarding the desired level of community engagement, diverse answers were provided although the most popular answer is "**Choose the topics of interest on which you would like to receive more detailed information, when available**".

For those who wanted the highest level of engagement, the preferred mechanism is to hold thematic meetings in small groups.

Most people wanted to be informed / solicited every three months or so.

## ISSUE PRIORITIZATION

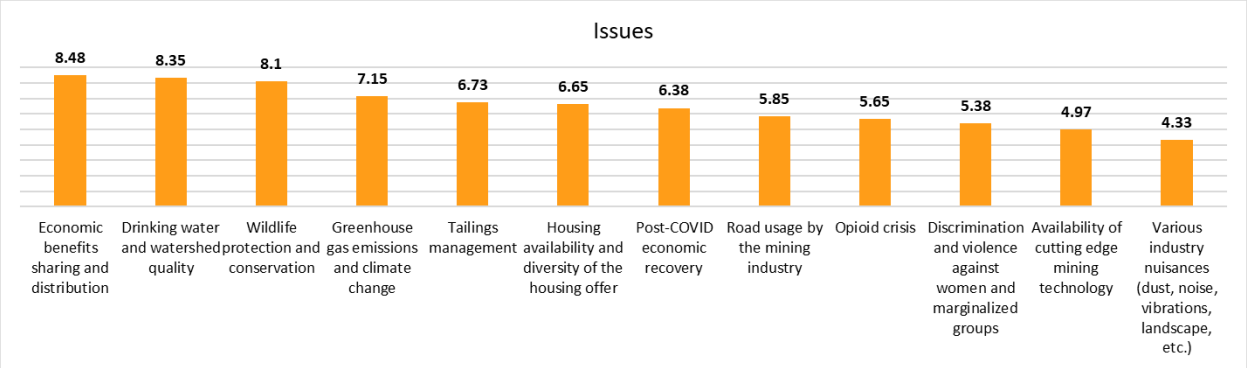


**Figure Ap.3. Stakeholder issue prioritization**

## OPPORTUNITIES

Respondents were invited to choose opportunities that would, in their opinion, create regional pride.

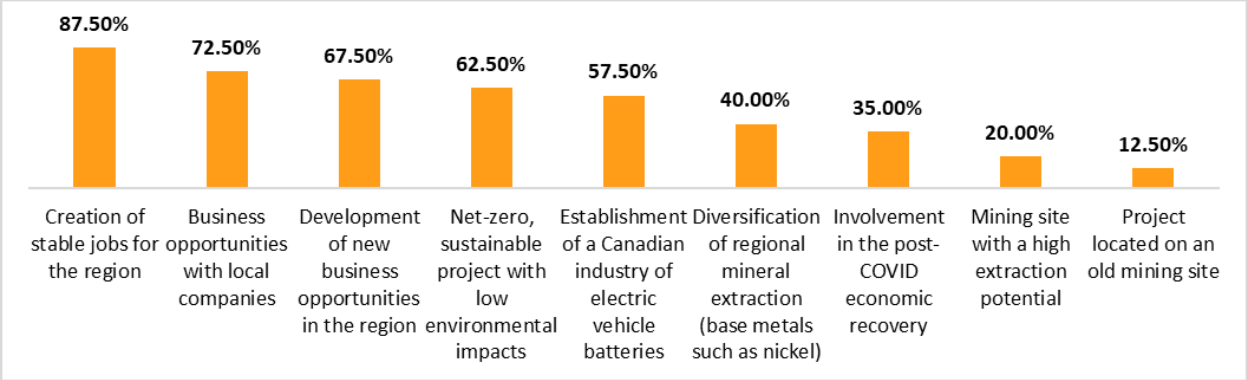


**Figure Ap.4. Stakeholder opportunities identification**

# Appendix C

## Community Input And Outcomes – Indigenous Peoples

**Table Ap.1. Results of Community Input and Outcomes - Indigenous Peoples**

| TOPICS | KEY ISSUES | NATURE OF INTERVENTION | | | UNDERTAKEN ACTION |
|---|---|---|---|---|---|
| | | ISSUES AND CONCERNS | SUGGESTION | COMMENT | |
| **TAYKWA TAGAMOU NATION** | | | | | |
| **Economic Development Opportunities** | Potential for community members to become involved in environmental and impact assessment studies | | ✓ | | Taykwa Tagamou Nation to lead their own socio-economic and Traditional Knowledge and Land Use studies for the IA process.<br><br>Canada Nickel has provided resources to support participation in the IA process, including formation of an IA Committee. Community members are invited to accompany field consultants as they conduct baseline studies, and may ask for arrangements to be made for site visits. Baseline program work plans and schedules are shared with primary community contact in advance. |
| | Potential future job opportunities | ✓ | | | Canada Nickel will place a focus on regional and Indigenous employment when seeking to fill workforce requirements for construction and operation.<br><br>Canada Nickel has held early discussions with communities, Keepers of the Circle, local colleges, and other regional training institutions around ways to emphasize Indigenous employment in the mining industry.<br><br>To be further discussed with the community on an ongoing basis to ensure outreach for employment and training is done in a method appropriate for that community.<br><br>Engagement with Indigenous peoples throughout the assessment will help Canada Nickel understand the needs of diverse population groups to help enhance employment opportunities through strategic, targeted programs. |

| TOPICS | KEY ISSUES | NATURE OF INTERVENTION | | | UNDERTAKEN ACTION |
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| | | ISSUES AND CONCERNS | SUGGESTION | COMMENT | |
| **Economic Development Opportunities (continued)** | Timeline for training of new workers | | | ✓ | Through partnerships and discussions with regional training institutions, Canada Nickel hopes that training for the new workforce, per advice and program specifics of regional training institutions, will begin as appropriate on a case-by-case basis to meet anticipated employment opportunities arising around 2025-2027, and ongoing from that point. |
| **General Environmental Concerns** | Transparency in regard to sharing study results and environmental impacts | ✓ | | | Baseline and impact findings will be shared throughout the Impact and Environmental Assessment processes, with the appropriate committees, and in summarized reports. Study reports are shared with the primary community contact.<br><br>Indigenous Peoples will be engaged with throughout the Environment and IA processes for input on major project decisions as well as completion of baseline studies.<br><br>Taykwa Tagamou Nation will complete their own Traditional Knowledge and land use and socio-economic studies.<br><br>Canada Nickel to hold regular meetings with TTN representatives as appropriate/agreed upon to report on environmental incidents, including non-reportable spills and recorded wildlife. |

| TOPICS | KEY ISSUES | NATURE OF INTERVENTION | | | UNDERTAKEN ACTION |
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| | | ISSUES AND CONCERNS | SUGGESTION | COMMENT | |
| **General Environmental Concerns (continued)** | Impacts on water quality and quantity | ✓ | | | To be evaluated in the Impact Assessment, should an impact assessment be required, particularly hydrogeological and hydrological studies and modelling. Contact water from site will be collected and treated as necessary prior to release back into the environment. Any water being discharged from site will meet regulatory requirements. These regulatory requirements can vary on a project-to-project basis and will be tailored specifically to Crawford and the region.<br><br>Indigenous Peoples have and will continue to be consulted regarding water discharge plans. Baseline hydrology and aquatics studies have been conducted for comparison to future conditions of nearby water bodies, and results will be shared once available.<br><br>Indigenous Peoples will be engaged with throughout the Environment and IA processes for input on major project decisions. |
| | Importance of understanding flow and relationship between river systems | ✓ | | | Baseline studies, both those completed and still planned, related to aquatics, hydrology, and hydrogeology will all help to inform Canada Nickel and relevant consultant's understanding of the water systems and their unique and related characteristics. |
| | Cumulative impacts (Proximity of other mining operations) | ✓ | | | Environmental baseline data will intrinsically incorporate impacts from other mining operations, if any, and will be the baseline to which all future collected data is compared to assess overall impacts of the Project.<br>Cumulative impacts will also be assessed as part of the impact assessment process, should an impact assessment be required. |

| TOPICS | KEY ISSUES | NATURE OF INTERVENTION | | | UNDERTAKEN ACTION |
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| | | ISSUES AND CONCERNS | SUGGESTION | COMMENT | |
| **General Environmental Concerns (continued)** | Impact of Project on wildlife | ✓ | | | Canada Nickel will follow regulatory guidance regarding compensation measures for wildlife, and will use the Impact Assessment process, if one is required, and completed baseline studies to fully evaluate potential impacts on project wildlife. Canada Nickel has and will continue to share results from initial environmental baseline studies with the primary community contact.<br><br>Baseline workplans and schedules are also shared with the primary community contact, and ongoing opportunities are provided to accompany field consultants during the completion of studies. |
| | Water discharge criteria and location | ✓ | | | Discussed with Indigenous communities, stakeholders, and the public during the IPD meetings. To be further discussed with the relevant environment and/or impact assessment committees. Full impact and engineering assessments to be completed on the potential locations to determine the optimal option, combined with feedback received during all engagement around the discharge location. To date, there was no significant concerned raised by Stakeholders or Indigenous Groups when mentioning that the Mattagami River will be used as the discharge location for the upcoming feasibility study.<br><br>Potential impacts will be assessed in the Impact Assessment, should an impact assessment be required. Any water being discharged from site will meet regulatory requirements. These regulatory requirements can vary on a project-to-project basis and will be tailored specifically to Crawford and the region. |
| | Project footprint and environmental impacts of site development | ✓ | | | Canada Nickel will make reasonable efforts to reduce the overall footprint of the project, where feasible. The footprint will also develop gradually as the mine expands over its operating life, and not be cleared and developed all at once.<br><br>The surface impacts of the project, relating to its footprint, will be fully evaluated in the impact assessment, should an impact assessment be required |

| TOPICS | KEY ISSUES | NATURE OF INTERVENTION | | | UNDERTAKEN ACTION |
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| | | ISSUES AND CONCERNS | SUGGESTION | COMMENT | |
| **General Environmental Concerns (continued)** | Concerns regarding water management and potential impacts on North Driftwood | ✓ | | | To be evaluated in the Impact Assessment, should an impact assessment be required, particularly through hydrogeological and hydrological studies and modelling. Contact water from site will be collected and treated as necessary prior to release back into the environment. All water leaving the site will meet applicable quality criteria. Indigenous Peoples will be consulted on water discharge plans. Baseline hydrology and aquatics studies have been conducted for comparison to future conditions of nearby water bodies, and results will be shared once available. Indigenous Peoples will be engaged with throughout the Environment and IA processes for input on major project decisions. |
| | Method and footprint for tailings management | ✓ | | | Canada Nickel has looked at opportunities to reduce the footprint of the tailings management facility. For example, the current intention is to store tailings from the East zone in the mined out Main Zone pit to reduce the tailings management facility's footprint. Ore will be mined faster than the plant processing capacity. The tailings from the ore stockpiled will be stored in the East zone. In addition, tailings will be thickened before discharge, allowing increased storage capacity in the same footprint. The tailings management facility will not be used as a water management facility at the Crawford Project. Potential impacts relating to the tailings management facility, including environmental footprint and water management, will be evaluated in the impact assessment and with the Environmental Impacts Committee. |

| TOPICS | KEY ISSUES | NATURE OF INTERVENTION | | | UNDERTAKEN ACTION |
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| | | ISSUES AND CONCERNS | SUGGESTION | COMMENT | |
| **General Environmental Concerns (continued)** | West Buskegau and north driftwood are spawning grounds, temperature changes from effluent can change ability to spawn | | | | This information will be shared with Canada Nickel's internal consultants. Canada Nickel would ask that specific information relating to species and spawning locations be shared as this will help to further information specific discharge location and discharge criteria. |
| **Industry Partnerships, MOUs, and Agreements** | Agreement structure with Canada Nickel | | | ✓ | Canada Nickel and TTN intend to sign a Mutual Support Agreement to accompany the IA Agreement, Exploration Agreement, and agreements relating to the haul fleet financing and transmission line MOUs. |
| | Details behind partnership between Taykwa Tagamou Nation and Canada Nickel for the haul fleet and powerline MOUs | | | ✓ | A meeting was held with Taykwa Tagamou Chief, Council, and Elders, Canada Nickel, and leadership from Transmission Infrastructure Partnerships 1 (TIP1) to provide clarification on the agreements and proposed partnership structure.<br><br>A Transmission Service Agreement for the powerline has been signed between TTN, Canada Nickel, and TIP1.<br><br>A brief overview of information regarding the agreements was shared during the community IPD meeting. |
| | Impact Benefit Agreement | ✓ | | | Canada Nickel and TTN intend to sign a Mutual Support Agreement to accompany the IA Agreement, Exploration Agreement, and agreements relating to the haul fleet financing and transmission line MOUs. |
| **Project Information** | Permitting for the project beyond the federal Impact Assessment | ✓ | | | The Impact Assessment will not be the only permit required for the Crawford Project to move ahead into construction and operation. There are a number of provincial and federal permits required for mining operations in Canada. Though the exact list for Crawford has yet to be determined, it will likely also include a Closure Plan, provincial environmental assessment(s), and permits to take water, among others. A more detailed list of potential approvals can be found in the DPD. |

| TOPICS | KEY ISSUES | NATURE OF INTERVENTION | | | UNDERTAKEN ACTION |
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| | | ISSUES AND CONCERNS | SUGGESTION | COMMENT | |
| **Project Information (continued)** | Potential for underground operations | ✓ | | | The potential to go underground was considered and evaluated with the available exploration results, but was deemed technically and economically unfeasible for this operation at this time. |
| | Involvement in mine closure | ✓ | | | Canada Nickel will consult on the Closure Plan when the time comes for its development, review, and approval, and would like to work with those interested individuals/communities/groups to develop the plan from the beginning. |
| | Overburden levels | ✓ | | | Approximately 40 - 50 metres of overburden are present at the proposed location of the pit. |
| **Indigenous Engagement and Involvement in the IA Process** | Opportunity for First Nation involvement in IA process | ✓ | | | Taykwa Tagamou Nation to lead their own socio-economic and Traditional Knowledge and Land Use studies.<br><br>Canada Nickel has provided resources to support participation in the IA process, including formation of an IA Committee. Community members are invited to accompany field consultants as they conduct baseline studies, and may ask for arrangements to be made for site visits. Baseline program workplans, schedules, and results are shared with the primary community contact.<br><br>Community engagement meetings held in 2022 to share IPD for comment and review. Engagement will continue as such, with adjustments as deemed appropriate by all parties, throughout the IA process. |
| | Discretion in sharing Traditional Knowledge through the IA | ✓ | | | Canada Nickel and Taykwa Tagamou Nation to work together with IAAC to determine method for applying Traditional Knowledge with sensitivity for its value and associated need for discretion |
| | Appreciation for early engagement and opportunities for training/capacity building through partnerships | | | ✓ | NA |

| TOPICS | KEY ISSUES | NATURE OF INTERVENTION | | | UNDERTAKEN ACTION |
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| | | ISSUES AND CONCERNS | SUGGESTION | COMMENT | |
| **Indigenous Engagement and Involvement in the IA Process (continued)** | Training options to support capacity building (particularly for youth) | | ✓ | | Canada Nickel will provide support for Taykwa Tagamou Nation to acquire resources during the IA process, completion of studies, and environmental reviews as needed, including IA related training, while also providing opportunities for community members to accompany consultants on-site and receive additional training.<br><br>Training and employment will be discussed as topics for the Mutual Support Agreement, and will be established between TTN and Canada Nickel during future stages of project development. |
| | Emphasis on importance that each member understands potential project impacts and have their say | | ✓ | | Canada Nickel will aim to conduct regular community meetings to provide project updates, particularly as it relates to the IA process, while also sharing Environmental Assessment and Impact Assessment documents and summary reports to further facilitate transparency of information with individual community members.<br><br>The IA coordination committee is intended to be representative of community members, and will have further opportunity to attend project meetings, participate in baseline studies, and oversee completion of community run studies (traditional knowledge and land use, for example). |
| | Request for documents to be made available to lands and resources, including baseline programs | | ✓ | | All documents (baseline work programs, final baseline reports, all documents for the IA process) are being shared with the primary community contact, to be further distributed at their discretion |

| TOPICS | KEY ISSUES | NATURE OF INTERVENTION | | | UNDERTAKEN ACTION |
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| | | ISSUES AND CONCERNS | SUGGESTION | COMMENT | |
| **MATACHEWAN FIRST NATION** | | | | | |
| **Economic Development Opportunities** | Businesses opportunities and capacity building for communities | ✓ | | | Addressed through the Impact and Benefits Agreement (IBA), development ongoing.<br><br>Canada Nickel will put an emphasis on procurement from Indigenous businesses, as outlined in Canada Nickel's local procurement policy.<br><br>Additional capacity building opportunities are presented in the IA Agreement, including training and acquisition of additional supporting resources. |
| | Employment opportunities at all Project stages, particularly for youth | ✓ | | | Addressed through the IBA, development ongoing.<br><br>Canada Nickel will place a focus on regional and Indigenous employment when seeking to fill workforce requirements for construction and operation. Canada Nickel has held early discussions with communities, Keepers of the Circle, local colleges, and other regional training institutions around ways to emphasize Indigenous employment in the mining industry.<br><br>To be further discussed with the community on an ongoing basis to ensure outreach for employment and training is done in a method appropriate for that community.<br>Engagement with Indigenous peoples throughout the assessment will help Canada Nickel understand the needs of diverse population groups to help enhance employment opportunities through strategic, targeted programs. |

| TOPICS | KEY ISSUES | NATURE OF INTERVENTION | | | UNDERTAKEN ACTION |
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| | | ISSUES AND CONCERNS | SUGGESTION | COMMENT | |
| **General Environmental Concerns** | Reporting on Project updates and environmental incidents (if applicable) | ✓ | | | Canada Nickel to hold biweekly meetings with the primary community contact to report on Project updates and any environmental incidents, including non-reportable spills and recorded wildlife.<br><br>Quarterly (or as agreed upon/appropriate) meetings to be held with the primary community contact and IA committees to review baseline results as they become available.<br><br>Baseline and impact findings will be shared throughout the Impact and Environmental Assessment processes, with the appropriate committees, and in summarized reports. |
| | Impacts to moose population (increased access, road/rail fatalities) wants to track fatalities and look into available technology to prevent vehicle collisions along certain corridors | ✓ | | | Wildlife fatalities resulting from CNC activities or caused by CNC employees/contractors while performing work for CNC will be tracked. Appropriate control measures for wildlife contact will be evaluated, engaged upon, and implemented where deemed necessary |
| | Moose tracks observed on Lower Sturgeon Dam road | | | | Observation noted. Sighting in line with results from CNC terrestrial baseline programs performed to date. |
| **Project Information** | General questions regarding location, footprint, and activities | ✓ | | | The Crawford Project is located approximately 40 kms north of Timmins along Highway 655, and has an initial footprint of approximately 80 – 90 square kilometers. Ongoing activities include baseline studies, resource drilling, geotechnical drilling, and engineering and design programs relating to the feasibility study. |

| TOPICS | KEY ISSUES | NATURE OF INTERVENTION | | | UNDERTAKEN ACTION |
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| | | ISSUES AND CONCERNS | SUGGESTION | COMMENT | |
| **Indigenous Engagement** | Emphasis on the importance of individual rights for engagement and consultation by both government and proponent | | | | Canada Nickel will aim to conduct regular community meetings to provide project updates, particularly as it relates to the IA process, while also sharing Impact and Environmental assessment documents and summary reports to further facilitate transparency of information with individual community members.<br><br>The IA coordination committee is intended to be representative of community members, and will have further opportunity to attend project meetings, participate in baseline studies, and oversee completion of community run studies (traditional knowledge and land use, for example).<br><br>The feedback has been shared with the Impact Assessment Agency of Canada for consideration when engaging with Indigenous communities. |
| **Traditional Knowledge** | Comments that much traditional knowledge has been lost and can be difficult to determine with precision | | | | Canada Nickel has provided funding for Matachewan to hire an independent consultant of their choosing to complete the community's traditional knowledge and land use studies. The information from these studies can be used as the community sees fit, with the information deemed necessary shared with Canada Nickel for completion of the Impact Assessment process.<br><br>The intention with the IA Agreement is to facilitate long term capacity building and information collection that extends beyond Canada Nickel and the Crawford Project. |
| **MATTAGAMI FIRST NATION** | | | | | |
| **Economic Development Opportunities** | Businesses opportunities and capacity building for communities | | | ✓ | Addressed through the IBA, development ongoing.<br><br>Canada Nickel will put an emphasis on procurement from Indigenous businesses, as outlined in Canada Nickel's local procurement policy.<br><br>Additional capacity building opportunities are presented in the IA Agreement, including training and acquisition of additional supporting resources. |

| TOPICS | KEY ISSUES | NATURE OF INTERVENTION | | | UNDERTAKEN ACTION |
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| | | ISSUES AND CONCERNS | SUGGESTION | COMMENT | |
| | Employment opportunities at all Project stages | | | ✓ | Addressed through the IBA, development ongoing.<br>Canada Nickel will place a focus on regional and Indigenous employment when seeking to fill workforce requirements for construction and operation. Canada Nickel has held early discussions with communities, Keepers of the Circle, local colleges, and other regional training institutions around ways to emphasize Indigenous employment in the mining industry.<br><br>To be further discussed with the community on an ongoing basis to ensure outreach for employment and training is done in a method appropriate for that community.<br><br>Engagement with Indigenous peoples throughout the assessment will help Canada Nickel understand the needs of diverse population groups to help enhance employment opportunities through strategic, targeted programs. |
| **General Environmental Concerns** | Environmental actions being taken by Canada Nickel during exploration | | | ✓ | Canada Nickel has a comprehensive Exploration Policy relating to environmental best practices to which all exploration work, conducted by Canada Nickel or contractors, is held.<br><br>Canada Nickel recently hired both an environmental technician and an environmental manager. Canada Nickel maintains a detailed reporting system that tracks water taking, spills, wildlife sightings, and drill site inspections (pre, operational, and post).<br><br>Canada Nickel to hold biweekly meetings with primary community contact to report on Project updates and any environmental incidents, including non-reportable spills and recorded wildlife. |

| TOPICS | KEY ISSUES | NATURE OF INTERVENTION | | | UNDERTAKEN ACTION |
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| | | ISSUES AND CONCERNS | SUGGESTION | COMMENT | |
| **General Environmental Concerns (Continued)** | Appreciation for Canada Nickel's willingness and eagerness to fully involve Mattagami, and the thoroughness around environmental monitoring and tracking | | | ✓ | NA |
| | Species of concern noted for potential in the project area – the eastern whip-poor-will | | ✓ | | The species was added to the list of species potentially present in the Project area, and noted to Canada Nickel's field teams for consideration during the 2022 terrestrial baseline program. |
| **Project Information** | Location of nearby generating stations | ✓ | | | Ontario Power Generation's Lower Sturgeon generating station is located west of the project footprint. |
| | Location of downstream processing and sale of Crawford concentrates | ✓ | | | Canada Nickel has not yet finalized its plans for downstream processing of its concentrates or a set buyer for the concentrate product to be produced at the Crawford Project. |
| **Archeology** | Location of field archeological assessments | ✓ | | | The locations determined necessary for Phase II archeological assessment based on the preliminary desktop analysis have been shared with the community. These locations are subject to change depending on feedback received and the results of the traditional knowledge and land use studies being conducted. |

| TOPICS | KEY ISSUES | NATURE OF INTERVENTION | | | UNDERTAKEN ACTION |
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| | | ISSUES AND CONCERNS | SUGGESTION | COMMENT | |
| **Archeology (Continued)** | Participation in the archeological program | | ✓ | | Following recommendations from Mattagami and Matachewan First Nation, a local archeologist with whom the communities have worked previously has been contacted with the intention of retaining their services for the archeology field program in fall 2022.<br><br>As with other baseline studies, members of the First Nation are welcome to accompany field consultants during completion of these programs. The work plan and schedule will be shared with the primary community contact prior commencing the study. |
| **MÉTIS NATION OF ONTARIO – REGION 3** | | | | | |
| **Land Use** | Overlap of Project site and trap lines | ✓ | | | Ongoing efforts to contact trappers, hunters, and anglers in the region to determine activities that will be impacted by the Project. |
| | Appreciation for cleanliness of sites post drilling | | | ✓ | NA |
| | Location of camps in the surrounding area of the project's proposed footprint | | | ✓ | A member shared the locations of camps within the vicinity of the project. These locations were shared with the exploration and environment team and mapped for awareness during future exploration activities and planning for project development. |
| **Closure Plans** | Land being returned to useable state following closure of operations | ✓ | | | Canada Nickel will consult on the Closure Plan when the time comes for its development, review, and approval, and would like to work with those interested individuals/communities/groups to develop the plan from the beginning. |
| **Project Information** | The reality of the timeline for the permitting process | ✓ | | | Canada Nickel has established a good communication channel with the Impact Assessment Agency of Canada to facilitate efficient completion of the IA permitting process. Canada Nickel is making an effort to initiate, early on, all baseline studies that may be requirements of the impact and environmental assessments for the project. |

| TOPICS | KEY ISSUES | NATURE OF INTERVENTION | | | UNDERTAKEN ACTION |
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| | | ISSUES AND CONCERNS | SUGGESTION | COMMENT | |
| **Project Information (continued)** | Project and permitting timeline | ✓ | | | Canada Nickel has established good communication channels with members of municipal, provincial, and federal government discussing the importance of the Project and efforts to establish efficient timelines for project permitting. |
| | Automation and electrification of the mine | | | ✓ | Canada Nickel is looking to electrify the mine's equipment wherever possible, and is currently considering electric rope shovels and trolley trucks for the site's operation. |
| | Project workforce requirements and workforce availability in the region | ✓ | | | Canada Nickel is in regular communication with Northern College, Collège Boréal, and other local training/education institutions regarding existing, upcoming, and potential course and training offerings, and how this aligns with Canada Nickel's anticipated needs.<br>Canada Nickel will place a focus on regional and Indigenous employment when seeking to fill workforce requirements for construction and operation. |
| | Project financing | ✓ | | | Recently obtained financing, as of spring 2022, is sufficient to carry Canada Nickel through the Crawford Project's feasibility study. Multiple avenues are being considered for financing the construction of the Crawford Project, and will be disclosed as they are finalized and made public information. Rising demand for nickel to feed next-generation technologies like electric vehicles, and the current price of nickel are positive catalysts to support financing of the Crawford Project. |
| | Shuttles would be a good method for worker commutes | | | ✓ | NA |

| TOPICS | KEY ISSUES | NATURE OF INTERVENTION | | | UNDERTAKEN ACTION |
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| | | ISSUES AND CONCERNS | SUGGESTION | COMMENT | |
| **General Environmental Concerns** | Potential for contamination to soil/water resulting from materials being mined, stripping of topsoil, etc., and any potential for acid mine drainage | | ✓ | | Initial study results have indicated no anticipated risk of acid mine drainage or other leaching from the mined or processed material on site. Ongoing geochemical studies to validate these initial understandings are underway. Water seepage collection will also be installed to ensure that all contact water with the tailings, and other on-site material, is collected and treated as necessary. |
| | Locations of water related baseline programs | ✓ | | | Sampling and monitoring is being completed in the West Buskegau, Mattagami, and North Driftwood river systems. Additional locations may be added as deemed necessary through engagement and changes to site layout or correlated activities. |
| | Realignment of water bodies | ✓ | | | An effort was made during site design to avoid overprinting and impacting waterbodies as much as possible. However, the North Driftwood and smaller waterbodies may be altered during development of the project. Canada Nickel will develop and implement the necessary compensation plans. Engagement activities will occur around development of compensation plans, including the review of alternatives. |
| | Historical observation of the blanding's turtle has been reported near the Project area, which should be accounted for in baseline studies | | ✓ | | Consultants have been notified of the potential presence of the turtle. The 2022 terrestrial baseline program was adapted specifically to assess the potential presence of the Blanding's turtle. |

| TOPICS | KEY ISSUES | NATURE OF INTERVENTION | | | UNDERTAKEN ACTION |
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| | | ISSUES AND CONCERNS | SUGGESTION | COMMENT | |
| **General Environmental Concerns (continued)** | Impact on lakes near the project footprint | ✓ | | | Canada Nickel has attempted to avoid overlap of lakes near the project during design of the preliminary footprint. An evaluation of potential impacts on those lakes will be completed as part of the impact assessment for the Crawford Project. |
| | Water discharge location, potential for Jocko Creek | | ✓ | | At this time, Canada Nickel is trying to avoid or minimize impact on the Jocko Creek watershed, however all potential options for the final discharge location for the project will be considered for economic, technical, and environmental feasibility. |
| | Additional species to look for when completing aquatics surveys, including sturgeon and walleye. | | ✓ | | These species have been noted to Canada Nickel's consultants and environmental team, and further work is planned to confirm their presence in the water bodies near the Project area. |
| | Wildlife displacement | ✓ | | | To be fully evaluated in the impact assessment, should an impact assessment be required, and the appropriate mitigation measures developed with Indigenous communities, stakeholders, and regulatory authorities. |
| | West Buskegau and North Driftwood are believed to be potential spawning grounds<br><br>Note that Yellow Falls dam has a sturgeon spawning habitat | ✓ | | | This information will be shared with Canada Nickel's internal consultants. Canada Nickel would ask that specific information relating to species and spawning locations be shared as this will help to further information specific discharge location and discharge criteria.<br><br>The spawning habitat is to be discussed with the owners and operators of Yellow Falls, if a potential impact is identified. |

