ASX : LTR

ABN 39 118 153 825

ASX ANNOUNCEMENT **20 March 2017**

Liontown intersects strong lithium and tantalum mineralisation in maiden drill program at Kathleen Valley, WA

Initial assays confirm high-grade potential with individual grades of up to 3% Li_2O and 711ppm Ta_2O_5

Highlights

- **High-grade lithium and tantalum values recorded in a number of holes from recently completed maiden drill program with better intersections including:**
  - ***58m @ 1.2% Li_2O and 156ppm Ta_2O_5 from 135m (KVRC0015), including:***
    - ***9m @ 1.8% Li_2O and 220ppm Ta_2O_5 from 141m; and***
    - ***13m @ 2.0% Li_2O and 138ppm Ta_2O_5 from 167m***
  - ***24m @ 1.3% Li_2O and 139ppm Ta_2O_5 from 206m (KVRC0015), including:***
    - ***3m @ 1.6% Li_2O and 105ppm Ta_2O_5 from 208m; and***
    - ***2m @ 2.6% Li_2O and 271ppm Ta_2O_5 from 217m; and***
    - ***4m @ 1.6% Li_2O and 145ppm Ta_2O_5 from 226m***
  - ***13m @ 1.6% Li_2O and 114ppm Ta_2O_5 from 0m (KVRC0002), including:***
    - ***9m @ 1.9% Li_2O and 107ppm Ta_2O_5 from 2m;***
  - ***13m @ 1.6% Li_2O and 111ppm Ta_2O_5 from 83m (KVRC0002), including:***
    - ***6m @ 2.0% Li_2O and 113ppm Ta_2O_5 from 88m;***
  - ***14m @ 1.7% Li_2O and 163ppm Ta_2O_5 from 91m (KVRC0003), including:***
    - ***8m @ 2.0% Li_2O and 130ppm Ta_2O_5 from 97m;***
- **Lithium values appear largely related to spodumene.**
- **Pegmatite appears to be thickening to the south-east and at depth.**
- **Main target zones at Kathleen Valley yet to be tested by drilling, which is scheduled to resume as soon as access has been negotiated with the Traditional Owner group.**

Liontown Resources Limited **(ASX: LTR)** is pleased to advise that it has intersected significant zones of strong lithium-tantalum mineralisation in its maiden drilling program at the Kathleen Valley Lithium-Tantalum Project, located approximately 680km north-east of Perth, Western Australia (***Figure 1***).

The results confirm the potential of the pegmatite swarms at Kathleen Valley to host significant widths of high grade lithium and tantalum mineralisation, with the assays returning individual lithium and tantalum values of up to **3% Li_2O** (KVRC0015 218-219m) and **711ppm Ta_2O_5** (KVRC0015 114-115m).

Importantly, the high grade lithium values appear to be largely related to spodumene mineralisation with only minor lepidolite observed.

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The recently completed drilling program at Kathleen Valley comprised a total of 19 Reverse Circulation holes for 2,053m (***see Appendix 1 for full listing of drill statistics***).

The drilling was designed to test the immediate northern extensions of the main mineralised trends (***Figure 1***), where heritage approvals to drill had been obtained.

Due to the limited access, hole KVRC0015 was drilled oblique to the strike and dip of the main trend (***Figures 1 and 2***) and the true width of the strongly mineralised pegmatite is estimated to be between 30 to 35 metres. The results indicate that the pegmatite is increasing in width towards the south-east and at depth.

Based on the results of the initial program, the Company will now enter into negotiations with the Traditional Owners to gain access to test the main outcropping zones where the pegmatites are interpreted to be the thickest and where high grade lithium and tantalum results have been recorded by historical rock chip sampling.

Liontown's Managing Director, David Richards, said the Company's exploration campaign at Kathleen Valley was off to a strong start.

"We are very encouraged by these early results, particularly considering that we have yet to test the main target zones, where the thickest pegmatites and strongest grades have been traced at surface," he said.

