

# **EQUITY RESEARCH**

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# **SPEC BUY**

Current Price Valuation

\$1.00 \$1.40

Code:				СТМ
Sector:				Materials
* All figu	ıres in AUD ເ	unless stated o	otherwise	
Shares o	on Issue (M):			358
- fully o	diluted (M)			462
Market	Cap (\$M):			358
- fully o	diluted (\$M)			462
Cash (31	Aug 21)			A\$20m
Debt (31	Aug 21)			A\$0m
Net cash	ı (\$M):			20
Enterpri	se value (\$N	1):		338
	igh/Low (ps)		\$0.46	\$1.03
12m av.	daily vol. (N	lshs):		1.0
Key Me	trics:			
		FY25e	FY26e	FY27e
P/E (x)		3.8	2.5	2.4
EV/EBIT	DA (x)	1.7	8.0	1.1
Financia	ıls:			
		FY25e	FY26e	FY27e
Revenue	e (\$M)	319	502	502
EBIT (\$N	<b>1</b> )	142	234	237
NPAT (A	\$M)	106	194	201
Net asse		570	686	825
Op CF (\$	iM)	126	214	210
Per shai	re data:			
EPS (c)	c data.	21.5	39.5	40.9
Dividend	d (cns)	0.0	0.0	0.0
Yield (%		-	-	-
CF/Shar	•	34.4	59.8	58.5
2.,2.10.	. (- )		22.0	23.5
Prod (kt	Ni)	13,599	21,415	21,415
Share Pri	ice Graph and	trading volum	es (msh)	

#### hare Price Graph and trading volumes (msh)



Please refer to important disclosures at end of the report (from page 10)

Friday, 3 September 2021

# **Centaurus Metals (CTM)**

# Sulphate option adds more bite

Analyst: George Ross

## **Quick Read**

The Value-Add scoping study provides a step up in project economics. The ongoing drilling program is expected to further improve the existing impressive Resource base. A recent assessment by Skarn Associates suggests Jaguar will produce nickel with lower carbon emissions than 97% of current competitors. Permitting is moving forward and we believe CTM has the team to deliver first production by the end of 2024.

# **Key Points**

Confirmation of Value-Add Upside: CTM's Value-Add case scoping study has confirmed the strong economic fundamentals of producing nickel sulphate product at Jaguar. Integration of ore sorting technology will facilitate beneficiation of lower grade ore prior to processing. The addition of hydrometallurgical circuits at the back of the plant will be used to produce high value nickel sulphate and a mixed sulphate precipitate product. High purity nickel sulphate is sold at a 10-20% premium over nickel metal on the open market. Production of a sulphate also eliminates payability discounts enforced by nickel matte smelters.

**Resource base set to grow:** Over 60,000m of drilling is scheduled for CY2021. We expect this will result in tonnage and JORC classification improvement to Resources. The existing 58.5Mt at 0.96% Ni Jaguar Resource already rates highly against competitor projects.

**Top of class carbon footprint credentials:** CTM engaged ESG specialist consultants Skarn Associates to assess Jaguar's expected greenhouse gas emission performance. Jaguar is expected to produce less greenhouse gas emissions per tonne of nickel than 97% of global producers.

**Environmental permitting documentation lodged:** Key environmental permitting documentation has been lodged to relevant authorities. CTM is well positioned to navigate the Brazilian environmental approval process, having done so previously. Construction scheduled to begin in second half of CY2023 with first production in the second half of FY2024.

### Recommendation

We are now confident that CTM will elect to develop the Jaguar project using the 'Value-Add' development scenario. Argonaut has increased CTM's valuation to \$1.40ps (previously \$1.31ps) and maintains a SPEC BUY recommendation.



