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5.0 TRADITIONAL KNOWLEDGE

5.1 Introduction

The Terms of Reference (TOR) for the NICO Cobalt-Gold-Bismuth-Copper Project (NICO Project) issued on 30 November 2009, state that the Mackenzie Valley Review Board (MVRB) values and considers both Traditional Knowledge (TK) and scientific knowledge in its deliberations (MVRB 2009). Fortune Minerals Limited (Fortune) will make all reasonable efforts to assist in the collection and consideration of TK relevant to the NICO Project. Where it is applicable, Fortune will make all reasonable efforts to incorporate TK from aboriginal culture holders to evaluate the specific impacts required in the TOR (MVRB 2009).

Fortune is proposing to develop the NICO Project, which is located in an area that is designated separate from Tłı̨ch̨q lands, but is surrounded by Tłı̨ch̨q lands, Northwest Territories (NWT). As part of the Developer's Assessment Report (DAR), Fortune completed studies was to gather Traditional Land Use (TLU) and TK information to be shared with relevant technical disciplines to provide information for inclusion in their respective sections of the DAR, and to help determine the potential effects of the NICO Project on TLU. After meeting with the local Tłı̨ch̨q governments, and receiving a NWT Research Licence, Fortune initiated studies with approval from the community Chiefs. Fortune also provided financial support for the North Slave Métis Alliance (NSMA) to undertake TLU and TK studies for the Métis of the the North Slave Region (Métis) for the NICO Project.

This section focuses on a summary of the historical and recent TLU and TK of the Tłı̨ch̨q and Métis. Fortune provided financial support to the NSMA to undertake their own studies for the NICO Project. At the time of this report, study results were not available. Tłı̨ch̨q TLU and TK information were collected during interviews in the communities of Gamètì and Whatì, and were also collected during a literature review of available information. The TLU and TK information pertaining to the Métis was collected solely from a literature review of available information. In addition to presenting TLU and TK information pertaining to the Tłı̨ch̨q and the Métis within the TLU and TK sections of the DAR, TLU and TK information has also been incorporated into other sections of the DAR including the following:

- SON Fish and Fish Habitat (Section 12);
- SON Vegetation (Section 14);
- SON Wildlife (Section 15); and
- SON Human Environment (Section 16).

5.1.1 Purpose and Scope

The purpose of the studies was to gather TLU and TK information to be shared with relevant technical disciplines to provide information for inclusion in their respective sections of the DAR, and to help determine the potential effects of the NICO Project on TLU, and to meet the TOR issued by the MVRB (2009). This section of the DAR provides a summary of information that is presented in the TLU Baseline (Annex B). The scope of the study extended to interviews involving Tłı̨ch̨q participants from Gamètì and Whatì and a review of available literature pertaining to traditional activities of the Tłı̨ch̨q and the Métis within Tłı̨ch̨q lands. In addition, this section of the DAR describes how TLU and TK was integrated into the NICO Project design, the impact assessment, mitigation and monitoring, closure and reclamation, and plans for future cooperation.

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The TOR for TK are shown in Table 5.1-1. The entire TOR document is included in Appendix 1.I and the complete table of concordance for the DAR is in Appendix 1.II of Section 1.

Table 5.1-1: Traditional Knowledge Concordance with the Terms of Reference

Section in Terms of Reference	Requirement	Section in Developer's Assessment Report
3.1.2	Incorporation of Traditional Knowledge The Review Board values and considers both traditional knowledge and scientific knowledge in its deliberations. Fortune will make all reasonable efforts to assist in the collection and consideration of traditional knowledge relevant to the NICO Project. Where it is applicable, Fortune will make all reasonable efforts to incorporate traditional knowledge from aboriginal culture holders as a tool to collect information on and evaluate the specific impacts required in this Terms of Reference. The developer should refer to the Review Board's Guidelines for Incorporating Traditional Knowledge into the Environmental Impact Assessment Process and community/culture group-specific traditional knowledge protocols.	5.0
3.2.6	Public Engagement Engagement with communities, Aboriginal groups, the Tłı̨chǫ Government, other governments, or other organizations with interests related to areas that might be affected by the NICO Project should be considered in this section. Aboriginal groups, government agencies and other interested parties may have information useful to the conduct of this impact assessment and all reasonable efforts should be made to engage with them. The Review Board encourages the developer to meet with interested groups outside the environmental assessment process, and to place any information from those discussions they consider may be relevant to the Review Board's decision on the public record. The following items are required for consideration of public engagement:	4.0
	<ul style="list-style-type: none"> How Fortune has engaged, or intends to engage, traditional knowledge holders in order to collect relevant information for establishing baseline conditions and the effects assessment of potential impacts, as well as a summary table indicating where and how in which of the subsequent sections (3.3-3.6) traditional knowledge was incorporated (see Review Board's Guidelines for Incorporating Traditional Knowledge in Environmental Impact Assessment). 	5.4
3.4	Impacts on the human environment The developer will:	
	<ul style="list-style-type: none"> Describe potential cultural impacts, including potential impacts on physical heritage resources, traditional land use (including hunting, fishing, gathering, use of the traditional Idaa Trail and any impacts on activities at Hislop Lake). 	5.4.2
Appendix A	Existing Environment	
	Human Environment Describe the following:	
	<ul style="list-style-type: none"> A summary of historic and present land use in the study area, including identification of traditional land use groups, areas used and traditional travel routes and timings. 	5.3.6, Annex B
	<ul style="list-style-type: none"> Traditional harvesting activities, relevant species (wildlife, fish and plants), observed trends and any traditional values expressed about harvested species. 	5.3.3, 5.3.4, Annex B

5.1.2 Study Areas

5.1.2.1 General Setting

The NICO Project is located in the Wek'èezhii Settlement Area of the NWT, and is surrounded by, but not on, Tłı̨chǫ lands (Figure 5.1-1). The Fortune mine claims are located on land that has been excluded from Tłı̨chǫ

lands. The Tłıchq lands were described as part of the Tłıchq Land Claims and Self Government Agreement (the Agreement), negotiated by the Dogrib Treaty 11 Council, the Government of the Northwest Territories (GNWT), and the Government of Canada; the agreement was effective on 4 August 2005 (GNWT 2011). Tłıchq lands cover approximately 39 000 square kilometres (km²), including the subsurface resources (INAC 2005, internet site).

There are 4 primary communities within the Tłıchq lands, including Behchokò, Whatì, Gamètì, and Wekweètì. The NICO Project is located approximately 80 kilometres (km) north of Behchokò, 50 km northeast of Whatì, and 70 km south of Gamètì. The fourth community, Wekweètì, is located the farthest from the NICO Project, approximately 145 km to the northeast. The NICO Project is within the traditional land use areas of the Tłıchq and the Métis.

The Dogrib (Tłıchq) Elders have described their traditional territory as the area extending north to south between Great Bear Lake and Great Slave Lake, and extending west to east from the Mackenzie River to Contwoyto Lake, Aylmer Lake, and Artillery Lake in the barren lands (Helm 1981). The Dogrib elder Mqwhì described a boundary known as the Mqwhì Gogha Dè Nııłt'èè (Môwhì Boundary) in connection with the 1921 Treaty 11 (Dogrib Treaty 11 Council 2002) (Figure 5.1-1). As reported in Helm (1981), there are 6 regional bands recognized by the Dogrib since at least 1900. Five of the 6 regional band central locations from the period of 1850 to 1970 (Figure 5.1-2) are identified in areas that are within or overlapping the TK and TLU regional study area (RSA) boundary, as described below (Figure 5.1-1). Outside the RSA, the satı hołı (Bear Lake Dogrib) are described to have been located in an area west of the RSA along the southern portion of Great Bear Lake. In addition, a former Dogrib camp and hamlet area has been described east of the RSA (Helm 1981).

5.1.2.2 Regional Study Area

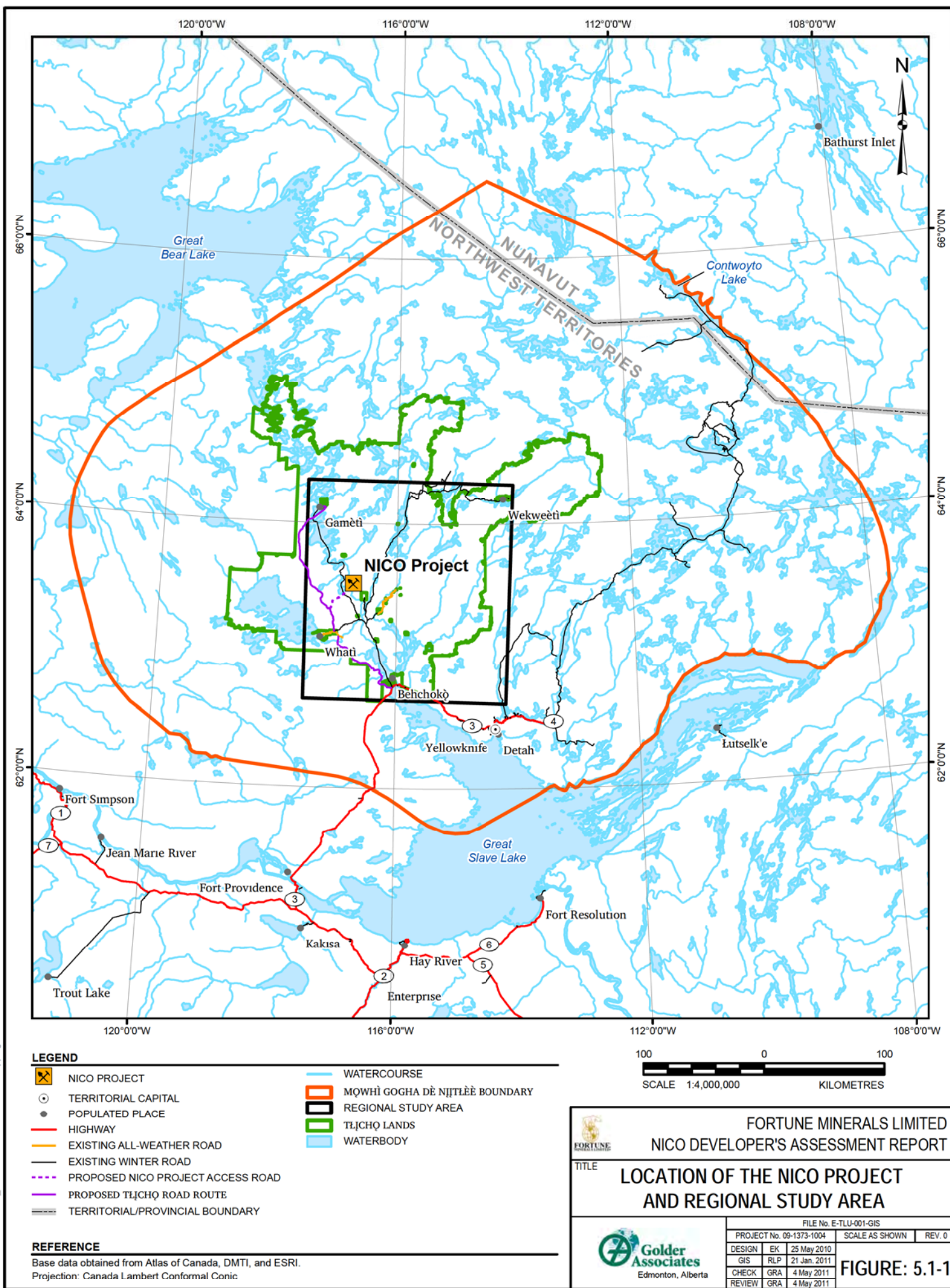
The RSA for the TLU and TK studies (Figure 5.1-1) was developed to include the following:

- local study area (LSA);
- proposed NICO Project Access Road (NPAR);
- communities of Behchokò, Whatì, Gamètì, and Wekweètì;
- Hislop Lake and a portion of the Įdaà Trail that may be potentially affected by the NICO Project; and
- waterbodies that may be affected by the NICO Project.

The RSA was selected to include the LSA, and TLU areas beyond the LSA that have the potential to be affected by the NICO Project. The RSA was also selected to provide required information to address the Appendix K4b of the TOR, and to provide adequate TLU information to other disciplines (e.g., vegetation) for consideration into their assessments.

5.1.2.3 Local Study Area

The LSA for the TLU and TK studies (Figure 5.1-3) includes a 500 metre (m) buffer around the NICO Project Lease Boundary. The LSA for the TLU and TK studies was developed to discuss traditional activities and sites that overlap the NICO Project as well as the area immediately surrounding the NICO Project.



LEGEND

- | | | | |
|--|-----------------------------------|--|--------------------------------|
| | NICO PROJECT | | WATERCOURSE |
| | TERRITORIAL CAPITAL | | MOWH GOGHA DE NIITLÈE BOUNDARY |
| | POPULATED PLACE | | REGIONAL STUDY AREA |
| | HIGHWAY | | Tłı̨CHǪ LANDS |
| | EXISTING ALL-WEATHER ROAD | | WATERBODY |
| | EXISTING WINTER ROAD | | |
| | PROPOSED NICO PROJECT ACCESS ROAD | | |
| | PROPOSED Tłı̨CHǪ ROAD ROUTE | | |
| | TERRITORIAL/PROVINCIAL BOUNDARY | | |

REFERENCE

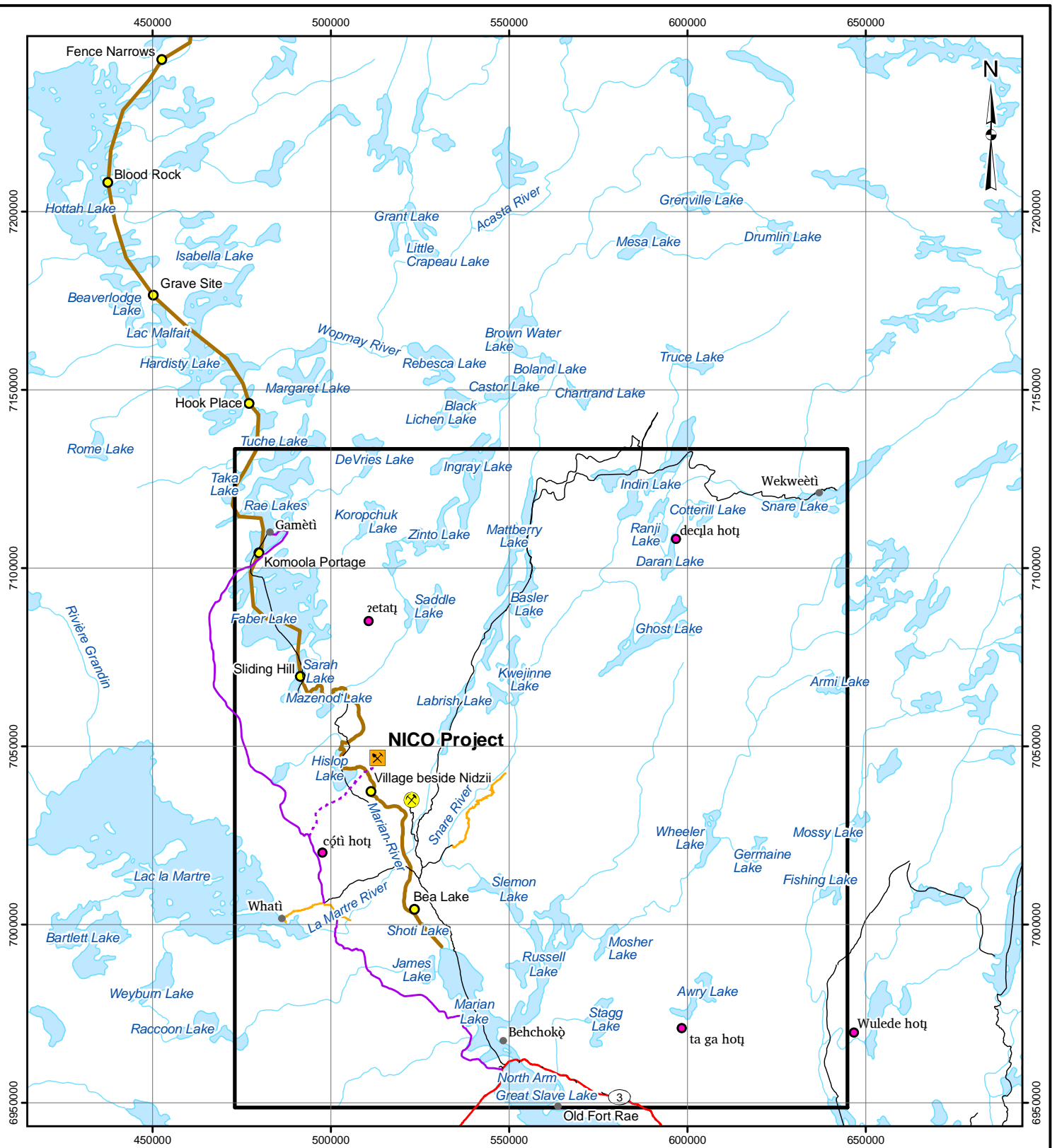
Base data obtained from Atlas of Canada, DMTI, and ESRI.
Projection: Canada Lambert Conformal Conic

