

# 2020 RESOURCE AND RESERVE UPDATE

Galaxy Resources Limited (ASX: GXY, "Galaxy" or the "Company") is leveraging off its portfolio of world-class assets to create a sustainable, large scale, global lithium chemicals business. The Company reports updated Mineral Resource and Ore Reserve estimates for its Mt Cattlin ("Mt Cattlin") operations in Western Australia, as at 31 December 2020.

## HIGHLIGHTS

### Mt Cattlin – Updated Mineral Resource and Ore Reserve estimates as at 31 December 2020

- Revised Mt Cattlin Mineral Resource Estimate of 12.0Mt @ 1.3% Li<sub>2</sub>O and 149 ppm Ta<sub>2</sub>O<sub>5</sub>
- Revised Mt Cattlin Ore Reserve Estimate of 8.0Mt @ 1.1% Li<sub>2</sub>O and 139 ppm Ta<sub>2</sub>O<sub>5</sub>
- Ore Reserve depletion of 0.25Mt due to mining activity
- Initiatives to further optimise Mt Cattlin's resource have commenced this quarter

A summary of the annual review undertaken at Mt Cattlin, and the revised Mineral Resources and Ore Reserves for the period is detailed below. Comparative tables from 31 December 2019 are also provided for reference.

## MT CATTLIN

### Mineral Resource

In 2020, Mt Cattlin Mineral Resources were depleted by mining operations. No additional resource definition drilling occurred during 2020 and estimates are based on Mt Cattlin's Mineral Resource as at 31 December 2019. Galaxy actively maintains reconciliation of in-situ resource depletion (estimated) and reported (actual) metrics, as well as stockpile accumulation, on a monthly and annual basis. Mine plans are reviewed annually for the short term, medium term and life of mine and the life of mine plan is reconciled annually against the Ore Reserve and its material schedule.

The 2020 Mineral Resource reconciles with mining depletion, additional localised resource adjustments, production material dispatch and measured stockpile movements. Reconciliation of the resource model has occurred on an annual basis since operations restarted at Mt Cattlin in late 2016, to validate modifying factors of the Ore Reserve estimate and to test the robustness of the Mt Cattlin resource estimate.

A break-down of Mt Cattlin's Mineral Resource, as at 31 December 2020 and 2019, are detailed in Tables 1 and 2, respectively.

Table 1: Mt Cattlin Mineral Resource as at 31 December 2020

Category		Tonnage Mt	Grade % Li <sub>2</sub> O	Grade ppm Ta <sub>2</sub> O <sub>5</sub>	Contained Metal (‘000) t Li <sub>2</sub> O	Contained metal lbs Ta <sub>2</sub> O <sub>5</sub>
Measured	In-situ	0.5	1.5	232	7.5	256,000
Indicated	In-situ	4.4	1.5	157	67.3	1,523,000
	Stockpiles	3.0	0.8	123	23.7	814,000
Inferred	In-situ	4.1	1.3	147	53.3	1,329,000
<b>Total</b>		<b>12.0</b>	<b>1.3</b>	<b>149</b>	<b>152.4</b>	<b>3,942,000</b>

Notes: Depleted Mineral Resource – December 2020. Fresh unaltered rock reported at cut-off grade of 0.4% Li<sub>2</sub>O. Transitional partly weathered rock reported at cut-off grade of 0.6% Li<sub>2</sub>O. The preceding statements of Mineral Resources conforms to the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves (JORC Code) 2012 edition. All tonnages reported are dry metric tonnes. Excludes mineralisation classified as oxide. Minor discrepancies may occur due to rounding to appropriate significant figures.

Table 2: Mt Cattlin Mineral Resource as at 31 December 2019

Category		Tonnage Mt	Grade % Li <sub>2</sub> O	Grade ppm Ta <sub>2</sub> O <sub>5</sub>	Contained Metal (‘000) t Li <sub>2</sub> O	Contained metal lbs Ta <sub>2</sub> O <sub>5</sub>
Measured	In-situ	1.0	1.4	210	13.6	463,000
Indicated	In-situ	6.2	1.4	167	90.0	2,296,000
	Stockpiles	3.0	0.9	121	27.9	800,000
Inferred	In-situ	4.4	1.3	156	57.2	1,484,000
<b>Total</b>		<b>14.6</b>	<b>1.3</b>	<b>157</b>	<b>188.0</b>	<b>5,043,000</b>

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Notes to Table 1: Depleted Mineral Resource – December 2019. Fresh unaltered rock reported at cut-off grade of 0.4% Li<sub>2</sub>O. Transitional partly weathered rock reported at cut-off grade of 0.6% Li<sub>2</sub>O. The preceding statements of Mineral Resources conforms to the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore reserves (JORC Code) 2012 edition. All tonnages reported are dry metric tonnes. Excludes mineralisation classified as oxide. Minor discrepancies may occur due to rounding to appropriate significant figures.

### Ore Reserve

In 2020, Mt Cattlin Ore Reserve depleted by 0.25Mt from mining operations and stockpile recovery. This is in line with Galaxy's market-driven strategy to moderate production output and increase the consumption of low-grade stockpiled ore for the year. The Company commissioned an ore sorter circuit at the front end of the plant to upgrade this stockpiled ore by removing the contained basalt. Consumption of a large volume of stockpiled material for the first time in 2020 led to an increased knowledge of the stockpiles. This knowledge plus depletion and new arisings resulted in an adjustment in average grade of Li<sub>2</sub>O to 0.8% from 0.9% and a minor upward revision in the grade of Ta<sub>2</sub>O<sub>5</sub>.

