

**QUARTERLY ACTIVITY REPORT****DECEMBER QUARTER 2019****Aurora Tank Gold** 100% owned**Phase 2 Extensional RC Drilling Program**

In December, Marmota commenced Phase 2 of 2019 drilling at Marmota's Aurora Tank gold discovery:

- **RC drill program:** Expanded to 84 holes
- **Total RC drilling:** Expanded to 7,228m
- **Hole depths:** Average: 86m (Max: 120m)

Drilling completed over the January 2020 long-weekend. Assays from the first batch of December drilling have already yielded an excellent intersection averaging **24 g/t over 4m** [ASX:MEU 28 Jan 2020]

For more detail, please see: ASX:MEU 9 & 17 Dec 2019 and 13 & 28 Jan 2020.



Phase 3 Metallurgy Testwork

Column Leach tests yield excellent Gold Recoveries

- During the quarter, the first **column leach** testwork, carried out by Bureau Veritas, **returned excellent gold recoveries of 83%** ... which is considered very high by industry standards for column leach metallurgy [ASX:MEU 10 Oct 2019]
- Suggests Aurora Tank is likely to be amenable to **low-cost low-capex heap leach** techniques
- A heap leach means Marmota would not need to construct a mill, nor share revenue with external parties for toll treatment in a mill.

FRIDAY OCTOB

Marmota says its SA project is heaps good

**CAMERON ENGLAND
BUSINESS EDITOR**

MARMOTA shares jumped yesterday on news the company's Aurora Tank Gold project could be able to recover gold without using a processing mill.

The Adelaide company, which is famous for its exploration process which measured trace gold elements in tree leaves to determine new exploration targets, said tests showed the ore at the project, in central South Australia, responded well to chemical leaching.

Gold can be extracted from ore via heap leaching, which involves trickling reagents through a heap of ore and dissolving out the desired minerals.

Marmota told the ASX that the trade off is that the process, which is much cheaper as it gets around the need to build a processing mill or contract out ore processing, often results in much lower gold recoveries.

"Marmota is very pleased to announce that the first column leach test, carried out by Bureau Veritas, using diamond core ore sampled from Aurora



SUCCESS: Marmota Energy's Aurora Tank project in Far North SA, where the company has had good drilling results.

Tank, has returned excellent gold recoveries of 83 per cent, which is considered very high by industry standards for column leach metallurgy," the company said.

Lab tests of traditional milling techniques showed a recovery rate of more than 90 per cent.

"The amenability of gold recovery at Aurora Tank by heap leaching methods is considered likely to be feasible," the company said.

Marmota chairman Dr

Colin Rose said the results were encouraging.

"Marmota has been investigating the optimal path way to production at Aurora Tank," he said.

"The excellent column leach test gold recoveries suggest that Aurora Tank is amenable to low-cost low-capex heap leach techniques.

"A heap leach would mean that Marmota would not need to construct a mill, nor share revenue with external parties for toll treatment in a mill.

"This is a highly desirable outcome for both the company and our shareholders."

More work will now be done testing the process using different crush sizes and samples from different parts of the ore body.

Last month Marmota told the ASX it had returned exploration results of up to 120 grams of gold per tonne of ore over an intersection of 1m, just 21m below the surface.

Aurora Tank is located 50km northeast of the Challenger Gold Mine, which has pulled more than one million ounces of gold out of the earth.

Marmota shares closed 13.4 per cent up at 3.4c.

Source: Adelaide Advertiser 11 October 2019

Corporate

1. **Capital injections: huge demand for Share Purchase Plan**

During the quarter, Marmota carried out its first SPP (Share Purchase Plan) in 3 years. Successful Australian resident participants are eligible to receive JMEI (Junior Mineral Exploration Incentive) Taxation credits. The Company received application funds from eligible shareholders of over \$2.67m, more than 350% (3.5 times) the anticipated \$750,000 SPP target. The Board scaled-back applications from over \$2.67m to \$2.5m, and returned \$179,200 to unsuccessful applicants. The strength of the support has placed the Company in its strongest financial position in many years.

For more detail, please see: ASX:MEU [12 Nov 2019](#) and [5 Dec 2019](#).