100 0 100
SCALE 1:4,000,000 KILOMETRES

		FORTUNE MINERALS LIMITED	
		NICO DEVELOPER'S ASSESSMENT REPORT	
TITLE		LOCATION OF THE NICO PROJECT AND REGIONAL STUDY AREA	
		FILE No. E-TLU-001-GIS	
		PROJECT No. 09-1373-1004	SCALE AS SHOWN
		DESIGN EK 25 May 2010	REV. 0
		GIS RLP 21 Jan 2011	
		CHECK GRA 4 May 2011	
		REVIEW GRA 4 May 2011	

FIGURE 5.1-1

\\CLIENTS\FORTUNE_MINERALS\08-1373-0017\Mapping\MXD\Trail Land Use\E-TLU-015-GIS.mxd



LEGEND

- | | |
|-----------------------------------|---|
| NICO PROJECT | DECOMMISSIONED MINE |
| POPULATED PLACE | IDAĀ TRAIL POINT OF INTEREST |
| HIGHWAY | APPROXIMATE CENTER OF EXPLORATION OR TRAVEL OF REGIONAL BANDS (1850-1970) |
| EXISTING ALL-WEATHER ROAD | IDAĀ TRAIL |
| EXISTING WINTER ROAD | REGIONAL STUDY AREA |
| PROPOSED TŁİCHŦO ROAD ROUTE | |
| PROPOSED NICO PROJECT ACCESS ROAD | |
| WATERCOURSE | |
| WATERBODY | |

REFERENCE

Base data obtained from Atlas of Canada, DMTI, and GeoGratis. Fishing area data obtained from Dene Culture Institute, Diavik Diamonds, Diavik Diamonds Project: Environmental Assessment and Fortune Minerals Limited. Jdaġ Trail location obtained from Prince of Wales Northern Heritage Centre (Yellowknife).
Projection: UTM Zone 11 Datum: NAD 83

30 0 30
SCALE 1:1,500,000 KILOMETRES



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NICO DEVELOPER'S ASSESSMENT REPORT

TITLE

SELECTED AREAS OF TŁİCHŦO TRADITIONAL
LAND USE BASED ON LITERATURE REVIEW

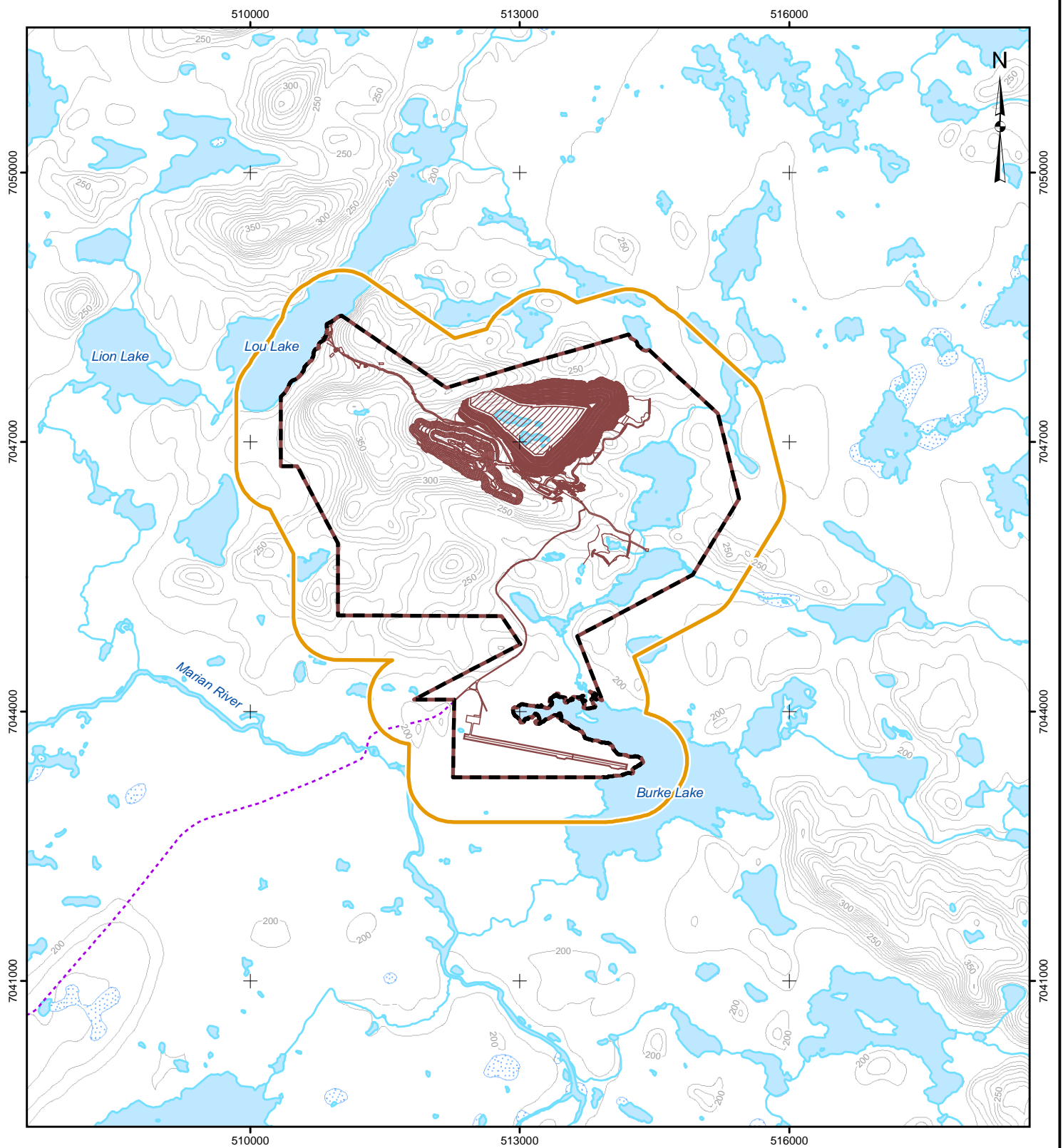


FILE No. E-TLU-015-GIS

PROJECT No.	08-1373-0017	SCALE AS SHOWN	REV. 0
DESIGN	EK 25 May 2010		
GIS	MV 14 Mar. 2011		
CHECK	GRA 04 May 2011		
REVIEW	GRA 04 May 2011		

FIGURE: 5.1-2

\\CLIENTS\FORTUNE_MINERALS\08-1373-0017\Mapping\MXD\TradeLandUse\E-TLU-002-GIS.mxd

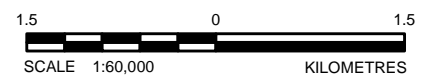


LEGEND

- NICO PROJECT LEASE BOUNDARY
- PROPOSED NICO MINE SITE
- CONTOUR (10 METRE INTERVAL)
- PROPOSED NICO PROJECT ACCESS ROAD
- WATERCOURSE
- LOCAL STUDY AREA
- WATERBODY
- WETLAND

REFERENCE

Base data obtained from GeoGratis.
Projection: UTM Zone 11 Datum: NAD 83



FORTUNE MINERALS LIMITED
NICO DEVELOPER'S ASSESSMENT REPORT

TITLE

LOCAL STUDY AREA



FILE No. E-TLU-002-GIS			
PROJECT No.	09-1373-1004	SCALE AS SHOWN	REV. 0
DESIGN	SM 19 Sep. 2008	FIGURE: 5.1-3	
GIS	RLP 21 Jan. 2011		
CHECK	GRA 04 May 2011		
REVIEW	GRA 04 May 2011		

5.2 Traditional Knowledge Program

The following sections describe the methods used to collect and document TK and TLU information. Information sources that contributed to the results are listed for both the Tłı̨chq̓ and the Métis.

5.2.1 Program Strategy

Data collection for the TLU and TK summarized in this section of the DAR included interviews in the communities of Whatì and Gamètì, and a literature review. Fortune has provided financial support to the NSMA complete their own TK studies for the NICO Project.

5.2.1.1 Research Licence

Pursuant to the *Scientists Act* (NWT 1988) all research in the NWT is required to be licensed, which includes research related to TK collection. Licensing is administered by the Aurora Research Institute in Inuvik.

In 2008, Fortune submitted a research application to the Aurora Research Institute to complete TK interviews in Behchokò, Whatì, Gamètì, and Wekweètì. Because the research involved an interview component, the licence application also underwent an ethics review by the Aurora Research Institute. On 29 July 2008, Fortune received Scientific Research Licence (No. 14406) from the Aurora Research Institute to complete TK interviews for the NICO Project. The Scientific Research Licence was renewed in 2009 (No. 14447).

5.2.1.2 Literature Review

The literature review primarily considered Tłı̨chq̓ and Métis TK and TLU information within the RSA; however, some traditional activities (e.g., hunting) often occur within the context of geographically large phenomenon, such as caribou migration. Therefore, to provide context, the literature review also provides information on Tłı̨chq̓ and Métis hunting on the barrenlands beyond the RSA, although the full geographic extent is not known. Additionally, some description of the Idaa Trail outside the RSA is provided; again to provide a larger regional context for a feature located in the RSA.

5.2.1.3 Interviews and Recording of Information

Individual and group interviews were held with participants in Whatì and Gamètì. Participants in the studies included a mixture of Elders and younger active harvesters, and both males and females were represented. An interview guide was prepared based on initial consultation with the communities and previous experience with similar projects. A semi-structured approach was used during the interviews that gave participants an opportunity to provide additional information not considered in the interview guide.

Prior to initiating the interviews, participants were provided an opportunity to review the informed consent form that had been approved by the Aurora Research Institute. The consent form outlined the nature of the NICO Project and identified how the information would be used, the participant's right to retain ownership of their specific TK, and identified their consent to be named as a participant in the TK studies.

During the interviews, information was recorded in written and audio formats. Participants were invited to denote relevant information on maps that referenced the NICO Project site and the 4 communities in the Tłı̨chq̓ Land Claim settlement area. In each community, an interpreter was available when requested by participants who were more comfortable speaking in their own language. The dates of the interviews and participants were recorded for each community (Table 5.2-1).

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Table 5.2-1: Traditional Knowledge Interviews and Participants

Community	Date	Community Participants	Interviewers
Whati	2 February 2009	3 anonymous males 5 anonymous females	Mitchell Goodjohn (Golder) and Jim Mucklow (Fortune)
	3 February 2009	Pierre Beaverho 4 anonymous males 4 anonymous females	Mitchell Goodjohn (Golder) and Jim Mucklow (Fortune)
Gamèti	5 February 2009	Jimmy Wogary Joseph Mantla Pierrra Mantla 1 anonymous male	Mitchell Goodjohn (Golder)
	6 February 2009	Antoine Wetrade Charlie Wetrade Alfred Arrowmaker Frank Arrowmaker Sam Mantla 2 anonymous males	Ross Mitchell (Golder) and Mitchell Goodjohn (Golder)

Tłıchq information derived from interviews and the literature review was organized and documented under the following headings:

- concerns, comments, and questions summary;
- hunting and trapping summary;
- fishing and water summary;
- plant harvesting summary;
- camps, cabins, burials, and culturally important sites summary; and
- trail and travel routes summary.

The summary of TLU and TK Baseline information is presented from the perspective of the interview participants.

Because information related to Métis TLU and TK was limited, the results of the literature review relevant to the Métis were organized and documented as consolidated information. Traditional land use information was made available to other disciplines to be incorporated into other sections of the DAR.

5.2.2 Community Engagement Approach

The following provides a brief summary of Fortune's engagement process as it relates to TK holders. A detailed discussion of Fortune's community engagement process as it relates to TK and broader socio-economic issues is found in Section 4 (Engagement). Fortune's approach to engagement is based on informing potentially affected communities and land users about the NICO Project, engaging community members in a dialogue about the NICO Project itself and their concerns, and informing them of the potential effects and opportunities.

Both Tłıchq and Métis were included in the engagement process. The community engagement generally included the following sequence:

- initiating meetings with leaders of the communities and government organizations;
- engaging each community through community-based activities such as open houses, presentations, and meetings;
- inviting community leaders and representatives to visit the NICO Project site;
- granting specific requests for NICO Project site visits from Elders;
- employing as many local people as possible on-site in the exploration program and related environmental baseline work while conferring the benefit of this employment and training to the local population; and
- undertaking traditional knowledge studies and listening to the specific concerns and issues.

At meetings in communities within the Tłıchq land claim settlement area, Fortune provided the details of environmental baseline and exploration programs, and the proposed mine development strategies as the NICO Project progressed. Fortune requested input from the leaders, land users, and community members on concerns and issues. In some cases, the Tłıchq leadership contacted Fortune to arrange meetings. Tłıchq language translators provided by the community government offices were used to help the engagement process.

More recently, in conjunction with and subsequent to the MVRB scoping sessions for the NICO Project, Fortune has repeatedly tried to arrange public meetings through the Tłıchq leadership without success. The purpose of the meetings was to provide an opportunity for feedback on the NICO Project and to show how previous input, including that provided through the scoping sessions, has been used to refine and improve mine development plans; and to obtain input from community members and land users regarding appropriate scopes for the monitoring programs and closure plans. Some of the information transfer was accomplished in 2010 when delegations of Elders from the 4 communities in the Tłıchq settlement area approached Fortune regarding site tours. During the tours, NICO Project development plans were presented. Fortune will continue its efforts to obtain specific input on the design of the aquatic and wildlife effects monitoring programs, the Closure and Reclamation Plan, and socio-economic monitoring programs as the NICO Project proceeds through the permitting process.

The engagement approaches for TK holders included obtaining research licences to undertake TK studies in the 4 communities in the Tłıchq settlement area, and to arrange Métis studies through the NSMA. Additional information on the approach with the Tłıchq and NSMA with regarding TK and TLU studies is found below in Section 5.2.3. Additional information related to Fortune's broader engagement with the Tłıchq and NSMA is found in Section 4 (Engagement).

5.2.3 Status of Traditional Knowledge Program

5.2.3.1 Tłıchq

Traditional Knowledge interviews were scheduled in the communities of Whati, Gamèti, and Wekweètì from 2 to 13 February 2009 in consultation with the community governments and the Tłıchq Lands Department. From 2 to 6 February 2009, individual and focus group interviews with citizens selected by representatives of the community were completed in Whati and Gamèti. These interviews involved 17 participants in Whati, and 11

participants in Gamètì, all of whom identified themselves as Tłı̨chq citizens. In addition, Wekweètì was visited on 8 February 2009 for interviews that had been scheduled for the following day. The community was grieving the sudden death that day of a community member. In consultation with the community government office, scheduled interviews were cancelled with the intent of returning at a more suitable time. Interviews had been planned for Behchokò and Yellowknife, in the weeks to follow, but they have not yet been scheduled at the time of writing the DAR.

In March 2009, Fortune was advised by a consultant representing the Tłı̨chq Government that the government wanted to discuss the study and process with Fortune and enter into a study agreement before interviews resumed. Fortune agreed to suspend further studies until these discussions and any agreements were concluded. In April 2009, to facilitate the process, Fortune provided the interview forms and a proposed draft agreement outline to the Tłı̨chq Government for consideration. As of the date of this submission, Fortune has not had a response to these submissions, nor to subsequent requests to enter into discussions. Fortune is continuing to request discussions on this topic and others with the Tłı̨chq Government. At the time of writing this DAR, Fortune was in negotiations with the Tłı̨chq Government on a TK study agreement that would see the Tłı̨chq complete a more extensive study for the NICO Project.

5.2.3.2 North Slave Métis Alliance

Fortune entered into an agreement with the NSMA in November 2009 for a study scope and process, and to provide funding for the NSMA to complete its own TK studies for the NICO Project in collaboration with Fortune's consultants. At the time of report writing, the NSMA has completed archival research and Fortune has attended a public meeting called by the NSMA to present the initial results and discuss the future stages of the process with the NSMA membership. In the near future, the NSMA plans to interview its membership with guidance from Fortune's consultants. At the time of writing, the NSMA have yet to arrange the interviews. When the NSMA interviews have been completed, the results will be considered in the NICO Project planning, where applicable.

The details of Fortune's consultation efforts with the Tłı̨chq and the NSMA are found in Section 5.2.2 (Community Engagement Approach).