The Ore Reserve estimate is based on Mt Cattlin's 2019 Mineral Resource with the application of revised modifying factors. In the 2020 annual review, modifying factors and mining reconciliation were reviewed by the competent person and reflect the introduction of the optical sorters. Dilution was reconciled to 17% with a mining recovery of 97% of the diluted material, reflecting the current practice of mining to horizontal flitches and benches. The grade estimate of 1.13% Li<sub>2</sub>O reflects remaining tonnage on a diluted basis.

The scope of the 2020 annual review also addressed the reported mined material for the 2020 year, the 2021 project mine planning criteria and the JORC (2012) reporting standard.

Mt Cattlin's Ore Reserve as at 31 December 2020 and 2019 is detailed in Table 3 and Table 4, respectively.

**Table 3: Mt Cattlin Ore Reserve as at 31 December 2020**

Category		Tonnage Mt	Grade % Li <sub>2</sub> O	Grade ppm Ta <sub>2</sub> O <sub>5</sub>	Contained metal (‘000) t Li <sub>2</sub> O	Contained metal lbs Ta <sub>2</sub> O <sub>5</sub>
Proven	In-situ	0.6	1.3	201	7.6	258,000
Probable	In-situ	4.4	1.3	142	58.6	1,367,000
	Stockpiles	3.0	0.8	123	23.7	814,000
<b>Total</b>		<b>8.0</b>	<b>1.1</b>	<b>139</b>	<b>89.9</b>	<b>2,433,000</b>

Notes: Reported at cut-off grade of 0.4 % Li<sub>2</sub>O. The preceding statements of Ore Reserves conforms to the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves (JORC Code) 2012 edition. All tonnages reported are dry metric tonnes. Excludes oxide. Transitional mineralisation included at cut-off grade 0.6 % Li<sub>2</sub>O. Reported with 17% dilution and 97% mining recovery. Revenue factor US\$650/tonne applied. Minor discrepancies may occur due to rounding to appropriate significant figures.

**Table 4: Mt Cattlin Ore Reserve as at 31 December 2019**

Category		Tonnage Mt	Grade % Li <sub>2</sub> O	Grade ppm Ta <sub>2</sub> O <sub>5</sub>	Contained metal (‘000) t Li <sub>2</sub> O	Contained metal lbs Ta <sub>2</sub> O <sub>5</sub>
Proven	In-situ	0.8	1.4	213	11.4	376,000
Probable	In-situ	4.5	1.5	168	68.0	1,667,000
	Stockpiles	3.0	0.9	121	28.0	800,000
<b>Total</b>		<b>8.2</b>	<b>1.3</b>	<b>155</b>	<b>107.0</b>	<b>2,843,000</b>

Notes to Table 3: Reported at cut-off grade of 0.4 % Li<sub>2</sub>O. The preceding statements of Ore Reserves conforms to the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves (JORC Code) 2012 edition. All tonnages reported are dry metric tonnes. Excludes oxide. Transitional mineralisation included at cut-off grade 0.6 % Li<sub>2</sub>O. Reported with 0% dilution and 92.5% mining recovery. Revenue factor US\$650/tonne applied. Minor discrepancies may occur due to rounding to appropriate significant figures.

During the year, statutory state approvals were obtained to extend the project to additional pits, east of Floater Road, which will remain the focus of mining in the medium term.

### Resource and Reserve Controls & Governance

Galaxy ensures that quoted Mineral Resource and Ore Reserve estimates are subject to internal controls and external review at both Project and Corporate levels. Mineral Resource and Ore Reserves are estimated in accordance with the 2012 edition of the JORC Code.

Galaxy stores and collects exploration data using industry standard software that contains internal validation checks. Exploration samples from drilling have certified mineral standards introduced to the sample stream at set ratios, typically 1 insertion per 20 samples. These are reported as necessary to the relevant Competent Persons to assess both accuracy and precision of the assay data applied.

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to resource estimates. In resource modelling, models are validated by checking drilling and assay against sample composites and both against blocks and block models.

Galaxy engages independent, qualified experts and competent persons, on a commercial fee for service basis, to undertake mineral resource and ore reserve modelling and reporting. Galaxy internally audits and reconciles the resource outcomes independently of the experts to validate both the process and the outcome.

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 as members of the Australasian Institute of Mining and Metallurgy or a 'Recognised Professional Organisation' (RPO). As set out above, the Mineral Resource and Ore Reserve statements included in this Annual Report 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. Simon Hay, Chief Executive Officer of Galaxy Resources Limited.

#### For more information

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## About Galaxy (ASX: GXY)

Galaxy Resources Limited is an international company with lithium production facilities, hard rock mines and brine assets in Australia, Canada and Argentina. It wholly owns and operates the Mt Cattlin mine in Ravensthorpe Western Australia, which is currently producing spodumene and tantalum concentrate.

