



**savannah resources plc**

**SAVANNAH  
RESOURCES PLC**

**AIM: SAV**

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**PROJECT  
PORTFOLIO**

### **Savannah Resources Plc**

#### **Maiden Lithium Resource of 3.2Mt for the Mina do Barroso Lithium Project, Portugal with Significant Expansion Potential**

Savannah Resources plc (AIM: SAV) ('Savannah' or 'the Company'), the AIM quoted resource development company, is pleased to announce a maiden Mineral Resource Estimate of 3.2 million tonnes for the Reservatorio Deposit, which is one of three targets currently being advanced as part of the ongoing exploration and development programme for the Mina do Barroso Lithium Project ('Mina do Barroso' or the 'Project') in northern Portugal (**Figure 1**). Crucially further upside remains as the drill programme is ongoing, with the aim of further expanding the Reservatorio Mineral Resource and defining new JORC - 2012 compliant Mineral Resource Estimates at other deposits.

#### **HIGHLIGHTS:**

- **Initial Inferred Mineral Resource of 3.2Mt at 1.0% Li<sub>2</sub>O containing 32,000t of Li<sub>2</sub>O for Reservatorio Deposit**
- **Reservatorio is one of at least eight pegmatite deposits on the Mina do Barroso Mining Lease and one of three deposits currently being drilled**
- **Further drilling is now planned both down dip and targeting the potential eastern extension of the deposit where higher lithium grades occur**
- **Mineral Resource updates are likely for Reservatorio during 2018 as the drilling programme continues**
- **A maiden Mineral Resource Estimate for the Grandao deposit is expected during Q1 2018**
- **Drilling is ongoing and will take a short break over Christmas before commencing again in early January at which time a second rig will be introduced to accelerate the drilling programme**

**MINERAL  
SANDS  
MOZAMBIQUE  
(CONSORTIUM  
AGREEMENT WITH  
RIO TINTO)**

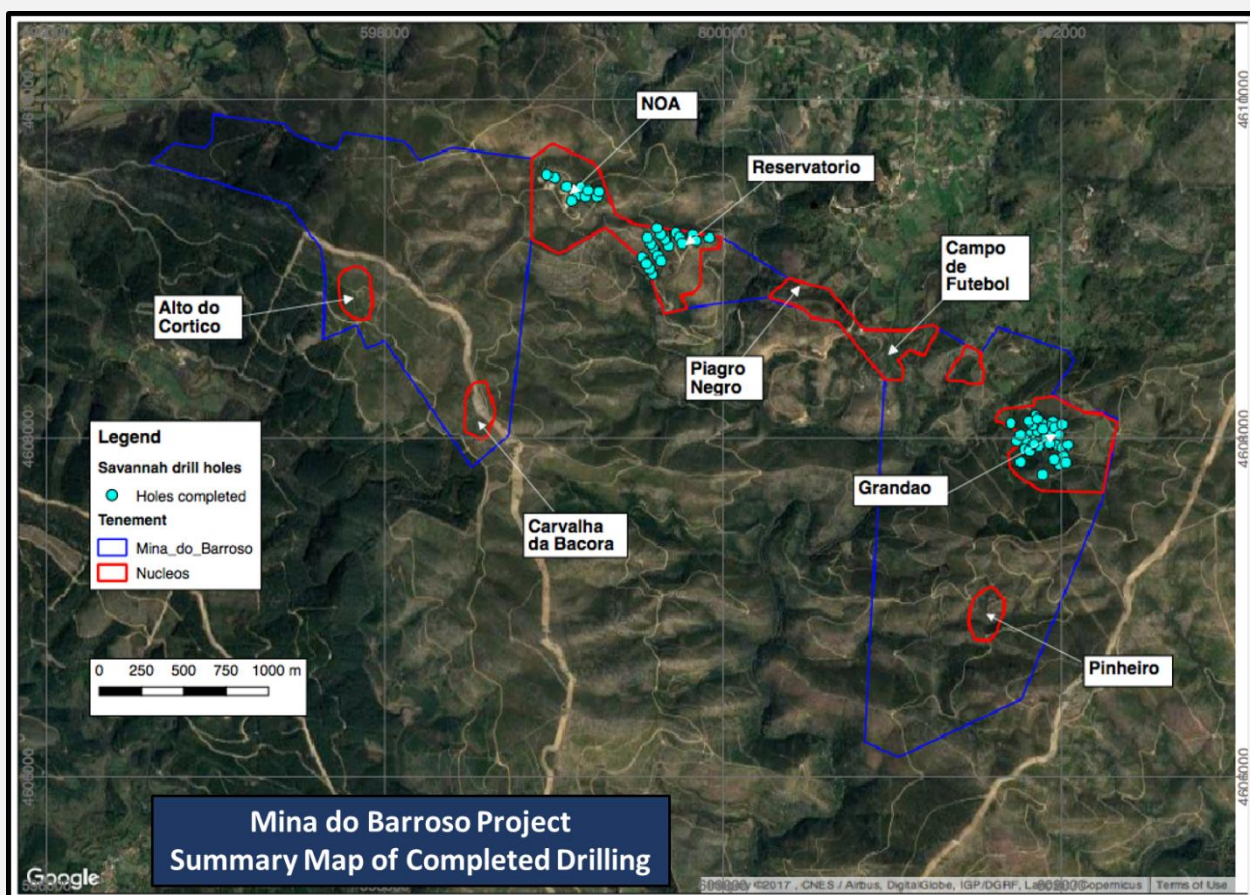
**COPPER/GOLD  
OMAN**

**LITHIUM  
PORTUGAL**

**Savannah's CEO, David Archer said:** "That we have an estimated 3.2 million tonne Resource from just one of at least eight pegmatite deposits at our Mina do Barroso Lithium Project gives an indication of the potential scale of this project. We are now focused on defining a significant aggregate Mineral Resource from the multiple pegmatites that sit within the major lithium mineralised corridor that runs through our Mining Lease. The first to add to this aggregate Mineral Resource will be the high-grade (up to 2.1% Li<sub>2</sub>O) Grandao deposit where we have completed extensive drilling and expect to deliver a Resource Estimate in the first quarter of 2018.

