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ASX CODE: RWD

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ENGINEERING SCOPING STUDY UPDATE

Highlights

- Preliminary laboratory work program recently completed has confirmed the efficacy of Reward's new processing technology for recovery of Potassium Sulphate ("SOP") from seawater and other high sulphate brines
- A follow-up program has commenced, aimed to optimise reaction times of specific technical stages in order to reliably produce high-grade SOP (>52% K₂O)
- Ongoing testwork supports the robustness and reproducibility of the new process, providing critical data for Reward's Australian Patent Application and for inclusion in the current engineering scoping study

PERTH, Western Australia (March 16, 2023) - Reward Minerals Limited (ASX: RWD) ("Reward" or the "Company") is pleased to provide an Engineering Scoping Study ("ESS") progress update.

Recent in-house laboratory evaporation, chemical analyses and Syngenite [K₂Ca(SO₄)₂.H₂O)] recovery work programs to support the ESS for SOP recovery using Reward's new brine processing technology ("Reward Process") continue to return encouraging results.

The Company submitted an Australian Provisional Patent Application (Application Number - 2022902277) for the Reward Process on 11 August 2022 and intends to submit additional technical information prior to 11 August 2023 to complete the International application¹.

Recent testwork programs provided additional data for the first order SysCAD, Flowsheet and Mass Balance Model completed in the December Quarter 2022 by an independent global engineering firm².

Figure 1 – Syngenite precipitation, part of recent in-house laboratory testing to confirm and optimise specific steps of the Reward Process.



¹ Refer ASX announcement dated 23 August 2022.

² Refer ASX announcement dated 31 January 2023 (Specific results, details and participants in the laboratory work programs for the ESS have been omitted in order to protect Reward's Intellectual Property).

Initial testwork involved evaporation of seawater derived brine (“bitterns”) emanating from a solar salt operation in Western Australia (11.5g/l K, 350g/l TDS, 1.26 SG)¹ to a Magnesium (“Mg”) content of ca. 110g/l followed by draining of the residual high Mg supernatant liquor.

The remaining crystallised salts were redissolved in water to provide a new process brine (ca. 50g/l K) suitable for reacting with Gypsum [$\text{CaSO}_4 \cdot 2\text{H}_2\text{O}$] to form Syngenite [$\text{K}_2\text{Ca}(\text{SO}_4)_2 \cdot \text{H}_2\text{O}$] (Figure 1). The reaction at ambient temperature provided +50% first pass extraction of K to the solid Syngenite salt. In operations the residual Syngenite Reactor liquor will be recycled to the brine evaporation ponds for further SOP recovery.

Testwork conducted on Reward’s Kumpupintil Lake (“KP Lake”) Resource² brine indicated that following evaporation of Resource brine to K saturation point of (ca. 45g/l K) treatment with Gypsum via the Reward Process method provided a first pass K recovery to Syngenite product of around 40%.

Importantly, the 40% recovery figure for brines of composition similar to that of the KP Lake Resource brine, is possible without redissolution of precrystallised salts.

The next part of the program involved treatment of Syngenite with water to produce a SOP solution with very low contaminants (Na, Mg, Cl) plus high purity Gypsum which is recycled to the Syngenite reaction step.

The SOP solution is evaporated to provide high purity SOP crystal product (+52% K_2O) by conventional technology.

The key benefits of the Reward Process compared to commonly used SOP brine recovery processes are;

- it does not require mechanical harvesting of mixed potash salts;
- it does not require the conventional Schoenite or Kainite flotation steps;
- it may significantly reduce capital and operating costs per unit of SOP.

The follow-up programs will be along similar lines but use slightly different Reward Process thresholds to optimise the final flowsheet. In addition upcoming testwork will include final crystallisation of SOP from Syngenite leach liquor to confirm the SOP quality parameters. Once this program is completed the ESS battery limits will be finalised so it can be advanced in the June Quarter 2023.

Next Steps

Over the next two quarters the Company will focus of the following key activities;

- Advancement of the Reward Process, international patent finalisation and licensing to third parties
- Completion of an ESS for the KP Lake Project and typical seawater derived brines utilising the Reward Process
- Engagement with chemical, seawater solar salt, fertilizer and seawater desalination companies worldwide to discuss the application of its technology within proposed SOP developments and production joint ventures
- Receipt of results from Fortescue’s RC drilling program at the McKay Range Joint Venture.

Authorised by the Board of Reward.

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¹ g/l = grams/litre, K = Potassium, Na = Sodium, Cl = Chloride, TDS = Total Dissolved Salts, SG = Specific Gravity.

² See ASX announcement released 7 February 2017, titled “Lake Disappointment (LD) Project Confirmed as a Globally Significant Tier 1 Sulphate of Potash Deposit”.

About Reward

Reward is an ASX-listed advanced-stage sulphate of potash exploration and development company. Reward's flagship is its 100%-owned Kumpupintil Lake Potash Project, located east of Newman in north-western Western Australia. The Project hosts Australia's largest high-grade brine SOP deposit in a region with the highest evaporation rate.

Reward completed a detailed, conservative Pre-Feasibility Study which was updated with improved logistics in July 2018. An Indigenous Land Use Agreement ("ILUA") is in place with JYAC, the prescribed body corporate for Martu, the traditional owners of the land upon which Kumpupintil Lake is situated.

Key environmental approvals are in place and development can commence on completion of final feasibility studies and secondary regulatory approvals. The Company is currently progressing a Cultural Heritage Management Plan required by the ILUA to manage considerations related to cultural landscape characteristics in the project area.

Forward-Looking Statements

This document may contain certain "forward-looking statements". When used in this document, the words such as "could", "plan", "estimate", "expect", "intend", "may", "potential", "should", and similar expressions are forward-looking statements. Although Reward believes that the expectations reflected in these forward-looking statements are reasonable, such statements involve risks and uncertainties, and no assurance can be given that actual results will be consistent with these forward-looking statements.

For a more detailed discussion of such risks and uncertainties, see Reward's other ASX Releases, Presentations and Annual Reports. Readers should not place undue reliance on forward-looking statements. Reward does not undertake any obligation to release publicly any revisions to any forward-looking statement to reflect events or circumstances after the date of this ASX Release, or to reflect the occurrence of unanticipated events, except as may be required under applicable securities laws.

Metallurgical Results – Competent Persons Statement

The information in this report that relates to Brine metallurgical testwork and Analyses is based on information compiled by Mr Warren Hinchliffe who is a Member of The Australian Institute of Mining and Metallurgy. Mr Hinchliffe is a consultant to Reward Minerals Ltd. Mr Hinchliffe has sufficient experience that is relevant to the style of mineralisation and type of deposit under consideration and to the activity being 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 Hinchliffe consents to the inclusion in the report of the matters based on the information in the form and context in which it appears.

About the FJV

The FJV tenements include Holocene's E45/3285 and E45/4090 located in the northern part of Reward's Kumpupintil Lake Potash Project and Reward retains 100% of the potash rights including on FMG tenements E45/5360 and E45/5361.

FMG is the operator of the FJV and has the right to earn an 80% interest in E45/3285 and E45/4090 by spending \$2 million within four years on exploration. If the \$2 million expenditure threshold is met, a Joint Venture will be established after which both parties will either contribute to expenditure in accordance with their respective FJV interests or dilute. If a party's JV interest falls below 5%, that party's JV interest will be converted to a 1% net smelter return royalty to be paid over the first five years of commercial production.