

ASX ANNOUNCEMENT 16<sup>th</sup> November 2015

# SIGNIFICANT NEW DISCOVERY AND FURTHER OUTSTANDING DRILLING RESULTS AT PILGANGOORA SPODUMENE-TANTALITE PROJECT, WA

WORLD-CLASS PROJECT CONTINUES TO GROW WITH OUTSTANDING NEW DRILL RESULTS ON SEVERAL FRONTS

#### **HIGHLIGHTS:**

- Significant new zone of lithium-tantalite mineralisation discovered to the west of the Central Pegmatite system, with visible spodumene intersected in multiple pegmatites. Seven RC holes for 686m have been completed so far in this area, known as the Western Domain prospect.
- Significant widths and grades continue to be returned from in-fill and extensional drilling over the Central Pegmatites, with latest assay results including:
  - 45m @ 1.72% Li<sub>2</sub>O and 128ppm Ta<sub>2</sub>O<sub>5</sub> from 26m (PLS203); and
  - 4m@ 1.59% Li<sub>2</sub>O and 200ppm Ta<sub>2</sub>O<sub>5</sub> from 11m (PLS203)
  - **13m @ 1.58% Li<sub>2</sub>O and 56ppm Ta<sub>2</sub>O<sub>5</sub>** from 115m (PLS238)
- Further results from reconnaissance RC holes at the Monster prospect return encouraging intersections in line with the previous results, with latest assay results including:
  - 4m @ 1.54% Li<sub>2</sub>O and 168ppm Ta<sub>2</sub>O<sub>5</sub> from 44m (PLS387); and
     2m@ 1.78% Li<sub>2</sub>O and 225ppm Ta<sub>2</sub>O<sub>5</sub> from 54m (PLS387)
  - **15m @ 1.80% Li<sub>2</sub>O and 99ppm Ta<sub>2</sub>O<sub>5</sub>** from 13m (PLS387)
  - **16m @ 1.89% Li<sub>2</sub>O and 116ppm Ta<sub>2</sub>O**<sub>5</sub> from 67m (PLS388); and
  - 10m @ 1.43% Li<sub>2</sub>O and 93ppm Ta<sub>2</sub>O<sub>5</sub> from 86m (PLS388)
- Two RC rigs currently operating on site with drilling on track to be completed by early December
   2015. A total of 66 holes for 8511m have now been completed since the resumption of drilling on
   12 October, with the overall program now more than 80 per cent complete.

Australian strategic metals company Pilbara Minerals Ltd (ASX: PLS) is pleased to report further significant results from the ongoing resource extension and in-fill drilling program at its flagship 100%-owned **Pilgangoora Spodumene-Tantalite Project** located near Port Hedland in WA including the discovery of a significant new pegmatite zone approximately 400m west of the Central Pegmatite system.

The new zone, which was discovered by reconnaissance RC drilling on section 7669700mN, is located outside the current Mineral Resource boundary and demonstrates the significant potential for further growth in the current resource inventory.

Results have now been received for a further 10 Reverse Circulation (RC) drill holes covered in this announcement, including further outstanding results from the Central Pegmatite system. Drilling continues to return excellent results from both within and outside the current Mineral Resource inventory, putting the Company firmly on track to publish a further significant resource upgrade during the first quarter of 2016.



### Pilgangoora Reverse Circulation Program - Discussion

Assay results have now been received for a further 10 RC drill holes (see highlighted drill-holes shown in Appendix 1) with the latest results coming from in-fill drilling within the Central Pegmatite and reconnaissance RC holes completed at the Monster Prospect and the new Western Domain Prospect.

Reconnaissance RC drilling was completed 500m south-west of the current resource within the Central Area, with a total of six RC holes completed in this area for 686m. Significant widths of pegmatite (4 to 28m) were intersected in all holes on 7669700mN from 679300mE to 679500mE (See Figure 1), with visible clean spodumene mega-crysts.

