



# PILBARA MINERALS LIMITED

ACN 112-425-788

ASX ANNOUNCEMENT

7<sup>th</sup> January 2015

**EARLIER TODAY THE COMPANY INADVERTENTLY RE-RELEASED THE CONTENTS OF A PREVIOUS RELEASE. THE FOLLOWING IS THE RELEASE INTENDED FOR DISTRIBUTION AND RELEASE TODAY. THE ERROR AROSE DUE TO COMMUNICATION DIFFICULTIES WITH THE COMPANY SECRETARY WHO IS CURRENTLY TRAVELLING IN A REMOTE LOCATION OF AUSTRALIA. ANY INCONVENIENCE IS REGRETTE**

## **PILGANGOORA: FURTHER HIGH-GRADE LITHIUM AND TANTALUM HITS FROM SUCCESSFUL RESOURCE IN-FILL AND EXTENSIONAL DRILLING**

**DRILLING TO RESUME IN Q1 2015 AHEAD OF PLANNED RESOURCE UPGRADE**

### **HIGHLIGHTS:**

- **Further broad intersections of lithium and tantalum mineralisation** in pegmatites returned from the next 15 Reverse Circulation (RC) drill holes completed at the 100%-owned **Pilgangoora Lithium-Tantalum Project**, in WA's Pilbara region.
- **Outstanding results confirm the continuity and robustness of high-grade lithium and tantalum mineralisation**, with latest results including:
  - **10m @ 1.59% Li<sub>2</sub>O and 261ppm Ta<sub>2</sub>O<sub>5</sub> from 44m (PLS027); and 6m @ 1.09% Li<sub>2</sub>O and 207ppm Ta<sub>2</sub>O<sub>5</sub> from 57m;**
  - **6m @ 2.05% Li<sub>2</sub>O and 442ppm Ta<sub>2</sub>O<sub>5</sub> from 38m (PLS019);**
  - **5m @ 2.05% Li<sub>2</sub>O and 456ppm Ta<sub>2</sub>O<sub>5</sub> from 90m (PLS020);**
  - **20m @ 1.94% Li<sub>2</sub>O and 214ppm Ta<sub>2</sub>O<sub>5</sub> from 47m (PLS051);**
  - **4m @ 2.22% Li<sub>2</sub>O and 205ppm Ta<sub>2</sub>O<sub>5</sub> from 0m (PLS052); and 3m @ 2.12% Li<sub>2</sub>O and 307ppm Ta<sub>2</sub>O<sub>5</sub> from 10m;**
  - **7m @ 1.60% Li<sub>2</sub>O and 177ppm Ta<sub>2</sub>O<sub>5</sub> from 70m (PLS053);**
  - **6m @ 1.68% Li<sub>2</sub>O and 155ppm Ta<sub>2</sub>O<sub>5</sub> from 62m (PLS0555);**
  - **4m @ 1.57% Li<sub>2</sub>O and 213ppm Ta<sub>2</sub>O<sub>5</sub> from 0m (PLS059).**
- **Results are from the Priority 1, 2 and 3 Resource Areas** at Pilgangoora, with **41 holes for 4,812m** now completed as part of the current in-fill and extensional RC drilling program. Drilling to resume in Q1 2015 to complete the planned 10,000m program.

Australian strategic metals company Pilbara Minerals Ltd (ASX: PLS) is pleased to report further excellent results from the highly successful program of resource in-fill and extensional drilling completed before Christmas at its flagship **Pilgangoora Tantalum-Lithium Project**, located near Port Hedland in WA.



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Drilling in the **Priority 1, 2 and 3 areas** (see Figure 1 below) is now complete and assay results have now been received for all of the Priority 1 and 2 drill holes. 41 Reverse Circulation drill holes for 4,812m was completed in 2014 with drilling to resume in Q1 2015 to complete the balance of the 10,000m program.

Pegmatites containing high grades of lithium and tantalum have been intersected along the northern line 7672500mN in the Priority 2 area, with significant high-grade intersections **grading more than 2% Li<sub>2</sub>O and more than 400ppm Ta<sub>2</sub>O<sub>5</sub>**, such as **6m @ 2.05% Li<sub>2</sub>O and 442ppm Ta<sub>2</sub>O<sub>5</sub>** from 38m (PLS019) and **5m @ 2.05% Li<sub>2</sub>O and 456ppm Ta<sub>2</sub>O<sub>5</sub>** from 90m (PLS020).

