



QUARTERLY ACTIVITY REPORT

SEPTEMBER QUARTER 2019

HIGHLIGHTS

Aurora Tank Gold 100% owned

2019 Phase 1 Drilling Program: Best Ever Gold Intersections

During the quarter, Marmota received the results of the June 2019 (Phase 1) drilling program at Marmota's Aurora Tank gold discovery [ASX:MEU 31 July and 19 Sept 2019] .

Key features are:

1. Highest 1m gold intersection ever

Assays yielded Marmota's highest ever 1m intersection of **120 g/t gold** (duplicate sample also at **120 g/t**) just 21m from surface [Hole 19ATAC049], surpassing Marmota's previous best 1m intersections at Aurora Tank of **105 g/t gold**¹ (located 120m to the North; 38m from surface) and **93 g/t gold** (located 200m to the NE; 32m from surface).

2. New NW Zone returns high grade gold

The new assays included further excellent 1m intersections including **47 g/t gold** [Hole 19ATAC051], **39 g/t gold** [Hole 19ATAC065] and **22 g/t gold** [Hole 19ATAC063], all located within the new NW zone, as well as multiple intersections exceeding 10g/t. The new NW zone appears to be over 100m long, and is open in a number of directions [see Fig. 3 and 4] .

3. Reconnaissance Program yields new Discovery Hole

New **discovery** hole 19ATAC098 (Two Fingers zone) located 450m north of the Aurora Tank mineralised zone, reported **4m @ 7.2 g/t** gold (from 45m; end of hole at 50m). This hole was drilled to test a biogeochemical target from sampling of Senna shrub leaves [see Fig. 6] . Detailed 1m samples collected in August not only verified the existence of the discovery hole, but (i) returned significantly higher grades, and (ii) are accompanied by anomalous pathfinder elements suggesting associated primary mineralisation.

¹ Recently featured in 'Top Drill Intersections per State – Australia – Q1 2019' published by the RSC Mineral Intelligence Report (May 2019: p.9 of the RSC Report)

Phase 3 Metallurgy Testwork

Column Leach tests yield excellent Gold Recoveries

- 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



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.

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

Source: Adelaide Advertiser 11 October 2019

Corporate

AGM

The AGM will be held at **3pm** (Adelaide time) on:

Wednesday 27 November 2019 at:

Grant Thornton House, Level 3, 170 Frome St, Adelaide

MEU In the News

During the quarter, Marmota was featured in, amongst others:

- **Channel 7 News** 31 July 2019 “Tree leaves used to find gold in South Australia”
- **Australian Mining Review** July 2019 “Gold in them thar hills”
- **2GB** 31 July 2019 Money News with Ross Greenwood
- **The Asia Miner** 1 Aug 2019 “Marmota announces gold grades”
- **Mining Monthly** 1 Aug 2019 “Aurora Tank and the case of the golden leaves”
- **Queensland Mining & Energy** “Tree leaf mining method works”
- **New Scientist** 17 Aug 2019 “A company has used trees to find gold deep underground”
- **Adelaide Advertiser** 20 Sept 2019 “An Adelaide company is testing leaves to help figure out where to drill for gold – and it’s working.”



