UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
Washington, D.C. 20549

FORM 6-K

Report of Foreign Private Issuer
Pursuant to Rule 13a-16 or 15d-16
of the Securities Exchange Act of 1934

Date: June 13, 2017

Commission File Number 001-31528

IAMGOLD Corporation
(Translation of registrant's name into English)

401 Bay Street Suite 3200, PO Box 153
Toronto, Ontario, Canada M5H 2Y4
Tel: (416) 360-4710
(Address of principal executive offices)

Indicate by check mark whether the registrant files or will file annual reports under cover Form 20-F or Form 40-F.

Form 20-F ☐ Form 40-F ☒

Indicate by check mark if the registrant is submitting the Form 6-K in paper as permitted by Regulation S-T Rule 101(b)(1): ☐

Note: Regulation S-T Rule 101(b)(1) only permits the submission in paper of a Form 6-K if submitted solely to provide an attached annual report to security holders.

Indicate by check mark if the registrant is submitting the Form 6-K in paper as permitted by Regulation S-T Rule 101(b)(7): ☐

Note: Regulation S-T Rule 101(b)(7) only permits the submission in paper of a Form 6-K if submitted to furnish a report or other document that the registrant foreign private issuer must furnish and make public under the laws of the jurisdiction in which the registrant is incorporated, domiciled or legally organized (the registrant's "home country"), or under the rules of the home country exchange on which the registrant's securities are traded, as long as the report or other document is not a press release, is not required to be and has not been distributed to the registrant's security holders, and, if discussing a material event, has already been the subject of a Form 6-K submission or other Commission filing on EDGAR.

Indicate by check mark whether by furnishing the information contained in this Form, the registrant is also thereby furnishing the information to the Commission pursuant to Rule 12g3-2(b) under the Securities Exchange Act of 1934.

Yes ☐ No ☒

If "Yes" is marked, indicate below the file number assigned to the registrant in connection with Rule 12g3-2(b): 82-_

Description of Exhibit

Exhibit	Description of Exhibit
99.1	NI 43-101 Technical Report on the Prefeasibility Study of the Côté Gold Project, Porcupine Mining Division, Ontario, Canada

Signatures

Pursuant to the requirements of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned, thereunto duly authorized.

IAMGOLD CORPORATION

Date: June 13, 2017

By: /s/ Tim Bradburn
Vice President, Legal and Corporate Secretary

Exhibit 99.1

IAMGOLD CORPORATION

amec foster wheeler

NI 43-101 Technical Report on the Prefeasibility Study of the Côté Gold Project, Porcupine Mining Division, Ontario, Canada

A. Peralta, P. Eng., Amec Foster Wheeler
B. Wang, P. Eng., Amec Foster Wheeler
D. Dyck, P. Eng., Amec Foster Wheeler
D. Smiley, P. Eng., Amec Foster Wheeler
I. Lipiec, P. Eng., Amec Foster Wheeler
J. Padilla, P. Eng., Amec Foster Wheeler
P. Baluch, P. Eng., Amec Foster Wheeler
A. Smith, P. Geo,. IAMGOLD Corp.
M. Bugnon, P. Geo., IAMGOLD Corp.
L. Evans, P. Eng., RPA Inc.
T. Ciuculescu, P. Geo., RPA Inc.

Presented to: IAMGOLD Corporation
Effective Date: May 26, 2017
Project No.: 191659

Important Notice

This National Instrument 43-101 Technical Report was prepared by Amec Foster Wheeler Americas Limited (Amec Foster Wheeler) and Roscoe Postle Associates Inc for IAMGOLD Inc. The quality of information, conclusions, and estimates contained herein is consistent with the level of effort involved in Amec Foster Wheeler's services, based on i) information available at the time of preparation, ii) data supplied by outside sources, and iii) the assumptions, conditions, and qualifications set forth in this report. This report is intended for use by IAMGOLD Inc. subject to terms and conditions of its contract with Amec Foster Wheeler. Except for the purposes legislated under Canadian provincial securities law, any other uses of this report by any third party is at that party's sole risk.

CONTENTS

TABLES

FIGURES

1.0 EXECUTIVE SUMMARY

1.1 Introduction

IAMGOLD Corporation (IAMGOLD), Amec Foster Wheeler Americas Limited (Amec Foster Wheeler) and Roscoe Postle Associates Inc. (RPA) jointly completed a Prefeasibility Study (PFS) on IAMGOLD'S Côté Gold Project (the Project), an advanced stage exploration project located approximately 125 km southwest of Timmins, Ontario, Canada.

IAMGOLD is using the PFS to identify the preferred development option to demonstrate economic viability of the Project to support Mineral Reserve disclosure, and to identify additional work necessary to complete more advanced studies. This NI 43-101 Technical Report (the Report) was prepared as a summary of the PFS, and to support IAMGOLD's disclosure of the results.

1.2 Key Outcomes

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

Table 1-1: Key Outcomes

Pre-Tax NPV (5%) (3)	US$1,063 M
After-Tax NPV (5%) (3)	US$703 M
After-Tax IRR (3)	14.0%
After-Tax payback period (after start of production)	4.5 years
Gold Price (assumed for economic analysis)	US$1,250/oz
Initial Capital Expenditures	US$1,047 M
Sum of Financing for initial Capital Leases (2)	US$116 M
Sustaining Capital Expenditures	US$418 M
Reclamation and Closure Costs	US$40 M
Total Gold Produced	5.436 M oz
Total Cash Costs (4)	US$605/oz Au
All-in Sustaining Costs (5)	US$689/oz Au
Nominal Mill Capacity	32,000 t/d
Proven and Probable Mineral Reserves	196 Mt at 0.94 g/t Au
Mine Life (including stockpile reclaim)	17 years

Notes:

1. The above results of the PFS represent forward-looking information, and are based on a number of estimates and assumptions and actual results may vary. Assumptions used to develop the forward-looking information are presented in the relevant sections of the Report.
2. Represents the amount of deferred payment associated with capital leasing for mobile equipment and large process equipment. Initial capital expenditures added

to sum of financing for capital leases equals the total estimated capex in that section of the NI 43-101 report.

3. NPV = net present value; IRR – internal rate of return.
4. Total cash costs are derived from mining, processing, on-site G&A, refining, doré transportation and insurance, royalties and provincial mining tax costs per ounce payable.
5. All-in sustaining costs are derived from total cash costs plus sustaining capital (including interest on capital leases), and reclamation and remediation costs. It does not include corporate costs not directly associated with the Côté Gold Project.

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 521 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. A Preliminary Economic Analysis on the Côté project was conducted in 2016 and a 43-101 report of the findings of this analysis was disclosed by IAMGOLD in February 2017.

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

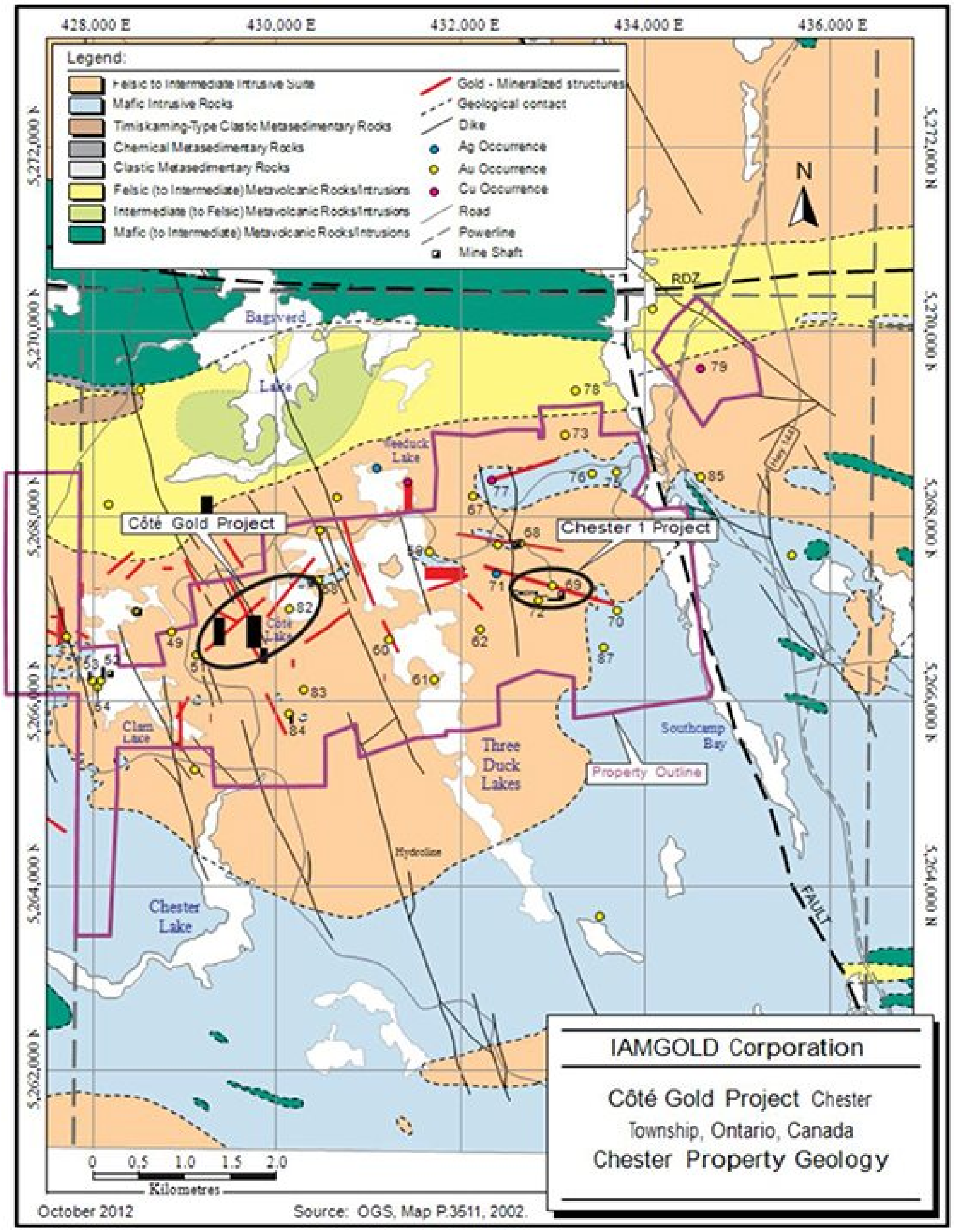
Exploration activities on the Swayze properties focused on areas generally outside the Project, as part of a multi-year exploration program begun in 2013. Numerous gold showings are documented both within the host CIC and in the enclosing volcanic/sedimentary units of the South Swayze greenstone belt. 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 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 material drilled and sampled for the 2017 HPGR pilot plant program indicated that the HPGR would perform well. In addition to handling the very hard material, the product produced by the HPGR also had poor cake cohesion which is positive for downstream screening. However the material is high in abrasivity and care will be necessary to optimize wear surfaces and materials handling design. The HPGR circuit is the most capital-effective choice between HPGR and SAG. In the next stage of the study, the HPGR will be tested to further evaluate variability across the deposit.

The Côté mineralization is free-milling (non-refractory). A portion of the gold liberates during grinding and is amenable to gravity concentration and 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.

Individual lithologies follow the general trends for grind size sensitivity and cyanide consumption.

Overall recovery is estimated at 91.8% for the processing of 32,000 tpd using the proposed flowsheet.

Cyanide and lime consumptions are quite low in comparison to what is typically seen in the industry which reflects the lack of cyanicides and other cyanide consumers. Lime consumption is also positively impacted by the basic nature of the ore.

Metal dissolution during cyanide leaching was found to be low, and there are no obvious concerns with deleterious elements.

1.12 Mineral Resource Estimate

RPA prepared an updated resource estimate for the Côté Gold Project as of May 26, 2017. The current Mineral Resource estimate is based on open pit mining methods and includes 281.2 Mt at an average grade of 0.89 g/t Au, containing 8.04 Moz in the Indicated category. There is an additional 76.5 Mt at an average grade of 0.50 g/t Au, containing 1.23 Moz in the Inferred category.

This Mineral Resource estimate was completed using Geovia GEMS 6.7 software. A 3D geological model was built and used to constrain and populate a resource block model. The estimate was based on the inverse distance cubed (ID3) interpolation method. The Mineral Resource is reported at a cut-off grade of 0.3 g/t Au and at a gold price of US$1,500 per ounce. High grade gold assays were capped at grades ranging from 6 g/t to 40 g/t depending on domain. The Mineral Resource estimate as reported in Table 1-2 was constrained by a preliminary pit optimization shell.

RPA is not aware of any environmental, permitting, legal, title, taxation, socio-economic, marketing, political, or other relevant factors that could materially affect the Mineral Resource estimate.

Table 1-2: Summary of Mineral Resources – May 26, 2017

Category	Tonnage (000 t)	Grade (g/t Au)	Contained Metal (000 oz Au)
Indicated	281,171	0.89	8,037
Inferred	76,471	0.50	1,231

Notes:

1. CIM definitions were followed for Mineral Resources.
2. Mineral Resources are estimated at a block cut-off grade of 0.3 g/t Au.
3. Mineral Resources are estimated using a long-term gold price of US$1,500 per ounce, and a US$/C$ exchange rate of 1/1.25.
4. Bulk density varies from 2.69 t/m^3 for tonalite to 2.75 t/m^3 for diorite, and 2.93 t/m^3 for diabase.

1.13 Mining Methods

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

The design parameters include a ramp width of 35 m, road grades of 10%, bench height of 12 m, targeted mining width of 100 m, berm interval of 24 m, variable slope angles by sector and a minimum mining width of 40 m.

The smoothed final pit design contains approximately 196 Mt of ore at 0.94 g/t Au, and 559 Mt of waste for a resulting stripping ratio of 2.85:1. These tonnages and grades were derived by following an elevated cut-off strategy in the production schedule. The Mineral Reserve estimate is shown in Table 1-3.

Table 1-3: Mineral Reserve Estimate – May 26, 2017

Class	Tonnage t x 1000	Gold	
		g/t	ounces x 1000
Proven Reserves	—	—	—
Probable Reserves	196,079	0.94	5,926
Proven & Probable Reserves	196,079	0.94	5,926
Waste within Designed Pit	559,155		
Total Tonnage within Designed Pit	755,234		

Notes:

(1) Reserve estimates assume open pit mining methods
(2) Reserves are based on gold price of US$1200/oz
(3) Fixed process recovery of 92.5%
(4) Treatment and refining costs, including transport and selling cost, estimated to be US$4.00/oz Au.
(5) Variable royalty percentages by zone: 0.75% for zone 1, 1.00% for zone 2, 0.00% for zone 3, 1.50% for zone 4, 0.75% for zone 5, 1.50% for zone 6, 0.75% for zone 7, and 0.75% for zone 8. Only zones 2, 3, 5 and 6 have Mineral Reserves.
(6) Processing costs: US$8.77/t. Include process cost: US$6.58/t, G&A: US$1.45/t, Sustaining: US$0.57/t, Closure: US$0.18/t.
(7) Mining costs: US$1.93/t incremented at US$0.035/t/ 12m below 388m elevation. Average mining cost: US$2.39/t. Rehandling cost US$0.84/t.
(8) The break-even cut-off grade varies according to the pit bench depth and the royalty zone, within a range of 0.30 to 0.37 g/t.

The scheduling constraints set the maximum mining capacity at 60 Mt/year and the maximum process capacity at 32 kt/day. The production schedule results in a life of mine (LOM) of 16 years with stockpile reclaim extending into Year 17. The mine will require one year of preproduction before the start of operations in the processing plant. Although the mine requires one year of pre-stripping, mining starts in year -2 to provide material for the tailings management facility (TMF) construction.

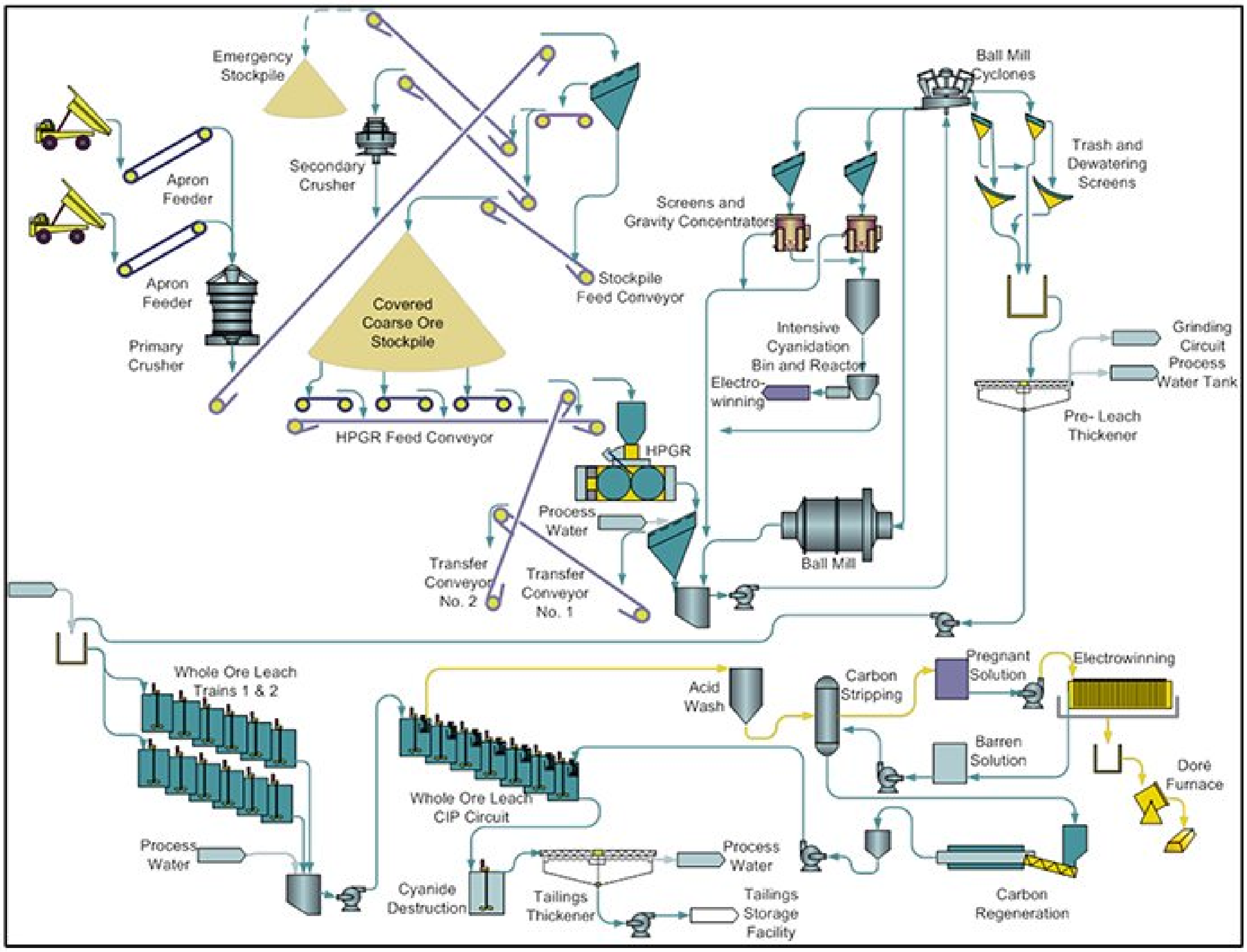
1.14 Recovery Methods

HPGR testwork at the pilot plant scale has shown that the material is amenable to this form of comminution and subsequent screening. The HPGR approach shows an indication there will be a recovery benefit in the cyanidation of the material from micro-cracking. The mineralization also shows that cyanidation followed by carbon-in-pulp is a robust method to achieve gold recovery.

The process circuits (see Figure 1-3) 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 32,000 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. Recovery is forecast at 91.8%.

Figure 1-3: Process Flow Diagram



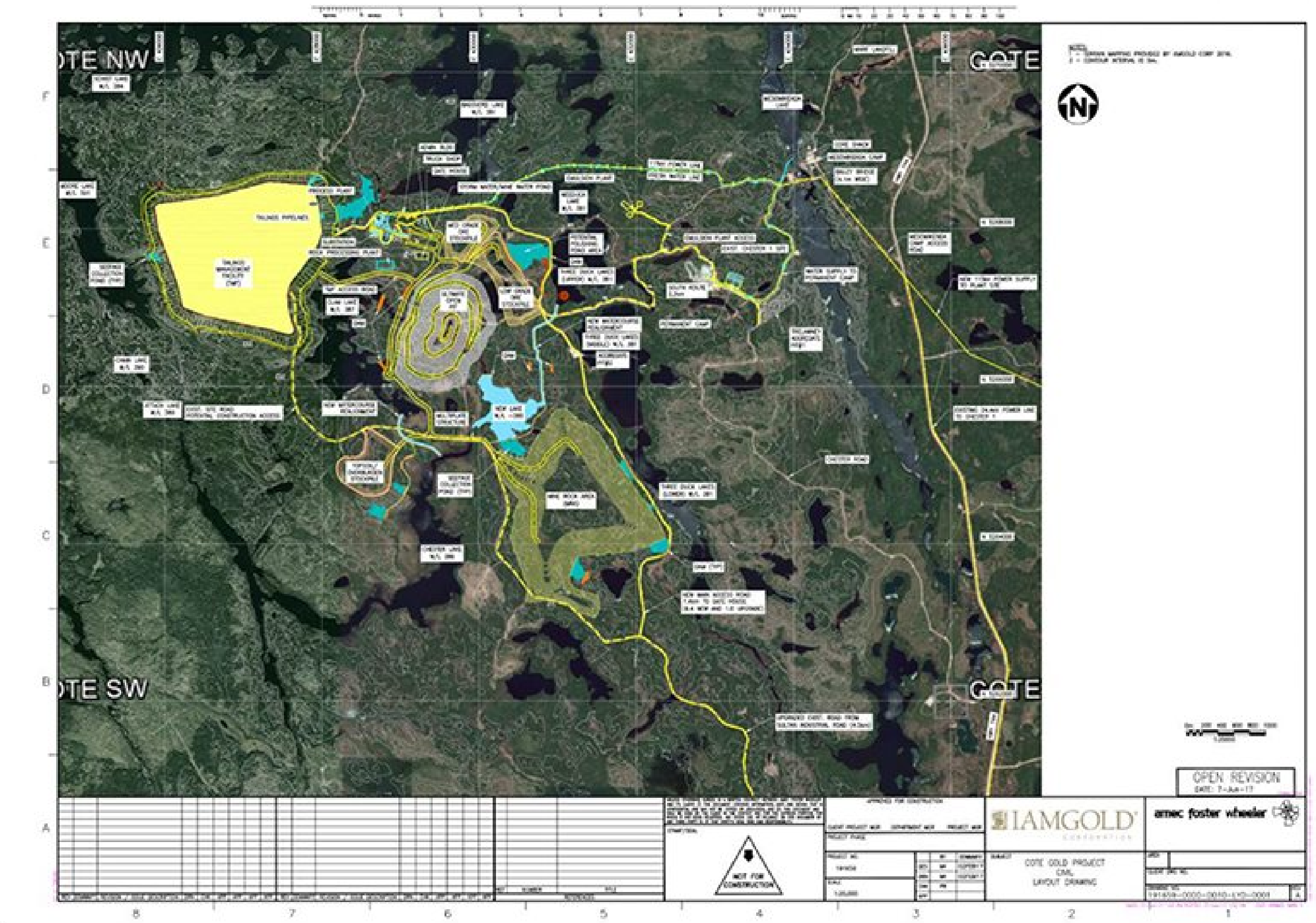
1.15 Project Infrastructure

The infrastructure required for the Côté Gold Project will include:

- Watercourse realignment dams and channels
- a New Lake to be created to compensate the loss of Côté Lake
- a tailings management facility (TMF)
- storm / mine water, polishing and tailings reclaim ponds
- collection, surplus water discharge, and dispersion systems
- a permanent camp
- an emulsion plant
- site power supply and distribution
- workshop, offices, facilities and other services
- a 12 km, two-lane gravel access road from the nearest highway
- an upgraded existing transmission line from Timmins to Shining Tree Junction and a new 44 km-long 115 kV electrical power transmission line from Shining Tree Junction to the project site.

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

Figure 1-4: Site General Layout (AMECFW – May 2017)



1.16 Market Studies and Contracts

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. IAMGOLD has received indicative pricing for refining arrangements with the Royal Canadian Mint in Ottawa, Canada. Limited additional effort is 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.

In January 2017, IAMGOLD received provincial ministerial approval of the 2015 Environmental Assessment (EA) for the Project, as envisaged at that time, which is not substantially different from the configuration described in this PFS. The EA states that no significant effects are anticipated after the application of the proposed mitigation measures.

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

IAMGOLD is proceeding with additional baseline studies, on the Côté Gold property that was most recently acquired, to infill the physical, biological and human environment characterizations conducted previously. This additional baseline data, together with design information for the PFS site configuration, will be used to update the Environmental Effects Review (EER) for the Project, for submission to the Canadian Environmental Assessment Agency (CEAA) and the Ministry of the Environment and Climate Change (MOECC) in Autumn 2017, thus informing the regulatory agencies of changes/improvements to the EA.

Upon federal and provincial approval of the updated EER, 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

This PFS-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 +25%/-20% of the final Project cost.

Cost estimates are expressed in second-quarter 2017 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$0.7692.

The Project's initial capital cost, summarized in Table 1-4, is estimated to be US$1,163 M, inclusive of allowances for Owner's costs and contingency of US$27 M and US$170 M, respectively.

Table 1-4: Initial Capital Cost Estimate Summary

Area	Description	Cost, US$ M
Direct Costs		
	Mining	259
	On-Site Infrastructure	135
	Processing Plant	278
	Tailings & Water Management	71
	Off-Site Facilities	25
	Total Direct Costs	768
Indirect Costs		
	EPCM	68
	Construction Indirects	130
	Owner's Costs	27
	Contingency	170
	Total Indirect Costs	395
Total Initial Capital Cost		**1,163**

Some of the larger capital expenditures are amenable to capital financing. The initial mining fleet and the largest process equipment, having an approximate initial capital cost of US$159 M, can be financed using capital lease agreements with vendors. Inclusive of a down-payment of 15—30% of the purchase value paid at placement of order, capital leases reduce the initial capital cost by approximately US$116 M, resulting in an initial capex of $1,047 M net of leasing.

Sustaining costs (including capital leases and contingency) and operating costs (with no contingency) over the LOM are estimated to total US$418 M and US$3,025 M, respectively. Reclamation and closure costs are estimated at US$40 M towards the end of the project.

1.19 Economic Analysis

Using US$1,250/oz price for gold, an exchange rate of 1.30 USD/CAD and 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$703 M at a 5% discount rate, and after-tax IRR is 14.0%. The after-tax payback period of the initial capital investment is estimated at 4.5 years after the start of production.

In the pre-tax and after-tax evaluations, the Project is most sensitive to changes in gold price and gold head grade, and less sensitive to changes in exchange rate, operating costs and capital costs.

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 PFS mine design, the Côté Gold Project shows a positive financial return, and supports the declaration of Mineral Reserves. The PFS identifies additional testwork and analyses required to support more advanced mining studies. 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
Sample Preparation, Analysis and Security	• Use Nomograms prepared by AGORATEK (2017) and the various corresponding options to dimension the preparation optimally in a trade-off between costs and representativeness of assay results.
Drilling/ Resource Estimating	• Strip, map, and channel sample new outcrops in strategic areas. • Take continuous channel samples from existing outcrop exposures and in multiple directions in some areas. • Build a structural model using the outcrop and drilling data. • Drill more holes in shallower areas with good potential for conversion to Indicated. • Use soft boundaries and new search ellipsoids for the Fault Domain where it is in direct contact with the Breccia N and S domains. • Investigate optimum grade control drilling procedures.
Metallurgical Sampling and Testing	• Test additional domain and point composites to address geometallurgical variability for both HPGR and cyanidation testwork. • Further testwork is required to optimize downstream conditions after HPGR processing. • Additional mineralogy is advised. • Additional Atwal or vendor specific wear testing is advised. • Bin flow testwork be performed.
• Mining Methods	• Perform a kinematic stability check of pit walls that have changed in orientation to confirm that initial recommendations are still valid. • Update and evaluate the kriged, or Inverse Distance Weighting, of the RQD data within the block model. Input the revised pit design into the block model and develop appropriate two dimensional cross sections through each sector of the proposed pit. • Determine appropriate rock mass strengths for each major rock type, and the faults using acceptable methods and apply to each rock type or RQD zone within the updated model. • Perform two dimensional limit equilibrium and or finite element (shear stress reduction) analyses to evaluate the slope stability factors of safety for the proposed overall slope angles of each sector of the pit. • Update and complete the pit design for the final pit based on the results obtained. • Begin mining with manned haulage and using a fleet management system (FMS). After the mine has achieved sustained planned production supplement FMS with other components of Automated Haulage System (AHS) with the goal of becoming fully autonomous. • Complete a trade-off analysis for contracting or owner performing the preproduction mining. • Assess owner maintenance versus a full or partial maintenance and repair contract (MARC). • Complete blast hole drilling tests to determine production drilling parameters. Engage a blasting consultant to perform tests on the rock to run a fragmentation simulation. • Continued investigation into mineralization controls including alteration and structural controls on mineralization and the relationship between the various breccia and alteration types and gold mineralization. • Completing a simulation on a much bigger area once domaining is improved,

an area covering the first five years of production or more.

Infrastructure

- Conduct a site specific seismic hazard assessment.
- Install a weather station at the project site.
- Commence a test pitting program associated with site infrastructure to confirm design assumptions prior to finalizing infrastructure layout.
- Continue studies assocated with the project’s electrical power requirements including advancement of the System Impact Assessment.
- Conduct additional LiDAR surveys.
- Perform additional geotechnical field investigations to further characterize the site and support the feasibility design.
- Conduct a focused field program to understand the two fault zones through the TMF.
- Conduct a field investigation for a low permeability till borrow material source.
- Conduct additional laboratory testwork to determine tailings properties to support design assumptions, TMF sizing and environmental impact.
- Conduct a study for the TMF and water management systems to optimize the design and construction requirements for the dams and water channels including an analysis of stability, determine tailings liquefaction potential and foundation materials, seepage rates and water intake and effluent discharge locations.
- Prepare a detailed hydrological analysis and water balance for the project.
- Complete a Connection Cost Estimate Agreement with Hydro One to prepare a detailed estimate, which will take approximately 12 months and cost C$500k,and conduct a System Impact Assessment.

Infrastructure Claims and Leases

- Obtain necessary leases and rights of way to support the project infrastructure requirements.

Environment

- 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.
- Prepare and submit required permit applications to allow sufficient time for regulator review/approval and commencement of required construction activities.

The total estimated cost for this work is C$13.62 M.

2.0 INTRODUCTION

IAMGOLD Corporation (IAMGOLD), Amec Foster Wheeler Americas Limited (Amec Foster Wheeler) and Roscoe Postle Associates Inc. (RPA) jointly completed a Preliminary Feasibility Study (PFS) on IAMGOLD'S Côté 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 PFS, and to support IAMGOLD's disclosure of the results of the PFS and the declaration of Mineral Reserves. IAMGOLD is using the PFS of the preferred development option of the Project to identify additional work necessary to complete more advanced mining studies including Feasibility.

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, tax information, and the summary, interpretations, conclusions, and recommendations that were based on those sections.

RPA QPs prepared or took responsibility for the sections of the Report on the drilling, sampling, data verification, Mineral Resource estimation, and the summary, interpretations, conclusions, and recommendations that were based on those sections.

Amec Foster Wheeler QPs prepared or took responsibility for the sections of the Report that included the introduction, reliance on other experts, mineral processing and metallurgical testing, Mineral Reserve estimation, mining and recovery methods, Mineral Reserves, Project infrastructure including tailings, marketing studies and contracts, 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 US dollars (US$) unless otherwise stated.

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: May 26, 2017,
- Date of last supply of mineral tenure, surface rights, and property agreements: April 17, 2017,
- Date of the most recent site visits to the property by Amec Foster Wheeler or RPA: May 19, 2017,
- The effective date of the Report is determined to be May 26, 2017.

2.5 Personal Inspections

Dr. Bing Wang, P. Eng., visited the Côté Gold Project site on several occasions: May 16th, October 4th and 31st to November 4th, 2016 and April 13th and 14th, 2017. 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, mine rock area, mill feed stockpile, topsoil/overburden 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 June 2017, the most recent site visit being May 29th to June 2nd, 2017, where the following areas were visited / inspected:

- a review of current regional exploration programs and results; and
- an inspection of the core farm, core shack, and specific outcrops of the Côté Gold Project.

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 May 2017, the most recent site visit being on May 18th to 19th, 2017, where the following activities were reviewed and inspected:

- 2017 winter diamond drilling program results and observations for the King Errington and Weeduck Lake area of the Chester property, and the Monella Point target area of the TAAC West property;
- Participation in a site visit with RPA geologists; and

- Status on legal and assessment work requirements for the maintenance of the Côté Gold district exploration properties portfolio and updates.

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 April 13th and 14th, 2017.

Mr. Luke Evans, M.Sc., P.Eng., RPA Principal Geologist and Executive Vice President, Geology and Mineral Resource Estimation and Mr. Tudorel Ciuculescu, M.Sc., P.Geo., RPA Senior Geologist, visited the Côté Gold site on May 18 and 19, 2017. RPA also carried out site visits on various occasions since 2007. The site visits from 2007 to 2012 are described in the 2012 RPA technical report.

Mr. Tony Lipiec, P. Eng., has been involved in supervising the Côté Gold testwork and has visited the laboratories performing the work. He visited the facilities at the University of British Columbia in Vancouver, Canada on January 16, 2017. He also visited and reviewed work peformed at COREM in Quebec City, Canada on March 9th and 10th, 2017.

Mr. Paul Baluch, P.Eng., visited the Côté Gold Project site on two occasions: October 04, 2016, and April 13-14, 2017. The following areas were inspected:

Existing project infrastructure such as the:

- Access roads
- Core shack area
- Mesomikenda camp
- Chester 1 site including the nearby Trelawney Aggregate Pit #1
- Powerline corridor including Shiningtree substation area

Areas of the proposed project infrastructure such as the:

- Permanent camp location
- Emulsion plant location
- Processing plant location including the truck shop and warehouse area, coarse ore stockpile and electrical substation area
- Tailings management facility area

Topography and geographical features (water bodies, etc.)

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_07_06_2017”, dated June 7, 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 521 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 (RPA, 2012)

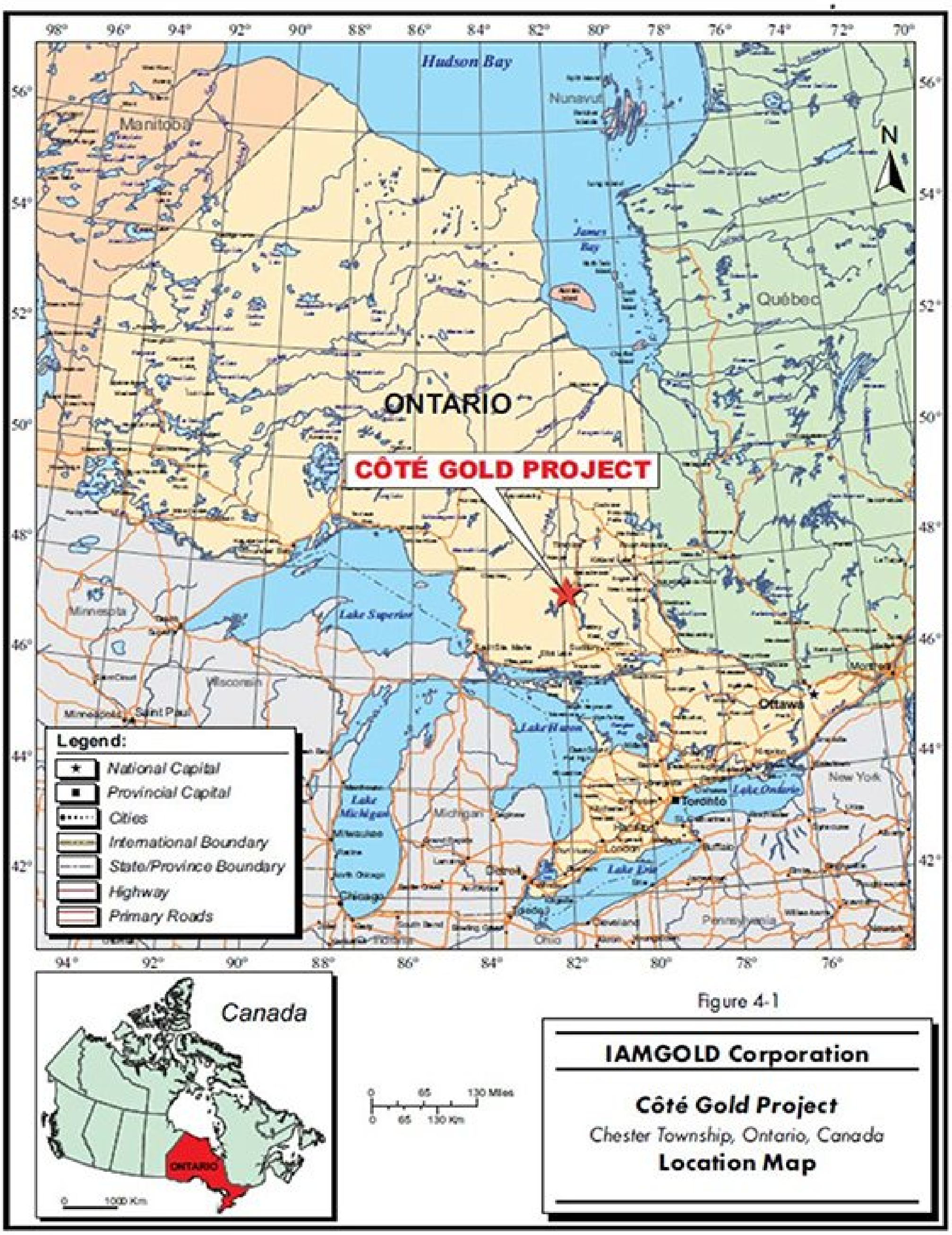
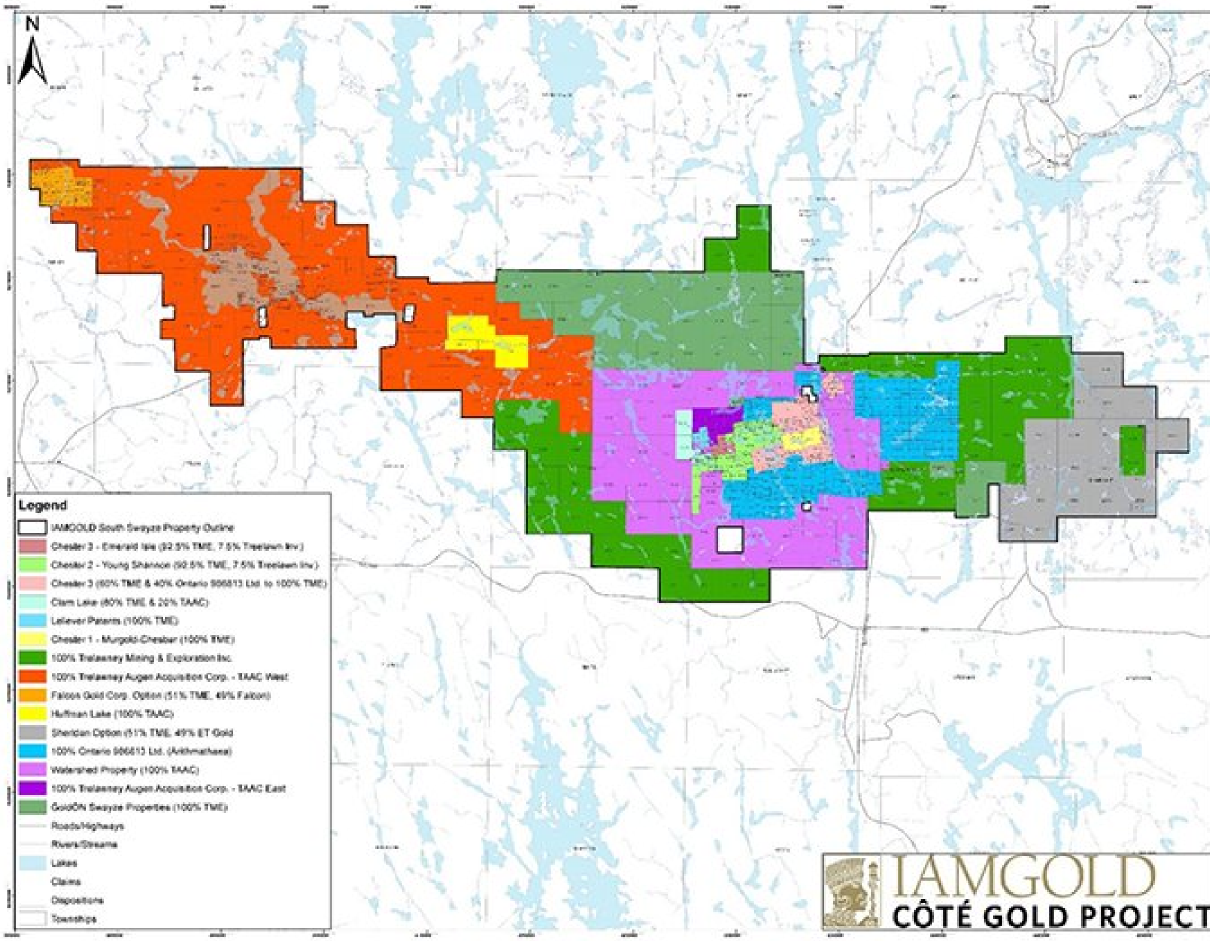


Figure 4-2: Property Group Map (December, 2016)



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, east, Makwa and Londonderry 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.

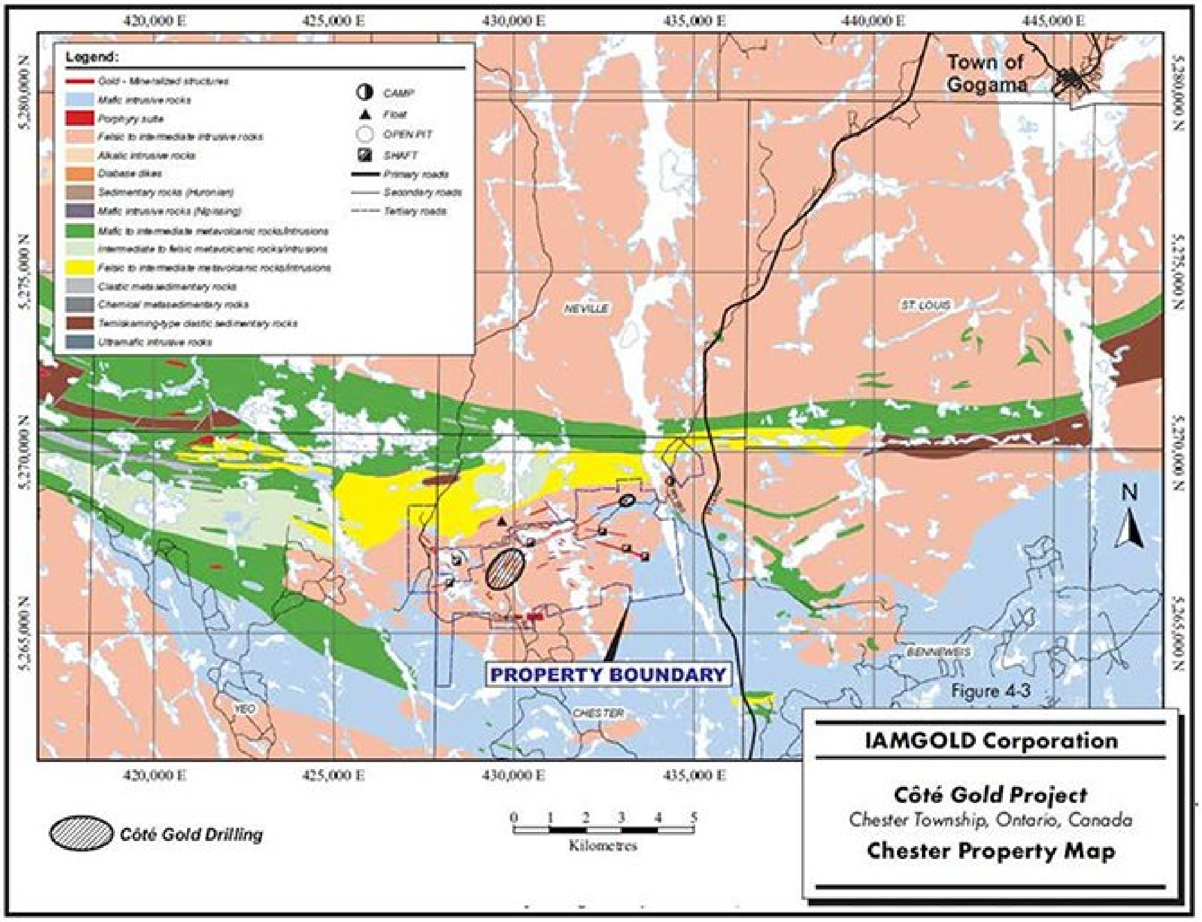
All lease and patent boundaries for the property were surveyed at some time in the past. Boundary and corner posts define existing claims. The owner of a mining claim does not hold the surface rights to the claim. At the time of application for a lease, the claims must be surveyed, and an application 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 (March, 2011)



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).

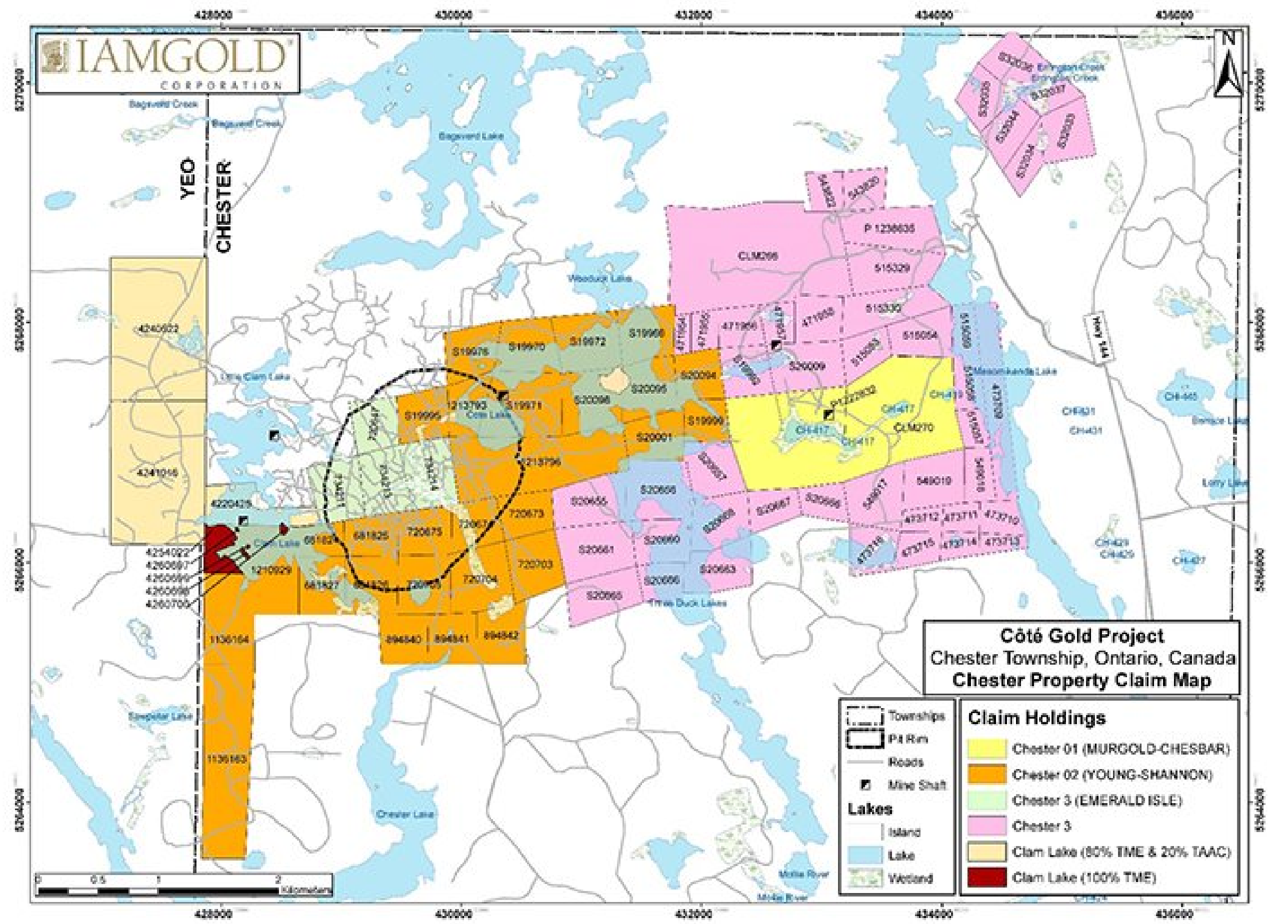
4.3.2 Environmental Site Remediation

Diamond drilling work conducted between 2013 and 2016 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 (December, 2010)



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 and transferred to Treelawn Capital Corp. (October 2016).

Table 4-1: Chester 1 (Murgold-Chesbar) Leases Surface and Mineral Rights Ownership – Trelawney 70% and Treelawn Capital Corp. 30%

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 $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	Annual 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 55.5%, Ontario 986813 Ltd 40%, Treelawn Group 4.5%

Township	Claim Number	Approximate Area (ha)	Recording Date	Due Date	Annual 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**			

* Ontario 986813 Ltd acquired Arimathaea Resources Inc. interests

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 92.5%, Treelawn Group 7.5%—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 69.375%, Canorth* 25%, Treelawn Group 5.625% - 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 55.5%, Murgold* 40%, Treelawn Group 4.5%—Patents & Lease

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

* Murgold Resources

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) to hold a 94.1215% interest.

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	Annual 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 16 unpatented mining claims with an approximate total surface area of 3,552 ha.

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 five 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 and the fifth blocks are formed of two and thirteen contiguous claims respectively and are located in the easternmost area of the Project area properties, the Makwa claims block being 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
Londonderry	13	1,952
Trelawney Property Total	**56**	**11,456**

Trelawney North is located north of the rest of the property groups. It is centered 8 km due north of the Chester property and 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 easten section 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 cover a surface area of 288 ha.

The Londonderry block is constituted of thirteen mining claims in the easternmost area of the Project area properties. It is centered approximately 25 km due east of the Chester property. These thirteen unpatented mining claims are situated in Champagne, Londonderry, Garibaldi and Miramichi townships and cover a surface area of 1,952 ha.

The five blocks combine for a total of 56 unpatented mining claims and an approximate total area of 11,456 ha. These five blocks and 56 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 the Arimathaea 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 of 233 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 Unpatented Mining Claims (ha)	Total Surveyed + Approximate (ha)
	Patents (ha)	MLOs (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 C$300,000 in cash, forgiveness of the C$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 C$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. GoldON has acquired 100% interest of this Neville-Potier block and signed a Royalty Agreement dated August 12, 2010 with the original owners Pete Robert, Wade Kornik and 2125930 Ontario

Limited. The original owners are entitled to a 3.0% NSR with the possibility to buy-back one-half of the NSR (total 1.5% NSR) at any time within twenty-five (25) years from the date of signature of this agreement upon payment of C$1 M.

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. GoldON has acquired 100% interest of the Mollie River block and signed a Royalty Agreement dated April 2nd, 2010 with the original owner Larry Salo. The original owner is entitled to a 3.0% NSR with the possibility to buy-back one-third of the NSR (total 1.0% NSR) at any time within twenty-five (25) years from the date of signature of this agreement upon payment of C$1 M.

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. GoldON has acquired 100% interest of the Chester block and signed a Royalty Agreement dated May 12th, 2010 with the original owner Pete Robert. The original owner is entitled to a 3.0% NSR with the possibility to buy-back one-third of the NSR (total 1.0% NSR) at any time within twenty-five (25) years from the date of signature of this agreement upon payment of C$1 M.

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.

4.3.3.10 Work Permits

Permits are required to perform work on the property described above. Work permits are either in place or can reasonably be expected to be approved in time to support the recommended work outlined in Section 26.

4.3.3.11 Significant Factors and Risks

Significant factors and risks that can impact work on the property are outlined in Section 20.

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 the Chester 1 Project. The same goes for the facility localized on Mesomikenda Lake Road which includes a core shack; a kitchen; rooms for 55 people and a recreation hall. A series of cabins and a lodge located by Mesomikenda 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 fully installed.

There is sufficient space available in the Project area to locate the Project infrastructure envisaged in the PFS, 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

The Chester property has been the focus of many exploration campaigns dating back to the early 1900's, with the first significant Au discovery being Alfred Gosselin's 1930 find of a spectacular showing of native gold on the east shore of Three Ducks Lake. From 1930 through to the early 1940's, a significant amount of exploration work was performed and included the sinking of a few shallow exploration shafts. A second phase of intense exploration activity took place from the early 1970s to about 1990. Since that time, fragmented property ownership has precluded any major exploration program.

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, 1932).

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

- In 1936, 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 to define 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 indicative 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 drillholes to 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:

- In 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.
- In 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.
- In 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. Few narrow-widths intersections were noted.
- In 2001, Emerald Isle Resources conducted power stripping at two locations northwest and north of Côté Lake. No gold assays are reported.

Exploration work completed subsequently by Augen during the period October 2007 to December 2011 is summarized in Table 6-2.

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

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

- In 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.
- In 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.
- In 1940, development continued and production plans were firmed up.
- In 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.
- In 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%.
- In 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.
- In 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).
- In 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

- In 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.

- In 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.
- In 1971, the camp closed down.

6.3.3 Jerome Mine 1974-1989

- In 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.
- In 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 intersected gold mineralization. In 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 and should not be relied upon.
- In 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."
- In 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 probable and possible ore reserves accessible from the shaft and its associated workings. This is a historical estimate, and is only

relevant as it indicates the potential mineralization on the property. Further work is required before this can be classified as a current Mineral Resource.

6.3.4 Jerome Mine 1998-2006

- In 1998, Domtar Inc. (Domtar) purchased the Jerome Mine and patented claims from E. B. Eddy Forest Products Ltd.
- In 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).
- In 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 6-3. The majority of the diamond drilling was completed at the Jerome Mine and indicated a good exploration potential that needs further assessment.

Table 6-3: 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 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. This 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 did not find any additional information.
- 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 (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. Gridlines were spaced 150 m apart, and the total length of grid (not including the 1,350m long 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

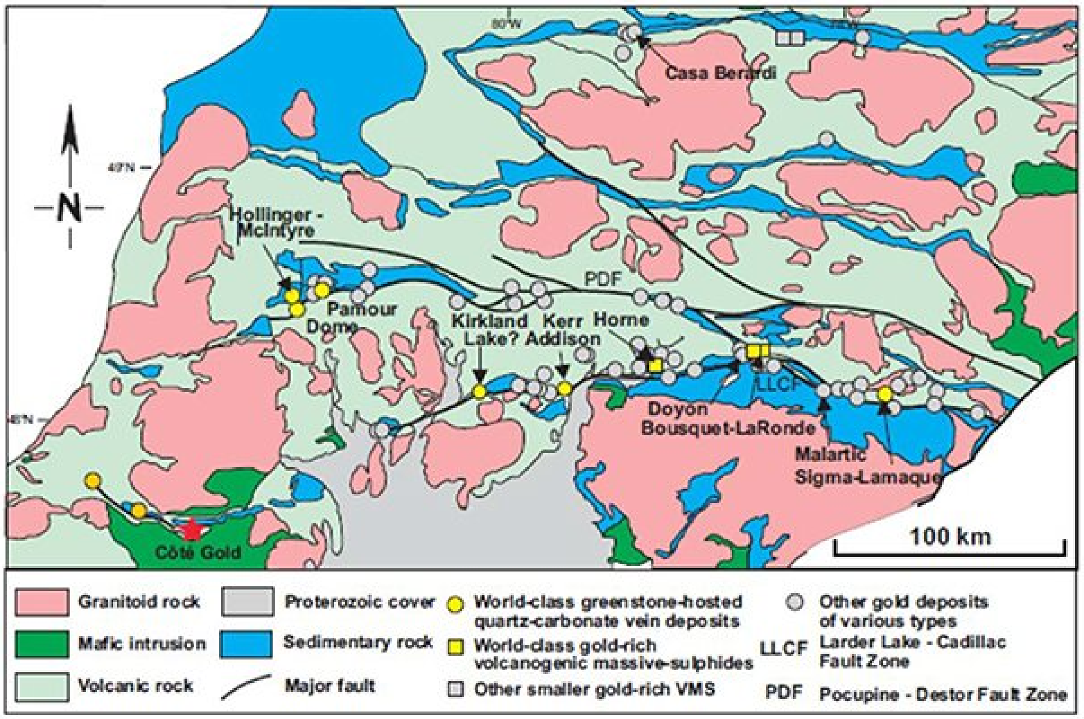
7.1 Regional Geology

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 dikes. 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 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 Figure 7-2 and Figure 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 (Dubé et al. 2007)



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 (van 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 (van 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.

In the Swayze belt there are at least four separate diabase dike swarms, ranging in age from late Archean to late Proterozoic: (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., (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 Chester Intrusive Complex (CIC), which hosts the Côté Gold deposit, is also synvolcanic and was emplaced along what is now the southern margin of the Ridout syncline. The CIC is a crudely stratified tonalite-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 (ca. 2,739 to 2,734 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 Intrusive Complex (2,741-2,2739 Ma. ,Katz, 2016) Ma) to the south (van Breemen et al., 2006) (refer to Figure 7-2 and Figure 7-3).