Holes PLS401 and PLS393 both have significant intercepts of pegmatite which are not evident (minor outcrop) at surface and appear to thicken considerably down-dip from the thin surface outcrops. Given the presence of these thicker intercepts down-dip, it is reasonable to postulate a flat easterly dip, similar to that in the southern central pegmatites. Further drilling to the north is recommended. No assay results have yet been received from this drilling.

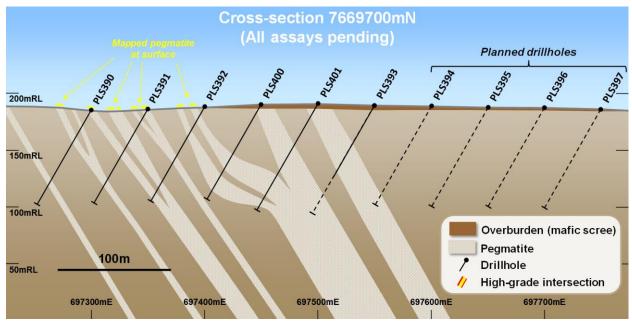


Figure 1: RC Cross Section 7669700mN, EL45/2232

As a result of the success of the first three RC holes completed at the Monster Prospect (see ASX Release dated 23rd October 2015), which returned significant intersections of 21m @ 1.53% Li<sub>2</sub>O and 143ppm Ta<sub>2</sub>O<sub>5</sub> in PLS282 and 17m @ 1.54% Li<sub>2</sub>O and 151ppm Ta<sub>2</sub>O<sub>5</sub> in PLS283, further drilling was undertaken in this area.

A further four significant intersections have been recorded along strike (see Figure 4). PLS 290 and PLS 291 returned lower grade intervals of similar width due to localised oxidation, however drill holes PLS 387 and PLS 388 returned intersections of similar grades and widths to the earlier results, with assays including:

- 4m @ 1.54% Li<sub>2</sub>O and 168ppm Ta<sub>2</sub>O<sub>5</sub> from 44m (PLS387); and
   2m@ 1.78% Li<sub>2</sub>O and 225ppm Ta<sub>2</sub>O<sub>5</sub> from 54m
- **15m @ 1.80% Li<sub>2</sub>O and 99ppm Ta<sub>2</sub>O<sub>5</sub>** from 13m (PLS387)



- 16m @ 1.89% Li<sub>2</sub>O and 116ppm Ta<sub>2</sub>O<sub>5</sub> from 67m (PLS388); and
- 10m @ 1.43% Li<sub>2</sub>O and 93ppm Ta<sub>2</sub>O<sub>5</sub> from 86m

In the Central Pegmatite area, previous drilling along sections 7670000mN and 7670100mN returned excellent results from two shallow-dipping pegmatites. **This pegmatite system remains open down-dip and to the north and west.** 

Recent drilling on 7670150mN (see Figure 2) has continued to intersect the same pegmatite with results from PLS 238 returning individual intercepts of 5m @ 2.16% Li<sub>2</sub>O from 15m, 6m @ 2.51% Li<sub>2</sub>O from 66m and 13m @ 1.58% Li<sub>2</sub>O from 115m; however, by applying a slightly lower cut-off grade this intersection can reported as 33m @ 1.02% Li<sub>2</sub>O from 115m over the entire pegmatite interval.

