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ASX/Media Announcement

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Pre-Feasibility Study Commences for Phase 1 L-Max® Plant

- **PFS to evaluate a Phase 1 L-Max® plant of minimum commercial scale to demonstrate the economic and technical viability of L-Max®**
- **2,000-3,000tpa lithium carbonate production targeted for 2019**
- **PFS to include plant design criteria, optimal plant location, by-product markets, feedstock options, cost estimates and economic analysis**

Platypus Minerals Ltd (**ASX:PLP**)("**Platypus**" or "**Company**") is pleased to announce that its wholly owned subsidiary, Lepidico Ltd (**"Lepidico"**), has commenced a Pre-Feasibility Study (**"PFS"**) for a commercial L-Max® plant (**"Phase 1 L-Max® Plant"**) of minimum scale to provide an attractive economic return. The PFS design criteria is being led by metallurgical consultants Strategic Metallurgy, who pioneered the L-Max® technology. A PFS project manager is expected to be appointed imminently.

The PFS is a key step on the pathway to commercialising the L-Max® technology, which has largely transitioned from research to development status, although research activities remain ongoing to evaluate by-product opportunities. L-Max® development activities are centred on the PFS, which will include plant design criteria, optimal plant location, investigation of by-product markets, assessment of feedstock options, logistics, cost estimates, financial analysis and a defined scope for feasibility study evaluation. The PFS is expected to be completed around calendar 2016 year-end. Assuming a successful outcome to the PFS it is envisaged that Phase 1 Project activities will immediately transition to a feasibility study, which it is estimated will take 12 months to complete.

Lithium rich micas, such as lepidolite and zinnwaldite, have historically been overlooked as a source of lithium as no registered commercial process has existed to treat these ores. As a result, lepidolite and zinnwaldite occurrences are underexplored. The objective of L-Max® is to establish an economically viable process to unlock a new hard-rock source of lithium, thereby creating significant opportunity for the exploration and development of lithium mica occurrences.

Phase 1 L-Max® Plant

The Phase 1 L-Max® Plant will be designed at sufficient scale to be economically viable at a lithium carbonate price of US$8,000/t and to prove that L-Max® is technically robust under commercial operating conditions. Scoping level work undertaken to develop the broad parameters for the PFS has set the following indicative parameters for the Phase 1 L-Max® plant:

Parameter	Detail
Throughput Rate	2-4tph (17.5-35.0ktpa) mica concentrate
Mica Concentrate Feed Grade	1.2-1.5% Li (2.58-3.52% Li_2O)
Lithium Carbonate Production	2,000-3,000tpa
Potential By-products	Potassium sulphate fertiliser Sodium silicate Caesium/Rubidium formate

Plant Location

A key element of the PFS is the evaluation of potential Phase 1 L-Max® Plant locations. Given that the amount of lithium-mica concentrate required to operate the plant is relatively low, trade off studies will be undertaken that consider the freight and logistics costs associated with both concentrate and by-products to maximise free cash-flow and ensure an optimal economic outcome. The PFS logistics and plant location studies will consider:

- Proximity to infrastructure and availability of power and water;
- Availability of sulphuric acid and other key reagents;
- Freight and logistics requirements for lithium-mica concentrate;
- Waste management requirements and water balance;
- Permitting time frames and risk management; and
- Proximity to customers, including potential by-product off-take parties.

By-Products

Previously, Lepidico has successfully produced lithium carbonate of >99.5% purity from a continuous L-Max® mini plant trial. Subsequent to this, Lepidico has also produced a number of by-products from the remnant leach liquor as outlined below.

By-Product	Indicative Price	Use
Potassium Sulphate Fertiliser	US$500/t	Preferred fertiliser when soils are saline or sodic or where irrigation water may have high levels of chloride.
Sodium Silicate	US$200/t	Also known as waterglass – widespread industrial use including adhesives, drilling fluids, concrete treatment and water treatment.
Caesium / Rubidium Formate	US$25,000/t	Drilling completion fluid used in the oil & gas industry.

The ability to produce and sell any of these by-products will even further improve the economics and industry cost competitiveness of L-Max®. The PFS will investigate:

- Existing markets including pricing, demand/supply, competitors and customers; and
- Required product specifications and ability for an L-Max® Phase 1 Plant to meet these specifications.

Figure 1. *Lithium carbonate (centre) and other by-products produced from lepidolite concentrate (far left).*

Feedstock Options
Lepidico has already identified a number of feedstock options to provide concentrate for the Phase 1 L-Max® Plant. These include existing mining operations, new deposits, tailings and waste dumps. The PFS will consider the suitability of these options.

Pathway to 2019 Production
Below is an indicative timetable of key milestones for Lepidico in relation to the Phase 1 L-Max® Plant. The main uncertainty and therefore risk in achieving this timetable is associated with permitting requirements in the favoured Phase 1 Plant location.

Approximate Completion Date	Milestone
End Q4 2016	Completion of PFS
Q4 2016	Secure feedstock supply for Phase 1 L-Max® Plant
Q4 2017	Completion of Definitive feasibility study
2018/2019	Permitting, Project implementation and construction
2019	Production

Further Information
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About Platypus Minerals Ltd

Platypus Minerals Ltd is an ASX-listed Company focused on exploration, development and production of lithium. Its current exploration assets include options over the Lemare and the Royal projects, both in Quebec, Canada where drilling activities have commenced at Lemare; ownership of the Euriowie project near Broken Hill in New South Wales; joint venture agreements with ASX-listed Crusader Resources (ASX:CAS) in Brazil and Latin Resources (ASX:LRS) in Peru and Argentina to jointly evaluate lithium opportunities. Through its wholly-owned subsidiary Lepidico Ltd, Platypus also owns the technology to a metallurgical process that has successfully produced lithium carbonate from non-conventional sources, specifically lithium-rich mica minerals including lepidolite and zinnwaldite. The L-Max® process has the potential to disrupt the lithium market by providing additional lithium supply from alternative sources.