

Abitibi lithium projects exploration update

HIGHLIGHTS

- **First-pass ground reconnaissance program successfully completed at the Lac Rug and Lac Bigniba Projects in the Abitibi sub-province of Quebec**
- **Multiple pegmatite outcrops identified and sampled at Lac Rug¹**
- **Analysis of pegmatite samples to determine mineralogy and lithium content underway with results due in early January 2024**

Pinnacle Minerals Limited (ASX: **PIM**) ("**Pinnacle**", the "**Company**") is pleased to announce that the Company has successfully completed its first pass reconnaissance exploration program at its newly staked Lac Rug and Lac Bigniba Projects in the Abitibi sub-Province of Quebec, Canada.

Multiple pegmatite outcrops identified and sampled at Lac Rug submitted for lithium assaying. Results are pending and expected in early January 2024.

The onset of inclement weather limited the time spent in the field. A field exploration program utilising LIDAR imagery to identify accessible outcrops is planned for Q2 2024 to follow up the encouraging findings from the November campaign.



Figure 1: IOS field team sampling at Lac Rug



Figure 2: Further sampling at Lac Rug

Pinnacle Minerals Managing Director, Nic Matich, commented:

"The identification of peraluminous pegmatite outcrops at Lac Rug vindicates Pinnacles working theory that the major Chicobi deformation zone hosts potentially lithium enriched pegmatites such as those at Sayona (SYA:ASX) and Piedmont (PLL:ASX) North American Lithium Operations also in the Abitibi. Pinnacle has numerous leads with which to follow up in 2024 and is excited about the prospects for the Company's Abitibi Lithium Projects.

1 – Appendix 1

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Issued Capital
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33,037,634 Options

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Reconnaissance work program

A reconnaissance mapping and rock sampling program was developed, based upon Sentinel Multispectral data (Sentinel) and Synthetic Aperture Radar (SAR) data analysis. The program was managed and conducted by the experienced Quebec-based geological consulting company IOS Geosciences (IOS). Preliminary indications from the field have confirmed the presence of multiple pegmatite occurrences within the Lac Rug Project. Field locations where both pegmatitic outcrop and pegmatite boulders are highlighted in Figure 3.

Initial visual assessment by field geologists suggests the mineral assemblages are indicative of a peraluminous pegmatite, those which are required for spodumene mineral emplacement. Details of each sample location are included in Appendix 1. The geochemistry and mineralogy of these pegmatite samples is yet to be quantified via laboratory analysis. Assay results are expected to be returned within 5-6 weeks, by early January 2024.

