

Aris Mining Corp. (TSX:ARIS)

Site Visit: Becoming a Premier Gold Producer in Colombia

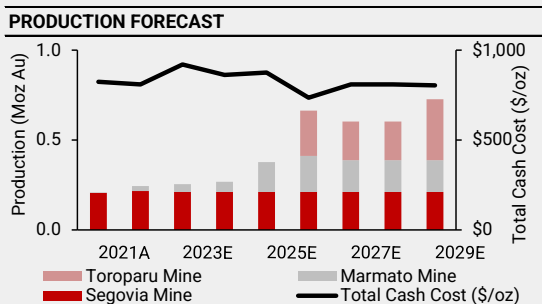
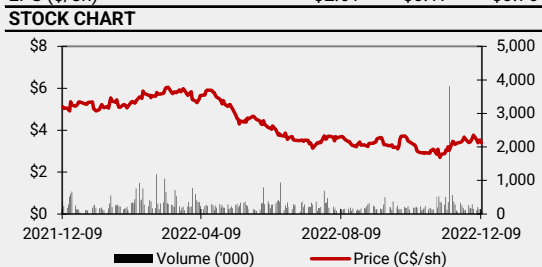
Site Visit
December 12, 2022

(Currency is US\$ unless noted otherwise)

| | |
|-----------------------------|-----------------|
| Closing Price (C\$/sh) | \$3.40 |
| Rating | BUY |
| Target (C\$/sh) | \$11.50 |
| Return to Target | 238% |
| 52 Week Low / High (C\$/sh) | \$2.69 / \$6.13 |

| CAPITALIZATION | Basic | Diluted |
|------------------------------|---------|---------|
| Shares Outstanding (M) | 136.1 | 201.1 |
| Market Capitalization (C\$M) | \$462.7 | |
| Enterprise Value (C\$M) | \$569.7 | |
| Last Reported Cash (C\$M) | \$651.5 | |
| Last Reported Debt (C\$M) | \$758.5 | |

| FYE: DEC 31 | 2021A | 2022E | 2023E |
|------------------------|--------|--------|--------|
| Au Produced (000's oz) | 209 | 244 | 255 |
| Cash Costs (\$/oz) | \$824 | \$809 | \$920 |
| CAPEX (\$M) | \$230 | -\$7 | \$236 |
| Gross Revenue (\$M) | \$383 | \$441 | \$497 |
| EBITDA (\$M) | \$175 | \$187 | \$234 |
| CFPS (\$/sh) | \$1.11 | \$0.86 | \$1.06 |
| EPS (\$/sh) | \$2.61 | \$0.17 | \$0.76 |



| RELATIVE VALUATION | 2023 EV/EBITDA | P/NAV |
|--------------------|----------------|-------|
| Aris Mining Corp. | 1.8x | 0.10x |
| Peers* | 3.6x | 0.62x |

MAJOR SHAREHOLDERS

Management (6.7%), MM Asset Management Inc (7.9%), Sprott, Eric (5.4%), Van Eck Associates Corpor. (3.6%), Invesco Ltd. (1.1%)

DISCLOSURE CODE:

1,2

(Please refer to the disclosures listed on the back page)

Source: RCS estimates, Company Information, Capital IQ

Company Description

Aris Mining Corp. engages in the acquisition, exploration, development, and operation of gold and silver properties primarily in Colombia. It holds interests in the Segovia operations comprising the El Silencio, Providencia, Sandra K, and the Carla underground mines located in Colombia. It also owns the PEA-stage Toroparu gold project in Guyana. The company acquired 100% interest in Aris Gold Corp. in Sep/22, and now owns a 100% of the Marmato mine and 20% of the Soto Norte project, also in Colombia.

We recently travelled to Colombia where we visited Aris Mining's Segovia Operations in Antioquia and its Soto Norte development project in Santander. Given the recent closing of the merger between GCM and Aris Gold we were impressed with the rapid integration of the two companies. At Segovia we toured the mine and processing facilities – all of which were operating smoothly. At Soto Norte, we were impressed with the approach Aris is taking to engage with the local community as it goes through the environmental permitting process. **We believe that Aris Mining is on a pathway to become a premier gold producer in Colombia and that its approach to operating with a Colombian perspective should serve it well as it executes on its growth initiatives in the country. In our view, Aris Mining is an overlooked story and the perceived jurisdictional issues with respect to Colombia are preventing the market from properly valuing this stock. We believe it is only a matter of time until investors realize this error, and we would expect a progressive re-rating as Aris Mining executes its strategy.**

- Colombian context misunderstood by market.** As we outlined in our [Colombian Presidential Election update](#), our view was that Petro's more extreme rhetoric and policy proposals would be hampered by a fragmented Congress and that radical shifts in economic policy would be avoided. With Petro having been in power for several months, we have seen many of his hardline commitments being walked back. Most notably, a planned 10% export tax on gold was scrapped. During our visit we had dinner with Mónica de Greiff, an Aris board member, who was previously Minister of Justice and Vice Minister of Mines and Energy for the Republic of Colombia. She provided insight on how the government is coming to accept economic reality and the importance that the resource sector plays in Colombia – particularly with its ambition to be a key contributor to the green transition.
- Formalization of small-scale miners is key.** One of the keys to successfully operating in Colombia is engaging with small-scale miners to address illegal and informal mining. Formalization has been successfully implemented at Segovia and is now being deployed at Marmato. We believe this should serve as an important test for Aris to prove it can successfully apply it to Soto Norte, which does not have the same mining history and familiarity as Segovia and Marmato.
- Solid growth profile.** With Segovia consistently producing +200k oz Au/yr, an expansion underway at Marmato, and the significant development projects of Soto Norte and Toroparu in its pipeline, we estimate production to reach ~794k oz Au by 2027 for Aris Mining (assumes 50% ownership of Soto Norte). We note that Aris also remains open to additional acquisition and growth opportunities.

We maintain our BUY rating and target price of C\$11.50/sh. Our target is based on our fully financed, partially diluted valuation of Aris using a discounted cash flow model to arrive at our NAV_{5%} estimate of ~C\$4.4B (unchanged). **Upcoming catalysts:** 1) Marmato Lower Mine development updates (ongoing), 2) Q4/22 and FY/22 financial and operating results (Q1/23), and 3) 2022 Guidance (Q1/23).