5.3 Traditional Knowledge

The following sections summarise the results of the Whatì and Gamètì interviews and the results of the TK and TLU literature review.

5.3.1 Concerns, Comments, and Questions Summary

Interview participants from both Whatì and Gamètì identified several concerns relating to the NICO Project. Both communities indicated that they were concerned about chemical leaks that might affect the surrounding water, wildlife, or people. Potential effects on wildlife related to mining activities were also identified as a concern from both communities. Perceived problems with past mining projects have caused some interview participants to raise concerns regarding new projects. Only the former Rayrock Mine is located within the RSA (Decommissioned Mine in Figure 5.1-2). It was reported by Whatì interview participants that mining developments have blocked and changed caribou routes, and it was further noted that the health of game has degraded since development arrived in the area. Interview participants reported that for the Tłı̨chq of Gamètì it is important that the heads of the companies know the local communities concerns. Gamètì Elders stated that if properly operated the mine "should be okay" and that jobs for the younger people would be "good", but that many people are concerned about the development of the mine. Interview participants indicated that there are too many mines being

developed at once and that this might not create sustainable employment as there may not be work when the mines close. Both Whatì and Gamètì interview participants identified further concerns and comments during their respective interviews, which are provided below.

Whatì interview participants identified concerns and comments as follows:

- perceive there may be potential effects on animal health (especially caribou), populations, and movement;
- concerns with associated developments such as airstrip construction;
- perceive that companies might sacrifice proper development and closure for profit;
- perceive potential effects to waterbodies such as the Marian River, which drains into Marian Lake;
- participants would like to ensure the area is safe from the chemicals that are used to extract minerals;
- perceive that air, water, and noise pollution from new developments may also harm the animals, fish, and birds;
- participants would like ongoing communication with the Tłìchq people and monitoring of developments; and
- perceive a history of broken promises related to what companies say they will do to manage impacts.

Interview participants said that hunting, trapping, and fishing have always been important to local communities, and that it is important to the Tłìchq Elders of Whatì that traditional lifeways, language, and knowledge be taught to the younger generation so that they see traditional life as having value and to ensure a healthy environment.

Gamètì interview participants identified concerns and comments as follows:

- perceive that many people died from cancer, including some people who worked at the now decommissioned Rayrock Mine;
- perceive that young people need money and jobs at the mines, but the jobs come at a cost;
- perceive that training programs, bereavement programs, and family support systems need to be in place;
- perceive that most of the money from development goes to Yellowknife;
- perceive that young people will not be able to use the land when the mines are gone;
- perceive that mines have destroyed the land through dust pollution and poisons entering into the rivers and land;
- perceive that mines cause health problems for animals and people through the food chain; and
- perceive that chemical spills and runoff pollute the surrounding lake.

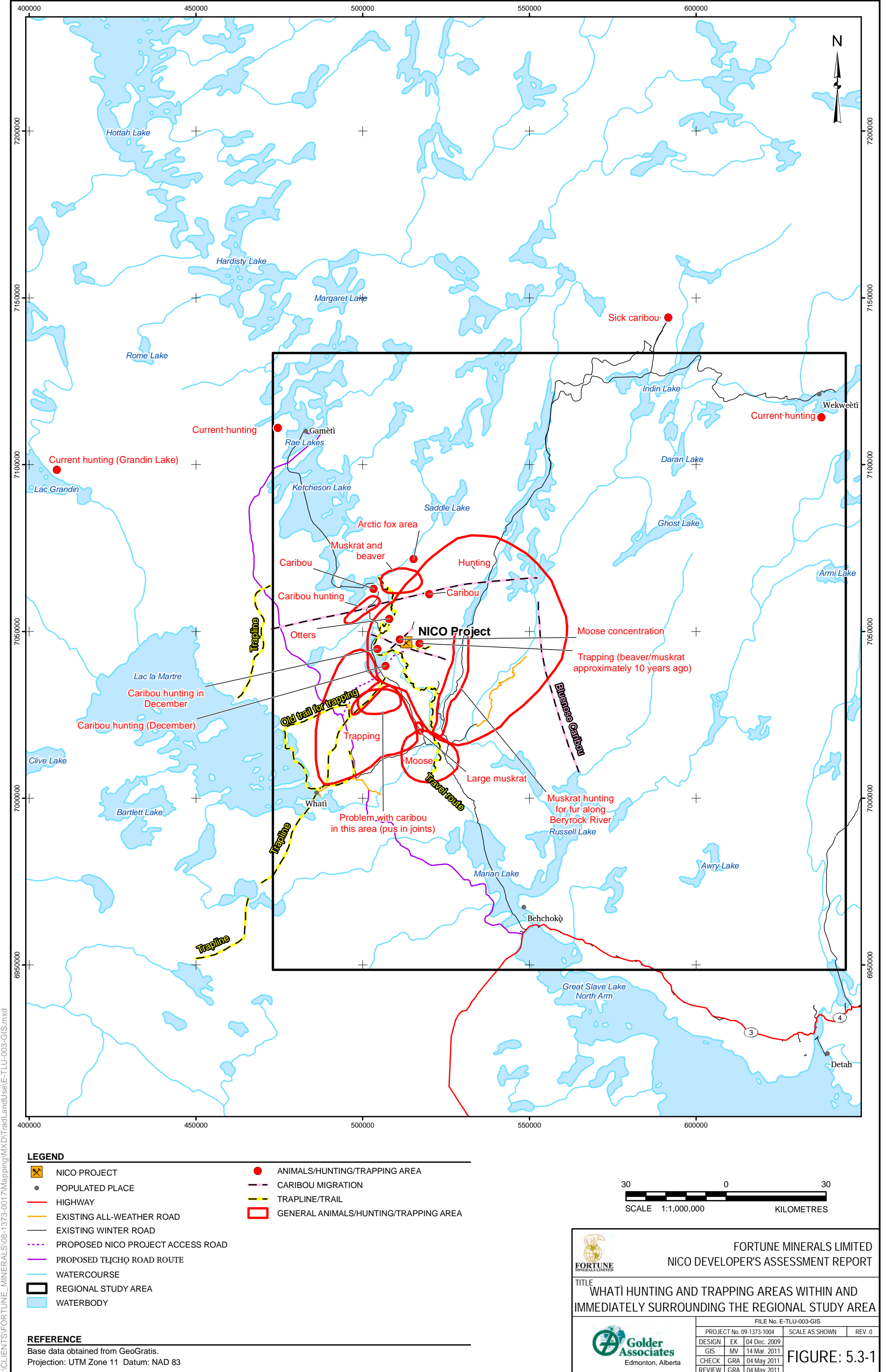
Many people still prefer to live off the land, particularly in Gamètì where there is more traditional trapping and hunting, but it was also reported that generally people are not living off the land like they had done in the past. Traditional skills are currently being included in the school curriculum, and some, but not many young people are learning to trap. Young people prefer to work in mines and are often not interested in trapping as a way of life. The Elders, however, are interested in passing along TK and trapping skills.

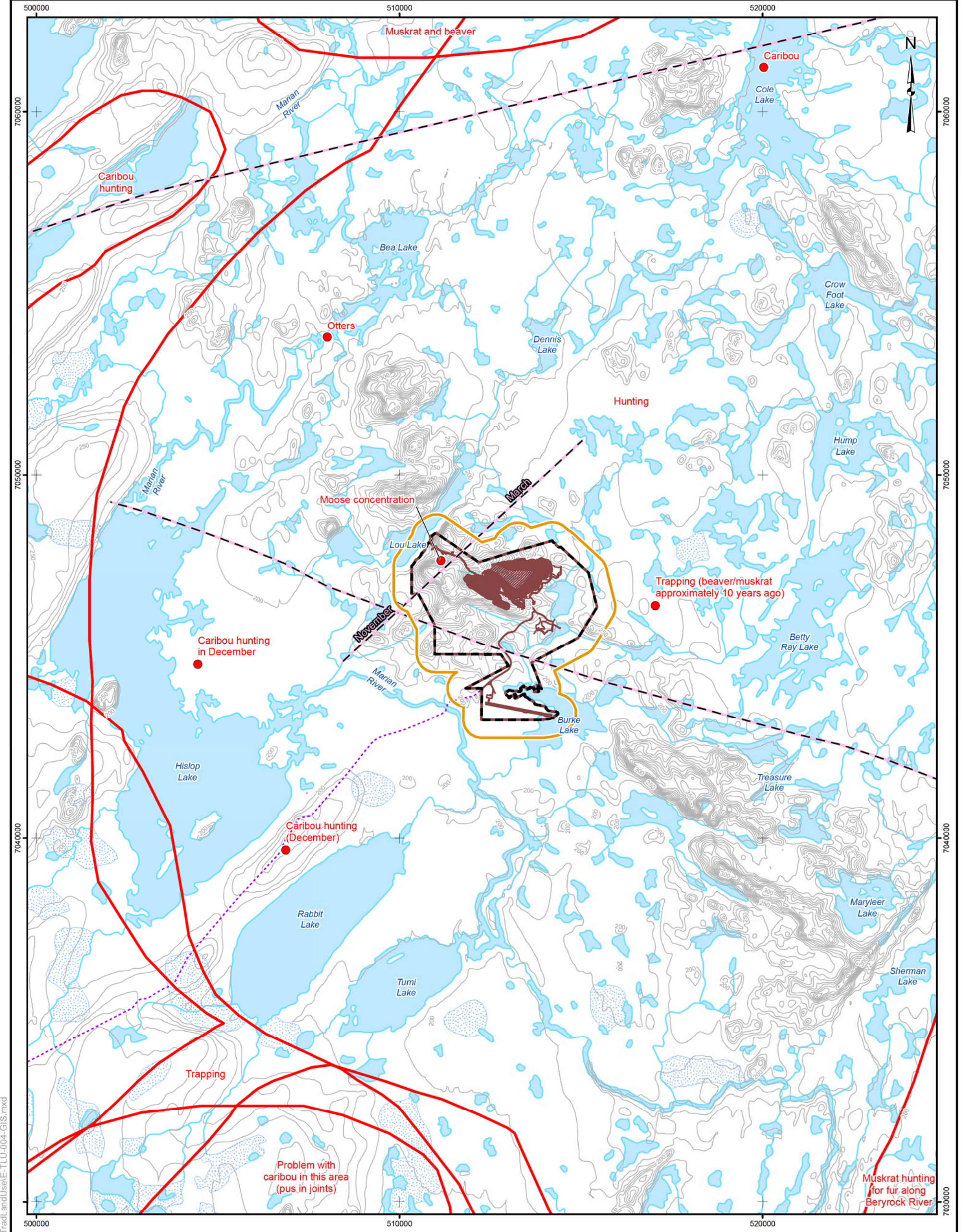
5.3.2 Hunting and Trapping Summary

5.3.2.1 Introduction

Hunting and trapping continues to occur within the area overlapped by the RSA and the LSA, including areas overlapped by NICO Project (which includes the NPAR). Hunting and trapping areas have been identified by interview participants from Whatì (Figure 5.3-1 and Figure 5.3-2) and by interview participants from Gamètì (Figure 5.3-3 and Figure 5.3-4).

Animals are generally harvested for fur and meat. Harvested animals identified by both communities include caribou, moose, black bear (*Ursus americanus*), muskrat (*Ondatra zibethicus*), mink (*Mustela vison*), martin (*Martes Americana*), wolverine (*Gulo gulo*), beaver (*Castor Canadensis*), fox (*Vulpes vulpes*), lynx (*Lynx Canadensis*), wolf (*Canis lupus*), squirrel (*Tamiasciurus hudsonicus*), duck, ptarmigan, and grouse. Gamètì interview participants also noted that otter (*Lontra Canadensis*) and rabbit are trapped. The literature review also indicated that porcupine and weasel are trapped in the Tłìchq Lands (DCI 1995).





LEGEND

- PROJECT LEASE BOUNDARY
- PROPOSED NICO MINE SITE
- CONTOUR (10 METRE INTERVAL)
- PROPOSED NICO PROJECT ACCESS ROAD
- WATERCOURSE
- LOCAL STUDY AREA
- WATERBODY
- WETLAND
- ANIMALS/HUNTING/TRAPPING AREA
- CARIBOU MIGRATION
- GENERAL ANIMALS/HUNTING/TRAPPING AREA

REFERENCE

Base data obtained from GeoGratis.
Projection: UTM Zone 11 Datum: NAD 83

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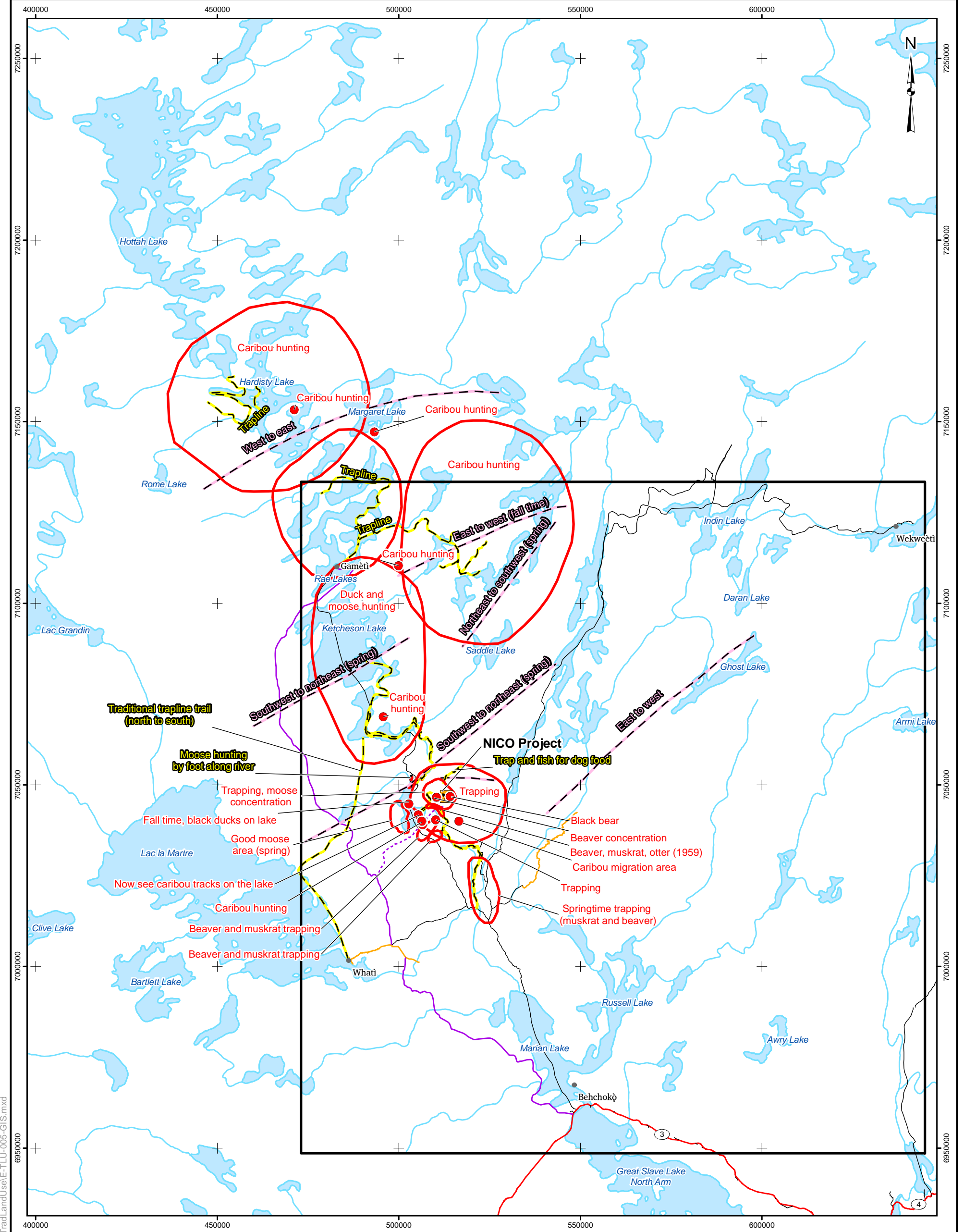


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NICO DEVELOPER'S ASSESSMENT REPORT

TITLE
WHAT? HUNTING AND TRAPPING AREAS WITHIN AND IMMEDIATELY SURROUNDING THE LOCAL STUDY AREA


















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GIS	MV	14 Mar. 2011		
CHECK	GRA	4 May 2011		
REVIEW	GRA	4 May 2011		



