



Major resource expansion drilling program commences at Kathleen Valley Lithium Project, WA

16,000m Reverse Circulation (RC) drilling program designed to further expand and upgrade the current 21.2Mt high-grade lithium-tantalum Resource

HIGHLIGHTS

- Previous work has delineated a maiden Mineral Resource estimate of 21.2Mt @ 1.4% Li₂O and 170ppm Ta₂O₅, 75% of which is in the higher-confidence Measured and Indicated categories.
- Scoping Study based on this Resource confirms the potential to develop a commercially viable, standalone mining operation.
- Optimisation work indicates that the conceptual open pits in the Scoping Study are constrained by limit of drill data.
- New drilling program to commence in early February 2019 targeting immediate extensions of the current Mineral Resource.

Further to the highly encouraging Scoping Study results released this week for its 100%-owned Kathleen Valley Lithium-Tantalum Project (see ASX release dated 29th January 2019), Liontown Resources (ASX: LTR; "Liontown") is pleased to announce the commencement of a major new resource expansion drilling program.

The results of the Scoping Study have confirmed the potential of the Kathleen Valley Project to support a viable, standalone 2Mtpa mining and processing operation based on the maiden Measured, Indicated and Inferred Resource of 21.2Mt @ 1.4% Li₂O and 170ppm Ta₂O₅, announced in September last year (see ASX release dated 4th September 2018).

Optimisation work completed as part of the Scoping Study indicates that the proposed open pits are largely constrained by the available drill data and that further drilling is warranted to expand the Mineral Resource.

As a result, the Liontown Board has approved the commencement of further studies to support a Feasibility Study, as well as a new drilling programme aimed at significantly expanding the current Mineral Resource estimate.

A resource extension Exploration Target of **8.5 – 16Mt @ 1.2 – 1.5% Li₂O** has been defined based on testing immediate extensions of the current Mineral Resource estimate (*see Figure 1/Table 1*).

The potential grade and tonnage of the Exploration Target is conceptual in nature and there has been insufficient exploration to estimate an expanded Mineral Resource. It is uncertain if further exploration will result in the estimation of an expanded Mineral Resource. See Table 1 for full explanation of assumptions used to estimate ranges.

Results from the upcoming drilling program will be used to prepare an updated Mineral Resource estimate which will then be incorporated into ongoing feasibility studies. An increased Mineral Resource may substantially add to the current 8-9 year mine life indicated by the Scoping Study, which determined an optimal mining rate of 2Mtpa of ore.

The drilling program is scheduled to commence in early February 2019 and will comprise 90-100 RC holes for a total of 16,000m. Drilling will be undertaken by two rigs and it is estimated it will take 2-3 months to complete.

The program will be divided into two phases, with an initial phase designed to confirm the continuity of mineralised pegmatites and a second phase that will infill the drill spacing to 50 x 50m, which will enable the preparation of an updated Mineral resource estimate.

The planned drilling is also designed to upgrade existing Inferred Mineral Resources to Measured and Indicated.



DAVID RICHARDS

Managing Director

29th January 2019

The Information in this report that relates to the Scoping Study for the Kathleen Valley Project is extracted from the ASX announcement "Kathleen Valley Scoping Study confirms potential for robust new WA lithium mine development" released on the 29th January 2019 which is available on www.ltresources.com.au.

The Information in this report that relates to Metallurgy for the Kathleen Valley Project is extracted from the ASX announcement "Highly encouraging results from initial metallurgical test work at the Kathleen Valley Lithium-Tantalum Project, WA" released on the 12th November 2018 which is available on www.ltresources.com.au.

The Information in this report that relates to Mineral Resources for the Kathleen Valley Project is extracted from the ASX announcement "Maiden 21 million tonne Lithium-Tantalum Mineral Resource sets strong growth foundation for Liontown at Kathleen Valley" released on the 4th September 2018 which is available on www.ltresources.com.au.

The Information in this report that relates to Exploration Targets is based on and fairly represents information and supporting documentation prepared by Mr David Richards, who is a Competent Person and a member of the Australasian Institute of Geoscientists (AIG). Mr Richards is a full-time employee of the company. The potential tonnage and grade ranges are conceptual in nature and there has been insufficient exploration to estimate a Mineral Resource. It is uncertain if further exploration will result in the estimation of a Mineral Resource.

The Company confirms that it is not aware of any new information or data that materially affects the information included in the original market announcement and that all material assumptions and technical parameters underpinning the estimates in the relevant market announcement continue to apply and have not materially changed. The company confirms that the form and context in which the Competent Person's findings are presented have not been materially modified from the original market announcement.