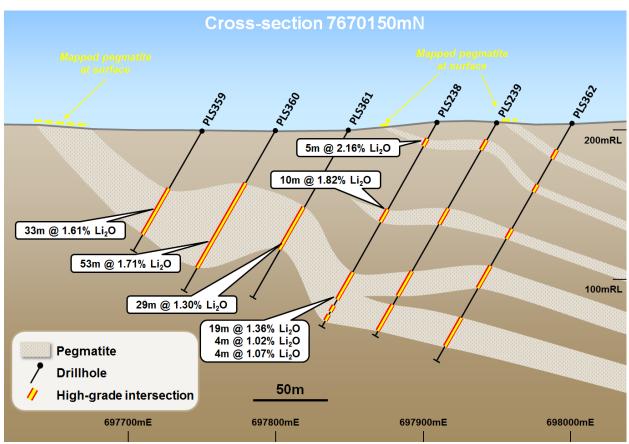


Figure 2: RC Cross Section 7670150mN, EL45/2232

In the previous announcement (ASX Release dated 9<sup>th</sup> November 2015) drill-holes PLS201 and PLS202 returned thick, near-surface intersections of 26m @ 1.74% Li₂O from surface and 45m @ 1.68% Li₂O from 9m respectively. PLS 203, which is on the same drill section and located 50m east of PLS202, returned:

4m@ 1.59% Li<sub>2</sub>O and 200ppm Ta<sub>2</sub>O<sub>5</sub> from 11m (PLS203); and
 45m @ 1.72% Li<sub>2</sub>O and 128ppm Ta<sub>2</sub>O<sub>5</sub> from 26m

Full intersections and assay results are provided in Table 1 on page 7 onwards of this release.



### **Management Comment**

Pilbara Minerals' Technical Director, Mr John Young, said the ongoing drilling program was continuing to throw up pleasant surprises, with in-fill drilling in the known resource zones also returning pleasing results.

"The program continues to make fantastic progress, with the overall 11,000m program now more than 80 per cent complete," he said. "Encouragingly, as drilling advances the project continues to strengthen and grow in several areas.

"First we had the discovery of the Monster prospect, now we have discovered a significant new pegmatite zone at the Western Domain, 400m west of the Central Pegmatites. These exciting new discoveries highlight the magnitude of the overall mineralised system at Pilgangoora and continue to lay the foundations for what we expect will be a significant further resource upgrade next quarter.

"This next update is primarily designed to upgrade most of the resource to Measured and Indicated categories, suitable for economic evaluation as part of our Feasibility Study. However, the new discoveries suggest that there is significant potential for the overall tonnage to increase as well. The drilling program is continuing apace and should be completed by early December."

