James Bay Mineral Resource increased by 173% to 110.2 million tonnes

Allkem Limited (ASX|TSX: AKE, "**Allkem**" or the "**Company**") is pleased to provide an updated Mineral Resource Estimate ("**MRE**") for its James Bay Lithium Project in Québec, Canada.

HIGHLIGHTS

- The updated Mineral Resource of 110.2 Mt @ 1.30% Li_2O includes 54.3 Mt @ 1.30% Li_2O in the Indicated category, and an additional 55.9 Mt @ 1.29% Li_2O in the Inferred category, solidifying the status of the James Bay Lithium Deposit in Québec as a tier-1 lithium pegmatite mineral resource and long-life asset
- The maiden Inferred Mineral Resource in the NW Sector remains open along strike and at depth with excellent growth potential
- A significant campaign of infill and extensional drilling is planned during the Canadian winter to test for along-strike and down-dip extensions of the pegmatite dykes beyond the area included in this MRE

Managing Director and CEO, Martin Perez de Solay said, *"James Bay is now one of the largest spodumene lithium assets and clearly has the potential to grow even further as the boundaries of mineralisation are tested through an additional drilling program commencing later in the year."*

"The size and grade of this resource is amongst the best in the world and will underpin Allkem plans for future production and processing of lithium in Québec."

MINERAL RESOURCE UPDATE

The MRE outlined in this announcement is a culmination of two drilling campaigns conducted on the Project since early 2022, adding approximately 37,500 m of delineation drilling to the deposit since the release of the previous feasibility study. The deposit remains open both along-strike and at depth, and Allkem has implemented a resource growth strategy to continue to grow the MRE with additional drilling. A plan view of drilling conducted in the 2023 drilling campaign is shown in Figure 1, with a section through the NW Sector shown in Figure 2.

SLR Consulting (Canada) Ltd., an independent mining consultancy based in Toronto, Canada, was engaged to update the MRE based on a drilling database dated May 19th, 2023. The pegmatite dykes have been classified based on a 40 m to 50 m spacing for Indicated Mineral Resources, and approximately an 80 m spacing for Inferred Mineral Resources.

The updated Mineral Resource for the James Bay Lithium Project, effective August 9th, 2023 is presented in Table 1 below. In addition, the Mineral Resource has been presented by Sector.

Table 1: James Bay Mineral Resource effective August 9th, 2023

Mineral Resource Estimate for the James Bay Lithium Project reported at 0.5% Li_2O cut-off grade.

Category	Tonnage	Grade	Contained Metal
	Mt	% Li_2O	('000) t Li_2O
Measured	-	-	-
Indicated	54.3	1.30	706
Measured + Indicated	**54.3**	**1.30**	**706**
Inferred	55.9	1.29	724
Total Mineral Resource	**110.2**	**1.30**	**1,430**

Mineral Resource Estimate for the James Bay Lithium Project reported at 0.5% Li_2O cut-off grade separated by Sector.

Sector	Category	Tonnage	Grade	Contained Metal
		Mt	% Li_2O	('000) t Li_2O
Main Deposit	Measured	-	-	-
	Indicated	54.3	1.30	706
	Measured + Indicated	**54.3**	**1.30**	**706**
	Inferred	25.3	1.15	290
NW Sector	Measured	-	-	-
	Indicated	-	-	-
	Measured + Indicated	**-**	**-**	**-**
	Inferred	30.7	1.42	434
Total	Measured	-	-	-
	Indicated	54.3	1.30	706
	Measured + Indicated	**54.3**	**1.30**	**706**
	Inferred	55.9	1.29	724

Notes:

- The Independent Competent Person, as defined by the JORC Code 2012, responsible for the preparation of this MRE is Mr. Luke Evans, P.Eng, a full-time employee of SLR Consulting (Canada) Inc. Mr. Evans is a member of L'Ordre des Ingéniers du Québec, a Recognised Professional Organisation defined by the JORC Code 2012. The effective date of the mineral resource is the 9th August 2023.
- The Mineral Resource Estimate has been reported within a conceptual pit shell at a cut-off grade of 0.50% Li_2O
- The Mineral Resources are Inclusive of Ore Reserves.
- The conceptual pit shell used to constrain the MRE has been defined using a spodumene concentrate price of USD1,500 per tonne, an exchange rate of CAD:USD of 1.33, a total ore-based cost of CAD33.92 per tonne, a mining cost of CAD4.82 per tonne, a concentrate transport cost of CAD86.16 per tonne, and a metallurgical recovery of 70.1%.
- The statements of Mineral Resources conform to the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves (the JORC Code) 2012 edition.
- Mineral Resources are not Mineral Reserves, as they do not demonstrate economic viability.
- The Competent Persons are not aware of any problem related to the environment, permits or mining titles, or related to legal, fiscal, socio-political, commercial issues, or any other relevant factor that could have a significant impact on this MRE.
- The number of tonnes has been rounded to the nearest 100,000 tonnes, with any discrepancies observed in the totals due to rounding effects.
- All tonnages reported are dry metric tonnes.

The Mineral Resources are reported using a cut-off grade of 0.50% Li_2O, based on both geological and metallurgical considerations. The Mineral Resource is reported inside a pit shell using a USD1,500 per tonne spodumene concentrate price which satisfies the requirements for Reasonable Prospects for Eventual Economic Extraction ("RPEEE") as defined in the JORC Code (2012) and is potentially minable by open cut methods.

Importantly, the Inferred Mineral Resource in the NW Sector is higher-grade than the remainder of the deposit and represents a potential opportunity to improve the grade profile of the future operation. *The reader is cautioned that Mineral Resources are not Mineral Reserves, as they do not demonstrate economic viability. There is no guarantee that the Inferred Mineral Resources described in this announcement will convert to Indicated Category, nor convert further to Mineral Reserves.*

A description of the major factors contributing to the changes between the December 2021 MRE and the August 2023 MRE are:

- Addition of 37,500 m of exploration and delineation drilling over two drilling campaigns since the last mineral resource update, increasing the extent of pegmatite dykes by 800 m to the north-west.
- Changes in resource classification, notably the addition of tonnage associated with the pegmatites discovered in the NW Sector in the Inferred category.
- Changes in economic assumptions resulting in a deeper RPEEE pit shell (updated mining and processing costs, updated spodumene concentrate sale price).
- Reduction of the reporting cut-off to align with new economic assumptions and metallurgical considerations.

A comparison between the December 2021 MRE and the June 2023 MRE is presented in Table 2 below.

Table 2: Comparison between the December 2021 MRE and the August 2023 MRE for the James Bay Lithium Project.

Mineral Resource	Category	Tonnage	Grade	Contained Metal
		Mt	% Li_2O	('000) t Li_2O
December 2021 Feasibility Study 0.62% Li_2O cut-off	Measured	-	-	-
	Indicated	40.3	1.40	564
	Measured + Indicated	**40.3**	**1.40**	**564**
	Inferred	-	-	-
August 2023 Mineral Resource 0.50% Li_2O cut-off	Measured	-	-	-
	Indicated	54.3	1.30	706
	Measured + Indicated	**54.3**	**1.30**	**706**
	Inferred	55.9	1.29	724
Difference (%)	Measured	-	-	-
	Indicated	+35%	-7%	+25%
	Measured + Indicated	**+35%**	**-7%**	**+25%**
	Inferred	No Inferred Resources quoted in 2021		

Due to the relatively consistent distribution of lithium grade within the pegmatites, the Mineral Resource is generally insensitive to Li_2O cut-off grades in the 0.2% to 0.6% range (Table 3).

Table 3: Sensitivity of the Mineral Resource to changes in the Li_2O% cut-off grade.

Cut-Off Grade (Li_2O)	Indicated			Inferred		
	Tonnage (Mt)	Grade (Li_2O)	Contained Metal (Li_2O)	Tonnage (Mt)	Grade (Li_2O)	Contained Metal (Li_2O)
0.20	57.4	1.25	718	59.1	1.25	736
0.30	56.6	1.26	716	58.4	1.26	734
0.40	55.6	1.28	712	57.3	1.27	730
0.50	**54.3**	**1.30**	**706**	**55.9**	**1.29**	**724**
0.60	52.6	1.32	697	54.0	1.32	714

Notes: The tonnages and grade shown above are for comparative purposes only, and do not constitute an official Mineral Resource statement.

Further metallurgical test work is required to demonstrate acceptable metallurgical recoveries below the current 0.5% Li_2O cut-off grade, and the Company is considering this as an opportunity to be addressed in future studies.

Figure 1: Plan view showing drilling conducted during the 2023 drilling program (blue dots)

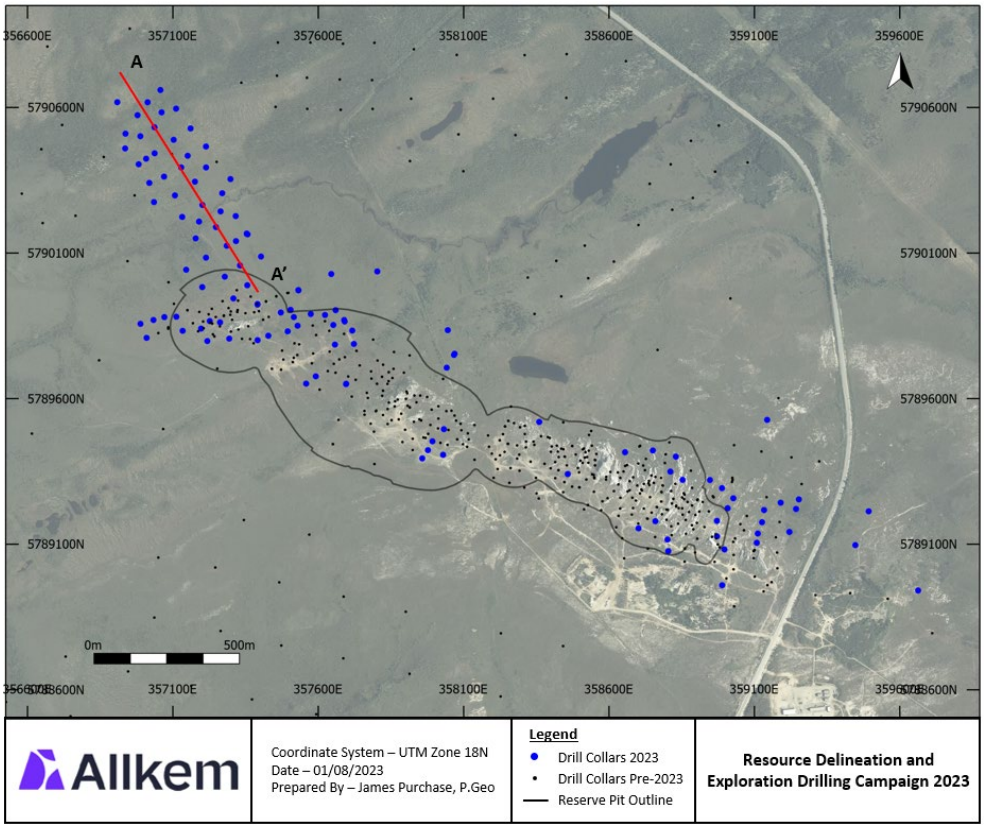
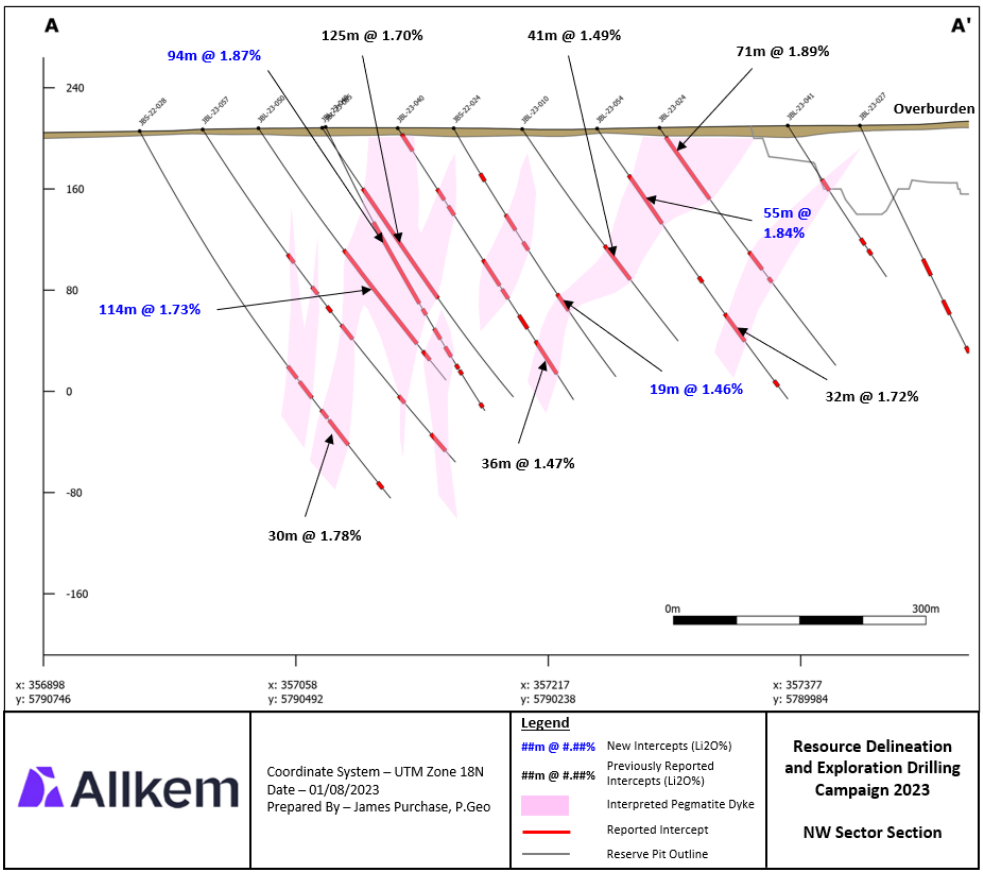