This announcement contains forward-looking statements which involve a number of risks and uncertainties. These forward-looking statements are expressed in good faith and believed to have a reasonable basis. These statements reflect current expectations, intentions or strategies regarding the future and assumptions based on currently available information. Should one or more of the risks or uncertainties materialise, or should underlying assumptions prove incorrect, actual results may vary from the expectations, intentions and strategies described in this announcement. No obligation is assumed to update forward looking statements if these beliefs, opinions and estimates should change or to reflect other future developments.

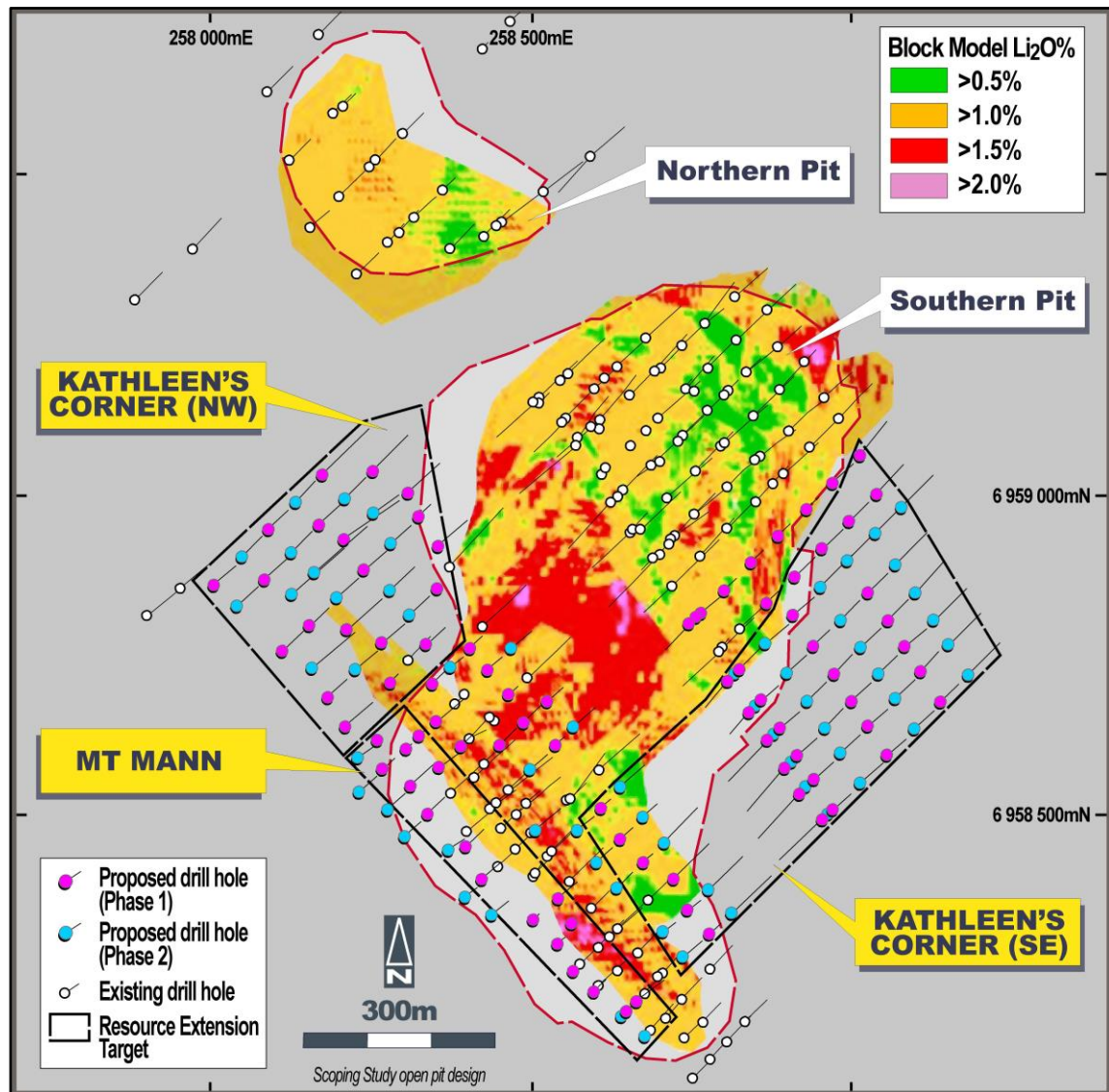


Figure 1: Kathleen Valley Lithium-Tantalum Project – Plan show surface projection of Li₂O block model used to prepare maiden Mineral Resource Estimate and immediate extensions to be tested by further RC drilling.

