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SPEC BUY

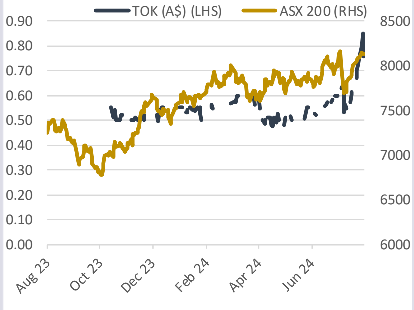
Current Price	$0.74
Valuation	$1.60
TSR (%)	116%

Ticker	TOK ASX
Sector:	Metals & Mining
Shares on issue (m)	133
Market Cap (A$m)	100
Net cash (debt) (A$m)	12
Enterprise Value (A$m)	89
52 Week High	1.00
52 Week Low	0.33
ADTO (A$m)	0.01

Key Metrics	**FY25E**	**FY26E**	**FY27E**
P/E (x)	nm	24.4	2.8
EV/Ebit (x)	nm	11.5	1.0
EV/Ebitda (x)	nm	6.3	0.8
FCF yield (%)	(18.5%)	(19.2%)	26.4%
Dividend yield (%)	0.0%	0.0%	0.0%

Financial Summary	**FY25E**	**FY26E**	**FY27E**
Revenue (A$m)	14	50	131
Ebitda (A$m)	(5)	12	66
Ebit (A$m)	(7)	7	50
Earnings (A$m)	(7)	4	35
Op cash flow (A$m)	(2)	8	51
Capex (A$m)	(9)	(20)	(18)
Free CF (A$m)	(19)	(19)	27
Debt (cash) (A$m)	(13)	(24)	(50)
Gearing (%)	(71%)	(63%)	(120%)
Gold production (koz)			
Tolukuma (koz)	3.8	14.1	38.4
AISC			
Group (A$/oz)		2,198	1,580

Share price performance vs ASX 200



Source: Factset, Argonaut August 2024

Please refer to the important disclosures page at the end of the report

Tolu Minerals (TOK)

Tolukuma Restart - Initiating coverage

Analyst | Patrick Streater

Quick Read

Argonaut recently completed a 3-day site visit to Tolu Mineral's Tolukuma Gold Project located in PNG. Tolu Minerals (ASX:TOK) have been working on restarting the operation since their acquisition of the project and IPO in late 2023. TOK's restart activities are well advanced with a management team in place and onsite with plans to start small scale production later this year. Overall, we are attracted to the story as it provides exposure to a potential multimillion ounce system without the need to fund a new Greenfields build in PNG. We initiate coverage with a Speculative Buy Rating and a $1.60 Price Target.

Key points

High-grade restart play: Tolukuma operated from 1995 to 2015 as a high-grade, small-scale operation. During its earlier years of production, the mine produced 55kozpa running a +20g/t Au head grade. When DRD Gold took over operations from 2000-2006, Tolukuma was a ~200ktpa operation producing 71kozpa at a 12g/t Au head grade.

Key capital investments unlock project value: During its operation Tolukuma was a helicopter supported site with equipment, fuel, and supplies all reliant on helicopter transport. Construction of road access into site was started but never completed before operations ceased in 2015. Whilst in operation, helicopter logistic costs contributed to 25-60% of the mines operating cost profile. TOK is currently constructing the final segment of road access into site and expects to be completing the first road deliveries into site later this year.

Significant Project Endowment: The scale of mineralisation across the project is impressive and well beyond what we expect a small cap (~A$80M EV) developer to control. In December 2023, TOK reported Exploration Target for the Tolukuma project of 2-3 Moz grading 8-11 g/t Au. After our site visit and investigations of the Tolukuma datasets, we share similar view on the Tolukuma project's potential endowment and ultimately see the ramp up back to a ~60kozpa operation as a platform to fund further development and drilling required to unlock a multimillion-ounce system at Tolukuma

Valuation & recommendation

PNG has some of the world's largest gold deposits but remains a challenging place to explore and develop a new mine due to the steep topography and remote locations of prospective regions. Tolukuma is a unique story where investors have exposure to the prospectivity of the New Guinea Metallogenic Belt without the need to fund a Greenfields project through expensive exploration and development. Usual ramp up risks are there but if TOK can successfully navigate through the ramp up period then the gold endowment is there to support a long mine life with a production profile beyond the nameplate 220ktpa milling capacity. We initiate coverage with a Speculative Buy Rating and a $1.60 Price Target

Figure 1 - Earnings and valuation summary

Tolu Minerals Limited

ASX: TOK	Share price (A$)	A$0.76		
	Market Cap (A$m)	100		
Analyst: Patrick Streater	Shares (m)	133		
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Key metrics	FY24E	FY25E	FY26E	FY27E	FY28E	FY29E
EPS (Ac)	(9.55)	(4.50)	1.86	17.86	26.96	24.76
DPS (Ac)	0.00	0.00	0.00	0.00	0.00	0.00
P/E (x)	nm	nm	24.4	2.8	1.9	2.0
EV/Ebit (x)	nm	nm	11.5	1.0	(0.2)	(1.1)
EV/Ebitda (x)	nm	nm	6.3	0.8	(0.1)	(0.8)
EV/Production (x)	nm	nm	5,455	1,307	(237)	(1,301)
Free cash flow yield (%)	(11.2%)	(18.5%)	(19.2%)	26.4%	62.9%	57.9%
Dividend yield (%)	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Net debt (cash) (A$m)	(11.6)	(13.0)	(23.7)	(50.2)	(113.4)	(171.5)
Gearing (%)	(153.0%)	(71.0%)	(63.3%)	(119.7%)	(364%)	(809%)

Profit & Loss	FY24E	FY25E	FY26E	FY27E	FY28E	FY29E
Sales revenue (A$m)	**0.0**	**14.0**	**50.0**	**131.2**	**180.8**	**177.6**
Operating costs (A$m)	(1.0)	(8.3)	(26.5)	(55.6)	(74.9)	(76.9)
Exploraton expense (A$m)	(7.1)	(7.1)	(7.0)	(5.6)	(3.7)	(5.0)
Corporate overhead (A$m)	(3.9)	(4.2)	(4.3)	(4.5)	(4.6)	(4.7)
Ebitda (A$m)	**(12.0)**	**(5.5)**	**12.2**	**65.5**	**97.5**	**90.9**
Depreciation (A$m)	0.0	(1.4)	(5.5)	(15.5)	(22.7)	(23.4)
Ebit (A$m)	**(12.0)**	**(6.9)**	**6.7**	**50.0**	**74.9**	**67.5**
Net interest (A$m)	(0.0)	0.1	0.2	0.5	1.4	2.5
Pre-tax profit (A$m)	**(12.1)**	**(6.8)**	**6.9**	**50.5**	**76.2**	**70.0**
Tax (A$m)	0.0	0.0	(2.8)	(15.2)	(22.9)	(21.0)
Underlying earnings (A$m)	**(12.1)**	**(6.8)**	**4.1**	**35.4**	**53.4**	**49.0**
Exceptional items (A$m)	0.0	0.0	0.0	0.0	0.0	0.0
Reported Earnings (A$m)	**(12.1)**	**(6.8)**	**4.1**	**35.4**	**53.4**	**49.0**

Cash flow statement	FY24E	FY25E	FY26E	FY27E	FY28E	FY29E
Net profit (A$m)	(12.1)	(6.8)	4.1	35.4	53.4	49.0
Depreciation (A$m)	0.0	1.4	5.5	15.5	22.7	23.4
Exploration, interest and tax (A$m)	7.3	7.1	9.7	11.3	5.5	4.5
Working Capital (A$m)	3.6	(3.6)	(11.1)	(11.2)	(1.8)	(0.4)
Other (A$m)	0.0	0.0	0.0	0.0	0.0	0.0
Operating cash flow (A$m)	**(1.1)**	**(1.9)**	**8.2**	**51.0**	**79.7**	**76.5**
Capital expenditure (A$m)	(0.7)	(8.9)	(19.6)	(18.2)	(12.4)	(12.8)
Exploration (A$m)	(7.9)	(7.8)	(7.8)	(6.3)	(4.2)	(5.6)
Other (A$m)	(1.5)	0.0	0.0	0.0	0.0	0.0
Free cash flow (A$m)	**(11.2)**	**(18.6)**	**(19.3)**	**26.5**	**63.2**	**58.1**
Dividends (A$m)	0.0	0.0	0.0	0.0	0.0	0.0
Equity (A$m)	26.2	20.0	30.0	0.0	0.0	0.0
Debt draw / (repay) (A$m)	0.0	0.0	0.0	0.0	0.0	0.0
Net cash flow (A$m)	**15.0**	**1.4**	**10.7**	**26.5**	**63.2**	**58.1**