2. **AGM**

The AGM was held in Adelaide on 27 November 2019.

For more detail, please see: ASX:MEU [27 Nov 2019](#)

3. **JMEI credits issued** (for the 2018/9 financial year)

During the quarter, Marmota issued Federal Government JMEI (Junior Minerals Exploration Incentive) tax credits totaling \$363,000 to eligible investors who participated in Marmota placements during the financial year to 30 June 2019. The taxation credits were issued at the maximum rate of 27.5% allowable under the program.

For more detail about the JMEI program, please see: www.ato.gov.au/jmei

4. **Marmota joins AMEC**

During the quarter, Marmota became a member of **AMEC** – the *Association of Mining and Exploration Companies*. Marmota looks forward to a fruitful collaboration with the association.



Exploration Activities during Quarter

GOLD

Gawler Craton

Tenement	Name	MEU Holding
EL5589	Aurora Tank	100%
EL5830	Ambrosia	100%
EL5684	Pundinya	100%
EL6166	Muckanippie	100%
EL5799	Indooroopilly	100%
EL6123	Mt Christie	100%
EL6082	Lake Anthony	100%
EL6348	Cudyea	100%
EL5759	Mulgathing	100%
EL6083	Woorong Downs	100%
EL6084	Comet	100%
EL5527	Bradman	100%
EL5861	Carnding	100%
EL5930	Irria	100%
EL5914	Pegler	100%
EL6040	Commonwealth Hill	100%
EL6371	Malbooma	100%

