TECHNICAL REPORT FOR THE KENSINGTON GOLD MINE, JUNEAU, SOUTHEAST ALASKA, U.S.A.

Prepared for Coeur Mining, Inc.

NI 43-101 TECHNICAL REPORT – UPDATED PROJECT STUDY

Effective Date: December 31, 2017
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CAUTIONARY STATEMENT ON FORWARD-LOOKING INFORMATION

This technical report (Report) contains forward-looking statements within the meaning of the United States (U.S.) Securities Act of 1933 and the Securities Exchange Act of 1934 and the equivalent under Canadian securities laws that are intended to be covered by the safe harbor created by such sections. Such forward-looking statements include, without limitation, statements regarding Coeur Mining, Inc.'s (Coeur's) expectations for the Kensington Gold Mine and its expansions, including estimated capital requirements, expected production, cash costs and rates of return; Mineral Reserve and Resource Estimates; estimates of gold grades; expected financial returns and costs; and other statements that are not historical facts. We have tried to identify these forward-looking statements by using words such as "may," "might", "will," "expect," "anticipate," "believe," "could," "intend," "plan," "estimate", and similar expressions. Forward- looking statements address activities, events, or developments that Coeur expects or anticipates will or may occur in the future, and are based on currently available information.

Although Coeur believes that its expectations are based on reasonable assumptions, it can give no assurance that these expectations will prove correct. Important factors that could cause actual results to differ materially from those in the forward-looking statements include, among others, reclamation activities; changes in Project parameters as mine and process plans continue to be refined; variations in ore reserves, grade or recovery rates; geotechnical considerations; failure of plant, equipment or processes to operate as anticipated; shipping delays and regulations; risks that Coeur's exploration and property advancement efforts will not be successful; risks related to fluctuations in the price of gold; the inherently hazardous nature of mining-related activities; uncertainties with reserve and resource estimates; uncertainties related to obtaining approvals and permits from governmental regulatory authorities; and availability and timing of capital for financing exploration and development activities, including the uncertainty of being able to raise capital on favorable terms or at all; as well as those factors discussed in Coeur's filings with the U.S. Securities and Exchange Commission (SEC), including Coeur's latest Annual Report on Form 10-K and its other SEC filings (and Canadian filings). Coeur does not intend to publicly update any forward-looking statements, whether as a result of new information, future events, or otherwise, except as may be required under applicable securities laws.

CAUTIONARY NOTE TO U.S. READERS CONCERNING ESTIMATES OF MEASURED, INDICATED, AND INFERRED MINERAL RESOURCES

Information concerning the properties and operations of Coeur has been prepared in accordance with Canadian standards under applicable Canadian securities laws, and may not be comparable to similar information for U.S. companies. The terms "Mineral Resource", "Measured Mineral Resource", "Indicated Mineral Resource" and "Inferred

Mineral Resource" used in this Report are Canadian mining terms as defined in accordance with National Instrument 43-101 ("NI 43-101") under guidelines set out in the Canadian Institute of Mining, Metallurgy and Petroleum ("CIM") Standards on Mineral Resources and Mineral Reserves adopted by the CIM Council on May 24, 2014. While the terms "Mineral Resource", "Measured Mineral Resource", "Indicated Mineral Resource" and "Inferred Mineral Resource" are recognized and required by Canadian securities regulations, they are not defined terms under standards of the SEC. Under U.S. standards, mineralization may not be classified as a Reserve unless the determination has been made that the mineralization could be economically and legally produced or extracted at the time the Reserve calculation is made. As such, certain information contained in this Report concerning descriptions of mineralization and resources under Canadian standards is not comparable to similar information made public by U.S. companies subject to the reporting and disclosure requirements of the SEC. An Inferred Mineral Resource has a great amount of uncertainty as to its existence and as to its economic and legal feasibility. It cannot be assumed that all or any part of an Inferred Mineral Resource will ever be upgraded to a higher category. Under Canadian rules, estimates of Inferred Mineral Resources may not form the basis of feasibility or pre- feasibility studies.

Readers are cautioned not to assume that all or any part of Measured or Indicated Resources will ever be converted into Mineral Reserves. Readers are also cautioned not to assume that all or any part of an Inferred Mineral Resource exists, or is economically or legally mineable. In addition, the definitions of Proven Mineral Reserves and Probable Mineral Reserves under CIM standards differ in certain respects from the standards of the SEC.

CONTENTS

TABLES

FIGURES

1. SUMMARY

1.1 Introduction

Coeur staff Kyle Beebe, Professional Engineer (P.E.); Isaac Oduro, Registered Member, Society for Mining, Metallurgy & Exploration (RM SME), Member of the Australasian Institute of Mining & Metallurgy (MAusIMM) Chartered Professional (CP); and, Raul Mondragon, RM SME, prepared this technical report (Report) on the Kensington Gold Mine (the Project or Kensington or Kensington Gold Mine), located within the Berners Bay Mining District in southeast Alaska, The data presented in this Report provides updated scientific and technical information regarding the ongoing production and development activities at the Project and updated mineral resource and reserve estimates in compliance with National Instrument NI 43-101 Standards for Disclosure for Mineral Projects and Form NI 43-101F1. The operating entity for the Project is Coeur Alaska, Inc. (Coeur Alaska) a wholly-owned subsidiary of Coeur. In this Report, unless the context provides otherwise, the name Coeur is used interchangeably to refer to Coeur Mining, Inc. and Coeur Alaska, Inc.

The purpose of this Report is to:

- Provide updated estimates for the Mineral Resources and Mineral Reserves for the Kensington, Raven, and Jualin deposits;
- Update the capital and operating cost estimates for Kensington; and
- Update the economic analysis for Kensington.

Significant updates in 2017 include:

- Significant reinterpretation of geology in the south end and central regions of Zone 12 due to additional drilling from the 1170 Level drilling program;
- The Zone 41 and Zone 41 Splay 1 shapes were extended to the south due to the 990 Level drilling program. The tip of Zone 41 B on the north end was removed and cut at the same elevation as Zone 41 Splay 1 to create a seamless transition between domain boundaries.
- Refined interpretation of lower Zone 50 and Zone 10 in Block M region with additional drilling.
- Agglomerated several Zone 10 splays into one as the result of a reinterpretation of the upper southern portion of Zone 10 with new drilling.
- Raven interpretation was further refined regarding the relationship between the main vein and its upper splays.
- Total geological reinterpretation and grade estimation of Jualin Vein 4.

The information in this Report is effective as of December 31, 2017, and the Report filing date is April 25, 2018.

1.2 Property Description, Location and Ownership

The Project is located within the Berners Bay Mining District, approximately 48 miles northwest of the capital city of Juneau, Alaska (Figure 4.1). The Project is owned and operated by Coeur Alaska a wholly-owned subsidiary of Coeur.

The mine property consists of two contiguous mineral claim groups controlled by Coeur Alaska: the Kensington Group and Jualin Group. These two groups, which constitute the Kensington Consolidated Package, have combined land holdings of over 14,000 acres.

The Kensington Group hosts the Raven, Kensington, Eureka, Johnson, and Elmira deposits. The Jualin Group hosts the Jualin and the Empire deposits. Both mineral claim groups are held through a combination of 74 federal patented and 756 unpatented lode mining and mill site claims, and 43 State of Alaska claims, all of which are either owned or held under lease agreements. Of the over 14,000 acres, approximately 1,150 acres are covered by federal patented lode claims. Currently, the Kensington deposit and the Raven deposit are being mined.

1.3 Accessibility, Climate, Local Resources, Infrastructure and Physiography

Access to the Kensington and Jualin properties is by aircraft (helicopter or float plane) or boat from Juneau. The mine, mill, and camp complex at Jualin is accessed by boat from Auke Bay, Yankee Cove, or Echo Cove to the Slate Creek Cove dock facility (north side of Berners Bay), and then five miles along an all-weather gravel road.

Southeastern Alaska's climate is the warmest and wettest in Alaska, with an average of 62 inches of annual rainfall, and 88 inches of annual snowfall in the Juneau area. The climate in the Project vicinity is maritime with mean annual precipitation of 111 inches. Annual snowfall makes up a fair portion of the annual precipitation, and varies from a few feet at sea level to greater than 10 feet at the 2050 Level portal.

Juneau provides most of the services and personnel required to support operations at Kensington. Other nearby communities, such as Haines and Skagway, also add to the potential employment base at the mine. Further personnel resources come from other portions of Alaska and the lower 48 states, as well as Canada.

1.4 Surface Topography

The surface topography above the mine portal is predominantly composed of a ridge that forms one side of a glacially excavated valley on the cirque end, at the base of the mountain known as Lion's Head. The terrain is steep and rocky, with many avalanche zones in the winter and heavy timber and underbrush in those areas not cleared of trees by avalanches. The Lynn Canal side of the ridge (west side) faces the primary glacial excavation channel for this area, which all glaciers that formed these mountains and valleys fed into in past millennia.

1.5 History

Kensington was acquired by Alan Wright in the early 1960s and optioned to Homestake Mining Company for the 1980 field season; it was then optioned to Placid Oil Company from late 1980 through 1985. Placid Oil (Placid) completed 13,626 feet of core drilling on the Kensington deposit and an additional 14,076 feet on other vein targets.

Coeur Alaska acquired Kensington from Placid in 1987 and formed the Kensington Joint Venture with Echo Bay Mines. The Kensington Joint Venture, with Echo Bay as operator, brought the Project to a feasibility-study level by 1993. Coeur Alaska acquired 100% of Kensington in July 1995 by purchasing Echo Bay's 50% interest.

1.6 Geology and Mineralization

The Kensington and Jualin deposits are in the Berners Bay Mining District, which lies on the northern end of the Juneau Gold Belt, a 120 mile-long, 10-mile-wide structural zone containing numerous mesothermal gold deposits. The district is flanked by Triassic aged mafic metavolcanic rocks to the east-northeast and Cretaceous aged pelitic sediments to the west-southwest. The contact between these two units has been intruded by the northwest-trending, Cretaceous aged Jualin Diorite stock, measuring approximately five miles long by three miles wide. Regional deformation and shearing within and adjacent to the Jualin Diorite has resulted in emplacement of numerous gold-bearing, mesothermal quartz-carbonate vein deposits.

The Kensington area retains additional exploration potential, as many of the areas along the three district-scale structural trends (Comet, Orval, and Lion's Head shear zones) that host numerous gold occurrences have received only limited exploration.

The deposits with economic significance exhibit two distinct habits:

1. High-grade shear-hosted veins of limited strike and dip length within a narrow halo of locally auriferous quartz-veined diorite; and
2. Vein packages comprised of extensional vein arrays, sheeted extensional veins, and stacked en-echelon shear veins.

Vein mineralization is characterized by gold and gold-silver telluride minerals with minor associated native gold. Most of the gold is contained in calaverite ($AuTe_2$), which occurs in association with native gold as inclusions in and interstitial to pyrite grains and in microfractures in pyrite. Trace amounts of petzite (Ag_3AuTe_2), coloradoite (HgTe) and altaite (PbTe) have also been noted. Minor amounts of chalcopyrite are also present along with trace amounts of bornite, molybdenite, sphalerite, galena, and pyrrhotite. The auriferous pyrite typically occurs in small to large blebs or clots within the quartz and quartz-carbonate veins.

1.7 Exploration

Work completed prior to Coeur Alaska acquiring a 100% interest in the Project was comprised of extensive surface drilling and underground drilling, surface reconnaissance exploration geological and structural mapping, geochemical sampling, airborne geophysical surveys, engineering studies and mine development. Mining operations have been continuous since they began in 2010.

Since acquiring the Project, Coeur has conducted geological and structural mapping programs, geochemical sampling, airborne geophysical surveys, surface and underground drilling, engineering studies, and mining activities.

Coeur is planning on completing additional drilling and field work to further test the district potential around a number of existing prospects, prioritizing on those with near to medium term production potential.

1.8 Drilling

A total of 5,253 drill holes (1,663,598 feet) have been completed over the entire Project Area in the period 1981 to 2017. Of these drill holes, 312 (299,763 feet) are surface holes drilled for exploration or resource development purposes, 3,157 (1,237,375 feet) are underground resource definition drill holes, which are typically drilled on 50-foot spacing, and 1,783 (126,465 feet) are underground stope (pre-production) drill holes that are drilled on cross and plan-sections spaced at 25 feet on center. The legacy drilling inventory consists of 749 drill holes (413,031 feet), and drill holes under Coeur direction consist of 4,504 drill holes (1,250,567 feet).

1.9 Sampling and Analysis

Drill core is sampled as either half-core or whole-core, depending on the project and drill hole category. Until 2013, all samples were submitted for processing and analysis as whole-core samples, with intervals based on geology. Since 2013, all exploration related drill holes have been sampled as half-core on intervals ranging from 1 to 5 feet that do not cross lithological boundaries. Definition drill holes are sampled as whole- core on the same sampling intervals. Sample intervals are based on the distribution of vein density, vein type, pyrite content, and any other geological feature needing assay definition. Stope (pre-production) drill holes are sampled whole-core through the entire length of the drill hole with sample intervals ranging from 1 to 5 feet.

Density measurements collected on exploration and definition drill holes started in the fourth quarter of 2014. Until 2014, a density of 0.0847 SG has been applied to all rock units.

1.10 Data Verification

Since the 2014 technical report for the Project, through the work of the drill hole lockdown initiative, knowledge about the data and history behind the management has increased substantially. Coeur has undertaken regular internal and external audits of the data; however, this systematic traversal through the entire data set, which began in early 2013, significantly improved the quality of the database and identified what needs to be repaired and which drill holes are irreparable. Data evaluation and verification is performed throughout the life of a drill hole until it is locked down in the database.

1.11 Metallurgical Test Work

Prior to mill construction at the Project, six different companies conducted extensive metallurgical testing over the span of 22 years. Much of the testing focused on processing strategies and their effectiveness on Kensington ore. Milling, gravity separation, and flotation were researched. Flotation testing included flash flotation, locked-cycle testing, and cyanidation of concentrates. The results of this battery of tests were used as a guideline for designing the mill.

Design parameters were for 1,250 tons of ore per day being fed to a flotation mill utilizing a standard rougher/scavenger, cleaner/re-cleaner configuration, and supplemented with a gravity circuit. This design was calculated to produce 19,516 tons of concentrate per year.

Early testing (1998) by Pittsburgh Minerals and Environmental Technology, Inc. (PMET) on Kensington ore determined that the gold minerals examined were likely either Calaverite ($AuTe_2$) or Montbrayite (Au_2Te_3) with a particle size between 3 and 20 μm, with the minimum size being less than 1 micron. They also suggested the occurrence was primarily intimate association with pyrite and chalcopyrite.

Recent work confirms the earlier PMET results. Microprobe work was carried out by Cannon Microprobe in Seattle, Washington. Ore samples and metallurgical samples comprising many different feed sources were sent for microprobe testing. The resulting images confirmed that the overwhelming form of gold present is as a telluride, likely the mineral Calaverite ($AuTe_2$), and very little in the form of free gold or microscopic, "invisible" gold. The relationship of calaverite to pyrite is either as a rind, an inclusion or as a separate, discrete particle.

Test work results have been confirmed by production data, and since mill construction and start-up, numerous internal and external studies have been performed to investigate metallurgical issues and support mill modifications. Mill process recovery factors are based on production data and are considered appropriate to support Mineral Resource and Mineral Reserve estimation, and mine planning. Ore hardness, reagent consumptions and process conditions are based on both test work and production data. Recovery factors vary on a day to day basis depending on the zone, metal grade and mineralization type being processed. These variations are expected to trend to the forecast the life of mine (LOM) recovery value for monthly or longer reporting periods.

1.12 Mineral Resource Estimate

The Mineral Resource has been estimated and classified as of December 31, 2017, in accordance with the 2014 CIM Definition Standards on Mineral Resources and Mineral Reserves and the 2003 CIM Best Practice Guidelines. Mineral Resources estimated by Coeur Alaska staff are shown in Table 1-1. Resource estimates are reported by mining block and zone (Kensington, Raven, and Jualin). Resource estimates are done with Coeur personnel, and reviewed by outside experts. All work was completed under the supervision of the responsible QP.

Block model validation involved an inspection of block statistics and a visual inspection of cross-sections showing block grades, drilling data, and geology.

Cross-sections showing drill holes, modeled zone shapes, and mapping data were visually compared to block grades and stope plans. A combined histogram was generated of assay grades, composite grades, declustered composite grades (nearest neighbor block estimate) and the resource estimate Ordinary Kriging (OK). The difference between the Nearest Neighbor and OK Distribution is what is expected when performing a block estimate on a diversely distributed deposit, in which high grades are intermingled with low grades. Swath Plots comparing assays, composites, and block grades were also produced.

Resource classification for each block is based on the average distance between samples and the number of drill holes used during the estimation process. In general, if the average distance is less than 30 ft. the block is considered Measured; less than 80 ft. is considered Indicated; all other blocks are considered Inferred. Inferred blocks were also estimated outside of the defined zones, but within a loosely defined “dilution halo”, and not tabulated.

1.13 Mineral Resource Statement

Mineral Resources consider geologic, mining, processing, and economic constraints, and have been defined within a conceptual stope design, and therefore, are classified in accordance with the 2014 CIM Definition Standards on Mineral Resources and Mineral Reserves and the 2003 CIM Best Practice Guidelines.

Mineral Resources are reported exclusive of Mineral Reserves, have different effective dates, and are reported using variable net smelter return (NSR) cut-offs by zone.

Mineral Resources that are not Mineral Reserves do not have demonstrated economic viability. Measured, Indicated and Inferred Mineral Resources are reported in Table 1-1. Refer to Section 14 for the key parameters and assumptions used in the estimation of Mineral Resources.

Table 1-1 Measured and Indicated Mineral Resources – Exclusive of Mineral Reserves, Effective December 31, 2017 (Coeur, 2018)

Category	Deposit	Tons	Au Grade (oz/ton)	Contained Au Ounces
Measured	Kensington	1,480,300	0.25	374,100
	Raven	66,000	0.32	20,900
Indicated	Kensington	1,146,000	0.25	287,100
	Raven	14,700	0.22	3,200
	Jualin	36,800	0.74	27,200
Total Measured Mineral Resource		**1,546,300**	**0.26**	**395,000**
Total Indicated Mineral Resource		**1,197,500**	**0.27**	**317,600**
Total Measured & Indicated Mineral Resource		**2,743,800**	**0.26**	**712,600**
Inferred	Kensington	1,244,800	0.22	272,400
	Raven	134,400	0.20	27,500
	Jualin	8,600	0.58	5,000
Total Inferred Mineral Resource		**1,387,800**	**0.22**	**304,800**

1. Mineral Resource models were prepared by Mr. Troy Christensen and Ms. Rae Dawn Keim, and supervised by Mr. Isaac Oduro. All are Coeur Alaska employees.
2. CIM definitions were used for Mineral Resources.
3. Mineral Resources are reported exclusive of Mineral Reserves; Mineral Resources that are not Mineral Reserves do not have demonstrated economic viability. Inferred Mineral Resources are considered too speculative geologically to have the economic considerations applied to them that would enable them to be considered for estimation of Mineral Reserves, and there is no certainty that the Inferred Mineral Resources will be realized.
4. Mineral Resources are estimated using a cut-off grade of 0.129 oz./ton Au.
5. Assumed gold price of $1,400/oz.
6. Mineral resources have been factored for dilution associated with recovery by a conceptual stope design.
7. No legal, political, environmental, or other risks are known to the above referenced QP that could materially affect the potential development of the Mineral Resources reported above.
8. Reporting units are all U.S. customary, Tons: dry short tons; Au (oz./ton).
9. Rounding of tons and ounces, as required by reporting guidelines, may result in apparent differences between tons, grade, and contained metal content.

The QP believes Mineral Resources for the Project, estimated using core drill data, appropriately considered relevant modifying factors, and industry best practices, conform to the requirements of 2014 CIM Definition Standards on Mineral Resources and Mineral Reserves and 2003 CIM Best Practice Guidelines.

Factors that may affect the Mineral Resource estimates include metal prices assumptions, changes to stope design parameters, changes to geotechnical and metallurgical recovery assumptions, changes to the assumptions used to generate the NSR cut-off, changes in interpretations of mineralization geometry and continuity of mineralization zones.

1.14 Mineral Reserve Estimate

The Kensington Mineral Reserve is based on geologic resource models that are the result of interpreting the drilling, sampling, and mapping completed during a period spanning over twenty years prior to mine commissioning in 2010, and six and a half years of ore production.

Coeur engineers designed stope shapes within the ore zones represented in the models. Mine infrastructure such as access ramps, cross cuts, and footwall and hanging wall drives have been designed for ore extraction. A detailed three-year development and production schedule and budget were completed to demonstrate that a production rate of 1,875 tons per day could be sustained and the mine plan would be economically viable. Further drafting of life of mine sequences were also completed for all mineable shapes. The production and development schedule was completed in Deswik Scheduling software.

Dilution used in the Mineral Reserve includes internal and external dilution as part of the design criteria to assess viability.

1.14.1 Mineral Reserve Statement

Mineral Reserves, by definition, have considered environmental, permitting, and legal, title, taxation, socio-economic, marketing and political factors and constraints. The Mineral Reserves are acceptable to support mine planning.

The Mineral Reserves reported in Table 1-2 are the total recoverable and diluted Mineral Reserve, specifically the Proven and Probable ore within the designed stopes and development, including internal dilution and the surface stockpile. The proven reserve includes the Measured Resource within the designed stopes and development, and the surface ore stockpile at the mill. The probable reserve includes the Indicated resource within the minable shapes, and internal dilution.

Mineral Reserves are reported using an NSR cut-off based on $1,250/oz. for all zones.

In the opinion of the QP, Mineral Reserves for the Project, which have been estimated using core drill data, and appropriately consider modifying factors, have been estimated using industry best practices, conform to the requirements of 2014 CIM Definition Standards on Mineral Resources and Mineral Reserves and the 2003 CIM Best Practice Guidelines.

Factors that may affect the Mineral Reserve estimates include: metal price assumptions, assumptions related to geotechnical parameters, assumptions used to define the NSR cut-off to constrain Mineral Reserves; maintaining appropriate dilution control; mining and metallurgical recovery assumptions; variations to the expected revenue from short-term marketing and sales contracts; and variations to the permitting, operating, or social license regime assumptions.

Table 1-2 Mineral Reserve Statement, Effective December 31, 2017 (Coeur, 2018)

Category	Deposit	Tons	Au Grade (oz/ton)	Contained Au Ounces
Proven	Kensington	1,271,200	0.20	251,800
	Raven	13,500	0.23	3,100
Probable	Kensington	1,499,600	0.19	286,700
	Raven	19,200	0.26	5,000
	Jualin	157,600	0.47	74,100
Total Proven Mineral Reserve		**1,284,700**	**0.20**	**254,900**
Total Probable Mineral Reserve		**1,676,300**	**0.22**	**365,800**
Total Proven + Probable Mineral Reserves		**2,961,000**	**0.21**	**620,700**

1. The QP for the Mineral Reserve estimates is Mr. Kyle Beebe, PE, a Coeur Alaska employee. Mineral Reserves have an effective date of December 31, 2017.
2. CIM definitions were used for Mineral Reserves.
3. Mineral Reserves for Kensington and Raven are the total recovered and diluted Mineral Reserves, specifically the Proven and Probable ore within the designed stopes and development, including internal and external dilution and the surface stockpile. This includes all material above 0.036 opt Au.
4. For Kensington and Raven a gold price of $1,250/oz. was assumed for purposes of designing stopes and development at the overall cut-off grade of 0.146 oz./ton Au for the Mineral Reserve.
5. For Kensington and Raven development ore with grades between 0.036 and 0.146 opt Au is included in the Mineral Reserves.
6. Mineral Reserves for Jualin are the total recovered and diluted Mineral Reserves, specifically the proven and probable ore within the designed stopes and development, including internal and external dilution and the surface stockpile. This includes all material above 0.038 opt Au.
7. For Jualin a gold price of $1,250/ounce Au was assumed for purposes of designing stopes and development at the overall cut-off grade of 0.223 opt Au for the Mineral Reserve.
8. For Jualin development ore with grades between 0.038 and 0.223 opt Au is included in the Mineral Reserves.
9. No legal, political, environmental, or other risks are known to the above referenced QP that could materially affect the potential development of the Mineral Resources reported above.
10. Reporting units are all U.S. customary, Tons: dry short tons; Au (opt).
11. Rounding of tons and ounces, as required by reporting guidelines, may result in apparent differences between tons, grade, and contained metal content.

1.15 Mining Operations

The primary access to the Kensington and Raven underground mine areas is via the Kensington Portal at the 964-foot elevation. The Kensington Portal (previously known as the Jualin Portal) is in the same general area as the mill and ore stockpile. The Kensington Portal is the primary equipment and personnel travel way. The Comet Portal (792-foot elevation), on the eastern shore of Lynn Canal, serves as the secondary escapeway for the underground mine. The Kensington portal connects to the central level of the Kensington mine at the 910 level. A switchback ramp in the footwall connects the 910 Level to the upper levels of the mine, with the ramp face developed to halfway between 1860 and 1935 Levels by the end of year 2017. The lower switchback ramp from the 910 Level was developed to access the lower levels of the mine from the hanging wall of the orebody. As of the end of 2017, the down ramp was just below the 105 Level.

A series of ventilation and escape raises connect the levels from the 180 to 850 Levels, and similarly for 910 to 1785. There are currently four permanent refuge chambers and three mobile points of safety in Kensington.

The Raven Vein is accessed from the 820 Level between the Comet Portal and the Kensington orebody. The lower portions are accessed via ramp from the footwall of the orebody. The upper portions above 820 Level are accessed via Alimak raises and ladder ways to the 1042 Level. There is one mobile point of safety currently in Raven.

The Jualin underground mine area is accessed through a separate stand-alone portal at the 926-elevation on an intermediate bench behind the mill and crusher buildings. Jualin is currently in development with the main access decline at the top of the main mineralized zone.

The mine plan from 2018 forward is designed and scheduled for an average of 1,875 tons per operational day, or approximately 650,000 tons per annum. The LOM plan was developed on a weekly-based planning calendar for shorter term goals and lengthening to longer time frames for future estimates.

The primary mining method at Kensington is currently transverse longhole stoping with paste backfill. Portions of the orebody in the Kensington region, specifically on the northern and southern boundaries, are very narrow, Raven in its entirety is very narrow as well. These narrower ore structures (4 to 20 feet from footwall to hanging wall) cannot typically support the development needed for transverse stoping in an efficient manner. These areas are to be mined using longitudinal stopes as a secondary bulk extraction method, also to be backfilled with cemented paste. Jualin will primarily be mined using longitudinal stoping methods owing to its narrow ore structures with similar widths as in Raven. Jualin stopes will be backfilled with Cemented Rock Fill (CRF).

1.16 Recovery Methods

Kensington uses a flotation mill to recover gold from sulfide bearing rock. After blending based on grade, ore is fed to the crushing plant using a vibratory feeder. First stage crushing is achieved by using a jaw crusher to reduce the ore size to minus 4 inches. The primary crusher product is fed to a vibrating double deck screen. The 1.5-inch opening lower deck screen allows higher throughput by reducing circulating load in the crushing circuit. The oversize screen product is conveyed to a cone crusher, set at ¾-inch. The secondary crusher product returns to the screen deck. Undersize screen product is fed to the ball mill. Mill feed is stored in a 1,100-ton capacity fine ore bin.

Ore from the fine ore bin is fed to the primary ball mill by a conveyor belt. Grinding is accomplished using a 19.8-feet-long × 11.1-feet diameter ball mill equipped with a 1,250-horsepower motor. Ball mill discharge is fed to one of two 20-inch cyclones. The cyclone overflow, P80 of 210 µm, is fed to the flotation circuit, while the underflow is returned to the ball mill.

Primary flotation is conducted in a circuit comprised of two rougher cells and four scavenger cells. Until late 2011, all the concentrate produced in the primary circuit was sent to an 11.5-feet-long × 7.2-feet diameter regrind mill, targeting a grind size p80 of 38 µm, before being introduced to the cleaning circuit. This secondary grinding step was eliminated to prevent losses due to overgrinding and sliming of target minerals. Rougher flotation product is either sent directly to the concentrate thickener or to the cleaner circuit. Scavenger product is sent directly to the cleaner circuit, which consists of four primary cleaner cells and two secondary re-cleaner cells.

Final cleaner concentrates report to a concentrate thickener, the underflow of which supplies a filter feed tank. The concentrate thickener overflow returns to the process water system. The filter feed tank contents are pumped to a Larox filter press for dewatering. The dried filter cake from the Larox is weighed into 2-ton FIBCs for shipment to smelters. Filtrate water returns to the process water system.

Tailings from the scavenger cells are mixed with flocculent and sent to a 29.5-feet diameter high rate thickener. The underflow is then sent to either the tailings impound dam, or underground to the paste backfill plant. The overflow returns to the process water system.

The processing arrangement is a modified rougher/scavenger and cleaner/re-cleaner configuration. Reagent addition points were altered to give the telluride mineral (calaverite) priority in rougher flotation, and then allow for flotation of the bulk sulfides – a selective flotation strategy. The discrete calaverite particles can be floated first, followed by those existing as rinds and inclusions with pyrite. Changes in the reagents addition points helped in maximizing recovery. Flotation recovery is about 96% with an overall recovery of 95%.

Additionally, the mill throughput has been increased from a previous maximum of 69 tons per hour in 2012 to 84 tons per hour. This was achieved by splitting flows between paste plant and tailings pond, also by continuous removal of less enriched, harder, granitic rock pebbles that used to be recycled back to the ball mill feed. This system allows the mill to run at peak capacity of 160% above design averaging 149% (original design capacity of 1,250 tpd, or 52 tph). Granitic rock pebbles are rejected using an XRT ore sorting technology, with the positively sorted material fed back into the mill and processed as ore.

1.17 Infrastructure

The major infrastructure that supports operations at Kensington includes: 12.5 miles of connecting roadways, a port, camp and accommodation facilities, seven 2 MW diesel-powered generators, a tailings dam, and various pipelines and outfalls for fresh and warm water conveyance.

Slate Creek Cove provides barge and personnel access to the mine.

Groundwater that is captured within the underground mine workings is conveyed to the Comet Mine Water Treatment Plant and treated and discharged to Sherman Creek.

Jualin camp accommodations include dormitories with 351 beds, a kitchen dining recreation (KDR) facility, gym, and administration building. A new 10 MW diesel power plant is under construction and is expected to be put into service in 2018 after which the current generators (seven 2 MW diesel-powered generators) will be decommissioned and removed from site.

Potable water is supplied from Johnson Creek and Bay 19 in the mine to a potable water treatment skid located on the mill bench. Treated water is distributed by pipelines to the mill and camp.

Stage 2 of the TTF dam was completed in 2012. Total available tailings storage for Stage 2 is approximately 60,000,000 $ft.^3$. As of December 2017, it's estimated that approximately 55,300,000 $ft.^3$ had been placed. Stage 3 construction of the TTF dam will begin in the spring of 2018 and will be complete by the end of 2018. The ultimate tailings storage capacity is 125,000,000 $ft.^3$. Tailings are also permanently placed underground as paste backfill.

1.18 Environmental, Permitting and Social Considerations

Coeur Alaska has obtained all necessary environmental permits and licenses from the appropriate state and federal agencies for operation. Operational standards and best management practices have been established to maintain compliance with applicable state and federal regulatory standards and permits.

The environmental effects of the operation were comprehensively evaluated through the National Environmental Policy Act (NEPA) through Environmental Impact Statements. Monitoring programs are in place, and there is an approved reclamation and closure plan that reflects current mining, mitigation, and site facilities. All required local, state, and federal permits for operation have been issued. A five-year Coeur Alaska surface exploration plan on lands administered by the U.S. Forest Service was analyzed through the NEPA process and a Final Decision Notice and Finding of No Significant Impact was issued by the U.S. Forest Service in April 2018.

Coeur Alaska has had a long and positive relationship with the community of Juneau and southeast Alaska. The mine operation is well established as an employer providing high paying jobs. Coeur Alaska partners with many stakeholders, including national, regional, and state mining associations; trade organizations; fishing organizations; state and local chambers of commerce; economic development organizations; non-government organizations; and, state and federal governments.

1.19 Capital and Operating Costs

LOM capital projections are $96,660,000 and consist of $82,000,000 for sustaining capital, including equipment replacements, $2,130,000 for development projects and $12,530,000 for exploration. All major capital construction projects needed to maintain consistent production and extraction of the Mineral Reserve at Kensington were completed in 2013, except for Stage 3 construction of the TTF dam, and some potential ventilation projects in future years.

Capital Projects completed during 2017 included construction of a cold storage warehouse, reclaim barge upgrades, refreshing IT equipment, construction of an IT server building and other equipment purchases.

Actual 2017 operating costs of $957/oz Au were in line with expectations, and improvements developed throughout the year.

1.20 Economic Analysis

To support estimation of Mineral Reserves, Coeur prepared an economic analysis to confirm that the economics based on the Mineral Reserves could repay LOM operating and capital costs. The Project was evaluated on a pre-tax basis at an 8% discount rate. Results of this assessment indicate positive Project economics until the end of mine life (Table 1-3), and support the estimation of Mineral Reserves.

A sensitivity analysis was performed on the base case net cash flow. Mineral Reserve estimates are most sensitive to variations in metal price, less sensitive to changes in metal grade and recoveries, and least sensitive to fluctuations in operating and capital costs.

The QPs note that there is some upside for the Project if some or all the Inferred Mineral Resources estimated for the Project can be upgraded to higher confidence Mineral Resource categories and eventually to Mineral Reserves.

Table 1-3 Life of Mine Economic Analysis (Coeur, 2018)

Production	Units	Life of Mine
Mill throughput	tons	2,960,973
Head grade	ounces/ton	0.21
Contained metal	ounces Au	620,707
Overall recovery	percent	93
Payable Au	ounces Au	577,955
Revenue		
Gold Price	$/ounce	1,250
Gross Revenue	$M	722
Refining Cost	$M	20
Net Revenue	$M	702
Operating Costs		
Mining	$M	262
Processing	$M	118
G&A	$M	109
Royalty	$M	5
Total Operating Cost	$M	494
Cash Flow		
Operating Cash Flow	$M	209
LOM Capital	$M	97
Reclamation	$M	22
Net Cash Flow	$M	90
Analysis		
Discount Rate	percent	8
NPV	$M	70

1.21 Conclusions

Below is a summary of the conclusions compiled and verified by the QPs for the Report:

There is sufficient technical and scientific data necessary to update the Mineral Resources and Reserves. Mineral Resources and Mineral Reserves were estimated for the Project, a mine has been constructed, mining and milling operations are performing as expected, and reconciliation between mine production and the Mineral Resource model is acceptable. This indicates the data supporting the Mineral Resource and Mineral Reserve estimates were appropriately collected, evaluated and estimated, and the original Project objective of identifying mineralization to support mining operations was achieved.

- The Mineral Resource classification assigned to stopes designed within the resource models (Measured, Indicated and Inferred) relates to the level of confidence sufficient to support mine planning and evaluation of the economic viability of the stopes. The classification is directly related to drill hole sample spacing.
- The existing infrastructure, availability of staff, existing power, water, and communications facilities, freight methods, and any planned modifications or supporting studies are sufficiently well-established, or the requirements to establish such, are well understood by Coeur, and can support the current mine plan.
- The surface rights over the combined Kensington-Jualin properties are sufficient to meet the Project needs over the planned LOM for the processing plant site, tailings impoundments, waste-rock storage, ore stockpiles, and ancillary facilities.
- The metallurgical test work and associated analytical procedures were appropriate to the mineralization type, appropriate to establish the optimal processing routes, and were performed using samples that are typical of the mineralization styles found within the Project. Samples selected for testing were representative of the several types and styles of mineralization. Samples were selected from a range of depths within the deposit. Sufficient samples were taken so that tests were performed on sufficient sample mass. As mining progresses deeper and/or new mining zones are identified, additional variability tests are undertaken as required.
- Because of the data verification work, the audit findings adequately support the geological interpretations and the database quality, and therefore the QP believes the sample integrity is acceptable for use in Mineral Resource and Mineral Reserve estimation and in mine planning.
- The geological understanding of the settings, lithologies, structural, and alteration controls on mineralization and mineralization continuity and geometry in the different zones is sufficient to support estimation of Mineral Resources and Mineral Reserves. The geological knowledge of the area is sufficiently acceptable to reliably inform mine planning. The mineralization style and setting is well understood and can support the Mineral Resources and Mineral Reserves estimation. The QPs concur with the interpretation of a hybrid model style and

consider the model and interpreted deposit genesis to be appropriate to support exploration activities.

- The exploration programs completed to date are appropriate to the style of the deposit and prospects. Additional exploration has a likelihood of generating further exploration successes, particularly down-dip of known orebodies.
- The quantity and quality of the lithological, geotechnical, collar and downhole survey data collected in the exploration, delineation, underground, and grade control drill programs are sufficient to support the Mineral Resource and Mineral Reserve estimate.
- The underground mine plans are appropriately developed to maximize mining efficiencies, based on the current knowledge of geotechnical, hydrological, mining and processing information on the Project. Production forecasts are achievable with the current equipment and plant, and replacements have been acceptably scheduled. The predicted mine life to 2022 is achievable based on the projected annual production rate and the Mineral Reserves estimated.
- The QPs reviewed the financial analysis and confirmed that the Project has positive economics until the end of mine life, which supports estimation of Mineral Reserves. There is some upside for the Project, if some or all the Inferred Mineral Resources estimated for the Project can be upgraded to higher confidence Mineral Resource categories, and eventually to Mineral Reserves.
- The Kensington five-year mine plan (2018-2022) is based on the resource models created in 2017 with drill holes spaced at approximately 75 feet. There is confidence that the 2018 production forecast, based on the 2017 resource models, will forecast the 2018 actual mill ore grade within reasonable expectations of variation. Similar models were created in 2017, with mine to mill reconciliations by year falling within 5% of predictable values. The variance, to date, in 2017 of the mill versus short range model predictions is approximately -5.5% with a larger than normal number of stopes appearing to produce higher than expected grades. Kensington systematically had lower than expected grades throughout 2017, however, project life to date has had an upside.
- Three-month production plans are issued each month, with end of year projections against budget included. Stopes in the plan have mostly been definition drilled and detailed grade control models created for each stope, resulting in a measured classification for the first three months of the plans. Despite a high degree of confidence in the forecast grade, the comparison of the mine and mill reported grades can vary from month to month. For 2017, the mine reported grades were 2.0% lower than the mill (refer to Section 15.5 and Table 15-7). This variance correlates with increased higher grade stoping activities, where capping activities on the resource model can skew estimates if applied too high

or low, as appears to have been the case in 2017, as we tend towards a more conservative estimate in general.

- The three-year detailed mine planning timeframe correlates to Mineral Resource classification and the confidence in the predicted ore grade. This three-year period provides adequate time to develop access to conduct further drilling to determine the ore grades to a higher level of confidence allowing more precise stope design and production scheduling.
- Project opportunities were identified as the potential for discovery of additional mineralization that may support upgrade to Mineral Resources; conversion potential of existing or updated Mineral Resource estimates to Mineral Reserves; changes to mining methods that may allow increased production at lower mining costs; changes to process plant methodologies that may result in increased efficiencies or recoveries or reductions to processing costs.
- Risks that can affect the mining operations, mine plan assumptions, and therefore the Mineral Reserve estimates, include:
  - Uncontrolled dilution;
  - Metal price forecasts are inherently difficult to rely upon. Actual prices will differ to some extent from the forecasts used herein;
  - The ability to continue to recruit skilled technical professionals and miners to meet operational needs;
  - Mining costs may be higher or lower than expected;
  - Environmental compliance may become cost- or permit-prohibitive; and
  - Terms of smelter agreements may change, possibly substantially.

1.22 Recommendations

The QPs have reviewed the information on Kensington Gold Mine and have the following recommendations:

- Coeur Alaska should continue with its current plan for core drilling and further development of the Project.

- A single-phase work program, for a total cost of $9,800,000 is proposed, and will consist of:
  - o Exploration drilling: Additional drilling targeting;
    - The down dip extension of Zone 10/50 – To extend the current resource to -750-elevation;
    - The up-dip extension of the Raven Vein – To connects the high-grade ore shoot on the R1042 Level with surface outcrop;

    - Seward Vein – A surface outcrop of about 8.0 to 10-foot thick massive quartz vein with minor sulfides and specks of visible gold. The Seward vein dips steeply to the east and will be targeted from the K0850 Level;
    - Zone 30;
    - Metallurgical test work on selected drill hole intervals to determine metallurgical response to current mill flowsheet;
    - The down dip extension of Jualin Vein #4; and
    - Exploration drifting and rehab work.
- This work assumes approximately 70,000 feet of drilling and about 750 feet of exploration drifting and rehab, at a total cost of $9,200,000.
- Mine definition drilling: Stope and infill drilling. This work assumes about 65,000 feet of definition drilling at a total cost of $5,600,000.

2. INTRODUCTION

2.1 Terms of Reference

Coeur has prepared this Report on the Project located within the Berners Bay Mining District, approximately 48 miles northwest of the capital city of Juneau, Alaska. The operating entity for the Project is a wholly-owned Coeur subsidiary, Coeur Alaska.

This Report presents updated Mineral Resources and Mineral Reserves for the Project and was prepared in compliance with NI 43-101 and Form NI 43-101F1.

All currency is expressed in U.S. dollars, unless otherwise noted.

2.2 Qualified Persons

The following individuals, by virtue of their education, experience, and professional association, serve as the QPs for this Report, as defined in NI 43- 101. Table 2-1 lists the QPs and the sections each individual is responsible for in this Report.

