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DRILLING RESULTS: LITHIUM CAESIUM TANTALUM SYSTEM CONFIRMED

Drill Holes Return Significant Lithium Intersections up to 2.08% Li_2O

Perth Western Australia, 17 October 2016: Pioneer Resources Limited ("Company" or "Pioneer", ASX: PIO) is pleased to announce that all assay results have now been received from the recent drilling programme at its 100%-held Pioneer Dome Lithium Project.

In addition to the very encouraging lithium intersections below, an intersection of high grade pollucite, an ore mineral of caesium, has potential importance and will be subjected to additional drilling.

New Drilling results included:

- **PDRC020: 3m at 1.11% Li_2O from 44m**
- **PDRC021: 12m at 1.37% Li_2O from 54m; and 10m at 408ppm Ta_2O_5 from 54m**
- **PDRC056: 6m at 1.79% Li_2O from 48m***
- **PDRC057 12m at 1.41% Li_2O from 60m***
- **PDRC059: 5m at 2.08% Li_2O from 37m**

These results are in addition to the discovery intersection in PDRC015, which was reported earlier (See ASX announcement 4 October 2016).

- **PDRC015: 7m at 1.52% Li_2O from 52m; and 6m at 27.7% Cs_2O from 47m**

Pegmatite focussed soil geochemistry also continues with a further 10,000 samples having been taken for analysis.

Lithium Caesium Tantalum System Discovered

Drilling at the Company's namesake Pioneer Dome Project has confirmed unequivocally that the Project hosts a rare-metal Lithium Caesium Tantalum ("LCT") Pegmatite system. Highly fractionated pegmatite zonation is evident, including ore grade mineralogical phases.

The first pass drilling programme saw 64 reverse circulation (RC) drill holes completed for 5,223m. Drilling at target PEG008A intersected pegmatites hosting lithium, caesium and tantalum mineralisation (refer to Figure 1) in a cluster of drill holes over a strike length of 320m. The Company has lodged a Program of Work submission to drill the more southern PEG008B, which also has a strong LCT soil geochemical anomaly.

It is well documented that a range of elements, including lithium, caesium, tantalum, tin and beryllium, form in distinct zones within a differentiated pegmatite body as distance from the parent granite increases. The characteristics of PEG008A to date are similar to those of an extreme *distal* pegmatite zone, which is characterised by the occurrence of pollucite, a globally significant and rare ore mineral of caesium. In this zone lithium may occur in micas, lepidolite and other exotic minerals either with or without spodumene. Spodumene tends to occur in greater abundance in more *proximal* zones.

**drilling intersections based on three meter composite samples.*

When lithium minerals are fine grained, as is the case at PEG008A, the determination of the mineralogy requires XRD and/or microscopic petrography to be definitive, and samples have been submitted for determination.

Geochemistry consistent with spodumene was returned from within holes PDRC021 and PDRC059 (5m at 2.08% Li_2O from 37m) (mineralogy subject to confirmation by XRD) which bodes well for the identification of a spodumene zone as drilling trends into pegmatites more *proximal* to the parent granite. Visually however, the majority of the lithium-bearing drilling intersections contained fine grained, as yet undetermined, silicate minerals mixed with low-rubidium white micas.

Results from PEG001 and PEG002 were less encouraging, indicating that these pegmatites were formed outside the critical zone for significant LCT mineralisation.

Caesium Intersected in Drilling.

As noted earlier, **PDRC015 returned 6m of high grade caesium grading 27.7% Cs_2O from 47m**, likely to be contained in the mineral 'pollucite'. The largest use of caesium is in the manufacture of very high value caesium formate brines, used for high-pressure/high-temperature oil and gas drilling and exploration. Caesium formate acts to stabilise rock formations, does not cause corrosion of drilling equipment and can enhance hydrocarbon recovery. (e.g. Downs et al).

The largest known deposit of pollucite is at the Tanco Mine, owned and operated by Cabot Corporation at Bernic Lake, Manitoba, Canada, with additional intermittent supply coming from the Bikita Mine in Zimbabwe. Further information for caesium and the Tanco Deposit is readily available, including from (Tuck (USGS) 2015) and Martins et al (2013).

Other caesium targets are evident in soil geochemistry.

