

10 October 2024

## Updated Pre-Feasibility for Atlantic Projects

NPV<sub>5</sub> of A\$468 million and Post Tax IRR of 37.3% at US\$2,000/oz gold price

### Highlights

The Pre-Feasibility study for the consolidated 15-Mile and Beaver Dam Projects has been updated with fresh assumptions utilising the relocated Touquoy processing plant at full production capacity of 2.1 million tonnes per annum. The results are very attractive, offering a capital-efficient project with strong economics, should the permitting environment improve in Canada (and in particular Nova Scotia) under the proposed Canadian Federal regulatory environmental approvals reforms.

- **Significant Economic Contribution to Nova Scotia and Canada:** Capital construction cost investment of nearly C\$200 million in the first twelve months after environmental approval, with a further C\$1.03 billion in spending over the Project's planned operating life. More than 1,000 direct jobs in construction and over 300 direct jobs in the operating phase are anticipated – rural and well paid.
- **Upgraded Environmental Protection Design Elements:** Efficient infrastructure layout to fit within environmental and social constraints, with the open pit backfilling of waste leading to final landforms more closely aligned with the original project area. Pit optimisation and efficient layout designs drastically reduce disturbance at the Beaver Dam project.
- **Strong Project Economics:** Optimised project study with improved processing rate, operating costs and optimised overall design. Post-tax NPV (discount rate 5%) of C\$411 million (A\$468 million) and post-tax IRR of 37.3% using a long-term gold price of US\$2,000 per ounce (exchange rates of C\$1.00 = US\$0.78 and C\$1.00 = A\$1.14).
- **Capital Efficient Outcome:** Initial capital of a modest C\$194 million (A\$222 million), including a C\$26 million contingency, is achieved as a result of the relocation of a substantial portion of Touquoy process plant. Capital includes mine pre-production, mine fleet, processing and infrastructure. Additional capital cost of C\$43 million incurred in Year 5 of the Life of Mine to bring on the 412,000 oz Beaver Dam satellite pit development.
- **Low unit costs:** Life of mine All-In Sustaining Cost for this low strip ratio project estimated to be US\$1,025 per ounce (A\$1,499 per ounce). Synergies with shared equipment and services across 15-Mile and Beaver Dam reduces overall unit costs.
- **Stable Production Profile:** Average annual production of 74koz of gold produced over the 11 year mine life.
- **Short Construction and Ramp-Up Time Frame:** Optimised tailings dam construction and the re-use of existing Touquoy mill equipment reduces the construction to one year. Utilisation of existing equipment from the Touquoy mine will minimise capital inflation and lead times, de-risk commissioning, and allow a quick ramp up to commercial production.

St Barbara Limited (“**St Barbara**” or the “**Company**”) (ASX: SBM) is pleased to announce the completion of an updated Pre-Feasibility Study (PFS) for the 15-Mile and Beaver Dam Projects, located in Trafalgar and Marinette respectively in Nova Scotia, prepared in accordance with Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves (“the JORC Code”).

St Barbara Limited ACN 009 165 066

Level 19, 58 Mounts Bay Road, Perth WA 6000  
PO Box 1161, West Perth, WA 6872

T +61 8 9476 5555 [www.stbarbara.com.au](http://www.stbarbara.com.au)

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The October 2023 Pre-Feasibility Study anticipated that the 15-Mile Project would deliver gold dore through conventional gravity and carbon in leach cyanidation techniques with re-use of the Touquoy processing plant but constraining the mill throughput to less than 1.8 million tonnes per annum (Mtpa). Mill throughput optimisation undertaken between June 2023 and October 2024 increased the yearly production over a shortened life of mine for the equivalent capital expenditure. The addition of the Beaver Dam satellite pit into the production profile adds 214,000 ozs of production at a low initial capital cost of C\$43 million expended in year 5 of the project. The low capital cost for Beaver Dam is a result of the minimal infrastructure requirements for the satellite pit and through the utilisation of the shared equipment and resources across 15-Mile and Beaver Dam operations. Under this proposal Beaver Dam ore would be hauled approximately 61 kilometres on existing public roads, avoiding disturbance to cultural and recreational activities along the route of any newly constructed haul road.

Managing Director and CEO Andrew Strelein stated “ I am thrilled to share the results of our optimised pre-feasibility study for the 15-Mile and Beaver Dam projects, which demonstrates outstanding financial viability alongside strong environmental stewardship. We are very proud of the design improvements made to minimise surface disturbance and environmental impacts while maximising the benefits to Nova Scotia and to Canada.”

“These results not only highlight the significant projected returns and cost savings but also reinforce our commitment to sustainable development. We have applied various integrated innovative approaches to minimise our ecological impact while maximising the development’s capital and operational efficiency. As we move forward, we remain dedicated to delivering value to our stakeholders and fostering our positive relationships with the communities in which we operate. We look forward to community consultations on our design changes and to receive additional feedback under future regulatory approval processes.”

### Overview

The Beaver Dam Project is located approximately 15 kilometres northeast of the Touquoy Mine in Nova Scotia, Canada, with the 15 Mile Project located a further 25 kilometres northeast of Beaver Dam (Figure 1). The PFS study was led by Ausenco Engineering Canada Inc. (“Ausenco”), an industry leader in cost-effective design and construction. Ausenco was supported by Moose Mountain Technical Services (“MMTS”) for mine design aspects of the PFS.

Figure 1: St Barbara Project Locations in Nova Scotia, Canada

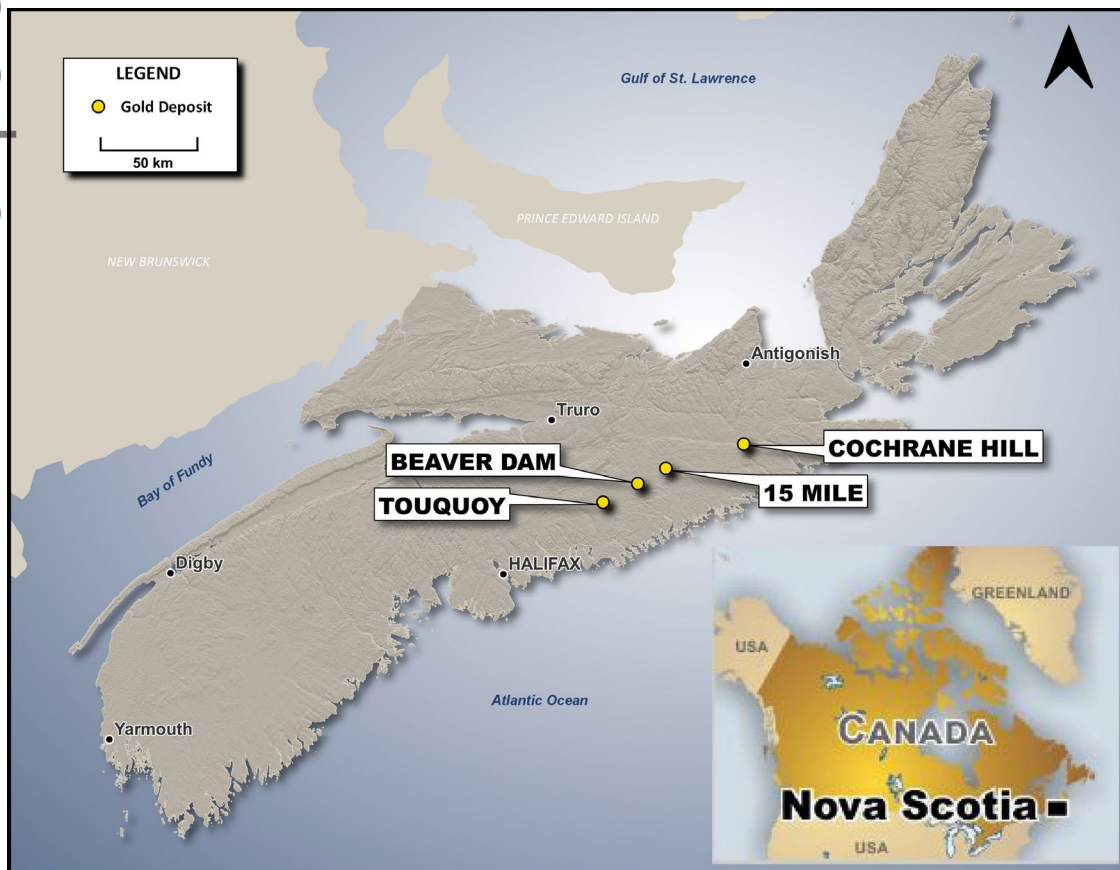
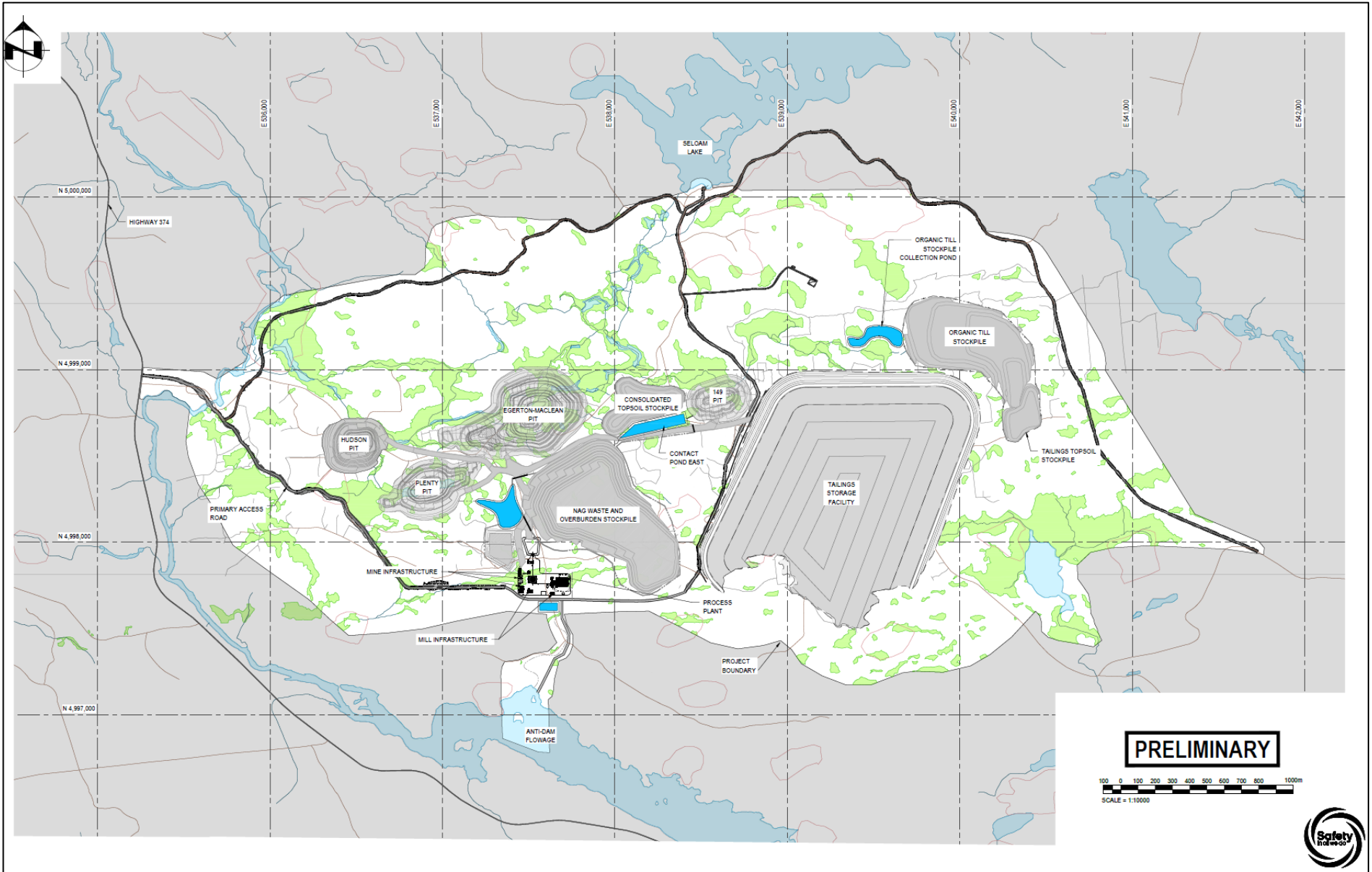


Figure 2: Proposed Site Layout for 15-Mile

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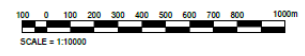
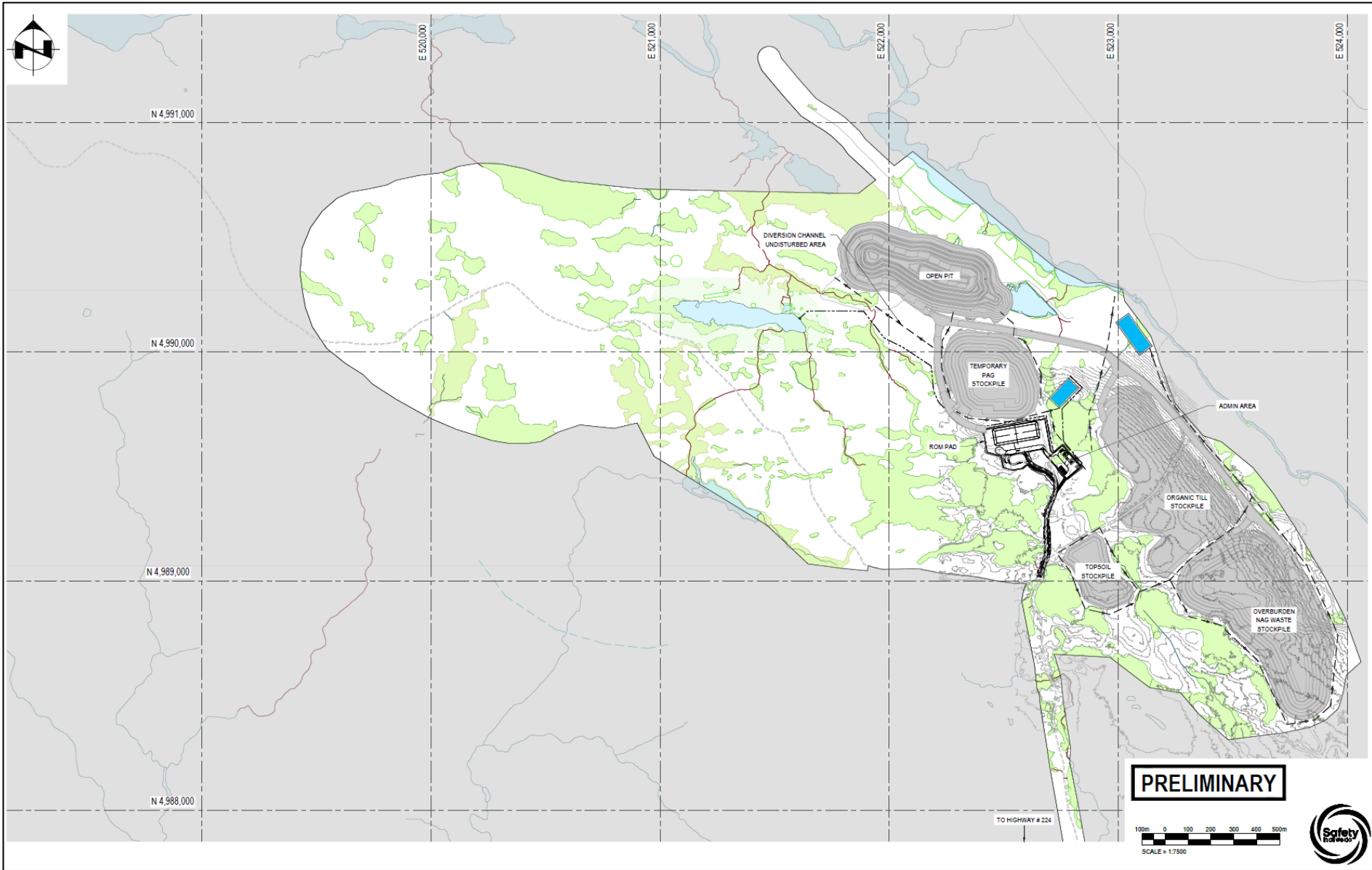


Figure 3: Proposed Site Layout for Beaver Dam

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## Project Economics

A summary of the consolidated 15-Mile and Beaver Dam Project economics is listed in Tables 1-1 to 1-4 and shown graphically in the figures below. On a pre-tax basis, the net present value (NPV) is C\$553 million (A\$630 million) and the internal rate of return (IRR) is 42.7%. On a post-tax basis, the NPV is C\$411 million (A\$468 million) and the IRR is 37.3%.

