

# HIGH-GRADE LITHIUM RESULTS CONFIRM POTENTIAL OF BISMARK PROSPECT, WALABANBA PROJECT, NT

Strong results from sampling including highest lithium grade of 4.63% Li<sub>2</sub>O

## **HIGHLIGHTS**

- Additional in-fill rock chip sampling confirms potential of the pegmatites at the Bismark Prospect on the Walabanba Project, located north of Alice Springs, to host economic grade lithium mineralisation.
- Mineralogical work confirms that spodumene is the main lithium-bearing species present in samples from Bismark *in excess of 50% of the rock sample in two cases.*
- LCT-type pegmatite confirmed from geochemical and mineralogical work conducted.
- Highest lithium grade yet returned from the area 4.63% Li<sub>2</sub>O.
- Support from lithium-associated elements:

Cs	to 2,890ppm Cs
Та	to 5,180ppm Ta
Sn	to 2.31% SnO <sub>2</sub>

Todd River Resources Limited (ASX: TRT) is pleased to advise that recent in-fill rock chip sampling has confirmed both the extent and high grades of the lithium-bearing pegmatites mapped at the Bismark Prospect, at its 100%-owned Walabanba Project in the Northern Territory.

The Anningie Tin Field is located in the southern half of the Walabanba Hills on Anningie Station and within Todd River's Exploration Licence EL26848, located 250km north of Alice Springs (Figure 1).

Sampling of the numerous pegmatites mapped in the Bismark area has returned results with an **outstanding maximum lithium grade of 4.63% Li<sub>2</sub>O**. The best grade is associated with spodumene-quartz pegmatite and albite-spodumene-quartz pegmatite, confirmed by XRD analysis.

In total, there were 15 rock samples in the area which returned assays of greater than 1%  $Li_2O$ , spread over several pegmatite bodies within an area of 350m x 400m.

The best lithium results were returned from areas hosted by amphibolite and found on the nose of a fold in the bedrock sequence.

Broad multi-element support is provided in the lithium-associated elements – Cs, Ta, Sn, and Nb – confirming the **LCT-type nature of the host pegmatites**.





## Figure 1 Location plan for the Walabanba Project, showing the Anningie Tin Field.

Historical activity on the Anningie Tin Field was outlined in the Company's ASX announcement of 11 July 2017, namely:

• Historical workings from the 1930s to 1970s focused only on tin (Sn) and Tantalum (Ta).



• Work by the Northern Territory Geological Survey reported in 2005 confirmed that the pegmatites in the area were of the LCT (lithium-caesium-tantalum) type, and they had the most favourable geochemistry of all northern Arunta pegmatites studied.

Initial mapping and sampling was conducted by Todd River's exploration team in July 2017, and reported in August (see ASX announcement – 21 August 2017).

July 2017 work included:

- Geological mapping at 1:2000 scale over the historical tin mining centres of Bismark and Clarks
- Portable XRF soil sampling. Anomalies were outlined for:
  - o Tin Maximum value 1042ppm Sn
  - o Tantalum Maximum value 170ppm Ta
  - o Niobium Maximum value 88ppm Nb
  - o All Lithium pathfinder mineral. Lithium not able to be detected with pXRF
- Rock chip sampling of prospective pegmatite units. Results included:
  - $\circ$  Rock chip results for Li<sub>2</sub>O of: 4.41% and 4.22%
    - Three values greater than 1% Li<sub>2</sub>O
  - o Supporting pathfinder elements in rock chip results
    - Up to 2890ppm Cs 2.31% SnO<sub>2</sub> 388ppm Ta 157ppm Ga 101ppm TI

## **XRD Mineralogy Results**

XRD mineralogical analysist was undertaken on a total of 12 rock chip samples from the July 2017 campaign, with analytical results reported in the ASX release of 21 August 2017, identifying the minerals present in the samples (see Table 1 and Figure 2).

Three of the twelve samples had a **high proportion of spodumene** identified, with 20-50% of these samples being spodumene (semi-quantitative mineralogy).

As with most pegmatites there are several mineralogical suites present in the samples:

#### • Spodumene-quartz pegmatite

- o 20-50% spodumene, 20-40% quartz, minor albite and mica
- Albite-dominated pegmatite
  - o 70-90% albite plagioclase, minor quartz
  - Mica-dominated pegmatite
    - o 25-60% muscovite, 20-40% quartz, minor albite
- Quartz-feldspar pegmatite
  - o 40% quartz, 50-60% combined albite and K-feldspar, minor mica
- K feldspar pegmatite



o 80% Microcline potassium feldspar, minor albite, mica, and quartz

These pegmatite phases, together with the geochemistry, confirm that all the pegmatites in the Bismark area are of a LCT-Type (Lithium-Cesium-Tantalum type). Both albite-spodumene and complex pegmatite varieties are indicated from the mineralogy.

