

savannah resources plc

# SAVANNAH RESOURCES PLC

AIM: SAV

AN ENERGY METALS GROUP

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### Savannah Resources Plc

## 64% Resource Increase for the Grandao Deposit Pushes the Total Resource Estimate for the Mina do Barroso Lithium Project Past 20Mt with Significant Scope for Further Expansions

#### HIGHLIGHTS:

- Continued resource expansion at Mina do Barroso, located in northern Portugal confirms it as Western Europe's largest spodumene lithium Mineral Resource
- ~64% increase in the total Mineral Resource Estimate at Grandao Deposit to 16.4Mt at 1.04% Li<sub>2</sub>O for a total contained Li<sub>2</sub>O of 171,400t
- ~44% increase in overall Mineral Resource Estimate for the Project, which now stands at 20.1Mt at 1.04% Li<sub>2</sub>O for 209,000t of contained Li<sub>2</sub>O
- ~90% of the mineralisation within the Stage 1 Grandao pit, defined as part of the recent Scoping Study, now converted to Measured and Indicated Resource Estimates, which represents the first 4-5 years of the mining inventory based on average annual production of ~175,000tpa of spodumene concentrate at 6% Li<sub>2</sub>O
- At Grandao, significant volumes of new mineralisation has been identified below the Stage 1 and 2 pits, defined during the Scoping Study, supporting the excellent potential to further expand the current mining inventory
- Updated Exploration Target\* for Mina do Barroso calculated at 9-15Mt at 1.0-1.2% Li₂O, giving a potential mineral inventory of over 30Mt for the Project
- Significant upside remains and further Mineral Resource Estimate updates are expected during 2018. Highlights include:
  - Infill and expansion drilling underway at the Reservatorio Deposit to convert the Stage 1 pit defined as part of the Scoping Study into Measured and Indicated category Mineral Resource Estimates and test for potential extensions
  - Excellent potential for new discoveries of additional lithium bearing pegmatite bodies

<sup>\*</sup>Cautionary Statement: The potential quantity and grade of the Exploration Targets is conceptual in nature, there has been insufficient exploration work to estimate a mineral resource and it is uncertain if further exploration will result in defining a mineral resource.

• Feasibility Study on track for completion late Q1 2019 to build upon results of the Scoping Study in June 2018, which demonstrated an excellent base case pre-tax NPV<sub>8</sub> of US\$356m and IRR of 63% based on the previous Resource Estimate of 14Mt at 1.1% Li<sub>2</sub>O

Savannah Resources plc (AIM: SAV, FWB: AFM and SWB: SAV) ('Savannah' or 'the Company'), the resource development company, is pleased to announce a significant increase in the JORC 2012-Compliant Measured, Indicated and Inferred Mineral Resource Estimate, with supporting Exploration Target at the Mina do Barroso Lithium Project ('Mina do Barroso' or the 'Project'), located in northern Portugal (Figure 1-2 and Table 1-3).

**Savannah's CEO, David Archer said:** "Today's Mineral Resource Estimate increase, shows that Mina do Barroso is shaping up to be Europe's most strategically significant mineral discovery in recent years. The increasing Mineral Resource base of the Project means we have a long-life asset that can anchor the up-stream end of the European lithium value chain, with Europe being the second largest consumer of lithium in the world.

"Mina do Barroso has grown remarkably over the last 12 months with this being the third Mineral Resource Estimate upgrade in less than seven months; this is testament to both the quality of our Project and skill set of our team. There is considerable potential to expand the Mineral Resource Estimate even further, as highlighted by the 9Mt to 15Mt Exploration Target, and our intensive round of drilling continues with three drill rigs on site. Alongside this, at a commercialisation level we are making good progress with the Feasibility Study and continue to target making a mine development decision next year.

"Today's results highlight Mina do Barroso as what we believe to be an outstanding lithium project."

Figure 1. Mina do Barroso Project Summary Map showing key deposits and drilling completed to date



#### **Mineral Resource Summary**

Deposit	Resource Class	Tonnes Mt	Li₂O %	Fe <sub>2</sub> O <sub>3</sub> %	Li₂O Tonnes
	Measured	5.5	1.08	1.3	59,600
All Deposits	Indicated	4.9	0.93	1.4	45,600
	Inferred	9.7	1.1	1.4	103,900
	Total	20.1	1.04	1.4	209,000

#### Table 2. Updated Exploration Target Summary

Demost	Tonnage Ra	Li₂O %	
Deposit	Lower	Upper	
Reservatorio	5.0	7.0	1.0-1.2%
Grandao	4.0	8.0	1.0-1.2%
Total Mina do Barroso Exploration Target	9.0	15.0	1.0-1.2%

\*Cautionary Statement: The potential quantity and grade of the Exploration Targets is conceptual in nature, there has been insufficient exploration work to estimate a mineral resource and it is uncertain if further exploration will result in defining a mineral resource.

Importantly, this exploration target only includes Grandao and Reservatorio with further upside remaining from the many other high priority exploration targets within the Project area.