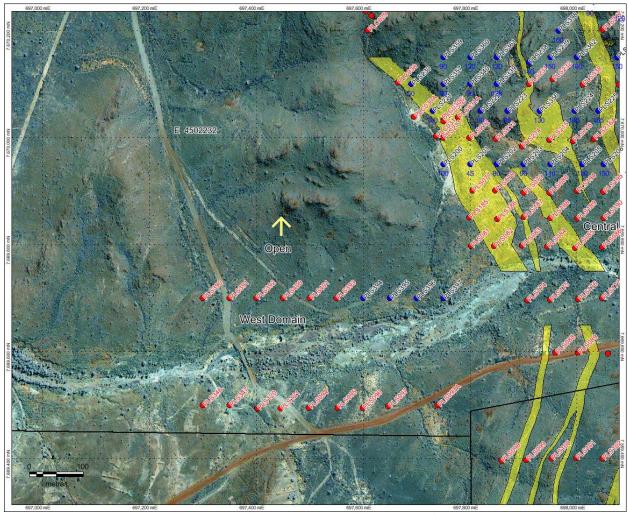


Figure 3: 1:5000 scale, RC drill collars at the New West Domain, EL45/2232



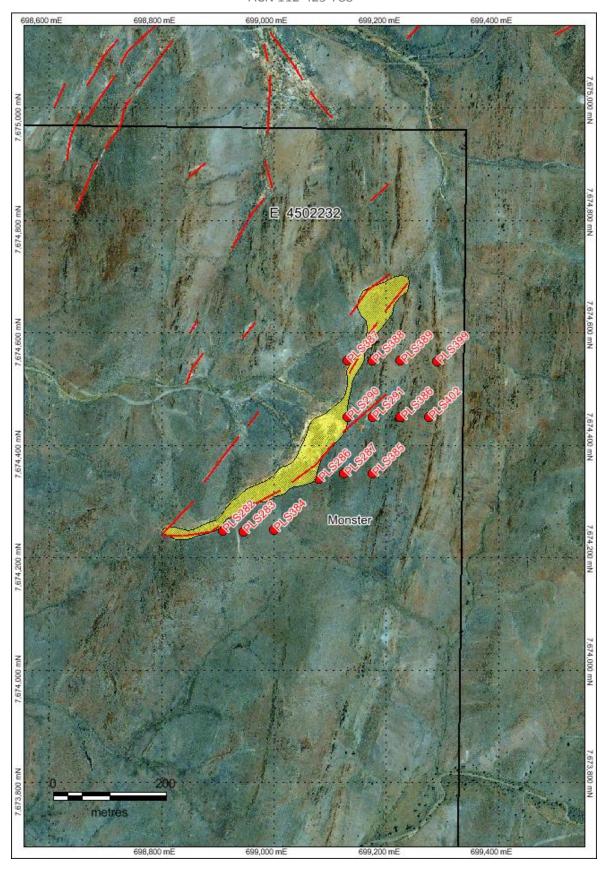


Figure 4: 1:5000 scale, RC drill collars at the Monster, EL45/2232



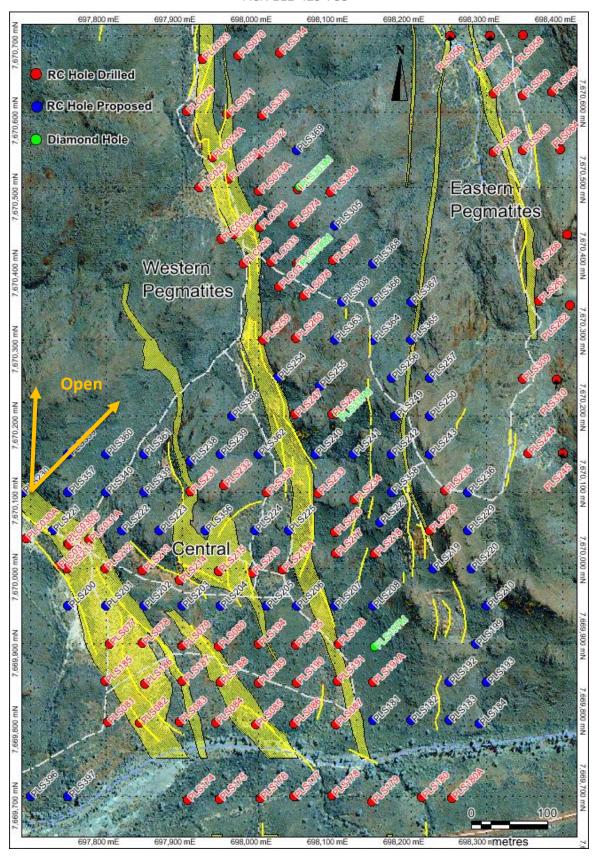


Figure 5: 1:5000 scale, RC drill collars at the Western and Central Pegmatites, EL45/2232



Table 1 below lists all recently received assay results from all drill holes in this report.

Table 1: Drilling Intersections (>1% Li<sub>2</sub>O)

Hole Id	From (m)	To (m)	Thickness (m)	Li <sub>2</sub> O (%)	Ta₂O₅ (ppm)
PLS203	11	15	4	1.59	200
PLS203	26	71	45	1.72	128
PLS204	25	31	6	1.75	143
PLS204	48	54	6	1.46	188
PLS204	61	82	21	1.57	133
PLS238	15	20	5	2.16	150
PLS238	24	26	2	1.55	110
PLS238	66	72	6	2.51	172
PLS238	75	76	1	1.09	200
PLS238	115	128	13	1.58	56
PLS238	132	133	1	1.01	280
PLS238	138	142	4	1.02	70
PLS238	146	148	2	1.33	55
PLS287	14	16	2	1.16	130
PLS287	38	42	4	2.16	188
PLS287	67	69	2	1.85	90
PLS290	44	49	5	1.54	168
PLS290	54	56	2	1.78	225
PLS290	75	78	3	1.62	173
PLS291	6	10	4	2.21	115
PLS384	24	46	22	1.82	159
PLS384	51	56	5	1.54	164
PLS385	51	58	7	2.49	136
PLS387	13	28	15	1.8	99
PLS387	36	37	1	1.61	140
PLS388	67	83	16	1.89	116
PLS388	86	96	10	1.43	93



