PILBARA MINERALS
LIMITED

ACN 112-425-788

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OUTSTANDING NEW DRILLING RESULTS CONFIRM SIGNIFICANT EXTENSIONS TO PILGANGOORA LITHIUM-TANTALUM DEPOSIT

Substantial increase in Project Exploration Target with drilling program to be further expanded

HIGHLIGHTS

- **Recent in-fill and exploration drilling along the Western Pegmatite has returned new thick intersections of pegmatite at depth (interpreted to be Central lodes) from drill holes PLS 542 and PLS546,** with geological logging and assays confirming that the Central Pegmatites extend north and remain open along strike and at depth beyond the current resource. Significant new intersection of:
  - ***54m @ 1.49% Li_2O and 126ppm Ta_2O_5*** *from 167m (PLS542).*

- **Extensional drilling north of the Central Pegmatite has returned further thick intersections of high-grade spodumene mineralisation** with assays received to date confirming that the mineralised zones extend to the north and remain open at depth. Significant new intersections include:
  - ***35m @ 1.79% Li_2O and 117ppm Ta_2O_5*** *from 90m (PLS445);*
  - ***61m @ 1.71% Li_2O*** *from 84m (PLS446);*
  - ***18m @ 1.55% Li_2O and 125ppm Ta_2O_5*** *from 126m (PLS447);*
  - ***11m @ 1.80% Li_2O*** *from 117m (PLS448); and*
    38m @ 1.68% Li_2O and 130ppm Ta_2O_5 *from 134m;*
  - ***10m @ 2.01% Li_2O and 174ppm Ta_2O_5*** *from 71m (PLS450);*
  - ***19m @ 1.92% Li_2O*** *from 90m (PLS431*);*
  - ***24m @ 1.38% Li_2O and 107ppm Ta_2O_5*** *from 20m (PLS437*);*
  - ***47m@ 1.91% Li_2O*** *from 68m (PLS438*); and*
  - ***43m@ 1.72% Li_2O and 135ppm Ta_2O_5*** *from 20m (PLS440*).*

    **Reported in March Quarterly Report*

- In light of these outstanding new results, Pilbara **has increased its overall Exploration Target[1] for Pilgangoora to 130-150Mt @ 1.2-1.5% Li_2O** and **175-225ppm Ta_2O_5.** This is inclusive of the current Indicated and Inferred Resource of 80.2Mt grading 1.26% Li_2O (spodumene).

- **To date, 12,524m of RC drilling has been completed as part of the current Definitive Feasibility Study (DFS) to in-fill, upgrade and expand the current global Indicated and Inferred Resource and grow the Ore Reserve inventory**.

- **A revised and prioritised RC program is scheduled to commence on the 10 May totalling a further 16,000m**, with drilling scheduled to continue through to June with a focus on further extensions and improvement in the resource categories. **Six RC rigs will be operating from mid-May onwards**.

Australian strategic metals company Pilbara Minerals Ltd (ASX: PLS) is pleased to report further outstanding results from ongoing in-fill and extensional drilling at its flagship 100%-owned Pilgangoora Lithium-Tantalum Project near Port Hedland in Western Australia. The latest drilling has confirmed significant extensions of the deposit beyond the current resource boundary, enabling Pilbara Minerals to announce a substantial upgrade to its Project Exploration Target.

The latest results include thick intersections of spodumene mineralisation along the Central and Western Pegmatites, including highly significant results from two holes (See Figure 3 – drill holes PLS 542 and PLS 546) which confirm that the Central Pegmatite extends to the north and remains open along strike and at depth beyond the current Mineral Resource boundary.

As a result of this work, **Pilbara Minerals has upgraded its Exploration Target for the Pilgangoora Project to 130-150Mt grading 1.2-1.5% Li_2O and 175-225 Ta_2O_5,** compared with the previously published Exploration Target of 100-110Mt at 1.2-1.5% Li2O and 175-225 Ta_2O_5 (*see ASX Announcement – 1 February 2016*).