From an economic point of view, the presence of abundant spodumene in some of the pegmatite phases at Bismark is positive. All pegmatite-hosted lithium mines in Australia have spodumene as the lithium host mineral. Both petalite and lepidolite mica contain significant lithium, but have issues with lithium extraction/processing.

### **Rock Chip Sampling**

During November, further rock chip sampling was conducted to obtain better control on the deportment of lithium-rich pegmatite.

206 rock chip samples (Figure 3) were taken from the Bismark and Clarks area, and were submitted for sodium peroxide fusion ICP determination analysis at ALS (lab code ME-MS89 and ME-ICP91).

Results for relevant elements are listed in Table 2, shown on Figures 4, 5 and 6, and detailed in Appendix 1.



## Table 1. XRD Mineralogy of 12 samples from rock chip samples at Bismark sampled in July.

X17316	1	2	3	4	5	6
W and B	W17329	W17331	W17352	W17355	B009	B010
Quartz	41.7	6.3	4.3	15.9	25.7	40.9
Fluorapatite				0.9		
Spodumene					19.2	50.2
Albite	17.9	84.8	79.3	72.3	40.7	
K-Feldspar (microcline)	27.5	5.8	3.3	7.3	3.4	
Mica (muscovite)	5.4	3.0	9.3	1.8	2.4	2.7
Non-diffracting/unidentified	7.5	0.3	3.8	1.9	8.6	6.2
X17316	7	8	9	10	11	12
W and B	B015	B016	B021	B022	B025	B026
Quartz	38.3	41.5	39.3	41.8	1.5	17.2
Cassiterite				1.4		
Fluorapatite		2.9				
Spodumene			50.7			
Albite	3.5	8.1	2.7	21.4	9.3	5.8
K-Feldspar (microcline)	1.6				78.9	
Mica (muscovite)	39.8	30.3		25.7	2.9	58.7
Non-diffracting/unidentified	16.8	17.2	7.4	9.7	7.5	18.4





## Figure 2. XRD Spectra of the three samples containing spodumene.

Significant anomalous results for all the lithium-pegmatite related elements were returned.

Lithium	Maximum value Twelve values
	26 values
	54 values
Caesium	Maximum value
	Ten values
Tin	Maximum value
	20 values
Tantalum	Maximum value
	Five values
	57 values
Niobium	Maximum value
	13 values

4.63% Li<sub>2</sub>O >1% Li<sub>2</sub>O >0.1% Li<sub>2</sub>O > 100 ppm Li 1380 ppm Cs >500 ppm Cs 0.62% SnO<sub>2</sub> (4890ppm Sn) >1000ppm Sn 5180ppm Ta >300ppm Ta >100ppm Ta >100ppm Nb >100ppm Nb



Figure 3.Rock chip sampling, Bismark area.Left25 metre wide pegmatite, on dolerite hill to the east of Clark's.RightGully pegmatite (for locations see Figure 4).



There are 12 samples with lithium analyses exceeding 1% Li<sub>2</sub>O, which is above the economic cut-off grade for many of the current lithium miners in Western Australia. Most lithium ores in Western Australian pegmatite mines have grades in the 1-2% Li<sub>2</sub>O range and contain 10-25% spodumene.

More significantly, there are **10 results that are over 3% Li<sub>2</sub>O**. This is very high grade, and indicates that there is at least 40% spodumene in the rock sample.

Despite many pegmatites having high potassium values (2 to +15% K) due to the presence of potassium feldspar and muscovite, all the plus 1%  $Li_2O$  samples have less than 0.5% K, due to K-feldspar and muscovite making up less than 5% of these specific rocks. The spodumene occurs almost exclusively with quartz and albite (Na feldspar).

Figure 4 shows the area mapped and the rock chip sampling conducted (all samples taken, including the July work).

Figure 5 shows the lithium and tin distribution in rock samples. Tin is broadly anomalous over the area between and including Clarks and Bismark, with most of the very high grade samples in the area of the Bismark workings. Lithium is less abundant in the historical tin mining areas and focused to the north of the Bismark (main) workings.

Several pegmatite bodies have high grade lithium (Figure 5), spread over a 350m width across strike in the Bismark north area and across to the Gully pegmatite and CP pegmatite.

