# Australian & New Zealand Gold Operations

# September Quarter 2026

## Overview

The average All-in Sustaining Cost (AISC) for Australia and New Zealand was A$3,050/oz, which is up 10.2% (A$282/oz) on the previous quarter average AISC of A$2,768/oz. Evolution Mining's Northparkes and Ernest Henry operations were the lowest cost producers reporting an AISC of -A$7,662/oz and -A$6,822/oz respectively, followed by Capricorn Metals' Karlawinda operations with an AISC of A$2,005/oz. The average gold spot price for the quarter was A$6,036/oz (US$4,263/oz). It should be noted that Northparkes and Ernest Henry benefit from base metal by-products. Aurum Analytics' estimate of these operations' AISC on a co-product basis (Co-AISC) is as follows; Northparkes Co-AISC of A$2,592oz and Ernest Henry Co-AISC of A$2,316/oz. The lowest cost "gold only" operations were Capricorn Metals' Karlawinda operation with an AISC of A$2,005/oz, Evolution Mining's' Cowal operations (A$2,194/oz), and the Alkane Resources' Tomingley operations (A$2,340/oz)

Newmont's Boddington operation took out top spot as Australia's largest gold producer with 150,000 oz for the quarter, followed by Northern Star's KCGM operation (105,990 oz) and Gold Fields' St Ives operations (89,500 oz). Of the mines where gold is a by-product, BHP's Olympic Dam produced the most gold 49,656 oz followed by their Prominant Hill mine with 19,072 oz, then Evolution Mining's Ernest Henry mine with 17,109 oz.

Grade wise for the companies that report AISC, the average reported mill head/feed grade was 2.10 g/t (Open Pit (OP) - 1.10 g/t, Underground (UG) – 2.91 g/t, Open Pit & Underground (OP/UG) - 1.79 g/t) which was down on the previous quarter, 2.37 g/t (11.1%). Alkane Resources' Costerfield mine took out the honour as the operation with the highest average feed grade with 6.47 g/t, followed by Gold Fields' Granny Smith mine 6.11 g/t. The lowest grade mine was Evolution's Northparkes mine processing an average head grade of 0.18 g/t. The high-grade operations that do not report an AISC were Agnico Eagle's Fosterville mine with 5.82 g/t and Tribune Resources and Rand Mining's Kundana EKJV mine with 2.81 g/t.

## Top 10 Gold Producing Operations

| Rank | Operation | Company | Mine Type | Au Produced (oz) |
|---|---|---|---|---|
| 1 | Boddington | Newmont Corporation | OP | 150,000 |
| 2 | KCGM | Northern Star Resources Ltd | OP/UG | 105,990 |
| 3 | St Ives | Gold Fields Ltd | OP/UG | 89,500 |
| 4 | Tropicana | AngloGold Ashanti plc & Regis Resources Ltd | OP/UG | 88,957 |
| 5 | Tanami | Newmont Corporation | UG | 81,000 |
| 6 | Gwalia & Laverton | Genesis Minerals Ltd | OP/UG | 72,107 |
| 7 | Gruyere | Gold Fields Ltd | OP | 70,200 |
| 8 | Telfer | Greatland Resources Lrd | OP/UG | 70,131 |
| 9 | Granny Smith | Gold Fields Ltd | OP/UG | 67,400 |
| 10 | Thunderbox & Bronzewing | Northern Star Resources Ltd | OP/UG | 64,521 |