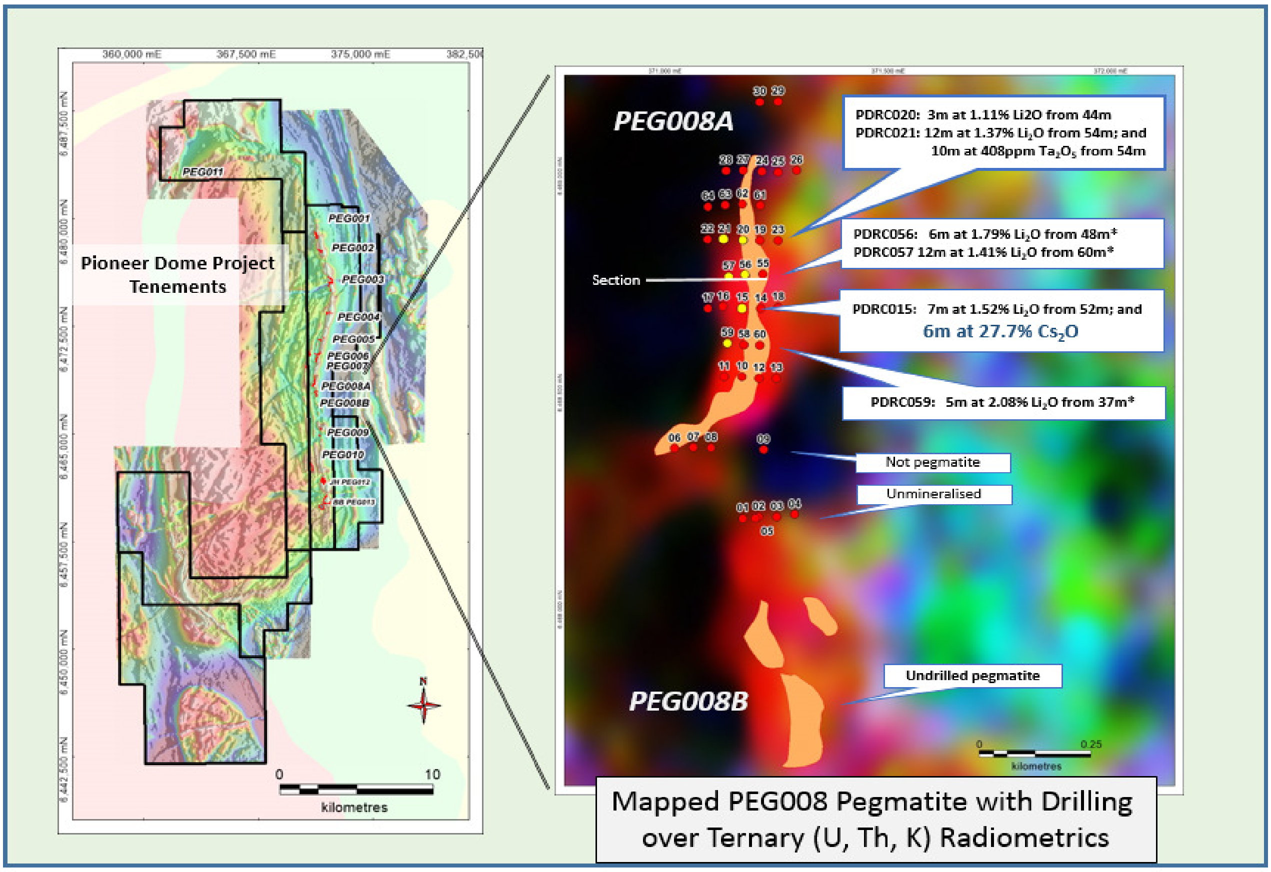

Figure 1: *LHS Pioneer Dome Project Tenements over aeromagnetic imagery, showing the location of known pegmatites PEG001 to PEG014. RHS Enlargement of PEG008 showing location of drill hole collars and mineralisation intersections, overlying a ternary radiometric image that highlights the location and structure of the pegmatite lenses.*

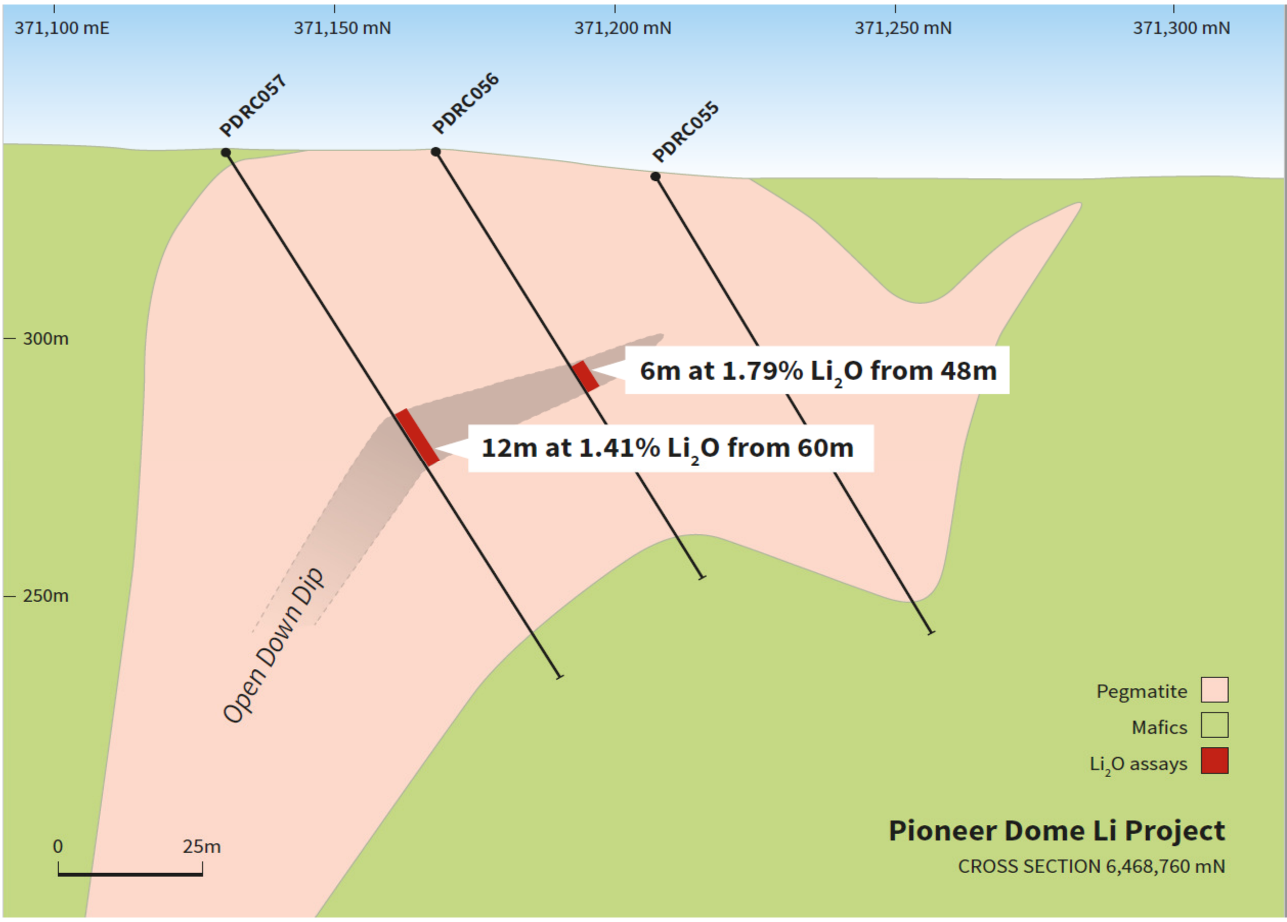

Figure 2: *Schematic cross section of PEG008 showing the location of mineralisation in drill holes PDRC056 and PDRC057.*