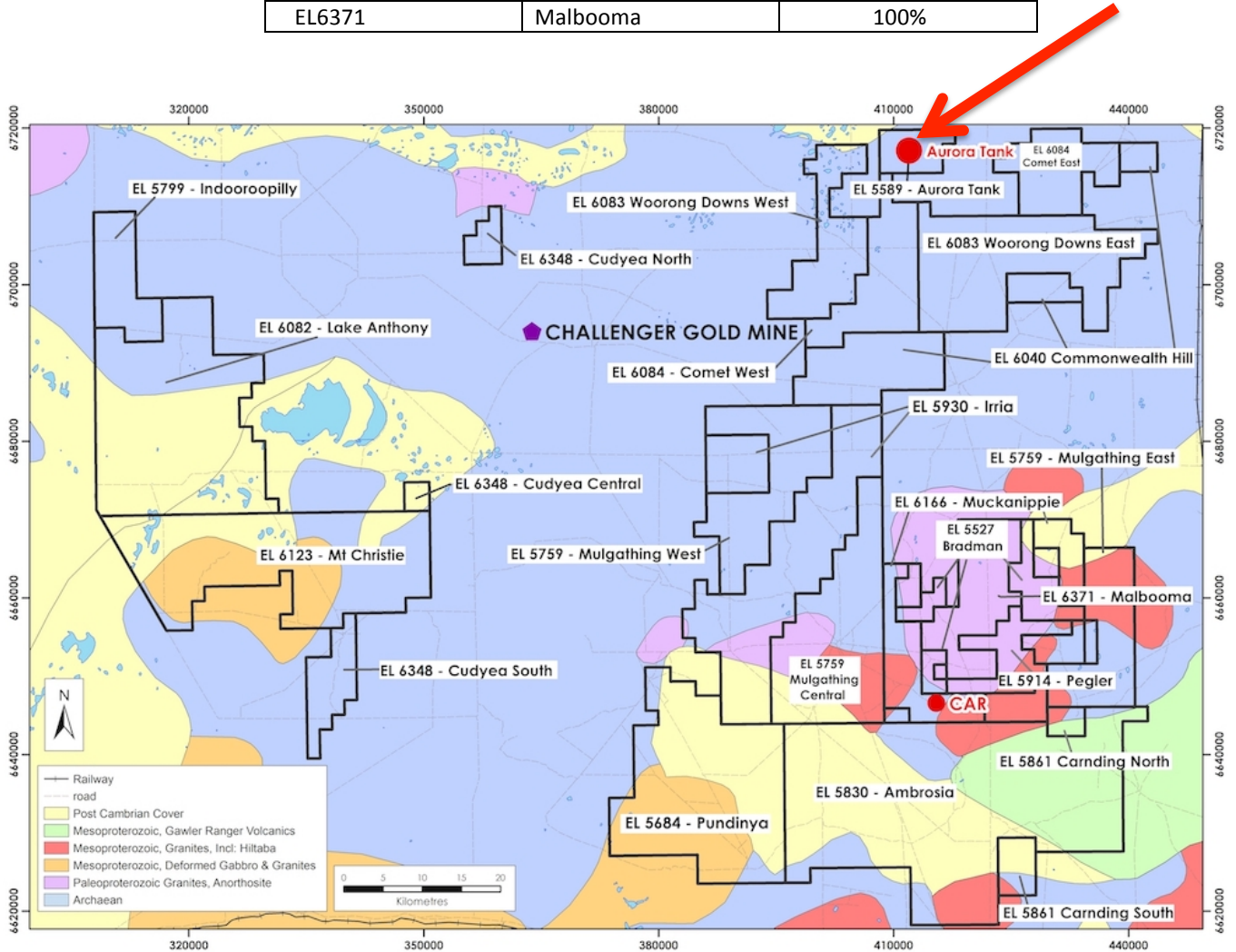


Figure 2: Marmota’s Gawler Craton Gold Project, around the Challenger Gold mine Aurora Tank Gold discovery (RED arrow)

Aurora Tank Gold 100% owned

Marmota's Aurora Tank gold discovery is located 50km NE of the Challenger Gold Mine in the Woomera Prohibited Defence Area of South Australia. [see Fig. 2]

Marmota is actively refining the Company's substantial tenement holding, adding ground and/or relinquishing as our exploration team works through our tenement holding.

The Phase 1 June 2019 program yielded outstanding gold intersections, and our new best ever results [see Figures 3 & 4] .

Phase 2 commenced in December. For full detail, see ASX:MEU 31 July, 19 Sept, 9 Dec 2019 .

