

# QUARTERLY REPORT FOR THE PERIOD ENDING 30 JUNE 2018

## 31 July 2018

ASX CODE RWD

SHARE PRICE \$0.175

**SHARES ON ISSUE** 135.760.396

MARKET CAPITALISATION \$23.7M (undiluted)

#### DIRECTORS

Colin McCavana Chairman

Michael Ruane Director

Rod Della Vedova

Non-Executive Director

#### **MANAGEMENT**

Greg Cochran
Chief Executive Officer

Daniel Tenardi
Projects Director

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Company Secretary

#### **KEY PROJECT**

Lake Disappointment Project

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## **Highlights**

- LD Pre-Feasibility Study successfully completed
- · PFS enhancements already delivered, more to come
- Excellent results from ongoing trench pumping trials
- EPA engagement continues for ERD response
- Department of the Environment and Energy (Commonwealth) confirm LD's controlled action status
- \$1.8M R&D refund received and non-renounceable rights offer announced post end of reporting period

## **Corporate**

Expenditure by Reward during the June 2018 quarter was \$829,000. The Company's focus remained on ongoing trench pumping and evaporation trials at LD, and addressing questions raised by the Environmental Protection Agency ("EPA") in regard to the LD Project's Environmental Review Document ("ERD").

Cash position at the end of the period was approximately \$857,000.

Subsequent to the end of the June 2018 quarter Reward announced it was seeking to raise approximately \$4.9M by a non-renounceable rights offer on the basis of 1 new share for every 5 shares held at an issue price of 18 cents per share together with 1 free option for every 2 new shares subscribed for under the offer. Assuming success this would result in approximately 27,152,079 new shares and 13,576,040 new options being issued. The options have an exercise price of 24 cents and an expiry date of 30 June 2021.

The Company also announced that it had received a \$1.8M refund under the Federal Government's Research and Development Incentive Scheme for activities undertaken during the 2017 tax year.

## **LD SOP Project**

## Prefeasibility Study ("PFS")

The PFS was completed early in the quarter and the results published in an ASX release dated 1 May 2018<sup>1</sup>. The PFS, conducted to a high level of detail by respected Perth-based engineering consultants CPC Project Design, demonstrated that the LD Project is both technically sound and financially robust and is forecast to generate attractive returns.

Reward took a conservative approach to the PFS in respect of a number of key operating parameters, such as potassium grade, flow rate and overall recovery which implies the potential for significant upside as the Company progresses the Project towards the Definitive Feasibility Study ("DFS") stage. The Company also ensured that the PFS included only assumptions that are believed to be currently deliverable which therefore could be accurately

costed within the PFS accuracy limits of +/-20%, the tightest limits within the Western Australian sulfate of potash ("SOP") space to date. These included items such as the use of brine abstraction from trenches only, dry harvesting of the crude potash salts and the product logistics solution to Port Hedland.

#### PFS Enhancements

As announced following the end of the June 2018 quarter<sup>2</sup>, Reward has already improved one operating cost component of the PFS by proposing to integrate the trucking of LD's high-quality SOP product from site with the ship loading component using a single service provider. A critical factor that enabled this approach was the availability of detailed survey data (with positional accuracy of +/-100 mm) over most of unsealed portion of LD's existing access road (Figure 1) which allowed accurate capital cost estimates of the required upgrade of the road to RAV10 standard. It also ensures a level of confidence in the quality of the road surface and the estimated annual cost of road maintenance, without which trucking cost estimates are likely to be unreliable.

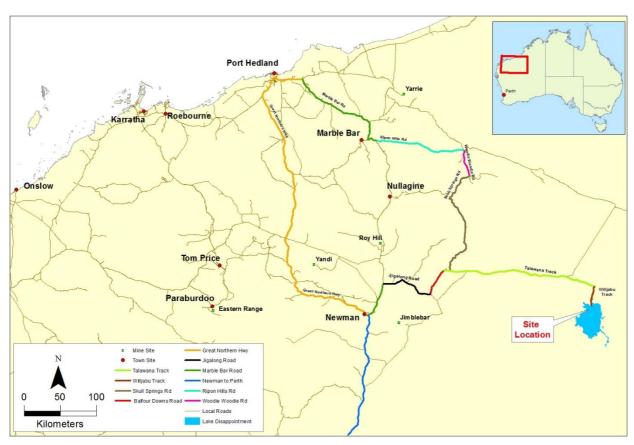


Figure 1. LD Project - Locality Map/Access Roads

The total FOB cash operating cost in the PFS was A\$353/tonne SOP (FOB Port Hedland basis), which has been reduced to A\$335/tonne SOP as a result of the integrated transport solution (Table 1). The 18.5% reduction in trucking cost led to a significant Project value uplift, for example:

- Pre-tax NPV<sub>8% Real</sub> up by A\$57.4M to A\$517.6M (12.5% increase)
- Post-tax NPV<sub>8% Real</sub> up by A\$40.2M to A\$292.8M (15.9% increase)
- EBITDA margin up from 41.9% to 44.6% (6.4% increase)
- Estimated average annual EBITDA now \$118M

The revised economic assessment of the LD Project has been presented in Table 2, with the Project's Capital Cost estimate (which was unchanged) shown in Table 3.

**Table 1. FOB Cash Operating Cost Breakdown** 

Operating Cost Category	Unit Cost (A\$/t SOP)	Unit cost (%)
Evaporation Ponds & Harvesting	91	27.2
Process Plant	102	30.4
Product Logistics	105	31.3
Road Maintenance	15	4.5
Site Services/Overheads	22	6.6
Total Unit Operating Cost	335	100

Table 2. LD Project – Revised Economics\*

	AUD			USD	
Project Financials (Ungeared): Real unless stated	Unit	LOM		Unit	LOM
SOP Spot Price Average (LOM)	USD / t SOP	500		USD / t SOP	500
Exchange Rate (LOM)	AUDUSD	0.75		AUDUSD	0.75
SOP Spot Price Average	AUD / t SOP	666.67		AUD / t SOP	666.67
Initial Capex	AUD M	(450.6)		USD M	(337.9)
Sustaining Capex	AUD M	(68.7)		USD M	(51.6)
Total Capital	AUD M	(519.3)		USD M	(389.5)
FOB Cash Cost (SOP/t basis): Real	AUD / t SOP	335 / t SOP		USD / t SOP	251 / t SOP
All-in-Sustaining Cost (AISC): SOP/t Basis: Real	AUD / t SOP	376 / t SOP		USD / t SOP	282 / t SOP
Cash Cost Margin	%	48.4%		%	48.4%
AISC Margin	%	43.7%		%	43.7%
EBITDA Margin	%	44.6%		%	44.6%
Project NPV (Pre-Tax)	AUD M	517.6		USD M	388.2
Project NPV (Post Tax)	AUD M	292.8		USD M	219.6
Project IRR (Pre-Tax): Real	%	18.8%		%	18.8%
Project IRR (Post Tax): Real	%	14.9%		%	14.9%
Project Payback Period from Production Start	Years	5.7 Yr(s)		Years	5.7 Yr(s)
Discount Rate	%	8.0%		%	8.0%
Per Average Operating Year					
Revenue from Sales of SOP	AUD M	263.7		USD M	197.8
Logistics, Other Offsite Costs / Royalties	AUD M	(54.2)		USD M	(40.6)
Site Operating Expenses (incl Closure)	AUD M	(91.8)		USD M	(68.9)
EBITDA	AUD M	117.7		USD M	88.3

Note\*: Based on a WA State ad valorem royalty rate of 3.75% FOB Port Hedland

In the Capital Cost estimate shown in Table 3 overleaf, direct costs are those expenditures that include supply of the equipment and materials, freight to site and project site labour to construct plant and assembled equipment, supporting facilities and services.

Indirect costs are those expenditures covering temporary construction facilities plus engineering, procurement and project management services, and consultants (e.g. geotech), contractors and EPCM indirect costs and vendor support during commissioning. EPCM costs have been factored based on a percentage of the direct costs in a range between 5% and 15%.

