



## JUNE 2014 QUARTERLY ACTIVITIES REPORT

31 July 2014

### JDCPHOSPHATE, INC. (JDCP)

*(Minemakers Ltd approx. 8.0% equity)*

- JDCP has reported that it can derive high phosphorus yield from low quality phosphate and efficiently convert the phosphorus into phosphoric acid in a standard hydrator. Critical parameters to the validation of the process are now established
- JDCP is now focusing on engineering and optimising its process towards higher production scaling
- JDCP is reshaping its work force to efficiently drive commercial optimisation and design. JDCP will also be hiring personnel and other resources that will allow JDC to aggressively move forward with its commercialisation efforts
- Minemakers and JDCP have executed an amended and restated license agreement. Minemakers is the only license holder of the IHP technology and has exclusive rights to deploy and operate the technology within Australia for a period of 10 years post commercial validation, in a capped capital based initial fee plus modest production royalty regime

### CORPORATE

- Cash balance at 30 June 2014 was A\$22.1m
- During the quarter Minemakers sold its equity interest in Australia Minerals & Mining Group Ltd for \$400,000
- In light of the Company's positive cash balance and the delayed commercial validation of IHP, nearer term opportunities continue to be reviewed
- Cost base further reduced and cash burn minimised whilst IHP validation work continues

Cliff Lawrenson, Managing Director of Minemakers commented "We are pleased that JDCP has demonstrated that the IHP technology can produce phosphoric acid in a standard hydrator and that critical parameters to the validation of the process are now established. We support JDCP's current decision to focus on engineering and optimising toward higher production scaling and the reshaping of its workforce to efficiently drive commercial optimisation and design. As a consequence of these actions, we are of the view that the commercial application of the IHP process at Wonarah is likely to be pushed out further in time than we had anticipated. We will continue to work closely with JDCP to progress IHP and we will keep the market informed of further developments.

Separately, and especially in the light of the extended timing of the IHP process, the Company is actively exploring shorter term opportunities within the resources sector that are capable of providing nearer term value accretion to Minemakers. We will keep the market informed if and when an opportunity presents."

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## 1. JDCPHOSPHATE, INC.

### 1.1 FLORIDA DEMONSTRATION PLANT PROGRESS

Minemakers Limited (Minemakers or the Company) owns approximately 8.0% of JDCP and has an exclusive licence to utilise the IHP technology in Australia. JDCP successfully concluded the funding for its demonstration plant in Fort Meade, Florida in August 2012. Construction of the demonstration plant commenced in March 2012 and was substantially completed by September 2013.

The plant is a 1:18 scale of an anticipated full-scale plant, but is nonetheless expected to operate as a commercial plant and over time generate a positive cash flow.

Tip Fowler, CEO of JDCP reported on 30 July, 2014 as follows:

*"In the last quarterly report JDCP reported that the demonstration plant had achieved high phosphorus yield in the kiln and that the kiln had operated under good temperature control and without melting or clinker formation during a number of hot operating intervals. These operating intervals were limited in duration because of dust formation.*

*During the second quarter JDCP developed a proprietary method for increasing the strength of feed agglomerates and reducing the dust formation by an order of magnitude. JDCP is now shifting its focus to engineering and optimizing the process improvements learned in its demonstration plant operations and has restructured its workforce to efficiently achieve that end. Further engineering and lab scale test work will be conducted in the third quarter to translate the dust reduction methods developed into process improvements usable at the demonstration and commercial plant scale.*

*JDCP plans to install the equipment necessary to implement the techniques developed in the demonstration plant within the next six months. JDCP will also be hiring key personnel and other resources that will allow JDCP to aggressively move forward with its commercialization efforts.*

*JDCP is pleased to add Dr. Jim Trainham to its team as Chief Technology Officer. Dr. Trainham will work closely with JDCP's founder Dr. Joseph Megy and the entire JDCP team in advancing and securing the IHP technology that is the foundation of the company. Dr. Trainham joins JDCP with a broad background in technology development having made significant contributions to the growth of the DuPont Company over his 25-year career there. Jim's career achievements while at DuPont included the granting of 21 patents. He later served as Vice President, Science & Technology for PPG Industries, Inc. where he had global responsibilities for product and process innovation, technology, planning and intellectual property strategy with 3,000 people in seven R & D laboratories and 75 technology development centers. Most recently Jim has served as Vice President and Distinguished Fellow at the Research Triangle Institute (RTI International) and Adjunct Professor of Chemical and Biomolecular Engineering at NC State University. Jim's awards are many, including his election to the National Academy of Engineering in 1997 and his selection by the American Institute of Chemical Engineers as "one of the 100 Chemical Engineers of the Modern Era" in 2008."*