Results from the northern end of the Priority 3 area also included significant intersections of **20m @ 1.94% Li<sub>2</sub>O and 214ppm Ta<sub>2</sub>O<sub>5</sub>** from 47m (PLS051) and **4m @ 2.22% Li<sub>2</sub>O and 205ppm Ta<sub>2</sub>O<sub>5</sub>** from 0m (PLS052).

Full intersections and assay results are provided in Table1.

The results received from the drilling to date have clearly demonstrated substantial upside to the current JORC 2012 Mineral Resource for the Pilgangoora deposit (**10.4M tonnes @ 0.024% Ta<sub>2</sub>O<sub>5</sub> for 5,500,000lbs Ta<sub>2</sub>O<sub>5</sub>, including 8.6M tonnes @ 1.01% Li<sub>2</sub>O for 87,000 tonnes of lithium**) with lithium grades intersected significantly exceeding the average resource grade. The new results will be incorporated into an updated Mineral Resource which will be completed in Q1 2015.

“The drilling completed before the Christmas/New Year break was extremely successful, intersecting extensive zones of high-grade lithium mineralisation with significant tantalum credits,” said Pilbara Minerals Director, Neil Biddle.

“Of particular note are the thick intersections of high-grade lithium grading 1.5% to 2% Li<sub>2</sub>O, which is well above the average resource grade. This suggests that there is excellent potential to increase the average grade of the resource, as well as to convert a significant portion of the resource from Inferred to Indicated,” he added.

“While further work will be needed to test extensions to the mineralisation outside of the current resource area, preliminary indications from the pegmatites intersected in these areas is that there is excellent potential to grow the overall tonnage as well with further drilling along strike to the north and south.

“We are delighted with the results from Pilgangoora which, together with the neighbouring Altura Mining deposit, form part of what could potentially be one of the largest known hard rock lithium deposits in the world,” Mr Biddle said. “Lithium is a strategic metal which has outstanding market fundamentals given the outlook for demand from the electronics and battery storage sectors, and we see Pilgangoora continuing to emerge as a very important asset of the Company alongside our near-term production asset at Tabba Tabba.”

## **Pilgangoora Reverse Circulation Program – Detailed Discussion**

The Pilgangoora drilling program on Exploration Licences (EL45/2232 and EL45/333) commenced on 3 November 2014. The main pegmatite field on EL45/2232 has undergone broad spaced drilling by previous explorers (GAM and Talison) along a strike length of 3.2km.



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In 2014 Pilbara completed **41 Reverse Circulation (RC) holes for a total of 4812m**. The drilling to date has in-filled the existing resource zone along the Eastern pegmatite body, as well as testing extensions to the known mineralisation in Priority areas 1 to 3 (See figure 1).

## Results

Significant higher grade zones returning >2% Li<sub>2</sub>O (Table 1; highlighted in yellow) have been received from the last seven holes within the Priority 2 area. Along the northern line 7672500m N, holes PLS019 and PLS020 intersected consistent mineralised down-hole widths of 5-6m of + 2% Li<sub>2</sub>O.

This pegmatite also has coincident higher grade Ta<sub>2</sub>O<sub>5</sub>. These results continue to support the suggestion that pegmatites north of 7672000 may contain higher grade Ta<sub>2</sub>O<sub>5</sub> mineralisation (See Table 2). The Priority 2 area has been drilled on broad spacings of 200m by 50m, and this zone will require in-fill drilling as part of the next phase of drilling.

Table 1 below lists all recently received assay results from drill holes PLS019 to PLS028 (excluding PLS024-PLS025) and the northern half of the Priority 3 area, comprising drill holes PLS051-59.