**Table 3. LD SOP Project Capital Cost Estimate** 

Initial and Sustaining Capital Costs (LOM Real)	AUD M
Production - Trenches and Ponds	57.6
Process Plant	73.2
Infrastructure	108.8
Site Support Temporary Services	2.9
Construction Costs	59.2
Subtotal	301.7
Indirect Costs (EPC, Consultants, Commissioning)	20.0
Owners Costs	23.4
Subtotal	43.4
Total Capital Costs before Contingency	345.1
Contingency	59.9
Total Initial Capital Cost	405.0
Working Capital (Pre-Production Operating Expenses)	45.6
Total Development Capital Cost	450.6

Owner's costs have been factored based on 5% of the project direct costs and cover costs associated with the owner's team and related expenses, insurances, and site works. These include:

- flights, accommodation and fuel (costs excluded by the contractors for fuel, flights and accommodation have been estimated by CPC and included in the owner's costs);
- owner's team costs factored based on 5% of the project direct costs to make provision for owner's project management team labour and expenses, commissioning labour and expenses, approvals and licenses and training of personnel;
- spares the cost for initial commissioning, operating and capital spares stock was factored using a percentage established from industry experience of 5% of equipment supply costs; and
- first fill reagents and consumables included in the estimate, developed from the quantities and costs in the operating cost estimate and process design criteria. Nominally based on 30 days storage, however in this instance they are based on one full charge for the ball mill and first fill of the fuel farm (which is two weeks supply of diesel). In most cases, equipment suppliers will supply required first-fill lubricants with the supplied equipment. However, a provisional cost for first-fill lubricants was included in the estimate to allow for any potential omission.

The Contingency allowance is to cover unforeseen risk items and contingent events over which the Project team and/or Reward have no control but which could affect the financial outcomes of the Project. It does not cover scope changes nor design growth. The Contingency is over and above the capital cost estimate to make up the total project development capital cost estimate for the Project. It has been applied to the estimate by assessing the level of confidence in the estimate inputs including engineering, estimate basis and vendor or contractor information. (Note, a Contingency is not a function of the estimate accuracy.)

The Contingency rates applied to the capital cost estimate by major area and are shown in Table 4.

**Table 4. Contingency per Cost Area** 

Cost Area	Contingency Applied %
Roads, Airstrip and Bulk Earthworks	15
Evaporation Ponds	20
Concrete, Structural Steel and Platework	20
Mechanical Equipment and Piping	10
Electrical & Instrumentation	20
Accommodation Village and Mobile Fleet	20
Borefields	15
EPCM	20
Owners Costs	20

Reward remains cautiously optimistic that in the coming months, prior to the commencement of the DFS, further enhancements will be made to the LD Project. Operationally, these are likely to be in areas like recovered grade, brine flow rates and contractor consolidation as well as different operating methodologies, such as wet as opposed to dry harvesting.

## LD Site Works - Trench Pumping Trials

The trench pumping trials that commenced in August 2017 continued throughout the June 2018 quarter, delivering excellent results in line with those reported in the two preceding quarters. As previously explained, Reward excavated two 1 km x 2 m deep brine collection trenches in the northern sector of LD where the project evaporation ponds are ultimately to be located to conduct extended trench pumping trials (Figure 2).

The initial trial involved pumping approximately 20 million litres of brine from trench PT12 at a rate of 8 litres/sec over 33 days. A 0.2 m drawdown was observed in the trench and negligible drawdown was observed in monitoring bores beyond 10 metres from the trench edge. The average abstracted grade of the brine during this first phase was approximately 13 g/litre SOP.

During the second phase the pumping rate at PT12 was increased and averaged 10.7 l/sec/km over 26 days (i.e. 925 m³ of brine per km of trench per day) and once again the grade remained remarkably consistent at 13 g/litre SOP. Draw down of 0.3 metres (from initial static water level) was detected whilst barely measurable drawdown was found in the monitoring bores some 220 metres from the trench.

In the end, approximately 75 million litres of brine had been pumped from PT12 during these exercises.

Reward aimed to recommence pumping early in 2018 but heavy rainfall prevented lake access until mid-March 2018. The two trenches were cleaned out by the end of March to prepare for recommencement of test pumping and drawdown modelling.

PT12, which is the eastern trench, was to be deepened to approximately 5 metres however this was halted when mechanical problems with the amphibious excavator were encountered.

On 4 May, pumping commenced from the Western trench PT13 while repairs to the excavator were completed.

Pumping from trench PT13 commenced at an initial rate of 15 litres/sec and continued after the end of the quarter. The pumping rate gradually declined to a steady state pumping rate between 6 to 8 litres/sec. According to Reward's hydrogeologist, brine drawdown data for PT13 and the associated monitoring bores is of good quality for modelling purposes.