Target Generation Continuing

Pegmatites have been mapped within a 13km strip along the eastern side of the Pioneer Dome covered by tenements held 100% by Pioneer. Concurrently with drilling, a further 10,000 soil samples have been taken, covering all eastern and southwestern Pioneer Dome tenements. The soil samples are in the process of being screened for LCT elements using a pXRF analyser and then selected samples will be submitted to a commercial laboratory for analysis for lithium, caesium and related elements. Assay results are expected to provide additional drill targets, with preliminary geochemistry at PEG003 and PEG006 looking encouraging.

Pioneer's Managing Director said "The fact that our first round of drilling has discovered a mineralised LCT pegmatite system is very exciting, with encouraging intersections of lithium and an extremely unusual, geologically rare, but potentially very significant occurrence of high grade caesium. The Company will fully compile assay, geology and petrography results, and then looks forward to the next phase of drilling."

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-ENDS-

Notes about the Pioneer Dome Lithium Project

REFERENCES

Company announcements to ASX 19 May 2016, 27 July 2016, 28 August 2016, 1 September 2016, and 4 October 2016, and Quarterly Activity Reports.

Jones, M.G., (2005): *"The Surface Geology of the Pioneer Dome Area, Yilgarn Craton, W.A"*

Bradley, D., and McAuley, A. (2013): *"A preliminary deposit model for lithium-cesium-tantalum (LCT) pegmatites". U.S. Geological Survey Open File Report 2013-1008 7p.*

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Martins, T., Kremer, P. and Vanstone P. (2013): "*Field Trip Guidebook FT-C1 / Open File OF2013-8. The Tanco Mine: Geological Setting, Internal Zonation and Mineralogy of a World-Class Rare Element Pegmatite Deposit."*

Tuck, C. A. (2015) *"U.S. Geological Survey, Mineral Commodity Summaries, January 2015, (Cesium)"*

GLOSSARY

Elements: "Ag" means silver, "Au" gold, "B" Boron, "Be" beryllium, "Cs" caesium, "Cu" copper, "Li" Lithium, "Nb" niobium, "Ni" nickel, , "Pb" lead, "Pd" palladium, "Pt" platinum, "Rb" rubidium, "Sb" antimony, "Sn" tin, "Ta" tantalum, "Zn" zinc.

"Cs_2O" means Caesium Oxide, and is the elemental metal quantity converted to its oxide (in percent (%)), which is a form of reporting used for caesium in scientific literature. The conversion factor for Cs to Cs_2O is 1.06.

"Li_2O" means Lithia, or Lithium Oxide, and is the elemental metal quantity converted to its oxide (in percent (%)), which is a form of reporting used for lithium in scientific literature. The conversion factor for Li to Li_2O is 2.153.

"Pegmatite**"** is a common plutonic rock of variable texture and coarseness that is composed of interlocking crystals of widely different sizes. They are formed by fractional crystallization of an incompatible element-enriched granitic melt. Several factors control whether or not barren granite will fractionate to produce a fertile granite melt (Černý 1991; Breaks 2003):

- presence of trapped volatiles: fertile granites crystallize from a volatile-rich melt.
- composition of melt: fertile granites are derived from an aluminium-rich melt.
- source of magma: barren granites are usually derived from the partial melting of an igneous source (I-type), whereas fertile granites are derived from partial melting of a peraluminous sedimentary source (S-type).
- degree of partial melting: fertile granites require a high degree of partial melting of the source rock that produced the magma.

Initially, fractional crystallization of a granitic melt will form barren granite consisting of common rock forming minerals such as quartz, potassium feldspar, plagioclase and mica. Because incompatible rare elements, such as Be, Li, Nb, Ta, Cs, B, which do not easily fit into the crystal of these common rock-forming minerals, become increasingly concentrated in the granitic melt as common rock forming minerals continue to crystallize and separate from the melt.

"Pollucite" is a zeolite mineral with the formula $(Cs,Na)_2Al_2Si_4O._{12}\cdot 2H_2O$ with iron, calcium, rubidium and potassium as common substituting elements. It is an important ore of caesium.

"Spodumene" is a lithium aluminosilicate (pyroxene) found in certain rare-element pegmatites, with the formula $LiAlSi_2O_6$. Spodumene is the principal lithium mineral sourced from pegmatites and is the preferred source for high purity lithium products.

"ppm" means 1 part per million by weight.

“RC” means reverse circulation, a drilling technique that is used to return uncontaminated pulverised rock samples through a central tube inside the drill pipes. RC samples can be used in industry-standard Mineral Resource estimates.

“N”, “S”, “E”, or “W” refer to the compass orientations north, south, east or west respectively.

“pXRF” means portable x-ray fluorescence. Pioneer owns a Bruiker S1 Titan 800 portable XRF analyser which is an analytical tool providing semi-quantitative analyses for a range of elements ‘in the field’.

COMPETENT PERSON

The information in this report that relates to Exploration Results is based on information supplied to and compiled by Mr David Crook and Mr Paul Dunbar. Mr Crook is a full time employee of Pioneer Resources Limited and Mr Dunbar is a consultant to Pioneer Resources Limited. Both Mr Crook and Mr Dunbar are members of The Australasian Institute of Mining and Metallurgy and the Australian Institute of Geoscientists and have sufficient experience which is relevant to the exploration processes undertaken to qualify as a Competent Person as defined in the 2012 Editions of the ‘Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves’.