Financial and Operating Summary: Aris Mining Corporation

FINANCIAL DATA

| | |
|---|------------------------|
| Ticker | TSX:ARIS |
| Closing Price (C\$/sh) | \$3.40 |
| Rating | BUY |
| Target Price (C\$/sh) | \$11.50 |
| Return to Target | 238% |
| 52 Week Low / High (C\$/sh) | \$2.69 / \$6.13 |
| Shares Outstanding (M) | 136.1 |
| Market Capitalization (C\$M) | \$462.7 |
| Cash & Cash Equivalents (C\$M) | \$434.3 |
| Total Debt (C\$M) | \$505.7 |
| Enterprise Value (C\$M) | \$534.1 |

FINANCIAL DATA

| Capital Structure | Shares Millions |
|------------------------|-----------------|
| Shares Outstanding | 136.1 |
| Options | 7.4 |
| Warrants | 57.6 |
| Convertible Debentures | 3.79 |
| Fully Diluted Shares | 204.9 |

| Ownership | Shares O/S (M) | % O/S |
|--------------------------------|----------------|-------|
| Management | 9.1 | 6.7% |
| MM Asset Management Inc | 10.7 | 7.9% |
| Van Eck Associates Corporation | 4.9 | 3.6% |
| Ruffer LLP | 4.2 | 3.1% |
| Iacono, Serafino | 2.1 | 1.5% |

Financial Summary

| Year-end Dec 31st | 2021A | 2022E | 2023E | 2024E | 2025E | 2026E |
|---------------------|--------|--------|--------|--------|--------|--------|
| Shares O/S (M) | 98.0 | 136.1 | 136.1 | 136.1 | 136.1 | 136.1 |
| EBITDA (\$M) | \$175 | \$181 | \$234 | \$261 | \$363 | \$731 |
| FCF (CFO+CFI) (\$M) | -\$149 | \$130 | -\$98 | -\$272 | -\$532 | -\$205 |
| EPS (\$/sh) | \$2.61 | \$0.14 | \$0.70 | \$0.83 | \$1.22 | \$2.96 |
| CFPS (\$/sh) | \$1.11 | \$0.81 | \$1.01 | \$1.16 | \$1.87 | \$4.40 |
| EV/EBITDA | 2.4x | 2.3x | 1.7x | 1.5x | 1.1x | 0.5x |
| P/CFPS | 2.5x | 3.2x | 2.5x | 2.2x | 1.4x | 0.6x |

Income Statement (\$M)

| | 2021A | 2022E | 2023E | 2024E | 2025E | 2026E |
|--------------------|-------|-------|-------|-------|-------|--------|
| Revenue | 382.7 | 410.6 | 497.2 | 521.3 | 733.5 | 1277.3 |
| Operating Expenses | 193.0 | 200.7 | 247.6 | 243.6 | 346.6 | 505.3 |
| Depreciation | 31.4 | 31.3 | 29.8 | 37.6 | 56.9 | 87.8 |
| General & Admin | 18.3 | 28.3 | 16.0 | 16.8 | 23.6 | 41.1 |
| Net Income | 180.0 | 18.6 | 95.8 | 112.8 | 166.2 | 403.3 |

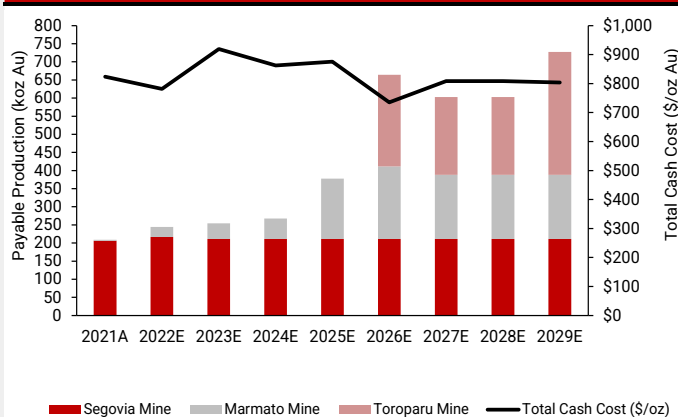
Balance Sheet (\$M)

| | 2021A | 2022E | 2023E | 2024E | 2025E | 2026E |
|--------------------|-------|-------|-------|-------|---------|----------|
| Cash & Equivalents | 323.6 | 412.2 | 313.4 | 28.1 | (504.6) | (1009.5) |
| Debt | 0.3 | 364.3 | 364.0 | 363.7 | 363.5 | 63.5 |

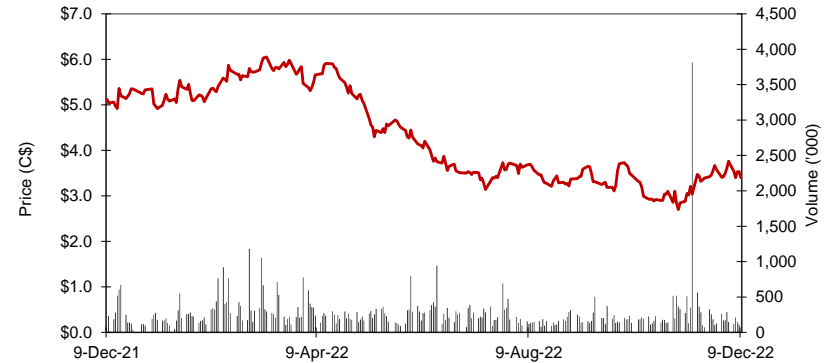
Cash Flow (\$M)

| | 2021A | 2022E | 2023E | 2024E | 2025E | 2026E |
|----------------|---------|--------|---------|---------|---------|---------|
| Operating CF | 80.6 | 110.2 | 138.0 | 157.5 | 255.1 | 598.6 |
| Financing CF | 359.7 | (36.1) | (0.3) | (13.4) | (0.2) | (300.0) |
| Investing CF | (229.7) | 19.5 | (236.5) | (429.5) | (787.6) | (803.5) |
| Change in Cash | 201.1 | 88.6 | (98.8) | (285.4) | (532.7) | (504.9) |