The Company's 2016 exploration, resource development and DFS drilling program commenced at Pilgangoora in February, with an average of five drill rigs on site. As at the date of this report, **119 Reverse Circulation and diamond drill-holes have been completed for 12,524m of drilling.**

Due to the success of the current extensional program, an **additional 16,000m** Reverse Circulation drill program has been approved to start on 10 May, focused on delineating the additional mineralisation now identified outside of the current Mineral Resource and Ore Reserve. A significant component of this expanded drilling program will also be focused on achieving further upgrades to the Resource classifications, thereby adding value to the project by growing the Pilgangoora Reserve inventory and further reducing the final pit's strip ratios.

New Exploration Target

The revised drilling program will target the north-west extensions of the thick pegmatites at the Central prospect, as well as extensions of the mapped pegmatites at the Southern Prospect (7,667,500mN) to the Monster Prospect (7,674,200mN) in the north.

In light of the current Pilgangoora Mineral Resource estimate being 80.2 million tonnes, combined with information based on previous and the new RC and Diamond drilling completed in the Central and Western Pegmatite systems, Pilbara has updated its **Exploration Target[1]** for the Pilgangoora Project to **130-150 million tonnes @ 175-225ppm Ta_2O_5 and 1.2-1.5% Li_2O** (Table 1)**.** This Exploration Target is inclusive of the current published Indicated and Inferred Mineral Resource of 80.2Mt grading 1.26% Li_2O.

An Exploration Target is conceptual in nature and there has been insufficient exploration to estimate a Mineral Resource in compliance with the JORC Code and it is uncertain if further exploration will result in the estimation of a Mineral Resource as defined by the JORC Code.

Table 1 – Pilgangoora Tantalum-Lithium Exploration Target[1] on E45/2232 and M45/333

Exploration Target[1]	Tonnes (Mt)	Grade Li_2O %	Grade Ta_2O_5 ppm
Northern Area (including Monster)	40-50	1.2 - 1.5	200 - 250
Central & Southern Area	**90-100**	1.2 - 1.5	150 - 200
TOTAL	**130-150**	**1.2 - 1.5**	**175 - 225**

Exploration Target[1]: The potential quantities and grades are conceptual in nature and there has been insufficient exploration to date to define a Mineral Resource. It is not certain that further exploration will result in the determination of a Mineral Resource under the "Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves, the JORC Code" (JORC 2012). The Exploration Target is not being reported as part of any Mineral Resource or Ore Reserve.

Central – North West Extension

Further assay results have been received from RC drilling targeting the north-west extension of the known mineralisation, within the proposed Central-Western Pit. All of this mineralisation from 7670100mN was previously classified as Inferred and therefore lies outside of the current Ore Reserve (see Pre-Feasibility Study – Pit Boundary, in Figure 3).

The new extensional drilling has been completed on sections 7670050mN to 7670300mN in the Central Pegmatite system targeting the north-west extension. Significant initial results from Cross-Section 7670200mN (see Figure 1) have included ***24m @ 1.38% Li_2O and 107ppm Ta_2O_5*** *from 20m (PLS437);* ***47m @ 1.91% Li_2O from 68m*** *(PLS438); and* ***43m @ 1.72% Li_2O and 135ppm Ta_2O_5*** *from 105m (all reported previously).*

Further significant results have also been received from 7670250mN, including: ***35m @ 1.79% Li_2O and 117ppm Ta_2O_5*** *from 90m (PLS445);* ***61m @ 1.71% Li_2O*** *from 84m (PLS446);* ***18m @ 1.55% Li_2O and 125ppm Ta_2O_5*** *from 126m (PLS447);* ***11m @ 1.80% Li_2O*** *from 117m (PLS448); and* ***38m @ 1.68% Li_2O and 130ppm Ta_2O_5*** *from 134m.*

In addition to the results on 7670250mN, results have now been received for PLS542, which was completed as part of the Western in-fill program. PLS542 (see Figure 2) and PLS546 (assays pending) were extended and successfully intersected the Central Pegmatite at depth (+150m), approximately 200m north of the current drilling on cross-sections 7670425mN and 7670525Mn respectively.

- ***PLS 542 – 54m @ 1.49% Li_2O and 126ppm Ta_2O_5*** *from 167m.*

The results from PLS542 clearly demonstrate the potential of this zone to add significant resources to the Pilgangoora Project (see Figure 2 showing the block model and drilling results now outside of the current resource).