Recommendation Current Price Speculative Buy \$1.00 \$1.40 Valuation

Metals & Mining Sector 358 \$ 358 Issued Capital (Mshs) Market Cap (M) Thursday, 2 September 2021

Profit & loss (A\$M) 30 June	Unit	2024E	2025E	2026E	2027E
Sales Revenue	A\$M	0	319	502	502
+ Other income/forwards	A\$M	0	0	0	0
- Operating costs	A\$M	-2	-100	-156	-160
- Royalties	A\$M	0	-15	-23	-23
- Corporate & administration	A\$M	-4	-4	-4	-4
Total Costs	A\$M	-6	-118	-183	-187
EBITDA	A\$M	-6	201	319	315
- margin		0%	63%	64%	63%
- D&A	A\$M	0	-59	-85	-78
EBIT	A\$M	-6	142	234	237
+ Finance Income/Expense	A\$M	-20	-18	-6	0
PBT	A\$M	-26	124	228	237
- Tax expense	A\$M	4	-19	-34	-36
- Impairments and other	A\$M	0	0	0	0
NPAT	A\$M	-22	106	194	201

Financial ratios	2024E	2025E	2027E	2028E
GCFPS Diluted (A¢)	-6	34	60	59
CFR (X)	0	2	1.7	1.7
EPS Diluted (A¢)	-4	22	39	41
PER (X)	0	4	2.5	2.4
DPS (\$)	0	0	0%	0%
Yield (%)	0	0	0%	0%
Interest cover (X)	0	8	43	0
ROCE (%)	0	0	34%	29%
ROE (%)	0	0	33%	29%
Avg Gearing (%)	0	83%	17%	0%

Cash flow (A\$M)	Unit	2024E	2025E	2026E	2027E
+ Revenue	A\$M	0	319	502	502
- Cash costs	A\$M	-7	-163	-252	-257
-Tax payments		3	-13	-30	-35
+ Interest & other	A\$M	-20	-18	-6	0
Operating activities	A\$M	-24	126	214	210
- Property, plant, mine devel.	A\$M	-392	-4	-33	-19
- Exploration	A\$M	-2	-2	-2	-2
- Feasibility Studies		0	0	0	0
Investment activities	A\$M	-394	-6	-35	-21
+ Borrowings	A\$M	240	0	0	0
- Dividends	A\$M	0	0	0	0
+ Equity	A\$M	164	0	0	0
Financing activities	A\$M	404	0	0	0
Cash change	A\$M	-13	120	179	188

Operations summary	2024E	2025E	2027E	2028E
Jaguar				
Ore processed (Mt)	0.0	1.7	2.7	2.7
Ni Head grade (%)	0.0	1.0	1.0	1.0
Met. Recovery (%)		80%	80%	80%
Share of Ni in Final Product (t)	0.0	13599	21415	21415
Share of Payable Ni (t)	0.0	13599	21415	21415
Cost per milled tonne (US\$/t)		64	63	65
C1 Costs (US\$/lb)	0.0	3.6	3.6	3.7
AISC (US\$/lb)		4.2	4.5	4.1
Growth capital (\$M)	0.0	4	33	19

Balance sheet (A\$M)	Unit	2024E	2025E	2026E	2027E
Cash	A\$M	182	301	481	669
Other Current Assets	A\$M	0	0	0	0
Total current assets	A\$M	182	301	481	669
Property, plant & equip.	A\$M	392	338	285	226
Investments/other	A\$M	0	0	0	0
Total non-curr. assets	A\$M	392	338	285	226
Total assets	A\$M	573	639	766	895
Trade payables	A\$M	56	21	39	35
Short term borrowings	A\$M	133	240	27	0
Other	A\$M	49	21	40	35
Total curr. liabilities	A\$M	105	42	79	70
Long term borrowings	A\$M	267	27	0	0
Other	A\$M	0	0	0	0
Total non-curr. liabil.	A\$M	267	27	0	0
Total liabilities	A\$M	372	69	79	70
Net assets	A\$M	201	570	686	825

AUDUSD	0.75	0.75	0.75	0.75
Nickel (US\$/t)	16500	16500	16500	16500
Nickel (A\$/t)	22000	22000	22000	22000
Jaguar Project Valuation			A\$M	A\$/sh