Figure 2: Section view of the NW Sector (looking NE)



NEXT STEPS

The Company is currently planning an additional drilling campaign to start in mid-November 2023 to expand on the updated MRE presented in this announcement. The drilling program will have the following objectives:

- Infill drilling in the NW Sector to convert Mineral Resources currently in the Inferred category to Indicated category.
- Infill drilling at depth to convert any blocks of Inferred category within the new RPEEE pit shell to Indicated category.
- Step-out exploration drilling to the north-west with the objective of discovering new pegmatites beneath thin glacial overburden.

JAMES BAY RESOURCE ESTIMATE – SUMMARY INFORMATION REQUIRED BY LISTING RULE 5.8.1

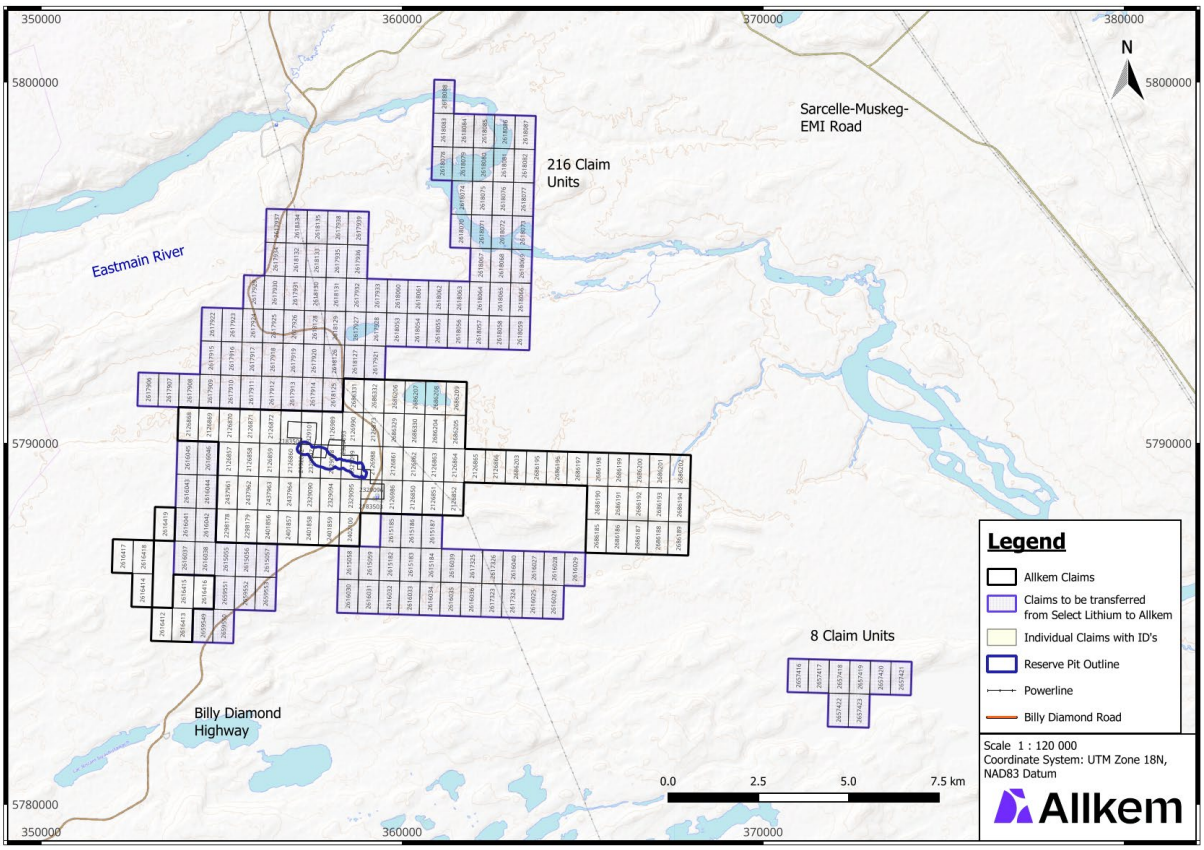
Mineral Tenement and Land Tenure Status

The Project comprises two contiguous packages of mining titles located on NTS map sheet 33C03, covering an area of approximately 11,130 hectares (Figure 3). The 224 claims are classified as "map designed claims", also known as CDC-type claims under the Québec governments mining title classification system and provide the holder the exclusive right to explore for mineral substances on the land subject to the claims. The claims are registered under either Galaxy Lithium (Canada) Inc. ("GLCI"), Galaxy Lithium (Ontario) Inc. ("GLOI") or Select Lithium Corp. Both GLCI and GLOI are wholly owned subsidiaries of Allkem. As of the date of this announcement, 131 claims registered under Select Lithium Corp. acquired by GLCI on May 2, 2023, located to the north and south of the project are currently being transferred to GLCI. The transaction between Select Lithium Corp. and GLCI closed on June 22, 2023. All claims are in good standing, with expiry dates between June 12, 2024, and November 2, 2025.

As of August 9th, 2023, two net smelter return ("NSR") royalties remain on the James Bay Lithium Project:

- 0.50% NSR royalty previously held by Gérard Robert, which was subsequently sold to Ridgeline Royalties Inc. Portions of the mineral resources subject to this royalty are located on six claims (claim numbers: 2329097, 2329098, 2238480, 2238478, 2329101 and 2329100) of the James Bay project.
- 1.50% NSR royalty previously held by Resources d'Arianne Inc., subsequently sold to Lithium Royalty Corp. Allkem has the right to buy back 0.5% of the NSR for $500,000 Canadian dollars, reducing the royalty to 1.00%. Portions of the mineral resources subject to this royalty are located on two claims (claim numbers: 2126988 and 2126860) of the James Bay project.

Figure 3: Mineral Tenure Map showing claims held by Allkem as of August 9th, 2023.



Geology and Geological Interpretation

The Project is found in the northeastern part of the Superior Province. The site lies within the Lower Eastmain Group of the Eastmain greenstone belt, which consists predominantly of amphibolite grade mafic to felsic metavolcanic rocks, metasedimentary rocks and minor gabbroic intrusions. The James Bay Lithium Deposit is located at a major tectonic break between the La Grande sub-province to the north, and the Nemiscau sub-province to the south.

The property is underlain by the Auclair Formation, consisting mainly of paragneisses, of probable sedimentary origin, which surround the pegmatite dykes to the northwest and southeast. Volcanic rocks of the Komo Formation occur to the north and east of the pegmatite dikes. The greenstone rocks are surrounded by Mesozonal to Catazonal migmatite and gneiss. Paleoproterozoic diabase dykes traverse the area, cutting the stratigraphy north-south, with some northwest-southeast orientations.

As of August 2023, a total of 67 individual pegmatite dykes have been identified within the deposit (Figure 4). The pegmatite dykes are located within a “deformation corridor” that has been identified in drilling and outcrop along a strike length of over 5 km. The dykes present as en-echelon orientations, varying in length from 200 m to 400 m, and perpendicular to the strike of the deformation corridor. The dykes have been traced to depths of up to 500 m vertically from surface and are mostly open at depth.

Spodumene is the dominant lithium-bearing mineral identified within the pegmatites (Figure 5). Concentrations of spodumene within the pegmatite dykes vary between 2% up to 40%, with most crystals between 1 cm and 8 cm in length. Some minor occurrences of lepidolite have been visually noted in drill core, however these observations are rare and significant accumulations of lepidolite

have not been identified in laboratory test work. Trace holmquistite has been observed within discrete veins in the encasing paragneiss in proximity (< 1 metre) to pegmatite contacts.