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LEGEND

-  NICO PROJECT
-  POPULATED PLACE
-  HIGHWAY
-  EXISTING ALL-WEATHER ROAD
-  EXISTING WINTER ROAD
-  PROPOSED NICO PROJECT ACCESS ROAD
-  PROPOSED TŁİCHQ ROAD ROUTE
-  WATERCOURSE
-  REGIONAL STUDY AREA
-  WATERBODY
-  ANIMALS/HUNTING/TRAPPING AREA
-  ANIMALS/HUNTING/TRAPPING AREA
-  CARIBOU MIGRATION
-  TRAPLINE/TRAIL
-  ANIMALS/HUNTING/TRAPPING AREA

REFERENCE


Base data obtained from GeoGratis.
Projection: UTM Zone 11 Datum: NAD 83





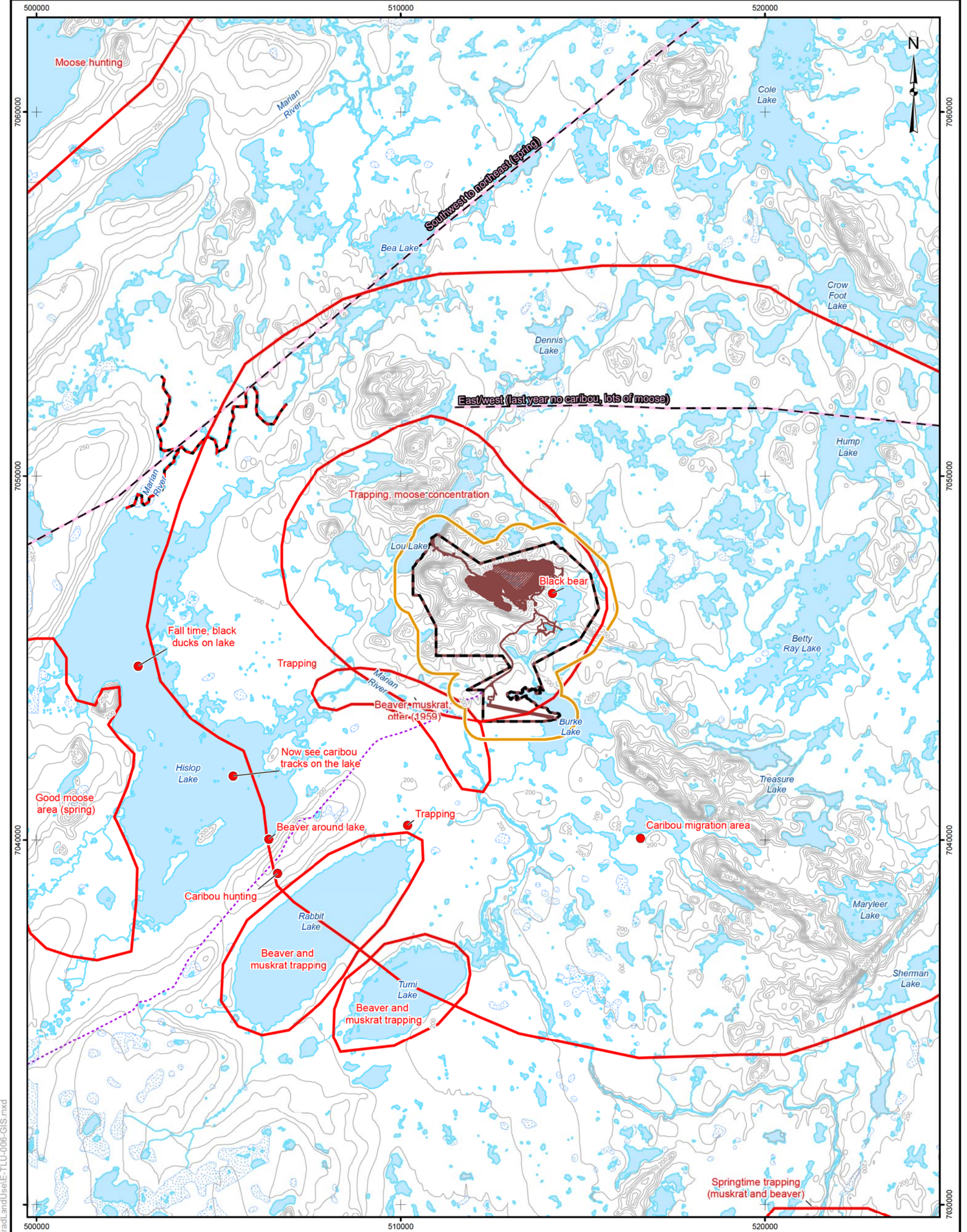
FORTUNE MINERALS LIMITED
NICO DEVELOPER'S ASSESSMENT REPORT

TITLE
GAMÈTÌ HUNTING AND TRAPPING AREAS WITHIN AND IMMEDIATELY SURROUNDING THE REGIONAL STUDY AREA



Golder Associates
Edmonton, Alberta

FILE No. E-TLU-005-GIS			
PROJECT No. 09-1373-1004		SCALE AS SHOWN	REV. 0
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GIS	BS	07 Apr. 2011	
CHECK	GRA	04 May 2011	
REVIEW	GRA	04 May 2011	

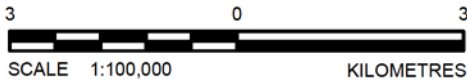


LEGEND

- PROJECT LEASE BOUNDARY
- PROPOSED NICO MINE SITE
- CONTOUR (10 METRE INTERVAL)
- PROPOSED NICO PROJECT ACCESS ROAD
- WATERCOURSE
- LOCAL STUDY AREA
- WATERBODY
- WETLAND
- ANIMALS/HUNTING/TRAPPING AREA
- ANIMALS/HUNTING/TRAPPING AREA
- CARIBOU MIGRATION
- ANIMALS/HUNTING/TRAPPING AREA

REFERENCE

Base data obtained from GeoGratis.
Projection: UTM Zone 11 Datum: NAD 83



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NICO DEVELOPER'S ASSESSMENT REPORT

TITLE
GAMETI HUNTING AND TRAPPING AREAS WITHIN AND
IMMEDIATELY SURROUNDING THE LOCAL STUDY AREA



FILE No. E-TLU-006-GIS				FIGURE: 5.3-4
PROJECT No. 09-1373-1004			SCALE AS SHOWN	
DESIGN	EK	04 Dec. 2009		
GIS	MV	14 Mar. 2011		
CHECK	GRA	04 May 2011		
REVIEW	GRA	04 May 2011		

5.3.2.2 *Past Hunting and Trapping Areas in the Regional Study Area*

Interview participants from both communities reported that hunting and trapping occurred along the Marian River in the past. Hunting and trapping areas specifically identified by each community within the RSA are as follows:

- Whati
 - hunting or trapping surrounding Hislop Lake including traplines identified northeast, southwest, and northwest of the lake; and
 - hunting or trapping, including a trapline near Lac La Martre extending as far as Betty Ray Lake where fish are present.
- Gamètì
 - hunting or trapping from Hislop Lake to Otter Lake, northwest of the RSA; and
 - hunting or trapping near Dennis Lake towards Crowfoot Lake, Hardisty Lake just north of the RSA, and Bea Lake, as well as generally throughout the RSA.

Snare Lake and the Snare River system were noted in the literature review as an area of hunting and/or trapping (Helm 1981). This area also extends further north of the RSA (Helm 1981). It was also noted that the barren land caribou at one time came to Great Slave Lake and Old Fort Rae, but no longer do. The Elders believe the caribou no longer go there because the caribou were mis-treated. The time the caribou stopped coming coincided approximately with the former Rayrock Mine operation (1957 to 1959) and is a reason why Elders have previously stated they are cautious about developments (Dogrib Treaty 11 Council 2001b). Some Elders have also previously stated that the barren land caribou still migrate farther south than Gamètì (Dogrib Treaty 11 Council 2001b).

Some Dogrib (Tłı̨ch̓q) people have previously stated that they are concerned about the potential effects of bison expanding their range northward. The impact of an expanded bison range on moose and caribou in the area were described as unknown (Cluff 2005).

Areas such as Old Fort Rae (fur trading), Rae Lakes, Russell Lake area, and the North Arm of Great Slave Lake were noted as areas either used by the Métis or as wildlife habitat areas. Old Fort Rae and the North Arm of Great Slave Lake were discussed most prominently. It has also been previously reported that Métis (along with Tłı̨ch̓q) traditional activities in the RSA were focused on the Marian River and large lakes. The NSMA reported that prior to 1940, caribou came to the Old Fort Rae area, but no longer come due to mining activities (NSMA 2001).

5.3.2.3 *Past Hunting and Trapping Areas in the Local Study Area*

Past hunting and trapping areas overlapped by the LSA were reported by both Whati and Gamètì interview participants as follows:

- trails used for hunting or trapping from Hislop Lake to the LSA; and
- beaver and muskrat trapping in the general vicinity of Peanut Lake and Nico Lake.

Gamètì interview participants further indicated that trapping occurred near Lou Lake and that people might still hunt caribou in the area when the NICO Project is completed. Participants also said that there was hunting and trapping in larger areas that overlap the LSA and include areas such as the hills that surround the NICO Project.

5.3.2.4 *Current Hunting and Trapping Areas in the Regional Study Area*

Both Whatì and Gamètì interview participants indicated that hunting and trapping continues to occur within the RSA and LSA (Figures 5.3-1 to 5.3-4). One interview participant from Gamètì indicated; however, that some community members do not hunt near the NICO Project because it is too far. In general, interview participants indicated that areas within or surrounding the LSA are used for harvesting species such as caribou, moose, muskrat, fox, wolverine, wolf, and beaver. Mink, marten, otter, lynx, and rabbit were also noted by Gamètì interview participants. Gamètì interview participants identified an area reported as 'beaver county' or an area of 'lots of beavers' in the general area near the lakes along the western margin of the NICO Project footprint. It was further stated that the general area surrounding the NICO Project has populations of black bear and moose. Whatì interview participants said that black bear and moose give birth and raise their young throughout the RSA. Both Gamètì and Whatì interview participants identified areas of hunting and trapping that overlap the NPAR. Gamètì and Whatì interview participants also identified a caribou hunting area near the NPAR between Hislop Lake and Rabbit Lake. During interviews, residents of Whatì and Gamètì indicated that waterfowl are hunted throughout the region. Harvested waterfowl identified during interviews include black ducks, mallard ducks, and pintail ducks. While loons have been traditionally hunted to make loon skin bags, they are typically not eaten as they are too difficult to pluck. Duck harvesting areas identified during interviews are shown in Figure 5.3-3.

Interview participants from both communities reported areas used for hunting within the RSA as follows:

- hunting for birds including ptarmigan, ducks, and grouse occurs throughout the RSA;
- hunting for caribou and moose occurs throughout the RSA;
- hunting and trapping occurs within the Hislop Lake and Rabbit Lake areas, and along the Marian River; and
- hunting or trapping occurs between Lac La Martre and the Hislop Lake, Rabbit Lake, and Tumi Lake areas.

Gamètì interview participants noted specific locations of hunting and trapping including the following:

- trapping north of Gamètì near Beaverlodge Lake northwest of the RSA;
- large hunting or trapping range extending in a northwest direction to the boundary of the RSA;
- hunting north from Hislop Lake with camping areas all along the Marian River;
- southeast of the LSA; and
- trapping around the south Coppermine River northeast of the RSA.

Whatì interview participants noted other locations of hunting and trapping not identified by Gamètì interview participants including the following:

- near Gamètì, Wekweètì, Grandin Lake (west of the RSA), and the Colomac Mine (outside the RSA);
- near Bea Lake;

- moose hunting occurs along the winter road to Gamètì;
- trapping occurs along the Marian River; and
- trapping occurs along a trapline located south of Whatì that extends further south past Raccoon Lake, which is west of the RSA.

Whatì interview participants also identified several caribou migration routes within the RSA including 2 routes that overlap the LSA.

5.3.2.5 *Current Hunting and Trapping Areas Local Study Area*

Areas currently used for hunting and trapping were identified by both Whatì and Gamètì interview participants in areas overlapped by the LSA. General hunting and trapping was noted to occur within the area overlapped by the LSA as well as in the general vicinity of the NICO Project. Gamètì interview participants noted that hunting around the mine site is generally limited to moose and rabbits. Other areas used for hunting and/or trapping that are overlapped by the LSA include the area near Burke Lake and Lou Lake.

5.3.2.6 *Animal Health*

Interview participants reported that the animals are different now than in the past. Perceived differences relating to health include changes in taste and behaviour, and observed changes in harvested animals including the presence of pus, scars, parasites, and other ailments. Gamètì Elders also reported they are worried about bear survival if the mine is developed. While Gamètì participants added there was a noticeable change in the birds and animals, 1 Elder said there was no change in moose health.

Discussions regarding the health of animals were primarily focused on caribou. The relationship between the caribou and the Tłıchq has been previously described as one based on respect and that caribou are an integral part of Tłıchq life (Dogrib Treaty 11 Council 2001b). There are 3 caribou herd ranges that overlap Tłıchq lands, including the Bathurst herd, Bluenose-East herd, and the Ahiak herd (Bathurst Caribou Management Planning Committee 2004) as well as the NWT North Slave woodland caribou population (Section 8.3.2.2). It is anticipated that the NICO Project will influence the Bathurst herd based on movements of collared animals and distributions determined from aerial surveys of the region, but the NICO Project should have no measurable effect on the Ahiak, Bluenose East, and North Slave (woodland) herds. A detailed discussion of the caribou herds potentially affected by the NICO Project is found in the Key Line of Inquiry: Caribou (Section 8). The harvesting areas have included the region between Great Bear Lake and Great Slave Lake, and for the last 73 years, harvesting areas have rotated around Wekweeti (Dogrib Treaty 11 Council 2001b).

As described in the literature review, the Tłıchq generally believe the caribou migrate to places where people live and behave well, and that the former Rayrock Mine may have damaged the land, possibly causing animals and several Dogrib (Tłıchq) who worked in or near the mine to become ill (Dogrib Treaty 11 Council 2001b). Gamètì Elders reported that they believe the caribou have changed, which they said may be due to mining (and possibly tagging) in the barren lands area through which the caribou migrate.

Whatì interview participants said that the caribou between Hislop Lake and Lac La Martre do not appear healthy, while those in the Ekati Mine area do seem healthy. Gamètì Elders indicated that the wildlife near the NICO Project may be affected if the proposed mine is developed. During the interviews, Gamètì Elders questioned whether it will be possible to continue hunting along the Marian River and if any of the animals around the mining

area will be safe to eat. The Elders further noted that caribou migration may also change because of NICO Project-related mining noise, and that other animals may be attracted to the NICO Project because of food smells. In previous studies, Elders have indicated that the movements of the caribou have been affected by mining activities such as loud noise and fumes, but that the caribou may be adapting to the pollution (Dogrib Treaty 11 Council 2001b). The NSMA has voiced concerns about mining and non-mining activities in the region. The concerns primarily relate to noise, air and water pollution, and their perceived effects on fish and caribou. The identified Métis traditional sites do not appear to overlap the NICO Project (NSMA 2001).