The caesium results (Figure 6) mirror the lithium distribution and the overall highly anomalous area, as defined by Li-Cs-Nb-Ta-Sn, is 350m x 400m, focused on the nose of a fold in the bedrock schist and amphibolite.

#### Assessment

The recent rock chip sampling results are highly anomalous for lithium and confirm both that the pegmatites found in this area are all of a LCT type, and that the area has high prospectivity for Li-Sn-W-Ta-Cs related mineralisation.

In addition to the original three samples with >1%  $Li_2O$ , a further 12 (total 15 samples) confirm the high grade lithium found in the area.

Including the results from July the best rock chip results are:

Li	4.63% Li₂O
Cs	2890ppm Cs
Та	5180ppm Ta
Sn	2.31% SnO <sub>2</sub>

An anomalous area of 350m x 400m is outlined by the pXRF soil data, geological mapping and the rock chip sample results.



Figure 4. Plans showing the geological mapping (A), and the rock chip sampling (B) conducted over the Bismark and Clarks areas in 2017.



Figure 5. Plans showing the results for Lithium (Li<sub>2</sub>O %) and Tin (SnO<sub>2</sub> %).



Figure 6. Plans showing the results for Caesium (Cs\_ppm), and the overall anomalous area as defined by Li-Cs-Nb-Ta-Sn results (Magenta outline).



#### **Next Steps**

Further mineralogical analyses will be obtained over the coming months, including both XRD mineralogy and petrographic thin-section descriptions, to determine the mineral deportment and grainsize/texture of the lithium species.

These results will be assessed, together with the work from earlier in the year, to allow planning of a program for 2018, which may include drilling.

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#### **Competent Person Statement**

The information in this report that relates to Exploration Results is based on, and fairly represents, information and supporting documentation compiled by Exploration Manager Mr Kim Grey B.Sc. and M. Econ. Geol. Mr Grey is a member of the Australian Institute of Geoscientists, and an employee of Todd River Resources Limited. Mr Grey has sufficient experience 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 2012 Edition of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves'. Mr Grey consents to the inclusion in the report of the matters based on his information in the form and context in which it appear.

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### Table 2.

Rock Chip Analytical Data All samples listed with analyses of relevant elements – Cs, Li, Nb, Sn, and Ta. Analysis by sodium peroxide fusion and ICP-MS (ALS ME-MS91 and ME-ICP89).