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

Hole Id	From (m)	To (m)	Thickness (m)	Li <sub>2</sub> O (%)	Ta <sub>2</sub> O <sub>5</sub> (ppm)
PLS027	44	54	10	1.59	261
	57	63	6	1.09	207
	80	81	1	1.24	260
PLS028	76	78	2	1.56	160
	93	98	5	1.41	136
PLS022	18	19	1	1.01	240
PLS023	22	23	1	1.05	560
	83	87	4	1.59	230
PLS019	38	44	6	2.05	442
PLS020	90	95	5	2.05	456
PLS051	26	28	2	1.31	110
	47	67	20	1.94	214
PLS052	0	4	4	2.22	205
	7	8	1	1.07	200
PLS053	10	13	3	2.12	307
	70	77	7	1.6	177
	84	87	3	2.1	180
PLS054	NSR				
PLS055	50	52	2	1.27	215
	56	59	3	0.93	263
	62	68	6	1.68	155
	81	82	1	1.54	210
	86	88	2	1.55	160
PLS056	92	93	1	1.8	120
	39	40	1	1.94	180
	44	45	1	1.57	140
PLS057	19	20	1	1.44	220
	40	45	5	1.35	146
PLS058	34	35	1	1.35	350
	54	57	3	1.72	257
PLS059	0	4	4	1.57	213
	47	48	1	1.11	20



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

Hole Id	From (m)	To (m)	Thickness (m)	Ta <sub>2</sub> O <sub>5</sub> (>100ppm)	Li <sub>2</sub> O (%)
PLS027	44	64	20	222	1.22
	81	83	2	180	0.51
PLS028	21	24	3	193	1.24
	36	38	2	240	0.06
	76	81	5	244	0.90
	88	92	4	330	0.32
	94	99	5	186	1.18
PLS022	17	22	5	310	1.18
	41	43	2	353	0.13
PLS023	21	24	3	363	1.01
	39	41	2	360	0.07
	79	93	14	212	0.94
PLS024	41	45	4	278	0.43
PLS017	45	47	2	225	0.5
PLS019	38	46	8	409	1.63
PLS020	89	97	8	345	1.45
PLS051	26	28	2	110	1.31
	47	67	20	214	1.94
PLS052	0	5	5	190	1.87
	7	13	6	268	1.51
PLS053	9	10	1	140	0.22
	69	78	9	183	1.4
	84	89	5	158	1.36
PLS054	9	12	3	207	0.84
PLS055	9	12	3	210	0.79
	50	53	3	213	1.04
	55	68	13	209	1.19
	81	83	2	210	0.99
	86	89	3	157	1.34
	92	94	2	210	1.02
PLS056	39	41	2	170	1.09
	44	45	1	140	1.57
PLS057	16	17	1	270	0.21
	19	21	2	185	1.03
	39	46	7	173	0.98
	85	87	2	155	0.20
PLS058	12	14	2	235	0.04
	34	35	1	350	1.35
	54	58	4	250	1.42
	60	62	2	155	0.64
PLS059	0	10	10	259	0.88
	46	47	1	180	0.14
	91	92	1	180	0.08
	94	95	1	120	0.20



