



Bulk Sampling – Windfall Lake Project

## **Application for attestation of exemption**

**(Demande d’attestation de non-assujettissement)**

**Top Portion of Triple Lynx**

**Document with Answers to Questions and Comments**

Presented to:

Mr. Marc Croteau

Sous-ministre de l’Environnement et de la Lutte contre les changements climatiques

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Document submitted on March 2, 2020

## CONTEXT

In response to the request for additional information received on February 7, 2020 this document presents the answers to questions and comments transmitted by the Evaluation Committee (COMEV).

## ANSWERS TO QUESTIONS AND COMMENTS

### QC-1.

*The proponent will have to present a revised calendar for its project considering the coming operation phase.*

Answer:

Figure 1 provides a schedule for the collection of a bulk sample in the top portion of Triple Lynx. The information gained from the bulk sample will inform the feasibility study that we anticipate will begin in Q4 2020. Figure 2 shows a longer-term schedule for the Windfall project through the exploration, construction, operation and closure phases and is based on our best estimate at this time.

### QC-2.

*The proponent will have to indicate if the bypass road east of the lined stockpile will be widened for two vehicles in opposite directions to meet as requested by family of the tallyman of trapline W25B.*

Answer:

Osisko Mining confirms that the bypass road east of the lined stockpile will be widened for two vehicles in opposite directions to pass as requested by family of the tallyman of trapline W25B.

### QC-3.

*The proponent will have to clarify the surface water flow direction and indicate up to where the proponent predicts the effluent could have an impact on surrounding lakes and water bodies.*

Answer:

Since June 6, 2018, Windfall's effluent is subjected to the Metal and Diamond Mining Effluent Regulations (MDMER) and within the framework of that regulation, Osisko Mining must prepare an Environmental Effects Monitoring study on a three-year period of which 2019 was the first year. WSP was mandated by Osisko Mining to do the study and Map 1 entitled *Délimitation du panache de l'effluent* and presented at the end of this document was prepared for this study.

Map 1 shows the surface water flow direction and the effluent plume delineation down to a 1% concentration (green) in the receiving environment. The field work that will continue in 2020 and 2021 will confirm the nature of the impact in the receiving environment if any. Map 1 is from the document *Addenda du plan d'étude de suivi initial des études de suivi des effets sur l'environnement* (WSP, 2019) related to the MDMER.

(Prepared in collaboration with WSP)

WSP. 2019. Projet minier Lac Windfall, Addenda au plan d'étude de suivi initial des études de suivi des effets sur l'environnement. Rapport produit pour Minière Osisko inc. Réf. WSP : 151-11330-74. 15 pages et tableaux, cartes et annexes.

#### QC-4.

*The proponent will have to indicate if the lakes and water bodies potentially impacted by its effluent are used for fishing by the aboriginal communities and other land users.*

Answer:

A meeting was held in Waswanipi on February 25, 2020 and attended by:

- Marshall Icebound, Tallyman W25B, Waswanipi
- Judy Trapper, Trapline W25B, Waswanipi
- Joshua Blacksmith, Mining Coordinator, Waswanipi
- Johnny Cooper, Local Environment Advisor, Waswanipi
- Andrée Drolet, Director of Environment, Osisko Mining
- Èva Roy-Vigneault, Senior Sustainable Development Coordinator, Osisko Mining
- Danny Happyjack, Liaison Advisor, Osisko Mining

Map 1 described in the answer to question QC-3. was shown to Mr. Icebound and Ms. Trapper. The map shows with colors ranging from red, yellow to green, the effluent plume delineation in the chain of lakes and streams downstream of the effluent. Mr. Icebound and Ms. Trapper confirmed that they do not use these lakes and streams for fishing. Their fishing activities mainly take place in Lake Barry, 7 kilometers south-east of the project and in Lake Father, approximately 18 kilometers north-east of the project.

Mr. Icebound mentioned that a family (maybe from Chateauguay) has a camp on the lake close to Mr. Icebound's camp. The presence of this non aboriginal user was unknown to Osisko Mining to this date. Osisko Mining will file a request with MERN to contact this user.

