

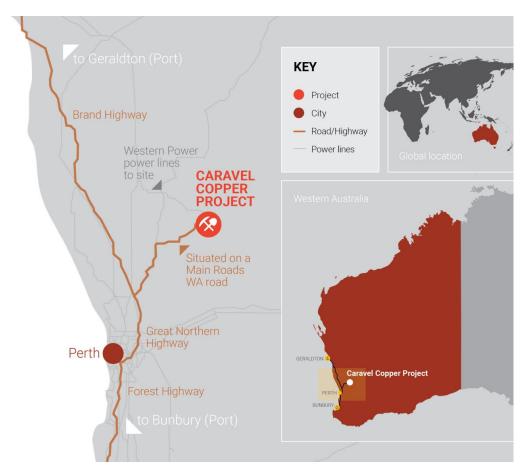
ASX Release: 31 July 2019

# **QUARTERLY ACTIVITIES REPORT FOR PERIOD ENDED 30 JUNE 2019**

#### **COMPANY OVERVIEW**

Caravel Minerals Limited (ASX:CVV, "Caravel" or "Company") is establishing the potential to develop the Caravel Copper Project, a greenfields copper mining and processing project located 150km from Perth in Western Australia's Wheatbelt region (Diagram 1).

The potential project is based on a defined Mineral Resource of 1.86Mt contained copper (at 0.15% Cu cut-off) making it the largest copper resource in Western Australia and in the top ten largest copper projects in Australia.



**Diagram 1:** Project location near existing infrastructure and export ports

During the quarter, Caravel advanced project feasibility studies including significantly more detailed levels of investigation into metallurgical processing, mining, process plant engineering, environment, stakeholders and logistics.

The results of these studies were released on 29 May 2019 in the form of a scoping study report. The investigations have increased levels of confidence in the project, its parameters and ability to be developed and has effectively positioned the company to work towards completion of a Pre-Feasibility Study.

#### **SUMMARY**

#### **Caravel Copper Project**

- ➤ A Scoping Study established the basis for a strong economic case to establish a new copper mining and processing operation to produce and export copper concentrate to global markets
- Based on outcomes of the Scoping Study, Caravel Minerals will proceed with more advanced feasibility studies
- ➤ Indicated and Inferred Mineral Resource estimate at a 0.25% Cu cut-off resulted in a total of 372 million tonnes at a grade of 0.35% Cu, containing 1.3 million tonnes of contained Cu
- Metallurgical test work demonstrates ore can be treating utilising standard sulphide copper processing techniques with very high recoveries
- ➤ Initial copper concentrate analyses demonstrates a very clean product with low level of impurities. The Caravel concentrate is anticipated to comply with smelter specifications free from penalties due to deleterious elements. Caravel concentrate likely to be attractive to smelter customers globally to blend with complex concentrates.
- > The company progressed stakeholder and community engagement with key groups critical to the project development.

#### **Corporate**

- ➤ Mr Steve Abbott was appointed as Managing Director on 29 May 2019.
- ➤ At 30 June 2019, the Company had cash reserves of approximately AU\$0.71m.

#### Feasibility Studies - Scoping Study Release

A very positive scoping study was announced to the ASX in late May 2019. The scoping study was the culmination of studies that had been carried out over the previous nine months which are listed and summarised in Table 1:

Table 1: Caravel Copper Project – Scoping Studies, Advisors and Assessment

Study Area	Advisors	Assessment Focus
Geology	MRG/Caravel	Regional geology review and reporting.
Resources	Trepanier	JORC compliant resource estimate, ore body profile and
		growth potential
Geotechnical	Dempers &	Analysis to determine preliminary inter-ramp pit slope
	Seymour	angles.
Mining	Orelogy/MSP	Mining parameters and schedules.
Metallurgy	Aurifex/ALS/MSP	Mineralogy, ore characterisation, extraction and
		recovery.
Process Design	MSP	Process Optimisation Study – process, equipment and
		plant layout.
Power	Trumble	Power and infrastructure requirements, cost estimations.
Water	Caravel	Water resource data acquisition.
Tailings	Knight Piesold	Tailings storage and disposal and locations.
Transport	Qube Bulk	Road transport options and suitable ports for export.
Freight	Braemers ACM	Copper concentrate shipping freight.
Infrastructure	MSP/Caravel	Site layout options.
Fauna	Western Wildlife	Fauna and habitat survey.
Flora	Mattiske	Level two seasonal flora survey and assessment.
Approvals	Blueprint	Approvals framework, estimation and scheduling.
	Environmental	
Financial	Anlar Consulting	Production cost analysis, forecasts and modelling
Models		
Stakeholders	Caravel	Briefings and engagement for planning and design of
		future studies.

