

**Annual General Meeting** 

25 November 2016

#### **Creative Resources Leadership**



# Overview

- Lepidico is a well funded ASX-listed lithium exploration and development company with an experienced management team
- Lepidico's strategic objective is to become a sustainable lithium producer with a portfolio of assets and pipeline of projects
- Lepidico's exploration initiatives largely focus on hard rock minerals that prior to L-Max<sup>®</sup> were not traditional sources of lithium
- Lepidico is differentiated by having successfully produced lithium carbonate and a suite of by-products from non-traditional hard rock lithium bearing minerals using its patented L-Max<sup>®</sup> process technology
- Lepidico provides exposure to a portfolio of lithium exploration assets through its wholly owned properties, JV's and IP licence agreements in Asia, Australia, Canada, Europe and South America
- At 30 September 2016 Lepidico had A\$3.0M in cash and no debt







### New sources of lithium

- Micas and phosphates have been largely overlooked as a source of lithium as no commercially viable process was available to extract the lithium and process through to lithium chemicals prior to L-Max<sup>®</sup>
- Lithium bearing micas Lepidolite and Zinnwaldite contain up to 5% Li<sub>2</sub>O and like spodumene, are hosted in pegmatites
- Lepidolite and Zinnwaldite often occur with tin and tantalum bearing minerals as well as with spodumene
- Lithium phosphates such as Amblygonite contain up to 10% Li<sub>2</sub>O



Lepidolite (light purple) K(Li,Al,Rb)<sub>3</sub>(Al,Si)<sub>4</sub>O<sub>10</sub>(F,OH)<sub>2</sub>

epidico



Zinnwaldite (dark grey) KLiFeAl(AlSi<sub>3</sub>)O<sub>10</sub>(OH,F)<sub>2</sub>



Ambygonite/Montebrasite (Li,Na)AIPO<sub>4</sub>(F,OH)

#### The L-Max<sup>®</sup> process – demonstrable success



# L-Max<sup>®</sup> - 100% owned by Lepidico

epidico



# The L-Max<sup>®</sup> advantage

- L-Max<sup>®</sup> leaches lithium from certain micas and phosphates without roasting – conventional processing of spodumene requires capital and energy intensive roasters to extract lithium, often with no by-products
- L-Max<sup>®</sup> reagents and operation have straightforward health, safety and environmental characteristics
- ✓ L-Max<sup>®</sup> utilises, common use, inexpensive reagents

DIDICO

- L-Max<sup>®</sup> utilises conventional equipment and straightforward processes a series of agitated tanks, crystallisers and filters
- ✓ L-Max<sup>®</sup> is energy efficient and at full commercial scale may be selfsufficient for power generated from an integrated acid plant
- ✓ By-products include potassium sulphate fertiliser (SOP), sodium silicate, gypsum and potentially caesium and rubidium formates
- ✓ Fast leach kinetics and moderate process cost estimates mean low grade feed sources may be treated (eg tailings, waste dumps)



Lithium leach curves under L-Max®

# L-Max<sup>®</sup> - achievements and future milestones

- ✓ L-Max<sup>®</sup> provisional patent registered October 2014, international patent application lodged October 2015
- ✓ Additional patents submitted relating to processing of lithium-phosphate minerals (eg. amblygonite) and production of Caesium-Rubidium formate from micas
- ✓ Successful operation of a continuously run mini-plant (140 Hours) treating a lepidolite concentrate to produce >99.5% purity lithium carbonate, achieving recoveries of >94% from the leach liquor
- $\checkmark$  Subsequent production of by-products from mini-plant leach liquor
- $\checkmark$  Ongoing refinement of process to improve recoveries and efficiency of flowsheet
- What's next?

pidico

- Pre-feasibility study for 'Phase 1 L-Max<sup>®</sup> Commercial Plant' Q4 2016
- Secure feedstock supply sources for Phase 1 Plant Q4 2016
- Feasibility study for Phase 1 Plant 2H 2017
- Permitting, implementation and construction of Phase 1 Plant 2018'19
- Lithium Production 2019
- Exploration and acquisition of Li-rich mica deposits ongoing



Lepidico L-Max® mini-plant

#### **Business model**





### Asset overview – lithium projects





### Overview

Capital Structure (ASX:PLP)

Description	Amount
Share Price	1.5c
Shares O/S	1.75B
Market Cap	\$26.3M
Cash (30 September 2016)	\$3.0M
Top 20 Shareholders	51.8%

**Directors and Senior Management** 

Name	Title
Gary Johnson	Non-Executive Chairman
Joe Walsh	Managing Director
Tom Dukovcic	Executive Director Exploration
Mark Rodda	Non-Executive Director
Shontel Norgate	Chief Financial Officer
Gavin Becker	GM Business Development

#### **Share Price History**





#### **Directors and Senior Management Team**



Mr. Gary Johnson MAUSIMM, MAICD Chairman

Gary has over 30 years experience in the mining industry as a metallurgist, manager, owner, director and managing director possessing broad technical and practical experience of the workings and strategies required by successful mining companies.

epidico



Mr. Joe Walsh BEng, MSc Managing Director

Joe is a resources industry executive and mining engineer with over 25 years experience working for mining companies and investment banks. Joe also has extensive equity market experience and has been involved with the technical and economic evaluation of many mining assets and companies around the world.