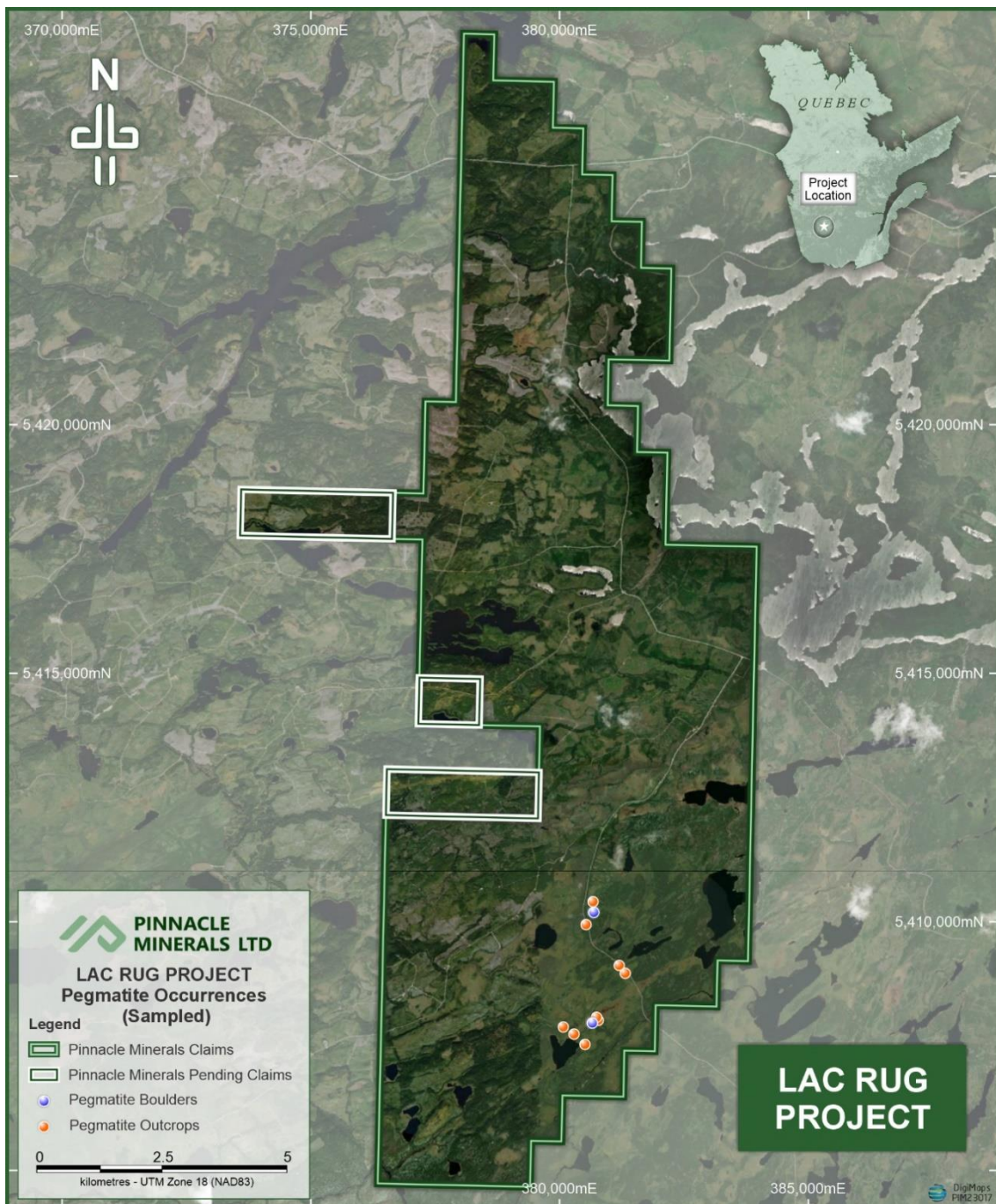


Figure 3: Sample locations (pegmatite lithologies)

3 – Inferred and indicated resources, <https://abccourt.ca/en/projects/geant-dormant/> and Pinnacle calculations