In the north central part of the Sourth Swayze belt, 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

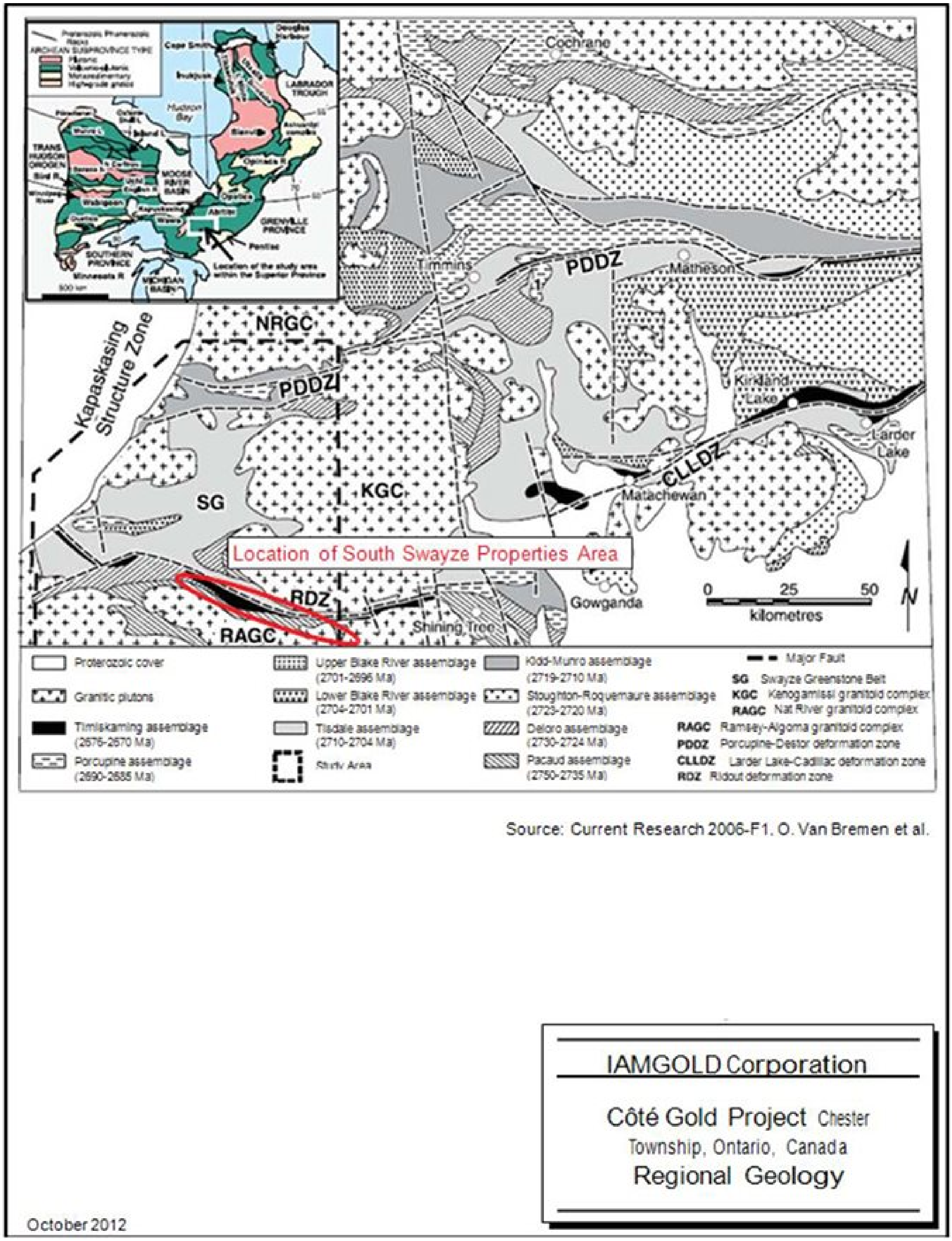
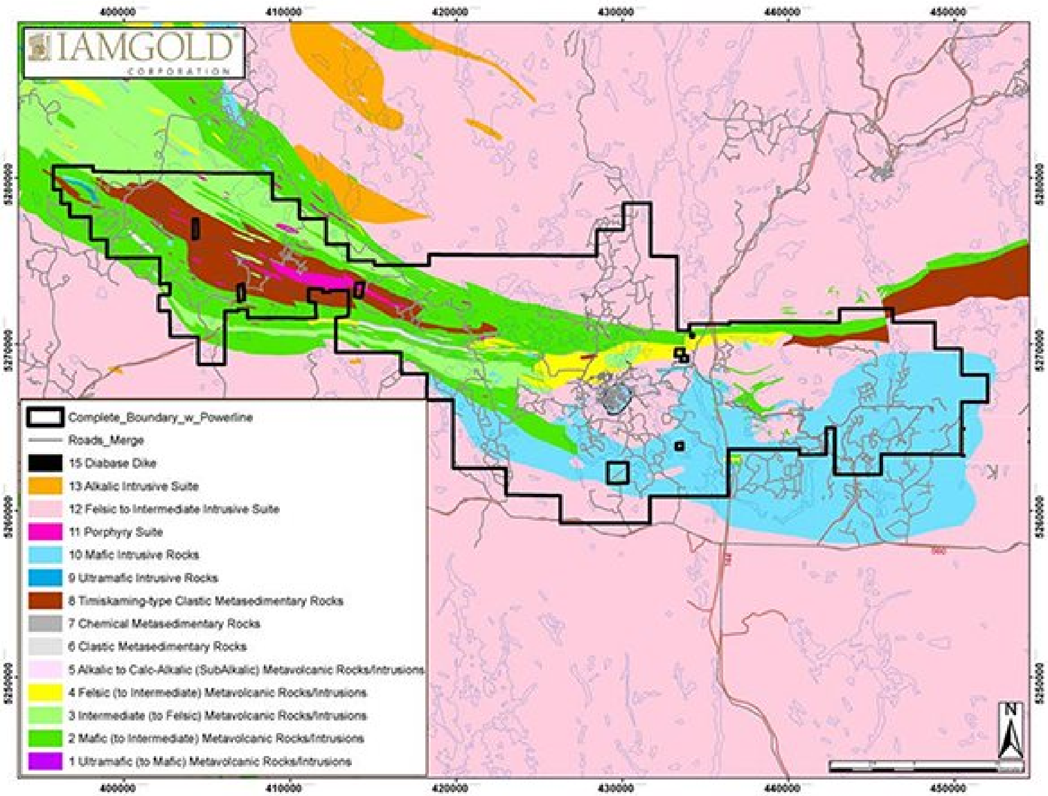


Figure 7-3: South Swayze Greenstone Belt Rock Type (December 2016)



To the south of the Chester volcanic rocks is the 2740 Ma Chester Intrusive complex, an apparently undeformed and unstrained tonalite diorite intrusion (Heather, 1993; Heather et al., 1996). Locally, within the tonalitic 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.”

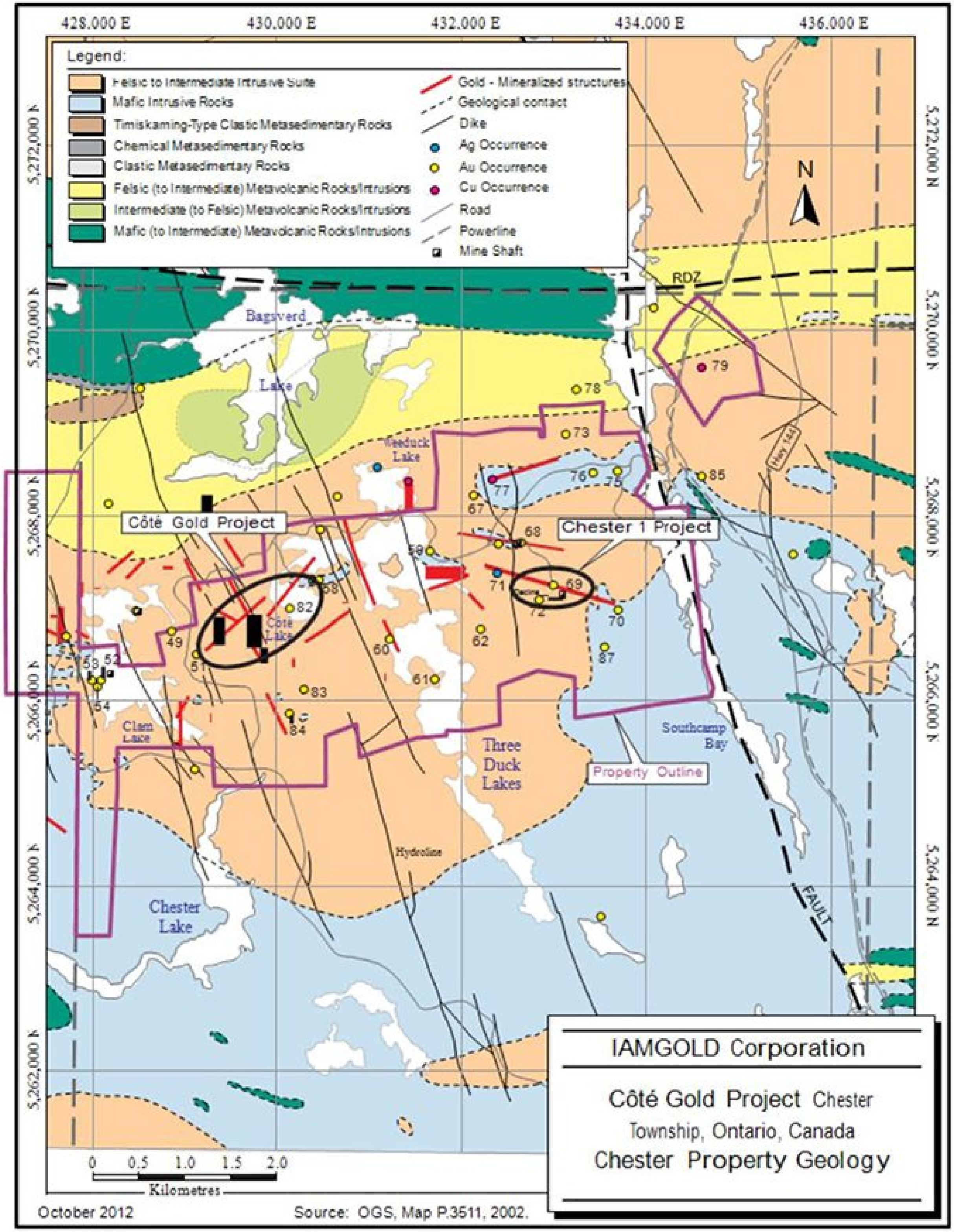
7.2.2 Property Geology

The Chester property contains calc-alkalic pyroclastic metavolcanic rocks of felsic to intermediate composition, felsic to intermediate intrusive rocks (predominatly tonalite and diorite) of the CIC, and related migmatites. Siragusa’s remapping (1993) and the Ayer and Trowell (2002) Compilation Map P3511 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. Centred 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 to 2739 Ma Chester intrusive complex (CIC), a multi-phase, laccolithic-shaped, synvolcanic intrusion composed of tonalite and diorite. The deposit is centred on magmatic and magmatic-hydrothermal breccia bodies that intrude 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 whereas the tonalite contains a relatively flat and less fractionated REE pattern. Although the tonalite and diorite have been demonstrated to be temporally related (Katz et al., 2015), 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).

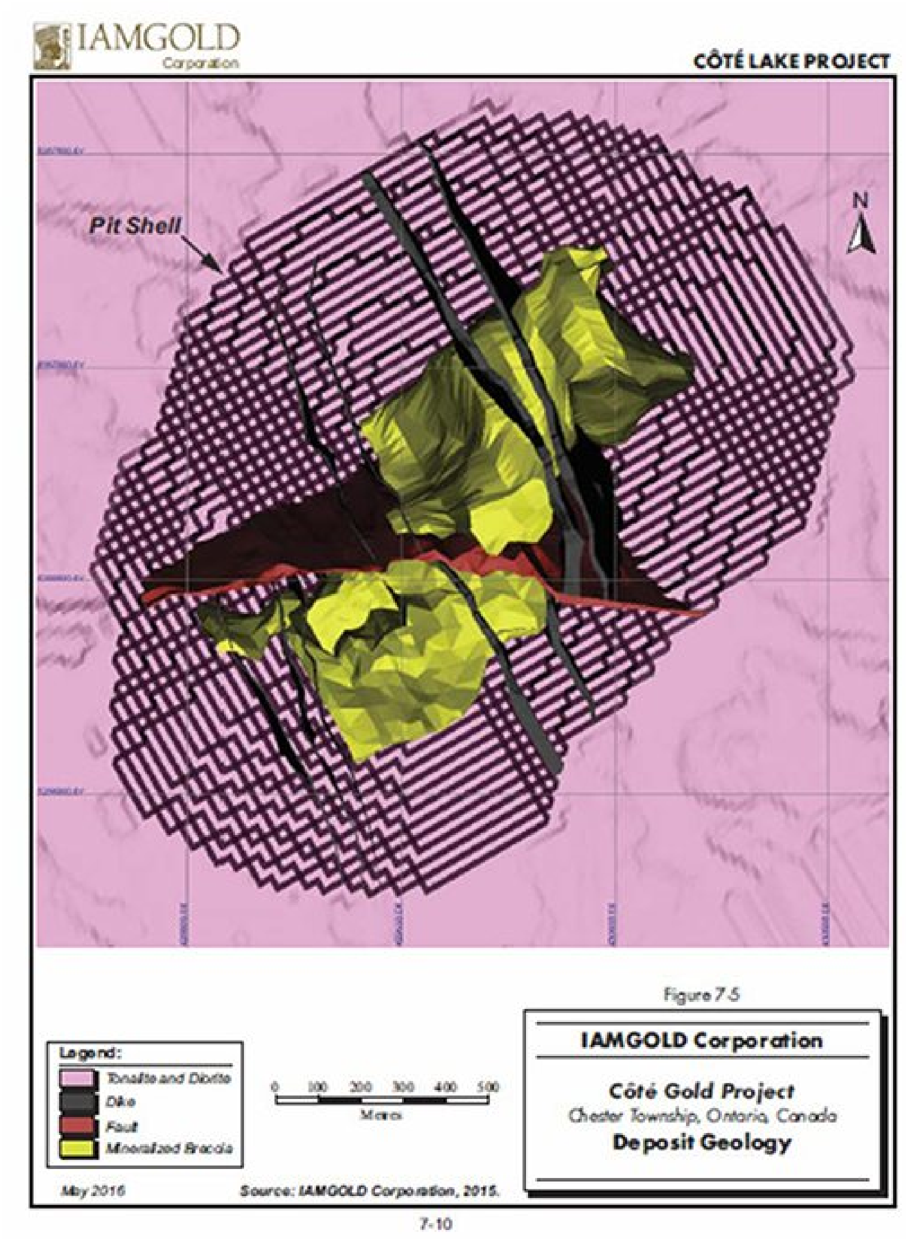
Although petrogenetically unrelated, several high-precision U-Pb zircon geochronology dates for both the tonalite and diorite provide contemporaneous crystallization ages for these rocks. These results are supported by extensive observations in the field and in core both within the deposit area and regionally within the CIC.

The deposit is hosted by several tonalite and diorite phases that are intruded by both magmatic and hydrothermal breccias. Each phase is distinguished by their relative crosscutting relationships, texture features and chemistry and include: (1) tonalite; (2) diorite; (3) quartz diorite; (4) tonalite breccia; (5) hornblende-plagioclase ± quartz pegmatite; (6) diorite breccia; and (7) hydrothermal breccias(Katz, 2016).

The intrusive phases were followed by magmatic-hydrothermal brecciation and the emplacement of several stages of gold-bearing veins. Subsequently, the deposit was intruded by several types of dike rocks, and was subjected to deformation, in the form of deformation zones and brittle 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 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 occurs as a sill-like bodies and is a medium-grained, equigranular to inequigranular, light to dark grey, intermediate intrusive rock. Tonalite occurs as the earliest phase in the deposit into which dioritic phases intrude but also occurs as a later more voluminous phase that intrudes dioritic phases (Katz et al., 2016).

Dioritic phases

In the deposit several co-temporal dioritic phases occur and include diorite, quartz diorite and hornblende-plagioclase ± quartz pegmatite. Diorite is typically equigranular, although plagioclase porphyritic varities occur, whereas quartz diorite is typically plagioclase ± quartz porphyritic and rarely equigranular. The diorite and quartz diorite intrude tonalite and commonly exhibit chilled or brecciated margins. Both melanocratic and leucocratic varities of the dioritic phases occur. The crosscutting relationship suggests that diorite evolved over time, fractionating to more leucocratic quartz diorite (Katz et al., 2016). Hornblende-plagioclase ± quartz pegmatite is the least abundant magmatic phase and generally occurs as small dikes of less than one meter in apparent thickness.

Tonalite Breccia

This unit is a magmatic breccia and formed as a result of tonalite brecciating diorite and rarely tonalite along its intrusive margins. Therefore, the tonalite matrix is mineralogically and texture identical to the tonalite described above (Katz et al., 2016). The diorite fragments range from centimeter to meter scale and are angular to round with sharp to diffuse contacts. Nearly all tonalite breccia observed is matrix supported. This breccia is also observed on the outside of the deposit area.

Diorite Breccia

A second type of magmatic breccia is present and formed as a results of dioritic magma brecciating tonalite and dioritic rocks (diorite, quartz diorite and hornblende-plagioclase ± quartz pegmatite). This breccia contains several different types of dioritic matrices: (1) medium- to coarse-grained melanocratic diorite; or (2) fine- to medium-grained typically quartz porphyritic melanocratic quartz diorite. The tonalite fragments range from centimeter to meter scale and are angular to round with sharp to diffuse contacts (Katz et al., 2016). Nearly all diorite breccia observed is matrix supported. 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. This breccia is also observed regionally.

Hydrothermal Breccia

The tonalite and diorite phases are intruded by a large, but overall discontinuous hydrothermal breccia body on which the Au(-Cu) deposit is centred. 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 displays various degrees of alteration (i.e., sericite, silicification-albitization), from low to extreme.

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

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

The amphibole-rich hydrothermal breccia unit (Figure 7-6) is the least abundant breccia type and it appears to be restricted to the southern and central parts of the deposit area. The unit contains millimeter to centimeter scale tonalite and rare diorite fragments in a hornblende-quartz-biotite-carbonate matrix. This breccia 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 (Katz et al., 2016).

The biotite-rich hydrothermal breccia (Figure 7-6) predominantly occurs in the northern and central parts of the deposit. The breccia is monolithic and contains millimeter to centimeter scale tonalite fragments. The breccia matrix varies and consists of:

- fine-grained biotite-quartz ± epidote ± carbonate ± pyrite ± chalcopyrite ± magnetite ± allanite ± titanite ± fluorite;
- fine- to coarse-grained biotite-magnetite-quartz-carbonate-chalcopyrite-pyrite ±

allanite ± bastnaesite ± apatite ± titanite with up to 50% magnetite;

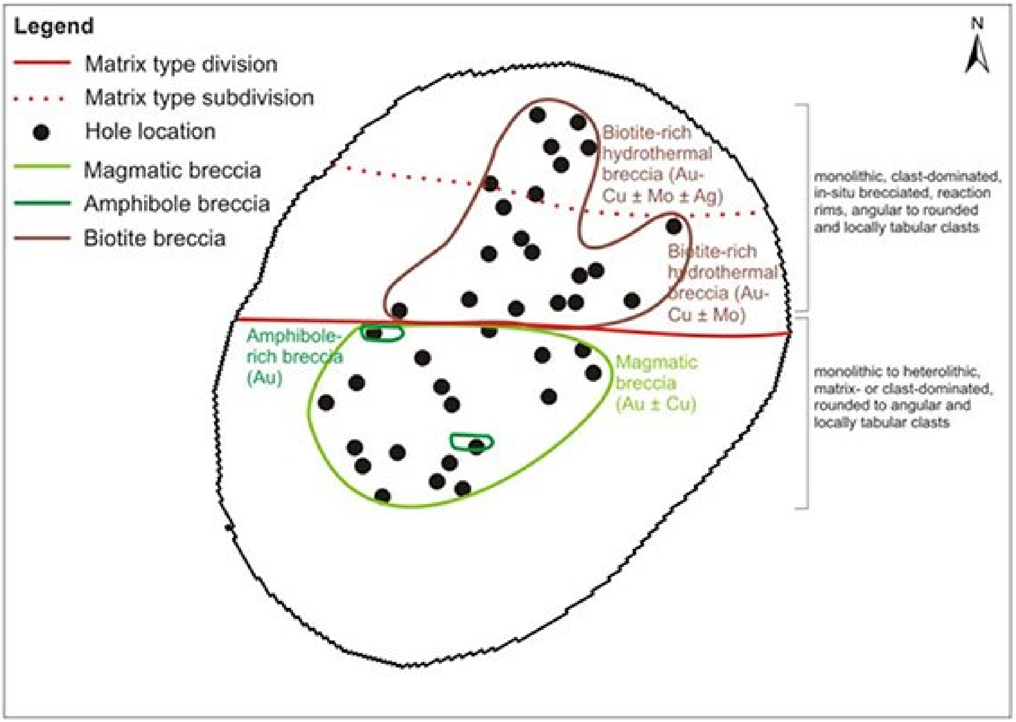
- biotite-carbonate-quartz-pyrite ± magnetite ± apatite ± chalcopyrite ± pyrrhotite with coarse biotite set in finer-grained quartz, carbonate and biotite groundmass (Katz et al., 2016).

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 appears to be 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 post-date the host rocks of the CIC.

Quartz Feldspar Porphyry

This phase includes several types of plagioclase ± quartz porphyritic, grey to black, felsic to intermediate dikes.

Diorite and Gabbro Dikes

Occasionally melanocratic dioritic and gabbro dikes occur along with other more typical dioritic textures. These dikes have been demonstrated to be geochemically distinct from the dioritic phases of the CIC (Katz, 2016). They often display small or absent chill margins, differentiating them from most dikes.

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.

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.

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, sodic, 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, syn-tectonic silica and sericite alteration are associated with D2 deformation zones. Several discrete syn-tectonic 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, 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. This assemblage consists of hornblende ± apatite ± titanite ± magnetite ± quartz ± albite ± biotite ± pyrite ± chalcopyrite. 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

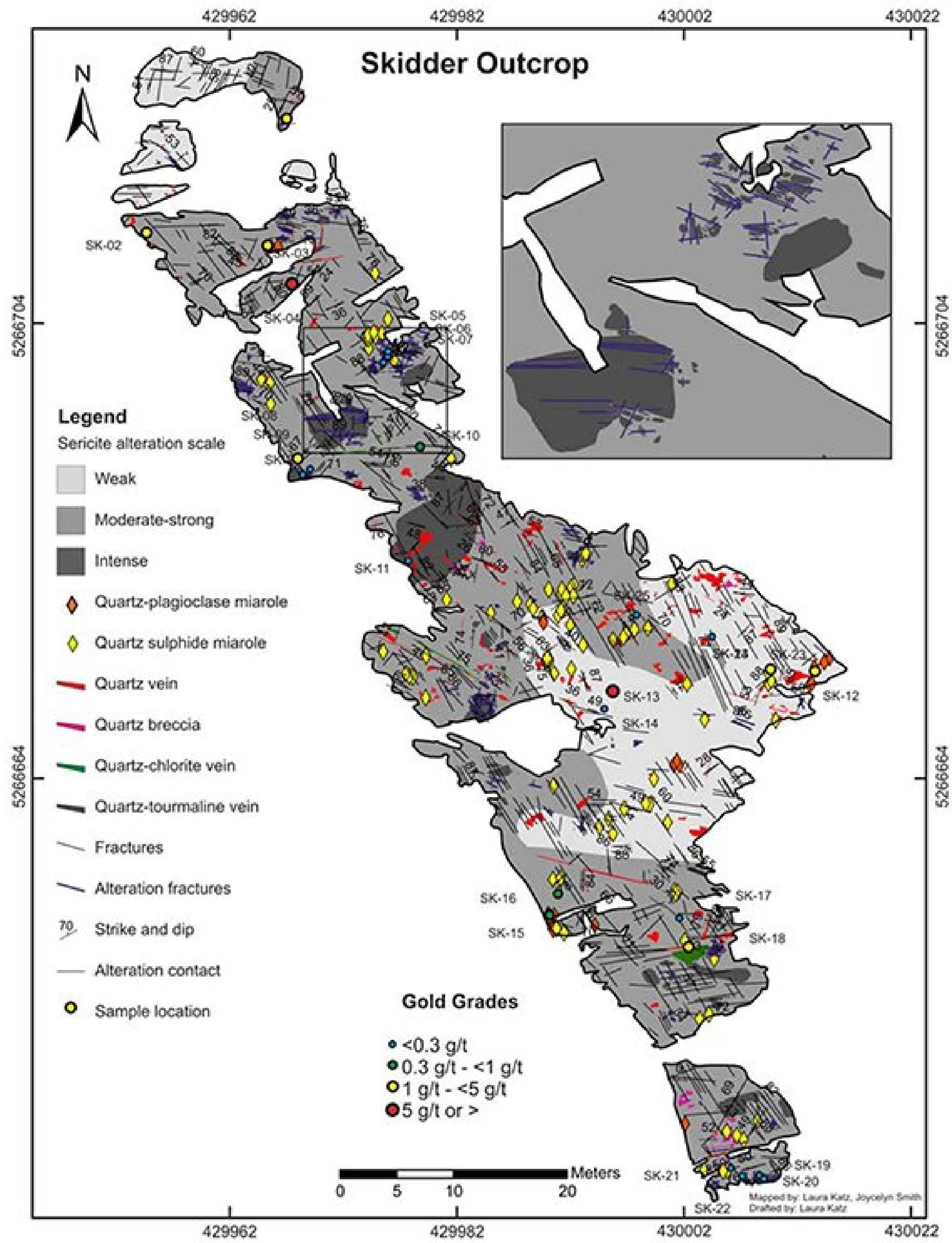
Biotite alteration is ubiquitous throughout the deposit and alters all intrusive phases. The biotite assemblage consists of biotite ± quartz ± magnetite ± epidote ± allanite ± carbonate ± pyrite ± chalcopyrite ± pyrrhotite ± titanite ± apatite ± bastnaesite ± fluorite. This assemblage occurs in the matrix of the hydrothermal biotite breccia, as disseminations in tonalite and diorite, in stockwork zones and in sheeted veins. The biotite assemblage in the matrix of the hydrothermal biotite breccia is not the result of alteration, but forms as a primary hydrothermal assemblage. Biotite occurs as disseminated 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; Katz, 2016).

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 ± chlorite ± rutile 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 haloes around veins to larger alteration fronts, and is extremely heterogeneous, with size varying from meter to decimeter scale (Figure 7-7).

Figure 7-7: Sericite Alteration – Skidder Outcrop (November 2014)

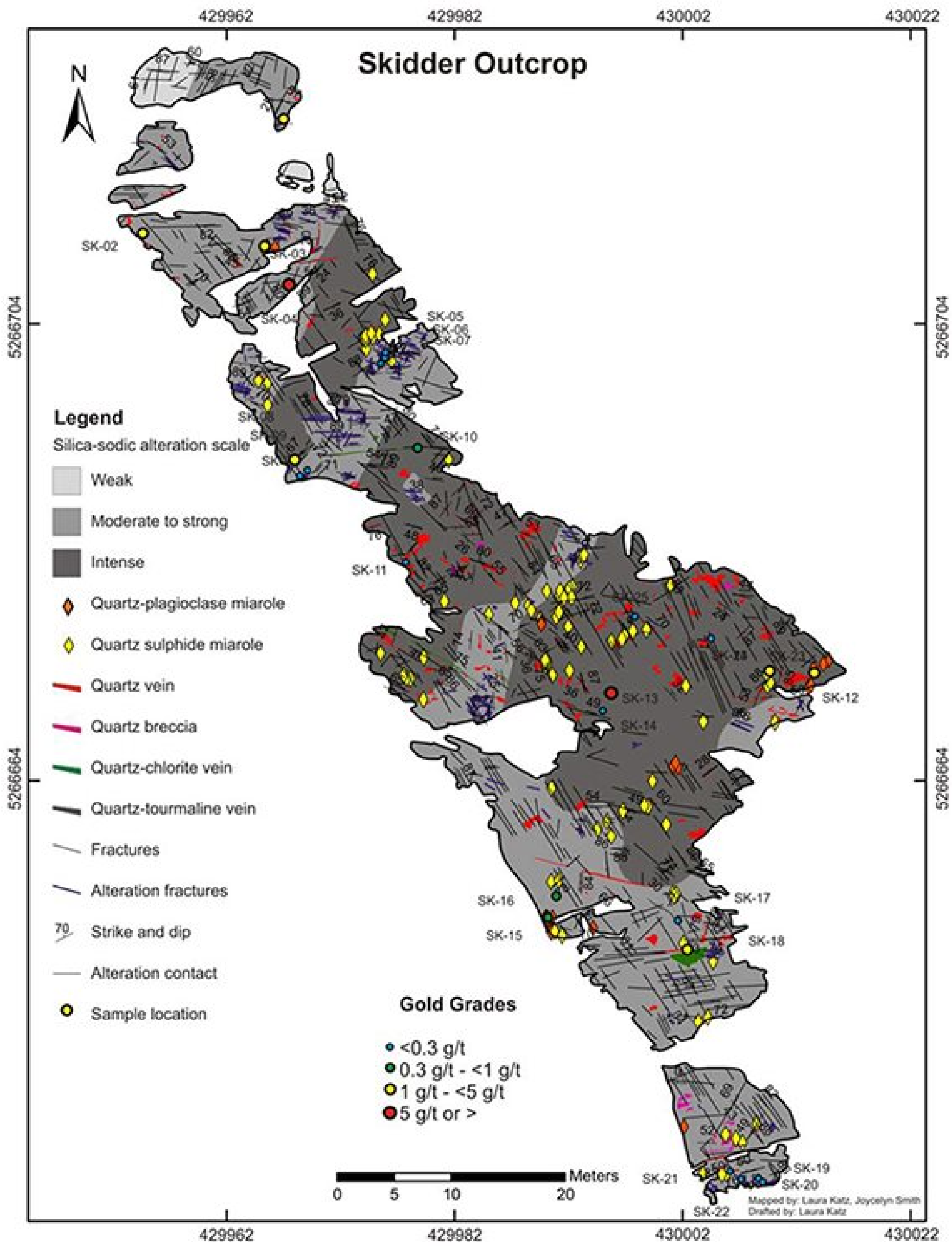


Sodic Alteration

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 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, this 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. Gold mineralization can be spatially associated with this alteration; however, no consistent correlation has been observed (Katz et al., 2015).

This alteration is extremely heterogeneous; it can form alteration fronts ranging from centimeters to decimeters where the alteration effect varies from low to extreme within a larger envelope. The variability of sodic alteration on the outcrop scale is well demonstrated on the Skidder Outcrop (Figure 7-8).

Figure 7-8: Silica-Sodic Alteration – Skidder Outcrop (November, 2014)



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 is inferred to be syn-intrusion due to its spatial distribution in the deposit (Katz et al., 2015). Not to be confused with this alteration is the presence of weakly developed, patchy disseminated epidote alteration that occurs throughout the deposit and is interpreted to be a result of later greenschist facies metamorphism.

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 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 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 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 in the matrix of the breccia and is associated with primary hydrothermal biotite and chlorite after biotite. In contrast, disseminated biotite and chlorite (after biotite) alteration are not typically associated with gold mineralization. Disseminated mineralization is associated typically with sericite or sodic alteration (Katz, 2016). Disseminated gold and chalcopyrite are intergrown with biotite/chlorite in the tonalite and breccia unit (Katz et al., 2015).

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 the more brittle tonalitic phases versus the dioritic phases and formed during the biotite alteration event (Katz et al., 2015; Katz, 2016). 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 veins have been shown to be syn-intrusion in timing based on a structural study in the deposit area (Smith, 2016). In addition, Re-Os molybdenite dating of one of these gold-bearing veins returned an age of 2746.8 ± 11.4 Ma, which overlaps with the age of the intrusive events.

Visible gold is observed in several settings within the deposit:

- **Quartz ± carbonate ± biotite/chlorite veins:** gold is observed to be hosted within the vein quartz and also along fractures cutting the vein. Sulphides include pyrite, chalcopyrite and pyrrhotite.
- **Sheeted syn-intrusion-related veins:** a set of subparallel, sheeted, millimeter to decimeter scale quartz ± carbonate ± chlorite veins with 0.5% to >50% pyrite ± chalcopyrite ± pyrhotite that commonly contain millimeter to centimeter scale barren sericite alteration haloes. These veins have been interpretated to be syn-intrusion in

timing (Smith, 2016) and are also found outside the deposit within the CIC (e.g., Chester 1, 2 and 3).

- **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 sample 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/ /disseminated:** gold is observed proximal to veining and within apparent sodic ± 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 sodic and/or sericite alteration of the host. It may also be associated with biotite/chlorite.

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.

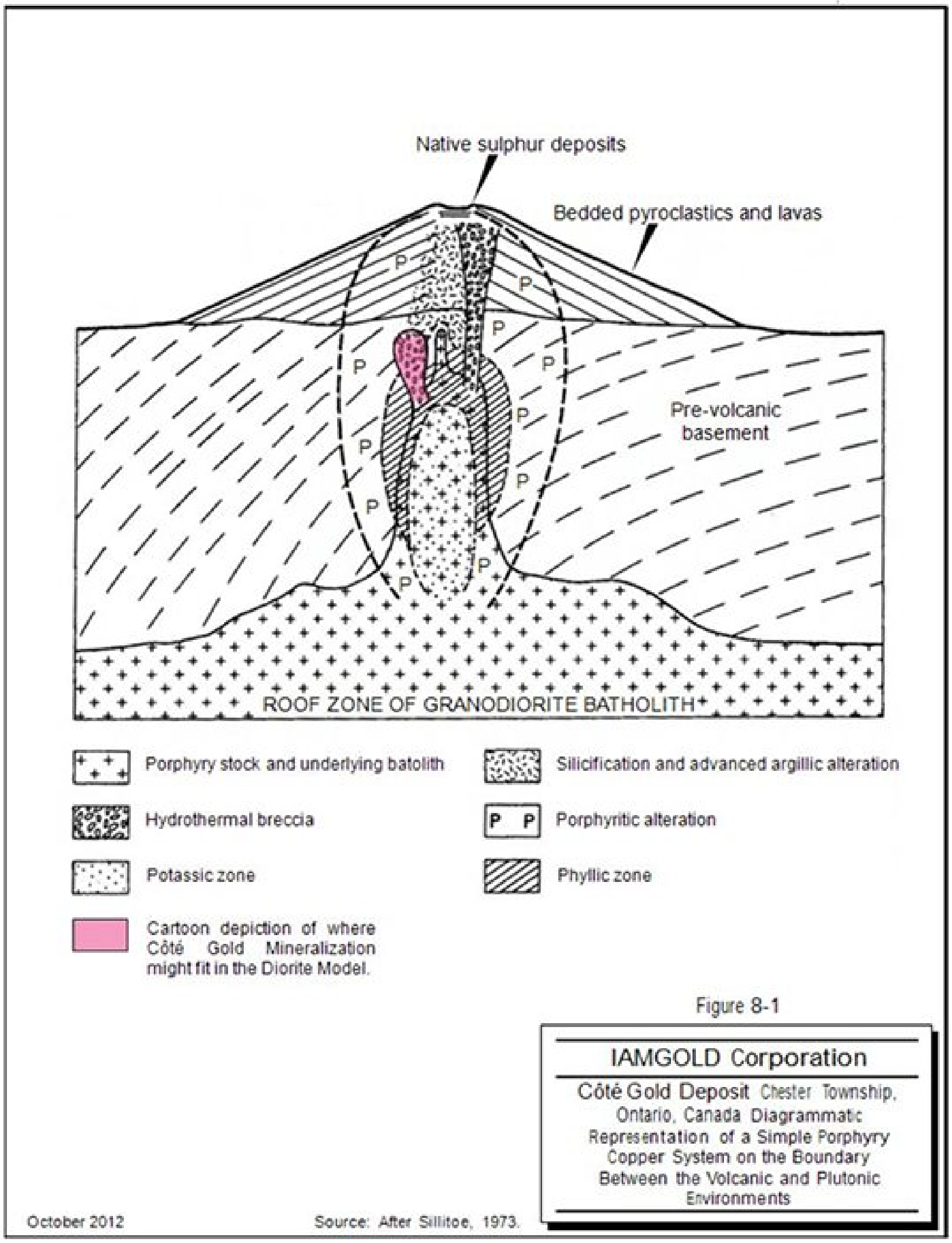
8.0 DEPOSIT TYPE

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, Katz, 2016). 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 centred on multi-phase magmatic and hydrothermal breccias, including a mineralized Au-Cu±Mo±Ag hydrothermal breccia that intrudes tonalitic and dioritic phases of the CIC (Katz et al., 2015). U-Pb zircon and titanite and Re-Os molybdenite dating highlights the co-temporal link between magmatism and hydrothermal events (Katz, 2016). The hydrothermal breccia is itself overprinted by several types of hydrothermal alteration associated with mineralization. The age of this syn-volcanic-hydrothermal system is ca. 2740 Ma (Katz, 2016).

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). Two additional molybdenite samples were dated by Katz (2016) to further constrain the timing of the gold mineralizing event using the same method and lab and returned ages of 2,746.8 ± 11.4 and 2736.1 ± 11.4 Ma. When all four ages are pooled they give an age of 2740.2 Ma ± 5.6 Ma (MSWD = 0.73), which overlaps with the ca. 2741 to 2739 Ma age of the host rocks. These results indicate that the gold mineralization is of hypogene origin and provides additional 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 Côté 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 to 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, geophysical surveying, mechanized stripping, and diamond drilling. Exploration targets on Chester Area properties situated outside of the Côté Gold deposit include the HAVA Zone and Baxter Trends (Clam Lake), Young-Shannon, JR 1-3 Zones & Jack Rabbit Extension, and the TDL Zone southeast of Côté (Figure 9-1).

The most significant exploration work completed to date has been on the HAVA Deformation Au Zone (HDZ 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. Follow-up work in 2016 included additional diamond drilling, ground IP surveying and geological mapping.

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 2009-2016 drilling program of the Côté Gold deposit can be found in Section 10.

9.2.2 Geological Mapping

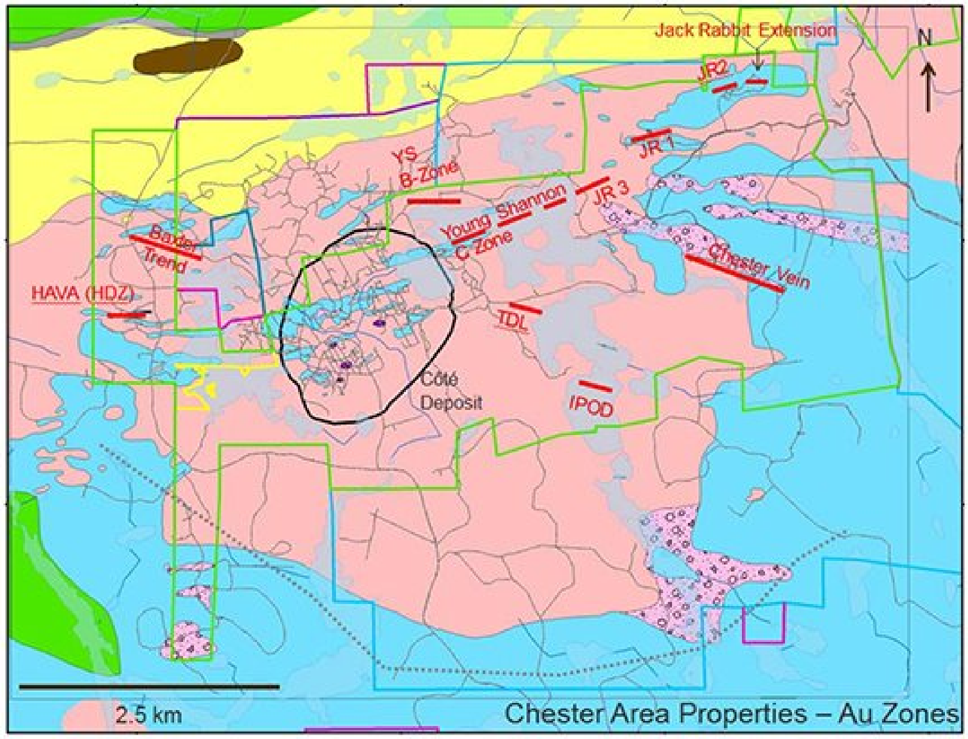
Geological mapping over the Côté Gold deposit key outcrop exposures has been on-going over several field seasons. In the fall of 2013, a mapping program over the entire area within the proposed pit shell commenced. This mapping program assisted in validating the geological interpretations of the 3D deposit 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 9-2).

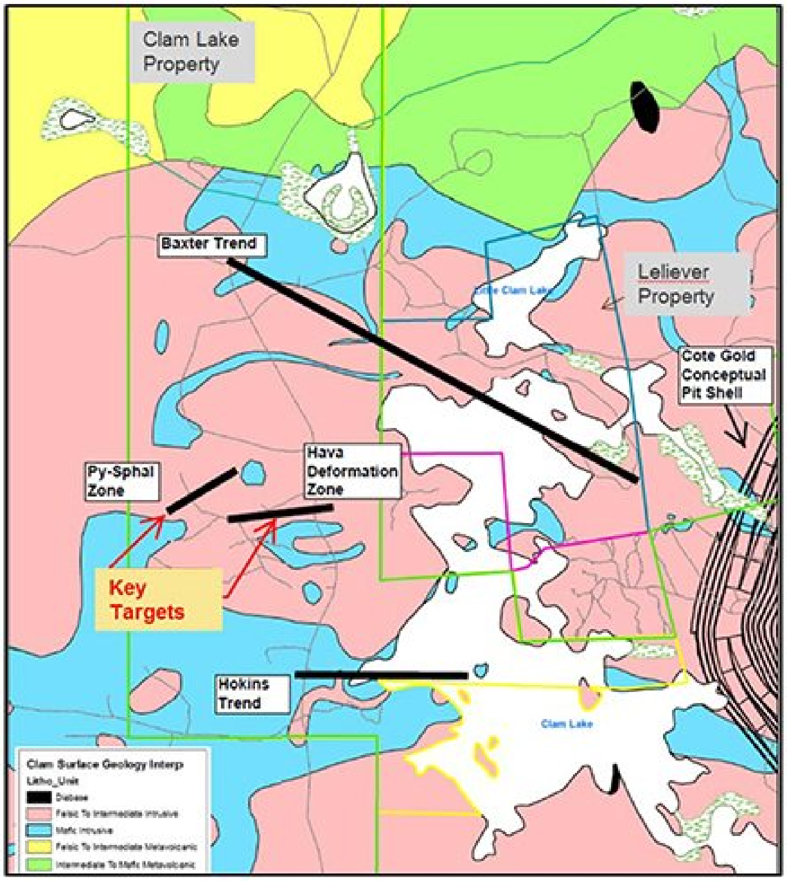
Figure 9-1: Chester Area Gold Zones (IAMGOLD, 2016)



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 totaling 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 9-2: Clam Lake Geology and Gold Zones (IAMGOLD, 2016)



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 designed 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 -sulphide veins up to 10 cm wide with anomalous Au in the hanging wall.

Work completed in 2016 on the Clam lake property included geological mapping, minor in-fill IP surveying (on grid line extensions) and diamond drilling (4 DDH, 1331 m) to investigate for an eastern extension of the Hava Deformation Zone (HDZ), and to test south of the HDZ to investigate IP and magnetic responses in close proximity the HDZ.

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. In 2016, a brief review of previous Augen lithosampling and diamond drilling was performed.

9.3.2 Jack Rabbit

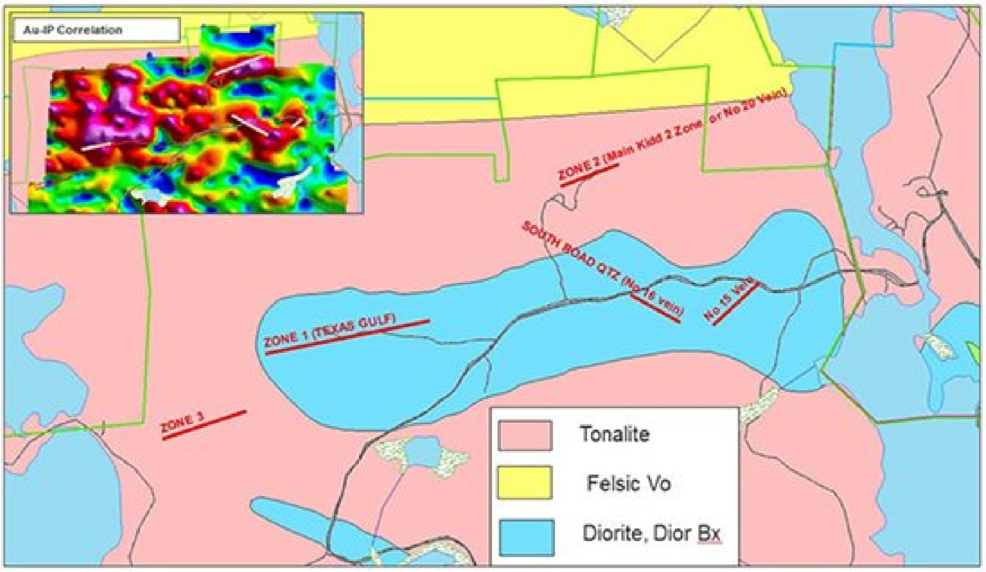
During the 2013 field season, work completed by IAMGOLD consisted of detailed compilation, geophysical interpretation, prospecting, and geological mapping (Figure 9-3).

Compilation of all historical work and geophysics data was completed in Geovia GEMS and Arc GIS platforms which helped define areas of interest and priority targets. 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 eastern strike extent and depth potential of Zone 2 and the South Road Quartz Vein in proximity to anomalous IP chargeability.

Work completed in 2016 on the Jack Rabbit target included geological mapping, mechanized stripping, channel sampling, and diamond drilling of the Zone 2 East Extension. Geological mapping and mechanized stripping was successful in extending the Au-bearing shear zones for 170 m east of the eastern edge of Zone 2. Diamond drilling (2 DDH, 590 m) was also completed on both the JR #2 Zone and the east extension.

Figure 9-3: Jack Rabbit Geology and Au-Bearing Mineralized Zones (IAMGOLD, 2016)



9.3.3 Other Chester Area Properties

In addition to Clam Lake, Leliever, and JackRabbit, three other Chester Area properties have been subjected to specific exploration campaigns generally over the period 2014-2016.

South Côté Condemnation Area / Three Duck Lakes 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.

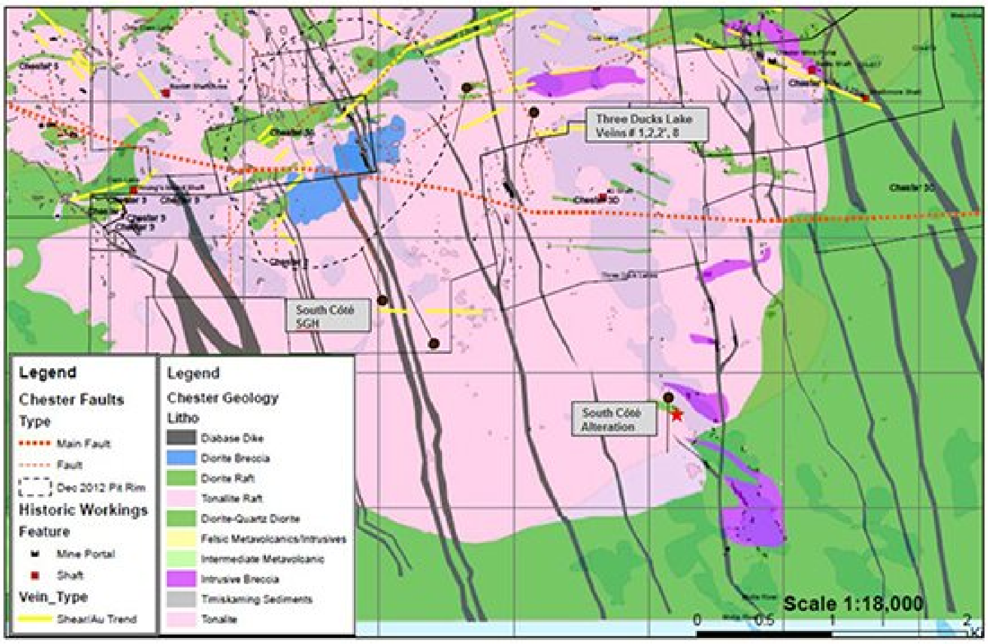
Geological mapping, prospecting, and sampling on the east shore of Three Duck Lakes in 2015 helped to define the location and nature of four historic Au-bearing veins (Veins 1, 2, 2', and 8) with surface sampling yielding up to 8.68 g/t Au in grab samples. Mapping served to identify a zone of strongly 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 possible northwest strike extensions in an area of favorable IP chargeability. In addition, the South Côté Alteration Zone was tested with a single drill hole.

IP geophysical surveying was started late in 2016 to cover the East Chester grid area with the hopes of tracing favorable structures outlined in the Three Ducks Lake / South Chester areas. The work was needed to determine if these structures were associated with the Au mineralizing events in the Côté deposit.

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 November 2015 to test each of these anomalies.

Figure 9-4: Exploration on Other Chester Area Properties (IAMGOLD, 2016)



9.4 South Swayze East

9.4.1 Sheridan Option Property

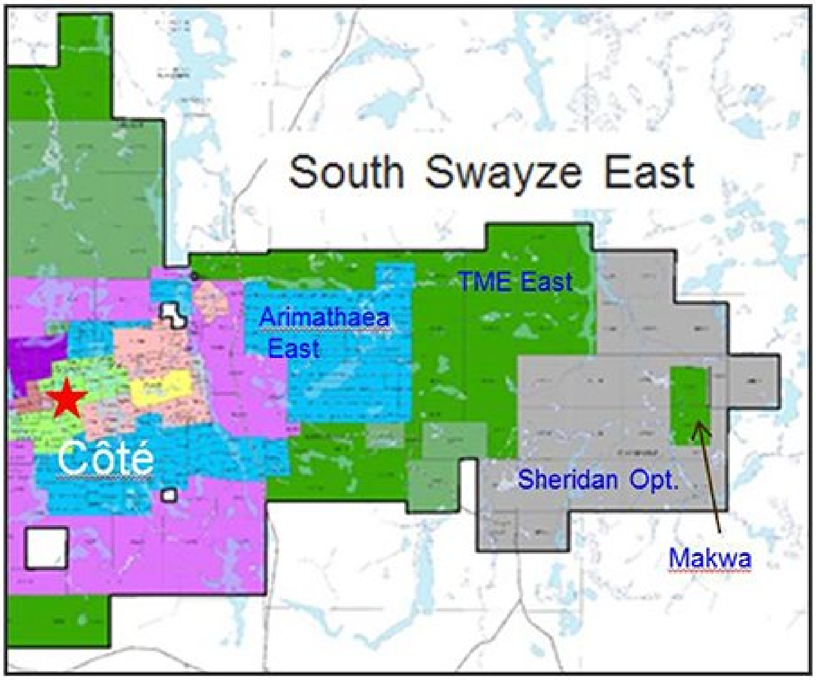
The Sheridan Option claims underwent a three-phase exploration effort in 2013, with the result being the identification of lithologies similar to those found directly in the Côté Gold deposit, including tonalite, tonalite breccia, diorite, and diorite breccia. These units are interpreted to belong to 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.

In 2016, the option property was reduced in size with specific claims in the south part of the property allowed to lapse. Future exploration work on the property is contemplated in conjunction with the adjacent 2-claim Makwa property. The work will entail geological mapping and prospecting follow-up.

Figure 9-5: TME / Arimathaea East and Sheridan Area Property Locations (IAMGOLD, 2016)



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). Future prospecting and geological mapping has been planned to follow-up Au anomalies identified in the B-horizon soil sampling survey as part of a larger program encompassing the neighboring Watershed West property.

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 must be recorded as the MNDM moves towards a provincial grid/online staking.

Exploration work on the Arimathaea east property in 2015 and 2016 comprised predominantly geological mapping and IP surveying as part of the larger Errington and Errington West grids described below.

9.4.4 TME East (Benneweiss) and Arimathaea East (Ont 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 drill holes, 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 drill hole 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.

Exploration in 2016 consisted of geological mapping and sampling with some prospecting, humus sampling, 28.7 km of gridding and PDIP surveys, and one (1) diamond-drilling hole totaling 506 meters, as part of 526-meter program.

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.

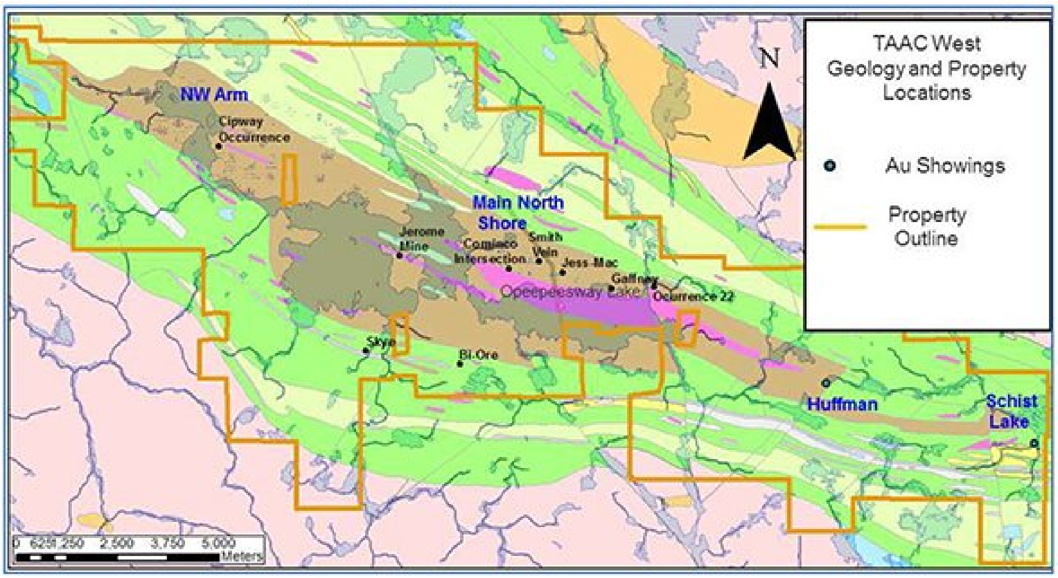
9.5 South Swayze West

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 drill holes in the Main North Shore project area and two holes in the North West Arm of Opeepeesway Lake Area North Shore Area. 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 contact-related shear zones.

Figure 9-6: TAAC West Project Locations (IAMGOLD, 2016)



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.

9.5.4 TAAC West – Watershed Property

In March 2016, TAAC acquired Sanatana Resource's 50% interest in this property to become the sole owner. The property lies largely within the Chester Intrusive complex and has been subjected to a variety of exploration activities by Sanatana from 2011 to 2015. Following acquisition, exploration work has focussed largely on data compilation and verification.

A review of previous geological mapping and mechanized stripping in the Watershed East portion of the property in early 2016 led to reconnaissance IP surveying, geological mapping and diamond drilling (4 DDH – 1,109 m). Diamond drilling tested three altered, Au-bearing structures including the North Shear, the South Shear and the Hydro Zone. Elsewhere on the Watershed property, data compilation has outlined a number of areas requiring future exploration work, and future geological mapping and prospecting is planned.

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	Metres	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 metres 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 (47.6 mm) 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. An 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.

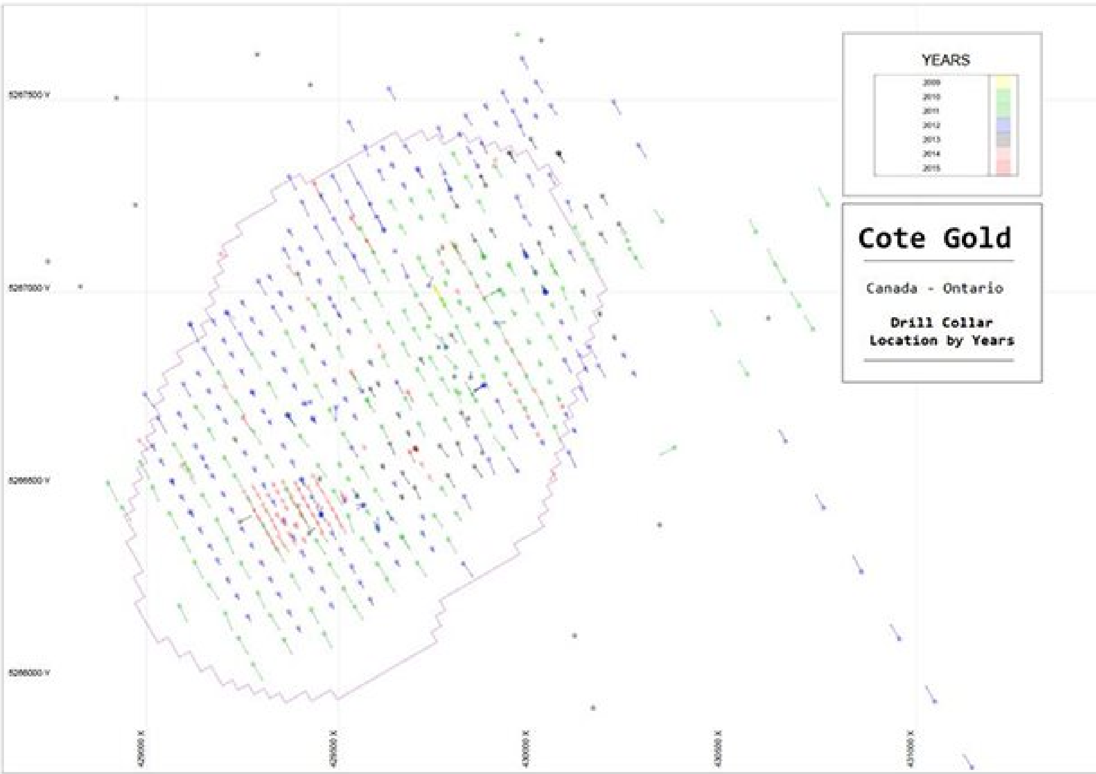
From August to September 2013, IAMGOLD completed seven metallurgical (MET-series) drillholes in various locations within the conceptual pit shell of the Côté Gold deposit, totalling 1,185.5 m of diamond drill core. The drilling campaign was focused on sample collection from specific representative locations 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 (63.5 mm) diamond drill core was drilled targeting the wall of the latest pit shell.

In November and December 2016, six HQ size holes totalling 1,422 m were drilled by Norex Drilling as part of a metallurgical testing program. Two of the holes twinned previous metallurgical holes such that the effect of core aging could be assessed. IAMGOLD personnel logged and sampled the core.