"Where we have drilled so far, we have encountered strong zones of continuous lithium-tantalum mineralisation including some very high grade zones of predominantly spodumene-related mineralisation.

"Given the overall scale of the pegmatite swarm at Kathleen Valley and the potential to expand the system, we are looking forward to resuming drilling as soon as possible."

DAVID RICHARDS
Managing Director

20th March 2017

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The Information in this report that relates to Exploration Results 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.

Mr Richards has sufficient experience that is relevant to the style of mineralisation and type of deposit under consideration and to the activities 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 Richards 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 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.

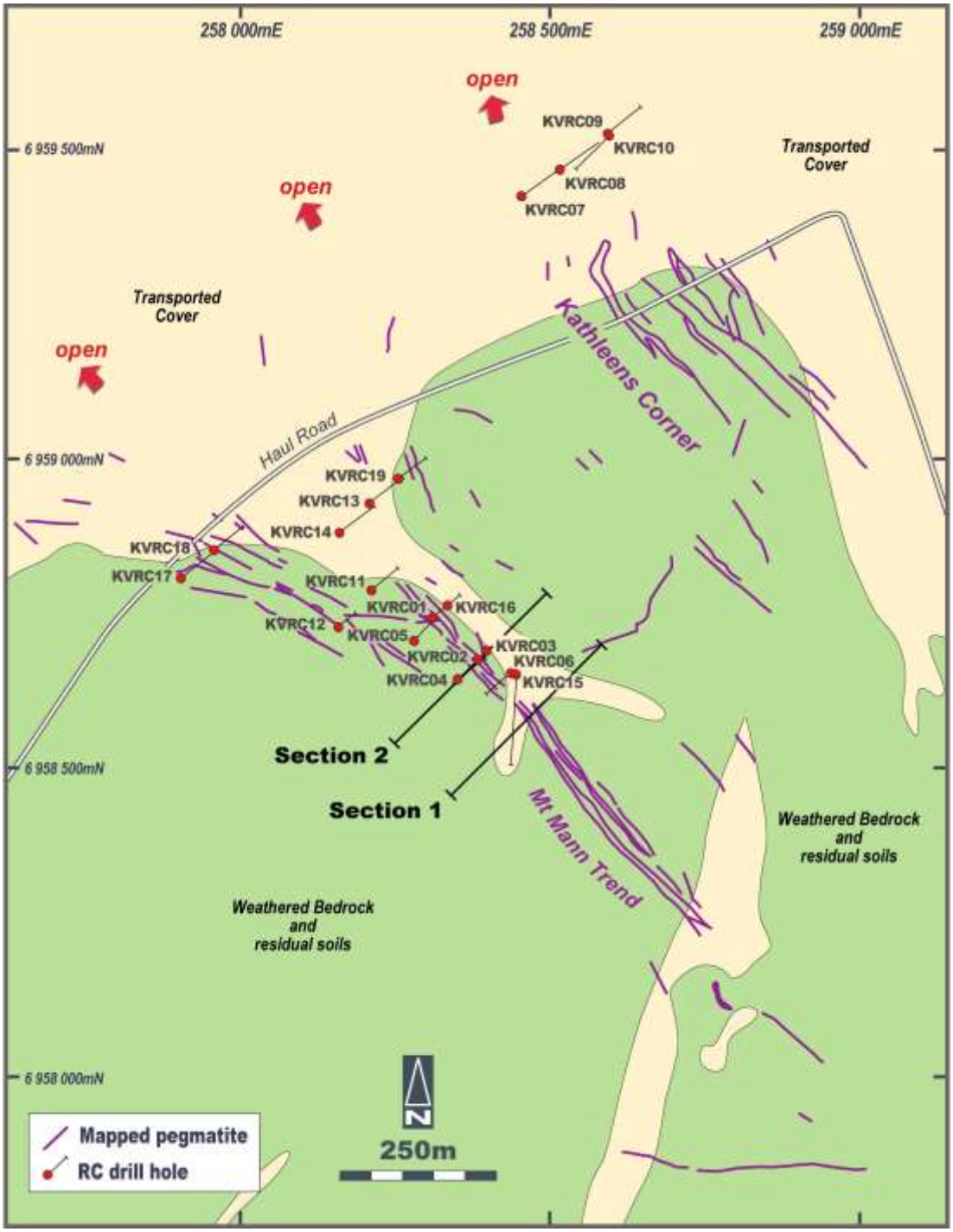

Figure 1: Kathleen Valley – Drill hole plan and geology

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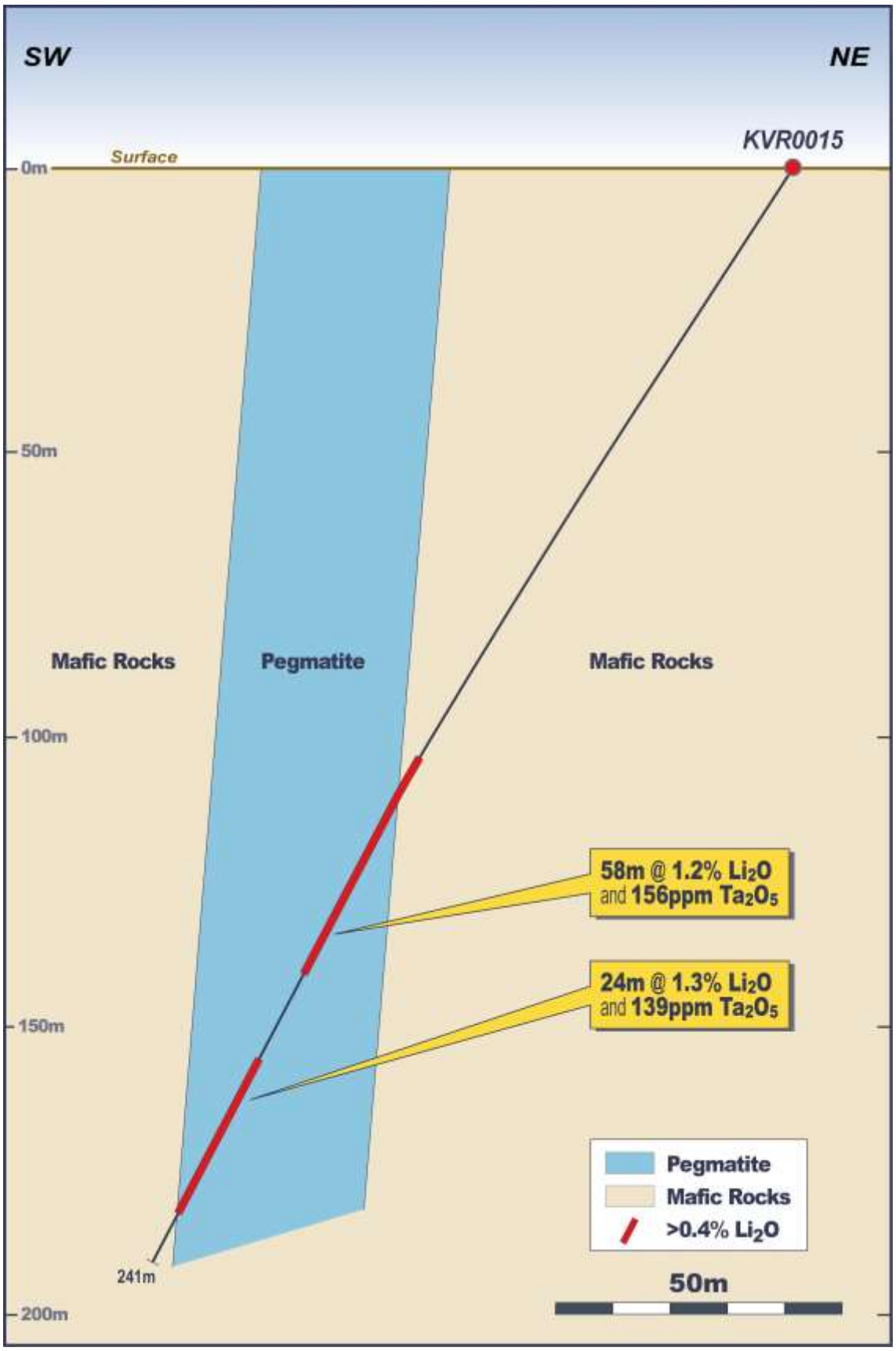

