



PILBARA MINERALS LIMITED

ACN 112-425-788

ASX ANNOUNCEMENT

22nd July 2015

PILBARA TO ACCELERATE RESOURCE EXPANSION DRILLING AT PILGANGOORA LITHIUM PROJECT FOLLOWING MORE HIGH-GRADE HITS

FURTHER STRONG RESULTS FROM EXTENSIONAL DRILLING AS INVESTIGATIVE METALLURGY CONFIRMS PROJECT POTENTIAL

HIGHLIGHTS:

- **Results received from the next 21 Reverse Circulation (RC) drill-holes completed during May-June** at Pilbara's 100%-owned **Pilgangoora Lithium-Tantalum Project**, located in WA's Pilbara region.
- **The latest results have confirmed the continuity of thick, lithium-rich pegmatites on 200m line spacings in the southern or Priority 3 Area**, with significant assays including:
 - **9m @ 1.34% Li₂O** from 112m (PLS093A);
 - **12m @ 1.94% Li₂O** from 74m (PLS102);
 - **12m @ 2.13% Li₂O** from 0m (PLS103);
 - **2m @ 2.02% Li₂O** from 5m(PLS104), and:
5m @ 1.55% Li₂O from 80m;
 - **8m @ 1.65% Li₂O** from 77m(PLS106);
 - **8m @ 1.11% Li₂O** from 32m (PLS105);
 - **12m @ 1.76% Li₂O** from 53m(PLS107);
 - **10m @ 1.51% Li₂O** from 79m (PLS108); and
 - **9m @ 1.44% Li₂O** from 69m (PLS111);
- **RC drilling is now underway to test northern extensions of the resource. A diamond core rig and a second RC rig are also being mobilised to Pilgangoora to accelerate the resource and geotechnical work** during the second half of the year.
- **Final investigative metallurgical report received** from Nagrom Pty Ltd with results confirming the ability to **upgrade spodumene ore to a concentrate via flotation** as well as the ability to **produce Ta₂O₅ by simple gravity concentration**. Definitive metallurgy is proposed with a minimum **1400kg** representative sample derived from diamond core drilling, which is underway.

Australian strategic metals company Pilbara Minerals Ltd (ASX: PLS) is pleased to report significant progress at its flagship 100%-owned **Pilgangoora Lithium-Tantalum Project**, located near Port Hedland in WA, as it continues to accelerate resource development and feasibility work.

The Company is pleased to advise that additional drilling capacity has been mobilised to accelerate resource expansion and geotechnical work in the Northern Area following the completion of exploration drilling in the southern or Priority 3 Area.



PILBARA MINERALS LIMITED

ACN 112-425-788

In addition, further positive results have been received from metallurgical testwork, confirming the ability to produce saleable high-grade, high quality lithium and tantalite concentrates from Pilgangoora pegmatites using conventional gravity and flotation techniques.

The latest drilling results from Pilgangoora have confirmed the presence of continuous and shallow to moderately dipping zones of high-grade lithium mineralisation **grading up to 2.13% lithium oxide (Li₂O)**, highlighting the potential for significant additions to the resource to the south of the Priority 3 Area.

Drilling in the southern extension of the **Priority 3 Area** (see Figure 1) has intersected a number of pegmatites containing high grades of lithium and as anticipated, generally lower grade tantalum along five lines, 7669500mN to 7669900mN (see previous ASX Announcements, 9th June 2015 and 30th May 2015), returning several significant high-grade intersections **grading more than 1.5% Li₂O**.

Results from further south of 7669000mN have extended the continuity of the mineralised pegmatites another 500m south along strike. Significant results include **12m @ 2.13% Li₂O** from surface (PLS0103), **12m @ 1.76% Li₂O** from 53m (PLS107) and **9m @ 1.44% Li₂O** from 61m (PLS111). **Mineralised pegmatites have now been confirmed over a total strike length of over 1.5km within the Priority 3 Area**. Full intersections and assay results are provided in Table 1.