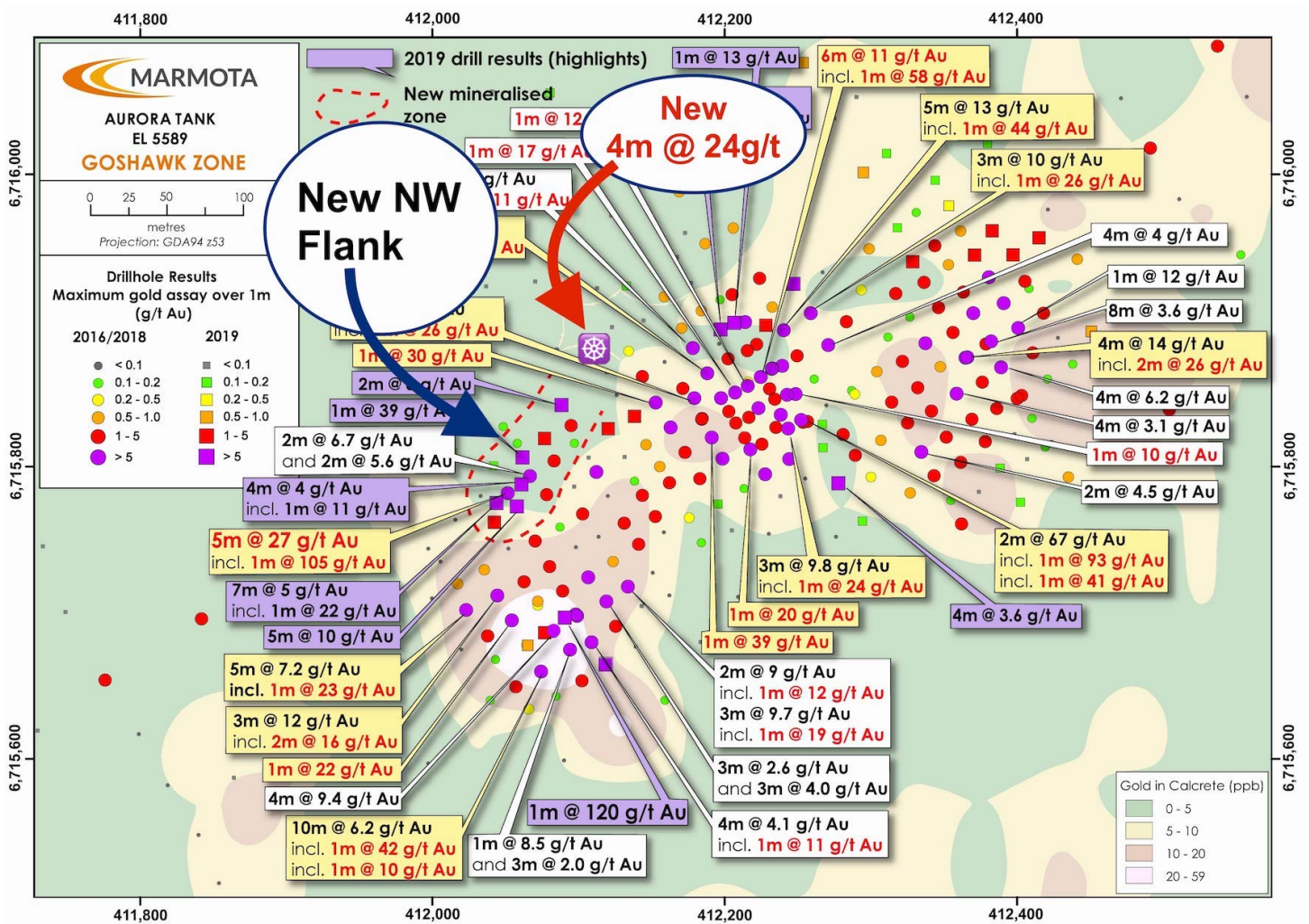


Figure 3: Aurora Tank: Best downhole gold results + new NW flank - - - -

[For more detail, see ASX:MEU 28 Jan 2020]