Steady drawdown of brine levels in the monitoring bores over 400 m from PT13 (Figure 2) were very encouraging indicating a large drawdown area per trench – this is an important result as it implies that when LD is in operation wide spacing of trenches should be possible. A further encouraging feature of the PT13 pumping trial has been the rapid recharge of brine into the trench once pumping ceased.

The K grade of brine from PT13 was steady, averaging 5.75 g/l K (12.8 g/l SOP), as can be seen from a selection of the pumping trial's assay data presented in Table 5. On advice from its consulting hydrogeologist, Reward stopped pumping recently, having run the trial for over 60 days. Over 50 million litres of brine were pumped from PT13 during the trial period at an average abstraction rate of approximately 10 litres/sec.

Now that PT13 pumping has ceased, the deepening of PT12 to approximately 5 metres will be completed when the excavator, which is currently deployed on other tasks, is available. Once deepened the third phase of this trial will commence, consisting of a brine pumping trial from a trench of significantly greater dimensions within a similar sedimentary profile section of LD.

As reported in the previous period, an important side benefit of these pumping trials has been the positive outcome of the assessment of the potential for Acid Sulfate Soil (ASS) and Monosulfidic Black Ooze (MBO) generation associated with brine extraction from LD's near surface sediments.

ASS and MBO generation in waterways where sulfates exist can result in significant environmental damage to biota and the ecological balance of such systems. As indicated in the previous quarterly report, detailed testwork by Reward showed no discernible generation of ASS and MBOs in sediments and brines associated with the excavation and brine extraction from PT12 and PT13. A comprehensive (draft) report on the studies has been received from independent consultant Galt Environmental which will shortly be completed and then incorporated into the environmental approvals documentation.

Table 5. PT13 Trench Brine Analyses\*

Date	Са	K	SOP	Mg	Na	SO <sub>4</sub>	CI
Date	(mg/l)	(mg/l)	(mg/l)	(mg/l)	(mg/l)	(mg/l)	(mg/l)
28/05/2018	500	5,550	12,371	4,990	95,650	25,590	149,090
01/06/2018	450	5,750	12,817	5,250	99,950	28,176	154,664
03/06/2018	450	5,800	12,928	5,200	96,250	25,401	150,905
08/06/2018	450	5,700	12,705	5,200	95,100	25,429	149,020
12/06/2018	450	5,650	12,594	5,150	93,100	24,502	146,430
15/06/2018	450	5,750	12,817	5,250	96,550	25,733	151,224
17/06/2018	450	5,700	12,705	5,250	95,400	24,899	150,021
20/06/2018	450	5,950	13,263	5,300	98,500	26,434	154,041
22/06/2018	450	5,800	12,928	5,250	96,000	25,291	150,747
24/06/2018	450	5,850	13,040	5,250	97,300	25,352	152,752
29/06/2018	450	5,800	12,928	5,300	95,150	25,564	149,380
03/07/2018	450	5,750	12,817	5,150	97,050	25,093	152,176
06/07/2018	450	5,800	12,928	5,250	97,400	25,296	152,902

<sup>\*</sup> SG's were consistent at 1.19, inline with earlier results



Figure 2. LD Project – 2017/18 Long Trench Pumping Trial Plan

## Pilot Ponds – Long Term Evaporation/Seepage Trials

Monitoring of two pilot scale evaporation ponds, which commenced in October 2017, continued during the period. Brine input to pond PP1 and pond PP2 (both of similar internal dimensions of approximately 560 m²) was controlled to maintain a steady head of brine to assess long term evaporation rates and seepage losses. Control evaporation pans (with zero seepage) placed adjacent to the respective pilot ponds were also monitored to establish control evaporation only data for the site over the same period.

With the onset of winter, evaporation rates were (as to expected) subdued but nevertheless provided useful diagnostic data. Initially PP1 demonstrated substantial seepage estimated to be between 7 and 11 mm/day due to a minor construction issue, demonstrating the importance of strict construction controls and providing valuable learnings for the future. Seepage has however decreased over time, for example for days 214-234 (late May – early June) of the trial the daily seepage rate had dropped to approximately 3.1 mm/day. The brine evaporation rate measured in the adjacent control evaporation pan over the same period was 3.9 mm/day, compared to 10+ mm/day during the summer months, which is reflective of the increasing density of the potassium-rich brine and the lower temperatures. Salt bed thickness by day 255 averaged 260 mm.