SampleID	Easting	Northing	Lithology	Cs_ppm	Li_ppm	Li₂O_%	Nb_ppm	Sn_ppm	SnO₂_%	Ta_ppm
B028	303347	7600409	SCH	1345	1160	0.250%	21	424	0.05%	6
B029	303347	7600412	PEG	38.5	35	0.008%	60	38	0.00%	107
B030	303356	7600405	GRIS	160.5	79	0.017%	96	1240	0.16%	176
B031	303331	7600411	GRIS	809	820	0.177%	81	495	0.06%	135
B032	303329	7600403	GRIS	807	218	0.047%	2	23	0.00%	3
B033	303326	7600422	GRIS	387	620	0.133%	46	211	0.03%	87
B034	303329	7600438	PEG	162	158	0.034%	40	101	0.01%	86
B035	303317	7600447	PEG	261	510	0.110%	28	156	0.02%	45
B036	303316	7600472	PEG	39	40	0.009%	9	65	0.01%	15
B037	303294	7600517	PEG	42.5	8	0.002%	15	71	0.01%	6
B038	303291	7600518	PEG	5.9	7	0.002%	8	12	0.00%	15
B039	303330	7600544	SCH	4.3	12	0.003%	4	11	0.00%	1
B040	303337	7600550	SCH	6.1	32	0.007%	11	6	0.00%	1
B041	303323	7600552	SCH	11.2	48	0.010%	10	6	0.00%	1
B042	303392	7600468	PEG	135	53	0.011%	92	1030	0.13%	168
B043	303395	7600451	PEG	90.2	8120	1.748%	36	35	0.00%	92
B044	303403	7600423	PEG	110.5	720	0.155%	16	44	0.01%	22
B045	303431	7600437	GRIS	67.3	35	0.008%	30	59	0.01%	70
B046	303496	7600453	PEG	207	1770	0.381%	58	197	0.03%	73
B047	303494	7600464	GRIS	289	740	0.159%	63	372	0.05%	63
B048	303618	7600489	PEG	135.5	240	0.052%	41	143	0.02%	17
B049	303614	7600500	PEG	213	870	0.187%	64	250	0.03%	26
B050	303625	7600465	PEG	8.4	17	0.004%	82	338	0.04%	87
B051	303492	7600513	PEG	95.7	13	0.003%	8	35	0.00%	9
B052	303510	7600545	GRIS	31.4	18	0.004%	57	397	0.05%	44
B053	303428	7600412	GRIS	70	12	0.003%	135	569	0.07%	221
B054	303429	7600380	GRIS	15.3	14	0.003%	77	63	0.01%	123
B055	303376	7600371	GRIS	932	79	0.017%	1050	593	0.08%	5180
B056	303354	7600341	PEG	54.1	44	0.009%	119	176	0.02%	135
B057	303365	7600283	PEG	167	57	0.012%	88	235	0.03%	57
B058	303403	7600287	QV	23	14	0.003%	5	4	0.00%	16
B059	303374	7600262	PEG	289	46	0.010%	51	270	0.03%	71
B060	303380	7600225	PEG	104	24	0.005%	7	37	0.00%	16
B061	303377	7600200	PEG	205	69	0.015%	67	729	0.09%	58
B062	303300	7600504	PEG	73.8	29	0.006%	62	787	0.10%	117
B063	303384	7600479	PEG	103	81	0.017%	64	187	0.02%	149
B064	303371	7600480	SCH	206	290	0.062%	18	169	0.02%	8
B065	303371	7600482	GRIS	24.5	38	0.008%	62	279	0.04%	98
B066	303392	7600354	GRIS	6.5	3	0.001%	15	49	0.01%	45
B067	303414	7600380	PEG	2.1	12	0.003%	28	16	0.00%	39
B068	303337	7600363	PEG	320	157	0.034%	35	224	0.03%	26
B069	303335	7600372	PEG	262	42	0.009%	32	17	0.00%	55
B071	303353	7600335	GRIS	205	68	0.015%	44	258	0.03%	117
B072	303369	7600289	GRIS	16.6	12	0.003%	99	106	0.01%	91
B073	303369	7600293	PEG	161.5	210	0.045%	54	246	0.03%	135
B074	303376	7600196	PEG	112.5	42	0.009%	39	1480	0.19%	98
B075	303376	7600200	PEG	226	132	0.028%	50	309	0.04%	66
B076	303459	7600299	PEG	108	16	0.003%	12	18	0.00%	51
B077	303458	7600286	GRIS	445	132	0.028%	24	80	0.01%	192
B078	303745	7600425	PEG	20.9	15	0.003%	58	49	0.01%	69
B079	303633	7600407	GRIS	1.7	-2	0.000%	78	26	0.00%	185
B080	303636	7600423	GRIS	2	5	0.001%	78	39	0.00%	81



