NI 43-101 Technical Report on the Preliminary Economic Assessment of the Cote Gold Project, Porcupine Mining Division, Ontario, Canada

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1.0 EXECUTIVE SUMMARY

1.1 Introduction

IAMGOLD Corporation (IAMGOLD) and Amec Foster Wheeler Americas Limited (Amec Foster Wheeler) jointly completed a Preliminary Economic Assessment (PEA) on IAMGOLD'S Côté Gold Project (the Project), an advanced stage exploration project located approximately 125 km southwest of Timmins.

IAMGOLD is using the PEA as a conceptual analysis of a selected development option to assess the economic viability of the Project and to identify additional work necessary to complete more advanced mining studies. This NI 43-101 Technical Report (the Report) was prepared as a summary of the PEA, and to support IAMGOLD's disclosure of the results.

1.2 Key Outcomes

The key outcomes of the PEA are summarized in Table 1-1.

Table 1-1: Key Outcomes

Pre-Tax NPV (6%)	US$851 M
After-Tax NPV (6%)	US$543M
After-Tax IRR	12.9%
After-Tax payback period (after start of production)	5.2 years
Gold Price (assumed for economic analysis)	US$1,200/oz
Initial Capital Expenditures	US$1,031 M
Sustaining Capital Expenditures	US$440 M
Reclamation and Closure Costs	US$40 M
Total Gold Produced	6.338 M oz
All in Sustaining Costs	US$686/oz Au
Nominal Mill Capacity	29,000 t/d
Indicated Mineral Resources (mined & milled)	187 Mt at 1.03 g/t Au
Inferred Mineral Resources (mined & milled)	34 Mt at 0.61 g/t Au
Mine Life (including stockpile reclaim)	21 years

The above results of the PEA represent forward-looking information, and are based on a mine design at a conceptual level. Actual results may vary. Assumptions used to develop the forward-looking information are presented in the relevant sections of the Report. The economic analysis is based on in part Inferred Mineral Resources that are considered too speculative geologically to have the economic considerations applied to them that would enable them to be categorized as Mineral Reserves. There is no certainty that the PEA will be realized.

Notes: NPV = net present value; IRR – internal rate of return.

1.3 Property Description and Location

The IAMGOLD properties that comprise the Côté Gold Project consist of a collection of properties assembled through staking and various option agreements. IAMGOLD owns 92.5% of the Project.

The properties, which cover an area of approximately 512 km^2, are located approximately 175 km north of Sudbury and 125 km southwest of Timmins. This area is in the Porcupine Mining Division.

The Chester property is located in the central part of the Project area and hosts the Côté Gold deposit, as well as the Chester 1 zone and several other gold occurrences. The Chester property is subject to a number of agreements.

There are no known environmental liabilities associated with the Project, other than those that would normally be expected as a result of historical mining activities and associated historical mine workings.

Figure 1-1: Project Location

1.4 Accessibility, Climate, Infrastructure and Physiography

From Timmins, the site is accessed by Highway 101, Highway 144, and the Sultan Industrial Road, which runs east-west along and below the southern part of the Project area.

The nearby town of Gogama is on a Canadian National Railway Company's (CN Rail) line, is connected to the regional power grid, but has few resources related to exploration and mining. Resources are however readily available in nearby Timmins and Sudbury.

The Project area experiences cold winters (-10°C to 35ºC) and warm summers (+10°C to +35°C). Winter conditions can be expected from late October to early April. Precipitation averages 80 cm a year, with a substantial portion falling as snow, and averaging 2.4 m per year.

The topography is gently rolling, with high points seldom exceeding 50 m above local lake levels. Elevations on the property are generally between 380 and 400 masl.

1.5 History

Prospecting and exploration activity in the Project area began around 1900, and has continued sporadically to the present time.

Activity was fairly intense through to the early 1940s, with a significant amount of prospecting and trenching plus the sinking of a few shallow shafts and some resultant, very minor, production. Through to the late 1960s, there was little or no work performed.

From the early 1970s to about 1990, there was a great deal of surface work, along with some limited underground investigations. Since that time, fragmented property ownership has precluded any major work programs. With Trelawney Mining and Exploration Inc (Trelawney, a subsidiary of IAMGOLD) consolidating its control of the group of properties comprising the Chester Property in 2009, it became possible to reappraise the potential of several interesting gold prospects.

1.6 Geological Setting and Mineralization

The Project area is in the Swayze greenstone belt in the southwestern extension of the Abitibi greenstone belt of the Superior Province.

The area within the pit shell hosts poor to fair rock exposure, with varying amounts of overburden with thickness averaging a few meters.

Geology within the planned pit consists of a series of irregular diorite domains trending ENE-WSW, 20 m to 200 m in width and 100 m to 1,000 m in length at surface, hosted within an encompassing tonalite body. The main magmatic-hydrothermal breccia body sits in the south central portion of the pit, and is poorly exposed at surface. It extends approximately 900 m by 400 m, trends NE-SW, and dips steeply to the NW.

The deposit is characterized by trace to 1% disseminated sulphide, representing a large, low-grade, mineralized envelope upgraded by low- to moderate-grade mineralization carried by the cross-cutting hydrothermal system, and further enriched by later low- to high-grade vein-hosted mineralization.

1.7 Deposit Type

The Côté gold deposit is a new Archean low-grade, high-tonnage gold (± copper) discovery. It is described as a synvolcanic intrusion related and stockwork-disseminated gold deposit, and appears to correspond to the porphyry style.

Zones of mineralization are centered on a multiphase magmatic-hydrothermal breccia, including a mineralized Au-Cu±Mo±Ag hydrothermal breccia that intrudes tonalitic (transitional to calc-alkaline) and dioritic (tholeiitic) phases of the Chester Intrusive Complex (CIC). The magmatic-hydrothermal breccia is overprinted by several zones of hydrothermal alteration associated with mineralization. The age of this syn-volcanic-hydrothermal system is about 2.75 billion years.

1.8 Exploration

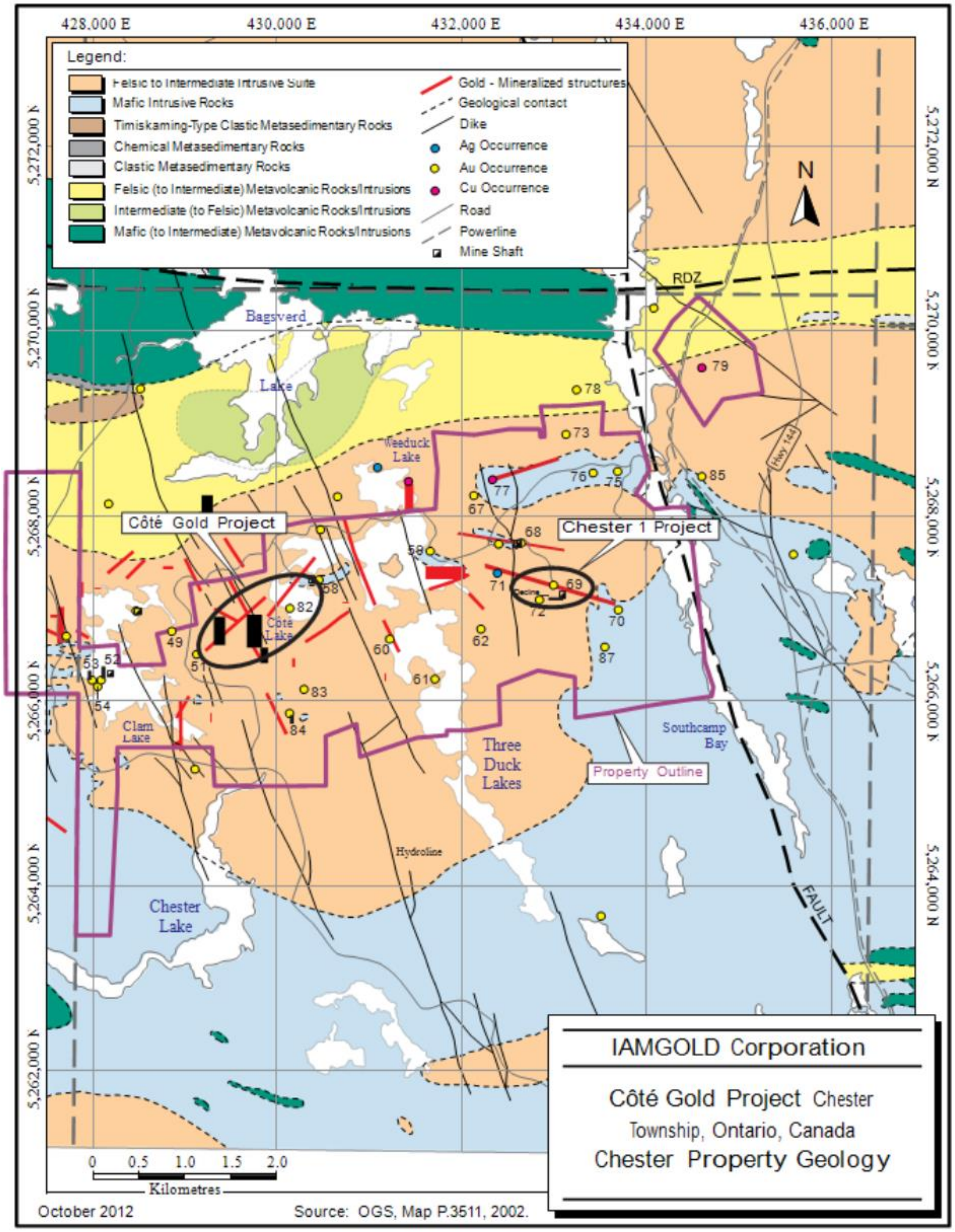
Exploration activities on the Swayze properties focused on areas generally outside the Project, as part of a multi-year exploration program begun in 2013. Numerous gold showings are documented both within the host CIC and in the enclosing volcanic/sedimentary units of the South Swayze greenstone belt. Regional exploration work has been completed to evaluate many of the highest-priority targets, and to test for higher-grade mineralization.

1.9 Drilling and Sampling

Diamond drilling has been focused largely on exploration and delineation of the Côté gold deposit, coupled with geotechnical, metallurgical, and condemnation drilling component. From 2009 to 2015, a total of 273,485 m has been drilled on the Côté gold deposit. Drill core is stored at the Project site, as well as laboratory rejects and pulps.

The mineralized and barren core is generally very competent. Overall, IAMGOLD estimates 99% core recovery. Due to the high rate of core recovery within the mineralized zone, assays are considered to be reliable.

Figure 1-2: Property Geology



1.10 Data Verification

From 2011 to 2013, RPA Consulting Inc. (RPA) conducted independent checks of deposit logging and sampling procedures. In December 2014, InnovExplo independently validated the entire assay database against laboratory certificates.

Some of the Qualified Persons (QPs) from IAMGOLD and Amec Foster Wheeler made site visits and conducted reviews of existing testwork and sample databases.

1.11 Metallurgical and Processing

The main objectives of the metallurgical testing were to characterize the mineralization type physically and chemically, and to determine the amenability of the mill feed material to gravity separation, flotation, and cyanidation for gold recovery. The testwork has been extensive on the semi-autogenous grind (SAG) milling and cyanidation options. Values from the SAG testing program were available to provide preliminary high-pressure grinding roll (HPGR) sizing.

Overall results indicate that the mineralization is free-milling (non-refractory). A portion of the gold liberates during grinding, and is amenable to gravity concentration. Individual lithologies follow the general trends for grind size sensitivity and cyanide consumption.

The testwork results indicate that a HPGR circuit should be the most capital-effective choice between HPGR and SAG. In the next stage of the study, it will be imperative to acquire sufficient material for HPGR pilot testing, and to evaluate variability across the deposit.

The potential exists to increase process plant throughput from 29,000 tpd up to 34,000 tpd, by targeting coarser grinds. Lower gold recovery could be offset by the lower unit operating costs resulting from the higher throughput rate. Trade-off studies are recommended to define the optimal grind and throughput.

1.12 Mineral Resource Estimate

A Mineral Resource estimate as of 31 December 2015 was prepared by or under immediate supervision of Raphael Dutaut, who is a QP as defined by NI 43-101. High-grade gold assays were capped at various grades from 15 to 60 g/t, depending on zone domain. The Mineral Resource estimate, as reported in Table 1-1, was constrained by a preliminary pit optimization shell.

Table 1-2: Mineral Resource Estimate – December 31, 2015

Classification	Cut-off Grade (g/t Au)	Tonnage (kt)	Grade (g/t Au)	Contained Gold (koz)
Indicated	0.3	289,183	0.90	8,354
Inferred	0.3	66,894	0.55	1,174

Notes:
1. CIM Definition Standards (May 10, 2014) were followed for classification of Mineral Resources.
2. Mineral Resources are estimated at a cut-off grade of 0.30 g/t Au.
3. Mineral Resources are estimated using a gold price of US$1,500 per ounce and metallurgical recovery of 93.5%.
4. High grade assays are capped from 15 g/t to 60 g/t depending on sub-domain.
5. Bulk density of 2.72 t/m^3 was used for all rocks.
6. The Mineral Resource estimate is constrained within a Whittle pit shell.

1.13 Mining Methods

The resource model was subjected to an optimization analysis to define the mining limits, involving a base case and 40 additional pit shells. The contribution of each incremental shell to net present value (NPV) was calculated based on a 29,000 tpd processing plant, a maximum mine capacity of 40 Mtpy and a discount rate of 6%. The selected optimal pit shell provides an NPV improvement of US$111 M over the base case.

The Project is designed as a conventional truck-shovel operation. The pit design includes three nested phases to balance stripping requirements while satisfying the processing plant requirements.

Table 1-3: Subset of the Mineral Resources Included in the PEA Mine Plan

Resource Class	Tonnage (kt)	Au Grade (g/t)
Indicated	187,237	1.03
Inferred	33,887	0.61

The production schedule results in a life of mine (LOM) of 19 years with stockpile reclaim extending into Year 22. The mine will require one year of pre-production before the start of the processing plant operations. Eleven 220 t haul trucks will be required during pre-production, increasing to 20 trucks by year 1, and peaking at 23 trucks in year 13.

1.14 Recovery Methods

Testing of samples from the Côté deposit has indicated that the majority of the material is very competent and resistant to SAG milling. A typical SAG mill configuration, even with high ball loads, would be unable to process this material in an energy-efficient manner. For SAG milling to be effective, it would be necessary to have a pre-crushing circuit. The better alternative appears to be the use of HPGR technology.

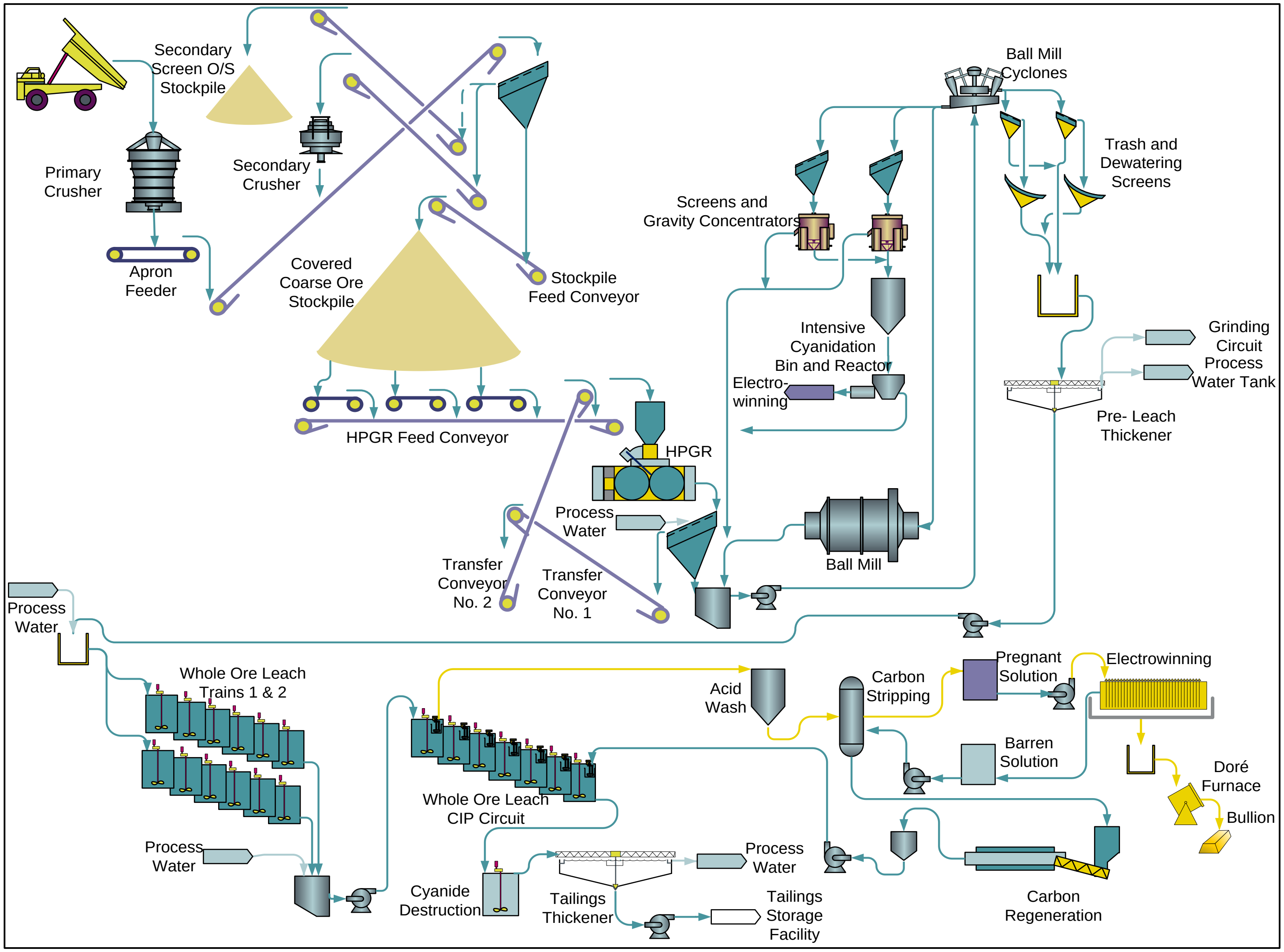
Pre-crushing has been used as a response to challenges caused by impact resistance of mill feed materials. It poses issues with respect to availability, maintenance and operating costs, and responsiveness to ore changes. In contrast, HPGR circuits typically have lower energy costs, predictable throughput and high availability, although at higher maintenance costs. Examples of HPGR circuits include Boddington, Cerro Verde, Morenci and diamond projects in Canada.

For the Côté Gold Project, reduced grinding media and SAG mill liner wear will be as significant as savings in energy consumption. A HPGR circuit will have better availability than a SAG mill, since maintenance actions are less frequent and more controlled. In the next study stage, it will be imperative to acquire sufficient material for HPGR pilot testing, with samples of sufficient variability to test responses to different mineralization characteristics.

The process circuits will include primary crushing, secondary crushing, HPGR, ball milling, gravity concentration and cyanide leaching, followed by gold recovery by carbon-in-pulp (CIP), and stripping and electrowinning (EW). Tailings handling will incorporate cyanide destruction and tailings thickening.

Plant throughput will be 29,000 tpd at a plant availability of 94%. It is expected that a ramp-up period of three to four months will be required to reach the design throughput.

Figure 1-3: Process Flow Diagram



1.15 Project Infrastructure

The infrastructure required for the Côté Gold Project will include:

- Watercourse realignment dams and channels
- a tailings management facility (TMF)
- polishing and tailings reclaim ponds
- site power supply and distribution
- workshop, offices, facilities and other services
- a 6 km, two-lane gravel access road from the nearest highway
- a 44 km-long 115 kV electrical power transmission line from Shining Tree substation.

The proposed site layout is shown in Figure 1-4.

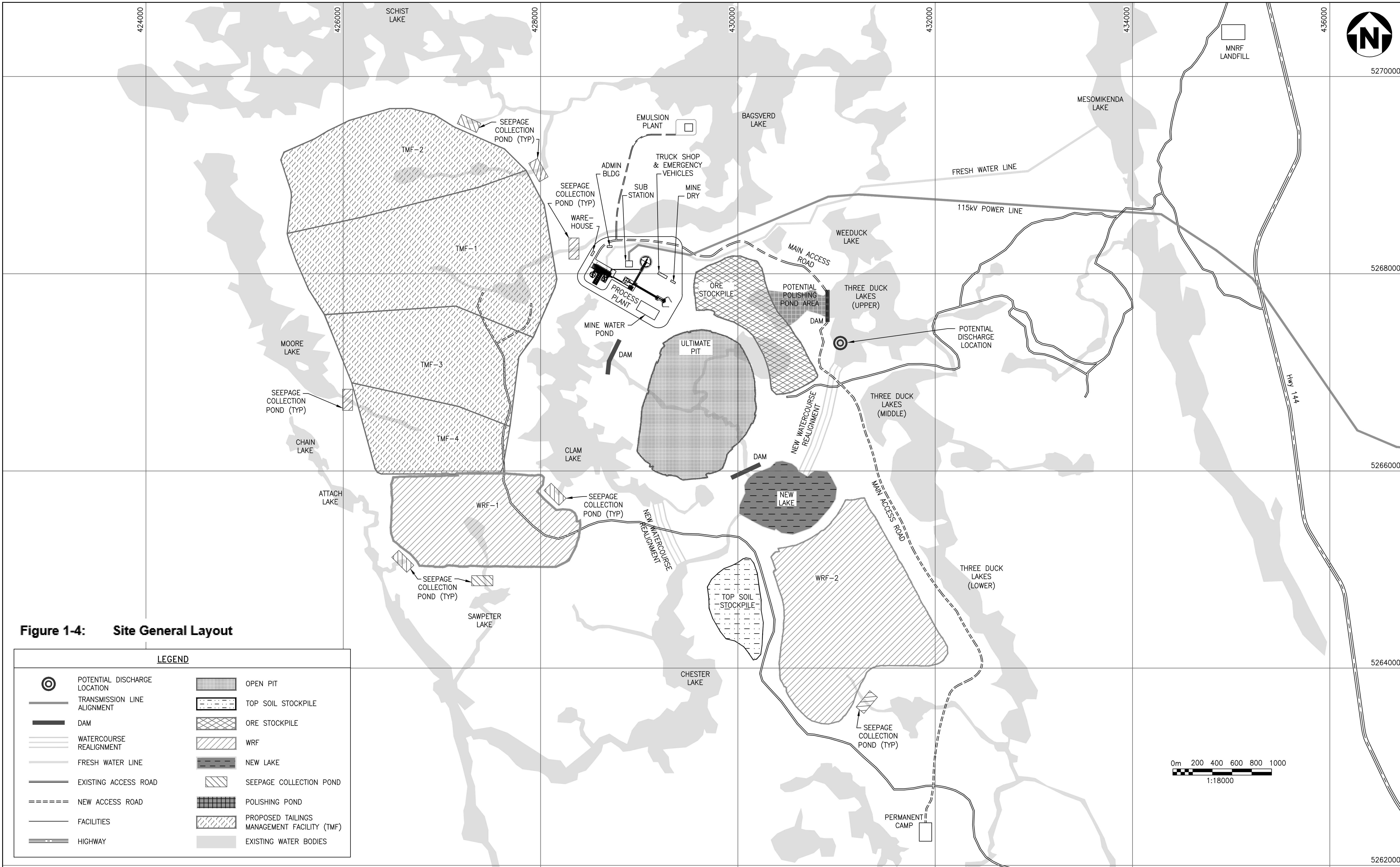


Figure 1-4: Site General Layout

1.16 Market Studies and Contracts

IAMGOLD expects that the terms of any sales contracts would be typical of, and consistent with, standard industry practices, and would be similar to contracts for the supply of gold doré elsewhere in Canada. Limited additional effort is expected to be required to develop the doré marketing strategy.

1.17 Environmental Studies, Permitting & Social or Community Impact

Amec Foster Wheeler and other consultants conducted environmental baseline studies on the Côté gold property to characterize the physical, biological, and human environment.

IAMGOLD is currently awaiting a provincial ministerial decision on the 2015 Environmental Assessment (EA) for the Project as envisaged at that time, which is not substantially different from the configuration described in this PEA. The EA states that no significant effects are anticipated after the application of the proposed mitigation measures.

The Federal Minister of the Environment stated in May 2016 that the Project is not likely to cause significant adverse environmental effects.

A number of provincial environmental approvals will be required to construct and operate the Project, but are not anticipated to pose any significant challenges to Project development.

Potential benefits of the Côté Gold Project are expected to include employment and business opportunities, as well as tax revenues at all levels of government.

1.18 Capital and Operating Costs

The project's initial capital cost, summarized in Table 1-4, is estimated to be US$1,031 M, inclusive of allowances in Indirect Costs for Owner's costs and contingency of US$29 M and US$175 M, respectively

This estimate was prepared in accordance with the American Association of Cost Engineers (AACE) Class 4 study definition, with an expected accuracy of +50%/-30% of the final Project cost.

Costs are expressed in second-quarter 2016 US dollars with no allowances for escalation, currency fluctuation or interest during construction. Costs quoted in Canadian dollars were converted to US dollars at an exchange rate of C$1 = US$0.74.

Table 1-4: Initial Capital Cost Estimate Summary

Description	Cost, US$ M
Mining	116
Electrical, Communications & Controls	91
Infrastructure	60
Process Plant	345
Tailings & Water Management	25
Direct Costs	637
Indirect Costs	394
Total Initial Capital Cost	**1,031**

Part of the initial mining fleet, main substation, and process equipment, having an approximate initial capital cost of US$183 M, will be financed using capital lease agreements with vendors. Inclusive of a down-payment of 10% of the purchase value paid at placement of order, capital leases reduce the initial capital cost by approximately US$164 M.

Sustaining costs and operating costs (with no contingency) over the LOM are estimated to total US$440 M and US$3,573 M, respectively. Reclamation and closure costs are estimated at US$40 M.

1.19 Economic Analysis

Under the assumptions presented in this report, the Côté Gold Project demonstrates positive economics. After-tax NPV over the LOM is estimated to be US$543 M at a 6% discount rate, and after-tax IRR is 12.9%. The after-tax payback period of the initial capital investment is estimated at 5.2 years after the start of production.

In the pre-tax and after-tax evaluations, the Project is most sensitive to changes in gold price, less sensitive to changes in operating and capital costs, and least sensitive to changes in the cost of electric power.

1.20 Adjacent Properties

There are no adjacent properties to describe in the context of the Côté gold deposit.

1.21 Other Relevant Data and Information

There is no further relevant information to be provided.

1.22 Interpretations and Conclusions

Based on a conceptual mine design, the Côté Gold Project shows a positive financial return, and the PEA identifies additional testwork and analyses required to support more advanced mining studies. The PEA is based on Mineral Resources that do not have demonstrated economic viability, and include Inferred Mineral Resources that are considered too speculative geologically to have the economic considerations applied to them that would enable them to be categorized as Mineral Reserves. There is no certainty that the PEA will be realized. The Report provides sufficient support to proceed with more detailed studies.

1.23 Recommendations

In preparation for the next mining study, Amec Foster Wheeler recommends performing the fieldwork, testing and analyses summarized in Table 1-5. The recommended work program can be completed as one work phase, and is not contingent on positive results from other work.

Table 1-5: Recommended Work Program

Area	Description
Drilling	• Drill infill holes to allow conversion of unclassified and Inferred to higher confidence resources, and collect metallurgical and geotechnical samples
Metallurgical Sampling and Testing	• Investigate gold particle size with strict QA/QC to address poor Certified Reference Material (CRM) precision. • Conduct testwork to confirm the HPGR approach. • Test domain composites to address geometallurgical variability. • Conduct bench-scale testing to help define deposit variations.
Resource Estimating	• Review and improve resource domains where necessary. • Assess the potential benefits of sub-domaining the large interpolated zones. • Conduct a grade capping study to reduce the risk of not achieving predicted grades. • Conduct a drillhole spacing study to predict grade and production increments, and to provide guidance on the required drillhole spacing density for Measured Mineral Resource classification. • Prepare an updated mineral resource estimate with above information to convert Inferred and Unclassified resources to Indicated. • Conduct conditional simulation.
Mining Methods	• Evaluate kriged rock quality designation (RQD) zones and geology of each sector of the pit. • Determine the appropriate rock-mass strengths for each major rock type. • Evaluate overall slope angles. • Assess dilution and conduct selective mining unit (SMU) analysis to determine the best block size.
Infrastructure	• Conduct additional field investigations to characterize the site and its requirements.

	• Conduct analyses using field data and samples to advance TMF design and water management. • Contract Hydro One to study power supply from the nearest substation.
Environment	• Update the baseline environmental monitoring program. • Inform regulatory agencies of changes/improvements to the EA.

The total estimated cost for this work is C$5.26 M.

2.0 INTRODUCTION

IAMGOLD Corporation (IAMGOLD) and Amec Foster Wheeler Americas Limited (Amec Foster Wheeler) jointly completed a Preliminary Economic Assessment (PEA) on IAMGOLD'S Coté Gold Project (the Project), which is an advanced stage exploration project situated near Gogama in the province of Ontario, approximately 125 km southwest of Timmins. This area is known as the Porcupine Mining Division.

2.1 Purpose of the Study

This NI 43-101 Technical Report (the Report) was prepared as a summary of the PEA, and to support IAMGOLD's disclosure of the results of the PEA. IAMGOLD is using the PEA as a conceptual analysis of a selected development option to assess the economic viability of the Project and to identify additional work necessary to complete more advanced mining studies.

2.2 Terms of Reference

IAMGOLD Qualified Persons (QPs) prepared or took responsibility for the sections of the Report on the property description and location, access, history, geological setting and mineralization, deposit type, exploration, drilling, sampling, data verification, Mineral Resource estimation, tax information, marketing studies and contracts, and the summary, interpretations, conclusions, and recommendations that were based on those sections.

Amec Foster Wheeler QPs prepared or took responsibility for the the sections of the Report that included the introduction, reliance on other experts, mineral processing and metallurgical testing, mining and recovery methods, Project infrastructure including tailings, environmental studies, capital and operating costs, economic analysis, and the summary, interpretations, conclusions, and recommendations from those sections.

Units of measurement used in this report conform to the metric system unless otherwise indicated. All currency in this Report is in either US dollars (US$) or Canadian dollars (C$) as noted.

2.3 Sources of Information

The key information sources for the Report are listed in Section 27. Additional information was provided by IAMGOLD staff to Amec Foster Wheeler staff as requested.

2.4 Effective Dates

There are a number of cut-off dates for the information used in the Report:

- Effective date of the Mineral Resource estimate: December 31, 2015
- Date of last supply of mineral tenure, surface rights, and property agreements: December 31, 2016
- Date of last site visits to the property by Amec Foster Wheeler: October 4th, 2016

The effective date of the Report is determined to be December 09, 2016.

2.5 Personal Inspections

Dr. Bing Wang, P. Eng., visited the Côté Gold Project site on May 16, 2016 and again on October 4th, 2016. The following areas were inspected:

- Property mineral lease boundaries
- Topography and geographical features – lakes, rivers, protected areas, etc.
- Prior mine excavations, select bedrock outcrop locations, depth of overburden
- Exploration drill sites and representative drill cores, potential for Acid Rock Drainage (ARD)
- Proposed location of open-pit, waste dumps, mill feed dumps, soil/muskeg storage, tailings management facility, property access, mine facilities, utility corridors, water management structures,

Mr. Alan Smith, P. Geo, has made site visits to the Côté Gold Project and surrounding exploration projects between February 2013 and December 9th 2016, the most recent being November 28-30th, 2016 to inspect and conduct a review of current regional exploration work. The following areas were visited / inspected:

- Diamond drill access trails for Chester area exploration targets northeast of the Côté deposit.
- Diamond drill access trails for South Swayze East / Watershed exploration target areas.
- Core shed building and core storage farms at Côté.
- Drill sites for the recently completed Côté metallurgical diamond drilling program and the core storage building.

Ms. Marie-France Bugnon, P.Geo., General Manager Exploration for IAMGOLD, has made site visits, exploration reviews and legal and claims updates to the Côté Gold Project between June 2012 and January 2017 and surrounding exploration properties, the most recent site visit being on November 16-17, 2016, where the following activities were reviewed and inspected:

- 2015 and 2016 fall diamond drilling program results and observations for the Clam Lake, King Errington, Jack Rabbit, Weeduck Lake, South Côté, Benneweiss Lake, TME East, Schist Lake, Monella Point and TAAC West North Shore target areas.
- Report on progress and assessment work requirements for the maintenance of the Côté district exploration properties portfolio.

In addition to site visits, the mining titles database was regularly reviewed as well as Surface and Mining Leases applications monitored.

Mr. Vincent Blanchet, P. Eng., has been involved in the Côté Gold Project drilling campaigns in 2014 and 2015, and last visited the site on July 19, 2015.

Mr. Raphael Dutaut, P. Geo., has visited the Côté Gold property several times since 2013, the most recent being May 04 to 08, 2015 to inspect data verification for the mineral resource estimate.

Ms. Debbie Dyck, P. Eng., has been involved in the Côté Gold Project baseline studies and EA process since 2012, and last visited the site on March 10, 2015.

3.0 RELIANCE ON OTHER EXPERTS

3.1 Legal Information

Legal information on the Côté Gold Project, including a summary description of the mineral title, surface rights, property agreements, royalties and other encumbrances, has been provided by IAMGOLD.

3.2 Tax Information

The AMEC Foster Wheeler QP has not independently reviewed the taxation information.

Amec Foster Wheeler have fully relied upon and disclaim responsibility for, tax information derived from IAMGOLD summarized in a letter titled "IMG Other Expert Reliance Areas_taxation-Cote Gold IAMGOLD_06_02_2017", dated February 6, 2017 from Stephen Eddy on behalf of IAMGOLD.

This tax information was used in Section 22.

4.0 PROPERTY DESCRIPTION AND LOCATION

4.1 Location

The Project area is located in the Porcupine Mining Division, 25 km southwest of Gogama, Ontario (Figure 4-1) and extends from Esther Township in the west to Champagne Township in the east, a distance of approximately 57 km. The Project consists of a collection of properties assembled through staking and various option agreements covering an area of approximately 512 km^2 (Figure 4-2). The properties are bisected by Highway 144 and are approximately 175 km north of Sudbury via Highway 144 and approximately 125 km southwest of Timmins via Highways 101 and 144 (refer to Figure 4-1).

The Chester property is located in the central part of the Project area and hosts the Côté Gold deposit as well as the Chester 1 zone and several other gold occurrences (Figure 4-3). The Chester property is subject to a number of agreements and is described in this section along with the other properties.

4.2 Property Titles

On April 27, 2012, IAMGOLD announced that it had entered into a definitive agreement with Trelawney Mining and Exploration Inc. (Trelawney) to acquire, through a wholly-owned subsidiary, all of the issued and outstanding common shares of Trelawney through a plan of arrangement. On June 21, 2012, IAMGOLD announced completion of the acquisition of all of the issued and outstanding common shares of Trelawney. The shares of Trelawney were subsequently delisted and Trelawney remains an indirect 100% owned subsidiary of IAMGOLD. All of the interests in the property groups are owned by IAMGOLD through Trelawney and its various subsidiaries, and are subject to property agreements in effect at the time of acquisition.

Figure 4-1: Project Location (December 2016)

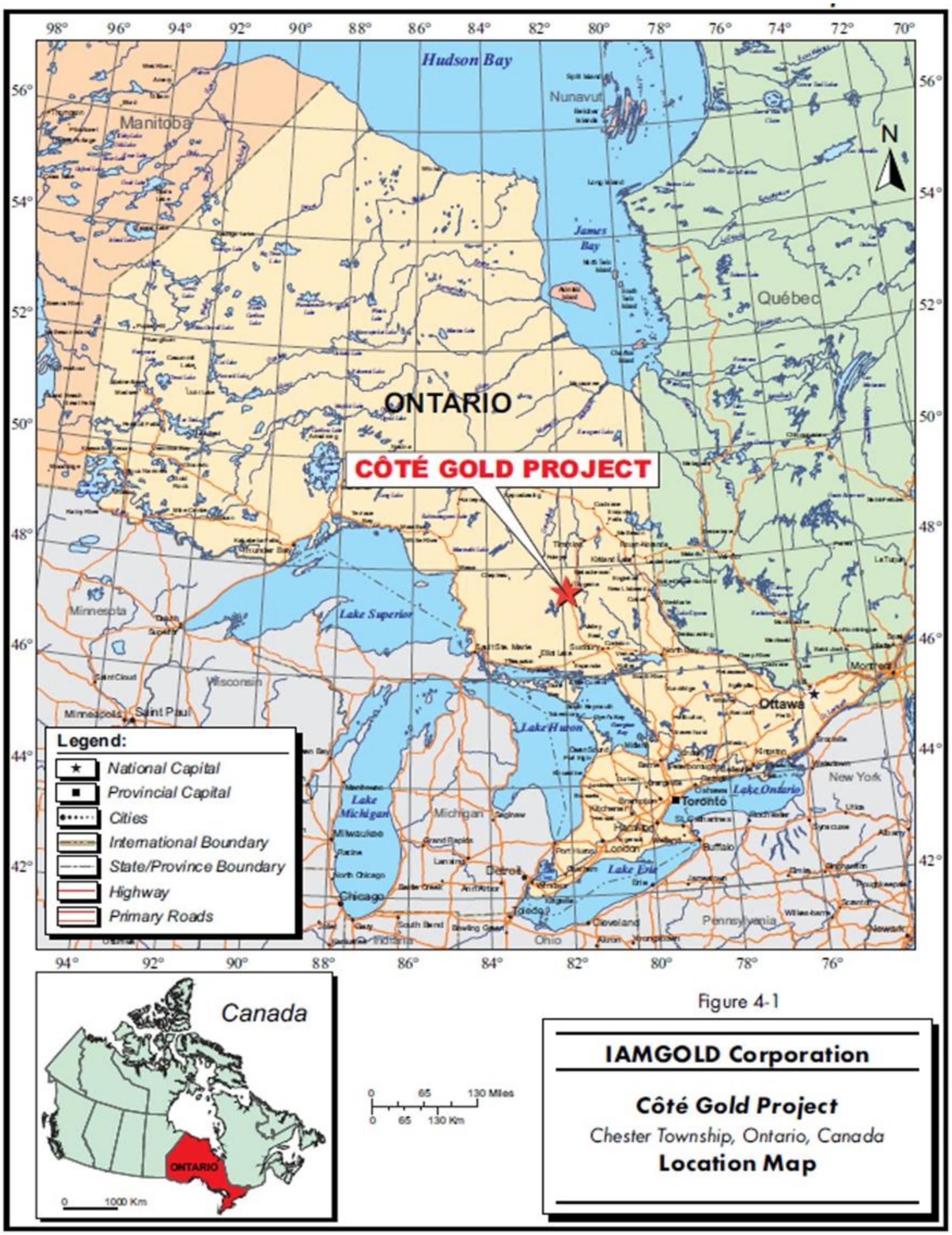
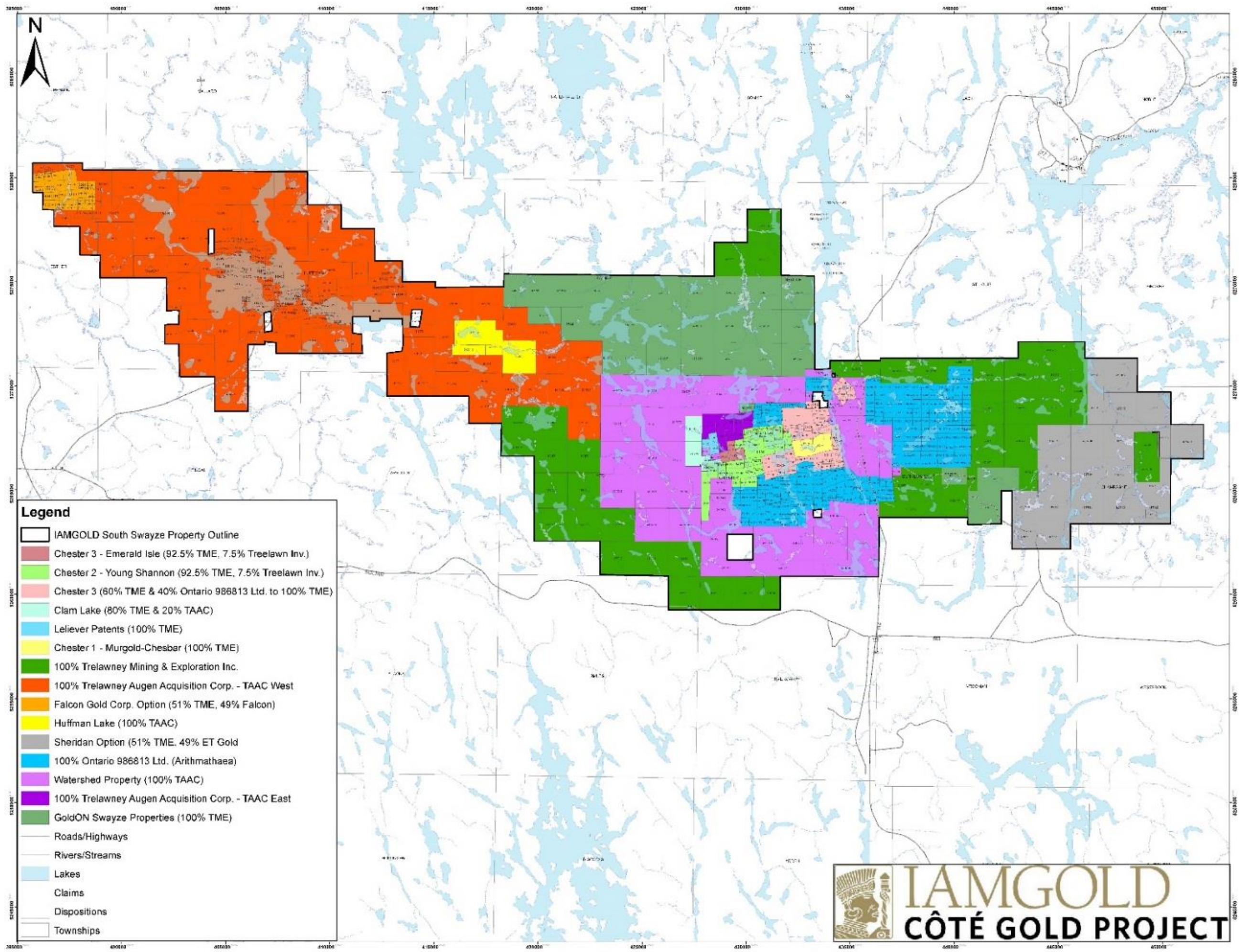


Figure 4-2: Property Group Map



Based on ownership and underlying agreements in effect at the time of completion of the acquisition, the Project area consists of 11 properties: Chester, Sheridan Option, Trelawney Mining & Exploration (north, south and east blocks), Ontario 986813 Ltd. (Arimathaea Resources Inc. (Arimathaea), north, northeast, east and south blocks), Watershed, Golden Swayze, Trelawney Augen Acquisition Corp. East and West, Huffman Lake Option, Falcon Gold Option, and Leliever properties (Figure 4-2). The property holdings were restructured in 2016, with a number of non-strategic gound positions surrendered, and the acquisition of Golden Swayze claims.

IAMGOLD is not aware of any environmental liabilities associated with or attributable to any of the subject property groups in the Project area other than those that would normally be expected as a result of historical mining activities and associated historical mine workings.

The proposed work in Section 26 of the Report includes surface exploration work and surface diamond drilling. The permit application process, which has been successfully completed in the past, requires exploration plans and permits as required by the Ministry of Northern Development and Mines (MNDM). Certain permits have been granted since March 27, 2013 to allow future works on a large part of the properties. Permits are also required from the Ministry of Natural Resources and Forestry (MNRF) for drilling if there are planned water crossings during drilling or other exploration activities.

IAMGOLD is not aware of any other risks that could affect access, title, or the right or ability to perform work on the properties that are not discussed in the Report.

4.3 Mineral Rights, Land Holdings and Agreements

4.3.1 Chester Property

Occurrence (73) on Ontario Geological Survey (OGS) Map 214 (Siragusa, 1993) is locally known as the Jack Rabbit No. 1 Zone or the No. 20 Zone. It is located approximately at UTM coordinates 433176 E and 5268893 N, or latitude 47° 34' N and longitude 81° 53' W, within Lease CLM 266. Occurrence (69) on OGS Map 214 is the so-called No. 3 Zone or Chester 1 (formerly Murgold-Chesbar) that was investigated underground by decline in the 1980s. The Bates shaft, connected to the underground development, is located approximately at UTM coordinates 433089 E and 5267214 N, or latitude 47° 33' N and longitude 81° 52' W. Both the decline and the Bates shaft are located within Mining Lease P1222832. The decline portal is located at UTM coordinates 432896 E and 5267094 N. The Chester 2 (Young-Shannon) headframe was located at UTM coordinates 430475 E and 5267450 N but no longer exists.

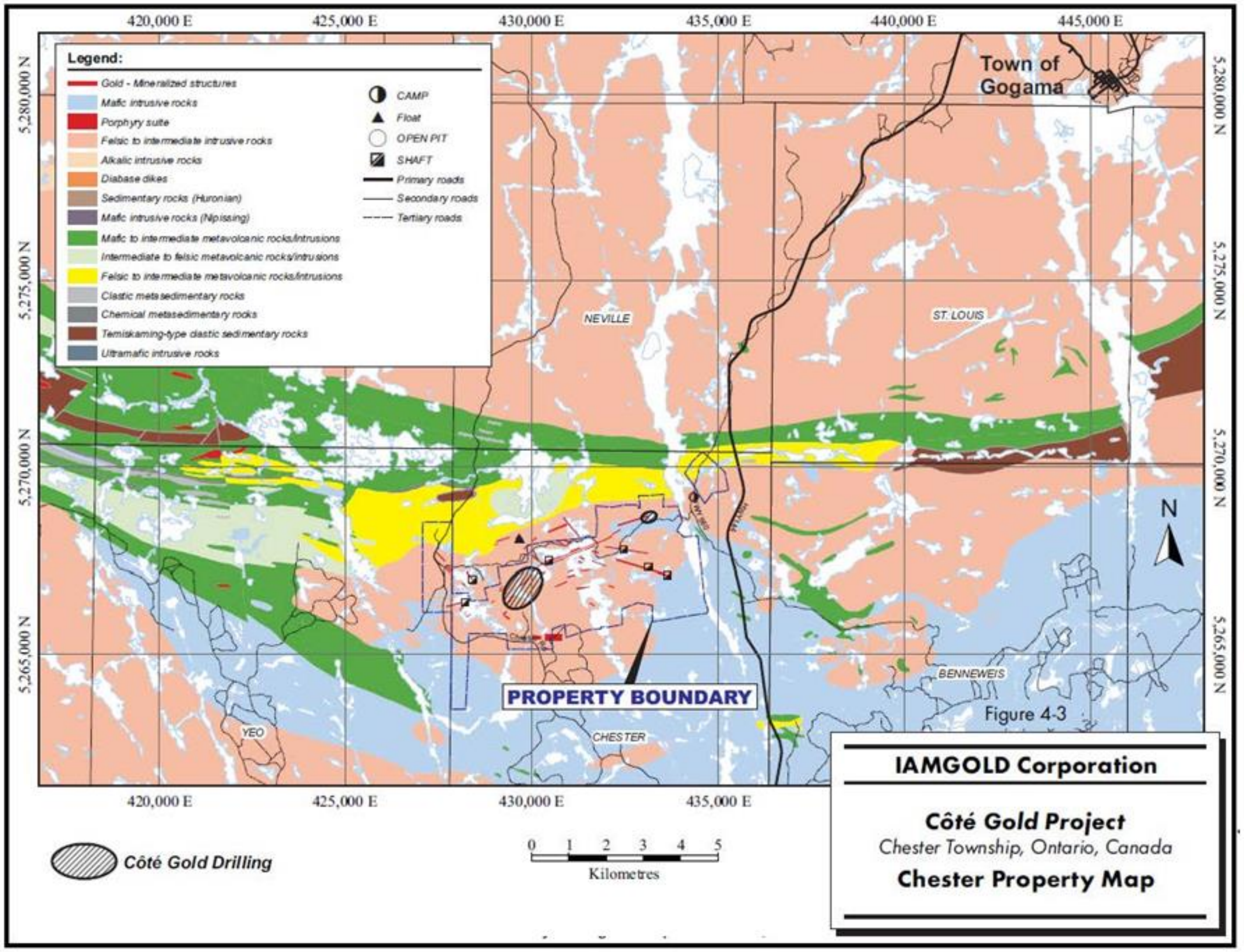
All lease and patent boundaries for the property were surveyed at some time in the past. Boundary and corner posts define existing claims. The owner of a mining claim does not hold the surface rights to the claim. At the time of application for a lease, the claims must be surveyed, and an application for surface rights submitted.

Mineralized zones and important natural features are illustrated in Figure 4-3.

On February 23, 2010, Trelawney announced that it had received a permit to take water (PTTW for dewatering) from the Ontario Ministry of the Environment (MOE). The permit grants the taking of water from the Bates shaft on the Chester property for construction dewatering. Trelawney initiated the process to commence the dewatering of the Chester 1 ramp in summer 2010. On July 7, 2010, Trelawney announced that it had received acknowledgement of receipt for the filing of its Advanced Exploration Closure Plan for the Chester 1 Project from the Mineral Development and Lands Branch of the Ministry of Northern Development, Mines and Forestry (MNDMF). Pursuant to the approval for filing of the Closure Plan by the MNDMF, Trelawney commenced the planned underground exploration program. Portal and underground rehabilitation began in the second half of 2010 and through early 2011. Trelawney recovered an underground bulk sample consisting of approximately 10,000 tonnes of mineralized material and on May 25, 2011, announced its intention to reduce underground operations at the Chester 1 Project, which has since been placed on care and maintenance.

Trelawney entered into an Exploration Agreement with the Mattagami First Nation. The agreement establishes a commitment to an ongoing relationship between the Mattagami First Nation and Trelawney with respect to Trelawney's exploration activities on its Chester Township properties, located in the traditional territory of the Mattagami First Nation. The Exploration Agreement establishes the foundation for a cooperative and mutually beneficial relationship between the Mattagami First Nation and Trelawney by setting out provisions which include training, ongoing communication, and opportunities for businesses within the community to participate in Project exploration activities. In addition, Mattagami First Nation and IAMGOLD have agreed to negotiate an Impact Benefit Agreement should the Project proceed to production.

Figure 4-3: Chester Property Map



The Chester property holdings include interests in 47 claims, 30 patents, three mining licences of occupation, and four leases with a total area of approximately 1,701 ha. They are held in several contiguous packages and include two option agreements, two purchase agreements, and staked claims as described in the following sections (Figure 4-4).

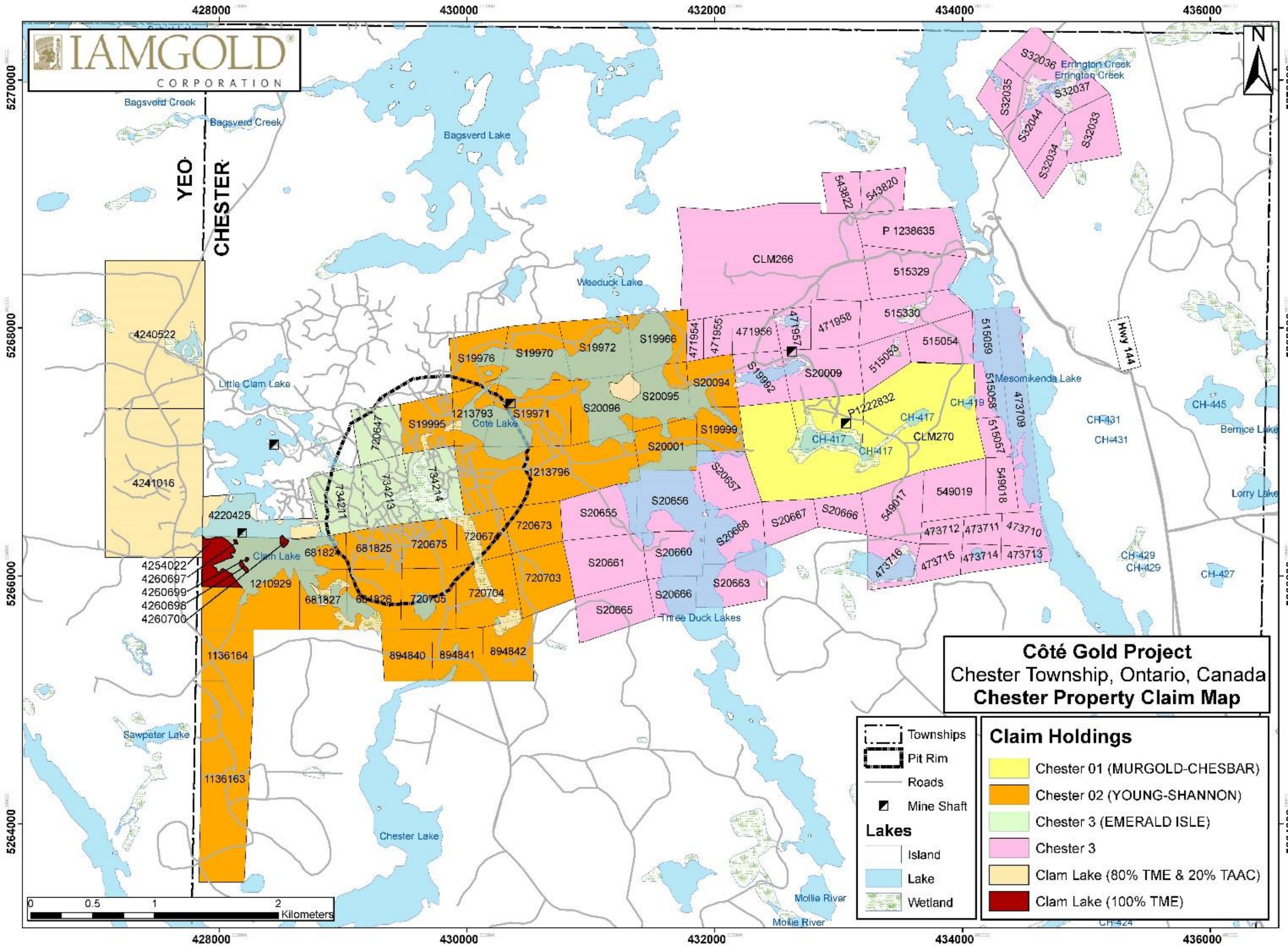
4.3.2 Environmental Site Remediation

Diamond drilling work conducted between 2013 and 2015 met all of IAMGOLD's environmental standards. The standards include back-blading of ruts, filling in sumps, cutting of leaning trees, stacking of large pines, and marking of drill collars. All drill sites and water pump sites are subject to post-drilling inspection. In the event of any non-conformities with IAMGOLD standards, the contractors were notified and corrective action was taken. Legacy site remediation has been on-going since 2013. Legacy diamond drilling sites are visited for inspection and collars are marked and any debris removed. A total of 186 legacy drill sites have been remediated to date and the work is still in progress.

There are no other known environmental liabilities associated with the Project other than those that may be expected from historical mining activities and the limited mine workings described above.

Mineral claims subject to these various option agreements are kept in good standing by IAMGOLD as a requirement of those agreements. Under provincial requirements Trelawney regularly completes assessment work that is filed to renew or extend the claims to up to five-years of validity. The minimum assessment work a mining claim holder must do every year or distribute to the claim from work reserve banked on the claim or from other contiguous claims to keep the mining claim in good standing is C$400 per claim unit which corresponds to 16 ha. Trelawney has no additional exploration expenses obligations in relation with the various option property agreements.

Figure 4-4: Chester Property Claim Map



4.3.2.1 Chester 1 Agreement

On August 11, 2009, Trelawney entered into a definitive option agreement with Treelawn Investment Corp. granting Trelawney the exclusive and irrevocable option to earn up to a 70% interest in the Chester 1 (Murgold-Chesbar) claims (Table 4-1). Pursuant to the terms of the option agreement, Trelawney had the option to acquire an initial 50% interest in the claims (the First Option) and an option to increase the 50% interest in 10% increments to 70% (the Second Option).

On November 23, 2011, Trelawney announced that it had completed the exercise of the First Option and the Second Option. Under the terms of an amending agreement dated November 22, 2011 between Trelawney and Treelawn Investment Corp., Trelawney accelerated the terms of the Chester 1 Option Agreement dated August 11, 2009, and Trelawney earned 70% of Treelawn Investment Corp.'s interest in the Chester 1 Property, which comprises two mining leases covering approximately 150.4 ha. In addition, in consideration of waiving certain commercial production requirements under the Chester 1 Option Agreement, Treelawn Investment Corp.'s residual 30% working interest in the Chester 1 Property was converted into a 30% free carried net profits interest.

Table 4-1: Chester 1 (Murgold-Chesbar) – Ownership – IAMGOLD 100% Leases Surface and Mineral Rights

Township	Claim Number	Approximate Area (ha)	Start Date	Lease Expiry Date
CHESTER	P1222832	22.0	01-Aug-03	31-Jul-23*
CHESTER	CLM270	128.4	01-Aug-03	31-Jul-24
	Total	150.4		

Note* - 21 year lease but MNDMF has 20 year expiry date

Mining lease CLM270 is subject to a 3% net smelter return (NSR) with Trelawney having the right to purchase 2% of the NSR for C$2 M.

4.3.2.2 Chester 2 Agreement

The Chester 2 claims consist of 11 patented claims and 18 staked claims comprising 26 units. The Chester 2 claims are contiguous, covering an area of approximately 608 ha, and are shown in Figure 4-4 and listed in Table 4-2. On October 27, 2009, Trelawney signed an amended and restated Mining Claim Acquisition Agreement with Metallum Resources Inc. (Metallum). This agreement allowed Trelawney to acquire a 92.5% interest in the Young-Shannon property, subject to a 1% NSR royalty payable when the monthly average gold price exceeds US$1,000 per ounce. This royalty was subsequently acquired by IAMGOLD in 2012.

At the time of the closing of the Metallum agreement, Trelawney held at least a 92.5% interest in the staked and patented claims and the remaining interest was held by Treelawn Investment Corp.

The patented claims are subject to a 1.5% NSR under an agreement dated March 27, 1987. Sixteen of the 18 unpatented claims are subject to a 0.75% NSR under an agreement dated April 15, 1987.

Table 4-2: Chester 2 List of Patented and Staked Claims (These claims cover the southern part of the Côté Gold deposit and its northeast and southwest geological extensions)
Ownership – Trelawney 92.5%, Treelawn Investment Corp. 7.5%

	Claim Number	Percent Option (%)	Claim Due Date	Work/Taxes Required (C$)
PATENTED CLAIMS				
1	19966	92.5	Not Applicable	Not Applicable
2	19970	92.5	Not Applicable	Not Applicable
3	19971	92.5	Not Applicable	Not Applicable
4	19972	92.5	Not Applicable	Not Applicable
5	19976	92.5	Not Applicable	Not Applicable
6	19995	92.5	Not Applicable	Not Applicable
7	19999	92.5	Not Applicable	Not Applicable
8	20001	92.5	Not Applicable	Not Applicable
9	20096	92.5	Not Applicable	Not Applicable
10	20094	92.5	Not Applicable	Not Applicable
11	20095	92.5	Not Applicable	Not Applicable
			Total Annual Tax	**968**
STAKED CLAIMS				
1	* P-681824	92.5	2021-Jun-08	330
2	* P-681825	92.5	2021-Jun-08	400
3	* P-681826	92.5	2021-Jun-08	400
4	* P-681827	92.5	2021-Jun-08	375
5	* P-720673	92.5	2018-Jun-08	400
6	* P-720674	92.5	2022-Jun-08	400
7	* P-720675	92.5	2021-Jun-08	400
8	* P-720703	92.5	2022-Jun-08	400
9	* P-720704	92.5	2022-Jun-08	400
10	* P-720705	92.5	2022-Jun-08	400
11	* P-894840	92.5	2021-Jun-02	400
12	* P-894841	92.5	2021-Jun-02	400
13	* P-894842	92.5	2021-Jun-02	286
14	P-1136163	92.5	2022-Jul-03	1,600
15	P-1136164	92.5	2022-Jul_03	400
16	P-1210929	92.5	2021-Oct-25	1,200
17	** P-1213793	92.5	2020-Jun-18	400
18	** P-1213796	92.5	2020-Jun-18	758
	Total Annual Value of Assessment Work Required			9,349

* These claims are being surveyed for the perimeter of the Surface and Mining Rights of CLM 501 and the completed survey is under MNR review.

** These two individual Perimeter Claim Surveys for Surface and Mining Rights received final approval from the MNR and were deposited in the Land Registry Office in Sudbury.

4.3.2.3 Chester 3 Agreement

On December 21, 2009, Trelawney and Treelawn Group Inc. entered into a Mining Option Agreement, pursuant to which Treelawn Group Inc. granted Trelawney the right to acquire up to a 92.5% interest in Treelawn's interests in the Chester 3 claims (Table 4-3 and Table 4-4) (Treelawn's Interest). Pursuant to the terms of the Mining Option Agreement, Trelawney had the option to acquire an initial 50% interest in Treelawn's Interest in these claims (First Option) and an option to increase such interest to 92.5% (the Second and Third Options).

In accordance with the Mining Option Agreement, after exercising the First Option, Trelawney granted to Treelawn Group Inc. a 1.5% NSR on the Treelawn Interest in the Chester 3 claims. During the 48 months following the grant of the royalty, Trelawney had the right to purchase 0.5% of the royalty from Treelawn Group Inc. for the sum of C$1 M.

On November 23, 2011, Trelawney announced that it had earned a 92.5% interest in the Treelawn Interest in the Chester 3 property. Under the terms of an amending agreement dated November 22, 2011, between Trelawney and Treelawn Group Inc., Trelawney accelerated the terms of the Second and Third Options of the Chester 3 Option Agreement dated December 21, 2009, and earned 92.5% of the Treelawn Interest in the Chester 3 property. On May 20, 2015, Trelawney also exercised its right to purchase 0.5% NSR by paying Treelawn the sum of C$1 M. This reduces the total royalty to 1% NSR in the Chester 3 claims.

The Chester 3 property comprises two mining leases, 19 patented claims, and 29 unpatented mining claims covering approximately 879 ha. It contains a large portion of the Côté gold deposit. In consideration for accelerating the exercise of the Chester 3 Option Agreement, Treelawn Group Inc's residual interest in the Chester 3 property was converted into a free-carried interest of 7.5% on the Treelawn Interest (Amended Interest dated November 22, 2011).

On March 28, 2012, Trelawney announced that it had entered into a restated amending agreement with Treelawn Group Inc. with respect to the Chester 3 property. Pursuant to the restated amending agreement, the Amended Interest was converted into a 7.5% net profits interest on the Treelawn Interest.

Table 4-3: Chester 3 (Emerald Isle) (These claims cover the northern part of the Côté Gold deposit)
Ownership – Trelawney 92.5%, Treelawn Group Inc. 7.5% NPI

Township	Claim Number	Approximate Area (ha)	Recording Date	Due Date	Work Required (C$)
CHESTER	720647	15.9	1983-Dec-21	2022-Dec-21	260
CHESTER	734211	20.6	1983-Dec-21	2022-Dec-21	263
CHESTER	734213	20.0	1983-Dec-21	2021-Dec-21	262
CHESTER	734214	22.9	1983-Dec-21	2021-Dec-21	263
	Total	**79.4**			

* These claims are being surveyed for the perimeter of the Surface and Mining Rights of CLM 501 and the completed survey is under Ministry of Natural Resources and Forestry (MNR) review.

NPI = net profits interest.

Table 4-4: Chester 3 (Claims surrounding Chester 1) (These claims are adjacent to north, east and south of CLM 270 of Chester 1) Ownership – Trelawney 60%, Arimathaea* 40%

Township	Claim Number	Approximate Area (ha)	Recording Date	Due Date	Work Required (C$)
CHESTER	471954	4.4	1978-Mar-15	2020-Aug_20	400
CHESTER	471955	7.4	1978-Mar-15	2020-Aug_20	400
CHESTER	471956	12.0	1978-Mar-15	2020-Aug_20	400
CHESTER	471957	9.2	1978-Mar-15	2020-Aug_20	400
CHESTER	471958	15.2	1978-Mar-15	2020-Aug_20	400
CHESTER	473709	30.9	1979-Oct-23	2020-Mar-15	399
CHESTER	473710	10.2	1979-Oct-23	2019-Mar-15	400
CHESTER	473711	7.3	1979-Oct-23	2019-Mar-15	400
CHESTER	473712	6.6	1979-Oct-23	2019-Mar-15	400
CHESTER	473713	5.9	1979-Oct-23	2019-Mar-15	400
CHESTER	473714	6.9	1979-Oct-23	2019-Mar-15	400
CHESTER	473715	10.5	1979-Oct-23	2019-Mar-15	400
CHESTER	473716	15.0	1979-Oct-23	2019-Mar-15	400
CHESTER	515053	13.0	1979-May-10	2020-Oct-15	400
CHESTER	515054	18.0	1979-May-10	2020-Oct-15	400
CHESTER	515057	7.6	1979-May-10	2020-Oct-15	400
CHESTER	515058	10.3	1979-May-10	2020-Oct-15	400
CHESTER	515059	9.3	1979-May-10	2020-Oct-15	400
CHESTER	515329	26.0	1979-Jun-20	2020-Nov-25	400
CHESTER	515330	23.2	1979-Jun-20	2020-Nov-25	400
CHESTER	549017	22.0	1979-Oct-23	2020-Mar-30	400
CHESTER	549018	10.8	1979-Oct-23	2020-Mar-30	400
CHESTER	549019	22.0	1979-Oct-23	2020-Mar-30	400
CHESTER	543820	11.8	1979-Oct-03	2020-Mar-10	400
CHESTER	543822	9.8	1979-Oct-03	2020-Mar-10	400
	Total	**325.2**			

* Arimathaea Resources Inc. (Ontario 986813 Ltd)

Note: Some of these claims are requested for lease under historical applications and do not require work to retain ownership.

Table 4-4a: Ownership – Treelawney 100% - Patents – Surface and Mineral Rights

Township	Claim Number	Approximate Area (ha)
CHESTER	S32033	18.5
CHESTER	S32034	11.4
CHESTER	S32035	13.8
CHESTER	S32036	17.0
CHESTER	S32037	12.2
CHESTER	S32044	15.1
	Total	**88.0**

Table 4-4b: Ownership – Treelawney 75% - Canorth* 25% - Patents

Township	Claim Number	Approximate Area (ha)
CHESTER	S20655	22.9
CHESTER	S20656	25.8
CHESTER	S20657	19.1
CHESTER	S20660	17.5
CHESTER	S20661	25.9
CHESTER	S20663	20.2
CHESTER	S20664	10.8
CHESTER	S20665	20.4
CHESTER	S20666	11.1
CHESTER	S20667	11.8
CHESTER	S20668	20.1
Total		**205.6**

* Canorth Resources Inc.

Table 4-4c: Ownership – Treelawney 60% - Arimathaea* 40% - Patents & Lease

Township	Claim Number	Approximate Area (ha)
CHESTER	S19992	16.3
CHESTER	S20009	24.4
CHESTER	P1238635	27.4
Total		**68.1**

* Arimathaea Resources Inc. (Ontario 986813 Ltd)

On November 26, 2010, Trelawney entered into an agreement to purchase the 21.62% undivided interest in leased Mining Lease CLM266 held by Gold Bar Resources Inc. (Gold Bar) consisting of 11 standard one-unit claims. The lease expires on March 31, 2026.

On September 9, 2011, Trelawney announced that it had completed the acquisition of the 21.62% undivided interest in leased Mining Lease CLM266 (Table 4-5).

Table 4-5 Jack Rabbit Group – Chester 3

Township	Claim Number	Approximate Area (ha)	Start Date	Lease Expiry Date
CHESTER	CLM266	117.2	01-Apr-05	31-Mar-26
Total		**117.2**		

In addition to Treelawn Group Inc.'s royalty under the Mining Option Agreement covering Chester 3, CLM266 is also subject to an additional 1.5% NSR.

4.3.2.4 Crown Minerals Agreement (also referred to as Trelawney Clam Lake Project)

On May 19, 2010, Trelawney announced that it had signed a letter of intent with Crown Minerals Inc. (Crown) on their Chester/Yeo property in close proximity to the Chester property. Trelawney purchased an 80% interest and Crown was to retain a 20% carried interest until the completion of a positive pre-feasibility study.

On June 13, 2013, Trelawney signed an Acquisition Agreement with Crown to purchase its interest. Under the Watershed Option and Joint Venture Agreement between Sanatana Resources Inc. (Sanatana) and Trelawney Augen Acquisition Corporation (TAAC), Sanatana exercised its right under the area of interest clause and this 20% interest was held 50:50 between Sanatana and TAAC.

Following the purchase on March 9, 2016 of Santana 50% interest in the Watershed property (see section 4.3.3.4), TAAC now owns a 20% interest in the property.

The Chester/Yeo property is contiguous with and west of Trelawney's Chester property. The property consists of three claims with 14 units located approximately 1 km west of Trelawney's Côté Gold deposit (Table 4-6).

Table 4-6: Crown Minerals Purchase Agreement

Township	Claim Number	Approximate Area (ha)	Recording Date	Due Date	Work Required (C$)
CHESTER	4220425	32	13-Feb-2008	13-Feb-2021	800
YEO	4240522	96	7-May-2008	7-May-2022	615
YEO	4241016	96	26-May-2008	26-May-2022	1,566

4.3.2.5 Clam Lake Claims

On December 3, 2010, Trelawney staked four claims (4260697, 4260698, 4260699, and 4260700) covering four small islands in Clam Lake, on the western boundary of Chester Township (Figure 4-3). The claims are held 100% by Trelawney. Each has an ascribed area of one claim unit (16 ha) and has an annual assessment requirement of C$400. Their due dates are now December 3, 2022. On March 8, 2011, a single claim, 4254022, was also acquired by staking west of Clam Lake, and assessment work is due March 8, 2022.

4.3.3 Other Property Groups

4.3.3.1 Sheridan Option Property

The Sheridan Option property is located in the easternmost area of the Project. It is centered approximately 18 km due east of the Chester property. The Sheridan Option property is found within Groves, Benneweis, and Champagne townships. It is currently a single contiguous block of 21 unpatented mining claims with an approximate total surface area of 4,592ha.

The property is subject to an option agreement between Trelawney and John Patrick Sheridan dated March 28, 2012 and amended October 4, 2012. Under the terms of this agreement, Trelawney had the right to acquire a 51% undivided interest in the property by completing certain payments and work programs.

Trelawney was appointed as the operator, completed the necessary payment at signing of the agreement, and completed the necessary work expenditures by December 31, 2013. The exercise of the option has been confirmed, and a joint-venture will be created.

4.3.3.2 Trelawney Mining and Exploration Property

The Trelawney Mining and Exploration Property (Trelawney Property) is separated into four blocks 100% Trelawney owned. The northern block is the northernmost located block of the Project area properties. The eastern and southwestern blocks are contiguous with the Watershed Property. The fourth block is formed of two contiguous claims, the Makwa claims block, and is located in the easternmost area of the Project area properties, surrounded by the Sheridan Option property (Table 4-7).

Table 4-7: Trelawney Mining and Exploration Property Claims

Trelawney Property - Block Name	Number of Unpatented Mining Claims	Approximate Area (ha)
North	3	762
East	21	4,352
South	17	4,096
Makwa	2	288
Trelawney Property Total	**43**	**9,504**

Trelawney North is located north ofthe rest of the property groups. It is centered 8 km due north of the Chester propertyand isolated in the Neville township. It comprises three unpatented mining claims for an approximate total area of 768 ha.

Trelawney East is located at the eastern end of the Project area, between the Ontario 986813 Ltd. (Arimathaea Resources Inc.) and the Sheridan Option properties. The eastern block of the Trelawney East is centered 10 km due east of the Chester property. Trelawney East is contiguous with the Project area, and has claims in Neville, Groves, St. Louis, and Benneweis townships. It consists of 21 unpatented mining claims for an approximate total area of 4,352 ha.

Trelawney South is the southernmost component of the entire Project area. The South Block is contiguous with the remainder of the Project area. It is centered 10 km southwest of the Chester property. Trelawney South has claims in Yeo, Smuts, and Invergarry townships. It consists of 17 unpatented mining claims for an approximate total area of 4,906 ha.

The Makwa Block is constituted of two mining claims in the easternmost area of the Project area properties. It is centered approximately 18 km due east of the Chester property. These two unpatented mining claims are situated in Champagne township and covers a surface area of 288 ha.

The four blocks combine for a total of 43 unpatented mining claims and an approximate total area of 9,504 ha. These four blocks and 43 claims are all 100% IAMGOLD

(Trelawney) owned, and are not subject to any joint ventures or option agreements. Description of individual claims comprising the Trelawney Property is contained in Appendix A.

4.3.3.3 Ontario 986813 Ltd. (Arimathaea Resources Inc.) Property

Pursuant to an asset purchase agreement between Arimathaea and Ontario 986813 Ltd. (Ontario 986813) dated June 26, 1982, Ontario 986813 acquired the Arimathaea property. By an application to the Commissioner from Ontario 986813, dated December 26, 2011, several separate requests were made. These included vesting 100% interest in the claims comprising theArimathaea property to Ontario 986813, an application for exclusions, and an application for extension of time. An order by the Commissioner dated February 6, 2012 granted all of the relief sought with the effective date of transfer of the Arimathaea property to 896813 being June 26, 1992. Ontario 2294167 Inc. (Ontario 2294167) acquired ownership of 55% of 986813 on August 3, 2011. Ontario 2294167 is a wholly-owned subsidiary of Trelawney.

The Arimathaea property is separated into four, 100% Ontario 986813-owned distinct blocks in the Project area (Table 4-8). All except the East Block are contiguous with the Chester property and located in the eastern part of the Project area.

Table 4-8: Ontario 986813 Property Claims

Arimathaea Property - Block Name	Number of Unpatented Mining Claims	Approximate Area (ha)
North	16	256
Northeast	7	112
East	113	1,808
South	97	1,552
Arimathaea Property Total	**233**	**3,728**

Arimathaea North is located in the east-central part of the Project area. It is attached directly to the northern border of the Chester property and found exclusively within Chester Township. Arimathaea North consists of 16 unpatented mining claims with a total area of approximately 256 ha.

Arimathaea Northeast is located in the east-central part of the Project area. It is centered approximately 1.5 km from the north border of the Chester property and borders Chester and Neville townships. Arimathaea Northeast consists of seven unpatented mining claims with a total area of approximately 112 ha.

Arimathaea East is the largest block of the four 100% Ontario 986813-owned claims. It is located in the eastern Project area, between the Sanatana Option property to the west and the eastern block of the Trelawney property to the east. It is centered about 6 km east-northeast from the Chester property. Arimathaea East consists of 113 unpatented mining claims with a total area of approximately 1,808 ha.

Arimathaea South is located in the east-central part of the Project area. It is attached directly to the southern border of the Chester property, and located dominantly in Chester township, with a small number of claims in Benneweis township. Arimathaea comprises 97 unpatented mining claims with a total area of approximately 1,552 ha.

The four blocks of the Arimathaea property combine for a total of233 unpatented mining claims and an approximate total area of 3,728 ha.

4.3.3.4 Sanatana Option and Watershed Property

The Sanatana Option property (or Watershed property) is located in the central and east-central portion of the Project area. This property surrounds the Chester property; Arimathaea North, Northeast, and South blocks, and the TAAC West Block. It is a single contiguous block with claims in Yeo, Chester, Neville, and Benneweis townships. It consists of 46 unpatented mining claims with an approximate area of 7,840 ha.

Tables summarizing the details for the unpatented mining claims of the Watershed Property are found in Appendix A.

The Sanatana Option was under an earn-in agreement between TAAC and Sanatana signed on February 14, 2011. Under the terms of this agreement, Sanatana had the right to acquire a 50% interest in the originally 100% TAAC owned claims (of the Sanatana Option property) by completing the following:

1. Paying TAAC C$150,000 within 10 days of February 14, 2011 (completed).
2. Allotting and issuing to TAAC a total of 5,000,000 shares on or before February 14, 2013, as follows:
   - 2,000,000 Shares on or before February 24, 2011 (completed);
   - An additional 1,500,000 Shares on or before February 24, 2012 (completed);
   - An additional 1,500,000 Shares on or before February 24, 2013 (completed).
3. Incurring work costs of not less than C$5 M as follows:
   - C$1 M on or before February 14, 2012 (completed);
   - An additional C$1.5 M on or before February 14, 2013 (completed);
   - An additional C$1.5 M on or before February 14, 2014 (completed).

This agreement included a provision of an Area of Interest extending up to 5 km from any portion of the property. This required that any acquisition or staking of mineral claims by TAAC or its affiliates must be offered to Sanatana for the benefit of the parties. If exercised by Sanatana, the costs of such an acquisition must be reimbursed under the Option and

Joint Venture (JV) terms and the interest will be included in the property for the benefit of Sanatana and TAAC.

Sanatana has (i) paid TAAC C$150,000 in cash, (ii) issued TAAC 5,000,000 common shares, and (iii) incurred not less than C$5 M in exploration expenditures, and Sanatana had therefore earned a 50% property interest.

Sanatana could have increased its interest to 51% in the Sanatana Option and Joint Venture property upon completion and delivery of a pre-feasibility study on or before March 23, 2016; however, on November 30, 2015, Sanatana announced that it had given TAAC notice to form a 50/50 joint venture (the JV) to manage the Watershed property. The JV would be formed pursuant to the terms of the option and joint venture agreement between Sanatana and TAAC, dated February 14, 2011, with Sanatana as the initial manager of the JV.

On March 9, 2016, Sanatana sold its 50% interest in the Watershed property to Trelawney Augen Acquisition Corp. in exchange for C$2 M in cash consideration, C$3 M in contingent consideration and a 1% NSR. Augen has the option to re-purchase 0.5% of the NSR for a C$2 M cash payment. In addition, Augen also has the right of refusal on any sale of the NSR to other parties. Both the patented and unpatented claims that encompass the Watershed property and the area of the Sanatana ROFR were also subject to a 1% NSR payable to Trelawney Mining and Exploration based on an agreement signed between Augen Gold Corp. and Trelwaney Mining and Exploration (Pre-acquisition of Augen).

4.3.3.5 Trelawney Augen Acquisition Corp. Properties

TAAC is a subsidiary company of Trelawney.