A different construction methodology was used for PP2 and monitoring for the period between days 214-255 (late May to early July) indicated that seepage loss was not measurable (<1 mm per day). As above the control brine evaporation rate was measured at 3.9 mm per day. Salt bed thickness by day 255 averaged 415 mm. Analysis of the salt bed indicated <0.25% K in the salt crystals, whilst K analyses of the brines from PP1 and PP2 were 9.3 g/l and 15.6 g/l respectively at day 255 (20.7 g/l and 34.8 g/l SOP respectively). The potassium salt crystallisation stage occurs in the range 38-40 g/l K.

As reported in the March 2018 quarterly rainfall of over 400 mm occurred during the summer months, most of which fell between the last week of December 2017 and the first week of February 2018. That equates to 2.3 mm per day loss of evaporation and also caused considerable dilution of the pond feed brines.

### **Environmental Permitting Update**

During the 2018 quarter, Reward received notification from the Australian Department of the Environment and Energy (DotEE) that it had decided under sections 75 and 87 of the EPBC Act that the LD Project is a Controlled Action, meaning that it would require assessment and approval under the Act prior to commencement. Reward had anticipated this outcome, specifically in regard to the assessment of the LD Project's potential impacts on migratory birds and other threatened species.

Reward is continuing to update its Environmental Review Document ("ERD") in response to further feedback from WA's Environmental Protection Agency ("EPA") and other Regulators and still aims to re-submit its Environmental Review Document ("ERD") to the EPA before the end of the September 2018 quarter. Assuming no further information requests by the EPA and once it has completed its final review a 6-week Public Environmental Review (PER) period will commence.

## Research and Development Incentive Refund

Following the end of the June 2018 quarter Reward received \$1,830,306 in rebate funds via the Australian Government Research and Development Incentive program. The claim had been lodged earlier this year on the back of innovative metallurgical and pilot testwork activities undertaken during the 2017 tax year. These trials are continuing both on site and at test facilities in Perth.

For further information please contact:

Greg Cochran
Chief Executive Officer
on behalf of the Board

#### **Notes**

- 1. Please refer to the assumptions, sensitivities, risk factors and cautionary statements disclosed respectively in Table 2 (pages 4-6), Table 3 (pages 7-8) and on pages 12 and 13 of Reward's ASX release dated 1 May 2018 entitled "PFS confirms LD Project as a globally significant SOP Project, as well the details included in the PFS Executive Summary appended thereto, which may adversely impact upon the information and forecasts in this announcement.
  - Apart from the improvement in trucking cost presented in this release all other material assumptions and technical parameters underpinning the PFS continue to apply and have not materially changed. The Company confirms that the form and context in which the results of the PFS were presented in the original ASX announcement have not been materially modified.
- 2. Refer to ASX announcement dated 13 July 2018 titled "LD SOP Project PFS Enhancements" for full details of the improvement in product logistics costs for the LD Project. Apart from the improvement in trucking cost presented in that release all other material assumptions and technical parameters underpinning the PFS continue to apply and have not materially changed.

#### Competent Persons Statement

The information in this report that relates to Brine and Sediment Assays and Analyses is based on information compiled by Dr Geoff Browne, of SBL Browne Pty Ltd, a Competent Person who is a Member of The Australasian Institute of Mining and Metallurgy. SBL Browne Pty Ltd provides consulting services to Reward Minerals. Dr Browne 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'. Dr Browne consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.

#### 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.

#### **About Reward**

Reward Minerals Ltd (Reward) is a potash-focussed exploration and development company listed on the Australian Securities Exchange (ASX Code: RWD) with a portfolio of advanced exploration projects in Australia hosting significant sulphate of potassium (SOP) resources. The Company's tenements cover approximately 10,000 km² containing a series of highly prospective playa-style lakes and palaeovalleys known to host substantial volumes of high density potassium rich brines.