Figure 1: Drilling at Aurora Tank in June

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 (new)	100%

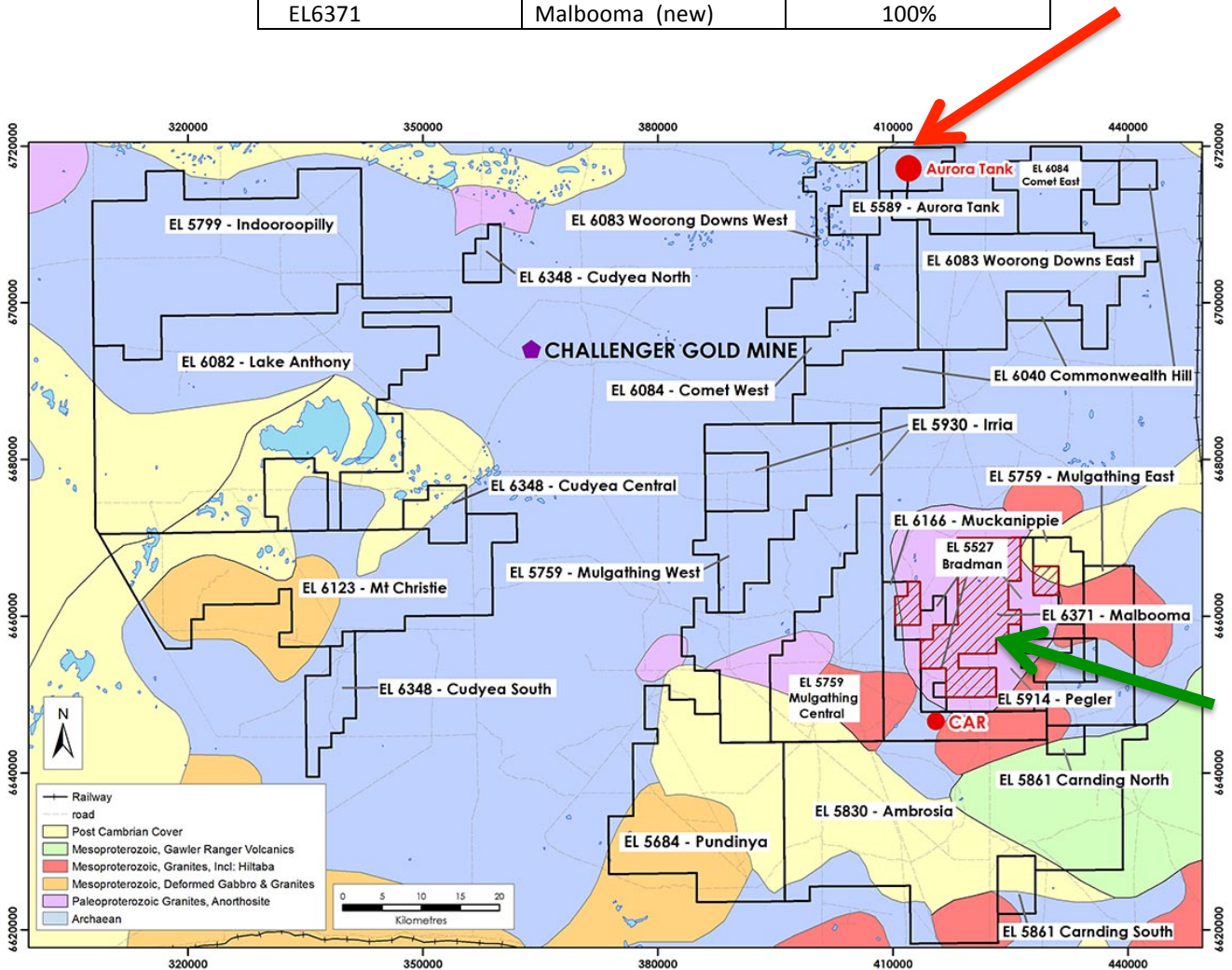


Figure 2: Marmota’s Gawler Craton Gold Project, around the Challenger Gold mine Aurora Tank Gold discovery (RED arrow) New Malbooma tenement (GREEN arrow)

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]

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

For highlights, see page 1.

For full detail, see ASX:MEU 31 July, 19 Sept, 10 Oct 2019 .