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 gold mineralization at the Côté Gold Project is mostly hosted by tonalite, diorite, and breccias. The mineralized and barren core is very competent, except for very local, multiple metre 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, the core recovery was approximately 99%.

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 metres. Almost all boxes are labelled with an aluminum tag. All rejects and pulps from the laboratory are also stored on site. Pulps are categorized by batch number and are stored 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 metreage 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 the water immersion method. Bulk densities are determined for the mineralization and barren host rocks. Since 2014, pycnometer density analysis has been 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 drill holes are sampled at one metre intervals and consist of a one-half split of the drill core. The minimum sample length is 30 cm to 50 cm, while the maximum length 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 drill hole is sampled. Diabase dykes that occur within the sequence are not sampled, except for two one-metre shoulder samples at the upper and lower contacts of the dyke. 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.

In RPA's opinion, the sample preparation, analysis, and security procedures at the Project are adequate for use in the estimation of Mineral Resources.

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

OREAS Standard (CRM)	Standard Value - Certified: 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

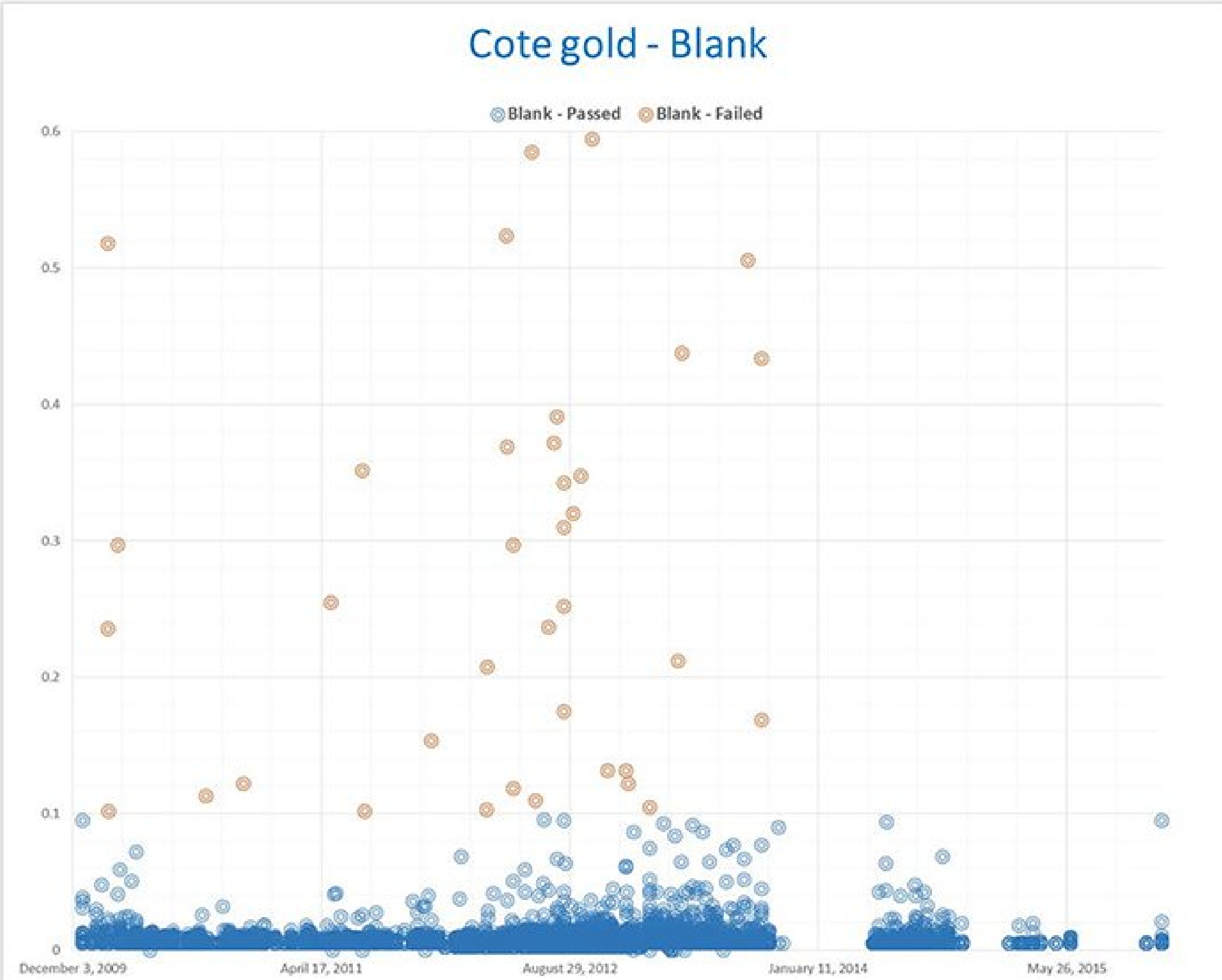
The IAMGOLD QA/QC protocol includes the use of blanks inserted in the sample stream at a frequency of approximately one in 24 samples. These blanks are assigned regular sample numbers and inserted in the sample numbering sequence prior to shipment to the laboratory. Until 2014, the blanks consisted of 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 (Figure 11-2 and Figure 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 approximately 10% higher than Accurassay.

Figure 11-2: Pulp Check Assays Before 2015

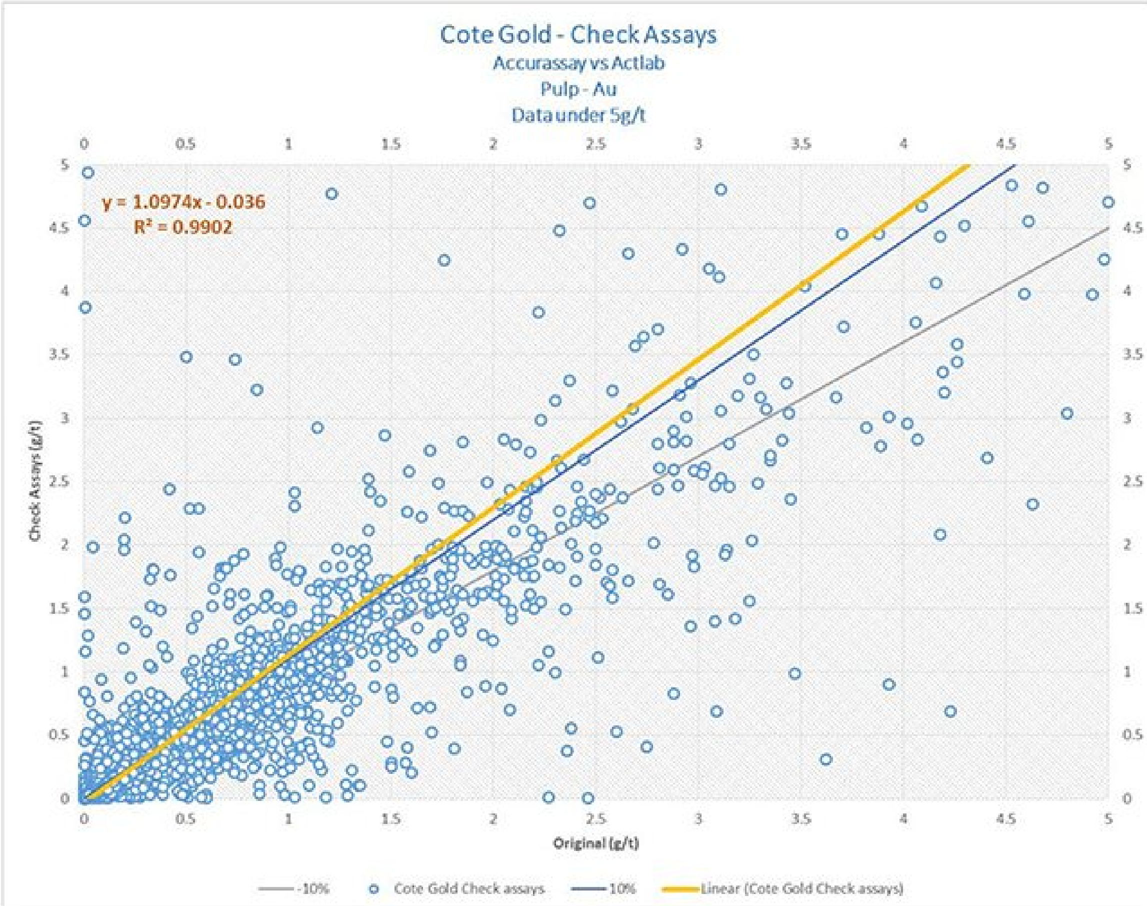
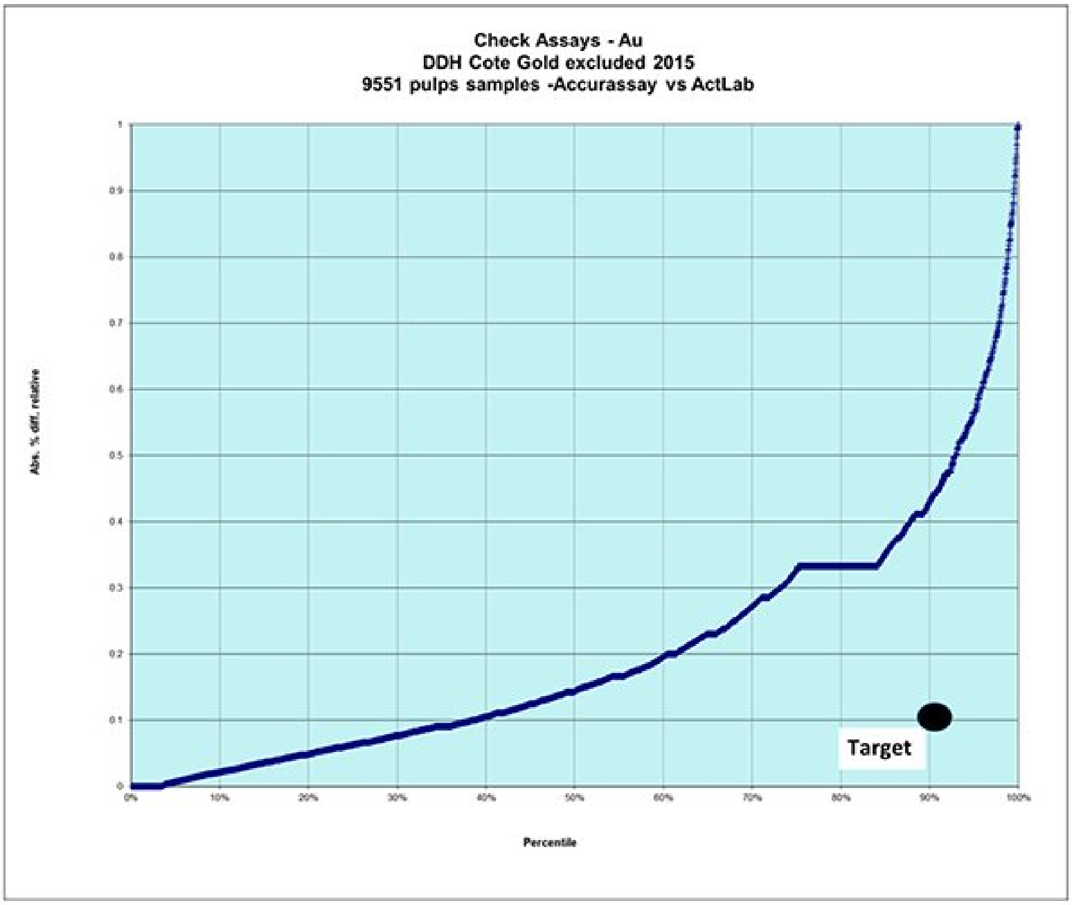


Figure 11-3: Pulp Check Assays Hard Plot for Samples Before 2015



In 2015, 921 pulp samples were sent to ALS Minerals for check assay (Figure 11-4 and Figure 11-5). Correlation between both laboratories is overall good. Repeatability in 2015 is better than in the previous campaign. The low precision may be associated with coarse gold particles.

Figure 11-4: Pulp Check Assays in 2015

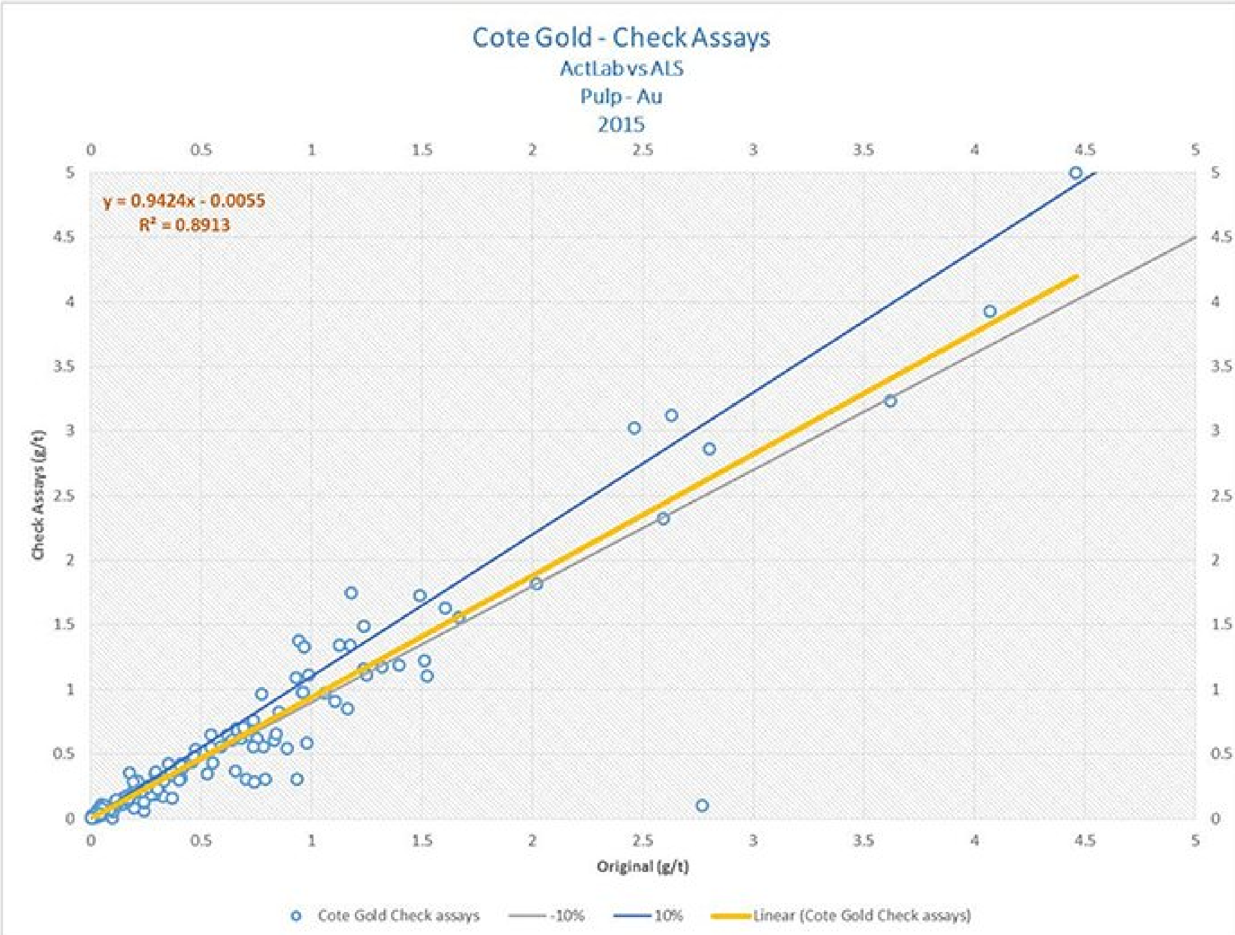
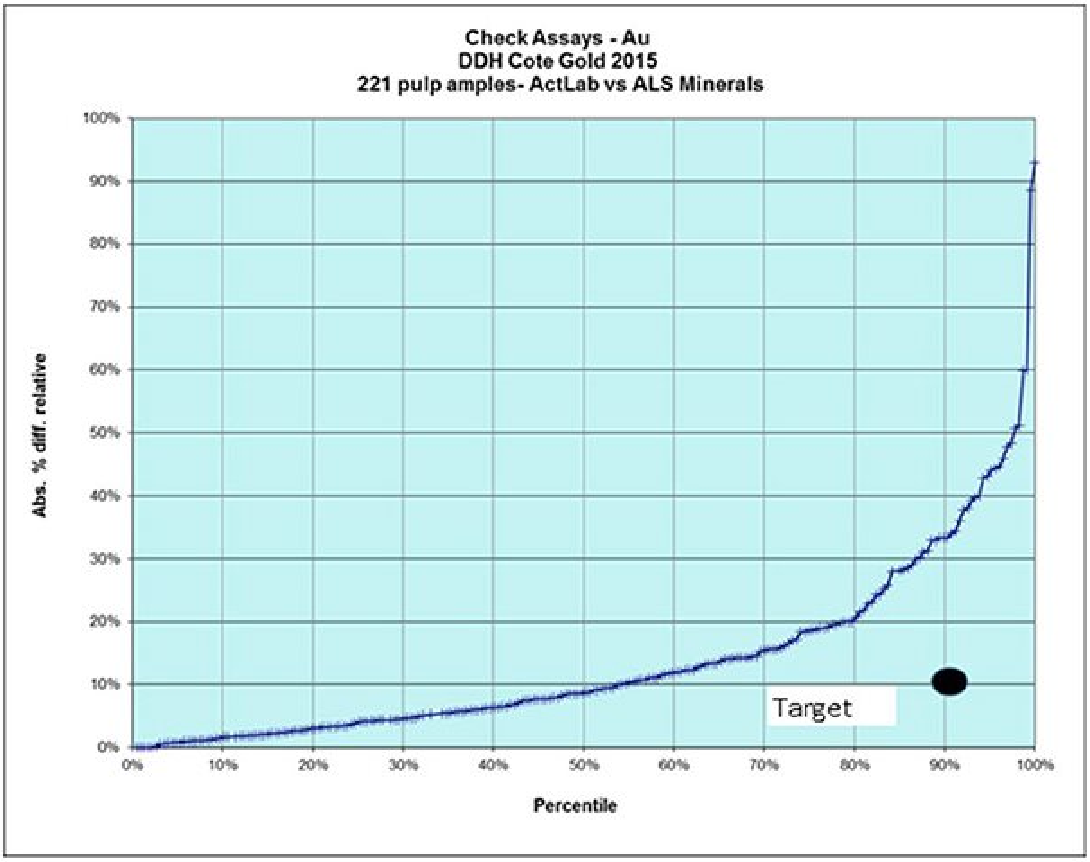


Figure 11-5: Pulp Check Assays Hard Plot for 2015



In 2016, Agorateck International Consultants Inc. (AICI) reviewed the QA/QC data and ran an ore heterogeneity test (AICI, 2016 and 2017). For the QA/QC review AICI was provided with original raw assay data, while for the heterogeneity test they were provided with 200 kg of core reject material from South Breccia and 25 kg of metallurgical core.

The QA/QC review analyzed the data generated throughout the various stages of the Côté Gold project. Based on check assays ran at ActLabs and Accurassay, the difference between ActLabs and Accurassay went from positive to negative, increasing in amplitude from 2011 to 2015. CRM samples confirmed the Accurassay change from slightly lower to higher values. The precision obtained from pulp duplicates was well related to gold particle size, in line with the findings of the heterogeneity study. The performance of the laboratories improved over time, as the control on the laboratories increased.

The heterogeneity study concluded that in order to bring the sampling precision within acceptable limits (32% maximum) and avoid grade under reporting, an optimized protocol should include:

- 15 kg primary field sample crushed to the same size,
- a 1.5 kg split pulverized to 150 microns,
- use a 50 g assay charge.

RPA reviewed the QA/QC protocols and performance of the blank, CRM, and check assay samples. The overall results do not show significant bias or contamination. RPA is of the opinion that the QA/QC procedures are reasonable and conform to standard industry practice.

12.0 DATA VERIFICATION

Since 2012, data verification has been done at various stages of the Côté Gold Project. Independent and IAMGOLD QPs have completed site visits and reviewed the exploration information, drill collar positions, 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. Additionally, the QPs checked for abnormal extreme 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.

Occasional inconsistencies found in the drill logs were addressed. Inconsistent sampling practice, with some samples crossing obvious contacts or lithological and mineralization limits were noted.

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.

During the May 2017 site visit, RPA personel used a handheld GPS to confirm the location of a small number of drill hole collars. RPA reviewed core samples from several drillholes and compared them against the geology and assay tables.

RPA performed routine database validation checks specific to Geovia GEMS to ensure the integrity of the database records. RPA also performed visual drill hole trace inspection and checks for extreme and zero assay values, unsampled or missing intervals, and interval overlapping. Approximately 5% of the assays from the 2015 drilling campaign were checked against the assay certificates.

During a previous site visit, on January 24, 2012, RPA collected eight remaining half core samples for independent checks, as described in the 2012 RPA report, confirming gold mineralization.

RPA is of the opinion that logging, sampling procedures, and data entry comply with industry standards and that the database is acceptable for Mineral Resource estimation.

13.0 METALLURGY AND PROCESSING

13.1 Summary

In June 2016, Amec Foster Wheeler completed a Preliminary Economic Assessment (PEA) study that looked at the HPGR processing option. The PEA was supported by testwork carried out during multiple testing programs which focused on the SAG milling option. Subsequent to the PEA-level report, a metallurgical program was designed to gather data on HPGR milling, confirm metallurgical extraction on HPGR pilot plant products and optimize process parameters for the selected flowsheet (gravity-cyanide leaching-CIP-cyanide destruction-tails thickening.)

Overall results confirm that the Côté 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.

The HPGR pilot plant was completed and the results confirm that this option provides metallurgical and economic advantages over the SAG milling arrangement for this project.

A metallurgical program has been conducted which indicates that processing HPGR produced material leads to enhanced recoveries at shorter retention at a set grind size. At longer retention times, this advantage disappears.

The recovery estimate has been updated to 91.8% to reflect the throughput upgrade to 32,000 tpd, slightly reduced retention time and the benefits of micro-cracking to enhance cyanidation kinetics.

13.2 Review of Metallurgical Testwork

Grinding and metallurgical testwork was conducted on Côté ore extracted 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 (SGS, 2011)	Composite 1 (Cu mineralization) Composite 2 (Au mineralization)	Bond Ball Mill Grindability Test
12589-003 (SGS, 2012)	S-1 to S-3 (bulk material from surface) G-1 to G-10 (geotechnical samples) GR-01 to GR-92 (geometallurgy study)	JK Drop weight test, Bond low energy impact test, Bond rod mill and ball mill grindability test, Bond abrasion test, cyanidation tests
12589-004 (SGS, 2014)	GR-2xx 17 samples C25-2xx 31 samples	JK Drop weight test, Bond low energy impact test, Bond rod mill and ball mill grindability test, Bond abrasion test Variability SMC test, Bond ball mill grindability test
T2127 (COREM, 2017)	COR0001 to COR0004 COR0005 to COR0013 COR0015 – Design Composite COR0015 – Design Composite COR0016 – COR0021	Effect of aging of drill core Single pass HPGR on lithologies HPGR pilot plant Atwal Test Crushing Testwork
UBC_CL17 (UBC, 2017)	UBC0001 – UBC0031	31 piston press test to determine relative ore hardness of (12) varying lithologies and alterations
2220-8975 (Thyssenkrupp, 2017)	WE 15367	High-pressure grinding ATWAL wear rate determination

Table 13-2: Testwork Programs - Metallurgy

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

Program No. (Yr)	Samples	Purpose
T2193 (COREM, 2017) (Phase I)	COR0015 – Design Composite	Mineralogy Gravity. Leaching of gravity tails. (Phase I – Interim results)
16095-001 (SGS, 2017)	COR0005 to COR0010	Static settling, dynamic thickening, rheology, settling density tests

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 variability of the Côté deposit. Compositing was done by lithology with a target of 10 m of core, excluding rock-type mixtures. Lithology was not deemed to control mineralization. The geometallurgical investigation notes that sampling may not be proportional to lithological volumes, as this information was not available.

The metallurgical list comprises 93 composites (variability samples) labelled C25-01 to C25-93. Master composites A and B were prepared with the 93 variability samples. Master Composite A represents non-copper-bearing mineralization. Master Composite B represents high copper-content material, which according to previous reports represents approximately 10% of the deposit.

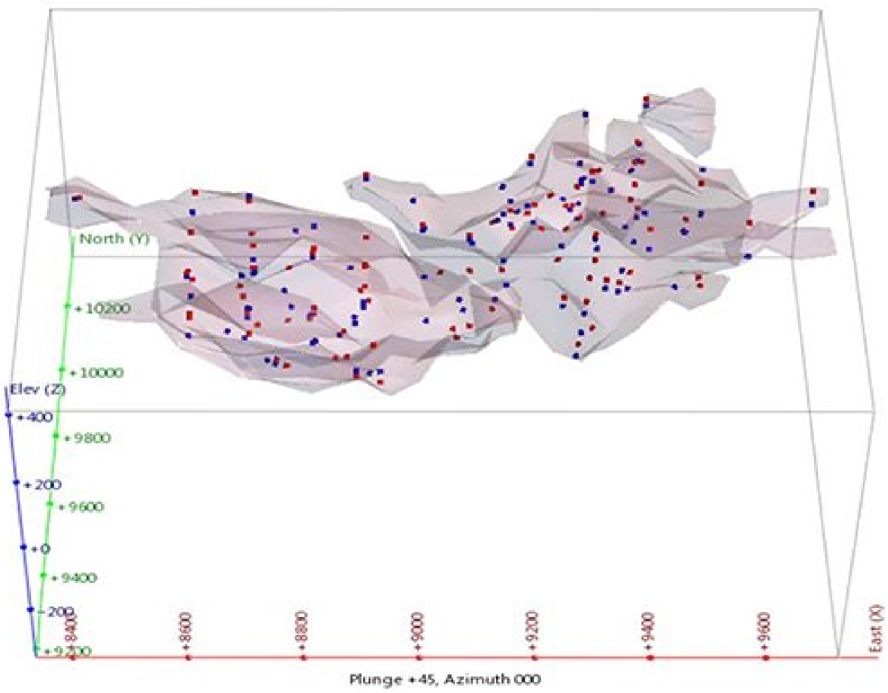
The geometallurgical investigation also states that “a model of the mineralization at the Côté Lake deposit is not yet defined, but it is assumed that the gold is associated with the core breccia mass within the diorite, surrounded by granodiorite. The gold-mineralizing hydrothermal system has apparently overprinted the volume of magmatic brecciated rock and developed poorly defined zones of propylitic and potassic alteration.” 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 2012 Variability Program

Rock Type	No. Samples	No. Tests	Au Grade (g/t) (min.)	Au Grade (g/t) (max.)	Au[1]	Average Grade Cu[2]	Average Grade Fe[3]
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**					

1. g/t;
2. weight %
3. weight %

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).

A separate sampling set of composites for comminution test was generated following the same controls as the metallurgical composites. However, spatial weighting and coverage had priority while the ore and base metals grade control was not as tight as it is not considered influential to rock competency and grindability. This comminution characterization work was oriented towards Semi Autogenous Grinding (SAG milling.)

In 2016, a metallurgical drilling program was undertaken to support this pre-feasibility study oriented towards HPGR milling. Six (6) new holes were drilled, totalling 1,422 m. Sample intervals were chosen on the basis of the prevalent lithology-alteration groupings within the mineralized zones. The most prevalent rock types logged within the Main North and Main South Zones and the key alteration assemblages selected are listed in Table 13-4.

Table 13-4: 2016 Lithology and Alteration Prevalence within the Modelled Mineralized Zones

Lithology	% of Drill Length	Alteration
Tonalite	63	Fractured Controlled Hydrous Si-Cl/Bo
Diorite Breccia	14	Pervasive Hydrous Si-Sr-Cl/Bo
Hydrothermal Breccia	7	Pervasive Anhydrous Si/Ab-Sr
Diorite	5	
Quartz Diorite	3	
Quartz Diorite Breccia	3	

Figure 13-2 and Figure 13-3 show the 2016 metallurgical drill holes and the intervals used for sample compositing.

Figure 13-2: Plan View– 2017 Metallurgical Drill Holes Location

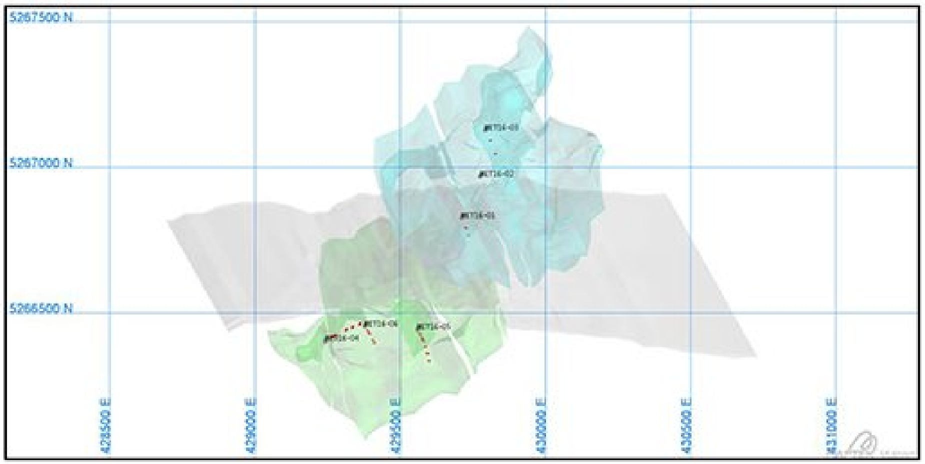
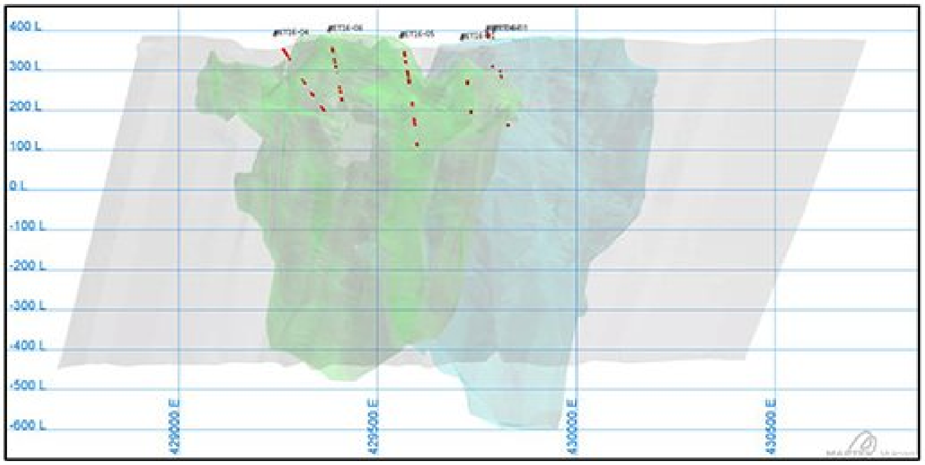


Figure 13-3: Section Looking North – Interval Location



13.3 Mineralogy

As part of the 12589-001 program, the mineral content of Composites 1 and 2 were determined using the RMS (Rapid Mineral Scan) 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 13-5 and Table 13-6.

Table 13-5: 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	ppm	14,400	18,200
S=	%	0.49	0.05	Mn	ppm	333	377
Cu	%	0.16	0.013	Mo	ppm	13	< 10
Semi Quantitative ICP Scan				Na	ppm	29,000	21,800
Ag	ppm	< 2	< 2	Ni	ppm	< 20	43
Al	ppm	58,900	64,300	P	ppm	400	204
As	ppm	< 30	< 30	Pb	ppm	< 20	< 20
Ba	ppm	175	191	Sb	ppm	< 10	< 10
Be	ppm	1.26	0.88	Se	ppm	< 30	< 30
Bi	ppm	< 20	< 20	Sn	ppm	< 30	< 30
Ca	ppm	20,700	37,900	Sr	ppm	104	132
Cd	ppm	< 2	< 2	Ti	ppm	2,350	3,110
Co	ppm	18	15	Tl	ppm	< 30	< 30
Cr	ppm	96	63	U	ppm	< 20	< 20
Fe	ppm	37900	34,500	V	ppm	54	56
K	ppm	7,130	11,200	Y	ppm	43.5	37
Li	g/t	12	13	Zn	ppm	61	36

Note: S- refers to sulfur present as sulfide

Table 13-6: 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)

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

The analyses performed on variability Composites A (gold mineralization) and B (copper - gold mineralization) also provide information on the elemental composition of ore, and are presented in Table 13-7.

Table 13-7: Master Composites A & B

Sample Name	Cu (T) ,%	Pb, g/t	Zn, g/t	Fe, %	S (t), %	Au, g/t	Ag, g/t
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

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 13-8.

Table 13-8: 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

SGS reported that the main gold mineral was native gold, with an average composition of 86.9% Au and 9.8% Ag. The second-most abundant gold mineral was electrum, with an average composition 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 13-9.

Table 13-9: Gold Mineral Abundance – Mineralogy Composite

Mineral	Total Observed Gold Grains		Total Gold Surface Area	
	Count	%	μm^2	%
Gold	98	74.2	82402	99.5
Electrum	25	18.9	370	0.4
Kustelite	1	0.8	1	0
Petzite	4	3	40	0
Calaverite	4	3	25	0
Total	132	100	82838	100

In processing a sample weighing approximately 753 g with a target size K80 of 150 µm, a total of 132 gold grains were observed. The grains ranged in size from 0.6 µm to 216.5 µm, with an average size of 12.5 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 1.1 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 1.5 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% of the total gold assay, with a size range of 0.6 µm to 51.7 µm and an average size of 3.9 µm. The overall gold distribution and the size distribution analysis data for the gold grains are summarized in Figure 13-4 and Figure 13-5, respectively.

Figure 13-4: Overall Gold Distribution by Association

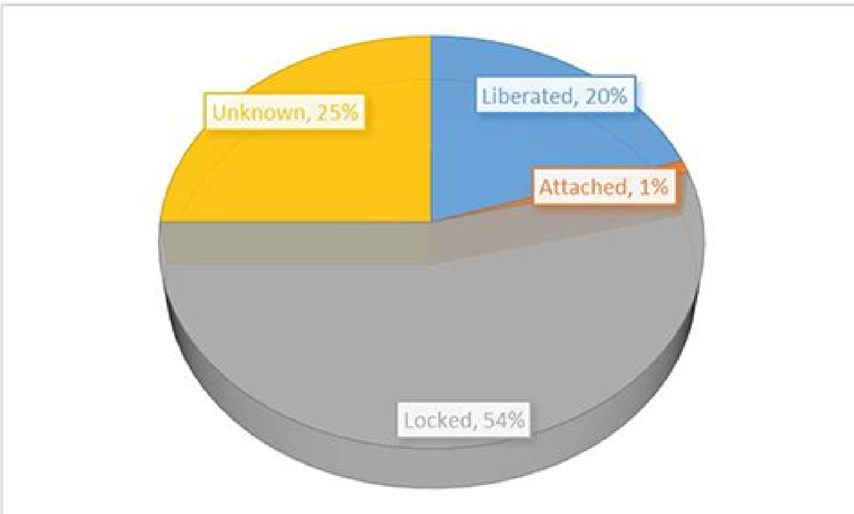
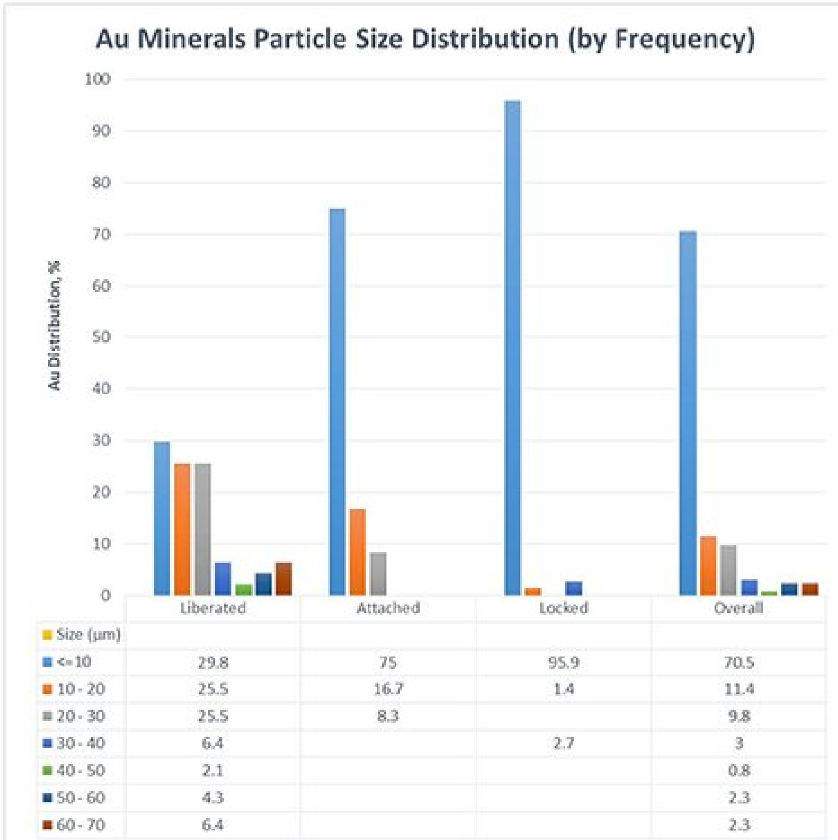


Figure 13-5: Mineralogical Characterization – Gold Minerals Particle Size Distribution (by Frequency)



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

<u>Previous Comminution Testwork</u>

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 determine the ore hardness characteristics. A summary of the comminution data is presented in Table 13-10.

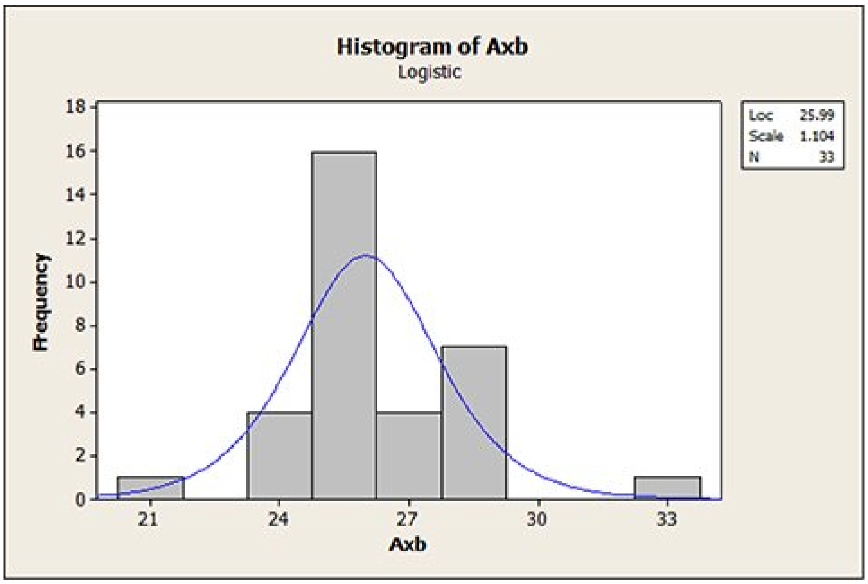
Table 13-10: Comminution Parameters – Summary of Ore Hardness Statistics

Metric	Units	Mean	Standard Deviation	80 th 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 indicates very competent material. A histogram for A x b is shown in Figure 13-6. With most of the A x b values lower than 30, the mineralization is well-suited to an HPGR circuit.

Figure 13-6: Histogram for A x b



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.

Pre-Feasibility Study Comminution Testwork

Additional testwork performed in this phase of the project include:

- Bond low impact energy tests;
- Bond ball and rod mill work indices;
- SMC tests;
- HPGR single pass and recycle tests at COREM;
- Piston Press Testing at UBC; and
- Atwal abrasion test.

Bond low energy impact work index testing was performed on 6 samples as listed in Table 13-11. Most of the samples tested fall in the category of hard.

Table 13-11: Crusher Work Index (2017 COREM Testwork)

Sample ID	Number of Specimens	Average CWI (kWh/t)	Min CWI (kWh/t)	Max CWI (kWh/t)	Std Dev (kWh/t)	Relative Density (g/cc)	Hardness Percentile	Category
COR-0016	18	15.8	5.6	27.7	4.9	2.88	84	Hard
COR-0017	17	14.9	5.7	31.1	5.9	2.68	80	Hard
COR-0018	14	16.6	6.2	47.0	9.7	2.67	87	Hard
COR-0019	10	10.2	5.5	15.1	3.2	2.67	52	Medium
COR-0020	14	17.5	5.7	35.3	7.9	2.67	90	Hard
COR-0021	10	13.8	6.8	23.2	5.5	2.66	74	Moderately Hard

Bond testing was performed on the HPGR composite. The rod mill bond work index test result is 14.0 kWh/t. The ball mill bond work index value is 15.3 kWh/t.

SMC test results are listed in Table 13-12. Axb values are consistently less than 30.

Table 13-12: SMC Test Results – T2127 COREM

Sample ID	A	b	A x b	t_a [1]	Hardness Percentile	SCSE (kWh/t)	Hardness Percentile	DWI (kWh/m^3)	M_{ia} (kWh/t)	M_{ih} (kWh/t)	M_{ic} (kWh/t)	Relative Density (g/cc)
COR-0005	100.0	0.28	28.0	0.26	2.8	11.93	89	9.87	25.8	20.6	10.7	2.77
COR-0006	100.0	0.25	25.0	0.23	3.8	12.66	94	10.93	28.0	22.9	11.8	2.77
COR-0007	93.4	0.31	29.0	0.28	4.8	11.56	85	9.39	25.4	20.1	10.4	2.71
COR-0008	100.0	0.29	29.0	0.28	5.8	11.47	84	9.27	25.5	20.1	10.4	2.68
COR-0009	100.0	0.27	27.0	0.26	6.8	11.89	88	9.80	26.6	21.2	11.0	2.68
COR-0010	100.0	0.24	24.0	0.23	7.8	12.79	95	11.15	29.0	23.7	12.3	2.73
COR-0011	100.0	0.28	28.0	0.27	8.8	11.67	86	9.40	25.7	20.4	10.5	2.68
COR-0012	100.0	0.28	28.0	0.27	9.8	11.62	85	9.42	25.9	20.5	10.6	2.66
COR-0013	100.0	0.29	29.0	0.28	10.8	11.49	84	9.27	25.3	20.0	10.3	2.69
Variability Overall Statistics												
Average			27.4			11.90		9.83				2.71
Minimum			29.0			12.79		9.27				2.66
Maximum			24.0			11.47		11.15				2.77

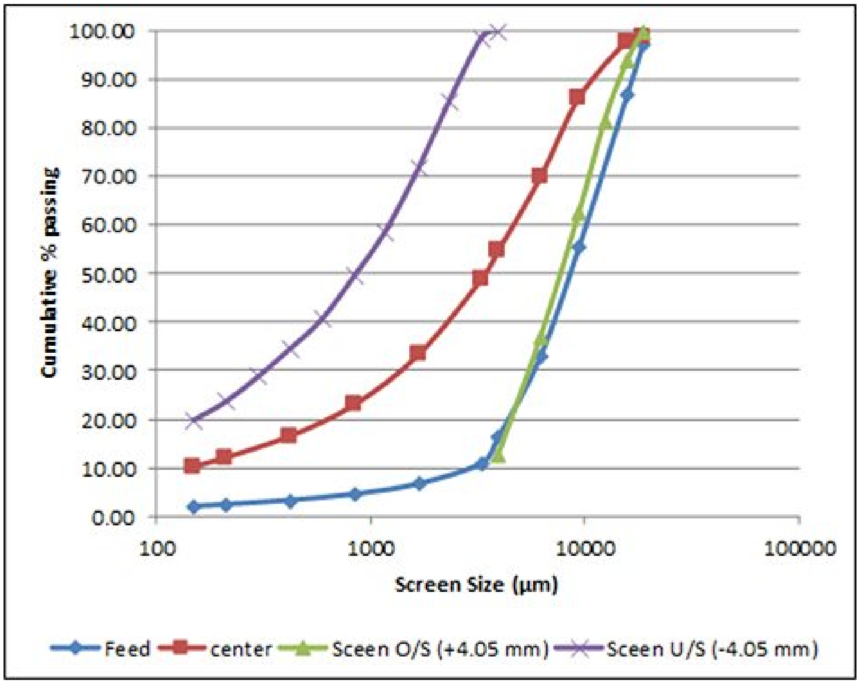
1 the t_a value reported as part of the SMC procedure is an estimate
** Minimum and Maximum refer to softest and hardest for the grindability tests, respectively*

Work was also performed at the pilot plant level for HPGR testing at COREM. For the design composite, the recycle HPGR test result showed the m-dot value to be 226.3 (t/h)/(m^3/s). Net energy consumed was 1.63 kWh/t of HPGR feed. Specific pressure was 3.4 N/mm^2. The closing screen was 4 mm. Particle size curves for the final cycle is shown in Figure 13-7. The screen undersize T80 value is 2.1 mm.

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 in the determination of power requirements.
- HPGR recycle pilot plant testing was used for sizing of the HPGR.

Figure 13-7: HPGR Recycle Test Particle Size Distribution

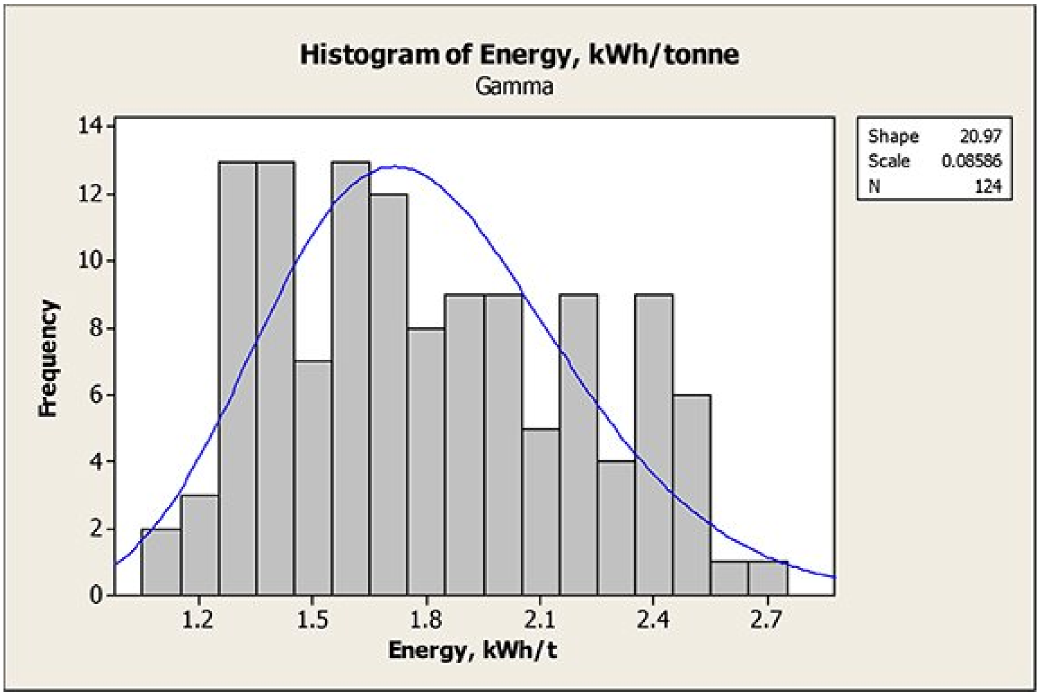


Piston press testing was performed at UBC to better understand the variability of the ore.

Specific energy consumption in the piston press tests varied from 1.2 to 2.7 kWh/t, with an average of 1.81 kWh/t. Relating this to the pilot plant average specific energy of 1.63 kWh/t, it indicates that the net specific energy could rise to 2.4kWh/t, which corresponds to a power of 6899 kW for the hardest ore. Based on a power limit of 6000 kW, the design circulating throughput of 2837 t/h can be achieved at a specific energy of 2.11 kWh/t or approximately the 75th percentile ore specific energy level. Although the variability indicates a risk to achieving throughput for the harder ores, it should be noted that piston press tests will always have the extremes of variability and is only used as an additional method to confirm the pilot plant results.

The COREM 2.5t design composite included proportional amounts of post mineralized dykes, namely, Proterozoic age diabase dykes, lamprophyre dykes, and Archean mafic dykes, whereas, the UBC piston tests did not include this softer barren mafic material. This is possibly an important reason why the average specific energy of the design composite is lower than the piston test results.

Figure 13-8: Histogram of UBC Piston Press Test Variability



Atwal testwork was performed on the pilot plant sample used for HPGR sizing. The specific wear rate measured for the sample is classified as high with the wear rate from two tests averaging 54.26 g/t at a specific grinding force of 4 N/mm2 and varying the moisture between 1% and 3%.

To add confidence in the use of HPGRs for this particular ore, an external third party review was performed on the Amec Foster Wheeler supervised testwork to validate that testing. The third party reviewer was chosen on the basis of having supervised HPGR testwork and run operations at a HPGR facility. The third party review found no serious issues with either the testwork or the results of the testwork.

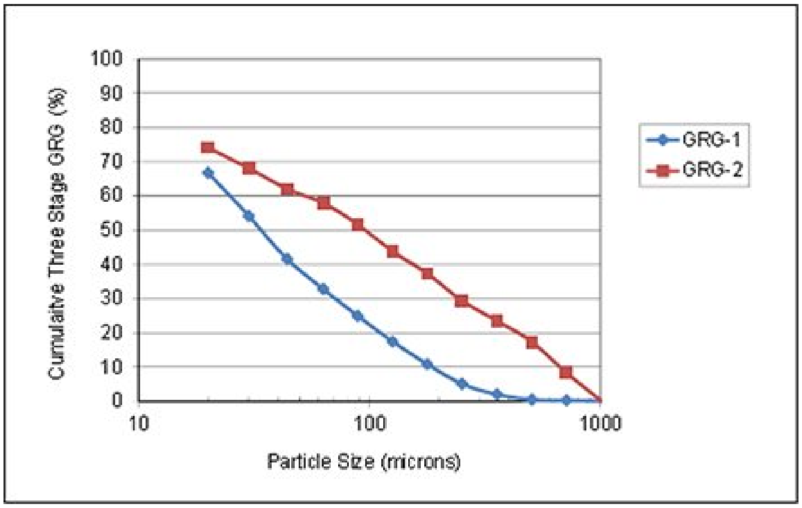
13.5 Gravity Testwork

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 13-13 and Figure 13-12, respectively. Both composites are high in GRG and have similar values, but the Composite B (Cu mineralization) GRG is considerably coarser.

Table 13-13: 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

Figure 13-9: 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 13-14 and Table 13-15 list the range of conditions of the whole ore and gravity tailings leach tests performed on the samples in the 12589 program.

Table 13-14: 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
12589-003 (A)	48	0.5	75 - 150	Preconditioning - O_2

Table 13-15: 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
12589-003 (A)	48	0.5	75 - 150	O_2
12859-003 – Variability (C25, S & G)	48	0.5	75 - 100	Preconditioning - O_2

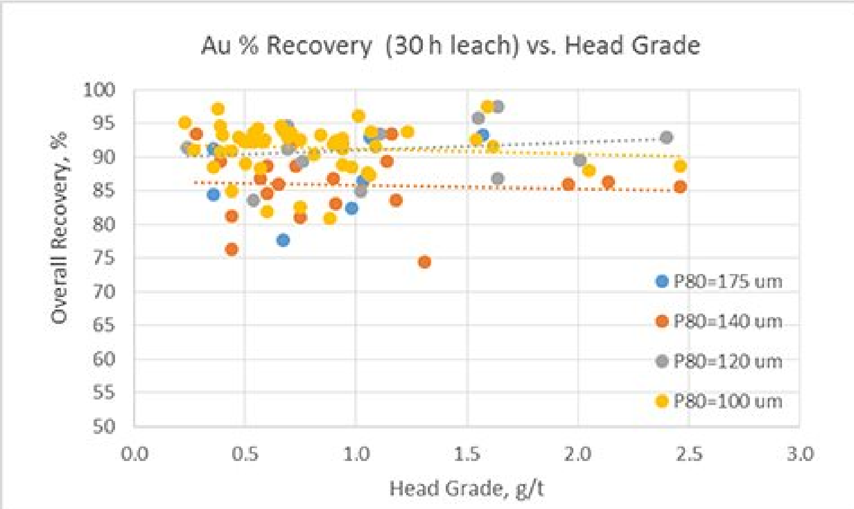
The results indicate that high recoveries are attainable by cyanide leaching, and that gold recoveries are improved by finer grinding.

All Côté samples leached with relatively consistent kinetics, with an average gravity recovery of 36% and overall extraction of 90.6% after 30 hours, reaching a plateau average extraction of 92.7% for these samples 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 13-10 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 13-10: Effect of Head Grade on Leach Recovery



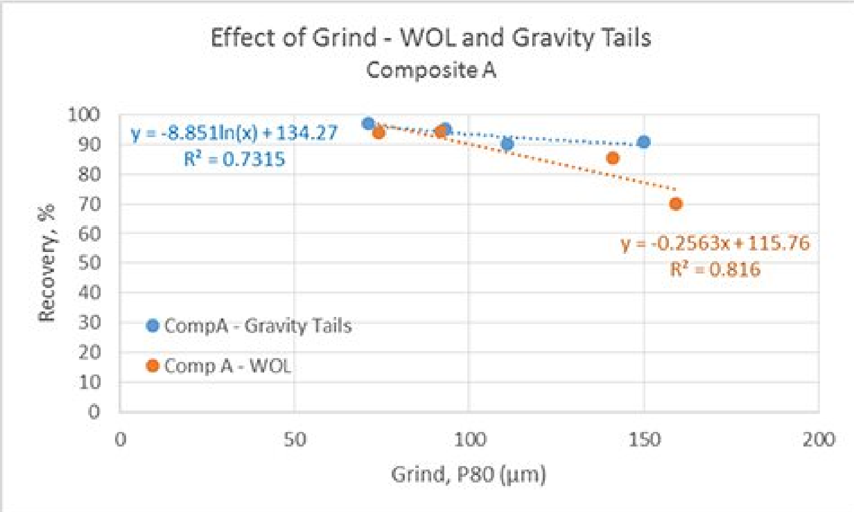
The variability work also indicated that ultimate recovery is not determined by lithology: all lithologies seem to behave similarly. However, this apparent uniformity in the mineralization may be a consequence of the gravity step ahead of leaching, which removes liberated gold to produce a more uniform leach feed sample highlighting the importance of the gravity step in achieving consistent plant recoveries.

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.

SGS Program 12589-003 compared the effect of grind for the WOL and gravity tailings leach flowsheet options. Figure 13-11 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.

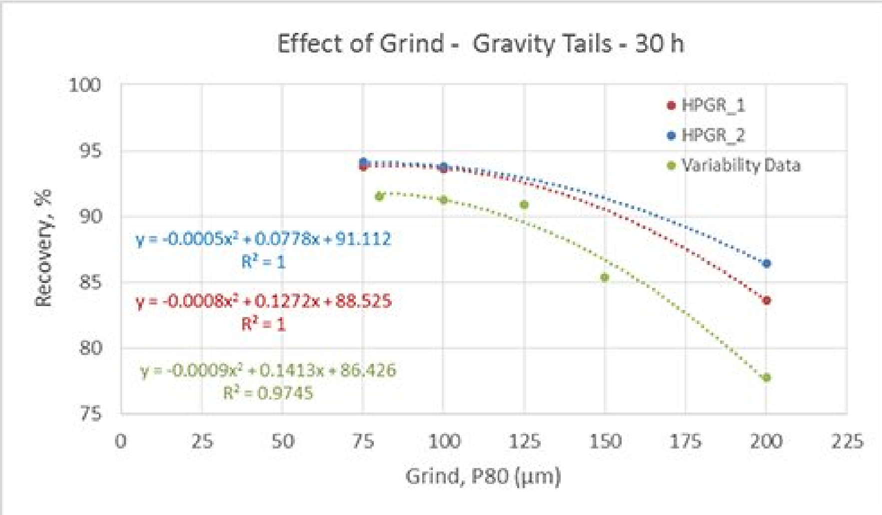
Figure 13-11: Effect of Grind Size, WOL vs. Gravity Tailings – 48-hr Leach



The 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.

In 2017, a grind size vs. leach extraction series using the HPGR pilot plant product was conducted at COREM Laboratories in Quebec. Overall recovery data on the HPGR product samples indicate a gain in recovery over the previous variability data set (conventional grinding product samples) of approximately 2 to 4% at approximately 30 hours retention time (Figure 13-12). At 48 hours, the gain in leaching HPGR product and typical prepared product becomes minor.

Figure 13-12: Effect of Grind Size, HPGR Product vs Lab Product at 30-hr Leach



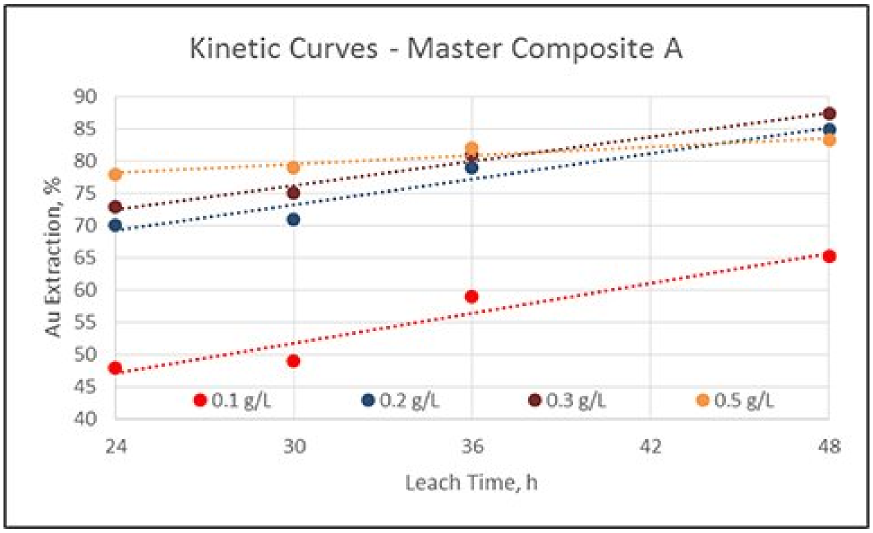
13.6.3 Cyanide and Lime Consumption

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.
- High NaCN concentration did not result in higher overall extraction.
- For in-plant practice, the optimal dosage range is 0.3 – 0.5 g/L.
- High NaCN concentrations result in increased NaCN consumption.
- 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 100 g/t of ore.