Drilling in this area adjacent to Altura's (ASX:AJM) lithium resource has confirmed the continuity of several narrower, moderately dipping mineralised pegmatites with several intersections grading more than 1.0% Li₂O. However, consistent with Altura's published resource, this area contains only low grade tantalite and is therefore of less economic interest than Pilbara's Northern and Eastern pegmatites.

The final results of detailed investigative metallurgical test work have also been received from Nagrom Pty Ltd, confirming the amenability of ore to recover both spodumene (lithium) and tantalite to concentrate via simple gravity and flotation techniques.

These spodumene flotation results confirm the successful testwork completed by Anzaplan in Germany (see ASX Announcement – 25th May 2015). Further detailed testwork will continue in August with 800m of HQ diamond core drilling planned to extract core samples for this metallurgical testwork program and other geotechnical and QAQC studies.

Pilbara's Executive Director, Mr Neil Biddle, said the Company had resolved to increase its drilling capacity at Pilgangoora over the coming months as part of its plan to fast-track the evaluation and development of a potentially world-scale lithium-tantalum project.

"Drilling is continuing to intersect thick zones of high-grade mineralisation, with the latest results demonstrating the potential to grow the resource in the southern area," Mr Biddle said.

"RC drilling has now resumed to test the northern extensions of the deposit, and we have added an additional RC rig and diamond core rig to assist with in-fill and step out drilling of the Priority Areas. The RC rigs will continue to focus on in-filling and extending the existing JORC resource while the diamond rig will extract core for follow-up metallurgical testwork, other geotechnical testing to ensure optimum QAQC standards in feasibility studies.

"Pilgangoora is continuing to tick every box for us as an outstanding development opportunity in the lithium space, with confirmatory metallurgical testwork results also demonstrating the ability to



PILBARA MINERALS LIMITED

ACN 112-425-788

produce a high-quality spodumene and tantalite concentrate from the ore using conventional processing techniques,” he added.

“With three rigs operating on site and our Pre-Feasibility Study now in full swing, we are moving this deposit towards development as quickly as we can, to take advantage of the extremely encouraging outlook for the lithium market over the next few years,” Mr Biddle said.

Pilgangoora Metallurgy

Pilbara has successfully completed an investigative metallurgical testwork program on a sample of tantalum-lithium (spodumene) ore from its Pilgangoora deposit. The aim of the program, which was conducted at Nagrom Pty Ltd’s facilities in Perth, was to test the amenability of the ore to upgrade the spodumene via gravity, flotation and magnetics and to test the possibility of recovering tantalum-bearing minerals as a by-product.

Preliminary spodumene flotation testwork on a wet table gravity concentrate has demonstrated a favourable upgrade in Li_2O with high flotation yield, as summarised below:

Stream	Li_2O %	Li_2O Yield (%)
Flotation Feed (gravity concentrate)	3.2	100
Flotation Concentrate	5.8	82

Subsequent magnetic characterisation test work on the flotation concentrate has removed 71% of the iron from the concentrate. Future metallurgical test work will focus on determining the optimum particle liberation size, flotation regime and magnetic characterisation to maximise Li_2O grade and recovery.

Simple wet tabling test and magnetic characterisation work has demonstrated that the tantalite is highly amenable to gravity and magnetic separation techniques, producing close to a thousand times upgrade of Ta_2O_5 to the concentrate, as summarised below:

Stream	Ta_2O_5%	Ta_2O_5 Yield (%)
Concentrate	21.80	49
Middling	0.40	9
Tailing	0.01	42
Calculated Head	0.03	100

Future studies using a larger feed mass will be undertaken to better understand the upgrade potential of the tantalum-bearing minerals in a gravity, re-grind, magnetics and dressing circuit. This will help to consolidate the economic potential of tantalum as a by-product.

