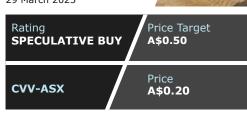


Canaccord Genuity

Australian Equity Research 29 March 2023



Market Data

52-Week Range (A\$) :	0.14 - 0.36
Avg Daily Vol (M) :	0.4
Market Cap (A\$M) :	95.8
Shares Out. (M) :	479.2
Enterprise Value (A\$M) :	83.2
NAV /Shr (A\$):	0.50
Net Cash (A\$M) :	12.7
P/NAV (x) (A\$):	0.40

FYE Jun	2022A	2023E	2024E	2025E
EBITDA (A\$M)	(14.4)	(3.9)	(4.2)	(2.6)
Free Cash Flow (A\$M)	(13.7)	(11.3)	(14.4)	(98.8)
Net Debt (Cash) (A\$M)	(2)	(30)	(15)	84



------ S&P/ASX Emerging Companies (rebased) Source: FactSet

Priced as of close of business 28 March 2023

Price target sensitivity to copper prices/FX

		Copper price											
NAV	0.50	\$3.00	\$3.25	\$3.50	\$3.75	\$4.00	\$4.50	\$5.00					
	\$0.66	0.31	0.42	0.54	0.66	0.78	1.01	1.24					
	\$0.68	0.26	0.38	0.49	0.60	0.72	0.94	1.17					
5	\$0.70	0.22	0.33	0.44	0.55	0.66	0.88	1.10					
U SD/AUD	\$0.72	0.18	0.29	0.39	0.50	0.61	0.82	1.04					
ns	\$0.74	0.14	0.25	0.35	0.46	0.56	0.77	0.98					
	\$0.76	0.11	0.21	0.31	0.41	0.51	0.72	0.92					
	\$0.78	0.07	0.17	0.27	0.37	0.47	0.67	0.87					

Source: Canaccord Genuity estimates

Canaccord Genuity received a fee for its role as Lead Manager to Caravel's \$12m equity raising at \$0.20 on 16 November 2022.

Canaccord Genuity, and its associates, holds an option position in CVV.AU.

Please refer to the important disclosure section of this report.

Initiation of Coverage

Caravel Minerals Limited

Base Metals - Developer/Explorer

Paul Howard | Analyst | Canaccord Genuity (Australia) Ltd. | phoward@cgf.com | +61.8.9263.1155

A world class copper porphyry in our own backyard

We initiate coverage of CVV with a SPECULATIVE BUY recommendation and a price target of \$0.50.

Caravel Minerals Limited (CVV-ASX) is advancing the large Caravel Copper Project, located 150km northeast of Perth, Western Australia. The project occupies broad acreage, marginal farmland within a growing region of geological significance owing to Chalice Mining's (CHN-ASX | Not Rated) 2020 PGM-Ni-Cu discovery at Gonneville (Julimar), 70km to the southwest. The Southwest (geological) Terrane, which hosts both Caravel and Gonneville, also hosts globally significant mines including Boddington (Au) and Greenbushes (Li).

Time to be owning copper: Copper is essential to the energy transition due to its use in new energy technologies such as EVs, charging networks, solar PV and wind, energy storage and upgraded transmission/distribution infrastructure. We recently published a report on the copper sector, The Junior Copper Book, and we reiterate our view that we see long-term structural demand growth potential driven by new energy technologies and the broader energy transition.

Largest undeveloped copper project in Australia and globally significant: The Caravel Copper Project hosts a large porphyry copper system. We make it the largest undeveloped copper project in Australia with a resource of 1,180Mt @ 0.24% Cu (& 48ppm Mo) for 2.84Mt of contained copper at a 0.1% Cu cut-off. The deposit has a low cut-off grade, which allows for a low resource grade. In global terms, the resource places Caravel in the top 20 of active development projects, held outside the majors.

PFS highlights a long life, large production scenario: CVV released an updated PFS in September 2022, outlining a 27Mtpa project producing 60ktpa of copper in concentrate at AISC of US\$2.37/lb (C1 costs of US\$1.54/lb) over a 28-year LOM. Initial capex is A \$1,584m inclusive of A\$176m pre-strip and A\$309m for mining equipment.

How does this get funded and built? A 27Mtpa plant is large and therefore relatively expensive to build. As seen with global peers (e.g. CMMC-TSX and TKO-TSX), it is not uncommon to undertake a 25% project sell-down at the development stage to a partner (e.g. Japanese consortium) for upfront consideration equal to a portion of the future project value. Our model assumes a 25% sell-down for A\$200m given our NPV_{8%} is A \$874m. CVV is also assessing options for vendor financing partnerships to reduce the upfront mining equipment costs. Other financing options being assessed include debt and equity strategic partnerships and prepayments, and JV partners.

Highly leveraged to the copper price: As per the PFS, the Caravel Copper Project has a pre-tax NPV (7%) of A\$1.5bn at a US\$4.00/lb copper price and AUD/USD of 0.72. According to the PFS sensitivities, each 50c increase in the copper price adds A\$900m to the NPV. As shown in the sidebar, our valuation is similarly leveraged to copper. For example, our price target jumps 21% to \$0.61 at US\$4.00/lb copper (FX: \$0.72).

Valuation and recommendation: We initiate coverage of CVV with a SPECULATIVE BUY recommendation and a price target of \$0.50. Our NPV_{12%} is based on the PFS and subsequent update, modelled on a fully-diluted basis and risked 80% to account for the early stage nature of the studies. We have assumed a funding scenario which involves a 25% project sell-down with the balance of capital covered through debt and equity. We risk this financing scenario to 75%. In our view, if CVV can obtain the necessary funding, partnerships and market attention, it is well-placed to take the Caravel Copper Project forward towards development. Its 27-year operating mine life is near class-leading among aspiring ASX copper developer peers and its ~60ktpa of contained copper production for C1 of US\$1.54/lb CuEq ranks it among the top ASX production assets such as OZL-ASX's Carrapateena (FY23 guidance 66kt @ C1 of US\$1.13/lb CuEq) and SFR-ASX's MATSA (FY23 guidance 63kt @ C1 of US\$1.82/lb CuEq).

Canaccord Genuity is the global capital markets group of Canaccord Genuity Group Inc. (CF : TSX)

The recommendations and opinions expressed in this research report accurately reflect the research analyst's personal, independent and objective views about any and all the companies and securities that are the subject of this report discussed herein.

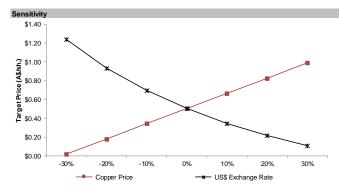
For important information, please see the Important Disclosures beginning on page 25 of this document.



BUY

Figure 1: CVV financial summary

Caravel Minerals Limited		CVV:ASX			
Analyst(s) :	Paul How arc	t			
Date:	28/03/2023				
Year End:	June				
Market Information					
Share Price		A\$	0.20		
Market Capitalisation		A\$m	95.8		
12 Month Hi		A\$	0.36		
12 Month Lo		A\$	0.14		
Issued Capital		m	479.2		
Options (avg. exercise price: \$0.33)		m	27.3		
Assumed future equity		m	825.0		
Fully Diluted		m	1331.5		
Valuation			Risked	A\$m	A\$/share
Caravel (75% ownership assumed)	NPV @ 12%	6	80%	203.7	0.16
Exploration & growth				34.0	0.03
Corporate				(24.8)	(0.02)
Net Cash as at 31-Dec-22				12.7	0.01
ITM Options				-	-
Assumed New equity			75%	431.3	0.33
TOTAL NAV/ Price Target				656.8	0.50
Price:NAV					0.40
Assumptions	2027e	2028e	2029e	2030e	2031e
Copper Price (US\$/lb)	4.38	4.13	4.00	3.75	3.50
Molybdenum Price (US\$/lb)	20.00	20.00	20.00	20.00	20.00
Silver Price (US\$/oz)	26.07	26.07	26.07	26.07	26.07
Gold Price (US\$/oz)	2,018	2,018	2,018	2,018	2,018
AUD:USD	0.70	0.72	0.72	0.72	0.72



Production Metrics		2027e	2028e	2029e	2028e
Caravel					
Copper	kt	52	78	78	68
Molybdenum	kt	0	0	0	0
Silver	koz	540	755	755	755
Gold	koz	4	6	6	6
Payable Copper Equivalent	kt	54	81	81	72
C1 Cost (US\$/lb CuEq)		1.65	1.31	1.29	1.56
AISC (US\$/lb CuEq)		1.69	1.42	1.44	1.69
Resources	Mt	Cu %	Cu kt	CuEq %	CuEq kt
Measured	105.2	0.3	284	0.30	319
Indicated	574.0	0.24	1,397	0.26	1,503
Inferred	501.3	0.23	1,143	0.25	1,229
Total	1,180.5	0.24	2,824	0.26	3,052
Reserves	Mt	Cu %	Cu kt	CuEq %	CuEq kt
Proven	105.4	0.27	285		
Probable	478.0	0.24	1,143		
Total	583.4	0.24	1,427		
Substantial shareholders					
Name	Shares (m)	%			
Paradice Investment Management	45.5	9.5%			

SPEC BU	Rating:
A\$0.50	Target Price:

Caravel Minerals Limited is advancing the Caravel Copper Project, located 150km northeast of Perth, Western Australia. The project boasts a resource of 1,180Mt @ 0.24% Cu for 2.84Mt of contained copper and a reserve of 583.4Mt @ 0.24% Cu for 1.42Mt of contained copper. CVV released an updated PFS in September 2022, outlining a 27Mpa project producing Oktpa of cooper in concentrate at AISC of US\$2.37/lb (C1 costs of US\$1.54/lb) over a 28-year LOM. Total initial capex is A\$1,584m. A DFS is underway and due in mid-2024.