Following release and publication of the scoping study results, ASX expressed concern that the Caravel did not have reasonable grounds for disclosing production targets and forecast financial outputs of the scoping study. The concern was that the Caravel did not have a sufficient basis to release this information due the Company's current market capitalisation relative to the estimated upfront capital expenditure requirement of the Caravel Copper Project.

A retraction of production targets and forecast financial information contained within the scoping study release was published on 6 June 2019.

Caravel continues to disclose study details to parties undertaking due diligence under confidentiality agreement.

#### Metallurgy

Following on from the announcement of 29 April 2019 titled "Caravel Copper Resource and Project Update", which detailed metallurgical results, Caravel Minerals completed initial copper concentrate analyses on a composite sample from the project area. Analyses have demonstrated a very clean copper concentrate product with low level of impurities.

As smelting capacity increases globally, smelters are increasingly seeking clean concentrate to blend with complex concentrates (concentrates containing impurities above threshold levels). Based on the level of impurities of the Caravel concentrate and stricter regulatory regimes in processing jurisdictions, the Project's clean concentrate is likely to be a sought-after product by copper smelters.

Initial copper concentrate analyses are provided in Table 2:

**Table 2: Copper Concentrate Analyses** 

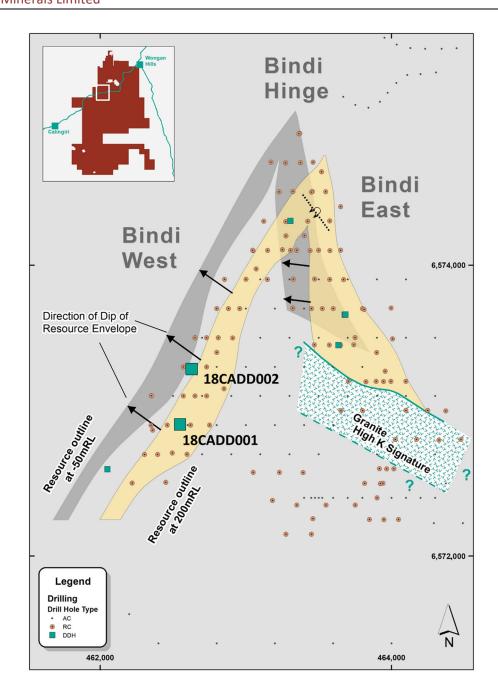
Element	Caravel Concentrate
Cu (%)	~25%
As (%)	<0.01
Bi (%)	0.01
Cd (ppm)	<5
CI (%)	<0.01
F (ppm)	200
Fe (%)	26.5
Hg (ppm)	0.5
Pb (%)	<0.01
S (%)	29.3
Sb (ppm)	0.70
Se (ppm)	40.0
Zn (%)	0.20

Arsenic (As) is one key impurity element that is undesirable to smelters and is increasingly being seen in high concentration in many copper concentrates. Penalties for As usually start above 0.1-0.2% and concentrates >0.5% are not permitted to be imported to some countries.

Caravel copper concentrate levels for arsenic are <0.01%, at least ten times lower than the threshold level penalties that would apply, making it ideal for blending. Other impurities such as Cadmium (Cd), Selenium (Se), Antimony (Sb) and Lead (Pb) are similarly an order of magnitude or more under the typical threshold limits for smelters.

The Caravel Copper Project's clean copper concentrate analyses will allow discussions to progress with potential concentrate off-take parties.

For concentrate sample details and drill hole locations, refer to Diagram 2, Table 3 and Appendix 1.



**Diagram 2:** Collar plan showing location of diamond core holes used in metallurgical testwork

Master composites for metallurgical test work purposes were prepared for diamond holes 18CADD001 (CV-01MC) and 18CADD002 (CV-02MC) once multi-element assay analyses and geological logging had been completed. The intervals used to create the master composites are shown in Table 3.

The majority of metallurgical test work to date has been carried out on the master composites. The concentrate analysis in this announcement is for a composite consisting of 4kg CV01MC and 6kg CV02MC.

Table 3: Master composites used in metallurgical testwork.