The TAAC property is separated into two 100% TAAC-owned distinct blocks in the Project area (Table 4-9 and Table 4-10). The two TAAC blocks are separated by the Sanatana Option property and are contiguous with the other property groups.

Table 4-9: Trelawney Augen Acquisition Corp. Property Claims

TAAC Property - Block Name	Patented		Unpatented Mining Claims
	Patents	MLOs	
East	0	0	9
West	40	50	83
TAAC Property	**40**	**50**	**92**

Table 4-10: Trelawney Augen Acquisition Corp. Property Surveyed Claims

TAAC Property - Block Name	Surveyed		Approximate	Total
	Patents (ha)	MLOs (ha)	Unpatented Mining Claims (ha)	Surveyed + Approximate (ha)
East	0	0	304	304
West	485	733	14,320	15,538
TAAC Property	**485**	**733**	**14,624**	**15,842**

The TAAC East block is located in the east-central area of the Project area. It is attached directly to the northeastern border of the Chester property and found exclusively within Chester township. TAAC East consists of nine unpatented mining claims with a total area of approximately 304 ha.

The TAAC West block is the largest property block in the Project area. It comprises the majority of the western half of the Project area, covering ground in Benton, Esther, Osway, Huffman, Potier, Fingal, Arbutus, and Yeo townships. The TAAC West block consists of a combination of 40 patents, 50 mining licences of occupation (MLOs), and 83 unpatented mining claims, for an approximate total area of 15,538 ha.

The two blocks combine for a total of 92 unpatented mining claims and 40 patented mining claims and 50 mining licences of occupation, with a total area of 15,842 ha.

4.3.3.6 Huffman Lake Option Property

The Huffman Lake Option property (Huffman Option) is located in the west-central part of the Project area. It is completely surrounded by the claims of the TAAC West block. The Huffman Option straddles the border of Huffman and Potier townships. It is a single contiguous block of four unpatented mining claims with an approximate area of 624 ha.

Tables summarizing the details for the unpatented mining claims of the Huffman Lake Option Property are included in Appendix A.

The property is subject to an option agreement between TAAC and John Gregory Brady and Reginald James Charron, executed on August 10, 2009. TAAC completed all necessary payments and shares have been issued by previously acquired companies to fulfill the agreement. The optioned property has been transferred to TAAC.

The property is subject to a 2% NSR. TAAC has the right to acquire half (50%) of the NSR at any time upon payment of C$1 M. The royalty holders are also entitled to a non-refundable advance royalty payment (ARP) in the amount of C$10,000 per year commencing August 10, 2013.

4.3.3.7 Falcon Gold Option Property

The Falcon Gold Option property is located in the far northwest corner of the Project area. It is immediately west of the large group of claims of the TAAC West Block. The Falcon Gold Option is found exclusively within Esther township. It is a single contiguous block consisting of 16 unpatented mining claims and six patented claims with an approximate total surface area of 407 ha. Falcon Gold is entitled to acquire a 100% interest in this property (the Burton property) under a Mineral Property Acquisition Agreement dated March 25, 2010 and amended on April 29, 2010. It was signed with the original owners Martin L. Burton, Cumming S. Burton, and Archie S. Burton.

Tables summarizing the details for the patented and unpatented mining claims of the Falcon Gold Option Property are included in Appendix A.

Under an option agreement dated February 16, 2012 between Trelawney and Falcon Gold, Trelawney was entitled to acquire a 51% interest in the Burton property if Trelawney made certain payments to Falcon Gold and completed expenditures on the property, both of which now have been done.

During this phase of the agreement, Falcon Gold acts as the operator. After completing all terms of this first option, Trelawney may elect to exercise the Second Option to acquire a further 24% interest in the Burton property a further C$0.6 M of expenditures was completed on or before February 16, 2014. During this phase of the agreement, Trelawney could become operator of the property. The conditions for the First Option of the Agreement were completed and the Second Option was not exercised. This gives Trelawney a 51% interest in the property and transfer of interest will be made.

After exercising either the First or Second Option, a joint venture may be created with each party to contribute to the pro rata of their interest. A dilution process will be applied if either party does not contribute and dilutes to less than 10% interest. The diluted party will then forfeit all of its interest and be entitled to a 2% NSR royalty from any future production. The original owners are entitled to a 2.5% NSR with the possibility to buy-back right 60% of the NSR (total 1.5% NSR) by increments of 0.3% for C$0.5 M or for a 10% NPI.

Either party shall have a right of first refusal, which shall apply to any transfer of all or part of the party's participating interest (including royalties) in the joint venture.

4.3.3.8 Leliever Property

The Leliever property is located in the east-central area of the Project area. It is immediately west of and contiguous with the Chester property. The Leliever property is found exclusively within Chester township. It is a single contiguous block of three patented claims (S8995, S8996, and S8997) with an approximate area of 54.4 ha.

Pursuant to an acquisition agreement between Trelawney and John Leliever, dated February 24, 2012, Trelawney owns a 100% interest in the Leliever claims.

4.3.3.9 GoldON Swayze Properties

The GoldON Swayze properties are separated into three blocks that comprise the Neville-Potier townships block, the Chester township isolated claim, and the Mollie River block located in Benneweis township.

Under the terms of a definitive agreement previously announced on September 29, 2016, and closed on Decmenber 30, 2016, Trelawney purchased a 100% interest in GoldON's Swayze properties for $300,000 in cash, forgiveness of the $125,000 promissory note issued by GoldON to Trelawney, and assignment of Trelawney's 1,170,544 GoldON shares. In addition, if a storage facility or pond of any nature is constructed on the Swayze Claims for the purpose of storage of tailings derived from Trelawney's Côté Gold Project, Trelawney will pay to GoldON an additional $800,000.

Table 4-11: Goldon Swayze Properties Claims

GoldOn Swayze Properties - Block Name	Number of Unpatented Mining Claims	Approximate Area (ha)
Neville-Potier	26	6,000
Mollie River	3	592
Chester	1	48
Trelawney Property Total	**30**	**6,640**

The Neville-Potier block adjoins the north part of the Watershed property. It is centreed 6 km north of the Chester property and spans Neville and Potier townships. It consists of 26 unpatented mining claims for an approximate total area of 6,000 ha.

The Mollie River block is located in the eastern part of the Project area and contiguous to the Trelawney East Block. It is centreed 10 km east of the Chester property and entirely located in Benneweis township. It consists of three unpatented mining claims for an approximate total area of 592 ha.

The Chester block consists of one mining claim located directly to the north border of the TAAC East block and approximately 2 km north of Trelawney's Côté Gold deposit. This unpatented mining claim is situated in Chester township and covers a surface area of 48 ha.

The three blocks combine for a total of 30 unpatented mining claims and an approximate total area of 6,640 ha. These three blocks and 30 claims are now all 100% IAMGOLD (Trelawney) owned. Description of individual claims comprising the Trelawney property is contained in Appendix A.

5.0 ACCESSIBILITY, CLIMATE, INFRASTRUCTURE, AND PHYSIOGRAPHY

5.1 Accessibility

The Côté Gold Project is located southwest of Gogama, Ontario. The property is bisected by Highway 144 and is approximately 175 km by road north of Sudbury, along Highway 144 and approximately 125 km by road southwest of Timmins via Highways 101 and 144 (Figure 4-1). Access to the property is by a network of logging roads and local bush roads accessed from Highway 144 and from the Sultan Industrial Road which runs east-west along and below the southern part of the Project area.

5.2 Local Resources

The nearby town of Gogama is on the Canadian National Railway Company (CN Rail) line, is also connected to the regional electric power grid, but has few resources related to exploration and mining. However, Sudbury and Timmins are only about 175 km and 125 km distant by road, respectively. Either center has mining suppliers and contractors plus experienced and general labor.

5.3 Climate

The climate of the Project area is continental in nature with long, cold dry winters (-10°C to -35ºC) and relatively short, warm summers (+10°C to +35°C) with little to no annual water deficit (Energy, Mines and Resources Canada, 1990). In this area, winter conditions can be expected from late October to early April with January and February being the coldest months. Snowfall usually starts in mid-November and stays until late March with monthly accumulation of 44 cm to 67 cm and a total accumulation averaging 2.4 m per year. From June through September the rain fall is between 63 mm to 93 mm monthly. Mining operations are expected to be conducted year-round.

5.4 Physiography

The area is typical of glaciated terrain of the Canadian Shield. The topography is gently rolling, with glaciated high points seldom exceeding 50 m above local lake levels. Elevations within the Project are generally between 380 masl and 400 masl.

The higher ground usually has a veneer of glacial till or soil over bedrock. There is only a few percent of outcrop, mostly confined to higher ground, with thicker overburden present in the low-lying areas between the hills. Low ground is covered by deep glacial till and frequent small lakes and/or swamps.

Most of the area has been logged in the last 30 years so that vegetation is generally small second growth poplar, birch, spruce, and pine. Poplar, birch, and white pine are common on the higher ground and spruce in the lower, wetter areas.

5.5 Infrastructure

The mine infrastructure on the Chester Property is a 3 m by 5 m, 1,675 m decline to a final depth of 162 m plus 700 m of lateral drifting on five levels. This is referred to as the Chester 1 Project. There is a shallow shaft (Bates) on the east end of the main vein structure and 90 m of raises in mineralization. This is all located on Lease CLM 270 and Mining Lease P1222832 (Chester 1). The development work was completed from 1986 to 1989, but production was not achieved. The Project is now connected to the 120 kV provincial power grid.

Following the mine closure, underground infrastructure was decommissioned. The site was closed in July 2015, all infrastructure onsite was put on care and maintenance. Site infrastructure can be easily and rapidly put back to service.

The surface electrical distribution system, a warehouse, workshop, offices, and various pieces of mobile equipment could be put back into service in a short time at Chester 1 Project. The same goes for the facility localized on Mesomikenda Lake Road which includes a core shack; a kitchen; rooms for 55 peoples and a recreation hall. A series of cabins and a lodge located by Mesomikanda Lake can sleep 15 people. At the Chester 1 Project, there is also a mobile camp that can hold 1,000 people, which is not fullyinstalled.

There is sufficient space available in the Project area to locate the Project infrastructure envisaged in the PEA, including tailings management facilities, waste disposal areas, mine infrastructure, and a mineral processing plant.

6.0 HISTORY

Prospecting and exploration activity in the Project area began about 1900 and has continued sporadically to the present time, spurred on periodically from exploration in the Porcupine and Elk Lake-Gowganda-Shiningtree camps. The first discovery of note was the Lawrence copper prospect on the east shore of Mesomikenda Lake in 1910. Particular interest in the area was sparked in 1930 when Alfred Gosselin found a spectacular showing of native gold on the east shore of Three Duck Lakes (Laird, 1932).

Historical work on the property was carried out in multiple stages:

- In the early 1940s activity was fairly intense, with a significant amount of prospecting and trenching plus the sinking of a few shallow shafts and some minor production.
- Through to the late 1960s, there was little or no work performed.
- From the early 1970s to about 1990, there was a great deal of surface work performed along with some limited underground investigations.
- From 1990 to 2009, fragmented property ownership precluded any major programs.
- In 2009, a group of properties that became the Chester property was consolidated by Trelawney.

A significant number of gold showings have been discovered on the Project. The main gold showings that have a significant amount of historical work are summarized below. Some additional information on smaller showings can be found in the assessment records and descriptions and tabulations of Siragusa (1993), McBride (2002), Cargill and Gow (2009), Constable (1990), Cook (2010), and Roscoe and Cook (2012). For clarity, the profusion of historical names for the various prospects, showings, or groups thereof have been grouped according to the names used by McBride for those properties with the most work. Otherwise, the original names applied by Laird (1932) are used. The numbers shown on the map of local geology (Figure 7-3) and the bracketed numbers in the following text refer to Siragusa's (1993) numeric designation in Open File Report 5844, which covers all of the known historic properties and showings in the area.

6.1 Chester Property

Reference is made in this section to a number of historical resource estimates that have been made on several of the prospects. These estimates were likely prepared according to resource estimation practices of the time; however, they are considered historical and should not be relied upon. A qualified person has not completed sufficient work to classify the historical estimate as a current Mineral Resource or Mineral Reserve and IAMGOLD is not treating the historical estimates as current Mineral Resources or Mineral Reserves.

6.1.1 Young Shannon (58), (59), and (82)

In 1931, Consolidated Mining and Smelting Company Limited optioned the original Young-Shannon claim group, however, after surface sampling of two veins (59), the option was allowed to lapse. Activities in 1930-1931 created a "rush" and a number of gold discoveries followed. Generally, these discoveries comprised native gold in quartz and/or carbonate veins or stockworks with numerous accessory minerals.

The C-Zone (58), the main gold showing on the Young-Shannon property was stripped by the Three Ducks Syndicate in 1930-1931. The Martin Syndicate of Sudbury completed a diamond drilling program in 1932 on the A-Zone. No details of this work are available, but "an engineer's report is said to have been highly favorable" (Laird, 1934).

The Young-Shannon Gold Mines, Limited (Young-Shannon) was formed in 1932 and the historical work on the property comprised the following:

- In 1936, a program proposed in 1934 in a consultant's report was initiated. An inclined shaft (-70º) was completed to a vertical depth of 57 m (61 m down shaft) with a level at 30 m. About 52 m of lateral development was completed and 670 m of diamond drilling was carried out.
- In 1937, 49 m of lateral development was carried out on the 57 m level and a further 152 m of diamond drilling completed. A stamp mill was installed but there are no records of production from this period.
- Young-Shannon completed a surface diamond drilling program and a geophysical survey in 1944. Further diamond drilling was carried out in 1946. There are no records of any of these work programs. The property was idle from 1946 to 1978.
- In 1978, Canadian Gold Crest Ltd. leased the Young-Shannon property, built a steel headframe and constructed a 60 tpd flotation mill near the C-Zone shaft (58). Material for the mill came from underground workings on the C-Zone and from a small open pit on the B-Zone. The mill operated for seven months and a gold-copper concentrate was sold to Noranda Ltd.
- In 1984 and 1986, Robert S. Middleton Exploration Services completed extensive very low frequency electromagnetic (VLF-EM) and induced polarization (IP) surveys. Several weak IP anomalies were delineated, both under the lake and on land. Several of the anomalies appeared to align with known gold zones. At the time, Young-Shannon considered that the zones outlined by Chesbar-Murgold aligned with the A- and B-Zones on the Young-Shannon property.
- In 1989, Chesbar-Murgold mined a 10,900 t sample and reportedly sent it for treatment to the mill of Giant Yellowknife Mines Limited in Timmins.

Young-Shannon carried out a number of diamond drilling campaigns in the years 1987 to 1990 as summarized in Table 6-1. A report prepared by Constable (1990) identified an indicated mineral resource on the C-Zone and an inferred mineral resource on the C-Prime Zone. These estimates pre-date NI 43-101 and should not be relied upon.

Table 6-1: Chester Property Diamond Drilling 1987 to 1990

Phase	Number of Holes	Total Depth (m)
I	19	1,907
II	16	1,520
III	78	10,752
IV	69	10,516
Totals	**182**	**24,696**

Significant intersections for this work have been set out in various reports by Constable (1988, 1989, and 1990) and Bullock (1991), cited in McBride (2002). Copies of the detailed diamond drill logs from this period are not available.

There are no records of work between 1990 and 1997. In 1997, Nord Pacific Limited (Nord Pacific) entered into an agreement regarding the Young-Shannon Property. The objective of this work was to outline an open pit gold resource. Work carried out by Nord Pacific was described by Hofer (1998) but copies of this report have not been located. McBride (2002) refers to the Hofer (1998) report. He notes that Hofer reported that 23 diamond drillholes aggregating 3,650 m were completed to test the C-Zone and were drilled to confirm the previous work by Constable (1990). A further six holes (1,190 m) were drilled to test geophysical targets.

After the drilling was completed, Nord Pacific prepared a resource estimate. This work outlined 10 separate zones in the C-Prime area, a distance of 180 m. While copies of the Hofer (1998) report are not available, the Hofer (1998) estimate was subsequently audited by McBride (2002). The McBride (2002) report is the source of the existing data. This estimate is considered relevant because it gives an indication of the gold mineralization tested by Nord Pacific. Further, the estimate generally agrees with prior estimates by Constable (Bullock 1991, cited in McBride, 2002). Hofer does not appear to have classified the 1998 estimate.

Subsequent to the Nord Pacific work, there was a further hiatus until the report by McBride (2002) prepared for Northville Gold Corp. (Northville). It was reported at the time that Northville completed 24 diamond drillholes, 12 drillholes in 2002, and 12 drillholes in 2003.

In 2004 Young-Shannon drilled an additional six diamond drillholesto extend the known mineralization laterally. These holes were designed to test the C-Prime Zone. Mr. D. Constable, P.Geo., was the Qualified Person for this program.

Young-Shannon carried out a further program in 2005 under the direction of Mr. G. Lipton, the QP for the program. Five holes were drilled in the 2005 program. As with the 2004 drilling, the target of this work was the C-Prime Zone.

6.1.2 Jack Rabbit (73), (76), and (77)

Zone 1 (73) was discovered by Murgold Resources Inc. (Murgold) in 1981. Its extension to the west was known as Chester Zone 2 (76). Work on Zone 1 and Zone 2 consisted of:

- To the beginning of 1989, Zone 1 had been tested with 26 holes by Rockwell Mining Corp. (Rockwell), three holes by Kidd Resources Ltd. (Kidd Resources), and two holes by Monte Carlo Resources/Canadian Gold for a total of 13,886 ft.
- In 1985, Pamour Porcupine Mines had also carried out a program of percussion drilling.
- In 1989, Gold Bar drilled a further 34 holes totalling 17,028 ft on Zone 1. An IP survey was carried out over portions of the property. Novak (1989) estimated a "resource" in Zone 1 to the 600 ft level with an average width of 8.26 ft. The relevance of this estimate is that it provides an indication of gold mineralization; however, it is a historical estimate that does not conform to current CIM guidelines for Mineral Resource classification, and should not be relied upon.
- In 1987, a 7,118 tonne bulk sample was removed from the Zone 2 and sent to the Diepdome mill in Timmins. Recoveries from this sample are unknown.

Referred to as Zone 3 or the Texas Gulf Zone, occurrence (77) was worked initially by Sulmac Exploration Services Limited (1965) and subsequently by Viewpoint Exploration Limited (1972), Texas Gulf Canada Limited (Texas Gulf) (1977-1979), Chester Resources (1981) and Rockwell (1982). Texas Gulf was interested in the copper potential and drilled nine holes on the zone with only modest results. During 1982, Rockwell drilled approximately 6,000 ft in more than 20 holes. During 1989, Gold Bar tested Zone 3 with a further 30,583 ft of drilling in 68 holes. In 1989, James Wade Engineering (Wade) estimated indicated "resources" for Zones 1 and 3 to a depth of 183 m. The relevance of this historical estimate is that it provides an indication of the mineral potential; however, it is a historical estimate that does not conform to current CIM guidelines for Mineral Resource classification, and should not be relied upon.

6.1.3 Murgold Chesbar (67), (68) (69) and (70)

Occurrences (67) and (68) have been known historically as the Kingsbridge or Gomak prospect. Gomak Mines worked the ground in the period 1932 to 1938 during which time a shaft was sunk to 75 ft depth and a total of 283 ft of drifting, crosscutting, and raising was done. A total of 1,387 tons were produced from the workings in 1936 from which 98 oz Au and 23 oz Ag were recovered. Chesgo Mines Limited (Chesgo) held the property from 1945 to 1948 and subsequently Kingsbridge Mines Limited, from 1967 to 1971.

In 1979, Murgold acquired, through options and staking, a large property package that included the four Murgold-Chesbar occurrences. Extensive surface stripping and trenching were carried out over the main veins and the claims were covered by airborne magnetic and EM plus photo-geological surveys. On the ground, these results were followed up with geological, geophysical, geochemical surveys and surface diamond drilling. This work led to the discovery of 12 separate vein structures, however, the main targets remained the No. 1 Vein (68) and No. 3 Vein (69).

Referred to recently as the No. 3 Vein System, occurrence (69) was investigated through surface work by Chesgo (1945-1948), Three Duck Gold Mines Limited (Three Duck) (1968-1969), Kingbridge Mines Limited (1969-1971), and Olympian International Resources Limited (Olympian) (1974-1975). Chesgo drilled 4,786 ft in 16 holes. Three Duck drilled 252 ft in three holes. Olympian drilled five holes totalling 1,340 ft and also collected two bulk samples of 47 tons and 49 tons which reportedly assayed 0.30 oz/st Au and 0.17 oz/st Au, respectively, over estimated widths of six to ten feet.

The earliest indicated work on the Strathmore prospect (70) was the sinking of the 116 ft Strathmore shaft, along with limited drifting, by Strathy Basin Mines Limited in 1938. In the period 1945-1948, Chesgo drilled two surface holes for a total of 482 ft. Strathmore Mines Limited rehabilitated the shaft and drilled a number of surface and underground holes in 1947. Rinaldi Mines Limited drilled four surface holes totalling 1,240 ft in 1963.

The 1980-1981 program of Murgold concentrated on the eastern part of the No. 3 Vein System (Strathmore prospect) with surface and underground work. The 100 ft level was sampled for 100 ft east and west returning grades of 0.192 oz/st Au over three feet for the eastern end and 1.03 oz/st Au for the western end. The drifts were extended an additional 140 ft to the west and 90 ft to the east, however, the grades were low. A 656 ton bulk sample from a stope on the west drift graded 0.34 oz/st Au. In 1982, 42 holes were drilled for a total of 12,776 ft and about two-thirds of this drilling was concentrated on the previously untested central section of the No. 3 Vein. Also in 1982, the Bates shaft (200 ft) was commenced on the No. 3 Vein System, 1,250 ft to the northwest of the Strathmore shaft (UTM Zone: 17 UTM 433617 E 5267013 N; NAD83). Through 1985, more surface work was done including trenching and drilling (McBride, 2002).

In 1986, Chesbar Resources Inc. (Chesbar) assumed management of the program and to 1988 drilled 56 holes totalling 19,040 ft on the No. 3 Vein System. Chesbar's main effort from 1986 was the driving of a decline to investigate the No. 3 Vein System. When completed in 1988, the ramp was 5,500 ft in total length and had reached a depth of 530 ft. It had investigated the zone from east of the Strathmore shaft to west of the Watts Zone, the western surface extent of the No. 3 Vein System, a distance of 2,660 ft, and it had looked at the main mineralization on three levels to a depth of 500 ft. A total of 45,000 ft of surface drilling and 53,000 ft of underground drilling had been completed. In April 1989, an 11,000 tonnes surface stockpile was shipped to a custom mill in Timmins. Unfortunately the result of this test sample is not known (McBride, 2002).

In 1988, Murgold contracted Wade to resample and reevaluate the underground workings (O'Gorman, 1988) once the Chesbar sampling program was completed. In 1989, Murgold published an estimated "resource". McBride (2002) suggested that there was a "measured resource" accessible from underground workings. The relevance of this historical estimate is that it provides an indication of the mineral potential. This estimate is a historical estimate, does not conform to current CIM guidelines for Mineral Resource classification, and should not be relied upon.

No further work had been carried out on the decline until Trelawny began dewatering and underground rehabilitation in the summer of 2010.

6.1.4 Crown Minerals Agreement

Occurrence (52) is known as Shannon Island and was found by Milton Jessop in 1933 while working for the Chester Shannon Group - Young Shannon GML. A 25 ft test pit was sunk. Reported gold values ranged between 24 g/t and 47 g/t, with 40 g/t Ag and 3.5% Cu, in a quartz vein.

In 1934, Young Shannon GML started shaft sinking on the old pit which achieved a depth of 125 ft and carried out 100 ft of lateral development by the year end. Old records indicate that the underground samples returned weighted average values of 17 g/t Au and 3.3% Cu over 1.5 ft in a number of zones down the shaft. In addition, 3,000 ft of diamond drilling was carried out. Results and location of the drilling are unknown.

In 1965, Chester Minerals Ltd. acquired the property and carried out a program of geological mapping, magnetic and horizontal loop electromagnetic (HLEM) surveying. Based on this work, five holes were drilled to test targets east of Shannon Island.

In 1973, Park Precious Metals dewatered the old shaft, extended the lateral development a short distance, and sampled the mineralized veins. Results from two rounds averaged 0.5 g/t Au, 0.18% Cu, and trace Ag. Results of a nearby diamond drillhole cored at this time were reported as "of no economic value".

In 1980, Hargor Resources together with Canadian Gold and Metal Inc. carried out a regional airborne magnetic and very low frequency (VLF) electromagnetic survey, which covered the area.

In 1984, Chester Minerals carried out a geological evaluation of the occurrence in combination with other known occurrences on Clam Lake, and resampling of mineralization on the rock dump yielded 7.57 g/t Au and 1% Cu.

In 1987, Young Shannon Gold Partnership carried out a seven hole diamond drill program totalling 679 m to test the mineralization in a sheared and brecciated structure plus other targets. The two intersections of the vein returned values of 19 g/t Au and 2.8 g/t Ag over 0.3 m and 9.5 g/t Au and 6 g/t Ag over 0.6 m.

6.2 Sanatana ROFR (TAAC East) Property

Historical exploration at the TAAC East property in 1981-2001 is summarized as follows:

- 1981: Canadian Crest Gold Mines drilled two holes for 404.77 m, south of the east arm of Clam Lake, in claim 3007643. These holes were drilled due south and tested the Clam Lake Trend, in an area of historical trenching shown in their reports. No assays are available.
- 1987: Emerald Isle Resources drilled seven holes (#01 to #07) for 379.48 m within claim 1246710. These holes were drilled with 015° and 195° azimuth along two east-west corridors (approximately 150 m and 250 m long) and spaced approximately 200 m apart. Granodiorite, diorite, mafic intrusive and diabase were intersected with 2% to 3% pyrite and pyrrhotite over 34.32 m to 41.14 m interval in drillhole #06 marking a visual highlight. No assays are given.
- 1987: Emerald Isle Resources drilled two holes (87-14, 87-15) for 181.05 m near the Canadian Crest Gold Mines (1981) drillholes, south of the east arm of Clam Lake. Emerald Isle Resources indicates that its holes were drilled beneath two of three existing trenches and near a 1971 Walker drillhole reportedly bearing free gold. Intersections of 3.58 g/t Au over 0.76 m (37.34 m to 38.10 m), 2.41 g/t Au over 0.31 m (71.32 m to 71.63 m) and 1.82 g/t Au over 0.24 m (83.64 m to 83.88 m) in hole 87-15 mark highlights.
- 2001: Emerald Isle Resources conducted power stripping at two locations northwest and north of Côté Lake. No gold assays are reported.

Exploration work completed during the period October 2007 to December 2011 is summarized in Table 6-3. Significant results of drilling during this period are contained in Table 6-4.

Table 6-2: Summary of Exploration Work, TAAC East, 2007 to 2011

Exploration Survey	Location	Date	Comments
Airborne Survey (Magnetic, EM, Radiometric)	ROFR property (represents a portion of survey as the entire Augen South Swayze Property was covered)	Oct-2007	
Drilling	3 programs - West Côté Lake Area	Mar-13-2010 to April-13-2010, Dec-08-2010 to Dec-04-2011	32 drillholes = 11,098.60 m
Petrography, Staining	West Côté Lake Area	March-2011	31 thin sections, 31 stained rock slabs
Prospecting	ROFR property (represents a portion of program as the entire Augen South Swayze Property was covered)	July-2008 to Nov-2008	11 grab samples
Prospecting	West Côté Lake Area	Aug-2010, Oct-2010	25 grab samples
Ground Mag, VLF, IP	1 survey - West Côté Lake Area	Aug-03-2010 to Aug-13-2010	JVX Ltd. 21.03 Line Km IP, 26.55 line km Mag/VLF; IP = n=2 on plan view, pole-dipole a=25 m, N=1 to 6 in pseudo-section, depth penetration ~ 100 m
Down-the-Hole IP Survey	1 survey - West Côté Lake Area	July-Aug-2011	9 drillholes surveyed
Soil Sampling for SGH Analysis	1 survey - West Côté Lake Area	May-2010 to Nov-2010	1,085 soil samples - SGH analysis for Au
Mechanical Stripping	1 program - West Côté Lake Area	Nov-2011	6 cleared areas, 31 channel samples
Till Sampling	1 survey - West Côté Lake Area	July-2011	57 till samples analyzed for gold grain abundance

Note. SGH – soil-gas-hydrocarbon

Table 6-3: Summary of Significant Drill Intercepts, Sanatana ROFR Property, 2007 to 2011

DDH No	From (m)	To (m)	Width (m)	Au (g/t)	Cu (ppm)	Comments
WC11-206	334.28	369.2	34.9	2.26		Clam Lake Trend
WC11-206	406.97	422.9	15.9	1.83		Clam Lake Trend
WC11-207	274.00	274.4	0.5	8.27	642	Clam Lake Trend

6.3 Trelawney Augen Acquisition Corp – West Property (TAAC West)

The Jerome Mine has been the primary target of past exploration and drilling on the TAAC property. This work spanned four main periods of activity: 1938 to 1945, 1956 to 1971, 1974 to 1989, and 1998 to 2006. Augen explored, drilled, and evaluated the Jerome Mine from 2007 to 2011.

According to the Ontario Ministry Mines and Northern Development, the Jerome Gold Mine produced 56,878 ounces of gold from 1941 to 1943 (303,966 t grading 6.72 g/t Au). Reference is made below to historical resource and reserve estimates from the Jerome Mine. IAMGOLD cautions that these are historical estimates, do not conform to current CIM guidelines for the preparation and classification of Mineral Resources, and should not be relied upon. They are referenced in this report as they indicate the potential of mineralization on the property. Other areas and targets of historical exploration and drilling completed on the property are described relative to the Ridout Series metasedimentary rocks as being within, north, or south of the “Temiskaming Band” relative to Schist Lake.

6.3.1 Jerome Mine 1938-1945

- 1938: Bert Jerome, a prospector for Mining Corporation of Canada Ltd. (Mining Corporation), discovered mineralization on the north shore of a peninsula on the south side of Opeepeesway Lake.
- 1939: Jerome Gold Mines, Ltd. owned 60% by Mining Corporation and 40% by Hollinger Consolidated Gold Mines, Ltd. was incorporated in the early part of the year. A three-compartment shaft was sunk to 520 ft on claim S-32071 in August and three levels were opened up, at depths of 200 ft, 350 ft, and 500 ft.
- 1940: Development continued and production plans were firmed up.
- 1941: 500 stpd mill began production on August 20. The shaft was deepened to 835 ft, levels were cut at 650 ft and 800 ft, a loading pocket was created at 725 ft and ore and waste passes were developed to the 650 ft level. The production figures for the last five months of the year were 58,824 tons milled at 0.182 oz/st Au grade, producing 8,757 oz gold, and 2,440 oz silver. The average recovery (using a cyanide milling process) was 90.07%. Shrinkage stoping was used.
- 1942: Production for the year totalled 168,628 tons milled at a 0.189 oz/st Au grade producing 29,480 oz gold and 7,744 oz silver. Recovery was 92.44%.
- 1943: The mill was shut down on August 31 because of a wartime labour shortage, although development and exploration work continued. The production summary for the eight months of operation was 107,608 tons milled at a 0.185 oz/st Au grade, producing 18,641 oz gold and 4,921 oz silver. Recovery was 91.87%.
- During the period from September 1943 to June 1945, considerable underground development and surface and underground drilling was carried out, and by the end of 1945 ore reserves were reported. This estimate is a historical estimate, does not

conform to current CIM guidelines for Mineral Resource or Reserve Classification, and should not be relied upon.

- 1944: The shaft was completed in February to 1,138 ft. A station was cut at 950 ft, and a level was driven at 1,100 ft. During the final two years, 1944 and 1945, also referred to as the "development" years, the Jerome Mine employed 60 to 70 men, compared to the high of 211 during the most recent year of full production (1942).
- 1945: Operations at the Jerome Mine were suspended at the end of August, underground machinery was removed, and the mine was allowed to flood. Watchmen remained on the property until 1955.

6.3.2 Jerome Mine 1956-1971

- 1956: A fire on October 6 destroyed the headframe and almost all of the surface buildings, plus the original mine records. Following this loss, the property was leased for use as a lumber camp by K.V.P. Company.
- 1968: Brown Forest Industries purchased the site from Mining Corporation for use as a camp facility. Brown was subsequently purchased by E. B. Eddy Forest Products, Ltd.
- 1971: Camp closed down.

6.3.3 Jerome Mine 1974-1989

- 1974: E. B. Eddy undertook a surface diamond drilling program and drilled twenty-one holes, for a total of 8,414 ft. The holes were drilled east of the shaft, in the area of development (during the years 1944 to 1945) between lines 4500E and 11750E and between the 100 ft and 270 ft levels. Drillholes Eddy-1 to Eddy-15 were drilled south at a bearing of S30W. Holes Eddy-16 to Eddy-20 were drilled north at a bearing of N30E. Hole Eddy-21 was also drilled N30E but was collared far to the west, at Monella Point.
- 1980-81: Bridgeview Resources Incorporated optioned the property and carried out a program involving diamond drilling, geophysical work, shop construction, headframe and hoistroom rehabilitation, shaft rehabilitation to the 200 ft level, and underground sampling. Surface drilling consisted of eight holes totalling 2,710 ft to test IP anomalies in the mineralized (so-called shear) zone between 78E and 105E at the 100 ft, 200 ft, and 300 ft levels. Four of the five holes "hit significant values" as follows: Hole 80-4 intersected 0.205 oz/st Au over 10.0 ft (uncorrected); Hole 80-5 hit 0.15 oz/st Au over 7.5 ft; Hole 80-6 intersected gold below the 0.10 oz/st Au cut-off; Hole 80-7 hit 0.115 oz/st Au over 6.5 ft; and Hole 80-8 intersected 0.468 oz/st Au (uncut) over 21.5 ft or 0.286 oz/st Au over 44.5 ft.
- 1983: Osway Explorations, Ltd. (Osway) made a deal with E.B. Eddy in mid-1983, which gave Osway the right to purchase the property for a cash payment of C$1,250,000 at any time prior to June 1, 1984. Alternatively, Osway was obligated to

prepare and deliver to Eddy a feasibility report on the property by February 28, 1985. Osway apparently intended to pump out the mine but instead opted to have an “ore reserve” study undertaken by Hill-Goettler-De Laporte Ltd. (HGD, 1983). This study reported “mineable ore reserves”. This is a historical estimate, does not conform to current CIM guidelines for Mineral Resource or Reserve Classification, and should not be relied upon.

- 1984: Muscocho Explorations, Ltd. (Muscocho) carried out its own geophysical surveys, diamond drilling, and “reserve” estimation. A feasibility study by Charpentier and others (January 1985) concluded that it did not meet a desired production threshold. However, it was noted that, “recent exploration work in the form of surface diamond drilling has indicated the potential for finding more ore on the property is excellent” and “an exploration program to increase ore reserves must be initiated immediately prior to making a final production decision.”

- 1987-89: Muscocho, as reported by Millard (1989), undertook an exploration program in order to maximize reserves accessible from the existing workings. The program included surface and underground diamond drilling, hoist installation, headframe and camp construction, dewatering, and shaft rehabilitation to the 500 ft level; exploration drifting on the 500 ft level east to test the South Zone 1-B; mapping and sampling on the 200 ft, 350 ft, and 500 ft levels; and property-wide geophysical surveys. This work clearly identified the existence of seven parallel zones of mineralization. Muscocho estimated that the probable and possible ore reserves accessible from the shaft and its associated workings. This is a historical estimate, is relevant as it indicates the potential mineralization on the property, is not classified according to the current CIM guidelines for Mineral Resource or Reserve Classification, and should not be relied upon. Further work is required before this can be classified as a current Mineral Resource.

6.3.4 Jerome Mine 1998-2006

- 1998: Domtar Inc. (Domtar) purchased the Jerome Mine and patented claims from E. B. Eddy Forest Products Ltd.
- 2004: Domtar sold the Jerome Mine and patented claims to Boardwalk Creations, Ltd. (Boardwalk), a private Canadian corporation, in January. Boardwalk then staked claims in Osway, Huffman, Potier, Arbutus, Mallard, Esthern, and Benton townships, forming a claim holding that is 42 km in strike length. Boardwalk then sold these claim holdings to Osprey Gold Corp. (Osprey).
- 2004: Osprey completed thirty-three BQ sized diamond drillholes east-southeast of the Jerome Mine Shaft for a total of 18,780 ft (5,724 m) between June 9 and November 3. Many drillholes were designed to undercut the historic drillholes of E.B. Eddy (1974); and several were designed to intersect an untested mineralized block previously defined.
- Osprey extensively sampled for assay in the first third of the program, but a limited number of samples were submitted for analysis thereafter due to financial decisions made by senior management.

- 2006: In October, Osprey sold the claims to Coldrock Resources Inc. (Coldrock), a private corporation registered in Ontario, and that same month Augen purchased the 63 patented claims (the Jerome Mine Property) and 119 staked claims from Coldrock.

As indicated above, in October 2006, Augen purchased the 63 patented claims comprising the Jerome Property as well as 119 staked claims from Coldrock. Exploration and drilling completed on the TAAC West Property by Augen is summarized in Table 6-5. The majority of the diamond drilling was completed at the Jerome Mine and indicated a good exploration potential that needs further assessment.

Table 6-4: Summary of Historical Exploration TAAC West Property, 2007-2011

Location	Date	Comments
TAAC Property (represents a portion of survey as the entire Augen South Swayze Property was covered)	Oct-2007.	
Jerome Mine	May-August, 2008	Logging, Addition Sampling, Magnetic Suscept,
Jerome Mine	Sept-2008	MPH Consulting - Check sampling of historical drill core from the various programs at Jerome
Jerome Mine	January-2009 to Sept-2009	Chris Marmont, Augen with Phil Burt Consulting & with MPH Consulting
Jerome Mine	Jan-April, 2008	21 drillholes = 10,449.00 m
7 areas - Brady Charron Option, Huffman West, Bi-Ore-Skye, South of Jerome, Jerome Mine, East Arm of Opeepeesway Lake, North Shore Areas	Oct-22-2009 to Dec-04-2011	148 drillholes = 32,728.00 m
Skye-Bi-Ore Area	Feb-2010.	1 thin section
5 surveys - Brady Charron Option, Huffman West, Bi-Ore, Skye, North Shore Areas	Oct-2009 to July-2011	JVX Ltd. 150.71 Line Km IP; 204.18 line km Mag/VLF; IP = n=2 on plan view, pole-dipole a=25 m, N=1 to 6 in pseudo-section, depth penetration ~ 100 m
1 survey - Main Part of Opeepeesway Lake	Feb-2011 to Mar-2011	JVX Ltd. 55.32 line km of Mag, VLF
Main North Shore Area	Oct-2011 to Dec-2011	Patrie Exploration ~ 50 line km of IP; IP = pole-dipole, a=50 m, n=1 to 6 on pseudo-section, depth penetration ~ 150 m
Huffman Lake Area	Oct-2011 to Dec-2011	Patrie Exploration ~ 70 line km of IP; IP = pole-dipole, a=50 m, n=1 to 6 on pseudo-section, depth penetration ~ 150 m
2 surveys - Jerome Mine, North Shore Area	July-Aug-2010, July-2011	35 drillholes surveyed (9+26)
1 survey - North Shore Area	May-2010 to Nov-2010	1,699 soil samples - SGH Analysis for Au
3 surveys - East Arm of Opeepeesway Lake, Main Part - Opeepeesway Lake, SW Extension - Opeepeesway Lake	Feb-March-2010, Jan-Feb-2011, Jan-Feb-2012	2,244 lake sediment samples - SGH Analysis for Au
1 survey - Huffman Area	Oct-2011 to Nov-2011	2,500 soil samples - Au + 32 Element ICP
TAAC Property (represents a portion of program as the entire Augen South Swayze Property was covered)	July-2008 to Nov-2008	940 grab samples - mainly as confirmation of historic gold occurrences
4 follow-up programs - Opeepeesway Lake Area	Oct-2010, Nov-2010, July-2011, Sept-2011	163 grab samples

Note. ICP – inductively coupled plasma

6.4 Falcon Gold Option Property

The property under option by IAMGOLD from Falcon Gold is called the Burton Property. Gold was discovered on the Burton property circa 1928 by Archie Burton Sr. and Northern Aerial Minerals Exploration Ltd. and it appears from historical reports that the Burton family has controlled the ownership of mining claims in the immediate area since that time. The modern claims were recorded from September 1981 to November 1982 with one claim being recorded in October 1989.

The original discovery of 1928 is located on patented claim 31116. The original surface gold showing was trenched to the east for approximately 750 m. A shaft was planned to intersect down dip of the original showing but was abandoned at approximately 10 m depth, short of the target depth, due to flooding. Subsequently, the Burton property has been optioned to Hollinger Consolidated Gold Mines Limited (Hollinger), Burscott Mines Limited (Burscott), Canadian Nickel Company Limited (Canico), Grandad Resources Limited (Grandad), and Northern Mining Properties (Northern). The work and results of work programs completed by these companies were summarized by Constable (1996). In 1996, Rainbow Petroleum Corp. optioned the Burton property and completed a diamond drill program.

In the late 1930s and early 1940s, the Burton property was under option to Hollinger. Hollinger completed a 32-hole diamond drill program on the property. Their drill program consisted of a series of short drillholes in the immediate shaft area to establish the trend of the gold mineralization. Hollinger also stepped back from the shaft area and drilled a series of holes designed to intersect the Shaft Zone at depth. While numerous gold intersections were encountered in the Hollinger drilling, it was apparent that the geometry of mineralization was more complex in the Main Zone than a simple sheet-like gold-bearing horizon.

In 1945, Burscott carried out a 10-hole diamond drill program near the Shaft Zone and produced a historical estimate along a 76 m long, west plunging zone, all above the 91 m level (Constable, 1996) which is not considered suitable for public disclosure.

Constable (1996) indicates that most of the details of the Hollinger and Burscott work no longer exist and only drillhole summaries and assays are available. Efforts at searching archives for the present report did not find any additional information on these drill campaigns.

During the period 1982 to 1985, Canico optioned the property and carried out a systematic program of line cutting, mapping, geophysics, geochemistry, stripping, sampling, and drilling. The diamond drill program consisted of a total of 2,096 m in 29 holes.

In 1987-88, Grandad Resources (Grandad) optioned the Burton property and completed a 31-hole diamond drill program totalling 3,077 m. Grandad also completed a limited humus sampling geochemical program and down-hole mise-à-la-masse geophysics.

Grandad's drilling was primarily located in the Shaft gold zone and G. R. Clark, consultant, concluded that the gold zone was striking north-south and dipping moderately westward (Clark, 1988). Clark recommended more drilling, which was not completed by Grandad.

In 1989, Northern Mining Properties optioned the property and re-assessed the work completed to date, focussing on previous drilling. This work included producing new vertical sections, longitudinal sections, and grade-thickness contours maps of the gold deposits (Bowen, 1989). An exploration program consisting of line cutting, magnetic, and IP geophysics, sampling, mapping, metallurgy, and diamond drilling was recommended. This work program was not initiated.

In 1996, Rainbow Petroleum Corp. (Rainbow) optioned the Burton property and during the period October 1996 to February 1997 re-established the grid and completed 3,327 m of diamond drilling in 33 holes. The drilling completed by Rainbow included 22 drillholes centred over the Shaft Zone, six drillholes to the east of the Shaft Zone, and five drillholes immediately west of the Shaft Zone. Gold mineralization was intersected in both the east and west drilling areas as well as in the Shaft Zone drilling.

Under an agreement dated March 25, 2010, Apex Royalty Corporation (Apex) purchased an undivided 100% interest in the Burton property. Apex completed line-cutting of a new grid over the Shaft Zone and East Zone, consisting of 10 lines, varying from 650 m to 950 m long, connected by a 1,350 m long baseline. Gridlines were spaced 150 m apart, and the total length of grid (not including the baseline) was 7.3 line km. An EarthProbe high resolution resistivity/IP survey was completed over the grid.

Apex was acquired by Chesstown Capital Inc., which subsequently changed its name to Falcon Gold. In May–July 2011, Falcon Gold drilled 24 holes on the Burton property totalling 2,755 m with few encouraging intercepts.

7.0 GEOLOGICAL SETTING AND MINERALIZATION

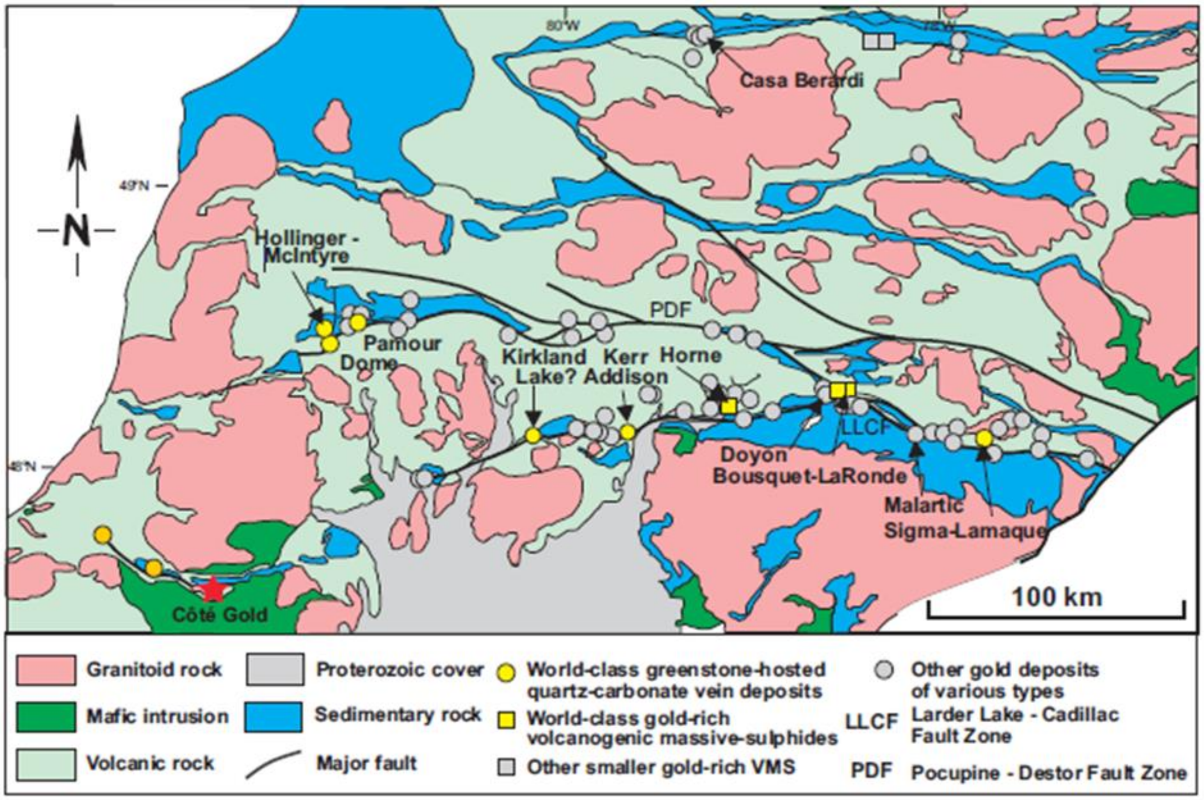
7.1 Regional Geology

The Project area is located in the Swayze greenstone belt in the southwestern extension of the Abitibi greenstone belt of the Superior Province. In very general terms, the Abitibi Subprovince comprises Late Archean metavolcanic rocks, related synvolcanic intrusions, and clastic metasedimentary rocks, intruded by Archean alkaline intrusions and Paleoproterozoic diabase s. Figure 7-1 shows the location of gold deposits and fault zones in the Abitibi Subprovince, modified from Dubé and Gosselin (2007), and Poulson et al. (2000). The traditional Abitibi greenstone belt stratigraphic model envisages lithostratigraphic units deposited in autochthonous successions, with their current complex map pattern distribution developed through the interplay of multiphase folding and faulting (Heather, 1998).

The Swayze belt, like the rest of the Abitibi greenstone belt, contains a diversity of extrusive and intrusive rock types ranging from ultramafic through felsic in composition, as well as both chemical and clastic sedimentary rocks (Heather, 2001). The geology of the South Swayze belt underlying the Project area is illustrated in Figures 7-2 and 7-3. All of the rock types within the Swayze belt are older than 2,680 Ma, with the oldest dates of 2,747 Ma (Heather et al., 1996). Igneous lithologies predominate and include both volcanic and plutonic rocks. The latter are found both internally in the supracrustal belts and externally, in large granitoid complexes. Sedimentary rocks occur mainly near the top of the succession.

Heather (2001) recognized six supracrustal groups; from the oldest to the youngest these are the Chester, Marion, Biscotasing, Trailbreaker, Swayze, and Ridout groups. These groups have subsequently been correlated by Ayer et al. (2002) with coeval assemblages across the southern Abitibi greenstone belt having similar characteristic features, respectively named the Pacaud, Deloro, Kidd-Munro, Tisdale, Blake River, and Timiskaming assemblages.

Figure 7-1: Simplified Geology Map of the Abitibi Subprovince



Plutonism in the Swayze belt lasted from 2,740 Ma to 2,660 Ma, during the entire period of volcanism and subsequent sedimentation. No geochronological evidence for pre-existing basement has been found. Plutonism continued after cessation of extensive volcanism. This was also a period of orogen-wide shortening across the entire Superior Province, an event that coincided with gold mineralization (von Breemen et al., 2006).

The Swayze area underwent a complex and protracted structural history of polyphase folding, development of multiple foliations, ductile high-strain zones, and late brittle faulting. The map pattern preserved within the Swayze belt is dominated by regional F2 folding, and anticlines and synclines with an associated S2 axial-planar foliation interpreted to have formed during orogen-wide shortening across the entire Superior Province. An important structural element is the Ridout Deformation Zone (RDZ), a major east-west high-strain zone that is interpreted to be the western extension of the Larder Lake-Cadillac deformation zone of the Abitibi belt (von Breemen et al., 2006). The F2 Ridout Synform coincides with the RDZ wherein intense deformation is characterized by profound flattening, tight to isoclinal folding, transposition, and locally a component of dextral simple shear in east-southeast striking zones (Heather et al., 1996). The Côté Gold deposit is not located within the RDZ. Metamorphic grade within the southern Abitibi greenstone belt ranges from sub-greenschist to greenschist.

There are at least four separate diabase dike swarms, ranging in age from late Archean to late Proterozoic, present in the Swayze belt: (1) the north striking Matachewan dike swarm, (2) the northwest striking Sudbury dike swarm, (3) the east to northeast striking Abitibi dike swarm, and (4) a late, southeast striking dike swarm.

7.2 Local and Chester Property Geology

7.2.1 Local Geology

The Chester township area overlies a narrow greenstone belt assemblage that extends easterly from the southeast corner of the Swayze belt proper to the Shining Tree area, approximately 60 km to the east. The greenstone (supracrustal) assemblage is part of the well-defined Ridout syncline that separates the Kenogamissi granitoid complex to the north from the Ramsey-Algoma granitoid complex to the south, a portion of the northern edge of which is called the Chester Granitoid Complex (CGC) (refer to Figure 7-2). The Kenogamissi complex, yielding ages of 2,747 Ma, consists of sheet-like dioritic and tonalitic intrusions, which are interpreted locally to be synvolcanic. The CGC, which hosts the Côté Gold deposit, is also synvolcanic and was emplaced along what is now the southern margin of the Ridout syncline. The CGC is a crudely stratified trondhjemite-diorite laccolith containing numerous screens and inclusions of mafic volcanic rocks.

The oldest rocks found in the Swayze belt are assigned to the Chester Group, which occupies the bulk of the stratigraphy of the Ridout syncline through Chester township and Yeo township to the west. Ayer et al. (2002) correlated the Chester Group with the 2750 Ma to 2735 Ma Pacaud assemblage, which comprises the oldest volcanic rocks in the southern Abitibi belt. The Chester Group includes (1) mafic volcanic rocks and amphibolite of the Arbutus Formation and (2) the overlying intermediate volcanic rocks with associated minor sedimentary rocks and iron formation of the Yeo Formation (2,739 Ma). Bedding and foliation are steep to vertical. Both formations are highly folded and flattened, presumably by the D2 and F2 events, between the diorite and tonalite intrusions of the Kenogamissi granitoid complex to the north and the synvolcanic Chester granitoid complex (2,740 Ma) to the south (von Breemen et al., 2006) (refer ti Figures 7-2 and 7-3).

In Chester, Yeo, and Portier townships, a package of mafic volcanic rocks occurs south of and stratigraphically below the Chester Group felsic volcanic rocks and iron formation (refer to Figure 7-3). These pillowed and massive volcanic rocks are interpreted to be the base of the Chester volcanic cycle.

Figure 7-2: Regional Geology of Swayze Belt

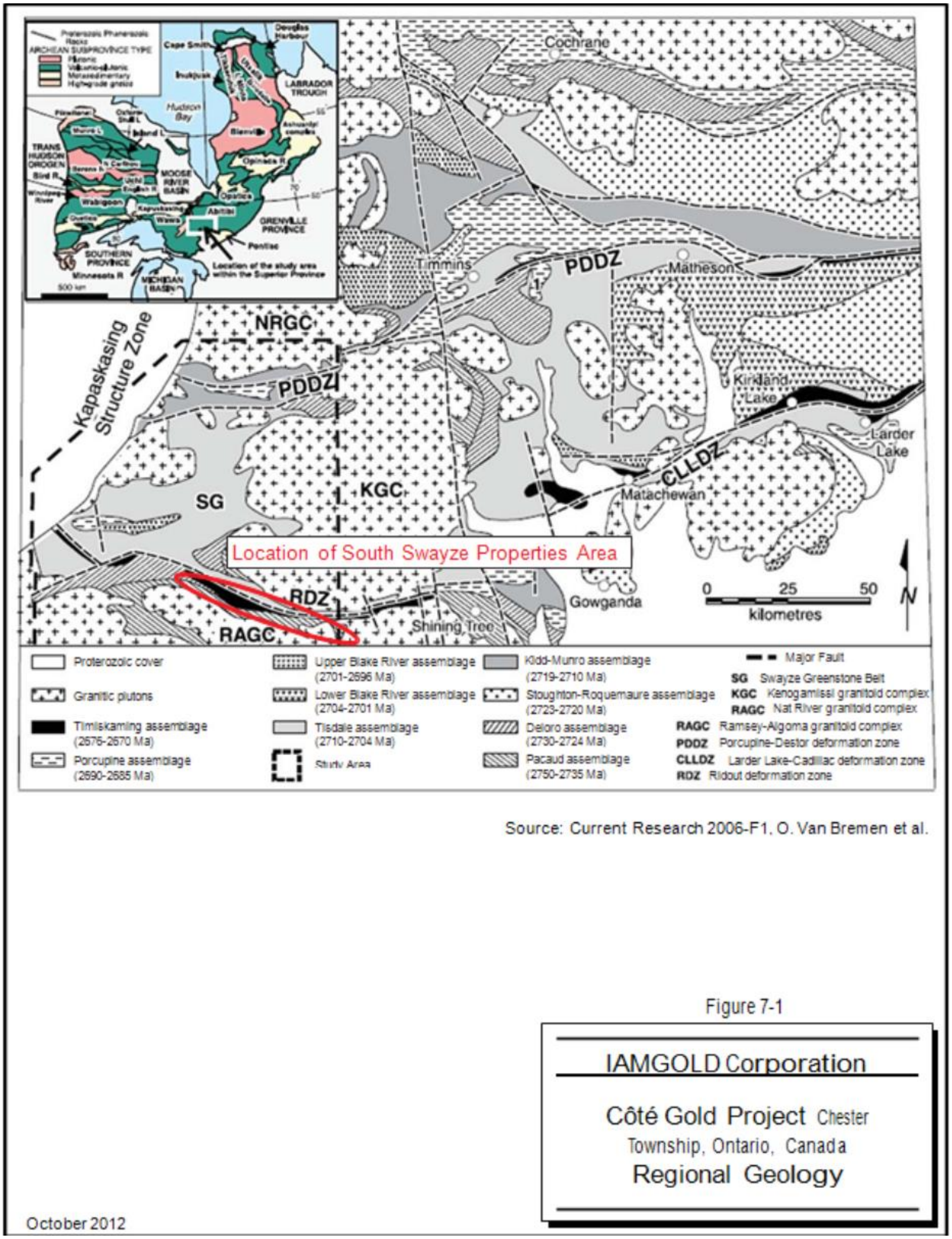
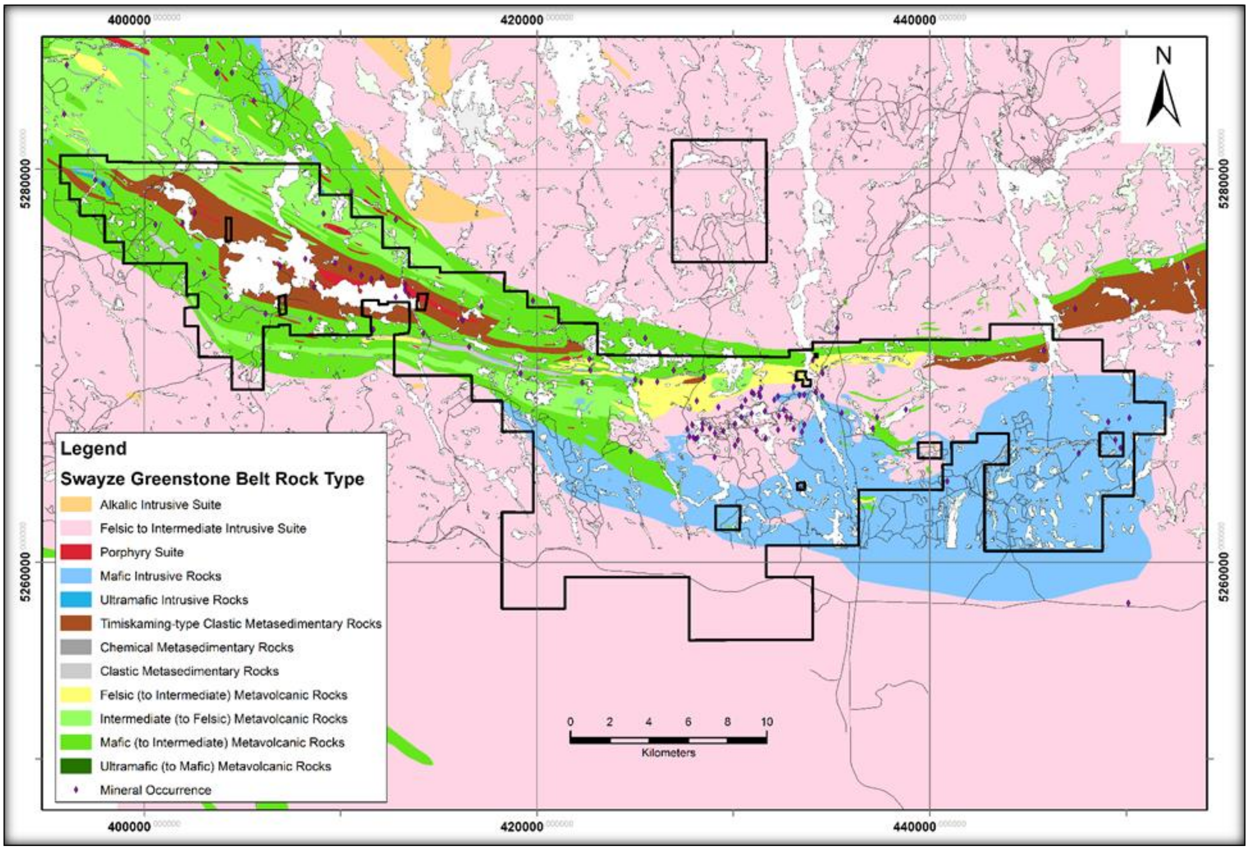


Figure 7-3: South Swayze Greenstone Belt Rock Type



To the south of the Chester volcanic rocks is the 2740 Ma Chester granitoid complex, an apparently undeformed and unstrained trondhjemite-diorite intrusion (Heather, 1993; Heather et al., 1996). Locally, within the trondhjemitic phase of the complex, there is strongly developed, fracture-controlled (stockwork) magnetite-chlorite-epidote ± quartz ± sericite alteration which Heather et al. (1996) interpreted as positive indications for base metal mineralization.

An important structural element in the area is the RDZ, a major zone of east-west high strain that more or less follows the north boundary of Chester township, and extends a further 22 km to the west to Osway township where it is associated with the former Jerome gold mine. The RDZ is described as an anastomosing zone, up to 500 m wide, of high strain with local strong carbonate (calcite and Fe-carbonate), chlorite, sericite, and silica alteration within a wide variety of rock types. Kinematic indicators in the RDZ suggest that it was initially a zone of extreme flattening, probably related to early folding, that with progressive strain became a zone of oblique simple shear. Kinematic information indicates an early component of sinistral shear followed by a dextral component. Z-shaped folds of the schistosity are common within the RDZ. Elongation lineations and mineral lineations within high strain zones are moderately to steeply plunging (Heather, 2001).

The RDZ high-strain zone is localized within the F2 Ridout syncline which extends for at least 80 km in a generally east-west direction across the southern Swayze greenstone belt. The Timiskaming-like, Ridout Series metasedimentary rocks are localized within the core of the F2 Ridout synform and are interpreted to unconformably overlie the older metavolcanic and metasedimentary rock packages. According to Furse (1932): “In the Swayze area, the Ridout assemblage consists of a narrow band (less than 2 km) of steeply dipping turbidites, arkose and conglomerate, containing well-rounded pebbles and boulders of "granite", chert, vein quartz, mafic metavolcanic rock, porphyritic rhyolite and rare jasper fragments.”

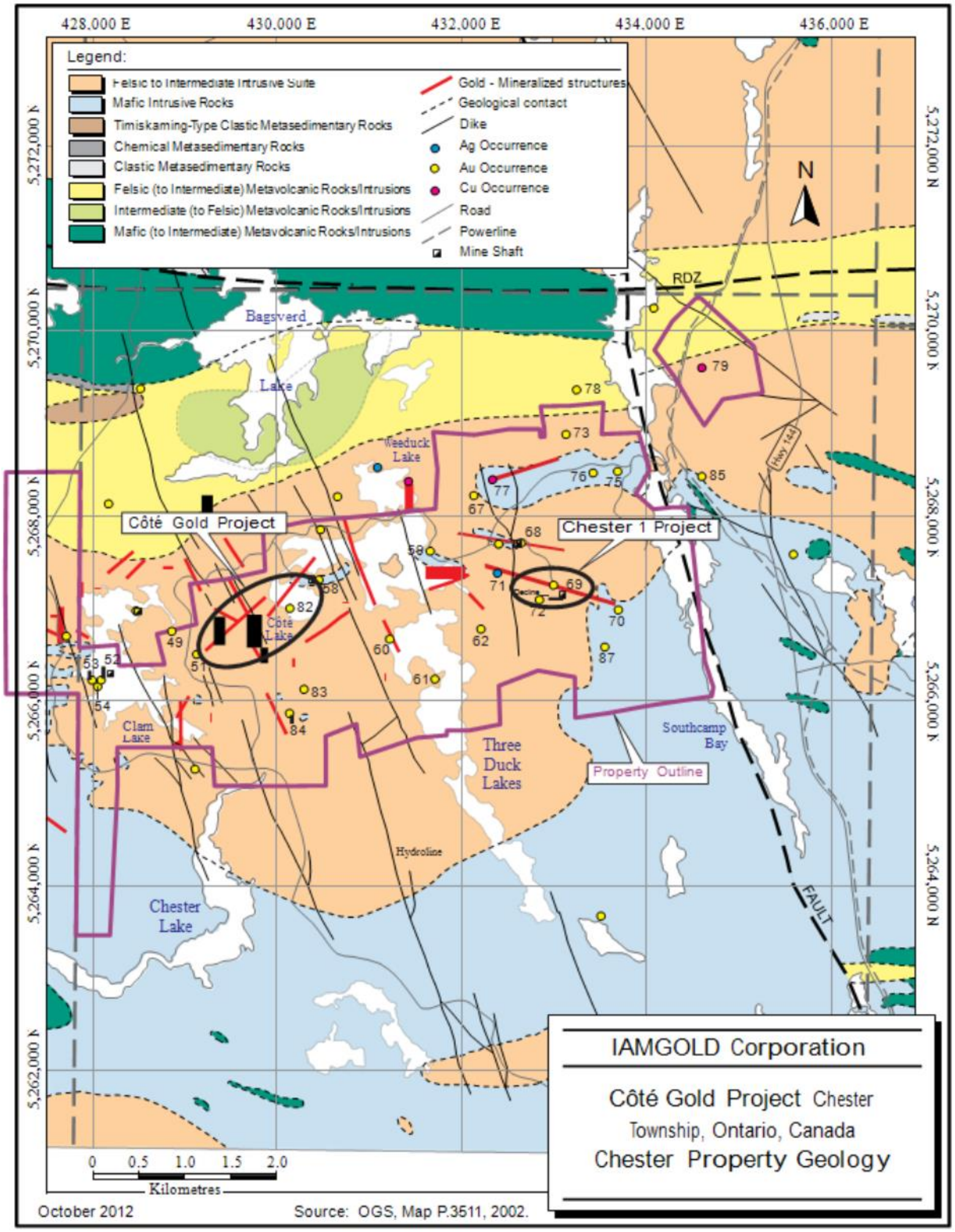
7.2.2 Property Geology

The Chester property is underlain by calc-alkalic pyroclastic metavolcanic rocks of felsic to intermediate composition, felsic to intermediate intrusive rocks, namely tonalite, trondhjemites, granodiorite, and diorite of the CGC and related migmatites. Siragusa’s remapping (1993) and the compilation Map P3511 of Ayer and Trowell (2002) have been relied upon for the property geology where, as can be noted, granitoid rocks are depicted as the dominant lithology. Laird (1932) noted that, locally, the granitoid varies considerably in texture and composition and contains inclusions of older rocks. The texture varies from granular to porphyritic, while in other places it has the appearance of a quartz porphyry phase of the granite.

Large north and north-northwest trending diabase dikes crosscut the intrusive and supracrustal rocks. An available detailed aeromagnetic map of Chester township (Timmins Assessment File, T-3183) clearly shows the prominent north-south and northwest-southeast trends of diabase dikes which overprint any other magnetic fabrics.

Map P 3511, Geological Compilation of the Swayze Area, Abitibi Greenstone Belt (Ayer and Trowell, 2002) displays a 2 km wide belt of felsic tuff, lapilli tuff, tuff breccia and pyroclastic breccia (4bc) stretching across the northern end of Chester township and located just north of the Côté Gold property. Centered over the southern half of Bagsverd Lake (see Figure 7-4) is an area mapped as intermediate to felsic, variolitic flows (3c). West of Bagsverd Lake and straddling the western boundary of Chester township are two localized but interesting units mapped as 7db, chert and oxide and silicate facies iron formation, and 8db, Timiskaming-type mudstone, siltstone, and wacke. While stratigraphic relationships are not implied, units within 8db are most reasonably remnants of Ridout Series. Units 4bc and 7db are compatible with the Yeo Formation (Chester Group). Unit 3c is slightly more problematic as it could represent the basal Arbutus Formation of the Chester Group or the basal Rush River Formation of the Marion Group (which overlies the Chester Group).

Figure 7-4: Chester Property Geology



7.2.3 Côté Deposit Geology

The Côté Gold deposit is hosted by the ca. 2741 Ma Chester Intrusive Complex (CIC), a multi-phase, locally layered, laccolithic-shaped, synvolcanic intrusion composed of tonalite and diorite. The deposit is centered on a magmatic-hydrothermal breccia body that intrudes tonalitic and dioritic rocks. The CIC intruded into the mafic volcanic rocks of the Arbutus Formation, which forms the basal formation in the Chester Group. The formation consists of low-K tholeiitic pillow basalts, mafic flows, and sills. The intrusive host rocks formed from a number of pulses of several distinct and evolving dioritic and tonalitic magmas that display complex crosscutting relationships (Katz et al., 2015).

A previous geochemical study by Berger (2012) suggested that tonalite and diorite phases of the CIC are genetically related; however, geochemical evidence from the Katz et al. (2015) study suggests otherwise. The diorite contains slightly elevated light rare earth element (LREE) patterns compared to the less fractionated patterns and lower rare earth element (REE) contents of tonalite. Although the tonalite and diorite are temporally related, the fractionation pattern suggests that they are genetically unrelated.

The diorite and quartz diorite phases are tholeiitic to transitional in nature, whereas the tonalitic phases have a calc-alkaline to transitional affinity. This spread of chemical affinity and, hence, petrogenetic associations for spatially associated rocks, in particular the quartz diorite-tonalite trondhjemite suites, has been previously documented and may indicate that the intrusive suite consists of a composite of differentiated lithospheric mantle and lower crust partial melts (Galley and Lafrance, 2014). The evidence suggests a spread across petrogenetic origins for tonalitic and dioritic phases (Katz et al., 2015).

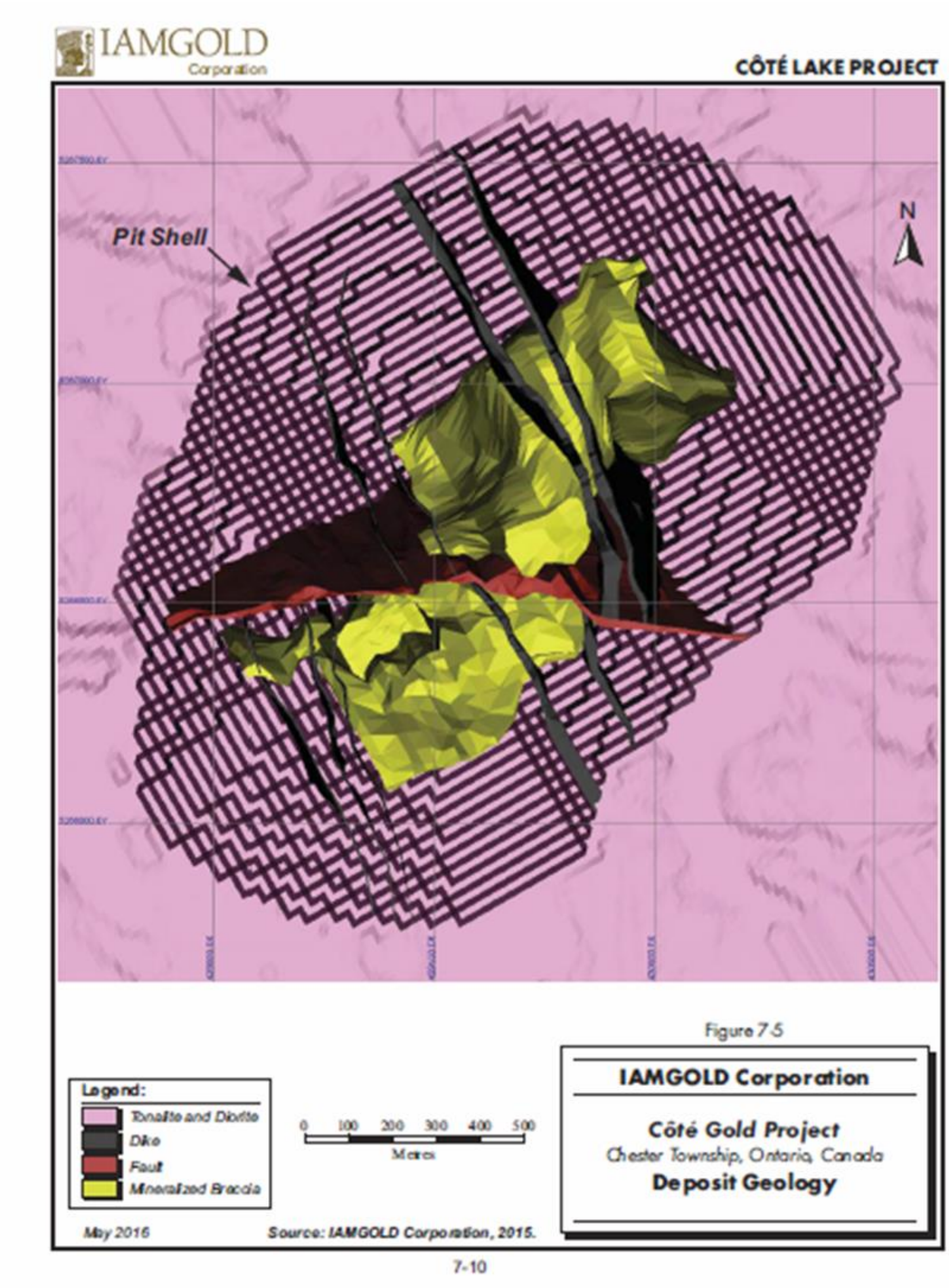
The diorite bodies show much internal variation with an abundance of distinguishable phases, which, taken in sum, support the idea of magma evolution over time. This is supported by several high quality U-Pb zircon geochronology dates for both the tonalite and diorite, which provide contemporaneous crystallization ages for these rocks. This interpretation is also supported by extensive observations in the field and in core both within the deposit area and regionally within the CIC.

Based on their relative timing and variable chemistry, five distinctive intrusive phases have been identified: (1) tonalite I; (2) diorite; (3) aphyric to quartz and/or plagioclase porphyritic quartz diorite; (4) tonalite II; and (5) hornblende-plagioclase ± quartz pegmatite (Katz et al., 2015).

The intrusion phases were followed by hydrothermal brecciation, emplacement of quartz-carbonate Au-Mo veins, lamprophyre dikes, diabase dikes, and later development of deformation zones and faulting.

The gold mineralization envelope, the post-mineralization dikes, and the main east-west fault zone are shown in Figure 7-5.

Figure 7-5: Côté Deposit Geology



7.2.4 Lithology Description

The following lithological descriptions correspond to the new nomenclature that was developed during the 2014 and 2015 drilling campaigns and was also used for re-logging of core from previous campaigns. This new nomenclature is based on research carried out at the Laurentian University combined with the geological observations made by the site Project team.

The drilling programs of 2014 (19,140 m) and 2015 (5,082 m) and the re-logging of older core in 2014 (38,599 m) and 2015 (20,608 m) account for a total of 83,391 m with updated lithology description, or approximately 30% of the 282,086 m included in the database.

An internal document detailing various lithologies, alteration facies, and mineralization styles was developed by IAMGOLD to aid the core logging and ensure consistency of the logs.

7.2.4.1 Major Lithologies

Tonalite

Tonalite, which forms sills ranging from tens to hundreds of meters in apparent thickness, is a medium grained, equigranular to inequigranular, light to dark grey, intermediate intrusive rock. Two phases of tonalite have been identified, with an intermediary pulse of diorite and quartz diorite. The second phase of tonalite formed before complete crystallization of the diorite.

Diorite

Diorite comprises sills of 5 m to less than 150 m in apparent thickness that intrude tonalite I and can exhibit chilled margins.

Quartz Diorite

Quartz diorite consists of sills ranging from 5 m to less than 150 m in apparent thickness and intrude diorite.

The contact relationships of diorite and quartz diorite phases are variable, with both sharp and diffuse contacts. This commonly observed crosscutting relationship suggests that diorite evolved over time, fractionating to more leucocratic quartz diorite.

Hornblende-plagioclase ± quartz pegmatite is the least abundant magmatic phase and generally occurs as small dikes of less than one meter in apparent thickness.

Melanocratic Tonalite

Melanocratic tonalite is medium to dark grey to green, fine to medium grained, inequigranular to porphyritic intrusive quartz-plagioclase-mica rock most commonly of equal proportions.

Magma Mixing

Used to describe intervals of mixing between melanocratic and typical tonalites.

Alteration of Different Units

Breccia body

The breccia body is complex, as both magmatic and hydrothermal variants occur. Breccias are identified by the nature of the matrix as described below.

Magmatic Breccia

The magmatic breccia represents the earliest type of brecciation and was created by injections of diorite or quartz diorite and tonalite II. Magmatic breccias are located south of the fault.

Diorite Breccia

Intrusive magmatic breccia composed of centimeter to meter scale tonalite fragments in a medium- to coarse-grained melanocratic diorite matrix. Fragments are angular to round with sharp to altered contacts. Nearly all diorite breccia observed is matrix supported. This breccia is also observed regionally.

Tonalite Breccia

Intrusive magmatic breccia is composed of centimeter to meter scale diorite fragments in a coarse-grained tonalite matrix. Fragments are angular to round with sharp to altered contacts. Nearly all tonalite breccia observed is matrix supported. This breccia is also observed on the outside of the deposit area.

Quartz Diorite Breccia

Intrusive magmatic breccia is composed of centimeter to meter scale fragments of both tonalite and diorite in a melanocratic quartz diorite matrix. Fragments are angular to round with sharp to altered contacts. The heterolithic nature of this unit, i.e., presence of both tonalitic and dioritic clasts, may suggest some transport of the clasts and late establishment. In practice it is used to denote the breccias of the latest magmatic matrix found south of the fault, as it is principally a quartz diorite.

Hydrothermal Breccia

Tonalite, diorite, and diorite breccia are intruded by a large, but overall discontinuous hydrothermal breccia body on which the Au(-Cu) deposit is centered. It is inferred to consist of several large and continuous injections plus a multitude of small, irregular, and discontinuous injections). Each breccia body ranges from 5 cm to more than 100 m in apparent thickness.

The hydrothermal breccia is composed of sub-millimeter to meter scale igneous fragments set in a hydrothermal matrix comprised primarily of cryptocrystalline to fine grained biotite-quartz commonly with carbonate and magnetite and an abundance of accessory minerals. The hydrothermal breccia displays various degrees of silicification, from low to extreme.

For the hydrothermal breccia, two matrix assemblages have been recognized:

- An amphibole-rich hydrothermal unit;
- A biotite-rich hydrothermal matrix unit.

The amphibole-rich hydrothermal breccia unit (Figure 7-6) is the least abundant breccia type and it appears to be restricted to the southern part of the deposit area where it overprints the magmatic breccia, thus post-dates the magmatic events. Some Au mineralization does occur in amphibole-bearing breccias, however, significant sulphide mineralization is rare with only minor disseminated pyrite and chalcopyrite associated with amphibole or biotite.