Table 3. Updated Grandao Mineral Resource Estimate

Deposit	Resource	Tonnes	Li <sub>2</sub> O	Fe <sub>2</sub> O <sub>3</sub>	Li <sub>2</sub> O
Deposit	Class	Mt	%	%	Tonnes
	Measured	5.5	1.08	1.3	59,600
Grandao	Indicated	4.9	0.93	1.4	45,600
	Inferred	6.1	1.1	1.4	66,200
	Total	16.4	1.04	1.4	171,400

Figure 2. Grandao Main Pegmatite Resource Estimation Model coloured by classification



#### **Potential Extensions of Grandao Mining Inventory**

RC and diamond drilling during the recent months has focused on both improving the Mineral Resource Estimate category of the existing Mining Inventory, as well as, targeting areas in and close to the potential open pit mining areas, defined as part of the Scoping Study. This work has led to some excellent results with approximately 90% of the Mining Inventory defined as part of the stage one Grandao pit in the recent Scoping Study now being converted to either Measured or Indicated category Resource Estimates. This is an important stepping stone for the Feasibility Study as all material needs to be either Measured or Indicated to be considered as part of a Reserve Estimate, which will be generated from the Feasibility Study **(Figure 3).** 



Figure 3. Grandao Resource Estimate coloured by Category showing Scoping Study Stage 1 Pit

Importantly the recent drill results have expanded the Mineral Resource Estimates inside and under the optimised pits generated as part of the Scoping Study pointing towards the excellent potential to further expand the Mining Inventory at the Grandao Deposit (Figure 4).

**Figure 4.** Grandao Scoping Study Stage One and Two pits showing newly defined mineralisation below (cross section 4,607,935mN)



#### **Mineral Resource Estimate**

The Mineral Resource Estimate for the Grandao and Grandao Extended Lithium Deposit has been updated by Payne Geological Services Pty Ltd, an external and independent mining consultancy - <u>http://www.paynegeo.com.au/paul-payne</u>. The Deposit forms part of Savannah's Mina do Barroso Lithium Project, located in northern Portugal. The Mineral Resource Estimate has been classified as Measured, Indicated and Inferred Mineral Resource in accordance with the JORC Code, 2012 Edition and is summarised in **Table 4 and Appendix 1**.

Donosit	Resource	Tonnes	Li₂O	Fe <sub>2</sub> O <sub>3</sub>	Li <sub>2</sub> O
Deposit	Class	Mt	%	%	Tonnes
	Measured	5.5	1.08	1.3	59,600
Grandao	Indicated	4.9	0.93	1.4	45,600
	Inferred	6.1	1.1	1.4	66,200
	Total	16.4	1.04	1.4	171,400

Table 4. September 2018 Mineral Resource Summary (0.5% Li<sub>2</sub>O cut-off)

Deposit	Resource Class	Tonnes Mt	Li₂O %	Fe <sub>2</sub> O <sub>3</sub> %	Li₂O Tonnes
	Measured				
Reservatorio	Inferred	3.2	1.0	1.4	32,000
	Total	3.2	1.0	1.4	32,000

Deposit	Resource	Tonnes	Li₂O	Fe <sub>2</sub> O <sub>3</sub>	Li <sub>2</sub> O
	Class	Mt	%	%	Tonnes
	Measured				
NOA	Indicated				
NOA	Inferred	0.5	1.2	1.3	5,600
	Total	0.5	1.2	1.3	5,600

Denesit	Resource	Tonnes	Li <sub>2</sub> O	Fe <sub>2</sub> O <sub>3</sub>	Li <sub>2</sub> O
Deposit	Class	Mt	%	%	Tonnes
	Measured	5.5	1.08	1.3	59,600
All Deposits	Indicated	4.9	0.93	1.4	45,600
	Inferred	9.7	1.1	1.4	103,900
	Total	20.1	1.04	1.4	209,000

(rounding discrepancies may occur)

The Grandao Deposit comprises two main pegmatite intrusions. The upper part of the deposit occurs within a broad, shallow dipping pegmatite body with a typical thickness of 20m-40m. The lower portion appears to be a steep dipping dyke, which is 15m-20m in true width. In addition, three minor lenses of pegmatite are also included in the Mineral Resource Estimate. Both main pegmatite zones remain open either along strike or down plunge **(Figure 5-7).** 

The Grandao Mineral Resource Estimate is based on results from 110 drill holes all completed by Savannah in 2017 and 2018.





Figure 6. Cross Section (4607980N) through Grandao Resource Model (looking north)





#### Figure 7. Main Pegmatite Coloured by Classification (plan view)

\*Cautionary Statement: The potential quantity and grade of the Exploration Targets is conceptual in nature, there has been insufficient exploration work to estimate a mineral resource and it is uncertain if further exploration will result in defining a mineral resource.

#### **Potential Resource Expansion**

The Grandao Deposit remains open both along strike in a number of directions, as well as, down dip. Given the consistency and predictability in which the drilling programme has been able to regularly intersect the main flat lying pegmatite it is reasonable to interpret that further drilling could lead to an expansion of the Grandao Deposit (Figure 8).



Figure 8. Grandao Resource Model and Exploration Potential

\*Cautionary Statement: The potential quantity and grade of the Exploration Targets is conceptual in nature, there has been insufficient exploration work to estimate a mineral resource and it is uncertain if further exploration will result in defining a mineral resource.

#### Geology

At Mina do Barroso, 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 main Grandao pegmatite is a flat-lying, tabular zone defined over an area of 600m north-south and 700m east-west and varies in thickness from 10m-60m. It is very close to surface and is visible in outcrop over a significant area. A lower zone of mineralisation is also present at Grandao, hosted in a north-south trending steep-dipping, tabular pegmatite dyke 15m-20m in true width. The geometry of the lower pegmatite is not well defined due to the currently sparse drilling **(Figure 9).** 



Figure 9. Grandao Geological Model

At the Project, lithium is present in most pegmatite compositions and laboratory test work confirms that the lithium is almost exclusively within spodumene. Distinct lithium grade zonation occurs within the pegmatites, with weakly mineralised zones often evident at the margins of the dykes. Minor xenoliths and inliers of schist are observed within the main pegmatite. Where these have sufficient continuity, they have been separately modelled and excluded from the estimate.

