

14 November 2023

## Perfect Timing for Western World Tungsten Demand

### NEED TO KNOW

- 100%-owned Dolphin Project – a significant high-grade tungsten project in a rare ex-China location
- Production started – focus on ramp-up; cash coming
- Tier-1 location – King Island, Tasmania

**Dolphin – a globally significant ex-China tungsten project:** Group 6 Metals (G6M's) 100%-owned Dolphin mine is located on King Island, a large island in the Bass Strait between Victoria and Tasmania. First operating in the early 20<sup>th</sup> century, Dolphin has one of the highest-grade tungsten deposits in the Western world, a substantial competitive advantage in a market dominated by China.

**Production has recommenced – positive cash flow approaching:** G6M has commenced production and is now focusing on ramp-up. While ramp-up has been slower than forecast for the September quarter, significant progress has been made resulting in more consistent production of concentrate. Major shareholders have provided a short-term A\$8m bridging loan to support ramp up while a A\$14.1m R&D tax refund is due shortly from the ATO. We forecast that the high degree of operating leverage will translate to positive cash margins for G6M as production scales up.

**Tier-1 location:** Dolphin is 100%-owned by G6M and situated in Tasmania, a Tier-1 mining jurisdiction. Mining is critical to the Tasmanian economy, with Dolphin seen as a vital contributor to the local community and the state economy.

### Investment Thesis

**Tungsten – a critical commodity and an irreplaceable metal, defence use looms as high growth:** Tungsten is classified as a critical raw material across multiple jurisdictions due to its unique, essential roles in both industrial and defence applications, as well as its lack of substitutes. As defence spending grows in line with geopolitical tensions, Tungsten's use in defence applications looms as high growth. We expect higher pricing and tight supply going forward.

**The Right project, the right time, ideal market timing:** China holds a dominant position in the tungsten value chain, and many Western governments recognise the importance of diversifying their supply chains away from China. As one of the highest-grade tungsten mines in the Western world, Dolphin's timing into the market is ideal.

**Potential 50% EBITDA margins:** Once ramped up to full production, we forecast that the mine will generate EBITDA margins of around 50%.

**Expansion and mine life extension potential – even more possible upside:** The adjacent Bold Head mine and other regional exploration areas present potential for additional mine life for G6M.

### Valuation – A\$0.23 per share, fully diluted

Our A\$0.23/share sum-of-the-parts valuation is driven by our NPV valuation for Dolphin. We see significant upside from the current share price as G6M ramps up Dolphin to full production, generating high margins and significant cashflow. Surrounding exploration projects also have strong development potential.

### Risks

The key risks to our valuation are production ramp up and commodity pricing. The project is in the early stages of production, and any issues with ramp up would be negative for the stock. The stock is highly sensitive to the APT price (the index to which the tungsten concentrate price is linked).

### Equities Research Australia

#### Metals and Mining

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Group 6 Metals (G6M) is redeveloping its 100%-owned Dolphin Project, located on King Island, a large island in the Bass Strait between Victoria and Tasmania. Dolphin is one of the highest-grade tungsten deposits in the Western world in a market monopolised by China. The deposit currently contains a Mineral Resource of 9.6Mt of tungsten ore for 86.4kt of WO<sub>3</sub>. In July 2023, G6M achieved commercial production of tungsten at the Dolphin Project.

<https://g6m.com.au/>

Valuation	<b>A\$0.23</b>
Current price	<b>A\$0.092</b>
Market cap	<b>A\$92m</b>
Cash on hand	<b>A\$3.048m</b> (30 September 2023)

### Upcoming Catalysts and Newsflow

#### Period

4QCY23	Targeted full production achieved
1QCY24	Positive operating cash flow

### Share Price (A\$) – 1 Year



Source: FactSet, MST Access.

# FINANCIAL SUMMARY GROUP 6 METALS

GROUP 6 METALS LIMITED						G6M.AX
<b>Year end 30 June</b>						
<b>MARKET DATA</b>						
Share Price	A\$/sh				<b>0.09</b>	
52 week high/low	A\$/sh			0.19	0.08	
Valuation	A\$/sh				0.23	
Market Cap (A\$m)	A\$m				92	
Net Cash / (Debt) (A\$m)	A\$m				(58)	
Enterprise Value (A\$m)	A\$m				150	
Shares on Issue	m				1,003	
Options/Performance shares	m				436	
Other Equity	m				0	
Potential Diluted Shares on Issue	m				1,439	
<b>INVESTMENT FUNDAMENTALS</b>						
		Jun-22	Jun-23	Jun-24e	Jun-25e	Jun-26e
Reported NPAT	A\$m	(14)	(22)	2	36	26
Underlying NPAT	A\$m	(14)	(22)	2	36	26
EPS Reported (undiluted)	¢ps	(2.5¢)	(3.0¢)	0.2¢	3.6¢	2.6¢
EPS Underlying (undiluted)	¢ps	(2.5¢)	(3.0¢)	0.2¢	3.6¢	2.6¢
Underlying EPS Growth	%	0.0%	0.0%	-107.9%	1403.7%	-28.0%
P/E Reported (undiluted)	x	n/m	n/m	n/m	2.6	3.5
P/E Underlying (undiluted)	x	n/m	n/m	n/m	2.6	3.5
Operating Cash Flow / Share	A\$	(0.01)	(0.02)	0.02	0.06	0.05
Price / Operating Cash Flow	x	n/m	n/m	n/m	n/m	1.9
Free Cash Flow / Share	A\$	(0.07)	(0.08)	0.01	0.05	0.03
Price / Free Cash Flow	x	n/m	n/m	n/m	n/m	n/m
Free Cash Flow Yield	%	-71.6%	-83.2%	14.0%	50.9%	30.8%
Book Value / Share	A\$	0.04	0.07	0.11	0.16	0.20
Price / Book	x	2.43	1.26	0.88	0.57	0.46
NTA / Share	A\$	0.04	0.07	0.11	0.16	0.20
Price / NTA	x	2.43	1.26	0.88	0.57	0.46
Year End Shares	m	631	973	1,003	1,003	1,003
Market Cap (spot)	A\$m	58	89	92	92	92
Net Cash / (Debt)	A\$m	(6)	(31)	(15)	32	61
Enterprise Value	A\$m	64	121	107	60	32
EV / EBITDA	x	n/m	n/m	13.4x	2.3x	3.4x
Net Debt / Enterprise Value		0.0	0.2	0.1	(0.2)	(0.4)
<b>Key Assumptions</b>						
		Jun-22	Jun-23	Jun-24e	Jun-25e	Jun-26e
Tungsten in con Produced (kmtu)		-	-	134	300	242
AISC (A\$/mtu payable)		-	-	352	220	268
APT Price (US\$/mtu)		-	-	348	357	366
AUDUSD		-	0.67	0.67	0.67	0.67
<b>12-Month Relative Performance vs S&amp;P/ASX Metals &amp; Mining</b>						
<b>Profit &amp; Loss (A\$m)</b>						
		Jun-22	Jun-23	Jun-24e	Jun-25e	Jun-26e
Sales		0	2	53	121	100
Expenses		(11)	(20)	(42)	(56)	(56)
<b>EBITDA</b>		<b>(11)</b>	<b>(18)</b>	<b>11</b>	<b>65</b>	<b>45</b>
D&A		(0)	(3)	(5)	(12)	(10)
<b>EBIT</b>		<b>(11)</b>	<b>(21)</b>	<b>6</b>	<b>53</b>	<b>35</b>
Interest		(2)	(0)	(3)	(1)	3
Tax		-	-	(1)	(16)	(11)
<b>NPAT</b>		<b>(14)</b>	<b>(22)</b>	<b>2</b>	<b>36</b>	<b>26</b>
Exceptionals		-	-	-	-	-
<b>Reported Profit</b>		<b>(14)</b>	<b>(22)</b>	<b>2</b>	<b>36</b>	<b>26</b>
<b>Balance Sheet (A\$m)</b>						
		Jun-22	Jun-23	Jun-24e	Jun-25e	Jun-26e
Cash		5	9	34	73	101
Receivables		2	1	4	10	8
Inventory		-	3	3	6	5
PP&E		43	113	118	124	134
Other		6	15	15	15	15
<b>Assets</b>		<b>55</b>	<b>140</b>	<b>174</b>	<b>227</b>	<b>263</b>
Creditors		7	13	4	10	8
Debt		11	40	48	40	40
Leases		2	9	9	9	9
Provisions		0	7	7	7	7
Other		12	0	0	0	0
<b>Liabilities</b>		<b>31</b>	<b>69</b>	<b>68</b>	<b>66</b>	<b>64</b>
<b>Net Assets</b>		<b>24</b>	<b>71</b>	<b>105</b>	<b>161</b>	<b>199</b>
<b>Cashflow (A\$m)</b>						
		Jun-22	Jun-23	Jun-24e	Jun-25e	Jun-26e
Cash From Operations		(4)	(17)	12	66	46
Interest		(0)	(2)	(3)	(1)	3
Tax		-	-	14	-	-
<b>Net Cash From Operations</b>		<b>(5)</b>	<b>(18)</b>	<b>24</b>	<b>65</b>	<b>48</b>
Capex		(34)	(56)	(7)	(14)	(16)
Exploration		-	-	(4)	(4)	(4)
Investments		(3)	0	-	-	-
<b>Free Cash Flow</b>		<b>(42)</b>	<b>(74)</b>	<b>13</b>	<b>47</b>	<b>28</b>
Equity		33	47	4	-	-
Borrowings		10	32	8	(8)	-
Dividend		-	-	-	-	-
<b>Net Increase / (Decrease) in Cash</b>		<b>1</b>	<b>5</b>	<b>25</b>	<b>39</b>	<b>28</b>
Source: G6M and MST Estimates						

# Thesis: High-Grade Tungsten Mine Starting to Produce – as Customers Look to Diversify Supply

G6M's 100% owned Dolphin mine is located on King Island, a large island between Victoria and Tasmania. Dolphin is a redeveloped tungsten deposit that was in production for much of the 20<sup>th</sup> century but closed in 1992 due to prolonged low tungsten prices. G6M purchased the mine in 2005 and has completed several feasibility study updates, culminating in the October 2022 Final Study (an update of the December 2020 Revised Feasibility Study). Commercial production commenced in June 2023 and G6M is now focusing on ramping up to full production.

## Overview of flagship Dolphin Tungsten Project: Excellent timing and right location

### Production has commenced – ramp-up progressing

The operation of the mine and the brand-new processing plant commenced production in June 2023 and is now ramping up to full production. The September 2023 quarter saw a total of 61,039 tonnes of ore mined and 39,433 tonnes of ore processed, with mining progressing through the transitional zones in various areas of the Dolphin pit. Drill and blast activities were ramped up in September and continued in October, increasing the volume of blasted material available and thus boosting the mine productivity. While ramp-up has been slower than forecast for the September quarter, significant progress has been made resulting in more consistent production of concentrate. Major shareholders have provided a short-term A\$8m bridging loan to support ramp up while a A\$14.1m R&D tax refund is due shortly from the ATO. We forecast that the high degree of operating leverage will translate to positive cash margins for G6M as production scales up.

The high degree of operating leverage will translate to positive cash margins for G6M as production scales up. Once ramped up to full production, we estimate the mine will generate high EBITDA margins of around 50%.

### High grade mine in Tier-1 location; ideal market timing

Dolphin is one of the highest-grade tungsten mines in the Western world. Customers have few choices globally for new supply, and as Western economies look for alternative suppliers to China, Dolphin's timing into the market is ideal.

Dolphin is 100%-owned by G6M and situated in Tasmania, a Tier-1 mining jurisdiction. Mining is critical to the Tasmanian economy, with the Dolphin Mine seen as a vital contributor to the local King Island community and the broader state economy. The resources industry is a substantial contributor to the Tasmanian economy, accounting for ~62% of the state's mercantile export value. For FY2023 Tasmania received almost \$55m in mining royalties.

### Final Study (October 2022) shows robust project

A Final Study was completed in October 2022, revising certain parameters set out in the Revised Feasibility Study of December 2020. Key project parameters include:

- owner-operated mining in the Dolphin open cut (OC) operation followed by contract underground (UG) mining
- 14-year mine life producing a total 3.26 Mt of WO<sub>3</sub> in concentrate<sup>1</sup>
- life-of-mine capex of A\$153.9m, with A\$92.7m of the total associated with start-up capex costs
- pre-tax real NPV of A\$300m (8% nominal discount rate), 2.53-year payback period, pre-tax internal rate of return (IRR) of 38%
- high EBITDA margin

### Additional Reserves – Bold Hill deposit, adjacent to Dolphin Project; potential for furthering mine life

The adjacent high-grade Bold Head mine (2km north of Dolphin) presents 4.5 years of potential additional mine life for G6M and may act as an ideal transition between the Dolphin OC and UG mine. A PFS outlines an EBITDA of A\$56.5m and pre-tax NPV<sub>8</sub> of A\$14m. The project has the potential for further increase in resource, and G6M plans to continue adding to the mine life through exploration and infill drilling. Future studies will investigate the opportunities to reduce mining capex and opex to enhance the value of both the Bold Head and Dolphin mines.