"The drilling results announced to date continue to underscore the potential of the Mina do Barroso Lithium Project to be a strategic upstream feature in the European lithium value chain. We believe Mina do Barroso is the closest European analogue to the very successful Australian hard-rock, open cut mine developments, which produce highly sought-after lithium spodumene concentrates for international markets. Our focus is therefore on rapidly advancing the project so that we can look to provide a European source of battery-grade lithium to supply the growing number of European battery manufacturers. With this in mind, we look forward to continuing to advance at pace our drilling and metallurgical test work programmes, which will be used to support an early scoping study around a potential mine development."

**Figure 1.** Mina do Barroso Project Summary Map showing prospects and 2017 drilling





## Mineral Resource Estimate

A Mineral Resource Estimate for the Reservatorio lithium deposit (**Table 1-2 and Figures 2-4**) has been completed by Payne Geological Services Pty. Ltd, an external and independent mining consultancy. The Reservatorio deposit forms part of Savannah’s Mina do Barroso project in northern Portugal. The deposit largely comprises a single, tabular pegmatite dyke with minor splays and the estimate is based entirely on results from 20 reverse circulation holes drilled by Savannah in 2017. The deposit outcrops over a strike length of approximately 500m and remains open, particularly at depth.

The Mineral Resource has been classified as Inferred Mineral Resource in accordance with the JORC Code, 2012 Edition.

**Table 1. Reservatorio Deposit Inferred Mineral Resource Summary (above 0.5% Li<sub>2</sub>O cut-off grade)**

Reservatorio Deposit	Tonnes	Li <sub>2</sub> O	Fe <sub>2</sub> O <sub>3</sub>	Li <sub>2</sub> O
	Mt	%	%	Tonnes
	<b>3.2</b>	<b>1.00</b>	<b>1.4</b>	<b>32,000</b>