Pilgangoora Reverse Circulation Program – Discussion

The latest phase of the Pilgangoora drilling program on Exploration Licences (EL45/2232) re-commenced in May 2015 and concluded in early June. The drilling to date has confirmed the continuity of mineralisation from 7669000mN to 7670400mN, with this wide-spaced program successfully identifying extensions to the known mineralisation in the Priority 3 Area over a strike length of 1.5km (see Figure 1).



PILBARA MINERALS LIMITED

ACN 112-425-788

Significant higher grade zones returning grades of $>1.5\%$ Li_2O (see Table 1, highlighted in yellow) have been intersected in the southern portion of the Priority 3 Area. Drilling on the lines, 7669500m N to 7669000m N have intersected consistent mineralised down-hole widths of **8-12m of + 1.5% Li_2O** , within broader zones containing lower grade lithium.

Results from line 7669700mN contained significant widths of pegmatite (PLS174 to PLS179) up to 39m downhole with low average Li_2O grades of $<0.5\%$. The pegmatite along this line has increased levels of oxidation and weathering interpreted to be related to a cross cutting regional scale fault.

Results have confirmed that the pegmatites in this southern area of M45/333 (South of 7669400mN and south of the interpreted regional fault intersected along 7669700N), are continuous but appear to have steepened to a moderate dip and narrowed with mineralised pegmatite widths consistently 8m to 12m. As expected the tenor of tantalum mineralisation (Ta_2O_5) has reduced, with average grades around 50-70ppm Ta_2O_5 as compared to the overall resource grade of 210ppm Ta_2O_5 . This southern area has now been drilled on line spacings of 50m by 200m. The shaded area in Figure 1 highlights the exploration area where drilling is planned in the second half of 2015.