Composite	Liele ID	Interv	<i>r</i> al
ID	Hole ID	from (m)	to (m)
	18CADD001	44	50
	18CADD001	50	64
CV01MC	18CADD001	64	70
CVOTIVIC	18CADD001	70	74
	18CADD001	96	102
	18CADD001	106	114
	18CADD002	100	114
	18CADD002	114	120
	18CADD002	154	166
CV02MC	18CADD002	166	172
	18CADD002	172	180
	18CADD002	196	202
	18CADD002	204	212

The composite sample was ground to a P80 of 150um before passing through three stages of rougher flotation for a cumulative float time of 12 minutes (4g/t of 3418A collector was added to the second stage and 5 g/t of kero to the third stage). The concentrate was then re-ground to a P80 of 42um before two stages of cleaner flotation with the addition of 67g/t of lime to control the pH to 10 and a further addition of 5g/t of kero the second stage (cum float 10 minutes). The concentrate then went under a molybdenum float (three stages) to remove the molybdenum from the copper concentrate. The tail from the first stage of the molybdenum float is the final copper concentrate (float time 4 min).

### **FORWARD PROGRAM – 3rd QUARTER 2019**

## **Feasibility Studies**

- Prefeasibility planning and scheduling
- > Waste material characterisation
- Ongoing metallurgical test work
- > Land tenure, social and environmental planning and processes
- Progression of partnership/financing options.

#### **Health & Safety**

The Company incurred zero LTI's during the quarter.

## Corporate

Since the last quarterly report;

- ➤ Issued 3,261,122 shares to MSP Engineering
- ➤ Issued 341 shares for 7 cents per shares upon exercise of options
- > 15,710,072 options exercisable at 7 cents lapsed

At 30 June 2019 the Company had;

- > 184,365,039 shares on issue
- > 21,600,000 options on issue (strike price between 6.8c and 10c)
- > \$0.71m held in cash reserves
- ➤ Nil debt

# **APPENDIX A - TENEMENT SCHEDULE**

Project	Location	Tenement	Equity at 1 Apr 2019	Equity at 30 Jun 2019	Changes in Quarter
Calingiri	Wongan/Goomalling	E70/2788	100	100	-
Calingiri	Goomalling	E70/2789	100	100	-
Calingiri	Goomalling	E70/4674	100	100	-
Calingiri	Wongan	E70/3674	100	100	-
Calingiri	Goomalling	E70/3680	100	100	-
Calingiri	Goomalling	E70/3755	100	100	-
Calingiri	Goomalling	E70/4746	100	100	-
Calingiri	Goomalling	E70/4732	100	100	-
Calingiri	Wongan	EA70/5228	100	100	-
Calingiri	Wongan	EA70/5229	100	100	-
Calingiri	Wongan	E70/4675	100	100	-
Calingiri	Wongan	E70/4676	100	100	-
Calingiri	Wongan	E70/2343	80	80	-

#### **APPENDIX B - MINERAL RESOURCES**

The following table presents the Caravel Copper Project Mineral Resources' sensitivity to various lower and higher cut-off grades.

Calingiri Project Mineral Resources Categories at Various Cut-off Grades									
	Indicated			Inferred		Total Resource			
Cut-off Grade	Tonnes (Mt)	Grade Cu %	Cu Metal (t)	Tonnes (Mt)	Grade Cu %	Cu Metal (t)	Tonnes (Mt)	Grade Cu %	Cu Metal (t)
0.30	153.8	0.40	608,200	94.6	0.37	354,000	248.5	0.39	962,200
0.25	224.7	0.36	802,900	147.3	0.34	498,700	372.1	0.35	1,301,600
0.20	290.4	0.33	950,600	198.0	0.31	613,000	488.5	0.32	1,563,600
0.15	393.4	0.29	1,128,800	268.6	0.27	734,000	661.9	0.28	1,862,800

- 1. Competent Persons Statements The information in this report that relates to the Calingiri Mineral Resource estimates is extracted from an ASX Announcement dated 29 April 2018, (see ASX Announcement 29 April 2019 "Caravel Copper Resource and Project Update, <a href="https://www.caravelminerals.com.au">www.caravelminerals.com.au</a> and <a href="https://www.caravelminerals.com.au">www.asx.com.au</a>). The Company confirms that it is not aware of any new information or data that materially affects the information included in the original market announcement and that all material assumptions and technical parameters underpinning the Mineral Resource estimates in the relevant market announcement continue to apply and have not materially changed. The Company confirms that the form and context in which the Competent Person's findings are represented have not been materially modified from the original market announcement.
- 2. Forward Looking Statements. This document may include forward looking statements. Forward looking statements include, but are not necessarily limited to, statements concerning Caravel Minerals planned exploration programmes, studies and other statements that are not historic facts. When used in this document, the words such as "could", "indicates", "plan", "estimate", "expect", "intend", "may", "potential", "should" and similar expressions are forward looking statements. Such statements involve risks and uncertainties, and no assurances can be provided that actual results or work completed will be consistent with these forward looking statements.