Table 1: Kathleen Valley Project – Exploration target parameters and assumptions

Parameter	Mt Mann	Kathleen's Corner (NW)	Kathleen's Corner (SE)	Rationale
Combined strike length of pegmatites	700 – 800m	300	200	Based on previous drilling and extrapolation of block model used in preparation of maiden Mineral Resource Estimate (released 4 th September 2018)
Average cumulative true width	12 – 20m	12 -18m	10 - 15m	
Down Dip extent	100 – 125m	250 – 350m	500 - 600m	
Specific gravity	2.75	2.75	2.75	Measured from diamond core drilling
Total tonnage	2.3 – 5.5Mt	2.5 – 5.2Mt	4.1 – 5.0Mt	Strike x width x dip x S.G
Average grade	1.2 – 1.5%	1.2 – 1.5%	1.2 – 1.5%	Based on maiden Mineral Resource Estimate

APPENDIX 1 – JORC Code 2012 Table 1 Criteria

The table below summaries the assessment and reporting criteria used for the Kathleen's Corner and Mt Mann deposits, Kathleen Valley Lithium Project Mineral Resource estimate and reflects the guidelines in Table 1 of *The Australasian Code for the Reporting of Exploration Results, Mineral Resources and Ore Reserves* (the JORC Code, 2012).

Section 1 Sampling Techniques and Data

Criteria	JORC Code explanation	Commentary
Sampling techniques	<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>	<ul style="list-style-type: none"> Sub-surface samples have been collected by reverse circulation (RC) and diamond core drilling techniques (see below). Drillholes are oriented perpendicular to the interpreted strike of the mineralised trend except in rare occasions where limited access necessitates otherwise.
	<p><i>Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.</i></p> <p><i>Aspects of the determination of mineralisation that are Material to the Public Report.</i></p> <p><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 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 (eg submarine nodules) may warrant disclosure of detailed information.</i></p>	<ul style="list-style-type: none"> RC samples are collected by the metre from the drill rig cyclone as two 1 m cone split samples in calico bags and a bulk sample in plastic mining bags. The 1 m samples from the cyclone are retained for check analysis. Only samples of pegmatite and adjacent wall rock (~4 m) are collected for assay. Diamond core has been sampled in intervals of ~ 1 m (up to 1.18 m) where possible, otherwise intervals less than 1 m have been selected based on geological boundaries. Geological boundaries have not been crossed by sample intervals.
Drilling techniques	<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-</i>	Drilling techniques used at Kathleen Valley comprise:

Criteria	JORC Code explanation	Commentary
	<i>sampling bit or other type, whether core is oriented and if so, by what method, etc).</i>	<ul style="list-style-type: none"> Reverse Circulation (RC/5.5") with a face sampling hammer HQ Diamond Core, standard tube to a depth of ~200-250 m. PQ Diamond Core, standard tube to a depth of ~200m. Diamond core holes drilled directly from surface or from bottom of RC precollars. Core orientation was provided by an ACT REFLEX (ACT II RD) tool.
Drill sample recovery	<i>Method of recording and assessing core and chip sample recoveries and results assessed.</i>	<ul style="list-style-type: none"> Sample recoveries are estimated for RC by correlating sample heights in the green mining bag to estimate a recovery for each metre. For diamond core the recovery is measured and recorded for every metre.
	<i>Measures taken to maximise sample recovery and ensure representative nature of the samples.</i>	<ul style="list-style-type: none"> RC drill collars are sealed to prevent sample loss and holes are normally drilled dry to prevent poor recoveries and contamination caused by water ingress. Wet intervals are noted in case of unusual results. For diamond core loss, core blocks have been inserted in sections where core loss has occurred. This has then been written on the block and recorded during the logging process and with detailed photography of dry and wet core.
	<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>	<ul style="list-style-type: none"> It has been demonstrated that no relationship exists between sample recovery and grade. No grade bias was observed with sample size variation.
Logging	<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>	<ul style="list-style-type: none"> All RC drillholes are logged on 1 m intervals and the following observations recorded: <ul style="list-style-type: none"> Recovery, quality (i.e. degree of contamination), wet/dry, hardness, colour, grainsize, texture, mineralogy, lithology, structure type and intensity, pegmatite and vein type and %, lithium mineralogy and %, alteration assemblage, UV fluorescence. Diamond core is logged in its entirety as per detailed geological description listed above. Geotechnical logging has been completed for the entire hole.
	<i>Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.</i>	<ul style="list-style-type: none"> Logging is quantitative, based on visual field estimates. Diamond core is photographed post metre marking, for the entire length of the hole, two trays at a time, wet and dry.
	<i>The total length and percentage of the relevant intersections logged.</i>	<ul style="list-style-type: none"> Holes are logged in their entirety.
Sub-sampling techniques and sample preparation	<i>If core, whether cut or sawn and whether quarter, half or all core taken.</i>	<ul style="list-style-type: none"> The core has been cut in half and then quartered for sample purposes. Half core will be used for metallurgical studies with the remaining quarter stored as a library sample. Density measurements have been taken on all quarter core samples using the Archimedes method.
	<i>If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.</i>	<ul style="list-style-type: none"> RC samples are collected as rotary split samples. Samples are typically dry.
	<i>For all sample types, the nature, quality and appropriateness of the sample preparation technique.</i>	<ul style="list-style-type: none"> Sample preparation follows industry best practice standards and is conducted by internationally recognised laboratories; i.e. <ul style="list-style-type: none"> Oven drying, jaw crushing and