The biotite-rich hydrothermal breccia (Figure 7-6) appears to occur almost exclusively in the northern part of the deposit. The breccia matrix varies and consists of:

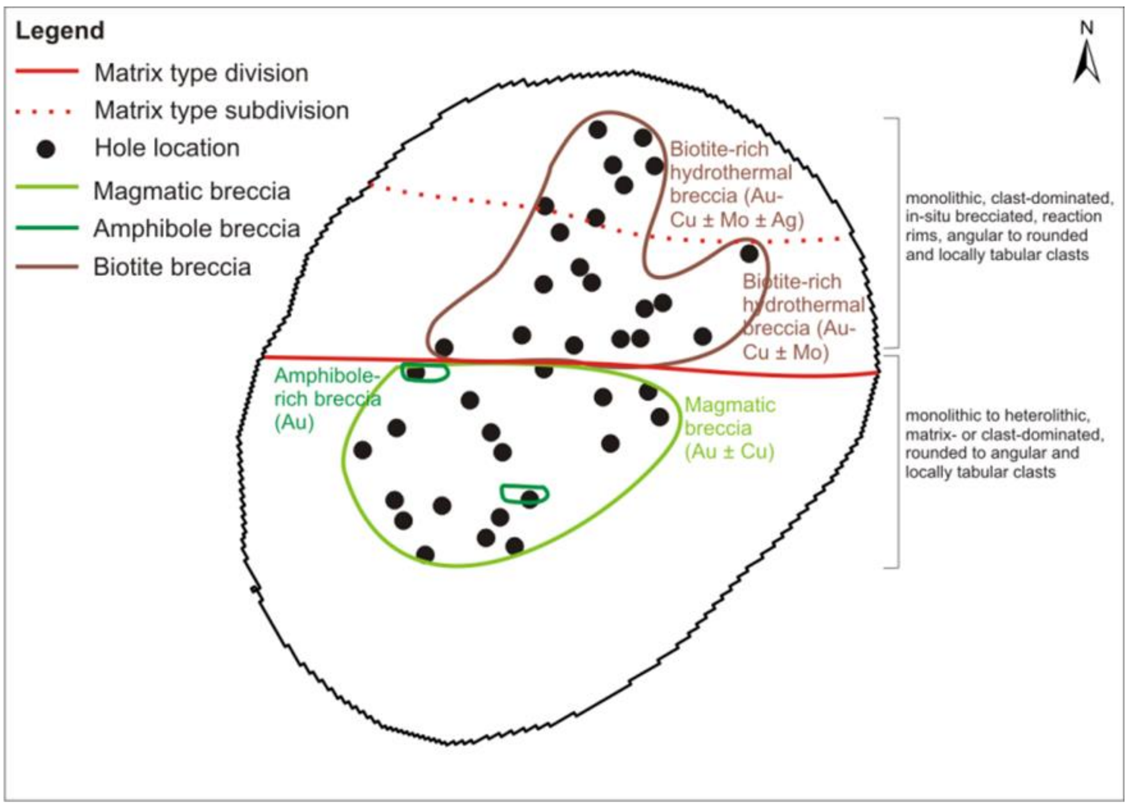
- fine-grained biotite-quartz ± epidote ± carbonate ± pyrite ± chalcopyrite ± magnetite ± allanite;
- fine- to coarse-grained biotite-magnetite-quartz-carbonate-chalcopyrite-pyrite ± allanite with up to 50% magnetite;
- biotite-carbonate-quartz-pyrite ± magnetite ± chalcopyrite with coarse biotite set in finer-grained quartz, carbonate and biotite groundmass.

All these breccia types are characterized by an increase in the amount of disseminated sulphides (up to 15% pyrite and chalcopyrite) compared to the magmatic or amphibole-rich hydrothermal breccias.

The matrix types appear to be zoned in their occurrence, the first type occurring mostly in the south and the latter two types occurring in the northernmost portion of the biotite-rich hydrothermal breccia body. Zonation of the matrix is also reflected in the metal association; the first type has an Au-Cu ± Mo association and a Te enrichment, whereas the northernmost part of the breccia unit also has an Au-Cu ± Mo ± Ag association and a Te enrichment. Crosscutting relationships of the breccia types also indicate that the biotite-rich hydrothermal breccia becomes more carbonate-rich with time.

The relative timing relationships suggest that hydrothermal brecciation post-date the magmatic brecciation. In addition, the breccia is zoned such that the magmatic breccia dominates in the southern part of the deposit, whereas the biotite-rich hydrothermal breccia dominates in the northern part (Figure 7-6).

Figure 7-6: Compositional, Textural, and Metal Zonation of the Magmatic-Hydrothermal Breccia Body, IAMGOLD



7.2.4.2 Minor Lithologies

Later Phases

A few identifiable phases have been observed throughout the deposit that appear to have a later emplacement than the majority of the igneous environment, but may still predate the late quartz diorite magmatic and hydrothermal breccias.

Equigranular Diorite

Equigranular diorite is observed as dikes less than two meters in width with sharp contacts to the early magmatic system, but is altered by the hydrothermal system. It is also observed as a clast in the late quartz diorite breccia.

Plagioclase Phyric Phase

This is a distinct phase where this unit is overprinted by silica-sodic alteration, has very subtle texture and therefore remained unrecognized until recently. This unit may also display highly undulatory contacts.

Diorite Dikes

Occasionally melanocratic dikes occur along with other more typical dioritic textures. They often display small or absent chill margins, differentiating them from most dikes.

Amphibolite / Pyroxenite Dikes

These apparent monomineralic dikes are sporadically observed to be up to tens of meters in width.

Diabase

This dark grey to black mafic intrusive of the 2,452 Ma Matachewan Dike Swarm. The dikes strike north-northwest and are sub-vertical to steeply dipping northeast. They crosscut all rocks within the deposit but are offset by the late east-west trending main fault. These dikes are distinctive on aeromagnetic survey maps.

Mafic Dikes

This dark green mafic intrusive with sharp and often chilled contacts is massive to strongly foliated and may display folding and crenulation. The dikes are numerous throughout the deposit and are centimeter to meter scale in width, with outcrop observation giving 20 cm to 100 cm as typical true widths. Common centimeter to decimeter scale irregular quartz ± carbonate ± chlorite veining is observed at contacts.

Lamprophyre

Fine to medium grained porphyritic dark green to black intrusive dikes. They are generally weakly to moderately foliated and occasionally display internal folding and crenulation.

Quartz Feldspar Porphyry

This phase includes porphyritic grey to black felsic dikes.

Intermediate Dikes

This fine grained grey to beige intrusive with sharp contacts is the least common type of dikes.

Heterolithic Quartz Carbonate Breccia

This late breccia is thought to be associated with, and the expression of, the main east-west fault structure where argillic alteration is absent, as well as secondary structures throughout the deposit. It is composed of very angular to rounded tonalite, diorite, quartz diorite, quartz, carbonate, and mafic fragments set in a veined to flooded matrix of quartz-carbonate-chlorite material. It may also occur as zones of quartz carbonate flooding and veining without any brecciation, which are commonly found around cores of breccia development.

Fault Breccia

This heterolithic matrix supported breccia is generated by brittle faulting. Clasts of all lithologies as well as quartz and carbonate are mm to cm scale and angular to rounded.

7.2.5 Post-Emplacement Veining and Alteration

Several types of magmatic-hydrothermal alteration are spatially associated with mineralization at the Côté Gold deposit. In paragenetic sequence, the dominant minerals associated with these alterations are amphibole, biotite, sericite, quartz-albite, epidote, and chlorite (after biotite). Less frequent alteration such as hematite, leucoxene, fuchsite, and clay was also observed.

The study and description of alteration types at the Côté Gold deposit is complicated by syn-tectonic alteration associated with regional D2 deformation zones, including chlorite, sericite, silica, Fe- and Ca-carbonate, sulphidation, and tourmaline alteration (Heather, 2001). At the deposit scale, syntectonic silica and sericite alteration are associated with D2 deformation zones. Several discrete syntectonic shear zones, typically less than three meters wide, cut through the deposit. Within the shear zones, there is the development of locally strong, pervasive sericite and silica alteration which overprints earlier syn-intrusion amphibole, biotite, sericite, silica-sodic and epidote alteration. Typically, these shear zones do not contain mineralization, however, they can be mineralized when cutting through previously mineralized zones, such as a breccia unit or sheeted veins (Katz et al., 2015).

7.2.5.1 Major Alteration

Amphibole

Amphibole alteration is rare in the deposit, and occurs as a variety of amphibole-rich veins and breccias. Amphibole-bearing veins include amphibole, amphibole-quartz, amphibole ± apatite ± ilmenite ± titanite ± pyrite ± chalcopyrite assemblages. These amphibole-rich veins crosscut the tonalite, diorite, and the magmatic breccia and, therefore, post-date magmatic events. These veins appear to be spatially restricted to the south of the deposit and represent the earliest hydrothermal alteration type associated with Au mineralization (Katz et al., 2015).

Biotite

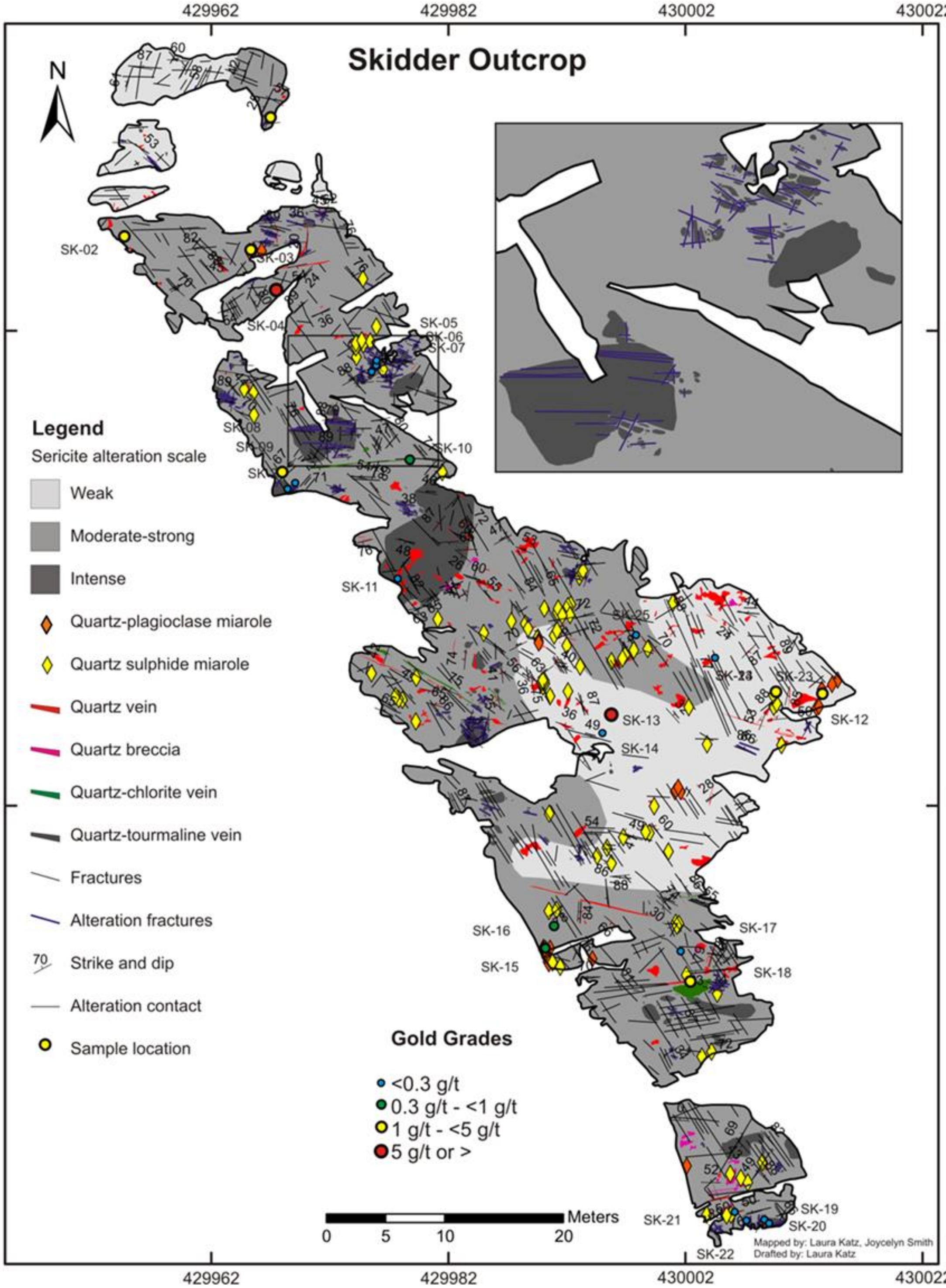
Biotite alteration is ubiquitous throughout the deposit and alters all intrusive phases. The biotite assemblage consists of biotite ± quartz ± magnetite ± epidote ± allanite ± carbonate ± pyrite ± chalcopyrite ± pyrrhotite ± titanite. This alteration assemblage occurs in the biotite-rich hydrothermal breccia, as disseminations in tonalite and diorite, in stockwork zones and in sheeted veins. The biotite in the matrix of the biotite-rich hydrothermal breccia is not the result of alteration, but forms as a primary hydrothermal mineral. Disseminated biotite occurs as anhedral to subhedral, fine-grained (less than 1% to more than 50%) disseminations that partly replace primary plagioclase and amphibole, as well as amphibole in veins and breccias (Katz et al., 2015).

Sheeted veins consist of east-west trending, planar, subparallel, moderately to steeply dipping, closely (centimeters to tens of centimeters apart) to widely (several meters apart) spaced veins that occur throughout the deposit. These sheeted veins are also found outside the deposit within the CIC. These veins contain quartz-biotite-pyrite ± chalcopyrite ± pyrrhotite ± carbonate ± titanite ± allanite and are therefore inferred to be early, having formed during biotite alteration, but are typically overprinted by sericite alteration and deformation resulting in distinct sericite alteration haloes with or without shearing. The various types of biotite alteration are partially to wholly altered by chlorite (Katz et al., 2015).

Sericite

The sericite-bearing alteration assemblage consists of sericite-quartz ± carbonate ± pyrite ± chalcopyrite and occurs throughout the deposit. Sericite is light grey to dark grey and rarely green-grey with fine-grained, elongated to stubby grains that replace primary plagioclase. Sericite alteration is generally fracture controlled as veins, disseminations, and pervasive types. Sericite often forms alteration halos surrounding stockworks and sheeted veins, both of which contain an earlier biotite alteration assemblage. Although the extent of sericite alteration has not been fully determined, it is strongest within the centre of the deposit with its intensity decreasing with distance from the core of mineralization (Katz et al., 2015). Within the deposit area, the sericite alteration occurs as halos and bands, and is extremely heterogeneous, with size varying from meter to decimeter scale (Figure 7-7).

Figure 7-7: Sericite Alteration – Skidder Outcrop

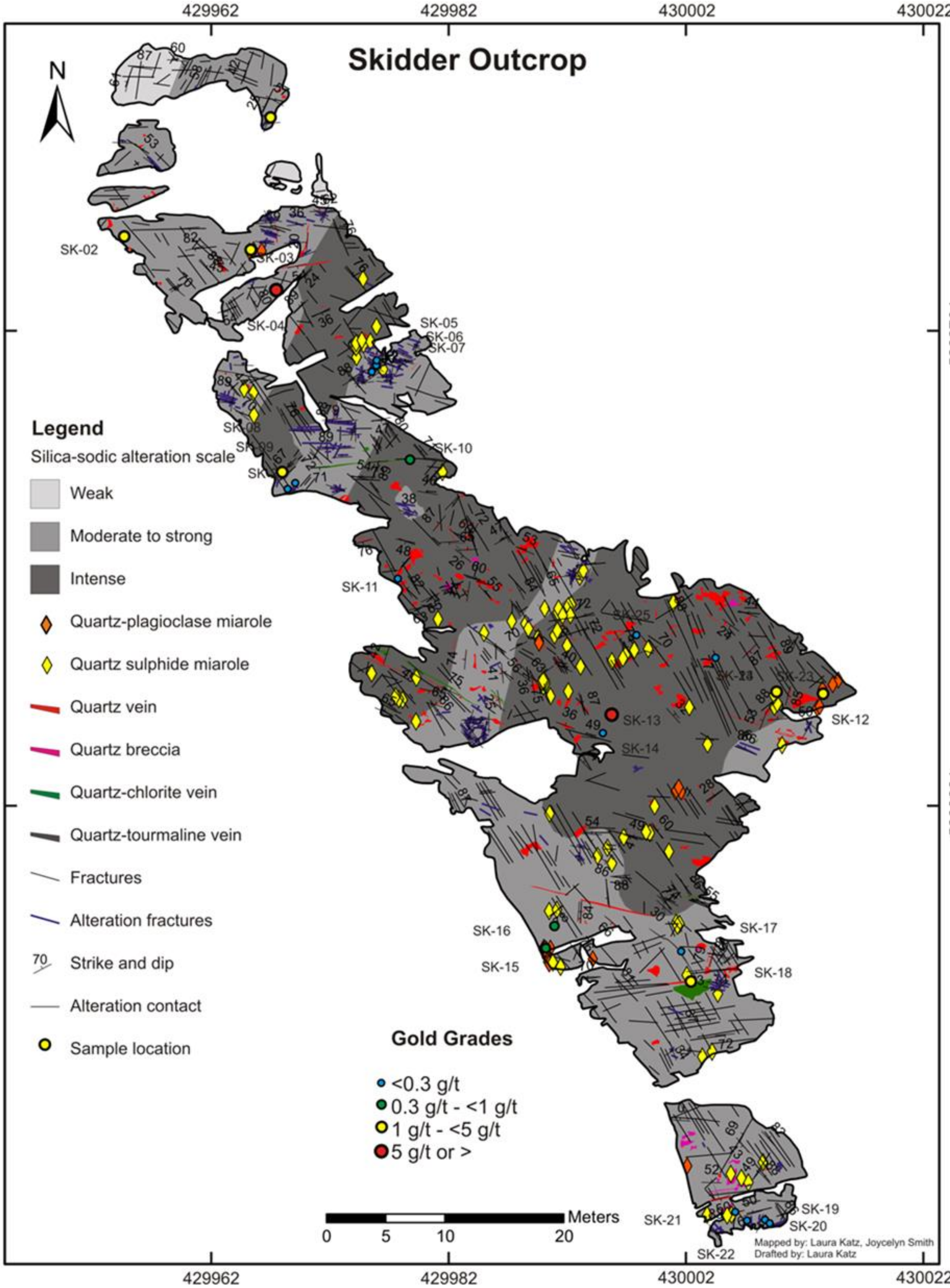


Silica-Sodic Alteration

Silica-sodic alteration is a texturally destructive alteration that occurs as vein controlled alteration, as well as a pervasive type that overprints earlier biotite and sericite alteration. The silica-sodic alteration envelope can be more than 200 m wide, moderately to steeply dipping to the north or northwest, and is most intensely developed towards the centre of the deposit. This alteration also overprints the mineralized breccia body. In drill core, the silica-sodic alteration is characterized by bleaching, destruction of primary textures, including grain boundaries, and replacement of mafic minerals. In thin section, this alteration is characterized by replacement of plagioclase by albite, grain-size reduction, and sutured grain boundaries due to dissolution of plagioclase and quartz. This alteration affects tonalite, diorite, quartz diorite, hornblende-plagioclase pegmatite, magmatic hydrothermal breccia, and rarely dike rocks. Gold mineralization can be spatially associated with this alteration; however, no consistent correlation has been observed (Katz et al., 2015).

The silica-sodic alteration is extremely heterogeneous; it can form bands ranging from centimeters to decimeters where the alteration effect varies from low to extreme within a larger envelope. Alteration mapping of Skidder outcrop is shown in Figure 7-8.

Figure 7-8: Silica-Sodic Alteration – Skidder Outcrop



Epidote

The epidote-bearing alteration, consisting of an epidote ± quartz ± carbonate ± chlorite assemblage, occurs as both disseminated and vein-controlled alteration. Epidote occurs as fine-grained anhedral disseminations in the groundmass replacing primary plagioclase and amphibole. An area of vein-controlled epidote alteration is restricted to an approximately 300 m wide by 400 m long zone in the northernmost part of the deposit. Epidote alteration is rarely associated with Au mineralization. This alteration type appears to post-date the aforementioned alteration types based on limited crosscutting observations in drill core. This alteration is inferred to be syn-intrusion due to its spatial distribution in the deposit and its foliation predating D2 deformation (Katz et al., 2015).

Chlorite

Chlorite is ubiquitous throughout the deposit and occurs as disseminated, replacement, and vein-controlled alteration. Petrographic observations indicate chlorite partially to wholly replacing plagioclase, amphibole, and secondary biotite. As a result of replacing biotite, titanium-bearing phases, such as rutile, form in association with chlorite. The timing of chlorite alteration is not fully constrained and therefore its importance in terms of deposit formation is unclear. Gold mineralization is spatially associated with hydrothermal chlorite alteration, but its genetic association is not fully understood as it pseudomorphs earlier, higher temperature hydrothermal biotite (Katz L., 2015).

7.2.5.2 Minor Alteration

Hematite alteration is minor, and currently thought to be associated with the mafic dikes that crosscut the deposit. Fuchsite and leucoxene are secondary alterations observed to be associated with areas of strong silica-sodic alteration. Argillic alteration, which is not considered as a true alteration, is restricted to areas chiefly proximal to the main fault.

7.2.6 Mineralogy and Mineralization

Two different types of gold mineralization are recognized on IAMGOLD’s Chester township properties. The historically important mineralization can be termed quartz vein and fracture associated (Type 1), while the new Côté Gold deposit is interpreted by Kontak et al. (2012) as an Archean intrusion-related Au(-Cu) deposit (Type 2).

Property Mineralization (Types 1)

The Type 1 quartz vein and fracture mineralization occurs in the Chester 1, 2, and 3 areas on the Chester property and elsewhere in the Project area at the Jerome deposit on the TAAC property and at the Shaft Zone on the Falcon Gold Option property.

Côté Gold Deposit Mineralization (Type 2)

The Côté, Type 2, gold mineralization consists of low to moderate grade gold (±copper) mineralization associated with brecciated and altered tonalite and diorite rocks.

Several styles of Au mineralization are recognized within the Côté Gold deposit, and include disseminated, breccia-hosted and vein-type, all of which are co-spatial with biotite (± chlorite), sericite and silica-sodic alteration.

Disseminated mineralization in the hydrothermal matrix of the breccia is the most important style of Au(-Cu) mineralization. This style consists of disseminated pyrite, chalcopyrite, magnetite, gold (often in native form), and molybdenite and is associated with primary hydrothermal biotite and chlorite after biotite. Similarly, disseminated mineralization in both tonalitic and dioritic rocks is associated with biotite or chlorite alteration. Although both biotite and chlorite are ubiquitous throughout the deposit, gold is not consistently associated with the two alteration types. Disseminated gold and chalcopyrite are intergrown with biotite/chlorite in the tonalite and breccia unit (Katz et al., 2015).

Several types and generations of veins host gold and molybdenite and include quartz, quartz-carbonate, quartz-biotite-pyrite ± chalcopyrite ± pyrrhotite ± carbonate ± titanite ± allanite, quartz-carbonate-titanite, quartz-tourmaline, and quartz-epidote. The mineralized veins typically contain various proportions of pyrite and chalcopyrite. The nature of the veins and fractures vary from stockworks to closely spaced, planar, subparallel sheeted vein sets. Stockwork mineralization cuts through all major rock types, but is most prominent in tonalite I and II versus the less competent dioritic unit. The mineralized sheeted veins and stockwork zones cut the hydrothermal breccia and therefore post-date the breccia-controlled mineralization. Miarolitic-like cavities, which consist of millimeter to centimeter size openings lined with feldspar, carbonate and sulphide, can also contain gold. Importantly, the gold bearing sheeted and stockwork veins mineralization are not present in later post-CIC dikes suggesting a coeval syn-magmatic relationship (Katz et al., 2015).

Visible gold is observed in several settings within the deposit:

- **Pre-deformation veins:** a set of centimeter to decimeter scale quartz ± carbonate veins with 0.5% to 25% pyrite ± chalcopyrite and common centimeter scale barren sericite alteration halos. These veins are currently interpreted to be emplaced under some earlier regional stress before the Ridout strain regime and strike east-west to southeast-northwest.
- **Quartz ± carbonate ± chlorite veins:** gold is observed to be hosted within the vein quartz and also along fractures cutting the vein.
- **Magmatic-hydrothermal breccia:** gold is more commonly observed in larger, well developed shoots but is also observed in submillimeter veinlets of obvious hydrothermal provenance. At hand scale, gold appears to have some correlation with chlorite, sulphides, and magnetite.

- **Miaroles:** gold is observed hosted within miarole quartz, in fractures cutting primary miarole minerals, and within the host rock, proximal to the host/miarole interface commonly within a moderate to intense silica and/or sericite alteration halo. Importantly, the hydrothermal system is observed to replace the common carbonate cores of miaroles, which may subsequently host gold.
- **Alteration related/intergranular/disseminated:** gold is observed proximal to veining and within apparent silica ± sericite ± biotite/chlorite alteration halos. It is also found as isolated grains with no apparent control or related structure most commonly in tonalites, but also in diorites, commonly with moderate to intense silica and/or sericite alteration of the host. It may also be associated with biotite/chlorite or leucoxene.

The hydrothermal breccia and the associated hydrothermal alteration zones are the material component of the mineralization providing the mineable widths and grades to the deposit. Areas outside of its significant development are likely not a significant contribution to economically important mineralization. The various gold bearing quartz vein systems, also found immediately adjacent to the pit, serve to upgrade the hydrothermal envelope where they are present. The amount of gold contributed by these quartz vein systems to the deposit is difficult to determine but is thought to be of some significance to overall metal content.

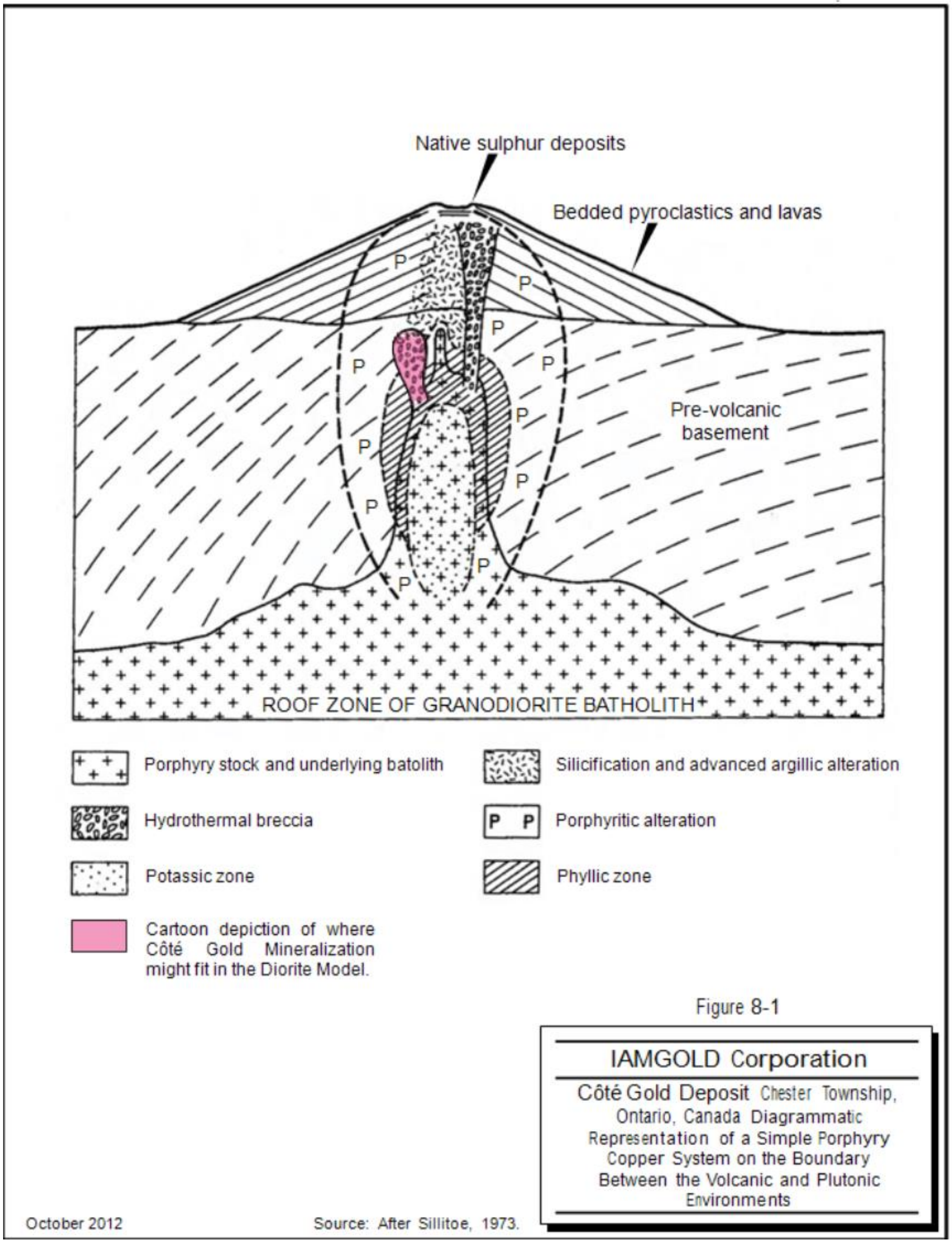
8.0 DEPOSIT TYPE

The Côté Gold deposit is a new Archean low-grade, high-tonnage gold (± copper) discovery. It is described as a synvolcanic intrusion related and stockwork disseminated gold deposit (Kontak et al., 2012, Katz et al., 2015, Dubé et al., 2015). Deposits of this type are commonly spatially associated with and/or hosted in intrusive rocks. They include porphyry Cu-Au, syenite-associated disseminated gold and reduced Au-Bi-Te-W intrusion-related deposits, as well as stockwork-disseminated gold.

The Côté Gold deposit appears to correspond to the porphyry style. It is located in the southern limb of the Swayze greenstone belt part of the gold-rich Abitibi subprovince. At Côté, the zones of mineralization are centered on a multiphase magmatic-hydrothermal breccia, including a mineralized Au-Cu±Mo±Ag hydrothermal breccia that intrudes tonalitic (transitional to calc-alkaline) and dioritic (tholeiitic) phases of the CIC (Katz et al., 2015). Dating highlights the spatiotemporal link between magmatism and gold content. The magmatic-hydrothermal breccia is itself overprinted by several zones of hydrothermal alteration associated with mineralization. The age of this syn-volcanic-hydrothermal system is ca. 2740 Ma.

Two molybdenite samples, one from a fracture coating in tonalite and the other from a gold-rich quartz-chalcopyrite-molybdenite vein in the Côté Gold deposit, were dated by the Re-Os method at the Radiogenic Isotopic Facility at the University of Alberta and returned ages of 2,737 and 2,741 ± 7 Ma (Kontak et al., 2012). The similarity in the age dates between these two samples and the similar age of the host rocks complemented with geological studies indicate that the gold mineralization is of hypogene origin and provides additional strong evidence that the deposit is syn-magmatic and supports a porphyry style model. Furthermore, this deposit now represents the oldest documented gold mineralization within the Abitibi Subprovince (Kontak et al., 2012).

Figure 8-1: Representation of a Simple Porphyry Copper System on the Boundary between the Volcanica and Plutonic Environments



9.0 EXPLORATION

9.1 Overview

Exploration activities on the South Swayze properties of IAMGOLD focused on areas generally outside the Project as part of a multi-year exploration program initiated in 2013. Numerous gold showings are documented both within the host CIC, and in the enclosing volcanic/sedimentary units of the South Swayze greenstone belt. Regional exploration work has been completed to evaluate many of the highest priority targets for potentially economic bulk tonnage intrusion-hosted gold deposits and also test for higher-grade structurally controlled orogenic or shear-hosted gold mineralization.

The South Swayze land holdings are subdivided into three geographic areas for exploration purposes, namely the Chester Area (central), South Swayze West (western area), and South Swayze East (eastern area).

Exploration work completed to date on Chester Area properties includes soil sampling, prospecting, geological mapping, mechanized stripping, and detailed prospect mapping and sampling. Exploration targets on Chester Area properties lie outside of the Côté Gold deposit and include Clam Lake to the west, Jack Rabbit to the north, Young-Shannon to the east, and South Côté to the south. The most significant exploration work completed to date has been on the HAVA Deformation Au Zone (HAVA Zone) discovered in 2013 on the Clam Lake property. The 2015 exploration work culminated in the fall diamond drilling program aimed at testing high-priority targets at Clam Lake, Three Duck Lakes, South Côté, and Weeduck Lake.

Exploration work completed by IAMGOLD on the South Swayze West properties has recently focused on exploring prospective geological contacts (Temiskaming sediment/felsic porphyry), gold-bearing shear zones, and second-order splay structures of the RDZ. Soil and humus sampling, prospecting, geological mapping, mechanized stripping, and diamond drilling programs have been completed.

Surface exploration on the South Swayze East properties included line-cutting, soil and humus sampling, IP surveying, geological mapping, prospecting, outcrop sampling, and diamond drilling. In addition, claim geo-referencing was completed on one property. These programs were undertaken on the Trelawney East, Arimathaea East, King Errington, and Sheridan Option properties.

9.2 Côté Property

9.2.1 Drilling Program of the Côté Deposit

The details of the 2009-2015 drilling program of the Côté Gold deposit can be found in Section 10.

9.2.2 Geological Mapping

Geological mapping over the Côté Gold deposit key outcrop exposures has been on-going over several field seasons. In the fall of 2013, a mapping program over the entire area within the proposed pit shell commenced. This mapping program assisted in validating the geological interpretations of the 3D deposit model.

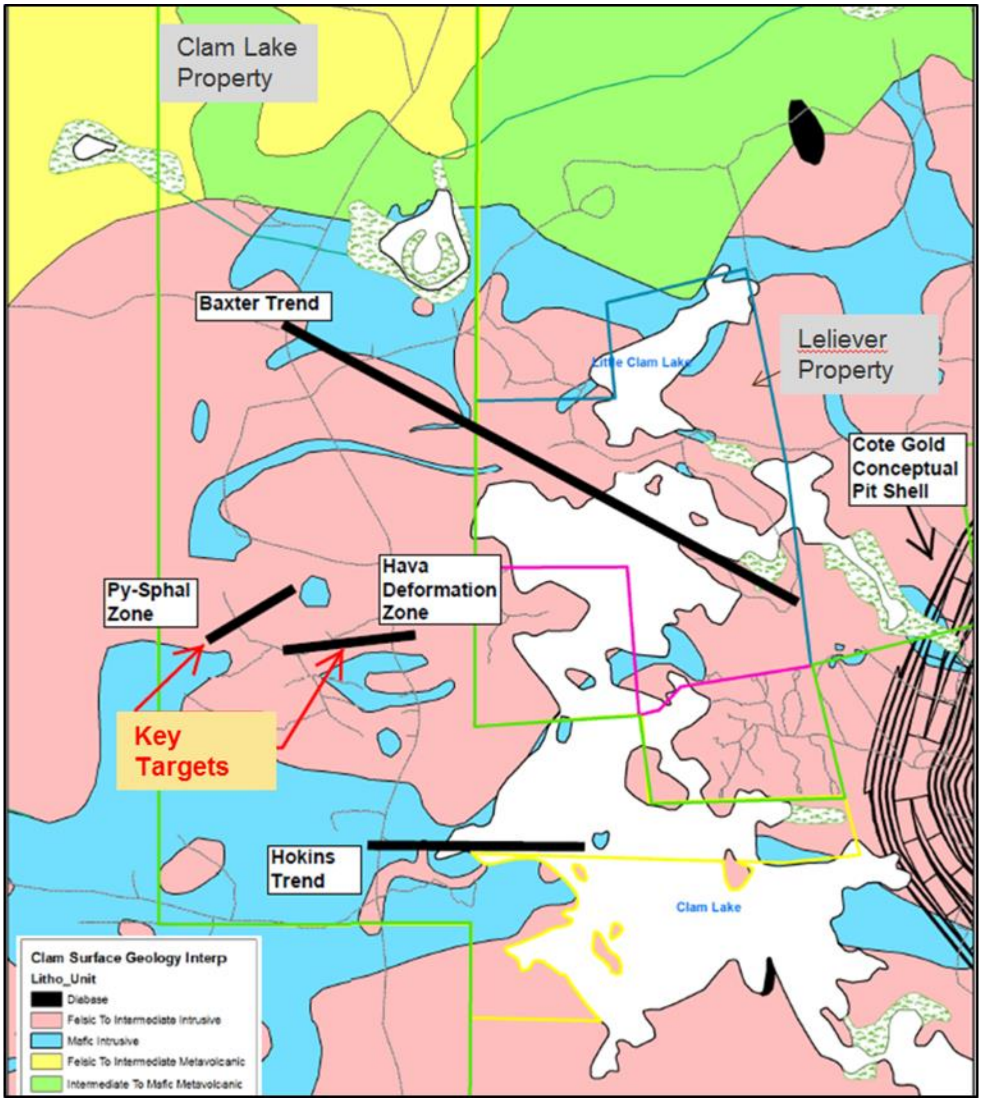
9.3 Chester Area Properties

9.3.1 Clam Lake and Leliever

During the 2013 field season, work completed by IAMGOLD consisted of detailed compilation, prospecting, and geological mapping (Figure 9-1). Compilation of all historical work in Geovia GEMS and Arc GIS platforms was first completed to highlight significant gold showings and to outline the most prospective targets for additional work. Exploration work focused within the Clam Lake property, the Leliever Option, and the West Côté property. Geological mapping and surface grab and channel sampling were completed in 2013. Key targets included the previously discovered Baxter and Hopkins trends as well as several historical gold-bearing zones identified by surface grab sampling.

A three-hole diamond drill program totalling 892.5 m was completed in late 2013 and was successful in discovering the HAVA Zone. Subsequent down-hole rock property surveying and geology and structural modelling were completed by DGI Geosciences to better understand the zone orientation and host stratigraphy.

Figure 9-1: Clam Lake Geology and Gold Zones



Exploration in 2014 continued with geological mapping and surface sampling in proximity to the HAVA zone and culminated in a 12 hole (2,841 m) drill program. This program was successful in extending the strike length of the HAVA Zone and also outlined two additional zones: the gold-bearing Pyrite-Sphalerite Zone located to the north of the HAVA Zone; and the upper Quartz-Sulphide Zone parallel to the HAVA Zone.

Exploration work in 2015 comprised physical rock property analyses, mechanized stripping of the HAVA Zone, and a seven-hole (1,659 m) drill program to test the HAVA Zone for easterly and down-plunge continuity and the Pyrite-Sphalerite Zone for its potential strike extent. Drilling was successful in discovering narrow gold-rich intervals and effectively extending the HAVA Zone further to the east by 100 m. It also outlined narrow quartz and sulphide bearing veins up to 10 cm wide with anomalous gold in the hanging wall.

Work on the Leliever property has been limited over the period 2013 to 2015; however, several small campaigns of litho-sampling and prospecting were completed.

9.3.2 Jack Rabbit

During the 2013 field season, work completed by IAMGOLD consisted of detailed compilation, geophysical interpretation, prospecting, and geological mapping (Figure 9-3).

Compilation of all historical work and geophysics data was completed in Geovia GEMS and Arc GIS platforms which helped define areas of interest and targets moving forward in the program. Work focused within Jack Rabbit historical Zone 1 (No. 20 Vein), Zone 2, and Zone 3 (Texas Gulf Zone) followed by the Murgold Chesbar Zone as well as multiple surrounding surface showings. Geological mapping and prospecting was completed over approximately 75% of the property in 2013, and two drillholes (495.3 m) were completed in early December, targeting the western extension of Zone 2 and the north branch of Zone 1 (No. 20 Vein). Narrow sulphide-bearing mineralized zones comprising quartz-sulphide veins were delineated, with the most favourable results on the western extension of Zone 2.

The property was advanced in 2014 with continued geological mapping and sampling of prospective Au-sulphide shear zones in attempts to better define the stratigraphy and structures hosting the known gold zones. This work continued in 2015 and added one additional zone to the list of targets requiring further work, the South Road Quartz Zone. The area northeast of Zone 2 was evaluated by manual stripping of historic trenches, resulting in the discovery of highly anomalous gold values within intensely altered shear zones in tonalite. A four-hole, 921 m drilling program was conducted in late October – early November to evaluate the strike and depth potential of Zone 2 and the South Road Quartz Vein in proximity to anomalous IP chargeability (Figure 9-4).

Figure 9-2: Jack Rabbit Geology and Au-Bearing Mineralized Zones

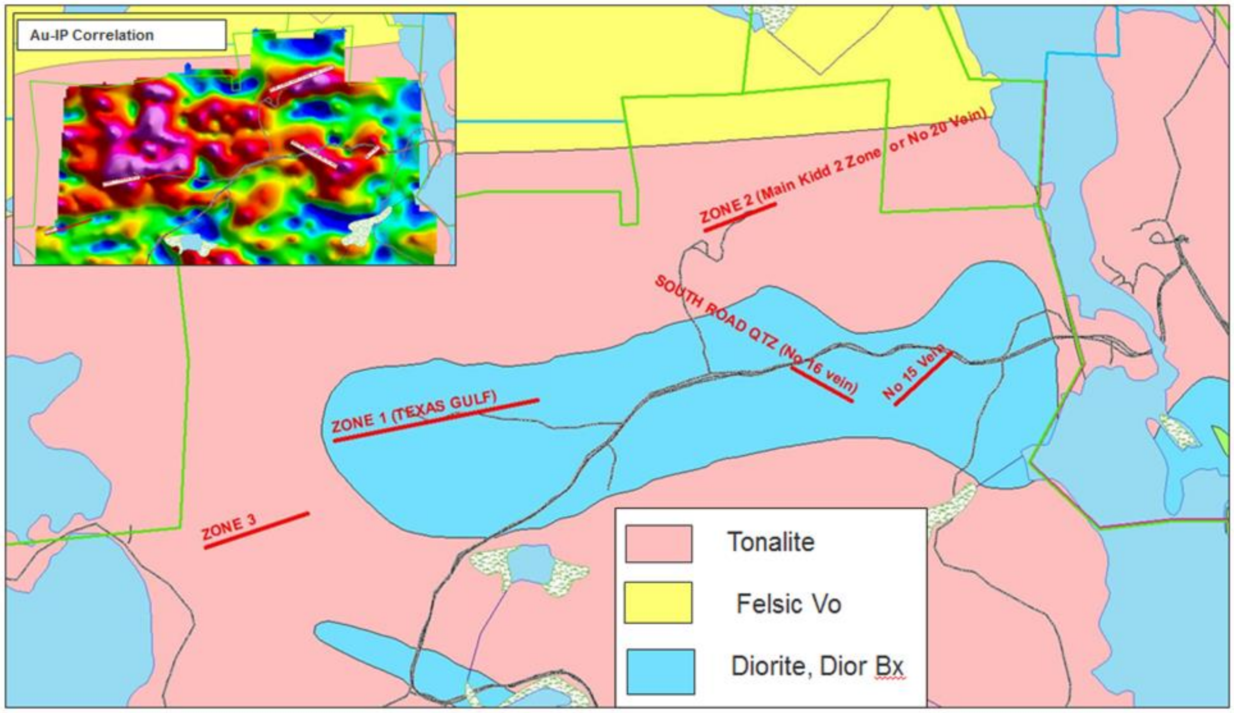
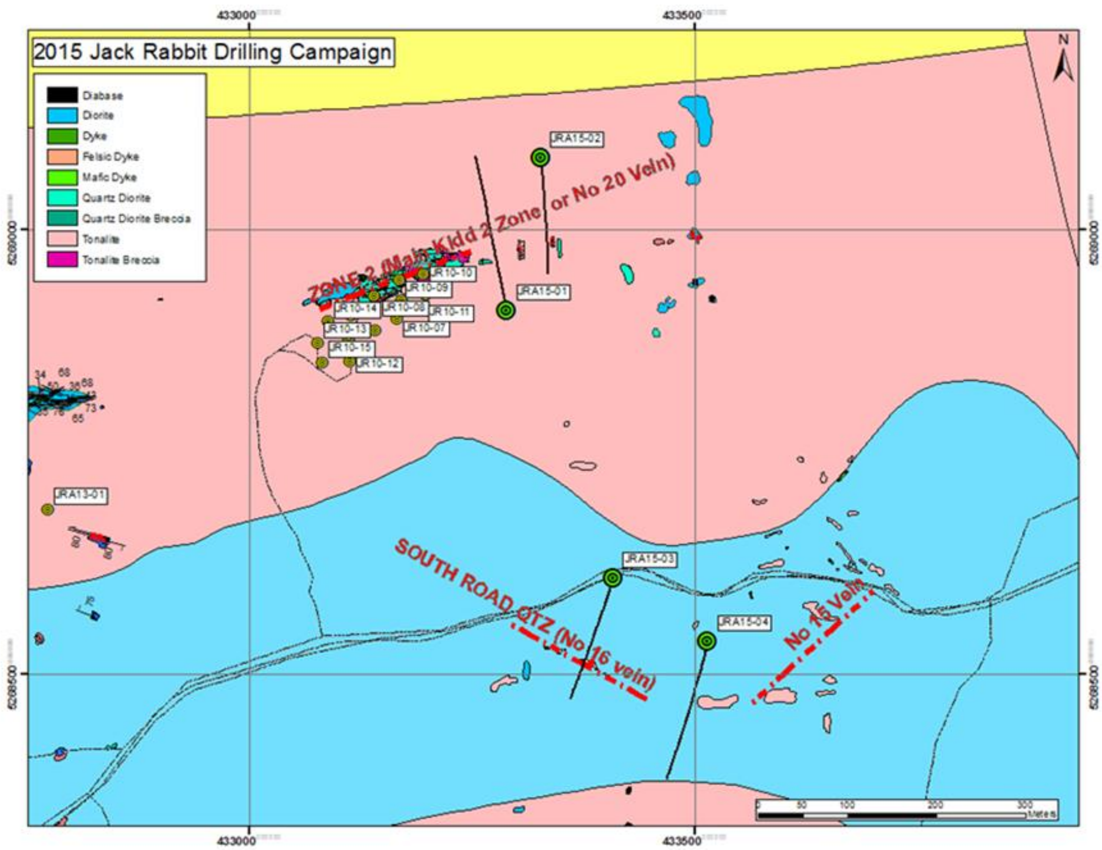


Figure 9-3: Principal Au Targets and Drillholes in 2015



9.3.3 Other Chester Area Properties

In addition to Clam Lake, Leliever, and JackRabbit, three Chester Area properties have been subjected to specific exploration campaigns generally over the period 2014-2015.

South Côté Condemnation Area

Geological mapping and sampling was completed in 2014-2015 with an objective to trace Au-bearing structures intersected in 2012 condemnation diamond drillholes, the best of which returned 19.01 g/t Au over one meter (CL12-25). A two-hole, 634 m program was completed in 2015 to determine if these Au-bearing structures had strike continuity or depth extent.

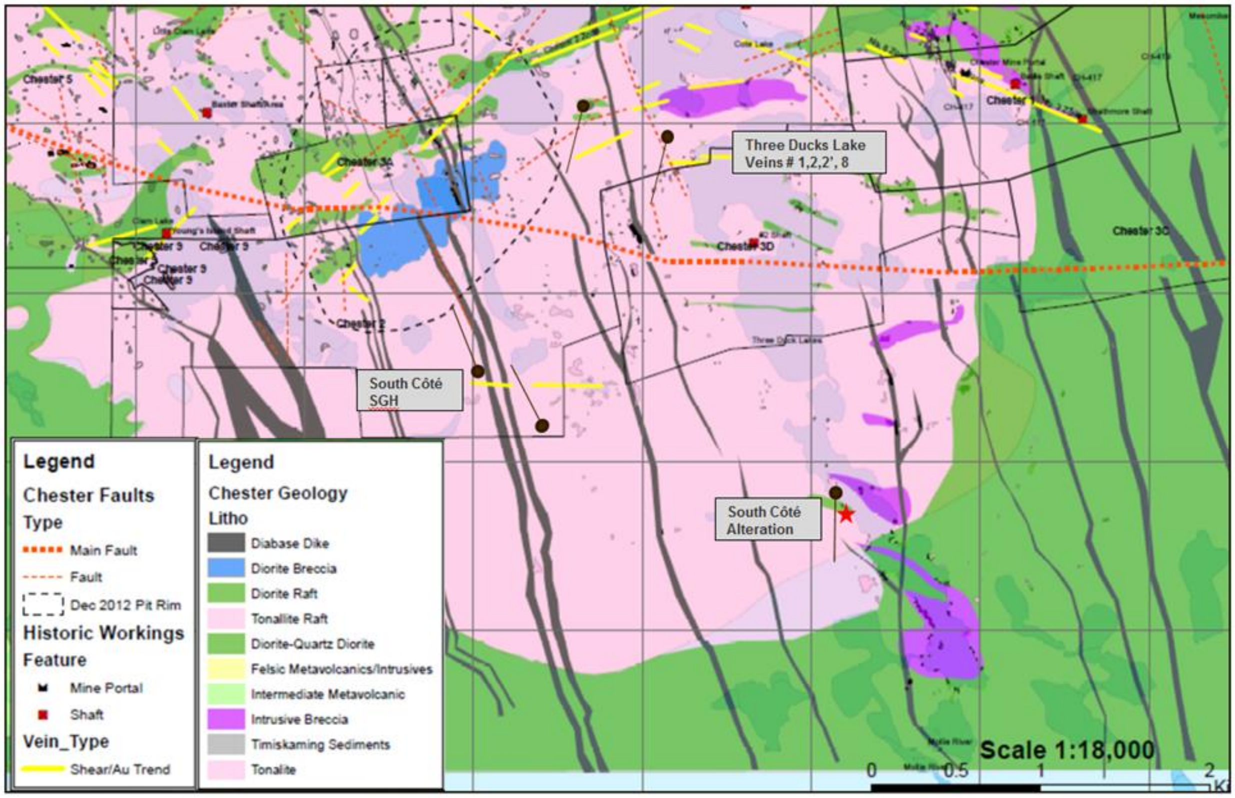
Three Duck Lakes area

Geological mapping, prospecting, and sampling on the east shore of Three Duck Lakes in 2015 helped to define the location and nature of four historic Au-bearing veins (Veins 1, 2, 2', and 8) with surface sampling yielding up to 8.68 g/t Au in grab samples. Mapping served to identify a zone of strongly silicified and albitized tonalite (South Côté Alteration Zone) approximately 2 km to the southeast. A drilling campaign was completed in November 2015 (three holes, 1,024 m) with the Three Duck Lakes vein systems tested for northwest strike extensions in an area of favorable IP chargeability, and the South Côté Alteration Zone tested with a single drillhole.

South Côté SGH target

Geological mapping, prospecting, and sampling was first completed in this area in 2014 and follow-up litho-sampling was completed in 2015. Grab samples in proximity to the anomalies returned Au values ranging from nil to 1.45 g/t Au from silicified tonalite containing quartz vein networks and fracture-fill quartz veins. The proximity of SGH geochemistry anomalies to the main Côté Gold deposit and the presence of elevated Au in B-horizon soils warranted additional follow-up, and a two-hole, 600 m diamond drill program was initiated in Novembr 2015 to test each of these anomalies.

Figure 9-4: Exploration on Other Chester Area Properties



9.4 South Swayze East

9.4.1 Sheridan Option Property

The Sheridan Option claims underwent a three-phase exploration effort in 2013, with the result being the identification of lithologies similar to those found directly in the Côté Gold deposit, including tonalite, tonalite breccia, diorite, and diorite breccia. These units are interpreted to belong to the CIC and are therefore prospective for similar styles of mineralization to Côté Gold deposit. Exploration work completed in 2013 included:

- 452 soil samples were taken throughout the Sheridan Option (phase I)
- 66 rock-grab samples were taken in the northernmost claims (phase I)
- 2.03 km^2 of geological mapping, northernmost and central claims (phase I and II)
- 19.65 line-km of IP chargeability/resistivity surveying on the Sheridan Option (phase II)
- 545 m of BQTK size core was drilled on the Sheridan Option in 2013 (phase III)

- 6 claims geo-referenced of the northernmost claims (phase I)

In 2014 and 2015, the final geo-referencing work was completed for the remaining claims. In early 2015, the South Sheridan grid was extended to the west and six lines of IP surveying were completed targeting an area with several B-Horizon soil anomalies.

9.4.2 Trelawney Mining and Exploration Properties

All of the 100% owned Trelawney properties (North, South, and East blocks) were geo-referenced in 2013 and provided assessment work to keep the mining claims in good standing. This also better defined borders of the claims as potential unpatented claim boundary changes come to the forefront as the MNDM moves towards provincial grid/online staking.

Exploration work on the Trelawney South (Yeo) Block was completed in 2015 to evaluate the north central portion of the property where the stratigraphy is dominated by mafic to intermediate volcanic flows with interflow sediments and quartz feldspar porphyry intrusive sills. A widely spaced reconnaissance B-horizon soil survey was completed over specific structurally interpreted features (geological contacts, folds, and magnetic breaks).

9.4.3 Arimathaea (Ontario 986813 Ltd.) Property

In early January 2014, the Arimathaea Northeast Block was geo-referenced in its entirety. A total of seven claims (543994, 543995, 543996, 543818, 543819, 543821, and 543827) were geo-referenced for all corner, witness, and directional posts. The geo-referencing work will provide assessment work to keep the mining claims in good standing. It was also completed to better define borders of the claims as boundary changes come to the forefront as the MNDM moves towards a provincial grid/online staking.

In 2015, assessment credits were filed from the adjacent Arimathaea East Block to hold the ground in good standing. Exploration work is planned for the area following the successful delineation of a favourable Au environment on the King Errington (Spyder) patents located immediately to the east.

9.4.4 TME East (Benneweiss) and Arimathaea East (Ontario 986813 Ltd.) Properties

Exploration work spanning these two properties commenced in 2014 with the completion of line cutting, IP geophysical surveying, geological mapping, sampling, and diamond drilling (three drillholes, 815 m) on the Arimathaea East portion of the property. Previous work by Trelawney in 2013 included reconnaissance geological mapping and the completion of one stratigraphic drillhole in the south part of the property.

The area of investigation expanded to the east in late 2014 and early 2015 with the recognition of significant magnetic breaks, possibly representing second order structural splays from the RDZ along the north margin of the property. Line cutting, IP surveying, geological mapping, prospecting, humus, and B-horizon soil sampling and diamond drilling (four drillholes, 1,547 m) were completed in 2015. Targets included sheared geological contacts, favourable IP chargeability anomalies, magnetic breaks, and recently discovered quartz vein stockwork zones and sediment-hosted sulphide zones.

9.4.5 King Errington (Spyder) Claims

Exploration work completed on the King Errington property in 2015 focused on the delineation of the King Errington main zone, which comprises a series of quartz-sulphide veins and veinlets in a highly silicified and fractured diorite. The zone is interpreted to be a third order growth structure and splay from a large northeast/southwest structure coincident with the Errington Creek drainage. Geological mapping, prospecting, soil sampling, reconnaissance VLF surveying, and diamond drilling (two holes, 637 m) were completed in 2015 in order to determine if the zone had strike or depth continuity and to examine the immediate stratigraphy for additional structurally controlled zones.

9.5 South Swayze West

9.5.1 TAAC West Property

Exploration work on the TAAC West property by IAMGOLD since acquisition of the property has been focused on exploring prospective geological contacts (Temiskaming sediment/felsic porphyry contacts), gold-bearing shear zones, and second-order splay structures of the RDZ. Soil and humus sampling, prospecting, geological mapping, mechanized stripping, and diamond drilling programs have been completed.

IAMGOLD initially focused on data compilation from the recent 2011-2012 exploration program (by previous operators), which included two ground geophysical surveys as well as six diamond drillholes in the Main North Shore project area and two holes in the North West Arm of Opeepeesway Lake Area North Shore Area (Table 9-1). A significant amount of historic diamond drilling has been completed in the North Shore Area and around the historic past-producing Jerome Mine to delineate specific Au-bearing quartz-carbonate veins and generally contact-related shear zones.

Table 9-1: TAAC West Surveys

Exploration Survey	Location	Date	Comments
Ground Mag, VLF, IP	Huffman Area, Main North Shore Area	Dec-2011 to Jan-2012	Patrie Exploration~30 lines km of IP(Main North Shore); ~ 15 line km of IP (Huffman Area); P = pole-dipole, a=50 m, n=1 to 6 on pseudo-section, depth penetration ~ 150 m
IP	1 survey - Opeepeesway Lake Area	Feb-2012 to Mar-2012	Patrie Exploration 28.35 line km of IP pole-dipole, a=50 m, N=1 to 12 in pseudo-section, depth penetration ~125 m

The data was compiled into ArcGIS and Geovia GEMS databases for four primary project areas including the Main North Shore, North Shore, Huffman and Schist Lake areas. On the Main North Shore property, initial prospecting and geological mapping was conducted in 2014. A more rigorous program of B-horizon soil sampling, geological mapping, prospecting, and sampling was conducted in 2015.

The North Shore property was subjected to the same exploration methodologies in 2014, however, in 2015, this property was the focus of a more sustained geological campaign to validate the size, orientation, and prospectivity of each mineralized zone. Activities included geological mapping, prospecting, mechanized stripping, channel sampling, orientation soil and humus sampling, and diamond drilling (14 holes, 4,300 m).

9.5.2 Huffman Option Property

A geological mapping and sampling program was completed in early 2013 to cover the Huffman Lake Option claim area from the area south of Schist Lake in the east and continuing westward past Huffman Lake. Compilation of all historical work done on the area was carried out with all available information from TAAC and MNDM, compiled and organized into Geovia GEMS and Arc GIS projects. Geological mapping focused on a combination of prospective magnetic breaks, east-west trending quartz feldspar porphyry intrusions, and mobile metal ion (MMI) soil anomalies identified by the TAAC 2011 MMI survey. Additional geological mapping and sampling on the Huffman Option area was not completed in 2013 as resources were reallocated to the Côté Gold Project.

Exploration work in 2014 included a small detailed mapping program over the Huffman Lake Zone to verify historical gold values, to check historical drilling collar locations, and to gain a better understanding on the controls of gold mineralization. Modelling in Geovia

GEMS and a review of the model with grade and thickness criteria revealed a very low grade zone that would require a significant upgrade to make it a viable economic zone. Although more work was recommended in the area northwest of the Huffman Option for 2015, this work was postponed in favour of additional work on the extreme east end of the TAAC West claim block.

9.5.3 TAAC West – Schist Lake Area

The favourable stratigraphy and gold occurrences of the Schist Lake area, situated at the extreme east end of the TAAC property, were reviewed in 2014 as geological mapping and prospecting advanced through the area. Channel and grab samples revealed significant anomalous gold in proximity to known shear zones, and the stratigraphic sequence and position of major shear structures were determined. Other work included orientation soil and humus sampling.

In 2015, mechanized stripping and channel sampling were completed to expose the main shear zones and subsequent sampling and mapping validated the stratabound nature of the shear zones. Semi-continuous pyrite and arsenopyrite mineralization was noted and often accompanied by moderate to strong alteration of host volcanic and Temiskaming conglomerate units. Reconnaissance VLF sampling was also completed as an orientation survey across the shear zone and also on reconnaissance lines to the east and west. A three-hole, 657 m drill program tested the main target shear zone as well as a secondary shear zone located immediately to the south.

10.0 DRILLING

10.1 Overview

Diamond drilling has been focused largely on exploration and delineation of the Côté Gold deposit, coupled with a small metallurgical and condemnation drilling component. This section provides a description of drilling at the Côté Gold deposit on the Chester property, as well as drilling on the other properties in the Project area.

A total of 273,485 m has been drilled on the Côté Gold deposit. Table 10-1 summarizes the diamond drilling by year.

Table 10-1: Côté Gold Deposit Drilling by Year

Year	Diameter	Count	Meters	Max length (m)	Min length (m)
2009	NQ	3	1,049	582	141
2010	BQ	1	54	54	54
2010	NQ	56	25,802	683	134
2010	NQ/BQ	1	594	594	594
2011	BQ	2	1,261	672	589
2011	NQ	116	59,684	1,047	60
2011	NQ/BQ	9	5,682	814	503
2012	BQ	8	3,977	650	373
2012	BQTW	81	40,117	1,102	20
2012	NQ	135	87,427	1,613	15
2013	BQ	1	478	478	478
2013	BQTW	41	23,138	992	66
2014	NQ	71	19,140	693	21
2015	NQ	11	5,082	780	60
Total		**536**	**273,485**		

10.2 Definition Drilling

From December 2009 to September 2011, Trelawney completed a total of 129 drillholes on the Côté Gold deposit for 65,699 m of diamond drill core. This drilling had an objective of delineating the extent of the deposit and completing a preliminary resource estimate (Roscoe, W. E., and Cook, R. B., 2012). Between September 2011 and June 2012, Trelawney continued drilling with an additional 79 holes (44,856 m) of infill drilling used for the October 24, 2012 Mineral Resource update (Lavigne J., and Roscoe, W. E., 2012).

Infill drilling continued from late 2012 to July 2014 to further delineate the Côté Gold deposit adding 190 definition drillholes and bringing the total drilled meters to 263,247 m. All definition drilling performed between 2012 and 2014 was inside the pit shell area aiming to achieve a 50 m drilling pattern. A drilling pattern of 25 m was completed inside a small area of 200 m by 200 m to test the short range continuity. Approximately 19,000 m of oriented NQ core was drilled in 2014.

The 2015 drilling campaign was completed by March and comprised 5,082 m of oriented diamond drill core. The program was intended to fill some gaps and aid the interpretation, resulting in a 50 m drill spacing all over the study zone.

10.3 Condemnation Drilling

Between February 2012 and April 2012, Trelawney completed eight drillholes (NEV Series) north of the Côté Gold deposit within Neville township, for a total of 1,678 m of diamond drill core. This campaign targeted potential locations for waste dump areas and tailings storage.

Throughout the condemnation drilling program, Chenier Drilling from Val Caron, Ontario, was the sole drilling contractor. A LC 3000 drilling rig was used, with the major criterion being the ability to drill to a depth of 300 m with BQTW (36 mm) core size. The holes were cased northwest into bedrock and drilled BQTW size to depth. The holes were spotted on a grid and collar sites surveyed by differential GPS.

Holes drilled by Chenier Drilling were surveyed with a Reflex instrument in multi-shot mode, taking measurements of dip and azimuth at 50 m intervals down the hole. All holes were drilled on land, with the casing left in place and capped.

10.4 Metallurgical/Geotechnical Drilling

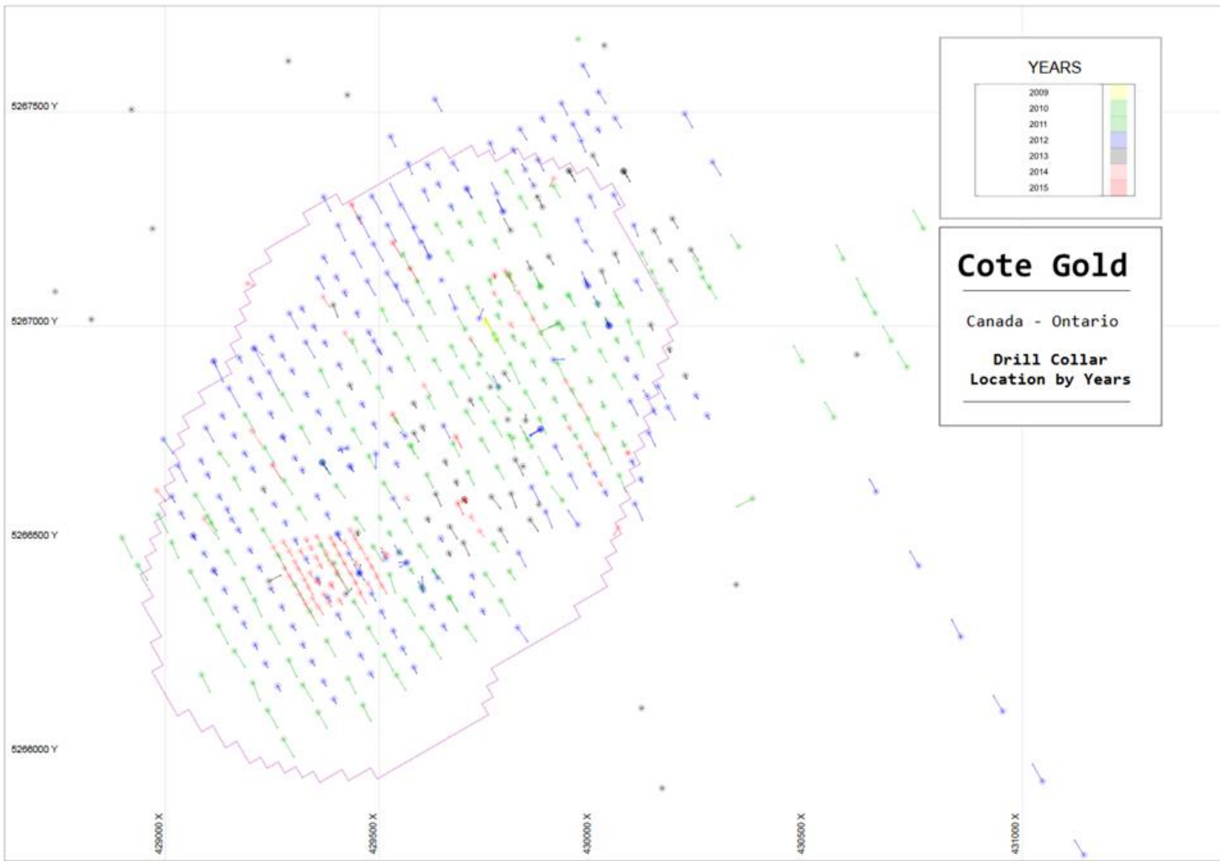
From June 2012 to July 2012, Trelawney drilled six geotechnical (GT-series) holes in various locations within the conceptual pit shell, for a total of 3,858 m of diamond drill core. The core was processed by Knight Piésold Engineering and Environmental Services, North Bay, Ontario and was also sent for metallurgical testing. This drilling campaign was focused on gathering structural information for open pit construction and design. The Côté exploration team completed core logging and incorporated the logging information into the database.

From August to September 2013, IAMGOLD completed seven metallurgical (MET-series) drillholes in various locations within the conceptual pit shell of the Côté Gold deposit, totalling 1,185.5 m of diamond drill core. The drilling campaign was focused on sample collection from specific representative locations throughout the deposit for metallurgical testing, as follow-up to previous work completed in 2012.

In July and August 2014, four drillholes were completed by IAMGOLD and logged by Golder Associates Ltd. (Golder) on site. In 2014, a total of 1,404 m of HQ diamond drill core was drilled targeting the wall of the latest pit shell.

The location of the diamond drilling on the property by year is shown in Figure 10-1.

Figure 10-1: Côté Gold Drilling by Year



11.0 SAMPLE PREPARATION, ANALYSES AND SECURITY

The mineralized rocks at the Côté Gold Project include diorite, granodiorite, and gabbro as well as variably altered and brecciated combinations of all three. The mineralized and barren core is very competent, except for very local, multiple meter length intervals of blocky core where minor faults are encountered. One larger fault has been encountered in the western portion of the Côté Gold deposit with true widths varying from 5 m to 10 m. Overall, IAMGOLD estimates 99% core recovery.

Drill core is stored at the property in wooden core boxes under open sided roofed structures, arranged by year. A map of the core shack is available on site. Boxes are labelled with the hole number, box sequence number and the interval in meters. Almost all boxes are labelled with an aluminum tag. All rejects and pulps from the laboratory are also on site. Pulps are categorized by batch number and are inside carton box on shelves, inside sea containers. Rejects are stored inside plastic crates under temporary shelter.

Geologists check all core boxes at their arrival at the core shack and ensure that all required information is available. Technicians make meterage marks and log rock quality designation (RQD). For oriented core, technicians draw the bottom of hole line on the core. A full line is drawn when orientation marks are perfectly aligned. The geologist completes the core log with details of lithology, alteration, mineralization, and structure. Alpha and beta angles are measured for all veins and contacts when the bottom of the hole line is defined.

Samples, standards, and blanks are tagged and sealed in plastic bags, which are put into rice bags and sealed with security tags. The sealed rice bags are placed on pallets in a secure area of the camp. Gardewine Transport collects the bagged samples from the IAMGOLD camp twice a week and delivers them to an independent laboratory for sample preparation and analysis. Prior to 2015, the samples were sent to the Accurassay Laboratories (Accurassay) sample preparation facility in Sudbury, Ontario, from where they were forwarded by Accurassay to its analytical laboratory in Thunder Bay, Ontario. Accurassay is accredited to the ISO 17025 by the Standards Council of Canada, Scope of Accreditation 434. Starting with the 2015 drilling campaign, samples were sent for analysis to ActLabs, Ancaster, Ontario. ActLabs is accredited to the ISO 17025 by the Standards Council of Canada, Scope of Accreditation 266. Both laboratories are independent of IAMGOLD.

The split sample material sent for assay is for the most part an accurate reflection of one half of the core and should be free of bias because of the relatively competent nature of the core recovered. The mineralization is heterogeneous by nature however, and duplicate samples will reflect that fact. Due to the high rate of core recovery within the mineralized zone, assays are considered to be reliable.

IAMGOLD determines the bulk density of samples by water immersion method. Bulk densities are determined for the mineralization and barren host rocks. Since 2014 approximately a pycnometer density analysis was performed on one sample in 50.

11.1 Sample Preparation and Analysis

Technicians and geologists on site follow a sample preparation protocol to ensure quality control (QC) before sending samples to the laboratory. Most of the drillholes are sampled at one meter interval and consist of a one-half split of the drill core. The minimum sampling length is 30 cm to 50 cm, while the maximum is 1.5 m. Sample intervals are tagged by the geologist. All sample intervals are logged with a unique number in a sample book by the geologist. The borehole number and sample interval are transferred to one of the tags and recorded in the logs. One tag is placed in a plastic sample bag with the sample and the second is stapled in the core box beneath the representative half sample. During this procedure, the location for the insertion of standards and blanks into the sample sequence is noted. Core is sawed by geotechnicians following the orientation line drawn by the geologist. The remaining half of the core is stored in racks or pallets at the core farm facilities located on site.

Generally, the entire length of a drillhole is sampled. Diabase dikes that occur within the sequence are not sampled, except for two one-meter shoulder samples at the upper and lower contacts of the dike. Unsampled diabase was inserted as blanks into the assay sequence until 2014. Blank used after 2014 were supplied by the laboratory.

Prior to 2015, samples were sent to Accurassay. During the 2015 drilling campaign, samples were sent to ActLabs.

For sample preparation and analysis at Accurassay, IAMGOLD requested that samples be crushed to -8 mesh after which a 1,000 g subset of each sample was pulverized to 90% passing -150 mesh. Assays were completed using a standard fire assay (FA) with a 30 g aliquot and an atomic absorption (AA) finish. For samples that returned values of between 2 g/t Au and 5 g/t Au, another pulp was taken and fire assayed with a gravimetric finish. Samples returning values greater than 5 g/t Au were reanalyzed by pulp screen metallic fire assay analysis. All samples were subject to a 33-element inductively coupled plasma (ICP) scan following Accurassay procedure ICP 580.

For sample preparation and analysis at ActLabs, IAMGOLD requests that samples be crushed to 10 mesh after which a 1,000 g subset of each sample is pulverized to 85% passing 200 mesh. Assays are completed using a standard FA with a 30 g aliquot and an AA finish. For samples that return values between 2 g/t Au and 5 g/t Au, another pulp is taken and fire assayed with a gravimetric finish. Samples returning values greater than 5 g/t Au are reanalyzed by pulp screen metallic analysis.

11.2 Quality Assurance and Quality Control

For quality assurance/quality control (QA/QC) purposes, IAMGOLD inserts control samples after every twelfth sample interval. The control samples consist either of a Certified Reference Material (CRM) or a blank sample. IAMGOLD inserts control samples as a standard procedure. Since 2012, 23 different CRMs and two blanks have been used.

IAMGOLD's laboratory sets aside the pulp from one out of every 10 samples to be sent to a second laboratory as a check assay. Between 2012 and 2014, check assays were completed at ActLabs, Ancaster, Ontario. During the 2015 drilling campaign, checks assays on pulps were completed by ALS Minerals, Val d'Or, Quebec. All of the samples were analyzed using the FA-AA method. Samples that produced over-ranges were also analyzed with the FA-Gravimetric method.

11.2.1 Certified Reference Materials

IAMGOLD has acquired the CRMs from Analytical Solutions Ltd., Toronto, Ontario. Specific pass/fail criteria are determined from the standard deviation (SD) for the CRMs. The conventional approach to setting reference standard acceptance limits is to use the mean assay ±2 SD as a warning limit and ±3 SD as a failure limit. Results falling outside of the failure limit of ±3 SD must be investigated to determine the source of the erratic result.

Before 2015, a total of 11,332 CRMs were inserted in the sample stream, with an overall percentage of CRM samples passing quality control of 86%. Table 11-1 shows the CRMs analyzed between 2012 and 2014. In general, the IAMGOLD CRM analyses exhibit considerable spread of data. Of the 1,544 outliers, 349 have been categorized as gross outliers and may represent CRM miss-identifications. It is impossible to clearly identify the source of error for the failed assays prior 2014. The standard deviation recorded during those campaigns shows more dispersion than expected. Overall, CRM assay results do not seem to show a specific bias or any specific trend.

Table 11-1: CRM Samples Used Before 2015

Standard Value - Certified											
OREAS Standard (CRM)	Certified Gold Value (g/t)	Standard Deviation (SD)	Lower Process Limit (3SD)	Upper Process Limit (3SD)	Average (g/t)	Standard Deviation (SD)	Min (g/t)	Max (g/t)	Count	Outliers	% Failed
15g	0.527	0.023	0.458	0.596	0.542	0.324	0.000	7.279	1,413	43	3%
504	1.480	0.040	1.360	1.600	1.454	0.249	0.000	2.271	1,344	178	13%
66a	1.237	0.054	1.075	1.399	1.150	0.165	0.000	2.521	1,148	241	21%
16a	1.810	0.060	1.630	1.990	1.768	0.289	0.000	6.842	980	110	11%
501	0.204	0.011	0.171	0.237	0.214	0.145	0.000	2.287	730	59	8%
152a	0.116	0.005	0.106	0.131	0.128	0.172	0.000	4.061	710	55	8%
16b	2.210	0.070	2.000	2.420	2.104	0.455	0.000	4.187	681	83	12%
15h	1.019	0.025	0.944	1.094	0.988	0.237	0.000	2.337	646	110	17%
10c	6.600	0.160	6.120	7.080	6.180	1.105	0.000	9.014	589	179	30%
204	1.043	0.039	0.927	1.158	1.029	0.109	0.018	2.142	394	12	3%
15f	0.334	0.016	0.286	0.382	0.339	0.137	0.009	2.148	387	36	9%
60b	2.570	0.110	2.350	2.900	2.359	0.356	0.000	2.927	356	136	38%
501b	0.248	0.009	0.219	0.276	0.263	0.163	0.009	2.191	327	6	2%
67a	2.238	0.096	1.950	2.526	2.123	0.486	0.000	8.550	303	72	24%
206	2.197	0.081	1.953	2.441	2.192	0.168	0.239	3.096	301	6	2%
62c	8.790	0.210	8.160	9.420	8.692	0.918	1.504	13.914	282	20	7%
17c	3.040	0.080	2.800	3.280	3.144	0.523	1.595	9.040	207	56	27%
503	0.687	0.024	0.615	0.759	0.727	0.447	0.011	6.651	194	16	8%
2Pd	0.885	0.014	0.843	0.927	0.868	0.150	0.522	2.137	181	70	39%
54Pa	2.900	0.110	2.680	3.230	2.657	0.309	0.747	3.165	84	33	39%
52Pb	0.307	0.017	0.273	0.358	0.296	0.041	0.202	0.484	41	8	20%
10Pb	7.150	0.190	6.770	7.720	6.690	0.449	5.378	7.233	31	14	45%
18c	3.520	0.105	3.200	3.840	3.263	0.268	3.027	3.555	3	1	33%
					Total				**11,332**	**1,544**	**14%**

Following recommendations made in RPA's 2012 report, IAMGOLD did a closer follow-up on the QA/QC since 2013. A change of laboratory was performed in 2015 to support a comparison between laboratories. Table 11-2 shows results from the 2015 drilling campaign. Overall, 4.2% of CRMs failed in 2015, out of 473 CRMs sent to the laboratory. Since 2014, follow-up on the laboratory has been performed on a bi-monthly basis, which allows a better control on the final QA/QC.

