

QUARTERLY REPORT FOR THE PERIOD ENDING 31 DECEMBER 2016

31 January 2017

ASX CODE
RWD

SHARE PRICE
\$0.35

SHARES ON ISSUE
135,760,396

UNLISTED OPTIONS
4,500,000 (\$0.45)

MARKET CAPITALISATION
\$47.5M (undiluted)

DIRECTORS & MANAGEMENT

Colin McCavana
Chairman

Rod Della Vedova
Non-Executive Director

Michael Ruane
Managing Director

Daniel Tenardi
Projects Director

Bianca Taveira
Company Secretary

KEY PROJECT

Lake Disappointment Project

HEAD OFFICE

Reward Minerals Ltd
159 Stirling Highway
Nedlands WA 6009

PO Box 1104
Nedlands WA 6909

ACN 009 173 602
ABN 50 009 173 602

T: 08 9386 4699
F: 08 9386 9473
E: admin@rewardminerals.com

Highlights

- Excellent brine flow rates obtained from surface Trenches on LD.
- Flow rates from 1.5-2.5 metre deep trenches averaged 159m³ per hour per kilometre of trench.
- Flow rates obtained indicate that approximately 50km of trenching is adequate for 400,000 TPA SOP output from LD brine grading 12.5kg/m³ SOP.
- Encouraging Pumping trial results from large diameter cased bores on LD.

Corporate Activities

Expenditure incurred on development and R&D activities for the December period was \$1.84 million. Cash on hand at the end of the period was approximately \$5 million.

Lake Disappointment Potash Project

During the period the Company continued works aimed at providing definitive capital and operating parameters for a 400,000 TPA SOP project at Lake Disappointment.

Trench Pumping and Yields

Figure 1 – Brine Trench Locations



A series of Trenches (16) were cut into the surface of LD at widespread locations and pumped at rates which produced a steady state brine supply over periods of up to ten days. The maximum cone of depression was approximately 50m either side of any given trench.

Details of the Trench locations, dimensions and brine flows are shown in Table 1. Locations of the trenches are also shown in Figure 1.

The trench depths were determined by digging through near surface zones of significant brine flow into high clay-low flow layers below.

Generally, this resulted in trenches 1.5-2.5 metres depth. However, it was also noted that narrow layers of coarse gypsum crystals frequently occurred within dense clay zones below and heavy brine flows occurred from these layers. Monitoring bores with water level loggers were installed at varying distances from the trenches to provide an indication of the cone of depression during pumping cycles.

The average flow rate from the eight steady state trenches was 159m³ per hour per kilometre of trench – see Table 1. For SOP output at LD of 400,000 TPA and 50% Potassium recovery, the brine input required is approximately 60 million m³ per annum or 7,200m³ per hour.

Further modelling is required to establish definitive data for trench layout design but the above preliminary data suggests trench length of approximately 50km operating at any one time will provide the brine supply required.

The modelling (in progress) will establish the optimum spacing of the trenches and the long term drainable recovery from the near surface horizon. It is expected that the trenches will be at relatively close spacing (~500m) and that trenching will occur continuously as sections of the lake are allowed to recover. This modelling will establish the period for which brine supply for the LD operation can rely solely on trench pumping.

Figure 2A - Trench 10 – Steady State



Note Gypsum Layer – 30cm subsurface

Figure 2B - Trench 10 – Steady State



Table 1
Trench Pumping Data – Estimated Inflow Rates

Trench ID	Trench Coordinates		Length	Width	Depth	Flow Rate m ³ /hr	Drawdown	m ³ /hr per km of trench	Data By
	Northing	Easting							
Trial Trench	7425388	481545	170	3.0	1.5	59.4	Steady	349.6	PES
PT01A	7422907	479090	52	5.0	2.0	5.6	Dewater	-	PES
PT02	7419559	476119	85	2.5	1.75	108.4	Steady	-	PES
PT04	7409228	469097	46	4.6	1.8	7.6	Steady	164.2	RWD/PES
PT06	7401122	469356	38	6.0	1.4	1.8	Steady	47.5	RWD/PES
PT07A	7404058	477412	20	6.0	1.8	7.2	Steady	360.0	RWD/PES
PT07A2	7404036	477488	103	3.9	2.3	6.1	Dewater	<59.4	RWD
PT07B	7399463	476236	25	4.6	1.8	6.1	Dewater	<244.4	RWD/PES
PT08A	7401011	479365	105	5.0	3.0	11.2	Steady	106.2	RWD
PT09	7408873	478299	30	4.8	1.8	7.9	Steady	263.9	PES
PT09A	7420614	480141	45	7.0	2.5	6.5	Steady	144.0	PES
PT09B	7414295	478590	20	6.0	2.0	5.4	Dewater	<270.0	RWD
PT10	7414167	472892	28.5	5.0	1.5	10.8	Steady	37.8	PES
PT11	7410299	474701	100	6.0	2.4	14.7	Steady	147.6	RWD

Notes

PES Pendragon Environmental Solutions
RWD Reward Minerals Ltd

Brine Recovery Bores

Four 250mm diameter boreholes have been completed to date on LD. These have been cased with 200mm slotted PVC casing and gravel packed in preparation for test pumping. Collar locations, total and casing depth of the holes is provided in Table 2.