An additional meeting took place in Osisko Mining's office in Quebec City on February 28, 2020. The participants were:

- Joël Tardif, lease owner
- Andrée Drolet, Director of Environment, Osisko Mining (on videoconference)
- Èva Roy-Vigneault, Senior Sustainable Development Coordinator, Osisko Mining

Map 1 was also shown to Mr. Tardif. He confirmed that his family is fishing in Lake Sans Nom 9 (SN9) and is planning on trying in the lakes downstream (SN10 and SN11). In addition, the Tardif family conduct their fishing activities in Lake Sans Nom 1 where their camp is located and in Lake Sans Nom 2 (SN2), also referred to as Lake Lynx. The family uses their camp three times a year for a duration of 7 to 10 days at a time.

#### QC-5.

*The proponent will have to specify what is the receiving environment of the effluent from the ditches surrounding the overburden stockpile and if the project will have an additional impact.*

Answer:

The water captured by the ditch surrounding the overburden stockpile is returned to the environment diffusely in the adjacent vegetation and percolates in the ground, composed of permeable material. Since no expansion of the overburden stockpile will be necessary during the work (see answer to question 9), no additional impact on the receiving environment will be caused by the project.

(Prepared in collaboration with WSP)

#### QC-6.

*The proponent will have to specify if the flood recurrences that will be used to design the retention structures meet those prescribed in Directive 019 of the mining industry. The proponent must also specify if a geomembrane (liner) will be underlying to ensure waterproofing.*

Answer:

Osisko Mining confirms that the flood recurrences that are used to design the retention structures (new basin) meet those prescribed in Directive 019 of the mining industry. Osisko Mining also confirms that a geomembrane (liner) will be used to waterproof the retention structures (basin).

(Prepared in collaboration with WSP)

#### QC-7.

*The proponent will have to specify if the waterproofing measures that will be put in place for the expansion of the lined waste rock stockpile will meet those prescribed in Directive 019 of the mining industry. The proponent will also have to specify if the waterproofing measures of the stockpile expansion will be similar to those used in the past i.e. a geomembrane (liner).*

Answer:

Osisko Mining confirms that the waterproofing measures that will be put in place for the expansion of the lined waste rock stockpile will meet those prescribed in Directive 019 of the mining industry. Osisko Mining also confirms that the waterproofing measures of the stockpile expansion will be similar to those used in the past i.e. a geomembrane (liner).

(Prepared in collaboration with WSP)

#### QC-8.

*The proponent will have to illustrate on a map the location of the existing high-voltage line, specify where it will be relocated and who will be responsible for relocating it. The proponent will have to indicate how much clearing will be necessary to relocate the electrical line and any other impact resulting from this relocation.*

Answer:

Map 2 presented at the end of this document shows the existing electrical line (light grey), the poles to remove (red dots), the pole to move (orange dots) and the new segments to build (thick blue segments). Osisko Mining will hire a contractor with relevant expertise to proceed with the electrical line work.

The move of the 12 poles (orange dots) and the widening of the bypass road will require approximately 3,000 m<sup>2</sup> of clearing while the new segment near the portal will be done on impacted ground (no clearing).

Since the application for attestation of exemption was submitted (November 2019), planning of the project has continued and the surface impact of the additional ventilation raise is better defined.

Map 2 shows the location of the surface breakthrough of the ventilation raise, the access road and the propane pad (in light blue). Also shown is the electrical line that will hookup the new ventilation raise area to the existing power network at the explosive storage area. As much as possible, the access road and the propane pad (light blue) were placed on impacted ground to reduce impact. A total of 6,500 m<sup>2</sup> of clearing will be necessary for the construction of the electrical line segment, the new ventilation raise area, the access road and the propane pad.

#### QC-9.

*The proponent will have to indicate the additional volume of overburden that will be stored on the existing overburden stockpile and confirm that no expansion will be necessary.*

Answer:

It is estimated that a volume of 13,000 m<sup>3</sup> will be removed for the lined stockpile expansion, the new water basin (approximate size), the widening of the road, the electrical line work and the new ventilation raise facilities. Osisko Mining confirms that the total volume of 13,000 m<sup>3</sup> of overburden will be used in real-time to reclaim various impacted sectors. Therefore, the overburden stockpile will not be expanded.