Balance sheet (A\$M)	Unit	2024E	2025E	2026E	2027E
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Total liabilities	A\$M	372	69	79	70
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Jaguar Project Valuation	A\$M	A\$/sh
Jaguar Project NPV9 AUD	979	2.73
Risk Discount (Study Maturity -35% & Technical -15%)	-489	1.37
Jaguar Project NPV9 (Risk Discounted 50%)	489	1.37

Resource	Mt	Ni %	Cu %	Co ppm	Cont. Ni (kt)
Jaguar South (II)	18.7	0.97	0.05	206	181
Jaguar Central (II)	10.2	1.00	0.06	268	102
Jaguar North (II)	3.3	1.09	0.18	350	36
Jaguar Central North(I)	5.8	0.80	0.05	210	47
Jaguar North East (I)	8.3	0.78	0.09	253	65
Jaguar West (I)	5.7	0.80	0.04	150	45
Onca Preta (II)	3.7	1.58	0.08	536	58
Onca Rosa (I)	3.2	0.88	0.06	251	29
Total Global MRE	58.9	0.96	0.07	249	563

	A\$/sh
489	1.37
10	0.03
148	0.41
-18	-0.05
20	0.06
0	0.00
0	0.00
0	0.00
-147	-0.41
502	1.40
	10 148 -18 20 0 0

Chairman
Managing Director / CEO
Executive Director
Non-Executive Director
Non-Executive Director
GM - Exploration & Growth
GM - Operations
Chief Financial Officer

Shares	2024E	2025E	2027E	2029E
New shs issued/exerciseable	92	0	0	0
Average issue price	1.8	0	0	0
Ordinary shares - end	492	492	492	492
Diluted shares - end	492	492	492	492



# **Confirmation of Value-Add upside**

In late May, CTM reported results from the Jaguar <u>Value-Add Scoping study</u>. This study assessed the viability of producing a nickel sulphate product at the Company's flagship Jaguar Nickel Sulphide development project (Brazil). This study differed from the earlier <u>Base Case study</u>, which was limited to a conventional mill and flotation flowsheet.

The Value-Add study generates a post-tax NPV(8) of A\$1.1B over 13 years with an initial capital expenditure of US\$294M inclusive of \$42M in contingency. Rather than a sulphide concentrate, project generates revenue through sale of purified sulphate products.

Approximately 35% of lower grade mined ore will be beneficiated with ore sorting technology prior to being blended with the standard run of mine material for comminution and flotation. The flotation circuit will be optimised for recovery over grade. The resulting intermediate concentrate will then be fed to hydrometallurgical circuits for sulphide dissolution, metal purification and final precipitation of refined sulphates.

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Figure 1: Flow sheet for CTM's value-add development of Jaguar.

Source: CTM - Value-Add Scoping Study



### POX technology key to value realisation

Utilisation of Pressure Oxidation autoclave (POX) technology is key to the Value-Add flowsheet. POX autoclaves differ from HPAL (high-pressure-acid-leach) autoclaves, as they operate a lower standard pressure and do not consume harsh acids.

In our <u>previous research</u> we had assumed that the oxidised slurry generated from the POX would be purified and then treated through solvent extraction and electro-winning for nickel cathode, however this is not the case. Instead, CTM has opted to generate a nickel sulphate product with accessory zinc-cobalt mixed sulphate precipitate (MSP).

We previously addressed the importance of nickel for the low carbon future in our research <a href="The Emergence of Green Nickel">The Emergence of Green Nickel</a>. High purity nickel sulphate is vital for production of the Nickel-Cobalt-Manganese (NCM) cathode. NCM cathode is used in one of the more common form of electric vehicle (EV) batteries. Until the recent push towards EV, the market for nickel sulphate had been extremely small, however, change is afoot. At the recent Diggers and Dealers conference, BHP surprised the crowd by <a href="announcing">announcing</a> that 85% of Nickel West's current nickel production would be consumed by the battery market. Almost all nickel sulphate producers, including BHP, currently produce nickel sulphate either from a >75% Ni matte, or pure nickel powder refined through pyrometallurgy.