Table 2-1 Qualified Person Responsibilities – Kensington Mine (Coeur, 2018)

Qualified Person	Registration	Title/Company	Sections of Responsibility
Kyle Beebe	P.E.	Mine Operations Manager - Coeur Alaska	Sections 1*,15, 16, 18, 19, 20, 21, 22, 25*
Isaac Oduro	RM SME	Chief Geologist - Coeur Alaska	Sections 1*, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 14, 23, 24, 25*, 26, 27, 28, 29, 30
Raul Mondragon	RM SME	Director of Metallurgy - Coeur Mining, Inc.	Sections 1*, 13, 17, 25*

*Indicates some portions of this section have been prepared or reviewed by multiple QPs.

2.3 Site Visits and Scope of Personal Inspection

The QPs and contributors to this Report are part of Coeur Alaska’s technical and senior staff and Coeur’s corporate staff.

- Mr. Kyle Beebe has worked at Kensington for over eight years. His QP scope of personal inspection of the site has been undertaken as part of his role as a Mine Operations Manager at Kensington. Mr. Beebe has inspected the underground workings on numerous occasions and is familiar with the key site infrastructure.

He reviewed the on-site data, including the current mine plan, production plan, and underground mine layout plans.

- Mr. Isaac Oduro has worked for Coeur Alaska for five years. His QP scope of personal inspection of the site has been undertaken as part of his role as a Chief Geologist at Kensington. As part of his role, Mr. Oduro inspected surface outcrops, drill sites, and core logging and core cutting shacks; discussed geology and mineralization with Project staff; reviewed geological interpretations with staff; reviewed resource modeling with Coeur Alaska staff; audited and reviewed on-site data including reviews of quarterly and annual budgets; visited the underground workings, and viewed the locations of key infrastructure.

- Mr. Raul Mondragon has worked as Director of Metallurgy – Operations Support for Coeur Mining for seven years. He has visited the Kensington site many times prior to 2017 and is familiar with the operation of the mill. Mr. Mondragon did not visit Kensington in 2017.

2.4 Effective Dates

The following effective dates are applicable to the information provided in this Report:

- The effective date of Kensington drilling used in Mineral Resource estimation is May 31, 2017.

- The effective date of Raven drilling used in Mineral Resource estimation is June 22, 2017.

- The effective date of Jualin drilling used in Mineral Resource estimation is January 19, 2018.

- The effective date of Kensington Mineral Resource estimate is December 31, 2017.

- The effective date of the Raven Mineral Resource estimate is December 31, 2017.

- The effective date of the Jualin Mineral Resource estimate is January 28, 2018.

- The effective date of this Report is December 31, 2017 (for Kensington and Raven) and January 28, 2018 (for Jualin).

- The Report filing date is April 25, 2018.

2.5 Information Sources and References

Coeur has used reports prepared by Coeur staff in support of regulatory filings and internal company documents in support of this Report.

Coeur has also used the information and references cited in 27 as the basis for the Report. Additional information on the operations was provided to the QPs from other Coeur Alaska employees in specialist discipline areas.

Coeur is reporting the Proven and Probable Mineral Reserves and Measured, Indicated, and Inferred Mineral Resources in Sections 14 and 15, using the definitions and categories set out in the Canadian Institute of Mining, Metallurgy, and Petroleum 2014 Definition Standards for Mineral Resources and Mineral Reserves (2014 CIM Definition Standards).

2.6 Previous Technical Reports

The following technical reports have been filed on the Project:

- Birak, D., 2004, Kensington Gold Mine, Southeast Alaska, U.S.A. Technical Report: report prepared for Coeur d'Alene Mines Corporation. Effective date July 15, 2004.
- Birak, D., 2006, Kensington Gold Mine, Southeast Alaska, U.S.A. Technical Report: Report prepared for Coeur d'Alene Mines Corporation. Effective date February 22, 2007.
- Birak, D., 2007, Kensington Gold Mine, Southeast Alaska, U.S.A. Technical Report: Report prepared for Coeur d'Alene Mines Corporation. Effective date January 1, 2008.
- Birak, D., Sims, J., and Blaylock, G., 2008, Kensington Gold Mine, Southeast Alaska, U.S.A. Technical Report: Report prepared for Coeur d'Alene Mines Corporation. Effective date January 1, 2009.
- O'Leary, B., and Sims, J., 2009, Kensington Gold Mine, Southeast Alaska, U.S.A. Technical Report: Report prepared for Coeur d'Alene Mines Corporation. Effective date January 1, 2010.
- Barry, J., and Sims, J., 2010, Kensington Gold Mine, Southeast Alaska, U.S.A. Technical Report: Report prepared for Coeur d'Alene Mines Corporation. Effective date January 1, 2010.
- Barry, J., 2012, Kensington Gold Mine, Southeast Alaska, U.S.A. Year End 2012, Technical Report: Report prepared for Coeur d'Alene Mines Corporation. Effective date January 1, 2013.

- Beebe, K., Oduro, I., and Mondragon, R., 2014, Technical Report for the Kensington Gold Mine, Juneau, Southeast Alaska, U.S.A. NI 43-101 Technical Report: Report prepared for Coeur Mining Corporation – Updated Project Study. Effective date December 31, 2014.

2.7 Units

All measurement units used in this Report are U.S. standard, unless otherwise specified. All currency in this Report is expressed in U.S. dollars, unless stated otherwise. Coeur prepared all figures, unless otherwise noted.

3. RELIANCE ON OTHER EXPERTS

The authors of this Report state that they are the QPs for those areas identified in the appropriate “Certificate of Qualified Person” attached to this Report. The QPs confirm that the information relied upon conforms to NI 43-101.

The QPs have not independently reviewed ownership of the Project area and the underlying property agreements. The QPs have fully relied upon, and disclaim responsibility for, information derived from Coeur corporate staff and legal experts retained by Coeur for this information through the following individuals:

- Ryan Young, 2017: Land Control Map; GIS Analyst – Alaska Earth Sciences, Inc.; and
- Adam Stellar, 2017: Coeur Corporate Land Manager.

The QPs have fully relied upon information derived from Coeur corporate staff and outside experts retained by Coeur for this information. Coeur corporate staff has prepared guidance on applicable taxes, royalties, and other government levies or interests applicable to revenue or income from Rochester.

4. PROPERTY DESCRIPTION AND LOCATION

4.1 Project Description and Ownership

The Kensington Gold Mine (Kensington or the Project) is located within the Berners Bay Mining District, approximately 48 miles northwest of the capital city of Juneau, Alaska (Figure 4-1). The project is operated by Coeur Alaska.

The mine area consists of two contiguous mineral claim groups controlled by Coeur Alaska: the Kensington Group and Jualin Group. These two groups constitute the Kensington Consolidated Property Package.

The Kensington Group hosts the Raven, Kensington, Eureka, Johnson, and Elmira deposits. The Jualin Group hosts of the Jualin and the Empire deposits. Both claim groups are held through a combination of federal patented and unpatented lode mining and mill site claims, State of Alaska claims, and a State of Alaska Upland Mining Lease, all of which are either owned or held under lease agreements. The combined land holdings total over 12,335 acres, approximately 11,024 acres of which are covered by federal patented lode claims.

The Kensington Portal, which accesses the Kensington deposit, is located at 0496957 E, 6523068 N in NAD 1983 UTM Zone 8N. The Kensington and Jualin Groups are in all or part of the following sections, which are located within the Juneau Recording District and Copper River Meridian, Alaska:

- Township 34 South, Range 62 East, Sections 27 through 35;
- Township 35 South, Range 62 East, Sections 01 through 16, 22 through 27, 35, 36; and
- Township 36 South, Range 62 East, Sections 01 and 02.

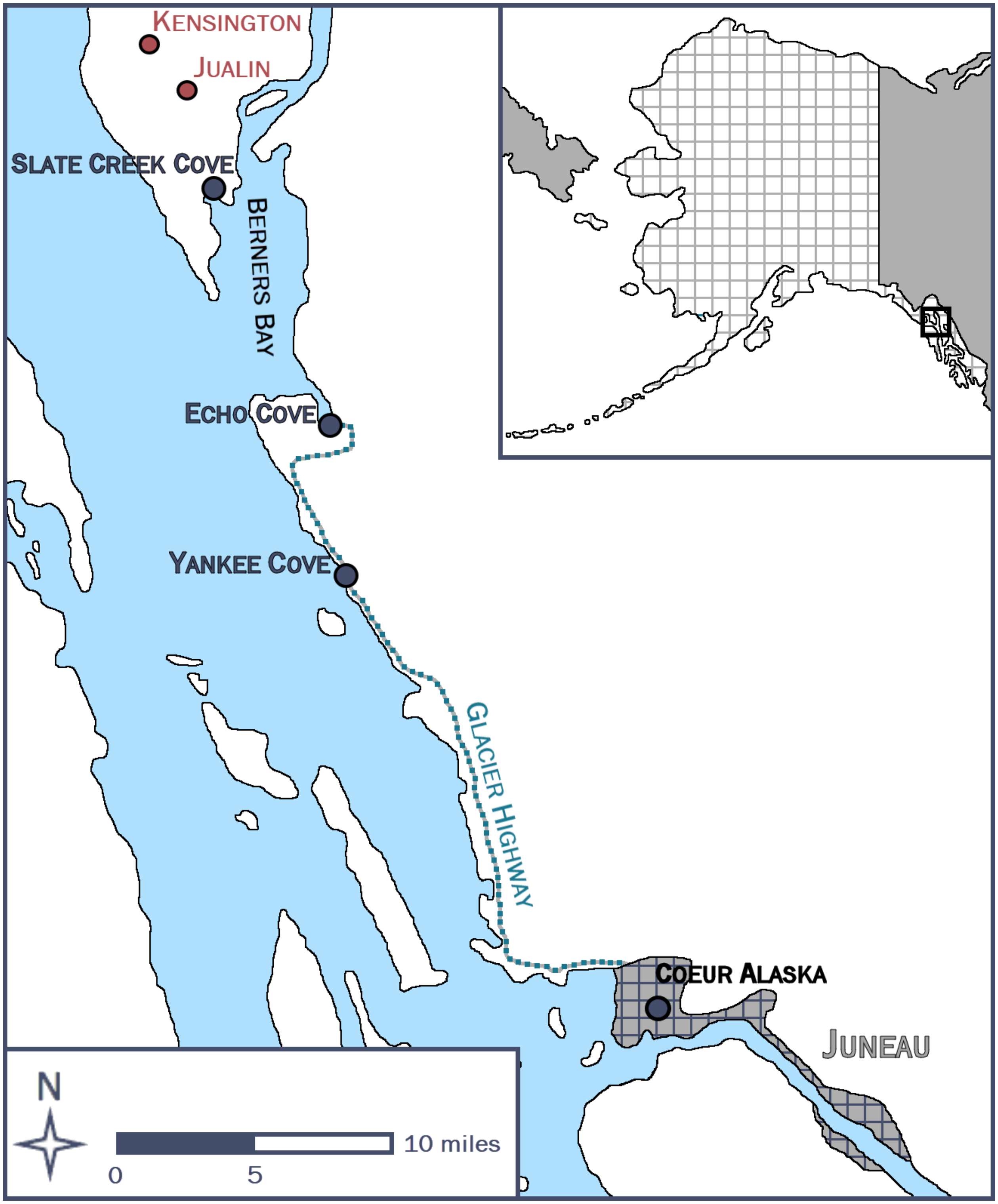


Figure 4-1 General Project Location Map (Coeur 2018)

4.2 Land Tenure

Coeur Alaska controls two contiguous property groups: the Kensington Group and Jualin Group.

The Kensington Group, totaling approximately 3,969 net acres, consists of 51 patented lode and patented mill site claims comprising approximately 766 net acres, 284 Federal unpatented lode claims covering approximately 3,108 net acres, and 13 State of Alaska mining claims covering approximately 95 net acres.

The Jualin Group, totaling approximately 8,366 net acres, is comprised of 23 patented lode and patented mill site claims covering approximately 388 net acres , 471 Federal unpatented lode claims and 1 Federal unpatented mill site claim appropriating approximately 7,916 net acres , a State of Alaska upland mining lease comprising approximately 682 acres , one State of Alaska mining claim comprising approximately three acres and four State-selected mining claims covering approximately 70 acres. Fourteen of the 23 patented lode claims cover private surface estate only. (See the reference to U.S. Mineral Surveys 261, 264, 265, 266 and 578 in Table 29-4) The mineral estate to these 14 patented lode claims located within the U.S. Mineral Surveys listed above is owned by the State of Alaska, the mineral rights to which are secured by a State of Alaska upland mining lease. The Company controls properties comprising the Jualin Group, under a lease agreement with Hyak Mining Company, which is valid until August 5, 2035 and thereafter, provided mining and production are actively occurring within and from the leased premises.

The details associated with the Kensington and Jualin Group patented, unpatented federal, and state claims, as well as the State upland mining lease described above are listed in the Property Rights tables in Section 29.

The federal unpatented lode claims are maintained by the timely annual payment of claim maintenance fees, which are $155.00 per claim, payable to the United States Department of the Interior, Bureau of Land Management on or before September 1. Should the annual claim maintenance fee not be paid by then, the unpatented lode claims are, by operation of law, rendered forfeit. For assessment year 2018 Coeur Alaska tendered $117,180 in claim maintenance fees. As of the effective date of this Report, all such payments were up to date.

State of Alaska mining claims and upland mining leases are maintained with fees and filings to the Alaska Department of Natural Resources, Division of Mining, Land and Water and the Juneau Recorder’s Office. These fees range from $35 to $680 per claim, depending on the size and age of the claim. Annual labor in the amount of $100 or $400 per State mining claim, depending on the size of the claim, must be performed or a cash payment in-lieu of the performance of that labor must be paid to the State each year. The Upland Mining Lease annual payment for 2017 was $2,898.50. For the assessment year ending September 1, 2017, sufficient annual labor was performed to maintain all the State of Alaska mining claims and upland mining lease included in both the Kensington and Jualin Groups. Affidavits of Annual Labor describing the performance of that labor were recorded on a timely basis in the Juneau Recording District.

The patented lode claims are private land and therefore not subject to federal claim maintenance requirements. However, as private land, they are subject to ad valorem property taxes assessed by the Borough and City of Juneau, Alaska, which are due annually on or before September 30, and totaled $1,372,047.44 for the 2017 tax year.

4.2.1 Agreements, Royalties, other Encumbrances

a. Coeur Alaska controls the Jualin Group under an August 5, 2005 Amended Mining Lease with Hyak Mining Company ("Hyak"), a Memorandum of which is duly recorded as Document No. 2009-008867-0 in the Office of the Recorder, Juneau Recording District, as further amended on July 1, 2009, and October 24, 2013, a Memorandum, of which is duly recorded as Document No. 2013-007222-0 in the Office of the Recorder, Juneau Recording District (collectively, the "Hyak Lease"). Pursuant to the terms of the Hyak Lease, Coeur Alaska must pay Hyak annually, during the initial term, by or before May 1, an advance minimum royalty of $231,000, which is adjusted every three years in accordance with changes in the Consumer Price Index, published by the U.S. Department of Commerce for all Urban Consumers, City of Anchorage, Alaska. The CPI-adjusted advance minimum royalty paid to Hyak in 2017 was $286,853.62. If production occurs from the leased premises, a 5% net returns royalty on production as defined by the Hyak Lease, is due, unless the amount of said net returns royalty is less than the adjusted advance minimum royalty. If the net returns royalty is less, then the advance minimum royalty is paid in lieu of such net returns royalty. In addition, Coeur Alaska has prepaid $3,100,000, in two installments, to secure extension of the Hyak Lease for a second term, which commences August 5, 2020 and ends August 5, 2035. However, the Hyak Lease will continue for so long thereafter provided mining and production are actively occurring within and from the leased premises. The advance minimum royalties and prepaid consideration for the second lease term are recoupable by Coeur Alaska by it crediting and recovering these payments against future net returns and royalties on production due to Hyak. The recoupment shall not, within any given year, cause the net returns royalties to be reduced to less than the advance minimum royalty amount, as adjusted;

b. The Hyak Lease, as amended, also controls rights Hyak enjoys pursuant to a Working Agreement with Option to Purchase dated July 14, 1982 between

Benjamin D. Fremming, Douglas L. Gregg, Thomas E. Schultz, William A. Wondriska, and Mr. and Mrs. Merrill J. Zay, and of which a Memorandum thereof was recorded on January 7, 1983 in Book 206, Page 922 in the Office of the Recorder, Juneau Recording District, as superseded by that certain Substituted Working Agreement with Option to Purchase dated February 12, 1988, effective April 1, 1982 and of which a Memorandum thereof was recorded on February 16, 1988 in Book 0297, Page 009 in the Juneau Recording District, and subsequently amended by that certain agreement dated February 10, 2010 and recorded on April 12, 2011, as Document No. 2011- 002269-0 in the Juneau Recording District. These agreements, as amended, cover the patented lode mining claims included in Mineral Surveys 676 and 1496, all of Hyak's federal unpatented lode and mill site claims, as well as 15 State of Alaska mining claims (ADL Numbers 309740-309742, 323364-323368, 349102, 503245- 503248, 509891, and 509892), all of which are situated, either wholly or partially, within the following sections of the Copper River Meridian, inside the Juneau Recording District:

- Township 35 South, Range 62 East: Sections 02, 03, 09, 10, 11, 13, 14, 15, 22, 23, 24, 25, 26; and Township 36 South, Range 62 East: Section 01.

c. Pursuant to a September 29, 2005 Lease Agreement (the "Stoll/Mydske Lease") by and among Maureen R. Stoll and Shari Mydske (the "Lessors") and Coeur Alaska (the "Lessee"), a memorandum of which is duly recorded at 2009-009098-0 in the Office of the Recorder, Juneau Recording District, Coeur Alaska, secured an undivided 25/36ths interest in and to the Falls and Diana Patented Lode Claims, (USMS 880), comprising approximately 37.896 net acres, and situated inside the Jualin Group. The primary term of the Stoll/Mydske Lease is ten years from execution thereof, and includes the right to renew and extend said Stoll/Mydske Lease for either (i) one additional term of five years or (ii) five additional successive terms of one year each. The annual payment due to the Lessors under the Stoll/Mydske Lease is $40,000. For any extended term(s) of the Stoll/Mydske Lease, the annual payment increases to $60,000. The Lessors are also due a net smelter return royalty on production, if any, for and in accordance with, the following:

i. For gold, if the fair market value is:

- $375.00/oz or less: 3%;
- More than $375.00 but less than $450.00/oz 4%; and
- $450.00/oz or more 5%.

ii. For silver, if the fair market value is:

- $6.00/oz or less 3%;
- More than $6.50 but less than $8.00/oz 4%; and
- $8.00/oz or more 5%.

iii. For all other minerals:

- 5% of the Net Smelter Return.

iv. For timber:

- Fair Market Value.

v. For gravel:

- Fair Market Value.

On August 9, 2017, Coeur Alaska notified the Lessors it would be extending the Stoll/Mydske Lease for an additional term of one year, commencing September 30, 2017 and ending September 29, 2018, with the right to extend said Stoll/Mydske Lease for two additional successive one-year terms. The remaining 11/36th undivided interest in and to the Falls and Diana Patented Lode Claims is owned by Hyak and secured by Coeur Alaska under the Stoll/Mydske Lease described in Section 4.2.1 a) hereof;

d. Additional rights for ancillary infrastructure at Slate Creek Cove are secured through a State of Alaska Tideland Lease (ADL No. 107154) (the “Tideland Lease”). The Tideland Lease was granted with a term of 25 years from October 16, 2011 and is subject to annual lease compensation that is due every October 16. Under the terms of the Tideland Lease, the lease compensation is subject to adjustment by the Lessor upon the commencement of the sixth year of the term and every fifth year thereafter. The 2017 annual lease compensation was $6,770.00. The Tideland Lease was duly recorded at 2011-006035-0 in the Office of the Recorder, Juneau Recording District on October 14, 2011.

The lands controlled by and through the Tideland Lease are described as follows:

Alaska Tideland Survey 1655, located within Section 01, Township 36 South, Range 62 East, Copper River Meridian and contains 5.02 acres more or less according to the survey plat recorded in the Juneau Recording District on January 7, 2011 as Plat # 2011-1;

e. A Right-of-Way Permit/ Easement, was granted April 15, 1995, and amended August 15, 1995, by the State of Alaska (ADL No. 105543) at the Comet Beach facility. This Right-of-Way Permit/Easement was issued with a term of 30 years from April 15, 1995, and is subject to an annual payment that is due on or before April 15, and which is subject to adjustment by the Grantor upon the commencement of the sixth year of the term and every fifth year thereafter. The 2017 annual payment was $2,972.00. This Right-of-Way Permit/Easement was duly recorded at Book 447, Page 601 in the Office of the Recorder, Juneau Recording District on May 9, 1996, with the Amendment #1 also being record in the same at Book 526, Page 957 on August 31, 1999.

The Right-of-Way Permit/Easement contains the following “easement parcels”:

Tracts A and B of Alaska Tidelands Survey 1481, located within Section 06, Township 35 South, Range 62 East, Copper River Meridian, containing 3.51 acres, more or less, according to the survey plat filed in the Juneau Recording District on January 18, 1995 as plat #95-4. Amendment #1 added Alaska Tideland Survey 1550, containing approximately 0.92 acres as recorded in the Juneau Recording District on June 14, 1999 as Plat 99-26. Total acreage included in these “easement parcels” and authorized by this right-of-way is 4.43 acres;

f. On July 7, 1995, Coeur Alaska acquired the remaining 50% ownership interest of Echo Bay Exploration Inc. in the Kensington Group from Echo Bay and Echo Bay Alaska, giving Coeur Alaska 100% ownership in and to the Kensington Group. Coeur Alaska is obligated to pay Echo Bay a scaled net smelter return royalty on 1.0 million troy ounces of gold production, after Coeur Alaska recoups the $32.5 million purchase price, plus its construction and development expenditures incurred after July 7, 1995 in connection with placing the property into commercial production. The royalty ranges from 1% at $400 gold prices to a maximum of 2½% at gold prices above $475, with the royalty to be capped at 1.0 million troy ounces of production. The patented lode and patented mill site claims, the unpatented lode claims, and the State of Alaska mining claim, which are subject to the Royalty Deed that was duly recorded at Book 428, Page 424 in the Office of the Recorder, Juneau Recording District on July 10, 1995, pursuant to the Coeur/Echo Bay Venture Termination and Asset Purchase Agreement are situated, either wholly or partially, within the following sections of the Copper River Meridian, inside the Juneau Recording District:

- Township 34 South, Range 62 East, Sections 29, 30, 31, 32, 33, 34; and
- Township 35 South, Range 62 East, Sections 03, 04, 05, 06, 07, 08, 09, 10, 15, and 16.

g. Coeur Alaska holds an Assignment from Hyak Mining Company to a State of Alaska Upland Mining Lease (ADL# 720953) granted on lands generally located within the following protracted sections of the following unsurveyed township: Copper River Meridian, Township 35 South, Range 62 East, Sections 10, 11, 14 and 15. This Upland Mining Lease converted claims ADL numbers 309740 through 309742, 323364 through 323368, 503245 through 503248, 509891 through 509892, and 719182 through 719190 to lease ADL number 720953, containing approximately 682 acres, more or less. Annual rental payments are determined according to AS 38.05.211 and 11 AAC 86.313. The rent shall be paid each year in advance and is subject to adjustment under AS 38.05.211 (d). All payments are made payable to the Alaska Department of Revenue, unless otherwise specified. Annual labor shall be performed at an annual rate of $100 for each partial or whole 40 acres of each mining lease. The annual rental payment for 2017 was $2,898.50. This lease is issued for a term of twenty (20) years from its effective date of December 1, 2016. ADL #720953 is recorded at the Juneau Recording District in 2016-005591-0.

h. Coeur Alaska holds a public, non-exclusive easement and right-of-way (JNU-16-005) from the State of Alaska, Department of Transportation and Public Facilities and Department of Natural Resources for the purpose of authorizing construction and operation of the Jualin Mine Road (RST 4) from Slate Creek Cove to the Jualin Mine site for purposes of limiting public access and improving access for mining operations associated with the Kensington Mine Project. This easement is subject to an annual payment of a user fee in the amount of $4,200.00. This easement is effective May 6, 2016 and expires on May 5, 2026, unless terminated sooner at the State's discretion. This was a Land Use Permit (LAS 24488) until May 6, 2016 and was then was converted to an easement interest, which has a longer-term authorization than a Land Use Permit.

Under JNU-16-005, Coeur Alaska is permitted to use the following described lands, subject to the stipulations described in the permit:

- Copper River Meridian, Township 35 South, Range 62 East: Sections 14, 15, 23, 24, 25, 36; and Township 36 South, Range 62 East: Section 01.

i. Coeur Alaska controls the real property described below at Yankee Cove, which is located on Lynn Canal, south of Berners Bay and north of Juneau, proximate to the Glacier Highway and consisting of a lodge and marine moorage facilities under a Lease Agreement, as amended, with Yankee Cove Development, LLC, a Nevada limited liability company:

Lot P-1B and Accretion Land, U.S. Survey 571 according to Plat 2006-19 of the Juneau Recording District. This parcel, approximately 7.2 acres in size, is situated within the following sections of the Copper River Meridian:

- Township 38 South, Range 64 East: Section 07.

The Yankee Cove lease is subject to a $13,406.78 per month payment. The original Lease Agreement was effective as of June 1, 2007 and, as amended and extended. Coeur Alaska is also obligated to pay property taxes to the City and Borough of Juneau under the Yankee Cove Lease.

j. Pursuant to a September 29, 2017 Credit Agreement by and between Coeur, certain subsidiaries of Coeur, and Bank of America, N.A., as administrative agent (the "Credit Agreement"), a Fee and Leasehold Deed of Trust with Power of Sale, Assignment of Production, Assignment of Leases and Rents, Security Agreement, Financing Statement, and Fixture Filing (the "Instrument"), of even date, was executed by Coeur Alaska, Inc. as Trustor and PRLAP, Inc., as trustee, and Bank of America, N.A., as administrative agent. Under the terms of the Instrument, a lien was placed upon the legal and beneficial title in and to the lands comprising the Kensington Property (detailed in Section 4), securing a loan under the Credit Agreement, in an aggregate principal amount of up to $200,000,000. The Instrument has a scheduled final maturity date for outstanding loans under the Credit Agreement of September 29, 2021, subject to the terms and/or the conditions of the Credit Agreement and the other Loan Documents, as defined in the Credit Agreement.

Figure 4-2 depicts the Kensington Consolidated Property Package. Figure 4-3 shows the existing underground workings, portals and site facilities in relation to the project boundary, along with locations of all known mineralized zones.

Tables in Section 29 provide further detail regarding the Property Rights described in Sections 4.2.1 a., b., c., d., e., f., g., and h.

The environmental status of the Project and the status of permitting to support operations is discussed in Section 20. To the extent known, there are no other significant factors and risks that may affect access, title or the right or ability to perform work on the property.

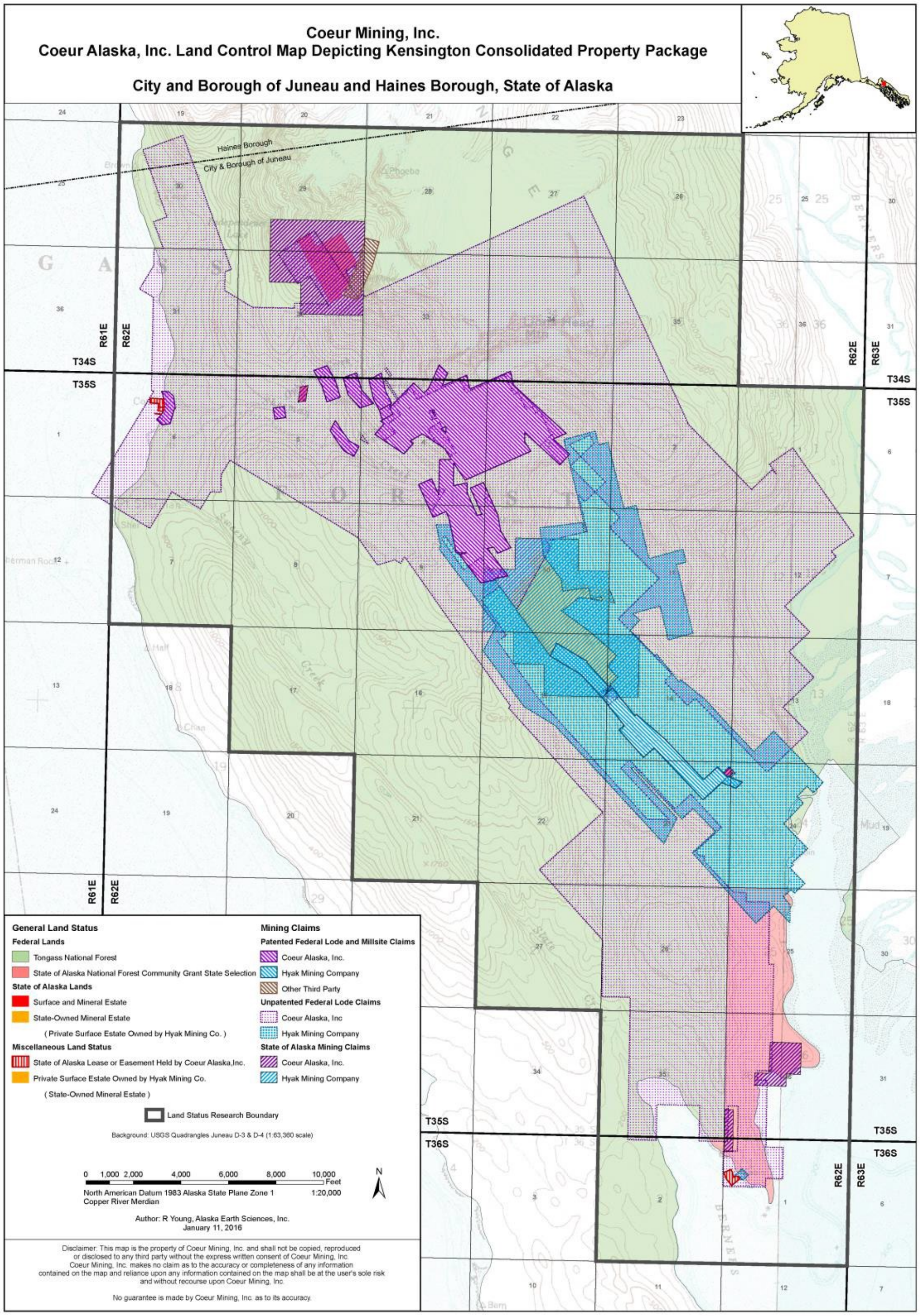


Figure 4-2 Land Control Map depicting Kensington Consolidated Property Package (Coeur 2018)

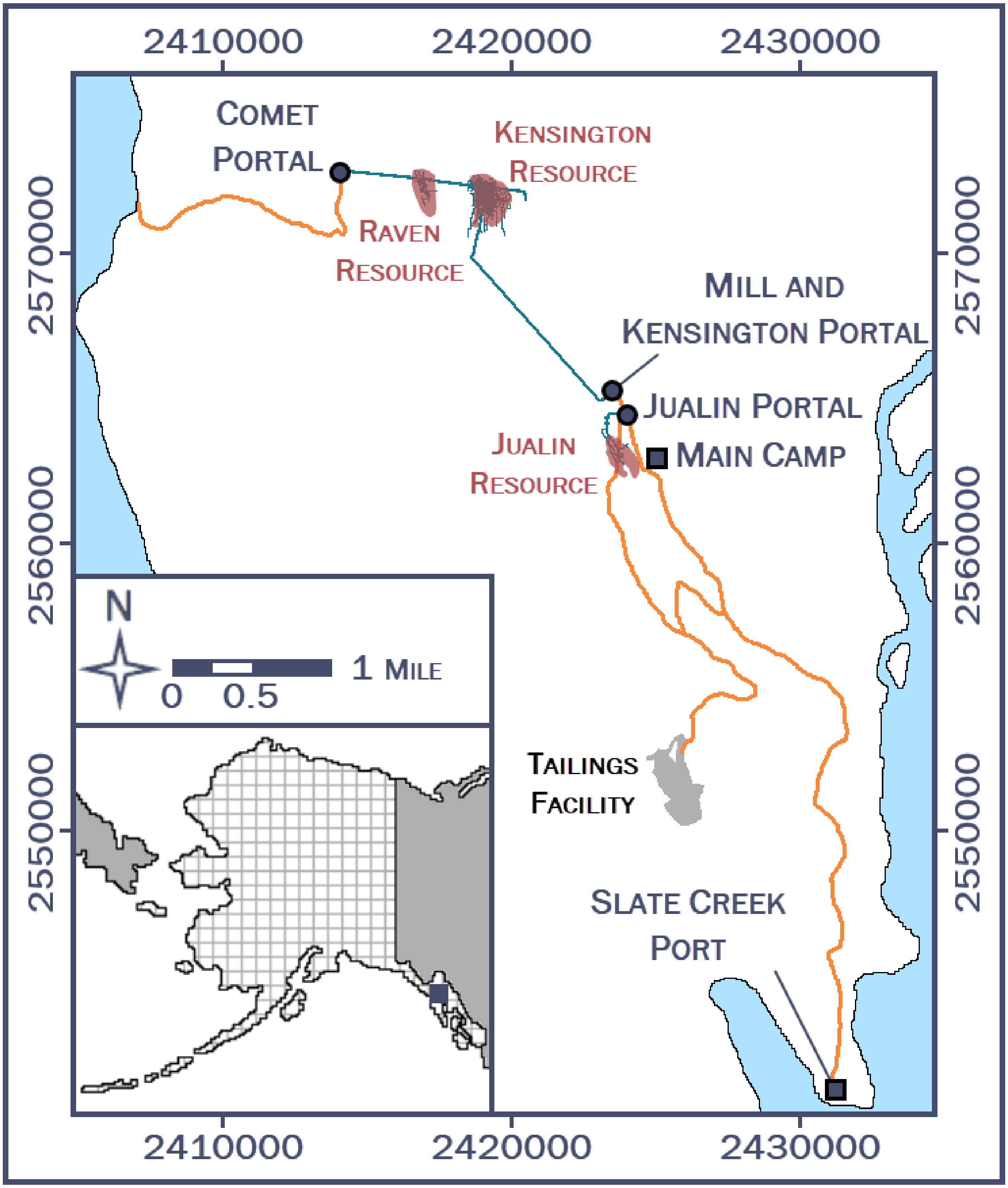


Figure 4-3 Mineralized Areas and Facilities (Coeur, 2018)

5. ACCESSIBILITY, CLIMATE, LOCAL RESOURCES, INFRASTRUCTURE AND PHYSIOGRAPHY

5.1 Accessibility

The Kensington Gold Mine is approximately 48 miles northwest of the capital city of Juneau, Alaska, and access to the Kensington and Jualin properties is by aircraft (helicopter or float plane) or boat from Juneau. The mine, mill, and camp complex at Jualin is accessed by boat from Auke Bay, Yankee Cove or Echo Cove to the Slate Creek Cove dock facility (north side of Berners Bay), then five miles by an all-weather gravel road. Kensington can be reached via Lynn Canal to the support facilities near the 850 Portal on the eastern shore of Lynn Canal or by transit through the mine. Access to existing mine workings (850 Level Portal) is by three miles of all-weather gravel road from Comet Beach or from the Jualin side of the property. Heavy equipment and supplies can be brought to both sides of the Project directly from Juneau by barge.

5.2 Climate

Southeastern Alaska's climate is the warmest and wettest in Alaska with over 50 inches of annual rainfall in the Juneau area. The climate in the Project vicinity is maritime with a mean annual precipitation of about 85 inches at the lower mine elevations. Annual snowfall varies from a few feet at sea level to greater than 10 feet at the 2050 Level Portal.

Snow removal equipment is required to keep site roads open during winter months, but there are no seasonal restrictions that significantly affect operations.

5.3 Local Resources and Infrastructure

Juneau provides most of the services required to support planned operations at Kensington, with other nearby communities including Haines and Skagway adding to the potential employment base. The area has a long mining history and there are active mines in the area from which Coeur can realize vendor synergies and have access to local skilled miners and technical personnel. The Alaska Marine Highway is the primary form of transportation between Juneau, Haines and Skagway. A dedicated crew ferry and buses transport mine employees to and from Kensington on a regular basis from Juneau.

Diesel generators supply power for the existing activities at Kensington and Jualin. Process water is secured by water rights from Johnson Creek and by reclaimed process water discharged into the Tailings Treatment Facility. Potable water is supplied from the Johnson Creek source and treated for human consumption. An on-site sewage treatment plant treats the domestic waste water prior to infiltration.

Additional information on infrastructure is included in Section 18.

5.4 Physiography

The Kensington-Jualin Project Area lies at the southern terminus of the Kakuhan Range, where it merges with the Coast Range Mountains. Terrain is generally rugged within the Project Area, extending from sea level to over 4,700 feet in elevation. Topographic relief ranges from moderate, near sea level, to rugged at the base of Lions Head Mountain.

Vegetation ranges from dense coniferous forest at sea level to dense brush and bare rock. Tree line is between 3,000 feet and 3,500 feet in elevation, depending on slope aspect.

5.5 Comments on Accessibility, Climate, Local Resources, Infrastructure and Physiography

In the opinion of the QPs:

- Surface rights over the combined Kensington-Jualin properties is sufficient to meet Project needs for the processing plant site, tailings impoundments, waste-rock storage, ore stockpiles, and ancillary facilities. Extensive infrastructure development has been completed on the Kensington and Jualin properties;
- A review of the existing power and water sources, manpower availability, and transport options indicate that there are reasonable expectations that sufficient labor and infrastructure will continue to be available to support estimation of Mineral Resources, Mineral Reserves, and the proposed LOM plan.

6. HISTORY

6.1 Kensington Property pre-2006

Kensington was acquired by Alan Wright in the early 1960s and optioned to Homestake Mining Co. for the 1980 field season; it was then optioned to Placid Oil Company (Placid Oil) from late 1980 through 1985. Placid Oil completed 13,626 feet of core drilling on the Kensington deposit and an additional 14,076 feet on other vein targets. These efforts resulted in identification of significant gold mineralization in the upper levels of the Kensington deposit (Kensington Zone 30).

Coeur Alaska acquired the property from Placid in 1987 and formed the Kensington Joint Venture with Echo Bay Mines (Echo Bay). The Kensington Joint Venture, with Echo Bay as operator, brought the Project to a feasibility study level by 1993. Coeur Alaska acquired total control of Kensington in July 1995 by purchasing Echo Bay’s 50% interest.

By 1997, Coeur Alaska had redefined the Project, completed another feasibility study, revised engineering studies and cost estimates and completed permitting. During this time, gold prices declined, making the Project economically unattractive.

Coeur Alaska undertook an extensive exploration program in 1998 to define additional Mineral Resources directly adjacent to the main deposits. Efforts since 1998 have been focused on continued exploration and optimizing Project economics through identifying modifications that provide capital and operating cost savings.

Coeur Alaska completed 34,035 feet of drilling at Kensington during the second half of 2005, followed by 32,249 feet of drilling during 2006. The objective of this drilling program was to support upgrades in resource confidence categories.

6.2 Jualin Property pre-1993

Exploration interest in Jualin was renewed in 1978, when Hyak Mining Company (Hyak) located claims covering the core of the vein system. Bear Creek Mining Company (Bear Creek) explored the property during 1983 and 1984 under a lease agreement with Hyak. Bear Creek completed extensive surface geologic mapping and sampling and drilled five core holes totaling 2,438 feet Bear Creek terminated their lease in 1984.

The property remained idle until 1987, when Hyak optioned it to International Curator Resources (Curator). Curator staked additional claims and drilled an additional 27 core holes totaling 15,100 feet Results were encouraging enough to warrant a decision to build an access road from Slate Creek cove to the historic Jualin Mine portal. Curator joint ventured the Project with Granges, and road construction commenced in June and was completed in August 1988. An additional 26 core-drill holes were also drilled during 1988. Placer Dome U.S. Inc. (Placer) joined the Curator-Granges joint venture in June 1989 to continue exploration of Jualin. Sixty-four core-drill holes totaling 52,033 feet were completed. Placer returned the property to Curator-Granges at the end of 1991.

During 1992, Curator continued exploration of Jualin and completed additional geochemical sampling and geophysical surveying.

6.3 Coeur Alaska Activities 1993 to 2017

Coeur Alaska entered into a joint venture with Curator during June 1993, whereby Coeur Alaska could earn a two-thirds interest in the property. An exploration program was initiated in July, and by September additional fill-in geochemical sampling, re-logging of selected core-hole intervals, and district-scale aerial photography had been completed. Surveying and aerial photography which tied the Jualin and Kensington properties to common survey control and to the Alaska State grid was completed. A new topographic map of the area between Slate Creek Cove and Independence Lake (north of Kensington) was completed during early 1994.

Coeur Alaska completed limited exploration targeting the northwest extension of the Jualin #4 vein during 1994. Three core-drill holes, totaling 2,415 feet, were drilled. Re-logging of selected Placer drill-hole intervals continued, and environmental base-line studies of Johnson Creek, Slate Creek Cove, and the Slate Lakes area were also initiated. A re-interpretation of the structural setting and drill-intercept correlations was undertaken. Coeur Alaska acquired a 100% interest in the property from Curator during 1994.

Table 6-1 and Table 6-2 summarize the drilling on the Kensington Property through December 31, 2017.