Figure 4: Pegmatite dyke – Outcrop 160990006



Figure 5: Pegmatite outcrop 160090051

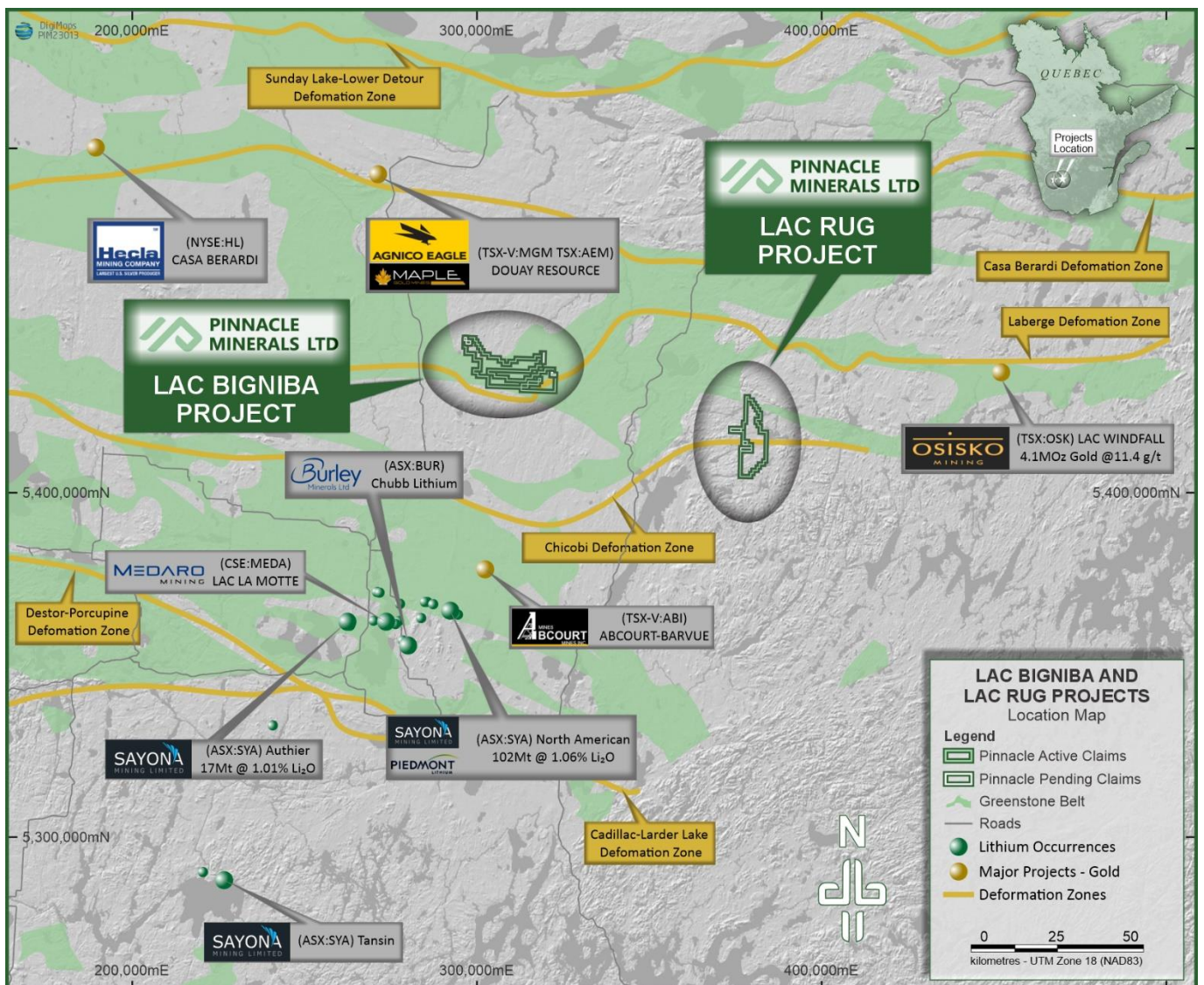


Figure 6: Abitibi sketched geology highlighting Lac Rug and Lac Bigniba Project locations.

Cautionary note:

The exact geochemical nature of the pegmatitic geological outcrops are to be confirmed and the presence of pegmatitic lithologies does not necessarily indicate the presence of lithium, tantalum or caesium mineralisation. Only laboratory mineralogical and chemical assays can determine the presence and grade of any mineralisation.

This announcement has been authorised for release by the Board of Pinnacle Minerals Ltd.

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About Pinnacle Minerals

Pinnacle Minerals Ltd (ASX: PIM) is an ASX listed technology minerals company focused on delivering shareholder value via the systematic exploration and development of its portfolio of battery and technology metals projects in Canada, Western Australia and South Australia. Pinnacle aims to deliver exploration success via systematic and geologically rigorous techniques. The Company's focus is the "Adina East Project" in James Bay, Quebec which is proximal to the world class Adina Lithium Project (Winsome Resources: WR1.ASX) and adjacent to the Trieste Lithium Project (Loyal Lithium: LLI.ASX) and the Tilly Lithium Project (WR1.ASX). The Company's Australian exploration assets are prospective for Rare Earth Elements, Mineral Sands and Kaolin.

Forward Looking Statements

This announcement contains 'forward-looking information' that is based on the Company's expectations, estimates and projections as of the date on which the statements were made. This forward-looking information includes, among other things, statements with respect to the Company's business strategy, plans, development, objectives, performance, outlook, growth, cash flow, projections, targets and expectations, mineral reserves and resources, results of exploration and related expenses. Generally, this forward-looking information can be identified by the use of forward-looking terminology such as 'outlook', 'anticipate', 'project', 'target', 'potential', 'likely', 'believe', 'estimate', 'expect', 'intend', 'may', 'would', 'could', 'should', 'scheduled', 'will', 'plan', 'forecast', 'evolve' and similar expressions. Persons reading this announcement are cautioned that such statements are only predictions, and that the Company's actual future results or performance may be materially different. Forward looking information is subject to known and unknown risks, uncertainties and other factors that may cause the Company's actual results, level of activity, performance, or achievements to be materially different from those expressed or implied by such forward-looking information.