PRODUCTION PROFILE



STOCK CHART



TECHNICAL ASSUMPTIONS

| | 2021A | 2022E | 2023E | 2024E | 2025E | 2026E |
|-------------------------------|----------|----------|----------|----------|----------|----------|
| Gold Price (\$/oz) | \$ 1,799 | \$ 1,821 | \$ 1,900 | \$ 1,900 | \$ 1,900 | \$ 1,900 |
| Silver Price (\$/oz) | \$ 25.18 | \$ 22.98 | \$ 28.00 | \$ 28.00 | \$ 28.00 | \$ 28.00 |
| Copper Price (\$/lb) | \$ 4.24 | \$ 4.10 | \$ 4.00 | \$ 4.00 | \$ 4.00 | \$ 4.00 |
| Canadian : US\$ exchange rate | \$ 0.80 | \$ 0.77 | \$ 0.75 | \$ 0.75 | \$ 0.75 | \$ 0.75 |

| RESOURCE ESTIMATE | Tonnes (Mt) | AuEq (g/t) | AuEq (koz) |
|-------------------|-------------|------------|------------|
| Segovia | 9.93 | 10.41 | 3,324 |
| Marmato | 97.10 | 2.78 | 8,784 |
| Toroparu | 198.76 | 1.62 | 11,407 |
| Global Resource | 305.80 | 2.28 | 23,515 |

| RESERVE ESTIMATE | Tonnes (Mt) | AuEq (g/t) | AuEq (koz) |
|------------------|-------------|------------|------------|
| Segovia | 2.29 | 10.10 | 745 |
| Marmato | 31.28 | 3.25 | 3,268 |
| Toroparu | NA | NA | NA |
| Global Reserves | 33.57 | 3.72 | 4,013 |

| RCS MINE MODEL | Tonnes (Mt) | AuEq (g/t) | AuEq (koz) |
|----------------|-------------|------------|------------|
| Segovia | 6.86 | 10.31 | 2,273 |
| Marmato | 31.28 | 3.25 | 3,252 |
| Toroparu | 107.30 | 1.89 | 6,528 |

NET ASSET VALUE

| | Discount Rate | (C\$M) | (C\$/Sh) | Multiple | Target (C\$/Sh) |
|----------------------------|---------------|-----------------|-----------------|----------|-----------------|
| Segovia (100%), Colombia | 5% | \$ 1,666 | \$ 8.28 | 0.9x | \$ 7.45 |
| Marmato (100%), Colombia | 5% | \$ 1,790 | \$ 8.90 | 0.7x | \$ 6.23 |
| Soto Norte (20%), Colombia | 5% | \$ 923 | \$ 4.59 | 0.4x | \$ 1.84 |
| Toroparu (100%), Guyana | 5% | \$ 3,262 | \$ 16.22 | 0.4x | \$ 6.49 |
| Taxes | 5% | \$ (2,641) | \$ (13.13) | 0.6x* | \$ (7.54) |
| Other Assets | in-situ | \$ 117 | \$ 0.58 | 1.0x | \$ 0.58 |
| Corporate Adjustments | 5% | \$ (741) | \$ (3.68) | 1.0x | \$ (3.68) |
| Dividend Adjustment | 5% | \$ - | \$ - | 1.0x | \$ - |
| Total NAV | | \$ 4,376 | \$ 21.76 | | \$ 11.37 |

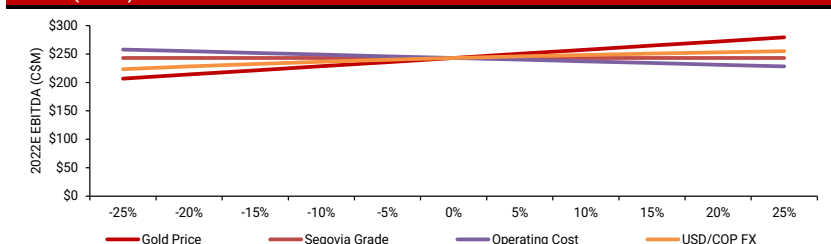
5 % NAV Target

*Weighted average of multiples on taxes

COMPARABLES

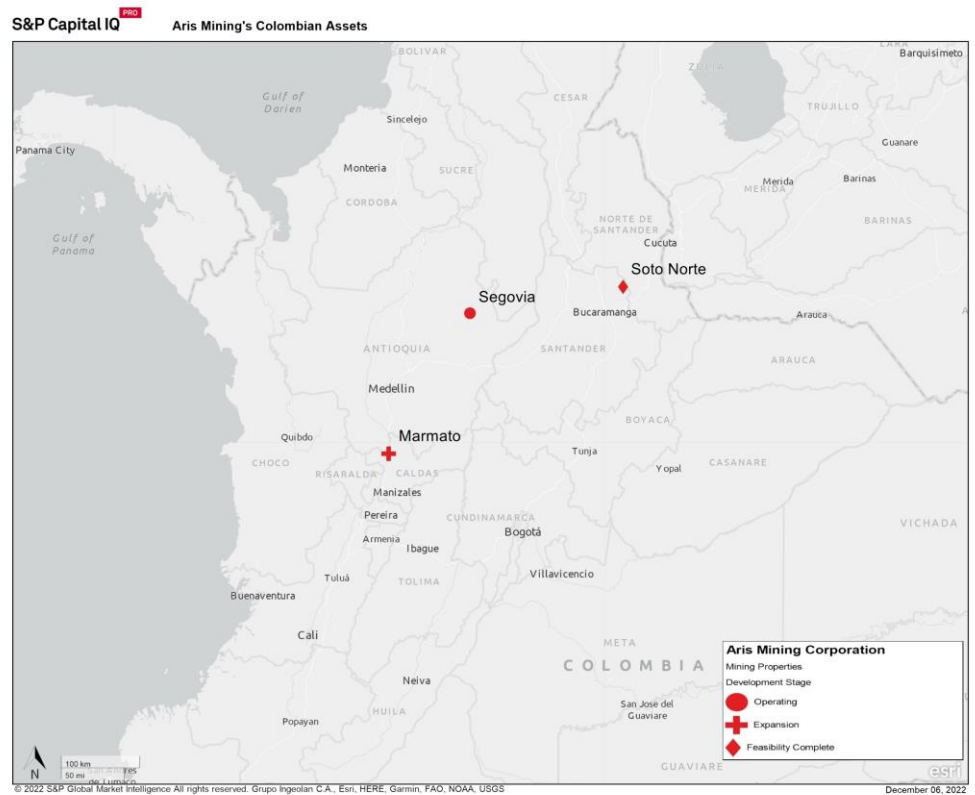
| Company | Ticker | Price C\$ | EV/EBITDA FY2022E | EV/EBITDA FY2023E | P/NAV |
|--------------------------------|-----------------|---------------|-------------------|-------------------|--------------|
| Karora Resources Inc. | TSX:KRR | \$4.83 | 8.8x | 4.8x | 0.79x |
| Wesdome Gold Mines Ltd. | TSX:WDO | \$8.33 | 17.2x | 6.6x | 0.99x |
| Lundin Gold Inc. | TSX:LUG | \$13.95 | 6.1x | 6.6x | 1.15x |
| Torex Gold Resources Inc. | TSX:TXG | \$15.18 | 1.3x | 1.6x | 0.69x |
| Argonaut Gold Inc. | TSX:AR | \$0.41 | 4.1x | 1.9x | 0.27x |
| Victoria Gold Corp. | TSX:VGCX | \$7.48 | 5.2x | 4.2x | 0.46x |
| Aura Minerals Inc. | TSX:ORA | \$7.84 | 3.5x | 2.2x | 0.22x |
| Average | | | 6.0x | 3.6x | 0.62x |
| Aris Mining Corporation | TSX:ARIS | \$3.40 | 2.2x | 1.7x | 0.16x |