Table 2: Drilling Intersections (>100 ppm Ta<sub>2</sub>O<sub>5</sub>)

Hole Id	From (m)	To (m)	Thickness (m)	Ta <sub>2</sub> O <sub>5</sub> (ppm)	Li <sub>2</sub> O (%)
PLS203	11	15	4	200	1.59
PLS203	25	30	5	240	1.55
PLS203	34	46	12	222	1.70
PLS203	68	69	1	100	1.06
PLS203	73	75	2	115	0.24
PLS204	25	32	7	143	1.58
PLS204	48	54	6	188	1.46
PLS204	60	72	12	190	1.42
PLS204	78	83	5	138	1.51
PLS238	14	28	14	133	1.05
PLS238	65	77	12	163	1.60
PLS238	128	138	10	252	0.50
PLS287	14	16	2	130	1.16
PLS287	38	42	4	188	2.16
PLS287	66	70	4	148	1.03
PLS290	8	12	4	285	0.16
PLS290	40	48	8	173	1.02
PLS290	53	57	4	178	1.29
PLS290	75	80	5	158	1.12
PLS291	6	9	3	130	2.14
PLS384	23	47	24	156	1.73
PLS384	51	57	6	168	1.35
PLS385	51	60	9	129	2.03
PLS387	7	10	3	223	0.1
PLS387	16	29	13	110	1.73
PLS387	36	41	5	115	0.78
PLS387	65	66	1	100	0.28
PLS388	70	81	11	133	2.09
PLS388	88	90	2	145	1.25
PLS388	94	97	3	93	1.14



### **About Pilbara Minerals**

Pilbara Minerals ("Pilbara" – ASX: PLS) is a mining and exploration company listed on the ASX, specialising in the exploration and development of the specialty metals tantalum and lithium. Pilbara is currently developing the Tabba Tabba tantalum deposit, located approximately 50km south-east of Port Hedland. Pilbara is also drilling out the advanced 100%-owned Pilgangoora spodumene-tantalum deposit, located close to Tabba Tabba.

The primary source of tantalum is from minerals such as tantalite, columbite, wodginite and microlite contained in pegmatite ore bodies. The largest deposits are located in Australia, Brazil and Africa. Tantalum's **major use is** in the production of electronic components, **especially for capacitors**, with additional use in components for chemical plants, nuclear power plants, airplanes and missiles. It is also used as a substitute for platinum.

The tantalum market is boutique in size with around 1,300 tonnes required each year. However the market is rapidly growing due to capacitor use in wireless and handheld devices. PLS's Tabba Tabba Project could supply approximately 7% of the annual market consumption over two years. There are two major buyers of tantalum raw product worldwide: HC Stark and Global Advanced Metals.

Lithium is a soft silvery white metal and has the highest electrochemical potential of all metals. In nature it occurs as compounds within hard rock deposits and salt brines. Lithium and its chemical compounds have a wide range of beneficial properties resulting in numerous chemical and technical uses. A key growth area is its use in lithium batteries as a power source for a wide range of applications including electric bikes, motor vehicles, buses, trucks and taxis.

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### **Competent Person's Statement**

The Company confirms it is not aware of any new information or data that materially affects the information included in the 13<sup>th</sup> October, 2015 Pilgangoora Mineral Resource Estimate and that all material assumptions and technical parameters underpinning the estimate continue to apply and have not materially changed when referring to its resource announcement made on 13<sup>th</sup> October, 2015.