Galaxy is advancing development of the wholly owned Sal de Vida lithium brine project in Argentina situated in the lithium triangle (where Chile, Argentina and Bolivia meet), which is currently the source of more than 40% of global lithium production. Sal de Vida has excellent potential as a low-cost brine-based lithium chemical production facility.

Galaxy's diversified project portfolio includes the wholly owned James Bay lithium pegmatite project in Quebec, Canada. James Bay which can provide additional spodumene concentrate production to capitalise on future lithium demand growth.

Lithium compounds are used in the manufacture of ceramics, glass, pharmaceuticals and are an essential cathode material for long life lithium-ion batteries used in hybrid and electric vehicles, as well as mass energy storage systems and consumer electronics. Galaxy is bullish about the global lithium demand outlook and is aiming to become a major producer of lithium products.

## Competent Persons Statements

Any information in this report that relates to the reporting of the Mt Cattlin Exploration Results is extracted from the report entitled "Re-Release Mt Cattlin Update – Exploration Drilling Hits Thick High-Grade Intersections Outside Known Resource" created on 11 December 2018, which is available to view on [www.gxy.com](http://www.gxy.com) and [www.asx.com.au](http://www.asx.com.au). The Company confirms that it is not aware of any new information or data that materially affects the information included in the original market announcement and, in the case of estimates of Mineral Resources and Ore Reserves, that all material assumptions and technical parameters underpinning the estimates in the relevant market announcement continue to apply and have not materially changed. The Company confirms that the form and context in which the Competent Person's findings are presented have not been materially modified from the original market announcement.

The information in this report that relates to 31 December 2019 and 31 December 2020 Mt Cattlin Mineral Resources and Ore Reserves is based on information compiled by David Billington, B. Eng. (Mining), a Competent Person who is a Member of the Australasian Institute of Mining and Metallurgy. David Billington is employed by Mining People International. David Billington 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'. David Billington consents to the inclusion in this announcement of the matters based on his information in the form and context in which it appears.

## Caution Regarding Forward Looking Information

This document contains forward looking statements concerning Galaxy. Statements concerning mining reserves and resources may also be deemed to be forward looking statements in that they involve estimates based on specific assumptions.

Forward-looking statements are not statements of historical fact and actual events and results may differ materially from those described in the forward-looking statements as a result of a variety of risks, uncertainties and other factors. Forward-looking statements are inherently subject to business, economic, competitive, political and social uncertainties and contingencies. Many factors could cause the Company's actual results to differ materially from those expressed or implied in any forward-looking information provided by the Company, or on behalf of the Company. Such factors include, among other things, risks relating to additional funding requirements, metal prices, exploration, development and operating risks, competition, production risks, regulatory restrictions, including environmental regulation and liability and potential title disputes.

Forward looking statements in this document are based on Galaxy's beliefs, opinions and estimates of Galaxy as of the dates the forward-looking statements are made and no obligation is assumed to update forward looking statements if these beliefs, opinions and estimates should change or to reflect other future developments. There can be no assurance that Galaxy's plans for development of its mineral properties will proceed as currently expected. There can also be no assurance that Galaxy will be able to confirm the presence of additional mineral deposits, that any mineralisation will prove to be economic or that a mine will successfully be developed on any of Galaxy's mineral properties. Circumstances or management's estimates or opinions could change. The reader is cautioned not to place undue reliance on forward-looking statements. Data and amounts shown in this document relating to capital costs, operating costs, potential or estimated cashflow and project timelines are internally generated best estimates only. All such information and data is currently under review as part of Galaxy's ongoing operational, development and feasibility studies. Accordingly, Galaxy makes no representation as to the accuracy and/or completeness of the figures or data included in the document.

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States Securities Act of 1933, as amended. Any public offering of securities to be made in the United States will be made by means of a prospectus that may be obtained from the issuer and that will contain detailed information about the company and management, as well as financial statements.

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APPENDIX 1

JORC 2012 TABLE 1 DISCLOSURE

Section 1: Sampling Techniques and Data

There is no new information in this section.

Section 2: Reporting of Exploration Results

There is no new information in this section.

Section 3: Estimation and Reporting of Mineral Resources – Mt Cattlin

(Criteria listed in section 1, and where relevant in section 2, also apply to this section).