Figure 4: Isometric and section view (looking north) of modelled pegmatite dykes

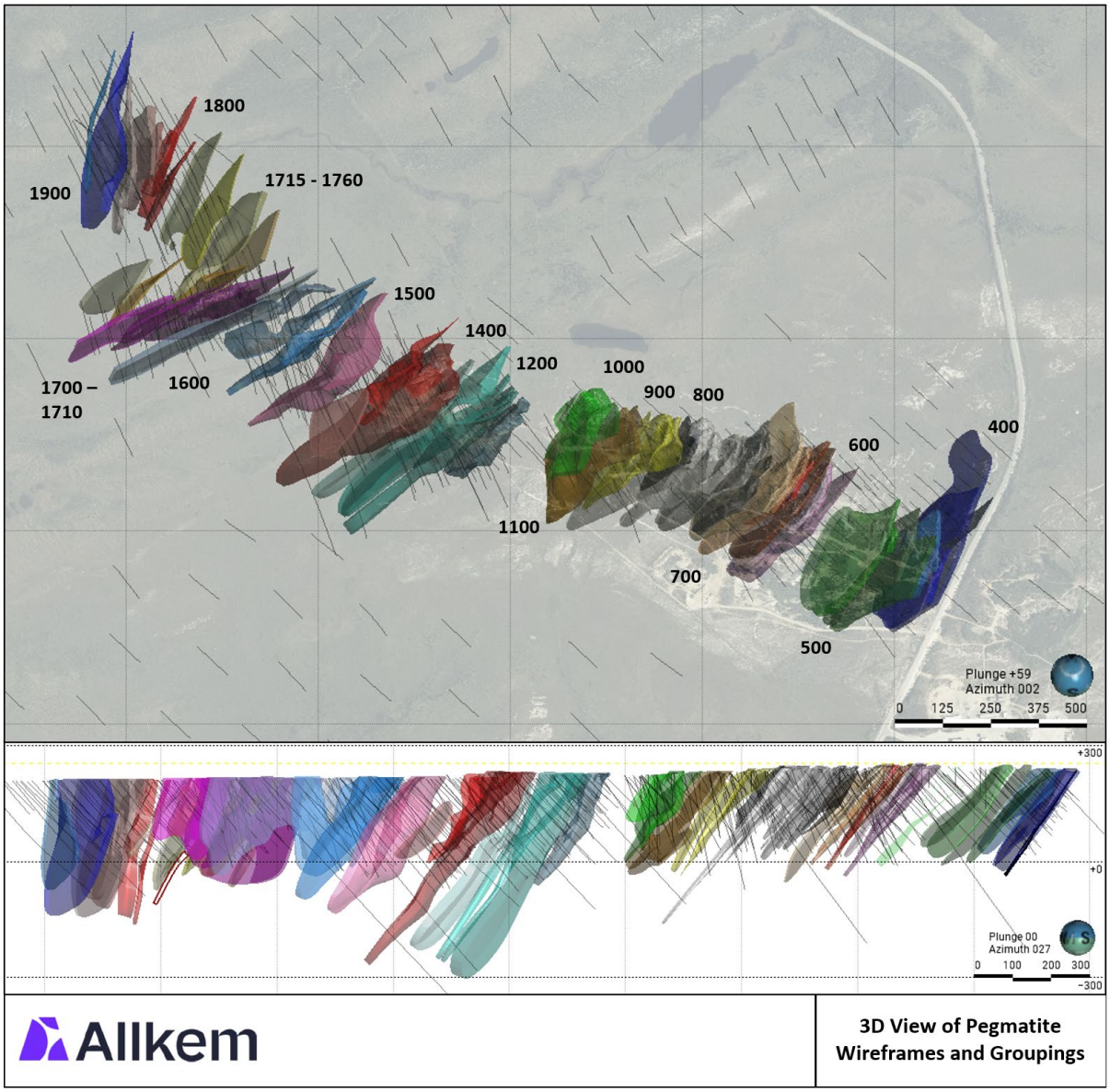
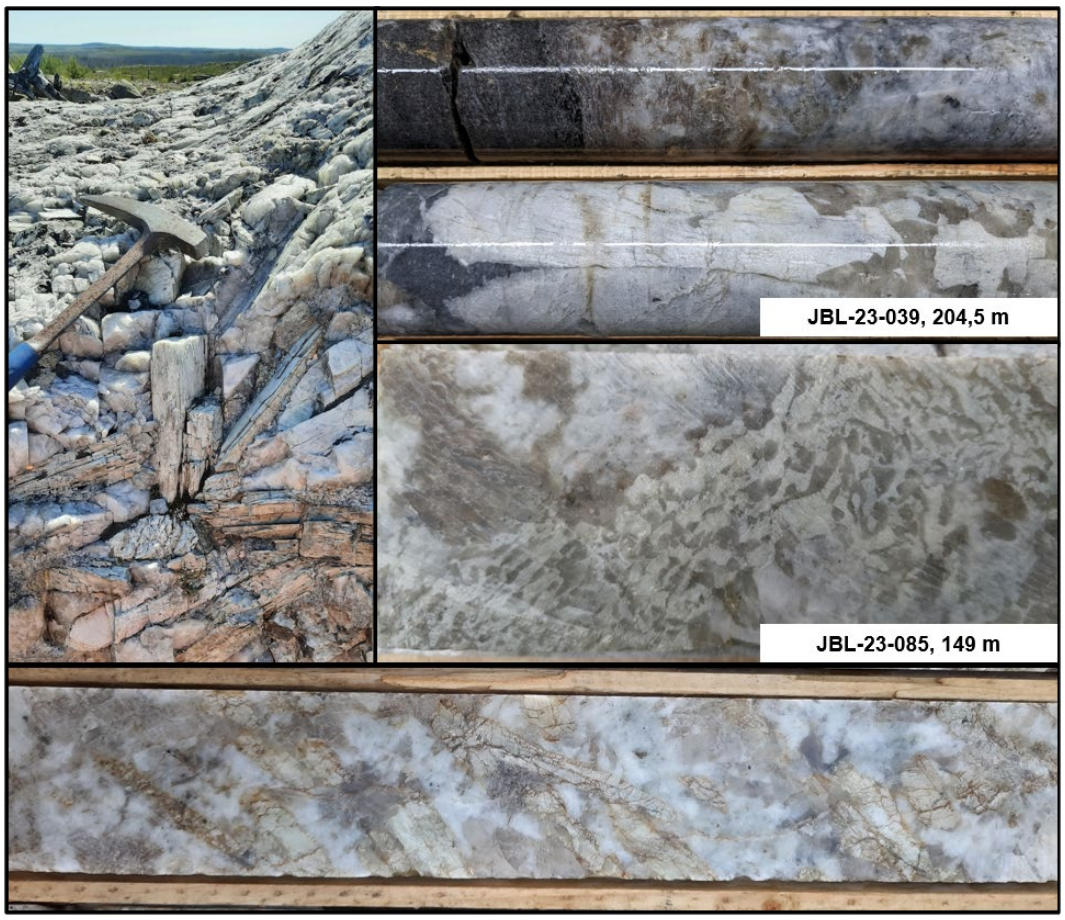


Figure 5: Spodumene observed both in outcrop and drill core



Drilling Techniques

Drilling at the James Bay Lithium Project has been conducted by two previous operators: Lithium One and Galaxy Lithium. Drilling has been conducted exclusively using diamond drilling methodologies, with some channel sampling of surface outcrops using mechanized methods.

Since the December 2021 Mineral Resource, two significant drilling campaigns have occurred on the Project. Both campaigns were completed by Major Drilling, who provided personnel and equipment to complete the drilling campaigns.

Between February 28th and March 31st 2022, a small resource delineation drilling campaign was undertaken to close-off the perimeters of the dykes to the north of the known outcrops, and to test for IP geophysical anomalies. A total of 50 drill holes totalling 8,255 m was drilled. NQ diameter drill core was obtained, and downhole surveys were collected every 3 m using a multi-shot REFLEX EZ-TRAC tool and/or a gyroscopic tool. Drill hole collars were surveyed using RTK methods by a local contractor in UTM Zone 18N, NAD83 datum.

Between December 2nd, 2022 and April 12th, 2023 a large exploration and resource delineation drilling campaign was undertaken to test for extensions of the deposit to the northwest and to infill areas of the deposit where gaps existed in the drill spacing. A total of 130 drill holes for 29,124 m was drilled, which includes four condemnation drill holes and three exploration holes to the east of the deposit. NQ diameter drill core was obtained, and downhole surveys were collected every 3 m using a multi-

shot REFLEX EZ-TRAC tool. Drill hole collars were surveyed using RTK methods by a local contractor in UTM Zone 18N, NAD83 datum.

For both campaigns, drill core was processed at Allkem's onsite core facilities by local geological contracting firms. Drill core was logged by qualified geologists, or geologists in-training under the supervision of qualified geologists registered in the Province of Québec. Samples were obtained from lengths of sawn half-core varying between 0.5 m and 1.5 m depending on logged lithological contacts.

Sampling, Analysis Method, and QA/QC

Core samples were shipped to ALS Minerals in Val-d'Or for preparation and analyses. The laboratory is accredited ISO/IEC 17025:2005 by the Standards Council of Canada for various testing procedures, however, the scope of accreditation does not include the specific testing procedure used to assay lithium.

Sample preparation involved the sample material being weighed and crushed to 70% passing 2 mm. A sample split was taken using a riffle splitter to obtain a 250 g sub-sample. The crushed sub-sample was then pulverized to 85% passing 75 microns before being analysed. Frequent QAQC tests were undertaken on the granulometry during the process.

At ALS Minerals Vancouver, prepared samples were assayed for mineralization grade lithium by sodium-peroxide fusion and inductively coupled plasma – atomic emission spectrometry (ICP-AES) finish (method code ME-ICP81). The method used has a lower detection limit of 0.001% lithium and an upper limit of 10% lithium. Lithium grades were converted to Li_2O grades using a factor of 2.153.

In the 2022 and 2023 drilling campaigns, Allkem implemented external analytical quality control measures including the insertion of control samples (blanks, certified standards, and field duplicates) at an overall QA/QC insertion rate of 11%, with sample batches submitted for assaying at ALS Minerals. Considering the recommendations of previous studies, a sodium-peroxide fusion with ICP-AES finish analysis route was chosen (previously a 4-acid digest) to ensure full digestion of all refractory minerals. QA/QC results were monitored actively during the drilling campaign, and no failures were observed (outside of 3 standard deviations of the expected assay value).

No geophysical or portable XRF tools were used to identify or determine concentrations of mineralization.

Estimation Methodology

Assays were composited to 1.5 m run lengths, with any residuals less than 0.25 m-long absorbed into the previous interval. All unassayed intervals were assigned a zero Li_2O grade. No capping was applied to the Li_2O assays before compositing.

A sub-blocked and rotated block model was produced using Leapfrog Edge v2022.1.1. The parent block size was set at 3 m (X) by 5 m (Y) by 5 m (Z) with each dimension sub-blocked by a factor of 4. The sub-blocks were triggered using the pegmatite dyke wireframes, topography, and the base of overburden interpretation.

For the purposes of variography, pegmatite dykes were grouped based on morphology (similar dip and strike) and location. Experimental variograms were calculated and interpreted using spherical variogram models with two structures with major-axis ranges varying generally between 120 m and 150 m.

Considering the quality of the variograms and the consistency of the lithium grade continuity within the pegmatites, Ordinary Kriging ("OK") was selected as the interpolation method.

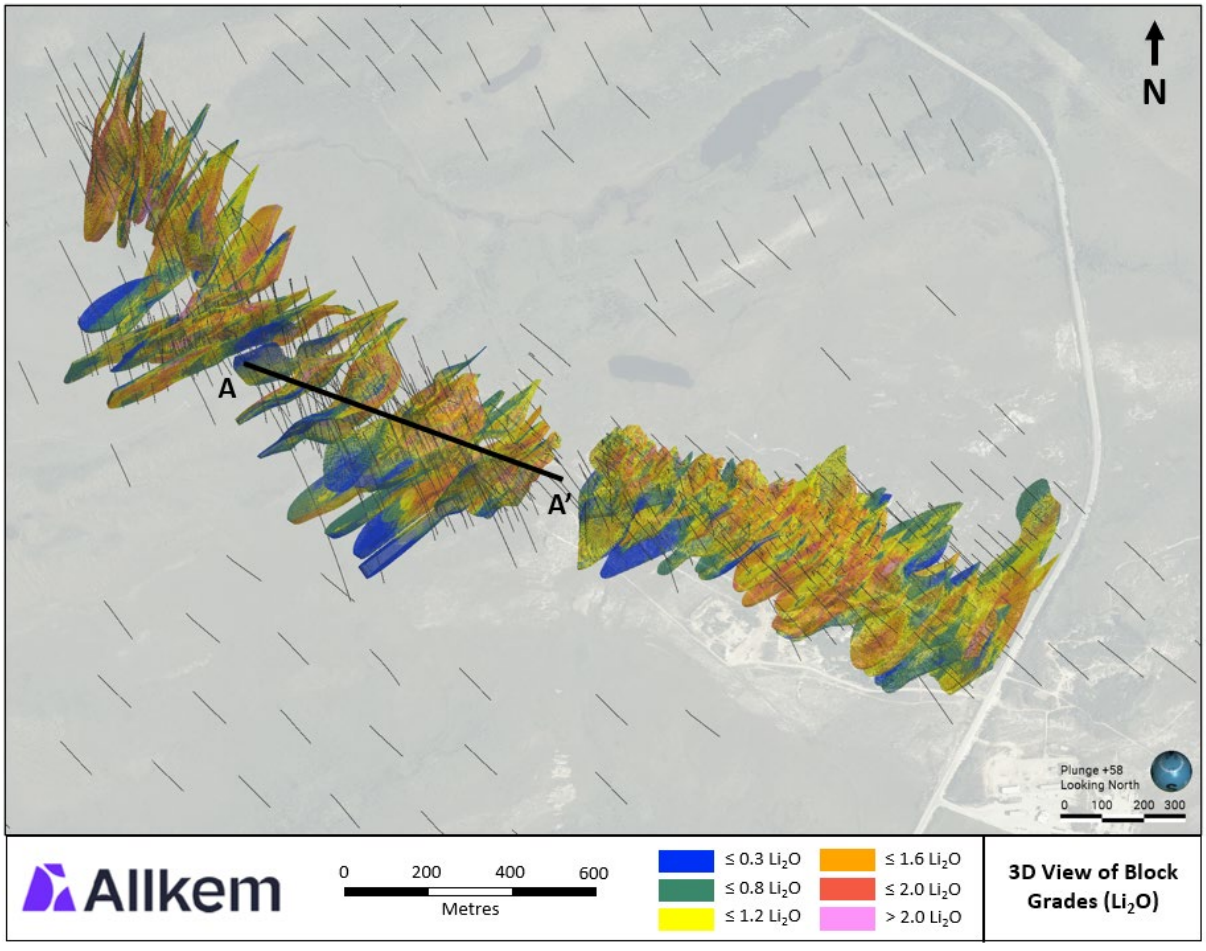
Grade estimation was conducted into the parent blocks using a four-pass estimation strategy. For the first two passes, a minimum of 4 composites and a maximum of 12 composites were required. The search ellipse dimensions were based on variogram model ranges and represent approximately 50% and 80% of the average variogram range. For the third and fourth passes, a minimum of one composite and a maximum of 12 composites were required, with search ellipse representing 120% and 200% of the variogram range. For all passes, a maximum of three composites was allowed from each drill hole.