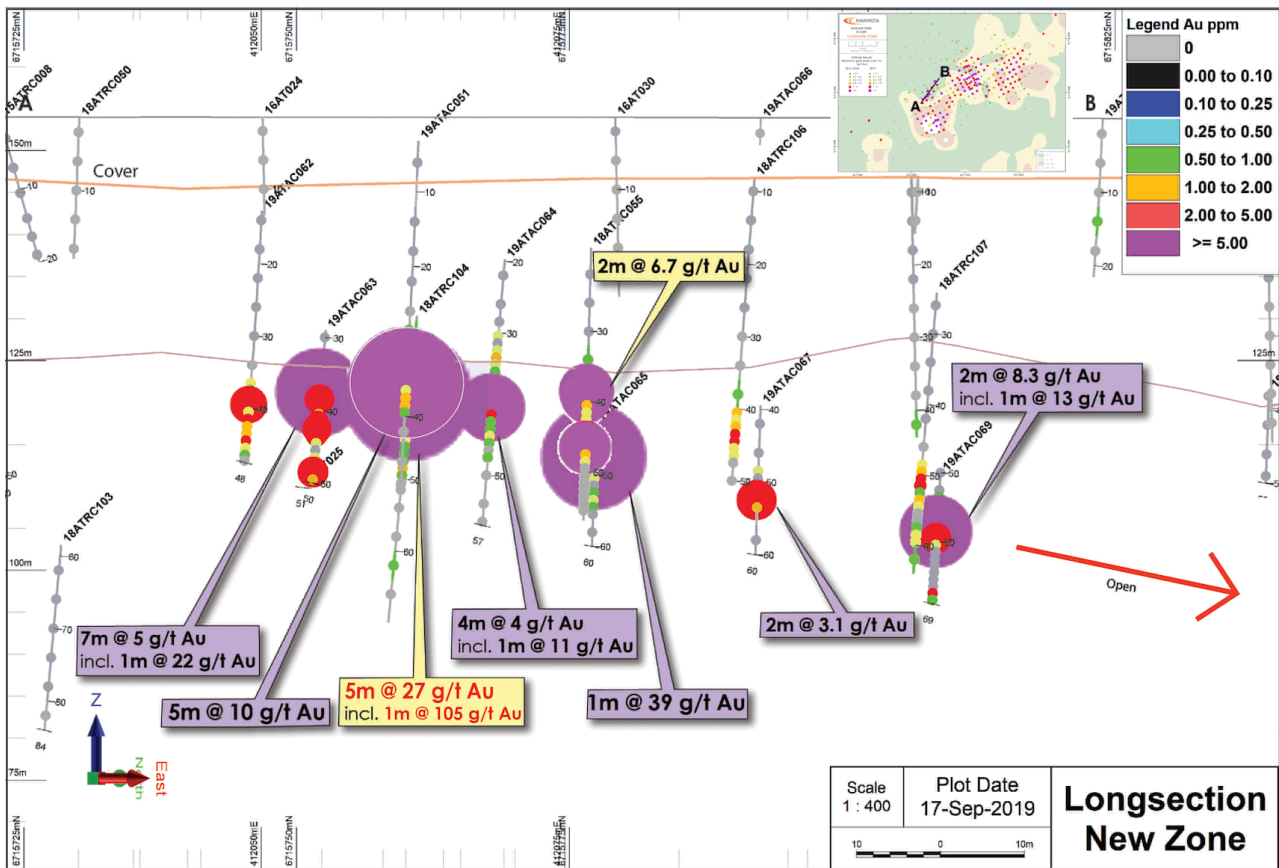


Figure 4: Schematic long-section through new NW flank [prior to December drilling]

Column leach tests yield excellent gold recoveries

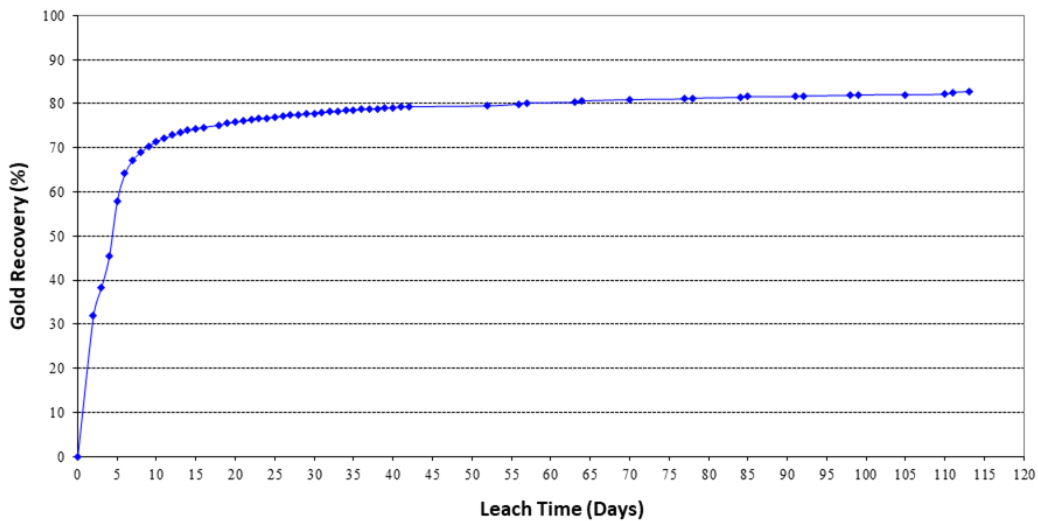


Figure 5: Column Leach Gold recoveries (with 9kg binder) vs time

- Initial column leach tests have shown that Aurora Tank gold is readily recoverable by cyanide leaching of ore [see ASX:MEU 10 Oct 2019]
- Gold recovery over 80% is considered very high by industry standards for gold heap leach operations
- The amenability of gold recovery at Aurora Tank by heap leaching methods is considered likely to be feasible

COPPER Copper Coast – Yorke Peninsula

Tenement	Name	MEU Holding
EL 5832	West Melton	100%

- Champion Copper (EL 5832) is situated on the Yorke Peninsula in South Australia approximately 50km north of Rex Minerals Ltd Hillside copper-gold deposit.
- During the Quarter, EL6292 was relinquished (Marmota 75%, Monax/Auteco 25%); the Company has not been active on EL6292 for many years.