(Prepared in collaboration with WSP)

## QC-10.

*The proponent will have to indicate if invasive alien species (IAS) were found in the study area. The proponent will also have to specify the measures that will be put in place to limit the introduction of IAS during work.*

Answer:

In 2018, the Windfall Lake site was the subject of a characterization study to establish a portrait of the floristic environment of the territory where the project is to be included (WSP, 2018). The information gathered during baseline data collection allowed, among other things, to verify the presence of invasive alien species (IAS). During the inventories, no IAS was identified in the study area. Although the problem of IAS is less widespread in northern Quebec, special attention must be paid to these species to avoid their spread.

The following mitigation measures will be implemented to limit the risk of introducing IAS during construction work:

- Clean the machinery and equipment that will be used (bulldozers, shovels, drills, trucks, etc.) before arriving to site so that they are free of mud, plant fragments or visible debris.
- Rapidly eradicate the IAS individuals introduced during the work if necessary, using recognized techniques for the type of species observed.

If IAS were to be found on the site, the following mitigation measures would be put in place:

- Delimit IAS colonies by a qualified professional to facilitate management of soils containing IAS and plant remains.
- Invaded areas or excavated material affected by IAS and plants remains will be excavated to a depth of approximately 1 metre to recover the aerial parts (flowers, stems) and underground parts of the plants (soil and roots) and eliminated by transporting them to a technical landfill or by burying them on site in areas that will be excavated during the work.
- For burial on site, the affected excavated material will be covered with at least 2 metres of unaffected material. Burial will be done at least 50 metres from streams, water bodies, wetlands and special status species.
- Where possible, work will begin in unaffected areas.
- Machinery and transport equipment in contact with the sites affected by IAS will be cleaned in areas unfavourable to seed germination and at least 50 metres from watercourses, water and wetlands. The waste resulting from cleaning the equipment will be eliminated according to the measures described above.
- Excavated material set aside will be visually inspected before use to ensure it is free of IAS.
- No excavated material from the sectors affected by IAS will be used as backfill for work located less than 2 metres from the surface.

- At the end of the construction and decommissioning work, clean up and reshaping of disturbed surfaces will be done to promote the natural vegetation recovery and to stabilize the soil. If necessary, quickly sow work areas with a mixture native species seeds appropriate to the hardiness zone in order to speed up the vegetation process and avoid the establishment of IAS.
- Monitoring of sowed areas and revegetated areas will be carried out to ensure adequate recovery of vegetation. If necessary, corrective measures will be applied (e.g. replacement of plants, reseeding, etc.).
- A follow-up will be carried out 2 years after the work in order to check if IAS have established. If necessary, measures will be implemented to eliminate them (technical landfill or on-site burial).

(Prepared in collaboration with WSP)

WSP. 2018. Projet Lac Windfall, Rapport sectoriel – Végétation – Secteur de la mine. Rapport produit pour Minière Osisko inc. Réf. WSP : 151-11330-26. 31 pages et tableaux, cartes et annexes.

#### QC-11.

*It is mentioned that the total quantity of ore that will be taken as bulk sample is 20,000 tonnes. From this quantity, 15,000 tonnes were already authorized however, the 5,000 tonnes from Underdog are not yet extracted. The proponent will have to specify:*

*a- The tonnage of this new bulk request.*

*b- What will happen with the authorized 5,000 tonnes in Underdog.*

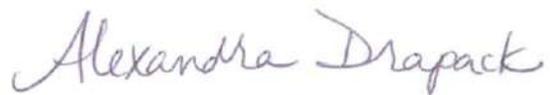
Answers:

- Osisko Mining confirms that the tonnage requested for the bulk sample in the top portion of Triple Lynx is 5,000 tonnes.
- By priority, Osisko Mining wishes to first take the bulk sample in top portion of Triple Lynx followed by the bulk sample in Underdog.

## 10.0 SIGNATURE

We hope that the answers we have prepared are complete and that they will allow COMEV to finalize the review of our request.

Date: March 2, 2020

A handwritten signature in blue ink that reads "Alexandra Drapack". The signature is written in a cursive, flowing style.