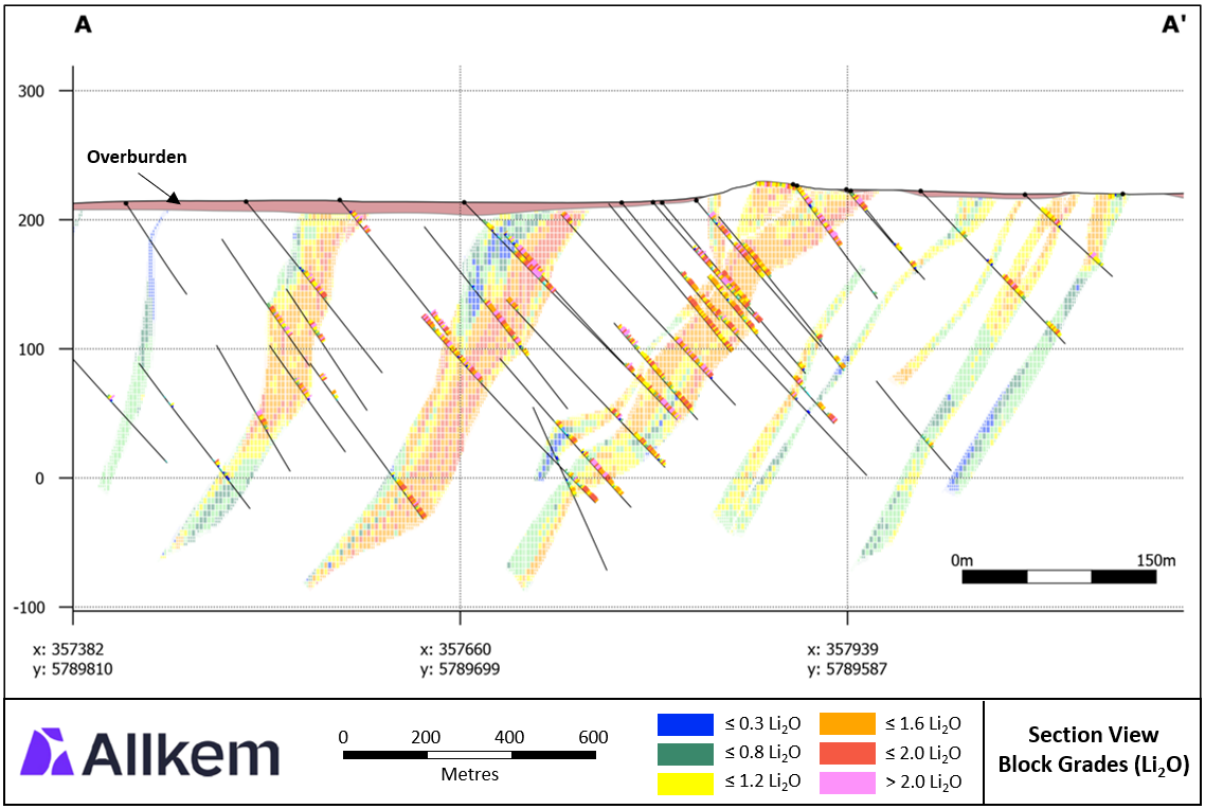
Hard boundaries were used for all pegmatite domains. Blocks outside the pegmatites were assigned a zero Li_2O grade.

Validation of Li_2O block grades was undertaken using both local and global methods. Swath plots were interrogated in all three dimensions, and grade estimates were compared to both Inverse Distance Squared ("ID2") and Nearest Neighbour ("NN") interpolation methods. The block grades were found to be a good representation of the composite grades, and are shown in Figure 6.

Bulk density was coded into the pegmatite blocks using a regression curve with Li_2O grades based on 128 analyses, and mean bulk densities were applied to waste blocks depending on lithology.

Figure 6: Isometric and section view (looking north) of Li_2O Block Grades





Classification Criteria

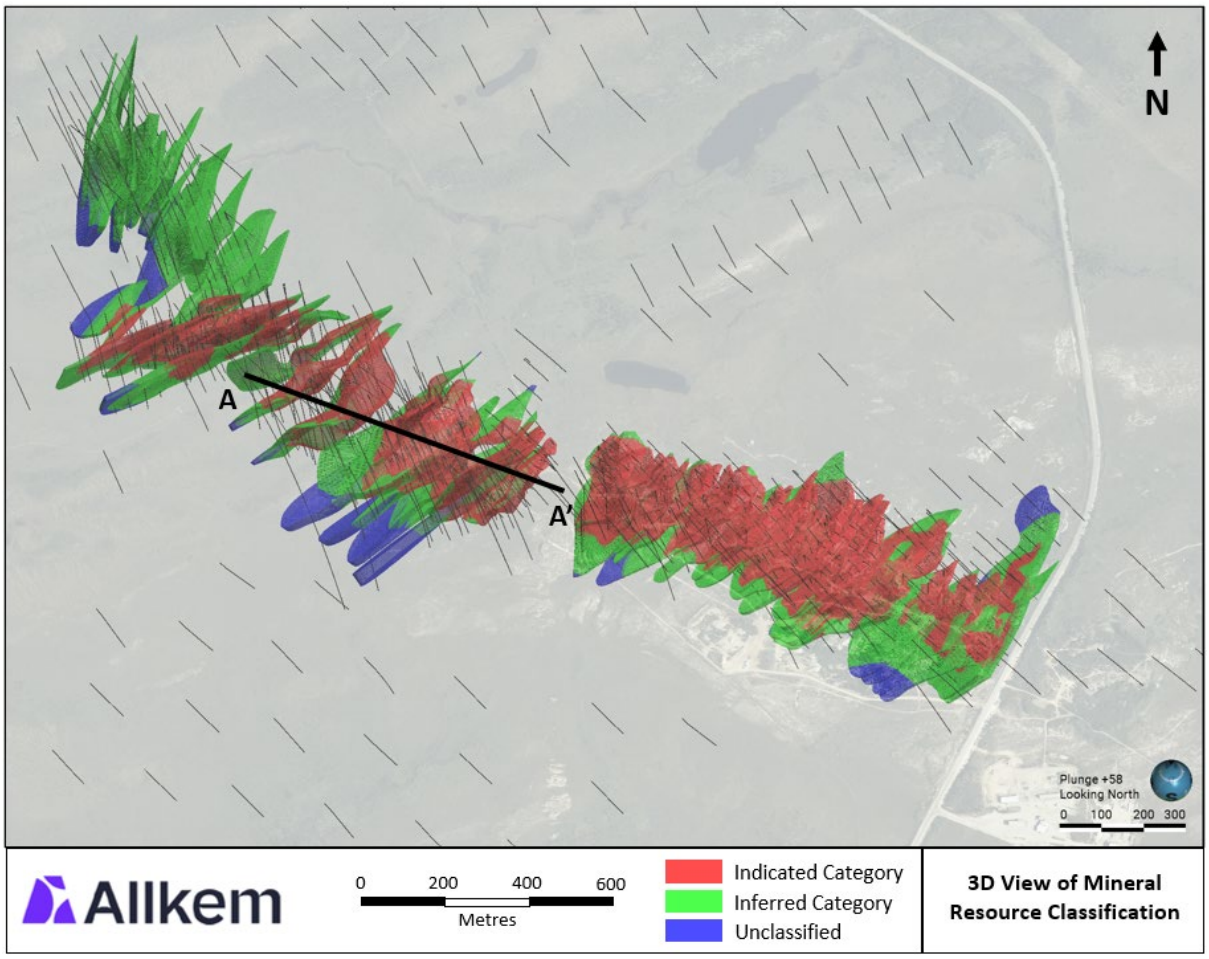
The block model was classified according to the CIM Definition Standards for Mineral Resources and Mineral Reserves (May 2014) and the CIM Estimation of Mineral Resources and Mineral Reserves Best Practice Guidelines (November 2019). These classifications are consistent with those outlined in the JORC Code (2012).

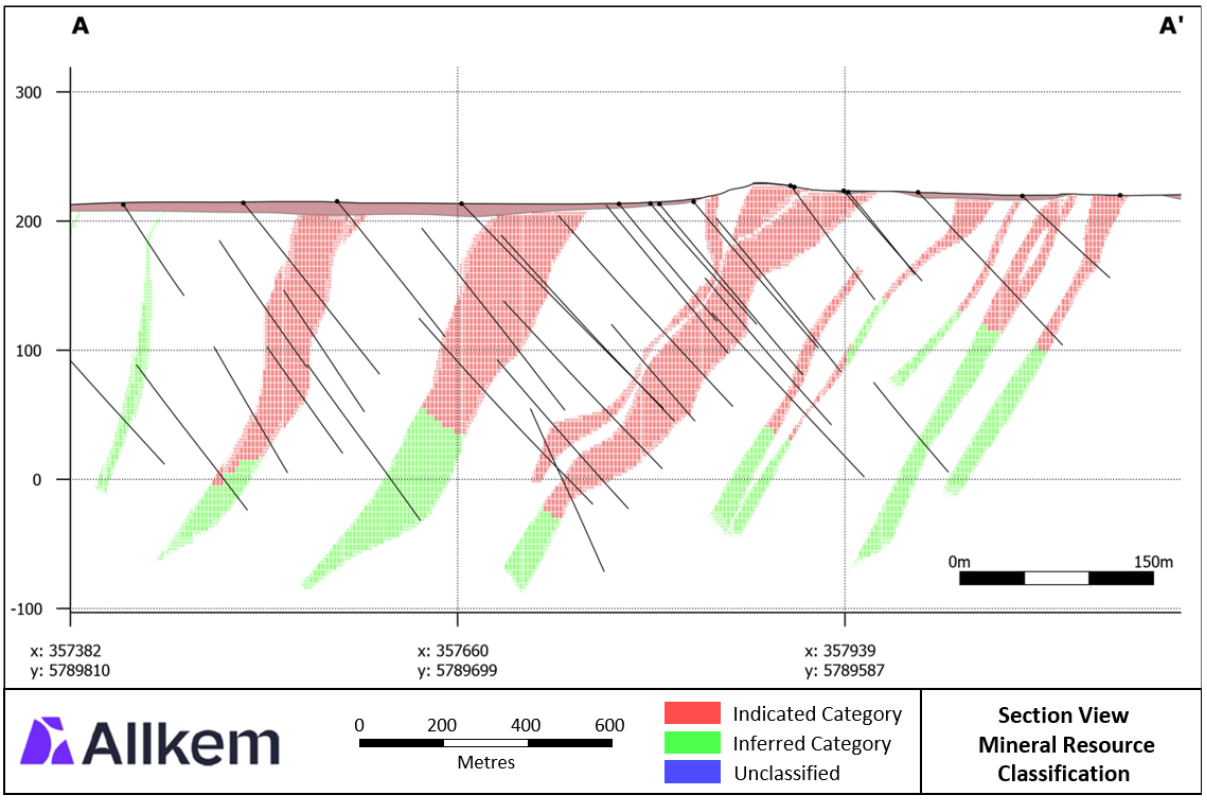
The block classification was based primarily on drill hole spacing, geological and grade continuity and the average distance of composites to a given block. The block classification was subsequently manually modified to ensure a coherent, contiguous classification suitable for mine planning purposes. Within the pegmatite dyke wireframes, the following criteria was used:

- No Measured Mineral Resources were identified.
- Indicated Mineral Resources were identified in areas supported by drill spacings up to approximately 50 m.
- Inferred Mineral Resources were identified in areas supported by drill spacings up to approximately 80 m.