# All-in Sustaining Costs & Grade

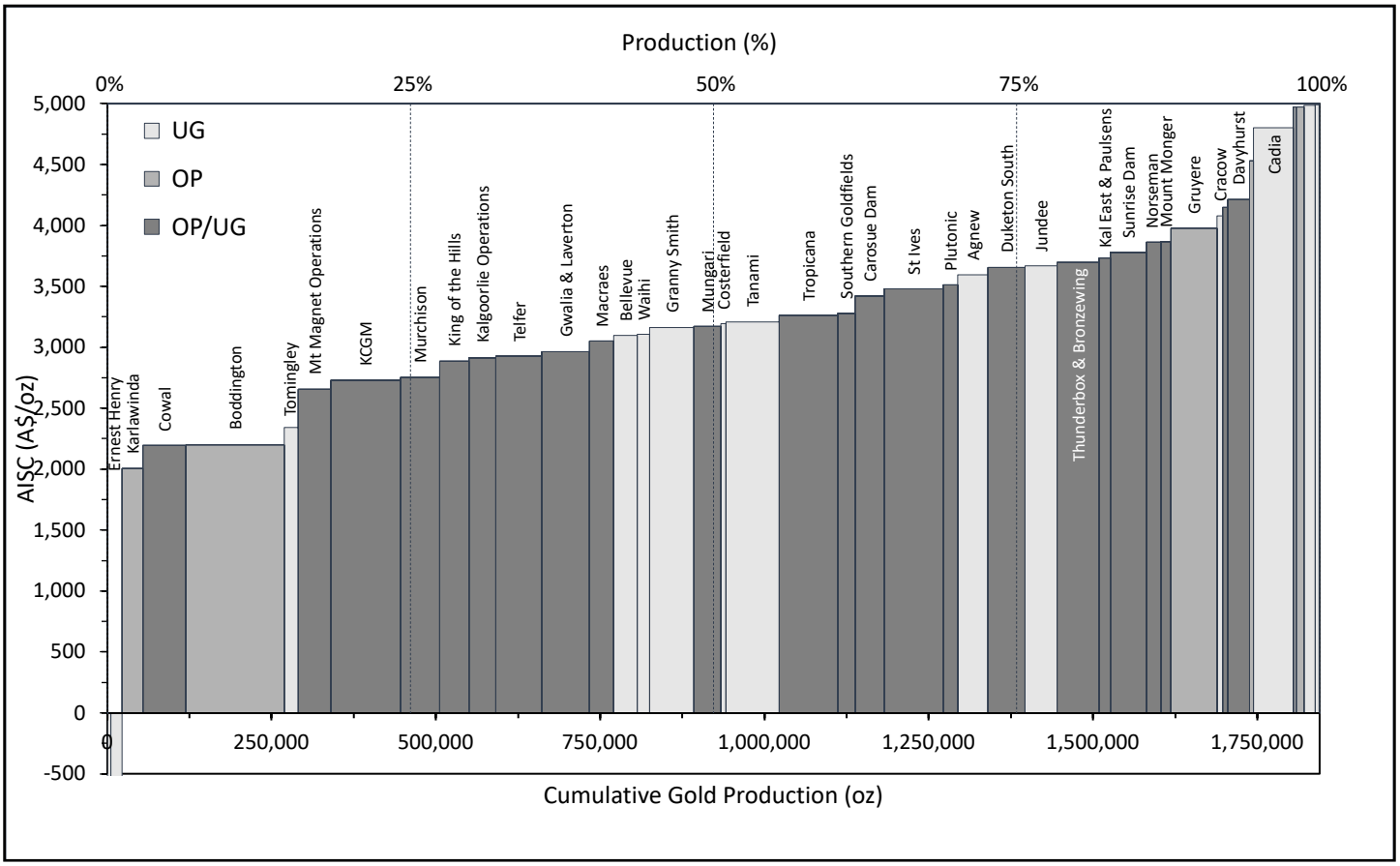
## Gold Operations That Report AISC

| AISC Rank | Operation | Company | Mine Type | AISC (A$/oz) | Grade (g/t) | Grade Rank | Au Produced (oz) |
|---|---|---|---|---|---|---|---|
| 1 | Northparkes | Evolution Mining Ltd | -7,662 | UG | 0.18 | 43 | 5,649 |
| 2 | Ernest Henry | Evolution Mining Ltd | -6,822 | UG | 0.45 | 42 | 17,109 |
| 3 | Karlawinda | Capricron Metals Ltd | 2,005 | OP | 0.94 | 34 | 31,218 |
| 4 | Cowal | Evolution Mining Ltd | 2,194 | OP/UG | 1.07 | 31 | 65,446 |
| 5 | Boddington | Newmont Corporation | 2,200 | OP | 0.62 | 39 | 150,000 |
| 6 | Tomingley | Alkane Resources Ltd | 2,340 | UG | 2.16 | 18 | 21,506 |
| 7 | Mt Magnet Hub | Ramelius Resources Ltd | 2,656 | OP/UG | 3.00 | 6 | 48,839 |
| 8 | KCGM | Northern Star Resources Ltd | 2,727 | OP/UG | 1.70 | 25 | 105,990 |
| 9 | Murchison[1] | Westgold Resources Ltd | 2,750 | OP/UG | 2.30 | 15 | 59,698 |
| 10 | King of The Hills | Vault Minerals Ltd | 2,885 | OP/UG | 1.00 | 32 | 44,467 |
| 11 | Kalgoorlie Operations | Northern Star Resources Ltd | 2,911 | OP/UG | 2.70 | 11 | 41,578 |
| 12 | Telfer | Greatland Resources Ltd | 2,925 | OP/UG | 0.50 | 41 | 70,131 |
| 13 | Gwalia & Laverton | Genesis Minerals Ltd | 2,966 | OP/UG | 2.20 | 16= | 72,107 |
| 14 | Macraes | OceanaGold Corporation | 3,051 | OP/UG | 0.89 | 36 | 37,200 |
| 15 | Bellevue | Bellevue Gold Ltd | 3,096 | UG | 4.60 | 5 | 35,585 |
| 16 | Waihi | OceanaGold Corporation | 3,108 | UG | 2.89 | 8 | 18,900 |
| 17 | Granny Smith | Gold Fields Ltd | 3,164 | UG | 6.11 | 2 | 67,400 |
| 18 | Mungari | Evolution Mining Ltd | 3,172 | OP/UG | 1.79 | 24 | 40,465 |
| 19 | Costerfield | Alkane Resources Ltd | 3,194 | UG | 6.47 | 1 | 7,835 |
| 20 | Tanami | Newmont Corporation | 3,210 | UG | 4.78 | 3 | 81,000 |