Table 6-1 Legacy Drilling Inventory in acQuire® Database at Year End 2017 (Coeur, 2018)

Year	Company	Exploration		Jualin		Kensington		Raven		Total	
		Holes	Feet	Holes	Feet	Holes	Feet	Holes	Feet	Holes	Feet
Early	Placid Oil	10	3,731			45	18,366			55	22,097
Late 1980's to early 1990's	Kensington Venture	16	20,143			492	253,202	75	42,168	583	315,513
1983	Bear Creek			4	2,030					4	2,030
1984	Bear Creek			1	408					1	408
1987	Curator			24	13,434					24	13,434
1988	Curator			27	12,591					27	12,591
1989	Placer			16	17,232					16	17,232
1990	Placer			39	29,727					39	29,727

Year	Company	Exploration		Jualin		Kensington		Raven		Total	
		Holes	Feet	Holes	Feet	Holes	Feet	Holes	Feet	Holes	Feet
Total		**26**	**23,874**	**111**	**75,422**	**537**	**271,567**	**75**	**42,168**	**749**	**413,031**

Table 6-2 Drilling Inventory by Coeur in acQuire® Database at Year End 2017 (Coeur, 2018)

Year	Exploration Drilling				Definition Drilling		Stope Drilling		Total	
	Surface		Underground							
	Holes	Footage	Holes	Footage	Holes	Footage	Holes	Footage	Holes	Footage
1993	3	2,414							3	2,414
1998			76	57,094					76	57,094
2005	3	5,171			74	34,118			77	39,289
2006	15	13,455			34	32,099			49	45,554
2007	3	2,181			122	12,458			125	14,639
2009			14	4,086	71	5,215			85	9,301
2010			47	21,534	173	36,236	158	18,546	378	76,316
2011			37	20,105	391	53,829	99	7,636	527	81,569
2012	13	7,641	56	54,192	239	73,513	151	9,839	459	145,185
2013	29	29,361	109	61,857	118	36,611	319	19,838	575	147,666
2014	47	57,731	76	43,006	150	56,227	385	24,413	659	181,376
2015	8	8,361	74	28,920	134	43,997	366	21,397	582	102,675
2016	10	11,285	154	80,551	112	37,500	150	10,873	426	140,208
2017	44	62,867	115	74,327	169	56,165	155	13,923	483	207,281
Total	**175**	**200,467**	**758**	**445,672**	**1,787**	**477,968**	**1,783**	**126,465**	**4,504**	**1,250,567**

Approximately 13,420 feet of underground lateral development was completed in 2007, of which 10,688 feet was completed by Coeur Alaska's personnel and 2,732 feet were completed by contractor crews. The completion of the Jualin (now Kensington) Tunnel connecting the Jualin and Kensington sides of the property was a major milestone. Contractor crews also completed 618 feet of 8 × 8-foot ore pass and finger raises and a 496-foot-long, 12 × 12-foot fresh air raise and manway.

Construction of nearly all surface facilities, except the tailings disposal facility, was completed in 2007. These include the Slate Creek Cove marine terminal, site access roads, bridges, a temporary personnel camp, crusher, crushed ore bin, mill facilities, flotation circuit, concentrate handling, and the diesel power generators.

Construction on the TTF resumed in 2009 after the U.S. Army Corps of Engineers Section 404 Permit was reinstated, following a decision by the U.S. Supreme Court.

In 2010, the camp facilities were upgraded with permanent sleeping quarters and dining facilities, and the mine and mill brought into production. Between 2010 and 2012, the camp facilities were further upgraded; the assay laboratory built; a new administration building was completed; the underground paste backfill plant and shop were built and commissioned; the water treatment facilities were upgraded; and, numerous other smaller projects were completed in the mine and on the surface.

Between 2012 and 2017, additional projects were undertaken to enhance or expand existing infrastructure related to water management, mill processing rates and tailings disposal. Processing rates were increased through handling and processing changes to the maximum permitted limit stated in the Plan of Operations (PoO).

6.4 Previous Production

The first recorded gold production from what would become the Berners Bay district came from the Northern Lights claim on the Johnson vein in 1887. By the early 1900s, numerous other gold-bearing quartz veins had been discovered and mined. These included the Ophir, Bear, Kensington, Horrible (now Raven), Ivanhoe, Northern Belle, Comet, Johnson, Indiana and Jualin. Intermittent production continued until the late 1920s when organized mining of the Jualin Mine ceased. Attempts were made to revive the Kensington and Jualin Mines during the 1930s with little success, and the district became inactive by the beginning of World War II.

Recorded production from the district prior to Coeur is estimated at nearly 137,000 tons, containing about 61,000 ounces gold. Most of this came from the Comet and Jualin Mines, which produced 22,500 and 36,000 ounces gold, respectively. The Kensington Mine produced approximately 2,600 ounces gold. Average grades ranged from 0.3 opt Au for Kensington to 0.6 opt Au for Comet and Jualin.

7. GEOLOGICAL SETTING AND MINERALIZATION

7.1 Regional Geology

The Berners Bay Mining District is located at the northern end of the Juneau Gold Belt, a 120 mile-long, 10-mile-wide structural zone hosting the A-J, Treadwell and Kensington deposits and numerous smaller gold occurrences. Gold production from the Juneau Gold Belt is estimated to have exceeded 6.5 million ounces. The Berners Bay district is estimated to have produced approximately 65,000 ounces of gold. The Berners Bay deposits are unique within the Juneau Gold Belt because of the presence of significant amounts of Calaverite ($AuTe_2$) in the mineralization and their locally high-grade nature (Trigg and Woollett, 1990).

The Berners Bay district is underlain by Triassic-aged, mafic metavolcanic rocks of the Wrangellia Terrain to the northeast, which are intruded by a stock of Cretaceous-aged (106 Ma) Jualin diorite. The Jualin diorite is then unconformably overlain by Cretaceous-aged, metasediments/metavolcanics to the southwest (Gravina Belt, Treadwell Formation). The unconformity between the Jualin diorite and the Gravina Belt metasediments is marked by a Cretaceous-aged conglomerate unit. All significant gold vein deposits are hosted in the Jualin diorite between the northwest trending, first order Coastal Shear Zone, a broad chlorite-bearing ductile, and syn-metamorphic shear zone that passes through tonalite of the Coast Plutonic complex approximately 1.2 miles of the diorite, and the Gastineau Shear Zone, which is the largest of a set of ductile shear zones that pass through the Gravina belt to the southwest (Miller, 1995).

A zone of second and third order shears, termed the Kensington Megashear zone (Figure 7-1) including the Orval shear zone, a second order shear zone, appears to be the most significant influence on mineralized vein systems in the district. Brittle faults and third order shear zones host the quartz-carbonate veining and gold mineralization. Miller et al. (1995) describes the veins in the Berners Bay district as discrete (shear) or network (extensional). These discrete veins can also be classified as fault-fill veins, as they are deposited within brittle faults that contain gouge. Most of the fault-fill veins strike north- northeast to north-northwest, dip east and plunge shallowly to the south. Discrete (shear) vein systems are defined by one or more through-going fault-fill quartz veins that typically host the highest-grade gold mineralization. Discrete (shear) veins range between a few inches to several feet in width. Extensional vein systems consist of zones of numerous veins that mostly dip steeply to moderately west and occur adjacent to or at terminations of fault-fill veins. These extensional vein arrays are direct products of extensional fracturing that occurs between vertically stacked fault fill veins. On the Kensington Mine scale, the domain, or spatial extents of economic mineralization, defines a steeply east- dipping zone that locally can exceed 150 feet in width. Drilling, along with historic workings, indicate continuous mineralization over 1,000 feet along strike and over 3,000 feet along dip (Rhys, 2008).

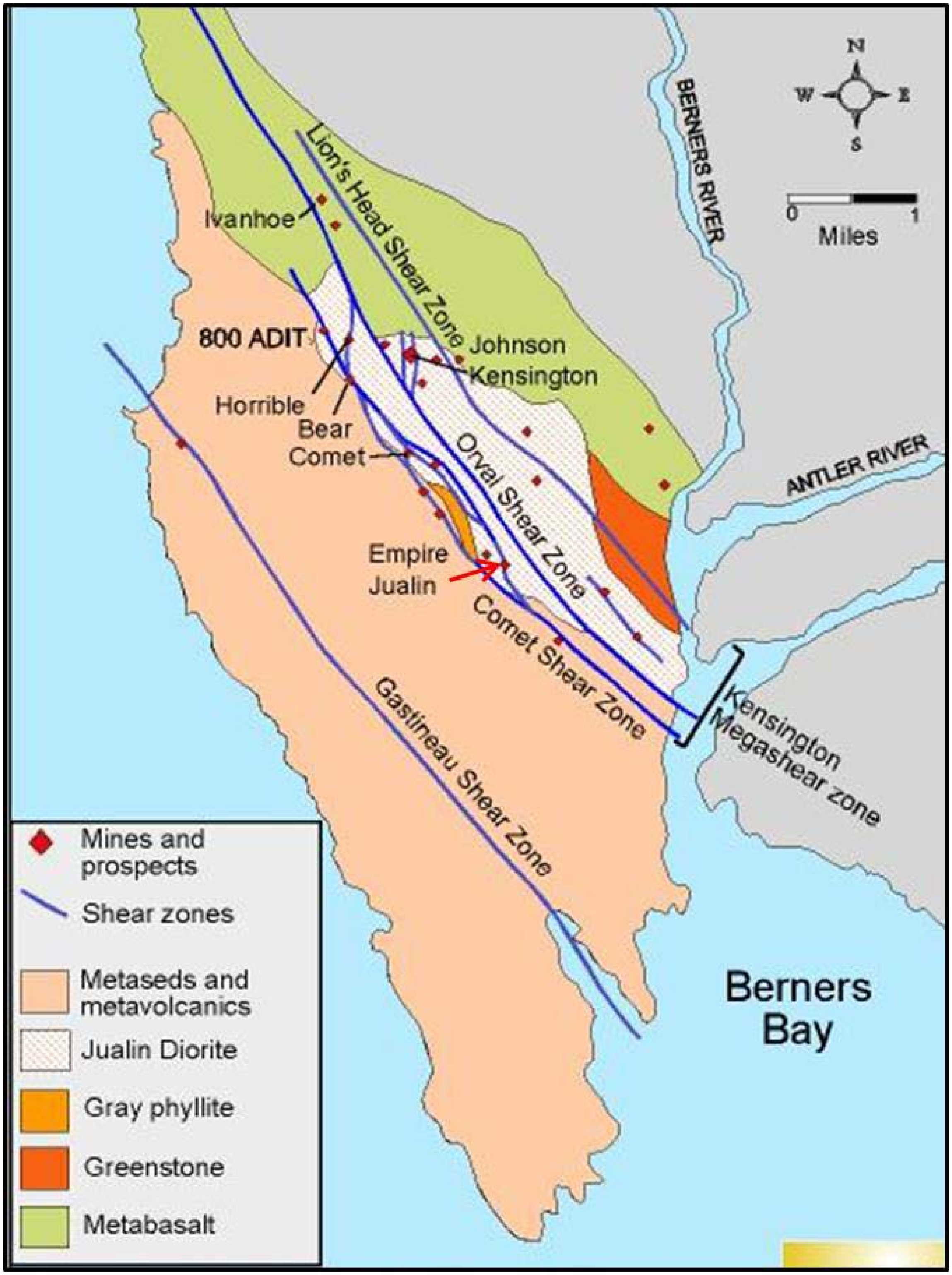


Figure 7-1 General Geology of the Berners Bay District (Rhys, 2008)

7.2 Project Geology

The Kensington deposit is a mesothermal orogenic deposit of gold-bearing quartz veins. It is associated with quartz veins, comprising two distinct types (Rhys, 2010):

1. *Shear veins hosted by discrete, minor north to northwest trending, and steep east- northeast dipping shear zones* – These are banded quartz-pyrite-carbonate- sericite/chlorite veins that originally lie along the plane of the shear zone; vein material may be deformed by continuing displacement after its formation. Veins of this style include the Raven and the 44 Zone. Other vein systems of similar style in the district include the Comet and Jualin veins. Such shear veins are classic orogenic-style gold veins, which form individual high-grade mining targets. Hosting shear zones have a northeast side up (reverse) – right lateral shear sense, typical of other shear zones in the deposit area. If this shear sense is coeval with vein formation, it may provide predictable potential ore shoot control. Evidence from previously-mined (e.g., Comet, Jualin) and drill tested veins suggests that shallow to moderate south-southeast plunging ore shoots occur at jogs and steps in the shear vein system, which is compatible with a dominantly reverse sense.
2. *Vein networks comprised of extension vein arrays, sheeted extension veins, and stacked en echelon shear veins* – This mineralization style forms the bulk of the main Kensington deposit, the Eureka area and potentially the Elmira zone to the east. Mineralized zones of this style are defined by increases in concentration and abundance of quartz-carbonate-chlorite veins, and later quartz-Fe-carbonate veining; the margins of which may be gradational over a few feet. Fringing areas of this style of veining also occur locally adjacent to shear veins, including the Raven vein, 44 Zone, and Empire zone.

Figure 7-2 illustrates stages in the development of a sigmoidal extension vein array and shear vein system. The sequence is analogous to that observed in systems at Kensington. Extension vein arrays typically evolve from an en-echelon array of early extension veins (A), through gradual deformation into sigmoidal shapes (B) with shear movement along the core of the array. Eventually, the original extension veins may become partially (C) or fully (D) transposed into the shear zone, and a continuous shear vein may propagate along the shear zone. Later phases of extension veining may be superimposed onto the forming shear vein system (D). The vein shapes and geometries provide excellent shear sense indicators, predictable ore shoot geometries, and demonstrate syntectonic formation of the vein systems under contractional deformation conditions (Rhys, 2010).

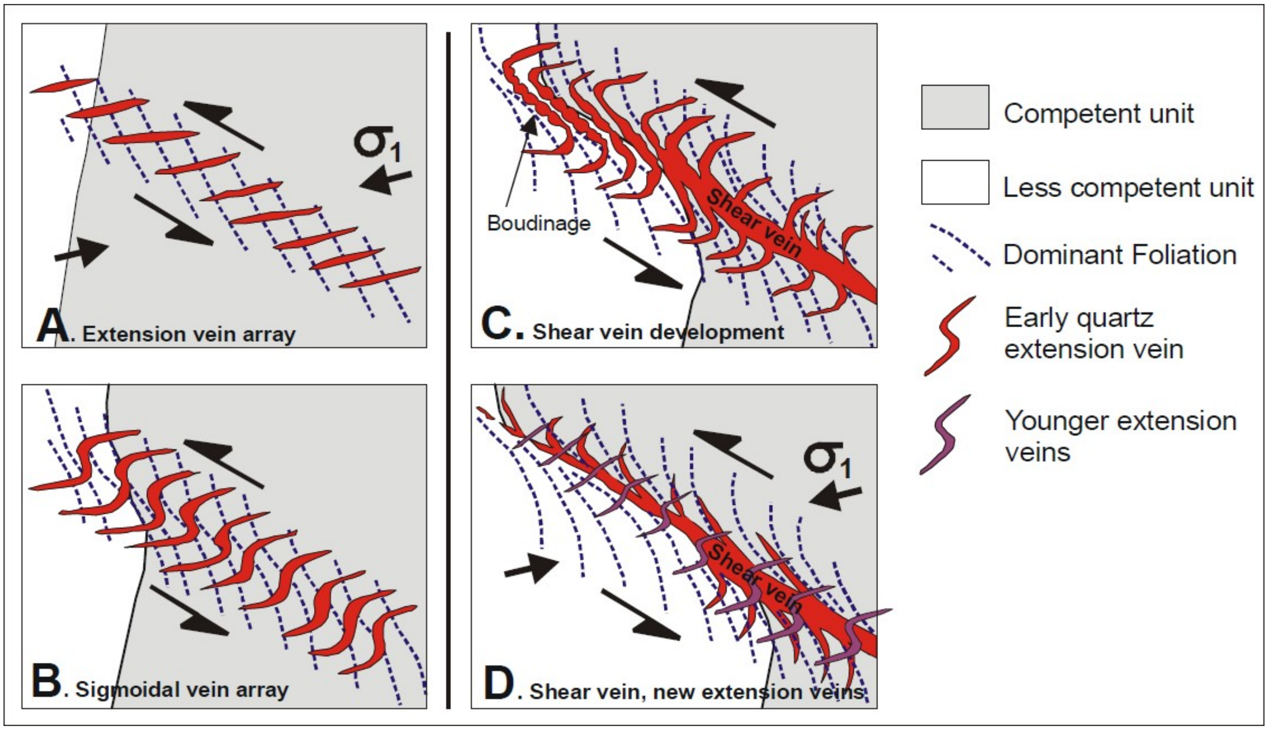


Figure 7-2 Development of a Sigmoidal Extension Vein Array and Shear Vein System (Rhys, 2010)

A significant increase in mining and exposures for mapping since the work conducted by Rhys, has led geologists to new findings regarding controls on high-grade mineralization. Analysis has shown that east dipping fault-fill veins are the dominant structures in the deposit. The above-mentioned shear veins are present, but are much less abundant and less significant than fault-fill veins. Grooves on these fault-fill veins depict a transpressional sense of movement, recording both reverse and right-lateral movement, which agrees with Rhys' analysis. Kinematic analysis of a multitude of fault-fill veins has also reached this sense of paleostress. These larger, less frequent veins occur stacked vertically throughout the deposit, and contain high-grade seams of sheared pyrite, indicative of continued deformation after emplacement. Most of the veins in the system are the extensional veins, which occur roughly orthogonal to these fault-fill veins. These extensional veins are higher density and lower grade, and mostly occur between stacked fault-fill veins. This geometry has been well documented and explained in this deposit type (Sibson et al., 1988).

A third vein style common in the deposit has also been increasingly documented with continued exposure. These veins are horizontal to sub-horizontal thin (less than one foot) occurrences throughout the Kensington zone 10. These veins or 'flats' can be continuous for the entire width of the economic zone, are often very high-grade and at times can host lenses composed of almost 100% pyrite. These flats are not compatible with the known approximate local paleostress regime, and therefore are not products of simple compression and extensional fracturing. Instead, it has been proposed by Sibson et al. (1998) that they are products of cyclic fluctuations in fluid pressure. Reactivation of fault fill veins occurs when hydrostatic pressure exceeds the lithostatic load, then these fluids fracture the rock and create the horizontal vein systems within the deposit.

Vein mineralization is characterized by gold and gold-silver telluride minerals with minor associated native gold. Most of the gold is contained in calaverite ($AuTe_2$), which occurs in association with native gold as inclusions in and interstitial to pyrite grains and in microfractures in pyrite. Trace amounts of petzite (Ag_3AuTe_2), coloradoite (HgTe) and altaite (PbTe) have also been noted. Minor amounts of chalcopyrite are also present along with trace amounts of bornite, molybdenite, sphalerite, galena, and pyrrhotite. The auriferous pyrite typically occurs in small to large blebs or clots within the quartz and quartz-carbonate veins (Miller, 1995).

Studies relating to structural controls for the Kensington orebody have been numerous. Caddey et al. (1994), Miller et al. (1995) and Kinsley (2007) all describe the Kensington ore controls in detail. Rhys (2008 & 2010) summarizes the previous work and comments on observations made both from underground and surface rock exposures, map and drill data.

The Kensington Mine includes many different vein systems, the most important of which are the Kensington, the Raven, the Jualin, the Comet, and the Elmira. There are current resource estimations completed for the Kensington, Raven, Jualin and Elmira deposits.

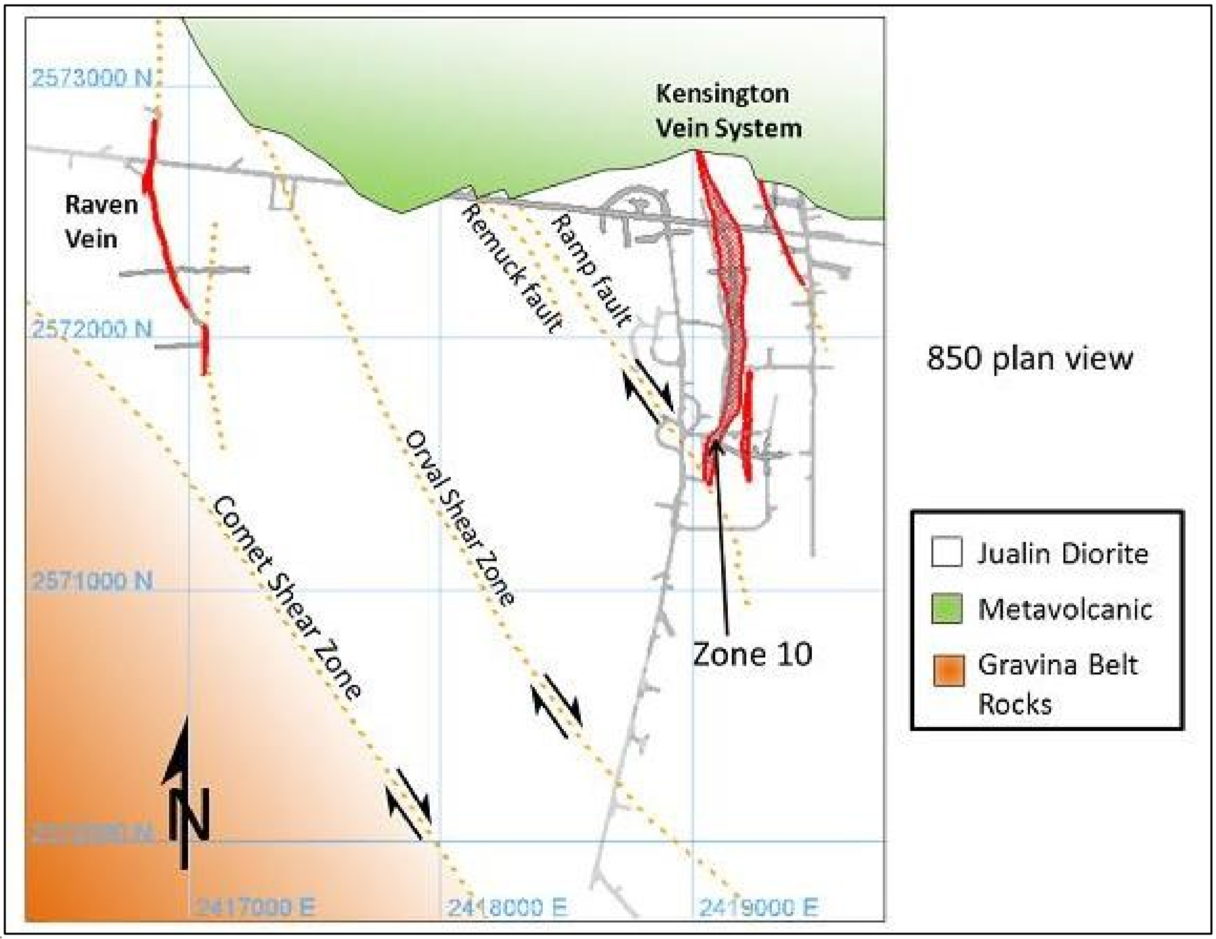


Figure 7-3 K0850 Level Geology Plan Map- Raven Vein and Kensington Vein Systems (Rhys, 2008)

7.3 Deposits

7.3.1 Kensington Vein System

The Kensington vein system (Figure 7-3) is a north-trending, steeply east-dipping network of quartz extension veins and shear veins. The overall veining style is semi-brittle, defined by both vein development (an overall brittle structural style), and the development of sigmoidal folds to vein sets and foliation (ductile style), which accommodate ductile displacement and shortening across the zone. Tan-colored sericite-carbonate-pyrite alteration is locally developed immediately adjacent to shear veins and vein arrays, but quickly gives way to surrounding chlorite-dominant alteration, which affects mafic minerals in the diorite (Rhys, 2008).

7.3.2 Raven Vein

The Raven vein system (Figure 7-4) is located approximately 2,000 feet west of the main Kensington deposit. The main vein, a discrete shear vein, is crosscut on the K0850 Level at about 2,800 feet east of the Comet Portal. It strikes north-south, dips 50° to 60° east and ranges up to 20 feet in true thickness. The shear vein contains pods, lenses, and shear bands of pyrite, petzite, calaverite, hessite, chalcopyrite, galena and native gold.

The massive vein and its splays can be delineated for roughly 900 feet along strike and 1,000 feet along dip. The massive vein pinches and swells within a halo of quartz ± pyrite veined diorite on the shear structure that can be tracked for almost 1,300 feet along strike and for 3,000 feet down-dip.

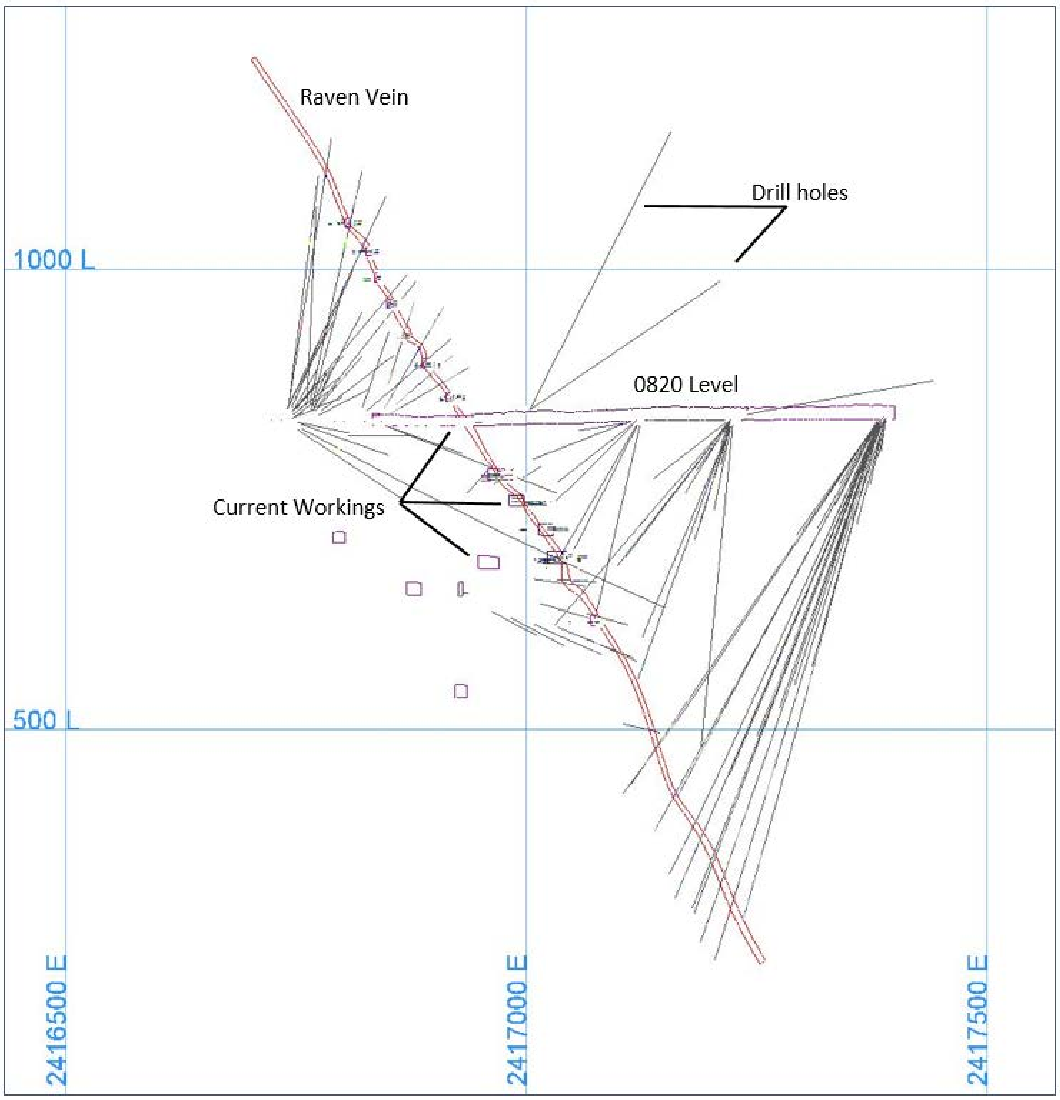


Figure 7-4 Raven Vein Cross-Section- Section along 2572270N ± 50 feet Section Width (Coeur, 2018)

7.3.3 Comet Mine

The second most productive gold producer historically in the Berners Bay district is the Comet Mine, which is located approximately one mile south-southeast of the Kensington deposits within the Sherman Creek basin. Two gold-bearing massive quartz veins (Figure 7-5) were exploited historically over 700 feet horizontally and 600 feet vertically. The veins range from one foot to 8 feet in thickness, hosted in Jualin diorite at its contact with metasedimentary rocks to the southwest. Mineralization consists of fissure-style quartz-carbonate veins with trace amounts of galena, chalcopyrite, tetrahedrite, molybdenite, and native gold. It was reported that 90% of the gold at the Comet Mine was free milling (Schaff, 1993).

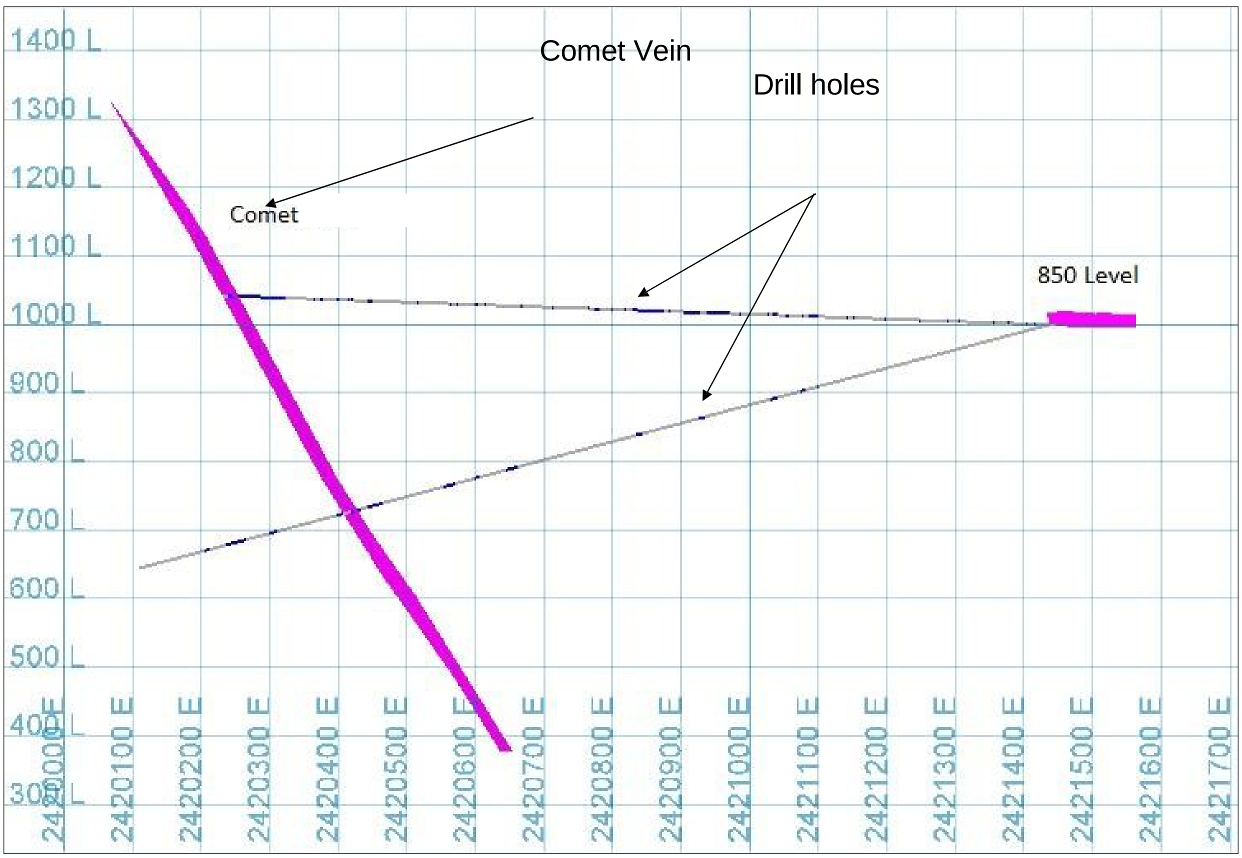


Figure 7-5 Comet Vein. Section along 2566660N Section Width ± 50 feet (looking north) (Coeur, 2014)

7.3.4 Jualin–Empire Zone

The most productive gold producer historically in the Berners Bay district is the Jualin Mine, located in the Johnson Creek Basin approximately three miles southeast of the main Kensington deposit. Mineralization in the Jualin Mine area is hosted in sheared Jualin diorite adjacent to its contact with metasedimentary rocks to the southwest. Two styles of veining have been documented at Jualin:

1. Large shear-controlled quartz veins; and,
2. Flat, quartz-fill extension fractures between the larger veins (Redman, 1999).

The large veins within the system tend to be high-grade. The veins contain pyrite, chalcopyrite, galena, sphalerite, molybdenite, hessite, petzite, sylvanite and native gold (Leveille, 1991). Discrete shear veins strike north to northwest, parallel to the regional structural grain, and dip steeply to the northeast (average 70 degrees) (Figure 7.8). Vein widths range from 2 to 20 feet, and have been encountered in drilling down-dip more than 1,000 feet. High-grade ore shoots along three of these veins (Veins #1, #2 and #3) were mined from the surface to a depth of about 300 feet, where mining was halted due to high water flow (Harvey, 2002).

The Empire Zone, a network vein system, is adjacent to and just southwest of the Jualin Mine. The Empire zone occurs at the contact between the Jualin diorite and metasediments/metavolcanics of the Gravina Belt; the contact is locally sheared along the Comet shear zone. The vein system consists of pervasive quartz-sericite-carbonate alteration adjacent to quartz-carbonate veinlets filling extensional fractures. The veinlets contain pyrite, chalcopyrite, galena, sphalerite, molybdenite, hessite, petzite, sylvanite, and native gold. Gold grades are generally low (<0.06 opt Au); however, grades more than 1.0 opt Au over potentially minable widths have been reported where quartz and base metal content increases.

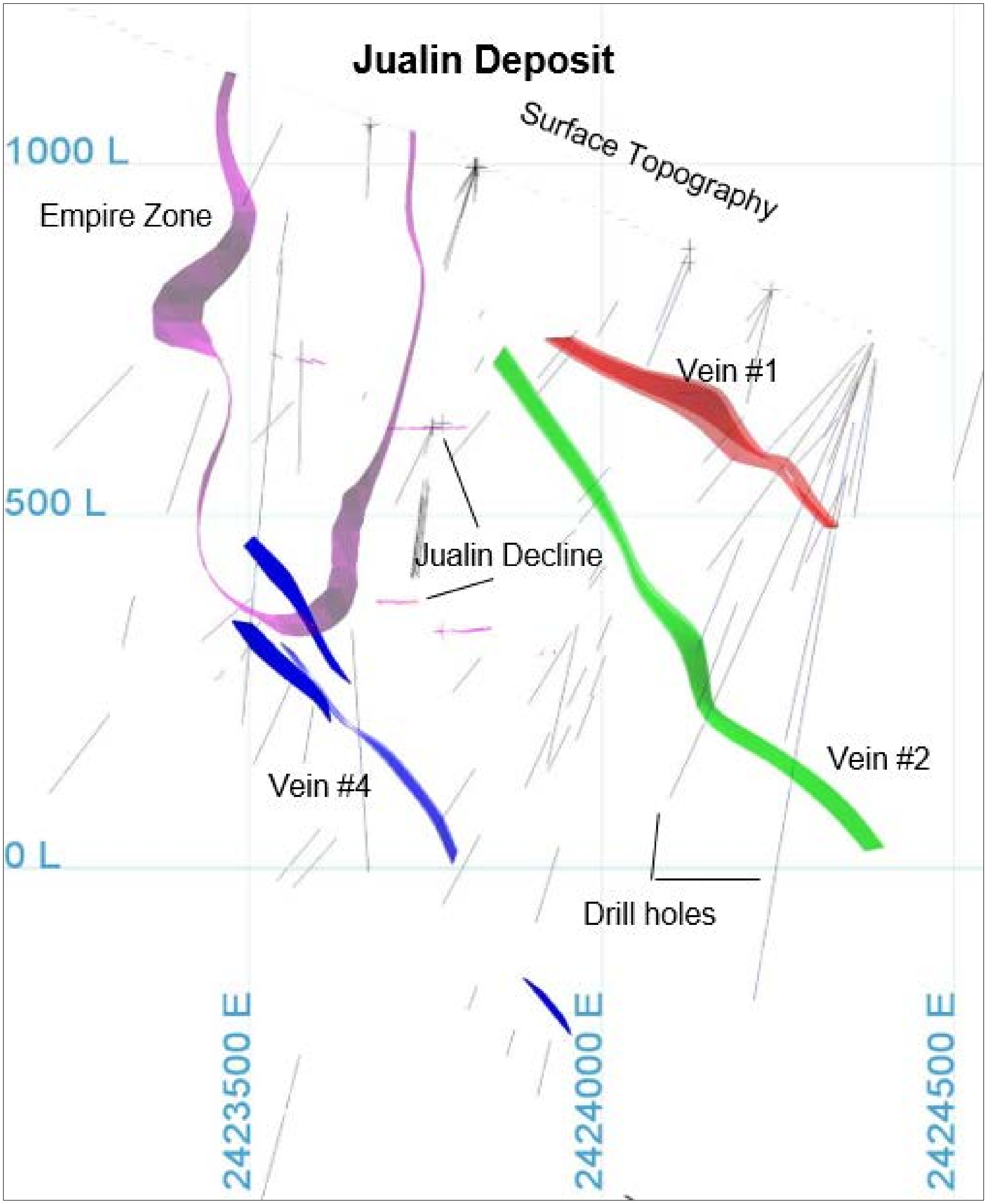


Figure 7-6 Jualin Vein and Empire Zone. Section along 2562900 N. Section Width ± 50 feet (looking north) (Coeur, 2018)

7.4 Prospects/Exploration Targets

A geophysical plan showing the locations of the exploration targets discussed in this subsection is included in Section 9.5.

7.4.1 Seward

The Seward prospect is located at 496050 E, 6523692 N at an elevation of 2,600 feet. The showing consists of an 8-10 feet thick massive quartz vein within what appears to be a collapsed shaft. The vein trends northwest, dips steeply to the east and contains minor sulfides and visible gold specks/flecks up to about 2 mm. Sulfides are primarily pyrite occurring as cubic crystals and dark grey, fine-grained, cloudy splotches. A 3-ft wide shear zone exists along the northern margin of the massive vein containing quartz veins 2-8 inches thick running sub-parallel to the shear foliation. The Seward vein is believed to be exposed in another exploration pit roughly 500 feet northwest of the shaft along strike.

7.4.2 Thomas

The Thomas prospect is located at 495912 E, 6523458 N, at 2,700-foot elevation. The showing consists of a 0.5-foot-thick shear vein trending north and dipping moderately to the east. Workings consist of a 4 × 5-foot shaft that follows the Thomas vein down-dip for roughly 60 feet. A mine dump pile down-slope of the shaft is littered with medium-grained diorite rubble and pieces of quartz vein material ranging up to about one foot in diameter. Sulfides present within the vein material include chalcopyrite, pyrite and galena. Trace specks of visible gold are also present. Sulfide content, as well as free gold content, appears to increase where inclusions of diorite exist in the vein. The sheared diorite material is heavily oxidized, and slightly finer grained than the host diorite.

7.4.3 Bear

The Bear Mine historically produced 5,900 tons for 800 ounces gold, with a recovered grade of 0.135 opt gold (USBM). Workings reportedly consist of a 1,100-foot-long adit driven to intersect the vein at 400 feet below the surface. Off this adit a 200 foot raise and three levels with 850 feet of drifting explored the Bear vein system (Featherstone, 1990).

Two sites were visited that have workings from the historic Bear Mine. Both workings are accessible from the K2050 Trail. The first was an adit trending 050° located at 494721 E, 6524836 N, at 958-foot elevation. The head-frame is still intact, but the portal is collapsed a short distance in. The Bear raise is located at 494798 E, 6524923 N, at 1,658 foot elevation. The Bear vein is exposed in the raise as a 1 to 2-foot-thick quartz vein striking 350° and dipping 65° east. Veining is also present in outcrop just north of the vent raise. Exposed strike length on the Bear is roughly 5 0 to 75 feet. The vein is drillable from the underground mine from the 1170 Level, but hole depths must extend past 2,000 feet to intersect the vein.

7.4.4 Savage

The Savage prospect is located at 494866 E, 6525001 N, at 1,888-foot elevation. The vein is exposed in a working just southeast of the 2050 Trail; it strikes 355° and dips 70° east. The exposed strike length is 10 to 15 ft. before being covered by overburden to the north and south. This vein is 12 feet wide. No known production has been reported from the Savage prospect.

7.4.5 Rose

The Rose prospect currently consists of three target areas that include:

1. The Pit-4 upper shear;
2. The Hoggatt Creek vein; and
3. A gold-in-soil anomaly just northeast of the Pit-4 upper shear.

The structural framework at Rose consists of:

1. Large, northwest trending first order shears; and
2. East-west trending second and/or third order shears.

While the large, first order shears are believed to be the controlling structures for deformation and fluid flow in the area, the second order shears tend to contain higher gold grades.

The Pit-4 upper shear consists of two sub-parallel quartz–chlorite + chalcopyrite + pyrite shear veins. These veins are both hosted within Jualin diorite in a shear zone oriented at 280°/20°. The upper vein ranges from about 0.5 to 1.0 feet thick and the lower vein ranges from about 1.0 - 3.0 feet thick. These shear veins have been traced for roughly 60 feet along strike. True thickness of the shear zone is uncertain due to talus and debris covering the lower extent; however, about 8 to 10 feet of the shear is currently exposed. This shear package could potentially be part of the Orval Shear.