Balance sheet	FY24E	FY25E	FY26E	FY27E	FY28E	FY29E
Current assets						
Cash at bank (A$m)	11.6	13.0	23.7	50.2	113.4	171.5
Receivables (A$m)	0.2	1.0	4.9	8.8	9.4	9.6
Inventories (A$m)	0.2	2.0	9.8	17.6	18.9	19.2
Other (A$m)	0.2	0.2	0.2	0.2	0.2	0.2
Current assets (A$m)	**12.1**	**16.2**	**38.6**	**76.9**	**141.9**	**200.5**
Non-Current assets						
PP& E and Development (A$m)	8.9	16.4	30.5	33.3	23.0	12.4
Exploration & evaluation (A$m)	0.7	1.4	2.2	2.8	3.1	3.6
Other (A$m)	2.5	2.5	2.5	2.5	2.5	2.5
Non-Current assets (A$m)	**12.1**	**20.3**	**35.2**	**38.5**	**28.6**	**18.5**
Total assets (A$m)	**24.2**	**36.5**	**73.8**	**115.3**	**170.5**	**218.9**
Current liabilities						
Payables (A$m)	1.1	1.1	5.6	10.1	10.8	11.0
Short-term debt (A$m)	0.0	0.0	0.0	0.0	0.0	0.0
Other (A$m)	0.0	0.0	0.0	0.0	0.0	0.0
Current Liabilities (A$m)	**1.1**	**1.1**	**5.6**	**10.1**	**10.8**	**11.0**
Non-current liabilities						
Long-term debt (A$m)	0.0	0.0	0.0	0.0	0.0	0.0
Lease liabilities (A$m)	0.0	0.0	0.0	0.0	0.0	0.0
Provisions (A$m)	3.3	3.4	3.6	3.8	3.9	4.1
Deferred tax (A$m)	0.0	0.0	2.8	8.7	10.7	10.6
Other (A$m)	0.6	0.6	0.6	0.6	0.6	0.6
Non-Current liabilities (A$m)	**3.9**	**4.0**	**7.0**	**13.1**	**15.2**	**15.3**
Total liabilities (A$m)	**5.0**	**5.2**	**12.6**	**23.1**	**26.0**	**26.3**
Net assets (A$m)	**19.2**	**31.3**	**61.2**	**92.2**	**144.5**	**192.7**
Equity						
Contributed equity (A$m)	34.6	54.6	84.6	84.6	84.6	84.6
Accumulated earnings (losses)	(15.4)	(23.3)	(23.4)	7.6	59.9	108.1
Total attributable equity	**19.2**	**31.3**	**61.2**	**92.2**	**144.5**	**192.7**
Minorities (A$m)	0.0	0.0	0.0	0.0	0.0	0.0
Total Equity (A$m)	**19.2**	**31.3**	**61.2**	**92.2**	**144.5**	**192.7**

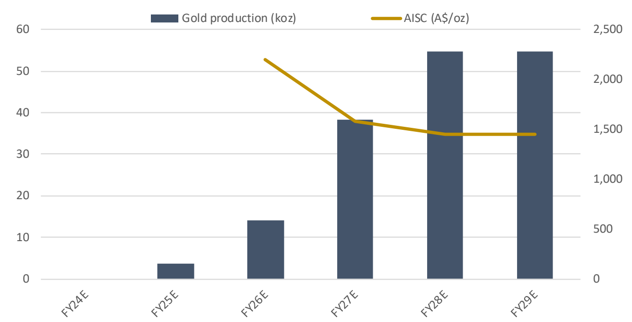
Source: TOK, Argonaut Research, August 2024

Recommendation	**SPEC BUY**
Price Target (A$)	A$1.60
TSR (%)	112%

Commodity price assumptio	FY24E	FY25E	FY26E	FY27E	FY28E	FY29E
Gold price (US$/oz)	2,080	2,388	2,325	2,225	2,150	2,112
A$/US$ exchange rate (x)	0.656	0.650	0.650	0.650	0.650	0.650
Gold price (A$/oz)	3,171	3,673	3,577	3,423	3,308	3,249

Mine production details	FY24E	FY25E	FY26E	FY27E	FY28E	FY29E
Gold producton						
Tolukuma (koz)	0.0	3.8	14.1	38.4	54.6	54.6
Total (koz)	**0.0**	**3.8**	**14.1**	**38.4**	**54.6**	**54.6**
AISC						
Tolukuma (A$/oz)	nm	nm	2,198	1,580	1,456	1,454
Group (A$/oz)	**nm**	**nm**	**2,198**	**1,580**	**1,456**	**1,454**

Production Outlook



Reserves and Resources

Argonaut Model Mined Inventory

Project	Ore (Mt)	(g/t)	(koz)
Zine	0.38	7.2	88
Tinabar	0.05	9.3	14
Gulbadi	0.29	7.4	68
Fundoot	0.12	10.4	41
Existing Stockpiles/stoped material	0.02	10.4	5
Total	**0.85**	**7.87**	**215.6**

Mineral Resources

Tolukuma	Ore (Mt)	(g/t)	(koz)
Zine	0.49	9.31	146
Zine PK Splay	0.01	35.55	8
Tolukuma	0.14	8.89	40
Tinabar	0.06	13.01	23
Gulbadi	0.34	10.34	114
Gulbadi Red	0.12	7.84	29
120 Vein	0.06	4.44	8
Fundoot	0.21	13.35	91
Gufinis	0.15	6.47	31
Mystery	0.05	8.99	13
Total	**1.6**	**9.72**	**503**
EV/Resource (A$/oz)			177

Board and Management	
John Anderson	Chairman
Iain Macpherson	Managing Director & Chief Executive Officer
Howard Lole	Executive Director
Larry Andagali	Non-Executive Director
Werner Swanepoel	Chief Operating Officer
Craig Dawson	Chief Financial Officer

Substantial shareholders	Shares (m)	Stake (%)
Howard Lole	16	11.9%
Larry Andagali	7	5.5%
Canada Life Investment Management Ltd	2	1.1%

Valuation	Spot Prices		Argonaut forecasts	
Asset	**A$m**	**A$/sh**	**A$m**	**A$sh**
Tolokuma	211.5	1.07	147.5	0.75
Resources	108.3	0.55	83.2	0.42
Hedge book	0.0	0.00	0.0	0.00
Corporate overhead	(13.4)	(0.07)	(13.4)	(0.07)
Unpaid capital	50.0	0.25	50.0	0.25
Cash	11.6	0.06	11.6	0.06
Debt	0.0	0.00	0.0	0.00
Total	**368.1**	**1.86**	**278.9**	**1.41**
Price Target (50/50 spot/base case)				**1.60**