EBITDA (2022E) SENSITIVITIES



Building a leading gold company in Colombia. Aris Mining has two producing assets in Colombia, Segovia and Marmato, and one development-stage asset in country, Soto Norte. Segovia is located 180km NE of Medellin in Antioquia, Colombia and has been producing Au for +150-years. The main mining title covers 2,906 ha and comprises three underground mines – El Silencio, Sandra K and Providencia. The Carla mine is located south of the Segovia operations and the mining title covers 567 ha. Segovia processes ore at 2,000 tpd and produces +200,000 oz Au per year. Marmato is located in the Caldas department of Colombia, ~80km south of Medellin. The Marmato district has been mined since pre-Colonial times and today the Marmato mine comprises both a producing Upper Mine that is undergoing a modernization program as well as a Lower Mine expansion project. Lastly, the Soto Norte project is located in the NE part of Santander department of Colombia and is ~350km north of Bogota and 55km NE of the city of Bucaramanga, the capital of Santander. Aris Mining became the operator of the feasibility-stage project in Mar/22. **During our site visit we first arrived in Bogota where we participated in a day of presentations on each of Aris’ assets located in Colombia, as well as the specific social/ESG aspects of operating in the country. The next day we boarded a helicopter and travelled to the Soto Norte project where we spent a full day touring the site and surrounding community. The final day, we once again travelled by helicopter to Segovia and spent a day touring the mine and processing facilities.**

Figure 1: Map showing Aris Mining’s Colombian assets



Source: S&P Capital IQ Pro

Segovia

We arrived at Segovia by helicopter, which afforded an aerial view of the town of Segovia, which is quite literally built on top of the mine. Although this presents challenges for future development and infrastructure growth at the surface, it means that those who live in Segovia are inextricably tied to mining. The company has now signed +60 formalization contracts with small-scale miners at Segovia, a process that has been underway since 2012. The benefits of formalization are multifold and include elimination of mercury and better environmental practices, access to occupational health and safety professionals and standards, access to technical experts and best practices, access to social security and proper labour standards, and payment of taxes and royalties to the state. **From our observations, Segovia runs like a well-oiled machine and the work that GCM started in 2012 to formalize small-scale miners, and which Aris continues to do, has clearly been successful. We believe this model of small-scale miner formalization could serve as a model for Aris’ other operations in Colombia.**

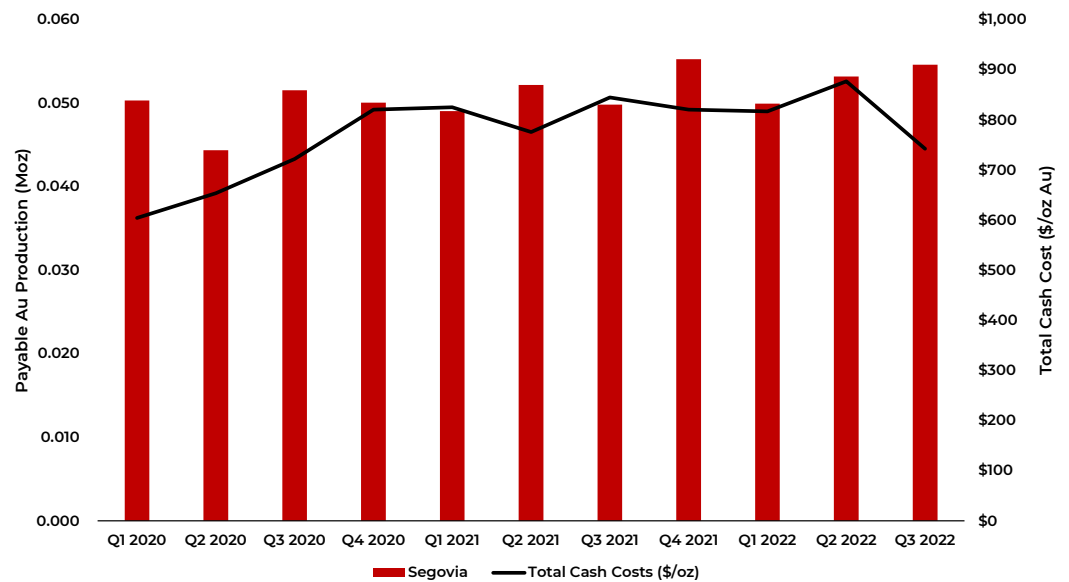
Figure 2: Aerial view of the town of Segovia (left) and El Chocho tailings facility (right)



Source: RCS Site Visit

One of the key aspects we were impressed with at Segovia was the efficiency of the operation, particularly since access to the mine is gained via inclined shafts, which have two skips – one to move workers up and down and one to bring ore to the surface. All mining equipment – including vehicles and the mining fleet – had to be brought into the mine in this way and had to be disassembled at surface and then reassembled in the mine. **We believe the consistent QoQ production at Segovia (see figure below) is a testament to the efficiency of the team at Segovia as they have been able to effectively manage this potential bottleneck. We were also impressed that efficiency remains strong given the labour-intensive mining methods employed at Segovia and the integration of many small-scale miners on which the plant relies for ~16% of its feed (as of 2021).**

Figure 3: Segovia quarterly production results



Source: Company Reports, RCS

Aris Mining reiterated its 2022 production guidance of 210-225k oz Au for Segovia when it published its Q3/22 financial results ([read more](#)). **We anticipate production of ~217k oz Au at total cash costs of ~\$827/oz Au sold.** Additionally, we expect Segovia to consistently produce +200k oz Au per year going forward. Although our mine model currently ends in 2031, we believe additional drilling could prolong and extend our LOM.

During our visit we went to the El Silencio mine, which is located within the ~9,000 ha title area. El Silencio currently measures ~2.7km long x ~1.8km wide x ~1km deep and has 46 levels with Aris Mining operating on levels 18 to 38 and contractors operating on levels 38 to 46. Mining is conducted using several methods, including room and pillar, cut and fill, and incline panel. We ultimately ended up ~800m below surface and observed an area where pillar recovery had been completed and the 1040 vein was prominently visible in the wall of the room.