SampleID	Easting	Northing	Lithology	Cs_ppm	Li_ppm	Li₂O_%	Nb_ppm	Sn_ppm	SnO <sub>2</sub> _%	Ta_ppm
B081	303635	7600434	PEG	6.7	4	0.001%	40	158	0.02%	109
B082	303629	7600449	GRIS	1.5	2	0.000%	47	89	0.01%	57
B083	303627	7600468	GRIS	3.1	20	0.004%	53	248	0.03%	57
B084	303624	7600478	PEG	190	470	0.101%	123	97	0.01%	115
B085	303615	7600504	PEG	111	16950	3.649%	39	1620	0.21%	76
B086	303611	7600517	GRIS	33.8	250	0.054%	41	292	0.04%	34
B087	304058	7600571	GRIS	19.6	36	0.008%	70	50	0.01%	29
B088	304006	7600572	GRIS	2.8	25	0.005%	52	6	0.00%	119
B089	303547	7600552	GRIS	36.3	51	0.011%	99	1060	0.13%	62
B090	303439	7600268	PEG	494	60	0.013%	48	1360	0.17%	143
B091	303434	7600273	GRIS	268	30	0.006%	8	18	0.00%	31
B092	303442	7600268	GRIS	202	30	0.006%	72	569	0.07%	149
B093	303441	7600272	GRIS	80.8	100	0.022%	84	2230	0.28%	173
B094	303440	7600275	GRIS	209	100	0.022%	84	2110	0.27%	144
B095	303440	7600278	GRIS	461	300	0.065%	65	644	0.08%	186
B096	303451	7600286	GRIS	202	70	0.015%	99	800	0.10%	149
B097	303456	7600276	PEG	198.5	60	0.013%	16	209	0.03%	57
B098	303458	7600279	PEG	74.5	40	0.009%	6	21	0.00%	8
B099	303460	7600291	GRIS	433	390	0.084%	31	194	0.02%	80
B100	303459	7600298	GRIS	121.5	60	0.013%	25	33	0.00%	46
B101	303463	7600301	GRIS	127	50	0.011%	25	38	0.00%	521
B102	303468	7600302	GRIS	17.8	30	0.006%	91	1490	0.19%	159
B103	303379	7600222	PEG	17.8	30	0.006%	-5	16	0.00%	2
B104	303379	7600219	PEG	187.5	140	0.030%	24	162	0.02%	61
B105	303372	7600215	PEG	140.5	110	0.024%	72	359	0.05%	92
B106	303381	7600201	PEG	222	120	0.026%	47	251	0.03%	104
B107	303380	7600200	PEG	269	120	0.026%	95	181	0.02%	1080
B108	303379	7600198	PEG	189.5	110	0.024%	51	853	0.11%	88
B109	303378	7600188	PEG	101	70	0.015%	47	1300	0.17%	83
B110	303377	7600188	PEG	181.5	60	0.013%	66	1000	0.13%	64
B111	303379	7600212	PEG	514	390	0.084%	45	432	0.05%	120
B112	303375	7600260	PEG	75.3	50	0.011%	38	174	0.02%	284
B113	303377	7600267	GRIS	70.3	50	0.011%	59	477	0.06%	57
B114	303362	7600275	PEG	126.5	90	0.019%	40	261	0.03%	60
B115	303374	7600276	GRIS	86.2	130	0.028%	35	164	0.02%	49
B116	303374	7600277	GRIS	17.3	50	0.011%	54	699	0.09%	192
B117	303366	7600288	GRIS	89.5	70	0.015%	45	128	0.02%	55
B118	303371	7600293	PEG	44.9	40	0.009%	18	67	0.01%	27
B119	303371	7600299	GRIS	5.7	30	0.006%	84	382	0.05%	116
B120	303367	7600297	PEG	325	180	0.039%	101	1970	0.25%	8/
B121	303367	7600303	GRIS	9.2	30	0.006%	108	415	0.05%	146
B122	303358	7600300	GRIS	5.6	20	0.004%	-5	-5	0.00%	1
B123	303365	7600290	PEG	113.5	60	0.013%	9	45	0.01%	14
B124	303359	7600283	PEG	157.5	70	0.015%	45	208	0.03%	82
B125	303372	7600296	PEG	216	90	0.019%	56	246	0.03%	9/
B126	303359	7600329	PEG	64.9	40	0.009%	85	122	0.02%	/2
B127	303357	7600332	GRIS	226	100	0.022%	49	298	0.04%	82
B128	303355	7600334	PEG	312	100	0.022%	65	425	0.05%	59
B129	303355	7600336	PEG	186	/0	0.015%	38	243	0.03%	41
R130	303348	/000350	PEG	183	50	0.011%	84	102	0.02%	102



