

June 29th, 2023

Ms. Marie-Josée Lizotte
Administratrice provinciale de la Convention de la Baie-James et du Nord québécois
Sous-ministre de l'Environnement, de la Lutte contre les changements climatiques, de la Faune et des Parcs
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Québec (Québec) G1R 5V7

Object: Project Moblan Lithium Y/Ref.: 3214-14-062

Ms. Lizotte,

You will find in this letter information regarding the Moblan Project update by Sayona Nord inc.

Context

On September 20, 2018, the proponent Lithium Guo Ao Ltd. filed preliminary information with the Provincial Administrator in connection with the Moblan lithium project. The Directive issued by the Direction générale de l'évaluation environnementale et stratégique of the Government of Québec as part of the environmental and social impact assessment and review procedure for the Moblan project (Y/Ref.: 3214-14-062) was issued on March 6, 2019.

The proponent Guo Ao Lithium Ltd. then submitted its environmental and social impact study on March 31, 2019. A first series of questions and comments was sent by the Environmental and Social Impact Review Committee (COMEX) to the proponent on July 24, 2019, which remains outstanding.

Since December 2021, mining rights on the Moblan property are held by Sayona Nord Inc. (60%) and by Société québécoise d'exploration minière (SOQUEM) (40%). Sayona Nord Inc. as the new proponent of the Moblan project, is continuing the current environmental assessment process.

Development of the Moblan Project

Since acquiring the mining rights to the Moblan property in December 2021, Sayona Nord Inc. has been making significant efforts to update the project and optimize its potential. Accordingly, Sayona Nord Inc. has initiated various additional technical and environmental studies and is currently completing an updated feasibility study of the project based on the most recent mineral resource estimates for the site¹.

¹ https://www.sayona.ca/nos-nouvelles/sayona-beneficie-dune-augmentation-significative-de-ses-ressources-en-lithium/



An update to the environmental and social baseline is also underway to reflect the project's evolution. The attached technical note details the evolution of the Moblan project between the following three periods:

- The preliminary Information Form and its supplementary document filed on September 20, 2018 by the former proponent (Guo Ao Lithium Ltd.);
- The environmental and social impact study for the Moblan project tabled in March 2019;
- The preliminary information from the update of the prefeasibility and feasibility study that is being carried out following Sayona Nord Inc.'s acquisition of the Moblan project.

Ongoing Environmental and Social Assessment in compliance with Directive 3214-14-062

As indicated in the Technical Note, there have been no significant changes to the list of core components of the Moblan project between the 2018 Preliminary Information, the 2019 Initial Impact Study and the updated project currently being considered by Sayona. The facilities also remain confined within the initial and contiguous receiving environment. The mining concept (open pit mine, tailings storage and codisposal, concentrator and industrial facilities, water management, transportation of mineral substances, etc.) and its facilities remain of the same nature and in the same receiving environment.

Consequently, we are currently completing the environmental and social impact study update in accordance with the Directive issued and taking into account the comments issued by the COMEX in July 2019. We are aiming to file the update study to the COMEX in early 2024.

Transmission of Information

This letter and its technical memorandum are being sent to the following recipients, in accordance with the document filing method presented on the website of the Ministère de l'Environnement et de la Lutte contre les changements climatiques, de la Faune et des Parcs (MELCCFP) and with the instructions provided by Jessica Hawey, Project Manager with the Direction de l'évaluation environnementale des projets industriels et miniers of the MELCCFP:

- one (1) electronic version of the documents to reception.30e@environnement.gouv.qc.ca with certified copies to the Deputy Minister (marie-Josee.lizotte@environnement.gouv.qc.ca), Jasmin Bergeron and Jessica Hawey.
- one (1) hard copy of the documents (French) to the office of the Deputy Minister of the Environment, the Fight against Climate Change, Wildlife and Parks.
- eight (8) paper copies (French), three (3) paper copies (English) and three (3) PDF copies (French and English on USB key) to Ms. Maud Ablain, directrice adjointe of the Direction de l'évaluation environnementale des projets industriels et miniers, MELCCFP.