CTM's adoption of hydrometallurgical technology to extract sulphate from nickel sulphide is progressive, but not entirely novel. The technology has been around for more than 20 years and has been used in comparable form at nickel operations in Finland and Canada. The reason hydrometallurgical sulphide-sulphate conversion technology usage has not previously been used more broadly comes down to the historic makeup of the nickel industry. The traditional refined nickel product market was (and still is) dominated by pure nickel metal, nickel matte, ferro-nickel and nickel-pig iron. Nickel sulphate has historically been a low volume and niche segment of the intermediate market, however is now rapidly growing due to NCM battery driven demand. Previously, little benefit could be gained from a specialised direct sulphide to sulphate processing plant. It made more economic sense to produce a sulphide concentrate for sale to smelters for conversion to a refined nickel metal. However, with surging sulphate demand we expect nickel ore miners and processors to increasingly adopt hydrometallurgical treatment technology to bypass unnecessary pyrometallurgical refinement and associated payability penalties.

Producing a saleable nickel sulphate will enable CTM to avoid the ~25% payability penalty forced upon sulphide miners by metal smelters and minimise the projects carbon footprint. Purified battery grade nickel sulphate currently demands a 10-20% premium over the LME nickel metal price due to scarcity of sulphate supply and the cost of conversion. CTM have used a 6% payability premium for nickel in sulphate product in the Value-Add study for Jaguar, this appears reasonable, but conservative in the current pricing environment. The combined payability benefits of avoiding the smelter penalties and gaining the sulphate premium aggregate to ~106% of LME metal pricing.



# Resource base set to grow

The Jaguar global Mineral Resource Estimate (MRE) is currently reported as 58.9Mt grading 0.96% Ni for 562,600 tonnes of contained nickel metal. Approximately one third of total Resource tonnage (19.9Mt) is categorised at Indicated, with the remainder being Inferred.

CTM's exploration team is expected to complete 60,000m of drilling during CY2021. The majority of drill metres are being directed towards Resource growth and improvement to JORC classification. As at the 25<sup>th</sup> of August, six diamond rigs were drilling at the existing deposits, with another two rigs joining them shortly. An updated MRE is due for release later this year. We anticipate the new Resource will have an increased tonnage of approximately 20%, and with a corresponding increase to contained nickel tonnes.

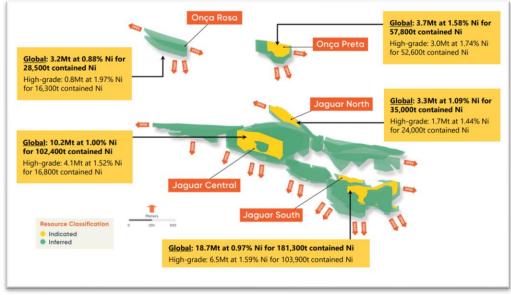
Adoption of the POX development scenario may shift the floor of Resource economics. Utilisation of POX eliminates the requirement for the concentrator to produce a commercial grade sulphide concentrate. Less grade sensitivity in processing could present an opportunity to drop the mineable cut-off of the Resource, increasing the scale of the mineable inventory.

Table 1: Reported JORC 2012 Resources for the Jaguar Project area.

Resource	Mt	Ni %	Cu %	Co ppm	Cont. Ni (kt)
Jaguar South (II)	18.7	0.97	0.05	206	181
Jaguar Central (II)	10.2	1.00	0.06	268	102
Jaguar North (II)	3.3	1.09	0.18	350	36
Jaguar Central North(I)	5.8	0.80	0.05	210	47
Jaguar North East (I)	8.3	0.78	0.09	253	65
Jaguar West (I)	5.7	0.80	0.04	150	45
Onca Preta (II)	3.7	1.58	0.08	536	58
Onca Rosa (I)	3.2	0.88	0.06	251	29
Total Global MRE	58.9	0.96	0.07	249	563

Source: CTM

Figure 2: Isometric downward view to the north of the Jaguar project deposits with reported Resources for key areas.