Reward's flagship project is its 100% owned LD SOP Project, located 340 km east of Newman in the Little Sandy Desert of north-western Western Australia. The LD Project consists of a tenement package that covers over 3,000 km² which hosts an Indicated and Inferred extractable Mineral Resource of 153 Mt of SOP grading approximately 11.3 kg/m³ of SOP brine in sediments from surface to a depth of approximately 90 m. The Project has a registered Indigenous Land Use Agreement with the Martu people, the traditional owners of the land, as well as a granted Mining Lease and associated Miscellaneous Licence. A Pre-Feasibility Study for the LD Project was completed at the end April 2018 and the Project's Environmental Impact Assessment is under adjudication by the EPA.

# Tenement Holdings as at 30 June 2018

Tenement	Status	RWD Ownership at Quarter End	% Interest Acquired During the Quarter	% Interest Disposed During the Quarter			
	Lake Disappointment, Western Australia						
E45/2801	Granted	100%	-	-			
E45/2802	Granted	100%	-	-			
E45/2803	Granted	100%	-	-			
E45/3285	Granted	100%	-	-			
E45/3286	Granted	100%	-	-			
E45/4090	Granted	100%	-	-			
E45/4121	Granted	100%	-	-			
E69/2156	Granted	100%	-	-			
E69/2157	Granted	100%	-	-			
E69/2158	Granted	100%	-	-			
E69/2159	Granted	100%	-	-			
E69/3275	Granted	100%	-	-			
E69/3276	Granted	100%	-	-			
L45/302	Granted	100%	-	-			
M45/1227	Granted	100%	-	-			
LA46/128	Application	100%	-	-			
Dora West, Western Australia							
E45/3246	Granted	100%	-	-			
E45/4292	Granted	100%	-	-			
ELA45/4321	Application	100%	-	-			
ELA45/4488	Application	100%	-	-			

# APPENDIX A: JORC Table

## **Section 1 Sampling Techniques and Data**

Criteria	JORC Code explanation	Commentary
Sampling	Nature and quality of sampling (e.g. cut channels,	Pilot Trench Pumping
random chips, or specific specialised industry standard measurement tools appropriate to the minerals under investigation, such as down hole gamma sondes, or handheld XRF instruments, etc.). These examples should not be taken as limiting the broad meaning of sampling.	As previously reported, two x 1km trenches (PT12 and PT13) were dug into the lake bed (LD) and trial pumping commenced in the December 2017 quarter. PT13 was cleaned out in the current period using an amphibious excavator and brine pumping commenced.	
	Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.  Aspects of the determination of mineralisation that are Material to the Public Report.  In cases where 'industry standard' work has been done this would be relatively simple (e.g. 'reverse circulation drilling was used to obtain 1 m samples from which 3 kg was pulverised to produce a 30 g charge for fire assay'). In other cases more explanation may be required, such as where there is coarse gold that has inherent sampling problems. Unusual commodities or mineralisation types (e.g. submarine nodules) may warrant disclosure of detailed information.	Brine was pumped by variable speed centrifugal pumps on to the lake some 400 metres from the pump position. Once steady state water level had been achieved in the trench brine samples were collected from the discharge pipe by collection in a 200 litre container. Sub samples of brine were transferred from the container into 500ml screw top plastic sample bottles. The samples were appropriately labelled and stored in a cool place on site until dispatch to Perth for analysis. Pumping rates were measured daily at the discharge point and if necessary adjusted to maintain steady state brine levels in the trenches for hydrological modelling.  In the case of pilot pond sampling, brine (grab) samples were collected weekly from several positions within the ponds and composited to provide representative sample of brine for analysis.  The composite samples were transferred to screw top samples containers, labelled and dispatched to Perth for analysis. Occasional top and bottom pond samples were collected to assess brine stratification in the ponds.  Halite thickness in evaporation ponds was recorded via a brine/salt depth level indicator installed in the ponds prior to pumping brine into the ponds.
Drilling techniques	Drill type (e.g. core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc.) and details (e.g. core diameter, triple or standard tube, depth of diamond tails, face-sampling bit or other type, whether core is oriented and if so, by what method, etc.).	Not applicable.
Drill sample recovery	Method of recording and assessing core and chip sample recoveries and results assessed.	Not applicable.
recovery	Measures taken to maximise sample recovery and ensure representative nature of the samples.	
	Whether a relationship exists between sample recovery and grade and whether sample bias may have occurred due to preferential loss/gain of fine/coarse material.	
Logging	Whether core and chip samples have been geologically and geotechnically logged to a level of detail to support appropriate Mineral Resource estimation, mining studies and metallurgical studies.	Not applicable.
	Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc.) photography.	
	The total length and percentage of the relevant intersections logged.	
Sub-sampling techniques and sample	If core, whether cut or sawn and whether quarter, half or all core taken.  If non-core, whether riffled, tube sampled, rotary split, etc. and whether sampled wet or dry.	Brine samples were collected over several hours and in some cases on consecutive days. Initial scan analyses (for Mg) were run in-house to establish consistency prior to dispatch to independent laboratories for analysis.
preparation	For all sample types, the nature, quality and appropriateness of the sample preparation technique.	Brine samples were stored in a cool place on site and then transported to Perth via courier or RWD staff. Initial scans for Mg and SG were run in-house to establish consistency