URANIUM Junction Dam project

Tenement	Name	MEU Holding
EL5682	Junction Dam	100% of uranium

Junction Dam is strategically located 15 km east from the Honeymoon (ASX:BOE) in-situ recovery (ISR) uranium mine (west of Broken Hill) [see Fig. 6]

Marmota has:

- JORC Inferred Resource of **5.4 million pounds** U_3O_8 with average grade of 557ppm U_3O_8 [ASX:MEU 18 July 2013]
- Overall Exploration Target¹ of **22–33 million pounds** U_3O_8
- Grades of up to 8,143ppm U_3O_8 at the Saffron deposit

Marmota is particularly well-placed for any upturn in the uranium sector, with an existing uranium JORC Resource that the Company spent millions of dollars to develop in prior years, and which is located adjacent to one of only 4 permitted mines in Australia.

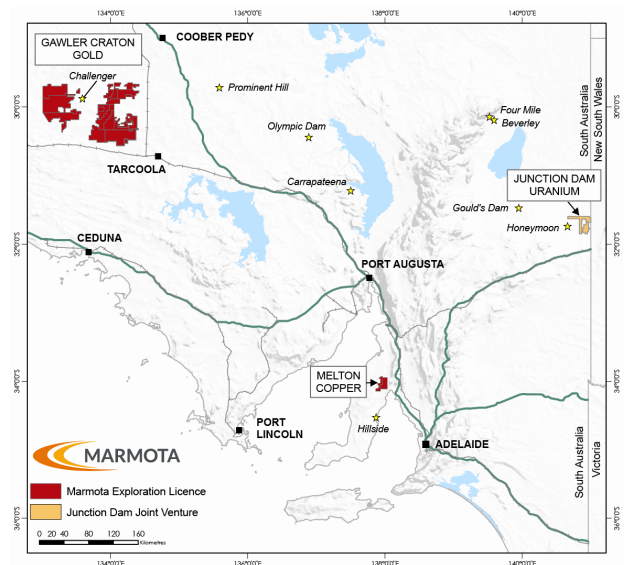


Figure 6: Location of Junction Dam

¹ Saffron deposit with Bridget and Yolanda prospects: see ASX:MEU 9 July 2012.

What is next?

Aurora Tank Gold

- Crew returning to Adelaide by the end of this week together with January drilling samples.
- Assay results for the full Phase 2 RC program (4m composites) are anticipated around the end of February.

Significant changes to underlying fundamentals

- The Board notes that gold prices have been rising further. The following diagram plots the spot price of gold (in AUD) over the last 12 months, which has risen from around A\$1,800 per ounce to around A\$2,300 per ounce.

1 Year Gold Price in AUD/oz



Competent Persons Statement

Information in this Release relating to Exploration Targets, Exploration Results and Mineral Resources is based on information compiled by Dr Kevin Wills, who is a Member of the Australasian Institute of Mining and Metallurgy. He has sufficient experience which is relevant to the styles of mineralisation and types of deposits under consideration and to the activities being undertaken to qualify as a Competent Person as defined in the 2012 Edition of the "Australasian Code of Reporting of Exploration Results, Mineral Resources and Ore Reserves." Dr Wills consents to the inclusion in this report of the matters based on his information in the form and context in which it appears.

Where results from previous announcements are quoted, Marmota confirms that it is not aware of any new information or data that materially affects the information included in the relevant market announcement and, in the case of estimates of Mineral Resources, that all material assumptions and technical parameters underpinning the estimates in the relevant market announcement continue to apply and have not materially changed.

ASX: **MEU**

For further information, please contact:

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About Marmota Limited

Marmota Limited (ASX: MEU) is a South Australian mining exploration company, focused on gold, copper and uranium. Gold exploration is centred on the Company's dominant tenement holding in the highly prospective and significantly underexplored Gawler Craton, near the Challenger gold mine, in the Woomera Prohibited Defence Area. The Company's copper project is based at the Melton project on the Yorke Peninsula. The Company's uranium project is at Junction Dam adjacent to the Honeymoon mine.