# Appendix D

## Response to Summary of Issues

# Appendix D
# Crawford Nickel Project – Response to Summary of Issues

| ID | COMMENT | RESPONSE |
|---|---|---|
| **Accidents and Malfunctions** | | |
| 1 | Need for information on measures to prepare for and prevent accidents and malfunctions and the release of hazardous materials, including spills, during all Project phases. Need for information on emergency response plans and procedures to respond to any accidents, malfunctions, and spills. | CNC will establish emergency response plans and procedures for the Project prior to construction, that meet regulatory needs. In addition, the development of appropriate environmental management plans is one of the anticipated mitigation measures that will be discussed in the Impact Statement for malfunctions and accidents, if an Impact Assessment is required. |
| 2 | Heightened concerns from an Indigenous community about the potential for a tailings dam breach. Concern with adequacy of alternatives. | The tailings storage facility will be designed to meet the Canadian Dam Association Dam Safety Guidelines and will take into consideration climate change. In addition, the key features of the tailings management include:<br>• The use of thickened tailings to reduce the water content in the tailings storage facility;<br>• The use of exhausted open pits to safely store tailings; and,<br>• Operational controls, including regular inspections, dam safety assessments and dam safety reviews<br><br>Preliminary geochemical analyses and water quality modelling indicate that tailings will not be acid generating.<br><br>An emergency response plan will be developed prior to construction to address the potential for a tailings dam breach based upon a detailed dam breach analysis to be carried out, and will be provided in the Impact Statement, if an Impact Assessment is required.<br><br>Further, a comprehensive assessment of alternatives for the tailings storage facility will be provided in the Impact Statement, if an Impact Assessment is required. The assessment will be conducted to meet Environment and Climate Change Canada requirements outlined in the Guidelines for the assessment of alternatives for mine waste disposal, as required under the Metal and Diamond Mining Effluent Regulations. |
| 3 | Need for mitigation measures to address potential accidents and malfunctions related to transportation and storage of dangerous goods. Nickel concentrate may be a dangerous good regulated under the *Transportation of Dangerous Goods Act*. | All shipments will follow regulatory requirements, including the *Transportation of Dangerous Goods Act* and associated regulations. The potential for environmental effects associated with malfunctions and accidents on the trucking route will be minimized by following operational procedures which may include:<br>• Regular maintenance of fuel trucks and other transport vehicles;<br>• Speed limits are to be strictly adhered to, including on site;<br>• Strict adherence to national trucking hour limits and other applicable requirements;<br>• Drivers will be required to meet all applicable regulatory training requirements, be trained in spill response procedures for the materials they transport, and carry the appropriate safety data sheets; and<br>• All vehicles transporting materials to site will be required to maintain a supply of emergency response equipment, including communication equipment, first aid materials and a fire extinguisher<br><br>An emergency response plan will address the primary hazardous materials on site, including procedures for spill response on the trucking route to the Project. Emergency response materials to be maintained in vehicles will be identified in the emergency response plan but are likely to include absorbent materials and equipment to contain spilled substances.<br><br>The management of potential accidents and malfunctions applicable to the Project will be presented in the Impact Statement, if an Impact Assessment is required. |
| 4 | Need for information about plans for communication with local residents in cases of accidents and malfunctions, including translation into local Indigenous languages. | Prior to construction of the Project, a communication protocol will be established with residents and local Indigenous Nations. If deemed appropriate in discussion with the individual Indigenous Nations, CNC may prepare plain language summaries of these plans, including translation to Indigenous languages if requested. |
| **Acoustic Environment** | | |
| 5 | Potential effects from increased noise levels and vibration from the Project on recreational activity, including camping. As one example, concern about whether noise and vibrations will be perceptible at Bigwater Campground. | The tailings management facility associated with the Project is located approximately 20 km from Bigwater Campground and noise and vibration is not anticipated to be perceptible at that distance. However, noise and vibration modelling will be completed as part of the Impact Statement, if an Impact Assessment is required, to assess the potential effects. Practical mitigation measures will be utilized to limit the potential effect on human receptors and recreational activities in the area. |
| 6 | Concern about effects from increased noise levels due to a higher frequency of flights at the Timmins municipal airport causing noise pollution in the region. | As the workforce is anticipated to be drawn from local communities and given the readily available access to surface transportation routes (highways and rail lines), it is not anticipated that there will be an increase in flight traffic due to the Project. As a result, it is not anticipated that there will any increased noise from air traffic. |
| 7 | Concerns about the effects of noise from rail operations on wildlife and harvesting. | An assessment of potential effects of noise on wildlife will be based upon noise modelling conducted for the Project, and will be presented in the Impact Statement, if an Impact Assessment is required. |

| ID | COMMENT | RESPONSE |
|---|---|---|
| 8 | Need for further information on methods the Proponent will use to monitor noise emissions, and thresholds beyond which additional measures would be implemented to manage noise. | Noise modelling will be completed as part of the Impact Statement, if an Impact Assessment is required, and mitigation measures may be implemented to ensure Provincial guidelines (Environmental Noise Guideline NPC-300) will be met. If warranted, noise will be monitored during construction and operation, and activities may be modified to ensure that Provincial requirements are being met. |
| **Alternative Means of the Project** | | |
| 9 | Request for information on any alternative means for carrying out the Project that would minimize habitat loss and overprinting of tributaries of the North Driftwood and West Buskegau Rivers. | Further detail regarding alternative means for carrying out the Project will be provided in the Impact Statement, if an Impact Assessment is determined to be required. These alternatives will be consulted upon and the analysis will consider habitat loss and overprinting of tributaries of the North Driftwood and West Buskegau Rivers. |
| 10 | Need for information on alternative corridors for the new transmission line corridor, relocated Highway 655, rail spur, and relocated 500kV line, prior to stating the preferred alternatives. | Information on the considered alternative alignments for linear infrastructure are discussed in Section C.6 of the Detailed Project Description. In general, alternative routings involved alignments to the east and west of the project, which would result in a larger overall project footprint. The indicated preferred alignment maintains a more compact project footprint. |
| **Atmospheric Environment (e.g. air quality)** | | |
| 11 | Potential changes to air quality, from fugitive emissions, point source emissions and fuel combustion. Of particular note is the potential for chrysotile (asbestos) to be present in dust as a result of its presence in bedrock. | Potential changes to air quality due to the Project will be assessed in the Impact Statement, if an Impact Assessment is required. |
| 12 | Need for further information on changes to air quality, including baseline conditions, emissions estimates, dispersion modelling, human receptor locations, and cumulative impacts, for many parameters. Need to assess presence of chrysotile and the potential effects of chrysotile in dust. | Air quality modelling will be completed to support the assessment of potential changes in air quality as part of the Impact Statement, if an Impact Assessment is required. The modelling will include a summary of baseline conditions, emission estimates, dispersion modelling, receptor locations and cumulative changes in air quality for identified parameters. |
| 13 | Need for information on proposed mitigation measures to manage changes to air quality, including best management practices, and monitoring plans. Need to determine if extra measures are required to manage chrysotile in airborne dust. | Air quality modelling will be completed as part of the Impact Statement, if an Impact Assessment is required, to assess the potential effects on air quality and support the development of applicable management and monitoring plans. |
| 14 | To help inform tailored assessment requirements, (optionally) provide, in the Detailed Project Description, a more specific comparison of air emission sources for each phase of the Project, and planned mitigation. Pending the information provided, a tailored assessment could focus on some phases more than others. | Air quality modelling will be completed to support the assessment of potential changes in air quality as part of the Impact Statement, if an Impact Assessment is required. The modelling will include a summary of air emission sources and take into consideration planned mitigation measures associated with minimizing the effects on air quality due to Project activities. |
| 15 | Potential for effects on Indigenous peoples, if traditional practices continue where air quality changes occur. To help inform tailored assessment requirements, (optionally) define, in the Detailed Project Description, what is meant by the “project limit” where applicable ambient air quality criteria will be met. Confirm there will be no receptors within that boundary. Provide details about provincial oversight that will ensure compliance with air quality criteria at that boundary. Alternately, if traditional practices may be permitted within that boundary (for example, if it is an extra-large property boundary that extends well beyond the project area and an agreement is made to enable access), a tailored assessment would include effects on receptors within the boundary. | The preliminary project boundary provided in the DPD encompasses the proposed site footprint. Additional evaluations will be carried out to determine if and where the project boundary may need to be adjusted such that provincial air quality criteria are met, when any proposed design and mitigation measures are considered, and receivers are not affected. The final project boundary will be maintained as compact as possible. Compliance is assessed with both modelling and in-field measurements, and annual reporting is a requirement of the provincial Environmental Compliance Approval (Air and Noise). |
| 16 | Concerns about impacts on the environment from wind dispersal of tailings. | Air quality modelling will be completed as part of the Impact Statement, if an Impact Assessment is required, to assess the potential effects of wind dispersal of tailings on air quality and support the development of applicable mitigation measures. Also note that the ability of the tailings to capture carbon once exposed to air also tends to bind particles together in the TMF. This cementation process will further reduce airborne dust issues. |
| 17 | Request to have input to a site dust management plan including any use of chemical suppressants. | Air quality modelling will be completed as part of the Impact Statement, if an Impact Assessment is required, to assess the potential effects of dust on air quality and support the development of dust management plan during permitting. Engagement activities will be conducted around mitigation measures and management plans, per interest. |
| 18 | Concerns about whether there is any potential for changes to air quality at Bigwater Campground. | The tailings management facility associated with the Project is located approximately 20 km from Bigwater Campground and changes in air quality are not anticipated at that distance. Air quality modelling will be completed as part of the Impact Statement, if an Impact Assessment is required, to assess the potential for effects on air quality and support the development of applicable mitigation measures to meet provincial requirements (e.g., Ontario Regulation 419/05 and other guidelines as may be applicable). |
| **Climate Change and Greenhouse Gas Emissions (GHGs)** | | |
| 19 | Need for further information on how the Project will be carbon neutral. | A more detailed assessment of options that could result in a carbon neutral operation and the proposed path forward will be presented in the impact statement, if an impact assessment is required.<br><br>At this stage, the plan is to focus first on reducing the emissions, including technologies such as electric rope shovels and trolley-assisted haul trucks, combined with the readily available green energy in Northern Ontario.<br><br>Secondly, the geological properties of the Crawford Project include a natural ability for some of the minerals, predominantly brucite, to sequester carbon from the atmosphere. Laboratory scale studies have indicated a potential passive capture rate greater than Crawford’s anticipated emissions on a tonne of carbon dioxide per tonne of nickel metric, with these rates further enhanced by a new process at the research stage known as In-Process Tailings (IPT) Carbonation.<br><br>For more information, please see the CNC press release for IPT Carbonation at https://canadanickel.com/wp-content/uploads/2022/07/220719-In-Process-Carbonation-News-Release.pdf. |
| 20 | Comment about the use of diesel-fired generation during the construction phase, closure phase (decommissioning phase), and emergencies, and the need to ensure nitrogen dioxide and other greenhouse gas emissions do not exceed regulatory guidelines. | Diesel is anticipated to be required primarily during the construction phase and for emergency power during operations/closure. Line power is expected to be used throughout operations and closure. NOx/GHG contributions will be modelled as part of Impact Statement, if an Impact Assessment required. |

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| **Decommissioning and Reclamation** | | |
| 21 | Need for further information on decommissioning and reclamation plans at the mine site, including duration of monitoring, water, soil, and waste management. | The closure plan will be developed according to the requirements laid out in Ontario Regulation 240/00 and the included Mine Rehabilitation Code of Ontario and will be consulted upon. The duration of monitoring will also be based on the provincial regulation and the results from the consultation of stakeholders, and is anticipated to continue until the stated closure objectives have been met. |
| 22 | Request for reassurance that funds are in place for closure costs and to understand how they are calculated. | Third-party closure costs are estimated as part of development of a regulatory Closure Plan, which is required to be filed with Ministry of Mines prior to any development/construction activities occurring. Financial assurance is provided to Ministry of Mines prior to the Closure Plan being filed. |
| 23 | Request for information on waste disposal sites on Crown land following decommissioning. | Domestic and special management / hazardous materials resulting from the construction and operation of the Crawford Project will be periodically shipped off site to appropriate facilities. A demolition landfill may be established on-site for disposal of non-hazardous demolition wastes during the closure phase. Further details on the demolition landfill will be determined through additional engineering currently underway. |
| **Effects of the Environment on the Project** | | |
| 24 | Potential effects of climate change on the safety, resilience, and effectiveness of water and tailings management infrastructure, water-dependent decisions and water quality during all Project phases and post-closure (abandonment phase), including the effects of storms and extreme heat events. Need to provide a list of water management infrastructure and processes that are vulnerable to climate change. | A climate study has been prepared specifically for the Crawford project to estimate the potential impacts of climate change until 2080. The design of key infrastructures such as water management infrastructures and the TMF will take into account the potential effects of climate change on temperature and precipitations, and more specifically on extreme weather events. A detailed assessment of the effect of climate change on the Project will be included in the impact statement, if an impact assessment is required. |
| 25 | Need for information on water-dependent mitigation measures related to the effects of the environment on the Project, including how climate change will be incorporated into the design of water and tailings management infrastructure. | The design criteria for water and tailings management infrastructure will take into account the potential effects of climate change. A detailed assessment of the effect of climate change on the Project will be included in the impact statement, if an impact assessment is required. |
| 26 | Concern about impacts of extreme climate events on source water courses. Consider this in source water course selection and plan to adapt. | Process water will be obtained primarily by recycling site runoff and open pit mine water. If additional fresh water is required for process make up and a fire water supply, it may be sourced from a local watercourse. Further information on the requirement for additional water, the anticipated volumes and the selection of candidate watercourses will be provided in the Impact Statement, if an Impact Assessment is required. |
| **Fish and Fish Habitat** | | |
| 27 | Potential effects on fish and fish habitat from the destruction of tributaries, diversion of watercourses, reduced flow in watercourses downstream of the mine, and use of waterbodies for mine waste disposal. | A number of watercourses are expected to be overprinted (fully or partially) by Project components as a result of development. A fish habitat offsetting and compensation plan will be developed to mitigate the potential effects to fish habitat, with new habitat created to replace that which is overprinted. Where possible, flows will be redirected to a point downstream of the Project such that flow reductions are minimized. As a result, there will be no overall net impact to fisheries resources. |
| 28 | Need detailed mapping of each water feature, detailed fish habitat characterization, fish population baseline data, analysis of changes to the flow regime and fish dependency on flow, standard and site- specific mitigation, an assessment of alternatives for mine waste disposal, and a plan to offset effects. To help inform tailored assessment requirements, (optionally) provide, in the Detailed Project Description, a more detailed map of affected water courses, an estimate of destroyed fish habitat in square meters, an estimate of the length of the zone of impact on flows, the currently known fish species distribution, and standard mitigation that will be implemented. | Baseline aquatic investigations have been ongoing in the area since 2021, and will be summarized in the Impact Statement, if an Impact Assessment is required. Further detail will be provided in the Impact Statement related to potential effects on fish and fish habitat. In addition, a plan for fish habitat offsetting and compensation will be developed which will be consulted upon and approved through a rigorous federal process, and when implemented, will mitigate effects to aquatic resources including fish habitat loss. |
| 29 | Need for information about the potential watercourse diversion route. To help inform tailored assessment requirements, confirm the diversion will be reconnected within the North Driftwood River watershed, or present plausible alternatives. | The current water management plan involves two main water diversions. The first one includes the diversion of the lakes located west of the TMF to the North Driftwood River north of the site, as shown on Figure C.2. Water south of the TMF is also diverted in a general northeast direction to the West Buskegau river. Further information on potential watercourse diversions will be provided in the Impact Statement, if an Impact Assessment is required. |
| 30 | Potential for effects on Lake Sturgeon, suckers, and spawning areas from construction of pipeline and effluent discharge in Mattagami River. In addition, there are unconfirmed reports of Lake Sturgeon in the lower stretches of the North Driftwood River. Need for information on the current and historical distribution of Lake Sturgeon to support the assertion that impacts are not anticipated. Need for information on potential mitigation. | Ongoing baseline investigations have included fish community studies in the North Driftwood River and have not identified evidence of Lake Sturgeon in this watercourse. The results of these studies will be presented in the Impact Statement, if an Impact Assessment is required. Further, an assessment of potential effects on fish and fish habitat, including Lake Sturgeon, will be provided in the Impact Statement, along with potential mitigation measures, as necessary. In addition, fish community study results from surveys provided by the MNRF do not include the presence of Lake Sturgeon within the reach of the Mattagami River downstream of the Lower Sturgeon dam. |
| 31 | Concern about potential effects of blasting and seismic activity on waterbodies and aquatic life. | The potential effects of blasting and vibration on aquatic resources will be assessed against regulatory guidelines, and presented in the Impact Statement, if an Impact Assessment is required. Blasting activities will follow the DFO guidance for use of explosives near waterbodies. |
| 32 | Concerns about potential effects on fish and fish habitat from deposition of fugitive dust, sedimentation downstream of the Project site, nitrogen released from explosives, and seepage and runoff from ore, mine rock, tailings, and overburden. | The potential effects on fish and fish habitat will be assessed in the Impact Statement, if an Impact Assessment is required. Air quality modelling will be conducted to estimate the deposition of fugitive dust around the Project, and will be considered in the assessment of effects on fish habitat. Further, water quality modelling will be undertaken to predict changes in water quality parameters due to Project activities, and the results of this modelling will be considered in the assessment of fish habitat. The results of the assessment will be considered in the development of mitigation and management plans for the protection of fish and fish habitat. |
| 33 | Concern about requirements for relocation of fish and the methodology to be used. | Additional information on the requirement for fish relocation and potential methods will be provided in the Impact Statement, if an Impact Assessment is required. A comprehensive fish removal program will be detailed through the future environmental approvals process in discussion with the Ministry of Natural Resources and Forestry. |

| ID | COMMENT | RESPONSE |
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| 34 | Potential effects on fish and fish from the construction and operation of water crossings (including Victoria Creek) along the highway and transmission realignment and new rail spur. To help inform tailored assessment requirements, provide, in the Detailed Project Description, information about potential water crossing locations, the currently known fish species distribution, and planned mitigation. | The preliminary locations of watercourse crossings have been included in the Detailed Project Description. Water crossings will be designed to minimize impacts to fish habitat and to provide fish passage where necessary. Detailed engineering during the permitting phase will consider design criteria such as grades, inlet/outlet pools where appropriate, embedment of culverts and substrate. |
| **Human Health and Well-being (including of Indigenous peoples)** | | |
| 35 | Potential effects on human health from Project emissions to the environment. | The potential effects on human health from Project emissions to the environment will be assessed in the Impact Statement, if an Impact Assessment is required. The potential for generation of air and noise emissions will be fully considered in the final Project design and will be based in part on air dispersion modelling to be completed to support regulatory requirements (see DPD Section F.5). |
| 36 | Need to evaluate potential effects from biophysical pathways of exposure such as:<br>· air emissions (including inhalation of chrysotile);<br>· changes to drinking and recreational water quality (including effluent discharge and seepage);<br>· changes to country food quality; and<br>· noise (including transportation routes).<br>This would inform a human health risk assessment which would inform the need for mitigation and follow-up. Use Health Canada's Environmental Assessment Guidance for: Air Quality, Noise, Drinking and Recreational Water, Country Foods and Human Health Risk Assessment. | A human health risk assessment will be conducted for the Project, in accordance with Health Canada guidance, and consider relevant biophysical pathways of exposure and applicable provincial and federal guidelines. The potential effects on human health from Project emissions to the environment will be assessed in the Impact Statement, if an Impact Assessment is required. The results of the assessment will be considered in the development of mitigation and management plans and if warranted, a preliminary approach to environmental monitoring. Human health risk issues will be reviewed and corresponding information gathered in collaboration with Indigenous Peoples to ensure both direct and perceived human health impacts are understood and assessed and validated on a community level, and represented appropriately (see DPD Section F.5). |
| 37 | Need to collect and provide robust information about Indigenous land use activities (approximate locations, frequency, duration) to identify sensitive receptor locations for the evaluation of effects from biophysical pathways of exposure and the human health risk assessment. | CNC is collaborating with local Indigenous Nations to support the development of TK/TLU studies, facilitated by the IA Process Agreements where appropriate which, once made available as appropriate, will be incorporated into the Impact Statement, if an Impact Assessment is required. Relevant information on sensitive receptors will be considered in the evaluation of biophysical pathways for the human health risk assessment. |
| 38 | To help inform tailored assessment requirements, (optionally) provide, in the Detailed Project Description, maps or information about:<br>· the three seasonal-use properties and hunting blind already identified, including type of use (and whether Indigenous), whether they will remain available for use, and any source of water supply;<br>· the three alternative locations for effluent discharge and any nearby drinking or recreational water uses;<br>· a narrative about whether there is any potential for water quality changes to be perceptible at the drinking water intake for the town of Smooth Rock Falls;<br>· any other known human receptors within an approximate zone of effect from the Project;<br>· distance to other sensitive receptors like hospitals and schools; and<br>· possible receptors of increased noise along transportation routes, including the new rail spur, existing Kidd rail line, and roads (if traffic volumes will change). | Further information on potential sensitive receptors will be included in the Impact Statement, if an Impact Assessment is required. Baseline information collected on local recreational land use and community infrastructure, as well as Indigenous traditional land use will be considered in the evaluation of biophysical pathways for the human health risk assessment. Available information on seasonal-use properties is included in the DPD, shown on Figure D.3. |
| 39 | Concern raised about effluent discharge to Mattagami River upstream of the water intake structure for the town of Smooth Rock Falls. | Effluent discharge to the environment will meet regulatory requirements. The Project is located approximately 50 km upstream of the Town of Smooth Rock Falls, however an assessment of the potential changes in water quality due to effluent discharge will be provided in the Impact Statement, as appropriate, if an Impact Assessment is required. During the provincial permitting process, it is anticipated that discharge limits will be developed, incorporating the assimilative capacity of the receiver, for the protection of aquatic life within a relatively short distance from the discharge point. As such, at a distance of 50 km from the discharge point, it is anticipated that there will not be a quantifiable change in water quality from existing conditions. |
| 40 | To help inform tailored assessment requirements, provide a list of predicted air emissions for all Project activities and for all Project phases. | A list of predicted air emissions for Project activities will prepared for the air quality modelling to be conducted for the Project. The air quality modelling inputs and results will be included in the Impact Statement, if an Impact Assessment is required. |
| 41 | Need the cumulative effects assessment on human health to include non-threshold substances such as fine particulate matter and nitrogen dioxide. | An assessment of potential effects on human health will be conducted as part of the Impact Statement, if an Impact Assessment is required. If there are residual effects, after the application of mitigation measures, an assessment of cumulative effects will be conducted and presented in the Impact Statement. |
| 42 | Need to consider potential impacts on country foods through sulphate runoff from mine components which can influence methylmercury bioavailability. | Surface runoff that comes into contact with mine-related facilities will be collected in ditches and ponds to be pumped to the primary collection pond. Seepage from impoundments will be collected in ditches and channeled to the collection ponds. Through this integrated water management system, site effluent will meet all regulatory requirements before being discharged safely to the environment. If necessary, an effluent treatment plant may be installed for additional treatment to ensure effluent quality can be consistently achieved. Results of geochemical assessments to date have indicated no risk of acid mine drainage and low levels of metal leaching. Geochemical programs are ongoing to confirm these results. As a result, potential impacts on country foods will be minimized, however a human health risk assessment, incorporating country foods information from TK/TLU studies where available, will be conducted and presented in the Impact Statement, if an Impact Assessment is required. |
| 43 | Need to validate health risk modelling assumptions with Indigenous peoples, such as country food consumption rates. | The human health risk assessment model will be prepared based on available consumption rates, which may include information from TK/TLU studies from local Indigenous Nations and/or applicable literature from northern Ontario. The modelling results will be presented in the Impact Statement, if an Impact Assessment is required. Information received from Indigenous Nations feedback and/or subsequent TK/TLU studies will be incorporated into a revised model, if received. |

| ID | COMMENT | RESPONSE |
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| 44 | Concern expressed about the potential for bioaccumulation given that Indigenous peoples harvest large-bodied fish from the downstream environment. Request for baseline information and the plan to monitor fish and wildlife tissue for contaminants throughout the duration of the Project. | Effluent from the mine will meet all regulatory requirements prior to discharge, including the Metal and Diamond Mining Effluent Regulations (MDMER). Baseline investigation for fisheries in Project waterbodies is ongoing to determine existing contaminants present in fish tissue, and will be summarized in the Impact Statement, if an Impact Assessment is required. The information will be used to support fish tissue monitoring carried out during operations as required under regulatory approvals and the Metal and Diamond Mining Effluent Regulations. |
| 45 | Potential effects on human health from accidents and malfunctions such as spills and accidental releases. | Potential spills and accidental releases will be minimized through design and construction features and by following procedures outlined in the spill response plan. Design features may include construction of tanks and storage areas with recognized industry standards, maintaining safe distances between storage areas and sensitive habitat and watercourses and constructing contaminant berms around storage tanks. In addition, operational procedures will be incorporated into the environmental management systems, including regular inspections of all storage areas. In the event of spill, the spill response plan will come into effect with a focus on ensuring human health and safety is protected. |
| 46 | Concern that increased road and rail traffic could affect the health and safety of Indigenous peoples. Request for a transportation strategy to address volume and transport of dangerous goods. | A human health impact assessment will be conducted that considers the increased road and rail traffic directly associated with the Project and presented in the Impact Statement, if an Impact Assessment is required. The TK/TLU studies will inform identification of concerns relating to specific traffic related issues for Indigenous Peoples, and the development of appropriate mitigation and monitoring measures, if required. If necessary, a transportation strategy pertaining to the volume and transportation of good and serves, in line with CNC's Health and Safety Policy, will be considered. |
| 47 | Concern related to appropriate signage indicating proximity to active mine site for those accessing surrounding areas. | CNC will add appropriate signage indicating proximity to active mine site for those accessing surrounding areas during the construction, operation and closure of the Project. |
| 48 | Concerns about the impact of COVID-19 outbreaks at the Project site on the limited medical capacity of the region, based on past outbreaks in Timmins that were affected by mining projects. | During periods deemed necessary by internal evaluation of regional COVID statistics and/or public health requirements or guidelines, CNC has and will continue to employ precautionary measures, when necessary, to ensure workplace safety. CNC has engaged with the Porcupine Health Unit and will continue to follow their guidance in relation to COVID-19. |
| 49 | Comment that Métis men over the age of 50 are a high-risk group for dying of COVID-19. Concern about increased travel to the area. Request for information about vaccination and screening protocols. | During periods deemed necessary by internal evaluation of regional COVID statistics and/or regulatory requirements or guidelines, CNC has and will continue to employ precautionary measures, when necessary, to ensure workplace safety, including: mandatory temperature screening, mandatory PPE as appropriate for each worksite and task, and required proof of double vaccination.<br><br>In addition, as the workforce is anticipated to be drawn from local communities and given the readily available access to surface transportation routes (highways and rail lines), it is not anticipated that there will be an increase in travel to the area due to the Project. |
| 50 | Need for further information on potential environmental, economic, social and cultural project-related impacts on human health, using Health Canada's interim Health Impact Assessment guidance. | A health impact assessment will be conducted in accordance with Health Canada guidance, to consider potential environmental, economic, social and cultural project-related impacts on human health directly associated with the Project and presented in the Impact Statement, if an Impact Assessment is required (see DPD Section D.8.4 and F.5). It is also understood that if required, information will be gathered in collaboration with Indigenous Peoples to understand specific social, economic, environmental, and cultural impacts on community members for detailed assessment. This is designed to be a collaborative and inclusive process to ensure that each community is well represented, and the diversity of issues is both recognized and understood. |
| 51 | Comments on the need to engage directly with Indigenous communities to establish baseline health conditions. | CNC is collaborating with local Indigenous Nations to support the development of Nation-specific socio-economic studies, facilitated by the IA Process Agreements where appropriate, which, once made available as appropriate, will be incorporated into the Impact Statement, if an Impact Assessment is required. |
| 52 | Comment about stress from fear of accidents and malfunctions which can be alleviated through emergency preparedness plans. | Key components of an emergency response plan will be included in the Impact Statement, if an Impact Assessment is required. The emergency response plan will include:<br>• A risk assessment to identify events that may result in emergencies associated with the Project;<br>• An emergency contact list;<br>• A description of the roles and responsibility associated with the emergencies;<br>• A list of resources need to effectively respond to emergencies;<br>• A communication plan to inform employees, the public and other stakeholders; and,<br>• A written procedures and actions to be undertaken as required during an emergency.<br><br>Prior to construction of the Project, the emergency response plan will be updated with further detail. |

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| 53 | Potential impacts of increased substance misuse, including opioids, in the labour force and associated impacts on vulnerable populations and health care services. Comment about links between migrant worker populations for large resource extraction projects and addictions. Comment that no-drug and no-alcohol policies lead to overindulgence during time off. To help inform tailored assessment requirements, (optionally) provide, in the Detailed Project Description, additional context about the opioid crisis currently being experienced in northern Ontario, any potential pathways of effects from the Project (negative or positive), and preliminary thinking about measures that could help manage effects. This could enable early discussion about complementary measures, if warranted. | A health impact assessment will be conducted that considers the potential effects for increased substance misuse on vulnerable populations and health care services and will be presented in the Impact Statement, if an Impact Assessment is required.<br><br>Additional context on the Opioid crisis and potential pathways is provided in DPD Section D.8.4.<br><br>CNC's Community Contributions program, developed in consultation with community social, economic, and municipal representatives from the Local Procurement and Community Contributions Committee, aims at addressing social, educational, environmental, and health/wellbeing challenges, with particular emphasis on vulnerable populations, in the long and short term. Long Term contributions will be favoured towards those challenges that may be triggered or amplified by development of the Crawford Project to contribute towards impacts mitigation or management. This process is aimed at addressing underlying factors that predispose mining workers (short and long-term) to substance abuse issues across Northern Ontario. Substance abuse issues are considered via their direct impacts on workplace injury, stresses related to mine work conditions and subsequent impacts on issues related career progression, finance, racism and/or interpersonal conflicts. Indirect impacts are also considered such as issues pertaining to mental health and wellness and family conflict. |
| 54 | Request for a workplace policy addressing racism towards Indigenous peoples and to develop cultural awareness. Request to incorporate land acknowledgements into the workplace culture. | CNC has a Respect in the Workplace –Workplace Harassment, Sexual Harassment and Discrimination Policy and a Workplace Violence policy, which address CNC's commitment providing a work environment that is free from discrimination, harassment and reprisals, and supportive of the productivity, dignity, and self-esteem of every employee. This includes prohibition of harassment and discrimination on the basis of race, ancestry, place of origin, colour, ethnic origin, citizenship, creed, age, record or offences, marital status, family status, or disability.<br><br>Canada Nickel is collaborating with several Indigenous Nations at this time to develop engagement strategies appropriate to each individual Nation. |
| **Indigenous Participation Opportunities** | | |
| 55 | Request from Indigenous communities to have a ceremony to acknowledge that mining is occurring on their traditional land. | Canada Nickel is collaborating with several Indigenous Nations at this time to develop engagement strategies appropriate to each individual Nation, with a current focus on exploration activities and project permitting, and development of agreements relevant to the operation and construction of the Crawford Project. Activities relating to the initiation of construction at the Crawford Project, including ceremonies, will be discussed at a date in closer proximity to those activities. |
| 56 | Request for information on funding opportunities by the Proponent for Indigenous communities to participate in project activities. | CNC has signed Impact Assessment Process Agreements with Indigenous Nations to support full, meaningful participation in the IA Process. These Agreements include, but are not limited to, provision of funding: to support completion of TK/TLU and socio-economic studies, to support community engagement activities, and for formation of an IA Committee made up of community representatives, including youth, land-users, and elders. The Agreements further address participation in baseline programs, community engagement expectations, and support for site visits.<br><br>Funding relating to project activities occurring during construction and operation will be addressed in the agreements determined appropriate by each Indigenous Nation, including but not limited to Impacts and Benefits Agreements. |
| 57 | Request for appropriately-funded Indigenous, community-specific Traditional Land and Resource Use studies and cumulative effects assessments, which should be validated by Indigenous communities, and should incorporate knowledge from community Elders. | CNC has signed Impact Assessment Process Agreements with Indigenous Nations to support full, meaningful participation in the IA Process. These Agreements include, but are not limited to, provision of funding: to support completion of TK/TLU and socio-economic studies, to support community engagement activities, and for formation of an IA Committee made up of community representatives, including youth, land-users, and elders. The Agreements further address participation in baseline programs, community engagement expectations, and support for site visits. |
| 58 | Request for Proponent to work with Indigenous communities to improve recruitment and retention of Indigenous women in the industry. | Employment and Training opportunities will be addressed in the agreements determined appropriate by each Indigenous Nation, including but not limited to Impacts and Benefits Agreements. |
| 59 | Need to describe opportunities for Indigenous participation in the collection and validation of environmental baseline data. | CNC has signed Impact Assessment Process Agreements with Indigenous Nations to support full, meaningful participation in the IA Process. These Agreements include, but are not limited to, provision of funding: to support completion of TK/TLU and socio-economic studies, to support community engagement activities, and for formation of an IA Committee made up of community representatives, including youth, land-users, and elders. The Agreements further address participation in baseline programs (including the sharing of baseline workplans, schedules, reports, and the participation in study field work), community engagement expectations, and support for site visits. |

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| 60 | Request for participation in environmental studies, assessments, and decisions, including:<br>· identifying area of potential significance for archaeological studies (e.g. the shoreline of the Mattagami River and any tributaries);<br>· collecting baseline and long-term monitoring of fish, including sturgeon and other game fish used as country food such as walleye, pike, and trout;<br>· assessing impacts to walleye spawning locations;<br>· planning for aquatic habitat offsetting measures that are focused on communities' interests;<br>· collecting and validating environmental baseline data such as water flows, water quality; air quality; and<br>· providing input to decisions about water crossing locations; effluent discharge locations; water management and waste management; water intake locations; dust management plan and any use of chemical suppressants. | CNC has signed Impact Assessment Process Agreements with Indigenous Nations to support full, meaningful participation in the IA Process. These Agreements include, but are not limited to, provision of funding: to support completion of TK/TLU and socio-economic studies, to support community engagement activities, and for formation of an IA Committee made up of community representatives, including youth, land-users, and elders. The Agreements further address participation in baseline programs (including sharing of baseline workplans, schedules, and reports, and participation in study field work), community engagement expectations, and support for site visits.<br><br>CNC is collaborating with local Indigenous Nations to support the development of TK/TLU studies, facilitated by the IA Process Agreements where appropriate, which, once made available as appropriate, will be incorporated into the Impact Statement, if an Impact Assessment is required. Relevant information received from Indigenous Nations feedback and/or subsequent TK/TLU studies will be incorporated into environmental studies, assessments, and decisions, if received. |
| 61 | Request to conduct an independent review of the plans for waste and tailings management. | Review of proposed project design and operation elements will be addressed, as appropriate, by both the IA Process Agreement, and by the agreements determined appropriate by each Indigenous Nation, including but not limited to Impacts and Benefits Agreements. |
| 62 | Request to participate in provincial permitting applications (e.g. Environmental Compliance Approval, Permit to Take Water) and ongoing compliance monitoring. | Participation in project permitting and ongoing compliance monitoring will be addressed by, as appropriate, both the IA Process Agreement, and by the agreements determined appropriate by each Indigenous Nation, including but not limited to Impacts and Benefits Agreements. |
| 63 | Request to provide input to any site-specific Closure Plans, including decommissioning of ground water wells, water treatment ponds, and water management infrastructure on site. | Review of proposed project Closure Plans and associated elements will be addressed, as appropriate, by both the IA Process Agreement, and by the agreements determined appropriate by each Indigenous Nation, including but not limited to Impacts and Benefits Agreements. |
| 64 | Request to provide input to the final land use plans of the site, and to incorporate native species. | Review of proposed project Closure Plans and associated elements will be addressed, as appropriate, by both the IA Process Agreement, and by the agreements determined appropriate by each Indigenous Nation, including but not limited to Impacts and Benefits Agreements. |
| 65 | Request to participate in fish relocation activities. | Participation in fish relocation activities will be addressed, as appropriate, by both the IA Process Agreement, and community engagement meetings, and by the agreements determined appropriate by each Indigenous Nation, including but not limited to Impacts and Benefits Agreements. |
| **Indigenous Engagement and Consultation** | | |
| 66 | Engagement activities must be respectful of Indigenous protocols, including any existing Consultation and/or Engagement Protocols that Indigenous communities have shared with the Proponent. | Canada Nickel intends to continue engagement activities with Indigenous Peoples, with an emphasis on open, respectful dialogue, and clear communication channels. Engagement activities will be conducted in a method appropriate and unique to each Nation's interests, expectations, and, if applicable, protocols. |
| 67 | Comments on the need for the Proponent to meaningfully address all concerns raised by Indigenous communities through the life of the Project. | Canada Nickel intends to continue engagement activities with Indigenous Peoples, with an emphasis on meaningful participation. Comments provided by Indigenous Nations will be fully considered and responded in a meaningful manner throughout the life of the Project. |
| 68 | Need for information on the Proponent's engagement with Indigenous communities to date, including any issues raised by Indigenous communities, and the Proponent's schedule for future engagement with Indigenous communities. | Section B.2.3 of the Initial Project Description includes a summary of engagement activities undertaken and planned, and the main issues raised during those activities to date, including during the development of the Project Description. |
| 69 | Request from certain Indigenous communities for increased engagement. Request to engage Apitipi Anicinapek Nation. | Canada Nickel is in discussion with Apitipi Anicinapek Nation. |
| 70 | Comments on alternative methods of consultation the Proponent could use to engage with Indigenous communities who have not yet responded about the Project (e.g. offline engagement, in-person correspondence, direct phone calls and letters). | Canada Nickel has issued additional correspondence to those communities who have not yet responded, while being conscious of ongoing, community-specific concerns or shutdowns relating to COVID-19 and in-person communications. CNC will remain open to use alternative methods that are community-specific, based on new feedback received, if any. |
| 71 | Request for Indigenous participation in site visits. | Indigenous participation, including site visits, for the Project has been ongoing and will continue where there is interest. To date, this has included site visits with the IA Committee for multiple Nations, and participation of Indigenous Peoples in multiple baseline field programs on site, including terrestrial and aquatic programs. . |
| 72 | Request for plain language information on tailings management and other project components. | CNC has and will continue to provide plain language information on project components in the preferred format where there is interest. |
| **Indigenous Peoples' Current Use of Lands and Resources for Traditional Purposes** | | |
| 73 | Potential for effects on hunting, trapping, fishing, gathering, and spiritual and cultural practices, including:<br>· loss of traditional lands (e.g. from large project footprint and overprinting waterbodies);<br>· loss of access to traditional lands (e.g. from potential changes to navigability);<br>· reduced resource availability (e.g. from habitat loss, habitat degradation, mortality and disturbance) on resources such as moose, geese, ducks, sturgeon, Black Ash, berries, medicinal plants;<br>· changes to the experience of access and use (e.g. from noise due to mining, trains and increased flights; and changes to visual landscape from tall mine components);<br>· changes to locations of practice due to perceived risks near mining; and<br>· loss of knowledge related to harvesting, spiritual, and cultural practices, which can reduce hunting and gathering efficacy. | CNC is collaborating with Indigenous Nations to support the development of TK/TLU studies (inclusive of land and resource use), facilitated by the IA Process Agreements where appropriate, that will inform the evaluation of potential effects on the current use of lands and resources for traditional purposes in the Impact Statement, if an Impact Assessment is required. |
| 74 | Need for Indigenous knowledge and information about traditional land and resource use (e.g. use of water bodies; and presence of rare plants.) | CNC is collaborating with Indigenous Nations to support the development of their TK/TLU studies (inclusive of land and resource use), facilitated by the IA Process Agreements where appropriate, that will inform the understanding of traditional land and resource use and the evaluation of potential effects in the Impact Statement, if an Impact Assessment is required. |