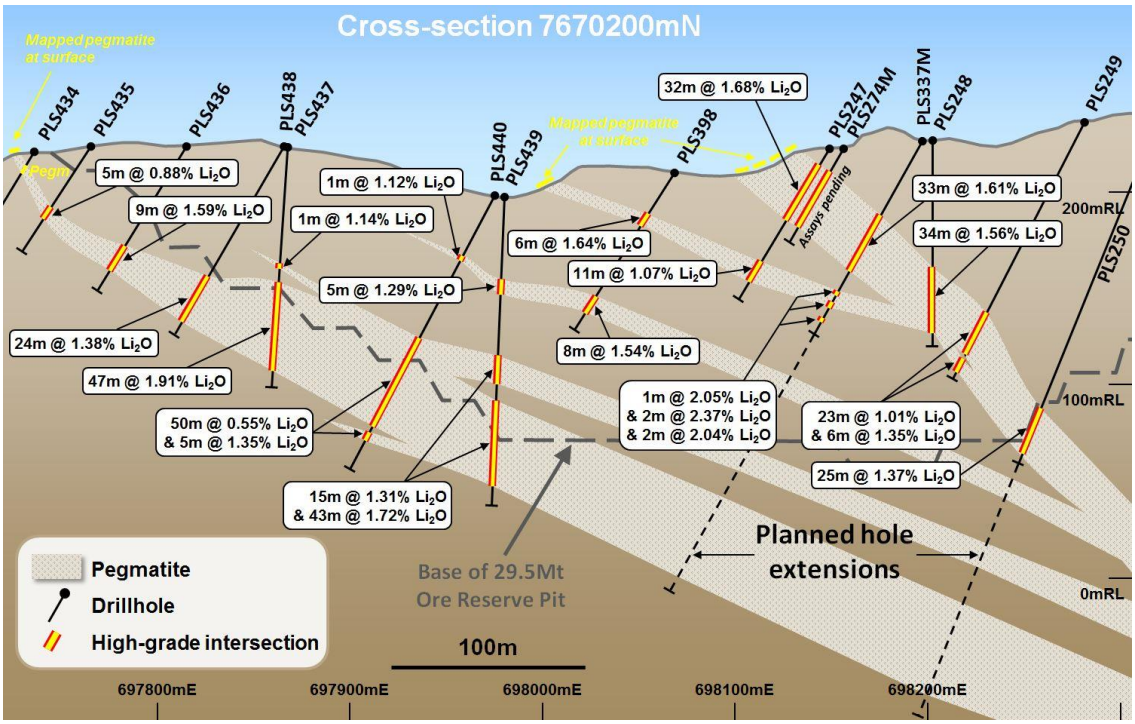

Figure 1: Extensional RC Drill Section 7670200mN, EL45/2232

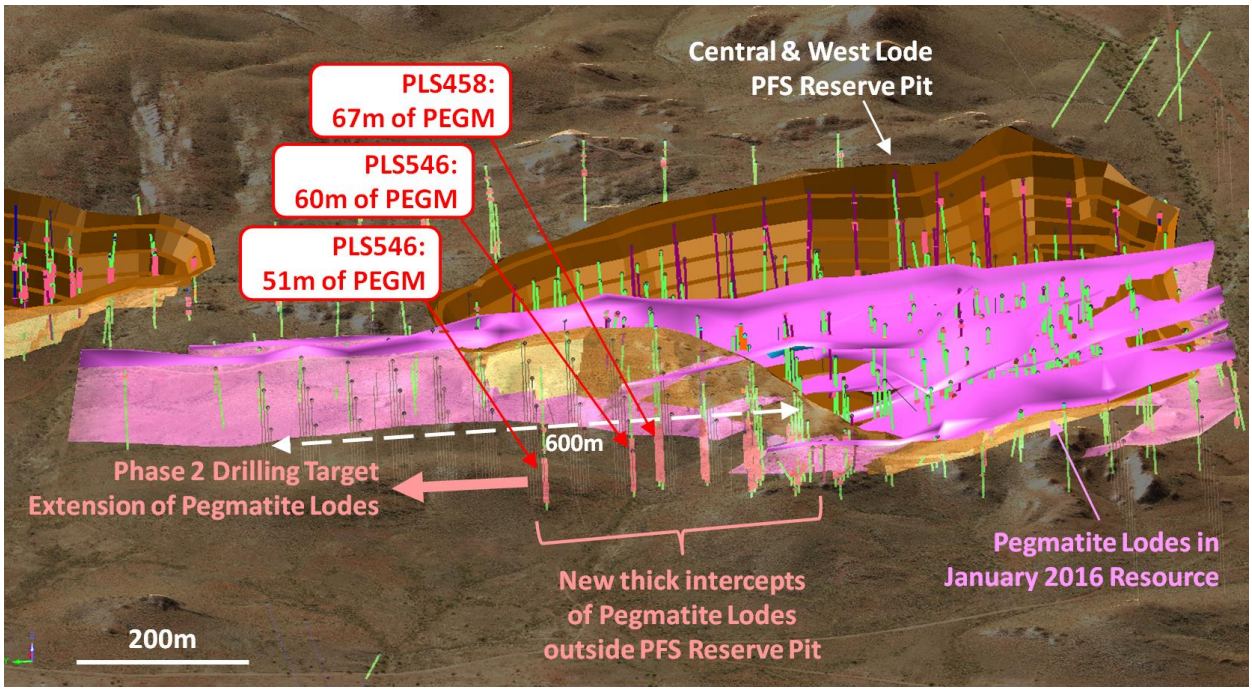

Figure 2: Schematic (looking east) of Central Pit extensions in recent drilling

Full intersections and assay results are provided in Table 2 on page 6 onwards of this release.

Central and Western In-fill Program

In-fill drilling (PLS403 to PLS433, PLS4389, PLS445 to PLS450, all holes drilled on 25m by 50m spacings) has been completed on over the Central and Western Pegmatites within the current pit design. This program is designed to covert a significant portion of the Indicated category in the Resource statement to Measured.

Results from a further 16 holes have been received, with assay results continuing to demonstrate excellent continuity, width and grade:

- ***23m @ 1.52% Li_2O from 177m and 103ppm Ta_2O_5*** *(PLS424A);*
- ***19m @ 1.52% Li_2O from 4m****(PLS425);*
- ***11m @ 1.17% Li_2O from 5m****(PLS426); and*
  17m @ 1.26% Li_2O from 21m
- ***10m @ 1.47% Li_2O from 62m and 146ppm Ta_2O_5*** *(PLS428); and*
  23m @ 1.71% Li_2O from 77m
- ***12m @ 1.92% Li_2O from 41m****(PLS429); and*
  37m @ 1.68% Li_2O from 87m
- ***25m @ 1.46% Li_2O and 149ppm Ta_2O_5 from 29m*** *(PLS432);*
- ***15m @ 1.33% Li_2O from 36m*** *(PLS433); and*
  53m @ 1.33% Li_2O from 63m

Full intersections and assay results are provided in Table 2 on page 6 onwards of this release.