Criteria	JORC Code explanation	Commentary		
	Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.  Measures taken to ensure that the sampling is representative of the in situ material collected, including for instance results for field duplicate/second-half sampling.  Whether sample sizes are appropriate to the grain size of the material being sampled.	and dilution requirements prior to dispatch to independent laboratories for analysis.  In the case of environmental samples, these were refrigerated on site and shipped to Perth overnight in insulated containers to preserve their integrity and delivered to the laboratory immediately upon arrival.		
Quality of assay data and laboratory tests	The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.  For geophysical tools, spectrometers, handheld XRF instruments, etc, the parameters used in determining the analysis including instrument make and model, reading times, calibrations factors applied and their derivation, etc.  Nature of quality control procedures adopted (e.g. standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (i.e. lack of bias) and precision have been established.	Elemental analyses of brine samples were performed by ALS Global at its Balcatta laboratory in Perth, WA. ALS is certified to QMS ISO 9001 standards. Brine analyses were performed by a combination inductively coupled plasma optical emission ICP-OES and ICP Mass Spectrometry.  Conductivity, pH and chloride are determined by ion selective electrode techniques. Chloride analyses were also undertaken in-house (RWD) by volumetric titration. Brine SGs were also determined in-house. Check samples and spiked samples were included in most sample batches.  Brine analyses for environmental monitoring were undertaken by either SGS, ALS Environmental or MPL Laboratories in Perth. Each of these laboratories are NATA Registered for the type of analyses undertaken.		
Verification of sampling and assaying	The verification of significant intersections by either independent or alternative company personnel.  The use of twinned holes.  Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.  Discuss any adjustment to assay data.	Regular inclusion of blanks, duplicates and spiked samples has verified the analytical techniques and reported values. Samples are also sent to alternative laboratories on a periodic basis.  Laboratories include internal standards and spike additions as standard procedure or upon request by the client.		
Location of data points	Accuracy and quality of surveys used to locate drill holes (collar and down-hole surveys), trenches, mine workings and other locations used in Mineral Resource estimation. Specification of the grid system used.  Quality and adequacy of topographic control.	The results obtained will be used for hydrological modelling and resource estimation purposes. The Grid system used was MGA 94 Zone 51. Trench coordinates are as below:  PT12		
Data spacing and distribution	Data spacing for reporting of Exploration Results.  Whether the data spacing and distribution is sufficient to establish the degree of geological and grade continuity appropriate for the Mineral Resource and Ore Reserve estimation procedure(s) and classifications applied.  Whether sample compositing has been applied.	See above.		
Orientation of data in relation to geological structure	Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.  If the relationship between the drilling orientation and the orientation of key mineralised structures is considered to have introduced a sampling bias, this should be assessed and reported if material.	Data provided does not relate to geological structure.		
Sample security	The measures taken to ensure sample security.	Samples are labelled and transported in sealed containers by independent couriers or RWD staff to RWD office in Perth. They are sorted, relabelled if required and delivered to laboratories by RWD personnel.		
Audits or reviews	The results of any audits or reviews of sampling techniques and data.	No audits or reviews have been undertaken on the data provided.		