The information in this report that relates to Exploration Results is based on and fairly represents information and supporting documentation prepared by Mr John Young (Technical Director of Pilbara Minerals Limited). Mr Young is a shareholder of Pilbara Minerals. Mr Young is a member of the Australasian Institute of Mining and Metallurgy and has sufficient experience of relevance to the styles of mineralisation and types of deposits under consideration, and to the activities undertaken to qualify as Competent Persons as defined in the 2012 Edition of the Joint Ore Reserves Committee (JORC) Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves. Specifically, Mr Young consents to the inclusion in this report of the matters based on his information in the form and context in which they appear.



# Appendix 1 – Drilling Information Pilgangoora Lithium – Tantalum Project

# RC drilling completed.

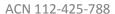
Hole ID	East GDA94	North GDA94	RL	Dip	Azm	Depth
PLS150	698080	7667800	200	-60	270	87
PLS181	698150	7669800	200	-60	270	150
PLS193	698300	7669850	200	-60	270	162
PLS200	697750	7669950	200	-60	270	100
PLS201	697800	7669950	200	-60	270	48
PLS202	697850	7669950	200	-60	270	78
PLS203	697900	7669950	200	-60	270	90
PLS204	697950	7669950	200	-60	270	108
PLS205	698010	7669950	200	-60	270	130
PLS206	698050	7669950	200	-60	270	150
PLS207	698100	7669950	200	-60	270	168
PLS208	698150	7669950	200	-60	270	150
PLS221	697730	7670050	200	-60	270	96
PLS222	697820	7670050	200	-60	270	78
PLS223	697870	7670050	200	-60	270	114
PLS230	697690	7670100	200	-60	270	60
PLS256	698175	7670250	200	-60	270	168
PLS257	698225	7670250	200	-60	270	168
PLS363	698100	7670300	200	-60	270	138
PLS364	698150	7670300	200	-60	270	162
PLS365	698200	7670300	200	-60	270	198
PLS357	697750	7670100	200	-60	270	84
PLS340	697800	7670100	200	-60	270	90
PLS339	697850	7670100	200	-60	270	120
PLS238	697915	7670140	200	-60	270	156
PLS239	697950	7670150	200	-60	270	162
PLS362	698000	7670150	200	-60	270	180
PLS240	698075	7670150	200	-60	270	162
PLS369	698050	7670550	200	-60	270	100
PLS305	698100	7670450	200	-60	270	138
PLS357	697750	7670100	200	-60	270	84
PLS340	697800	7670100	200	-60	270	90
PLS339	697850	7670100	200	-60	270	120
PLS368	698150	7670400	200	-60	270	78
PLS368A	698150	7670400	200	-60	270	186
PLS308	698110	7670350	200	-60	270	132
PLS366	698150	7670350	200	-60	270	156
PLS367	698200	7670350	200	-60	270	192
PLS384	699000	7674250	200	-90	0	80
PLS287	699125	7674350	200	-90	0	80
PLS385	699175	7674350	200	-90	0	80
PLS290	699130	7674450	200	-90	0	100



Hole	East GDA94	North	RL	Dip	Azm	Depth
PLS291	699175	7674450	200	-90	0	154
PLS386	699225	7674450	200	-90	0	184
PLS387	699170	7674550	200	-90	0	88
PLS388	699220	7674550	200	-90	0	141
PLS389	699270	7674550	200	-90	0	178
PLS399	699320	7674550	200	-90	0	184
PLS402	699250	7674450	200	-90	0	134