	0000-	0000-	0004-	0005-	0000-
Profit & Loss (£\$m) Revenue	2022a 0.0	2023e 0.0	2024e 0.0	2025e 0.0	2026e 0.0
Operating Costs	0.0	0.0	0.0	0.0	0.0
Corporate & O'heads	-3.7	-3.6	-4.0	-4.0	-4.8
Exploration (Expensed)	-10.8	-0.4	-0.4	-0.2	-0.2
EBITDA	-14.4	-3.9	-4.2	-2.6	-1.8
Dep'n	0.0	0.0	0.0	0.0	0.0
Net Interest	0.0	0.0	0.0	5.6	41.0
Other					
Tax	0.0	0.0	0.0	0.0	0.0
NPAT (reported)	-14.5	-3.9	-4.2	-8.3	-42.8
Abnormals	-0.0	0.0	0.0	0.0	0.0
NPAT	-14.5	-3.9	-4.2	-8.3	-42.8
EBITDA Margin	nm	nm	nm	nm	nm
EV/EBITDA	nm	nm	nm	nm	nm
EPS	-\$0.01	\$0.00	\$0.00	-\$0.01	-\$0.03
EPS Growth PER	nm	nm	nm	nm	nm
Dividend Per Share	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Dividend Yield	0%	0%	0%	0%	0%
Cash Flow (£\$m)	2022a	2023e	2024e	2025e	2026e
Cash Receipts	0.0	0.0	0.0	0.0	0.0
Cash paid to suppliers	-2.3	-3.6	-4.0	-4.0	-4.8
Tax Paid	0.0	0.0	0.0	0.0	0.0
Net Interest	0.0	0.1	0.2	7.2	44.2
+/- Working cap change	0.0	-3.3	-6.7	0.0	0.0
Operating Cash Flow	-2.3	-6.8	-10.4	3.2	39.4
Exploration and Evaluation	-11.4	-4.5	-4.0	-2.0	-2.0
Capex	0.0	0.0	0.0	-300.0	-770.0
Other	-0.0	-0.1	0.0	200.0	0.0
Investing Cash Flow	-11.4	-4.5	-4.0	-102.0	-772.0
Debt Drawdown (repayment)	0.0	0.0	0.0	233.3	356.7
Share capital Dividends	2.9 0.0	40.1 0.0	0.0 0.0	0.0 0.0	350.0 0.0
Financing Expenses	0.0	-1.7	0.0	0.0	-14.0
Financing Cash Flow	3.0	38.4	0.0	233.3	692.7
Opening Cash	13.2	2.4	29.5	15.1	149.6
Increase / (Decrease) in cash	-10.7	27.1	-14.4	134.5	-39.9
FX Impact	0.0	0.0	0.0	0.0	0.0
Closing Cash	2.5	29.5	15.1	149.6	109.7
Op. Cashflow/Share	\$0.00	-\$0.01	-\$0.02	\$0.01	\$0.08
P/CF	-42.2x	-14.1x	-9.2x	30.1x	2.4x
EV/FCF	nm	nm	nm	nm	nm
FCF Yield		120/	-15%	-103%	-764%
	-14%	-12%		100/0	-704/8
Balance Sheet (£\$m)	-14% 2022a	-12%	2024e	2025e	
Cash + S/Term Deposits	2022a 2.4	2023e 29.5	2024e 15.1	2025e 149.6	2026e 109.7
Cash + S/Term Deposits Other current assets	2022a 2.4 0.2	2023e 29.5 32.0	2024e 15.1 2.0	2025e 149.6 182.0	2026e 109.7 464.0
Cash + S/Term Deposits Other current assets Current Assets	2022a 2.4 0.2 2.7	2023e 29.5 32.0 61.5	2024e 15.1 2.0 17.1	2025e 149.6 182.0 331.6	2026 109.7 464.0 573.7
Cash + S/Term Deposits Other current assets Current Assets Property, Plant & Equip.	2022a 2.4 0.2 2.7 0.2	2023e 29.5 32.0 61.5 0.2	2024e 15.1 2.0 17.1 0.2	2025e 149.6 182.0 331.6 300.2	2026 109.7 464.0 573.7 1,070.2
Cash + S/Term Deposits Other current assets Current Assets Property, Plant & Equip. Exploration & Develop.	2022a 2.4 0.2 2.7 0.2 3.1	2023e 29.5 32.0 61.5 0.2 7.1	2024e 15.1 2.0 17.1 0.2 10.7	2025e 149.6 182.0 331.6 300.2 12.5	2026 109.7 464.0 573.7 1,070.2 14.3
Cash + S/Term Deposits Other current assets Current Assets Property, Plant & Equip. Exploration & Develop. Other Non-current Assets	2022a 2.4 0.2 2.7 0.2 3.1 0.0	2023e 29.5 32.0 61.5 0.2 7.1 0.0	2024e 15.1 2.0 17.1 0.2 10.7 0.0	2025e 149.6 182.0 331.6 300.2 12.5 0.0	2026e 109.7 464.0 573.7 1,070.2 14.3 0.0
Cash + S/Term Deposits Other current assets Current Assets Property, Plant & Equip. Exploration & Develop. Other Non-current Assets Payables	2022a 2.4 0.2 2.7 0.2 3.1 0.0 1.2	2023e 29.5 32.0 61.5 0.2 7.1 0.0 0.0	2024e 15.1 2.0 17.1 0.2 10.7 0.0 0.0	2025e 149.6 182.0 331.6 300.2 12.5 0.0 0.1	20266 109.7 464.0 573.7 1,070.2 14.3 0.0 0.3
Cash + S/Term Deposits Other current assets Current Assets Property, Plant & Equip. Exploration & Develop. Other Non-current Assets Payables Short Term Debt	2022a 2.4 0.2 2.7 0.2 3.1 0.0 1.2 0.0	2023e 29.5 32.0 61.5 0.2 7.1 0.0 0.0 0.0	2024e 15.1 2.0 17.1 0.2 10.7 0.0 0.0 0.0	2025e 149.6 182.0 331.6 300.2 12.5 0.0 0.1 0.0	20266 109.7 464.0 573.7 1,070.2 14.3 0.0 0.3 0.0
Other current assets Current Assets Property, Plant & Equip. Exploration & Develop. Other Non-current Assets Payables Short Term Debt Long Term Debt	2022a 2.4 0.2 2.7 0.2 3.1 0.0 1.2 0.0 0.0	2023e 29.5 32.0 61.5 0.2 7.1 0.0 0.0 0.0 0.0	2024e 15.1 2.0 17.1 0.2 10.7 0.0 0.0 0.0 0.0	2025e 149.6 182.0 331.6 300.2 12.5 0.0 0.1 0.0 182.3	2026 109.7 464.0 573.7 1,070.2 14.3 0.0 0.3 0.0 464.3
Cash + S/Term Deposits Other current assets Current Assets Property, Plant & Equip. Exploration & Develop. Other Non-current Assets Payables Short Term Debt Long Term Debt Other Liabilities	2022a 2.4 0.2 2.7 0.2 3.1 0.0 1.2 0.0 0.0 0.0	2023e 29.5 32.0 61.5 0.2 7.1 0.0 0.0 0.0 0.0 47.9	2024e 15.1 2.0 17.1 0.2 10.7 0.0 0.0 0.0 0.0 0.0 11.2	2025e 149.6 182.0 331.6 300.2 12.5 0.0 0.1 0.0 182.3 453.4	2026e 109.7 464.0 573.7 1,070.2 14.3 0.0 0.3 0.0 464.3 857.9
Cash + S/Term Deposits Other current assets Current Assets Property, Plant & Equip. Exploration & Develop. Other Non-current Assets Payables Short Term Debt Long Term Debt Other Liabilities Net Assets	2022a 2.4 0.2 2.7 0.2 3.1 0.0 1.2 0.0 0.0	2023e 29.5 32.0 61.5 0.2 7.1 0.0 0.0 0.0 0.0	2024e 15.1 2.0 17.1 0.2 10.7 0.0 0.0 0.0 0.0	2025e 149.6 182.0 331.6 300.2 12.5 0.0 0.1 0.0 182.3	2026e 109.7 464.0 573.7 1,070.2 14.3 0.0 0.3 0.0 464.3 857.9 335.7
Cash + S/Term Deposits Other current assets Current Assets Property, Plant & Equip. Exploration & Develop. Other Non-current Assets Payables Short Term Debt Long Term Debt Other Liabilities Net Assets Shareholders Funds	2022a 2.4 0.2 3.7 0.2 3.1 0.0 1.2 0.0 0.0 0.0 0.0 4.8	2023e 29.5 32.0 61.5 0.2 7.1 0.0 0.0 0.0 0.0 47.9 41.0	2024e 15.1 2.0 17.1 0.2 10.7 0.0 0.0 0.0 0.0 11.2 36.8	2025e 149.6 182.0 331.6 300.2 12.5 0.0 0.1 0.0 182.3 453.4 28.5	20266 109.7 464.0 573.7 1,070.2 14.3 0.0 0.3 0.0 464.3 857.9 335.7 459.6
Cash + S/Term Deposits Other current assets Current Assets Property, Plant & Equip. Exploration & Develop. Other Non-current Assets Payables Short Term Debt Long Term Debt Other Liabilities Net Assets Shareholders Funds Reserves	2022a 2.4 0.2 2.7 0.2 3.1 0.0 1.2 0.0 0.0 0.0 0.0 4.8 69.5	2023e 29.5 32.0 61.5 0.2 7.1 0.0 0.0 0.0 0.0 0.0 47.9 41.0 109.6	2024e 15.1 2.0 17.1 0.2 10.7 0.0 0.0 0.0 11.2 36.8 109.6	2025e 149.6 182.0 331.6 300.2 12.5 0.0 0.1 0.0 182.3 453.4 28.5 109.6	2026e 109.7 464.0 573.7 1,070.2 14.3 0.0 0.3 0.0 464.3 857.9 335.7 459.6 4.1
Cash + S/Term Deposits Other current assets Current Assets Property, Plant & Equip. Exploration & Develop. Other Non-current Assets Payables Short Term Debt Long Term Debt Other Liabilities Net Assets Shareholders Funds Reserves Retained Earnings	2022a 2.4 0.2 2.7 0.2 3.1 0.0 1.2 0.0 0.0 0.0 0.0 4.8 69.5 4.1	2023e 29.5 32.0 61.5 0.2 7.1 0.0 0.0 0.0 0.0 0.0 47.9 41.0 109.6 4.1	2024e 15.1 2.0 17.1 0.2 10.7 0.0 0.0 0.0 0.0 0.0 10.2 36.8 109.6 4.1	2025e 149.6 182.0 331.6 300.2 12.5 0.0 0.1 0.0 182.3 453.4 28.5 109.6 4.1	20266 109.7 464.0 573.7 1,070.2 14.3 0.0 0.3 0.0 464.3 857.9 3357 459.6 4.1 -128.1
Cash + S/Term Deposits Other current assets Current Assets Property, Plant & Equip. Exploration & Develop. Other Non-current Assets Payables Short Term Debt Long Term Debt Other Liabilities Net Assets Shareholders Funds Reserves Retained Earnings Total Equity	2022a 2.4 0.2 2.7 0.2 3.1 0.0 1.2 0.0 0.0 0.0 4.8 69.5 4.1 -68.9	2023e 29.5 32.0 61.5 0.2 7.1 0.0 0.0 0.0 0.0 47.9 41.0 109.6 4.1 -72.8 41.0	2024e 15.1 2.0 17.1 0.2 10.7 0.0 0.0 0.0 0.0 11.2 36.8 109.6 4.1 -77.0 36.8	2025e 149.6 182.0 331.6 300.2 12.5 0.0 0.1 0.0 182.3 453.4 28.5 109.6 4.1 -85.2 28.5	20266 109.7 464.0 573.7 1,070.2 14.3 0.0 0.3 0.0 464.3 857.9 335.7 459.6 4.1 -128.1 335.7
Cash + S/Term Deposits Other current assets Current Assets Property, Plant & Equip. Exploration & Develop. Other Non-current Assets Payables Short Term Debt Uother Liabilities Net Assets Shareholders Funds Reserves Retained Earnings Total Equity Debt/Equity	2022a 2.4 0.2 2.7 0.2 3.1 1 0.0 1.2 0.0 0.0 0.0 4.8 69.5 4.1 1 -68.9 4.8	2023e 29.5 32.0 61.5 0.2 7.1 0.0 0.0 0.0 0.0 0.0 47.9 41.0 109.6 4.1 -72.8 41.0 0%	2024e 15.1 2.0 17.1 0.2 10.7 0.0 0.0 0.0 0.0 0.0 11.2 36.8 109.6 4.1 -77.0 36.8 0%	2025e 149.6 182.0 331.6 300.2 12.5 0.0 0.1 2.5 109.6 453.4 28.5 109.6 4.1 -85.2 28.5 639%	20266 109.7 464.0 573.7 1,070.2 14.3 0.0 0.3 0.0 464.3 857.6 459.6 4.1 -128.1 335.7 138%
Cash + S/Term Deposits Other current assets Current Assets Property, Plant & Equip. Exploration & Develop. Other Non-current Assets Payables Short Term Debt Long Term Debt Other Liabilities Net Assets Shareholders Funds Reserves Retained Earnings Total Equity Debt/Equity Net Debt/EBITDA	2022a 2.4 0.2 2.7 0.2 3.1 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 8.8 69.5 4.1 -68.9 4.8 0%	2023e 29:5 32:0 61.5 0.2 7.1 0.0 0.0 0.0 0.0 0.0 47.9 41.0 109:6 4.1 -72:8 41.0 0% 4.4x	2024e 15.1 2.0 17.1 0.2 10.7 0.0 0.0 0.0 0.0 11.2 36.8 109.6 4.1 -77.0 36.8 0% 1.4x	2025e 149.6 182.0 331.6 300.2 12.5 0.0 0.1 0.0 182.3 453.4 28.5 109.6 4.1 -85.2 28.5	20266 109.7 464.0 573.7 1,070.2 14.3 0.0 0.3 0.0 464.3 857.9 335.7 459.6 4.1 -128.1 335.7 138% 9.0x
Cash + S/Term Deposits Other current assets Current Assets Property, Plant & Equip. Exploration & Develop. Other Non-current Assets Payables Short Term Debt Long Term Debt Other Liabilities Net Assets Shareholders Funds Reserves Retained Earnings Total Equity Debt/Eguity Net Debt/EB/TDA Net Interest Cover	2022a 2.4 0.2 3.1 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 4.8 69.5 4.1 -68.9 4.1 -68.9 4.1 1.7 8.0%	2023e 29:5 32:0 61:5 0.2 7.1 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0	2024e 15.1 2.0 17.1 0.2 10.7 0.0 0.0 0.0 0.0 0.0 11.2 36.8 109.6 4.1 -77.0 36.8 109.6 4.1 -77.0 36.8 109.6 4.1 -77.0 36.8 109.6 4.1 -77.0 36.8 109.6 4.1 -77.0 36.8 109.6 4.1 -77.0 36.8 109.6 4.1 -77.0 36.8 109.6 4.1 -77.0 36.8 109.6 4.1 -77.0 36.8 109.6 4.1 -77.0 36.8 109.6 4.1 -77.0 36.8 109.6 4.1 -77.0 36.8 109.6 4.1 -77.0 36.8 109.6 1.2 1.2 1.2 1.2 1.2 1.2 1.2 1.2	2025e 149.6 182.0 331.6 300.2 12.5 0.0 0.1 0.0 182.3 453.4 28.5 109.6 4.1 -85.2 28.5 639% 10.3x -0.5x	20266 109.7 464.0 573.7 1,070.2 14.3 0.0 0.3 0.0 464.3 857.9 335.7 459.6 4.1 -128.1 335.7 138% 9.0x 0.0x
Cash + S/Term Deposits Other current assets Current Assets Property, Plant & Equip. Exploration & Develop. Other Non-current Assets Payables Short Term Debt	2022a 2.4 0.2 2.7 0.2 3.1 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 8.8 69.5 4.1 -68.9 4.8 0%	2023e 29:5 32:0 61.5 0.2 7.1 0.0 0.0 0.0 0.0 0.0 47.9 41.0 109:6 4.1 -72:8 41.0 0% 4.4x	2024e 15.1 2.0 17.1 0.2 10.7 0.0 0.0 0.0 0.0 11.2 36.8 109.6 4.1 -77.0 36.8 0% 1.4x	2025e 149.6 182.0 331.6 300.2 12.5 0.0 0.1 0.0 182.3 453.4 28.5 109.6 4.1 -85.2 28.5	2026e 109.7 464.0 573.7 1,070.2 14.3 0.0 0.3 0.0 464.3 857.9 335.7 459.6 4.1 -128.1 335.7 138% 9.0x 0.0x -13% -3%