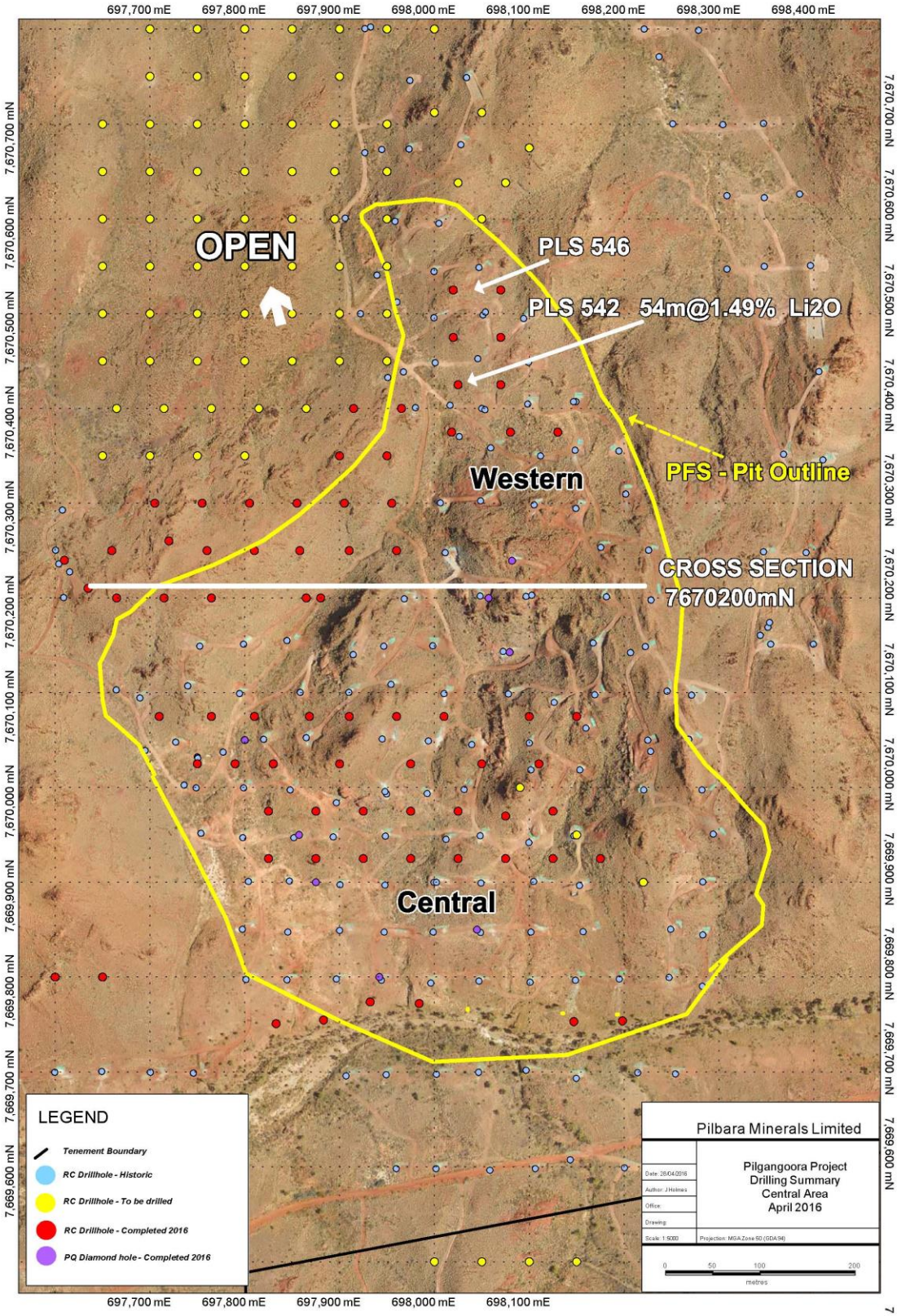

Figure 3: 1:5000 scale – RC Drill Collars in Central Area EL45/2232

Table 2 and 3 below lists all recently received assay results from all drill holes in this report.

Table 2: Drilling Intersections (>1% Li_2O)

Hole Id	From (m)	To (m)	Thickness (m)	Li_2O (%)	Ta_2O_5 (ppm)
PLS424A	30	31	1	1.03	149
PLS424A	34	42	8	1.88	92
PLS424A	77	78	1	1.97	93
PLS424A	96	97	1	1.16	65
PLS424A	135	136	1	1.03	26
PLS424A	139	146	7	1.53	65
PLS424A	177	200	23	1.52	103
PLS425	4	23	19	1.52	77
PLS426	5	16	11	1.17	138
PLS426	21	38	17	1.26	148
PLS427	11	12	1	1.46	122
PLS427	39	48	9	1.3	161
PLS427	53	55	2	1.38	43
PLS428	62	72	10	1.47	146
PLS428	77	100	23	1.71	68
PLS428	106	107	1	1.05	19
PLS429	1	3	2	1.63	59
PLS429	41	53	12	1.92	98
PLS429	87	124	37	1.68	96
PLS432	29	54	25	1.46	140
PLS433	1	11	10	1.18	80
PLS433	18	21	3	1.54	132
PLS433	25	26	1	1.05	15
PLS433	36	51	15	1.33	64
PLS433	63	116	53	1.33	95
PLS445	85	87	2	1.83	250
PLS445	90	125	35	1.79	117
PLS445	128	132	4	1.4	109
PLS446	84	145	61	1.71	81
PLS446	151	152	1	2.15	212
PLS447	104	107	3	1.29	86.5
PLS447	126	144	18	1.55	125
PLS448	64	67	3	1.5	36.8
PLS448	117	128	11	1.8	43