**Figure 2. Reservatorio Deposit – Geology and Drill Plan**

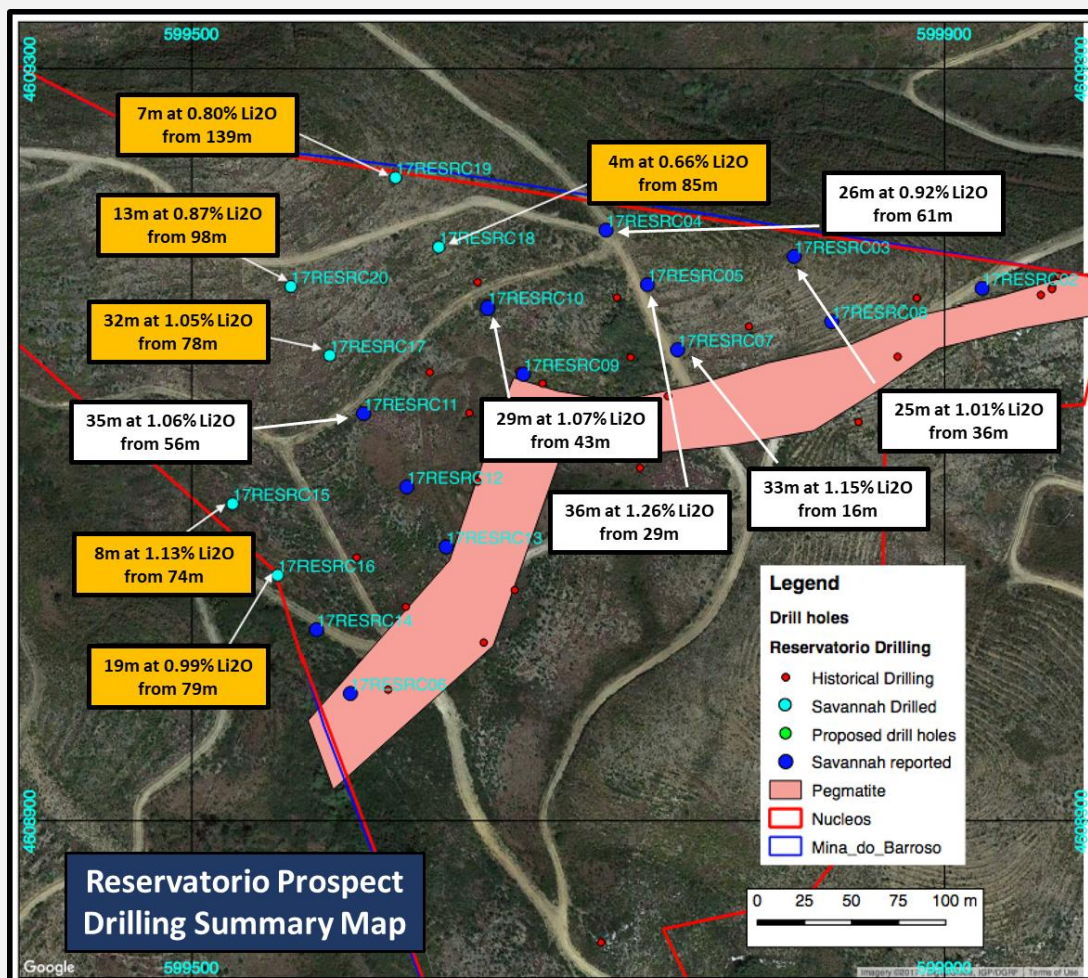


Figure 3. Reservatorio Deposit – Mineral Estimate Model looking South

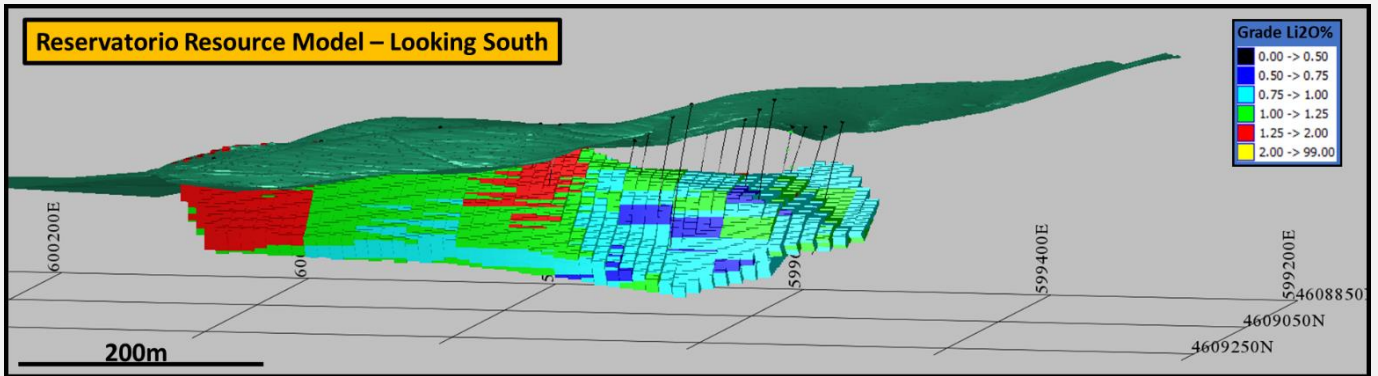
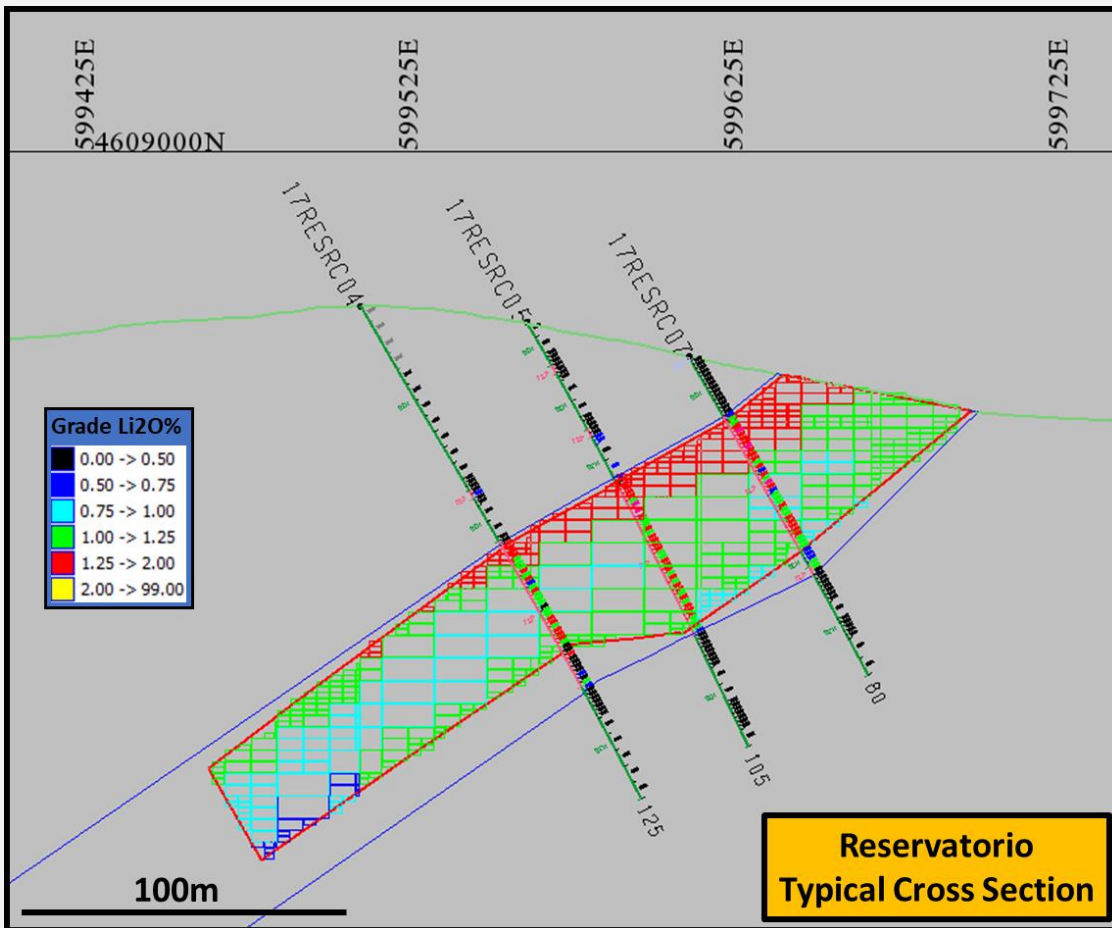


Figure 4. Reservatorio Deposit – Cross Section through the resource model



**Table 2.**

**Reservatorio December 2017 Inferred Mineral Resource Estimate  
0.5% Li<sub>2</sub>O Cut-off**

Bench Top RL	Weathered				Fresh				Total				
	Tonnes t	Li <sub>2</sub> O %	Ta <sub>2</sub> O <sub>5</sub> ppm	Fe <sub>2</sub> O <sub>3</sub> %	Tonnes t	Li <sub>2</sub> O %	Ta <sub>2</sub> O <sub>5</sub> ppm	Fe <sub>2</sub> O <sub>3</sub> %	Tonnes T	Li <sub>2</sub> O %	Ta <sub>2</sub> O <sub>5</sub> ppm	Fe <sub>2</sub> O <sub>3</sub> %	Li <sub>2</sub> O Tonnes
610	1,000	1.20	21	1.4					1,000	1.20	21	1.4	
600	87,000	1.06	19	1.3	7,000	1.38	15	1.5	94,000	1.09	18	1.3	1,000
590	97,000	1.03	20	1.3	124,000	1.19	21	1.4	221,000	1.12	20	1.3	2,500
580	19,000	0.88	17	1.2	284,000	1.12	20	1.4	303,000	1.11	20	1.4	3,400
570	5,000	0.96	20	1.5	381,000	1.04	18	1.4	387,000	1.04	18	1.4	4,000
560	24,000	0.95	18	1.4	485,000	1.01	16	1.4	509,000	1.00	16	1.4	5,100
550	15,000	0.80	14	1.3	495,000	1.00	17	1.4	510,000	0.99	17	1.4	5,100
540	1,000	0.83	14	1.5	415,000	0.97	16	1.4	417,000	0.97	16	1.4	4,100
530					361,000	0.96	15	1.4	361,000	0.96	15	1.4	3,500
520					208,000	0.91	15	1.3	208,000	0.91	15	1.3	1,900
510					119,000	0.85	14	1.3	119,000	0.85	14	1.3	1,000
500					54,000	0.88	14	1.3	54,000	0.88	14	1.3	500
490					7,000	0.93	14	1.3	7,000	0.93	14	1.3	100
<b>Total</b>	<b>250,000</b>	<b>1.01</b>	<b>19</b>	<b>1.3</b>	<b>2,940,000</b>	<b>1.00</b>	<b>17</b>	<b>1.4</b>	<b>3,190,000</b>	<b>1.00</b>	<b>17</b>	<b>1.4</b>	<b>32,000</b>

### Resource Summary – Reservatorio Lithium Deposit

#### Geology

At the Mina do Barroso Project, lithium mineralisation occurs predominantly in the form of spodumene-bearing pegmatites which are hosted in metapelitic and mica schists, and occasionally carbonate schists of upper Ordovician to lower Devonian age. The Reservatorio pegmatite is quite tabular and continuous and varies in thickness from 10m-30m. It strikes broadly NE-SW and dips to the NW at 25° to 40°.