Source: FactSet, Company reports, Canaccord Genuity estimates



Contents

Overview	4
Corporate and finance	5
Valuation summary	6
Peer comparisons	11
Asset overview: Caravel Copper Project	13
Investment risks	23
Directors and key management	24

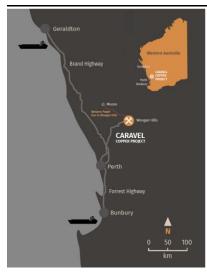


Overview

Caravel Minerals Limited (CVV-ASX) is advancing the large Caravel Copper Project, located 150km northeast of Perth, Western Australia. The project occupies broad acreage, marginal farmland within a growing region of geological significance owing to Chalice Mining's 2020 PGM-Ni-Cu discovery at Gonneville (Julimar), 70km to the southwest. The South-West (geological) Terrane, which hosts both Caravel and Gonneville, also hosts globally significant mines including Boddington (Au) and Greenbushes (Li).

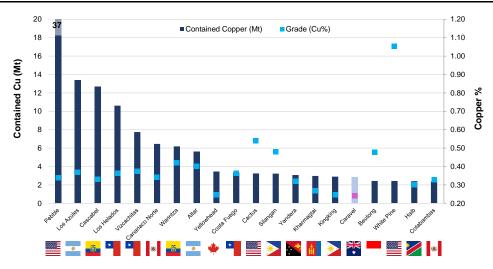
The Caravel Copper Project hosts a large porphyry copper system. On our reckoning, it is the largest undeveloped copper project in Australia with a resource of 1,180Mt @ 0.24% Cu (& 48ppm Mo) for 2.84Mt of contained copper and a reserve of 583.4Mt @ 0.24% Cu for 1.42Mt of contained copper. In global terms, the resource places Caravel in the top 20 of active development projects, held outside the majors as shown below in Figure 3. CVV is the only ASX-listed copper developer that makes this top 20 global list. One other key attribute is that it is located in a genuine Tier 1 jurisdiction.

Figure 2: Project location map



Source: Company reports

Figure 3: Top 20 global, undeveloped copper projects with owners <A\$1bn market capitalisations



Source: Company reports, S&P Global

Company background

Caravel Minerals listed on the ASX in late 2006. The company acquired the Caravel Copper Project (previously known as the Calingiri Project) from Kingsgate Consolidated in March 2013. Prior to this, CVV was focussed on gold exploration in the Murchison and western Spain.

Upcoming potential news flow

CVV is advancing towards a DFS in 1H24. Upcoming work includes sterilisation drilling, additional metallurgical testwork, grade control planning, mineral processing tests, mining equipment selection, submission of environmental approvals and preliminary marketing and financing discussions.



Corporate and finance

Capital structure

CVV currently has 479m ordinary shares on issue, with a further 27m options (various dates and exercise prices) that are currently out of the money.

Substantial shareholders include Paradice Investment Management at 9.49% and Executive Director Alasdair Cooke at 6.7%.

Figure 4: CVV capital structure

			Price		Expiry
Issued Shares	m	479.184	\$0.200		
CVVAAE - Options	m	15.580	0.300	4.67	30/06/2023
CVVAAD - Options	m	2.000	0.300	0.60	3/03/2024
CVVAAF - Options	m	1.730	0.750	1.30	31/05/2023
CVV*** - Options	m	8.000	0.310	2.48	31/10/2025
Total options	т	27.300	0.330	9.05	
Fully diluted	m	506.488			

Source: Company reports

Balance sheet and liquidity

CVV had a reported cash position as at 31 December 2022 of A\$12.7m. We estimate that current liquidity should be sufficient to see CVV part-way through to completion of the DFS by mid-2024.

Directors and management (full director bios **Directors** and key management)

- Wayne Trumble Non-Executive Chairman
- Don Hyma Managing Director
- Alasdair Cooke Executive Director
- Richard Monti Non-Executive Director
- Daniel Davis Company Secretary & Chief Financial Officer
- Jason Vos Mining Manager
- Michael Klvac Approvals & Compliance Manager
- Bruce McLarty GM Commercial
- Chantal Hartstone Social & Stakeholder Advisor



Valuation summary

Valuation

We have based our valuation for CVV on a DCF analysis (80% risked NPV_{12%}) for the Caravel Copper Project, incorporating CVV's July 2022 PFS and subsequent update from September 2022.

We model pre-production capital of A\$1,200m with an additional A\$320m for upfront mining equipment and A\$200m upfront for initial pre-stripping. We model construction commencing in 2025 followed by an ~18-month build. From 2027, we model the project to produce on average ~60ktpa of copper in concentrate at an average C1 cost of US\$1.72/lb payable copper (net of Ag & Au credits) over an initial 27-year operating LOM to recover 1,609kt of copper. We await release of further work (likely in the DFS) before modelling a molybdenum production scenario but note that our modelling shows an additional 7c could be added to our NAV with the addition of a molybdenum circuit for an additional A\$50m capex (50ppm mined grade, recovery 60%, payability 75%).

We ascribe a nominal A34m (10% of project NPV) for exploration upside and value-add within the DFS.

We initiate coverage of CVV with a SPECULATIVE BUY recommendation and a price target of 0.50.

DCF DISCOUNT RATE	12%		Shares on issue	479.2	
AUD:USD	0.67		ITM Options	0.00	
			New Shares 825.0		
			Diluted	1304	
	A\$M	RISK ADJ.	EQUITY	A\$M	/ share diluted
Caravel	340	80%	75%	204	\$0.16
Exploration & growth	34			34	\$0.03
Corporate	-25			-25	(\$0.02)
Net Cash as at 31-Dec-22	12.7			13	\$0.01
ITM Options	0			0	\$0.00
Assumed New equity	575	75%		431	\$0.33
TOTAL	936			657	0.50

Figure 5: CVV sum-of-the-parts valuation

Source: Canaccord Genuity estimates

In deriving our valuation, we utilise the CG price deck forecasts for copper, silver, gold and FX.