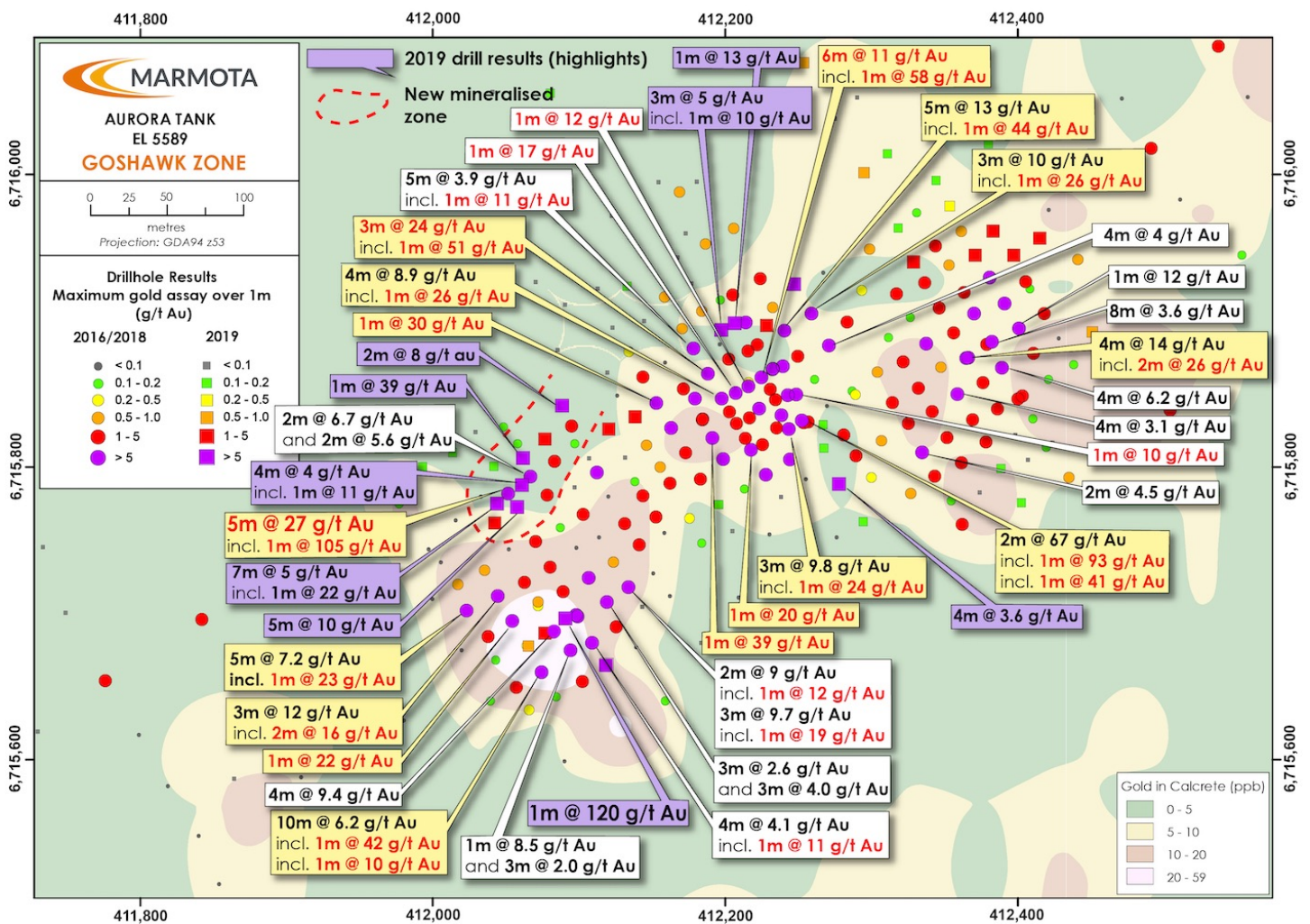


Figure 3: Aurora Tank: Best downhole gold results + new NW flank ----- (including new drilling results)