For more information, please visit: www.marmota.com.au

Appendix 5B

Mining exploration entity and oil and gas exploration entity quarterly report

Introduced 01/07/96 Origin Appendix 8 Amended 01/07/97, 01/07/98, 30/09/01, 01/06/10, 17/12/10, 01/05/13, 01/09/16

Name of entity

MARMOTA LTD

ABN

38119270816

Quarter ended ("current quarter")

31 DECEMBER 2019

Consolidated statement of cash flows	Current quarter \$A'000	Year to date (6 months) \$A'000
1. Cash flows from operating activities		
1.1 Receipts from customers		
1.2 Payments for		
(a) exploration & evaluation	(211)	(546)
(b) development		
(c) production		
(d) staff costs	(32)	(59)
(e) administration and corporate costs	(87)	(152)
1.3 Dividends received (see note 3)		
1.4 Interest received	3	9
1.5 Interest and other costs of finance paid		
1.6 Income taxes paid		
1.7 Research and development refunds		
1.8 Other (government funding received)		
1.9 Net cash from / (used in) operating activities	(327)	(748)

2. Cash flows from investing activities

- 2.1 Payments to acquire:
- (a) property, plant and equipment
 - (b) tenements (see item 10)
 - (c) investments

Appendix 5B

Mining exploration entity and oil and gas exploration entity quarterly report

Consolidated statement of cash flows	Current quarter \$A'000	Year to date (6 months) \$A'000
(d) other non-current assets		
2.2 Proceeds from the disposal of:		
(a) property, plant and equipment		
(b) tenements (see item 10)		
(c) investments		
(d) other non-current assets		
2.3 Cash flows from loans to other entities		
2.4 Dividends received (see note 3)		
2.5 Other (provide details if material)		
2.6 Net cash from / (used in) investing activities	-	-

3. Cash flows from financing activities		
3.1 Proceeds from issues of shares	2,500	2,500
3.2 Proceeds from issue of convertible notes		
3.3 Proceeds from exercise of share options		
3.4 Transaction costs related to issues of shares, convertible notes or options	(14)	(14)
3.5 Proceeds from borrowings		
3.6 Repayment of borrowings		
3.7 Transaction costs related to loans and borrowings		
3.8 Dividends paid		
3.9 Other (provide details if material)		
3.10 Net cash from / (used in) financing activities	2,486	2,486

4. Net increase / (decrease) in cash and cash equivalents for the period		
4.1 Cash and cash equivalents at beginning of period	961	1,382
4.2 Net cash from / (used in) operating activities (item 1.9 above)	(327)	(748)
4.3 Net cash from / (used in) investing activities (item 2.6 above)	-	-
4.4 Net cash from / (used in) financing activities (item 3.10 above)	2,486	2,486

Appendix 5B

Mining exploration entity and oil and gas exploration entity quarterly report

Consolidated statement of cash flows		Current quarter \$A'000	Year to date (6 months) \$A'000
4.5	Effect of movement in exchange rates on cash held	-	-
4.6	Cash and cash equivalents at end of period	3,120	3,120

5.	Reconciliation of cash and cash equivalents at the end of the quarter (as shown in the consolidated statement of cash flows) to the related items in the accounts	Current quarter \$A'000	Previous quarter \$A'000
5.1	Bank balances	3,082	923
5.2	Call deposits	38	38
5.3	Bank overdrafts		
5.4	Other (provide details)		
5.5	Cash and cash equivalents at end of quarter (should equal item 4.6 above)	3,120	961

6. Payments to directors of the entity and their associates

- 6.1 Aggregate amount of payments to these parties included in item 1.2
- 6.2 Aggregate amount of cash flow from loans to these parties included in item 2.3
- 6.3 Include below any explanation necessary to understand the transactions included in items 6.1 and 6.2

Current quarter \$A'000
50
-

Payment of non-executive and executive directors' fees, salaries and superannuation to the directors for the quarter.