Lithium is present in pegmatite bodies which are typically of aplite compositions and laboratory test work confirms that the lithium is almost exclusively within spodumene. Distinct lithium grade zonation occurs within the pegmatite, with weakly mineralised zones often evident at the margins of the dyke. Minor xenoliths and inliers of schist are observed on occasions.

The weathering profile comprises a shallow, surficial zone of weak to moderate oxidation, particularly of the schistose country rock. A zone of deeper weathering exists in the vicinity of an interpreted fault.

#### Drilling

A total of 20 reverse circulation (RC) holes define the Reservatorio Mineral Resource. The holes were drilled on an approximate grid spacing of 40m spaced holes on 80m spaced cross sections. All holes were drilled by Savannah in 2017 and all drill hole information and results have been previously reported to the market.

Drill collar locations are recorded in UTM coordinates using hand-held GPS, with elevations adjusted to a regional topographic DTM. All Savannah drilling has been down-hole surveyed using a gyroscopic tool.

### **Sampling and Sub-Sampling Techniques**

For the Savannah drilling, a face-sampling hammer was used with samples collected at 1m intervals from pegmatite zones with composite sampling of typically 4m in the surrounding schists. The 1m samples were collected through a rig-mounted rotary splitter and were 4-6kg in weight. The 4m composites were collected by spear sampling of the 1m intervals. Samples were weighed to assess the sample recovery which was determined to be satisfactory.

### **Sample Analysis Method**

For all Savannah drilling, whole samples were crushed then riffle split to produce a 250g split for pulverizing and analysis at the ALS Laboratories facility in Seville, Spain.

The samples were analysed using ALS laboratories ME-MS89L Super Trace method, which combines a sodium peroxide fusion with ICP-MS analysis. A multi-element suite is analysed.

QAQC protocols were in place for the drilling programs and included the used of standards, blanks and field duplicates. The data has confirmed the quality of the sampling and assaying for use in Mineral Resource estimation.

### **Estimation Methodology**

For the Reservatorio Mineral Resource, a Surpac block model was constructed with block sizes of 40m (EW) by 10m (NS) by 5m (elevation) with sub-celling to 10m by 2.5m by 1.25m. The typical drill hole spacing is 80m (EW) by 40m (NS).

Interpretation of the pegmatite dykes was completed using detailed geological logging. Wireframes of the pegmatites were prepared and within those the sample data was extracted and analysed. A clear break in the grade distribution occurs at 0.5% Li<sub>2</sub>O and this grade threshold was used to prepare the internal grade domains for estimation.

Pegmatite and mineralisation domains were extrapolated up to 80m down-dip of the drill hole intersections and 40m along strike.

Sample data was composited into 1m intervals then block model grades estimated using inverse distance squared (ID2) grade interpolation. A first pass search range of 120m was used and oriented to match the dip and strike of the mineralisation. A minimum of 10 samples and a maximum of 24 samples were used to estimate each block. The majority of the resource (98%) was estimated in the first pass with an expanded search radius of 240m used for the few blocks not estimated in the first pass. No high-grade cuts were applied to the estimate.

Iron within the pegmatite is uniformly low, with a mean Fe<sub>2</sub>O<sub>3</sub> grade of 1.4%. Other similar deposits have reported that a large proportion of the assayed iron is due to contamination from the abrasion of steel drilling and sample preparation equipment and this will be investigated as part of ongoing studies at the project.

No bulk density data is available for the deposit, so values were derived from similar deposits, which have been recently estimated. Bulk density values applied to the Reservatorio estimate were 2.2t/m<sup>3</sup> for oxide lithologies, 2.6t/m<sup>3</sup> for unoxidized pegmatite and 2.8t/m<sup>3</sup> for unoxidized schist.

### **Mineral Resource Classification**

The Mineral Resources was classified in accordance with the Australasian Code for the Reporting of Exploration Results, Mineral Resources and Ore Reserves (JORC, 2012).

The main pegmatite dyke at Reservatorio has been defined by 40m spaced drill holes on 80m spaced sections. The two easternmost sections are defined by single drill holes. Within the main pegmatite, the continuity of lithium mineralisation is good, however due to the broad drill hole spacing, the entire deposit has been classified as Inferred Mineral Resource.

The Mineral Resource has been reported to a depth of 130m vertical.

### **Cut-off Grades**

The shallow, outcropping nature of the deposit and moderate to gentle dip suggests good potential for open pit mining if sufficient resources can be delineated to consider a mining operation. As such, the Mineral Resource has been reported at a 0.5% Li<sub>2</sub>O lower cut-off grade to reflect assumed exploitation by open pit mining.

### **Metallurgy**

Metallurgical test work has been conducted by Savannah on representative mineralisation at the Mina Do Barroso project. The work was completed by Nagrom Metallurgical in Australia and confirmed that high grade lithium, low grade iron concentrate can be generated from the mineralisation using conventional processing technology. Microscopy confirmed that the concentrate was almost entirely spodumene.

### **Modifying Factors**

No modifying factors were applied to the reported Mineral Resource estimate. Parameters reflecting mining dilution, ore loss and metallurgical recoveries will be considered during the any future mining evaluation of the project.

### **Preliminary Metallurgical Test Work (previously reported 26/06/17)**

- Results from the preliminary ore characterisation metallurgical test work on a composite sample from Mina do Barroso to determine if the lithium bearing minerals can be recovered from the rock using commercially available technology and a saleable product produced have been received.

