Critical Elements Corporation

Rose Mining Project– Tantalum and lithium

Description of a project designated under the

Canadian Environmental Assessment Act

August 2012

PROJECT SUMMARY

1.0 GENERAL INFORMATION

The Rose- Tantalum and lithium Project includes the construction, operation and decommissioning of an open pit mine that will exploit a tantalum and lithium deposit 38 km north of Nemaska, Quebec.

The Rose property comprises 482 active mining claims spread over 25 133 ha (251 km²). All are located on Quebec public lands.

The promoter, in addition to submitting the project to the Canadian Environmental Assessment Agency, is also responsible for submitting its project to the Quebec *Ministère du Développement durable, de l'Environnement et des Parcs* (MDDEP) as required under the *Loi sur la qualité de l'environnement* and the *Règlement sur l'évaluation et l'examen des impacts sur l'environnement et le milieu social dans le territoire de la Baie James et du Nord québécois* (Q-2, r.25).

Project Title

The Rose - Tantalum and lithium Project

Developer Information

Critical Elements Corporation
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The environmental impact assessment mandate for this project was contracted to GENIVAR Inc.

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Consultation with Aboriginal Groups and Organizations

Participation and consultation activities with the Eastmain and Nemaska Cree communities were undertaken and more are planned in the context of the Rose mining project (e.g. Open House Day, information leaflet, interviews with local stakeholders, public information session, themed workshop, and group discussions). The Waskaganish community was also approached, even if they are not directly affected by the project (community located outside the limited study area).

These consultation initiatives aim to allow members of the Cree communities of Eastmain, Nemaska and Waskaganish to express their expectations and concerns and to obtain information on the project throughout the environmental impact assessment process. In addition, Cree concerns and expectations will be taken into account during the design and the conduct of the impact assessment study.

To date, interviews were conducted in February and March 2012 with stakeholders involved in the economic, social, cultural, health and environmental sectors of the Cree community. Finally, three group discussions were held with women, youth and men from Eastmain. The meetings held to date revealed the following preoccupations: (1) impacts from mining activities on the environment and on territorial use (hunting, fishing, and trapping); (2) job creation associated with the mining project as well as the various terms and criteria for training and hiring personnel; (3) proper disclosure of information about the project (impacts and mitigation measures) to the native communities concerned; (4) problems associated with drug and alcohol abuse which arise from the presence of the mine; (5) relations between Cree and Non-natives; (6) social problems associated with work at the mine; (7) working conditions and job environnement of the Cree workers at the mine; (8) displacement of qualitifed workers in the community to the profit of the mining company; (9) economic benefits for the Cree communities and general participation of Crees in the project; (10) social tensions in cases of favoritism towards certain parties; and (11) social involvement of the mining company within the community. It is important to note that the majority of stakeholders and representatives that were consulted were in favor of this project, particularly for the job perspectives that this type of project would bring to the community's youth, provided that the environment is protected and respected.

Other Consultation Activities

Aside from consultation activities with the Aboriginal groups, consultation initiatives are planned with the public and other stakeholders, such as representatives or organizations from the Municipality of James Bay.

In addition, the Preliminary Economic Assessment (PEA) was presented to the *Autorités des marchés financiers* (AMF) and is mentioned on CEC's website. The Rose mining project was also presented to the *Ministère de l'environnement et du développement durable* (MDDEP), and a Project Notice was filed with and presented to the COMEX. A provincial directive was issued in February 2012.

Other Environmental Studies

The Rose Project is the only project in the area for which an Environmental Impact Study is mandatory. The last environmental study conducted was the ¨ 315kV double-circuit line Eastmain-1- Némiscau, Eastman Station and work at Nemiscau Station¨ (« *Ligne biterne à 315 kV Eastmain-1- Némiscau, poste de l'Eastmain-1 et travaux au poste de la Nemiscau*), by Hydro Quebec in 2004. No regional environmental study where the project is located has been or is being made.