Table 11-2: CRM Samples Used in 2015

Standard Value - Certified											
OREAS Standard (CRM)	Certified Gold Value (g/t)	Standard Deviation (SD)	Lower Process Limit (3SD)	Upper Process Limit (3SD)	Average (g/t)	Standard Deviation (SD)	Min (g/t)	Max (g/t)	Count	Outliers	% Failed
17c	3.040	0.080	2.800	3.280	3.081	0.342	0.175	3.560	84	6	7.1%
18c	3.520	0.105	3.200	3.840	3.296	0.108	3.114	3.640	26	3	11.5%
204	1.043	0.039	0.927	1.158	1.010	0.102	0.256	1.450	82	2	2.4%
206	2.197	0.081	1.953	2.441	2.171	0.147	1.440	2.900	83	3	3.6%
501b	0.248	0.009	0.219	0.276	0.248	0.008	0.235	0.272	81	0	0.0%
504	1.480	0.040	1.360	1.600	1.455	0.059	1.270	1.590	80	3	3.8%
62c	8.790	0.210	8.160	9.420	8.382	1.298	3.180	9.250	37	3	8.1%
					Total				**473**	**20**	**4.2%**

11.2.2 Blank Samples

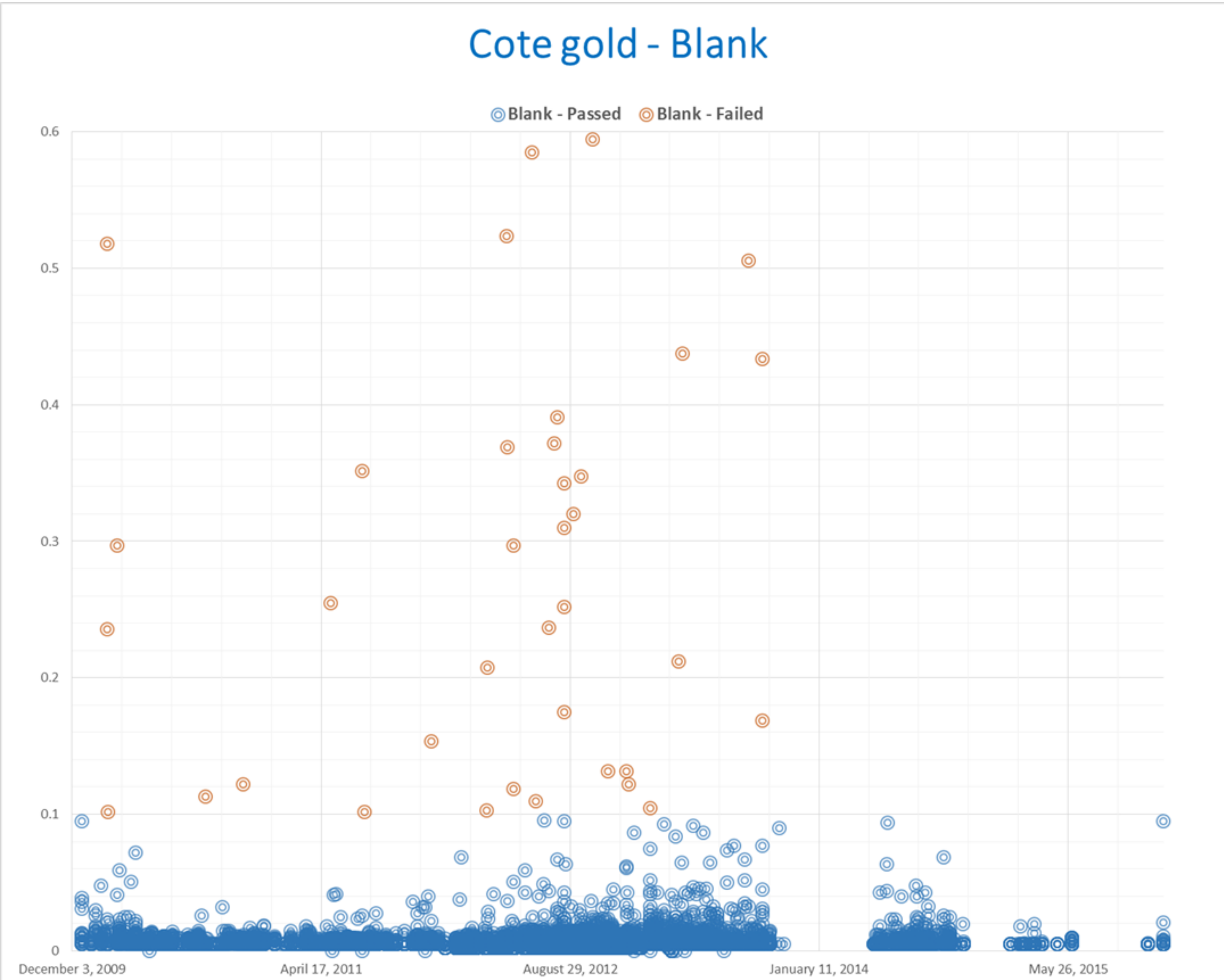
The IAMGOLD QA/QC protocol includes the use of blanks inserted in the sample stream at a frequency of approximately one in 24 samples. These blanks are assigned regular sample numbers and inserted in the sample numbering sequence prior to shipment to the laboratory. Until 2014, the blanks consisted of barren diabase, then both barren diabase and commercially acquired silica blank were used.

The blank samples used are listed in Table 11-3. Figure 11-1 shows all the blank results in the Côté Gold database. Overall, 99.5% of the blank results are under 0.1 g/t Au, which is the IAMGOLD maximum threshold. An improvement can be seen starting in 2014. Overall, the blank results are very good and show no significant contamination from sample to sample during the preparation.

Table 11-3: Blank Samples

Blank	Average	Maximum	Count	Passed	% Passed
BLK	0.06	8.25	163	162	99.4%
BLKDIA	0.01	8.49	10761	10707	99.5%

Figure 11-1: Blank Assay Results



11.2.3 Check Assays

Before 2014, Trelawney and IAMGOLD sent 9,772 pulp samples to ActLabs for check assay (Figures 11-2 and 11-3). In general, at higher grades, the results from the checks are slightly higher than the results from the primary laboratory (Accurassay). This shows bias between the two laboratories and the repeatability on pulps is relatively poor. Checks assays sent to Actlabs returned grades that appear to be 10% higher than Accurassay.

Figure 11-2: Pulp Check Assays Before 2015

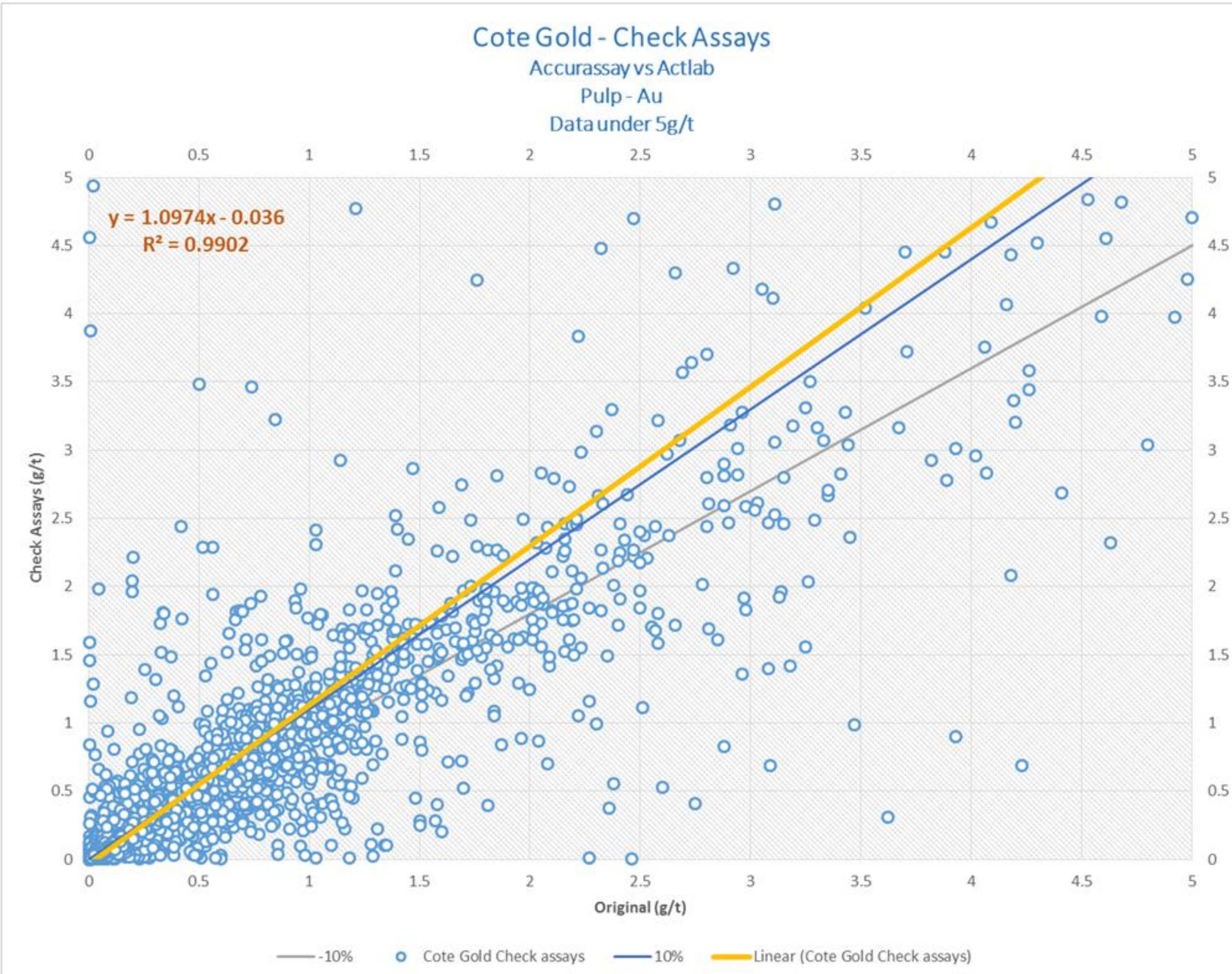
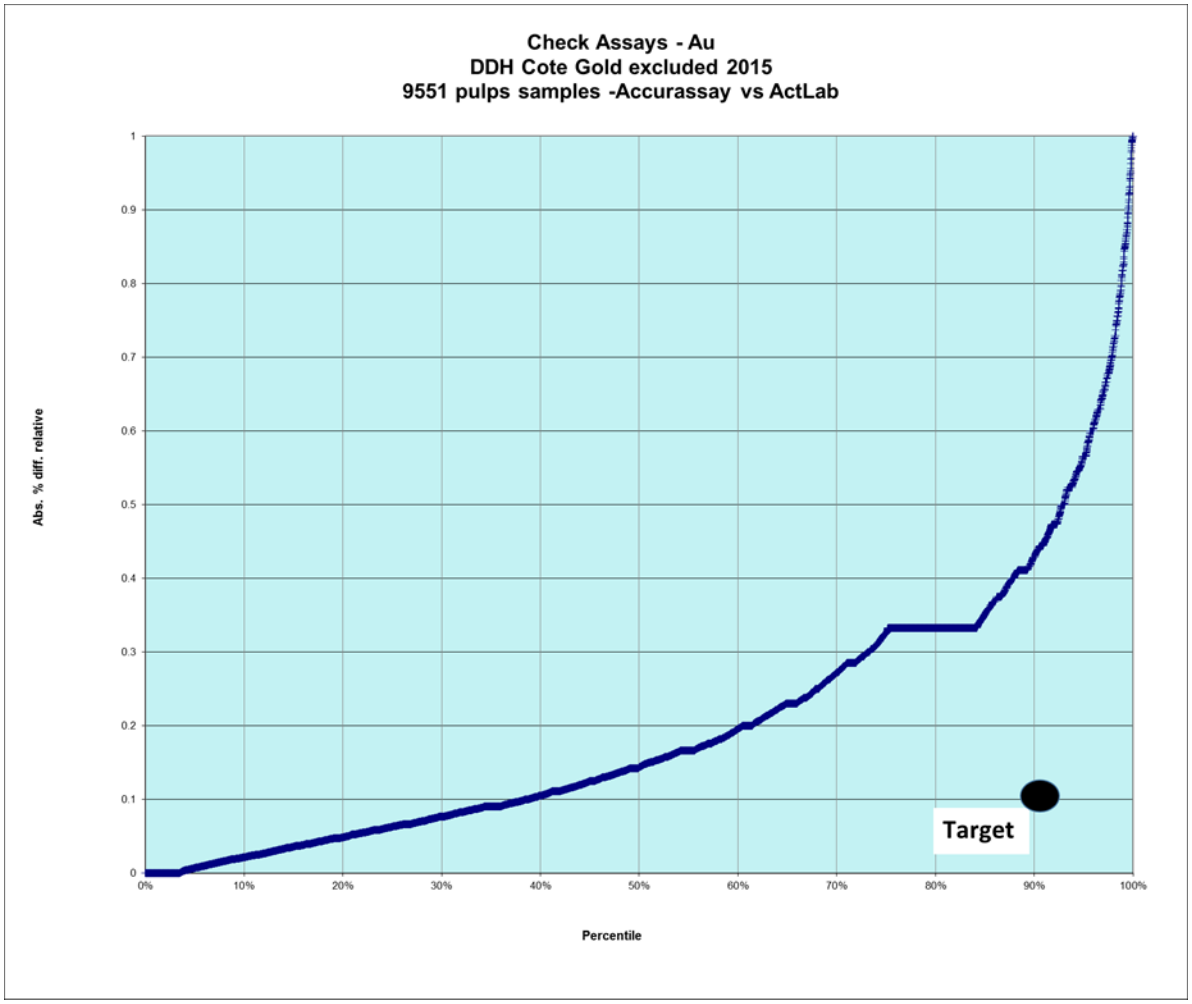


Figure 11-3: Pulp Check Assays Hard Plot for Samples Before 2015



In 2015, 921 pulp samples were sent to ALS Minerals for check assay (Figures 11-4 and 11-5). Correlation between both laboratories is overall good. Repeatability in 2015 is better than in the previous campaign. Low precision may be associated with coarse gold particles, and further investigation should be performed on sampling procedures to ensure the quality of the results.

Figure 11-4: Pulp Check Assays in 2015

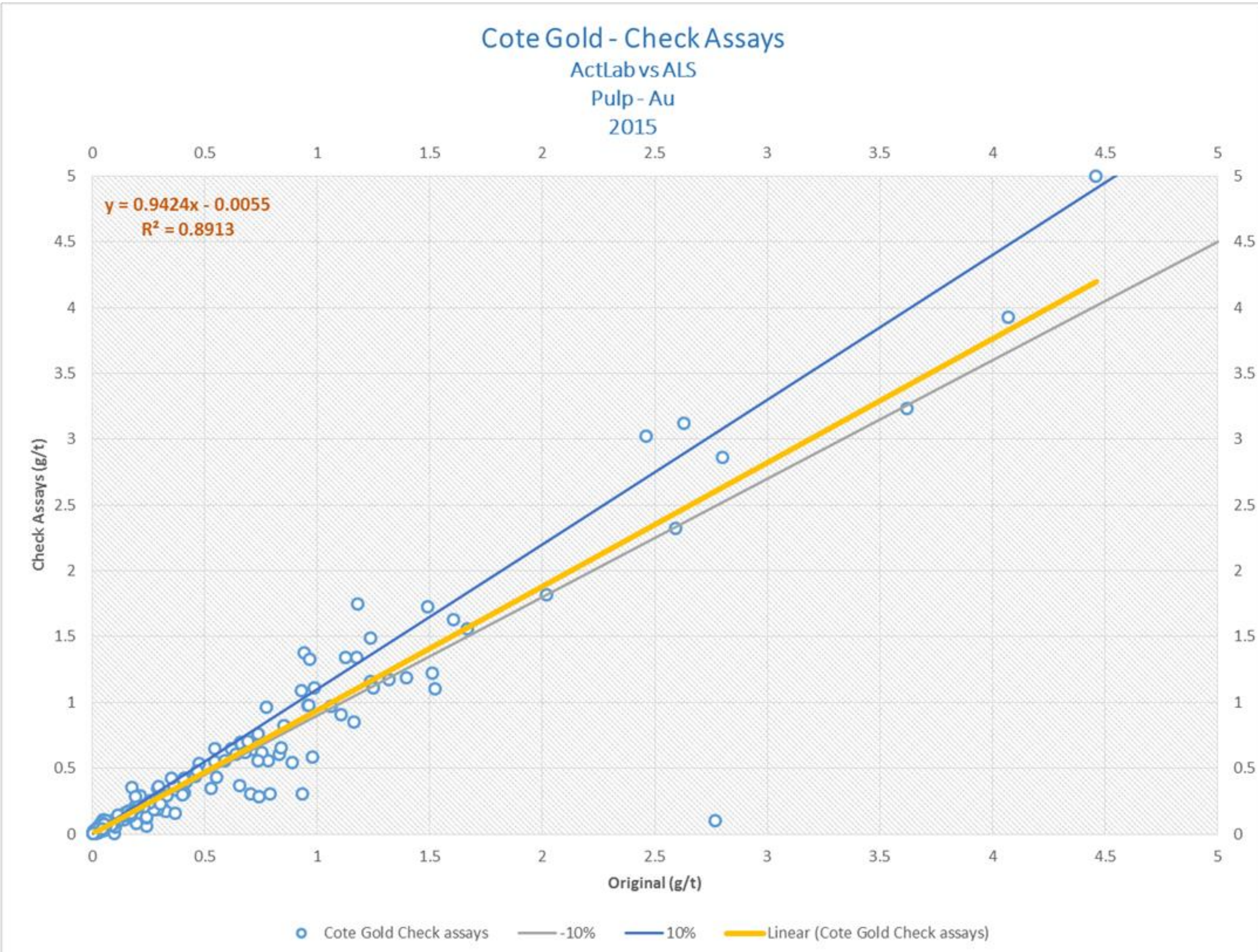
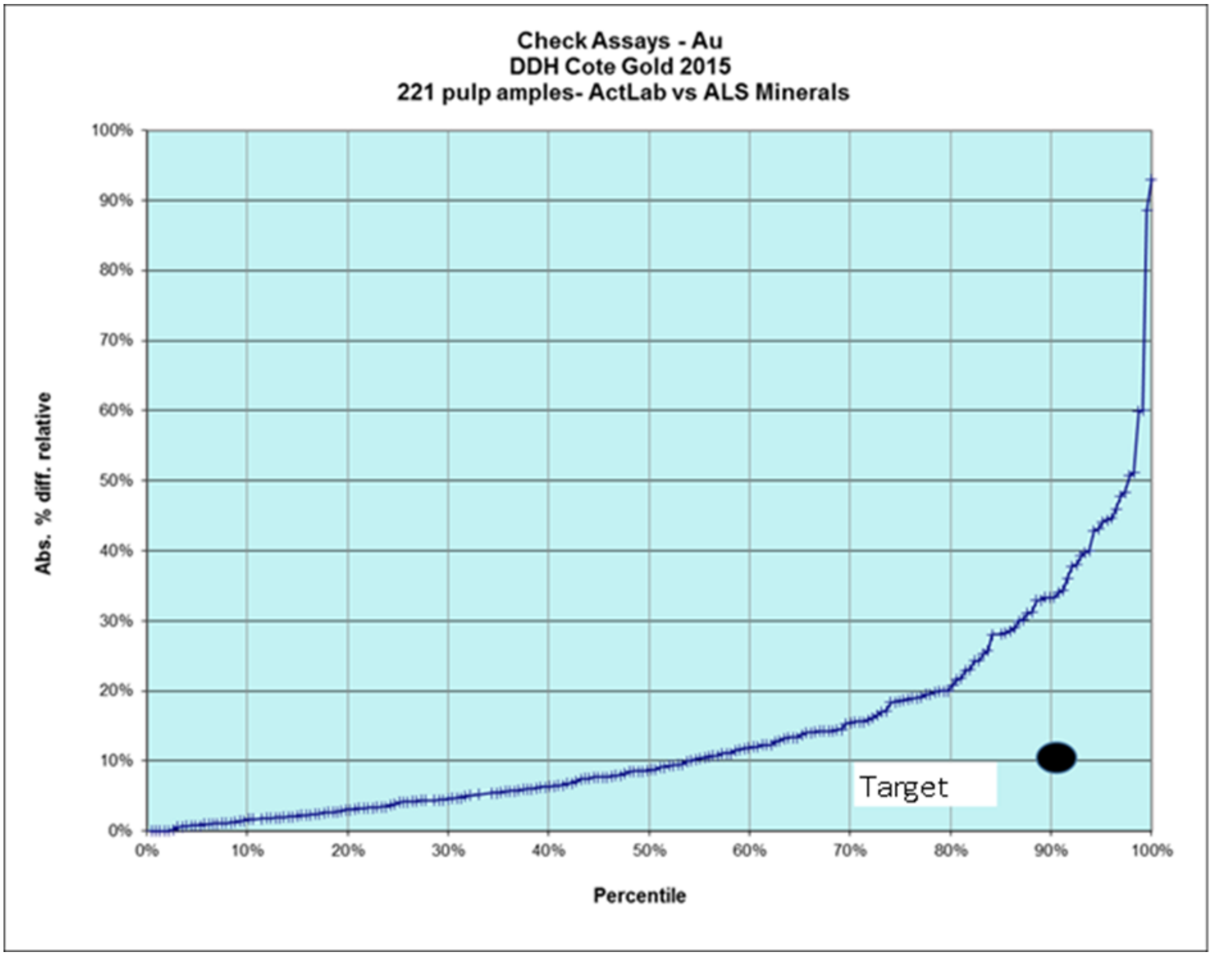


Figure 11-5: Pulp Check Assays Hard Plot for 2015



In IAMGOLD's opinion, the overall result does not show any particular trend, significant bias, or contamination. Results are adequate for use in a resource estimate. The efforts undertaken to upgrade the QA/QC program since 2014 have resulted in a lower dispersion in the results and a better repeatability. The QPs consider that the failure rate of approximately 14% of the CRM between 2012 and 2014 is high, and future investigation should be carried out. The QPs consider that an investigation on gold particle size, and a strict ongoing QA/QC program should be carried out to address the poor precision. The resource gold grade may be biased low and this could represent an opportunity for a small increase in the average gold grade.

IAMGOLD is of the opinion that the sample preparation, security, and analytical procedures are adequate to support a Mineral Resource estimate on the Côté Gold deposit.

12.0 DATA VERIFICATION

A QP has completed site visits to the Côté Gold Project and has reviewed exploration information, drill collar positions (using GPS spot checks), logging, and sampling procedures with IAMGOLD personnel. Core logs, outcrop mapping and geological interpretation were also reviewed during site visits.

Randomly-selected samples from the assay database from drillholes were compared with original assay certificates, representing approximately 5% of the database. Additionally, the QP checked for abnormal extremes values, missing interval or sample numbers, interval length and zero grades. Visual checks of the drillhole traces were performed to spot abnormal deviations.

Errors found in the database were reported to the database administrator and material errors were corrected prior to performing the resources estimate.

The QP noted some inconsistencies regarding the rock types recorded in the diamond drillhole logs, affecting the interpreted sections. Also, with respect to sampling and drill core logging, the QP noted some inconsistent sampling practice, with some samples crossing obvious contacts or lithological and mineralization limits.

The deposit logging and sampling procedures were checked independently by RPA from 2011 to 2013. In December 2014, InnovExplo independently validated the entire assay database against laboratory certificates.

It is the QP's opinion that the logging, sampling procedures, and data entries were completed to industry standards. It is the QP's opinion that the database is adequate to support a Mineral Resource estimate on the Côté gold deposit.

13.0 METALLURGY AND PROCESSING

13.1 Summary

The main objectives of the metallurgical testing were to characterize the mineralization types physically and chemically and to determine the amenability of the gold mineralization to gravity separation, flotation, and cyanidation.

Overall results indicate that the mineralization is free-milling (non-refractory). A portion of the gold liberates during grinding, and is amenable to gravity concentration. Individual lithologies follow the general trends for grind size sensitivity and cyanide consumption. However, there is evidence of differences in free gold content. Silver content is consistently reported under 2 g/t. The testwork does not report on silver recovery.

13.2 Review of Metallurgical Testwork

Grinding and metallurgical testwork was conducted on mineralization typesextracted during the 2009-2011 drilling campaigns (Table 13-1 and Table 13-2) at SGS facilities in Lakefield, Ontario.

Table 13-1: Testwork Programs - Grinding

Program No. (Yr)	Samples	Purpose
12589-001 (2011)	Composite 1 (Cu mineralization) Composite 2 (Au mineralization)	Bond Ball Mill Grindability Test
12589-003 (2012)	S-1 to S-3 (Bulk material from surface)	JK drop weight & comminution parameter testing, Bond rod mill, ball mill, abrasion and low energy impact testing
	G-1 to G-10 (geotechnical samples)	
	GR-01 to GR-92 (geometallurgicalstudy)	
12589-004 (2014)	GR-2xx 17 samples	JK drop weight & comminution parameter testing, Bond rod mill, ball mill, abrasion and low energy impact testing Variability
	C25-2xx 31 samples	SMC test, Bond ball mill grindability test

Sources:
12589-001 The Recovery of Gold from the Cote Lake Deposit (SGS Lakefield, July 12,2011)
12589-003 The Grindability Characteristics of Samples from the Cote Lake Deposit - Report 1 (SGS Lakefield, August 26, 2013)
12589-004 The Grindability Characteristics of Samples from the Cote Lake Deposit - Final Report 1

(SGS Lakefield, July 7, 2014)

Table 13-2: Testwork Programs - Metallurgy

Program No. (Yr)	Samples	Purpose
13345-001 (2011)	Composites 1, 2 & 3	Gold deportment, flotation, leaching, heap leaching, ABA
12589-001 (2011)	Composite 1 (Cu mineralization) Composite 2 (Au mineralization)	Scoping level. Gravity, flotation & leaching on whole ore and gravity tailings. ABA on Tailings and flotation tailings. Qualitative mineralogical evaluation (QEMSCAN/RMS)
12589-002 (2012)		Geometallurgical Investigation
12589-003 (2012 -2013)	S-1 to S-3 (bulk material from surface)	Gravity, leaching on gravity tailings
	G-1 to G-10 (geotechnical samples)	Gravity, leaching on gravity tailings
	Composite A & B C25-01 to C25-93	Variability testwork program. Gravity, flotation, heap leaching. Leaching on whole ore, gravity tailings and flotation tailings. Optimization testwork

Sources:
13345-01 A Gold Deportment Study for One Sample from the Nautilus Deposit (December 19, 2011 SGS - Lakefield)
12589-001 The Recovery of Gold from the Cote Lake Deposit (July 12, 2011 SGS - Lakefield)
12589-002 A Geometallurgical Investigation of the Cote Lake Deposit (August 31, 2012 SGS - Lakefield)
12589-003 The Grindability Characteristics of Samples from the Cote Lake Deposit - Final Report 1 (July 7, 2014 SGS - Lakefield)

Compositing for program 12589-003 was based on the geometallurgical investigation reported by SGS in *A Geometallurgical Investigation of the Côté Lake Deposit Project CALR*-12589-002 in August 2012. The mineralized zone was geostatistically analyzed to determine the characteristics of the deposit in terms of the geological and chemical composition. A statistical multivariate analysis was performed to determine the mineralization variability. The metallurgical list comprises 93 composites (variability samples) labelled C25-01 to C25-93. Master composites A and B were further prepared from the 93 variability samples. While Master Composite A represents non-copper-bearing mineralization, Master Composite B represents material with a higher copper content, which according to previous reports represents approximately 10% of the deposit.

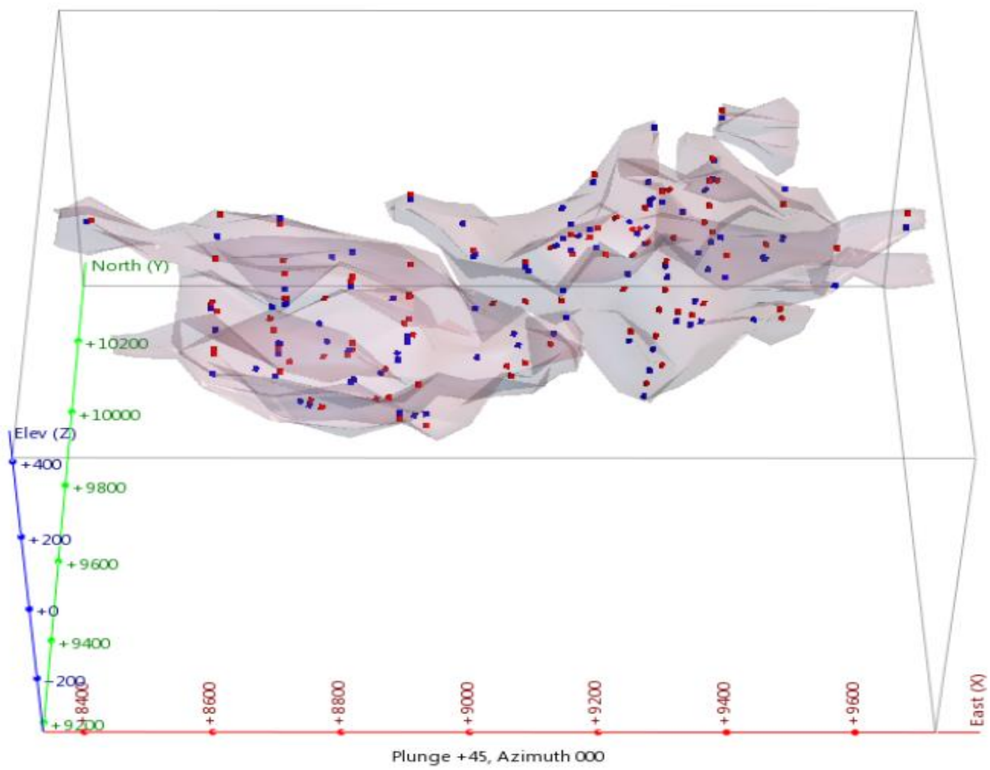
Compositing for geometallurgy required approximately 10 m of core, excluding rock-type mixtures. The geometallurgical investigation notes that sampling may not be proportional to lithological volumes in the deposit, as this information was not available at the time the sampling was conducted.

Table 13-3 lists the main lithologies selected by the geometallurgical investigation for the metallurgical variability program, and provides details on the gold grade range tested. Figure 13-1 provides the spatial locations of the metallurgical and comminution composites.

Table 13-3: Lithological Codes Selected for Variability Program

Rock Type	No. Samples	No. Tests	Au Grade (g/t) (min.)	Au Grade (g/t) (max.)	Average Grade Au g/t	Average Grade Cu%	Average Grade Fe%
Altered Granodiorite	28	48	0.29	6.89	1.09	0.02	1.60
Diorite Breccia	13	22	0.46	4.75	1.26	0.03	2.08
Granodiorite	13	22	0.25	0.77	0.45	0.03	1.71
Gabbro Breccia	12	20	0.42	2.7	1.36	0.02	2.62
Diorite	8	14	0.3	1.37	0.60	0.02	1.43
Altered Diorite	5	9	0.36	0.62	0.46	0.01	0.73
Gabbro	4	7	0.37	1.69	0.78	0.01	3.20
Granodiorite Breccia	3	6	0.29	1.66	0.97	0.02	2.26
Gabbro Mega Breccia	2	5	0.76	1.57	1.17	0.04	2.57
Quartz Diorite	2	4	0.78	0.93	0.86	0.11	1.71
Altered Granodiorite Breccia	1	3	0.44	0.44	0.44	0.00	26.00
Mafic Dike	1	1	0.91	0.91	0.91	0.07	6.41
Pillowed Basalt	1	1	0.49	0.49	0.49	0.02	4.36
Altered Granodiorite	28	48	0.29	6.89	1.09	0.02	1.60
TOTAL	**93**	**162**					

Figure 13-1: Metallurgical and Comminution Composites Spatial Location



Note: Locations relative to the 0.25 g/t Au grade shell (pink shades); metallurgical composites (blue); comminution composites (red).

Source: 12589-002 A Geometallurgical Investigation of the Cote Lake Deposit (August 31, 2012 SGS - Lakefield)

A separate sampling set of composites for comminution testwork was generated following the same controls as the metallurgical composites. However, spatial weighting and coverage had priority while the mineralization and base metals grade control was not as tight, as it was not considered influential to rock competency and grindability.

13.3 Mineralogy

As part of the 12589-001 program, the mineral content of Composites 1 and 2 were determined using the Rapid Mineral Scan (RMS) function in QEMSCAN. SGS found that:

- The sulphide mineral content of Composite 1 accounted for about 1% of the sample weight and 0.06% for Composite 2
- Sulphide minerals and their proportions in Composites 1 and 2, respectively, were:
  - pyrite, 0.43% and 0.01%

- chalcopyrite, 0.57% and 0.01%
- other sulphides, 0.02% and 0.05%.

Chemical content data and mineral composition in Composites 1 and 2 are presented in Table 13-4 and Table 13-5.

Table 13-4: Chemical Content Data for Composites 1 and 2

Element	Sample Name		Element	Sample Name	
	Comp 1	Comp 2		Comp 1	Comp 2
S %	0.53	0.05	Mg g/t	14,400	18,200
$S_{=}$ %	0.49	0.05	Mn g/t	333	377
Cu %	0.16	0.013	Mo g/t	13	< 10
Semi Quantitative ICP Scan			Na g/t	29,000	21,800
Ag g/t	< 2	< 2	Ni g/t	< 20	43
Al g/t	58,900	64,300	P g/t	400	204
As g/t	< 30	< 30	Pb g/t	< 20	< 20
Ba g/t	175	191	Sb g/t	< 10	< 10
Be g/t	1.26	0.88	Se g/t	< 30	< 30
Bi g/t	< 20	< 20	Sn g/t	< 30	< 30
Ca g/t	20,700	37,900	Sr g/t	104	132
Cd g/t	< 2	< 2	Ti g/t	2,350	3,110
Co g/t	18	15	Tl g/t	< 30	< 30
Cr g/t	96	63	U g/t	< 20	< 20
Fe g/t	37900	34,500	V g/t	54	56
K g/t	7,130	11,200	Y g/t	43.5	37
Li g/t	12	13	Zn g/t	61	36

Note: S- refers to sulfur present as sulfide

Source: 12589-001 The Recovery of Gold from the Cote Lake Deposit (July 12, 2011 SGS - Lakefield)

Table 13-5: Mineral Composition in Composites 1 and 2

Sample	Major	Moderate	Minor	Trace
Composite 1	quartz, plagioclase	chlorite	mica, calcite	potassium feldspar, pyrite, chalcopyrite
Composite 2	quartz	plagioclase, chlorite	mica, calcite	dolomite, pyrite

Note: Crystalline mineral assemblage (relative proportions based on peak height)

Source: 12589-001 The Recovery of Gold from the Cote Lake Deposit (July 12, 2011 SGS - Lakefield)

Based on these analyses, no obvious environmental concerns are indicated.

For the later variability work, the analyses performed on variability Composites A (gold mineralization) and B (copper–gold mineralization) also provide information on the elemental composition of mineralization, and are presented in Table 13-6.

Table 13-6: Master Composites A & B

Sample Name	$Cu_{(T)}$,%	Pb, g/t	Zn, g/t	Fe, %	S (t), %	Au	Ag
Composite A	0.024	<30	31	2.28	0.16	1.13	<2
Composite B	0.13	<30	39	2.47	0.29	0.98	<4

Source: 12589-003 Gold Recovery From Cote Gold Project Samples (December 17, 2013 SGS - Lakefield)

SGS undertook a gold deportment study as part of project report 13345-001. A mineralogy composite with a gold grade of 1.34 g/t was submitted for this purpose. The contribution from the sample composites to the mineralogy composite is shown in Table 13-7.

Table 13-7: Composition of Mineralogy Composite (Project 13345-001)

Sample Name	Mineralogy Composite, %	Classification
Composite 1	60	Altered Zone
Composite 2	30	Breccia Zone
Composite 3	10	Vein Zone

Source: 13345-01 A Gold Deportment Study for One Sample from the Nautilus Deposit (December 19, 2011 SGS - Lakefield)

In processing the mineralogy composite (which had a target size K80 of 150 µm), a total of 132 gold grains were observed. SGS reported that the main gold mineral was native gold, with an average of 86.9% Au and 9.8% Ag. The second-most abundant gold mineral was electrum, with an average of 64.8% Au and 30.8% Ag. Other gold minerals identified were kustelite, calaverite, petsite and an unknown Te-Au-Bi alloy. Gold mineral abundance is summarized in Table 13-8.

Table 13-8: Gold Mineral Abundance – Mineralogy Composite

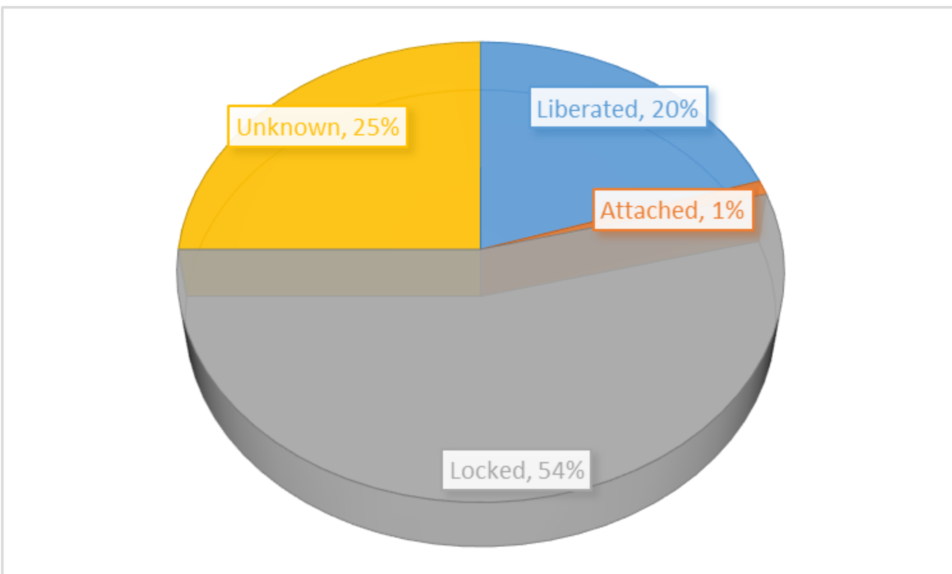
Mineral	Total Observed Gold Grains		Total Gold Surface Area	
	Count	%	μm^2	%
Gold	98	74.2	82402.1	99.5
Electrum	25	18.9	369.8	0.4
Kustelite	1	0.8	1.3	0
Petzite	4	3	40.1	0

Calaverite	4	3	25.3	0
Total	132	100	82838.6	100

Source: 13345-01 A Gold Deportment Study for One Sample from the Nautilus Deposit (December 19, 2011 SGS - Lakefield)

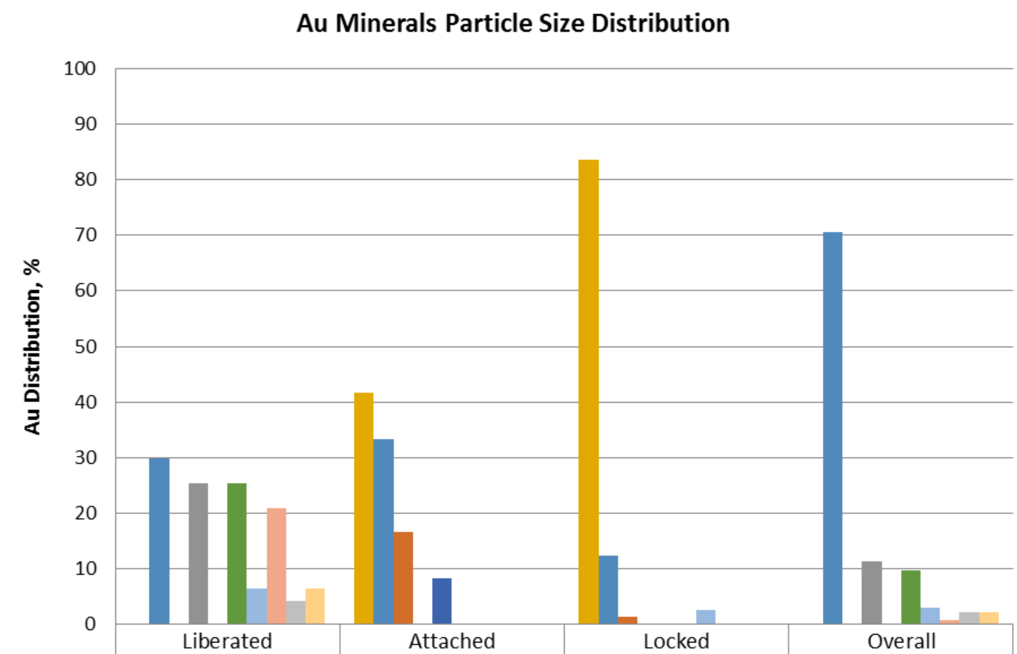
The grains ranged in size from 0.6 µm to 216.5 µm, with an average size of 12.6 µm. The overall gold distribution analysis (ignoring the possible submicroscopic gold contribution to the head gold assay) showed that liberated gold accounts for approximately 19.8% of the total gold assay, with a size range of 11.5 µm to 216.5 µm and an average of 27.1 µm. Gold attached to pyrite, chalcopyrite, Bi-Te, non-opaque and other minerals accounts for 1.0%, with a size range of 1.55 µm to 22.6 µm and an average of 7.8 µm. Gold that was observed "locked" (at K80 = 150 µm) in non-opaque minerals, pyrite and other minerals accounted for 54.0%, with a size range of 0.65 µm to 51.7 µm and an average of 3.9 µm. The overall gold distribution and the size distribution analysis data for the gold grains are summarized in Figure 13-2 and Figure 13-3, respectively.

Figure 13-2: Overall Gold Distribution by Association



Source: 13345-01 A Gold Deportment Study for One Sample from the Nautilus Deposit (December 19, 2011 SGS - Lakefield)

Figure 13-3: Mineralogical Characterization – Gold Minerals Particle Size Distribution



	Liberated	Attached	Locked	Overall
≤5		41.7	83.6	
5-10	29.8	33.3	12.3	70.5
10-15		16.7	1.4	
15-20	25.5			11.4
20-25		8.3		
25-30	25.5			9.8
30-40	6.4		2.7	3
40-50	21			0.8
50-60	4.3			2.3
>60	6.4			2.3

Source: 13345-01 A Gold Deportment Study for One Sample from the Nautilus Deposit (December 19, 2011 SGS - Lakefield)

Little mineralogical information was obtained on silver. Only traces of silver-bearing minerals, including electrum and silver-gold tellurides, were observed.

13.4 Comminution Testwork

Comminution data, which include Bond low-impact (crusher), rod mill and ball mill work indexes, and Bond abrasion index, were produced during three programs. Within these programs, SAG Mill Comminution (SMC) tests were completed to provide the ore hardness characteristics. A summary of the comminution data is presented in Table 13-9.

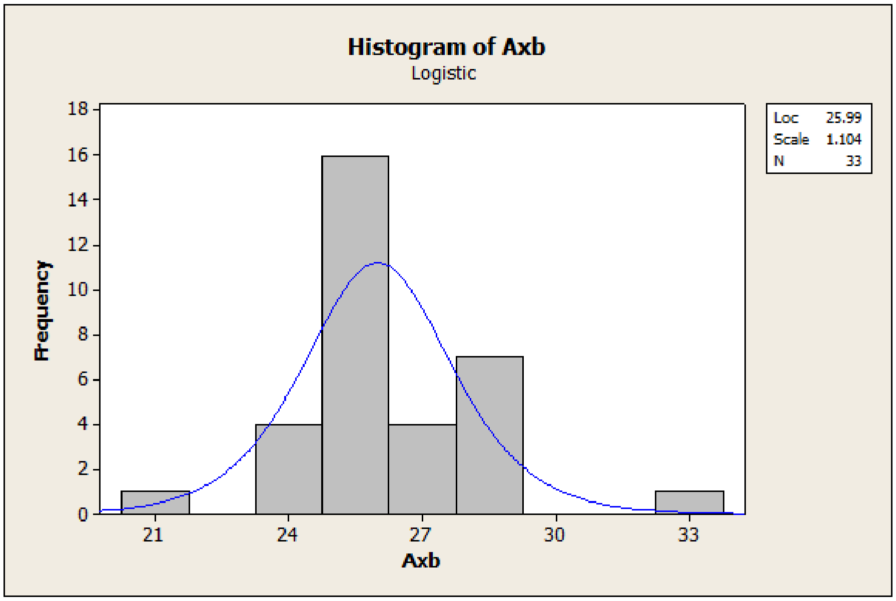
Table 13-9: Comminution Parameters – Summary of Ore Hardness Statistics

Metric	Units	Mean	Standard Deviation	80th Percentile
Bond crushing work index	kWh/t	11.74	2.15	13.04
Bond rod mill work index	kWh/t	17.34	0.80	18.24
Bond ball mill work index	kWh/t	15.89	1.14	16.78
Bond abrasion index	g	0.55	0.17	0.70
Drop-weight index	kWh/m^3	10.40	0.83	11.00
Mia (coarse particle component)	kWh/t	27.73	1.77	28.90
Mih (HPGR component)	kWh/t	22.41	1.77	23.60
Mic (crusher component)	kWh/t	11.58	0.92	12.20
A x b (overall SAG mill hardness)		25.98		25
1/(A x b)		0.038		0.040

A = maximum breakage; b = relationship between energy and impact breakage

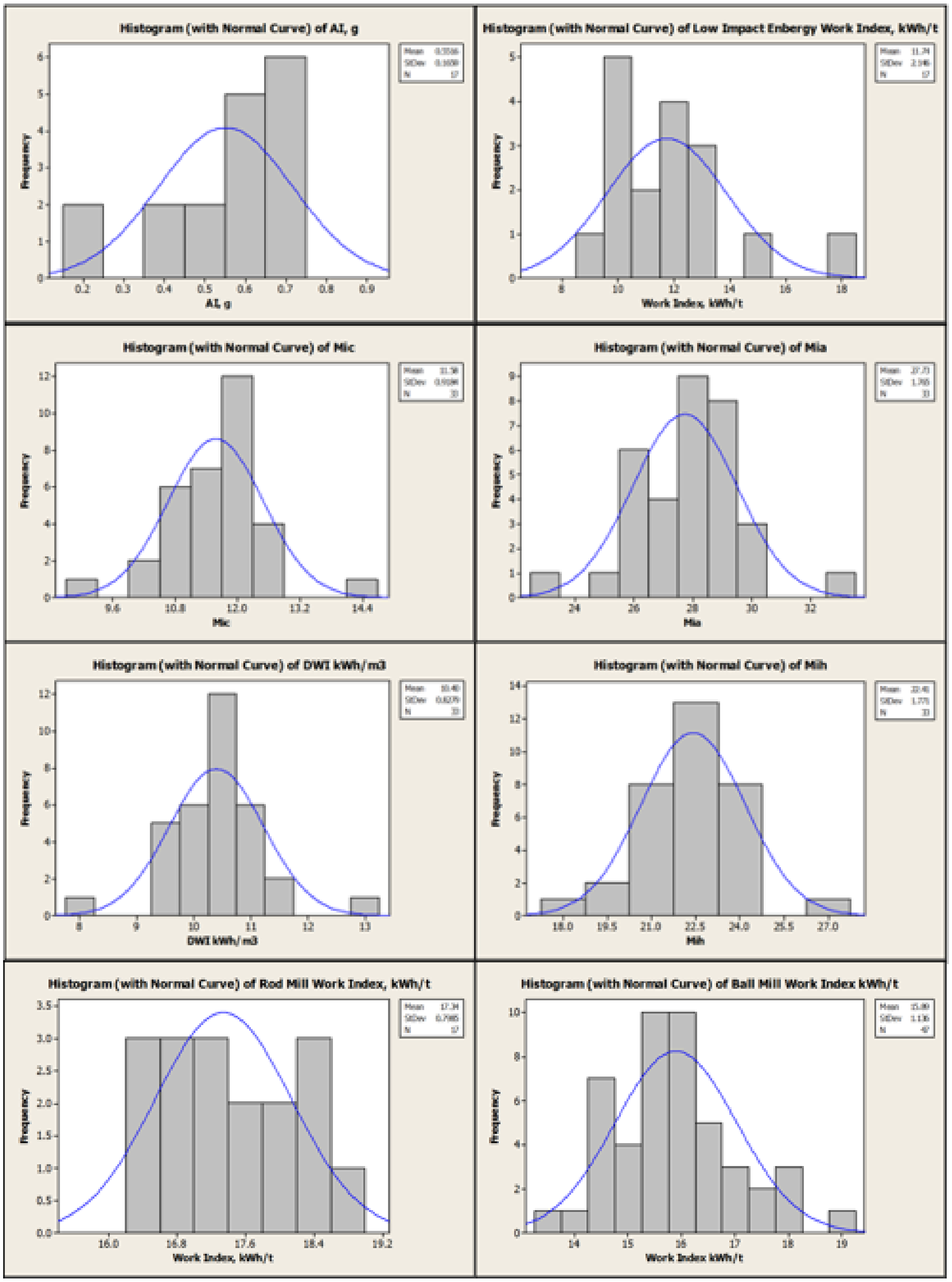
Most of the A x b values are below 30, which indicate very competent material. A histogram for A x b is shown in Figure 13-4. With most of the A x b values lower than 30, the mineralization is well-suited to an HPGR circuit.

Figure 13-4: Histogram for A x b



Histograms for the other ore hardness characterizations are illustrated in Figure 13-5.

Figure 13-5: Histograms of Ore Hardness Characteristics



These comminution data sets were used primarily for the following:

- Standard bond method for calculating gyratory crusher, secondary cone crusher and ball mill sizing. No credits were taken for micro-cracking.
- SMC method for calculating the HPGR, and secondary crusher sizing.

13.5 Gravity Testwork

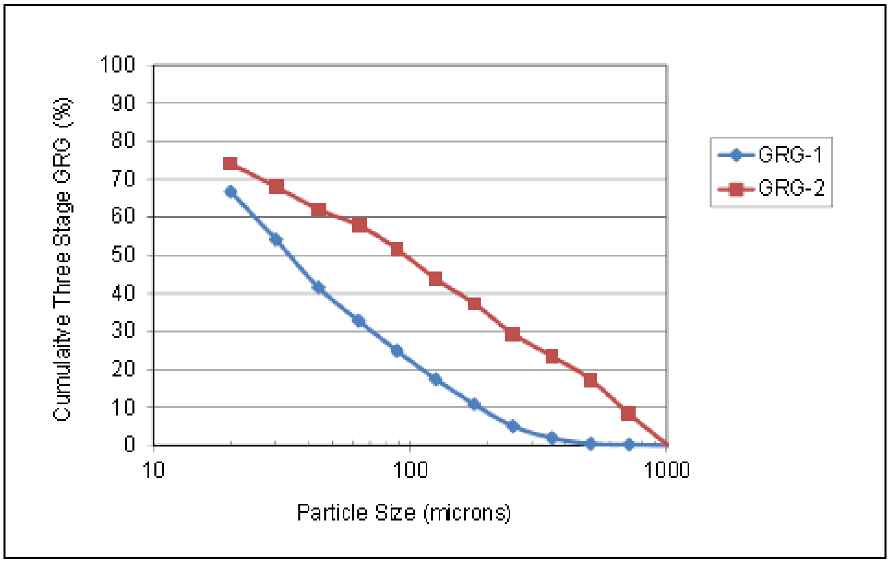
SGS conducted Laplante extended gravity recoverable gold (GRG) tests on Composites A and B. The bulk extended GRG results and the cumulative three-state GRG as a function of particle size are presented in Table 13-10 and Figure 13-6, respectively. Both composites are high in GRG and have similar values, but the Composite B (Cu mineralization) gravity recoverable gold is considerably coarser.

Table 13-10: Overall Extended GRG Test Results

Composite A		**Composite B**	
Grind Size (µm)	**Stage GRG (%)**	**Grind Size (µm)**	**Stage GRG (%)**
573	23.8	407	42.5
228	25.8	208	20.0
98	17.0	93	11.6
Total	66.7		74.1
Head Grade (g/t Au)	1.02		1.37

Source: 12589-003 Gold Recovery From Cote Gold Project Samples (December 17, 2013 SGS - Lakefield)

Figure 13-6: Cumulative Three Stage GRG as a Function of Particle Size



13.6 Cyanide Leaching Testwork

Emphasis in the earlier testwork programs was on determining ultimate gold extraction, followed by variability work on geometallurgical samples and, ultimately, optimization of only Master Composite A. Table 13-11 and Table 13-12 list the range of conditions of the whole ore (WOL) and gravity tailings leach tests performed to date.

Table 13-11: General Conditions for WOL Tests

Program (Composite)	Residence Time, hr	Available NaCN, g/L	Nominal Grind P_{80}, µm	Other
12589-001 (1 & 2)	48	0.5	75 - 150	Preconditioning - O_2
13345 (1, 2 & 3)	48	0.5	75 - 250	Preconditioning - O_2 10 g/L carbon
12859-003 (A)	48	0.5	75 - 150	Preconditioning - O_2

Table 13-12: General Conditions for Gravity Tailings Cyanidation Tests

Program (Composite)	Residence Time, hr	Available NaCN, g/L	Nominal Grind P_{80}, µm	Other
12589-001 (1 & 2)	48	0.5	75 - 150	O_2
12859-003 (A)	48	0.5	75 - 150	O_2
12859-003 – Variability (C25, S & G)	48	0.5	75 - 100	Preconditioning - O_2

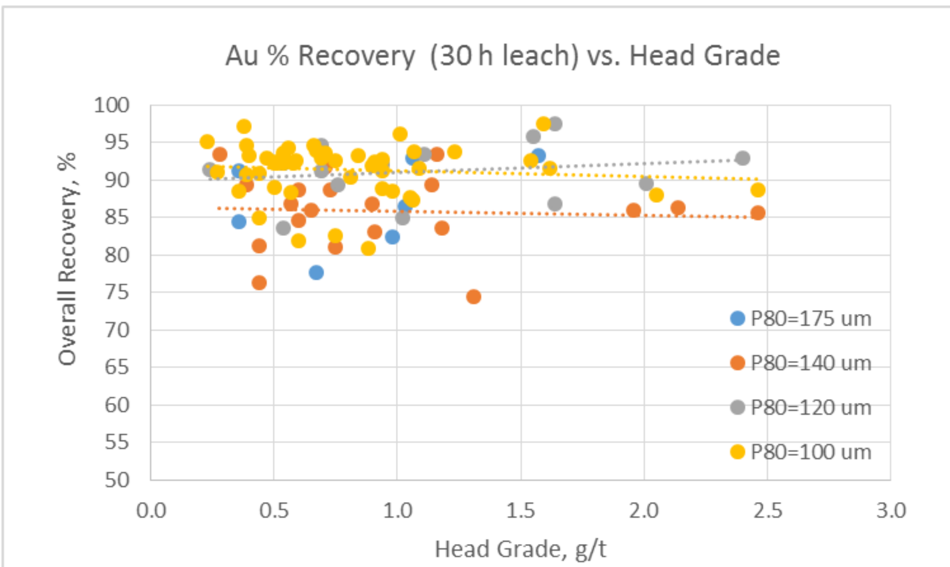
The results indicate that high recoveries are attainable by cyanide leaching, and that gold recoveries are improved by finer grinding.

All samples leached with relatively consistent kinetics, with an average gravity recovery of 36% and overall extraction of 90.6% after 30 hours, and reached a plateau average extraction of 92.7% at 48 hours. Overall results also indicated that gold leached well in the levels of oxygen provided in the standard bottle-roll procedure, which includes air sparging during conditioning.

13.6.1 Effect of Head Grade

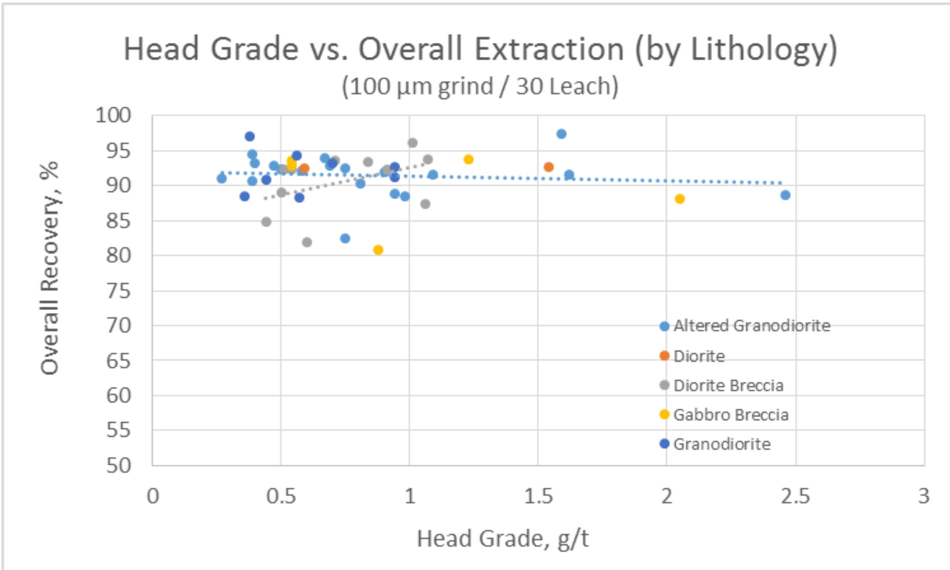
The response of samples to the gravity leach circuit is relatively consistent through the head-grade range plotted (>0.25 g/t Au). Figure 13-7 summarizes gold recovery as a function of head grade for the variability data, indicating that grinding is a stronger driver of recovery than head grade.

Figure 13-7: Effect of Head Grade on Leach Recovery



Ultimate recovery is also not determined by lithology as all lithologies seem to behave similarly. However, this apparent uniformity in the mineralization may be a consequence of the gravity step ahead of leaching, which removes liberated gold to produce a more uniform leach feed sample and hence could mask variability. Figure 13-8 shows the effect of head grade on leach recovery for the different lithologies.

Figure 13-8: Effect of Head Grade on Leach Recovery – Selected Lithologies

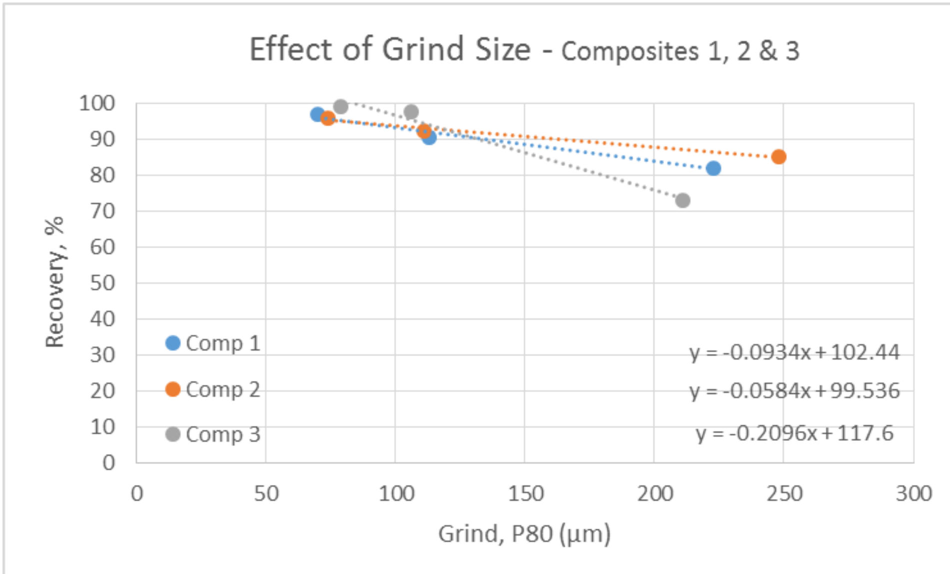


13.6.2 Effect of Grind

The positive effect of grind on extraction was recognized earlier in the project. Each program to date has collected data on this aspect.

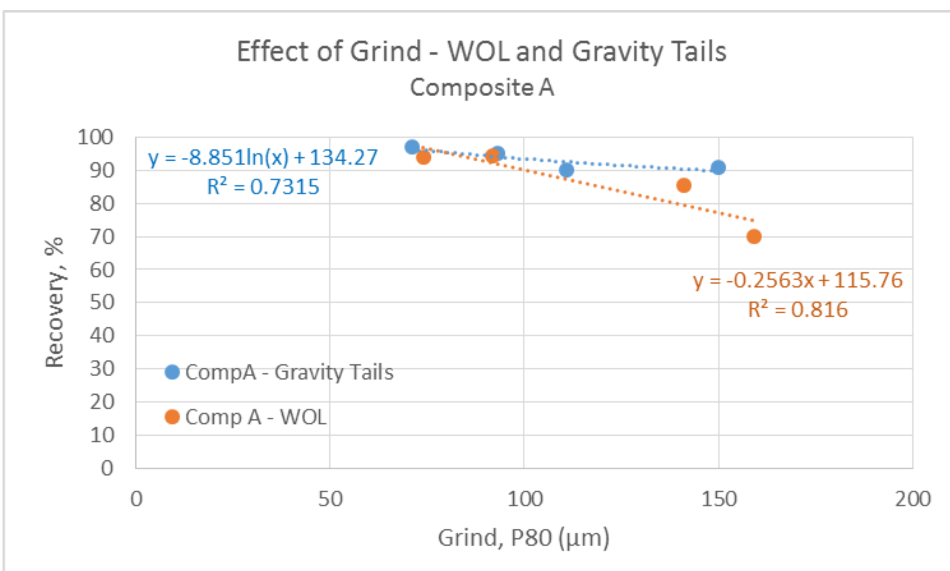
The grinding effect of WOL was first investigated during program 13345 by SGS using altered, breccia and vein composites. The results are shown in Figure 13-9. WOL higher grade material (Composite 3) exhibits a higher sensitivity to grind and higher losses at coarser grind, above 120 µm grind.

Figure 13-9: Effect of Grind Size on Gold Extraction - WOL



SGS Program 12589-003 compared the effect of grind for the WOL and gravity tailings leach flowsheet options. Figure 13-10 indicates that at coarser grinds, gravity concentration ahead of leaching can contribute to higher recovery by removing coarser gold that would take longer than the allocated leach residence time.

Figure 13-10: Effect of Grind Size, WOL vs. Gravity Tailings – 48-hr Leach



As shown in Table 13-13, on average, a 10.9% increase in extraction was observed for WOL, as grind size was reduced from 150 µm to 75 µm. For gravity leach tailings, the average increase in extraction over the same range was 7.8%.

Table 13-13: Increase in Extraction at Finer Grind for WOL and Gravity Tailings Leach

	Gold Recovery, %			
	WOL		Gravity Tailings Leach	
Grind	75 µm	150 µm	75 µm	150 µm
Composite 1- Cu Mineralization	95.4	75.8	97.4	84.2
Composite 2- Au Mineralization	97.1	94.5	97.5	93.5
Composite 1- Altered zone	95.4	88.4		
Composite 2 – Breccia zone	95.4	91.3		
Composite 3 –Vein zone	99.2	86.2		
Composite A – Master Variability.	96.5	77.3	96.1	89.9
Average	96.5	85.6	97.0	89.2
Average Increase, Δ	10.9		7.8	

The adequate regression coefficients between grind size and extraction suggests that grind is indeed the main driver. Other factors, such as alteration, head grade and lithology, are not determinants. Similar trends were observed in the variability program.

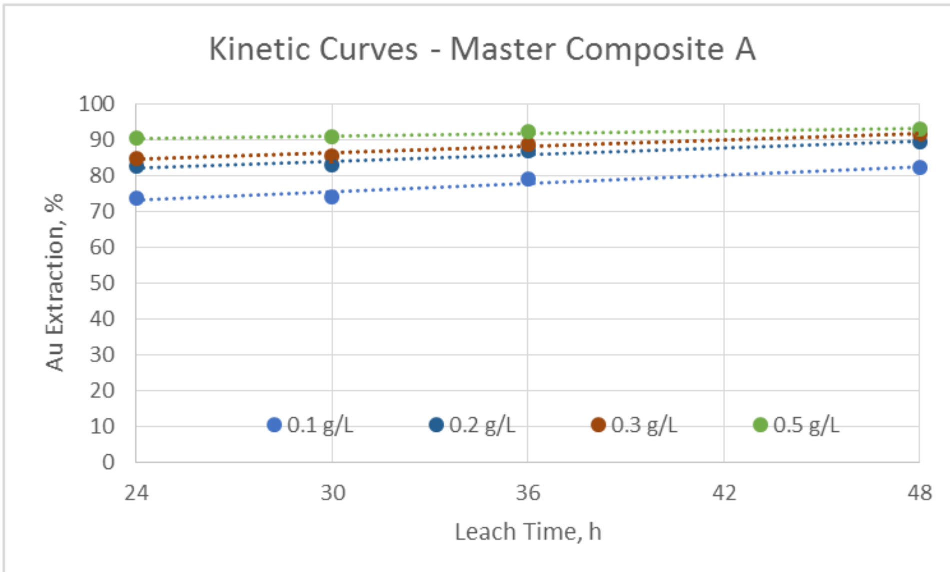
13.6.3 Cyanide and Lime Consumption

Regarding cyanide consumption, the laboratory tests indicate the following trends:

- The mineralization is clean, and no cyanicides are present except for small amounts of S and Fe. Cu is present in approximately 10% of the mineralization at low levels and is primarily in the form of less reactive chalcopyrite.
- High NaCN concentration did not result in higher overall extraction at extended leached times.
- Cyanide consumption in the plant is anticipated to be in line with industrial practice, and for the gravity tailings leach is expected to be around 150 g/t of mill feed.

Results from optimization testing under program 12589-003 on Composite A are summarized in Figure 13-11 and Table 13-14.

Figure 13-11: Cumulative Gold Leach Extraction by Cyanide Dosage – Gravity Tailings



As seen in Table 13-15, both cyanide and lime consumptions are quite low in comparison to what is typically seen in industry but this reflects the lack of cyanicides and other cyanide consumers. Lime consumption is also positively impacted by the basic nature of the mill feed.

Table 13-14: Reagents Consumption on Gravity Tailings Leach – Composite A

NaCN concentration, g/L	**0.5**	**0.3**	**0.2**	**0.1**
Au Extraction, %	91.2	93.8	92.3	82.5
NaCN consumption, kg/t of mill feed	0.07	0.05	0.04	0.03
Lime consumption, kg/t of mill feed	0.34	0.34	0.36	0.35

13.6.4 Aeration

For the most part, the majority of tests were run with passive aeration. As part of the optimization program, SGS ran three tests to evaluate whether aeration or oxygenation would improve gold leach kinetics or overall extraction. Sparging rates were 5 mL/min for O_2 and 1 L/min for air.

In both cases, leaching kinetics improved, increasing extraction from 80% to 84% and 85% by 24 hours' leaching time with air and oxygen, respectively. Overall recovery to 48 hours increased by 3.2 % and 3.6% with oxygen and air respectively.

Higher-than-normal cyanide consumption in the test with sparged air was very likely a function of the large volume of air sparged into the pulp. Cyanide was likely volatilized into the air, and not consumed by the mineralization itself.

The results are summarized in Table 13-15.

Table 13-15: Reagents Consumption on Gravity Tailings Leach - Optimization

Sparging	Air	O_2	None
Au Extraction @ 24 hr, %	84	85	80
Overall Recovery @ 48 hr,%	94.3	93.8	90.7
NaCN consumption, kg/t of mill feed	0.26	0.07	0.06
Lime consumption, kg/t of mill feed	0.65	.034	0.49

The results suggest that the inclusion of O_2 sparging may be an effective way to increase cyanidation recovery and reduce cyanide consumption.

13.6.5 High Copper Grade Mineralization

The limited information gathered on Composite 1 (13345) and Composite B (12589-003) indicate the following trends:

- Cu mineralization reported considerably coarser content of gravity recoverable gold
- similar response to leaching as the Au-mineralization samples
- higher cyanide consumption.

This type of mineralization constitutes approximately 10% of the deposit.

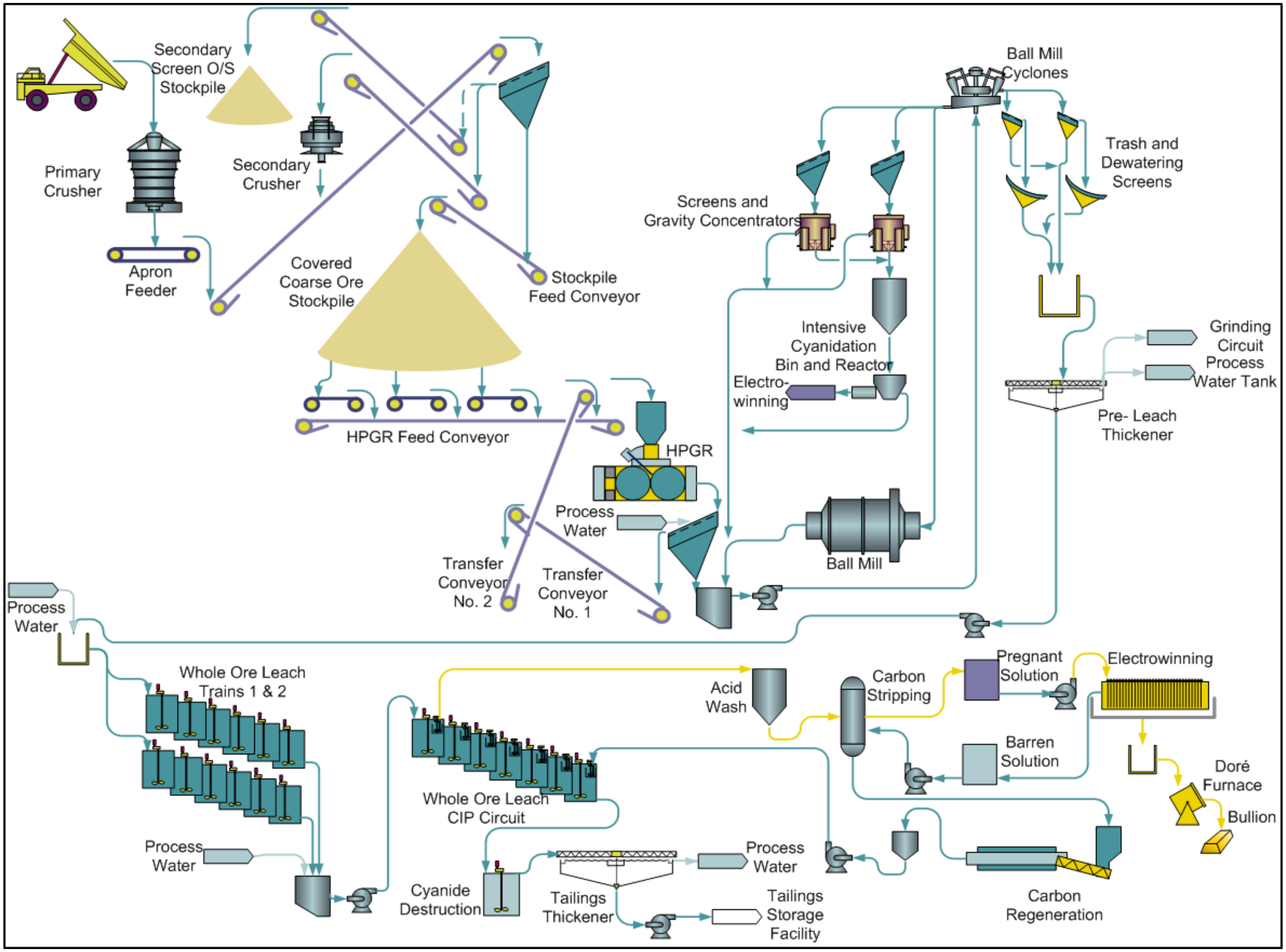
13.6.6 Barren Solution Analysis

The barren solution analysis performed in the early scoping programs on Composites 1, 2 and 3 suggest that metal dissolution during cyanide leaching is low, and there are no obvious environmental concerns.

13.7 Whole-Ore Leach Alternatives Assessment

The data presented in section 13.6.2 comparing the effect of grinding on WOL and gravity tailings leach also suggests that at coarser grinds, gravity can enhance overall recovery. For this reason, Amec Foster Wheeler recommends the installation of a gravity circuit. It will add flexibility to the operation and can be bypassed if deemed unnecessary for low-grade finely disseminated gold material. The process flow diagram for gravity tailings leach is shown in Figure 13-12.

Figure 13-12: Process Flow Diagram for Gravity Tailings Leach



13.8 Mineralization Variability

Overall metallurgical test results show that all the variability samples were readily amenable to gravity concentration and cyanide leach. A total of 93 samples and 162 tests were performed. Figure 13-13 and Figure 13-14 show the gold head-grade range tested and the overall response by lithology, respectively.

Figure 13-13: Assayed vs. Calculated Gold Head Grade - Variability Samples

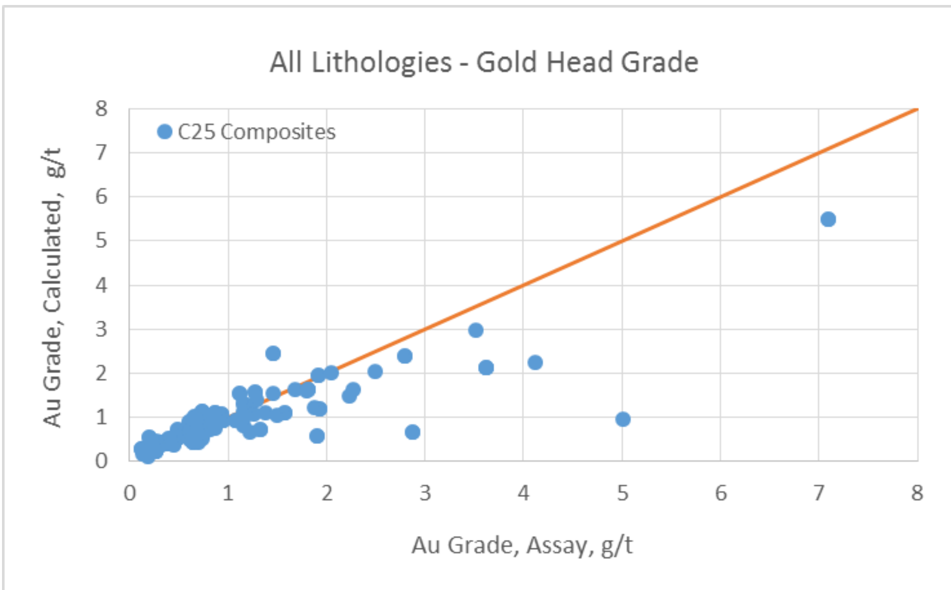
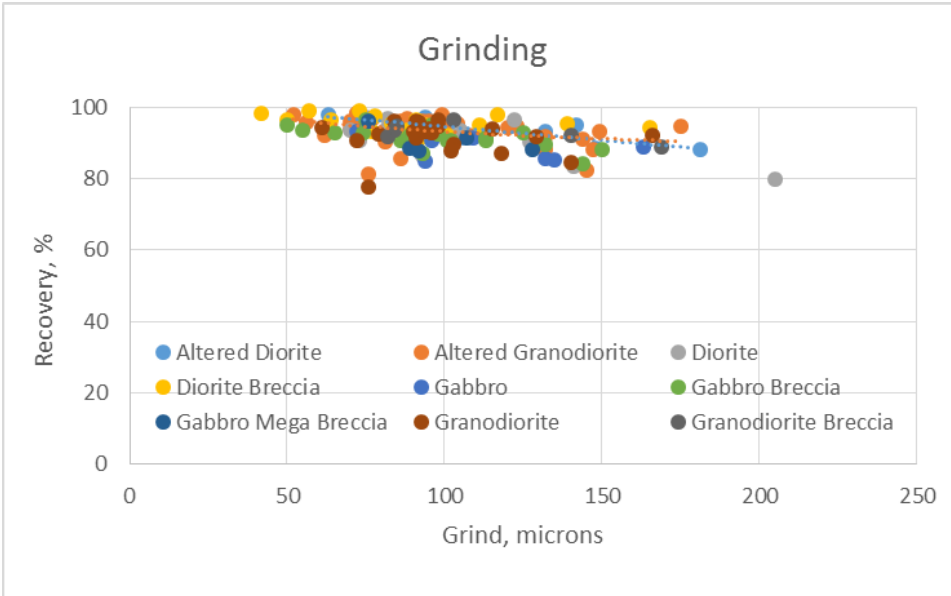


Figure 13-14: Variability Samples – Au Recovery vs. Grind by Lithology



13.9 Recovery Estimates

Gravity recovery was estimated using the size-by-size GRG data available for Master Composite A, as input to KC-MOD*Pro gravity assessment software. Assuming the gravity circuit will treat 15% of the circulating load, the model indicated a 23% gold recovery by gravity.

Using the data generated for target grind between 90 µm and 110 µm, average recovery (gravity and gravity tailings leach) calculates to 93.2%. A similar result is obtained when the data is plotted, despite the low regression factor. Figures 13-15 and Figure 13-16 show the response of the gold recovery to grind and feed grade.

Once solution losses, and carbon adsorption and electrowin (EW) efficiencies are applied, the calculated overall gold recovery from Table 13-16 is reduced to 91.9%.

Figure 13-15: Au Recovery vs. Grind – Grind Range: 90 µm to 110 µm

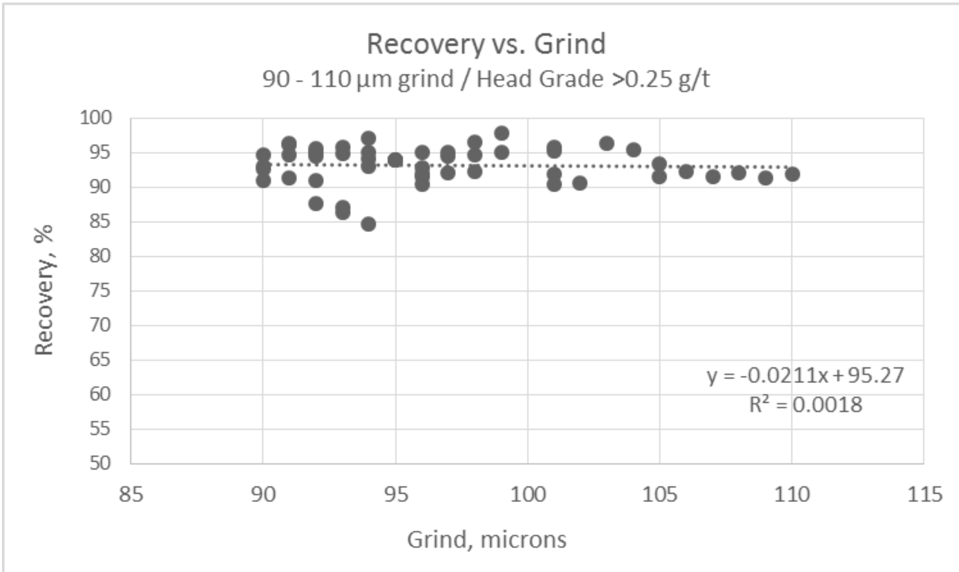


Figure 13-16: Au Recovery vs. Head Grade – Grind Range: 90 µm -110 µm

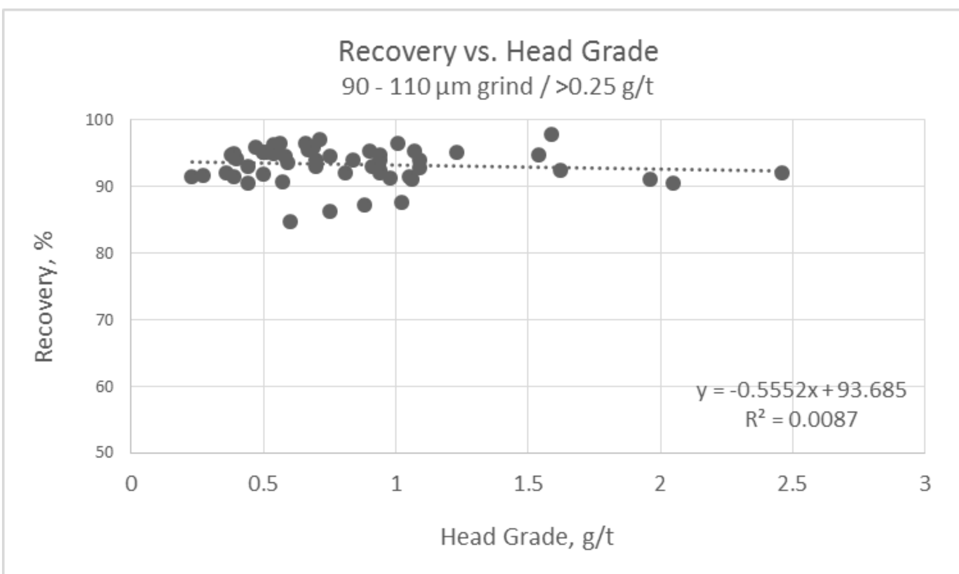


Table 13-16: Au Recovery Estimate

Parameter	Units	Value
Head Gold Grade, Average	g/t Au	0.95
Head Silver Grade, Average	g/t Ag	<2
Au Recovery by Gravity	%	23
Intensive Leach Recovery	%	99
Leach Recovery	%	91
Carbon-in-pulp (CIP) Recovery (soluble & carbon fines losses)	%	99
Desorption, Regeneration & Refining Recovery	%	99.5
Overall Au Recovery	%	91.9

As illustrated in Section 13.6.1, the response to gravity and leaching is relatively consistent across head grades. Therefore, the lower-grade gold material is expected to exhibit the same level of metal extraction.