Figure 2: Kathleen Valley Project – Section 1/KVRC0015 (looking NW)

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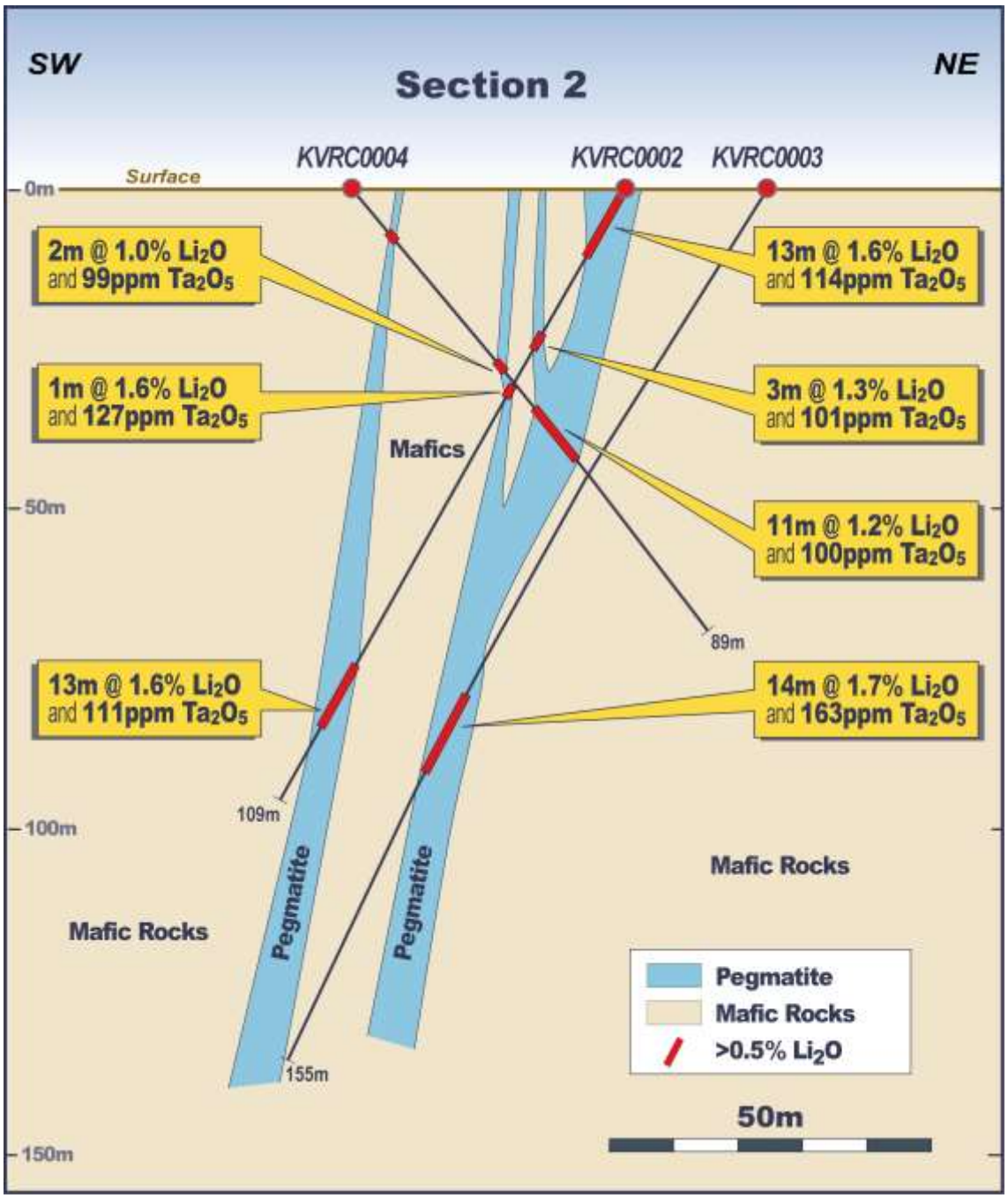