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<sup>1</sup> Cap raise presentation noted 13 year mine life, we have assumed a 13 year mine life in our valuation

## Tungsten – a critical commodity – defence use importance increasing

Tungsten is viewed as a critical metal by the European Union, the United States, and other nations because of its high technological and economic importance, as well as due to concerns around supply security due to China's dominance in world supply chains. It plays an irreplaceable role in transportation, manufacturing industries, and the military due to its unique properties, such as a high melting point, high hardness, and good conductivity.

Global defence spending is increasing due to geopolitical tensions. Tungsten's use in making bulletproof vehicles, armoured tanks, and other protective equipment sees strong potential growth in this sector.

China holds a monopoly in the tungsten value chain, with ~60% of the world's tungsten reserves and supplying around 80-85% of the world's tungsten. The metal's irreplaceable role in a variety of applications makes it a top Western government priority to diversify the supply chain (for example Europe is proposing legislation to restrict >40% of supply for critical minerals coming from one jurisdiction). Furthermore, China has recently regulated its tungsten industry by limiting the number of mining and export licences, imposing quotas on concentrate production, and placing constraints on mining and processing. These regulations will further impact supply chains and hence highlight the critical nature of the Dolphin Project's tungsten.

## Strong management in place – experience counts

G6M's management is experienced in project development and operation globally and has strong field experience and established relationships with government, suppliers and the community. Members of the board of directors and the management team have had extensive global project development experience. Executive Director, Chris Ellis, and CEO, Keith McKnight, have both founded successful mining companies and bring strong experience to G6M. The Board and CEO are backed by a team with engineering, geological and financial expertise with over 45 years of experience in their fields.

## ESG – doing the right thing

**Environmental:** G6M is focused on operating in a sustainable manner to conserve the environment and protect wildlife. Its focus on reducing carbon emissions and path to net zero can be highlighted by its non-binding MOU with Fortescue Future Industries to explore opportunities for providing renewable energy to the mine. Furthermore, G6M has committed 33.7 hectares of land as a Conservation Covenant area, restricting the use of the land and protecting the natural value of the land.

**Social:** Dolphin is strongly supported by the local economy of King Island. The mine will create economic opportunities for local people and businesses. G6M will prioritise local residential employment and implement training programs for local people seeking employment at the Dolphin mine.

**Governance:** G6M has a strong board structure in place with 4 directors. The board is appropriately qualified for G6M's size and stage of mining life cycle with an appropriate level of independence.

## Recent events

### 2023

- November – A\$8m Bridging facility. A\$14.1m ATO R&D refund is to be received shortly.
- October – September Quarterly Results
- July: Commercial production of tungsten concentrate achieved; the first shipment of tungsten concentrate dispatched; \$3.7m capital raising
- June: Maiden Mineral Reserve for regional project, Bold Head; first tungsten concentrate produced at Dolphin
- May: \$27m capital raising
- March: Renewable power MoU with Fortescue Future Industries
- January: Recommencement of regional exploration drilling

### 2022

- November: Successful \$20m placement
- August: Awarded Exploration Drilling Grant Initiative grant by the Tasmanian State Government

## Upcoming events and catalysts

- 1HFY24 – Production ramp up and generation of positive cashflow and strong EBITDA margins
- 2QFY24 – Geotechnical and resource extension drilling results at Bold Hill Project
- 2HFY24 – Completion of DFS at Bold Head Project

## Valuation – A\$0.23/share (fully diluted)

Our risked NPV for G6M is A\$0.23 per share.

## Key risks

- Production ramp-up, further delay of positive cash flow generation.
- Commodity prices
- USD/AUD exchange rate

# Company Snapshot: Dolphin Has Highest-Grade Tungsten Deposit in the West; Exploration Upside

## Dolphin overview: a significant, high-grade asset

Dolphin is one of the highest-grade tungsten deposits in the Western world and currently contains:

- a **Mineral Resource of 9.6Mt** with 86.4kt of contained tungsten oxide (WO<sub>3</sub>)
- an **Ore Reserve of 4.43Mt** with 40.8kt of contained tungsten oxide (WO<sub>3</sub>).

The asset has a project life of 13 years with a forecasted average annual production of 2,600t of WO<sub>3</sub>.

The project involves mining from an open pit and underground mine and processing via a gravity processing plant that is situated onsite. G6M has begun producing at the redeveloped deposit and is now focusing on scaling production.

## Tungsten – an introduction

**What is tungsten, and why is it special?** Tungsten is a heavy, hard, grey–white metal with some unique and very useful properties: the highest melting point of all metals, at 3,422°C (and a boiling point of 5,700°C); resistance to acid and extreme resistance to corrosion; the highest tensile strength of all metals; and high electrical conductivity, with thermal and chemical stability.

**What is tungsten used for?** The main applications for tungsten are ‘hard metals’ (particularly tungsten carbides) for drilling and milling tools; steel additives, to add hardness, strength and heat resistance to steel alloys; tungsten alloys, in components for aircraft and racecars; and tungsten chemicals, for lamps, transistors, diodes and semiconductors.

**What is the future of tungsten?** Key future applications include the use in fusion reactors and batteries. Battery potential is being investigated at Cambridge University, with indicators that tungsten could help batteries charge faster, last longer, be safer and have a higher power density. Global defence spending is increasing due to geopolitical tensions. Tungsten’s use in making bulletproof vehicles, armoured tanks, and other protective equipment sees strong potential growth in this sector.

## Project status: the first concentrate produced, focusing on ramp-up

G6M produced its first concentrate in June and is now focusing on ramping up production. The process plant achieved 70% runtime, processing over 10,000t of low- to medium-grade ore at an average grade of 0.3% WO<sub>3</sub>, producing approximately 10 tonnes of saleable tungsten concentrate in late June–early July 2023. The concentrate was loaded into a container and dispatched for G6M’s first concentrate sales in mid-July (see Figures 1–2).

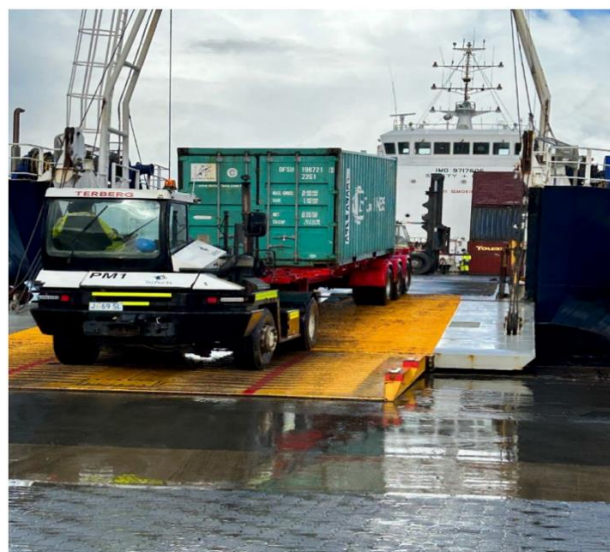
G6M is now focused on increasing output and optimising performance.

**Figure 1: Stockpile inventories of saleable tungsten concentrate**



Source: G6M.

**Figure 2: Loading the first container of concentrate onto the vessel**



Source: G6M.

## Offtake agreements: 60% of nameplate tied up, 40% 'up for grabs'

**Wolfram Bergbau und Hütten – 1,400 tonnes over 4 years:** In April 2019, G6M announced it had entered into an offtake agreement for tungsten concentrate with Wolfram Bergbau und Hütten AG, a wholly owned subsidiary of Sandvik AB, an international engineering group working within the mining and rock excavation, metal cutting and materials technology sectors.

The Wolfram agreement is for the delivery of 140,000 mtus (with 1mtu = 10kg) or 1,400 tonnes of WO<sub>3</sub> over a 4-year period. This equates to the export of approximately 2,200 tonnes of concentrate to be produced by the redeveloped Dolphin Mine over that period. At full production, the Dolphin Mine is expected to produce approximately 2,000 tonnes of tungsten per annum, contained in 3,100 tonnes of concentrate. The Wolfram agreement represents approximately 20% of this annual production.

**Traxys Group –** The offtake agreement is for a total quantity of 330,000 mtu's of WO<sub>3</sub> contained in concentrate following the commissioning of the processing plant. The Agreement is for the supply of 90,000 mtu, with 1 mtu equalling 10 kg of tungsten trioxide (WO<sub>3</sub>) in concentrate per annum, averaging 7,500 mtus per month.

Traxys is a physical commodity trader and merchant in the metals and natural resources sectors. Its logistics, marketing, distribution, supply chain management and trading activities are conducted by over 450 employees, in over 20 offices worldwide, and its annual turnover is in excess of US\$7 bn. Headquartered in Luxembourg, Traxys sources, trades, markets and distributes non-ferrous metals, ferroalloys, minerals, industrial raw materials and energy. The Traxys Group serves a broad base of industrial customers and offers a full range of commercial and financial services.

## Exploration: enormous licence with significant upside

G6M holds an exploration licence (EL) covering prospective ground on the periphery of the grassy granite, including the high-grade Bold Head mine (2km north of the Dolphin process plant) and several advanced exploration projects.

### Completed exploration:

#### Investigator 24 and Investigator 22 first-pass exploration drilling program completed

Three exploration holes were completed within the Investigator 24 and 22 prospects. Mine sequence including skarn-hosted scheelite mineralisation was identified in all three holes, including:

- KI 111 1.2m @ 2.8% WO<sub>3</sub> from 2.8m in oxidised zone
- KI 113 1.0m @ 0.6% WO<sub>3</sub> from 141.5m in garnet skarn

Earlier drilling in 2018 also had success:

- KI 062 3.3m @ 1.7% WO<sub>3</sub> from 103.2m (drilled in 2018)

### Planned exploration:

#### Further drilling in 2QCY24; Bold Head also holds promise

G6M aims to test the full potential of the EL area (63 km<sup>2</sup>) and to extend the project life beyond the current 14 years through near-mine and exploration drilling projects. Further exploration drilling is planned for 2QCY24.

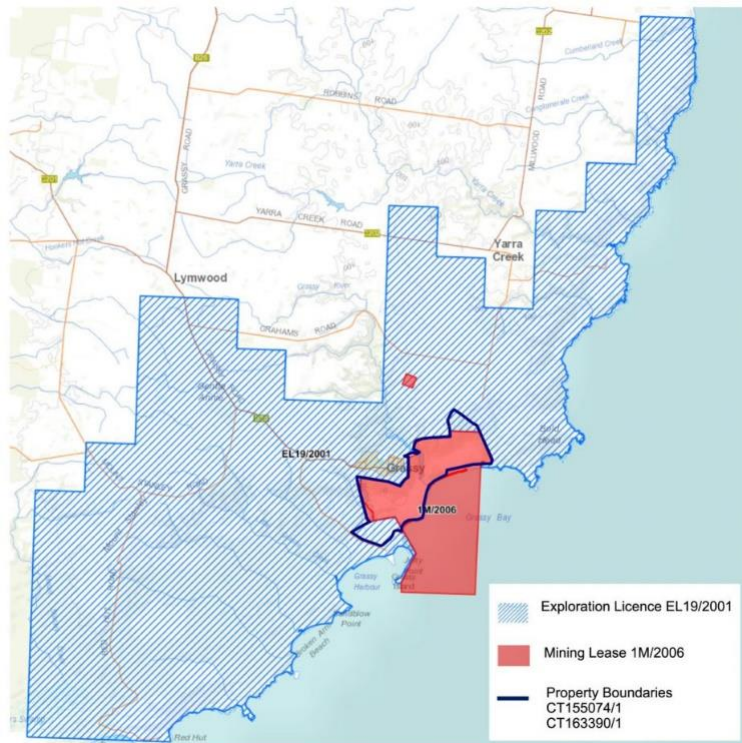
G6M recently released a Maiden Mineral Reserve and a pre-feasibility study (PFS) for the historic Bold Head mine. This mine, which operated as an underground mine for 8 years from the early 1970s, has similar geology and mineralisation to the Dolphin mine, and – also like Dolphin – consists of an open-cut and underground Probable Reserve. G6M anticipates the Bold Head mine to produce ~100ktpa over 4.5 years. The PFS revealed positive economic results with an EBITDA of \$56.6m, pre-tax NPV of \$14.4m (8% discount rate) and a pre-tax IRR of 51%.

Figure 3: Dolphin Tungsten – located on King Island



Source: G6M.

Figure 4: G6M mining and exploration licences



Source: G6M.

# Dolphin: A Detailed Look at the Asset

## A brief history of the mine

The Dolphin mine was a dominant global tungsten producer between 1916 and 1992. The significant shallow-depth tungsten deposit was discovered in 1911 by a prospector who stumbled across it while he was searching for tin. The mine commenced operations in 1916 and had a bit of a chequered history until 1992, when it became uneconomic due to prolonged depressed tungsten prices and thus was closed.

The asset was acquired by G6M in 2005, at which time the company was still known as King Island Scheelite Limited (KIS). KIS carried out a feasibility study in 2005–06 based on redeveloping the project to produce approximately 3kt of  $WO_3$  a year. In 2007, KIS entered into a JV with a major Chinese tungsten producer to redevelop the mine, but the JV was terminated in 2010 as the partner was acquired. During the 2010s, the project was re-examined and dismissed several times, until a Feasibility Study was completed in late 2019, revised in December 2020 and finalised in October 2022. Funding was secured in 2021.