Figure 4: 1040 vein visible in wall of room ~800m below surface



Source: RCS Site Visit

Figure 5: (clockwise from top left) Descending into El Silencio via a skip in an inclined shaft, Top of an inclined shaft at surface at El Silencio, Pillar recovery at El Silencio ~800m below surface, 1040 vein present in mine face on level 30



Source: RCS Site Visit

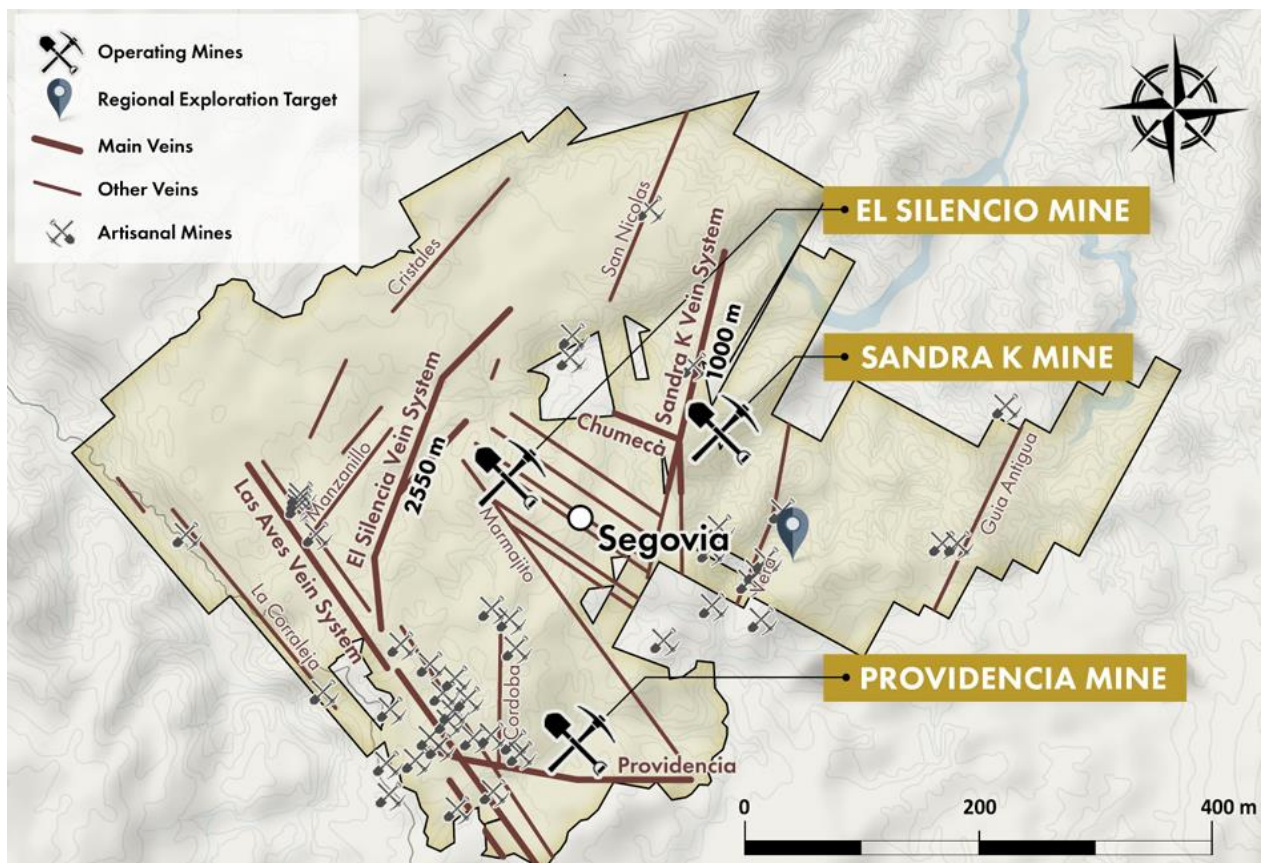
Geology and drilling. Aris currently has 10 drill rigs turning at Segovia and plans to drill ~91,000m in 2022. We note that Segovia has a history of more than replacing the resources its mines, with its 2022 reserve and resource update resulting in an increase of 18% to 2P reserves as well as increases of 14% to M&I resources and 41% to Inferred resources ([read more](#)). Based on a successful history of replacing mined resources for six consecutive years and the large amount of drilling conducted in 2022, we anticipate that Aris should once again replenish and likely increase its resources in its upcoming reserve and resource update (Q1/23). During our visit we ventured down to level 30 of the El Silencio mine and saw the 1040 vein in the mine face. We note that earlier this year, drilling from levels 27 & 29 successfully extended the 1040 vein ~300m down plunge ([read more](#)). 2022 drilling continues to return excellent intercepts:

- 146.33 g/t Au and 712.0 g/t Ag over 0.3m on the Sandra K Techno vein (SK-ES-035)
- 271.16 g/t Au and 142.9 g/t Ag over 0.88m on the 450 vein (ES-EU-047)

- 78.9 g/t Au and 20.0 g/t Ag over 1.29m on the Nacional vein (ES-EU-48)
- 23.55 g/t Au and 22.0 Ag over 0.60m on the Marmajito vein (MAR-EU-018)

These results reaffirm our view that Segovia’s main mines remain underexplored and have the potential to be larger than what we currently model. We also believe the discovery of new orebodies along with ongoing positive drill results from exploration drilling could result in additional resource growth and mine life extension.

Figure 6: Map showing the Segovia title. The regional scale epithermal system remains undertested outside the main producing areas



Source: Company Reports

Maria Dama processing facility expansion completed. Segovia recently completed the expansion of its Maria Dama processing facility to 2,000 tpd (was 1,500 tpd). We visited the new crushing facility, which has a capacity of 3,000 tpd, and observed the various stockpiles that have a total capacity of 30,000 tonnes. We then toured the plant and saw the mill, flotation circuit, gravimetry, leaching, precipitation and smelting areas. We note that the front of the mill has a capacity of 3,000 tpd (i.e. crusher), whereas the back of the mill is constrained to 2,000 tpd (i.e. ball mill, flotation circuits, etc.). **In our view, Aris has left the option open for a potential future expansion of the processing plant to 3,000 tpd should it wish to increase Segovia’s throughput; though this would require additional study and another expansion initiative to bring the back of the mill up to 3,000 tpd. Thus, we do not believe it is likely Aris would pursue this initiative in the near term.** We also toured the filtration tailings plant where a new 2,000 tpd filter press was recently installed. Lastly, we drove through the tailings facility and saw the Phase 2 Lower area that is under construction (1.4M m³ of capacity) and should be available in Feb/23.