Criteria	JORC Code explanation	Commentary
		pulverising so that 80% passes -75 microns.
	<i>Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.</i>	<ul style="list-style-type: none"> Duplicates and blanks submitted approximately every 1/20 samples. Standards are submitted every 20 samples or at least once per hole. Cross laboratory checks and blind checks have been used at a rate of 5%.
	<i>Measures taken to ensure that the sampling is representative of the in situ material collected, including for instance results for field duplicate/second-half sampling.</i>	<ul style="list-style-type: none"> Measures taken include: <ul style="list-style-type: none"> regular cleaning of cyclones and sampling equipment to prevent contamination industry standard insertion of standards, blanks and duplicate samples Analysis of duplicates (field, laboratory and umpire) was completed and no issues identified with sampling representatively. Analysis of results from blanks and standards indicates no issues with contamination (or sample mix-ups) and a high level of accuracy.
	<i>Whether sample sizes are appropriate to the grain size of the material being sampled.</i>	<ul style="list-style-type: none"> Sample size is considered appropriate for the stage of exploration
Quality of assay data and laboratory tests	<i>The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.</i>	<ul style="list-style-type: none"> Initial assaying (2017) completed by ALS Perth. Subsequent assaying (2018) completed by Nagrom laboratories Perth. Both laboratories use industry standard procedures for rare metals such as Li and Ta. Analytical techniques are total.
	<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>	<ul style="list-style-type: none"> None used.
	<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>	<ul style="list-style-type: none"> Duplicates and blanks submitted approximately every 20 samples. Standards are submitted every 20 samples or at least once per hole. Cross laboratory checks and blind checks have been used at a rate of 5%. Analysis of reference blanks, standards and duplicate samples show the data to be of acceptable accuracy and precision for the Mineral Resource estimation and classification applied.
Verification of sampling and assaying	<i>The verification of significant intersections by either independent or alternative company personnel.</i>	<ul style="list-style-type: none"> Internal review by alternate company personnel.
	<i>The use of twinned holes.</i>	<ul style="list-style-type: none"> Six diamond holes are twins of existing RC drillholes. Results compare well with the original RC drillholes.
	<i>Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.</i>	<ul style="list-style-type: none"> Drilling and logging data is entered directly into Microsoft Excel spreadsheets onsite while drilling is ongoing. Data is then entered into Access Database and validated before being processed by industry standard software packages such as MapInfo and Micromine. Representative chip samples are collected for later reference.
	<i>Discuss any adjustment to assay data.</i>	<ul style="list-style-type: none"> Li% is converted to Li₂O% by multiplying by 2.15, Ta ppm is converted to Ta₂O₅ ppm by multiplying by 1.22.
Location of data points	<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>	<ul style="list-style-type: none"> All drillholes and geochemical samples are initially located using a handheld GPS and subsequently surveyed with DGPS.

Criteria	JORC Code explanation	Commentary
		<ul style="list-style-type: none"> All RC drillholes have been surveyed by a multi-shot digital downhole camera provided by the drilling contractor. All diamond drillholes have been surveyed with a REFLEX EZI-SHOT (1001) magnetic single shot camera.
	<i>Specification of the grid system used.</i>	<ul style="list-style-type: none"> GDA 94 Zone 51
	<i>Quality and adequacy of topographic control.</i>	<ul style="list-style-type: none"> Initial collar elevations are based on regional topographic dataset and GPS. Drillhole collars are surveyed post drilling with DGPS.
Data spacing and distribution	<i>Data spacing for reporting of Exploration Results.</i>	<ul style="list-style-type: none"> Varies due to initial drill programmes largely designed to test the down-dip potential of mineralised outcrops. The drill section spacing is 40 m to 100 m and on-section spacing is generally 30 m to 60 m.
	<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>	<ul style="list-style-type: none"> The data spacing and distribution is sufficient to establish the degree of geological and grade continuity appropriate for the Mineral Resource estimation and classification applied.
	<i>Whether sample compositing has been applied.</i>	<ul style="list-style-type: none"> None undertaken.
Orientation of data in relation to geological structure	<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>	<ul style="list-style-type: none"> Drilling is typically oriented perpendicular to the interpreted strike of mineralisation. KVRC0015 was oriented at 45° to strike due to access issues and the need to test the main outcrop zone.
	<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>	<ul style="list-style-type: none"> Drilling orientation intersects the mineralisation at appropriate angles so as to be mostly unbiased and suitable for resource estimation of the major pegmatite bodies.
Sample security	<i>The measures taken to ensure sample security.</i>	<ul style="list-style-type: none"> Sample security is not considered to be a significant risk given the location of the deposit and bulk-nature of mineralisation. Nevertheless, the use of recognised transport providers, sample dispatch procedures directly from the field to the laboratory, and the large number of samples are considered sufficient to ensure appropriate sample security. Company geologist supervises all sampling and subsequent storage in field. The same geologist arranges delivery of samples to Nagrom laboratories in Perth via courier.
Audits or reviews	<i>The results of any audits or reviews of sampling techniques and data.</i>	<ul style="list-style-type: none"> An expert competent person review has been completed by Michelle Wild of Wildfire Resources Pty Ltd on the resource drilling, sampling protocols and data. This included a laboratory visit to Nagrom. Results have not indicated any significant discrepancies.