## The geology – a simple explanation

### Regional geology

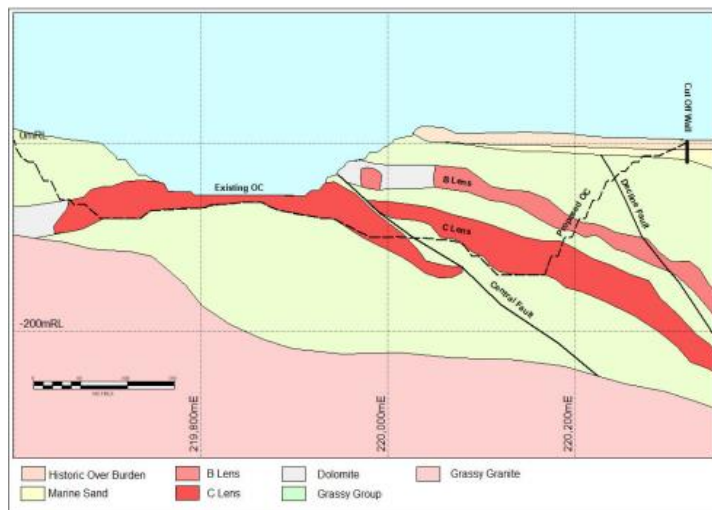
Scheelite skarn mineralisation has formed within the metamorphic aureole of the Carboniferous Grassy Granite, where it is in proximity to the calcareous sediments and carbonates of the Lower Grassy Group.

### Well-defined local geology and mineralisation

Mineralisation occurs within a sequence of skarn mineralogy that is 100–200m thick. This sequence contains two primary horizons, the B and C Lens (see Figure 4), each of which is 10–30m thick. The lenses are separated by a similar width of skarn-altered volcanic sediments. The formation of skarn and its mineralisation happens when carbonates directly encounter the intrusion or are near brittle faults that intersect with the intrusion.

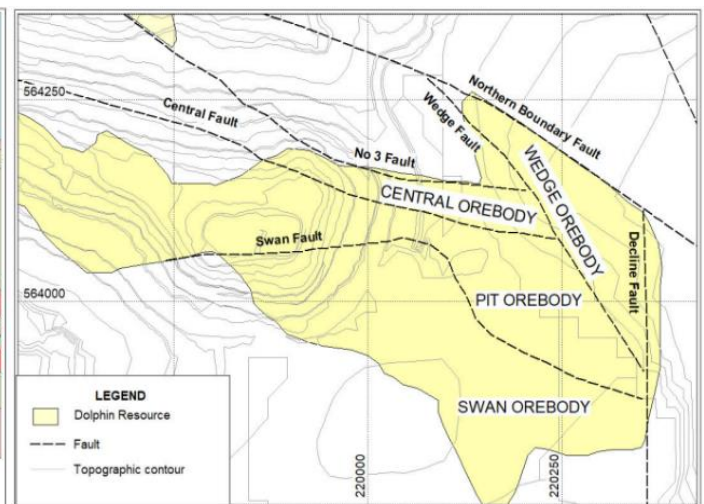
The Dolphin deposit prominently features mineralisation in the C Lens, which consists of several unique mineralogical components, such as garnet hornfels, a blend of pyroxene-garnet hornfels, and a layered version of pyroxene-garnet hornfels. On the other hand, the B Lens represents an upper dolomite layer that has undergone varying degrees of hornfelsing and metasomatism, occasionally showing mineralised pyroxene-garnet skarn.

Figure 5: Dolphin deposit mineralisation



Source: G6M.

Figure 6: Mineral resource plan, faults and ore block locations



Source: G6M.



## Mineral Resource and Ore Reserves – underpinning the project

In December 2020, G6M updated the Mineral Resources and Ore Reserves for the Dolphin Project.

### Mineral Resource (MRE) – high grade with further potential to convert to Reserve

The Dolphin MRE is 9.6 Mt @ 0.9% of tungsten oxide (WO<sub>3</sub>), containing 86.4 Kt of tungsten.

Figure 7: Updated MRE for Dolphin Project

	Mt	WO <sub>3</sub> %	Kt
Indicated Mineral Resource	9.6	0.90%	86.40

Source: G6M.

### Ore Reserve – supporting a mine life of at least 13 years

The Ore Reserve estimate for the Dolphin Project as of December 2020 is 4.43Mt @ 0.92% WO<sub>3</sub>, containing 40.76kt of WO<sub>3</sub>.

The updated Ore Reserves are based on the December 2020 Revised Feasibility Study. In the original Feasibility Study (2019), the Ore Reserve only included the Dolphin Open Cut. The Revised Feasibility Study (2020) includes a new mine plan with an underground reserve now included with the existing open cut.

Figure 8: Dolphin: Probable Reserves

	Mt	WO <sub>3</sub> %	Kt
Dolphin Open Cut (0.2% WO <sub>3</sub> cut off)	2.93	0.76%	22.27
Dolphin Underground (0.7% WO <sub>3</sub> cut off)	1.5	1.24%	18.60
<b>Total</b>	<b>4.43</b>	<b>0.92%</b>	<b>40.76</b>

Source: G6M.

## Final Study October 2022 – details show a robust project with significant optionality

A final study was completed in October 2022, revising certain parameters set out in the Revised Feasibility Study of December 2020. The final study revealed a robust, long-life project with exploration potential;

- 14-year mine life producing a total of 3.26Mt of WO<sub>3</sub> in concentrate
- Ore will be extracted originally by an open-cut operation before transitioning to underground mining
- Mineral Resource of 9.6Mt with 86.4kt of contained tungsten (WO<sub>3</sub>)
- Probable Ore Reserve of 4.43Mt
- Estimated pre-production capital cost: A\$92.7m
- Pre-tax NPV of A\$300m (8% nominal discount rate), 2.53-year payback period, pre-tax internal rate of return (IRR) of 38%

### Mining method – open-pit and underground mining

The project involves extending the historic Dolphin open-cut mine and then developing underground. Furthermore, G6M will construct an onsite gravity processing plant.

G6M proposes to extend the historic Dolphin open-cut (OC) mine eastward to recover remnant ore from the historic underground operation by means of an 8-year OC mine. On completion of the proposed Dolphin OC mine, a further 6 years of underground (UG) mining is planned, extending the total project life to 14 years.

#### Open-cut mine

The OC mine is proposed to be an owner-operated, truck-shovel operation utilising mid-sized hydraulic excavators matched to a fleet of 75-tonne dump trucks.

Most of the waste and ore will require drill and blasting, with the exception of old fill and marine sand material. Blasts will be engineered to ensure minimum displacement of the ore to minimise dilution and ore loss.

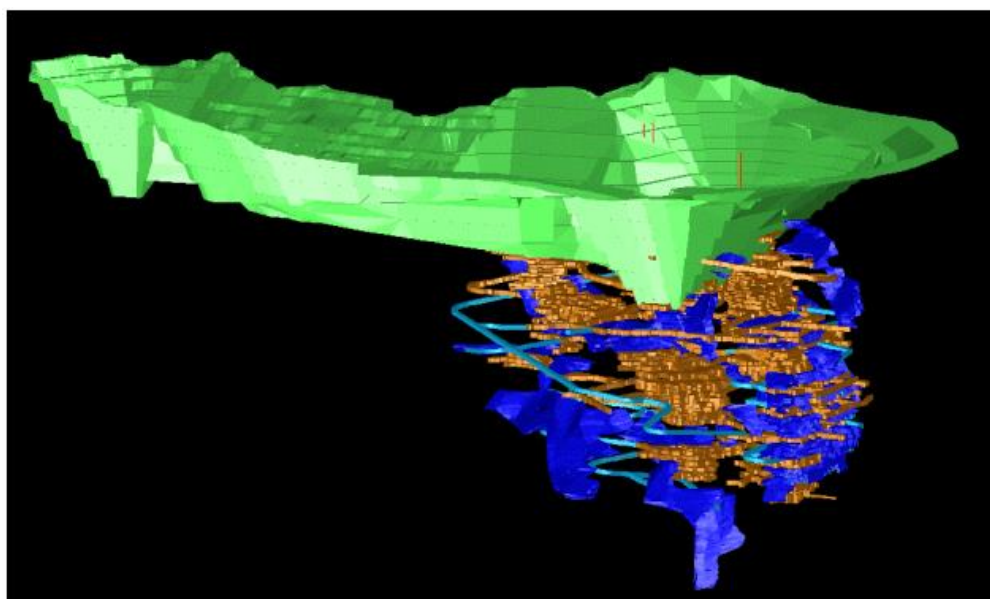
### Underground mine

From 1972 to 1990, the Dolphin orebody was mined using underground decline access in a load-haul-dump technique. Throughout this period, the mine's historical records show a total production of 2.6 Mt of ore with a concentration of 1.0%  $WO_3$ . When operations ceased, the reserves were estimated to be 1.15 Mt with a concentration of 1.21%  $WO_3$ , considering a cut-off grade of 0.7%  $WO_3$ . The reserve estimation for the underground section focuses on resources located below the proposed Dolphin open-pit mining region, which is expected to produce 2.93 Mt with a concentration of 0.76%  $WO_3$ .

The UG production schedule and mining equipment list have been calculated based on the mine design and production rates of approximately 300 ktpa of ore. The RFS and associated UG reserve estimation outline a further 6 years of mine life producing an additional 24,500 t of  $WO_3$  concentrate.

The UG mine design incorporates several methods: post pillar cut and fill, cut and fill, up-hole bench stoping, downhole bench stoping, and remnant stoping. The UG mine will be entered through a portal set at -120 m RL. From there, a new southern decline will be created to reach and refurbish the historical mine structures below -150 m RL, which includes production pathways and ventilation return channels.

**Figure 9: Dolphin historic underground mine (bronze), new decline (light blue) and production stopes (dark blue)**



Source: G6M.

### Processing – historically proven simple processing flowsheet

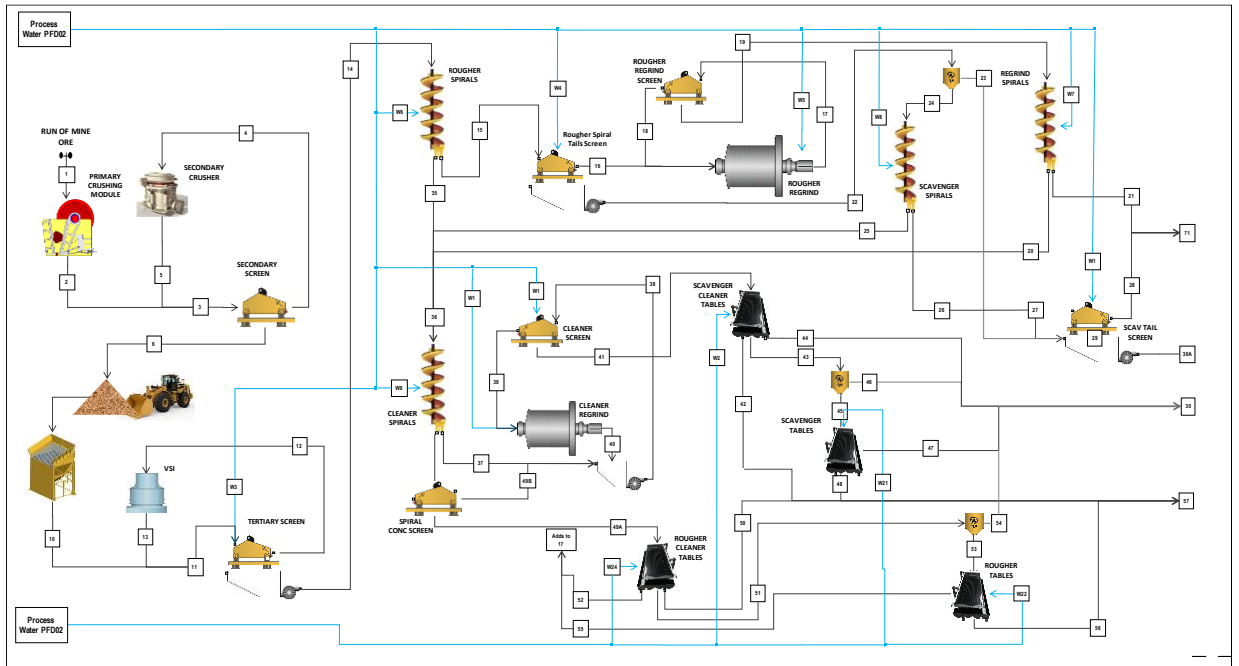
The Dolphin processing facility underwent significant changes from its 2019 Feasibility Study and Reserve Estimation due to the integration of multi-gravity separators (MGSs) within the gravity section. This inclusion of MGSs lessens the need for flotation, streamlining the processing pathway. Consequently, the facility now produces both coarse and fine gravity concentrates. These alterations to the plant led to changes in capital costs and considerable decreases in operational expenses, both of which are factored into this DFS.

The flowsheet design includes two-stage crushing, using jaw and cone crushers, fine ore stockpile, fine vertical shaft impact crushing, coarse and fine gravity concentration using spirals and tables, dressing of gravity concentrates by flotation and magnetic separation and finally drying, blending and bagging of concentrate.