SampleID	Easting	Northing	Lithology	Cs_ppm	Li_ppm	Li₂O_%	Nb_ppm	Sn_ppm	SnO <sub>2</sub> _%	Ta_ppm
B131	303341	7600366	GRIS	84.2	60	0.013%	135	181	0.02%	212
B132	303336	7600364	PEG	295	70	0.015%	68	303	0.04%	64
B133	303339	7600371	GRIS	9.7	30	0.006%	79	207	0.03%	156
B134	303337	7600373	GRIS	190	50	0.011%	26	187	0.02%	92
B135	303332	7600382	PEG	73	50	0.011%	58	119	0.02%	28
B136	303332	7600385	PEG	184	90	0.019%	37	225	0.03%	50
B137	303335	7600386	PEG	952	130	0.028%	-5	35	0.00%	11
B138	303326	7600396	PEG	208	200	0.043%	63	287	0.04%	28
B139	303333	7600400	GRIS	53.5	50	0.011%	61	146	0.02%	90
B140	303331	7600401	PEG	49.8	15000	3.230%	6	37	0.00%	15
B141	303328	7600404	GRIS	411	110	0.024%	-5	125	0.02%	7
B142	303327	7600409	PEG	194.5	260	0.056%	62	260	0.03%	64
B143	303330	7600410	GRIS	145.5	70	0.015%	63	410	0.05%	183
B144	303333	7600406	GRIS	24.1	40	0.009%	71	63	0.01%	73
B145	303331	7600403	GRIS	52.4	40	0.009%	22	80	0.01%	40
B146	303323	7600419	PEG	323	450	0.097%	53	218	0.03%	171
B147	303324	7600423	PEG	144.5	130	0.028%	50	189	0.02%	37
B148	303324	7600431	PEG	192	220	0.047%	53	240	0.03%	37
B149	303328	7600434	GRIS	122	110	0.024%	46	130	0.02%	44
B150	303324	7600439	PEG	192	170	0.037%	68	231	0.03%	84
B151	303325	7600448	PEG	156.5	190	0.041%	281	298	0.04%	333
B152	303320	7600445	PEG	194	210	0.045%	58	227	0.03%	91
B153	303313	7600446	PEG	119	90	0.019%	44	191	0.02%	43
B154	303315	7600450	PEG	80.1	150	0.032%	33	88	0.01%	41
B155	303310	7600456	PEG	69	100	0.022%	58	627	0.08%	146
B156	303302	7600498	PEG	18.8	30	0.006%	42	185	0.02%	64
B157	303306	7600489	PEG	42.1	40	0.009%	33	122	0.02%	61
B158	303295	7600510	PEG	141	50	0.011%	127	4890	0.62%	258
B159	303382	7600368	PEG	23.8	20	0.004%	28	44	0.01%	103
B160	303377	7600372	GRIS	25.1	20	0.004%	18	38	0.00%	44
B161	303369	7600378	GRIS	41.6	8540	1.839%	-5	15	0.00%	8
B162	303361	7600388	PEG	261	190	0.041%	67	345	0.04%	40
B163	303363	7600388	GRIS	51.3	50	0.011%	7	35	0.00%	15
B164	303365	7600390	GRIS	803	110	0.024%	-5	7	0.00%	6
B165	303367	7600389	GRIS	35	50	0.011%	73	161	0.02%	126
B166	303354	7600393	GRIS	32.9	19550	4.209%	-5	10	0.00%	2
B167	303357	7600396	GRIS	19.7	19250	4.145%	-5	22	0.00%	4
B168	303357	7600399	GRIS	26.8	21500	4.629%	19	42	0.01%	52
B169	303354	7600406	PEG	166.5	190	0.041%	26	178	0.02%	68
B170	303354	7600403	GRIS	107.5	100	0.022%	33	121	0.02%	85
B171	303352	7600402	PEG	150	120	0.026%	65	145	0.02%	74
B172	303360	7600397	GRIS	71	60	0.013%	53	307	0.04%	137
B173	303428	7600411	PEG	22.7	30	0.006%	90	2220	0.28%	162
B174	303431	7600429	GRIS	39.9	40	0.009%	57	482	0.06%	97
B175	303427	7600437	PEG	23	40	0.009%	46	151	0.02%	35
B176	303431	7600445	PEG	143.5	70	0.015%	72	124	0.02%	155
B177	303427	7600453	GRIS	19	30	0.006%	48	39	0.00%	191
B178	303429	7600459	PEG	112.5	18450	3.972%	14	71	0.01%	45
B179	303429	7600462	GRIS	189.5	80	0.017%	69	528	0.07%	135
B180	303409	7600404	PEG	206	80	0.017%	16	192	0.02%	31