Competent person statement

The information in this announcement that relates to Exploration Targets, Exploration Results, Mineral Resources or Ore Reserves is based on information compiled by William Witham, a Competent Person who is a Member of The Australian Institute of Geoscientists (AIG). William Witham is a director of Pinnacle Minerals Ltd. William Witham has sufficient experience that is relevant to the style of mineralisation 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'. William Witham consents to the inclusion in the presentation of the matters based on his information in the form and context in which it appears.

Pinnacle Minerals engaged IOS Geosciences (IOS) to execute the prospecting and exploration work described in this release. IOS has an experienced team of explorers based in Saguenay and is managing several projects in the James Bay region. This report contains information related to exploration results and is based on preliminary information and data compiled or reviewed by IOS under the supervision of Mr. Réjean Girard, who acted as the qualified person according to Canadian regulations and a Professional Geoscientist (P. Geo) with the respective professional regulatory body, the Order of Geologists of Quebec. Mr. Girard has also reviewed this news release.

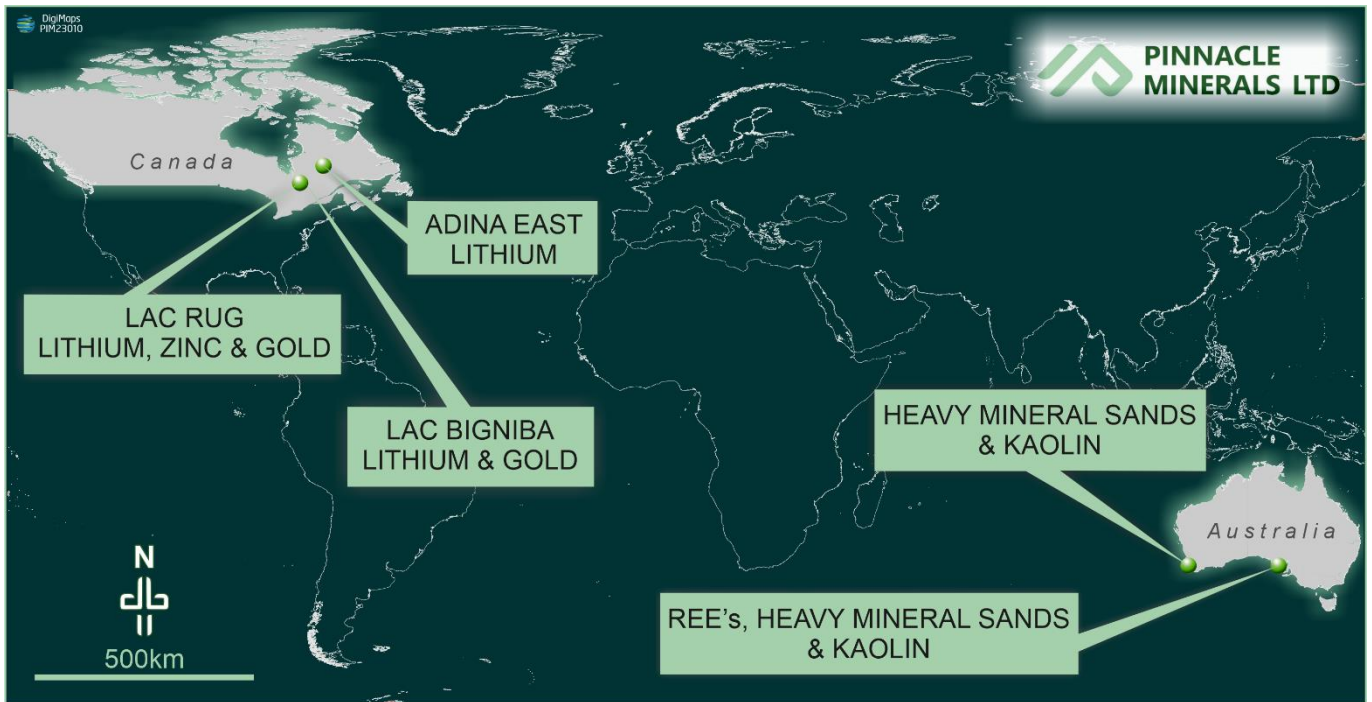


Figure 7: Pinnacle Minerals Project Location Map

Appendix 1 Table 1: Outcrop and Boulder Lithology (Sample locations)

No lithium mineralisation is directly reported within samples taken from the Lac Rug and Lac Bigniba Projects. At this stage of exploration, all samples retrieved represent early-stage exploration sampling to understand the background geochemistry of reported pegmatites.