Eight Key Charts

Figure 2: Tolukuma production and AISC

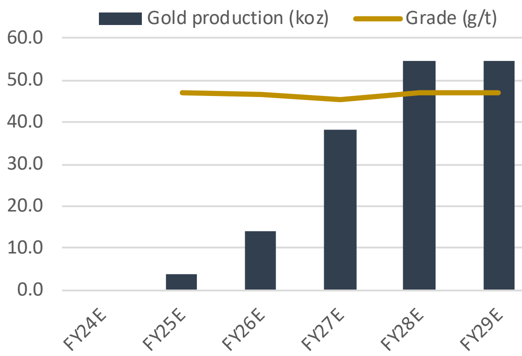


Figure 3: Tolukuma quarterly production and AISC

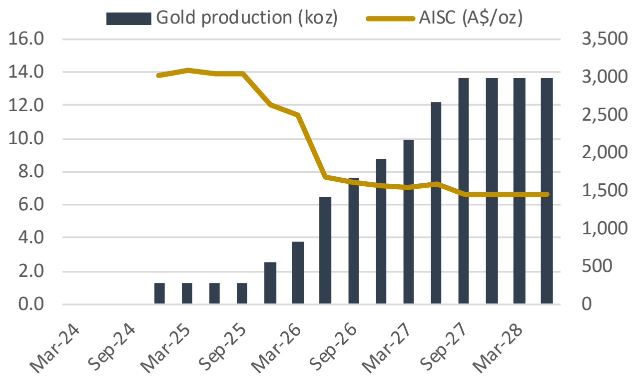


Figure 4: Tolukuma throughput and grade

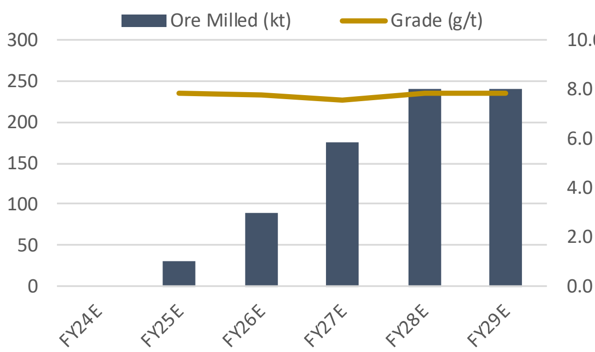


Figure 5: Tolukuma quarterly throughput and grade

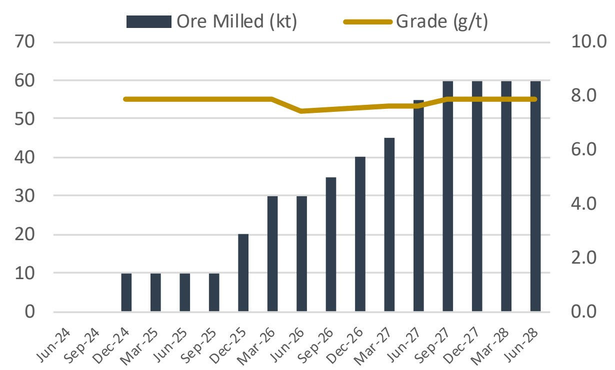


Figure 6: Resources by deposit

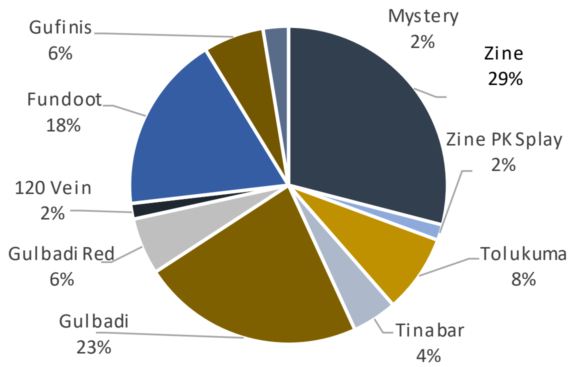


Figure 7: Capex breakdown

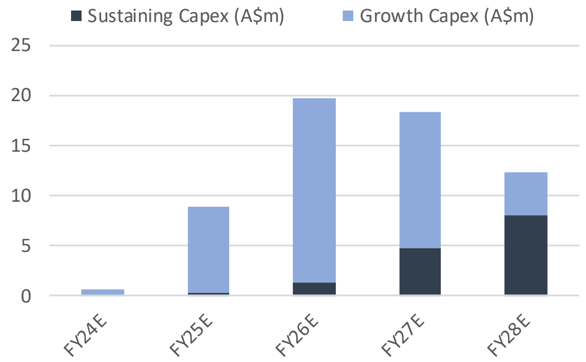


Figure 8: Net cash build vs market cap

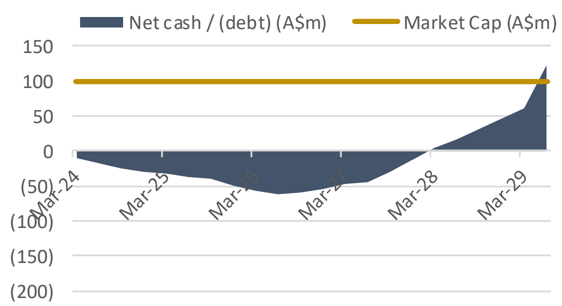
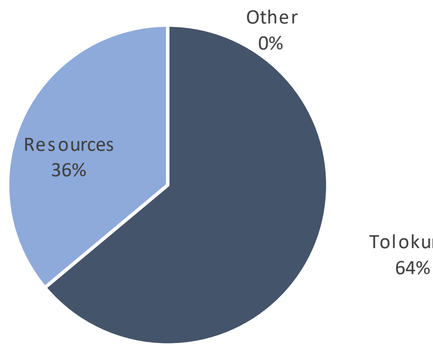


Figure 9: NPV Breakdown



Sources Fig 2-9: FactSet, Argonaut Research, August 2024

Tolukuma Project background

Historical 70kozpa operation at 15-20g/t head grades

Historic production at Tolukuma was based around a small-scale mill (~220ktpa) processing a high-grade feed of +15g/t gold with a small silver credit. During the early years of production under Dome Resources the mine produced 55kozpa on average with head grade of 20g/t Au. When DRD Gold took over operations from 2000-2006, milling rates were ramped up to an average of 194ktpa at a 12g/t head grade, producing 71kozpa.

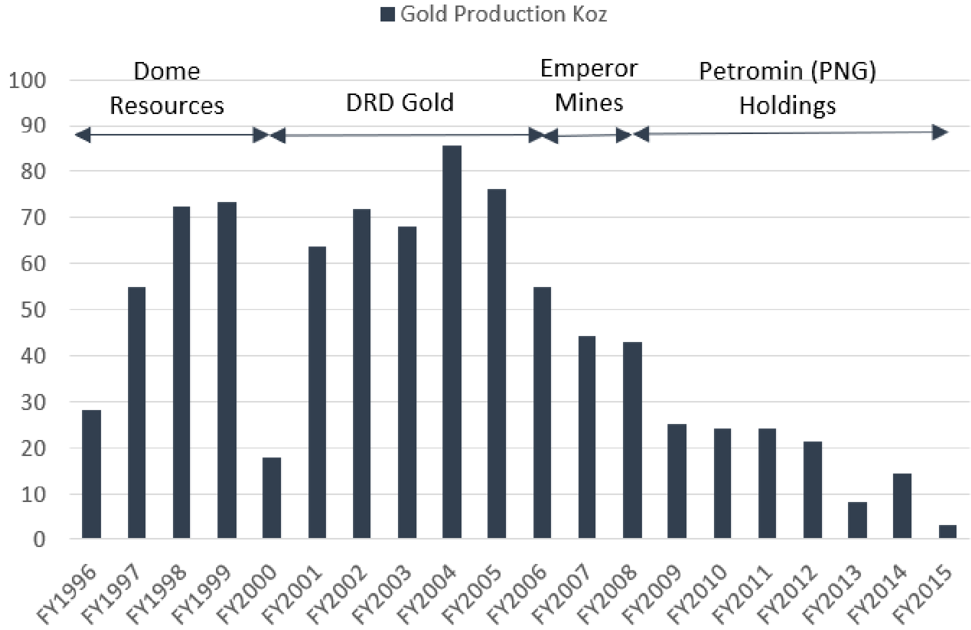
Previous operations at Tolukuma were hamstrung by operating the site through helicopter support

DRD Gold's operating profile is ultimately what TOK's targeted base case production profile could be without further upgrades to the existing plant. We understand the ultimate milling capacity is maxed out at ~300ktpa, limited by the current SAG mill so there is scope to hit a ~300ktpa processing rate if a sufficient mining inventory can be established. Emperor Mines, followed by Petromin (PNG state) operated the mine in the later years of production. Production rates suffered due to a number of reasons including geotechnical instability in the Gulbadi Lode, plant shutdowns due to supply availability (no helicopter access) and lack of capital available to invest in additional production fronts.

During the later years of production, mining methods shifted larger production stopes which led to increased dilution and a shortage of production fronts. Ultimately the production profile was not sustainable and compounded by the high operating costs associated with running the site via helicopter access.

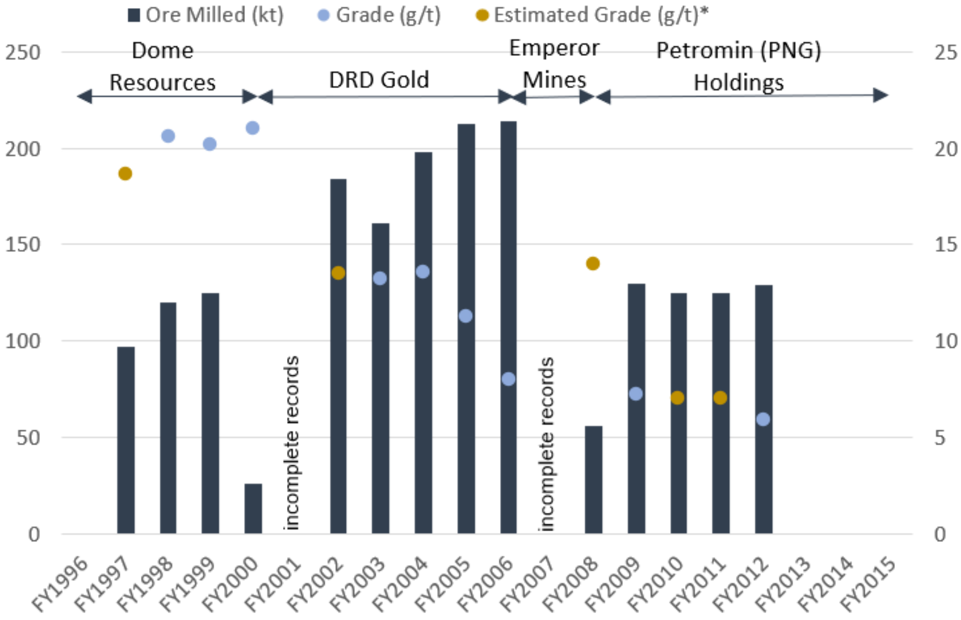
TOK's restart leverages on the existing 220ktpa CIL mill

Figure 10 – Tolukuma historic annual production totals, koz pa. Total LOM production 1Moz at 14g/t Au.