We confirm that the paper versions are identical to the electronic versions.



For further information, please contact the undersigned at the following phone number (514) 708-6701.

Trusting the foregoing is to your satisfaction, please accept our best regards,

manou Perché

Manon Bérubé, Eng. M. Sc.

Sayona Nord Inc.

Vice-Présidente Exécutive Directrice Générale, Pôle Eeyou-Istchee Baie-James 1100, boul. Rene-Lévesque Ouest, Bureau 1230, Montréal (Québec) H3B 4N4

Encl. 2023-05-16_Moblan_Comp_Evolution_projet_final_ENG

Cc Martin Duclos Stéphane Gosselin Jean-François Aubin





Project: Moblan Mining Project Date: May 16th, 2023

To the attention

Stéphane Gosselin

of:

Sayona Nord Inc.

C.C.:

Jean-François Aubin

From: Ref.: 693385

Project Manager

Re: Comparative Assessment of Project Evolution

1. Introduction

This technical note details the evolution of the Moblan project between the following three periods:

- The Preliminary Information Form and its supplementary document filed on September 20, 2018 by the former developer (GUO AO Lithium Ltd.) used as a reference for the publication of the project's Directive for the Environmental Assessment (Directive 3214-14-062) by the Direction générale de l'évaluation environnementale et stratégique (environmental and strategic assessment department) of the Ministry of Environment, Fight Against Climate Change, Wildlife and Parks (MELCCFP);
- The Moblan Project Environmental and Social Impact Assessment (ESIA) tabled in March 2019, for which the review committee provided a document with questions and comments in July 2019;
- Preliminary information from the update of the Prefeasibility and Feasibility Study (PFS-FS) that is being carried out following Sayona's acquisition of the Moblan project.¹

As described below, the list of the Moblan project's core components has not changed from the one submitted upon submission of Directive 3214-14-062 by the MELCCFP with regard to the project. In fact, said directive continues to be relevant for the study of the Moblan project's core components, as well as the potential impact on the receiving environment.

Information taken from the PFS-FS is up to date as of May 1, 2023. Note that the preliminary information presented herein reflects the progress of ongoing work and may evolve as the project moves forward.





2. Highlights

The Moblan project's core components are as follows and have remained unchanged since 2018, as illustrated in Table 1 below:

- Operation of an open-pit mine and a lithium concentrator in the same established sector (Moblan Lake area within the Eeyou Istchee James Bay municipal territory);
- Overburden storage and accumulation areas and co-disposal of tailings and waste rock on the mine site;
- On-site industrial equipment and infrastructure for ore processing, enrichment plant, and mine effluent treatment:
- Raw water, process water, surface water and runoff retention and management facilities;
- Fresh water supply from artesian wells or surface water supply at the mine site, with a water recovery and recycling strategy to limit fresh water supply requirements;
- Related buildings present on site: Work camp, administration and operations buildings, garages, etc.;
- Waste disposal at City of Chibougamau facilities;
- Primary ore transportation by road via the Route du Nord;
- Hydroelectric power supply to the complex from a connection to be agreed upon with Hydro-Québec (including the potential addition of a power station if energy autonomy is required);
- Compliant closure and restoration plan to be approved by the MERN;
- 24/7 mining operations;
- Proven project compliance with Directive 019 pertaining to the mining industry.

Sayona's planned modifications are the result of improved knowledge of the state of the resource at the mine site. As the known production potential in 2023 is higher than at the time of the 2018 Preliminary Information (measured/indicated/inferred increasing from 10 t in 2018 to 12 t in 2019 to 51 t in 2023), Sayona must ensure optimal development of the available resource from the Moblan project infrastructure in order to ensure sustainability.