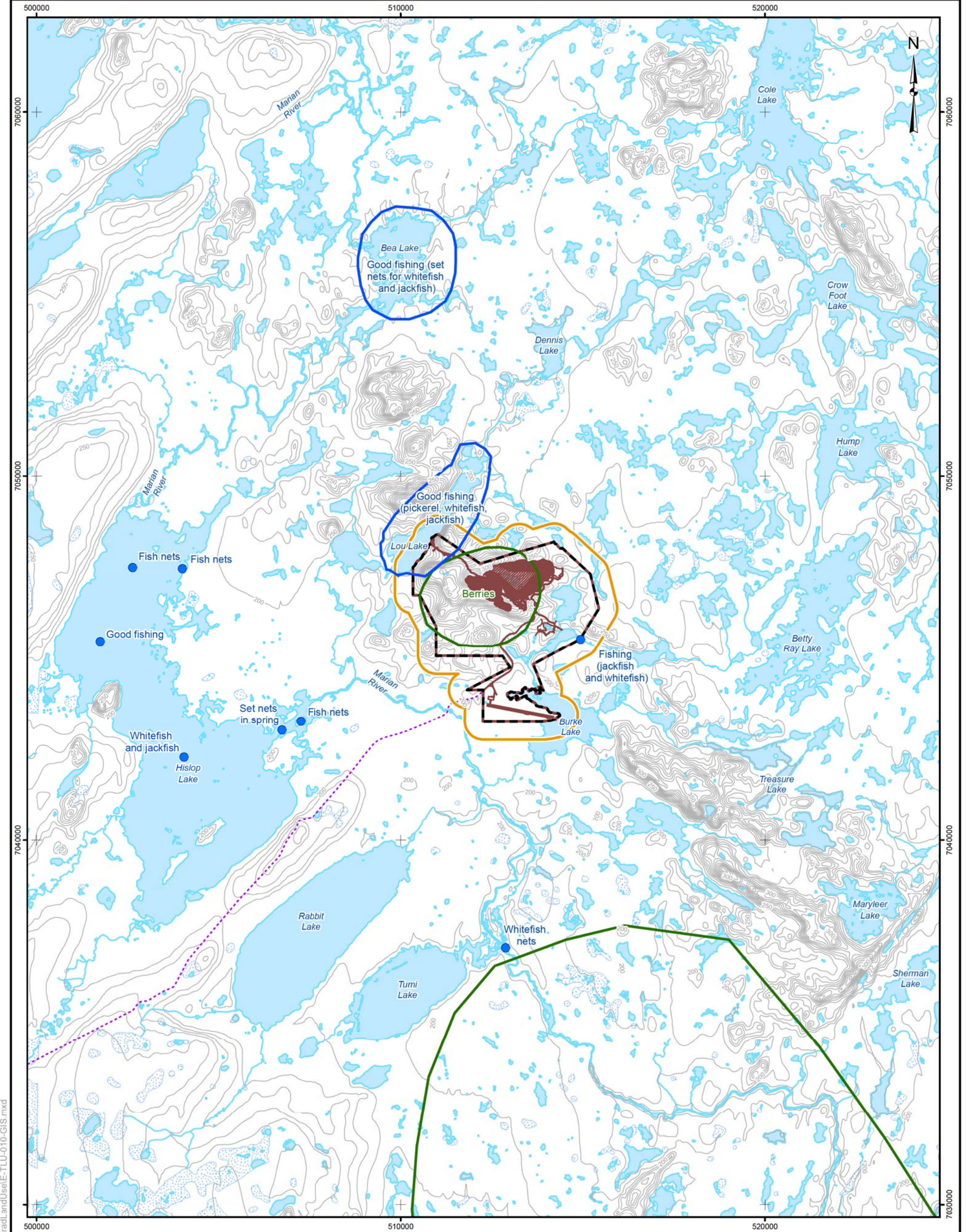
Whati interview participants said that caribou migration routes have changed, elaborating that while there used to be 1 caribou trail between Kwejinne Lake and Russell Lake, the caribou now travel in many different directions and are spread out. Whati interview participants reported fears about possible changes in the animals, or contamination as a result of mine areas such as Colomac Mine outside the RSA or the former Rayrock Mine.

5.3.3 Fishing and Water Summary

5.3.3.1 Introduction

Interview participants indicated that fishing continues to occur within the area overlapped by the RSA and the LSA, including areas overlapped by the NICO Project. Fishing areas have been identified by interview participants from Whati (Figure 5.3-5 and Figure 5.3-6) and by interview participants from Gamètì (Figure 5.3-7 and Figure 5.3-8).

Interview participants reported that in the past, people ate fish every day, and that most parts of the fish were used. Whati interview participants elaborated that fish were used for medicine, protein, and calories, and that fish preparation was passed down through oral tradition. Fishing could occur throughout the year, but dry fish for families was primarily made in the spring, and fish for winter dog food was dried in the fall (DCI 1995). Gamètì interview participants noted that people now only eat fish sporadically. Harvested species of fish for both communities include lake whitefish (*Coregonus clupeaformis*), lake trout (*Salvelinus namaycush*), northern pike (*Esox lucius*), suckers, loche (*Lota lota*), jackfish, and coney (*Stenodus leucichthys*). Gamètì interview participants also noted that pickerel (*Sander vitreus*) and grayling (*Thymallus arcticus*) are harvested. One Whati Elder reported that preferred fish include whitefish and lake trout.



LEGEND

- PROJECT LEASE BOUNDARY
- PROPOSED NICO MINE SITE
- CONTOUR (10 METRE INTERVAL)
- PROPOSED NICO PROJECT ACCESS ROAD
- WATERCOURSE
- LOCAL STUDY AREA
- WATERBODY
- WETLAND
- FISHING/WATER AREA
- FISHING/WATER AREA
- PLANTS/BERRIES AREA



REFERENCE

Base data obtained from GeoGratis.
Projection: UTM Zone 11 Datum: NAD 83

FORTUNE MINERALS LIMITED
NICO DEVELOPER'S ASSESSMENT REPORT

TITLE
GAMÈTÌ FISHING, BERRY, AND PLANT AREAS WITHIN AND IMMEDIATELY SURROUNDING THE LOCAL STUDY AREA

PROJECT No. 09-1373-1004

DESIGN
EK
04 Dec. 2009

GIS
MV
14 Mar. 2011

CHECK
GRA
04 May 2011

REVIEW
GRA
04 May 2011

FILE No. E-TLU-010-GIS

SCALE AS SHOWN

REV. 0

Golder Associates
Edmonton, Alberta

FIGURE: 5.3-8

5.3.3.2 *Fishing Areas in the Regional Study Area*

Interview participants reported that there are still many good fishing areas in the RSA. Fishing occurs for both communities at Hislop Lake, particularly the southeast and north portions as noted by Whati interview participants.

Whati interview participants reported that they also fish in the following waterbodies:

- Squirrel Lake;
- Bea Lake;
- Riviere La Marte;
- the northeast arm of Marian Lake (Russell Lake); and
- Lac La Martre, which is the preferred lake for fishing.

Whati interview participants also indicated that previously there were fishing camps along the Rayrock River and just north of the confluence of the Emile River and Marian River. One interview group from Whati indicated that fishing is currently only done in Lac La Martre.

During interviews, participants from Gamètì reported that fish are harvested in the following waterbodies:

- unspecified waterbodies within the general vicinity of the NICO Project;
- Rae Lakes area;
- Tumi Lake;
- Beati Lake; and
- Hardisty Lake south to Sarah Lake, and Faber Lake.

One interview group from Gamètì reported that most fishing occurs near Gamètì now. Previous studies indicated that domestic fishing occurred in other lakes within the RSA, including James Lake, Shoti Lake, Slemen Lake, and the North Arm of Great Slave Lake (Diavik 1998). Fish harvesting has also occurred at Stagg Lake (Dogrib Treaty 11 Council 2001b), Rae Lakes, Camsell River, and possibly between the large lakes (Fortune 1998).

5.3.3.3 *Fishing Areas in the Local Study Area*

Participants from Gamètì and Whati reported that within the LSA, fishing occurs at Lou Lake and the Marian River, a small portion of which is overlapped by the southwest section of the LSA and the NPAR. A Whati Elder also reported that an unnamed lake near the NICO Project used to be good for fishing when travelling there in the past. Gamètì interview participants reported that there are still many good fishing places in the general vicinity of the NICO Project, such as Lou Lake, and fish are caught in both summer and winter using hooks and nets. Both communities have identified Hislop Lake, west of the LSA, as a lake where individuals fish and have fished historically. Participants also noted that fishing used to be good in Peanut Lake and Nico Lake, but did not say whether or not these lakes continue to be used for fish harvesting.

5.3.3.4 *Fish and Water Health*

Interview participants from Whatì believe some waterways, fish appearance, fish taste, and overall fish health have changed. For example, fish from Behchokò area were reported to be soft and affected by drainage from the former Rayrock Mine. Elders have noticed dead fish in the rivers downstream from the former Rayrock Mine, but have not noticed any change in fish quality around Whatì. Elders said there are no mining industries at Lac La Martre resulting in large differences in water quality between this lake and lakes believed to be affected by mining activities, such as Marian Lake. Fish caught at the northern edge of Marian Lake in 1999 were considered soft, milky, and not good to eat. Other participants reported changes in Lac La Martre. For example, participants reported that in the last 40 to 50 years the water levels in Lac La Martre have decreased, and that freezing occurs later in the season.

Similarly, Gamètì interview participants reported that they take water from upstream of the former Rayrock Mine because the quality is suspect downstream, adding that many people do not fish near mine areas now since there are concerns with mine pollution. Gamètì interview participants also reported that fish move to follow the healthy water, and if the water is not good the fish will get sick. Other participants said that the water was still good in some areas and that there was no change in health and quality of fish.

Several specific concerns were noted by Gamètì Elders with respect to the quality of the water including the following:

- people cannot drink the water around the general vicinity of the NICO Project;
- water in the Gamètì area is not good;
- mining may negatively affect healthy fish in locations such as Lou Lake; and
- mercury was found in the trout from Rae Lakes.

Gamètì interview participants also questioned if it will be possible to continue fishing along the Marian River if the NICO Project is developed as planned. They also noted that although there has been no change in the amount of rain or snow, water levels have decreased.

5.3.4 *Plant Harvesting Summary*

5.3.4.1 *Introduction*

Interview participants in Gamètì and Whatì indicated that many plants and berries are harvested throughout the RSA, and in the vicinity of the NICO Project. Berry and plant harvesting areas have been identified by interview participants from Whatì (Figure 5.3-5 and Figure 5.3-6) and by interview participants from Gamètì (Figure 5.3-7 and Figure 5.3-8).

Traditional berries identified during interviews included the following:

- blueberries;
- cranberries (high bush and low bush);
- cloudbberries;
- Saskatoon berries;

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- gooseberries;
- strawberries; and
- blackberries.

Some of the participants identified blueberries and cranberries as the most important berries. Traditional plant species were also identified in the literature review for the Wekweeti area (Table 5.3-1).

Table 5.3-1: Traditional Plants Identified in the Wekweeti Area

Plants (English Name)	Plants (Latin Name)		Geographical Area
	Family	Scientific Name	
Labrador tea	ERICACEAE	<i>Ledum palustre</i>	surrounding Wekweeti, Whagweeti, just northeast of Edzo, around Faber Lake and Rae Lake
unknown	LYCOPODIACEAE	<i>Lycopodium annotinum</i>	surrounding Wekweeti,
2 types of grass and sedges	POACEAE	<i>Calamagrostis canadensis</i>	surrounding Wekweeti, Tam'ik'awodeè
willow	SALICACEAE	<i>Salix sp.</i>	surrounding Wekweeti, Whagweeti, just northeast of Edzo, around Faber Lake and Rae Lake
alder	BETULACEAE	<i>Alnus crispa</i>	surrounding Wekweeti, just northeast of Edzo
spruce	PINACEAE	<i>Picea sp.</i>	surrounding Wekweeti
white lichen (multiple types)	unknown	unknown	surrounding Wekweeti, boreal forest area (Nidzika), Whagweeti, just northeast of Edzo, around Faber Lake and Rae Lake
black lichen (multiple types)	unknown	unknown	surrounding Wekweeti
bearberry	ERICACEAE	<i>Arctostaphylos rubra</i>	surrounding Wekweeti, Whagweeti, just northeast of Edzo, around Faber Lake and Rae Lake
cranberry	ERICACEAE	<i>Vaccinium vitis-idaea</i>	surrounding Wekweeti, boreal forest area (Nidzika), Whagweeti, just northeast of Edzo, around Faber Lake and Rae Lake
blueberry	ERICACEAE	<i>Vaccinium uliginosum</i>	surrounding Wekweeti, boreal forest area (Nidzika), Whagweeti, just northeast of Edzo, around Faber Lake and Rae Lake
plated rocktripe	UMBILICARIACEAE	<i>Umbilicaria mutilenbergii</i>	surrounding Wekweeti

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Table 5.3-1: Traditional Plants Identified in the Wekweeti Area (continued)

Plants (English Name)	Plants (Latin Name)		Geographical Area
	Family	Scientific Name	
moss	unknown	unknown	surrounding Wekweeti, Whagweeti, just northeast of Edzo, around Faber Lake and Rae Lake
"hill of grass/sedge"	unknown	unknown	surrounding Wekweeti
crowberry	EMPETRACEAE	<i>Empetrum nigrum</i>	surrounding Wekweeti, Whagweeti, just northeast of Edzo, around Faber Lake and Rae Lake
black spruce	PINACEAE	<i>Picea mariana</i>	surrounding Wekweeti, boreal forest area (Nidzika), just northeast of Edzo, Tam'ik'awodeè, around Faber Lake and Rae Lake
cloudberry	ROSACEAE	<i>Rubus chamaemorus</i>	surrounding Wekweeti, Whagweeti, just northeast of Edzo, around Faber Lake and Rae Lake
type of sedge	CYPERACEAE	<i>Carex sp.</i>	surrounding Wekweeti
cotton grass	CYPERACEAE	<i>Eriophorum angustifolium</i>	surrounding Wekweeti
Kw'ah	POLYTRICHACEAE SPHAGNACEAE	<i>Polytrichum juniperinum</i> <i>Sphagnum sp.</i>	surrounding Wekweeti
sedge	CYPERACEAE	<i>Carex aquatilis, Carex bigelowii</i>	surrounding Wekweeti
a green lichen	unknown	<i>Possibly Peltigera aphthosa</i>	surrounding Wekweeti
flower	unknown	unknown	surrounding Wekweeti
type of mushroom	unknown	unknown	surrounding Wekweeti
small leaves	ERICACEAE	<i>Loiseleuria sp.</i> (Possibly- <i>procumbens</i>)	surrounding Wekweeti
unknown	PARMELIACEAE	<i>Masonhalea richardsonii</i>	surrounding Wekweeti
sedge and grass	unknown	unknown	surrounding Wekweeti, just northeast of Edzo
small hill of grass	CYPERACEAE sp.	unknown	surrounding Wekweeti
black lichen (various types)	unknown	unknown	surrounding Wekweeti
saxifrage	SAXIFRAGACEAE	<i>Saxifraga tricuspidata</i>	surrounding Wekweeti
"old grass"	CYPERACEAE	<i>Carex sp.</i>	surrounding Wekweeti

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Table 5.3-1: Traditional Plants Identified in the Wekweeti Area (continued)

Plants (English Name)	Plants (Latin Name)		Geographical Area
	Family	Scientific Name	
general lichen	unknown	unknown	surrounding Wekweeti, Tam'ik'awodee, just northeast of Edzo
unknown	STEREOCAULACEAE	<i>Stereocaulon tomentosum</i>	surrounding Wekweeti
unknown	CLADONIACEAE	<i>Cladina mitis</i>	surrounding Wekweeti
type of blue berry	ERICACEAE	<i>Ledum palustre</i>	surrounding Wekweeti
kinnikinnick	ERICACEAE	<i>Arctostaphylos uva-ursi</i>	surrounding Wekweeti, just northeast of Edzo
red willow	SALICACEAE.	<i>Salix sp</i>	surrounding Wekweeti, just northeast of Edzo
type of blackberry	unknown		surrounding Wekweeti
black rock fungus	unknown	unknown	surrounding Wekweeti, Whagweeti, around Faber Lake and Rae Lake
jackpine	PINACEAE	<i>Pinus banksiana</i>	boreal forest area (Nidzika), Whagweeti, just northeast of Edzo, around Faber Lake and Rae Lake
plant used for smoking	unknown	unknown	boreal forest area (Nidzika), Whagweeti, just northeast of Edzo, around Faber Lake and Rae Lake
raspberry	ROSACEAE	<i>Rubus idaeus</i>	boreal forest area (Nidzika), Whagweeti, around Faber Lake and Rae Lake
gooseberry	GROSSULARIACEAE	<i>Ribes oxyacanthoides</i>	boreal forest area, Whagweeti (Nidzika), just northeast of Edzo, around Faber Lake and Rae Lake
aspen	SALICACEAE	<i>Populus tremuloides</i>	boreal forest area (Nidzika), just northeast of Edzo, around Faber Lake and Rae Lake
Saskatoon berry	ROSACEAE	<i>Amelanchier alnifolia</i>	boreal forest area (Nidzika), Whagweeti, around Faber Lake and Rae Lake
birch tree	BETULACEAE	unknown	boreal forest area (Nidzika), Whagweeti, Tam'ik'awodee, just northeast of Edzo, around Faber Lake and Rae Lake
white spruce	PINACEAE	<i>Picea glauca</i>	Whagweeti, boreal forest area (Nidzika), just northeast of Edzo, around Faber Lake and Rae Lake

Table 5.3-1: Traditional Plants Identified in the Wekweeti Area (continued)

Plants (English Name)	Plants (Latin Name)		Geographical Area
	Family	Scientific Name	
wild roses	ROSACEAE	<i>Rosa acicularis</i>	Whagweeti, just northeast of Edzo, around Faber Lake and Rae Lake
juniper	CUPRESSACEAE	<i>Juniperus sp.</i>	Tam'ik'awodeè
cattails and reeds	unknown	unknown	just northeast of Edzo
rock tripe/black fungus	unknown	unknown	just northeast of Edzo

Adapted from: Dogrib Treaty 11 Council (2001a).

Note: Categories listed as "unknown" were either listed as "unknown" or "not identified" in the original source or not identified during subsequent additions.