Source: Argonaut Research, August 2024, S&P Global

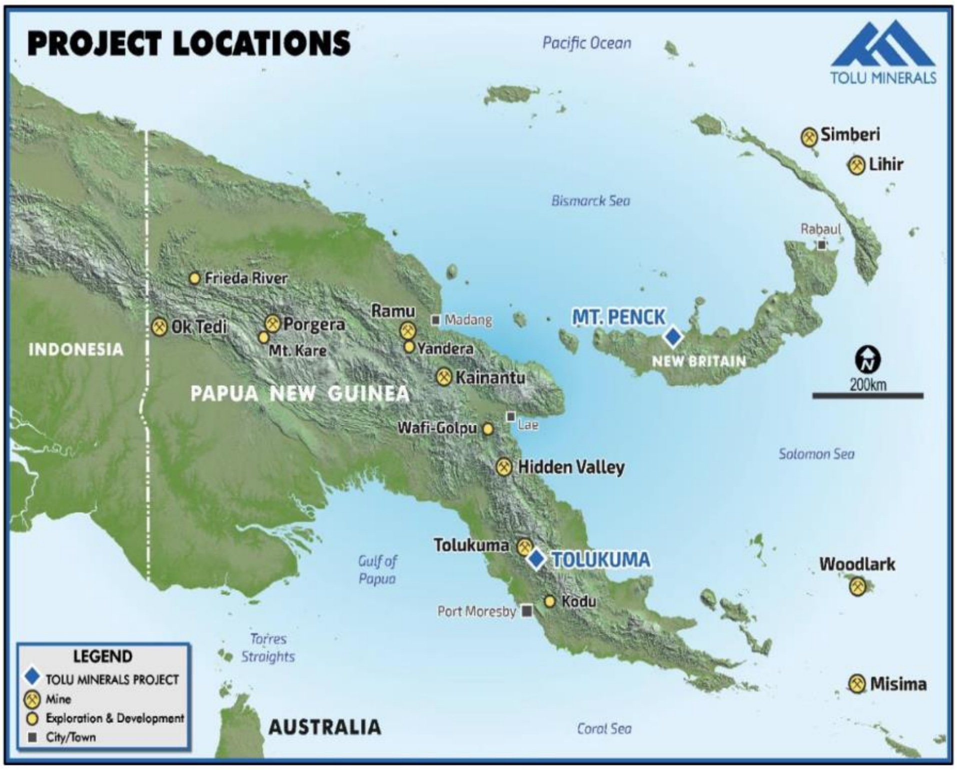
*Figure 11 – Tolukuma historic milling rates and head grades. *Estimated head grade given reported production ounces and milled tonnes.*



Source: Argonaut Research, August 2024, S&P Global

DRD operated Tolukuma at 70kozpa with a 12g/t head grade

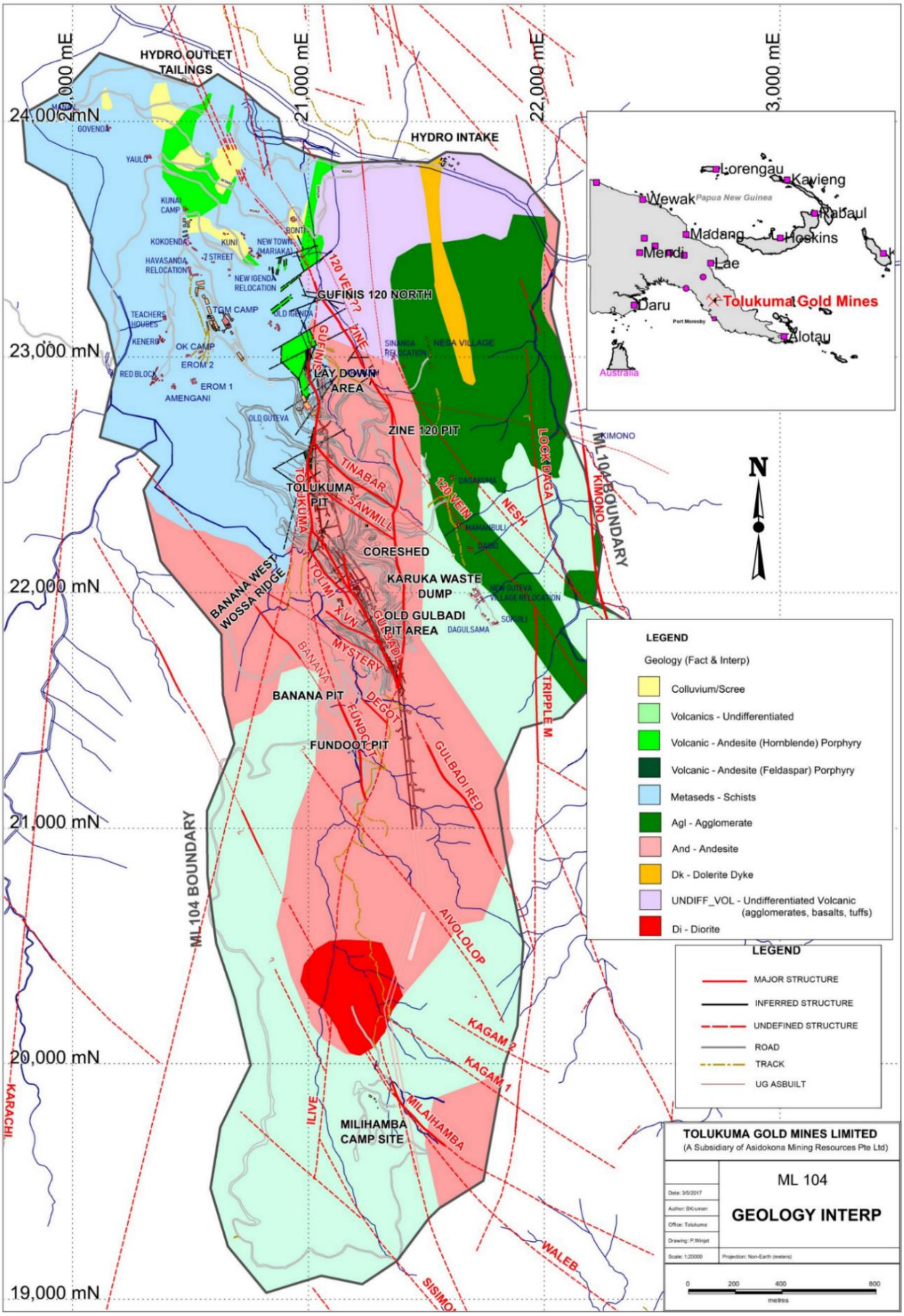
Figure 12 – Location of the Tolukuma Gold Mine, 100km north of Port Moresby



Source: TOK

Tolukuma is located ~100km north of Port Moresby. The first road access into site will be established later this year

Figure 13 - Tolukuma deposit geology and existing infrastructure.



Source: TOK

Tolukuma Restart Strategy

In 2015 the operation was put in care and maintenance as the costs of helicopter borne logistics impacted profit margins and limited available funds for capital development and further resource growth. The restart strategy at Tolukuma is underpinned by three key projects to enable lower operating costs once Tolukuma is restarted back to nameplate capacity:

Road construction is underway with first truck deliveries into site expected later this year

Establishment of road access into site: TOK is currently constructing the remaining 23km of road access into the Tolukuma mine site and expects to have the road in operation by late Q4, 2024. Road access will be key to lowering capital and operating costs by reducing reliance on helicopter support. Historically, helicopter logistics costs at Tolukuma contributed to 25-60% of the total operating costs for the mine.