## **Section 2 Reporting of Exploration Results**

Criteria	JORC Code explanation	Commentary
Mineral tenement and land tenure status	Type, reference name/number, location and ownership including agreements or material issues with third parties such as joint ventures, partnerships, overriding royalties, native title interests, historical sites, wilderness or national park and environmental settings.	The Lake Disappointment Potash Project is 100% owned by Reward Minerals Ltd with Project tenure via the following tenements granted under the Mining Act of Western Australia. E45/2801-2803, E45/3285-3286, E45/4090, E45/4121, E69/2156-2159, E69/3275-3276, L45/302, M45/1227 and L46/128 (Application).
	The security of the tenure held at the time of reporting along with any known impediments to obtaining a licence to operate in the area.	RWD has an Indigenous Land Use Agreement (ILUA) with the Western Desert Lands Aboriginal Corporation on behalf of the Martu Traditional Owners of the lands held under Native Title Determination WA (2002) FCA 2002 in respect of the Lake Disappointment Project.
Exploration done by other parties	Acknowledgment and appraisal of exploration by other parties.	No previous exploration had been undertaken on the Lake Disappointment Potash Project prior to that of RWD.
Geology	Deposit type, geological setting and style of mineralisation.	The deposit is a brine containing potassium and sulphate ions that could form a potassium sulphate salt. The brine is contained within saturated sediments below the lake surface and in sediments adjacent to the lake. The lake sits within a broader palaeovalley system that extends over hundreds of kilometres.
Drill hole Information	A summary of all information material to the understanding of the exploration results including a tabulation of the following information for all Material drill holes:	Not applicable. Trench and Pilot Pond locations provided above.
	easting and northing of the drill hole collar	
	elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar	
	dip and azimuth of the hole	
	<ul> <li>down hole length and interception depth</li> </ul>	
	hole length.	
	If the exclusion of this information is justified on the basis that the information is not Material and this exclusion does not detract from the understanding of the report, the Competent Person should clearly explain why this is the case.	
Data aggregation	In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade	Not applicable due to exploration results being applicable to a brine and not a solid.
methods	truncations (e.g. cutting of high grades) and cut-off grades are usually Material and should be stated.	No low or high grade cut-off grade has been implemented due to the consistent grade of the brine recovered.
	Where aggregate intercepts incorporate short lengths of high grade results and longer lengths of low grade results, the procedure used for such aggregation should be stated and some typical examples of such aggregations should be shown in detail.	
	The assumptions used for any reporting of metal equivalent values should be clearly stated.	
Relationship	These relationships are particularly important in the reporting of Exploration Results.	Not applicable due to results relating to brine only being extracted.
between mineralisation	If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.	
widths and intercept lengths	If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (e.g. 'down hole length, true width not known').	
Diagrams	Appropriate maps and sections (with scales) and tabulations of intercepts should be included for any significant discovery being reported These should include, but not be limited to a plan view of drill hole	A map/plan view of the trenches and selected representative assay results are included in this announcement.

Criteria	JORC Code explanation	Commentary	
	collar locations and appropriate sectional views.		
Balanced reporting	Where comprehensive reporting of all Exploration Results is not practicable, representative reporting of both low and high grades and/or widths should be practiced to avoid misleading reporting of Exploration Results.	Preliminary data only. Testwork continuing.	
Other substantive exploration data Other exploration data, if meaningful and material, should be reported including (but not limited to): geological observations; geophysical survey results; geochemical survey results; bulk samples – size and		Total brine volumes pumped from trenches were estimated by regular spot checks of pipe outlet flows. Use of flow meters was found problematical due to the high salinity of brines being pumped.	
	method of treatment; metallurgical test results; bulk density, groundwater, geotechnical and rock characteristics; potential deleterious or contaminating substances.	Monitoring bores (1.5-1.7m depth) were installed at variably spaced locations relative to the trenches. The water levels in the MB's are measured on a daily basis to establish drawdown profiles for future hydrological modelling. Pumping trials are continuing and the model will be released when sufficient data is available.	
Further work	The nature and scale of planned further work (e.g. tests for lateral extensions or depth extensions or large-scale step-out drilling).  Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.	Trenches will be deepened from the current depth (1.7-2.0m) to approximately 5 metres depth and retested to assess brine flow variation with depth and optimise trench dimensions for commercial production.  Pilot Pond monitoring is continuing for definition of brine evaporation parameters and seepage losses. Evaporite salts will be sampled/harvested at the appropriate time.	