Hole Id	From (m)	To (m)	Thickness (m)	Li_2O (%)	Ta_2O_5 (ppm)
PLS448	134	172	38	1.68	130
PLS449	71	72	1	1.66	155
PLS450	71	81	10	2.01	174
PLS450	84	88	4	1.05	297
PLS450	91	97	6	1.38	174
PLS539	25	53	28	1.81	151
PLS542	26	31	5	2.07	93
PLS542	40	45	5	1.53	178
PLS542	149	150	1	1.23	87
PLS542	167	221	54	1.49	126
PLS551M	26.66	49	22.34	2.05	249
PLS190M	24	44	20	1.73	111
PLS190M	55	60	5	1.45	59
PLS247M	11	36	25	1.62	98
PLS247M	39	46.2	7.2	1.59	212
PLS552M	11	25	14	1.62	273
PLS552M	41	43.95	2.95	1.41	227
PLS552M	50.8	53	2.2	2.89	634
PLS552M	56	58	2	2.25	240

Table 3: Drilling Intersections (>100 ppm Ta_2O_5)

Hole Id	From (m)	To (m)	Thickness (m)	Ta_2O_5 (ppm)	Li_2O (%)
PLS424A	25	50	25	150	0.89
PLS424A	80	81	1	149	0.52
PLS424A	103	104	1	149	0.09
PLS424A	137	138	1	130	0.97
PLS424A	146	147	1	177	0.99
PLS424A	176	187	11	168	1.52
PLS424A	191	192	1	129	1.25
PLS424A	202	203	1	112	0.02
PLS425	3	6	3	110	0.94
PLS425	12	14	2	136	1.13
PLS425	21	24	3	186	0.86
PLS426	1	11	10	207	1.03
PLS426	19	33	14	178	1.29
PLS426	45	46	1	117	0.39
PLS426	49	52	3	104	0.01
PLS427	11	15	4	142	0.59

Hole Id	From (m)	To (m)	Thickness (m)	Ta_2O_5 (ppm)	Li_2O (%)
PLS427	18	26	8	240	0.04
PLS427	34	48	14	175	0.96
PLS427	60	61	1	176	0.15
PLS428	30	39	9	114	0.08
PLS428	68	78	10	245	1.09
PLS428	82	83	1	131	1.03
PLS428	102	106	4	560	0.34
PLS428	109	111	2	192	0.11
PLS429	0	1	1	112	0.41
PLS432	28	29	1	172	0.99
PLS432	34	38	4	112	1.53
PLS432	42	55	13	209	1.32
PLS433	12	22	10	142	0.64
PLS433	66	70	4	122	1.38
PLS433	77	84	7	152	0.79
PLS433	97	98	1	102	1.46
PLS433	103	105	2	217	1.96
PLS433	111	114	3	151	1.09
PLS433	117	118	1	126	0.06
PLS445	85	87	2	250	1.83
PLS445	92	115	23	134	1.87
PLS445	130	134	4	173	1.14
PLS446	82	83	1	106	0.56
PLS446	96	98	2	131	0.96
PLS446	108	114	6	105	1.25
PLS446	122	123	1	110	0.69
PLS446	126	129	3	141	1.84
PLS446	134	139	5	159	1.49
PLS446	150	153	3	220	1.17
PLS447	103	105	2	135	0.81
PLS447	122	132	10	285	1.06
PLS447	148	155	7	244	0.56
PLS447	165	167	2	403	0.27
PLS448	20	21	1	107	0.19
PLS448	24	28	4	118	0.17
PLS448	67	68	1	105	0.93
PLS448	94	95	1	122	0.11
PLS448	106	111	5	527	0.29
PLS448	134	136	2	116	0.72

Hole Id	From (m)	To (m)	Thickness (m)	Ta_2O_5 (ppm)	Li_2O (%)
PLS448	140	150	10	212	1.49
PLS448	153	160	7	192	1.67
PLS448	173	174	1	203	0.39
PLS449	71	78	7	120	0.35
PLS450	68	104	36	207	1.06
PLS539	27	29	2	233	1.58
PLS539	32	52	20	164	1.8
PLS542	27	28	1	185	2.69
PLS542	35	46	11	162	0.73
PLS542	168	170	2	228	0.81
PLS542	177	181	4	172	2.06
PLS542	186	200	14	251	1.51
PLS542	220	226	6	192	0.57
PLS551M	7.95	11.24	3.29	281	0.5
PLS551M	26.66	50.85	24.19	257	1.92
PLS552M	11	27.85	16.85	280	1.41
PLS552M	38	43.95	5.95	348	0.78
PLS552M	50.8	58.7	7.9	470	1.58
PLS190M	23.8	35	11.2	117	1.68
PLS190M	39	45.1	6.1	124	1.44
PLS247M	10	11	1	150	0.41
PLS247M	29	46.2	17.2	201	1.41