Mr Crook and Mr Dunbar consent to the inclusion of the matters presented in the announcement in the form and context in which they appear.

CAUTION REGARDING FORWARD LOOKING INFORMATION

This document contains certain statements that may be deemed "forward-looking statements.” All statements in this announcement, other than statements of historical facts, that address future market developments, government actions and events, are forward-looking statements.

Forward-looking statements are not statements of historical fact and actual events and results may differ materially from those described in the forward looking statements as a result of a variety of risks, uncertainties and other factors. Forward-looking statements are inherently subject to business, economic, competitive, political and social uncertainties and contingencies. Many factors could cause the Company’s actual results to differ materially from those expressed or implied in any forward-looking information provided by the Company, or on behalf of, the Company. Such factors include, among other things, risks relating to additional funding requirements, metal prices, exploration, development and operating risks, competition, production risks, regulatory restrictions, including environmental regulation and liability and potential title disputes.

Forward looking statements in this document are based generally on the Company’s beliefs, opinions and estimates as of the dates the forward looking statements that are made, and no obligation is assumed to update forward looking statements if these beliefs, opinions and estimates should change or to reflect other future developments.

Although Pioneer believes the outcomes expressed in such forward-looking statements are based on reasonable assumptions, such statements are not guarantees of future performance and actual results or developments may differ materially from those in forward-looking statements. Factors that could cause actual results to differ materially from those in forward-looking statements include new rare earth applications, the development of economic rare earth substitutes and general economic, market or business conditions.

While, Pioneer has made every reasonable effort to ensure the veracity of the information presented they cannot expressly guarantee the accuracy and reliability of the estimates, forecasts and conclusions contained herein. Accordingly, the statements in the presentation should be used for general guidance only.

APPENDIX 1. Drill Hole Information and Results Summary

Table 1 Reverse Circulation Drill Hole Collar Locations							
Hole ID	Easting	Northing	RL	Depth (m)	Dip (^{0})	Azimuth (^{0})	Prospect
PDRC001	371,162	6,468,196	335	90	-60	270	PEG008
PDRC002	371,197	6,468,200	331	84	-60	270	PEG008
PDRC003	371,238	6,468,200	323	108	-60	270	PEG008
PDRC004	371,278	6,468,205	325	84	-60	270	PEG008
PDRC005	371,191	6,468,197	331	48	-60	90	PEG008
PDRC006	371,008	6,468,358	326	72	-60	270	PEG008
PDRC007	371,051	6,468,360	331	72	-60	270	PEG008
PDRC008	371,090	6,468,359	336	66	-60	270	PEG008
PDRC009	371,208	6,468,355	333	78	-60	270	PEG008
PDRC010	371,160	6,468,523	337	90	-60	270	PEG008
PDRC011	371,121	6,468,523	342	102	-60	270	PEG008
PDRC012	371,198	6,468,520	338	54	-60	270	PEG008
PDRC013	371,238	6,468,519	330	42	-60	270	PEG008
PDRC014	371,202	6,468,681	331	84	-60	90	PEG008
PDRC015	371,160	6,468,682	332	108	-60	90	PEG008
PDRC016	371,118	6,468,685	334	138	-60	90	PEG008
PDRC017	371,084	6,468,681	334	108	-60	90	PEG008
PDRC018	371,242	6,468,684	332	42	-60	90	PEG008
PDRC019	371,200	6,468,838	330	72	-60	90	PEG008
PDRC020	371,163	6,468,839	334	84	-60	90	PEG008
PDRC021	371,121	6,468,841	334	96	-60	90	PEG008
PDRC022	371,083	6,468,840	334	90	-60	90	PEG008
PDRC023	371,242	6,468,838	328	51	-60	90	PEG008
PDRC024	371,205	6,468,997	329	90	-60	90	PEG008
PDRC025	371,241	6,468,995	325	72	-60	90	PEG008
PDRC026	371,283	6,469,000	324	54	-60	90	PEG008
PDRC027	371,163	6,469,000	330	120	-60	90	PEG008
PDRC028	371,125	6,468,999	334	90	-60	90	PEG008
PDRC029	371,241	6,469,158	322	66	-60	90	PEG008
PDRC030	371,200	6,469,157	323	78	-60	90	PEG008
PDRC031	371,165	6,469,399	332	42	-60	90	PEG008
PDRC032	371,126	6,469,397	332	60	-60	90	PEG008
PDRC033	371,084	6,469,400	331	72	-60	90	PEG008
PDRC034	371,098	6,480,279	339	72	-60	90	PEG001
PDRC035	371,022	6,480,280	342	84	-60	90	PEG001
PDRC036	371,099	6,480,285	344	78	-60	270	PEG001
PDRC037	371,119	6,480,123	335	78	-60	270	PEG001
PDRC038	371,156	6,480,122	335	114	-60	270	PEG001
PDRC039	371,201	6,480,122	335	84	-60	270	PEG001
PDRC040	371,076	6,480,121	338	90	-60	270	PEG008
PDRC041	371,243	6,480,121	337	102	-60	270	PEG001
PDRC042	371,316	6,478,919	343	78	-60	270	PEG002
PDRC043	371,358	6,478,920	345	108	-60	270	PEG002
PDRC044	371,389	6,478,921	342	90	-60	270	PEG002
PDRC045	371,440	6,478,919	341	84	-60	270	PEG002
PDRC046	371,317	6,478,800	355	108	-60	270	PEG002
PDRC047	371,359	6,478,804	344	108	-60	270	PEG002
PDRC048	371,396	6,478,798	344	78	-60	270	PEG002
PDRC049	371,436	6,478,797	339	84	-60	270	PEG002
PDRC050	371,362	6,478,396	344	42	-60	270	PEG002
PDRC051	371,401	6,478,399	348	54	-60	270	PEG002
PDRC052	371,441	6,478,401	341	66	-60	270	PEG002
PDRC053	371,475	6,478,400	339	60	-60	270	PEG002
PDRC054	371,521	6,478,400	338	36	-60	270	PEG002
PDRC055	371,207	6,468,760	332	102	-60	90	PEG008
PDRC056	371,168	6,468,758	337	96	-60	90	PEG008
PDRC057	371,130	6,468,754	337	120	-60	90	PEG008
PDRC058	371,165	6,468,597	333	66	-60	90	PEG008