In this context, the site development and capacity of some infrastructure identified in 2018 or in the initial EIS in 2019 must be updated. Sayona therefore expects that:

- The concentrator's capacity will increase from a maximum of 2,860 tonnes per day (2019) to 3,150 tonnes per day (hypothesis in May 2023), a 10% increase;
- The mine lifecycle will increase from an estimated 15-year potential in 2018 and 2019 to 20–25 years based on 2023 data:
- The footprint of the pit and waste rock piles will be adjusted accordingly. However, the strip ratio between waste rock and ore in 2023 is approximately 2.2:1, compared to 3:1 in 2018–19, thereby reducing the impact of the waste rock piles' footprint;
- Other mining and environmental infrastructure already planned for the initial project will be adapted accordingly.





The new mining plan currently under preparation allows all mining and industrial developments and infrastructure to be contained in the same sector as the one in the 2019 EIS (see figures 1 and 2). Thus, the radius of influence of mining activities on the receiving environment remains similar, although the impact level for some components may differ.

In order to document this situation, Sayona is conducting additional field surveys and updating sector studies, in line with the preparation of responses to the review committee's questions and comments, as the latter was already requesting several updates to inventories, mitigation measures and studies produced in the 2019 EIS.

Figure 1: Limited study area (red) and proposed location of Moblan infrastructure in 2019

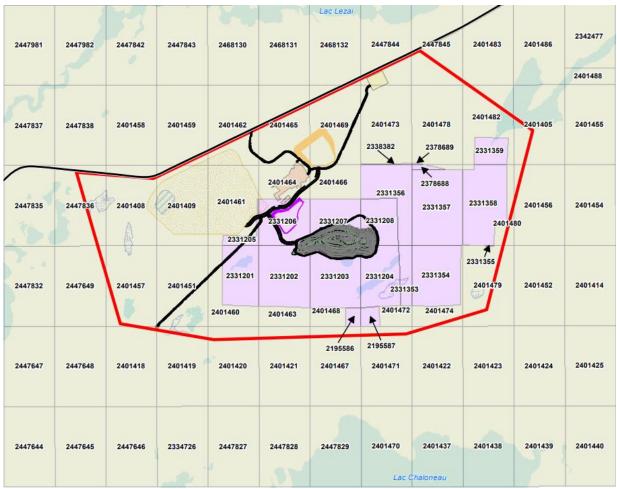
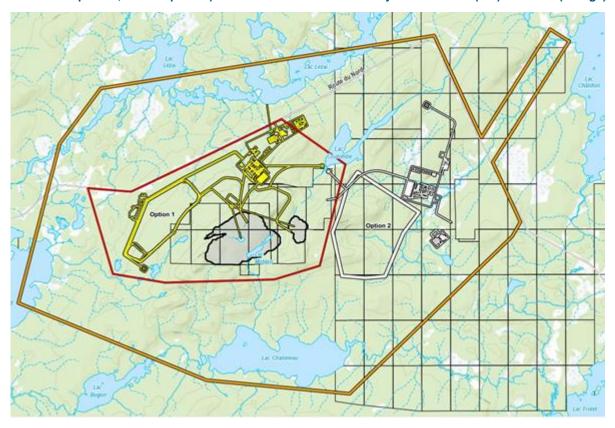






Figure 2: Location of the two mine infrastructure siting options for the Moblan project in 2023 (yellow: option 1; white: option 2) and the limited mine site study areas in 2019 (red) and 2023 (orange)