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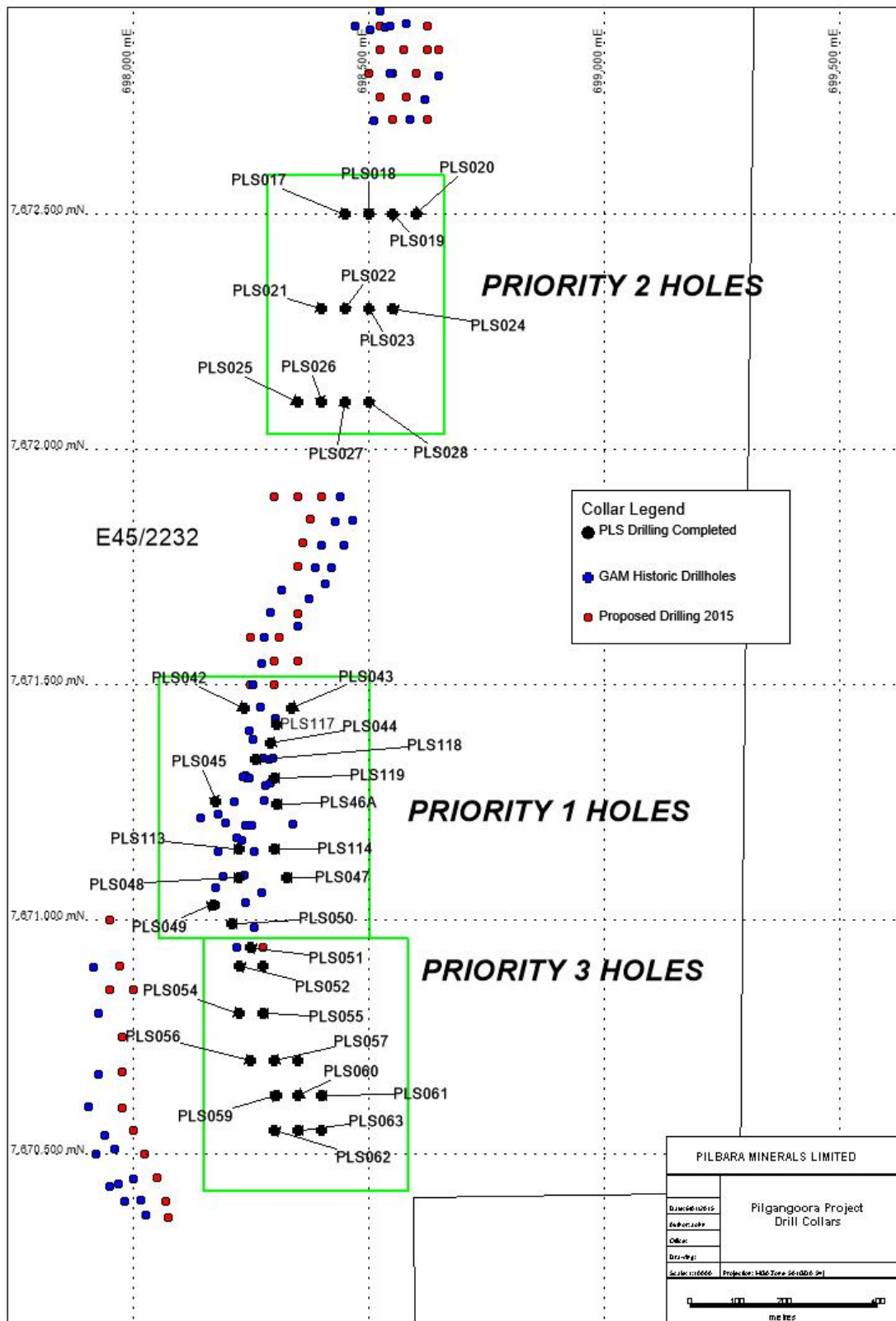


Figure 1 – Pilgangoora RC Collar Locations EL45/2232



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## About Pilbara Minerals

Pilbara Minerals (Pilbara) is a mining and exploration company listed on the ASX, specialising in the exploration and development of speciality metals Tantalum and Lithium. Pilbara is currently developing the Tabba Tabba Tantalum deposit approximately 50km south east of Port Hedland through a 50% Joint Venture. Pilbara is also drilling out the advanced 100% owned Pilgangoora tantalum/lithium deposit 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.

## Contact:

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--- ENDS ---

## 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 June 17, 2013 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 maiden resource announcement made on June 17, 2013.*

*The information in this report that relates to Exploration Results and Exploration Targets is based on and fairly represents information and supporting documentation prepared by Mr John Young (Executive and Chief Geologist 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,*



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*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 Total Drilling Completed 19/12/2014

Hole ID	North GDA	East GDA	Dip	AZ	Depth
PLS050	7670990	698210	-60	270	80
PLS049	7671030	698170	-90	0	60
PLS048	7671090	698225	-60	270	110
PLS047	7671090	698325	-60	270	112
PLS113	7671150	698225	-60	270	99
PLS114	7671150	698300	-70	270	102
PLS46	7671245	698305	-60	270	108
PLS045	7671250	698175	-60	270	60
PLS119	7671300	698300	-90	0	120
PLS118	7671340	698260	-60	270	84
PLS044	7671375	698290	-60	270	90
PLS117	7671415	698305	-90	0	90
PLS043	7671450	698335	-60	270	126
PLS042	7671450	698235	-60	270	48
PLS017	7672500	698450	-60	270	66
PLS018	7672500	698500	-60	270	21
PLS018A	7672500	698502	-60	270	100
PLS019	7672500	698550	-60	270	100
PLS020	7672500	698600	-60	270	100
PLS021	7672300	698400	-60	270	96
PLS022	7672300	698450	-60	270	84
PLS023	7672300	698500	-60	270	100
PLS024	7672300	698550	-60	270	64
PLS025	7672100	698350	-60	270	102
PLS026	7672100	698400	-60	270	102
PLS027	7672100	698450	-60	270	96
PLS028	7672100	698500	-60	270	102
PLS051	7670940	698250	-60	270	72
PLS053	7670900	698275	-60	270	96
PLS052	7670900	698225	-60	270	50
PLS054	7670800	698225	-60	270	100
PLS055	7670800	698275	-60	270	102
PLS056	7670700	698250	-60	270	96
PLS057	7670700	698300	-60	270	96
PLS058	7670700	698350	-60	270	100
PLS059	7670625	698305	-60	270	100
PLS060	7670625	698350	-60	270	100
PLS061	7670625	698400	-60	270	100
PLS062	7670550	698300	-60	270	100
PLS063	7670550	698350	-60	270	100
PLS064	7670550	698400	-60	270	100
PLS120	7669500	697400	-60	270	100