Results from optimization testing under program 12589-003 on Composite A are summarized in Figure 13-13 and Table 13-16.

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



As seen in Table 13-16, 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 ore.

Table 13-16: 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 ore	0.07	0.05	0.04	0.03
Lime consumption, kg/t of ore	0.34	0.34	0.36	0.35

13.6.4 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 O2 and 1 L/min for air. All previous tests were run with passive aeration.

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.

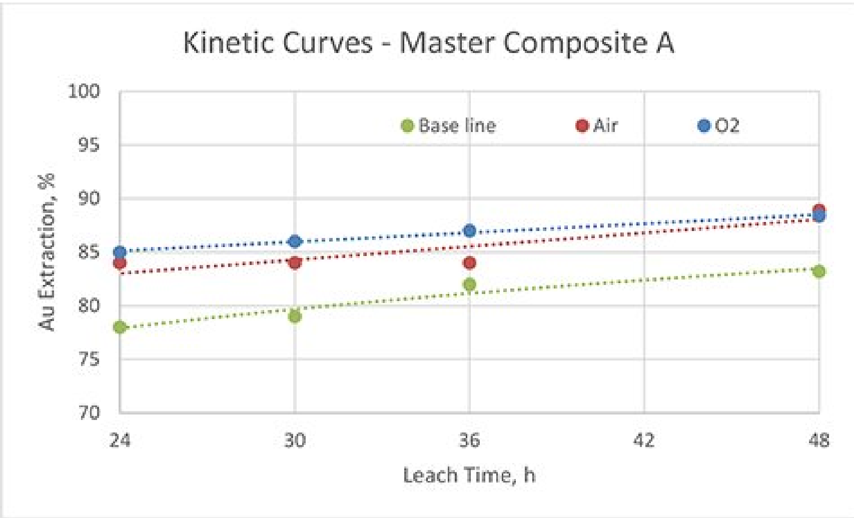
Higher-than-normal cyanide consumption in the test with sparged air was very likely a function of the large volume of air sparged into the pulp. Cyanide was likely volatilized into the air, and not consumed by the ore itself.

The results are summarized in Table 13-17 and the kinetic curves are plotted in Figure 13-14.

Table 13-17: 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 ore	0.26	0.07	0.06
Lime consumption, kg/t of ore	0.65	0.34	0.49

Figure 13-14: Aeration Kinetic Curves



13.6.5 Cyanide Destruction

In 2013, the Caro's Acid, SO2/Air and CombinOx ® processes were investigated on a laboratory scale for the treatment of slurry effluent using a Composite A sample. The original residual target was set at 2 ppm weak acid dissociable (CNWAD.) A second set of tests targeted 2 ppm total cyanide (CNT.)

The sample was leached for 48 hours maintaining a 150 mg CNF/liter solution. After a 12 hour CIP retention time, the cyanide level was adjusted to 70 ppm.

The testwork indicated that the Caro's Acid and SO2/Air processes could produce effluents with CNWAD level at or below 2 ppm. However, the lime consumption for the Caro's Acid process was substantial despite what appeared to be a well buffered effluent sample. The CombinOx ® process didn't achieve the target.

Based on the results from the initial 2 ppm CNWAD test series, the SO2/Air process was chosen to test the subsequent treatment target of 2 ppm CNT. In comparison to the optimized result for CNWAD treatment, slightly more SO2, a lower pH of 7.8 and 50 ppm copper were required to treat the weak acid dissociable cyanide and precipitate enough iron cyanide to achieve results below the 2 ppm CNT target.

The performance and reagent consumption data gathered from the SO2 process on a bulk sample for each process are summarized in Table 13-18.

Table 13-18: SO_2/Air Continuous Optimum Results – 2 ppm CN_T Treatment Target

		SOLUTION ASSAYS						REAGENT ADDITIONS		
Test	Stream	Time (hours)	CN_{WAD} (ppm)	*CN_T (ppm)	Cu (ppm)	Fe (ppm)	pH	SO_2 (g/g CN_{WAD})	$Ca(OH)_2$ (g/g CN_{WAD})	Cu^{2+} ppm
	FEED		68.04	101.6	4.78	12.01	10.5			
#9	Treated Slurry	2	0.44	1.3	0.297	0.309	7.8	5.0	2.352	50
			(<0.05**)	(<0.05**)						

* calculated total CN
** Results from outside lab

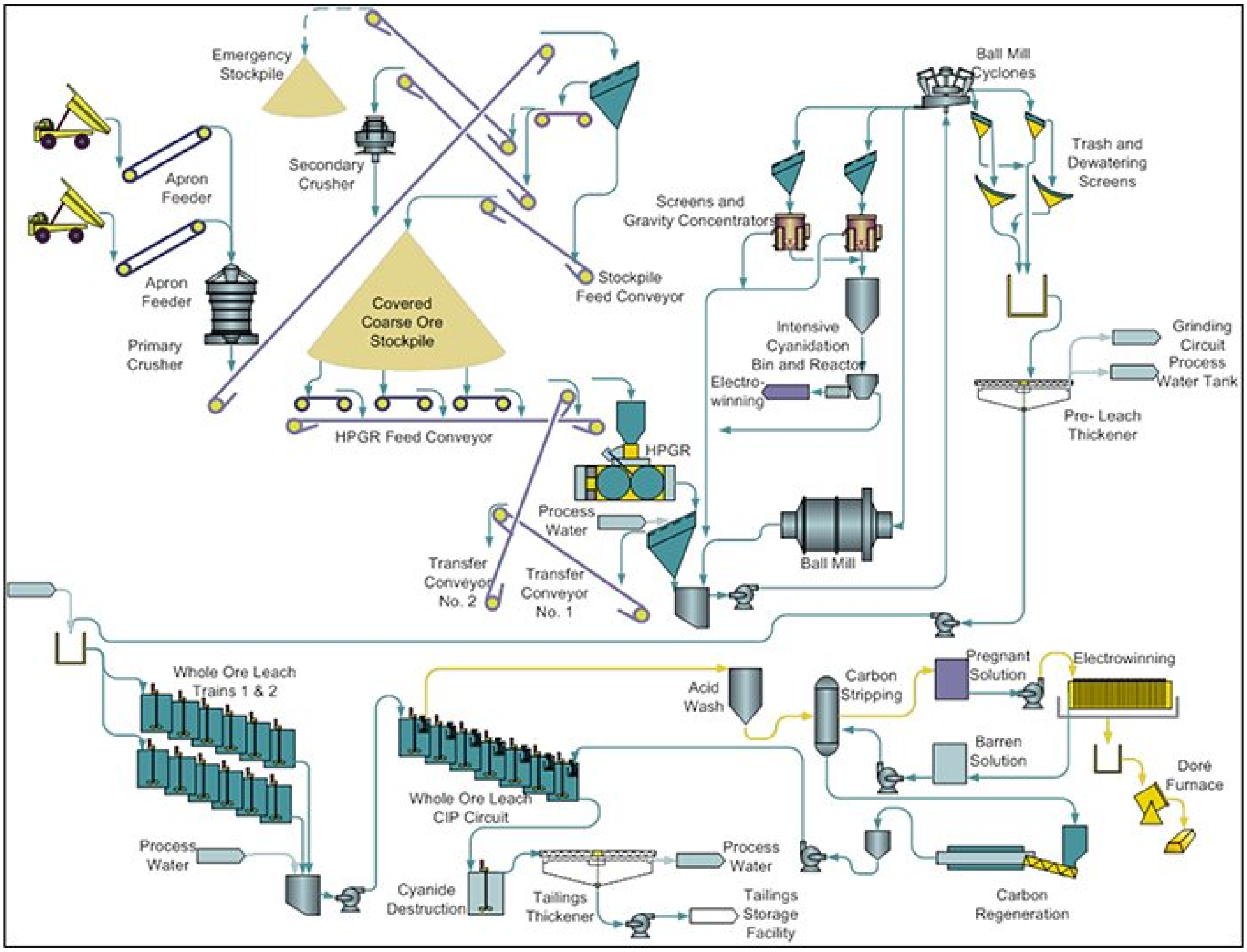
13.6.6 Barren Solution Analysis

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 13-15.

Figure 13-15: 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 13-16 and Figure 13-17 show the gold head-grade range tested and the overall response by lithology, respectively.

Figure 13-16: Assayed vs. Calculated Gold Head Grade—Variability Samples

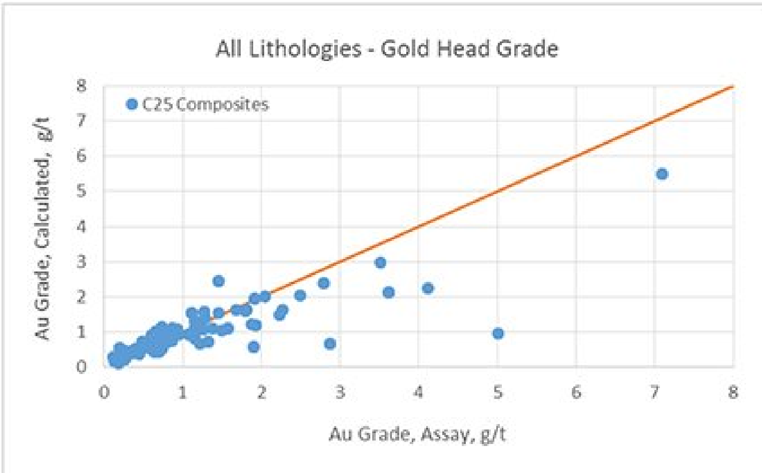
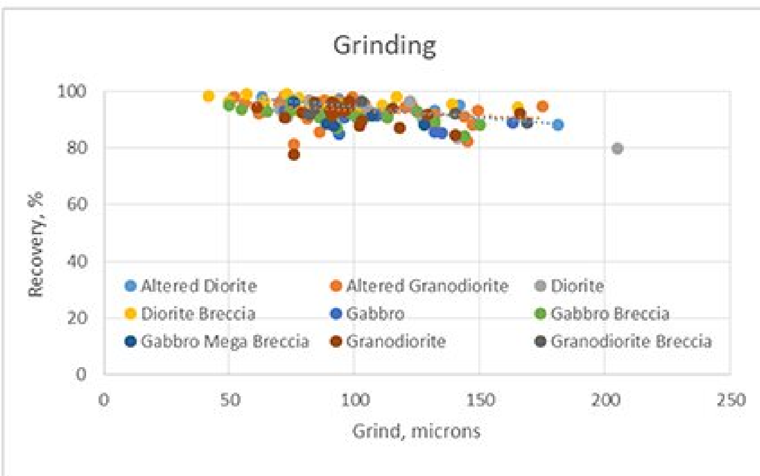


Figure 13-17: Variability Samples – Au Recovery vs. Grind by Lithology



13.9 Recovery Estimate

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.

Overall recovery data on the HPGR product samples indicate a gain in recovery over the previous variability data set (conventional grinding product samples.) Taking one third of this gain, the leach extraction and overall recovery are estimated at 90.9% and 91.8% respectively for a 32,000 ktpd throughput and 100 µm target grind. Table 13-19 summarizes efficiency factors and recovery estimates.

Figure 13-18: Grind vs. Recovery Curve

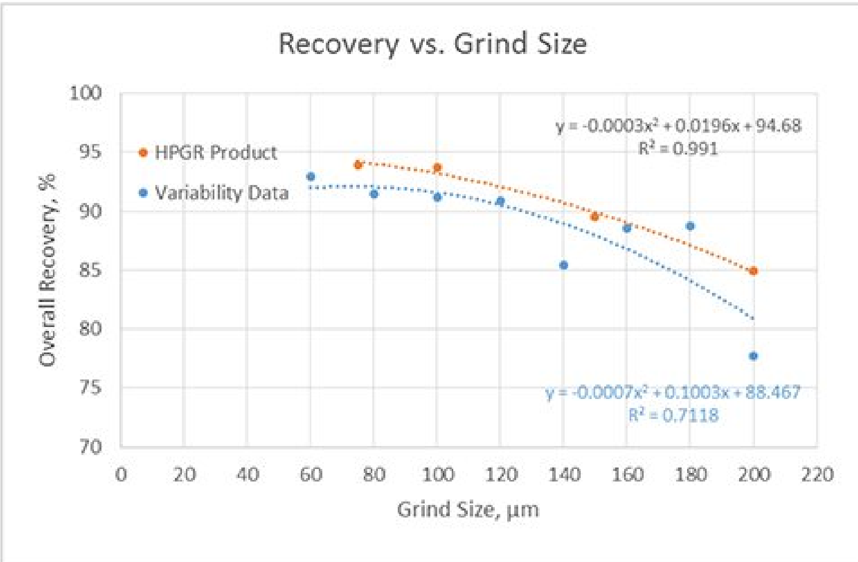


Table 13-19: Au Recovery Estimate for 32,000 ktpd and 100 µm Target Grind

Parameter	Units	Value
Head Gold Grade, Average	g/t Au	0.94
Head Silver Grade, Average	g/t Ag	<2
Au Recovery by Gravity	%	23
Intensive Leach Recovery	%	99
Leach Recovery	%	90.9
CIP Recovery (soluble & carbon fines losses)	%	99
Desorption, Regeneration & Refining Recovery	%	99.5
Overall Au Recovery	%	91.8

Coarser grinds result in higher variance in tails which can be mitigated with extended leach times.

Further testwork is underway to optimize operating conditions and to check these preliminary results.

13.10 Conclusions

The Côté mineralization is free-milling (non-refractory). A portion of the gold liberates during grinding and is amenable to gravity concentration and 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.

Individual lithologies follow the general trends for grind size sensitivity and cyanide consumption.

Overall recovery is estimated at 91.8% for the processing of 32,000 tpd using the proposed flowsheet.

Cyanide and lime consumptions are quite low in comparison to what is typically seen in the industry which reflects the lack of cyanicides and other cyanide consumers. Lime consumption is also positively impacted by the basic nature of the ore.

Metal dissolution during cyanide leaching was found to be low, and there are no obvious concerns with deleterious elements.

13.11 Metallurgy and Process Recommendations

13.11.1 Metallurgical Testwork

It is recommended that the second phase of the testwork addressing the product from the HPGR pilot testing proceed. The goal would be to confirm optimal grinding size, optimize leaching variables and determine potential downstream benefits from the fracture characteristics of the HPGR. Additional grinding and settling testwork on this material is also recommended.

Adding some further point samples to determine variability at the optimized HPGR influenced conditions is recommended. In addition, these samples would also be used for mineralogy work and further strengthen the relationship of new information to previous older information.

Further variability work for HPGR machine testing and Atwal testing is recommended. It is expected that this would involve approximately 2,000 kg of material. Information from these samples would be used to optimize HPGR machine characteristics.

It also recommended that bin flow testwork also be performed as handling solids materials flow will be critical in plant design.

14.0 MINERAL RESOURCE ESTIMATES

14.1 Summary

RPA prepared an updated resource estimate for the Côté Gold Project as of May 26, 2017. The current Mineral Resource estimate is based on open pit mining methods and includes 281.2 Mt at an average grade of 0.89 g/t Au, containing 8.04 Moz in the Indicated category. There is an additional 76.5 Mt at an average grade of 0.50 g/t Au, containing 1.23 Moz in the Inferred category.

This Mineral Resource estimate was completed using Geovia GEMS 6.7 software. A 3D geological model was built and used to constrain and populate a resource block model. The estimate was based on the inverse distance cubed (ID3) interpolation method. The Mineral Resource is reported at a cut-off grade of 0.3 g/t Au and at a gold price of $1,500 per ounce. High grade gold assays were capped at grades ranging from 6 g/t to 40 g/t depending on domain. The Mineral Resource estimate as reported in Table 14-1 was constrained by a preliminary pit optimization shell.

RPA is not aware of any environmental, permitting, legal, title, taxation, socio-economic, marketing, political, or other relevant factors that could materially affect the Mineral Resource estimate.

Table 14-1: Summary of Mineral Resources – May 26, 2017 IAMGOLD Corporation – Côté Gold Project

Category	Tonnage (000 t)	Grade (g/t Au)	Contained Metal (000 oz Au)
Indicated	281,171	0.89	8,037
Inferred	76,471	0.50	1,231

Notes:

1. CIM definitions were followed for Mineral Resources.
2. Mineral Resources are estimated at a block cut-off grade of 0.3 g/t Au.
3. Mineral Resources are estimated using a long-term gold price of $1,500 per ounce, and a US$/C$ exchange rate of 1/1.25.
4. Bulk density varies from 2.69 t/m^3 for tonalite to 2.75 t/m^3 for diorite, and 2.93 t/m^3 for diabase.

14.2 Mineral Resource Database

The Mineral Resources at the Côté Gold Project were estimated using diamond drillhole data. All holes have been established on a local grid and the final collar locations have been surveyed and reported in UTM Zone 17 NAD83 coordinates. The current Mineral Resource database is composed of 505 diamond drillholes, totalling 264,750 m, and 257,447 assayed samples. The resource database includes drillholes within and close to the pit area. Therefore, the total number of holes and their total length may vary compared to Section 10, which summarizes drillhole statistics for the whole property.

Except for some minor parts, the whole in-pit area has been drilled on an approximately 50 m drilling pattern. Drilling direction is dominantly at a planned azimuth of 150° (section line orientation). Some of the infill 50 m sections have been drilled at an azimuth of 330°, opposite to the dominant drilling direction. A few holes have been drilled from grid east to west, normal to the dominant drilling direction. Drilling at Côté Gold extends over a vertical distance of approximately 800 m, with ten holes extending beyond 1,000 m vertical. The actual database also contains eight metallurgical holes, six geotechnical holes, and approximately 20 others 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.

The drilling database contains information including: collar information, downhole deviation surveys, gold assays, multi-elements-ICP assays, lithological descriptions, alteration, structural measurements from oriented core, mineralization, and major textures.

The Geovia GEMS database validation routines were applied to the resource database. No errors were detected in the critical data tables. Based on this assessment, the 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 and 2015, it is the QP's opinion that the drillhole database is appropriate to form the basis of the Mineral Resource estimate for the Côté Gold deposit.

14.3 Geological Modelling

Two main domains of mineralization have been interpreted at Côté Gold and are referred to as the Breccia S Domain in the southwest and the Breccia N Domain in the northeast. The Breccia S and N domains are separated by a west striking, steeply north-dipping fault zone (Côté fault) and are intruded by vertical to steeply dipping, northwest striking post mineralization Matachewan age diabase dykes. The Breccia S and N domains were modelled by IAMGOLD Technical Services geologists based on geology and gold grade using the following criteria:

- Hydrothermal breccias and medium to strong hydrothermal alteration,
- Gold grades above approximately 0.3 g/t,
- Continuity of grade from section to section with a minimum width of approximately 10 m.

In previous geological models, the mineralization domain wireframes were based mostly on gold grade. The current mineralization domains incorporate most of the medium to strong hydrothermal alteration and breccias. The hydrothermal alteration may be expressed as:

- hydrothermal breccia with mineralized matrix (composed of Chl-Bo-Qz-Mag-Py-Cpy),
- pervasive hydrothermal alteration mineralization hosted mostly in tonalities, magmatic breccias, and diorites, or
- sets of mineralized cavity fillings, veins, veinlets, and stringers.

More specifically, the upper boundary of the wireframe is clipped on the first breccia interval encountered downhole. If assays above cut-off grade (0.3 g/t Au) extend continuously beyond that breccia interval, the boundary is clipped on the last assay of that extension, which is considered to be the breccia's zone of influence. The same applies for the lower boundary: the wireframe is clipped on the last breccia interval encountered downhole unless an above cut-off grade extension is present. Therefore, the mineralized wireframes were extended into zones of lower hydrothermal alteration when grades above cut-off were present. The mineralization domains incorporate some dilution in order to preserve continuity. The current model was developed based on the reinterpretation of hydrothermal alteration intensity from core logging data collected in 2014 and 2015 that was complemented by photographic core based re-logging in 2016 by IAMGOLD Technical Services.

In addition to the Breccia S and N solids, 3D models of the diabase dykes and fault were used. Figure 14-1 shows a 3D view of the modelled solids and the drillhole traces. All solids have been clipped to an interpreted overburden surface in order to facilitate the block model flagging. To support statistical analysis, solids were built to enclose the low grade unconstrained material on either side of the fault – Low North and Low South.

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. A typical vertical section showing the main interpreted units is presented in Figure 14-2.

Figure 14-1: Côté Gold – 3D View of Côté Gold Domains

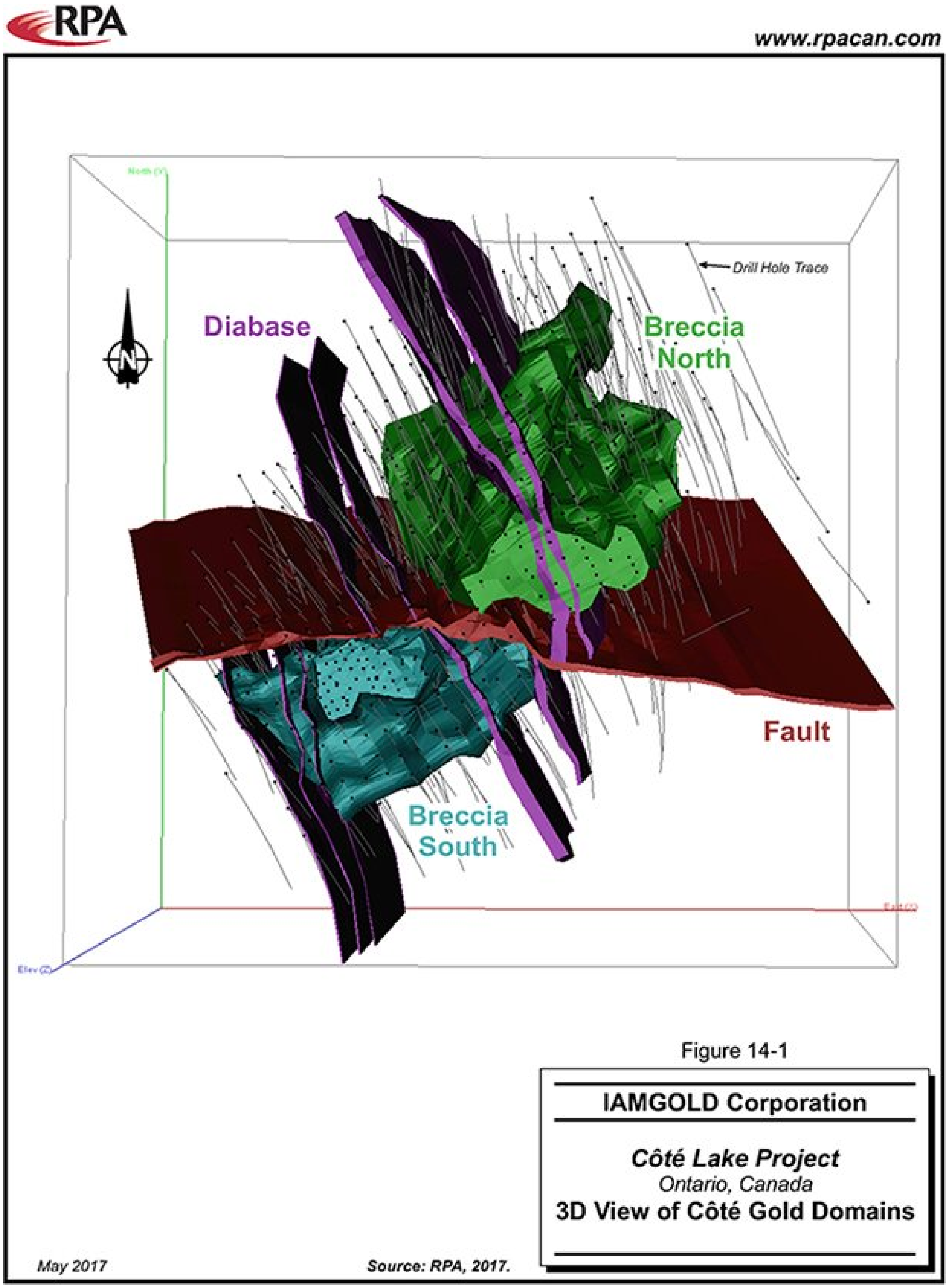
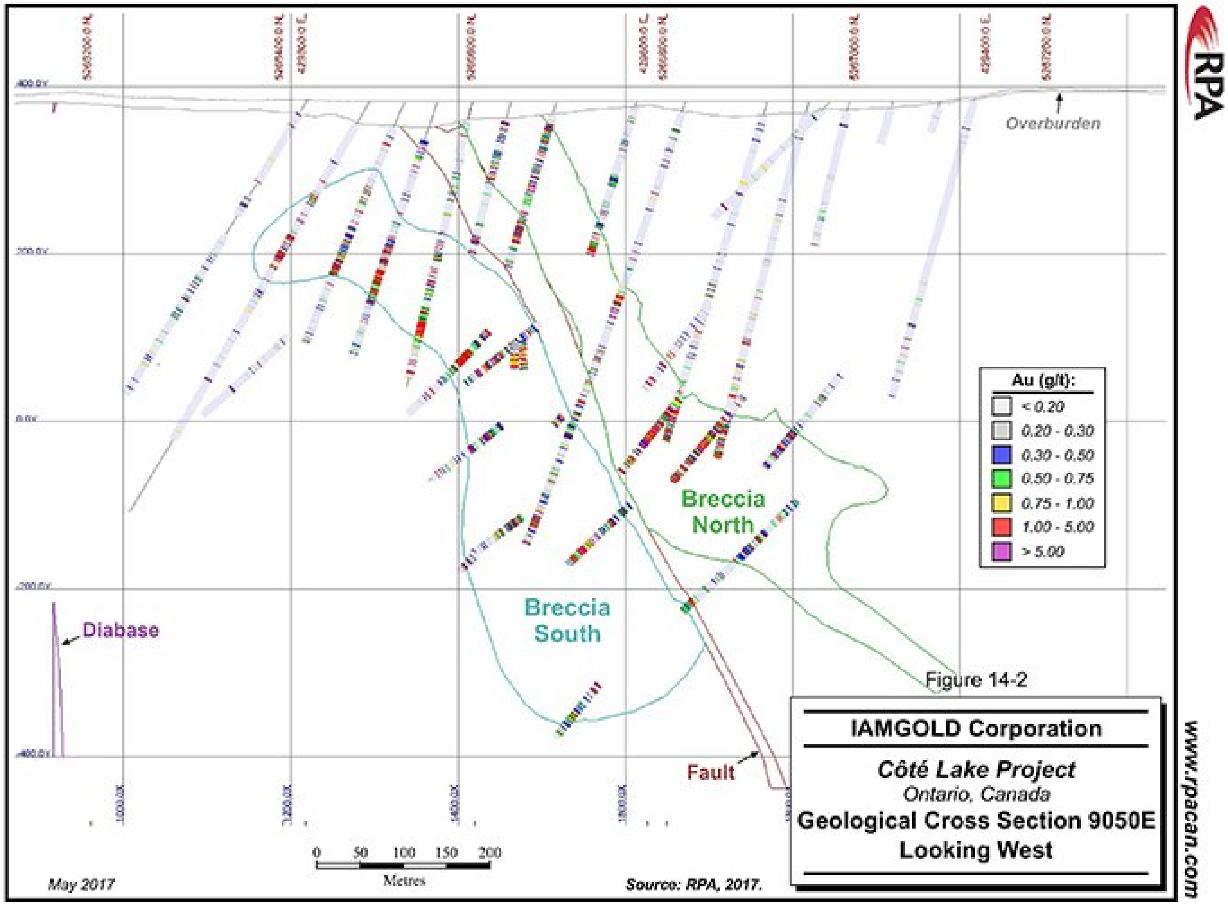


Figure 14-2: Côté Gold – Geological Cross Section 9,050E Looking West



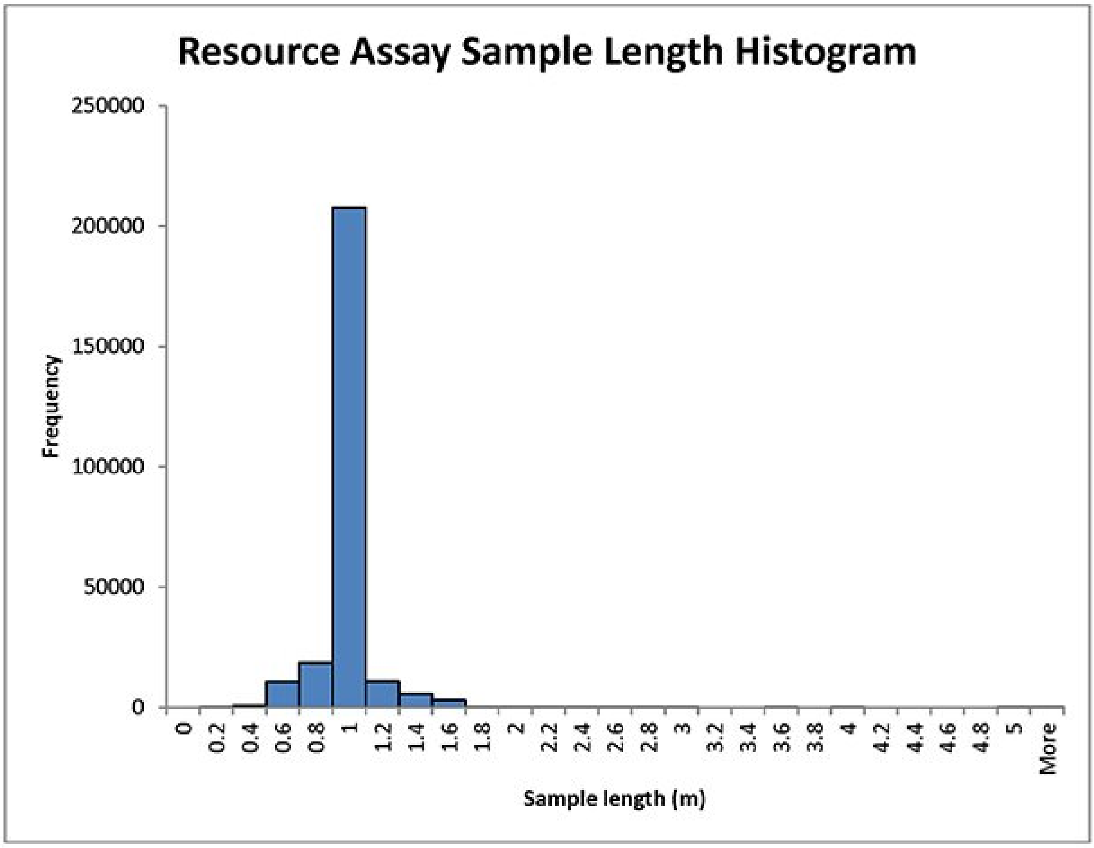
Assay descriptive statistics, grade capping, compositing, and variography presented in the following sections are based on the mineralized breccia, low grade, and fault domains presented above.

14.4 Descriptive Statistics

The drillhole database contained 593 drillholes including geotechnical, metallurgical, and abandoned holes. The resource estimate is based on the samples captured inside the estimated domains (breccia, fault, and low grade) consisting of 252,737 assays with a total sampled length of 246,607.8 m. These samples were collected from 505 drillholes with a total length of 264,749.9 m.

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

Figure 14-3: Côté Gold – Sample Length Histogram



14.5 Capping

Occasional erratic high grade outlier values are scattered throughout the assay data, which is typical for positively skewed populations such as the gold assays at the Côté Gold Project. These erratic high grade outlier values could have a disproportionate influence on the estimated block grade. In order to prevent the undesired effects, anomalously high assay values are capped before being used for block grade estimation.

In the absence of production reconciliation data, a statistical approach is used to determine the capping levels appropriate for the estimate. Histograms, log probability plots, and decile analysis were investigated for each of the geological domains. The capping values used for the estimate are listed Table 14-2.

Table 14-2: Gold Capping by Domain

IAMGOLD Corporation – Côté Gold Project

Domain	Rock Type	Capped Grade (Au g/t)
Breccia N	6001	40
Breccia S	6002	40
Low North	1001	15
Low South	1002	15
Fault	50	6

Table 14-3 presents the summary statistics for the capped and uncapped gold assays.

Table 14-3: Resource Assays Descriptive Statistics

IAMGOLD Corporation – Côté Gold Project

Domain	Grade	Count	Min	Max	Mean	StDev	Variance	CV	Assays Capped	Metal Loss%
Breccia N	Au	41,726	0.00	785.09	0.77	6.97	48.59	9.01	—	—
	Cap_Au	41,726	0.00	40.00	0.68	2.31	5.34	3.42	63	13
Breccia S	Au	43,064	0.00	2917.23	0.97	14.93	222.84	15.31	—	—
	Cap_Au	43,064	0.00	40.00	0.84	2.49	6.22	2.98	63	14
Low North	Au	109,378	0.00	210.98	0.18	1.68	2.81	9.48	—	—
	Cap_Au	109,378	0.00	15.00	0.15	0.68	0.47	4.41	93	12
Low South	Au	54,612	0.00	605.90	0.17	2.95	8.69	16.94	—	—
	Cap_Au	54,612	0.00	15.00	0.14	0.70	0.50	4.90	52	17
Fault	Au	3,957	0.00	858.18	0.53	13.57	184.02	25.43	—	—
	Cap_Au	3,957	0.00	6.00	0.27	0.67	0.45	2.52	26	50

The reduction of metal after capping the erratic high values is 13% for Breccia N and 14% for Breccia S domains, 12% for Low North and 17% for Low South domains, and 50% for the Fault Domain. For the Fault Domain, by removing one outlier that assayed 858.18 g/t Au, the maximum drops to 37.53 g/t Au, the average to 0.32 g/t Au, and the metal loss to 17%, in line with the rest of the domains. Overall, 0.1% of the assays results have been capped, which is reasonable for this type of deposit.

The capping values applied in previous resource estimates for Côté Gold varied as the number of samples available and modelled estimation domains evolved; however, the metal reduction values remained relatively stable. The current interpretation acknowledges the presence of geologically controlled higher grade areas.

14.6 Compositing

In order to achieve a uniform sample length support, decrease variability, and meet the planned mining equipment selectivity, a six metre composite length has been selected for the present Mineral Resource estimate. This corresponds to half the block height and introduces a reasonable smoothing compared to the size of the planned operation. The composites run downhole from collar to toe, resetting at each domain change. Capped assays were then composited, preserving the orphans larger than three metres. Comparison of descriptive statistics for composites before and after removal of short orphans has been performed and no bias was observed. A summary of statistics for capped and uncapped composites is presented in Table 14-4.

Table 14-4: Resource Composites Descriptive Statistics

IAMGOLD Corporation – Côté Gold Project

Zone	Grade	Count	Minimum	Maximum	Mean	Stdev	Variance	CV
Breccia N	CAU	6,711	0.00	13.21	0.67	1.07	1.15	1.61
	AU	6,711	0.00	133.85	0.76	2.88	8.31	3.78
Breccia S	AU	7,010	0.00	491.49	0.97	6.18	38.14	6.35
	CAU	7,010	0.00	16.00	0.84	1.19	1.41	1.42
Low North	CAU	17,911	0.00	6.58	0.15	0.33	0.11	2.14
	AU	17,911	0.00	28.15	0.18	0.70	0.50	4.00
Low South	AU	9,123	0.00	101.30	0.17	1.21	1.47	7.04
	CAU	9,123	0.00	5.57	0.14	0.32	0.10	2.27
Fault	AU	713	0.00	143.80	0.52	5.54	30.65	10.66
	CAU	713	0.00	3.69	0.26	0.42	0.17	1.62

14.7 Domaining

A contact analysis study was performed in order to determine the adequacy of the domaining. The study confirmed that a hard boundary should be applied between the breccia and low grade domains. Also, the contact plots showed that the breccia domains are consistent regardless of lithology. The composite contact plot between the Breccia N and low grade domains is shown in Figure 14-4. The testing for potential sub-domaining of the Breccia N domain in diorite and non-diorite lithology is shown in Figure 14-5, indicating that no sub-domaining was necessary. A hard boundary was applied for the fault domain

Figure 14-4: Contact Profile – North Breccia Versus Low Grade

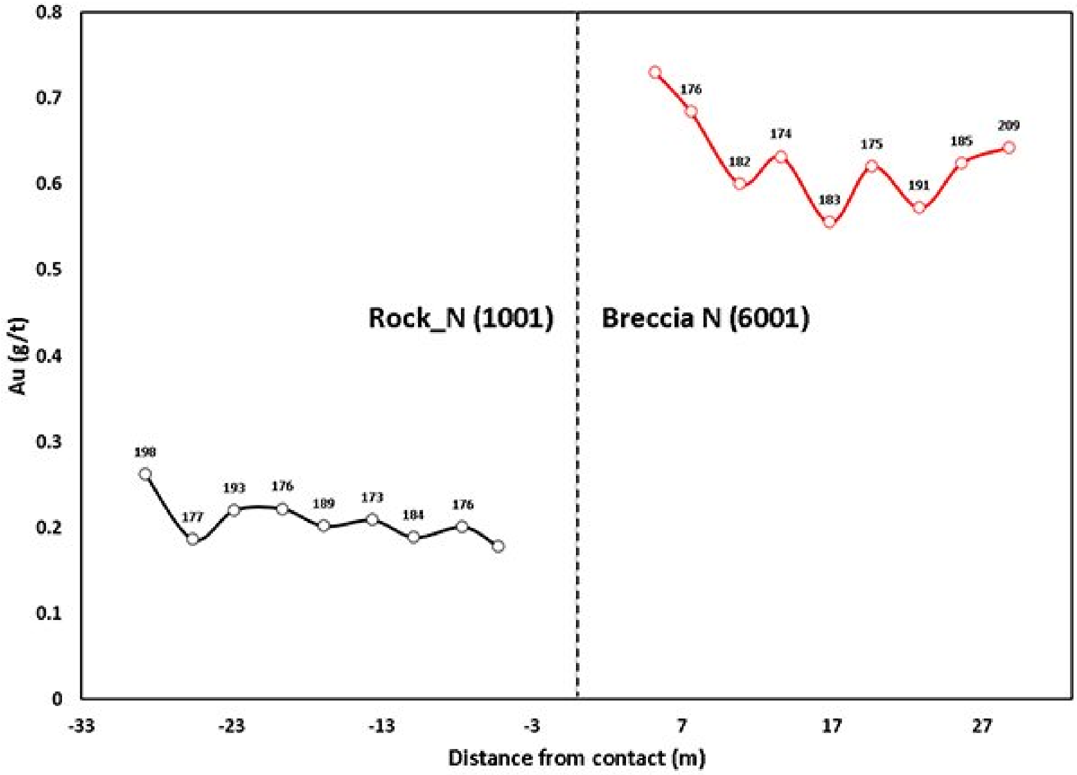
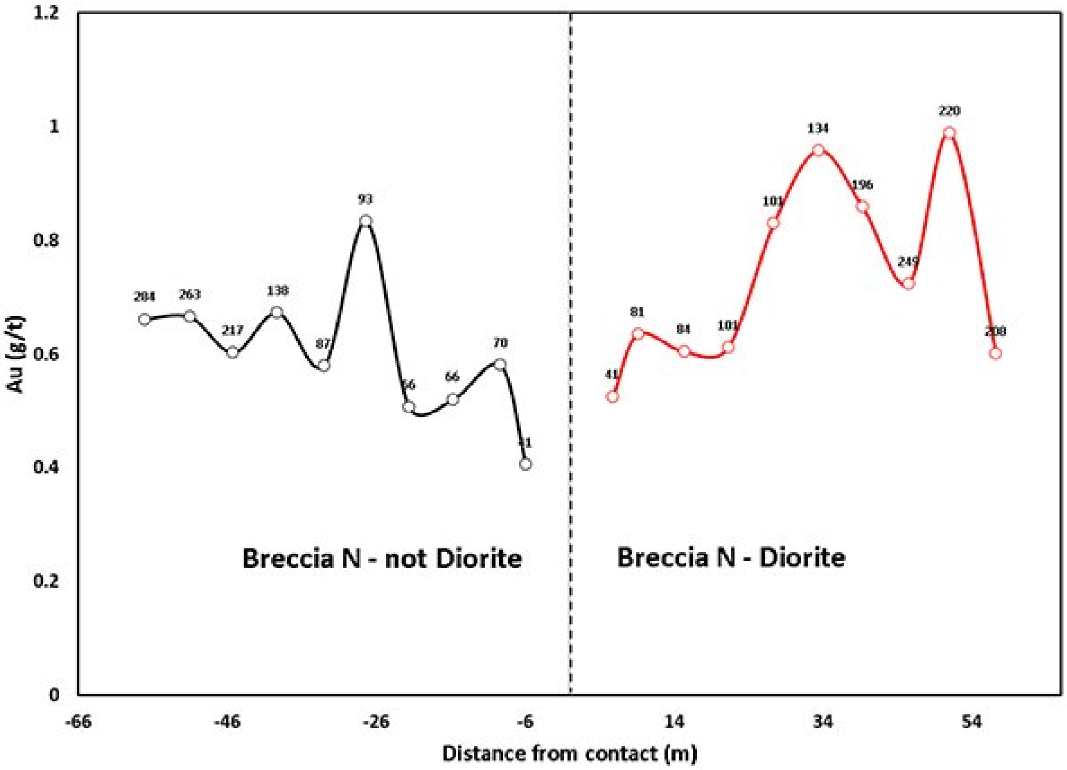


Figure 14-5: Contact Profile – North Non-Diorite Breccia Versus North Diorite Breccia



14.8 Variography and Grade Trends

RPA carried out a variographic analysis for each domain on 6 m capped composites. Downhole, omni-directional, and directional variograms were modelled with limited success, as oriented variograms did not seem to improve significantly over the omni-directional ones, indicating that multiple grade trends were present in the data set. The downhole and omni-directional variograms for the overall Breccia N domain are shown in Figure 14-6 and Figure 14-7.

A set of grade shells at various gold cut-off grades was developed in Leapfrog Geo 3 to help identify local grade trends. Shoots of contiguous higher grade material with variable orientations were defined in the breccia domains, as shown in Figure 14-8. Variograms with longer ranges were defined when composites from the higher grade shoots were analyzed. For the higher grade shoots a number of general orientations were defined.

The modelled variograms were used to define anisotropic search ellipses with longer ranges for the higher grade shoots, while elsewhere in the breccia solids a spherical search ellipse was used, as presented in Figure 14-7.

Figure 14-6: Breccia N Downhole Variogram

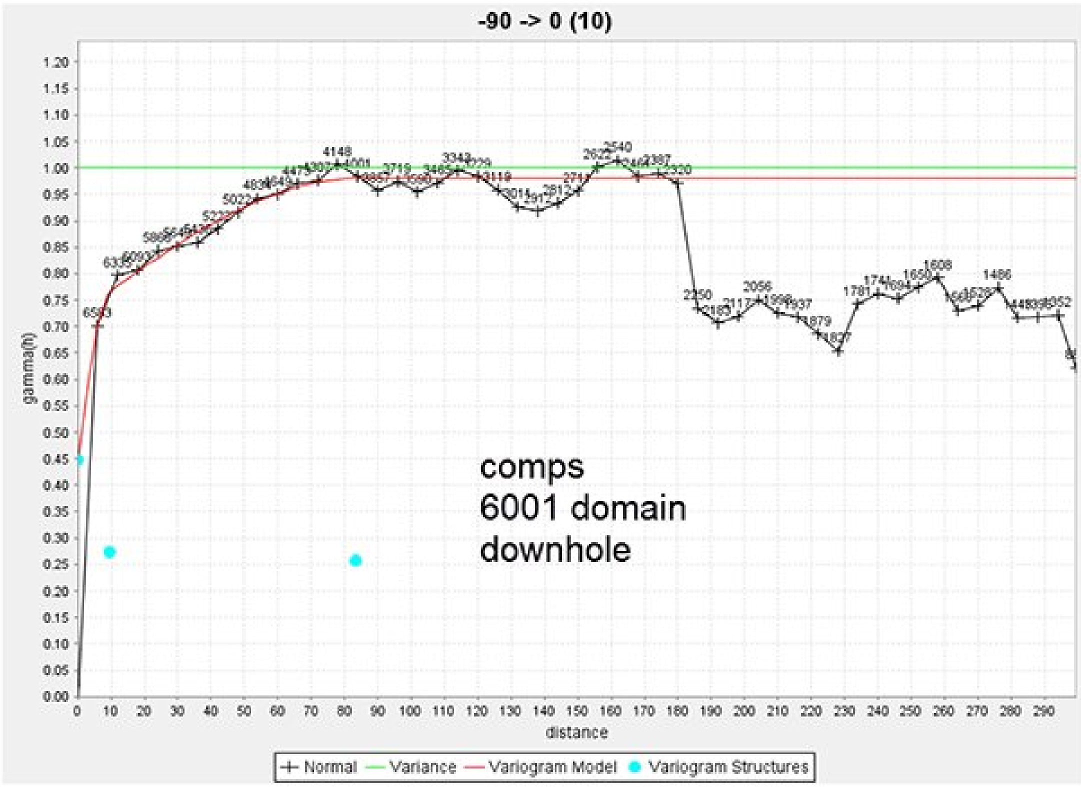


Figure 14-7: Breccia N Omni-Directional Variogram

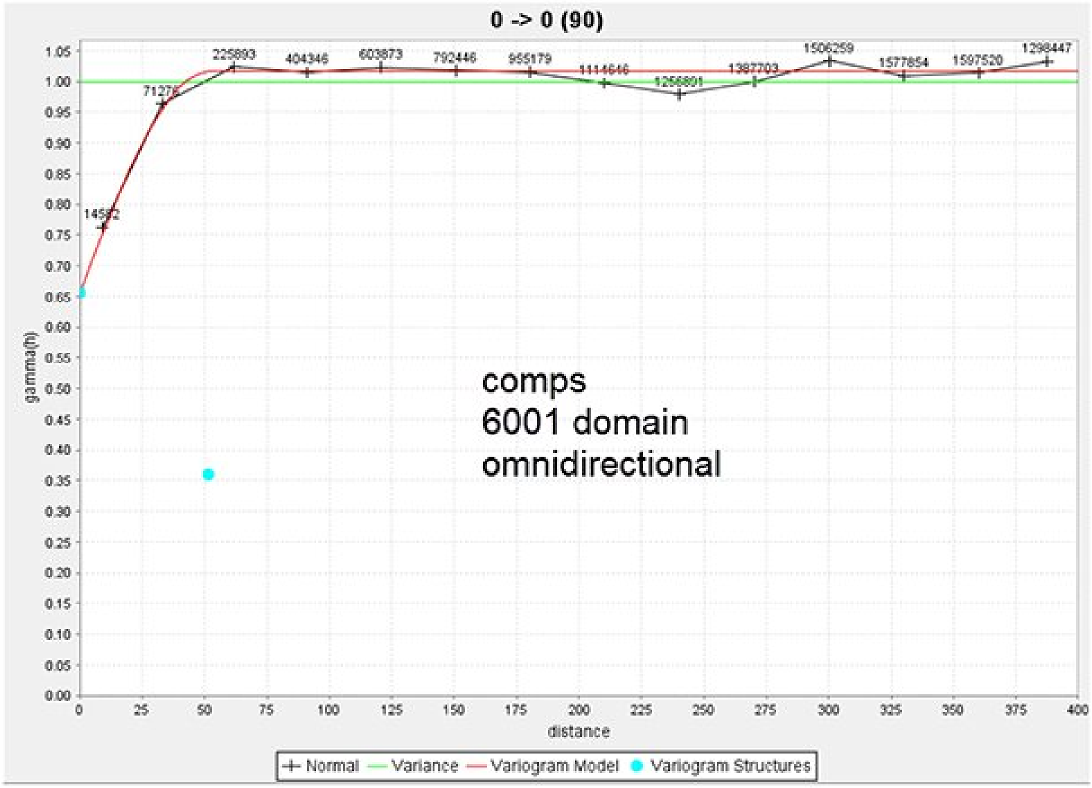
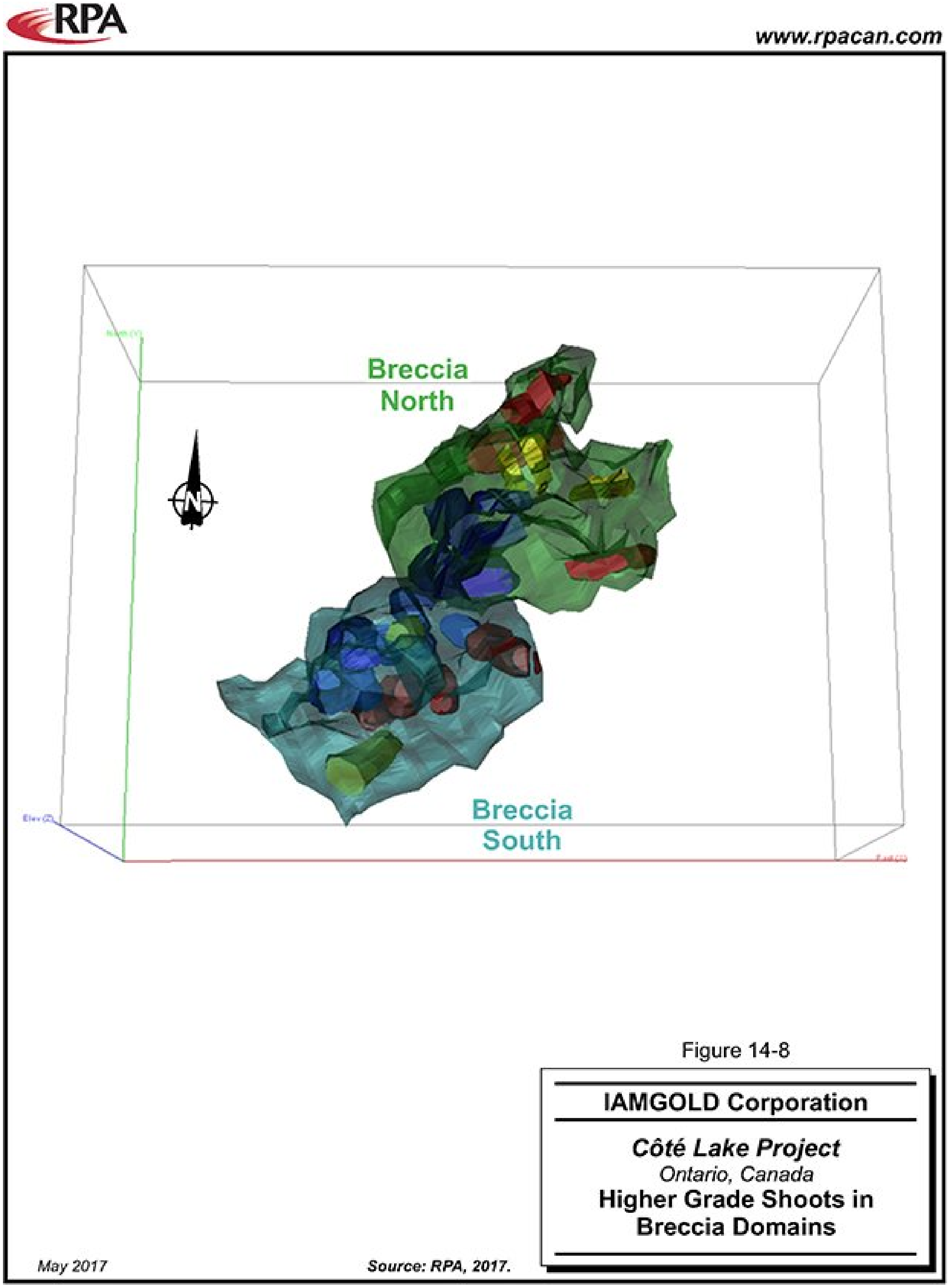


Figure 14-8: Higher Grade Shoots in Breccia Domains



14.9 Density

Density measurements for 1,537 samples were available for Côté Gold, most of them within the low grade area. From 2009 to 2012, density was measured by the IAMGOLD technician on camp using the 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.

The density values for the current estimate were established based on the lithology, as presented in Table 14-5. Previously, an average value of 2.72 g/cm3 was used.

Table 14-5: Density Statistics by Lithology

IAMGOLD Corporation – Côté Gold Project

Description	Code	March2017
Diabase	40	2.93
Fault	50	2.69
Tonalite Breccia	6001 and 6002	2.71
Diorite Breccia	6001 and 6002	2.73
Tonalite	1001 and 1002	2.69
Diorite	1001 and 1002	2.75

14.10 Block Model

The resource estimate is supported by a rotated, multi-folder, percent block model developed in Geovia GEMS. A block size of 10 m by 10 m by 12 m was used and the model was rotated 30° 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 300 columns (easting), 225 rows (northing), and 100 levels (elevation). A summary of the block model properties is presented in Table 14-6.

Table 14-6: Block Model Properties

IAMGOLD Corporation – Côté Gold Project	
Element	**10x10x12m**
Minimum East	429,000 E
Minimum Northing	5265,000 N
Maximum Elevation	436 m
Number of Row	225
Number of Column	300
Number of Level	100
Row size	10 m
Column size	10 m
Level size	12 m
Rotation*	30°

* Using GEMS convention

In each block model folder, the blocks were flagged with domain rock codes and percent of block inside the domain solids (Breccia N, Breccia S, Low North, Low South, Fault, and Diabase). The block model was then populated with interpolated gold grade values, density, and classification.

14.11 Interpolation

The block grade was estimated using the ID3 interpolation method in one pass. A hard boundary was applied to composites from different lithological domains (6001, 6002, 1001, 1002, 50), while a soft boundary approach was used between the breccia domains and the higher grade shoots (between 6001 and 9011-9013, and between 6002 and 9021-9023).

After a number of interpolation tests for the unconstrained domains, a high grade limit was imposed for composites above 1 g/t Au located more than 15 m away from block centroids to control the influence of isolated high grade composites.

The sample selection strategy and interpolation parameters are presented in Table 14-7. Interpolated block grades for each domain were then consolidated into a final block model folder. The final model, where the contribution of all geological domains sharing a block is recognized in the final block grade, was then used for pit optimization and resource reporting.

Table 14-7: Sample Selection and Interpolation Parameters

IAMGOLD Corporation – Côté Gold Project

Solid	Code	Composite min	Composite max	Composites max per hole	Ellipse orientation (Az/Dip/Az)	Ellipse ranges (m)
Breccia N	6001	2	12	3	Isotropic	50/50/50
NE_HG_1	9011	2	12	3	140/70/70	100/50/25
NE_HG_2	9012	2	12	3	230/40/240	100/50/50
NE_HG_3	9013	2	12	3	0/65/80	100/50/25
Breccia S	6002	2	12	3	Isotropic	50/50/50
SW_HG_1	9021	2	12	3	0/89/180	100/50/50
SW_HG_2	9022	2	12	3	140/65/180	100/50/50
SW_HG_3	9023	2	12	3	220/50/180	100/50/50
NE_LG (unconstrained)	1001	2	8	2	Isotropic *High grade limit 15/15/15 m at 1 g/t Au	75/75/75
SW_LG (unconstrained)	1002	2	8	2	Isotropic *High grade limit 15/15/15 m at 1 g/t Au	75/75/75
Fault	50	1	8	3	183/67/282	150/75/35

14.12 Block model validation

The estimated grades were validated by various methods, including visual comparison of interpolated block grades versus composite grades in plan and vertical sections, swath plots, and comparison with alternative interpolation methods. A typical cross section (9,050E) showing geological domains, composites, and interpolated block grades is shown in Figure 14-9, while Figure 14-10 shows a typical plan view at the 275 m elevation. Swath plots of Indicated blocks captured inside the resource shell along easting, northing, and elevation are shown in Figure 14-11.