High bush and low bush cranberries, blueberries, and cloudberry were identified as berries harvested for food or as medicine to treat colds, mouth sores, and overall health. As food, cranberries are added to pemmican, and other berries are used in jams and oils. Interview participants reported that juniper roots and branches, pine cones and needles, spruce branches, cones and bark were often boiled for a medicinal broth.

5.3.4.2 Plant Harvesting in the Regional Study Area

Both Whati and Gamèti study participants indicated that many plants and berries are harvested throughout the RSA. The area between Tumi Lake and Shoti Lake was used for plant and berry harvesting. Gamèti participants said that berries are now generally collected from across the lake near Gamèti. Berries are typically gathered in July and August and there are more berries when there is more rain. Rat root is harvested south of the LSA at the confluence of the northwest and northeast arm of Marian Lake, north of Behchokò. No plant or berry areas were specifically identified as overlapping the NPAR.

5.3.4.3 Plant Harvesting in the Local Study Area

Both Whati and Gamèti study participants indicated that many plants and berries would have been harvested in the vicinity of the NICO Project. Participants also noted that while people have harvested berries near the NICO Project, they no longer travel large distances to collect berries and typically harvest closer to where they live. In the vicinity of the NICO Project, Lou Lake was used as a staging area to harvest berries among the hills. Blueberries, cloudberry, and cranberries (high and low bush) were harvested in the LSA.

5.3.4.4 Plant Health

While some of the interview participants from Whati believe that the quantity and taste of plants and berries has not changed, others believe that the general health of people and plants has declined. Some participants also believe the land is becoming dryer, resulting in more grass, and that the wood of trees has become discoloured (reddish).

5.3.5 Cabins, Camps, and Culturally Important Sites Summary

5.3.5.1 Introduction

Camps, burials, or other cultural areas have been identified both in the RSA and LSA, as well as locations overlapped by the NICO Project. Areas where camps, trails, and other cultural areas have been identified by

Whatì interview participants (Figures 5.3-9 and 5.3-10) and by Gamètì interview participants (Figures 5.3-11 and 5.3-12).

5.3.5.2 *Camps and Cabins Located in the Regional Study Area*

Both Whatì and Gamètì interview participants mentioned houses, cabins, and camps along various sections of Hislop Lake, including a camp at the north end that was historically used year-round. Tumi Lake was also identified as a camping area by both communities. Not all locations mentioned during the interviews were identified on maps. Whatì and Gamètì participants referred to the following camps and cabins:

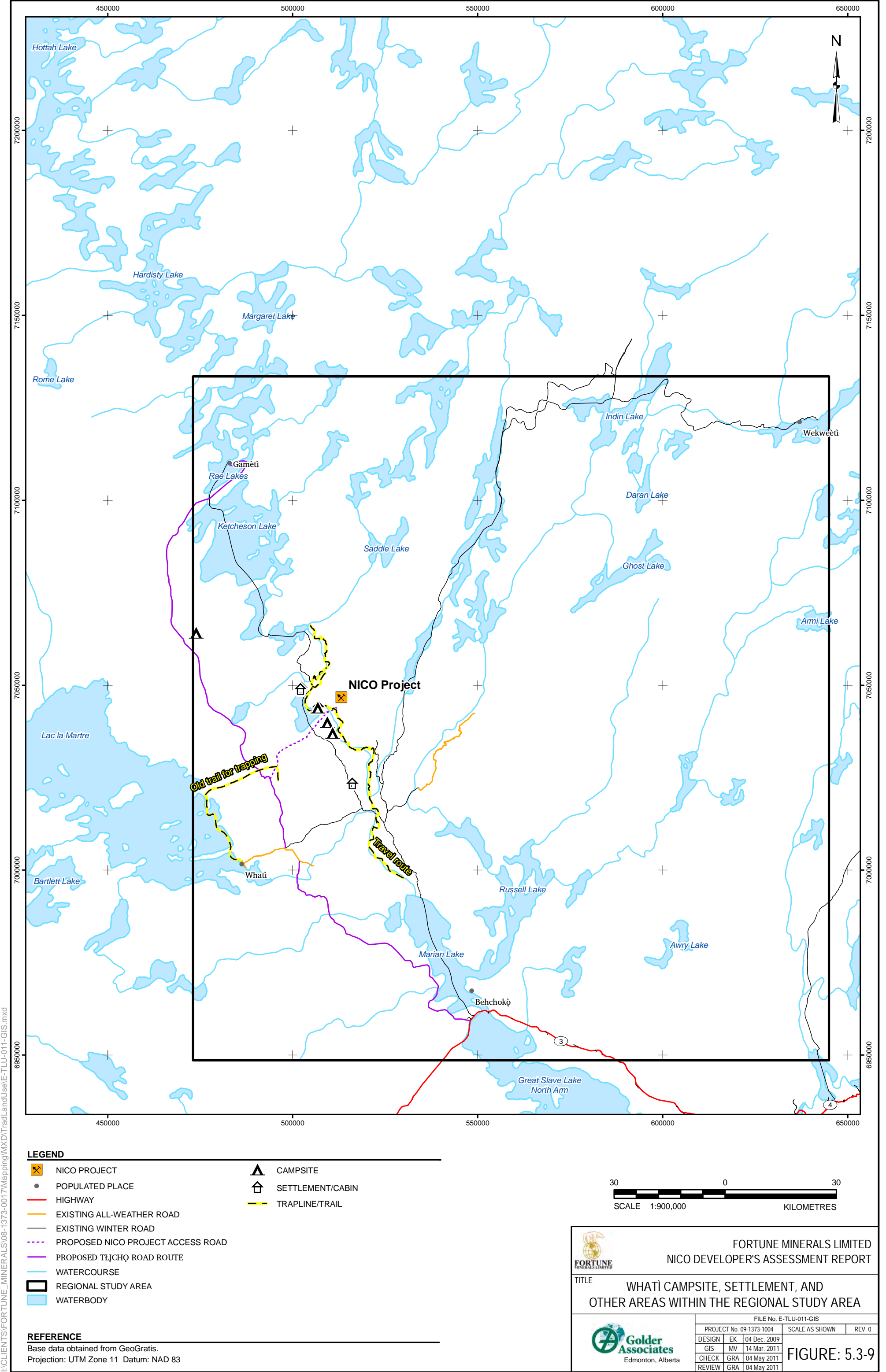
- a camp on a small lake east of Peanut Lake;
- a cabin for trapping on the north end of a lake mid-way between Tumi Lake and Tayonton Lake (near the winter road);
- a camp at the north end of Marian Lake (former location of Gamètì); and
- camps for fishing and hunting set up in the past at the north end of Rabbit Lake.

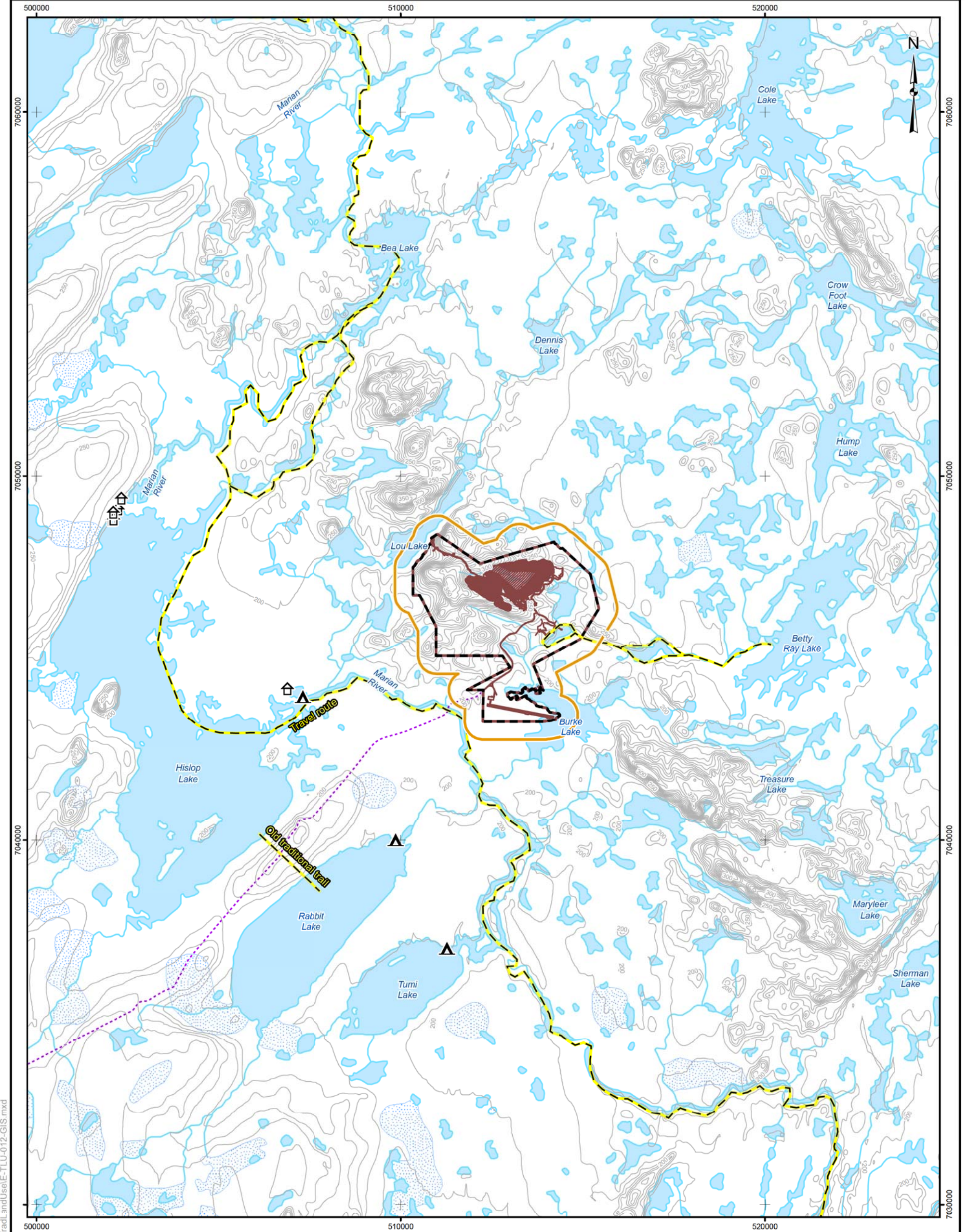
Gamètì interview participants identified the following camps and cabins:

- old partial cabins present near the confluence of the Lac La Martre and Marian rivers;
- cabins along the Marian River;
- a previously identified camp on Bea Lake for fishing; and
- a campsite on a smaller lake along the trail south of Sarah Lake.

Gamètì interview participants also reported that when Gamètì was built in 1966, people moved there from the Rae settlement. Gamètì was originally intended to be an outpost camp, but instead became a settlement. Interview participants also identified camps located outside the RSA at Koropchuk Lake and Hardisty Lake.

As described in Section 16.3 (Historical Resources), 2 hunting sites were identified along the proposed NPAR. The first of the 2 sites was recorded within Borrow Source 3 (Figure 16.3-1, Section 16.3) and the second was identified on either side of a cutline in Borrow Source 2 (Figure 16.3-1, Section 16.3).





LEGEND

- PROJECT LEASE BOUNDARY
- PROPOSED NICO MINE SITE
- CONTOUR (10 METRE INTERVAL)
- PROPOSED NICO PROJECT ACCESS ROAD
- WATERCOURSE
- LOCAL STUDY AREA
- WATERBODY
- WETLAND
- CAMPSITE
- SETTLEMENT/CABIN
- TRAPLINE/TRAIL



REFERENCE

Base data obtained from GeoGratis.
Projection: UTM Zone 11 Datum: NAD 83



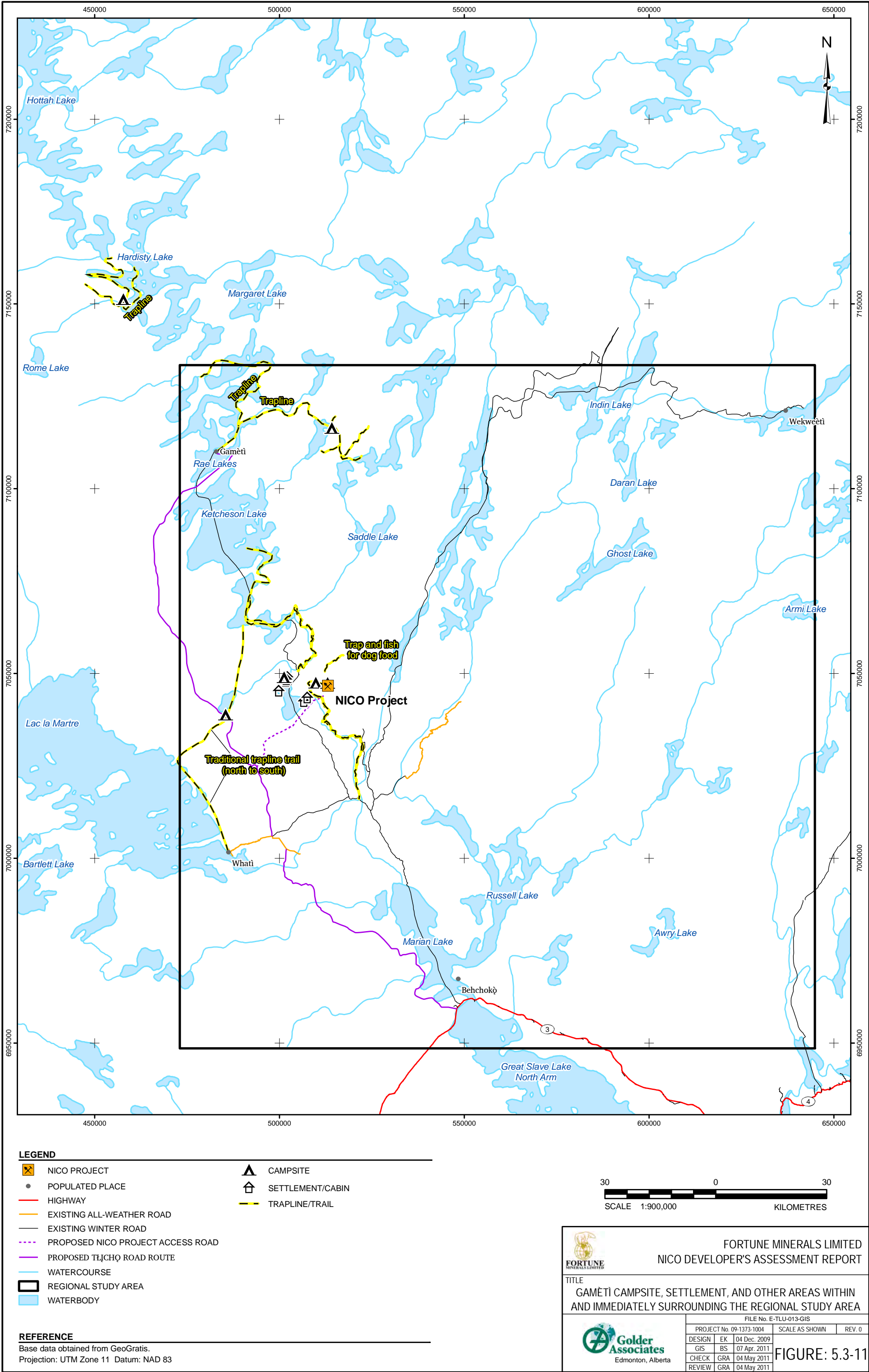
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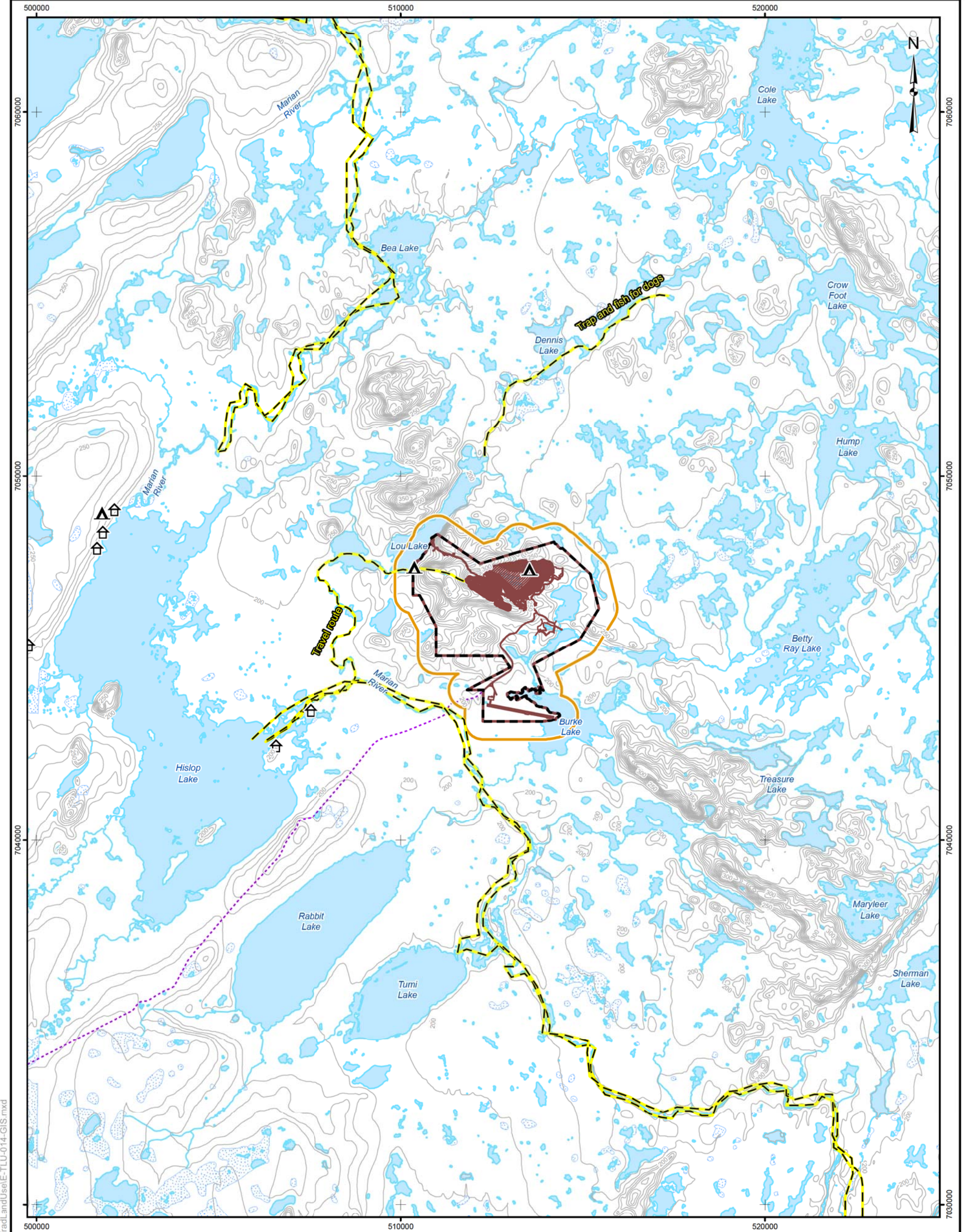
TITLE
WHATÌ CAMPSITE, SETTLEMENT, AND OTHER AREAS WITHIN
AND IMMEDIATELY SURROUNDING THE LOCAL STUDY AREA