2.0 PROJECT INFORMATION

The Rose Tantalum-lithium mining project follows up exploration and drilling by the Critical Elements Corporation (CEC), which began in 2009. According to the latest estimates (summer 2011), the assessment of current resources demonstrates that the Rose deposit is a world-class deposit of lithium and tantalum. It would rank as one of the most important sources of "*Conflict Free Tantalum*".

The Rose Project will be subject to study and analysis from the phase of construction/pre construction to the stage of mine closure, covering activities related to the operation of a Tantalum and Lithium deposit.

The goal of the Rose Project is to exploit both the Tantalum and Lithium minerals. Since the Rose deposit is located close to the surface, an open-pit mine operation is recommended. It is not excluded that a portion of the deposit could be exploited via tunnels. The ongoing studies will determine such. To date, the nominal mining rate planned by CEC is in the range of 4,500 tons per day. The extracted ore will be treated in a plant located on the Rose property.

The project could be subject to an environmental assessment under the Canadian Environmental Assessment Act, 2012 (CEAA 2012), since the operation of the pit could result in the extraction of 200 000 m^3/year or more water groundwater (Article 8 of the Regulations Designating Physical Activities). In addition, since lithium is an alkali metal, and tantalum is a transition metal, the Rose mining project is considered a metal mine (Article 15a of the Regulations Designating Physical Activities).

The first phase of project work will include site preparation, such as tree clearing, excavation and leveling to prepare the land for various project infrastructures.

The main infrastructures of the industrial complex will include: an ore crushing station; a conveyer; an ore concentration plant used to produce spodumene and tantalum concentrates; a plant for converting spodumene into lithium carbonate; maintenance and storage facilities; a laboratory; and administrative buildings (map 2). Of course, access roads will also be necessary within the permit's boundaries.

The concentrates and lithium carbonate will be product within the site. Subsequently, the lithium carbonate and tantalum will be transported by truck for final shipping by train to the American market or by ship to either the Asian or European markets. No port infrastructure will be built for the Rose Project. Existing infrastructure will be used.

For the needs of exploiting the deposit, a few pilons on site with double-circuit lines must be relocated. Discussions are underway with Hydro-Québec to determine the best scenario.

At the end of the mine life, restorations measures will be taken in order bring the environment as close as possible to its original state. A progressive restoration approach will be deployed and adapted to the project's location.

As currently planned, the Rose mining project represents an investment in the range of $250 million. About 200 employees will be employed at the mine site during the construction and operational phases. The total life-span of the project is estimated to be 17 years. The feasibility study for the Rose project has been completed in 2012 and the environmental impact assessment study will be submitted before the end of 2012.

The main steps in carrying out the Rose mining project, as defined to date, are the following:

2012

- Feasibility Study
- Production Decision
- Submit Environmental Impact Study
- Detailed Engineering
- Government Authorisations

2013

- Beginining of Construction Work
- Decisions on Certificates of Authorisation

2014 Règlement désignant les activités concrètes

- End of Construction Work
- Beginning of Production

2031

- End of Exploitation
- Beginning of Mine Closure Work

Description of the likely waste to be produced during the different phases and their management plan

Solid waste

- Tailings

Methods of treatment and disposal that will be deployed as part of the management of tailings will be specified in the environmental assessment process. For the moment, it is planned to locate the tailings park to the west of the Némiscau-Eastman road.

- Waste rock

The waste rock pile will be located and managed in order to prevent acid mine drainage into the natural environment (retaining and treatment mechanisms, separation of poor ore's acidifying and non-acidifying tailings, etc.). According to current knowledge, there would be no sulfur (less than 0.02% in the composite) in the ore as well as in as in the waste rock, as well as a strong alkaline content in the waste rock.

- Solid waste and solid waste management

All waste produced during the project will be managed in accordance with the regulations in force and will be placed in sites allowed to host when the recycling and reuse cannot be recommended.

Liquid Waste

The effluent from the tailings will be controlled in accordance with applicable regulations and requirements, including those set out in MDDEP's Directive 019 applicable to the mining industry. Necessary efforts will be put in place to recover as much as possible the water used in the different operations of the mine. The project makes no use of water bodies for storage of tailings or waste rock. The release of soluble pollutants is well contained because water will mainly circulate in closed-circuit, and that monitoring of the final effluent will take place before any releases into the environment. All details will be supplied in the impact assessment report.