Figure 6: Commodity price and FX assumptions

Assumptions	2027E	2028E	2029E	2030E	LT
Copper Price (US\$/lb)	4.38	4.13	4.00	3.75	3.50
Silver Price (US\$/oz)	26.07	26.07	26.07	26.07	26.07
Gold Price (US\$/oz)	2,018	2,018	2,018	2,018	2,018
AUD:USD	0.70	0.72	0.72	0.72	0.72

Source: Canaccord Genuity estimates



Figure 7: Assumed project timeline

	FY23			FY	24		FY25			FY26				FY27	
	MarQ	JunQ	SepQ	DecQ	MarQ	JunQ	SepQ	DecQ	MarQ	JunQ	SepQ	DecQ	MarQ	JunQ	SepQ
Drilling (met/geotech)															
Resource update															
DFS															
Approvals															
FEED															
Funding/financing															
Construction															
Ramp-up															
Source: Canaccord Genuity estir	nates														

Figure 8: CG key assumptions vs CVV assumptions

Capital Markets	Units	CVV PFS Update September 2022	CGe March 2023	% Difference (CGe vs CVV)
Assumed mine inventory	Mt ore	715.0	713.2	0%
Avg LOM Copper grade	%	0.24%	0.24%	0%
Mine Life	yrs	27	27	0%
Strip Ratio (excl. prestrip)		0.99	1.06	7%
Average annual ore processed	Mtpa	27.0	26.5	-2%
Copper recovey	%	92%	92%	0%
LOM recoverable Copper	kt	1,611	1,609	-0.2%
Avg. annual copper production	kt	59.7	59.6	0%
Copper payabilities	%	95%	95%	0%
LOM payable copper	kt	1,531	1,528.6	0%
Avg annual payable copper	kt	56.7	56.6	0%
	US\$/t	8,818	7,900	-10%
Avg. LOM copper price	US\$/lb	4.00	3.58	-10%
Revenue (copper)	A\$m	18,751	16,840	-10%
Mining costs	A\$/t mined	1.25	1.32	5%
Processing costs	A\$/t milled	5.27	5.55	5%
G&A	A\$/t	0.58	0.61	5%
Opex	A\$/t	8.35	8.87	6%
Transport & TCs	A\$/t milled	2.38	2.50	5%
By-product credit	A\$/t	-1.22	-1.22	0%
C1 (CuEq)	US\$/lb	1.54	1.71	11%
Total Project capital	A\$m	3,049	3,208	5%
Pre-production capital	A\$m	1,100	1,200	9%
Prestrip(s)	A\$m	467	500	7%
Mining Fleet	A\$m	309	320	4%
Sustaining capital	A\$m	1,173	1,188	1%
AUD:USD		0.72	0.72	

Source: Company reports, Canaccord Genuity estimates

Figure 9-16 demonstrate our forecast production, C1 cost and AISC profile, key physicals, earnings and cash flow forecasts for the Caravel Copper Project.



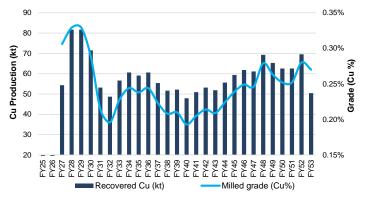
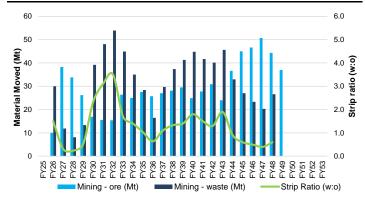


Figure 9: CG modelled production and grade profile

Source: Canaccord Genuity estimates

Figure 11: CG modelled material movement and strip ratio



Source: Canaccord Genuity estimates

Figure 13: CG modelled production, AISC vs CGe copper price

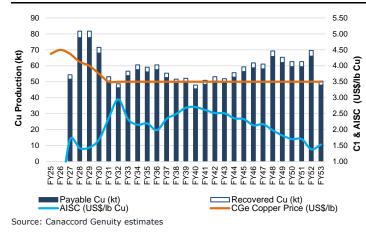
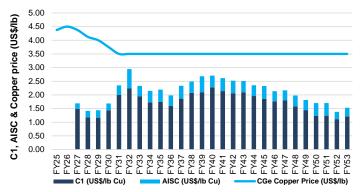
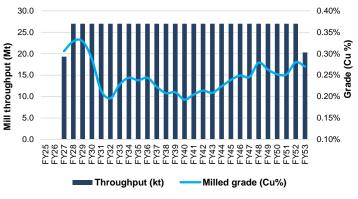


Figure 10: CG modelled C1, AISC vs copper price



Source: Canaccord Genuity estimates

Figure 12: CG modelled plant and throughput



Source: Canaccord Genuity estimates

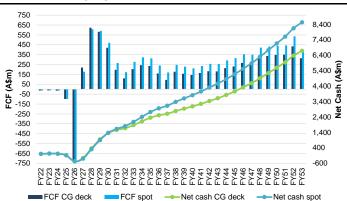


Figure 14: FCF sensitivity, annual and cumulative (CG deck and spot)

Source: Canaccord Genuity estimates



Figure 15: EBITDA and NPAT

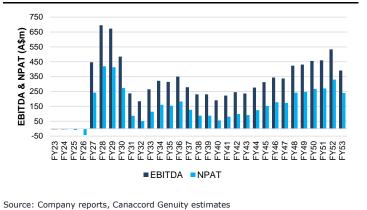
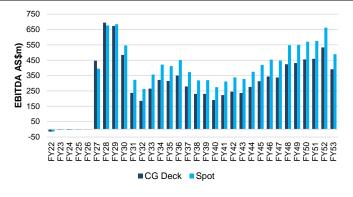


Figure 16: EBITDA sensitivity (CG deck and spot)



Source: Company reports, Canaccord Genuity estimates

Sensitivity to key input assumptions

We have completed a comprehensive sensitivity analysis to examine a number of scenarios and test the resiliency of the project.

Commodity prices and FX

Our copper price assumptions are based on internal supply and demand models. FX assumptions are based on the forward curve. Both commodity price and FX assumptions are consistent with our valuations across our coverage universe. We have conducted sensitivity analysis across FX and discount rate scenarios applied to US\$3.00 to US\$5.00/lb copper price assumptions with outcomes shown in Figure 17 and 18. The Caravel Copper Project is significantly leveraged to the copper price. At a long-term FX of \$0.72 and US\$4.00/lb copper, our price target increases 21% to \$0.61.

Figure 17: NAV sensitivity - copper prices and FX

	Copper price							
NAV	0.50	\$3.00	\$3.25	\$3.50	\$3.75	\$4.00	\$4.50	\$5.00
	\$0.66	0.31	0.42	0.54	0.66	0.78	1.01	1.24
~	\$0.68	0.26	0.38	0.49	0.60	0.72	0.94	1.17
USD/AUD	\$0.70	0.22	0.33	0.44	0.55	0.66	0.88	1.10
	\$0.72	0.18	0.29	0.39	0.50	0.61	0.82	1.04
ISI	\$0.74	0.14	0.25	0.35	0.46	0.56	0.77	0.98
	\$0.76	0.11	0.21	0.31	0.41	0.51	0.72	0.92
	\$0.78	0.07	0.17	0.27	0.37	0.47	0.67	0.87

Source: Canaccord Genuity estimates

Figure 18: FCF sensitivity - copper prices and FX

	Copper price							
NAV	0.50	\$3.00	\$3.25	\$3.50	\$3.75	\$4.00	\$4.50	\$5.00
rate	5%	0.56	0.80	1.03	1.27	1.51	1.98	2.45
	8%	0.33	0.49	0.65	0.82	0.98	1.31	1.63
unt	10%	0.24	0.37	0.50	0.63	0.76	1.03	1.29
Discol	12%	0.18	0.29	0.39	0.50	0.61	0.82	1.04
ē	14%	0.14	0.23	0.32	0.41	0.50	0.68	0.86

Source: Canaccord Genuity estimates



Project funding

A 27Mtpa plant is large and therefore relatively expensive to build (see peer comparisons below). CVV expects A\$1.1bn for construction of the plant/infrastructure, a further A\$309m for the mining fleet and A\$176m for the first pre-strip. All up, in excess of A\$1.5bn is required. We are more conservative, modelling A\$1.72bn. As seen with global peers, it is not uncommon to undertake a 25% project sell-down to a partner at the development stage for upfront consideration equal to a portion of the future project value.

Taseko Mines (TKO-TSX) and Copper Mountain Mining Corp (CMMC-TSX), both operate large scale, low-grade open pit copper mines in Canada. As show in **Error! Reference source not found.**, the mines are similar in parameters to what CVV envisages at the Caravel Copper Project. Both TKO and CMMC previously sold down a 25% stake in their projects to Japanese groups, to assist with funding at the development stage.

- In 2010, TKO sold 25% of its Gibraltar mine to a Japanese consortium (Sojitz, Dowa & Furukawa) for C\$187m.
- In 2009, CMMC sold a 25% interest in its namesake project, Copper Mountain, to Mitsubishi for C\$28.75m, a C\$250m project loan and offtake rights to all copper concentrate from the mine.

Our model assumes a 25% sell-down for A\$200m given our NPV_{8%} is A\$874m. CVV is also assessing options for vendor financing partnerships to reduce the upfront mining equipment costs. Other financing options being assessed include debt and equity strategic partnerships and prepayments, and JV partners. We model vendor financing for mining equipment with a 10% interest rate, with the balance of project funding (CVV's assumed 75% interest) funded through traditional debt and equity. Our funding is summarised as follows:

Figure 19: CGe funding requirements

Requirement	A\$m
Total upfront funding requirement	1,720
CVV's share (assuming 25% sell-down for A\$200m)	1,290
Vendor financing loan	-320
CVV cash balance (post 25% sell-down)	-200
Balance requiring debt and equity funding	770
Less expected deferred payments (some pre strip paid with cash flow in year 2)	-70
Debt requirement: 50%	350
Equity requirement: 50%	350
Source: Canaccord Genuity estimates	



Peer comparisons

Figure 20: Direct mine peer comparisons (TKO & CMMC) plus comps with ASX mining costs (DEG & NST)

	CVV	Direct peer comparissons			Γ	Indirect	peer comparissons
Company	Caravel Minerals Limited	Taseko Mines Limited	Copper Mounta	in Mining Corporation		De Grey Mining Ltd	Northern Star Resources Ltd
Ticker	CVV-ASX	TKO-TSX	CMMC-TSX			DEG-ASX	NST-ASX
Mkt Cap (A\$m)	\$96	\$652		\$423		\$2,361	\$13,443
Operation/Development	Caravel	Gibraltar	Copp	er Mountain		Mallina	KCGM
Ownership	100%	75% - TKO	75%	% - CMMC		100%	100%
Ownership	100%	25% - Sojitz, Dowa & Furukawa	25% - Mits	ubishi Materials		10070	100 /8
Location	Australia	Canada	C	Canada		Australia	Australia
Status	Studies	Operating	Operating	Expansion from 2028		Studies	Operating
Source	2022 PFS	2022 Reserve Update	2018 LOM Plan	2022 Expansion Study		2022 PFS	DecQ'23 Report
Resource (Mt)	1,181	1,293	724	1,578			
Grade (Cu %)	0.24	0.22	0.25	0.21			
Grade (CuEq %)	0.26	0.23	0.28	0.25			
Contained CuEq (kt)	3,050	2,974	2,026	3,968			
Reserve (Mt)	583	706	210	702			
Grade (Cu %)	0.24	0.25	0.26	0.24			
Grade (CuEq %)	0.24	0.26	0.30	0.29			
Contained CuEq (kt)	1,427	1,836	630	2,037			
Mine life (years)	27	23	14	32		14	
Throughput (Mtpa)	27	29	15	23		10	13
Grade (Cu %)	0.24	0.25	0.26	0.25			
Recovery (%)	92%	85%	79%	88%			
Annual production (Cu ktpa)	60	63	30	52			
Strip ratio (w:o)	1.3	2.4	2.9	2.08		6.1	
Mining Cost (US\$/t mined)	1.05	1.35	2.12	1.70		2.65	1.25
Processing cost (US\$/t)	3.79	3.50	3.95	3.87			
G&A, Transport, TCRCs (US\$/t)	2.13	2.11	1.85	1.94			
By-product credit (US\$/t)	-0.88	-0.77	-3.17	-3.97			
C1 (US\$/ Cu lb)	1.54	1.80	2.24	1.76			
Preproduction capital (US\$m)	1140	616*	438**	237***			
LOM sustaining capital (US\$m)	714	706	56	828			
LOM capital (US\$m)	2231	1322	56	1288			
Local FX to USD	0.72	0.77	0.80	0.77			
Copper Price assumption (US\$/lb)	4.00	3.50	3.08	3.60			