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| 75 | Concerns about potential impacts on fishing, harvesting, and navigation due to potential changes to water quantity and quality of the Mattagami River, North Driftwood River, and the West Buskegau River resulting from dewatering or effluent discharge. | An assessment of potential effects on the current use of lands and resources for traditional purposes will be presented in the Impact Statement, if an Impact Assessment is required. The assessment will be supported with the results of the analysis related to changes in surface water quality and quantity, the potential effects on fish and fish habitat, terrestrial resources and navigation, and incorporate relevant information from Indigenous Knowledge studies provided by Indigenous Nations, where appropriate. |
| 76 | Need to consider traditional uses when selecting effluent discharge location, including freshwater stores, aquatic species, local occurrence of hunting and fishing. | Effluent from the mine will meet all regulatory requirements prior to discharge, including the Metal and Diamond Mining Effluent Regulations (MDMER). However, an assessment of alternatives will be provided in the Impact Statement, if an Impact Assessment is required. Relevant information from Indigenous Knowledge studies provided by Indigenous Nations will be incorporated into the selection of the effluent discharge location. |
| 77 | Concern about contamination of traditional medicinal plants and berries. | CNC is collaborating with Indigenous Nations to support the development of their TK/TLU studies (inclusive of land and resource use) that will inform the evaluation of potential effects in the Impact Statement, if an Impact Assessment is required. The results of the assessment will be considered in the development of mitigation and management plans. |
| 78 | Concerns about increased pressure on fish and wildlife harvesting in the area due to an influx of workers, and increased access into traditional hunting areas. | As the workforce is anticipated to be drawn from local communities, it is not anticipated that there will be an increase in recreational hunting or fishing activities in the area due to the Project. Should it be deemed necessary at the time of construction and operation, CNC will, where possible, avoid opening new land access beyond the site footprint, and will collaborate with the appropriate authorities and Indigenous Nations to manage potential hunting and fishing activities related to site workers. |
| 79 | Concern related to appropriate signage indicating proximity to active mine site for those accessing surrounding areas. | CNC will add appropriate signage indicating proximity to active mine site for those accessing surrounding areas during the construction, operation and closure of the Project. |
| 80 | Concerns about hunt camps and traplines, and the ability to hunt and trap available resources, due to construction of transportation corridors and cumulative effects with forestry. | An assessment of potential effects on the current use of lands and resources for traditional purposes will be presented in the Impact Statement, if an Impact Assessment is required. The assessment will be informed by feedback received through engagement with Indigenous People and TK/TLU studies provided by Indigenous Nations. The results of the assessment will be considered in the development of appropriate mitigation and management plans. |
| 81 | Concern about impacts on the ability of future generations to hunt, fish, harvest, and gather due to the longevity of the effects of the Project. | An assessment of potential effects on the current use of lands and resources for traditional purposes will be presented in the Impact Statement, if an Impact Assessment is required. The results of the assessment will be considered in the development of appropriate mitigation and management plans to limit long-term effects on the ability of future generations to hunt, fish, harvest, and gather. |
| **Indigenous Peoples' Social and Economic Conditions** | | |
| 82 | Need for further information on whether Indigenous peoples and/or businesses in proximity to the Project will receive prioritized employment or business opportunities. | Canada Nickel implemented a local procurement policy, developed in consultation with the Local Procurement and Community Contributions Committee, stating that, during the exploration phase of the Crawford Project, CNC will, to the maximum extent possible while ensuring safety, quality, and economy, give preference to goods and services provided by local companies after initial preference to Indigenous owned and operated businesses, or business with Indigenous joint ventures or partnerships. This policy will be amended and adapted to the construction and operation phases of the project as appropriate.<br><br>Indigenous business opportunities during construction and operation will be addressed in the agreements determined appropriate by each Indigenous Nation, including but not limited to Impacts and Benefits Agreements. |
| 83 | Need for further information (e.g. description and quantification) on economic and employment opportunities for Indigenous communities (e.g. Indigenous hiring strategy, anticipated number and type of jobs, skill requirements for those jobs, barriers for career advancement, investment in training and skills enhancement to support career advancement). | Employment and training will be addressed in the agreements determined appropriate by each Indigenous Nation, including but not limited to Impacts and Benefits Agreements. |
| 84 | Comments recommending that the Proponent engage with Indigenous Skills and Employment Training (ISET) service delivery providers throughout the Project. | Canada Nickel will continue engagement activities with interested Indigenous organizations, such as the Indigenous Skills and Employment Training. |
| 85 | Comment that the Skills and Partnership Fund (SPF) is a project-based program that funds partnerships to provide skills training. There may be opportunities in 2022-2023 to leverage training with Indigenous communities. | Applicability of the Skills and Partnership Fund for workforce preparation relating to the Crawford Project will be evaluated at a period closer to construction and operation of the Project, at which time it will be discussed with the involved Indigenous Nations. |
| 86 | Comments expressing concern about the long-term economic viability of the Project and that anticipated benefits may not be realized if Project is halted, but environmental effects remain. | Third-party closure costs are estimated as part of development of a regulatory Closure Plan, which is required to be filed with Ministry of Mines prior to any development/construction activities occurring. Financial assurance to support closure and reclamation activities is provided to Ministry of Mines prior to filing the Closure Plan. |
| 87 | Need for further demographic information on Indigenous peoples in the region, including population details. Comment to add information about proximity to major highways or roads to help assess accessibility for employment. Provide a description of the demographics of Apitipi Anicinapek Nation using available information. | Baseline socio-economic conditions, including demographic details for local Indigenous Nations will be provided in the Impact Statement, if an Impact Assessment is required. Available information on Apitipi Anicinapek Nation is provided in Section D.8 of the DPD. |
| 88 | Suggestion to consider building an accommodation camp so that Indigenous employees would not have to commute from reserves. | An accommodations complex is not proposed to be developed as part of the Crawford Project due to the close proximity of local communities. |
| 89 | Need for further information on the baseline social context, and associated potential effects of the Project on local Indigenous communities' social conditions. | Information collected on behalf of Indigenous communities regarding socio-economic conditions will be provided to CNC for analysis and inclusion in the Impact Statement, if an Impact Assessment is required. Information collected and shared with CNC will be designed and directed by the Indigenous Nations independently, and all integration efforts related to the assigned material by CNC will be validated by communities upon completion. As a result of the assessment, mitigation and management measures will be developed, as necessary, for implementation during the construction, operation and closure phases of the Project. |

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| 90 | Need for further information on mitigation measures to address social impacts of the Project (e.g. housing availability and costs, anticipated pressures on health and childcare services, women's shelters, mental health and addictions, increased crime rates and discrimination). | An assessment of potential effects on the social environment from the Project will be provided in the Impact Statement, if an Impact Assessment is required. As a result of the assessment, mitigation and management measures will be developed for implementation during the construction, operation and closure of the Project. |
| 91 | Potential for family traditions to be abandoned for employment. Comments on the need for flexibility in work schedules to enable the continued participation by community members in traditional and cultural activities (e.g. family hunts, large family gatherings). | Employment conditions will be addressed in the agreements determined appropriate by each Indigenous Nation, including but not limited to Impacts and Benefits Agreements. |
| **Indigenous Peoples' Spiritual, Physical, and Cultural Heritage** | | |
| 92 | Potential impacts to cultural heritage and archaeological resources near the project area. | An assessment of potential effects on cultural heritage and archaeology will be presented in the Impact Statement, if an Impact Assessment is required. An appropriate management plan will be developed prior to construction.<br>Relevant information from Indigenous TK/TLU studies, once provided by Indigenous Nations, will be used to inform further cultural heritage and archeology studies. |
| 93 | Need for further information on the cultural heritage environment of the Project, including planned, ongoing, or completed archaeological assessments. | A Cultural Heritage Report and Stage 1 Archaeological Assessment were completed for the area around the Project in 2021. The Cultural Heritage Report determined that there are no identified impacted resources, and no further study is warranted. The Stage 1 Archaeological Assessment identified areas of higher potential to be investigated during a Stage 2 field investigation.<br><br>Relevant information from Indigenous TK/TLU studies, once provided by Indigenous Nations, will be used to inform further cultural heritage and archeology studies. |
| 94 | Need a cultural heritage report including potential effects on known built heritage resources and cultural heritage landscapes, and measures to avoid or mitigate effects. Need for further information on whether the Project could impact underwater archaeological resources. | A Cultural Heritage Report was completed for the area around the Project in 2021, and determined that there are no known built heritage resources and cultural heritage landscapes. As a result, the need for mitigation measures is not required and no further study is warranted.<br><br>Relevant information from Indigenous TK/TLU studies, once provided by Indigenous Nations, will be used to inform the potential effects of the Project on Indigenous Peoples cultural heritage. |
| 95 | Comments on the identification of a potential burial ground in the north end of the project area. | The identification of a potential burial ground in the north end of the Project area will be investigated during the Stage 2 archaeology assessment field program, pending further information on the location. The results of the Stage 2 archaeology assessment will be incorporated in the assessment of potential effects along with applicable mitigation measures and presented in the Impact Statement, if an Impact Assessment is required.<br><br>Relevant information from Indigenous TK/TLU studies, once provided by Indigenous Nations, will be used to inform the potential effects of the Project on Indigenous Peoples cultural heritage. |
| 96 | Comment that waterways were important travel routes and the discovery of archaeological resources can be anticipated. Comments on previous archeological studies and artifact discovered in the project area, including near Flint Creek. | Indigenous Knowledge, for which studies are ongoing, to be incorporated into the field investigation for the Stage 2 archaeology assessment once made available to CNC. The results of the Stage 2 archaeology assessment will be incorporated in the assessment of potential effects along with applicable mitigation measures and presented in the Impact Statement, if an Impact Assessment is required. |
| 97 | Request to review any studies used to assess the potential presence of physical or cultural heritage features. | Baseline workplans and preliminary results are circulated with Indigenous Nations, facilitated by the IA Process Agreements as appropriate. Baseline Reports, once finalized, are shared with Indigenous Nations, Relevant information from Indigenous TK/TLU studies provided by Indigenous Nations will be incorporated into further studies, as required. |
| 98 | Request for information from the Proponent on the findings from initial archaeological studies, including information about the methods used to assess First Nations and Métis artifacts. | Baseline workplans and preliminary results are circulated with Indigenous Nations, facilitated by the IA Process Agreements as appropriate. Baseline reports, once finalized, are shared with Indigenous Nations. Relevant information from Indigenous TK/TLU studies provided by Indigenous Nations will be incorporated into further studies, as required. |
| 99 | Request for Indigenous peoples to be involved in archaeological studies (e.g. inclusion of elders, site visits, use of maps). | The baseline workplans and preliminary results of studies, when available, are circulated with Indigenous Nations associated with the Project. Archeological study information, including workplans and final reports, will continue to be circulated as appropriate. Feedback received from Indigenous Peoples, as well as relevant findings from the Indigenous TK/TLU studies, will be considered in subsequent archaeology studies for the Project. Maps to support acquisition of this feedback and completion of studies have been shared. There will be opportunities for Indigenous Peoples to participate in Stage 2 field investigations, and an archeologist recommended by the Indigenous Nations has been integrated into the archeology program Stage 2 field investigations. |
| 100 | Comments on the need for the Proponent to include areas for Indigenous employees to engage in traditional practices on site (e.g. tobacco offerings, smudging area). | Employment conditions will be addressed in the agreements determined appropriate by each Indigenous Nation, including but not limited to Impacts and Benefits Agreements. |
| **Indigenous Peoples' Exercise of Aboriginal and/or Treaty Rights** | | |
| 101 | See sections on Current Use of Lands and Resources for Traditional Purposes, Human Health and Well-being; and Spiritual, Physical and Cultural Practices. | Acknowledged. |
| 102 | Request that the Detailed Project Description be clearer that all Indigenous peoples engaged by the proponent (e.g. First Nations, Métis, and Inuit) have constitutionally protected rights under section 35 of the *Constitution Act, 1982*. | Canada Nickel is engaging Indigenous Nations with the understanding that activities related to the Crawford Project may impact their protected Aboriginal and/or Treaty rights. |

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| **Migratory Birds and their Habitat, Species at Risk and their Habitat, and other Flora and Fauna** | | |
| 103 | Potential effects on migratory birds and their habitat, including habitat loss, habitat alteration or fragmentation, mortality, or disturbance due to site alteration, vegetation clearing, vehicle operation, accidents and spills, and increased noise levels and light pollution, during all Project phases. To help inform tailored assessment requirements, (optionally) provide, in the Detailed Project Description:<br>· a list of migratory birds known to occur, and with the potential to occur, in areas to be affected by the Project, based on available information;<br>· a general estimate of the quantity and quality of migratory bird habitat that would be lost, and the extent to which it is limiting in the broader area; and<br>· specific mitigation measures that would avoid mortality and disturbance, including a justification for specific timing windows with pre-construction assessments for presence, and anything that can be said about management of ambient light and accidents and spills. | Available information on avian species as a result of baseline investigation conducted has been included in the Detailed Project Description. Baseline investigations conducted in 2021 and 2022 for migratory birds and their habitat, as well as an assessment of potential effects from the Project will be provided in the Impact Statement, if an Impact Assessment is required. As a result of the assessment, mitigation and management measures will be developed for implementation during the construction, operation and closure of the Project. |
| 104 | Potential effects on species at risk and their habitat and species of importance to Indigenous peoples, from disturbance and habitat alteration or loss. | Potential effects on species at risk and their habitat, and species of importance to Indigenous peoples from Project impacts due to habitat disturbance, alteration or loss will be described in the Impact Statement, if an Impact Assessment is required. |
| 105 | Need for the federal and provincial listing for each of the species of conservation concern that are mentioned in the Initial Project Description or in these comments. | The federal and provincial listing for each of the species of conservation concern has been updated in Section D.7.7 of the Detailed Project Description. |
| 106 | Need to identify species of particular importance to Indigenous peoples, through collection of additional Indigenous knowledge and perspectives. | CNC is collaborating with Indigenous Nations to support the development of Indigenous TK/TLU studies, facilitated by an IA process agreement as appropriate, and will incorporate this knowledge into the Impact Statement, once made available as appropriate, if an Impact Assessment is required. These self-driven studies are designed to indicate species of particular importance to each respective community, ensuring a diversity of perspectives at a local and/or regional level. |
| 107 | Need for baseline information on species at risk and species of importance to Indigenous people at the Project site, including seasonal and annual variation, distribution, and habitat use. Need for mitigation measures for potential effects, and an assessment of residual effects. | CNC is collaborating with Indigenous Nations to support the development of Indigenous TK/TLU studies, facilitated by an IA process agreement as appropriate. An assessment of potential effects on species at risk and species of importance to Indigenous people at the Project site, as well as suitable mitigation measures will be included in the Impact Statement, if an Impact Assessment is required. |
| 108 | To help inform a tailored assessment, (optionally) provide, in the Detailed Project Description, further information on presence or absence of individuals, residences and important habitat, for species at risk identified through previous or future desktop studies and field observations. Important habitat could include federal Critical Habitat or provincial General Habitat and Regulated Habitat. Some examples of helpful information are provided throughout five rows below. | Further information on species at risk arising through baseline investigations conducted to date has been included in the Detailed Project Description. |
| 109 | Potential effects on birds and bats of conservation concern that are relatively likely to occur in the region, including:<br>· Little Brown Myotis, Northern Myotis, and Tricolored Bat (including bat maternity roosts);<br>· Bald Eagle (including stick nests);<br>· Canada Warbler;<br>· Common Nighthawk;<br>· Olive-Sided Flycatcher;<br>· Yellow Rail;<br>· Whip-poor-will; and<br>· Evening Grosbeak.<br>To help inform tailored assessment requirements, (optionally) provide, in the Detailed Project Description:<br>· currently available information about species presence and important habitat presence, from your continued monitoring, engagement and desktop analyses; and<br>· a description about how potential effects to these species and their important habitat would typically be managed on private and provincial Crown land, including specific breeding bird timing windows with pre-construction assessments to verify likely absence, other mitigation measures for migratory birds and bats, and through any provisions in the Ontario *Endangered Species Act* or *Species at Risk Act*. | Further information on species at risk as a result of baseline investigation conducted to date has been included in the Detailed Project Description. Baseline investigations conducted in 2021 and 2022 for species of conservation concern and their habitat, as well as an assessment of potential effects from the Project will be provided in the Impact Statement, if an Impact Assessment is required. As a result of the assessment, mitigation and management measures will be developed for implementation during the construction, operation and closure of the Project. |
| 110 | Potential effects on Barn Swallow, Bobolink, and Red-headed Woodpecker, if they are present. To help inform tailored assessment requirements, (optionally) provide, in the Detailed Project Description:<br>· specific information about the potential for presence and any known occurrences, including validation with local experts; and<br>· a description about how potential effects to these species and their important habitat would typically be managed on private and provincial Crown land, if the species are present. | Barn Swallow, Bobolink and Red-headed Woodpecker have not been observed in the area around the Project. Should evidence of the presence of these species become available through the current baseline studies, effects on these species will be assessed in the Impact Statement, if an impact Assessment is required. As a result, an assessment of the potential effects of the Project on these specific species is not deemed relevant. |

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| 111 | Comment received that some species are unlikely to be present in the project area and may not require further study, including:<br>· Blanding's Turtle;<br>· Peregrine Falcon;<br>· Bank Swallow;<br>· Monarch; and<br>· Yellow-banded Bumble Bee.<br>To help inform tailored assessment requirements, consider rationale for whether to undertake further studies, based on available information and all comments received, and validate with other commenters as appropriate. Provide rationale in the Detailed Project Description. For Bank Swallow, provide information about appropriate aggregate and soft stockpile face management practices that can be used to prevent future establishment. | Baseline information collected from field investigations in 2022 is incorporated into Section D.7.7 Species of Conservation Concern of the Detailed Project Description. The Detailed Project Description includes rationale for the removal of species from the list included in the Initial Project Description. An assessment of potential effects on Bank Swallow will be included in the Impact Statement, if an Impact Assessment is required. |
| 112 | Potential for effects on Woodland Caribou, critical habitat, and recovery goals for the Kesagami caribou range. Specifically, potential for increases to range-scale "disturbance" levels, as well as potential for effects within the range on "existing habitat", "biophysical attributes" currently present, connectivity between important habitat types, and predator/prey access to "undisturbed" habitat. Potential need to offset effects to habitat that can't otherwise be mitigated. Note: In the Kesagami Range, all habitat (disturbed or not) is critical habitat. Acknowledging the low potential for caribou presence in the local project area at present time, additional information could help clarify the scope of potential effects and narrow down the required information and studies.<br><br>To help inform tailored assessment requirements, (optionally) provide, in the Detailed Project Description:<br>• a clear map showing where the Project overlaps the Kesagami caribou range;<br>• a description of the potential occurrence of caribou Project near the Project site including highway, transmission lines, rail spur, and potential 10 km pipeline. Summarize available information from provincial data sets about the Kesagami caribou population as well as local Indigenous and community knowledge. If caribou are considered locally absent, provide rationale and your level of certainty;<br>• information on the presence of critical habitat in any areas that could potentially be affected by the Project, using definitions in the Amended Recovery Strategy. Explicitly address whether the biophysical attributes of caribou critical habitat occur within and around the mine site and linear Project components, taking into account Appendix H of the Amended Recovery Strategy; and<br>• a description, with general rationale, of the potential for effects on caribou, critical habitat, and caribou recovery efforts within the Kesagami Range over the short, medium, and long- term including the post-mine closure landscape. Compare to how the area might contribute to recovery efforts in the absence of the Project. | The Kesagami Range for Woodland Caribou has been added to the Detailed Project Description (Figure C.1) Available baseline information on the presence of Woodland Caribou and their habitat adjacent to the Project is presented in Section D.7.5.2. Detailed baseline information, , as well as the potential effects as a result of the Project will be included in the Impact Statement, if an Impact Assessment is required. |
| 113 | Potential effects on Black Ash, which is widespread, common, but in decline due to an invasive beetle. To help inform tailored assessment requirements, (optionally) provide, in the Detailed Project Description, more specific information including:<br>· a description of the extent to which Black Ash may be present and impacted (including a desktop analysis of relevant eco-sites, if warranted); and<br>· a description about how potential effects to Black Ash would typically be managed, including provisions in the Ontario *Endangered Species Act*. | Potential effects on Black Ash from the construction of the Project will be assessed in the Impact Statement, if an Impact Assessment is required. |
| 114 | Potential effects of metals in fugitive dust on vegetation and wildlife. Need for information on mitigation measures, follow-up program measures to manage uncertainty, and monitoring plans to prevent adverse effects of metal exposure in fugitive dust. | The potential effects on vegetation due to fugitive dust will be based on air quality modelling and assessed in the Impact Statement, if an Impact Assessment is required. Based on the results of the assessment, mitigation and monitoring plans will be developed for implementation during the construction and operation of the Project. |
| 115 | Potential effects of habitat loss beyond the direct Project footprint, for species identified as important to Indigenous people such as moose, geese, deer, hare, and beaver. | Potential effects on species of importance to Indigenous people due to indirect habitat loss will be assessed in the Impact Statement, if an Impact Assessment is required. Mitigation measures and an appropriate monitoring program will be established based on the results of the assessment of effects. |
| 116 | Potential effects to the existing northern flyway for geese and ducks. | Potential effects on migratory birds such as geese and ducks due to indirect habitat alteration will be assessed in the Impact Statement, if an Impact Assessment is required. Mitigation measures and an appropriate monitoring program will be established based on the results of the assessment of effects. |
| 117 | Potential effects on moose and moose habitat from construction and relocation of Highway 655, transmission lines, and rail line, and operation of new rail line. Potential changes to wolf locations and behaviour as a result of the Project, and subsequent impacts on moose. | Potential effects on moose due to direct and indirect habitat loss will be assessed in the Impact Statement, if an Impact Assessment is required. Mitigation measures and an appropriate monitoring program will be established based on the results of the assessment of effects. |
| 118 | Concerns about effects on wildlife from vehicular traffic on roads, including reptiles, amphibians, birds, and mammals. Concerns about wildlife migration and wildlife corridors, and the need for measures to enable safe crossing of service roads. | Potential effects on wildlife due to indirect habitat alteration of corridors and mortality will be assessed in the Impact Statement, if an Impact Assessment is required. Mitigation measures and an appropriate monitoring program will be established based on the results of the assessment of effects. |
| 119 | Request for information on measures that would be put in place to prevent loss of life for mammals attempting to return to previously occupied habitat that is no longer safe and suitable. | Baseline information on wildlife movement corridors and the potential effects on wildlife due to mortality will be included in the Impact Statement, if an Impact Assessment is required. Mitigation measures will be established based on the results of the assessment of effects. |
| 120 | Request for additional information on provincially rare plant species identified in the project area, and measures to preserve or protect them. | Baseline information on provincially rare plant species, along with applicable mitigation measures for the protection and preservation of these species will be included in the Impact Statement, if an Impact Assessment is required. |

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| 121 | Request for information on mitigation measures that would be used to control invasive or noxious species in the project area or along access points. | Applicable mitigation measures for the control of invasive or noxious species within the Project footprint will be included in the Impact Statement, if an Impact Assessment is required. |
| 122 | Concern raised that there is heightened value to this land and the services it provides as it is a greenfield site near a conservation area. | Ongoing baseline investigations will be reviewed to determine if there are any environmental sensitivities associated with the terrestrial environment. An assessment of potential effects on terrestrial resources will be conducted and presented in the Impact Statement, if an Impact Assessment is required. Mitigation measures necessary for the protection of environmental sensitive species or values will be implemented based on the results of the assessment of the effects, and if necessary an appropriate monitoring program will be developed established. It should be noted that, while this is a greenfield mining site, the area has been subject to heavy logging. |
| **Navigation and Navigable Waters** | | |
| 123 | Potential effects on navigable waters and navigation by Indigenous peoples. Need to provide information about the navigability of waterways, the traditional use of waterways for navigation, potential effects on navigation, and proposed mitigation measures. To help inform tailored assessment requirements, (optionally) provide, in the Detailed Project Description:<br>· information about all water crossings and works involving navigable waterways, including the highway relocation, rail spur, pipeline alternatives, and mine site;<br>· identification of water bodies that are obviously navigable or obviously not navigable (with supporting rationale) and which bodies still require a determination of navigability; and<br>· identification of project activities that could possibly affect navigation. | Previous and current navigation of waterways by Indigenous Peoples will be determined in Indigenous TK/TLU studies, and relevant findings will be used to inform the evaluation of potential effects. The navigability of waterbodies in the Project area and potential effects to navigation due to direct or indirect effects to local watercourses and waterbodies will be assessed in the Impact Statement should an Impact Assessment be required. Further, CNC intends to engage with Transport Canada on requirement under the Act. |
| 124 | Comment with suggestion to engage Transport Canada on all requirements under the *Canadian Navigable Waters Act* to avoid project delays. | Comment acknowledged. CNC has held a preliminary meeting with Transport Canada and intends to continue to engage with Transport Canada on requirements under the Act. |
| **Need for the Project** | | |
| 125 | Comment in support of critical mineral projects going ahead. | Comment acknowledged. |
| 126 | Comments in support of the Project, citing the opportunity to share wealth with impacted communities while also mitigating effects. | Comment acknowledged. |
| **Project Activities and Design** | | |
| 127 | Concerns about the large Project footprint and requests to minimize it to the extent possible. | Site layout has been designed to maintain as compact a footprint as possible given the scope of the Project. This has been accomplished by:<br>• maximizing the disposal of tailings in the exhausted open pits,<br>• avoiding the encroachment of lakes to the west of the tailings management facility,<br>• limiting the impact on the West Buskegau and Jocko Creek watersheds,<br>• avoiding encroachment on the Mahaffy Conservation Reserve,<br>• the avoidance of overprinting West Buskegau River and Jocko Creek, and<br>• improving the stability of the design of the tailings management facility through ground improvements to optimize the volumes deposited.<br><br>This will be further optimized during detailed engineering, based on design criteria and planning. |
| 128 | Concerns over the physical stability and dimensions of the Tailings Storage Facility. Request for more information on its design and efforts to minimize its size. | The tailings storage facility will be designed to meet the Canadian Dam Association Dam Safety Guidelines and will take into consideration climate change, to ensure long-term stability. In addition, the key features of the tailings management include:<br>• The use of thickened tailings to reduce the water content in the tailings storage facility;<br>• The use of exhausted open pits to safely store tailings; and,<br>• Operational controls, including regular inspections, dam safety assessments and dam safety reviews<br><br>Efforts have been made to reduce the TMF footprint, such as by maximizing the disposal of tailings in the exhausted open pits, and improving the stability of the tailings management facility through ground improvements to optimize the volumes deposited. |
| 129 | Request for additional information on design of stockpiles and effectiveness of water management infrastructure to prevent release of contaminants, including location of the run of mine ore stockpile. | The site layout is shown on Figure C.1. Collection ditches will be constructed to ensure contact runoff water and seepage is captured, then treated as required to meet discharge criteria (established in the provincial permitting process) before discharge to the environment. |
| 130 | Need information about the alternatives for effluent discharge locations that are under consideration. | Canada Nickel is currently investigating potential effluent discharge locations, including the Mattagami River, North Driftwood River and/or West Buskegau River, or a potential combination of watercourses. An assessment of alternative locations will consider various factors in ultimately selecting the preferred location. Baseline information will be used to support the analysis, and will presented in the Impact Statement, if an Impact Assessment is required. Currently, the Mattagami River is the preferred alternative for the operations phase of the project (with no specific concerns raised), with smaller discharges to the North Driftwood and West Buskegau during the construction phase. |

| ID | COMMENT | RESPONSE |
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| 131 | Need for information on locations of any proposed sources of aggregate on site (using maps), and provide information to demonstrate that operation is considered in the effects assessment. | The primary material to be used for site construction will be mineral wastes (overburden and mine rock) removed from the open pit area. A sand and gravel deposit located within the property boundary, which has historically been used as a source of aggregate, may be utilized. This deposit is shown on FIGURE C.1. Other sources of aggregate might be needed during the construction phase, before the Crawford Project can produce the material (mineral wastes) needed. These sources can be either pits and quarries currently in operation by third parties, new operations by third parties or new operations developed and operated by Canada Nickel. It is not yet known where the aggregate material would be coming from, but it is expected to come from the Timmins/Cochrane area. |
| 132 | Request for the power supply to the site to use as much existing infrastructure as possible. Need for information on whether the 230 kV transmission line will use new or existing right of way, and the extent to which existing right of way would be expanded. Need information on land ownership, and responsibility for operating and maintaining (including vegetation management) the 230 kV line. Provide any updates to information available about the provincial assessment requirements. | The transmission line would follow generally existing rights of ways for Highway 655 and the 500 kV transmission line that goes from the Porcupine substation to the site. Generally, it is expected that the right of way would not need to be expanded significantly (current preliminary estimation is approximately 50 m, pending additional stages of engineering). Ownership of this transmission line will rest with Transmission Infrastructure Partnerships 1 (TIP1), a joint venture business of Taykwa Tagamou Nation, with Canada Nickel involved as a customer once construction is complete and the line is operational. TIP1 will be responsible for either securing the lands to build the transmission line or negotiating the easements with current landowners. TIP1 will also be responsible for provincial Environmental Assessment requirements, design, construction, connection, and operation/maintenance. This component will be subject to the provincial Class Environmental Assessment (EA) for Minor Transmission Facilities under either the Class EA Screening process or the Full Class EA process (to be determined by the Ministry of Environment, Conservation and Parks). The provincial Class EA processes were developed to streamline frequently occurring projects with similar characteristics and predictable environmental effects with well-defined mitigation measures. |
| 133 | Need for information on the expected frequency of rail traffic as a result of the Project and a comparison to existing conditions along existing rail lines. | Early discussion with Ontario Northland Transportation Commission confirmed that rail transportation is a feasible option based on available information at this stage. Indeed, the rail transportation would likely involve between one and two transports per day in general. The detailed impact on the existing rail network will be assessed in the impact statement, if an impact assessment is required. |
| 134 | Need for further information on transport of ore concentrate from the Project site, including potential destinations, care and control, alternatives to transport by rail, and potential impacts of ore concentrate transport on rail traffic, and transportation costs. | The current estimation is that over the life of the project, 1.5Mt of high-grade nickel concentrate would be produced, as well as 7.0 Mt of normal-grade nickel concentrate, and 103.8 Mt of iron concentrate. At this time, there is no specific location identified or commercial agreement concluded for downstream processing. The concentrate is anticipated to be sold on the open market and transported to processing facilities under the control of a third party either in Canada or abroad. Potential destinations in Canada include the Sudbury region (nickel processing), southern Ontario (stainless steel industry), a port in eastern Canada for shipment abroad, or a new processing facility that could be built by a third party at some point before or after the beginning of the operation at the Crawford Nickel Project. Considering the yearly average production of above 2Mt of concentrate per year, transportation by truck is not considered a good alternative to rail transportation as the main transportation mode (greenhouse gas emissions, costs, traffic). However, these quantities can be managed by rail transportation (one or two shipment per day). |
| 135 | Request for information on “special management / hazardous materials” and how they will be stored and transported. | Hazardous materials will be required at the Crawford Nickel Project, as for most industrial establishments. Chemical reagents will be used in ore processing and for wastewater treatment at the site. Petroleum hydrocarbon products will also be used. The list of potentially hazardous material stored and used on-site will include diesel, gasoline, sulfuric acid, propane, flocculant, coagulant, flotation chemicals and other products typical for a mine operating in Ontario. Most of the hazardous materials will be transported by rail, but a part might also be transported by road. These products will be stored according to supplier and safety guidance, in separated and as applicable, contained areas. Storage tanks will be equipped with level indicators, instrumentation, and alarms to ensure spills do not occur during normal operation.<br><br>In addition, should an impact assessment be required, CNC will identify and document the management of potential accidents and malfunctions that are applicable to the project in the impact statement. |
| 136 | Need for further information on potential effects on air navigation from tall (90 m) waste rock stockpiles, and mitigation measures, including associated regulatory requirements. | The nearest airport is approximately 30 km from the centroid of the Project site, and unlikely to have a potential effect on air navigation due to the waste rock stockpiles. However, this will be further reviewed during Project permitting by federal agencies, and required mitigation measures will be implemented as an outcome of review. |
| 137 | Need legal descriptions of the land that will be used for all project components including the mine site and any linear features such as the highway, transmission lines, and rail spur. | Land Tenure information has been included in Appendix E of the Detailed Project Description. |
| 138 | Need to provide any updates to available information about the provincial assessment requirements for the highway relocation, 500 kV transmission line relocation, and new 230 kV transmission line, including who will do what and when. Provide information about actions the Proponent can take to support cooperation between jurisdictions. | Information about the provincial process has been provided in the DPD (see Section C.3.2). CNC is in the process of initiating discussions with the provincial authorities who will be involved in the permitting and assessment of the Crawford Project. CNC will, to the limit of its capacity and responsibility, promote cooperation between the jurisdiction by proactively communicating progress and planning, and participating in meetings involving both jurisdictions. |
| 139 | Request for information on any proposed collaboration with other projects/industries in the area with regard to infrastructure usage. | There are currently no agreements or collaborative efforts being undertaken with other projects in the area. Where necessary, CNC will engage with regulatory agencies on strategic initiatives. |
| **Public and Stakeholder Engagement** | | |
| 140 | Need for Proponent to provide public notices of Project activities and documentation to additional surrounding communities in order to determine their interest in the Project. | Canada Nickel has engaged with surrounding communities on Project activities, with surrounding communities being defined by CNC as those interested communities located, by linear distance, within an approximately 50 kilometre radius from the Project centroid and being potentially impacted by the development of the Project. To date, this definition has encompassed the town of Cochrane, the town of Iroquois Falls, the town of Smooth Rock Falls, and the City of Timmins. |