Table 1: Field Samples, locations, and descriptions (Pegmatite Lithologies)

Sample ID	Easting (NAD83 Z18)	Northing (NAD83 Z18)	Outcrop Boulder	Lithology	Description
160990053	380086.1	5407873.7	Outcrop	I1G Pegmatite (granitic)	Outcrop of pink pegmatite (quartz, feldspar, no biotite seen)
160990006	380302.2	5407731.1	Outcrop	I1G Pegmatite (granitic)	Outcrop of biotite-bearing pegmatite and paragneiss
160990007	380522.9	5407523.0	Outcrop	I1G Pegmatite (granitic)	Outcrop of pink and white biotite-bearing pegmatite injected into paragneiss.
160990052	380669.7	5407952.3	Boulder	I1G Pegmatite (granitic)	Probable white Pegmatites. Quartz feldspar biotite
160990005	380754.9	5408067.6	Outcrop	I1G Pegmatite (granitic)	Outcrop of metric to pluri-metric dykes or pink and white biotite bearing pegmatite in paragneiss. The white pegmatite chips could correspond to leucosomes.
160990051	380787.7	5408006.6	Outcrop	I1G Pegmatite (granitic)	Outcrop of pink pegmatite with quartz, pink feldspars and a little biotite. The crystal sizes are from one centimetre to several centimetres
160990054	381332.2	5408952.9	Outcrop	I1G Pegmatite (granitic)	Pink pegmatitic dike with quartz feldspar biotite in a pink igneous rock rich in quartz and feldspars and some paragneiss at the bottom of the outcrop
160990003	381210.1	5409112.2	Outcrop	I1G Pegmatite (granitic)	Outcrop of pink pegmatite and a bit of paragneiss. The pegmatite contains some biotite and a few clusters of pyrite.
160990004	380544.5	5409933.9	Outcrop	I1G Pegmatite (granitic)	Outcrop of pinkish pegmatite with muscovite. Seems to contain some shreds of paragneiss indicated by biotite.
160990009	380699.2	5410181.0	Boulder	I1G Pegmatite (granitic)	Very angular boulder of muscovite-rich pale-pink pegmatite. Located on an outcrop of orthogneiss also containing muscovite (and potentially biotite).
160990055	380684.5	5410394.6	Outcrop	I1G Pegmatite (granitic)	Pegmatite dyke at the top of the outcrop (quartz, feldspar, biotite and muscovite). At the bottom the outcrop is composed of paragneiss

Appendix 2 JORC Tables

Section 1 Sampling Techniques and Data

Criteria	JORC Code explanation	Commentary
Sampling techniques	<ul style="list-style-type: none"> Nature and quality of sampling (e.g., cut channels, random chips, or specific specialised 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 mineralisation 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 1m samples from which 3 kg was pulverised 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 mineralisation types (e.g., submarine nodules) may warrant disclosure of detailed information. 	<ul style="list-style-type: none"> Rock chip sampling is associated with the reconnaissance mapping and sampling program which aimed to confirm historical pegmatite reports, by both locating both previous and sampling pegmatite outcrops or boulders. Work described in the release has involved review of the publicly available datasets which are available through the 'Geomining Information System of Quebec' - sigeom.mines.gouv.qc.ca Ministère de l'Énergie et des Ressources Naturelles du Québec (MERN), the Quebec geological survey (QGS), documents historical mapping over the Adina East Project areas; and surrounding region with rock descriptions publicly available. No assay data is available for MERN samples/mapping points.
Drilling techniques	<ul style="list-style-type: none"> 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 tube, depth of diamond tails, face-sampling bit or other type, whether core is oriented and if so, by what method, etc.). 	<ul style="list-style-type: none"> No drilling is reported.
Drill sample recovery	<ul style="list-style-type: none"> Method of recording and assessing core and chip sample recoveries and results assessed. Measures taken to maximise sample recovery and ensure representative nature of the samples. Whether a relationship exists between sample recovery and grade and whether sample bias may have occurred due to preferential loss/gain of fine/coarse material. 	<ul style="list-style-type: none"> No drill samples have been taken.
Logging	<ul style="list-style-type: none"> Whether core and chip samples have been geologically and geotechnically logged to a level of detail to support appropriate 	<ul style="list-style-type: none"> No drilling completed. Geological observations are both preliminary and qualitative. The information contained