Figure 14-9: Cross Section 9,050E Looking West – Gold Grades

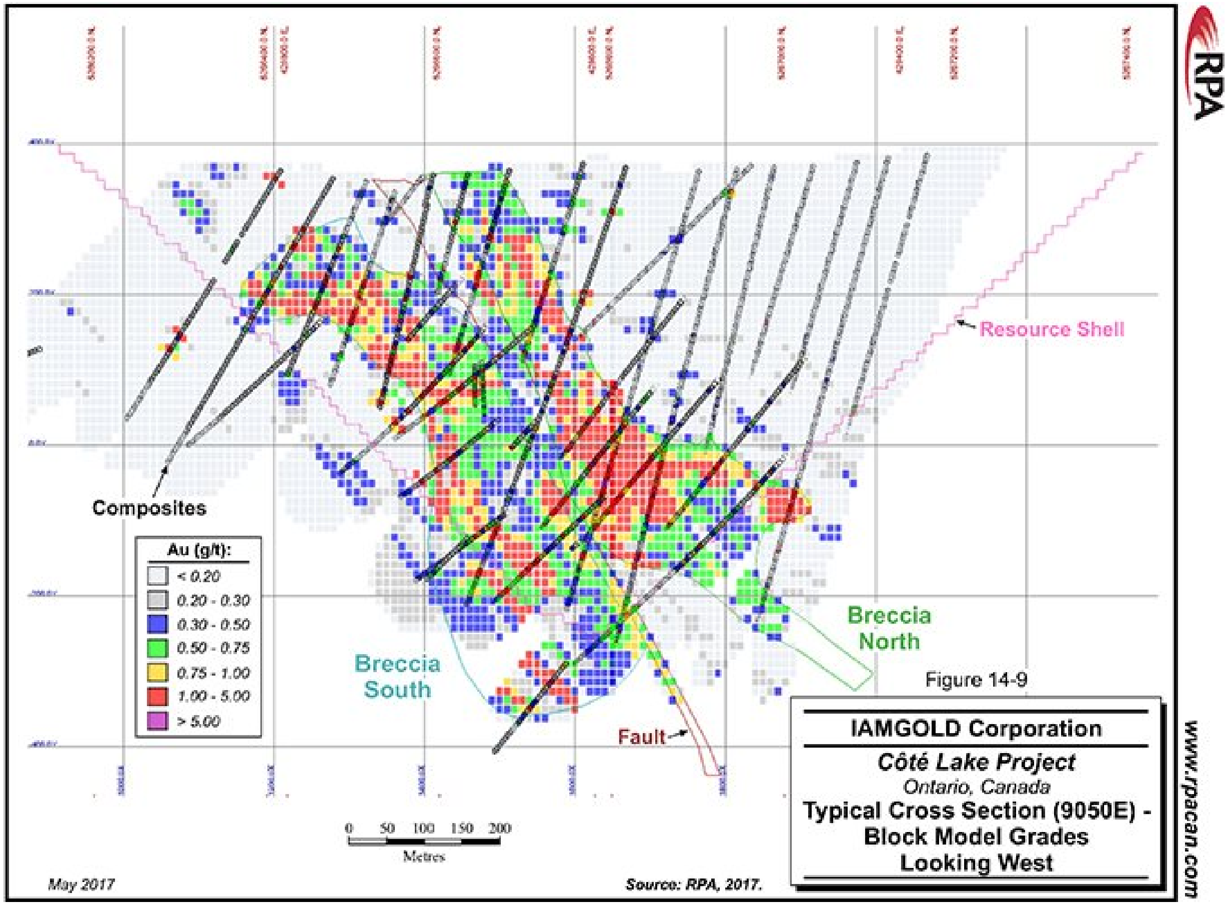


Figure 14-10: 275 M Plan View – Gold Grades

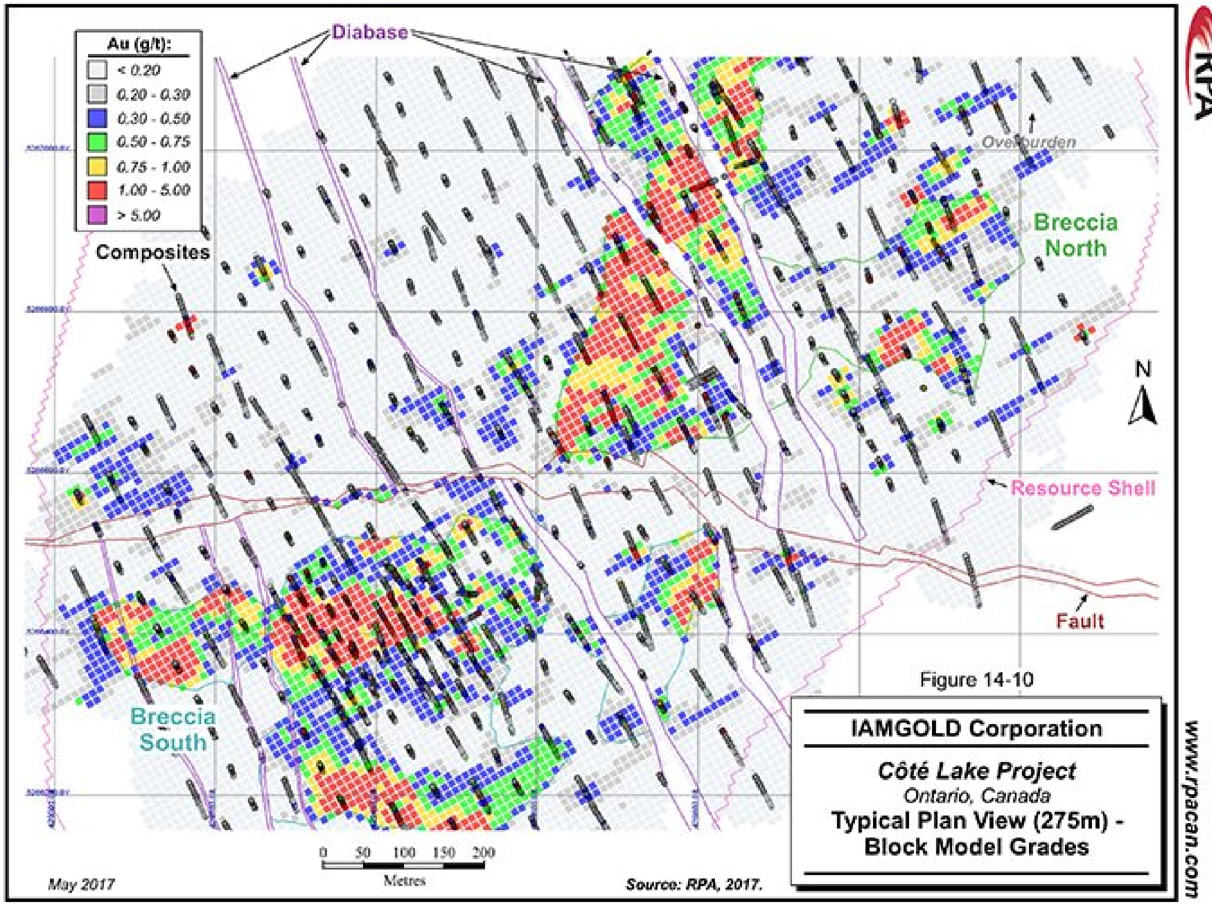
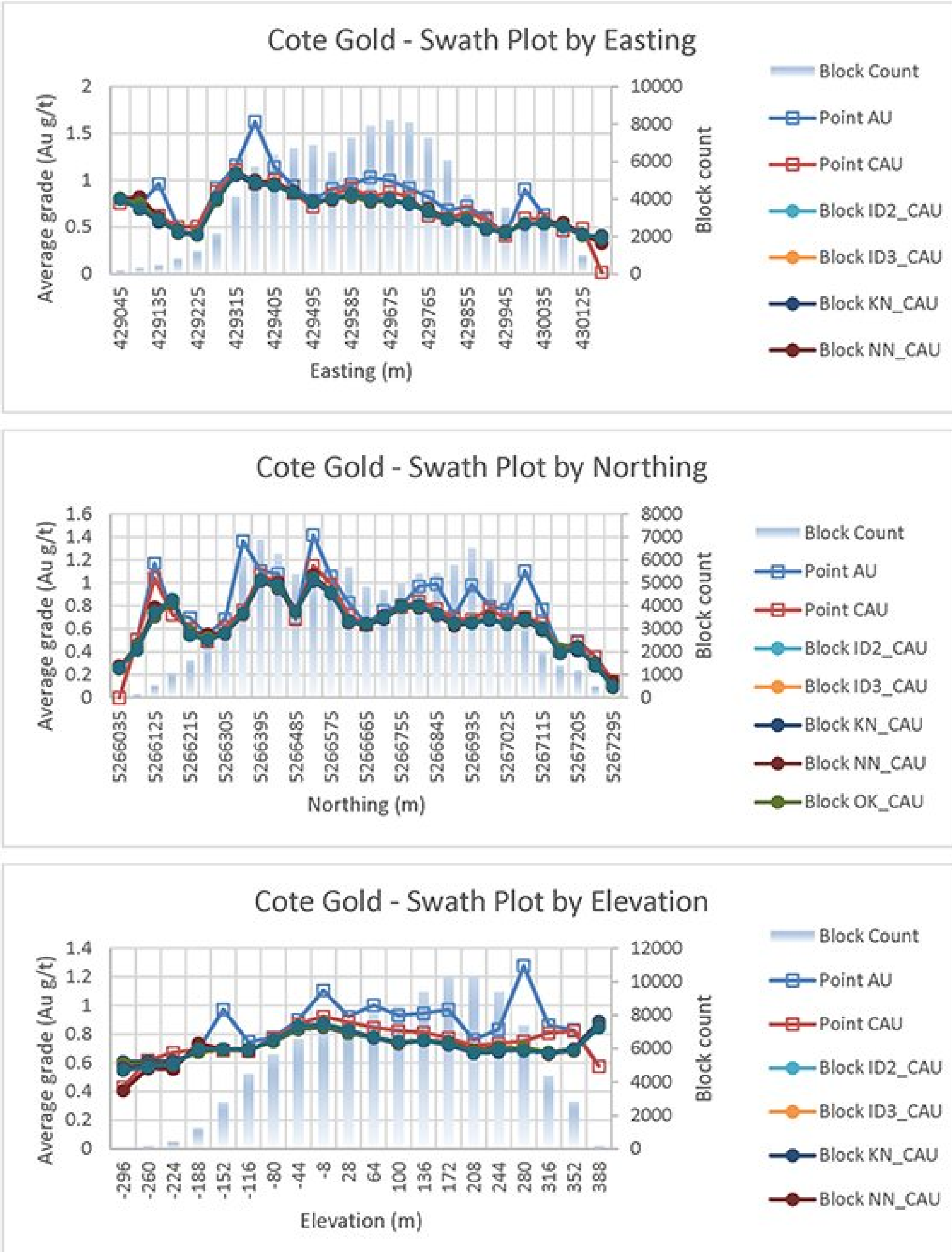


Figure 14-11: Swath Plot For Indicated Material

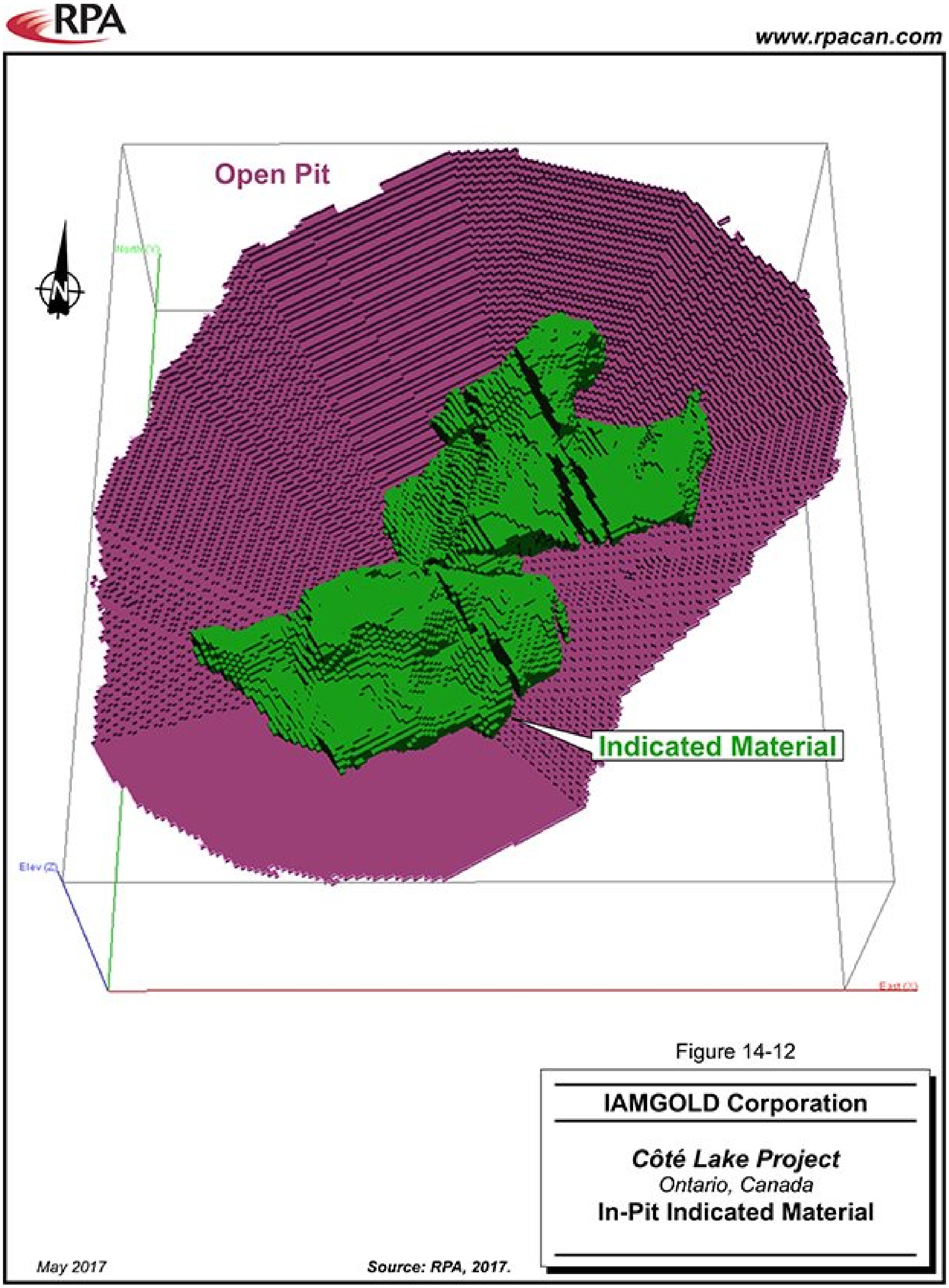


14.13 Classification

Interpolated Breccia blocks in domains 6001 and 6002 that were supported by approximately 50 m spaced drilling were classified as Indicated Mineral Resources. RPA manually built an Indicated classification wireframe. Interpolated Fault blocks (domain 50) in areas with higher drilling density were also classified as Indicated based on manual contours. The rest of the interpolated blocks situated in the resource shell, from all the domains, were classified as Inferred Mineral Resources. The classification was then transferred to the final consolidated block model based on majority rules. No blocks were classified as Measured.

The classified blocks located inside the resource shell were reported as Mineral Resources. Figure 14-12 shows Indicated blocks in the resource shell.

Figure 14-12: In-Pit Indicated Material



14.14 Cut-off Grade

Based on the parameters outlined in Section 15, a cut-off grade of 0.3 g/t Au was selected for Côté Gold. Only the classified blocks above the cut-off grade and located completely within the resource shell were reported as Mineral Resource.

14.15 Resource Sensitivity

Grade-tonnage curves for in-pit Indicated Resources are presented in Figure 14-13. The Mineral Resources are sensitive to a change in cut-off grade. Increasing the cut-off grade from 0.3 g/t Au to 0.4 g/t Au (a 33% increase) results in a 15% reduction of the resources, while a cut-off grade of 0.5 g/t Au (67% increase) results in a 28% reduction. Table 14-8 lists the Indicated Resources reported at 0.1 g/t increments of the cut-off grade.

Figure 14-13: Côté Gold – In-Pit Indicated Grade-Tonnage Curves

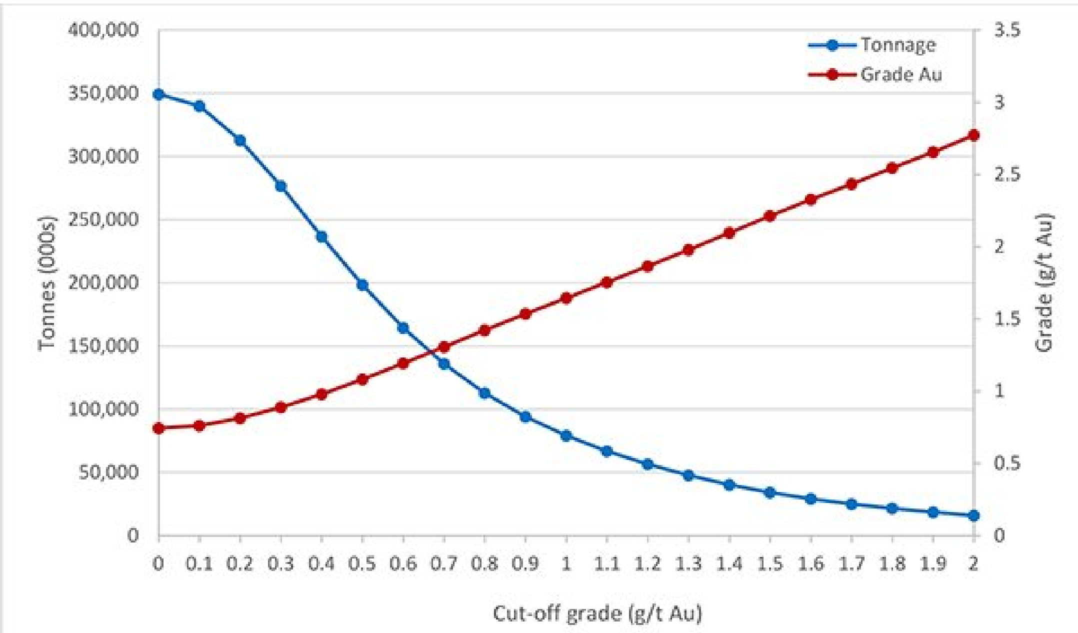


Table 14-8: In-Pit Indicated Resources Sensitivity to Cut Off Grade

IAMGOLD Corporation – Côté Gold Project		
Cut-off Grade	Tonnage (000't)	Grade (g/t Au)
0.0	349,229.7	0.74
0.1	339,924.6	0.76
0.2	312,737.5	0.82
0.3	276,715.3	0.89
0.4	236,561.7	0.98
0.5	198,439.6	1.08
0.6	164,316.0	1.19
0.7	135,932.3	1.31
0.8	112,706.9	1.42
0.9	94,125.3	1.54
1.0	79,289.0	1.65
1.1	66,893.2	1.76
1.2	56,625.1	1.87
1.3	47,757.2	1.98
1.4	40,321.4	2.10
1.5	34,131.7	2.21
1.6	29,095.5	2.33
1.7	25,142.3	2.44
1.8	21,640.6	2.55
1.9	18,740.7	2.66
2.0	16,058.8	2.77

14.16 Comparison with previous estimates

The overall updated in-pit Mineral Resources are similar to the 2015 year end resource estimate, however, the distribution of Indicated blocks within the pit has changed. More Indicated Resources have been outlined near surface, while less Indicated Resources were outlined at depth. In addition, some Indicated Resources were added within the Fault Domain. Table 14-9 presents the evolution of the Mineral Resources for Côté Gold.

Table 14-9: Comparison with Previous Mineral Resource Estimates

IAMGOLD Corporation – Côté Gold Project

Date	INDICATED Tonnage (Mt)	INDICATED Gold (g/t)	INDICATED Gold (Moz)	INFERRED Tonnage (Mt)	INFERRED Gold (g/t)	INFERRED 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	8.40	67	0.55	1.17
May-17	**281**	**0.89**	**8.04**	**76**	**0.50**	**1.23**

Compared to the 2015 estimate, the current Indicated Resources have decreased slightly by approximately 4% in contained ounces (almost 3% tonnage loss and 1% grade reduction), mostly as a result of the new interpretation for the Breccia domains. The Inferred Resources show a 5% increase (13% tonnage increase and 9% grade reduction). Additional model refinements with minimal impact include density assignment by lithology, revised capping grade, adjusted interpolation parameters, and smaller block size.

15.0 MINERAL RESERVE ESTIMATES

15.1 Overview

Mineral Reserves were classified in accordance with the CIM Definition Standards for Mineral Resources and Mineral Reserves (May 10, 2014). Only Mineral Resources that were classified as Measured and Indicated were given economic attributes in the mine design and when demonstrating economic viability. Mineral Reserves for the Côté Gold deposit incorporate appropriate mining dilution and mining recovery estimations for the open pit mining method.

The Mineral Reserve estimate for the Côté Gold deposit is based on the resource block model provided by RPA with an effective date of May 26, 2017, as well as information provided by IAMGOLD and information generated by Amec Foster Wheeler based on the preceding PEA Study.

Mineral Reserves are an estimate of the tonnage and grade of ore that can be economically mined and processed. To be considered Mineral Reserves the estimated material must pay for all costs incurred during mining, processing and selling.

The following section outlines the procedures used to estimate the Mineral Reserves. The mine plan is based on the detailed mine design derived from the optimal pit shell produced by applying the Lerchs-Grossman (LG) algorithm.

15.2 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, the pit slope angles by geotechnical sector, the commodity prices, the mining and processing costs, the process recovery and the sales cost for the gold produced. Table 15-1 provides a summary of the primary optimization inputs.

Table 15-1: Optimization Inputs

Parameter	Unit	Value
Gold Price	$/oz	1,200
Discount Rate	%	6
Overall Slope Angles		
Sector 1	degrees	41
Sector 2	degrees	45
Sector 3	degrees	37

Parameter	Unit	Value
Sector 4	degrees	45
Dilution	%	Estimated in a block-by-block basis
Mine Losses	%	Taken into account by block
Mining Cost		
Base Elevation	m	388
Base Cost	$/t	1.93
Incremental Mining Cost	$/t/bench	0.035
Stockpile Reclaim Cost	$/t	0.84
Process Costs		
Operating Cost	$/t milled	6.58
G&A	$/t milled	1.45
Process Sustaining Capital	$/t milled	0.57
Closure	$/t milled	0.18
Processing Rate	Kt/d	32
Process Recovery	%	92.50
Treatment & Refining Cost	$/oz	4.00
Royalties		
Zone 1	%	0.75
Zone 2	%	1.00
Zone 3	%	0.00
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, and net smelter return, into the optimization software. The optimization run was carried out only using Measured and Indicated 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 32 kt/d and a discount rate of 6% (Figure 15-1). Following this analysis, the Selected pit shell is usually smaller than the Base Case pit shell. The Selected pit shell for Côté Gold is shown in Figure 15-2. This represents an NPV improvement of $28.7 M over the Base Case pit shell.

Figure 15-1: Pit-by-Pit Analysis

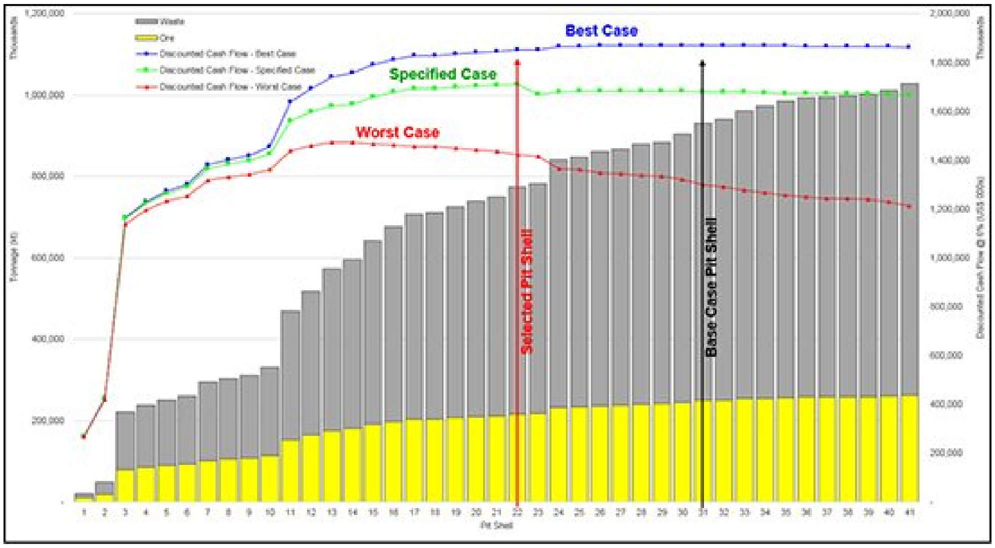
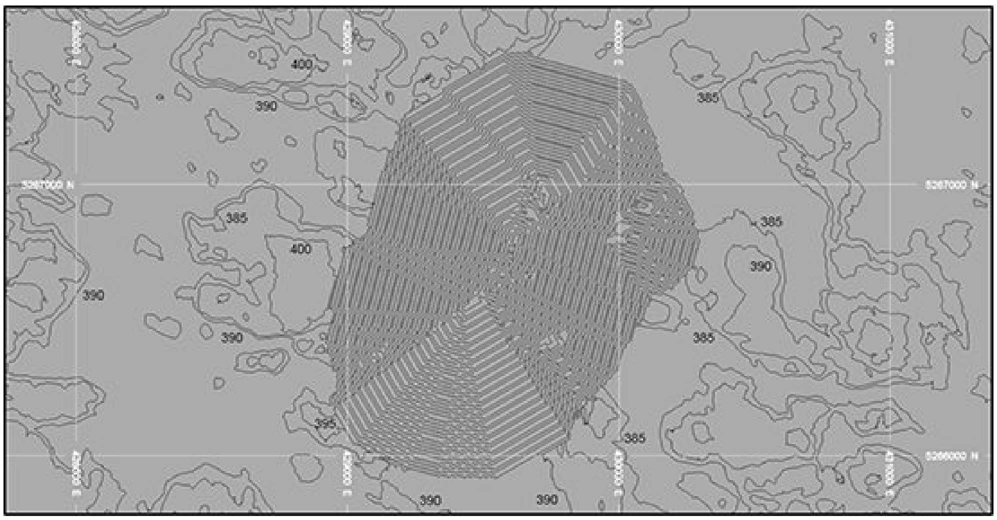


Figure 15-2: Selected Pit Shell



15.3 Dilution and Ore Losses

The dilution percentage was estimated according to Amec Foster Wheeler's experience in other projects. Dilution by block was estimated using detailed scripts that account for dyke and contact dilution.

To estimate the percentage of the dyke that can be segregated during mining the following steps were followed:

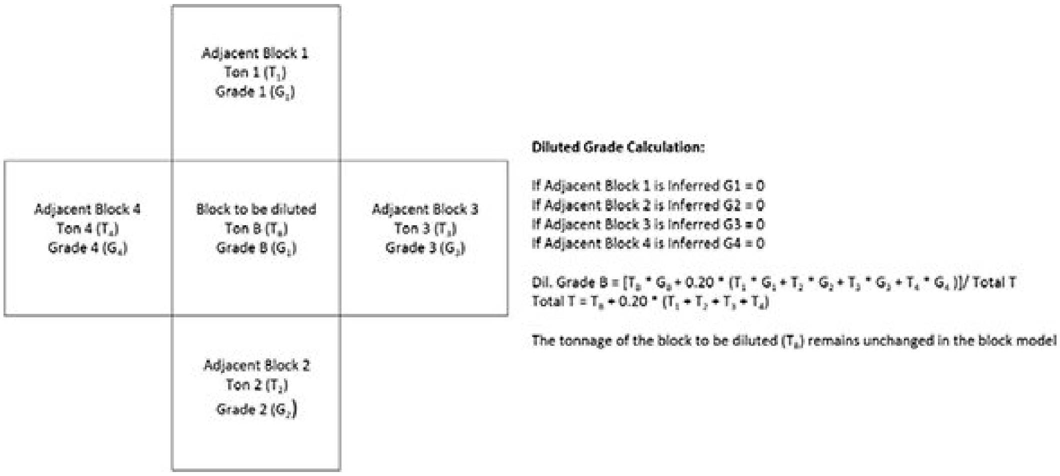
- The block model was gridded on a 2 x 2 x 12 m, then rotated 30 degrees clockwise such that once rotated, the sub-vertical dykes were oriented along the north-south direction.
- Dyke nodes were turned to non-dyke where the east-west dyke width was <= 8 m (or four nodes). Small clusters of dyke nodes (<= 50 nodes or 200 m^2) were turned to non-dyke. Dyke nodes turned to non-dyke cannot be segregated.
- The model was rotated back and reblocked to 10 x 10 x 12 m block size (RPA resource block model block size).
- Three different dyke percentages were then available in each block: original dyke percentage or total dyke percentage, percentage of dyke that cannot be segregated, and percentage of dyke that can be segregated. These percentages were used to apply dyke dilution for the reserves.
- The estimated average dyke dilution is 1.2%.

Contact dilution was estimated using the following steps:

- The grade of a given block will be diluted by blending 20% of the tonnage from each of the four adjacent blocks. This process is only performed to calculate the diluted block grade leaving the original block tonnage unchanged.
- If an adjacent block is classified as Inferred Mineral Resource its grade is considered to be zero. If the adjacent block is Measured or Indicated, but below cut-off, dilution is taken at the grade of the adjacent block.
- The estimated average contact dilution estimated using this procedure is 3.1%.
- The procedure is illustrated in Figure 15-3.

The total average dilution estimated in the described manner is 4.3% with an average grade close to 0 g/t. This estimate include expected ore losses.

Figure 15-3: Contact Dilution Estimation Procedure



15.4 Mineral Reserve Statement

The Mineral Reserve estimate includes the tonnage and grade of ore that can be economically mined and processed. To be considered mineral reserves the mineralised material must pay for mining costs, processing costs, selling costs, royalties and rehandling costs.

As the mining cost increases with depth and the royalty percentage varies by zone, individual blocks captured within the final pit design were tagged as either ore or waste by applying the parameters shown in Table 15-1. Using the partial block percentages within the final pit design the ore tonnage and average grade were calculated. The Mineral Reserve statement is shown in Table 15-2. The break-even cut-off grade varies according to the pit bench depth and the royalty zone, within a range of 0.30 to 0.37 g/t.

Table 15-2: Mineral Reserve Statement – May 26, 2017

Class	Tonnage t x 1000	Gold g/t	Gold ounces x 1000
Proven Mineral Reserves	—	—	—
Probable Mineral Reserves	196,079	0.94	5,925.8
Proven & Probable Mineral Reserves	196,079	0.94	5,925.8
Waste within Designed Pit	559,155		
Total Tonnage within Designed Pit	755,234		

Notes:

(1) Reserves estimated assuming open pit mining methods
(2) Reserves are based on gold price of $1200/oz
(3) Fixed process recovery of 92.5%
(4) Treatment and refining costs, including transport and selling cost, estimated to be $4.00/oz Au.
(5) Variable royalty percentages by zone: 0.75% for zone 1, 1.00% for zone 2, 0.00% for zone 3, 1.50% for zone 4, 0.75% for zone 5, 1.50% for zone 6, 0.75% for zone 7, and 0.75% for zone 8. Only zones 2, 3, 5 and 6 have Mineral Reserves.
(6) Processing costs: $8.77/t. Include process cost: $6.58/t, G&A: $1.45/t, Sustaining: $0.57/t, Closure: $0.18/t.
(7) Mining costs: $1.93/t incremented at $0.035/t/ 12m below 388m elevation. Average mining cost: $2.39/t. Rehandling cost $0.84/t.
(8) The break-even cut-off grade varies according to the pit bench depth and the royalty zone, within a range of 0.30 to 0.37 g/t.

15.5 Factors Affecting Mineral Reserves

The Côté Gold Mineral Reserves are subject to the types of risks common to open pit gold mining operations that exist in Ontario. The risks are reasonably well understood at the Prefeasibility level of study, and should be manageable. Proper management of groundwater will be important to maintaining pit slope stability.

16.0 MINING METHODS

16.1 Overview

The following section outlines the parameters and procedures used for the design of the mine as a conventional open pit, estimates the Mineral Reserves within the open pit mine plan, and establishes a practical mining schedule for the Côté Gold PFS. The mine plan is based on the Proven and Probable Mineral Mineral Reserves discussed in Section 15 of this report.

16.2 Mine Design

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

The design parameters include a ramp width of 35 m, road grades of 10%, bench height of 12 m, targeted mining width of 100 m, berm interval of 24 m, variable slope angles by sector and a minimum mining width of 40 m. Table 16-1 shows the mine design parameters.

Table 16-1: Mine Design Parameters

		Geotechnical Sector			
Parameter	**Units**	**1**	**2**	**3**	**4**
Inter-Ramp Angle	degrees	48	53	42	53
Bench Face Angle	degrees	65	75	60	75
Overall Slope Angle	degrees	41	45	37	45
Bench Height	m	12	12	12	12
Catch Bench Spacing	bench	2	2	2	2
Road Gradient	%	10	10	10	10
Road Width - Two Lanes	m	35	35	35	35
Road Width - One Lane	m	23	23	23	23

The smoothed final pit design contains approximately 196 Mt of ore and 559 Mt of waste for a resulting stripping ratio of 2.85:1. Within the 196 Mt of ore, the average grade is 0.94 g/t Au. These tonnages and grades were derived by following an elevated cut-off strategy in the production schedule. Figure 16-1 shows the ultimate pit design. Figure 16-2 and Figure 16-3 show pit sections comparing the mine design to the selected pit shell.

Figure 16-1: Ultimate Pit Design

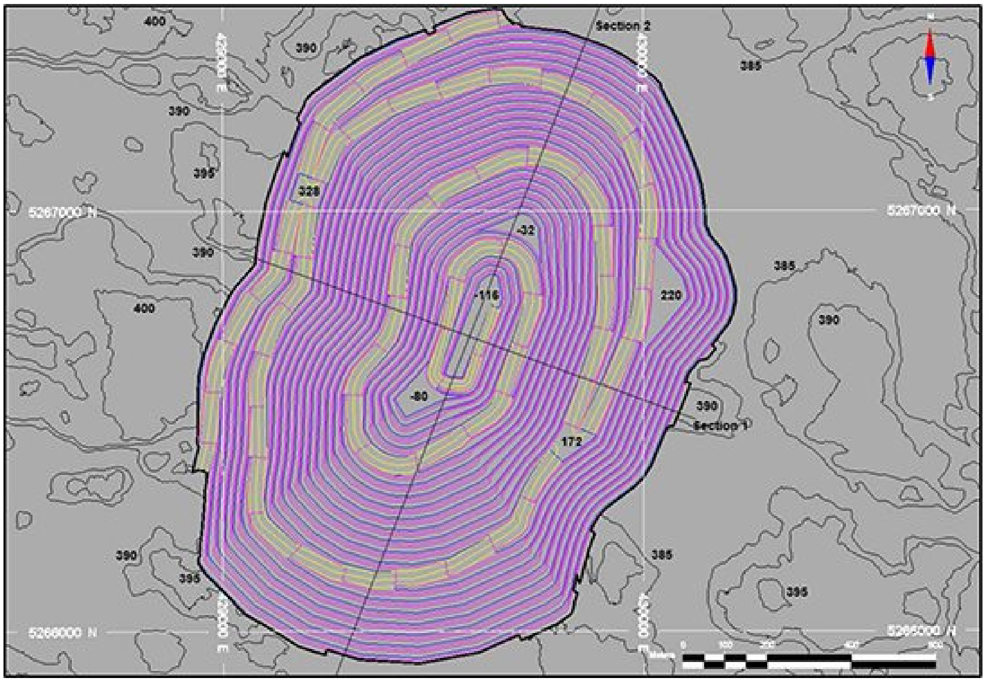


Figure 16-2: Section 1 Showing Mine Design and Selected Pit Shell

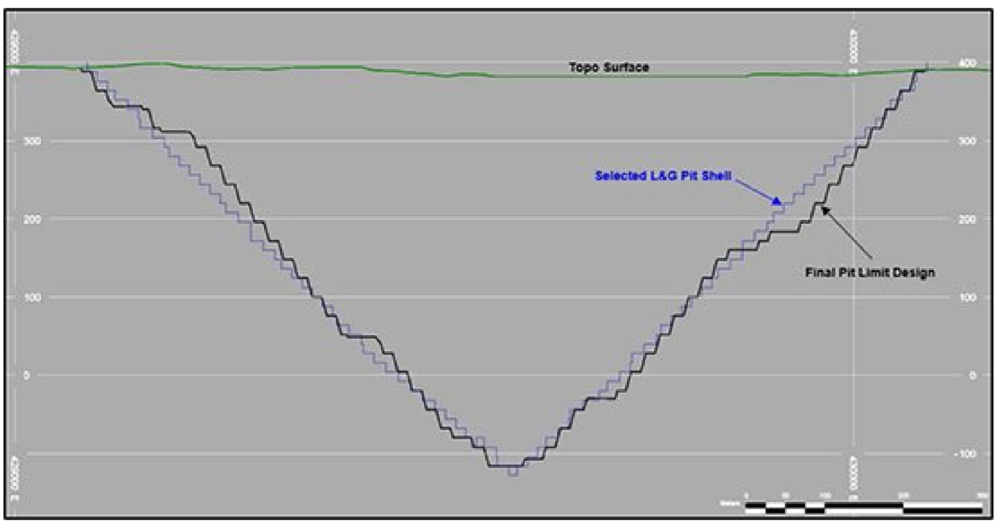
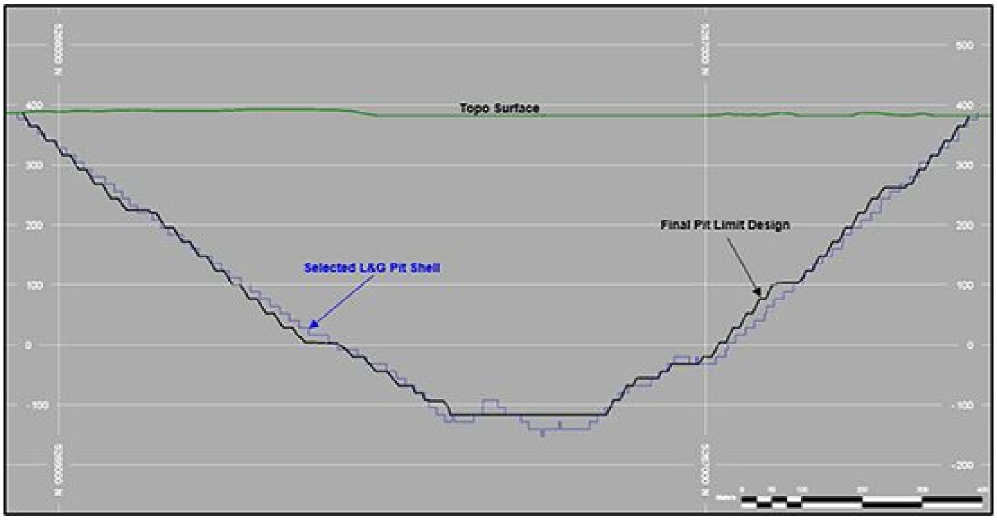


Figure 16-3: Section 2 Showing Mine Design and Selected Pit Shell

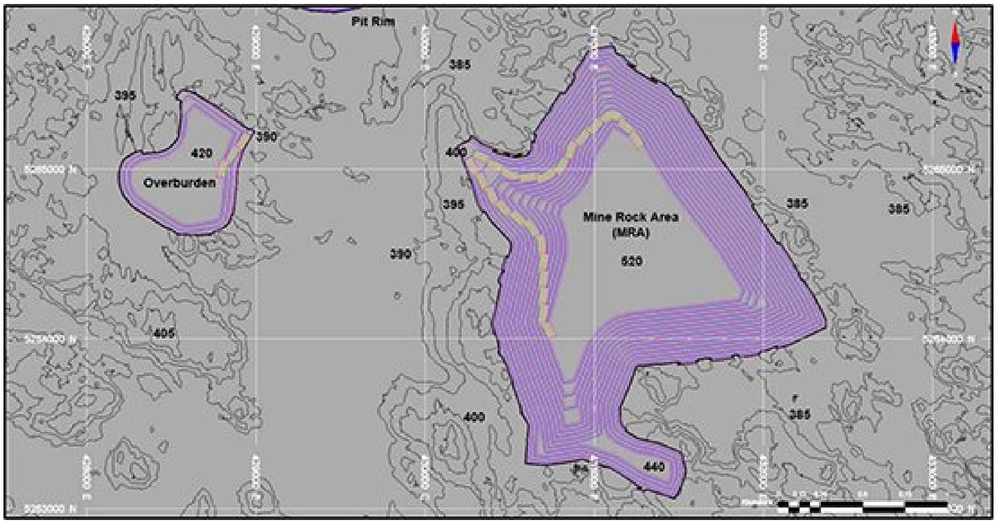


16.3 Waste Rock Facilities and Stockpile Designs

The design and construction of the mining rock area (MRA), overburden area and stockpiles should ensure physical and chemical stability during and after mining activities. To achieve this, the waste areas and stockpiles are designed to account for benching, drainage, geotechnical stability, and concurrent reclamation.

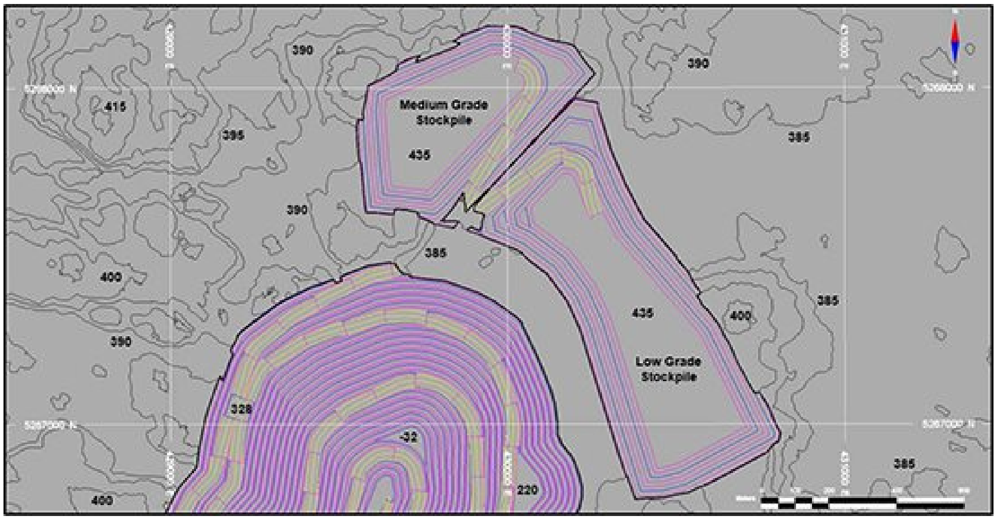
The MRA design criteria include 12.8 m berms, 2.6H:1V overall slopes, 10 m lifts, and a 33% swell factor for estimating volumes. In the case of the overburden area, the design criteria include 16.7 m berms, 3H:1V overall slopes, 10 m lifts, and a 33% swell factor for estimating volumes. Figure 16-4 shows the designs.

Figure 16-4: Waste Rock Facilities



In Figure 16-4, the smallest facility is the overburden storage, which is located southwest of the pit, and has a storage capacity of approximately 8.8 Mm3. The MRA is located southeast of the pit and has a storage capacity of approximately 220 Mm3. The ore stockpiles are located on the north side of the pit and have a total storage capacity of 22 Mm3, which is enough to satisfy the maximum stockpiling capacity of approximately 25 Mt required in the production schedule. Figure 16-5 shows the stockpile design with respect to the Côté Gold pit.

Figure 16-5: Ore Stockpiles



16.4 Production Schedule

The production schedule includes the processing ramp up. The processing plant ramp-up takes into account the inefficiencies related to the start of operations, and includes the tonnage processed as well as the associated recoveries, which steadily increase to reach the design capacity during the second quarter of operation. The mine will require one year of preproduction before the start of operations in the processing plant. Although the mine requires one year of pre-stripping, mining starts in year -2 to provide material for the tailings management facility (TMF) construction.

The deposit is mined in four nested phases, including the ultimate pit limit. The schedule was developed in quarters for the pre-production period and for the first two years of production, then in yearly periods to the life of mine.

The scheduling constraints set the maximum mining capacity at 60 Mt per year and the maximum number of benches mined per year at eight in each phase. Additional constraints were used to guide the schedule and to obtain the desired results. Examples of these additional constraints include maximum stockpile capacity and reducing the mining capacity in later years during the life of mine to balance the number of truck hours per period.

The schedule produced based on the Probable Mineral Reserves shows a life-of-mine (LOM) of 16 years with stockpile reclaim extending into Year 17. The amount of rehandled mill feed is 42 Mt, which requires a maximum stockpile capacity of 25 Mt when considering the reclaim. The average grade to the mil over the LOM is 0.94 g/t Au. The yearly LOM schedule is shown in Table 16-2 and Figure 16-6. Figure 16-7 shows the scheduled feed grade and Figure 16-8 shows the stockpile balance.

Table 16-2: 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
-2	—	—	—	375	2,315	—	—	—	0.99
-1	—	—	—	4,381	32,877	—	—	—	0.88
1	7,243	2,560	9,803	6,846	46,348	1.28	1.31	1.29	0.53
2	9,276	2,404	11,680	6,931	44,033	1.27	0.60	1.13	0.47
3	11,459	221	11,680	7,131	41,358	1.18	0.59	1.17	0.49
4	10,889	791	11,680	4,293	44,836	1.32	0.60	1.27	0.50
5	10,744	936	11,680	2,621	46,647	1.21	0.60	1.16	0.44
6	6,907	4,773	11,680	2,137	49,067	0.96	0.60	0.81	0.41
7	8,676	3,004	11,680	3,667	40,363	1.01	0.60	0.90	0.41
8	9,640	2,040	11,680	403	39,490	0.91	0.41	0.82	0.41
9	10,228	1,452	11,680	333	38,751	0.96	0.41	0.89	0.42
10	7,991	3,689	11,680	82	37,912	0.87	0.41	0.72	0.41
11	10,088	1,592	11,680	—	36,338	0.78	0.41	0.73	—
12	10,768	912	11,680	2,177	35,145	0.92	0.41	0.88	0.41
13	9,769	1,911	11,680	346	12,800	1.07	0.41	0.96	0.43
14	9,425	2,255	11,680	281	5,380	1.08	0.41	0.95	0.43
15	10,829	851	11,680	—	3,433	1.04	0.41	0.99	—
16	10,143	1,537	11,680	—	2,063	0.98	0.41	0.90	—
17	—	11,075	11,075	—	—	—	0.41	0.41	—
Total	**154,075**	**42,003**	**196,079**	**42,003**	**559,156**	**1.05**	**0.52**	**0.94**	**0.52**

Figure 16-6: Production Schedule

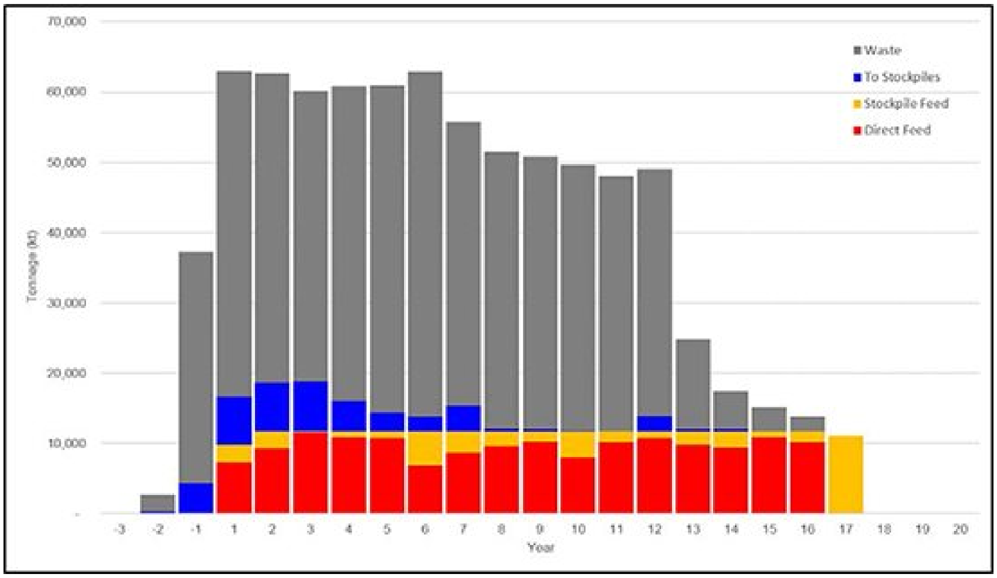


Figure 16-7: Scheduled Feed Grade

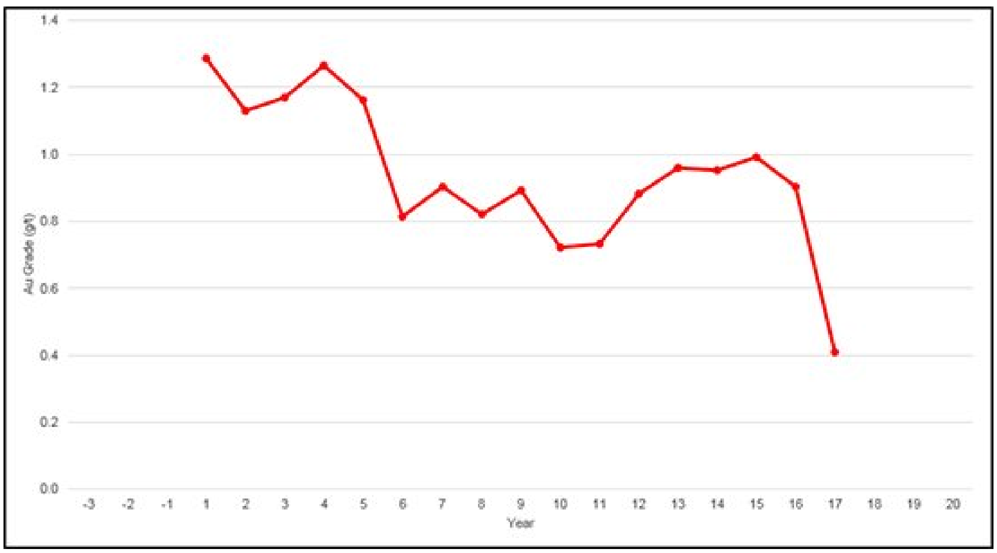
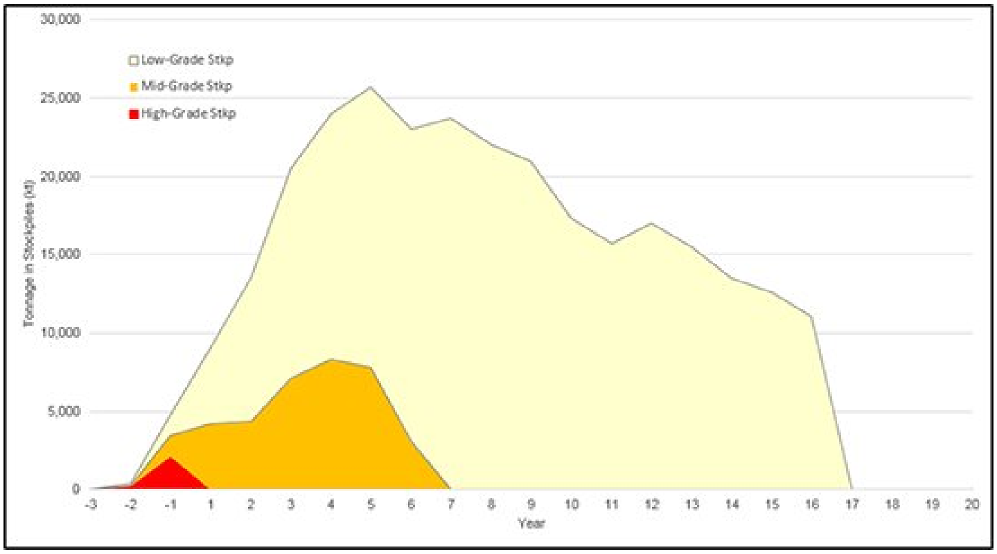


Figure 16-8: Stockpile Balance



16.5 Waste Material Handling

Waste will be hauled to the MRA using 220 t trucks. The construction sequence starts at the bottom of the dump by dumping the material in 10-m lifts, leaving a 12.8 m berm every lift. The resulting overall slope angle of the dump face will be 2.6H:1V.

The overburden area will be constructed in a similar manner using 40 t trucks, leaving a 16.7 m berm every lift for a resulting overall slope angle of 3H:1V.

16.6 Operating Schedule

The Côté Gold mine is scheduled to operate 24 hours a day, seven days a week utilizing four rotating crews working a 12-hour shift. During the day, there are two 12-hour shifts scheduled, consisting of a day shift and a night shift. The crews “hot change” or overlap between shifts to allow for continuous mine operations. A number of duties only require work during the daylight hours. For these duties, two crews rotate to provide seven day-a-week day-shift coverage. Personnel not engaged in shift work, work a 5 day on, 2 day off schedule, for an 8 hour shift.

For the rotating mine operations crews, approximately 3.25 hours are lost per day to standby time, inclusive of two hours for breaks, 30 minutes for fuelling, 20 minutes for shift change, 20 minutes for blast delay, and five minutes for meetings (Table 16-3).

Over a year, approximately 5 days or 120 hours are assumed lost to poor weather conditions, predominantly in the winter time. It is assumed that the equipment is manned but delayed during these weather events. Table 16-3 shows equipment gross operating hours per year.

Table 16-3: Gross Operating Hours per Year

Calendar Time		
	Days	365
	Shifts per day	2
	Shift length	12
	Calendar Time (h/year)	**8,760**
Available Time		
	Availability	88%
	Down time (h/year)	1,051
	Available Time (h/year)	**7,709**
Gross Operating Time		
	Operating Standby	
	Internal (minutes/day)	
	Lunch & breaks	120
	Blast delay	20
	Fueling	30
	Shift change	20
	Meetings	5
	External (h/year)	
	Weather	120
	Operating Standby (h/year)	**1,150**
	Gross Operating Hours (h/year)	**6,559**

Accounting for standby time and weather delays, equipment accumulates approximately 6,559 gross operating hours (GOH) per year in the example above. For productivity calculations, it is assumed that following preproduction, the trucks and shovels are in a productive cycle approximately 50 minutes each hour, or 83% of the time. For drills and support equipment, the productive utilization is lower and in the range of 75%. During the preproduction period, the equipment's productive utilization is de-rated to account for initial site conditions and operator skill level (Table 16-4).

Table 16-4: Productive Utilization Ramp-up

Period	Productive Utilization
PP Q8	67%
PP Q7	67%
PP Q6	75%
PP Q5	75%

PP Q4	75%
PP Q3	75%
PP Q2	75%
PP Q1	75%
Yr1 Q1 plus	83%

Like mine operations, mine maintenance is scheduled to work a 24/7 schedule to allow for continuous maintenance coverage. Nonetheless, the majority of planned maintenance work is done during the day shift with a skeleton crew scheduled for the night shift.

Blasting is only scheduled during the daylight hours. Two blasting crews rotate on a 12 hour day shift, for seven day-a-week coverage.

16.7 Mining Equipment

Côté is mined using a conventional owner operated truck and electric/hydraulic shovel fleet supported by contract blasting. The truck fleet is diesel powered with the capacity to mine approximately 60 Mt per year operating on 12-m benches. The shovel fleet is electric powered supported by a large diesel powered front end loader.

Equipment requirements are estimated quarterly during preproduction and the first two years of mining, and annually thereafter. Equipment sizing and numbers are based on the mine plan, the operational factors shown in Table 16-5, and a twenty-four hour per day, seven day a week work schedule.

Table 16-5: Equipment Utilization and Efficiency

Equipment	Availability	Efficiency
Blasthole production drill	84%	75%
Haul Truck - 220 t	87%	83%
Front End Loader - 21.0 m^3	86%	83%
Hydraulic Shovel – 34.0 m^3	86%	83%
Dozer (433 kW)	85%	83%
86t Excavator	85%	83%
40t Articulated Truck	85%	83%
RTD (372 kW)	85%	83%
Grader - 4.5 M Blade	85%	83%
Water Truck - 75,000 l	85%	83%

16.7.1 Blasting

Blasting operations are contracted to a blasting explosives provider who is responsible for shot design, loading, stemming, and initiation. The explosive provider has proposed a unique bulk emulsion technology called Site Mixed Emulsion (SME) where emulsion is mixed on a SME truck thereby eliminating the need to build a dedicated emulsion plant;

nonetheless, a dedicated, but much smaller, SME facility is built and operated at the site by the explosive provider.

The specially designed SME trucks are mobile factories and the emulsion is manufactured on the bench and delivered directly into the borehole. The truck contains only ingredients and no explosive exists until it is pumped down the borehole. This results in a safer operation and eliminates the need to store finished product at the manufacturing facility.

At Côté, the SME trucks will deliver a bulk emulsion product down the borehole that has a density of 1.2 g/cm ^{3}. Blasting quantities were estimated based on the 1.2 g/cm3 explosive density and the blast design criteria provided in Table 16-6.

Table 16-6: Blasting Design Input

Description	Drill Type	Material Type	Rock UCS (MPa)	Rock Density (t/m ^{3})	Bench Height (m)	Powder Factor (kg/t)
12m Bench - Waste	PV271	Waste	160	2.7	12	0.25
12m Bench - Ore	PV271	Ore	160	2.7	12	0.30

Based on benchmarking, a powder factor of 0.30 kg/t is used for ore, and a powder factor of 0.25 kg/t is used for waste. The overburden material, consisting of peat and glacial till that overlies the deposit, is not blasted. Instead, it is free-dug.

Summary blast designs are shown in Table 16-7.

Table 16-7: Blast Designs

Material	Bench Height (m)	Powder Factor (kg/t)	Bit Size (mm)	Burden (m)	Spacing (m)	Stemming (m)	Sub Drill (m)
Waste	12	0.25	251	7.3	8.4	5.8	2.2
Ore	12	0.30	251	6.7	7.8	5.4	2.0

16.7.2 Drilling

Throughout the Project life, drilling is required for both ore control and blasting. Rock fragmentation achieved through blasting is the overriding design criteria for the drill hole pattern design. The drill pattern design from Section 16.7.1 along with the drill penetration rates described below are used to estimate drilling requirements.

Drill penetration is a function of bit size, bit load, drilling method, and rock strength properties. Amec Foster Wheeler relied on Golder’s 2015 FS Pit Design report for rock strength properties. Golder completed uniaxial compressive testing on Côté’s primary rock types and noted if the failure was through intact rock (intact) or through a combination of intact rock and healed fractures (combined). The results of the uniaxial compressive tests are shown in Table 16-8.

Table 16-8: Rock Type Weight and UCS

Rock Type		Combined (MPa)	UCS Intact (MPa)
Tonalite	Average	109	208
Diorite	Average	127	179
Tonalite Breccia	Average	167	167
Diorite Breccia	Average	167	167

Because Golder notes that the rock mass has very similar physical properties, an average combined UCS value of 160 MPa was used to estimate drill penetration rates. For comparative purposes, the typical UCS range for igneous rocks is between 100 to 250 MPa, so the Côté rock is well within range.

According to the Workman Calder Rock classification, the Côté rock is rated as Hard with a Rock Penetration Factor (RFI) of 80.

The total drilling cycle time accounts for drilling time, tramming time between holes, setup time, and sampling time. Because the PV271 can drill to a 16.8 m depth, no time is required for drill steel addition. The average penetration rate shown in Table 16-9 also assumes 75% productive utilization, or 45 minutes out of 60 minutes that the drill is in the drilling cycle.

Table 16-9: PV271 Drill Penetration Rates

Material Type	Inst. Pen. rate m/h	Tram Time min	Setup Time min	Sampling Time min	Total Cycle min	Average Pen Rate [1] (m/h)
Ore	29	2.25	1	0.75	33.3	19.2
Waste	29	2.25	1	0.75	33.0	19.1

1 Assumes 75% efficiency

Table 16-10 shows the drill requirements, the metres drilled, the hours operated, and the average penetration rate by period. By the end of preproduction, mining requires four large production drills. One drill is added each quarter during Year -1 of preproduction, until the peak number of drills, four, is reached during the fourth quarter of Year -1. Metres drilled include a 5% allowance for additional trim drilling and re-drills. Penetration rates average

19.2 over the life-of-mine (LOM). As a point of reference, the drill supplier estimate drill requirements to peak at 3 drills.