**Table 1-1: Project Economics**

Project Economics	Unit	Life of Mine (LOM) Total or Average
Gold Price	US\$/oz	\$2,000
Exchange Rate	C\$:US\$	0.78
Cash Costs <sup>1</sup>	US\$/oz Au	\$789
All-In Sustaining Cost <sup>2</sup>	US\$/oz Au	\$1,025
Pre-Tax NPV (5%)	C\$M	\$553
Pre-Tax NPV (5%)	A\$M	\$630
Pre-Tax IRR	%	42.7%
Pre-Tax Payback	years	2.2
Post-Tax NPV (5%)	C\$M	\$411
Post-Tax NPV (5%)	A\$M	\$468
Post-Tax IRR	%	37.3%
Post-Tax Payback	years	3.1
Post-Tax NPV/Capex Ratio	-	2.11

**Table 1-1: Capital Costs**

Capital Costs	Life of Mine (LOM) Total	
	C\$M	A\$M
Initial Capital	\$194	\$222
Sustaining Capital	\$170	\$194
Closure Costs	\$87	\$99

<sup>1</sup> Cash costs consist of mining costs, processing costs, mine-level general and administrative costs and refining/transport charges and royalties.

<sup>2</sup> All-In Sustaining Costs include cash costs plus sustaining capital and closure costs (net of salvage value of C\$10 million).

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**Table 1-3: Operating Costs**

Operating Costs	Unit	Life of Mine (LOM) Average
Mining Cost*	\$C/t milled	\$17.06
Ore Transport**	\$C/t milled	\$2.36
Processing Cost	\$C/t milled	\$10.26
G&A Cost	\$C/t milled	\$4.25
<b>Total Operating Cost</b>	<b>\$C/t milled</b>	<b>\$33.93</b>

\* \$4.49/t mined.

\*\* \$12.11/t Beaver Dam ore mined and transported.

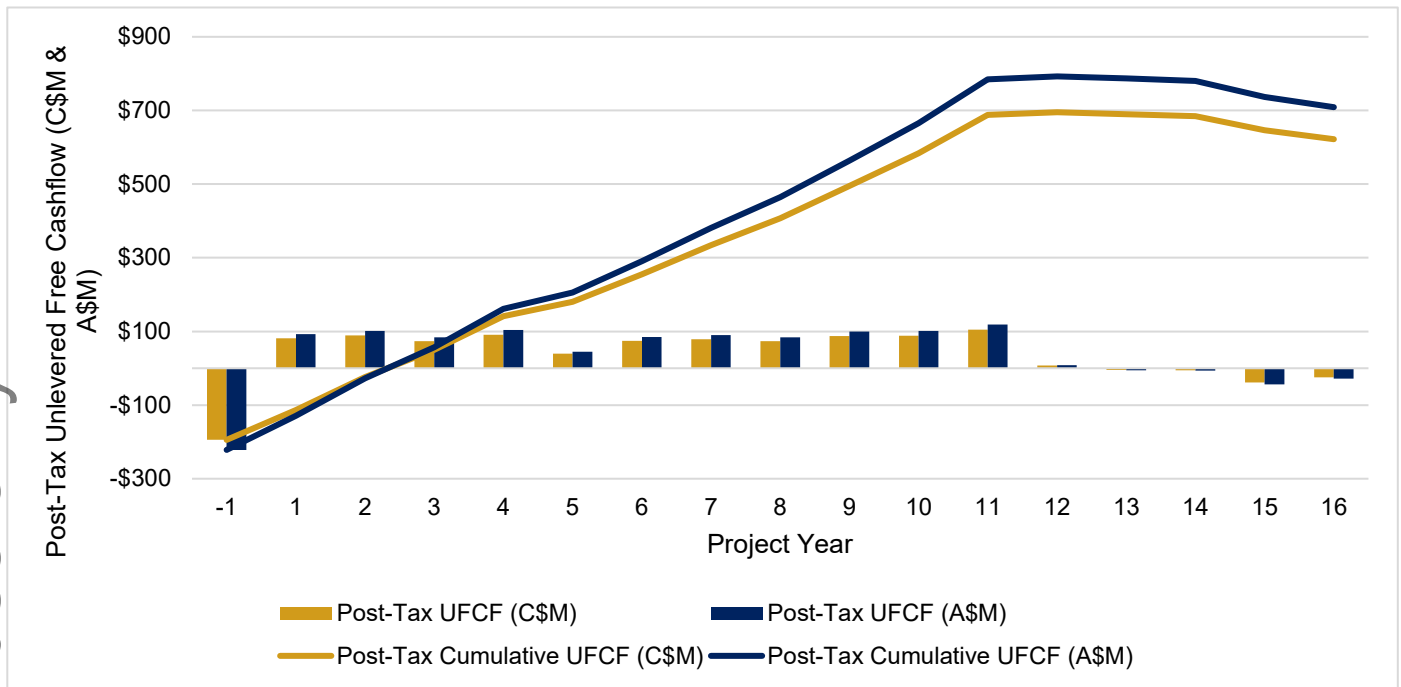
**Table 1-4: Production Summary**

Production Summary	Unit	Life of Mine (LOM) Total or Average
Mine Life	years	11.1
Total Waste Mined	kt	70,219
Total Ore Mined	kt	22,927
Average Strip Ratio	w:o	3.1
Total Mill Feed Tonnes	kt	22,927
Average Mill Feed Grade	g/t	1.14
Total Contained Gold	koz	842
Total Recovered Gold	koz	815
Average Gold Recovery	%	96.8%
Average Annual Gold Production	koz	74

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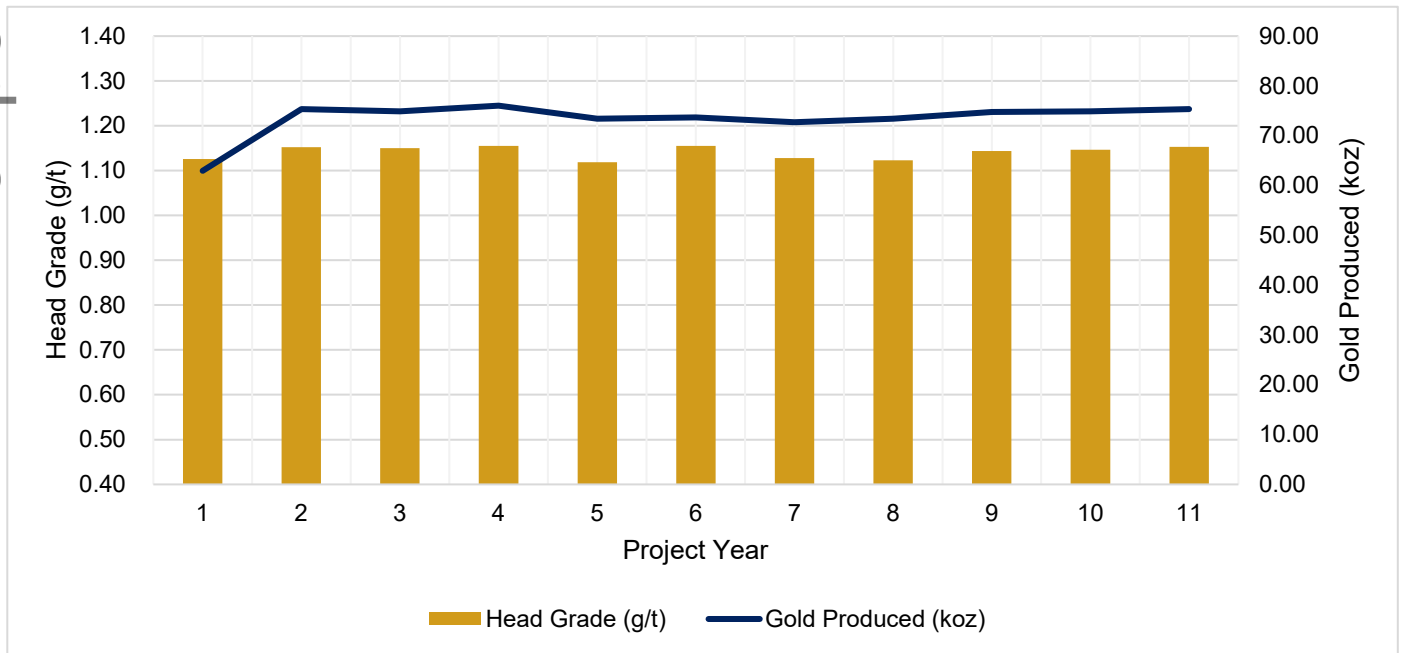
### Post-Tax-Free Cash Flow

Figure 4: Projected Annual and Cumulative LOM Post-Tax Unlevered Free Cash Flow



### Gold Production

Figure 5: Projected LOM Production (koz)



### Sensitivity Analysis

A sensitivity analysis was conducted on the base case after-tax NPV and IRR of the consolidated 15-Mile and Beaver Dam Project. Tables 2, 3 and 4 below provide a summary using the following variables: gold price, initial capital expenditure (Capex), total operating cost in both C\$M and A\$M.

**Table 2: Post-Tax NPV (5%) Sensitivity, C\$M**

Gold Price (US\$/oz)	Base Case	Initial Capex (-10%)	Initial Capex (+10%)	Opex (-10%)	Opex (+10%)	FX (0.70)	FX (0.85)
\$1,900	\$358	\$386	\$328	\$398	\$318	\$472	\$276
<b>\$2,000</b>	<b>\$411</b>	<b>\$438</b>	<b>\$380</b>	<b>\$451</b>	<b>\$371</b>	<b>\$530</b>	<b>\$324</b>
\$2,100	\$463	\$490	\$433	\$503	\$423	\$588	\$373
\$2,200	\$515	\$543	\$485	\$555	\$475	\$647	\$421
\$2,300	\$567	\$595	\$537	\$607	\$528	\$705	\$469
\$2,400	\$620	\$647	\$589	\$659	\$580	\$763	\$516
\$2,500	\$672	\$699	\$642	\$712	632	\$821	\$564

**Table 3: Post-Tax NPV (5%) Sensitivity, A\$M**

Gold Price (US\$/oz)	Base Case	Initial Capex (-10%)	Initial Capex (+10%)	Opex (-10%)	Opex (+10%)	FX (0.70)	FX (0.85)
\$1,900	\$408	\$440	\$374	\$454	\$363	\$538	\$315
<b>\$2,000</b>	<b>\$468</b>	<b>\$499</b>	<b>\$433</b>	<b>\$514</b>	<b>\$423</b>	<b>\$604</b>	<b>\$369</b>
\$2,100	\$528	\$559	\$494	\$573	\$482	\$670	\$425
\$2,200	\$587	\$619	\$553	\$633	\$542	\$738	\$480
\$2,300	\$646	\$678	\$612	\$692	\$602	\$804	\$535
\$2,400	\$707	\$738	\$671	\$751	\$661	\$870	\$588
\$2,500	\$766	\$797	\$732	\$812	\$720	\$936	\$643

**Table 4: Post-Tax IRR Sensitivity**

Gold Price (US\$/oz)	Base Case	Initial Capex (-10%)	Initial Capex (+10%)	Opex (-10%)	Opex (+10%)	FX (0.70)	FX (0.85)
\$1,900	33.8%	41.7%	27.6%	36.5%	31.0%	41.2%	28.1%
<b>\$2,000</b>	<b>37.3%</b>	<b>45.8%</b>	<b>30.7%</b>	<b>39.9%</b>	<b>34.6%</b>	<b>45.0%</b>	<b>31.4%</b>
\$2,100	40.7%	49.9%	33.6%	43.2%	38.1%	48.7%	34.8%
\$2,200	44.0%	53.9%	36.5%	46.6%	41.5%	52.3%	37.9%
\$2,300	47.3%	58.0%	39.3%	49.9%	44.8%	56.0%	41.0%
\$2,400	50.6%	62.0%	42.1%	53.2%	48.1%	59.6%	44.1%
\$2,500	53.9%	66.0%	44.9%	56.4%	51.4%	63.1%	47.1%

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## Mineral Resources

The Measured, Indicated and Inferred Mineral Resources for the consolidated 15-Mile and Beaver Dam Project is 35.6 Mt @ 1.2g/t Au containing 1,290,000 ounces of gold. Note that the Mineral Resource estimates remain unchanged from those reported as at 31 December 2023.

**Table 5: 15-Mile and Beaver Dam Consolidated Mineral Resources Summary**

Deposit	Measured			Indicated			Total Measured and Indicated			Inferred		
	Tonnes (Mt)	Grade (g/t Au)	Gold ('000)	Tonnes (Mt)	Grade (g/t Au)	Gold ('000)	Tonnes (Mt)	Grade (g/t Au)	Gold ('000)	Tonnes (Mt)	Grade (g/t Au)	Gold ('000)
Egerton-Maclean	2.6	1.2	101	12.9	1.1	461	15.4	1.1	562	1.4	1.3	56
Plenty	0.2	1.1	7	2.8	1.0	86	3.0	1.0	93	0.7	1.5	33
Hudson	0.7	0.8	18	1.2	0.7	26	1.9	0.7	44	0.2	1.0	6
149	1.0	0.7	21	0.9	0.6	19	1.9	0.7	40	0.2	0.6	3
<b>Subtotal 15-Mile</b>	<b>4.4</b>	<b>1.0</b>	<b>150</b>	<b>17.7</b>	<b>1</b>	<b>590</b>	<b>22.2</b>	<b>1.0</b>	<b>740</b>	<b>2.4</b>	<b>1.3</b>	<b>100</b>
Beaver Dam	5.1	1.3	210	4.8	1.2	190	9.9	1.3	400	1.2	1.4	50
<b>Total</b>	<b>9.5</b>	<b>1.2</b>	<b>360</b>	<b>22.5</b>	<b>1.1</b>	<b>780</b>	<b>32.1</b>	<b>1.1</b>	<b>1140</b>	<b>3.7</b>	<b>1.3</b>	<b>150</b>

Notes:

1. Sub-total and total are rounded to the nearest 10koz
2. Rounding may result in apparent summation differences between tonnes, grade and metal contained

## Ore Reserves

The Proved and Probable Ore Reserve for the consolidated 15-Mile and Beaver Dam Project is 22.9 Mt @ 1.1 g/t Au containing 840,000 ounces of gold. Note that the Ore Reserves estimates remain unchanged from those reported as at 31 December 2023.