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 on the western side of the Grandao Deposit with moderate oxidation to a depth of up to 50m.

#### Drilling

A total of 88 RC holes, seven diamond holes and 15 RC holes with diamond tails define the Grandao Mineral Resource Estimate. The holes were drilled on an approximate grid spacing of 40m-60m with a number of closer spaced holes in the shallow part of the deposit. All holes were drilled by Savannah in 2017 and 2018.

Drill collar locations are recorded in Universal Traverse Mercator ("UTM") coordinates using differential GPS. All Savannah drilling has been down-hole surveyed using a gyroscopic tool.

#### Sampling and Sub-Sampling Techniques

For the Savannah RC 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 in early drilling. In recent drilling the schist 5m either side of the pegmatite was sampled at 1m intervals with the rest of schist remaining unsampled. The 1m samples were collected through a rig-mounted riffle splitter and were 4kg-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.

Core was PQ and HQ in size and sampled to geological boundaries. Core was cut using a diamond saw, and for the majority of holes half core was collected for assay. A small number of diamond holes were sampled for metallurgical test work. For those holes, quarter core was submitted for assay.

#### Sample Analysis Method

For all Savannah drilling, whole samples were crushed then riffle split to produce a 250g split for pulverising and analysis.

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

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

#### **Estimation Methodology**

For the Grandao Mineral Resource Estimate, a Surpac block model was constructed with block sizes of 10m (EW) by 20m (NS) by 5m (elevation) with sub-celling to 2.5m by 5m by 2.5m. The typical drill hole spacing is 40m-60m.

Interpretation of the pegmatite dykes was completed using detailed geological logging and Fe geochemistry. 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. In addition to the two main pegmatite bodies, several small pegmatites were also interpreted. Zones of unmineralised schist within the pegmatite body were selectively wireframed and excluded from the estimate.

Sample data was composited into 1m intervals then block model grades estimated using ordinary kriging ("OK") grade interpolation for the two main pegmatites and inverse distance squared ("ID2") grade interpolation for the three small pegmatite zones. A first pass search range of 60m 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 Mineral Resource Estimate (61%) was completed in the first pass with expanded search radii of 120m and 240m used for the blocks not estimated in the first pass. No high-grade cuts were applied to the estimate.

Iron within the pegmatites is uniformly low, with a mean Fe<sub>2</sub>O<sub>3</sub> grade of 1.3% at Grandao. Preliminary test work by Savannah suggest that a large proportion of the assayed iron (approximately 40%) is due to contamination from the abrasion of steel sample preparation equipment. This will be further investigated as part of ongoing studies at the Project.

Bulk density determinations using the immersion method were carried out on 1,233 half core samples. Bulk density values applied to the estimates were  $2.5t/m^3$  for oxide lithologies,  $2.65t/m^3$  for unoxidised pegmatite and  $2.7t/m^3$  for unoxidised schist.

#### Mineral Resource Classification

The Mineral Resource Estimate 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 Grandao has generally been drilled at 40m to 60m holes spacings with a portion of the deposit drilled at closer spacings. The majority of holes in the main pegmatite at Grandao have consistently intersected pegmatite, with the majority intersecting resource grade  $Li_2O$  mineralisation and the continuity of lithium mineralisation is good.

Due to the consistent drill hole spacing defining excellent continuity of lithology and mineralisation and accurate location data, the well drilled portion of the upper pegmatite has been classified as Measured Mineral Resource. This includes mineralisation drilled at 20m to 40m spacings where the pegmatite geometry is consistent and mineralisation is uniform.

The portion of the deposit defined by 40m to 60m spaced drill holes has been classified as Indicated Mineral Resource Estimate. Where the main pegmatite showed good potential for further extensions, the Indicated Mineral Resource Estimate was extrapolated up to 60m past drill hole intersections and the Inferred Mineral Resource Estimate was extrapolated a further 60m.

All minor pegmatite bodies were classified as an Inferred Mineral Resource Estimate due to the lack of detailed drilling or the uncertainty of geometry of the mineralisation.

The main shallow pegmatite at Grandao lies entirely above 200m vertical depth. The deep pegmatite has been reported to a depth of 160m vertical.

#### **Cut-off Grades**

The shallow and flat lying nature of the main Grandao pegmatite suggests good potential for open pit mining if sufficient resources can be delineated to consider a mining operation. As such, the Mineral Resource Estimate has been reported at a 0.5% Li<sub>2</sub>O lower cut-off grade to reflect assumed exploitation by low-cost mining methods.

#### Metallurgy

Metallurgical test work has been conducted by Savannah on representative mineralisation at Mina do Barroso. 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. A substantial metallurgical test work programme has recently commenced.

#### **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.

#### **Exploration Target\***

Savannah has defined a Mineral Resource Estimate from three deposits in the Mina do Barroso Project area **(Table 5).** All three deposits remain open and untested by drilling either down dip or along strike of the defined Mineral Resource Estimate and there is excellent potential to extend the deposits with further drilling. In addition, there are numerous other outcropping pegmatite dykes that require drill testing to determine if they are also lithium bearing.

Savannah has been drilling at Mina do Barroso since mid-2017 and ongoing programmes in 2018 are designed to test for extensions of the defined deposits and to test other outcropping pegmatite targets in the Project area. The drilling at the Grandao deposit has been very successful and has allowed a major increase to the reported Mineral Resource Estimate, as well as, increasing confidence in the estimate. Infill drilling to increase the confidence in the reported Inferred Mineral Resource Estimates at Reservatorio and NOA is also being planned.