Table 16-10: Drill Requirements and Performance

Period	Drills Required #	Meters Drilled (m)	Operating Hours (h)	Avg. Pen Rate (m/h)
PP -2	—	—	—	—
PP -1	3	238,366	12,455	19.1
Yr1	4	463,969	24,247	19.1
Yr2	4	469,680	24,548	19.1
Yr3	4	455,699	23,819	19.1
Yr4	4	464,668	24,284	19.1
Yr5	4	464,648	24,282	19.1
Yr6	4	445,352	23,271	19.1
Yr7	4	408,787	21,363	19.1
Yr8	4	368,938	19,280	19.1
Yr9	4	381,305	19,926	19.1
Yr10	3	353,496	18,472	19.1
Yr11	3	359,156	18,769	19.1
Yr12	3	374,963	19,055	19.7
Yr13	2	183,300	9,583	19.1
Yr14	2	124,250	6,498	19.1
Yr15	1	119,404	6,246	19.1
Yr16	1	103,214	5,399	19.1
Total		5,779,196	301,497	19.2

In addition to the production drills, one top head hammer (THH) drill with a 5 inch (127 mm) bit is used for pre-split drilling. The THH can also be used for pioneer mining/bench development and road construction.

16.7.3 Loading

From the total cost of operation (TCO) analysis, the primary loading unit selected is a CAT 6060 electric/hydraulic (6060E) shovel (Amec Foster Wheeler, 2017). To assist the CAT 6060E shovel, one CAT 994K high lift front end loader (FEL) is scheduled throughout the mine life. The loader's primary function is to supplement the shovel production on an as-needed basis, to dig shovel drop cuts, to load out the bench crest berm, and to maintain mine production when a hydraulic shovel is down for maintenance. The CAT 994K FEL is also used for stockpile rehandle, most of which is scheduled towards the end of mining.

The CAT 6060E shovel four-pass loads the CAT 793F truck in approximately two minutes and five seconds. The peak productivity scheduled for the hydraulic shovels occurs in

Years 1 to 6, when two hydraulic shovels are scheduled at 3,812 tdry/GOH. Peak hydraulic shovel requirements are estimated at two.

One CAT 994K is scheduled throughout the LOM.

In addition to the primary loading units, during preproduction, a CAT 385 excavator is paired with CAT 740 trucks to mine approximately 8.8 Mt of overburden and bedrock. The CAT 385 excavator mines overburden throughout the mine life, but at a lesser extent. Following preproduction, the CAT 385 is also used to: maintain haul roads, scale the pit walls as needed, and excavate dewatering sumps.

16.7.4 Hauling

From the TCO analysis, the primary hauling unit selected is a CAT 793F mechanical drive truck. It has a payload capacity of 226 t wet, assuming a standard body with a full set of liners. The dry capacity is estimated at 215 t, assuming 5% moisture and carry back.

Amec Foster Wheeler estimated truck requirements for the CAT 793F truck on a period by period basis, using travel distances from a road network developed within Minesight ®. Haul segment distances were reported for each material type from their location on a mining bench to their final destination. Assuming 3% rolling resistance for haul roads, travel speeds were estimated from the manufacture's performance curves, and applied to each haul segment to estimate travel time, with adjustments made to better reflect actual speeds in an operating environment.

The adjusted speeds and fuel burns by haul grade were used in estimating truck requirements, and in estimating diesel fuel usage.

To check data quality, the adjusted fuel consumption per km traveled is charted against haul grades for both loaded and empty hauls. Both the loaded and empty curves result in smooth parabolic lines, indicating that there are no errors or biases in the fuel inputs.

Truck requirements by period are shown in Table 16-11, together with the average one-way haul distance, average fuel consumption, and average truck productivity. Truck requirements during preproduction start at nine and ramp up to 19 by Year 1. During preproduction, the average one-way haul is 4.2 km. Truck requirements continue to ramp up with mine production and haul distances until they reach a peak of 27 in Year 6.

Table 16-11: Truck Requirements & Productivity Statistics

Period	Trucks Required #	Average one-way Haul Distance (m)	Average Fuel Burn l/GOH	Average Truck Production t/GOH
PP -2	—	—	—	—
PP -1	9	4,167	134	507
Yr1	19	4,160	144	490
Yr2	23	4,826	154	420
Yr3	24	5,394	161	369
Yr4	24	5,404	159	381
Yr5	25	5,557	161	370
Yr6	27	5,662	163	354
Yr7	27	6,248	171	313
Yr8	24	5,878	169	314
Yr9	24	5,973	169	321
Yr10	27	5,869	170	279
Yr11	27	6,260	176	270
Yr12	27	6,883	182	275
Yr13	15	6,616	184	251
Yr14	10	6,034	183	263
Yr15	10	6,297	186	229
Yr16	9	6,183	187	231
Yr17	3	1,856	107	560
Total		5,729	167	336

16.7.5 Support

Support equipment includes excavators, track dozers, rubber-tired dozers (RTDs), sand trucks, graders, fuel/lube trucks, and water trucks. The major tasks for the support equipment include:

- Bench and road maintenance
- Shovel support/clean-up
- Blasting support/clean-up
- MRA maintenance
- Stockpile construction/maintenance
- Road building/maintenance
- Pioneering and clearing work
- Field equipment servicing.

A description of the support equipment fleet follows:

- 35 tonne Excavator (CAT 330) – One CAT 330 excavator is scheduled throughout the mine life. Its primary functions are to support dewatering, maintain pit drainage, break rocks utilizing the rock breaker attachment, and backup the larger CAT 385 excavator.

- 443 kW track dozers (CAT D10) are estimated at 0.5 dozers per production blast hole drill and production loading unit. The CAT D10 dozer fleet peaks at 4 machines in Year 1. Their primary functions are to maintain pit floors, maintain dumps and stockpiles, build pit roads, and clean final pit walls. Due to limited mobility, the 71 t dozers are transported between working areas using a 160 t capacity low-bed transport. The low-bed is also used to transport the 84 t drills and the 85 t CAT 385 excavator.
- 419 kW rubber-tired dozer (CAT 834K) requirements are estimated at approximately one RTD per hydraulic shovel. Their primary function is to maintain shovel floors, move cable and cable towers, provide drill pattern clean-up, clear rock spillage, and provide backup dump and stockpile maintenance. At peak, two CAT 834Ks support two CAT 6060 shovels and associated mining areas.
- CAT 740 Sand Trucks – During preproduction, seven CAT 740 trucks are required for overburden bedrock removal. Following preproduction, overburden removal requirements drop significantly, allowing for the conversion of all but two of the CAT 740 trucks to alternate uses. Two of the CAT 740 trucks are fitted with sanders and used to support winter operations throughout the LOM.
- 221 kW motor graders (CAT 16M) are estimated at approximately one grader per 8 trucks. Their primary function is to maintain roads, dump areas, and pit areas. The peak 16M grader fleet of four graders supports a fleet of 27 CAT 793 trucks and two CAT 740 trucks.
- Following preproduction, three of the CAT 740 trucks are converted to 36,000 l (8,000 gallons) water trucks. The water trucks are matched with the truck fleet at a ratio of one water truck per 10 haul trucks. During the winter season, from October to April, water trucks are lightly scheduled. They are primarily used for watering the drills and for fire patrol; nonetheless, even during the winter season roads become dusty. During May to September, when dust suppression requirements are at their highest, the water trucks are fully scheduled. At peak, the mine operates three water trucks.
- Two CAT 740 fuel/lube trucks are purchased in Year 1. They are used to fuel and service shovels and other tracked equipment.
- Of the initial seven CAT 740 articulated trucks in service during preproduction, two are maintained for pit cleanup and overburden removal throughout the LOM.

Support equipment requirements are shown in Table 16-12.

Table 16-12: Support Equipment

Period	CAT 330 Excavator	CAT D10 Dozer	CAT 834 RTD	CAT 740 Sand Truck	CAT 16 Grader	CAT 740 Water Truck	CAT 740 Fuel/ Lube Truck	CAT 740 Haul Truck
PP -2	1	1	—	—	1		—	7
PP -1	1	3	2	—	2	1	—	6
Yr1	1	4	2	2	3	3	2	2
Yr2	1	4	2	2	3	3	2	2
Yr3	1	4	2	2	3	3	2	2
Yr4	1	4	2	2	3	3	2	2
Yr5	1	4	2	2	3	3	2	2
Yr6	1	4	2	2	4	3	2	2
Yr7	1	4	2	2	4	3	2	2
Yr8	1	4	2	2	3	3	2	2
Yr9	1	4	2	2	3	3	2	2
Yr10	1	3	2	2	4	3	2	2
Yr11	1	3	2	2	4	3	2	2
Yr12	1	3	2	2	4	3	2	2
Yr13	1	2	1	1	2	2	1	1
Yr14	1	2	1	1	2	2	1	1
Yr15	1	2	1	1	2	2	1	1
Yr16	1	2	1	1	2	2	1	1
Yr17	—	1	—	1	1	1	—	—

16.7.6 Auxiliary

To support mine maintenance and mine operation activities, a fleet of auxiliary equipment is required. The types and numbers of auxiliary equipment are listed in Table 16-13 in five year increments.

Table 16-13: Auxiliary Equipment

Equipment	Year 1	Year 5	Year 10	Year 15
Mine Maintenance				
Truck Mounted 40 t Crane	1	1	1	1
80t Rough Terrain Crane	1	1	1	1
5t Rough Terrain Forklift	1	2	2	1
10t Forklift	1	2	2	1
Mechanic Service Truck	3	3	3	2
Small Fuel/Lube truck	1	1	1	1
CAT 262 Skid Steer	1	1	1	1
Flatbed Truck	2	2	2	1
CAT TL1055 Telehandler	1	1	1	1
Mine Operations				
CAT 450E backhoe/loader	1	1	1	1
CAT H180DS hydr hammer/impactor	1	1	1	1

160t Lowboy	1	1	1	1
Compactor	1	1	1	1
Light Plant	11	11	9	5
4,000 gallon Water Truck	1	1	1	1
Small dump truck	2	2	2	2
3/4 ton Pickup	13	13	13	8
1 ton Pickup	7	8	8	4
Crew Bus	5	5	5	4
MineStar	1	1	1	1
Mine & Geology Software	1	1	1	1
Pumps	2	5	7	8
Cable Reeler	1	1	1	1

16.8 Open Pit Water Management

Dewatering is accomplished via inpit pumping for both ground water inflows, and inflows from precipitation and runoff. Amec Foster Wheeler relied on estimates for ground water inflows and inflows from precipitation and runoff made by Golder in their 2015 FS Pit Slope Design report (Golder Associates, 2015). Table 16-14 summarizes Golder's pit inflow estimates.

Table 16-14: Pit Inflows

	Groundwater Inflow Base	Precipitation and Runoff Average	Estimated Total Inflows		
Year	m^3/day	m^3/day	m^3/day	l/min	gal/min
PP-Yr3	170	4765	4935	3,427	905
Yr4	270	4765	5035	3,497	924
Yr5	330	4765	5095	3,538	935
Yr6	580	4765	5345	3,712	981
Yr7	680	4765	5445	3,781	999
Yr8	790	4765	5555	3,858	1,019
Yr9	810	4765	5575	3,872	1,023
Yr10	860	4765	5625	3,906	1,032
Yr11	880	4765	5645	3,920	1,036
Yr12	890	4765	5655	3,927	1,037
Yr13	940	4765	5705	3,962	1,047
Yr14	950	4765	5715	3,969	1,048
Yr15	960	4765	5725	3,976	1,050
Yr16	1010	4765	5775	4,010	1,059

1,200 gal/min submersible electric pumps located in a pit sump and at pump stations spaced every 60 m vertically above the pit sump are used to remove water from the pit.

16.9 Geotechnical Review

Amec Foster Wheeler carried out a review of the geotechical report authored by Golder Associates (2015), which was provided as the basis to support the present PFS study mine design. This report includes hydrogeological modelling and dewatering options, as well as the assessment of the overall pit slope stability.

Amec Foster Wheeler concurs with the recommendations provided by Golder for the open pit mine design at the PFS level. However, additional design verification work will be needed to advance the project to the Feasibility Level.

16.10 Suitability of Resource Estimate to Support Mine Plan

Amec Foster Wheeler reviewed data collection and verification, geological interpretation, and mineral resource estimation procedures supporting the Côté Mineral Resource estimate. The review was completed as part of the mining Qualified Person's data verification of the inputs to the mineral reserve estimation and as an assessment of the mineral resource model's suitability to support the mine plan and mineral reserves as proposed in the prefeasibility study.

Our review of the resource model involved the following:

- Mining dilution/selectivity check to assess the amount of in-situ dilution in the mineral resource estimate and how close it is to the anticipated planned mining dilution.
- Mineral Resource classification confidence via a drill hole spacing study; this is a study of the confidence on the estimated metal content versus drill hole spacing.
- Uncertainty and grade control selectivity via a geostatistical conditional simulation within a well drilled area.

Amec Foster Wheeler concludes that it is reasonable to rely on the mineral resource block model for use in the mine plan proposed in the PFS. Amec Foster Wheeler observes the following:

Database Quality

- No material database issues are identified.

Geological Controls on Mineralization and Geological Model

- The controls on gold mineralization are not thoroughly understood. It is evident that material logged as breccia hosts gold mineralization, but logged breccia is not a definitive control.
- The breccia wireframes currently used for constraining grade estimation are not robust. The wireframes were prepared to constrain magmatic and hydrothermal breccia hosting gold grades greater than 0.3 g/t Au. The wireframes host brecciated

and non-brecciated material and some mineralization grading < 0.3 g/t Au. The majority of core within the mineralized wireframes is logged as tonalite.

- Revisions between the 2015 and 2016 mineralization wireframes resulted in significant local changes in the shape of the wireframes and increased the amount of estimated blocks classified as Indicated Mineral Resources compared to the previous model. These revisions occurred in response to observations made by Amec Foster Wheeler about Mineral Resource classification domains in the 2015 model.
- The current geological model is suitable for the PFS, but the lack of a clear understanding of the geological controls on mineralization remains a risk to the project. If the geological controls are better understood, it may be possible to better segregate high- and low-grade materials. This would represent an opportunity to the project.

Estimation Methodology and Validation

- Grade capping is considered reasonable.
- The 6 m length compositing after capping is considered reasonable.
- The 6 m composite exploratory data analysis is considered reasonable.
- ID3 interpolation was used to mitigate the lack of robustness of the wireframed breccia domains. Using ID3 interpolation to mitigate possible grade smearing from higher to lower grade areas due to lack of mineralization control understanding is considered reasonable.
- No significant issues were identified in the block model through visual and statistical validation.

Mining Dilution/Selectivity

- The current 15 x 15 x 12 m SMU size is considered reasonable.
- Planned Mining (in-situ) dilution assessment is uncertain due to incomplete mineralization control understanding and uncertain variography. Selectivity checks indicate that the ID3 model could be too selective relative to the proposed mine plan in the breccia domains, resulting in slight over-estimation of the grade and under-estimation of the tonnes at the 0.3 g/t Au cut-off grade. This was compensated by including additional mining dilution when defining the PFS Mineral Reserves.

Classification Confidence

- The Indicated Mineral Resource classification is considered reasonable where the grade is high and continuous, but the classification may be optimistic in the lower-grade discontinuous areas.
- For an Indicated Mineral Resource, guidance is that the drill hole spacing should be sufficient to predict tonnage, grade and metal on annual production with a confidence interval of ±15 % relative precision at the 90 % confidence level (90% CI). A drill hole

spacing study indicates that a drill hole spacing of 50x50 m is sufficient to support Indicated classification in the breccia domains, based on relative confidence intervals computed for metal production above the 0.3 g/t and 0.7 g/t Au cut-off grades. Relative confidence intervals for metal production between grade thresholds (such as multiple stockpiles) could be larger due to lower tonnages. Tighter confidence intervals can be achieved with tighter drilling.

- A conditional simulation within the well drilled area confirms the drill hole spacing study results.

Grade Control Selectivity

- A conditional geostatistical 15 x 15 x 12 m SMU grade simulation was completed within a 25 x 25 m drilled area extending 200 x 200 m laterally and 200 m vertically from the surface. Within this area, the simulation and the PFS diluted mineral resource model are in good agreement with: very similar grade tonnage curves; good agreement for tonnes and grade for high-grade ore (≥ 0.85 g/t Au) and 0.3 - 0.5 g/t Au stockpile; good agreement for tonnes and grade for waste (< 0.3 g/t) and 0.5 - 0.7 g/t Au stockpile. The 0.7 - 0.85 g/t Au stockpile appears difficult to segregate and predict.

In addition to RPA's recommendations for the Mineral Resources, Amec Foster Wheeler recommends:

- Continued investigation into the various breccia and alteration types and gold mineralization. Before initiating these studies a careful review of logged lithology and alteration should be completed. Metallurgical sampling may also provide guidance on how the individual alteration observations can be grouped into assemblages. Lithology and alteration logging accuracy and consistency should be confirmed by visual re-logging and spectral logging. Simulations or implicit modeling of multi-element ICP data may assist in the identification of alteration domains and structural controls.
- Completing a simulation on a much bigger area once domaining is improved (e.g. an area covering the first five years of production or more); applying diglines on simulated results that reflect reasonably well anticipated digging practice; and using the simulated "ground truth", the long-term estimated resource model, and the simulated grade control models and diglines to anticipate reconciliation factors. Amec Foster Wheeler also recommends completing an optimum SMU study by re-blocking the simulation to various SMU sizes and assessing the different SMU size impact on both recovered tonnes and grade above an economical cut-off grade and associated mining costs.

17.0 RECOVERY METHODS

17.1 Summary

Testing of samples from the Côté Lake 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, while a common industry practice, is usually implemented 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.

Subsequent to the issue of the PEA-level report, HPGR pilot testing was performed to confirm the advantages over the SAG milling configuration and further process definition.

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 electrowinning (EW). Tailings handling will incorporate cyanide destruction and tailings thickening.

Plant throughput will be 32,000 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.

In the next study stage, it will be imperative to acquire sufficient material for further HPGR variability work to test responses to different ore characteristics.

17.2 Process Design Criteria

The process design criteria were developed from:

- SGS, Investigation into the Recovery of Gold from the Côté Lake Deposit, Project 12589-001 – Final, July 12, 2011
- JKTech Pty Ltd., 2012: SMC Test Report on Thirty Samples from Côté Lake Project, Job No. 12007/P42; July 2012
- SGS, Geometallurgical Investigation of the Côté Lake Deposit, Project CALR-12589-002 – Final Report, August 31th, 2012
- SGS, The Grindability Characteristics of Samples from the Côté Lake Deposit, Project CALR-12589-003 – Report 1, Augusts 26, 2013
- SGS, Investigation of Gold Recovery from Côté Gold Project Samples, Project 12589 003 – Report 2, August 3, 2013
- JKTech Pty Ltd, SMC Test Report on Thirty Samples from Côté Lake Project, Job No. 13007/P50, March 2014
- SGS, The Grindability Characteristics of Samples from the Côté Lake Deposit, Project CALR-12589-004, July 7, 2014
- COREM, 2017. Comminution Testwork Program for Iamgold, Technical Note T2127; May 26, 2017
- UBC, Piston Press Study to Assess Ore Variability for HPGR Comminution for the Côté Gold Project . University of British Columbia Project No . UBC_CL17, May 2017
- AMINPRO, Third Party Review Of Comminution Circuit Design. 2017 (P2017-0014)
- SGS, Solid-Liquid Separation & Rheology, Project 16095-001. Final Report, May 31, 2017
- 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 variability testwork.

The plant process design criteria are 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	11	
	Daily Processing Rate	tpd, dry	32,000	
	Hourly Processing Rate, Nominal	tph, dry	1,418	
Mill Feed Properties	Specific Gravity		2.7	
	ROM Bulk Density, Unpacked	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
Head Grades and Recoveries	Head Gold Grade, Average	g/t Au	0.94	
	Head Silver Grade, Average	g/t Ag	<0.3	
	Au Recovery by Gravity	%	23	
	Intensive Leach Recovery	%	99	
	Leach Recovery	%	90.9	
	CIP Recovery	%	99	
	Desorption, Regeneration & Refining Recovery	%	99.5	
	Overall Au Recovery	%	91.8	

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. 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 site geography.

Run-of-mine mill feed will be transported by 220t haul trucks to the gyratory crusher, where each truck will dump into the apron feeder system which feeds the gyratory crusher. The crushed material from the crusher will be discharged onto an apron feeder. This 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 set of secondary crusher screens by 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 Coarse Ore Stockpile (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 and reduce the required size of the storage bins. 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 two screens to control grind size; 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. Appropriately sized material will serve as cyclone feed within the ball mill circuit.

Underflow 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.

A 15% split of the cyclone underflow stream 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.

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 to the pre-leach thickener feed tank.

The pre-leach thickener will initiate the gold leaching process. Further 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 29 hours. Discharge from the leach trains will be recombined and sent to a CIP tank train in the carousel arrangement, for gold adsorption.

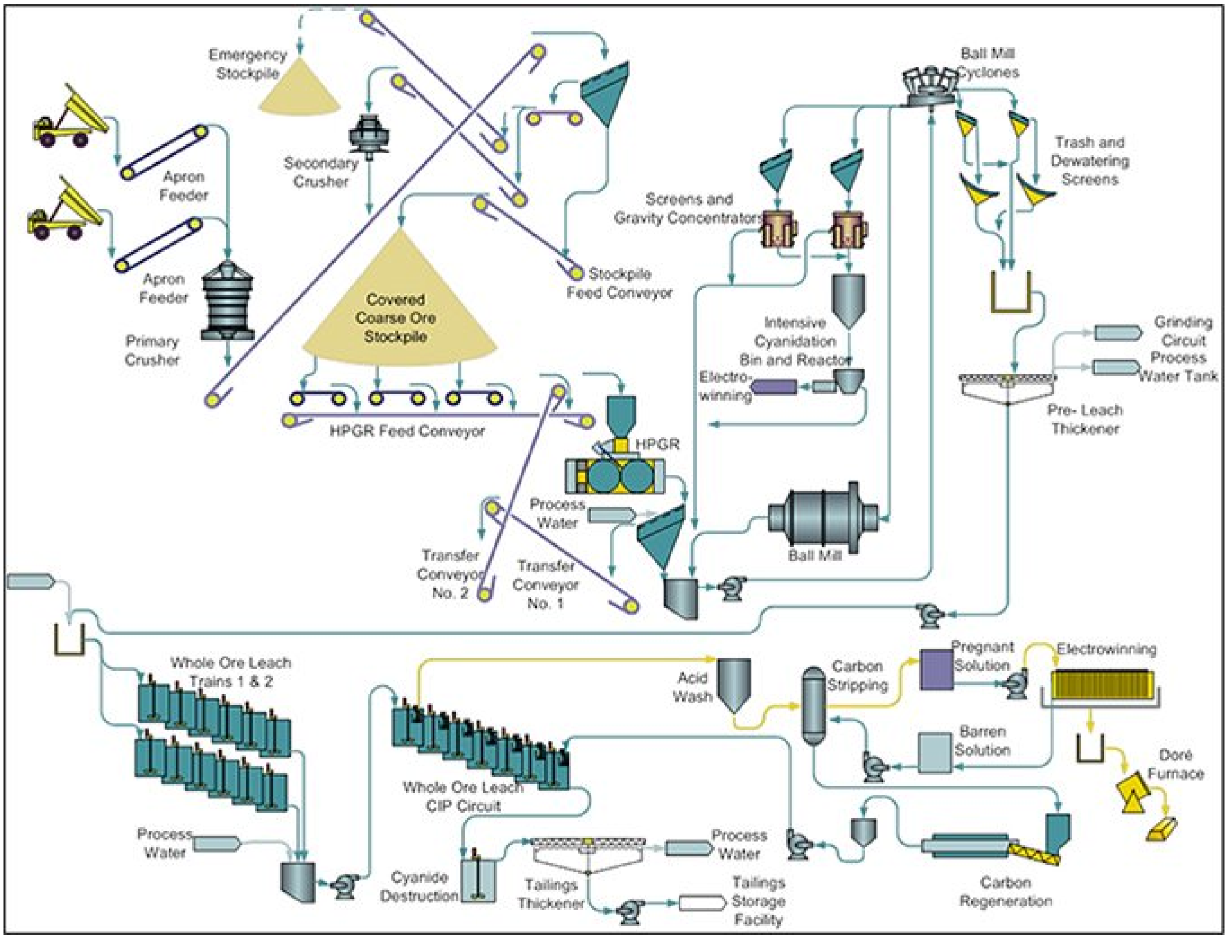
Loaded carbon from the CIP tanks will be pumped to the pressure elution circuit with two 10 t stripping vessels. Once gold has been desorbed, the carbon will be sent for regeneration in a 0.5 tph electric kiln. Quenching and screening will prepare the reactivated carbon for reintroduction into the CIP 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 between 60% to 62% solids in the tailings thickener before being sent to the TSF.

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.

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*
Crushing				
	Nominal Throughput	t/h	1,905	C
	Operating Time	%	70	I
	Feed Top Particle Size	mm	700	C
	Product Particle Size, P_{80}	mm	38	E
Grinding				
	Stockpile Live Capacity	t	19,275	C
	HPGR Feed, F_{80}	mm	35	C
	HPGR product, P_{80}	mm	3	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	0.012	T
	Type Of Circuit	—	CIP	A
	Residence Time, Leach Tanks	hr	29	A
	Residence Time, CIP Tanks	hr	1.4	A
	Cyanide Consumption	kg/t	0.1	C
	Carbon Concentration	g/L	55	A
Elution				
	Stripping Method	—	Pressure Zadra	N
	Number Of Carbon Strip Vessels	—	2	A
	Carbon Strip Vessel Capacity	t	10	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	80	E
	Oxidant	—	SO_2/air	A
	SO_2 Addition	g/g CN_{wad}	5	T
	Residual Cyanide, Total	mg/L	2	N
	Leach Tails Thickener Unit Area	m^2/tpd	0.012	T

* 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

Major comminution equipment parameters are shown in Table 17-3.

The 54-75 primary gyratory crusher will crush at an average rate of 1,905 tph to a P_{80} of 164 mm. Selection of this crusher was based on volumetric throughput and power requirements.

Primary crusher product will be sized on two double-deck multi-slope vibrating screens, 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 HPGR which has a roll diameter of 2.4 m and a width of 1.65 m. HPGR product will be in closed circuit with a double-deck multi-slope wet screen. Screen undersize will feed the ball mill.

With an F_{80} of 2.4 mm and a P_{80} of 100 µm, the ball mill is expected to draw 12 kWh/t on average. With a production rate of 1,418 tph, power draw at the pinion will be 17,000 kW. The drive will be a 19 MW dual-pinion drive with variable speed capability.

The dump pocket capacity is 270 t, 1.3 times the size of an average truckload. Normal practice is for trucks to dump only when ore levels in the pocket are low. There is no surge pocket under the crusher as the dual apron feeder system ensures the level of ore within the gyratory crusher is controlled.

The dump pockets will have an agglomerative dust suppression or “fogging” water spray system. The apron feeder discharge chute at the crusher exit will have a baghouse-type dust collector.

Crushed ore will be transferred to the discharge conveyor at an average rate of 1,905 tph. This material is conveyed to a feed bin from which two feeders each present material to individual screens. The coarse ore screen O/S will be sent to the secondary crusher or, when the secondary crusher is not operational, sent to an emergency stockpile. Reclamation from the emergency stockpile will be by a loader feeding onto the secondary crusher feed conveyor.

Coarse ore screen undersize will be conveyed to the covered coarse ore stockpile (COS), which will have a live capacity of 19,275 t or 13.6 hours of nominal process plant operation. Total live and dead storage capacity will be 130,000 t, equivalent to four 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.

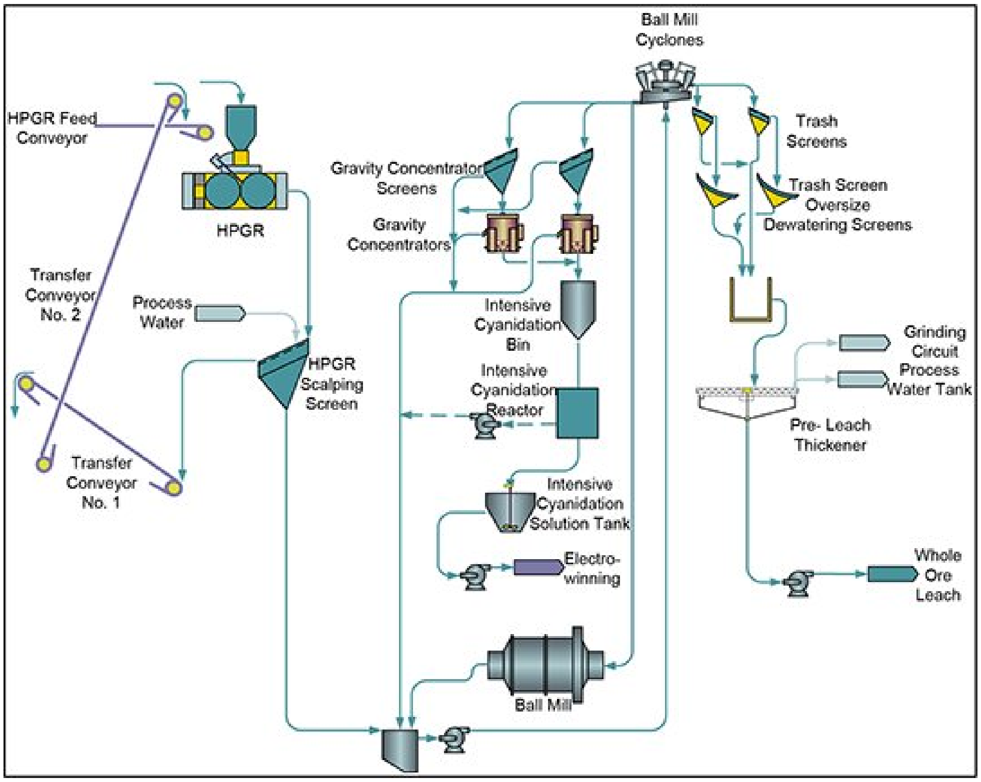
Table 17-3: Major Comminution Equipment Parameters

	Equipment	Unit	Value
Gyratory Crusher	Number of units	#	1
	Throughput	dry tph	1,905
	Installed motor	kW	600
	Product particle size, P_{80}	mm	164
	Size	inches	54" x 75"
Cone Crusher	Number of units	#	1
	Throughput	tph	1,674
	Installed motor	kW	745
	Product particle size, P_{80}	mm	38
HPGR	Number of units	#	1
	Throughput	tph	1,418
	Power draw (Bond)	kW	4,646
	Crusher Product, P_{80}	mm	3
	Size	mm Ø x mm W	2,400 x 1,650
Ball Mill	Number of mills	#	1
	Throughput	tph	1,418
	Size	m (ø x length EGL)	8.53 x 13.41
		ft (ø x length EGL)	28 x 44
	Installed motor	MW	19,000
	Motor / mill	—	2
	Drive type	—	Dual Pinion
	Cyclone O/F, P_{80}	µm	100

17.4.2 HPGR and Ball Mill Circuit

The base-case flowsheet to achieve 32,000 tpd at P_{80} 100 µm is a closed HPGR and ball mill circuit, as shown in Figure 17-2.

Figure 17-2: Grinding Circuit Flowsheet



The HPGR will have 2,400 mm diameter by 1,650 mm width rolls, and two motors with 3000 kW of power each. It will discharge to pant leg bin, from which feed is evenly split to two double-deck scalping screens with 20 mm and 4 mm apertures to achieve a transfer P_{80} of 2.4 mm. Oversized material will be recycled back to the HPGR feed, while undersize will be sent to the ball mill circuit.

The ball mill will operate in a closed-circuit configuration with cyclones. Fresh circuit feed will be fed to the cyclone feed pumpbox and pumped to the cyclone cluster. The majority of cyclone underflow is directed to the ball mill. In the event of high grade mill feed or the presence of coarse gold, 15% of the cyclone underflow is directed to gravity concentration and intensive cyanidation circuit for gold recovery. Its tailings are returned to the cyclone feed pumpbox. Cyclone underflow will be ground in a 28’ diameter by 44’ effective grinding length ball mill powered by two 9,500 kW motors via dual pinions. The ball mill will be charged with two ball sizes to improve grinding efficiency. Initial design will be for 3” and 2” balls.

Cyclone overflow is directed to the whole ore leach circuit. The cyclone cluster will be operated to target a P_{80} of 100 µm.

Specifically an 100 t capacity crane will be installed to handle the HPGR rolls and ball mill motors. In addition, roll transport equipment will be available to facilitate roll change-out. In other areas of the plant, overhead cranes of a lesser size will be installed for general maintenance. A sump pump will be installed for the cleanup of any spills on the basement floor.

In addition to Amec Foster Wheeler performing sizing calculations on the crushing, HPGR and ball milling circuit, a third party reviewer with significant operational experience was brought in to validate the comminution design together with equipment selection, sizing and usage. Equipment sizing was confirmed as being appropriate and advice was provided as to layout, operating costs and overall design. No major issues were identified while some opportunities were identified for layout improvement in the next phase.

17.4.3 Gravity Concentration and Intensive Leach

When material from the cyclone underflow is directed to the gravity concentration and intensive leach circuit, it will be first sent to gravity concentrator screens, where particles greater than 2 mm will be removed. Then, the slurry will be sent through gravity concentrators to separate high-density particles to produce 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 circuit tailings and sent back to the grinding cyclone feed 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.

17.4.4 Whole Ore Leach and CIP

Cyclone overflow 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 to be emptied periodically, and the trash screen undersize will be sent to the pre-leach thickener feed tank as well.

The pre-leach feed thickener preliminary sizing indicates one 45 m ø high-rate type with an auto-diluting feed well. The feed slurry density of 33% 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.

The pre-leach thickener underflow stream will be introduced to a leach feed tank, where it will be mixed with cyanide to achieve a concentration of 300 mg/L. The slurry will then be distributed to two leach lines. Each leach 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. Each 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 definite period of time in the circuit before the entire batch is removed to elution.

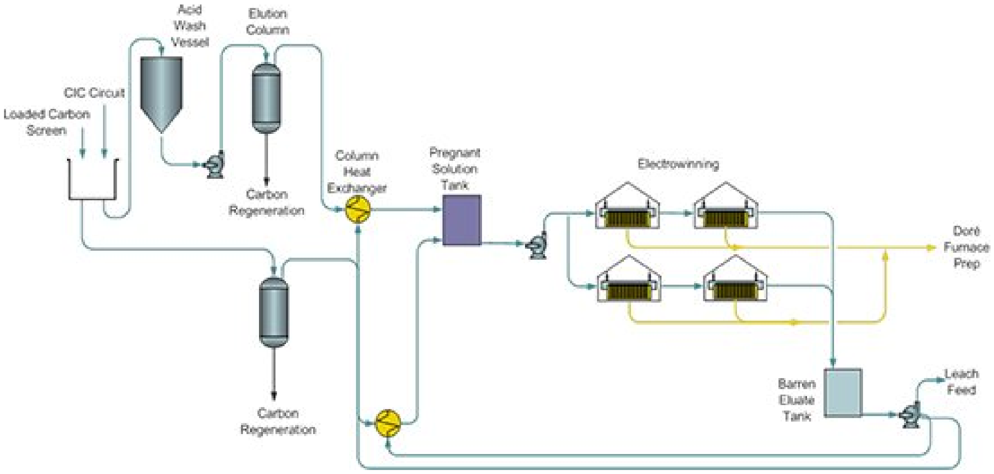
17.4.5 Stripping Circuit

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 captured carbon 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



17.4.6 Electrowinning and Refining

Solution will be pumped directly to four 3.5 m^3 EW sludging cells, arranged in two lines of two. 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.

17.4.7 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 parallel, 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.

17.4.8 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 60% to 62% solids in the underflow after thickening.

Overflow water from the tailings thickener will be recycled back to the process water tank. Underflow solids are sent to the TSF.

17.4.9 Plant Water System

The bulk of the water requirements for the process plant will be met with reclaim water recovered from the thickeners, and the TSF. Air compressor coolers and column heat exchangers will contribute marginally.

Fresh water will be stored for use in a tank, providing fresh water, gland seal water and 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.

17.4.10 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 and hydrochloric acid. These systems will all be located in a separate reagent building designed for easy access by delivery trucks. The molten sulphur burning facility will be located adjacent to the reagent area next to the cyanide destruction tanks.

Oxygen for the leach circuit will be delivered to site in bulk and managed in stationary storage units. Oxygen piping will run from the pad to the leach circuit.

17.4.11 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.

17.4.12 Cyanide Management

ISOtainers containing solid or liquid Sodium Cyanide 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 leach circuit, 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 expansion at other sites achieved nameplate throughput in only three months.

The Côté processing plant can be expected to take three to four months to reach the design throughput of 32,000 tpd. 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 New Lake to be created to compensate the loss of Côté Lake,
- a tailings management facility (TMF),
- storm / mine water, polishing and tailings reclaim ponds,
- collection, surplus water discharge, and dispersion systems,
- a permanent camp,
- an emulsion plant,
- site power supply and distribution,
- workshop, offices, facilities and other services,
- a 12 km, two-lane gravel access road from the nearest highway, and
- an upgraded existing transmission line from Timmins to Shining Tree Junction and a new 44 km-long 115 kV electrical power transmission line from Shining Tree Junction to the project site.

The proposed layout of the Côté Gold Project site is shown on Figure 18-1 and the plant site layout on Figure 18-2.

18.2 Onsite Infrastructure and Services

18.2.1 Site Development and Access

Main access to the administration/process plant complex from the Sultan Industrial Road (located to the south of the facility) will be by a 12 km, two-lane gravel road. For a detailed description of the road network refer to Section 18.3.1.

The plant site is located on TAAC Property East Block (Section 4.3.3.5) on higher ground between Bagsverd Lake and Clam Lake, just northwest from the open pit. This area provides favourable foundation conditions for major mill equipment, while maintaining relatively short haul distances. Despite close proximity to the pit, no occupied facilities are located within a 500 m distance from the rim of the ultimate open pit.

Figure 18-1: Site Layout

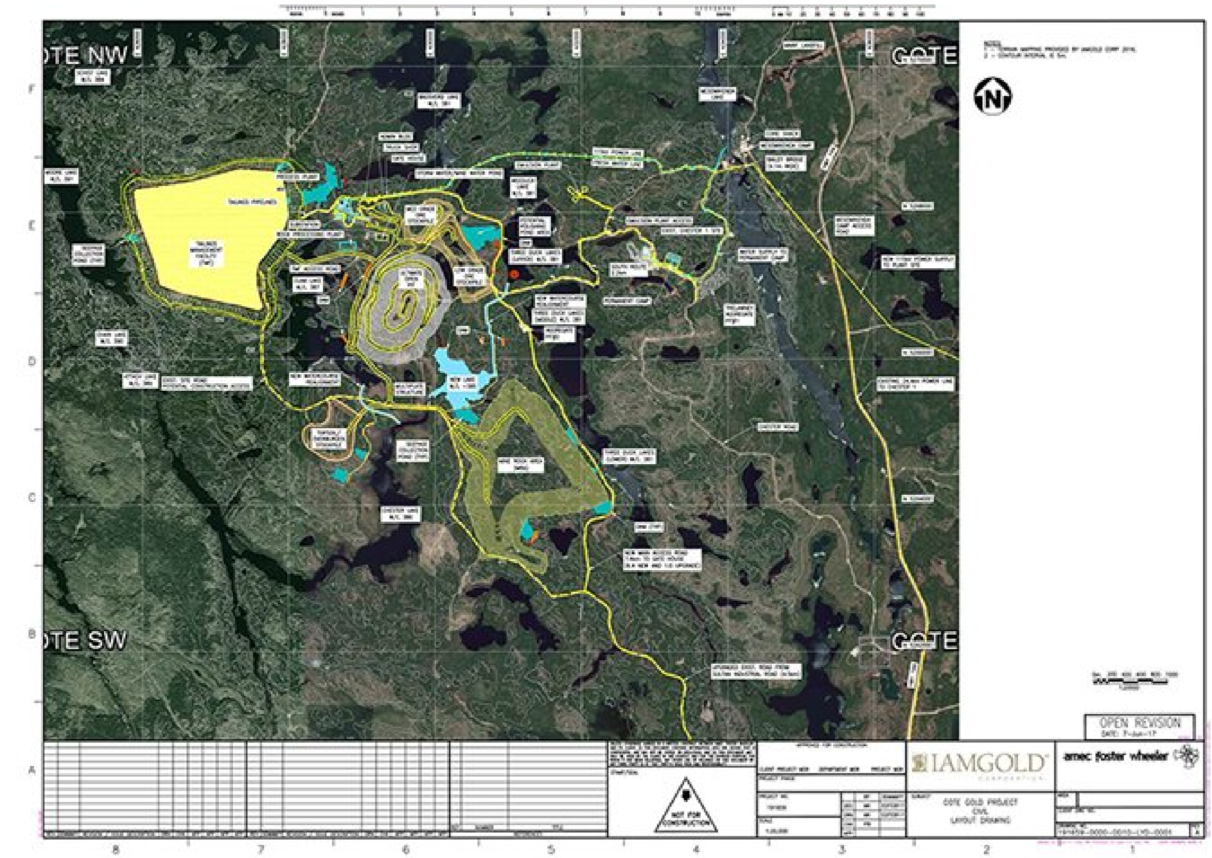
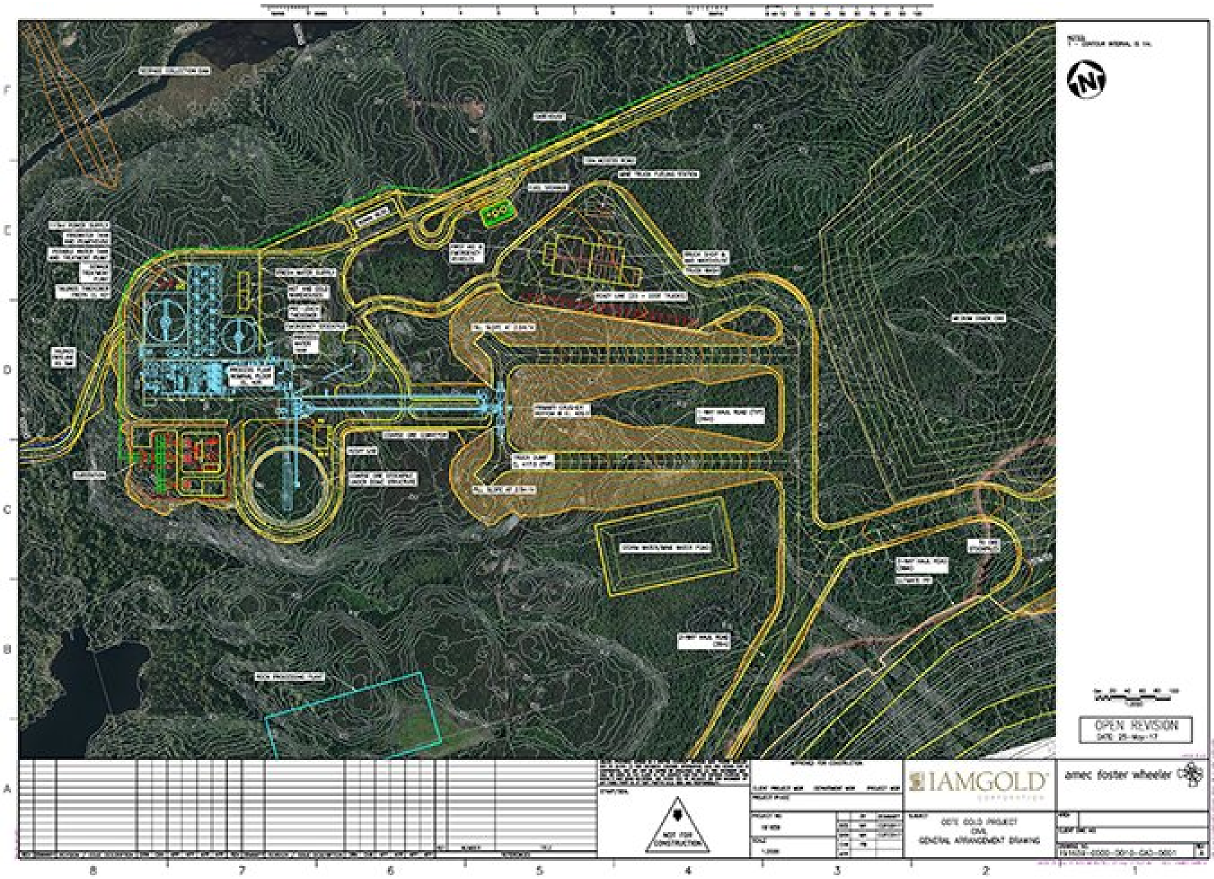


Figure 18-2: Plant Site Layout



The layout of mill facilities has been optimized to take advantage of topography, and to reduce the earthworks. A major improvement from the previous phase was achieved by mirroring the processing facility layout in order to relocate the coarse ore stockpile to higher ground, thus eliminating an extensive fill that would otherwise be required. This also enabled moving the primary crusher onto higher ground, allowing its base to be founded on bedrock to simplify foundation requirements.

Existing borehole data within the plant site was analyzed in order to set the process plant nominal floor at an optimum elevation, allowing the buildings and major equipment to be founded on bedrock without excessive cuts or fills.

Fresh water to the plant site will be supplied by a 6.6 km long pipeline from Mesomikenda Lake. The line will be 8 inch diameter HDPE pipe, installed overland, heat traced and insulated; it will also be used for initial fill of the tailings management facility. The pipe alignment will share the same corridor with a 115 kV power line to reduce the amount of clearing and earthworks. A 2 km long branch of 4 inch diameter HDPE line, also heat traced and insulated, will supply the permanent camp.

Surface runoff from the plant site will be collected in a storm water / mine water pond located southeast from the primary crusher, in a natural low area to enable a gravity feed and to minimize earthworks. This pond will also receive mine pit drainage. The pond will be lined with a 60 mil HDPE liner, and will be equipped with a subdrain system due to anticipated high groundwater in this area. The pond water will be pumped to the process plant as required, with an option to discharge water to the polishing pond; both lines will be 8 inch diameter HDPE pipes.

In general, utilities at the plant site will be buried for vehicular access, while outside the process plant area they will run at grade on gravel pads, with culvert / casing protection at road crossings as required.

Yard utilities comprise potable water, sanitary sewage, and firemain, complete with yard hydrants and building connections. Due to the presence of bedrock, these lines will have a relatively shallow bury for mechanical protection, and will be heat traced and insulated for frost protection.

Spill containment systems will be provided for the fuel storage facility and the oil-filled transformers in the electrical substation.

The primary crusher truck dump utilizes two approach ramps to minimize the fill at the truck dump pad, and requires a 12.5 m tall MSE (Mechanically Stabilized Earth) wall to access the base of the crusher. The geometry of the MSE wall has been optimized to reduce the face area, thus minimizing the cost.

Aggregate required for site development can be obtained from Trelawney Aggregate Pit #1 located near the Chester 1 site, or from a ridge within the proposed TMF.

18.2.2 Overall Water Management Plan

The overall site water management plan is illustrated schematically in Figure 18-3.

A geotechnical and hydrogeological field work program and a geophysics survey were completed in support of overall water and tailings management plan designs. The field programs were developed and executed at targeted key locations for water and tailings management components to ensure adequate designs and costing. Detailed findings for the 2016 geotechnical and hydrogeological field work and the 2017 geophysics survey are reported under separate covers (Amec Foster Wheeler Environment & Infrastructure, 2017 and Geophysics GPR International, 2017, respectively).

The overall water management plan has been modelled by Golder Associates (Golder, 2017) and was found to be acceptable for the PFS report. A brief description is provided in the following sections.

18.2.2.1 Watercourse Realignment Dams and Channels

A watercourse realignment system has been designed to redirect water around the mine facilities to enable excavation and dewatering of the planned open pit. Four realignment dams will be constructed either within existing lakes, in shallow water, or at currently dry locations that will protect water from entering the pit area. Sufficient freeboard has been provided above the lake levels to avoid potential overtopping of the dams under flood conditions. 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 reroute the existing watercourses running into the open pit: one from Clam Lake to Chester Lake flowing south, and the other from the New Lake (built in compensation for the partial elimination of Côté Lake by the pit) to the Upper Three Duck Lake. The channels have been designed to provide fish migration and habitats under both low and high flow conditions. Routing the water to the Upper Three Duck Lakes will maintain fresh-water inflow, and the lakes will remain oxygenated for fish habitat.

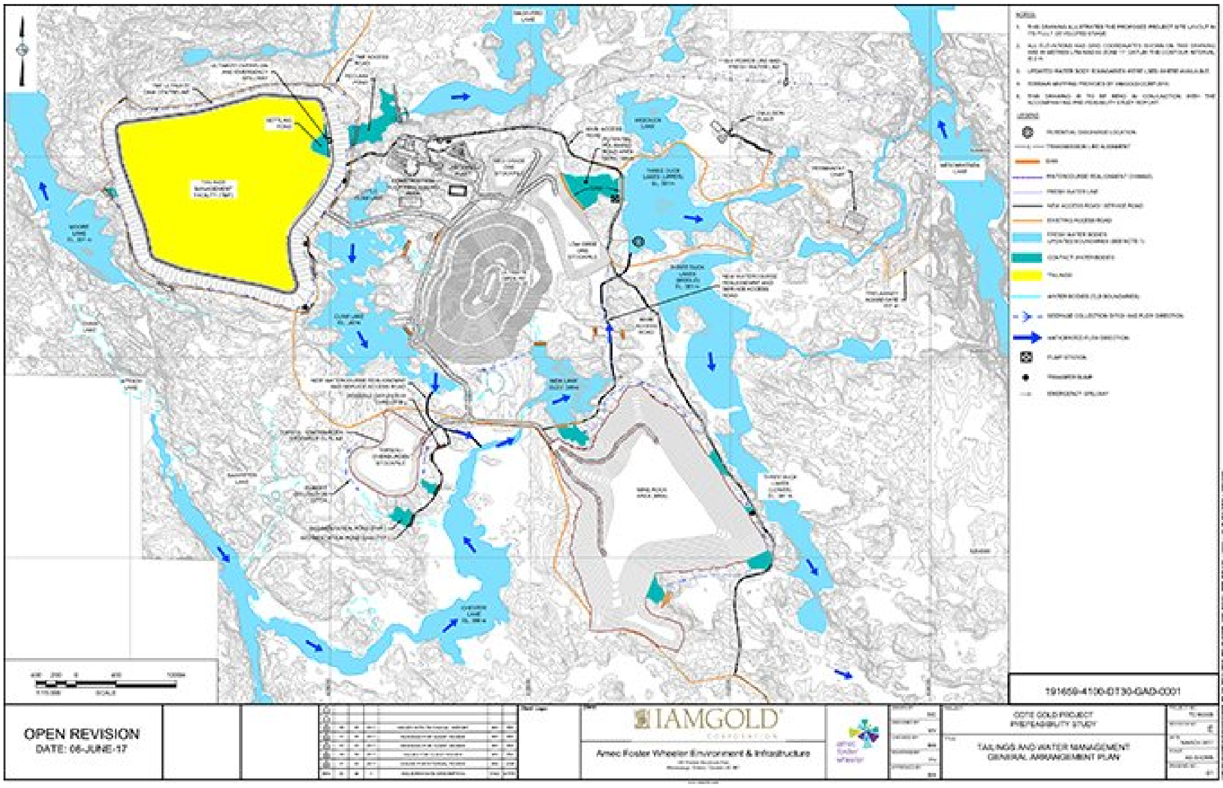
Prior to impoundment, the organics materials (topsoil, peat, and muskeg) will be stripped off the inundation limit to eliminate the potential formation of mercury at the New Lake bottom. The stripped materials will be stored in the Topsoil / Overburden Stockpile for reclamation application at closure.

18.2.2.2 Storm / Mine Water, Reclaim, and Polishing Ponds and Collection System

A polishing pond downstream of the mill feed stockpile (ore stockpile) will receive water from various sources before it is released to the environment after meeting discharge quality standards. The polishing pond will be controlled with a normal operating level at

El. 380 m, i.e., one metre below the adjoining Upper Three Duck Lakes level at El. 381, which will create a reverse hydraulic gradient, to mitigate migration of contact water to the lake.

Figure 18-3: Overall Site Water Management Plan



A storm / mine water pond near the process plant will receive pumped inflows from the pit, the polishing pond when required during drought conditions, the ore stockpiles, mine rock area (MRA) and runoff from the process plant site. Pit water is routed to the storm / mine water pond due to the possible presence of ammonia from blasting operations in order to provide additional retention time before directing the water to the polishing pond.

TMF water will be pumped from the reclaim pond directly to the mill for reuse and hence forms a closed circuit without contact with other water bodies. Tailings water from the reclaim pond will be the primary source of mill water, providing the majority of the process plant requirements, whereas the storm / mine water pond will be a secondary source of process water, in a year of average precipitation. The storm / mine water pond will also supply water for dust control across the mine site. A minor amount of fresh water will be required from Mesomikenda Lake for reagent mixing at the process plant.

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

Ditches and pump sumps will be constructed all around the TMF perimeter, either to divert clean runoff away from the dam, or to collect seepage at the dam toes. The ditches will be lined with appropriate erosion control cover, if not in bedrock.

18.2.2.3 Discharge

Before discharging any excess water from the polishing pond to the environment, the accumulated water will be retained with sufficient residence time, estimated at approximately 15 days for settling of solids, so that the total suspended solids (TSS), among other parameters, meet the discharge water quality guidelines. Monitoring of water quality will be performed to ensure abatement. Treatment will be implemented if necessary.

A potential discharge location has been selected in the Upper Three Duck Lakes where routed water from the New Lake watercourse realignment channel enters the lake, as shown in Figure 18-3. The discharged water will be diffused via a diffuser incorporated at the outlet and will be mixed further with the channel inflow for further assimilation and blending with the lake water.

18.2.3 Tailings Management Facility

18.2.3.1 Design Basis

Over the proposed LOM of 17 years, tailings production is approximately 11.7 Mt/a from nominal mill throughput of 32,000 t/d, except in Year 1 when it is only approximately 9.8 Mt because throughput is lower due to ramp-up. This results in total production of approximately 196 Mt of tailings, as well as approximately 559 Mt of mine (waste) rock. The total TMF capacity includes some allowance for additional tailings.

Tailings storage is affected by construction of perimeter embankment dams, raised in stages. Dams will be constructed out of mine rock with a relatively low permeability HDPE liner on the upstream slopes for the initial two to three years of operation. Water from the tailings pond will be recirculated to the process plant by pumping. Subsequently, the reclaim pond constructed downstream of the TMF footprint will be utilized to collect the TMF water and recirculate to the process plant.

Collection ditches and ponds will be located at topographical low points around the TMF to collect runoff and seepage. In the ultimate TMF configuration there will be seven such collection ponds formed by dams. The ditches and ponds will lead the seepage to the reclaim pond by gravity (or by pumping in some cases) for recirculation to the process plant.

Approximately 90 Mt of mine rock will be used for TMF dam construction over the LOM. The low permeability HDPE liner is necessitated by the lack of low-permeability overburden materials on site.

Based on recent rheology and settling density test results (SGS, 2017), tailings will be thickened with solids concentration in slurry at 60% to 62% and discharged from the dam perimeter, forming an expected overall beach slope of approximately 2%. Solids will be settled in the TMF with some water retained in the voids and anticipated overall in-situ dry densities, ranging from 1.4 initially to 1.6 t/m^3 toward the end of mine life as the tailings are consolidated. Most of the supernatant water will report to the reclaim pond, where it will be reclaimed for use as process water.

18.2.3.2 TMF Layout and Configuration

Figure 18-4 presents the general design layout of the TMF. A minimum 120m off-set has been provided from the TMF to the surrounding major water bodies in accordance with the mining act. Figure 18-5 shows the progression of Côté TMF development with tailings deposition from: (a) Years 1 and 2 – the initial starter dam with tailings pond within the TMF; (b) Years 3 and 4; (c) Years 9 and 10; and (d) to end of mine life - with the tailings water reclaim pond located downstream of the TMF with only a small settling pond within the TMF.

Tailings will be discharged from the south side initially, and later move to the west and eventually from all three sides on the south, west, and north, to maintain the tailings pond to the east side of the impoundment for easy management during operation and closure.