Figure 7: (clockwise from top left) New crushing facility, Ball mill, New filter press in tailings treatment facility, Merrill Crowe system, Filter presses in front of the smelting room



Source: RCS Site Visit

Polymetallic plant up and running. In 2021 a 200 tpd polymetallic plant was built to recover Zn, Pb, Au and Ag from tailings at Segovia and provide an additional source of cash flow from mining operations. We visited the plant that features two lines (each with 14 cells) – one to produce a Zn concentrate and another produce a Pb concentrate containing Au and Ag. There are two filter presses for each line, which then feed into a packing machine to pack concentrate into a 1 ton bag for shipment. As at the end of Aug/22, payable production from the concentrates was estimated to be ~124k lbs Zn, 137k lbs Pb, 9.9k oz Ag and 128 oz Au. **We believe the polymetallic plant should not only improve the economics of the Segovia operations (via a credit to lower Segovia’s AISC), but it should also improve the mine’s economic credentials as additional metals and impurities would be removed from the tailings. We anticipate the first revenue from the polymetallic plant to be received by Aris in Q4/22 as an offtake partner has been identified and the first shipment has been made.**

Figure 8: (clockwise from top left) New polymetallic plant with two lines (Zn and Pb), Cleaner Zn cells, Filter presses, One of two packing machines



Source: RCS Site Visit

Soto Norte

Upon arrival we took an aerial tour of the site and saw the mine area, which we note is located outside the protected Paramo land, and the area where the processing facilities would be located. A 7km-long tunnel is planned to connect the mine area to the processing plant. Upon landing we saw the site where the future processing facility would be located (currently a military base) and then drove to the point where the access tunnel will start at the processing area. We then proceeded to the town of California where we were given a presentation on work the Minesa team (the company that owns Soto Norte, of which Aris owns 20% and Neil Woodyer is CEO) is doing with the local community and saw local infrastructure projects that Minesa had completed including refurbishing the local church, building a school, and installing a playground in the central park. Finally, we went to the core shed and got briefed on the geological setting of the deposit and improved our understanding of the geological upside at Soto Norte. We then looked at core and numerous representative samples from various points in the deposit. **Overall, we were impressed with the scale of the project and felt the Minesa team has been doing an excellent job strengthening its relationship with the local community. We expect the main focus to remain on engaging with the community as the permitting process is underway.**

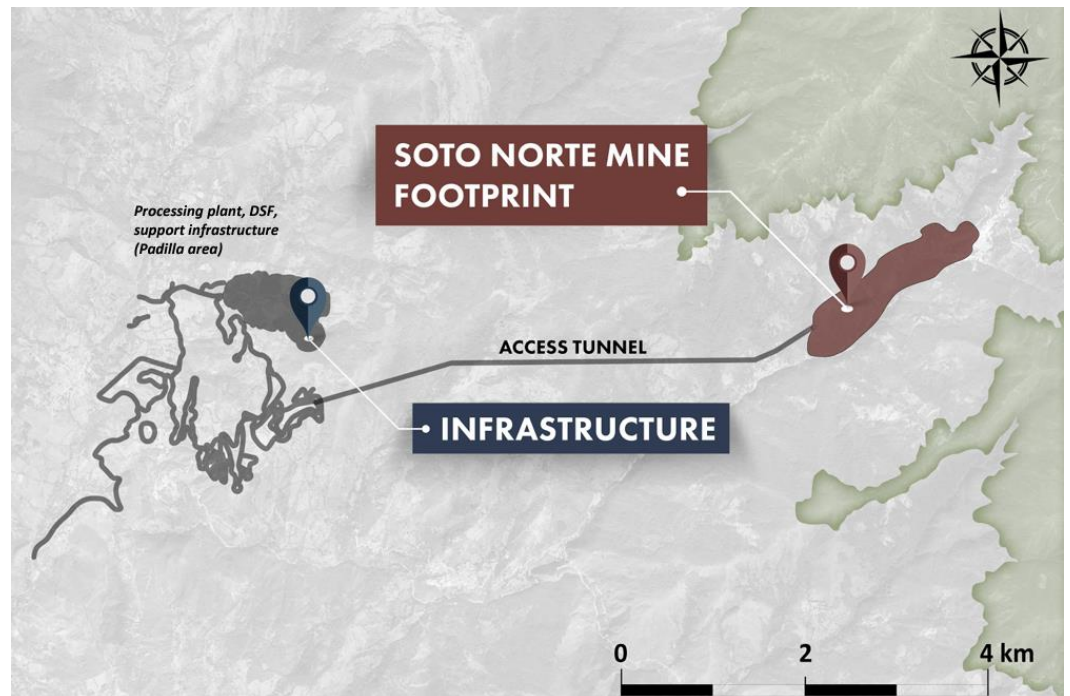
Figure 9: (clockwise from top left) Interior of church refurbished by Minesa, Military base where the future processing area will be located, General topography of the Soto Norte project, Location of future tunnel entrance (from the processing area) connecting the processing area to the mine



Source: RCS Site Visit

Designing a buildable mine. We believe there are several aspects that make Soto Norte a buildable mine, including that the footprint of the operation is entirely outside the Paramo, which is critical, as exploiting the Paramo has been illegal since 2014. The Soto Norte project is currently conceived as a compact mine with a small footprint, which we believe should help facilitate permitting. Though there remains potential in the future for this to be expanded, particularly if the geology is supportive. Additionally, we note that processing is planned to use flotation to produce concentrates and that no mercury or cyanide would be used. The company also plans to limit the amount of external water use (mainly utilize recycled mine and process water) and use a dry stack tailings facility.

Figure 10: Map showing location of the processing and mine areas at Soto Norte (Paramo protected area shown in green – note that the mine footprint is entirely outside this area)