PILBARA MINERALS LIMITED

ACN 112-425-788

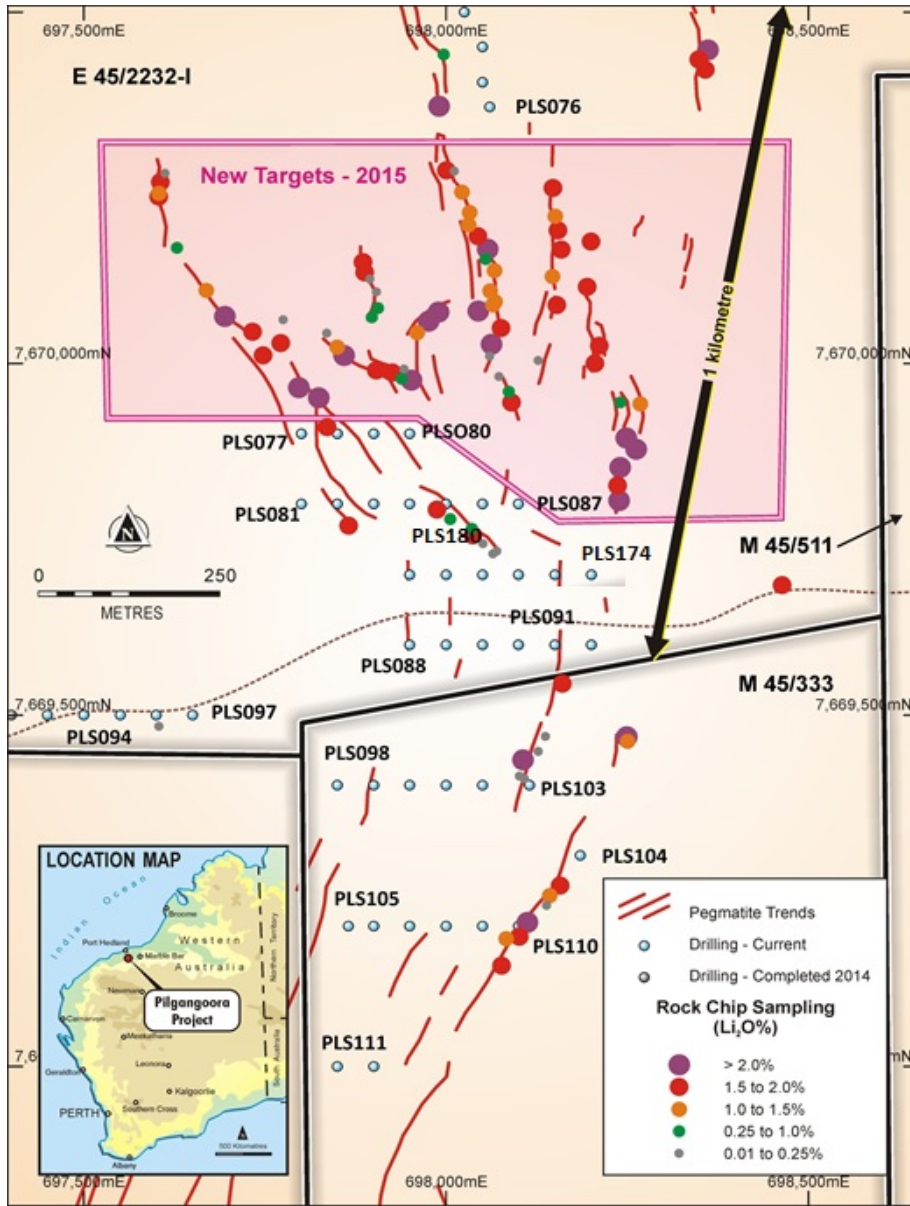


Figure 1 – Pilgangoora RC Collar Locations EL45/2232 and M45/333



PILBARA MINERALS LIMITED

ACN 112-425-788

Table 1 below lists all recently received assay results from 16 drill holes.

Table 1: Drilling Intersections (>1% Li₂O)

Hole Id	From (m)	To (m)	Thickness (m)	Li ₂ O (%)	Ta ₂ O ₅ (ppm)
PLS102	30	34	4	1.16	55
	74	86	12	1.94	51
PLS103	0	12	12	2.13	61
	72	73	1	1.09	40
	88	89	1	1	90
PLS104	0	1	1	1.47	90
	5	7	2	2.02	50
	70	74	4	1.08	<10
	80	85	5	1.55	<10
PLS109	NSR				
PLS110	34	35	1	2.71	40
	85	86	1	1.43	<10
PLS110A	52	53	1	1.55	80
PLS108	21	22	1	1.35	40
	79	89	10	1.51	65
PLS107	53	65	12	1.76	71
PLS112	66	69	3	1.48	50
	86	93	7	1.55	77
	96	97	1	1.29	50
PLS111	43	47	4	1.49	73
	61	70	9	1.44	69
	95	96	1	1.11	<10
PLS106	44	52	8	1.65	68
PLS105	32	40	8	1.11	66
	96	100	4	1.82	108
PLS093A	112	121	9	1.34	72
PLS180A	83	84	1	1.15	150
PLS180	38	39	1	1.36	60
PLS179	NSR				
PLS178	13	14	1	1.39	390
	31	33	2	1.19	100
	93	94	1	1.96	50
	99	101	2	1.18	85
	105	106	1	1.28	80
PLS177	53	54	1	1.12	50
PLS176	NSR				
PLS175	NSR				
PLS174	NSR				



PILBARA MINERALS LIMITED

ACN 112-425-788

Table 2: Drilling Intersections (>100ppm Ta₂O₅)