Figure 3: Kathleen Valley Project – Section 2 (looking NW)

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APPENDIX 1 – KATHLEEN VALLEY – DRILL HOLE STATISTICS

Hole_ID	East	North	RL	Dip	Azimuth	Depth (m)	Significant Li2O (>0.5%) and Ta2O5 (>50ppm) results				
							From(m)	To(m)	Interval(m)	Li2O (%)	Ta2O5 (ppm)
KVRC0001	258306	6958744	500	-60	45	65	3	6	3	1	122
							10	11	1	1.1	85
							16	17	1	1.1	94
KVRC0002	258379	6958675	500	-60	225	109	0	13	13	1.6	114
							incl. 9m @ 1.9% Li2O and 107ppm Ta2O5 from 2m				
							26	29	3	1.3	101
							35	36	1	1.6	127
							83	96	13	1.6	111
							incl. 6m @ 2% Li2O and 113ppm Ta2O5 from 88m				
KVRC0003	258395	6958690	500	-59	225	155	91	105	14	1.7	163
							incl. 8m @ 2% Li2O and 130ppm Ta2O5 from 92m				
KVRC0004	258348	6958645	500	-50	45	89	36	38	2	1	99
							45	56	11	1.2	100
							incl. 3m @ 1.8% Li2O and 106ppm Ta2O5 from 45m				
KVRC0005	258276	6958707	500	-53	40	89	32	34	2	1.3	112
							39	40	1	1.5	132
KVRC0006	258433	6958654	500	-49.5	227.5	80	37	43	6	1.1	153
KVRC0007	258452	6959426	500	-47	45	132	29	35	6	1.4	170
							incl. 3m @ 1.9% Li2O and 166ppm Ta2O5 from 30m				
							39	40	1	1.1	198
							124	125	1	2.4	302
KVRC0008	258512	6959469	500	-50	55	130	81	82	1	1.2	310
							95	96	1	1	124
KVRC0009	258590	6959528	500	-50	45	113	57	59	2	0.7	248
							70	71	1	0.6	266
KVRC0010	258593	6959527	500	-50	225	130	83	85	2	1.1	211
							91	92	1	1.4	239
							100	106	6	1.2	284
KVRC0011	258208	6958788	500	-50	45	89	24	25	1	1	112
KVRC0012	258154	6958729	500	-55	45	65	No significant assays				
KVRC0013	258205	6958930	500	-50	45	108					
KVRC0014	258157	6958881	500	-50	45	113	12	17	5	0	240
KVRC0015	258443	6958652	500	-50	180	241	**135**	**193**	**58**	**1.2**	**156**
							incl. 9m @ 1.8% Li2O and 220ppm Ta2O5 from 141m and				
							13m @ 2.0% Li2O and 138ppm Ta2O5 from 67m and				
							206	**230**	**24**	**1.3**	**139**
							incl. 3m @ 1.6% Li2O and 105ppm Ta2O5 from 208m and				
							2m @ 2.6% Li2O and 271ppm Ta2O5 from 217m and				
							4m @ 1.6% Li2O and 145ppm Ta2O5 from 226m and				
KVRC0016	258331	6958764	500	-50	45	40	No significant assays				
KVRC0017	257899	6958809	500	-50	45	119	63	65	2	1.3	212
KVRC0018	257951	6958853	500	-50	45	101	1	2	1	1.4	93
KVRC0019	258252	6958969	500	-50	45	89	No significant assays				