Figure 14 - Tolukuma site access road currently being constructed during our site visit.

Source: Argonaut Research

During the latter years of production Tolukuma relied on diesel power generation with fuel delivered via helicopter

Restoring Hydro Power Supply Onsite: During previous operations site power supply was supplemented by a 2.7MW capacity hydroelectric power system. Towards the end of operations, a landslip damaged the penstock pipe feeding water into the hydro station, taking the hydro station offline and shifting site power to expensive diesel generators. TOK have initiated preliminary discussions with power providers, looking at constructing a new hydro power station.

Prepare 60,000oz of delineated Ore Reserves: TOK have a JORC compliant resource of 503koz at 10g/t Au & 38g/t Ag, prepared in late 2022. From this resource base, TOK are targeting an initial 60koz reserve, enabling a restart to full scale operations. Once operations are underway, we would expect further incremental reserve growth as further operating development and drilling continues.

We model an initial starting inventory of 215koz from the current 503koz JORC resource

Pathway to a 60kozpa run rate

TOK's restart strategy for Tolukuma leverages the existing infrastructure for a low capex restart. We model staged restart of Tolukuma over the next 18 months concluding with restoring the 220ktpa CIL mill. Starting with the 503koz JORE Resource (2022), we model an initial start-up mining inventory of 215koz derived by applying a 40% resource-reserve conversion rate with 40% a mining dilution factors. In our initial restart scenario, we only consider mining from 4 of the 10 lodes reported in the MRE (Fundoot, Gulbadi, Zine and Tinabar). We expect the Fundoot and Zine Lodes to be the first area accessed given its close proximity (~150m) to existing development currently being dewatered. With further dewatering and underground drilling, we expect access to other areas of the resource to open up and then incorporated into the Tolukuma mine plan.

Figure 15 – Argonaut's modelling mining inventory for the Tolukuma restart period (FY25-FY27)

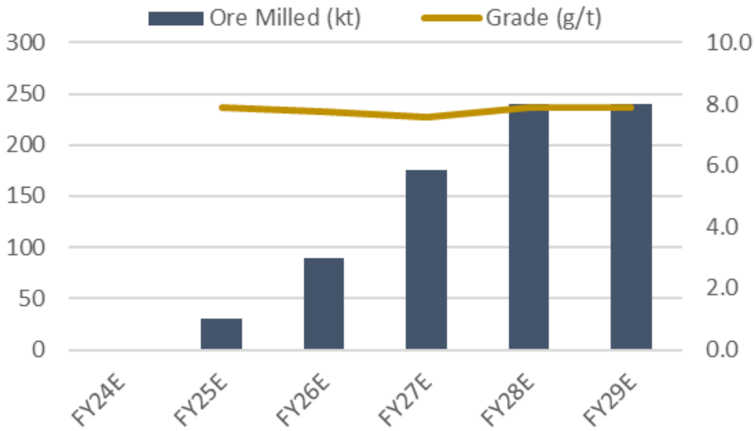
Argonaut Model Mined Inventory

Project	Ore (Mt)	(g/t)	(koz)
Zine	0.38	7.2	88
Tinabar	0.05	9.3	14
Gulbadi	0.29	7.4	68
Fundoot	0.12	10.4	41
Existing Stockpiles/stoped material	0.02	10.4	5
Total	**0.85**	**7.87**	**215.6**

Source: Argonaut Research, August 2024

Tolukuma's endownment should support a mine life well beyond our initial starting inventory

Figure 16 – Argonauts initial starting production forecast



Source: Argonaut Research, August 2024

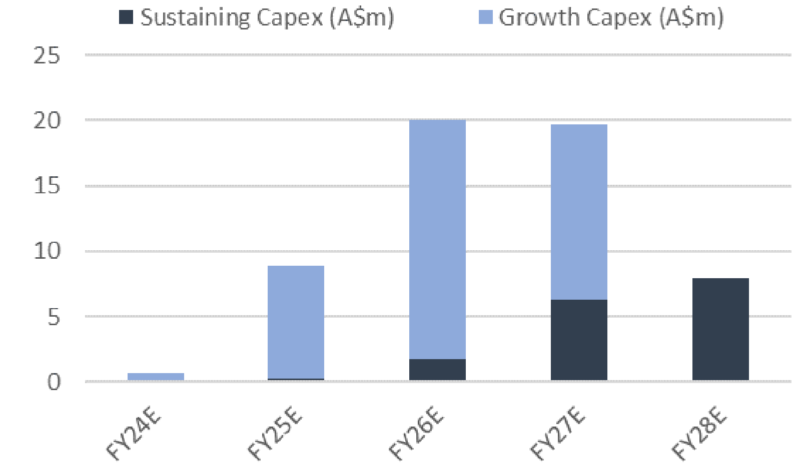
Figure 17 – Argonaut's pre-production capex estimates over the FY25-FY27 period.

Tolukuma Restart Capital Cost Estimates (FY25-FY27)	A$M
Mill refurshment (220ktpa)	$10.0
Underground capital development	$10.0
UG mining fleet purchase/refurbihsment	$10.0
Underground exploration/resource drilling	$5.0
Site Infrastructure set up	$5.0
	$40.0

Source: Argonaut Research, August 2024

Figure 18 – Argonaut's forecasted sustaining and growth capex spend for the Tolukuma restart

The existing CIL mill allows for a relatively low capex restart of Tolukuma

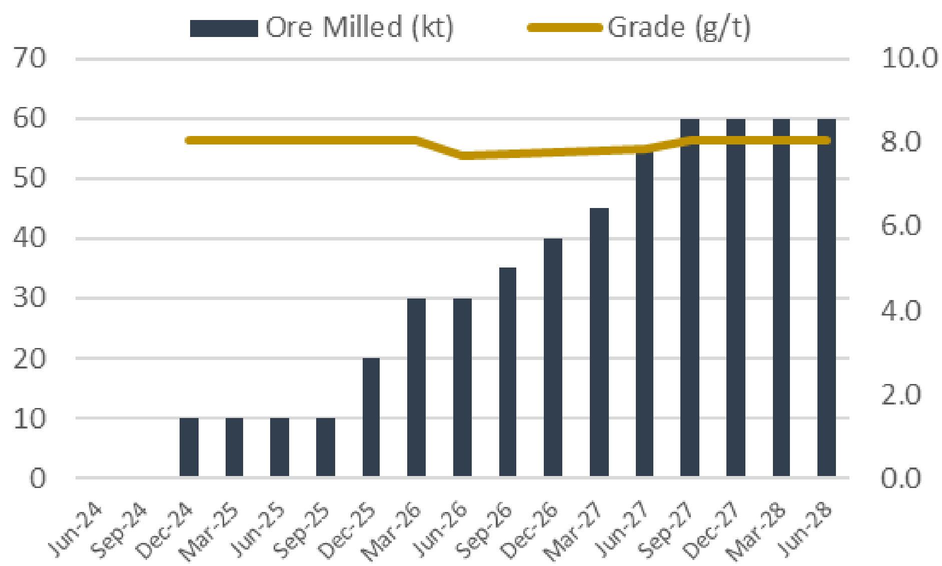


Source: Argonaut Research, August 2024

TOK's mining approach will revert back to underground mining methods used by DRD Gold during its successful operating period of the mine. Tight controls on dilution will be achieved through a combination of short ~10m high long-hole open stopes and airleg mining. Single boom jumbo development will be used for the majority of the development work to further control dilution within ore drives. Targeted underground production rates will be relatively low for an underground operation, with only 200-300ktpa required to meet the milling capacity (220ktpa nameplate capacity). Our underground mining scenario at Tolukuma sees a gradual ramp-up achieving 240ktpa at the start of FY28. DRD Gold ran Tolukuma at a 12g/t head grade with underground mining rates of 194ktpa. We model an 8.0g/t Au head grade during Tolukuma's ramp-up period but there is clear upside risk to this estimate given what has been achieved during previous operations.

Underground mining will revert to narrow vein mining methods with a proven track record at Tolukuma

Figure 19 – Argonaut's forecasted quarterly mill throughput rates and head grades



Source: Argonaut Research, August 2024

Our grade estimates for Tolukuma's restart are conservatively given its historical head grade of 14g/t Au

The ultimate milling capacity of the existing CIL plant is bottlenecked at ~300kpta by the existing SAG mill. Although not our base case, the bullish scenario at Tolukuma could see TOK building out a 11g/t mine plan which at 275ktpa would make TOK a 90-100kozpa producer with minimal growth capex. Work programs over the next 12-months to build a detailed mine plan and reserve base will be completed which should provide some more clarity on what's achievable in regards to head grades.