SampleID	Easting	Northing	Lithology	Cs_ppm	Li_ppm	Li₂O_%	Nb_ppm	Sn_ppm	SnO <sub>2</sub> _%	Ta_ppm
B181	303406	7600413	GRIS	276	100	0.022%	21	272	0.03%	76
B182	303410	7600414	PEG	180.5	80	0.017%	40	2720	0.35%	87
B183	303404	7600424	GRIS	311	3490	0.751%	65	829	0.11%	111
B184	303400	7600431	GRIS	67.5	100	0.022%	18	379	0.05%	28
B185	303401	7600436	GRIS	168.5	240	0.052%	71	203	0.03%	84
B186	303403	7600444	GRIS	46.3	40	0.009%	87	136	0.02%	633
B187	303399	7600444	GRIS	309	170	0.037%	98	387	0.05%	208
B188	303396	7600443	PEG	1380	640	0.138%	7	86	0.01%	25
B189	303397	7600449	PEG	1270	1100	0.237%	-5	62	0.01%	14
B190	303397	7600451	PEG	85.7	19750	4.252%	15	194	0.02%	53
B191	303395	7600461	GRIS	73.3	20400	4.392%	24	84	0.01%	59
B192	303391	7600459	PEG	613	390	0.084%	66	179	0.02%	51
B193	303390	7600468	PEG	32.3	70	0.015%	40	30	0.00%	134
B194	303394	7600469	PEG	118	80	0.017%	51	992	0.13%	91
B195	303396	7600468	GRIS	131.5	14900	3.208%	40	161	0.02%	59
B196	303396	7600446	GRIS	60.8	17200	3.703%	24	100	0.01%	83
B197	303515	7600402	APL	3	10	0.002%	170	260	0.03%	140
B198	303503	7600432	GRIS	163	50	0.011%	90	212	0.03%	108
B199	303492	7600452	PEG	224	780	0.168%	83	190	0.02%	112
B201	303493	7600452	APL	316	70	0.015%	53	184	0.02%	93
B202	303495	7600451	APL	135.5	430	0.093%	60	132	0.02%	70
B203	303492	7600463	TOU	237	770	0.166%	99	200	0.03%	61
B204	303500	7600471	PEG	3.6	-10	-0.002%	60	11	0.00%	134
B205	303492	7600478	APL	4.1	10	0.002%	53	452	0.06%	106
B206	303492	7600480	TOU	97.8	40	0.009%	17	57	0.01%	20
B207	303491	7600498	PEG	2.6	10	0.002%	26	61	0.01%	104
B208	303490	7600498	PEG	26.1	10	0.002%	49	11	0.00%	61
B209	303493	7600510	PEG	13.2	10	0.002%	13	14	0.00%	21
B210	303479	7600519	QTZ	4.8	10	0.002%	5	17	0.00%	12
B211	303478	7600519	PEG	24.1	10	0.002%	50	85	0.01%	96
B212	303848	7600570	PEG	101.5	90	0.019%	125	57	0.01%	59
B213	303847	7600570	PEG	203	50	0.011%	27	49	0.01%	23
B214	303841	7600570	PEG	69.3	30	0.006%	38	18	0.00%	24
B215	303840	7600570	PEG	64.4	50	0.011%	47	32	0.00%	35
B216	303849	7600532	PEG	32.3	40	0.009%	68	42	0.01%	25
B217	303852	7600532	PEG	127	90	0.019%	34	173	0.02%	19
B218	303856	7600532	PEG	222	240	0.052%	96	359	0.05%	83
B219	303864	7600531	APL	17.9	10	0.002%	117	96	0.01%	63
B220	303852	7600490	APL	121.5	210	0.045%	78	79	0.01%	34
B221	303852	7600465	PEG	35.6	60	0.013%	166	64	0.01%	93
B222	303851	7600448	APL	41.5	30	0.006%	81	57	0.01%	56
B223	303851	7600432	PEG	41.2	20	0.004%	59	54	0.01%	37
B224	303874	7600353	PEG	27.4	20	0.004%	74	89	0.01%	29
B226	303886	7600299	PEG	37	30	0.006%	51	51	0.01%	14
B227	303986	7600540	PEG	92.2	10	0.002%	15	121	0.02%	13
B228	303998	7600545	PEG	39.3	10	0.002%	84	13	0.00%	41
B229	304055	7600572	PEG	48.2	20	0.004%	66	102	0.01%	29
B230	304086	7600565	PEG	91.6	80	0.017%	94	242	0.03%	36
B231	304113	7600592	ΤΟυ	124.5	10	0.002%	5	26	0.00%	2
B232	304173	7600555	GRIS	331	370	0.080%	91	461	0.06%	57