Block classifications are shown in Figure 7.

Figure 7: Isometric and section view (looking north) of the Mineral Resource Classification





Cut-off grades and modifying factors

The block model was re-blocked to 3 m x 5 m x 5 m block size before input into GEOVIA Whittle software. To demonstrate Reasonable Prospects for Eventual Economic Extraction ("RPEEE"), the Mineral Resource was constrained and reported within an optimised pit shell using the following parameters:

Table 4: Whittle Parameters

Whittle Parameters	Unit	Value
Mining Dilution	%	-
Mining Loss	%	-
Process Recovery	%	70.1%
Concentrate Grade	% Li_2O	5.6%
Exchange Rate	CAD/USD	1.33
Spodumene Concentrate Price (5.6% Li_2O)	USD/t conc.	1,500
Transport & Insurance	USD/t conc.	86.16
Plant Costs	CAD/t ore	13.23
G&A Cost	CAD/t ore	13.86
IBA Forecast Payments	CAD/t ore	4.49
Royalty	%	0.32
Closure & Reclamation	CAD/t ore	1.27
Sustaining Capital	CAD/t ore	1.07
Ore Based Cost	CAD/t ore	33.92
Break-even Cut-off Grade Calculated	%	0.16%
Raised Cut-off Grade	%	0.50%
Mining Cost	CAD/t mined	4.82
Overall Slope Angle	Deg	47.50

The lower cut-off was raised from 0.16% Li_2O to 0.50% Li_2O due to geological and metallurgical recovery considerations.

RESOURCE AND RESERVE CONTROLS & GOVERNANCE

Allkem ensures that quoted Mineral Resource and Ore Reserve estimates are subject to internal controls, peer review and validation at both project and corporate levels. Mineral Resource and Ore Reserves are estimated and reported in accordance with the 2012 edition of the JORC Code.

Allkem stores and collects exploration data using industry standard software that contains internal validation checks. Exploration samples from drilling have certified reference material standards introduced to the sample stream at set ratios. These are reported as necessary to the relevant Competent Persons to assess both accuracy and precision of the assay data applied to resource estimates. In resource modelling, block models are validated by checking the input drill hole composites against the block model grades by domain.

The Company has developed its internal systems and controls to maintain JORC compliance in all external reporting, including the preparation of all reported data by Competent Persons who are members of the Australasian Institute of Mining and Metallurgy or a 'Recognised Professional Organisation'. As set out above, the Mineral Resource and Ore Reserve statements included in this announcement were reviewed by suitably qualified Competent Persons (below) prior to their inclusion, in the form and context announced.

ENDS

This release was authorised by Mr Martin Perez de Solay, CEO and Managing Director of Allkem Limited.

Allkem Limited

ABN 31 112 589 910

Level 35, 71 Eagle St
Brisbane, QLD 4000

Investor Relations & Media Enquiries

Andrew Barber
M: +61 418 783 701 **E:** Andrew.Barber@allkem.co

Phoebe Lee
P: +61 7 3064 3600 **E:** Phoebe.Lee@allkem.co

Connect

info@allkem.co
+61 7 3064 3600
www.allkem.co

IMPORTANT NOTICES

This investor ASX/TSX release (**Release**) has been prepared by Allkem Limited (ACN 112 589 910) (the **Company** or **Allkem**). It contains general information about the Company as at the date of this Release. The information in this Release should not be considered to be comprehensive or to comprise all of the material which a shareholder or potential investor in the Company may require in order to determine whether to deal in Shares of Allkem. The information in this Release is of a general nature only and does not purport to be complete. It should be read in conjunction with the Company's periodic and continuous disclosure announcements which are available at allkem.co and with the Australian Securities Exchange (**ASX**) announcements, which are available at www.asx.com.au.

This Release does not take into account the financial situation, investment objectives, tax situation or particular needs of any person and nothing contained in this Release constitutes investment, legal, tax, accounting or other advice, nor does it contain all the information which would be required in a disclosure document or prospectus prepared in accordance with the requirements of the *Corporations Act 2001* (Cth) (**Corporations Act**). Readers or recipients of this Release should, before making any decisions in relation to their investment or potential investment in the Company, consider the appropriateness of the information having regard to their own individual investment objectives and financial situation and seek their own professional investment, legal, taxation and accounting advice appropriate to their particular circumstances.

This Release does not constitute or form part of any offer, invitation, solicitation or recommendation to acquire, purchase, subscribe for, sell or otherwise dispose of, or issue, any Shares or any other financial product. Further, this Release does not constitute financial product, investment advice (nor tax, accounting or legal advice) or recommendation, nor shall it or any part of it or the fact of its distribution form the basis of, or be relied on in connection with, any contract or investment decision.

The distribution of this Release in other jurisdictions outside Australia may also be restricted by law and any restrictions should be observed. Any failure to comply with such restrictions may constitute a violation of applicable securities laws.

Past performance information given in this Release is given for illustrative purposes only and should not be relied upon as (and is not) an indication of future performance.

Forward Looking Statements

Forward-looking statements are based on current expectations and beliefs and, by their nature, are subject to a number of known and unknown risks and uncertainties that could cause the actual results, performances and achievements to differ materially from any expected future results, performances or achievements expressed or implied by such forward-looking statements, including but not limited to, the risk of further changes in government regulations, policies or legislation; the risks associated with the continued implementation of the merger between the Company and Galaxy Resources Ltd, risks that further funding may be required, but unavailable, for the ongoing development of the Company's projects; fluctuations or decreases in commodity prices; uncertainty in the estimation, economic viability, recoverability and processing of mineral resources; risks associated with development of the Company Projects; unexpected capital or operating cost increases; uncertainty of meeting anticipated program milestones at the Company's Projects; risks associated with investment in publicly listed companies, such as the Company; and risks associated with general economic conditions.

Subject to any continuing obligation under applicable law or relevant listing rules of the ASX, the Company disclaims any obligation or undertaking to disseminate any updates or revisions to any forward-looking statements in this Release to reflect any change in expectations in relation to any forward-looking statements or any change in events, conditions or circumstances on which any such statements are based. Nothing in this Release shall under any circumstances (including by reason of this Release remaining available and not being superseded or replaced by any other Release or publication with respect to the subject matter of this Release), create an implication that there has been no change in the affairs of the Company since the date of this Release.

Competent Person Statement

The information in this announcement that relates to Exploration Results pertaining to the James Bay Project is based on information compiled by James Purchase, P.Geo, MAusIMM (CP), a Competent Person who is both a member of L'Ordre des Géologues du Québec (License No. 2082) and a Member of The Australasian Institute of Mining and Metallurgy. Mr. Purchase is a full-time employee of Galaxy Lithium (Canada) Inc. Mr. Purchase has sufficient experience that is relevant to the style of mineralization and type of deposit under consideration and to the activity being undertaken to qualify as a Competent Person as defined in the 2012 Edition of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves'. Mr. Purchase consents to the inclusion in this announcement of the matters based on his information in the form and context in which it appears.

The information in this announcement that relates to Mineral Resources pertaining to the James Bay Project is based on information compiled and supervised by Luke Evans, P.Eng, a Competent Person who is a member of L'Ordre des Ingénieurs du Québec (License No. 105567). Mr. Evans is a full-time employee of SLR Consulting (Canada) Inc. Mr. Evans has sufficient experience that is relevant to the style of mineralization and type of deposit under consideration and to the activity being undertaken to qualify as a Competent Person as defined in the 2012 Edition of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves'. Mr. Evans consents to the inclusion in this announcement of the matters based on his information in the form and context in which it appears.

Technical information relating to the Company's James Bay project contained in this release is derived from, and in some instances is an extract from, the technical report entitled "NI 43-101 Technical Report Feasibility Study James Bay Lithium Project, Québec, Canada" released on January 11th, 2022 (Technical Report) which has been reviewed and approved by James Purchase, P.Geo, MAusIMM (CP) (who is an employee of Galaxy Lithium (Canada) Inc.) as it relates to geology, drilling, sampling, exploration, QA/QC and mineral resources in accordance with National Instrument 43-101 – Standards for Disclosure for Mineral Projects. The Technical Report will be available for review under the Company's profile on SEDAR at www.sedar.com.

Not for release or distribution in the United States

This announcement has been prepared for publication in Australia and may not be released to U.S. wire services or distributed in the United States. This announcement does not constitute an offer to sell, or a solicitation of an offer to buy, securities in the United States or any other jurisdiction, and neither this announcement or anything attached to this announcement shall form the basis of any contract or commitment. Any securities described in this announcement have not been, and will not be, registered under the U.S. Securities Act of 1933 and may not be offered or sold in the United States except in transactions registered under the U.S. Securities Act of 1933 or exempt from, or not subject to, the registration of the U.S. Securities Act of 1933 and applicable U.S. state securities laws.

APPENDIX 1 – JORC 2012 TABLE 1 DISCLOSURE

Section 1: Sampling Techniques and Data

JAMES BAY LITHIUM PROJECT SAMPLING AND DATA		
Sampling techniques	*Nature and quality of sampling (e.g. cut channels, random chips, or specific specialized industry standard measurement tools appropriate to the minerals under investigation, such as down hole gamma sondes, or handheld XRF instruments, etc.). These examples should not be taken as limiting the broad meaning of sampling.* *Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.* *Aspects of the determination of mineralization that are Material to the Public Report.* *In cases where 'industry standard' work has been done this would be relatively simple (e.g. 'reverse circulation drilling was used to obtain 1 m samples from which 3 kg was pulverized to produce a 30 g charge for fire assay'). In other cases, more explanation may be required, such as where there is coarse gold that has inherent sampling problems. Unusual commodities or mineralization types (e.g. submarine nodules) may warrant disclosure of detailed information.*	**2008/2009 Exploration Drilling – Lithium One** Lithium One (subsequently acquired by Galaxy Lithium (Canada) Inc.) drilled a total of 102 diamond drill holes for 13,487 m on a pattern ranging between 50 m and 60 m spacing. Drill holes were for the most part inclined towards the southeast to intersect the spodumene mineralization perpendicular to the dyke geometry. Drill hole diameter was NQ. The 2008/2009 drill hole collars were initially surveyed by handheld GPS, and subsequently resurveyed using RTK by Galaxy Lithium Canada in 2017. A total of 84 out of 102 drill holes were located and resurveyed by RTK. Downhole survey methods for the 2008 drilling are unknown, however downhole surveying in 2009 was conducted at 3 m intervals using a REFLEX Flexit tool. **2009/2010 Channel Sampling – Lithium One** Surface outcrops of pegmatite were channel sampled in 2009 and 2010 using a dual-blade diamond saw to ensure consistent widths during cutting. A total of 53 channel samples were collected for a combined length of 810 m. Channel lengths ranged from 2 m to 41 m, and sampling was conducted on 1.5 m intervals. Channel samples were terminated at the contact with surrounding lithologies. **2017 Resource Definition Drilling – Galaxy Lithium (Canada) Inc.** Galaxy Lithium (Canada) Inc. conducted a program of infill and extensional diamond drilling in 2017 with 157 holes drilled for a total meterage of 33,339 m. Drill hole diameter was NQ. All drill hole collars were resurveyed using a RTK method. Downhole surveys were recorded every 3 m using a multi-shot camera (REFLEX EZ-TRAC). **2017/2018 Geotech and Metallurgical Drilling – Galaxy Lithium (Canada) Inc.** Galaxy Lithium (Canada) Inc. conducted a program of diamond drilling in 2017 and 2018, with 102 holes drilled for a total meterage of 10,900 m. Drill hole diameter was HQ for metallurgical drill holes, and NQ for the remaining geotechnical holes. **2021 - 2023 Sterilisation, Exploration and Resource Delineation Drilling – Galaxy Lithium (Canada) Inc.** Galaxy Lithium (Canada) Inc. conducted two programs of diamond drilling during the winter of 2021/2022 and 2022/2023, with 231 holes drilled for a total meterage of 43,600 m. Drill hole diameter was NQ and drilling was undertaker by Major Drilling. All drill hole collars were resurveyed using a RTK method by an independent land surveyor. Downhole surveys were recorded every 3 m using a multi-shot camera (REFLEX EZ-TRAC) or a gyroscope.
Drilling techniques	*Drill type (e.g. core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc.) and details (e.g. core diameter, triple or standard*	**Diamond Drilling**: Drilling campaigns between 2008 and 2018 were conducted by Chibougamou Drilling using either NQ or HQ drilling diameters. Triple tubing was not necessary as the rock is fresh and highly competent