Source: CTM



### Nickel sulphide peers

The existing Jaguar MRE compares favourably with other Australian nickel sulphide deposits held by Australian peers (Figure 3). The Jaguar camp hosts more contained nickel in total Resources than any of our sulphide deposit comparisons held by ASX stocks outside of BHP Group (BHP) and Oz Minerals (OZL). Note that for the purpose of this comparison we have split the low-grade disseminated Mt Goode (Western Areas) remnant ore body from the broader Cosmos suite of deposits.

When comparing with other nickel sulphide deposits it is important to understand that Jaguar is in many ways a geological oddity. Without becoming too bogged down in the geology technical detail, Jaguar is most likely a nickel-rich 'IOCG' style deposit. Large-scale, magmatic hosted disseminated sulphide deposits such as Mt Keith and Yakabindie often suffer from poor metallurgical recoveries (65% and 63% respectively) and are known to be anomalously high in arsenic. In contrast, Jaguar deposit nickel sulphide recoveries are expected to be between 78-82% and includes lower abundances of deleterious elements.

Figure 3: Jaguar project Resources compared with ASX company associated nickel sulphide deposits. Results filtered above 0.2% Ni Resource grade. Ni tonnes per annum production may be either actual or estimated. All deposits located in Australia except for Jaguar, Santa Rita and Ta Khoa. West Musgrave (OZL) is a mixed copper-nickel sulphide deposit.

Property Name	Ticker	<b>Development Stage</b>	Mine Type	Ni tpa Prod.							
Honeymoon Well	BHP	Preproduction	Open Pit	40kt			4,007Kt				0.8%
Yakabindie	BHP	Reserves Develop	Open Pit	32kt		2,60	1Kt			0.	6%
Leinster	BHP	Operating	Underground	26kt		1,668Kt			0.99	%	
West Musgrave	OZL	Prefeas/Scoping	Open Pit	29kt	1,	190Kt					0.29
Mt Keith	BHP	Operating	Open Pit	34kt	1,	187Kt			0.	5%	
Jaguar	CTM	Scoping Study	Open Pit	20kt	563K	t		1	.096		
Ta Khoa	BSX	Prefeas/Scoping	Open Pit	13kt	342Kt			0	.696		
Mt Goode	WSA	Feasibility	Open Pit	Not Avail.	327Kt			0.	6%		
Cosmos	WSA	Construction Started	Underground	13kt	292Kt			2.69	96		
Forrestania	WSA	Expansion	Underground	25kt	287Kt			1.6	96		
Savannah	PAN	Restarting	Underground	9kt	210Kt			1.69	%		
Nova-Bollinger	IGO	Operating	Underground	26kt	209Kt			1.89	96		
Santa Rita	Unlisted	Operating	Open Pit	19kt	193Kt			0.	.3%		
Black Swan	POS	Feasibility Complete	Underground	Not Avail.	179Kt			0.6	96		
Cliffs	BHP	Operating	Underground	Not Avail.	171Kt			1.69	16		
Mt Edwards	NMT	Reserves Develop	Underground	Not Avail.	163Kt			1.69	16		
Windarra	POS	Construction Plann	Underground	10kt	149Kt			1.59	16		
Pardoo-Highway	CAD	Reserves Develop	Open Pit	Not Avail.	134Kt			0.3	396		
Fisher East	RXL	Prefeas/Scoping	Underground	7kt	78Kt			1.99	6		
Cassini	MCR	Operating	Not Avail	7kt	59Kt			4.09	6		
Radio Hill	ARV	Feasibility	Open Pit	Not Avail.	52Kt			0.59	16		
Lake Johnston	POS	Commissioning	Underground	8kt	52Kt			1.59	6		
Long Complex	MCR	Operating	Underground	9kt	45Kt			3.99	6		
Silver Swan	POS	Feasibility	Underground	4kt	16Kt			9.59	6		
Waterloo	NST	Operating	Underground	6kt	14Kt			2.19	6		
Nepean	AOU	Feasibility	Open Pit	Not Avail.	13Kt			2.29	6		
Carr Boyd	ESR	Reserves Develop	Underground	Not Avail.	9Kt			1.49	6		
Mt Cobalt	ANW	Reserves Develop	Not Avail	Not Avail.	7Kt			0.99	6		
					ОМ	2M	4M	OM	200M	400M	6001
					R.R.	R - Contai	ined Ni =		R&R -	Ore Ton	nage