Ref.: 693385

Table 1: Comparison of Moblan project components between 2018 and 2023

Component	Preliminary Information, September 20, 2018 ¹	ESIA, Hatch 2019 ²	Update, Apr. 2023 – Sayona³
Pit	Open pit23 ha area	Open pit26 ha area	 Open pit 85 ha area, contained within the study area of the 2019 EIS
Estimated operating duration	■ 15 years	12 years to 15 years	■ 20 to 25 years
Concentrator capacity	2,600 tonnes/day	2,860 tonnes/day	■ 3,150 tonnes/day
Storage/accumulation areas	 Overburden pile Waste rock and tailings co-disposal pile Dry tailings area Ore and concentrate Hazardous materials storage sector 	 Overburden pile: 12 ha Co-disposal waste rock and tailings pile: 90 ha Dry tailings area Waste rock production: 28.5 t Enrichment process residue production: 10.7 t 	 Overburden pile of approximately 8 ha (adjacent to tailings area) Co-disposal waste rock and tailings pile of approximately 110 ha Dry tailings area Waste rock production: 74 t Enrichment process residue production: 29 t
Power	 Power plant (maximum power: 9 MW) Hydro-Québec line connection 	 Hydro-Québec line connection Alternative solution: Power plant (maximum power: 9 MW) 	 Hydro-Québec line connection Alternative solution: LNG power plant (15-17 MW) for three years (until power line connection)
Ponds	 Untreated and process water retention and sedimentation 	 Untreated and process water retention and sedimentation 	 Untreated and process water retention and sedimentation Three ponds are planned in the following sectors: Pit, tailings area and industrial complex
On-site buildings	 Work camp Administrative and operations buildings Garages 	 Work camp Administrative and operations buildings Garages 	 Work camp (350) Construction camp (200) Exploration camp Administrative and operations buildings Garages
Residual materials	Chibougamau facilities (LET)	Chibougamau facilities (LET)	Chibougamau facilities (LET)
Other facilities	 Laboratories Emergency medical and fire services facilities Temporary concrete plant 	 Laboratories Emergency medical and fire services facilities Temporary concrete plant 	 Laboratories Emergency medical and fire services facilities Temporary concrete plant (for two years for construction purposes)
Mining operations	7 days a weekTwo 12-hour shifts350 workdays a year	7 days a weekTwo 12-hour shifts350 workdays a year	7 days a weekTwo 12-hour shifts350 workdays a year
Ore processing	 Annual processing of 949,000 tonnes of ore (1.5% Li₂O) Average between 201,000 and 213,000 tonnes per year of spodumene concentrate (about 6% Li₂O) Enrichment plant operating 24/7 for 8,160 hours per year 	 Annual processing of up to 987,000 tonnes of ore (1.5% Li₂O) Up to 210,000 tonnes of concentrate (6.2% Li₂O) Enrichment plant in operation 24/7 for 8,059 hours a year 	 Annual ore processing of up to 1.2 t (1.5% Li₂O) Up to 200,000 tonnes of concentrate (6% Li₂O) Enrichment plant operating 24/7 for 8,059 hours per year
Estimated deposit	 10 million tonnes of ore 3 million tonnes of overburden 27 million tonnes of waste rock 	 12 million tonnes of ore 2 million tonnes of overburden 28.5 million tonnes of waste rock 	 34 million tonnes of ore (reserve) (1.340% Li₂O) 4 million tonnes of overburden 74 million tonnes of waste rock