13.10 Metallurgy and Process Recommendations

13.10.1 Metallurgical Testwork

Although the HPGR circuit is believed to the most capital-effective choice, Amec Foster Wheeler's estimates are based on parameters developed for SAG milling. In the next stage of the study, it will be imperative to acquire sufficient material for HPGR pilot testing, and to evaluate variability across the deposit.

13.10.2 Future Trade-Off Studies

The potential exists to increase throughput from 29,000 tpd to 32,000 tpd or 34,000 tpd, by targeting coarser grinds of 120 µm or 140 µm, respectively. Lower gold recovery will be offset by lower unit operating costs with the higher throughput. Amec Foster Wheeler recommends trade-off studies to define the optimal grind and throughput.

14.0 MINERAL RESOURCE ESTIMATES

14.1 Summary

IAMGOLD completed an updated Mineral Resource estimate as of 31 December 2015. This Mineral Resource estimate was completed using Geovia GEMS 6.7 software using a conventional approach, including 3D geological modelling, block modelling, and ordinary kriging grade estimation. The Mineral Resource is reported at a cut-off grade of 0.3 g/t Au and at a gold price of C$1,500 per ounce. High-grade gold assays were capped at various grades from 15 g/t to 60 g/t Au depending on zone domain. The Mineral Resource estimate, as reported in Table 14-1, was constrained by a preliminary pit optimization shell. The Mineral Resources are classified as Indicated and Inferred and follow Canadian Institute of Mining, Metallurgy and Petroleum (CIM) Definition Standards for Mineral Resources and Mineral Reserves adopted on May 10, 2014 (CIM Definitions).

Table 14-1: Mineral Resource Estimate – December 31, 2015

Classification	Cut-off Grade (g/t Au)	Tonnage (kt)	Grade (g/t Au)	Contained Gold (koz)
Indicated	0.3	289,183	0.90	8,354
Inferred	0.3	66,894	0.55	1,174

Notes:

1. CIM Definitions were followed for classification of Mineral Resources.
2. Mineral Resources are estimated at a cut-off grade of 0.30 g/t Au.
3. Mineral Resources are estimated using a gold price of US$1,500 per ounce and metallurgical recovery of 93.5%.
4. High grade assays are capped from 15 g/t to 60 g/t depending on sub-domain.
5. Bulk density of 2.72 t/m^3 was used for all rocks.
6. The Mineral Resource estimate is constrained within a Whittle pit shell.
7. Table 14-1 is based on 100% ownership. IAMGOLD owns 92.5% of the Côté Gold Project.

The Mineral Resource estimate has been prepared by or under immediate supervision of Raphael Dutaut, P.Geo., an IAMGOLD employee, who is a Qualified Person as defined by National Instrument 43-101.

14.2 Database

The Mineral Resources were estimated using only diamond drillhole data. All holes have been established on a local grid and the final collar location of diamond drillholes has been surveyed and reported in UTM NAD83 coordinates. The current Mineral Resource database is composed of 518 diamond drillholes, totalling 268,329 m, and 260,407 assayed samples (Table 14-2). This represents an approximately 2% increase in the information available for the current resource estimate relative to the previous estimate dated December 4, 2014 (Table 14-2). The resource database is only composed of holes within or very close to the proposed pit area. Therefore, the total number of holes and their total length may vary when compared to the information Section 10, which summarizes drillhole statistics on the whole property.

Table 14-2: Drilling Evolution from 2011 to 2015

Resource Estimate Date	Drillholes added	Additional length (m)	Total drillholes	Cumulative length (m)
Apr-11	47	21,874	47	21,874
Apr-12	82	42,199	129	64,073
Oct-12	110	66,718	239	130,792
Dec-12	78	39,899	317	170,691
Dec-14	190	92,556	507	263,247
Dec-15	**11**	**5,082**	**518**	**268,329**

Resource Estimate Date	Samples added	Sample length added (m)	Total samples	Cumulative sample length (m)
Apr-11	24,215	21,294	24,215	21,294
Apr-12	39,333	39,240	63,548	60,533
Oct-12	64,873	63,942	128,421	124,476
Dec-12	38,913	38,905	167,334	163,381
Dec-14	88,428	86,535	255,762	249,915
Dec-15	**4,645**	**4,555**	**260,407**	**254,470**

Since the previous estimate, most of the additional drilling completed was in-fill drilling at 50 m spaced sections within the previous Whittle envelope. Except for some very minor parts, the whole in-pit area has been drilled at a 50 m drilling pattern. Drilling direction is dominantly at a planned azimuth of 150º (section line orientation). Some of the infill 50 m sections have been drilled at an azimuth of 330º, opposite to the dominant drilling direction. A few holes have been drilled from grid east to west, normal to the dominant drilling direction. Drilling extends over a vertical distance of approximately 800 m, with 10 holes extending beyond 1,000 m vertical. The actual database also contains eight metallurgical holes, six geotechnical holes, and approximately 20 other holes (mostly environmental holes). A small area of 200 m by 200 m has been drilled at a 25 m drilling pattern to a vertical depth of approximately 200 m to test continuity at a shorter range.

Drilling database contains information including: collar information, deviation survey, gold assays, multi-elements-ICP assays, lithological description, alteration, structural measurements from oriented core, mineralization, and major textures.

The Geovia GEMS database validation routines were applied to the database and very minor errors were detected and corrected. Based on this assessment, checks described in Section 12, as well as evaluation of the data done for the previous estimates by RPA in 2011, 2012 and 2013, and IAMGOLD in 2014, it is the QP's opinion that the drillhole database is appropriate to form the basis of the Mineral Resource estimate.

14.3 Geological Modelling

Similar to the previous estimates, two main domains of mineralization have been interpreted and are referred to as the Southwest (SW) domain and the Northeast (NE) domain. The SW and NE domains are separated by a west striking, steeply dipping north fault zone and are intruded by vertical to steeply dipping, northwest striking post mineralization diabase s. The updated SW and NE domains were modelled by geologists on site guided by the following criteria:

- gold grade: above 0.3 g/t and ideally 0.5 g/t;
- continuity of grade from section to section with a minimum width of 10 m;
- proximity to the newly interpreted breccia;
- 150 ppm Cu and 80 ppm Ba grade envelopes were used as a guide;
- gold grade areas that were supposed to be structurally controlled were removed.

The update of the geological interpretation and mineralization wireframes for the current Mineral Resource estimate was done on vertical sections at 50 m and locally at 25 m, as well as on plan view to maintain continuity. All wireframes were snapped in 3D to drillholes.

In addition to the SW and NE domains and the brecciated solids, geologists on site also performed 3D models for the fault, the northern and southern low and high silica alteration, and the late diabase s. All solids have been clipped to an interpreted overburden surface in order to facilitate the block model estimation. Figure 14-1 presents a typical vertical section of the main interpreted lithologies.

Except for some small secondary areas, the present NE and SW interpretation is close to RPA's previous interpretation. For the sake of mining continuity, the new model incorporates more internal dilution and excludes secondary finger-type apophyses.

Drillhole traces, the main mineralization domains and the fault modelled for the current Mineral Resource estimate are illustrated in Figure 14-2. Assay descriptive statistics, grade capping, compositing, and variography presented in this section are based on the NE and SW domains, silicification envelopes, and the fault domain.

Figure 14-1: Geological Cross Section looking SW

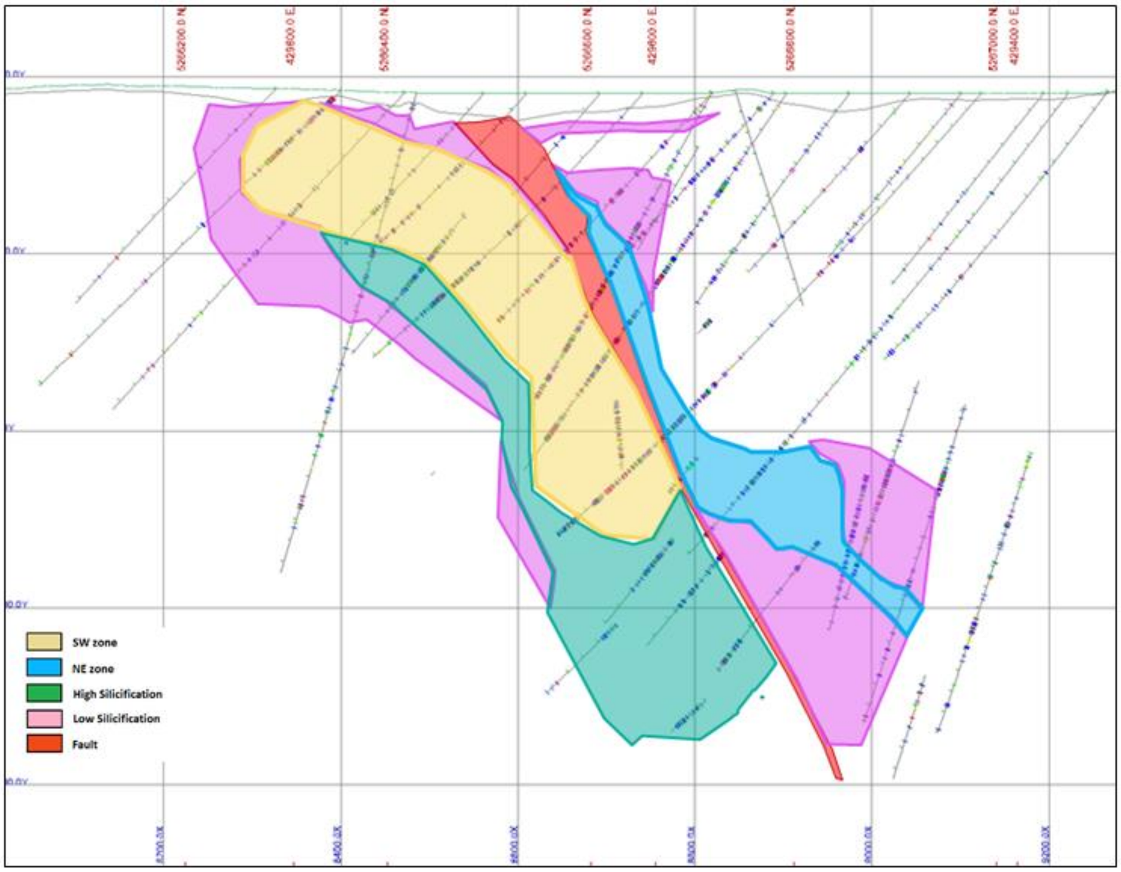
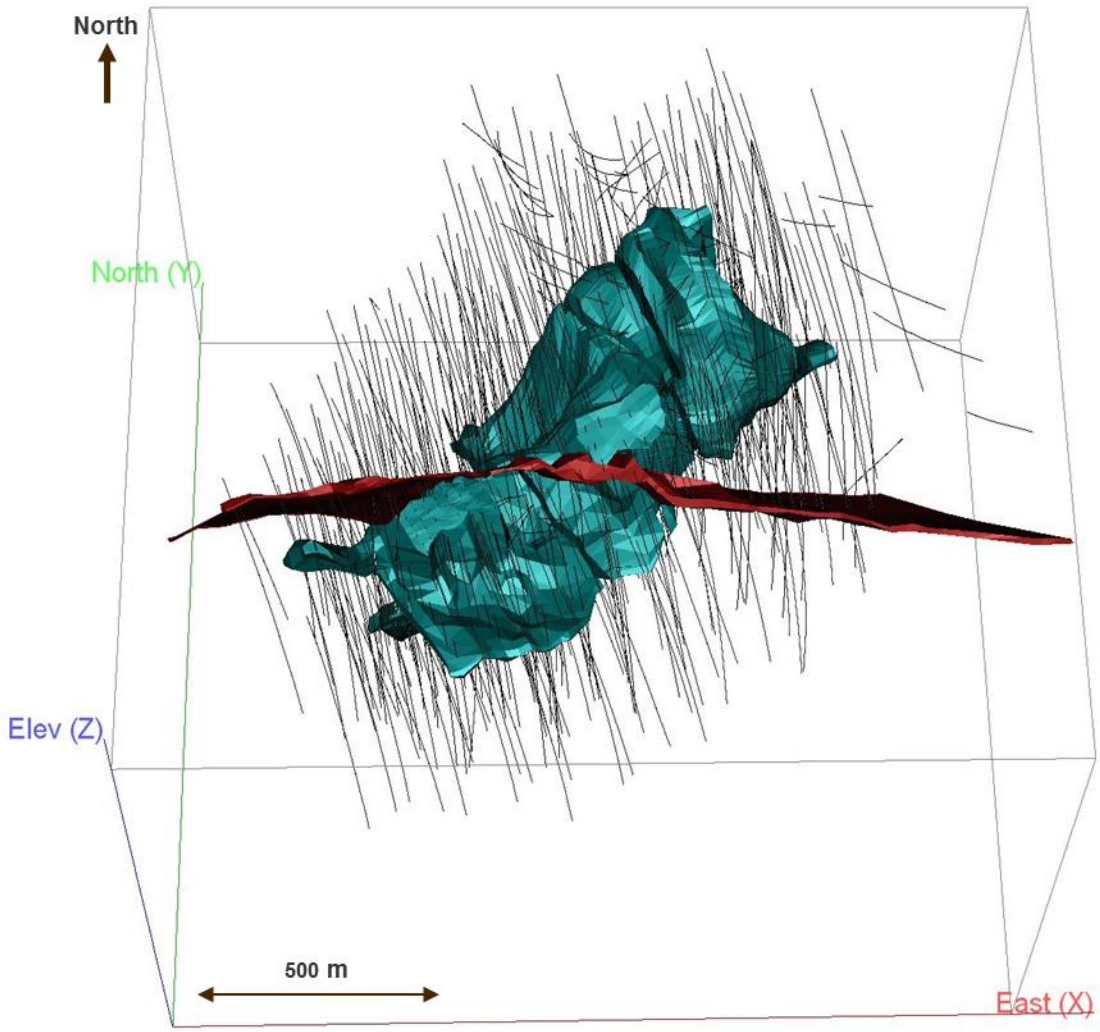


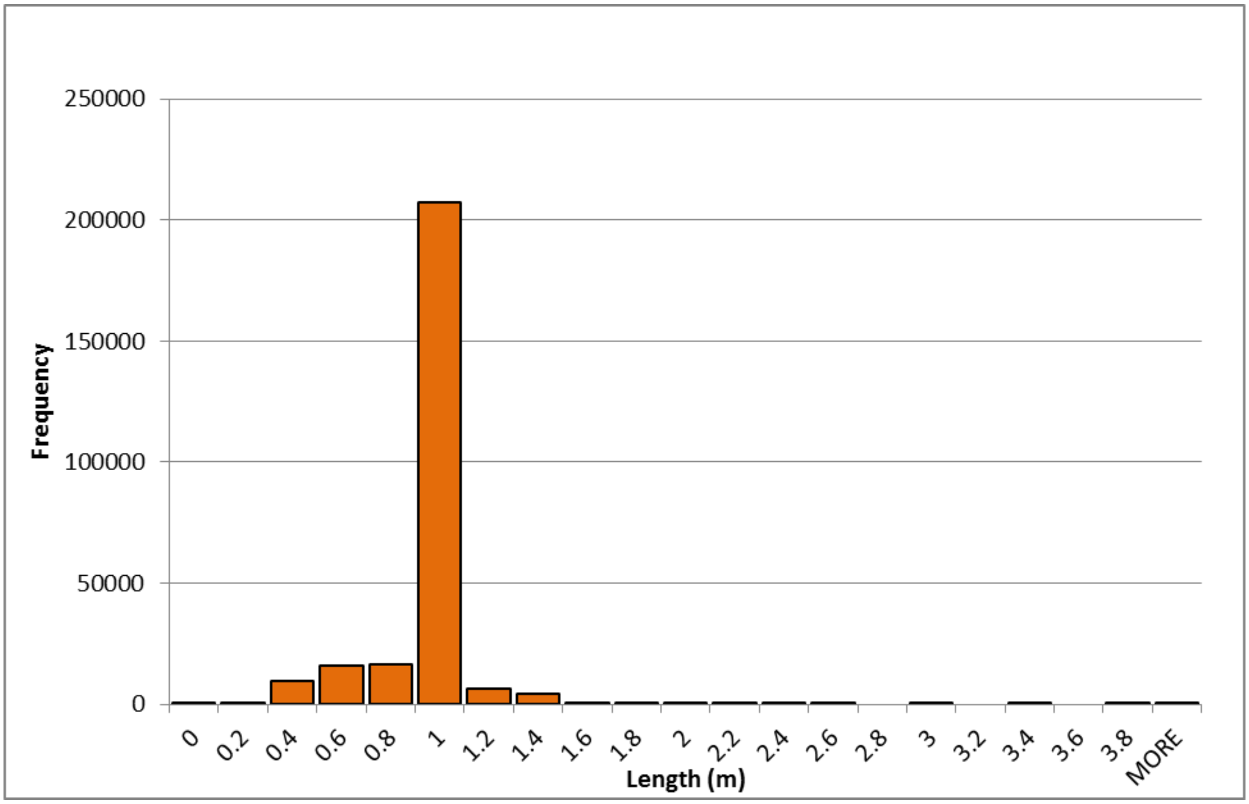
Figure 14-2: Geological Model, December 2015



14.4 Summary Statistics

All core drilled has been analyzed for gold, except for the larger diabase dikes. Other minor exceptions occur when short intervals, for example at the end of holes, have not been sampled. The normal practice is to use a one meter sampling interval. Very few assays are longer or shorter than one meter and they are mostly related to early exploration-discovery holes. A histogram of sample length is presented in Figure 14-3.

Figure 14-3: Sample Length Histogram



To reduce the disproportionate influence of high grade outliers on average gold grade and coefficient of variation (CV) of positively skewed population, anomalous assay values should be capped before being used for block grade estimation.

To determine the gold grade capping levels, IAMGOLD used a standard approach consisting of interpreting histograms, log probability plots, and decile analysis for each of the geological domains. Based on these analyses, each domain received a different capping value, ranging from 15 g/t Au to 60 g/t Au as presented in Table 14-3.

Table 14-3: Gold Capping Level by Domain

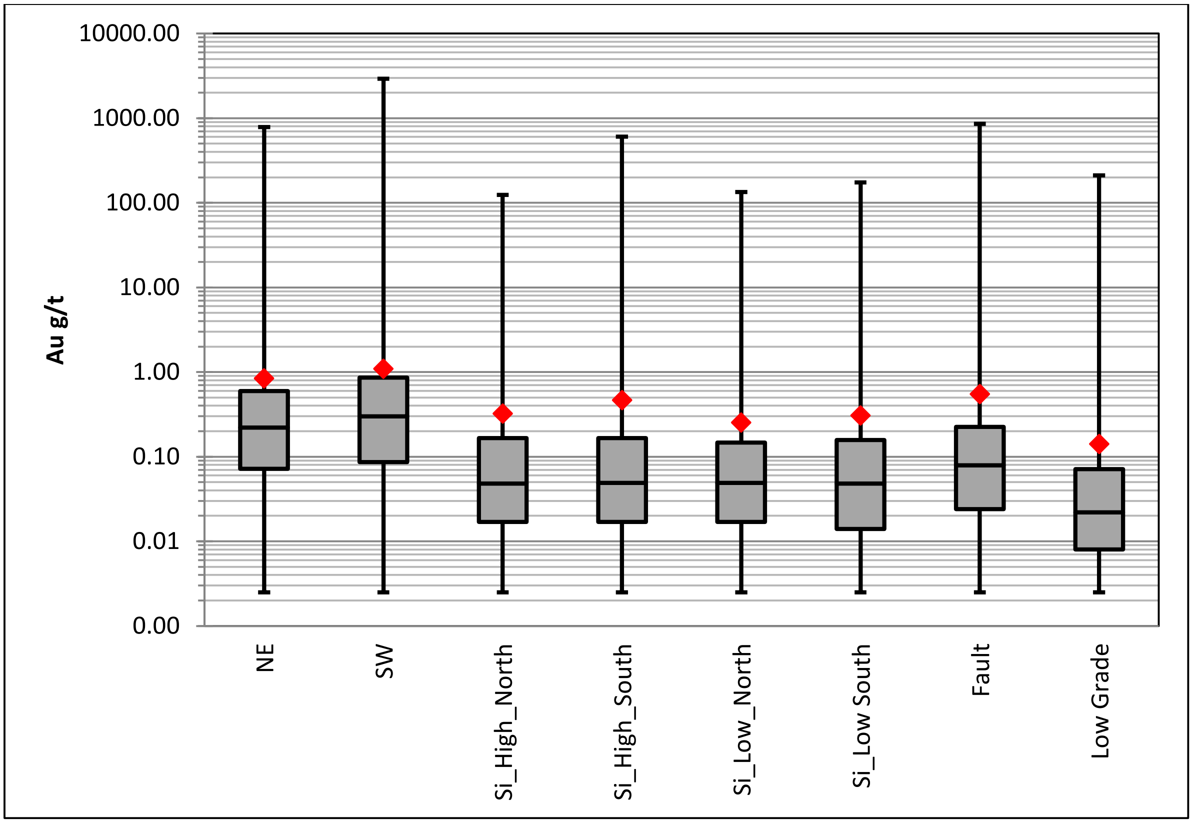
Rock Type	Capped grade Au g/t
NE	60
SW	30
High Silicification North	40
High Silicification South	20
Low Silicification North	15
Low Silicification South	15
Fault	6
Other low grade	15

Table 14-4 presents the summary statistics for the capped and uncapped gold assays. Figure 14-4 shows the box plot for the main uncapped zones.

Table 14-4: Assays Statistics by Domain

Solid	Type	Count	Average	Max	STD	CoV
NE	Uncap	38,677	0.84	785.09	7.86	9.30
	Cap	83	0.71	60	2.82	3.79
SW	Uncap	34,563	1.09	2,717.23	16.33	14.99
	Cap	31	0.92	30	2.36	2.57
High Silicification North	Uncap	16,332	0.32	124.08	2.35	7.26
	Cap	29	0.30	40	1.66	5.49
High Silicification South	Uncap	10,958	0.47	605.91	6.76	14.54
	Cap	35	0.33	20	1.44	4.30
Low Silicification North	Uncap	23,281	0.25	134.07	1.88	7.41
	Cap	34	0.22	15	0.9	4.01
Low Silicification South	Uncap	10,985	0.31	174.03	2.86	9.33
	Cap	21	0.24	15	0.96	3.92
Fault	Uncap	3,930	0.55	858.18	13.77	25.11
	Cap	26	0.27	6	0.69	2.52
Other Low Grade	Uncap	121,065	0.14	210.98	1.64	11.57
	Cap	82	0.12	15	0.62	5.03

Figure 14-4: Box Plot Uncapped Assays by Domain



For the NE and SW domains, the gold content is reduced by approximatively 15%; for other, secondary zones the reduction ranges between 6% and 30%, with up to 50% in the Fault domain. Overall, 0.1% of the assays results have been capped, which is reasonable for this type of deposit.

For the previous estimate, RPA capped grades at 15 g/t Au to 20 g/t Au. The increase in the capping value for the current estimate is justified by a better understanding of the geological control and the addition of more than 120,000 assays. New field work including drillholes, stripping, channel sampling, and geological mapping confirm the presence of geologically controlled high grade areas.

To assess the grade continuity between 3D solids, a contact analysis study has been performed. This study concluded that a hard boundary should be applied to the NE, SW, and Fault domains, whereas a soft boundary was better suited for silicification solids and un-interpreted areas. As a consequence, only three domains and the barren diabase dikes were kept for the present resource estimate. Table 14-5 presents the rock codes associated with each domain used during the block modelling process.

Table 14-5: Rock Codes – Main Domains

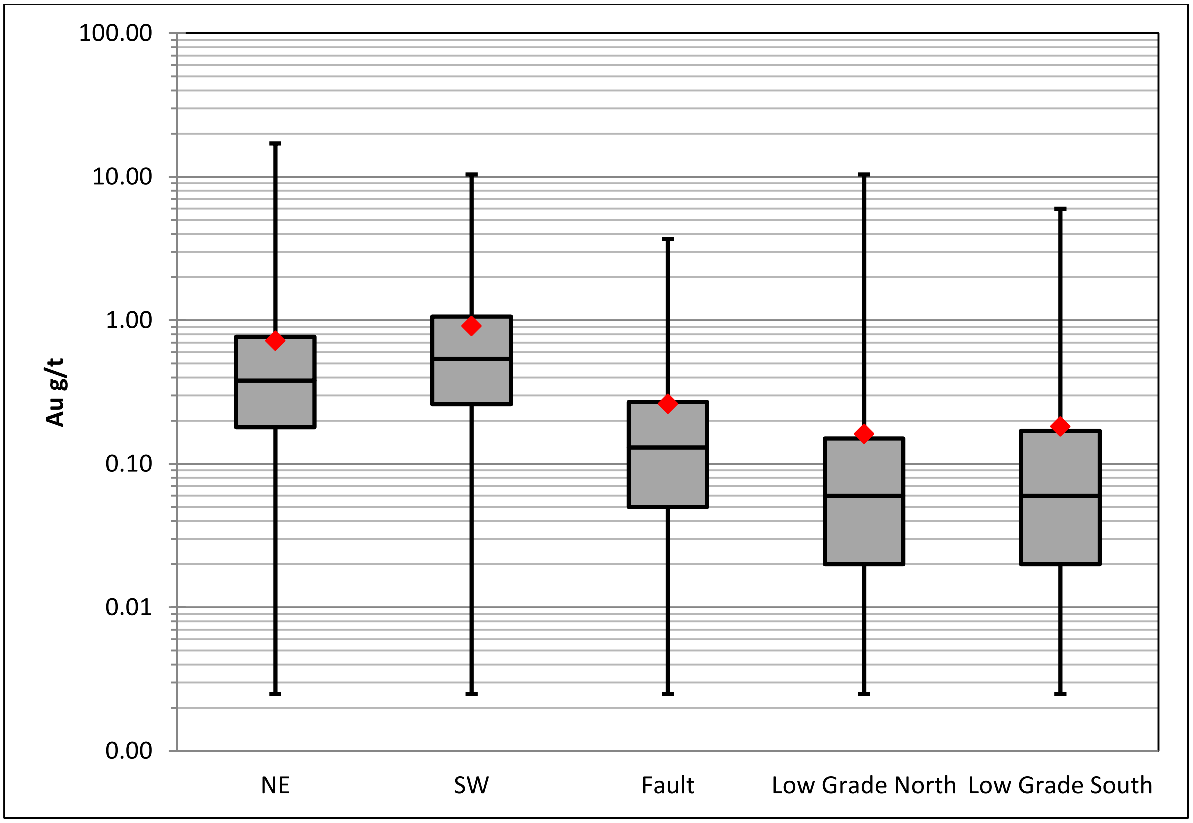
Rock Type	Rock Code
NE	6001
SW	6002
Low North	1001
Low South	1002
Fault	50
Diabase	40
Overburden	1
Air	0

In order to achieve a uniform sample length support, decrease variability, and meet the planned mining equipment selectivity, a 6 m composite length has been selected for the present resource estimate. This corresponds to half the block height and introduces a reasonable smoothing compared to the size of the planned operation. A regular 6 m run length (down hole, starting at bedrock) was done within the limits of each interpreted domain (NE, SW, Fault, and Diabase) using the capped value of the original assay samples. Composites less than 3 m were removed from the actual estimate, basic statistics before and after removal have been computed, and no bias was observed. A summary of statistics for capped and uncapped composites is presented in Table 14-6, and a boxplot for capped composites is presented in Figure 14-5.

Table 14-6: Composite Statistics by Domain

Solid	Type	Count	Average	Max	STD	CoV
NE	Uncap	6,218	0.80	133.57	2.97	3.70
	Cap		0.72	17.09	1.25	1.73
SW	Uncap	5,619	1.08	491.49	6.82	6.30
	Cap		0.92	10.41	1.15	1.26
Low grade North	Uncap	18,574	0.18	28.58	0.73	4.03
	Cap		0.16	10.39	0.40	2.47
Low Grade South	Uncap	10,827	0.23	101.29	1.34	5.93
	Cap		0.18	5.98	0.40	2.20
Fault	Uncap	701	0.52	143.80	5.47	10.53
	Cap		0.26	3.69	0.42	1.60

Figure 14-5: Box Plot Capped Composites by Domain



14.5 Variography

Variography analysis has been carried out on 6 m capped composites in each domain using Sage2001 software. For each domain, down-hole and directional variograms have been modelled to determine the nugget effect (Figures 14-6 and 14-7) and model parameters.

Figure 14-6: NE Down-Hole Correlogram

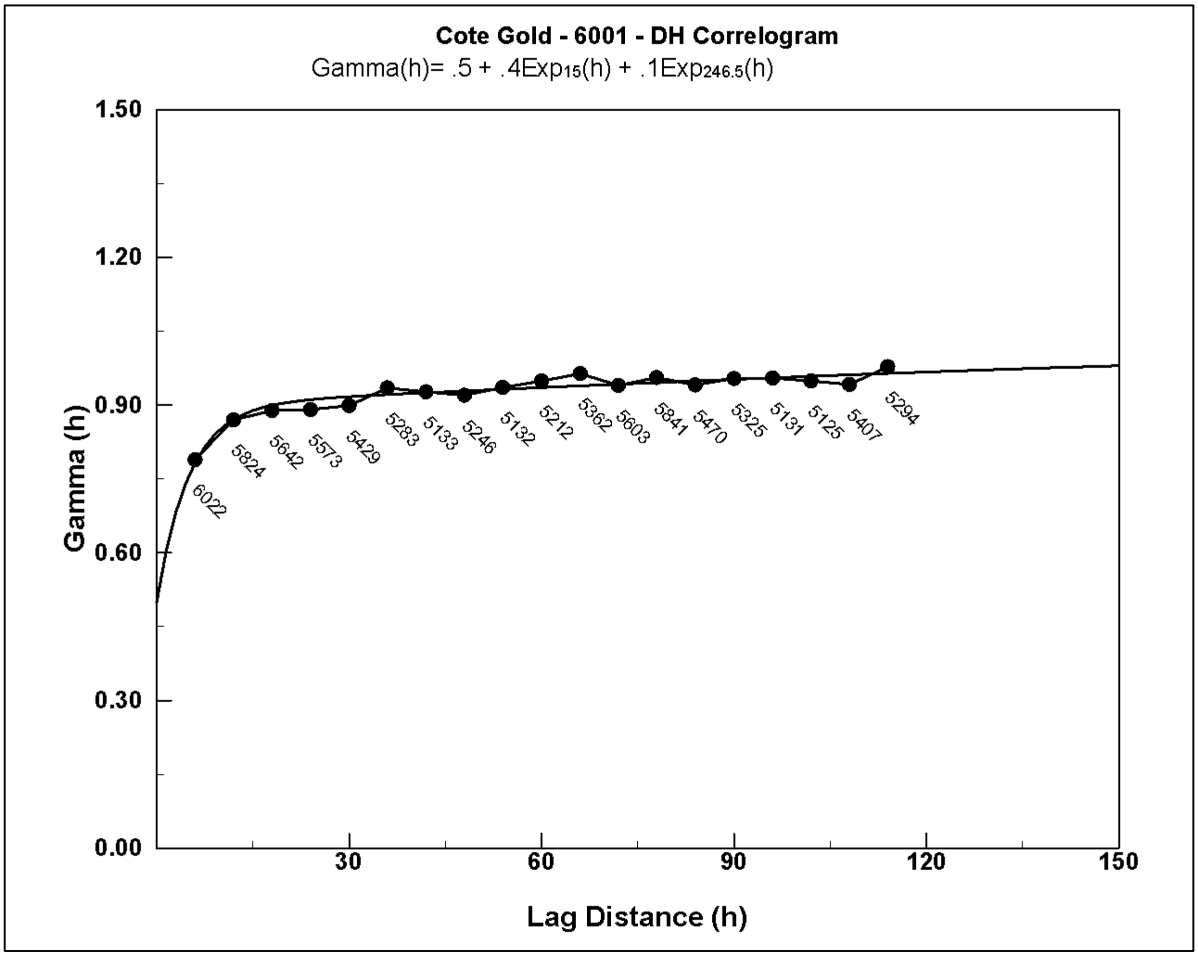
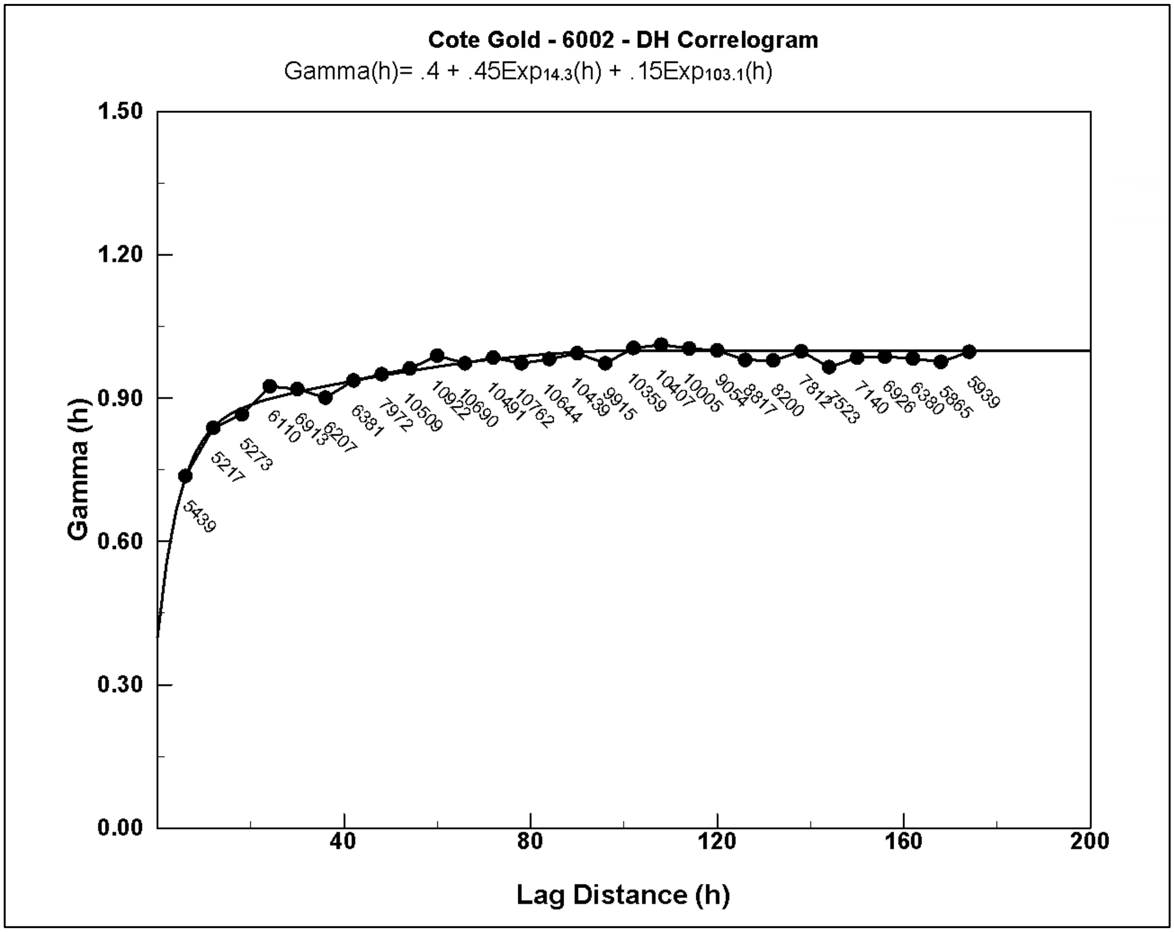


Figure 14-7: SW Down-Hole Correlogram



The modelled variograms present a geometrical anisotropy and a relatively short spatial continuity for the first structure (less than the actual 50 m drilling pattern) and a longer range for the second structure. Orientation and anisotropy ratios have been compared to geological observations and have been found reasonable. The variogram parameters used for interpolation are listed in Table 14-7.

Table 14-7: Variogram Model Parameters

Domain	Nugget	Structure 1			Structure 2	
		Sill	Orientation	Range (m)	Sill	Range (m)
NE	0.50	0.40	-50/25/-25	40/12/10	0.10	220/270/180
SW	0.40	0.50	-25/-20/20	45/10/20	0.10	200/60/380
Low North	0.50	0.40	-60/40/-40	12/50/12	0.10	250/250/490
Low South	0.65	0.25	-10/-10/-80	10/40/25	0.05	50/70/230
Fault	0.20	0.8	-18/27/-48	50/90/140	NA	NA

Orientation is done using Gems 'ZXZ' convention (Azimuth-Dip-Azimuth).

14.6 Block Model

For the current resource estimate, a block size of 15 m x 15 m X 12 m has been selected with a 30° rotation using the GEMS convention. The origin of the block model is 429,000E 5,265,000N and 436El (minimum easting, minimum northing, and maximum elevation). The block model has 200 columns (easting), 150 rows (northing), and 100 levels (elevation). A summary of the block model properties is presented in Table 14-8.

Table 14-8: Block Model Properties

Element	
Minimum East	429,000 E
Minimum Northing	429,000 N
Maximum Elevation	436 m
Number of Row	150
Number of Column	200
Number of Level	100
Row size	15 m
Column size	15 m
Level size	12 m
Rotation *	30°

*Using Gems convention

The block model extension and orientation are comparable with RPA's and IAMGOLD's previous estimates, whereas the block size has been increased to better reflect the planned mining equipment.

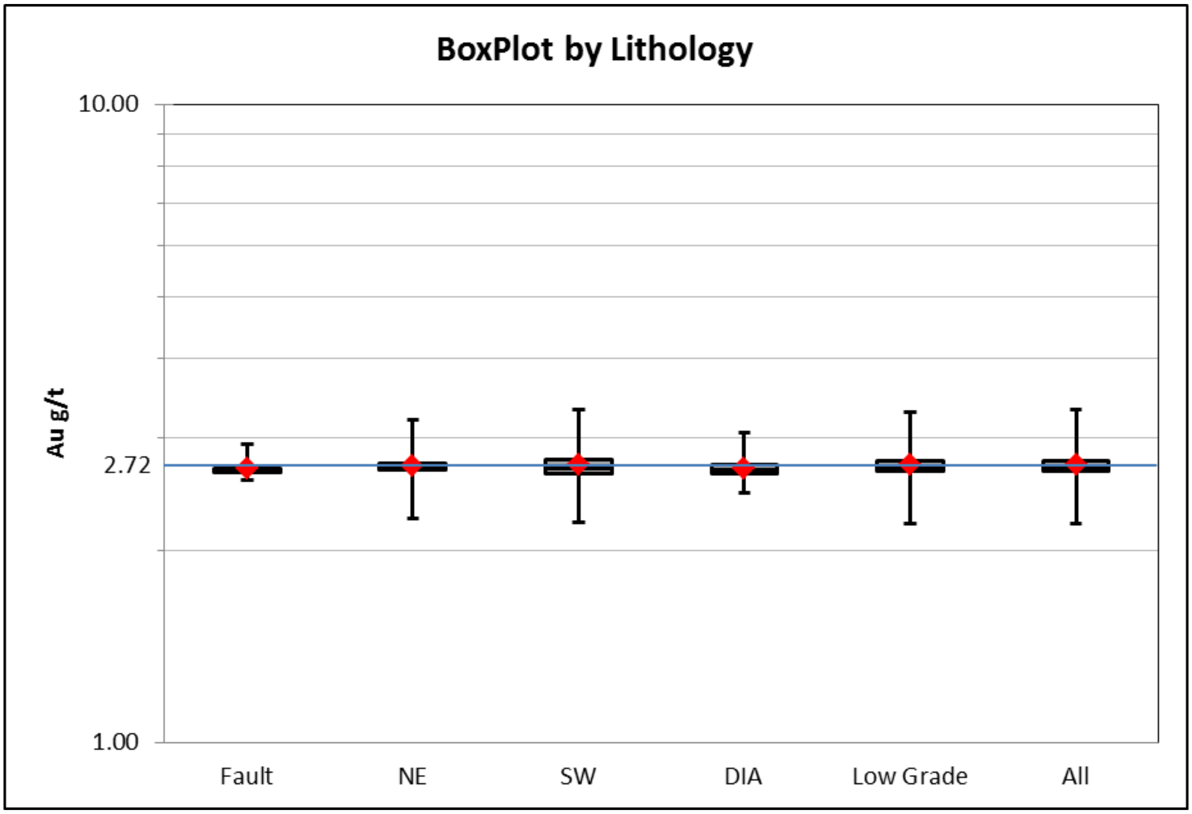
Rock codes presented in Table 14-4 were assigned to a percent block model to reflect the main domains (NE, SW, Low North, Low South, Fault) and the barren diabase dikes. A percent folder was set up for each domain in order to respect the exact volume and grade of each solid.

More than 1,000 density measurements have been, most of them within the low-grade area. From 2009 to 2012, density was measured by the IAMGOLD technician in camp using the water immersion method. For 2014 and 2015, density was measured on pulps at ActLabs using a pycnometer. ActLabs density measurements represent approximatively 45% of the total. Density statistics and box plots for the main domains are presented in Table 14-9 and Figure 14-8, respectively. Based on these statistics, a density of 2.72 g/cm^3 has been assigned to all blocks of hard rock and a density of 1.9 g/cm^3 has been assigned to overburden.

Table 14-9: Density Statistics by Lithology

Solid	Count	Average	Max	STD	CoV
NE	267	2.72	3.20	0.1	0.04
SW	303	2.72	3.32	0.16	0.06
DIA	23	2.69	3.06	0.12	0.05
Low Grade	472	2.73	3.30	0.14	0.05
Fault	9	2.69	2.94	0.10	0.04
All	1,074	2.72	3.32	0.13	0.05

Figure 14-8: Specific Gravity Box Plot by Domain



14.7 Interpolation

The block grade estimation was performed by ordinary kriging (OK). In order to preserve grade continuity, a two-pass strategy was applied. The sample search strategy was based on variography study results. The first pass was more restrictive on the number of composites and distances, while the second pass relaxed those constrains. The composite selection was restricted to those composites generated for the domain being interpolated (hard boundary rule). The number of composites used for interpolation was selected by comparing various selection strategies to global change of support (discrete Gaussian). Table 14-10 presents the interpolation parameters used.

Table 14-10: Interpolation Parameters

Solid	Type	Composite min	Composite max	Composites max per hole	Ellipse orientation	Ellipse ranges (m)
NE	Pass 1	4	7	3	50/25/-25	25/10/10
	Pass 2	2	10	3	50/25/-25	50/60/40
SW	Pass 1	4	7	3	-25/-20/20	40/10/20
	Pass 2	2	10	3	-25/-20/20	100/40/80
Low grade North	Pass 1	4	7	3	-60/40/-40	12/20/12
	Pass 2	2	10	3	-60/40/-40	75/90/40
Low Grade South	Pass 1	4	7	3	10/-10/-80	10/20/10
	Pass 2	2	10	3	10/-10/-80	50/60/40
Fault	Pass 1	4	7	3	18/27/-48	40/75/40
	Pass 2	2	10	3	18/27/-48	75/90/40

The vast majority of the block model was populated in Pass 2. The short first pass radii were added for the 25 m by 25 m drilled area.

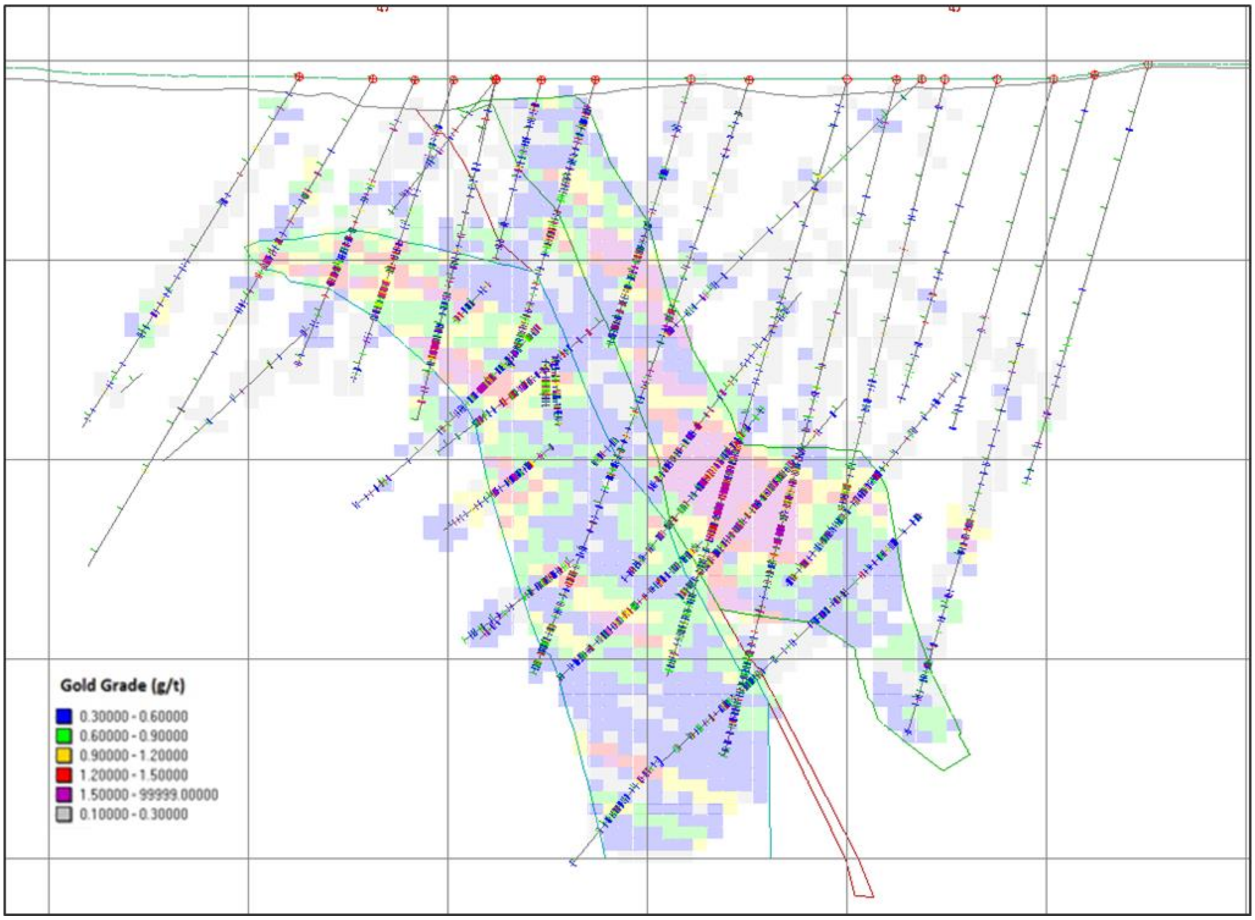
14.8 Block Model Validation

As part of the validation process, a number of different OK runs were completed using various search strategy, number of composites, and alternative capping values. Alternative interpolation methods (inverse distance squared (ID2) and uniform conditioning) have also been used, as well as different block sizes and composite lengths. The results of those runs have been visually, statistically, and graphically compared (grade–tonnage curves).

Other validation steps included:

- Comparison of the 3D volumes and block model volumes;
- Comparison of the basic statistics for assays, composites, and block model for each domain;
- Verification of rock code flagging in block model attributes for consistency with 3D wireframes;
- Visual check of variogram orientation along known geological features;
- Visual check of the block and composite grades in plans and sections (Figure 14-9).

Figure 14-9: Block Model Grades Typical Section



Swath plots were compiled on vertical sections and plan views to check the consistency of the interpolation. Block model values were compared with declustered 6 m composites. In order to facilitate the comparison, only blocks above 0.01 g/t Au were reported on graphs. No pit shell was used to constrain the data as swath plots are designed to check the overall quality of an estimate.

Figure 14-10 shows reasonable correlations between the blocks and the composites on vertical sections. On sections close to 8,700E, corresponding to the 25 m drilled zone where high grade is more constrained, the block grades are slightly higher than the composite grades. At 9,150E, the difference is explained by a wide spaced drilling pattern at depth in a low grade area.

Figure 14-10: Swath Plot by Easting

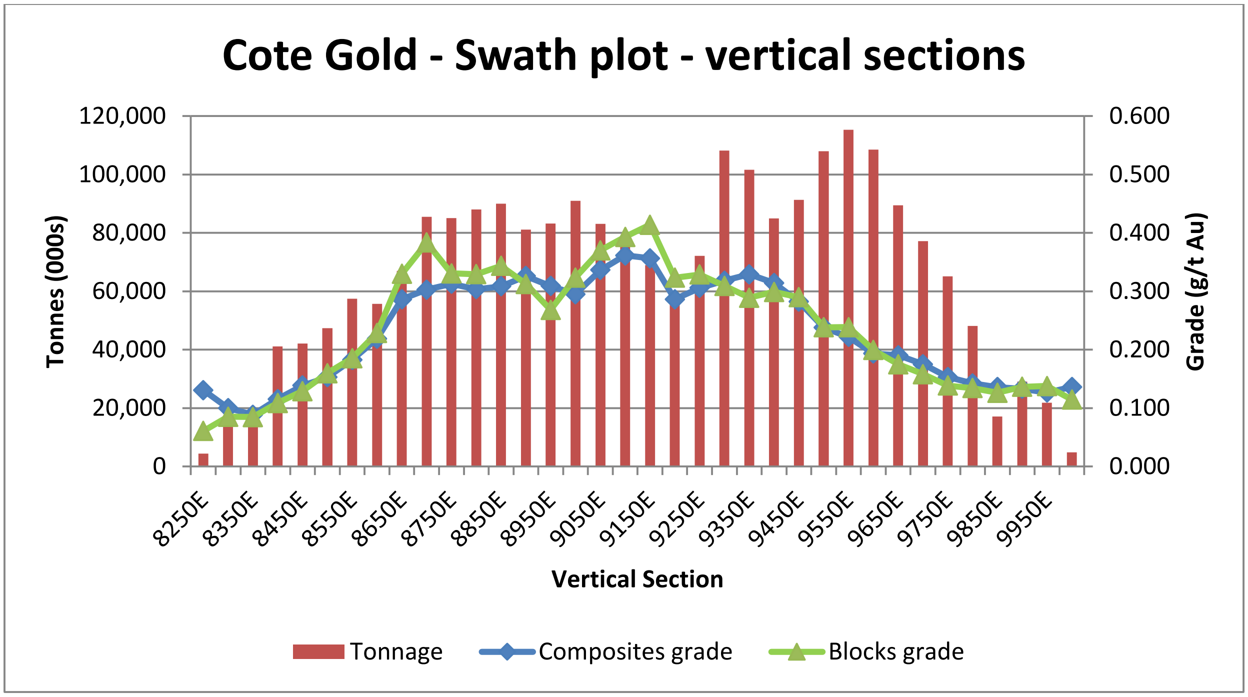
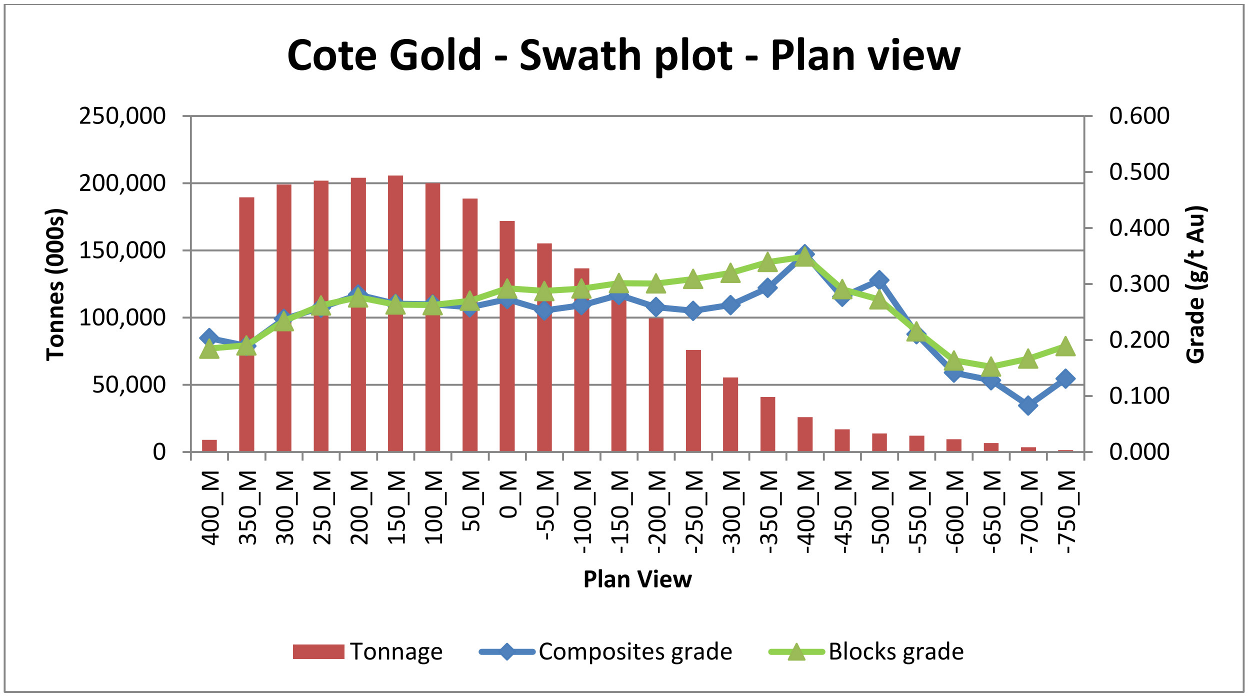


Figure 14-11 shows the comparison between blocks and composites in plan view. For the shallow part of the deposit, the correlation is good. Between -200 m and -350 m elevation, the interpolated block grades are slightly higher than the composite gold grades, which may be due to less drilling data at depth.

Figure 14-11: Swatch Plot – Plan View



14.9 Whittle Optimization

To comply with the NI 43-101 requirements of "reasonable prospects for eventual economic extraction", IAMGOLD retained G Mining Services, a mining consultant group, to prepare a Lerchs-Grossmann (LG) pit optimization using Geovia's Whittle software. The metallurgical, economical, and geotechnical assumptions used are presented in Tables 14-11 and 14-12 and in Figures 14-11 and 14-12.

Although, based on the optimization parameters presented in Table 14-11, the marginal cut-off grade varies from 0.22 g/t Au to 0.23 g/t Au, G Mining Services recommends using an elevated cut-off of 0.3 g/t Au for Mineral Resource reporting.

Table 14-11: Pit Optimization Parameters

Parameter		Royalty Zone 3	Royalty Zones 1,5,7,8	Royalty Zone 2	Royalty Zones 4,6
Gold Price	US$/oz	1,500	1,500	1,500	1,500
Exchange Rate	C$/US$	1.00	1.00	1.00	1.00
Royalty	%	0.0	0.75	1.00	1.50
Refining Cost	US$/oz	2.50	2.50	2.50	2.50
Royalty Cost	US$/oz	0.00	11.25	15.00	22.50
Metallurgical Recovery	%	93.5%	93.5%	93.5%	93.5%
Total Processing Cost	US$/t milled	7.70	7.70	7.70	7.70
General & Admin.	US$/t milled	1.70	1.70	1.70	1.70
Rehabilitation	US$/t milled	0.20	0.20	0.20	0.20
Sustaining Capital	US$/t milled	0.50	0.50	0.50	0.50
Total Ore Based Cost	US$/t milled	**10.10**	**10.10**	**10.10**	**10.10**
Marginal Cut-Off Grade	g Au/t	**0.224**	**0.226**	**0.227**	**0.228**
Rock reference mining cost	US$/t mined	1.89	1.89	1.89	1.89
Incremental Bench Cost	US$/10m bench	0.027	0.027	0.027	0.027
Overburden mining cost	US$/t mined	3.00	3.00	3.00	3.00
Mining Dilution	%	0.00%	0.00%	0.00%	0.00%
Mining Loss	%	0.00%	0.00%	0.00%	0.00%

Table 14-12: Reference Mining Cost

Unit Reference Mining Costs	C$/t
- Operations management	0.05
- Maintenance management	0.05
- Engineering	0.07
- Mine geology	0.03
- Pit Lighting & Dewatering	0.01
- Production drilling	0.17
- Blasting	0.35
- Loading	0.17
- Hauling	0.65
- Road & Dump maintenance	0.26
- Grade Control	0.03
- Pre-Split drilling & blasting	0.06
Total	**1.89**

Figure 14-12: Royalty Map

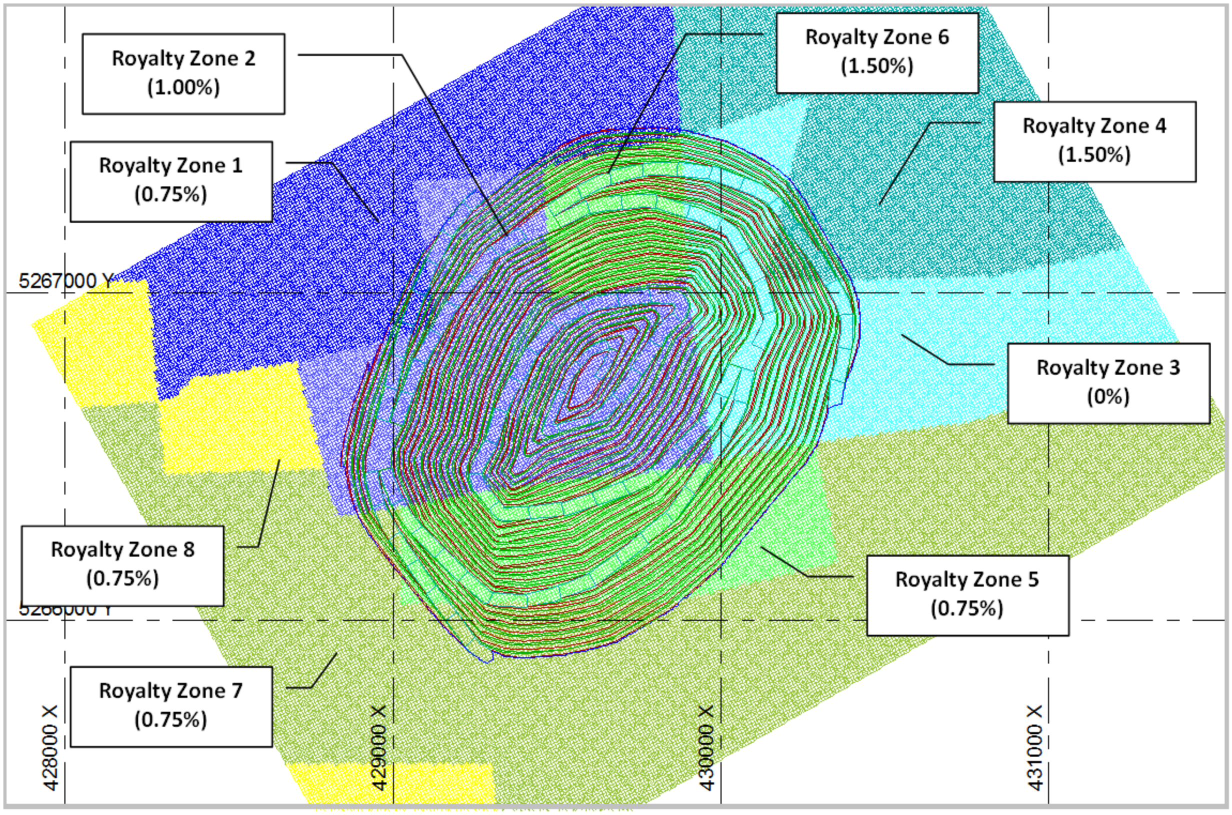
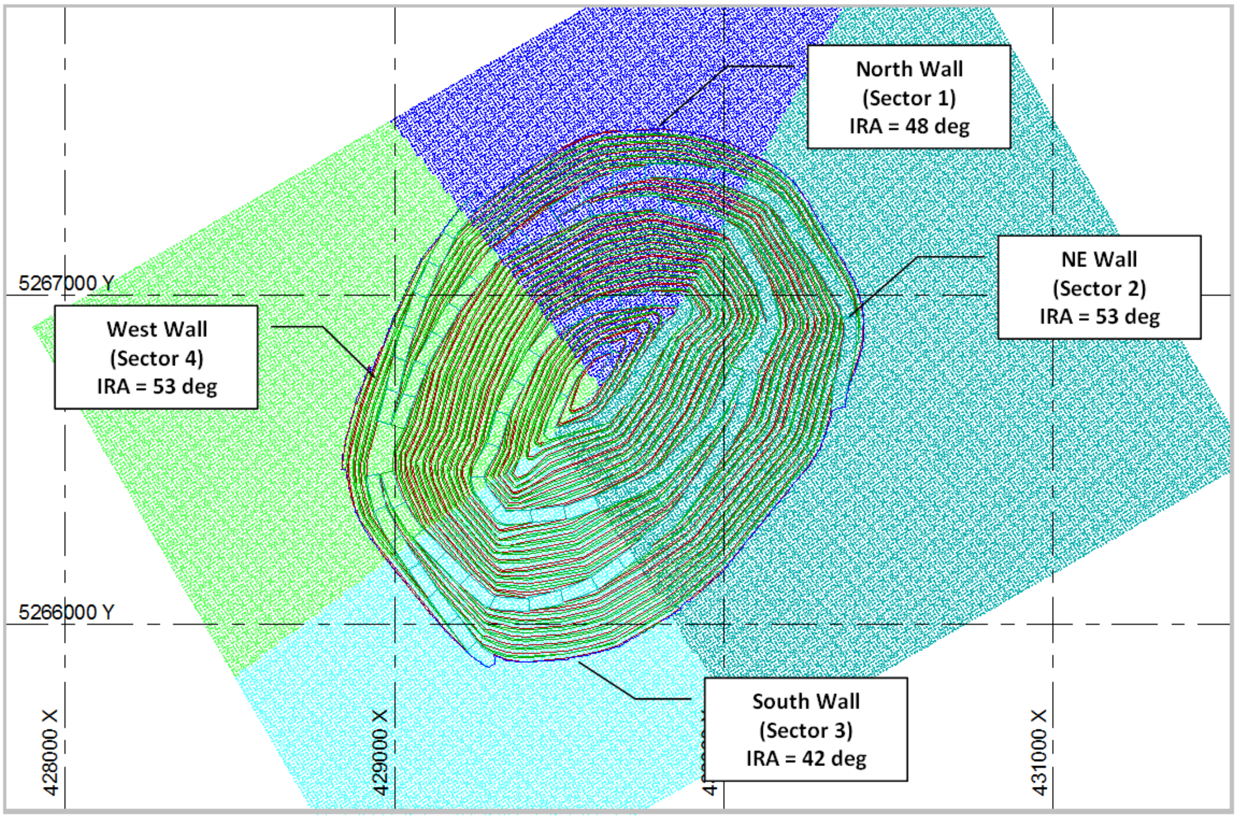


Figure 14-13: Swath Plot – Geotechnical Map



14.10 Resource Classification

Based on the geological understanding, modelled 3D solids, geostatistical study, block size and interpolation parameters, IAMGOLD classified blocks as Indicated or Inferred using the following rules:

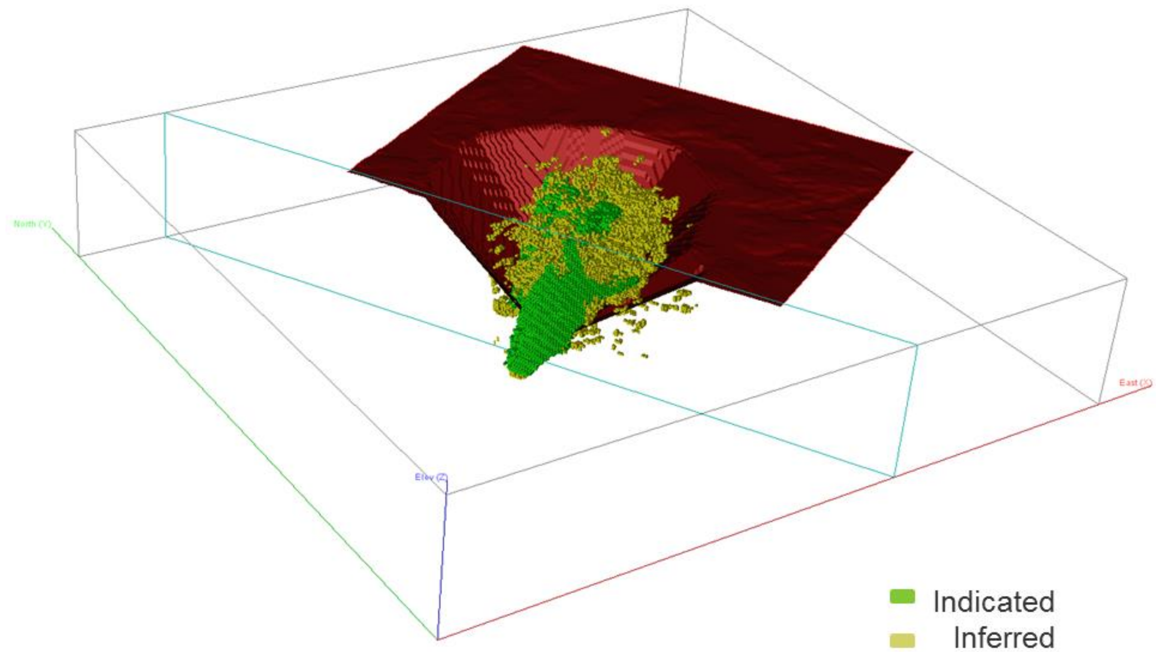
- Indicated: area drilled on a 50 m pattern, within the NE and SW envelopes.
- Inferred: Outside of the main mineralisation, a 20-meter restriction around drillholes were used to classify blocks as Inferred. Only blocks within the conceptual pit shell were reported as a Mineral Resources, including Low grade and Fault areas.

Only blocks contained within the selected Whittle shell are reported as Mineral Resources (Figure 14-14).

The 50 m drilled area was manually interpreted as a 3D wireframe and used for classification. This approach allows a better control of the classification and avoids the appearance of isolated blocks with a different classification.

No blocks were classified as Measured Mineral Resources.

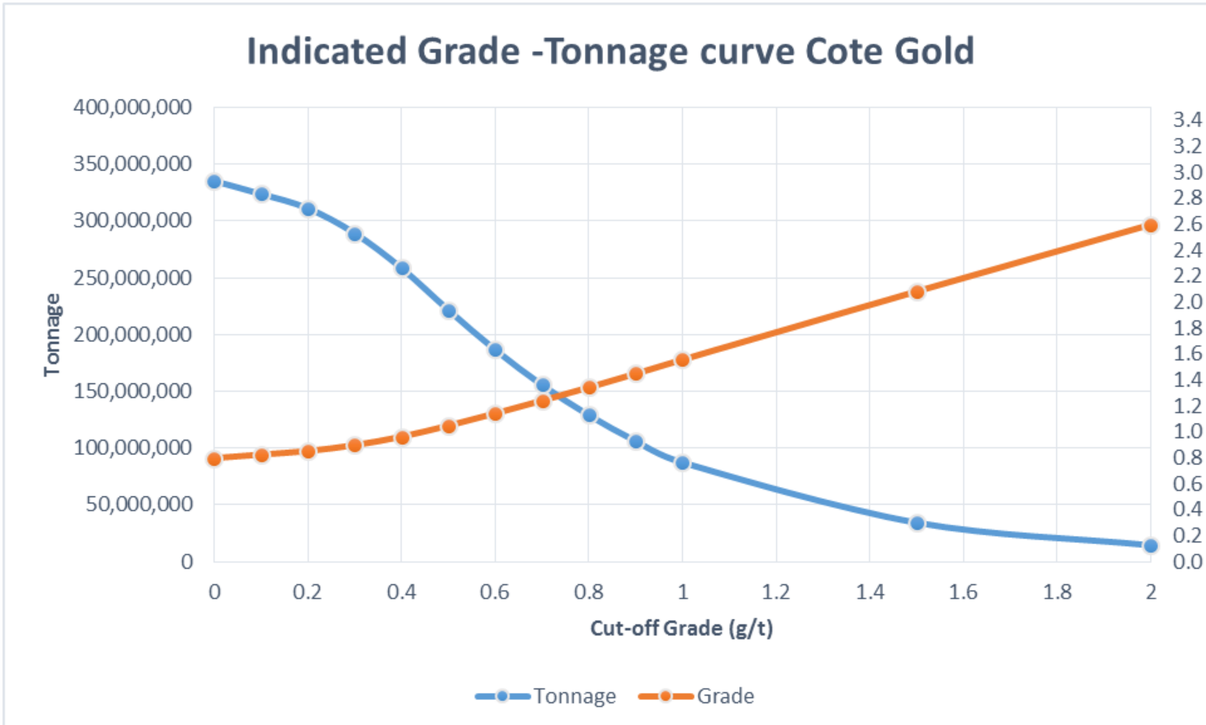
Figure 14-14: 3D View Classification



14.11 Resource Sensitivity

A grade-tonnage curve for in-pit Indicated Mineral Resources at various cut-off grades is presented in Figure 14-15. Mineral Resources are not very sensitive to a cut-off grade change. A 0.1 g/t Au increase in cut-off grade (from 0.3 g/t Au) decreases the total ounces by only 4%, while an increase to a 0.6 g/t Au cut-off grade decreases the total ounces by only 18%. At a 0.6 g/t Au cut-off grade, in-pit Indicated Mineral Resources are estimated to be 190 Mt at 1.14 g/t Au.

Figure 14-15: Côté Gold – Indicated Grade-Tonnage Curve



14.12 Comparison with Previous Estimates

In-pit Indicated Mineral Resources have increased in tonnage and ounces with every Mineral Resource update. The total amount of in-pit resource ounces have more than doubled since RPA's first estimate in 2011. Table 14-13 presents the evolution of in-pit resources in time.

Table 14-13: Comparison with Previous Mineral Resource Estimates

Date	INDICATED			INFERRED		
	Tonnage (Mt)	Gold (g/t)	Gold (Moz)	Tonnage (Mt)	Gold (g/t)	Gold (Moz)
Apr-11	-	-	-	131	1.00	4.22
Apr-12	35	0.82	0.93	204	0.91	5.94
Oct-12	131	0.84	3.56	165	0.88	4.66
Dec-12	269	0.88	7.61	44	0.74	1.04

Dec-14	279	0.86	7.72	52	0.74	1.24
DEC-15	**289**	**0.90**	**8.35**	**67**	**0.55**	**1.17**

Compared to the 2014 estimate, the current Indicated Mineral Resource estimate has increased as a result of the new interpretation for the NE and SW domains. The new model constrains more the high grade zones and renders more continuity for these zones. The new interpretations support a higher capping level, which is responsible for less than 4% of the ounces increase. The increase in block and composite size has virtually no impact on the resources. The increase in Inferred Mineral Resources results from the new geological understanding which allowed interpolation of the grades outside of the main envelope (90% of the Inferred Resources are outside of the main NE and SW domains).

14.13 Discussions

New information added since previous estimates supported the construction of a new geological and economic model. Although this model is an improvement when compared to the previous model, it still needs refinement as it does not allow for reliable local estimates. If achievable, a more selective wireframing should be tested. This should allow better local variogram construction, which would better reflect the local grade trends.

An important database clean up should be completed prior making any financial or production decisions. These revisions should include investigation on the grade and density QA/QC.

Actual capping, compositing, block model size, and interpolation strategy have been selected based on a large scale (low selectivity) open-pit mining scenario. If a more selective method is retained in the future, then these parameters should be revised. A non-linear method of interpolation could achieve a better selectivity and should be tested.

Current classification could be improved, especially in the 1001 and 1002 areas where Inferred Mineral Resources are interpolated. A more detail estimation technique should be tested, using conditional simulation for example.

The confidence of some mineralized zones near surface is lower, as mineralized intervals have been observed but are not associated with a specific geological feature in the south part. The different mineralized models do not behave in a similar mannerfor the shallow mineralization, which affect the grade estimation distribution. This could have a significant impact on the first years of production. The majority of the drilling pattern was performed at the same orientation. In order to improve some local information, additional boreholes should be placed in different directions to test the contact with the diorite, mainly to the north, and to test the diabase contact as well as other fault systems identified in the model. Different trends of mineralization haves been observed, and can be associated with structural features such as veining or faults; oriented boreholes should be drilled outside the brecciated zone to provide more information on these. To summarize, drilling in the opposite direction will test the contact of the diorite, the diabase and any missed structural features. This will be done to as well to intersect any mineralized structures parallel to original drilling which were observed locally during the most recent drill campaign.

Additional drilling should be done to increase the confidence in the shallow part of the deposit, different drilling orientations should be undertaken, especially to increase the confidence in the location of the barren diabase dikes.

15.0 MINERAL RESERVE ESTIMATES

As there are no Mineral Reserves, this section is not applicable.

16.0 MINING METHODS

16.1 Summary

Amec Foster Wheeler based the mine plan on a subset of the Indicated and Inferred Mineral Resources contained in a conceptual pit shell created with the LG algorithm. These resources are shown in Table 16-1.

Table 16-1: Mineral Resources Included in the Mine Plan

Resource Class	Tonnage (kt)	Au Grade (g/t)
Indicated	187,237	1.03
Inferred	33,887	0.61

* A relatively small amount (15.3%) of the tonnes scheduled in the mine plan are Inferred Resources.

The resource model was subjected to an optimization analysis to define the mining limits, involving a base case and 40 additional pit shells. The contribution of each incremental shell to NPV was calculated based on a 10.6 Mt/a processing plant, a maximum mine capacity of 40 Mt/a and a discount rate of 6%. The selected optimal pit shell provides an NPV improvement of US$111 M over the base case.

The project is designed as a conventional truck-shovel operation. The pit design includes three nested phases to balance stripping requirements while satisfying the processing plant requirements.

Amec Foster Wheeler designed two waste rock facilities (WRF) with a total storage capacity of ~283 m^3, and an mill feed stockpile with a capacity of 17 Mm^3, which is sufficient to satisfy the production schedule's maximum stockpiling capacity.

The production schedule results in a life of mine (LOM) of 19 years with stockpile reclaim extending into Year 22. The mine will require one year of pre-production before the start of the processing plant operations. Eleven 220 t haul trucks will be required during pre-production, increasing to 20 by year 1, and peaking at 23 in year 13.

16.2 Pit Optimization

The pit shells that define the ultimate pit limit, as well as the internal phases, were derived using the LG pit optimization algorithm. This process takes into account the information stored in the geological block model, pit-slope angles by geotechnical sector, commodity prices, mining and processing costs, process recovery, and the sales cost for the gold produced. Table 16-2 summarizes the primary optimization inputs.

Table 16-2: Optimization Inputs

Parameter	Unit	Value
Gold Price	US$/oz	1,200
Discount Rate	%	6
Slope Angles		
Sector 1	degrees	48
Sector 2	degrees	53
Sector 3	degrees	42
Sector 4	degrees	53
Dilution	%	5
Mine Losses	%	1
Mining Cost		
Base Elevation	m	388
Base Cost	US$/t	2.29
Incremental Mining Cost	US$/t/bench	0.029
Stockpile Reclaim Cost	US$/t	1.00
Process Costs		
Operating Cost	US$/t milled	4.72
G&A	US$/t milled	2.21
Mine Sustaining Capital	US$/t milled	0.39
Process Sustaining Capital	US$/t milled	0.36
Closure	US$/t milled	0.20
Processing Rate	Kt/d	29
Process Recovery	%	92.50
Treatment & Refining Cost	US$/oz	4.00
Royalties		
Zone 1	%	0.75
Zone 2	%	1.00
Zone 3	%	-
Zone 4	%	1.50
Zone 5	%	0.75
Zone 6	%	1.50
Zone 7	%	0.75
Zone 8	%	0.75

Amec Foster Wheeler imported the resource model, containing gold grades, block percentages, material density, slope sectors and rock types, into the optimization software. The optimization run was carried out using Indicated and Inferred Mineral Resources to define the optimal mining limits.

The optimization run included 41 pit shells defined according to different revenue factors, where a revenue factor of 1 is the base case. To select the optimal pit shell that defines the ultimate pit limit, Amec Foster Wheeler conducted a pit-by-pit analysis to evaluate the contribution of each incremental shell to NPV, assuming a processing plant capacity of 10.6 Mt/a, a maximum mine capacity of 40 Mt/a and a discount rate of 6% (Figure 16-1). Following this analysis, the best pit shell is usually smaller than the base-case pit shell. The selected pit shell is shown in Figure 16-1 and Figure 16-2. This represents an NPV improvement of US$111 M over the base-case pit shell.