Section 2 Reporting of Exploration Results

Criteria	JORC Code explanation	Commentary
Mineral tenement and land tenure status	<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>	<ul style="list-style-type: none"> The Kathleen Valley Project is located ~680 km NE of Perth and ~45 km NNW of Leinster in Western Australia. The Project comprises four granted mining leases - MLs 36/264, 265, 459, 460 and one Exploration License - E36/879. The mining leases (MLs) and rights to pegmatite hosted rare-metal mineralisation were acquired from Ramelius Resources Limited via a Sales Agreement completed in 2016. The MLs have been transferred to LRL (Aust) Pty Ltd, a wholly owned subsidiary of Liontown Resources Limited (Liontown). Ramelius acquired 100% of the Kathleen Valley Project MLs in June 2014 from Xstrata Nickel Operations Pty Ltd (Xstrata). Xstrata retains rights to any nickel discovered over the land package via an Offtake and Clawback Agreement. Ramelius retains the rights to gold on the MLs. LRL (Aust) Pty Ltd has assumed the following Agreement: <ul style="list-style-type: none"> Bullion and Non-Bullion Royalty Agreement of a 2% Gross Production Royalty affecting M36/264-265 and 459-460. The EL is in the name of Liontown Resources Limited with no third-party obligations apart from statutory requirements. The tenements are covered by the Tjiwarl Determined Native Title Claim (WC11/7). Liontown has signed an Access Agreement with the NT group which largely applies to E36/879. LRL (Aust) Pty Ltd has received Section 18 consent to drill on certain areas with M36/459 and M36/460
	<i>The security of the tenure held at the time of reporting along with any known impediments to obtaining a licence to operate in the area.</i>	<ul style="list-style-type: none"> All tenements are in good standing.
Exploration done by other parties	<i>Acknowledgment and appraisal of exploration by other parties.</i>	<ul style="list-style-type: none"> Multiple phases of exploration have previously been completed for gold and nickel. This has not been reviewed in detail due to other companies retaining the rights to these commodities and Liontown's focus on rare metal pegmatites. There has been limited sporadic prospecting for Li, Ta and Sn, principally by Jubilee Mines (subsequently taken over by Xstrata). Work comprised geological mapping, broad spaced soil sample lines and rock chip sampling of the pegmatites. Details of the methods and procedures used have not been documented. There has been no previous drill testing of the Li and Ta prospective pegmatites prior to Liontown acquiring the Project.
Geology	<i>Deposit type, geological setting and style of mineralisation.</i>	<ul style="list-style-type: none"> The Project is located on the western edge of the Norseman- Wiluna Belt within the Archaean Yilgarn Craton. The Kathleen Valley Project contains a series

Criteria	JORC Code explanation	Commentary
		<p>of quartz-feldspar-muscovite-spodumene pegmatites hosted in mafic rocks related to the Kathleen Valley Gabbro or the Mt Goode Basalts.</p> <ul style="list-style-type: none"> The pegmatites are LCT type lithium bearing-pegmatites.
Drillhole Information	<p>A summary of all information material to the understanding of the exploration results including a tabulation of the following information for all Material drillholes:</p> <ul style="list-style-type: none"> easting and northing of the drillhole collar elevation or RL (elevation above sea level in metres) of the drillhole collar dip and azimuth of the hole down hole length and interception depth hole length. 	<ul style="list-style-type: none"> Diagrams in the announcement show the location of and distribution of drillholes in relation to the Mineral Resource.
Data aggregation methods	<p>In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (e.g. cutting of high grades) and cut-off grades are usually Material and should be stated.</p>	<ul style="list-style-type: none"> Not relevant – Exploration results are not being reported; a Mineral Resource has been defined.
Relationship between mineralisation widths and intercept lengths	<p>If the geometry of the mineralisation with respect to the drillhole angle is known, its nature should be reported. If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (e.g. 'down hole length, true width not known').</p>	<ul style="list-style-type: none"> Not relevant – Exploration results are not being reported; a Mineral Resource has been defined.
Diagrams	<p>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.</p>	<ul style="list-style-type: none"> Not relevant – Exploration results are not being reported; a Mineral Resource has been defined.
Balanced reporting	<p>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.</p>	<ul style="list-style-type: none"> Not relevant – Exploration results are not being reported; a Mineral Resource has been defined.
Other substantive exploration data	<p>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.</p>	<ul style="list-style-type: none"> Where relevant, this information has been included or referred to elsewhere in this Table.
Further work	<p>The nature and scale of planned further work (e.g. tests for lateral extensions or depth extensions or large-scale step-out drilling).</p>	<ul style="list-style-type: none"> ~16,000m RC drilling designed to expand current Mineral Resource estimate. Further feasibility studies including additional metallurgical test work.