Hole Id	From (m)	To (m)	Thickness (m)	Ta ₂ O ₅ (>100ppm)	Li ₂ O (%)
PLS102	73	74	1	160	0.67
PLS110	31	33	2	135	0.72
PLS107	24	25	1	140	0.46
	57	59	2	115	1.54
	62	63	1	110	2.53
PLS112	72	73	1	120	0.31
	89	90	1	130	2.29
	91	92	1	100	1.31
PLS111	46	48	2	100	0.98
	65	66	1	170	0.97
	87	88	1	170	0.17
PLS106	47	48	1	100	1.00
PLS105	31	32	1	110	0.15
	35	36	1	120	0.08
	96	98	2	155	2.30
	100	101	1	110	0.40
PLS093A	10	11	1	110	0.30
	111	112	1	100	0.80
	114	116	2	100	2.51
PLS180A	81	85	4	188	0.52
PLS180A	20	21	1	100	0.12
	34	35	1	110	0.05
	36	37	1	110	0.93
PLS179	18	19	1	140	0.08
	41	42	1	110	0.04
	60	61	1	100	0.03
PLS178	10	17	7	177	0.25
	20	22	2	100	0.24
	26	33	7	108	0.37
	37	38	1	100	0.18
	98	106	8	100	0.58
PLS177	55	56	1	100	0.08
	62	65	3	120	0.04
	93	94	1	150	0.32
	96	97	1	110	0.29
PLS176	7	8	1	110	0.12
	74	75	1	100	0.27
PLS175	4	5	1	110	0.04
	8	10	2	115	0.05
	13	15	2	110	0.09
	51	52	1	100	0.16
	56	57	1	100	0.03
PLS174	NSR				



PILBARA MINERALS LIMITED

ACN 112-425-788

About Pilbara Minerals

Pilbara Minerals (Pilbara) 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 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.

For further information:

Investors:

Neil Biddle
Director
Telephone: +61 (8) 9336 6267
Mobile: +61 418 915 752

Media:

Nicholas Read
Read Corporate
Tel: +61 (8) 9388 1474
Mobile: +61 419 929 046

--- ENDS ---

Competent Person's Statement

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 (Exploration Manager 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.



PILBARA MINERALS LIMITED

ACN 112-425-788

Appendix 1 – Total Drilling Completed

Hole ID	North GDA94	East GDA94	RL	Dip	AZ	Depth
PLS093A	7669600	698259	185	-60	270	126
PLS102	7669402.9	698049.9	202.7	-60	270	100
PLS103	7669402.1	698115.8	193.3	-60	270	102
PLS104	7669300.3	698184.3	191.8	-60	270	100
PLS105	7669199.7	697870.5	220.4	-60	270	100
PLS106	7669199.2	697899.5	217.2	-60	270	100
PLS107	7669200.5	697949.1	202.9	-60	270	89
PLS108	7669198.1	697996.9	202.0	-60	270	100
PLS109	7669197.6	698050.0	194.4	-60	270	100
PLS110	7669201.3	698093.7	201.3	-60	270	100
PLS110A	7669210.0	698110.0	201.3	-50	90	100
PLS111	7669002.0	697846.8	206.6	-60	270	100
PLS112	7668997.4	697899.4	200.9	-60	270	103
PLS179*	7669700	698150	182	-60	270	100
PLS180*	7669700	698210	182	-60	270	100
PLS180A*	7669700	698250	182	-60	270	100
PLS174*	7669700	697900	182	-60	270	100
PLS175*	7669700	697950	182	-60	270	100
PLS176*	7669700	698005	182	-60	270	100
PLS177*	7669700	698050	182	-60	270	100
PLS178*	7669700	698100	182	-60	270	100

*Hole Surveys not received as yet

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	<ul style="list-style-type: none"> <i>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.</i> 	<ul style="list-style-type: none"> Pilbara Minerals Limited (PLS) have completed to 40 drill hole RC program totalling 3486m to the 4th June 2015, Results being reported are for the 21 holes (see appendix 1).
	<ul style="list-style-type: none"> <i>Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.</i> 	<ul style="list-style-type: none"> 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).
	<ul style="list-style-type: none"> <i>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 commodities or mineralisation types (e.g. submarine nodules) may warrant disclosure of detailed information.</i> 	<ul style="list-style-type: none"> 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.