| ID | COMMENT | RESPONSE |
|---|---|---|
| 141 | Request to engage the township of Black River - Matheson. | Canada Nickel has shared introductory correspondence with the township of Black River – Matheson with the offer to share project information. |
| **Social and Economic Conditions** | | |
| 142 | Potential positive economic effects through employment and tax revenues. | Further information about the potential positive economic effects (employment and business) will be identified through engagement and research activities as well as Project planning. As appropriate this information will be used to support the effects assessment in the Impact Statement, if an Impact Assessment is required. |
| 143 | Need for further information on projected baseline economic conditions in the region, and any incremental effects from the Project. Include projections of baseline labour availability. | Further information will become available through engagement and research activities to inform baseline economic conditions. This information will be provided in the Impact Statement, if an Impact Assessment is required. |
| 144 | Need for sensitivity analyses on important economic variables including nickel market conditions to better understand Project feasibility and the likelihood that it will be implemented as described. | Further economic analysis including sensitivity analyses on economic variables for the Project will occur during ongoing engineering studies. The results from the engineering studies will be used to undertake further economic modelling and will be presented in the Impact Statement, if an Impact Assessment is required. |
| 145 | Concerns about labour shortages and the potential to need temporary foreign workers. To help inform tailored assessment requirements, (optionally) provide, in the Detailed Project Description, alternative means under consideration (if any) for acquiring and accommodating a sufficient workforce. This would inform the social effects assessment. | Population projections suggest a decline in population in the Cochrane district, however federal immigration programs such as the Rural and Northern Immigration Pilot, are likely to result in an increase in available local workforce through direct and indirect effects pathways. As such, the Project may provide employment opportunities for the increasingly available local workforce in the region (See DPD Section D.8). Canada Nickel is engaging with regional training and education institutions to plan for the projected project workforce, and with the appropriate municipal and social bodies to discuss potential accommodation challenges.<br><br>Further information and analysis on the required labour for the Project will occur during ongoing engineering studies, and information about economic opportunities (employment and business) will be identified through engagement and research activities as well as Project planning. As appropriate, this information will be used to support the assessment of labour which will be presented in the Impact Statement, if an Impact Assessment is required. |
| 146 | Need for further information on employment related to the Project, including:<br>· information on how workers will be hired locally, from within Canada, or internationally;<br>· the number of and types of jobs the Project will create (direct, induced) in different project phases;<br>· estimated salaries and compensation for those jobs with comparison to other provincial and local employers;<br>· whether assistance would be provided during any temporary lay-offs;<br>· local employment barriers and availability of childcare for workers; and<br>· any training and skills development programs to develop local job candidates. | Further information and analysis on the required labour for the Project will occur during ongoing engineering studies. The results from the engineering studies will be used to support the assessment of labour which will be presented in the Impact Statement, if an Impact Assessment is required. |
| 147 | Need for further information on tax revenues generated by carrying out the Project during all Project phases. | Economic analysis to determine tax revenues generated by the Project will occur during ongoing engineering studies. The results from the engineering studies will be used to undertake further economic modelling and will be presented in the Impact Statement, if an Impact Assessment is required. Additional economic impacts, direct or indirect, related to tax revenues and/or anticipated (or projected) financial impacts on the region will also be further identified. |
| 148 | Need for information on the Project's costs, and if they would include procurement from local sources. | Further information on the Project costs will be determined in engineering studies that are currently underway. Relevant information will be considered for assessment and presentation in the Impact Statement, if an Impact Assessment is required. |
| 149 | Need for details on any commitments to maximize positive socio-economic outcomes for local communities. | In consultation with a Local Procurement and Community Contributions Committee, comprised on social, economic, and municipal community representatives, CNC has implemented a Local Procurement Policy and a Contributions Program.<br><br>The Local Procurement Policy states that, during the exploration phase of the Crawford Project, CNC will, to the maximum extent possible while ensuring safety, quality, and economy, give preference to goods and services provided by local companies after initial preference to Indigenous owned and operated businesses, or business with Indigenous joint ventures or partnerships. This policy will be amended and adapted to the construction and operation phases of the project as appropriate.<br><br>The Contributions Guidelines aim at addressing social, educational, environmental, and health/wellbeing challenges, with particular emphasis on vulnerable populations, in both the short and long term. Long term, or Legacy, contributions will be favoured towards those challenges that may be triggered or amplified by development of the Crawford Project. Indigenous Nations have a distinct process for contributions, which is facilitated through direct communication between CNC and the community.<br><br>Further details on commitments toward socio-economic outcomes for local communities will be included in the assessment of socio-economic effects and presented in the Impact Statement, if an Impact Assessment is required. |
| 150 | Comments about potential for positive impacts on diversity and inclusion of underrepresented groups in the labour force. | Comment acknowledged. CNC is committed to fostering an inclusive, accessible environment for all employees, and will work to reduce barriers to employment for underrepresented groups in the labour force at the Crawford Project. CNC is also committed to the application of GBA+ throughout ongoing socio-economic baseline assessments and, as such, is committed to identifying barriers perceived by equity-deserving groups for greater participation and inclusion. |

| ID | COMMENT | RESPONSE |
|---|---|---|
| 151 | Potential social impacts of an influx of workers to the area on housing access and affordability, community safety, childcare access, health care access, social services and infrastructure, especially pertaining to vulnerable populations. Need for prevention and mitigation measures. Suggestion to engage early with service providers on the need to increase capacity. | It is anticipated that the project workforce will largely be drawn from the existing populations of local communities. Baseline socio-economic conditions for communities in the area of the Project and an assessment of potential effects will be provided in the Impact Statement, if an Impact Assessment is required. As a result of the assessment, mitigation and management measures will be developed for implementation during the construction, operation, and closure of the Project. |
| 152 | Potential for adverse social effects from the use of temporary foreign workers, if necessary, particularly on vulnerable populations. | CNC does not anticipate it would be necessary to engage temporary foreign workers for any stage of the project. Baseline socio-economic conditions for labour force in the area of the Project and an assessment of potential effects will be provided in the Impact Statement, if an Impact Assessment is required. |
| 153 | Comments on need to include the Township of Black River-Matheson in the benefits of the Project, including on committees organized by the Proponent, future strategic partnerships, procurement and development, employment, training and education, and other opportunities. | The Township of Black River-Matheson has been invited to participate in future project engagement activities.<br><br>CNC's Local Procurement Policy states that, during the exploration phase of the Crawford Project, CNC will, to the maximum extent possible while ensuring safety, quality, and economy, give preference to goods and services provided by local companies after initial preference to Indigenous owned and operated businesses, or business with Indigenous joint ventures or partnerships. This policy will be amended and adapted to the construction and operation phases of the project as appropriate. Local is divided into Tier 1 and Tier 2, where Tier 2 encompasses the entire Cochrane District.<br><br>It is anticipated that the project workforce will largely be drawn from the existing populations of the region, given CNC's objective to employ locally where possible. CNC has and will continue to engage with local training institutions to emphasize regional education and employment.<br><br>CNC has developed its committees, benefits programs, and engagement activities to focus on those communities surrounding the Crawford Project, with surrounding communities being defined by CNC as those interested communities located, by linear distance, within an approximately 50 kilometre radius from the Project centroid and being potential impacted by the development of the Project. |
| 154 | Need for further information on any potential impacts to the existing economic activity and business in the region (such as tourism), beyond the Project footprint, including mitigation for negative impacts. To help tailor assessment requirements, (optionally) provide, in the Detailed Project Description, readily available information about tourism operator locations in an approximate zone of effect around the Project footprint, such as commercial Bear Management Areas. | CNC has engaged with the local tourism industry, including meetings with the owners of the relevant Bear Management Area and discussions with Nature and Outdoor Tourism Ontario. CNC issued a letter through a NOTO newsletter to its members requesting that any tourism operations operating in proximity to the Crawford Project contact CNC. A similar request to all land users was issued in the CNC October 2022 newsletter. No responses were received from either of these outreaches.<br><br>Baseline information on existing economic activity and business in the region and an assessment of potential effects on tourism will be identified through primary research and engagement with municipalities and Indigenous Nations, specifically tourist operators during preparation of the Impact Statement, if an Impact Assessment is required. This will correspond to the project's approximate zone of effect, such as the project study area, local study and regional study area. |
| 155 | Concern about the recreational experience for campers and seasonal businesses such as Bigwater Campground. Need to provide information about the extent of noise, vibrations, air quality and water quality changes at Bigwater Campground (if any) and any similar receptors identified. Encouraged to engage the business owner(s) and interested seasonal campers on the analysis. | An assessment of potential effects on the recreational experience for campers and seasonal businesses will be provided in the Impact Statement, if an Impact Assessment is required. The assessment will be supported by baseline information and further engagement with stakeholders. Canada Nickel has reached out to the business owners. Considering the distance from the Project site to the Bigwater Campground, effects from the project are not anticipated, however these will be assessed in the Impact Statement, if an Impact Assessment is required. |
| **Sustainability** | | |
| 156 | Comment about the Project's contributions to sustainability, including whether the ore concentrate would be further processed in Canada, and products manufactured in Canada, and if not, whether global transportation costs might counter the benefits. | At this time, there is no specific location identified or commercial agreement concluded for downstream processing of ore concentrate. The concentrate is anticipated to be sold on the open market and transported to processing facilities either in Canada or abroad. Potential destinations in Canada include the Sudbury region (nickel processing), southern Ontario (stainless steel industry), a port in eastern Canada for shipment abroad, or a new processing facility that could be built by a third party at some point before or after the beginning of the operation at the Crawford Nickel Project. Considering the yearly average production of above 2Mt of concentrate per year, transportation by rail and potentially cargo ship are viable options. |
| **Vulnerable Population Groups (Gender-Based Analysis Plus)** | | |
| 157 | Need for further information on data collection methodology and potential impacts on the health and safety of women, children, Elders and other vulnerable groups, taking into account how they may be affected differently. | Through engagement and primary research, additional baseline information and an assessment of potential effects on the health and safety of vulnerable population groups will be provided in the Impact Statement, if an Impact Assessment is required. As part of CNC's efforts to ensure under-served communities are adequately identified, those deemed as vulnerable population groups will be considered via an intersectional approach to primary research throughout both engagement and research processes. For Indigenous Nations, direct community information is anticipated to be provided through the TK/LU studies and possibly socio-economic studies and as such, will be shared in the Impact Statement should an Impact Assessment be required. |
| 158 | Comment to ensure that women, youth, Elders, and 2SLGBTQQIA+ people will be included in engagement. | The Detailed Project Description has been updated in Section B.1.4 to include women, youth, Elders, and 2SLGBTQQIA+ people. |
| 159 | Need for further information on labour market conditions for underrepresented populations and more information on how the mine could improve their labour market outcomes. | CNC is committed to fostering an inclusive, accessible environment for all employees, and will work to reduce barriers to employment for underrepresented groups in the labour force at the Crawford Project. Further information on labour market conditions will be included in the Impact Statement, if an Impact Assessment is required. |

| ID | COMMENT | RESPONSE |
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| 160 | Need for further information on how employment access barriers, disparities in the labour force, and income disparities for women will be addressed. Concerns about sexual harassment of female employees. | CNC has a Respect in the Workplace –Workplace Harassment, Sexual Harassment and Discrimination Policy and a Workplace Violence policy, which address CNC's commitment providing a work environment that is free from discrimination, harassment and reprisals, and supportive of the productivity, dignity, and self-esteem of every employee. This includes prohibition of workplace sexual harassment and the steps for reporting such incidents. CNC is engaging with local and Indigenous training and labour institutions to understand employment access barriers in the region and the steps that can be taken to remove such barriers at the Crawford Project.<br>Further information on labour market conditions will be included in the Impact Statement, if an Impact Assessment is required. |
| 161 | Comment that youth need access to jobs, training and formal long-term education. | CNC is engaging with local and Indigenous training and labour institutions to understand education and employment access barriers for youth in the region and the steps that can be taken to remove such barriers at the Crawford Project. CNC has worked with the Far Northeast Training Board to engage with high school students and explain potential education and career paths in the mining industry.<br><br>Employment and Training opportunities will be addressed in the agreements determined appropriate by each Indigenous Nation, including but not limited to Impacts and Benefits Agreements.<br><br>Further information on labour market conditions will be included in the Impact Statement, if an Impact Assessment is required. |
| | **Water** | |
| 162 | Potential effects of seepage and runoff from ore, mine rock, tailings, and overburden on ground water quality and surface water quality. | The potential effects on ground water and surface water quality from Project site infrastructure will be assessed in the Impact Statement, if an Impact Assessment is required. Seepage will be collected in drainage ditches surrounding the mining infrastructures. The clay cover naturally present in the area offers a very effective barrier to prevent migration of contaminants to the subsurface. In addition, the preliminary geochemistry results suggest that metal leaching will be low. Finally, monitoring programs will be implemented to ensure that regulatory requirements for water quality are met. |
| 163 | Need to predict acid rock drainage and metal-leaching potential. Need for geochemical studies and drainage predictions from tailings, waste rock, ore, low-grade ore, overburden, and aggregate. Need tailings and waste rock management plans. | Geochemistry studies are currently underway, and the results will be considered during the engineering design for the mine waste facilities. The results of the geochemistry studies will be presented in the Impact Statement, if an Impact Assessment is required. Early results from the static and kinetic test work completed to date are favourable, suggesting that acid generation and metal leaching will not be a significant concern. A more comprehensive program, including static and kinetic testing on approximately 300 samples, is ongoing to confirm the initial results on the waste rock and to collect data on tailings, overburden, and low-grade ore. |
| 164 | Need for baseline information on groundwater, including upgradient and downgradient groundwater quality, groundwater levels, hydraulic conductivities, flow directions and velocities in both the bedrock and overburden, for the entire site and at individual mine facilities, to predict where contaminants might surface in water courses. Need ongoing monitoring during operations. | Baseline groundwater investigations are currently ongoing and will support the hydrogeological modelling for the Project. The baseline information, hydrogeological modelling and the assessment of potential effects on groundwater will be provided in the Impact Statement, if an Impact Assessment is required. The results of the assessment will be used to develop monitoring programs during the operation and closure phases. |
| 165 | Need a receiving environment water quality model to help identify mitigation needs. | An assessment of the change in water quality at the receiving environment will be modelled and provided in the Impact Statement, if an Impact Assessment is required. The results of the assessment will be used to develop applicable mitigation during the construction, operation and closure phases. As part of the Provincial permitting process, receiver-based effluent discharge criteria will be developed and take into consideration environmental conditions, receiving waters capacity, predicted water quality parameters and regulatory requirements. |
| 166 | Need for more information on water management facilities and drainage works for all phases of the Project, including how and where seepage and mine contact water will be collected, monitored, and treated as necessary. | Further information has been included in the Detailed Project Description and a comprehensive description of the water management facilities, drainage works and treatment areas will be included in the Impact Statement, if an Impact Assessment is required. |
| 167 | Request for additional information about how tailings storage facilities will be isolated from surface and groundwater sources, on land and in open pits, during operations and after closure. | The tailings management facility (TMF) will be designed in accordance with the Canadian Dam Association Dam Safety Guidelines and regulatory guidelines. The TMSF will be located a safe distance from nearby waterbodies. The clay cover naturally present in the TMF area also offers a very effective barrier to prevent migration of contaminants to the subsurface. In addition, the preliminary geochemistry results suggest that metal leaching will be low. Further information on the TMF will be included in the Impact Statement, if an Impact Assessment is required. |
| 168 | Concern with the proximity of tailings to waterbodies and potential contamination from any tailings seepage (e.g. mercury, cyanide). | The TMF will be located a safe distance from nearby waterbodies. Seepage collection ditches will be constructed at the perimeter of the TSF to collect the seepage water and pump it back to the TSF or recycle pond. In addition, the preliminary geochemistry results suggest that metal leaching will be low. Further information on the TMF and an assessment of potential effects to surface and ground water will be presented in the Impact Statement, if an Impact Assessment is required. The results of the assessment will be used to develop applicable mitigation during the construction, operation and closure phases. |
| 169 | Need for additional information about ore stockpile design, including measures to prevent environmental contamination from drainage and runoff, such as a liner. | Preliminary geochemical analyses and water quality modelling indicate that mine rock and the low-grade ore stockpiles will not be acid generating and metal leaching will be low. In addition, there is a natural clay cover that will help present the migration of contaminants to the groundwater, if any. As such, a liner is not expected to be required at this stage. Collection ditches will be constructed along the outer limits of the stockpiles to capture sediment-laden runoff water and route surface water flows to a network of sumps. Surface runoff from stockpiles will be pumped to collection ponds for reuse in the process facility or treatment prior to discharge. An assessment of potential effects to surface and ground water will be presented in the Impact Statement, if an Impact Assessment is required. The results of the assessment will be used to develop applicable mitigation during the construction, operation and closure phases. |

| ID | COMMENT | RESPONSE |
|---|---|---|
| 170 | Need for a site-wide stormwater control study. | Mine water from the dewatering of the open pit will be pumped to a collection pond for additional management, including for re-use as make up water for the process plant. Precipitation and surface runoff that come into contact with mine-related facilities will be collected in ditches will be pumped to the collection pond. The collection pond will be designed with sufficient capacity to support the retention and treatment of contact water, including an appropriate influx of stormwater, and to provide water for processing operations. Further information on the integrated water management system will be included in the Impact Statement, if an Impact Assessment is required. |
| 171 | Concern about water storage capacity in the water storage ponds and whether it will be necessary to discharge untreated contact water to the environment at any point. | Project structures which are intended to hold water will be designed to meet appropriate environmental storm/inflow events, including the effect of climate change. The design criteria of water management features such as ditches, pond and water treatment systems will be compliant to the Canadian Dam Association standards. As is standard design practice, only in rare circumstances of extreme storm events may controlled discharge of untreated contact water occur. |
| 172 | Need to develop receiver-based effluent discharge criteria, taking into account the physical, chemical, and biological conditions of the receiving waterbody, the receiver's assimilative capacity, mixing zone requirements, the identification of contaminants of concern, and potential impacts to other water uses. | As part of the Provincial permitting process, receiver-based effluent discharge criteria will be developed and take into consideration environmental conditions, receiving waters capacity, predicted water quality parameters and regulatory requirements. |
| 173 | Comment with request for the most conservative water quality criterion to be applied for the protection of aquatic life at the point of effluent discharge, with no mixing zone. | Receiver-based effluent discharge criteria will be developed during the Provincial permitting process, and used to determine the applicable mixing zone for the treated effluent location associated with the Project. |
| 174 | Need to incorporate Indigenous knowledge into selection of the effluent discharge location. | Effluent from the mine will meet all regulatory requirements prior to discharge, including the Metal and Diamond Mining Effluent Regulations (MDMER). The selection of the preferred location for treated effluent will include consideration of relevant information from Indigenous Knowledge studies provided by local Indigenous Nations. An assessment of alternatives will be provided in the Impact Statement, if an Impact Assessment is required. |
| 175 | Need additional information on source of water supply at seasonal-use properties near the proposed tailings management facility, and potential water quality effects. | A seasonal-use property near the proposed TMF receives water supply from a nearby well situated close to the lake. Further information on the TMF and an assessment of potential effects to surface and ground water will be conducted using applicable modelling and presented in the Impact Statement, if an Impact Assessment is required. The results of the assessment will be used to develop applicable mitigation during the construction, operation and closure phases. |
| 176 | Concerns raised about potential effects of effluent discharge in the Mattagami River. | Effluent discharge to the environment will meet all federal and provincial regulatory requirements. An assessment of the potential for changes in water quality due to effluent discharge will be provided in the Impact Statement, as appropriate, if an Impact Assessment is required. |
| 177 | Concerns about any changes to water levels and how they might affect fish, amphibians, emergent plants, and forests. | The potential effects of changes in water levels on aquatic and terrestrial resources due to the Project will be presented in the Impact Statement, as appropriate, if an Impact Assessment is required. |
| 178 | Comment about water used for dust control, and whether it would be sourced from the natural environment or recycled from site. | Water requirements for control of dust emissions from haul roads and construction areas will be recycled from the Project site. |
| 179 | Concerns about increased risk of mercury mobilization in selected source-water intake locations. Need to incorporate Indigenous knowledge when identifying potential water sources. | Water required for the Project will be obtained primarily by recycling site runoff and open pit mine water. If additional fresh water is required for process make up and a fire water supply, it may be sourced from a local watercourse. The withdrawal of water would be minimized to meet regulatory guidelines for the protection of the aquatic environment. An assessment of alternative locations for the water source will be provided in the Impact Statement, if an Impact Assessment is required, and include relevant information from Indigenous Knowledge studies provided by local Indigenous Nations in the selection of the location. |
| 180 | Concern about water-crossings being potential inputs of contamination. | Access and haul roads will be constructed with non-acid generating aggregate or mine rock, and the number and size of water crossings will be minimized. Mitigation measures will be implemented during construction and operation to reduce the risk of potential contamination from water crossings. A summary of the mitigation measures and an assessment of the potential for changes in water quality will be provided in the Impact Statement, as appropriate, if an Impact Assessment is required. |
| 181 | Need to provide information about planned sediment control and the potential residual effects of sedimentation downstream of Project activities. | The potential effects of sedimentation on water quality due to the Project will be managed with standard sediment control measures. A summary of the sediment control measures and an assessment of any potential residual effects on water quality in downstream systems will be presented in the Impact Statement, as appropriate, if an Impact Assessment is required. |
| 182 | Need for further information on how the release of nitrogen into the aquatic environment from the use of explosives will be minimized. | Effluent discharge to the environment will meet all federal and provincial regulatory requirements. Ongoing engineering is occurring to determine the extent and location of the use of explosives associated with the Project. Based on these studies, relevant information will be used to conduct an assessment of potential effects on surface water quality due to the use of explosives for the Project which will be presented in the Impact Statement, if an Impact Assessment is required. The results of the assessment will be used to develop applicable mitigation measures to minimize effects on surface water quality during the construction, operation and closure phases. |
| 183 | Concerns about whether there is any potential for changes to water quality at Bigwater Campground. | As the Bigwater Campground is located in a different watershed and far from the Crawford Nickel Project, there are no anticipated impacts or changes to water quality which may result from development of the Crawford Nickel Project. |
| 184 | Need to characterize temporal variability and trends in baseline surface water quality and quantity in areas that might be affected by the Project. | Environmental baseline studies are ongoing; characterization information will be included in the Impact Statement as appropriate, should an Impact Assessment be required. |
| **Wetlands** | | |
| 185 | Potential direct and indirect effects on wetlands and wetland functions during all Project phases. | Impacts to wetlands will be assessed as appropriate in the Impact Statement, if an Impact Assessment is required. |
| 186 | Need for information on avoidance and mitigation measures for potential effects to wetlands and wetland functions. Need supporting information to show that mitigation for surface and groundwater effects, and accidents and malfunctions, will mitigate potential indirect effects on wetlands and wetland functions. Need for information on potential residual effects during all Project phases. | Wetlands that are potentially impacted by the Project directly or indirectly will be identified within and directly adjacent to the Project footprint. Measures to avoid and/or mitigate potential effects to wetlands, along with a description of the potential residual effects during all Project phases will be assessed as appropriate in the Impact Statement, if an Impact Assessment is required. |

# Appendix E

## Land Tenure Tables

TABLE E.1 CLAIMS - CRAWFORD PROJECT

| Mining Right Number | Mining Right Type | CNC Holding |
|---|---|---|
| 334714 | Single Cell Mining Claim | 100% |
| 105176 | Single Cell Mining Claim | 100% |
| 105177 | Single Cell Mining Claim | 100% |
| 111361 | Single Cell Mining Claim | 100% |
| 109668 | Single Cell Mining Claim | 100% |
| 109669 | Single Cell Mining Claim | 100% |
| 113475 | Single Cell Mining Claim | 100% |
| 113580 | Single Cell Mining Claim | 100% |
| 124556 | Single Cell Mining Claim | 100% |
| 129456 | Single Cell Mining Claim | 100% |
| 129457 | Single Cell Mining Claim | 100% |
| 130662 | Single Cell Mining Claim | 100% |
| 130535 | Single Cell Mining Claim | 100% |
| 585120 | Single Cell Mining Claim | 100% |
| 585121 | Single Cell Mining Claim | 100% |
| 585122 | Single Cell Mining Claim | 100% |
| 136018 | Single Cell Mining Claim | 100% |
| 136045 | Single Cell Mining Claim | 100% |
| 139909 | Single Cell Mining Claim | 100% |
| 139910 | Single Cell Mining Claim | 100% |
| 145978 | Single Cell Mining Claim | 100% |
| 147108 | Single Cell Mining Claim | 100% |
| 152437 | Single Cell Mining Claim | 100% |
| 561936 | Multi-cell Mining Claim | 100% |
| 158708 | Single Cell Mining Claim | 100% |
| 159418 | Single Cell Mining Claim | 100% |
| 158482 | Single Cell Mining Claim | 100% |
| 160092 | Single Cell Mining Claim | 100% |
| 164003 | Single Cell Mining Claim | 100% |
| 164004 | Single Cell Mining Claim | 100% |
| 164725 | Single Cell Mining Claim | 100% |
| 164775 | Single Cell Mining Claim | 100% |
| 164776 | Single Cell Mining Claim | 100% |
| 165360 | Single Cell Mining Claim | 100% |
| 169058 | Single Cell Mining Claim | 100% |
| 169074 | Single Cell Mining Claim | 100% |
| 169075 | Single Cell Mining Claim | 100% |
| 169076 | Single Cell Mining Claim | 100% |
| 535136 | Single Cell Mining Claim | 100% |
| 535137 | Single Cell Mining Claim | 100% |
| 535132 | Single Cell Mining Claim | 100% |
| 535133 | Single Cell Mining Claim | 100% |
| 535138 | Single Cell Mining Claim | 100% |
| 167982 | Single Cell Mining Claim | 100% |

TABLE E.1 CLAIMS - CRAWFORD PROJECT

| Mining Right Number | Mining Right Type | CNC Holding |
|---|---|---|
| 167269 | Single Cell Mining Claim | 100% |
| 171995 | Single Cell Mining Claim | 100% |
| 171996 | Single Cell Mining Claim | 100% |
| 535140 | Single Cell Mining Claim | 100% |
| 182533 | Single Cell Mining Claim | 100% |
| 585126 | Single Cell Mining Claim | 100% |
| 585127 | Single Cell Mining Claim | 100% |
| 585128 | Single Cell Mining Claim | 100% |
| 585129 | Single Cell Mining Claim | 100% |
| 194029 | Single Cell Mining Claim | 100% |
| 194046 | Single Cell Mining Claim | 100% |
| 195379 | Single Cell Mining Claim | 100% |
| 193796 | Single Cell Mining Claim | 100% |
| 535143 | Single Cell Mining Claim | 100% |
| 535144 | Single Cell Mining Claim | 100% |
| 203181 | Single Cell Mining Claim | 100% |
| 203341 | Single Cell Mining Claim | 100% |
| 535146 | Single Cell Mining Claim | 100% |
| 535150 | Single Cell Mining Claim | 100% |
| 585124 | Single Cell Mining Claim | 100% |
| 585125 | Single Cell Mining Claim | 100% |
| 535152 | Single Cell Mining Claim | 100% |
| 535153 | Single Cell Mining Claim | 100% |
| 205922 | Single Cell Mining Claim | 100% |
| 205923 | Single Cell Mining Claim | 100% |
| 213242 | Single Cell Mining Claim | 100% |
| 212249 | Single Cell Mining Claim | 100% |
| 212747 | Single Cell Mining Claim | 100% |
| 217852 | Single Cell Mining Claim | 100% |
| 222029 | Single Cell Mining Claim | 100% |
| 224132 | Single Cell Mining Claim | 100% |
| 224133 | Single Cell Mining Claim | 100% |
| 224160 | Single Cell Mining Claim | 100% |
| 225503 | Single Cell Mining Claim | 100% |
| 230779 | Single Cell Mining Claim | 100% |
| 230783 | Single Cell Mining Claim | 100% |
| 230810 | Single Cell Mining Claim | 100% |
| 231389 | Single Cell Mining Claim | 100% |
| 242401 | Single Cell Mining Claim | 100% |
| 247900 | Single Cell Mining Claim | 100% |
| 247901 | Single Cell Mining Claim | 100% |
| 248624 | Single Cell Mining Claim | 100% |
| 250662 | Single Cell Mining Claim | 100% |
| 248653 | Single Cell Mining Claim | 100% |

TABLE E.1 CLAIMS - CRAWFORD PROJECT

| Mining Right Number | Mining Right Type | CNC Holding |
|---|---|---|
| 249915 | Single Cell Mining Claim | 100% |
| 252439 | Single Cell Mining Claim | 100% |
| 249992 | Single Cell Mining Claim | 100% |
| 249993 | Single Cell Mining Claim | 100% |
| 250456 | Single Cell Mining Claim | 100% |
| 254715 | Single Cell Mining Claim | 100% |
| 254716 | Single Cell Mining Claim | 100% |
| 254717 | Single Cell Mining Claim | 100% |
| 256604 | Single Cell Mining Claim | 100% |
| 256605 | Single Cell Mining Claim | 100% |
| 254736 | Single Cell Mining Claim | 100% |
| 254689 | Single Cell Mining Claim | 100% |
| 260736 | Single Cell Mining Claim | 100% |
| 260101 | Single Cell Mining Claim | 100% |
| 260679 | Single Cell Mining Claim | 100% |
| 271941 | Single Cell Mining Claim | 100% |
| 269338 | Single Cell Mining Claim | 100% |
| 269339 | Single Cell Mining Claim | 100% |
| 271200 | Single Cell Mining Claim | 100% |
| 275855 | Single Cell Mining Claim | 100% |
| 275856 | Single Cell Mining Claim | 100% |
| 283834 | Single Cell Mining Claim | 100% |
| 590970 | Multi-cell Mining Claim | 100% |
| 291950 | Single Cell Mining Claim | 100% |
| 304588 | Single Cell Mining Claim | 100% |
| 307890 | Single Cell Mining Claim | 100% |
| 307897 | Single Cell Mining Claim | 100% |
| 307898 | Single Cell Mining Claim | 100% |
| 307924 | Single Cell Mining Claim | 100% |
| 308512 | Single Cell Mining Claim | 100% |
| 305769 | Single Cell Mining Claim | 100% |
| 308592 | Single Cell Mining Claim | 100% |
| 313693 | Single Cell Mining Claim | 100% |
| 312574 | Single Cell Mining Claim | 100% |
| 309733 | Single Cell Mining Claim | 100% |
| 309734 | Single Cell Mining Claim | 100% |
| 309735 | Single Cell Mining Claim | 100% |
| 316442 | Single Cell Mining Claim | 100% |
| 315319 | Single Cell Mining Claim | 100% |
| 316508 | Single Cell Mining Claim | 100% |
| 314635 | Single Cell Mining Claim | 100% |
| 318442 | Single Cell Mining Claim | 100% |
| 321076 | Single Cell Mining Claim | 100% |
| 321102 | Single Cell Mining Claim | 100% |