Due to Minemakers being an investor in JDCP, rather than the operator of the IHP demonstration plant, Minemakers is largely reliant upon JDCP management reporting on progress, validation, operations timing and performance. Consequently, Minemakers is unable to predict with any certainty when the IHP demonstration plant will attain sustained production of superphosphoric acid.

### 1.2 AMENDED AND RESTATED LICENSE AGREEMENT

Minemakers and JDCP have executed an amended and restated license agreement. Minemakers is the only license holder of the IHP technology and has exclusive rights to deploy and operate the technology within Australia for a period of 10 years post commercial validation, in a capped capital based initial fee plus modest production royalty regime.

## 2. WONARAH PHOSPHATE PROJECT, NORTHERN TERRITORY

### 2.1 INTRODUCTION

Minemakers 100% owned Wonarah phosphate project (Wonarah) hosts one of the largest contained  $P_2O_5$  resources of any known phosphate deposit in Australia. To date, only a small part of the area of phosphate mineralisation, based on wide-spaced drilling, has been sufficiently drill tested to enable a Mineral Resource to be estimated in accordance with JORC requirements. Wonarah has a relatively low minor element ratio (MER) and higher phosphate grade than other published JORC 2012 resources in Australia. The lower MER positively impacts processing costs and suitability for phosphoric acid production.

Minemakers aims to take advantage of Australia's political stability and Wonarah's favourable installed and available infrastructure to develop a major centre for the production of superphosphoric acid (SPA). Wonarah's advantages, apart from its size and grade, include:

- Situated in a stable political jurisdiction
- Northern Territory Government support and designation as a Major Project
- A life of mine Mining Agreement in place with Traditional Owners which covers mining, processing and fertiliser production
- Proximity to a regional population centre at Tennant Creek
- Access to an established bulk commodity port at Darwin
- Bitumen highway access
- Proximity to a standard gauge railway with spare freight capacity
- Proximity to a natural gas supply, the pipeline for which closely follows the railway line
- Proximity to ample groundwater
- Silica available on site and petroleum coke readily available regionally
- Growing importance of technical grade phosphoric acid and fluid fertilisers both globally and locally

### 2.2 WONARAH FEASIBILITY STUDY

As previously detailed, the company embarked on a feasibility study in 2012, with the intention of conducting a detailed investigation for the development of Wonarah based on the patented JDCP IHP technology.

Given the challenges experienced in commissioning the JDCP demonstration plant at Fort Meade in Florida, study work has been largely suspended in order to limit expenditure in this area until the technology is commercially validated.

Work on the feasibility study will resume following successful commercial validation of the IHP technology.

#### 2.2.1 Improved Hard Process (IHP)

Minemakers is focused on the downstream production of high-value SPA at Wonarah utilising the IHP technology. In summary, IHP entails utilising conventionally mined and simply beneficiated phosphate ore as feed for:

- Grinding with green petroleum coke and silica
- Pelletisation
- Roasting in a ported rotary kiln
- Delivery of a phosphorus rich gas

- Hydration process
- Superphosphoric acid production at a contained 68-70% P<sub>2</sub>O<sub>5</sub> (a high strength product with thermal acid properties with both agricultural and industrial applications)
- By-product is low environmental impact and usable inert spent pellets (J-Rox). J-Rox can be used as an aggregate, as backfill for mine pits and as fill material for infrastructure works needed as part of the rehabilitation process

### 2.2.2 Strategic Partnership Process

Minemakers continues to engage with potential partners for Wonarah, seeking an appropriate value sharing model. The key attributes for a potential partner remain the ability to add technical input, support in financing and provide off-take for product.

Minemakers will ensure that its choice of strategic partner and any ensuing business combination is value enhancing and sustainable for the Company and its shareholders.