PILBARA MINERALS LIMITED

ACN 112-425-788



PILBARA MINERALS
LIMITED

Criteria	JORC Code explanation	Commentary
Drilling techniques	<ul style="list-style-type: none"> • <i>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).</i> 	<ul style="list-style-type: none"> • Drilling was completed by an 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	<p><i>Method of recording and assessing core and chip sample recoveries and results assessed.</i></p>	<ul style="list-style-type: none"> • Sample recovery was recorded as good for RC holes.
	<ul style="list-style-type: none"> • <i>Measures taken to maximise sample recovery and ensure representative nature of the samples.</i> 	<ul style="list-style-type: none"> • Whilst drilling through the pegmatite, rods were flushed with air after each 6 metre interval.
	<ul style="list-style-type: none"> • <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> 	<ul style="list-style-type: none"> • Samples were dry and recoveries are noted as “good.”
Logging	<ul style="list-style-type: none"> • <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> 	<ul style="list-style-type: none"> • 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..
	<ul style="list-style-type: none"> • <i>Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.</i> 	<ul style="list-style-type: none"> • Logging has primarily been quantitative.
	<ul style="list-style-type: none"> • <i>The total length and percentage of the relevant intersections logged.</i> 	<ul style="list-style-type: none"> • The database contains lithological data for all holes in the database.
Sub-sampling techniques and sample	<ul style="list-style-type: none"> • <i>If core, whether cut or sawn and whether quarter, half or all core taken.</i> • <i>If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.</i> • <i>For all sample types, the nature, quality and appropriateness of the</i> 	<ul style="list-style-type: none"> • RC samples were generally dry and split at the rig using a cyclone splitter, which is appropriate and industry standard.



PILBARA MINERALS LIMITED

ACN 112-425-788



PILBARA MINERALS
LIMITED

Criteria	JORC Code explanation	Commentary
preparation	<i>sample preparation technique.</i>	
	<ul style="list-style-type: none"> • <i>Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.</i> 	<ul style="list-style-type: none"> • PLS samples have field duplicates, field standards and blanks as well as laboratory splits and repeats.
	<ul style="list-style-type: none"> • <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> 	<ul style="list-style-type: none"> • Field duplicates were taken approximately every 20m, and standards and blanks every 50 samples.
Quality of assay data and laboratory tests	<ul style="list-style-type: none"> • <i>The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.</i> 	<ul style="list-style-type: none"> • 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.
	<ul style="list-style-type: none"> • <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> 	<ul style="list-style-type: none"> • No geophysical tools were used to determine any element concentrations used in this resource estimate.
	<ul style="list-style-type: none"> • <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> 	<ul style="list-style-type: none"> • 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. • 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.



PILBARA MINERALS LIMITED

ACN 112-425-788



Criteria	JORC Code explanation	Commentary
Verification of sampling and assaying	<ul style="list-style-type: none"> The verification of significant intersections by either independent or alternative company personnel. The use of twinned holes. 	<ul style="list-style-type: none"> Infill drilling completed by PLS in this program has confirmed the approximate width and grade of historical drilling. No use of twins
	<ul style="list-style-type: none"> Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols. 	<ul style="list-style-type: none"> An electronic database containing collars, surveys, assays and geology is maintained by Trepanier Pty Ltd, an Independent Geological consultancy.
	<ul style="list-style-type: none"> Discuss any adjustment to assay data. 	<ul style="list-style-type: none"> Li was converted to Li₂O for the purpose of reporting. The conversion used was Li₂O = Li x 2.153
Location of data points	<ul style="list-style-type: none"> 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. 	<ul style="list-style-type: none"> 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).
	<ul style="list-style-type: none"> Specification of the grid system used. 	<ul style="list-style-type: none"> The grid used was MGA (GDA94, Zone 50)
	<ul style="list-style-type: none"> Quality and adequacy of topographic control. 	<ul style="list-style-type: none"> The topographic surface used was supplied by GAM
Data spacing and distribution	<ul style="list-style-type: none"> Data spacing for reporting of Exploration Results. 	<ul style="list-style-type: none"> Drilling spacings varied between 50m to 200m apart
	<ul style="list-style-type: none"> Whether the data spacing and distribution is sufficient to establish the degree of geological and grade continuity appropriate for the Mineral 	<ul style="list-style-type: none"> The interpretation of the mineralised domains are supported by a moderate drill spacing, plus both geological zones and assay grades can be