To quantify the potential of the Project beyond the currently defined Mineral Resource Estimates, an initial Exploration Target\* for the Grandao and Reservatorio Deposits of 8-12Mt at 1.0% to 1.2% Li<sub>2</sub>O has been defined. **This gives a project target (including Mineral Resource Estimate) of 29-35Mt at 1.0-1.2% Li<sub>2</sub>O.** Importantly, this exploration target only includes Grandao and Reservatorio with further upside remaining from the many other high priority exploration prospects within the project area.

Demosit	Tonnage Ra	Li2O5 %	
Deposit	Lower	Upper	
Reservatorio			
Bottom of Inferred to 200m Vertical Depth	5.0	7.0	1.0-1.2%
Grandao			
200m-400m Extension of Upper Pegmatite	3.0	6.0	1.0-1.2%
100% Expansion of Lower Pegmatite	1.0	2.0	1.0-1.2%
Total Mina do Barroso Exploration Target	9.0	15.0	1.0-1.2%

Table 5. Exploration Targets\* for Mina do Barroso Project

\*Cautionary Statement: The potential quantity and grade of the Exploration Targets is conceptual in nature, there has been insufficient exploration work to estimate a mineral resource and it is uncertain if further exploration will result in defining a mineral resource.

#### **Reservatorio Exploration Target\***

A Mineral Resource Estimate was completed for the Reservatorio Deposit in December 2017. It was modelled and estimated for the full extent of the SAV drilling and the Inferred Mineral Resource Estimate was extended between 40m and 100m down dip from the deepest drill holes. There is no information to suggest that the pegmatite and lithium mineralisation does not continue with the same characteristics and grade as the drilled portion. As a result, beneath the Inferred Mineral Resource Estimate boundary, a wireframe model was created, assuming continuation of the mineralisation down-dip to 200m below surface. Applying a density of  $2.6t/m^3$  as used in the Reservatorio Inferred Mineral Resource Estimate, and assuming the same lithium grade observed in the drilled portion, the Exploration Target has been defined as 5 Mt to 7 Mt at a grade of 1.0% to 1.2% Li<sub>2</sub>O.

#### **Grandao Exploration Target\***

The current Mineral Resource Estimate was completed for the Grandao Deposit in September 2018. It was modelled and estimated for the area drilled in detail by SAV. The Inferred Mineral Resource Estimate was extended up to 120m down plunge from drilled area.

The shallow pegmatite appears to be closed off by drilling to the northeast and to the southeast. To the west and northwest and south, the mineralisation remains open and untested the limits of the mineralisation have not been found. There is no information to suggest that the pegmatite and lithium mineralisation does not continue to the west and northwest with the same characteristics and grade as the drilled portion and the strong results from the recent drilling has confirmed this.

The Exploration Target\* for the shallow pegmatite is considered to be at least a 200m-400m downplunge extension of the defined Mineral Resource Estimate for that portion of the deposit so the Exploration Target has been defined as 3 Mt to 6 Mt at a grade of 1.0% to 1.2% Li<sub>2</sub>O. This represents a 20%-40% increase on the currently defined Mineral Resource.

The deep pegmatite has been intersected in a small number of holes which have recorded thick, high grade mineralisation. The mineralisation is open in most directions and the Exploration Target has been defined as a 100% increase on the defined Mineral Resource Estimate which gives an Exploration Target of 1 Mt to 2 Mt at a grade of 1.0% to 1.2% Li<sub>2</sub>O.

\*Cautionary Statement: The potential quantity and grade of the Exploration Targets is conceptual in nature, there has been insufficient exploration work to estimate a mineral resource and it is uncertain if further exploration will result in defining a mineral resource.

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

The information in this announcement that relates to exploration results is based upon information compiled by Mr Dale Ferguson, Technical Director of Savannah Resources Limited. Mr Ferguson is a Member of the Australasian Institute of Mining and Metallurgy (AusIMM) and has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity which he is undertaking to qualify as a Competent Person as defined in the December 2012 edition of the "Australasian Code for Reporting of Exploration Results, Mineral

Resources and Ore Reserves" (JORC Code). Mr Ferguson consents to the inclusion in the report of the matters based upon the 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\*\*

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#### About Savannah

Savannah is 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. The Board is committed to serving the interests of its shareholders and to delivering outcomes that will improve the lives of our staff and the communities we work with.

The Company is listed and regulated on AIM and the Company's ordinary shares are also available on the Quotation Board of the Frankfurt Stock Exchange (FWB) under the symbol FWB: AFM, and the Börse Stuttgart (SWB) under the ticker "SAV".