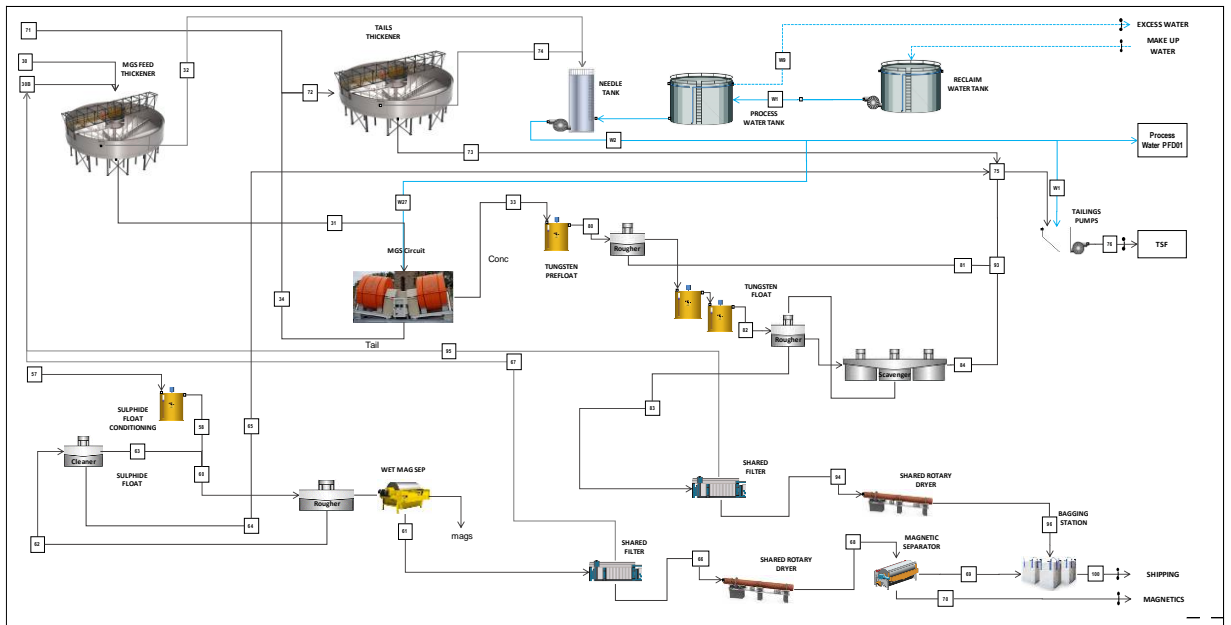
Laboratory test works suggested recoveries in the range of 73–82.8%, producing concentrate grades above 63.5%  $WO_3$ .

Figure 10: Simple processing to produce tungsten concentrate

Process flow sheet comminution and coarse gravity circuit



Process flow fine gravity, dressing and blending circuit



Source: G6M.

## Financial details of the October 2022 Final Study: low capex, low cost, high IRR

### Final Study, October 2022 – key metrics: cheap upfront capital costs resulting in attractive capital returns

The key metrics demonstrate a robust project, with a company-calculated pre-tax NPV of A\$300m and an IRR of 38% with a short pre-tax capital payback of 2.53 years. As this project is redeveloping a previously operating mine, up-front capex was projected only to be \$92.7m. Due to inflationary pressure and some design and scope changes, the final up-front capex for the Dolphin project was \$117m, an increase of 27%. The increase in capex would lead to a decrease in NPV and IRR. However we see the assumption of US\$340/mtu flat as very conservative given the longer-term fundamentals of the tungsten market.

The company anticipates additional LoM capex of \$61.2m, which includes additional equipment, underground development and sustaining capex; however, this will be funded through free cash flow. The project's operating costs of A\$141–147t versus the APT- linked price of US\$340/mtu, including a 76% payability factor, translates to very healthy project margins.

We detail our assumptions for the project in the valuation section.

**Figure 11: Key Dolphin financial metrics – robust project**

Item	Units	Pre-Feasibility Study 2023
Project Life	Years	14
OC Probable reserve	54 kt @ 1% WO3	
UG Probable reserve	391 kt @ 0.9% WO3	
<b>Total Probable Ore (Reserve)</b>	<b>445 kt @ 0.9% WO3</b>	
<b>Tungsten Production</b>		
Total Processing	Mt	4.4
Recoveries	%	73%-83%
mtu Sold	M mtu	3.26
<b>Capital Costs - Life of Mine</b>		
Start Up CAPEX	A\$M	92.7
Deferred CAPEX	A\$M	61.2
Total CAPEX	A\$M	153.9
<b>CAPEX per mtu of WO3 produced</b>	<b>\$/mtu</b>	<b>48</b>
<b>Operating Costs - Open Cut</b>		
Mining	A\$M	59
Processing	A\$M	44
Transport & Other	A\$M	15
Royalties	A\$M	29
Total	A\$M	147
<b>Royalties</b>		
Mining	A\$M	70
Processing	A\$M	31
Transport & Other	A\$M	13
Royalties	A\$M	27
<b>Total</b>	<b>A\$M</b>	<b>141</b>
<b>Financial</b>		
Pre-Tax NPV Real (8%)	A\$M	300
Pre Tax IRR	%	38%
Payback pre-tax	%	2.53

Source: G6M.

## A Low-cost producer with attractive margins at a high-grade deposit

Figure 12: LoM operating costs – open cut

Item	Updated 2022 A\$/t	RFS 2020 A\$/t
Mining	59	48
Processing Plant	44	45
Transport and Other	15	9
Royalties	29	24
<b>Total</b>	<b>147</b>	<b>126</b>

Source: G6M.

Figure 13: LoM operating costs – underground

Item	Updated 2022 A\$/t	RFS 2020 A\$/t
Mining	70	71
Processing Plant	31	32
Transport and Other	13	8
Royalties	27	23
<b>Total</b>	<b>141</b>	<b>134</b>

Source: G6M.

## Infrastructure – strong on the back of existing mine

### Existing infrastructure

Dolphin is a redevelopment project, located in a region that has supported mining for multiple decades and adjacent to infrastructure that will be key to producing tungsten and getting it to market. All of these factors provide a strong infrastructure backbone for the project.

### New infrastructure

With the capital it raised in 2022 and 2023, G6M has constructed:

- a mining haul road to the ROM and the tailings storage facility (TSF) and upgrade to the existing access road from Grassy town and port
- administration, mining, processing and laboratory offices; stores warehouse; change rooms and associated ablutions; wastewater disposal system
- raw water pumping stations and pipelines
- site stormwater and water recycling storage and reticulation
- heavy & mobile vehicle and fixed-plant workshops
- fuel storage
- potable water supply
- explosives storage and handling
- electrical infrastructure; diesel power plant and infrastructure
- accommodation facilities
- communications and IT.

### Power

G6M's assessment of grid-connected power concluded it was high risk due to reliability. Therefore, G6M is currently running the mine on a dedicated diesel power solution. G6M has completed a separate individual pre-feasibility into integrating renewable power, which could reduce diesel-generated power usage by up to 60%, significantly reducing the mine's power costs. G6M has entered into a MOU with Fortescue Future Industries (FFI) to develop a renewable power option using wind and potentially hydrogen.

### Water

Raw water for the project will be drawn from the Lower Grassy Dam (from which G6M has a licence to extract 200Mlpa of water), supplemented with recycled process water, stormwater and mine water. Potable water will be drawn from the local scheme by dedicated pipeline. Wastewater will be treated on site and discharged according to local water authority regulations.

### Transport/logistics

Logistics company, the Dolphin Tungsten Mine has direct private access to the Port of Grassy, King Island, through which it can export high-grade tungsten concentrates to its major offtake partners. The port is managed by Tasports, a state-owned entity, and is capable of hosting 5,000t ships.

## Further growth options

### Bold Head – Reserves supplement Dolphin production, potential to extend mine life

Based on the Revised Feasibility Study conducted in 2020, the Dolphin Project has sufficient Reserves for an initial 14 years of mine life. G6M has extensive exploration potential around the mining lease, particularly at Bold Head, which the company is confident could increase the life of the mine beyond 17 years.

G6M proposes to continue developing regional opportunities surrounding the mine, building on the project's high-grade Resource base whilst ramping up production at the re-developed Dolphin mine. The initial Reserve at Bold Head, combined with the acquisition of a Mining Lease Application and surface rights, marks a significant progression in establishing Bold Head as a subsidiary deposit.

**Bold Head – pre-feasibility study:** The Bold Head Mine, located 2km north of the processing plant, serves as an auxiliary deposit to the Dolphin Mine and could be mined concurrently when the Dolphin OC nears its end, particularly in Years 5–6. The envisaged Bold Head venture will initiate with a modest OC and then transition to UG mining, spanning 4 years. The extracted ore from this site will supplement the output at the Dolphin processing plant, especially as and after Dolphin Mine transitions from OC to UG.

At a cut-off of 0.2% WO<sub>3</sub>, the OC at Bold Head holds 54 kt of Probable Reserves with an average grade of 1.0% WO<sub>3</sub> and a Run-of-Mine strip ratio of 13 t/t. When considering a 0.7% WO<sub>3</sub> cut-off, the UG at Bold Head has 391 kt of Probable Reserves averaging 0.9% WO<sub>3</sub> in grade. Both these OC and UG Reserves meet the criteria set out in the 2012 JORC Code guidelines.

Pre-feasibility studies involving processing of the Bold Head ore through the Dolphin plant later in the mine life suggest positive results, with EBITDA of \$56.5m, pre-tax NPV<sub>8</sub> of \$14.4m and IRR of 51%. Key project parameters include:

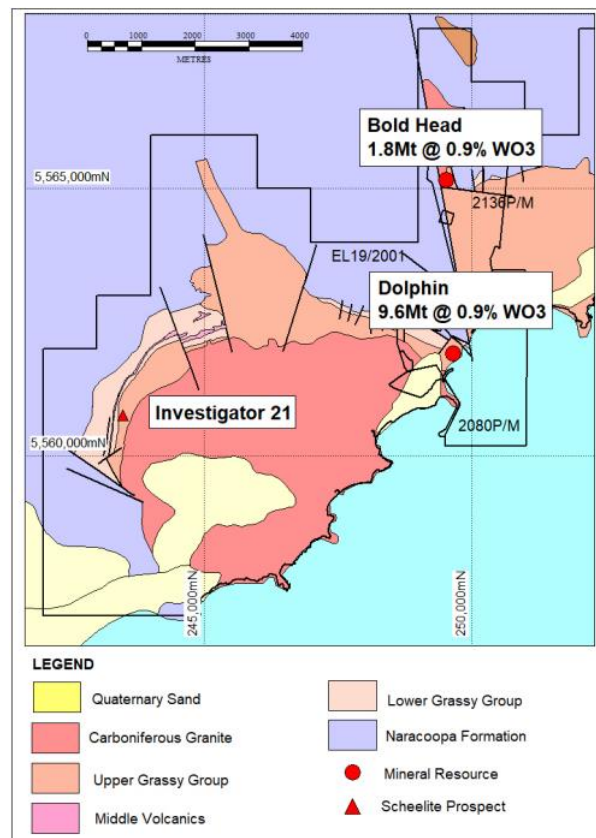
- parallel operation to the Dolphin mine and processing plant
- owner-operated mining in the OC operation followed by contract UG mining
- 4.5-year mine life producing a saleable total 320 k mtu of WO<sub>3</sub> in concentrate
- Dolphin Plant projected recoveries of ~80% producing concentrate grades of ~63.5% WO<sub>3</sub>
- life-of-mine capex of \$19.5m

Figure 14: Bold Head pre-feasibility study 2023

Item	Units	Pre-Feasibility Study 2023
Project Life	Years	5
OC Probable reserve		54 kt @ 1% WO <sub>3</sub>
UG Probable reserve		391 kt @ 0.9% WO <sub>3</sub>
<b>Total Probable Ore (Reserve)</b>		<b>445 kt @ 0.9% WO<sub>3</sub></b>
<b>Tungsten Revenue</b>		
APT Price (average)	US\$	340
Exchange Rate	US\$/A\$	0.66
mtu Sold	k mtu	320
Revenue	A\$M	126
<b>Capital Costs - Life of Mine</b>		
Mining	A\$M	19.5
Processing Plant	A\$M	0
Other	A\$M	0
<b>Total</b>	<b>A\$M</b>	<b>19.5</b>
<b>Operating Costs - Life of Mine</b>		
OC Mining	A\$M	-2.7
UG Mining	A\$M	-46.2
Processing	A\$M	-12.1
Shipping	A\$M	-1.7
Admin	A\$M	0
Royalties	A\$M	-6.7
<b>Total</b>	<b>A\$M</b>	<b>-69.4</b>
<b>Financial</b>		
EBITDA	A\$M	56.5
Pre-Tax NPV (8%)	A\$M	14.4
Pre Tax IRR	%	51
<b>Production Cost Metrics</b>		
Opex/mtu	\$/mtu	219
Capex/mtu	\$/mtu	62
Opex/t ore processed	\$/t	156
Capex/t ore processed	\$/t	44

Source: G6M.

Figure 15: Bold Head and Investigator



Source: G6M.

**Figure 16: Overview map of G6M mining and exploration**



Source: G6M.

### **Further exploration at Bold Head to extend mine life**

The project has the potential for additional Resources, and it is planned to continue adding to the mine life through exploration and infill drilling. Future feasibility studies will investigate the opportunities to reduce mining capex and opex to enhance the value of both the Bold Head and Dolphin Mines.