Alexandra Drapack, P. Eng. (ON), MBA  
Senior Vice President - Sustainable Development

Figure 1 – Schedule for the collection of a bulk sample from the top portion of Triple Lynx

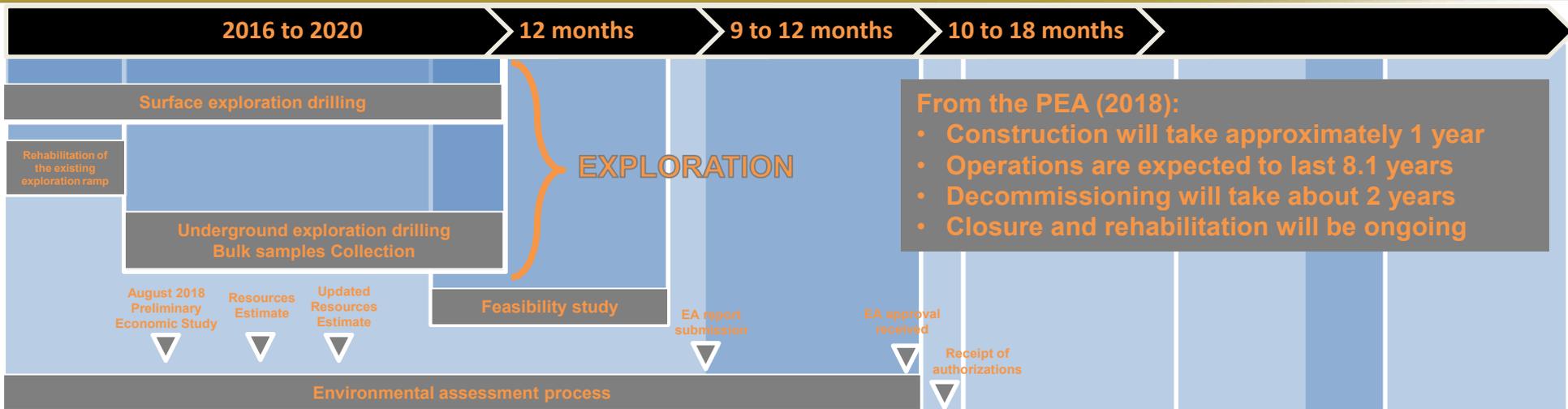
Figure 2 – Schedule of the Windfall Lake Project

Map 1 – Effluent Plume Delineation

Map 2 – Bulk sample top portion of Triple Lynx - Additional Infrastructure



# Figure 2 - Project Schedule – Windfall Lake Project



Feasibility



Environmental Assessment (EA)