FILE No. E-TLU-012-GIS				
PROJECT No. 09-1373-1004			SCALE AS SHOWN	REV. 0
DESIGN	EK	04 Dec. 2009	FIGURE: 5.3-10	
GIS	MV	14 Mar. 2011		
CHECK	GRA	04 May 2011		
REVIEW	GRA	04 May 2011		

I:\CLIENTS\FORTUNE_MINERALS\08-1373-0017\Mapping\MXD\TradLandUse\E-TLU-013-GIS.mxd



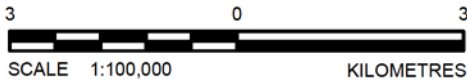



LEGEND

- PROJECT LEASE BOUNDARY
- PROPOSED NICO MINE SITE
- CONTOUR (10 METRE INTERVAL)
- PROPOSED NICO PROJECT ACCESS ROAD
- WATERCOURSE
- LOCAL STUDY AREA
- WATERBODY
- WETLAND
- CAMPSITE
- SETTLEMENT/CABIN
- TRAPLINE/TRAIL

REFERENCE

Base data obtained from GeoGratis.
Projection: UTM Zone 11 Datum: NAD 83






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TITLE
GAMÈTI CAMPSITE, SETTLEMENT, AND OTHER AREAS WITHIN
AND IMMEDIATELY SURROUNDING THE LOCAL STUDY AREA



Golder
Associates

Edmonton, Alberta

FILE No. E-TLU-014-GIS			
PROJECT No. 09-1373-1004		SCALE AS SHOWN	REV. 0
DESIGN	EK	04 Dec. 2009	FIGURE: 5.3-12
GIS	BS	07 Apr. 2011	
CHECK	GRA	04 May 2011	
REVIEW	GRA	04 May 2011	

5.3.5.3 *Camps and Cabins located in the Local Study Area*

During interviews, Gamètì participants identified 2 locations where tent or campsites overlapped the LSA, including a tent area on the southwest side of Lou Lake, and a campsite on top of the hills in the LSA, overlapping the anticipated mine site, where moose were historically hunted.

5.3.5.4 *Burials in the Regional Study Area*

Interview participants from both Whatì and Gamètì referred to burial sites located within the RSA. No burial sites were identified during the Historical Resource Impact Assessment for the NICO Project and NPAR (Section 16.3), and none was identified during a previous Historical Resource Impact Assessment of the NPAR (Paquin 2005).

5.3.5.5 *Burials in the Local Study Area*

No burials were identified within the LSA during the interviews.

5.3.5.6 *Other Cultural Areas*

Whatì interview participants reported that oral tradition describes Mezza Lake as the place where Edyou Abatcho made peace. No further information was provided on this topic.

5.3.6 *Trails and Travel Routes Summary*

5.3.6.1 *Introduction*

Trail areas have been identified both in the RSA and LSA, as well as locations overlapped by the NICO Project area. Trail areas have been identified by Whatì interview participants (Figures 5.3-9 and 5.3-10) and by Gamètì interview participants (Figures 5.3-11 and 5.3-12).

Whatì interview participants reported that before the 1950s and into the 1970s, most people lived in camps, travelled long distances with dog teams and lived on the fish and caribou they caught. Traditionally, the Tłìchq lived according to a yearly cycle that involved travelling along traditional trails in birchbark canoes (Zoe 2007). In the fall the Tłìchq travelled to the barren lands to harvest caribou, and returned to the area below the treeline from the winter until spring (Zoe 2007). An important travel route has been described southwest along Wekweèti (Roundrock Lake) (DCI 1996: Map 1). Another major travel route was from Tidee (Great Slave Lake) to Wekweèti (DCI 1996). One Elder indicated that they also lived and travelled along trails in the Hislop Lake area (DCI 1995: Appendix A). Major winter travel routes included the lower Marian River, Marian Lake, Snare River, Snare Lakes, Russell Lake, and the Lac La Martre winter road (Lutra Associates 1989 a, b, and c, as cited in Diavik 1998).

5.3.6.2 *Trails and Travel Routes Located in the Regional Study Area*

Interview participants from both Whatì and Gamètì identified trails or travel routes within the RSA, such as the Marian River, the main travel route north of Marian Lake, which is overlapped by the NPAR.

The following trails in the RSA were identified by Whatì interview participants:

- an old traditional trail located between Hislop Lake and Rabbit Lake, which is overlapped by the NPAR;
- an old trail for trapping that is overlapped by the southern portion of the NPAR near the Proposed Tłìchq Road Route;

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- several trapline trails located between Tumi Lake and Lac La Martre; and
- a travel route reported from Lac La Martre to a camp at the southeast corner of Hislop Lake.

Gamèti interview participants identified the following trails in the RSA:

- a dogsled trail east of the existing winter road and south of Tumi Lake;
- several trapline trails including 1 located along the northeast boundary of Lac La Martre extending to Sarah Lake;
- trapline trails located at, and connecting Koropchuk Lake and Rae Lake; and
- a long trail through the Bea Lake area.

Gamèti interview participants further identified trapline trails at, and connecting Tuche Lake, Hardisty Lake, and Lac Malfait, all outside the RSA.

During interviews, Gamèti participants identified a traditional trail between Behchokò and Gamèti that follows the Marian River north to Tumi, Hislop, Bea, Mazenod, and Sarah lakes, and to Faber Lake and north. Whatì interview participants also identified a trail along the Marian River.

The trail described by Whatì and Gamèti participants that follows the Marian River is similar in description to a prominent trail described in the literature review located west of the NICO Project in a north to south line called the Jdaà Trail (Figure 5.1-3). This trail is very important to the Dogrib (Tłıchq) people because approximately 20 sacred sites and 189 graves are reported to lie adjacent to the trail or directly along the trail (Andrews et al. 1998). The trail extends from Great Bear Lake in the north to the North Arm of Great Slave Lake in the south. The 2 rivers that make up the trail are the Marian River and the Camsell River, as well as their interconnecting trails (Andrews and Zoe 1997). The following information on the Jdaà Trail was summarised from *Lessons From the Land: A Cultural Journey Through the Northwest Territories* (Prince of Wales Northern Heritage Center no date, internet site).

At Bea Lake (Bea Tì), archaeologists and Elders identified the remains of 2 birch bark canoes along with the birch tree that was used to repair them. North of Bea Lake, near Hislop Lake, are the remains of the “Village beside Nidzii” (Nıdzjıka Kogòlaa), which was the largest of 4 previous villages along the Jdaà Trail. Farther north is the site of Sliding Hill (Hodoòdzoo), south of Faber Lake. Sliding Hill was an important place for people to visit and slide down a wet slope. People believe that if they could slide down the slope without spinning around, they would live a long life.

Approximately midway along the Jdaà Trail is an important portage site called Komoola Portage (Kòmòòla) at which several camp sites and graves are located. Farther north is a fishing area called Hook Place (Dahæak'e) where the deep pools of water make for excellent fishing. Beyond there, in a place called Grave Site (Kw'òòoyeeti), is 1 of the 189 graves reported along the Jdaà Trail. It is located in an area chosen by the deceased individual so that both canoe and dog team trails passed over. The deceased wanted her family to be able to visit her during any time of the year.

The northernmost notable sites along the Jdaà Trail are a sacred site called Blood Rock (Kweæehdoò), which is a quarry used in the past to make tools, and Fence Narrows, which was once an active caribou hunting area and integral part of the yearly harvest.

The Monfwi Trail (also spelled Mqwhì) also appears to be overlapped by the RSA along the south and eastern boundaries, but does not appear to be overlapped by the LSA (Tłìchq Government 2007). Chief Mqwhì, for which the trail is named, signed Treaty 11 in 1921 and travelled through the extent of Tłìchq land.

Canoe routes described as “Canoe Routes of Our Ancestors” also appear to be overlapped by the RSA (Tłìchq Government 2007). One route passes just west of the NICO Project, but appears to be outside the LSA. A program called the “Trails of Our Ancestors” was developed to allow participants, including Tłìchq Elders and students to canoe through traditional trails between communities as a way to teach youth of the Tłìchq Nation about the context of new society and traditional practices (Zoe 2007).

5.3.6.3 Trails and Travel Routes located in the Local Study Area

During interviews, participants from both Whatì and Gamètì identified trails or travel routes within the LSA. Gamètì interview participants indicated that a travel route runs east from Hislop Lake through the LSA. Whatì participants identified a trapline/trail located between Peanut Lake in the LSA and Betty Ray Lake. The trapline/trail also overlaps the NICO Project.

Section 16.3.2.2 (Historical Resources) reports what was thought to be a portage trail within the LSA. The trail was reported to be between Burke Lake, and Peanut and Nico lakes in the southeast portion of the NICO Project footprint.

5.4 Integration of Traditional Knowledge

The following describes how TK was integrated into various sections of the DAR.

5.4.1 Contribution to NICO Project Design

Several NICO Project design features have been changed or modified as a result of communication with Tłìchq members. As a response to concerns regarding the use of process chemicals on-site and possible release to the environment, Fortune has relocated the hydrometallurgical facility to Saskatchewan. By relocating the hydrometallurgical facility and adjusting the process design, the amount of water used by the NICO Project will be decreased and significantly less water will be discharged from the NICO Project (R. Schryer, Fortune, 2011a, pers. comm.). In addition, far less process chemicals will be transported through Tłìchq Lands and used at the NICO Project, now that this facility has been moved south.

The decision for the Co-Disposal Facility considered that it would have the smallest footprint of the 3 alternatives considered for tailings and Mine Rock, that it would be entirely contained in the Grid Pond area, and that it would not be visible from the Jdaà trail (Section 9.4.2.3). The Co-Disposal Facility was also specifically designed so that it would not be higher than the surrounding hills and consequently not visible from Hislop Lake (R. Schryer, Fortune, 2011a, pers. comm.). Also, by building the Co-Disposal Facility, the Mine Rock Management Area has been eliminated, reducing the visual impact of the NICO Project. The Mine Rock Management Area would have been visible from the Marian River and Hislop Lake prior to these changes. The current design of the Co-Disposal Facility as well as other NICO Project design features have reduced the footprint of the NICO Project by approximately 200 hectares from the previous NICO Project design (R. Schryer, Fortune, 2011a, pers.

comm.). When the results of the NSMA studies become available, they will be considered in NICO Project planning.

5.4.2 Contribution to Impact Assessment

The TLU and TK studies have contributed to the DAR by providing other disciplines with TLU and TK information to inform the assessments of those sections. Information provided to other discipline sections includes interview material and the results of the literature review for the Tłıchq, as well as the results of the literature review for the Métis. The following summarises how TLU and TK information was integrated into the various assessments in the DAR.

Wildlife

Based upon Tłıchq community input, Section 15.1.1 included moose and caribou as VCs for the wildlife assessment. The wildlife baseline was also informed by TK information (Section 15.2.5). The potential effects of the NICO Project on traditional harvesting was also considered in the effects analysis of the wildlife assessment as they relate to people (Section 15.5).

Caribou

Section 8.3.2.3 incorporated TK as part of a description of the importance and locations of traditional caribou harvesting within the RSA. In addition, aspects of caribou health and migration are discussed in the context of TK. Traditional Knowledge was also used in Section 8.5.5 to inform the assessment of NICO Project related effects to people in the context of caribou harvesting.

Vegetation

The plants used by traditional harvesters informed the existing environment section of the vegetation assessment (Section 14.2.1.4), and were also included as VCs for the vegetation assessment (14.1.2). The pathways analysis for the vegetation assessment (Section 14.3) identified pathways that would include the consideration of traditional and other plant species. The potential effects to traditional plants was assessed in Section 14.4.2.3. The vegetation assessment further included a discussion of traditional plant use as part of its discussion on effects related to people (Section 14.5). The residual impact classification would have included the potential effects to traditional plants (Section 14.7).

Fish and Aquatic Habitat

Section 12.2.6.3 incorporated TK as part of a description of the importance and locations of traditional fishing within the RSA. Traditional Knowledge were also used in Section 12.4.2.4 and 12.5 to inform the assessment of NICO Project related effects to people in the context of fish harvesting.

Closure and Reclamation

Section 9.4.2 discusses how community feedback and considerations of traditional knowledge have influenced the Closure and Reclamation Plan. More information relating to TLU and TK information that has been incorporated into the Closure and Reclamation Plan can be found below in Section 5.4.4.

Human Environment

Traditional Knowledge and TLU information was used to inform the SON Human Environment of the DAR (Section 16). The pathways analysis of the SON Human Environment further considered pathways that may have the potential to affect traditional resources or activities (Section 16.3) or important cultural areas (Section

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16.3; Section 16.3.2.2.5). An analysis of the potential effects of the NICO Project on traditional harvesting activities is included in Section 16.4.2. An analysis of the potential effects of the NICO Project on important cultural areas is found in Section 16.3.2.2 and Section 16.3.4.

Table 5.4-1 summarises where TK and TLU information was integrated into the DAR.