### **Investigator 24 and Investigator 22 first pass exploration drilling program**

Three exploration holes were completed within the Investigator 24 and 22 prospects. Mine sequence including skarn-hosted scheelite mineralisation was identified in all three holes, including:

- KI 111 1.2m @ 2.8% WO<sub>3</sub> from 2.8m in oxidised zone
- KI 113 1.0m @ 0.6% WO<sub>3</sub> from 141.5m in garnet skarn.

Further exploration drilling is planned for 2QCY24. G6M aims to test the full potential of the area (63 km<sup>2</sup>) under an exploration lease and to extend the project life beyond the current 14 years through near mine and exploration drilling projects.

Drill holes KI 111 and KI 112 are the first holes in the Investigator 24 area for almost 50 years and the first to intersect the full mine sequence including B and C lens with associated calc-silicate skarn mineralisation similar to the Bold Head and Dolphin mines.

KI 113 was drilled 200m north of the Investigator 21 site intersecting B and C lenses and calc-silicate skarn mineralisation before intersecting the granite. Scheelite mineralisation associated with garnet-pyroxene skarn was observed under UV light in all three drill holes with sporadic medium to low-grade mineralisation confirmed by laboratory analysis.

# Location in Tasmania: A Tier-1, Pro-Mining Jurisdiction

The 100%-owned Dolphin mine is located on King Island, a large island in the Bass Strait between Victoria and Tasmania. It is part of the state of Tasmania.

## Mining is an integral part of the economy

Tasmania has a long and distinguished history when it comes to mining and energy, and can comfortably be classified as a Tier-1 mining jurisdiction. The mining industry is a vital component of the state's growing economy, with a production value of \$1.82 bn<sup>2</sup>. The industry has a direct workforce of approximately 4,000 people and generates another 10,000 indirect jobs in Tasmania.

The mining and minerals industry has been in Tasmania for over 100 years. It has been the backbone of several regional communities, and has allowed generations of Tasmanians to prosper. The state has a number of large operating mines, including long-term producers Rosebery (zinc, lead, gold, copper, silver), Savage River (magnetite, which is converted into iron ore pellets at Port Latta), the Renison Joint Venture (a major tin producer), and the Henty gold mine.

### Some quick facts on Tasmanian Mining<sup>3</sup>

- At present there are 14 significant mining operations in Tasmania, three of which are currently on
- As at 14 November 2022, there were 511 mining leases, 158 exploration licences, and 19 retention licences active in Tasmania.
- Metallic minerals mined in Tasmania include copper, gold, silver, iron, tungsten, tin, lead, nickel and zinc with future opportunities in Rare Earth Elements.
- Non-metallic industrial minerals mined in Tasmania include ultra-high purity silica flour, limestone, dolomite and coal.
- Non-metallic construction materials mined in Tasmania include building stone, aggregate, gravel and sand.
- More than 80 per cent of Australia's economic demonstrated resources of tin are in Tasmania.
- The mining and mineral-processing sectors combined represent more than 60 per cent of Tasmania's mercantile export earnings.
- Current mining and exploration operations on Tasmania's west coast have identified in-ground resources worth more than A\$11 billion at current prices.

## Supportive government aiming to stimulate mining investment

The mining and minerals sector is a key focus of the Tasmanian Government's strategy to drive economic growth and create sustainable jobs.

The mining sector has been revitalised in Tasmania. This has included:

- the restart of operations at Hellyer, creating more than 60 jobs
- the successful sale of the Henty Gold mine, securing over 100 jobs
- the sale of Beaconsfield gold mine and proposed restart, which would create 80 jobs.

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<sup>2</sup> Department of State Growth Tasmania

<sup>3</sup> Department of State Growth Tasmania



# Tungsten Is Critical; Western Economies Seeking Alternatives to China – Dolphin Set to Benefit

## Unpacking tungsten – a distinctive and critical mineral

### Characteristics: special features set tungsten apart

Tungsten is a heavy, hard, grey-white metal. Tungsten has a number of distinct features, including:

- a very high melting point – the highest of all metals at 3,422°C (with a boiling point of 5,700°C)
- extreme resistance to corrosion
- resistance to acid
- tensile strength – the highest of all metals
- high electrical conductivity
- thermal and chemical stability.

### History of tungsten

Tungsten was first identified in 1781, after which various methods for extracting it were quickly identified. It has been known variously as 'tungsten' or 'wolfram' since this time and has the name tungsten (with the symbol W) on the periodic table.

### Mineralogy – the two ores that contain tungsten

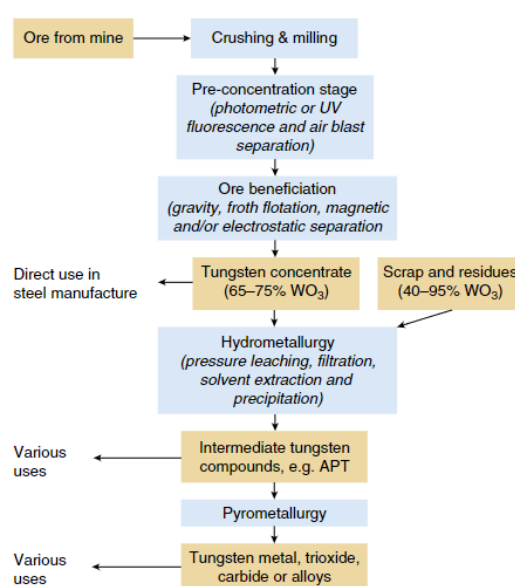
Tungsten is not found in nature as an isolated metal but exists combined with other elements in chemical compounds. While a few minerals contain tungsten, many of them are scarce. Only scheelite and the wolframite group are prevalent enough to be termed as ores. Ore grades are normally quoted as percentage of  $WO_3$ .

- Scheelite, a calcium tungstate ( $CaWO_4$ ), is typically white to yellowish in colour, and has blue-white fluorescence in ultraviolet light – a property that is especially useful in exploration and mining.
- Wolframite, a general term for iron–manganese tungstate, is a solid-solution series of ferberite ( $FeWO_4$ ), and hübnerite ( $MnWO_4$ ).

### Processing

The processing stage for the ore involves beneficiation at the mining location to enhance its tungsten content. The subsequent concentrate, which consists of over 65% tungsten trioxide, can be directly utilised in the production of ferro-tungsten and steel. Alternatively, it can be transformed into various intermediate tungsten compounds through hydrometallurgical methods or further purified to obtain pure tungsten via pyrometallurgical techniques.

Figure 17: Simplified flow diagram of tungsten processing steps



Source: G6M.

## Pricing – linked to APT price; should trend higher

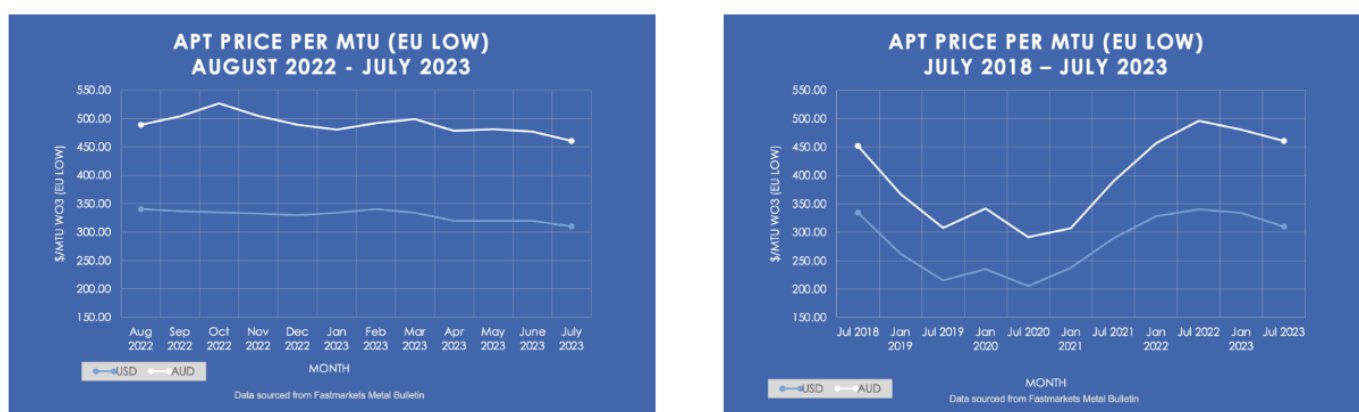
Tungsten is typically priced according to the ammonium paratungstate (APT) price benchmark, which is calculated in MTUs. (1 MTU is equal to 10 kg, and 1 MTU of APT contains approximately 7.93 kg of tungsten). APT and concentrate prices are mainly based on quotations published twice weekly by London's Metal Bulletin and other trade journals.

Tungsten concentrates are typically composed of scheelite and/or wolframite and contain 65–70% tungsten trioxide (WO<sub>3</sub>). Vendors of concentrate tend to receive c. 70–80% of the value of the tungsten in the concentrate based on the prevailing APT price. Tungsten concentrates are purchased by secondary processors that predominantly convert them into APT, which is then converted to various powders to be used in downstream metals and alloys by tertiary manufacturers.

For G6M, Dolphin will produce a concentrate grade of WO<sub>3</sub>; for the WO<sub>3</sub> contained in the concentrate G6M will receive the APT price multiplied by a payability factor of ~76%.

It should be noted that prices have remained high, despite weaker trading volumes, while inventories are running down due to high production costs for APT in China. This should support higher APT prices into the future, with the reset of the historical breakeven prices for Chinese APT production.

Figure 18: APT price per MTU – 12-month (left) and 5-year (right) price charts (shown in US\$ and A\$)



Source: G6M

## Supply-and-demand picture: G6M is set to benefit from changing dynamics

The timing of G6M's Dolphin mine into the tungsten market appears to be ideal in terms of the broader supply-and-demand picture. We expect these dynamics to make the Dolphin product an in-demand commodity, due to:

- a robust long-term demand picture
- tungsten's status as a critical mineral
- China's changing supply dynamics, with depleted resources and increased production costs
- the fact that Western governments are seeking diversification of supply.

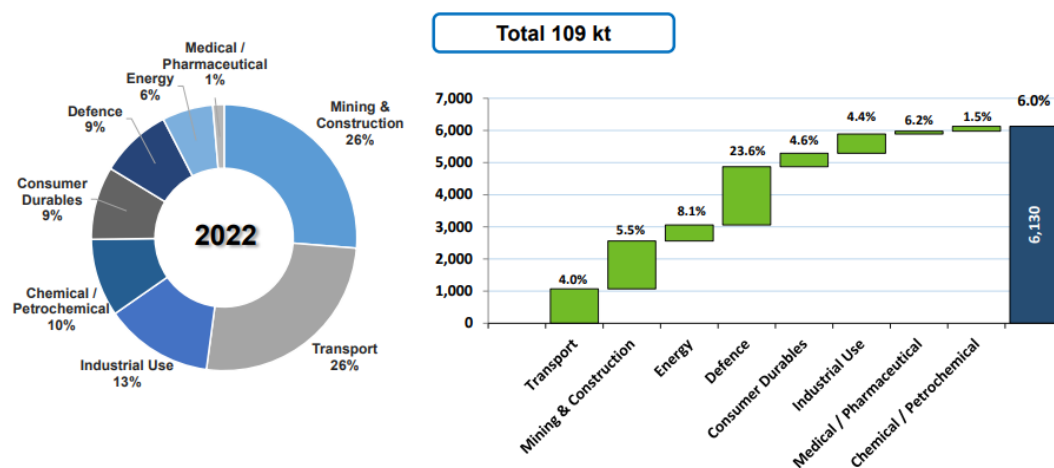
### Demand picture

Tungsten's main applications are in 'hard metals', i.e. tungsten carbide and cemented carbides, used for cutting, drilling and wear-resistant parts or coatings. Tungsten is also used to add hardness and strength to steel alloys, particularly where heat resistance is also required.

### Tungsten's main applications and key end-uses

- hard metals, and in particular tungsten carbides – drilling and milling tools
- steel additives – high-resistance steel; construction material for (fusion) reactors
- tungsten alloys – components for aircraft and racecars
- tungsten chemicals – lamps, transistors and diodes; semiconductors in the form of tungsten hexafluoride gas, which is used to deposit a thin film of tungsten on microchips
- tungsten wire cutters – increasing significantly
- battery anode coatings
- fusion reactors – could potentially be large consumers of tungsten

**Figure 19: Tungsten end-uses, 2022 (LHS) and growth by sector (RHS) over 2022**



Source: SMR.

### Defence Use Looms as Key Growth Area

Defence use for Tungsten grew ~24% in CY2022 (see figure 19).

For several decades governments reduced the share of defence spending in total public expenditure, however, growing geopolitical tensions are prompting reassessments of this strategy, with several countries announcing plans to increase defence spending over the next few years.

Many OECD countries have begun to raise defence spending as a share of GDP over the last 2-3 years. There have been particularly strong increases in Central and Eastern European countries, but also in many economies in Western Europe, partly reflecting military aid to Ukraine. The US continues strong spend for defence as well. Further spending increases are likely in the coming years in France, Germany and Japan.

The trend across the globe is a broader response to global instability and countries' response to that around the world, including strategic challenges in Europe, East Asia and the Middle East.