* True widths estimated as follows:
Holes drilled towards NE (040-055), true widths 70-80% of downhole width
Holes drilled towards SW (040-055), true widths 30-50% of downhole width
KVRC0015 true widths ~30% of downhole width

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APPENDIX 2 – KATHLEEN VALEY PROJECT - JORC TABLE 1

Section 1 Sampling Techniques and Data

Criteria	JORC Code explanation	Commentary
Sampling techniques	*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.*	Sub surface chip samples have been collected by reverse circulation (RC) drilling techniques (see below). Where access permits, drill holes are oriented perpendicular to the interpreted strike of the mineralised trend. Liontown rock chips - representative 1-3kg chip samples collected across zone being sampled. Historic sampling techniques not well documented.
	Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used. *Aspects of the determination of mineralisation that are Material to the Public Report.* *In cases where 'industry standard' work has been done this would be relatively simple (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.*	RC samples including a 1m sample and a bulk sample are collected from the drill rig cyclone. Bulk samples are placed in 1m piles on the ground and sampled using the tube method. The 1m samples from the cyclone are retained for check assaying. Only samples of pegmatite and adjacent wall rock are collected for assay
Drilling techniques	*Drill type (eg core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc) and details (eg core diameter, triple or standard tube, depth of diamond tails, face-sampling bit or other type, whether core is oriented and if so, by what method, etc).*	Drilling techniques used at Kathleen Valley comprise: • Reverse Circulation (RC/5.5") with a face sampling hammer
Drill sample recovery	*Method of recording and assessing core and chip sample recoveries and results assessed.*	Sample recoveries are visually estimated and recorded for each metre. To date sample recoveries have averaged >95%.
	Measures taken to maximise sample recovery and ensure representative nature of the samples.	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.
	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.	None noted as yet.
Logging	*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.*	All drill holes are logged on 1 m intervals and the following observations recorded: 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 and magnetic susceptibility.
	Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.	Logging is quantitative, based on visual field estimates.
	The total length and percentage of the relevant intersections logged.	Holes are logged from start to finish.
Sub-sampling techniques and sample preparation	*If core, whether cut or sawn and whether quarter, half or all core taken.*	Not applicable.
	If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.	RC samples are initially collected as 1 tube samples. Samples are typically dry.
	For all sample types, the nature, quality and appropriateness of the sample preparation technique.	Sample preparation follows industry best practice standards and is conducted by internationally recognised laboratories; i.e.

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Criteria	JORC Code explanation	Commentary
		Oven drying, jaw crushing and pulverising so that 85% passes -75microns.
	Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.	Duplicates and blanks submitted approximately every 25 samples Standards are submitted every 30-50 samples or at least once per hole.
	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.	Measures taken include: • regular cleaning of cyclones and sampling equipment to prevent contamination; • statistical comparison of duplicates, blanks and standards.
	Whether sample sizes are appropriate to the grain size of the material being sampled.	Sample size is considered appropriate for the stage of exploration
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.*	Assays completed by ALS Laboratories Perth using industry standard procedures for rare metals such as Li and Ta. Analytical techniques are total.
	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.	None used
	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	See above.
Verification of sampling and assaying	*The verification of significant intersections by either independent or alternative company personnel.*	None undertaken
	The use of twinned holes.	None undertaken
	Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.	Drill data entered directly into excel spreadsheets onsite while drilling is ongoing. Data 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.
	Discuss any adjustment to assay data.	Li% converted to Li_2O% by multiplying by 2.15, Ta ppm converted to Ta_2O_5 ppm by multiplying by 1.22
Location of data points	*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.*	All drill holes and geochemical samples are located using a hand held GPS. All RC holes have been surveyed by a digital down hole camera provided by drill contractor.
	Specification of the grid system used	GDA 94 Zone 51
	Quality and adequacy of topographic control.	Nominal RLs based on regional topographic dataset.
Data spacing and distribution	*Data spacing for reporting of Exploration Results.*	Varies due to maiden drill program largely designed to test down dip potential of mineralised outcrops.
	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.	Not yet.
	Whether sample compositing has been applied.	None undertaken.
Orientation of data in relation to geological structure	*Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.*	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.
	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.	No bias observed; however, estimates of true width provided in attached drill hole statistic appendix.