TABLE E.1 CLAIMS - CRAWFORD PROJECT

| Mining Right Number | Mining Right Type | CNC Holding |
|---|---|---|
| 321103 | Single Cell Mining Claim | 100% |
| 325300 | Single Cell Mining Claim | 100% |
| 327922 | Single Cell Mining Claim | 100% |
| 328599 | Single Cell Mining Claim | 100% |
| 328040 | Single Cell Mining Claim | 100% |
| 328041 | Single Cell Mining Claim | 100% |
| 337123 | Single Cell Mining Claim | 100% |
| 331930 | Single Cell Mining Claim | 100% |
| 332101 | Single Cell Mining Claim | 100% |
| 333029 | Single Cell Mining Claim | 100% |
| 331719 | Single Cell Mining Claim | 100% |
| 331720 | Single Cell Mining Claim | 100% |
| 332656 | Single Cell Mining Claim | 100% |
| 331109 | Boundary Cell Mining Claim | 100% |
| 332283 | Single Cell Mining Claim | 100% |
| 332284 | Single Cell Mining Claim | 100% |
| 334647 | Single Cell Mining Claim | 0%* |
| 105106 | Single Cell Mining Claim | 0%* |
| 105382 | Single Cell Mining Claim | 0%* |
| 108308 | Single Cell Mining Claim | 0%* |
| 110716 | Single Cell Mining Claim | 0%* |
| 110717 | Single Cell Mining Claim | 0%* |
| 114292 | Single Cell Mining Claim | 0%* |
| 124004 | Single Cell Mining Claim | 0%* |
| 559851 | Single Cell Mining Claim | 0%* |
| 126720 | Single Cell Mining Claim | 0%* |
| 131298 | Single Cell Mining Claim | 0%* |
| 138249 | Single Cell Mining Claim | 0%* |
| 143051 | Single Cell Mining Claim | 0%* |
| 143277 | Single Cell Mining Claim | 0%* |
| 153412 | Single Cell Mining Claim | 0%* |
| 161417 | Single Cell Mining Claim | 0%* |
| 166745 | Single Cell Mining Claim | 0%* |
| 555248 | Single Cell Mining Claim | 0%* |
| 555249 | Single Cell Mining Claim | 0%* |
| 555250 | Single Cell Mining Claim | 0%* |
| 555251 | Single Cell Mining Claim | 0%* |
| 555252 | Single Cell Mining Claim | 0%* |
| 555253 | Single Cell Mining Claim | 0%* |
| 172011 | Single Cell Mining Claim | 0%* |
| 190234 | Single Cell Mining Claim | 0%* |
| 201818 | Single Cell Mining Claim | 0%* |
| 201912 | Single Cell Mining Claim | 0%* |
| 209141 | Single Cell Mining Claim | 0%* |

TABLE E.1 CLAIMS - CRAWFORD PROJECT

| Mining Right Number | Mining Right Type | CNC Holding |
|---|---|---|
| 212588 | Single Cell Mining Claim | 0%* |
| 217305 | Single Cell Mining Claim | 0%* |
| 214073 | Single Cell Mining Claim | 0%* |
| 214074 | Single Cell Mining Claim | 0%* |
| 214075 | Single Cell Mining Claim | 0%* |
| 218129 | Single Cell Mining Claim | 0%* |
| 559390 | Single Cell Mining Claim | 0%* |
| 559391 | Single Cell Mining Claim | 0%* |
| 227425 | Single Cell Mining Claim | 0%* |
| 232752 | Single Cell Mining Claim | 0%* |
| 237392 | Single Cell Mining Claim | 0%* |
| 238539 | Single Cell Mining Claim | 0%* |
| 238900 | Single Cell Mining Claim | 0%* |
| 246892 | Single Cell Mining Claim | 0%* |
| 256542 | Single Cell Mining Claim | 0%* |
| 256543 | Single Cell Mining Claim | 0%* |
| 256544 | Single Cell Mining Claim | 0%* |
| 262030 | Single Cell Mining Claim | 0%* |
| 274541 | Single Cell Mining Claim | 0%* |
| 274542 | Single Cell Mining Claim | 0%* |
| 283801 | Single Cell Mining Claim | 0%* |
| 305033 | Single Cell Mining Claim | 0%* |
| 306240 | Single Cell Mining Claim | 0%* |
| 312591 | Single Cell Mining Claim | 0%* |
| 309920 | Single Cell Mining Claim | 0%* |
| 344241 | Single Cell Mining Claim | 0%* |
| 344242 | Single Cell Mining Claim | 0%* |
| 343435 | Single Cell Mining Claim | 0%* |
| 333314 | Single Cell Mining Claim | 0%* |
| 684069 | Single Cell Mining Claim | 0%* |
| 684070 | Single Cell Mining Claim | 0%* |
| 684071 | Single Cell Mining Claim | 0%* |
| 684072 | Single Cell Mining Claim | 0%* |
| 684073 | Single Cell Mining Claim | 0%* |
| 684074 | Single Cell Mining Claim | 0%* |
| 684075 | Single Cell Mining Claim | 0%* |

Note:

* Discussions are underway to aquire these claims from the current owner.

| Lot and Concession | Township | PIN | Patent | Mining Right Type | CNC Holding | Easement | Reservation |
|---|---|---|---|---|---|---|---|
| LOT 2, CON 4 | Carnegie | - | PAT-27889 | Mining and Surface Rights | 0% | | |
| LOT 2, CON 5 | Carnegie | 65328-0036(LT) | PAT-28322 | Mining and Surface Rights | 0% | | |
| LOT 3, CON 4 | Carnegie | 65328-0237(LT) | PAT-28322 | Mining and Surface Rights | 0%* | SUBJECT TO AN EASEMENT AS IN CB103676 | |
| LOT 2, CON 5 | KIDD | - | PAT-4425 | Mining and Surface Rights | 0% | | |
| LOT 1, CON 5 | KIDD | - | PAT-4427 | Mining and Surface Rights | 0% | | EXCEPT SRO UNIT 3 |
| LOT 1, CON 6 | KIDD | - | PAT-46596 | Mining and Surface Rights | 0% | | EXCEPT SRO UNIT 2 |
| LOT 2, CON 6 | KIDD | - | PAT-46597 | Mining and Surface Rights | 0% | | |
| LOT 3, CON 6 | KIDD | - | PAT-46598 | Mining and Surface Rights | 0% | | |
| LOT 1, CON 6 | KIDD | - | PAT-46616 | Mining and Surface Rights | 0% | | EXCEPT SRO UNIT 1 |
| LOT 1, CON 1 | Carnegie | 65328-0144(LT) | PAT-4730 | Mining Rights only | 0% | | |
| LOT 6, CON 3 | Carnegie | - | PAT-49248 | Mining and Surface Rights | 0%* | SUBJECT TO AN EASEMENT AS IN CB103676 | |
| LOT 11, CON 1 | LUCAS | - | PAT-49293 | Mining Rights only | 100% | | |
| LOT 11, CON 1 | LUCAS | - | PAT-49294 | Mining Rights only | 100% | SUBJECT TO AN EASEMENT AS IN CB103677 | |
| LOT 12, CON 1 | LUCAS | - | PAT-49295 | Mining Rights only | 100% | SUBJECT TO AN EASEMENT AS IN CB103678 | |
| LOT 12, CON 1 | LUCAS | - | PAT-49301 | Mining Rights only | 100% | SUBJECT TO AN EASEMENT AS IN CB103676 | |
| LOT 11, CON 1 | Nesbitt | - | PAT-49373 | Mining Rights only | 100% | EASEMENT AS IN CB103689 | |
| LOT 10, CON 1 | Nesbitt | - | PAT-49374 | Mining Rights only | 100% | EASEMENT AS IN CB103690 | |
| LOT 9, CON 1 | Nesbitt | - | PAT-49375 | Mining Rights only | 100% | EASEMENT AS IN CB103691 | |
| LOT 8, CON 1 | Nesbitt | - | PAT-49376 | Mining Rights only | 100% | EASEMENT AS IN CB103692 | |
| LOT 7, CON 1 | Nesbitt | - | PAT-49377 | Mining Rights only | 100% | EASEMENT AS IN CB103693 | |
| LOT 4, CON 2 | Carnegie | - | PAT-49418 | Mining Rights only | 0%* | SUBJECT TO AN EASEMENT AS IN CB103676 | |
| LOT 4, CON 3 | Carnegie | - | PAT-49426 | Mining and Surface Rights | 0%* | SUBJECT TO AN EASEMENT AS IN CB103676 | |
| LOT 5, CON 3 | Carnegie | - | PAT-49427 | Mining Rights only | 0%* | SUBJECT TO AN EASEMENT AS IN CB103676 | |
| LOT 3, CON 4 | Carnegie | - | PAT-49435 | Mining Rights only | 0%* | SUBJECT TO AN EASEMENT AS IN CB103676 | |
| LOT 6, CON 4 | Carnegie | - | PAT-49438 | Mining Rights only | 0%* | SUBJECT TO AN EASEMENT AS IN CB103676 | |
| LOT 4, CON 4 | Carnegie | - | PAT-49439 | Mining Rights only | 0%* | SUBJECT TO AN EASEMENT AS IN CB103676 | |
| LOT 6, CON 4 | Carnegie | - | PAT-49439 | Mining Rights only | 0%* | SUBJECT TO AN EASEMENT AS IN CB103676 | |
| LOT 1, CON 5 | Carnegie | - | PAT-49463 | Mining Rights only | 0%* | SUBJECT TO AN EASEMENT AS IN CB103676 | |
| LOT 2, CON 5 | Carnegie | - | PAT-49464 | Mining Rights only | 0%* | SUBJECT TO AN EASEMENT AS IN CB103676 | |
| LOT 4, CON 5 | Carnegie | - | PAT-49465 | Mining Rights only | 0%* | SUBJECT TO AN EASEMENT AS IN CB103676 | |
| LOT 4, CON 5 | Carnegie | - | PAT-49466 | Mining Rights only | 0%* | SUBJECT TO AN EASEMENT AS IN CB103676 | |
| LOT 5, CON 5 | Carnegie | - | PAT-49467 | Mining Rights only | 0%* | SUBJECT TO AN EASEMENT AS IN CB103676 | |
| LOT 5, CON 5 | Carnegie | - | PAT-49468 | Mining Rights only | 0%* | SUBJECT TO AN EASEMENT AS IN CB103676 | |
| LOT 6, CON 5 | Carnegie | - | PAT-49469 | Mining Rights only | 0%* | SUBJECT TO AN EASEMENT AS IN CB103676 | |
| LOT 6, CON 5 | Carnegie | - | PAT-49470 | Mining Rights only | 0%* | SUBJECT TO AN EASEMENT AS IN CB103676 | |
| LOT 7, CON 5 | Carnegie | - | PAT-49471 | Mining Rights only | 0%* | SUBJECT TO AN EASEMENT AS IN CB103676 | |
| LOT 7, CON 5 | Carnegie | - | PAT-49472 | Mining Rights only | 0%* | SUBJECT TO AN EASEMENT AS IN CB103676 | |
| LOT 8, CON 5 | Carnegie | - | PAT-49473 | Mining Rights only | 0%* | SUBJECT TO AN EASEMENT AS IN CB103676 | |
| LOT 8, CON 5 | Carnegie | - | PAT-49474 | Mining Rights only | 0%* | SUBJECT TO AN EASEMENT AS IN CB103676 | |
| LOT 1, CON 6 | Carnegie | - | PAT-49501 | Mining and Surface Rights | 0%* | SUBJECT TO AN EASEMENT AS IN CB103676 | |
| LOT 1, CON 6 | Carnegie | - | PAT-49506 | Mining and Surface Rights | 0%* | SUBJECT TO AN EASEMENT AS IN CB103676 | |
| LOT 2, CON 6 | Carnegie | - | PAT-49507 | Mining Rights only | 0%* | SUBJECT TO AN EASEMENT AS IN CB103676 | |
| LOT 2, CON 6 | Carnegie | - | PAT-49508 | Mining Rights only | 0%* | SUBJECT TO AN EASEMENT AS IN CB103676 | |
| LOT 4, CON 6 | Carnegie | - | PAT-49509 | Mining Rights only | 0%* | SUBJECT TO AN EASEMENT AS IN CB103676 | |
| LOT 5, CON 6 | Carnegie | - | PAT-49516 | Mining Rights only | 0%* | | |
| LOT 6, CON 6 | Carnegie | - | PAT-49517 | Mining Rights only | 0%* | SUBJECT TO AN EASEMENT AS IN CB103676 | |
| LOT 6, CON 6 | Carnegie | - | PAT-49518 | Mining Rights only | 0%* | SUBJECT TO AN EASEMENT AS IN CB103676 | |
| LOT 7, CON 6 | Carnegie | - | PAT-49519 | Mining Rights only | 0%* | SUBJECT TO AN EASEMENT AS IN CB103676 | |
| LOT 7, CON 6 | Carnegie | - | PAT-49520 | Mining Rights only | 0%* | SUBJECT TO AN EASEMENT AS IN CB103676 | |
| LOT 8, CON 6 | Carnegie | - | PAT-49521 | Mining Rights only | 0%* | SUBJECT TO AN EASEMENT AS IN CB103676 | |
| LOT 8, CON 6 | Carnegie | - | PAT-49522 | Mining Rights only | 0%* | SUBJECT TO AN EASEMENT AS IN CB103676 | |
| LOT 9, CON 6 | Carnegie | - | PAT-49523 | Mining Rights only | 0%* | SUBJECT TO AN EASEMENT AS IN CB103676 | |
| LOT 9, CON 6 | Carnegie | - | PAT-49524 | Mining Rights only | 0%* | SUBJECT TO AN EASEMENT AS IN CB103676 | |
| LOT 10, CON 6 | Carnegie | - | PAT-49525 | Mining Rights only | 0%* | SUBJECT TO AN EASEMENT AS IN CB103676 | |
| LOT 11, CON 6 | Carnegie | - | PAT-49526 | Mining Rights only | 0%* | SUBJECT TO AN EASEMENT AS IN CB103676 | |
| LOT 11, CON 2 | LUCAS | 65320-0176(LT) | PAT-49531 | Mining Rights only | 100% | SUBJECT TO AN EASEMENT AS IN CB103682 | |
| LOT 11, CON 2 | LUCAS | 65320-0156(LT) | PAT-49532 | Mining Rights only | 100% | SUBJECT TO AN EASEMENT AS IN CB103680 | |
| LOT 12, CON 2 | LUCAS | 65320-0174(LT) | PAT-49533 | Mining Rights only | 100% | SUBJECT TO AN EASEMENT AS IN CB103681 | |

| Lot and Concession | Township | PIN | Patent | Mining Right Type | CNC Holding | Easement | Reservation |
|---|---|---|---|---|---|---|---|
| LOT 12, CON 2 | LUCAS | 65320-0154(LT) | PAT-49534 | Mining Rights only | 100% | SUBJECT TO AN EASEMENT AS IN CB103679 | |
| LOT 11, CON 3 | LUCAS | 65320-0198(LT) | PAT-49544 | Mining Rights only | 100% | SUBJECT TO AN EASEMENT AS IN CB103685 | |
| LOT 11, CON 3 | LUCAS | 65320-0196(LT) | PAT-49545 | Mining Rights only | 100% | SUBJECT TO AN EASEMENT AS IN CB103684 | |
| LOT 12, CON 3 | LUCAS | 65320-0218(LT) | PAT-49546 | Mining Rights only | 100% | SUBJECT TO AN EASEMENT AS IN CB103686 | |
| LOT 12, CON 3 | LUCAS | 65320-0194(LT) | PAT-49547 | Mining Rights only | 100% | SUBJECT TO AN EASEMENT AS IN CB103683 | |
| LOT 5, CON 4 | Carnegie | - | PAT-49437 | Mining Rights only | 0% | SUBJECT TO AN EASEMENT AS IN CB103676 | |
| LOT 12, CON 6 | Prosser | - | PAT-49755 | Mining and Surface Rights | 0%* | SUBJECT TO AN EASEMENT AS IN CB103676; | |
| LOT 12, CON 6 | Prosser | - | PAT-49756 | Mining and Surface Rights | 0%* | SUBJECT TO AN EASEMENT AS IN CB103676 | |
| LOT 12, CON 5 | Prosser | - | PAT-49757 | Mining and Surface Rights | 0%* | SUBJECT TO AN EASEMENT AS IN CB103676 | |
| LOT 12, CON 5 | Prosser | - | PAT-49758 | Mining and Surface Rights | 0%* | SUBJECT TO AN EASEMENT AS IN CB103676 | |
| LOT 11, CON 5 | Prosser | - | PAT-49759 | Mining and Surface Rights | 0%* | SUBJECT TO AN EASEMENT AS IN CB103676 | |
| LOT 11, CON 6 | Prosser | - | PAT-49760 | Mining and Surface Rights | 0%* | | |
| LOT 11, CON 5 | Prosser | - | PAT-49761 | Mining and Surface Rights | 0%* | SUBJECT TO AN EASEMENT AS IN CB103676 | |
| LOT 12, CON 3 | Crawford | 65321-0138(LT) | PAT-49876 | Mining Rights only | 100% | SUBJECT TO AN EASEMENT AS IN CB103676 | |
| LOT 12, CON 3 | Crawford | 65321-0140(LT) | PAT-49877 | Mining Rights only | 100% | SUBJECT TO AN EASEMENT AS IN CB103676 | |
| LOT 11, CON 1 | Crawford | 65321-0150(LT) | PAT-49882 | Mining Rights only | 100% | SUBJECT TO AN EASEMENT AS IN CB103676 | |
| LOT 11, CON 3 | Crawford | 65321-0152(LT) | PAT-49883 | Mining Rights only | 100% | SUBJECT TO AN EASEMENT AS IN CB103676 | |
| LOT 10, CON 4 | Crawford | 65321-0154(LT) | PAT-49884 | Mining Rights only | 100% | SUBJECT TO AN EASEMENT AS IN CB103676 | |
| LOT 11, CON 3 | Crawford | - | PAT-49884 | Mining Rights only | 100% | SUBJECT TO AN EASEMENT AS IN CB103676 | |
| LOT 11, CON 4 | Crawford | 65321-0156(LT) | PAT-49885 | Mining Rights only | 100% | SUBJECT TO AN EASEMENT AS IN CB103676 | |
| LOT 11, CON 4 | Crawford | 65321-0158(LT) | PAT-49886 | Mining Rights only | 100% | SUBJECT TO AN EASEMENT AS IN CB103676 | |
| LOT 11, CON 5 | Crawford | 65321-0160(LT) | PAT-49887 | Mining Rights only | 100% | SUBJECT TO AN EASEMENT AS IN CB103676 | |
| LOT 11, CON 5 | Crawford | 65321-0162(LT) | PAT-49888 | Mining Rights only | 100% | SUBJECT TO AN EASEMENT AS IN CB103676 | |
| LOT 11, CON 6 | Crawford | 65321-0164(LT) | PAT-49889 | Mining Rights only | 100% | SUBJECT TO AN EASEMENT AS IN CB103676 | |
| LOT 11, CON 6 | Crawford | 65321-0166(LT) | PAT-49890 | Mining Rights only | 100% | SUBJECT TO AN EASEMENT AS IN CB103676 | |
| LOT 10, CON 1 | Crawford | 65321-0168(LT) | PAT-49891 | Mining Rights only | 100% | SUBJECT TO AN EASEMENT AS IN CB103676 | |
| LOT 10, CON 2 | Crawford | 65321-0170(LT) | PAT-49892 | Mining Rights only | 100% | SUBJECT TO AN EASEMENT AS IN CB103676 | |
| LOT 10, CON 3 | Crawford | 65321-0172(LT) | PAT-49893 | Mining Rights only | 100% | SUBJECT TO AN EASEMENT AS IN CB103676 | |
| LOT 10, CON 4 | Crawford | 65321-0176(LT) | PAT-49895 | Mining Rights only | 100% | SUBJECT TO AN EASEMENT AS IN CB103676 | |
| LOT 10, CON 5 | Crawford | 65321-0178(LT) | PAT-49896 | Mining Rights only | 100% | SUBJECT TO AN EASEMENT AS IN CB103676 | |
| LOT 10, CON 5 | Crawford | 65321-0180(LT) | PAT-49897 | Mining Rights only | 100% | SUBJECT TO AN EASEMENT AS IN CB103676 | |
| LOT 10, CON 6 | Crawford | 65321-0182(LT) | PAT-49898 | Mining Rights only | 100% | SUBJECT TO AN EASEMENT AS IN CB103676 | |
| LOT 9, CON 1 | Crawford | 65321-0184(LT) | PAT-49899 | Mining Rights only | 100% | SUBJECT TO AN EASEMENT AS IN CB103676 | |
| LOT 9, CON 2 | Crawford | 65321-0186(LT) | PAT-49900 | Mining Rights only | 100% | SUBJECT TO AN EASEMENT AS IN CB103676 | |
| LOT 9, CON 2 | Crawford | 65321-0188(LT) | PAT-49901 | Mining Rights only | 100% | SUBJECT TO AN EASEMENT AS IN CB103676 | |
| LOT 9, CON 3 | Crawford | 65321-0190(LT) | PAT-49902 | Mining Rights only | 100% | SUBJECT TO AN EASEMENT AS IN CB103676 | |
| LOT 9, CON 4 | Crawford | 65321-0192(LT) | PAT-49903 | Mining Rights only | 100% | SUBJECT TO AN EASEMENT AS IN CB103676 | |
| LOT 9, CON 4 | Crawford | 65321-0194(LT) | PAT-49904 | Mining Rights only | 100% | SUBJECT TO AN EASEMENT AS IN CB103676 | |
| LOT 9, CON 5 | Crawford | 65321-0196(LT) | PAT-49905 | Mining Rights only | 100% | SUBJECT TO AN EASEMENT AS IN CB103676 | |
| LOT 9, CON 6 | Crawford | 65321-0198(LT) | PAT-49906 | Mining Rights only | 100% | SUBJECT TO AN EASEMENT AS IN CB103676 | |
| LOT 8, CON 1 | Crawford | 65321-0200(LT) | PAT-49907 | Mining Rights only | 100% | SUBJECT TO AN EASEMENT AS IN CB103676 | |
| LOT 8, CON 1 | Crawford | 65321-0202(LT) | PAT-49908 | Mining Rights only | 100% | SUBJECT TO AN EASEMENT AS IN CB103676 | |
| LOT 8, CON 2 | Crawford | 65321-0204(LT) | PAT-49909 | Mining Rights only | 100% | SUBJECT TO AN EASEMENT AS IN CB103676 | |
| LOT 8, CON 2 | Crawford | 65321-0206(LT) | PAT-49910 | Mining Rights only | 100% | SUBJECT TO AN EASEMENT AS IN CB103676 | |
| LOT 8, CON 3 | Crawford | 65321-0208(LT) | PAT-49911 | Mining Rights only | 100% | SUBJECT TO AN EASEMENT AS IN CB103676 | |
| LOT 8, CON 4 | Crawford | 65321-0210(LT) | PAT-49912 | Mining Rights only | 100% | SUBJECT TO AN EASEMENT AS IN CB103676 | |
| LOT 8, CON 4 | Crawford | 65321-0212(LT) | PAT-49913 | Mining Rights only | 100% | SUBJECT TO AN EASEMENT AS IN CB103676 | |
| LOT 8, CON 5 | Crawford | 65321-0214(LT) | PAT-49914 | Mining Rights only | 100% | SUBJECT TO AN EASEMENT AS IN CB103676 | |
| LOT 8, CON 6 | Crawford | 65321-0216(LT) | PAT-49915 | Mining Rights only | 100% | SUBJECT TO AN EASEMENT AS IN CB103676 | |
| LOT 8, CON 6 | Crawford | 65321-0218(LT) | PAT-49916 | Mining Rights only | 100% | SUBJECT TO AN EASEMENT AS IN CB103676 | |
| LOT 7, CON 1 | Crawford | 65321-0220(LtT) | PAT-49917 | Mining Rights only | 100% | SUBJECT TO AN EASEMENT AS IN CB103676 | |
| LOT 7, CON 2 | Crawford | 65321-0222(LT) | PAT-49918 | Mining Rights only | 100% | SUBJECT TO AN EASEMENT AS IN CB103676 | |
| LOT 7, CON 2 | Crawford | 65321-0224(LT) | PAT-49919 | Mining Rights only | 100% | SUBJECT TO AN EASEMENT AS IN CB103676 | |
| LOT 7, CON 3 | Crawford | 65321-0226(LT) | PAT-49920 | Mining Rights only | 100% | SUBJECT TO AN EASEMENT AS IN CB103676 | |
| LOT 7, CON 3 | Crawford | 65321-0228(LT) | PAT-49921 | Mining Rights only | 100% | SUBJECT TO AN EASEMENT AS IN CB103676 | |
| LOT 7, CON 4 | Crawford | 65321-0230(LT) | PAT-49922 | Mining Rights only | 100% | SUBJECT TO AN EASEMENT AS IN CB103676 | |
| LOT 7, CON 4 | Crawford | 65321-0232(LT) | PAT-49923 | Mining Rights only | 100% | SUBJECT TO AN EASEMENT AS IN CB103676 | |
| LOT 7, CON 5 | Crawford | 65321-0234(LT) | PAT-49924 | Mining Rights only | 100% | SUBJECT TO AN EASEMENT AS IN CB103676 | |

| Lot and Concession | Township | PIN | Patent | Mining Right Type | CNC Holding | Easement | Reservation |
|---|---|---|---|---|---|---|---|
| LOT 7, CON 5 | Crawford | 65321-0236(LT) | PAT-49925 | Mining Rights only | 100% | SUBJECT TO AN EASEMENT AS IN CB103676 | |
| LOT 7, CON 6 | Crawford | 65321-0238(LT) | PAT-49926 | Mining Rights only | 100% | SUBJECT TO AN EASEMENT AS IN CB103676 | |
| LOT 7, CON 6 | Crawford | 65321-0240(LT) | PAT-49927 | Mining Rights only | 100% | SUBJECT TO AN EASEMENT AS IN CB103676 | |
| LOT 6, CON 1 | Crawford | 65321-0242(LT) | PAT-49928 | Mining Rights only | 100% | SUBJECT TO AN EASEMENT AS IN CB103676 | |
| LOT 6, CON 1 | Crawford | 65321-0244(LT) | PAT-49930 | Mining Rights only | 100% | SUBJECT TO AN EASEMENT AS IN CB103676 | |
| LOT 6, CON 2 | Crawford | 65321-0246(LT) | PAT-49931 | Mining Rights only | 100% | SUBJECT TO AN EASEMENT AS IN CB103676 | |
| LOT 6, CON 2 | Crawford | 65321-0248(LT) | PAT-49932 | Mining Rights only | 100% | SUBJECT TO AN EASEMENT AS IN CB103676 | |
| LOT 6, CON 3 | Crawford | 65321-0250(LT) | PAT-49933 | Mining Rights only | 100% | SUBJECT TO AN EASEMENT AS IN CB103676 | |
| LOT 6, CON 4 | Crawford | 65321-0252(LT) | PAT-49934 | Mining Rights only | 100% | SUBJECT TO AN EASEMENT AS IN CB103676 | |
| LOT 6, CON 5 | Crawford | 65321-0254(LT) | PAT-49935 | Mining Rights only | 100% | SUBJECT TO AN EASEMENT AS IN CB103676 | |
| LOT 6, CON 5 | Crawford | 65321-0256(LT) | PAT-49938 | Mining Rights only | 100% | SUBJECT TO AN EASEMENT AS IN CB103676 | |
| LOT 6, CON 6 | Crawford | 65321-0258(LT) | PAT-49939 | Mining Rights only | 100% | SUBJECT TO AN EASEMENT AS IN CB103676 | |
| LOT 5, CON 1 | Crawford | 65321-0260(LT) | PAT-49940 | Mining Rights only | 100% | SUBJECT TO AN EASEMENT AS IN CB103676 | |
| LOT 5, CON 1 | Crawford | 65321-0262(LT) | PAT-49941 | Mining Rights only | 100% | SUBJECT TO AN EASEMENT AS IN CB103676 | |
| LOT 5, CON 2 | Crawford | 65321-0264(lt) | PAT-49942 | Mining Rights only | 100% | SUBJECT TO AN EASEMENT AS IN CB103676 | |
| LOT 5, CON 2 | Crawford | 65321-0266(LT) | PAT-49944 | Mining Rights only | 100% | SUBJECT TO AN EASEMENT AS IN CB103676 | |
| LOT 5, CON 3 | Crawford | 65321-0268(LT) | PAT-49945 | Mining Rights only | 100% | SUBJECT TO AN EASEMENT AS IN CB103676 | |
| LOT 5, CON 3 | Crawford | 65321-0270(LT) | PAT-49946 | Mining Rights only | 100% | SUBJECT TO AN EASEMENT AS IN CB103676 | |
| LOT 5, CON 4 | Crawford | 65321-0272(LT) | PAT-49948 | Mining Rights only | 100% | SUBJECT TO AN EASEMENT AS IN CB103676 | |
| LOT 5, CON 5 | Crawford | 65321-0274(LT) | PAT-49949 | Mining Rights only | 100% | SUBJECT TO AN EASEMENT AS IN CB103676 | |
| LOT 5, CON 6 | Crawford | 65321-0276(LT) | PAT-49950 | Mining Rights only | 100% | SUBJECT TO AN EASEMENT AS IN CB103676 | |
| LOT 4, CON 1 | Crawford | 65321-0134(LT) | PAT-49951 | Mining Rights only | 100% | | |
| LOT 4, CON 2 | Crawford | 65321-0278(LT) | PAT-49952 | Mining Rights only | 100% | SUBJECT TO AN EASEMENT AS IN CB103676 | |
| LOT 4, CON 4 | Crawford | 65321-0283(LT) | PAT-49953 | Mining Rights only | 100% | SUBJECT TO AN EASEMENT AS IN CB103676 | |
| LOT 4, CON 6 | Crawford | 65321-0285(LT) | PAT-49954 | Mining Rights only | 100% | SUBJECT TO AN EASEMENT AS IN CB103676 | |
| LOT 3, CON 1 | Crawford | 65321-0287(LT) | PAT-49955 | Mining Rights only | 100% | SUBJECT TO AN EASEMENT AS IN CB103676 | |
| LOT 3, CON 2 | Crawford | 65321-0289(LT) | PAT-49956 | Mining Rights only | 100% | SUBJECT TO AN EASEMENT AS IN CB103676 | |
| LOT 3, CON 2 | Crawford | 65321-0291(LT) | PAT-49957 | Mining Rights only | 100% | SUBJECT TO AN EASEMENT AS IN CB103676 | |
| LOT 3, CON 3 | Crawford | 65321-0293(LT) | PAT-49958 | Mining Rights only | 100% | SUBJECT TO AN EASEMENT AS IN CB103676 | |
| LOT 3, CON 3 | Crawford | 65321-0295(LT) | PAT-49959 | Mining Rights only | 100% | SUBJECT TO AN EASEMENT AS IN CB103676 | |
| LOT 3, CON 4 | Crawford | 65321-0297(LT) | PAT-49960 | Mining Rights only | 100% | SUBJECT TO AN EASEMENT AS IN CB103676 | |
| LOT 3, CON 4 | Crawford | 65321-0299(LT) | PAT-49961 | Mining Rights only | 100% | SUBJECT TO AN EASEMENT AS IN CB103676 | |
| LOT 3, CON 5 | Crawford | 65321-0301(LT) | PAT-49962 | Mining Rights only | 100% | SUBJECT TO AN EASEMENT AS IN CB103676 | |
| LOT 3, CON 6 | Crawford | 65321-0303(LT) | PAT-49963 | Mining Rights only | 100% | SUBJECT TO AN EASEMENT AS IN CB103676 | |
| LOT 3, CON 6 | Crawford | 65321-0305(LT) | PAT-49964 | Mining Rights only | 100% | SUBJECT TO AN EASEMENT AS IN CB103676 | |
| LOT 2, CON 1 | Crawford | 65321-0307(LT) | PAT-49965 | Mining Rights only | 100% | SUBJECT TO AN EASEMENT AS IN CB103676 | |
| LOT 2, CON 1 | Crawford | 65321-0309(LT) | PAT-49966 | Mining Rights only | 100% | SUBJECT TO AN EASEMENT AS IN CB103676 | |
| LOT 2, CON 2 | Crawford | 65321-0311(LT) | PAT-49967 | Mining Rights only | 100% | SUBJECT TO AN EASEMENT AS IN CB103676 | |
| LOT 2, CON 3 | Crawford | 65321-0313(LT) | PAT-49968 | Mining Rights only | 100% | SUBJECT TO AN EASEMENT AS IN CB103676 | |
| LOT 2, CON 3 | Crawford | 65321-0315(LT) | PAT-49969 | Mining Rights only | 100% | SUBJECT TO AN EASEMENT AS IN CB103676 | |
| LOT 2, CON 4 | Crawford | 65321-0317(LT) | PAT-49970 | Mining Rights only | 100% | SUBJECT TO AN EASEMENT AS IN CB103676 | |
| LOT 2, CON 4 | Crawford | 65321-0319(LT) | PAT-49971 | Mining Rights only | 100% | SUBJECT TO AN EASEMENT AS IN CB103676 | |
| LOT 2, CON 5 | Crawford | 65321-0321(LT) | PAT-49972 | Mining Rights only | 100% | SUBJECT TO AN EASEMENT AS IN CB103676 | |
| LOT 2, CON 5 | Crawford | 65321-0323(LT) | PAT-49973 | Mining Rights only | 100% | SUBJECT TO AN EASEMENT AS IN CB103676 | |
| LOT 2, CON 6 | Crawford | 65321-0325(LT) | PAT-49974 | Mining Rights only | 100% | SUBJECT TO AN EASEMENT AS IN CB103676 | |
| LOT 2, CON 6 | Crawford | 65321-0327(LT) | PAT-49975 | Mining Rights only | 100% | SUBJECT TO AN EASEMENT AS IN CB103676 | |
| LOT 1, CON 1 | Crawford | 65321-0329(LT) | PAT-49976 | Mining Rights only | 100% | SUBJECT TO AN EASEMENT AS IN CB103676 | |
| LOT 1, CON 1 | Crawford | 65321-0331(LT) | PAT-49977 | Mining Rights only | 100% | SUBJECT TO AN EASEMENT AS IN CB103676 | |
| LOT 1, CON 2 | Crawford | 65321-0333(LT) | PAT-49978 | Mining Rights only | 100% | SUBJECT TO AN EASEMENT AS IN CB103676 | |
| LOT 1, CON 2 | Crawford | 65321-0335(LT) | PAT-49979 | Mining Rights only | 100% | SUBJECT TO AN EASEMENT AS IN CB103676 | |
| LOT 1, CON 3 | Crawford | 65321-0337(LT) | PAT-49980 | Mining Rights only | 100% | SUBJECT TO AN EASEMENT AS IN CB103676 | |
| LOT 1, CON 3 | Crawford | 65321-0339(LT) | PAT-49981 | Mining Rights only | 100% | SUBJECT TO AN EASEMENT AS IN CB103676 | |
| LOT 1, CON 4 | Crawford | 65321-0341(LT) | PAT-49983 | Mining Rights only | 100% | SUBJECT TO AN EASEMENT AS IN CB103676 | |
| LOT 1, CON 5 | Crawford | 65321-0343(LT) | PAT-49984 | Mining Rights only | 100% | SUBJECT TO AN EASEMENT AS IN CB103676 | |
| LOT 1, CON 4 | Crawford | 65321-0345(LT) | PAT-49985 | Mining Rights only | 100% | SUBJECT TO AN EASEMENT AS IN CB103676 | |
| LOT 1, CON 5 | Crawford | 65321-0347(LT) | PAT-49985 | Mining Rights only | 100% | SUBJECT TO AN EASEMENT AS IN CB103676 | |
| LOT 1, CON 6 | Crawford | 65321-0349(LT) | PAT-49986 | Mining Rights only | 100% | SUBJECT TO AN EASEMENT AS IN CB103676 | |
| LOT 1, CON 6 | Crawford | 65321-0351(LT) | PAT-49987 | Mining Rights only | 100% | SUBJECT TO AN EASEMENT AS IN CB103676 | |

| Lot and Concession | Township | PIN | Patent | Mining Right Type | CNC Holding | Easement | Reservation |
|---|---|---|---|---|---|---|---|
| LOT 12, CON 1 | WARK | - | PAT-51892 | Mining and Surface Rights | 0% | | |
| LOT 2, CON 1 | Carnegie | 65328-0125(LT) | PAT-5235 | Mining and Surface Rights | 0% | | EXCEPT SRO PT 4 |
| LOT 3, CON 6 | Carnegie | - | PAT-5236 | Mining and Surface Rights | 0% | | EXCEPT SRO OF PT 1, 6R2849; S/T C125457 |
| LOT 9, CON 6 | Crawford | 65321-131(LT) | PAT-52528 | Mining Rights only | 0% | | |
| LOT 2, CON 6 | KIDD | - | PAT-5551 | Mining and Surface Rights | 0% | | EXCEPT SRO UNIT 1 |
| LOT 4, CON 3 | Crawford | 65321-0280(LT) | PAT-599335 | Mining Rights only | 100% | | SUBJECT TO AN EASEMENT AS IN CB103676 |