Tungsten use in defence includes use in making bulletproof vehicles, armoured tanks, and other kinds of protective equipment designed to withstand high-speed impact. This is due to the hardness of tungsten. And this property, as well as others, can be enhanced through alloying to yield stronger composite materials.

The growing focus on defence globally should see continued strong growth in Tungsten's use in defence applications.

### New applications – potential for batteries

Researchers at the University of Cambridge in the UK have discovered a group of materials, comprised of two complex 'niobium tungsten oxides' that can hold significant amounts of lithium. Furthermore, this research suggests that lithium ions can move through these materials much more quickly than they do through standard electrode materials – a discovery with significant potential for the development of faster-charging lithium-ion batteries.<sup>4</sup>

Potential features of lithium-ion batteries made with niobium tungsten oxides include:

- charging time: 90+% charged in less than 5 minutes
- high input power density: 10x power addresses range anxiety and allows for smaller and lighter batteries
- longer durability: 10x durability resulting in lower total cost of ownership for battery lifetime
- improved safety: wider temperature performance and reduced fire risk.

<sup>4</sup> <https://www.cam.ac.uk/research/news/new-class-of-materials-could-be-used-to-make-batteries-that-charge-faster>

<https://physicsworld.com/a/niobium-tungsten-oxides-help-make-faster-charging-batteries/>

### **Long-term demand for tungsten**

The global tungsten market is on an upward trajectory, with impressive growth projections. In 2022, it reached an estimated 109 kt, and industry projections see demand increasing to 170 ktpa by 2030, exhibiting a robust CAGR of 4.6% in 2022–2030.

Demand remains highest in China (around 60% of global demand), followed by the US (around 11%).

The market's promising outlook extends to various industries, including hard metals/cement carbides, steels, superalloys, wear-resistant alloys and mill products. Applications for tungsten alloys in the aerospace industry are being supported by a strong comeback after Covid-19 lockdowns, and the long-term outlook indicates further growth. Airlines have shown strong growth and are ordering new planes to both expand and refresh their fleets. Defence is also an area of increased demand, in part due to the Ukraine–Russia conflict as well as other geopolitical issues potentially driving increased growth. Mining demand is strong as production rates across the globe continue to grow.

On the other hand, automotive and construction demand growth is being hampered by higher interest rates and inflation, although increased infrastructure spending could partially make up for the decline in residential building. Tungsten recycling continues to increase, which will also decrease demand on the margins.

There has been a short-term build-up of inventory in the tungsten supply chain, particularly in China, where the tungsten industry was forced to shut down due to Covid while the Chinese mining sector kept mining. Recent market analysis suggests that inventories have continued to decrease over the last 6 months, and demand is expected to pick up again in early 2024.

### **Potential Substitutes**

- Potential substitutes for cemented tungsten carbides include cemented carbides based on molybdenum carbide, niobium carbide, or titanium carbide; ceramics; ceramic-metallic composites (cermets); and tool steels.
- Potential substitutes for other applications include;
  - molybdenum for certain tungsten mill products
  - molybdenum steels for tungsten steels, although most
  - lighting based on carbon nanotube filaments, induction technology, and light-emitting diodes for lighting based on tungsten electrodes or filaments
  - depleted uranium or lead for tungsten or tungsten alloys in applications requiring high density or the ability to shield radiation
  - depleted uranium alloys or hardened steel for cemented tungsten carbides or tungsten alloys in armour-piercing projectiles.

## **Supply picture – tungsten critical and irreplaceable; China dominates, Western economies seek diversity of supply**

### **Tungsten is classified as a critical mineral**

Critical raw materials have been identified by the European Commission and the US with regard to both their supply risk and their economic importance for industry.

Tungsten is ranked as a 'critical' mineral by the British Geological Surveys, various US Departments, the European Commission, Japan, Russia and Australia due to its supply risk (dominance of China in the market) and its lack of substitutes.

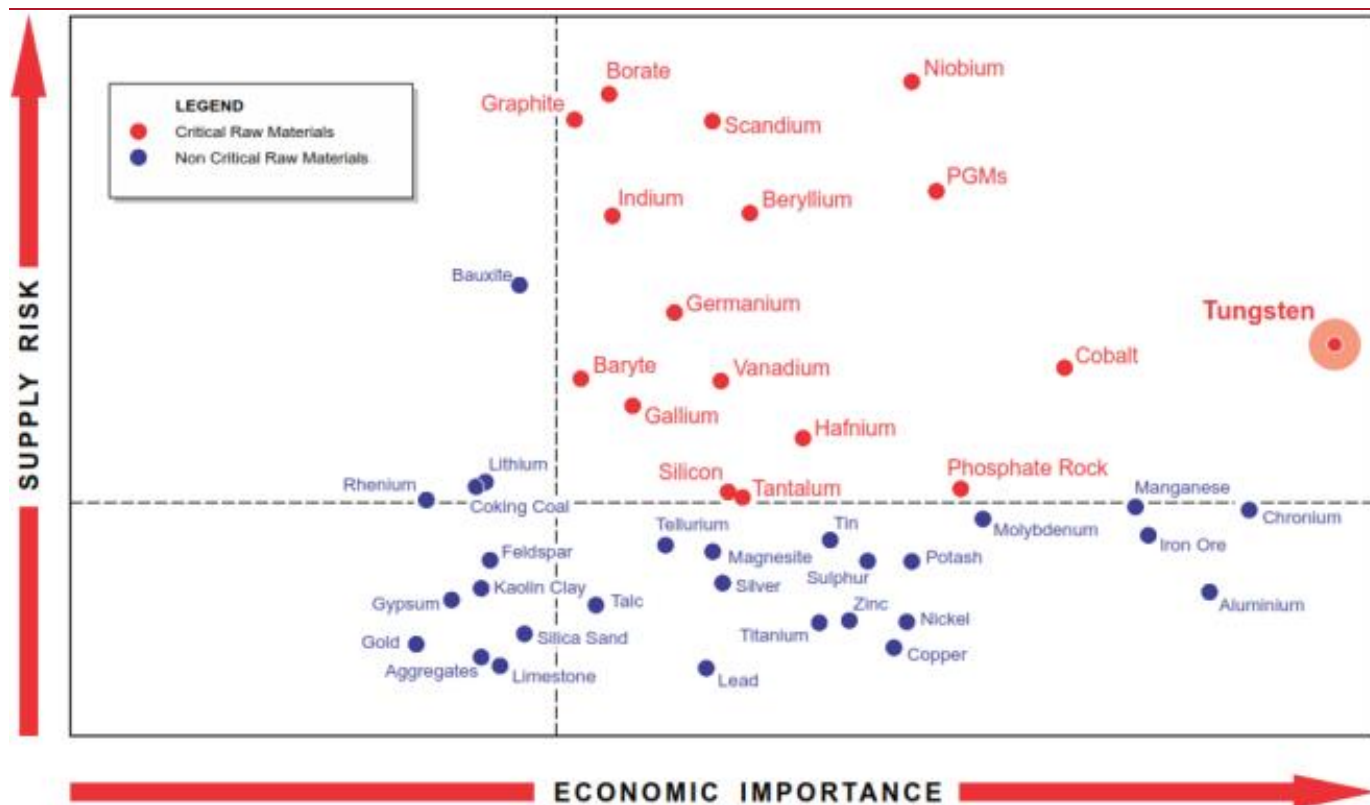
The importance of its various applications for industrial uses within the EU and the low substitutability of tungsten give it the highest 'economic importance' of all the raw materials.

### **China dominates supply – but the picture is changing**

As with many of the specialised minerals, China has become a dominant supplier within the tungsten market – China supplies approximately 80% of tungsten globally.

Industry studies have estimated that ~2,500kt of total tungsten has been mined from ores in China over the past 70 years. While China currently dominates global tungsten production, Chinese producers continue to face depleted high-grade resources, and increased production costs because of environmental laws, labour costs and safety guarantee costs.

Figure 20: Minerals: economic importance and supply risk



Source: European Commission Study on the Review of the List of Critical Raw Materials, 2017

Figure 21: World Tungsten Mine Production and Reserves

Country	Mine Production		Reserves
	2021	2022	
USA	0	0	NA
Austria	900	900	10,000
Bolivia	1,563	1,400	NA
China	71,000	71,000	1,800,000
Portugal	502	500	3,100
Russia	2,300	2,300	400,000
Rwanda	1,340	1,100	NA
Spain	400	700	56,000
Vietnam	4,800	4,800	100,000
Other Countries (inc Australia)	973	1,400	1,400,000
<b>Total</b>	<b>85,799</b>	<b>86,122</b>	<b>3,800,000</b>

Source: USGS Mineral Commodities Summary 2023.

### **Western economies seek alternatives – strategic angle for Australian supply**

Major economies, including the US and Europe, are seeking alternative suppliers for critical minerals and looking to reduce their dependence on Chinese supply. Furthermore, US strategic stockpiles are at historic lows, and North America does not have an operating tungsten mine.

The importance of critical minerals has been reconfirmed by the Federal Government's recent announcement of an additional \$2 billion in support of Australia's critical mineral projects. The government have re-iterated their pledge to support critical minerals production in Australia, and as Tungsten is ranked highest for economic development G6M will be working with the Federal Government on ensuring long-term primary tungsten production in Australia and pursuing opportunities for downstream processing to produce higher value tungsten products in the future.

With two new tungsten mines coming online, Dolphin and EQ Resources (EQR-AX) Mount Carbine mine, Australia has a strategic opportunity to go downstream producing APT/tungsten oxides or tungsten carbides, adding further value.

### **Key Ex-China Producers**

Key Ex China Tungsten producers include:

- Dolphin Mine – Group 6 Metals, Australia
- Mt Carbine – EQ Resources, Australia
- Panasquiera - Almonty Industries, Portugal
- Barruecopardo – Saloro (EQ Resources), Spain
- Nui Phao - Masan Resources, Vietnam
- Mittersill - WBH Wolfram, Austria

The key development under construction is Sandong Korea (Almonty Industries), targeting 640kt of Tungsten in concentrate per year (around 10% of global supply)

# ESG – A Key Focus for G6M

Environmental, social and governance (ESG) factors play an integral role in many investors' decision-making. G6M's overall ESG profile is strong, with a clear sustainability policy in place to ensure that key ESG factors are covered.

In considering the ESG profile of a mining company, we believe it is important to account for the contribution that metals (and thus mining) make to modern society. Renewable technologies are seeing significant growth, creating demand for metals such as tungsten across many consumer and industrial sectors. Furthermore, responsible mining not only contributes significantly to employment and state and national economies but can also provide sustainable benefits for the communities in which it occurs.

We believe that G6M is committed to working in partnership with local stakeholders and communities to identify and achieve these benefits, with due consideration paid to:

- maintaining an economically sustainable and responsible business
- open and inclusive stakeholder engagement
- contributing to the local, regional, state and national economy
- partnering with local stakeholders and communities to enhance community capacity
- contributing to local environmental sustainability.

## Environmental

### Environmental impact of the project: relatively strong existing infrastructure, low use of reagents

G6M has concluded there is inherently low ESG risk at the current mine site location, due to the existing mine infrastructure and Tailings Disposal Facility (TSF), as well as low reagent use.

The key identified environmental risks for G6M are:

- waste management
- tailings disposal
- water requirements and management
- power supply
- environmental sensitivity of the area
- local wildlife.

**Waste management:** As the mine is a restart of a previous mining operation, the operation will utilise existing waste rock areas. The mine will produce approximately 5.5mt of waste rock per annum.

**Tailings disposal:** There is an existing approved TSF in place. Importantly, the design of the processing plant, with the addition of multi-gravity separators, has reduced the use of reagents significantly, and tailings from the process are neutral. Water from the TSF is recovered and recycled or drained to specific ponds to drain into local waterways. The water recovered from the TSF has zero toxicity.

**Water requirements and management:** The Dolphin Mine is connected to the lower Grassy Dam, which is adjacent to the Dolphin Mine. The dam was built as part of the original Dolphin project.

**Power supply:** The town of Grassy is supplied by Tasmanian Power using wind, solar and diesel top-up (a wind and solar plant exists near the main town of Currie). The dolphin mine's power comes from a diesel generation set that burns approximately 10,000l of diesel a day. Grid-connected power was considered a high risk due to reliability; therefore, Dolphin is currently running on a dedicated diesel power solution.

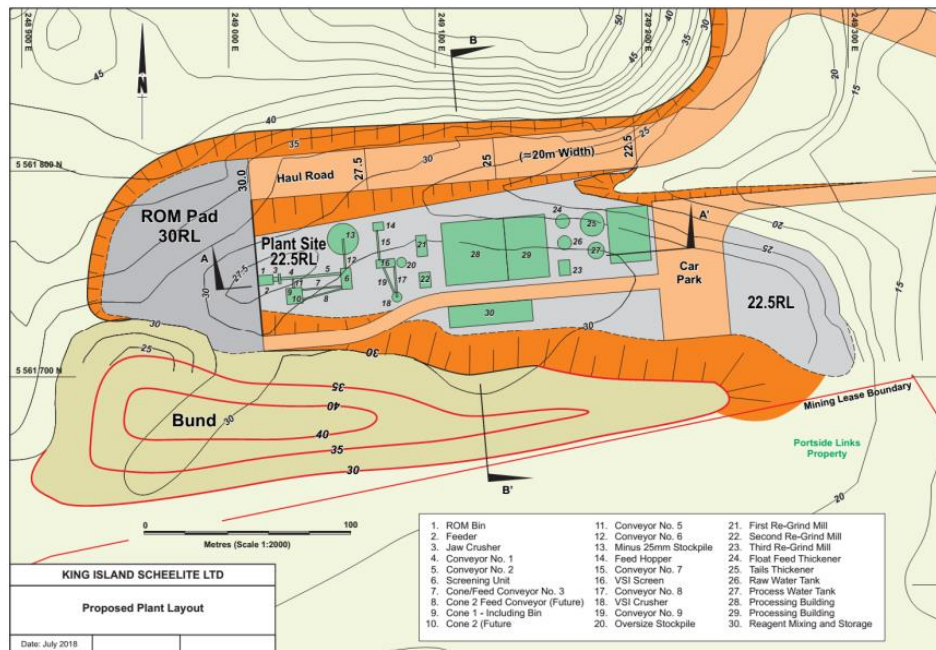
G6M has completed a pre-feasibility to integrate renewable power which could reduce diesel-generated power by up to 60%, significantly reducing the cost of power to operate the mine.