**Table 6: 15-Mile and Beaver Dam Consolidated Ore Reserves Summary**

Deposit	Proved			Probable			Total		
	Tonnes (Mt)	Grade (g/t Au)	Gold ('000)	Tonnes (Mt)	Grade (g/t Au)	Gold ('000)	Tonnes (Mt)	Grade (g/t Au)	Gold ('000)
Egerton-MacLean	2.6	1.2	99	10.8	1.1	387	13.3	1.1	486
Plenty	0.2	1.1	6	1.8	1.0	54	1.9	1.0	60
Hudson	0.7	0.8	17	1.2	0.7	27	1.9	0.7	44
149	0.8	0.7	17	0.5	0.6	11	1.3	0.7	28
<b>Subtotal 15-Mile</b>	<b>4.2</b>	<b>1.0</b>	<b>140</b>	<b>14.3</b>	<b>1.0</b>	<b>480</b>	<b>18.5</b>	<b>1.0</b>	<b>620</b>
Beaver Dam	2.9	1.6	145	1.6	1.5	78	4.5	1.6	223
<b>Total</b>	<b>7.1</b>	<b>1.2</b>	<b>280</b>	<b>15.9</b>	<b>1.1</b>	<b>560</b>	<b>23.0</b>	<b>1.1</b>	<b>840</b>

Notes:

1. Sub-total and total are rounded to the nearest 10koz
2. Rounding may result in apparent summation differences between tonnes, grade and metal contained

## Operations

### Mining Summary

The 15-Mile and Beaver Dam open pits will be mined with a conventional drill, blast and haul setup. There are four open pits at 15-Mile: Egerton-Maclean, Plenty, Hudson and 149 and one open pit at Beaver Dam. In summary:

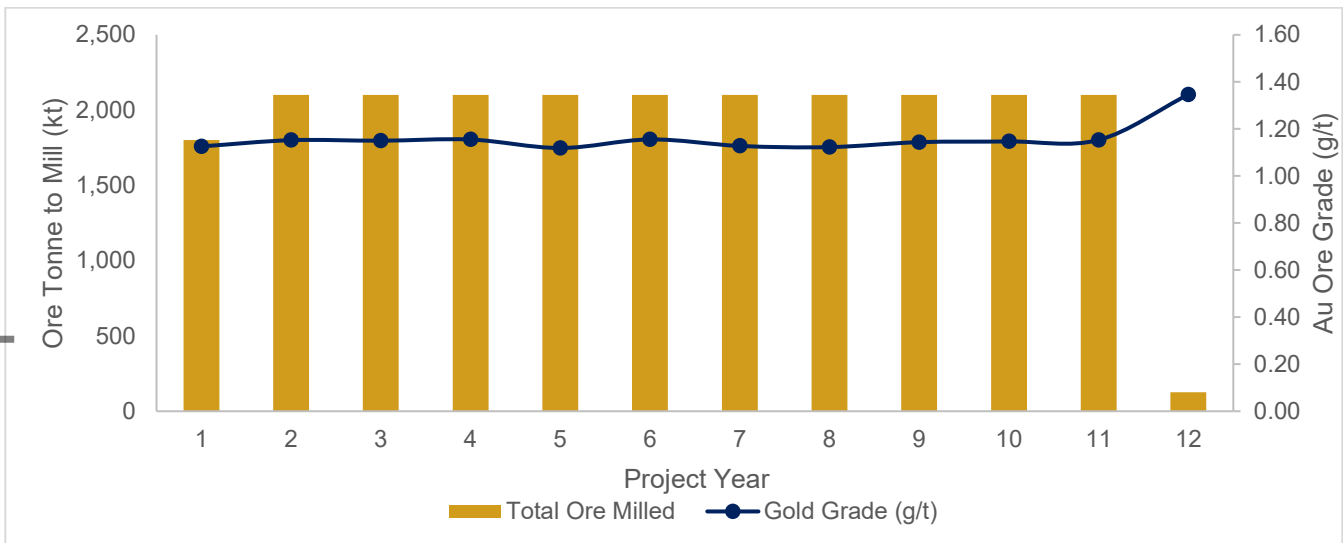
- The peak mining rate is 10.2 million tonnes per year over a mine life of 11.1 years;
- A total of 22.9 million tonnes of ore will be mined at an average grade of 1.1 g/t, with a total of 70.2 million tonnes of waste mined, resulting in a stripping ratio of 3.1 tonnes waste per tonne of ore;
- The primary production equipment includes 144 mm DTH production drills, 4.5 m<sup>3</sup> bucket production excavators, and 64 tonne payload off highway mining trucks; and
- Ore stockpile rehandling at 15-Mile is minimal with two small Run of Mine stockpiles for storing mill feed, with peak inventory of 0.7 million tonnes.

The mining sequence across 15-Mile and Beaver Dam has been optimised to allow for a smooth gold production profile over the life of mine. Use of exhausted open pits for backfill of selected waste at 15-Mile and Beaver Dam will further reduce environmental disturbance and result in improved landforms post closure.

**Table 7: PFS Mine Plan Production Summary**

Parameter	Units	Life of Mine	Y-1	Y1	Y2	Y3	Y4	Y5	Y6	Y7	Y8	Y9	Y10	Y11	Y12
Total Tonnage Mined	Mt	93.1	6.1	9.6	9.2	10.1	10.2	9.4	8.9	8.5	8.2	6.1	3.5	3.3	0.2
Waste Tonnage Mined	Mt	70.2	5.8	8.0	6.8	7.5	8.1	7.3	6.8	6.4	6.1	4.1	1.7	1.5	0.1
ROM Ore Tonnage Mined	Mt	22.9	0.3	1.6	2.4	2.5	2.1	2.1	2.1	2.1	2.1	2.0	1.8	1.8	0.1
Strip Ratio	W:O	3.1	22.5	5.2	2.9	3.0	3.8	3.5	3.2	3.0	2.9	2.1	1.0	0.8	0.5
ROM Mined Gold Head Grade	g/t	1.1	0.9	1.2	1.1	1.0	1.2	1.1	1.2	1.1	1.1	1.2	1.3	1.3	1.4

**Figure 6 - PFS Tonnes Milled and Gold Grade (g/t)**



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**Figure 7 - PFS Mine Plan Production Summary**

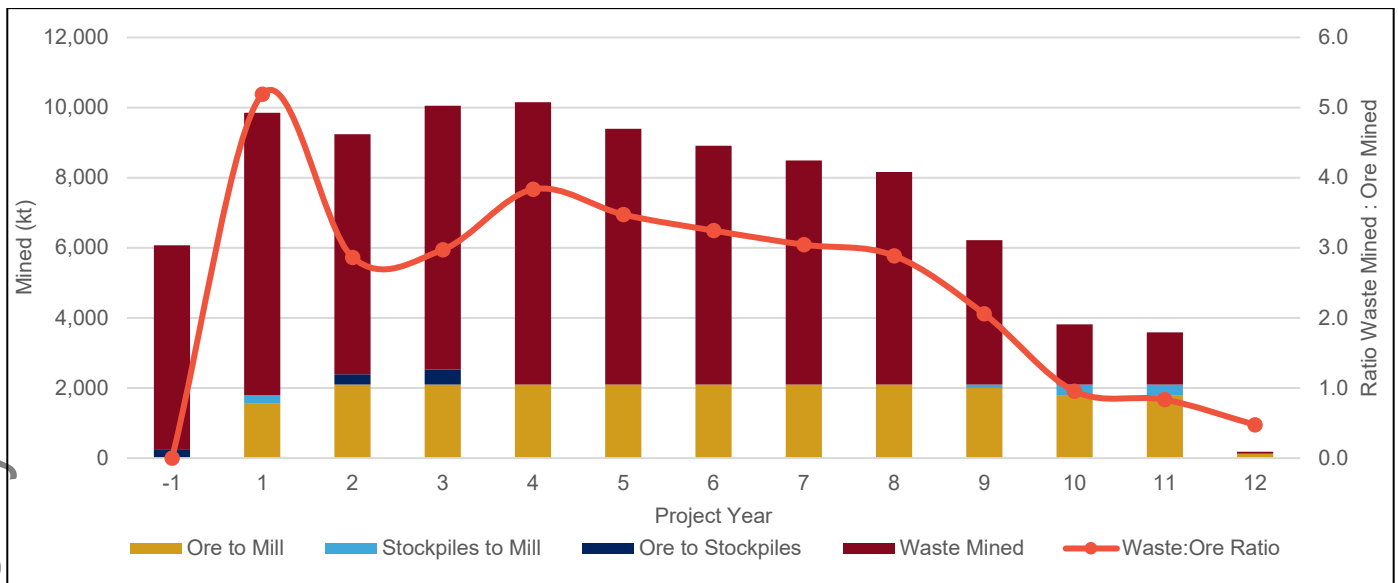
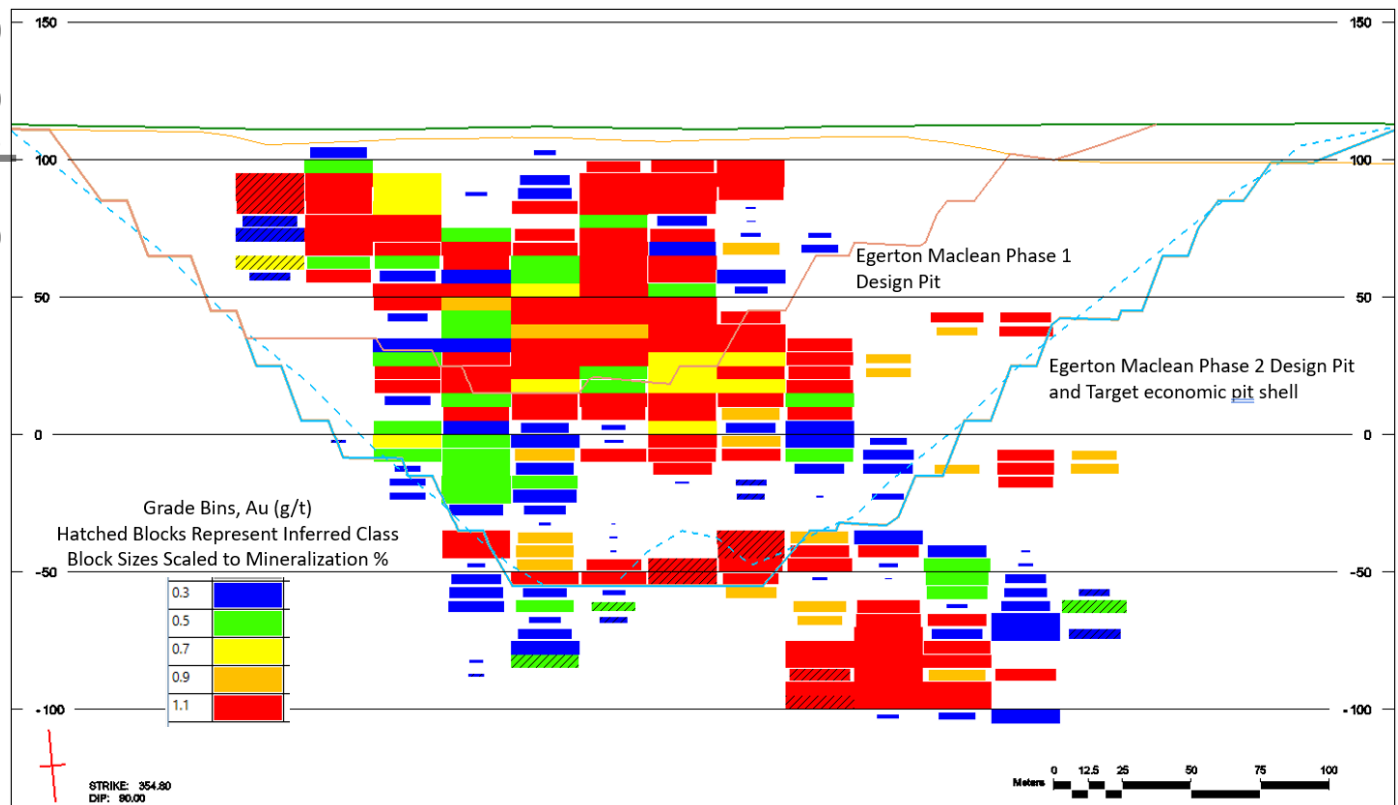


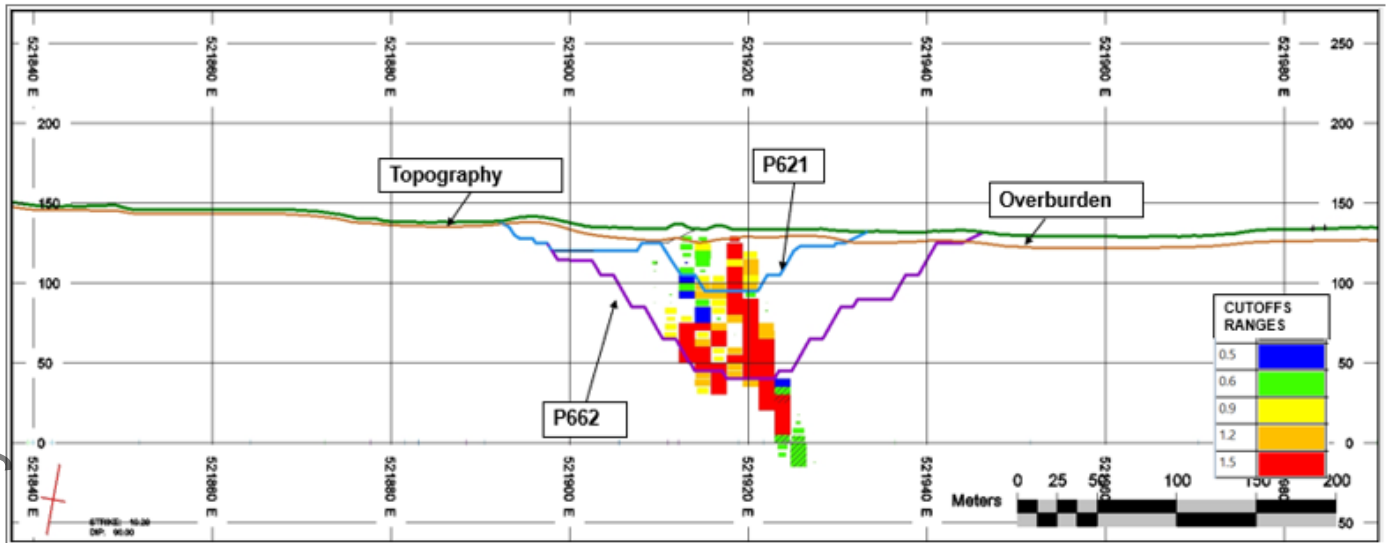
Figure 8 shows a cross-section view through Egerton-Maclean deposit, Figure 9 through the Beaver Dam deposit. Blocks in the section view show gold grade in all blocks above a 0.30 g/t gold cut-off. Inferred blocks are shown as hatched blocks. Block sizing is relative to the mineralised portion of the block. A block that is 50% mineralised appears half as large as a block that is 100% mineralised. Green lines represent the topography, orange lines the overburden/bedrock contact surfaces and the brown, blue and purple lines the designed open pits.

