

PIONEER DOME PROJECT: MINERALOGY CONFIRMS POLLUCITE – A RARE HIGH-VALUE CAESIUM MINERAL. DRILLING RESUMES THIS WEEK.

Perth Western Australia, 14 November 2016: Pioneer Resources Limited ("Company" or "Pioneer", ASX: PIO) has received the results from a number of samples which were analysed for qualitative mineralogy by XRD ('X-ray diffraction') by Intertek Genalysis, Perth.

Drill hole PDRC015 returned 6m at 27.7% Cs₂O from 47m and 7m at 1.52% Li₂O from 52m

Interval	Assay	Major Minerals
47-48m	30.50% Cs ₂ O, 0.11% Li ₂ O and 25ppm Ta ₂ O ₅	Pollucite, K Feldspar
49-50m	29.60% Cs ₂ O, 0.29% Li ₂ O and 44ppm Ta ₂ O ₅	Pollucite, Muscovite, tr Spodumene
51-52m	30.08% Cs ₂ O, 0.14% Li ₂ O and 5ppm Ta ₂ O ₅	Pollucite, Muscovite, Na Feldspar
57-58m	0.52% Cs ₂ O, 2.77% Li ₂ O and 239ppm Ta ₂ O ₅	Lepidolite, Muscovite, Na Feldspar, quartz

Minerals identified are consistent with those seen only in an extremely differentiated zone of a rare-metal pegmatite system (see Figure 1).

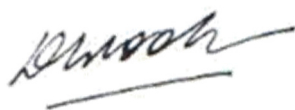
- Caesium mineral species confirmed as Pollucite by XRD. At the grade reported from PDRC015, being: 6m at 27.7% Cs₂O, the samples have very low amounts of other gangue minerals.
- The Pollucite samples from PDRC015 are considered very high in Cs and importantly low in Li, Na, K, Rb, As and sulphur.

By confirming the mineralogy as Pollucite the Company can progress its exploration with the knowledge that the caesium mineral present is the preferred feed material in the production of Caesium Formate.

Caesium Formate is a high density fluid used in high temperature/high pressure oil and gas drilling. It provides a number of well documented benefits, including: minimal damage to the hydrocarbon-bearing formation resulting in higher production rates, it acts as a lubricant, is non-corrosive and is considered a benign chemical when compared to alternatives. (Refer to Downs, J., et al)

The company intends to continue exploration within the Pioneer Dome for Lithium and Caesium with drilling recommencing later this week.

Pioneer's Managing Director said "Confirming the occurrence of the very high value caesium mineral Pollucite in PDRC015 provides encouragement for the Company to delineate this zone more fully knowing that the system contains the preferred mineral for caesium formate production, which is much in demand."



Managing Director
Pioneer Resources Limited

Figure 1 from David London's 2016 publication "Pegmatites", p34, with annotations added.