Figure 16-1: Pit-by-Pit Analysis

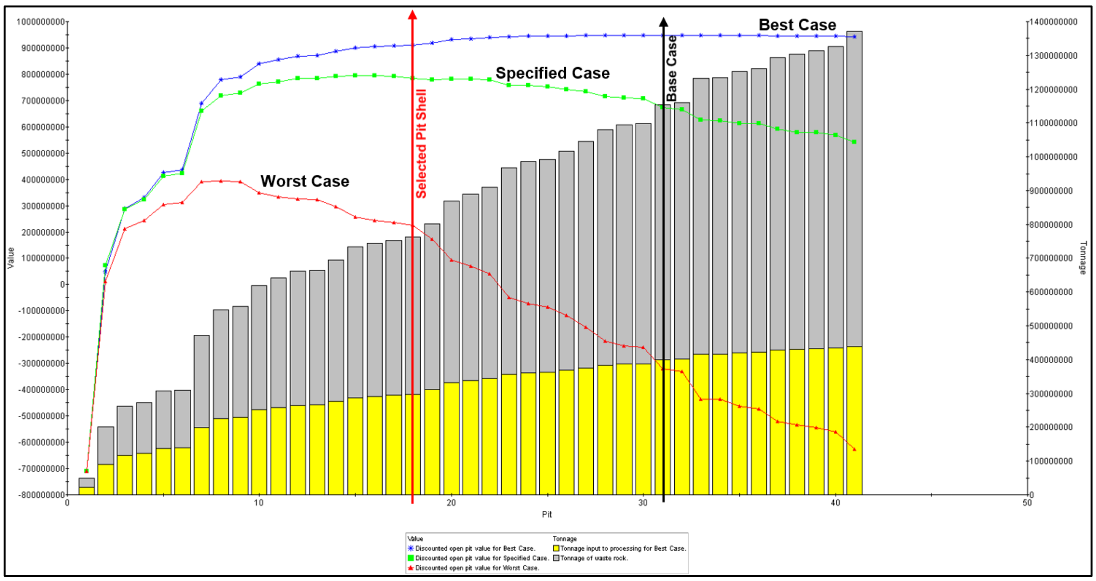
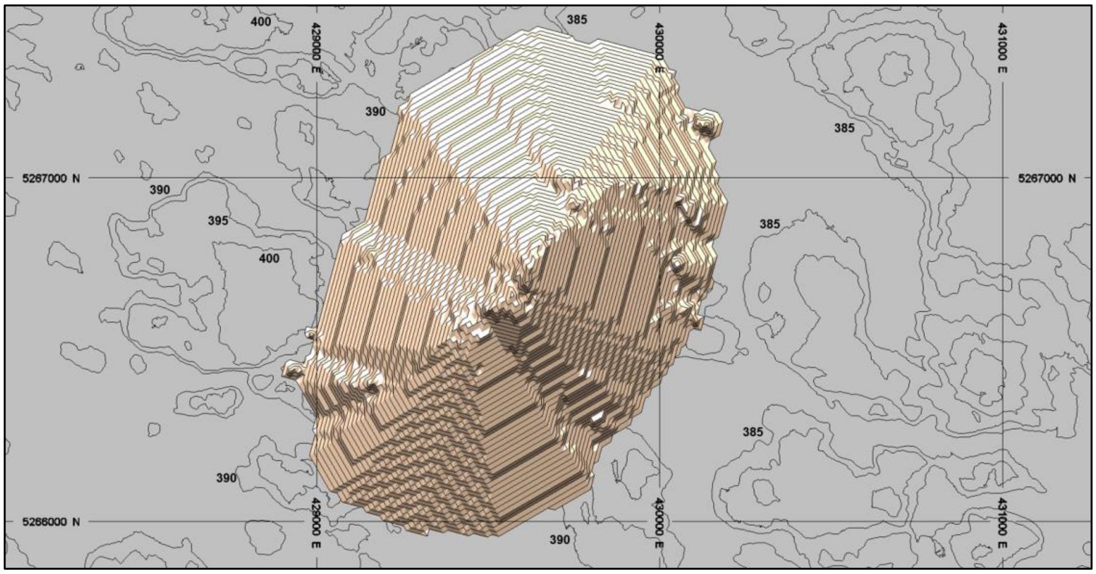


Figure 16-2: Selected Pit Shell



16.3 Mine Design

The Côté Gold Project is designed as a conventional truck-shovel operation with 220 t trucks and 34 m^3 shovels. The pit design includes three nested phases to balance stripping requirements while satisfying the processing plant requirements.

The design parameters include:

- ramp width of 32 m
- road grades of 10%
- bench heights of 12 m
- targeted mining width of 100 m
- berm interval of 24 m
- variable slope angles by sector
- a minimum mining width of 40 m.

The smoothed final pit design contains approximately 187.2 M t of 1.03 g/t Au of Indicated Mineral Resources and 33.9 M t of Inferred Mineral Resources and 589 M t of waste, for a stripping ratio of 2.7:1. These tonnages and grades were derived by following an elevated cut-off strategy in the production schedule. Figure 16-3 shows the ultimate pit design. Figures 16-4 and 16-5 show pit sections comparing the mine design to the selected pit shell.

For production scheduling purposes, pit shells 1 and 6 were used as internal phases. No detailed design was performed for these phases.

Figure 16-3: Ultimate Pit Design

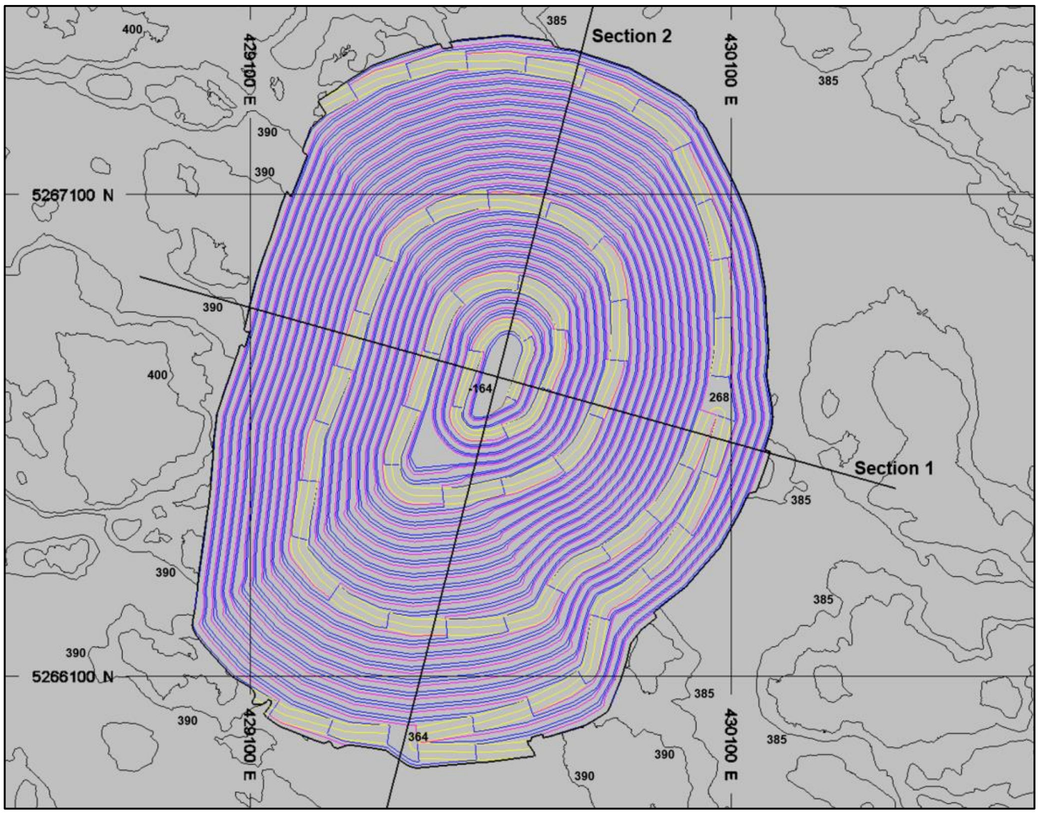


Figure 16-4: Section 1 Showing Mine Design and Selected Pit Shell

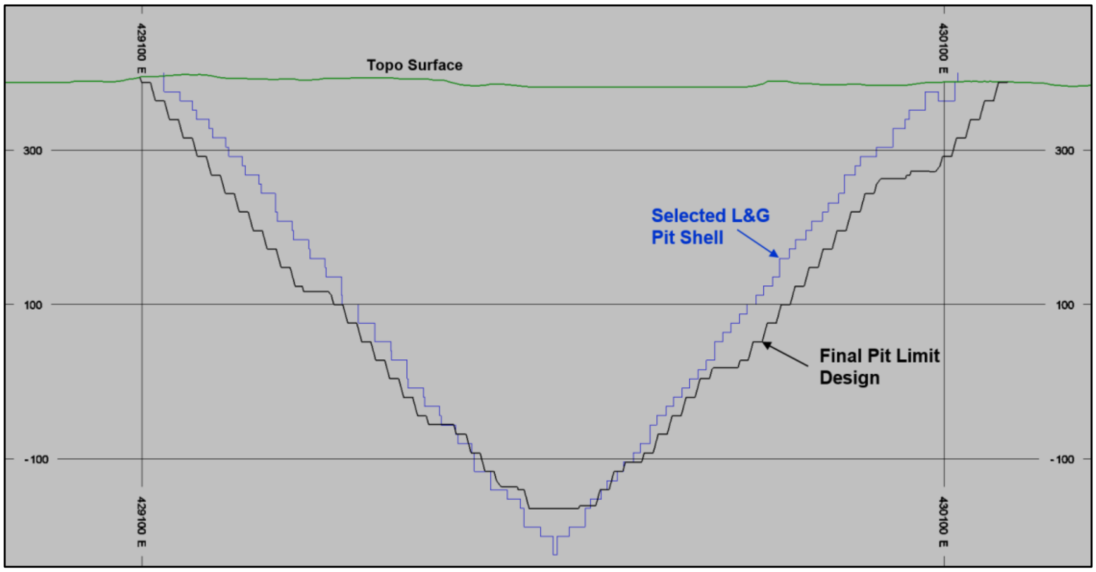
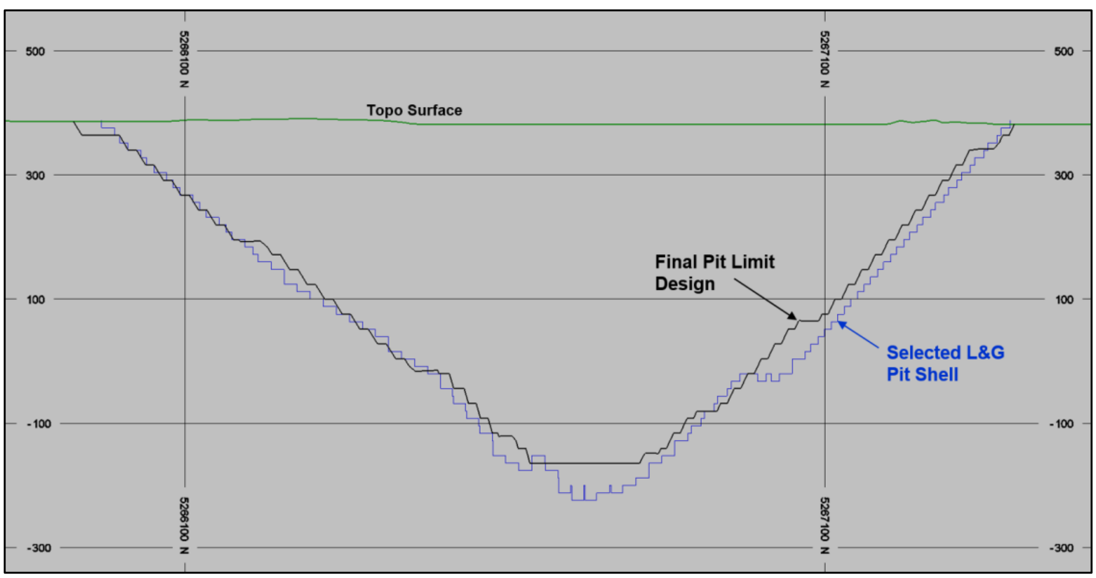


Figure 16-5: Section 2 Showing Mine Design and Selected Pit Shell



16.4 Waste Rock Facilities and Stockpile Designs

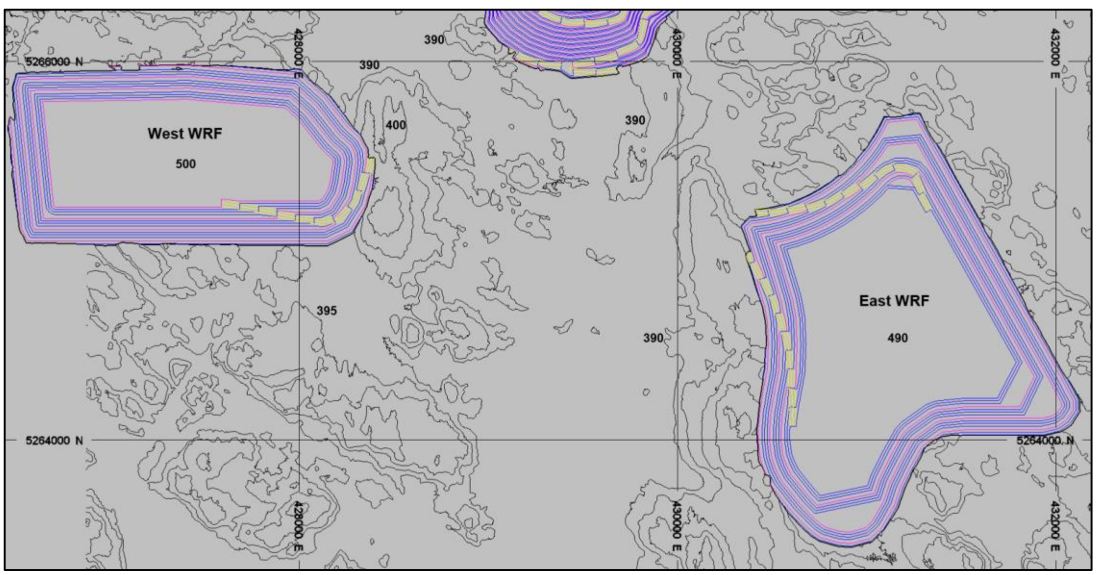
The design and construction of the WRF and stockpiles should ensure physical and chemical stability during and after mining activities. To achieve this, Amec Foster Wheeler designed the WRFs and stockpiles to account for benching, drainage, geotechnical stability and concurrent reclamation.

The WRF design criteria include:

- 20 m berms
- 2.5:1 overall slopes
- 30 m lifts
- 30% swell factor for estimating volumes.

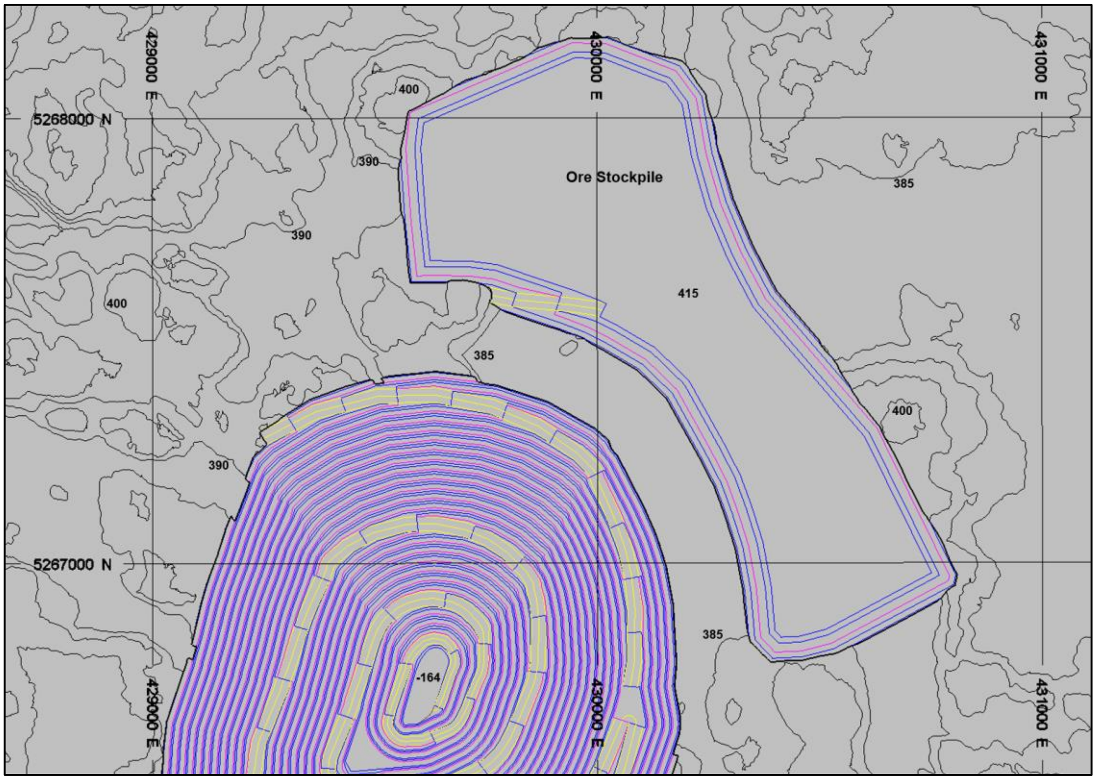
Figure 16-6 shows the locations of the proposed WRFs.

Figure 16-6: Planned Waste Rock Facilities



The West WRF, southwest of the pit, is the smaller, with a designed storage capacity of approximately 117 Mm^3. The East WRF, southeast of the pit, has a design capacity of approximately 166 Mm^3. The mill feed stockpile will be located on the north side of the pit and will have a design capacity of 17 Mm^3, enough to satisfy the production schedule's maximum stockpiling capacity of 30 Mt. Figure 16-7 shows the stockpile design.

Figure 16-7: Mill Feed Stockpile



16.5 Production Schedule

The production schedule includes the processing plant ramp-up schedule to take into account the inefficiencies related to start of operations. The tonnage processed and associated recoveries steadily increase to reach the design capacity after one year of operation. The mine will require one year of pre-production before the start of the processing plant operations.

The scheduling constraints set the maximum mining capacity at 60 Mt per year and the maximum number of benches mined per year at 10 per phase. To guide the schedule and to obtain the desired results, additional constraints included maximum stockpile capacity, and a reduction of mining capacity in later years during the LOM to balance the number of truck hours per period.

The schedule shows an LOM of 19 years with stockpile reclaim extending into Year 22. The amount of rehandled mill feed is 65 Mt.

The average grade is 0.97 g/t Au. The LOM schedule is shown in Table 16-3 and Figure 16-8. Figure 16-9 shows the scheduled feed grade and Figure 16-10 shows the stockpile balance.

Table 16-3: Production Schedule

	Tonnage (kt)					Grade (Au g/t)			
	To Mill			Mine to	Total	To Mill			Mine to
Period	Mine	Stockpile	Total Feed	Stockpile	Waste	Mine	Stockpile	Total Feed	Stockpile
0	-	-	-	2,860	37,140	-	-	-	0.89
1	7,966	918	8,884	5,590	46,443	1.49	1.46	1.49	0.65
2	7,318	3,267	10,585	1,385	51,297	1.21	0.78	1.08	0.54
3	10,585	-	10,585	3,642	45,773	1.07	-	1.07	0.56
4	10,585	-	10,585	15,439	26,050	1.56	-	1.56	0.73
5	10,585	-	10,585	5,269	35,443	1.42	-	1.42	0.65
6	8,569	2,016	10,585	2,016	38,395	1.19	1.01	1.16	0.54
7	8,780	1,805	10,585	1,805	39,415	1.11	0.87	1.07	0.50
8	9,241	1,344	10,585	1,344	39,415	0.94	0.86	0.93	0.45
9	3,411	7,174	10,585	1,680	44,909	0.89	0.73	0.78	0.36
10	4,612	5,973	10,585	4,703	40,684	0.95	0.59	0.75	0.33
11	5,249	5,336	10,585	2,299	37,452	0.93	0.58	0.75	0.35
12	6,876	3,709	10,585	537	37,587	0.93	0.55	0.80	0.41
13	9,503	1,082	10,585	1,053	34,444	0.97	0.54	0.92	0.38
14	10,585	-	10,585	8,171	23,115	1.37	-	1.37	0.55
15	10,585	-	10,585	4,830	7,196	1.18	-	1.18	0.44
16	8,248	2,337	10,585	2,337	2,487	1.13	0.73	1.04	0.35
17	10,567	18	10,585	18	1,000	0.90	0.71	0.90	0.40
18	10,584	1	10,585	1	544	0.89	0.58	0.89	0.29
19	2,294	8,291	10,585	-	130	1.05	0.56	0.66	-
20	-	10,585	10,585	-	-	-	0.38	0.38	-
21	-	10,585	10,585	-	-	-	0.34	0.34	-
22	-	539	539	-	-	-	0.41	0.41	-
Total	**156,145**	**64,978**	**221,124**	**64,978**	**588,920**	**1.14**	**0.57**	**0.97**	**0.57**

Figure 16-8: Production Schedule

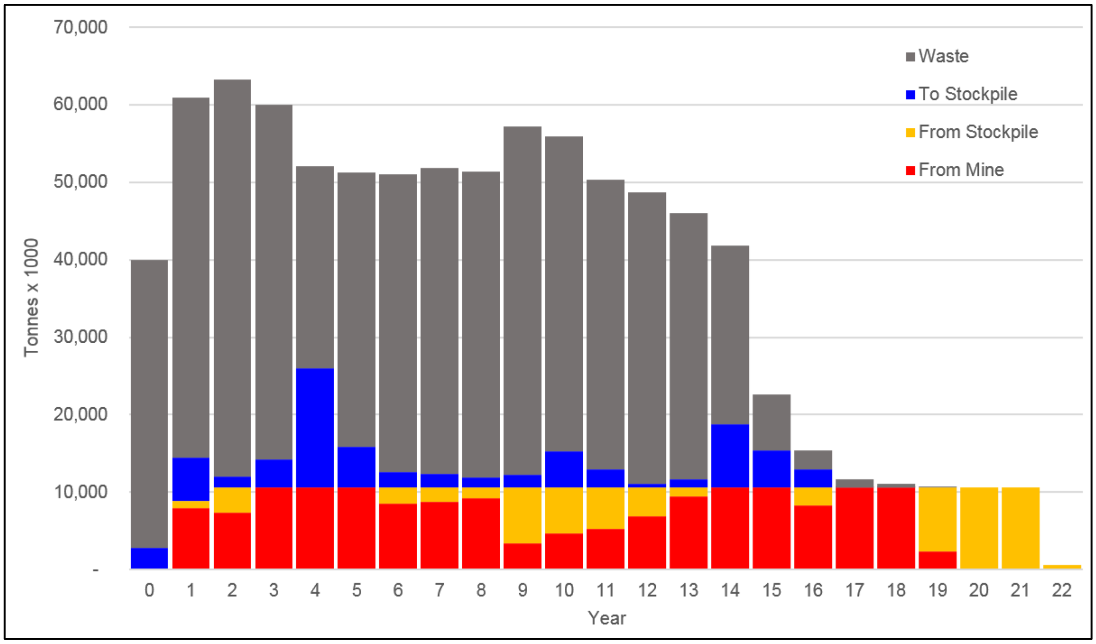


Figure 16-9: Scheduled Feed Grade

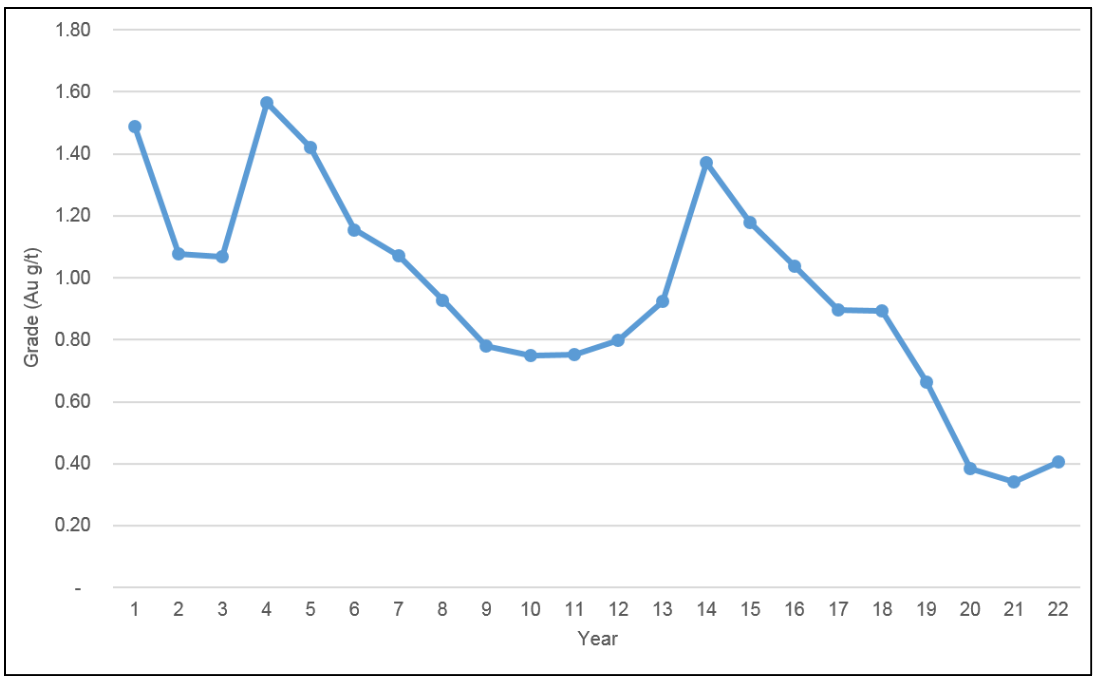
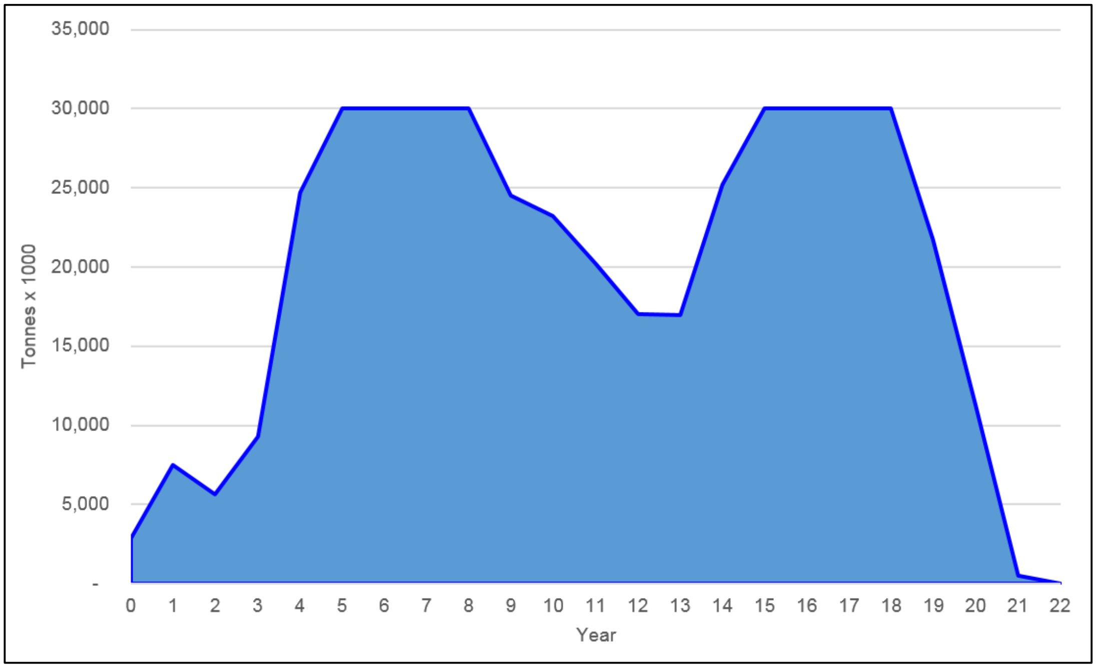


Figure 16-10: Stockpile Balance



16.6 Waste Material Handling

Waste will be hauled to the WRFs using 220 t trucks. The construction sequence starts at the bottom of the stockpile by dumping the material in groups of three 10 m lifts, leaving a 20 m berm every 30 m. The resulting overall slope angle of the dump face will be 2.5H:1V. The West WRF will be built first; upon its completion, the East WRF will be started. The purpose of this sequence is for the West WRF to serve as a buttress for the tailings storage facility.

16.7 Mining Equipment

Mining is planned to be by conventional Owner-operated truck and shovel fleet, supported by contract blasting. The mine fleet will be diesel-powered, with the capacity to mine approximately 60 Mt per year operating on 12 m benches.

Equipment requirements are estimated annually. Equipment sizing and numbers are based on the mine plan, operational factors, and a 24/7 work schedule.

16.7.1 Drilling, Blasting, and Explosives

Amec Foster Wheeler used benchmarking to arrive at a 0.25 kg/t powder factor for waste, and a 0.3 kg/t powder factor for mill feed. Instantaneous drill penetration rates of 35 m/hr were assumed.

Typical pattern designs for waste and mill feed were completed using a 600-kW blasthole drill or equivalent with a 251 mm drill bit size (Table 16-4).

Table 16-4: Drill and Blast Design Criteria

Material	Drill Type	Bench Height (m)	Powder Factor (kg/t)	Bit Size (mm)	Burden (m)	Spacing (m)	Stem (m)	Sub Drill (m)	Avg Pen Rate (m/hr)
Waste	600-kW Rotary	12	0.25	251	7.0	8.1	5.6	2.1	24.7
Mill Feed	600-kW Rotary	12	0.30	251	6.5	7.5	5.2	2.0	24.7

During peak production years, four blasthole drills will be required. In addition to production blasthole drills, one top-head hammer drill with a 114 mm bit will be used for pre-split drilling, road construction, and oversize rock breakage.

Mining activities are expected to encounter groundwater. Groundwater, coupled with approximately 850 mm of annual precipitation, will require the use of a water-resistant emulsion. For estimation purposes, Amec Foster Wheeler assumed that a high energy emulsion will be used for all blasting.

Blasting will be performed by a full-service explosive provider who will be responsible for supplying and delivering explosives in the hole through a shot-service contract. The explosives provider will perform blasting with two rotating crews a seven-day on/seven-day off day-shift schedule.

16.7.2 Loading

The primary production loading fleet is comprised of two 34 m^3 hydraulic shovels and two 21 m^3 front-end loaders (FELs).

16.7.3 Hauling

Haulage requirements are based on measured annual haulage profiles assuming all material exits the pit at the 388 m elevation; mill feed is delivered to either the primary crusher or the run-of-mine (ROM) stockpile; and waste is delivered to either the West or East WRF.

Eleven 220 t haul trucks will be required during pre-production, increasing to 20 by year 1, and peaking at 23 in year 13.

16.7.4 Support

Major support equipment for the Project will include:

- 5-m^3 excavator for berm clean-up, sump excavation, and road maintenance
- 38-t articulated dump trucks or equivalent matched to the CAT 390 excavator
- 430-kW dozers to support loading and dumping activities, road maintenance, and primary crusher stockpile maintenance
- 370-kW rubber-tired dozers (RTDs) or equivalent to support shovel and drill pattern clean-up
- 215-kW motor graders or equivalent for road maintenance
- 75,000 L water trucks or equivalent for dust suppression, road maintenance, fire water and drill water.

Types and numbers of support equipment are shown in Table 16-5 in five-year increments.

Table 16-5: Support Equipment

Description	PP	Yr5	Yr10	Yr15	Yr20
5-m^3 Excavator	1	1	1	1	1
430-kW Dozer	3	4	4	2	1
370-kW RTD	2	2	2	1	-
11-m^3 Loader	1	1	1	1	-
38-t Articulated Dump Truck	2	2	2	2	-
215-kW Grader	2	3	3	2	1
75000-liter Water Truck	1	2	2	1	1
500-hp Fuel/Lube Truck	1	2	2	1	1

PP = pre-production

16.7.5 Auxiliary

A fleet of auxiliary equipment will support mine maintenance and operation. Types and numbers are shown in Table 16-6 in five-year increments.

Table 16-6: Auxiliary Equipment

Role	Description	PP	Yr5	Yr10	Yr15	Yr20
Maintenance	80t Rough Terrain Crane	1	1	1	1	1
	Routh Terrain 5t Forklift	2	2	2	1	1
	Rough Terrain 16.3t Forklift	2	2	2	1	1
	30t Tire Handling Forklift	1	1	1	1	1
	Fuel/Lube (small)	1	1	1	1	1
	Mechanic/weld Truck	2	2	2	1	1
	Boom Truck	1	1	1	1	1
	Tire Handler (manipulator)	1	1	1	1	1
Operations	3.7-m^3hydr Excavator	1	1	1	1	1
	12,000 ft-lbf hammer/impactor	1	1	1	1	1
	92-kW Backhoe/loader	1	1	1	1	1
	160t Lowboy	1	1	1	1	1
	Utility Truck with Crane	2	2	2	1	1
	174-hp Vibratory Compactor	1	1	1	1	1
	Light Plant	5	6	6	3	1
	Ambulance	1	1	1	1	1
	Pumps & Pipe	2	2	2	1	1
	380-hp Single Cab Pick-up Truck	13	13	13	8	8
	380-hp Double Cab Pick-up Truck	5	7	7	4	1
	Crew Bus	4	4	4	3	2
	2250 kW Generator	1	1	1	1	1
	Mine & Geology Software	1	1	1	1	1
	Modular Dispatch	1	1	1	1	1

16.8 Open-Pit Water Management

Dewatering will be via in-pit pumping for both rainfall and ground water inflows. In estimating dewatering costs, Amec Foster Wheeler relied extensively on methods and estimates from the prior internal studies by IAMGOLD.

16.9 Geotechnical Review

Amec Foster Wheeler reviewed Golder's March 2015 geotechnical report for pit-slope design, and considers it sufficient to support open-pit mine design at the PEA level.

17.0 RECOVERY METHODS

17.1 Summary

Testing of samples from the Côté Gold deposit has indicated that the majority of the material is very competent and resistant to SAG milling. A typical SAG mill configuration, even with high ball loads, would be unable to process this material in an energy-efficient manner. The alternatives are pre-crushing with SAG milling, or the use of HPGR technology.

Pre-crushing has been used as a response to challenges caused by impact resistance of ore materials. It poses issues with respect to availability, maintenance/operating costs, and responsiveness to ore changes. In contrast, HPGR circuits typically have lower energy costs, predictable throughput and high availability, although at higher maintenance costs. Examples of HPGR circuits include Boddington, Cerro Verde, Morenci and diamond projects in Canada.

For the Côté Gold Project, reduced grinding media and SAG mill liner wear will be as significant as savings in energy consumption. An HPGR circuit will have better availability than a SAG mill, since maintenance actions are less frequent and more controlled. In the next study stage, it will be imperative to acquire sufficient material for HPGR pilot testing, with samples of sufficient variability to test responses to different mill feed characteristics.

The process circuits will include primary crushing, secondary crushing, HPGR, ball milling, gravity concentration and cyanide leaching, followed by gold recovery by CIP, stripping and EW. Tailings handling will incorporate cyanide destruction and tailings thickening.

Plant throughput will be 29,000 t/d at a plant availability of 94%. It is expected that a ramp-up period of three to four months will be required to reach the design throughput.

17.2 Process Design Criteria

The process design criteria were developed from:

- Recovery of Gold from the Côté Lake Deposit, 12589-001, SGS Mineral Services, July 2011
- SMC Test Report, 12007/P42, JKTech Pty Ltd, July 2012
- Geometallurgical Investigation of the Côté Lake Deposit, SGS, August 2012
- Grindability Characteristics of Samples from the Côté Lake Deposit, 12589-003 – Report 1 (Grindability), SGS, August 2013
- Gold Recovery from Côté Lake Deposit, 12589-003 – Report 2 (Recovery Testwork), SGS, December 2013
- Final SMC Test Report, 13007/P50, JKTech, March 2014

- Grindability Characteristics of Samples from the Côté Lake Deposit, 12589-004 – Final Report 1 (Grindability), SGS, August 2013
- Amec Foster Wheeler's crushing and grinding calculations
- Modelling by equipment suppliers
- Gold grade values from the mine plan
- Material characteristics from testwork on drill core
- Recovery estimates from on variability testwork.

A summary of the plant process design criteria is listed in Table 17-1.

Table 17-1: Process Design Criteria

	Parameter	Units	Value	
Plant Feed Rate	Shifts / Day		2	
	Hours / Shift	Hr	12	
	Hours / Day	Hr	24	
	Days / Year	Days	365	
	Crusher Utilization	%	70	
	Process Plant Availability	%	94	
	Annual Processing Rate	M tpy, dry	10.6	
	Daily Processing Rate	tpd, dry	29,000	
	Hourly Processing Rate, Nominal	tph, dry	1,285	
Mill Feed Properties	Specific Gravity		2.7	
	Bulk Density	t/m^3	1.6	
	Moisture Content	%, w/w	3	
			Nominal (50^{th} percentile)	Design (80^{th} percentile)
	Abrasion Index		0.55	0.7
	Crusher Work Index	kWh/t	11.74	13.04
	Bond Ball Mill Work Index	kWh/t	15.89	16.78
	Bond Rod Mill Work Index	kWh/t	17.34	18.24
	Drop-Weight Index	kWh/m3	10.4	11
	Mia (coarse particle component)	kWh/t	27.7	28.9
	Mih (HPGR component)	kWh/t	22.4	23.6
	Mic (crusher component)	kWh/t	11.6	12.2
	A x b (overall SAG mill hardness)		25.98	25
Head Grades and Recoveries	Head Gold Grade, Average	g/t Au	0.95	
	Head Silver Grade, Average	g/t Ag	<2	
	Au Recovery by Gravity	%	23	
	Intensive Leach Recovery	%	99	

Parameter	Units	Value
Leach Recovery	%	91
CIP Recovery	%	99
Desorption, Regeneration & Refining Recovery	%	99
Overall Au Recovery	%	91.9

A = maximum breakage; b = relationship between energy and impact breakage

17.3 Process Plant Overview

The process plant will consist of a primary (gyratory) crusher, secondary crushing circuit, coarse ore stockpile (COS), tertiary HPGR crusher, ball mill , pre-leach thickening, whole ore cyanide leaching, CIP recovery of precious metals from solution, elution of precious metals from carbon, and recovery of precious metals by EW followed by smelting to doré. The plant will have facilities for carbon regeneration, tailings thickening and cyanide destruction.

Run-of-mine mill feed will be transported by 220 t haul trucks to the gyratory crusher, where each truck will dump into the crusher feed pocket. The crushed material will be transferred to an apron feeder. The apron feeder will discharge onto the gyratory crusher discharge conveyor, which fills a secondary crusher screen feed silo. The contents of the silo will be fed to a secondary crusher screen by a belt feeder; oversize (O/S) material from this screen will be sent to the secondary crusher and then routed back onto the gyratory crusher discharge conveyor; undersize material will be conveyed to the COS by the stockpile feed conveyor. The secondary crusher screen will also have the means to divert oversized material to a smaller emergency secondary screen O/S stockpile, to provide relief to the secondary crusher as needed. Conveyors will have variable speed drives to facilitate process control. Magnets and metal detectors on conveyors will protect them from damage by trash metal. Weigh scales on various conveyors throughout the crushing circuits will monitor crusher metallurgical performance and production.

Reclaimed crushed material from the COS will be conveyed to the HPGR along a belt outfitted with a scale to track tonnage. The HPGR circuit will have a scalping screen to control HPGR product size to the cyclone feed pumpbox; oversize material will be recycled back to the HPGR feed belt. The first O/S recycle conveyor will have belt magnets and a metal detector to protect the HPGR from trash metal, as well as a belt scale to monitor recycled tonnage. The material feeding the cyclone feed pumpbox will be classified to the ball mill cyclones.

O/S leaving the ball mill cyclones can go in one of two circuits. If low-grade mill feed is being processed, it can be sent directly to the ball mill, which operates in a closed circuit with the cyclone cluster to produce a product size of 80% passing 100 μm. Lime is fed into the ball mill as needed.

High-grade mill feed leaving as O/S from the ball mill cyclones will be directed to the gravity circuit, distributed between two gravity concentrator screens, followed by a dedicated gravity concentrator assigned to each screen. Fluidization water and screen wash water, together with gravity concentrator tailings, will be collected in a launder and sent back to the cyclone feed pumpbox. Gravity concentrate will be collected in the storage hopper of an intensive cyanidation reactor. This reactor will be operated periodically to prepare material that discharges into an intensive cyanidation reactor. Cyanide and leaching aids will be added to the intensive cyanidation solution tank, and the resulting pregnant solution will be pumped to the pregnant solution holding tank.

Appropriately sized material from the cyclone overflow will be sent to one of two trash screens. Undersize from these screens will be sent directly to the pre-leach thickener feed tank. O/S will be routed to one of two trash dewatering screens, where the trash will be collected off the surface of the screen into bins. Undersize from the dewatering screens will also be sent over to the pre-leach thickener feed tank.

Lime will be added to maintain pH at 10.5 to 11, to prepare for cyanide leaching. The slurry will be thickened, producing an underflow at 50% solids that will report to the leach circuit. The slurry will be split between two trains of leach tanks to achieve a leach residence time of 30 hours. Discharge from the leach trains will be recombined and sent to a CIP tank train in the carousel arrangement, for gold adsorption.

Loaded carbon from the CIP tanks will be pumped to the pressure elution circuit with two 10 t stripping vessels. Once gold has been desorbed, the carbon will be sent for regeneration in a 0.5 tph electric kiln. Quenching and screening will prepare the reactivated carbon for reintroduction into the CIP circuit.

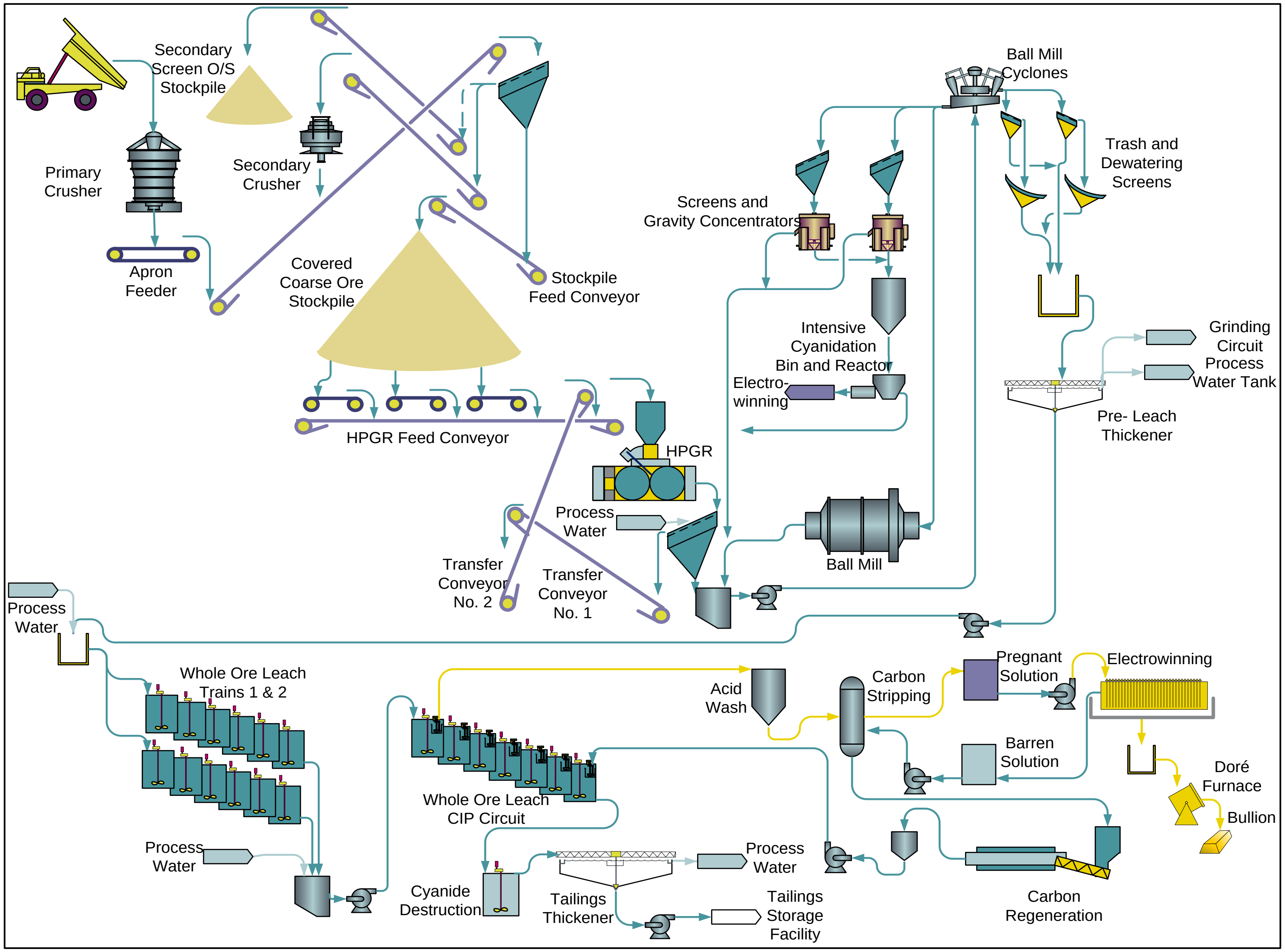
Gold eluate, meanwhile, along with intensive cyanidation eluate, will be sent to EW cells to produce a gold-silver precipitate sludge. Loaded cathodes will be pressure-washed in place to produce a sludge containing the precious metals. The sludge will be filtered, dried, and then mixed with fluxes and smelted onsite to produce gold-silver bars.

Slurry discharged from the CIP tanks will report to two cyanide destruction tanks in series, before being sent to a tailings thickener. The slurry will be thickened to 58% solids in the tailings thickener before being sent to the tailings management facility (TMF).

The cyanide destruction tank will employ a single-stage SO_2/air process. The area includes SO_2 generation and storage as well as feed systems for SO_2, lime, and copper sulphate.

The overall process flow diagram is shown in Figure 17-1. The major design considerations in the plant layout were maintaining a single grinding line with gravity concentrators while minimizing pumping and piping requirements, and arranging the facilities efficiently considering the physical footprint limitations imposed by the site geography.

Figure 17-1: Overall Process Flow Diagram



17.4 Unit Operations

Unit operations are summarized in Table 17-2.

Table 17-2: Summary of Unit Operations

		Unit	Design	Design Input*
Grinding	Milling rate	tpd	29,000	N/A
	ROM F_{80}	mm	1000	C
	Crushing circuit availability	%	70	A
	Stockpile live capacity	t	19,000	C
	HPGR feed, F_{80}	mm	35	C
	HPGR product, P_{80}	mm	5	C
	Ball mill grind, P_{80}	µm	100	C
	Ball Mill circulating load	%	300	S
	Grinding circuit availability	%	94	I
Leach	Leach feed thickener unit area	m^2/tpd	TBC	T
	Type of circuit	-	CIP	A
	Residence time, leach tanks	hr	30	A
	Residence time, CIP tanks	hr	1.5	A
	Cyanide consumption	kg/t	0.15	C
	Carbon concentration	g/L	55	A
	Leach tailings thickener unit area	m^2/tpd	TBC	T
Elution	Stripping method	-	Pressure Zadra	N
	Number of circuits	-	1	A
	Carbon batch size per circuit	t	20	A
Carbon Regeneration	Type	-	Indirect	N
	Method of heating	-	Electric	N
	No. of Kilns	-	1	A
	Rate	kg/hr	500	A
Cyanide Destruction	Number of stages	-	1	
	Residence time	min	88	E
	Oxidant	-	SO_2/air	A
	SO_2 addition	g/g CN_{wad}	4	I
	Residual cyanide, WAD	mg/L	TBC	N

* A = Amec Foster Wheeler database, C = calculated, E = Estimate, I = Industry Standard, N = IAMGOLD,
S = Assumed, T = Testwork data TBC = To Be Confirmed

17.4.1 Crushing and Coarse Ore Stockpile

Comminution and conveyor sizing and other parameters are shown in Table 17-3 and Figure 17-2. The 54-75 primary gyratory crusher will crush at an average rate of 1726 tph to a P_{80} of 164 mm. Selection of this crusher was based on power requirements.

Primary crusher product will be sized on a double-deck multi-slope vibrating screen, with O/S further crushed by a 1000 hp cone crusher. Secondary crusher product will be sent back to the secondary vibrating screen.

Secondary crusher product will be sent to the 24/17 HPGR. HPGR product will be in closed circuit with a double-deck multi-slope wet screen. Screen undersize will feed the ball mill circuit.

With an F_{80} of 5 mm and a P_{80} of 100 µm, the ball mill is expected to draw 13.2 kWh/t on average. With a production rate of 1378 tph, power draw at the pinion will be 18,137 kW. The drive will be a 19 MW dual-pinion drive with variable speed capability.

The dump pocket capacity will be 330 t, 1.5 times the size of an average truckload. Normal practice is for trucks to dump only when levels in the pocket are low. The surge pocket under the crusher will have the capacity of two truckloads or 440 t.

The dump pocket will have a water spray, an agglomerative dust suppression or “fogging” system. The apron feeder discharge chute will have a baghouse-type dust collector.

Crushed mill feed material will be transferred from the surge pocket to the discharge conveyor at an average rate of 1,726 t/h. The apron feeder under the crusher will have a variable-frequency drive (VFD) to control the loading on the crusher discharge conveyor.

The crusher discharge conveyor will feed the gyratory discharge conveyor that also conveys secondary crusher product. Secondary screen O/S will be sent to the secondary crusher or, when the secondary crusher is not operational, will be sent to an emergency stockpile. Reclamation from the emergency stockpile will be by a loader feeding onto the secondary crusher feed conveyor.

Secondary screen undersize will be conveyed to the covered COS, which will have a live capacity of 19,333 t or 16 hours of nominal process plant operation. Total live and dead storage capacity will be 130,000 t, equivalent to six days of normal operation. With the use of a bulldozer, this will enable the process plant to continue operating for the duration of a complete primary crusher concave/mantle relining.

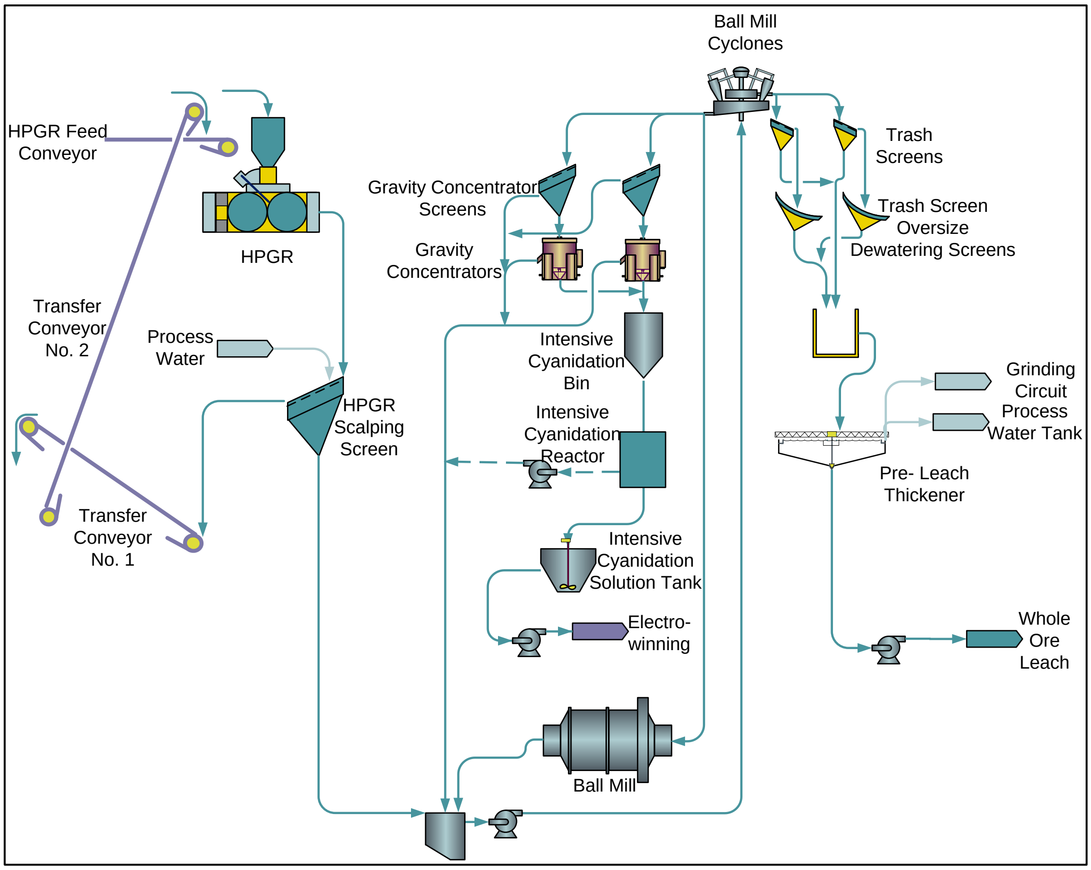
The COS will be equipped with three reclaim apron feeders, sized so that two per line can deliver the design rate. Apron feeder discharge chutes will be equipped with a baghouse-type dust collector to control dust in the tunnel.

Table 17-3: Major Comminution Equipment Parameters

	Equipment	Unit	Value
Primary Crushing:	Number of units	#	1
Gyratory Crusher	Throughput	dry tph	1,726
	Installed motor	kW	650
	Product particle size, P_{80}	mm	164
	Size	inches	54” x 75”
Secondary Crushing:	Number of units	#	1
Cone Crusher	Throughput	tph	1,726
	Installed motor	kW	750
	Product particle size, P_{80}	mm	35
Tertiary Crushing:	Number of units	#	1
HPGR	Throughput	tph	1,285
	Power draw (Bond)	kW	4,470
	Crusher Product, P_{80}	mm	5
	Size	mm Ø x mm W	2,400 x 1,650
Ball Mill	Number of mills	#	1
	Throughput	tph	1,285
	Size	m (ø x length EGL)	8.2 x 13.2
		ft (ø x length EGL)	27 x 43.3”
	Installed motor	MW	19,000
	Motor / mill	-	2
	Drive type	-	Dual Pinion
	Cyclone O/F, P_{80}	µm	100

The base-case flowsheet to achieve 29,000 t/d at P_{80} 100 µm is a closed HPGR and ball mill circuit, as shown in Figure 17-3.

Figure 17-2: Grinding Circuit Flowsheet



All transfer conveyors will be equipped with a rip detection device to alert personnel of belt problems. Conveyors will have VFDs drives to control equipment and reduce the required size of the storage bins.

The HPGR will have a 2,400 mm diameter and width of 1,650 mm, and two motors with a combined 5,300 kW of power. It will discharge to a double-deck scalping screen with 20 mm and 6 mm apertures to achieve a transfer P_{80} of 5 mm. Oversized material will be recycled back to the HPGR feed, whereas the transfer undersize will be sent to the ball mill discharge pumpbox for classification via the ball mill cyclones.

The ball mill will be coupled with the HPGR and will operate in a closed-circuit configuration with cyclones to produce a P_{80} of 100 µm. It will be charged with two ball sizes to improve grinding efficiency. Initial design will be for 3" and 2" balls.

The cyclones used to classify ball mill feed will operate at a feed density of 55% solids by weight to produce a circuit product size P_{80} of 100 µm.

A 100 t capacity crane will be installed to handle the HPGR, and roll transport equipment will be installed to facilitate roll change-out. An overhead crane will be installed for general maintenance. A sump pump will be installed to facilitate the cleanup of any spills on the basement floor.

17.4.2 Gravity Concentration and Leach Feed Thickening

Ground mill feed from the HPGR/ball mill circuit will flow from the cyclone clusters to the ball mill, the gravity concentration circuit, or to pre-leach thickening.

Approximately 85% of the cyclone underflow will be sent directly to the ball mill while 15% of the flow will be sent through the gravity concentration circuit prior to the ball mill. In this case, the cyclone underflow will be first sent to the gravity concentrator screens, where particles greater than 2 mm will be removed. Then, the undersize particles in the slurry will be sent through gravity concentrators to separate high-density particles into a high-grade concentrate. This high-grade concentrate will be discharged by batches every 45 minutes, and stored in the intensive cyanidation storage hopper for further processing. O/S from the screen and fluidization water for the gravity concentrators will be combined with the gravity circuit tailings and sent back to the grinding cyclone pumpbox.

The contents of the cyanidation storage hopper will be discharged into the intensive cyanidation reactor, to be leached with a high-cyanide concentration solution. Caustic will be added to maintain the pH between 10.5 and 11, along with a leaching aid to complete the gold dissolution process. Solids from this reactor will be discharged back to the cyclone feed pumpbox, and the pregnant solution, containing dissolved valuable metals, will be forwarded to the pregnant solution holding tank.

The cyclone overflow stream will flow by gravity to two trash screens for the removal of organic materials, metal, and other miscellaneous tramp materials. Undersize from the two trash screens will flow by gravity to the pre-leach feed thickener, and O/S sent to dewatering screens. O/S on this set of screens will be diverted to a trash screen bin that is be emptied periodically, and the undersize will be sent to the pre-leach thickener feed tank as well.

The pre-leach feed thickener preliminary sizing indicates one 43 m diameter (ø) high-rate type with an auto-diluting feed well. The feed slurry density of 35% solids will be increased to a target of about 50% solids in the underflow after thickening. The speed of the underflow pumps beneath the thickener will be varied to control the density of the feed to the leach circuit.

Thickener overflow water will be reused as process water in the different mill circuits as required.

17.4.3 Whole Ore Leach and CIP

The pre-leach thickener underflow stream will be introduced to a leach feed tank, where it will be mixed with cyanide at a concentration of 300 mg/L. The slurry will then be distributed to one of two WOL lines. Each WOL line will consist of six tanks in series, each 18 m diameter x 20 m high. Slurry will overflow from one tank to the next as it makes its way through the line.

Once leaching is completed, the slurry from both leach lines will be recombined in the pump cell feed launder, and then pumped to the CIP tanks. The pump-cell CIP circuit has 400 m^3 tanks operating in carousel mode. In this mode of operation, each tank has its own discrete batch of carbon, which spends a controlled period of time in the circuit before the entire batch is removed to elution.

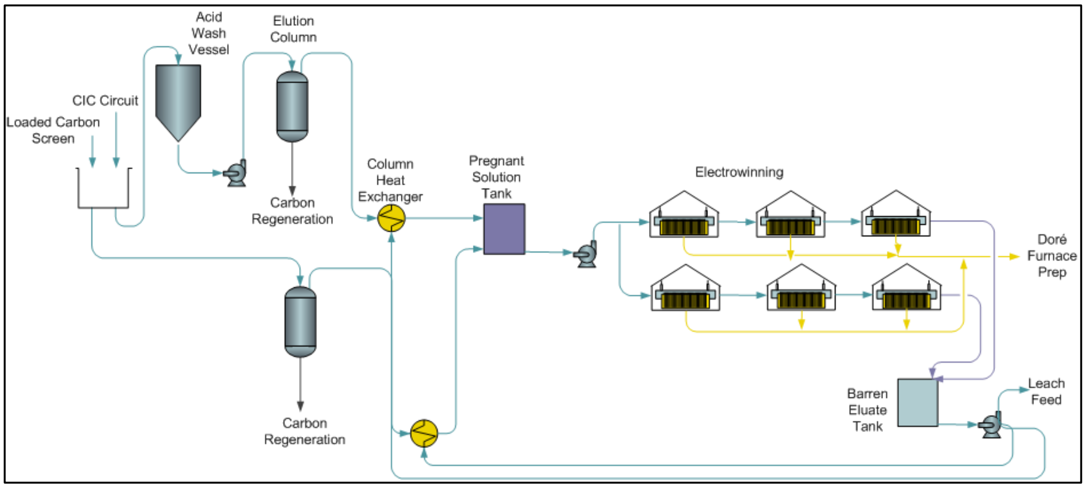
17.4.4 Stripping Circuit

Slurry containing loaded carbon from the CIP circuit will be pumped to a vibrating carbon recovery screen. Carbon washed from the screen will fall through a chute into an acid wash vessel. The remaining slurry on the recovery screen will flow through the screen deck, to be collected in a screen undersize launder and pumped back to the CIP feed.

Acid washing, followed by pressure Zadra elution, will be applied for the carbon stripping process. After stripping, the barren carbon will be pumped from the strip vessel to a carbon regeneration circuit, consisting of a 1.5 m x 3.0 m vibrating carbon dewatering screen and a regeneration kiln. The screened carbon will be sent to the carbon regeneration kiln, and the undersize to a fines tank. Material from the fines tank will be pumped through a carbon fines filter press, and the captured carbon will be stored in bags. Periodically, the carbon fines will be treated in an off-site smelter to recover credits for residual gold values.

The elution circuit flowsheet is shown in Figure 17-3.

Figure 17-3: Stripping and Electrowinning Circuit Flowsheet



17.4.5 Electrowinning and Refining

Solution will be pumped directly to six 3.5 m^3 EW sludging cells, arranged in two lines of three. After EW, the eluate will flow to the barren solution tank and be recycled to elution as part of the carbon stripping process.

Sludge recovered periodically from the EW cells will be mixed with flux in an induction-style unit.

The melted metal will be poured into a series of moulds to produce doré bars, while the slag produced will be poured into slag moulds. After cooling, the slag will be broken up, with the high-grade slag material re-poured to increase recovery, and the low-grade slag recycled to the grinding circuit.

17.4.6 Cyanide Destruction

Tailings generated in the CIP circuit will initially be screened through the carbon safety screens to capture any attritioned carbon particles remaining in the discharge slurry. Undersize from the screens will be sent to cyanide destruction.

Cyanide destruction will take place in two tanks in series, each 11.5 m diameter x 13.5 m high. The process involves the addition of sulphur dioxide to destroy the cyanide, lime to neutralize the sulphuric acid that is formed as by-product, and copper sulphate, which acts as a catalyst in the reaction.

After cyanide destruction, the slurry will be discharged into a tailings tank, from where the slurry will be routed to the tailings thickening circuit.

17.4.7 Tailings Thickening

The tailings thickener preliminary sizing indicates a 55 m diameter high-rate type with an auto-diluting feed well. The feed slurry density of 50% solids will be increased to a target of about 58% solids in the underflow after thickening.

Overflow water from the tailings thickener will recycled back to the grinding cyclone feed pumpboxes. Underflow solids are sent to the TMF.

17.4.8 Plant Water System

The bulk of the water requirements for the process plant will be met with reclaim water recovered from air compressors, column heat exchangers, thickeners and the TMF.

Fresh water will be stored for use in both as gland seal water and as fire water. Pumps will be installed to forward water to the process building and the truck shop. Some of this water will be treated in a potable water treatment plant and stored in a high potable water tank.

17.4.9 Reagent Preparation

The reagent preparation area includes receiving systems and mixing, preparation and metering systems for flocculant, caustic, cyanide, copper sulphate, molten sulphur, anti-scalant, lime, liquid oxygen and hydrochloric acid. These systems will all be located in a separate reagent building designed for easy access by delivery trucks.

17.4.10 Air Services

Air compressors fitted with intake filters and silencers will feed plant air into a receiver for distribution to different parts of the plant. Some of this air will be fed to a system to prepare the air for use as instrument air.

A dedicated, self-contained air service system will be provided at the gyratory crusher. This will consist of an air compressor with its own service air receiver, air dryer, and instrument air receiver.

Another independent air system will be provided in the reagents area, providing air for the sulphur burner as well as reagent distribution.

Additional dedicated process air compressors will be provided for the WOL and cyanide destruction circuits.

17.4.11 Cyanide Management

ISOtainers containing solid or liquid NaCN for storage will be offloaded from trucks parked on a bermed concrete pad, and then stored within the reagent storage area.

Bulk cyanide will be dissolved within the ISOtainers, and transferred to a mix tank for further make-down with reclaim water. The solution will then be pumped to a holding tank for distribution to the WOL circuits, barren eluate tank and the cyclone feed pumpbox as required. Secondary containment will be implemented in the reagent preparation, leach and CIP areas.

In addition to these containment measures, an emergency spill pond will be adjacent to the processing facilities in the unlikely event of a significant spill.

Transportation, management and storage of cyanide will be consistent with the International Cyanide Management Code.

17.5 Production Ramp-up Schedule

The ramp-up period will be highly influenced by design considerations, specially relating to the grinding circuit. Current practice incorporates learnings from HPGR circuits installed in the last decade. HPGR circuits reported ramp-up periods as long as one year, but the 2015 expansion at other sites achieved nameplate throughput in only three months.

The processing plant can be expected to take three to four months to reach the design throughput of 29,000 t/d. Reliable modelling, a focus on engineering design, and equipment selection will be key in achieving full production in this timeframe.

18.0 PROJECT INFRASTRUCTURE

18.1 Summary

The infrastructure required for the Côté Gold Project will include:

- Watercourse realignment dams and channels
- a tailings management facility (TMF)
- polishing and tailings reclaim ponds
- site power supply and distribution
- workshop, offices, facilities and other services
- a 6 km, two-lane gravel access road from the nearest highway
- a 44 km-long 115 kV electrical power transmission line from Shining Tree sub-station.

The proposed layout of the Côté Gold Project site is shown in Figure 18-1.

18.2 Onsite Infrastructure and Services

18.2.1 Site Development and Access

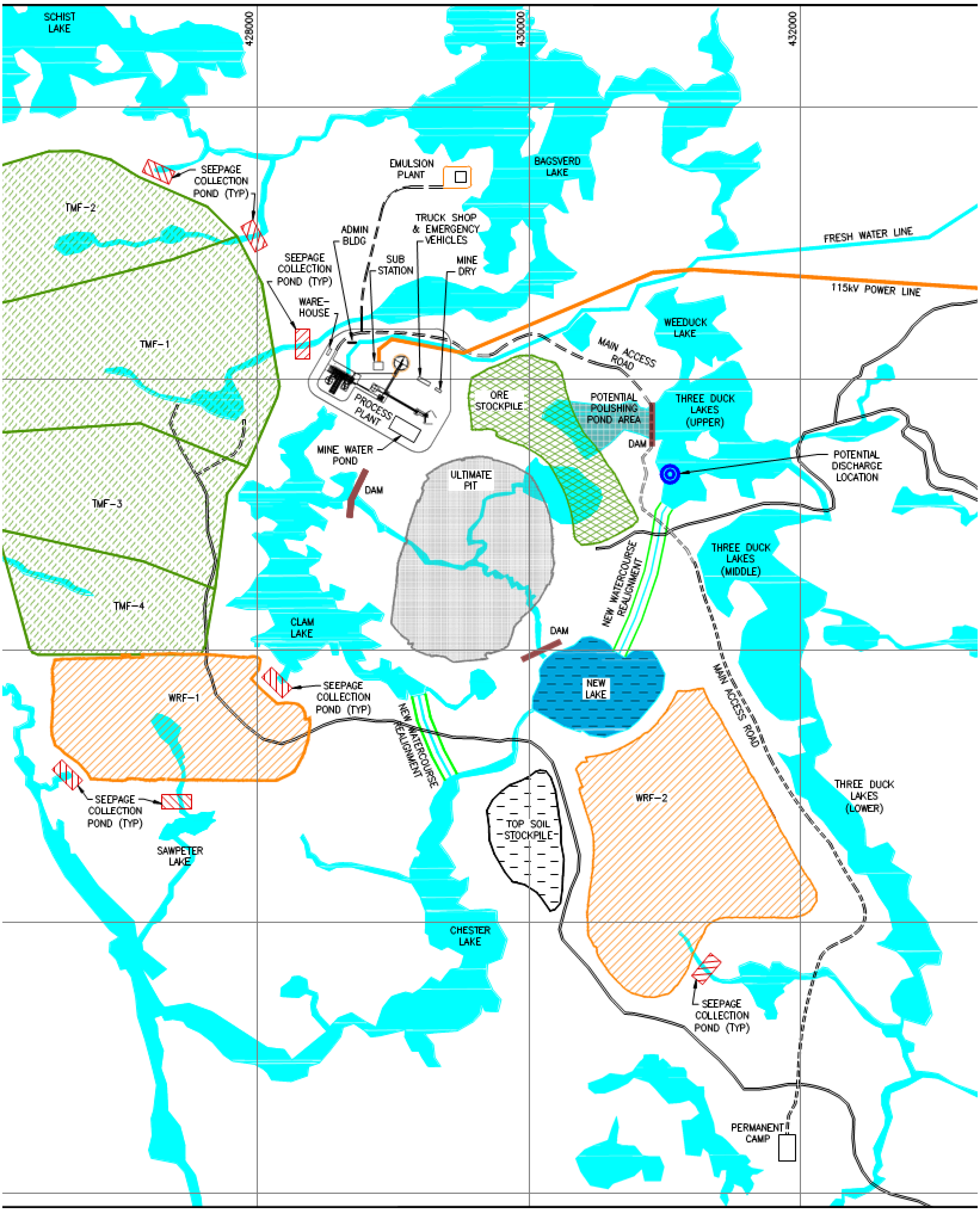
Access to the administration/process plant complex from the Sultan Industrial Road will be by a 6 km, two-lane gravel road.

18.2.2 Water Management Plan

A watercourse realignment system will redirect water around the mine facilities to enable dewatering of the planned open pit. Three realignment dams will be constructed either within existing lakes, in shallow water, or at currently dry locations that will become flooded after implementation of the realignment. Dam design will depend on the water and ground conditions at each location, and will be in accordance with the Canadian Dam Association Dam Safety Guideline (CDA, 2014) and the Ontario Lakes and Rivers Improvement Act (MNR, 2011).

Two realignment channels will facilitate the open-pit operation: one from Clam Lake to Chester Lake flowing south, and the other from a new lake (built in compensation for the partial elimination of Côté Lake by the pit) to the Upper Three Duck Lakes. Routing the water to the Upper Three Duck Lakes will maintain fresh-water inflow, and the lakes will remain oxygenated for fish habitat.

Figure 18-1: Site Layout



18.2.2.1 Collection System

A polishing pond downstream of the mill feed stockpile will receive water from various sources before it is released to the environment after meeting discharge quality standards. A minewater pond near the process plant will receive pumped inflows from the tailings reclaim pond, the pit, the polishing pond when required, the ore stockpile, WRF and run-off from the process plant site. The minewater pond will be an important source of process water, providing about two-thirds of the process plant's requirements in an average year. The pond will also supply water for dust control across the mine site.

All ponds, including the tailings reclaim pond, will have emergency spillways to safeguard the dams.

Ditches will be constructed around much of the perimeter of the TMF, either to divert clean run-off away from the dam, or to collect seepage at the dam toes. The ditches will be lined with riprap to resist the erosive action of flowing water.

Four water collection ponds will be located at topographical low points around the TMF to collect runoff and seepage, which will then be pumped back into the TMF. Similarly, four contact water collection ponds will be located at topographical low points around the WRFs to collect runoff and seepage, which will then be pumped to the minewater pond.

18.2.3 Tailings Management Plan

18.2.3.1 Design Basis

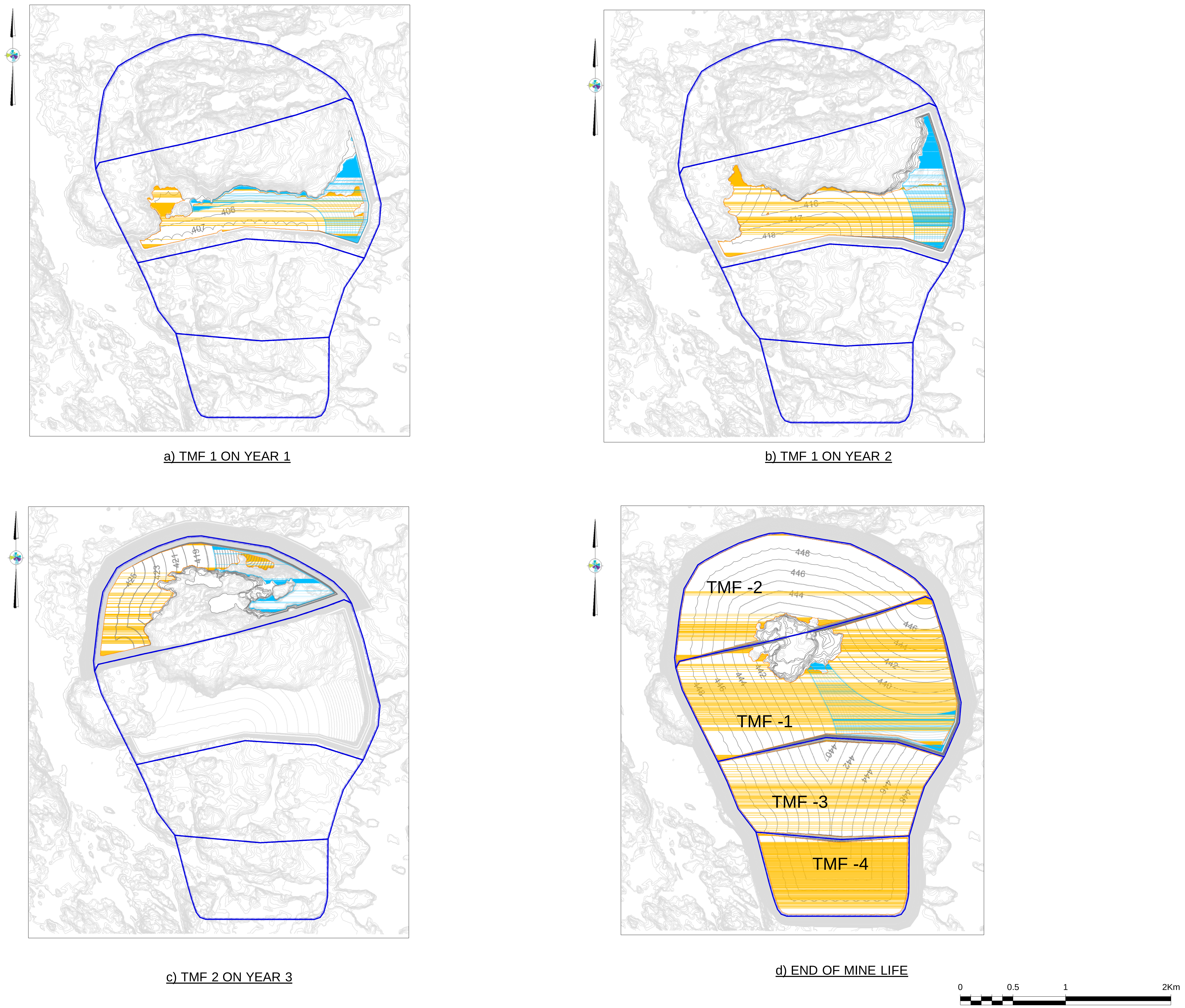
Figure 18-2, shows the projected division of the Côté TMF into four cells referred to as TMF-1, 2, 3 and 4. It also shows the growth of tailings deposition and the ultimate configuration at end of LOM.

Over the proposed LOM of 21years, tailings production is approximately 10.6 Mt/a from nominal mill throughput of 29,000 t/d, except in Year 1 when it is only ~approximately 8.9 Mt because throughput is lower due to ramp-up. This results in total production of approximately 220 Mt of tailings, as well as approximately 589 Mt of mine (waste) rock. The total TMF capacity includes some allowance for additional production.

Tailings storage is mainly by means of perimeter embankment dams, raised in stages and constructed of mine rock with an imperious HDPE liner on the upstream side. Approximately 150 Mt of mine rock will be used for dam construction over the LOM, enough for the starter dam and all subsequent raises. The liner is necessitated by the lack of low-permeability overburden materials on site.

Tailings will be thickened with solids concentration in slurry at 58%. Solids will be settled in the TMF with some water retained in the voids. Most of the supernatant will report to the tailings pond, where it will be reclaimed for use as process water.

Figure 18-2: TMF Development



Tailings will be piped as slurry to the TMF and spigotted along the dam crest. The tailings deposition plan will provide flexibility during operations, and will facilitate progressive closure. The TMF will be developed in stages for better water management and water balance. Tailings will be deposited in a manner that optimizes dam raising and water management.

Both the tailings and mine rock have been classified on an overall mass basis as non-potentially acid-generating (NPAG) materials with low potential for metal leaching.Table 18-1 presents the regulations and guidelines applicable to the design of the TMF and water management dams. As per Ministry of Natural Resources and Forestry (MNRF) guidelines, the dams' potential hazard classification is "high", resulting from the risk of potential environmental impact on the surrounding lakes.

Table 18-1: Regulations and Guidelines

Document Title	Publisher	Abbreviation
National Building Code of Canada, 2010	National Research Council of Canada	NBCC, 2010
Technical Bulletin: Classification and Inflow Design Flood Criteria, 2011. Lakes and Rivers Improvement Act	Ministry of Natural Resources and Forestry (MNRF) of Ontario	MNRF, 2011
Technical Bulletin: *Application of Dam Safety Guidelines to Mining Dams, 2014*	Canadian Dam Association	CDA, 2014

18.2.3.2 Water Balance

The criteria for the TMF water balance are as follows:

- Tailings production start-up is in the autumn.
- There is no water reclaim from the TMF for mill water make-up in the first three months of operation.
- Winter operation is January to March inclusive.
- 100% mill make-up water will be provided by reclaim from the TMF in winter.
- The TMF is the primary source of mill make-up water.
- The TMF will provide enough water during 1:10 year dry conditions, in conjunction with other sources of water supply.
- There should be a mitigation plan in place to supply enough water if the 1:100 dry year were to occur.

18.2.3.3 Layout and Configuration

Before estimating quantities, Amec Foster Wheeler modelled the required dam elevations in each TMF cell for years 1, 2, 3, and 22 of development (Table 18-2).

Table 18-2: Summary of Tailings Management Facility Quantity Estimates

Parameter	Unit	Year			
		1	2	3	4-22
TMF		1	1	2	1-4
Annual Tailings Storage	t	8,884,150	10,585,000	10,585,000	10,585,000
Cumulative Tailings Storage	t	8,884,150	19,469,000	30,054,000	221,124,000
Dam Crest Elevation, masl	masl	408	420	426	max. 450
Annual Dam Volume, ROM Rock	m^3	1,996,000	3.508,000	2,899,000	4,621,000
Cumulative Dam Volume, ROM Rock	m^3	1,996,000	5,504,000	8,404,000	91,813,000
Annual Area of HDPE Liner	m^2	68,000	121,000	262,000	103,000
Annual Volume of 1" Minus Liner Bedding	m^3	31,000	56,000	121,000	47,000
Annual Volume of 6" Minus Select Rockfill	m^3	52,000	93,000	202,000	79,000

Tailings will be discharged to TMF-1 in years 1 and 2 of development, then added to TMF-2 in year 3 of development.

18.2.3.4 Dam Construction and Liner Materials

The dam fill materials will come from the open pit development. ROM mine rock will be hauled to the dam and end-dumped, and traffic compacted. The end-dumped slopes will be reshaped and transition materials incorporated to suit HDPE liner installation.