The Hoggatt Creek prospect is located roughly 400 feet north-northeast of the Pit-4 shear. The Hoggatt Creek shear contains a 1 - 2-foot-thick quartz + chlorite + pyrite + chalcopyrite vein within the Jualin diorite, which trends roughly (280°/45°). Malachite and azurite are also present. Shear textures (foliation) are observed within the diorite along the margins of the shear vein.

The gold-in-soil anomaly at Rose was recognized from data collected during a soil sampling campaign carried out in 1992 by Echo Bay Mines. The anomalous zone is defined by elevated gold grades that appear to follow a northwest trending lineament. It is possible that the gold-in-soil anomaly is the surface expression of a gold-bearing structure at depth.

7.4.6 Johnson

The Johnson prospect is located along the diorite-metavolcanic contact on the northwest flank of the Lions Head Formation. It is located at 496295 E, 6525225 N and 2,416-foot elevation. The Johnson vein is also accessible underground from the 2050 Level workings. The vein strikes north and dips shallowly to the east near a felsic dyke swarm that trends west-northwest across the valley. Mineralization at the Johnson is unique for the Berners Bay mining district in that veining is not only present in the Jualin diorite, but also extends into the metavolcanic unit to the north. Felsic dikes proximal to and cross-cutting the Johnson vein in the metabasalts may have had some influence on mineralization. The Johnson outcrops at the foot of the Lionshead cliffs, near the contact of the diorite with overlying metabasalt. The vein is about 1 - 3 feet wide and contains sulfides. The northern portion of the Johnson vein exposure was not accessible due to steep conditions in the gully where it is hosted. The southern portions of the vein are about 2 feet wide and contain visible sulfides.

7.4.7 Big Lake–Yankee Boy

The rocks within the Big Lake – Yankee Boy trend (BLYB) are predominately Cretaceous-age Jualin diorite. The structural framework along this corridor consists of two main sets of structures:

4. Large, northwest trending first order shears; and
5. East-west trending second and/or third order shears.

The shears are often chloritically and/or carbonically altered. Mineralization within these shears consists of:

1. Massive quartz – carbonate ± pyrite ± chalcopyrite veins; and/or
2. Stockwork-style quartz – chlorite – calcite ± chalcopyrite ± pyrite veins.

Gold grades are observed to be significantly higher in the former vein style. Stratiform sulfides as pyrite + chalcopyrite are also commonly hosted within the shear fabric along vein margins. Unlike all the vein prospects around the Jualin and Comet mines, veins within the BLYB corridor are observed dipping to the west, as well as to the east.

One outcrop mapped and sampled within the BLYB trend contained a massive 4.5-foot-wide quartz + pyrite ± chalcopyrite vein blowout at the intersection of two shear structures oriented at (300°/60°) and (280°/60°). In orogenic lode gold systems, vein thickness and gold grade tend to increase at structural intersections like this one.

The main Yankee Boy prospect consists of a 3 to 4 feet wide, sheeted quartz + pyrite + chalcopyrite shear vein (150°/85°) with as much as about 1-2% sulfides. The quartz tends to be a bluish grey color where sulfide content increases. The sulfides appear to be filling fractures that give a banded appearance oriented along strike. Another vein exposure was located roughly 330 feet uphill from Yankee Boy and appears to be a northern extension of the main Yankee vein. The vein consists of an 8-inch wide quartz + pyrite + chalcopyrite vein (140°/85°) with up to about 5-7% sulfides. Historic workings at the Yankee Boy prospect consist of a collapsed adit, exploration trench and a large mine dump.

Additional vein showings along the BLYB trend that still need to be mapped and sampled lay to the northwest of Big Lake and include the Gold King and DZ prospects.

7.4.8 Ivanhoe-Hope

The Ivanhoe and Hope workings are located within the Triassic metabasalt unit of the Wrangellia Terrane. The Ivanhoe Mine historically mined about 3,500 tons of ore for about 340 ounces of gold. This represents a recovered grade of 0.097 opt gold (USBM). Other figures state production at 3,000 tons grading 0.113 opt gold (Featherstone, 1991). The Hope vein has no reported gold production. The veins are similar in appearance and mineral composition. They can be described as coarse crystalline, vuggy quartz veins containing varying amounts of pyrite + chalcopyrite. Previous workers have also noted the presence of native copper observed in the historic Ivanhoe workings.

The Hope vein trends roughly 040° to 070° and dips between 40° and 55° to the southeast. The vein outcrops within a drainage and can be traced along strike for up to 200 feet. Vein widths on the Hope range up to 6-8 feet, and tend to increase where the vein structure is cross-cut by 320-340° trending shears. Not only does vein thickness increase at these junctions, but mineralization (% sulfides) also becomes more impressive. A high-grade grab sample collected from the Hope vein returned elevated Te. The anomalous Te value in this sample demonstrates that the association between Au and Te is not exclusive to the Jualin diorite, but also extends into the Wrangellia metabasalts.

The main Ivanhoe vein is shear-hosted and trends (355°/50°). This vein was followed back roughly 200 feet into the Ivanhoe workings where it was crosscut by a (320°/60°) shear. At this location the Ivanhoe vein widens to 3 feet thick.

7.4.9 North Comet Ridge

During the 2014 field season, mapping in the North Comet Ridge area revealed a high volume of outcropping quartz veins. The quartz vein outcroppings begin approximately 1,148 feet east of the historic Kensington workings (which are located at Easting 495513 and Northing 6525376); and less than 164 feet south of the Triassic Metabasalts (Trv) contact. The veins have two predominant strike directions of 360° and 260° with dips between 45°-90°. The strike length of these veins can be as great as 200 feet with 1 to 2 feet of thickness. The veins are composed of vuggy to microcrystalline quartz with low to moderate pyrite concentrations. Samples with greater concentrations of pyrite contain minimal chalcopyrite.

7.5 Comments on Geological Setting and Mineralization

In the opinion of the QPs, the geological understanding of the settings, lithologies, structural and alteration controls on mineralization, and mineralization continuity and geometry in the different zones is sufficient to support estimation of Mineral Resources and Mineral Reserves. The geological knowledge of the area is also considered sufficiently acceptable to reliably inform mine planning. The mineralization style and setting is well understood and can also support declaration of Mineral Resources and Mineral Reserves.

Prospects identified within the Project Area are at an earlier stage of exploration, and the lithologies, structural, and alteration controls on mineralization, as well as the mineralization continuity and geometry, are currently insufficiently understood to support estimation of Mineral Resources. The prospects do, however, represent exploration upside potential for the Project.

8. DEPOSIT TYPES

Rhys (2008) states, "The Kensington deposit and associated veins in the Berners Bay district are closely comparable to many orogenic gold deposits globally". This class of gold deposit is characteristically associated with deformed and metamorphosed mid- crustal blocks, particularly in spatial association with major crustal structures. The major crustal structures associated with Kensington are the northwest trending first-order Coastal Shear Zone and the Gastineau Shear Zone.

Rhys suggests the Kensington deposits are related to regional contraction or transpressional syn-deformational fluid flow of low salinity, near neutral pH H_2O-CO_2 ± CH_4 bearing auriferous fluids, usually under metamorphic conditions, typically at greenschist grade. Shear and extension veins within the various mineralized vein systems at Kensington occur in association with mainly north-northwest trending, steeply dipping shear zones. These shear zones acted as fluid conduits and defined the footwall of the mineralization. Fault fill, extensional, and sigmoidal veins record consistent syn-mineralization reverse-dextral displacement defined by overall vein architecture, sulfide bands, and oblique foliations associated with shear zones.

These collectively are consistent with vein formation during northeast-southwest directed shortening and steep east-plunging extension. In addition to the spatial association of veins with many shear zones, vein systems are consequently consistent both in kinematics and structural timing with formation during the reverse and reverse-dextral displacement on the chloritic shear zones. Miller et al. (1995) includes a second, moderate northwest plunging extension direction evidenced by sets of east-dipping extensional vein arrays.

Rhys and Miller agree closely on the vein architecture; Rhys also suggests that extensional vein arrays may evolve into shear veins and that shear veins may terminate into extensional vein arrays. Rhys, Miller and Coeur geologists recognize that the main mineral deposits occur near the margins of the Jualin diorite, typical of orogenic gold deposits. Figure 8-1 shows a plan map and cross-section of the significant vein systems in the Berners Bay district. This proximity to the lithologic boundaries may be important to allow sufficient concentration of deformation for shear zones and dense fracture networks to occur, whereas in thicker sections of the diorite, the deformation is diffuse across the width and insufficient openings and fluid conduits are created.

In the QPs opinion, and based on prior exploration at Kensington, the exploration program and methods used are appropriate to the style of the deposit and prospects.

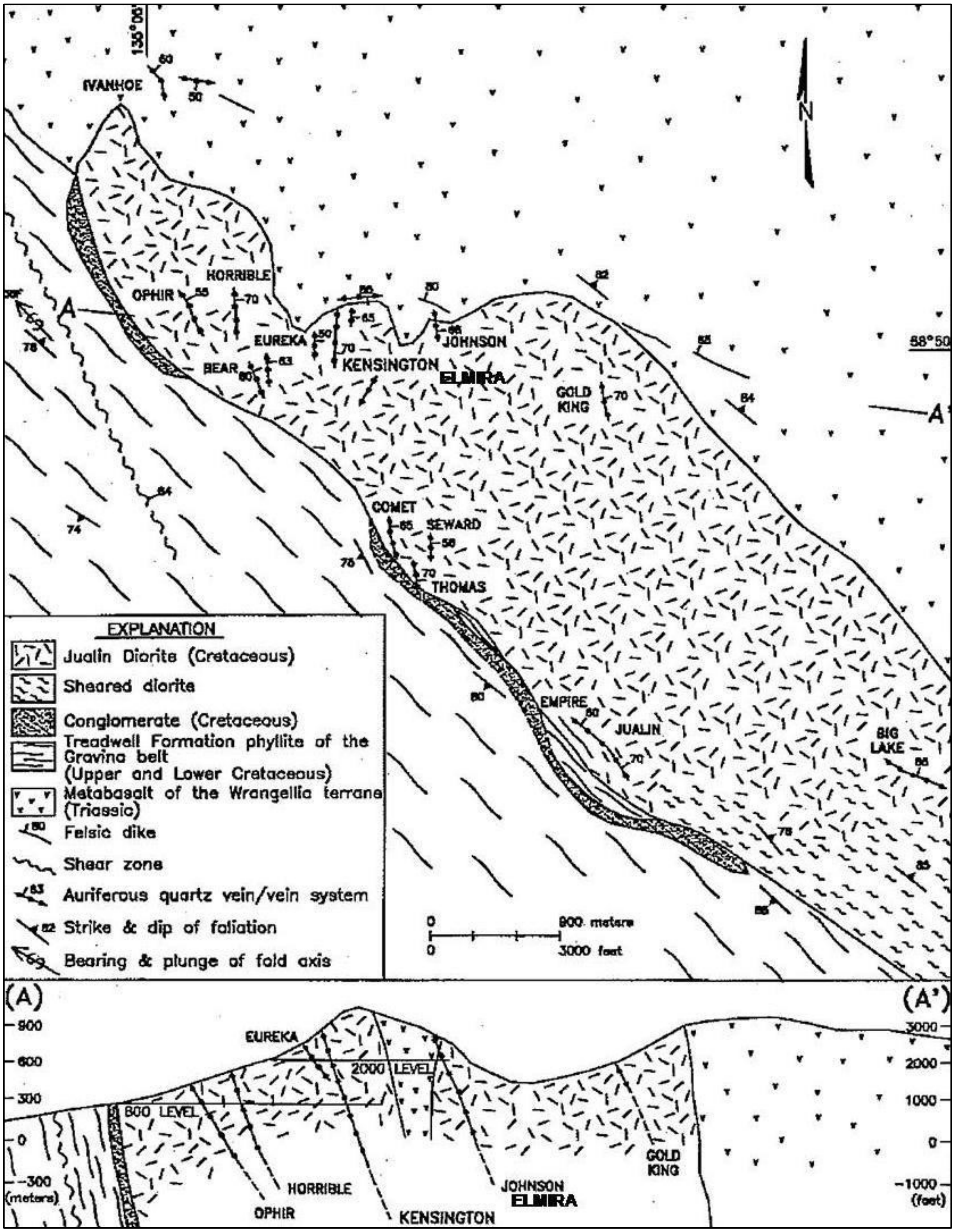


Figure 8-1 Plan and Section of Vein Systems of Berners Bay District (Miller et al., 1995)

9. EXPLORATION

The exploration activities prior to Coeur's acquisition of the Kensington and Jualin properties have been conducted by numerous companies (Section 6). Data collected during these activities has been validated to the extent possible by Coeur prior to inclusion in the Project database.

Since acquiring the properties, Coeur has conducted additional exploration activities including drilling, geochemical sampling, metallurgical testing, structural geology studies and geophysics. The acQuire® sample database now contains 219,430 assay records derived from approximately 5,793 diamond drill holes, including close-spaced vertical and inclined holes. This database has been routinely updated and audited by Coeur personnel, independent consultants, and auditors.

The following is a description of the nature and extent of relevant exploration conducted at Kensington, Raven, Elmira, Eureka, and the Jualin-Empire Zone. Figure 9-1 provides a perspective view showing drilling and important deposits in the Kensington area. Figure 9-2 shows drilling done at the Jualin-Empire Zone. District-wide exploration for areas outside of those mentioned above is described at the end of this section.

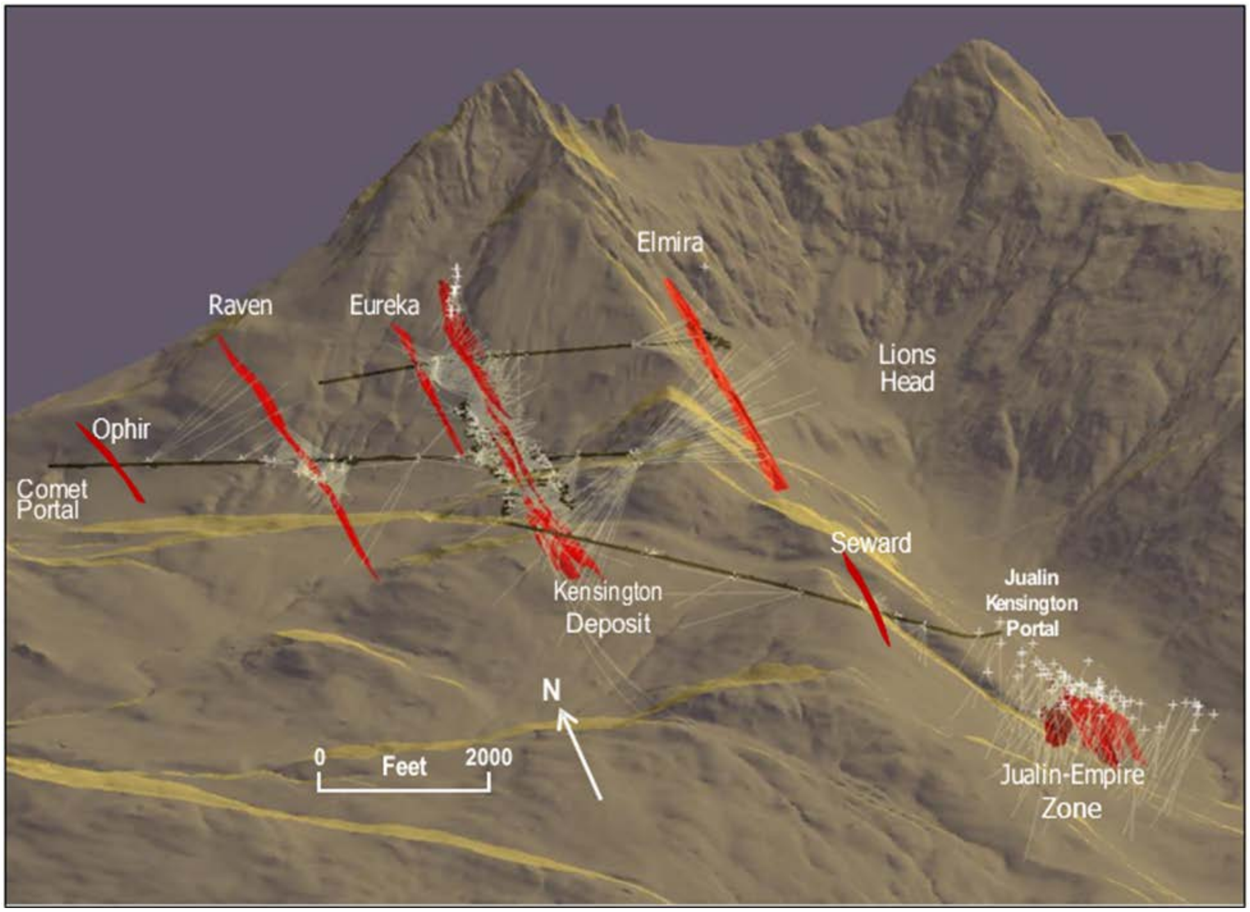


Figure 9-1 View Looking North of Kensington Area Deposits and Drilling (Coeur, 2018)

9.1 Kensington Vein System

Within the Berners Bay Mining District, the Kensington vein system has been the most intensely explored area to date. Since Coeur's involvement in the property in 1988, exploration of the main Kensington deposit has included fill-in geochemical sampling, re-logging of selected core-hole intervals, district-scale aerial photography, surface and underground diamond drilling, drill core logging, underground development, underground mapping, bulk sampling, geophysical surveying, metallurgical testing, and heterogeneity studies.

Rhys (2008) states, "Vein geometries and distribution patterns in the main Kensington deposit and in the district, imply varying levels of fractal periodicity to mineralization. At the scale of an individual orebody, periodic en echelon steps in shear zones, or stacking of vein arrays and shear veins may induce predictable periodicity at various scales. If stacked vein sets are sufficiently spaced, then apparent gaps may appear down plunge or up dip in vein systems that could previously have been interpreted as the termination of an orebody, while unconnected mineralization may still lie above or below with an intervening gap." This description provides one set of conceptual targets for further exploration in the Kensington Vein System, especially down dip.

9.1.1 Eureka Vein System

The Eureka vein is in the footwall of the Kensington deposit. The drilling for the Eureka vein has been added to the Kensington total. No recent underground development has been done at Eureka; however, historic mining development on the K2050 Level crosscut the zone.

9.1.2 Raven Vein System

Through the end of 2017, 157,877 feet of core in 445 holes has been conducted at Raven. Approximately 19,050 feet of underground development has been completed. The drilling, along with geologic modeling from underground mapping and core logging, resulted in the Mineral Resource estimate described in Section 14.

9.1.3 Elmira Vein System

Through the end of 2012, 75,073 feet of core drilling in 46 holes was done at Elmira. No recent underground development has been done at Elmira; however, historic mining development on the K2050 Level cross-cut the zone. No Mineral Resource estimate for Elmira is reported.

9.1.4 Jualin/Empire Zone Vein System

Through the end of 2017, 243,555 feet of core drilling in 421 drill holes has been conducted at the Jualin/Empire Zones. Drilling at the Jualin/Empire Zone (Figure 9.2) has shown that near where Jualin Veins #1, and #2 begin to fade away into weakly mineralized fractures, a new set of strong, well-mineralized veins begins. These veins, however, occur to the west, are deeper and are much closer to the metasediment-metavolcanic contact than the other veins. The main vein within this group has been called Vein #4. Vein #4 shows a drill-indicated strike length of at least 1,075 feet and a down-dip extension of at least 750 feet. Underground development began in early 2016 to investigate the potential feasibility of mining Jualin Veins #1, #2, and #4. The Jualin decline is currently at 5,020 feet in length. It has allowed for underground exploration drilling targeting Veins #1, #2, and #4. The decline is still advancing now. Historic mining with recorded production was conducted in the early 1900s.

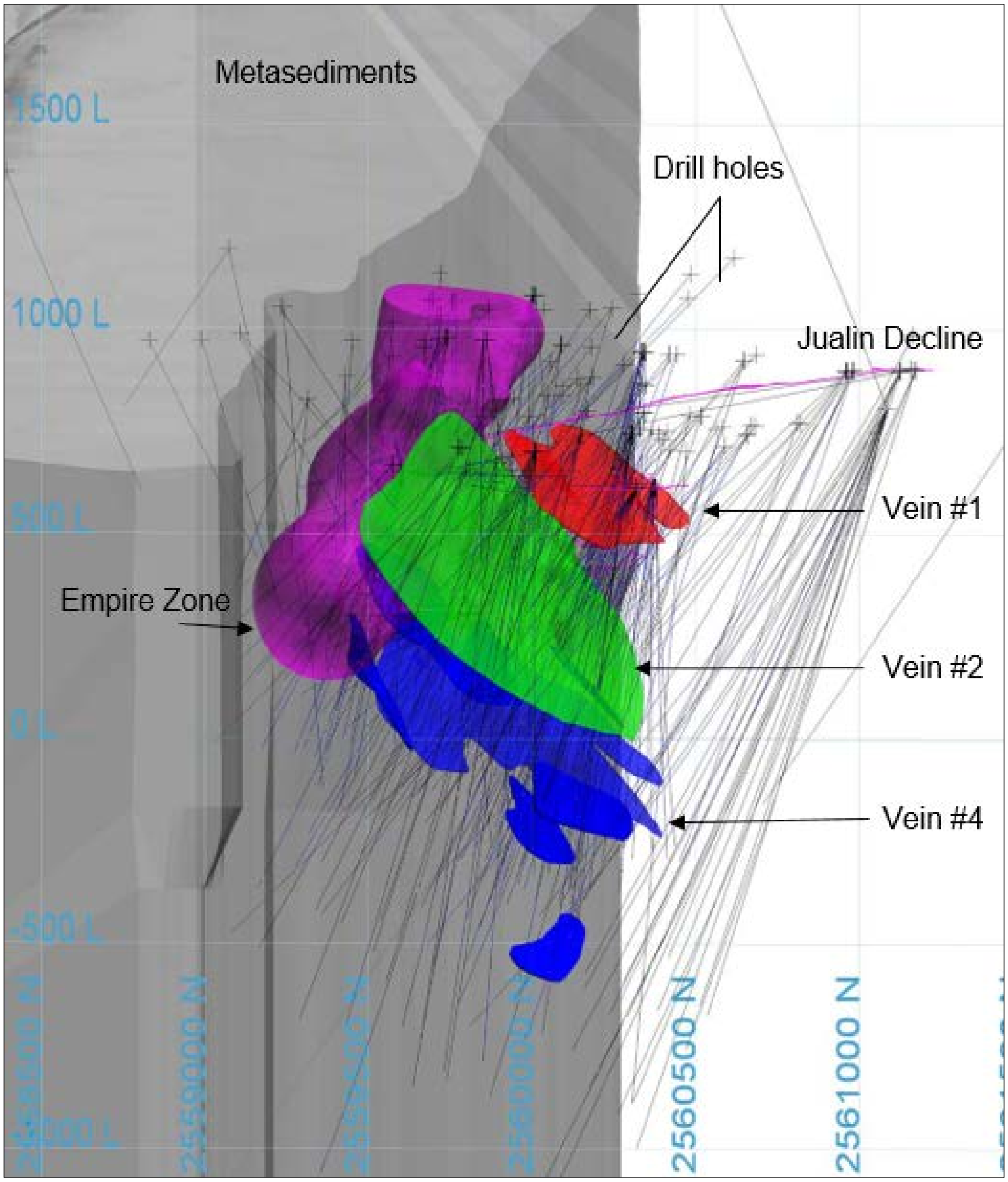


Figure 9-2 Perspective View of Drilling at the Jualin/Empire Zone (Coeur, 2018)

The 2017 field season at Kensington included surface drilling and underground drilling at Jualin, in addition to detailed geologic mapping and sampling within the Berners Bay district. The drilling program consisted of 42 surface drill holes totaling 62,991 feet. The underground drilling program consisted of 82 drill holes totaling 60,000 feet. Drilling during 2017 at Jualin achieved three main objectives:

1. Explore the southern extent of mineralization along strike of Vein #4;
2. Explore the northern, down-dip extent of Vein #4; and
3. Upgrade the resource classification of Vein #4.

The first objective yielded positive results showing continuity along strike and the potential for Vein #4 to extend about 300 feet to the south.

The second objective was achieved by adding a series of drill holes on surface targeting the down-dip extents of the northern portion of the vein. These drill holes confirmed the continuity of the Vein #4 resource.

The third objective was met by underground drilling designed to infill existing drill holes at 75-foot spacing. The success of this program upgraded the Jualin Vein #4 resource from Inferred to Indicated or better.

Future exploration drilling targets are expected to include:

- The down dip extension of Zone 10/50. This drilling program is intended to extend the current resource to -750-elevation;
- The up-dip extension of the Raven Vein. This drilling program in intended to connect the high-grade ore shoot on the R1042 Level with surface outcrop;
- Seward Vein. A surface outcrop of about 8.0 to 10-foot thick massive quartz vein with minor sulfides and specks of visible gold. The Seward vein dips steeply to the east and will be targeted from the K0850 Level;
- Zone 30; and
- The down dip extension of Jualin Vein #4.

9.2 District Wide Exploration

Other prospects that have been given some exploration attention include: the Ivanhoe, Hope, Ophir, Mexican, Bear, Johnson, Northern Belle, Selkirk-Acropolis, Seward, Thomas, Cumberland, Fremming, Valentine, Yankee, Big Lake, Hoggatt Creek, Pit-4, Babcock, DZ, and Gold King. Most of these prospects have been mapped and sampled by Coeur.

9.3 Grids and Surveys

Prior to 1988, independent local grids were used for work conducted on the Jualin property. An independent survey grid for the Jualin property was re-established in 1988 by Alaska Land Surveying (Alaska Land). Control points were set up near the historic Jualin Portal for this grid system. The Jualin survey grid was maintained in-house from 1989-1999 by Echo Bay and Coeur Alaska engineering staff.

In August of 1999 LCGS was contracted to complete a full audit of the downhole survey database. While compiling and analyzing all the data in fall 1999, it was found that there were systematic differences between methods and that some methods were more accurate than others. A set of guidelines was developed to consistently merge the data from the different methods into one azimuth and plunge for each collar and downhole survey. Approximately 50 holes were resurveyed by Alaska Land to test/confirm the validity of the guidelines.

All exploratory surface mapping and geochemical sampling by Coeur personnel since 2012 is the Universal Transverse Mercator (UTM) coordinate system using the North America datum of 1983 (NAD83) and 1927 (NAD27). The UTM Zone is Zone 8 North. All exploratory drilling operations (surface and underground), as well as all mining/surveying operations, are conducted on a local NAD 1927 State Plane Alaska 1 FIPS 5001 coordinate grid. All data collected in UTM NAD83 and UTM NAD27 is converted into NAD27 Alaska State Plane using a coordinate transformation before being imported into the Project acQuire® database.

9.4 Geological Mapping

Coeur Alaska conducted a surface reconnaissance program at Kensington in 2012, which focused on investigating historic prospects within the Berners Bay Mining District. The purpose of this work was to define several favorable drill targets for the 2013 surface drilling program based on historic records, geologic mapping and surficial geochemical sampling in the area.

The 2014 surface reconnaissance program at Kensington focused on detailed mapping and sampling from the Jualin Mine area to the northwest. The mapping area was focused on a structural corridor constrained by the Orval shear to the northeast and the Snowslide Gulch shear to the southwest. This area has also been denoted as the Jualin Structural Corridor (JSC). Prospects investigated along this corridor in 2014 include the Jualin, Thomas, Comet, Seward, Bear, Savage, Eiger, Northern Belle, and Old Kensington. Most veins along this corridor occur as shear-hosted quartz veins trending north- northwest, and dipping moderately to the east. Numerous other unnamed vein showings were also mapped and sampled during 2014 within the JSC mapping area and to the north of the Comet Mine area. Another prominent style of veining observed on surface consists of fracture-fill veins with little to no shearing/alteration along the margins. Further to the northwest, within the Wrangellia metabasalts, the Ivanhoe and Hope prospects were also mapped and sampled. These two shear-hosted, sheeted vein targets display similar geochemical and structural characteristics to the Raven vein.

The 2015 surface reconnaissance program focused on structural and geologic unit mapping of the Kensington property to the northwest of Jualin as well as some confirmation geologic mapping of some select areas in the southeast part of the Kensington property. Samples were collected for geochemical analysis for determination of major rock units on the property and to verify previous geologic mapping. Several prospects visited in 2014 were re-visited in 2015, including the Thomas, Comet, Seward, Bear, and Eiger prospects. The Hope and Ivanhoe prospects were also re-visited. The purpose was to outcrop map the structures, mineralization and to confirm previous assays. The mapped areas surrounding the prospects were enlarged and several new historic pits and adits were rediscovered.

Hand samples were collected throughout the mapping areas and compiled for geochemical interpretation of spatial elemental correlation with relation to gold and lithological corroboration.

The 2016 surface reconnaissance program was focused on continued structural and geologic unit mapping. Samples were collected from the various rock units for trace element and whole rock analyses. Two samples were collected for geochronology work on timing of intrusive events. 194 soil samples were collected over the Seward vein to better constrain its trend and location under overburden.

The 2017 surface reconnaissance program was focused on the completion of a soil sampling grid. The 700-sample grid served the dual purpose of following up on the soil anomaly trend highlighted over the Seward prospect during the 2016 soil sampling program and tying the current work into the historic soil grid completed in 1992 by International Curator. Surface mapping focused on the DZ prospect area along the east flank of Lion’s Head Mountain.

9.5 Geophysics

A high-sensitivity helicopter magnetic survey was carried out by New-Sense Geophysics over the Kensington Mine Block during the 2012 exploration season. A total of 713 line-miles of total field magnetic data was collected, processed and plotted. Traverse lines were oriented east-west and flown at 246 foot spacing. The technical objective of the survey was to provide high-resolution Total Magnetic Intensity (TMI) data suitable for anomaly delineation, detailed structural evaluation and identification of lithologic trends. The fully- corrected magnetic maps were prepared by New-Sense Geophysics Limited, in their Toronto office after the completion of survey activities.

In 2004-2005, an airborne magnetic geophysical survey (Figure 9-3) shows the results of an airborne magnetic geophysical survey compiled by Wave Geophysics of Boulder Colorado during 2004-2005. Note that this image is lower resolution than the airborne survey flown during 2012, and is included as an example to show the overall magnetic signature of the Berners Bay district.

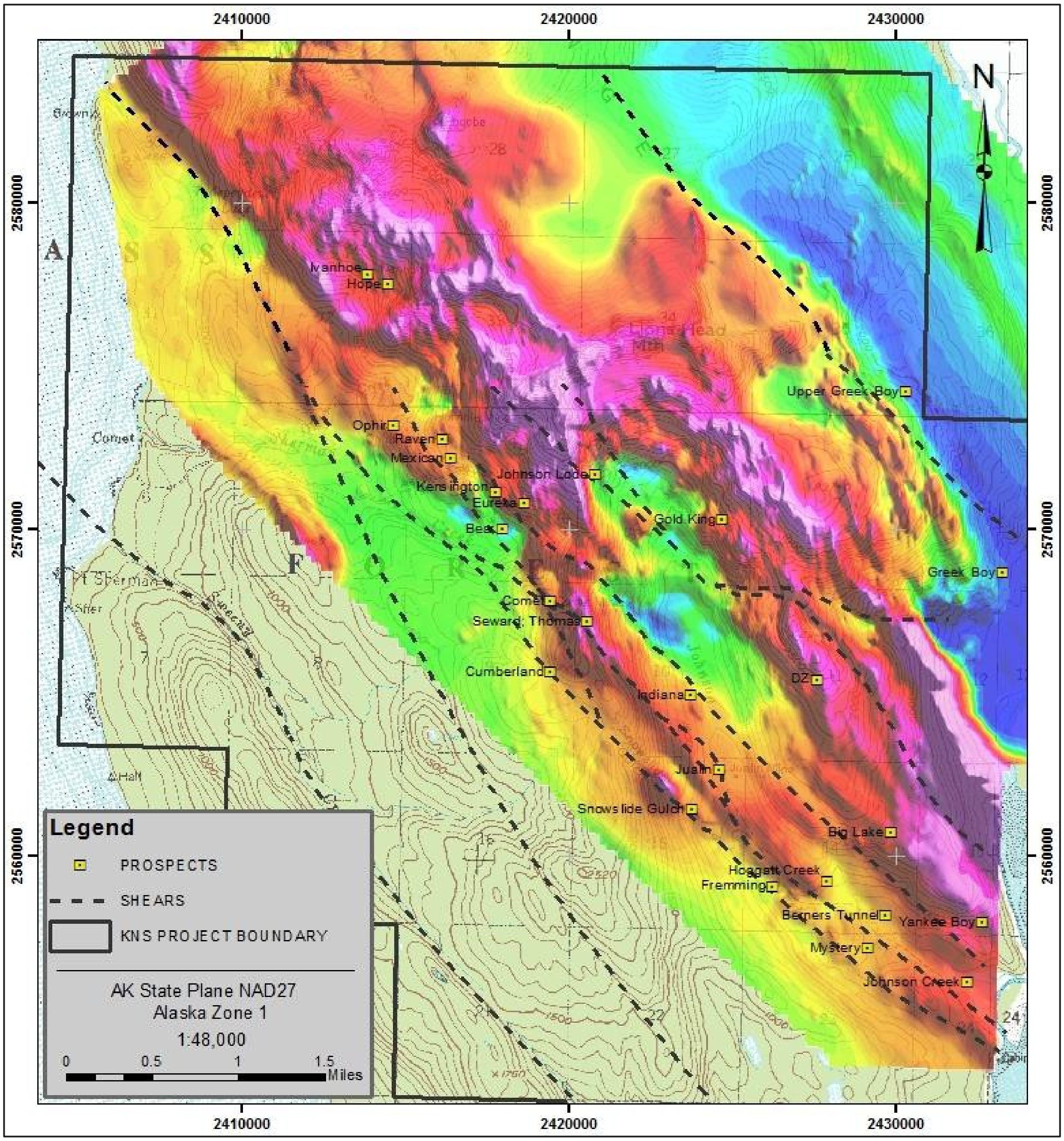


Figure 9-3 Airborne TMI (Total Magnetic Intensity) Magnetic Data (Wave, 2005)

9.6 Remaining Exploration Potential

Several historical prospects within the Coeur-held claim blocks have not been reviewed in recent years and reconnaissance work is recommended for these areas. These prospects include the Hartford, Acropolis, Cookhouse and Gold King showings.

The following exploration potential exists with the Coeur-held claim blocks:

1. Historic Kensington - Increased density of gold-bearing vein outcrops east of the historic Kensington workings may delineate the surface expression of the Kensington system and has potential to add reserve to the current mine workings in the future.
2. Kimberly Vein - Underground exposure of the Kimberly vein may be relatable to its surface expression and could confirm a significant strike length.
3. Savage Vein - The Savage vein was mined historically, 125 meters north of the historical mine workings in vein outcrop with a similar orientation. Additional mapping in this area might confirm an extended 125-meter strike length of the Savage vein.
4. Comet Mine Area - The extent of the remaining Comet vein is unknown, drilling is recommended to expand this prospect and further understand the nature of this vein system. Samples from the Seward prospect contained visible gold and merit further consideration.

9.7 Comments on Exploration

In the QP's opinion:

- The exploration programs completed to date are appropriate to the style of the deposit and prospects;
- The research work supports Coeur Alaska's genetic and affinity interpretations for the deposits; and
- Additional exploration has a likelihood of generating further exploration successes, particularly down-dip of known zones.

10. DRILLING

Drilling in the early 1980s was done by Placid Oil. Drilling from 1988 to 1993 at Kensington, Raven, Eureka, and Elmira was done by the Kensington Venture (Echo Bay and Coeur). Placer and Curator drilled on the Jualin property in the early 1990s. All drilling since 1998 was done by Coeur Alaska.

Figure 10-1 shows the known drilling in the Project Area, Figure 10-2 outlines the drilling in the areas where Mineral Resources have been estimated.

10.1 Drill Methods

Mineral Resource estimates for the Kensington Mine are based on diamond drill core assay results. Most of the drilling prior to 2013 was performed by Connors Drilling of Montrose, Colorado. Timberline Drilling Inc. of Coeur d'Alene, Idaho, is the current drilling contractor and responsible for most holes drilled from 2013 to date. Swick Drilling completed some of the drilling from January 2017 to July 2017.

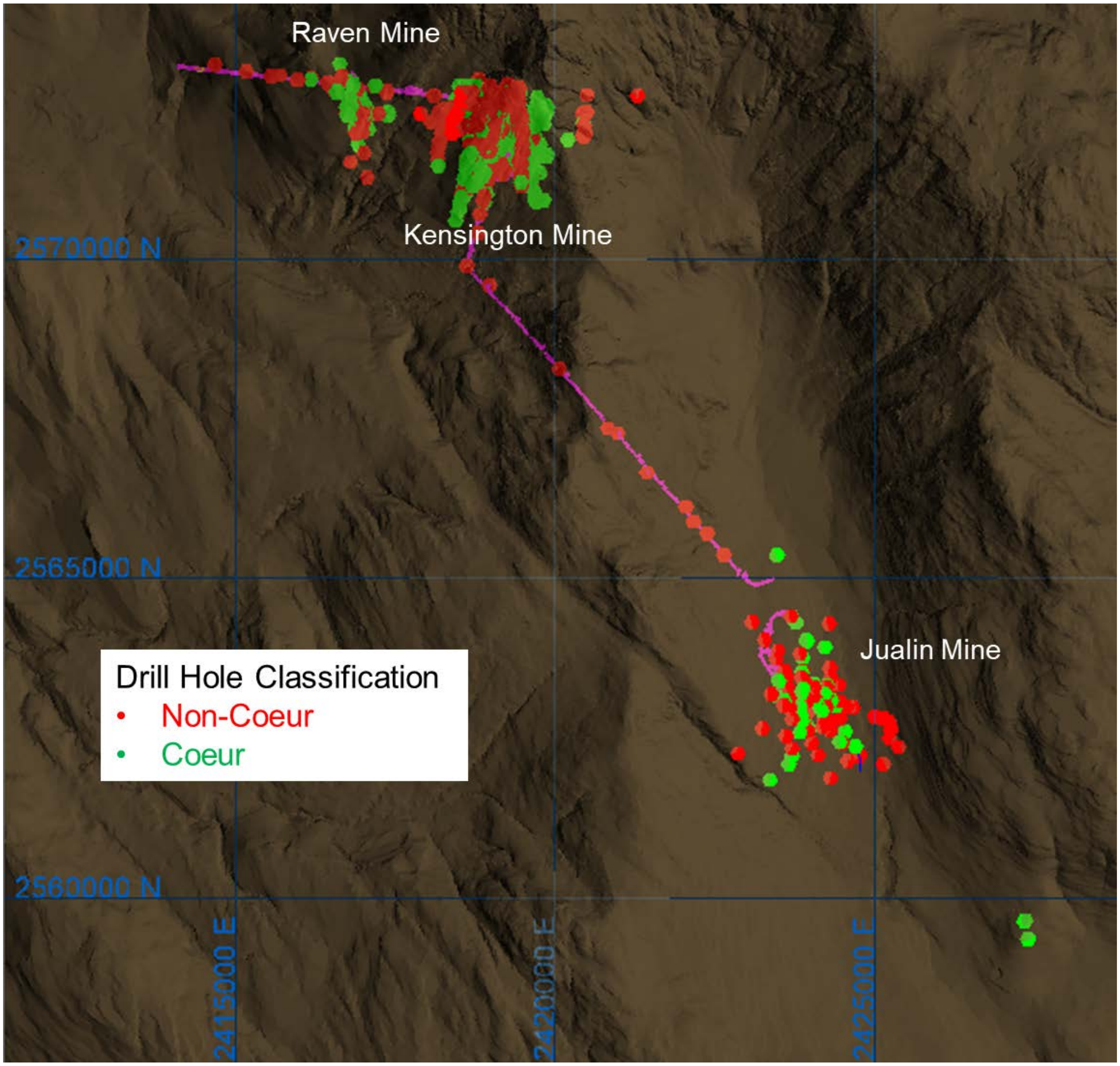


Figure 10-1 Drill Hole Location Map (Coeur, 2018)

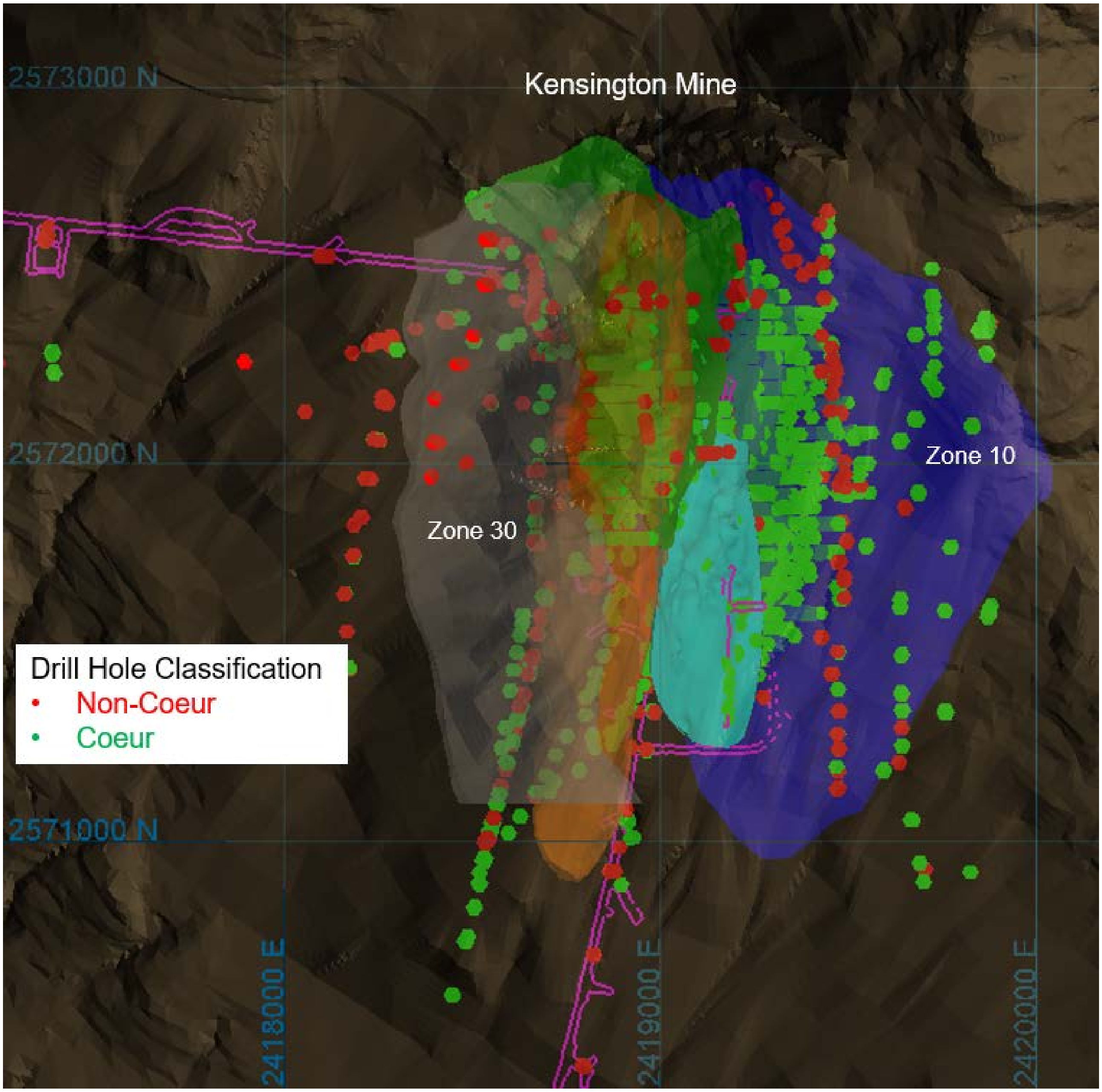


Figure 10-2 Resource Area Drill Holes (Coeur, 2018)

Drilling prior to 1989 was primarily BQ-sized (36.5 mm diameter) core, surveyed with a Sperry Sun type downhole survey instrument. This drilling, with less survey control, primarily targeted the upper parts of Zone 30 as well as regional targets. Drilling from 1989 to 2010 was primarily NQ-sized (47.6 mm) core and surveyed with Fotobor or Reflex Maxibor downhole survey instruments. After 2010, most core was HQ sized (63.5 mm, with some NQ) and surveyed with Reflex Gyro or Reflex Maxibor downhole survey instruments. Drill collar dip and azimuth are surveyed by the mine surveyors to orient the downhole survey. Table 6-1 and Table 6-2 summarize the drilling on the Kensington Property through December 31, 2017.