Criteria	JORC Code explanation	Commentary
Database integrity	<ul style="list-style-type: none"> <li>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.</li> <li>Data validation procedures used.</li> </ul>	<p><b>Pre-2017</b></p> <p>At the time of the 2012 Mineral Resource estimates, Galaxy had appointed a data administrator to manage and host the Mt Cattlin database in a GBIS SQL database.</p> <p>Field data was entered project-specific password-protected spread sheets with in-built auto-validation settings. The spread sheets were emailed to head office on a weekly basis and then passed on to the data administrator where all data was subject to validation procedures and checks before being imported into the central database. Invalid data has not been imported into the central database, it was quarantined until corrected. Data exports have been routinely sent from head office to site for visual validation using ArcGIS and Micromine.</p> <p><b>2017-2020</b></p> <p>Database and data QAQC processes was re-established after review in 2016. The SQL/Datashed database is managed/maintained by GXY and aggregates meta-data from site and the sample laboratory. The assay laboratory reports sample validation and checks on arrival. Database managers' report both QAQC and validation checks on request.</p> <p>All logging is undertaken on a Toughbook using the dedicated LogChief logging system matched to the Datashed database.</p> <p>Visual validation of drilling data versus the wireframes in Surpac software is undertaken routinely by GXY Mine Geology and Exploration personnel.</p>
Site visits	<ul style="list-style-type: none"> <li>Comment on any site visits undertaken by the Competent Person and the outcome of those visits.</li> <li>If no site visits have been undertaken indicate why this is the case.</li> </ul>	<p>CP's have completed site visits.</p>
Geological interpretation	<ul style="list-style-type: none"> <li>Confidence in (or conversely, the uncertainty of) the geological interpretation of the mineral deposit.</li> <li>Nature of the data used and of any assumptions made.</li> <li>The effect, if any, of alternative interpretations on Mineral Resource estimation.</li> <li>The use of geology in guiding and controlling Mineral Resource estimation.</li> </ul>	<p>The geological interpretation is considered robust due to the nature of the geology and mineralisation.</p> <p>Surface diamond and reverse circulation (RC) drill holes have been logged for lithology, structure, and alteration and mineralisation data.</p> <p>The lithological logging of pegmatite in combination with the Li<sub>2</sub>O, Fe<sub>2</sub>O<sub>3</sub> and MgO assays, including grainsize and mineralogical differentiation, have been used to guide the sectional interpretation of the pegmatites in Surpac 3-D modelling software. Internal waste domains, where intersected in drilling, have been interpreted and modelled individually.</p>

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	<ul style="list-style-type: none"> <li><i>The factors affecting continuity both of grade and geology.</i></li> </ul>	<p>The geological wireframes have then been used as a boundary within which Li<sub>2</sub>O% grade shells have been generated in LeapFrog software using a 0.3% Li<sub>2</sub>O indicator and iso value of 0.35 for the pegmatites. The primary assumption is that the mineralisation is hosted within structurally controlled pegmatite sills, which is considered robust.</p> <p>Wireframes have been extrapolated approximately half section spacing between mineralised and non-mineralised intercepts.</p> <p>Weathering surfaces and as-mined survey have been provided by Galaxy Resources.</p> <p>Due to the consistent nature of the pegmatite identified in the area, no alternative interpretations have been considered. The pegmatites are found to be continuous over the length of the deposit.</p> <p>The Li<sub>2</sub>O% mineralisation interpretation is wholly contained within the pegmatite geological unit. Evidence of late stage faulting is present and has, where appropriate been incorporated into the geological model.</p> <p>Zones of fine grained pegmatite and lepidolite have been identified, delineated and coded into the estimation to aid the differentiation of coarse grained spodumene bearing pegmatites for mining.</p>
<p><b>Dimensions</b></p>	<ul style="list-style-type: none"> <li><i>The extent and variability of the Mineral Resource expressed as length (along strike or otherwise), plan width, and depth below surface to the upper and lower limits of the Mineral Resource.</i></li> </ul>	<p>The Mt Cattlin pegmatites strike north-south and are typically between 10 m and 30 m wide, and are typically flat lying or with a subtle easterly dip of around 5 to 10 degrees.</p> <p>Several different pegmatites have been identified, either as separate intrusions or due to fault offset over a strike length of 1,300 m, an across strike extent of 1,700 m and down to a depth of greater than 300 m below surface.</p>
<p><b>Estimation and modelling techniques</b></p>	<ul style="list-style-type: none"> <li><i>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.</i></li> <li><i>The availability of check estimates, previous estimates and/or mine production records and whether the Mineral Resource estimate takes appropriate account of such data.</i></li> <li><i>The assumptions made regarding recovery of by-products.</i></li> <li><i>Estimation of deleterious elements or other non-grade variables of economic significance (e.g. sulphur for acid mine drainage characterisation).</i></li> <li><i>In the case of block model interpolation, the block size in relation to the average sample spacing and the search employed.</i></li> <li><i>Any assumptions behind modelling of selective mining units.</i></li> <li><i>Any assumptions about correlation between variables</i></li> <li><i>Description of how the geological interpretation was used to control the</i></li> </ul>	<p>Grade estimation for Li<sub>2</sub>O%, Fe<sub>2</sub>O<sub>3</sub>% and Ta<sub>2</sub>O<sub>5</sub> ppm has been completed using Ordinary Kriging (OK) into 33 pegmatite domains using Maptrek Vulcan 11.0.1 software. Grade estimation of Fe<sub>2</sub>O<sub>3</sub>% has been completed using Ordinary Kriging (OK) into the encapsulating mafic waste and inside the internal rafts of basalt within the pegmatites.</p> <p>The geological, mineralisation and weathering wireframes generated have been used to define the domain codes by concatenating the three codes into one. The drill holes have been flagged with the domain code and composited using the domain code to segregate the data. Hard boundaries have been used at all domain boundaries for the grade estimation.</p> <p>The domains have been assessed to identify which ones require separate analysis and estimation of the different oxidation states as defined by the weathering wireframes.</p> <p>Compositing has been undertaken within domain boundaries at 1m with a merge tolerance of 0.1 m.</p> <p>Top-cuts for Li<sub>2</sub>O% and Ta<sub>2</sub>O<sub>5</sub> have been assessed for all mineralised and un-mineralised pegmatite domains as well as for the internal and external waste domains with only those domains with extreme values having been top-cut. The top-cut levels have been determined using a combination of histograms, log probability and mean variance plots.</p> <p>Variography has been completed in Supervisor 8.9 software on a grouped domain basis to ensure that enough data is present. Domains with too few samples have borrowed variography.</p> <p>No assumptions have been made regarding recovery of any by-products other than Ta.</p>