Table 1 Reverse Circulation Drill Hole Collar Locations							
Hole ID	Easting	Northing	RL	Depth (m)	Dip (^{0})	Azimuth (^{0})	Prospect
PDRC059	371,128	6,468,601	332	90	-60	90	PEG008
PDRC060	371,200	6,468,596	329	48	-60	90	PEG008
PDRC061	371,201	6,468,918	324	72	-60	90	PEG008
PDRC062	371,161	6,468,922	330	96	-60	90	PEG008
PDRC063	371,123	6,468,919	327	102	-60	90	PEG008
PDRC064	371,084	6,468,916	334	126	-60	90	PEG008

Notes:

- *Hole locations are in MGA 94 zone 51 derived from a hand held Garmin GPS with a nominal accuracy of ±3m in easting and northing.*
- *The RL is the elevation and is not considered accurate from a hand held GPS but is included as an estimate of the elevation.*
- *The azimuth is in degrees magnetic as derived from a hand held compass.*

Table 2 Selected Assays						
Hole ID	Sample ID	From	To	Li_2O (%)	Ta_2O_5 (ppm)	Cs_2O (%)
PDRC002	ARC103217	37.00	38.00	0.15	16	0.02
PDRC002	ARC103218	38.00	39.00	0.13	183	0.01
PDRC002	ARC103219	39.00	40.00	0.08	241	0.01
PDRC002	ARC103220	40.00	41.00	0.08	18	0.01
PDRC010	ARC103519	27.00	28.00	0.02	14	0.01
PDRC010	ARC103520	28.00	29.00	0.17	143	0.02
PDRC010	ARC103521	29.00	30.00	0.07	142	0.01
PDRC010	ARC103522	30.00	31.00	0.09	43	0.01
PDRC010	ARC103523	31.00	32.00	0.22	235	0.02
PDRC010	ARC103524	32.00	33.00	0.30	61	0.02
PDRC011	ARC103617	39.00	40.00	0.03	32	0.00
PDRC011	ARC103618	40.00	41.00	0.77	329	0.10
PDRC011	ARC103619	41.00	42.00	1.05	75	0.24
PDRC011	ARC103620	42.00	43.00	0.29	22	0.08
PDRC011	ARC103645	65.00	66.00	0.21	22	0.07
PDRC011	ARC103646	66.00	67.00	0.04	5	0.01
PDRC011	ARC103647	67.00	68.00	0.13	424	0.02
PDRC011	ARC103648	68.00	69.00	0.14	290	0.02
PDRC011	ARC103649	69.00	70.00	0.18	158	0.02
PDRC011	ARC103650	70.00	71.00	0.20	44	0.02
PDRC014	ARC103751	27.00	28.00	0.08	4	0.01
PDRC014	ARC103752	28.00	29.00	0.06	120	0.00
PDRC014	ARC103753	29.00	30.00	0.09	6	0.02
PDRC015	ARC103831	26.00	27.00	0.01	4	0.03
PDRC015	ARC103832	27.00	28.00	0.71	66	0.13
PDRC015	ARC103834	28.00	29.00	1.49	67	0.15
PDRC015	ARC103835	29.00	30.00	0.21	13	0.05
PDRC015	ARC103843	37.00	38.00	0.09	3	0.09
PDRC015	ARC103844	38.00	39.00	1.77	88	0.30
PDRC015	ARC103845	39.00	40.00	0.05	2	0.10
PDRC015	ARC103851	45.00	46.00	0.03	0	0.00
PDRC015	ARC103852	46.00	47.00	0.47	1	6.83
PDRC015	ARC103853	47.00	48.00	0.12	25	30.58
PDRC015	ARC103854	48.00	49.00	0.15	169	27.35
PDRC015	ARC103855	49.00	50.00	0.30	45	29.61
PDRC015	ARC103856	50.00	51.00	0.14	19	30.62
PDRC015	ARC103857	51.00	52.00	0.15	5	30.09
PDRC015	ARC103858	52.00	53.00	0.91	46	18.04
PDRC015	ARC103859	53.00	54.00	1.63	82	7.34
PDRC015	ARC103861	54.00	55.00	2.04	89	0.43
PDRC015	ARC103862	55.00	56.00	1.09	145	0.29
PDRC015	ARC103863	56.00	57.00	1.39	157	0.32
PDRC015	ARC103864	57.00	58.00	2.77	239	0.52
PDRC015	ARC103865	58.00	59.00	0.80	74	0.18