Since there is an insufficient amount of natural low permeability materials available on site, HDPE liner will be required in the dam of each TMF cell to retain water and solids. The dams are expected to have a slope of 2.5:1 to facilitate liner placement.

18.2.4 Electrical Site Reticulation

18.2.4.1 Electrical Load

The anticipated electrical load is as follows:

- Connected load 62 MW
- Average load 41.5 MW
- Power factor 95%.

18.2.4.2 Main Substation

The incoming transmission line from Shining Tree will terminate at a substation adjacent to the process plant, where incoming voltage will be stepped down from 115 kV to 13.8 kV for site distribution. The main substation will include the following equipment:

- incoming dead-end structure
- structures and bus system
- metering transformers
- main incoming circuit breaker
- high voltage isolation switches
- two power transformers (rated such that either one can handle the total site load with fan cooling in the event of one transformer failure)
- standby electrical power generation
- power factor correction and harmonic filter bank
- substation electrical room to house the metering, protective relaying and main site distribution switchgear.

The transformer secondaries will be connected to a primary distribution centre (PDC) to distribute power to the site. Feeders from the substation will be run in cable tray or on power lines to the area loads.

18.2.4.3 Process Plant and Ancillary Services Power Supply

The 13.8 kV feed from the main substation will supply power to the following equipment in the process plant:

- crushing, conveying and HPGR area loads
- grinding area, including the ball mill and all other grinding loads
- leach area
- CIP area
- concentrate / thickening areas
- mine dewatering (mine equipment is not electrical powered)
- tailings, reclaim water, fresh water and ancillary services.

18.2.4.4 Site Power Distribution

Power to the mine process and ancillary facilities will be routed using cable tray on pipe racks, installed on overhead power lines, direct buried or in duct banks.

Equipment utilization voltages will be obtained from step-down transformers. Electrical distribution will include switchgear, transformers, starters and feeder breakers for the motor and non-motor loads in common lineups. Lighting and small power applications will be fed from transformers and power panels, and will be located in the electrical rooms.

Electrical coordination will be completed to minimize power interruption on operation of power system protective relay operation.

Plant equipment utilization voltages are provided in Table 18-3.

Table 18-3: Power Utilization Voltages

Plant Equipment		Voltages
HPGR & Grinding Mill Motors		4.16 kV 3 phase high resistance grounded
All drives over 200 HP		4.16 kV 3 phase high resistance grounded
All drives 0.5 HP – 200 HP		600 volt 3 phase high resistance grounded
Motors with VFD up to 500 HP		600 volt 3 phase high resistance ground (maximum HP rating to be determined at time of order)
Motors with VFD over 500 HP		4.16 kV 3 phase high resistance grounded
Small drives below 0.5 HP		120 V one-phase solidly grounded
Electrical heaters over 1.8 kW		600 V three-phase high-resistance grounded
Electrical heaters up to 1.8 kW		120 V one-phase solidly grounded
Lighting – LED		120 V one-phase solidly grounded
Small power & instrumentation		120 V one-phase solidly grounded
Heat tracing:	Short lengths	120 V one-phase or 208 V three-phase solidly grounded
	Long lengths	347 V / 600 V one- or three-phase solidly grounded
Welding receptacles		600 V three-phase high-resistance grounded

18.2.4.5 Electrical and Control Rooms

To minimize field installation costs, the electrical rooms will be distributed around the site and located as close as possible to the major electrical loads.

All process electrical and control rooms will be modular units assembled off-site in a factory. The rooms will be installed outdoors on elevated steel structures adjacent to process areas or indoors on elevated structures. The rooms shall be self-supporting and designed for road shipment, lifting and transporting to site.

All electrical controls and instrumentation equipment will be installed, wired and completely tested before shipment to site

18.2.4.6 Emergency Power

A 5 MW standby power station will provide emergency power to camp and process equipment in event of a utility power failure.

18.2.5 Workshops, Offices, Facilities and Services

Workshops, offices, facilities and services will include the following:

- gate house

- six-bay heavy and light vehicle truck shop
- truck wash and lube
- emergency vehicle and first-aid center
- warehouse/cold storage
- assay laboratory
- administration office
- fuel storage and dispensing
- process water system
- potable water system
- sanitary system
- water treatment
- fire protection
- waste management and disposal
- auxiliary equipment fleet
- explosive plant and storage areas
- network of site access roads.

18.2.5.1 Permanent Camp

A permanent camp is planned for a 500-person workforce. This building will be modular construction with a kitchen and cafeteria seating 250 people, as well as laundry services, recreational rooms and mine dry.

18.3 Offsite Infrastructure and Services

18.3.1 Roads

Access to the property is by a network of logging roads and local bush roads accessed from Highway 144 and from the Sultan Industrial Road, which runs east-west along and below the southern part of the Project area.

18.3.2 Power Supply

Electrical power will be supplied to the site at 115 kV by a new 44 km long tap line along Highway 560 from the Hydro One Networks Inc. (HONI) substation at Shining Tree. This substation will be supplied from HONI Porcupine Substation in Timmins by an existing 113 km long 115 kV transmission line. The existing 115 kV line may have to be refurbished.

19.0 MARKET STUDIES AND CONTRACTS

19.1 Market Studies

Gold doré bullion is typically sold through commercial banks and metals traders with sales price obtained from the World Spot or London fixes. These contracts are easily transacted, and standard terms apply. IAMGOLD expects that the terms of any sales contracts would be typical of, and consistent with, standard industry practices, and would be similar to contracts for the supply of gold doré elsewhere in Canada. Limited additional effort is expected to be required to develop the doré marketing strategy.

19.2 Commodity Price Projections

The PEA assumes a gold price for mine design and economic analysis of US$1,200/oz. The gold price was the consensus forecast of the following sources: bank analysts' long-term forecasts; historical metal price averages; prices used in IAMGOLD's most recent Mienral Resource statement, and prices used in publicly-disclosed comparable studies. Metal prices were kept constant throughout the life of the Project.

It is common industry practice to use a higher metal price assumption in the Mineral Resource estimate than that used in the mine design and economic analysis. In this case, US$1,500 per ounce was used to calculate the cut-off grade used in the Mineral Resource estimate.

19.3 Contracts

There are no refining agreements or sales contracts in place for the Coté Gold Project. However, most gold doré produced from other IAMGOLD mining operations is sent to the Royal Canadian Mint for refining. It is expected that similar terms would be received for the refining of the Project gold doré. For cashflow analysis purposes a charge of US$4 per ounce have been applied to cover: refining, transport, insurance and sparging.

19.4 Comments

The QPs have reviewed the information provided by IAMGOLD on marketing and contracts, and note that the information provided is consistent with that available in the public domain, and that the information can be used in mine plans and financial analysis presented in this Report.

20.0 ENVIRONMENTAL STUDIES, PERMITTING & SOCIAL OR COMMUNITY IMPACT

20.1 Summary

Amec Foster Wheeler and other consultants conducted environmental baseline studies on the Project to characterize the physical, biological, and human environment. This work applied standard field protocols and scientific methodologies, and addressed the information needs of regulatory agencies for the approval of Ontario mining projects. IAMGOLD is currently awaiting a provincial ministerial decision on the 2015 Environmental Assessment (EA) for the Project as envisaged at the time, which is not substantially different from the configuration described in this PEA. The EA states that no significant effects are anticipated after the application of the proposed mitigation measures.

The Federal Minister of the Environment stated in May 2016 that the Project is not likely to cause significant adverse environmental effects.

The Project as presented in this PEA differs from that described in the EA (2015). Mine rock and tailings management areas have been relocated to prevent overprinting of fish-bearing waters, and to minimize the requirements for retention dams and watercourse realignments. As such, the proposed changes in the mine plan are not anticipated to warrant changes to the EA decision.

Potential benefits of the Project are expected to include employment and business opportunities, as well as tax revenues at all levels of government.

20.2 Environmental Approvals Required for Proposed Operations

20.2.1 Environmental Assessment Process

Most mining projects in Canada are reviewed under one or more EA processes whereby design choices, environmental impacts and proposed mitigation measures are compared and reviewed to determine how best to proceed through the environmental approvals and permitting stages. Entities involved in the review process normally include government agencies, municipalities, Aboriginal groups, various interested parties, and the general public.

On 3 May 2013, IAMGOLD entered into a Voluntary Agreement with the Ontario Ministry of the Environment and Climate Change (MOECC) to conduct a Provincial Individual EA for the entire Côté Gold Project, to meet the requirements of the Ontario Environmental Assessment Act. Approval of the provincial EA was imminent at the Report effective date.

The Project as presented in this PEA differs only slightly from the project presented in the EA. Mine waste and tailings management areas have been relocated to reduce impacts on fish-bearing waters and to minimize the requirements for retention dams and watercourse realignments. These improvements should not warrant a change in the EA decision.

In addition to the provincial EA, the Project required completion of a Federal EA pursuant to the Canadian Environmental Assessment Act, 2012 (CEAA 2012). The Federal Regulation Designating Physical Activities under CEAA identifies the physical activities that constitute the designated projects that could require completion of a Federal EA. The following sections were considered to apply to the Côté Gold Project:

- Section 7: "The construction, operation, decommissioning and abandonment of a structure for the diversion of 10,000,000 m^3/a or more of water from a natural water body into another natural water body...". However, it should be noted that most waters will be realigned and not diverted.
- Section 8: "The construction, operation, decommissioning and abandonment of a facility for the extraction of 200,000 m^3/a or more of ground water..."
- Section 15 (b): "The construction, operation, decommissioning and abandonment of a metal mill with an ore input capacity of 4,000 t/d or more."
- Section 15 (c): "The construction, operation, decommissioning and abandonment of a gold mine, other than a placer mine, with an ore production capacity of 600 t/d or more."

On 13 April 2016, the Federal Minister of the Environment issued a decision stating that the Project is not likely to cause significant adverse environmental effects.

20.2.2 Environmental Approvals

Three primary provincial agencies will be involved with Project approvals/permits:

- Ministry of Northern Development and Mines (MNDM)
- Ministry of Natural Resources and Forestry (MNRF)
- MOECC.

Additional agencies that may be involved in permitting include:

- Ontario Energy Board (OEB)
- Ministry of Transportation (MTO)
- Infrastructure Ontario (IO)
- Ministry of Tourism, Culture and Sport (MTCS).

Provincial environmental approvals that are expected to be required to construct and operate the Project include what are shown in the preliminary list in Table 20-1.

Table 20-1: Expected Additional Provincial Environmental Approvals

Agency	Permit/Approval	Act	Relevant Components
MNRF	Various Work Permits for Construction	*Lakes & Rivers Improvement Act/ Public Lands Act*	For work/construction on Crown land. Could be required as part of construction of a transmission line.
MNRF	Lakes and Rivers Improvement Act (LRIA) Permit	*Lakes & Rivers Improvement Act*	Construction of a dam in/near any lake or river in circumstances set out in the regulations requires a written approval for location of the dam and its plans and specifications.
MNRF	Forest Resource License (Cutting Permit)	*Crown Forest Sustainability Act*	For clearing of Crown merchantable timber. Could be required as part of construction of the transmission line.
MNRF	Aggregate Permit	*Aggregate Resources Act*	Extraction of aggregate (eg, sand/gravel/ rock for tailings dam or other site construction).
MNRF	Land Use Permit	*Public Lands Act*	To obtain tenure for permanent facilities on Crown land, such as for a transmission line.
MNRF	Endangered Species Permit	*Endangered Species Act*	Any activity that could adversely affect species or their habitat identified as 'Endangered' or 'Threatened' in the various schedules of the Act.
MOECC	Environmental Compliance Approval – Industrial Sewage Works	*Ontario Water Resources Act*	Construct a mine/mill water treatment system(s) discharging to the environment, such as for tailings, pit water, site stormwater and mine rock pile runoff.
MOECC	Permits to Take Water	*Ontario Water Resources Act*	For taking of ground or surface water (in excess of 50 m^3/day), such as for potable needs and pit dewatering. During construction, a permit(s) may be required for dam and/or mill construction to keep excavations dry.
MOECC	Environmental Compliance Approval – Air and Noise	*Environmental Protection Act*	Discharge air emissions and noise, such as from mill processes, on-site laboratory and haul trucks (road dust).
MOECC	Environmental Compliance Approval – Waste Disposal Site	*Environmental Protection Act*	For operation of a landfill and/or waste transfer site.
MOECC	Environmental Compliance Approval	*Environmental Protection Act*	Establishment and operation of a domestic sewage treatment plant, industrial sewage treatment facility (such as minewater pond, TMF) and domestic landfill, and management of air emissions.
MNDM	Closure Plan	*Mining Act*	Mine construction/production and closure, including financial assurance.

Agency	Permit/Approval	Act	Relevant Components
MTCS	Clearance Letter	*Heritage Act*	Confirmation that appropriate archaeological studies and mitigation, if required, have been completed.
OEB	Leave to Construct	*Ontario Energy Board Act*	Approval to construct a transmission line.

20.3 Community Relations

20.3.1 Community and Government Communications

IAMGOLD has actively engaged local and regional communities, as well as other stakeholders, to gain a better understanding of their issues and interests, identify potential partnerships and to ultimately secure social licence to operate. Stakeholders involved in the Project consultation activities to date include those with a direct interest in the Project and those who provided data for the baseline studies. The involvement of stakeholders will continue throughout the various Project stages. The range of stakeholders is expected to increase and evolve to reflect varying levels of interest and issues over time. Key stakeholders who have demonstrated an interest in the Project are listed in Table 20-2.

Table 20-2: Stakeholders

Sector	Name
Business and Community Interests	• Cambrian College • Collège Boréal • Gogama Area Citizens Committee • Gogama Area Chamber of Commerce • Gogama Recreation Committee • Gogama Snowmobile Club • Greater Sudbury Chamber of Commerce • Greater Sudbury Development Corporation • Laurentian University • Mattagami Region Conservation Authority • Mesomikenda Lake Cottage Association • Northern College • Sudbury Area Mining Supply and Service Association • Timmins Chamber of Commerce • Timmins Economic Development Corporation • Local land and resource users (eg, trapline permit holders) • Adjacent or local mineral rights holders • Local small business owners • Local tourism operators
Environmental Non-Government Organizations	• Mining Watch Canada • Northwatch • Canadian Parks and Wilderness Society (Wildlands League)

Sector	Name
Non-Government Organizations	• Nature and Outdoor Tourism Ontario • Ontario Mining Association • Ontario Prospectors Association • Porcupine Prospectors and Developers Association • Sudbury Prospectors and Developers
Municipal Governments	• Community of Gogama (Gogama Local Services Board) • City of Greater Sudbury • City of Timmins
Ontario Government	• Ministry of Aboriginal Affairs • Ministry of Economic Development and Trade • Ministry of Energy • Ministry of Infrastructure • Ministry of Labour • Ministry of Municipal Affairs and Housing • MNRF • MNDM • MOECC • MTCS • Ministry of Transportation • OEB • Ontario Power Authority • Ontario Provincial Police • Provincial Parliament representatives • Sudbury and District Health Unit
Federal Government	• Aboriginal Affairs and Northern Development Canada (AANDC) • Canadian Environmental Assessment Agency • Environment Canada • Federal Parliament representatives • Fisheries and Oceans Canada • Health Canada • Major Projects Management Office • Natural Resources Canada • Transport Canada

20.3.2 Aboriginal Communications

An understanding of the Aboriginal communities potentially interested in the Côté Gold Project was developed through advice from MNDM to IAMGOLD's consultant Trelawney in a letter dated 19 August 2011, and through advice from CEA based on information provided by AANDC. IAMGOLD sought further direction from both provincial and federal Crown agencies on the potentially affected communities:

- On 6 March 2013, the Federal Crown agency informed IAMGOLD that Mattagami First Nation, Flying Post First Nation, Brunswick House First Nation, the Métis Nation

- Region 3, and the Algonquin Anishinabeg Tribal Council should be consulted about the Project. They noted that as the Federal EA progresses, the Chapleau First Nation, Matachewan First Nation, and Beaverhouse First Nation would also be notified.
- At a meeting on 23 May 2013, the Provincial Crown identified the Mattagami First Nation, Flying Post First Nation, Brunswick House First Nation, Matachewan First Nation and the Métis Nation of Ontario – Region 3 as groups that should be consulted.

Based on federal and provincial advice and information gathered through engagement activities, the following groups have been consulted about the Project:

- Algonquin Anishinabeg Nation Tribal Council
- Brunswick House First Nation
- Flying Post First Nation
- Matachewan First Nation
- Mattagami First Nation
- Métis Nation of Ontario
- Beaverhouse First Nation
- Chapleau Ojibwe First Nation
- Abitibiwinni First Nation
- M'Chigeeng First Nation
- Serpent River First Nation
- Missanabie Cree First Nation
- Wahgoshig First Nation.

Based on consultation efforts since the start of the Project, and on groups expressing a continued interest, IAMGOLD has continued to engage the following Aboriginal groups about potential opportunities and accommodations:

- Mattagami First Nation
- Flying Post First Nation
- Métis Nation of Ontario.

20.4 Environmental Studies

The following description of the environment summarizes baseline studies conducted to date. Such studies will continue in consultation with interested stakeholders and Aboriginal communities.

In previous studies, the TMF was located north of Bagsverd Lake. As a result of this PEA, the TMF is now located as per Figure 18-1. In addition, the West WRF will be located immediately south of the TMF. Future baseline activities will include areas around the new TMF and West WRF location, particularly the lakes north and west of the TMF as well as Sawpeter Lake which is located due south of West WRF. The following sub-sections outline results from the studies to date.

20.4.1 Water

The Project site is within the Mollie River and Neville Lake subwatersheds. A number of lakes encompass the site area including Chester Lake, Clam Lake, Côté Lake, Three Duck Lakes, Moore Lake, Chain Lake, Attach Lake, Sawpeter Lake and Schist Lake. A number of small tributaries drain from the general site area into the Mollie River, which includes Clam Creek, Unnamed Pond, and Mill Pond.

The open-water reach of the river between Chester Lake and Côté Lake ranges in width from 5 to 20 m, with a depth of 1 to 2 m, and is bordered by a flooded grassy marsh, interspersed with dead standing coniferous trees. Numerous stands of planted jackpine occur adjacent to the marsh, in addition to evidence of recent logging activities.

20.4.2 Noise

Noise levels in the vicinity of the Project site reflect a rural sound environment, and are generally characterized by sounds of nature and minimal road traffic.

20.4.3 Soils

Overburden throughout the study area generally consists of an organic layer (peat in many cases) overlying silt and/or sand with occasional till overlying bedrock. Bedrock is very close to or at surface in most areas, with the exception of valley bottoms and low-lying wet areas. Overburden ranges in depth from 0 to 18 m. Soil pH values range from 6.8 to 7.3.

Investigations are ongoing to further characterize the geotechnical and hydrogeological properties of overburden soils and bedrock in the vicinity of the proposed open pit, watercourse realignments, and other surface infrastructure components.

20.4.4 Geology and Geochemistry

Amec Foster Wheeler conducted a preliminary assessment of rock samples from the Project site. Static analyses included elemental analyses, whole rock analyses, acid-base accounting (ABA), short-term leach tests, mineralogy (X-ray diffraction), and net acid generation analyses. The results suggest that the mine rock is non-potentially acid-generating (NPAG), and has low levels of soluble metals. Preliminary testing of mineralized samples suggests that the tailings will also be NPAG, and will likely have associated low levels of soluble metals release.

More detailed geochemical investigations to fully characterize the mine rock and tailings were completed in 2015. These included additional tests to gather more detailed information on acid generation and neutralization potentials as well as expected rates of sulphide oxidation, neutralization potential consumption and metal release.

20.4.5 Hydrology

The Project site is within the Upper Mattagami River watershed, which drains northward through the City of Timmins and ultimately to James Bay. Surface water flows are controlled by a number of lakes and creeks that flow to the Mollie River and Mesomikenda Lake before discharging to Minisinakwa Lake and ultimately the Mattagami River. The Mattagami River upstream of the City of Timmins water filtration plant is within Intake Protection Zone 3 in the context of the Mattagami River Source Water Protection Program.

Water Survey of Canada maintains regional hydrological monitoring stations in the Mollie River (unregulated flow) and at Minisinakwa Lake (regulated flow), and Ontario Power Generation monitors the Mesomikenda Lake Dam (regulated flow). The regulated flow systems are governed by a Water Management Plan in place for the Mattagami River.

Surface water flowpaths at the Project site are currently monitored by 15 hydrological sampling stations selected and installed during 2012. In general, these stations are distributed throughout the two main subwatersheds of the site (the Mollie River subwatershed and Neville Lake subwatershed). Automated water-level data loggers have been installed and will be used in conjunction with instantaneous discharge measurements to develop a characterization of the streamflow regime in the vicinity of the Project site.

20.4.6 Hydrogeology

A total of 98 boreholes were drilled in various Project areas, and groundwater monitoring wells (nested and single) were installed in 63 of these boreholes to provide water-level monitoring and quality sampling. Additional investigations will be carried out in the proposed TMF and West WRF footprint.

Wells were installed with screens located in overburden, where present, and bedrock materials. Twenty monitoring wells were outfitted with automatic water-level data loggers, and each well was monitored manually during four sampling events in 2012. Groundwater samples were collected from 37 wells, three times in 2012 (spring, summer and fall). In addition, six angled drillholes were advanced into the deep bedrock within the proposed open pit, to facilitate hydrogeological and geomechanical testing of major lithological units and structural features (eg, s and faults) along ultimate pit walls.

The data indicate groundwater level fluctuations and groundwater flowpaths in the vicinity of the site. Packer testing of the deep-angled boreholes suggests a weak trend to declining hydraulic conductivity values with depth, as is typical in the Canadian Shield.

20.4.7 Surface Water, Sediment and Groundwater Quality

20.4.7.1 Surface Water Quality

Quarterly or monthly water quality sampling was completed at 21 locations, 15 hydrological stations and nine additional locations. Future data collection will also include surface waters surrounding the TMF and West WRF locations.

Results were typically consistent across seasons, with concentrations of total phosphorus, iron, zinc, copper and dissolved aluminum occasionally exceeding Provincial Water Quality Objectives (PWQOs) and the Canadian Council of Ministers of the Environment's Canadian Water Quality Guidelines (CWQGs) for the Protection of Aquatic Life. Exceedances were generally interpreted to be naturally occurring. Surface water quality sampling will continue during additional baseline characterization studies.

20.4.7.2 Sediment

Sampling results indicated good sediment quality, with the majority of parameter concentrations below the 2008 MOECC Provincial Sediment Quality Guidelines (PSQGs). PSQG lowest effect levels (LELs) were exceeded for most of the total organic carbon results. A few results also exceeded PSQG severe effect levels (SELs), but this is typical of lakes in northern Ontario. Provincial SELs were found to be exceeded for iron and manganese concentrations in the Mollie River. In some surface waters, Amec Foster Wheeler observed Federal threshold effect level exceedances for copper in 2011.

It should be noted that PSQGs were developed for, and are strongly weighted by, data for sediments in the Great Lakes, which tend to have substantially lower content of many metals compared to Canadian Shield lakes (Prairie and McKee, 1994). Natural background concentrations, particularly in mineralized areas of the Canadian Shield lakes, can naturally exceed PSQG LELs. Further sediment quality evaluation will include a comparison to PSQG LELs, SELs, and reference area values.

20.4.7.3 Groundwater Quality

In 2012, Amec Foster Wheeler collected groundwater samples three times at 37 wells, at sites of potential mine infrastructure development. Groundwater chemistry was analysed for major ions, metals, nutrients and physical parameters (e.g., conductivity and total dissolved solids). Results were compared to Ontario Drinking Water Standards (ODWS), PWQOs, and the Canadian Council of Ministers of the Environment CWQGs for the Protection of Aquatic Life. Results indicated that values occasionally exceeded these regulatory criteria, including but not limited to copper, zinc, molybdenum, aluminum, silver, arsenic, iron, free cyanide and cadmium. Additional investigations to verify these results were completed in 2013.

With respect to groundwater quality, several values were measured above their applicable ODWSs or PWQOs during one or more monitoring events in 2012. Since there is currently limited development at the site (other than exploration drilling), these values are considered to represent background conditions and will continue to be monitored to assess trends in water quality.

20.4.8 Biological Environment

20.4.8.1 Aquatic Resources

In July 2012 and continuing into 2013, Minnow Environmental conducted aquatic assessments of water bodies within the boundaries of the proposed pit and associated potential initial locations of the WRFs and TMF. Studies included characterization of fish habitat and community structure of the water bodies, as well as sport fish population sizes in Côté Lake and Unnamed Lake. Additional data on aquatic resources are available from Amec Foster Wheeler's 2011 Baseline Aquatic Study, associated with sampling conducted during the summer and fall of 2010. These studies included water quality/hydrogeology analysis, benthic invertebrate surveys, aquatic macrophyte community assessment, and fish community assessment and habitat characterization.

Samplings did not provide evidence of any aquatic species at risk (such as lake sturgeon), either under the federal Species at Risk Act (SARA) or Ontario's Endangered Species Act (ESA).

Further studies will include water bodies within the boundaries of the new TMF and West WRF.

20.4.8.2 Wildlife

Sensitive species refers to those listed in the ESA, the SARA (Schedule 1), or those considered vulnerable or imperiled in the province (provincial ranking of S1-S3). Based on desktop studies, there is potential for 18 provincially-listed wildlife species, one federally-listed species, and two provincially-tracked wildlife species to occur in the Project area. Seven of these species were documented: four are listed as Special Concern (bald eagle, Canada warbler, common nighthawk and olive-sided flycatcher); one as Threatened (whippoorwill, along the transmission line alignment only); and one as Endangered (little brown bat) under the provincial ESA. One species listed as Special Concern under SARA, the rusty blackbird, was also observed during field surveys.

Based on the habitat ranges provided by the Atlas of the Mammals of Ontario (Dobbyn, 1994), 49 mammals have potential to inhabit the Project area. A winter aerial survey conducted between February 27 and March 1, 2013 observed 21 moose and one red fox along the alternative transmission line routes. In addition, tracks of moose, red fox, wolves, lynx, river otter, pine marten, mink, weasel, snowshoe hare, and porcupine were observed.

20.4.9 Human Environment

20.4.9.1 Population and Demographics

Gogama, the closest community to the Project site, reported a total population of 277 in the 2011 census, down 29.7% from 2006. The unorganized subdivisions of North Sudbury and Timiskaming West also lost population between 2006 and 2011. This decline may be explained by fluctuations in forestry and mining activities in the area. Based on most recent surveys, there are about 800 Aboriginal people in the area.

20.4.9.2 Regional Economy

Based on Statistics Canada data for 2006, three out of every four jobs in northeastern Ontario were in service industries such as trade, health, education and public administration. Resource-based (mining and forestry) jobs represented 9.7% of the labour force in the Project area, compared to only 2.9% for the province as a whole.

While First Nation communities tend to have higher unemployment rates and lower participation rates than those of nearby communities, no data were available for the specific communities in the Project area.

20.4.9.3 Mineral Exploration, Forestry and Agriculture

The Project site overlaps with the Spanish Forest Management Unit. The Sustainable Forest Licence for the Spanish Forest is held by EACOM Timber Corporation (formerly Domtar), which is responsible for harvest management, inventories and planning. IAMGOLD and EACOM maintain communications with regard to EACOM's plans.

Most of the land in and around the Project site is classified under the Canada Land Inventory as having little to no capacity for arable culture or permanent pasture (Agriculture and Agri-Food Canada, 2011), and there is no active agricultural use in the area.

20.4.9.4 Recreation and Tourism

Recreation and tourism in the region is mainly related to hunting, fishing, camping, snowmobiling and hiking in the Spanish Forest. There are two provincial parks in the region: Spanish River/Biscotasi Lake (a waterway park ~40 km southwest of Gogama), and La Motte, 10 km northeast of Gogama. Other recreational interests in the area include canoeing and portage routes; the 4M Circle Canoe Route is closest to the Project site.

20.4.9.5 Cultural Heritage and Paleontological Resources

A total of 31 archaeological sites and features have been recorded in the Project study area, including 16 pre-contact sites, nine historical sites, six ancient trails and several portages. The Stage 2 studies recommended Stage 3-4 fieldwork for eight of the pre-contact sites and two of the historical sites. Some of this work took place in 2012 and 2013.

The cultural landscape consists of a 1930s-era gold mining camp with associated sites and remains. Further documentation and assessment of this landscape was conducted in 2013. No built heritage resources other than ruins have yet been identified.

20.4.9.6 Aboriginal Traditional Land Use

Traditional knowledge and traditional land use studies were conducted by a consultant selected by Wabun Tribal Council, on behalf of the Wabun member communities of Mattagami First Nation and Flying Post First Nation. The Métis Nation of Ontario also conducted a traditional knowledge and traditional land use study of the Project area. Both studies show some level of current use in the broader area around the site.

20.5 Environmental Effects

20.5.1 Preliminary Description of Potential Environmental Effects

Potential environmental effects associated with the construction, operation, and closure of the Côté Gold Project include:

- changes in air quality
- increases in noise
- potential loss of aquatic habitat
- disturbance of aquatic species
- reduction of terrestrial habitat, and associated species disturbance
- alteration of local groundwater infiltration rates and aquifers
- changes in water quality in the Mollie River and Mesomikenda Lake watersheds
- increased demands on community/regional infrastructure and social services
- effects on cultural heritage resources
- effects on local Aboriginal and Métis traditional land uses
- alterations to local terrain and visual aesthetics.

The EA provides a complete assessment of potential environmental effects, and states that no significant adverse effects are anticipated after the application of the proposed mitigation measures.

Potential benefits of the Côté Gold Project are expected to include local, regional and provincial economic benefits such as employment and business opportunities and direct expenditures, as well as tax revenues at all levels of government.

20.6 Preliminary Closure Plan

Closure of the Côté Gold Project will be governed by the Ontario Mining Act and its associated regulations and codes under Ontario Regulation 240/00. The objective of closure is to return the Project site to a naturalized and productive condition after mining is complete. "Naturalized and productive" is interpreted to mean a rehabilitated site without infrastructure (unless otherwise negotiated), and one that, while different from the existing environment, is capable of supporting plant, wildlife and fish communities, and other applicable land uses.

Conventional methods of closure are expected to be employed at the site. Revegetation will be carried out using non-invasive native plant species. Closure costs were estimated based on this approach, and are included in the sustaining capital and financial analysis sections of this Report.

21.0 CAPITAL AND OPERATING COSTS

21.1 Summary

This PEA-level estimate addresses the scope of the Côté Gold Project's mine, process facilities and ancillary buildings, and includes:

- direct field costs of executing the project including construction, installation and commissioning of all structures, utilities, materials, and equipment
- indirect costs associated with design, construction and commissioning
- provisions for contingency and Owner's costs.

This estimate was prepared in accordance with the American Association of Cost Engineers (AACE) Class 4 Estimate with an expected accuracy of +50%/-30% of the final Project cost.

Cost estimates are expressed in second-quarter 2016 US dollars with no allowances for escalation, currency fluctuation or interest during construction. Costs quoted in Canadian dollars were converted to US dollars at an exchange rate of C$1 = US$0.74.

The Project's initial capital cost, summarized in Table 21-1, is estimated to be US$1,031 M, inclusive of allowances for Owner's costs and contingency of US$29 M and US$175 M, respectively.

Table 21-1: Initial Capital Cost Estimate Summary

Area	Description	Cost, US$ M
Direct Costs		
	Mining	116
	Electrical, Communications & Controls	91
	Infrastructure	60
	Process Plant	345
	Tailings & Water Management	25
	Total Direct Costs	637
Indirect Costs		
	EPCM	93
	Construction Indirects	97
	Owner's Costs	29
	Contingency	175
	Total Indirect Costs	394
Total Initial Capital Cost		**1,031**

Part of the initial mining fleet, main substation, and process equipment, having an approximate initial capital cost of US$183 M, will be financed using capital lease agreements with vendors. Inclusive of a down-payment of 10% of the purchase value paid at placement of order, capital leases reduce the initial capital cost by approximately US$164 M.

Sustaining costs and operating costs (with no contingency) over the LOM are estimated to total US$440 M and US$3,573 M, respectively. Reclamation and closure costs are estimated at US$40 M.

21.2 Scope and Structure of Capital Cost Estimate

Capital cost for surface facilities includes the construction and installation of all structures, utilities, materials, and equipment as well as all associated indirect and management costs. The capital cost includes contractor and engineering support to commission the process plant, to ensure all systems are operational. At the point of hand-over of the plant to IAMGOLD's Operations group, all operational costs, including ramp-up to full production, are considered as operating costs.

The capital cost estimate is based on the 24-month Project development schedule.

This estimate was developed in accordance with IAMGOLD's work breakdown structure (WBS) (Table 21-2).

Table 21-2: Scope of Estimate by IAMGOLD WBS

WBS Area	WBS #	WBS Description
300 - Mining	301	Mining General
	315	Waste Dumps
	318	Ore Stockpiles
	320	Mine Haul Roads
	325	Mine Major Equipment
400 – Electrical, Communications & Controls	401	General
	410	Transmission Line
	415	Main Substation
	420	Distribution Lines
	430	Electrical Room - Crusher
	431	Electrical Room - Stockpile
	432	Electrical Room - Grinding
	433	Electrical Room - Leaching
	434	Electrical Room - CIP & Reagents
	435	Electrical Room - Lake Pumphouse
	436	Electrical Room - Ancillary Facilities
	450	Communications & Process Control System
500 – Infrastructure	501	General

WBS Area	WBS #	WBS Description
	505	Main Access Road
	508	Security Gates & Access Control
	510	Site Roads & Parking
	515	Permanent Camp
	525	Service Building
	540	Fuel Storage
	550	Potable Water
	551	Fire Protection
	552	Sewage Disposal
	560	Aggregate Plant
	580	Emulsion Plant
WBS Area	WBS #	WBS Description
600 – Process plant	604	Crushing
	605	Stockpile & Reclaim
	610	Grinding
	615	Gravity Circuit
	620	Preleach Thickening
	625	Leaching
	626	Carbon in Pulp (CIP)
	630	Carbon Regeneration & Recovery
	631	Acid Wash & Elution
	632	Electrowinning & Refining
	640	Detox
	645	Tailings Thickening & Pumping
	650	Reagents Preparation & Storage
	655	Air Services
	660	Water Services
	690	Mill Laboratory
	695	Mill Office
800 – Tailings & Water Management	805	Tailings Storage Facility
	810	Reclaim Water
	815	Realignment Dams
	820	Fresh Water
	830	Pit Dewatering
	835	Waste Pits Water
	845	Watercourse Realignment
900 - Indirects	905	Construction Facilities
	910	Construction Equipment & Tools
	915	Construction Equipment Maintenance
	920	Construction Engineering
	925	Construction Management
	930	Construction Freight
	935	Construction Room & Board

WBS Area	WBS #	WBS Description
	940	Construction Transportation
	960	Construction Health, Safety & Sustainability
	980	Commissioning
	985	Corporate Administration
	998	Construction Contingency

21.3 Support Documents

The following documents were used as support for the estimate:

- General arrangement drawings
- Major equipment and electrical load lists
- Budgetary quotations for major equipment
- Project WBS
- Conceptual design material take-offs (MTOs):
  - tailings
  - water management
  - electrical requirements
- IAMGOLD internal mining studies.

21.4 Basis of Capital Cost Estimate

21.4.1 Direct Costs

21.4.1.1 Mining

The scope of the mining cost estimate includes the purchase of initial mining fleet, maintenance, and mine support equipment; wages for hourly and salary personnel for pre-production mine operation; haul road construction; and miscellaneous equipment.

Estimates for mining equipment were based either on mining fleet equipment schedules and equipment pricing provided by vendors for supply, delivery, assembly, and testing or from historical data.

Mining quantities were derived from first principles and mine-phased planning to achieve the planned production rates. Mining excavation estimates were based on geological studies, mine models, drawings, and sketches. Costs include pre-production stripping and haul road construction by the mining fleet.

Fuel consumption was estimated from vendor-supplied data for each type of equipment and equipment utilization factors.

21.4.1.2 Watercourse Realignment and Management

Cost estimates for water diversion and management structures are based on earlier internal studies, scaled to suit the current Project concept.

21.4.1.3 Quantity Development Basis

Amec Foster Wheeler prepared conceptual designs to determine the major equipment list, and applied capacity and equipment factoring techniques for the remainder of the quantities/disciplines based on historical information. Except where noted, costs for all other works are based on historical data and adjusted for Project-specific equipment and building requirements:

- Civil: earthwork scope was based on historical sized areas, including quantities for rough grading, excavation and backfill, cut and fill, topsoil stripping, hauling and base layers.
- Mechanical: mechanical and process engineers determined the equipment, quantities, size, and power requirements, and documented these in the project mechanical equipment list.
- Piping: historical equipment factored allowances were applied for process piping.
- Electrical: The electrical estimate was based on historical data for supply and installation from recent projects.

21.4.1.4 Capital Leases

Part of the initial mining fleet, main substation, and process equipment, having an approximate initial capital cost of US$183 M, will be financed using capital lease agreements with vendors. Inclusive of a down-payment of 10% of the purchase order value paid at placement of order, leasing equipment reduced the initial capital cost by approximately US$164 M.

21.4.1.5 Direct Labour

Wage rates for construction crews were established based on recent contracts.

Amec Foster Wheeler's base North American unit work-hours are based on ideal working conditions.

To account for conditions at the Project site, productivity factors were incorporated into the construction labour unit work-hours as multipliers on the base man-hours.

21.4.1.6 Construction Equipment

Estimates for contractors' construction equipment are included in the direct costs. These costs are estimated as dollars per direct work-hour by discipline account, and include equipment ownership, depreciation, insurance, fuel oil, lubricants, maintenance, and service and repair.

21.4.2 Indirect Costs

21.4.2.1 Engineering Procurement and Construction Management

The allowance for EPCM costs is 16% of direct costs, excluding initial mining capital and pre-production costs.

21.4.2.2 Construction Indirects

Construction indirects are estimated based on historical percentages of capital costs as shown in Table 21-3, with the exception of the costs for temporary camp and catering, which were based on historical costs per person/bed/day.

Table 21-3: Construction Indirects

Cost Element	% of Direct Cost
Temporary construction facilities	5.0
Construction support and services	3.5
Construction utilities	2.0
Health, Safety, Security and Environment (HSSE)	0.5
Freight (% of plant equipment and bulk materials only)	5.0
Vendor representatives (% of plant equipment costs only)	2.0
Contractor support during start-up/commissioning (% of plant equipment costs only)	1.0
First fills and associated costs (% of plant equipment costs only)	1.0
Spare parts (% of mechanical and electrical equipment costs only)	3.0

21.4.3 Owner's Costs

An allowance of 5% of direct costs, excluding initial mining and pre-stripping costs, has been included for Owner's costs.

21.4.4 Contingency

Contingency is an allowance included in the capital cost estimate that is expected to be spent to cover unforeseeable items within the scope of the estimate. These can arise due to currently undefined items of work or equipment, or to uncertainty in the estimated quantities and unit prices for labour, equipment, and materials. Contingency does not cover scope changes or project exclusions. Contingency is not applied to initial mining capital and pre-stripping costs.

The contingency has been applied as 25% of the balance of direct and indirect costs, based on a deterministic approach and historical data.

21.4.5 Exclusions

The following items are specifically excluded from the capital cost estimate:

- escalation
- cost of financing and interest during construction
- cost due to currency fluctuations
- sunk costs
- working capital
- changes to design criteria
- scope changes or accelerated schedule
- modifications after hand-over
- changes in Canadian law
- taxes and duties
- any provision for force majeure events
- cost recovery of construction buildings or equipment
- schedule delays such as those caused by:
  - scope changes
  - permit delays
  - delay in notice to proceed
  - labour disputes
  - unavailability of sufficient or experienced craft labour
  - undefined geotechnical or environmental conditions
  - unidentified or adverse subsurface soil conditions
  - other external influences.

21.5 Sustaining Capital Costs

Sustaining costs include the following:

- capital lease payments on initial mining fleet, substation, and process equipment
- purchase of mining fleet to maintain production
- annual TMF build-out costs.

As shown in Table 21-4, sustaining capital costs are estimated at US$439 M. Sustaining cost excludes allowances for contingency.

Table 21-4: Sustaining Costs

Cost Area		US$ M
Capital leases		193
Mining		121
TMF costs by period	Year 1	6
	Year 2	9
	Years 4 to 22	110
	TMF sub-total	125
Total		**439**

The basis for estimating the sustaining costs for capital leases are as follows:

- 10% of purchase order value on placement of order (included in capital cost)
- lease rate of 5% per annum
- lease term of five years.

21.6 Operating Costs

21.6.1 Operating Cost Summary

Total operating costs over the LOM are estimated to be US$3,573 M (Table 21-5). Mining and processing costs represent 53% and 38% of this total, respectively. Average operating costs are estimated at US$18.25/t of processed mill feed, as summarized in Table 21-6.

Table 21-5: Total Operating Costs over Life of Project

Cost Area	Total, US$ M	Percent of Total
Mining operating	1,905	53
Processing	1,371	38
G&A	297	8
Total	**3,573**	**100**

Table 21-6: Average Unit Operating Costs

Cost Area	US$/t of processed mill feed
Mining	8.62
Processing	6.20
G&A	3.43
Total	**18.25**

Operating cost estimates exclude any allowances for contingencies.

21.6.2 Mining Operating Cost Estimate

Mining costs over the LOM are estimated to average US$8.62/t of processed mill feed (Table 21-7).

Table 21-7: Average Mining Operating Costs

Cost Area	US$/t processed mill feed	Percent of total
Labour	2.01	23
Fuel	2.41	28
Consumables	3.96	46
Other	0.24	3
Total	**8.62**	**100**

21.6.3 Process Operating Cost Estimate

Process operating costs over LOM are estimated to average US$6.20/t of processed mill feed (Table 21-8). Process operating costs estimates were developed from first principles and vendor quotations, and benchmarked against historical data for similar process plants.

Table 21-8: Average Processing Costs

Cost Area	US$/t processed mill feed
Labour	0.75
Power	1.58
Reagents	1.72
Steel consumables	1.35
Spare parts and maintenance supplies	0.70
Assaying	0.05
Miscellaneous	0.05
Average Processing Cost	**6.20**

21.6.4 General and Administration

G&A costs over LOM are estimated to average US$1.343/t of processed mill feed (Table 21-9). G&A costs were developed from first principles and benchmarked against similar projects.

Table 21-9: General and Administration Cost Estimates

Cost Area	US$/t processed mill feed
Labour	0.47
Camp & catering contract	0.32
Insurance	0.11
Logistics	0.11
Road and site maintenance	0.05
Power line maintenance	0.01
Power (camp and administration)	0.16
Other	0.11
Average G&A Cost	**1.34**

21.7 Reclamation and Closure Costs

Reclamation and closure costs are estimated to total approximately US$39.7 M (Table 21-10). This is based on estimates prepared for earlier internal studies of the Project, scaled to suit the current Poject concept, and excludes allowances for contingency.

Table 21-10: Reclamation and Closure Costs

Year	US$ M
2027	2.35
2028	2.35
2029	2.35
2030	2.35
2031	2.35
2032	2.35
2033	2.35
2034	2.35
2035	2.35
2036	2.35
2037	2.35
2038	2.35
2039	2.35
2040	9.13
Total	**39.71**

22.0 ECONOMIC ANALYSIS

22.1 Forward-looking Information

The results of the economic analysis represent forward-looking information that is subject to a number of known and unknown risks, uncertainties and other factors that may cause actual results to differ materially from those presented here. Forward-looking statements in this Report include, but are not limited to, statements with respect to future gold prices, the estimation of Mineral Resources, the estimated mine production and gold recovered, the estimated capital and operating costs, and the estimated cash flows generated from the planned mine production. Actual results may be affected by:

- potential delays in the issuance of permits and any conditions imposed with the permits that are granted,
- differences in estimated initial capital costs and development time from what has been assumed in the PEA,
- unexpected variations in quantity of mineralised material, grade or recovery rates, or presence of deleterious elements that would affect the process plant or waste discposal,
- unexpected geotechnical and hydrogeological conditions from what was assumed in the mine designs, including water management during the construction, mine operations, and post mine closure,
- differences in the timing and amount of estimated future gold production, costs of future gold production, sustaining capital requirements, future operating costs, assumed currency exchange rate, requirements for additional capital, unexpected failure of plant, equipment or processes not operating as anticipated,
- changes in government regulation of mining operations, environment, and taxes
- unexpected social risks, higher closure costs and unanticipated closure requirements, mineral title disputes or delays to obtaining surface access to the property.

22.2 Valuation Methodology

The Project has been evaluated using a discounted cash flow (DCF) analysis. Cash inflows consist of annual revenue projections. Cash outflows consist of capital expenditures, including the two years of pre-production costs; operating costs; taxes; and royalties. These are subtracted from the inflows to arrive at the annual cash flow projections. Cash flows are taken to occur at the end of each period.

To reflect the time value of money, annual net cash flow (NCF) projections are discounted back to the Project valuation date using several discount rates. The discount rate appropriate to a specific project depends on many factors, including the type of commodity; and the level of project risks (e.g. market risk, technical risk and political risk). The base case discount rate for this technical report is 6%. The discounted, present values of the cash flows are summed to arrive at the Project's net present value (NPV).

In addition to the NPV, the internal rate of return (IRR) and the payback period are also calculated. The IRR is defined as the discount rate that results in an NPV equal to zero. The payback period is calculated as the time required to achieve positive cumulative cash flow for the Project.

22.3 Basis of Analysis

The financial analysis was based on:

- royalty rates as described in Section 4
- the subset of the Mineral Resources included in the mine plan presented in Section 16
- mill feed treated in the process plant described in Section 17
- support from the projected infrastructure requirements outlined in Section 18
- doré marketing assumptions described in Section 19
- permitting, social and environmental regime discussions in Section 20
- capital and operating cost estimates detailed in Section 21.

22.3.1 Metal Pricing

For the purposes of the financial analysis, the assumed gold price for the LOM is US$1,200/oz.

22.3.2 Transport, Insurance, Refining and Sparging

The doré will be delivered to the nearest commercial airport to be sent to the refinery by the security contractor. Most refineries will handle the logistics chain from the point of receipt at the mine site through delivery to the refinery.

Doré transport and insurance costs are expected to average US$4 per ounce of gold produced.

22.3.3 Working Capital

Working capital cash outflow and inflows are included in the model. The calculations are based on the assumptions that accounts payable will be paid within 30 days and accounts receivable within 60 days. The impact of the working capital on NPV 6% is approximately negative US$28 M.

22.3.4 Royalties

The royalties base and rate are presented in Section 4 of the Report. They amount to about US$73 M over the life of the Project.

22.3.5 Tax

Taxation considerations included in the financial model comprise Provincial and Federal corporate income taxes and Ontario Mineral taxes. The following discussion outlines the main Federal and Provincial taxation considerations used in the economic model as provided by IAMGOLD:

- On a non-discounted basis LOM, the model provides for US$512 M of Federal and Ontario income taxes, and US$197 M of Ontario Mineral Tax
- Income tax is payable to the federal government of Canada, pursuant to the Income Tax Act (Canada). The applicable federal income tax rate is 15% of taxable income;
- Income tax is payable to the province of Ontario at a tax rate of 10% of taxable income, which includes the manufacturing and processing tax credit. Ontario income tax is administered by the Canada Revenue Agency and, since 2008, Ontario's definition of taxable income is fully harmonized with the federal definition;
- Ontario Mining Tax ("OMT") is levied at a rate of 10% on taxable profit in excess of $500,000 derived from mining operations in Ontario. OMT is deductible in calculating federal income tax and a similar resource allowance is available as a deduction in calculating Ontario income tax. OMT is not affected by harmonization; accordingly, it is administered provincially by Ontario;
- The combined effect on the Project of the three levels of taxation, including the elements described above, is a cumulative effective tax rate (based on Federal taxable income) of 34%, based on Project totals.

The tax calculations are underpinned by the following key assumptions:

- The Project is held 100% by a corporate entity and the after-tax analysis does not attempt to reflect any future changes in corporate structure or property ownership;
- Payments projected relating to NSR or NPI royalties, as applicable, are allowed as a deduction for federal and provincial income tax purposes, but are added back for provincial mining tax purposes; and
- Actual taxes payable will be affected by corporate activities, and current and future tax benefits have not been considered.

22.3.6 Financing

The model does not include any costs associated with financing other than the capital leases of mining and plant equipment as presented in Section 21.

22.3.7 Inflation

There is no adjustment for inflation in the financial model; all cash flows are based on 2016 US dollars.

22.4 Economic Analysis Results

Table 22-1 summarizes the financial results on a 100% basis, with the base case NPV 6% highlighted. The after-tax NPV 6% is US$543 M. The after-tax IRR is 12.9%. The after-tax payback of the initial capital investment is estimated to occur 5.2 years after the start of production. Table 22-4 shows the cashflow broken out on an annualized, 100% basis. Calendar year dates noted in Table 22-4 are provisional, and used for illustrative purposes only.

The LOM all-in sustaining cost (AISC) per ounce is US$686/oz Au and the average LOM cash cost is US$564/oz Au.

Table 22-1: Summary – Financial Results

Parameter	Units	Pre-Tax	After-Tax
Cumulative cash flow	US$ M	2,423.7	1,714.1
NPV 6%	US$ M	851	543.1
NPV 8%	US$ M	571.5	332.2
NPV 10%	US$ M	359.6	171.3
Payback period*	year	5.0 years	5.2 years
IRR	%	15.4%	12.9%

*includes two years of pre-production

The above results of the PEA are preliminary in nature, and include Inferred Mineral Resources that are considered too speculative geologically to have the economic considerations applied to them that would enable them to be categorized as mineral reserves, and there is no certainty that the PEA will be realized. Mineral Resources are not Mineral Reserves and do not have demonstrated economic viability.

Table 22-2: Financial Model

CASHFLOW MODEL	UNITS	LOM	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029
Project Time line															
Year (December 31st)			2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029
Project time			-2	-1	1	2	3	4	5	6	7	8	9	10	11
Production			0	0	1	1	1	1	1	1	1	1	1	1	1
Metal Prices															
Gold	US$/oz	1,200	1,200	1,200	1,200	1,200	1,200	1,200	1,200	1,200	1,200	1,200	1,200	1,200	1,200
Ore mined															
Ore	kmt	221,124		2,860	13,557	8,703	14,227	26,024	15,854	10,585	10,585	10,585	5,091	9,316	7,548
Waste Mined															
Waste	kmt	588,920		37,140	46,443	51,297	45,773	26,050	35,443	38,395	39,415	39,415	44,909	40,684	37,452
Mill Feed															
Mill feed total	kmt	221,124			8,884	10,585	10,585	10,585	10,585	10,585	10,585	10,585	10,585	10,585	10,585
Grade mill feed	g/mt	0.97	-	-	1.49	1.08	1.07	1.56	1.42	1.16	1.07	0.93	0.78	0.75	0.75
REVENUES															
Dore															
Au recovered	koz	6,338			374	337	334	489	445	361	335	290	244	234	236
Au payable	koz	6,338			374	337	334	489	445	361	335	290	244	234	236
Au value	000 US$	7,605,799			448,374	403,900	400,839	587,256	533,628	433,591	402,413	348,500	292,498	280,714	282,664
Transport and insurance															
Dore refining, transport, insurance and other	000 US$	25,353			1,495	1,346	1,336	1,958	1,779	1,445	1,341	1,162	975	936	942
Total Refining Transport and Insurance	000 US$	25,353			1,495	1,346	1,336	1,958	1,779	1,445	1,341	1,162	975	936	942
NSR															
Dore	000 US$	7,580,446			446,879	402,554	399,503	585,299	531,849	432,146	401,072	347,338	291,523	279,778	281,722
Total	000 US$	7,580,446			446,879	402,554	399,503	585,299	531,849	432,146	401,072	347,338	291,523	279,778	281,722
OPERATING COSTS ONSITE															
Mining	000 US$	1,905,340			114,688	120,146	127,601	122,390	110,926	103,925	107,507	113,962	116,214	120,266	115,989
Process	000 US$	1,370,963			55,081	65,627	65,627	65,627	65,627	65,627	65,627	65,627	65,627	65,627	65,627
G&A	000 US$	297,056			11,935	14,220	14,220	14,220	14,220	14,220	14,220	14,220	14,220	14,220	14,220
Total onsite operating cost	000 US$	3,573,359			181,704	199,993	207,448	202,237	190,773	183,772	187,354	193,809	196,061	200,113	195,836
OPERATING COSTS OFF SITE															
Royalties															
Royalty	000 US$	72,688			4,285	3,860	3,831	5,612	5,100	4,144	3,846	3,331	2,795	2,683	2,701
Total royalties	000 US$	72,688			4,285	3,860	3,831	5,612	5,100	4,144	3,846	3,331	2,795	2,683	2,701
OPERATING PROFIT															
Operating profit	000 US$	3,934,399			260,890	198,701	188,225	377,450	335,976	244,230	209,873	150,199	92,667	76,983	83,185
Taxes	000 US$	709,622	-	-	-	-	-	310	53,508	52,037	48,457	32,800	16,593	11,769	15,025
CAPITAL COSTS															
Initial Capital	000 US$	1,031,155	457,594	566,058	7,503										
Sustaining Capital	000 US$	439,832			44,398	58,000	53,714	45,270	49,750	7,514	5,619	6,624	34,560	28,557	14,574
Closure Costs	000 US$	39,714											2,352	2,352	2,352
Total capital costs	000 US$	1,510,701	457,594	566,058	51,901	58,000	53,714	45,270	49,750	7,514	5,619	6,624	36,913	30,910	16,926
Working Capital															
Change in working capital	000 US$	0			(58,050)	8,742	1,111	(30,773)	7,787	15,708	5,369	9,306	9,301	2,251	(669)
VALUATION INDICATORS															
Pre Tax															
Cash flow	000 US$	2,423,698	(457,594)	(566,058)	150,939	149,443	135,622	301,407	294,013	252,424	209,623	152,881	65,055	48,325	65,589
Cumulative cashflow	000 US$		(457,594)	(1,023,652)	(872,713)	(723,269)	(587,648)	(286,240)	7,772	260,197	469,820	622,701	687,756	736,081	801,670
NPV 6%	000 US$	850,988													
Payback period	Years	5.0													
IRR before tax	%	15.4%													
After Tax															
Cash flow	000 US$	1,714,076	(457,594)	(566,058)	150,939	149,443	135,622	301,097	240,505	200,387	161,167	120,080	48,463	36,556	50,565
Cumulative cashflow	000 US$		(457,594)	(1,023,652)	(872,713)	(723,269)	(587,648)	(286,551)	(46,046)	154,341	315,508	435,588	484,051	520,607	571,172
NPV 6%	000 US$	543,126													
Payback period	Years	5.2													
IRR after tax	%	12.9%													

CASHFLOW MODEL	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042	2043
Year (December 31st)	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042	2043
Project time	12	13	14	15	16	17	18	19	20	21	22	23	24	25
Production	1	1	1	1	1	1	1	1	1	1	1	0	0	0
Gold	1,200	1,200	1,200	1,200	1,200	1,200	1,200	1,200	1,200	1,200	1,200	1,200	1,200	1,200
Ore	7,413	10,556	18,756	15,415	10,585	10,585	10,585	2,294						
Waste	37,587	34,444	23,115	7,196	2,487	1,000								
Mill feed total	10,585	10,585	10,585	10,585	10,585	10,585	10,585	10,585	10,585	10,585	539			
Grade mill feed	0.80	0.92	1.37	1.18	1.04	0.90	0.89	0.66	0.38	0.34	0.41	-	-	-
Au recovered	250	289	429	368	325	280	279	207	120	107	6			
Au payable	250	289	429	368	325	280	279	207	120	107	6			
Au value	299,576	346,591	514,595	441,943	389,478	335,973	334,764	248,743	144,087	127,905	7,764			
Dore refining, transport, insurance and other	999	1,155	1,715	1,473	1,298	1,120	1,116	829	480	426	26			
Total Refining Transport and Insurance	999	1,155	1,715	1,473	1,298	1,120	1,116	829	480	426	26			
NSR Dore	298,577	345,435	512,879	440,470	388,180	334,853	333,649	247,914	143,607	127,479	7,739			
NSR Total	298,577	345,435	512,879	440,470	388,180	334,853	333,649	247,914	143,607	127,479	7,739			
Mining	120,139	124,076	124,523	74,504	46,987	40,332	40,325	22,540	17,811	17,778	2,712			
Process	65,627	65,627	65,627	65,627	65,627	65,627	65,627	65,627	65,627	65,627	3,342			
G&A	14,220	14,220	14,220	14,220	14,220	14,220	14,220	14,220	14,220	14,220	724			
Total onsite operating cost	199,986	203,923	204,369	154,351	126,834	120,178	120,172	102,387	97,658	97,625	6,777			
Royalty	2,863	3,312	4,918	4,224	3,722	3,211	3,199	2,377	1,377	1,222	74			
Total royalties	2,863	3,312	4,918	4,224	3,722	3,211	3,199	2,377	1,377	1,222	74			
Operating profit	95,728	138,200	303,592	281,896	257,624	211,464	210,278	143,149	44,572	28,632	887			
Taxes	20,993	36,184	89,821	83,253	68,849	62,399	62,282	40,740	9,445	5,157	-	-	-	-
Initial Capital														
Sustaining Capital	7,923	11,165	5,555	12,553	17,496	5,771	5,825	8,441	5,507	5,507	5,507			
Closure Costs	2,352	2,352	2,352	2,352	2,352	2,352	2,352	2,352	2,352	2,352	9,135			
Total capital costs	10,275	13,518	7,907	14,905	19,848	8,123	8,177	10,793	7,860	7,860	14,642			
Change in working capital	(2,412)	(7,329)	(27,310)	7,715	6,278	8,162	196	12,541	16,647	2,631	12,089	707		
Pre Tax Cash flow	83,041	117,353	268,374	274,705	244,054	211,503	202,297	144,896	53,359	23,404	(1,666)	707		
Pre Tax Cumulative cashflow	884,711	1,002,064	1,270,439	1,545,144	1,789,198	2,000,701	2,202,998	2,347,894	2,401,254	2,424,657	2,422,991	2,423,698	2,423,698	2,423,698
After Tax Cash flow	62,048	81,169	178,553	191,452	175,205	149,104	140,015	104,157	43,914	18,247	(1,666)	707		
After Tax Cumulative cashflow	633,219	714,389	892,942	1,084,394	1,259,599	1,408,702	1,548,717	1,652,874	1,696,788	1,715,035	1,713,369	1,714,076	1,714,076	1,714,076

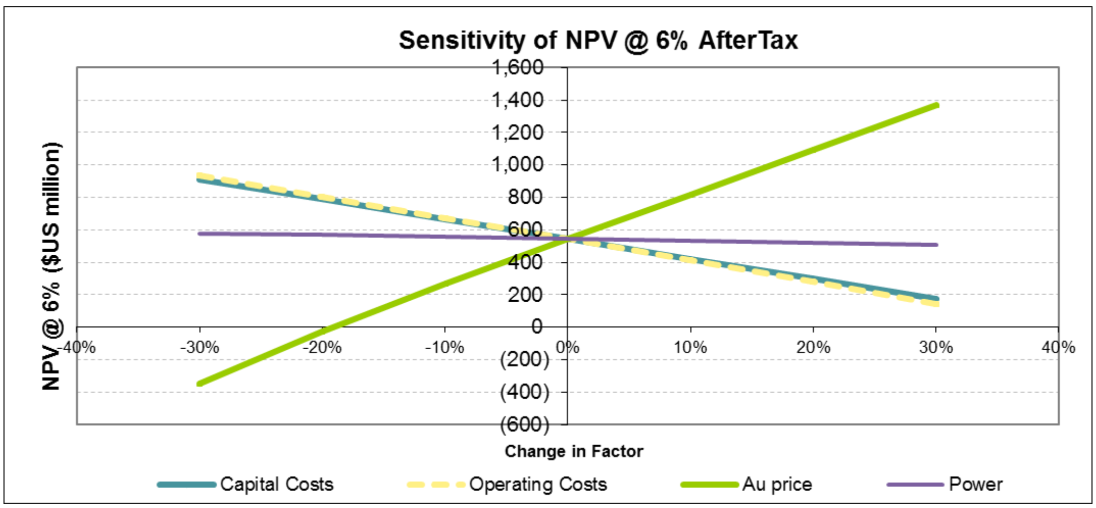
22.5 Sensitivity Analysis

A sensitivity analysis was performed on the base case NPV after taxes to examine the sensitivity to gold price, operating costs, capital costs and power costs. The results of the sensitivity analysis are shown in Figure 22-1 for the after-tax scenario.

In the pre-tax and after tax evaluations, the Project is most sensitive to changes in gold prices, less sensitive to changes in operating and capital costs, and least sensitive to power cost changes.

The gold grade is not presented in the sensitivity graph because the impact of changes in the gold grade mirror the impact of changes in the gold price.

Figure 22-1: NPV Sensitivity Analysis



22.6 Comments

Under the assumptions presented in this Report, the Project demonstrates positive economics. The after-tax NPV at a 6% discount rate is US$543 million. The after-tax IRR is 12.9%. The after-tax payback of the initial capital investment is estimated to occur 5.2 years after the start of production.

The LOM AISC per ounce of gold is US$686 and the cash cost is US$564/oz.

In the pre-tax and after-tax evaluations, the Project is most sensitive to changes in gold prices, less sensitive to changes in operating and capital costs, and least to power cost changes.

22.7 Recommendation

In order to improve the accuracy of the financial analysis for further mining studies, it is recommended that the the estimate of the smelter charges, transport and insurance cost for the marketing of the doré be refined.

23.0 ADJACENT PROPERTIES

There are no adjacent properties to describe in the context of the Côté Gold Project.

24.0 OTHER RELEVANT DATA AND INFORMATION

There are no other relevant data or information pertinent to the Report.

25.0 INTERPRETATION AND CONCLUSIONS

25.1 Summary

Based on a conceptual mine design, the Côté Gold Project shows a positive financial return, and the PEA study identifies additional testwork and analyses required to support more advanced mining studies. The PEA is based on Mineral Resources that do not have demonstrated economic viability, and include Inferred Mineral Resources that are considered too speculative geologically to have the economic considerations applied to them that would enable them to be categorized as Mineral Reserves. There is no certainty that the PEA will be realized.

The Project's initial capital cost is estimated at US$1,031 M, with a level of accuracy of +50%/-30%. Sustaining costs and operating costs over the LOM are estimated to total US$440 M and US$3,573 M, respectively. Reclamation and closure costs are estimated at US$40 M.

The total cash cost and all-in sustaining cost per ounce over the LOM are US$582 and US$657, respectively.

After-tax NPV over the LOM is US$543 M at a 6% discount rate, and after-tax IRR is 12.9%. The after-tax payback period of the initial capital investment is estimated at 5.2 years after the start of production.

The Report provides sufficient support to proceed with more detailed studies.

25.2 Mineral Tenure, Surface Rights and Royalties

Surface rights, mineral title and royalty data are complete as of 31 December 2016, are materially complete and considered sufficient to support mine planning at the PEA level. It is reasonable to assume that surface rights to construct infrastructure, such as powerlines and tailings storage facilities, can be obtained.

25.3 Exploration

Exploration activities by Trelawney Mining & Exploration Inc. resulted in the discovery of the Côté gold deposit, interpreted as an intrusion-related deposit exhibiting alteration characteristics similar to porphyry-type gold deposits.

Once the deposit was discovered, efforts shifted to definition drilling on 50 m centres, with a small portion on 25 m centres. In addition, detailed geological mapping, core re-logging, an in-hole televiewer survey, and alteration studies were completed to gain a better understanding of deposit geology, and to support the Mineral Resource estimation.

Exploration activities outside the Côté gold deposit area were undertaken as part of a multi-year program initiated in 2013. Numerous gold showings were documented, both within the host CIC, and in the surrounding volcanic/sedimentary units of the South Swayze greenstone belt. Regional exploration work was completed to evaluate many of the highest-priority targets for potentially economic bulk tonnage intrusion-hosted gold deposits, and for higher-grade structurally controlled orogenic or shear-hosted gold mineralization.

Exploration work continues outside the immediate area of the Côté gold deposit, and detailed geological and data studies and interpretation are ongoing on the deposit. The Côté gold deposit remains open at depth.

25.4 Geology and Mineralization

Knowledge of the deposit settings, lithologies, mineralization and alteration controls on gold grades is sufficient to support a Mineral Resource estimate, and can support preliminary mine planning at the PEA level. Geological interpretation was simplified to accommodate the complexity of the geology, and does not reflect the multiple mineralization trends observed. The result is a reasonable resource estimation, but local grade uncertainties likely remain.

25.5 Drilling

The location, orientation, and spacing of the drillholes are are sufficient to support Mineral Resource estimation and preliminary mine planning at the PEA level.

25.6 Sampling and Assaying

The quality of the lithological, collar and downhole survey data collected, as well as, the gold analytical data is sufficiently reliable to support Mineral Resource estimation without limitations on confidence categories. QA/QC performed do not show a particular trend or a significant bias, however the CRM failure rate should be addressed in future sampling programs. These results suggest a strong heterogeneity, perhaps resulting from the nature of the deposit's mineralization and the sampling procedures used. Further studies are ongoing to identify corrective measures to improve the analysis, especially at cut-off limits

25.7 Data Verification

A reasonable level of verification has been completed to date and the Mineral Resource estimates, preliminary mine planning, and process design can be supported by the data collected.

25.8 Metallurgical Testwork

Metallurgical testwork supports the selection of conventional crushing, HPGR, grinding and CIP as appropriate. The testwork was performed on samples that are considered representative of the mineralization throughout the LOM for a PEA level of study.

25.9 Mineral Resource Estimation

Mineral Resource estimation followed standard industry procedures, and resource classification used 2014 CIM Definition Standards. The resource model was appropriately constrained to meet reasonable prospects of eventual economic extraction assuming open-pit mining methods.

Factors that can affect the estimate include:

- assumptions used in generating the Whittle shell constraining the open-pit estimates, including geotechnical and hydrogeological parameters, and metallurgical and mining recoveries
- capital and operating cost assumptions
- metal price and exchange-rate assumptions
- confidence in the modifying factors, including the assumption that surface rights to allow construction of infrastructure will be forthcoming
- delays or other issues in reaching agreements with local or regulatory authorities; changes in land tenure requirements; and changes in permitting requirements from those assumed in this Report.

25.10 Mine Planning

Amec Foster Wheeler selected conventional open-pit mining because of the deposit’s geometry and proximity to surface. An Owner-operated and maintained fleet has been specified, with third-parties supporting mine operations.

The PEA mine plan is based on a subset of the Mineral Resource estimates. The pit will operate for 21 years, including one-year of pre-stripping.

25.11 Recovery Plan

The process circuits for recovering the gold as doré will include primary crushing, secondary crushing, HPGR, ball milling, gravity concentration and cyanide leaching, followed by gold recovery by CIP, stripping and EW. The plant throughput will be 29,000 tpd. Tailings handling will incorporate cyanide destruction and tailings thickening before placement of tailings within the TMF.

25.12 Infrastructure

The major infrastructure items will include:

- the TMF
- water management and realignment infrastructure
- workshops, offices, facilities and site services
- permanent camp
- main and site access roads
- explosives plant and storage areas
- site electrical power supply and distribution.

The TMF will store approximately 220 Mt of tailings solids. Tailings will be thickened with solids concentration in slurry at 58%. Tailings storage will be by a series of perimeter embankment dams, raised in stages and constructed of waste rock. Solids will be settled in the TMF, with some water retained in the voids. The TMF will be developed in stages for better water management and water balance.

A series of dams and diversion channels will redirect water around the mine facilities, and enabling dewatering and isolation of the open pit.

The total connected electrical load is estimated at 62 MW. Power will be supplied by a new 44-km, 115-kV electrical transmission line that connects to the provincial grid at a substation near Shining Tree.

25.13 Marketing

No formal marketing studies have been conducted for the Project, however the product of the mine is doré which should be freely marketable. No contracts are currently in place for any production. Metal prices are based on consensus long-term prices from banks and analysts.

25.14 Environmental, Permitting and Social Licence

After application of the proposed mitigation measures contemplated in the mine design, no potential environmental effects appear to pose significant barriers to issuing permits.

IAMGOLD has actively engaged local and regional communities, and other stakeholders, to gain a better understanding of their issues and interests, identify potential partnerships, and gain the social licence to operate.

25.15 Capital Costs

The Project's initial capital cost, including mine pre-production, is estimated at US$1,031 M. This estimate was prepared in accordance with the AACE Class 4 Estimate with an expected accuracy of +50%/-30% of final project cost.

Sustaining costs over the LOM are estimated at US$440 M. Reclamation and closure costs are estimated at US$40 M.

25.16 Operating Costs

Operating costs over the LOM are estimated at US$3,573 M, equivalent to an average operating cost of US$18.25/t of material processed.

Operating costs were developed from a range of sources including benchmarking analysis, first principles, and factoring from similar projects.

25.17 Financial Analysis

Under the assumptions presented in this report, the Côté Gold Project shows positive economic returns. After-tax NPV over the estimated LOM is US$543 M at a 6% discount rate, and after-tax IRR is 12.9%. The after-tax payback period of the initial capital investment is estimated at 5.2 years after the start of production.

The total cash cost and all-in sustaining cost per ounce over LOM are US$564 and US$686 respectively.

This PEA is preliminary in nature, and is based on Mineral Resources that are not Mineral Reserves and do not have demonstrated economic viability. A portion of the Mineral Reserves in the mine plan are classified as Inferred Mineral Resources, which are too speculative geologically to have the economic considerations applied to them that would enable them to be categorized as Mineral Reserves.

25.18 Risk Analysis

25.18.1 Resource Estimates

Geological modelling and resource estimation requires interpretation of a complex geological and mineralizing system and the interpretations could change with additional drilling and exposure during mining. This could affect the estimated grades and continuity of the mineralization affecting the resource classification and mine plan. This could result in unexpected differences in the estimated grades that could affect the gold production and cash flows.

25.18.2 Mine Design

Unexpected geotechnical conditions could cause pit slope failures that could disrupt mine production and increase costs to stabilize the pit slopes. This type of risk is common to most open pit mining operations, and can be mitigated with geotechnical monitoring programs.

25.18.3 Process Design

There may be unexpected metallurgical variability that could change the assumed metallurgical performance of the process plant that could affect the assumed metallurgical recovery, throughput rate, and process costs. These types of risks are common to mining projects and can be mitigated through appropriate metallurgical testwork and modelling, stockpile management and minor changes to the process plant.

25.18.4 Other Risks

Other risks to the projected economic outcomes include:

- Costs may be higher than assumed at time of mine construction and during operation.
- Electrical grid power may not always be sufficient during mine operation and require additional capital and operating costs to access a reliable alternative supply.
- Permit requirements can cause delays in operations and require additional capital and operating costs to operate within specifications.

25.19 Conclusions

The Côté Gold Project shows a positive financial return and can support a decision to proceed to more advanced mining studies.

26.0 RECOMMENDATIONS

26.1 Summary

Amec Foster Wheeler recommends performing the fieldwork, testing and analyses summarized in Table 26-1. The PEA recommended the completion of a further pre-feasibility study to validate and detail the elements of the development concept set out in the PEA, and which would include additional drilling, engineering studies and environmental studies, including hydrological, hydrogeological and geotechnical analyses.

Table 26-1: Recommended Work Program

Area	Description
Drilling	• Drill infill holes to allow conversion of unclassified and Inferred to higher confidence categories, and collect metallurgical and geotechnical samples
Metallurgical Sampling and Testing	• Conduct testwork to confirm the HPGR approach. • Test domain composites to address geometallurgical variability. • Conduct bench-scale testing to help define deposit variations.
Resource Estimating	• Review and improve resource domains where necessary. • Assess the potential benefits of sub-domaining the large interpolated zones. • Conduct a grade capping study to reduce the risk of not achieving predicted grades. • Conduct a drillhole spacing study to predict grade and production increments, and to provide guidance on the required drillhole spacing density for Measured Mineral Resource classification. • Prepare an updated mineral resource estimate with above information to convert Inferred and Unclassified resources to Indicated. • Conduct conditional simulation.
Mining Methods	• Evaluate kriged rock quality designation (RQD) zones and geology of each sector of the pit. • Determine the appropriate rock-mass strengths for each major rock type. • Evaluate overall slope angles. • Assess dilution and conduct selective mining unit (SMU) analysis to determine the best block size.
Infrastructure	• Conduct additional field investigations to characterize the site and its requirements. • Conduct analyses using field data and samples to advance TMF design and water management. • Contract Hydro One to study power supply from the nearest substation.
Environment	• Update the baseline environmental monitoring program. • Inform regulatory agencies of changes/improvements to the EA.

26.2 Sample Preparation, Analysis and Security

The failure of approximately 14% of the CRM between 2012 and 2014 is high, and an investigation of gold particle size, with strict QA/QC, should be conducted to address the poor CRM precision. Failed QC results may be reduced through fingerprinting of standards using inductively coupled plasma (ICP) results.

The estimated cost of this work is C$0.10 M.

26.3 Metallurgical Testwork

Further testwork to confirm the HPGR approach that can be used in more advanced studies should be completed. This will require composite sampling to assess:

- specific energy
- pressing force
- impact of moisture
- ATWAL abrasion
- specific throughput achievable
- flotation (locked cycle testing).

Each of these composites would require approximately 4 t of sample, and each sample tested would cost approximately C$0.15 M, for a total cost of C$0.6 M.

Testing of domain composites is recommended to address geometallurgical variability, requiring 1 t of sample at a cost of for six tests of approximately C$0.12 M.

The variability definition of the mill feed material should be evaluated using bench-scale testing. Additional crushing, Bond grind testing and cyanidation work would cost approximately C$1 M to obtain the sample (6–8 large diameter core holes totalling 3,000 m of drilling) and a further C$1 M for testing.

The total cost for the proposed metallurgical testwork is estimated to be approximately C$2.7 M.

26.4 Mineral Resource Estimating

The current understanding of geological controls on mineralization is limited. Local unconstrained high-grade areas exist within the I NE and SW (in the area classified as Indicated) and Low-grade (in the area classified as Inferred) domains. The high CVs in the low-grade domains may be a reflection of this issue. A solution for appropriate domaining is not obvious, and so the next phase of the Project requires the following further work:

- preliminary principal component analysis and alteration element ratio study, using

ICP data

- collection of short-wave infrared (SWIR) data from drill core.
- a study aimed at identifying grade thresholds to reduce the CVs within sub-domains.

Although significant amounts of metal have been removed through capping, capped values may remain too high. Predicted grades may not be achievable, and therefore this requires a grade capping study using a program such as Metal-at-Risk to further assess and mitigate any potential risks.

There is a significant amount of mineralization (beyond the 20 m restriction around drillholes used to classify blocks as Inferred) in the low-grade NE and SW zones, much of it near surface and supported by 50 m spaced drilling. This classification could pose a very significant issue during the prefeasibility study, as Inferred Mineral Resources cannot be used at this study level. Studies should be conducted to identify the drillhole spacing required to predict grade and annual/quarterly production increments. These studies would also provide guidance on the required drill spacing density to support a Measured classification.

Drillholes within and between sections show apparent structural controls that vary at depth and along the deposit. To improve interpolated grade continuity, the potential benefits of sub-domaining the large interpolated zones should be assessed.

Conditional simulation should be considered as the Project proceeds.

The cost of this work is estimated at C$0.08 M.

26.4.1 Infill Drilling

The confidence of some mineralized zones near surface is lower, as mineralized intervals have been observed but are not associated with a specific geological feature in the south part. The different mineralized models performed do not appear to have similar behavioursfor the shallow mineralization, which affect the grade estimation distribution. This could have a significant impact on the first years of production.

The majority of the drilling pattern was performed at the same orientation. In order to improve local estimates, additional boreholes should be placed in different directions to test the contact with the diorite, mainly to the north, and to test the diabase contact as well as other fault systems identified in the model. Different mineralization trends have been observed, and can be associated with structural features such as veining or faults. Oriented boreholes should be drilled outside the brecciated zone to provide an assessment of these features. Drilling in the opposite direction will test the contact of the diorite, the diabase and any missed structural features. This will also be done to intersect any mineralized structures parallel to original drilling which were observed locally during the last drill campaign. The estimated cost for the infill drilling and testwork is approximately C$1.5 M.

26.5 Mining Methods

26.5.1 Geotechnical

To provide geotechnical information for the next phase of the work, the following additional analyses should be performed using the existing geotechnical data:

- Assemble a 3D geologic/structural/geotechnical model.
- Develop appropriate 2D cross-sections through each sector.
- For each sector of the pit, evaluate the kriged RQD zones and geology of the 2D cross-sections.
- Using industry accepted methods, determine the appropriate rock-mass strengths for each major rock type.
- Using the best estimations of void and discontinuity hydraulic pressures, perform 2D limit equilibrium analysis and (if justified) finite element analysis to evaluate overall slope angles.

The cost for this work to acquire the geotechnical information that would be required for the next phase of the Project is approximately C$0.10 M.

26.5.2 Mine Planning

The following work should be completed:

- Identify areas within the resource model that could be captured within future mine plans that contain Inferred and unclassified resources blocks, especially those areas close to surface. Planned infill drilling should target these areas to potentially support conversion to Indicated Mineral Resources, as additional mineral resources would help reduce the strip ratio, accelerate the production schedule, and improve overall Project economics.
- Perform a detailed assessment of the external and internal dilution. This should be paired with a selective mining unit (SMU) analysis, to determine the best block size to minimize dilution while taking mining production rates into account.

The cost of this work is estimated at C$0.10 M .

26.6 Infrastructure

26.6.1 General

Additional field investigations, including trenching and pitting, and drilling should be conducted to characterize the site and support the design of the following:

- borrow material availability
- foundation preparation
- excavation requirements
- dam and channel geometry
- dam and channel construction methods
- fill quantities.

The cost of this work is estimated at C$0.25 M.

26.6.2 Tailings and Water Management

The following additional work should be completed before proceeding to the next study stage:

- tests to determine settled tailings density and properties, to support design assumptions and TMF sizing
- engineering analyses for stability and seepage estimates
- detailed hydrologic/hydrogeological analysis and water balance for the project as a whole, to determine water intake and discharge requirements
- review of the current effluent discharge location, with the aim of minimizing environmental effects and maximizing operational flexibility.

The cost of this work is estimated at C$0.2 M.

26.6.3 Electrical Power Supply

IAMGOLD is recommended to contract Hydro One to conduct a Condition Assessment feasibility study of the condition, capacity, power availability and costs of connecting to the 11 5kV transmission line at the Shining Tree substation. The study should then be followed by a IESO System Impact Assessment. The cost of these studies is estimated at C$0.08 M.