	<p><i>resource estimates.</i></p> <ul style="list-style-type: none"> <li>• <i>Discussion of basis for using or not using grade cutting or capping.</i></li> <li>• <i>The process of validation, the checking process used, the comparison of model data to drill hole data, and use of reconciliation data if available.</i></li> </ul>	<p>The drill hole data spacing ranges from 10 m by 10 m in grade control drilling, to a 40 m by 40 m resource definition drill hole spacing out to an 80 m by 80 m exploration spacing.</p> <p>The block model parent block size is 20 m (X) by 20 m (Y) by 5 m (Z), which is considered appropriate for the dominant drill hole spacing used to define the deposit. A sub-block size of 2.5 m (X) by 2.5 m (Y) by 0.625 m (Z) has been used to define the mineralisation edges, with the estimation undertaken at the parent block scale.</p> <ul style="list-style-type: none"> <li>• Pass 1 estimations have been undertaken using a minimum of 6 and a maximum of 24 samples into a search set at approximately half of the variogram range. A 4 sample per drill hole limit has been applied in all pegmatite domains.</li> <li>• Pass 2 estimations have been undertaken using a minimum of 6 and a maximum of 24 samples into a search ellipse set at approximately the variogram range. A 4 sample per drill hole limit has been applied in all pegmatite domains</li> <li>• Pass 3 estimations have been undertaken using a minimum of 2 and a maximum of 24 samples into a search ellipse set at twice the Search 2 range. No drill hole limit has been applied to the third pass.</li> <li>• A fourth interpolation pass has been employed for a small number of domains in order to adequately fill the mineralisation volume with estimated grades. The search ellipse employed is twice the Search 3 size with the same minimum and maximum number of samples used.</li> </ul> <p>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 and composite grade means and swath plots comparing the composite grades and block model grades by Northing, Easting and RL.</p> <p>As Mt Cattlin is a producing operation, there exists reconciliation data with which to validate the existing estimation.</p> <p>No selective mining units are assumed in this estimate.</p> <p>No correlation between variables has been assumed.</p>
Moisture	<ul style="list-style-type: none"> <li>• <i>Whether the tonnages are estimated on a dry basis or with natural moisture, and the method of determination of the moisture content.</i></li> </ul>	Tonnes have been estimated on a dry basis.
Cut-off parameters	<ul style="list-style-type: none"> <li>• <i>The basis of the adopted cut-off grade(s) or quality parameters applied</i></li> </ul>	For the reporting of the Mineral Resource Estimate a 0.4 Li <sub>2</sub> O% cut-off within a Whittle pit shell has been used.
Mining factors or assumptions	<ul style="list-style-type: none"> <li>• <i>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.</i></li> </ul>	<p>A Whittle pit optimisation has been run to generate a pit shell wireframe for "prospects of eventual economic extraction" reporting purposes. The mining assumptions/parameters applied to the optimisation are:</p> <ul style="list-style-type: none"> <li>• Mining Recovery – 93%</li> <li>• Mining Dilution – 17%</li> <li>• Li<sub>2</sub>O Price/tonne 6% concentrate – USD\$900</li> <li>• Li<sub>2</sub>O recovery – 75%</li> <li>• Ta<sub>2</sub>O<sub>5</sub> Price/pound concentrate – USD\$40</li> <li>• Ta<sub>2</sub>O<sub>5</sub> recovery – 25%</li> <li>• Transport and port Cost/tonne – AUD\$49.68</li> <li>• State Royalty – 5%</li> <li>• Processing Cost/tonne – AUD\$33.16</li> <li>• Mining Cost/tonne – AUD\$4.29</li> </ul>