Criteria	JORC Code explanation	Commentary
	<p><i>Mineral Resource estimation, mining studies and metallurgical studies.</i></p> <ul style="list-style-type: none"> • <i>Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.</i> • <i>The total length and percentage of the relevant intersections logged.</i> 	<p>within describes only dominant outcrop lithologies at discreet locations, and minerals of interest.</p> <ul style="list-style-type: none"> • All data is stored in digital format for use in GIS software packages. • The final field report which remains pending will contain more accurate geological descriptions including geochemical assay data.
<i>Sub-sampling techniques and sample preparation</i>	<ul style="list-style-type: none"> • <i>If core, whether cut or sawn and whether quarter, half or all core taken.</i> • <i>If non-core, whether riffled, tube sampled, rotary split, etc., and whether sampled wet or dry.</i> • <i>For all sample types, the nature, quality and appropriateness of the sample preparation technique.</i> • <i>Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.</i> • <i>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.</i> • <i>Whether sample sizes are appropriate to the grain size of the material being sampled.</i> 	<ul style="list-style-type: none"> • Sampling is at the discretion of field geologists undertaking the geological reconnaissance activities. • At this early stage of exploration discretionary grab samples are considered appropriate. • No QAQC processes have been utilised at this early stage of exploration.
<i>Quality of assay data and laboratory tests</i>	<ul style="list-style-type: none"> • <i>The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.</i> • <i>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.</i> • <i>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.</i> 	<ul style="list-style-type: none"> • No assay data or laboratory test work is reported.
<i>Verification of sampling and assaying</i>	<ul style="list-style-type: none"> • <i>The verification of significant intersections by either independent or alternative company personnel.</i> • <i>The use of twinned holes.</i> • <i>Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.</i> • <i>Discuss any adjustment to assay data.</i> 	<ul style="list-style-type: none"> • No data verification has occurred. • The company has verified the presence of historically reported outcrop lithologies during the reconnaissance phase of exploration works.

Criteria	JORC Code explanation	Commentary
<i>Location of data points</i>	<ul style="list-style-type: none"> • 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. 	<ul style="list-style-type: none"> • All geological maps utilising NAD83 / UTM zone 18N are sufficiently annotated. • All reported locations are assumed to have a +/- 10m accuracy via use of handheld GPS instruments.
<i>Data spacing and distribution</i>	<ul style="list-style-type: none"> • 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. 	<ul style="list-style-type: none"> • Data points are guided by field outcrops instead of regular spacing. • Exploration data contained within is not appropriate for calculating Mineral Resources. Insufficient exploration has been completed at this stage to warrant such calculations. • No compositing of results has been reported in this announcement.
<i>Orientation of data in relation to geological structure</i>	<ul style="list-style-type: none"> • 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. 	<ul style="list-style-type: none"> • Field observation points are guided by outcrop location instead of specific orientation. • No relationship between outcrop mapping sites is known.
<i>Sample security</i>	<ul style="list-style-type: none"> • The measures taken to ensure sample security. 	<ul style="list-style-type: none"> • Field samples have been collected and stored by IOS Geosciences, under the supervision of Mr. Réjean Girard P.Geo QP and a Member of the Ordre des géologues du Québec.
<i>Audits or reviews</i>	<ul style="list-style-type: none"> • The results of any audits or reviews of sampling techniques and data. 	<ul style="list-style-type: none"> • No independent audits or reviews of sampling techniques and data has been conducted. • Internal reviews undertaken

Section 2 Reporting of Exploration Results

(Criteria listed in the preceding section also apply to this section.)