Table 2 Selected Assays						
Hole ID	**Sample ID**	**From**	**To**	**Li_2O (%)**	**Ta_2O_5 (ppm)**	**Cs_2O (%)**
PDRC015	ARC103867	59.00	60.00	0.53	110	0.17
PDRC015	ARC103868	60.00	61.00	0.42	58	0.12
PDRC015	ARC103869	61.00	62.00	0.21	22	0.05
PDRC015	ARC103870	62.00	63.00	0.22	66	0.07
PDRC015	ARC103871	63.00	64.00	0.39	53	0.10
PDRC015	ARC103872	64.00	65.00	0.16	18	0.03
PDRC015	ARC103873	65.00	66.00	0.44	25	0.15
PDRC015	ARC103874	66.00	67.00	0.17	11	0.07
PDRC015	ARC103875	67.00	68.00	0.44	17	0.09
PDRC015	ARC103876	68.00	69.00	0.13	12	0.06
PDRC015	ARC103877	69.00	70.00	0.34	12	0.13
PDRC015	ARC103878	70.00	71.00	0.11	6	0.03
PDRC020	ARC104181	29.00	30.00	0.16	10	0.02
PDRC020	ARC104182	30.00	31.00	0.10	126	0.01
PDRC020	ARC104183	31.00	32.00	0.12	16	0.02
PDRC020	ARC104196	43.00	44.00	0.73	6	0.04
PDRC020	ARC104197	44.00	45.00	1.27	10	0.03
PDRC020	ARC104198	45.00	46.00	1.15	6	0.04
PDRC020	ARC104200	46.00	47.00	0.91	5	0.05
PDRC020	ARC104201	47.00	48.00	0.40	8	0.02
PDRC021	ARC104288	50.00	51.00	0.01	37	0.00
PDRC021	ARC104289	51.00	52.00	0.05	93	0.02
PDRC021	ARC104291	52.00	53.00	0.01	48	0.00
PDRC021	ARC104292	53.00	54.00	0.06	96	0.02
PDRC021	ARC104293	54.00	55.00	3.71	736	0.64
PDRC021	ARC104294	55.00	56.00	2.01	359	0.35
PDRC021	ARC104295	56.00	57.00	1.96	353	0.33
PDRC021	ARC104296	57.00	58.00	1.54	278	0.26
PDRC021	ARC104297	58.00	59.00	2.16	988	0.16
PDRC021	ARC104298	59.00	60.00	0.18	452	0.04
PDRC021	ARC104300	60.00	61.00	0.30	104	0.06
PDRC021	ARC104301	61.00	62.00	1.52	516	0.26
PDRC021	ARC104302	62.00	63.00	0.89	137	0.14
PDRC021	ARC104303	63.00	64.00	0.56	162	0.08
PDRC021	ARC104304	64.00	65.00	0.76	97	0.12
PDRC021	ARC104305	65.00	66.00	0.80	78	0.12
PDRC021	ARC104306	66.00	67.00	0.52	34	0.09
PDRC021	ARC104307	67.00	68.00	0.44	59	0.09
PDRC027	ARC104639	49.00	50.00	0.21	16	0.03
PDRC027	ARC104640	50.00	51.00	0.92	37	0.14
PDRC027	ARC104641	51.00	52.00	0.13	8	0.02
PDRC027	ARC104642	52.00	53.00	0.04	28	0.01
PDRC027	ARC104643	53.00	54.00	0.12	92	0.03
PDRC027	ARC104644	54.00	55.00	0.18	258	0.04
PDRC027	ARC104645	55.00	56.00	0.32	37	0.05
PDRC027	ARC104702	108.00	109.00	0.11	6	0.01
PDRC027	ARC104703	109.00	110.00	0.51	6	0.71
PDRC027	ARC104704	110.00	111.00	0.23	1	0.31
PDRC027	ARC104705	111.00	114.00	0.16	0	0.07
PDRC045	ARC105279	60.00	63.00	0.00	0	0.00
PDRC045	ARC105280	63.00	66.00	0.02	102	0.01
PDRC045	ARC105281	66.00	69.00	0.12	45	0.07
PDRC056	ARC105704	45.00	48.00	0.06	1	0.02
PDRC056	ARC105705	48.00	51.00	2.29	58	0.21
PDRC056	ARC105706	51.00	54.00	1.30	52	0.14
PDRC056	ARC105707	54.00	57.00	0.22	46	0.03
PDRC057	ARC105742	57.00	60.00	0.58	22	0.05
PDRC057	ARC105743	60.00	63.00	1.56	181	0.21
PDRC057	ARC105744	63.00	66.00	0.52	74	0.09
PDRC057	ARC105745	66.00	69.00	1.62	157	0.21

Table 2 Selected Assays						
Hole ID	Sample ID	From	To	Li_2O (%)	Ta_2O_5 (ppm)	Cs_2O (%)
PDRC057	ARC105746	69.00	72.00	1.94	129	0.21
PDRC057	ARC105747	72.00	75.00	0.33	46	0.06
PDRC059	ARC105837	36.00	37.00	0.03	0	0.08
PDRC059	ARC105838	37.00	38.00	0.98	2	0.05
PDRC059	ARC105839	38.00	39.00	3.18	4	0.01
PDRC059	ARC105840	39.00	40.00	2.54	7	0.01
PDRC059	ARC105841	40.00	41.00	2.82	3	0.01
PDRC059	ARC105842	41.00	42.00	0.85	67	0.03
PDRC059	ARC105843	42.00	43.00	0.45	13	0.06
PDRC059	ARC105844	43.00	44.00	0.50	33	0.04
PDRC059	ARC105845	44.00	45.00	0.36	136	0.03
PDRC059	ARC105846	45.00	46.00	0.33	66	0.03
PDRC059	ARC105852	51.00	52.00	0.12	7	0.03
PDRC059	ARC105853	52.00	53.00	0.61	37	0.04
PDRC059	ARC105854	53.00	54.00	1.00	39	0.06
PDRC059	ARC105855	54.00	55.00	0.44	50	0.07
PDRC060	ARC105874	3.00	4.00	0.33	76	0.02
PDRC060	ARC105875	4.00	5.00	0.32	105	0.02
PDRC060	ARC105876	5.00	6.00	0.17	45	0.01
PDRC060	ARC105877	6.00	7.00	0.23	121	0.02
PDRC060	ARC105878	7.00	8.00	0.13	41	0.01
PDRC063	ARC106023	68.00	69.00	0.26	35	0.04
PDRC063	ARC106024	69.00	70.00	0.22	106	0.03
PDRC063	ARC106025	70.00	71.00	0.15	79	0.02

Notes:

- *Selected Assay results as derived from chemical analysis by Intertek-Genalysis The elemental assay results have been calculated to oxide concentrations by multiplying Li by 2.153 to derive Li_2O, Ta by 1.221 to derive Ta_2O_5 and Cs by 1.06 to derive Cs_2O.*
- *The yellow highlighted intervals are >0.75% Li_2O assays, pink are >100ppm Ta_2O_5 and the green >17% Cs_2O.*
- *Intersections noted are 'down-hole' and do not necessarily represent a true width.*

Section 1 - Sampling Techniques and Data

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

Pioneer Dome Project, PEG 08A Prospect.

