

## ASX/Media Announcement

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### Lepidico Lodges Additional Provisional Patent for Lithium Phosphate Minerals

- New process to expand exploration scope
- Bench scale testwork on amblygonite samples from Lepidico's Euriowie project readily extracts and recovers lithium minerals
- Lithium-phosphate minerals, such as amblygonite and montebrasite carry some of the highest naturally occurring lithium grades
- Amblygonite often occurs in association with lithium bearing micas, which Platypus and Lepidico are targeting as part of their lithium-related exploration activities
- Complementary process to Lepidico's proprietary L-Max<sup>®</sup> process
- Platypus and Lepidico continue to jointly evaluate lithium exploration opportunities
- On 15 March 2016 Platypus and Lepidico entered into a binding agreement for Platypus to acquire 100% of Lepidico

Platypus Minerals Ltd (ASX:PLP) ("Platypus" or "Company") is pleased to advise that Lepidico Ltd ("Lepidico") has lodged an Australian Provisional Patent Application 2016900582 for the extraction and recovery of lithium chemicals from lithium phosphate minerals such as amblygonite and montebrasite. As with lithium bearing micas, these lithium-phosphate minerals are unconventional sources of lithium.

As part of the preparation of the provisional patent, Lepidico conducted testwork on a sample of amblygonite-rich rock sourced from the Euriowie project, over which Lepidico has applied for an exploration licence (ELA 5234). In the testwork, lithium was readily extracted from the sample by leaching in sulfuric acid under atmospheric conditions. Subsequent processing steps that form part of the patent application, proved effective in separating lithium from impurities, with the resultant liquor being amenable to lithium carbonate precipitation.

This novel process is complementary to the L-Max<sup>®</sup> process, Lepidico's proprietary metallurgical process that has the potential to commercially extract lithium and by-products from lithium containing micas such as lepidolite and zinnwaldite. However, the new process is inherently unique with respect to L-Max<sup>®</sup> due to the differences in the feed composition and subsequent processing steps to separate lithium from the impurities.

Both the new amblygonite treatment process, and the L-Max<sup>®</sup> process, use mainstream industrial chemicals namely, sulfuric acid and lime/limestone. These are cheap and readily available tonnage chemicals that are the cornerstone of large-scale chemical processing. L-Max<sup>®</sup> does not use expensive, specialised reagents that may be difficult to obtain, expensive to procure, or complex in operation. The use of cheap, readily available reagents does not necessitate their recovery or recycling, thus further enhancing the economics of the process.

Lepidico Chairman Gary Johnson said, “This new process increases the spectrum of lithium containing materials from which Lepidico could one day commercially extract lithium chemicals for sale to the growing battery industry. In combination with L-Max<sup>®</sup>, the two processes would be complementary as it is not uncommon for both lithium bearing micas and lithium-phosphate minerals to co-exist at the same location. The simple and cost effective reagent regime for both the processes makes scale-up of both to large scale relatively straightforward.”

The submission of the provisional patent application and associated testwork provides Platypus and Lepidico with an increased suite of lithium bearing minerals to search for as part of their combined exploration and acquisition initiatives. This new process and the L-Max<sup>®</sup> process hold the key to potentially unlocking the inherent value in these unconventional sources of lithium.

### **L-Max<sup>®</sup> Update**

The Australian Provisional Patent Application Number 2014904050, titled Recovery Process, (the process trademarked as L-Max<sup>®</sup>), has progressed to the next phase. An International application under the Patent Cooperation Treaty (PCT) has been filed and allotted the number PCT/AU2015/000608. The application claims priority from Australian Provisional Patent 2014904050.

Lithium carbonate has been produced using the L-Max<sup>®</sup> process in a continuous pilot scale testing facility, which has resulted from over two years of process development. This leaves L-Max<sup>®</sup> poised to take advantage of current lithium markets and well positioned at the forefront of new technology required to treat unconventional lithium sources.

### **About Lepidico Ltd**

Lepidico is a lithium-focussed company with a growing exploration portfolio that includes the Euriovie project near Broken Hill in NSW, the Lemare project in the James Bay region of Quebec, Canada, and a memorandum of understanding on a Brazil-wide strategic joint venture with Crusader Resources Limited (ASX:CAS) to exploit lithium opportunities, including Crusader’s Manga prospect.

Lepidico also owns the “L-Max<sup>®</sup>” technology, a metallurgical process that has the potential to commercially extract lithium and other by-products from unconventional lithium sources, such as Li-mica minerals, at a competitive cost. Lepidico’s largest shareholders are Strategic Metallurgy Pty Ltd and Potash West Ltd (ASX:PWN).

### **About Platypus Minerals Ltd**

Platypus Minerals Ltd (ASX:PLP) is a Perth-based company that is dedicated to the exploration and development of mineral projects prospective for copper, gold and other strategic metals in both Australia and overseas in stable jurisdictions. The focus is on projects that exhibit proven mineralisation, are under-explored, and have the potential to generate large economic deposits and deliver returns to shareholders.

In late 2015 Platypus announced its intention to focus on its current assets in the Pearl Bar-Gobbos area whilst also initiating an entry into the lithium sector, and since then has been seeking and screening potential lithium opportunities globally, culminating in an agreement of terms on 15 March 2016 to acquire 100% of Lepidico.

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