Section 3 Estimation and Reporting of Mineral Resources

Criteria	JORC Code explanation	Commentary
Database integrity	<i>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.</i>	<ul style="list-style-type: none"> Drillhole data was extracted directly from the Company's drillhole database, which includes internal data validation protocols. Data was further validated by Optiro upon receipt, and prior to use in the estimation.
	<i>Data validation procedures used.</i>	<ul style="list-style-type: none"> Validation of the data was confirmed using mining software (Datamine) validation protocols, and visually in plan and section views.
Site visits	<i>Comment on any site visits undertaken by the Competent Persons and the outcome of those visits.</i>	<ul style="list-style-type: none"> Liontown personnel Mr Richards and Mr Day have visited the site on numerous occasions to supervise the drilling programmes. Ms Wild (Principal Geologist and Director of Wildfire Resources Pty Ltd) visited the site during the resource definition drilling programme to review sampling procedures. Ms Wild reported that, in general, site practices were quite good, core quality was excellent and RC sample quality was moderate. Mrs Standing (Optiro) has not visited the site.
Geological interpretation	<i>Confidence in (or conversely, the uncertainty of) the geological interpretation of the mineral deposit.</i>	<ul style="list-style-type: none"> The confidence in the geological interpretation is reflected by the assigned resource classification.
	<i>Nature of the data used and of any assumptions made.</i>	<ul style="list-style-type: none"> Both assay and geological data were used for the mineralisation interpretation. The lithium mineralisation is defined by a nominal 0.4% Li₂O cut-off grade. Continuity between drillholes and sections is good.
	<i>The effect, if any, of alternative interpretations on Mineral Resource estimation.</i>	<ul style="list-style-type: none"> No alternative interpretations were considered. Any alternative interpretations are unlikely to significantly affect the Mineral Resource estimate.
	<i>The use of geology in guiding and controlling Mineral Resource estimation.</i>	<ul style="list-style-type: none"> Geological logging (including spodumene crystal orientation from the diamond core) has been used for interpretation of the pegmatites.
	<i>The factors affecting continuity both of grade and geology.</i>	<ul style="list-style-type: none"> The mineralisation is contained within pegmatite veins that are readily distinguished from the surrounding rocks. Sectional interpretation and wireframing indicates good continuity of the interpreted pegmatite veins both on-section and between sections. The confidence in the grade and geological continuity is reflected by the assigned resource classification.
Dimensions	<i>The extent and variability of the Mineral Resource expressed as length (along strike or otherwise), plan width, and depth below surface to the upper and lower limits of the Mineral Resource.</i>	<ul style="list-style-type: none"> Eighteen mineralised pegmatites have been identified at the Kathleen Valley Project which extend from surface to a depth of 220 m. Eleven sub-horizontal pegmatites (dip of 0° to -10° to west) have been drilled over an area of 1,100 m by 600 m at Kathleen's Corner. These pegmatites outcrop at Kathleen's Corner, extend down dip to Mt Mann and have an average thickness of 5 m. In addition, there are four moderately dipping