## 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
<b>Sampling techniques</b>	<ul style="list-style-type: none"> <li>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.</li> </ul>	<ul style="list-style-type: none"> <li>Pilbara Minerals Limited (PLS) have completed to 41 drill hole RC program totalling 4812m</li> </ul>
	<ul style="list-style-type: none"> <li>Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.</li> </ul>	<ul style="list-style-type: none"> <li>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).</li> </ul>
	<ul style="list-style-type: none"> <li>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.</li> </ul>	<ul style="list-style-type: none"> <li>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.</li> </ul>





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Criteria	JORC Code explanation	Commentary
<b>Drilling techniques</b>	<ul style="list-style-type: none"> <li>• <i>Drill type (eg core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc) and details (eg core diameter, triple or standard tube, depth of diamond tails, face-sampling bit or other type, whether core is oriented and if so, by what method, etc).</i></li> </ul>	<ul style="list-style-type: none"> <li>• Drilling was completed by a track mounted Schramm T685WS rig with a Schramm 450 with an automated rod-handler system and on-board compressor rated to 1,350cfm/500psi with an auxiliary booster mounted on a further 8x8 truck and rated at 900cfm/350psi. Drilling used a reverse circulation face sampling hammer. The sampling system consisted of a rig mounted cyclone with cone splitter and dust suppression system.</li> </ul>
<b>Drill sample recovery</b>	<p><i>Method of recording and assessing core and chip sample recoveries and results assessed.</i></p> <ul style="list-style-type: none"> <li>• <i>Measures taken to maximise sample recovery and ensure representative nature of the samples.</i></li> <li>• <i>Whether a relationship exists between sample recovery and grade and whether sample bias may have occurred due to preferential loss/gain of fine/coarse material.</i></li> </ul>	<ul style="list-style-type: none"> <li>• Sample recovery was recorded as good for RC holes.</li> <li>• Whilst drilling through the pegmatite, rods were flushed with air after each 6 metre interval.</li> <li>• Samples were dry and recoveries are noted as “good.”</li> </ul>
<b>Logging</b>	<ul style="list-style-type: none"> <li>• <i>Whether core and chip samples have been geologically and geotechnically logged to a level of detail to support appropriate Mineral Resource estimation, mining studies and metallurgical studies.</i></li> <li>• <i>Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.</i></li> <li>• <i>The total length and percentage of the relevant intersections logged.</i></li> </ul>	<ul style="list-style-type: none"> <li>• 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 stroed in PLS Perth office..</li> <li>• Logging has primarily been quantitative.</li> <li>• The database contains lithological data for all holes in the database.</li> </ul>
<b>Sub-sampling techniques</b>	<ul style="list-style-type: none"> <li>• <i>If core, whether cut or sawn and whether quarter, half or all core taken.</i></li> <li>• <i>If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.</i></li> </ul>	<ul style="list-style-type: none"> <li>• RC samples were generally dry and split at the rig using a cyclone splitter, which is appropriate and industry standard.</li> </ul>