## Appendix One - JORC Table One - Sampling Techniques and Data

#### Walabanba Rock Chip Sampling

Criteria	JORC Code explanation	Commentary
Sampling techniques	Nature and quality of sampling (eg cut channels, random	2-3kg rock chip samples.
	chips, or specific specialised industry standard	All samples have been submitted to ALS
	measurement tools appropriate to the minerals under	Laboratories for industry standard preparation
	investigation, such as down hole gamma sondes, or	(whole sample crushed to >85% <75um) and
	handheld XRF instruments, etc). These examples should	analysis by ME-MS91 (multielement ICP) for a
	not be taken as limiting the broad meaning of sampling.	broad multi-element suite including lithium and
	Include reference to measures taken to ensure sample	related elements.
	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.	
Drilling techniques	Drill type (eg core, reverse circulation, open-hole hammer,	Not relevant
	rotary air blast, auger, Bangka, sonic, etc) and details (eg	
	toile diameter, imple of standard tube, depth of diamond	
	clins, race-sampling bit of other type, whether core is	
Drill sample recovery	Method of recording and assessing core and chip sample	Not relevant
21	recoveries and results assessed.	
	Measures taken to maximise sample recovery and ensure	
	representative nature of the samples.	
	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.	
Logging	Whether core and chip samples have been geologically and	Rock chips were geologically logged for
	geotechnically logged to a level of detail to support	lithology, mineralogy, colour, weathering,
	appropriate Mineral Resource estimation, mining studies	alteration, structure and mineralisation.
	and metallurgical studies.	
	Whether logging is qualitative or quantitative in nature. Core	
	(or costean, channel, etc) photography.	
	I ne total length and percentage of the relevant	
Sub compling tochniques	Intersections logged.	Sample propagation for all camples follows
and sample proparation	coro takon	industry best practice, with even drying of
	If non-core whether riffled tube sampled rotary split etc	samples prior to coarse crushing and
	and whether sampled wet or dry	nulverization (to $>85\%$ passing 75 microns) of
	For all sample types, the nature, quality and	the entire sample
	appropriateness of the sample preparation technique.	The sample size (2-5 kg) is considered to be
	Quality control procedures adopted for all sub-sampling	adequate for the material and grainsize being
	stages to maximise representivity of samples.	sampled and the style of mineralisation being
	Measures taken to ensure that the sampling is	assessed.
	representative of the in situ material collected, including for	
	instance results for field duplicate/second-half sampling.	
	Whether sample sizes are appropriate to the grain size of	
	the material being sampled.	
Quality of assay data and	The nature, quality and appropriateness of the assaying	All samples reported here were analysed at
laboratory tests	and laboratory procedures used and whether the technique	ALS IN Perth by technique ME-MS91 and ME-
	is considered partial of total.	ICP89 (considered a "total" digest result).
	For geophysical tools, spectrometers, nanoneld XKF	Limum/ In certified standards were inserted
	analysis including instrument make and model reading	into the laboratory batch, results were
	analysis including instrument make and their derivation atc	allepiane.
	Nature of quality control procedures adopted (or standards	
	blanks, duplicates, external laboratory checks) and whether	
	acceptable levels of accuracy (ie lack of bias) and precision	
	have been established.	



Verification of sampling and assaying	The verification of significant intersections by either independent or alternative company personnel. The use of twinned holes. Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols. Discuss any adjustment to assay data.	Sampling was conducted by the field geologist and verified by the Exploration Manager prior to dispatch. All data was entered into standardized spreadsheets on field laptops and uploaded into the company Access database. No adjustments have been made to the primary assay data
Locations 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. Specification of the grid system used. Quality and adequacy of topographic control.	All sampling locations were located up using a standard GPS unit to an accuracy of ca. 3-5m for Easting, Northing and RL. All coordinate data for the Walabanba project are in MGA_GDA94 Zone 53.
Data spacing and distribution	Data spacing for reporting of Exploration Results. 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. Whether sample compositing has been applied.	Sampling was of an exploratory and reconnaissance nature and spacings are insufficient to establish continuity or define Resources.
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. 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.	Samples were point sampled and so do not relate to the orientation of the mineralisation noted.
Sample security	The measures taken to ensure sample security.	All samples were under company supervision at all times prior to delivering to ALS laboratories in Alice Springs
Audits or reviews	The results of any audits or reviews of sampling techniques and data.	No sampling audits have been conducted at the Walabanba project to date.

# 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 security of the tenure held at the time of reporting along with any known impediments to obtaining a licence to operate in the area.	The Anningie Tin Field is located on tenement EL 26848 held by Todd River Metals Pty Ltd, which is wholly-owned subsidiary of Todd River Resources Limited. All tenements are in good standing with no know impediments
Exploration	Acknowledgment and appraisal of exploration by	All significant previous work is outlined in NTGS open file reports, with
done by other parties	other parties.	work conducted by TRT reported to the ASX in release 11 July 2017.
Geology	Deposit type, geological setting and style of mineralisation.	At Anningie TRT is looking for Lithium mineralisation that is related to LCT-type pegmatites associated with the margins of evolved/differentiated granites.
Drill hole	A summary of all information material to the	Not relevant
Information	understanding of the exploration results including a	
	drill boles:	
	• Easting and northing of the drill collar	
	<ul> <li>Elevation of RL (Reduced Level –</li> </ul>	
	elevation above sea level in metres) of	
	the online collar	
	<ul> <li>Dip and azimum or me note</li> <li>Down hole length and interception denth</li> </ul>	
	o Hole length	



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. 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 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').	The true orientation of the pegmatite hosted Li mineralisation is not known.
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 1, 4, 5 and 6.
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.	See Table 1 for comprehensive assay listings.
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.	No substantial new information is available other than that reported above.
Further work	The nature and scale of planned further work (eg tests for lateral extensions or depth extensions or large-scale step-out drilling). Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.	Mineralogical work is continuing, and further sampling may be required prior to drill testing.