## **APPENDIX 1: DETAILED MINERAL RESOURCE TABLES**

# Grandao September 2018 Mineral Resource Estimate 0.5% Li<sub>2</sub>O Cut-off

#### **Total Mineral Resource**

Bench	Measured M	lineral Res	source	Indicated I	Mineral Re	source	Inferred M	lineral Res	source	То	tal Minera	I resource	
Тор	Tonnes	Li₂O	Fe <sub>2</sub> O <sub>3</sub>	Tonnes	Li₂O	Fe <sub>2</sub> O <sub>3</sub>	Tonnes	Li₂O	Fe <sub>2</sub> O <sub>3</sub>	Tonnes	Li₂O	Fe <sub>2</sub> O <sub>3</sub>	Li₂O
RL	t	%	%	t	%	%	t	%	%	t	%	%	Tonnes
600													
590				40,000	0.66	1.4				40,000	0.66	1.4	300
580	17,000	1.17	1.6	181,000	0.75	1.4	3,000	0.58	1.5	201,000	0.78	1.5	1,600
570	194,000	1.14	1.3	233,000	0.80	1.3	12,000	0.60	1.4	439,000	0.94	1.3	4,200
560	226,000	1.03	1.1	176,000	0.77	1.3	24,000	0.66	1.4	426,000	0.90	1.2	3,800
550	215,000	1.01	1.2	177,000	0.74	1.4	39,000	0.70	1.4	431,000	0.87	1.3	3,800
540	296,000	1.01	1.2	177,000	0.74	1.4	53,000	0.85	1.5	527,000	0.90	1.3	4,700
530	352,000	0.94	1.1	243,000	0.73	1.4	65,000	0.90	1.6	659,000	0.86	1.3	5,700
520	451,000	0.91	1.2	264,000	0.80	1.4	78,000	0.93	1.6	793,000	0.88	1.3	6,900
510	427,000	0.95	1.3	223,000	0.85	1.4	135,000	1.00	1.6	785,000	0.93	1.4	7,300
500	401,000	0.97	1.3	296,000	0.90	1.4	201,000	1.03	1.6	898,000	0.96	1.4	8,600
490	332,000	1.15	1.3	360,000	1.00	1.5	222,000	1.03	1.7	915,000	1.06	1.5	9,700
480	318,000	1.25	1.4	291,000	0.97	1.8	210,000	1.03	1.8	819,000	1.09	1.6	8,900
470	378,000	1.11	1.4	331,000	0.90	1.9	231,000	0.96	1.8	940,000	1.00	1.7	9,400
460	457,000	1.17	1.3	317,000	0.95	1.6	245,000	0.99	1.7	1,018,000	1.06	1.5	10,800
450	518,000	1.21	1.3	219,000	1.00	1.3	284,000	0.95	1.6	1,021,000	1.09	1.4	11,200
440	416,000	1.22	1.3	168,000	0.98	1.2	292,000	0.98	1.3	876,000	1.10	1.3	9,600
430	275,000	1.21	1.3	132,000	1.04	1.2	304,000	0.97	1.2	711,000	1.08	1.3	7,700
420	143,000	1.08	1.8	165,000	1.16	1.2	293,000	1.01	1.3	600,000	1.07	1.4	6,400
410	62,000	0.86	2.1	217,000	1.22	1.3	289,000	1.00	1.3	568,000	1.07	1.4	6,100
400	27,000	0.83	1.7	213,000	1.18	1.3	302,000	1.05	1.3	542,000	1.09	1.3	5,900
390	6,000	0.95	1.2	183,000	1.12	1.2	335,000	1.14	1.3	524,000	1.13	1.3	5,900
380				144,000	1.09	1.2	383,000	1.21	1.3	527,000	1.18	1.3	6,200
370				89,000	1.05	1.2	453,000	1.25	1.3	542,000	1.22	1.3	6,600
				35,000	0.90	1.2	510,000	1.26	1.3	546,000	1.23	1.3	6,700
				4,000	0.91	1.2	473,000	1.23	1.3	477,000	1.23	1.3	5,900
							348,000	1.23	1.3	348,000	1.23	1.3	4,300
							178,000	1.20	1.2	178,000	1.20	1.2	2,100
							77,000	1.21	1.2	77,000	1.21	1.2	900
							16,000	1.21	1.2	16,000	1.21	1.2	200
Total	5,511,000	1.08	1.3	4,881,000	0.93	1.4	6,054,000	1.09	1.4	16,445,000	1.04	1.4	171,400

#### APPENDIX 2 – 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	Nature and quality of sampling (e.g. cut channels, random chips, or specific specialised industry standard measurement tools appropriate to the minerals under investigation, such as down hole gamma sondes, or handheld XRF instruments, etc). These examples should not be taken as limiting the broad meaning of sampling.	<ul> <li>Reverse circulation (120mm size) samples were taken at 1 intervals for pegmatite. In early drilling the schist as sampled in 4m composites. In recent drilling the schist 5m either side of the pegmatite was sampled at 1m intervals with the rest of schist remaining unsampled. 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> <li>Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.</li> </ul>	<ul> <li>Drilling was conducted using RC drilling technology on a nominal 40m by 60m spacing with selected infill to 20m by 40m spacings.</li> <li>Collar surveys are carried using differential GPS with an accuracy to within 0.2m.</li> <li>A downhole survey for each hole was completed using gyro equipment</li> </ul>
	<ul> <li>Aspects of the determination of mineralisation that are Material to the Public Report.</li> <li>In cases where 'industry standard' work has been done this would be relatively simple (e.g. 'reverse circulation drilling was used to obtain 1 m samples from which 3 kg was pulverised to produce a 30 g charge for fire assay'). In other cases more explanation may be required, such as where there is coarse gold that has inherent sampling problems. Unusual commodities or mineralisation types (e.g. submarine nodules) may warrant disclosure of detailed information.</li> </ul>	<ul> <li>The lithium mineralisation is predominantly in the form of Spodumene-bearing pegmatites, the pegmatites are unzoned and vary in true thickness from 10m-60m.</li> <li>Down hole sampling is carried out on either a 1 or 4m interval from which 4-6kg of pulverised material (RC) was pulverised to produce a 50g charge for assaying</li> </ul>
Drilling techniques	• Drill type (e.g. core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc) and details (e.g. core diameter, triple or standard tube, depth of diamond tails, face-sampling bit or other type, whether core is oriented and if	<ul> <li>RC drilling used a 120mm bit diameter.</li> <li>Core drilling was carried out using an HQ triple tube core barrel</li> </ul>

