

Ticker: CTM AU **4Q20 Cash:** A\$24m **Project:** Jaguar
Mkt cap: A\$232m **Price:** A\$0.71/sh **Country:** Brazil

RECOMMEND (unc): BUY **TARGET (unc):** A\$1.20/sh **RISK RATING:** HIGH

On paper, today's study suggests that POX is a no brainer, with **payability lifting from ~75% to ~100%, a US\$110m capex lift drives a US\$227m NPV lift**, faster payback, and no offtaker dependence. A **19% drop in AISC** on a cash-basis indirectly supports a **30% increase in mining inventory**, particularly UG where ROM nickel ~doubled from 43kt to 86kt nickel for a 3Y mine life extension. That before 65,000m drilling this year against 74,500m in the resource. POX has been used on nickel and nickel-copper matte for many years at Harjavalta in Finland, and is increasingly common to treat arseno-pyrite gold ores. It isn't used in Australia, where the requisite water / limestone / low-cost power aren't present, all 'dumb luck' positives given CTM's location in Brazil. **ESG impact** is key as hydroxide gives more direct access to the fast-growing EV markets, where a material premium per nickel unit should emerge given the far lower CO₂ emissions of sulphides vs. laterites being converted to hydroxide. In fact, Centaurus noted today that the US\$1,102/t sulphate premium modelled is 'less than the current estimated cost of producing nickel sulphate by dissolving nickel briquettes (matte) in acid'. Strategically, the **optionality to produce either concentrate or hydroxide** is as important for potential M&A buyers as for Centaurus in our view. We expect different groups to prefer concentrate only (lower technical risk, lower capex), POX (to sell straight to EV market, and with highest NPV), or a hybrid of both, potentially starting with concentrate and bootstrapping toward POX. By doing a DFS on POX, Centaurus can effectively present a concentrate scenario as well (the front end). For now, we retain our base-case concentrate model **maintaining our BUY rating and 0.5xNAV_{7%-8.00/lb} A\$1.20/sh PT**. Whilst our A\$730m NPV_{7%-17,637} is lower than the published A\$831m NPV_{8%-17,362}, it dwarfs the current market cap, as does the ~A\$2/sh fully-funded fully-diluted 1xNAV in production compared to ~70c price today. We think that the ASX listing and Brazil location means this asset has 'slipped through the cracks' of global equity markets, and is deserved of substantial premium as the only undeveloped nickel asset globally with scale (>30Mt), grade (>1%) and price (<\$250m mkt cap).

Table 1. Production and economic metrics of POX vs. concentrated, and SCP unchanged conc. scenario

Jaguar (100%)	CTM			SCP	Jaguar (100%)	CTM			SCP
	Conc	POX	Δ (%)	Conc.		Conc	POX	Δ (%)	Conc.
Pit inventory (Mt ore)	29.6	36.6	24%	29.6	Pit mining cost (US\$/t ROM)	2.57	2.60	1.2%	2.57
Strip ratio (x)	6.0	6.5	9.0%	6.0	UG mining cost (US\$/t ROM)	50.5	47.5	-6.0%	50.5
Grade (% Ni)	0.78%	0.76%	-3%	0.78%	Processing cost (US\$/t ROM)+	11.3	28.0	69%	11.3
UG inventory (Mt ore)	3.2	8.5	165.6%	3.2	By-product credit (US\$/t ROM)	-	-8.8	-	-
Grade (% Ni)	1.36%	1.01%	-26%	1.36%	G&A cost (US\$/t ROM)	2.13	1.98	-7.0%	2.13
Nickel mined (000t Ni)	260.3	341.0	31%	260	C1 cost (US\$/lb, LOM average)	2.41	3.29	-23%^	2.59
Peak ROM (000t pa)	2,700	>>	0.0%	2,700	AISC (US\$/lb, LOM average)	2.97	3.94	-19%^	3.15
Recovery (LOM, %)	78%	>>	0.0%	78%	Initial capex (US\$m)	178	288	62%	178
Production (avg, 000t Ni in con pa)	20.3	>>	0.0%	18.4	LOM sustaining capex (US\$m)	138	213	54%	138
Mine life (years)	10.0	13.0	30%	11.0	AUD / USD	0.75	>>	0.0%	0.77
Nickel price (US\$000/t)	16,530	17,362	5.0%	17,637	Discount rate (%)	8.0%	>>	0.0%	7.0%
Payability (%)	75%	100%	33%	75.0%	Project NPV (A\$m)	604	831	38%	730
Transpt. To China (US\$/t con)	131	-	-	131	Asset IRR (%)	54%	52%	-3.7%	45%