**Figure 8: Cross Section through Egerton-Maclean pit at 15-Mile looking West**



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Figure 9 Cross Section through Beaver Dam pit looking West



## Mining Methods and Assumptions

### 15-Mile

Open pit optimisation for 15-Mile is run using Pseudoflow. Ultimate economic pit limits are chosen independently for each deposit and range from 0.9 to 1.1 revenue factor pit shells. Pit designs incorporating further practical mining considerations, such as minimum mining width, bench configurations and ramp access are carried out using these target optimisation shells. The overall slopes used for the pit optimisation and design work were sourced from reports carried out by external geotechnical consultants, with overall slopes ranging from 35 to 51 degrees in the various geotechnical zones.

Minimum phase mining width is planned as 45 m, with pit bottoms designed down to 25 m. Mining dilution and recovery factors have been incorporated based on grade control and reconciliation work completed on the nearby Touquoy gold mine, which was mined using the same methods and with the same equipment as proposed for 15-Mile. Global mining dilution of 1.6% @ 0.2 g/t gold grade and 98.4% mining recovery factors are applied to the Mineral Resource block model tonnages and grades.

The mine and mill production schedules are developed using the bench Ore Reserves and waste tonnages within the phased pit designs. Mine operations are planned as owner operated with conventional drill/blast/load/haul activities.

Mining cost estimates are built up from first principles. Equipment and operations productivity is based on historical production at the nearby Touquoy gold mine, and simulated hauler cycle times for all planned 15-Mile sources and destinations. Equipment fuel, lube, tire, equipment parts, explosives and labour usages rates have also been estimated based on experience from the nearby Touquoy gold mine as well as supplier recommendations. Costs inputs are based on supplier quotations in Q2 2024.

### Beaver Dam

Open pit optimisation for Beaver Dam is run using Pseudoflow. Ultimate economic pit limits are chosen based on a 0.8 revenue factor pit shell. Pit designs incorporating further practical mining considerations, such as minimum mining width, bench configurations and ramp access are carried out using these target optimisation shells. The overall slopes used for the pit optimisation and design work were sourced from reports carried out by external geotechnical consultants, with overall slopes ranging from 42 to 53 degrees in the various geotechnical zones.

Minimum phase mining width is planned as 45 m, with pit bottoms designed down to 25 m. Mining dilution and recovery factors have been incorporated based on grade control and reconciliation work completed on the nearby Touquoy gold mine, which was mined using the same methods and with the same equipment as proposed for Beaver Dam. Global mining dilution of 1.6% @ 0.3 g/t gold grade and 98.4% mining recovery factors are applied to the Mineral Resource block model tonnages and grades.

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The mine and mill production schedules are developed using the bench Ore Reserves and waste tonnages within the phased pit designs. Mine operations are planned as owner operated with conventional drill/blast/load/haul activities.

Mining cost estimates are built up from first principles. Equipment and operations productivity is based on historical production at the nearby Touquoy gold mine, and simulated hauler cycle times for all planned Beaver Dam sources and destinations. Equipment fuel, lube, tire, equipment parts, explosives and labour usages rates have also been estimated based on experience from the nearby Touquoy gold mine as well as supplier recommendations. Costs inputs are based on supplier quotations in Q2 2024.

## Processing Summary

### **15-Mile and Beaver Dam Process Plant**

The metallurgical testing confirmed both the 15-Mile and Beaver Dam ore is highly amenable to conventional recovery methods of gravity and carbon-in-leach cyanidation, similar to the Touquoy operation. The process review and studies undertaken by Ausenco confirmed the Touquoy processing plant is suitable for recovering gold from both 15-Mile and Beaver Dam ore and therefore the process flowsheet has been designed to maximise repurposing of Touquoy equipment at 15-Mile to reduce initial capital costs. Ore from the Beaver Dam pit will be mined and transported via public roads at a distance of approximately 61 kilometres from Beaver Dam to the 15-Mile site for final processing. No additional modifications are required at 15-Mile to process Beaver Dam ore.

Testwork indicates the ore is medium hardness with a bond mill work index approximately 13.8 (metric) for 15-Mile and 15.3 (metric) for Beaver Dam. Due to the variance in ore hardness between 15-Mile and Beaver Dam, the process plant will operate at a range between 5,500 and 5,800 tonnes per day at a mill availability of 92%.

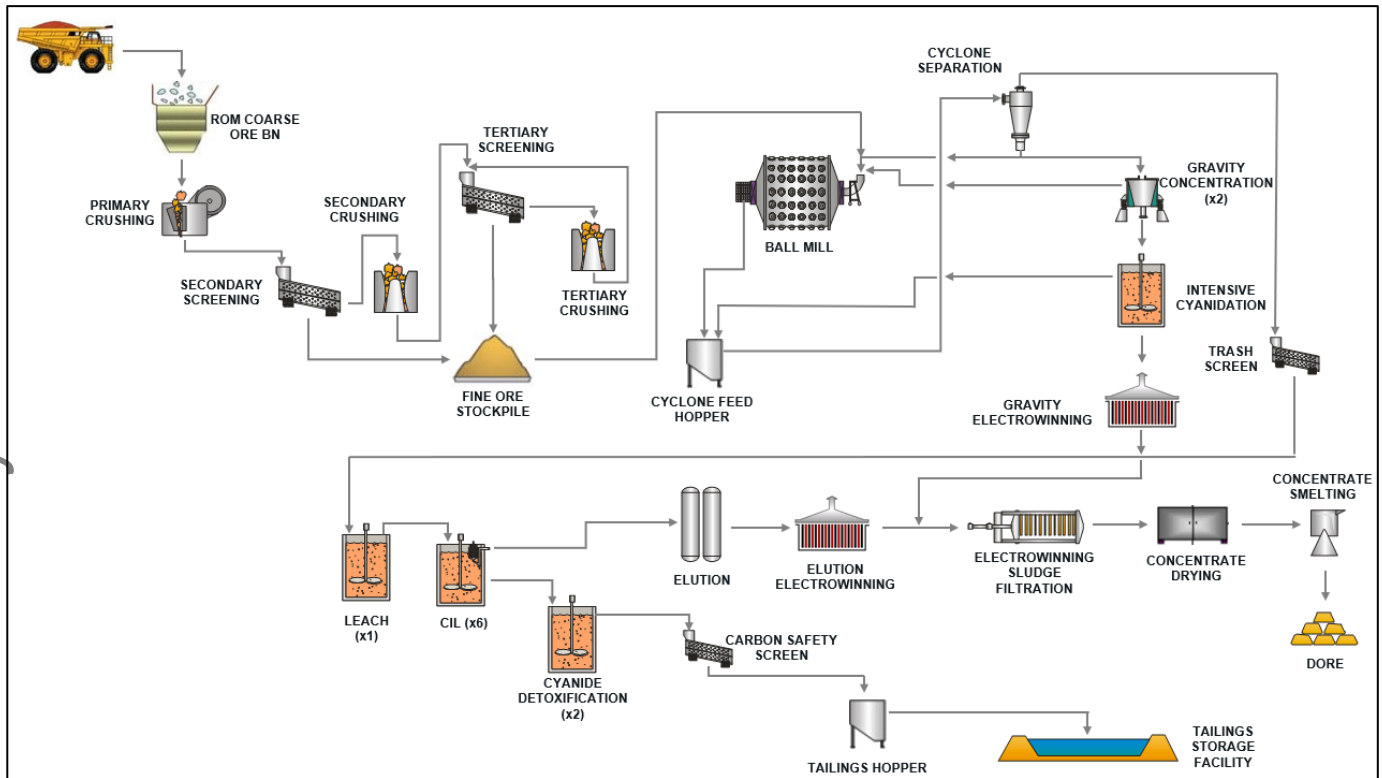
The process design for the Project consists of:

- Three stage crushing, consisting primary jaw crusher, secondary cone crusher and tertiary cone crusher with associated material handling and screening equipment;
- Grinding of crushed material to 80% passing 150 – 180 microns (depending on open pit source) with a 5 (diameter) x 8 (length) metre ball mill operating in closed circuit with hydrocyclones with the ball mill equipped with a 3.5 MW motor;
- A gravity concentration circuit is included in the grinding area with gold recovery up to 60% expected from the gravity concentrate depending on ore type;
- Leaching and adsorption circuit includes one leach tank and six carbon-in-leach (CIL) tanks, for a total leach and adsorption retention time of 24 hours;
- Cyanide destruction using an SO<sub>2</sub>/air system on the final tailings slurry; and
- Final tails from the cyanide destruction circuit will be discharged to the tailings management facility.

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Figure 10: Process Flow Diagram



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**15-Mile**

Metallurgical testing for 15-Mile was completed on drill core samples from all four open pits at Base Metallurgical Laboratories Ltd. (“BaseMet”) (independent of St Barbara) in September quarter of 2023. The test results indicated recovery on all 15-Mile ore sources of 97.0% was achievable.

**Beaver Dam**

Metallurgical testing for Beaver Dam was completed on drill core samples at ALS Metallurgy Ltd. (“ALS”) (independent of St Barbara) in March quarter of 2015 and March quarter of 2021. The test results indicated overall recovery on all Beaver Dam ore sources of 95.8% was achievable.

**Tailings Management**

**15-Mile**

The tailings management design was completed by Ausenco and is based on conventional slurried tailings storage to help reduce potential acid generation. The tailings management facility will be centreline construction and consist of a “starter” storage facility followed by subsequent engineered lifts during operation. Potentially acid generating waste material mined in the early years of production will be co-deposited in the tailings management facility, along with any overburden material that has been potentially impacted by historic mining in the area (occurring in late 1800s/early 1900s).

**Beaver Dam**

Ore from Beaver Dam is transported and processed at 15-Mile, therefore Beaver Dam processed ore will use the 15-Mile tailings facility. The 15-Mile tailings facility has been designed with sufficient storage capacity to account for the ore from Beaver Dam.

## Approvals and Infrastructure

### 15-Mile

The 15-Mile project is subject to Provincial and Federal Approvals as applicable prior to development. This includes permits such as Environmental Assessment, MDMER and Fisheries Authorisation.

The 15-Mile project has been designed with significant additional consideration of environmental constraints so as to reduce impacts in these latest project designs. This approach has significantly reduced impacts compared to previous designs. This includes limiting stockpile size, more efficient tailings facility design and reducing waste rock disturbance and impacts.

Site infrastructure including buildings, water treatment and auxiliary support equipment has been updated and estimated as per the 2024 Pre-Feasibility Study.

Seloam Brook presently runs through areas of historic tailings within the 15-Mile Project area. Seloam Brook and its watershed is highly disturbed and has been impacted by power infrastructure and historic mining. The area contains tailings and byproducts of the historic mining process. As part of St Barbara's 15-Mile Project, Seloam Brook will be realigned away from the historic tailings using an engineered design that will enhance fish habitat and ensure existing flows are accommodated. As part of this diversion, the historic tailings in the area will be rehabilitated with approximately 61 hectares impacted by historic tailings anticipated to be rehabilitated and contained in modern storage infrastructure.

### Beaver Dam

The Beaver Dam project requires Federal and Provincial Approvals prior to development. This includes permits such as Environmental Assessment, MDMER and Fisheries Authorisation.

The Beaver Dam project as proposed has taken into consideration environmental limitations and opportunities to reduce impacts. This has resulted in a significant decrease in environmental impacts compared to previous designs. This includes a materially smaller pit design and less mined waste for lower overall surface disturbance, no requirement for a new haul road, minimised trucking frequency and reduced water consumption.

The project footprint has largely reduced because of the smaller pit design. This resulted in reduced waste rock stockpiles. The potential acid generating (PAG) material will be separated from the non-acid generating (NAG) material. The PAG will be re-handled back into the vacant pit at completion rather than stockpiling long term on surface as a better long-term solution. Additionally, the project no longer requires the construction of a 12.3 km haul road to the Touquoy processing facility.

Site infrastructure including buildings, water treatment and auxiliary support equipment has been updated and estimated as per the 2024 Pre-Feasibility Study.

## Social Acceptability and License to Operate

Early information and engagement meetings have been held with local communities, First Nation communities, and local, provincial, and federal governmental authorities to initiate collaborative work to obtain social acceptability of the project. Feedback has significantly influenced several of the changes in design of this standalone project.

The Project will be subject to Federal and Provincial environmental regulations. Environmental baseline studies and analysis are well advanced and will be continued over the period until a decision is made to commence any formal permitting process.

St Barbara will continue to regularly meet with stakeholders and First Nation representatives while permitting is on hold.

## Next Steps

Environmental related studies are well advanced and have guided project design to minimize impacts. The preparation of an Environmental Assessment document is currently on hold pending signs of an improved outlook for permitting and regulation from Nova Scotia Department of Environment and Climate Change (NSECC). In the meantime, Atlantic Mining will prioritise engagement with the community and First Nations, while also focusing on project optimisation studies.

## Capital Costs

The total initial (pre-production) capital cost for the 15-Mile Project is estimated to be C\$194 million (A\$222 million) including allowances for contingency. Sustaining capital costs are estimated to be C\$170 million (A\$194 million) over the life of mine with closure costs estimated to be C\$87 million (A\$99 million).

Capital and sustaining costs were compiled by Ausenco from the following sources:

- Mining initial capital costs were developed by MMTS. Costs include the owner's lease to own mine fleet, and pre-production mine operating costs for mining 6.1 Mt of material from the open pits, targeting waste rock quantities for construction purposes.
- Mining sustaining capital costs were developed by MMTS and include ongoing lease payments for the mining fleet;
- Processing, infrastructure, project delivery and project indirect costs were developed by Ausenco, and are inclusive of a 2.1 Mtpa conventional leach/CIL processing plant, power substation, tailings facility initial construction, diversion of Seloam Brook and other required infrastructure with repurposing of Touquoy fixed plant equipment captured in the processing capital costs where cost effective; and
- Sustaining capital costs mainly consist of new infrastructure and pre-stripping required to initiate mining at Beaver Dam, all of which is incurred in Year 5 of the Project. The remaining sustaining capital mainly consists of tailings management facility lifts that occur through life of mine.