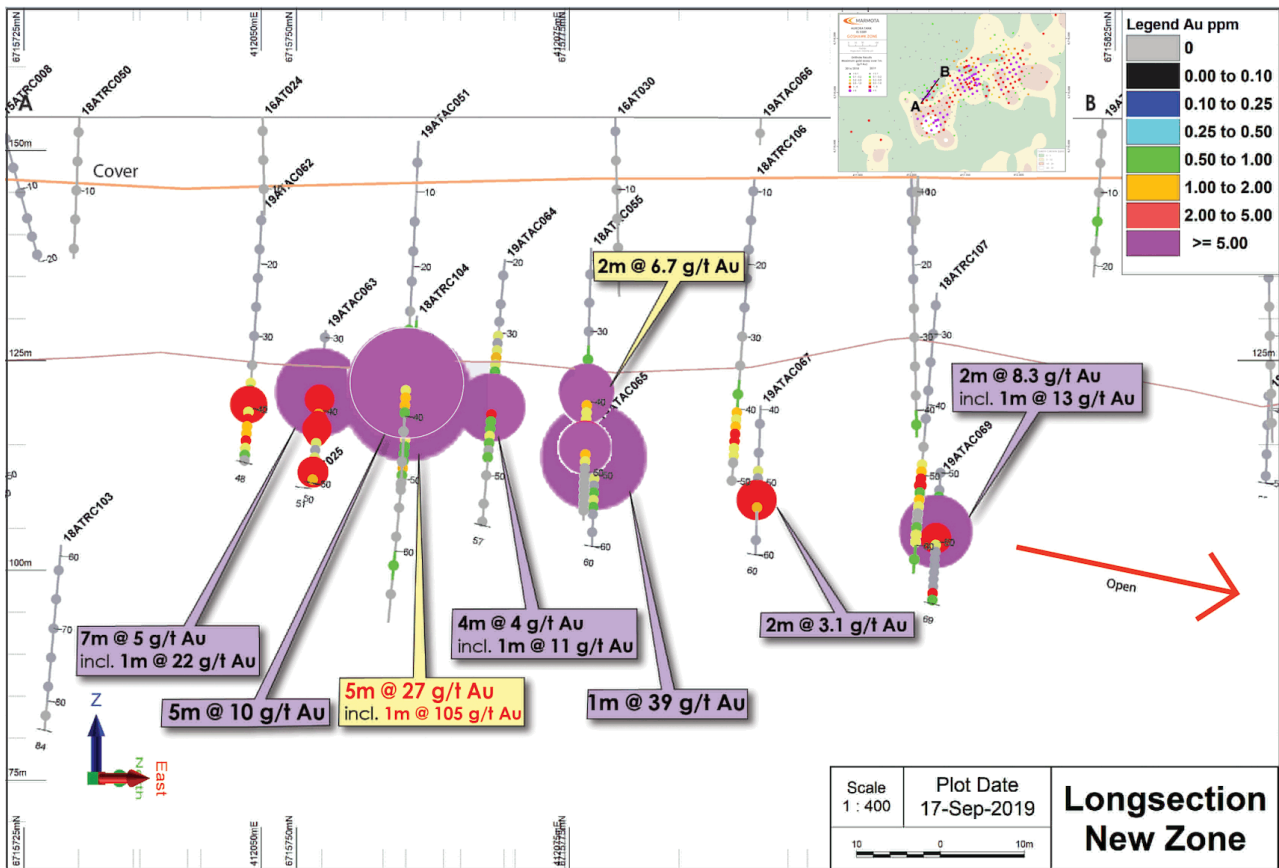


Figure 4: Schematic long-section through new NW flank

Column leach tests yield excellent gold recoveries

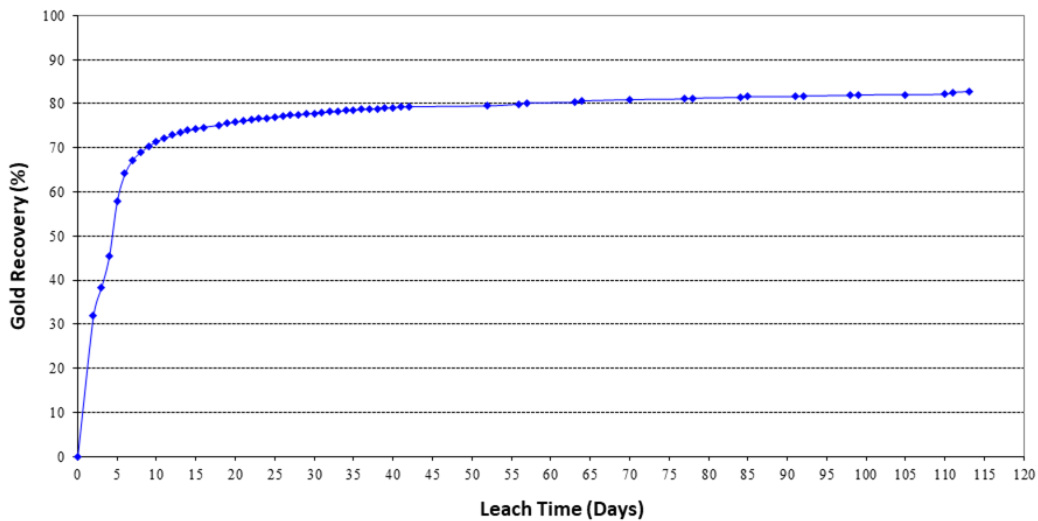


Figure 5: Column Leach Gold recoveries (with 9kg binder) vs time

- 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

New Two Fingers Discovery Hole

The new 'Two Fingers' Discovery Hole [Hole 19AT098] is located 450m to the NE of known mineralisation at Aurora Tank [see Fig. 6].

Detailed 1m assays from the reconnaissance hole returned:

Depth	Grade
45 to 46m:	10.0 g/t gold
46 to 47m:	9.3 g/t gold
47 to 48m:	6.0 g/t gold
48 to 49m:	3.5 g/t gold

... averaging **4m @ 7.2 g/t gold** [see ASX:MEU 19 Sept 2019].