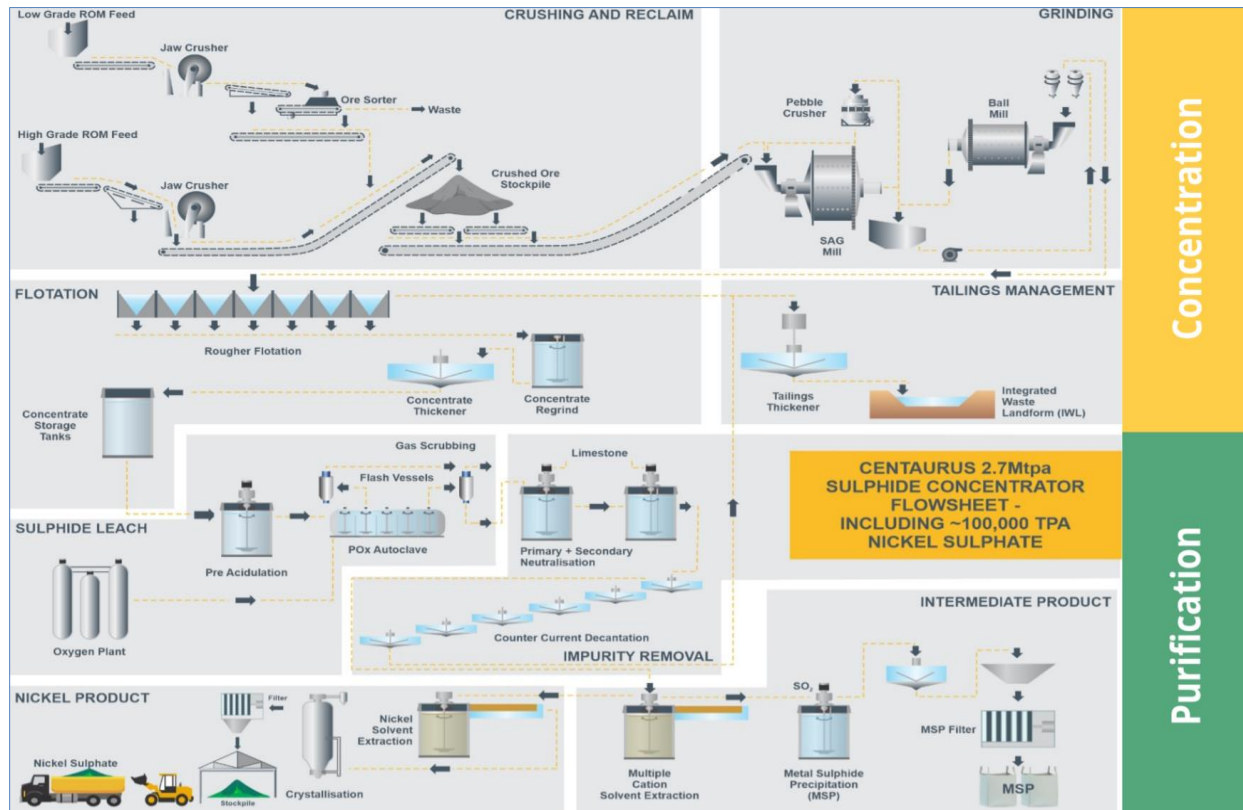
Source: Centaurus, SCP estimates; *as sulphide in coc. Or as sulphate; ^AISC US\$2.97/lb for concen. Equates to US\$4.84/lb AISC incl. deductions as cost; +Net of by-product credits

Value add study shows great optionality (on increased profits) with strong financial metrics

Following from the concentrate-only PEA in 1Q21 at 75% payability, Centaurus has released a scoping study for oxidation of concentrate to produce 100% payable hydroxide, modelled at a 50c/lb premium to metal. The open pit and underground remain, although the higher payability drives a lower cost off for an overall **31% lift in nickel mined**. This mainly came from UG material which lifted from 3Mt to 8Mt, also benefitting from backfill-enabled mining extraction increases. With the same front-end float plant, the only delta above-ground is the addition of a POX circuit. This comprises leach, autoclave with oxygen,

neutralization and CCD + SX to crystallise nickel sulphate, with simple precipitation of metal sulphide precipitate to capture Co and Zn and some additional nickel credits. Net net, the overall impact is a **US\$110m lift in capex in exchange for US\$227m lift in NPV, a 3 year mine life extension, and broadly similar payback** and IRR at 1.8 years and 52%, respectively. As a consequence the board has decided to move direct to DFS – as the POX design requires a concentrator up-front, this preserves the optionality of a concentrator-only option. The permitting process is targeting initial lodgements in 3Q21.