Figure 18-4: General Design Layout of the Tailings Management Facility

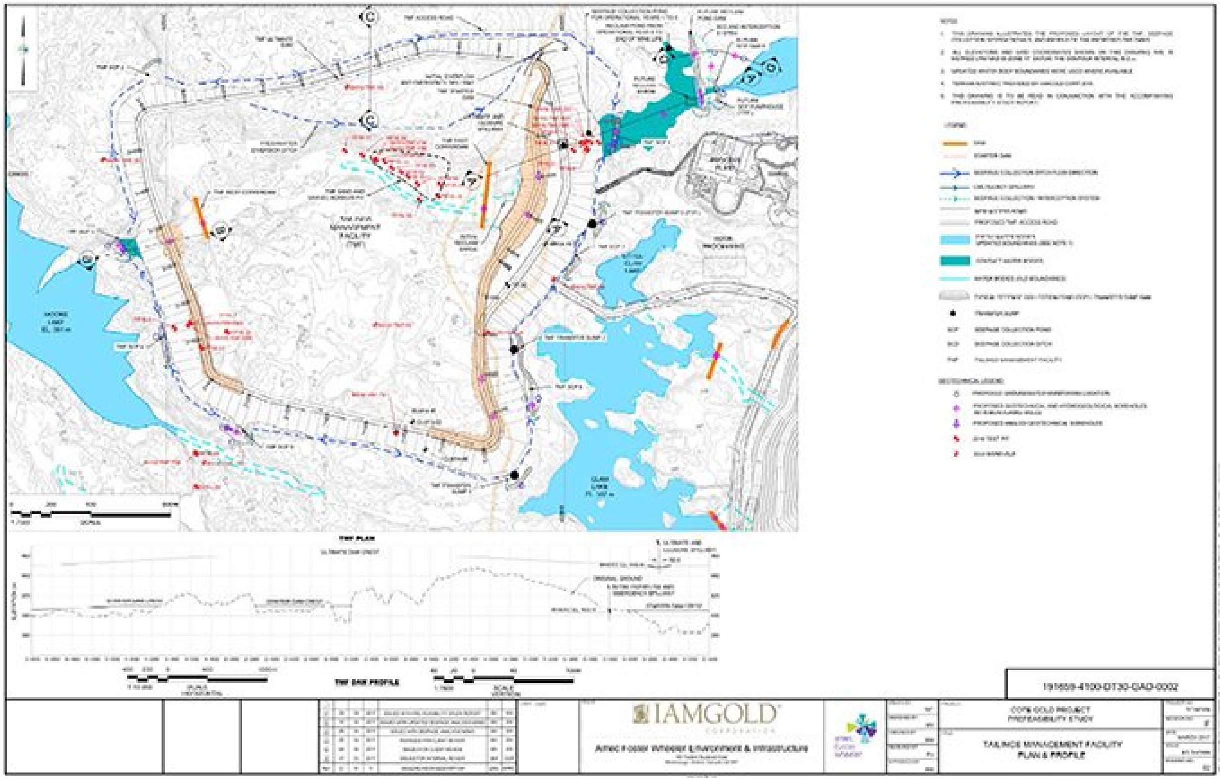
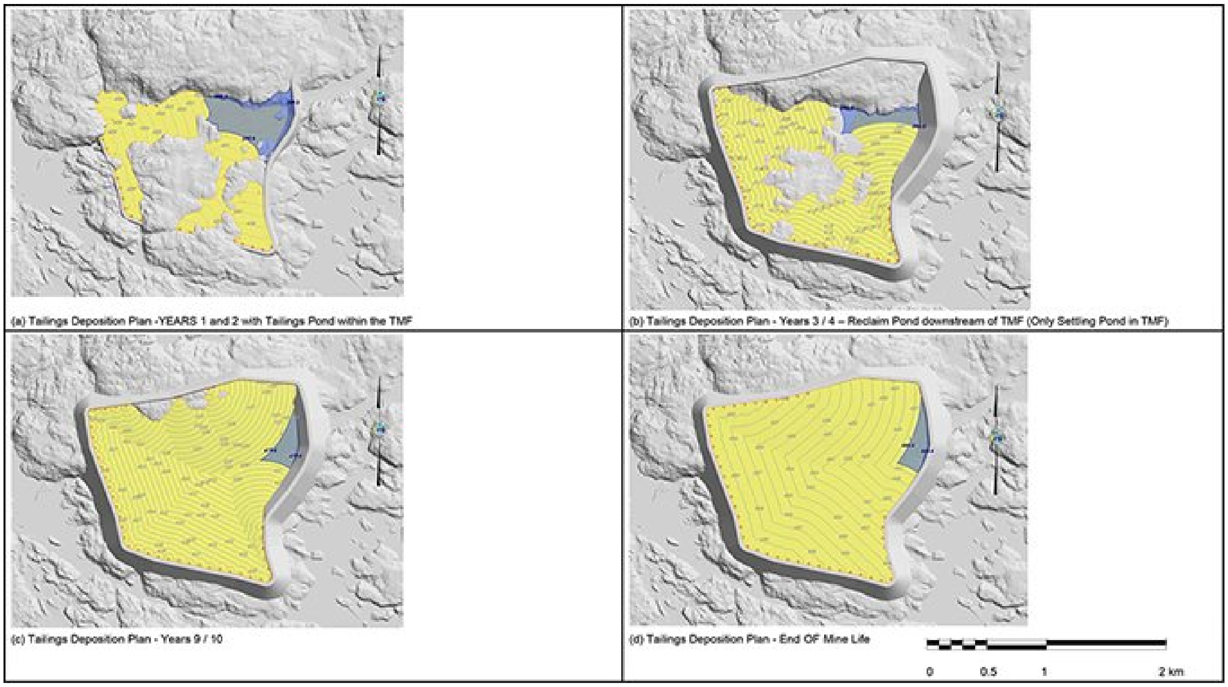


Figure 18-5: Progression of Côté TMF Development



Tailings slurry will be pumped to the TMF and spigotted along the dam crest during operations throughout the year. In the winter the discharge locations will not be altered, to avoid buildup of ice on the beach. The TMF will be developed in stages for better water management and water balance and tailings deposited in a manner that optimizes dam raises and water management. The tailings deposition plan will provide flexibility and will facilitate progressive closure in the final years.

Both the tailings and mine rock have been classified as non-potentially acid-generating (NPAG) materials with a 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. However, the current design supports a higher classification, i.e., "very high" with the necessary dam safety requirements for this classification "built-in" to the design.

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

18.2.3.3 TMF Water Management

The criteria for the TMF water management are as follows:

- As far as practical, freshwater will be diverted away from the TMF;
- The TMF will accumulate approximately 2 Mm^3 of water prior to mill start up to ensure enough water for winter operation;
- Winter operation is January to March inclusive;
- Significant amount of 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 with the secondary source being the storm / mine water pond;
- The TMF will provide required mill recirculation water under 1:10 year dry conditions, in conjunction with other sources of water supply;
- Mitigation plans will be in place to supply enough water if the 1:100 dry year were to occur;
- A positive mitigation plan will be in place to collect and intercept potential seepage

from the TMF to the environment;

- The TMF will be designed to contain the Environmental Design Flood (EDF) of 1 in 100 year without direct discharge to the environment. An emergency spillway will be provided in the TMF to safely pass the inflow design flood of 1 in 10,000 Years; and
- The TMF dams have been designed for seismic events of 1 in 10,000 year annual exceedance probability.

18.2.3.4 Dam Fill Materials

Before estimating quantities, Amec Foster Wheeler modelled the required dam elevations in each TMF cell for years 1/2, 3/4, 9/10, and 17 of development. Table 18-2 provides an estimate of material quantities for the TMF construction over the life of the mine.

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

Parameter	Unit	Year				
		Preproduction	1 / 2	3 / 4	9 / 10	17
Annual Tailings Storage	t/yr	—	11,680,000	11,680,000	11,680,000	11,075,000
Cumulative Tailings Storage	t	—	21,483,000	44,843,000	114,923,000	200,000,000
Approximate Dam Crest Elevations	masl	405 to 410	408 to 413	412 to 417	432 to 437	450 to 460
Annual Dam Volume, ROM Rock (Zone 1)	m^3/yr	971,600	2,307,900	2,307,900	2,307,900	—
Total Area of HDPE Liner	m^2	150,600	—	—	—	—
Total Volume of 0.5” Minus Liner Bedding (Zone 4)	m^3	28,200	—	—	—	—
Annual Volume of 2” Minus Sand & Gravel (Zone 3)	m^3/yr	88,500	52,200	52,200	52,200	—
Annual Volume of 6” Minus Select Rockfill (Zone 2)	m^3/yr	44,300	27,900	27,900	27,900	—

18.2.3.5 Dam Construction

The dam rockfill will be primarily sourced from the open pit development. ROM mine rock will be hauled to the dam and end-dumped, and compacted. The side slopes will be reshaped and transition and sand bedding materials incorporated to suit HDPE liner installation for the initial years of operation. The use of HDPE liners is due to an insufficient amount of natural low permeability materials available on site. In the subsequent years of operations the dams will be raised with rockfill with upstream slopes provided with transition and filter layers only to allow seepage to filter through the dam to the reclaim pond constructed downstream of the TMF.

Sufficient borrow material sources and quantities have been identified through the initial construction period for all dams on site as well as subsequent TMF dam raises. The dams are expected to have a downstream slope of 2.6H:1V to facilitate closure rehabilitation and ensure long term stability.

18.2.4 Mine Rock Area

A mine rock area (MRA) will be constructed southeast of the open pit to store mine rock from the open pit excavation. The rock piles will be built in 10 m lifts with 12.8 m benches to provide an overall safe slope of 2.6H:1V. The interbench slopes will be at the angle of repose of the rock. In its ultimate configuration, the MRA will store 559 Mt of waste rock with its final crest elevation at approximately an elevation of 520 m.

Collection ditches and four contact water collection ponds/sumps will be built at topographical low points around the MRA perimeter to collect runoff and seepage, which will then be pumped to the polishing pond.

18.2.5 Topsoil / Overburden Stockpile

A topsoil and overburden stockpile will be established to contain stripped materials from all excavations for the project development. Sedimentation ponds will be built to settle out solids before release to the environment.

The stockpiled materials will be utilized for rehabilitation applications at closure.

18.2.6 Electrical Site Reticulation

18.2.6.1 Electrical Load

The predicted electrical demand load is approximately 60 MW at a power factor of 98% or better.

This estimated load is based on the current process-mechanical load, two electric shovels, mine dewatering, ancillary loads, and an allowance for future nominal growth / changes of auxiliary loads over time.

18.2.6.2 Main Substation

The incoming transmission line from Shining Tree Junction 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 strain 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 that either one of the main transformers is out of service),
- high voltage circuit breakers and isolation switch for each main power transformer,

- standby electrical power generation for plant critical loads,
- synchronous condensers,
- power factor correction and harmonic filter banks, and
- 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 trenches, cable tray or on power lines to the area loads.

18.2.6.3 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,
- electric shovels, and
- tailings, reclaim water, fresh water and ancillary services.

18.2.6.4 Site Power Distribution

Power to the mine process and ancillary facilities will be routed using a combination of cable tray, 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 line-ups. Lighting and small power applications will be fed from transformers and power panels, and will in general be located in the electrical rooms.

Electrical coordination will be completed to minimize power interruption in the event of the operation of the power system protective relays.

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 three-phase high resistance grounded
All drives over 200 HP	4.16 kV three-phase high resistance grounded
All drives 0.5 HP – 200 HP	600 volt three-phase high resistance grounded

Plant Equipment	Voltages
Motors with VFD up to 500 HP	600 volt three-phase high resistance ground (maximum HP rating to be determined at time of order)
Motors with VFD over 500 HP	4.16 kV three-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

18.2.6.5 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 will be self-supporting and designed for road shipment, lifting and transporting to site.

Electrical controls and instrumentation equipment will be installed, wired and completely tested before shipment to site.

18.2.6.6 Standby Power

A standby power station is intended to provide power to critical plant loads in event of a utility power failure. At this stage of the project, 4 MW of standby power was estimated, but to be confirmed at the time of order. Similarly, a separate standby power station is to provide power to the camp in the event of utility power failure feeding the camp.

18.2.7 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, and
- network of site access roads.

18.2.7.1 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.

A high level trade-off study has been conducted for the permanent camp location. In addition to a camp location shown in the PEA report, an alternate location near the Chester 1 site was investigated. This alternate location proved to have some economic advantages in a lower cost for the utilities and shorter travel distance to the mill, while no environmental issues were identified. The permanent camp has therefore been moved to the area near the Chester 1 site.

18.3 Offsite Infrastructure and Services

18.3.1 Roads

Current 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.

Three potential routes for permanent site access were investigated:

- Southern route from Sultan Industrial Road (as identified in the PEA).
- Eastern route from Highway 144 through a Bailey bridge at Mesomikenda Lake (shorter route).
- Southeastern route using existing Chester Mine Road.

Considering the economic, community and environmental aspects, the southern route (Option 1) proved to be the best option. The eastern route (Option 2) is not viable as access through Mesomikenda Lake is not desirable due to a recreational use of this area, while using the existing Chester Mine Road (Option 3) has economic disadvantages. Nevertheless, both of these routes could be used for an emergency access to site.

High resolution ortho photos in combination with a site visit were used to define the best option of using existing roads in conjunction with building new roads. The level of upgrading of the existing roads was determined based on their actual condition / configuration.

The main plant access road requires upgrading a 4.5 km section of an existing road north of Sultan Industrial Road, then construction of a new 6.4 km long road, and again upgrading a 1 km long existing road adjacent to the plant site area.

The existing road from the Sultan Industrial Road currently accesses the future TMF facility, and can be used for initial construction access until the new access road is built. With upgrading a relatively short trail connection (1.2 km) between this road and the plant site, a reasonable construction access directly to the proposed mill area can be achieved.

Primary access to the permanent camp site will be from the new access road as described above, and then via an upgraded 2.2 km long existing road. This road has a single lane 80 ton bridge that will be left in place and appropriate signage will be provided. This road then ties into an adequate road near the Chester 1 site where the camp will be located.

The emulsion plant will be accessed via a new 0.6 km long road built along the alignment of an existing trail that ties to an existing road.

18.3.2 Power Supply

During the course of the study Hydro One Networks Inc. examined various options to provide electrical power to the proposed Côté Gold project. The selected option involves the use of the existing approximately 117 km long 115 kV 'idle' T2R circuit from Timmins (Timmins TS) to Shinning Tree (Shining Tree Junction). A new transmission line approximately 44 km long is to be built along Highway 560, from Shining Tree Junction to the proposed Côté Gold main substation. A condition assessment of the T2R circuit, conducted by Hydro One, indicated the need to replace the existing 336.4 ACSR conductors to 411 kcmil ACSR, a new skywire, refurbishment / reinforcement of lattice structures, replacement of some pole wood structures, and replacement of damaged insulators and conductor hardware. Some of these tasks will be performed by Hydro One as part of their ongoing five year sustainability plan.

The estimate to refurbish the T2R circuit from Timmins TS to Shining Tree Junction was also provided by Hydro One and includes a new circuit breaker and associated equipment. The study work completed to date by Hydro One supports the use of the T2R circuit, once refurbished, as a viable connection option for the proposed Côté Gold project.

The estimate for the design, procurement and construction of the new transmission line from Shining Tree Junction to the proposed Côté Gold main substation was provided by a local construction firm, including provision to base the design on Hydro One construction standards.

At the time this report was written, the Independent Electricity System Operator (The IESO) was conducting a Technical Feasibility Study (FS) to determine the effect of the Côté Gold project on the thermal loading and voltage performance of the transmission system, as well as to verify that both the Market Rules and applicable transmission design criteria are met.

The result of the FS and report were not available by the time this report was written. However, technical discussions with the IESO staff during the course of the study, revealed requirements for reactive power compensation to ensure adequate power transfer capability, and voltage support / stability at the terminal of the transmission line at the proposed Côté Gold main substation. The specifics of type, rating, and location of the reactive compensation equipment are not available at this time. Therefore, an allowance was included in the estimate to account for the estimated reactive compensation equipment, tentatively located adjacent to the main Côté Gold substation.

Short circuit assessment will not be provided as part of the IESO Technical Feasibility Study. The short circuit assessment is to be performed in the System Impact Assessment (SIA) time frame, to be conducted by Hydro One on behalf of the IESO. The IESO-FS will include a list of specific issues that require further consideration in a subsequent SIA, including the short circuit assessment.

Due to the length of the transmission line providing electrical power to the project (approximately 160 km), the short circuit level available at the plant is highly important. An adequate short circuit level is essential to ensure the reliable operation of the large grinding mill drive systems. During the course of this study, technical discussions with Hydro One indicated low short circuit capacity at Shining Tree Junction (1.1 kA three-phase short circuit current, 600A single-phase-to-ground fault). In order to support the short circuit levels required for the large mill drives, synchronous condensers integrated into the overall electrical system at the 13.8 kV level were added. Similarly, the single line-to-ground fault level is important for proper design of the grounding system.

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 required to develop the doré marketing strategy.

19.2 Commodity Price Projections

The PFS assumes a gold price for the Mineral Reserve estimates and the economic analysis of $1,250/oz. The gold price was what Amec Foster Wheeler considers the mining industry consensus using the following sources: bank analysts' long-term forecasts; historical metal price averages; and prices used in publicly-disclosed comparable studies. Metal prices were kept constant throughout the life of the Project.

There is a practical reason for, and it is common industry practice to use, a higher metal price assumption in the Mineral Resource estimates than what is used in the Mineral Reserve estimates and the economic analysis. In this case, $1,500 per ounce gold was used to calculate the cut-off grade used in the Mineral Resource estimate, $1,200 per ounce was used to calculate the cut-off grade for the Mineral Reserve, and $1250 per ounce was used to model cash flows in the economic analysis.

19.3 Contracts

IAMGOLD has received indicative pricing for refining arrangements from the Royal Canadian Mint in Ottawa, Canada. No sales contracts are in place for the Côté Gold Project; however, once gold is credited to the IAMGOLD account at the Royal Canadian Mint (within one to five days of receipt of the doré), sale through the IAMGOLD corporate bank can be made immediately.

Total costs of $1.75/oz gold for refining, transportation and insurance have been used in the cash flow analysis.

19.4 Comments

The Amec Foster Wheeler 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 Côté Gold Project (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. In addition, baseline studies are being undertaken to infill data to characterize areas covered by the current PFS site configuration. IAMGOLD received provincial ministerial approval of the 2015 Environmental Assessment (EA) for the Project as envisaged at the time, which is not substantially different from the configuration described in this PFS. The EA states that no significant effects are anticipated after the application of the proposed mitigation measures.

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

The Project as presented in this PFS is similar to the previous PEA but differs from that described in the EA (AMEC E&I, 2015). Mine waste and tailings management areas have been relocated to minimize 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 received in January 2017.

The Project as presented in this PFS differs only slightly from the project presented in the EA. Mine waste and tailings management areas have been relocated to minimize 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. At the time of the EA preparation, the following sections (which have since been revised) 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)
- Ontario Ministry of the Environment and Climate Change (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 the 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*	For extraction of aggregate (e.g., 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 the transmission line.
MNRF	Endangered Species Permit	*Endangered Species Act*	For 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*	For constructing 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*	For discharge of 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*	For 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*	For mine construction/production and closure, including financial assurance.
MTCS	Clearance Letter	*Heritage Act*	For confirmation that appropriate archaeological studies and mitigation, if required, have been completed.
OEB	Leave to Construct	*Ontario Energy Board Act*	For 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)
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

Sector	Name
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 the EA, the TMF was located north of Bagsverd Lake. As of the previous PEA and in this PFS, the TMF is now located further to the south as per Figure 18-1. In addition, the Topsoil / Overburden Stockpile is located southwest of the open pit. Current baseline activities include areas around the new TMF and Topsoil / Overburden Stockpile locations, particularly the lakes north and west of the TMF. 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 have been completed to further characterize the geotechnical and hydrogeological properties of overburden soils and bedrock in the vicinity of the proposed open pit, TMF, watercourse realignments, and other surface infrastructure components.

20.4.4 Geology and Geochemistry

Amec Foster Wheeler conducted a detailed assessment of the potential for metal leaching and acid rock drainage (ML/ARD) for overburden, mine rock and tailings. The work included characterization (static testing) of overburden and bedrock in previous areas planned for construction, with results indicating little potential for ML/ARD for these materials. More extensive studies, including static and kinetic testing (humidity cells and field cells), were conducted for open pit mine rock and tailings. The mine rock was characterized with a generally low sulphide content (<0.3% sulphide), a low potential for ML/ARD and an excess of neutralization potential overall. The tailings were determined to be non-potentially acid generating, with a substantial excess of neutralization potential expected. Short-term leaching tests identified little evidence of concern for neutral metal leaching in mine rock or tailings. Field cell tests were continued to further confirm the low potential for ML/ARD for the project. Simulated tailings were subjected to rheology tests that characterised settling rates and density.

The existing studies are largely expected to be representative of the PFS mine plan. Updated geological and metallurgical information is being evaluated with respect to the PFS designs (e.g., smaller pit design and ore processing modifications). Should gaps be identified, further testing will be completed as necessary to support future permitting and detailed design. Additional confirmatory studies may be required for new construction areas requiring excavation (e.g., diversion channels outside the previous investigation footprint).

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; this zone does not prohibit the proposed mining activities.

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, and increased to 26 stations in 2016. 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 for the EA baseline studies. In 2016, an additional 23 monitoring wells were installed in various locations within the proposed TMF footprint. Additional investigations will be carried out in the proposed Topsoil / Overburden Stockpile 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). With the additional wells installed in 2016, water level monitoring will continue with downloads twice per year at 42 wells. 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 (e.g., dikes 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 during the EA baseline studies. Future data collection will also include 9 surface water stations surrounding the new TMF, and additional stations in the area of the Topsoil / Overburden Stockpile.

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. In 2016 an additional 23 wells were added to cover the PEA/PFS TMF location. 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 MRAs 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 Topsoil / Overburden Stockpile.

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); 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 (this licence does not prohibit the proposed mining activities). 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.

Additional fieldwork is currently being undertaken within the boundaries of the new TMF and Topsoil / Overburden Stockpile.

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 2015 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.

IAMGOLD is proceeding with additional baseline studies, within the boundaries of the new TMF and Topsoil / Overburden Stockpile, to infill the physical, biological and human environment characterizations conducted previously. This additional baseline data, together with design information for the PFS site configuration, will be used to update the Environmental Effects Review (EER) for the Project, for submission to the Canadian Environmental Assessment Agency (CEAA) and the Ministry of the Environment and Climate Change (MOECC) in Autumn 2017, thus informing the regulatory agencies of changes/improvements to the EA. Studies conducted in 2017 for the PFS site configuration include water quantity and quality modelling by Golder (2017), which supports the water management plan for the overall PFS Project site, and will be used to update the ERR.

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 Waste and Tailings Disposal, and Water Management

Details of the requirements and plans for waste (mine rock) handling and stockpiling are described in Section 16.0. Tailings disposal and site water management are described in detail in Section 18.0.

20.7 Environmental Monitoring

Based on the federal and provincial Environmental Assessment processes, IAMGOLD has estabilished a preliminary environmental monitoring program that includes monitoring parameters, methods, applicable standards, frequencies and locations for the physical, biological and human environments. The existing environmental baseline monitoring programs conducted to date provide the basis for the monitoring frameworks and may be modified to meet compliance and reporting requirements as the project moves through the permitting phase. The proposed monitoring programs will apply to the construction, operation, closure and post-closure phases of the project, as appropriate, and will allow for compliance of activies with anticipated environmental approvals and permits, while providing information to determine the effectiveness of proposed mitigation measures.

Follow-up montoring is expected to provide for an adaptive management approach, should environmental effects vary from that predicted and/or mitigation measures prove less effective than antipicated, or as new information becomes available. Accordingly, mitigation strategies may be modified, and monitoring requirements with regards to parameters, locations and/or frequencies will be adapted as appropriate.

20.8 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. The closure measures for the tailings impoundment will be designed to physically stabilize the tailings surface to prevent erosion and dust generation. The pit will be allowed to flood, and the natural flow of the realigned water bodies will be re-established to the extent practical. Revegetation will be carried out using non-invasive native plant species. Monitoring, at appropriate sampling locations, including those established during baseline studies and operations, will be conducted after closure to confirm the performance of the closure measures. 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 PFS-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 +25%/-20% of the final Project cost.

Cost estimates are expressed in second-quarter 2017 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$0.7692.

The Project's initial capital cost, summarized in Table 21-1, is estimated to be $1,163 M, inclusive of allowances for Owner's costs and contingency of $27 M and $170 M, respectively.

Table 21-1: Initial Capital Cost Estimate Summary

Area	Description	Cost, US$ M
Direct Costs		
	Mining	259
	On-Site Infrastructure	135
	Processing Plant	278
	Tailings	71
	Off-Site Facilities	25
	Total Direct Costs	768
Indirect Costs		
	EPCM	68
	Construction Indirects	130
	Owner's Costs	27
	Contingency	170
	Total Indirect Costs	395
Total Initial Capital Cost		**1,163**

Some of the larger capital expenditures are amenable to capital financing. The initial mining fleet and the largest process equipment, having an approximate initial capital cost of $159 M, can be financed using capital lease agreements with vendors. Inclusive of a down-payment of 15 - 30% of the purchase value paid at placement of order, capital leases reduce the initial capital cost by approximately $116 M, resulting in an initial capex of $1,047 M net of leasing.

Sustaining costs (including capital leases and contingency) and operating costs (with no contingency) over the LOM are estimated to total $418 M and $3,025 M, respectively. Reclamation and closure costs are estimated at $40 M towards the end of the project.

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 a 24-month Project development schedule starting upon Closure Plan approval.

This estimate was developed in accordance with the following work breakdown structure (WBS) (Table 21-2).

Table 21-2: Scope of Estimate by WBS

WBS Area	WBS #	WBS Description
1000 – Mining	1100	Mining Stockpiles & Waste
	1200	Open Pit Mine Preproduction
	1300	Open Pit Mine Equipment
	1400	Open Pit Mine Infrastructure
2000 – On-Site Infrastructure	2100	Site Preparation
	2200	On-Site Roads
	2300	Accomodations
	2400	On-Site Bulk Storage
	2500	On-Site Utilities
	2600	On-Site Communications
	2700	On-Site Power Supply & Distribution
	2800	Offices/Personnel Buildings
	2900	Laboraries, Shops & Warehousing
3000 – Processing Plant	3100	Ore Handling
	3200	Process Plant
4000 – Tailings	4100	Tailings Management Facility
	4300	Water Management Pond
	4400	Water Management (Other)
	4500	Tailings Management & Water Reclaim
	4800	TMA Roads
6000 – Off-Site Facilities	6100	Main Power Line

WBS Area	WBS #	WBS Description
	6200	Water Supply
8000 – Owner's Costs	8100	Owner's Costs
9000 – Indirects	9100	EPCM Services
	9200	Construction Camp and Catering
	9300	Temporary Facilities
	9400	Construction Supplies
	9500	Construction Utilites
	9600	Construction Services
	9700	HSSE
	9800	Freight/Logistics/Taxes/Duties
	9900	Spares Parts/First Fills/Commissioning
P000 – Provisions	P100	Contingency

21.3 Support Documents

The following documents were used as support for the estimate:

- General arrangement drawings
- Pre-production mining costs from the mine plan
- Major equipment and electrical load lists
- Budgetary quotations for major equipment
- Budget quotations for Power Transmission lines
- Project WBS
- Material take-offs (MTOs)

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. Costs include pre-production stripping and haul road construction by the mining fleet.

21.4.1.2 Quantity Development Basis

Amec Foster Wheeler prepared preliminary designs to determine the equipment list, labour estimates and materials quantities for the capital cost estimate. Where design was not practical for this stage, allowances were made based upon historical data and adjusted for Project-specific equipment and building requirements. Major areas were calculated as follows:

- Civil: earthwork scope was based on preliminary designs, 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.
- Concrete and Structural Steel: MTO's were developed by the Engineering team based upon designed layouts.
- Piping: historical equipment factored allowances were applied for process piping.
- Electrical: The electrical estimate was based on MTO's along with a combination of budgetary quotations and recent in-house data for supply and installation.

21.4.1.3 Direct Labour

Wage rates for construction crews were established based on recent building trade labour agreements.

Amec Foster Wheeler's base North American unit work-hours are based on ideal working conditions which have been adjusted using a productivity factor to account for conditions at the Project site. These productivity factors were incorporated into the construction labour unit work-hours as multipliers on the base man-hours.

21.4.1.4 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.

21.4.1.5 Capital Leases

Some of the larger capital expenditures are amenable to capital financing. The initial mining fleet and the largest process equipment, having an approximate initial capital cost of $159 M, can be financed using capital lease agreements with vendors. Inclusive of a down-payment of 15 - 30% of the purchase value paid at placement of order, capital leases reduce the initial capital cost by approximately $116 M.

21.4.2 Indirect Costs

21.4.2.1 Engineering Procurement and Construction Management

The allowance for EPCM costs is 7% of direct costs, excluding mining pre-production costs and off-site power line costs.

A separate allowance for a future Feasibilty study and permitting costs has been included in pre-construction period expenses.

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 costs determined by a per person/bed/day basis.

First Fills have been estimated per specific equipment / process requirements.

Table 21-3: Construction Indirects

Cost Element	% of Direct Cost
Temporary construction facilities	2.5
Construction support and services	3.5
Construction utilities	3.0
Health, Safety, Security and Environment (HSSE)	0.5
Freight (% of plant equipment and bulk materials only)	6.0
Vendor representatives (% of plant equipment costs only)	1.5
Contractor support during start-up/commissioning (% of plant equipment costs only)	2.0
Spare parts (% of mechanical and electrical equipment costs only)	1.5

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.

The contingency has been applied at 10% of Mining equipment and 20% of the balance of direct and indirect costs, excluding Mining pre-production, 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 (although impact reviewed within sensitivities)
- changes to design criteria
- scope changes or accelerated schedule
- modifications after hand-over
- changes in Canadian law
- 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:

- purchase of mining fleet to maintain production
- annual TMF build-out costs
- capital lease payments on initial mining fleet, and major process equipment
- contingency.

As shown in Table 21-4, sustaining capital costs are estimated at $418 M.

Table 21-4: Sustaining Costs

Cost Area	US$ M
Mining	84
Tailings	160
Capital Leases	155
Contingency	19
Total	**418**

The basis for estimating the sustaining costs for capital leases are as follows:

- 15 - 30% down payment of purchase order value on placement of order depending on the equipment (included in capital cost),
- lease rate of 5.6% per annum,
- a 1% up-front financing fee,
- lease term of five years.

A 2% contingency was applied to mining equipment to allow for contract growth of the purchased equipment. A 10% contingency was applied to TMF construction costs to account for unforeseeable items and costs within the currently defined scope.

21.6 Operating Costs

21.6.1 Operating Cost Summary

Total operating costs over the LOM are estimated to be $3,025 M (Table 21-5). Mining and processing costs represent 51% and 40% of this total, respectively. Average operating costs are estimated at $15.40/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	1,551	51
Processing	1,197	40
G&A	278	9
Total	**3,025**	**100**

Table 21-6: Average Unit Operating Costs

Cost Area	US$/t of processed mill feed
Mining	7.91
Processing	6.08
G&A	1.42
Total	**15.40**

Operating cost estimates exclude any allowances for contingencies.

21.6.2 Mining Operating Cost Estimate

Mining costs over the LOM are estimated to average $7.91/t of processed mill feed (Table 21-7). Operating costs (including pre-stripping) average $2.16/primary tonne mined including stockpile rehandle, and $2.05/total tonne moved over the LOM. Separating out the cost of mining and stockpile rehandle gives mining costs of $2.11/primary tonne and rehandle costs of $0.87/t.

Table 21-7: Average Mining Operating Costs

Cost Area	US$/t processed mill feed	Percent of total
Labour	2.09	26.7%
Electric Power	0.09	1.2%
Fuel	2.22	27.6%
Bulk Emulsion	0.41	5.2%
Tires	0.41	5.2%
Maintenance Parts & Supplies	1.56	19.6%
Other	1.13	14.3%
Total	**7.91**	**100.0%**

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.

Fuel consumption was estimated from vendor-supplied data for each type of equipment and equipment utilization factors, based upon calculated cycle times.

21.6.3 Process Operating Cost Estimate

Process operating costs over LOM are estimated to average $6.08/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	0.79
Power	1.68
Reagents	1.62
Steel consumables	1.20

Spare parts and maintenance supplies	0.69
Assaying	0.05
Miscellaneous	0.05
Average Processing Cost	**6.08**

Budgetary quotes were compiled from vendors active in the Ontario market to provide reagent pricing in Canadian dollars where possible. Due to considerably high SO_2 pricing, the decision was made to buy molten sulphur to generate SO_2 on site. Oxygen costs quoted by a local supplier were very similar in bulk and VPSA options. Pricing for bulk delivery was used in the estimate.

The lime cost obtained is competitive for the Ontario market. The supplier expects, however, that due to impending legislation regarding carbon dioxide emissions, this cost may rise significantly in the short term future.

Freight was assumed as 5% of the cost of reagents, when freight had not been provided inclusive in the reagent cost.

Wear parts and maintenance allocations were calculated using a ratio of 7.5% against the value of purchased equipment, applied annually to project the cost of replacing mechanical equipment due to normal wear and tear.

Ball mill usage was determined using ore characteristics reported for the HPGR product. Liner costs are based on projected circuit wear times, with liners made out of appropriate material as required.

A manpower estimate for a typical 32,000 tpd mill was developed. A 32% labour burden factor was applied. An allowance of $120,000 was added for liner change crews.

Power cost was assumed to be $0.058/kWh (C$0.075/kWh), which corresponds to the current pricing available in the region with no discounts negotiated into the price. Electrical power loads were developed by Amec Foster Wheeler based on the project equipment list.

The average unit processing costs presented in Table 21-8 don’t take into account a small increase in unit cost over the three-month ramp-up period at the start of operations. This additional cost has been applied to the cash flow model.

21.6.4 General and Administration

G&A costs over LOM are estimated to average $1.42/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	0.45
Camp & catering contract	0.30
Insurance	0.11
Logistics	0.10
Road and site maintenance	0.05
Power line maintenance	0.01
Power (camp and administration)	0.30
Other	0.11
Average G&A Cost	**1.42**

The camp and catering contract cost is based on 450 total employees on site at a rate of C$60 per person per camp day.

Insurance, freight and logistics, and road, site and power line maintenance were estimated by benchmarking with similar projects in the Amec Foster Wheeler database.

Freight for components other than bulk materials were assumed to be incorporated into bulk consumables costs (e.g. fuel, reagents, grinding media).

Costs for electrical power loads for the camp and adminintrative facilities were developed from power usage developed by Amec Foster Wheeler.

21.7 Reclamation and Closure Costs

Reclamation and closure costs are estimated to total approximately $40 M, distributed yearly from the middle of the LOM until post-closure. This cost is based on estimates prepared for earlier internal studies on the Project, scaled to suit the current Project concept, and excludes allowances for contingency.

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 PFS,
- unexpected variations in quantity of mineralised material, grade or recovery rates, or presence of deleterious elements that would affect the process plant or waste disposal,
- unexpected geotechnical and hydrogeological conditions from what was assumed in the mine designs, including water management during 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 discounted cash flow (DCF) analysis. Cash inflows consist of annual revenue projections. Cash outflows consist of initial capital expenditures, sustaining capital costs, operating costs, taxes and royalties. These are subtracted from revenues 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 the yearly discount rate. The discount rate appropriate to a specific project can depend on many factors, including the type of commodity, the cost of capital for the firm, and the level of project risks (e.g. market risk, technical risk and political risk) in comparison to the expected return from the equity and money markets. The base case discount rate for this technical report is 5%, which has been commonly used to evaluate gold projects in Canada recently. 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 from the start of production.

22.3 Basis of Analysis

The financial analysis was based on:

- royalty rates as described in Section 4,
- the subset of the Mineral Resource disclosed in Section 14, defined as Mineral Reserves as included in the mine plan presented in Section 15,
- the mine plan described 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, and
- 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$1,250/oz. The gold price was the consensus forecast of the following sources: bank analysts' long-term forecasts; historical metal price averages; and prices used in recent publicly-disclosed comparable studies.

22.3.2 Exchange Rate

For the purpose of the capex, opex and financial analysis, the assumed USD/CAD exchange rate for the LOM is 1.30. The exchange rate was the consensus forecast of the following sources: bank analysts' long-term forecasts; historical exchange rate averages; and prices used in recent publicly-disclosed comparable studies.

22.3.3 Transport, Insurance and Refining

The doré will be picked up from site and delivered by the Royal Canadian Mint to their refinery in Ottawa. An indicative quote for transportation, insurance and refining was received from the Mint estimating costs at approximately $1.75/oz, which has been used in the cashflow model for the project.

22.3.4 Working Capital

Working capital modelling cash outflow and inflows are included in the model. The calculations are based on the assumptions that accounts payable will be paid within 45 days and accounts receivable received within 30 days, with an additional allowance for $15 M in materials and supplies inventory. Initial working capital is estimated at approximately $31 M in the first year of production.

22.3.5 Royalties

The royalties' base and rates are presented in Section 4.3 of the Report. Royalties range from 0% to a maximum of 1.5% depending on the source of the ore within the pit. They amount to approximately $65 M over the life of the Project.

22.3.6 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 $459 M of Federal and Provincial income taxes, and $188 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 C$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 35%, based on net taxable income.

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 royalties, as applicable, are allowed as a deduction for federal and provincial income tax purposes, but are added back for provincial mining tax purposes;
- Actual taxes payable will be affected by corporate activities, and future tax benefits have not been considered; and

Past project expenses are carried within tax pools used within the model and applied against future cashflows as follows:

- Non-capital losses US$79 M,
- Undepreciated capital costs US$7 M,
- Canadian Exploration Expense (CEE) US$49.6 M, and
- Canadian Development Expense (CDE) US$73.6 M.

22.3.7 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.

22.3.8 Inflation

There is no adjustment for inflation in the financial model; all cash flows are based on 2017 US dollars.

22.4 Economic Analysis Results

Table 22-1 summarizes the financial results with the base case NPV 5% highlighted. The after-tax NPV 5% is $703M. The after-tax IRR is 14.0%. The after-tax payback of the initial capital investment is estimated to occur 4.5 years after the start of production. Table 22-2 shows the cashflow broken out on an annualized basis.

The LOM total cash cost per ounce is $605/oz Au derived from mining, processing, on-site G&A, refining, doré transportation and insurance, royalties and provincial mining tax costs per ounce payable. The all-in sustaining cost (AISC) per ounce is $689/oz Au derived from total cash costs plus sustaining capital (including interest on capital leases), and reclamation and remediation costs. Note that AISC as reported is based solely on costs associated with this project and does not take into account head office or any other corporate costs not directly associated with this project.

Table 22-1: Summary – Financial Results

Parameter	Units	Pre-Tax	After-Tax
Cumulative cash flow	US$ M	2,191	1,544
NPV 5%	US$ M	1,063	703
NPV 8%	US$ M	653	393

NPV 10%	US$ M	447	235
Payback period*	year	4.3 years	4.5 years
IRR	%	16.7%	14.0%

*after two years of pre-production

Table 22-2: Financial Model

CASHFLOW MODEL	Units	PV	LOM	-2	-1	1	2	3	4	5	6	7	8	9
Project Time line														
Project time (year)				-2	-1	1	2	3	4	5	6	7	8	9
Production				0	0	1	1	1	1	1	1	1	1	1
Metal Prices														
Gold	US$/oz		1,250	1,250	1,250	1,250	1,250	1,250	1,250	1,250	1,250	1,250	1,250	1,250
Ore mined														
Ore	kmt		196,079	375	4,381	14,089	16,208	18,591	15,183	13,365	8,044	12,343	10,043	10,361
Waste Mined														
Waste	kmt		558,156	2,313	32,877	46,349	44,033	41,358	44,836	46,547	40,587	40,365	39,490	36,751
Mill Feed														
Mill Direct Feed	kmt		154,075			7,243	8,278	11,459	10,889	10,744	6,907	8,676	9,640	10,228
Stockpile Mill Feed	kmt		42,003			2,360	2,404	221	791	936	4,773	3,304	2,042	1,452
REVENUES														
Dore														
Au recovered	koz		5,406			373	390	403	437	400	280	311	283	307
Au payable	koz		5,406			373	390	403	437	400	280	311	283	307
Au value	000 US$	4,435,564	6,756,844			465,755	487,450	503,471	546,014	500,192	350,467	389,233	353,569	383,675
Transport and insurance														
Dore refining, transport, insurance and other charges	000 US$	6,210	9,313			602	682	705	764	700	491	545	495	537
Total Refining Transport and Insurance	000 US$	6,210	9,313			602	682	705	764	700	491	545	495	537
NSR														
Dore	000 US$	4,429,354	6,765,331			465,153	486,776	502,766	545,250	499,492	349,977	388,688	353,074	383,338
Total	000 US$	4,429,354	6,765,331			465,153	486,776	502,766	545,250	499,492	349,977	388,688	353,074	383,338
OPERATING COSTS ONSITE														
Mining	000 US$	1,031,846	1,592,917			96,610	108,543	110,033	109,346	111,833	115,349	114,777	108,367	106,475
Process	000 US$	755,109	1,196,601			65,423	70,916	70,916	70,916	70,916	70,916	70,916	70,916	70,916
G&A	000 US$	174,925	277,822			15,990	16,549	16,549	16,549	16,549	16,549	16,549	16,549	16,549
Total onsite operating cost	000 US$	1,961,881	3,024,940			178,325	194,008	197,498	196,861	198,298	202,814	202,242	193,832	193,940
OPERATING COSTS OFF SITE														
Royalties														
Royalty	000 US$	61,621	94,636			4,198	4,390	4,532	5,029	4,795	3,460	3,467	3,264	3,324
Total royalties	000 US$	61,621	94,636			4,198	4,390	4,532	5,029	4,795	3,460	3,467	3,264	3,324
OPERATING PROFIT														
Operating profit	000 US$	2,426,852	3,695,754			284,586	288,380	300,736	343,360	295,848	143,703	182,979	155,977	166,074
Taxes	000 US$	359,904	647,192	-	-	-	-	-	12,540	64,836	22,643	39,940	34,973	47,333
CAPITAL COSTS														
Initial Capital	000 US$	1,020,718	1,047,164	491,367	555,797									
Sustaining Capital	000 US$	311,400	417,681	282	6,624	50,642	56,602	56,276	42,740	46,699	28,367	15,565	13,659	26,564
Closure Costs	000 US$	17,235	39,714											2,352
Total capital costs	000 US$	1,349,353	1,504,560	491,650	562,451	50,642	56,602	56,276	42,740	46,699	28,367	15,565	13,659	28,916
Working Capital														
Accounts receivable yearly	000 US$		6,765,331			465,153	486,776	502,766	545,250	499,492	349,977	388,688	353,074	383,338
Accounts receivable adjusted	000 US$		557,898			38,228	40,009	41,323	44,815	41,054	28,765	31,947	29,020	31,507
Change in accounts receivable	000 US$					38,228	1,781	1,314	3,492	(3,761)	(12,289)	3,182	(2,927)	2,487
Accounts payable yearly	000 US$		3,099,069			181,169	199,090	202,730	202,454	204,544	206,764	206,253	197,942	197,601
Accounts payable adjusted	000 US$		382,560			22,336	24,544	24,995	24,985	25,218	25,491	25,428	24,301	24,306
Change in account payable	000 US$					22,336	2,208	451	(10)	233	274	(63)	(1,066)	26
Materials and supplies inventory	000 US$					15,000	15,000	15,000	15,000	15,000	15,000	15,000	15,000	15,000
Change in materials and supplies inventory	000 US$					15,000								
Change in working capital	000 US$	(13,459)	0			(30,892)	427	(864)	(3,502)	3,994	12,563	(3,243)	1,838	(2,462)
VALUATION INDICATORS														
Discount factor				1.00	0.95	0.91	0.86	0.82	0.78	0.75	0.71	0.68	0.64	0.61
Pre-Tax														
Cash flow	000 US$	1,063,909	2,191,175	(491,650)	(562,451)	203,053	229,206	243,596	297,118	252,943	127,899	164,169	144,178	134,697
Cumulative cashflow	000 US$			(491,650)	(1,054,101)	(851,048)	(621,842)	(378,246)	(81,129)	171,814	299,713	463,882	608,060	742,757
NPV 5%	000 US$		1,063,909											
Payback period	Years		4.5											
IRR before tax	%		18.7%											
After Tax														
Cash flow	000 US$	703,405	1,543,983	(491,650)	(562,451)	203,053	229,206	243,596	284,579	188,107	105,256	124,225	109,204	87,364
Cumulative cashflow	000 US$			(491,650)	(1,054,101)	(851,048)	(621,842)	(378,246)	(93,668)	94,438	199,694	323,919	433,123	540,487
NPV 5%	000 US$		703,405											
Payback period	Years		4.5											
IRR after tax	%		14.2%											

CASHFLOW MODEL	10	11	12	13	14	15	16	17	18	19	20	21	22
Project Time line													
Project time (year)	10	11	12	13	14	15	16	17	18	19	20	21	22
Production	1	1	1	1	1	1	1	0	0	0	0	0	0
Metal Prices													
Gold	1,250	1,250	1,250	1,250	1,250	1,250	1,250	1,250	1,250	1,250	1,250	1,250	1,250
Ore mined													
Ore	8,073	10,088	12,945	10,115	8,708	10,629	10,143						
Waste Mined													
Waste	37,912	38,338	35,145	12,900	5,390	3,433	2,063						
Mill Feed													
Mill Direct Feed	7,981	10,088	10,768	8,769	8,425	10,629	10,143						
Stockpile Mill Feed	3,609	1,592	912	1,911	2,250	851	1,337	11,075					
REVENUES													
Dore													
Au recovered	249	253	304	331	329	341	312	134					
Au payable	249	253	304	331	329	341	312	134					
Au value	311,275	315,758	379,394	413,379	410,937	426,751	389,943	167,367					
Transport and insurance													
Dore refining, transport, insurance and other charges	436	442	531	579	575	597	546	234					
Total Refining Transport and Insurance	436	442	531	579	575	597	546	234					
NSR													
Dore	310,839	315,317	378,863	412,791	410,361	426,164	389,397	167,133					
Total	310,839	315,317	378,863	412,791	410,361	426,164	389,397	167,133					
OPERATING COSTS ONSITE													
Mining	111,528	112,944	114,376	66,647	52,956	52,074	49,281	14,673					
Process	70,916	70,916	70,916	70,916	70,916	70,916	70,916	47,245					
G&A	16,549	16,549	16,549	16,549	16,549	16,549	16,549	15,893					
Total onsite operating cost	198,992	200,409	201,843	154,112	139,475	139,539	136,746	97,811					
OPERATING COSTS OFF SITE													
Royalties													
Royalty	2,831	3,354	4,145	4,208	4,076	4,253	3,874	1,489					
Total royalties	2,831	3,354	4,145	4,208	4,076	4,253	3,874	1,489					
OPERATING PROFIT													
Operating profit	109,016	111,953	172,875	254,471	266,812	282,372	248,777	68,333					
Taxes	24,268	26,624	47,121	73,752	78,231	83,588	74,053	17,505	-	-	-	-	-
CAPITAL COSTS													
Initial Capital													
Sustaining Capital	14,654	10,976	12,860	10,653	10,513	10,513	274	230					
Closure Costs	2,362	2,362	2,362	2,362	2,362	2,362	2,362	2,362	2,362	2,362	2,362	2,362	9,106
Total capital costs	17,006	13,338	15,212	12,985	12,865	12,865	2,627	2,582	2,362	2,362	2,362	2,362	9,106
Working Capital													
Accounts receivable yearly	310,839	315,317	378,863	412,791	410,361	426,164	389,397	167,133					
Accounts receivable adjusted	25,548	25,916	31,139	33,928	33,728	35,027	32,006	13,737					
Change in accounts receivable	(5,959)	368	5,223	2,789	(200)	1,299	(3,022)	(18,269)	(13,737)				
Accounts payable yearly	202,259	203,905	206,520	158,899	144,124	144,390	141,166	99,334					
Accounts payable adjusted	24,936	25,127	25,461	19,590	17,769	17,801	17,404	12,247					
Change in account payable	550	191	335	(5,871)	(1,822)	33	(397)	(5,157)	(12,247)				
Materials and supplies inventory	15,000	15,000	15,000	15,000	15,000	15,000	15,000	15,000	15,000				
Change in materials and supplies inventory										(15,000)			
Change in working capital	6,509	(177)	(4,888)	(8,660)	(1,622)	(1,266)	2,624	13,111	1,490	15,000			
VALUATION INDICATORS													
Discount factor	0.58	0.56	0.53	0.51	0.48	0.46	0.44	0.42	0.40	0.38	0.36	0.34	0.33
Pre-Tax													
Cash flow	98,516	98,443	152,775	232,827	252,325	268,241	248,775	78,361	(862)	12,648	(2,362)	(2,362)	(9,106)
Cumulative cashflow	841,273	939,704	1,112,499	1,345,326	1,597,651	1,865,892	2,114,667	2,193,028	2,192,166	2,204,814	2,202,452	2,200,090	2,191,175
After Tax													
Cash flow	74,250	71,826	105,653	159,075	174,095	184,673	174,722	61,257	(862)	12,648	(2,362)	(2,362)	(9,106)
Cumulative cashflow	614,737	686,563	792,216	951,291	1,125,386	1,310,058	1,484,780	1,546,037	1,545,175	1,557,822	1,555,470	1,553,118	1,543,983

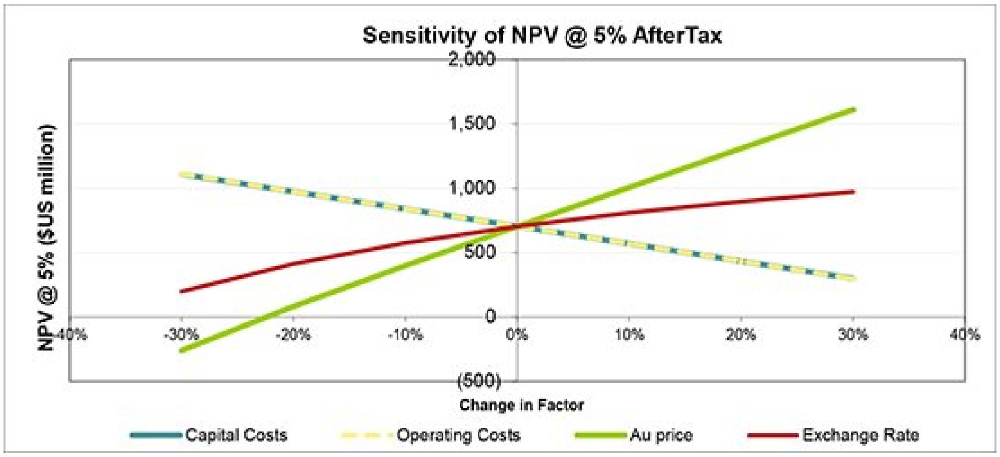
22.5 Sensitivity Analysis

A sensitivity analysis was performed on the base case NPV after taxes to examine the sensitivity to gold price, operating costs, capital costs (including sustaining), gold head grade and USD/CAD exchange rate. 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 price and gold head grade, and less sensitive to changes in exchange rate, operating costs and capital costs.

Gold head 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 5% discount rate is $703 million. The after-tax IRR is 14.0%. The after-tax payback of the initial capital investment is estimated to occur 4.5 years after the start of production.

The LOM total cash cost per ounce is $605/oz Au derived from mining, processing, on-site G&A, refining, doré transportation and insurance, royalties and provincial mining tax costs per ounce payable. The all-in sustaining cost (AISC) per ounce is $689/oz Au derived from total cash costs plus sustaining capital (including interest on capital leases), and reclamation and remediation costs. Note that AISC as reported is based solely on costs associated with this project and does not take into account head office or any other corporate costs not directly associated with this project.

In the pre-tax and after tax evaluations, the Project is most sensitive to changes in gold price and gold head grade, and less sensitive to changes in mill recovery and operating and capital costs from the factors that were evaluated.

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

The Côté Gold Project shows a positive financial outcome using discounted cashflow modelling and analysis. The PFS identifies additional testwork and analyses required to support more advanced mining studies including Feasibility.

The Project's initial capital cost is estimated at $1,163 M, or $1,047 M net of capital leases, with a level of accuracy of +25%/-20%, including capital leases on mobile and larger process equipment. Sustaining costs and operating costs over the LOM are estimated to total $418M and $3,025 M, respectively. Reclamation and closure costs are estimated at $40 M.

After-tax NPV over the LOM is $703 M at a 5% discount rate, and after-tax IRR is 14.0%. The after-tax payback period of the initial capital investment is estimated at 4.5 years after the start of production.

25.2 Mineral Tenure, Surface Rights and Royalties

Surface rights, mineral title and royalty data as of the effective date of the report are materially complete and considered sufficient to support mine planning at the PFS 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 PFS 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 sufficient to support Mineral Resource estimation and preliminary mine planning at the PFS 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.

RPA reviewed the QA/QC protocols and performance of the blank, CRM, and check assay samples. The overall results do not show significant bias or contamination. RPA is of the opinion that the QA/QC procedures are reasonable and conform to standard industry practice.

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 early on and throughout the LOM, for a PFS level of study.

Testwork indicates that recoveries do not have a strong correlatation with head grade and lithology, but are impacted by grinding time (particle size). Testwork done at the specified grind of approximately 100 microns has been consistent with the opportunity to decrease variance in results by increasing cyanidation residence time.

25.9 Mineral Resource Estimation

The Project is located in the Chester township area, in the Swayze greenstone belt, in the southwestern extension of the Abitibi greenstone belt of the Superior Province. The Côté Gold deposit has been interpreted as a porphyry-type gold mineralizing system.

The main mineralized domains identified at Côté Gold deposit are consistent with a medium to strong hydrothermal alteration and breccias. Two mineralized breccia wireframes separated by a fault were modelled, as well as the fault domain with localized mineralization.

RPA prepared an updated resource estimate for the Côté Gold Project as of May 26, 2017. The current Mineral Resource estimate is based on open pit mining methods and includes 281.2 Mt at an average grade of 0.89 g/t Au, containing 8.04 Moz in the Indicated category. There is an additional 76.5 Mt at an average grade of 0.50 g/t Au, containing 1.23 Moz in the Inferred category.

This Mineral Resource estimate was completed using Geovia GEMS 6.7 software. A 3D geological model was built and used to constrain and populate a resource block model. The estimate was based on the inverse distance cubed (ID3) interpolation method. The Mineral Resource is reported at a cut-off grade of 0.3 g/t Au and at a gold price of $1,500 per ounce. High grade gold assays were capped at grades ranging from 6 g/t to 40 g/t depending on domain. The Mineral Resource estimate was constrained by a preliminary pit optimization shell.

The current estimate represents a refinement of the 2015 estimate, benefiting from a revised geological interpretation of the main mineralized wireframes, as well as revised density assignment by lithology, revised capping grade, adjusted interpolation parameters, and smaller block size. Compared to the December 2015 estimate, Indicated Resources have decreased slightly by approximately 4% in contained ounces (almost 3% tonnage loss and 1% grade reduction), mostly as a result of the new Breccia domains interpretation. The Inferred Resources show a 5% increase (13% tonnage increase and 9% grade reduction).

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 outside providers supporting mine operations.

The PFS mine plan is based on Probable Mineral Reserves resulting from modifying factors being applied to a subset of the Indicated Mineral Resource estimates. The pit will operate for 19 years, including one year to provide rock fill for the TSF construction and one year of pre-stripping, plus 1 additional year of stockpile feed.

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, carbon stripping and EW. The plant throughput will be 32,000 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:

- Watercourse realignment dams and channels;
- a New Lake to be created to compensate the loss of Côté Lake;
- a tailings management facility (TMF);
- storm / mine water, polishing and tailings reclaim ponds;
- collection, surplus water discharge, and dispersion systems;
- a permanent camp;
- an emulsion plant;
- site power supply and distribution;
- workshop, offices, facilities and other services;
- a 12 km, two-lane gravel access road from the nearest highway; and
- an upgraded existing transmission line from Timmins to Shining Tree Junction and a new 44 km-long 115 kV electrical power transmission line from Shining Tree Junction to the project site.

The TMF will store approximately 200 Mt of tailings solids. Tailings will be thickened with solids concentration in slurry at 60 to 62%. Tailings storage will be by a series of perimeter embankment dams, raised in stages and constructed of mine rock and locally borrowed materails. 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 watercourse realignment channels will redirect water around the mine facilities, enabling dewatering and isolation of the open pit.

Power will be supplied by reconductoring the existing T2R circuit between Timmins and Shining Tree Junction (~117 km) and installing a new 44-km, 115-kV electrical transmission line from Shining Tree to the mine site.

25.13 Marketing

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 required to develop the doré marketing strategy. Metal prices are based on consensus long-term prices from banks and analysts and historical price data.

IAMGOLD has received indicative pricing for refining arrangements with the Royal Canadian Mint in Ottawa, Canada.

25.14 Environmental, Permitting and Social Licence

After application of the proposed mitigation measures contemplated in the 2015 EA mine design, which is not substantially different from the configuration described in this PFS, no potential environmental effects appear to pose significant barriers to issuing permits. Additional baseline studies within the boundaries of the new TMF and Topsoil / Overburden Stockpile, as presented in this PFS, and an update to the Environmental Effects Review, are to be completed for submission to the Canadian Environmental Assessment Agency (CEAA) and the Ministry of the Environment and Climate Change (MOECC) in Autumn 2017, to inform the regulatory agencies of changes/improvements to the EA. Upon federal and provincial approval of the updated EER, 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.

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 $1,163 M, or $1,047 M net of capital leases. This estimate was prepared in accordance with the AACE Class 4 Estimate with an expected accuracy of +25%/-20% of final project cost.

Sustaining costs over the LOM are estimated at $418 M. Reclamation and closure costs are estimated at $40 M.

25.16 Operating Costs

Operating costs over the LOM are estimated at $3,025 M, equivalent to an average operating cost of $15.40/t of material processed.

Operating costs were developed from first principles and vendor quotations, and benchmarked against 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 $703 M at a 5% discount rate, and after-tax IRR is 14.0%. The after-tax payback period of the initial capital investment is estimated at 4.5 years after the start of production.

The LOM total cash cost per ounce is $605/oz Au derived from mining, processing, on-site G&A, refining, doré transportation and insurance, royalties and provincial mining tax costs per ounce payable. The all-in sustaining cost (AISC) per ounce is $689/oz Au derived from total cash costs plus sustaining capital (including interest on capital leases), and reclamation and remediation costs. Note that AISC as reported is based solely on costs associated with this project and does not take into account head office or any other corporate costs not directly associated with this project.

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

The Côté Gold mine design is subject to the types of risks common to open gold mining operations that exist in Ontario. The risks are reasonably well understood at the Prefeasibility level of study, and should be manageable. Proper management of groundwater will be important in maintaining pit slope stability.

25.18.3 Process Design

There may be unexpected metallurgical variability that could change the assumed metallurgical performance of the process plant which could in turn 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.

The presence of silica and other forms of dust hazard may create the need for enclosed facilities and appropriate dust control.

The periodic presence of coarse gold may not be totally captured by the gravity recovery equipment and it may be necessary to extend retention time to achieve optimal recovery.

The full level of variability may not have been captured in testwork; if adverse conditions are encountered this could lead to a moderate reduction in throughput or a moderate decrease in recovery.

Freezing of crushed material may occur in the coarse ore stockpile during times when the temperatures are extremely cold (-20 degrees Celsius). Although the design does take into account the climatic conditions, there is no guarantee that there will not be issues in materials handling.

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 and/or regulator review/approval periods can cause delays in commencement of construction and operations, and require additional capital and operating costs to operate within specifications.
- Like any mine, global market factors can adversely influence the value of the project. This project would be impacted by a change in the price of gold and the USD/CAD exchange rate from the financial analysis assumptions.

25.19 Conclusions

The Côté Gold Project shows a positive financial return and supports a decision to proceed to feasibility level studies.