Construction



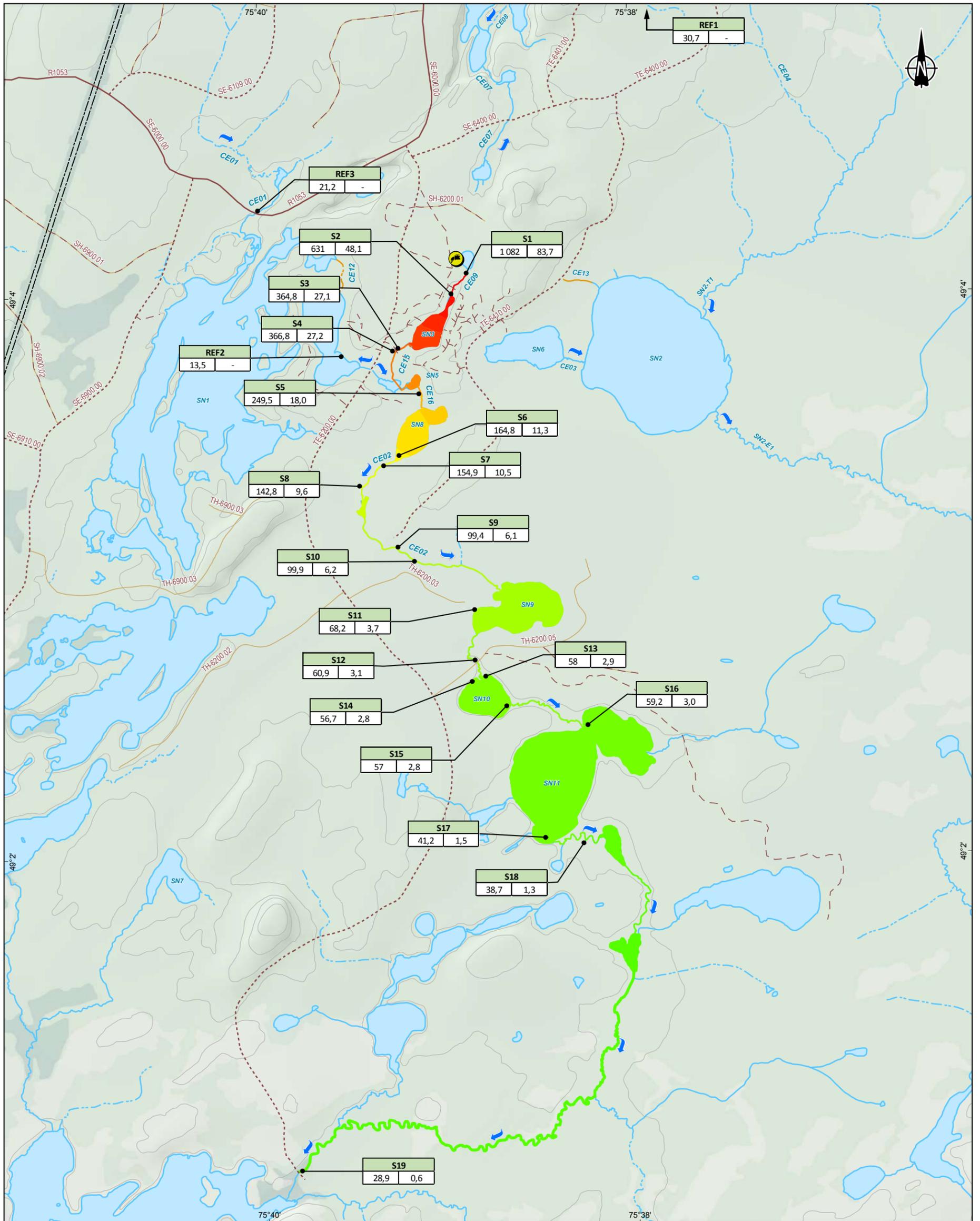
Production

Production

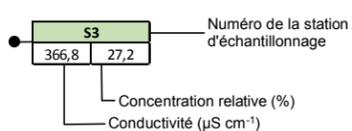


Closure

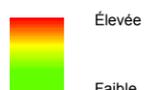




**Stations d'échantillonnage du panache**



**Gradient de concentration relative du panache de l'effluent**



**Infrastructures**

- Ligne de transport d'énergie électrique
- Route**
- Route forestière secondaire
- ... Route forestière tertiaire
- - - Sentier
- Chemin d'hiver

**Hydrologie**

- Cours d'eau permanent
- - - Cours d'eau intermittent
- Cours d'eau souterrain
- - - Cours d'eau intermittent partiellement souterrain
- Plan d'eau
- Sens d'écoulement des eaux
- Effluent final



Addenda – Plan d'étude de suivi initial des études de suivi des effets sur l'environnement  
Projet Lac Windfall – Minière Osisko

**Délimitation du panache de l'effluent**

**Sources**  
BDTQ, 1/20 000, MRNF Québec, 2007  
MERN, AQRéseau+, réseau routier  
Fichier : 151-11330-74\_c1\_wspT006\_panache\_191204.mxd



MTM, Fuseau 9, NAD83

Novembre 2019

Carte 1





# CARTE #2

SCEAU :



PROJET : WINDFALL

TITRE  
DEMANDE D'ÉCHANTILLONNAGE EN VRAC  
PORTION SUPÉRIEURE TRIPLE LYNX  
INFRASTRUCTURES ADDITIONNELLES

CONCU :		
DESSINE :	ERIC GILBERT	2020-02-28
VERIFIE :	ANDRÉE DROLET ing.	2020-02-28
APPROUVE :		
ECHELLE:	1:10 000	DATE: