MINERAL RESOURCES LIMITED

WODGINA RESOURCE & EXPLORATION UPDATE

17 February 2017

EXECUTIVE SUMMARY

- **Cassiterite pit Resource 25.35 Mt at 1.38% Li_2O**
- **Tailings Storage Facility 3 (TSF3) Resource 20.1 Mt at 1.02% Li_2O**
- **Significant exploration extensions to the North East of the Cassiterite pit Resource**

MINERAL RESOURCE ESTIMATE FOR THE WODGINA CASSITERITE PIT

Mineral Resources Limited (ASX: MIN) ("MRL"), are pleased to announce results of recent re-sampling and infill drilling at the Wodgina Lithium Project ("Wodgina") carried out between September 2016 and February 2017.

Widenbar and Associates Pty Ltd ("Widenbar") has reviewed the updated data and produced a new Mineral Resource Estimate as at 16th February 2017. The Indicated and Inferred Mineral Resource above a cut-off grade of 0.5% Li_2O now totals 25.35 Mt at 1.38% Li_2O.

Wodgina Cassiterite Pit Mineral Resource Estimate

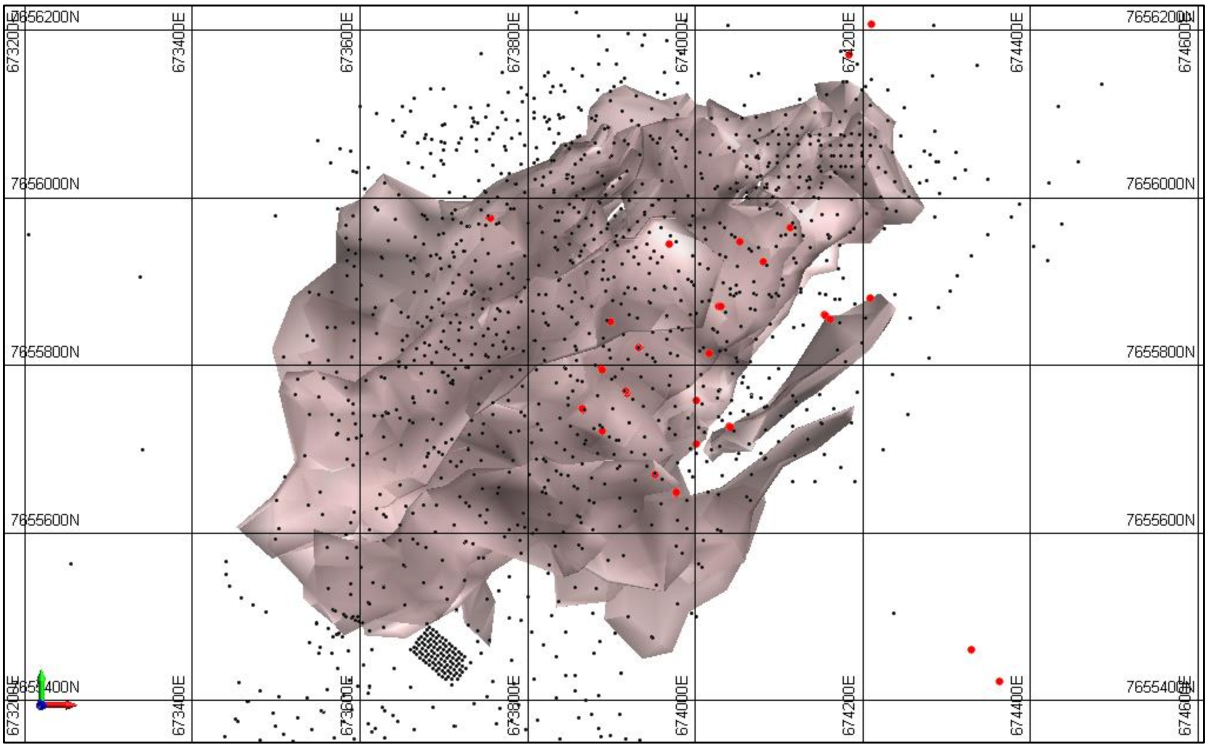
RESOURCE	Cutoff	Tonnes	Li2O	Fe	SnO2	Al2O3	As2O3	Ta2O5	K2O	Na2O	SiO2	CaO	S
CLASSIFICATION	Li2O%	(Millions)	%	%	%	%	%	%	%	%	%	%	%
INDICATED	0.50	10.83	1.43	1.65	0.03	15.91	0.002	0.03	2.69	3.58	70.60	0.66	0.18
INFERRED	0.50	14.52	1.34	2.97	0.03	15.41	0.003	0.03	2.66	3.33	68.17	0.85	0.17
TOTAL	0.50	25.35	1.38	2.41	0.03	15.62	0.002	0.03	2.67	3.44	69.21	0.77	0.18

Reverse Circulation sample pulps from previous drilling programs at Wodgina have been retrieved from storage and submitted to Nagrom Laboratories for assaying for Li_2O. A total of 3,390 assays have been received.

In addition, assay data from 27 new RC drill holes for a total of 4,823m has been received at the date of this Mineral Resource Estimate and has also been used in the calculation.

The mineralisation outline, new drill hole locations (red) and historic drill hole locations (black) are shown below.

Figure 1 Drill Hole Locations



The location of samples which were re-assayed for Li_2O is shown below (black), together with the new drill hole sample locations (red).

Figure 2 Sample Locations

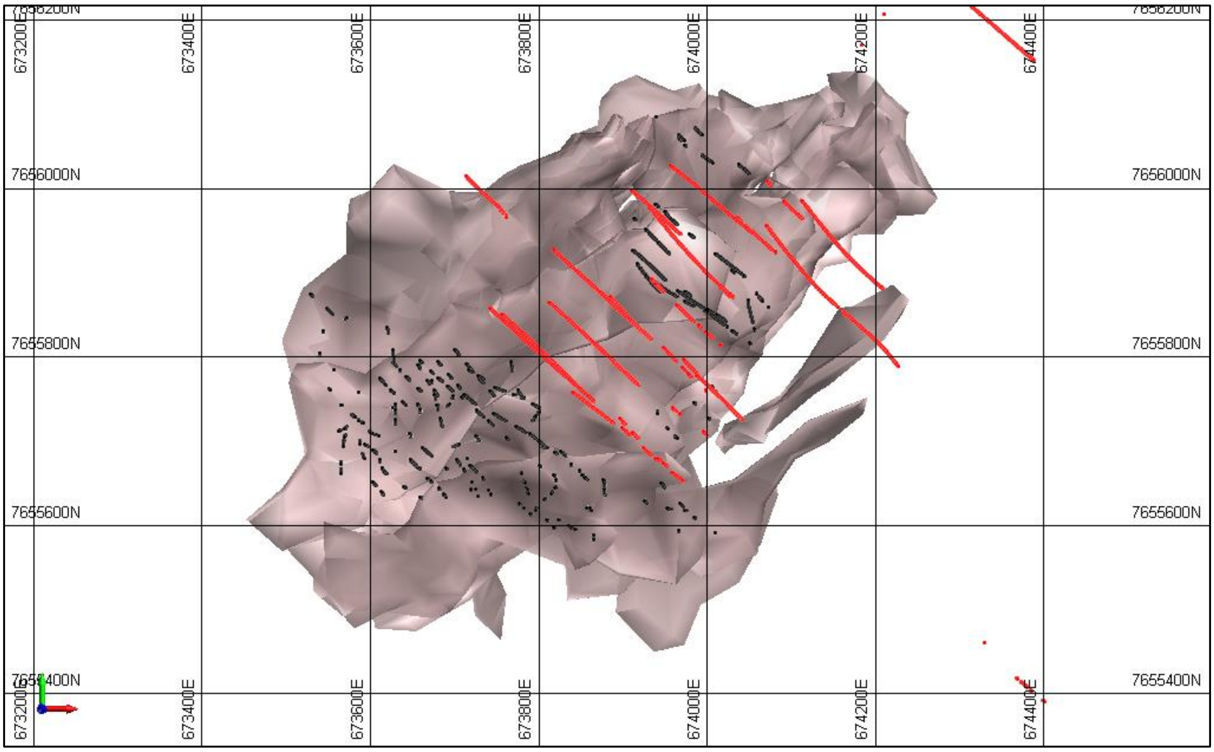
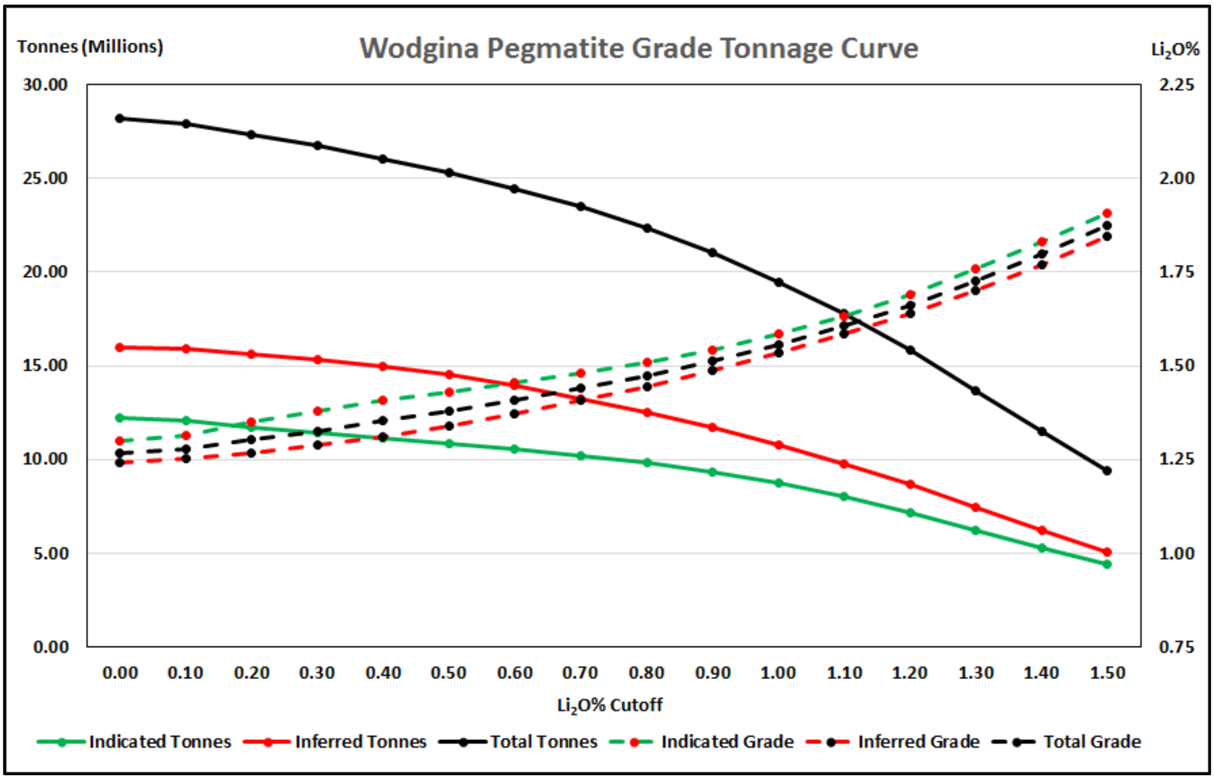


Figure 3 Wodgina Cassiterite Pit Grade-Tonnage Curve



The Wodgina Pegmatites are contained within the former Wodgina Tantalum and Tin Project, located approximately 109 km due south of Port Hedland, in the northwest of Western Australia. The Wodgina tantalum processing plant was operated by Global Advanced Metals (GAM) from 1989 to 2012, and the pegmatites have subsequently been discovered to be rich in Lithium in the form of spodumene.

The mining operation extracted tantalum bearing pegmatite ores from the Mount Cassiterite and Tinstone open pits. The ores were crushed, milled and fed into the Wodgina plants advanced gravity separation plant.

With recent increases in both the demand for and the price of Lithium, re-assaying of a limited number of in-situ pegmatite samples indicated the potential viability of the extraction of Lithium. It was also noted that some of the pegmatites are known to contain spodumene. Subsequently in March-April 2016, a program was instituted to retrieve as many RC pulp samples as possible from storage at Wodgina and re-assay the pegmatite zones for Li_2O%.

“The pegmatite mined at Mt Cassiterite has the following approximate composition:

- 50% Albite
- 20% K-feldspar
- 15% Spodumene
- 10% Quartz
- 5% Muscovite/Sericite/Zinnwaldite

plus minor lepidolite, biotite, fluorite, white beryl and lithium phosphate minerals, with no obvious mineral zoning. The pegmatite is very hard rock, usually fresh at surface, and distinctive in outcrop. K-feldspar and spodumene exist as phenocrysts in a fine-grained (1mm) albite-quartz matrix, which is veined by 10cm thick massive quartz stringers and 1mm thick green sericite-albite veinlets. Texturally the pegmatite is extremely complex, showing evidence of multiple silicification and albitisation events.

QAQC has been carried out by the submission of a series of standards and internal laboratory repeats. Li_2O standards represent approximately 1 in 11 samples and laboratory repeats and splits approximately 1 in 10 samples. The QAQC has produced acceptable results.

Database management and validation has been undertaken in Micromine 2016 Software; raw Li_2O_ppm data was provided in Excel spreadsheet format by Nagrom Laboratories.

A detailed geological re-interpretation of the pegmatites was conducted on behalf of GAM for the Tantalum Mineral Resource Estimate by Cube Consulting in September 2013. Widenbar has subsequently modified this on the basis of the 27 new RC drill holes.

The new Li_2O data has been flagged with the existing pegmatite geological interpretation and statistical analysis and variography has been carried out. Assay intervals have been composited to 1m composites. A top cut of 4% Li_2O has been applied to the data.

A Kriging Neighbourhood Analysis study was utilised to optimise parameters for an Ordinary Kriging Resource estimation of Li_2O. Interpolation has been carried out using an unfolding methodology that allows the search ellipses to vary with the changes in dip and plunge of the pegmatite bodies.

The block model has cell sizes of 5m (East) by 10m (North) by 2.5m (RL), with subcells to 1m x 1m x 0.5m. The block model is rotated 41° to align with the strike of the orebody.

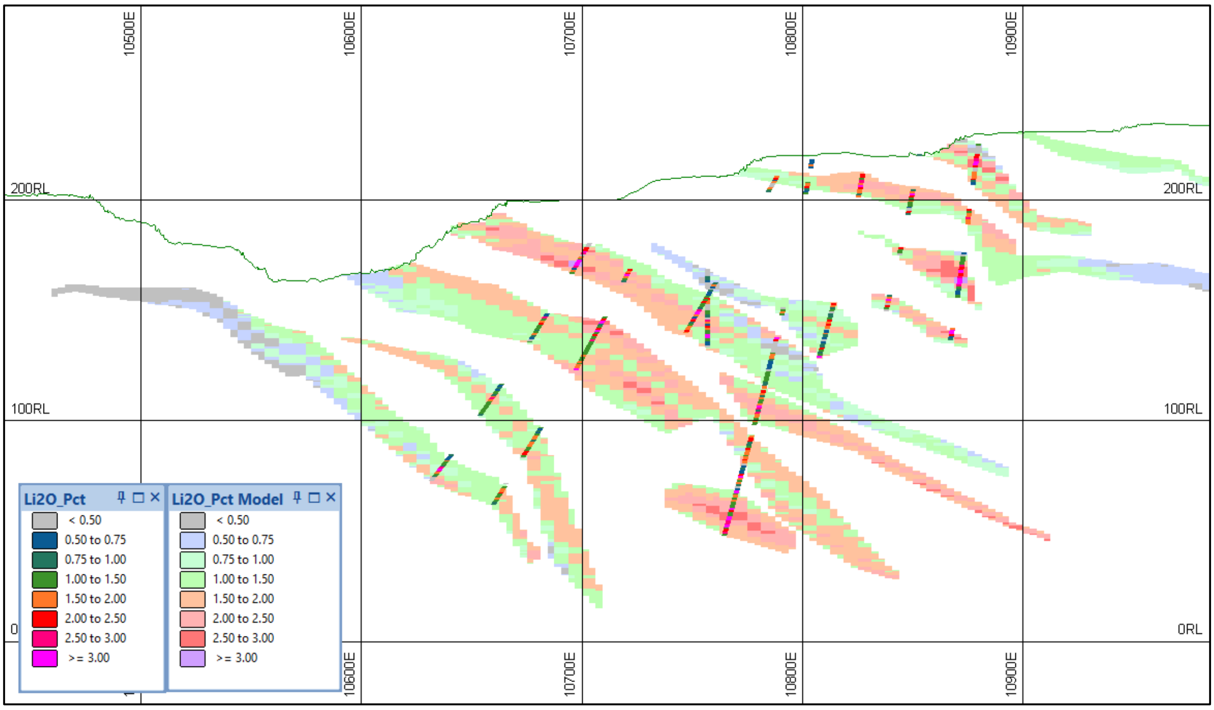
Density data has been reviewed and has been assigned, as for the previous 2013 tantalum resource model, based on geology and oxidation state. In practice all of the Li_2O mineralised pegmatite remaining after mining is fresh.

Table 2 Density Assignment

Material	Density (t/m^3)
Fill	1.80
Oxide Waste	2.32
Transitional Waste	2.80
Fresh Waste	2.96
Oxide Pegmatite	2.30
Transitional Pegmatite	2.53
Fresh Pegmatite	2.68

Block model validation has been carried out by drill hole plan and section review of data vs model, by statistical comparison, and by sectional and plan swathe plots. All validation methods have produced acceptable results.

Figure 4 Li_2O Block Model and Data on Section 20275 North

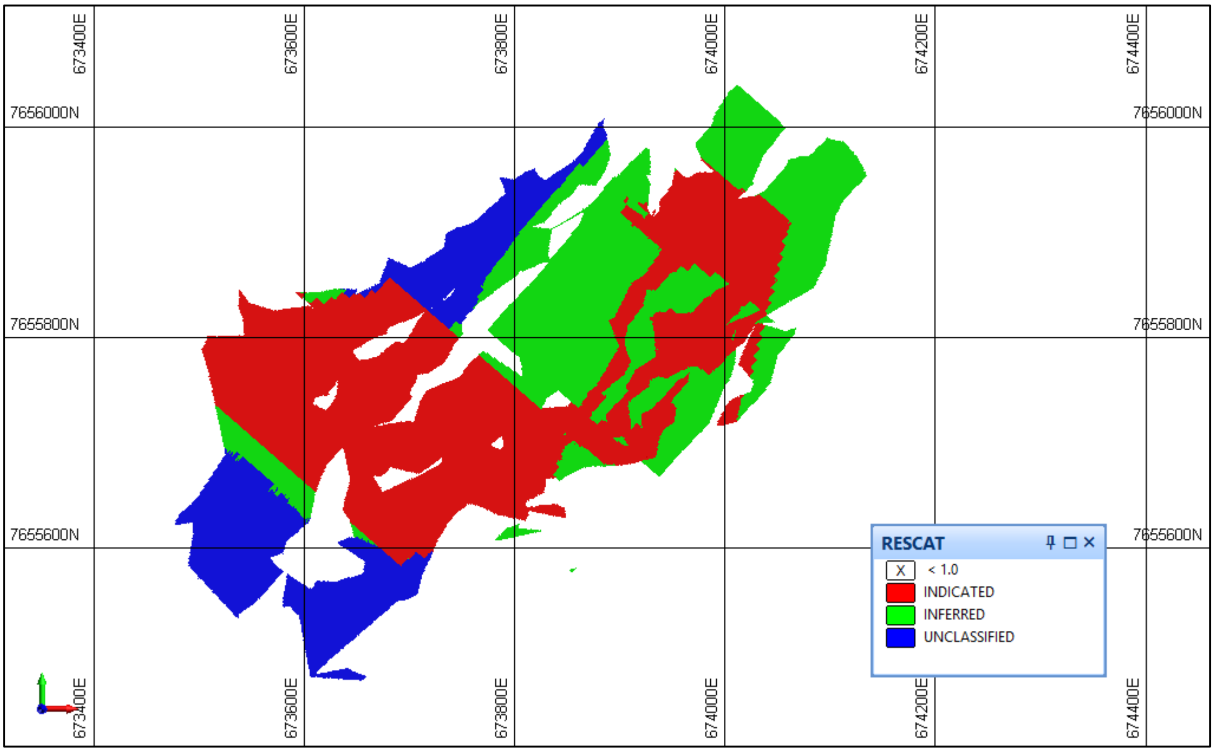


The Mineral Resource has been classified in the Indicated and Inferred categories, in accordance with the 2012 Australasian Code for Reporting of Mineral Resources and Ore Reserves (JORC Code 2012). A range of criteria has been considered in determining this classification including:

- Grade and geological continuity
- Data quality
- Drill hole spacing
- Modelling technique, including kriging efficiency, kriging variance, number of informing samples and average distance to samples.

Final classification has resulted in the Indicated (red) and Inferred (green) areas illustrated below; remaining areas have not been classified but remain as Target Mineralisation (blue).

Figure 5 Resource Classification for Wodgina Cassiterite Pit



A qualitative risk assessment review has been carried out on the Mineral Resource Estimate, based on the general approach used by resource estimation practitioners and consultants to indicate in relative terms the level of risk or uncertainty that may exist with respect to resource estimation.

Relative levels of risk have been assessed as generally Low occasionally tending towards Moderate with respect to certain aspects of the estimation.

MINERAL RESOURCE ESTIMATE FOR THE WODGINA TSF3 (TAILINGS STORAGE FACILITY)

Widenbar and Associates Pty Ltd ("Widenbar") has produced a JORC 2012 compliant Mineral Resource Estimate for the Wodgina TSF3 (Tailings Storage Facility). The smaller TSF1 and TSF2 areas were also included.

TSF3 is contained within the Wodgina Tantalum and Tin Project, located approximately 109 km due south of Port Hedland, in the northwest of Western Australia. It was constructed from the tailings from the Wodgina tantalum processing plant operated by Global Advanced Metals from 1989 to 2012, and has subsequently been discovered to be rich in Lithium in the form of spodumene.

The Resource Summary for Li_2O% is tabulated below. No cutoff has been applied. All material coded as Tails is reported.

Li2O% Resource for TSF3 Summary

Category	AREA	VOLUME	TONNES	DENSITY	Li2O%
Inferred	TSF1	80,000	140,000	1.70	0.45
Sub-Total	**TSF1**	80,000	140,000	**1.70**	**0.45**
Inferred	TSF2	1,200,000	2,100,000	1.70	0.36
Sub-Total	**TSF2**	1,200,000	2,100,000	**1.70**	**0.36**
Indicated	TSF3	11,700,000	19,900,000	1.70	1.02
Inferred	TSF3	120,000	200,000	1.70	1.10
Sub-Total	**TSF3**	11,800,000	20,100,000	**1.70**	**1.02**
Indicated	All	11,700,000	19,900,000	1.70	1.02
Inferred	All	1,400,000	2,400,000	1.70	0.43
TOTAL	**ALL**	13,100,000	22,300,000	**1.70**	**0.96**

The TSF's have been drilled on a nominal 50m x 50m pattern with an Open Hole Percussion Atlas Copco D65 drill rig. Hole diameter is nominally 16.5 cm.

Sampling is carried out by cone sampling of the hole cuttings. There are generally three samples per hole, each weighing typically 2kg to 3kg.

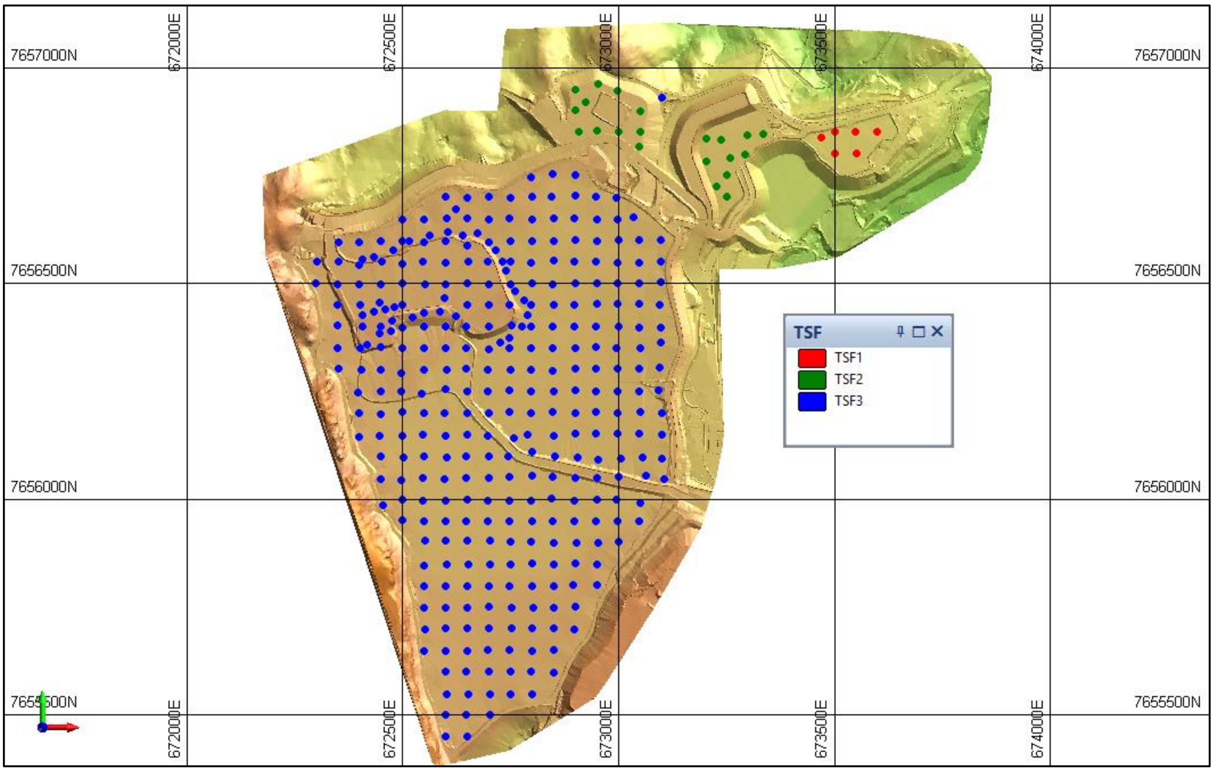
Assaying for Li_2O has been carried out using ICP at Nagrom Laboratories. Assaying has also been carried out by XRF for Al_2O_3, CaO, Cr_2O_3, Fe, K_2O, MgO, MnO, Na_2O, P, S, SiO_2, TiO2, V_2O_5, Ta_2O_5, Nb_2O_5 and LOI1000.

QAQC has been carried out by means of field duplicate cone samples, the submission of a series of standards and internal laboratory repeats. Field duplicates represent approximately 1 in 4 samples; Li_2O standards represent approximately 1 in 9 samples and laboratory repeats approximately 1 in 11 samples.

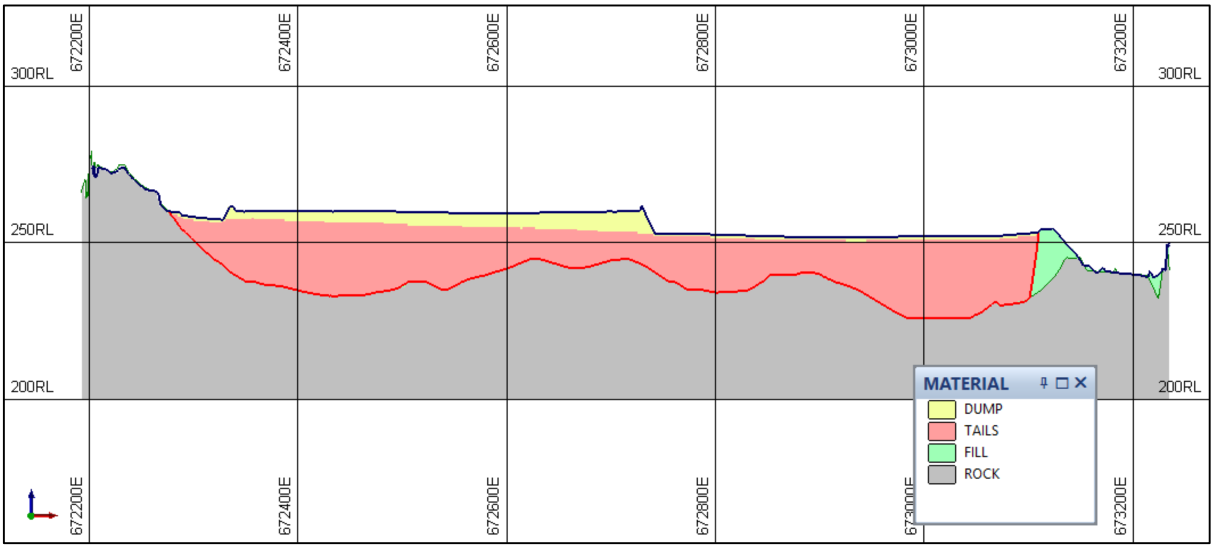
Database management and validation has been undertaken in Micromine 2016 Software; raw data was provided in Excel spreadsheet format by MRL and Nagrom Laboratories. There are 360 holes in the collar database and 1,011 samples in the assay database.

As the deposit is a tailings storage facility, there is no geological interpretation as such. The dominant lithium mineral in the tailings is spodumene.

Drill Hole Collar Locations at TSF

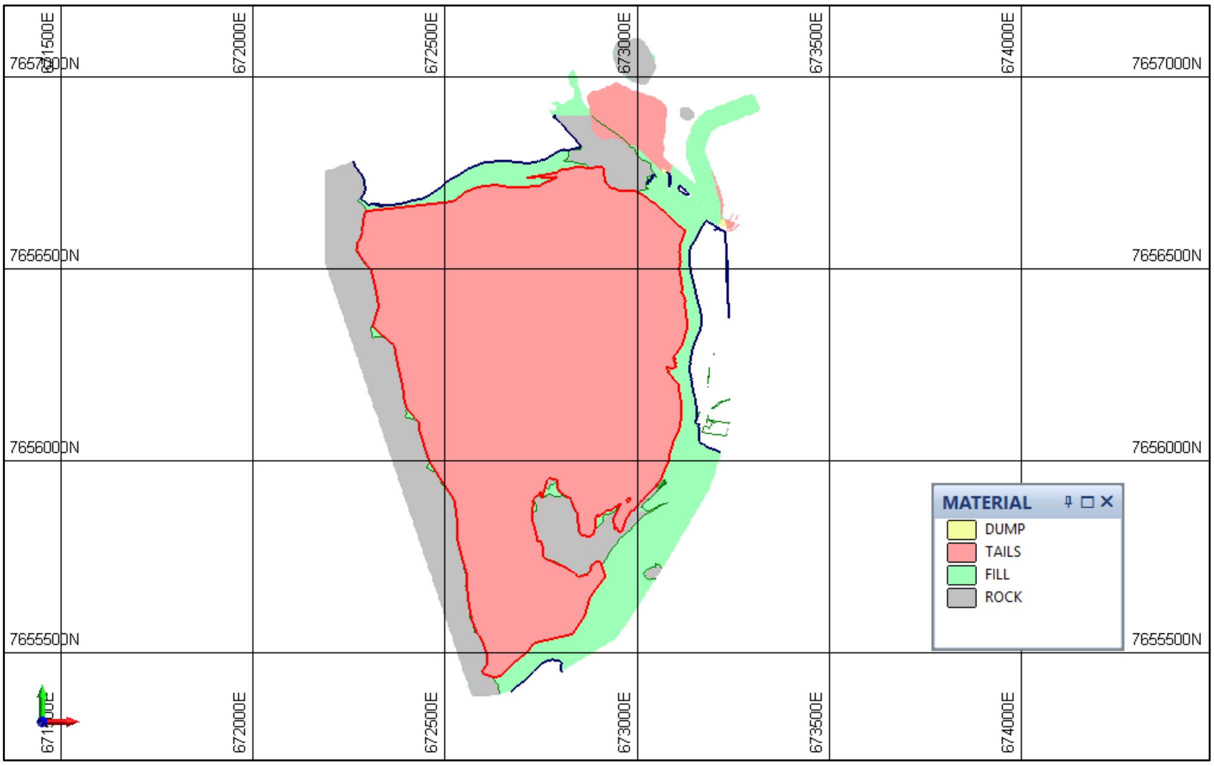


Section 7656500 North



Wireframe surface (DTM's or Digital Terrain Models) have been constructed to represent the base and top of the tailings material. Account has been taken of probable surficial sheeting material and also areas where underlying topography has likely been modified prior to deposition of the tails.

Level Plan 247m RL



Basic statistical analysis and variography of the Li_2O data has been carried out. Assay intervals have been composited to form a single composite for each hole.

A conventional sub-celled block model framework has been set up with cell sizes (25m x 25m x 5m) based on approximately half the nominal drill hole spacing. A rock model has been generated using the various surfaces representing the tails material, underlying rock and other fill and dump material.

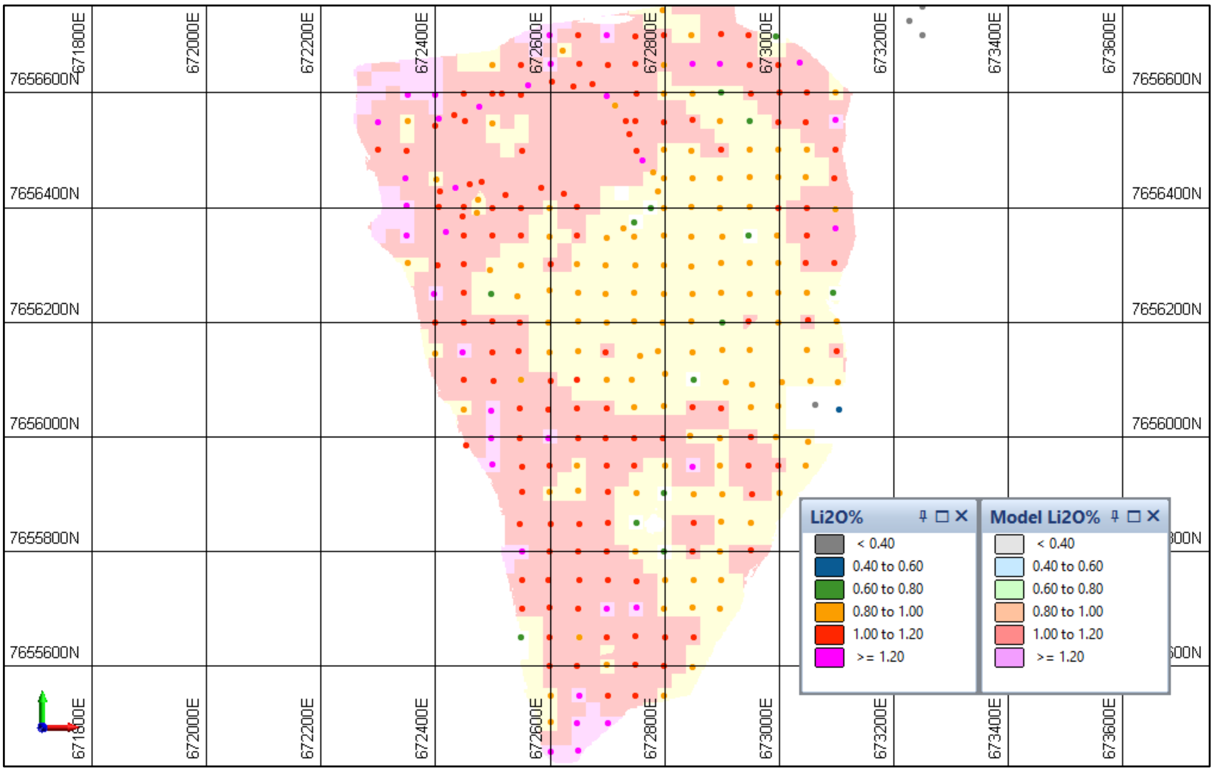
Block model grade estimates have been generated using Inverse Distance Squared interpolation. Search and sample number parameters have been set up so that the interpolation is almost polygonal, with minor influence from neighbouring samples.

29 holes have been geophysically logged by Surtron for density. The average density is 1.88 and an 8% moisture factor has been applied, resulting in a rounded dry density of 1.7 m^3/t being used in resource calculations.

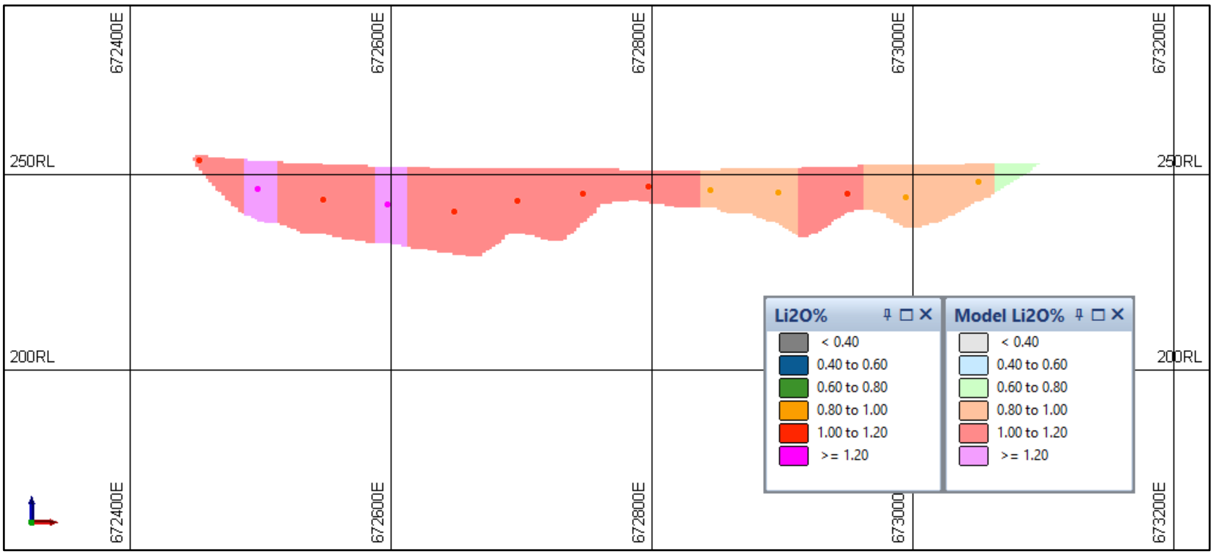
Block model validation has been carried out by drill hole plan section review of data vs model, by statistical comparison and by using alternative estimation methods.

All validation methods have produced acceptable results.

Model vs Data Li_2O% Plan at 250m RL



Model vs Data Li_2O% Section 7656000 North



The Mineral Resource has been classified in the Indicated and Inferred categories, in accordance with the 2012 Australasian Code for Reporting of Mineral Resources and Ore Reserves (JORC Code). A range of criteria has been considered in determining this classification including:

- Grade continuity
- Data quality
- Drill hole spacing
- Modelling technique

- TSF3 has been predominantly classified in the Indicated Category, with minor areas with wider spaced drilling classified as Inferred. TSF1 and TSF2 have been classified in the Inferred Category, due to poor knowledge of the basal topography and more erratic drill hole spacing.

A qualitative risk assessment review has been carried out on the Wodgina Tails Estimate, based on the general approach used by resource estimation practitioners and consultants to indicate in relative terms the level of risk or uncertainty that may exist with respect to resource estimation.

In general there is relatively high confidence in estimation overall at TSF3, but less so at TSF1 and TSF2. The overall risk is reflected in the final resource estimate classification.

RESULTS FROM INITIAL EXPLORATION REVERSE CIRCULATION DRILLING AT CASSITERITE NORTH EAST

In December 2016, the initial exploration RC drilling program at Wodgina commenced, and to date 34 drill holes have been completed for 9,359 metres.

Results thus far have been positive with significant intervals of spodumene-bearing pegmatites identified at the Cassiterite North East prospect. This prospect consists of at least 200 metres (horizontal width) of massive spodumene bearing pegmatite with a continuous vertical thickness of at least 170 metres (e.g. WLRC0057: Pegmatite from 133-304 metres and up to 225 metres from historic drilling CEC090 159-384 metres) and a strike length of up to 200 metres (NNE-SSW). The massive pegmatite unit remains open in all directions.

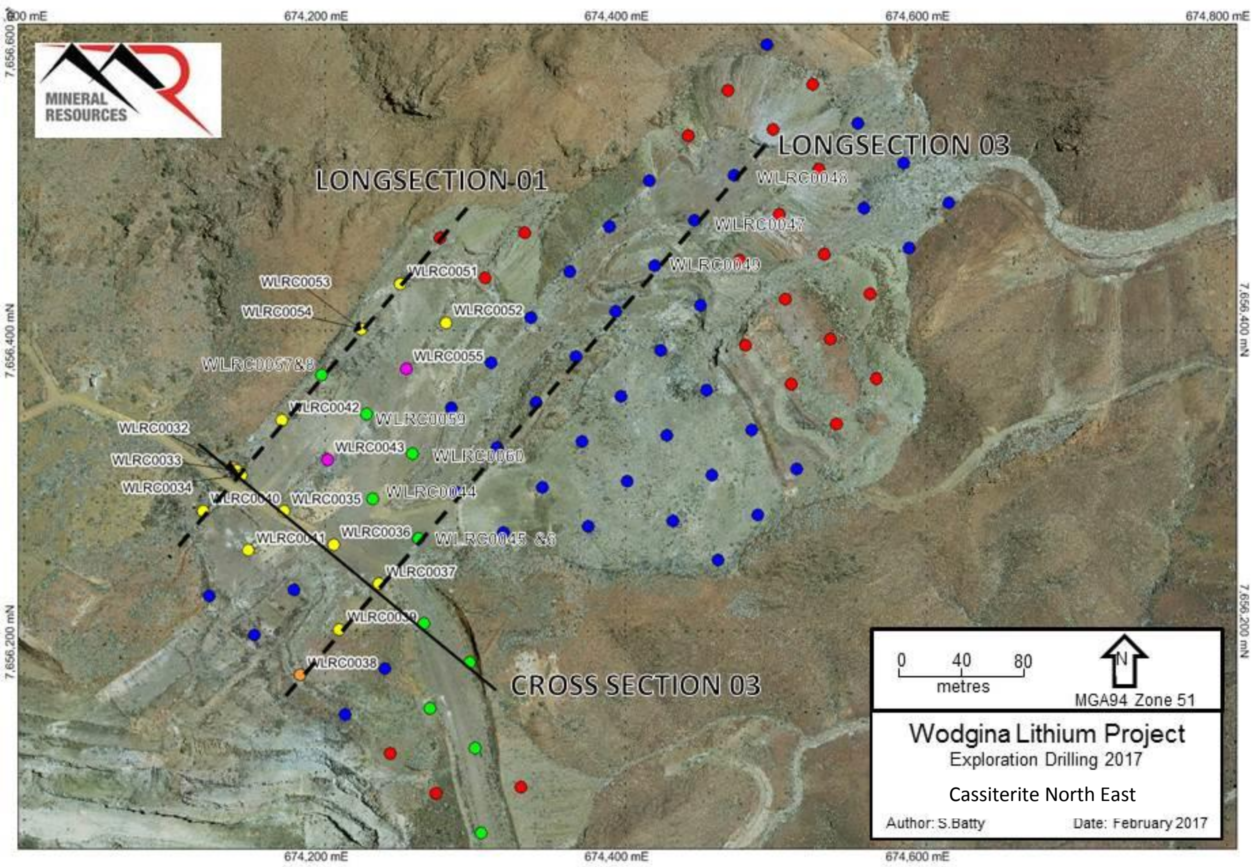
Some of the most significant intervals include:

- WLRC0036 with 91m@2.04% Li_2O from 224 to 315 metres
- WLRC0037 with 132m@1.76 % Li_2O from184 to 316 metres
- WLRC0039 with 72m@1.62% Li_2O from 171 to 243 metres

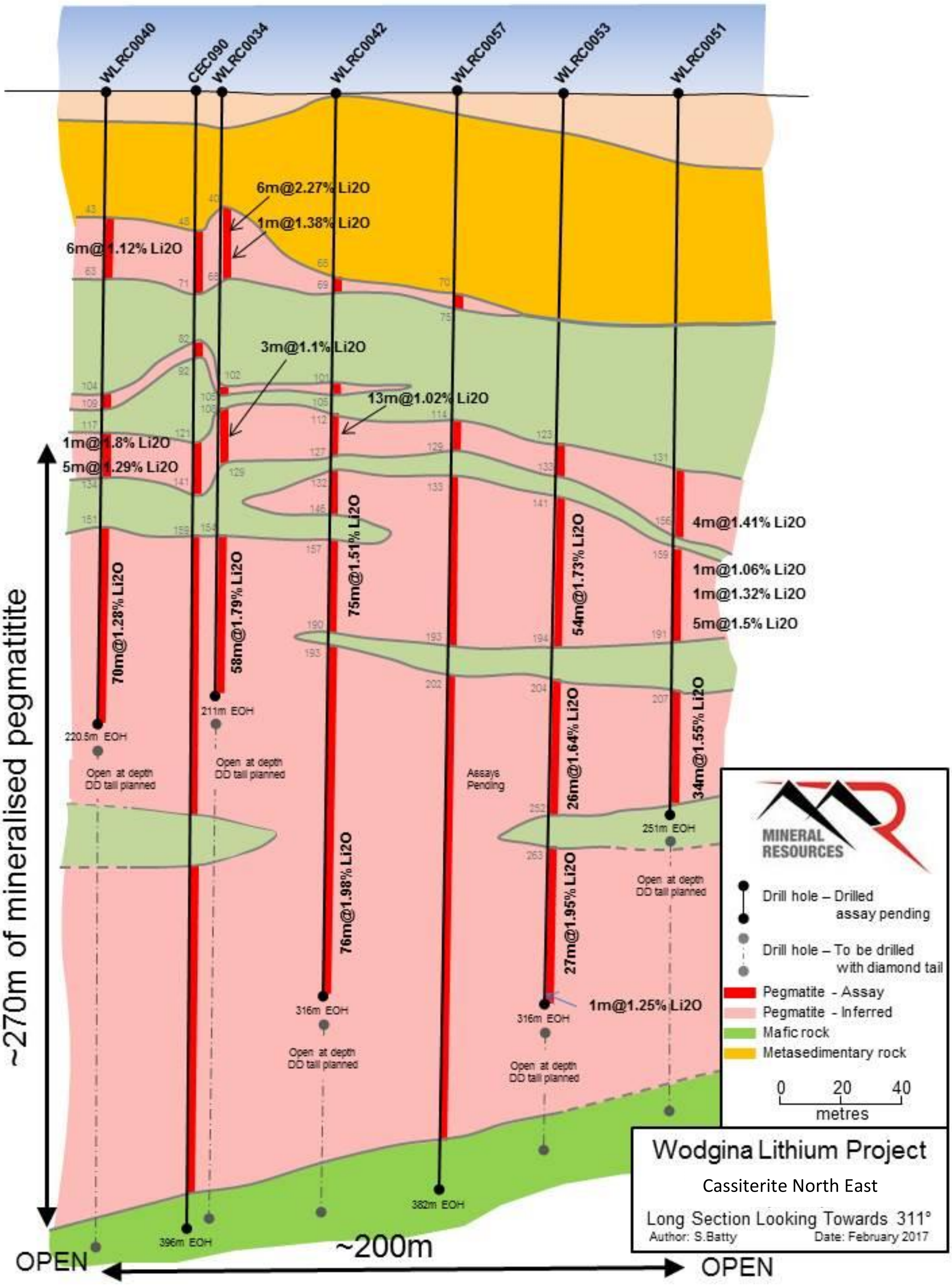
The full table of significant intervals is attached.

In addition, at least three minor sub-horizontal pegmatite sheets 10-30m thick and semi-continuous in all directions, occur between 35m to 140m depth.

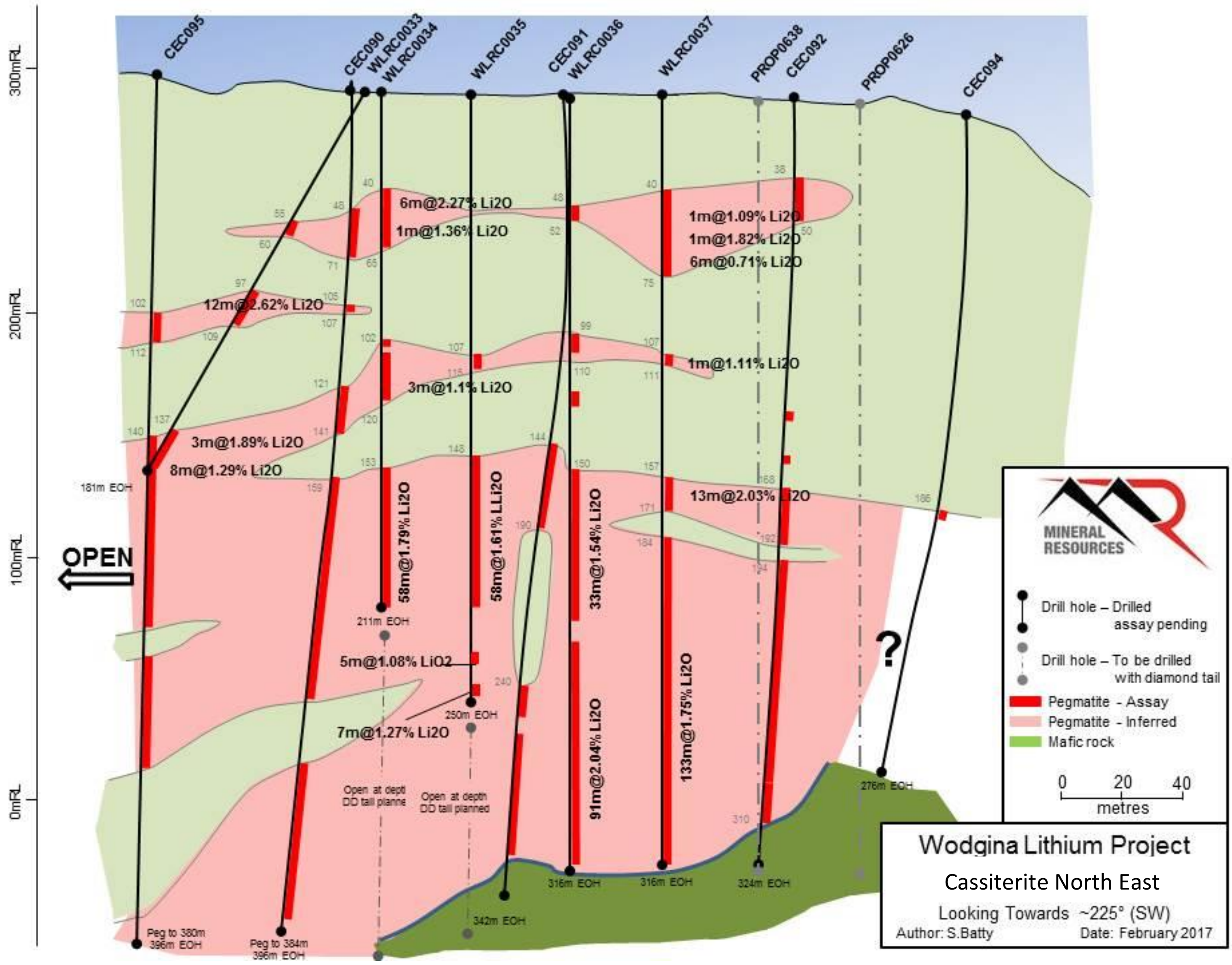
Plan View of Cassiterite North East prospect



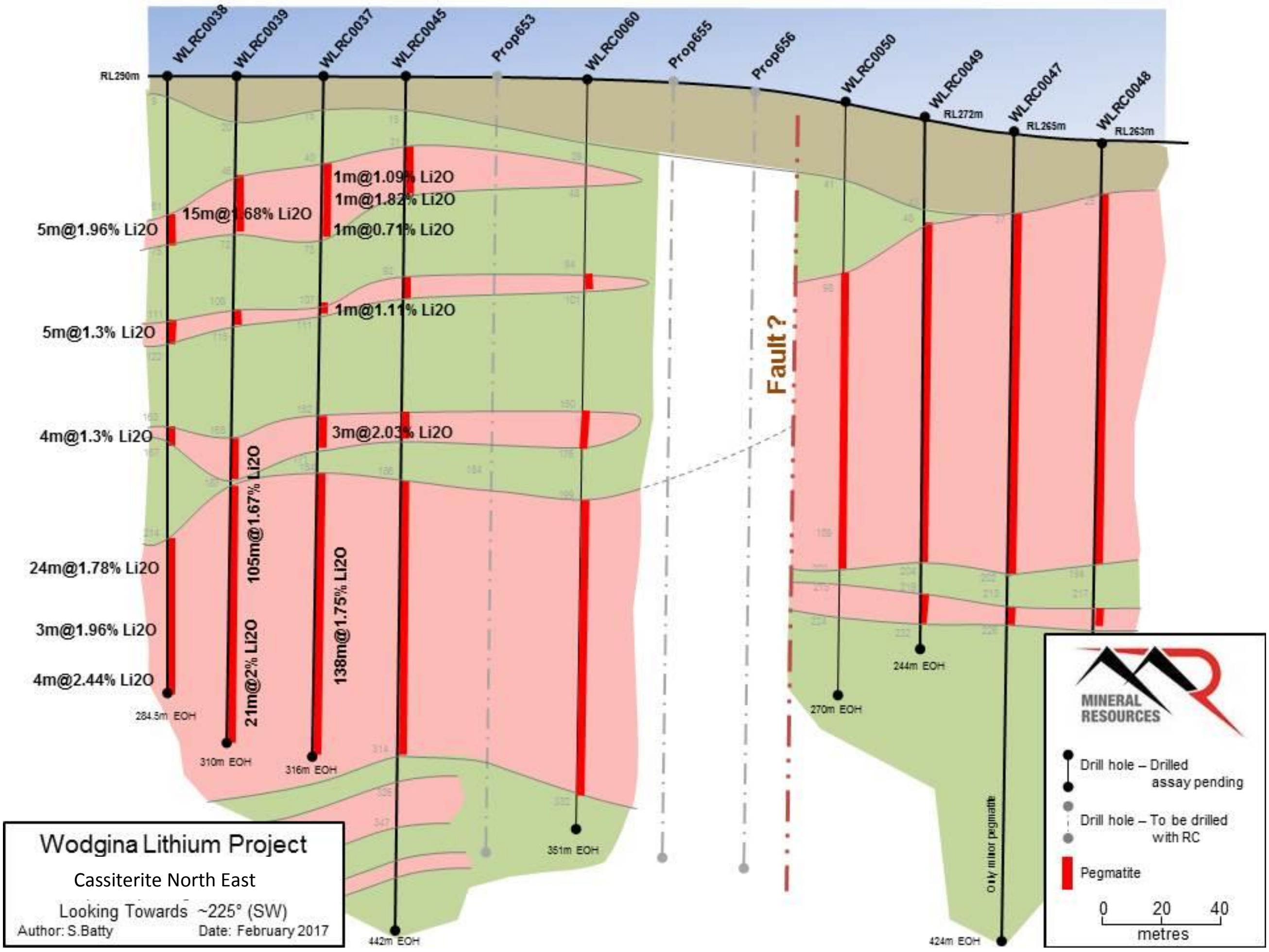
Long section 01



Cross section 03



Long section 03



COLLAR TABLE FOR RECENT INFILL AND EXPLORATION AT THE WODGINA PROJECT

Hole ID	Easting MGA	Northing MGA	MGA RL	Azimuth	Dip	Actual Hole Length (EOH)
CASSITERITE PIT – INFILL RC DRILLING						
WLRC0001	673978	7655648	229	311	-60	4
WLRC0002	673977	7655649	230	311	-60	214
WLRC0003	674002	7655706	236	311	-60	200
WLRC0004	673952	7655670	230	311	-60	196
WLRC0005	674040	7655728	239	311	-60	190
WLRC0006	674329	7655461	230	0	-90	178
WLRC0007	674363	7655423	229	131	-60	127
WLRC0008	674002	7655758	237	311	-60	190
WLRC0009	674114	7655964	230	311	-60	143
WLRC0010	674017	7655814	234	311	-60	250
WLRC0011	674082	7655924	221	311	-60	150
WLRC0012	674029	7655871	229	311	-60	40
WLRC0012a	674031	7655871	229	311	-60	317
WLRC0013	673917	7655770	200	311	-60	202
WLRC0014	673756	7655975	200	311	-70	118
WLRC0015	673754	7655976	200	131	-70	80
WLRC0016	673889	7655721	200	311	-60	150
WLRC0017	673919	7655766	200	311	-75	167
WLRC0018	673933	7655822	200	311	-60	208
WLRC0019	673934	7655821	200	311	-80	238
WLRC0020	673969	7655945	200	312	-60	154
WLRC0021	673866	7655747	210	311	-60	271
WLRC0022	673865	7655748	210	311	-50	250
WLRC0023	673887	7655797	207	311	-60	6
WLRC0024	673890	7655795	208	311	-60	214
WLRC0025	673900	7655852	200	311	-60	202
WLRC0026	674042	7655726	239	311	-80	184
WLRC0027	674053	7655948	223	311	-45	177
WLRC0028	674154	7655861	250	311	-60	220
WLRC0029	674155	7655860	250	0	-90	214
WLRC0030	674161	7655855	251	131	-60	200
WLRC0031	674209	7655881	253	311	-60	232
WLRC0032	674139	7656309	290	311	-60	28
WLRC0033	674141	7656307	290	311	-60	181

Hole ID	Easting MGA	Northing MGA	MGA RL	Azimuth	Dip	Actual Hole Length (EOH)
CASSITERITE NORTH EAST EXPLORATION DRILLING						
WLRC0034	674144	7656304	290	0	-90	211
WLRC0035	674173	7656280	290	0	-90	250
WLRC0036	674203	7656258	290	0	-90	316
WLRC0037	674235	7656234	289	0	-90	316
WLRC0038	674193	7656177	290	0	-90	284.5
WLRC0039	674211	7656207	289	0	-90	310
WLRC0040	674117	7656272	291	0	-90	220.5
WLRC0041	674150	7656253	290	0	-90	310
WLRC0042	674174	7656337	291	0	-90	316
WLRC0043	674202	7656313	290	0	-90	412
WLRC0044	674231	7656288	290	0	-90	376
WLRC0045	674262	7656262	289	0	-90	442
WLRC0046	674262	7656262	289	131	-60	334
WLRC0047	674438	7656467	266	0	-90	424
WLRC0048	674470	7656503	263	0	-90	238
WLRC0049	674420	7656444	272	0	-90	244
WLRC0050	674393	7656415	274	0	-90	270
WLRC0051	674253	7656427	289	0	-90	251
WLRC0052	674282	7656404	289	0	-90	322
WLRC0053	674224	7656399	290	0	-90	316
WLRC0054	674222	7656400	290	311	-60	316
WLRC0055	674254	7656372	289	0	-90	310
WLRC0056	674273	7656350	289	0	-90	364
WLRC0057	674198	7656371	291	0	-90	382
WLRC0058	674198	7656371	291	311	-60	232
WLRC0059	674228	7656344	290	0	-90	376
WLRC0060	674258	7656318	290	0	-90	351
WLRC0061	674318	7656266	288	0	-90	350
WLRC0101	674427	7656330	274	0	-90	256
WLRC0102	674397	7656356	274	0	-90	220

TABLE OF SIGNIFICANT INTERVALS FROM INFILL AND EXPLORATION DRILLING AT THE WODGINA PROJECT

HOLE	MGA94 z51 Easting (m)	MGA94 z51 Northing (m)	AHD_RL (m)	From (m)	To (m)	Apparent Thickness (m)	Li2O (%)	Lithology
CASSITERITE PIT – INFILL RC DRILLING								
WLRC0002	673977	7655649	230	25	31	6	1.29	Pegmatite
				111	127	16	1.21	Pegmatite
				194	199	5	1.37	Pegmatite
WLRC0003	674002	7655706	236	4	13	9	2.21	Pegmatite
				93	102	9	1.88	Pegmatite
				127	148	21	1.99	Pegmatite
				150	155	5	2.04	Pegmatite
				156	179	23	1.51	Pegmatite
WLRC0004	673952	7655670	230	2	10	8	1.62	Pegmatite
				20	30	10	1.80	Pegmatite
				104	126	22	1.77	Pegmatite
				164	169	5	1.62	Pegmatite
				176	186	10	1.33	Pegmatite
WLRC0005	674040	7655728	239	85	92	7	2.12	Pegmatite
				133	167	34	2.08	Pegmatite
WLRC0008	674002	7655758	237	59	65	6	1.43	Pegmatite
				81	87	6	1.30	Pegmatite
				117	156	39	1.85	Pegmatite
WLRC0009	674114	7655964	230	17	43	26	1.43	Pegmatite
				112	119	7	1.91	Pegmatite
WLRC0010	674017	7655814	234	27	46	19	1.50	Pegmatite
				65	72	7	1.21	Pegmatite
				90	121	31	1.82	Pegmatite
				122	147	25	2.20	Pegmatite
				199	221	22	1.46	Pegmatite
				232	240	8	1.78	Pegmatite
WLRC0011	674082	7655924	221	8	78	70	1.82	Pegmatite
				80	99	19	1.16	Pegmatite
				116	121	5	1.40	Pegmatite
WLRC0012	674029	7655871	229	10	19	9	1.37	Pegmatite
WLRC0012a	674031	7655871	229	0	6	6	1.03	Pegmatite
				11	19	8	1.35	Pegmatite
				51	67	16	1.79	Pegmatite
				82	123	55	1.81	Pegmatite
				179	191	12	1.94	Pegmatite
				207	219	12	1.70	Pegmatite
				229	236	7	1.60	Pegmatite
				275	280	5	1.35	Pegmatite
WLRC0013	673917	7655770	200	6	31	25	1.78	Pegmatite
				68	76	8	1.25	Pegmatite
				90	112	22	1.72	Pegmatite
				139	160	21	1.53	Pegmatite
WLRC0016	673889	7655721	200	36	106	70	1.79	Pegmatite

				114	127	13	1.82	Pegmatite
WLRC0017	673919	7655766	200	13	73	60	1.79	Pegmatite
				81	95	14	1.72	Pegmatite
				113	129	16	1.44	Pegmatite
WLRC0018	673933	7655822	200	14	18	4	1.68	Pegmatite
				28	59	31	1.88	Pegmatite
				63	81	18	1.47	Pegmatite
				124	165	41	1.68	Pegmatite
				172	197	25	1.26	Pegmatite
WLRC0019	673934	7655821	200	24	28	4	1.35	Pegmatite
				33	74	41	1.76	Pegmatite
				88	105	17	1.85	Pegmatite
				112	116	4	1.39	Pegmatite
				163	180	17	1.50	Pegmatite
				188	202	14	1.18	Pegmatite
WLRC0020	673969	7655945	200	1	50	49	1.70	Pegmatite
				51	63	12	1.24	Pegmatite
				94	102	8	1.16	Pegmatite
WLRC0021	673866	7655747	210	18	30	12	1.82	Pegmatite
				52	58	6	1.23	Pegmatite
				63	82	19	1.91	Pegmatite
				121	136	15	1.85	Pegmatite
WLRC0022	673865	7655748	210	29	47	18	1.06	Pegmatite
				52	58	6	1.54	Pegmatite
				77	83	6	1.28	Pegmatite
				86	95	9	1.51	Pegmatite
				106	126	20	1.09	Pegmatite
				188	203	15	1.80	Pegmatite
WLRC0024	673890	7655795	208	25	31	6	1.20	Pegmatite
				40	89	49	1.77	Pegmatite
				108	131	23	1.58	Pegmatite
				156	176	20	1.93	Pegmatite
WLRC0025	673900	7655852	200	2	51	49	1.52	Pegmatite
				52	60	8	1.26	Pegmatite
				99	110	11	1.31	Pegmatite
				143	154	11	1.66	Pegmatite
				170	181	11	1.69	Pegmatite
WLRC0026	674042	7655726	239	119	130	11	1.48	Pegmatite
WLRC0027	674053	7655948	223	2	15	13	1.18	Pegmatite
				39	69	30	1.64	Pegmatite
WLRC0028	674154	7655861	250	110	140	30	1.48	Pegmatite
				141	177	36	1.74	Pegmatite
WLRC0031	674209	7655881	253	155	162	7	1.66	Pegmatite
				173	198	25	1.85	Pegmatite

HOLE	MGA94 z51 Easting (m)	MGA94 z51 Northing (m)	AHD_RL (m)	From (m)	To (m)	Apparent Thickness (m)	Li2O (%)	Lithology
CASSITERITE NORTH EAST – EXPLORATION RC DRILLING								
WLRC0033	674141	7656307	290	97	109	12	2.62	Pegmatite
				165	181	16	1.25	Pegmatite
WLRC0034	674144	7656304	290	46	59	13	1.35	Pegmatite
				116	119	3	1.10	Pegmatite
				153	211	58	1.79	Pegmatite
WLRC0035	674173	7656280	290	148	206	58	1.61	Pegmatite
				229	234	5	1.08	Pegmatite
				243	250	7	1.27	Pegmatite
WLRC0036	674203	7656258	290	157	170	13	1.74	Pegmatite
				184	217	33	1.54	Pegmatite
				224	315	91	2.04	Pegmatite
WLRC0037	674235	7656234	289	158	171	13	2.03	Pegmatite
				184	316	132	1.76	Pegmatite
WLRC0038	674193	7656177	290	64	69	5	1.96	Pegmatite
				113	118	5	1.3	Pegmatite
				161	165	4	1.30	Pegmatite
				215	239	24	1.78	Pegmatite
				261	264	3	1.96	Pegmatite
				276	284	9	2.44	Pegmatite
WLRC0039	674211	7656207	289	55	70	15	1.68	Pegmatite
				171	276	105	1.67	Pegmatite
				290	310	21	2.0	Pegmatite
WLRC0040	674,117	7,656,272	290	51	56	5	1.24	Pegmatite
				117	118	1	1.8	Pegmatite
				122	126	5	1.09	Pegmatite
				151	196	45	1.67	Pegmatite
				217	220	3	1.15	Pegmatite
WLRC0041	674,149	7,656,253	290	69	72	3	1.47	Pegmatite
				144	176	33	1.82	Pegmatite
				191	207	17	1.5	Pegmatite
				217	219	2	1.23	Pegmatite
				223	235	12	1.07	Pegmatite
				245	259	14	1.25	Pegmatite
				276	310	35	1.52	Pegmatite
WLRC0042	674,173	7,656,337	291	112	125	13	1.02	Pegmatite
				132	211	75	1.51	Pegmatite
				244	316	76	1.98	Pegmatite
WLRC0051	674253	7656427	289	137	141	4	1.41	Pegmatite
				179	184	5	1.50	Pegmatite
				208	242	34	1.55	Pegmatite
WLRC0052	674282	7656404	289	167	172	5	1.59	Pegmatite
				184	189	5	1.45	Pegmatite

				227	229	2	1.21	Pegmatite
WLRC0053	674224	7656399	290	140	194	54	1.73	Pegmatite
				205	231	26	1.64	Pegmatite
				279	306	27	1.95	Pegmatite
WLRC0054	674222	7656400	290	177	188	11	2.01	Pegmatite
				207	227	20	1.21	Pegmatite
				235	252	17	1.77	Pegmatite

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COMPETENT PERSON'S STATEMENT

The information in this report that relates to Mineral Resources is based on information compiled by Mr Lynn Widenbar, a Competent Person who is a Member of the Australasian Institute of Mining and Metallurgy. Mr Widenbar is a full time employee of Widenbar and Associates Pty Ltd. Mr Widenbar has sufficient experience that is relevant to the style of mineralisation and type of deposit under consideration and to the activity that is being undertaken to qualify as a Competent Person as defined in the 2012 Edition of the 'Australasian Code for Reporting of Exploration Results, Minerals Resources and Ore Reserves'. Mr Widenbar consents to the inclusion in the report of the matters based on his information in the form and context that the information appears

The information in this report that relates to Exploration Results is based on information compiled by Dr Steven Batty, who is a full time employee of Mineral Resources Limited. Dr Batty is a Member of The Australasian Institute of Geologists and has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity which he is undertaking to qualify as a Competent Persons as defined in the 2012 Edition of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves'. The Competent Person consents to the inclusion in the report of the matters based on their information in the form and context in which it appears.

JORC Code, 2012 Edition – Table 1

Note: Parts of Table 1 relating to historical drilling, sampling and geological data have been based on information contained in the MRE Report prepared by Cube Consulting in September, 2013. Parts of Table 1 relating to Exploration drilling describe recent activity to February 2017.

Section 1 Sampling Techniques and Data

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

Criteria	JORC Code explanation	Commentary
Sampling techniques	• Nature and quality of sampling (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. • 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.	• Samples have been derived from Reverse Circulation drill hole pulps stored from previous drilling campaigns. • Historic RC chip samples were collected at 1m intervals and split with a riffle splitter prior to 2008. RC samples were split with a cone splitter after 2008, to produce a sub-sample of 3-5kg for analysis. • Samples have also been collected from the MRL drilling campaign conducted between July 2016 and February 2017 • RC – Rig mounted cone splitter used, with samples falling through an inverted cone splitter, splitting the sample in 90/10 ratio. 10% off-split retained in a calico bag. 90% split residue stored on ground. All pegmatite intercepts sampled at 1m intervals plus 2m of adjacent waste sent for lab analysis. **TSF** • Sampling is carried out by cone sampling of the percussion hole cuttings using hand scoops rather than a shovel as the TSF's have been layered with waste. Given the fine nature and moisture content, the cone sampling is very clean. • Selected holes have been geophysically logged by Surtron for density. A total of 29 holes has been logged. **EXPLORATION** • Deposits have been sampled by Reverse Circulation (RC) drilling. • RC – Rig mounted cone splitter used, with samples falling through an inverted cone splitter, splitting the sample in 90/10 ratio. 10% off-split retained in a calico bag. 90% split residue stored on ground. All pegmatite intercepts sampled at 1m intervals plus 2m of adjacent waste sent for lab analysis.
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).	• The original database consists of 1,691 holes of which 1,167 holes are RC, 39 holes are diamond and 155 are RAB holes. 330 holes are unknown type. • The MRL campaign consisted of 59 RC holes. • Samples for Li_2O analysis were taken from relatively recent Historic RC drill holes. **TSF** • The TSF's have been drilled on a nominal 50m x 50m pattern with an Open Hole Percussion Atlas Copco D65 drill rig. Hole diameter is nominally 16.5 cm. **EXPLORATION** • RC – Reverse circulation drilling was carried out using a face sampling hammer and a 142mm diameter bit.
Drill sample recovery	• Method of recording and assessing core and chip sample 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	• Sample recoveries for Historic RC and diamond drilling are recorded on original logs but are not available in a digital format. • Historic sample recoveries are near 100% in the pegmatite, sample loss mainly occurs in shear zones and occasionally on contacts. Most loss is recorded at the start of holes, near collars.

Criteria	JORC Code explanation	Commentary
	material.	• MRL recoveries are almost all logged as 80%. • There is a low probability of preferential loss of sample having an effect on the grade of pegmatites. **TSF** • Sample recovery has not been recorded for the hole percussion drill cuttings. • However, from review of the photographs of the drill cones that were sampled, it appears that the sample recoveries are high. • Where sample recoveries were poor (in the iron dump) these holes were not sampled. **EXPLORATION** • RC – Approximate recoveries are recorded as a percentage based on visual and weight estimates of the sample. • There is no known relationship between sample recovery and grade.
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. • Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography. • The total length and percentage of the relevant intersections logged.	• All historic holes (diamond and RC) are geologically logged in as much detail as possible. Main rock type is logged and then a secondary rock type if present such as on contacts, mineralization and any alteration as well as accessory minerals are logged in detail. • MRL holes are logged for lithology, colour, mineralogy, grain size, texture, alteration, weathering and hardness. • Oxidation surfaces and weathering are logged. • Diamond holes were orientated and core logged for geotechnical qualities. **TSF** • No logging is carried out – all material is tailings. • All holes have been photographed after drilling and sampling. **EXPLORATION** • Chip samples have been logged by qualified Geologists to a level of detail sufficient to support a Mineral Resource estimate, mining studies and metallurgical studies. • RC – logging was carried out on a metre by metre basis and at the time of drilling. All intervals were logged. • Logging is qualitative and quantitative.
Sub-sampling techniques and sample preparation	• If core, whether cut or sawn and whether quarter, half or all core taken. • If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry. • For all sample types, the nature, quality and appropriateness of the sample preparation technique. • Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples. • 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. • Whether sample sizes are appropriate to the grain size of the material being sampled.	• Historic RC chip samples are collected at 1m intervals and split with a riffle splitter prior to 2008. RC samples were split with a cone splitter after 2008, to separate a sub-sample of 3-5kg for analysis. Occasionally the sample was <1kg but generally at near surface positions. • When moist or wet ground conditions were experienced in historic drilling, the cyclone was washed out between each sample run to further ensure no inter-sample contamination. The rig had a dust collection system that involved the injection of water into the sample pipe before the sample reached the cyclone. This water injection prevented fines being lost out of the top of the cyclone. This system was employed to minimize dust fines being released into the atmosphere in the work area and to minimize the possibility of the sample being positively biased by the loss of the lighter minerals such as quartz, feldspar, and mica, thus effectively concentrating the heavier ore minerals such as tantalite. • RC – Cyclone mounted cone splitter used.

Criteria	JORC Code explanation	Commentary
		• RC chips were dried at 100C. All samples below approximately 4kg were totally pulverized in LM5's to nominally 85% passing a 75µm screen. The few samples generated above 4kg were crushed to <6mm and riffle split first prior to pulverization. • The measures taken to ensure the RC sampling is representative of the in situ material collected included the insertion of a duplicate sample at an incidence of 1 in 25. • Commercially prepared certified reference materials (CRM) were inserted amongst the drill samples. • For RC samples, no formal heterogeneity study has been carried out or nomographed. An informal analysis suggests that the sampling protocols currently in use are appropriate to the mineralisation encountered and should provide representative results. As such samples sizes are considered appropriate. **TSF** • Individual samples are typically 2kg to 3kg, with typical sample size 6kg to 9kg per hole. • There is a minimum of three samples per hole, so that variability with depth can be assessed. • Sample bags are transported by Toll-Ipec to the Nagrom laboratory in Kelmscott, WA where sample preparation and assaying is carried out. • At the laboratory, each sample each sample was crushed to break up agglomerates at a CSS of 6.3mm and is then riffle split in half prior to pulverization. The tails are sized at 95% passing 500um, so sample mass vs particle size is not an issue. • Approximately every fourth hole has duplicate cone samples at 90 degrees, which are identified by unique numbers. **EXPLORATION** • No core • RC – Cyclone mounted cone splitter used. • RC chips were dried at 100C. All samples below approximately 4kg were totally pulverized in LM5's to nominally 85% passing a 75µm screen. The few samples generated above 4kg were crushed to <6mm and riffle split first prior to pulverization. • The measures taken to ensure the RC sampling is representative of the in situ material collected included the insertion of a duplicate sample at an incidence of 1 in 25. • Commercially prepared certified reference materials (CRM) were inserted amongst the drill samples. • For RC samples, no formal heterogeneity study has been carried out or nomographed. An informal analysis suggests that the sampling protocols currently in use are appropriate to the mineralisation encountered and should provide representative results. As such samples sizes are considered appropriate.
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. • 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. • Nature of quality control procedures adopted (eg standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (ie	• Li_2O has been assayed by ICP005 at Nagrom Laboratories. • The original RC pulps were subject to stringent QAQC and laboratory preparation procedures and are considered reliability for the purposes for which they are being used. • Two standards have been submitted at the rate of approximately 1 in 11 samples, and internal laboratory repeats and splits have been assayed at a rate of 1 in 10. • The level of accuracy and precision of the assay

Criteria	JORC Code explanation	Commentary
	lack of bias) and precision have been established.	determination is considered to be sufficient to form the basis for the resource estimation and is reflected in the Resource classification. • The lab QAQC protocols used for the RC drill samples included the insertion of a duplicate sample at an incidence of 1 in 20, one of three types of CRM's at an incidence of 1 in 10, and repeats at an incidence of 1 in 10. • No hand held analytical instruments were used in the field. • QAQC data is assessed on import into the database and reported yearly. **TSF** • Li_2O has been assayed by ICP, other elements by XRF and LOI1000 by TGA002. • QAQC has been carried out by means of field duplicate cone samples, the submission of a series of standards and internal laboratory repeats. • Field duplicates represent approx. 1 in 4 samples • Laboratory duplicates represent approx. 1 in 11 samples. • Standards represent approx. 1 in 4 samples. **EXPLORATION** • The lab QAQC protocols used for the RC drill samples included the insertion of a duplicate sample at an incidence of 1 in 20, one of three types of CRM's at an incidence of 1 in 10, and repeats at an incidence of 1 in 10. • No hand held analytical instruments were used in the field. • QAQC data is assessed on import into the database and reported yearly.
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.	• Some twinned holes were originally drilled, but there are no twins available for the current Li_2O assays. • Primary data was made available in a validated Access database that had been previously used for a JORC 2012 compliant MRE. • No adjustment has been made to the primary assay data. **TSF** • There are no twinned holes. Data entry is via Excel spreadsheets which are later imported to a Micromine database and validated. **EXPLORATION** • Significant intersections not verified. • Sample data is stored using a customized Access database using semi-automated or automated data entry. Hard copies of primary data stay in the field during the exploration campaign. To be brought back to the Perth office post campaign for storage. • No adjustments were made to the assay data.
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. • Specification of the grid system used. • Quality and adequacy of topographic control.	• All data used in the estimation was in MGA94; elevation is standardized to AHD. • Historic collar locations were surveyed by a real-time differential GPS which achieves an accuracy of ± 0.01m. All down-hole survey data was converted to Wodgina Mine Grid and corrected for magnetic declination. • For the 2010 and 2012 RC drilling, all except for a few collapsed holes were gyro surveyed to compare the