### 2.3 TENEMENT MANAGEMENT

Minemakers commenced acquisition of EL23767 in early 2013 after determining from drilling programs carried out in 2010 and 2012 that significant phosphate mineralisation was likely to extend from Minemakers’ tenements EL29840 and EL26407 onto the adjoining tenement to the west. Transfer of the tenement from Minerals Australia Pty Ltd to Minemakers was completed during the quarter. Figure 1 shows the location of this new tenement:

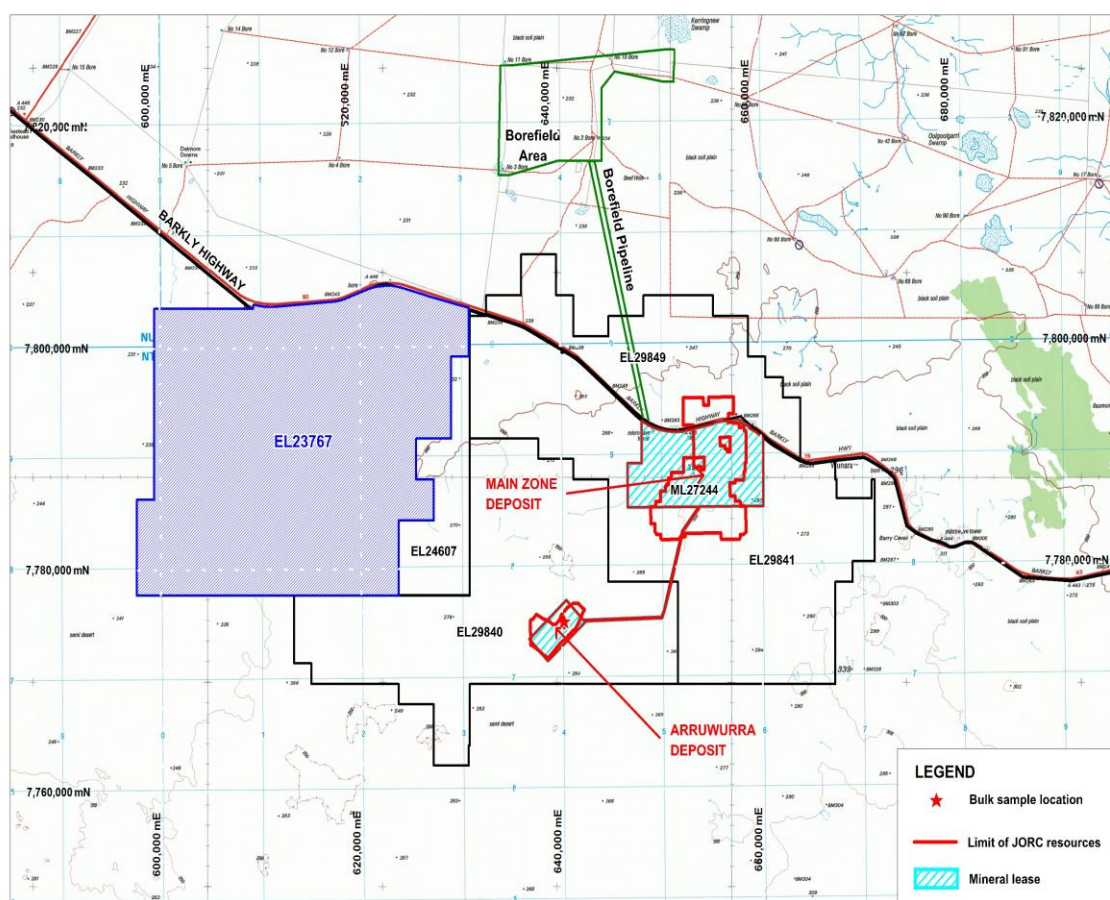


Figure 1 Location of Tenement EL23767

### 3. BUSINESS DEVELOPMENT AND DUE DILIGENCE ACTIVITIES

As previously reported, as a consequence of the Company's cash balance and the continued delay in validation of the enabling IHP technology, Minemakers has continued to review a number of nearer term opportunities both within and outside of the phosphate sector.