10.2 Geological Logging

Core logging, sampling and surveying under Coeur direction has been performed by Coeur staff geologists or experienced contract geologists under the direct supervision of the staff geologists.

10.3 Recovery

Under Coeur's direction, core recovery is measured by the Coeur staff geologist or an experienced contract core logging geologist. Every drill run is measured by the drill contractor as well by the geologist assigned to logging that core. Core recovery is generally high because of the competent nature of the diorite. Approximately 95% of drilled intervals have core recovery greater than 95%. Poor recovery (less than 50%) occurs in approximately 1% of intervals. Poor recovery is generally localized to shear zones. The measurements are recorded in drill logs and stored within the acQuire® database.

10.4 Collar Surveys

Drill holes completed are collar surveyed, and the coordinates are tied to the mine grid (refer to Section 9.3).

During 2017, collar surveys were taken for every drill hole. Surface collar surveys are taken using an RTK GPS SPS 985. Underground surveys are recorded using a Trimble SPS 930.

10.5 Downhole Surveys

Downhole surveying prior to 1989 has been collected using Sperry Sun type downhole survey instrument. Drill holes from 1989 to 2010 were surveyed with Fotobor or Reflex Maxibor downhole survey instruments.

After 2010, downhole surveys have been collected using Reflex Gyro or Reflex Maxibor downhole survey instruments, and are checked for quality by Coeur geologists.

10.6 Geotechnical and Hydrological Drilling

In December 2014, two geotechnical holes were drilled at the site selected as the potential new Jualin portal location behind the current mill site. In 2017, three geotechnical holes were drilled to establish the location of the historic workings prior to decline advance.

Vibrating wire transducers were installed in existing diamond drill holes in 2016 and 2017 to measure water pressures in the Jualin region.

10.7 Sample Length/True Thickness

Sample length parameters dictate that samples selected for assay be no greater than five feet and no less than one foot. Within those parameters, sample lengths are geologically controlled. Diamond drill sampling attempts to drill perpendicular to the mineralized shape to represent the true thickness of the mineralization. Sample orientations are generally appropriate for the mineralization style, and have been drilled at orientations that are optimal for the orientation of mineralization for the bulk of the deposit areas. Drill orientations are shown in the example cross-sections included in Section 7 and Section 14, and can be considered to appropriately test the mineralization.

During the initial stages of mining operations, mineralized intercepts cut by drilling were converted to true thicknesses where discrete vein structures permitted, and were used to define zones of mineralization where the control of mineralization is by vein swarms and clusters of variable and complex orientation (Birak, 2004).

10.8 Comments on Drilling

In the opinion of the QP, the quantity and quality of existing drilling data is sufficient for resource estimation at Kensington. Factors that may impact the accuracy and reliability of drill results, such as sample location and sample recovery, have been adequately addressed through the use of appropriate surveying methodologies and careful drilling practices to ensure maximum recoveries.

11. SAMPLE PREPARATION, ANALYSES AND SECURITY

11.1 Sampling Methods

All sampling for mine development headings and from drill core was conducted by Coeur employees or contractors under the supervision of Coeur employees, and in accordance with site procedures and protocols.

11.1.1 Muck Sampling - Mine Development Headings

Muck samples are taken to guide mining activity and route muck haulage to appropriate stockpiles. All sampling follows Coeur's internal site procedures and protocols.

Samples are taken after the muck piles are washed down. Three imaginary lines are drawn over the muck pile; one sample is gathered from each line. An ore control geologist walks each line while grabbing fist-sized pieces of muck representative of the portions of ore to waste in the pile. The pieces are put in a medium canvas bag until the geologist collects approximately 10 kilograms of material. The process is repeated on the remaining two lines for a total of three samples.

11.1.2 Channel Sampling - Mine Development Headings

Channel sampling was added during the latter half of 2014. The channel sampling data collection follows a protocol that seeks to minimize the bias often associated with channel sampling. Three horizontal rows of one-foot tall boxes are painted on the face from rib to rib. Each box marks the boundaries of a separate channel sample. The boxes are drawn to respect geologic boundaries and variations in mineralization. Samples are taken by the mine geologist across the width of each box. Each sample is placed in a canvas bag with a unique sample number correlated to the channel's box number. The box numbers are painted in each box before a face photo is taken (Figure 11-1). After the sample is assayed, grades are marked on the face photos. The level of detail in the sampling protocol makes the channel sample data very useful in precisely placing the ore boundaries and validating the resource model grades, which were estimated using only the drill data.

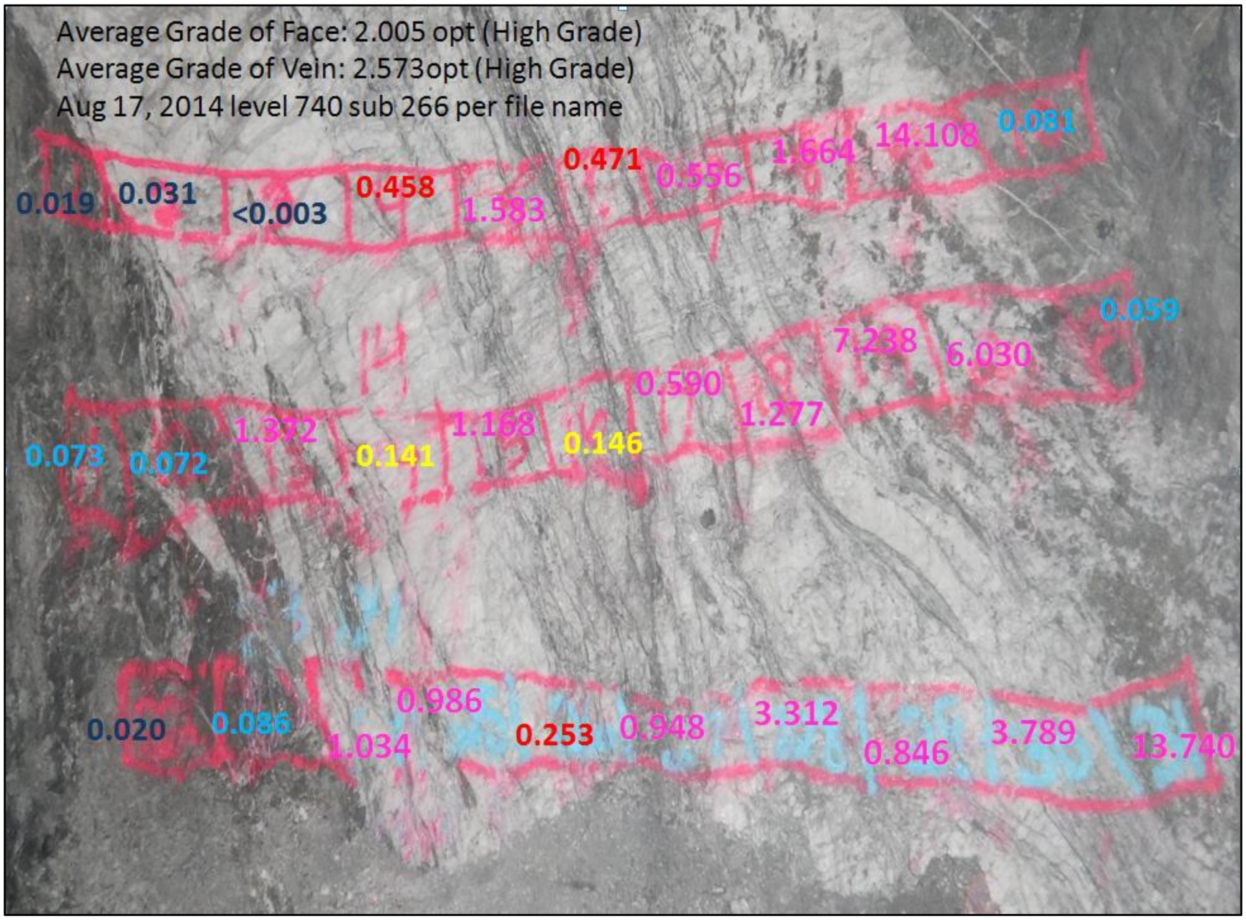


Figure 11-1 Sampled Face on 740 Level in the Raven Vein Development (Face is marked with Sample Boundaries, Sample Numbers, and Assay Grades) (Coeur, 2016)

11.1.3 Drill Core Sampling

The basic procedure and protocol for taking surface and underground drill core samples has remained consistent throughout the Coeur and pre-Coeur drill programs. In 2012, core logging information transitioned from being recorded on paper to being input directly into a database. Protocols for sampling the core have changed slightly and been more extensively standardized.

Sample intervals are based on the distribution of vein density, vein type, mineralization, and any other geological feature needing assay definition. The geologist marks sample intervals, ranging from one to five feet in length, directly on the core with a china marker. Each box of core is photographed before the core is sampled. The photographs provide a very clear and useful record of the sampling and various geologic features on the drill core. Whole core samples are taken from production drill holes (infill and stope holes). Stope definition holes are sampled top to bottom, unless otherwise directed by mine geology.

Kensington and Raven infill definition holes are only sampled where geologically warranted.

Since June 2013, all exploration drill core has been cut with a saw, retaining half for reference. A core sawing facility was completed at the mine in late 2014 to house a new automated saw to accompany the existing manual saw. Half-core samples are taken from all exploration drill holes, where geologically warranted. In early category II Jualin exploration drill holes, additional samples for geochemical analysis were taken in an approximate 50-foot halo surrounding targeted mineralized veins.

Quality control samples, including certified reference material (CRM), blank samples, and duplicate samples are inserted in the sample stream during the logging process as described in Section 11.5.

11.2 Density Determinations

In December 2014, specific gravity (SG) measurement was incorporated into the core logging protocol. Samples are selected for SG measurement during core logging with emphasis on lithology and mineralization. Both ore and waste core are selected. The procedure for determining SG of core at Kensington relies on the immersion method. In this method, core samples are dried and weighed in air. The samples are then soaked in water, with excess water dried from the surface. The wet sample is weighed in air and then in water. The weighing takes place as the core is logged in the core logging facility on surface. SG measurements are required of all exploration and definition core. Density is determined by:

$$Density = (Dry\ weight\ in\ air)/(Wet\ weight\ in\ air - wet\ weight\ in\ water)$$

Data collected during density determination are entered directly into acQuire® database.

11.3 Analytical and Test Laboratories

Independent laboratories used by Echo Bay and Coeur to prepare and assay Kensington samples from the 1980s to 2004 include Barringer, Bondar-Clegg and Cone Geochemical, which were widely known and utilized commercial laboratories in North America at the time. It is not known whether these laboratories were certified by any laboratory standards association (Birak, 2004).

From 2005 to 2009, the primary laboratory for exploration samples was ALS Chemex, with sample preparation in Fairbanks, Alaska and Reno, Nevada. Samples also were sent to American Assay Laboratories (AAL). A split of the prepared pulp was either kept for analysis in Reno or sent to Vancouver, British Columbia, Canada. ALS Chemex complies with the international standards ISO 9001:2000 and ISO 17025:1999.

From 2010 to March 2012, the primary external laboratory was the Inspectorate America Corporation (Inspectorate) laboratory in Sparks, Nevada (ISO 9001:2008). Pinnacle Analytical Laboratories (ISO 17025:2005) in Lovelock, Nevada, was selected as the new primary external laboratory between March and May 2012.

Between May 2012 and January 2017, ALS Chemex, now ALS, in Reno, Nevada (ISO 9001:2008), was the primary external laboratory. From late 2013 to mid-2015, AAL (American Assay Laboratories, ISO/IEC 17025:2005) in Sparks, Nevada, was used to run check analyses on select samples assayed at ALS.

In the fourth quarter of 2013, Acme laboratories in Juneau, Alaska (Acme-JNU), a subsidiary of Bureau Veritas Commodities Canada, Ltd., was contracted to prepare samples from exploration and definition drill holes before being shipped to ALS for analysis. By early 2015, the status of the primary laboratory became shared when all prepped definition drill hole samples were shipped to Bureau Veritas Commodities Canada, Ltd. (referred to at Kensington as Acme-V) (ISO 9001: ISO/IEC 17025:2005) in Vancouver, British Columbia, for analysis, while prepped exploration drill hole samples were shipped to ALS for analysis.

In January 2017, Acme-V became the primary laboratory for all exploration and infill definition drill hole samples. ALS was the secondary laboratory until the second quarter of 2017, when McClelland Laboratories, Inc (MCLD) (ISO 17025:2005) in Sparks, Nevada, replaced ALS as the secondary laboratory.

In 2006, under the guidance of Rocklabs, Coeur built an on-site sample preparation and analytical laboratory. The Kensington (KNS) laboratory, which is currently operated by Coeur personnel, is not ISO-certified, and as such does not analyze samples used in resource estimation. All mine development heading samples and stope definition drill hole samples are analyzed at the KNS laboratory.

11.4 Sample Preparation and Chain of Custody

11.4.1 Mine Development Heading Sample

The on-site KNS laboratory processes and analyzes the muck and channel samples. Mine geologists drop off and log in samples to the KNS laboratory shortly after exiting the mine.

After drying, primary crushing is done to 80% passing a 12-mesh screen using a Bico Badger jaw crusher. Secondary crushing takes place in one of two TM Engineering

Terminator crushers. The sample is then blended and split manually using a three-quarter-inch Jones riffle splitter until the sample is reduced to an amount between 175 to 300 grams. The sample is then pulverized using a Bico ring and puck type pulverizer to 90% passing a 140-mesh screen. From this pulp, 30 g is removed for assaying. The Kensington laboratory historically assayed the samples for both gold (Au) and copper (Cu), using a 30-gram fire assay method with gravimetric finish for Au and an aqua regia digestion with an AAS finish for Cu, but currently assays only for Au.

11.4.2 Drill Core Sample

Throughout 2010 and until June 2011, all drill core samples were prepped on-site by geo-technicians into two 1,000 g splits of crushed rock, one for shipping to the external lab and one for on-site storage. Samples were crushed to 80% passing a 10-mesh screen using a Rocklabs Boyd MK 2 crusher and split using a Gilson 2-inch riffle splitter.

In June 2011, all primary processing was transferred to the KNS laboratory and laboratory personnel. The KNS laboratory processed samples to 80% passing a 10-mesh screen using a primary Bico Badger jaw crusher and a secondary Terminator jaw crusher or the Marcy Cone crusher. The sample was then blended and split mechanically using a Gilson 2- inch riffle splitter until the requested number of 1,000-gram splits was made.

11.4.3 Stope Definition Holes

Core samples from stope definition holes continue to primarily be prepped and analyzed at the KNS laboratory. Samples are transported by forklift directly from the core yard to the KNS laboratory by the geotechnicians. They are received by the lab personnel and logged onto an RFA (Received for Analysis) sheet. The samples currently are prepped using the same procedure as the mine development samples described above in Section 11.4.1. Only the pulp sample remaining after assaying is archived, and is necessary to retain only until the associated stope is mined out.

11.4.4 Exploration and Definition Holes

In late 2013, all sample processing for exploration and (infill) definition holes moved from the KNS laboratory to the Acme-JNU preparation facility. Samples needing metallic screen analysis were an exception. Metallic screen samples from Raven and Jualin core were routed directly to ALS for full processing. Since mid-2016, metallic screen samples have been processed at the Acme-JNU prep facility.

Whole core samples are crushed to half inch, and then crushed to ≥70% passing -2mm. Half core samples are crushed directly to ≥70% passing -2mm using Terminator jaw crushers. Samples are then reduced to 1,000 grams using a Jones riffle splitter. Coarse rejects are held for 90 days, then packaged for shipment back to Kensington for disposal after lockdown is completed on the corresponding drill holes.

Coeur geotechnicians handle the transfer of samples to the KNS laboratory and external labs by following chain-of-custody procedures. Exploration and definition drill hole samples are shipped off-site in shipping containers in canvas bags shrink-wrapped to a pallet. Once the container was full, it was closed with a chain of custody (CoC) seal and released with shipping paperwork to the KNS warehouse to load on the barge to Juneau. Shipments consist of 2 to 3 pallets of canvas bags placed into polyester super-sacks with zip-tie CoC seals securing the sacks closed. A shipping notification is submitted to the KNS warehouse crew to facilitate the transfer of the container to Juneau via the AML barge. Once at the AML yard in Juneau, the pallets are transported by Lynden Trucking to Acme-JNU where they are received by the Acme-JNU personnel.

11.4.5 Analytical Method

Prior to 2016, samples analyzed for Au by fire assay were completed with a gravimetric finish. As of January 1, 2016, an atomic absorption spectroscopy (AAS) finish, which is more accurate at lower grades, replaced the gravimetric finish. All samples containing or proximal to visible gold (such as from Jualin vein #4) are assayed for gold by metallic screening. Exploration drill core samples and those from select Raven definition drill holes also were analyzed for a 48-element geochemical suite.

In 2013 and the first half of 2014, all exploration holes were assayed for a 33-element geochemical suite using 4-acid total digestion with ICP-AES analysis (method code ME-ICP61). Tellurium was inadvertently not captured as a member of this geochemical suite. A switch was made in June 2014 to method code ME-MS61, a 48-element geochemical suite using 4-acid digestion, to capture this element.

Samples undergoing metallic screening at Acme-V are first pulverized in their entirety, then passed through a Tyler 150 mesh screen. The plus sized fraction is analyzed by fire assay with gravimetric finish and reported as the Au plus fraction. The minus fraction that passed through the screen is split into sub samples and each analyzed by fire assay with AAS finish. The average of these sub samples is reported as the Au minus fraction. The total Au value is calculated using both the minus fractions and the plus fraction.

Exploration samples at Acme-V not undergoing metallic screening are pulverized as per prep code PRP70-1KG, where the 1,000-g split is pulverized to 85% passing a 200-mesh screen. Samples are then assayed for Au by method code FA430, where 30 g of pulverized sample is fire assayed with an AAS finish. Over limit samples (>0.292 opt Au) are triggered to be run again by fire assay with a gravimetric finish (FA530). Over limit samples >1 opt are triggered to be run by metallic screening (method code FS632) and must be processed again from Format reject material before assaying. During pulverization, a 10g sample is pulled for multi-element analysis.

Definition samples sent to Acme-V are processed and assayed using the same methods and strategy with over limit triggers of >0.292 opt Au for a gravimetric finish and >1 opt Au for metallic screening. Definition drill hole samples, except for the select Raven drill hole samples, are not assayed for a geochemical suite.

Samples submitted to the McClelland secondary laboratory are already pulverized. Analytical methods are the same as at Acme-V with the same over limit triggers applied. Method codes for MCLD are FA-30-Au for fire assay with an AAS finish, FA-GV-30-Au for fire assay with a gravimetric finish, and MSR-1000 for metallic screening of a 1,000-g sample. Any request for metallic screening by McClelland would necessitate going back to the crushed reject for original sample material.

11.5 Quality Assurance and Quality Control

Initial Quality Assurance and Quality Control (QA/QC) checks were comprised of routine check assays of original pulps, check assays of duplicate pulps from coarse rejects and use of geochemical blanks to determine contamination during sample preparation. Metallic-screen analysis has also been performed to check for coarse gold. Reproducibility of high-grade samples was checked using cyanide-soluble gold assays (Birak, 2004).

Current QA/QC checks inserted into the sample stream during core sampling consist of:

1. Certified reference material (CRM);
2. Blank core samples; and
3. Duplicates (field, crush, and analytical).

QC samples are essential for validating data used in resource estimation. Table 11-1 shows the targeted rate of insertion of QC samples by drill hole category per company protocols, but at Kensington, we target at 5% for all QC sample types for all drill hole categories. Table 11-2 summarizes the QC sample activity for January 1, 2017 through December 31, 2017, by drill hole category.

Table 11-1 Target Insertion Rates for Quality Control Samples per Protocol (Coeur, 2018)

Drill Hole Category	CRM Samples	Blanks	Duplicates
Category 2*	5%	5%	2.5%
Category 3**	5%	5%	2.5%
Definition	2.5%	2.5%	2.5%

Category 2*: Discovery and definition of new discoveries to at least Inferred confidence (nominal 150 ft. drill hole spacing).
Category 3**: Definition of Inferred Mineral Resources to at least Indicated confidence (nominal 75 ft. drill hole spacing).

Table 11-2 Quality Control Samples Inserted by Drill Hole Category from January 1 - December 31, 2017 (Coeur, 2018)

Drill Hole Category	No. of Samples	CRM Samples	Blank Core Samples	Field Duplicates	Crush Duplicates	Analytical Duplicates
Category 2	19,496	1015 (-5.21%)	1,006 (5.16%)	895 (4.59%)	887 (4.55%)	1,255 (6.44%)
Category 3	23,121	1159 (-5.01%)	1,165 (5.04%)	1,005 (4.35%)	997 (4.31%)	2,094 (9.06%)
Definition	10,145	521 (-5.14%)	521 (5.14%)	0 (0.00%)	464 (4.57%)	668 (6.58%)
Total	52,762	2695 (-5.11%)	2,692 (5.10%)	1,900 (3.60%)	2,348	4,017 (7.61%)

11.5.1 Certified Reference Materials

Certified reference materials (CRMs) contain a known concentration of certain elements and are used to check laboratory accuracy.

Over the Project life, many standards have been used. For example, in 2010, Coeur Alaska used six different standards of varying values for gold: three standards were Rocklabs, Inc. standard reference material, and three standards were Kensington matrix standards certified by Barry Smee, an independent geochemist consultant.

From 2010 to present, 19 certified reference materials from Canadian Resource Laboratories, Ltd., with low-, mid-, and high-grade gold values were used to validate assay data reported by the external analytical laboratories.

The insertion rate for CRMs (Table 11-2) is above company protocol for all drill hole categories. CRMs assaying within ±3 standard deviations of the mean were acceptable. Standards outside of these limits were failures and were re-run according to company protocols and procedures. The certificate mean and standard deviations were used to determine acceptability criteria. Table 11-3 shows the performance statistics for all CRMs submitted in core sample jobs to Acme-V and MCLD in 2017. Secondary check sample (umpire sample) CRMs are excluded from these tallies.

Table 11-3 Performance of 2017 CRM Samples – Warning and Failure Summary (Coeur, 2018)

Laboratory	CRM	Total CRMs	Warnings			Failures		
		Analyzed	Low	High	Total	Low	High	Total
Acme-V	Low-grade	1071	49	51	100	23	34	57
	Mid-grade	327	4	19	23	3	12	15
	High-grade	856	40	14	54	34	2	36
	Totals	**2,254**	**93**	**84**	**177**	**48**	**48**	**108**
MCLD	Low-grade	7	0	1	1	0	2	2
	Mid-grade	24	1	4	5	0	5	5
	High-grade	12	2	0	2	1	0	1
	Totals	**43**	**3**	**5**	**8**	**1**	**7**	**8**

11.5.2 Blank Samples

Blank samples contain no mineralization or significant concentrations for metals of economic interest, such as gold. They are used to test the preparation laboratory for contamination introduced during sample preparation. The blanks are coarse enough to undergo all stages of preparation, beginning with primary crushing in the jaw crusher.

Coeur Alaska typically used blank material collected from barren core from the district as well as certified Rocklabs reference materials during early QA/QC programs.

Since 2013, geologists have selected samples of unaltered- to weakly-altered and visually barren core from areas outside of ore zones or ore zone projections. Representative samples from the selected barren core undergo a round robin program to determine if the material is reliably free of mineralization and adequate for the purpose.

Blank samples assaying within ±5 standard deviations of the mean are acceptable. When a blank sample fails, it is either re-run or it is accepted with a comment in the database documenting the reason for its acceptance. Figure 11-2 and Figure 11-3 show summaries of the BLANK-CORE1 analyses by fire assay with AAS finish at Acme-V and MCLD, respectively, from January 1, 2017 through December 31, 2017, excluding blanks in umpire sample jobs.

Coeur Alaska: QAQC Blanks

Acme-V Start Date 1-Jan-2017 End Date 31-Dec-2017

Project:

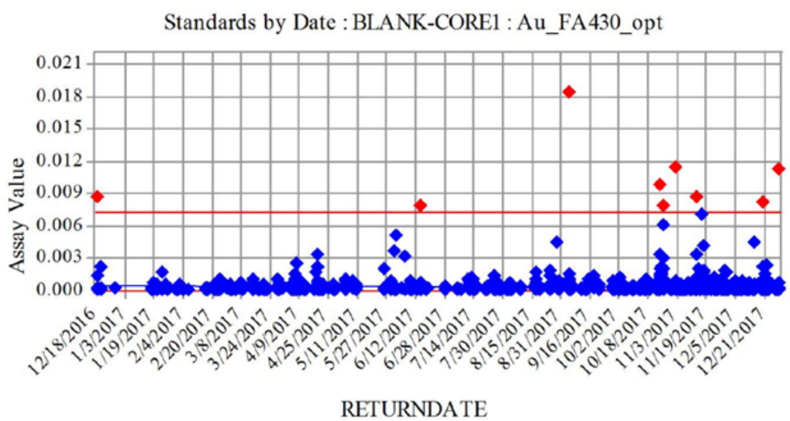
Expected Value	Error	OLS Regression
Normal	Error	Threshold

Error = 5 * Detection Limit

Assay Field	Std ID	# of Analyses	# Outside Limit	% Outside Limit	Mean	Median	Min	Max	Standard Deviation	% Rel Std Dev	Standard Error	% Rel Std Err	Total Bias
Au_FA430_opt	BLANK-CORE1	1754	9	0.51	0	0	0	0.02	0	217.85	0	5.2	0
Au_FA430_opt	Blank-SilicaSand	2	0	0	0	0	0	0	0	60.61	0	42.86	0
AuTot_FS600_opt	BLANK-CORE1	141	1	0.71	0	0	0	0.01	0	178.73	0	15.05	0

BLANK-CORE1 : Au_FA430_opt

Total Samples	1754
N° Failures	9
% Failures	0.51



BLANK-CORE1 : AuTot_FS600_opt

Total Samples	141
N° Failures	1
% Failures	0.71

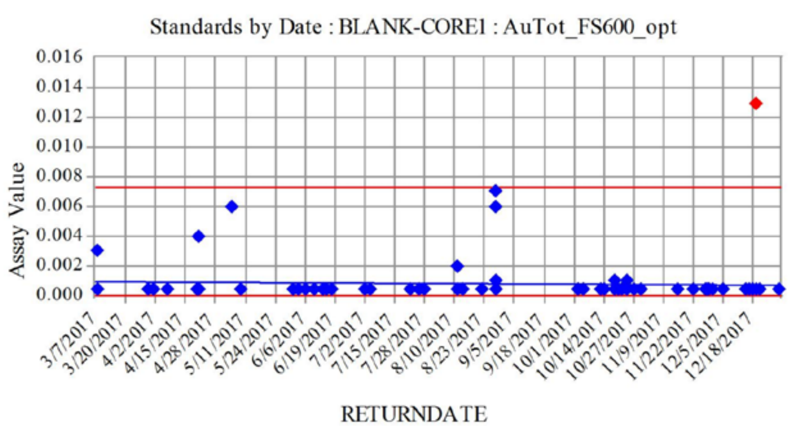


Figure 11-2 Blank Core Sample Summary – Acme-V (Coeur, 2018)

Coeur Alaska: QAQC Blanks

MCLD Start Date 1-Jan-2017 End Date 31-Dec-2017

Project:

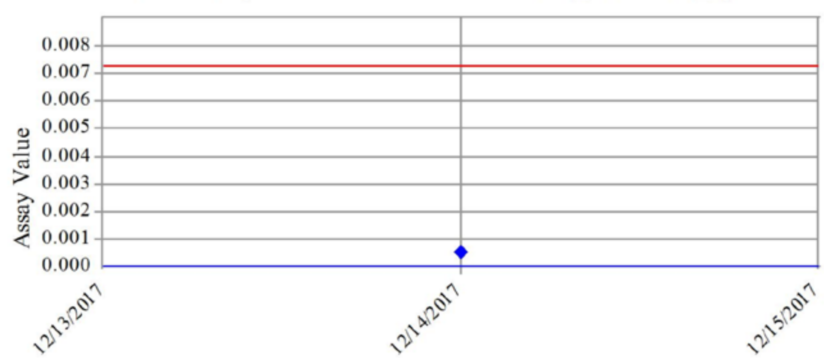
— Expected Value	— Error	— OLS Regression
◆ Normal	◆ Error	◆ Threshold

Error = 5 * Detection Limit

Assay Field	Std ID	# of Analyses	# Outside Limit	% Outside Limit	Mean	Median	Min	Max	Standard Deviation	% Rel Std Dev	Standard Error	% Rel Std Err	Total Bias
Au-Frac_FA30-AAS_opt	BLANK-CORE1	6	0	0	0	0	0	0	0	0	0	0	0
Au_FA30-AAS_opt	BLANK-CORE1	9	0	0	0	0	0	0	0	75	0	25	0

BLANK-CORE1 : Au-Frac_FA30-AAS_opt

Total Samples	6
N° Failures	0
% Failures	0.00



BLANK-CORE1 : Au_FA30-AAS_opt

Total Samples	9
N° Failures	0
% Failures	0.00

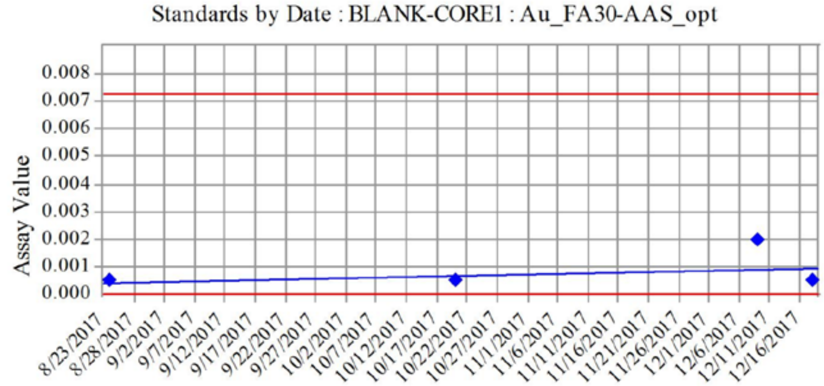


Figure 11-3 Blank Core Sample Summary - MCLD (Coeur 2018)

11.5.3 Duplicates

Duplicate samples collected throughout earlier drill programs were used to check for precision at each level of sample reduction and sub-sampling. In March 2012, the duplicate procedure was changed with the intention of incorporating into it a check of the homogenization and splitting accuracy of the Kensington laboratory during primary sample preparation. In addition, the duplicate was intended to be "blind" to the external laboratory so the laboratories would not know which sample was the duplicate during secondary processing and analysis. This protocol remained active when primary sample preparation was transferred to Acme-JNU in late 2013, and continues now.

In April 2016, an on-site QA/QC short course was given by an outside QA/QC consultant. As a result, the duplicate sampling program at Kensington was updated. The consultant strongly suggested the collection of field duplicates at a targeted rate of 5% of the primary sample population to measure the total error of the sampling, preparation and analytical stages affecting the final sample value. The taking of field duplicates was implemented shortly thereafter (May 2016), but samples can be duplicated from exploration drill holes only because only exploration drill core is sawn in half, making two "splits" of the same sample. The rate of insertion of field duplicates for Category 2 and Category 3 holes (Table 11.3) is well above the Coeur target rate of 2.5% but is slightly below the Kensington target rate of 5%.

Crush duplicates were taken throughout 2017. Crush duplicates can indicate sample contamination during primary preparation. Crush duplicate insertion rates reach the 2.5% Coeur target rate but are slightly below the 5% Kensington target based on drill hole category (Table 11.3). Acme-V does not split the 1000 g pulverized sample, and so pulp duplicates are no longer necessary.

Analytical duplicates are useful to determine the reproducibility or precision of results for a given sample by the same laboratory. Analytical duplicate tallies include internal repeats done by the laboratories along with additional duplicates requested by core loggers to assure the target rate is reached. The target rate of 5% was reached for all categories of drill hole for analytical duplicates. Tallies are shown in Table 11-3.

11.5.4 Check Assays

Current company protocol requires checking the data received from the primary analytical laboratory by selecting pulps from 5% to 10% of the samples received during the previous quarter, and then sending them to an independent ISO certified secondary analytical laboratory for analysis. Results from both the primary and secondary laboratories can then be compared to either validate the primary laboratory analyses, or to reveal any discrepancies. Primary and secondary laboratories must use the same digestion method and protocol as well as the same analytical finish so that a comparison is valid.

Check samples were selected and submitted from Acme-V to MCLD each quarter in 2017. Metallic screen samples were checked by reanalyzing the minus fraction by fire assay with AA-finish and comparing the results to the original minus fraction analyses.

11.6 Databases

The data collected is stored within a single acQuire® Geologic Information Management System. The system stores traditional drill hole data (collar location, orientation, downhole survey, assay, and documentation), but is also used to store mine development sampling, surface exploration sampling, and channel sampling. Aside from geological data, the database also retains information about contractor daily activities, daily drilling footages and core logging rates. Plans exist to continue to expand the functionality of the system to increase reporting capabilities, improve footage reconciliation, add stronger sample QC tools, and aide in data verification.

11.7 Sample Security

The CRM inventory, coarse rejects and returned pulps are kept in locations with restricted access. Half core samples are stored within their original boxes at a designated area on the mine site. Sampled core is released to the geotechnician assistants for cutting at the core cutting shed. Authorized Coeur personnel have access to the prep and analytical laboratory job status websites to track jobs and samples as they move to, within and from a given laboratory. Acme-JNU's chain of custody is initiated once they receive the sample dispatches.

11.8 Comments on Sample Preparation, Analyses and Security

In the opinion of the QPs, the sample preparation, analyses and security are acceptable, meet industry-standard practice, and are adequate for Mineral Resource and Mineral Reserve estimation and mine planning purposes, based on the following:

- Channel and face sampling covered sufficient area and was adequately spaced to support mine planning;

- Drill sampling was adequately spaced to define and infill ore zones to produce prospect-scale and deposit-scale drill data;

- Sample collection and handling of core was in accordance with industry standard practices, with procedures to limit potential sample losses and sampling biases;

- Sample intervals in core, comprising 1 to 5 foot intervals, are considered to be adequately representative of the true thicknesses of mineralization. Not all drill material may be sampled depending on location and alteration;

- Sample preparation for samples that support Mineral Resource estimation has followed a similar procedure since 2010 and is consistent with industry-standard methods for gold deposits;
- Exploration and infill drilling programs were analyzed by independent laboratories using industry-standard methods for gold analysis. Current run-of-mine sampling is performed by the mine laboratory;
- Specific gravity determination procedures are consistent with industry-standard procedures. There are sufficient acceptable specific gravity determinations to support the specific gravity values utilized in tonnage interpolations;
- There is limited information available on the QA/QC employed for the earlier drill programs; however, sufficient programs of reanalysis have been performed that the data can be accepted for use in estimation (Section 12);
- Typically, drill programs include insertion of blank, duplicate and standard samples. The QA/QC program results (Section 12) do not indicate any problems with the analytical programs, therefore the analyses from the core drilling are suitable for inclusion in Mineral Resource and Mineral Reserve estimation;
- Data were subject to validation, using in-built program triggers that automatically checked data on upload to the database;
- Verification is performed on all digitally-collected data on upload to the main database, and includes checks on surveys, collar co-ordinates, lithology data and assay data. The checks are appropriate and consistent with industry standards;
- Sample security has relied upon the fact that the samples were always attended or locked in a secured facility on site. Chain-of-custody procedures consist of filling out sample submittal forms that are sent to the laboratory with sample shipments to ensure that all samples are received by the laboratory; and
- Current sample storage procedures and storage areas are consistent with industry standards.

12. DATA VERIFICATION

The Coeur drill hole database contains data from 1981 to present. The database has been audited internally and externally a number of times in support of Mineral Resource estimates and technical report filings. In 2013, a very detailed and systematic internal audit was initiated, with the goal of checking and verifying all data from original records. Most of the data have been successfully verified. Some inconsistencies and errors have been identified and corrected. Unverifiable data have been removed. Kensington has consistently undergone external audits of the database yearly from external consultants such as KPMG, AMEC, and Grant Thornton. Confidence in the current drill hole database is high.

12.1.1 Drill Hole Database

The Vulcan database included significant data before Coeur became the sole owner and operator of Kensington in 1995. In 2007, Kensington began transferring the Vulcan database into the new acQuire® database.

All historic data was moved from the Vulcan database into the acQuire® database. The two databases were compared and it was believed that all errors or inconsistencies in the data were fixed at that time. However, it has since been discovered that issues in the core logging data were introduced during this transfer. Beginning in 2013, all the core logging data from 1992 to the present began an internal audit process with corrections and repairs done as necessary. This work has been fully documented and stored as part of the database lockdown procedure to ensure accuracy of results.

Drill hole information represented in the current database includes collar surveys, downhole surveys, geologic data from core logs and assay data. Hard copy files for each historic hole contain the original paper logs, acQuire®-generated digital logs, drill hole summaries, sample summaries, assay certificates and assay data files, QA/QC reports, plan/section views of the drill holes, and geologic health check reports.

In the current protocol, data evaluation and verification is performed in multiple steps throughout the life of a drill hole until it is “locked down” in the database. Drill collar surveys and downhole surveys are viewed in plan and section and checked against development workings. Contractor shift reports are compared to actual total drill hole footages. Core logging data and core photos are checked for completeness.

Assay data and QA/QC data are reviewed. Data that has not been reviewed and passed QA/QC analysis, will not pass the verification process. The system is configured so when assay data is imported, it exists in pending status until a geologist purposefully accepts the data, preventing the usage of data that has not undergone QA/QC review.

Once all data is complete and has been reviewed by the responsible persons, it is reviewed by a senior geologist and signed off on by the Chief Geologist or his/her designate and locked from further editing. A Drill Hole Amendment Form is required to document and approve any changes after the lockdown of the hole. This process ensures the security of all aspects of the drill hole database.

12.2 Comments on Data Verification

The process of data verification for the Project has been performed by external consulting firms from 2007 to present, and by Coeur personnel. Coeur considers that a reasonable level of verification has been completed, and that no material issues would have been left unidentified from the programs undertaken.

The QPs who rely upon this work have reviewed the appropriate reports and are of the opinion that the data verification programs for Project data adequately support the geological interpretations, the analytical and database quality, and therefore support the use of the data in Mineral Resource and Mineral Reserve estimation, and in mine planning:

- No significant sample biases were identified from the QA/QC programs;
- Sample data collected adequately reflect deposit dimensions, true widths of mineralization, and the style of the deposit; and
- External reviews of the database were undertaken in support of acquisitions, feasibility-level studies, and of Mineral Resource and Mineral Reserve estimates, producing independent assessments of the database quality. No significant problems with the database, sampling protocols, flow sheets, check analysis program, or data storage were noted.

