



# Pure Minerals Limited

ASX ANNOUNCEMENT

9 November 2018

## Quarterly Activities and Cashflow Report for quarter ending 30 September 2018

Pure Minerals Limited (**the Company, Pure Minerals or PM1**) provides the following update on its activities during the quarter ending 30 September 2018 (**Relevant Quarter**).

### Project Activities

#### Battery Hub Project (100% PM1) - E09/2217 and E52/3523

During the Relevant Quarter Pure Minerals announced the results of preliminary leaching testwork for the Battery Hub manganese -cobalt project, located in Western Australia's Gascoyne region. The objectives of the testwork were to confirm that the two primary forms of manganese-cobalt mineralisation at Battery Hub (stratiform mineralisation from the Pools prospect, and detrital mineralisation from the Julia prospect) are amenable to atmospheric leaching and the production of high-purity manganese sulphate, electrolytic manganese dioxide (EMD), electrolytic manganese metal (EMM) and cobalt.

The results of the testwork were very encouraging:

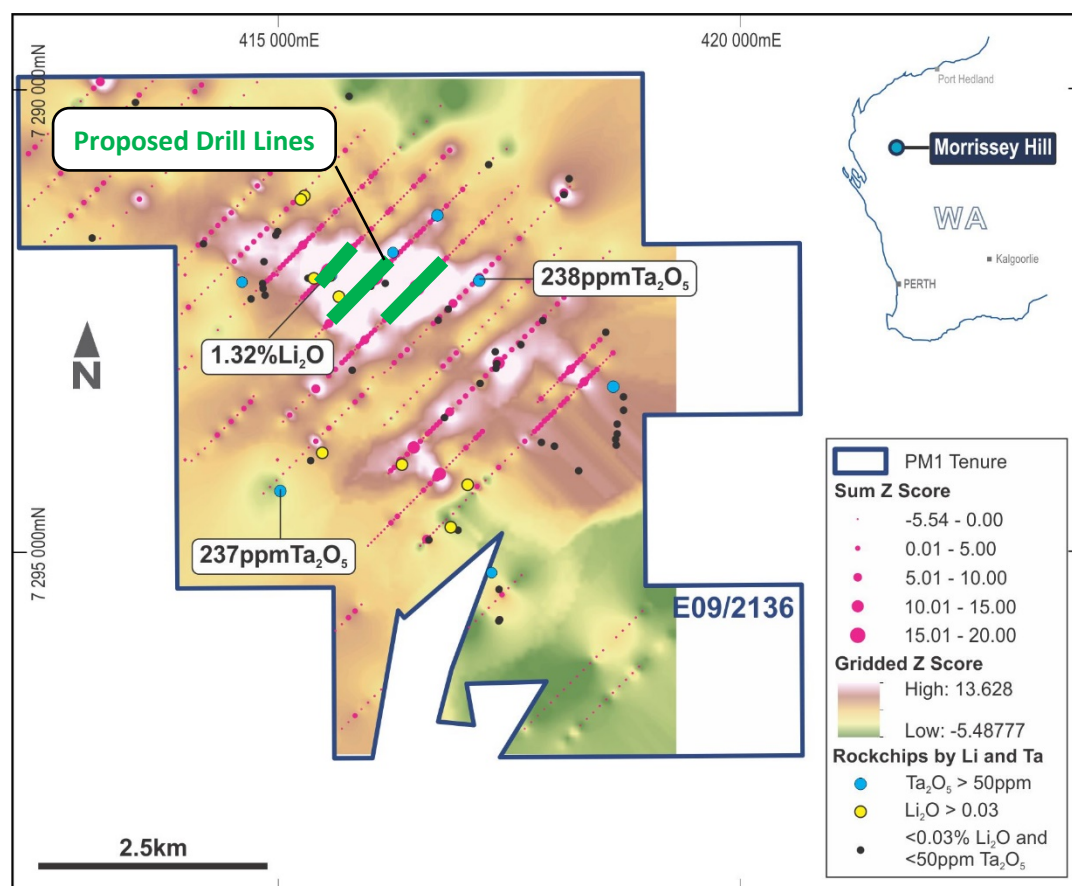
- Manganese extractions were very high for both the Pools and Julia, with final leach extractions of between 95% and 99%.
- Final cobalt recoveries were also very good, with results of between 85% and 90%.
- The leaching kinetics of manganese and cobalt were fast, approaching equilibrium in 15 to 30 minutes under the test conditions.
- Significantly, contaminant iron has slow leach kinetics, suggesting simpler downstream processing to produce a high-purity product. Results were enhanced with tests using lower acid concentrations. For example:
  - For the detrital (Julia) sample, after 20 minutes 91.6% of the manganese and 81.2% of the cobalt were leached, whereas only 3.8% of iron leached
  - For the stratiform (Pools) sample, after 20 minutes 97.6% of the manganese and 84.7% of the cobalt were leached, whereas only 7.6% of iron leached

Testwork was conducted by the CSIRO, located in Western Australia, and supervised by METS Engineering ("METS"). Further information on this work is contained in the Company's announcement dated 5 September, 2018.