	tube, depth of diamond tails, face-sampling bit or other type, whether core is oriented and if so, by what method, etc.).	starting from the base of the overburden. Recoveries were excellent (> 95%). Drilling campaigns conducted between 2021 and 2023 were carried out by Major Drilling using NQ drill diameter. Exploration and resource definition drill holes vary in depth from 50 m to 300 m, with the occasional deep exploration hole up to 500 m depth. Metallurgical drill holes are HQ diameter and vary in depth between 10 m and 105 m. Geotechnical and sterilisation drill holes are NQ diameter and are generally 70 m to 120 m deep.
Logging	*Whether core and chip samples have been geologically and geotechnically logged to a level of detail to support appropriate Mineral Resource estimation, mining studies and metallurgical studies.* *Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc.) photography.* *The total length and percentage of the relevant intersections logged.*	All drill core processing was performed at the Relais Routier Km 381 Truck Stop, with logging and sampling conducted by employees and contractors of GLCI. Lithology, structure, mineralization, sample number, and location were recorded by the geologists in a GeoticLog log database, with a backup stored on an external hard drive for additional security. Drill core was stored in wooden core boxes and delivered to the core logging facility at the camp twice daily by the drill contractor. The drill core was first aligned and measured for core recovery by a technician, followed by RQD measurements. Due to the hardness of the pegmatite units, the recovery of the drill core was generally very good, averaging over 95%. The core was then logged, and sampling intervals were defined by the geologist. Before sampling, the core was photographed using a digital camera and core boxes were marked with box number, hole ID, and aluminium tags indicating “from” and “to” measurements. All drill holes were logged in full.
Sub- sampling techniques and sample preparation	*If core, whether cut or sawn and whether quarter, half or all core taken.* *If non-core, whether riffled, tube sampled, rotary split, etc. and whether sampled wet or dry.* *For all sample types, the nature, quality and appropriateness of the sample preparation technique.* *Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.* *Measures taken to ensure that the sampling is representative of the in-situ material collected, including for instance results for field duplicate/second-half sampling.* *Whether sample sizes are appropriate to the grain size of the material being sampled.*	**2008/2009 Drilling and Channel Sampling** Standardized core sampling protocols were used by Lithium One. Initially, during the 2008 drilling program, core was sampled at 2.5 m intervals, and subsequently at 1.5 m intervals. A selective sampling procedure was used based on lithological contacts, where the maximum (and most common) sample interval was 1.5 m. Shorter samples were collected to define geological domains. Channel samples were also sampled at 1.5 m intervals. Sample intervals were marked by appropriately qualified geologists. Two sample tags were placed at the beginning of each sample interval, while a third copy remained in the sample booklet along with the associated “from” and “to” information recorded by the geologist. A geo-technician was responsible for core cutting and for preparing the samples for dispatch to the preparation laboratory – Table Jamésienne de Concertation Minière in Chibougamau (TJCM). Assay samples were collected on half-core sawed lengthwise using a diamond saw; the remaining half was replaced in the core box for future reference. Quarter core duplicates were collected frequently. **2017/2018 Drilling** Sample intervals were determined based on observations of the lithology and mineralization and were marked and

		tagged by the geologist. The typical sample length was 1.5 m but varied according to lithological contacts between the mineralized pegmatite and the country rock. In general, one country rock sample was collected from each side of the contact with the pegmatite. The drill core was split lengthwise; one half was placed in a plastic bag with a sample tag, and the other half was left in the core box with a second sample tag for reference. The third sample tag was archived on site. The samples were then catalogued and placed in rice bags for shipping. Sample shipment forms were prepared on site, with one copy inserted with the shipment and a second copy given to the carrier. One copy was kept for reference. The samples were transported regularly by contractors' truck directly to the ALS Canada Ltd – ALS Minerals laboratory in Val-d'Or, Québec. At the ALS facility, the sample shipment was verified, and a confirmation of receipt of shipment and content was sent digitally to the Galaxy project manager. The sample sizes (half-core, NQ diameter) are appropriate for the style, thickness and consistency of the mineralization at the James Bay Lithium Project. **2021 – 2023 Drilling** Sampling techniques and preparation were consistent with the 2017/2018 drilling campaigns, with sampling lengths reduced to 1 m within pegmatite lithologies.
Quality of assay data and laboratory tests	*The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.* *For geophysical tools, spectrometers, handheld XRF instruments, etc., the parameters used in determining the analysis including instrument make and model, reading times, calibrations factors applied and their derivation, etc.* *Nature of quality control procedures adopted (e.g. standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (i.e. lack of bias) and precision have been established.*	**2008 - 2010 Assaying** Samples were shipped from site in secure containers to Table Jamésienne de Concertation Minière (TJCM) in Chibougamau for preparation. The protocol for sample preparation involved weighing, drying, crushing, splitting and pulverizing. The pulverized pegmatite core samples were shipped from the TJCM to the COREM Research Laboratory (COREM) in Québec City. COREM was accredited ISO/IEC 17025:2005 by the Standards Council of Canada for various testing procedures on April 30, 2009. The scope of accreditation did not include the specific testing procedures used by COREM to assay lithium (method code B23). Lithium One also utilized SGS Mineral Services Lakefield Laboratory (SGS) as an umpire laboratory to monitor the reliability of assaying results delivered by the primary laboratory COREM. At COREM, prepared samples were assayed using three-acid digestion (nitric acid, hydrofluoric acid, perchloric acid) in boiling water. The dissolved sample was analysed by atomic absorption (AA) spectrometry. At SGS, check samples were assayed by sodium peroxide fusion and atomic absorption spectroscopy. At ALS Minerals, prepared samples were assayed using four-acid digestion (perchloric acid, hydrofluoric acid, nitric acid and hydrochloric acid) with ICP-AES finish. Although a four-acid digest is considered a near-total digest, common practice for the analysis of pegmatite material is a sodium-peroxide fusion. Significant verification test work has been undertaken and has demonstrated that the acid digest method is robust, and no bias has been observed when compared to the sodium-peroxide fusion check assays.

Samples from 2008 – 2010 represent roughly 14% of the total meterage of the drilling on the project.

2008 - 2010 QA/QC

Lithium One relied partly on the internal analytical quality control measures implemented by COREM laboratory. Additionally, Lithium One implemented external analytical quality control measures consisting of using control samples (field blanks, in house standards and field duplicates) inserted with sample batches submitted for assaying in 2009 and 2010, and coarse reject duplicate samples in 2008. Standards were non-certified and were custom-made from a bulk sample of the outcropping pegmatite material from the project.

Field duplicates were generated from quarter core samples and inserted every 40 samples.

Total insertion rate for QA/QC in 2008 – 2010 was 4.2%, with an additional 2.6% when including umpire assays.

Although the insertion rate of QA/QC in 2008 – 2010 was below industry standards, subsequent check assays have shown that the assay results are valid. Also, the results from the limited QA/QC undertaken at the time of drilling show no issues.

2017/2018 Assaying

Samples were shipped to ALS Minerals in Val-d'Or for preparation and analyses. The laboratory is accredited ISO/IEC 17025:2005 by the Standards Council of Canada for various testing procedures, however, the scope of accreditation does not include the specific testing procedure used to assay lithium.

Sample preparation involved the sample material being weighed and crushed to 70% passing 2 mm. The ground material was then pulverized to 90% passing 75 microns before being analysed.

At ALS Minerals, prepared samples were assayed for mineralization grade lithium by specialized four-acid digestion and inductively coupled plasma – atomic emission spectrometry (ICP-AES) finish (method code Li-OG63). An approximately 0.4-g sample was first digested with perchloric, hydrofluoric, and nitric acid until dry. The residue was subsequently re-digested in concentrated hydrochloric acid, cooled and topped up to volume. Finally, the samples were analysed for lithium by ICP-AES. The method used has a lower detection limit of 0.005% lithium and an upper limit of 10% lithium.

Samples from 2017 represent roughly 44% of the total meterage of the drilling on the project.

2017/2018 QA/QC

GLCI relied partly on the internal analytical quality control measures implemented by the ALS Minerals laboratory, which involved routine pulp duplicate analyses. GLCI also implemented external analytical quality control measures including the insertion of control samples (blanks, in house standards and field duplicates) with sample batches submitted for assaying at ALS Minerals in 2017. In 2017, a number of pulp samples were also re-submitted to the SGS laboratory in Lakefield, Ontario for umpire check assays. In

		2020, additional pulp samples were resubmitted to Nagrom Analytical, Perth. Duplicate samples were inserted into each sample series at a rate of one in every 20 samples. Duplicates corresponded to a quarter core from the sample left behind as reference. Total insertion rate for QA/QC in 2017 was 12.4%, with which increases up to 16.6% when including umpire assays. The rate of insertion of QA/QC samples in 2017 was much improved compared to 2008 – 2010 period. No biases were identified, and a minor failure was identified in the low-grade standard, which was investigated and no issues were identified. **2021 - 2023 Assaying** Samples were shipped to ALS Minerals in Val-d'Or for preparation and analyses. The laboratory is accredited ISO/IEC 17025:2005 by the Standards Council of Canada for various testing procedures, however, the scope of accreditation does not include the specific testing procedure used to assay lithium. Sample preparation (code PREP-31A) involved the sample material being weighed and crushed to 70% passing 2 mm, with a riffle split of 250 g pulverized to 85% passing 75 microns before being analysed. At ALS Minerals, prepared samples were assayed for mineralization-grade lithium by sodium-peroxide fusion and digestion followed by inductively coupled plasma – atomic emission spectrometry (ICP-AES) finish (method code ME-ICP81). The method used has a lower detection limit of 0.001% lithium and an upper limit of 10% lithium. Samples from 2021 - 2023 represent roughly 42% of the total meterage of the drilling on the project. **2021 - 2023 QA/QC** GLCI implemented external analytical quality control measures including the insertion of control samples (blanks and in house standards) with sample batches submitted for assaying at ALS Minerals at a rate of 1 QA/QC sample for every 9 samples. A number of pulp samples were also re-submitted to the SGS laboratory in Lakefield, Ontario for umpire check assays. Total insertion rate for QAQC between 2021 and 2023 was roughly 12% when including umpire assays. No biases were identified, and two minor blank failures were identified and a re-analysis was requested. The re-analyses returned similar results to the original assays.
Verification of sampling and assaying	*The verification of significant intersections by either independent or alternative company personnel.* *The use of twinned holes.* *Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.*	James Purchase, P. Geo, Geology Manager for Galaxy Lithium Canada Inc. has visually assessed and verified the drilling results and protocols described in this announcement and has witnessed outcropping spodumene mineralization in the field. A selection of drill collar coordinates was validated by handheld GPS, and core and sample storage and security facilities were inspected. Channel sample outcrops were also inspected and found to be of high-quality. Mr. Purchase has conducted numerous site visits since 2021, the most recent being in June 2023.