Gaseous waste

Rose mining project is likely to produce some emissions of air contaminants (eg suspended solids) as well as greenhouse gas (GHG) emissions. The various sources of these emissions, associated with different phases of the project, will be clearly identified and evaluated in the context of the environmental impact assessment. GHG emissions associated with machinery present on the site will be part of foreseeable release into the environment, both during the construction and operation phases. Every effort will be made minimize these emissions.

Dangerous waste

The storage of hazardous materials, explosives and petroleum products will be handled in accordance with the regulations in force (e.g. Hazardous Materials Regulations, Regulations of the Explosives Act, Regulation respecting occupational health and safety in mines, Regulation respecting the storage of petroleum products, etc.). A complete list of hazardous waste produced at the mine site will accompany the environmental impact assessment.

3.0 INFORMATION ON PROJECT LOCATION

The Rose property is located in the Nord-du-Québec administrative region in the territory of the Municipality of Bay James Bay (Map 1), and, more specifically, on Category III Lands close to the Cree community of Eastmain. About 40 km south of the property is the Cree community of Nemaska (Nemiscau), which is located about 300 km north-north-east of Chibougamau. The Rose property is accessible by the *Route du Nord*, an all-season road starting from Chibougamau. The mine site is also accessible through Matagami, via route 109 and then the *Route du Nord*.

The approximate coordinates of the Rose property are:

WSG, 1984	UTM (Zone 18, NAD83)
51°59'32''	5 761 000 m North
76°18'55''	409 700 m Est

4.0 FEDERAL GOVERNMENT PARTICIPATION

None of the lands that make up the Rose property are under federal jurisdiction. There is no Crown land on this property.

No financial support will be sought from the federal government as part of this project. However, certain federal authorities may be required to comment on and make decisions relating to the project pursuant to the following legislative requirements:

- The *Canadian Environmental Assessment Act*;
- The *federal Fisheries Act*;
- Metal Mining Effluent Regulations;
- The *Explosives Act*;
- The *Navigable Waters Protection Act*;
- The *1994 Law on the Migratory Birds Convention Act*;
- The *Migratory Birds Convention Act*;
- The *federal Species at Risk Act*.

Since studies are currently underway in the context for preparing the environmental impact assessment, it is presently impossible to determine the participation of the federal ministries.

5.0 ENVIRONMENTAL EFFECTS

Description of Environment

Two study areas were delineated to proceed with the identification of impacts: a limited study area and extended study area (Map 3).The Rose mining project will be in an area where it will cross two river basins, namely the Eastman River and the Pontax River. In addition, at least two water bodies will be directly affected by the exploitation of the pit. The higher elevations are covered with till, punctuated by rocky outcrops. The lower elevations are covered with layers of sand and gravel with boulders, lying on till or directly resting on the bedrock.

Resinous terrestrial stands and peatlands are major plant communities of the area. Heaths dominate virtually all landscapes.

The principal terrestrial vegetation in the territory includes predominantly softwood stands as well as peat bogs. The population density of land wildlife is slow because the environment is generally unproductive. In addition, this area constitues the range limit for some species. With regard to the avifauna, several species of interest for hunting are present along with those from the forestry sector or birds of prey. The information available on herpetofauna indicates that eight amphibian species and one reptilian species are likely to be present in the area. Finally, the fish inventories conducted to date have indentified six species of fish as well as the lake minnow. Of this number, none are considered endangered species.

Four trapping grounds belonging to the Cree Nations of Waskaganish, Eastmain and Nemaska are included in the study area (Map 4). The land use is dominated by hunting, fishing and trapping activities. However, there is only one permanent camp.

Environmental Effects

In light of the information that is currently available, the main anticipated environmental impacts are related to the potential loss of two water bodies, which would lead to the disturbance as well as the loss of fish habitat, the management of final effluent water, habitat loss for fauna in general but also of migratory birds in particular, and to a reduction of hunting and fishing territory for land users.