Criteria	JORC Code explanation	Commentary
		<p>(-15° to -45° to the west) pegmatites at Kathleen's Corner with an average thickness of 3 m.</p> <ul style="list-style-type: none"> An additional sub-horizontal pegmatite, which is obscured by shallow cover, has been drilled within the north-western area of Kathleen's Corner with a strike length of 400 m and an average thickness of 7 m. At Mt Mann two steeply dipping (-70° west) pegmatites have been drilled over a strike length of 900 m and to a vertical depth of 180 m. The pegmatites have an average thickness of 8 m and 10 m.
Estimation and modelling techniques	<i>The nature and appropriateness of the estimation technique(s) applied and key assumptions, including treatment of extreme grade values, domaining, interpolation parameters and maximum distance of extrapolation from data points. If a computer assisted estimation method was chosen include a description of computer software and parameters used.</i>	<ul style="list-style-type: none"> Lithium oxide (Li₂O) % and tantalum pentoxide (Ta₂O₅) ppm block grades were estimated using ordinary kriging (OK). Optiro considers OK to be an appropriate estimation technique for this type of mineralisation. The nominal spacing of the drillholes is 50 m by 50 m. The along section spacing ranges from 40 m to 100 m and on-section spacing ranges from generally 30 m to 60 m. A maximum extrapolation distance of 50 m was applied along and across strike and the steeply dipping pegmatites at Mt Mann were extrapolated to a maximum of 100 m down-dip. Data analysis and estimation was undertaken using Snowden Supervisor and Datamine software. Over 93% of the assay data is from samples of 1 m intervals, 0.3% is from sample of >1 m (to a maximum of 1.18 m) and 6% is from intervals of less than 1 m. The data was composited to 1 m intervals for analysis and grade estimation. Variogram analysis was undertaken to determine the kriging estimation parameters used for OK estimation of Li₂O and Ta₂O₅. Li₂O mineralisation continuity was interpreted from variogram analyses to have an along strike range of 110 m to 140 m and a down-dip (or across strike) range of 32 m to 112 m. Ta₂O₅ mineralisation continuity was interpreted from variogram analyses to have an along strike range of 110 m to 130 m and a down-dip (or across strike) range of 35 m to 93 m. Kriging neighbourhood analysis was performed in order to determine the block size, sample numbers and discretisation levels. Three estimation passes were used for Li₂O and Ta₂O₅; the first search was based upon the variogram ranges; the second search was two times the initial search and the third search was up to seven times the second search and second and third searches had reduced sample numbers required for estimation. The majority of Li₂O block grades (almost 63%) were estimated in the first pass, 22% in the second pass and the remaining 5% in the third pass.

Criteria	JORC Code explanation	Commentary
		<ul style="list-style-type: none"> The Li_2O and Ta_2O_5 estimated block model grades were visually validated against the input drillhole data and comparisons were carried out against the declustered drillhole data and by northing, easting and elevation slice.
	<i>Description of how the geological interpretation was used to control the resource estimates.</i>	<ul style="list-style-type: none"> Geological interpretations were completed on sections which were wireframed to create a 3D interpretation of the mineralised pegmatites. The interpretation of mineralisation was by Liontown based on geological logging and Li_2O content. A nominal grade of 0.4% Li_2O was used to define the mineralisation within the interpreted pegmatites. The mineralised domain is considered geologically robust in the context of the resource classification applied to the estimate.
	<i>Discussion of basis for using or not using grade cutting or capping.</i>	<ul style="list-style-type: none"> Li_2O and Ta_2O_5 have low coefficients of variation (CV). Some higher-grade outliers were noted and both the Li_2O and Ta_2O_5 grades were capped (top-cut). The top-cut levels were determined using a combination of top-cut analysis tools, including grade histograms, log probability plots and the CV.
	<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>	<ul style="list-style-type: none"> Mineral Resources have not previously been reported for this deposit area and no production has occurred.
	<i>The assumptions made regarding recovery of by-products.</i>	<ul style="list-style-type: none"> No assumptions have been applied for the recovery of by-products. Metallurgical testwork samples have been submitted by Liontown to determine the recoveries that could be expected.
	<i>Estimation of deleterious elements or other non-grade variables of economic significance (e.g. sulphur for acid mine drainage characterisation).</i>	<ul style="list-style-type: none"> Deleterious elements were not considered for the Mineral Resource estimate. Metallurgical testwork is in progress. Results to date indicate very low levels of Fe within the interpreted mineralised pegmatite domains.
	<i>In the case of block model interpolation, the block size in relation to the average sample spacing and the search employed.</i>	<ul style="list-style-type: none"> Grade estimation was into parent blocks of 10 mE by 15 mN by 1.0 mRL. Block dimensions were selected from kriging neighbourhood analysis and reflect the variability of the deposit as defined by the current drill spacing. Sub-cells to a minimum dimension of 2 mE by 2.5 mN by 0.5 mRL were used to represent volume.
	<i>Any assumptions behind modelling of selective mining units.</i>	Selective mining units were not modelled.
	<i>Any assumptions about correlation between variables.</i>	<ul style="list-style-type: none"> Li_2O and Ta_2O_5 are not correlated. Both Li_2O and Ta_2O_5 were estimated independently.
	<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>	<ul style="list-style-type: none"> No production has taken place and thus no reconciliation data is available.
Moisture	<i>Whether the tonnages are estimated on a dry basis or with natural moisture, and the method of determination of the moisture content.</i>	<ul style="list-style-type: none"> Tonnages have been estimated on a dry basis.
Cut-off parameters	<i>The basis of the adopted cut-off grade(s) or quality parameters applied.</i>	<ul style="list-style-type: none"> The Mineral Resource estimate for the Kathleen's Corner and Mt Mann deposits has been reported above a cut-off grade of 0.5 %