26.7 Environmental

IAMGOLD is obliged to update federal and provincial authorities regarding major project changes. This will require the following activities:

- Update the current environmental baseline monitoring program to reflect recent layout changes
- Inform regulatory agencies of the changes and improvements relative to the EA submission
- Update and amend technical studies as needed to support permitting.

The cost of this work is estimated at C$0.15 M.

26.8 Summary

The total cost of the preparatory work recommended prior to a detailed mining study at the pre-feasibility level is estimated to be approximately C$5.26 M.

Table 26-1: Cost Estimates – PFS Preparatory Work

Area	Estimated Costs (C$ M)
Sample preparation	0.10
Metallurgical testwork	2.70
Mineral resource estimates	0.08
Infill drilling	1.50
Mining	0.20
Infrastructure	0.25
Tailings and water management	0.20
Electrical power supply	0.08
Environmental	0.15
Total	**5.26**

27.0 GLOSSARY

Abbreviations and Acronyms

AANCD	Aboriginal Affairs and Northern Development Canada
ARD	Acid Rock Drainage ARP Advanced royalty payment
CDA	Canadian Dam Association
CEAA	Canadian Environmental Assessment Act
CIC	Chester Intrusive Complex
CIP	carbon-in-pulp
CIM	Canadian Institute of Mining, Metallurgy and Petroleum
CN	Canadian National Railway Company
COS	coarse ore stockpile
CRM	Certified Reference Materials
CV	coefficients of variation
CWQGs	Canadian Water Quality Guidelines
DCF	discounted cash flow
EA	Environmental Assessment
EM	electromagnetic
EPCM	engineering, procurement and construction management
ESA	Endangered Species Act [Ontario]
EW	electro-winning
FEL	front-end loader
G&A	General and administrative
GRG	extended gravity recoverable gold
HONI	Hydro One Networks Inc.
HDPE	high-density polyethylene
HLEM	horizontal lop electromagnetic
HPGR	high-pressure grinding roll
IP	induced polarization
IO	Infrastructure Ontario
IRR	internal rate of return
LEL	lowest effect level
LG	Lerchs-Grossmann
LOM	life of mine
MNDM	Ministry of Northern Development and Mines [Ontario]
MNDMF	Ministry of Northern Development, Mines and Forestry [Ontario]
MNRF	Ministry of Natural Resources and Forestry [Ontario]
MOECC	Ministry of the Environment and Climate Change [Ontario]
MRA	mine rock area
MTCS	Ministry of Tourism, Culture and Sport [Ontario]
MTO	Ministry of Transportation of Ontario
MTOs	material take-offs
NCF	net cash flow
NPI	net profits interest
NPV	net present value
NSR	net smelter return
O/S	oversize

ODWSs	Ontario Drinking Water Standards
OEB	Ontario Energy Board
OGS	Ontario Geological Survey
OMT	Ontario Mining Tax
PEA	Preliminary Economic Assessment
PP	preproduction
PSQG	Provincial Sediment Quality Guidelines
PWQO	Provincial Water Quality Objectives [Ontario]
QA	quality assurance
QC	quality control
QP	Qualified Person
ROM	run of mine
RQD	rock quality designation
RTD	rubber-tired dozer
SAG	semi-autogenous grinding
SARA	Species at Risk Act [Canada]
SEL	severe effect level
SMC	SAG mill comminution
SMU	selective mining unit
SWIR	short-wave infrared
TBC	to be confirmed
TMF	tailings management facility
UTM	Universal Transverse Mercator
VFD	variable frequency drive
VLF	very low frequency
WBS	work breakdown structure
WOL	whole-ore leach

Units of Measure

a	annum	m	meter
A	ampere	M	mega (million);
		m^2	square meter
btu	British thermal units	m^3	cubic meter
		µ	micron
°C	degree Celsius	masl	meters above sea level
C$	Canadian dollars	µg	microgram
cal	calorie	m^3/h	cubic meters per hour
cfm	cubic feet per minute	mi	mile
cm	centimeter	min	minute
cm^2	square centimeter	µm	micrometer
		mm	millimeter
d	day	mph	miles per hour
dmt	dry metric tonne	MVA	megavolt-amperes
dwt	dead-weight ton	MW	megawatt
		MWh	megawatt-hour
ft	feet		
		oz	Troy ounce (31.1035g)
g	gram		
G	giga (billion)	ppb	part per billion
g/L	gram per litre	ppm	part per million
g/t	gram per tonne		
		s	second
ha	hectare	st	short ton
hp	horsepower	stpa	short ton per year
hr	hour	stpd	short ton per day
Hz	hertz	t	metric tonne
		tph	Metric tonne per hour
J	joule	tpa	metric tonne per year
		tpd	metric tonne per day
k	kilo (thousand)		
kcal	kilocalorie	US$	United States dollar
kg	kilogram		
km	kilometer	V	volt
km^2	square kilometer		
km/h	kilometer per hour	W	watt
kPa	kilopascal	wmt	wet metric tonne
kVA	kilovolt-amperes	wt%	weight percent
kW	kilowatt		
kWh	kilowatt-hour	yd^3	cubic yard
L	litre	yr	year
lb	pound		
L/s	litres per second		

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CERTIFICATE OF QUALIFIED PERSON

Simon Allard,

111 Dunsmuir St., Suite 400

Vancouver, British Columbia, V6B 5W3

I, Simon Allard, P. Eng, am employed as a Principal Consultant and Study Manager with Amec Foster Wheeler Americas Limited.

This certificate applies to the technical report titled “NI 43-101 Technical Report on the Preliminary Economic Assessment of the Cote Gold Project, Porcupine Mining Division, Ontario, Canada,” that has an effective date of December 9th, 2016 (the “Technical Report”).

I am a graduate of Université Laval with a Baccalaureat cooperatif en génie des mines et de la minéralurgie Degree in 2004.

I am a member in good standing with the Association of Professional Engineers and Geoscientists of British Columbia, Canada.

I have practiced my profession for 12 years in the mining industry. My relevant experience includes cash flow modelling, risk evaluation, financial analysis, marketing studies, mine planning, and mining study supervision.

As a result of my experience and qualifications, I am a Qualified Person as defined in National Instrument 43–101 Standards of Disclosure for Mineral Projects (NI 43–101).

I have not completed a personal inspection of the Property.

I am responsible for Sections 1.1, 1.2, 1.16, 1.19, 1.20, 1.21, 1.22, 2.1, 2.2, 2.3, 2.4, 3, 19, 22, 23, 24, 25.1, 25.13, 25.17, 25.19 and 27

I am independent of IAMGOLD Corporation as independence is described by Section 1.5 of NI 43–101.

I have read NI 43-101 and the sections of the Technical Report that I am responsible for have been prepared in compliance with NI 43-101.

As of the effective date of the Technical Report, to the best of my knowledge, information, and belief, the sections of the Technical Report that I am responsible for contain all scientific and technical information that is required to be disclosed to make the Technical Report not misleading.

Dated this 6th day of February, 2017

“signed and sealed”

Simon Allard, P.Eng.

CERTIFICATE OF QUALIFIED PERSON

Lawrence
Elgert, P.Eng.

900 AMEC Place, 801
6th Ave SW Calgary,
Alberta T2P 3W3

I, Lawrence Elgert, P.Eng. am employed as a Principal Mining Engineer with Amec Foster Wheeler Americas Limited.

This certificate applies to the technical report titled "NI 43-101 Technical Report on the Preliminary Economic Assessment of the Cote Gold Project, Porcupine Mining Division, Ontario, Canada," that has an effective date of 9th December 2016 (the "Technical Report").

I am a Professional Engineer of The Association of Professional Engineers and Geoscientists of Alberta. I graduated from Montana College of Mineral Sciences and Technology in 1989.

I have practiced my profession for 26 years. I have been directly involved in mine planning and design, ore control, geomechanics, production forecasting and management, slope stability monitoring, and operations, mainly for open-pit precious and base metal and coal mines.

As a result of my experience and qualifications, I am a Qualified Person as defined in National Instrument 43–101 Standards of Disclosure for Mineral Projects (NI 43–101). I have not visited the Cote Gold Property.

I am responsible for sections 1.13, 1.18, 1.23, 15.0, 16, 21, 25.10, 25.15, 25.16, 25.18.1, 25.18.2, 26.1, 26.5, and 26.8 of the Technical Report.

I am independent of IAMGOLD Corporation as independence is described by Section 1.5 of NI 43–101. I have had no previous involvement with Cote Gold Project.

I have read NI 43–101 and the sections of the technical report for which I am responsible have been prepared in compliance with that Instrument.

As of the effective date of the technical report, to the best of my knowledge, information and belief, the sections of the technical report for which I am responsible contain all scientific and technical information that is required to be disclosed to make those section of the technical report not misleading.

"Signed and sealed"

Lawrence Elgert, P.Eng. Dated: 6 February 2017

CERTIFICATE OF QUALIFIED PERSON

Ignacy A. Lipiec, P.Eng.

111 Dunsmuir St., Suite 400

Vancouver, British Columbia, V6B 5W3

I, Ignacy A. Lipiec, P.Eng., am employed as the Technical Director, Process with Amec Foster Wheeler Americas Limited.

This certificate applies to the technical report titled "NI 43-101 Technical Report on the Preliminary Economic Assessment of the Cote Gold Project, Porcupine Mining Division, Ontario, Canada," that has an effective date of December 9th, 2016 (the "Technical Report").

I am a Professional Engineer of The Association of Professional Engineers and Geoscientists of British Columbia and Professional Engineers Ontario. I graduated from the University of British Columbia with a B.A.Sc. from Mining and Mineral Process Engineering in 1985.

I have practiced my profession for 31 years. I have been directly involved in lab testwork and supervision, mill construction, commissioning and operation, and in studies and detailed engineering for mineral processing plants. My experience has primarily been in base and precious metals handling unit operations design from crushing to tailings deposition.

As a result of my experience and qualifications, I am a Qualified Person as defined in National Instrument 43–101 *Standards of Disclosure for Mineral Projects* (NI 43–101).

I have not visited the Cote Gold Property.

I am responsible for sections 1.11, 1.14, 1.15, 1.18, 1.23, 13, 17, 18.1, 18.2 18.2.1, 18.2.4, 18.2.5, 18.3, 21.1, 21.2, 21.3, 21.4, 21.5, 21.6, 21.7, 25.8, 25.11, 25.12, 25.15, 25.16, 25.18.3, 25.18.4, 26.1, 26.3, 26.6, 26.6.3 and 26.8, of the Technical Report.

I am independent of IAMGOLD Corporation as independence is described by Section 1.5 of NI 43–101.

I have read NI 43–101 and the sections of the technical report for which I am responsible have been prepared in compliance with that Instrument.

As of the effective date of the technical report, to the best of my knowledge, information and belief, the sections of the technical report for which I am responsible contain all scientific and technical information that is required to be disclosed to make those section of the technical report not misleading.

Dated this 6th day of February, 2017

"signed and sealed"

Ignacy Lipiec, P.Eng.

CERTIFICATE OF QUALIFIED PERSON

Bing Wang, Ph.D., P.Eng.
160 Traders Blvd. E., Suite 110
Mississauga, Ontario L4W 3K7

I, Bing Wang, Ph.D., P.Eng., am employed as a Senior Associate, Technical Advisor with Amec Foster Wheeler Environment & Infrastructures, a division of Amec Foster Wheeler Americas Limited.

This certificate applies to the technical report titled "NI 43-101 Technical Report on the Preliminary Economic Assessment of the Cote Gold Project, Porcupine Mining Division, Ontario, Canada," that has an effective date of 09 December 2016 (the "Technical Report").

I am a member of Professional Engineers Ontario (Licence No.: 90293754). I graduated from McGill University, Montreal, Canada, with Master of Engineering and Doctor of Philosophy degrees in 1984 and 1990, respectively.

I have practiced my profession for 30 years since graduation. I have been directly involved in field of geo- environmental engineering with site investigations, scoping, prefeasibility and feasibility studies, detailed design and construction for tailings and water management facilities, including geotechnical assessments and implementations for mining projects in the Canadian Shield.

As a result of my experience and qualifications, I am a Qualified Person as defined in National Instrument 43–101 Standards of Disclosure for Mineral Projects (NI 43–101). I visited the Cote Gold Property on 16 May, 2016.

I am responsible for sections, in whole or part, 1.15, 1.18, 1.23, 2.5, 18.1, 18.2.2, 18.2.3, 21, 21.1, 21.2, 21.3, 21.4, 21.4.1, 21.5, 25.12, 25.15, 26.1, 26.6, 26.6.1, 26.6.2, and 26.8 of the Technical Report.

I am independent of IAMGOLD Corporation as independence is described by Section 1.5 of NI 43–101. I have been involved with the Cote Gold Project since May, 2016 as a geotechnical lead. I have had no previous involvement with the Project.

I have read NI 43–101 and the sections of the technical report for which I am responsible have been prepared in compliance with that Instrument.

As of the effective date of the technical report, to the best of my knowledge, information and belief, the sections of the technical report for which I am responsible contain all scientific and technical information that is required to be disclosed to make those section of the technical report not misleading.

"Signed and sealed"

Bing Wang, Ph.D., P.Eng.

Dated: 06 February 2017

CERTIFICATE OF QUALIFIED PERSON

Debbie Dyck, P.Eng.

160 Traders Blvd. E., Suite 110

Mississauga, Ontario L4W 3K7

I, Debbie Dyck, P.Eng. am employed as a Senior Associate Environmental Engineer with Amec Foster Wheeler Environment & Infrastructure, a Division of Amec Foster Wheeler Americas Limited.

This certificate applies to the technical report titled "NI 43-101 Technical Report on the Preliminary Economic Assessment of the Côté Gold Project, Porcupine Mining Division, Ontario, Canada," that has an effective date of 9th December 2016 (the "Technical Report").

I am a Professional Engineer of the Association of Professional Engineers of Ontario. I graduated from the University of Waterloo in 1990.

I have practiced my profession for 26 years. I have been directly involved in environmental studies, and permitting and approvals, including environmental assessments, specifically for the mining sector, for all phases of mine development, from exploration through to closure.

As a result of my experience and qualifications, I am a Qualified Person as defined in National Instrument 43–101 *Standards of Disclosure for Mineral Projects* (NI 43–101).

I last time I visited the Côté Gold Property was on March 10, 2015.

I am responsible for sections 1.17, 20.0, 20.1, 20.2, 20.2.1, 20.2.2, 20.3, 20.3.1, 20.3.2, 20.4, 20.4.1, 20.4.2., 20.4.3, 20.4.4, 20.4.5, 20.4.6, 20.4.7, 20.4.8, 20.4.9, 20.5, 20.5.1, 20.6, 25.14 and 26.7 of the Technical Report.

I am independent of IAMGOLD Corporation as independence is described by Section 1.5 of NI 43–101. I was involved in the Environmental Assessment of the Cote Gold Project.

I have read NI 43–101 and the sections of the technical report for which I am responsible have been prepared in compliance with that Instrument.

As of the effective date of the technical report, to the best of my knowledge, information and belief, the sections of the technical report for which I am responsible contain all scientific and technical information that is required to be disclosed to make those section of the technical report not misleading.

"Signed and sealed"

Debbie Dyck, P.Eng. Dated: 6 February 2017

CERTIFICATE OF QUALIFED PERSON

Alan Smith M.Sc., P.Geo.

District Manager – Exploration

IAMGOLD Corporation

Unit 10 - 2140 Regent Street

Sudbury, ON. P3E 5S8

Tel: 705-222-1520

E-mail: alan_smith@iamgold.com

This certificate applies to the technical report entitled "NI 43-101 Technical Report on the Preliminary Economic Assessment of the Cote Gold Project, Porcupine Mining Division, Ontario, Canada" that has an effective date of December 9th, 2016. I am responsible for the preparation of Sections 1.8, 9, and 25.3 of the Technical Report.

I, Alan Smith, do hereby certify that I have been the District Manager – Exploration for Trelawney Mining and Exploration Inc., a wholly owned subsidiary of IAMGOLD, since February 2013.

In this role, I have been responsible for the supervision of all exploration activities on the Côté Gold Project and surrounding Regional Exploration projects and generally visit the site weekly. I have supervised Côté Deposit Prefeasibility diamond drilling programs since February 2013 and have assisted with the supervision of later diamond drilling phases of the Côte Deposit.

I am a practicing member in good standing with the Association of Professional Geoscientists of Ontario (Membership Number 0201). I am also a Member of the PDAC, CIM, and OPA I graduated with an Honors Bachelor of Science Degree in Geology from the University of Western Ontario in 1984. I completed a M.Sc. Degree in Geology at the University of Western Ontario in 1987. I have worked as a Geologist for more than 32 years since graduation from University.

I have read NI 43–101 and this Technical Report has been prepared in compliance with that Instrument. As of the date of this certificate, to the best of my knowledge, information and belief, the Technical Report contains all scientific and technical information that is required to be disclosed to make the Technical Report not misleading.

Dated this 6th day of February, 2017

"signed and sealed"

Alan Smith, M.Sc. P.Geo.

CERTIFICATE OF QUALIFIED PERSON

Marie-France Bugnon M.Sc. P.Geo.

General Manager Exploration, IAMGOLD Corporation

Regional Exploration Office – Val-d'Or

1740, Chemin Sullivan, suite 1300,

Val-d'Or, Québec, Canada J9P 7H1

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I, Marie-France Bugnon, am employed as General Manager Exploration with IAMGOLD Corporation.

This certificate applies to the technical report entitled "NI 43-101 Technical Report on the Preliminary Economic Assessment of the Cote Gold Project, Porcupine Mining Division, Ontario, Canada" that has an effective date of December 9th, 2016 (the "Technical Report").

I am a registered professional geologist of the Ordre des Géologues du Québec (OGQ # 137).

I graduated from the University of Montreal with a Bachelor's degree in Geology in 1977 (B.Sc.) and a Master's degree in Geology in 1981 (M.Sc.).

I have practiced my profession continuously since 1979 and have been involved in extensive exploration programs for gold, base metal and other commodities and have completed numerous property reviews in North America, in the Guiana Shield and in Burkina Faso.

I have been working for Cambior / IAMGOLD Corporation since 1996 as exploration manager for Canada and the Guiana Shield and as General Manager for the Brownfields activities.

As a result of my experience and qualifications, I am a Qualified Person as defined in National

Instrument 43–101 Standards of Disclosure for Mineral Projects (NI 43–101).

I have been involved in the Côté Gold Project and the exploration district as a General Manager since June 2012, I have made site visits between June 2012 and November 2016 and I am responsible for Sections 1.3, 1.4, 1.5, 4, 5, 6, and 25.2.

I am a full-time employee of IAMGOLD and own shares of IAMGOLD.

I have read NI 43–101 and the sections of the technical report for which I am responsible have been

prepared in compliance with that Instrument.

As of the effective date of the technical report, to the best of my knowledge, information and belief, the sections of the technical report for which I am responsible contain all scientific and technical information that is required to be disclosed to make those sections of the technical report not misleading.

Dated this 6th day of February, 2017

"signed and sealed"

Marie-France Bugnon, M.Sc. P.Geo.

CERTIFICATE OF QUALIFIED PERSON

Raphaël Dutaut P.Geo

401 Bay Street, Suite 3200, PO Box 153

Toronto, Ontario, Canada M5H 2Y4

I, Raphaël Dutaut, was employed as a Senior Resource Geologist with IAMGOLD at the time of preparation of the Cote Gold mineral resource estimate, Cote Gold Project site visits, and data verification.

This certificate applies to the technical report entitled “NI 43-101 Technical Report on the Preliminary Economic Assessment of the Cote Gold Project, Porcupine Mining Division, Ontario, Canada” that has an effective date of December 9th, 2016 (the “Technical Report”).

As of the effective date of the report I was a member of the Association of Professional Geoscientists of Ontario (No.2596). I am a registered professional geologist of the Ordre des Géologues du Québec (OGQ No.1301).

I graduated from the Toulouse, France with a Bachelor of Science in Geology degree in 2005.

I have practiced my profession continuously since 2007 and have been involved in precious metal including low-grade porphyry-type gold mineral resource estimations in Canada, South America, Africa and in Europe.

As a result of my experience and qualifications, I am a Qualified Person as defined in National Instrument 43–101 Standards of Disclosure for Mineral Projects (NI 43–101).

I have visited the Cote Gold property several times since 2013, my last visit being May 4th to 8th, 2015.

I am responsible for the preparation of sections 1.10, 1.12, 12, 14, 25.7, 25.9, and 26.4 of the Technical Report.

At the time of the mineral resource preparation, and up to December 31st, 2015, I was not independent of IAMGOLD Corporation as I was a full time employee of IAMGOLD.

I have been previously involved with review of the geology, drilling, sampling procedures, and earlier versions of the resource estimates on the Cote Gold deposit between 2013 and December 2015.

I have read NI 43–101 and the sections of the Technical Report that I am responsible for have been prepared in compliance with that Instrument.

As of the date of this certificate, to the best of my knowledge, information and belief, the Technical Report contains all scientific and technical information that is required to be disclosed to make the Technical Report not misleading.

Dated this 6th day of February, 2017

“signed and sealed”

Raphaël Dutaut, P.Geo.

CERTIFICATE OF QUALIFIED PERSON

Vincent Blanchet. P.Eng.

Senior Geologist, IAMGOLD Corporation

Technical Service – Longueuil

1111, rue St-Charles Ouest, Tour Est, Suite 750

Longueuil, Quebec, J4K 5G4

T: (450) 677-0040 e-mail : vincent_blanchet@iamgold.com

I, Vincent Blanchet, am employed as Senior Geologist with IAMGOLD Corporation.

This certificate applies to the technical report entitled "NI 43-101 Technical Report on the Preliminary Economic Assessment of the Cote Gold Project, Porcupine Mining Division, Ontario, Canada" that has an effective date of December 9th, 2016 (the "Technical Report").

I am a registered engineer of the Ordre des Ingénieur du Québec (OIQ # 146574).

I graduated from the Université Laval with a Bachelor's degree in geological engineering in 2008 (B.Eng.).

I have practiced my profession continuously since 2008 and have been involved mainly in gold mine and gold project, in North America and Australia.

I have been working for IAMGOLD Corporation since 2016 as Senior Geologist.

As a result of my experience and qualifications, I am a Qualified Person as defined in National

Instrument 43–101 Standards of Disclosure for Mineral Projects (NI 43–101).

I have been involved in the Côté Gold Project as a Project Manager since February 2014, I have made site visits between February 2014 and July 2015 and I am responsible for sections 1.6, 1.7, 1.9, 7, 8, 10, 11, 25.4, 25.5, 25.6, and 26.2.

I am a full-time employee of IAMGOLD.

I have read NI 43–101 and the sections of the technical report for which I am responsible have been prepared in compliance with that Instrument.

As of the effective date of the technical report, to the best of my knowledge, information and belief, the sections of the technical report for which I am responsible contain all scientific and technical information that is required to be disclosed to make those sections of the technical report not misleading.

Dated this 6th day of February, 2017

"signed and sealed"

Vincent Blanchet, P.Eng.

Appendix A – List of Claims

Table 30-1 Trelawney Property - North Block - Unpatented Mining Claims

IAMGOLD Corporation – Côté Gold Project

Township	Claim Number	Claim Size (Units)	Approx. Claim Size (ha)	Claim Due Date	Ownership	Work Required
NEVILLE	4266730	16	256	2018-Jun-14	100% Trelawney M & E Inc	$6,400
NEVILLE	4266731	16	256	2018-Jun-14	100% Trelawney M & E Inc	$6,400
NEVILLE	4267211	16	256	2018-Jun-14	100% Trelawney M & E Inc	$6,400

Table 30-2 Trelawney Property - East Block - Unpatented Mining Claims

IAMGOLD Corporation – Côté Gold Proj ect

Township	Claim Number	Claim Size (Units)	Approx. Claim Size (ha)	Claim Due Date	Ownership	Work Required
BENNEWEIS	4249468	16	256	2019-Feb-03	100% Trelawney M & E Inc	$6,400
BENNEWEIS	4249469	16	256	2019-Feb-03	100% Trelawney M & E Inc	$6,400
BENNEWEIS	4249470	16	256	2018-Feb-03	100% Trelawney M & E Inc	$6,400
BENNEWEIS	4249471	16	256	2018-Feb-03	100% Trelawney M & E Inc	$6,400
BENNEWEIS	4249472	16	256	2018-Feb-03	100% Trelawney M & E Inc	$6,400
BENNEWEIS	4249473	4	64	2019-Feb-03	100% Trelawney M & E Inc	$1,600
BENNEWEIS	4249474	4	64	2018-Feb-03	100% Trelawney M & E Inc	$1,600
BENNEWEIS	4249475	12	192	2018-Feb-03	100% Trelawney M & E Inc	$4,800
BENNEWEIS	4249476	16	256	2018-Feb-03	100% Trelawney M & E Inc	$6,400
BENNEWEIS	4249477	7	112	2019-Feb-03	100% Trelawney M & E Inc	$2,800
BENNEWEIS	4249478	15	240	2018-Feb-03	100% Trelawney M & E Inc	$6,000
BENNEWEIS	4265037	11	176	2019-Oct-17	100% Trelawney M & E Inc	$4,400
GROVES	4249465	16	256	2019-Feb-03	100% Trelawney M & E Inc	$5,779
GROVES	4249467	16	256	2019-Feb-03	100% Trelawney M & E Inc	$6,400
NEVILLE	4249459	16	256	2022-Feb-03	100% Trelawney M & E Inc	$4,800
ST. LOUIS	4249460	12	192	2022-Feb-03	100% Trelawney M & E Inc	$4,800
ST. LOUIS	4249461	12	192	2022-Feb-03	100% Trelawney M & E Inc	$4,800
ST. LOUIS	4249462	3	48	2022-Feb-03	100% Trelawney M & E Inc	$1,200
ST. LOUIS	4249463	16	256	2019-Feb-03	100% Trelawney M & E Inc	$6,400
ST. LOUIS	4249464	16	256	2019-Feb-03	100% Trelawney M & E Inc	$6,400
ST. LOUIS	4249466	16	256	2019-Feb-03	100% Trelawney M & E Inc	$6,400

Table 30-3 Trelawney Property - IAMGOLD South Block - Unpatented Mining Claims

IAMGOLD Corporation – Côté Gold Proj ect

Township	Claim Number	Claim Size (Units)	Approx. Claim Size (ha)	Claim Due Date	Ownership	Work Required
INVERGARRY	4266705	8	128	2019-May-30	100% Trelawney M & E Inc	$3,200
INVERGARRY	4266708	16	256	2019-May-30	100% Trelawney M & E Inc	$6,400
INVERGARRY	4266711	16	256	2018-May-30	100% Trelawney M & E Inc	$6,400
SMUTS	4266712	16	256	2018-May-30	100% Trelawney M & E Inc	$6,400
YEO	4249454	16	256	2018-Feb-03	100% Trelawney M & E Inc	$6,400
YEO	4249455	16	256	2018-Feb-03	100% Trelawney M & E Inc	$6,400
YEO	4249456	8	128	2018-Feb-03	100% Trelawney M & E Inc	$3,200
YEO	4249457	16	256	2018-Feb-03	100% Trelawney M & E Inc	$6,400
YEO	4249458	16	256	2018-Feb-03	100% Trelawney M & E Inc	$6,400
YEO	4266713	16	256	2018-May-30	100% Trelawney M & E Inc	$6,400
YEO	4266714	16	256	2018-May-30	100% Trelawney M & E Inc	$6,400
YEO	4266716	16	256	2018-May-30	100% Trelawney M & E Inc	$6,400
YEO	4266717	16	256	2018-May-30	100% Trelawney M & E Inc	$6,400
YEO	4266720	16	256	2018-May-30	100% Trelawney M & E Inc	$6,400
YEO	4266721	16	256	2018-May-30	100% Trelawney M & E Inc	$6,400
YEO	4266725	16	256	2018-May-30	100% Trelawney M & E Inc	$6,400
YEO	4266726	16	256	2018-May-30	100% Trelawney M & E Inc	$6,400

Table 30-4 Trelawney Property - IAMGOLD Makwa Block - Unpatented Mining Claims

IAMGOLD Corporation – Côté Gold Proj ect

Township	Claim Number	Claim Size (Units)	Approx. Claim Size (ha)	Claim Due Date	Ownership	Work Required

CHAMPAGNE	4265066	9	144	2018-Feb-12	100% Trelawney M & E Inc	$3,600
CHAMPAGNE	4282250	9	144	2017-Nov-09	100% Trelawney M & E Inc	$3,600

Table 30-5 Arimathaea Property – Arimathaea North Block - Unpatented Mining Claims

IAMGOLD Corporation – Côté Gold Project

Township	Claim Number	Claim Size (Units)	Approx. Claim Size (ha)	Claim Due Date	Ownership	Work Required
CHESTER	1158643	1	16	2019-Jan-09	100% Ontario 986813	$400
CHESTER	1158644	1	16	2019-Jan-09	100% Ontario 986813	$400
CHESTER	515335	1	16	2019-Apr-24	100% Ontario 986813	$400
CHESTER	515336	1	16	2019-Apr-24	100% Ontario 986813	$400
CHESTER	538055	1	16	2019-Apr-24	100% Ontario 986813	$400
CHESTER	538056	1	16	2019-Apr-24	100% Ontario 986813	$400
CHESTER	538057	1	16	2019-Apr-24	100% Ontario 986813	$400
CHESTER	538058	1	16	2019-Apr-24	100% Ontario 986813	$400
CHESTER	538059	1	16	2019-Apr-24	100% Ontario 986813	$400
CHESTER	538082	1	16	2019-Apr-24	100% Ontario 986813	$400
CHESTER	543823	1	16	2019-Jun-05	100% Ontario 986813	$400
CHESTER	543824	1	16	2019-Oct-12	100% Ontario 986813	$400
CHESTER	543993	1	16	2020-Apr-24	100% Ontario 986813	$400
CHESTER	548092	1	16	2019-Oct-12	100% Ontario 986813	$400
CHESTER	881269	1	16	2019-Feb-09	100% Ontario 986813	$400
CHESTER	881270	1	16	2019-Feb-09	100% Ontario 986813	$400

Table 30-6 Arimathaea Property – Arimathaea Northeast Block - Unpatented Mining Claims

IAMGOLD Corporation – Côté Gold Proj ect

Township	Claim Number	Claim Size (Units)	Approx. Claim Size (ha)	Claim Due Date	Ownership	Work Required
CHESTER	543818	1	16	2022-Apr-24	100% Ontario 986813	$400
CHESTER	543819	1	16	2022-Apr-24	100% Ontario 986813	$400
CHESTER	543821	1	16	2022-Apr-24	100% Ontario 986813	$400
CHESTER	543827	1	16	2022-Apr-24	100% Ontario 986813	$400
CHESTER	543994	1	16	2022-Apr-24	100% Ontario 986813	$400
CHESTER	543995	1	16	2022-Apr-24	100% Ontario 986813	$400
CHESTER	543996	1	16	2022-Apr-24	100% Ontario 986813	$400

Table 30-7 Arimathaea Property – Arimathaea East Block - Unpatented Mining Claims

IAMGOLD Corporation – Côté Gold Proj ect

Township	Claim Number	Claim Size (Units)	Approx. Claim Size (ha)	Claim Due Date	Ownership	Work Required
BENNEWEIS	538523	1	16	2019-May-16	100% Ontario 986813	$400
BENNEWEIS	538524	1	16	2019-May-16	100% Ontario 986813	$400
BENNEWEIS	538525	1	16	2019-May-16	100% Ontario 986813	$400
BENNEWEIS	539117	1	16	2019-May-16	100% Ontario 986813	$400
BENNEWEIS	539118	1	16	2019-May-16	100% Ontario 986813	$400
BENNEWEIS	539119	1	16	2019-May-16	100% Ontario 986813	$400
BENNEWEIS	539120	1	16	2019-May-16	100% Ontario 986813	$400
BENNEWEIS	539121	1	16	2019-May-16	100% Ontario 986813	$400
BENNEWEIS	539122	1	16	2019-May-16	100% Ontario 986813	$400
BENNEWEIS	539123	1	16	2019-May-16	100% Ontario 986813	$400
BENNEWEIS	539124	1	16	2019-May-16	100% Ontario 986813	$400
BENNEWEIS	539125	1	16	2019-May-16	100% Ontario 986813	$400
BENNEWEIS	539126	1	16	2019-May-16	100% Ontario 986813	$400
BENNEWEIS	539127	1	16	2019-May-16	100% Ontario 986813	$400
BENNEWEIS	539128	1	16	2019-May-16	100% Ontario 986813	$400
BENNEWEIS	539129	1	16	2019-May-16	100% Ontario 986813	$400
BENNEWEIS	539136	1	16	2019-May-16	100% Ontario 986813	$400
BENNEWEIS	539137	1	16	2019-May-16	100% Ontario 986813	$400
BENNEWEIS	539138	1	16	2019-May-16	100% Ontario 986813	$400
BENNEWEIS	539139	1	16	2019-May-16	100% Ontario 986813	$400

BENNEWEIS	539140	1	16	2019-May-16	100% Ontario 986813	$400
BENNEWEIS	539141	1	16	2019-May-16	100% Ontario 986813	$400
BENNEWEIS	539142	1	16	2019-May-16	100% Ontario 986813	$400
BENNEWEIS	539143	1	16	2019-May-16	100% Ontario 986813	$400
BENNEWEIS	539144	1	16	2019-May-16	100% Ontario 986813	$400
BENNEWEIS	539145	1	16	2019-May-16	100% Ontario 986813	$400
BENNEWEIS	539146	1	16	2019-May-16	100% Ontario 986813	$400
BENNEWEIS	539147	1	16	2019-May-16	100% Ontario 986813	$400
BENNEWEIS	539148	1	16	2019-May-16	100% Ontario 986813	$400
BENNEWEIS	539149	1	16	2019-May-16	100% Ontario 986813	$400
BENNEWEIS	539150	1	16	2019-May-16	100% Ontario 986813	$400
BENNEWEIS	539151	1	16	2019-May-16	100% Ontario 986813	$400
BENNEWEIS	539152	1	16	2019-May-16	100% Ontario 986813	$400
BENNEWEIS	539153	1	16	2019-May-16	100% Ontario 986813	$400
BENNEWEIS	539154	1	16	2019-May-16	100% Ontario 986813	$400
BENNEWEIS	539155	1	16	2019-May-16	100% Ontario 986813	$400
BENNEWEIS	539279	1	16	2019-May-22	100% Ontario 986813	$400
BENNEWEIS	539280	1	16	2019-May-22	100% Ontario 986813	$400
BENNEWEIS	539281	1	16	2019-May-22	100% Ontario 986813	$400
BENNEWEIS	539282	1	16	2019-May-22	100% Ontario 986813	$400
BENNEWEIS	539283	1	16	2019-May-22	100% Ontario 986813	$400
BENNEWEIS	539284	1	16	2019-May-22	100% Ontario 986813	$400
BENNEWEIS	539285	1	16	2019-May-22	100% Ontario 986813	$400
BENNEWEIS	539286	1	16	2019-May-22	100% Ontario 986813	$400
BENNEWEIS	539287	1	16	2019-May-22	100% Ontario 986813	$400
BENNEWEIS	539288	1	16	2019-May-22	100% Ontario 986813	$400
BENNEWEIS	539289	1	16	2019-May-22	100% Ontario 986813	$400
BENNEWEIS	539290	1	16	2019-May-22	100% Ontario 986813	$400
BENNEWEIS	539291	1	16	2019-May-22	100% Ontario 986813	$400
BENNEWEIS	539292	1	16	2019-May-22	100% Ontario 986813	$400
BENNEWEIS	539293	1	16	2019-May-22	100% Ontario 986813	$400
BENNEWEIS	539294	1	16	2019-May-22	100% Ontario 986813	$400
BENNEWEIS	539295	1	16	2019-May-22	100% Ontario 986813	$400
BENNEWEIS	539296	1	16	2019-May-22	100% Ontario 986813	$400
BENNEWEIS	539297	1	16	2019-May-22	100% Ontario 986813	$400
BENNEWEIS	539298	1	16	2019-May-22	100% Ontario 986813	$400
BENNEWEIS	539308	1	16	2019-May-22	100% Ontario 986813	$400
BENNEWEIS	539309	1	16	2019-May-22	100% Ontario 986813	$400
BENNEWEIS	539310	1	16	2019-May-22	100% Ontario 986813	$400
BENNEWEIS	539311	1	16	2019-May-22	100% Ontario 986813	$400
BENNEWEIS	539312	1	16	2019-May-22	100% Ontario 986813	$400
BENNEWEIS	539313	1	16	2019-May-22	100% Ontario 986813	$400
BENNEWEIS	539314	1	16	2019-May-22	100% Ontario 986813	$400
BENNEWEIS	539315	1	16	2019-May-22	100% Ontario 986813	$400
BENNEWEIS	539316	1	16	2019-May-22	100% Ontario 986813	$400
BENNEWEIS	539317	1	16	2019-May-22	100% Ontario 986813	$400
BENNEWEIS	539318	1	16	2019-May-22	100% Ontario 986813	$400
BENNEWEIS	539319	1	16	2019-May-22	100% Ontario 986813	$400
BENNEWEIS	539320	1	16	2019-May-22	100% Ontario 986813	$400
BENNEWEIS	539321	1	16	2019-May-22	100% Ontario 986813	$400
BENNEWEIS	539322	1	16	2019-May-22	100% Ontario 986813	$400
BENNEWEIS	539323	1	16	2019-May-22	100% Ontario 986813	$400
BENNEWEIS	539324	1	16	2019-May-22	100% Ontario 986813	$400
BENNEWEIS	539325	1	16	2019-May-22	100% Ontario 986813	$400
BENNEWEIS	539326	1	16	2019-May-22	100% Ontario 986813	$400
BENNEWEIS	539327	1	16	2019-May-22	100% Ontario 986813	$400
BENNEWEIS	539328	1	16	2019-May-22	100% Ontario 986813	$400
BENNEWEIS	539404	1	16	2019-May-22	100% Ontario 986813	$400
BENNEWEIS	539405	1	16	2019-May-22	100% Ontario 986813	$400
BENNEWEIS	539406	1	16	2019-May-22	100% Ontario 986813	$400

BENNEWEIS	539407	1	16	2019-May-22	100% Ontario 986813	$400
BENNEWEIS	539408	1	16	2019-May-22	100% Ontario 986813	$400
BENNEWEIS	539409	1	16	2019-May-22	100% Ontario 986813	$400
BENNEWEIS	539410	1	16	2019-May-22	100% Ontario 986813	$400
BENNEWEIS	539411	1	16	2019-May-22	100% Ontario 986813	$400
BENNEWEIS	539412	1	16	2019-May-22	100% Ontario 986813	$400
BENNEWEIS	539413	1	16	2019-May-22	100% Ontario 986813	$400
BENNEWEIS	539414	1	16	2019-May-22	100% Ontario 986813	$400
BENNEWEIS	539415	1	16	2019-May-22	100% Ontario 986813	$400
BENNEWEIS	539416	1	16	2019-May-22	100% Ontario 986813	$400
BENNEWEIS	539417	1	16	2019-May-22	100% Ontario 986813	$400
BENNEWEIS	539418	1	16	2019-May-22	100% Ontario 986813	$400
BENNEWEIS	539419	1	16	2019-May-22	100% Ontario 986813	$400
BENNEWEIS	539420	1	16	2019-May-22	100% Ontario 986813	$400
BENNEWEIS	539421	1	16	2019-May-22	100% Ontario 986813	$400
CHESTER	539105	1	16	2019-May-16	100% Ontario 986813	$400
CHESTER	539106	1	16	2019-May-16	100% Ontario 986813	$400
CHESTER	539107	1	16	2019-May-16	100% Ontario 986813	$400
CHESTER	539108	1	16	2019-May-16	100% Ontario 986813	$400
CHESTER	539109	1	16	2019-May-16	100% Ontario 986813	$400
CHESTER	539110	1	16	2019-May-16	100% Ontario 986813	$400
CHESTER	539111	1	16	2019-May-16	100% Ontario 986813	$400
CHESTER	539112	1	16	2019-May-16	100% Ontario 986813	$400
CHESTER	539113	1	16	2019-May-16	100% Ontario 986813	$400
CHESTER	539114	1	16	2019-May-16	100% Ontario 986813	$400
CHESTER	539115	1	16	2019-May-16	100% Ontario 986813	$400
CHESTER	539116	1	16	2019-May-16	100% Ontario 986813	$400
ST. LOUIS	507667	1	16	2019-Jul-05	100% Ontario 986813	$400
ST. LOUIS	507668	1	16	2019-Jul-05	100% Ontario 986813	$400
ST. LOUIS	507669	1	16	2019-Jul-05	100% Ontario 986813	$400
ST. LOUIS	539181	1	16	2019-Jul-05	100% Ontario 986813	$400
ST. LOUIS	539182	1	16	2019-Jul-05	100% Ontario 986813	$400
ST. LOUIS	539183	1	16	2019-Jul-05	100% Ontario 986813	$400

Table 30-8 Arimathaea Property – Arimathaea South Block - Unpatented Mining Claims
IAMGOLD Corporation – Côté Gold Proj ect

Township	Claim Number	Claim Size (Units)	Approx. Claim Size (ha)	Claim Due Date	Ownership	Work Required
BENNEWEIS	473685	1	16	2020-May-14	100% Ontario 986813	$400
BENNEWEIS	473686	1	16	2020-May-14	100% Ontario 986813	$400
BENNEWEIS	473687	1	16	2020-May-14	100% Ontario 986813	$400
BENNEWEIS	473688	1	16	2020-May-14	100% Ontario 986813	$400
BENNEWEIS	473693	1	16	2020-May-14	100% Ontario 986813	$400
BENNEWEIS	473694	1	16	2020-May-14	100% Ontario 986813	$400
CHESTER	473683	1	16	2020-May-14	100% Ontario 986813	$400
CHESTER	473684	1	16	2020-May-14	100% Ontario 986813	$400
CHESTER	473689	1	16	2020-May-14	100% Ontario 986813	$400
CHESTER	473690	1	16	2020-May-14	100% Ontario 986813	$400
CHESTER	473691	1	16	2020-May-14	100% Ontario 986813	$400
CHESTER	473692	1	16	2020-May-14	100% Ontario 986813	$400
CHESTER	473703	1	16	2020-May-14	100% Ontario 986813	$400
CHESTER	473704	1	16	2020-May-14	100% Ontario 986813	$400
CHESTER	473705	1	16	2020-May-14	100% Ontario 986813	$400
CHESTER	473706	1	16	2020-May-14	100% Ontario 986813	$400
CHESTER	473707	1	16	2020-May-14	100% Ontario 986813	$400
CHESTER	473708	1	16	2020-May-14	100% Ontario 986813	$400
CHESTER	473717	1	16	2020-May-14	100% Ontario 986813	$400
CHESTER	473718	1	16	2020-May-14	100% Ontario 986813	$400
CHESTER	473719	1	16	2020-May-14	100% Ontario 986813	$400
CHESTER	473720	1	16	2020-May-14	100% Ontario 986813	$400

CHESTER	473721	1	16	2020-May-14	100% Ontario 986813	$400
CHESTER	473722	1	16	2020-May-14	100% Ontario 986813	$400
CHESTER	473723	1	16	2020-May-14	100% Ontario 986813	$400
CHESTER	473724	1	16	2020-May-14	100% Ontario 986813	$400
CHESTER	473725	1	16	2020-May-14	100% Ontario 986813	$400
CHESTER	473726	1	16	2020-May-14	100% Ontario 986813	$400
CHESTER	473727	1	16	2020-May-14	100% Ontario 986813	$400
CHESTER	473728	1	16	2020-May-14	100% Ontario 986813	$400
CHESTER	473729	1	16	2020-May-14	100% Ontario 986813	$400
CHESTER	473730	1	16	2020-May-14	100% Ontario 986813	$400
CHESTER	473731	1	16	2020-May-14	100% Ontario 986813	$400
CHESTER	473732	1	16	2020-May-14	100% Ontario 986813	$400
CHESTER	473733	1	16	2020-May-14	100% Ontario 986813	$400
CHESTER	473734	1	16	2020-May-14	100% Ontario 986813	$400
CHESTER	473735	1	16	2020-May-14	100% Ontario 986813	$400
CHESTER	473736	1	16	2020-May-14	100% Ontario 986813	$400
CHESTER	473737	1	16	2020-May-14	100% Ontario 986813	$400
CHESTER	473738	1	16	2020-May-29	100% Ontario 986813	$400
CHESTER	473739	1	16	2020-May-29	100% Ontario 986813	$400
CHESTER	473740	1	16	2020-May-29	100% Ontario 986813	$400
CHESTER	473741	1	16	2020-May-29	100% Ontario 986813	$400
CHESTER	473742	1	16	2020-May-29	100% Ontario 986813	$400
CHESTER	473743	1	16	2020-May-29	100% Ontario 986813	$400
CHESTER	473744	1	16	2020-May-14	100% Ontario 986813	$400
CHESTER	473745	1	16	2020-May-29	100% Ontario 986813	$400
CHESTER	473746	1	16	2020-May-14	100% Ontario 986813	$400
CHESTER	528680	1	16	2020-May-14	100% Ontario 986813	$400
CHESTER	546980	1	16	2020-May-29	100% Ontario 986813	$400
CHESTER	546981	1	16	2020-May-29	100% Ontario 986813	$400
CHESTER	546982	1	16	2020-May-29	100% Ontario 986813	$400
CHESTER	546983	1	16	2020-May-29	100% Ontario 986813	$400
CHESTER	546984	1	16	2020-May-29	100% Ontario 986813	$400
CHESTER	546985	1	16	2020-May-29	100% Ontario 986813	$400
CHESTER	546986	1	16	2020-May-29	100% Ontario 986813	$400
CHESTER	546987	1	16	2020-May-29	100% Ontario 986813	$400
CHESTER	546988	1	16	2020-May-29	100% Ontario 986813	$400
CHESTER	546989	1	16	2020-May-29	100% Ontario 986813	$400
CHESTER	546990	1	16	2020-May-29	100% Ontario 986813	$400
CHESTER	546991	1	16	2020-May-29	100% Ontario 986813	$400
CHESTER	546992	1	16	2020-May-29	100% Ontario 986813	$400
CHESTER	546993	1	16	2020-May-29	100% Ontario 986813	$400
CHESTER	546994	1	16	2020-May-29	100% Ontario 986813	$400
CHESTER	546995	1	16	2020-May-29	100% Ontario 986813	$400
CHESTER	546996	1	16	2020-May-29	100% Ontario 986813	$400
CHESTER	546997	1	16	2020-May-29	100% Ontario 986813	$400
CHESTER	546998	1	16	2020-May-29	100% Ontario 986813	$400
CHESTER	546999	1	16	2020-May-29	100% Ontario 986813	$400
CHESTER	547000	1	16	2020-May-29	100% Ontario 986813	$400
CHESTER	549001	1	16	2020-May-29	100% Ontario 986813	$400
CHESTER	549002	1	16	2020-May-29	100% Ontario 986813	$400
CHESTER	549003	1	16	2020-May-29	100% Ontario 986813	$400
CHESTER	549004	1	16	2020-May-29	100% Ontario 986813	$400
CHESTER	549005	1	16	2020-May-29	100% Ontario 986813	$400
CHESTER	549006	1	16	2020-May-29	100% Ontario 986813	$400
CHESTER	549007	1	16	2020-May-29	100% Ontario 986813	$400
CHESTER	549008	1	16	2020-May-29	100% Ontario 986813	$400
CHESTER	549009	1	16	2020-May-29	100% Ontario 986813	$400
CHESTER	549010	1	16	2020-May-29	100% Ontario 986813	$400
CHESTER	549011	1	16	2020-May-29	100% Ontario 986813	$400
CHESTER	549012	1	16	2020-May-29	100% Ontario 986813	$400

CHESTER	549013	1	16	2020-May-29	100% Ontario 986813	$400
CHESTER	549014	1	16	2020-May-29	100% Ontario 986813	$400
CHESTER	549015	1	16	2020-May-29	100% Ontario 986813	$400
CHESTER	549016	1	16	2020-May-29	100% Ontario 986813	$400
CHESTER	549108	1	16	2020-May-14	100% Ontario 986813	$400
CHESTER	549109	1	16	2020-May-14	100% Ontario 986813	$400
CHESTER	549110	1	16	2020-May-14	100% Ontario 986813	$400
CHESTER	549111	1	16	2020-May-14	100% Ontario 986813	$400
CHESTER	549112	1	16	2020-May-14	100% Ontario 986813	$400
CHESTER	549113	1	16	2020-May-14	100% Ontario 986813	$400
CHESTER	549114	1	16	2020-May-14	100% Ontario 986813	$400
CHESTER	549115	1	16	2020-May-29	100% Ontario 986813	$400
CHESTER	549116	1	16	2020-May-14	100% Ontario 986813	$400
CHESTER	549117	1	16	2020-May-29	100% Ontario 986813	$400
CHESTER	549294	1	16	2020-May-29	100% Ontario 986813	$400

Table 30-9 TAAC Property - East Block - Unpatented Mining Claims

IAMGOLD Corporation – Côté Gold Proj ect

Township	Claim Number	Claim Size (Units)	Approx. Claim Size (ha)	Claim Due Date	Ownership	Work Required
CHESTER	1191819	2	32	2021-Jan-20	100% TAAC	$439
CHESTER	1246710	1	16	2020-Jan-20	100% TAAC	$400
CHESTER	3006971	2	32	2020-Jan-20	100% TAAC	$800
CHESTER	3007643	1	16	2021-Jan-20	100% TAAC	$400
CHESTER	3010943	2	32	2020-Jan-20	100% TAAC	$800
CHESTER	3011808	1	16	2020-Jan-20	100% TAAC	$400
CHESTER	3018489	2	32	2020-Jan-20	100% TAAC	$800
CHESTER	3018490	1	16	2020-Jan-20	100% TAAC	$400
CHESTER	4201539	7	112	2020-Jan-11	100% TAAC	$2,800

Table 30-10 TAAC Property - West Block - Unpatented Mining Claims

IAMGOLD Corporation – Côté Gold Proj ect

Township	Claim Number	Claim Size (Units)	Approx. Claim Size (ha)	Claim Due Date	Ownership	Work Required
ARBUTUS	3013944	8	128	2020-Aug-04	100% TAAC	$3,200
ARBUTUS	4223879	16	256	2020-Mar-25	100% TAAC	$6,400
BENTON	4206975	3	48	2020-Sep-21	100% TAAC	$1,200
BENTON	4206976	3	48	2020-Sep-21	100% TAAC	$1,200
ESTHER	3019029	10	160	2020-Sep-21	100% TAAC	$4,000
ESTHER	4206977	6	96	2020-Sep-21	100% TAAC	$2,400
FINGAL	4246487	16	256	2020-Dec-15	100% TAAC	$6,400
FINGAL	4246488	16	256	2020-Dec-15	100% TAAC	$6,400
HUFFMAN	3006689	8	128	2020-Aug-04	100% TAAC	$3,200
HUFFMAN	3010746	12	192	2020-Oct-20	100% TAAC	$4,800
HUFFMAN	3010748	16	256	2020-Nov-17	100% TAAC	$6,400
HUFFMAN	3010756	6	96	2020-Oct-10	100% TAAC	$2,400
HUFFMAN	3010762	16	256	2020-Oct-20	100% TAAC	$6,400
HUFFMAN	3010764	11	176	2020-Oct-11	100% TAAC	$4,400
HUFFMAN	3010775	10	160	2020-Oct-20	100% TAAC	$4,000
HUFFMAN	3017443	9	144	2020-May-03	100% TAAC	$3,600
HUFFMAN	3017498	9	144	2020-May-03	100% TAAC	$3,600
HUFFMAN	4203547	16	256	2020-Aug-11	100% TAAC	$6,400
HUFFMAN	4203548	10	160	2020-Aug-11	100% TAAC	$4,000
HUFFMAN	4203842	5	80	2020-Sep-21	100% TAAC	$2,000
HUFFMAN	4203915	16	256	2020-Sep-21	100% TAAC	$6,400
HUFFMAN	4203916	16	256	2020-Sep-21	100% TAAC	$6,400
HUFFMAN	4207597	3	48	2020-Sep-21	100% TAAC	$1,200
HUFFMAN	4208199	13	208	2020-Mar-24	100% TAAC	$5,200
HUFFMAN	4208200	6	96	2020-Mar-24	100% TAAC	$2,400
HUFFMAN	4208243	3	48	2020-Apr-04	100% TAAC	$1,200

HUFFMAN	4209349	16	256	2020-Feb-13	100% TAAC	$6,400
HUFFMAN	4209350	15	240	2020-Feb-13	100% TAAC	$6,000
HUFFMAN	4209557	12	192	2020-Mar-01	100% TAAC	$4,800
HUFFMAN	4209559	8	128	2020-Mar-01	100% TAAC	$3,200
HUFFMAN	4209560	16	256	2020-Mar-01	100% TAAC	$6,400
HUFFMAN	4209585	11	176	2020-Mar-01	100% TAAC	$4,400
HUFFMAN	4209586	11	176	2020-Mar-01	100% TAAC	$4,400
HUFFMAN	4209610	8	128	2020-Mar-01	100% TAAC	$3,200
HUFFMAN	4213572	9	144	2020-May-26	100% TAAC	$3,600
HUFFMAN	4213606	12	192	2020-Apr-14	100% TAAC	$4,800
HUFFMAN	4213607	9	144	2020-Apr-14	100% TAAC	$3,600
HUFFMAN	4220344	4	64	2020-Feb-05	100% TAAC	$1,600
HUFFMAN	4223876	5	80	2020-May-26	100% TAAC	$2,000
HUFFMAN	4223878	4	64	2020-Mar-25	100% TAAC	$1,600
HUFFMAN	4241017	3	48	2020-May-26	100% TAAC	$1,200
OSWAY	3010736	6	96	2020-Oct-26	100% TAAC	$2,400
OSWAY	3010737	4	64	2020-Oct-19	100% TAAC	$1,600
OSWAY	3010747	13	208	2020-Oct-26	100% TAAC	$5,200
OSWAY	3010752	16	256	2020-Oct-20	100% TAAC	$6,400
OSWAY	3010760	8	128	2020-Oct-20	100% TAAC	$ 696
OSWAY	3010777	7	112	2020-Oct-19	100% TAAC	$2,800
OSWAY	3010781	16	256	2020-Oct-19	100% TAAC	$6,400
OSWAY	3017499	15	240	2020-May-03	100% TAAC	$6,000
OSWAY	3017500	9	144	2020-May-03	100% TAAC	$3,600
OSWAY	3017669	1	16	2020-Mar-17	100% TAAC	$400
OSWAY	3019030	16	256	2020-Sep-21	100% TAAC	$6,400
OSWAY	3019031	6	96	2020-Jun-30	100% TAAC	$2,400
OSWAY	3019032	7	112	2020-Jun-30	100% TAAC	$2,800
OSWAY	4202938	16	256	2020-Sep-21	100% TAAC	$6,400
OSWAY	4202939	16	256	2020-Sep-21	100% TAAC	$4,190
OSWAY	4203843	11	176	2020-Sep-21	100% TAAC	$4,400
OSWAY	4203917	16	256	2020-Sep-21	100% TAAC	$6,400
OSWAY	4203918	16	256	2020-Sep-21	100% TAAC	$6,400
OSWAY	4203919	10	160	2020-Sep-21	100% TAAC	$4,000
OSWAY	4203920	16	256	2020-Sep-21	100% TAAC	$6,400
OSWAY	4203921	16	256	2020-Sep-21	100% TAAC	$6,400
OSWAY	4203922	16	256	2020-Sep-21	100% TAAC	$6,400
OSWAY	4203924	13	208	2020-Sep-21	100% TAAC	$5,200
OSWAY	4203925	11	176	2020-Sep-21	100% TAAC	$4,400
OSWAY	4206264	4	64	2020-Sep-21	100% TAAC	$1,600
OSWAY	4206274	16	256	2020-Sep-21	100% TAAC	$6,400
OSWAY	4206275	9	144	2020-Sep-21	100% TAAC	$3,600
OSWAY	4219657	16	256	2020-Jan-15	100% TAAC	$6,400
OSWAY	4220351	12	192	2020-Jan-15	100% TAAC	$4,800
OSWAY	4220352	2	32	2020-Jan-15	100% TAAC	$800
OSWAY	4220353	6	96	2020-Jan-15	100% TAAC	$2,400
OSWAY	4220354	12	192	2020-Jan-15	100% TAAC	$4,800
OSWAY	4220355	12	192	2020-Jan-15	100% TAAC	$4,800
POTIER	3015883	16	256	2020-May-24	100% TAAC	$6,400
POTIER	3015887	16	256	2020-May-24	100% TAAC	$6,400
POTIER	4200741	8	128	2020-May-24	100% TAAC	$3,200
POTIER	4209384	13	208	2020-May-24	100% TAAC	$5,200
YEO	3017381	14	224	2020-Mar-17	100% TAAC	$5,600
YEO	3017382	12	192	2020-Mar-17	100% TAAC	$4,800
YEO	4203174	8	128	2020-Jun-05	100% TAAC	$3,200
YEO	4203314	16	256	2020-Jun-05	100% TAAC	$15
YEO	4220343	16	256	2020-Feb-05	100% TAAC	$6,400

Table 30-11 TAAC Property - West Block - Patented Mining Claims
IAMGOLD Corporation – Côté Gold Proj ect

Township	Disposition Number	G Number	Ownership	Land Status	Claim Size (ha)	Number of Units
OSWAY	32074	6060135	100% TAAC	PAT	21.38	1
OSWAY	32071	6060136	100% TAAC	PAT	11.87	1
OSWAY	32266	6060137	100% TAAC	PAT	18.54	1
OSWAY	32264	6060138	100% TAAC	PAT	27.33	2
OSWAY	32316	6060139	100% TAAC	PAT	21.4	1
OSWAY	32113	6060140	100% TAAC	PAT	8.73	1
OSWAY	32070	6060141	100% TAAC	PAT	6.8	0
OSWAY	32269	6060142	100% TAAC	PAT	11.76	1
OSWAY	32121	6060144	100% TAAC	PAT	20.9	1
HUFFMAN	32386	6060145	100% TAAC	PAT	19.88	1
HUFFMAN	32387	6060146	100% TAAC	PAT	26.38	2
OSWAY	32263	6060147	100% TAAC	PAT	12.82	1
OSWAY	32073	6060148	100% TAAC	PAT	12	1
OSWAY	32117	6060149	100% TAAC	PAT	6.65	0
OSWAY	32157	6060150	100% TAAC	PAT	2.513	0
OSWAY	32159	6060151	100% TAAC	PAT	7.18	0
OSWAY	32160	6060152	100% TAAC	PAT	12.93	1
OSWAY	32162	6060153	100% TAAC	PAT	8.2	1
OSWAY	32215	6060154	100% TAAC	PAT	13.12	1
OSWAY	32216	6060155	100% TAAC	PAT	12.59	1
OSWAY	32222	6060156	100% TAAC	PAT	8.41	1
OSWAY	32218	6060157	100% TAAC	PAT	15.73	1
OSWAY	31758	6060158	100% TAAC	PAT	10.69	1
OSWAY	32227	6060159	100% TAAC	PAT	6.25	0
OSWAY	32395	6060160	100% TAAC	PAT	5.03	0
OSWAY	32367	6060161	100% TAAC	PAT	3.97	0
OSWAY	32366	6060162	100% TAAC	PAT	3.12	0
OSWAY	32223	6060163	100% TAAC	PAT	2.03	0
OSWAY	32265	6060164	100% TAAC	PAT	8.24	1
OSWAY	32267	6060165	100% TAAC	PAT	16.52	1
OSWAY	32268	6060167	100% TAAC	PAT	15.31	1
OSWAY	32261	6060168	100% TAAC	PAT	13.61	1
OSWAY	32262	6060169	100% TAAC	PAT	17.49	1
OSWAY	31759	6060170	100% TAAC	PAT	9.07	1
OSWAY	32242	6060171	100% TAAC	PAT	18.7	1
OSWAY	32219	6060172	100% TAAC	PAT	12.13	1
HUFFMAN	32220	6060173	100% TAAC	PAT	13.4	1
HUFFMAN	29951	6060174	100% TAAC	PAT	12.26	1
HUFFMAN	29952	6060175	100% TAAC	PAT	5.74	0
HUFFMAN	32224	6060176	100% TAAC	PAT	3.09	0
HUFFMAN	32225	6060177	100% TAAC	PAT	4.7	0
OSWAY	32069	6060268	100% TAAC	MLO	22.97	1
OSWAY	32072	6060269	100% TAAC	MLO	19.28	1
OSWAY	32075	6060270	100% TAAC	MLO	17.56	1
OSWAY	32076	6060271	100% TAAC	MLO	15.92	1
OSWAY	32077	6060272	100% TAAC	MLO	17.55	1
OSWAY	32114	6060273	100% TAAC	MLO	16.19	1
OSWAY	32115	6060274	100% TAAC	MLO	14.54	1
OSWAY	32116	6060275	100% TAAC	MLO	13.68	1
OSWAY	32118	6060276	100% TAAC	MLO	20.97	1
OSWAY	32119	6060277	100% TAAC	MLO	16.19	1
OSWAY	32120	6060278	100% TAAC	MLO	17.22	1
OSWAY	32158	6060279	100% TAAC	MLO	21.49	1
OSWAY	32161	6060280	100% TAAC	MLO	15.58	1
OSWAY	32221	6060281	100% TAAC	MLO	15.34	1
OSWAY	32364	6060282	100% TAAC	MLO	8.37	1
OSWAY	32365	6060283	100% TAAC	MLO	19.37	1
OSWAY	32368	6060284	100% TAAC	MLO	10.21	1

OSWAY	32369	6060285	100% TAAC	MLO	24.31	2
OSWAY	33640	6060286	100% TAAC	MLO	17.42	1
OSWAY	33641	6060287	100% TAAC	MLO	23.18	1
OSWAY	33642	6060288	100% TAAC	MLO	24.94	2
OSWAY	32226	6060289	100% TAAC	MLO	33.59	2
OSWAY	32071	6060290	100% TAAC	MLO	16.72	1
OSWAY	32073	6060291	100% TAAC	MLO	6.22	0
OSWAY	32227	6060292	100% TAAC	MLO	5.67	0
HUFFMAN	29951	6060295	100% TAAC	MLO	10.22	1
HUFFMAN	29952	6060296	100% TAAC	MLO	17.67	1
OSWAY	31758	6060297	100% TAAC	MLO	4.98	0
HUFFMAN	31759	6060298	100% TAAC	MLO	10.91	1
OSWAY	32070	6060299	100% TAAC	MLO	19.36	1
OSWAY	32113	6060300	100% TAAC	MLO	14.58	1
OSWAY	32117	6060301	100% TAAC	MLO	11.16	1
OSWAY	32157	6060303	100% TAAC	MLO	17.24	1
OSWAY	32159	6060304	100% TAAC	MLO	10.23	1
OSWAY	32160	6060305	100% TAAC	MLO	3.07	0
OSWAY	32162	6060306	100% TAAC	MLO	12.39	1
OSWAY	32215	6060307	100% TAAC	MLO	2.97	0
OSWAY	32216	6060308	100% TAAC	MLO	3.51	0
HUFFMAN	32219	6060309	100% TAAC	MLO	3.17	0
HUFFMAN	32220	6060310	100% TAAC	MLO	4.81	0
OSWAY	32222	6060311	100% TAAC	MLO	19.4	1
OSWAY	32223	6060312	100% TAAC	MLO	19.45	1
HUFFMAN	32224	6060313	100% TAAC	MLO	20.53	1
OSWAY	32264	6060314	100% TAAC	MLO	10.07	1
OSWAY	32121	6060315	100% TAAC	MLO	7.54	0
OSWAY	32265	6060316	100% TAAC	MLO	9.57	1
OSWAY	32366	6060317	100% TAAC	MLO	16.27	1
OSWAY	32367	6060318	100% TAAC	MLO	21.52	1
OSWAY	32395	6060319	100% TAAC	MLO	4.16	0
HUFFMAN	32225	6060320	100% TAAC	MLO	23.66	1

Table 30-12 Watershed Property - TAAC Unpatented Mining Claims

IAMGOLD Corporation – Côté Gold Proj ect

Township	Claim Number	Claim Size (Units)	Approx. Claim Size (ha)	Claim Due Date	Ownership	Work Required
BENNEWEIS	4209355	12	192	2019-Sep-11	100% Sanatana Resources Inc.	$4,800
BENNEWEIS	4216686	1	16	2019-Dec-04	100% Sanatana Resources Inc.	$400
CHESTER	3004844	5	80	2019-Dec-08	100% Sanatana Resources Inc.	$2,000
CHESTER	3010239	5	80	2019-Jul-05	100% Sanatana Resources Inc.	$2,000
CHESTER	3011820	1	16	2020-Aug-08	100% Sanatana Resources Inc.	$400
CHESTER	3011854	1	16	2019-Aug-14	100% Sanatana Resources Inc.	$400
CHESTER	3014374	8	128	2019-Jun-07	100% Sanatana Resources Inc.	$3,200
CHESTER	3017665	3	48	2019-Apr-06	100% Sanatana Resources Inc.	$1,200
CHESTER	3017666	3	48	2019-Sep-13	100% Sanatana Resources Inc.	$1,200
CHESTER	3017667	3	48	2019-Sep-13	100% Sanatana Resources Inc.	$1,200
CHESTER	3017668	6	96	2019-Sep-13	100% Sanatana Resources Inc.	$2,400
CHESTER	3018410	12	192	2019-May-26	100% Sanatana Resources Inc.	$4,800
CHESTER	3018411	12	192	2019-Dec-12	100% Sanatana Resources Inc.	$4,800
CHESTER	3018412	1	16	2019-Apr-18	100% Sanatana Resources Inc.	$400
CHESTER	3018437	16	256	2019-Dec-12	100% Sanatana Resources Inc.	$6,400
CHESTER	3019033	2	32	2019-Jul-05	100% Sanatana Resources Inc.	$800
CHESTER	4203263	1	16	2019-May-22	100% Sanatana Resources Inc.	$400
CHESTER	4203267	12	192	2019-Dec-25	100% Sanatana Resources Inc.	$4,800
CHESTER	4203839	6	96	2019-Apr-09	100% Sanatana Resources Inc.	$2,400
CHESTER	4203852	15	240	2019-Apr-09	100% Sanatana Resources Inc.	$6,000
CHESTER	4206270	12	192	2019-Sep-21	100% Sanatana Resources Inc.	$4,800
CHESTER	4206271	16	256	2019-Sep-21	100% Sanatana Resources Inc.	$6,400

CHESTER	4206272	16	256	2019-Sep-21	100% Sanatana Resources Inc.	$6,400
CHESTER	4206273	16	256	2019-Sep-21	100% Sanatana Resources Inc.	$6,400
CHESTER	4206276	12	192	2019-Sep-21	100% Sanatana Resources Inc.	$4,800
CHESTER	4206277	16	256	2019-Sep-21	100% Sanatana Resources Inc.	$6,400
CHESTER	4206278	16	256	2019-Sep-21	100% Sanatana Resources Inc.	$6,400
CHESTER	4206279	16	256	2018-Sep-21	100% Sanatana Resources Inc.	$6,400
CHESTER	4227171	5	80	2019-May-10	100% Sanatana Resources Inc.	$2,000
CHESTER	4240907	13	208	2019-Feb-07	100% Sanatana Resources Inc.	$5,200
CHESTER	4240908	12	192	2019-Feb-07	100% Sanatana Resources Inc.	$4,800
NEVILLE	4219670	3	48	2019-Jan-15	100% Sanatana Resources Inc.	$1,200
YEO	3017383	16	256	2019-Mar-17	100% Sanatana Resources Inc.	$6,400
YEO	3017384	16	256	2019-Mar-17	100% Sanatana Resources Inc.	$6,400
YEO	3017670	10	160	2019-Mar-17	100% Sanatana Resources Inc.	$4,000
YEO	3017671	16	256	2019-Mar-17	100% Sanatana Resources Inc.	$6,400
YEO	3017672	10	160	2019-Mar-17	100% Sanatana Resources Inc.	$4,000
YEO	3017673	16	256	2019-Mar-17	100% Sanatana Resources Inc.	$6,400
YEO	3017674	16	256	2019-Oct-03	100% Sanatana Resources Inc.	$6,400
YEO	3018463	16	256	2019-Mar-17	100% Sanatana Resources Inc.	$6,400
YEO	3018541	16	256	2019-Mar-17	100% Sanatana Resources Inc.	$6,400
YEO	3019553	16	256	2019-Mar-17	100% Sanatana Resources Inc.	$6,400
YEO	3019555	16	256	2019-Mar-17	100% Sanatana Resources Inc.	$6,400
YEO	3019556	16	256	2019-Mar-17	100% Sanatana Resources Inc.	$6,400
YEO	4203293	16	256	2019-May-22	100% Sanatana Resources Inc.	$6,400
YEO	4203294	16	256	2019-Dec-08	100% Sanatana Resources Inc.	$6,400

Table 30-13 Huffman Option Property - Unpatented Mining Claims
IAMGOLD Corporation – Côté Gold Proj ect

Township	Claim Number	Claim Size (Units)	Approx. Claim Size (ha)	Claim Due Date	Ownership	Work Required
HUFFMAN	1211326	15	240	2020-Nov-13	100% Brady, J ohn Gregory	$6,000
HUFFMAN	3003313	4	64	2020-Aug-23	100% Brady, J ohn Gregory	$1,600
HUFFMAN	3004321	4	64	2020-Aug-23	100% Brady, J ohn Gregory	$1,600
POTIER	3004318	16	256	2020-Aug-23	50% Brady, 50% Charron	$6,400

Table 30-14 Falcon Gold Option Property - Unpatented Mining Claims
IAMGOLD Corporation – Côté Gold Proj ect

Township	Claim Number	Claim Size (Units)	Approx. Claim Size (ha)	Claim Due Date	Ownership	Work Required
ESTHER	1094208	1	16	2017-Oct-17	100% Falcon Gold	$400
ESTHER	629911	1	16	2017-Sep-14	100% Falcon Gold	$400
ESTHER	629912	1	16	2017-Sep-14	100% Falcon Gold	$400
ESTHER	648044	1	16	2017-Jul-09	100% Falcon Gold	$400
ESTHER	648045	1	16	2017-Jul-09	100% Falcon Gold	$400
ESTHER	648046	1	16	2017-Jul-09	100% Falcon Gold	$400
ESTHER	648047	1	16	2017-Aug-19	100% Falcon Gold	$400
ESTHER	648048	1	16	2017-Aug-19	100% Falcon Gold	$400
ESTHER	648153	1	16	2017-Sep-23	100% Falcon Gold	$400
ESTHER	648154	1	16	2017-Sep-23	100% Falcon Gold	$400
ESTHER	648155	1	16	2017-Sep-23	100% Falcon Gold	$400
ESTHER	648198	1	16	2017-Sep-23	100% Falcon Gold	$400
ESTHER	648285	1	16	2017-Nov-02	100% Falcon Gold	$400
ESTHER	648286	1	16	2017-Nov-02	100% Falcon Gold	$400
ESTHER	648362	1	16	2017-Nov-02	100% Falcon Gold	$400
ESTHER	648363	1	16	2017-Nov-02	100% Falcon Gold	$400

Table 30-15 Falcon Gold Option Property - Patented Mining Claims
IAMGOLD Corporation – Côté Gold Proj ect

Township	Disposition Number	G Number	Ownership	Land Status	Claim Size (ha)	Number of Units
ESTHER	S31116	6000074	100% Falcon Gold	PAT	28.07	2

ESTHER	S31117	6000251	100% Falcon Gold	PAT	25.57	2
ESTHER	S31226	6000252	100% Falcon Gold	PAT	25.99	2
ESTHER	S31227		100% Falcon Gold	PAT	18.95	2
ESTHER	S32578		100% Falcon Gold	PAT	23.16	2
ESTHER	S32579		100% Falcon Gold	PAT	29.26	2

Table 30-16 Leliever Option Property - Patented Mining Claims

IAMGOLD Corporation – Côté Gold Proj ect

Township	Disposition Number	G Number	Ownership	Land Status	Claim Size (ha)	Number of Units
CHESTER	8995e	6060017	100% Fergus on, Harry Stewart	PAT	54.38	3

Table 30-17 Sheridan Option Property - Unpatented Mining Claims

IAMGOLD Corporation – Côté Gold Proj ect

Township	Claim Number	Claim Size (Units)	Approx. Claim Size (ha)	Claim Due Date	Ownership	Work Required
BENNEWEIS	4255331	9	144	2017-Apr-06	100% Sheridan, John Patrick	$3,600
BENNEWEIS	4255332	12	192	2017-Apr-06	100% Sheridan, John Patrick	$4,800
BENNEWEIS	4265023	16	256	2018-Apr-18	100% Sheridan, John Patrick	$6,400
CHAMPAGNE	4255305	8	128	2017-Apr-06	100% Sheridan, John Patrick	$3,200
CHAMPAGNE	4255306	16	256	2017-Apr-06	100% Sheridan, John Patrick	$6,400
CHAMPAGNE	4255307	16	256	2017-Apr-06	100% Sheridan, John Patrick	$6,400
CHAMPAGNE	4255310	16	256	2017-Apr-06	100% Sheridan, John Patrick	$6,400
CHAMPAGNE	4255311	15	240	2017-Apr-06	100% Sheridan, John Patrick	$6,000
CHAMPAGNE	4255312	8	128	2017-Apr-06	100% Sheridan, John Patrick	$3,200
CHAMPAGNE	4255313	16	256	2017-Apr-06	100% Sheridan, John Patrick	$6,400
CHAMPAGNE	4255316	16	256	2017-Apr-06	100% Sheridan, John Patrick	$6,400
CHAMPAGNE	4255317	15	240	2017-Apr-06	100% Sheridan, John Patrick	$6,000
CHAMPAGNE	4255318	8	128	2017-Apr-06	100% Sheridan, John Patrick	$3,200
CHAMPAGNE	4255323	16	256	2017-Apr-06	100% Sheridan, John Patrick	$6,400
CHAMPAGNE	4255324	16	256	2017-Apr-06	100% Sheridan, John Patrick	$6,400
CHAMPAGNE	4255325	16	256	2017-Apr-06	100% Sheridan, John Patrick	$6,400
GROVES	4255301	8	128	2017-Apr-06	100% Sheridan, John Patrick	$3,200
GROVES	4265022	16	256	2018-Apr-18	100% Sheridan, John Patrick	$6,400

Table 30-18 GoldON Swayze Properties - Neville-Potier Block - Unpatented Mining Claims

IAMGOLD Corporation – Côté Gold Proj ect

Township	Claim Number	Claim Size (Units)	Approx. Claim Size (ha)	Claim Due Date	Ownership	Work Required
NEVILLE	4219550	16	256	2017-Mar-16	100% Trelawney M & E Inc	$6,400
NEVILLE	4248790	16	256	2017-Mar-16	100% Trelawney M & E Inc	$6,400
NEVILLE	4250020	16	256	2017-Mar-16	100% Trelawney M & E Inc	$6,400
NEVILLE	4250029	16	256	2017-Mar-16	100% Trelawney M & E Inc	$6,400
NEVILLE	4250030	16	256	2017-Mar-16	100% Trelawney M & E Inc	$6,400
NEVILLE	4251589	16	256	2017-Mar-16	100% Trelawney M & E Inc	$6,400
NEVILLE	4251592	16	256	2017-Mar-16	100% Trelawney M & E Inc	$6,400
NEVILLE	4251596	15	240	2017-Mar-16	100% Trelawney M & E Inc	$6,000
NEVILLE	4255032	16	256	2017-Mar-16	100% Trelawney M & E Inc	$6,400
NEVILLE	4255033	16	256	2017-Mar-16	100% Trelawney M & E Inc	$6,400
NEVILLE	4255034	16	256	2017-Mar-16	100% Trelawney M & E Inc	$6,400
NEVILLE	4255035	16	256	2017-Mar-16	100% Trelawney M & E Inc	$6,400
POTIER	4219547	16	256	2017-Mar-16	100% Trelawney M & E Inc	$6,400
POTIER	4219548	16	256	2017-Mar-16	100% Trelawney M & E Inc	$6,400
POTIER	4219549	4	64	2017-Mar-16	100% Trelawney M & E Inc	$1,600
POTIER	4246981	12	192	2018-Mar-16	100% Trelawney M & E Inc	$4,800
POTIER	4250021	16	256	2017-Mar-16	100% Trelawney M & E Inc	$6,400
POTIER	4250022	16	256	2017-Mar-16	100% Trelawney M & E Inc	$6,400

POTIER	4250023	16	256	2017-Mar-16	100% Trelawney M & E Inc	$6,400
POTIER	4250024	16	256	2017-Mar-16	100% Trelawney M & E Inc	$6,400
POTIER	4250025	16	256	2017-Mar-16	100% Trelawney M & E Inc	$6,400
POTIER	4250026	16	256	2017-Mar-16	100% Trelawney M & E Inc	$6,400
POTIER	4255027	8	128	2017-Mar-16	100% Trelawney M & E Inc	$3,200
POTIER	4255028	8	128	2018-Mar-16	100% Trelawney M & E Inc	$3,200
POTIER	4255030	8	128	2018-Mar-16	100% Trelawney M & E Inc	$3,200
POTIER	4255031	16	256	2017-Mar-16	100% Trelawney M & E Inc	$6,400

Table 30-19 GoldON Swayze Properties - Mollie River Block - Unpatented Mining Claims

IAMGOLD Corporation – Côté Gold Proj ect

Township	Claim Number	Claim Size (Units)	Approx. Claim Size (ha)	Claim Due Date	Ownership	Work Required
BENNEWEIS	4227606	16	256	2018-Jun-18	100% Trelawney M & E Inc	$6,400
BENNEWEIS	4227607	15	240	2018-Jun-18	100% Trelawney M & E Inc	$6,000
BENNEWEIS	4243739	6	96	2019-Sep-09	100% Trelawney M & E Inc	$2,159

Table 30-20 GoldON Swayze Properties - Chester Block - Unpatented Mining Claims

IAMGOLD Corporation – Côté Gold Proj ect

Township	Claim Number	Claim Size (Units)	Approx. Claim Size (ha)	Claim Due Date	Ownership	Work Required
CHESTER	4243061	3	48	2019-Jun-04	100% Trelawney M & E Inc	$1,200