 $\label{eq:stars} ``Expansion capital: C\$800m spent between 2006 and 2013. TKO estimates replacement value at +US\$1bn$

**No expansion capital reported for the 2011 increase from 12.5Mtpa to 15Mtpa. Initial capex for the 15Mtpa plant was US\$438m

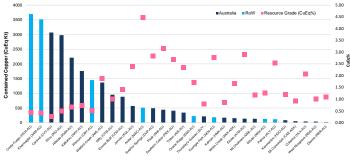
***Expansion capital to increae from 15Mtpa to 23Mtpa

Source: Company reports, Canaccord Genuity estimates





Figure 21: ASX global copper resources & grades



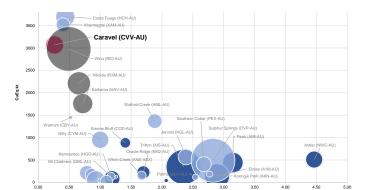


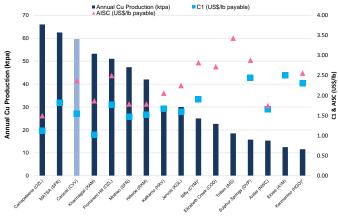
Figure 22: ASX Resources vs copper grades vs EV

Source: FactSet, Company reports, Canaccord Genuity

۰UG • OP/UG

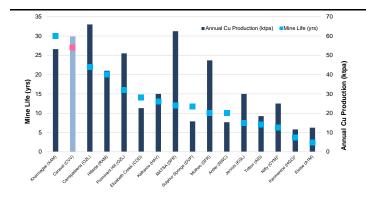
Source: Company reports, Canaccord Genuity





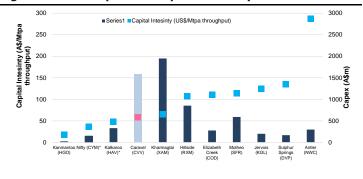
Source: FactSet, Company reports, Canaccord Genuity

Figure 25: ASX mine life and average annual production



Source: Company reports, Canaccord Genuity

Figure 24: ASX capex and capital intensity



Source: Company reports, Canaccord Genuity

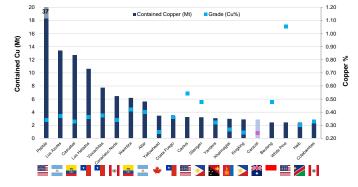


Figure 26: Top 20 global, undeveloped copper projects with owners <A\$1bn market capitalisations

Source: Company reports, Canaccord Genuity



Asset overview: Caravel Copper Project

Location, access and infrastructure

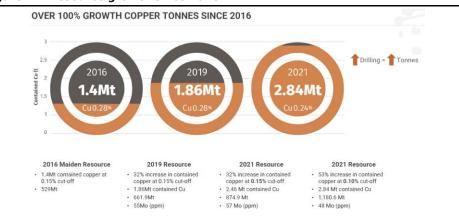
The Caravel Copper Project is spread over three exploration leases (E70/2788, E70/3674 and E70/3680) and is within mining lease applications MLA70/1410 and MLA70/1411. It is located 150km northeast of Perth near the town of Wongan Hills. The project is best accessed by road from Perth via the Tonkin Hwy then Great Northern Hwy to Wannamal, and then via the Calingiri-Wongan Hills Road, which cuts through the project area. The project is serviced by existing grid-power from the WA State (SWIS) grid. The Caravel Copper Project comprises the main Bindi deposit alongside the Dasher and Opie satellites with the Ninan and other prospects offering future growth potential.

Background

A well-known regional roadside soil geochemistry sampling program, undertaken by Dominion Mining between 2005 and 2013 in the WA wheatbelt, identified anomalous copper at the project. Follow-up RC drilling in 2010 lead to the discovery of chalcopyrite and molybdenite mineralisation over widths of up to 250m. CVV acquired the project from Kingsgate Consolidated (who had acquired Dominion) in 2013 and continued exploration efforts, resulting in the discovery and delineation of a large system of copper mineralisation with significant associated molybdenum, and to a lesser extent associated silver and gold.

Further infill drilling between September 2015 and March 2016 resulted in the estimation of a maiden resource in 2016. Work continued and in 2019, an updated resource formed the basis for a Scoping Study which confirmed potential for a long-life project. Since then, significant further delineation drilling and detailed infill drilling programs have been completed to define higher grade zones within the Bindi East Limb and Hinge Zone. In November 2021 the current JORC Mineral Resource was published with an estimated 1.18Bt @ 0.24% Cu for 2.84Mt contained Cu. A PFS was published in July 2022 and a subsequent update in September 2022. CVV continues to progress the project towards a DFS in 1H24.





Source: Company reports



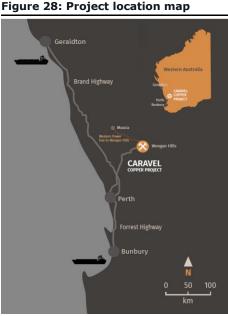
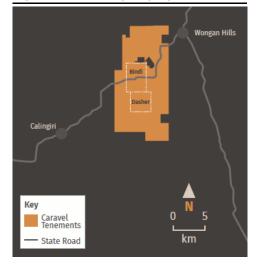


Figure 29: Close up of project



Source: Company reports

Source: Company reports

Geology and mineralisation

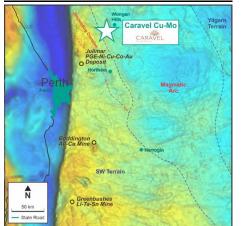
Mineralisation at the Caravel Copper Project is hosted by a large porphyry copper system within a highly deformed Archaean granite. Typical porphyry style quartz veins hosting chalcopyrite and minor other sulphides have been transposed into the dominant foliation trend to present as numerous, narrow stringers of mineralisation within the surrounding quartz-biotite gneiss. The density of the veins and stringers correlates with grade. The regional geological setting is consistent with a porphyry model, with the 30km mineralised trend following the margins of a granite batholith, referred to as the Wongan Batholith (Figure 31).

The Wongan Batholith sits immediately west of a major north-south trending structure that splays from the regional terrane boundary between the older Southwest Yilgarn Block and the younger accreted terranes to the east. The boundary is interpreted as a suture remaining after closure of an Archaean subduction zone that was active around 3.0 Ga – 2.7 Ga and is inferred to be related to the formation of the Wongan Batholith, dated at around 3.0 Ga, and associated porphyry intrusions responsible for mineralisation.

Host granites and associated mineralisation have been dated at around 3.0 Ga, with subsequent deformation and up to granulated facies metamorphism around 2.7 Ga, coincident with the regional deformation event and also gold mineralisation at Kalgoorlie and the wider Yilgarn goldfields. The Boddington gold deposit, also located in the SW Yilgarn Terrane, is one of Australia's largest gold deposits and a significant copper producer. This deposit also shows affinities with porphyry style mineralisation with diorite host rocks dated around 2.7 Ga.

Copper occurs almost exclusively as chalcopyrite sulphides associated with quartz veins. Whilst individual veins may be semi-massive chalcopyrite, the bulk grades are determined by the frequency and thickness of these veins, which may be up to several centimetres thick, though more commonly the sulphide veins are attenuated and in the range of millimetres thick following the main foliation. The frequency of veins or sulphide bands varies on the scale of metres and tens of metres, where copper grades may range >0.6% over thicknesses of tens of metres with lower grades or barren zones in between. Molybdenite, pyrite and pyrrhotite may accompany the chalcopyrite, though in much lower levels.

Figure 30: Southwest Terrane



Source: Company reports



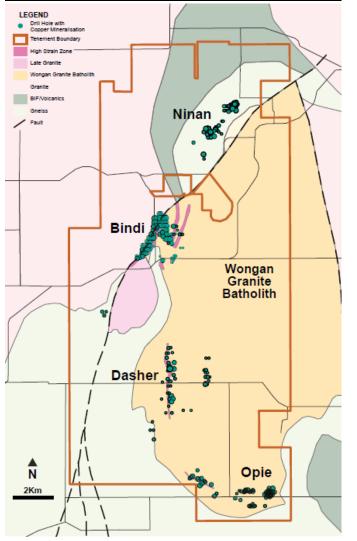


Figure 31: Simplified project geology

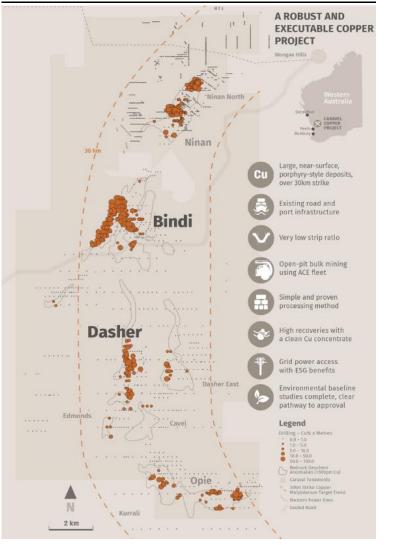


Figure 32: Deposit and prospect locations

Source: Company reports



Resources and Reserves

CVV's current JORC Mineral Resource was reported in November 2021 and totals 1.18Bt @ 0.24% Cu (and 48ppm Mo) for 2.84Mt of contained copper at a 0.1% Cu cut-off. The deposit has a low cut-off grade i.e. it has a low threshold grade above which the deposit can be economically mined, and is therefore a low grade deposit. Investors tend to get held up on low grade deposits without fully understanding that a deposit's grade is dictated by its economic cut-off. The Caravel deposits have a low mining cost owing to the near 1:1 strip ratio and therefore have a low threshold grade above which they can be mined economically.

The resource is spread across three deposits. Bindi makes up 74% of the total resource, Dasher is 24% and Opie is just 2%. Total Measured and Indicated resources comprise 60% of the resource with Inferred making up the other 40%. No oxide material is reported as part of the resource.



The project has an Ore Reserve of 583Mt @ 0.24% Cu for 1.42Mt of contained copper at an average strip ratio of 1.3:1, which includes all pre-strip. The reserve underpins the July 2022 PFS and is based off a 27.8Mtpa plant throughput assumption. Given the latest PFS Update now assumes 27Mtpa, we could expect minor tweaks to the reserve in the DFS.

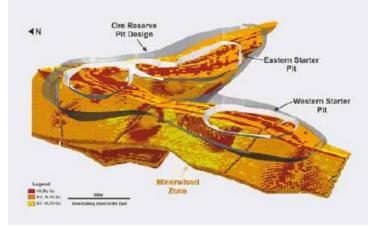
The Bindi deposit comprises 79% of the reserve with Dasher making up the remaining 21%. Proven reserves comprise 20% of the total reserve with Probable making up 80%.