Although the Rose Mine Project is likely to affect certain species at risk (under the definition in the Act endangered species), no special-status species have been listed in the first environmental characterization campaigns performed on the natural site.

In addition, according to information available at this time, no environmentally sensitive areas seem to be located on the project site or in the areas of study. This information will be confirmed in the environmental impact assessment.

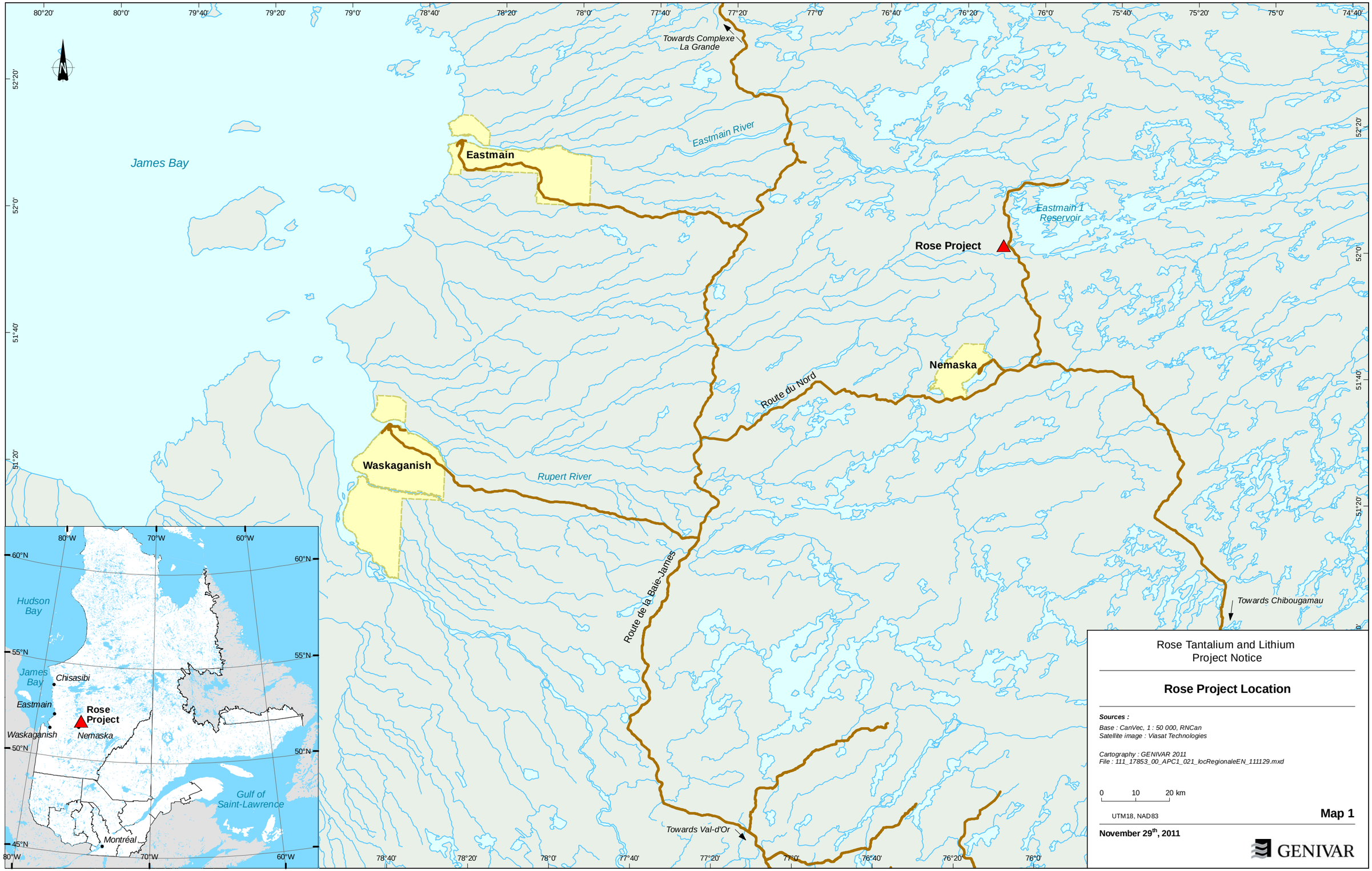
It goes without saying that repercussions on native populations are likely. Some examples include the loss of territory used for hunting, fishing and trapping in addition to