**Table 8: Initial and Sustaining Capital Costs (C\$M)<sup>3</sup>**

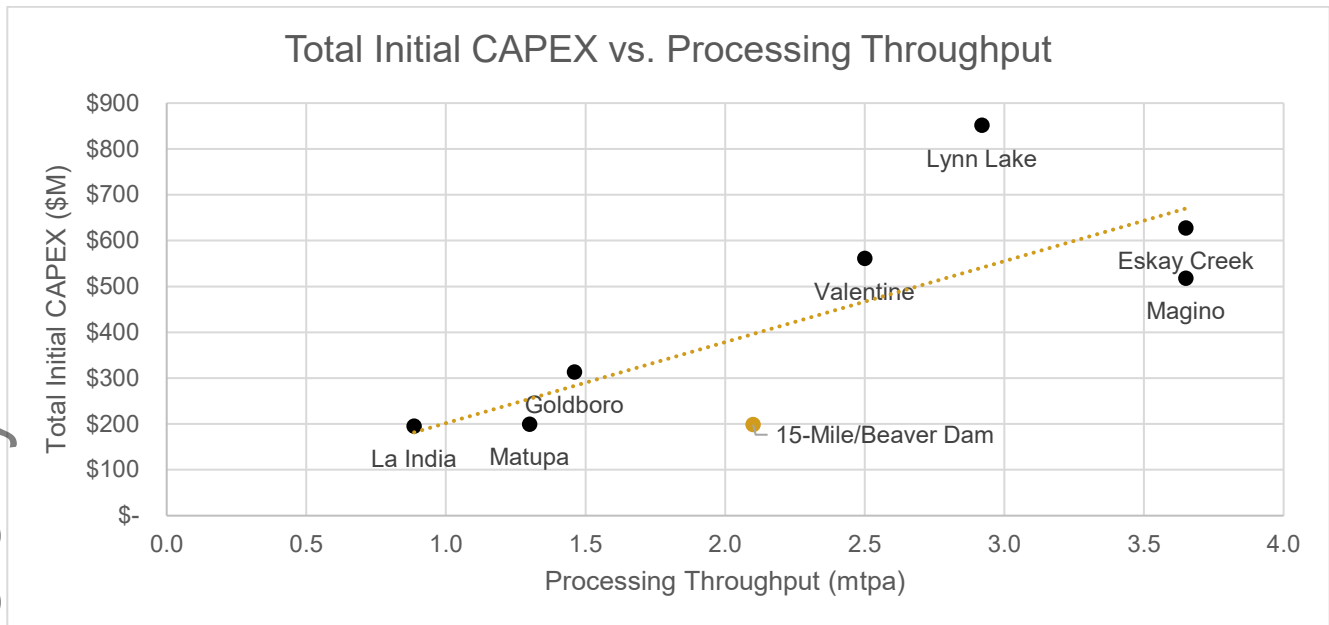
Area	Initial Capital (C\$M)	LOM Sustaining Capital (C\$M)	Total Capital (C\$M)
Mining	40	56	96
Processing	55	-	55
Tailings Management	15	36	51
On Site Infrastructure	20	-	20
Project Indirect costs	20	-	20
Owner's Costs	17	28	45
Contingency	26	-	26
Beaver Dam Capital (Spent Year 5)	-	43	43
Ore Transport Costs	-	8	8
<b>Total</b>	<b>194</b>	<b>170</b>	<b>364</b>

The total initial capital cost of C\$194 million is comparatively low against other similar scale projects in North and Central America, mostly due to the consolidated layout/lean design, reuse of existing processing equipment versus outright new purchase and the addition of Beaver Dam ore occurring in Year 5 rather than at the beginning of Life of Mine. Figure 11 shows the total initial capital cost plotted against yearly mill throughput for the Project alongside other similar gold projects. All of the comparison projects come from published NI 43-101 Feasibility Studies and are open pit gold mining operations.

<sup>3</sup> Does not include salvage value and closure costs. Numbers are rounded to the near whole value and may not add up.

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**Figure 11: Total Initial CAPEX<sup>4</sup> vs. Processing Throughput for Consolidated 15-Mile and Beaver Dam Project and Similar Projects**



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**Operating Costs**

Operating costs have been compiled based on the following sources and assumptions:

- Operating costs are derived from first principles, with benchmarking aligned to actual costs from the Touquoy operation, adjusted for inflation.
- Mining unit costs have been estimated by MMTS, built up from first principles, assuming owner run operations, and utilising 2024 vendor quotes and internal database cost inputs;
- Processing unit costs have been estimated by Ausenco using first principles, experience at Touquoy process plant and 2023 prices for major reagents and media;
- Ore transportation costs have been estimated by MMTS using first principles assuming contractor run operations;
- G&A costs are based on experience with Touquoy project adjusted for current pricing.

**Table 9: Total Life of Mine Operating Costs**

Cost Centre	C\$/t milled
Processing	10.26
Mining*	17.06
G&A	4.25
Ore Transport**	2.36
<b>Total Site Operating Cost</b>	<b>33.93</b>

\* \$4.49/t mined.

\*\* \$12.11/t Beaver Dam ore mined and transported.

<sup>4</sup> Costs from published NI43-101 Feasibility Studies, with pricing escalated to 2024 Canadian Dollars where required. Refer to Appendix 1 Supporting Sources for more details.

**Authorised by**

Andrew Strelein  
*Managing Director and CEO*

**For more information**

**Investor Relations**

David Cotterell  
*General Manager Business Development & Investor Relations*

[info@stbarbara.com.au](mailto:info@stbarbara.com.au)

T: +61 3 8660 1959

M: +61 447 644 648

**Media Relations**

Paul Ryan / Michael Weir  
*Sodali & Co*

M: +61 409 296 511 / +61 402 347 032

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## Appendix 1 Supporting Sources

**Table 10 outlines total initial capital costs for the project and other similar gold mining projects in North and Central America.** These projects are all open pit, gold projects using conventional recovery methods. The capital costs come from published NI 43-101 compliant Feasibility Study level reports converted using appropriate currency conversions where applicable. Adjusted capital was calculated using published Consumer Price Index scaling factors to adjust to 2024 dollars.

**Table 10: Recently published total initial capital costs of gold projects in North and Central America**

Company	Project	Published Initial Capex (C\$M)	Publish date	Adjusted 2024 Initial CAPEX (C\$M)	Throughput (mtpa)	Location
Signal Gold	Goldboro	\$279	Dec-21	\$313	1.5	Canada
Skeena	Eskay Creek	\$592	Aug-22	\$628	3.7	Canada
Marathon Gold	Valentine	\$534	Nov-22	\$561	2.5	Canada
Alamos	Lynn Lake	\$810	Aug-23	\$851	2.9	Canada
Argonaut Gold	Magino	\$470	Feb-22	\$518	3.7	Canada
St Barbara	15-Mile/Beaver Dam	\$194	Sep-24	\$199	2.1	Canada
Aura Minerals	Matupa	\$188	Aug-22	\$199	1.3	Brazil
Condor Minerals	La India	\$185	Oct-22	\$195	0.89	Nicaragua

### Notes:

- NI 43-101 Technical Report and Feasibility Study for the Goldboro Gold Project, Eastern Goldfields District, Nova Scotia: <https://cdn-dms-issuerservices.s3.amazonaws.com/3135/100443/1642699787/19JAN2022%2020048-02%20NI%2043%20101%20FS%20FINAL.pdf>
- Skeena Completes Robust Feasibility Study for Eskay Creek: After-Tax NPV (5%) of C\$1.4B, 50% IRR and 1 Year Payback: [https://skeenaresources.com/site/assets/files/6521/09\\_08\\_2022\\_skeena\\_completes\\_robust\\_feasibility\\_study\\_for\\_eskay\\_creek\\_final7.pdf](https://skeenaresources.com/site/assets/files/6521/09_08_2022_skeena_completes_robust_feasibility_study_for_eskay_creek_final7.pdf)
- Valentine Gold Project NI 43-101 Technical Report and Feasibility Study: [https://marathon-gold.com/site/uploads/2022/12/FINAL-REPORT-Valentine-Gold-43-101-FS\\_Dec20compressed.pdf](https://marathon-gold.com/site/uploads/2022/12/FINAL-REPORT-Valentine-Gold-43-101-FS_Dec20compressed.pdf)
- Alamos Gold Announces Updated Feasibility Study for the Lynn Lake Project Outlining Larger, Longer-Life, Low-Cost Operation in Canada with Attractive Economics and Significant Exploration Upside: [https://s24.q4cdn.com/779615370/files/doc\\_news/2023/Aug/20230802-Lynn-Lake-Feasibility-Study\\_FINAL.pdf](https://s24.q4cdn.com/779615370/files/doc_news/2023/Aug/20230802-Lynn-Lake-Feasibility-Study_FINAL.pdf)
- Magino Gold project Ontario, Canada NI 43-101 Technical Report Mineral Resource and Mineral Reserve Update: [https://minedocs.com/22/Magino\\_TR\\_02142022.pdf](https://minedocs.com/22/Magino_TR_02142022.pdf)
- Feasibility Study Technical Report (NI 43-101) for the Matupa Gold Project, Matupa Municipality, Mato Grosso, Brazil: <https://auraminerals.com/en/operations/?data-id=matupa>
- Condor Gold Technical Project on the La India Gold Project, Nicaragua, 2022: [http://ca.condorgold.com/sites/default/files/technical\\_reports/31246\\_La%20India%20NI43-101\\_FS\\_V251022\\_SS.pdf](http://ca.condorgold.com/sites/default/files/technical_reports/31246_La%20India%20NI43-101_FS_V251022_SS.pdf)
- Exchange rate applied where necessary of C\$1.00 = US\$0.78.
- Bank of Canada published Consumer Price Index used to scale to 2024 dollars where required: <https://www.bankofcanada.ca/rates/price-indexes/cpi/>

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## JORC Code Compliance Statements

The information relating to Mineral Resources and Ore Reserves contained in this announcement is extracted from the following reports:

- 15-Mile: “Strong 15-Mile Project Pre-feasibility Results” released to ASX October 10, 2023
- Beaver Dam: “Mineral Resources and Ore Reserves Statement as at 31 December 2023” released to ASX February 13, 2024

These reports can be viewed on the company’s website [here](https://stbarbara.com.au/investors/announcements/): <https://stbarbara.com.au/investors/announcements/>

The company confirms that it is not aware of any new information or data that materially affects the information included in the original market announcements and, in the case of estimates of Mineral Resources or Ore Reserves, that all material assumptions and technical parameters underpinning the estimates in the relevant market announcement continue to apply and have not materially changed. The company confirms that the form and context in which the Competent Person’s findings are presented have not been materially modified from the original market announcement.

The information in this report that relates to Ore Reserves is based on information compiled by Mr. Marc Schulte who is a Member of the Association of Professional Engineers, Geologists and Geophysicists of Alberta. Marc Schulte is an associate of Moose Mountain Technical Services and has sufficient experience relevant to the style of mineralisation and type of deposit under consideration and to the activity which he is undertaking to qualify as a Competent Person as defined in the 2012 Edition of the “Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves”. Marc Schulte consents to the inclusion in the statement of the matters based on his information in the form and context in which it appears.

The information in this report that relates to Mineral Resources is based on information compiled by Ms. Jane Bateman who is a Fellow of the Australasian Institute of Mining and Metallurgy. Jane Bateman is a full-time employee of St Barbara Ltd and has sufficient experience relevant to the style of mineralisation and type of deposit under consideration and to the activity which she is undertaking to qualify as a Competent Person as defined in the 2012 Edition of the “Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves”. Jane Bateman consents to the inclusion in the statement of the matters based on her information in the form and context in which it appears.

### JORC Table 1 Checklist of Assessment and Reporting Criteria – 15Mile (Egerton-Maclean, Plenty, Hudson and 149)

#### Section 1 Sampling Techniques and Data – 15 Mile (Egerton – Maclean, Plenty, Hudson and 149)

Criteria	Comments
<b>Sampling Techniques</b>	<ul style="list-style-type: none"> <li>• 1985: Quartz vein material cut using core saw. Average sample length of 0.28m</li> <li>• 1986-1988: Whole core split using core-splitter. Samples included quartz veins and adjacent wall rock and zones of elevated sulphide content.</li> <li>• 2009-2010: Resampling program. Sampled intervals represented previously unsampled core that generally did not include quartz veins or significant alteration. Resample length was generally determined by subdividing the sample length into regular intervals of 3 ft (91 cm) or less, although in some case intervals did exceed 3 ft.</li> <li>• 2011: Sawn to half core using diamond-tipped core saw. Maximum sample length of 1.5 m and minimum sample length of 0.25 m.</li> <li>• 2016-2017: Core samples sawn to half core using a diamond-tipped core saw. Nominal 1 m sample intervals. Samples were dispatched from Atlantic’s core facility in Moose River, directly to ALS in Sudbury, ON.</li> <li>• 2017-2018: Selectively based on geology, core samples have been processed as: (1) sawn to half core using a diamond-tipped core saw with nominal 1m half-core sample intervals; or (2) after core has been geologically logged and photographed, whole core has been sampled on 1 m sample intervals. Samples were dispatched from Atlantic’s core facility in Moose River, directly to ALS in Sudbury, ON</li> <li>• 2018-2019 (Atlantic Gold): Core samples sawn to half core using a diamond-tipped core saw. Nominal 1 m sample intervals. Samples were dispatched from Atlantic’s core facility in Moose River, directly to ALS preparatory lab in Sudbury, ON or Moncton, New Brunswick.</li> </ul>
<b>Drilling Techniques</b>	<ul style="list-style-type: none"> <li>• Drilling has used primarily NQ (47.6 mm diameter) core.</li> <li>• Core is not orientated</li> </ul>
<b>Drill Sample Recovery</b>	<ul style="list-style-type: none"> <li>• Diamond drilling recovery percentages were measured by comparing actual metres recovered per drill run versus metres measured on the core blocks. Recoveries averaged over &gt;90% with increased core loss associated with faults, shear zones and proximal to underground workings.</li> <li>• There is no relationship between sample recovery and gold grade</li> </ul>
<b>Logging</b>	<ul style="list-style-type: none"> <li>• Drill core logging procedures are described on a metre-by-metre basis with regards to lithology, texture, sulphide mineralization, alteration, quartz veining, structure, and in some cases magnetic susceptibility. All drill core has been photographed both wet and dry. Core recovery and rock quality designation (RQD) were measured for each hole at the same metre-by-metre intervals.</li> </ul>