Figure 33: Caravel Copper Project resource (0.1% Cu cut-off)						
	Mt	Cu%	Cu kt			
Bindi	903	0.23	2,081			
Measured	105	0.27	284			
Indicated	424	0.23	976			
Inferred	373	0.22	820			
Dasher	257	0.27	681			
Measured	0	0.00	0			
Indicated	132	0.28	369			
Inferred	125	0.25	312			
Opie	22	0.29	63			
Measured	0	0.00	0			
Indicated	18	0.29	52			
Inferred	4	0.30	11			
Total Measured	105	0.27	284			
Total Indicated	574	0.24	1,397			
Total Inferred	501	0.23	1,143			
Total - Resources	1,181	0.24	2,824			

Figure 34: Caravel Copper Project reserve Cu% Мt Cu kt Bindi 475 0.24 1,135 Proven 105 0.27 285 Probable 370 0.23 850 Dasher 108 0.27 293 Proven 0 0.00 0 Probable 108 0.27 293 **Total Proven** 105 0.27 285 **Total Probable** 478 0.24 1,143 **Total - Reserves** 583 0.24 1,427

Source: Company reports

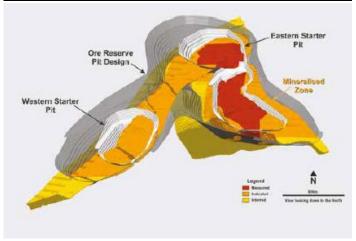
Figure 35: Bindi deposit starter and main pits



Source: Company reports

Source: Company reports

Figure 36: Ore Reserve pit designs



Source: Company reports

July 2022 PFS and September 2022 PFS Update

CVV published a Prefeasibility Study (PFS) for the Caravel Copper Project in July 2022. The PFS was underpinned by the maiden reserve of 583Mt @ 0.24% Cu for 1.42Mt of contained copper. This reserve accounts for 81.6% of the project's 28-year life with Inferred resources making up the remaining 18.4%, weighted to the backend of LOM. On averaging, 2% of Inferred material is mined in the first 20 years of processing.



22) 55B 2B 6B

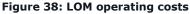
Initially, the PFS assessed a dual train, 27.8Mtpa plant to produce ~62ktpa of copper in concentrate. The processing flowsheet comprised crushing then grinding by Semi-Autogenous Grinding (SAG) and ball mill with a pebble crushing circuit before a conventional rougher and cleaning flotation, thickening and filtering. CVV and its PFS engineers (Ausenco) undertook further evaluation post-release of the PFS, and in September 2022 provided a PFS Update which achieved considerable capital and operational costs savings through consolidation of the dual train plant into a single 27Mtpa train and adoption of High-Pressure Grinding Rolls (HGPR) to replace the SAG Mills, and the inclusion of Coarse Particle Flotation (CPF).

The result sees CVV move into DFS work with the view of utilising a single train 27Mtpa to produce 60ktpa of copper in concentrate. Costs savings from the initial PFS amount to a A\$105m saving in the processing plant and site infrastructure, and a A\$13m saving in pre-strip costs. This brings total initial capex down to A\$1,584m (from A\$1,702m). Operating costs savings have moved processing costs from US\$1.01/lb payable copper to US\$0.82/lb, meaning overall C1 has fallen from US\$1.72/lb to US\$1.54/lb payable copper.

Figure 37: Initial capital

Initial Capital Expenditure A\$M	PFS Update (September 2022) Year 0 to 3	PFS (July 2022) Year 0 to 3
Process plant and site infrastructure		
Plant direct costs	585	680
Site infrastructure	112	113
Tailings storage management	51	51
Water supply	66	69
Owner costs and indirects	176	172
Contingencies	101	111
Mine infrastructure	8	8
	1,100	1,205
Mining equipment	309	309
Mining pre-strip	176	189
Total Initial Capital Expenditure	1,584	1,702

Source: Company reports



<u> </u>	1 5		5		
Life of Mine Unit C1 Costs	PFS Upda (September US\$/Ib Se	2022) (July 2022)	Life Of Mine Financial Economics (A\$)	PFS Update (September 2022)	PFS (July 202
Mining Costs	0.44	0.44	Cu Revenue (net of payability and TCs/RCs)	\$17.6B	\$17.55
Processing Cost	0.82	1.01	Net cash flow (pre-tax)	\$5.6B	\$4.622
Site & General Administration	0.09	0.09	Pre-tax NPV (7% discount rate)	\$1.5B (range from 1.3B to 1.7B)	\$1.066
Treatment and Refining Costs By-Product Credits	0.16		Pre-tax IRR	18% (range of 16% to 20%)	14.7%
Total	1.54) (0.19) 1.72	Capital payback period	5.6 years	6.8 yea

Source: Company reports

Source: Company reports

Figure 39: LOM Economics

PFS and PFS Update outcomes

CVV is working towards delivery of a DFS in 1H24. The following PFS and PFS Update parameters will be further assessed, evaluated, and tested in the DFS.

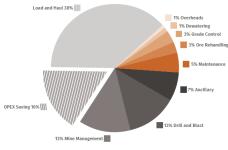
Mining

CVV is proposing an 'owner-miner' model for the Caravel Copper Project where it anticipates a conventional open-pit using ACE technologies (automation, communication and electrification) including diesel-electric haul trucks and electric drills and shovels. The owner-mining model allows for the use of ACE technologies as they are currently not offered by typical contractors. This technology allows for low mining costs. CVV has outlined a number of areas where ACE will improve safety and deliver cost savings (Figure 40):

- Tyre life increase of 1,000-hour tyre life.
- 15% reduction in maintenance costs and reduced damage.
- Greater efficiencies through increased speeds with haulage fleet reduced by 6 trucks versus conventional a self-drive model.
- Use of cable powered electric shovels and drills reduces diesel consumption over the LOM by ~40%.

An overall LOM strip ratio of 1.3:1 includes pre-strip. Waste pre-stripping predominately occurs in Years 1-5 and again in Years 10-13 as multiple pits are established. Over the 28-year project life the Bindi and Dasher deposits will produce 715Mt of ore at an average grade of 0.24%. Mining of the current resources is assumed to finish in Year 26 after which time the mill is fed from stockpiles.

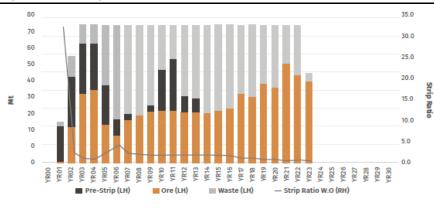


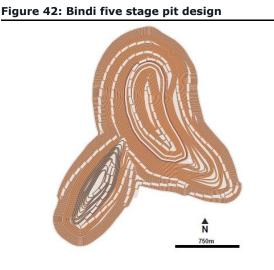


Source: Company reports



Figure 41: Mining schedule





Source: Company reports

Source: Company reports

Metallurgy and mineral processing

CVV is now advancing with a consolidated, single train, 27Mtpa throughput utilising HPGR in the primary comminution circuit and CPF in the flotation circuit. Metallurgical recoveries are modelled at 92% for a two-stage crush - grind - flotation. CVV has undertaken recent testwork which concluded that two HPGRs will be incorporated into the overall crushing and grinding circuit, consisting of a primary gyratory crusher, secondary cone crushers, HPGRs and ball mills. CVV has stated that the project is evaluating the merits of selecting industry proven HPGRs sized at 2.4m diameter, each with 8MW drives.

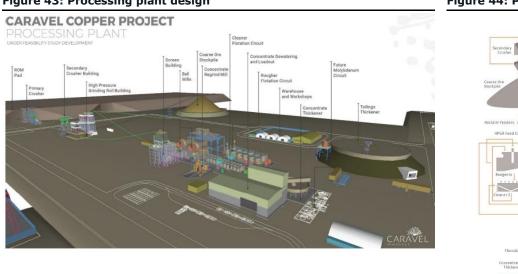
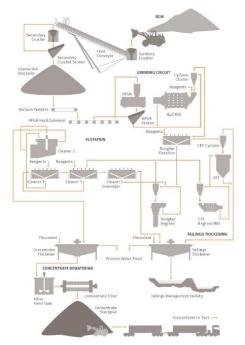


Figure 44: Proposed flowsheet



Source: Company reports

Figure 43: Processing plant design

Source: Company reports



Infrastructure and services

CVV expects to deliver copper concentrate, by road, to the Port of Bunbury, 330km to the south. The ports around Perth have been discounted on account of congestion and limited space. The presence of existing roads makes Bunbury a priority choice over Geraldton.

CVV expects that the mine will utilise power supply from the existing regional electrical grid adjacent to the site within the South West Interconnected Network's North Country subregion. The maximum power requirements are estimated to be 125MW. Studies indicate this can be supplied through an increase to transmission energisation of the Moora to Wongan Hills 132KV capacity power line and the construction of a new substation.

CVV will secure water supply for the project via a combination of developing new water resources and purchasing existing allocations. A remote borefield will be developed and licenced to supply water to the project.

Capital costs

As per Figure 37 above, capital costs are estimated at \$1,100m upfront for the plant and infrastructure with an additional A\$309m required for the mining fleet and A\$176m for pre-stripping. The PFS outlines a further A\$291m for pre-strip during the LOM and A\$182m to be spent of tailings storage management. LOM sustaining capital is estimated at A\$991m.

We have compared CVV's capital costs to similar, large scale, global developments. We conservatively model an additional 10% pre-production capital for the Caravel Copper Project.

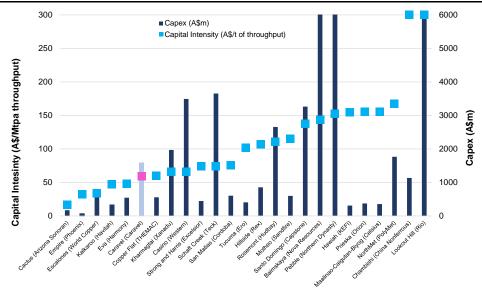


Figure 45: Global, large scale copper development (>2Mtpa) capex and capital intensity

Source: S&P Global, Canaccord Genuity

Operating costs

Owing to the use of automation, CVV expects a low C1 of US\$1.54/lb payable copper. According to data obtained from S&P Global, this would place Caravel in the second quartile of the 2022 copper producer cost curve as shown in Figure 46. As per Figure 38, operating costs also benefit from a US\$0.19/lb by-product credit owing to production of silver and gold. We await further information before including additional credits for molybdenum (see below - Potential enhancements in the DFS).



We conservatively model an additional 5% on unit operating costs for the Caravel Copper Project, which translates to our modelled C1 costs being 12% higher than CVV.

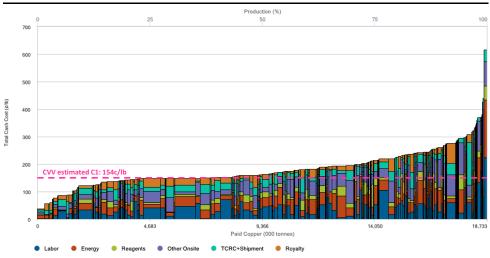


Figure 46: 2022 copper cost curve with CVV C1 overlaid

Source: S&P Global

Royalties

We model the standard WA Government royalty of 5% on concentrates.

Potential enhancements in the DFS - molybdenum circuit

CVV will assess the inclusion of a molybdenum (Mo) circuit in the DFS. The Caravel resource contains ~38kt of molybdenum, which has not previously been assessed in studies. CVV has recently and will continue to assess potential recovery of Mo to a concentrate. On our assumptions, if 60% can be recovered with payabilities of 75% on a US\$20/lb sale price and upfront capital of A\$50m for the Mo circuit, an additional 7c could be added to our CVV valuation. We await further information before fully modelling this scenario.

Exploration

Although the resource is very large in scale, CVV sees opportunity for further growth. There are both in-mine (extensional) opportunities as well as near-mine targets within the project area.