	Discuss any adjustment to assay data.	In addition, Luke Evans, P.Eng of SLR Consulting (Canada) Inc. and the Independent CP for the Mineral Resource visited the site in June 2023 and inspected outcrop, drill core and sampling storage facilities. It should be noted that the drilling between 2021 and 2023 was managed by independent geological contractors and was conducted by professional geologists registered in the Province of Québec. Data collection and entry procedures were also reviewed and found to be adequate. Various reanalyses of pulps have shown that there are very immaterial differences between analysing using a standard 4-acid digest and a peroxide fusion for the James Bay lithium deposit. No clear and consistent biases were defined during investigations into QAQC performances, and any failures were duly investigated and found to be minor.
Location of data points	*Accuracy and quality of surveys used to locate drill holes (collar and down-hole surveys), trenches, mine workings and other locations used in Mineral Resource estimation.* *Specification of the grid system used.* *Quality and adequacy of topographic control.*	Drill collars were surveys by an external contractor using RTK methodology in UTM (Universal Transverse Mercator) Zone 18N. Datum is NAD83. Downhole surveys were completed using an EZ-TRAC multishot tool provided by REFLEX. Declination (-14.2) was removed to correct the data from magnetic north to geographic north. At the collar, a TN14 tool was used to measure the dip and azimuth of the casing. Topographic controls are informed by a LiDAR survey completed recently on the project.
Data Spacing and distribution	*Data spacing for reporting of Exploration Results.* *Whether the data spacing and distribution is sufficient to establish the degree of geological and grade continuity appropriate for the Mineral Resource and Ore Reserve estimation procedure(s) and classifications applied.* *Whether sample compositing has been applied.*	In the NW Sector, drilling has been completed on a nominal 80 m x 80 m spacing. Most of the Main Deposit has been drilled at a nominal spacing of approximately 50 m to satisfy the classification as Indicated Mineral Resources. No sample compositing has been undertaken.
Orientation of data in relation to geological structure	*Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.* *If the relationship between the drilling orientation and the orientation of key mineralised structures is considered to have introduced a sampling bias, this should be assessed and reported if material.*	As the pegmatite dykes in the NW Sector are concealed by 5 m to 15 m of glacial till, it was difficult to accurately orientate the drilling at a perpendicular angle to the pegmatites as limited information was available at the time. As drilling progressed, it become apparent that the drilling was intersecting the pegmatites at a sub-optimal angle, and that the true thickness of pegmatites in drilling represent between 60% to 80% of the apparent thickness (downhole thicknesses). Although this angle is sub-optimal, the author does not believe this has introduced a sampling bias. The orientation of the dykes is well understood for the remainder of the deposit where outcrop is abundant, and drilling has been oriented perpendicular to the dyke contacts.
Sample Security	*The measures taken to ensure sample security.*	Drill core, sample rejects and sample pulps are stored in a secure environment (in a locked dome structure) at the Relai Routier 381 truck stop. Sample pulps are stored in a locked container adjacent to the dome.

Audits or reviews	*The results of any audits or reviews of sampling techniques and data*	Sampling techniques were reviewed by previous employees of Galaxy Lithium, and also by James Purchase, P.Geo, the QP of the previous Mineral Resource released in the 2021 feasibility study. In addition, external geological contractors were engaged during drilling activities to monitor the QA/QC data and logging procedures to ensure that industry best practises were followed. Lastly, Luke Evans, P.Eng of SLR Consulting (Canada) Inc. and the Independent CP for the Mineral Resource visited the site in June 2023 and inspected outcrop, drill core and sampling storage facilities.

Section 2: Reporting of Exploration Results

Criteria	JORC Code explanation	Commentary
Mineral tenement and land tenure status	• *Type, reference name/number, location and ownership including agreements or material issues with third parties such as joint ventures, partnerships, overriding royalties, native title interests, historical sites, wilderness or national park and environmental settings.* • *The security of the tenure held at the time of reporting along with any known impediments to obtaining a license to operate in the area.*	The Project comprises 224 mining titles located primarily in NTS map sheet 33C/03, covering an area of approximately 11,130 hectares. The boundaries of the claims have not been legally surveyed. All claims are in good standing, with expiry dates between June 12, 2024, and November 2, 2025. The claims are "CDC"-type claims which gives its holder the exclusive right to search for mineral substances. No Mining Lease has been issued for the project. The claims are registered under Galaxy Lithium (Canada) inc. ("GLCI") and Galaxy Lithium (Ontario) Inc. ("GLOI"). Project level approvals at both Provincial and Federal level jurisdictions are underway, final approval is anticipated in Q3 2023.
Exploration done by other parties	• *Acknowledgment and appraisal of exploration by other parties.*	Prospector Jean Cyr first discovered spodumene pegmatite outcrops on the property in 1964. The property was staked in 1966 by Mr. Cyr and was optioned by the SDBJ in 1974, who after conducting some exploration on the property, returned it to Mr. Cyr on June 10, 1986. Commencing in 1974, SDBJ conducted an exploration program that consisted of geological mapping, systematic sampling and diamond drilling of the mineralized outcrops to evaluate the lithium potential of the property. The mapping defined an area of 45,000 square metres of outcropping spodumene dykes. The Centre de Recherches Minérales du Québec conducted concentration tests and chemical analyses in 1975. A composite sample of the spodumene pegmatite grading 1.7% Li_2O yielded a spodumene concentrate grading an average of 6.2% Li_2O with a recovery factor of 71%. LithiumOne acquired the claims in 2007 and embarked on an exploration campaign designed to produce a maiden mineral resource on the property. In 2012, Galaxy Resources Limited merged with Lithium One.

Geology	• *Deposit type, geological setting and style of mineralization.*	The Project is in the northeastern part of the Superior Province. It lies within the Lower Eastmain Group of the Eastmain greenstone belt, which consists predominantly of amphibolite grade mafic to felsic metavolcanic rocks, metasedimentary rocks and minor gabbroic intrusions. The property is underlain by the Auclair Formation, consisting mainly of paragneisses of probable sedimentary origin which surround the pegmatite dykes to the northwest and southeast. Volcanic rocks of the Komo Formation occur to the north of the pegmatite dykes. The greenstone rocks are surrounded by Mesozonal to catazonal migmatite and gneiss. All rock units are Archean in age. The pegmatites delineated on the property to date are oriented in a generally parallel direction to each other and are separated by barren host rock of sedimentary origin (metamorphosed to amphibolite facies). They form irregular dykes attaining up to 60 m in width and over 200 m in length. The pegmatites crosscut the regional foliation at a high angle, striking to the south-southwest and dipping moderately to the west-northwest. Spodumene is the principal source of lithium found at the Project. Spodumene is a relatively rare pyroxene that is composed of lithium (8.03% Li_2O), aluminium (27.40% Al_2O_3), and silica (64.57% SiO_2). It is found in lithium rich granitic pegmatites, with its occurrence associated with quartz, microcline, albite, muscovite, lepidolite, tourmaline and beryl.
Drill hole Information	• *A summary of all information material to the understanding of the exploration results including a tabulation of the following information for all Material drill holes:* o *easting and northing of the drill hole collar* o *elevation or RL (Reduced Level – elevation above sea level in meters) of the drill hole collar* o *dip and azimuth of the hole* o *down hole length and interception depth* o *hole length.*	All drill collars and hole directions are presented in Appendix A. Most holes are inclined 45 – 70 degrees towards the southeast.
Data aggregation methods	• *In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (e.g. cutting of high grades) and cut-off grades are usually Material and should be stated.* • *Where aggregate intercepts incorporate short lengths of high-grade results and longer lengths of low-grade results, the procedure used for such aggregation should be stated and some typical*	No exploration results have been included in this announcement, however Allkem uses the following procedures to report exploration results. Capping is not applied for the purpose of reporting exploration results. Lower cut-off used for reporting is 0.4% Li_2O%; minimum 4 m true width interval; maximum 2 m of internal waste. No metal equivalent values are used. Li% assays have been multiplied by 2.153 to transform them to Li_2O%.

	examples of such aggregations should be shown in detail. • *The assumptions used for any reporting of metal equivalent values should be clearly stated.*	
Relationship between mineralization widths and intercept lengths	• *These relationships are particularly important in the reporting of Exploration Results.* • *If the geometry of the mineralization with respect to the drill hole angle is known, its nature should be reported.* • *If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (e.g. 'down hole length, true width not known').*	Lithium mineralization in the NW Sector occurs as thick, steeply dipping pegmatite dykes ranging between 4 m and 30 m thick (true thickness), with some dykes coalescing up to 85 m true thickness in the core of the pegmatite swarm. Due to the sub-optimal angle of intercept between the drilling at the assumed orientation of the pegmatite dykes in the NW Sector, true widths have been estimated at between 60% and 80% of downhole widths.
Diagrams	• *Appropriate maps and sections (with scales) and tabulations of intercepts should be included for any significant discovery being reported These should include, but not be limited to a plan view of drill hole collar locations and appropriate sectional views.*	A map view and 3D view has been provided.
Balanced reporting	• *Where comprehensive reporting of all Exploration Results is not practicable, representative reporting of both low and high grades and/or widths should be practiced to avoid misleading reporting of Exploration Results.*	No exploration results have been included in this announcement.
Other substantive exploration data	• *Other exploration data, if meaningful and material, should be reported including (but not limited to): geological observations; geophysical survey results; geochemical survey results; bulk sample– size and method of treatment; metallurgical test results; bulk density, groundwater, geotechnical and rock characteristics; potential deleterious or contaminating substances.*	Bulk sampling was conducted on the property in 2011, four test pits were dug to obtain metallurgical samples. An IP survey undertaken in 2020 and 2021 has uncovered potential extensions of mineralization to the east of the property, east of the Billy-Diamond Highway. Re-assaying of pulps using multi-element sodium-peroxide fusion methods has not returned economic concentrations of tantalum, tin or other elements of economic importance apart from lithium.
Further work	• *The nature and scale of planned further work (e.g. tests for lateral extensions or depth extensions or large-scale step-out drilling).*	Downhole televiewer survey is planned to determine geometry of newly discovered pegmatites in the NW Sector. In addition, an aeromagnetic survey covering NW Sector has just been concluded and results should be available shortly.

	• *Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.*	Infill drilling to convert the NW Sector to Indicated category is planned, and also deeper drilling to convert any enclaves of Inferred category within the RPEEE pit shell.