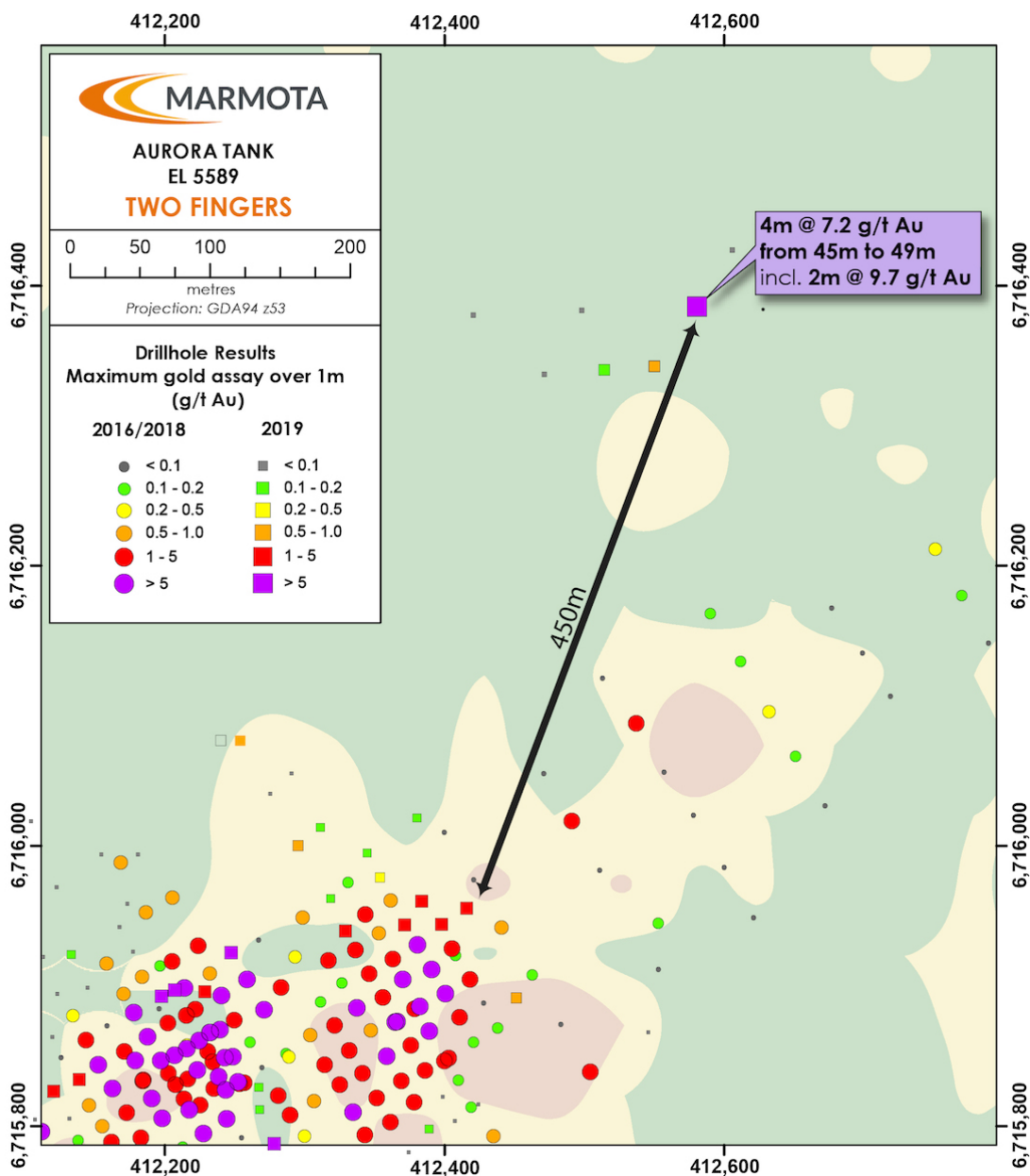


Figure 6: Two Fingers discovery identified by tree leaves, located 450m from known mineralisation

New Malbooma tenement acquisition

- Marmota has acquired new tenement EL 6371 ('Malbooma') [see Fig. 2]
- The new tenement is located about 45 km south of Marmota's Aurora Tank gold discovery, and immediately north of Marmota's CAR gold prospect [see Fig. 7]
- Included in the tenement is the historic Malbooma gold mine that reported historic average grades of 7.8 g/t gold, and grades up to 22 g/t gold. The mine opened in 1909 and is hosted by an auriferous quartz reef in the Mesoproterozoic Muckanippie Anorthosite Complex. Mining is believed to have ceased in 1925 with workings up to 15m deep. The number of ounces produced is not recorded.