All three deposits remain open with potential to extend at depth and along strike. Opie has received limited focus while Dasher is open to the south. Bindi's East Limb offers low hanging fruit in our opinion, with potential for a fold repeat further to the east. Structural interpretation indicates a synformal fold structure, termed the SE Synform, which may create a fold repeat of the Bindi East limb toward the east, as shown in Figure 47 and Figure 48. This potential eastern extension has been termed the Lower Limb.

Although not its number priority, CVV will also systematically explore near-mine prospects such as Ninan, Ninan North, Dasher East and Kurrali (see Figure 32).



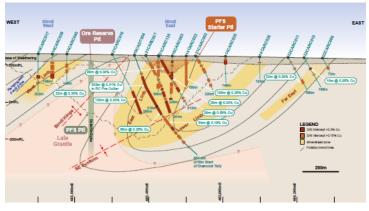
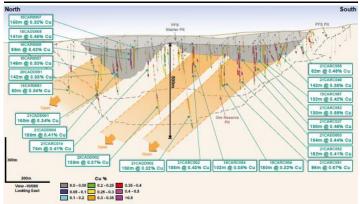


Figure 47: Bindi East Limb cross section showing the SE Synform

Figure 48: Bindi East long section with north plunging shoots



Source: Company reports

Source: Company reports

Site visit

Canaccord Genuity visited the Caravel Copper Project in June 2021. A day trip from Perth was spent touring the proposed plant and open-pit site at Bindi as well as the drilling activities and core processing facility.

Figure 49: Drilling in the paddock at Bindi



Source: Canaccord Genuity

Figure 50: Close up of RC drilling



Source: Canaccord Genuity



Figure 51: Infill drilling activities



Source: Canaccord Genuity

Figure 53: Mineralised drill core



Source: Canaccord Genuity

Figure 52: Site preparation



Source: Canaccord Genuity

Figure 54: Core processing facilities



Source: Canaccord Genuity



Investment risks

Financing risks

As a pre-production company with no material income, CVV is reliant on equity and debt markets to fund development of its assets. Total development and working capital requirements are subject to establishment of completion of further mining studies. There are no guarantees that studies will result in a positive investment decision. Further, we can make no assurances that accessing these markets will be done without further dilution to shareholders.

Exploration risks

Exploration and development is subject to a number of risks and can require a high rate of capital expenditure. Risks can also be associated with conversion of inferred resources and lack of accuracy in the interpretation of geochemical, geophysical, drilling and other data. No assurances can be given that exploration will delineate further mineral resources nor that the company will be able to further convert the current mineral resource into additional minable reserves.

Operating risks

If and when in production, the company will be subject to risks such as plant/equipment breakdowns, metallurgical (meeting design recoveries within a complex flowsheet), materials handling and other technical issues. An increase in operating costs could reduce the profitability and free cash generation from the operating assets considerably and negatively impact valuation. Further, the actual characteristics of an ore deposit may differ significantly from initial interpretations which can also materially impact forecast production from original expectations.

Commodity price and currency fluctuations

As with any mining company, CVV is directly exposed to commodity price and currency fluctuations. Commodity price fluctuations are driven by many macroeconomic forces including inflationary pressures, interest rates and supply and demand factors. These factors could reduce the profitability, costing and prospective outlook for the business.



Directors and key management

Wayne Trumble - Non-Executive Chairman

Mr Trumble is a senior board executive with 35 years of industry expertise in mining, electricity, investment and construction. For the 12 years as the Executive General Manager of Griffin Power, he led Griffin's move from fuel supplier to electricity generator through the execution and operation of Griffin's \$1.2 billion Bluewaters coal-fired project, providing 436 MW of base load power in Western Australia. Mr Trumble has extensive project development and construction experience in WA including all aspects of regulatory, contractual and financing requirements. Mr Trumble was also the Managing Director of TransAlta Energy where he was responsible for the commissioning and operation of the 105MW Parkeston Power Station at Kalgoorlie and is currently a strategic energy advisor to Newmont Mining.

Don Hyma – Managing Director

Mr Hyma has over 30 years of international mineral resource project development experience across several countries including Canada, Chile, New Caledonia and Australia. His previous roles include Director Projects for Fortescue Metals Group, Technical Director at Mitsui, Vice-President Projects for the Iron Ore Company of Canada and General Manager Projects for Rio Tinto Iron Ore and he held senior project management roles at Falconbridge Limited (now Glencore). Over the last two years, Mr Trumble has been an advisor to the Caravel Board on the Caravel Copper Project feasibility studies and implementation strategies and most recently was Managing Director at Adelaide-based, ASX-listed Australian Rare Earths. Mr Hyma holds a Bachelor of Science in Mining Engineering and a Master of Science in Mineral Processing along with an International Executive Management Diploma from INSEAD in France and Singapore. He is also a Fellow of the Australian Institute on Mining and Metallurgy (AusIMM).

Alasdair Cooke – Executive Director

Mr Cooke has more than 30 years of experience in the mining industry and over 15 years managing public resource companies. He is a qualified geologist with a track record of successful exploration and project development. He is a founding partner of Perth-based investment and technical services company Mitchell River Group (MRG). MRG has established a number of successful mining projects including greenfield mines in Australia, Africa and South America. Mr Cooke is the chairman of African Energy Resources Ltd and a director of EVE Investments.

Richard Monti – Non-Executive Director

Mr Monti has a successful 34-year career in the international mineral resource industry and brings to Caravel broad project development and corporate experience. Mr Monti is currently on the board of ASX-listed companies Alto Metals, Black Dragon Gold, Zinc of Ireland and Pacifico Minerals, and is the principal of Terracognita supplying technical, commercial and corporate advice to resource industry companies.



Appendix: Important Disclosures

Analyst Certification

Each authoring analyst of Canaccord Genuity whose name appears on the front page of this research hereby certifies that (i) the recommendations and opinions expressed in this research accurately reflect the authoring analyst's personal, independent and objective views about any and all of the designated investments or relevant issuers discussed herein that are within such authoring analyst's coverage universe and (ii) no part of the authoring analyst's compensation was, is, or will be, directly or indirectly, related to the specific recommendations or views expressed by the authoring analyst in the research, and (iii) to the best of the authoring analyst's knowledge, she/he is not in receipt of material non-public information about the issuer.

Analysts employed outside the US are not registered as research analysts with FINRA. These analysts may not be associated persons of Canaccord Genuity LLC and therefore may not be subject to the FINRA Rule 2241 and NYSE Rule 472 restrictions on communications with a subject company, public appearances and trading securities held by a research analyst account.

Sector Coverage

Individuals identified as "Sector Coverage" cover a subject company's industry in the identified jurisdiction, but are not authoring analysts of the report.

Investment Recommendation

Date and time of first dissemination: March 28, 2023, 23:53 ET Date and time of production: March 28, 2023, 23:53 ET

Target Price / Valuation Methodology:

Caravel Minerals Limited - CVV

Our NPV_{12%} is informed by the Caravel PFS and subsequent update, is modelled on a fully-diluted basis and risked 80% to account for the early stage (albeit very detailed) nature of the studies. We have assumed a funding scenario which involves a 25% project sell down with the balance of capital covered through a debt and equity mix. We risk this financing scenario to 75%.

Risks to achieving Target Price / Valuation:

Caravel Minerals Limited - CVV

Financing risks: As a pre-production company with no material income, CVV is reliant on equity and debt markets to fund development of its assets. Total development and working capital requirements are subject to establishment of completion of further mining studies. There are no guarantees that studies will result in a positive investment decision. Further, we can make no assurances that accessing these markets will be done without further dilution to shareholders.

Exploration/development risks: Exploration and development is subject to a number of risks and can require a high rate of capital expenditure. Risks can also be associated with conversion of inferred resources and lack of accuracy in the interpretation of geochemical, geophysical, drilling and other data. No assurances can be given that exploration will delineate further mineral resources nor that the company will be able to further convert the current mineral resource into additional minable reserves.

Operating risks: If and when in production, the company will be subject to risks such as plant/equipment breakdowns, metallurgical (meeting design recoveries within a complex flowsheet), materials handling and other technical issues. An increase in operating costs could reduce the profitability and free cash generation from the operating assets considerably and negatively impact valuation. Further, the actual characteristics of an ore deposit may differ significantly from initial interpretations which can also materially impact forecast production from original expectations.

Commodity price and currency fluctuations: As with any mining company, CVV is directly exposed to commodity price and currency fluctuations. Commodity price fluctuations are driven by many macroeconomic forces including inflationary pressures, interest rates and supply and demand factors. These factors could reduce the profitability, costing and prospective outlook for the business.

Distribution of Ratings:

Global Stock Ratings (as of 03/28/23)

Rating	Coverage	IB Clients	
	#	%	%
Buy	602	63.57%	23.26%
Hold	159	16.79%	8.81%
Sell	16	1.69%	0.00%
Speculative Buy	157	16.58%	42.04%
	947*	100.0%	

*Total includes stocks that are Under Review

Canaccord Genuity Ratings System



BUY: The stock is expected to generate risk-adjusted returns of over 10% during the next 12 months.

HOLD: The stock is expected to generate risk-adjusted returns of 0-10% during the next 12 months.

SELL: The stock is expected to generate negative risk-adjusted returns during the next 12 months.

NOT RATED: Canaccord Genuity does not provide research coverage of the relevant issuer.

"Risk-adjusted return" refers to the expected return in relation to the amount of risk associated with the designated investment or the relevant issuer.

Risk Qualifier

SPECULATIVE: Stocks bear significantly higher risk that typically cannot be valued by normal fundamental criteria. Investments in the stock may result in material loss.

12-Month Recommendation History (as of date same as the Global Stock Ratings table)

A list of all the recommendations on any issuer under coverage that was disseminated during the preceding 12-month period may be obtained at the following website (provided as a hyperlink if this report is being read electronically) http://disclosures-mar.canaccordgenuity.com/EN/Pages/default.aspx

Required Company-Specific Disclosures (as of date of this publication)

Caravel Minerals Limited currently is, or in the past 12 months was, a client of Canaccord Genuity or its affiliated companies. During this period, Canaccord Genuity or its affiliated companies provided investment banking services to Caravel Minerals Limited. In the past 12 months, Canaccord Genuity or its affiliated companies have received compensation for Investment Banking services from Caravel Minerals Limited .

In the past 12 months, Canaccord Genuity or any of its affiliated companies have been lead manager, co-lead manager or comanager of a public offering of securities of Caravel Minerals Limited or any publicly disclosed offer of securities of Caravel Minerals Limited or in any related derivatives.

Canaccord Genuity or one or more of its affiliated companies intend to seek or expect to receive compensation for Investment Banking services from Caravel Minerals Limited in the next three months.

Canaccord Genuity, and its associates, holds an option position in CVV.AU.

Canaccord Genuity received a fee for its role as Lead Manager to Caravel's \$12m equity raising at \$0.20 on 16 November 2022.

As of the month end immediately preceding the date of publication of this research, or the prior month end if publication is within 10 days following a month end, Canaccord Genuity or its affiliated companies, holds an options position in Caravel Minerals Limited the details of which are contained below:

Ticker	Quantity	Strike	Date of Expiry
CVV	2,000,000	\$0.30	03/03/2024

Caravel Minerals Limited Rating History as of 03/28/2023



Buy (B); Speculative Buy (SB); Sell (S); Hold (H); Suspended (SU); Under Review (UR); Restricted (RE); Not Rated (NR)

Required Company-Specific Disclosures (as of date of this publication)

Past performance

In line with Article 44(4)(b), MiFID II Delegated Regulation, we disclose price performance for the preceding five years or the whole period for which the financial instrument has been offered or investment service provided where less than five years. Please note price history refers to actual past performance, and that past performance is not a reliable indicator of future price and/or performance.