Criteria	JORC Code explanation	Commentary
		data. Gyro-derived data was recorded at the surface and 5m intervals down-hole to the end of the hole. Ultimately, the gyro-surveyed data was accepted as the most-accurate of the down-hole surveys and this data was adopted into the database to project the drill hole strings. • For earlier (pre-2008) RC drilling programs down-hole surveying took place using a single shot Eastman down-hole camera, equipped with a "high-dip" compass for all vertical holes. For diamond holes survey shots were taken every 20m and at the end of hole. The RC holes had camera shots taken at either 40m or 50m intervals, as well as the end of hole. All camera shots were taken inside the 6m stainless steel starter rod. • Collar positions were recorded using a hand held Global Positioning System (GPS). Post-drilling collar positions were recorded using a Differential GPS. The majority of holes were drilled vertically with approximately 10 drilled at -60°. • The grid system is MGA Zone 51 (GDA94) for horizontal data and AHD (based on AusGeoid09) for vertical data. • Topographic control is from Digital Elevation Contours (DEM) 2016 based on 1m contour data. **TSF** • Collar locations have been surveyed by Survey Group using DGPS. • Holes are vertical and short so there is no requirement for down hole survey. • Grid system is MGA94 with Elevation standardised to AHD. • Topographic control is provided by detailed survey of current surfaces. Original topography for TSF3 has been modified slightly. Original topography for TSF1 and TSF2 is considered unreliable. **EXPLORATION** • Collar positions were recorded using a hand held Global Positioning System (GPS). Post-drilling collar positions were recorded using a Differential GPS. The majority of holes were drilled vertically with approximately 10 drilled at -60°. • The grid system is MGA Zone 51 (GDA94) for horizontal data and AHD (based on AusGeoid09) for vertical data. • Topographic control is from Digital Elevation Contours (DEM) 2016 based on 1m contour data.
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.	• Drilling for the original data set is generally on a 25m by 25m grid, but some infill holes have been drilled as close as 10m by 10m. • However, spacing for the new Li_2O assay set is typically 25m x 25m in the southern area, with a northern area with more erratic 50m spacing. There is a 200m gap between the two areas with no Li_2O data. • 93% of the assays are 1m in length; 1m composites have been calculated for resource estimation. • The recent MRL drill program has in-filled the area of missing assays to approximately 50m x 50m. **TSF** • Drill hole spacing is nominally 50m by 50m and is considered adequate for Mineral Resource Estimation and the classifications applied. • Samples have been mathematically composited over individual holes.

Criteria	JORC Code explanation	Commentary
		EXPLORATION • RC holes are generally based on 40m x 40m drill spacing. • The data spacing and distribution is sufficient to establish geological and or grade continuity appropriate for future Mineral Resource and classifications to be applied. • RC samples are composited to 1m through the mineralisation and two metres either side.
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.	• More than half the historic holes are drilled vertical, and the rest varies between -50° and -80°, drilled to the east and west. The mineralized pegmatites are predominantly interpreted to be a series of flat to shallow west and east dipping lenses (on the Wodgina local grid). Holes have been orientated accordingly to intersect the mineralized pegmatites perpendicular where possible. A set of near vertical pegmatites interpreted in the western margin of the deposit have been less optimally drilled and the classification reflects this. • MRL holes are predominantly drilled at -60° so as to intersect the local pegmatites at approximately right angles. **TSF** • Since the material is a tailings dam, there is effectively no geological model, just a volumetric one. • Drilling is stopped at the base of tailings. **EXPLORATION** • The orientation of sampling is designed to be perpendicular to the main mineralisation trends were possible. • The orientation achieves unbiased sampling of all possible mineralisation and the extent to which this is known.
Sample security	• The measures taken to ensure sample security.	• The historic RC samples were sourced on site from storage containers. • Sample security is not considered an issue. • RC – All samples are bagged in numbered calico bags, grouped into larger tied polyweave bags, and placed in a large bulka bag with a sample submission sheet. The bulka bags are transported via freight truck to Perth, with consignment note and receipted by external laboratory (NAGROM). • All sample submissions are documented and all assays are returned via email. • Sample pulp splits are stored in Mineral Resources Limited (MRL) Facilities. **TSF** • Samples are taken and transported by MRL staff; sample security is considered satisfactory. **EXPLORATION** • RC – All samples are bagged in numbered calico bags, grouped into larger tied polyweave bags, and placed in a large bulka bag with a sample submission sheet. The bulka bags are transported via freight truck to Perth, with consignment note and receipted by external laboratory (NAGROM). • All sample submissions are documented and all assays are returned via email. • Sample pulp splits are stored in Mineral Resources Limited (MRL) Facilities.

Criteria	JORC Code explanation	Commentary
Audits or reviews	• The results of any audits or reviews of sampling techniques and data.	• Sampling procedures have been reviewed as part of the current Mineral Resource Estimation process and are considered adequate by the Competent Person. **TSF** • No audits have been carried out. Sampling procedures have been reviewed as part of the Mineral Resource Estimation process and are considered adequate by the Competent Person. **EXPLORATION** • All recent sample data has been reviewed internally by MRL geologists. • No external audits have been carried out on the sample data.

Section 2 Reporting of Exploration Results

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

Criteria	JORC Code explanation	Commentary
Mineral tenement and land tenure status	• *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.*	• Wodgina is located wholly within Mining Licence M45/50, M45/353, M45/383 & M45/887. The tenements are wholly owned by GLOBAL ADVANCED METALS WODGINA PTY LTD (formerly TALISON WODGINA PTY LTD). The tenements are within the Karriyarra native title claim and is subject to the Land Use Agreement dated March 2001 between the Karriyarra People and Gwalia Tantalum Ltd (now Global Advanced Metals). • The tenement is in good standing and no known impediments exist. • The drilling is located on M45/50-I and M45/365beneficially owned by Wodgina Lithium Pty Ltd a 100% subsidiary of MRL. M45/50-I is not up for renewal until 2026 and M45/365-I is not up for renewal until 2030. **TSF** • The TSF's are located on granted Mining tenements M45/381 and M45/923 both beneficially owned by Wodgina Lithium Pty Ltd and in good standing. **EXPLORATION** • The drilling is located on M45/50-I and M45/365-I held in the name of Wodgina Lithium a 100% subsidiary of MRL. M45/50-I is not up for renewal until 2026 and M45/365-I is not up for renewal until 2030.
Exploration done by other parties	• *Acknowledgment and appraisal of exploration by other parties.*	• The original proponent of the project, Pan West Tantalum Pty Ltd, began mining and processing tantalite ore at Wodgina in August 1989, from the Wodgina open pit. • Drilling at Mt Cassiterite has been carried out by a number of different drilling contractors and by a variety of different methods over the years. Drilling carried out by the Pan West JV included 3,825m of air track; 1,145m of reverse circulation (RC) drilling and 204m of diamond drilling. • Since Sons of Gwalia Ltd purchased the project in 1995, six development-drilling programs have been completed at Mt Cassiterite. The first, in 1996, involved a track mounted RC rig completing a 3,464m drilling program, a resource extension program during 1998-99 comprised 17,586m of RC drilling and 2,225m of diamond drilling, a further resource extension program in 2001 comprised 18,694m of RC drilling, A RC infill-drilling program in Mt Tinstone area was commenced in February 2002 and totalled

Criteria	JORC Code explanation	Commentary
		5,432m, further resource drilling was conducted in 2002/03 consisting of 12,805m of RC drilling, as a result of this program, an infill-drilling program was carried out which targeted the East Ridge mining area, which totalled 2,948m. • Additional resource drilling, completed in March 2004, consisted of 3,866m RC drilling and later infill-drilled for a total of 12,930m. • Concurrent with this drilling, an infill-drilling program was also being carried out in the Mt Cassiterite area that consisted of 8,984m. • **TSF** • No exploration work by other parties has taken place. **EXPLORATION** • MRL has carried out drilling of 59 holes between September 2016 and February 2017 for a total of 13,791m. • 27 of these holes for a total of 4,823m have assay data at the date of this Mineral Resource Estimate. • All exploration during the current reporting period was carried out by MRL.
Geology	• *Deposit type, geological setting and style of mineralisation.*	• The 3600-2800Ma North Pilbara basement terrane consists of a series of ovoid multiphase granitoid-gneiss domes bordered by sinuous synformal to monoclinal greenstone belts. • The Wodgina Greenstone Belt is a north to northeast plunging synclinal structure 25km long and 5km wide, preserved as a roof pendant separating the Yule and Carlindi granitoid complexes. It is composed principally of interlayered mafic and ultramafic schists and amphibolite, with subordinate komatiite, clastic sediments, BIF and chert. The komatiitic and metasedimentary units within the Wodgina area are tentatively correlated to the Kunagunarrina and Leilira Formations respectively. • Archean volcanic activity and sedimentation was followed by the intrusion of Archean granitic batholiths with consequent deformation and metamorphism of the sequence. Late stage granitic intrusions resulted in the emplacement of simple and complex pegmatite sills and barren quartz veins. • The Wodgina pegmatite district contains a number of prospective pegmatite groups, including the Wodgina Deposit. **TSF** • The “deposit” is a tailings dam resulting from processing of Tantalum bearing pegmatites at the Wodgina Mine. **EXPLORATION** • The Wodgina lithium mineralisation is hosted within a number of sub-parallel, sub horizontal, northeast trending pegmatite intrusive bodies which base of the massive pegmatite apparently with a dip at between 5° to 30° to the west-southwest. • At this time individual pegmatites vary in strike length from approximately 200 m to 400 m. The thinner near surface pegmatites vary from 10 m to 30 m in thickness, but vary locally from less than 2 m to up to 35 m thick. The massive basal pegmatite varies from 120m to 200m thick. The pegmatites intrude the mafic volcanic and metasedimentary host rocks of the surrounding greenstone belt. • The lithium in the Cassiterite Pit and shallower pegmatites occurs as 10 - 30 cm long grey-white

Criteria	JORC Code explanation	Commentary
		spodumene crystals within medium grained pegmatites comprising primarily of quartz, feldspar, spodumene and muscovite. Typically the spodumene crystals are oriented orthogonal to the pegmatite contacts. Some zoning of the pegmatites parallel to the contacts is observed, with higher concentrations of spodumene occurring close to the upper contact. In the massive basal pegmatite, the spodumene is distributed within fine-grained quartz, feldspar, spodumene and muscovite matrix.
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.* • *If the exclusion of this information is justified on the basis that the information is not Material and this exclusion does not detract from the understanding of the report, the Competent Person should clearly explain why this is the case.*	• The assets of the Wodgina Tantalum Project have been held in a private equity entity since August 2007. As a result exploration results for the Wodgina Project have not been made public since that time. • Collar details attached. **TSF** • Exploration results are not being reported. **EXPLORATION** • A summary of the exploration drilling into the Wodgina project deposit is attached.
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.*	**TSF** • Exploration results are not being reported, Mineral Resource Estimate only. **EXPLORATION** • Reported exploration results are uncut. • Reported aggregate Li_2O intercepts based on geological intervals of continuous pegmatite greater than or equal to 2m. • Reported aggregate Li_2O intercept grades are a weighted average based on assay interval length.
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').*	**TSF** • The tailings material geometry has been surveyed; holes are vertical, which is appropriate given the flat lying nature of the material. **EXPLORATION** • Apparent thickness as downhole length is reported.
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.*	• Appropriate maps and diagrams are included in the body of the Mineral Resource Estimate Report. **TSF** • Appropriate maps and diagrams are included in the body of the Mineral Resource Estimate Report. **EXPLORATION** • Plan view and typical cross sections of the Wodgina project showing drill collars is attached.
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.*	**TSF** • Exploration results are not being reported, Mineral Resource Estimate only. **EXPLORATION** • All holes related to the Wodgina drilling program are reported here.
Other	• *Other exploration data, if meaningful and material,*	**TSF**

Criteria	JORC Code explanation	Commentary
substantive exploration data	*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.*	• Exploration results are not being reported, Mineral Resource Estimate only. Other relevant factors are discussed in the body of the Mineral Resource Estimate Report. **EXPLORATION** • No other meaningful data to report.
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.*	**TSF** • No further drilling is planned. **EXPLORATION** • Exploration drilling is ongoing. • As part of the main document (Plan View).

Section 3 Estimation and Reporting of Mineral Resources

(Criteria listed in section 1, and where relevant in section 2, also apply to this section.)