Criteria	JORC Code explanation	Commentary
	so, by what method, etc).	
Drill sample recovery	• Method of recording and assessing core and chip sample recoveries and results assessed.	<ul> <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.</li> <li>Diamond drilling has measured core recovery</li> </ul>
	<ul> <li>Measures taken to maximise sample recovery and ensure representative nature of the samples.</li> </ul>	<ul> <li>RC drilling sample weights were monitored to ensure samples were maximised. 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> <li>Core recovery was measured and was found to be generally excellent.</li> </ul>
	• 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.	No obvious relationships
Logging	<ul> <li>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.</li> <li>Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.</li> <li>The total length and percentage of the relevant intersections logged.</li> </ul>	<ul> <li>RC holes were logged in the field at the time of sampling.</li> <li>Each 1m sample interval was carefully homogenised and assessed for lithology, colour, grainsize, structure and mineralisation.</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> <li>Core was fully logged and photographed.</li> </ul>
Sub-sampling techniques and sample preparation	<ul> <li>If core, whether cut or sawn and whether quarter, half or all core taken.</li> <li>If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.</li> </ul>	<ul> <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 sample to maximise representivity of the sample.</li> <li>Core was cut in half using a diamond saw with 1m half core samples submitted for analysis</li> </ul>
	• For all sample types, the nature, quality and appropriateness of the sample preparation technique.	The sampling was conducted using industry standard techniques and were considered appropriate

Criteria	JORC Code explanation	Commentary
	• Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.	• Field duplicates were used to test repeatability of the sub-sampling and were found to be satisfactory
	• 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.	<ul> <li>Every effort was made to ensure that the samples were representative and not biased in any way</li> </ul>
	• Whether sample sizes are appropriate to the grain size of the material being sampled.	<ul> <li>All RC 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 if required.</li> </ul>
Quality of assay data and laboratory tests	The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.	<ul> <li>Samples were received, sorted, labelled and dried</li> <li>Samples were crushed to 70% less than 2mm, riffle split off 250g, pulverise 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 utilising 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-element interferences.</li> <li>The final solution is then analysed by ICP-MS, with results corrected for spectral inter-element interferences.</li> </ul>
	• 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.	Not used

Criteria	JORC Code explanation	Commentary
	Nature of quality control procedures adopted (e.g. standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (i.e. lack of bias) and precision	<ul> <li>Standards/blanks and duplicates were inserted on a 1:20 ratio.</li> <li>Duplicate sample regime is used to monitor sampling methodology and homogeneity.</li> </ul>
	have been established.	<ul> <li>A powder chip tray for the entire hole is completed for RC drilling. 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 were inside reasonable tolerance levels.</li> </ul>
Verification of sampling and assaying	<ul> <li>The verification of significant intersections by either independent or alternative company personnel.</li> </ul>	All information was internally audited by company personnel
	• The use of twinned holes.	• Several historical holes were twinned for comparison purposes with the modern drilling.
	• Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.	<ul> <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 centralised 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>

Criteria	JORC Code explanation	Commentary
	Discuss any adjustment to assay data.	• Results were reported as Li(ppm) and were converted to a percentage by dividing by 10,000 and then to Li2O% by multiplying by 2.153
Location of data points	<ul> <li>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.</li> <li>Specification of the grid system used.</li> <li>Quality and adequacy of topographic control.</li> </ul>	<ul> <li>The coordinate of each drill hole was taken at the time of drilling using a handheld GPS with an accuracy of 5m. All collars were subsequently surveyed using DGPS with an accuracy of 0.2m.</li> <li>The grid system used is WSG84</li> <li>An accurate, aerial topographic survey was obtained with accuracy of +/- 0.5m</li> </ul>
Data spacing and distribution	<ul> <li>Data spacing for reporting of Exploration Results.</li> <li>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.</li> <li>Whether sample compositing has been applied.</li> </ul>	<ul> <li>Drilling was on a nominal 60m by 40m spacing and based on geological targets with selected infill to 20m by 40m.</li> <li>Drill data is at sufficient spacing to define Measured, Indicated and Inferred Mineral Resource.</li> <li>No compositing has been applied to samples in the mineralised zones other than for estimation.</li> </ul>
Orientation of data in relation to geological structure	<ul> <li>Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.</li> <li>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.</li> </ul>	<ul> <li>Drilling was orientated perpendicular to the known strike of the pegmatites</li> <li>Drill holes were generally orientated at -90° with a small number of holes at -60° depending on the dip of the pegmatite in an attempt to drill holes as close to true width as possible.</li> </ul>
Sample security	• The measures taken to ensure sample security.	• Samples were delivered to a courier and chain of custody is managed by Savannah.
Audits or reviews	• The results of any audits or reviews of sampling techniques and data.	<ul> <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
Mineral tenement and land tenure status	<ul> <li>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.</li> <li>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.</li> </ul>	<ul> <li>All work was completed inside the Mina do Barroso project C-100.</li> <li>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. This expansion and re-definition of the boundary is currently underway in the Reservatorio area and as a result potential mineralisation in the area has been included into the previously reported exploration target</li> </ul>
Exploration done by other parties	• Acknowledgment and appraisal of exploration by other parties.	• N/A
Geology	• Deposit type, geological setting and style of mineralisation.	<ul> <li>The lithium mineralisation 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 vary in thickness from 10m- 60m true width.</li> </ul>
Drill hole Information	<ul> <li>A summary of all information material to the understanding of the exploration results including a tabulation of the following information for all Material drill holes:         <ul> <li>easting and northing of the drill hole collar</li> <li>elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar</li> <li>dip and azimuth of the hole</li> <li>down hole length and interception depth</li> <li>hole length.</li> </ul> </li> </ul>	<ul> <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>