losing a certain quality of life (peace and tranquility). As part of the environmental impact assessment, research will be conducted to document the use of the area by tallymen and their families, as well as by the Cree and non-Cree users. Regarding the potential effects on the health, natural and cultural heritage of indigenous communities affected by the project, several meetings and interviews have already been held. A comprehensive and detailed analysis will be presented within the environmental impact assessment report.

In order to minimise the anticipated impacts vis-à-vis the users of the land affected by the activities generated by the Rose mining project, mitigation measures will be proposed so that project impacts on noise, vibrations, air quality and landscape are minimized. Measures will also be proposed in order to ensure safety on the project site.

It should be highlighted that positive effects are also expected from the Rose mining project, such as: job creation at the regional scale, which could lead to structuring effects on the Eastmain and Nemaska communities; the development of new mining exploration and exploitation techniques; and the presence of significant taxation revenues for neighboring communities and for the region, province and the federal government.

In the context of this project, the hiring of local residents, as well as the creation of training programs in order to ensure that Aboriginals can access jobs generated through this project are essential.



Rose Tantalium and Lithium Project Notice

Rose Project Location

Sources :

Base : CanVec, 1 : 50 000, RNCan
Satellite image : Viasat Technologies

Cartography : GENIVAR 2011
File : 111_17853_00_APC1_021_locRegionaleEN_111129.mxd

0 10 20 km

UTM18, NAD83

Map 1

November 29th, 2011

GENIVAR

76°15'
76°10'
76°5'
52°0'

Towards Eastmain-1

Eastmain 1
Reservoir

Explosive
Plant

735 kV Transmission line(7061)

Planned
Open Pit

Overburden
Pile

Waste Rock Dump

Ore Dump

Tailing Pond

Dam
LE-20A

315 kV Transmission line (EM-1 Nemiscau)

Towards Nemaska

Existing Elements

- Borrow Pit
- Main Road
- Acces Road

Project Components

- Planned Road
- Mining Complex
- Mining Camp

Rose Tantalium and Lithium
Project Notice

Project Components

Sources :