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		<p>A Li<sub>2</sub>O cut-off 0.4% lithia has been applied in the Whittle optimisation.</p> <p>The area beneath the southern waste dump has been excluded from the MRE pit shell due to the cost of moving the waste material.</p>																								
Metallurgical factors or assumptions	<ul style="list-style-type: none"> <li>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 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.</li> </ul>	<p>A Li<sub>2</sub>O% metallurgical recovery of 75% and Ta<sub>2</sub>O<sub>5</sub> ppm recovery of 25% has been applied during the pit optimisation and generation of the pit shell to support prospects of eventual economic extraction.</p>																								
Environmental factors or assumptions	<ul style="list-style-type: none"> <li>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</li> </ul>	<p>No environmental factors or assumptions have been incorporated into this Mineral Resource Estimate as Mt Cattlin is a producing operation with State environmental approvals, works approvals and an Environmental Management Plan in place.</p>																								
Bulk density	<ul style="list-style-type: none"> <li>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.</li> <li>The bulk density for bulk material must have been measured by methods that adequately account for void spaces (vugs, porosity, etc), moisture and differences between rock and alteration zones within the deposit,</li> <li>Discuss assumptions for bulk density estimates used in the evaluation process of the different materials.</li> </ul>	<p>Bulk density values have been calculated from 1,076 measurements collected on site using the water immersion method. Data has been separated into lithological and weathering datasets and mean bulk density values derived.</p> <p>The selection of bulk density samples is determined by the logging geologist and is undertaken in a manner to determine the bulk density of all material types. The diamond drill core is competent and does not display evidence of voids or vugs.</p> <p>The bulk densities which have been applied to the Mineral Resource block model are:</p> <table border="1"> <thead> <tr> <th>Domain / Lithology Type</th> <th>Weathering</th> <th>Bulk Density Assigned</th> </tr> </thead> <tbody> <tr> <td rowspan="3">Waste Lithologies</td> <td>Oxide</td> <td>2.5</td> </tr> <tr> <td>Transitional</td> <td>2.7</td> </tr> <tr> <td>Fresh</td> <td>2.86</td> </tr> <tr> <td rowspan="3">Un-mineralised Pegmatite</td> <td>Oxide</td> <td>2.42</td> </tr> <tr> <td>Transitional</td> <td>2.62</td> </tr> <tr> <td>Fresh</td> <td>2.78</td> </tr> <tr> <td rowspan="3">Mineralised Pegmatite</td> <td>Oxide</td> <td>2.47</td> </tr> <tr> <td>Transitional</td> <td>2.71</td> </tr> <tr> <td>Fresh</td> <td>2.72</td> </tr> </tbody> </table>	Domain / Lithology Type	Weathering	Bulk Density Assigned	Waste Lithologies	Oxide	2.5	Transitional	2.7	Fresh	2.86	Un-mineralised Pegmatite	Oxide	2.42	Transitional	2.62	Fresh	2.78	Mineralised Pegmatite	Oxide	2.47	Transitional	2.71	Fresh	2.72
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<p><b>Classification</b></p>	<ul style="list-style-type: none"> <li>• <i>The basis for the classification of the Mineral Resources into varying confidence categories</i></li> <li>• <i>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).</i></li> <li>• <i>Whether the result appropriately reflects the Competent Person's view of the deposit.</i></li> </ul>	<p>The resource classification has been applied to the MR estimate based on the drilling data spacing, grade and geological continuity, quality of the estimation and data integrity.</p> <p>The classification considers the relative contributions of geological and data quality and confidence, as well as grade confidence and continuity.</p> <p>The areas defined by grade control drilling which have been estimated on the first estimation pass and have resulted in a suitable quality of estimation have been classified as Measured Mineral Resources.</p> <p>Portions of the deposit which have been estimated in the first two estimation passes and which have been estimated with a high degree of confidence have been classified as Indicated Mineral Resources.</p> <p>Portions of the deposit which have been estimated and have a suitable level of drilling to assume geological continuity of the pegmatite have been classified as Inferred Mineral Resources.</p> <p>The classification reflects the view of the Mt Cattlin deposit of the Competent Person.</p>
<p><b>Audits or reviews</b></p>	<ul style="list-style-type: none"> <li>• <i>The results of any audits or reviews of Mineral Resource estimates.</i></li> </ul>	<p>The mineral resource estimate has not been audited by an external third party. The resource is reconciled by Galaxy, annually.</p>
<p><b>Discussion of relative accuracy/confidence</b></p>	<ul style="list-style-type: none"> <li>• <i>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 affect the relative accuracy and confidence of the estimate</i></li> <li>• <i>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</i></li> <li>• <i>These statements of relative accuracy and confidence of the estimate should be compared with production data, where available</i></li> </ul>	<p>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.</p> <p>The statement relates to a local estimate of tonnes and grade within the optimised pit shell, at the end of December 2020, at a cut-off of 0.6 Li<sub>2</sub>O% in the transitional mineralisation and 0.4 Li<sub>2</sub>O% in the fresh mineralisation. Please refer to Tables above in the text for a breakdown by material type and classification.</p>

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Section 4 Estimation and Reporting of Ore Reserves - Mt Cattlin

(Criteria listed in section 1, and where relevant in sections 2 and 3, also apply to this section.)