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	<ul style="list-style-type: none"> <li>Information was initially captured using logging sheets; later programs used direct computer entry.</li> </ul>
<p><b>Sub-sampling techniques and sample preparation</b></p>	<ul style="list-style-type: none"> <li>1985: Bondar Clegg assayed using a one assay ton split (29.17 g/t Au) of the pulverized sample by conventional fire assay and atomic absorption method. Of 577 samples submitted, 22 samples containing visible gold were assayed by screen fire assay based on a weighted average of the fire assay for a one assay ton split of the -150 mesh fraction with the fire assay for the entire +150 mesh fraction.</li> <li>1986–1988: Chemlab samples were assayed by conventional fire assay and atomic absorption on a 30g sample. For all samples assaying over 1 g/t Au (this limit was subsequently reduced to (0.5 g/t Au), the reject material was re-assayed by the screen fire assay method. Bondar Clegg samples used a similar method. The screen size used was 80 mesh and two 30 g samples of the fine fraction were assayed and weight-averaged with assays for the entire +80 mesh fraction.</li> <li>2010: Samples selected for resampling were assayed at ALS using the “Screen Metallics Gold, Double Minus” procedure which is designed for samples which contain coarse gold. The sample is dried, crushed, pulverised in a ring mill and the entire sample sieved through a 100 µm screen. The coarse fraction was completely digested in a classic fire assay with gravimetric finish. The fine fraction was homogenized and two 30 g samples (Au-AA25 and Au-AA25D) split from this fraction and assayed by fire assay with AAS finish. The weighted assay value of the entire sample was then calculated from the three analyses.</li> <li>2011: Similar methodologies as used for the 2010 resampling program.</li> <li>2016–2017: Sawn half-core samples were submitted to ALS Chemex facility in Sudbury, Ontario where each sample was dried, coarse crushed and pulverized in a ring mill to 85% passing 75 µm or better. A subsample was taken for 50 g charge fire assay with AAS finish (ALS method Au-AA26).</li> <li>September 2017 to February 2018: Sawn half-core (97%) or whole core (3%) samples were submitted to ALS Chemex facility in Sudbury, Ontario where each sample was dried, finely crushed to better than 70% passing a 2 mm screen. A split up to 1,000 g was taken using a Boyd rotary splitter and pulverized to better than 85% passing a 75 µm screen. A subsample was taken for 50 g charge fire assay with AAS finish (ALS method Au-AA26).</li> <li>February 2018 to December 2018: Sawn half-core samples were submitted to ALS Chemex facility in Sudbury, Ontario where each sample was dried, finely crushed to better than 70% passing a 2 mm screen. A split up to 1,000 g was taken using a Boyd rotary splitter and pulverized to better than 85% passing a 75 µm screen. A subsample was taken for 50 g charge fire assay with AAS finish (ALS method Au-AA26). A 1:10 duplicate sample was also performed (Au-AA26D).</li> <li>2018-2019 149: Sawn half-core samples were submitted to ALS Chemex facility in Sudbury, Ontario or Moncton, New Brunswick, where each sample was dried, finely crushed to better than 70% passing a 2 mm screen. A split up to 1,000 g was taken using a Boyd rotary splitter and pulverized to better than 85% passing a 75 µm screen. A subsample was taken for 50 g charge fire assay with AAS finish (ALS method Au-AA26). A 1:10 duplicate sample was also performed (Au-AA26D).</li> </ul>
<p><b>Quality of assay data and laboratory tests</b></p>	<ul style="list-style-type: none"> <li>Analysis for gold using screen fire assay and fire assay across all drill programs is appropriate for the type of mineralisation.</li> <li>1985 – 1988: Unknown quality control procedures. These holes were selectively sampled, and are not used for grade estimation.</li> <li>2011: Protocols included insertion of blanks, insertion of certified reference materials (CRM) (1:20) and field half-core duplicates (1:20). Blanks indicate minimal contamination. CRMs indicate acceptable levels of analytical accuracy and precision.</li> <li>2016 -2017: Protocols included insertion of blanks (1:28 and after visible gold), insertion of CRM (1:28) and duplicate pulp fire assay (1:10). Blank performance was acceptable. CRMs indicate acceptable levels of analytical accuracy and precision. Original samples and duplicate showed a correlation of 0.94.</li> <li>2017 – 2019: Protocols were as described for 2016 -2017. Blank and CRM performance were acceptable and Original and duplicate samples had a correlation of 0.84.</li> </ul>
<p><b>Verification of sampling and assay</b></p>	<ul style="list-style-type: none"> <li>Drilling from 1985 – 1988 that was selectively sampled has been re-drilled. There is good correlation with the width and tenor of assays between early and later holes.</li> <li>Prior to 2016 data capture was completed manually on hard copy logs, which was transferred to Excel spreadsheets and then loaded to MS Access databases. The data was then validated and transferred to an SQL server database using DataShed software.</li> <li>Since 2016 data has been captured electronically either using Excel spreadsheets or LogChief.</li> <li>A selection of sample data has been cross-checked against logs from annual reports with no issues detected.</li> </ul>

<b>Location of data points</b>	<ul style="list-style-type: none"> <li>In 2011 a number of the 1980s-era drill holes were surveyed using a Trimble differential GPS, re-establishing the local grid and defining transformation co-ordinates between the local grid and the UTM NAD83 projection.</li> <li>Elevation data from historic drilling showed a regional systematic error and this was corrected for drill holes in the Egerton–MacLean and Hudson Zones where a topographic surface based on a surveyed 25 x 25 m grid was established.</li> <li>Prior to Atlantic Gold’s 2016–2017 drill campaign, an independent surveyor (WSP) was contracted to validate the local grid transformation used previously by re-surveying in historic holes and re-establishing the grid.</li> <li>Once established, WSP surveyed in the proposed drill hole locations in UTM NAD83 projection. Upon drill hole completion, WSP surveyed in the final collar location.</li> <li>Holes are surveyed downhole at approximately 30 m intervals and at the final hole depth. Survey instruments have included Pajari, Sperry-sun, FlexIT and Reflex tools.</li> </ul>
<b>Data spacing and distribution</b>	<ul style="list-style-type: none"> <li>Data spacing is approximately on 25m spaced sections. Drilling data is sufficient to establish continuity for all lodes.</li> </ul>
<b>Orientation of data in relation to geological structure</b>	<ul style="list-style-type: none"> <li>Gold mineralisation at 15-Mile Stream is to some degree stratiform. Bedding was intersected at angles of between 45° and 90° such that the true thickness of mineralisation is generally between 70% and 100% of the downhole intercepts.</li> </ul>
<b>Sample security</b>	<ul style="list-style-type: none"> <li>Security procedures prior to Atlantic Gold Corp’s involvement in the Project are not known, although check sampling and re-examination of core from a large number of drill holes has not shown any sign of sample tampering.</li> <li>Core was kept in a secure and locked area with limited access. Samples are typically conveyed from the Project site to the laboratory using commercial transport firms.</li> </ul>
<b>Audits or reviews</b>	<ul style="list-style-type: none"> <li>No external audits or reviews of sampling techniques and data have been completed.</li> </ul>

### Section 2 Reporting of Exploration Results – 15 Mile (Egerton – Maclean, Plenty, Hudson and 149)

<b>Criteria</b>	<b>Comments</b>
<b>Mineral Tenement and Land Tenure Status</b>	<ul style="list-style-type: none"> <li>Atlantic Mining NS Inc (AMNS) has 100% ownership of the tenements over 15-Mile (EL05889, EL52901 and EL10406).</li> <li>The tenements are in good standing at the time of reporting.</li> </ul>
<b>Exploration Done by Other Parties</b>	<ul style="list-style-type: none"> <li>No recent Mineral Resource drilling has been completed by AMNS. Work completed by other parties is covered in the previous section.</li> </ul>
<b>Geology</b>	<ul style="list-style-type: none"> <li>The Meguma Terrane of Nova Scotia hosts the Moose River Member, Tangier Member, and Taylors Head Member of the basal greywacke-dominated Goldenville Formation. Gold mineralization is generally hosted in argillite and/or greywacke sequences of the Moose River Member and is associated with regional-scale anticlines. Structural repetition due to folding and faulting may result in thickening of gold-bearing units. Gold occurs as native gold, and has been observed in a number of settings, including along shear cleavage, hair line fractures; in pressure shadows; as inclusions; on the margins of sulphide grains; in thin, bedding-parallel quartz veins and stringers. Mineralization is associated with sulphides, including arsenopyrite, pyrite and pyrrhotite. Lesser chalcopyrite, galena, and sphalerite have been observed.</li> </ul>
<b>Drill Hole Information</b>	<ul style="list-style-type: none"> <li>No exploration results are presented.</li> </ul>
<b>Data Aggregation Methods</b>	<ul style="list-style-type: none"> <li>No exploration results are presented.</li> </ul>
<b>Relationship Between Mineralisation Widths and Intercept Lengths</b>	<ul style="list-style-type: none"> <li>No exploration results are presented.</li> </ul>
<b>Diagrams</b>	<ul style="list-style-type: none"> <li>No exploration results are presented</li> </ul>
<b>Balanced Reporting</b>	<ul style="list-style-type: none"> <li>No exploration results are presented</li> </ul>
<b>Other Substantive Exploration Data</b>	<ul style="list-style-type: none"> <li>No exploration results are presented</li> </ul>
<b>Further Work</b>	<ul style="list-style-type: none"> <li>No further resource definition drilling is planned at this stage</li> </ul>

### Section 3 Estimation and Reporting of Mineral Resources – 15 Mile (Egerton – Maclean, Plenty, Hudson and 149)

Criteria	Comments
<b>Database integrity</b>	<ul style="list-style-type: none"> <li>Internal data verification programs have included review of QA/QC data, re-sampling and sample re-analysis programs, and database verification for issues such as overlapping sample intervals, duplicate sample numbers, or lack of information for certain intervals. Validation checks are performed on data used to support estimation, and comprise checks on surveys, collar co-ordinates, lithology data, and assay data.</li> </ul>
<b>Site visits</b>	<ul style="list-style-type: none"> <li>The Competent Person most recently visited site in September 2023.</li> </ul>
<b>Geological interpretation</b>	<ul style="list-style-type: none"> <li>No geological models or wireframe domain models were used for the Mineral Resource estimation.</li> <li>Mineralization domaining uses geostatistical techniques. The drill-hole composites have been assigned to mineralization domains comprising the Egerton Zone East, the Egerton Zone West, the Hudson Zone, the Plenty Zone and the 149 Zone.</li> <li>In the 149 Zone, the drill hole composites were separated into two mineralization domains: a higher-grade northern domain and a lower grade southern domain.</li> </ul>
<b>Dimensions</b>	<ul style="list-style-type: none"> <li>strike extent = 1400m ; width = variable 20m to 100m; vertical extent = 225m</li> </ul>
<b>Estimation and modelling techniques</b>	<ul style="list-style-type: none"> <li>Model completed in April 2022.</li> <li>Multiple indicator kriging (MIK) was used to estimate the Mineral Resources based on an anticipated approach to mill feed material selection in mining. The basic unit of estimation is a panel with horizontal dimensions equal to the average drill hole spacing.</li> <li>Samples were composited to 2 m intervals. Statistical properties of the composites were reviewed in terms of histogram and spatial continuity to identify areas of consistent mineralization style. Distinctly different mineralization styles with clearly different histograms of composite grade were identified and modelled with different parameters within 15-Mile.</li> <li>In the Egerton Zone East, four 2 m composites with grades &gt;750 g/t Au were capped at 300 g/t Au in the dataset used for mineral resource estimation. The highest grade in a 2m composite with grade &lt;750 g/t Au was 259 g/t Au.</li> <li>Where possible, directional sample variograms and variogram models were generated for the domains, and the resulting data used to inform estimation search criteria.</li> <li>The resource estimates assume mining ore selection will take place on 5m flitches with a minimum mining width of around 5 m. Following variance adjustment, the resultant block histograms were assumed to be log-normal in shape. The variance included an adjustment for the information effect introduced by grade control sampling. A grade control drill hole pattern of 5 m by 5 m with a downhole sampling interval of 2.5 m was assumed for Egerton Zone and 149 and 10 m by 5 m was assumed for Hudson and Plenty.</li> </ul>
<b>Moisture</b>	<ul style="list-style-type: none"> <li>Tonnages are estimated on a dry basis.</li> </ul>
<b>Cut-off parameters</b>	<ul style="list-style-type: none"> <li>The deposits are reported at a 0.3g/t cut-off. The cut-off grade includes the following considerations: <ul style="list-style-type: none"> <li>Gold Price US\$2,000/oz;</li> <li>Exchange rate of 0.78 US\$:CAD\$;</li> <li>Process recovery of 97.1%</li> <li>Mining cost CAD\$4.12/t</li> <li>Processing Cost CAD\$13.01/t</li> <li>General/Administration Cost CAD \$5.08/t</li> <li>Variable overall pit slope angles</li> </ul> </li> </ul>
<b>Mining factors or assumptions</b>	<ul style="list-style-type: none"> <li>The mining method is conventional open pit</li> </ul>
<b>Metallurgical factors or assumptions</b>	<ul style="list-style-type: none"> <li>Conventional gravity and carbon in leach cyanidation utilising the Touquoy mine processing equipment</li> </ul>
<b>Environmental factors or assumptions</b>	<ul style="list-style-type: none"> <li>The 15-Mile project as proposed has taken into consideration environmental limitations and opportunities within the project area. Storage of site materials follows most environmentally responsible guidelines and every opportunity to mitigate disturbance has been considered. This has resulted in a decrease in environmental impacts compared to previous designs.</li> <li>Project Footprint: The potentially acid generating waste generated during mining will be managed through sub-aqueous deposition within the TMF and exhausted open pits, versus being stockpiled at surface. The production profile has been smoothed to mitigate the need for a low/medium grade stockpile on surface. The layout of the process/admin/mining area has been optimized to reduce impacts to wetlands and species of special significance within the project area. Wherever modifications to these areas are required, translocation will be undertaken wherever possible. Compensation will be carried out wherever translocation is not applicable, at or above ratios specified by provincial and federal regulatory requirements.</li> <li>Waterway Rehabilitation: A watercourse runs through the main project area at 15-Mile, "Seloam Brook". Seloam Brook's original pathway was re-routed to accommodate historic</li> </ul>

Criteria	Comments
	mining operations in the early 1900s and presently the area contains tailings and by products of the historic mining process. The waterway is presently sub-optimal for fish habitat. As part of St. Barbara's 15-Mile project Seloam Brook will be re-routed using an engineered design that will accommodate fish habitat and ensure existing waterways remain connected. As part of this diversion, the historic contamination in the area will be rehabilitated and in total 61 hectares impacted by historic tailings will be rehabilitated throughout the project area.
<b>Bulk density</b>	<ul style="list-style-type: none"> <li>The global bulk density used for all of the 15-Mile mineralization is 2.78 t/m<sup>3</sup>. This average bulk density is the mean of 95 bulk density measurements made on unwaxed core samples using the immersion method.</li> <li>For the 149 Zone, a bulk density of 2.75 t/m<sup>3</sup> was used.</li> </ul>
<b>Classification</b>	<ul style="list-style-type: none"> <li>The resource estimate for each panel was initially classified as Category 1, 2 or 3 based on the results of the data search in the panel neighbourhood:</li> <li>Category 1: uses search radii (1), and search parameters (1). If the data found in this search satisfy these criteria (at least 20 samples found in at least four octants), the panel is given a Category 1 flag.</li> <li>Category 2: If the first search criteria are not satisfied, search radii (2) are used with search parameters (1). If these criteria are satisfied, the panel is given a Category 2 flag.</li> <li>Category 3: If the second search criteria are not satisfied, search radii (2) are used with search parameters (2) (at least 10 samples found in at least two octants). If these criteria are satisfied, a Category 3 flag is applied. If not, no estimate for the panel is generated.</li> <li>In reporting the resource estimates, Category 1 panel estimates were assigned to Measured Mineral Resources, Category 2 to Indicated Mineral Resources and Category 3 to Inferred Mineral Resources.</li> </ul>
<b>Audits or reviews</b>	<ul style="list-style-type: none"> <li>The resource model was reviewed internally.</li> </ul>
<b>Discussion of relative accuracy/confidence</b>	<ul style="list-style-type: none"> <li>The resource estimates are global estimates. Grade control drilling will be completed in advance of mining to improve local estimates of grade.</li> </ul>