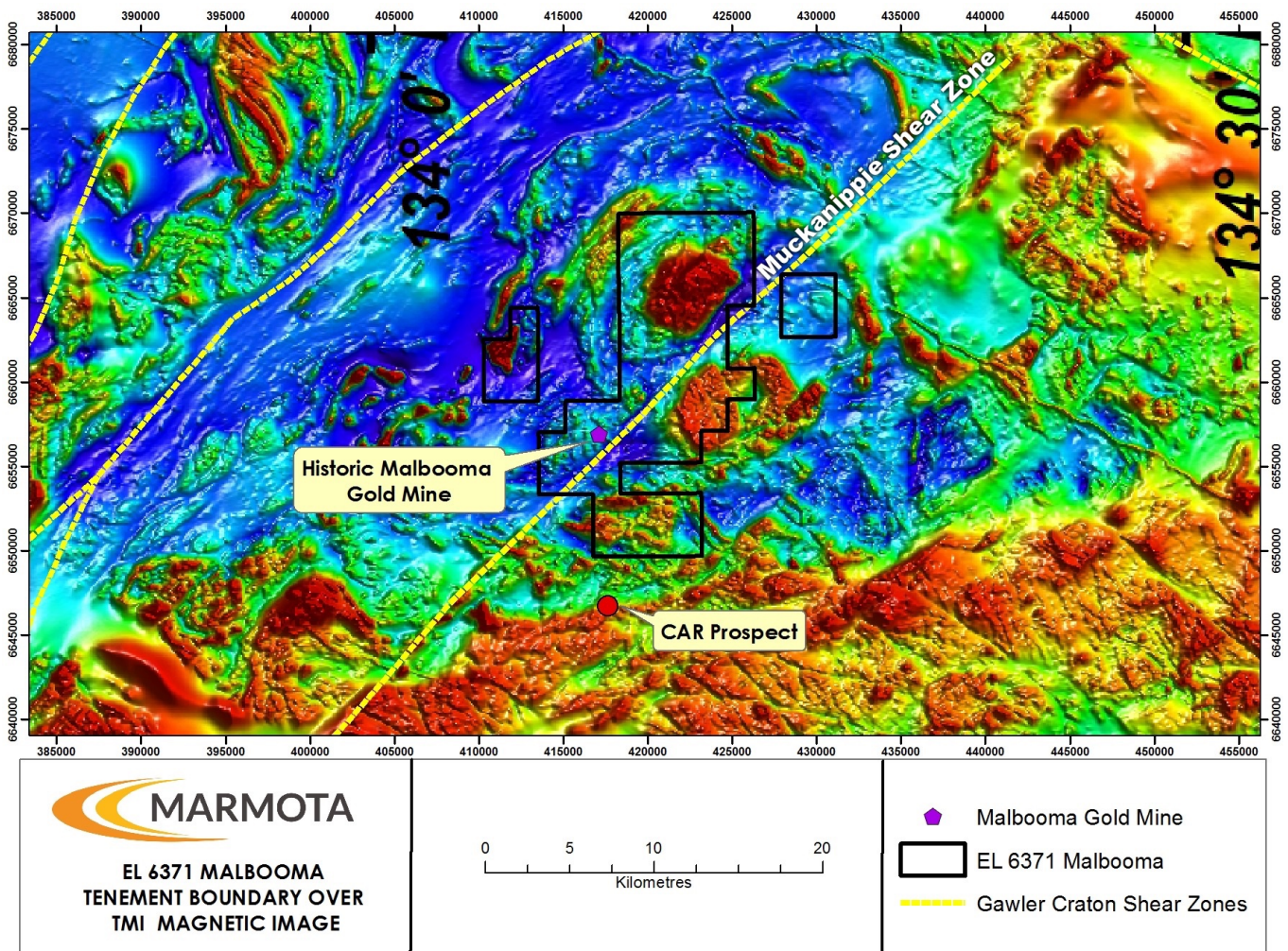


Figure 7: Malbooma Tenement EL 6371 with Malbooma gold mine, major Muckanippie Shear Zone and CAR Prospect

COPPER Copper Coast – Yorke Peninsula

Tenement	Name	MEU Holding
EL 5832	West Melton	100%
EL 6292	North Melton	Marmota 75%, Monax/Auteco Limited 25%

- 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, EL6125 was relinquished (Marmota 75%, Monax/Auteco 25%); the Company has not been active on EL6125 for many years.
- Marmota is monitoring the copper price.

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. 8]

Marmota has:

- JORC Inferred Resource of **5.4 million pounds** U₃O₈ with average grade of 557ppm U₃O₈ [ASX:MEU 18 July 2013]
- Overall Exploration Target² of **22–33 million pounds** U₃O₈
- Grades of up to 8,143ppm U₃O₈ 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.