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Criteria	JORC Code explanation	Commentary
<b>and sample preparation</b>	<p><i>For all sample types, the nature, quality and appropriateness of the sample preparation technique.</i></p>	
	<ul style="list-style-type: none"> <li><i>Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.</i></li> </ul>	<ul style="list-style-type: none"> <li>PLS samples have field duplicates, field standards and blanks as well as laboratory splits and repeats.</li> </ul>
	<ul style="list-style-type: none"> <li><i>Measures taken to ensure that the sampling is representative of the in situ material collected, including for instance results for field duplicate/second-half sampling.</i></li> </ul>	<ul style="list-style-type: none"> <li>Field duplicates were taken approximately every 20m, and standards and blanks every 50 samples.</li> </ul>
<b>Quality of assay data and laboratory tests</b>	<ul style="list-style-type: none"> <li><i>Whether sample sizes are appropriate to the grain size of the material being sampled.</i></li> </ul>	<ul style="list-style-type: none"> <li>Drilling sample sizes are considered to be appropriate to correctly represent the tantalum and lithium mineralization at Pilgangoora based on the style of mineralization (pegmatite) and the thickness and consistency of mineralization.</li> </ul>
	<ul style="list-style-type: none"> <li><i>The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.</i></li> </ul>	<ul style="list-style-type: none"> <li>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.</li> </ul>
	<ul style="list-style-type: none"> <li><i>For geophysical tools, spectrometers, handheld XRF instruments, etc, the parameters used in determining the analysis including instrument make and model, reading times, calibrations factors applied and their derivation, etc.</i></li> <li><i>Nature of quality control procedures adopted (eg standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (ie lack of bias) and precision have been established.</i></li> </ul>	<ul style="list-style-type: none"> <li>No geophysical tools were used to determine any element concentrations used in this resource estimate.</li> <li>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.</li> <li>The PLS drilling contains QC samples (field duplicates, blanks and standards plus laboratory pulp splits, and NAGROM internal standards), and have</li> </ul>



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Criteria	JORC Code explanation	Commentary
<b>Verification of sampling and assaying</b>	<ul style="list-style-type: none"> <li><i>The verification of significant intersections by either independent or alternative company personnel.</i></li> <li><i>The use of twinned holes.</i></li> <li><i>Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.</i></li> <li><i>Discuss any adjustment to assay data.</i></li> </ul>	<p>produced results deemed acceptable.</p> <ul style="list-style-type: none"> <li>Limited infill drilling completed by PLS in this program has confirmed the approximate width and grade of historical drilling.</li> <li>No use of twins</li> <li>An electronic database containing collars, surveys, assays and geology is maintained by Trepanier , an independent Geological consultancy.</li> <li>Li was converted to Li<sub>2</sub>O for the purpose of reporting. The conversion used was Li<sub>2</sub>O = Li x 1.6</li> </ul>
<b>Location of data points</b>	<ul style="list-style-type: none"> <li><i>Accuracy and quality of surveys used to locate drill holes (collar and down-hole surveys), trenches, mine workings and other locations used in Mineral Resource estimation.</i></li> <li><i>Specification of the grid system used.</i></li> <li><i>Quality and adequacy of topographic control.</i></li> </ul>	<ul style="list-style-type: none"> <li>PLS holes were surveyed using DGPS in GDA94, Zone 50.</li> <li>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.</li> <li>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).</li> <li>The grid used was MGA (GDA94, Zone 50)</li> <li>The topographic surface used was supplied by GAM</li> </ul>
<b>Data spacing and distribution</b>	<ul style="list-style-type: none"> <li><i>Data spacing for reporting of Exploration Results.</i></li> <li><i>Whether the data spacing and distribution is sufficient to establish the</i></li> </ul>	<ul style="list-style-type: none"> <li>Drilling spacings varied between 50m to 200m apart</li> <li>The interpretation of the mineralised domains are supported by a</li> </ul>



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Criteria	JORC Code explanation	Commentary
	<p><i>degree of geological and grade continuity appropriate for the Mineral Resource and Ore Reserve estimation procedure(s) and classifications applied.</i></p> <ul style="list-style-type: none"> <li><i>Whether sample compositing has been applied.</i></li> </ul>	<p>moderate drill spacing, plus both geological zones and assay grades can be interpreted with confidence.</p> <ul style="list-style-type: none"> <li>No compositing</li> </ul>
<b>Orientation of data in relation to geological structure</b>	<ul style="list-style-type: none"> <li><i>Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.</i></li> </ul>	<ul style="list-style-type: none"> <li>The mineralisation dips approximately 45-60 degrees at a dip direction of 090 degrees</li> <li>The drilling orientation and the intersection angles are deemed appropriate.</li> </ul>
	<ul style="list-style-type: none"> <li><i>If the relationship between the drilling orientation and the orientation of key mineralised structures is considered to have introduced a sampling bias, this should be assessed and reported if material.</i></li> </ul>	<ul style="list-style-type: none"> <li>No orientation-based sampling bias has been identified.</li> </ul>
<b>Sample security</b>	<ul style="list-style-type: none"> <li><i>The measures taken to ensure sample security.</i></li> </ul>	<ul style="list-style-type: none"> <li>Chain of custody for PLS holes were managed by PLS personnel.</li> </ul>
<b>Audits or reviews</b>	<ul style="list-style-type: none"> <li><i>The results of any audits or reviews of sampling techniques and data.</i></li> </ul>	<ul style="list-style-type: none"> <li>Sampling techniques for historical assays have not been audited.</li> <li>The collar and assay data have been reviewed by checking all of the data in the digital database against hard copy logs.</li> <li>All PLS assays were sourced directly from the NAGROM laboratory</li> </ul>