Criteria	JORC Code explanation	Commentary
Mineral Resource estimate for conversion to Ore Reserves	<ul style="list-style-type: none"> <li>Description of the Mineral Resource estimate used as a basis for the conversion to an Ore Reserve.</li> <li>Clear statement as to whether the Mineral Resources are reported additional to, or inclusive of, the Ore Reserves.</li> </ul>	<p>An updated classified resource estimate (January 2019) formed the basis of the reserve estimate. Modelled in Maptek Vulcan and used in Dassault/Surpac.</p> <p>Modifying factors are determined from both an internal and independently commissioned reconciliation study.</p> <p><b>Mineral Resources are NOT additional to Ore Reserves</b></p>
Site visits	<ul style="list-style-type: none"> <li>Comment on any site visits undertaken by the Competent Person and the outcome of those visits.</li> <li>If no site visits have been undertaken indicate why this is the case.</li> </ul>	<p>All CP's have undertaken site visit, within the current and prior reporting periods.</p>
Study status	<ul style="list-style-type: none"> <li>The type and level of study undertaken to enable Mineral Resources to be converted to Ore Reserves.</li> <li>The Code requires that a study to at least Pre-Feasibility Study level has been undertaken to convert Mineral Resources to Ore Reserves. Such studies will have been carried out and will have determined a mine plan that is technically achievable and economically viable, and that material Modifying Factors have been considered.</li> </ul>	<p>Mt Cattlin is an operating mine</p> <p>Reserve studies have been supported by feasibility and reconciliation studies from 2009 onwards.</p> <p>Reserve is supported by operational results and reconciliation since 2017.</p> <p>The material modifying factors have been considered and applied.</p>
Cut-off parameters	<ul style="list-style-type: none"> <li>The basis of the cut-off grade(s) or quality parameters applied.</li> </ul>	<p>Cut-off grade calculation was based on inputs used in the reconciliation study. Further robust geological domaining and wireframing was based on a 0.3 % Li<sub>2</sub>O cut-off.</p> <p>Oxide pegmatite has been excluded.</p> <p>Transitional pegmatite has 0.6% Li<sub>2</sub>O cut-off.</p> <p>Fresh pegmatite has a 0.4% Li<sub>2</sub>O cut-off.</p>
Mining factors or assumptions	<ul style="list-style-type: none"> <li>The method and assumptions used as reported in the Pre-Feasibility or Feasibility Study to convert the Mineral Resource to an Ore Reserve (i.e. either by application of appropriate factors by optimisation or by preliminary or detailed design).</li> <li>The choice, nature and appropriateness of the selected mining method(s) and other mining parameters including associated design issues such as pre-strip, access, etc.</li> <li>The assumptions made regarding geotechnical parameters (eg pit slopes, stope sizes, etc), grade control and pre-production drilling.</li> <li>The major assumptions made and Mineral Resource model used for pit and stope optimisation (if appropriate).</li> <li>The mining dilution factors used.</li> <li>The mining recovery factors used.</li> <li>Any minimum mining widths used.</li> <li>The manner in which Inferred Mineral Resources are utilised in mining studies and the sensitivity of the outcome to their inclusion.</li> <li>The infrastructure requirements of the selected mining methods.</li> </ul>	<p>The deployed mining method is conventional open pit, drill blast, truck and shovel and selective mining.</p> <p>Mining tonnage recovery is estimated 97% and mining dilution is estimated at 17%, from the calendar year 2020 reconciliation studies.</p> <p>Mining tonnage recovery and mining dilution factors are in line with 2.5 and 5m existing regularisation completed on the resource model.</p> <p>Geotechnical specifications are provided in the text above.</p> <p>Mining widths reflect the use of 777 class (7, 100t, trucks) and two diggers, on 200 t and another 120t rated.</p> <p>Mining infrastructure is established and operating.</p>
Metallurgical factors or assumptions	<ul style="list-style-type: none"> <li>The metallurgical process proposed and the appropriateness of that process to the style of mineralisation.</li> <li>Whether the metallurgical process is well-tested technology</li> </ul>	<p>Mt Cattlin is an operating mine site using crush, classifying, desliming, dense media separation and reflux classifiers to produce a mineral concentrate.</p> <p>Metallurgical processes are operational at &gt;1Mtpa and approvals</p>

	<p>or novel in nature.</p> <ul style="list-style-type: none"> <li>The nature, amount and representativeness of metallurgical test work undertaken, the nature of the metallurgical domaining applied and the corresponding metallurgical recovery factors applied.</li> <li>Any assumptions or allowances made for deleterious elements.</li> <li>The existence of any bulk sample or pilot scale test work and the degree to which such samples are considered representative of the orebody as a whole.</li> <li>For minerals that are defined by a specification, has the ore reserve estimation been based on the appropriate mineralogy to meet the specifications?</li> </ul>	<p>for up to 1.8 Mtpa nameplate are subject to statutory approvals.</p> <p>Process recovery is estimated at 75% for Lithium and Tantalum recovery is estimated at 25%. Mineral concentrate has a mica and moisture specification and has been achieved in every export to date.</p> <p>The Ore reserve estimate had been based on mineralogy to meet the specification.</p>
Environment	<p>The status of studies of potential environmental impacts of the mining and processing operation. Details of waste rock characterisation and the consideration of potential sites, status of design options considered and, where applicable, the status of approvals for process residue storage and waste dumps should be reported.</p>	<p>Mt Cattlin is an operational mine site, subject to Mining Approvals, Work Approvals and Project Management Plan regulation by the WA Department of Mines and Industry Regulation and Safety (DMIRS). These are updated from time to time and documented on mining tenement conditions as listed by DMIRS on MTO Online.</p>
Infrastructure	<ul style="list-style-type: none"> <li>The existence of appropriate infrastructure: availability of land for plant development, power, water, transportation (particularly for bulk commodities), labour, accommodation; or the ease with which the infrastructure can be provided, or accessed.</li> </ul>	<p>The Mt Cattlin Mine site is an operating mine with established, built and approved infrastructure.</p>
Costs	<ul style="list-style-type: none"> <li>The derivation of, or assumptions made, regarding projected capital costs in the study.</li> <li>The methodology used to estimate operating costs.</li> <li>Allowances made for the content of deleterious elements.</li> <li>The source of exchange rates used in the study.</li> <li>Derivation of transportation charges.</li> <li>The basis for forecasting or source of treatment and refining charges, penalties for failure to meet specification, etc.</li> <li>The allowances made for royalties payable, both Government and private.</li> </ul>	<p>Operation costs and the reconciliation studies were provided by Galaxy and reflect mine site actuals at the time of the study</p> <ul style="list-style-type: none"> <li>Mining \$12/bcm</li> <li>Processing \$34/t</li> <li>Royalty 5%</li> <li>Concentrate transport and port costs \$50/t</li> </ul>
Revenue factors	<ul style="list-style-type: none"> <li>The derivation of, or assumptions made regarding revenue factors including head grade, metal or commodity price(s) exchange rates, transportation and treatment charges, penalties, net smelter returns, etc.</li> <li>The derivation of assumptions made of metal or commodity price(s), for the principal metals, minerals and co-products.</li> </ul>	<p>Revenue factors are provided in the body of the table above. 6% Li<sub>2</sub>O Spodumene concentrate USD\$650/t. 2% Ta<sub>2</sub>O<sub>5</sub> concentrate at USD40/lb</p>
Market assessment	<ul style="list-style-type: none"> <li>The demand, supply and stock situation for the particular commodity, consumption trends and factors likely to affect supply and demand into the future.</li> <li>A customer and competitor analysis along with the identification of likely market windows for the product.</li> <li>Price and volume forecasts and the basis for these forecasts.</li> <li>For industrial minerals the customer specification, testing and acceptance requirements prior to a supply contract.</li> </ul>	<p>At current sales price the project is forecast to make profit. Sales price are expected to meet or exceed current prices.</p> <p>Galaxy has commercial offtake agreements in place.</p>
Economic	<ul style="list-style-type: none"> <li>The inputs to the economic analysis to produce the net present value (NPV) in the study, the source and confidence of these economic inputs including estimated inflation, discount rate, etc.</li> <li>NPV ranges and sensitivity to variations in the significant assumptions and inputs.</li> </ul>	<p>Performance is sufficient to support continued operation.</p>
Social	<ul style="list-style-type: none"> <li>The status of agreements with key stakeholders and matters leading to social licence to operate.</li> </ul>	<p>Other regulators (water, conservation) have impact on mining approvals. A companywide heritage agreement was settled with WA Noongar people in February, 2018.</p>