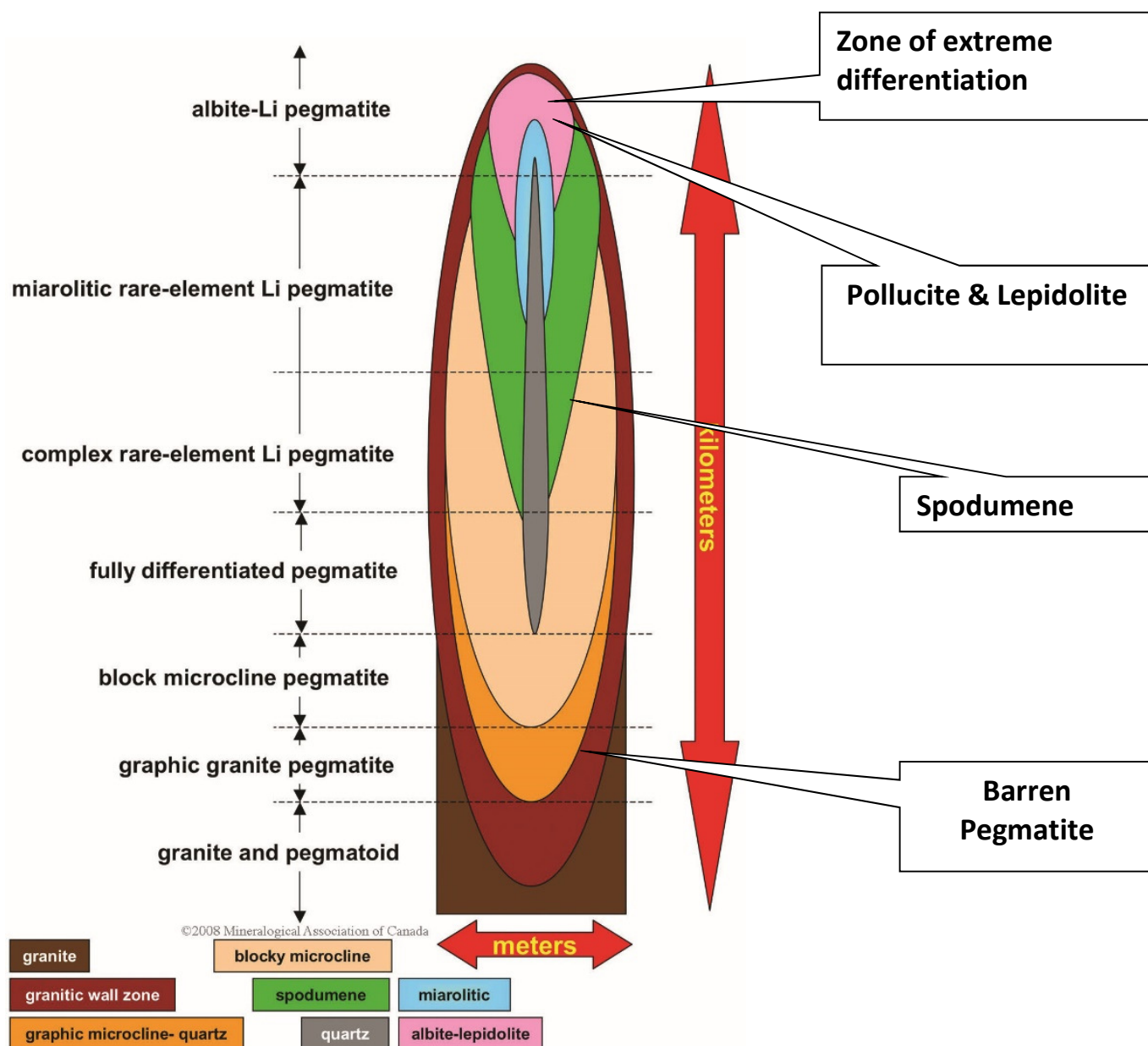


Figure 1: Schematic diagram of the zoning sequence in an extremely differentiated LCT pegmatite, modified from Vlasov (1961), showing recognised textural-paragenetic types of pegmatite. Differentiation becomes more extreme with distance from the parent granite.

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GLOSSARY

Elements: “Be” beryllium, “Cs” caesium, “Cu” copper, “Li” Lithium, “Nb” niobium, “Rb” rubidium, “Sb” antimony, “Sn” tin, “Ta” tantalum.

“Cs₂O” 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 Cs₂O is 1.06.

“Li₂O” 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 Li₂O 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, London 2016):

- 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: fertile granites are thought to be 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. Incompatible rare elements, such as Be, Li, Nb, Ta, Cs, B, do not easily fit into the crystal lattice of these common rock-forming minerals, and become increasingly concentrated in the granitic melt as common rock forming minerals separate from the melt. The remaining melt with increasing concentrations of rare metals is the source for LCT pegmatites.

“Pollucite” is a zeolite mineral with the formula (Cs,Na)₂Al₂Si₄O₁₂·2H₂O 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 LiAlSi₂O₆. 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.

“XRD” means X-ray powder diffraction which is a rapid analytical technique primarily used for phase identification of a crystalline material. The analysed material is finely ground, homogenized, and average bulk composition is determined.

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.

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

Downs, J. D., Blaszczyński, M., Turner, J., and Harris, M. (2006): “*Drilling and Completing Difficult HP/HT Wells with the aid of Cesium Formate Brines – A Performance review.*”

London, David (2016) *Pegmatites*, Mineralogical Association of Canada.

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)*”

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 while 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 may contain 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.