More Information:

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 Lithium and Tantalum. Pilbara owns 100% of the world class Pilgangoora Lithium-Tantalum project which is the second largest Spodumene (Lithium Aluminium Silicate) project in the world. Pilgangoora is also one of the largest pegmatite-hosted Tantalite resources in the world and Pilbara proposes to produce Tantalite as a by-product of its Spodumene production.

ABOUT LITHIUM

Lithium is a soft silvery white metal which is highly reactive and does not occur in nature in its elemental form. It has the highest electrochemical potential of all metals, a key property in its role in Lithium-ion batteries. In nature it occurs as compounds within hard rock deposits and salt brines. Lithium and its chemical compounds have a wide range of industrial applications 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 consumer electronics, power station-domestic-industrial storage, electric vehicles, power tools and almost every application where electricity is currently supplied by fossil fuels.

ABOUT TANTALUM

The Tantalum market is boutique in size with around 1,300 tonnes required each year. Its primary use is in capacitors for consumer electronics, particularly where long battery life and high performance is required such as smart phones, tablets and laptops.

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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 1st February, 2016 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 1st February, 2016.

The Company confirms it is not aware of any new information or data that materially affects the information included in the 10th March, 2016 Pilgangoora Mineral Reserve 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 reserve announcement made on 10th March, 2016.

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, 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

Central Infill RC drilling completed.

Hole ID	East GDA94	North GDA94	RL	Dip	Azm	Depth
PLS424A	7670025	698110	200	-60	270	210
PLS425	7670075	697710	200	-60	270	36
PLS426	7670075	697765	200	-60	270	60
PLS427	7670075	697810	200	-60	270	71
PLS428	7670075	697868	200	-60	270	108
PLS429	7670075	697910	200	-60	270	133
PLS430	7670075	697960	200	-60	270	156
PLS431	7670075	698010	200	-60	270	120
PLS432	7670075	698100	200	-60	270	60
PLS433	7670075	698150	200	-60	270	102

PLS488	7669751	697833	200	-60	270	70
PLS489	7669755	697883	200	-60	270	90
PLS490	7669774	697932	200	-60	270	90
PLS491	7669772	697984	200	-60	270	102

Results Pending, Reported in this ASX release

Central North West Extension RC drilling completed.

Hole ID	East GDA94	North GDA94	RL	Dip	Azm	Depth
PLS445	7670250	697810	200	-60	270	140
PLS446	7670250	697858	200	-60	270	162
PLS447	7670250	697910	200	-60	270	174
PLS448	7670250	697960	200	-60	270	184
PLS449	7670300	697705	200	-60	270	82
PLS450	7670300	697755	200	-60	270	111
PLS451	7670300	697805	200	-60	270	138
PLS452	7670300	697855	200	-60	270	28
PLS452A	7670300	697855	200	-60	270	166
PLS453	7670300	697905	200	-60	270	184
PLS454	7670300	697955	200	-60	270	178
PLS456	7670350	697900	200	-60	270	178
PLS457	7670350	697950	200	-60	270	184
PLS458	7670400	697915	200	-60	270	65
PLS458A	7670400	697915	200	-60	270	184
PLS459	7670400	697965	200	-60	270	196

Results Pending, Reported in this ASX release

Appendix 1 – cont

Western Infill RC drilling completed.

Hole ID	East GDA94	North GDA94	RL	Dip	Azm	Depth
PLS539	7670375	698018	200	-60	270	60
PLS540	7670375	698080	200	-60	270	95
PLS540A	7670375	698080	200	-60	270	105
PLS541	7670375	698130	200	-60	270	121
PLS541A	7670375	698130	200	-60	270	160
PLS542	7670425	698025	200	-60	270	234
PLS543	7670425	698070	200	-60	270	111
PLS544	7670475	698020	200	-60	270	72
PLS545	7670475	698070	200	-60	270	108
PLS546	7670525	698020	200	-60	270	253
PLS547	7670525	698070	200	-60	270	108

Eastern Infill RC drilling completed.