Price target and valuation

We initiate coverage on TOK with $1.60 Price Target and a Speculative Buy recommendation. Our price target methodology assumes a 50/50 Blend of our NPV using Argonaut gold price forecasts and at spot prices. Our NPV7 cash flow valuations incorporate Argonaut's initial modelled mining inventory estimated from the existing JORC resource base. There is considerable scope for growth in our mining inventory with further drilling, face sampling and capital development of the Tolukuma deposit. We also capture resources not incorporated into our production forecasts at 10% of in ground value, reflecting our view that the Tolukuma system holds significantly more resources than currently defined. We don't model any debt package required in our restart scenario. We incorporate dilution into our valuation assuming placements at the current share price. We model two equity raises required in FY25 and FY26 for a total A$50m to fund the restart activities and return to nameplate milling capacity

We initiate with a Speculative Buy Recommendation and a $1.60 Price Target.

Figure 20: Price Target is a 50/50 blend of spot and Argonaut NPV

Valuation	Spot Prices		Argonaut forecasts	
Asset	A$m	A$/sh	A$m	A$sh
Tolukuma	211.5	1.07	147.5	0.75
Resources	108.3	0.55	83.2	0.42
Hedge book	0.0	0.00	0.0	0.00
Corporate overhead	(13.4)	(0.07)	(13.4)	(0.07)
Unpaid capital	50.0	0.25	50.0	0.25
Cash	11.6	0.06	11.6	0.06
Debt	0.0	0.00	0.0	0.00
Total	**368.1**	**1.86**	**278.9**	**1.41**
Price Target (50/50 spot/base case)				**1.60**

Source: Argonaut Research, August 2024

Key risks to our base case

Mining Inventory – TOK is yet to report a reserve for the Tolukuma project. Prior production at Tolukuma gives us an indication of modifying factors such as dilution, recovery and potential production rates. There is no guarantee TOK can establish sufficient mining inventories to meet our base case production forecast.

Permitting risk – Construction of a new TSF will require permitting approval. Delays in the permitting process will negatively impact Argonaut's base case production forecast.

Project development timeline

Onsite activity up at Tolukuma has now ramped up with a +60 personnel workforce now onsite consisting of site management, technical staff, fitters, electricians, caterers, etc. Most of the key onsite management positions have been filled with a good majority of the team having previously worked at Tolukuma whilst in operation. There is a considerable amount of operating knowledge retained by the current workforce which will be invaluable during ramp-up and should shorten the learning curve required to bring the mine back to previous production rates. A broad outline of development activities in the next 6-months:

Restart activities at Tolukuma are fairly advanced with a lot of the key personnel already in place and onsite

- Currently underway – Dewatering a section of underground workings to commence an underground drill program at the Fundoot Lode (91koz at 13g/t Au resource).
- October/November 2024 - delivery and installation of a Gravity plant. Expected to enable small scale production (40ktpa processing capacity) with an estimated 40-50% gravity recoveries.
- Q3, 2024 – Deliver and install 1.3MW diesel power plant for initial ramp up power demands. Ongoing surface drill programs at regional targets Taula
- Q4, 2024 – Final interpretation and MT Survey results. Completion of road access into Tolukuma mine site.

We expect a decision to proceed with the 220ktpa mill refurbishment to be made towards the latter half of next year once a 60koz mining inventory is in place. Argonaut estimates total capital costs associated with restoring the operation back to full name plate capacity to range between A$30-$50M. Largest capex items include:

- Refurbishment of 220ktpa CIL mill - A$10M
- Underground capital development at initial production areas - A$10M
- Under mining fleet purchase and refurbishment - A$10M
- Underground Exploration and resource definition drilling - A$5M
- Site infrastructure set up – A$5M

Tolukuma Geology

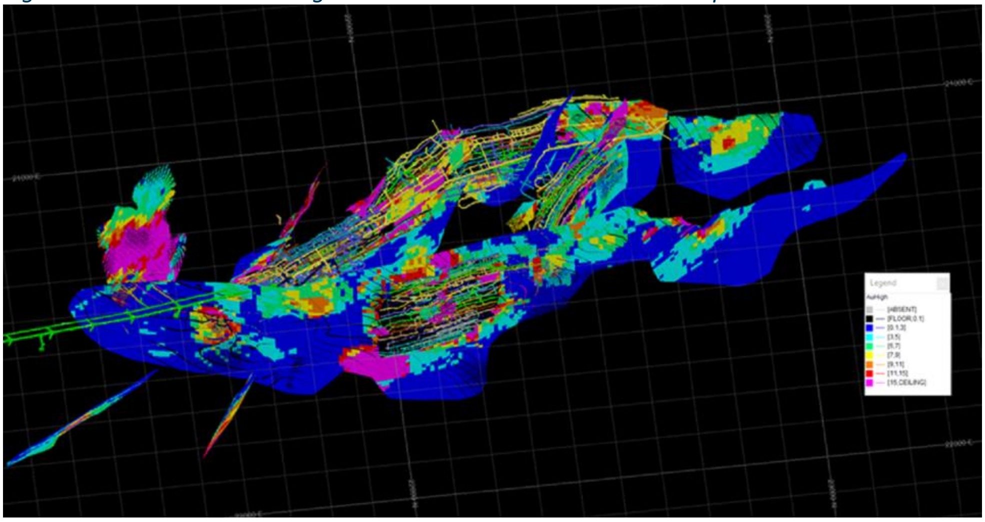
The Tolukuma deposit is located in the New Guinea metallogenic belt running along the central and northern spine of the island of New Guinea. This metallogenic belt contains some of the world's largest gold-copper deposits including Grasberg (102Moz) Ok Tedi (15Moz) and Wafi Golpu (26Moz). Locally, the Tolukuma deposit is hosted within a package of middle to early Pliocene basaltic-andesite-dacitic volcanics. A set of major north-northwest striking bounding faults are interpreted as the key controlling structures to mineralisation which focused the flow of mineralised fluids and formed an extensive set of northwest striking dilation veins across the project.

Tolukuma is likely a multi-million ounce system but will require time and capital to unlock

Mineralisation at Tolukuma is characterised by narrow (0.5-2m), strike extensive vein sets hosted within a brittle andesite host rock. Classified as a low sulphidation epithermal deposit, mineralisation is present in subvertical quartz veins with variable pyrite and other base metal sulphides. The scale of mineralisation across the project is impressive and well beyond what we expect a small cap (~A$60M MC) developer to control. The main

Tolukuma lode was mined over a strike length of around 1,100m along with several other dilutional lodes with average strike lengths of 400-600m. Multiple dilatational structures have been mapped and sparsely tested for another 1-2km to the south of the existing mine footprint

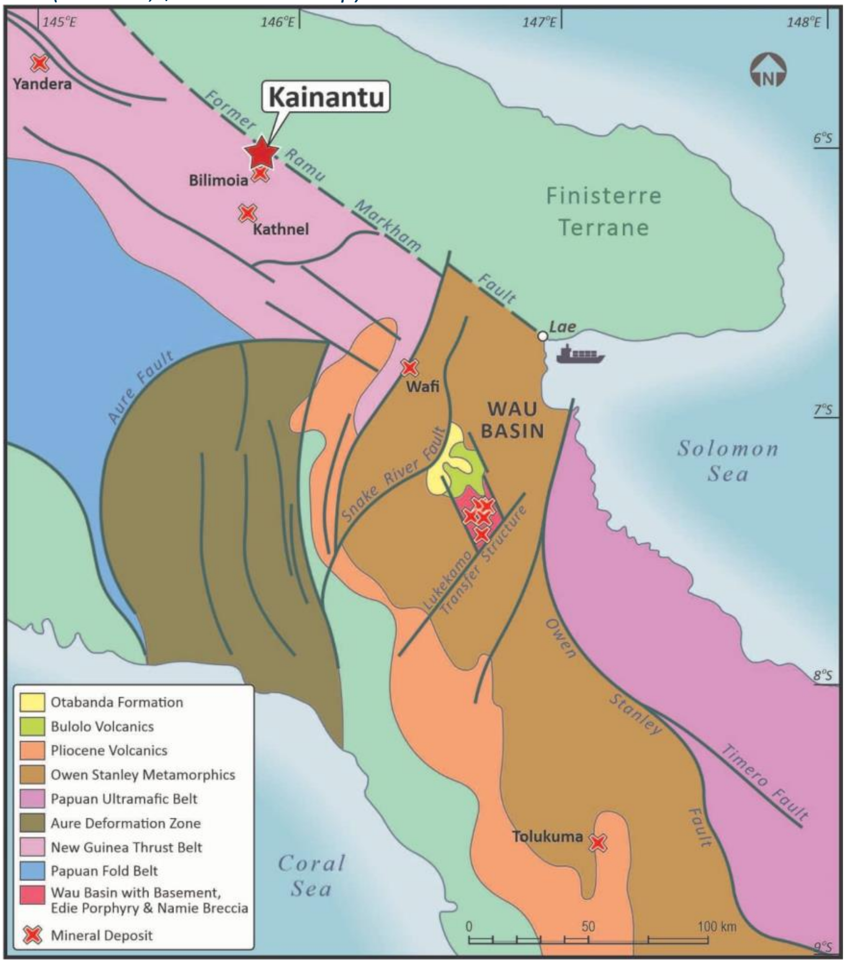
Figure 21 – Tolukuma existing resource model with current development.