Online Disclosures



Up-to-date disclosures may be obtained at the following website (provided as a hyperlink if this report is being read electronically) http://disclosures.canaccordgenuity.com/EN/Pages/default.aspx; or by sending a request to Canaccord Genuity Corp. Research, Attn: Disclosures, P.O. Box 10337 Pacific Centre, 2200-609 Granville Street, Vancouver, BC, Canada V7Y 1H2; or by sending a request by email to disclosures@cgf.com. The reader may also obtain a copy of Canaccord Genuity's policies and procedures regarding the dissemination of research by following the steps outlined above.

General Disclaimers

See "Required Company-Specific Disclosures" above for any of the following disclosures required as to companies referred to in this report: manager or co-manager roles; 1% or other ownership; compensation for certain services; types of client relationships; research analyst conflicts; managed/co-managed public offerings in prior periods; directorships; market making in equity securities and related derivatives. For reports identified above as compendium reports, the foregoing required company-specific disclosures can be found in a hyperlink located in the section labeled, "Compendium Reports." "Canaccord Genuity" is the business name used by certain wholly owned subsidiaries of Canaccord Genuity Group Inc., including Canaccord Genuity LLC, Canaccord Genuity Limited, Canaccord Genuity Corp., and Canaccord Genuity (Australia) Limited, an affiliated company that is 80%-owned by Canaccord Genuity Group Inc.

The authoring analysts who are responsible for the preparation of this research are employed by Canaccord Genuity Corp. a Canadian broker-dealer with principal offices located in Vancouver, Calgary, Toronto, Montreal, or Canaccord Genuity LLC, a US broker-dealer with principal offices located in New York, Boston, San Francisco and Houston, or Canaccord Genuity Limited., a UK broker-dealer with principal offices located in London (UK) and Dublin (Ireland), or Canaccord Genuity (Australia) Limited, an Australian broker-dealer with principal offices located in Sydney and Melbourne.

The authoring analysts who are responsible for the preparation of this research have received (or will receive) compensation based upon (among other factors) the Investment Banking revenues and general profits of Canaccord Genuity. However, such authoring analysts have not received, and will not receive, compensation that is directly based upon or linked to one or more specific Investment Banking activities, or to recommendations contained in the research.

Some regulators require that a firm must establish, implement and make available a policy for managing conflicts of interest arising as a result of publication or distribution of research. This research has been prepared in accordance with Canaccord Genuity's policy on managing conflicts of interest, and information barriers or firewalls have been used where appropriate. Canaccord Genuity's policy is available upon request.

The information contained in this research has been compiled by Canaccord Genuity from sources believed to be reliable, but (with the exception of the information about Canaccord Genuity) no representation or warranty, express or implied, is made by Canaccord Genuity, its affiliated companies or any other person as to its fairness, accuracy, completeness or correctness. Canaccord Genuity has not independently verified the facts, assumptions, and estimates contained herein. All estimates, opinions and other information contained in this research constitute Canaccord Genuity's judgement as of the date of this research, are subject to change without notice and are provided in good faith but without legal responsibility or liability.

From time to time, Canaccord Genuity salespeople, traders, and other professionals provide oral or written market commentary or trading strategies to our clients and our principal trading desk that reflect opinions that are contrary to the opinions expressed in this research. Canaccord Genuity's affiliates, principal trading desk, and investing businesses also from time to time make investment decisions that are inconsistent with the recommendations or views expressed in this research.

This research is provided for information purposes only and does not constitute an offer or solicitation to buy or sell any designated investments discussed herein in any jurisdiction where such offer or solicitation would be prohibited. As a result, the designated investments discussed in this research may not be eligible for sale in some jurisdictions. This research is not, and under no circumstances should be construed as, a solicitation to act as a securities broker or dealer in any jurisdiction by any person or company that is not legally permitted to carry on the business of a securities broker or dealer in that jurisdiction. This material is prepared for general circulation to clients and does not have regard to the investment objectives, financial situation or particular needs of any particular person. Investors should obtain advice based on their own individual circumstances before making an investment decision. To the fullest extent permitted by law, none of Canaccord Genuity, its affiliated companies or any other person accepts any liability whatsoever for any direct or consequential loss arising from or relating to any use of the information contained in this research.

Research Distribution Policy

Canaccord Genuity research is posted on the Canaccord Genuity Research Portal and will be available simultaneously for access by all of Canaccord Genuity's customers who are entitled to receive the firm's research. In addition research may be distributed by the firm's sales and trading personnel via email, instant message or other electronic means. Customers entitled to receive research may also receive it via third party vendors. Until such time as research is made available to Canaccord Genuity's customers as described above, Authoring Analysts will not discuss the contents of their research with Sales and Trading or Investment Banking employees without prior compliance consent.

For further information about the proprietary model(s) associated with the covered issuer(s) in this research report, clients should contact their local sales representative.

Short-Term Trade Ideas

Research Analysts may, from time to time, discuss "short-term trade ideas" in research reports. A short-term trade idea offers a near-term view on how a security may trade, based on market and trading events or catalysts, and the resulting trading opportunity that may be available. Any such trading strategies are distinct from and do not affect the analysts' fundamental equity rating for such stocks. A short-term trade idea may differ from the price targets and recommendations in our published research reports that



reflect the research analyst's views of the longer-term (i.e. one-year or greater) prospects of the subject company, as a result of the differing time horizons, methodologies and/or other factors. It is possible, for example, that a subject company's common equity that is considered a long-term 'Hold' or 'Sell' might present a short-term buying opportunity as a result of temporary selling pressure in the market or for other reasons described in the research report; conversely, a subject company's stock rated a long-term 'Buy' or "Speculative Buy' could be considered susceptible to a downward price correction, or other factors may exist that lead the research analyst to suggest a sale over the short-term. Short-term trade ideas are not ratings, nor are they part of any ratings system, and the firm does not intend, and does not undertake any obligation, to maintain or update short-term trade ideas. Short-term trade ideas are not suitable for all investors and are not tailored to individual investor circumstances and objectives, and investors should make their own independent decisions regarding any securities or strategies discussed herein. Please contact your salesperson for more information regarding Canaccord Genuity's research.

For Canadian Residents:

This research has been approved by Canaccord Genuity Corp., which accepts sole responsibility for this research and its dissemination in Canada. Canaccord Genuity Corp. is registered and regulated by the Investment Industry Regulatory Organization of Canada (IIROC) and is a Member of the Canadian Investor Protection Fund. Canadian clients wishing to effect transactions in any designated investment discussed should do so through a qualified salesperson of Canaccord Genuity Corp. in their particular province or territory.

For United States Persons:

Canaccord Genuity LLC, a US registered broker-dealer, accepts responsibility for this research and its dissemination in the United States. This research is intended for distribution in the United States only to certain US institutional investors. US clients wishing to effect transactions in any designated investment discussed should do so through a qualified salesperson of Canaccord Genuity LLC. Analysts employed outside the US, as specifically indicated elsewhere in this report, are not registered as research analysts with FINRA. These analysts may not be associated persons of Canaccord Genuity LLC and therefore may not be subject to the FINRA Rule 2241 and NYSE Rule 472 restrictions on communications with a subject company, public appearances and trading securities held by a research analyst account.

For United Kingdom and European Residents:

This research is distributed in the United Kingdom and elsewhere Europe, as third party research by Canaccord Genuity Limited, which is authorized and regulated by the Financial Conduct Authority. This research is for distribution only to persons who are Eligible Counterparties or Professional Clients only and is exempt from the general restrictions in section 21 of the Financial Services and Markets Act 2000 on the communication of invitations or inducements to engage in investment activity on the grounds that it is being distributed in the United Kingdom only to persons of a kind described in Article 19(5) (Investment Professionals) and 49(2) (High Net Worth companies, unincorporated associations etc) of the Financial Services and Markets Act 2000 (Financial Promotion) Order 2005 (as amended). It is not intended to be distributed or passed on, directly or indirectly, to any other class of persons. This material is not for distribution in the United Kingdom or elsewhere in Europe to retail clients, as defined under the rules of the Financial Conduct Authority.

For Jersey, Guernsey and Isle of Man Residents:

This research is sent to you by Canaccord Genuity Wealth (International) Limited (CGWI) for information purposes and is not to be construed as a solicitation or an offer to purchase or sell investments or related financial instruments. This research has been produced by an affiliate of CGWI for circulation to its institutional clients and also CGWI. Its contents have been approved by CGWI and we are providing it to you on the basis that we believe it to be of interest to you. This statement should be read in conjunction with your client agreement, CGWI's current terms of business and the other disclosures and disclaimers contained within this research. If you are in any doubt, you should consult your financial adviser.

CGWI is licensed and regulated by the Guernsey Financial Services Commission, the Jersey Financial Services Commission and the Isle of Man Financial Supervision Commission. CGWI is registered in Guernsey and is a wholly owned subsidiary of Canaccord Genuity Group Inc.

For Australian Residents:

This research is distributed in Australia by Canaccord Genuity (Australia) Limited ABN 19 075 071 466 holder of AFS Licence No 234666. To the extent that this research contains any advice, this is limited to general advice only. Recipients should take into account their own personal circumstances before making an investment decision. Clients wishing to effect any transactions in any financial products discussed in the research should do so through a qualified representative of Canaccord Genuity (Australia) Limited or its Wealth Management affiliated company, Canaccord Genuity Financial Limited ABN 69 008 896 311 holder of AFS Licence No 239052.

For Hong Kong Residents:

This research is distributed in Hong Kong by Canaccord Genuity (Hong Kong) Limited which is licensed by the Securities and Futures Commission. This research is only intended for persons who fall within the definition of professional investor as defined in the Securities and Futures Ordinance. It is not intended to be distributed or passed on, directly or indirectly, to any other class of persons. Recipients of this report can contact Canaccord Genuity (Hong Kong) Limited. (Contact Tel: +852 3919 2561) in respect of any matters arising from, or in connection with, this research.

Additional information is available on request.

Copyright © Canaccord Genuity Corp. 2023 – Member IIROC/Canadian Investor Protection Fund

Copyright © Canaccord Genuity Limited. 2023 – Member LSE, authorized and regulated by the Financial Conduct Authority.

Copyright © Canaccord Genuity LLC 2023 – Member FINRA/SIPC



Copyright © Canaccord Genuity (Australia) Limited. 2023 – Participant of ASX Group, Cboe Australia and of the NSX. Authorized and regulated by ASIC.

All rights reserved. All material presented in this document, unless specifically indicated otherwise, is under copyright to Canaccord Genuity Corp., Canaccord Genuity Limited, Canaccord Genuity LLC or Canaccord Genuity Group Inc. None of the material, nor its content, nor any copy of it, may be altered in any way, or transmitted to or distributed to any other party, without the prior express written permission of the entities listed above.

None of the material, nor its content, nor any copy of it, may be altered in any way, reproduced, or distributed to any other party including by way of any form of social media, without the prior express written permission of the entities listed above.