13. MINERAL PROCESSING AND METALLURGICAL TESTING

13.1 On-site Assay and Metallurgical Laboratories

In 2010, Kensington built a laboratory on-site for assaying concentrates, in-process samples, and geological samples. In 2011, a metallurgical laboratory was put into service for testing flotation reagents, grind analysis, and characterizing the behavior of new ores as the mine is expanded. The assay laboratory analyzes concentrates, daily mill samples, as well as stope drilling and muck samples. With these two entities available on-site, data from mill samples, bench testing, plant trials, and process parameters changes can be accurately produced and analyzed in real-time.

Metallurgical work carried out in 2012 led to a more efficient and effective reagent dosing strategy, maximizing recovery of target minerals. The improvements made in 2012 continue to pay dividends today, with increased and stabilized plant recovery as well as decreased reagent usage. Current test work is focused on increasing throughput and maintaining recovery rates now that cemented backfill is more common in feed.

13.2 Metallurgical Test Work

13.2.1 Pre-Production Metallurgical Testing

Prior to mill construction at Kensington, six different companies conducted extensive metallurgical testing. Much of the testing focused on processing strategies and their effectiveness on Kensington ore. Milling, gravity separation, and flotation were researched. Flotation testing included flash flotation, locked-cycle testing, and various reagent additions. Additional testing was performed investigating cyanidation of concentrates. The results of this battery of tests were used as a guideline for designing the mill. Metallurgical testing results were consistent in the recommended methods of process design, extraction and recovery estimates.

Flotation test work results indicated a gold recovery range from 91% to 98%. Gold recoveries through cyanidation were also very acceptable but through various considerations it was decided to not be further explored. Ore samples submitted for metallurgical testing represent four individual zones within the mine. Additionally, one composite representing ore to be mined in the first four years and a second composite representing ore to be mined throughout the life of mine were submitted to conduct metallurgical test work.

Metallurgical test work results led to a 1,250 tons of ore per day flotation mill design. Designed mill comprises a standard rougher/scavenger, cleaner/re-cleaner configuration, and supplemented with a gravity circuit. Flotation concentrate would be dewatered via thickening and pressure filtration then bagged in individual 2-ton FIBCs for shipping. The concentrate production was calculated to be 19,516 tons per year.

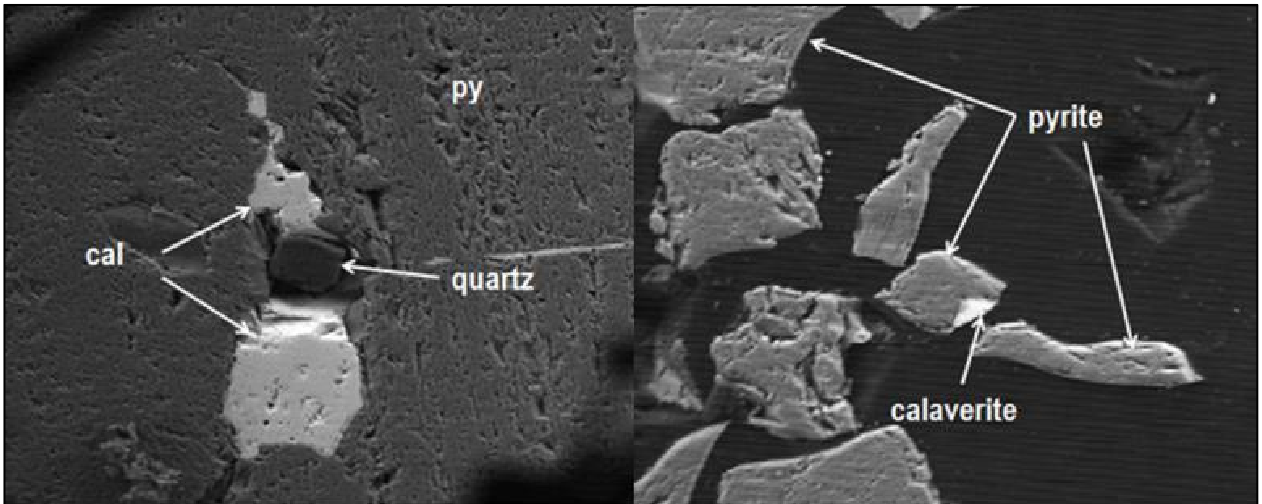
Table 13-1 Kensington Metallurgical Studies (Coeur, 2016)

Title/Year	Facility	Description
Mineralogical Analyses of a Gold Ore Sample from the Kensington Mine, June 1998	Colorado Minerals and Research Institute	Overall mineralogy, liberation/locking characteristics, particle size analyses.
Metallurgical Analyses of a Gold Ore Sample from the Kensington Mine, October 1998	Colorado Minerals and Research Institute	Gold recovery through flotation, gravity and cyanide leaching, cyanide leaching of concentrate, flocculants testing, reagent addition, pilot plant trial, dewatering.
Reagent Analyses Report, 2000	Maxim Technologies, Inc.	Investigation of flotation reagent performance and optimization and reagent degradation study.
Laboratory Metallurgical Testing, 2004	Dawson Metallurgical Laboratories, Inc.	Centrifugal concentrator, reagent addition and dosage optimization, flash flotation, 2nd stage grinding, locked cycle.
Gravity Recoverable Gold, 2005	Knelson Research & Technology Center	Determine the gravity recoverable gold content and distribution through particle size distribution.
Kensington Flotation Tails Project, 2008	Hazen Research, Inc.	Evaluation of alternative tailings disposal methods through pilot plant simulations.
Kensington Flotation Pilot Plant for Kensington Mill, 2009	Hazen Research, Inc.	Evaluation of proposed process designs performance using pilot plant.
Evaluations of Gold Recoveries from Gravity and Flotation Concentrates, 2009	Hazen Research, Inc.	Chemical analyses, mineralogy, intensive cyanidation of gravity concentrate, oxidation roasting, pressure oxidation of flotation concentrates and CIL cyanidation.
Production of Concentrates from a Bulk Sample of Kensington Ore, 2010	G & T Metallurgical Services Ltd.	Pilot plant simulation of proposed process design. Evaluating metallurgical response of ore sample to previously developed process conditions.

13.2.2 Mineralogy Studies

Early testing (1998) by Pittsburgh Minerals and Environmental Technology, Inc. (PMET) on Kensington ore determined that the gold minerals examined were likely either calaverite ($AuTe_2$) or montbrayite (Au_2Te_3) with a particle size between 3 to 20 µm, with the minimum size being less than 1 20 µm. They also suggested the occurrence was primarily intimate association with pyrite and chalcopyrite.

In 2012 Cannon Microprobe in Seattle WA carried out additional mineralogy studies on Kensington ore samples, results confirmed the earlier PMET results. Ore samples and metallurgical samples comprising many different feed sources were included on this microprobe testing. Figure 13-1 shows a microphotograph confirming the overwhelming form of gold present as a telluride, likely the mineral calaverite ($AuTe_2$), and very little in the form of free gold or microscopic, “invisible” gold. The relationship of calaverite to pyrite is either as a rind, an inclusion or as a separate, discrete particle.



Ore Sample – Calaverite Inclusion in Pyrite
250µm field of view   Cannon Microprobe

Ore Sample – Calaverite Rind on Pyrite
250µm field of view   Cannon Microprobe

Figure 13-1 Microprobe Images – Calaverite Inclusion in Pyrite; and Calaverite Rind on Pyrite (Cannon Microprobe, 2012)

13.2.3 Jualin Mineralogy Study

In May 2016, seven core samples (JMT-01 to 07) were selected to represent Jualin Vein #4. These samples were sent to SGS Vancouver for QEMSCAN and gold deportment variability analysis. Results from JMT-01, 02, 03, 05, and 06 indicated that the Jualin Vein #4 samples had significant quantities of native and highly liberated gold minerals. This mineralization differed considerably from typical Kensington run-of-mine ore where gold is generally associated with sulfide minerals and tellurides. QEMSCAN results from JMT-04 and 07 exhibited high gold-sulfide associations which reached as high as 53% for JMT-07.

13.2.4 Jualin Metallurgical Testing

In April 2017, two sets of test holes were drilled to represent Jualin Vein #4 - the first set of holes (four in total) were composited to obtain one 160-pound sample then a second composite was obtained from the second set of holes obtaining one 107-pound sample. These two composites were properly bagged, labeled, and shipped to SGS Vancouver for flotation and gravity test work.

The composites were stage crushed and ground to 55% passing 105 µm to simulate the existing Kensington’s flotation feed size. Each composite was split into subsamples for flotation testing using similar operation conditions as the ones currently in use in Kensington's flotation circuit. The material was floated in three stages, achieving recoveries for all tests performed (>96%). Initial mass pulls were high, then tapered down to match current mill performance. Table 13-2 summarizes SGS's Jualin Metallurgical Test work results.

Table 13-2 Jualin Metallurgical Testwork (Coeur, 2018)

Flotation Product	Composite #1						Composite #2
	Test #1 (MC-F2)		Test #2 (MC-F3)		Test #3 (MC-F4)		Test #1 (MC2-F1)
	Au	Ag	Au	Ag	Au	Ag	Au
Feed grade (opt)	0.11	0.128	0.088	0.122	0.093	0.133	0.266
Concentrate grade (opt)	1.019	1.074	1.99	2.50	2.467	3.229	6.843
Tailings grade (opt)	0.003	0.016	0.003	0.016	0.003	0.016	0.006
Overall Recovery, %	97%	89%	97%	88%	96%	88%	98%
Mass Recovery, %	10.5		4.3		3.6		3.8

In November of 2017, a bulk sample of Jualin ore was run through the mill to determine actual mill performance. Totalizer readings for the campaign showed 1,495 wet tons (1,418 dry tons) of material at a head grade of 0.115 opt Au. The calculated contained ounces were 162 ounces Au with 156 ounces Au recovered for 95.8% recovery. Flotation recovery results indicate that the existing circuit can recover the Jualin material to a high degree with minimal gold losses.

Despite the positive flotation performance shown by Jualin Vein #4 ore, the existing (but not utilized) Knelson Concentrator in the mill has been refurbished and will be re-incorporated into the grinding circuit. The Knelson Concentrator will be available in case the flotation performance of Jualin ore varies from the samples tested. Flow to the Knelson Concentrator will be optional and controlled by valves. Engineering for this addition is currently underway.

13.3 Recovery Estimates

Colorado Minerals and Research Institute performed metallurgical testing on six composite ore samples. Samples submitted for testing were representative of the material described in the sample identifications:

Sample identification and estimated gold recovery:

- Zone 10/20 (mine zones): 91.9% - 94.2%
- Zone 30 & Zone 41 (mine zones): 95.4% - 97.7%

- Composite 1 (representing ore 1-4 years of mine life): 91.7% - 98.9%
- Composite 2 (representing ore for overall mine life): 91.9% - 94.2%

Recent test work conducted by SGS Vancouver on Jualin representative ore composites indicated that gold recovery over 96% is achieved via crushing-grinding-flotation processing methodologies.

Recoveries estimated by multiple metallurgical test work carried out on different ore samples representing Kensington and Jualin ore bodies have been consistent with the results obtained in the flotation circuit since shortly after mill start up.

13.4 Metallurgical Variability

Metallurgical test results obtained from several test work programs conducted during the past two decades show low variability between several different locations with respect to gold recovery. This low variability has been verified through the mill performance during the last six years.

13.5 Deleterious Elements

Based on extensive operating experience and test work, there are no known processing factors of deleterious elements that could have a significant effect on the economic extraction of the current Mineral Reserves.

13.6 Comments on Mineral Processing and Metallurgical Testing

Industry-standard studies were performed as part of process development and initial Kensington Mine mill design. Subsequent production experience and focused investigations, as well as marketing requirements, have guided mill process improvements and changes.

Test work programs, both internal and external, continue to be performed to support current operations and potential improvements.

The QPs reviewed the information compiled by Coeur, as summarized in Section 13, and performed a review of the reconciliation data available to verify the information used in the LOM plan.

Based on these checks, in the opinion of the QPs, the metallurgical test work results and production data support the estimation of Mineral Resources and Mineral Reserves:

- The metallurgical test work completed on the Project has been appropriate for optimizing processing conditions and routes for proper process operation;

- Tests were performed on samples that are representative for the deposit and its mineralogy;
- Recovery factors estimated are based on appropriate metallurgical test work and confirmed with production data; and
- Recovery factors are appropriate to the mineralization types and the selected process route.

14. MINERAL RESOURCE ESTIMATES

14.1 Resource Estimates

The Mineral Resources were estimated and classified as of December 31, 2017, in accordance with the 2014 CIM Definition Standards on Mineral Resources and Mineral Reserves and the 2003 CIM Best Practice Guidelines. The reported Mineral Resources, estimated by Coeur Alaska staff, are shown in Table 14-11. Resource estimates are reported by zone and summarized by mining region. Resources have been provided for the Kensington, Raven, and Jualin deposits. All work was completed under the supervision of the QP.

Figure 14-1 shows a plan view of mineralized systems included in the resource and a schematic cross-section through Raven and Kensington, looking north.

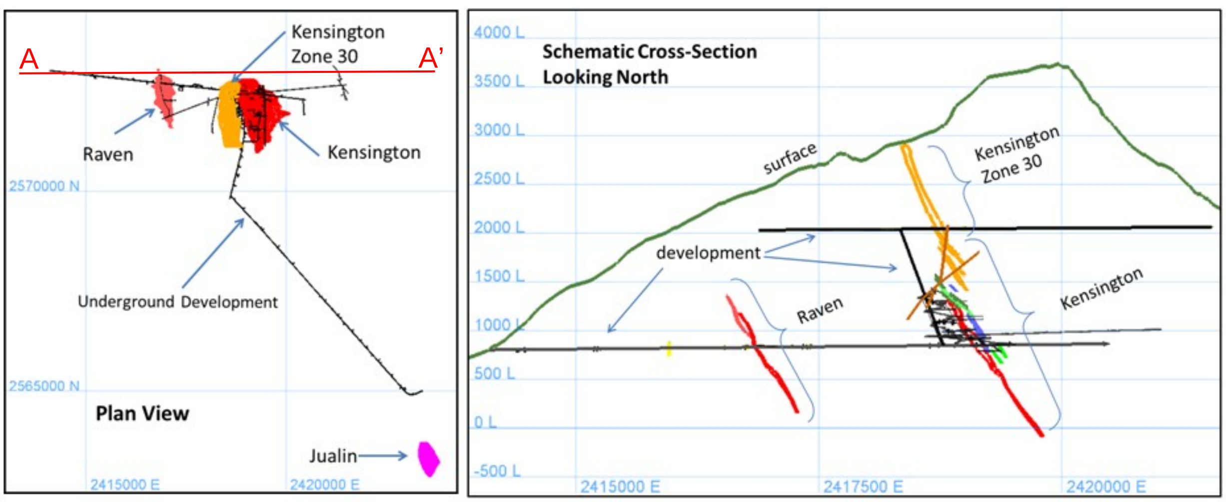


Figure 14-1 Plan and Cross-Section View of the Mineralized Systems Included in the Resource (Coeur, 2016)

14.2 Drill Hole Database

The drill hole database is maintained in acQuire® database software and exported in Vulcan's™ ISIS format for resource estimation using Vulcan™ mining software. The primary database tables utilized for the resource estimate are collar, downhole survey, and assay, with reference to other geologic tables, as needed. Core logs and core photos also provide geologic data. Drill hole collar-coordinate issues, suspicious downhole survey data, missing samples, and anomalous samples were noted, checked, and corrected as needed. The entire drill hole database was exported for each deposit, and the holes relevant to that model were analyzed and utilized for the resource estimate.

14.2.1 Kensington Data

The drill hole database used for the 2017 Kensington model was exported on May 31, 2017, and includes 2,690 drill holes that intersect the main Kensington vein system. An additional 1,747 drill holes were excluded from the resource estimate either because they were assayed at a non-certified laboratory or because they did not intersect the wireframes outlining the mineralization. Excluded holes were used as a reference during the building of the wireframes outlining the mineralization. Compared to the database used in the 2016 resource estimation (2,571 holes), 119 new holes were added to the database that intercept the mineralization.

Of the samples used for the resource modeling, there are 40,849 sample intervals representing 152,366 feet of drilling in 2,690 holes.

Channel samples were collected in a small portion of the development in the Kensington vein system prior to 1991. These data are not currently in the maintained acQuire® database. These data are not deemed to be useful data in the estimation process.

14.2.2 Raven Data

The drill hole database used for this model was exported on June 22, 2017. As of that date, the database included 331 holes, which intercept the Raven vein system, with 2,293 feet in 704 samples intersecting the wireframes containing modeled mineralized material and 11,600 feet in 3,004 samples intersecting the modeled dilution halo.

Channel sample data were collected in the Raven vein system in 1992 on the 825 Level, and from 2013 to present on the all eleven Raven sublevels. The channel sample database is maintained separately from the drill hole database and was exported from acQuire® on June 22, 2017. All assays are from the uncertified lab on-site. Channel samples from 1992 were assayed in a certified lab but are not currently maintained in the acQuire® database.

Due to the level of detail and care in the sampling protocol as described in Section 11.1.2, the channel sample data are very useful in precisely placing the ore boundaries and in validating the block model grades; however, channel sample data were not used in the estimation of grades in blocks.

14.2.3 Jualin Data

The Jualin drill hole database consists of 450 drill holes, 86 of which intersect Vein #4. This includes 114 historic holes drilled in the 1980s and 1990s, which primarily targeted areas in Veins 1, and 2 that had historic production from the early 1900s. The historic holes have insufficient QA/QC control on grade or drill hole location; however, recent drilling on Vein #4 is returning grades like that found in historic drilling on this vein.

Subsequent programs completed by Coeur (2005-2017) have QA/QC documentation for location and grade.

The 2016-2017 drilling programs were completed by Timberline Drilling Inc. Core logging and sampling was completed by experienced geologists under supervision of the Coeur exploration department. Downhole surveys were collected using a Reflex Gyro tool operated by Timberline Drilling and were checked for quality by Coeur exploration geologists. Coeur surveyors collected final collar locations. Only drill holes that meet Coeur's QA/QC standards are utilized in the Jualin resource estimation process, thus all holes prior to 2005 have been excluded.

14.3 Kensington Resource Model

14.3.1 Resource Model Methodology – Kensington

The Kensington resource model currently contains a total of 51 mineralized zones, which define the domains used in the estimation process. The mineralized zones are separated from each other either by faults, significant intervals of non-mineralized material, or display different styles of mineralization. Some zones overlap others, but the estimation process prevents double counting of tons or ounces.

Three-dimensional (3D) models of the mineralized zones were created using Vulcan™ mining software (Vulcan™) and Leapfrog Geo (Leapfrog) geological modeling software. Initially, polygons outlining the mineralized zone boundaries were digitized on vertical east-west sections space 25 feet apart, perpendicular to the overall strike of the drill hole intercepts. A few updates were also completed on the triangulations by moving vertices and snapping them to new grade intercepts. Finally, Leapfrog was used to create new domains through implicit modeling and requires significant diligence in geologic investigation before the procedure can be completed.

In creation of these mineralized zones all the geologic evidence available is considered. Alteration, vein density, sulfide content, and structure all play key roles in the delineation of ore boundaries. Assay grade is also a direct representative of a domain, as it is an extremely accurate geochemical indicator of the extent of mineralization. Often, as has been seen extensively underground, there can be significant alteration, veining, and sulfide content with no associated gold. This can lead geologists to create domains around vein geology, which is inaccurate in that it incorporates non-ore zone samples into the zone. Many of the ore zones are bounded by medium and at times high density barren veining that can also contain sulfides.

Two mine-scale structures intersect and offset the Kensington vein system (Figure 14.2). The mineralization offset across these structures is modeled in separately named wireframes to ensure that grade is not spread across faults during the estimation process.

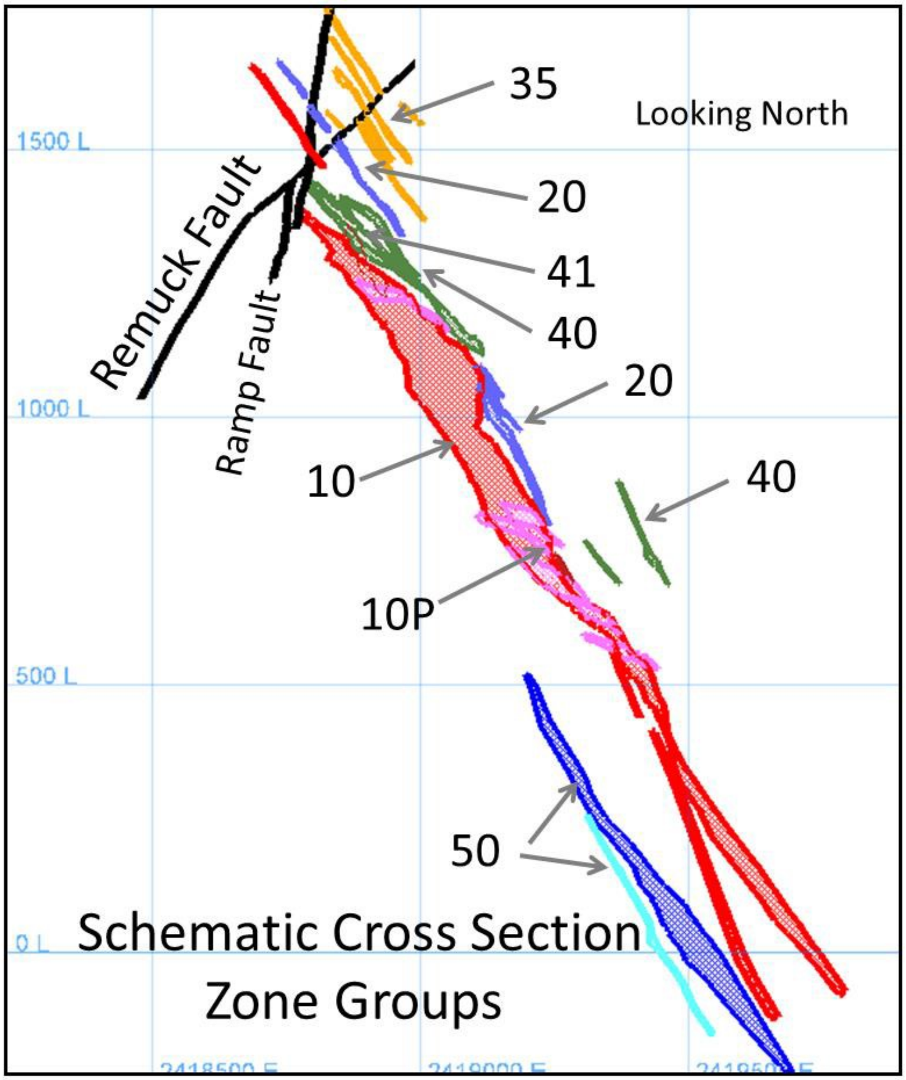


Figure 14-2 Schematic Cross-Section showing Kensington Zone Groups (Coeur, 2016)

Domains are grouped into zones based on geology and spatial location. The largest of these, the Zone 10 group, comprises 41% of the total tons within mineralized wireframes above economic cutoff.

Mineralized zones are grouped according to spatial relationships and geology into "Zone Groups" as described in Table 14-1, and illustrated in Figure 14-2 and Figure 14-3. These zone groupings are used for assigning parameters during the estimation process.

Table 14-1 Zone Group Descriptions (Coeur, 2016)

Zone Groups	Number of Shapes	Description
10, 10S, 12	15	Main wide vein array system; contains separately modeled splays (10S). Zone 12 is included here, as it is the southern extension of Zone 10 due to its similar spatial and geological features.
10P	12	High grade pods, internal to Zone 10, but which can extend out into the hanging wall and footwall of Zone 10. More pronounced below 850-foot elevation.
20	3	Weak vein swarms in the immediate hanging wall of Zone 10.
30	1	Upper wide vein array system; similar in nature to zone 10, but defined by a decreased vein density and lower grade.
35	9	Vein swarms with some discontinuous high angle shear veins, in the hanging wall of the other zone groups.
41	7	Large, high grade shear vein in the immediate hanging wall of Zone 10.
50	4	Vein swarms in the footwall of Zone 10 and to the south, the strike deviates east compared to zone 10. Includes a halo of low-grade material, which is Inferred.

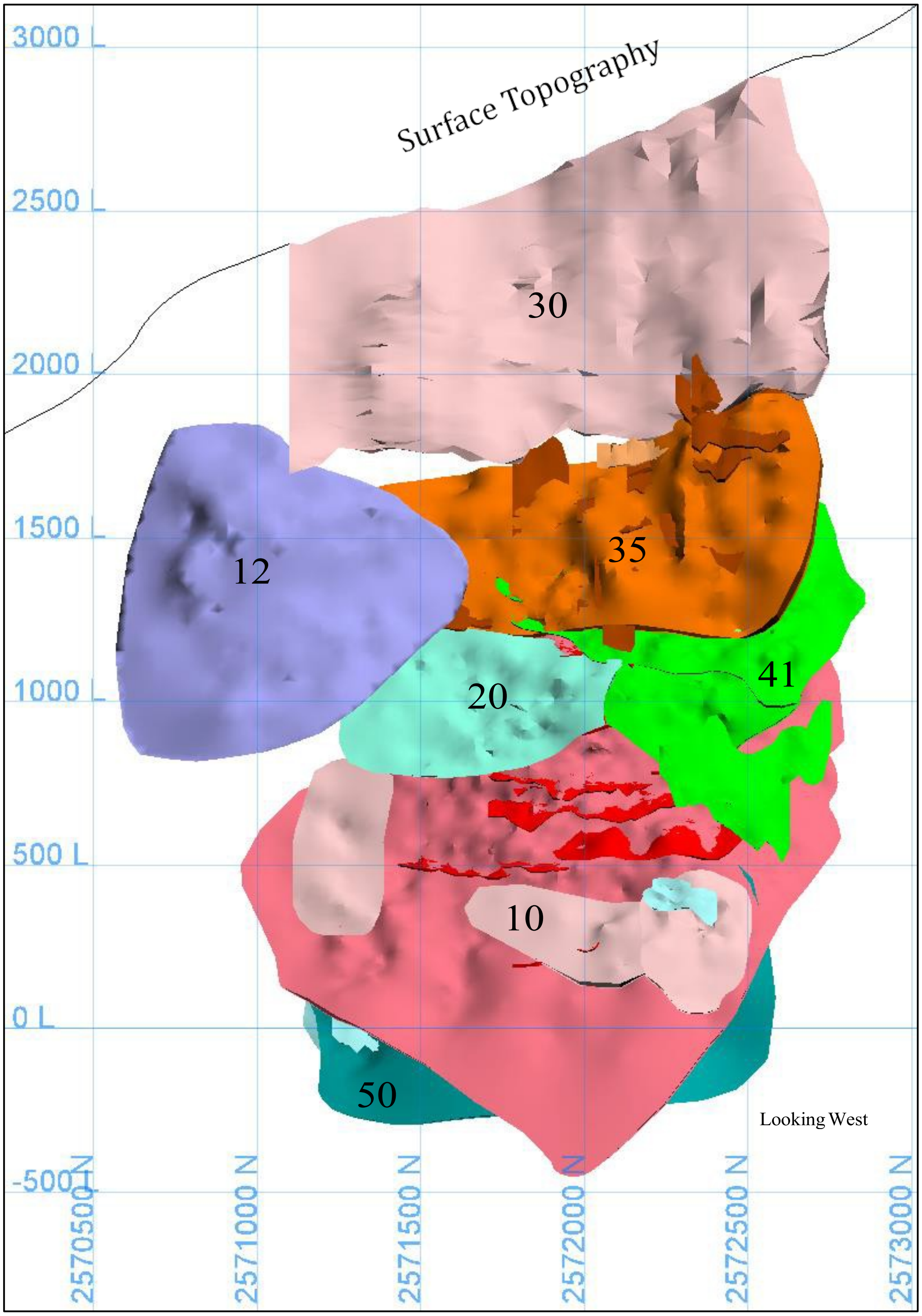


Figure 14-3 Longitudinal Section looking West, showing Zone Groups (Coeur, 2016)

Portions of Zone 10 contain internal shallow-dipping pods of increased vein density and grade which can be easily delineated, primarily in the wider sections below 850-foot elevation. The pods can be traced with confidence for hundreds of feet along trend (north-south strike with a very shallow southern plunge). These pods are used as estimation domains to represent the distribution of grade within Zone 10, as shown in Figure 14.4. Samples are only used to estimate blocks within the same domain.

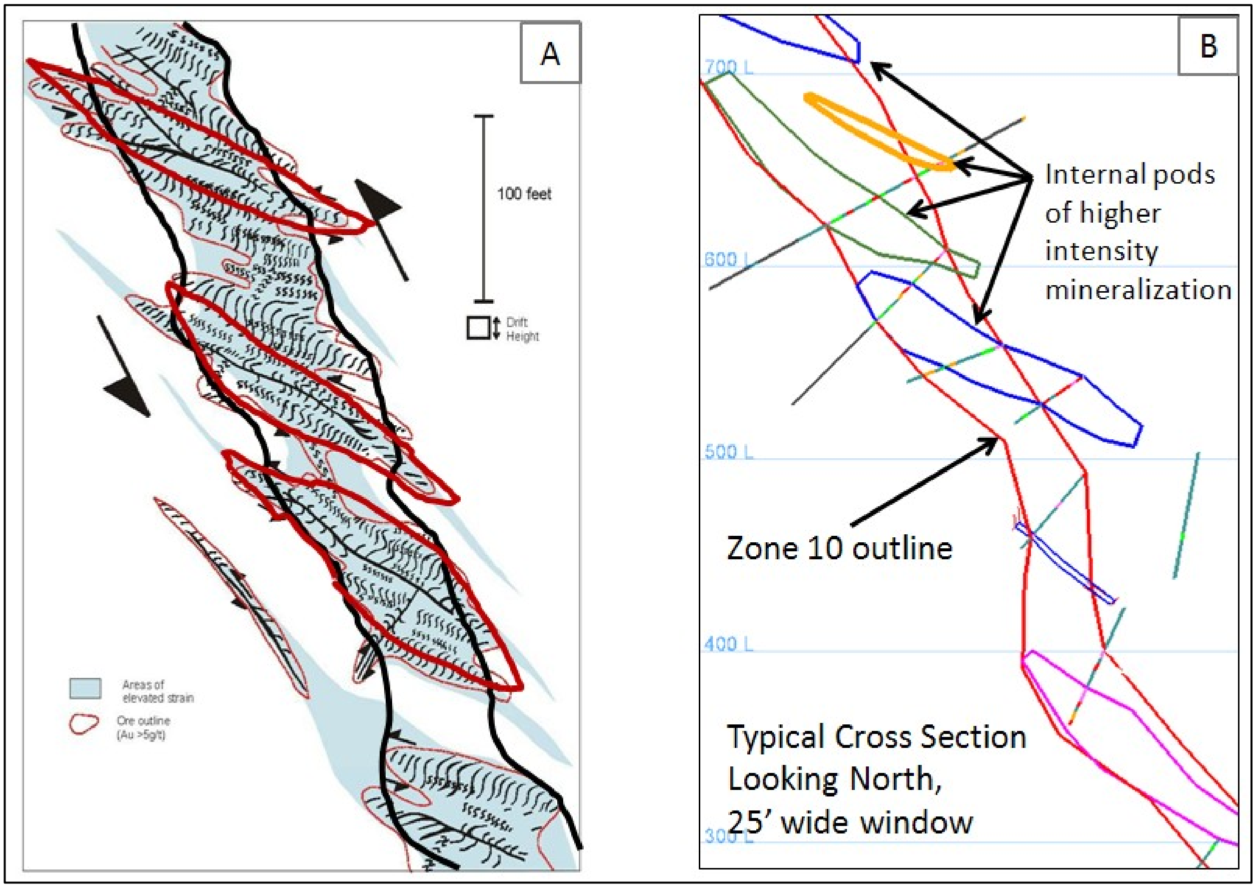
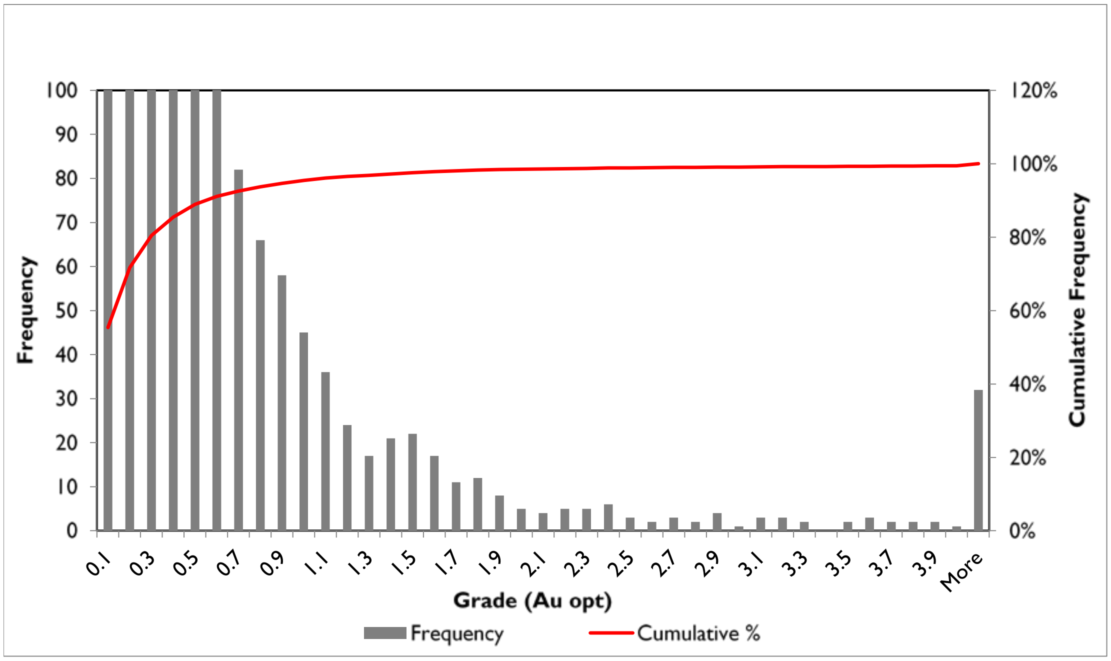


Figure 14-4 Schematic Cross-Sections (Rhys, 2010) (modified here with thick black and red outlines) (A), Actual Zone 10 Modeling (B) (Coeur, 2016)

14.3.2 Drill Hole Assay Statistics – Kensington

Probability plots and histograms were generated for raw assays for each Kensington zone group. Zone 41 has the highest overall average grade (>0.4 opt Au), while the Zone 35 and Zone 10 pods and splays average around 0.35 opt Au. Zones 20 and 50 (associated with Zone 10) average around 0.2 opt Au. General statistics are presented in Table 14-2. Note that in Table 13, the zero values are due to values below 0.0005 opt Au being rounded down. A raw histogram and probability plot are shown in Figure 14-5.

Samples with pending assays are assigned a value of -99 in the database and so are ignored for the statistics calculation. Domain 350 and 503 values have also been excluded from the statistics as they represent low grade halos and not cohesive geologic domains.



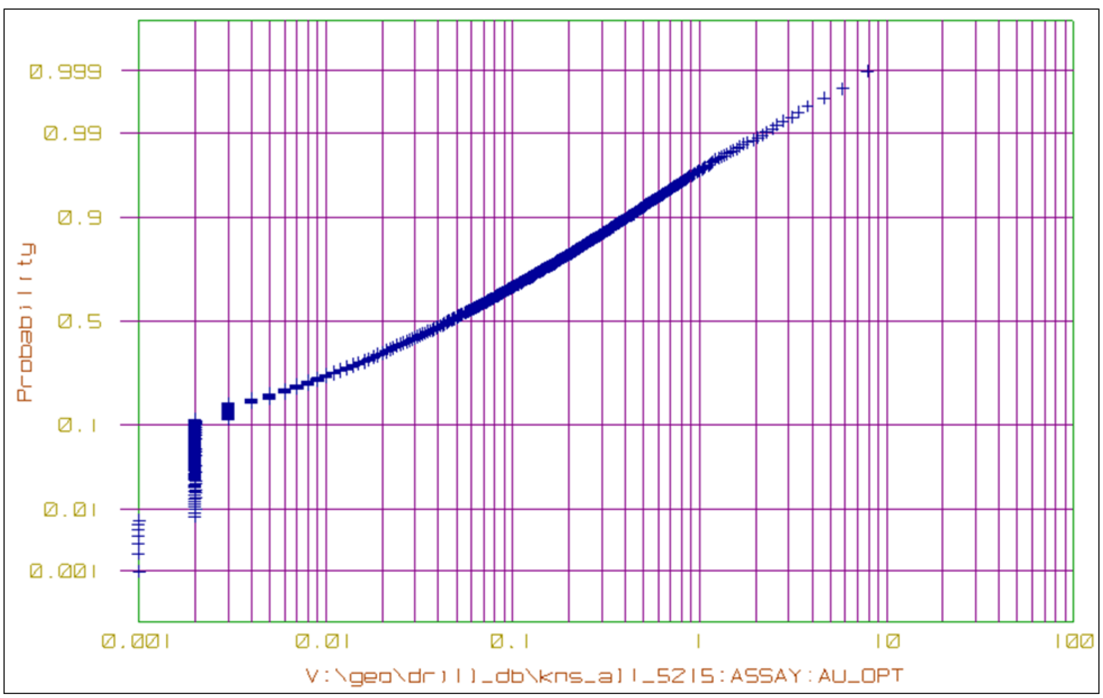


Figure 14-5 Raw Histogram and Probability Plot, Zone 10 Shear Pods (Coeur, 2018)

Table 14-2 Basic Statistics by Zone Group in Kensington (Coeur, 2018)

Zone Group	10	10 Pods	12	20	30	35	41	50
No. of samples	16,480	1,602	590	1,487	2,188	984	2,846	1,396
Sample Length (ft.)	61,556	5,900	978	5,544	7,904	3,520	10,068	4,919
Average	0.19	0.36	0.34	0.17	0.16	0.32	0.41	0.21
Length Wt. Avg. (opt	0.17	0.32	0.28	0.15	0.12	0.27	0.36	0.18
Minimum	0	0	0	0	0	0	0	0
Q1	0.01	0.06	0.01	0.01	0	0.02	0.01	0.01
Median	0.05	0.16	0.08	0.05	0.02	0.1	0.08	0.05
Q3	0.16	0.34	0.29	0.15	0.1	0.25	0.25	0.16
Maximum	20.1	10.4	14.66	7.7	9.17	31.6	19.52	10.4
Variance	0.22	0.41	0.58	0.12	0.12	1.08	1.11	0.22

14.3.3 Compositing – Kensington

The drill hole database was flagged to identify which samples lay within each modeled zone shape. For sample assignment (and block assignment) Zone Group 10P (internal high-grade pods) took higher priority than other shapes, and splays took lowest priority when they overlapped other zones. Zones 41 and 10 took higher priority than other zones.

Raw assays were capped at values ranging from 2.0 to 5.0 opt Au, depending on the statistics of the zone groups. Capping affected 90 samples of 25,415 total within domains, excluding halos. About 3.4% of total gold ounces were affected by capping. Caps were determined by a study of the exploratory data analysis, general statistics, histograms, log normal probability plots and reconciliation data.

Drill holes were composited at 5 -foot intervals down the holes, with intervals broken at changes in flagged zone codes. A 5-foot composite length was chosen as it represents the most common sample length preventing samples from being split. Un-sampled intervals were assigned the lower limit of detection for the fire assay procedure from ALS (0.0015 OPT). Pending assays were excluded from the compositing process.

14.3.4 Geostatistics – Kensington

Variograms were calculated for separate groupings of domains because individual domains have insufficient number of samples to construct a valid variogram model. Zone 10 main contains the most sample data and therefore produced the most robust variogram model. An omni- directional variogram was used to create a well-informed result, as the zones can be discrete and have varying orientations from which strong directional results can be difficult to obtain. The major axis orientation was derived from extensive geologic mapping. Most of ore bearing veins have a strike orientation within the range of 350° to 15°. The zone dip varies from -42° to -65°. Two structures were modeled for the variogram. The range of the first structure is 15 feet, with a sill of 0.45. The second structure, which is also the major axis, is aligned with the average vein strike, and was calculated as 70 feet, with a sill of 0.15. The semi-major axis, aligned with the dip of the domain, is 42 feet. The minor axis, which transects the zone in the shortest dimension, is 21 feet. The nugget: sill ratio is 1:1.5. Figure 14.6 shows the variogram model for Zone 10.

Variogram models were created for seven other zone groups in the Kensington deposit. Though these areas have significantly less data, all the parameters of the modeled structure were within a close range to the Zone 10 variogram model.