Base : CanVec, 1 : 50 000, RNCan
Satellite Image : Viasat Technologies

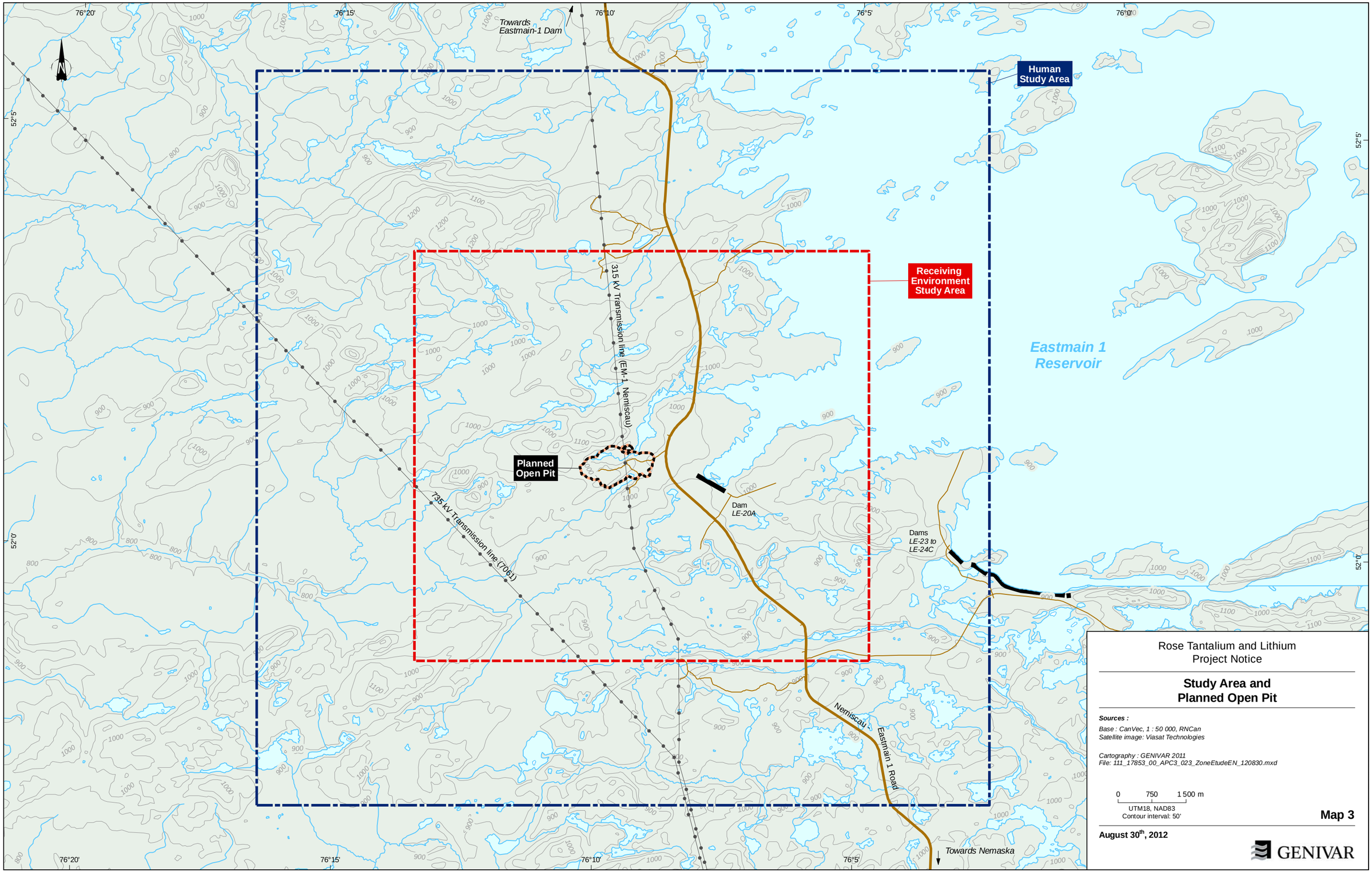
Cartography : GENIVAR 2011
File : 111_17853_00_APC2_022_infrastructuresEN_120830.mxd

0 400 800 m
UTM18, NAD83
Contour interval : 50'

Map 2

August 30th, 2012

GENIVAR



Rose Tantalium and Lithium Project Notice

Study Area and Planned Open Pit

Sources :

Base : CanVec, 1 : 50 000, RNCan
Satellite image: Viasat Technologies

Cartography : GENIVAR 2011
File: 111_17853_00_APC3_023_ZoneEtudeEN_120830.mxd

0 750 1 500 m
UTM18, NAD83
Contour interval: 50'