- Work confirms that a high grade very pure low iron spodumene concentrate can be produced from the Mina do Barroso lithium mineralisation.
- Single analysis of the combined sample confirmed a high Li<sub>2</sub>O head grade (~1.95% Li<sub>2</sub>O) and low Fe<sub>2</sub>O<sub>3</sub> head grade (~0.9%)
- Heavy Liquid Separation (“HLS”) shows a very pure (~8%) Li<sub>2</sub>O product can be produced
- Flotation results utilising a simple one stage float without any optimisation achieved ~83.7% Li<sub>2</sub>O recovery at ~5.9% Li<sub>2</sub>O, this is very positive and can be improved through optimisation
- Microscopy confirmed that the concentrate was almost entirely spodumene with only very minor amounts of petalite
- Test work confirms that a high quality spodumene concentrate can be produced using conventional commercially available processing technologies.

### **Competent Person and Regulatory Information**

*The information in this report that relates to exploration results is based on, and fairly represents information and supporting documentation prepared by Mr. Dale Ferguson, a Competent Person who is a member of The Australasian Institute of Mining and Metallurgy. Mr. Ferguson is a director of Savannah Resource plc and 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 Resource and Ore Reserves”. Mr. Ferguson consents to the inclusion in this report of the matters based on his information in the form and context in which it appears.*

*The Information in this report that relates to Mineral Resources is based on information compiled by Mr Paul Payne, a Competent Person who is a Fellow of the Australasian Institute of Mining and Metallurgy. Mr Payne is a full-time employee of Payne Geological Services. Mr Payne 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”. Mr Payne consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.*

This announcement contains inside information for the purposes of Article 7 of Regulation (EU) 596/2014.

**\*\*ENDS\*\***



## CONTACT US

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### About Savannah

We are a diversified resources group (AIM: SAV) with a portfolio of energy metals projects - lithium in Portugal and copper in Oman - together with the world-class Mutamba Heavy Mineral Sands Project in Mozambique, which is being developed in a consortium with the global major Rio Tinto. We are committed to serving the interests of our shareholders and to delivering outcomes that will improve the lives of our staff and the communities we work with.

## APPENDIX 1 – JORC 2012 Table 1

### Section 1 Sampling Techniques and Data

(Criteria in this section apply to all succeeding sections.)

Criteria	JORC Code explanation	Commentary
Sampling techniques	<ul style="list-style-type: none"> <li>• <i>Nature and quality of sampling (eg 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.</i></li> </ul>	<ul style="list-style-type: none"> <li>• Reverse circulation (120mm size) samples were taken on either 1 intervals for pegmatite or 4m composites in surrounding schist. RC samples were collected in large plastic bags from an onboard rig splitter and a 4-6kg representative sample taken for analysis.</li> </ul>
	<ul style="list-style-type: none"> <li>• <i>Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.</i></li> </ul>	<ul style="list-style-type: none"> <li>• Drilling was conducted on a nominal 80m by 40m spacing based on geological targets using RC drilling technology, an industry standard drilling technique. Drilling rods are 3m long and 1 sample is taken for each rod interval.</li> <li>• Collar surveys are carried using hand held GPS with an accuracy to within 5m, and the z direction was determined by satellite derived elevation data and is accurate to less than a metre.</li> <li>• A downhole survey for each hole was completed</li> </ul>
	<ul style="list-style-type: none"> <li>• <i>Aspects of the determination of mineralisation that are Material to the Public Report.</i></li> <li>• <i>In cases where ‘industry standard’ work has been done this would be relatively simple (eg ‘reverse circulation drilling was used to obtain 1 m samples from which 3 kg was pulverised to produce a 30g 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 (eg submarine nodules) may warrant disclosure of detailed information.</i></li> </ul>	<ul style="list-style-type: none"> <li>• The lithium mineralization is predominantly in the form of Spodumene-bearing pegmatites, the pegmatites are unzoned and vary in thickness from 15m-39m.</li> <li>• Down hole sampling is carried out on either a 1 or 4m interval from which 4-6kg of pulverized material (RC) was pulverized to produce a 50g charge for assaying</li> </ul>

Criteria	JORC Code explanation	Commentary
Drilling techniques	<ul style="list-style-type: none"> <li>• <i>Drill type (eg core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc) and details (eg 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).</i></li> </ul>	<ul style="list-style-type: none"> <li>• RC drilling at a diameter of 120mm is a form of reverse circulation drilling requiring annular drill rods. Compressed air is pumped down the outer tube and the sample is collected from the open face drilling bit and blown up the inner tube.</li> </ul>
Drill sample recovery	<ul style="list-style-type: none"> <li>• <i>Method of recording and assessing core and chip sample recoveries and results assessed.</i></li> </ul>	<ul style="list-style-type: none"> <li>• Field assessment of sample volume. A theoretical dried sample mass was estimated to be within the range of 18 kg to 24 Kg, 70% of samples are within the expected range. Lower than average sample recovery is recorded only for the very top of the drill hole due to air and sample losses into the surrounding soil</li> </ul>
	<ul style="list-style-type: none"> <li>• <i>Measures taken to maximise sample recovery and ensure representative nature of the samples.</i></li> </ul>	<ul style="list-style-type: none"> <li>• RC drilling sample weights were monitored to ensure samples were maximized. Samples were carefully loaded into a splitter and split in the same manner ensuring that the sample split to be sent to the assay laboratories were in the range of 4-6kg.</li> </ul>
	<ul style="list-style-type: none"> <li>• <i>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.</i></li> </ul>	<ul style="list-style-type: none"> <li>• No obvious relationships</li> </ul>
Logging	<ul style="list-style-type: none"> <li>• <i>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.</i></li> <li>• <i>Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.</i></li> <li>• <i>The total length and percentage of the relevant intersections logged.</i></li> </ul>	<ul style="list-style-type: none"> <li>• RC holes were logged in the field at the time of sampling.</li> <li>• Each 1m sample interval was carefully homogenized and assessed for lithology, colour, grainsize, structure and mineralization.</li> <li>• A representative chip sample produced from RC drilling was washed and taken for each 1m sample and stored in a chip tray which was photographed</li> </ul>
Sub-sampling techniques and sample preparation	<ul style="list-style-type: none"> <li>• <i>If core, whether cut or sawn and whether quarter, half or all core taken.</i></li> <li>• <i>If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.</i></li> </ul>	<ul style="list-style-type: none"> <li>• 1m RC samples were split by the rotary splitter on the drill rig and sampled dry</li> <li>• The 4m composites were collected using a spear with the spear inserted into the bag at a high angle and pushed across the</li> </ul>