Results included in this report







# **JORC Code, 2012 Edition – Table 1 report**

# **Section 1 Sampling Techniques and Data**

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

Criteria	JORC Code explanation	Commentary
Sampling techniques	Nature and quality of sampling (e.g. cut channels, random chips, or specific specialised industry standard measurement tools appropriate to the minerals under investigation, such as down hole gamma sondes, or handheld XRF instruments, etc). These examples should not be taken as limiting the broad meaning of sampling.	Pilbara Minerals Limited (PLS) have completed a <b>66 drill holes for 8511m.</b> Results being reported are for 10 RC holes (PLS203 to PLS204,PLS238, PLS290-PLS291, PLS384-365, PLS287, PLS387to PS388)), See Highlighted in Appendix 1.
	Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.	PLS RC holes were sampled every metre, with samples split on the rig using a cyclone splitter. The sampling system consisted of a rig mounted cyclone with cone splitter and dust suppression system. The cyclone splitter was configured to split the cuttings at 85% to waste (to be captured in 600mm x 900mm green plastic mining bags) and 15% to the sample port in draw-string calico sample bags (10-inch by 14-inch).
	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 (e.g. 'reverse circulation drilling was used to obtain 1 m samples from which 3 kg was pulverised to produce a 30 g charge for fire assay'). In other cases more explanation may be required, such as where there is coarse gold that has inherent sampling problems. Unusual	PLS holes were all RC, with samples split at the rig, samples are then sent to NAGROM Perth laboratory and analysed for a suite of 18 elements. Analysis was completed by XRF and ICP techniques.





Criteria	JORC Code explanation	Commentary
	commodities or mineralisation types (e.g. submarine nodules) may warrant disclosure of detailed information.	
Drilling techniques	Drill type (e.g. core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc) and details (e.g. core diameter, triple or standard tube, depth of diamond tails, face-sampling bit or other type, whether core is oriented and if so, by what method, etc).	RC Drilling was completed by a track mounted Schramm T450 with an automated rod-handler system and on-board compressor rated to 1,350cfm/800psi. Drilling used a reverse circulation face sampling hammer. The sampling system consisted of a rig mounted cyclone with cone splitter and dust suppression system.
Drill sample recovery	Method of recording and assessing core and chip sample recoveries and results assessed.	Sample recovery was recorded as good for RC holes.
	Measures taken to maximise sample recovery and ensure representative nature of the samples.	Whilst drilling through the pegmatite, rods were flushed with air after each 6 metre interval.
	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.	Samples were dry and recoveries are noted as "good."
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.	1m samples were laid out in lines of 20 or 30 samples with cuttings collected and geologically logged for each interval and stored in 20 compartment plastic rock-chip trays with hole numbers and depth intervals marked (one compartment per 1m). Geological logging information was recorded directly onto hard copy logging sheets and later transferred an Excel spreadsheet. The rock-chip trays are to be stored in PLS Perth office.
	Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.	Logging has primarily been quantitative.
	The total length and percentage of the relevant intersections logged.	The database contains lithological data for all holes in the database.
Sub- sampling	If core, whether cut or sawn and whether quarter, half or all core taken.	RC samples were generally dry and split at the rig using a cyclone splitter, which is appropriate and industry standard.





Criteria	JORC Code explanation	Commentary
techniques and sample preparation	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.	PLS samples have field duplicates, field standards and blanks as well as laboratory splits and repeats.
	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.	Field duplicates were taken approximately every 20m, and standards and blanks every 50 samples.
	Whether sample sizes are appropriate to the grain size of the material being sampled.	Drilling sample sizes are considered to be appropriate to correctly represent the tantalum and lithium mineralization at Pllgangoora based on the style of mineralization (pegmatite) and the thickness and consistency of mineralization.
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.	PLS samples were assayed at NAGROM Pty Ltd 's Laboratory in Perth WA, for a 18 element suite using XRF on fused beads, and total acid digestion with an ICP finish.
	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.	No geophysical tools were used to determine any element concentrations used in this resource estimate.
	Nature of quality control procedures adopted (eg standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (ie lack of bias) and precision have been established.	PLS duplicates of the samples were taken at twenty metre intervals with blanks and standards inserted every 50m. Comparison of duplicates by using a scatter chart to compare results show the expected strong linear relationship reflecting the strong repeatability of the sampling and analysis process.