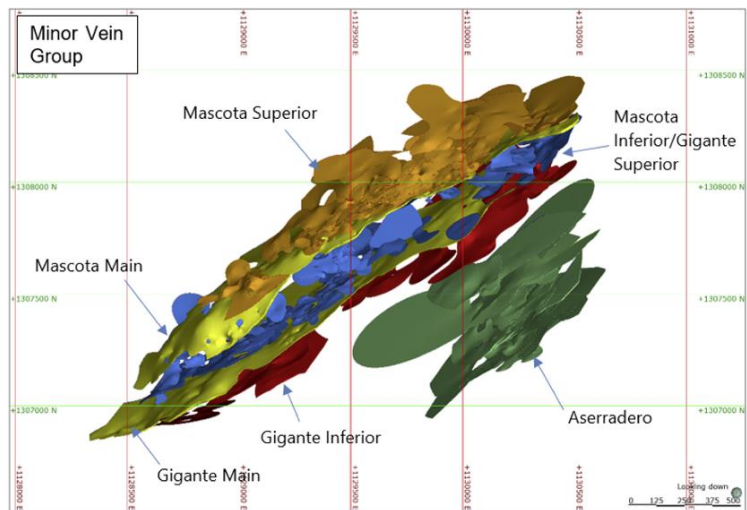
Source: Company Reports

Focus on permitting. Aris Mining plans to submit a new ESIA following detailed technical feedback received from the Colombian environmental regulatory authority (ANLA). We expect submission of an amended ESIA in Q4/2023 and a response from the ANLA within another year; thus, we expect receipt of an environmental permit in approximately two years, and construction starting in 2025. **We note that Soto Norte was never denied a permit in the past, but rather the books were closed on the project (in Oct/20) as the previous operator (Mubadala) did not take a Colombian approach to its permit application. Aris Mining is starting a fresh process and is centering its submission on ensuring rigorous environmental protections, addressing the needs of the local community, and working collaboratively with ANLA.** Additionally, to acquire an additional 30% interest (total 50% interest), Aris would have to make an additional cash payment of \$300M before the earlier of either 10 weeks following the ESIA approval or 42 months after closing of the transaction. While we expect Aris to eventually acquire this additional 30% interest, we value the project based on Aris' current 20% ownership.

Building trust and understanding with the local community. While on site, we saw the permanent presence that Minesa has within the local community. In addition to ongoing outreach through education, health, community infrastructure projects and communication, Minesa has been working to effectively engage with the ~185 local community members that would eventually have to be relocated. Minesa has built two model homes that were designed based on community input that are planned to be built once the relocation process occurs in the future. Additionally, Minesa is working to educate the local community about mining and the project, as there is not the same history with mining as is the case with Marmato and Segovia. Thus, we believe if Aris can effectively replicate the success it has had at Segovia and hopefully at Marmato in the near-future, it should serve as a model for Soto Norte. Minesa has developed a small miner plan whereby it has ceded a part of one of its concession areas (Calimineros) to allow for small miner formalization (~160 members). Minesa is also looking to formalize other small miners on its tenements.

Significant exploration potential. The Soto Norte deposit is classified as a high-sulphidation epithermal deposit, with Au, Ag and Cu occurrences mainly in sulphides. The project has indicated resources of 48.1Mt at 5.47 g/t Au, 35.8 g/t Ag, and 0.18% Cu containing 9.8M oz AuEq, and inferred resources of 27.3Mt at 4.06 g/t Au, 25.9 g/t Ag, and 0.18% Cu containing 4.3M oz AuEq. Notably, the mineralized vein structures extend to surface and are open at depth and along strike, with high exploration potential to target the deep structures from underground drilling stations. **We would also note that the Aserradero vein is not included in the mineral reserve, thus we would expect a material extension of mine life once it is drilled off and can be included in a future mineral reserve update.**

Figure 11: 3D view of the minor vein group at Soto Norte



Source: Company Reports

The project also features district scale potential as it is hosted within an area of just over 10% of the mining titles held by the JV, along the mineralized La Baja fault trend that hosts other mineralized deposits. It is known that vein structures extend to surface, and are open at depth and along strike, presenting upside potential for expansion via drilling. **As a high-sulphidation epithermal deposit, we believe it is conceivable that a feeder porphyry system could be located at depth or distal to the known Soto Norte deposit thereby offering the potential for Soto Norte to become a generational asset.**

Figure 12: Core logging facility at Soto Norte



Source: RCS Site Visit

2021 FS outlines robust economics at Soto Norte. The 2021 FS prepared for Aris outlines processing capacity of 2.6M tpa with annual average production of 450k oz Au per year over a 14-year LOM (includes 3 years of development) at average AISC of \$471/oz. The processing facility would produce Au-rich Cu and pyrite concentrates without using cyanide or mercury. Dried and filtered tailings would be stored in a dry-stack tailings facility. **After-tax NPV5% is \$1.5B and IRR is 20.8%**, at base case Au price of \$1,675/oz – **at \$1,925/oz the NPV5% increases to \$2.0B and IRR increases to 24.4%**. Initial capital is \$1.2B, which includes contingency and pre-production costs.

Figure 13: Project economics at Soto Norte

| Key Indicators | Units | Breakdown | Total |
|--|----------|-----------|---------|
| LOM Total Au Production (payable) | (koz) | | 4,348 |
| Average Annual Production | (koz) | | 450 |
| LOM Average Net C1 Cash Cost ⁽¹⁾ | (USD/oz) | | 271 |
| LOM Average AISC ⁽²⁾ | (USD/oz) | | 471 |
| LoM (Mining) | (Years) | | 14 |
| LoM (Processing) | (Years) | | 11 |
| Gross Revenue | (USDMM) | | 7,946 |
| Operating Costs (incl. realisation) | (USDMM) | | (2,211) |
| EBITDA | (USDMM) | | 5,735 |
| Tax | (USDMM) | | (1,480) |
| Project Capital | (USDMM) | (982) | |
| Pre-production Sustaining Expenditure | (USDMM) | (34) | |
| Capitalised Operating Expenditure | (USDMM) | (114) | |
| Capitalised Allocated Overhead Costs | (USDMM) | (47) | |
| Initial Capital including pre-production costs | (USDMM) | | (1,177) |
| Sustaining | (USDMM) | | (317) |
| Net Free Cash, Undiscounted | (USDMM) | | 2,761 |
| NPV at 5% (Post-Tax) | (USDMM) | | 1,486 |
| IRR (Post-Tax) | (%) | | 20.8 |
| Payback period (from start of operations, NTP = 4) | (Years) | | 3.9 |

¹ C1 cash costs exclude royalty and allocated overheads, inclusive of by-product credit and capitalised operating costs.

² AISC as per World Gold Council.