#### Section 4 Estimation and Reporting of Ore Reserves – 15 Mile (Egerton – Maclean, Plenty, Hudson and 149)

Criteria	Comments
<b>Mineral Resource Estimate for Conversion to Ore Reserves</b>	<ul style="list-style-type: none"> <li>The Ore Reserves estimate is based on the Mineral Resources estimates carried out by Neil Schofield of FSSI Consulting (Australia) Pty Ltd in April 2022. Gold grade was estimated using multiple indicator kriging (MIK).</li> <li>The Mineral Resources are reported inclusive of the Ore Reserves.</li> </ul>
<b>Site Visits</b>	<ul style="list-style-type: none"> <li>The Competent Person most recently visited site in October 2023</li> </ul>
<b>Study Status</b>	<ul style="list-style-type: none"> <li>The 15-Mile project is at Pre-Feasibility Study stage, following the completion of the September 2024 study</li> </ul>
<b>Cut-off Parameters</b>	<ul style="list-style-type: none"> <li>Cut-off grade assumes:</li> <li>US\$1,500/oz gold at a currency exchange rate of 0.78 C\$ per US\$</li> <li>99.9% payable gold</li> <li>\$2.13/oz offsite costs (refining and transport)</li> <li>2% royalty</li> <li>87% low grade metallurgical recovery.</li> <li>Processing costs of \$10.26/t</li> <li>General and administrative (G&amp;A) costs of \$4.25/t.</li> <li>Incremental ore mining costs of \$1.50/t</li> <li>A breakeven cut-off grade of 0.30 g/t Au is used for reporting</li> </ul>
<b>Mining Factors or Assumptions</b>	<ul style="list-style-type: none"> <li>Lerchs-Grossman (L-G) analysis, pit designs, and mine production scheduling have been completed for all deposits to enable the conversion of Measured and Indicated Mineral Resources to Proved and Probable Ore Reserves. Inferred Mineral Resources are set to waste.</li> <li>The project will be mined with conventional drill, blast, load and haul setup. Primary production equipment includes 144mm drills, 4.5 m<sup>3</sup> bucket production excavators and 64 tonne payload off highway mining trucks.</li> <li>The overall slopes used for the pit optimisation and design work were sourced from reports carried out by independent geotechnical consultants.</li> <li>Grade control drilling will be carried out in advance of mining and the information obtained from this drilling will be made available for decision making in advance of mining.</li> <li>Mining recovery of 98.4% and external mining dilution of 1.6% at 0.20 g/t Au grade is applied in addition to the modelled in-block dilution.</li> </ul>



Criteria	Comments
<b>Metallurgical Factors or Assumptions</b>	<ul style="list-style-type: none"> <li>Metallurgical testing confirmed the 15-Mile ore is highly amendable to conventional recovery methods of gravity and carbon in leach cyanidation, similar to the Touquoy operation 40 kms away which has recently transitioned into Care and Maintenance. The process review undertaken by Ausenco confirmed the Touquoy processing equipment is suitable for recovering gold from 15-Mile ore and therefore the process flowsheet for 15-Mile has been designed to maximize repurposing of Touquoy equipment at 15-Mile and reduce initial capital costs.</li> <li>Previously completed test work indicates the ore is medium hardness with bond work index approximately 13.8 kWh/t. The processing plant will operate at 2.1 million tonnes per annum, or 5,750 tonnes per day at 92% availability.</li> </ul>
<b>Environmental</b>	<ul style="list-style-type: none"> <li>The 15-Mile project as proposed has taken into consideration environmental limitations and opportunities within the project area. Storage of site materials follows most environmentally responsible guidelines and every opportunity to mitigate disturbance has been considered. This has resulted in a decrease in environmental impacts compared to previous designs.</li> <li>Project Footprint: The potentially acid generating waste generated during mining will be managed through sub-aqueous deposition within the TMF and exhausted open pits, versus being stockpile at surface. The production profile has been smoothed to mitigate the need for a low/medium grade stockpile on surface. The layout of the process/admin/mining area has been optimized to reduce impacts to wetlands and species of special significance within the project area. Wherever modifications to these areas are required, translocation will be undertaken wherever possible. Compensation will be carried out wherever translocation is not applicable, at or above ratios specified by provincial and federal regulatory requirements.</li> <li>Waterway Rehabilitation: A watercourse runs through the main project area at 15-Mile, "Seloam Brook". Seloam Brook's original pathway was re-routed to accommodate historic mining operations in the early 1900s and presently the area contains tailings and by products of the historic mining process. The waterway is presently sub-optimal for fish habitat. As part of St. Barbara's 15-Mile project Seloam Brook will be re-routed using an engineered design that will accommodate fish habitat and ensure existing waterways remain connected. As part of this diversion, the historic contamination in the area will be rehabilitated and in total 61 hectares impacted by historic tailings will be rehabilitated throughout the project area.</li> <li>It is assumed that Provincial and Federal approvals will be granted for 15 Mile ahead of mining.</li> <li>The project is still subject to Federal permitting such as: Fisheries Authorization, Schedule 2, MDMER and Species at Risk.</li> </ul>
<b>Infrastructure</b>	<ul style="list-style-type: none"> <li>Labour studies have been completed to determine suitable labour pools and employee benefits.</li> <li>Site infrastructure including buildings, electrical equipment, mechanical equipment, and auxiliary support equipment is being sourced from the existing Touquoy project which is recently place in care and maintenance. Cost estimates account for dismantle, relocation and rebuild plus any replacement equipment.</li> </ul>
<b>Costs</b>	<ul style="list-style-type: none"> <li>Capital and sustaining costs were compiled by Ausenco from the following sources: <ul style="list-style-type: none"> <li>Mining initial capital costs were developed by Moose Mountain Technical Services (MMTS). Costs include the owner's lease to own mine fleet, mine services, and pre-production mine operating costs for mining 6.1 Mt of material from the open pits, targeting waste rock quantities for construction purposes.</li> <li>Mining sustaining capital costs were developed by MMTS and include ongoing equipment lease payments and future fleet replacement purchases.</li> <li>Processing, infrastructure, project delivery and project indirects were developed by Ausenco, and are inclusive of a 2.1 Mtpa conventional leach/CIL processing plant, power substation, tailings facility initial construction, diversion of Seloam Brook and other required infrastructure. Any opportunity for repurposing Touquoy fixed plant equipment was captured in the processing capital costs.</li> <li>Sustaining capital costs for infrastructure mainly consists of tailings management facility lifts that occur through life of mine.</li> </ul> </li> <li>Operating costs have been compiled based on the following sources and assumptions: <ul style="list-style-type: none"> <li>Mining unit costs have been estimated by MMTS, built up from first principles assuming an owner operated mine, and utilizing 2024 vendor quotes and database cost inputs.</li> <li>Processing unit costs have been estimated by Ausenco using first principles and 2023 prices for major reagents and media.</li> <li>G&amp;A costs are based on The Atlantic Operations Touquoy project.</li> </ul> </li> </ul>
<b>Revenue Factors</b>	<ul style="list-style-type: none"> <li>A gold price of US\$1500/oz has been used in revenue calculations based on guidance provided by the company's Mineral Resources and Ore Reserves Steering Committee.</li> </ul>



Criteria	Comments
<b>Market Assessment</b>	<ul style="list-style-type: none"> <li>A contract was entered into for the transportation, security, insurance, and refining of doré gold bars from Touquoy. It is expected that doré produced from 15-Mile would be subject to similar contracts to that in place for Touquoy.</li> </ul>
<b>Economic</b>	<ul style="list-style-type: none"> <li>The Ore Reserve estimate is based on a Pre-feasibility Study level of accuracy with inputs from open-pit, processing, transportation, sustaining capital and contingencies scheduled and costed to generate the initial Ore Reserve cost model.</li> <li>A sensitivity analysis was completed on the base-case after-tax NPV(5%) using the following variables: <ul style="list-style-type: none"> <li>Gold Price</li> <li>Initial Capital Expenditure</li> <li>Total Operating Cost</li> <li>US\$:C\$ exchange rate</li> </ul> </li> <li>The sensitivity analysis demonstrates the project is financially robust and therefore economic extraction of the deposit can be reasonably justified.</li> </ul>
<b>Social</b>	<ul style="list-style-type: none"> <li>In addition to applicable regulations, the 15-Mile project will require social acceptance. Early information and consultation meetings have been held with local communities, First Nations communities, local, provincial, and federal governmental authorities to initiate collaborative work to obtain social acceptability of the project.</li> <li>The project will be subject to the regulations under the Nova Scotia Environmental Assessment Act and environmental baseline studies are well advanced which will permit the initiation of the environmental impact studies.</li> </ul>
<b>Other</b>	<ul style="list-style-type: none"> <li>AMNS has not identified any material naturally occurring risks.</li> <li>The company is committed to early engagement with all relevant stakeholders.</li> </ul>
<b>Classification</b>	<ul style="list-style-type: none"> <li>The economically minable component of the Measured Mineral Resource has been classified as a Proved Ore Reserve.</li> <li>The economically minable component of the Indicated Mineral Resource has been classified as a Probable Ore Reserve.</li> </ul>
<b>Audits or reviews</b>	<ul style="list-style-type: none"> <li>No audits or reviews of Ore Reserves have been completed.</li> </ul>
<b>Discussion of relative accuracy/confidence</b>	<ul style="list-style-type: none"> <li>The Ore Reserves are based on global estimates of Mineral Resources. Grade control drilling will be completed in advance of mining to improve local estimates of grade.</li> </ul>

#### JORC Table 1 Checklist of Assessment and Reporting Criteria – Beaver Dam

##### Section 1 Sampling Techniques and Data – Beaver Dam

Criteria	Comments
<b>Sampling Techniques</b>	<ul style="list-style-type: none"> <li>In early programs core was halved for sampling using a mechanical core splitter. Subsequently a core saw was used. Sample intervals were generally 1m</li> <li>All AMNS core has been halved using a core saw generally over 1m intervals</li> </ul>
<b>Drilling Techniques</b>	<ul style="list-style-type: none"> <li>Drilling has used primarily NQ (47.6 mm diameter) core.</li> <li>Core is not oriented</li> </ul>
<b>Drill Sample Recovery</b>	<ul style="list-style-type: none"> <li>Diamond drilling recovery percentages were measured by comparing actual metres recovered per drill run versus metres measured on the core blocks. Recoveries averaged over &gt;90% with increased core loss associated with faults, shear zones and proximal to underground workings.</li> <li>There is no relationship between sample recovery and gold grade</li> </ul>
<b>Logging</b>	<ul style="list-style-type: none"> <li>Prior to AMNS (2005-2009) core logging was restricted to a description of lithological variation</li> <li>For AMNS drilling (2014-2015) core is logged on a metre-by-metre basis with regards to lithology, texture, sulphide mineralization, alteration, quartz veining, structure, and in some cases magnetic susceptibility. Drill core has been photographed both wet and dry. Core recovery and RQD were measured for each hole at the same metre-by-metre intervals.</li> <li>Information was captured using digitally for the AMNS drilling.</li> </ul>
<b>Sub-sampling techniques and sample preparation</b>	<ul style="list-style-type: none"> <li>(2005-2009) - Half core samples were crushed, pulverised, and sieved through a 150 mesh (105 µm) Tyler screen. The entire +105 µm was analysed for gold and the -105 µm fraction was homogenised and two 25g sub-samples were analysed for gold</li> <li>(2014 – 2015) Half core samples were oven dried then weighed, with samples generally weighing of the order of 2.4 kg, before jaw crushing the half core samples such that ≥70% passed 6 mm. The AMNS sampling and assaying protocol requires that the entire sample is pulverised to a nominal 85% passing 75 µm This was initially achieved using a Labtechnics LM5 ringmill but during the course of the program, smaller capacity (1 kg) bowls were also used and the pulverised material recombined into a single sample before assay.</li> </ul>

<b>Quality of assay data and laboratory tests</b>	<ul style="list-style-type: none"> <li>Analysis for gold has been completed using the screened metallics fire assay technique where mineralisation was expected and standard fire assay for remaining samples across all drill programs. The techniques are appropriate for the type of mineralisation.</li> <li>(2005-2009) - Half core samples were crushed, pulverised, and sieved through a 150 mesh (105 µm) Tyler screen. The +105 µm fraction was analysed in its entirety by fire assay with gravimetric finish (Au-GRA21) and reported as the Au (+) fraction result. The -105 µm fraction was homogenised and two 25g sub-samples were analysed by fire assay with AAS finish (Au-AA25 and Au-AA25D). The average of the two AAS results, reported as the Au (-) fraction, is weight averaged with the +105 µm assay to yield the head grade of the sample</li> <li>(2014-2015) – Selected (mineralised) half core samples were crushed, pulverised, and sieved through a 106 µm screen. The +106 µm fraction was analysed in its entirety by fire assay with gravimetric finish and reported as the Au (+) fraction result. The -106 µm fraction was homogenised and two 50g sub-samples were analysed by fire assay with AAS finish. The average of the two AAS results, reported as the Au (-) fraction, is weight averaged with the +106 µm assay to yield the head grade of the sample. Remaining samples were assayed using 50g fire assay with an AAS finish.</li> <li>Quality control across all programs has included the insertion of blanks at rates of 1:20 or 1:50. AMNS also inserted certified reference material (CRM) at a rate of 1:14. Review of blanks indicate that sample preparation protocols are sound. The CRM data does not indicate any temporal or systematic analytical accuracy issues</li> </ul>
<b>Verification of sampling and assay</b>	<ul style="list-style-type: none"> <li>Data capture was completed manually on hard copy logs, which was transferred to Excel spreadsheets and then loaded to MS Access databases. The data was then validated and transferred to an SQL server database using DataShed software.</li> <li>A selection of sample data has been cross-checked against logs from annual reports with no issues detected.</li> </ul>
<b>Location of data points</b>	<ul style="list-style-type: none"> <li>Acadian established a local mine grid and holes were surveyed based on this grid.</li> <li>In 2014, licenced surveyors from WSP Canada Inc. resurveyed the local mine grid control points which were found to be incorrectly located with respect to the NAD-83 grid but the relationship between the control points and the drill collars was correct so that relative positions in the local grid were maintained.</li> <li>AMNS holes are surveyed downhole at approximately 30 m intervals and at the final hole depthusing a FlexIT tool.</li> </ul>
<b>Data spacing and distribution</b>	<ul style="list-style-type: none"> <li>Data spacing is approximately on 25m spaced sections. Drilling data is sufficient to establish continuity for all lodes.</li> </ul>
<b>Orientation of data in relation to geological structure</b>	<ul style="list-style-type: none"> <li>Gold mineralisation is hosted by quartz veins that are commonly bedding parallel, but can also be cross-cutting</li> <li>The drilling orientation is unlikely to have introduced a sampling bias</li> </ul>
<b>Sample security</b>	<ul style="list-style-type: none"> <li>Security procedures prior to Atlantic Gold Corp's involvement in the Project are not known, although check sampling and re-examination of core from a large number of drill holes has not shown any sign of sample tampering.</li> <li>Core was kept in a secure and locked area with limited access. Samples are typically conveyed from the Project site to the laboratory using commercial transport firms.</li> </ul>
<b>Audits or reviews</b>	<ul style="list-style-type: none"> <li>No external audits or reviews of sampling techniques and data have been completed.</li> </ul>

**Section 2 Reporting of Exploration Results – Beaver Dam**

<b>Criteria</b>	<b>Comments</b>
<b>Mineral Tenement and Land Tenure Status</b>	<ul style="list-style-type: none"> <li>Atlantic Mining NS Inc (AMNS) has 100% ownership of the mineral exploration licences over Beaver Dam (50421,51852,54498,54499 and 51939).</li> <li>The tenements are in good standing at the time of reporting.</li> </ul>
<b>Exploration Done by Other Parties</b>	<ul style="list-style-type: none"> <li>Other exploration work completed by companies other than AMNS has included trenching, drilling, bulk sampling, geological mapping and geophysical surveys</li> </ul>
<b>Geology</b>	<ul style="list-style-type: none"> <li>The Meguma Terrane of Nova Scotia hosts the Moose River Member, Tangier Member, and Taylors Head Member of the basal greywacke-dominated Goldenville Formation. Gold mineralization is generally hosted in argillite and/or greywacke sequences of the Moose River Member and is associated with regional-scale anticlines. Structural repetition due to folding and faulting may result in thickening of gold-bearing units. Gold occurs as native gold, and has been observed in a number of settings, including along shear cleavage, hair line fractures; in pressure shadows; as inclusions; on the margins of sulphide grains; in thin, bedding-parallel quartz veins and stringers. Mineralization is associated with sulphides, including arsenopyrite, pyrite and pyrrhotite. Lesser chalcopyrite, galena, and sphalerite have been observed.</li> </ul>