Criteria	JORC Code explanation	Commentary
Database integrity	• *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.* • *Data validation procedures used.*	• The historic database has been previously validated for a JORC 2012 compliant MRE. • The database has also been reviewed and validated using Micromine software. • Raw assay files provided digitally by the Laboratory have been used and imported. • The MRL drilling data has been captured using MRL's standardised database procedures. • No database issues have been noted. **TSF** • The database has been reviewed and validated using Micromine software. • Raw assay files provided digitally by the Laboratory have been used and imported. • For density, raw data files from the logging equipment have been used and imported.
Site visits	• *Comment on any site visits undertaken by the Competent Person and the outcome of those visits.* • *If no site visits have been undertaken indicate why this is the case.*	• The Competent Person has not yet made a site visit due to time constraints. A site visit is planned for the near future. **TSF** • The Competent Person has not made a site visit due to time constraints, • The CP has viewed numerous photographs and conducted discussions with MRL technical personnel who have made a site visit.
Geological interpretation	• *Confidence in (or conversely, the uncertainty of) the geological interpretation of the mineral deposit.* • *Nature of the data used and of any assumptions made.* • *The effect, if any, of alternative interpretations on Mineral Resource estimation.* • *The use of geology in guiding and controlling Mineral Resource estimation.* • *The factors affecting continuity both of grade and geology.*	• Confidence in the geological interpretation is considered to be moderately high, outcrop is exposed in open pit floors and walls and drilling data at a spacing of 25x25m provides sufficient information to define the mineralized pegmatite lenses. • The structural controls on the pegmatites are relatively complex resulting in folded and faulted outcomes which prevent a high level of certainty. This is most apparent to the west where vertical pegmatites are interpreted, without appropriately orientated drilling. • Uncertainty related to the identification of the mineralisation has been simplified by the assumption that all mineralisation is contained within pegmatite – a readily identified rock contrasting strongly with the surrounding host rocks. • The logged, interpreted and wireframed geology has been assumed to be the mineralisation boundary. **TSF** • The interpretation is a volumetric one based on the surveyed top and bottom surfaces of the tailings dam. • TSF3 is considered well defined; TSF1 and TSF2 are less well defined. • This is reflected in the classifications.
Dimensions	• *The extent and variability of the Mineral Resource expressed as length (along strike or otherwise), plan width, and depth below surface to the upper and lower limits of the Mineral Resource.*	• A total of 40 separate pegmatite lenses have been interpreted. Individually they extend over strike lengths of between 100m and 1000m; with a project strike extending over 1.4km. Cross strike extents range from 50 to 300m for individual lenses, with vertical thicknesses of the lenses ranging from 5 to 50m. • The pegmatite lenses have been interpreted to a maximum depth of 300m below the surface. • The Li_2O area of the resource consists of two main areas of the Cassiterite deposit, respectively 200m x

Criteria	JORC Code explanation	Commentary
		300m and 100m x 200m. **TSF** • TSF3 is approximately 1.2 km N-S by 700m E-W and averages 17.2m in thickness. • TSF1 is approximately 180 N-S by 450m E-W and averages 21.5m in thickness. • TSF2 is approximately 150n N-S by 300m E-W and averages 16.5m in thickness.

Estimation and modelling techniques	• *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.*
	• *The availability of check estimates, previous estimates and/or mine production records and whether the Mineral Resource estimate takes appropriate account of such data.*
	• *The assumptions made regarding recovery of by-products.*
	• *Estimation of deleterious elements or other non-grade variables of economic significance (eg sulphur for acid mine drainage characterisation).*
	• *In the case of block model interpolation, the block size in relation to the average sample spacing and the search employed.*
	• *Any assumptions behind modelling of selective mining units.*
	• *Any assumptions about correlation between variables.*
	• *Description of how the geological interpretation was used to control the resource estimates.*
	• *Discussion of basis for using or not using grade cutting or capping.*
	• *The process of validation, the checking process used, the comparison of model data to drill hole data, and use of reconciliation data if available.*
		• All modelling and estimation has been carried out in Micromine 2016 (SP5) software.
		• A conventional rotated, sub-celled block model framework has been set up. Cell sizes are based on approximately half to one quarter the nominal drill hole spacing. (5m East x 10m North x 2.5m RL). Sub-cells are 1m East, 1m North and 0.5m RL to provide a detailed representation the pegmatites.
		• Block model grade estimates have been generated using Ordinary Kriging interpolation. Search and sample number parameters have been set up following variography and Kriging Neighbourhood Analysis.
		• Estimation is carried out in three passes, with a first search of 60m x 60m x 10m, a second search of 120m x 120m x 10m and a final pass of 200m x 200m x 25m.
		• Primary estimation is carried out on Li2O%.
		• Estimation is limited to material coded as Pegmatite.
		• Estimation is carried out in unfolded space.
		• A top cut of 4% Li_2O has been used to mitigate the effect of a small number of high grade outliers.
		• Block model validation has been carried out by several methods, including:
		  ○ Drill Hole Plan and Section Review
		  ○ Model versus Data Statistics by Domain
		  ○ Easting, northing and RL swathe plots
		• All validation methods have produced acceptable results.
		
		TSF
		• A conventional sub-celled block model framework has been set up. Cell sizes are based on approximately half the nominal drill hole spacing. Sub-cells are 2.5m East, 2.5m North and 0.5m RL to provide a detailed representation of the top and bottom surfaces of the tailings material.
		• Block sizes are nominally half the drill hole spacing.
		• A rock model has been generated using the various surfaces; it represents the tails material, underlying rock and other fill and dump material.
		• Block model grade estimates have been generated using Inverse Distance Squared interpolation. Search and sample number parameters have been set up so that the interpolation is almost polygonal, with minor influence from neighbouring samples.
		• Estimation is carried out in two passes, with a first search of 60m and a second search of 120m.
		• Primary estimation is carried out on Li2O%. In addition Al2O3, CaO, Cr2O3, Fe, K2O, MgO, MnO, Na2O, P, S, SiO2, TiO2, V2O5, Ta2O5, Nb2O5 and LOI1000 have been estimated.
		• Estimation is limited to material coded as Tails.
		• No grade capping is use, as there are no significant outliers in the distributions.
		• Block model validation has been carried out by several methods, including:
		• Drill Hole Plan and Section Review
		• Model versus Data Statistics by Domain
		• Interpolation using alternative data and parameters

Criteria	JORC Code explanation	Commentary
		• All validation methods have produced acceptable results.
Moisture	• *Whether the tonnages are estimated on a dry basis or with natural moisture, and the method of determination of the moisture content.*	• Tonnages are estimated on a dry basis. **TSF** • Moisture content has been reviewed and is stated to be approximately 5% to 6%; however, the samples have been stored and transported in calico than plastic bags and have likely lost some moisture, and consequently a value of 8% has been applied to the raw density to arrive at a dry density.
Cut-off parameters	• *The basis of the adopted cut-off grade(s) or quality parameters applied.*	• Economic analysis is not available as yet, so the resource has been reported at a range of cutoffs. **TSF** • As it is planned to non-selectively mine the whole of tailings, no cutoff is used. All tailings material is reported.
Mining factors or assumptions	• *Assumptions made regarding possible mining methods, minimum mining dimensions and internal (or, if applicable, external) mining dilution. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider potential mining methods, but the assumptions made regarding mining methods and parameters when estimating Mineral Resources may not always be rigorous. Where this is the case, this should be reported with an explanation of the basis of the mining assumptions made.*	• Mining is assumed to be by conventional open pit. No mining factors have been applied to the resource model. • As the pegmatite lenses interpolated for Li_2O have relatively limited vertical extent (generally less than 200m below the current topography) no lower limit has been place on the likelihood of extraction. **TSF** • Mining is assumed to be by conventional open pit. No mining factors have been applied to the resource model. • TSF3 is regarded to have the potential to be economically mined. There are no mining studies available at this stage.
Metallurgical factors or assumptions	• *The basis for assumptions or predictions regarding metallurgical amenability. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider potential metallurgical methods, but the assumptions regarding metallurgical treatment processes and parameters made when reporting Mineral Resources may not always be rigorous. Where this is the case, this should be reported with an explanation of the basis of the metallurgical assumptions made.*	• No assumptions applied **TSF** • Given the sizing of the material in the tailings dam, flotation was the processing route chosen for beneficiation. Results to date have indicated a relative upgrade ratio for the LOM of 3.96 based on creating a 4% Li_2O concentrate at 17 % recovery. The process will incorporate a mild grind to freshen up surface followed by a hydrocyclone stage with a target D_{50} of 10□m to remove ultrafines. The underflow is then subjected to magnetic separation at 3000G to remove iron oxides and a pre-float stage to remove the iron sulphides. These steps are critical to achieving grade and recovery out of the flotation circuit.
Environmental factors or assumptions	• *Assumptions made regarding possible waste and process residue disposal options. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider the potential environmental impacts of the mining and processing operation. While at this stage the determination of potential environmental impacts, particularly for a greenfields project, may not always be well advanced, the status of early consideration of these potential environmental impacts should be reported. Where these aspects have not been considered this should be reported with an explanation of the environmental assumptions made.*	• The Wodgina Project is an active mining area and has a history of mining. • No environmental assumptions have been made or considered as part of this estimate. **TSF** • All tailings streams in the plant will be directed to the thickener with the decant water returned to the processing plant. The material will contain flocculant (specifics to be determined) and a small amount of floatation reagents. The thickened waste stream will be directed initially to Tailings Dam four (TSF4). Once the tailings dam has been filled or as room becomes available in TSF 1 2, or 3, tailings can be directed to these locations to remove the burden on the environment. Alternatively if there is potential to use either Cassiterite pit or Wodgina pit for in ground

Criteria	JORC Code explanation	Commentary
		storage of tailings, these could be used. • Approvals under the Mining Act 1978 among others would be required for the establishment the proposed tails processing operation including new tails dam locations if required. MRL does not anticipate any issues with obtaining these approvals
Bulk density	• *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.* • *The bulk density for bulk material must have been measured by methods that adequately account for void spaces (vugs, porosity, etc), moisture and differences between rock and alteration zones within the deposit.* • *Discuss assumptions for bulk density estimates used in the evaluation process of the different materials.*	• Dry Bulk density of the rock types within the estimated area has been assigned based on the division of rock type and weathering condition. • The source data was the conclusions of the May 2006 Study by Arthur and MacDonald. In this study specific gravity determinations were obtained for over 200 different samples. These results were compared to core bulk density measurements and values used historically. The conclusion derived a table of recommended bulk density values to be used in future Resource modelling work. One exception was made whereby the recommended value for transitional metasediments was lowered from 2.98 to 2.8gm/cm3. A value of 1.8gm/cm3 has been assigned to unconsolidated fill within the pits. • The assigned values adequately account for the different primary rock types and weathering state of those rocks. **TSF** • 29 selected holes have been geophysically logged by Surtron for density. • The density provides an in-situ estimate of density. • A value of 8% moisture has been applied to the raw density to arrive at a dry density.
Classification	• *The basis for the classification of the Mineral Resources into varying confidence categories.* • *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).* • *Whether the result appropriately reflects the Competent Person's view of the deposit.*	• The Mineral Resource has been classified in the Indicated and Inferred categories, in accordance with the 2012 Australasian Code for Reporting of Mineral Resources and Ore Reserves (JORC Code). A range of criteria has been considered in determining this classification including: • Geological and grade continuity • Data quality. • Drill hole spacing. • Modelling technique and kriging output parameters. • The Competent Person is in agreement with this classification of the resource. **TSF** • The Mineral Resource has been classified in the Indicated and Inferred categories, in accordance with the 2012 Australasian Code for Reporting of Mineral Resources and Ore Reserves (JORC Code). A range of criteria has been considered in determining this classification including: • Grade continuity • Data quality • Drill hole spacing • Modelling technique • TSF3 is almost all classified as Indicated while lack of confidence in survey of TSF1 and TSF2 have resulted in a classification of Inferred. • The Competent Person is in agreement with this classification of the resource.
Audits or reviews	• *The results of any audits or reviews of Mineral Resource estimates.*	• No audits have been carried out. **TSF** • No audits have been carried out.
Discussion of relative accuracy/ confidence	• *Where appropriate a statement of the relative accuracy and confidence level in the Mineral Resource estimate using an approach or procedure*	• The risk assessment review which has been carried out on the Wodgina Pegmatites Li_2O Resource Estimate is qualitative in nature and based on the general approach used by resource estimation

Criteria	JORC Code explanation	Commentary
	deemed appropriate by the Competent Person. For example, the application of statistical or geostatistical procedures to quantify the relative accuracy of the resource within stated confidence limits, or, if such an approach is not deemed appropriate, a qualitative discussion of the factors that could affect the relative accuracy and confidence of the estimate. • *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.* • *These statements of relative accuracy and confidence of the estimate should be compared with production data, where available.*	practitioners and consultants to indicate in relative terms the level of risk or uncertainty that may exist with respect to resource estimation which have cumulative effects on project outcomes. • Relative levels of risk have been assessed as generally Low occasionally tending towards Moderate with respect to certain aspects of the estimation. **TSF** • The risk assessment review which has been carried out on the Wodgina Tails Estimate is qualitative in nature and based on the general approach used by resource estimation practitioners and consultants to indicate in relative terms the level of risk or uncertainty that may exist with respect to resource estimation which have cumulative effects on project outcomes. • Relative levels of risk at TSF3 have been assessed as generally Low occasionally tending towards Moderate with respect to certain aspects of the estimation. • In general there is relatively high confidence in estimation overall at TSF3, but less so at TSF1 and TSF2. The CP considers that the overall risk is reflected in the final resource estimate classification.