Source: Company Reports

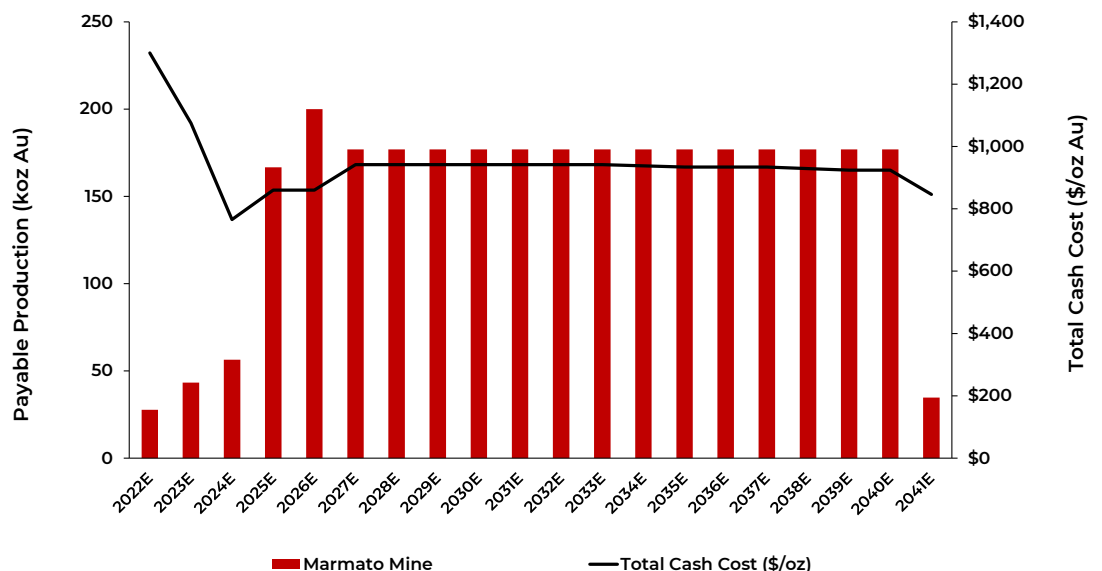
Marmato

Although we did not visit the Marmato mine during our visit in Colombia, we did receive an update during the pre-tour presentation day. The company's focus continues to be on advancing the construction of the Marmato Lower Mine, which we expect to begin in earnest in H2/23 following the receipt of the environmental permit. At the beginning of Nov/22, Aris received approval of the Marmato Plan de Trabajos y Obras (PTO) by the Agencia Nacional de Minería as a progressive step toward fully permitting the expansion project. Aris has now submitted its application for an environmental licence (PMA) at Marmato to the government regulator and approval is anticipated in H2/23. Work is also ongoing to optimize the Upper Mine, with a focus on underground development to increase stope availability and the development of a second shaft to increase ore and waste hoisting capacity. Additionally, Aris is modifying the mechanized mining methods to decrease stope widths, which should help reduce dilution.

Working with small scale miners to improve Marmato feed grade.

Following the merger of GCM Mining and Aris Gold, the company has been focused on integrating both teams, particularly through using the Aris Mining Segovia team to advance relationships and purchase agreements with the small-scale miners around Marmato with the aim of increasing the Marmato feed grade with higher grade small-scale mining ore. We note that mining has been occurring around Marmato for ~480 years and that today the Association of Artisanal Miners comprises ~1,800 miners employing ~4,500 workers. **We note that GCM Mining had success formalizing small scale miners around Segovia over the previous decade and that this success resulted in a well-oiled operation that today consistently produces +200k oz Au per year. We believe replicating this success at Marmato should serve as an important test for Aris Mining as it ultimately aims to advance its large Soto Norte project, which would require effective engagement with small-scale miners.**

Figure 14: Marmato production profile 2022-2041E



Source: RCS Estimates

Updated 2022 production guidance for the Upper Mine. In its Q3 MD&A, Aris released updated guidance for Marmato of 5,000-6,000 oz Au for Q4/22, and full year production guidance of 25,000-26,000 oz Au at an AISC of \$1,500-1,600/oz. **We currently model annual production of ~27.5k oz Au at total cash costs of ~\$1,300/oz for Marmato.** We note that the Upper Mine is currently running at ~1,100 tpd (up from ~900 tpd) and that the expansion of its processing facility to 1,250 tpd is anticipated to be completed during Q4/22, which suffered a setback due to a delay in the delivery of critical parts to the site.

Updated Marmato PFS demonstrates robust economics supporting a 20-year LOM. Aris recently released an updated PFS (read our full comment [here](#)) that contemplates development of a new underground mine and 4,000 tpd processing facility, adding to the current capacity of 1,250 tpd from the Upper Mine. Assuming capex of \$280M and average production of 162k oz Au (peaking at 200k oz Au), the NPV_{5%} and IRR of the project is \$341M and 29.7%, respectively, assuming Au prices of \$1,600/oz. An updated reserve and resource estimate was also provided which increased reserves by 57% to 3.2M oz Au, and M&I resources by 40% to 8.8M oz Au. We updated our model upon the release of the updated PFS and assumed the Lower Mine comes into production in Q1/25 ramping up to full capacity by Q3/25. We also adjusted our recovery rates to 94% and included the \$280M capex spend beginning in Q1/23, along with the increased mineral reserve base. **Overall, we view the PFS for the Marmato expansion positively as the LOM was increased by six years, with only a modest increase to capex to \$280M (was \$270M).**

Figure 15: 2022 Marmato PFS Highlights

| | 2022 PFS | 2020 PFS |
|---|--|--|
| Proven + probable gold mineral reserves | 31.3 Mt at 3.2 g/t for 3.2 Moz | 19.7 Mt at 3.2 g/t for 2.0 Moz |
| M+I gold mineral resources (inclusive of reserves) | 61.5 Mt at 3.0 g/t for 6.0 Moz | 39.4 Mt at 3.2 g/t for 4.1 Moz |
| Inferred gold mineral resources | 35.6 Mt at 2.4 g/t for 2.8 Moz | 26.4 Mt at 2.6 g/t for 2.2 Moz |
| Mine life | 20 years | 14 years |
| Processing rates (tpd) | Upper Mine: 1,250 Lower Mine: 4,000 | Upper Mine: 1,500 Lower Mine: 4,000 |
| Average LOM gold recovery | 94% | 92% |
| Total LOM gold production (koz) | 2,986 | 1,865 |
| Average annual production (koz/year) | 162 | 166 |
| AISC (US\$/oz) | \$1,003 | \$880 |
| Construction capital (US\$ million) (see Table 3) | \$279.6 | \$269.4 |
| Committed stream financing (US\$ million) ¹ | \$122.0 | \$72.0 |
| Net construction capital (US\$ million) | \$157.6 | \$197.4 |
| At base case prices of \$1,600/oz gold and \$19/oz silver | | |
| Free cash flow ² (US\$ million) | \$648 | |
| NPV @ 5% (after-tax, US\$ million) | \$341 | N/A ³ |
| IRR (after-tax) | 29.7% | |

1: Streaming financing commitment during the project construction period. In 2020, the stream commitment included two installments of \$36 million each. In April 2022, the stream was amended to include three installments that total \$122 million.

2: Free cash flow is after-tax and includes construction capital and stream financing.

3: The 2020 PFS was completed prior to completion of the stream financing, therefore, like-for-like comparison is not available

Source: Company Reports

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Disclosure Statement

Updated December 12, 2022

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| 2022-11-14 | BUY | 11.25 | BUY (S) | 25% |
| 2022-11-15 | BUY | 11.50 | HOLD | 0% |
| | | | TENDER | 1% |
| | | | NA | 4% |
| | | | UNDER REVIEW | 3% |

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