| 21 | Tropicana | JV Anglogold & Regis Resources | 3,264 | OP/UG | 1.35 | 30 | 88,957 |
| 22 | Southern Goldfields | Westgold Resources Ltd | 3,276 | OP/UG | 2.10 | 19 | 26,502 |
| 23 | Carosue Dam | Northern Star Resources Ltd | 3,418 | OP/UG | 1.50 | 29 | 44,530 |
| 24 | St Ives | Gold Fields Ltd | 3,480 | OP/UG | 2.34 | 14 | 89,500 |
| 25 | Plutonic | Catalyst Metals Ltd | 3,512 | OP/UG | 2.08 | 20 | 22,231 |
| 26 | Agnew | Gold Fields Ltd | 3,597 | UG | 4.67 | 4 | 46,700 |
| 27 | Duketon South | Regis Resources Ltd | 3,657 | OP/UG | 0.99 | 33 | 56,068 |
| 28 | Jundee | Northern Star Resources Ltd | 3,670 | UG | 2.40 | 12= | 48,223 |
| 29 | Thunderbox & Bronzewing | Northern Star Resources Ltd | 3,697 | OP/UG | 1.60 | 26= | 64,521 |
| 30 | Kal East & Paulsens | Black Cat Syndicate Limited | 3,735 | OP/UG | 1.82 | 23 | 16,750 |
| 31 | Sunrise Dam | AngloGold Ashanti plc | 3,777 | OP/UG | 2.01 | 21 | 55,000 |
| 32 | Norseman | Pantoro Gold Ltd | 3,860 | OP/UG | 2.74 | 10 | 21,864 |
| 33 | Mount Monger | Vault Minerals Ltd | 3,865 | OP/UG | 1.60 | 26= | 15,320 |
| 34 | Gruyere | Gold Fields Ltd | 3,975 | OP | 0.91 | 35 | 70,200 |
| 35 | Cracow | Aeris Resources Ltd | 4,079 | UG | 1.97 | 22 | 8,800 |
| 36 | Murchison Gold Project | Meeka Metals Ltd | 4,147 | OP/UG | 1.60 | 26= | 7,237 |
| 37 | Davyhurst | Ora Banda Mining | 4,214 | OP/UG | 2.40 | 12= | 33,305 |
| 38 | Juardi | Beacon Minerals Ltd | 4,531 | OP | 0.85 | 37 | 6,250 |
| 39 | Cadia | Newmont Corporation | 4,801 | UG | 0.52 | 40 | 61,000 |
| 40 | Mt Rawdon | Evolution Mining Ltd | 4,970 | NM | NA | NR | 3,936 |
| 41 | Crown Prince | North Murchison Gold Ltd | 4,972 | OP | 2.20 | 16= | 12,193 |
| 42 | Deflector | Vault Minerals Ltd | 4,987 | UG | 2.80 | 9 | 17,062 |
| 43 | Henty | Kaiser Reef Ltd | 4,991 | UG | 2.95 | 7 | 5,692 |
| 44 | Maldon | Kaiser Reef Ltd | 5,645 | UG | 0.70 | 38 | 572 |