Source: TOK

Tolu Minerals are in a similar position to K92 Mining circa 2018 – small mill operation which funded further exploration success. K92 Mining current is A$1.9B

Figure 22- Regional geology of the Tolukuma mine site relative to K92 Mining's Kainantu operation (TSX:KNT, $1.9B Market cap)



Source: KNT:TSX

Existing Resource and Exploration Target

In December 2023 TOK reported Exploration Target Estimate for the Tolukuma project of between 2 to 3 Moz grading 8 to 11 g/t Au. This estimate was derived by combining the existing Tolukuma JORC resource of 503koz with an extrapolation of the Tolukuma vein system 2km to the south and inclusion of a 3km wide vein system at the Saki prospect. The Exploration Target is unlikely to ever be realised in a JORC Resource at one time given the amount of drilling required. Once operations are fully ramped up, we would expect a process of incremental resource additions that are completed 2-3 years ahead of mining schedules, as is the case with most underground operations. After our site visit and investigations of the Tolukuma datasets, we share similar view on the Tolukuma project's potential endowment and ultimately see the ramp up back to a ~60kozpa operation as a platform to fund the capital development and drilling required to unlock a potential multimillion ounce system at Tolukuma.

We can see a multimillion ounce system at Tolukuma but it will require time, capital and drilling to unlock

Figure 23 - TOK's Tolukuma Gold Project Exploration Target

Tolukuma Project Gold Exploration Target – December 2023						
Project	Deposit	Rank	Low (tonnes)	High (tonnes)	Low (Gold)	High (Gold)
Tolukuma	Tolukuma Tolukuma South Miliahamba Taula Kimono Saki-Yava-Soju-Salat	High	7,800,000	8,500,000	8.0 g/t	11.0 g/t
Totals			7,800,000	8,500,000	8.0 g/t	11.0 g/t

Source: TOK

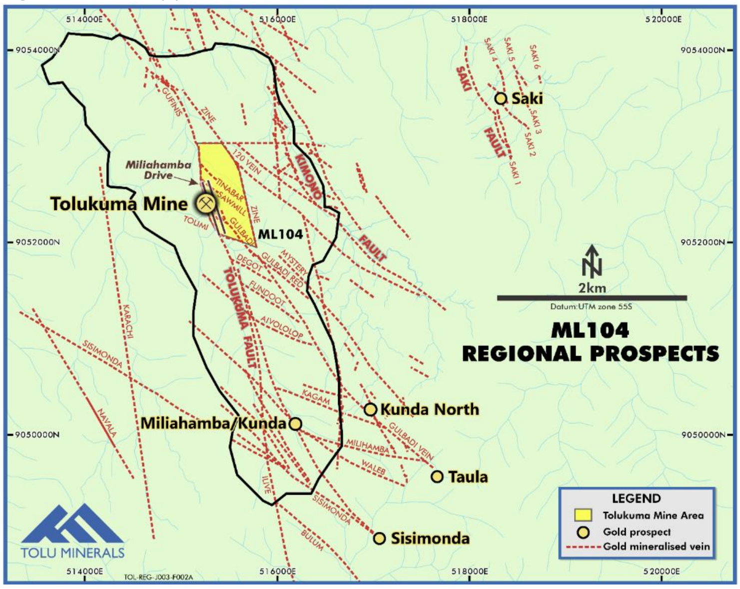
Figure 24 – Current Tolukuma mine inferred JORC Resource (2022)

Domain	Tonnage (kt)	Grade Gold (g/t Au)	Grade Silver (g/t Ag)	Metal Gold (Koz Au)	Metal Silver (Koz Ag)
Zine	488	9	43	146	673
Zine PK Splay	7	35	145	8	33
Tolukuma	140	9	27	40	121
Tinabar	55	13	42	23	74
Gulbadi	343	10	27	114	294
Gulbadi Red	115	8	19	29	69
120 Vein	56	5	15	8	28
Fundoot	212	13	59	91	403
Gufinis	149	7	39	31	187
Mystery	45	9	46	13	67
Total	1,610	10	38	503	1,950

Source: TOK

Despite the MRE potential at the project the initial focus is on building out the initial mine plan

Figure 25 – Mapped mineralised vein structures across the Tolukuma area.



Source: TOK

Existing Plant & Site Infrastructure

The existing CIL plant onsite ran at a name place capacity of ~220ktpa before operations ceased in 2015. Overall, the plant remains in relatively good condition with recent assessments indicating some minor modifications required to refurbish the plant back to its nameplate capacity. This refurbishment work has been costed to around ~$7M by TOK consultants. The project currently has riverine tailings permit however the company has publicly committed to not take this route for obvious environmental reasons. Instead, tailings will likely be stored through a combination of underground voids and a tailings facility (TSF). Permitting to construct a new TSF is a key milestone required before refurbing the plant back to its nameplate capacity. Tailings produced by the small-scale gravity plant restarting later this year will be stored in modular geotextile tubes which will then be retreated once the CIL plant is restarted.

Operations at Tolukuma ceased on 2015 with a lot of the existing infrastructure still in place

Figure 26 – Tolukuma mining offices, camp accommodation.

Source: Argonaut Research

Figure 1 – Tolukuma existing 220ktpa CIL plant and mining offices.

Source: Argonaut Research

Existing office buildings and accommodation are already in place

Supporting infrastructure: Camp accommodation onsite currently totals 70 refurbished rooms with a further circa 61 rooms to be refurbished (providing a total of about 215 beds) with adequate messing facilities. Other existing infrastructure includes mining offices, helicopter pads, fuel tanks (140kL capacity) and mobile equipment and electrical workshops.

Power: Onsite power generation is currently supplied by small diesel gensets with plans to install a total of 1.3MW diesel generators in the September quarter which will supply sufficient power for initial small scale mining activities. Power drawdown with running the mill at its original 220ktpa capacity will require restoring the sites original hydropower power station.

Underground mining will leverage off extensive underground development

Underground: Underground workings are generally in good condition for the areas we visited with the majority of ground support still in place. Dewatering will be required to access deeper underground working but initial production areas at Fundoot and Zine top are below the water level and can be accessed.
The rest of the mine areas will be dewatered as required.

Existing mobile fleet: TOK currently has fitters onsite assessing the condition of existing haul trucks, loaders and production drills. A fleet of 3 six underground drill rigs and one surface rig was left onsite prior to operations ceasing. Site fitters are assessing the refurbishment of one of these underground rigs which will be used in an upcoming drill program at the Fundoot lode commencing in the next two months.

Mine site road access: Earthworks to establish site road access to the mine were underway during our visit with two excavators and a construction crew currently completing the last section of roadway. It's expected to have the road established and in operation towards the end of the year.

First road access into site is expected later this year

Figure 27 - Tolukuma site access road currently being constructed.