Figure 1. Process flow sheet for PEA base case (yellow) and value-add study (green)



Source: Centaurus

Why we like Centaurus Metals

1. Only >100kt Ni contained, <\$500m capex, pitable nickel sulphide junior globally
2. Drilling of 65,000m this year likely drives resource growth / dis vs. <75,000m in resource itself
3. Optionality on POX given water / limestone / cheap hydro not available in Australia
4. Good logistics, including rail in a well-known mining jurisdiction
5. Quality 16% concentrate with low As, low Mg

Catalysts

1. 3Q21: Lodge environmental license
2. SCPe 4Q22: BFS
3. 2024: Target first production

Research

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Ticker: CTM AU	Price / mkt cap: A71c/sh / A\$232m	P/NAV today: 0.31x	Country: Brazil
Author: B Salier, B Gaspari	Rec/0.6xNAV7% P1 BUY, #####	1xNAV7%⁴Q21 FF FD: A\$1.69c/sh	Asset: Jaguar

Commodity price	CY20E	CY21E	CY22E	CY23E	CY24E
Ni price (US\$/t)	17,637	17,637	17,637	17,637	17,637
Ni price (US\$/t, payable)	13,228	13,228	13,228	13,228	13,228

1xNAV project valuation*	A\$m	o/ship	NAVx	A\$/sh
Jaguar NPV (build start)	730	100%	0.50x	1.03
Regional exploration @ 10%	36.5	100%	1.0x	0.10
Cash 4Q20	24.1	100%	1.0x	0.07
Cash from ITM options	4.6	100%	1.0x	0.01

1xNAV A\$ @ 1Q21 A\$796m 1.21
**Build start, ex fin. cost + G&A, dil. for optns not build P/NAV today: 0.31x*

Asset value: 1xNPV project @ build start (A\$m, ungeared)*					
	6.00/lb	7.00/lb	8.00/lb	9.00/lb	10.00/lb
Group NAV (A\$m)	13,228	15,432	17,637	19,842	22,046
9.0% discount	225	464	702	938	1,174
7.0% discount	273	534	796	1,055	1,313
5.0% discount	328	616	904	1,189	1,474
Ungeared project IRR:	21%	33%	45%	55%	64%
Group NAV (A\$/sh)	13,228	15,432	17,637	19,842	22,046
9.0% discount	0.63	1.31	1.98	2.64	3.31
7.0% discount	0.77	1.51	2.24	2.97	3.70
5.0% discount	0.92	1.74	2.55	3.35	4.15

**Project level NPV, excl finance costs and central SGA, discounted to build start*

SOTP company valuation	2Q21	2Q22	2Q23	2Q24	2Q25
Jaguar NPV	634	679	730	914	1,107
Centra G&A & fin. costs	(58)	(48)	(38)	(30)	(20)
Net cash prior quarter	20.5	7.4	(4.2)	(15)	(150)
Cash from ITM options	4.6	4.6	4.6	4.6	4.6
NAV (A\$m)	601	643	693	873	942
FD share count (m)	355	355	441	441	441
1xNAV7%/sh FF FD (A\$/st)	1.69	1.81	1.57	1.98	2.14
ROI (% pa)		157%	49%	41%	32%

Exit value: 1xNAV/sh company @ 2024 first production (A\$, geared)^

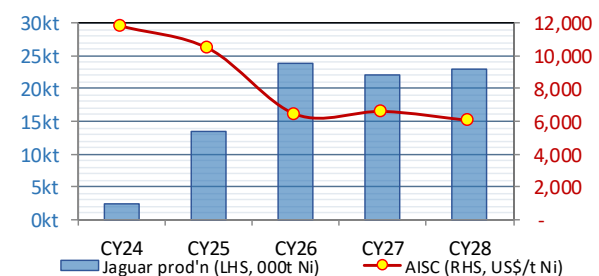
1xNAV (A\$/sh)	13,228	15,432	17,637	19,842	22,046
9.0% discount	0.52	1.21	1.94	2.67	3.40
7.0% discount	0.62	1.37	2.14	2.91	3.69
5.0% discount	0.74	1.54	2.36	3.19	4.02

Exit value: 1xNAV/sh company @ 2024 first production (A\$, geared)^

1xNAV (A\$/sh)	13,228	15,432	17,637	19,842	22,046
9.0% discount	0.43	0.95	1.46	1.98	2.49
7.0% discount	0.49	1.03	1.58	2.13	2.67
5.0% discount	0.55	1.13	1.72	2.30	2.88