Sources: Argonaut with data from SP Global & Company Announcements



# Top of class carbon footprint credentials

In our research <u>The Emergence of Green Nickel</u> we examined the carbon intensity of various pathways to nickel metal and identified that Jaguar's production was likely to be exceptionally green. Pleasingly, our assessment has since been validated by ESG research specialists Skarn Associates who have graded CTM's Value-Add nickel production better than 97% of the market (<u>CTM announcement</u>).

Jaguar's Value-Add development scenario is expected to produce nickel at a carbon cost of 4.69t of CO<sub>2</sub> per tonne of nickel equivalent metal. This exceptionally low emission result is a function of relatively high mined grades and utilisation of 80% renewably sourced for processing power.

We maintain that CTM will become an increasingly attractive investment proposition to OEM's seeking low greenhouse gas footprint metal and ESG focused funds.

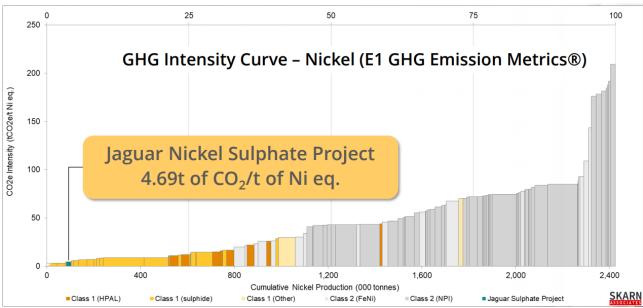


Figure 4: Greenhouse gas intensity curve for nickel production.

Source: CTM/Skarn Associates

# **Environmental permitting documentation lodged**

In mid-August CTM reported that key environmental approvals had been lodged with the state environmental authority SEMAS. The Company is targeting approval of the Environmental Impact Assessment (EIA/RIMA) and grant of a Preliminary Licence (LP) during Q3 2022. The EIA/RIMA submission was prepared using parameters for the Value-Add development scenario, for production of a nickel sulphate product.

Upon grant of an LP, CTM will apply for an Installation Licence (LI), which once granted will allow for construction of site infrastructure. Grant of the LI is targeted for the end of Q2 2023, allowing for plant construction to commence in the second half of 2023.

CTM's management team is experienced in the permitting of mines in Brazil and is well placed to navigate the local approval process in a timely fashion.



Table 2: Detailed discounted cash flow model assumptions for development of Jaguar with POX-SX circuit. All values in US dollars unless specified.

2023

2024/2037

Start Construction

Start/End Mining

Initial Mine Life	13+ years
Mining	
Open Pit Development	Jaguar Central, Jaguar South, Jaguar North, Jaguar West, Jaguar
	North-East, Onca Rosa, Onca Preta
Ore Production (LOM)	Open Pit: 31Mt, Underground 9Mt
Pre-Strip Tonnage (LOM)	51 Mt total for all pits
OP Strip Ratio (Excl PS)	LOM Average 6:1
Underground Development	Onca Preta, Jaguar South, Jaguar Central, Jaguar North
Distance from Mill	1-3km

Project valuation scenarios have been refined to adopt parameters published in the Value-Add scoping study

Processing	
Total Processing Costs	\$30/t Ore
Mill	2.7 Mt Capacity/2.7 Mt Throughput
Grind Size	75μm
Low Grade Ore Sorted	16Mt
LOM Mill Throughput	35Mt at 1.0% Ni
Flotation Conc. Grade	8.1% Ni, 2.5% Zn, 0.56% Cu, 0.22% Co
Hydromet. Recoveries	96.2% Ni, 95% Zn, 95% Co
Full Circuit Ni Recovery	80%