For any queries please contact the Company Secretary, Daniel Davis on +61 8 9426 6400

# Name of entity

Caravel Minerals Limited	
ABN	Quarter ended ("current quarter")

41 120 069 089	30 June 2019

Cons	olidated statement of cash flows	Current quarter (3-months) \$'000	Year to date (12-months) \$'000
1.	Cash flows from operating activities		
1.1	Receipts from customers		
1.2	Payments for		
	(a) exploration & evaluation	(402)	(1,836)
	(b) development	-	-
	(c) production	-	-
	(d) staff costs	(154)	(586)
	(e) administration and corporate costs	(69)	(398)
1.3	Dividends received (see note 3)	-	-
1.4	Interest received	-	2
1.5	Interest and other costs of finance paid	-	-
1.6	Income taxes paid	-	-
1.7	Research and development refunds	-	-
1.8	Other (Refund of R&D tax offset	-	203
1.9	Net cash from / (used in) operating activities	(624)	(2,616)

2.	Cash flows from investing activities		
2.1	Payments to acquire:		
	(a) property, plant and equipment	-	(71)
	(b) tenements (see item 10)	-	-
	(c) investments	-	-
	(d) other non-current assets	-	-
2.2	Proceeds from the disposal of:	-	-
	(a) property, plant and equipment	-	37
	(b) tenements (see item 10)	-	-
	(c) investments	-	42
	(d) other non-current assets	-	30
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	-	38

<sup>+</sup> See chapter 19 for defined terms 1 September 2016

Conso	lidated statement of cash flows	Current quarter (3-months) \$'000	Year to date (12-months) \$'000
3.	Cash flows from financing activities		
3.1	Proceeds from issues of shares	-	2,862
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,		(124)
	convertible notes or options	-	(134)
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 (Refund of R&D tax offset)	-	-
3.10	Net cash from / (used in) financing activities	-	2,728

4.	Net increase / (decrease) in cash and cash equivalents for the period		
4.1	Cash and cash equivalents at beginning of period	1,337	563
4.2	Net cash from / (used in) operating activities (item 1.9 above)	(624)	(2,616)
4.3	Net cash from / (used in) investing activities (item 2.6 above)	-	38
4.4	Net cash from / (used in) financing activities (item 3.10 above)	-	2,728
4.5	Effect of movement in exchange rates on cash held	-	-
4.6	Cash and cash equivalents at end of period	713	713

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 \$'000	Previous quarter \$'000
5.1	Bank balances	713	1,337
5.2	Call deposits	-	-
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)	713	1,337

<sup>+</sup> See chapter 19 for defined terms 1 September 2016

6.	Payments to directors of the entity and their associates	Current quarter \$'000
6.1	Aggregate amount of payments to these parties included in item 1.2	78
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 items 6.1 and 6.2	included in

Payment of director fees

# 7. Payments to related entities of the entity and their associates \$'000 7.1 Aggregate amount of payments to these parties included in item 1.2 90 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

Mitchell River Group, a related party of Mr Alasdair Cooke, was paid \$89,806 plus GST for provision of a serviced office and technical services.

8.	Financing facilities available	Total facility amount at quarter end \$'000	Amount drawn at quarter end \$'000	
8.1	Loan facilities	-	-	
8.2	Credit standby arrangements	-	-	
8.3	Other (please specify)	-	-	
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.			

<sup>+</sup> See chapter 19 for defined terms

<sup>1</sup> September 2016

9.	Estimated cash outflows for next quarter	\$'000
9.1	Exploration and evaluation	182
9.2	Development	-
9.3	Production	-
9.4	Staff costs	137
9.5	Administration and corporate costs	136
9.6	Other (provide details if material)	-
9.7	Total estimated cash outflows	455

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	-	-	-	-
10.2	Interests in mining tenements and petroleum tenements acquired or increased	_			

#### **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.

**Daniel Davis** 

Company Secretary Date: 31 July 2019

#### **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.

<sup>+</sup> See chapter 19 for defined terms