26.0 RECOMMENDATIONS

26.1 Summary

Amec Foster Wheeler recommends performing the fieldwork, testing and analyses summarized in Table 26-1. The PFS recommended the completion of a feasibility study to validate and detail the elements of the development concept set out in the PFS, 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
Sample Preparation, Analysis and Security	• Use Nomograms prepared by AGORATEK (2017) and the various corresponding options to dimension the preparation optimally in a trade-off between costs and representativeness of assay results.
Drilling/ Resource Estimating	• Strip, map, and channel sample new outcrops in strategic areas. • Take continuous channel samples from existing outcrop exposures and in multiple directions in some areas. • Build a structural model using the outcrop and drilling data. • Drill more holes in shallower areas with good potential for conversion to Indicated. • Use soft boundaries and new search ellipsoids for the Fault Domain where it is in direct contact with the Breccia N and S domains. • Investigate optimum grade control drilling procedures.
Metallurgical Sampling and Testing	• Test additional domain and point composites to address geometallurgical variability for both HPGR and cyanidation testwork. • Further testwork is required to optimize downstream conditions after HPGR processing. • Additional mineralogy is advised. • Additional Atwal or vendor specific wear testing is advised. • Bin flow testwork be performed.
Mining Methods	• Perform a kinematic stability check of pit walls that have changed in orientation to confirm that initial recommendations are still valid. • Update and evaluate the kriged, or Inverse Distance Weighting, of the RQD data within the block model. Input the revised pit design into the block model and develop appropriate two dimensional cross sections through each sector of the proposed pit. • Determine appropriate rock mass strengths for each major rock type, and the faults using acceptable methods and apply to each rock type or RQD zone within the updated model. • Perform two dimensional limit equilibrium and or finite element (shear stress reduction) analyses to evaluate the slope stability factors of safety for the proposed overall slope angles of each sector of the pit. • Update and complete the pit design for the final pit based on the results obtained.

- Begin mining with manned haulage and using a fleet management system (FMS). After the mine has achieved sustained planned production supplement FMS with other components of Automated Haulage System (AHS) with the goal of becoming fully autonomous.
- Complete a trade-off analysis for contracting or owner performing the preproduction mining.
- Assess owner maintenance versus a full or partial maintenance and repair contract (MARC).
- Complete blast hole drilling tests to determine production drilling parameters. Engage a blasting consultant to perform tests on the rock to run a fragmentation simulation.
- Continued investigation into mineralization controls including alteration and structural controls on mineralization and the relationship between the various breccia and alteration types and gold mineralization.
- Completing a simulation on a much bigger area once domaining is improved, an area covering the first five years of production or more.

Infrastructure

- Conduct a site specific seismic hazard assessment.
- Install a weather station at the project site.
- Commence a test pitting program associated with site infrastructure to confirm design assumptions prior to finalizing infrastructure layout.
- Continue studies assocated with the project’s electrical power requirements including advancement of the System Impact Assessment.
- Conduct additional LiDAR surveys.
- Perform additional geotechnical field investigations to further characterize the site and support the feasibility design.
- Conduct a focused field program to understand the two fault zones through the TMF.
- Conduct a field investigation for a low permeability till borrow material source.
- Conduct additional laboratory testwork to determine tailings properties to support design assumptions, TMF sizing and environmental impact.
- Conduct a study for the TMF and water management systems to optimize the design and construction requirements for the dams and water channels including an analysis of stability, determine tailings liquefaction potential and foundation materials, seepage rates and water intake and effluent discharge locations.
- Prepare a detailed hydrological analysis and water balance for the project.
- Complete a Connection Cost Estimate Agreement with Hydro One to prepare a detailed estimate, which will take approximately 12 months and cost C$500k, and conduct a System Impact Assessment.

Infrastructure Claims and Leases

- Obtain necessary leases and rights of way to support the project infrastructure requirements.

Environment

- 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.
- Prepare and submit required permit applications to allow sufficient time for regulator review/approval and commencement of required construction activities..

26.2 Sample Preparation, Analysis and Security

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.

Consider using nomograms prepared by Agorateck International Consultants Inc. (AICI, 2017) and the various corresponding options to dimension the preparation optimally in a trade-off between costs and representativeness of assay results.

26.3 Metallurgical Testwork

Further testwork and trade-off studies are recommended to advance the project as follows:

Further testwork to optimize grind vs. cyanidation parameters (residence time, cyanide concentration, oxygen usage, at a cost of C$100k apart from sample acquisition costs). Potentially for larger scale continuous tesing, it is recommended that a budget be allocated for this work of approximately C$200k apart from sample acquisition.

Further work in lithology and alteration classification to optimize throughput scheduling is necessary and the metallurgical portion of this work should be budgeted at approximately C$100k.

Further HPGR testwork at both pilot plant and piston test level (at a cost of C$600k apart from sample acquisition costs). It should also be possible to conduct materials mass flow testing which may cost an additional C$200k.

It was found that in the new cyanidation testwork that some of the tailings assays were at a lower level than measurable with the procedure used. Some of this testwork will need to be replicated using higher mass assay weights to ensure high levels of accuracy in the testwork. A budget of C$100k should be allocated for this work.

In addition to testing, it is recommended that trade-off studies be conducted to further plant optimization. This would be part of the next phase of engineering and would likely cost C$200k to examine various opportunities present.

The total cost for the proposed metallurgical testwork is estimated to be approximately C$1.4 M with approximately another C$1.0 M allocated for sample acquisition through drilling.

26.4 Mineral Resource Estimate

The mineral resource estimate result is a reasonable resource estimation, but local grade uncertainties likely remain. To improve geological controls on mineralization and to upgrade near surface Inferred Resources, RPA makes the following recommendations:

- Strip, and map, and channel sample new outcrops in areas covered by thin overburden in strategic areas (6,000 m, C$1,2M).
- Take continuous channel samples from existing outcrop exposures and in multiple directions in some areas.
- Build a structural model using the outcrop and drilling data.
- Drill more holes in shallower Inferred areas with good potential for conversion to Indicated (20,000 m, C$3.5 M)
- Use soft boundaries and new search ellipsoids for the Fault Domain where it is in direct contact with the Breccia N and S domains.

The cost of this work is estimated at C$4.7 M.

26.5 Mining Methods

26.5.1 Geotechnical

- Perform a kinematic stability check of pit walls that have changed in orientation to confirm that initial recommendations are still valid.
- Update and evaluate the kriged, or Inverse Distance Weighting, of the RQD data within the block model. Input the revised pit design into the block model and develop appropriate two dimensional cross sections through each sector of the proposed pit.
- Determine appropriate rock mass strengths for each major rock type, and the faults using acceptable methods and apply to each rock type or RQD zone within the updated model.
- Perform two dimensional limit equilibrium and or finite element (shear stress reduction) analyses to evaluate the slope stability factors of safety for the proposed overall slope angles of each sector of the pit.
- Update and complete the pit design for the final pit based on the results obtained.

The estimated cost of the recommended work is C$205,000.

26.5.2 Suitability of Resource Estimate to Support Mine Plan

In addition to RPA's recommendations for the Mineral Resources, Amec Foster Wheeler recommends:

- Continued investigation into the relationship between the various breccia and alteration types and gold mineralization. Before initiating these studies a careful review of logged lithology and alteration should be completed. Metallurgical sampling may also provide guidance on how the individual alteration observations can be grouped into assemblages. Lithology and alteration logging accuracy and consistency should be confirmed by visual re-logging and spectral logging. Simulations or implicit modeling of multi-element ICP data may assist in the identification of alteration domains and structural controls.

- Completing a simulation on a much bigger area once domaining is improved (e.g. an area covering the first five years of production or more); applying diglines on simulated results that reflect reasonably well anticipated digging practice; and using the simulated “ground truth”, the long-term estimated resource model, and the simulated grade control models and diglines to anticipate reconciliation factors. Amec Foster Wheeler also recommends completing an optimum SMU study by re-blocking the simulation to various SMU sizes and assessing the different SMU size impact on both recovered tonnes and grade above an economical cut-off grade and associated mining costs.

The estimated cost of the recommended work is C$100,000.

26.5.3 Mine Planning

- Amec Foster Wheeler recommends starting the Côté Gold operation with manned haulage and a fleet management system (FMS). During Year 1 of operations and after the mine has achieved sustained planned production, Amec Foster Wheeler recommends supplementing FMS with other components of Automated Haulage System (AHS) with the goal of becoming fully autonomous by year 5, prior to planned truck purchases in Year 6. As this recommendation would be implemented during the production stage, no immediate costs for this will be incurred.
- Complete a trade-off analysis for contracting or owner performing the preproduction mining. The estimated cost of this trade-off study is C$15,000.
- Assess owner maintenance versus a full or partial maintenance and repair contract (MARC). The estimated cost of this trade-off study is C$15,000.
- Complete blast hole drilling tests to determine production drilling parameters. Engage a blasting consultant to perform tests on the rock to run a fragmentation simulation C$50,000.

The estimated cost of mine planning work is C$80,000.

26.6 Infrastructure

26.6.1 General

The following general recommendations are made:

- Conduct a site specific seismic hazard assessment;
- Install a weather station at the project site; and

- Commence a test pitting program associated with site infrastructure to ensure site conditions are acceptable prior to finalizing infrastructure layout.

The cost of this work is estimated at C$0.15 M.

26.6.2 Tailings and Water Management

The following describes specific field and laboratory programs and activities for the TMF and water management systems for the next study stage:

- Additional LiDAR Survey to fill in some gaps / missing contour areas, south and west of TMF within the watercourse realignment channel drainage basin. The survey will also help to smoothen the current inconsistent contours and obtain updated shorelines of waterbodies in those areas.
- Additional geotechnical field investigations with trenching and pitting, drilling and monitoring instrumentation will be carried out to further characterize the site and support the feasibility design of the following:
  - Dam foundation conditions and preparation requirements, including, mine water pond, TMF, MRA, polishing pond, open pit and stream crossing dams;
  - Subsurface excavation and bedrock grouting requirements;
  - The seepage interception system, north of the reclaim pond to characterize the subsurface conditions for the mitigation design;
  - Watercourse realignment channels, and
  - Topsoil / Overburden Stockpiles and sedimentation ponds.
- A field program to understand the two fault zones through the TMF; one with east-west trending and the other with sub-south-north trending in terms of their extent, characteristics and potential impact on the TMF. This will be performed via:
  - Drilling angled boreholes at particular locations;
  - Conducting in-situ Packer permeability testing;
  - monitoring equipment installation;
  - Geophysical surveys; and
  - Laboratory testwork.
- A field investigation for low permeability till borrow material source;
- Additional laboratory testwork to determine settled and consolidated tailings density and drainage properties, to support design assumptions, TMF sizing and environmental impact.

The following describes study and design work for the TMF and water management systems recommended in the next study stage:

- Optimization of dam and realignment channel location and geometry, considering fish habitat requirements;

- Optimization of dams and channel construction methods,
- Improvement of fill material and quantity requirements and cost estimates.
- Detailed engineering analyses for stability, liquefaction potential of tailings and foundation materials, and seepage estimates.
- Detailed hydrologic/hydrogeological analysis and water balance for the project as a whole, to determine water intake and discharge requirements.
- Confirmation of the current effluent discharge location, with the aim of minimizing environmental effects and maximizing operational flexibility.

The cost of third party expenditures are estimated at C$0.80 M whereas the cost of design / study work is estimated at C$2.00 M.

26.6.3 Electrical Power Supply

IAMGOLD is recommended to engage Hydro One in a Connection Cost Estimation Agreement to produce a detailed cost estimate of re-conductoring the T2R line between Timmins and Shining Tree at a cost of C$0.5 M, consult with private contractors for installation of the 44km tap line between site and Shining Tree, and engage the Independent Electricity System Operator (The IESO) to advance the System Impact Assessment (SIA). This will enable an in-depth evaluation of specific requirements that may result from the Technical Feasibility Study (FS) in progress by the IESO, with particular attention to the short circuit levels available at the point of interconnection, protection, control, and communication requirements from Hydro One.

The cost of this work is estimated at C$0.750 M

26.6.4 Infrastructure Claims and Leases

There are a certain number of claims that are patented claims or unpatented claims converted in Mining Leases (or ready for final registration at the MNDM registry). With the size of the infrastructure, a number of additional Leases are required and the following additional work must be undertaken to ensure the project is not delayed due to incomplete permitting. The costs of getting all the necessary leases and rights of way in place include:

- Mining claims' surveys supervision and management by an Ontario Land Surveyor including title review, pre-calculation for field pick-up, data processing and plan preparation and filing to the Land Registry;
- Field survey as per Surveys Instructions received from MNDM, additional retracement of pre-existing claims
- Property Consolidation

The cost of this work is estimated at C$0.635 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, particularly within the boundaries of the new TMF and Topsoil / Overburden Stockpile locations
- Inform regulatory agencies of the changes and improvements relative to the EA submission
- Update and amend technical studies as needed to support permitting
- Prepare and submit required permit applications shortly following provincial and federal approval of the updated Environmental Effects Review to allow sufficient time for regulator review/approval and commencement of required construction activities.

The cost of this work is estimated at C$1.785M.

26.8 Summary

The total cost of the preparatory work recommended prior to a detailed study at the feasibility level is shown in Table 26-2 and estimated to be approximately C$13.62 M.

Table 26-2: Cost Estimates – PF Preparatory Work

Area	Estimated Costs (C$ M)
Metallurgical testwork (incl. met drilling)	2.40
Mineral resource estimates (incl. drilling & trenching)	4.70
Mining Methods	0.39
General Infrastructure	0.15
Tailings and water management	2.80
Electrical power supply	0.75
Infrastructure Claims and Leases	0.64
Environmental	1.79
Total	**13.62**

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
A	ampere
btu	British thermal units
ºC	degree Celsius
C$	Canadian dollars
cal	calorie
cfm	cubic feet per minute
cm	centimeter
cm^2	square centimeter
d	day
dmt	dry metric tonne
dwt	dead-weight ton
ft	feet
g	gram
G	giga (billion)
g/L	gram per litre
g/t	gram per tonne
ha	hectare
hp	horsepower
hr	hour
Hz	hertz
J	joule
k	kilo (thousand)
kcal	kilocalorie
kg	kilogram
km	kilometer
km^2	square kilometer
km/h	kilometer per hour
kPa	kilopascal
kVA	kilovolt-amperes
kW	kilowatt
kWh	kilowatt-hour
L	Litre
lb	pound
L/s	litres per second
m	meter
M	mega (million);
m^2	square meter
m^3	cubic meter
µ	micron
masl	meters above sea level
µg	microgram
m^3/h	cubic meters per hour
mi	mile
min	minute
µm	micrometer
mm	millimeter
mph	miles per hour
MVA	megavolt-amperes
MW	megawatt
MWh	megawatt-hour
oz	Troy ounce (31.1035g)
ppb	part per billion
ppm	part per million
s	second
st	short ton
stpa	short ton per year
stpd	short ton per day
t	metric tonne
tph	Metric tonne per hour
tpa	metric tonne per year
tpd	metric tonne per day
US$	United States dollar
V	volt
W	watt
wmt	wet metric tonne
wt%	weight percent
yd^3	cubic yard
yr	year

28.0 REFERENCES

AMEC, Trelawney Mining and Exploration Inc. Technical Report for Process, Report No. 168406-3000-RPT-0001, Rev. A, November 2011

AMEC, Côté Gold Project: Internal Study, Project No. 168406, Prepared for IAMGold, August 2012

AMEC Environment & Infrastructure, 2015. Cote Gold Project Chester and Neville Townships, Ontario Amended Environmental Impact Statement / Final Environmental Assessment Report (TC121522)

Amec Foster Wheeler, 2017. Primary Production Fleet Trade-off Study.

Amec Foster Wheeler Environment & Infrastructure, 2017. Geotechnical and Hyrdogeological Investigations Cote Gold Project – Pre-Feasibility Study Doc. 191659-0000-DT30-RPT-0001-B

AMINPRO, 2017. Third Party Review Of Comminution Circuit Design 2017 (P2017-0014)

AGORATEK International Consultants, 2016: Cote Gold Project Data Quality Review

AGORATEK International Consultants, 2017: Ore Heterogeneity Testing Report

Agriculture and Agri-Food Canada. 2011. Map of Arable Land in Ontario. Accessed November 6, 2012 from http://sis.agr.gc.ca/cansis/publications/maps/cli/1m/agr/cli_1m_agr_ontario.jpg

Ayer, J. A., Trowell, N. F., Amelin, Y., and Corfu, F., 1999: Geological Compilation of the Abitibi Greenstone Belt in Ontario: Toward a revised Stratigraphy Based on Compilation and New Geochronology Results; in Summary of Field Work and Other Activities 1998: OGS MP169, pp. 14-24.

Ayer, J. A., and Trowell, N. F., 2002: Geological Compilation of the Swayze area, Abitibi Greenstone Belt; OGS preliminary Map P 3511, scale 1:100,000.

Ayer, J. A., Amelin, Y., Kamo, S. L., Ketchum, J. W. F., Kwok, K., and Trowell, N., 2002: Evolution of the southern Abitibi greenstone belt based on U-Pb chronology: autochthonous volcanic construction followed by plutonism, regional deformation and sedimentation; Precambrian Research, v. 115, pp. 63-95.

Ayer, J. A., Thurston, P.C., Bateman, R., Dube, B., Gibson, H.L., Hamilton, M.A., Hathway, B., Hocker, S. M., Houle, M. G., Hudak, G., Ispolatov, V. O., Lafrance, B., Lesher, C. M., MacDonald, P. J., Peloquin, A. S., Piercy, S. J., Reed, L. E., and Thompson, P.H., 2005: Overview of results from the Greenstone Architecture Project: Discover Abitibi Initiative: OGS, Open File 6154, 146 p.

Bell, R., 1984: 1983 Annual Report of Activities, Canadian Nickel Company M. L. Burton, C. S. Burton, A. S. Burton Jr. Agreement, Esther and Benton Townships, Porcupine Mining Division, Porcupine Mining Division Assessment Files.

Bidgood, T. W., 2011: Observations on the Côté Gold Deposit, Chester Township, Ontario; Internal report for IAMGOLD Corporation, 6 p.

Bowen, R. P., 1989: An evaluation of the Gold Potential of the Burton Property, Esther and Benton Townships, Ontario, Private Company Report.

Brereton, W.E. 1991: Report on the Opeepeesway Lake Gold-Base Metal Property, Huffman Township, Porcupine Mining Division, Ontario: Assessment Report dated October, 1991, 39 p. plus appendices (AFRI # 41O09SE0001).

Berger, B.R., 2012. Interpretation of Geochemistry in the South of Gogama Area; in Summary of Field Work and Other Activities 2012, Ontario Geological Survey, Open File Report 6280, p.3-1 to 3- 14.

Bullock, D., 1991, Report on Viability Study of the Chester Township Property, Porcupine Mining Division, and Ontario: Report Prepared for Young-Shannon Gold Mines, Ltd.

Burt, P. D, Chance, P. N., Burns, J. G., 2011: Technical Report on a Resource Estimate on the Jerome Mine Property, Augen Gold Corp., July 18, 2011.

Cargill, D. G., and Gow, N. N., 2009: 2009 Technical Report on the Young-Shannon Property, Chester Township, Ontario, a NI 43-101 report prepared for IAMGOLD Corporation, September 30, 2009.

Charpentier, B. J., McAdam, J. H., and Botsford, J. N., 1985: Feasibility Study on the Jerome Mine commissioned by Muscocho Explorations Ltd., 234 p.

Clark, G. R., 1988: Progress Report on the Burton Property of Grandad Resources, Porcupine Mining Division Assessment Files.

Constable D.W., 1988, Interim Exploration Report on the Young-Shannon Gold Property, October 15, 1988, Unpublished Report for Young-Shannon Mines Limited, pp. 1 – 42.

Constable, D.W., 1989, Interim Exploration Report for Young-Shannon Gold mines Limited on Diamond Drill Phases I, II, and III, Unpublished Report for Young- Shannon Mines Limited, pp. 1 – 68.

Constable, D.W., 1990, Addendum to Executive Report of May 23, 1990; Unpublished Report for Young-Shannon Mines Limited, pp. 1 to 9.

Constable, D.W., 1990. Executive Summary Report for Young-Shannon Gold Mines Limited May 23, 1990. Unpublished Report for Young-Shannon Mines Limited.

Constable, D. W., 1990: Interim Exploration Report for Young-Shannon Gold Mines Limited, April 27, 1990 (revised July 24, 1990); unpublished report for Young-Shannon Gold Mines Limited, 85 p.

Constable, D. W., 1996: Summary Report for Rainbow Petroleum Corp. on the Burton Gold Property, Esther Township, Porcupine Mining Division, Ontario.

Cook, R. B., 2010: Technical Report on the Chester Township Properties, Ontario, Canada; prepared for IAMGOLD Mining and Exploration Inc; January 14, 2010.

COREM, 2017. Comminution Testwork Program for Iamgold, Technical Note T2127; May 26, 2017

Dobbyn, J-S. 1994. Atlas of the mammals of Ontario. Federation of Ontario Naturalists. 25 pp. Accessed July 20, 2013 from http://ontarionature.org/discover/resources/PDFs/atlases/mammal_atlas_intro.pdf

Dubé, B., and Gosselin, P. 2007. Greenstone-hosted quartz-carbonate vein deposits.In Mineral Deposits of Canada: A Synthesis of Major Deposit-Types, District Metallogeny, the Evolution of Geological Provinces, and Exploration Methods. Edited by W.D. Goodfellow. Geological Association of Canada, Mineral Deposits Division, Special Publication, 5: 49–73.

Dubé, B (ed.); Mercier-Langevin, P (ed.), 2015. The Archean Côté Gold intrusion-related Au(-Cu) deposit, Ontario: a large-tonnage, low-grade deposit centred on a magmatic-hydrothermal breccia; Katz, L R; Kontak, D J; Dubé, B; McNicoll, V J; in, Targeted Geoscience Initiative 4: Contributions to the understanding of Precambrian lode gold deposits and implications for exploration; Geological Survey of Canada, Open File 7852, 2015, ; p. 139-155, doi:10.4095/296635.

Energy, Mines and Resources Canada. 1990. National Atlas of Canada 5th Edition, Canada Climatic Regions Thornthwaite Classification, Moisture Regions, Map MCR4096 and Thermal Efficiency Regions MCR 4155F.

Evans, A.M., 1980: An Introduction to Ore Geology; Elsevier, New York; 231 p.

Furse, G.D., 1932: Geology of the Swayze area; Ontario Department of Mines, Annual Report, 1932, v.41, pt.3, pp. 35-53.

Galley, A.G., and Lafrance, B. 2014. Setting and evolution of the Archean synvolcanic Mooshla intrusive complex, Doyon-Bousquet-LaRonde mining camp, Abitibi greenstone belt: emplacement history, petrogenesis, and implications for Au metallogenesis. Economic Geology, 109: 205-229.

Geophysics GPR International, 2017. Geophysical Survey of the Five Dams Project Cote Gold Property of IAMGOLD, District of Sudbury, Ontario.

Golder Associates, 2015. Feasibility Level Open Pit Slope Design Cote Gold Project (1402173-2000)

Golder Associates, 2017. Results and Discussion Hydrological and Surface Water Quality Modelling in Support of Pre-Feasibility Design Cote Gold Project Chester Township, Ontario (1666857)

Heather, K.B. 1993. Regional geology, structure, and mineral deposits of the Archean Swayze greenstone belt, southern Superior Province, Ontario. Geological Survey of Canada, Current Research 93-1C, pp. 295-305

Heather, K. B., Shore, G. T., and van Breemen, O., 1996: Geological investigations in the Swayze greenstone belt, southern Superior Province, Ontario: a final field update; in Current Research 1996-C; GSC, pp. 126-136.

Heather, K. B., 1998: New insights on the stratigraphy and structural geology of the southwestern Abitibi greenstone belt: Implications for the tectonic evolution and setting of mineral deposits in the Superior Province: in The first age of giant ore formation: stratigraphy, tectonics and mineralization in the Late Archean and Early Proterozoic; Papers presented at the PDAC, pp. 63-101.

Heather, K.B. and Shore, G.T. 1999. Geology, Swayze Greenstone Belt, Ontario. Geological Survey of Canada, Open File 3384a, sheet 2, scale 1:50 000.

Heather, K. B., 2001: The geological evolution of the Archean Swayze Greenstone Belt, Superior Province, Canada; Ph. D. Thesis, Keele University, Keele, England, 370 p.

Hill, Goettler & DeLaporte Ltd., 1983: Study of the Ore Resources Remaining at the Jerome Mine.

Hofer, Wm., 1998. Exploration Update – Young Shannon Property. Internal Nord Pacific Report, 1998.

JKTech Pty Ltd., 2012: SMC Test Report on Thirty Samples from Côté Lake Project, JKTech Job No. 12007/P42; July 2012

JKTech Pty Ltd., 2014: SMC Test Report on Thirty Samples from Côté Lake Project, JKTech Job No. 13007/P50; March 2014

Katz, L.R. 2016. Geology of the Archean Côté Gold Au(-Cu) intrusion-related deposit, Swayze greenstone belt, Ontario. Unpublished Ph.D. thesis, Laurentian University, Sudbury, Ontario, 328 p.

Katz, L.R., Kontak, D.J., Dubé, B., and McNicoll, V. 2015. The Archean Côté Gold intrusion-related Au(-Cu) deposit, Ontario: A large-tonnage, low-grade deposit centred on a magmatic-hydrothermal breccia. In Targeted Geoscience Initiative 4: Contributions to the Understanding of Precambrian Lode Gold Deposits and Implications for Exploration.

Edited by B. Dubé and P. Mercier-Langevin. Geological Survey of Canada, Open File 7852, pp. 139-155.

Katz, L.R., Kontak, D.J., Dubé, B., and McNicoll, V. 2016. The geology, petrology, and geochronology of the Archean Côté Gold large-tonnage, low-grade intrusion-related Au(–Cu) deposit, Swayze greenstone belt, Ontario, Canada. Canadian Journal of Earth Sciences. Canadian Journal of Earth Sciences, v. 54, p. 173-202.

Kontak, D., et al., 2012: Preliminary Results for Age Dates for Several Samples Submitted From the Côté Gold Mineralized Zone, Chester Twp., Ontario; Internal report for IAMGOLD Mining and Exploration Inc

Laird, H. C., 1932: Geology of the Three Duck Lakes Area; Ann. Rept. Ont. Dept. Mines, v. 41, pt. 3, 34 p.

Lesher, C. N., Goodwin, A.M., Campbell, I.H., and Gorton, M.P., 1986: Trace element geochemistry of ore-associated and barren, felsic metavolcanic rocks in the Superior Province, Canada; Canadian Journal of Earth Sciences, v 23, pp. 222-237.

McBride, D. E., 2002: Qualifying Report on the Chester Township Property for Northville Gold Corporation, 41 p.; filed on SEDAR, July 29, 2002 by Condor Gold Corp.

Millard, J. E., 1989: Jerome Gold Project Exploration Report for the Period December 1987 through April 1989: 62 p.

Novak, N., 1989: Economic Evaluation of the Chester Resources Inc. Property in the Swayze Syncline Area of Ontario as prepared for Gold Bar Resources Inc. 12 p.

O’Gorman, G., 1988: Evaluation of the Murgold-Chesbar Joint Venture, Murgold Resources; James Wade Engineering Ltd., 141 p.

O’Gorman, G., 1990: Gold Bar Resources Inc., Jack Rabbit Project; Preliminary Evaluation; James Wade Engineering Ltd., 115 p.

Poulsen, K. H., Robert, F., and Dube, B., 2000: Geological classification of Canadian gold deposits; geological Survey of Canada, Bulletin 540, 106 p.

Prairie, R and P McKee. 1994. Sediment Quality Assessment Near Two Ontario Mine Sites: How Relevant are the Provincial Guidelines? Paper presented at the International Land Reclamation and Mine Drainage Conference and Third International Conference on the Abatement of Acidic Drainage, Pittsburgh, PA, 24-29 April 1994.

Roscoe, W. E., and Cook, R. B., 2011: Technical Report on the Côté Gold Deposit, Chester Property, Ontario, Canada; 43-101 report prepared for IAMGOLD Mining and Exploration Inc; April 21, 2011.

Roscoe, W. E., and Cook, R. B., 2012: Technical Report on the Côté Lake Resource Update, Chester Property, Ontario, Canada, prepared by Roscoe Postle Associates Inc. for Trelawney Mining & Exploration Inc., March 30, 2012.

Lavigne J, and Roscoe, W. E., 2012: Technical Report on the Côté Gold Project, Chester Township, Ontario, Canada, prepared by Roscoe Postle Associates Inc. for IAMGOLD CORP, October 24, 2012.

Sillitoe, R.H., 1973: The Tops and Bottoms of Porphyry Copper Deposits, Economic Geology, v. 68, pp. 799-815.

Smith, J. 2016: An integrated structural and geochemical study of auriferous sheeted quartz veins within the 2740 Ma Côté Gold deposit, Swayze Greenstone Belt, Ontario. Unpublshed M.Sc. Thesis, Laurentian University, Sudbury, Ontario, 116 p.

Siragusa, G. M., 1993: Precambrian Geology, parts of Chester, Neville, Potier and Yeo Townships; Ontario Geological Survey, Open File Report 5844.

SGS, QEMRMS Results prepared for Trelawney Mining and Exploration Inc. Project 12589-001 MI6000 January 2011

SGS, Geometallurgical Investigation of the Côté Lake Deposit prepared for Trelawney Mining and Exploration, Project CALR-12589-002 – Final Report, August 31th, 2012

SGS, The Grindability Characteristics of Samples from the Côté Lake Deposit prepared for IAMGOLD Corporation, Project CALR-12589-003 – SGS, Report 1 (Grindability), Augusts 26, 2013

SGS, Investigation into the Recovery of Gold from the Côté Lake Deposit, Project 12589-001 – Final, July 12, 2011

SGS, Gold Department Study for One Sample from the Nautilus Deposit, Project 13345-001, December 19, 2011

SGS, The Characterization of Three Gold Bearing Composite Samples from the Nautilus Deposit, Project 13345-001 – Final, May 14, 2012

SGS, Investigation of Gold Recovery from Côté Gold Project Samples, Project 12589 003 – Report 2 Recovery Testwork, August 3, 2013

SGS, 2017. Solid-liquid separation and rheology test results for six ore type samples from the Cote project for IAMGOLD, Project CALR-16095-001

Thyssenkrupp Industrial Solutions, HPGR ATWAL Wear Rate Determination on the Iamgold Cote Lake Project Samples; May 17, 2017

University of British Columbia, Piston Press Study to Assess Ore Variability for HPGR Comminution for the Cote Gold Project; May 11, 2017

Van Breemen, O., Heather, K.B., and Ayer, J.A., 2006: U-Pb geochronology of the Neoarchean Swayze sector of the southern Abitibi greenstone belt; GSC Current Research 2006-F1, 32 p.

Wisser, E., 1960: Relation of Ore Deposits to Doming in the North American Cordillera; G.S.A Memoir 77; 117 p.

Watts, Griffis and McOuat Limited, 1983: The Chester, Benneweis and St. Louis Twps. Property of Murgold Resources Inc; Porcupine Mining Division, District of Sudbury, Ontario; Company Files, Murgold Resources Inc., Toronto.

Zhao, J., MacDonald, J., and Dymov, I., 2011: An Investigation into The Recovery of Gold from the Côté Gold Deposit; prepared for IAMGOLD Corporation by SGS Canada Inc., July 12, 2011; 21 p.

CERTIFICATE OF QUALIFIED PERSON

Antonio Peralta Romero, P.Eng.
400-111 Dunsmuir Street
Vancouver, British Columbia V6B 5W3

I, Antonio Peralta Romero, 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 Prefeasibility Study of the Côté Gold Project, Porcupine Mining Division, Ontario, Canada,” that has an effective date of 26 th May 2017 (the “Technical Report”).

I am a Professional Engineer of The Association of Professional Engineers and Geoscientists of British Columbia. I graduated from the University of Guanajuato in 1984 with a B.S. in Mining Engineering, from Queen’s University in 1991 with a M.Sc. in Mining Engineering, and from Colorado School of Mines in 2007 with a Ph.D. in Mining and Earth Systems Engineering.

I have practiced my profession for 32 years . I have been directly involved in mine planning and design, ore control, production forecasting and management, and slope stability monitoring, mainly for open-pit precious, base metal mines and iron ore 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 Côté Gold Property.

I am responsible for sections 1.13, 15, 16, 21.6.2, 25.10, 25.18.2 and 26.5 of the Technical Report .

I am also jointly responsible with others for sections 1.18, 1.23, 18.2.4, 18.2.5, 21.1, 21.2, 21.3, 21.4, 21.5, 25.15, 25.16 and 25.18 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 with mine design in the Preliminary Economic Assessment for the Côté Gold Project in 2017.

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) “Antonio Peralta Romero”

____

Antonio Peralta Romero, P.Eng.

Dated: 8 June 2017

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 Prefeasibility Study of the Côté Gold Project, Porcupine Mining Division, Ontario, Canada," that has an effective date of 26 th May 2017 (the "Technical Report").

I am a member of Professional Engineers Ontario (License No.: 90293754). I graduated from McGill University, Montreal, Canada, with Masters 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 the 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).

The last time I visited the Côté Gold Property was on April 13-14, 2017.

I am responsible for sections 18.2.2, 18.2.3, 21.7 and 26.6.2 of the Technical Report.

I am also jointly responsible with others for sections 1.15, 1.18, 1.23, 2.5, 18.1, 18.2.4, 18.2.5, 21.1, 21.2, 21.3, 21.4, 21.5, 21.6.1, 25.12, 25.15, 25.16 and 26.6.1 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 Côté 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 sections of the technical report not misleading.

(Signed and sealed) "Bing Wang"

Bing Wang, Ph.D., P.Eng.

Dated: 8 June 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 Prefeasibility Study of the Côté Gold Project, Porcupine Mining Division, Ontario, Canada,” that has an effective date of 26 th May 2017 (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).

The last time I visited the Côté Gold Property was on April 13-14, 2017.

I am responsible for sections 1.17, 2.5, 20, 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 2015 Environmental Assessment of the Cote Gold Project and the Preliminary Economic Assessment for the Côté Gold Project in 2017.

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”

____

Debbie Dyck, P.Eng.

Dated: 8 June 2017

CERTIFICATE OF QUALIFIED PERSON

Dustin Smiley,
111 Dunsmuir St., Suite 400
Vancouver, British Columbia, V6B 5W3

I, Dustin Smiley, P. Eng, am employed as a Mining Engineer with Amec Foster Wheeler Americas Limited.

This certificate applies to the technical report titled "NI 43-101 Technical Report on the Prefeasibility Study of the Côté Gold Project, Porcupine Mining Division, Ontario, Canada," that has an effective date of 26 th May 2017 (the "Technical Report").

I am a Professional Engineer and member in good standing with the Association of Professional Engineers and Geoscientists of British Columbia, Canada.

I am a graduate of the University of British Columbia in 2008 with a bachelor degree of Applied Science in Mining Engineering with a minor in Commerce.

I have practiced my profession for 10 years in the mining industry. My relevant experience includes cash flow modelling, risk evaluation, financial analysis, marketing studies, mine planning, mining study supervision, mine operations and mine construction.

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 Côté Gold Property.

I am responsible for Sections 1.1, 1.2, 1.16, 1.19, 1.20, 1.21, 1.22, 2.0, 2.1, 2.2, 2.3, 2.4, 3, 19, 22, 23, 24, 25.1, 25.13, 25.17, 25.19, 26.1 and 26.8 of the Technical Report.

I am also jointly responsible with others for Sections 21.1, 21.4.1, 21.5, 25.18, 27 and 28 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 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.

(signed and sealed) "Dustin Smiley"

Dustin Smiley, P.Eng.

Dated: 8 June 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 – Global Consulting with Amec Foster Wheeler Americas Limited.

This certificate applies to the technical report titled NI 43-101 Technical Report on the Pre-feasibility of the Côté Gold Project, Porcupine Mining Division, Ontario, Canada," that has an effective date of 26 May 2017, the ("Technical Report") by IAMGOLD Corporation.

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 32 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 Côté Gold Property. I have visited the facilities where testwork was performed at the University of British Columbia in Vancouver, Canada on January 16, 2017, and also visited and reviewed work performed at COREM in Quebec City, Canada on March 9-10, 2017.

I am responsible for sections of the Technical Report . These are 1.11, 1.14, 13, 17, 18.2.7, 21.6.3, 21.6.4, 25.8, 25.11, 25.18.3 and 26.3.

I am also jointly responsible with others for Sections 1.18, 1.23, 2.5, 18.1, 21.1, 21.2, 21.3, 21.4, 21.5, 21.6.1, 25.15, 25.16, 25.18, 26.6.1, 27 & 28 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.

(Signed and sealed) "Ignacy Lipiec"

____

Ignacy Lipiec, P.Eng.

Dated: 8 June 2017

CERTIFICATE OF QUALIFIED PERSON

Jose P. Padilla, P.Eng.
111 Dunsmuir St., Suite 400
Vancouver, British Columbia, V6B 5W3

I, Jose P. Padilla, P.Eng., am employed as Manager, Electrical and Controls, with Amec Foster Wheeler Americas Limited.

This certificate applies to the technical report titled “NI 43-101 Technical Report on the Prefeasibility Study of the Côté Gold Project, Porcupine Mining Division, Ontario, Canada,” that has an effective date of 26 th May 2017 (the “Technical Report”).

I am a Professional Engineer of The Association of Professional Engineers and Geoscientists of British Columbia. I graduated from the Simon Bolivar University in Caracas, Venezuela with a Diploma from Electrical Engineering in 1987.

I have practiced my profession for 20 years . I have been directly involved in feasibility studies and detailed engineering on mining and other industry projects.

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 Côté Gold Property.

I am responsible for sections 18.2.6, 18.3.2 and 26.6.3 of the Technical Report.

I am jointly responsible with others for sections 1.15 and 25.12 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.

(signed and sealed) “Jose P. Padilla”

___

Jose P. Padilla, P.Eng.

Dated: 8 June 2017

CERTIFICATE OF QUALIFIED PERSON

Paul Baluch, P.Eng.
111 Dunsmuir St., Suite 400
Vancouver, British Columbia, V6B 5W3

I, Paul Baluch, P.Eng., am employed as the Technical Director, Civil with Amec Foster Wheeler Americas Limited.

This certificate applies to the technical report titled "NI 43-101 Technical Report on the Prefeasibility Study of the Côté Gold Project, Porcupine Mining Division, Ontario, Canada," that has an effective date of 26 th May 2017 (the "Technical Report").

I am a Professional Engineer of The Association of Professional Engineers and Geoscientists of British Columbia, Professional Engineers Ontario, The Association of Professional Engineers, Geologists and Geoscientists of Alberta, and The Association of Professional Engineers and Geoscientists of Saskatchewan. I graduated from the Slovak Technical University in Bratislava, Slovakia with a Diploma from Civil Engineering in 1980.

I have practiced my profession for 35 years . I have been directly involved in site investigations, site development, infrastructure and civil works on scoping studies, prefeasibility and feasibility studies, and detailed engineering on mining, infrastructure and other industry projects.

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 Côté Gold Property on two occasions: on October 04, 2016, and April 13-14, 2017.

I am responsible for sections 18.2.1 and 18.3.1 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.

(signed and sealed) "Paul Baluch"

Paul Baluch, P.Eng.

Dated: 8 June 2017

CERTIFICATE OF QUALIFED PERSON

Alan Smith M.Sc., P.Geo.
District Manager – Exploration, IAMGOLD Corporation
Regional Exploration Office – Sudbury
Unit 10 - 2140 Regent Street
Sudbury, ON. P3E 5S8
Tel: 705-222-1520 E-mail: alan_smith@iamgold.com

I, Alan Smith, am employed as the District Manager – Exploration for IAMGOLD Corporation.

This certificate applies to the technical report entitled "NI 43-101 Technical Report on the Pre-feasibility Study of the Côté Gold Project, Porcupine Mining Division, Ontario, Canada" that has an effective date of 26 May 2017, (the "Technical Report") by IAMGOLD Corporation.

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 generally throughout Canada with completing some exploration work in the United States and Mexico.

In my role as District Manager – Exploration, 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 responsible for Sections 1.6, 1.7, 1.8, 2.5, 7, 8, 9, 25.3, and 25.4.

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 8 th day of June, 2017

(Signed and Sealed) *"Alan Smith"*

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
T: (819) 825-7500 e-mail : marie-france_bugnon@iamgold.com

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 Pre-feasibility Study of the Côté Gold Project, Porcupine Mining Division, Ontario, Canada" that has an effective date of 26 May 2017, (the "Technical Report") by IAMGOLD Corporation .

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 May 2017 and I am responsible for Sections 1.3, 1.4, 1.5, 4, 5, 6, 25.2, 26.6.4 and Appendix A.

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 8 th of June, 2017

(Signed and Sealed) *"Marie-France Bugnon"*

Marie-France Bugnon, M.Sc. P.Geo.

CERTIFICATE OF QUALIFIED PERSON

LUKE EVANS

I, Luke Evans, M.Sc., P.Eng., as an author of this report titled "NI 43-101 Technical Report on the Pre-feasibility Study of the Côté Gold Project, Porcupine Mining Division, Ontario, Canada", prepared for IAMGOLD Corporation, and with an effective date of May 26, 2017, do hereby certify that:

1. I am a Principal Geologist and Executive Vice President, Geology and Mineral Resources, with Roscoe Postle Associates Inc. of Suite 501, 55 University Ave., Toronto, ON M5J 2H7.
2. I am a graduate of University of Toronto, Ontario, Canada, in 1983 with a Bachelor of Science (Applied) degree in Geological Engineering and Queen's University, Kingston, Ontario, Canada, in 1986 with a Master of Science degree in Mineral Exploration.
3. I am registered as a Professional Engineer in the Province of Ontario (Reg. #90345885). I have worked as a professional geologist for a total of 31 years since my graduation. My relevant experience for the purpose of the Technical Report is:
   - Consulting Geological Engineer specializing in resource and reserve estimates, audits, technical assistance, and training since 1995.
   - Review and report as a consultant on numerous exploration and mining projects around the world for due diligence and regulatory requirements.
   - Senior Project Geologist in charge of exploration programs at several gold and base metal mines in Quebec.
   - Project Geologist at a gold mine in Quebec in charge of exploration and definition drilling.
   - Project Geologist in charge of sampling and mapping programs at gold and base metal properties in Ontario, Canada.
4. I have read the definition of "qualified person" set out in National Instrument 43-101 (NI 43-101) and certify that by reason of my education, affiliation with a professional association (as defined in NI 43-101) and past relevant work experience, I fulfill the requirements to be a "qualified person" for the purposes of NI 43-101.
5. I visited the Côté Gold on May 18 and 19, 2017.
6. I share responsibility with Tudorel Ciuculescu for Sections 10, 11, 12, and 14 of the Technical Report. I also take responsibility for the associated summary, conclusion and recommendation sections (1.9, 1.10, 1.12, 25.5, 25.6, 25.7, 25.9, 25.18.1, 26.2 and 26.4) and share responsibility with my co-authors for Section 2.5.
7. I am independent of the Issuer applying the test set out in Section 1.5 of NI 43-101.
8. I have been involved in a previous Mineral Resource audit for the property that is the subject of the Technical Report.

9. I have read NI 43-101, and the Technical Report has been prepared in compliance with NI 43-101 and Form 43-101F1.
10. At 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 the Technical Report not misleading.

Dated this 8th day of June, 2017

(Signed & Sealed) " ***Luke Evans*** **"**

Luke Evans, M.Sc., P.Eng.

CERTIFICATE OF QUALIFIED PERSON

TUDOREL CIUCULESCU

I, Tudorel Ciuculescu, M.Sc., P.Geo., as an author of this report titled "NI 43-101 Technical Report on the Pre-feasibility Study of the Côté Gold Project, Porcupine Mining Division, Ontario, Canada", prepared for IAMGOLD Corporation, and with an effective date of May 26, 2017, do hereby certify that:

1. I am Senior Geologist with Roscoe Postle Associates Inc. of Suite 501, 55 University Ave Toronto, ON, M5J 2H7.
2. I am a graduate of University of Bucharest with a B.Sc. degree in Geology in 2000 and University of Toronto with a M.Sc. degree in Geology in 2003.
3. I am registered as a Professional Geologist in the Province of Ontario (Reg. #1882). I have worked as a geologist for a total of 14 years since my graduation. My relevant experience for the purpose of the Technical Report is:
    - Preparation of Mineral Resource estimates.
    - Over 5 years of exploration experience in Canada and Chile.
4. I have read the definition of "qualified person" set out in National Instrument 43-101 (NI 43-101) and certify that by reason of my education, affiliation with a professional association (as defined in NI43-101) and past relevant work experience, I fulfill the requirements to be a "qualified person" for the purposes of NI 43-101.
5. I visited the Côté Gold on May 18 and 19, 2017.
6. I share responsibility with Luke Evans for Sections 10, 11, 12, and 14 of the Technical Report. I also take responsibility for the associated summary, conclusion and recommendation sections (1.9, 1.10, 1.12, 25.5, 25.6, 25.7, 25.9, 25.18.1, 26.2 and 26.4) and share responsibility with my co-authors for Section 2.5.
7. I am independent of the Issuer applying the test set out in Section 1.5 of NI 43-101.
8. I have been involved in a previous Mineral Resource audit for the property that is the subject of the Technical Report.
9. I have read NI 43-101, and the Technical Report has been prepared in compliance with NI 43-101 and Form 43-101F1.
10. At 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 the Technical Report not misleading.

Dated this 8th day of June, 2017

(Signed & Sealed) “ *Tudorel Ciuculescu* ”

Tudorel Ciuculescu, M.Sc., P.Geo.

Appendix A Claims List

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 annually
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 Project

Township	Claim Number	Claim Size (Units)	Approx. Claim Size (ha)	Claim Due Date	Ownership	Work Required annually
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 Project

Township	Claim Number	Claim Size (Units)	Approx. Claim Size (ha)	Claim Due Date	Ownership	Work Required annually
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	2019-May-30	100% Trelawney M & E Inc	$ 6,400
SMUTS	4266712	16	256	2019-May-30	100% Trelawney M & E Inc	$ 6,400
YEO	4249454	16	256	2019-May-30	100% Trelawney M & E Inc	$ 6,400
YEO	4249455	16	256	2019-May-30	100% Trelawney M & E Inc	$ 6,400
YEO	4249456	8	128	2019-May-30	100% Trelawney M & E Inc	$ 3,200
YEO	4249457	16	256	2019-May-30	100% Trelawney M & E Inc	$ 6,400
YEO	4249458	16	256	2019-May-30	100% Trelawney M & E Inc	$ 6,400
YEO	4266713	16	256	2019-May-30	100% Trelawney M & E Inc	$ 6,400
YEO	4266714	16	256	2019-May-30	100% Trelawney M & E Inc	$ 6,400
YEO	4266716	16	256	2019-May-30	100% Trelawney M & E Inc	$ 6,400
YEO	4266717	16	256	2019-May-30	100% Trelawney M & E Inc	$ 6,400
YEO	4266720	16	256	2019-May-30	100% Trelawney M & E Inc	$ 6,400
YEO	4266721	16	256	2019-May-30	100% Trelawney M & E Inc	$ 6,400
YEO	4266725	16	256	2019-May-30	100% Trelawney M & E Inc	$ 6,400
YEO	4266726	16	256	2019-May-30	100% Trelawney M & E Inc	$ 6,400

Table 30-4 Trelawney Property - IAMGOLD Makwa 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 annually
CHAMPAGNE	4265066	9	144	2018-Feb-12	100% Trelawney M & E Inc	$ 3,600
CHAMPAGNE	4282250	9	144	2018-Nov-09	100% Trelawney M & E Inc	$ 3,600

Table 30-5 Trelawney Property – IAMGOLD Londonderry 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 annually
CHAMPAGNE	4286422	8	128	2019-Jan-24	100% Trelawney M & E Inc	$ 3,200
CHAMPAGNE	4286423	8	128	2019-Jan-24	100% Trelawney M & E Inc	$ 3,200
CHAMPAGNE	4286432	16	256	2019-Jan-24	100% Trelawney M & E Inc	$ 6,400
LONDONDERRY	4286424	8	128	2019-Jan-24	100% Trelawney M & E Inc	$ 3,200
LONDONDERRY	4286425	8	128	2019-Jan-24	100% Trelawney M & E Inc	$ 3,200
LONDONDERRY	4286426	8	128	2019-Jan-24	100% Trelawney M & E Inc	$ 3,200
LONDONDERRY	4286427	12	192	2019-Jan-24	100% Trelawney M & E Inc	$ 4,800
LONDONDERRY	4286428	12	192	2019-Jan-24	100% Trelawney M & E Inc	$ 4,800
LONDONDERRY	4286429	12	192	2019-Jan-24	100% Trelawney M & E Inc	$ 4,800
GARIBALDI	4285991	2	32	2019-Mar-03	100% Trelawney M & E Inc	$ 800
MIRAMICHI	4286430	8	128	2019-Jan-24	100% Trelawney M & E Inc	$ 3,200
MIRAMICHI	4286431	8	128	2019-Jan-24	100% Trelawney M & E Inc	$ 3,200
MIRAMICHI	4286433	12	192	2019-Jan-27	100% Trelawney M & E Inc	$ 4,800

Table 30-6 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 annually
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 30-7 Arimathaea Property – Arimathaea Northeast 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 annually
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 30-8 Arimathaea Property – Arimathaea East 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 annually
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 30-9 Arimathaea Property – Arimathaea South 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 annually
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 30-10 TAAC Property – East 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 annually
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 30-11 TAAC Property – West 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 annually
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	2021-Dec-15	100% TAAC	$4,000
ESTHER	4206977	6	96	2021-Dec-15	100% TAAC	$2,400
FINGAL	4246487	16	256	2021-Dec-15	100% TAAC	$6,400
FINGAL	4246488	16	256	2021-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	2021-May-03	100% TAAC	$3,600
HUFFMAN	3017498	9	144	2021-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	2021-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	2021-May-03	100% TAAC	$6,000
OSWAY	3017500	9	144	2021-May-03	100% TAAC	$3,600
OSWAY	3017669	1	16	2020-Mar-17	100% TAAC	$ 400
OSWAY	3019030	16	256	2021-Sep-21	100% TAAC	$6,400
OSWAY	3019031	6	96	2021-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	2021-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	2021-Jan-15	100% TAAC	$ 6,400
OSWAY	4220351	12	192	2021-Jan-15	100% TAAC	$ 4,800
OSWAY	4220352	2	32	2021-Jan-15	100% TAAC	$ 800
OSWAY	4220353	6	96	2021-Jan-15	100% TAAC	$ 2,400
OSWAY	4220354	12	192	2021-Jan-15	100% TAAC	$ 4,800
OSWAY	4220355	12	192	2021-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 30-12 TAAC Property – West Block – Patented Mining Claims
IAMGOLD Corporation – Côté Gold Project

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 30-13 Watershed Property – TAAC Unpatented Mining Claims

Township	Claim Number	Claim Size (Units)	Approx. Claim Size (ha)	Claim Due Date	Ownership	Work Required annually
BENNEWEIS	4209355	12	192	2019-Sep-11	100% TAAC	$ 4,800
BENNEWEIS	4216686	1	16	2019-Dec-04	100% TAAC	$ 400
CHESTER	3004844	5	80	2019-Dec-08	100% TAAC	$ 2,000
CHESTER	3010239	5	80	2019-Jul-05	100% TAAC	$ 2,000
CHESTER	3011820	1	16	2020-Aug-08	100% TAAC	$ 400
CHESTER	3011854	1	16	2019-Aug-14	100% TAAC	$ 400
CHESTER	3014374	8	128	2019-Jun-07	100% TAAC	$ 3,200
CHESTER	3017665	3	48	2019-Apr-06	100% TAAC	$ 1,200
CHESTER	3017666	3	48	2019-Sep-13	100% TAAC	$ 1,200
CHESTER	3017667	3	48	2019-Sep-13	100% TAAC	$ 1,200
CHESTER	3017668	6	96	2019-Sep-13	100% TAAC	$ 2,400
CHESTER	3018410	12	192	2019-May-26	100% TAAC	$ 4,800
CHESTER	3018411	12	192	2019-Dec-12	100% TAAC	$ 4,800
CHESTER	3018412	1	16	2019-Apr-18	100% TAAC	$ 400
CHESTER	3018437	16	256	2019-Dec-12	100% TAAC	$ 6,400
CHESTER	3019033	2	32	2019-Jul-05	100% TAAC	$ 800
CHESTER	4203263	1	16	2019-May-22	100% TAAC	$ 400
CHESTER	4203267	12	192	2019-Dec-25	100% TAAC	$ 4,800
CHESTER	4203839	6	96	2019-Apr-09	100% TAAC	$ 2,400
CHESTER	4203852	15	240	2019-Apr-09	100% TAAC	$ 6,000
CHESTER	4206270	12	192	2019-Sep-21	100% TAAC	$ 4,800
CHESTER	4206271	16	256	2019-Sep-21	100% TAAC	$ 6,400
CHESTER	4206272	16	256	2019-Sep-21	100% TAAC	$ 6,400
CHESTER	4206273	16	256	2019-Sep-21	100% TAAC	$ 6,400
CHESTER	4206276	12	192	2019-Sep-21	100% TAAC	$ 4,800
CHESTER	4206277	16	256	2019-Sep-21	100% TAAC	$ 6,400
CHESTER	4206278	16	256	2019-Sep-21	100% TAAC	$ 6,400
CHESTER	4206279	16	256	2018-Sep-21	100% TAAC	$ 6,400
CHESTER	4227171	5	80	2019-May-10	100% TAAC	$ 2,000
CHESTER	4240907	13	208	2019-Feb-07	100% TAAC	$ 5,200
CHESTER	4240908	12	192	2019-Feb-07	100% TAAC	$ 4,800
NEVILLE	4219670	3	48	2019-Jan-15	100% TAAC	$ 1,200
YEO	3017383	16	256	2019-Mar-17	100% TAAC	$ 6,400
YEO	3017384	16	256	2019-Mar-17	100% TAAC	$ 6,400
YEO	3017670	10	160	2019-Mar-17	100% TAAC	$ 4,000
YEO	3017671	16	256	2019-Mar-17	100% TAAC	$ 6,400
YEO	3017672	10	160	2019-Mar-17	100% TAAC	$ 4,000
YEO	3017673	16	256	2019-Mar-17	100% TAAC	$ 6,400
YEO	3017674	16	256	2019-Oct-03	100% TAAC	$ 6,400
YEO	3018463	16	256	2019-Mar-17	100% TAAC	$ 6,400
YEO	3018541	16	256	2019-Mar-17	100% TAAC	$ 6,400
YEO	3019553	16	256	2019-Mar-17	100% TAAC	$ 6,400
YEO	3019555	16	256	2019-Mar-17	100% TAAC	$ 6,400
YEO	3019556	16	256	2019-Mar-17	100% TAAC	$ 6,400
YEO	4203293	16	256	2019-May-22	100% TAAC	$ 6,400
YEO	4203294	16	256	2019-Dec-08	100% TAAC	$ 6,400

Table 30-14 Huffman Option Property – Unpatented Mining Claims
IAMGOLD Corporation – Côté Gold Project

Township	Claim Number	Claim Size (Units)	Approx. Claim Size (ha)	Claim Due Date	Ownership	Work Required annually
HUFFMAN	1211326	15	240	2020-Nov-13	100% TAAC	$ 6,000
HUFFMAN	3003313	4	64	2020-Aug-23	100% TAAC	$ 1,600
HUFFMAN	3004321	4	64	2020-Aug-23	100% TAAC	$ 1,600
POTIER	3004318	16	256	2020-Aug-23	100% TAAC	$ 6,400

Table 30-15 Falcon Gold Option Property – Unpatented Mining Claims
IAMGOLD Corporation – Côté Gold Project

Township	Claim Number	Claim Size (Units)	Approx. Claim Size (ha)	Claim Due Date	Ownership	Work Required annually
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 30-16 Falcon Gold Option Property – Patented Mining Claims
IAMGOLD Corporation – Côté Gold Project

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 30-17 Leliever Option Property – Patented Mining Claims
IAMGOLD Corporation – Côté Gold Project

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 30-18 Sheridan Option Property – Unpatented Mining Claims
IAMGOLD Corporation – Côté Gold Project

Township	Claim Number	Claim Size (Units)	Approx. Claim Size (ha)	Claim Due Date	Ownership	Work Required annually
BENNEWEIS	4255315	16	256	2018-Apr-06	51% Trelawney M&E, 49% ET Gold Mining	$ 6,400
BENNEWEIS	4265023	16	256	2018-Apr-18	51% Trelawney M&E, 49% ET Gold Mining	$ 6,400
CHAMPAGNE	4255305	8	128	2018-Apr-06	51% Trelawney M&E, 49% ET Gold Mining	$ 3,200
CHAMPAGNE	4255306	16	256	2018-Apr-06	51% Trelawney M&E, 49% ET Gold Mining	$ 6,400
CHAMPAGNE	4255307	16	256	2018-Apr-06	51% Trelawney M&E, 49% ET Gold Mining	$ 6,400
CHAMPAGNE	4255310	16	256	2018-Apr-06	51% Trelawney M&E, 49% ET Gold Mining	$ 6,400
CHAMPAGNE	4255311	15	240	2018-Apr-06	51% Trelawney M&E, 49% ET Gold Mining	$ 6,000
CHAMPAGNE	4255312	8	128	2018-Apr-06	51% Trelawney M&E, 49% ET Gold Mining	$ 3,200
CHAMPAGNE	4255313	16	256	2018-Apr-06	51% Trelawney M&E, 49% ET Gold Mining	$ 6,400
CHAMPAGNE	4255316	16	256	2018-Apr-06	51% Trelawney M&E, 49% ET Gold Mining	$ 6,400
CHAMPAGNE	4255317	15	240	2018-Apr-06	51% Trelawney M&E, 49% ET Gold Mining	$ 6,000
CHAMPAGNE	4255318	8	128	2018-Apr-06	51% Trelawney M&E, 49% ET Gold Mining	$ 3,200
CHAMPAGNE	4255324	16	256	2018-Apr-06	51% Trelawney M&E, 49% ET Gold Mining	$ 6,400
CHAMPAGNE	4255325	16	256	2018-Apr-06	51% Trelawney M&E, 49% ET Gold Mining	$ 6,400
GROVES	4255301	8	128	2018-Apr-06	51% Trelawney M&E, 49% ET Gold Mining	$ 3,200
GROVES	4265022	16	256	2018-Apr-18	51% Trelawney M&E, 49% ET Gold Mining	$ 6,400

Table 30-19 GoldON Swayze Properties – Neville-Potier 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 annually
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 30-20 GoldON Swayze Properties – Mollie River 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 annually
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 30-21 GoldON Swayze Properties – Chester 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 annually
CHESTER	4243061	3	48	2019-Jun-04	100% Trelawney M & E Inc	$ 1,200