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		The surrounding land is a mix on freehold tenure and Vacant Crown Land. Galaxy holds freehold tenure in its own name.
Other	<ul style="list-style-type: none"> <li>To the extent relevant, the impact of the following on the project and/or on the estimation and classification of the Ore Reserves:</li> <li>Any identified material naturally occurring risks.</li> <li>The status of material legal agreements and marketing arrangements.</li> <li>The status of governmental agreements and approvals critical to the viability of the project, such as mineral tenement status, and government and statutory approvals. There must be reasonable grounds to expect that all necessary Government approvals will be received within the timeframes anticipated in the Pre-Feasibility or Feasibility study. Highlight and discuss the materiality of any unresolved matter that is dependent on a third party on which extraction of the reserve is contingent.</li> </ul>	<p>Current stakeholder engagement indicates no reasonable objections with the continued mine operation.</p> <p>Current and active stakeholder engagement occurs on a regular basis between Galaxy and the residents of the Shire of Ravensthorpe.</p>
Classification	<ul style="list-style-type: none"> <li>The basis for the classification of the Ore Reserves into varying confidence categories.</li> <li>Whether the result appropriately reflects the Competent Person's view of the deposit.</li> <li>The proportion of Probable Ore Reserves that have been derived from Measured Mineral Resources (if any).</li> </ul>	<p>2019 Ore reserves are directly classified from Mineral resources, Measured to Proven, Indicated to Probable.</p> <p>The Ore Reserve result reflects the Competent Persons view of the deposit.</p> <p>No measured mineral resource has been classified as probable.</p> <p>Existing stockpiles have been classified as Probable due to estimated Fe<sub>2</sub>O<sub>3</sub> grades only.</p> <p><b>-410kt of Inferred Mineral Resource within the pit design has not been included in the Ore Reserve</b></p>
Audits or reviews	<ul style="list-style-type: none"> <li>The results of any audits or reviews of Ore Reserve estimates.</li> </ul>	<p>External audits and reviews have been conducted on the Ore Reserves by the CP.</p> <p>Reconciliation on an in-situ basis conducted annually.</p>
Discussion of relative accuracy/ confidence	<ul style="list-style-type: none"> <li>Where appropriate a statement of the relative accuracy and confidence level in the Ore Reserve 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 reserve within stated confidence limits, or, if such an approach is not deemed appropriate, a qualitative discussion of the factors which could affect the relative accuracy and confidence of the estimate.</li> <li>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.</li> <li>Accuracy and confidence discussions should extend to specific discussions of any applied Modifying Factors that may have a material impact on Ore Reserve viability, or for which there are remaining areas of uncertainty at the current study stage.</li> <li>It is recognised that this may not be possible or appropriate in all circumstances. These statements of relative accuracy and confidence of the estimate should be compared with production data, where available.</li> </ul>	<p>Modifying factors have been applied reflecting current practice, costs and metallurgical recovery.</p> <p>Ongoing improvement of mining and grade control practices to reflect changes in metallurgical processing.</p> <p>Stockpiles have included based on their tonnes and grades, physical properties and metallurgical test work subject to recovery with the improved metallurgical process</p> <p>Audit occurs annually as part of the reconciliation process and for 2020 tonnage reconciled at ~ +2.5%.</p>

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