Criteria	JORC Code explanation	Commentary
		The PLS drilling contains QC samples (field duplicates, blanks and standards plus laboratory pulp splits, and NAGROM internal standards), and have produced results deemed acceptable.
Verification of sampling and assaying	The verification of significant intersections by either independent or alternative company personnel.  The use of twinned holes.	Infill drilling completed by PLS in this program has confirmed the approximate width and grade of historical drilling.
	Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.	An electronic database containing collars, surveys, assays and geology is maintained by Trepanier Pty Ltd, an Independent Geological consultancy.
	Discuss any adjustment to assay data.	Li was converted to $\text{Li}_2\text{O}$ for the purpose of reporting. The conversion used was $\text{Li}_2\text{O} = \text{Li} \times 2.153$
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.	PLS holes were surveyed using DGPS in GDA94, Zone 50.  Down hole surveying of drill holes was conducted using a Reflex EZ-shot, electronic single shot camera to determine the true dip and azimuth of each hole.  Measurements were recorded at the bottom of each hole. Drill hole collar locations will be surveyed at the end of the program by a differential GPS (DGPS).
	Specification of the grid system used.	The grid used was MGA (GDA94, Zone 50)
	Quality and adequacy of topographic control.	The topographic surface used was supplied by GAM
Data spacing and distribution	Data spacing for reporting of Exploration Results.	Drilling spacings varied between 50m to 200m apart





Criteria	JORC Code explanation	Commentary
	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.	The interpretation of the mineralised domains are supported by a moderate drill spacing, plus both geological zones and assay grades can be interpreted with confidence.
	Whether sample compositing has been applied.	No compositing
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.	The mineralisation dips approximately 30-60 degrees at a dip direction of 090 degrees .  The drilling orientation and the intersection angles are deemed appropriate.
	If the relationship between the drilling orientation and the orientation of key mineralised structures is considered to have introduced a sampling bias, this should be assessed and reported if material.	No orientation-based sampling bias has been identified.
Sample security	The measures taken to ensure sample security.	Chain of custody for PLS holes were managed by PLS personnel.
Audits or reviews	The results of any audits or reviews of sampling techniques and data.	Sampling techniques for historical assays have not been audited. The collar and assay data have been reviewed by checking all of the data in the digital database against hard copy logs. All PLS assays were sourced directly from the NAGROM laboratory







# **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	PLS owns 100% of tenement E45/2232, M45/333
	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.	No known impediments.
Exploration done by other parties	Acknowledgment and appraisal of exploration by other parties.	Talison completed RC holes in 2008 GAM completed RC holes between 2010 and 2012.
Geology	Deposit type, geological setting and style of mineralisation.	The Pilgangoora pegmatites are part of the later stages of intrusion of Archaean granitic batholiths into Archaean metagabbros and metavolcanics. Tantalum mineralisation occurs in zoned pegmatites that have intruded a sheared metagabbro.
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, including 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 plus 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.	Refer to Appendix 1 this announcement.





Criteria	JORC Code explanation	Commentary
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.	Length weighed averages used for exploration results reported in Table 1 and 2. Cutting of high grades was not applied in the reporting of intercepts in Table 1 and 2. No metal equivalent values are used.
Relationship between mineralisatio n 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').	Downhole lengths are reported in Table 1 and 2. Down hole lengths are reported, true widths are not known, The pegmatites dip between 30 and 70 degrees to the east and the majority of drilling is a t -60 degrees to the west, so thickness are approximate true widths.
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 1-3
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.	Comprehensive reporting of drill details has been provided in Appendix 1 of this announcement.
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,	All meaningful & material exploration data has been reported.





Criteria	JORC Code explanation	Commentary
	geotechnical and rock characteristics; potential deleterious or contaminating substances.	
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.	The aim is to upgrade the existing JORC compliant resource calculation.