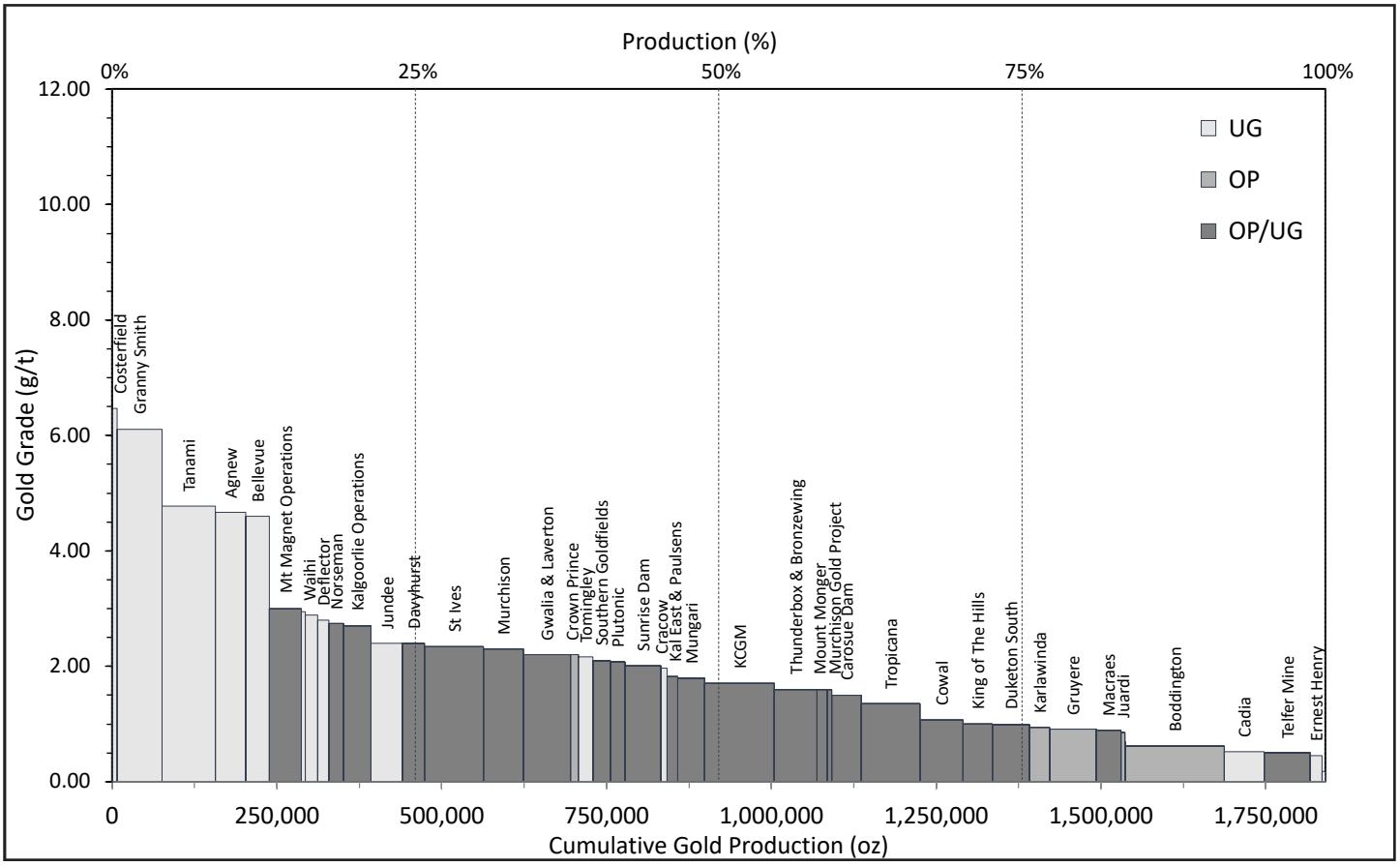
Notes: Operations shown on a 100% basis, except North Parkes only Evolution's 80% interest is shown.
1. Westgold's Murchison gold production presented less than the gold produced from New Murchison Gold's Crown Prince deposit.