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Criteria	JORC Code explanation	Commentary
Sample security	*The measures taken to ensure sample security.*	Company geologist supervises all sampling and subsequent storage in field. Same geologist arranges delivery of samples to ALS Perth via courier.
Audits or reviews	*The results of any audits or reviews of sampling techniques and data.*	None completed.

Section 2 Reporting of Exploration Results

Criteria	JORC Code explanation	Commentary
Mineral tenement and land tenure status	*Type, reference name/number, location and ownership including agreements or material issues with third parties such as joint ventures, partnerships, overriding royalties, native title interests, historical sites, wilderness or national park and environmental settings.*	The Kathleen Valley Project is located ~680km NE of Perth and ~45km NNW of Leinster in Western Australia. The Project comprises 15 granted mining leases (MLs 36/162, 176, 264-266, 328, 342, 365, 375-376, 441, 459-460, 603 and 660) and 1 Exploration License application (ELA36/879). The mining leases (MLs) and rights to pegmatite hosted rare-metal mineralisation were acquired from Ramelius Resources Limited via a Sales Agreement which has been completed. The MLs have been transferred to LRL (Aust) Pty Ltd a wholly owned subsidiary of Liontown Resources Limited. 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. LTR has assumed the following Agreements: • No. 1.: Access Agreement (1997) over M36/603 • No. 2.: Sale Agreement (1998) $0.10/tonne limited to $40,000 over M36/603 • No. 3.: Sale Agreement (1999) $10,000 payment on mining over M36/376 • No. 4.: Bullion and Non-Bullion Royalty Agreement of a 2% Gross Production Royalty affecting M36/162, 176 264-266, 328 365, 376, 441 and 459-460. The ELA is in the name of LTR with no third party obligations apart from statutory requirements. The tenements are covered by the Tjiwarl Determined Native Title Claim (WC11/7).
	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.	All tenements are in good standing.
Exploration done by other parties	*Acknowledgment and appraisal of exploration by other parties.*	Multiple phases of exploration 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 LTR acquiring the Project.
Geology	*Deposit type, geological setting and style of mineralisation.*	The Kathleen Valley Project contains a series of quartz-feldspar-muscovite-spodumene pegmatites hosted in mafic rocks related to the Kathleen Valley Gabbro or Mt Goode Basalts. The Project is located on the western edge of the Norseman- Wiluna Belt within the Archaean Yilgarn Craton. The pegmatites are LCT type lithium bearing-pegmatites.

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Criteria	JORC Code explanation	Commentary
Drill hole Information	*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:* • *easting and northing of the drill hole collar* • *elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar* • *dip and azimuth of the hole* • *down hole length and interception depth* • *hole length.*	See Appendix attached to ASX release.
Data aggregation methods	*In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (eg cutting of high grades) and cut-off grades are usually Material and should be stated.*	See Appendix attached to ASX release.
	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.	See Appendix attached to ASX release.
	The assumptions used for any reporting of metal equivalent values should be clearly stated.	Not applicable.
Relationship between mineralisation widths and intercept lengths	*These relationships are particularly important in the reporting of Exploration Results.* *If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.* *If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (eg 'down hole length, true width not known').*	See Appendix attached to ASX release.
Diagrams	*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.*	See Figures in body of report
Balanced reporting	*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.*	All recent exploration results reported and tabulated.
Other substantive exploration data	*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.*	All meaningful and material data reported
Further work	*The nature and scale of planned further work (eg tests for lateral extensions or depth extensions or large-scale step-out drilling).*	Further RC drilling to test for dip and strike extensions of mineralisation intersected in maiden drilling program.

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