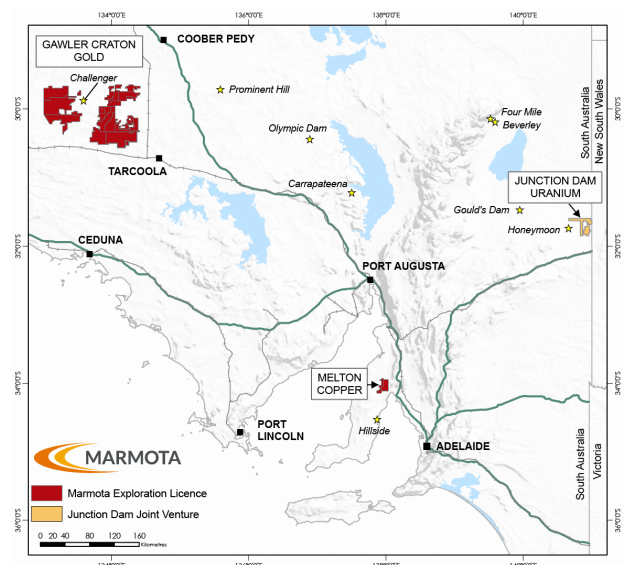


Figure 8: Location of Junction Dam

² Saffron deposit with Bridget and Yolanda prospects: see ASX:MEU 9 July 2012.

What is next?

Aurora Tank Gold

- As this quarterly is being prepared, hundreds of new biogeochemical assays (sampled in August) have arrived. The Company is still processing same. They have identified a new biogeochemical target outside the mineralised zone at Aurora Tank. The timing is fortuitous and will benefit the forthcoming drill program.
- Phase 2 RC drilling anticipated to commence mid to late November.
- The program is anticipated to be our largest RC program at Aurora Tank so far.

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.

For further information, please contact:

Marmota Limited

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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")

30 SEPTEMBER 2019

Consolidated statement of cash flows	Current quarter \$A'000	Year to date (3 months) \$A'000
1. Cash flows from operating activities		
1.1 Receipts from customers		
1.2 Payments for		
(a) exploration & evaluation	(335)	(335)
(b) development		
(c) production		
(d) staff costs	(27)	(27)
(e) administration and corporate costs	(65)	(65)
1.3 Dividends received (see note 3)		
1.4 Interest received	6	6
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	(421)	(421)

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 (3 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	0	0
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	0	0
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	0	0

4. Net increase / (decrease) in cash and cash equivalents for the period		
4.1 Cash and cash equivalents at beginning of period	1,382	1,382
4.2 Net cash from / (used in) operating activities (item 1.9 above)	(421)	(421)
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)	-	-

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 (3 months) \$A'000
4.5	Effect of movement in exchange rates on cash held	-	-
4.6	Cash and cash equivalents at end of period	961	961

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	923	1,345
5.2	Call deposits	38	37
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)	961	1,382

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
45
-

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

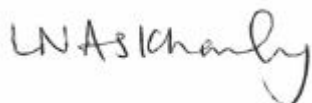
8. Financing facilities available <i>Add notes as necessary for an understanding of the position</i>	Total facility amount at quarter end \$A'000	Amount drawn at quarter end \$A'000
8.1 Loan facilities	Nil	Nil
8.2 Credit standby arrangements	Nil	Nil
8.3 Other (please specify)	Nil	Nil
8.4 Include below 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	300
9.2 Development	-
9.3 Production	-
9.4 Staff costs	36
9.5 Administration and corporate costs	31
9.6 Other (provide details if material)	-
9.7 Total estimated cash outflows	367

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	EL6125	Relinquished [JV with Monax Mining (now Auteco)]	75%	0%
10.2 Interests in mining tenements and petroleum tenements acquired or increased	EL6371	Granted	0%	100%

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: 28 October 2019

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 30 September 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	North Melton	EL 6292	137	JV with Monax Mining	75% of all minerals	Granted
	West Melton	EL 5832	88		100%	Granted
Gawler Craton West Block	Indooroopilly	EL 5799	584		100%	Granted
	Lake Anthony	EL 6082	959		100%	Granted
	Mt Christie	EL 6123	564		100%	Granted
	Cudyea	EL 6348	145		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	181		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	