Criteria	JORC Code explanation	Commentary
	• If the exclusion of this information is justified on the basis that the information is not Material and this exclusion does not	
	detract from the understanding of the report, the Competent	
	Person should clearly explain why this is the case.	
Data	In reporting Exploration Results, weighting averaging	• No new exploration results have been reported in this release.
aggregation	techniques, maximum and/or minimum grade truncations	
methods	(e.g. cutting of high grades) and cut-off grades are usually	
	Material and should be stated.	
	• Where aggregate intercepts incorporate short lengths of high	
	grade results and longer lengths of low grade results, the	
	procedure used for such aggregation should be stated and	
	some typical examples of such aggregations should be shown	
	in detail.	
	• The assumptions used for any reporting of metal equivalent	
	values should be clearly stated.	
Relationship	• These relationships are particularly important in the reporting	<ul> <li>Exploration results are reported as down hole intercepts</li> </ul>
between	of Exploration Results.	The generally vertical drill holes at Grandao intersect the shallow
mineralisation	• If the geometry of the mineralisation with respect to the drill	dipping mineralisation at a high angle, so down hole lengths are
widths and	hole angle is known, its nature should be reported.	similar to true thickness for most intersections.
intercept	• If it is not known and only the down hole lengths are reported,	
lengths	there should be a clear statement to this effect (e.g. 'down	
	hole length, true width not known').	
Diagrams	Appropriate maps and sections (with scales) and tabulations	Relevant diagrams and maps have been included in the main body
	of intercepts should be included for any significant discovery	of the release.
	being reported These should include, but not be limited to a	
	plan view of drill hole collar locations and appropriate	
	sectional views.	
Balanced	• Where comprehensive reporting of all Exploration Results is	All relevant results available have been previously reported.
reporting	not practicable, representative reporting of both low and high	
	grades and/or widths should be practiced to avoid misleading	
	reporting of Exploration Results.	
Other	Other exploration data, if meaningful and material, should be	The interpretation of the results is consistent with the observations
substantive	reported including (but not limited to): geological	

Criteria	JORC Code explanation	Commentary
exploration data	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.	and information obtained from the data collected.
Further work	<ul> <li>The nature and scale of planned further work (e.g. tests for lateral extensions or depth extensions or large-scale step-out drilling).</li> <li>Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.</li> </ul>	<ul> <li>Further rock chip sampling, channel sampling and RC drilling is planned</li> <li>Ongoing technical evaluation to support a scoping study.</li> </ul>

# Section 3 Estimation and Reporting of Mineral Resources

Criteria	JORC Code explanation	Commentary
Database	• Measures taken to ensure that data has not been corrupted by, for	• The assay data was captured electronically to prevent transcription errors.
integrity	example, transcription or keying errors, between its initial collection and	Validation included visual review of results.
	its use for Mineral Resource estimation purposes.	
	Data validation procedures used.	
Site visits	• Comment on any site visits undertaken by the Competent Person and	• Numerous site visits were undertaken by Dale Ferguson in 2017-18 which included
	the outcome of those visits.	an inspection of the drilling process, outcrop area and confirmation that no
	• If no site visits have been undertaken indicate why this is the case.	obvious impediments to future exploration or development were present.
		• A site visit by Paul Payne was undertaken in April 2018 to confirm geological
		interpretations, drilling and sampling procedures and general site layout.
Geological	• Confidence in (or conversely, the uncertainty of) the geological	• The pegmatite dykes hosting the Grandao are well defined in outcrop and in
interpretation	interpretation of the mineral deposit.	drilling and boundaries are generally very sharp and distinct.
	Nature of the data used and of any assumptions made.	• The shape and extent of the >0.5% Li <sub>2</sub> O mineralisation is clearly controlled by the
	• The effect, if any, of alternative interpretations on Mineral Resource	general geometry of the pegmatites.
	estimation.	• Zonation of lithium within the pegmatite is evident, and typically the margins are
	• The use of geology in guiding and controlling Mineral Resource	weakly mineralised.