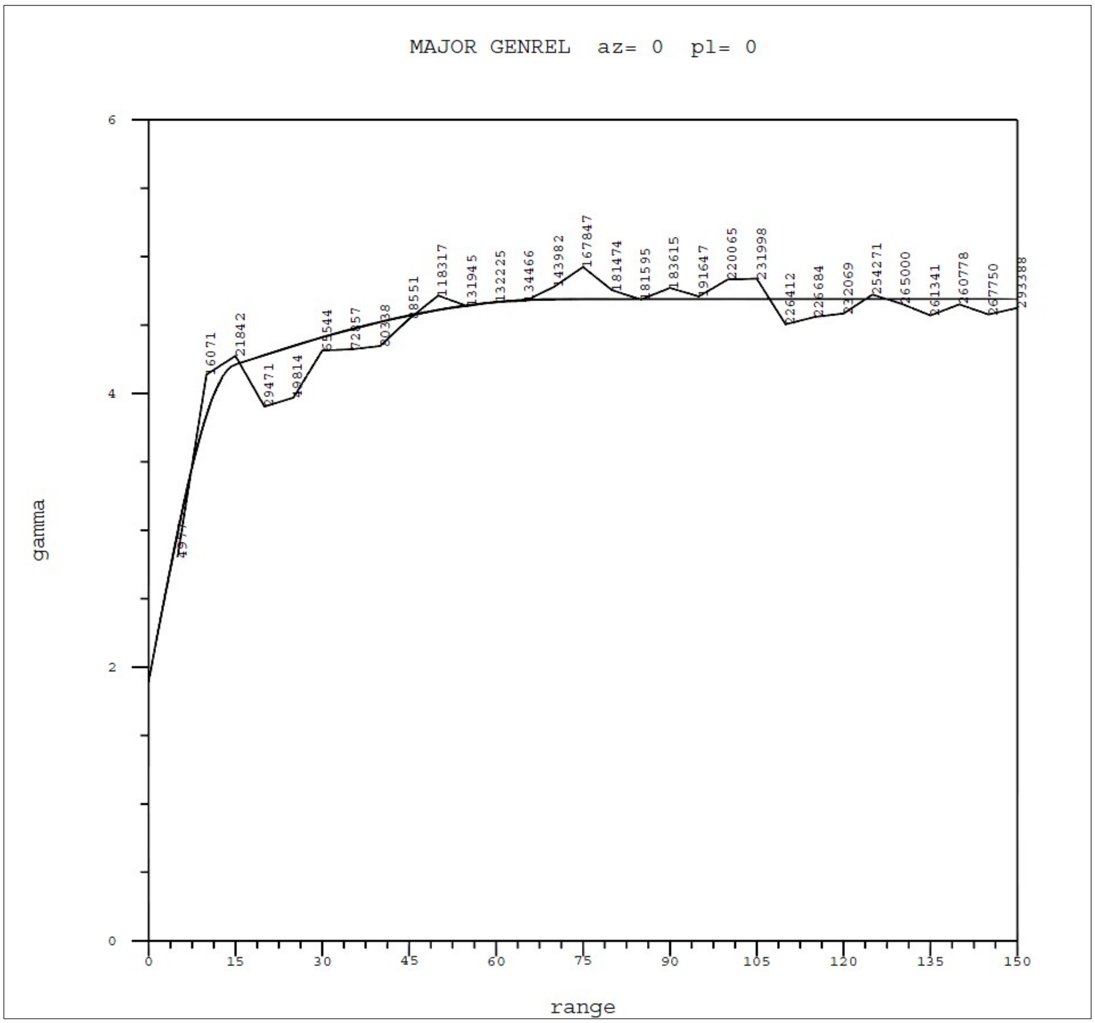


Figure 14-6 Sample Variogram - Zone 10 (Coeur, 2016)

14.3.5 Block Model – Kensington

The Kensington resource model ranges from -880 feet to 3120 feet in elevation, from 2418150 E to 2420150 E, and 2570400 N to 2573030 N. All mining, surveying, and drill hole location collection use a local NAD 1927 State Plane Alaska 1 FIPS 5001 coordinate grid.

The parent block size is 10 × 10 × 10 feet and is sub-blocked down to 1 × 5 × 5 feet at domain boundaries, as needed. The block size was chosen with consideration to the smallest mining unit (SMU) and the drill hole density. Relevant block fields are described in Table 14-3. Estimation was done in the parent blocks, therefore sub-blocks, which lie within the same parent block have the same grade. The sub-block size was chosen to provide resolution along domain boundaries, as many of the domains have high angle dips.

Table 14-3 Block Model Variables (Coeur, 2018)

Variable	Default	Data-Type	Description
domain	0	Short	Estimation domain
zone	0	Short	Domains grouped into zones
au_geo	-99	Float	Au from certified sample data
au_all	-99	Float	Gold grade estimated using all drilling
au_res	-99	Float	Au with un-estimated blocks assigned analysis LLD (0.0015 OPT)
flag_r	0	Byte	Estimation pass flag
nsamp_r	0	Byte	Number of composites
dist_r	999	Float	Average distance to composites
dist_n	999	Float	Distance to nearest composite
nholes_r	0	Byte	Number of holes used per block
class_r	0	Byte	Resource classification using only certified lab, results
class_a	0	Byte	Resource classification using all drilling
insitu	100	Integer	Percent of block mined out
keff	-99	Float	Kriging Efficiency
kvar	-99	Float	Kriging Variance
bvar	-99	Float	Block Variance
slope	-99	Float	Slope of Regression

14.3.6 Estimation Method – Kensington

Gold grades were estimated into blocks using 5-foot composite grades using OK. Blocks within each domain were estimated using only composites from within that domain. The primary search ellipse for Zone 10 is 63 × 38 × 19 feet. The ellipse dimensions are a product of variography and reconciliation. Each zone group has different dimensions based on results from the respective variogram models. The major axis is oriented roughly north- south, congruent with the average vein strike orientation. The semi-major axis is dipping - 55 degrees. Strike and dip varies for each zone group to coincide with domain and vein orientations. Detailed estimation parameters and the summary estimation parameters are listed in Table 14-4 and Table 14-5, respectively. A three-pass estimation approach was used for each domain. The ellipse search ranges for each zone group are listed in Table 14-5. OK was used because it was deemed appropriate for the data set after analyzing the geostatistics. Certain precautions were taken to reduce the significant effect high grade samples can have on an estimation. These include:

- The restriction on maximum number of composites per drill hole to prevent smearing of high grade;
- Assay capping, as detailed under the compositing section, reduces the influence of isolated high-grade samples; and
- High grade restrictive search ellipse. Any sample over a certain cut-off value was restricted from having an influence beyond half the original search ellipse size.

Table 14-4 Detailed Estimation Parameters (Coeur, 2018)

File Name	Domain	Zone Group	Zone	Priority	Cap	HiLim	Azi	Dip	C0	C1 Sill Diff	C1 Range	C2 Sill Diff	C2 Range
z10.00t	100	Z10	10	4	3	2	0	-50	0.4	0.3	15	0.15	65
z10_p1.00t	101	Z10 Pods	10	3	3	2.4	15	-55	0.2	0.9	25		
z10_p10.00t	102	Z10 Pods	10	3	3	2	5	-70	0.2	0.9	25		
z10_p11.00t	103	Z10 Pods	10	3	3	2	0	-60	0.2	0.9	25		
z10_p12.00t	104	Z10 Pods	10	3	3	2	15	-65	0.2	0.9	25		
z10_p2.00t	105	Z10 Pods	10	5	4.5	2.4	15	-35	0.2	0.45	25	0.32	100
z10_p3.00t	106	Z10 Pods	10	5	4.5	2.4	15	-35	0.2	0.45	25	0.32	100
z10_p4.00t	107	Z10 Pods	10	5	4.5	2.4	15	-35	0.2	0.45	25	0.32	100
z10_p5.00t	108	Z10 Pods	10	5	4.5	2.4	15	-35	0.2	0.45	25	0.32	100
z10_p6.00t	109	Z10 Pods	10	5	4.5	2.4	15	-35	0.2	0.45	25	0.32	100
z10_p7.00t	110	Z10 Pods	10	5	4.5	2.4	15	-35	0.2	0.45	25	0.32	100
z10_p8.00t	111	Z10 Pods	10	5	4.5	2.4	15	-35	0.2	0.45	25	0.32	100
z10_p9.00t	112	Z10 Pods	10	5	4.5	2.4	15	-35	0.2	0.45	25	0.32	100
z10_s1.00t	113	Z10 Splays	10	5	4.5	2.4	15	-35	0.2	0.45	25	0.32	100
z10_s2.00t	114	Z10 Splays	10	5	4.5	2.4	15	-35	0.2	0.45	25	0.32	100
z10_s3.00t	115	Z10 Splays	10	5	4.5	2.4	15	-35	0.2	0.45	25	0.32	100
z10_s4.00t	116	Z10 Splays	10	5	4.5	2.4	15	-35	0.2	0.45	25	0.32	100
z10_s5.00t	117	Z10 Splays	10	2	3	1.6	0	-55	0.6	0.63	25		
z10_s6.00t	118	Z10 Splays	10	2	3	1.6	350	-55	0.6	0.63	25		
z10_s7.00t	119	Z10 Splays	10	2	3	1.6	35	-65	0.6	0.63	25		
z10a.00t	120	Z10	10	2	3	1.6	0	-65	0.6	0.63	25		
z10b.00t	121	Z10	10	2	3	1.6	0	-65	0.6	0.63	25		
z10b_s1.00t	122	Z10 Splays	10	2	3	1.6	0	-35	0.6	0.63	25		
z10b_s2.00t	123	Z10 Splays	10	2	3	1.6	0	-55	0.6	0.63	25		
z10c.00t	124	Z10	10	2	3	2.4	20	-55	0.6	0.63	25		

File Name	Domain	Zone Group	Zone	Priority	Cap	HiLim	Azi	Dip	C0	C1 Sill Diff	C1 Range	C2 Sill Diff	C2 Range
z10d.00t	125	Z10	10	2	3	1.8	0	-65	0.6	0.63	25		
z10d_s1.00t	126	Z10 Splays	10	2	3	1.6	15	-65	0.6	0.63	25		
z12.00t	128	Z12	12	3	3	1.5	0	-65	0.6	0.8	100		
z20.00t	200	Z20	20	3	2	2	0	-55	0.6	0.45	100		
z20a.00t	201	Z20	20	3	2	2	0	-55	0.6	0.45	100		
z20b.00t	202	Z20	20	3	2	2	0	-55	0.6	0.45	100		
z30.00t	300	Z30	30	3	2	1	0	-45	0.4	0.6	60		
z35.00t	350	Z35	35	2	2	1.6	0	35	0.4	0.42	26	0.343	45
z35_p1.00t	351	Z35	35	3	5.5	2.4	0	-55	0.6	0.45	125		
z35_p2.00t	352	Z35	35	3	5.5	1.6	0	-55	0.6	0.45	125		
z35_p3.00t	353	Z35	35	3	5.5	1.6	0	-55	0.6	0.45	125		
z35_p4.00t	354	Z35	35	3	5.5	2	0	-55	0.6	0.45	125		
z35_p5.00t	355	Z35	35	3	5.5	1.6	0	-35	0.4	0.42	26		
z35_p6.00t	356	Z35	35	3	5.5	2	0	-45	0.5	0.55	50		
z35_p7.00t	357	Z35	35	3	5.5	2	0	-45	0.5	0.55	50		
z35_s1.00t	358	Z35	35	2	5.5	2	0	-45	0.5	0.55	50		
z41.00t	410	Z41	41	3	6	4	0	-45	0.5	0.43	30		
z41_s1.00t	411	Z41	41	3	6	3	0	-50	0.5	0.43	30		
z41_s2.00t	412	Z41	41	3	6	2.8	358	-55	0.5	0.43	30		
z41_s3.00t	413	Z41	41	3	6	2	352	-55	0.5	0.43	30		
z41a.00t	414	Z41	41	2	6	2	0	-30	0.5	0.43	30		
z41b.00t	415	Z41	41	2	6	4	10	-40	0.5	0.43	30		
z41c.00t	416	Z41	41	2	6	3.2	352	-45	0.5	0.43	30		
z50.00t	500	Z50	50	4	3	2.4	25	-55	0.4	0.45	75		
z50_halo.00t	501	Z50	50	4	3	1.2	0	-55	0.4	0.45	75		
z50_s1.00t	502	Z50	50	3	3	2.4	20	-60	0.4	0.45	75		
z50a.00t	503	Z50	50	2	3	2	0	-45	0.4	0.45	75		

Table 14-5 Summary of Kensington Estimation Parameters (Coeur, 2018)

Zone Group	Estimation Pass	Search Radii			Orientation			Sample		Max Sample per Hole	Cap (opt Au)	Classification for Indicated
		Major	Semi-Major	Minor	Azi	Plunge	Dip	Min	Max			
Zone 10	1	65	38	19	0 to 15	0	-55 to -70	4	15	3	3	Nearest Sample ≤75', with >2 drill holes and >4 samples utilized not estimated in pass 3
	2	130	76	38				3	15	2		
	3	250	150	100				4	15	3		
Z10 Splays	1	45	27	14	350 to 35	0	-35 to -65	4	15	3	3.0 to 4.5	Nearest Sample ≤75', with >2 drill holes and >4 samples utilized, not estimated in pass 3
	2	90	54	28				3	15	2		
	3	135	81	42				4	15	3		
	1	65	38	19	15	0	-35	4	15	3		

Zone Group	Estimation Pass	Search Radii			Orientation			Sample		Max Sample per Hole	Cap (opt Au)	Classification for Indicated
		Major	Semi-Major	Minor	Azi	Plunge	Dip	Min	Max			
Z10 Pods	2	130	76	38				3	15	2	3.0 to 4.5	Nearest Sample ≤75', with >2 drill holes and >4 samples utilized, not estimated in pass 3
	3	195	114	57				4	15	3		
Zone 12	1	75	45	30	0	0	-65	4	15	3	3	Nearest Sample ≤75', with >2 drill holes and >4 samples utilized, not estimated in pass 3
	2	150	90	60				3	15	2		
	3	225	135	90				4	15	3		
Zone 20	1	90	54	27	0	0	-55	4	15	3	2	Nearest Sample ≤75', with >2 drill holes and >4 samples utilized, not estimated in pass 3
	2	180	108	54				3	15	2		
Zone 35	1	90	54	27	0	0	-35 to -55	4	15	3	5.5	Nearest Sample ≤75', with >2 drill holes and >4 samples utilized, not estimated in pass 3
	2	100	60	30				3	15	2		
	3	270	162	81				4	15	3		
Zone 41	1	90	54	27	350 to 10	0	-30 to -55	4	15	3	6	Nearest Sample ≤75', with >2 drill holes and >4 samples utilized, not estimated in pass 3
	2	180	108	54				3	15	2		
Zone 50	1	50	30	15	0 to 25	0	-55 to -60	4	15	3	3	Nearest Sample ≤75', with >2 drill holes and >4 samples utilized, not estimated in pass 3
	2	120	80	50				3	15	2		
	3	200	160	80				4	15	3		
Z50 Halo	1	25	25	25	0	0	-45	4	15	3	3	Forced Inferred
	2	50	50	50				3	15	2		
	3	75	75	75				4	15	3		
Z35 Halo	1	25	25	25	0	0	-35	4	15	3	2	Forced Inferred
	2	50	50	50				4	15	3		
	3	75	75	75				4	15	3		

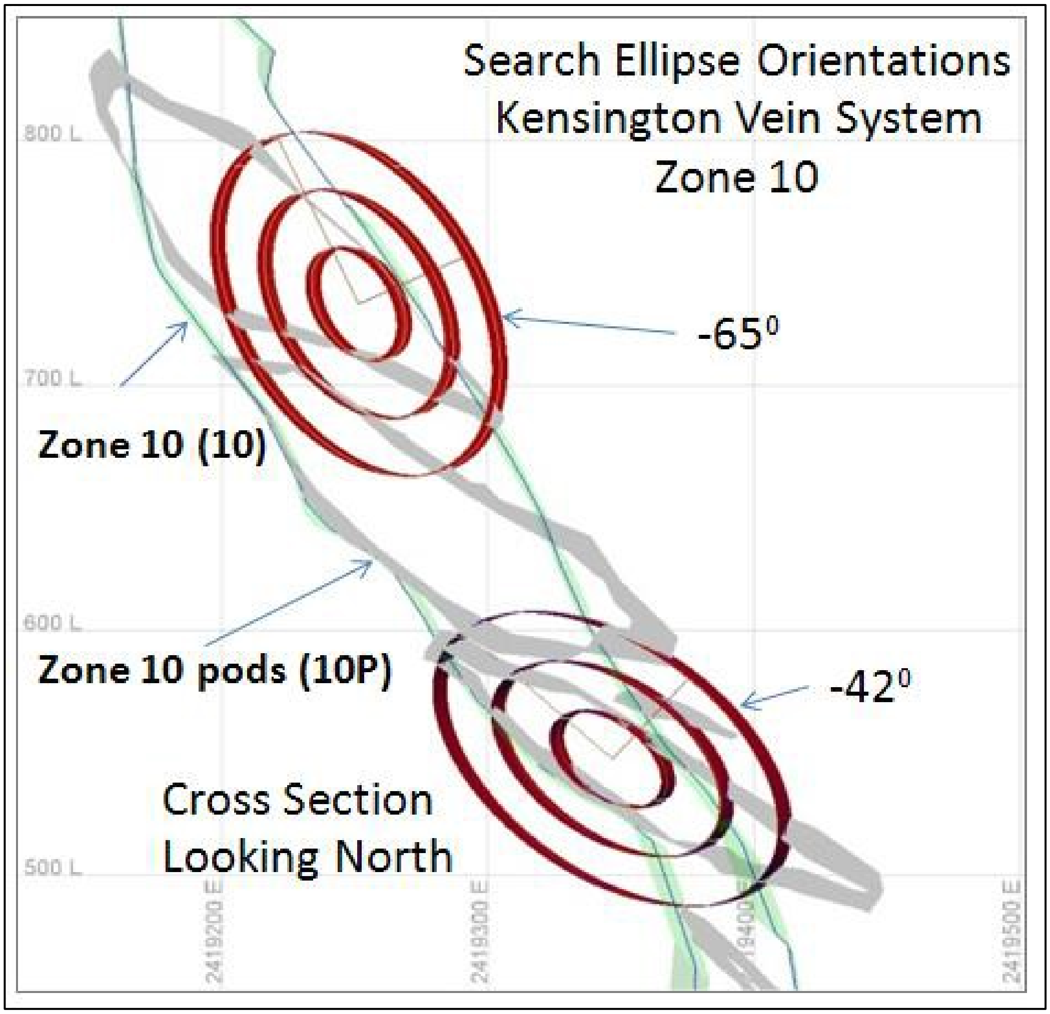


Figure 14-7 First, Second, and Third Searches in Zone 10 (Coeur, 2018)

Figure 14-8 shows a cross-section through 2571660 N in the Kensington deposit, with drill holes and block grades.

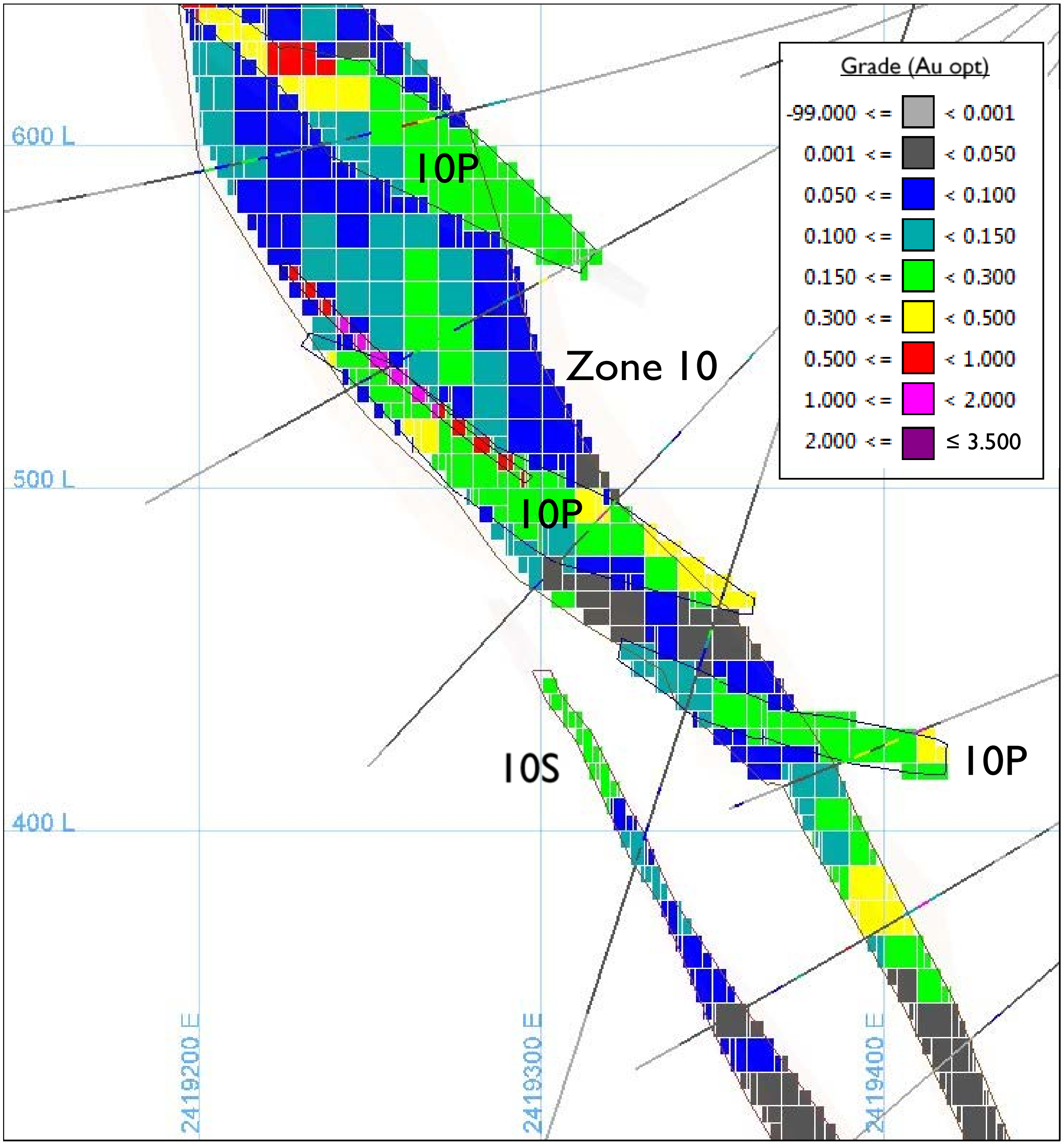


Figure 14-8 Cross-Section at 2571660 N in Kensington Deposit Showing Drillholes and Block Grades (Coeur, 2018)

14.4 Raven Resource Model

14.4.1 Resource Model Methodology – Raven

The Raven vein system is located approximately 2,000 feet west of the Kensington vein system. Most of the grade is in a massive shear vein, in contrast to the mineralization in the Kensington, which is much wider and more complex. Because of the differences between Kensington and Raven, a different wireframing and estimation methodology was used for Raven.

Mineralization occurs on several structures. These include:

- The Main Raven vein (mineralization on the Raven Shear);
- The West Wing Splay (a substantial vein which lies roughly parallel and to the west of the Raven Shear, and which splays out from the Raven vein in and near the 853 Level drift); and
- Three additional small splays.

Mineralization in the Raven vein system is characterized by massive shear-hosted veins and mineralized quartz-veined diorite, which typically envelops the massive veins and grades into un-veined, un-mineralized diorite in the footwall and hanging wall away from the structure. In some intercepts, there is no halo of veined diorite around the massive vein, and in other places the structures have veined diorite that carries grade of interest, but no core of massive vein.

Wireframes were built from polygons built on east-west sections spaced 25 feet apart in areas with good drilling density and 50 feet apart where drill spacing was larger. The intercepts within the wireframes were coded and transferred to Leapfrog Geo, where the shape was re-created. The massive vein wireframe outlines the contiguous massive vein, with only a few interior intercepts in which the massive vein has pinched down and is absent. The envelope wireframe contains the mineralized veined diorite. Also, the domains were snapped to surveyed vein locations in mining drifts, which were delineated by geology, providing high resolutions vein geometry and location information.

The massive vein wireframes take priority over the envelope wireframe in terms of block assignment and composite selection.

As with modeling of the Kensington deposit, polygons are snapped to drill hole intercepts, except in occasional cases when tight drill hole spacing causes technical issues with the wireframe or when drill hole intercepts are not precisely located. In some cases, samples that clearly belong in the mineralized zones lie slightly off trend. When the issue is inaccuracy in drill hole location rather than irregularities in the geology, the wireframes are not snapped to the sample, but projected through the drill hole based on the geology of nearby holes.

Figure 14-9 shows a cross-section through the Raven deposit showing nested models for the massive vein and the mineralized envelope.

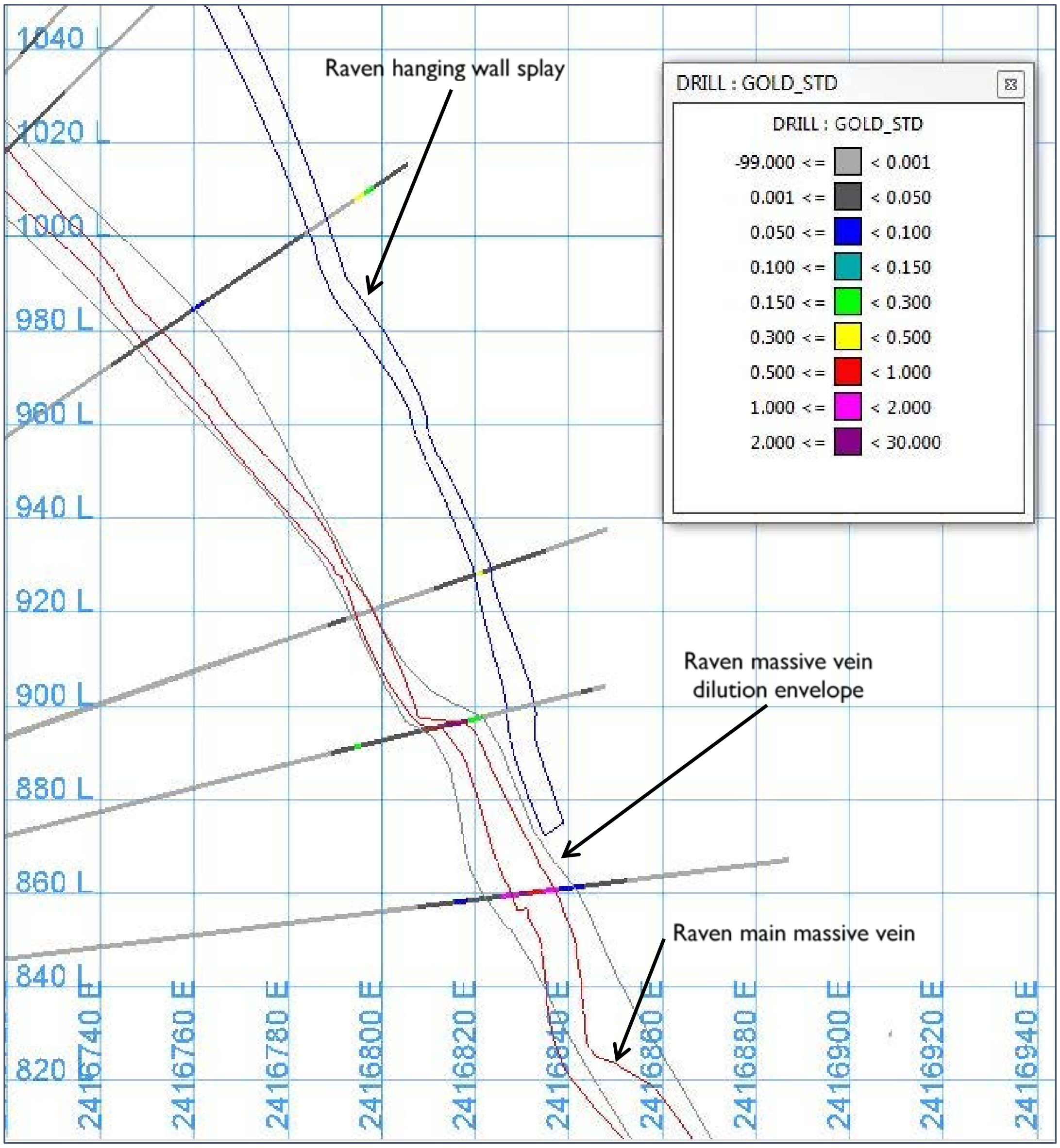


Figure 14-9 Sample Cross-Section through Raven Deposit (looking North) (Coeur, 2018)

Figure 14-10 shows drill intercepts of the main vein and all splays. Colored circles show centroid of intercept, colored by full length intercept grade.

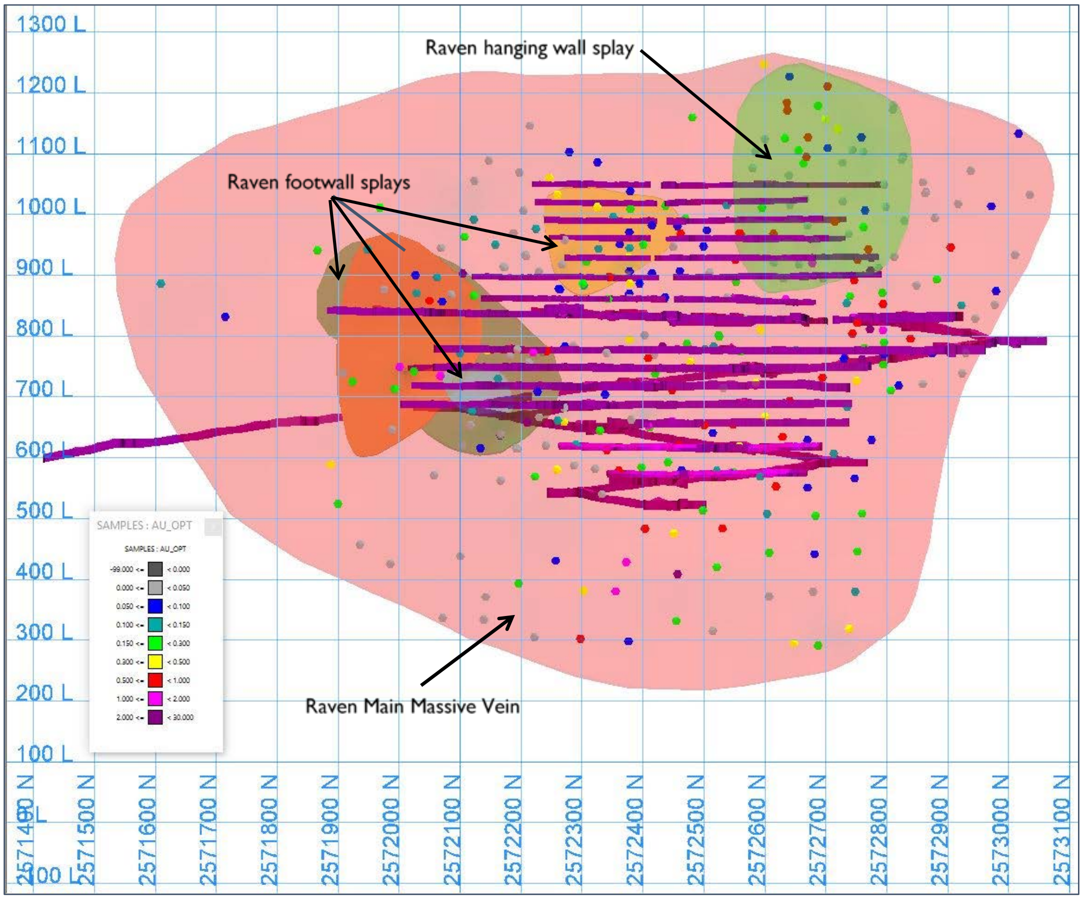


Figure 14-10 Drill Intercepts of Main Vein and all Splays (looking west) (Coeur, 2017)

14.4.2 Drill Hole Assay Statistics – Raven

Probability plots and histograms were generated for drill sample assays in the Raven vein system for the all shapes. Assay cap grades were determined by inspection of probability plots (Figure 14-11 and Figure 14-12) and general data distribution.

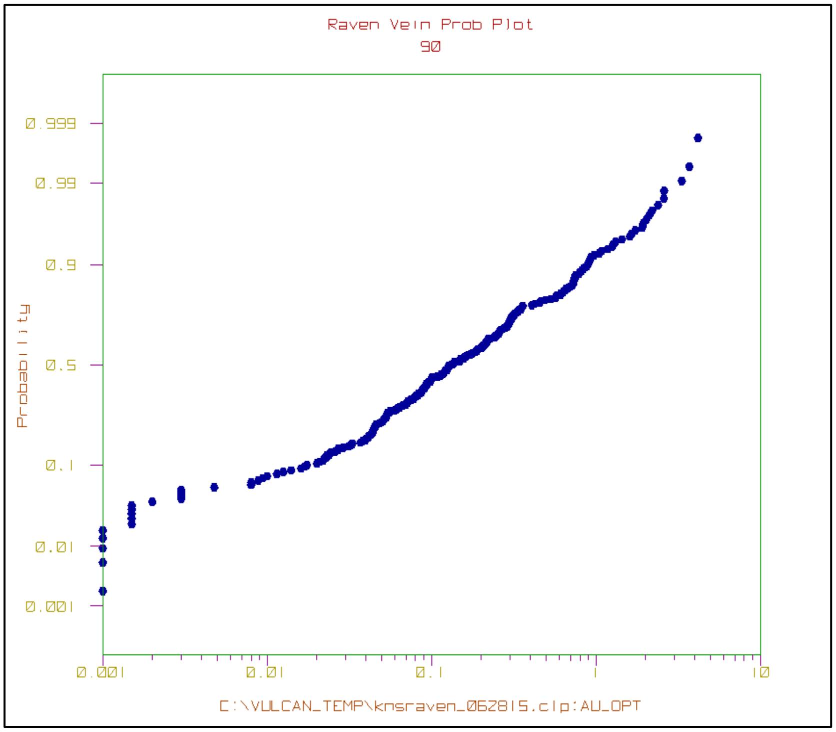


Figure 14-11 Raven Vein Probability Plot (Coeur, 2018)

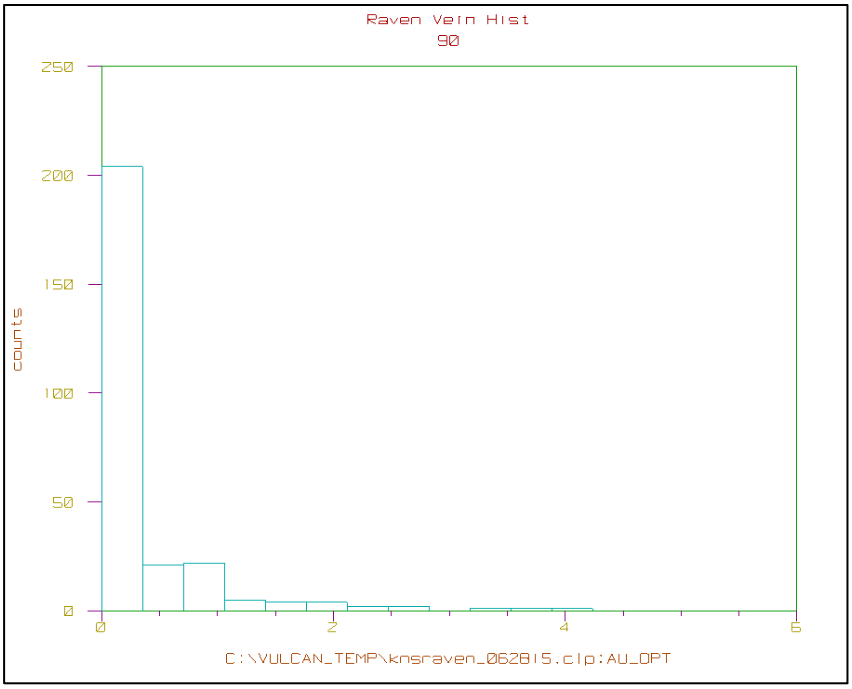


Figure 14-12 Probability Plot and Histogram - Massive Vein, Raven (Coeur, 2018)

Figure 14-13 Raven Basic Drill Hole Statistics (Coeur, 2016)

Estimation Group	Massive Vein
Number of samples	635
Sample Length (feet)	2,117
Average Length Wt. Avg.	0.32
Minimum	0
Q1	0.03
Median	0.08
Q3	0.32
Maximum	10.02
Variance	0.48

14.4.3 Compositing – Raven

Prior to compositing, zone codes were flagged into the raw assay file based on which wireframes the samples lie within, with the massive vein having highest priority, and the envelope a second priority.

Drill holes were composited to the full length of the vein down the drill hole, with intervals broken at domain changes. Differences in composite lengths (at geologic boundaries) are handled during estimation using length weighting.

Drill hole composites were capped at 3.0 opt Au for all samples. Un-sampled intervals were assigned the lower limit of detection from the ALS lab (0.0015 opt). Holes with assays pending were excluded from the database prior to compositing. A cap of 3.0 opt Au was selected from the log probability plot of composited grades, though a histogram and cumulative frequency plot were also consulted in the decision-making process. Statistics were then re-run on capped composites to check that no major discrepancies occurred because of the initial capping exercise. A total of three samples were capped.

14.4.4 Geostatistics – Raven

Due to the relatively sparse sample data in the Raven deposit, omni-directional variograms were calculated. The variogram yielded a model with a nugget to sill ratio slightly more than 0.33, and a range of roughly 45 feet.

14.4.5 Resource Model - Raven

The Raven block model ranges from -400 feet to 2,100 feet in elevation, from 2416000 E to 2417600 E, and 2571160 N to 2573600 N.

The parent block size is 5 × 20 × 20 feet, sub-blocked down to 1 × 5 × 5 feet at boundaries as needed. The large parent cells allow for large blocks in the very weakly to un-mineralized host rock. Blocks inside the envelopes and massive zones were limited to be no larger than 5 × 10 × 10 feet. Zone codes were assigned to blocks using the same codes and priorities used for composites.

14.4.6 Estimation Method – Raven

Gold grades (au_res) were estimated based on the composite grades using OK. A three-pass estimation was done similar to that used on Kensington.

Each discrete zone was estimated using only the composites that lie within that zone.

The initial search ellipse is 80 × 60 × 40 feet, elongated in azimuth 160°, dipping 60° to the west with a plunge of -30°. Three composites were required to estimate a block, no more than two composites per hole could be used, and as many as 10 composites could be used in an estimate. The number of samples (nsamp_r) and the number of drill holes used (nhole_r) were stored for each block.

Table 18 shows the estimation parameters used for the Raven resource model.

Table 18. Summary of Raven Estimation Parameters (Coeur, 2018)

Zone Group	Estimation Pass	Search Radii			Orientation			Sample Limits		Max No. Samples Per Hole	Cap (opt Au)	Restricted Distance Cap	Classification Req. for Indicated
		Major	Semi-Major	Minor	Azimuth	Plunge	Dip	Min	Max				
Massive Vein	1	80	60	40	160	-30	60	3	10	2	3	1.1	Avg. sample dist ≤75' and at least 2 drill holes, not estimated in pass 3.
	2	160	120	80				3	10	2			
	3	200	150	100				1	10	2			
Envelope	1	80	60	40	160	-30	60	4	10	3	0.7	0.3	Avg. sample dist ≤75' and at least 2 drill holes, not estimated in pass 3
	2	160	120	80				3	10	3			
	3	200	150	100				1	10	2			

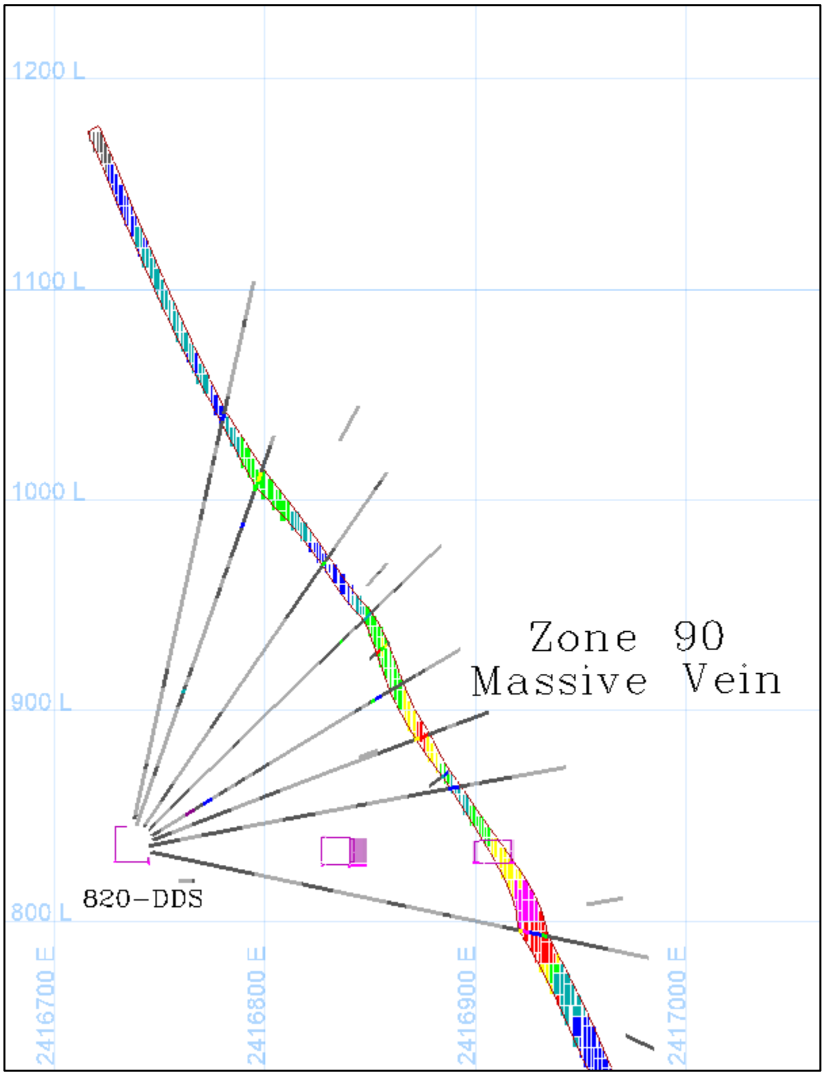


Figure 14-14 Cross-Section showing Drill Holes and Block Grades (Coeur, 2018)

14.5 Jualin Resource Model

14.5.1 Resource Model Methodology – Jualin

The Jualin deposit (Figure 14-15) is characterized as a discrete shear hosted high grade gold vein, like the Raven system. The Jualin system, however appears to be more structurally controlled than the Raven by a series of faults and a major through-going shear that the deposit interacts with. The veins in the system exhibit pinch and swell behavior because of this structural interaction. Vein thicknesses range anywhere from three feet to eleven feet and undulates in both strike and dip directions. Several years of drilling have been done on the Jualin deposit. Of most interest and economic promise has been Vein 4. Though veins one through three have been targeted prospectively in the same drilling campaigns that target vein 4, only Vein 4 has been determined to be an economically viable resource. The vein system sits 1,200 feet south of the Kensington Portal. Vein 4 displays continuity in the strike direction of 1,000 feet and 500 feet in the dip directions. In the first quarter of 2018, a new wireframe was created solely for Vein 4 in Leapfrog. Every drill hole intercept included in the new wireframe was verified to be sure that the vein itself is accurately represented, by respecting geology first, then grade.