Criteria	JORC Code explanation	Commentary
		sample to maximise representivity of the sample
	<ul style="list-style-type: none"> <li>For all sample types, the nature, quality and appropriateness of the sample preparation technique.</li> </ul>	<ul style="list-style-type: none"> <li>The sampling was conducted using industry standard techniques and were considered appropriate</li> </ul>
	<ul style="list-style-type: none"> <li>Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.</li> </ul>	<ul style="list-style-type: none"> <li>Field duplicates were used to test repeatability of the sub-sampling and were found to be satisfactory</li> </ul>
	<ul style="list-style-type: none"> <li>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.</li> </ul>	<ul style="list-style-type: none"> <li>Every effort was made to ensure that the samples were representative and not biased in any way</li> </ul>
	<ul style="list-style-type: none"> <li>Whether sample sizes are appropriate to the grain size of the material being sampled.</li> </ul>	<ul style="list-style-type: none"> <li>All samples were taken once they went through the onboard splitter from the drill rig. Depending on the rock types on average a 4-6kg sample was sent to the lab for analysis and the remaining material averaged 18-24kg and remains stored on site for any further analysis required</li> </ul>
Quality of assay data and laboratory tests	<ul style="list-style-type: none"> <li>The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.</li> </ul>	<ul style="list-style-type: none"> <li>Samples were received, sorted, labelled and dried</li> <li>Samples were crushed to 70% less than 2mm, riffle split off 250g, pulverize split to better than 85% passing 75 microns and 5g was split of for assaying</li> <li>The samples were analysed using ALS laboratories ME-MS89L Super Trace method which combines a sodium peroxide fusion with ICP-MS instrumentation utilizing collision/reaction cell technologies to provide the lowest detection limits available.</li> <li>A prepared sample (0.2g) is added to sodium peroxide flux, mixed well and then fused in at 670°C. The resulting melt is cooled and then dissolved in 30% hydrochloric acid. This solution is then analysed by Inductively Coupled Plasma – Mass Spectrometry and the results are corrected for spectral inter-</li> </ul>



Criteria	JORC Code explanation	Commentary
		<p>element interferences.</p> <ul style="list-style-type: none"> <li>The final solution is then analysed by ICP-MS, with results corrected for spectral inter-element interferences.</li> </ul>
	<ul style="list-style-type: none"> <li><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></li> </ul>	<ul style="list-style-type: none"> <li>Not used</li> </ul>
	<ul style="list-style-type: none"> <li><i>Nature of quality control procedures adopted (eg standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (ie lack of bias) and precision have been established.</i></li> </ul>	<ul style="list-style-type: none"> <li>Standards/blanks and duplicates we inserted on a 1:20 ratio for both to samples taken</li> <li>Duplicate sample regime is used to monitor sampling methodology and homogeneity.</li> <li>A powder chip tray for the entire hole is completed for both RC and RAB. A sub-sample is sieved from the large RC bags at site into chip trays over the pegmatite interval to assist in geological logging. These are photographed and kept on the central database</li> <li>Routine QA/QC controls for the method ME-MS89L include Blanks, certified reference standards of Lithium and duplicate samples. Samples are assayed within runs or batches up to 40 samples. At the fusion stage that quality control samples are included together with the samples so all samples follow the same procedure until the end. Fused and diluted samples are prepared for ICP-MS analysis. ICP instrument is calibrated through appropriate certified standards solutions and interference corrections to achieve strict calibration fitting parameters. Each 40 samples run is assayed with 2 blanks, 2 certified standards and one duplicate samples and results are evaluated accordingly.</li> <li>A QA/QC review of all information indicated that all assays we inside reasonable tolerance levels.</li> </ul>

Criteria	JORC Code explanation	Commentary
Verification of sampling and assaying	<ul style="list-style-type: none"> <li><i>The verification of significant intersections by either independent or alternative company personnel.</i></li> </ul>	<ul style="list-style-type: none"> <li>All information was internally audited by company personnel</li> </ul>
	<ul style="list-style-type: none"> <li><i>The use of twinned holes.</i></li> </ul>	<ul style="list-style-type: none"> <li>Several historical holes were twinned for comparison purposes with the modern drilling</li> </ul>
	<ul style="list-style-type: none"> <li><i>Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.</i></li> </ul>	<ul style="list-style-type: none"> <li>Savannah's experienced project geologists supervised all processes.</li> <li>All field data is entered into a custom log sheet and then into excel spreadsheets (supported by look-up tables) at site and subsequently validated as it is imported into the centralized Access database.</li> <li>Hard copies of logs, survey and sampling data are stored in the local office and electronic data is stored on the main server.</li> </ul>
	<ul style="list-style-type: none"> <li><i>Discuss any adjustment to assay data.</i></li> </ul>	<ul style="list-style-type: none"> <li>Results were reported as Li(ppm) and were converted to a percentage by dividing by 10,000 and then to Li<sub>2</sub>O% by multiplying by 2.153</li> </ul>
Location of data points	<ul style="list-style-type: none"> <li><i>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.</i></li> <li><i>Specification of the grid system used.</i></li> <li><i>Quality and adequacy of topographic control.</i></li> </ul>	<ul style="list-style-type: none"> <li>The coordinate of each drill hole was taken at the time of collecting using a handheld GPS with an accuracy of 5m.</li> <li>The grid system used is WSG84</li> <li>Topographic accuracy was +/- 5m</li> </ul>
Data spacing and distribution	<ul style="list-style-type: none"> <li><i>Data spacing for reporting of Exploration Results.</i></li> <li><i>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.</i></li> <li><i>Whether sample compositing has been applied.</i></li> </ul>	<ul style="list-style-type: none"> <li>Drilling was on a nominal 80m by 40m spacing and based on geological targets</li> <li>Drill data is at sufficient spacing to define an Inferred Mineral Resource.</li> <li>Some samples were composited on a 4m basis based on geological criteria, these areas were all outside the pegmatite bodies where 1m sampling was completed</li> </ul>