Map 3

August 30th, 2012

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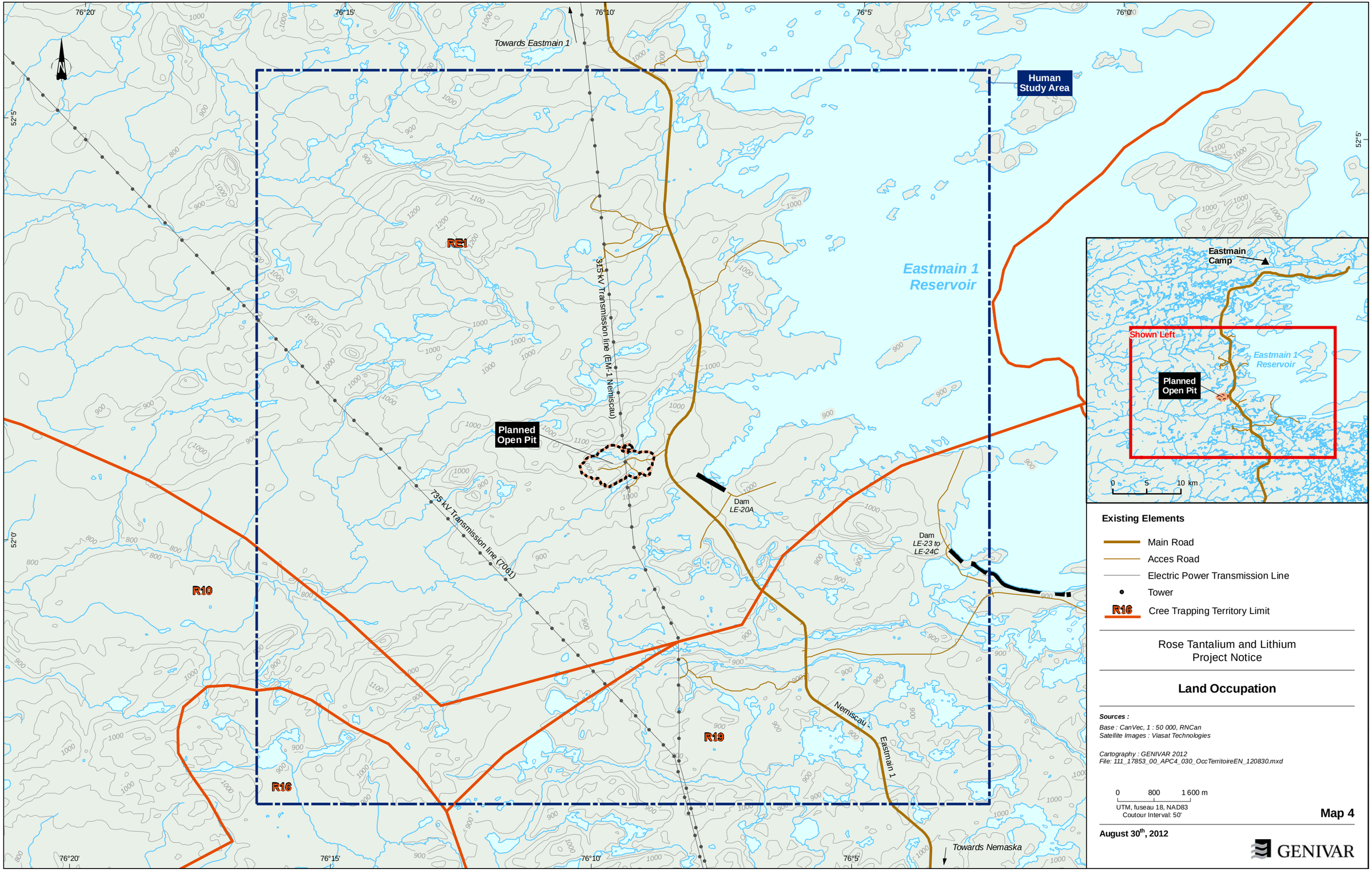
76°20'
76°15'
76°10'
76°5'
76°0'
52°5'
52°0'
Towards Eastmain 1
Human Study Area
Eastmain 1 Reservoir
RE1
315 kV Transmission line (EM-1 Nemiscau)
Planned Open Pit
735 kV Transmission line (7061)
Dam LE-20A
Dam LE-23 to LE-24C
R10
R16
R19
Nemiscau
Eastmain 1
Towards Nemaska
Eastmain Camp
Shown Left
0 5 10 km
Existing Elements
Main Road
Acces Road
Electric Power Transmission Line
Tower
Cree Trapping Territory Limit
Rose Tantalium and Lithium Project Notice
Land Occupation
Sources :
Base : CanVec, 1 : 50 000, RNCan
Satellite Images : Viasat Technologies
Cartography : GENIVAR 2012
File: 111_17853_00_APC4_030_OccTerritoireEN_120830.mxd
0 800 1 600 m
UTM, fuseau 18, NAD83
Coutour Interval: 50'
Map 4
August 30th, 2012
GENIVAR