Criteria	JORC Code explanation	Commentary
Sampling techniques	• *Nature and quality of sampling (eg cut Faces, 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.*	• Reverse circulation (RC) samples from holes drilled from surface reported. • Single meter samples were collected in calico bags via a cone splitter directly from the cyclone on the RC drill rig. Three meter composite samples for intervals that were considered to have low LCT element concentrations from the pXRF data were collected from the sample piles via an aluminium scoop. • pXRF analysis was undertaken on each sample using a Bruker S1 Titan 800 hand held portable XRF analyser.
	• *Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.*	• Industry-standard reverse circulation drilling, using a face-sampling hammer with a booster and auxiliary compressors used to ensure dry samples. • Individual one meter samples were collected using a cyclone and a cone splitter into sub samples of approximately 3.5kg weight, the cyclone was regularly cleaned to minimise contamination. • Duplicate samples and Certified Reference Standards were inserted at regular intervals to provide assay quality checks. The standards and duplicates reported within acceptable limits.
	• *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.*	• Reverse circulation drilling was used to obtain 1 m samples from which approximately 3.5 kg sampled. • 3.5kg samples were crushed and pulverised by pulp mill to nominal P80/75um to produce a 50 gram charge for analysis. • Lithium exploration package of elements were analysed by a four acid digestion with a Mass Spectrometer (MS) determination (Intertek analysis code 4A Li48-MS). The quoted detection limits for this method are a lower detection limit of 0.1ppm and an upper detection of 5000ppm Li. Most other elements have a similar analytical range. Any over range samples were re analysed by a sodium peroxide zirconium crucible fusion with a detection range of 1ppm to 20% Li.
Drilling techniques	• *Drill type (eg core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc) and details (eg core diameter, triple or standard tube, depth of diamond tails, face-sampling bit or other type, whether core is oriented and if so, by what method, etc).*	• Reverse Circulation Drilling. ○ 4.5 inch drill string. ○ Face-sampling hammer. ○ Auxiliary and Booster compressors used to exclude ground water.
Drill sample recovery	• *Method of recording and assessing core and chip sample recoveries and results assessed.*	• During drilling the geologist recorded occasions when sample quality is poor, sample return was low, when the sample was wet or compromised in another way.
	• *Measures taken to maximise sample recovery and ensure representative*	• Sample recovery is generally good for RC drilling using the equipment described. • Sample recovery is mostly under the control of the drill operator and is generally

Criteria	JORC Code explanation	Commentary
	nature of the samples.	influenced by the experience and knowledge of the operator.
	• *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.*	• Because the sample recoveries are assumed to be high, any possible relationship between sample recovery and grade has not been investigated.
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.*	• Lithological logs exist for these holes in a database. Fields captured include lithology, mineralogy, sulphide abundance and type, alteration, texture, recovery, weathering and colour.
	• *Whether logging is qualitative or quantitative in nature. Core (or costean, Face, etc) photography.*	• Logging has primarily been qualitative. • Qualitative litho-geochemistry based on pXRF analyses is used to confirm rock types. • A representative sample of each meter is sieved and retained in chip trays for future reference. • Petrology of chips from selected samples is underway to determine the mineralogy of the intervals. • XRD analysis of selected pulps retained from the chemical analysis will be undertaken once all chemical assays have been received.
	• *The total length and percentage of the relevant intersections logged.*	• The entire length of the drill holes were geologically logged.
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.*	• Individual one meter samples were collected via a cone splitter directly attached to the cyclone when dry. All samples were dry. Individual samples were approximate 3.5kg. The bulk residue was collected via plastic drums and laid out in order on the drill pad. • Individual meter samples of the pegmatite that were enriched in elements typically associated with lithium in LCT pegmatites, as determined by a portable XRF (Bruker pXRF) were submitted to the laboratory. Three meter composites were collected for the remainder of the drill holes in areas where the pXRF analysis indicated low associated element concentrations. In some drill holes the sampling (on a three meter composite basis) was undertaken prior to the pXRF analysis. Any three meter composite samples that returned anomalous LCT elements will be re sampled using the original single meter samples. • The sample collection, splitting and sampling for this style of drilling is considered to be standard industry practise.
	• *Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.*	• Cyclones are routinely cleaned after each 6m rod. • Geologist looks for evidence of sample contamination, which was recorded where present. • The use of booster and auxiliary compressors ensures samples are dry, which best ensures a quality sample.
	• *Measures taken to ensure that the sampling is representative of the in situ material collected, including for instance results for field duplicate/second-*	• Standard Reference Material is included at a rate of 1 per 30 samples. • Duplicate field samples are routinely inserted at a 1 per 30 samples.