# Gold Production Curves

## Gold Production Cost Curve Ranked By Reported AISC




## Gold Production Grade Curve Ranked By Average Mill Feed/Head Grade



# Additional Gold Production

## Gold Mines That Did Not Report All-in Sustaining Costs

| Rank | Operation | Company | Mine Type | Grade (g/t) | Au Produced (oz) |
|---|---|---|---|---|---|
| 1 | Fosterville | Agnico Eagle Mines Ltd[1] | UG | 5.82 | 40,090 |
| 2 | Coolgardie | Focus Minerals Ltd | OP/UG | 2.22 | 26,685 |
| 3 | Peak | Aurelia Metals Ltd | UG | 2.41 | 16,262 |
| 4 | East Kundana Joint Venture | JV Tribune Resources Ltd & Rand Mining Ltd | OP/UG | 2.81 | 11,630 |
| 5 | Charters Towers | Native Mineral Resources Holdings Ltd | OP | 1.1 | 2,331 |
| NR | Ravenswood | EMR Capital[2] | OP | NA | NA |
| NR | Paddington | Zijin Mining Group Company Limited[2] | OP/UG | NA | NA |
| NR | Marvel Loch | Barto Gold Pty Ltd[2] | OP/UG | NA | NA |
| NR | Pajingo | Minjar Gold Pty Ltd[2] | UG | NA | NA |

1. Agnico Eagle Mines Limited does not report quarterly AISC values for individual mines.
2. These companies do not provide detailed quarterly production statistics.

## Mines Where Gold Is A By-Product

| Rank | Operation | Company | Mine Type | Au Produced (oz) |
|---|---|---|---|---|
| 1 | Olympic Dam | BHP Group Ltd | UG | 49,656 |
| 2 | Prominent Hill | BHP Group Ltd | UG | 19,072 |
| 3 | Ernest Henry | Evolution Mining Ltd | UG | 17,109 |
| 4 | Carrapateena | BHP Group Ltd | UG | 14,087 |
| 5 | Rosebery | MMG Ltd | UG | 6,238 |
| 6 | Northparkes | Evolution Mining Ltd | UG | 5,649 |
| 7 | Golden Grove | 29Metals Ltd | UG | 2,112 |
| 8 | Tritton | Aeris Resources Ltd | OP/UG | 2,000 |
| 9 | Kanmantoo | Kantra Copper Ltd | UG | 1,852 |
| 10 | Eloise | AIC Mines Ltd | UG | 1,562 |

1. Northparkes is a joint venture between Evolution Mining Limited (80%) and Sumitomo Australia Pty Ltd (20%). Gold produced represents Evolution's 80% interest.

## Quarter on Quarter Change in AISC and Grade

| Statistic | AISC (A$/oz) | Change (%) | Grade (g/t) | Change (%) |
|---|---|---|---|---|
| Average (Simple)[1] | 3,050 | 10.2% | 2.10 | -11.1% |
| Average (Weighted)[2] | 3,096 | 11.0% | 1.25 | -9.6% |
| Minimum | -7,662 | 28.4% | 0.18 | 5.9% |
| First Quartlie[3] | 2,750 | 14.1% | 0.99 | -11.6% |
| Median[3] | 3,172 | 16.1% | 1.70 | -15.4% |
| Third Quartile[3] | 3,657 | 11.2% | 2.40 | -14.3% |
| Maximum | 5,645 | -41.9% | 6.47 | -30.6% |

Notes: This table of statistics is only based on mines that report an AISC.
1. Simple averages done by number of mining operations.
2. AISC weighted by gold ounces produced, Au grade weighted by ore tonnes milled.
3. First Quartile, Median and Third Quartile values are based on production in the AISC Cost Curve and Grade Curve.

# Top 5 - Production & AISC

## Top 5 Gold Operations - Major Gold Miners

| Gold Production (Attributable) | | | All-in Sustaining Costs | | |
|---|---|---|---|---|---|
| Rank | Operation | oz | Rank | Operation | A$/oz |
| 1 | Boddington | 150,000 | 1 | Boddington | 2,200 |
| 2 | KCGM | 105,990 | 2 | KCGM | 2,727 |
| 3 | St Ives | 89,500 | 3 | Kalgoorlie Operations | 2,911 |
| 4 | Tanami | 81,000 | 4 | Granny Smith | 3,164 |
| 5 | Gruyere | 70,200 | 5 | Tropicana[1] | 3,196 |

1. AngloGold Ashanti plc (70%) attributable interest in Tropicana.

## Top 5 Gold Operations - Mid-Tier Gold Miners

| Gold Production (Attributable) | | | All-in Sustaining Costs | | |
|---|---|---|---|---|---|
| Rank | Operation | oz | Rank | Operation | A$/oz |
| 1 | Gwalia & Laverton | 72,107 | 1 | Northparkes | -7,662 |
| 2 | Telfer | 70,131 | 2 | Ernest Henry | -6,822 |
| 3 | Cowal | 65,446 | 3 | Cowal | 2,194 |
| 4 | Murchison[1] | 59,698 | 4 | Mt Magnet Operations | 2,656 |
| 5 | Duketon South | 56,068 | 5 | Murchison[1] | 2,750 |

1. Westgold's Murchison gold production presented less than the gold produced from New Murchison Gold's Crown Prince deposit.