Source: Argonaut Research

Current Exploration Programs

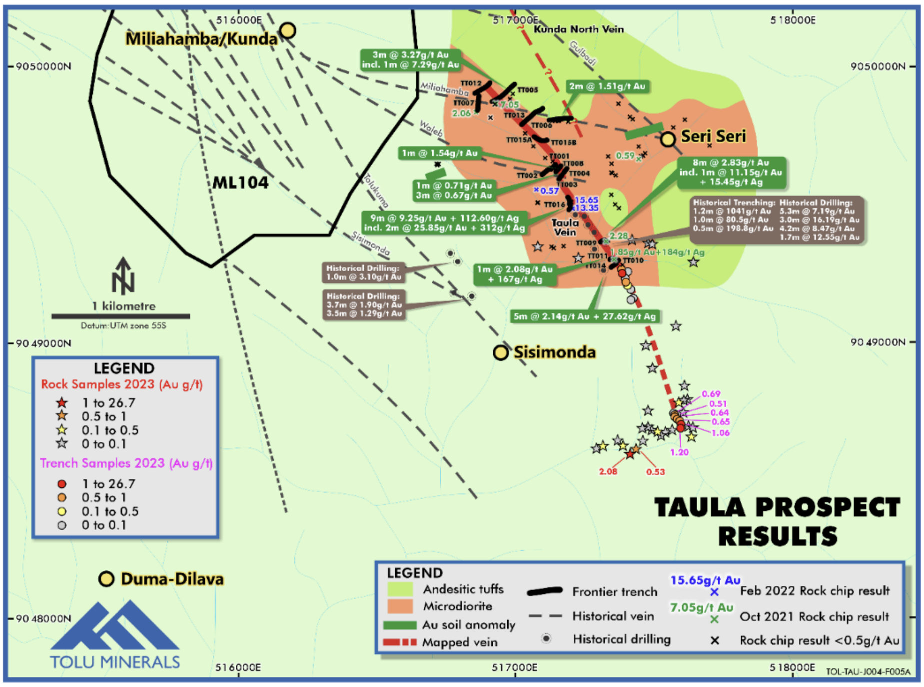
Along with the current MT Survey underway, TOK is completing a small surface drilling program at the Taula prospect located to the southeast of the Tolukuma mine. During our site visit we inspected trench exposures of the Taula Vein which is a 1-8m wide mineralised structure interpreted to be the same vein system as the Tolukuma deposit located 2.5km to the northwest. The Taula vein was tested with thirteen holes back in 2002-2004 with best results of:

The southern extent of Tolukuma will be opened up for exploration and development via underground development

- 3m at 16g/t Au
- 4.2m at 8.5g/t Au
- 1.8m at 19g/t Au
- 5.3m at 7.2g/t Au
- 1.7m at 12g/t Au
- 6m at 3.9g/t Au

Current surface drilling at Taula is aimed at confirming the geometries and scale of the lode rather than delivering a tightly drilled resource. TOK's cost effective development approach for Taula and other prospects to the south of the Tolukuma is ultimately to progress an exploration drive south and complete required drilling from underground positions before developing as an underground mine.

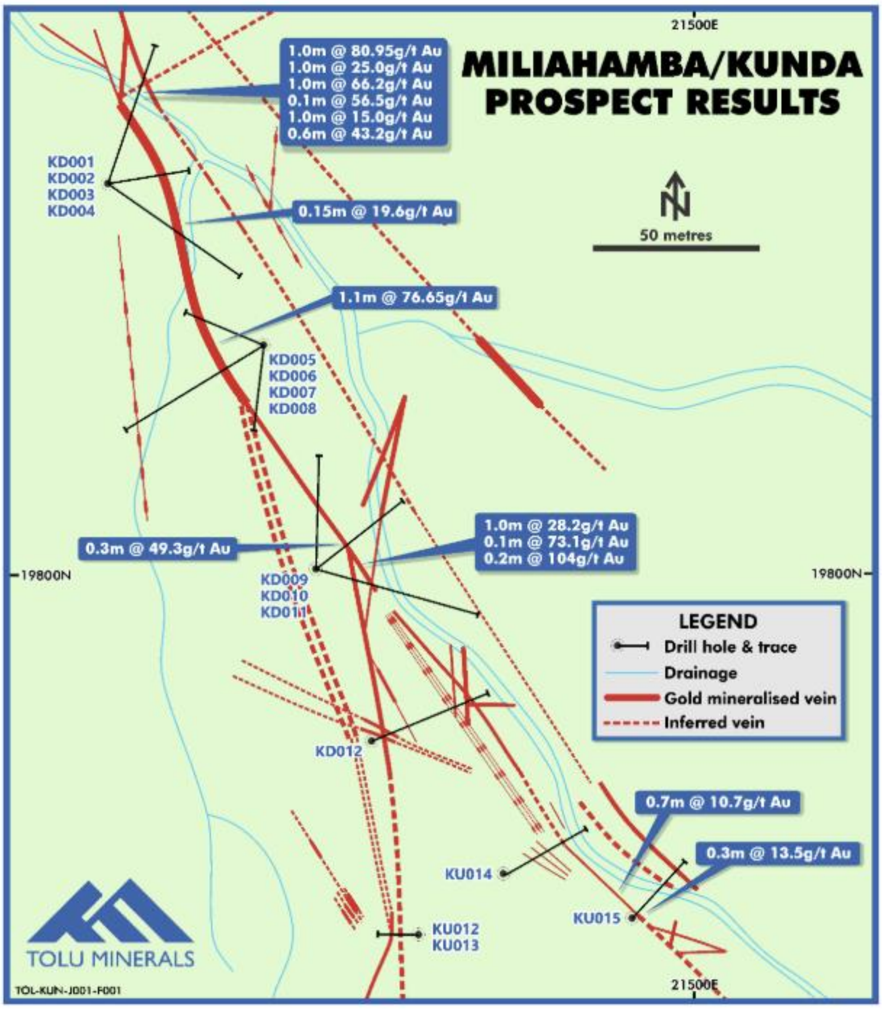
Figure 28 – Taula Prospect map



Source: TOK

Figure 29 – Miliahamba/Kunda Prospect map

High grade intercepts at the Taula prospect, 2.5km south of Tolukuma demonstrates the scale of project



Source: TOK

Figure 30 –Taula exploration drill site(left). Exposed Taula vein in trench (right).

Source: Argonaut Research

The MT survey currently underway has potential to produce a suite of drill targets for TOK to test

Project Wide MT Survey to map scale of system

A project wide Magneto Telluric (MT) Survey commenced in June which will be the first survey of this type at the project. The MT survey will be key to mapping and identifying key areas of resistivity outside of the immediate footprint of the mine which could be associated with mineralised structures. The MT survey will also be useful in identifying any large-scale porphyry targets across the project that may be the source of mineralising fluids. A MT Survey was completed by K92 Mining's Kainantu operation located 300km to the northwest in similar challenging topography. From this survey K92 successfully delineated several porphyry targets and showed that mapped anomalies conformed closely with known deposits and prospects. TOK expect to be in a position to report results of the MT Survey later this year with initial drill testing commencing shortly thereafter.

Figure 31 – Tolukuma airborne MT Survey underway.

Source: TOK

Board of Directors

John (Iain) Macphersons – Managing Director and Chief Executive Officer

Mining engineer with well over 30 years of experience in senior management and executive roles in junior and major mining sectors. Track record of operating, developing and financing mining projects including having led a number of significant stock market listings, specifically on the London and North American markets.

John Anderson – Chairman

Over 30 years of experience in the Australian and Asia-Pacific resources sector, including 12 years as a senior executive in Santos Ltd with responsibility for operations in PNG. John holds a Bachelor of Economics, Bachelor of Laws, Graduate Diploma in Commercial Law and is a Graduate of the Australian Institute of Company Directors.

Howard Lole – Executive Director

PNG National with over 25 years of experience in the public and private sectors, including the financial, industrial and mining sectors. Former Chief Inspector of Mines responsible for development of several major mining projects, Former Community Affairs Manager for K92 Mining Ltd, Simberi Gold Project and Lead Consultant for the Mt Kare Gold Exploration Project, among others. Holds a Bachelor of Engineering in Mining Engineering from the PNG University of Technology and a Master of Engineering Science from the University of New South Wales.

Strong representation of PNG nationals on the board with in-country knowledge of operating in PNG

Larry Andagali – Non-Executive Director

Larry is a well-known and successful PNG Businessman with over 30 years of public and private experience. He is the former chair of PNG Power Ltd and deputy chair of Kumul Petroleum Holdings Ltd. He has held various managerial and advisory roles for BP and ExxonMobil.

Craig Dawson – Chief Financial Officer

Extensive financial management experience gained in ASX listed entities with both local and international operations in a variety of industries including media, financial services, gaming and wagering and most recently in the rapidly growing online sector. Former Chief Financial Officer of Wotif.com for over 4 years as the group experienced rapid earnings growth. Craig holds a Bachelor of Commerce and is a Chartered Accountant.

Werner Swanepoel – Chief Operating Officer

Mining Engineer with 30 years' experience in the mining industry, having filled various roles in mining operations, management, consulting and project development within Central and Southern Africa. Holds a Master of Business Administration (MBA) from the University of Stellenbosch, a Master of Engineering (M.Eng, Mining) from the University of Pretoria, Mine Manager's Certificates of Competency for both Metalliferious and Coal mining and is registered as a Pr.Eng with the Engineering Council of South Africa (ECSA).

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