Note:

* Discussions are underway to aquire these patents from the current owner.

| Lot and Concession | Township | Identification | Easements | Reservations |
|---|---|---|---|---|
| LOT 12, CON 5 | LUCAS | 240677337 | | |
| LOT 4, CON 1 | Carnegie | 240716925 | | |
| LOT 11, CON 2 | LUCAS | 240608458 | SUBJECT TO AN EASEMENT AS IN CB103680 | |
| LOT 3, CON 2 | Carnegie | 240608880 | | |
| LOT 12, CON 1 | Prosser | 240615820 | | RESERVATION IN C6869 |
| LOT 6, CON 6 | Crawford | 240597700 | SUBJECT TO AN EASEMENT AS IN CB103676 | |
| LOT 4, CON 5 | Carnegie | 240702691 | SUBJECT TO AN EASEMENT AS IN CB103676 | |
| LOT 3, CON 6 | KIDD | 240584693 | | |
| LOT 4, CON 5 | Crawford | 240575224 | | |
| LOT 3, CON 2 | Crawford | 240734434 | SUBJECT TO AN EASEMENT AS IN CB103676 | |
| LOT 1, CON 1 | Carnegie | 240569651 | | |
| LOT 11, CON 5 | Crawford | 240661552 | SUBJECT TO AN EASEMENT AS IN CB103676 | |
| LOT 5, CON 2 | Carnegie | 240631172 | | |
| LOT 11, CON 3 | Crawford | 240587412 | SUBJECT TO AN EASEMENT AS IN CB103676 | |
| LOT 5, CON 5 | Crawford | 540653184 | SUBJECT TO AN EASEMENT AS IN CB103676 | |
| LOT 11, CON 6 | Carnegie | 240687135 | SUBJECT TO AN EASEMENT AS IN CB103676 | |
| LOT 12, CON 1 | Prosser | 240656727 | | RESERVATION IN C6869 |
| LOT 1, CON 5 | Carnegie | 240705271 | SUBJECT TO AN EASEMENT AS IN CB103676 | |
| LOT 11, CON 5 | Prosser | 240615449 | SUBJECT TO AN EASEMENT AS IN CB103676 | |
| LOT 5, CON 3 | Carnegie | 240575851 | SUBJECT TO AN EASEMENT AS IN CB103676 | |
| LOT 11, CON 1 | Crawford | 240628805 | SUBJECT TO AN EASEMENT AS IN CB103676 | |
| LOT 5, CON 1 | Crawford | 240683321 | SUBJECT TO AN EASEMENT AS IN CB103676 | |
| LOT 4, CON 5 | Crawford | 240601688 | | |
| LOT 12, CON 3 | Crawford | 240654068 | SUBJECT TO AN EASEMENT AS IN CB103676 | |
| LOT 7, CON 4 | Crawford | 240719884 | SUBJECT TO AN EASEMENT AS IN CB103676 | |
| LOT 1, CON 4 | Crawford | 240595082 | SUBJECT TO AN EASEMENT AS IN CB103676 | |
| LOT 10, CON 5 | Crawford | 240624607 | SUBJECT TO AN EASEMENT AS IN CB103676 | |
| LOT 4, CON 5 | Carnegie | 240642342 | SUBJECT TO AN EASEMENT AS IN CB103676 | |
| LOT 8, CON 3 | Crawford | 240691282 | SUBJECT TO AN EASEMENT AS IN CB103676 | |
| LOT 5, CON 2 | Crawford | 240617566 | SUBJECT TO AN EASEMENT AS IN CB103676 | |
| LOT 12, CON 6 | Prosser | 240597674 | SUBJECT TO AN EASEMENT AS IN CB103676 | |
| LOT 6, CON 1 | Crawford | 240667638 | SUBJECT TO AN EASEMENT AS IN CB103676 | |
| LOT 6, CON 4 | Crawford | 240717333 | SUBJECT TO AN EASEMENT AS IN CB103676 | |
| LOT 6, CON 5 | Crawford | 240693304 | SUBJECT TO AN EASEMENT AS IN CB103676 | |
| LOT 4, CON 1 | Crawford | 240575277 | | |
| LOT 12, CON 1 | Prosser | 240673593 | | RESERVATION IN C6869 |
| LOT 1, CON 3 | Crawford | 240578685 | SUBJECT TO AN EASEMENT AS IN CB103676 | |
| LOT 10, CON 4 | Crawford | 240667535 | SUBJECT TO AN EASEMENT AS IN CB103676 | |
| LOT 4, CON 1 | Crawford | 240639770 | | |
| LOT 4, CON 4 | Crawford | 240676363 | SUBJECT TO AN EASEMENT AS IN CB103679 | |
| LOT 4, CON 4 | Carnegie | 240717038 | SUBJECT TO AN EASEMENT AS IN CB103676 | |
| LOT 9, CON 2 | Crawford | 240717720 | SUBJECT TO AN EASEMENT AS IN CB103676 | |
| LOT 7, CON 5 | Carnegie | 240619320 | SUBJECT TO AN EASEMENT AS IN CB103676 | |
| LOT 5, CON 6 | Carnegie | 240671265 | | |
| LOT 4, CON 4 | Crawford | 240579219 | SUBJECT TO AN EASEMENT AS IN CB103680 | |
| LOT 4, CON 4 | Crawford | 240674232 | SUBJECT TO AN EASEMENT AS IN CB103681 | |
| LOT 7, CON 6 | Crawford | 240694070 | SUBJECT TO AN EASEMENT AS IN CB103676 | |
| LOT 2, CON 2 | Crawford | 240648343 | | |
| LOT 1, CON 5 | Carnegie | 240706575 | | |
| LOT 5, CON 4 | Carnegie | 240588942 | SUBJECT TO AN EASEMENT AS IN CB103676 | |
| LOT 10, CON 1 | Crawford | 240605926 | | |
| LOT 1, CON 1 | Carnegie | 240644135 | | |
| LOT 3, CON 3 | Crawford | 240644479 | SUBJECT TO AN EASEMENT AS IN CB103676 | |
| LOT 1, CON 4 | Carnegie | 240686287 | | |
| LOT 1, CON 3 | Crawford | 240562772 | SUBJECT TO AN EASEMENT AS IN CB103676 | |
| LOT 7, CON 2 | Crawford | 240636905 | SUBJECT TO AN EASEMENT AS IN CB103676 | DISTANT N THEREFROM 40 CHAINS 55 LINKS ; RESERVING THE LAND COVERED WITH THE WATER OF A LAKE PARTLY WITHIN THE SE BOUNDARIES OF |
| LOT 3, CON 4 | Carnegie | 240634031 | SUBJECT TO AN EASEMENT AS IN CB103676 | |
| LOT 12, CON 1 | LUCAS | 240623468 | SUBJECT TO AN EASEMENT AS IN CB103676 | |
| LOT 3, CON 2 | Crawford | 240705317 | SUBJECT TO AN EASEMENT AS IN CB103676 | |
| LOT 6, CON 4 | Carnegie | 240570838 | SUBJECT TO AN EASEMENT AS IN CB103676 | |
| LOT 6, CON 4 | Crawford | 240648512 | SUBJECT TO AN EASEMENT AS IN CB103676 | |
| LOT 2, CON 1 | Crawford | 240688775 | SUBJECT TO AN EASEMENT AS IN CB103676 | |
| LOT 3, CON 5 | Carnegie | 240565943 | | |
| LOT 8, CON 1 | Crawford | 240730693 | SUBJECT TO AN EASEMENT AS IN CB103676 | |
| LOT 5, CON 1 | Nesbitt | 240616687 | | EXCEPT SRO UNIT 9 |
| LOT 9, CON 1 | Crawford | 240655639 | SUBJECT TO AN EASEMENT AS IN CB103676 | |
| LOT 2, CON 4 | Carnegie | 240733402 | | |
| LOT 11, CON 4 | LUCAS | 240728011 | | |
| LOT 3, CON 1 | Crawford | 240564959 | SUBJECT TO AN EASEMENT AS IN CB103676 | |
| LOT 4, CON 1 | Nesbitt | 240631262 | | EXCEPT SRO UNIT 10, |
| LOT 10, CON 5 | Crawford | 240645539 | SUBJECT TO AN EASEMENT AS IN CB103676 | |
| LOT 8, CON 5 | Crawford | 240615496 | SUBJECT TO AN EASEMENT AS IN CB103677 | |
| LOT 12, CON 5 | Prosser | 240564120 | SUBJECT TO AN EASEMENT AS IN CB103676 | |
| LOT 11, CON 1 | LUCAS | 240699061 | SUBJECT TO AN EASEMENT AS IN CB103677 | |
| LOT 3, CON 3 | Crawford | 240564300 | SUBJECT TO AN EASEMENT AS IN CB103676 | |
| LOT 1, CON 1 | Crawford | 240575481 | SUBJECT TO AN EASEMENT AS IN CB103676 | |
| LOT 4, CON 6 | Carnegie | 240731099 | | |
| LOT 3, CON 4 | Carnegie | 240705342 | SUBJECT TO AN EASEMENT AS IN CB103676 | EXCEPT UNIT 1 PL D55 SRO |
| LOT 2, CON 6 | Crawford | 240712066 | SUBJECT TO AN EASEMENT AS IN CB103676 | |
| LOT 2, CON 6 | Carnegie | 240569606 | SUBJECT TO AN EASEMENT AS IN CB103676 | |
| LOT 2, CON 5 | Carnegie | 240702892 | | |
| LOT 5, CON 4 | Crawford | 240619122 | SUBJECT TO AN EASEMENT AS IN CB103676 | |
| LOT 11, CON 6 | Prosser | 240702595 | | |
| LOT 2, CON 3 | Crawford | 240660180 | SUBJECT TO AN EASEMENT AS IN CB103676 | |
| LOT 8, CON 4 | Crawford | 240729916 | SUBJECT TO AN EASEMENT AS IN CB103676 | |
| LOT 10, CON 5 | Prosser | 240565341 | | |
| LOT 12, CON 1 | Prosser | 240731116 | | RESERVATION IN C6869 |
| LOT 6, CON 1 | Crawford | 240883237 | SUBJECT TO AN EASEMENT AS IN CB103676 | |
| LOT 7, CON 5 | Crawford | 240592556 | SUBJECT TO AN EASEMENT AS IN CB103676 | |
| LOT 3, CON 4 | Crawford | 240585368 | SUBJECT TO AN EASEMENT AS IN CB103676 | |

| Lot and Concession | Township | Identification | Easements | Reservations |
|---|---|---|---|---|
| LOT 6, CON 3 | Carnegie | 240597601 | SUBJECT TO AN EASEMENT AS IN CB103676 | |
| LOT 1, CON 6 | Crawford | 240589479 | SUBJECT TO AN EASEMENT AS IN CB103676 | |
| LOT 4, CON 2 | Crawford | 240681962 | SUBJECT TO AN EASEMENT AS IN CB103676 | |
| LOT 3, CON 5 | Crawford | 240694944 | SUBJECT TO AN EASEMENT AS IN CB103676 | |
| LOT 5, CON 3 | Crawford | 240688099 | SUBJECT TO AN EASEMENT AS IN CB103676 | |
| LOT 7, CON 5 | Crawford | 240634596 | SUBJECT TO AN EASEMENT AS IN CB103676 | |
| LOT 4, CON 1 | Nesbitt | 240629494 | | EXCEPT SRO UNIT 10, |
| LOT 12, CON 3 | LUCAS | 240629968 | SUBJECT TO AN EASEMENT AS IN CB103683 | |
| LOT 12, CON 5 | LUCAS | 240729322 | | |
| LOT 1, CON 5 | Crawford | 240629059 | SUBJECT TO AN EASEMENT AS IN CB103676 | |
| LOT 8, CON 2 | Crawford | 240690220 | SUBJECT TO AN EASEMENT AS IN CB103676 | |
| LOT 6, CON 1 | Nesbitt | 240697453 | | |
| LOT 8, CON 6 | Crawford | 240585951 | SUBJECT TO AN EASEMENT AS IN CB103676 | |
| LOT 12, CON 6 | LUCAS | 240591978 | | |
| LOT 12, CON 2 | Crawford | 240666922 | | |
| LOT 6, CON 5 | Carnegie | 240631316 | SUBJECT TO AN EASEMENT AS IN CB103676 | |
| LOT 10, CON 3 | Crawford | 240563125 | | |
| LOT 10, CON 6 | Carnegie | 240637851 | SUBJECT TO AN EASEMENT AS IN CB103676 | |
| LOT 1, CON 2 | Crawford | 240600626 | SUBJECT TO AN EASEMENT AS IN CB103676 | |
| LOT 2, CON 1 | Crawford | 240618328 | SUBJECT TO AN EASEMENT AS IN CB103676 | |
| LOT 7, CON 2 | Crawford | 240689843 | SUBJECT TO AN EASEMENT AS IN CB103676 | DISTANT N THEREFROM 40 CHAINS 55 LINKS ; RESERVING THE LAND COVERED WITH THE WATER OF A LAKE PARTLY WITHIN THE SE BOUNDARIES OF |
| LOT 9, CON 1 | Nesbitt | 240633330 | EASEMENT AS IN CB103691 | NESBITT EXCEPTING THE LAND COVERED WITH THE WATERS OF THE RIVER CROSSING SAID LAND |
| LOT 12, CON 2 | LUCAS | 240650355 | SUBJECT TO AN EASEMENT AS IN CB103679 | |
| LOT 6, CON 3 | Crawford | 240721545 | SUBJECT TO AN EASEMENT AS IN CB103676 | |
| LOT 3, CON 5 | Crawford | 240612211 | | |
| LOT 7, CON 1 | Nesbitt | 240703167 | EASEMENT AS IN CB103693 | |
| LOT 7, CON 6 | Carnegie | 240633481 | SUBJECT TO AN EASEMENT AS IN CB103676 | |
| LOT 4, CON 3 | Carnegie | 240658117 | SUBJECT TO AN EASEMENT AS IN CB103676 | |
| LOT 12, CON 1 | Crawford | 240727954 | | |
| LOT 6, CON 6 | Carnegie | 240610851 | SUBJECT TO AN EASEMENT AS IN CB103676 | |
| LOT 4, CON 2 | Crawford | 240683920 | SUBJECT TO AN EASEMENT AS IN CB103676 | |
| LOT 1, CON 6 | Carnegie | 240703658 | SUBJECT TO AN EASEMENT AS IN CB103676 | |
| LOT 12, CON 1 | LUCAS | 240770607 | SUBJECT TO AN EASEMENT AS IN CB103678 | |
| LOT 9, CON 4 | Crawford | 240711577 | SUBJECT TO AN EASEMENT AS IN CB103676 | |
| LOT 6, CON 5 | Carnegie | 240651262 | SUBJECT TO AN EASEMENT AS IN CB103676 | |
| LOT 12, CON 1 | Crawford | 240731421 | | |
| LOT 11, CON 3 | LUCAS | 240593320 | SUBJECT TO AN EASEMENT AS IN CB103685 | |
| LOT 12, CON 3 | Crawford | 240605273 | SUBJECT TO AN EASEMENT AS IN CB103676 | |
| LOT 2, CON 5 | Crawford | 240570365 | SUBJECT TO AN EASEMENT AS IN CB103676 | |
| LOT 9, CON 6 | Carnegie | 240661249 | SUBJECT TO AN EASEMENT AS IN CB103676 | |
| LOT 2, CON 2 | Carnegie | 240695016 | | 6R-8893; S/T C133701 |
| LOT 1, CON 2 | Crawford | 240589208 | SUBJECT TO AN EASEMENT AS IN CB103676 | |
| LOT 3, CON 2 | Carnegie | 240705742 | | |
| LOT 4, CON 6 | Carnegie | 240693454 | SUBJECT TO AN EASEMENT AS IN CB103676 | |
| LOT 12, CON 2 | Crawford | 240719027 | | |
| LOT 5, CON 3 | Carnegie | 240592097 | | RESERVING TO HUGH G. RICHARDSON ALL MINES OR MINERALS |
| LOT 11, CON 4 | Crawford | 240673416 | SUBJECT TO AN EASEMENT AS IN CB103676 | |
| LOT 4, CON 6 | Crawford | 240624311 | SUBJECT TO AN EASEMENT AS IN CB103676 | |
| LOT 6, CON 4 | Carnegie | 240731619 | SUBJECT TO AN EASEMENT AS IN CB103676 | |
| LOT 12, CON 5 | Prosser | 240612444 | SUBJECT TO AN EASEMENT AS IN CB103676 | |
| LOT 8, CON 1 | Nesbitt | 240634481 | EASEMENT AS IN CB103692 | |
| LOT 7, CON 6 | Crawford | 240698815 | SUBJECT TO AN EASEMENT AS IN CB103676 | |
| LOT 9, CON 4 | Crawford | 240580937 | SUBJECT TO AN EASEMENT AS IN CB103676 | |
| LOT 11, CON 1 | LUCAS | 240624973 | | |
| LOT 7, CON 5 | Carnegie | 240623320 | SUBJECT TO AN EASEMENT AS IN CB103676 | |
| LOT 2, CON 4 | Crawford | 240636775 | SUBJECT TO AN EASEMENT AS IN CB103676 | |
| LOT 9, CON 6 | Carnegie | 240567096 | SUBJECT TO AN EASEMENT AS IN CB103676 | |
| LOT 5, CON 6 | Crawford | 240621963 | SUBJECT TO AN EASEMENT AS IN CB103676 | |
| LOT 11, CON 6 | Prosser | 240726794 | | |
| LOT 6, CON 2 | Crawford | 240620238 | SUBJECT TO AN EASEMENT AS IN CB103676 | |
| LOT 12, CON 4 | LUCAS | 240609803 | | |
| LOT 11, CON 2 | LUCAS | 240666600 | SUBJECT TO AN EASEMENT AS IN CB103682 | |
| LOT 8, CON 5 | Carnegie | 240635266 | SUBJECT TO AN EASEMENT AS IN CB103676 | |
| LOT 3, CON 3 | Carnegie | 240589437 | SUBJECT TO AN EASEMENT AS IN CB103676 | |
| LOT 10, CON 6 | Prosser | 240622126 | | |
| LOT 1, CON 4 | Crawford | 240677085 | SUBJECT TO AN EASEMENT AS IN CB103676 | |
| LOT 5, CON 2 | Crawford | 240722978 | SUBJECT TO AN EASEMENT AS IN CB103676 | |
| LOT 4, CON 2 | Carnegie | 240633744 | SUBJECT TO AN EASEMENT AS IN CB103676 | |
| LOT 6, CON 6 | Carnegie | 240625147 | SUBJECT TO AN EASEMENT AS IN CB103676 | |
| LOT 2, CON 5 | Carnegie | 240723010 | SUBJECT TO AN EASEMENT AS IN CB103676 | |
| LOT 5, CON 5 | Carnegie | 240620563 | SUBJECT TO AN EASEMENT AS IN CB103676 | |
| LOT 5, CON 6 | Crawford | 240676688 | SUBJECT TO AN EASEMENT AS IN CB103676 | |
| LOT 2, CON 2 | Carnegie | 240696734 | | 6R-8893; S/T C133701 |
| LOT 6, CON 5 | Crawford | 240725916 | SUBJECT TO AN EASEMENT AS IN CB103676 | |
| LOT 3, CON 3 | Carnegie | 240672156 | SUBJECT TO AN EASEMENT AS IN C127340 | RESERVING TO SUSIE ELIZABETH FLEMING, AS TO THE SRO OF THE S1/2, |
| LOT 10, CON 2 | Crawford | 240666163 | SUBJECT TO AN EASEMENT AS IN CB103676 | |
| LOT 11, CON 6 | Crawford | 240722103 | SUBJECT TO AN EASEMENT AS IN CB103676 | |
| LOT 6, CON 1 | Crawford | 240582898 | SUBJECT TO AN EASEMENT AS IN CB103676 | |
| LOT 10, CON 2 | Crawford | 240599407 | | |
| LOT 7, CON 4 | Carnegie | 240690238 | | |
| LOT 11, CON 6 | Crawford | 240660376 | SUBJECT TO AN EASEMENT AS IN CB103676 | |
| LOT 12, CON 4 | Crawford | 240701871 | | |
| LOT 8, CON 1 | Crawford | 240691648 | SUBJECT TO AN EASEMENT AS IN CB103676 | |
| LOT 12, CON 4 | LUCAS | 240585843 | | |
| LOT 7, CON 1 | Crawford | 240628973 | SUBJECT TO AN EASEMENT AS IN CB103676 | |
| LOT 6, CON 1 | Crawford | 240719987 | SUBJECT TO AN EASEMENT AS IN CB103676 | |
| LOT 6, CON 2 | Crawford | 240615263 | SUBJECT TO AN EASEMENT AS IN CB103676 | |

| Lot and Concession | Township | Identification | Easements | Reservations |
|---|---|---|---|---|
| LOT 6, CON 6 | Carnegie | 240584067 | SUBJECT TO AN EASEMENT AS IN CB103676 | |
| LOT 10, CON 1 | Nesbitt | 240691501 | EASEMENT AS IN CB103690 | |
| LOT 10, CON 6 | Prosser | 240579064 | | |
| LOT 9, CON 6 | Crawford | 240730935 | | |
| LOT 4, CON 2 | Carnegie | 240584105 | | |
| LOT 2, CON 6 | Crawford | 240708350 | SUBJECT TO AN EASEMENT AS IN CB103676 | |
| LOT 5, CON 1 | Crawford | 240636888 | SUBJECT TO AN EASEMENT AS IN CB103676 | |
| LOT 5, CON 5 | Carnegie | 240679620 | SUBJECT TO AN EASEMENT AS IN CB103676 | |
| LOT 11, CON 2 | Crawford | 240607669 | | |
| LOT 4, CON 3 | Carnegie | 240709420 | | |
| LOT 4, CON 4 | Crawford | 240616832 | SUBJECT TO AN EASEMENT AS IN CB103678 | |
| LOT 2, CON 5 | Crawford | 240695094 | SUBJECT TO AN EASEMENT AS IN CB103676 | |
| LOT 11, CON 5 | Prosser | 240617722 | SUBJECT TO AN EASEMENT AS IN CB103676 | |
| LOT 9, CON 5 | Crawford | 240628257 | SUBJECT TO AN EASEMENT AS IN CB103676 | |
| LOT 10, CON 6 | Crawford | 240628093 | SUBJECT TO AN EASEMENT AS IN CB103676 | |
| LOT 11, CON 2 | Crawford | 240683524 | | |
| LOT 2, CON 1 | Carnegie | 240592534 | | |
| LOT 1, CON 6 | Carnegie | 240662472 | SUBJECT TO AN EASEMENT AS IN CB103676 | |
| LOT 7, CON 3 | Crawford | 240713009 | SUBJECT TO AN EASEMENT AS IN CB103676 | |
| LOT 8, CON 6 | Carnegie | 240577974 | SUBJECT TO AN EASEMENT AS IN CB103676 | |
| LOT 5, CON 4 | Crawford | 240585782 | | |
| LOT 12, CON 6 | Prosser | 240603621 | SUBJECT TO AN EASEMENT AS IN CB103676; | |
| LOT 9, CON 2 | Crawford | 240723612 | SUBJECT TO AN EASEMENT AS IN CB103676 | |
| LOT 2, CON 3 | Crawford | 240622168 | SUBJECT TO AN EASEMENT AS IN CB103676 | |
| LOT 12, CON 2 | LUCAS | 240599373 | SUBJECT TO AN EASEMENT AS IN CB103681 | |
| LOT 3, CON 6 | Crawford | 240724505 | SUBJECT TO AN EASEMENT AS IN CB103676 | |
| LOT 3, CON 1 | Carnegie | 240618825 | | |
| LOT 8, CON 6 | Crawford | 240714590 | SUBJECT TO AN EASEMENT AS IN CB103676 | |
| LOT 11, CON 3 | Crawford | 240677507 | SUBJECT TO AN EASEMENT AS IN CB103676 | |
| LOT 11, CON 4 | Crawford | 240622164 | SUBJECT TO AN EASEMENT AS IN CB103676 | |
| LOT 5, CON 2 | Nesbitt | 240689084 | | EXCEPT SRO UNIT 8 |
| LOT 2, CON 2 | Crawford | 240608276 | SUBJECT TO AN EASEMENT AS IN CB103676 | |
| LOT 11, CON 5 | Crawford | 240603761 | SUBJECT TO AN EASEMENT AS IN CB103676 | |
| LOT 4, CON 3 | Crawford | 240699682 | SUBJECT TO AN EASEMENT AS IN CB103676 | |
| LOT 4, CON 4 | Crawford | 240641000 | SUBJECT TO AN EASEMENT AS IN CB103682 | |
| LOT 8, CON 4 | Crawford | 240663691 | SUBJECT TO AN EASEMENT AS IN CB103676 | |
| LOT 2, CON 4 | Crawford | 240607486 | SUBJECT TO AN EASEMENT AS IN CB103676 | |
| LOT 3, CON 1 | Crawford | 240601182 | SUBJECT TO AN EASEMENT AS IN CB103676 | |
| LOT 8, CON 3 | Crawford | 240600869 | | |
| LOT 8, CON 6 | Carnegie | 240587134 | SUBJECT TO AN EASEMENT AS IN CB103676 | |
| LOT 5, CON 4 | Carnegie | 240688804 | | |
| LOT 11, CON 4 | LUCAS | 240595271 | | |
| LOT 10, CON 4 | Crawford | 240649414 | SUBJECT TO AN EASEMENT AS IN CB103676 | |
| LOT 2, CON 6 | Carnegie | 240711147 | SUBJECT TO AN EASEMENT AS IN CB103676 | |
| LOT 7, CON 6 | Carnegie | 240710718 | SUBJECT TO AN EASEMENT AS IN CB103676 | |
| LOT 3, CON 4 | Crawford | 240709240 | SUBJECT TO AN EASEMENT AS IN CB103676 | |
| LOT 2, CON 5 | Carnegie | 240588855 | | |
| LOT 7, CON 4 | Crawford | 240640564 | SUBJECT TO AN EASEMENT AS IN CB103676 | |
| LOT 5, CON 3 | Crawford | 240696968 | SUBJECT TO AN EASEMENT AS IN CB103676 | |
| LOT 4, CON 1 | Carnegie | 240569505 | | |
| LOT 10, CON 1 | Crawford | 240565317 | SUBJECT TO AN EASEMENT AS IN CB103676 | |
| LOT 10, CON 5 | Prosser | 240688837 | | ONE HUNDRED AND SIXTY (160) ACRES, MORE OR LESS S/T TEM37720 |
| LOT 1, CON 5 | Crawford | 240670340 | SUBJECT TO AN EASEMENT AS IN CB103676 | |
| LOT 9, CON 1 | Crawford | 240607736 | | |
| LOT 11, CON 1 | Crawford | 240574644 | | |
| LOT 1, CON 1 | Crawford | 240623527 | SUBJECT TO AN EASEMENT AS IN CB103676 | |
| LOT 8, CON 5 | Carnegie | 240695262 | SUBJECT TO AN EASEMENT AS IN CB103676 | |
| LOT 12, CON 3 | LUCAS | 240598259 | SUBJECT TO AN EASEMENT AS IN CB103686 | |
| LOT 5, CON 1 | Nesbitt | 240720632 | | EXCEPT SRO UNIT 9 |
| LOT 6, CON 6 | Crawford | 240704880 | | |
| LOT 1, CON 6 | Crawford | 240623747 | SUBJECT TO AN EASEMENT AS IN CB103676 | |
| LOT 6, CON 1 | Crawford | 240661360 | SUBJECT TO AN EASEMENT AS IN CB103676 | |
| LOT 7, CON 3 | Crawford | 240635983 | SUBJECT TO AN EASEMENT AS IN CB103676 | |
| LOT 10, CON 3 | Crawford | 240696968 | SUBJECT TO AN EASEMENT AS IN CB103676 | |
| LOT 9, CON 3 | Crawford | 240695782 | SUBJECT TO AN EASEMENT AS IN CB103676 | |
| LOT 10, CON 6 | Crawford | 240625197 | | |
| LOT 3, CON 6 | Crawford | 240567200 | SUBJECT TO AN EASEMENT AS IN CB103676 | |
| LOT 5, CON 5 | Crawford | 640673951 | SUBJECT TO AN EASEMENT AS IN CB103676 | |
| LOT 2, CON 3 | Carnegie | 240580350 | | |
| LOT 5, CON 2 | Nesbitt | 240720262 | | EXCEPT SRO UNIT 8 |
| LOT 8, CON 2 | Crawford | 240685721 | SUBJECT TO AN EASEMENT AS IN CB103676 | |
| LOT 11, CON 3 | LUCAS | 240571624 | SUBJECT TO AN EASEMENT AS IN CB103684 | |
| LOT 9, CON 6 | Crawford | 240723197 | SUBJECT TO AN EASEMENT AS IN CB103676 | |
| LOT 2, CON 3 | Carnegie | 240643202 | | |

Note: CNC does not currently own the non mining patents shown in the table

TABLE E.4 LEASES AND PATENTS - CNC

| Mining Right Number | Mining Right Type | Status | PIN | CNC Holding |
|---|---|---|---|---|
| LEA-108585 | Lease | Active | 73138-0001(LT) | 100% |
| LEA-108586 | Lease | Active | 73138-0002(LT) | 100% |
| LEA-108587 | Lease | Active | 73138-0003(LT) | 100% |
| LEA-108600 | Lease | Active | 73136-0024(LT) | 100% |
| LEA-108601 | Lease | Active | 73136-0023(LT) | 100% |
| LEA-108602 | Lease | Active | 73136-0025(LT) | 100% |
| LEA-108603 | Lease | Active | 73136-0026(LT) | 100% |
| LEA-108604 | Lease | Active | 73136-0020 (LT) | 100% |
| LEA-108605 | Lease | Active | 73136-0021(LT) | 100% |
| LEA-108606 | Lease | Active | 73136-0022(LT) | 100% |
| LEA-108607 | Lease | Active | 73135-0016(LT) | 100% |
| LEA-108608 | Lease | Active | 73135-0015(LT) | 100% |
| LEA-108609 | Lease | Active | 73135-0014(LT) | 100% |
| LEA-108610 | Lease | Active | 73135-0013(LT) | 100% |
| LEA-108611 | Lease | Active | 73135-0012(LT) | 100% |
| LEA-108612 | Lease | Active | 73135-0011(LT) | 100% |
| LEA-108613 | Lease | Active | 73135-0017(LT) | 100% |
| LEA-108614 | Lease | Active | 73135-0018(LT) | 100% |
| LEA-108615 | Lease | Active | 73135-0020(LT) | 100% |
| LEA-108616 | Lease | Active | 73135-0021(LT) | 100% |
| LEA-108617 | Lease | Active | 73135-0022(LT) | 100% |
| LEA-108618 | Lease | Active | 73135-0023(LT) | 100% |
| LEA-108619 | Lease | Active | 73135-0006(LT) | 100% |
| LEA-108620 | Lease | Active | 73135-0007(LT) | 100% |
| LEA-108621 | Lease | Active | 73135-0008(LT) | 100% |
| LEA-108622 | Lease | Active | 73135-0009(LT) | 100% |
| LEA-108623 | Lease | Active | 73135-0010(LT) | 100% |
| LEA-108624 | Lease | Active | 73135-0019(LT) | 100% |
| LEA-108625 | Lease | Active | 73136-0019(LT) | 100% |
| LEA-19877 | Lease | Active | 73136-0008(LT) | 100% |
| LEA-19880 | Lease | Active | 73136-0007(LT) | 100% |
| LEA-19881 | Lease | Active | 73136-0015(LT) | 100% |
| LEA-19882 | Lease | Active | 73136-0014(LT) | 100% |
| LEA-19883 | Lease | Active | 73136-0013(LT) | 100% |
| LEA-19884 | Lease | Active | 73136-0012(LT) | 100% |
| LEA-19885 | Lease | Active | 73136-0010(LT) | 100% |
| LEA-19886 | Lease | Active | 73136-0009(LT) | 100% |
| LEA-19887 | Lease | Active | 73136-0016(LT) | 100% |
| LEA-19888 | Lease | Active | 73136-0011(LT) | 100% |
| LEA-19889 | Lease | Active | 73135-0004(LT) | 100% |
| LEA-19890 | Lease | Active | 73135-0005(LT) | 100% |
| LEA-19891 | Lease | Active | 73135-0002(LT) | 100% |
| LEA-19892 | Lease | Active | 73136-0006(LT) | 100% |
| LEA-19893 | Lease | Active | 73136-0003(LT) | 100% |
| LEA-19894 | Lease | Active | 73136-0002(LT) | 100% |
| LEA-19895 | Lease | Active | 73136-0001(LT) | 100% |
| LEA-19896 | Lease | Active | 73135-0003(LT) | 100% |
| LEA-19897 | Lease | Active | 73136-0004(LT) | 100% |
| LEA-19898 | Lease | Active | 73136-0005(LT) | 100% |
| LEA-19899 | Lease | Active | 73135-0001(LT) | 100% |
| PAT-30219 | Patent | Active | 65442-0306(LT) | 100% |
| PAT-30220 | Patent | Active | 65442-0305(LT) | 100% |
| PAT-3244 | Patent | Active | 65442-0298(LT) | 100% |
| PAT-3245 | Patent | Active | 65442-0299(LT) | 100% |
| PAT-3471 | Patent | Pending | 65442-0699(LT) | 100% |
| PAT-3472 | Patent | Pending | 65442-0699(LT) | 100% |
| PAT-3473 | Patent | Pending | 65442-0699(LT) | 100% |
| PAT-3474 | Patent | Pending | 65442-0699(LT) | 100% |