Section 3: Estimation and Reporting of Mineral Resources – James Bay Lithium Project

Criteria	JORC Code explanation	Commentary
Database integrity	• *Measures taken to ensure that data has not been corrupted by, for example, transcription or keying errors, between its initial collection and its use for Mineral Resource estimation purposes.* • *Data validation procedures used.*	The drilling database is hosted within a relational SQL database, with all key information stored in various tables. Original copies of assay certificates are stored on a secured server. All data pertaining to the 2022 and 2023 drilling campaigns were managed externally by geological contractors and verified by Allkem personnel for accuracy. As part of the data verification process, SLR Consulting (Canada) Inc. compared assay certificates for all drilling campaigns with the drilling database used in the mineral resource calculation and found no material errors.
Site visits	• *Comment on any site visits undertaken by the Competent Person and the outcome of those visits.* • *If no site visits have been undertaken indicate why this is the case.*	The Independent CP for the Mineral Resource (Mr Luke Evans, P.Eng. of SLR Consulting (Canada) Inc.) visited the site between the 5th and 7th June 2023. Mineralised outcrop was visited, and drill core was inspected and compared to assay certificates. Sample and drill core storage facilities were also inspected.
Geological interpretation	• *Confidence in (or conversely, the uncertainty of) the geological interpretation of the mineral deposit.* • *Nature of the data used and of any assumptions made.* • *The effect, if any, of alternative interpretations on Mineral Resource estimation.* • *The use of geology in guiding and controlling Mineral Resource estimation.* • *The factors affecting continuity both of grade and geology.*	The geological interpretation is considered robust as it supported by both extensive outcrop and drilling. The continuity of the mineralised pegmatites is well demonstrated between drill holes and can be correlated with surface outcrops. Surface diamond drill holes have been logged for lithology, structure, geotechnical, alteration and mineralisation information. The lithological logging of pegmatite in combination with the Li_2O, assays, including grain size and mineralogical differentiation, have been used to guide the sectional interpretation of the pegmatites in Leapfrog Geo modelling software. Both an overburden (glacial till) model and a lithological model have been constructed based on lithological logging. Due to the consistent nature of the pegmatites identified in the resource area, no alternative interpretations have been considered. No further grade-based domaining has been used, and the current pegmatite wireframes include minor intervals of barren pegmatite without spodumene mineralisation.
Dimensions	• *The extent and variability of the Mineral Resource expressed as length*	A total of 67 individual pegmatite dykes have been identified within the deposit. The pegmatite dykes are located within a "deformation corridor" that has been identified in drilling and outcrop along a strike length of over 5 km, of which 2.8 km has

	(along strike or otherwise), plan width, and depth below surface to the upper and lower limits of the Mineral Resource	been delineated to form the current Mineral Resource. The dykes present as en-echelon orientations, varying in length between 200 m and 400 m, and perpendicular to the strike of the deformation corridor. The dykes have been traced to depths of up to 500 m vertically from surface and are mostly open at depth. Dyke width vary between 5 m to 40 m, and sometimes coalesce up to widths of 80 m.
Estimation and modelling techniques	• *The nature and appropriateness of the estimation technique(s) applied and key assumptions, including treatment of extreme grade values, domaining, interpolation parameters and maximum distance of extrapolation from data points. If a computer assisted estimation method was chosen include a description of computer software and parameters used.* • *The availability of check estimates, previous estimates and/or mine production records and whether the Mineral Resource estimate takes appropriate account of such data.* • *The assumptions made regarding recovery of by-products.* • *Estimation of deleterious elements or other non-grade variables of economic significance (e.g. sulphur for acid mine drainage characterisation).* • *In the case of block model interpolation, the block size in relation to the average sample spacing and the search employed.* • *Any assumptions behind modelling of selective mining units.* • *Any assumptions about correlation between variables* • *Description of how the geological interpretation was used to control the resource estimates.*	Grade estimation for Li_2O%, has been completed using Ordinary Kriging (OK) into pegmatite domains using Leapfrog Edge software. No other elements have been estimated into the block model. Hard boundaries have been used at all domain boundaries for the grade estimation. The pegmatite boundaries have been modelled to honour the geological contacts without consideration for the Li_2O% grades. Compositing has been undertaken within domain boundaries at 1.5 m with residuals less than 0.25 m absorbed into the previous composite. No top-cutting (capping) has been applied as no statistical outliers were identified. Variography has been completed in Leapfrog Edge software on pegmatites grouped by orientation and geographical location. There were insufficient samples to model variograms for each pegmatite dyke independently. No assumptions have been made regarding the recovery of any by-products. The drill hole data spacing is approximately 50 m in Indicated areas and approximately 80 m in Inferred areas. The block model parent block size is 3 m (X) by 5 m (Y) by 5 m (Z), which is considered appropriate for the widths of the pegmatite dykes and the proposed mining selectivity. A sub-block size of 0.75 m (X) by 1.25 m (Y) by 1.25 m (Z) has been used to define the mineralisation edges, with the estimation undertaken at the parent block scale. • Pass 1 estimations have been undertaken using a minimum of 4 and a maximum of 12 samples into a search ellipse set at approximately half of the variogram range. A 3 sample per drill hole limit has been applied in all pegmatite domains. • Pass 2 estimations have been undertaken using a minimum of 4 and a maximum of 12 samples into a search ellipse set at approximately 80% of the variogram range. A 3 sample per drill hole limit has been applied in all pegmatite domains. • Pass 3 and Pass 4 estimations have been undertaken using a minimum of 1 and a maximum of 12 samples into a search ellipse set at 120% to 200% the variogram range, respectively. A 3 sample per drill hole limit has been applied in all pegmatite domains. The Mineral Resource estimate has been validated using visual validation tools combined with volume comparisons with the input wireframes, mean grade comparisons between the block model

	• *Discussion of basis for using or not using grade cutting or capping.* • *The process of validation, the checking process used, the comparison of model data to drillhole data, and use of reconciliation data if available.*	and composite grade means and swath plots comparing the composite grades and block model grades by northing, easting and elevation. In addition, the OK grade estimate was compared with ID2 (Inverse Distance squared) and NN (Nearest Neighbour) interpolation methods. No selective mining units are assumed in this estimate. No correlation between variables has been assumed.
Moisture	• *Whether the tonnages are estimated on a dry basis or with natural moisture, and the method of determination of the moisture content.*	Tonnes have been estimated on a dry basis.
Cut-off parameters	• *The basis of the adopted cut-off grade(s) or quality parameters applied*	For the reporting of the Mineral Resource Estimate, a raised cut-off grade of 0.5 Li_2O% was used to report the block model within a USD1,500 per tonne Whittle pit shell. The open pit discard cut-off grade was calculated at 0.16% Li_2O, however due to the absence of metallurgical test work on low-grade material, the cut-off was raised to 0.5% Li_2O.
Mining factors or assumptions	• *Assumptions made regarding possible mining methods, minimum mining dimensions and internal (or, if applicable, external) mining dilution. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider potential mining methods, but the assumptions made regarding mining methods and parameters when estimating Mineral Resources may not always be rigorous. Where this is the case, this should be reported with an explanation of the basis of the mining assumptions made.*	A Whittle pit optimisation has been run at various spodumene concentrate prices in order to generate pit shells for Mineral Resource reporting purposes and to meet the RPEEE reporting requirement. The mining assumptions/parameters applied to the optimisation are: • Spodumene concentrate (6.0% Li_2O) – USD$1,500 per tonne. • Li_2O% metallurgical recovery – 70.1% • Concentrate Transport – USD$86.16 per tonne concentrate • NSR Royalty – 0.32% • Processing – CAD$13.23 per tonne ore • G&A – CAD$13.86 per tonne ore • Closure + Sust. CAPEX + IBA – CAD$6.83 per tonne ore • Mining Cost – CAD$4.82 per tonne USD exchange rate of 1.33 (CAD:USD) has been applied in the Whittle optimisation. Both Inferred and Indicated Mineral Resource classifications have been utilised in the RPEEE optimisation.
Metallurgical factors or assumptions	• *The basis for assumptions or predictions regarding metallurgical amenability. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider*	An overall Li_2O% metallurgical recovery of 70.1% has been applied during the pit optimisation and generation of the RPEEE pit shell and is based on numerous campaigns of metallurgical test work on samples sourced from the Mineral Reserve pit design.

	potential metallurgical methods, but the assumptions regarding metallurgical treatment processes and parameters made when reporting Mineral Resources may not always be rigorous. Where this is the case, this should be reported with an explanation of the basis of the metallurgical assumptions made.	
Environmental factors or assumptions	• *Assumptions made regarding possible waste and process residue disposal options. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider the potential environmental impacts of the mining and processing operation. While at this stage the determination of potential environmental impacts, particularly for a greenfields project, may not always be well advanced, the status of early consideration of these potential environmental impacts should be reported. Where these aspects have not been considered this should be reported with an explanation of the environmental assumptions made*	No environmental factors or assumptions have been incorporated into this Mineral Resource Estimate, and there is no current surface infrastructure to constrain the eventual pit footprint. No protected zones that would obstruct the award of a future mining lease are present at the project. Allkem received the federal approval of the ESIA in January 2023, and provincial approval is expected in the coming months.
Bulk density	• *Whether assumed or determined. If assumed, the basis for the assumptions. If determined, the method used, whether wet or dry, the frequency of the measurements, the nature, size and representativeness of the samples.* • *The bulk density for bulk material must have been measured by methods that*	In the block model, bulk density within the pegmatite lithology was assigned using the following regression formula: Bulk Density (g/cm³) = (0.0669 x Li_2O %) + 2.603 Outside the pegmatite wireframes, the mean bulk densities shown in the table below were assigned into the block model by lithology. Overburden was assumed to have a bulk density of 2.2 g/cm³.

Lithology	# Samples	Mean Bulk Density (g/cm³)
Pegmatite	299	2.72
Metasediments	104	2.76
Diabase	4	3.04

		Biotite Schist	31	2.89
		Feldspar Porphyry	1	2.67

	adequately account for void spaces (vugs, porosity, etc), moisture and differences between rock and alteration zones within the deposit, • *Discuss assumptions for bulk density estimates used in the evaluation process of the different materials.*	
Classification	• *The basis for the classification of the Mineral Resources into varying confidence categories* • *Whether appropriate account has been taken of all relevant factors (i.e. relative confidence in tonnage/grade estimations, reliability of input data, confidence in continuity of geology and metal values, quality, quantity and distribution of the data).* • *Whether the result appropriately reflects the Competent Person's view of the deposit.*	The resource classification has been applied to the MRE based on the drilling data spacing, grade and geological continuity, quality of the estimation and data integrity. The block classification was based primarily on drill hole spacing, geological and grade continuity and the average distance of composites to a given block. The block classification was subsequently manually modified to ensure a coherent, contiguous classification suitable for mine planning purposes. Within the pegmatite dyke wireframes, the following criteria was used: • No Measured Mineral Resources were identified. • Indicated Mineral Resources were identified in areas defined by a nominal drill spacing of 50 m x 50 m. • Inferred Mineral Resources were identified in areas defined by a nominal drill spacing of 80m x 80m. The classification reflects the view of the Competent Person.
Audits or reviews	• *The results of any audits or reviews of Mineral Resource estimates.*	The Mineral Resource estimate for the James Bay project has been produced independently of Allkem by SLR Consulting (Canada) Inc., and peer reviewed and validated internally by Allkem employees (James Purchase, P.Geo., M.AusIMM(CP) and Albert Thamm, F.AusIMM). The tonnages and grades have been verified in more than one software package.
Discussion of relative accuracy/ confidence	• *Where appropriate a statement of the relative accuracy and confidence level in the Mineral Resource estimate using an approach or procedure deemed appropriate by the Competent Person. For example, the application of statistical or geostatistical procedures to quantify the relative accuracy of the resource within stated confidence limits, or, if such an approach is not deemed appropriate, a qualitative discussion of the factors that could*	The relative accuracy of the Mineral Resource estimate is reflected in the reporting of the Mineral Resource as per the guidelines of the 2012 JORC Code. No geostatistical study has been conducted to quantify accuracy nor confidence within confidence limits (conditional simulation) Grade estimates are local on a domain-by-domain basis and drill spacing is sufficient for a local grade estimate suitable as input into mine planning. No reconciliation data is available as the deposit is not in production.

	affect the relative accuracy and confidence of the estimate • *The statement should specify whether it relates to global or local estimates, and, if local, state the relevant tonnages, which should be relevant to technical and economic evaluation. Documentation should include assumptions made and the procedures used* • *These statements of relative accuracy and confidence of the estimate should be compared with production data, where available*