## Section 2 Reporting of Exploration Results

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

Criteria	JORC Code explanation	Commentary
<b>Mineral tenement</b>	<ul style="list-style-type: none"> <li><i>Type, reference name/number, location and ownership including agreements or material issues with third parties such as joint ventures, partnerships, overriding royalties, native title interests,</i></li> </ul>	<ul style="list-style-type: none"> <li>PLS owns 100% of tenement E45/2232</li> </ul>



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Criteria	JORC Code explanation	Commentary
<b>and land tenure status</b>	<i>historical sites</i>	
	<ul style="list-style-type: none"><li><i>The security of the tenure held at the time of reporting along with any known impediments to obtaining a licence to operate in the area.</i></li></ul>	<ul style="list-style-type: none"><li>No known impediments.</li></ul>
<b>Exploration done by other parties</b>	<ul style="list-style-type: none"><li><i>Acknowledgment and appraisal of exploration by other parties.</i></li></ul>	<ul style="list-style-type: none"><li>Talison completed RC holes in 2008</li><li>GAM completed RC holes between 2010 and 2012.</li></ul>
<b>Geology</b>	<ul style="list-style-type: none"><li><i>Deposit type, geological setting and style of mineralisation.</i></li></ul>	<ul style="list-style-type: none"><li>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.</li></ul>
<b>Drill hole Information</b>	<ul style="list-style-type: none"><li><i>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.</i></li><li><i>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.</i></li></ul>	<ul style="list-style-type: none"><li>Refer to Appendix 1 this announcement.</li></ul>
<b>Data aggregation methods</b>	<ul style="list-style-type: none"><li><i>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.</i></li><li><i>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</i></li></ul>	<ul style="list-style-type: none"><li>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</li><li>No metal equivalent values are used.</li></ul>



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	<p><i>such aggregations should be shown in detail.</i></p> <ul style="list-style-type: none"><li><i>The assumptions used for any reporting of metal equivalent values should be clearly stated.</i></li></ul>	
<b>Relationship between mineralisation widths and intercept lengths</b>	<ul style="list-style-type: none"><li><i>These relationships are particularly important in the reporting of Exploration Results.</i></li><li><i>If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.</i></li><li><i>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').</i></li></ul>	<ul style="list-style-type: none"><li>Downhole lengths are reported in Table 1 and 2</li></ul>
<b>Diagrams</b>	<ul style="list-style-type: none"><li><i>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.</i></li></ul>	<ul style="list-style-type: none"><li>See Figures 1</li></ul>
<b>Balanced reporting</b>	<ul style="list-style-type: none"><li><i>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.</i></li></ul>	<ul style="list-style-type: none"><li>Comprehensive reporting of drill details has been provided in Appendix 1 of this announcement.</li></ul>
<b>Other substantive exploration data</b>	<ul style="list-style-type: none"><li><i>Other exploration data, if meaningful and material, should be reported including (but not limited to): geological observations; geophysical survey results; geochemical survey results; bulk samples – size and method of treatment; metallurgical test results; bulk density, groundwater, geotechnical and rock characteristics; potential deleterious or contaminating substances.</i></li></ul>	<ul style="list-style-type: none"><li>All meaningful &amp; material exploration data has been reported.</li></ul>
<b>Further work</b>	<ul style="list-style-type: none"><li><i>The nature and scale of planned further work (eg tests for lateral extensions or depth extensions or large-scale step-out drilling).</i></li><li><i>Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.</i></li></ul>	<ul style="list-style-type: none"><li>The aim is to upgrade the existing JORC compliant resource calculation.</li></ul>



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