Production		
Final Products	Nickel Sulphate	Mixed Sulphate Precipitate
	(Ni)	(Zn-Co-Ni)
Product Specification	22% Ni	59% Zn, 5.4% Co, 2.3% Ni
Annual Product	91ktpa	10ktpa
Metal in Products	21.4ktpa Ni	5.9ktpa Zn, 0.5ktpa Co,
		0.2ktpa Ni
Metal Payabilities	100% Ni LME + 6.6% Premium	85% Zn, 30% Co, 0% Ni
Payable Metals	22ktpa Ni	5ktpa Zn, 0.15ktpa Co
Product Transport	\$131/t Product	\$131/t Product
	(\$600/t Contained Metal)	(\$200/t Contained Metal)
· · · · · · · · · · · · · · · · · · ·		·

Financial Factors	
Royalties	4.5%
Corporate Tax Rate	15% for years 1-10, 34% for years >10
AUD/USD FX	0.75
Ni Price Forecast	\$16,500
MSP Credit to C1 Costs	\$1,000
Discount Rate	9%

Capital Expense	
Develop. Capex	\$294M
(Incl pre dev Pre-strip)	\$254IVI
Pre-Strip (LOM Post Dev)	\$103M
UG Dev. (LOM Post Dev)	\$78M

Project Valuation	
2021 NPV <sub>9</sub>	A\$979M
Risk Discount Factors	Scoping Study Maturity -35%
	Technical Risk -15%
	Total Discount = -A\$489M
NPV <sub>9</sub> (Risk Discounted)	A\$489M

Source: Argonaut



## **Valuation**

We believe the 'Value-Add' case provides the most compelling scenario for development of the Jaguar project. As a consequence, we have discarded our previous valuation method of averaging two development scenarios in favour of the 'Value Add' case alone.

Our new financial model incorporates details provided in CTM's <u>Value-Add Scoping study</u> announcement released in May. Our assumptions include a 13-year mine life with exploitation of multiple deposits by open pit and underground mining. Select assumptions for our financial modelling are provided in Table 2.

In our model the majority of ore will be fed directly to the mill, with approximately 5Mt of lower grade material upgraded via inductive or x-ray sorting. A 2.7Mtpa mill and sulphide concentrator will produce a ~8% intermediate nickel sulphide concentrate that will then be oxidised in a pressure oxidation autoclave. The resulting oxidised slurry will then be purified prior to treatment by solvent extraction circuit and final crystallisation of two product precipitates.

The high purity nickel sulphate product has been modelled by us to attract 100% LME nickel metal pricing plus a 6.6% premium for sulphate form. The MSP co-product is expected to contain payable quantities of zinc and cobalt.

Our base NPV model discounted at 9% generates a project value of <u>A\$979M</u>. This model includes US\$240M (A\$320M) in debt funding with the remainder of development funding being provided through equity raisings (total option/equity dilution of A\$147M).

We have applied an aggregate 50% risk discount to our NPV valuation. This includes 35% risk for the stage of studies (Scoping) and an additional 15% risk to account for the usage of less-common processing technology.

Company Valuation summary	A\$M	A\$/sh
Jaguar Project NPV9 (Risk Discounted 50%)	489	1.37
Jambreiro Project	10	0.03
Exploration, all sites	148	0.41
Corporate overheads	-18	-0.05
Cash and bullion	20	0.06
Current debt	0	0.00
Tax benefit	0	0.00
Hedging	0	0.00
Option/equity dilution	-147	-0.41
Total	502	1.40

## **Conclusion**

The Jaguar Value-Add scoping study has delivered better economic outcomes than the original base case development scenario. We expect the results of ongoing drilling and feasibility studies to generate further interest from an international pool of investors, potential partners and larger corporates who are keen to gain exposure to a robustly economic, long-lived and low-carbon emission nickel asset.



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