<b>Drill Hole Information</b>	<ul style="list-style-type: none"> <li>No exploration results are presented.</li> </ul>
<b>Data Aggregation Methods</b>	<ul style="list-style-type: none"> <li>No exploration results are presented.</li> </ul>
<b>Relationship Between Mineralisation Widths and Intercept Lengths</b>	<ul style="list-style-type: none"> <li>No exploration results are presented.</li> </ul>
<b>Diagrams</b>	<ul style="list-style-type: none"> <li>No exploration results are presented</li> </ul>
<b>Balanced Reporting</b>	<ul style="list-style-type: none"> <li>No exploration results are presented</li> </ul>
<b>Other Substantive Exploration Data</b>	<ul style="list-style-type: none"> <li>No exploration results are presented</li> </ul>
<b>Further Work</b>	<ul style="list-style-type: none"> <li>No further resource definition drilling is planned at this stage</li> </ul>

### Section 3 Estimation and Reporting of Mineral Resources – Beaver Dam

Criteria	Comments
<b>Database integrity</b>	<ul style="list-style-type: none"> <li>Internal data verification programs have included review of QA/QC data, re-sampling and sample re-analysis programs, and database verification for issues such as overlapping sample intervals, duplicate sample numbers, or lack of information for certain intervals. Validation checks are performed on data used to support estimation, and comprise checks on surveys, collar co-ordinates, lithology data, and assay data.</li> </ul>
<b>Site visits</b>	<ul style="list-style-type: none"> <li>The Competent Person most recently visited site in September 2023.</li> </ul>
<b>Geological interpretation</b>	<ul style="list-style-type: none"> <li>No geological models or wireframe domain models were used for the Mineral Resource estimation.</li> <li>Mineralization domaining uses geostatistical techniques.</li> </ul>
<b>Dimensions</b>	<ul style="list-style-type: none"> <li>strike extent = 800m ; width = 50m; vertical extent = 200m</li> </ul>
<b>Estimation and modelling techniques</b>	<ul style="list-style-type: none"> <li>Model completed in 2015.</li> <li>Multiple indicator kriging (MIK) was used to estimate the Mineral Resources based on an anticipated approach to mill feed material selection in mining. The basic unit of estimation is a panel with horizontal dimensions equal to the average drill hole spacing.</li> <li>Samples were composited to 2 m intervals</li> <li>Directional sample variograms and variogram models were generated, and the resulting data used to inform estimation search criteria.</li> <li>The resource estimates assume mining ore selection will take place on 5m flitches with a minimum mining width of around 5 m. Following variance adjustment, the resultant block histograms were assumed to be log-normal in shape. The variance included an adjustment for the information effect introduced by grade control sampling. A grade control drill hole pattern of 5 m by 5 m with a downhole sampling interval of 2.5 m was assumed</li> </ul>
<b>Moisture</b>	<ul style="list-style-type: none"> <li>Tonnages are estimated on a dry basis.</li> </ul>
<b>Cut-off parameters</b>	<ul style="list-style-type: none"> <li>The deposits are reported at a 0.3g/t cut-off. The cut-off grade includes the following considerations: <ul style="list-style-type: none"> <li>Gold Price US\$1,800/oz;</li> <li>Exchange rate of 0.77 US\$:CAD\$;</li> <li>Process recovery of 92%</li> <li>Mining cost(pit rim) CAD\$2.90/t</li> <li>Processing Cost CAD\$18.00/t</li> <li>General/Administration Cost CAD \$2.50/t</li> <li>Variable overall pit slope angles</li> </ul> </li> </ul>
<b>Mining factors or assumptions</b>	<ul style="list-style-type: none"> <li>The mining method is conventional open pit</li> </ul>
<b>Metallurgical factors or assumptions</b>	<ul style="list-style-type: none"> <li>Conventional gravity and carbon in leach cyanidation utilising the Touquoy mine processing equipment</li> </ul>
<b>Environmental factors or assumptions</b>	<ul style="list-style-type: none"> <li>The Beaver Dam project as proposed has taken into consideration environmental limitations and opportunities within the project area. Storage of site materials follows most environmentally responsible guidelines and every opportunity to mitigate disturbance has been considered. This has resulted in a decrease in environmental impacts compared to previous designs.</li> </ul>

Criteria	Comments
	<ul style="list-style-type: none"> <li>Project Footprint: The potentially acid generating waste generated during mining will be temporarily stockpiled at surface then re-handled back into the vacant Beaver Dam pit. The layout of the admin and mining area has been optimized to reduce impacts to wetlands and species of special significance within the project area and reduce fresh water requirement. Wherever modifications to these areas are required, translocation will be undertaken wherever possible. Compensation will be carried out wherever translocation is not applicable, at or above ratios specified by provincial and federal regulatory</li> <li>It is assumed that Provincial and Federal approvals will be granted for Beaver Dam ahead of mining.</li> <li>The project is still subject to Federal permitting such as: Fisheries Authorization, MDMER and Species at Risk</li> </ul>
<b>Bulk density</b>	<ul style="list-style-type: none"> <li>The global bulk density used for all mineralisation is 2.73 t/m<sup>3</sup>.</li> </ul>
<b>Classification</b>	<ul style="list-style-type: none"> <li>The resource estimate for each panel was initially classified as Category 1, 2 or 3 based on the results of the data search in the panel neighbourhood:</li> <li>Category 1: uses search radii (1), and search parameters (1). If the data found in this search satisfy these criteria (at least 20 samples found in at least four octants), the panel is given a Category 1 flag.</li> <li>Category 2: If the first search criteria are not satisfied, search radii (2) are used with search parameters (1). If these criteria are satisfied, the panel is given a Category 2 flag.</li> <li>Category 3: If the second search criteria are not satisfied, search radii (2) are used with search parameters (2) (at least 10 samples found in at least two octants). If these criteria are satisfied, a Category 3 flag is applied. If not, no estimate for the panel is generated.</li> <li>In reporting the resource estimates, Category 1 panel estimates were assigned to Measured Mineral Resources, Category 2 to Indicated Mineral Resources and Category 3 to Inferred Mineral Resources.</li> </ul>
<b>Audits or reviews</b>	<ul style="list-style-type: none"> <li>The resource model was compiled by FSSI consultants.</li> </ul>
<b>Discussion of relative accuracy/confidence</b>	<ul style="list-style-type: none"> <li>The resource estimates are global estimates. Grade control drilling will be completed in advance of mining to improve local estimates of grade.</li> </ul>

#### Section 4 Estimation and Reporting of Ore Reserves - Beaver Dam

Criteria	Comments
<b>Mineral Resource Estimate for Conversion to Ore Reserves</b>	<ul style="list-style-type: none"> <li>The Ore Reserves estimate is based on the Mineral Resources estimates carried out by Neil Schofield of FSSI Consulting (Australia) Pty Ltd in 2019. Gold grade was estimated using multiple indicator kriging (MIK).</li> <li>The Mineral Resources are reported inclusive of the Ore Reserves.</li> </ul>
<b>Site Visits</b>	<ul style="list-style-type: none"> <li>The Competent Person most recently visited site in October 2023</li> </ul>
<b>Study Status</b>	<ul style="list-style-type: none"> <li>The Beaver Dam project is at Pre-Feasibility Study stage, following the completion of the September 2024 study</li> </ul>
<b>Cut-off Parameters</b>	<ul style="list-style-type: none"> <li>Cut-off grade assumes:</li> <li>US\$1,500/oz gold at a currency exchange rate of 0.78 C\$ per US\$</li> <li>99.9% payable gold</li> <li>\$2.13/oz offsite costs (refining and transport)</li> <li>1.6% royalty</li> <li>92% low grade metallurgical recovery.</li> <li>Processing costs of \$22.37/t (inclusive of \$12.11/t ore transport costs to processing facilities).</li> <li>General and administrative (G&amp;A) costs of \$4.25/t.</li> <li>Incremental ore mining costs of \$1.50/t.</li> <li>A breakeven incremental cut-off grade of 0.50 g/t Au is used for reporting</li> </ul>
<b>Mining Factors or Assumptions</b>	<ul style="list-style-type: none"> <li>Lerchs-Grossman (L-G) analysis, pit designs, and mine production scheduling have been completed for all deposits to enable the conversion of Measured and Indicated Mineral Resources to Proved and Probable Ore Reserves. Inferred Mineral Resources are set to waste.</li> <li>The project will be mined with conventional drill, blast, load and haul setup. Primary production equipment includes 144mm drills, 4.5 m<sup>3</sup> bucket production excavators and 64 tonne payload off highway mining trucks.</li> <li>The overall slopes used for the pit optimisation and design work were sourced from reports carried out by independent geotechnical consultants.</li> <li>Grade control drilling will be carried out in advance of mining and the information obtained from this drilling will be made available for decision making in advance of mining.</li> <li>Mining recovery of 98.4% and external mining dilution of 1.6% at 0.30 g/t Au grade is applied in addition to the modelled in-block dilution.</li> </ul>

Criteria	Comments
<b>Metallurgical Factors or Assumptions</b>	<ul style="list-style-type: none"> <li>Metallurgical testing confirmed the Beaver Dam ore is highly amenable to conventional recovery methods of gravity and carbon in leach cyanidation, similar to the Touquoy operation 20 kms away which has recently transitioned into Care and Maintenance. The process review and previous studies undertaken by Ausenco confirmed the Touquoy processing equipment is suitable for recovering gold from Beaver Dam ore and therefore the process flowsheet at 15-Mile has been designed to maximize repurposing of Touquoy equipment at 15-Mile and reduce initial capital costs and to accept Beaver Dam ore.</li> <li>Previously completed test work indicates the ore is medium hardness with bond work index approximately 15.3 kWh/t. The 15-Mile processing plant will operate at 2.1 million tonnes per annum, or 5,750 tonnes per day at 92% availability with a blend of Beaver Dam and 15-Mile ore.</li> </ul>
<b>Environmental</b>	<ul style="list-style-type: none"> <li>The Beaver Dam project as proposed has taken into consideration environmental limitations and opportunities within the project area. Storage of site materials follows most environmentally responsible guidelines and every opportunity to mitigate disturbance has been considered. This has resulted in a decrease in environmental impacts compared to previous designs.</li> <li>Project Footprint: The potentially acid generating waste generated during mining will be temporarily stockpiled at surface then re-handled back into the vacant Beaver Dam pit. The layout of the admin and mining area has been optimized to reduce impacts to wetlands and species of special significance within the project area and reduce fresh water requirement. Wherever modifications to these areas are required, translocation will be undertaken wherever possible. Compensation will be carried out wherever translocation is not applicable, at or above ratios specified by provincial and federal regulatory</li> <li>It is assumed that Provincial and Federal approvals will be granted for Beaver Dam ahead of mining.</li> <li>The project is still subject to Federal permitting such as: Fisheries Authorization, MDMER and Species at Risk.</li> </ul>
<b>Infrastructure</b>	<ul style="list-style-type: none"> <li>Site infrastructure including buildings, equipment, and auxiliary support equipment have been designed to minimize disturbance. Infrastructure will be sourced new as mostly modular. Some equipment will be reallocated from 15-Mile to Beaver Dam later in the project schedule.</li> </ul>
<b>Costs</b>	<ul style="list-style-type: none"> <li>Capital and sustaining costs were compiled by Ausenco from the following sources: <ul style="list-style-type: none"> <li>Mining initial capital costs were developed by Moose Mountain Technical Services (MMTS). Costs include the owner's mine fleet, mine services, and clearing and grubbing costs for the pits, stockpiles and haul roads.</li> <li>Mining sustaining capital costs were developed by MMTS and include mine fleet replacement purchases.</li> <li>Processing, infrastructure, project delivery and project indirects were developed by Ausenco, and are inclusive of a power generator, access roads, and other required infrastructure.</li> <li>Process plant capital costs is captured in the 15-Mile capital costs. No modifications will be required to process Beaver Dam ore.</li> <li>Sustaining capital costs for infrastructure mainly consists of tailings management facility lifts that occur through life of mine.</li> </ul> </li> <li>Operating costs have been compiled based on the following sources and assumptions: <ul style="list-style-type: none"> <li>Mining unit costs have been estimated by MMTS, built up from first principles assuming an owner operated mine, and utilizing 2024 vendor quotes and database cost inputs.</li> <li>Ore transport costs have been estimated by MMTS, built up from first principles assuming a contractor supplied service, and utilizing database cost inputs.</li> <li>Processing unit costs have been estimated by Ausenco using first principles and 2023 prices for major reagents and media.</li> <li>G&amp;A costs were developed from first principles and assumes partial support from 15-Mile.</li> </ul> </li> </ul>
<b>Revenue Factors</b>	<ul style="list-style-type: none"> <li>A gold price of US\$1500/oz has been used in revenue calculations based on guidance provided by the company's Mineral Resources and Ore Reserves Steering Committee.</li> </ul>
<b>Market Assessment</b>	<ul style="list-style-type: none"> <li>A contract was entered into for the transportation, security, insurance, and refining of doré gold bars from Touquoy. It is expected that doré produced from 15-Mile with Beaver Dam ore would be subject to similar contracts to that in place for Touquoy.</li> </ul>
<b>Economic</b>	<ul style="list-style-type: none"> <li>The Ore Reserve estimate is based on a Pre-feasibility Study level of accuracy with inputs from open-pit, processing, transportation, sustaining capital and contingencies scheduled and costed to generate the initial Ore Reserve cost model.</li> <li>A sensitivity analysis was completed on the base-case after-tax NPV(5%) using the following variables: <ul style="list-style-type: none"> <li>Gold Price</li> </ul> </li> </ul>

Criteria	Comments
	<ul style="list-style-type: none"> <li>○ Initial Capital Expenditure</li> <li>○ Total Operating Cost</li> <li>○ US\$:C\$ exchange rate</li> </ul> <ul style="list-style-type: none"> <li>• The sensitivity analysis demonstrates the project is financially robust and therefore economic extraction of the deposit can be reasonably justified.</li> </ul>
<b>Social</b>	<ul style="list-style-type: none"> <li>• In addition to applicable regulations, the Beaver Dam project will require social acceptance. Early information and consultation meetings have been held with local communities, First Nations communities, local, provincial, and federal governmental authorities to initiate collaborative work to obtain social acceptability of the project.</li> <li>• The project will be subject to the regulations under the Nova Scotia Environmental Assessment Act and environmental baseline studies are well advanced which will permit the initiation of the environmental impact studies.</li> </ul>
<b>Other</b>	<ul style="list-style-type: none"> <li>• AMNS has not identified any material naturally occurring risks.</li> <li>• The company is committed to early engagement with all relevant stakeholders.</li> </ul>
<b>Classification</b>	<ul style="list-style-type: none"> <li>• The economically minable component of the Measured Mineral Resource has been classified as a Proved Ore Reserve.</li> <li>• The economically minable component of the Indicated Mineral Resource has been classified as a Probable Ore Reserve.</li> </ul>
<b>Audits or reviews</b>	<ul style="list-style-type: none"> <li>• No audits or reviews of Ore Reserves have been completed.</li> </ul>
<b>Discussion of relative accuracy/confidence</b>	<ul style="list-style-type: none"> <li>• The Ore Reserves are based on global estimates of Mineral Resources. Grade control drilling will be completed in advance of mining to improve local estimates of grade.</li> </ul>