As G6M plots a path to "net zero" carbon, the company has entered into a MOU with Fortescue Future Industries (FFI) to develop a renewable power option using wind and potentially hydrogen.

**Environmental sensitivity of the area:** The Dolphin mine is located on the coast and is surrounded by environmentally sensitive waterways, bushland and the Southern Ocean. G6M has been through a rigorous environmental approval with the King Island, Tasmanian and Federal Governments and are operating under significant environmental restrictions.

**Local wildlife:** In order to protect the local penguin colony, G6M has cordoned off areas of the Dolphin mine to allow the penguins to access land daily and to be safely away from any mining operations. The risk of harm to the penguins is minimal.

Figure 22: Dolphin site layout – designed for minimal environmental impact and TSF safety



Source: G6M.

## Social

G6M is committed to operating in partnership with the local communities and creating positive impacts.

### Key features of G6M's social programs

- The creation of transformative local employment opportunities
- A commitment to health and safety, with G6M aiming to ensure all personnel work in an environment that is safe and healthy and to create a diverse and inclusive workspace
- Paying State Royalties
- Investment in local infrastructure such as water, power, housing, social facilities and roads
- The employment of a direct workforce, including local Grassy residents and local farmers

### Strong community support

The Dolphin Project has strong community support as the project will generate significant employment and revenue in the local district.

### Protecting the local community from Blasting

As the mine is close to the community of Grassy, and several households are adjacent to the mine, G6M must employ extreme caution when blasting. To date G6M have been well within all the limitations prescribed under the mining licence and has had no issues with the local community.

## Governance

The Board of G6M is committed to following the corporate governance guidelines and recommendations set out by the *ASX Corporate Governance Principles and Recommendations* (ASX Guidelines).

G6M has employed good practices to ensure that the business operates ethically and transparently. Its sustainability performance is monitored by the board of G6M.

The board has 4 members, 2 of which are independent. This satisfies the ASX Guidelines of having at least 50% independent directors. We would expect as G6M grows and approaches production that the board will appoint additional appropriately qualified independent directors.



# Short-Term Funding – Bridging Loan from Major Shareholders Supports Ramp-Up ATO R&D Refund Due Shortly

Four of G6M's major shareholders have provided a bridge finance facility of a total of \$8 million to support the Company's cash flow as production ramps up at Dolphin. Ramp-up has been slower than expected in the September quarter, with initial challenges encountered by lower-than-expected plant utilisation.

The plant performance is showing steady improvement with a specific focus on supervision, training, and plant maintenance. The Company has appointed a highly qualified process plant manager who is providing guidance to the process team. The site team is working towards increasing the production rate from higher-grade ore, completing the defect rectification work and ramping up.

The Bridge Finance Facility will support the cashflow requirements of the Company pending receipt of the Research & Development (R&D) cash refund. The R&D Tax Incentive provides an 18.5% refundable tax offset of eligible R&D expenditure for companies with an aggregated turnover of less than \$20 million. As the Company is in a tax loss position as at 30 June 2023, the refundable offset will take the form of a cash refund. A cash refund of \$14.1 million is expected to be received by the Company following satisfactory completion of the ATO's pre-issue review.

## Supportive Major Shareholders

The G6M share register has 4 major shareholders making up 44% of the register. The 4 major shareholders provided the A\$8m bridge facility to G6M and have been longstanding supporters of the stock.

**Figure 23: Top 20 Shareholders**

Rank	Beneficial Shareholder	Number of Shares	% of Issued Capital
1	MR RICHARD CHADWICK AND MRS GWENDA CHADWICK	151,304,877	15.08%
2	MR CHRISTOPHER ELLIS (DIRECTOR)	140,298,596	13.98%
3	D.A.CH.S. CAPITAL AG	91,693,710	9.14%
4	ELPHINSTONE HOLDINGS PTY LTD <ELPHINSTONE HOLDINGS A/C>	61,880,406	6.17%
5	HSBC CUSTODY NOMINEES (AUSTRALIA) LIMITED	21,524,801	2.15%
6	MR ANTHONY JAMES HAGGARTY	18,540,960	1.85%
7	CITICORP NOMINEES PTY LIMITED	12,840,007	1.28%
8	MRS CATHERINE JEANE MORRITT	11,752,299	1.17%
9	BELGRAVIA STRATEGIC EQUITIES PTY LTD	9,862,000	0.98%
10	MR JOHANN JACOBS (DIRECTOR)	8,741,973	0.87%
11	MR GIUSEPPE CORONICA + MRS YVONNE PRICE <G CORONICA PTY S/F A/C>	8,446,470	0.84%
12	INVIA CUSTODIAN PTY LIMITED <AJ & LM DAVIES FAMILY A/C>	7,208,011	0.72%
13	NATIONAL NOMINEES LIMITED	6,980,925	0.70%
14	GEKKO SYSTEMS PTY LTD	6,401,210	0.64%
15	BNP PARIBAS NOMINEES PTY LTD <IB AU NOMS RETAILCLIENT DRP>	5,838,854	0.58%
16	BNP PARIBAS NOMS PTY LTD <DRP>	5,797,143	0.58%
17	INVIA CUSTODIAN PTY LIMITED <THE RANAMOK FAMILY A/C>	5,170,590	0.52%
18	HUNAN NONFERROUS METALS CORPORATION LIMITED	4,450,000	0.44%
19	DUKETON CONSOLIDATED PTY LTD	4,200,000	0.42%
20	NORFOLK ENCHANTS PTY LTD <TROJAN RETIREMENT FUND A/C>	4,200,000	0.42%
<b>Totals: Top 20 holders of ORDINARY SHARES (TOTAL)</b>		<b>587,132,832</b>	<b>58.53%</b>

Source: G6M

# Dolphin Site Visit – Onwards and Upwards with a Strong, Dedicated Team

MST visited the Dolphin mine site on 10 October 2023.

The key takeaway from our visit was that a strong management team is in place, dedicated to getting the mine and plant to full operating capacity as quickly as possible, focusing on consistent performance from mining and in particular the plant. The key to consistent performance for site management is to ensure key staffing roles are filled as the employment situation on King Island, and in the mining sector generally is very tight.

## Mine is ramping up – safety is a strong suit

We noted the strong safety record of the mine, with the operation having only recorded one lost time injury since G6M has owned the operation (including the construction of the plant).

The mine is a simple open-cut operation, with G6M setting up several small pits to maximise ore to put through the processing plant.

The mining operation is relatively small with a small number of heavy vehicle movements. With the area being a high-wind area, dust must be kept under control, which is done effectively by watering the roads.

We noted a solid build-up of ROM ore as well as crushed ore in front of the plant; this will contribute to the ramping up of the plant.

The TSF is an existing facility and provides an extremely low-risk method of storing tailings that have no dangerous by-products, with water returned to the environment from the facility.

## Processing plant – still ramping up – added ore separation the key

The processing plant is still very much in the ramp-up phase, with site management still bedding down the full process. The key is to get a constant flow of ore through the plant which, as mentioned above, is already happening. The final product is delivering to specifications.

The plant is brand new and employs a relatively simple process. The company has employed a number of specialised consultants to assist in optimising the plant.

The key process within the plant is the use of multi-gravity separators. The addition of this step to the process optimises fine ore separations and results in lower use of reagents (improving environmental performance), lower flotation and improved recoveries.

## Staffing a key focus

A key input to both the operation and the cost base of the project is staffing. Employment in the mining sector is very tight, with King Island having virtually no unemployment. The company has recruited local farmers with some success, but some key positions remain unfilled and the company is prioritising the filling of those roles.

**Figure 24: New on site office under construction**



Source: MST

**Figure 25: ROM stockpile and plant**



Source: MST

**Figure 26: The Dolphin Pit**



Source: MST

**Figure 27: The Dolphin Pit**



Source: MST

**Figure 28: : Process plant multi-gravity separators**



Source: MST

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Figure 29: Final concentrate product



Source: MST

Figure 30: Final plant process



Source: MST

Figure 31: : TSF



Source: MST

# Management: Strong Experience

G6M has put together an exceptional management team, with experience that covers everything required to fund, develop and operate a large tungsten mine in Australia.

## Board of Directors

**Johann Jacobs – Non-Executive Chairman:** Mr Jacobs has over 40 years of experience in the resources industry in Australia, South Africa and Indonesia. He was until July 2020 a Non-executive Director of ASX-listed Magnis Energy Technologies Ltd and is a director of a number of private resource-focused companies.

**Chris Ellis – Executive Director:** Mr Ellis has over 35 years of experience in the exploration and mining industry in Australia and overseas. He was a founding member and Executive Director of coal mining company Excel Coal Limited, which became Australia's largest independent coal mining company before being acquired by Peabody Energy Inc. in October 2006. Mr Ellis commenced his career in the UK coal industry, followed by positions within Shell's exploration group in Southern Africa and CRAE in Western Australia. He has also held senior positions for BP Coal (London and USA), Agipcoal Australia and for the Stratford Joint Venture. Mr Ellis has core skills in geology, mining engineering and minerals processing, mainly in the coal industry with some experience in tungsten, gold, base metals and diamonds. He had overall responsibility for the design and engineering of four new mines during his career with Excel. He is a Non-Executive Director of Ausquest Limited (ASX: AQD).

**Greg Hancock – Independent Non-Executive Director:** Mr Hancock has over 25 years of experience in capital markets, practising in the area of Corporate Finance. He has extensive experience in both Australia and the United Kingdom through his close links to the stockbroking and investment banking community. His career specialised in mining and natural resources with a background in the finance and management of listed companies. Mr Hancock is Chairman of Ausquest Ltd (ASX: AQD); BMG Resources Ltd (ASX: BMG); Cobra Resources Plc (LON: COBR) and Non-Executive Director of Golden State Mining Ltd (ASX: GSM).

**Keith McKnight – Managing Director & Chief Executive Officer:** Mr McKnight has over 22 years of mining and resources project delivery and company management experience in Australia and overseas in the areas of mechanical design, contract management, construction management, commissioning and operations management. He was previously Managing Director and co-founder of Kirrama Resources Limited, a commodities development company with chromite and manganese projects in Madagascar. Mr McKnight has extensive experience spanning a range of commodities and has a Bachelor's Degree in Mechanical Engineering (Honours) from the University of Limerick.

## Senior Management

**Michael Zannes – Chief Financial Officer:** Mr Zannes is a Certified Public Accountant, with more than 20 years of experience in the mining industry. He has developed an extensive background and knowledge through managing operational and corporate finance functions within resource companies, both in Australia and internationally. Mr Zannes previously held the role of Chief Financial Officer with Andromeda Metals Ltd (ASX: ADN), and was a key member of Andromeda's Executive Committee. He also previously held various commercial roles with New Gold Inc., an international mining organisation listed on the Toronto and New York stock exchanges, which included Company Director and Secretary for New Gold's Australian divisions. He also held the role of General Manager of Australian operations for Peak Gold Mines based in Cobar, NSW, which was sold by New Gold Inc. to Aurelia Metals Limited in 2018. Mr Zannes spent almost 5 years from 2009 working with Whitehaven Coal Ltd (ASX: WHC) as Divisional Commercial Manager, where he established the commercial and financial functions for Whitehaven open-cut operations,

**Megan McPherson – Company Secretary:** Ms McPherson is a Chartered Accountant with more than 18 years of commercial and public practice experience across multiple jurisdictions including ASX- and NASDAQ-listed companies. Having commenced her career with Macquarie Bank, Ms McPherson currently provides CFO/Company Secretary services as a consultant to several public and private companies in the mining industry.

**Charles Murcott – General Manager of Project Development and Operations:** Mr Murcott is a Mining Engineer with over 25 years of experience working within Australia and abroad, with a significant portion of his career in Tasmania. Prior to joining G6M, Mr Murcott was the Mining Manager at the Way Lingo Project in Indonesia. His previous experience in Tasmania includes Operations Manager with Venture Minerals Limited (ASX: VMS) as Operations Manager of the Riley DSO Project and Mining Manager/Alternate General Manager at BCD Resources' Tasmania Mine at Beaconsfield.

# Valuation: A\$0.23/Share, Driven by DCF

## Methodology: NPV of A\$0.23/share – fully diluted

We value G6M using a discounted cash flow (DCF) model, with the most material contribution to our overall valuation made by the Dolphin asset. Our base-case valuation for G6M is A\$0.23/share on a fully diluted basis (see Figure 32).