Table 5.4-1: Summary of Traditional Knowledge and Traditional Land Use Integration Into the Developer's Assessment Report

Impact Assessment Discipline	Assessment Component	Impact Assessment Sections
NICO Project Design		Section 5.4.1
Wildlife	Existing Environment Related Effects to People	Section 15.2.5 Section 15.5
Caribou	Traditional and Non-Traditional Use Related Effects to People	Section 8.3.2.3 Section 8.5.5
Vegetation	Existing Environment Ecological Classification Pathways Analysis Effects Analysis Residual Impact Classification	Section 14.2.1.4 Section 14.2.2.4 Section 14.3 Sections 14.4.2.3; 14.5 Section 14.7
Fish and Aquatic Habitat	Traditional and Non-Traditional Use Effects to Fish Populations in Hislop Lake Related Effects to People	Section 12.2.6.3 Section 12.4.2.4 Section 12.5
Closure and Reclamation		Sections 5.4.4; 9.4.2
Human Environment	Human Environment Baseline Pathways Analysis Effects Analysis	Section 16.2.2.10, 16.2.2.11 Sections 16.2.3; 16.4.1 Sections 16.4.3; 16.4.4; 16.4.5

5.4.3 Monitoring and Mitigation

Fortune has provided several monitoring and mitigation plans. Commitments to the NICO Project including the following:

- Fortune is committed to having discussions with hunters and trappers who approach Fortune with the belief that their hunting and trapping practices have been compromised by the NICO Project (R. Schryer, Fortune, 2011b, pers. comm.);
- Fortune will restrict traffic onto the NICO Project site for safety reasons;
- Fortune will hire Tłı̨ch̓ people to perform on-site monitoring whenever possible, and assist in the design of monitoring programs;
- Fortune has had discussions with the Tłı̨ch̓ government for site visits for the Elders to assist in the design of site monitoring plans (e.g., Aquatic Effects Monitoring Program, and Wildlife Effects Monitoring Program);
- burial sites will be avoided, and archaeological sites will be avoided or mitigated according to acceptable procedures;

- Fortune will examine ways to mitigate dust generation on the road to limit potential impacts on plant and animal life;
- Fortune will have a monitoring program in place to monitor water quality;
- Fortune will be adding a baseline water quality station at Behchokò that will be monitored now and during operation of the mine to check water quality;
- Fortune has added 2 water quality stations on Hislop Lake to satisfy concerns over water quality in that lake; and
- Fortune has committed to developing a monitoring program with the help of the Tłìchq that will examine the health of streams and lakes potentially affected by the NICO Project.

For more information relating to monitoring and mitigation plans refer to Section 18 (Biophysical Environment Monitoring and Management Plans).

5.4.4 Closure and Reclamation Planning

The conceptual Closure and Reclamation Plan is intended to form the basis for discussions and input from the Tłìchq for a Final Closure and Reclamation Plan; however, the following were influenced based on community feedback and considerations of TK as presented in Section 9.4.2.3:

- the decision to implement the Co-Disposal Facility considered that it be entirely contained in the Grid Pond area, that it would not be visible from the Įdaà Trail, and that it would have the smallest footprint of the 3 alternatives;
- the decision not to surround the Open Pit with a fence, but rather to construct a boulder wall to prevent “inadvertent access” by people and wildlife;
- the decision to put a capillary break under the top cover on the Co-Disposal Facility is intended to prevent the vegetation on the top from uptaking arsenic and other metals (the concern is that the caribou would graze on the vegetation and arsenic would enter the food chain); and
- the decision to move the hydro-metallurgical facility to Saskatchewan, which was based in part on concerns from the Tłìchq regarding residual chemicals from the process and water quality at closure.

Fortune has also stated that upon closure, all of the mine and Mineral Process Plant facilities will be properly decommissioned and removed. Until the site water discharges can be demonstrated to meet acceptable criteria for discharge without treatment, the Effluent Treatment Facility will be maintained and operated as necessary. The Co-Disposal Facility will be capped at closure. Fortune will continue to treat water coming from the site at closure until they are confident that discharge criteria can be met for the long-term.

5.4.5 Plans for Future Cooperation

At time of writing, Fortune was in negotiations with the Tłìchq Government on a TK study agreement that would see the Tłìchq complete a more extensive study for the NICO Project. Fortune also plans to continue discussions with the NSMA regarding the completion of the NSMA TLU studies related to the NICO Project.

5.5 Summary

Fortune is proposing to develop the NICO Project, which is located in an area that is designated separate from Tłı̨cẖ lands, but surrounded by Tłı̨cẖ lands in the NWT. Fortune collected TLU and TK information for the NICO Project for incorporation into relevant technical discipline sections of the DAR to determine the potential effects of the NICO Project on TLU, and meet the TOR.

The TLU and TK studies have contributed to the DAR by providing other relevant sections with TLU and TK information that can be used to inform the assessments of those sections. Sections in which TLU and TK information was integrated include the Closure and Reclamation Plan (Section 9), Human Environment Assessment (Section 16), the Wildlife Assessment (Section 15), the Caribou Assessment (Section 8), the Fish Assessment (Section 12), and the Vegetation Assessment (Section 14). A description of how TK was integrated into other aspects of the NICO Project and other sections of the DAR is also included. Several NICO Project design features have been changed or modified as a result of communication with Tłı̨cẖ members including the moving of facilities, changing the design of facilities, and a reduction in the footprint of the NICO Project.

The TLU and TK data collection included interview information and information derived from available literature. Interviews were initiated or completed in Whati and Gamètì. As a result of a death in one of the communities, and in consultation with the community governments, interviews in Behchoḵ and Wekweètì were cancelled. Traditional Land Use and TK information pertaining to the Métis was collected during a literature review. Fortune has provided financial support to the NSMA to complete their own TK studies for the NICO Project, and when information from the studies becomes available, it will be considered in NICO Project planning.

Interview participants from both Whati and Gamètì reported that hunting and trapping, fishing, plant harvesting activities, trails and travel routes, and camping, cabin, and burial areas are located throughout the RSA. In addition, interview participants indicated that areas immediately surrounding the LSA, most notably Hislop Lake and sections of the Marian River, are used for harvesting, and as locations for camps, cabins, and travel routes. Several areas were also identified overlapping the NPAR and LSA, including the NICO Project.

Whati and Gamètì interview participants indicated that hunting and trapping areas currently overlap the NPAR, as well as the general vicinity of the NICO Project. Past hunting and trapping areas reported by both Whati and Gamètì interview participants in areas overlapped by the LSA include the following:

- trails used for hunting or trapping from Hislop Lake to the LSA; and
- trapping in the general vicinity of Peanut and Nico lakes.

Gamètì interview participants noted that hunting around the NICO Project site is generally limited to moose and rabbits. Other areas used for hunting or trapping that are overlapped by the LSA include the area near Burke Lake and Lou Lake. Gamètì interview participants further indicated that trapping occurred near Lou Lake and that people might continue to hunt caribou near the NICO Project after the NICO Project is completed, as well as hunting in the hills surrounding the general vicinity of the NICO Project. Interview participants from both communities reported trails or traplines that overlapped either the LSA or the NPAR.

Interview participants reported that the animals are different now than in the past. For example, there are perceived differences relating to animal health, including taste, behaviour, and appearance. There is a perception by some of the Gamètì Elders that if the NICO Project is developed, the wildlife in the area may be

affected. While some of the interview participants from Gamètì said there was a noticeable change in the birds and animals, others indicated there was no change in moose health.

Discussions regarding the health of animals were primarily focused on caribou. Gamètì and Whatì interview participants, as well as previous studies (Dogrib Treaty 11 Council 2001b), have reported that there are perceived changes in animals, contamination levels, or changes to migration routes due to mining activities. Whatì interview participants identified 2 caribou migration routes that overlap the LSA. Whatì interview participants said that unlike the caribou in the Ekati Mine area which appear healthy, the caribou between Hislop Lake and Lac La Martre do not appear healthy. Gamètì Elders questioned whether it will be possible to continue hunting along the Marian River, and if any of the animals around the proposed NICO Project will be safe to eat.

Interview participants from both communities reported that fishing occurs within the LSA at Lou Lake. Both communities also identified Hislop Lake, west of the LSA, as a fishing area. Gamètì interview participants also noted that fishing used to be good in Peanut Lake and Nico Lake, but did not say whether or not these lakes continue to be used for fish harvesting. A Whatì Elder also reported that an unnamed lake near the NICO Project was at one time good for fishing. Gamètì interview participants reported that there are still lots of good fishing places in the general vicinity of the NICO Project. One interview group from Whatì indicated that fishing is currently only done in Lac La Martre and 1 interview group from Gamètì reported that most fishing occurs near Gamètì now. Perceptions of fish health ranged from healthy to a reduction in health, relative to the past. In general, interviewees noted that waterbodies near mining developments had reduced fish health, but there were still healthy fishing areas in the RSA and LSA.

Both Whatì and Gamètì participants indicated that many plants and berries are harvested in the vicinity of the NICO Project, such as at Lou Lake, which was used as a staging area to harvest berries among the hills. Participants also noted that while people have harvested berries near the NICO Project, they no longer travel large distances to collect berries and typically harvest closer to where they live. Blueberries, cloudberry, and cranberries (high and low bush) were harvested near the NICO Project.

While some of the interview participants from Whatì believe that the quantity and taste of plants and berries has not changed, others believe that the general health of people and plants has declined. Some participants also believe the land is becoming dryer, resulting in more grass, and that the wood of trees has become discoloured (reddish).

Interview participants from both Whatì and Gamètì identified trails or travel routes within the LSA or overlapping the NPAR. Gamètì interview participants indicated a travel route from Hislop Lake to the LSA. Whatì interview participants identified a trapline/trail located between Peanut Lake in the LSA and Betty Ray Lake. The trail described by Whatì and Gamètì interview participants that follows the Marian River is similar in description to the Jdaà Trail. This trail is very important to the Dogrib (Tłıchǫ) people because approximately 20 sacred sites and 189 graves are reported to lie adjacent to the trail or directly along the trail.

Whatì interview participants identified 2 campsites within the NICO Project Lease Boundary. No burials were identified during the Historical Resource Impact Assessment of the NICO Project or NPAR (Section 16.3) nor during a previous Historical Resource Impact Assessment of the NPAR (Paquin 2005).

Concerns, comments, and questions related to the NICO Project or development in general were reported by both Gamètì and Whatì interview participants. Some interview participants indicated that if properly operated,

the NICO Project development and operation would be acceptable; and that jobs for the younger people would be beneficial. Nonetheless, many people are still concerned about aspects of the NICO Project. These concerns generally included potential effects to the following:

- human and animal health: air, water, and noise pollution from developments;
- effects to the environment: animals, fish, and birds;
- sustainable employment: effects on traditional activities; and
- relationships between communities and companies who are developing in the area.

Information relating to Métis use of the area was less available; however, Métis land use and trips into the North Slave region have been reported as extensive, including the use of nearby lakes and areas as distant as the barren lands. Areas such as Old Fort Rae (fur trading), Rae Lakes, Russell Lake area, and the North Arm of Great Slave Lake were noted as areas either used by the Métis or as wildlife habitat areas. Old Fort Rae and the North Arm of Great Slave Lake were discussed most prominently. It has also been previously reported that the Métis (along with Tłı̨ch̓) traditional activities in the RSA were focused on the Marian River and large lakes. The NSMA reported that prior to 1940, caribou historically came to the Old Fort Rae area, but no longer come to that area because of mining activities. The NSMA has voiced concerns about mining and non-mining activities in the region. The concerns primarily relate to noise, air and water pollution, and their perceived effects on fish, caribou, and the traditional activities of the Métis. The identified Métis traditional sites do not appear to specifically overlap the NICO Project.

Fortune has indicated that the NICO Project will have a Closure and Reclamation Plan that will consider the human environment. The principle of the Closure and Reclamation Plan is that there will be on-going dialogue with the people interested in the NICO Project to gain a mutual understanding of closure and reclamation phases, and the timing. Specifically, Fortune has indicated that there will be effective community consultation and engagement.

5.6 References

- Andrews, T., J.B. Zoe, and A. Herter. 1998. On Yamözhah's Trail: Dogrib sacred sites and the anthropology of travel.
- Andrews, T., and J. B. Zoe. 1997. The Įdaà Trail: archaeology and the Dogrib cultural landscape, Northwest Territories, Canada. In Tłı̨ch̓ Government. 2007. Trails of Our Ancestors: Building a Nation. Edited by John B. Zoe. Tłı̨ch̓ Community Services Agency, Behchokò, NWT.
- The Bathurst Caribou Mangement Planning Committee (BCMPC). 2004. A management plan for the Bathurst Caribou Herd. November 2004.
- Cluff, H.D. 2005. Survey of moose abundance in the boreal forest around Yellowknife, Northwest Territories. Final Report to the West Kitikmeot/Slave Study Society. Yellowknife, NWT.
- DCI (Dene Culture Institute). 1995. Traditional methods used by Dogrib to redirect caribou. A report for the Dogrib Renewable Resources Committee, Dogrib Treaty 11 Council and Department of Renewable Resources, GNWT, Yellowknife, NWT.

FORTUNE MINERALS LIMITED NICO DEVELOPER'S ASSESSMENT REPORT

- DCI. 1996. We know and love Tłıchq Nde: comments and concerns from the Dechilaot'i Elders. A report for the Dogrib Renewable Resources Committee, Dogrib Treaty 11 Council, GNWT, Yellowknife, NWT.
- Diavik (Diavik Diamonds). 1998. Diavik Diamonds Project: Environmental Assessment. Prepared by Diavik Diamond Mines Inc.
- Dogrib Treaty 11 Council. 2001a. Habitat of Dogrib traditional territory: placenames as indicators of biographical knowledge. Submitted to the West Kitikmeot Slave Study Society. Yellowknife, NWT.
- Dogrib Treaty 11 Council. 2001b. Caribou migration and the state of their habitat. Submitted to the WKSS. Yellowknife, NWT. March 2001.
- Dogrib Treaty 11 Council. 2002. Dogrib knowledge on placenames, caribou and habitat. Submitted to the West Kitikmeot Slave Study Society. Yellowknife, NWT.
- Fortune (Fortune Minerals Limited). 1998. Technical Report on the Environmental Scoping for Fortune Mineral's NICO and Sue-Dianne Properties. Prepared by Golder Associates Ltd.
- GNWT (Government of the Northwest Territories). 2011. Tłıchq Agreement Highlights. Available at: http://www.daair.gov.nt.ca/_live/pages/wpPages/TlıchoAgreementsHighlights.aspx. Accessed 3 April 2011.
- Helm, J. 1981. Dogrib. In handbook of North American Indians. Smithsonian Institution. Washington, DC.
- INAC (Indian and Northern Affairs Canada). 2005. Tłıchq Land Claims and Self-Government Agreement Act Receives Royal Assent. 15 February 2005. Available at: <http://www.ainc-inac.gc.ca/ai/mr/nr/j-a2005/2-02586-eng.asp>. Accessed: 12 March 2011.
- Lutra Associates Ltd. 1989a. Northern frontier zone tourism development strategy: 1989-1993. Rae Edzo Tourism Development Plan, Yellowknife, NWT.
- Lutra Associates Ltd. 1989b. Northern frontier zone tourism development strategy: 1989-1993. Rae Lakes Tourism Development Plan, Yellowknife, NWT.
- Lutra Associates Ltd. 1989c. Northern frontier zone tourism development strategy: 1989-1993. Snowdrift Tourism Development Plan, Yellowknife, NWT.
- MVRB (Mackenzie Valley Review Board). 2009. Terms of Reference for the Environmental Assessment of Fortune Minerals Ltd. NICO Cobalt-Gold-Bismuth-Copper Project EA 0809-004. Yellowknife, NWT.
- NWT (Northwest Territories). 1988. *Scientists Act*. R.S.N.W.T. 1988, c.S-4. Yellowknife, NT: Territorial Printer. Available at: <http://www.canlii.org/en/nt/laws/stat/rsnwt-1988-c-s-4/latest/rsnwt-1988-c-s-4.html>. Accessed: 12 March 2011.
- NSMA (North Slave Metis Alliance). 2001. Can't live without work North Slave Metis Alliance environmental, social, economic and cultural concerns: a companion to the comprehensive study report on the Diavik Diamonds Project. North Slave Metis Alliance, Treaty 11.
- Paquin, T.A. 2005. Heritage resources impact assessment Fortune Minerals NICO Mine All-weather access toad. Northwest Territories Archaeologists Permit #2004-963. Ms. on file, Prince of Wales Northern Heritage Centre. Yellowknife, NWT.

FORTUNE MINERALS LIMITED NICO DEVELOPER'S ASSESSMENT REPORT

- Prince of Wales Northern Heritage Center. no date. Available at <http://www.lessonsfromtheland.ca/IndexLng.asp>. Accessed January 2011.
- Schryer, R. 2011a. Director of Regulatory and Environmental Affairs. Fortune Minerals Limited, London, ON. E-mail 16 February 2011.
- Schryer, R0. 2011b. Director of Regulatory and Environmental Affairs, Fortune Minerals Limited, London, ON.. E-mail 21 January 2011.
- Tłıchq Government. 2007. Trails of our ancestors: building a nation. Edited by John B. Zoe. Tàıchô Community Services Agency, Behchokò, Northwest Territories, Canada.
- Tłıchq Land Claims and Self-Government Act Receives Royal Assent. 2008. Available at: <http://www.ainc-inac.gc.ca/ai/mr/nr/j-a2005/2-02586-eng.asp>. Accessed: 3 June 2010.
- Zoe. J. B. 2007. Trails of our ancestors: building a nation. In Tłıchq Government. 2007. Trails of Our Ancestors: Building a Nation. Edited by John B. Zoe. Tłıchq Community Services Agency, Behchokò NWT.