Table 2
LD Borehole Location and Depths

Hole ID	East (51)	North (51)	Depth (m)		Dip
			A ⁽¹⁾	B ⁽²⁾	
LDBH1601	478589	7414131	112	81	90
LDBH1602	479490	740184	95	84	90
LDBH1603	469348	740120	78	78	90
LDBH1604	461906	7404594	110	91	90

⁽¹⁾Depth of initial 100mm sighter hole

⁽²⁾Casing Depth – set of 200mm slotted casing

First round pumping from the bores has been undertaken using a 75mm diameter Grundfos electric submersible pump to obtain brine chemistry data and establish development status of the bores.

Brine analyses obtained to date are excellent, being high in SOP in keeping with near surface (Trench) brines and have been consistent downhole. See Table 3.

Table 3
Brine Analysis – LD Bore Holes 1601-1604⁽¹⁾

Hole ID	Ca	K	Mg	Na	SO ₄	Cl	SOP ⁽²⁾	SOM ⁽³⁾	TDI ⁽⁴⁾
LDBH1601	0.39	5.56	4.77	101.2	25.9	164.4	12.39	12.48	302.2
LDBH1602	0.40	5.76	5.41	101.0	26.9	160.4	12.83	14.16	299.9
LDBH1603	0.40	5.75	5.95	102.3	28.35	154.3	12.81	29.5	297.1
LDBH1604	0.40	6.63	7.63	106.0	33.08	165.3	14.77	37.8	319.0

Notes

⁽¹⁾All analyses quoted as grams per litre of brine – Steady state pumping samples

⁽²⁾SOP calculated as Potassium (K) x 2.228

⁽³⁾SOM Sulfate of magnesium calculated as Mg x 2.617

⁽⁴⁾TDI – Total Dissolved Ions is the sum of columns 3-7 (g/l)

Brine inflow to LDBH1601 was relatively slow (\approx 3 l/sec) in the first round pumping trial. While this may be partly due to lack of bore development it was anticipated to some degree on the basis of analysis of drill cores from holes in this area which had a high clay content. However, much higher flow rates appear to be available from the other holes (1602, 1603, 1604) as the first round pumping at 3 l/sec produced only minor drawdown of brine levels in these holes.

It has been particularly encouraging that brines recovered from steady state pumping of the high flow sandy horizons contain over 12kg of SOP/m³ of brine. See Table 3.

These results are very encouraging in the context of a potentially large drainable SOP resource from these horizons at LD. Note that holes LDBH1603 and 1604 are 10.0km and 17.5km west of LDBH1602 respectively. Core hole LDD1509 is 8.6km south of LDBH1602. All of these holes recorded significant friable sand/sandstone horizons (10-15 metres thickness) when being drilled earlier.

Larger equipment has been acquired for the next round of pumping (6-8 l/sec) but recent heavy rainfall has delayed this program.

Specific Yield Resource Estimation

Release of the Specific Yield SOP Resource for LD has been delayed by some inconsistencies in analytical data obtained on critical sediment and core sections from LD. The issue has now been resolved and the Resource Estimate will be released shortly.

Environmental Approval Submissions

Initial submissions to the Department of the Environment (DOEE-Federal) and the Environmental Protection Authority (EPE-WA) were made in June 2016 in respect of the Lake Disappointment Potash Project (LD).

The EPA has advised that the LD Project will be assessed through the Environmental Review process. Reward prepared an Environmental Scoping Document for the EPA, the resultant agreed Scope of works is now being carried out to satisfy EPA approvals for the Project.

Preparation of the submission documentation by Reward in conjunction with its group of Environmental consultants is progressing well and the Company is aiming to have the submissions ready for lodgement in February 2017.

Feasibility Study Status

Capital and Operating cost estimates have been developed for the cost centres of:

- (a) Plant Operation/Power Supply
- (b) Process water supply – Borefield/Pipeline development water pumping and water treatment
- (c) Talawana Track upgrade
- (d) Plant and Camp establishment costs

The Cost Estimates for construction of Evaporation Ponds and Brine supply trenches are currently being prepared by well respected contractors under a formal tender process. The Tenders have been prepared on the basis of Pond and Trench design parameters prepared by Knight Piesold Engineering late in 2016. Upon receipt of the Pond/Brine supply cost data, the total Capital and Operating cost package will be compiled by Lycopodium Engineers for Feasibility Study purposes.

Yours faithfully,

Michael Ruane
Director
on behalf of the Board

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, a Competent Person who is a Member of The Australasian Institute of Mining and Metallurgy. Dr Browne is a consultant to Reward Minerals Ltd. 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.

The information in this report that relates to Trench Brine Flow Parameters is based on information compiled by Mr R Kinnell, a Competent Person who is a Member of The Australasian Institute of Mining and Metallurgy. Mr Kinnell is a consultant to Reward Minerals Ltd. Mr Kinnell 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 Kinnell consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.

Tenement Holdings as at 31 December 2016

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%	-	-
E45/4257	Granted	100%	-	-
E45/4258	Granted	100%	-	-
E45/4259	Granted	100%	-	-
E69/2156	Granted	100%	-	-
E69/2157	Granted	100%	-	-
E69/2158	Granted	100%	-	-
E69/2159	Granted	100%	-	-
E69/2902	Granted	100%	-	-
L45/302	Granted	100%	-	-
M45/1227	Granted	100%	-	-
Dora West, Western Australia				
E45/3246	Granted	100%	-	-
E45/4292	Granted	100%	-	-
ELA45/4321	Application	100%	-	-
ELA45/4488	Application	100%	-	-