PILBARA MINERALS LIMITED

ACN 112-425-788



Criteria	JORC Code explanation	Commentary
	<p><i>Resource and Ore Reserve estimation procedure(s) and classifications applied.</i></p> <ul style="list-style-type: none"> <i>Whether sample compositing has been applied.</i> 	<p>interpreted with confidence.</p> <ul style="list-style-type: none"> No compositing
Orientation of data in relation to geological structure	<ul style="list-style-type: none"> <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> 	<ul style="list-style-type: none"> The mineralisation dips approximately 45-60 degrees at a dip direction of 090 degrees The drilling orientation and the intersection angles are deemed appropriate.
	<ul style="list-style-type: none"> <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> 	<ul style="list-style-type: none"> No orientation-based sampling bias has been identified.
Sample security	<ul style="list-style-type: none"> <i>The measures taken to ensure sample security.</i> 	<ul style="list-style-type: none"> Chain of custody for PLS holes were managed by PLS personnel.
Audits or reviews	<ul style="list-style-type: none"> <i>The results of any audits or reviews of sampling techniques and data.</i> 	<ul style="list-style-type: none"> 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	<ul style="list-style-type: none"> <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, historical sites</i> 	<ul style="list-style-type: none"> PLS owns 100% of tenement E45/2232, M45/333



PILBARA MINERALS LIMITED

ACN 112-425-788



Criteria	JORC Code explanation	Commentary
tenure status	<ul style="list-style-type: none"> <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> 	<ul style="list-style-type: none"> No known impediments.
Exploration done by other parties	<ul style="list-style-type: none"> <i>Acknowledgment and appraisal of exploration by other parties.</i> 	<ul style="list-style-type: none"> Talison completed RC holes in 2008 GAM completed RC holes between 2010 and 2012.
Geology	<ul style="list-style-type: none"> <i>Deposit type, geological setting and style of mineralisation.</i> 	<ul style="list-style-type: none"> 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	<ul style="list-style-type: none"> <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> <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> 	<ul style="list-style-type: none"> Refer to Appendix 1 this announcement.
Data aggregation methods	<ul style="list-style-type: none"> <i>In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (e.g. cutting of high grades) and cut-off grades are usually Material and should be stated.</i> <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 such aggregations should be shown in detail.</i> 	<ul style="list-style-type: none"> 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.



PILBARA MINERALS
LIMITED

ACN 112-425-788



Criteria	JORC Code explanation	Commentary
	<ul style="list-style-type: none"> The assumptions used for any reporting of metal equivalent values should be clearly stated. 	
Relationship between mineralisation widths and intercept lengths	<ul style="list-style-type: none"> 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'). 	<ul style="list-style-type: none"> Downhole lengths are reported in Table 1 and 2
Diagrams	<ul style="list-style-type: none"> 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. 	<ul style="list-style-type: none"> See Figures 1
Balanced reporting	<ul style="list-style-type: none"> 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. 	<ul style="list-style-type: none"> Comprehensive reporting of drill details has been provided in Appendix 1 of this announcement.
Other substantive exploration data	<ul style="list-style-type: none"> 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. 	<ul style="list-style-type: none"> All meaningful & material exploration data has been reported.
Further work	<ul style="list-style-type: none"> 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. 	<ul style="list-style-type: none"> The aim is to upgrade the existing JORC compliant resource calculation.