Hole ID	East GDA94	North GDA94	RL	Dip	Azm	Depth
PLS460	7671060	698215	200	-60	270	96
PLS461	7671090	698270	200	-60	270	140
PLS465	7671275	698245	200	-60	270	90
PLS468	7671375	698230	200	-60	270	40
PLS469	7671405	698280	200	-60	270	84
PLS470	7671430	698260	200	-60	270	60
PLS473	7671500	698352	200	-60	270	95

Eastern Infill RC drilling completed.

Hole ID	East GDA94	North GDA94	RL	Dip	Azm	Depth
PLS502	7667350	698015	200	-60	270	28
PLS503	7667350	698015	200	-60	90	70
PLS505	7667450	698000	200	-60	270	28
PLS506	7667450	698050	200	-60	270	100
PLS507A	7667460	698100	200	-70	90	136
PLS508	7667550	698150	200	-90	100	150
PLS509	7667650	698050	200	-60	90	106
PLS511	7667720	698020	200	-60	270	106
PLS512	7667720	698070	200	-60	270	118
PLS513	7667720	698070	200	-70	90	91
PLS557	7667350	698500	200	-90	0	100
PLS558	7667300	698485	200	-90	0	100
PLS559	7667250	698500	200	-90	0	100
PLS560	7667200	698500	200	-90	0	100

Results Pending, Reported in this ASX release.

Appendix 1 – cont

PQ Diamond Drilling completed

Hole ID	East GDA94	North GDA94	RL	Dip	Azm	Depth
PLS084M	7669800	697942	200	-60	270	45.5
PLS190M	7669850	698045	200	-60	270	66.4
PLS549M	7669900	697875	200	-60	270	52.5
PLS202M	7669950	697857	200	-60	270	66.3
PLS247M	7670200	698057	200	-60	270	57.4
PLS255M	7670239	698082	200	-60	270	104.4
PLS551M	7670940	698243	200	-60	270	60.4
PLS552M	7671250	698267	200	-60	270	66.4
PLS553M	7671350	698295	200	-70	270	95.2

Results Pending, Reported in this ASX release.

PILBARA MINERALS LIMITED

ACN 112-425-788

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 **119 RC drill holes for 12524m and 11 PQ Diamond holes for 715m (**as of the 28/4/2016). Results being reported are for 18 RC holes (PLS403 to PLS 388) and a four diamond core (Hole PLS190M, PLS247M, and PLS551M and PLS552M), see 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). PQ/HQ Core measured and marked up on site and photographed prior to transport to Perth.
	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. PQ/HQ Core measured and marked up on site and photographed prior to transport to Perth, where 10mm fillet taken for analysis. 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. PQ/HQ Diamond Drilling completed by Hydco 1200H with an automated rod-handler 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. HQ core sample recovery excellent.
	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. HQ core was cut and logged in 1 m intervals.
	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.

Criteria	JORC Code explanation	Commentary
Sub-sampling techniques and sample preparation	*If core, whether cut or sawn and whether quarter, half or all core taken. If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry. For all sample types, the nature, quality and appropriateness of the sample preparation technique.*	RC samples were generally dry and split at the rig using a cyclone splitter, which is appropriate and industry standard. HQ Core was filleted (sawn), equivalent to a ¼ core size sample taken.
	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 PIlgangoora 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 ALS Global in Perth WA, for 19 elements using ME-MS91 Sodium Peroxide for ICPMS finish and Peroxide fusion with an ME-ICP89 a ICPAES 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 ALS Global 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. PQ diamond holes were completed as twins, and has confirmed the approximate width and grade of previous RC 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 Li_2O for the purpose of reporting. The conversion used was Li_2O = Li x 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 25m 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 45-60 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 ALS GLOBAL 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 2 and 3. Cutting of high grades was not applied in the reporting of intercepts in Table 2 and 3 No metal equivalent values are used.
Relationship between mineralisation widths and intercept lengths	*These relationships are particularly important in the reporting of Exploration Results.* *If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.* *If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (eg 'down hole length, true width not known').*	Downhole lengths are reported in Table 2 and 3
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.