Mr. Tom Dukovcic BSc (Hons), MAIG, MAICD Director Exploration

Tom is a geologist with over 25 years experience in exploration and development. He has worked in diverse regions throughout Australia, including the Yilgarn, Kimberley, central Australia and northeast Queensland. Tom is a Member of the Australian Institute of Geoscientists and a Member of the Australian Institute of Company Directors. Mark is a lawyer with 20 years experience in the resources sector including the management of local and international mergers and acquisitions, divestments, exploration and project joint ventures, strategic alliances, corporate and project financing transactions and corporate restructuring initiatives.

Mr. Mark Rodda

BA, LLB

Non-Executive Director Chief Financial Officer

Shontel is a finance executive with over 20 years commercial experience in the resources industry including debt and equity finance, financial reporting, project management, corporate governance, commercial negotiations and business analysis

Ms. Shontel Norgate

**B**.Bus



Mr. Gavin Becker ARSM, BSc (Eng), MBA, FAusIMM, CP(Met), GAICD Business Development

Gavin is a metallurgist with 40 years industry experience. During that time he has worked in senior operational, R&D, feasibility study and consulting roles on lead/zinc, gold, uranium, copper and nickel/cobalt/scandium mines and/or projects.

11

# Investor highlights

Competitive Advantage		<ul> <li>A far less competitive landscape exists for Li-mica and Li-phosphate exploration properties</li> <li>L-Max<sup>®</sup> is expected to have relatively competitive capital intensity</li> <li>By-product potential means L-Max<sup>®</sup> should have a competitive operating cost structure</li> </ul>
Feed Sources		<ul> <li>Lepidico is building a portfolio of quality lithium assets around the world</li> <li>Inbound enquiries reveal explorers that discover Li-rich micas are drawn to L-Max<sup>®</sup></li> <li>Tailings and waste dumps rich in Li-mica offer near term production opportunities</li> </ul>
L-Max®		<ul> <li>Employs conventional processes using industry standard equipment, operated at ambient pressure and moderate temperature</li> <li>Employs common use, inexpensive regents with straightforward health, safety and environmental characteristics</li> <li>Has a novel flowsheet that is the subject of an international patent application</li> </ul>
Pathway to Production		<ul> <li>PFS on Phase I commercial plant is fully funded and scheduled for completion March 2017</li> <li>PFS indicates 9 months to complete a feasibility study and a further 18 months for project implementation</li> <li>First production projected for 2019</li> </ul>
Proven Team		<ul> <li>Experienced appropriately qualified management team</li> <li>A strong industry track record that includes company transforming project and technology development</li> <li>Significant milestones accomplished in a short period of time – Lepidico is just getting started</li> </ul>
Lepidico	)	

#### Important notice

This presentation has been prepared by the management of Platypus Minerals Ltd (the 'Company') for the benefit of brokers, analysts and investors and not as specific advice to any particular party or person.

The information is based on publicly available information, internally developed data and other external sources. No independent verification of those sources has been undertaken and where any opinion is expressed in this document it is based on the assumptions and limitations mentioned herein and is an expression of present opinion only. No warranties or representations can be made as to the origin, validity, accuracy, completeness, currency or reliability of the information. The Company disclaims and excludes all liability (to the extent permitted by law), for losses, claims, damages, demands, costs and expenses of whatever nature arising in any way out of or in connection with the information, its accuracy, completeness or by reason of reliance by any person on any of it.

Where the Company expresses or implies an expectation or belief as to the success of future exploration and the economic viability of future projects, such expectation or belief is based on management's current predictions, assumptions and projections. However, such forecasts are subject to risks, uncertainties and other factors which could cause actual results to differ materially from future results expressed, projected or implied by such forecasts. Such risks include, but are not limited to, exploration success, commodity price volatility, future changes to mineral resource estimates, changes to assumptions for capital and operating costs as well as political and operational risks and governmental regulation outcomes. For more detail of risks and other factors, refer to the Company's other Australian Securities Exchange announcements and filings. The Company does not have any obligation to advise any person if it becomes aware of any inaccuracy in, or omission from, any forecast or to update such forecast.

#### **Competent Person Statement**

The information in this report that relates to Exploration Results is based on information compiled by Mr Tom Dukovcic, who is an employee of the Company and a member of the Australian Institute of Geoscientists and who has sufficient experience relevant to the styles of mineralisation and the types of deposit under consideration, and to the activity that has been undertaken, to qualify as a Competent Person as defined in the 2012 edition of the "Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves." Mr Dukovcic consents to the inclusion in this report of information compiled by him in the form and context in which it appears.







**Creative Resources Leadership** 

Contact us: info@lepidico.com