Criteria	JORC Code explanation	Commentary
	estimation.	• Xenoliths or inliers of barren schist country rock occur within the pegmatite, and these have been excluded from the estimate where large enough to model.
	• The factors affecting continuity both of grade and geology.	
Dimensions	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.	<ul> <li>The Grandao upper pegmatite has a drilled extent of 600m NS and 700m EW and a maximum vertical depth of 200m. The thickness of the mineralisation ranges from 10m to 60m.</li> <li>The Grandao lower pegmatite has a modelled strike extent of 320m NS and a dip extent of 230m and a maximum vertical depth of 160m. The true thickness of the mineralisation ranges from 15m to 20m.</li> </ul>
Estimation and	<ul> <li>Ine nature and appropriateness of the estimation technique(s) applied and key assumptions, including tractment of outcome are do unlike</li> </ul>	Ordinary kriging (main pegmatites) and inverse distance squared (minor zones)     was used to estimate average block grades within the resources
techniques	and key assumptions, including treatment of extreme grade values,	• Surpas software was used for the estimation
	<ul> <li>extrapolation from data points. If a computer assisted estimation method was chosen include a description of computer software and parameters used.</li> <li>The availability of check estimates, previous estimates and/or mine</li> </ul>	<ul> <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 other than a 55ppm cut for Ta.</li> <li>At Grandao the parent block dimensions were 10m EW by 20m NS by 5m vertical</li> </ul>
	production records and whether the Mineral Resource estimate takes appropriate account of such data.	with sub-cells of 2.5m by 5m by 2.5m. Cell size was based on KNA and is approximately 50% of the average drill hole spacing
	• The assumptions made regarding recovery of by-products.	<ul> <li>The previous resource estimate for Grandao was reported in April 2018.</li> </ul>
	<ul> <li>Estimation of deleterious elements or other non-grade variables of economic significance (e.g. sulphur for acid mine drainage characterisation).</li> <li>In the case of block model interpolation, the block size in relation to the</li> </ul>	<ul> <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%.</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> </ul>
	average sample spacing and the search employed.	• A search of 60m was used with a minimum of 10 samples and a maximum of 24
	• Any assumptions behind modelling of selective mining units.	samples which resulted in 63% of blocks being estimated. The remaining blocks
	Any assumptions about correlation between variables.	were estimated with search radii of 120m and 240m.
	Description of now the geological interpretation was used to control the resource estimates.	• 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
	• Discussion of basis for using or not using grade cutting or capping.	geometry.
	• The process of validation, the checking process used, the comparison of model data to drill hole data, and use of reconciliation data if available.	• The deposit mineralisation was constrained by wireframes prepared using a 0.5% Li <sub>2</sub> O grade envelope.
		• For validation, quantitative spatial comparison of block grades to assay grades was

Criteria	JORC Code explanation	Commentary
Moisture	• Whether the tonnages are estimated on a dry basis or with natural	<ul> <li>carried out using swath plots;</li> <li>Global comparisons of drill hole and block model grades were also carried out.</li> <li>Tonnages and grades were estimated on a dry in situ basis. No moisture values</li> </ul>
	moisture, and the method of determination of the moisture content.	were reviewed.
Cut-off parameters	• The basis of the adopted cut-off grade(s) or quality parameters applied.	• The shallow, outcropping nature of the deposit and in particular the flat lying, shallow geometry of the upper pegmatite 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.
Mining factors or assumptions	<ul> <li>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.</li> </ul>	<ul> <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>
Metallurgical factors or assumptions	• The basis for assumptions or predictions regarding metallurgical amenability. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider 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.	<ul> <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> <li>Additional metallurgical test work is currently underway.</li> </ul>
Environmental factors or assumptions	• Assumptions made regarding possible waste and process residue disposal options. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider the potential environmental impacts of the mining and processing operation. While at this stage the determination of potential environmental impacts, particularly for a greenfields project, may not	<ul> <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
	always be well advanced, the status of early consideration of thes potential environmental impacts should be reported. Where thes aspects have not been considered this should be reported with a explanation of the environmental assumptions made.	e e 1
Bulk density	<ul> <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 method that adequately account for void spaces (vugs, porosity, etc), moistur and differences between rock and alteration zones within the deposit.</li> <li>Discuss assumptions for bulk density estimates used in the evaluatio process of the different materials.</li> </ul>	<ul> <li>Bulk density determinations were carried out on 1,233 core samples. Bulk density values applied to the estimates were 2.5t/m3 for transitional lithologies, 2.65t/m3 for unoxidised pegmatite and 2.7t/m3 for unoxidised schist.</li> </ul>
Classification	<ul> <li>The basis for the classification of the Mineral Resources into varyin confidence categories.</li> <li>Whether appropriate account has been taken of all relevant factors (i.e relative confidence in tonnage/grade estimations, reliability of inpudata, confidence in continuity of geology and metal values, quality quantity and distribution of the data).</li> <li>Whether the result appropriately reflects the Competent Person's view of the deposit.</li> </ul>	<ul> <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 portion of the deposit defined by 40m by 20m to 40m by 40m drilling and showing excellent continuity of geology and Li2O grade has been reported as Measured Mineral Resource.</li> <li>The portion of the deposit defined by 40m by 40m to 80m by 80m drilling has been reported as Indicated Mineral Resource.</li> <li>The remainder of the Mineral Resource was classified as Inferred due the sparse drilling. Inferred Mineral Resource was extrapolated up to 120m past drill hole intersections.</li> <li>The classification has been reviewed by the Competent Person and the results reflect the view of the Competent Person.</li> </ul>
Audits or reviews	• The results of any audits or reviews of Mineral Resource estimates.	• The Mineral Resource estimate has been checked by an internal audit procedure.
Discussion of relative accuracy/ confidence	• Where appropriate a statement of the relative accuracy and confidence level in the Mineral Resource estimate using an approach or procedur deemed appropriate by the Competent Person. For example, th application of statistical or geostatistical procedures to quantify th relative accuracy of the resource within stated confidence limits, or,	<ul> <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 detailed drilling. The deposit is considered to have been estimated with a high level of accuracy.</li> <li>The Mineral Resource statement relates to global estimates of tonnes and grade.</li> </ul>

Criteria	JORC Code explanation	Commentary
	such an approach is not deemed appropriate, a qualitative discussion o	• There is no historic production data to compare with the Mineral Resource.
	the factors that could affect the relative accuracy and confidence of the	
	estimate.	
	• The statement should specify whether it relates to global or loca	
	estimates, and, if local, state the relevant tonnages, which should be	
	relevant to technical and economic evaluation. Documentation should	
	include assumptions made and the procedures used.	
	• These statements of relative accuracy and confidence of the estimate	
	should be compared with production data, where available.	