Criteria	JORC Code explanation	Commentary
	half sampling.	• Laboratory quality control samples were inserted by the laboratory with the performance of these control samples monitored by the laboratory and the company.
	• *Whether sample sizes are appropriate to the grain size of the material being sampled.*	• The sample size is considered appropriate for the style of deposit being sampled.
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.*	• The sample preparation and assay method used is considered to be standard industry practice and is appropriate for the deposit.
	• *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.*	• Pioneer owns a Bruker S1 Titan 800 handheld XRF instrument which it used to assist with selecting zones for initial one meter sampling. Zones have been selected due to elevated caesium, niobium, tantalum, gallium, rubidium, thallium or tin. Intervals not identified as elevated from the pXRF have been sampled with three meter composites. • Standards, blanks and duplicates have been analysed with the Bruker to ensure the instrument is operating as expected and correctly calibrated.
	• *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.*	• Standards and laboratory checks have been assessed. Most of the standards show results within acceptable limits of accuracy, with good precision in most cases. Internal laboratory checks indicate very high levels of precision.
Verification of sampling and assaying	• *The verification of significant intersections by either independent or alternative company personnel.* • *The use of twinned holes.*	• Significant intersections are calculated by experienced staff with these intersections checked by other staff. • No holes have been twinned
	• *Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.*	• Pioneer has a digital SQL drilling database where information is stored. • The Company uses a range of consultants to load and validate data, and appraise quality control samples.
	• *Discuss any adjustment to assay data.*	• Pioneer has adjusted the lithium(Li), tantalum (Ta) and caesium (Cs)assay results to determine Li_2O, Ta_2O_5 and Cs_2O grades. This adjustment is a multiplication of the elemental Li, Ta and Cs assay results by 2.153, 1.221 and 1.06 to determine Li_2O, Ta_2O_5 and Cs_2O grades respectively.
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.*	• Collar surveys were completed using a hand-held GPS with an accuracy of +-3 metres.
	• *Specification of the grid system used.*	• MGA94 (Zone 51)
	• *Quality and adequacy of topographic control.*	• Topographic control is from a Digital Terrain Model (DTM). Once all exploration has been completed the RL of each drill collar and soil sampling points will be assigned from this DTM. This is considered adequate for work at the early exploration stage.

Criteria	JORC Code explanation	Commentary
Data spacing and distribution	• *Data spacing for reporting of Exploration Results.*	• Individual drill hole traverses were initially drilled on a 160m x 40m drill pattern. • Selected infill has been completed on a 80m x 40m drill spacing in prospective zones.
	• *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.*	• There has been insufficient work conducted to allow the estimation of a mineral resource.
	• *Whether sample compositing has been applied.*	• All reported assays are of 1m samples.
Orientation of data in relation to geological structure	• *Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.* • *If the relationship between the drilling orientation and the orientation of key mineralised structures is considered to have introduced a sampling bias, this should be assessed and reported if material.*	• The strike of the mineralisation is estimated at to be broadly north – south, therefore the angled RC holes have been drilled at either 270^0 to 090^0. Scissor holes have been drilled to determine the overall dip of the pegmatite bodies. The pegmatites dip toward the east on the southern line of drilling and to the west on all other drill traverses. Cross sections were drawn as the holes progressed to ensure the drilling was optimal to the interpreted orientation of the intrusions. • Down hole intercept widths are estimated to closely approximately true widths based on the interpretation of the pegmatite bodies and the orientation of the drilling.
Sample security	• *The measures taken to ensure sample security.*	• Pioneer uses standard industry practices when collecting, transporting and storing samples for analysis. • Drilling pulps are retained by Pioneer off site.
Audits or reviews	• *The results of any audits or reviews of sampling techniques and data.*	• Sampling techniques for assays have not been specifically audited but follow common practice in the Western Australian exploration industry. • The assay data and quality control samples are periodically audited by an independent consultant.

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*	• The Pioneer Dome drilling reported herein is entirely within E63/1669 which is a granted Exploration Licence. • The tenement is located approximately 40km N of Norseman WA. • Pioneer Resources Limited is the registered holder of the tenement and holds a 100% unencumbered interest in all minerals within the tenement. • The tenement is on vacant crown land. • The Ngadju Native Title Claimant Group has a determined Native Title Claim which covers the Pioneer Dome project.
	• *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.*	• At the time of this Statement E63/1669 is in Good Standing. To the best of the Company's knowledge, other than industry standard permits to operate there are no impediments to Pioneer's operations within the tenement.
Exploration done by other parties	• *Acknowledgment and appraisal of exploration by other parties.*	• There has been no previous lithium exploration drilling or sampling on the Pioneer Dome project. Previous mapping by the Western Australian Geological Survey and Western Mining Corporation (WMC) in the 1970's identified several pegmatite intrusions however these were not systematically explored for Lithium or associated elements.
Geology	• *Deposit type, geological setting and style of mineralisation.*	• The Pioneer Dome pegmatite exploration is at an early stage however the pegmatite body at PEG08 appears based on rock chip and soil samples, to be a highly differentiated Lithium Caesium Tantalum (LCT) pegmatite intrusion. This type of pegmatite intrusions are the target intrusions of hard rock lithium deposits.
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 of this announcement.
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*	• Intercepts noted are from 1m sample intervals or fom three meter composite samples. • Intersections are based on a 0.75% (lower) cut-off for lithium, 17% for caesium and 100ppm for tantalum with a minimum width of 1m, a maximum of three meters of internal and no external dilution. No metal equivalent values have been used.

Criteria	JORC Code explanation	Commentary
	in detail. • *The assumptions used for any reporting of metal equivalent values should be clearly stated.*	
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 Appendix 1. The current geological interpretation, based on RC drilling and mapping, suggests that the true widths are similar to the down hole widths.
Diagrams	• *Appropriate maps and sections (with scales) and tabulations of intercepts should be included for any significant discovery being reported These should include, but not be limited to a plan view of drill hole collar locations and appropriate sectional views.*	• Refer to maps in this report.
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, geotechnical and rock characteristics; potential deleterious or contaminating substances.*	• All meaningful and material exploration data has been reported.
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.*	• Additional work including detailed petrography within the anomalous zones along with selected XRD to determine the mineralogy of the mineralised zones. Depending on the results of the remaining assay results and the mineralogical studies additional drilling including Diamond Drilling and infill RC would be conducted to allow the completion of a resource estimate for the mineralised body.