Criteria	JORC Code explanation	Commentary
Orientation of data in relation to geological structure	<ul style="list-style-type: none"> <li>• <i>Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.</i></li> <li>• <i>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.</i></li> </ul>	<ul style="list-style-type: none"> <li>• Drilling was orientated perpendicular to the known strike of the pegmatites</li> <li>• Drill holes were orientated at either -60 degrees or -90 degrees depending on the dip of the pegmatite in an attempt to get drill holes as close to true width as possible</li> </ul>
Sample security	<ul style="list-style-type: none"> <li>• <i>The measures taken to ensure sample security.</i></li> </ul>	<ul style="list-style-type: none"> <li>• Samples were delivered to a courier and chain of custody is managed by Savannah.</li> </ul>
Audits or reviews	<ul style="list-style-type: none"> <li>• <i>The results of any audits or reviews of sampling techniques and data.</i></li> </ul>	<ul style="list-style-type: none"> <li>• Internal company auditing</li> </ul>

## Section 2 Reporting of Exploration Results

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

Criteria	JORC Code explanation	Commentary
<b>Mineral tenement and land tenure status</b>	<ul style="list-style-type: none"> <li>• <i>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.</i></li> <li>• <i>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.</i></li> </ul>	<ul style="list-style-type: none"> <li>• All work was completed inside the Mina do Barroso project C-100</li> <li>• <i>Savannah has received written confirmation from the DGEG that under article 24 of Decree-Law no. 88/90 of March 16 being relevant justification based on the resources allocated exploited and intended, Savannah has been approved an expansion up to 250m of C100 mining concession in specific areas where a resource has been defined and the requirement for the expansion can be justified</i></li> </ul>
<b>Exploration done by other parties</b>	<ul style="list-style-type: none"> <li>• <i>Acknowledgment and appraisal of exploration by other parties.</i></li> </ul>	<ul style="list-style-type: none"> <li>• N/A</li> </ul>

Criteria	JORC Code explanation	Commentary
<b>Geology</b>	<ul style="list-style-type: none"> <li>• <i>Deposit type, geological setting and style of mineralisation.</i></li> </ul>	<ul style="list-style-type: none"> <li>• The lithium mineralization is predominantly in the form of Spodumene-bearing pegmatites which are hosted in meta-pelitic and mica schists, and occasionally carbonate schists of upper Ordovician to lower Devonian age. The pegmatites are unzoned and vary in thickness from 15m-109m. Lithium is present in most aplite compositions.</li> </ul>
<b>Drill hole Information</b>	<ul style="list-style-type: none"> <li>• <i>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:</i> <ul style="list-style-type: none"> <li>○ <i>easting and northing of the drill hole collar</i></li> <li>○ <i>elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar</i></li> <li>○ <i>dip and azimuth of the hole</i></li> <li>○ <i>down hole length and interception depth</i></li> <li>○ <i>hole length.</i></li> </ul> </li> <li>• <i>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.</i></li> </ul>	<ul style="list-style-type: none"> <li>• Grid used WSG84</li> <li>• No material data has been excluded from the release</li> <li>• Drill hole intersections used in the resource have been previously reported.</li> </ul>
<b>Data aggregation methods</b>	<ul style="list-style-type: none"> <li>• <i>In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (eg cutting of high grades) and cut-off grades are usually Material and should be stated.</i></li> <li>• <i>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.</i></li> <li>• <i>The assumptions used for any reporting of metal equivalent values should be clearly stated.</i></li> </ul>	<ul style="list-style-type: none"> <li>• No new exploration results have been reported in this release.</li> </ul>



Criteria	JORC Code explanation	Commentary
<b>Relationship between mineralisation widths and intercept lengths</b>	<ul style="list-style-type: none"> <li>• <i>These relationships are particularly important in the reporting of Exploration Results.</i></li> <li>• <i>If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.</i></li> <li>• <i>If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (eg 'down hole length, true width not known').</i></li> </ul>	<ul style="list-style-type: none"> <li>• Exploration results are reported as down hole intercepts</li> <li>• No metal equivalent values have been used.</li> <li>• The drill holes are detailed in the table in the main release and the pegmatite at Reservatorio appears to dip at around 40 degrees to the north west and at Grandao it is sub horizontal</li> </ul>
<b>Diagrams</b>	<ul style="list-style-type: none"> <li>• <i>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.</i></li> </ul>	<ul style="list-style-type: none"> <li>• Relevant diagrams and maps have been included in the main body of the release.</li> </ul>
<b>Balanced reporting</b>	<ul style="list-style-type: none"> <li>• <i>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.</i></li> </ul>	<ul style="list-style-type: none"> <li>• All relevant results available have been previously reported.</li> </ul>
<b>Other substantive exploration data</b>	<ul style="list-style-type: none"> <li>• <i>Other exploration data, if meaningful and material, should be reported including (but not limited to): geological observations; 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></li> </ul>	<ul style="list-style-type: none"> <li>• The interpretation of the results is consistent with the observations and information obtained from the data collected.</li> </ul>
<b>Further work</b>	<ul style="list-style-type: none"> <li>• <i>The nature and scale of planned further work (eg tests for lateral extensions or depth extensions or large-scale step-out drilling).</i></li> <li>• <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></li> </ul>	<ul style="list-style-type: none"> <li>• Further rock chip sampling, channel sampling and RC drilling. Once planning has been completed the detail will be provided</li> </ul>

### Section 3 Estimation and Reporting of Mineral Resources

Criteria	JORC Code explanation	Commentary
<b>Database integrity</b>	<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>	<ul style="list-style-type: none"> <li>The assay data was captured electronically to prevent transcription errors.</li> <li>Validation included visual review of results.</li> </ul>
<b>Site visits</b>	<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>	<ul style="list-style-type: none"> <li>Numerous site visits were undertaken by Dale Ferguson in 2017 which included an inspection of the drilling process, outcrop area and confirmation that no obvious impediments to future exploration or development were present.</li> </ul>
<b>Geological interpretation</b>	<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> <li>The factors affecting continuity both of grade and geology.</li> </ul>	<ul style="list-style-type: none"> <li>The pegmatite dyke hosting the Reservatorio mineralisation is well defined in outcrop and in drilling.</li> <li>The shape and extent of the high grade lithium mineralisation is clearly controlled by the general geometry of the pegmatite.</li> </ul>
<b>Dimensions</b>	<ul style="list-style-type: none"> <li>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.</li> </ul>	<ul style="list-style-type: none"> <li>The Reservatorio deposit has a strike extent of 540m, a dip extent of 210m and a maximum vertical depth of 130m. The thickness of the mineralisation ranges from 5m to 30m.</li> </ul>
<b>Estimation and modelling techniques</b>	<ul style="list-style-type: none"> <li>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.</li> </ul>	<ul style="list-style-type: none"> <li>Inverse distance squared (ID2) was used to estimate average block grades within the resource.</li> <li>Surpac software was used for the estimation.</li> <li>Samples were composited to 1m intervals to match the sample lengths. Due to the extremely low CV of the data no high grade cuts were applied to the estimate.</li> <li>The parent block dimensions were 40m EW by 10m NS by 5m</li> </ul>