Criteria	JORC Code explanation	Commentary
Mineral tenement and land tenure status	<ul style="list-style-type: none"> 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 licence to operate in the area. 	<ul style="list-style-type: none"> The Lac Rug and Lac Bigniba Projects are located in the Abitibi Region of Quebec, Canada. The Projects are held in trust for Pinnacle Minerals by Mr. Stuart Deveaux The Lac Rug Project consists of 207 claims covering a surface area of approximately 116.5km² The Lac Bigniba Project consists of 282 claims covering a surface area of approximately 154.7km² All claims are in good standing and are presented in this announcement.
Exploration done by other parties	<ul style="list-style-type: none"> Acknowledgment and appraisal of exploration by other parties. 	<ul style="list-style-type: none"> Geological datasets were sourced from Ministère des Ressources Naturelles et des Forêts (MERN), the Quebec geological survey. No other data by prior explorers is known to the company.
Geology	<ul style="list-style-type: none"> Deposit type, geological setting and style of mineralisation. 	<ul style="list-style-type: none"> The Lac Rug Project is located in the Northern Volcanic Zone (NVZ) of the Abitibi Greenstone Belt of the Superior Province. The area is bisected by the east-west trending Chicobi Deformation Zone. The targeted country rocks consist of banded basaltic amphibolites which are adjacent to both synvolcanic intrusions and foliated intermediate to felsic intrusions and gneisses. The geological lithium exploration model is to explore around the syn- to late-tectonic Archean Batholiths which consist of two (2) major phases: 1) a series of calco-alkaline diorite–granodiorite and 2) later monzogranites. Numerous pegmatites have been mapped in the area as evidenced on the SIGÉOM geomining information system. The Lac Bigniba Project is located in a favourable location within the Northern Volcanic Zone (NVZ) of the Abitibi Greenstone Belt, Superior Province. The primary stratigraphy in the area are dominantly mafic and ultramafic rocks assigned to the Neo-Archaean Vanier-Dalet-Poirier Group. Important nearby intrusions include the Marest Intrusive Suite which consists of Granodiorite containing amphibolite enclaves. The major structural fabric is dominated by the east-west trending Laberge Deformation Zone which is being targeted as an important setting for pegmatite and other metals mineralisation.
Drill hole Information	<ul style="list-style-type: none"> 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: <ul style="list-style-type: none"> easting and northing of the drill hole collar 	<ul style="list-style-type: none"> No drillholes have been reported. No relevant material data has been excluded from this report.

Criteria	JORC Code explanation	Commentary
	<ul style="list-style-type: none"> ○ elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar ○ dip and azimuth of the hole ○ down hole length and interception depth ○ hole length. ● If the exclusion of this information is justified on the basis that the information is not Material and this exclusion does not detract from the understanding of the report, the Competent Person should clearly explain why this is the case. 	
Data aggregation methods	<ul style="list-style-type: none"> ● 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 examples of such aggregations should be shown in detail. ● The assumptions used for any reporting of metal equivalent values should be clearly stated. 	<ul style="list-style-type: none"> ● No exploration results have been reported.
Relationship between mineralisation widths and intercept lengths	<ul style="list-style-type: none"> ● These relationships are particularly important in the reporting of Exploration Results. ● If the geometry of the mineralisation 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’). 	<ul style="list-style-type: none"> ● No drill results are reported.
Diagrams	<ul style="list-style-type: none"> ● 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. 	<ul style="list-style-type: none"> ● Figures and plans are displayed in the main text of the release
Balanced reporting	<ul style="list-style-type: none"> ● 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. 	<ul style="list-style-type: none"> ● No exploration results have been reported.
Other substantive	<ul style="list-style-type: none"> ● Other exploration data, if meaningful and material, should be reported including (but not limited to): geological observations; 	<ul style="list-style-type: none"> ● Pinnacle Minerals Ltd engaged IOS Geosciences during November 2023. ● IOS Geosciences have completed field reconnaissance as planned and reported preliminary

Criteria	JORC Code explanation	Commentary
exploration data	<i>geophysical survey results; geochemical survey results; bulk samples – size and method of treatment; metallurgical test results; bulk density, groundwater, geotechnical and rock characteristics; potential deleterious or contaminating substances.</i>	<p>results as contained herein.</p> <ul style="list-style-type: none"> All pegmatite lithologies mapped within the project areas require geochemical analysis to ascertain if a relationship to relevant mineralisation processes are present. The presence of pegmatites in outcrop and boulders alone is not sufficient to assume the presence of mineralisation.
Further work	<ul style="list-style-type: none"> <i>The nature and scale of planned further work (e.g., tests for lateral extensions or depth extensions or large-scale step-out drilling).</i> <i>Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.</i> 	<ul style="list-style-type: none"> Refer to the main body of the release for further information regarding diagrams. Exploration efforts will continue with a consolidation and review of all previous geological and geophysical data available for the project areas.