Production (Y1 from 3Q21)	CY24	CY25	CY26	CY27	CY28
Jaguar production (000kt Ni)	2.4	13.5	23.9	22.0	22.9
C1 cost (US\$/t Ni)	11,044	9,675	5,544	5,360	4,945
AISC cost (US\$/t Ni)	11,762	10,386	6,382	6,571	6,009

AISC = C1 + sustaining capex + central G&A, C3 = AISC + depreciation



Source: SCP estimates

Resource/Inventory	Mt	Ni %	Mt	Ni %
	2Q20 JORC		SCP inventory	
M&I	11.5	1.29%	29.6	0.78%
Inferred	36.4	1.01%		
Total	48.0	1.08%	29.6	0.8%

Funding: uses		Funding: sources	
Capex (A\$m)	231	Cash 4Q20 (A\$m)	24.1
Drilling/FS cost (A\$m)	14.9	SCPe debt (A\$m)	149.9
Working cap >DFS (A\$m)	14.5	SCPe 0.6NAV equity (A\$m)	115.3
G&A and fin. cost (A\$m)	30.2	Total sources (A\$m)	289.3
Total uses: group (A\$m)	290.3	Drilling / buffer (A\$m)	-1.0

Share data (m)	Basic	FD	3Q22 (FF FD)
Shares (m)	329.5	354.9	440.7

Ratio analysis	CY20E	CY21E	CY22E	CY23E	CY24E
Shares out (m)	325.9	329.5	440.7	440.7	440.7
EPS (Ac/sh)	-	-	-	-	-
CFPS before w/c (A\$/sh)	-	-	-	-	-
EV (A\$m)	205.6	221.6	312.1	273.8	460.9
FCF yield (%)	-	-	-	-	-
PER (x)	-	-	-	-	-
P/C/F (x)	-	-	-	-	-
EV/EBITDA (x)	-	-	-	-	167.3x

Income statement	CY20E	CY21E	CY22E	CY23E	CY24E
Revenue (A\$m)	0.5	-	-	-	42.0
COGS (A\$m)	-	-	-	-	37.9
Gross profit (A\$m)	0.5	-	-	-	4.2
G&A (A\$m)	2.9	7.4	9.2	11.1	1.0
Exploration (A\$m)	7.3	6.0	3.0	-	-
Finance costs (A\$m)	0.1	-	-	-	10.5
Tax (A\$m)	-	-	-	-	-
Other (A\$m)	3.6	1.2	1.5	0.8	2.3
Net income (A\$m)	(13.3)	(14.6)	(13.7)	(11.9)	(9.6)

Cash flow statement	CY20E	CY21E	CY22E	CY23E	CY24E
EBITDA (A\$m)	(11.5)	(15.0)	(13.8)	(12.7)	2.8
Add share based (A\$m)	0.5	1.6	1.6	1.6	0.4
Net change wkg cap (A\$m)	(1.6)	-	-	1.7	14.5
Cash flow ops (A\$m)	(5.3)	(13.0)	(12.1)	(12.0)	(21.0)
PP&E - build + sust. (A\$m)	(1.2)	-	-	65.0	166.1
PP&E - expl'n (A\$m)	-	-	-	-	-
Cash flow inv. (A\$m)	1.2	-	-	(65.0)	(166.1)
Share issue (A\$m)	24.8	-	-	115.3	-
Debt draw (repay) (A\$m)	-	-	-	-	149.9
Cash flow fin. (A\$m)	24.8	-	-	115.3	149.9
Net change in cash (A\$m)	19.5	(13.4)	(12.1)	38.3	(37.2)

Balance sheet	CY20E	CY21E	CY22E	CY23E	CY24E
Cash (A\$m)	24.1	10.7	(1.4)	36.9	(0.3)
Acc rec. + invet. (A\$m)	0.2	0.2	0.2	0.0	27.0
PP&E & expl'n (A\$m)	9.5	9.9	9.9	74.9	238.3
Total assets (A\$m)	33.9	20.8	8.7	111.8	264.9
Debt (A\$m)	-	-	-	-	149.9
Accounts payable (A\$m)	1.9	1.9	1.9	-	12.4
Others (A\$m)	24.3	10.9	(1.2)	36.9	26.7
Total liabilities (A\$m)	7.7	7.7	7.7	5.8	168.2
Shareholders' equity (A\$m)	155.9	157.5	159.1	276.0	276.4
Reserves (A\$m)	(8.3)	(8.3)	(8.3)	(8.3)	(8.3)
Retained earnings (A\$m)	(121.5)	(136.1)	(149.8)	(161.7)	(171.3)
Liabilities + equity (A\$m)	33.9	20.8	8.7	111.8	264.9

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TOTAL	41

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