Criteria	JORC Code explanation	Commentary
	<ul style="list-style-type: none"> <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 (eg 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 resource estimates.</i></li> <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>vertical with sub-cells of 10m by 2.5m by 1.25m. Cell size was based on 50% of the average drill hole spacing.</p> <ul style="list-style-type: none"> <li>• No previous resource estimates have been prepared for the deposit.</li> <li>• No assumptions have been made regarding recovery of by-products.</li> <li>• The grade of Fe<sub>2</sub>O<sub>3</sub> was estimated for the deposit, with a mean grade of 1.4% being estimated.</li> <li>• An orientated ellipsoid search was used to select data and was based on drill hole spacing and the geometry of the pegmatite dyke.</li> <li>• A search of 120m was used with a minimum of 10 samples and a maximum of 24 samples which resulted in 98% of blocks being estimated. The remaining blocks were estimated with a search radius of 240m.</li> <li>• Selective mining units were not modelled in the Mineral Resource model. The block size used in the model was based on drill sample spacing and deposit geometry.</li> <li>• The deposit mineralisation was constrained by wireframes prepared using a 0.5% Li<sub>2</sub>O grade envelope.</li> <li>• For validation, a visual comparison of block grades to assay grades was carried out along with global comparisons. Quantitative validation was also carried out using swath plots.</li> </ul>
<b>Moisture</b>	<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>	<ul style="list-style-type: none"> <li>• Tonnages and grades were estimated on a dry in situ basis. No moisture values were reviewed.</li> </ul>
<b>Cut-off parameters</b>	<ul style="list-style-type: none"> <li>• <i>The basis of the adopted cut-off grade(s) or quality parameters applied.</i></li> </ul>	<ul style="list-style-type: none"> <li>• The shallow, outcropping nature of the deposit and moderate to gentle dip suggests good potential for open pit mining if sufficient resources can be delineated to consider a mining operation. As such, the Mineral Resource has been reported at a 0.5% Li<sub>2</sub>O</li> </ul>

Criteria	JORC Code explanation	Commentary
		<p>lower cut-off grade to reflect assumed exploitation by open pit mining.</p>
<p><b>Mining factors or assumptions</b></p>	<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>	<ul style="list-style-type: none"> <li>• Based on comparison with other similar deposits, the Mineral Resource is considered to have sufficient grade and metallurgical characteristics for economic treatment if an operation is established at the site.</li> <li>• No mining parameters or modifying factors have been applied to the Mineral Resource.</li> </ul>
<p><b>Metallurgical factors or assumptions</b></p>	<ul style="list-style-type: none"> <li>• <i>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.</i></li> </ul>	<ul style="list-style-type: none"> <li>• Metallurgical test work has been conducted by Savannah on representative mineralisation at the Mina Do Barroso project. The work was completed by Nagrom Metallurgical in Australia and confirmed that high grade lithium, low grade iron concentrate can be generated from the mineralisation using conventional processing technology. Microscopy confirmed that the concentrate was almost entirely spodumene.</li> </ul>
<p><b>Environmental factors or assumptions</b></p>	<ul style="list-style-type: none"> <li>• <i>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</i></li> </ul>	<ul style="list-style-type: none"> <li>• The area is not known to be environmentally sensitive and there is no reason to think that proposals for development including the dumping of waste would not be approved if planning and permitting guidelines are followed.</li> </ul>



Criteria	JORC Code explanation	Commentary
	<p><i>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.</i></p>	
<b>Bulk density</b>	<ul style="list-style-type: none"> <li>• <i>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.</i></li> <li>• <i>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.</i></li> <li>• <i>Discuss assumptions for bulk density estimates used in the evaluation process of the different materials.</i></li> </ul>	<ul style="list-style-type: none"> <li>• No bulk density data is available for the deposit so values were derived from similar deposits which have been recently estimated. Bulk density values applied to the Reservatorio estimate were 2.2t/m<sup>3</sup> for oxide lithologies, 2.6t/m<sup>3</sup> for unoxidized pegmatite and 2.8t/m<sup>3</sup> for unoxidized schist.</li> </ul>
<b>Classification</b>	<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 (ie 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>	<ul style="list-style-type: none"> <li>• The Mineral Resources was classified in accordance with the Australasian Code for the Reporting of Exploration Results, Mineral Resources and Ore Reserves (JORC, 2012).</li> <li>• The entire Mineral Resource was classified as Inferred on the basis of data quality, sample spacing, and grade variability.</li> <li>• The estimate has been reviewed by the Competent Person and the results reflect the view of the Competent Person.</li> </ul>
<b>Audits or reviews</b>	<ul style="list-style-type: none"> <li>• <i>The results of any audits or reviews of Mineral Resource estimates.</i></li> </ul>	<ul style="list-style-type: none"> <li>• The Mineral Resource estimate has been checked by an internal audit procedure.</li> </ul>
<b>Discussion of relative accuracy/ confidence</b>	<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</i></li> </ul>	<ul style="list-style-type: none"> <li>• The estimate utilised good estimation practices, high quality drilling, sampling and assay data. The extent and dimensions of the mineralisation are sufficiently defined by outcrop and the broad spaced drilling. The deposit is considered to have been estimated</li> </ul>

Criteria	JORC Code explanation	Commentary
	<p><i>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></p> <ul style="list-style-type: none"> <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>with a high level of accuracy.</p> <ul style="list-style-type: none"> <li>• The Mineral Resource statement relates to global estimates of tonnes and grade.</li> <li>• There is no historic production data to compare with the Mineral Resource.</li> </ul>