## Top 5 Gold Operations - Junior Gold Miners

| Gold Production (Attributable) | | | All-in Sustaining Costs | | |
|---|---|---|---|---|---|
| Rank | Operation | oz | Rank | Operation | A$/oz |
| 1 | Bellevue | 35,585 | 1 | Karlawinda | 2,005 |
| 2 | Davyhurst | 33,305 | 2 | Tomingley | 2,340 |
| 3 | Karlawinda | 31,218 | 3 | Bellevue | 3,096 |
| 4 | Coolgardie | 26,685 | 4 | Costerfield | 3,194 |
| 5 | Plutonic | 22,231 | 5 | Plutonic | 3,512 |

## Top 5 Pure Gold Operations (No Base Metal By or Co-Products)

| Gold Production (Total) | | | All-in Sustaining Costs | | |
|---|---|---|---|---|---|
| Rank | Operation | oz | Rank | Operation | A$/oz |
| 1 | KCGM | 105,990 | 1 | Karlawinda | 2,005 |
| 2 | St Ives | 89,500 | 2 | Cowal | 2,194 |
| 3 | Tropicana[1] | 88,957 | 3 | Tomingley | 2,340 |
| 4 | Tanami | 81,000 | 4 | Mt Magnet Hub | 2,656 |
| 5 | Gwalia & Laverton | 72,107 | 5 | KCGM | 2,727 |

1. Tropicana is a joint venture between AngloGold Ashanti plc (70%) and Regis Resources Limited (30%).

## General Notes

Data was sourced from company quarterly reports. Aurum Analytics created the cost and grade curves. Mine Type reflects the source of the ore mined for the quarter, OP - Open Pit, UG - Underground, OP/UG - Open Pit and Underground and NM - No Mining.

For operations in joint venture such as Tropicana AISC values were apportioned by equity ownership percentages.

Where AISC values were reported in US$ and no A$ equivalent provided, the quarterly average US$/A$ exchange rate (0.7061) from the Reserve Bank of Australia was used.

## Disclaimer

The information contained in this report is provided for information purposes only. Accordingly, it is provided on the basis of no liability whatsoever to Aurum Analytics, or the directors, officers and employees of Aurum Analytics who will not be responsible for any damages arising from any use made of the information herein. While all care has been taken in its preparation, this information has not been independently audited and Aurum Analytics, or the directors, officers and employees of Aurum Analytics make no representation and give no warranty or undertaking, express or implied, nor assume any responsibility for the authenticity, origin, validity, accuracy or completeness, or for any errors or omissions contained in the information. The assumptions that were made in its preparation were based on publicly available information which has not been verified by Aurum Analytics, or formally audited.

## About Argonaut

Argonaut is a full-service corporate finance, stockbroking and investment house based in Perth with a Foreign Broker-Dealer Agreement for the USA and an International Dealer Exemption for Canada. Argonaut is technically driven & focused on natural resource companies & businesses that service the metals, mining, energy, industrial and agri-business sectors. Argonaut is led by an experienced executive team with deep industry knowledge, who have previously held senior executive roles at leading international investment and securities houses. In our target markets, Argonaut is recognised as a trusted, independent corporate advisor with a strong track record of success. Argonaut has proven expertise across the full capital spectrum, being able to deliver optimal financing solutions during a company's entire life cycle.

## About Aurum Analytics

Aurum Analytics is an independent business providing information and analysis on the Australian and New Zealand gold industry. The information and analysis given is a by-product of Sam Ulrich's PhD research at The University of Western Australia's Centre for Exploration Targeting titled "Insights into the Economic Cost Structure of Gold Mining: From All-in Sustaining Costs to Quantifying Externalities."

## Contact

**Sam Ulrich**

**Aurum Analytics**

**E** sam@aurumanalytics.com.au
**W** www.aurumanalytics.com.au
**T** +61 439 997 814

**Liam Twigger**

**Argonaut Group**

**E** ltwigger@argonaut.com
**W** www.argonaut.com
**T** +61 8 9224 6888