During the quarter the Company undertook due diligence activities, including site visits, on several potential opportunities. These include an early stage phosphate opportunity, several base and precious metal opportunities and a bulk commodity opportunity. The company is outsourcing its geological capability in the case of the phosphate opportunity as part of the due diligence process.

The Company will keep the market informed should any of these opportunities progress materially and warrant interim action prior to the development of the Wonarah project.

### 4. CORPORATE AND INVESTMENTS

#### 4.1 AUSTRALIA MINERALS & MINING GROUP LIMITED (ASX:AKA)

During the quarter Minemakers sold its 4.64% equity interest in Australia Minerals & Mining Group Ltd. The total cash received was \$400,000.

#### 4.2 NIUMINCO GROUP (ASX:NIU)

Minemakers holds a 2.53% equity interest in Niuminco Group.

#### 4.3 JDCPHOSPHATE, INC.

Minemakers holds approximately 8.0% equity interest in JDCPhosphate, Inc.

#### 4.4 MATAYO TRADING 7 (PTY) LTD

Minemakers holds a historic 74% equity interest in Matayo Trading 7 (Pty) Ltd, the owner of the Matayo diamond project located in South Africa.

#### 4.5 CASH POSITION

At the end of the June 2014 Quarter, Minemakers had cash of \$22.1 million.

Breakdown of cash spend for the quarter:

AKA sale proceeds	\$0.40m
Tenement cost and maintenance	(\$0.13m)
Wonarah Feasibility Study and JDCP	(\$0.37m)
Net Admin and Corporate	(\$0.43m)

The Company has continued to reduce costs wherever possible as is reflected in the attached Quarterly Cashflow Report (Appendix 5B).

Cliff Lawrenson  
Managing Director

### **Qualified Persons' Statement**

*The Qualified Person in relation to this document is Russell Fulton, who is the Geological Manager of the Company and a Member of the Australian Institute of Geoscientists, and who has reviewed and approved the scientific and technical information in this document. Mr Fulton has sufficient experience deemed relevant to the style of mineralisation and type of deposit under consideration and to the activity which he is undertaking 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' and a 'Qualified Person' as defined in National Instrument 43-101 – Standards of Disclosure for Mineral Projects. Mr Fulton consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.*

*For further information on Wonarah, please refer to Minemakers' NI43-101 compliant technical report entitled "Technical Report Mineral Resource Estimation for the Wonarah Phosphate Project, Northern Territory, Australia", dated March 2013 and available on SEDAR at [www.sedar.com](http://www.sedar.com) and to Minemakers' market announcement dated 30/04/2014.*

### **Cautionary Statement Regarding Forward-Looking Information**

*All statements, trend analysis and other information contained in this document relative to markets for Minemakers' trends in resources, recoveries, production and anticipated expense levels, as well as other statements about anticipated future events or results constitute forward-looking statements. Forward-looking statements are often, but not always, identified by the use of words such as "seek", "anticipate", "believe", "plan", "estimate", "expect" and "intend" and statements that an event or result "may", "will", "should", "could" or "might" occur or be achieved and other similar expressions. Forward-looking statements are subject to business and economic risks and uncertainties and other factors that could cause actual results of operations to differ materially from those contained in the forward-looking statements. Forward-looking statements are based on estimates and opinions of management at the date the statements are made. Minemakers does not undertake any obligation to update forward-looking statements even if circumstances or management's estimates or opinions should change. Investors should not place undue reliance on forward-looking statements.*

**Schedule of Minemakers Limited tenements as at 30 June 2014**

<b>Location</b>	<b>Tenement Name</b>	<b>Tenement</b>	<b>Nature of Company's Interest %</b>
Northern Territory	Wakaya	EL24607	100
Northern Territory	Arruwurra	EL29840	100
Northern Territory	Wonarah	EL29841	100
Northern Territory	Dalmore	EL29849	100
Northern Territory	West Wonarah	EL23767	100
Northern Territory	Wonarah Mineral Lease	ML27244	100
Northern Territory	Dorcherty Island	EL24728	Application
Northern Territory	Tree Point	EL25555	Application
Northern Territory	Wadeye North	EL29050	Application
South Africa	Matayo (formerly Savanna)	ML25/2003	74