Criteria	JORC Code explanation	Commentary
		<p>Li₂O to represent the portion of the resource that may be considered for eventual economic extraction.</p> <ul style="list-style-type: none"> This cut-off grade has been selected by Liontown Resources in consultation with Optiro based on current experience and in-line with cut-off grades applied for reporting of Mineral Resources of lithium hosted in spodumene bearing pegmatites elsewhere in Australia.
Mining factors or assumptions	<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.</i>	<ul style="list-style-type: none"> The mineralisation at Kathleen's Corner and Mt Mann extends from surface and would be suitable for open pit mining. The Kathleen Valley Lithium Project is located in a well-established mining region and in close proximity to existing close to existing transport, energy and camp infrastructure. On the basis of these assumptions, it is considered that there are no mining factors which are likely to affect the assumption that the deposit has reasonable prospects for eventual economic extraction.
Metallurgical factors or assumptions	<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.</i>	<ul style="list-style-type: none"> Metallurgical testwork was conducted at Nagrom's metallurgical laboratory in Perth, Western Australia and supervised by Lycopodium Minerals Pty Ltd. Testwork was completed on a 300kg composite sample created from 6 diamond core holes that were sited to endure collection of material representative of the Mineral Resource. The testwork flow sheet included: <ul style="list-style-type: none"> Crushing and screening to -6.3 +1mm followed by 2-stage heavy media separation to produce a 5.9% Li₂O grade concentrate and a throwaway tail; Pre-concentration of the middlings and -1mm fines to produce a tantalum concentrate; and Grinding of the tantalum tails to 150µm and de-sliming prior to froth flotation to produce a flotation concentrate containing 5.5% Li₂O with low levels of iron (Fe₂O₃ <0.50%). A tantalum concentrate was produced during the testwork program; however, the low mass recovery precluded the implementation of a subsequent upgrade process. Further sample will be collected in Q1 2019 for a larger scale testwork program.
Environmental factors or assumptions	<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.</i>	<ul style="list-style-type: none"> No environmental impact assessments have been conducted. It is assumed that any remedial action to limit the environmental impacts of mining and processing will not significantly affect the economic viability of the project.
Bulk density	<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>	<ul style="list-style-type: none"> Bulk density was measured for 575 core samples from diamond holes using Archimedes measurements. The density data has a range of 2.08 to 3.34 t/m³. A bulk density of 2.69 t/m³ was assigned to

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	<i>Discuss assumptions for bulk density estimates used in the evaluation process of the different materials.</i>	the oxide and transitional material and 2.74 t/m ³ was assigned to the fresh material.
Classification	<i>The basis for the classification of the Mineral Resources into varying confidence categories.</i>	<ul style="list-style-type: none"> Mineral Resources have been classified as Measured, Indicated or Inferred. In general, the pegmatites at Kathleen's Corner that have been tested by the 50 m by 50 m spaced drill holes, have high confidence in the geological interpretation and have higher estimation quality have been classified as Measured. Areas tested by the 50 m by 50 m spaced drill and with poorer estimation quality were classified as Indicated, and areas where the drill spacing is up to 60 m by 100 m have been classified as Inferred.
	<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>	<ul style="list-style-type: none"> The Mineral Resource has been classified on the basis of confidence in geological and grade continuity and taking into account the quality of the sampling and assay data, data density and confidence in estimation of Li₂O and Ta₂O₅ content (from the kriging metrics).
	<i>Whether the result appropriately reflects the Competent Person's view of the deposit</i>	<ul style="list-style-type: none"> The assigned classification of Measured, Indicated and Inferred reflects the Competent Persons' assessment of the accuracy and confidence levels in the Mineral Resource estimate.
Audits or reviews	<i>The results of any audits or reviews of Mineral Resource estimates.</i>	<ul style="list-style-type: none"> The Mineral Resource has been reviewed internally as part of normal validation processes by Optiro. No external audit or review of the current Mineral Resource has been conducted.
Discussion of relative accuracy/ confidence	<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.</i>	<ul style="list-style-type: none"> The assigned classification of Measured, Indicated and Inferred reflects the Competent Persons' assessment of the accuracy and confidence levels in the Mineral Resource estimate.
	<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>	<ul style="list-style-type: none"> The confidence levels reflect potential production tonnages on a quarterly basis, assuming open pit mining.
	<i>These statements of relative accuracy and confidence of the estimate should be compared with production data, where available.</i>	<ul style="list-style-type: none"> No production has occurred from the deposit.