### Morrissey Hill (80% PM1) – E09/2136 and E09/2133

During the Relevant Quarter Pure Minerals submitted an Exploration Program of Work (PoW) to the WA Department of Mines, Industry Regulation and Safety, seeking approval to begin Reverse Circulation (RC) drilling on tenement E09/2136 within the Morrissey Hill project.

The focus will be testing a high-priority anomaly that was identified in soil sampling (see Company's announcement dated 28 June, 2018). More than 12 RC holes, totalling more than 1,000 metres over three drill lines, have been planned to test the anomaly (Figure 1, below).



**Figure 1:** Proposed Morrissey Hill drill lines

### Missouri Cobalt-Nickel Exploration

During the Relevant Quarter, the Company entered into a binding agreement to acquire 75% of Legend Minerals LLC ("Legend"), a Missouri-based limited liability company focussed on exploring for minerals around Fredericktown, Madison County, Missouri.

Legend has mineral exploration applications in process with the Bureau of Land Management totalling more than 2,568 acres (10.4 square km) within the Mark Twain National Forest and an exploration lease agreement with a local landowner for 275 acres (1.1 km<sup>2</sup>). Legend's ownership and management (the "Vendors") have decades of combined experience in

mineral exploration and mining in the area, including the Madison cobalt mine that has recently been announced will re-open.

Further information on this activity is contained in the Company's announcement dated 9 July, 2018.

#### **Mount Boggola (80% PM1) – E08/2693**

No exploration activities were undertaken during the Relevant Quarter.

#### **Regnard Bay (100% PM1) – E47/3919**

At quarter end the tenement remained pending grant. A hearing to address any objections was deferred to the December quarter. The Company expects the objections to be resolved satisfactorily.

In relying on the above ASX announcements and pursuant to listing rule 5.23.2, the Company confirms that it is not aware of any new information or data that materially affects the information included in the above mentioned announcements or this Quarterly Activities Report for the period ended 30 September 2018.

#### **Post-record date Events**

Post the Relevant Quarter, Pure Minerals entered into a binding option agreement with Queensland Pacific Metals Pty Ltd (**QPM**) and its shareholders to acquire 100% of the issued capital in QPM. The Option Agreement provides for an exclusive period of 45 days to allow PM1 to finalise its due diligence on QPM and its assets. Further information on this initiative is contained in the Company's announcement dated 15 October, 2018.

In addition, Mr Sean Keenan, the Company's CEO, resigned to pursue other interests, and the Board intends to carry out the executive functions of the Company whilst a replacement CEO is sourced.

### Tenement Table: ASX Listing Rule 5.3.3

#### Mineral tenement interests held at the end of the quarter

Tenement ID	Status	Applic. Date	Granted Date	Expiry Date	Holding	Name	Registered Co.
E08/2693	GRANTED	04-Feb-15	29-Sep-15	28-Sep-20	80%	Mt Boggola	Mineral Developments Pty Ltd
E09/2133	GRANTED	19-Dec-14	20-Jul-16	19-Jul-21	80%	Morrissey Hill	Mineral Developments Pty Ltd
E09/2136-I	GRANTED	04-Feb-15	20-Jul-16	19-Jul-21	80%	Morrissey Hill	Mineral Developments Pty Ltd
E09/2217	GRANTED	17-Feb-17	13-Sep-17	12-Sep-22	100%	Battery Hub	Pure Manganese Pty Ltd
E47/3919	APPLICATION	27-Nov-17	n/a	n/a	100%	Regnard Bay	Pure Minerals Ltd
E52/3523	GRANTED	17-Feb-17	06-Nov-17	05-Nov-22	100%	Battery Hub	Pure Manganese Pty Ltd

#### The mining tenement interests relinquished or surrendered during the quarter and their location

Nil

#### The mining tenement interests acquired during the quarter and their location

Nil

#### Beneficial percentage interests held in farm-in or farm-out agreements at the end of the quarter

Not applicable.

#### Beneficial percentage interests in farm-in or farm-out agreements acquired or disposed of during the quarter

Not applicable.