7. Payments to related entities of the entity and their associates

- 7.1 Aggregate amount of payments to these parties included in item 1.2
- 7.2 Aggregate amount of cash flow from loans to these parties included in item 2.3
- 7.3 Include below any explanation necessary to understand the transactions included in items 7.1 and 7.2

Current quarter \$A'000

Appendix 5B

Mining exploration entity and oil and gas exploration entity quarterly report

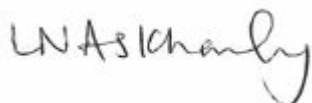
8. Financing facilities available <i>Add notes as necessary for an understanding of the position</i>	Total facility amount at quarter end \$A'000	Amount drawn at quarter end \$A'000
8.1 Loan facilities	Nil	Nil
8.2 Credit standby arrangements	Nil	Nil
8.3 Other (please specify)	Nil	Nil
8.4 Include below a description of each facility above, including the lender, interest rate and whether it is secured or unsecured. If any additional facilities have been entered into or are proposed to be entered into after quarter end, include details of those facilities as well.		

9. Estimated cash outflows for next quarter	\$A'000
9.1 Exploration and evaluation	390
9.2 Development	-
9.3 Production	-
9.4 Staff costs	26
9.5 Administration and corporate costs	30
9.6 Other (provide details if material)	-
9.7 Total estimated cash outflows	446

10. Changes in tenements (items 2.1(b) and 2.2(b) above)	Tenement reference and location	Nature of interest	Interest at beginning of quarter	Interest at end of quarter
10.1 Interests in mining tenements and petroleum tenements lapsed, relinquished or reduced	EL6292	Relinquished [JV with Monax Mining (now Auteco)]	75%	0%
10.2 Interests in mining tenements and petroleum tenements acquired or increased	n/a	n/a	n/a	n/a

Compliance statement

- 1 This statement has been prepared in accordance with accounting standards and policies which comply with Listing Rule 19.11A.
- 2 This statement gives a true and fair view of the matters disclosed.



Sign here:
Company secretary

Date: 30 January 2020

Print name: Lisa Askham-Levy

Notes

1. The quarterly report provides a basis for informing the market how the entity's activities have been financed for the past quarter and the effect on its cash position. An entity that wishes to disclose additional information is encouraged to do so, in a note or notes included in or attached to this report.
2. If this quarterly report has been prepared in accordance with Australian Accounting Standards, the definitions in, and provisions of, AASB 6: Exploration for and Evaluation of Mineral Resources and AASB 107: Statement of Cash Flows apply to this report. If this quarterly report has been prepared in accordance with other accounting standards agreed by ASX pursuant to Listing Rule 19.11A, the corresponding equivalent standards apply to this report.
3. Dividends received may be classified either as cash flows from operating activities or cash flows from investing activities, depending on the accounting policy of the entity.

TENEMENT STATUS

(as at 31 December 2019)

SOUTH AUSTRALIA

Project name	Tenement	Number	Area (km ²)	Details	Marmota's interest %	Status
Junction Dam	Junction Dam	EL 5682	341	JV with Teck Australia, Variscan Mines & Eaglehawk Geological Consulting	100% of the uranium mineral rights	Granted
Melton	West Melton	EL 5832	88		100%	Granted
Gawler Craton West Block	Indooroopilly	EL 5799	100		100%	Granted
	Lake Anthony	EL 6082	495		100%	Granted
	Mt Christie	EL 6123	466		100%	Granted
	Cudyea	EL 6348	110		100%	Granted
Gawler Craton NE Block	Aurora Tank	EL 5589	48		100%	Granted
	Woorong Downs	EL 6083	458		100%	Granted
	Comet	EL 6084	268		100%	Granted
	Commonwealth Hill	EL 6040	196		100%	Granted
Gawler Craton SE Block	Ambrosia	EL 5830	854		100%	Granted
	Muckanippie	EL 6166	145		100%	Granted
	Mulgathing	EL 5759	652		100%	Granted
	Pundinya	EL 5684	435		100%	Granted
	Bradman	EL 5527	92		100%	Granted
	Carnding	EL 5861	53		100%	Granted
	Irria	EL 5930	406		100%	Granted
	Pegler	EL 5914	77		100%	Granted
Malbooma	EL 6371	178		100%	Granted	