TABLE E.4 LEASES AND PATENTS - CNC

| Mining Right Number | Mining Right Type | Status | PIN | CNC Holding |
|---|---|---|---|---|
| PAT-3475 | Patent | Pending | 65442-0699(LT) | 100% |
| PAT-3476 | Patent | Pending | 65442-0699(LT) | 100% |
| PAT-3477 | Patent | Pending | 65442-0699(LT) | 100% |
| PAT-3478 | Patent | Pending | 65442-0699(LT) | 100% |
| PAT-4905 | Patent | Pending | 65442-0423(LT) | 100% |
| PAT-4906 | Patent | Pending | 65442-0420(LT) | 100% |
| PAT-4907 | Patent | Pending | 65442-0412(LT) | 100% |
| PAT-4908 | Patent | Pending | 65442-0422(LT) | 100% |
| PAT-4909 | Patent | Pending | 65442-0411(LT) | 100% |
| PAT-4910 | Patent | Pending | 65442-0295(LT) | 100% |
| PAT-4911 | Patent | Pending | 65442-0296(LT) | 100% |
| PAT-4912 | Patent | Pending | 65442-0294(LT) | 100% |
| PAT-4913 | Patent | Pending | 65442-0297(LT) | 100% |
| PAT-4914 | Patent | Pending | 65442-0293(LT) | 100% |
| PAT-4915 | Patent | Pending | 65442-0426(LT) | 100% |
| PAT-4916 | Patent | Pending | 65442-0427(LT) | 100% |
| PAT-4917 | Patent | Pending | 65442-0419(LT) | 100% |
| PAT-4918 | Patent | Pending | 65442-0416(LT) | 100% |
| PAT-4919 | Patent | Pending | 65442-0418(LT) | 100% |
| PAT-4920 | Patent | Pending | 65442-0414(LT) | 100% |
| PAT-4921 | Patent | Pending | 65442-0415(LT) | 100% |
| PAT-4922 | Patent | Pending | 65442-0417(LT) | 100% |
| PAT-4923 | Patent | Pending | 65442-0421(LT) | 100% |
| PAT-4925 | Patent | Pending | 65442-0424(LT) | 100% |
| PAT-49285 | Patent | Active | 65320-0150(LT) | 100% |
| PAT-49287 | Patent | Active | 65320-0138(LT) | 100% |
| PAT-49288 | Patent | Active | 65320-0148(LT) | 100% |
| PAT-49290 | Patent | Active | 65320-0136(LT) | 100% |
| PAT-49291 | Patent | Active | 65320-0146(LT) | 100% |
| PAT-49292 | Patent | Active | 65320-0134(LT) | 100% |
| PAT-49293 | Patent | Active | 65320-0144(LT) | 100% |
| PAT-49294 | Patent | Active | 65320-0132(LT) | 100% |
| PAT-49295 | Patent | Active | 65320-0142(LT) | 100% |
| PAT-49296 | Patent | Pending | 65297-0153(LT) | 100% |
| PAT-49297 | Patent | Pending | 65297-0155(LT) | 100% |
| PAT-49298 | Patent | Pending | 65297-0157(LT) | 100% |
| PAT-49299 | Patent | Pending | 65297-0159(LT) | 100% |
| PAT-49301 | Patent | Active | 65320-0130(LT) | 100% |
| PAT-49302 | Patent | Pending | 65297-0163(LT) | 100% |
| PAT-49312 | Patent | Pending | 65320-0184(LT) | 100% |
| PAT-49314 | Patent | Active | 65320-0164(LT) | 100% |
| PAT-49315 | Patent | Active | 65297-0169(LT) | 100% |
| PAT-49317 | Patent | Active | 65297-0171(LT) | 100% |
| PAT-49318 | Patent | Pending | 65320-0162(LT) | 100% |
| PAT-49319 | Patent | Pending | 65320-0180(LT) | 100% |
| PAT-49320 | Patent | Active | 65297-0173(LT) | 100% |
| PAT-49344 | Patent | Active | 65302-0179(LT) | 100% |
| PAT-49346 | Patent | Active | 65302-0183(LT) | 100% |
| PAT-49349 | Patent | Active | 65302-0189(LT) | 100% |
| PAT-49357 | Patent | Active | 65302-0205(LT) | 100% |
| PAT-49358 | Patent | Active | 65302-0207(LT) | 100% |
| PAT-49359 | Patent | Active | 65302-0209(LT) | 100% |
| PAT-49360 | Patent | Active | 65302-0211(LT) | 100% |
| PAT-49361 | Patent | Active | 65302-0213(LT) | 100% |
| PAT-49362 | Patent | Active | 65302-0215(LT) | 100% |
| PAT-49363 | Patent | Active | 65302-0217(LT) | 100% |
| PAT-49364 | Patent | Active | 65302-0219(LT) | 100% |
| PAT-49365 | Patent | Active | 65302-0221(LT) | 100% |

TABLE E.4 LEASES AND PATENTS - CNC

| Mining Right Number | Mining Right Type | Status | PIN | CNC Holding |
|---|---|---|---|---|
| PAT-49366 | Patent | Active | 65302-0223(LT) | 100% |
| PAT-49367 | Patent | Active | 65302-0225(LT) | 100% |
| PAT-49368 | Patent | Active | 65302-0227(LT) | 100% |
| PAT-49369 | Patent | Active | 65302-0229(LT) | 100% |
| PAT-49370 | Patent | Active | 65302-0231(LT) | 100% |
| PAT-49371 | Patent | Active | 65302-0233(LT) | 100% |
| PAT-49372 | Patent | Active | 65302-0235(LT) | 100% |
| PAT-49373 | Patent | Active | 65302-0237(LT) | 100% |
| PAT-49374 | Patent | Active | 65302-0239(LT) | 100% |
| PAT-49375 | Patent | Active | 65302-0241(LT) | 100% |
| PAT-49376 | Patent | Active | 65302-0243(LT) | 100% |
| PAT-49377 | Patent | Active | 65302-0245(LT) | 100% |
| PAT-49378 | Patent | Active | 65297-0175(LT) | 100% |
| PAT-49379 | Patent | Active | 65297-0177(LT) | 100% |
| PAT-49380 | Patent | Pending | 65297-0179(LT) | 100% |
| PAT-49381 | Patent | Pending | 65297-0181(LT) | 100% |
| PAT-49382 | Patent | Pending | 65297-0183(LT) | 100% |
| PAT-49383 | Patent | Pending | 65297-0185(LT) | 100% |
| PAT-49384 | Patent | Pending | 65297-0187(LT) | 100% |
| PAT-49385 | Patent | Pending | 65297-0189(LT) | 100% |
| PAT-49386 | Patent | Pending | 65297-0191(LT) | 100% |
| PAT-49387 | Patent | Pending | 65297-0193(LT) | 100% |
| PAT-49388 | Patent | Pending | 65297-0195(LT) | 100% |
| PAT-49389 | Patent | Pending | 65297-0197(LT) | 100% |
| PAT-49390 | Patent | Pending | 65297-0199(LT) | 100% |
| PAT-49391 | Patent | Pending | 65297-0201(LT) | 100% |
| PAT-49392 | Patent | Pending | 65297-0203(LT) | 100% |
| PAT-49393 | Patent | Pending | 65297-0205(LT) | 100% |
| PAT-49394 | Patent | Pending | 65297-0207(LT) | 100% |
| PAT-49395 | Patent | Pending | 65297-0209(LT) | 100% |
| PAT-49397 | Patent | Pending | 65297-0211(LT) | 100% |
| PAT-49398 | Patent | Pending | 65297-0213(LT) | 100% |
| PAT-49399 | Patent | Active | 65297-0215(LT) | 100% |
| PAT-49400 | Patent | Active | 65297-0217(LT) | 100% |
| PAT-49401 | Patent | Active | 65297-0219(LT) | 100% |
| PAT-49402 | Patent | Active | 65297-0221(LT) | 100% |
| PAT-49403 | Patent | Pending | 65297-0223(LT) | 100% |
| PAT-49404 | Patent | Pending | 65297-0225(LT) | 100% |
| PAT-49405 | Patent | Pending | 65297-0227(LT) | 100% |
| PAT-49446 | Patent | Pending | 65297-0229(LT) | 100% |
| PAT-49447 | Patent | Pending | 65297-0231(LT) | 100% |
| PAT-49449 | Patent | Pending | 65297-0233(LT) | 100% |
| PAT-49450 | Patent | Pending | 65297-0235(LT) | 100% |
| PAT-49451 | Patent | Pending | 65297-0237(LT) | 100% |
| PAT-49452 | Patent | Pending | 65297-0239(LT) | 100% |
| PAT-49453 | Patent | Pending | 65297-0243(LT) | 100% |
| PAT-49454 | Patent | Pending | 65297-0245(LT) | 100% |
| PAT-49455 | Patent | Pending | 65297-0247(LT) | 100% |
| PAT-49456 | Patent | Pending | 65297-0249(LT) | 100% |
| PAT-49457 | Patent | Pending | 65297-0251(LT) | 100% |
| PAT-49458 | Patent | Pending | 65297-0253(LT) | 100% |
| PAT-49459 | Patent | Pending | 65297-0255(LT) | 100% |
| PAT-49460 | Patent | Pending | 65297-0241(LT) | 100% |
| PAT-49481 | Patent | Pending | 65297-0257(LT) | 100% |
| PAT-49482 | Patent | Pending | 65297-0259(LT) | 100% |
| PAT-49483 | Patent | Pending | 65297-0261(LT) | 100% |
| PAT-49484 | Patent | Pending | 65297-0263(LT) | 100% |
| PAT-49485 | Patent | Pending | 65297-0265(LT) | 100% |

TABLE E.4 LEASES AND PATENTS - CNC

| Mining Right Number | Mining Right Type | Status | PIN | CNC Holding |
|---|---|---|---|---|
| PAT-49486 | Patent | Pending | 65297-0267(LT) | 100% |
| PAT-49487 | Patent | Pending | 65297-0269(LT) | 100% |
| PAT-49488 | Patent | Pending | 65297-0271(LT) | 100% |
| PAT-49489 | Patent | Pending | 65297-0273(LT) | 100% |
| PAT-49490 | Patent | Pending | 65297-0275(LT) | 100% |
| PAT-49491 | Patent | Pending | 65297-0277(LT) | 100% |
| PAT-49492 | Patent | Pending | 65297-0279(LT) | 100% |
| PAT-49493 | Patent | Active | 65297-0281(LT) | 100% |
| PAT-49494 | Patent | Active | 65297-0283(LT) | 100% |
| PAT-49495 | Patent | Pending | 65297-0285(LT) | 100% |
| PAT-49496 | Patent | Pending | 65297-0287(LT) | 100% |
| PAT-49497 | Patent | Pending | 65297-0289(LT) | 100% |
| PAT-49498 | Patent | Pending | 65297-0291(LT) | 100% |
| PAT-49499 | Patent | Pending | 65297-0293(LT) | 100% |
| PAT-49510 | Patent | Pending | 65297-0295(LT) | 100% |
| PAT-49511 | Patent | Pending | 65297-0297(LT) | 100% |
| PAT-49512 | Patent | Pending | 65297-0299(LT) | 100% |
| PAT-49513 | Patent | Pending | 65297-0301(LT) | 100% |
| PAT-49514 | Patent | Pending | 65297-0303(LT) | 100% |
| PAT-49515 | Patent | Pending | 65297-0305(LT) | 100% |
| PAT-49529 | Patent | Pending | 65320-0178(LT) | 100% |
| PAT-49530 | Patent | Pending | 65320-0158(LT) | 100% |
| PAT-49531 | Patent | Pending | 65320-0176(LT) | 100% |
| PAT-49532 | Patent | Pending | 65320-0156(LT) | 100% |
| PAT-49533 | Patent | Pending | 65320-0174(LT) | 100% |
| PAT-49534 | Patent | Pending | 65320-0154(LT) | 100% |
| PAT-49538 | Patent | Pending | 65320-0202(LT) | 100% |
| PAT-49539 | Patent | Pending | 65320-0210(LT) | 100% |
| PAT-49540 | Patent | Pending | 65320-0212(LT) | 100% |
| PAT-49541 | Patent | Pending | 65320-0214(LT) | 100% |
| PAT-49542 | Patent | Pending | 65320-0200(LT) | 100% |
| PAT-49543 | Patent | Pending | 65320-0216(LT) | 100% |
| PAT-49544 | Patent | Pending | 65320-0198(LT) | 100% |
| PAT-49545 | Patent | Pending | 65320-0196(LT) | 100% |
| PAT-49546 | Patent | Pending | 65320-0218(LT) | 100% |
| PAT-49547 | Patent | Pending | 65320-0194(LT) | 100% |
| PAT-49548 | Patent | Pending | 65297-0307(LT) | 100% |
| PAT-49549 | Patent | Pending | 65297-0309(LT) | 100% |
| PAT-49550 | Patent | Pending | 65297-0311(LT) | 100% |
| PAT-49552 | Patent | Pending | 65297-0313(LT) | 100% |
| PAT-49553 | Patent | Pending | 65297-0315(LT) | 100% |
| PAT-49554 | Patent | Pending | 65297-0317(LT) | 100% |
| PAT-49555 | Patent | Pending | 65297-0319(LT) | 100% |
| PAT-49556 | Patent | Pending | 65297-0321(LT) | 100% |
| PAT-49557 | Patent | Pending | 65297-0323(LT) | 100% |
| PAT-49558 | Patent | Pending | 65297-0325(LT) | 100% |
| PAT-49559 | Patent | Pending | 65297-0327(LT) | 100% |
| PAT-49560 | Patent | Pending | 65297-0329(LT) | 100% |
| PAT-49561 | Patent | Pending | 65297-0331(LT) | 100% |
| PAT-49562 | Patent | Pending | 65297-0333(LT) | 100% |
| PAT-49563 | Patent | Pending | 65297-0335(LT) | 100% |
| PAT-49564 | Patent | Pending | 65297-0337(LT) | 100% |
| PAT-49565 | Patent | Pending | 65297-0339(LT) | 100% |
| PAT-49566 | Patent | Pending | 65297-0341(LT) | 100% |
| PAT-49567 | Patent | Pending | 65297-0343(LT) | 100% |
| PAT-49568 | Patent | Pending | 65297-0345(LT) | 100% |
| PAT-49569 | Patent | Pending | 65297-0347(LT) | 100% |
| PAT-49570 | Patent | Pending | 65297-0349(LT) | 100% |

TABLE E.4 LEASES AND PATENTS - CNC

| Mining Right Number | Mining Right Type | Status | PIN | CNC Holding |
|---|---|---|---|---|
| PAT-49571 | Patent | Pending | 65297-0351(LT) | 100% |
| PAT-49572 | Patent | Pending | 65297-0353(LT) | 100% |
| PAT-49573 | Patent | Pending | 65297-0355(LT) | 100% |
| PAT-49574 | Patent | Pending | 65297-0357(LT) | 100% |
| PAT-49576 | Patent | Pending | 65297-0359(LT) | 100% |
| PAT-49577 | Patent | Active | 65297-0361(LT) | 100% |
| PAT-49578 | Patent | Active | 65297-0363(LT) | 100% |
| PAT-49579 | Patent | Active | 65297-0365(LT) | 100% |
| PAT-49580 | Patent | Active | 65297-0367(LT) | 100% |
| PAT-49581 | Patent | Active | 65297-0369(LT) | 100% |
| PAT-49582 | Patent | Active | 65297-0371(LT) | 100% |
| PAT-49583 | Patent | Active | 65297-0373(LT) | 100% |
| PAT-49584 | Patent | Active | 65297-0375(LT) | 100% |
| PAT-49585 | Patent | Active | 65297-0377(LT) | 100% |
| PAT-49586 | Patent | Active | 65297-0379(LT) | 100% |
| PAT-49587 | Patent | Active | 65297-0381(LT) | 100% |
| PAT-49588 | Patent | Active | 65297-0383(LT) | 100% |
| PAT-49589 | Patent | Active | 65297-0385(LT) | 100% |
| PAT-49590 | Patent | Active | 65297-0387(LT) | 100% |
| PAT-49591 | Patent | Active | 65297-0389(LT) | 100% |
| PAT-49592 | Patent | Active | 65297-0391(LT) | 100% |
| PAT-49593 | Patent | Active | 65297-0393(LT) | 100% |
| PAT-49594 | Patent | Active | 65297-0395(LT) | 100% |
| PAT-49595 | Patent | Active | 65297-0397(LT) | 100% |
| PAT-49596 | Patent | Active | 65297-0399(LT) | 100% |
| PAT-49597 | Patent | Active | 65297-0401(LT) | 100% |
| PAT-49598 | Patent | Active | 065297-0403(LT) | 100% |
| PAT-49599 | Patent | Active | 65297-0405(LT) | 100% |
| PAT-49600 | Patent | Active | 65297-0407(LT) | 100% |
| PAT-49601 | Patent | Active | 65297-0409(LT) | 100% |
| PAT-49602 | Patent | Active | 65297-0411(LT) | 100% |
| PAT-49603 | Patent | Active | 65297-0413(LT) | 100% |
| PAT-49604 | Patent | Active | 65296-0158(LT) | 100% |
| PAT-49605 | Patent | Active | 65296-0146(LT) | 100% |
| PAT-49606 | Patent | Active | 65296-0148(LT) | 100% |
| PAT-49607 | Patent | Active | 65296-0150(LT) | 100% |
| PAT-49608 | Patent | Active | 65296-0152(LT) | 100% |
| PAT-49609 | Patent | Active | 65296-0154(LT) | 100% |
| PAT-49610 | Patent | Active | 65296-0156(LT) | 100% |
| PAT-49611 | Patent | Active | 65296-0160(LT) | 100% |
| PAT-49612 | Patent | Active | 65296-0162(LT) | 100% |
| PAT-49659 | Patent | Active | 65296-0252(LT) | 100% |
| PAT-49660 | Patent | Active | 65296-0254(LT) | 100% |
| PAT-49661 | Patent | Active | 65296-0256(LT) | 100% |
| PAT-49662 | Patent | Active | 65296-0258(LT) | 100% |
| PAT-49663 | Patent | Active | 65296-0260(LT) | 100% |
| PAT-49664 | Patent | Active | 65296-0262(LT) | 100% |
| PAT-49665 | Patent | Active | 65296-0264(LT) | 100% |
| PAT-49666 | Patent | Active | 65296-0266(LT) | 100% |
| PAT-49667 | Patent | Active | 65296-0268(LT) | 100% |
| PAT-49668 | Patent | Active | 65296-0270(LT) | 100% |
| PAT-49669 | Patent | Active | 65296-0272(LT) | 100% |
| PAT-49670 | Patent | Active | 65296-0274(LT) | 100% |
| PAT-49672 | Patent | Active | 65296-0278(LT) | 100% |
| PAT-49673 | Patent | Active | 65296-0280(LT) | 100% |
| PAT-49675 | Patent | Active | 65296-0284(LT) | 100% |
| PAT-49676 | Patent | Active | 65296-0286(LT) | 100% |
| PAT-49678 | Patent | Active | 65296-0290(LT) | 100% |

TABLE E.4 LEASES AND PATENTS - CNC

| Mining Right Number | Mining Right Type | Status | PIN | CNC Holding |
|---|---|---|---|---|
| PAT-49679 | Patent | Active | 65296-0292(LT) | 100% |
| PAT-49680 | Patent | Active | 65296-0294(LT) | 100% |
| PAT-49681 | Patent | Active | 65296-0296(LT) | 100% |
| PAT-49682 | Patent | Active | 65296-0298(LT) | 100% |
| PAT-49685 | Patent | Active | 65296-0304(LT) | 100% |
| PAT-49686 | Patent | Active | 65296-0306(LT) | 100% |
| PAT-49687 | Patent | Active | 65296-0308(LT) | 100% |
| PAT-49688 | Patent | Active | 65296-0310(LT) | 100% |
| PAT-49692 | Patent | Active | 65296-0318(LT) | 100% |
| PAT-49693 | Patent | Active | 65296-0320(LT) | 100% |
| PAT-49694 | Patent | Active | 65296-0322(LT) | 100% |
| PAT-49695 | Patent | Active | 65296-0324(LT) | 100% |
| PAT-49699 | Patent | Active | 65296-0336(LT) | 100% |
| PAT-49700 | Patent | Active | 65296-0334(LT) | 100% |
| PAT-49701 | Patent | Active | 65296-0336(LT) | 100% |
| PAT-49702 | Patent | Active | 65296-0338(LT) | 100% |
| PAT-49705 | Patent | Active | 65296-0344(LT) | 100% |
| PAT-49706 | Patent | Active | 65296-0346(LT) | 100% |
| PAT-49707 | Patent | Active | 65296-0348(LT) | 100% |
| PAT-49711 | Patent | Active | 65296-0356(LT) | 100% |
| PAT-49712 | Patent | Active | 65296-0358(LT) | 100% |
| PAT-49713 | Patent | Active | 65296-0360(LT) | 100% |
| PAT-49714 | Patent | Active | 65296-0362(LT) | 100% |
| PAT-49718 | Patent | Active | 65296-0370(LT) | 100% |
| PAT-49719 | Patent | Active | 65296-0372(LT) | 100% |
| PAT-49720 | Patent | Active | 65296-0374(LT) | 100% |
| PAT-49721 | Patent | Active | 65296-0376(LT) | 100% |
| PAT-49725 | Patent | Active | 65296-0384(LT) | 100% |
| PAT-49726 | Patent | Active | 65296-0386(LT) | 100% |
| PAT-49728 | Patent | Active | 65296-0390(LT) | 100% |
| PAT-49769 | Patent | Active | 65300-0307(LT) | 100% |
| PAT-49772 | Patent | Active | 65300-0311(LT) | 100% |
| PAT-49773 | Patent | Active | 65300-0109(LT) | 100% |
| PAT-49774 | Patent | Active | 65300-0111(LT) | 100% |
| PAT-49775 | Patent | Active | 65300-0113(LT) | 100% |
| PAT-49776 | Patent | Active | 65300-0115(LT) | 100% |
| PAT-49777 | Patent | Active | 65300-0117(LT) | 100% |
| PAT-49778 | Patent | Active | 65300-0119(LT) | 100% |
| PAT-49779 | Patent | Active | 65300-0121(LT) | 100% |
| PAT-49780 | Patent | Active | 65300-0123(LT) | 100% |
| PAT-49781 | Patent | Active | 65300-0125(LT) | 100% |
| PAT-49782 | Patent | Active | 65300-0127(LT) | 100% |
| PAT-49783 | Patent | Active | 65300-0129(LT) | 100% |
| PAT-49784 | Patent | Active | 65300-0131(LT) | 100% |
| PAT-49785 | Patent | Active | 65300-0133(LT) | 100% |
| PAT-49786 | Patent | Active | 65300-0135(LT) | 100% |
| PAT-49787 | Patent | Active | 65300-0137(LT) | 100% |
| PAT-49788 | Patent | Active | 65300-0139(LT) | 100% |
| PAT-49789 | Patent | Active | 65300-0141(LT) | 100% |
| PAT-49790 | Patent | Active | 65300-0143(LT) | 100% |
| PAT-49791 | Patent | Active | 65300-0145(LT) | 100% |
| PAT-49792 | Patent | Active | 65300-0147(LT) | 100% |
| PAT-49793 | Patent | Active | 65300-0149(LT) | 100% |
| PAT-49794 | Patent | Active | 65300-0151(LT) | 100% |
| PAT-49795 | Patent | Active | 65300-0153(LT) | 100% |
| PAT-49796 | Patent | Active | 65300-0155(LT) | 100% |
| PAT-49797 | Patent | Active | 65300-0157(LT) | 100% |
| PAT-49798 | Patent | Active | 65300-0159(LT) | 100% |

TABLE E.4 LEASES AND PATENTS - CNC

| Mining Right Number | Mining Right Type | Status | PIN | CNC Holding |
|---|---|---|---|---|
| PAT-49799 | Patent | Active | 65300-0161(LT) | 100% |
| PAT-49800 | Patent | Active | 65300-0163(LT) | 100% |
| PAT-49801 | Patent | Active | 65300-0165(LT) | 100% |
| PAT-49802 | Patent | Active | 65300-0167(LT) | 100% |
| PAT-49803 | Patent | Active | 65300-0169(LT) | 100% |
| PAT-49804 | Patent | Active | 65300-0171(LT) | 100% |
| PAT-49805 | Patent | Active | 65300-0173(LT) | 100% |
| PAT-49806 | Patent | Active | 65300-0175(LT) | 100% |
| PAT-49807 | Patent | Active | 65300-0177(LT) | 100% |
| PAT-49808 | Patent | Active | 65300-0179(LT) | 100% |
| PAT-49809 | Patent | Active | 65300-0181(LT) | 100% |
| PAT-49810 | Patent | Pending | 65300-0183(LT) | 100% |
| PAT-49812 | Patent | Pending | 65300-0187(LT) | 100% |
| PAT-49813 | Patent | Pending | 65300-0189(LT) | 100% |
| PAT-49814 | Patent | Pending | 65300-0191(LT) | 100% |
| PAT-49815 | Patent | Pending | 65300-0193(LT) | 100% |
| PAT-49816 | Patent | Pending | 65300-0195(LT) | 100% |
| PAT-49817 | Patent | Pending | 65300-0197(LT) | 100% |
| PAT-49818 | Patent | Pending | 65300-0199(LT) | 100% |
| PAT-49819 | Patent | Pending | 65300-0201(LT) | 100% |
| PAT-49820 | Patent | Pending | 65300-0203(LT) | 100% |
| PAT-49821 | Patent | Pending | 65300-0205(LT) | 100% |
| PAT-49822 | Patent | Pending | 65300-0207(LT) | 100% |
| PAT-49823 | Patent | Pending | 65300-0209(LT) | 100% |
| PAT-49824 | Patent | Pending | 65300-0211(LT) | 100% |
| PAT-49825 | Patent | Pending | 65300-0213(LT) | 100% |
| PAT-49826 | Patent | Pending | 65300-0215(LT) | 100% |
| PAT-49827 | Patent | Pending | 65300-0217(LT) | 100% |
| PAT-49830 | Patent | Pending | 65300-0219(LT) | 100% |
| PAT-49831 | Patent | Pending | 65300-0221(LT) | 100% |
| PAT-49832 | Patent | Active | 65300-0223(LT) | 100% |
| PAT-49833 | Patent | Active | 65300-0225(LT) | 100% |
| PAT-49834 | Patent | Active | 65300-0227(LT) | 100% |
| PAT-49835 | Patent | Active | 65300-0229(LT) | 100% |
| PAT-49836 | Patent | Active | 65300-0231(LT) | 100% |
| PAT-49837 | Patent | Active | 65300-0233(LT) | 100% |
| PAT-49838 | Patent | Pending | 65300-0235(LT) | 100% |
| PAT-49839 | Patent | Active | 65300-0237(LT) | 100% |
| PAT-49840 | Patent | Active | 65300-0239(LT) | 100% |
| PAT-49841 | Patent | Active | 65300-0241(LT) | 100% |
| PAT-49842 | Patent | Active | 65300-0243(LT) | 100% |
| PAT-49843 | Patent | Pending | 65300-0245(LT) | 100% |
| PAT-49844 | Patent | Pending | 65300-0247(LT) | 100% |
| PAT-49845 | Patent | Pending | 65300-0249(LT) | 100% |
| PAT-49846 | Patent | Pending | 65300-0251(LT) | 100% |
| PAT-49847 | Patent | Pending | 65300-0253(LT) | 100% |
| PAT-49848 | Patent | Pending | 65300-0255(LT) | 100% |
| PAT-49849 | Patent | Pending | 65300-0257(LT) | 100% |
| PAT-49850 | Patent | Pending | 65300-0259(LT) | 100% |
| PAT-49851 | Patent | Pending | 65300-0261(LT) | 100% |
| PAT-49852 | Patent | Pending | 65300-0263(LT) | 100% |
| PAT-49853 | Patent | Pending | 65300-0265(LT) | 100% |
| PAT-49854 | Patent | Pending | 65300-0267(LT) | 100% |
| PAT-49855 | Patent | Pending | 65300-0269(LT) | 100% |
| PAT-49856 | Patent | Pending | 65300-0271(LT) | 100% |
| PAT-49857 | Patent | Pending | 65300-0273(LT) | 100% |
| PAT-49858 | Patent | Pending | 65300-0275(LT) | 100% |
| PAT-49859 | Patent | Pending | 65300-0277(LT) | 100% |

TABLE E.4 LEASES AND PATENTS - CNC

| Mining Right Number | Mining Right Type | Status | PIN | CNC Holding |
|---|---|---|---|---|
| PAT-49860 | Patent | Pending | 65300-0279(LT) | 100% |
| PAT-49861 | Patent | Pending | 65300-0281(LT) | 100% |
| PAT-49862 | Patent | Pending | 65300-0283(LT) | 100% |
| PAT-49863 | Patent | Pending | 65300-0285(LT) | 100% |
| PAT-49864 | Patent | Pending | 65300-0287(LT) | 100% |
| PAT-49865 | Patent | Pending | 65300-0289(LT) | 100% |
| PAT-49866 | Patent | Pending | 65300-0291(LT) | 100% |
| PAT-49867 | Patent | Active | 65300-0293(LT) | 100% |
| PAT-49868 | Patent | Active | 65300-0295(LT) | 100% |
| PAT-49869 | Patent | Active | 65300-0297(LT) | 100% |
| PAT-49870 | Patent | Active | 65300-0299(LT) | 100% |
| PAT-49871 | Patent | Pending | 65300-0301(LT) | 100% |
| PAT-49872 | Patent | Pending | 65300-0303(LT) | 100% |
| PAT-49873 | Patent | Pending | 65300-0305(LT) | 100% |
| PAT-49874 | Patent | Pending | 65300-0309(LT) | 100% |
| PAT-49875 | Patent | Active | 65300-0313(LT) | 100% |
| PAT-49876 | Patent | Active | 65321-0138(LT) | 100% |
| PAT-49877 | Patent | Active | 65321-0140(LT) | 100% |
| PAT-49878 | Patent | Active | 65321-0142(LT) | 100% |
| PAT-49879 | Patent | Active | 65321-0144(LT) | 100% |
| PAT-49880 | Patent | Active | 65321-0146(LT) | 100% |
| PAT-49881 | Patent | Active | 65321-0148(LT) | 100% |
| PAT-49882 | Patent | Active | 65321-0150(LT) | 100% |
| PAT-49883 | Patent | Active | 65321-0152(LT) | 100% |
| PAT-49884 | Patent | Active | 65321-0154(LT) | 100% |
| PAT-49885 | Patent | Active | 65321-0156(LT) | 100% |
| PAT-49886 | Patent | Active | 65321-0158(LT) | 100% |
| PAT-49887 | Patent | Active | 65321-0160(LT) | 100% |
| PAT-49888 | Patent | Active | 65321-0162(LT) | 100% |
| PAT-49889 | Patent | Active | 65321-0164(LT) | 100% |
| PAT-49890 | Patent | Active | 65321-0166(LT) | 100% |
| PAT-49891 | Patent | Active | 65321-0168(LT) | 100% |
| PAT-49892 | Patent | Active | 65321-0170(LT) | 100% |
| PAT-49893 | Patent | Active | 65321-0172(LT) | 100% |
| PAT-49894 | Patent | Active | 65321-0174(LT) | 100% |
| PAT-49895 | Patent | Active | 65321-0176(LT) | 100% |
| PAT-49896 | Patent | Active | 65321-0178(LT) | 100% |
| PAT-49897 | Patent | Active | 65321-0180(LT) | 100% |
| PAT-49898 | Patent | Active | 65321-0182(LT) | 100% |
| PAT-49899 | Patent | Active | 65321-0184(LT) | 100% |
| PAT-49900 | Patent | Active | 65321-0186(LT) | 100% |
| PAT-49901 | Patent | Active | 65321-0188(LT) | 100% |
| PAT-49902 | Patent | Active | 65321-0190(LT) | 100% |
| PAT-49903 | Patent | Active | 65321-0192(LT) | 100% |
| PAT-49904 | Patent | Active | 65321-0194(LT) | 100% |
| PAT-49905 | Patent | Active | 65321-0196(LT) | 100% |
| PAT-49906 | Patent | Active | 65321-0198(LT) | 100% |
| PAT-49907 | Patent | Active | 65321-0200(LT) | 100% |
| PAT-49908 | Patent | Active | 65321-0202(LT) | 100% |
| PAT-49909 | Patent | Pending | 65321-0204(LT) | 100% |
| PAT-49910 | Patent | Pending | 65321-0206(LT) | 100% |
| PAT-49911 | Patent | Pending | 65321-0208(LT) | 100% |
| PAT-49912 | Patent | Active | 65321-0210(LT) | 100% |
| PAT-49913 | Patent | Active | 65321-0212(LT) | 100% |
| PAT-49914 | Patent | Pending | 65321-0214(LT) | 100% |
| PAT-49915 | Patent | Active | 65321-0216(LT) | 100% |
| PAT-49916 | Patent | Active | 65321-0218(LT) | 100% |
| PAT-49917 | Patent | Active | 65321-0220(LT) | 100% |