Ref.: 693385

Component	Preliminary Information, September 20, 2018 ¹	ESIA, Hatch 2019 ²	Update, Apr. 2023 – Sayona³
Water management:	 Captured and processed by a processing plant before returning to the environment 	 Captured and processed by a processing plant before returning to the environment One mining effluent returned to the environment (average flow of 1,756 m³/d and 2,423 m³/d in the worst year) 	 Two mining effluents returned to the environment (one effluent for the tailings area, pit and excess process water; and a second for industrial complex runoff). Main effluent flow (tailings area, pit and concentrator): approximately 1,400 m³/d (dry time) and 7,000 m³/d (average precipitation) Industrial area effluent flow (runoff): approximately 750 m³/d (average precipitation) Captured and processed by a processing plant before returning to the environment
Fresh water supply	 To be determined, source adjacent to site Water recovery/recycling strategy 	 Artesian wells at the mine site (28 m³/d of drinking water for the plant and 75 m³/d for the mine camp) Water recovery/recycling strategy 	 Artesian wells at the mine site for drinking water (approximately 150 m³/d) with a treatment plant to make water suitable for human consumption and avoid the use of bottled water Mine water recovery/recycling strategy
Site restoration	 Compliant closure and restoration plan to be approved by the MERN; 	 Compliant closure and restoration plan to be approved by the MERN; 	 Compliant closure and restoration plan to be approved by the MERN;
Ore shipment	■ By rail and/or road (Route du Nord)	 Route du Nord from the mine (total of 22 trucks per day on round trips between the mine and Matagami, 24/7 Matagami to Montreal by rail 	 Route du Nord from the mine Equivalent of about 36 trucks per day (18 round trips) to a transhipment site in Chibougamau (24/7)
Mineral resources		 Measured resources: 4.6 t, 1.59 content (% Li₂O) Indicated resources: 7.27 t, 1.27 content (% Li₂O) Quantities subtotal: 12.03 t, 1.4 content (% Li₂O) Expected quantity: 4.06 t, 1.33 content (% Li₂O) 	 Resources (according to JORC) measured, indicated, and assumed from 51.4 million tonnes to 1.31% Li²O (sensitivity analysis at a cut-off grade of under 0.55% Li²O).²

^{1:} Hatch, 2018. Moblan Lithium Project: Preliminary Information – Supplementary Document to Form PN1 – Preliminary information submitted for the environmental assessment process. For GUO AO Lithium Ltd., 32 pages + appendices (September 20, 2018)

² Source: Press release: "Sayona bénéficie d'une augmentation significative de ses ressources en lithium" (April 21, 2023 – French only). Link: https://www.sayona.ca/nos-nouvelles/sayona-beneficie-dune-augmentation-significative-de-ses-ressources-en-lithium/

^{2:} Hatch, 2019. Moblan Lithium Project: Report on the Environmental and Social Impact Assessment. For GUO AO Lithium Ltd., 778 pages + appendices (March 2019)

^{3:} Preliminary information from the current Moblan PFS-FS update, dated May 1, 2023







Ref: 693385

3. Conclusion

As shown in the list of core components of the Moblan project presented at the beginning of section 2, there were no significant changes between the 2018 Preliminary Information, the 2019 Initial Impact Assessment and the updated project currently being considered by Sayona. As illustrated in Figure 1, facilities also remain contained within the initial and contiguous receiving environment. The mining concept (open-pit mine, mining and co-disposal, concentrator and industrial facilities, water management, ore transportation, etc.) and its facilities remain of the same nature and in the same receiving environment. Consequently, the main conditions set out in the specific directive for the Moblan project's environmental assessment (Directive 3214-14-062) remain appropriate.

In addition, the main requirements in Directive 3214-14-062 stem from the requirements applicable to all projects subject to the impact assessment and review procedure (regardless of their nature and magnitude), to which is added a specific annex according to the type of project (mining, industrial, pipeline, etc.). For the Moblan project, Appendix I – Other Information Required for a Mining Project (Mine or Ore Processing Plant) is added to the requirements. This appendix provides specific information that is required and common to all mining projects to conduct an EIS (regardless of scale).

Lastly, the 192 questions and comments from the review committee in July 2019 require a reassessment of the core components of the 2019 project and its impact (updated project description, sector surveys and field inventories, impact assessment, mitigation measures, cumulative impact, environmental monitoring, mine closure and reclamation plan, etc.). These questions and comments refine the Directive's requirements and translate directly and in an applied manner specific concerns, requests and expectations of the review committee and ministries regarding the information required for the project's environmental assessment. This enables Sayona to respond as accurately as possible to the requirements clearly stated and with further details to the directive's content. These requirements include the integration of the most recent ministerial protocols and requirements published following the initial directive in January 2019.

Sayona plans to submit to the MELCCFP the updated project description, as well as answers to questions raised by the review committee in Q4 2023. In the meantime, Sayona remains available to discuss the above further with the Direction générale de l'évaluation environnementale et stratégique of the MELCCFP.