We believe G6M shares are trading at a substantial discount to fair value based on our assessment of the fundamental value of the flagship Dolphin project as well as potential exploration-related upside.

**Figure 32: G6M valuation summary**

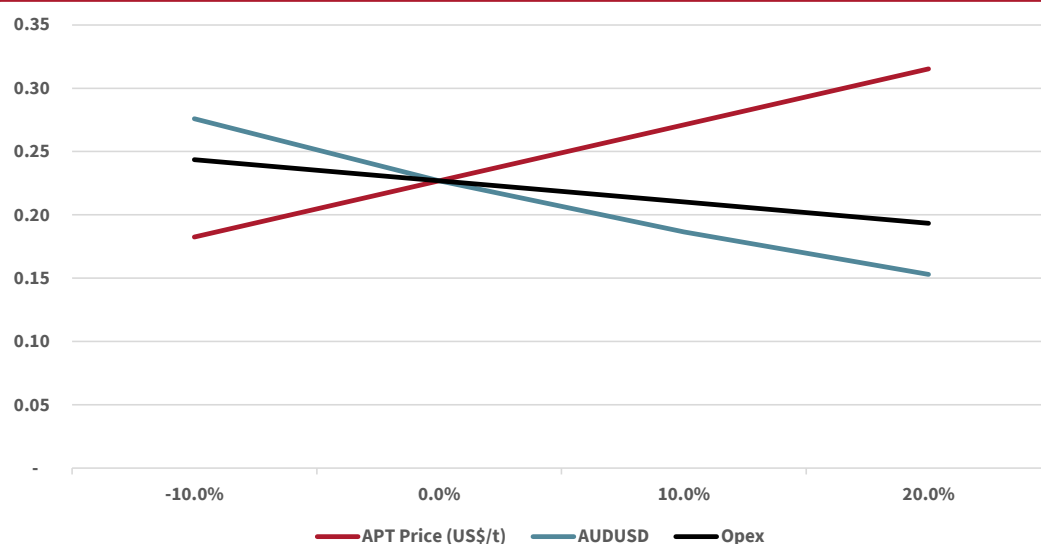
NPV OF PROJECTS	A\$M	Equity Value A\$/Share Fully	Valuation Methodology
Dolphin Tungsten Project	379	0.26	Risked Project NPV
Exploration and Investments	30	0.02	MST Estimate
<b>ENTERPRISE NPV</b>	<b>409</b>	<b>0.28</b>	
Add: Cash / (Debt)	(58)	(0.04)	30th September 2023
<b>EQUITY VALUE PRE SG&amp;A</b>	<b>351</b>	<b>0.24</b>	
SG&A	(25)	(0.01)	NPV of Corporate Costs
<b>EQUITY VALUE</b>	<b>326</b>	<b>0.23</b>	

Source: MST Estimates

## Key sensitivities: price, forex, costs

The key sensitivities for our valuation are the APT price, the AUD/USD exchange rate, and operating costs. To a lesser extent, our valuation is also sensitive to capital costs. Figure 33 illustrates how our base-case valuation changes from a variation in these assumptions.

**Figure 33: Key sensitivities for our valuation**



Source: MST Estimates

## A closer look at our Dolphin valuation: the major value driver

### Base-case for Dolphin component: DCF

We use a DCF analysis for Dolphin, which represents the primary value driver for the company. The project has commenced production and is in the ramping-up phase. Production is continuing to increase and we expect first full year of production to be achieved by FY2025.

Based on the existing Ore Reserve and using the production profile defined under the project's DFS, we model a mine life of 13 years. We consider there is exploration upside with Bold Hill and the Investigator prospects.

### Key assumptions for Dolphin DCF valuation

Our key assumptions are outlined in Figure 34.

Figure 34: Key assumptions

<b>PROJECT ASSUMPTIONS</b>	
Project Ownership (%)	100%
Mine Life (years)	14
Open Cut Mine Strip Ratio (waste : ore)	10.3:1
Processing Plant Throughput Capacity (ktpa)	450
Tungsten in con produced (kmtu LOM)	3,415
Ore Reserve - Open Cut (mt)	2.9
Ore Reserve Grade - Open Cut (% WO3)	0.76%
Ore Reserve - Underground (mt)	1.5
Ore Reserve Grade - Underground (% WO3)	1.24%
<b>COST &amp; FINANCING ASSUMPTIONS</b>	
Discount Rate (%)	10.0%
Inflation Rate (%)	2.5%
AISC (A\$/mtu payable)	252
Post-Tax NPV (A\$m)	345
<b>PRICING &amp; EXCHANGE RATE ASSUMPTIONS</b>	
AUDUSD	0.67
Ammonium Paratungstate (APT) Price (US\$/mtu)	345
State Royalties - Tasmania (%)	5.35%
Osisko Royalties (%)	1.50%
Corporate Tax Rate (%)	30.0%

Source: MST Estimates

## Comparable companies – a brief look

Unlike gold, nickel and lithium, there are few listed tungsten companies on the ASX; however, we view three as reasonable comparables for G6M. These are:

### EQ Resources (ASX: EQR) – market cap A\$109m

EQ Resources Limited is the 100% owner of the Mt Carbine Tungsten Mine near Cairns. Production recommenced in 2020 with dual product streams of tungsten concentrate and a by-product of specialised aggregate and road-making materials. Re-opening and mining of the historical Andy White open pit commenced in June 2023.

### Almonty Industries (ASX: AII) – market cap A\$142m (dual-listed TSX)

Almonty Industries Inc is a global company specialising in the mining, processing and sale of tungsten concentrate. The company's flagship asset is the Sangdong tungsten-molybdenum project. Almonty recently completed its pilot plant at Sangdong Mine, and site construction of production facilities is underway. The Panasqueira asset in Portugal is in production.

### Tungsten Mining (ASX: TGN) – market cap A\$59m

The Mt Mulgine Project is located in the Murchison Region of Western Australia, approximately 350km north northeast of Perth. Tungsten Mining has 100% of the tungsten and molybdenum rights on a contiguous group of tenements.

## EV Resource – grade gets a premium

An additional perspective on valuation is to use EV/Resources to observe how the market values the Resources of G6M and its ASX-listed peers. Although not a perfect comparison, as the companies are at different stages in their life cycles, this metric does indicate where the market values the companies in ground resources relative to peers.

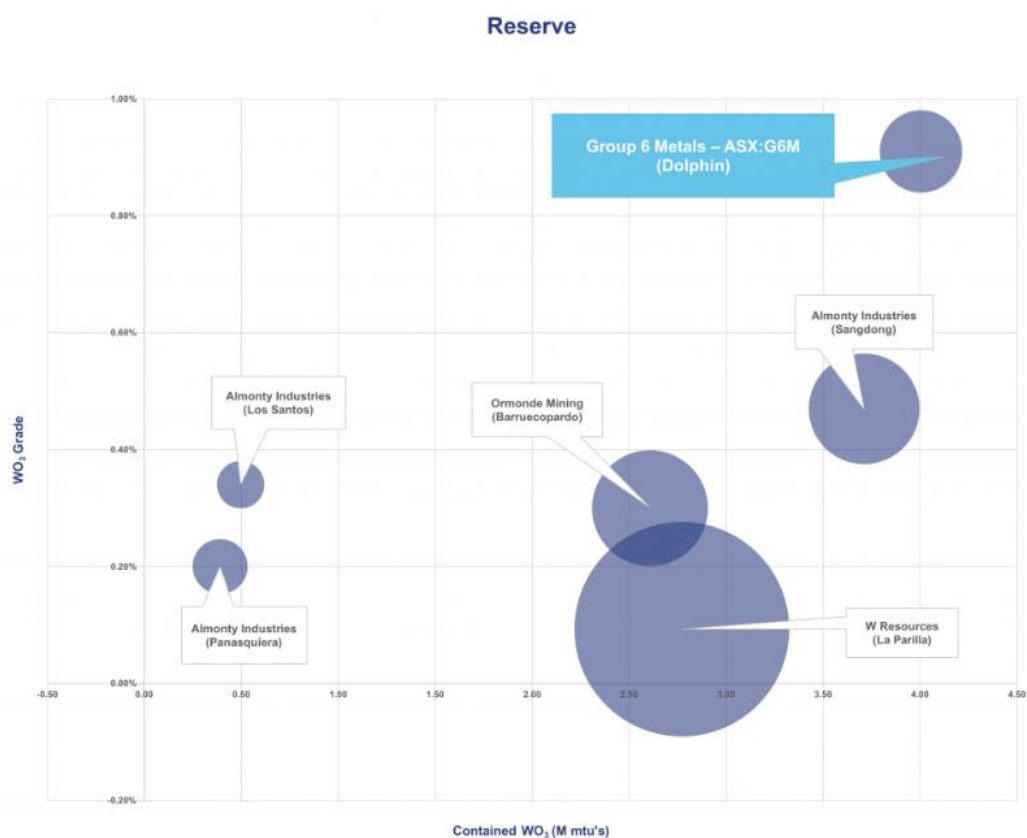
Figure 35 shows this comparison, with G6M having the highest EV/Resources multiple relative to its small number of peers. The key observation from this metric is that the market is willing to pay a much higher value for the significantly higher grade of the Dolphin deposit (the highest-grade non-China tungsten mine).

Figure 35: Comparable Companies

Company	EV A\$m	Resource (Contained WO3)	WO3 Resource Grade	EV/Resource
Group 6 Metals	136	102,416	0.90%	1,328
EQ Resources	111	96,150	0.23%	1,154
Almonty	240	289,000	0.36%	830
Tungsten Mining	47	425,000	0.11%	111
Average	134	228,142	0.40%	856

Source: MST Estimates

Figure 36: G6M Grade v Almonty



Source: G6M



## **Positive catalysts for share price and valuation: ramp-up to full production key**

We believe that G6M has significant potential for further share price and valuation upside.

### **Ramp up to full production**

The near-term focus of G6M is to fully ramp up production at Dolphin. A rapid ramp-up to full production would represent a key catalyst for the stock.

### **Price increases in key commodities**

The valuation is sensitive to the underlying commodity prices (tungsten). Price increases would have a positive effect on the valuation and share price.

### **Capital and operating cost optimisation**

Operating cost savings would have a positive impact on margins, cash flows and the valuation and would be a positive reflection on the company's management team. As the project advances, there is an opportunity to optimise and improve on the current estimates, which could lead to an increase in the project valuation, particularly in power cost savings.

### **Bold Hill development**

The Bold Hill Project already has a Mineral Resource. However, any further developments such as an increase to Resources and Reserve or positive feasibility results could be a positive for the share price and valuation.

## **Risks to share price and valuation: offset by low technical complexity, strong projected returns**

Risks to our valuation and share price are detailed below. We believe these risks are offset by:

- the company's operations in a Tier-1 jurisdiction
- significant exploration prospectivity and project expansion opportunity
- strong ESG fundamentals.

### **Concentrated commodity exposure**

The asset base has a concentrated commodity exposure, exposing it to downside tungsten pricing risk.

### **Ramp-up delay**

G6M has begun production at the Dolphin deposit and is now focusing on ramping up production. Issues with the ramp-up could delay cash flows and reflect negatively on the management team.

### **Issues with processing**

The processing methodology utilised by G6M has some relatively new techniques. Any issues with the processing would be negative for the stock.

### **Price decreases in key commodities**

The valuation is sensitive to the underlying commodity prices (tungsten). Price decreases would have a negative effect on the valuation and share price.

### **Operating cost increases**

Operating cost increases have a negative impact on margins, cash flows and the valuation and would be a negative reflection on the company's management team.

# Appendix 1: Resources and Reserves Definition

**Figure 37: A quick definition of a Resource and a Reserve**

A **Mineral Resource** is a concentration or occurrence of material of intrinsic economic interest in such form, quality and quantity that there are reasonable prospects for eventual economic extraction. Mineral Resources are subdivided, in order of increasing geological confidence, into the categories of Inferred, Indicated and Measured.

- An **Inferred Mineral Resource** is the part of a Mineral Resource for which quantity, grade (or quality) and mineral content can be estimated with a low level of confidence. It is inferred from geological evidence and assumed but not verified geological or grade continuity.
- An **Indicated Resource** is simply an economic mineral occurrence that has been sampled (from locations such as outcrops, trenches, pits and drill holes) to a point where an estimate has been made, at a reasonable level of confidence.
- A **Measured Resource** is an Indicated Resource that has undergone enough further sampling that a 'competent person' (defined by the norms of the relevant mining code, usually a geologist) has declared it to be an acceptable estimate, at a high degree of confidence.

A **Mineral Reserve** is the economically mineable part of a Measured Mineral Resource and/or Indicated Mineral Resource.

- A **Probable Mineral Reserve** is the economically mineable part of an Indicated Mineral Resource, and in some circumstances, a Measured Mineral Resource. It includes diluting material and allowances for losses that may occur when the material is mined. A Probable Mineral Reserve has a lower level of confidence than a Proved Mineral Reserve but is of sufficient quality to serve as the basis for a decision on the development of a deposit.
- A **Proved Mineral Reserve** is the economically mineable part of a Measured Mineral Resource. It includes diluting materials and allowances for losses that occur when the material is mined.

Source: Industry.

# Methodology & Disclosures

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