TABLE E.4 LEASES AND PATENTS - CNC

| Mining Right Number | Mining Right Type | Status | PIN | CNC Holding |
|---|---|---|---|---|
| PAT-49918 | Patent | Pending | 65321-0222(LT) | 100% |
| PAT-49919 | Patent | Pending | 65321-0224(LT) | 100% |
| PAT-49920 | Patent | Pending | 65321-0226(LT) | 100% |
| PAT-49921 | Patent | Pending | 65321-0228(LT) | 100% |
| PAT-49922 | Patent | Pending | 65321-0230(LT) | 100% |
| PAT-49923 | Patent | Pending | 65321-0232(LT) | 100% |
| PAT-49924 | Patent | Pending | 65321-0234(LT) | 100% |
| PAT-49925 | Patent | Pending | 65321-0236(LT) | 100% |
| PAT-49926 | Patent | Active | 65321-0238(LT) | 100% |
| PAT-49927 | Patent | Active | 65321-0240(LT) | 100% |
| PAT-49928 | Patent | Active | 65321-0242(LT) | 100% |
| PAT-49929 | Patent | Active | 65296-0388(LT) | 100% |
| PAT-49930 | Patent | Active | 65321-0244(LT) | 100% |
| PAT-49931 | Patent | Pending | 65321-0246(LT) | 100% |
| PAT-49932 | Patent | Pending | 65321-0248(LT) | 100% |
| PAT-49933 | Patent | Active | 65321-0250(LT) | 100% |
| PAT-49934 | Patent | Pending | 65321-0252(LT) | 100% |
| PAT-49935 | Patent | Pending | 65321-0254(LT) | 100% |
| PAT-49938 | Patent | Pending | 65321-0256(LT) | 100% |
| PAT-49939 | Patent | Active | 65321-0258(LT) | 100% |
| PAT-49940 | Patent | Active | 65321-0260(LT) | 100% |
| PAT-49941 | Patent | Active | 65321-0262(LT) | 100% |
| PAT-49942 | Patent | Pending | 65321-0264(lt) | 100% |
| PAT-49944 | Patent | Pending | 65321-0266(LT) | 100% |
| PAT-49945 | Patent | Active | 65321-0268(LT) | 100% |
| PAT-49946 | Patent | Active | 65321-0270(LT) | 100% |
| PAT-49948 | Patent | Pending | 65321-0272(LT) | 100% |
| PAT-49949 | Patent | Pending | 65321-0274(LT) | 100% |
| PAT-49950 | Patent | Active | 65321-0276(LT) | 100% |
| PAT-49951 | Patent | Pending | 65321-0134(LT) | 100% |
| PAT-49952 | Patent | Pending | 65321-0278(LT) | 100% |
| PAT-49953 | Patent | Pending | 65321-0283(LT) | 100% |
| PAT-49954 | Patent | Active | 65321-0285(LT) | 100% |
| PAT-49955 | Patent | Active | 65321-0287(LT) | 100% |
| PAT-49956 | Patent | Pending | 65321-0289(LT) | 100% |
| PAT-49957 | Patent | Pending | 65321-0291(LT) | 100% |
| PAT-49958 | Patent | Active | 65321-0293(LT) | 100% |
| PAT-49959 | Patent | Active | 65321-0295(LT) | 100% |
| PAT-49960 | Patent | Pending | 65321-0297(LT) | 100% |
| PAT-49961 | Patent | Pending | 65321-0299(LT) | 100% |
| PAT-49962 | Patent | Pending | 65321-0301(LT) | 100% |
| PAT-49963 | Patent | Active | 65321-0303(LT) | 100% |
| PAT-49964 | Patent | Active | 65321-0305(LT) | 100% |
| PAT-49965 | Patent | Active | 65321-0307(LT) | 100% |
| PAT-49966 | Patent | Active | 65321-0309(LT) | 100% |
| PAT-49967 | Patent | Pending | 65321-0311(LT) | 100% |
| PAT-49968 | Patent | Active | 65321-0313(LT) | 100% |
| PAT-49969 | Patent | Active | 65321-0315(LT) | 100% |
| PAT-49970 | Patent | Pending | 65321-0317(LT) | 100% |
| PAT-49971 | Patent | Pending | 65321-0319(LT) | 100% |
| PAT-49972 | Patent | Pending | 65321-0321(LT) | 100% |
| PAT-49973 | Patent | Pending | 65321-0323(LT) | 100% |
| PAT-49974 | Patent | Active | 65321-0325(LT) | 100% |
| PAT-49975 | Patent | Active | 65321-0327(LT) | 100% |
| PAT-49976 | Patent | Active | 65321-0329(LT) | 100% |
| PAT-49977 | Patent | Active | 65321-0331(LT) | 100% |
| PAT-49978 | Patent | Active | 65321-0333(LT) | 100% |
| PAT-49979 | Patent | Active | 65321-0335(LT) | 100% |

TABLE E.4 LEASES AND PATENTS - CNC

| Mining Right Number | Mining Right Type | Status | PIN | CNC Holding |
|---|---|---|---|---|
| PAT-49980 | Patent | Pending | 65321-0337(LT) | 100% |
| PAT-49981 | Patent | Pending | 65321-0339(LT) | 100% |
| PAT-49982 | Patent | Pending | 65321-0341(LT) | 100% |
| PAT-49983 | Patent | Pending | 65321-0343(LT) | 100% |
| PAT-49984 | Patent | Pending | 65321-0345(LT) | 100% |
| PAT-49985 | Patent | Pending | 65321-0347(LT) | 100% |
| PAT-49986 | Patent | Active | 65321-0349(LT) | 100% |
| PAT-49987 | Patent | Active | 65321-0351(LT) | 100% |
| PAT-49988 | Patent | Active | 65301-0107(LT) | 100% |
| PAT-49989 | Patent | Active | 65301-0109(LT) | 100% |
| PAT-49990 | Patent | Active | 65301-0111(LT) | 100% |
| PAT-49991 | Patent | Active | 65301-0113(LT) | 100% |
| PAT-49992 | Patent | Active | 65301-0115(LT) | 100% |
| PAT-49993 | Patent | Active | 65301-0117(LT) | 100% |
| PAT-49994 | Patent | Active | 65301-0119(LT) | 100% |
| PAT-49995 | Patent | Active | 65301-0121(LT) | 100% |
| PAT-49996 | Patent | Active | 65297-0149(LT) | 100% |
| PAT-49997 | Patent | Active | 65297-0151(LT) | 100% |
| PAT-49998 | Patent | Active | 65297-0161(LT) | 100% |
| PAT-50000 | Patent | Active | 65297-0165(LT) | 100% |
| PAT-50001 | Patent | Active | 65297-0167(LT) | 100% |
| PAT-50002 | Patent | Pending | 65320-0182(LT) | 100% |
| PAT-50003 | Patent | Pending | 65320-0160(LT) | 100% |
| PAT-50005 | Patent | Active | 65301-0125(LT) | 100% |
| PAT-50006 | Patent | Active | 65301-0127(LT) | 100% |
| PAT-50007 | Patent | Active | 65301-0129(LT) | 100% |
| PAT-50008 | Patent | Active | 65301-0131(LT) | 100% |
| PAT-50009 | Patent | Active | 65301-0133(LT) | 100% |
| PAT-50010 | Patent | Active | 65301-0135(LT) | 100% |
| PAT-50011 | Patent | Active | 65301-0137(LT) | 100% |
| PAT-50012 | Patent | Active | 65301-0139(LT) | 100% |
| PAT-50013 | Patent | Active | 65301-0141(LT) | 100% |
| PAT-50014 | Patent | Active | 65301-0143(LT) | 100% |
| PAT-50015 | Patent | Active | 65301-0145(LT) | 100% |
| PAT-50016 | Patent | Active | 65301-0147(LT) | 100% |
| PAT-50019 | Patent | Active | 65301-0153(LT) | 100% |
| PAT-50020 | Patent | Active | 65301-0155(LT) | 100% |
| PAT-50021 | Patent | Active | 65301-0157(LT) | 100% |
| PAT-50022 | Patent | Active | 65301-0159(LT) | 100% |
| PAT-50023 | Patent | Active | 65301-0161(LT) | 100% |
| PAT-50024 | Patent | Active | 65301-0163(LT) | 100% |
| PAT-50025 | Patent | Active | 65301-0165(LT) | 100% |
| PAT-50026 | Patent | Active | 65301-0167(LT) | 100% |
| PAT-50031 | Patent | Active | 65301-0177(LT) | 100% |
| PAT-50032 | Patent | Active | 65301-0179(LT) | 100% |
| PAT-50033 | Patent | Active | 65301-0181(LT) | 100% |
| PAT-50043 | Patent | Active | 65301-0201(LT) | 100% |
| PAT-50044 | Patent | Active | 65301-0203(LT) | 100% |
| PAT-50045 | Patent | Active | 65301-0205(LT) | 100% |
| PAT-50046 | Patent | Active | 65301-0207(LT) | 100% |
| PAT-50057 | Patent | Active | 65301-0227(LT) | 100% |
| PAT-50058 | Patent | Active | 65301-0229(LT) | 100% |
| PAT-50059 | Patent | Active | 65301-0231(LT) | 100% |
| PAT-50060 | Patent | Active | 65301-0233(LT) | 100% |
| PAT-50073 | Patent | Active | 65301-0261(LT) | 100% |
| PAT-50074 | Patent | Active | 65301-0259(LT) | 100% |
| PAT-50075 | Patent | Active | 65301-0263(LT) | 100% |
| PAT-50076 | Patent | Active | 65301-0265(LT) | 100% |

TABLE E.4 LEASES AND PATENTS - CNC

| Mining Right Number | Mining Right Type | Status | PIN | CNC Holding |
|---|---|---|---|---|
| PAT-50087 | Patent | Active | 65301-0291(LT) | 100% |
| PAT-50089 | Patent | Active | 65301-0295(LT) | 100% |
| PAT-50101 | Patent | Active | 65301-0123(LT) | 100% |
| PAT-599335 | Patent | Active | 65321-0280(LT) | 100% |

TABLE E.5 CLAIMS - 230 KV TRANSMISSION LINE

| Claim Number | Type | CNC Holding |
|---|---|---|
| 337844 | Boundary Cell Mining Claim | 0% |
| 587401 | Single Cell Mining Claim | 0% |
| 587402 | Single Cell Mining Claim | 0% |
| 596969 | Multi-cell Mining Claim | 0% |
| 105596 | Single Cell Mining Claim | 0% |
| 106203 | Single Cell Mining Claim | 0% |
| 111225 | Single Cell Mining Claim | 0% |
| 586359 | Single Cell Mining Claim | 0% |
| 110678 | Single Cell Mining Claim | 0% |
| 114669 | Single Cell Mining Claim | 0% |
| 124908 | Single Cell Mining Claim | 0% |
| 129443 | Single Cell Mining Claim | 0% |
| 131512 | Single Cell Mining Claim | 0% |
| 131513 | Single Cell Mining Claim | 0% |
| 586360 | Single Cell Mining Claim | 0% |
| 742365 | Single Cell Mining Claim | 0% |
| 134875 | Single Cell Mining Claim | 0% |
| 137981 | Single Cell Mining Claim | 0% |
| 137982 | Single Cell Mining Claim | 0% |
| 596964 | Multi-cell Mining Claim | 0% |
| 145770 | Single Cell Mining Claim | 0% |
| 151930 | Single Cell Mining Claim | 0% |
| 155849 | Single Cell Mining Claim | 0% |
| 158685 | Single Cell Mining Claim | 0% |
| 159280 | Single Cell Mining Claim | 0% |
| 158028 | Single Cell Mining Claim | 0% |
| 180085 | Single Cell Mining Claim | 0% |
| 181653 | Single Cell Mining Claim | 0% |
| 180955 | Single Cell Mining Claim | 0% |
| 186854 | Single Cell Mining Claim | 0% |
| 186855 | Single Cell Mining Claim | 0% |
| 186856 | Single Cell Mining Claim | 0% |
| 187014 | Single Cell Mining Claim | 0% |
| 187015 | Single Cell Mining Claim | 0% |
| 586362 | Single Cell Mining Claim | 0% |
| 586363 | Single Cell Mining Claim | 0% |
| 586366 | Single Cell Mining Claim | 0% |
| 586367 | Single Cell Mining Claim | 0% |
| 192435 | Single Cell Mining Claim | 0% |
| 203922 | Single Cell Mining Claim | 0% |
| 203923 | Single Cell Mining Claim | 0% |
| 203924 | Single Cell Mining Claim | 0% |
| 214592 | Single Cell Mining Claim | 0% |
| 226921 | Single Cell Mining Claim | 0% |
| 234662 | Single Cell Mining Claim | 0% |
| 237067 | Single Cell Mining Claim | 0% |
| 239235 | Single Cell Mining Claim | 0% |
| 580596 | Single Cell Mining Claim | 0% |
| 580597 | Single Cell Mining Claim | 0% |
| 244006 | Boundary Cell Mining Claim | 0% |
| 586368 | Single Cell Mining Claim | 0% |
| 254157 | Single Cell Mining Claim | 0% |
| 254158 | Single Cell Mining Claim | 0% |
| 259430 | Single Cell Mining Claim | 0% |
| 258704 | Single Cell Mining Claim | 0% |
| 259431 | Single Cell Mining Claim | 0% |
| 612204 | Single Cell Mining Claim | 0% |
| 612205 | Single Cell Mining Claim | 0% |

TABLE E.5 CLAIMS - 230 KV TRANSMISSION LINE

| Claim Number | Type | CNC Holding |
|---|---|---|
| 612206 | Single Cell Mining Claim | 0% |
| 612207 | Single Cell Mining Claim | 0% |
| 262050 | Single Cell Mining Claim | 0% |
| 262051 | Single Cell Mining Claim | 0% |
| 268063 | Single Cell Mining Claim | 0% |
| 580599 | Single Cell Mining Claim | 0% |
| 580600 | Single Cell Mining Claim | 0% |
| 270522 | Single Cell Mining Claim | 0% |
| 587478 | Single Cell Mining Claim | 0% |
| 279368 | Boundary Cell Mining Claim | 0% |
| 282667 | Single Cell Mining Claim | 0% |
| 587477 | Single Cell Mining Claim | 0% |
| 288748 | Single Cell Mining Claim | 0% |
| 287144 | Single Cell Mining Claim | 0% |
| 291582 | Single Cell Mining Claim | 0% |
| 300459 | Boundary Cell Mining Claim | 0% |
| 302771 | Single Cell Mining Claim | 0% |
| 302772 | Single Cell Mining Claim | 0% |
| 301829 | Single Cell Mining Claim | 0% |
| 320056 | Single Cell Mining Claim | 0% |
| 319161 | Single Cell Mining Claim | 0% |
| 332453 | Single Cell Mining Claim | 0% |
| 617538 | Single Cell Mining Claim | 0% |
| 617539 | Single Cell Mining Claim | 0% |
| 617540 | Single Cell Mining Claim | 0% |
| 617541 | Single Cell Mining Claim | 0% |
| 330471 | Single Cell Mining Claim | 0% |
| 329955 | Single Cell Mining Claim | 0% |
| 611993 | Single Cell Mining Claim | 0% |
| 331686 | Single Cell Mining Claim | 0% |
| 620614 | Single Cell Mining Claim | 0% |
| 630993 | Single Cell Mining Claim | 0% |
| 630996 | Single Cell Mining Claim | 0% |
| 521621 | Single Cell Mining Claim | 0% |
| 521622 | Single Cell Mining Claim | 0% |
| 521623 | Single Cell Mining Claim | 0% |
| 630976 | Single Cell Mining Claim | 0% |
| 630977 | Single Cell Mining Claim | 0% |
| 630978 | Single Cell Mining Claim | 0% |
| 643615 | Single Cell Mining Claim | 0% |
| 643616 | Single Cell Mining Claim | 0% |
| 643617 | Single Cell Mining Claim | 0% |
| 644102 | Single Cell Mining Claim | 0% |
| 644428 | Single Cell Mining Claim | 0% |
| 644429 | Single Cell Mining Claim | 0% |
| 645006 | Single Cell Mining Claim | 0% |
| 740743 | Single Cell Mining Claim | 0% |

TABLE E.6 - MINING PATENTS 230 KV TRANSMISSION LINE

| Lot and Concession | Township | PIN | Patent | Mining Right Type |
|---|---|---|---|---|
| LOT 5, CON 2 | TISDALE | 65398-176(LT) | PAT-2607 | Mining and Surface Rights |
| LOT 7, CON 2 | TISDALE | 65409-0002(LT) | PAT-2453 | Mining and Surface Rights |
| LOT 5, CON 1 | TISDALE | 65398-159(LT) | PAT-2549 | Mining and Surface Rights |
| LOT 5, CON 1 | TISDALE | - | PAT-2588 | Mining and Surface Rights |
| LOT 4, CON 2 | TISDALE | 65398-183(LT) | PAT-2601 | Mining and Surface Rights |
| LOT 5, CON 2 | TISDALE | 65398-182(LT) | PAT-2605 | Mining and Surface Rights |
| LOT 5, CON 2 | TISDALE | 65398-181(LT) | PAT-2606 | Mining and Surface Rights |
| LOT 5, CON 2 | TISDALE | 65398-178(LT) | PAT-2608 | Mining and Surface Rights |
| LOT 5, CON 2 | TISDALE | 65398-179(LT) | PAT-2608 | Mining and Surface Rights |
| LOT 6, CON 2 | TISDALE | 65398-102(LT) | PAT-5223 | Mining and Surface Rights |
| LOT 6, CON 2 | TISDALE | - | PAT-2443 | Mining and Surface Rights |
| LOT 6, CON 2 | TISDALE | - | PAT-2442 | Mining and Surface Rights |
| LOT 5, CON 3 | TISDALE | 65398-224(LT) | PAT-27507 | Mining and Surface Rights |
| LOT 6, CON 6 | TISDALE | 65399-16(LT) | PAT-5361 | Mining and Surface Rights |
| LOT 5, CON 2 | TISDALE | 65398-181(LT) | PAT-2606 | Mining and Surface Rights |
| LOT 6, CON 4 | TISDALE | - | PAT-2795 | Mining and Surface Rights |
| LOT 4, CON 3 | TISDALE | 65398-231(LT) | PAT-27503 | Mining and Surface Rights |
| LOT 4, CON 4 | TISDALE | - | PAT-27496 | Mining and Surface Rights |
| LOT 7, CON 5 | TISDALE | 65400-227(LT) | PAT-2929 | Mining and Surface Rights |
| LOT 5, CON 3 | TISDALE | 65398-212(LT) | PAT-27506 | Mining and Surface Rights |
| LOT 5, CON 3 | TISDALE | 65398-0(LT) | PAT-27505 | Mining and Surface Rights |
| LOT 5, CON 2 | TISDALE | 65398-182(LT) | PAT-2605 | Mining and Surface Rights |
| LOT 6, CON 3 | TISDALE | 65398-218(LT) | PAT-27345 | Mining and Surface Rights |
| LOT 1, CON 2 | KIDD | 65351-0(LT) | PAT-45488 | Mining and Surface Rights |
| LOT 5, CON 3 | TISDALE | 65398-0(LT) | PAT-27509 | Mining and Surface Rights |
| LOT 6, CON 4 | TISDALE | - | PAT-4968 | Mining and Surface Rights |
| LOT 6, CON 5 | TISDALE | - | PAT-2802 | Mining and Surface Rights |
| LOT 5, CON 3 | TISDALE | 65398-222(LT) | PAT-2625 | Mining and Surface Rights |
| LOT 4, CON 3 | TISDALE | - | PAT-27349 | Mining and Surface Rights |
| LOT 8, CON 6 | TISDALE | 65400-218(LT) | PAT-2812 | Mining and Surface Rights |
| LOT 5, CON 4 | TISDALE | - | PAT-27498 | Mining and Surface Rights |
| LOT 5, CON 3 | TISDALE | 65398-206(LT) | PAT-27508 | Mining and Surface Rights |
| LOT 5, CON 4 | TISDALE | - | PAT-27499 | Mining and Surface Rights |
| LOT 5, CON 3 | TISDALE | 65398-226(LT) | PAT-2624 | Mining and Surface Rights |
| LOT 6, CON 4 | TISDALE | - | PAT-4967 | Mining and Surface Rights |
| LOT 6, CON 6 | TISDALE | 65399-154(LT) | PAT-5409 | Mining and Surface Rights |
| LOT 6, CON 3 | TISDALE | 65398-216(LT) | PAT-27344 | Mining and Surface Rights |
| LOT 5, CON 3 | TISDALE | 65398-207(LT) | PAT-27504 | Mining and Surface Rights |
| LOT 6, CON 5 | TISDALE | - | PAT-2800 | Mining and Surface Rights |
| LOT 6, CON 3 | TISDALE | 65398-220(LT) | PAT-2448 | Mining and Surface Rights |
| LOT 2, CON 4 | KIDD | - | PAT-5544 | Mining and Surface Rights |
| LOT 12, CON 4 | WARK | - | LEA-109503 | Mining and Surface Rights |
| LOT 2, CON 5 | KIDD | - | PAT-4425 | Mining and Surface Rights |
| LOT 2, CON 5 | KIDD | - | PAT-4426 | Mining and Surface Rights |
| LOT 1, CON 5 | KIDD | - | PAT-4427 | Mining and Surface Rights |
| LOT 1, CON 4 | KIDD | - | PAT-4429 | Mining and Surface Rights |
| LOT 1, CON 2 | KIDD | - | PAT-45488 | Mining and Surface Rights |
| LOT 1, CON 4 | KIDD | - | PAT-46606 | Mining and Surface Rights |
| LOT 2, CON 4 | KIDD | 65351-71(LT) | PAT-46607 | Mining and Surface Rights |
| LOT 12, CON 4 | WARK | - | PAT-4716 | Mining and Surface Rights |
| LOT 12, CON 5 | WARK | - | PAT-4717 | Mining and Surface Rights |
| LOT 6, CON 2 | TISDALE | - | PAT-2443 | Mining and Surface Rights |
| LOT 6, CON 2 | TISDALE | - | PAT-2442 | Mining and Surface Rights |
| LOT 7, CON 2 | TISDALE | 65409-98(LT) | PAT-4981 | Mining Rights only |
| LOT 7, CON 2 | TISDALE | 65409-98(LT) | PAT-4982 | Mining Rights only |
| LOT 7, CON 2 | TISDALE | 65409-98(LT) | PAT-4983 | Mining Rights only |
| LOT 4, CON 2 | TISDALE | 65398-183(LT) | PAT-2604 | Mining Rights only |
| LOT 7, CON 5 | TISDALE | 65400-339(LT) | LEA-109386 | Mining Rights only |

TABLE E.6 - MINING PATENTS 230 KV TRANSMISSION LINE

| Lot and Concession | Township | PIN | Patent | Mining Right Type |
|---|---|---|---|---|
| LOT 6, CON 5 | TISDALE | - | PAT-2801 | Mining Rights only |
| LOT 1, CON 2 | KIDD | 65351-151(LT) | PAT-4395 | Mining Rights only |
| LOT 6, CON 1 | MURPHY | - | LEA-109614 | Mining Rights only |
| LOT 11, CON 2 | WARK | 65350-146(LT) | PAT-4714 | Mining Rights only |
| LOT 6, CON 5 | TISDALE | 65399-136(LT) | PAT-2799 | Mining Rights only |
| LOT 8, CON 1 | MURPHY | 65359-154(LT) | PAT-4757 | Mining Rights only |
| LOT 7, CON 5 | TISDALE | 65400-0(LT) | PAT-4969 | Mining Rights only |
| LOT 6, CON 5 | TISDALE | 65399-168(LT) | LEA-109386 | Mining Rights only |
| LOT 4, CON 3 | TISDALE | - | PAT-27493 | Mining Rights only |
| LOT 8, CON 6 | TISDALE | 65400-53(LT) | PAT-2813 | Mining Rights only |
| LOT 5, CON 4 | TISDALE | 65399-123(LT) | PAT-2794 | Mining Rights only |
| LOT 5, CON 5 | TISDALE | - | LEA-109386 | Mining Rights only |
| LOT 6, CON 3 | TISDALE | - | PAT-2477 | Mining Rights only |
| LOT 7, CON 5 | TISDALE | 65400-228(LT) | PAT-3928 | Mining Rights only |
| LOT 11, CON 5 | MURPHY | 65359-130(LT) | PAT-5471 | Mining Rights only |
| LOT 8, CON 6 | TISDALE | 65400-226(LT) | LEA-109421 | Mining Rights only |
| LOT 6, CON 5 | TISDALE | - | LEA-109386 | Mining Rights only |
| LOT 7, CON 5 | TISDALE | - | LEA-109386 | Mining Rights only |
| LOT 9, CON 6 | MURPHY | 65359-173(LT) | PAT-3053 | Mining Rights only |
| LOT 7, CON 1 | MURPHY | 65359-123(LT) | PAT-54208 | Mining Rights only |
| LOT 6, CON 3 | TISDALE | 65398-214(LT) | PAT-2449 | Mining Rights only |
| LOT 5, CON 6 | TISDALE | 65399-140(LT) | PAT-3968 | Mining Rights only |
| LOT 5, CON 6 | TISDALE | 65399-140(LT) | PAT-3967 | Mining Rights only |
| LOT 5, CON 4 | TISDALE | 65399-122(LT) | PAT-27493 | Mining Rights only |
| LOT 5, CON 4 | TISDALE | 65399-149(LT) | PAT-27497 | Mining Rights only |
| LOT 1, CON 5 | KIDD | 65351-44(LT) | LEA-108288 | Mining and Surface Rights |
| LOT 6, CON 2 | TISDALE | 65398-76(LT) | PAT-2610 | Mining Rights only |
| LOT 7, CON 2 | TISDALE | 65409-1(LT) | PAT-2453 | Mining and Surface Rights |
| LOT 5, CON 1 | TISDALE | 65398-159(LT) | PAT-2549 | Mining and Surface Rights |
| LOT 5, CON 1 | TISDALE | 65398-162(LT) | PAT-2588 | Mining and Surface Rights |
| LOT 5, CON 2 | TISDALE | 65398-176(LT) | PAT-2607 | Mining and Surface Rights |
| LOT 6, CON 2 | TISDALE | 65398-76(LT) | PAT-2610 | Mining and Surface Rights |
| LOT 4, CON 2 | TISDALE | 65398-183(LT) | PAT-2601 | Mining and Surface Rights |
| LOT 5, CON 2 | TISDALE | - | PAT-2606 | Mining and Surface Rights |
| LOT 5, CON 2 | TISDALE | 65398-182(LT) | PAT-2605 | Mining and Surface Rights |
| LOT 4, CON 2 | TISDALE | 65398-183(LT) | PAT-2604 | Mining Rights only |
| LOT 5, CON 2 | TISDALE | 65398-178(LT) | PAT-2608 | Mining and Surface Rights |
| LOT 5, CON 2 | TISDALE | - | PAT-2608 | Mining and Surface Rights |
| LOT 6, CON 2 | TISDALE | 65398-179(LT) | PAT-5223 | Mining and Surface Rights |

Note: CNC does not currently own the claims shown in the table

TABLE E.7 - NON-MINING PATENTS 230 KV TRANSMISSION LINE

| Lot and Concession | Township | Identification |
|---|---|---|
| LOT 8, CON 1 | MURPHY | 240562036 |
| LOT 10, CON 3 | MURPHY | 240564944 |
| LOT 12, CON 1 | WARK | 240565619 |
| LOT 12, CON 6 | MURPHY | 240566084 |
| LOT 9, CON 2 | MURPHY | 240566700 |
| LOT 11, CON 1 | WARK | 240578756 |
| LOT 11, CON 6 | MURPHY | 240586943 |
| LOT 11, CON 2 | WARK | 240593863 |
| LOT 7, CON 2 | MURPHY | 240600620 |
| LOT 10, CON 1 | WARK | 240604142 |
| LOT 10, CON 5 | MURPHY | 240612102 |
| LOT 9, CON 2 | MURPHY | 240618523 |
| LOT 9, CON 3 | MURPHY | 240619668 |
| LOT 9, CON 4 | MURPHY | 240631646 |
| LOT 11, CON 6 | MURPHY | 240637040 |
| LOT 7, CON 4 | TISDALE | 240641452 |
| LOT 11, CON 1 | WARK | 240648232 |
| LOT 10, CON 6 | MURPHY | 240648240 |
| LOT 10, CON 6 | MURPHY | 240650173 |
| LOT 10, CON 6 | MURPHY | 240659448 |
| LOT 8, CON 4 | MURPHY | 240710587 |
| LOT 8, CON 3 | MURPHY | 240717198 |
| LOT 9, CON 5 | MURPHY | 240721775 |
| LOT 12, CON 3 | WARK | 240564484 |
| LOT 1, CON 3 | KIDD | 240566040 |
| LOT 11, CON 2 | WARK | 240593863 |
| LOT 1, CON 3 | KIDD | 240640892 |
| LOT 12, CON 5 | WARK | 240657726 |
| LOT 11, CON 3 | WARK | 240668290 |
| LOT 12, CON 3 | WARK | 240673219 |
| LOT 2, CON 4 | KIDD | 240696214 |
| LOT 12, CON 3 | WARK | 240564484 |
| LOT 1, CON 3 | KIDD | 240566040 |
| LOT 11, CON 2 | WARK | 240593863 |
| LOT 1, CON 3 | KIDD | 240640892 |
| LOT 12, CON 5 | WARK | 240657726 |
| LOT 11, CON 3 | WARK | 240668290 |
| LOT 12, CON 3 | WARK | 240673219 |
| LOT 2, CON 4 | KIDD | 240696214 |
| LOT 6, CON 2 | TISDALE | 240621726 |
| LOT 7, CON 2 | TISDALE | 240675153 |
| LOT 5, CON 5 | TISDALE | 240562293 |
| LOT 11, CON 1 | WARK | 240564483 |
| LOT 7, CON 6 | TISDALE | 240586720 |
| LOT 12, CON 1 | WARK | 240589884 |
| LOT 7, CON 6 | TISDALE | 240595264 |
| LOT 7, CON 6 | TISDALE | 240605020 |
| LOT 7, CON 6 | TISDALE | 240607481 |
| LOT 6, CON 4 | TISDALE | 240609295 |
| LOT 5, CON 5 | TISDALE | 240625060 |
| LOT 5, CON 5 | TISDALE | 240692624 |
| LOT 5, CON 5 | TISDALE | 240668670 |
| LOT 7, CON 1 | MURPHY | 240627867 |
| LOT 7, CON 6 | TISDALE | 240639163 |
| LOT 9, CON 4 | MURPHY | 240648820 |
| LOT 10, CON 1 | WARK | 240648988 |
| LOT 9, CON 5 | MURPHY | 240663509 |
| LOT 5, CON 5 | TISDALE | 240670129 |

TABLE E.7 - NON-MINING PATENTS 230 KV TRANSMISSION LINE

| Lot and Concession | Township | Identification |
|---|---|---|
| LOT 7, CON 6 | TISDALE | 240678515 |
| LOT 5, CON 4 | TISDALE | 240682082 |
| LOT 10, CON 4 | MURPHY | 240689955 |
| LOT 12, CON 2 | KIDD | 240691207 |
| LOT 6, CON 6 | TISDALE | 240695741 |
| LOT 5, CON 5 | TISDALE | 240696573 |
| LOT 8, CON 1 | MURPHY | 240698967 |
| LOT 7, CON 6 | TISDALE | 240713264 |
| LOT 8, CON 2 | MURPHY | 240718124 |
| LOT 7, CON 6 | TISDALE | 240719083 |
| LOT 7, CON 2 | MURPHY | 240726142 |
| LOT 6, CON 4 | TISDALE | 240727566 |
| LOT 8, CON 3 | MURPHY | 240798258 |
| LOT 11, CON 3 | WARK | 240641391 |
| LOT 11, CON 3 | WARK | 240641391 |
| LOT 6, CON 2 | TISDALE | 240621302 |
| LOT 6, CON 2 | TISDALE | 240669767 |
| LOT 7, CON 2 | TISDALE | 240675153 |
| LOT 6, CON 2 | TISDALE | 240621302 |
| LOT 6, CON 2 | TISDALE | 240669767 |
| LOT 6, CON 2 | TISDALE | 240621726 |
| Note: CNC does not currently own the non mining patents shown in the table | | |