Focusing specifically on Vein 4, the vein is interpreted to interact with several oblique structures as well as hanging-wall and foot-wall splays. The splays surrounding the upper portion of the main Vein 4 shape are generally understood to not be economic; however, the down dip splays present themselves as exploration targets with good opportunity to increase down dip continuity of the vein with more drilling.

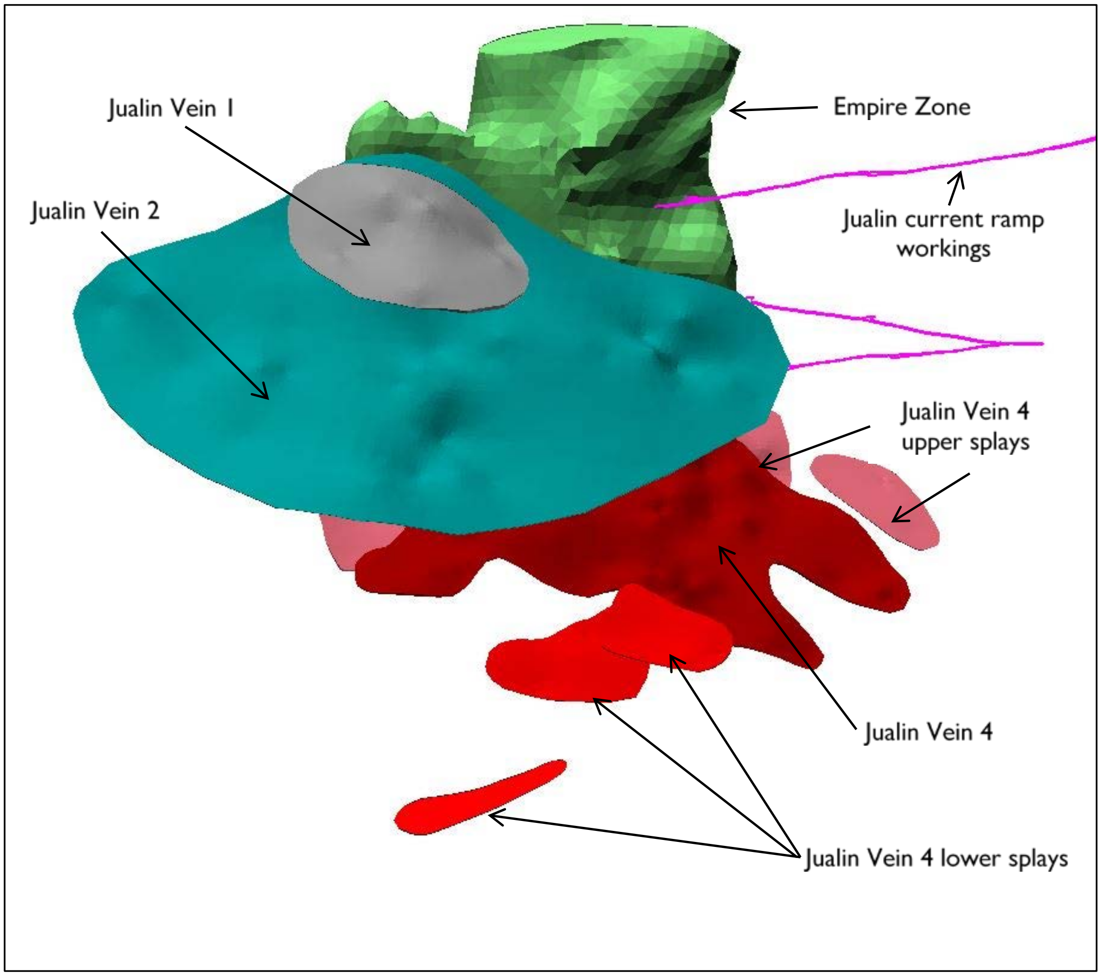


Figure 14-15 Jualin deposit showing veins looking west. Top surface of the Empire zone is defined by surface topography. (Coeur, 2018)

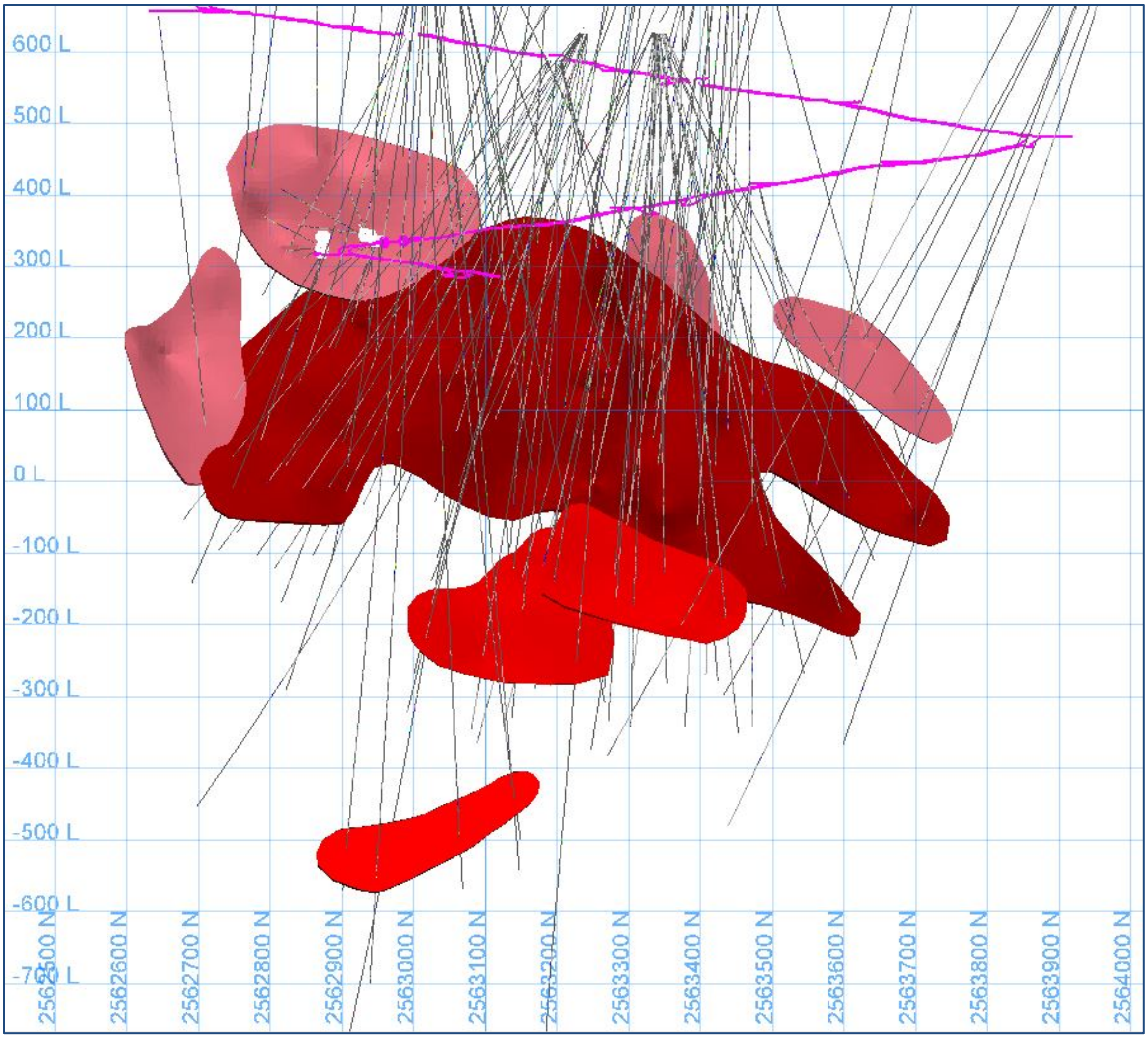


Figure 14-16 Jualin deposit Vein 4 and associated hanging-wall and foot-wall splays with drilling and current ramp development. Upper pink splays are uneconomic. Main Vein 4 domain is dark red. Lower red splays are considered strong exploration targets. Long-section looking west. (Coeur 2018)

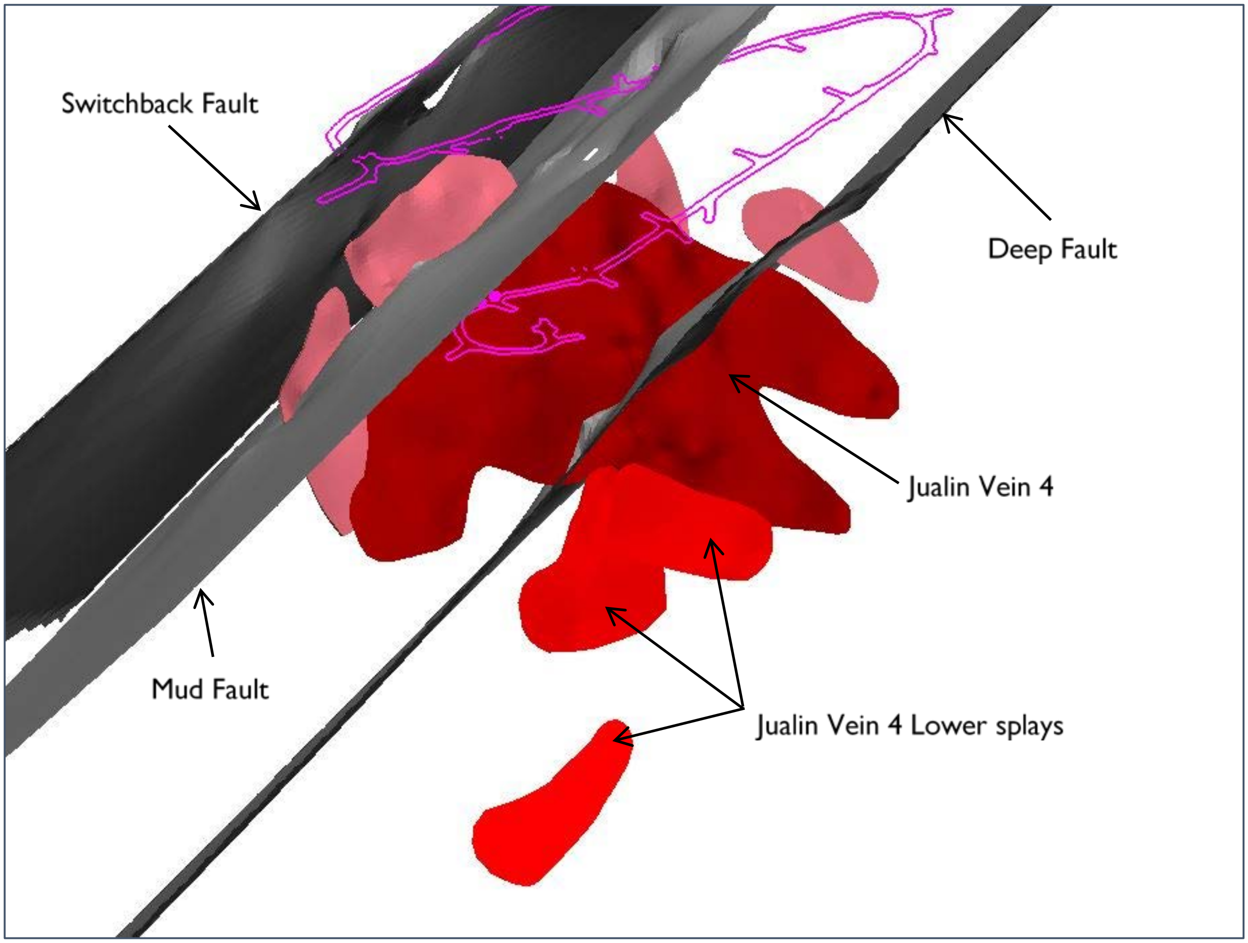


Figure 14-17 Oblique long-section looking northwest, showing interaction of Jualin Vein 4 and its associated splays with geologic structures (gray) (Coeur 2018)

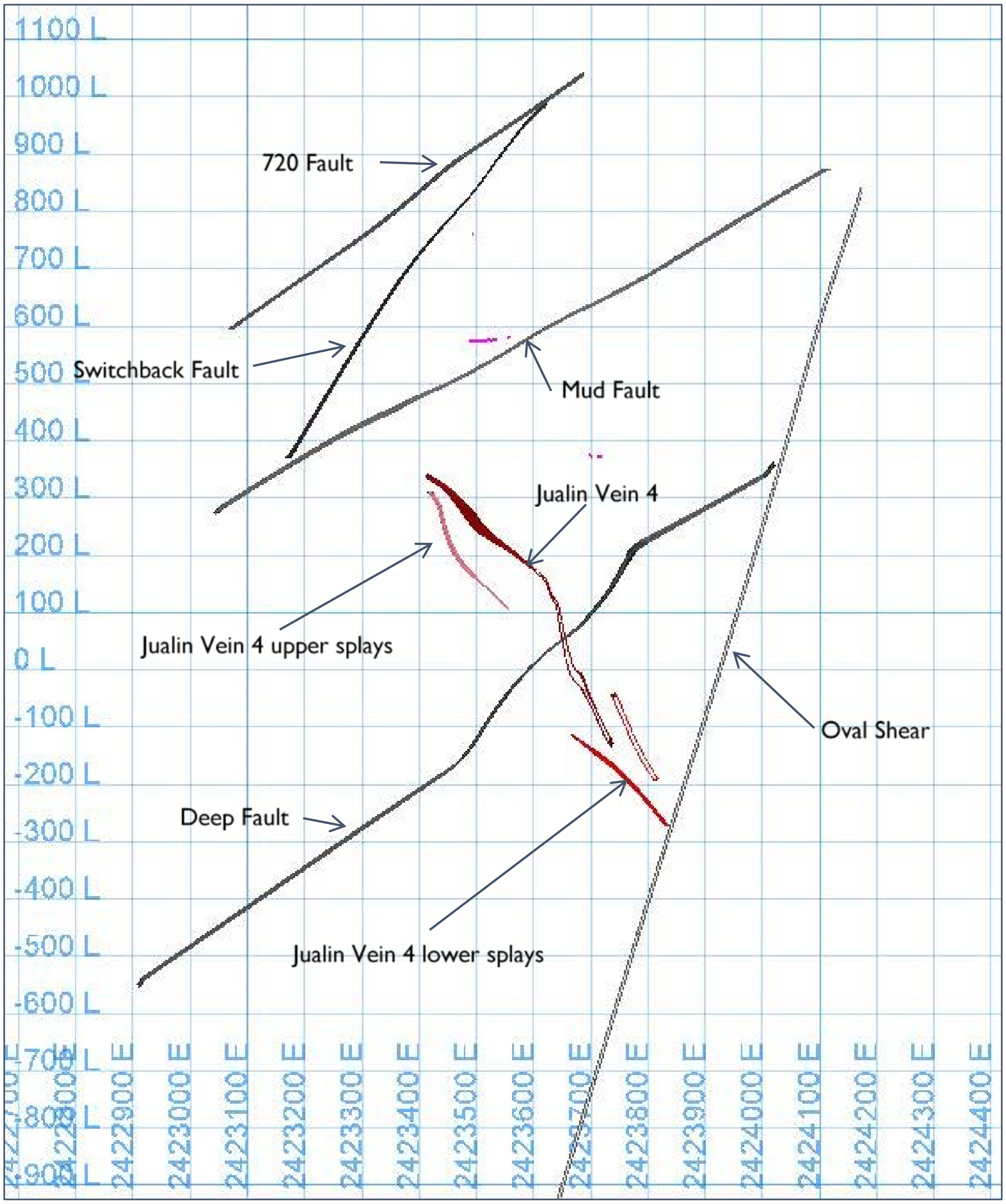


Figure 14-18 Cross-section looking north, displaying interaction of Jualin Vein 4 and its splays with various geologic structures, showing a typical Reidel Geometr. (Coeur 2018)

14.5.2 Drill Hole Assay Statistics – Jualin

Probability plots, histograms, and evaluation of general statistics were employed in the determination of an appropriate cap grade for the Jualin drill hole data set. Table 14-6 shows the general statistics of the Jualin drill hole data set. The Empire and interstitial zones are excluded as they are predominately waste.

Table 14-6 General Statistics Raw Drillhole Data – Jualin (Coeur, 2018)

Estimation Group	Vein 4
Number of samples	180
Sample length (feet)	412
Average grade (opt Au)	0.95
Length Wt. Avg. (feet)	0.80
Minimum (feet)	0.001
Q1 (feet)	0.060
Median (feet)	0.272
Q3 (feet)	1.090
Maximum (feet)	16.68
Variance	1.96

14.5.3 Jualin Compositing

Full vein width, run length composites were created to accurately represent the full vein grade. This compositing methodology resulted in a single composite for each drill hole that intersected the vein.

An iterative capping procedure was applied to the composited data. Declustered statistics were evaluated and graphed. Grade capping is necessary to keep high grade samples from smearing and locally overestimating grade. The log normal probability plot depicts several possible cap grades, which are 2.0, 2.5, and 5.0 opt Au. The histogram shows the same caps are reasonable. After completing sensitivity studies of the effects of each cap grades on the estimate, 2.5 opt Au was chosen. This capped grade is like that used for Raven and portions of Kensington.

14.5.4 Geostatistics – Jualin

An experimental semi-variogram model was used to determine the parameters for the estimation process. However, the Jualin Vein 4 deposit has an exceptionally high nugget and is a pure variance deposit. Therefore, short scale continuity is difficult to ascertain at the current data density in the domain. An estimation method that does not rely on variography will be used for the estimation of this deposit. As there are few data, an omni-directional variogram was used to try to determine the continuity of the system, but in a limited capacity. Another approach, a synthetic variogram was created utilizing a pairwise relative variogram, to again try to establish some sense of short scale continuity, and the result was again unsuccessful due to the pure variance nature of the deposit.

14.5.5 Block Model – Jualin

A two-dimensional seam model is the most appropriate way to populate the Jualin Vein 4 domain with blocks. The advantages in using the seam model in this instance relate to the narrow nature of the vein, by eliminating the need for sub-blocks and accurately modeling thickness by constraint of the wireframe. The extent of blocks in their x-dimension capture the thickness of the geologic domain. In addition, the blocks are rotated to fit within the dip-plane of the vein so protrusions of blocks outside the wireframe are limited. Figure 14.16 below describes the two-dimensional block model.

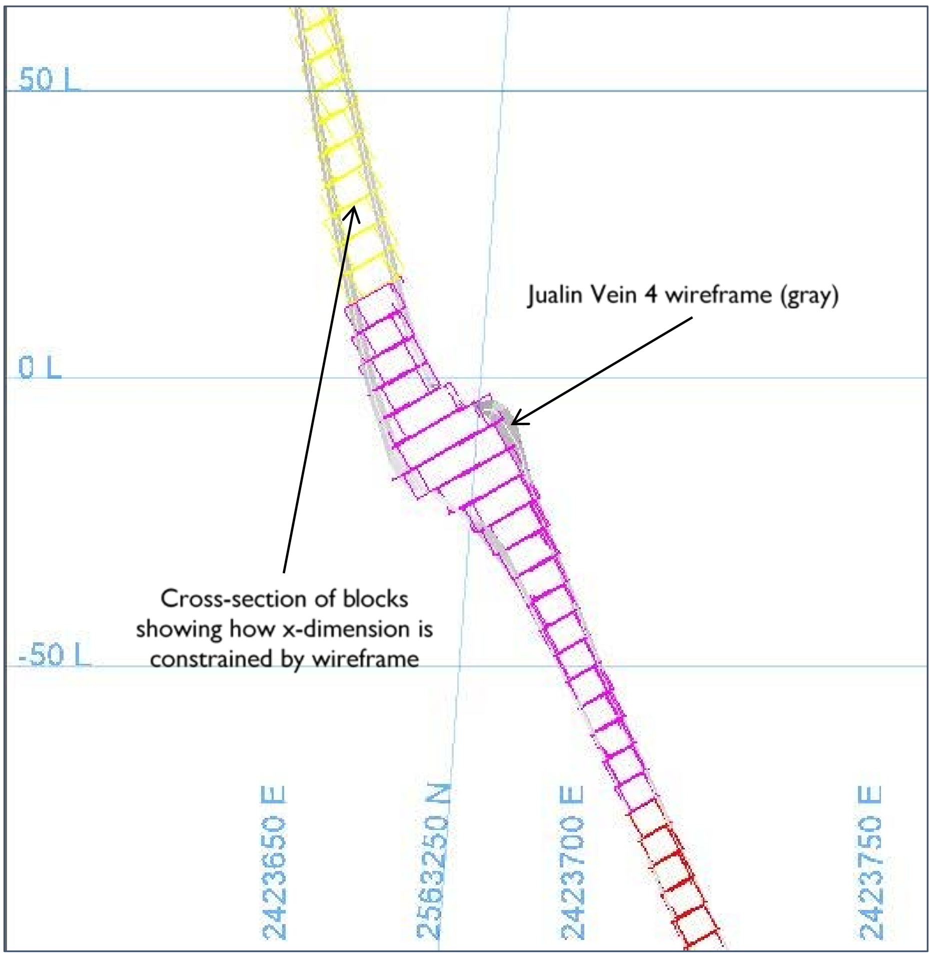


Figure 14-19 Cross-section of the Jualin Vein 4 two-dimensional seam model, describing x-dimension thickness as constrained by the domain (Coeur, 2018)

Table 14-7 Jualin Block Model Parameters (Coeur, 2018)

Model Origin		Model Rotation	Start Offset (feet)	End Offset (feet)	Block Size Main (feet)	Block Size Sub (feet)	Blocking Maximum (feet)
X	2423977.8 East	337.0 Bearing	0 from origin	1200 east from origin	50	5	5
Y	2562670.2 North	0.0 Plunge	1 from origin	1200 north from origin	50	5	5
Z	525.9 Elevation	-60.0 Dip	2 from origin	300 up from origin	300	0	300

Table 14-8 Jualin Block Model Variables (Coeur, 2018)

Variable Name	Default Value	Description
domain	0	Estimation domain designation
zone	0	Mineralized zone designation
vein_thk	0	Estimated vein thickness
au_geo	-99	Ounce per ton gold uncapped
au_cap	-99	Capped gold grade estimation
au_res	-99	All blocks with lower limit detection assigned to unestimated blocks
flag_r	0	Resource estimate pass flag
nsamp_r	0	Number of composites
dist_r	999	Average distance to all samples used
dist_n	999	Distance to closest composite
nholes_r	0	Number of drill holes used in block estimation
class_a	0	Resource classification
insitu	100	Percent block mined out

14.5.6 Estimation Method – Jualin

Because of the high variance nature of the Jualin Vein 4 deposit, coupled with extreme high-grade samples, and widely spaced data, the vein is estimated using inverse distance weighting. As discussed in previous sections, variography could not ascertain short scale continuity in the deposit, and as such eliminates one of the founding elements for a kriged estimation. Furthermore, ordinary kriging was considered to increase the risk of over-spreading and over-smoothing high-grade values, and not respecting the inherent variance of the data. Another advantage of inverse distance weighting at the current data spacing of Jualin is its usefulness in managing the spread of high grade. While ordinary kriging tends to estimate in an outward fashion, inverse distance will estimate into itself by the nature of the method, thus limiting the unreasonable spread of grade. A power of two was selected to be applied to the inverse distance weighting.

To also aide in the management of grade spreading, a high-yield restrict ellipse is employed in this estimation to further limit the erroneous influence of extreme values and better represent the data variance. The estimation also employs a large spherical ellipse to reduce artifacts created by the estimation itself given the undulatory nature of the wireframe. Finally, parent blocks of 50 × 50 feet were estimated into as another tool to limit the influence of high grade samples. Table 14-9 below details the estimation parameters.

Table 14-9 Inverse Distance Weighting Estimation (Coeur, 2018)

Domain	Search Radii			Orientation			Sample Limits		Cap (opt Au)	Discretisation		
	Major	Semi-major	Minor	Azimuth	Plunge	Dip	Min	Max		X	Y	Z
Vein 4	150 ft.	150 ft.	150 ft.	0	0	0	3	9	3.5	1	5	5

Table 14-10 High Yield Sample Limits (Coeur, 2018)

Domain	Variable	Cut-off Threshold	X distance	Y Distance	Z Distance
Vein 4	au_cap	0.6 opt Au	55 ft.	55 ft.	55 ft.

Figure 14-20 shows a section cut through the center of the resource model at an azimuth of 045°.

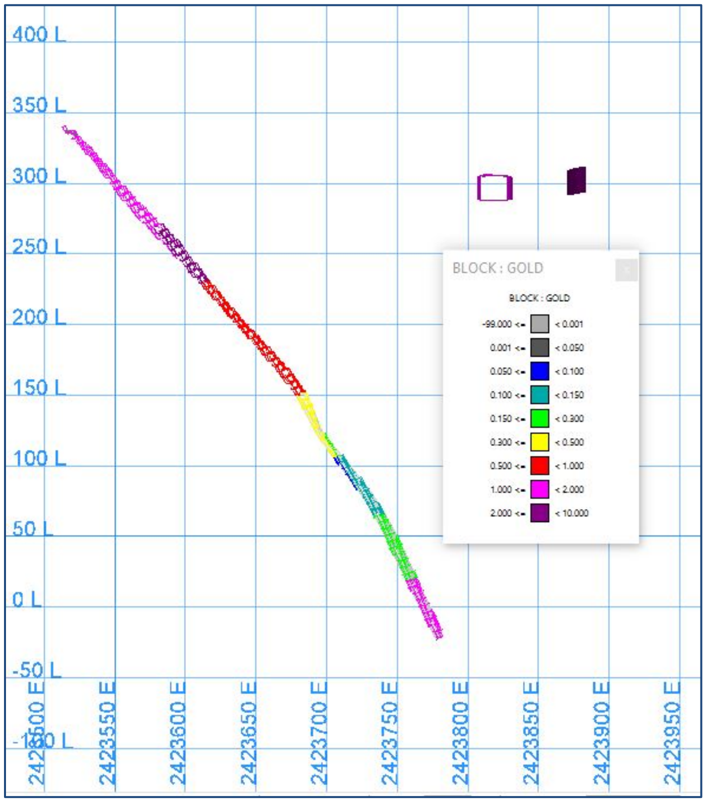


Figure 14-20 Cross section of Jualin deposit Vein 4, with 290 Level heading development. (Coeur, 2018).

14.6 Density Assignment

Densities are calculated using a simple formula whereby mass and volume are measured and then used to calculate density.

$$Density = \frac{Mass}{Volume}$$

The mass is measured using a digital scale with precision of ±0.001 gram. A large graduated cylinder with milliliter demarcations was used to measure volume by displacement. The mass is divided by the volume to obtain a density for the sample.

The Reno Inspectorate laboratory carried out specific gravity measurements for the 2010 drilling program, which provided a large set of density data. These data were used in the current resource model and will be used in future resource models. The average density of the Jualin Diorite is 0.0860 tons per cubic foot.

14.7 Grade Capping/Outlier Restrictions

Grade caps are calculated from the general statistics and associated plots. A log normal probability plot and histogram and calculated to show data trends and assist in selection of caps. Since the data is generally agreed upon to be positively skewed, as is common in gold systems, a cap is required to mitigate the probable overestimation caused by rare but significant high-grade intercepts.

14.8 Block Model Validation

14.8.1 Kensington Block Model Validation

Block model validation involved an inspection of block statistics and a visual inspection of cross-sections showing block grades, drilling data and geology.

Cross-sections showing drill holes, modeled zone shapes and mapping data were visually compared to block grades and stope plans to locate areas where the estimation methods were not producing realistic results. Changes were made to resolve issues in the final model, either to estimation parameters or domain boundaries. Swath plots comparing composites and block grades were produced to validate grade estimations (Figure 14-21). As expected, the estimation is smoother than the original sample data but retains the trends and grades observed within the deposit.

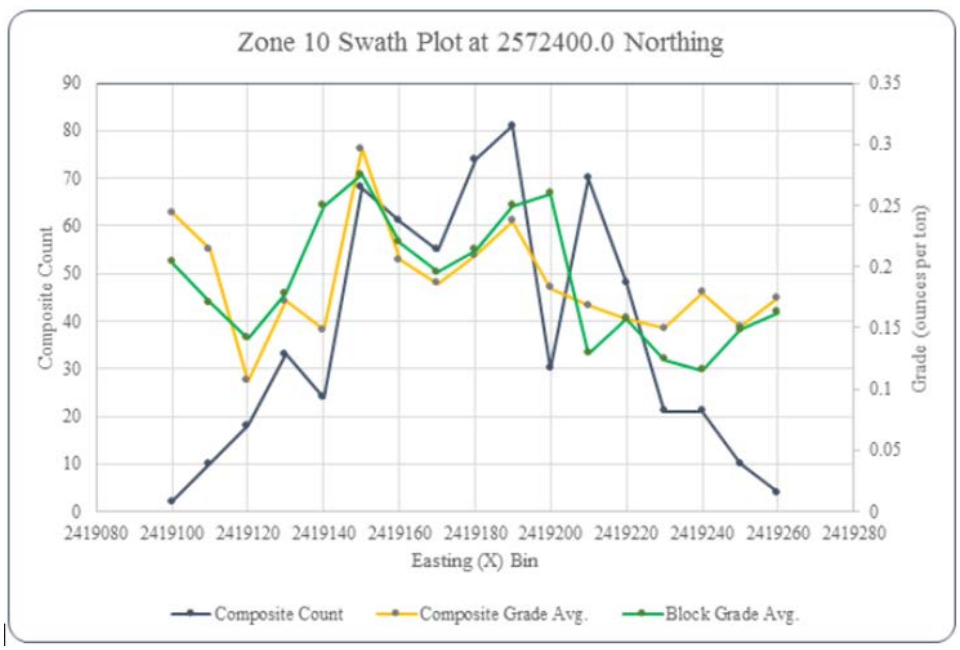


Figure 14-21 Zone 10 Swath Plot (Coeur, 2018)

A combined histogram of assay grades, composite grades, declustered composite grades and the resource estimate (OK) was generated.

A grade-tonnage curve (Figure 14-22) was plotted from block tonnage and grade in the mining-depleted resource, inclusive of reserves.

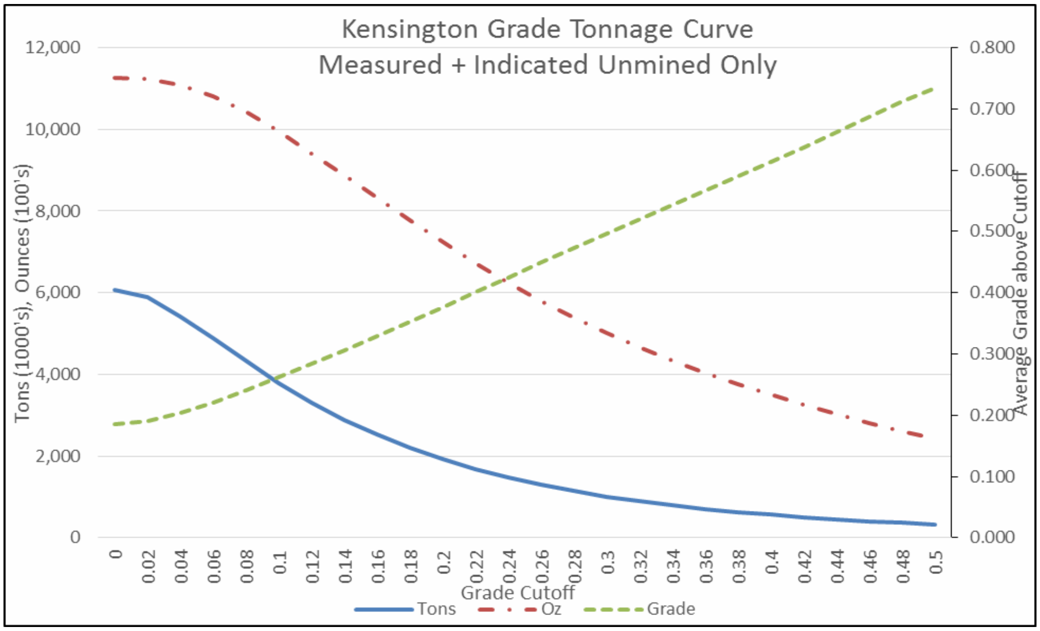


Figure 14-22 Grade Tonnage Curve - Kensington Deposit (Coeur, 2018)

14.8.2 Raven Block Model Validation

As with the Kensington block model, validation involved an inspection of block statistics and a visual inspection of cross-sections showing block grades, drilling data and geology, paying attention to areas with planned stopes. Channel grades and face photos were visually compared to block grades in plan and cross-section in areas with drifting.

14.8.3 Jualin Block Model Validation

Although there is no modern production from the Jualin veins, the upper veins of the Jualin deposit have been previously mined. The historic Jualin Mine was in production from 1896-1920. The company reports having mined a vein at an average width of 5 feet, which agrees with Coeur's interpretation for Jualin Vein #4. Historic production also reported an average grade of 0.57 opt Au, which is consistent with Coeur's estimation of Vein #4 and the proximal splays.

A swath plot of the Jualin resource model (Figure 14-23) shows that there is much more variance in the composites than the block grades, which is expected. The block grades are also more conservative in representing high grade values, which is a result of grade capping and using a high-grade restrictive search ellipse. As shown, the grade trends across section lines are honored in elevation. Composite grades are often erratic due to fewer composites than estimated blocks.

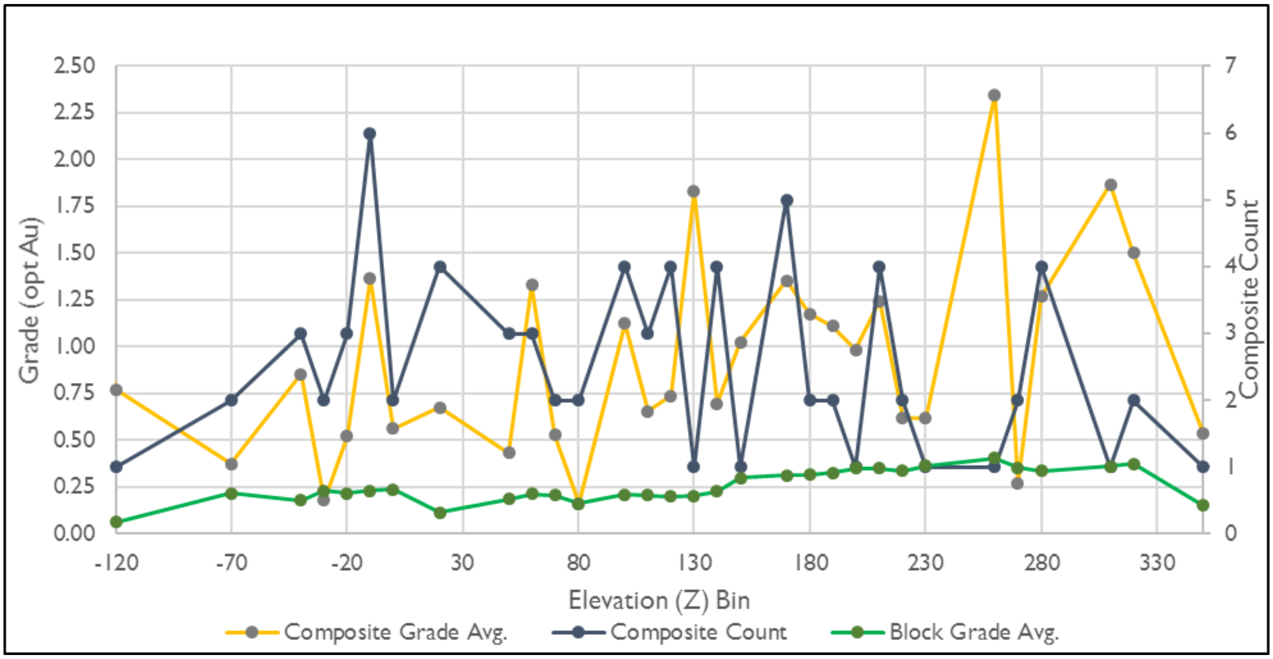


Figure 14-23 Jualin Vein 4 Swath Plot in Z (elevation) Direction (Coeur, 2018)

14.9 Classification of Mineral Resources

14.9.1 Kensington Resource Classification

Resource classification is based on the average distance from block centroid to the composites used in the estimate, and the number of drill holes used in the estimate. If the average distance from an estimated block to the composites used is less than 50 feet, and the block estimation utilizes three or more drillholes and six or more samples, the block is considered Measured. If the average distance is less than 75 feet, and the block estimation utilizes two or more drillholes and four or more samples, it is considered Indicated. All other blocks are considered Inferred. Inferred blocks were also estimated outside of the defined zones, but within a loosely defined “dilution halo”. The block classifications were then checked for accuracy. Some areas require a manual change by using triangulations, where the script is adhered to, but confidence in the area remains different from what the script is indicating. These manual changes are empirically supported and altered to match the true confidence of the area.

14.9.2 Raven Resource Classification

Resource classification was based on average distance to drill holes from block centroids. If the average distance from an estimated block to the composites used is less than or equal to 30 feet, and it utilizes three or more drillholes, then the block is considered Measured. If the average distance from an estimated block to the composites used is 100 feet or less, and it utilizes two or more drillholes, then the block is considered Indicated. All other blocks with grades estimated from drill holes are considered Inferred.

14.9.3 Jualin Resource Classification

Block classification in the Jualin does not follow the same criteria as the Kensington and Raven deposits. In the Jualin, wider drill hole spacing and lack of geologic mapping underground require that classification be much more subjective. The deposit is assigned its current classification based on its thickness and grade variability in regions where the vein becomes thin and begins to pinch out. As more data become available, classification will be revisited.

14.10 Reasonable Prospects of Economic Extraction

The Jualin deposit assumptions for identification as a mineral resource were based on industry standard, drill hole density, modeling methods described in Section 14.5.5, existing site cost structures, and assumptions for mining methods and approaches like those in use at the existing mine at Kensington. The Jualin deposit, as currently understood, would use methods of extraction identical to those used in the Raven deposit, and would use the same or similar extraction equipment, rock breaking methods, manpower, haulage, and processing facilities. Thus, costs were derived from existing parameters. Assumptions on recoveries are based on the similarity between the Raven and Jualin mineralization, with some contingency assumptions made regarding the increased visible gold content in the Jualin deposit core samples observed to date.

14.11 Mineral Resource Statement

Mineral Resources consider geologic, mining, processing and economic constraints, and have been defined within a conceptual stope design, and therefore are classified in accordance with 2014 CIM Definition Standards for Mineral Resources and Mineral Reserves and the 2003 CIM Best Practice Guidelines for the Estimation of Mineral Resources and Mineral Reserves.

Mineral Resources that are not Mineral Reserves do not have demonstrated economic viability. Measured, Indicated, and Inferred Mineral Resources are reported in Table 14-11.

The QP believes that the Mineral Resources for the Project, which were estimated using core drill data, have been performed to industry best practices under 2003 CIM Best Practice Guidelines and conform to the requirements of CIM 2014.

Table 14-11 Measured and Indicated Mineral Resources – Exclusive of Mineral Reserves, Effective December 31, 2017 (Coeur, 2018)

Category	Deposit	Tons	Au Grade (oz/ton)	Contained Au Ounces
Measured	Kensington	1,480,300	0.25	374,100
	Raven	66,000	0.32	20,900
Indicated	Kensington	1,146,000	0.25	287,100
	Raven	14,700	0.22	3,200
	Jualin	36,800	0.74	27,200
Total Measured Mineral Resource		**1,546,300**	**0.26**	**395,000**
Total Indicated Mineral Resource		**1,197,500**	**0.27**	**317,600**
Total Measured & Indicated Mineral Resource		**2,743,800**	**0.26**	**712,600**
Inferred	Kensington	1,244,800	0.22	272,400
	Raven	134,400	0.20	27,500
	Jualin	8,600	0.58	5,000
Total Inferred Mineral Resource		**1,387,800**	**0.22**	**304,800**

1. Mineral Resource models were prepared under the supervision of Mr. Isaac Oduro, a Coeur Alaska employee.
2. CIM definitions were used for Mineral Resources.
3. Mineral Resources are reported exclusive of Mineral Reserves; Mineral Resources that are not Mineral Reserves do not have demonstrated economic viability. Inferred Mineral Resources are considered too speculative geologically to have the economic considerations applied to them that would enable them to be considered for estimation of Mineral Reserves, and there is no certainty that the Inferred Mineral Resources will be realized.
4. Mineral Resources are estimated using a cut-off grade of 0.129 oz./ton Au.
5. Assumed gold price of $1,400/oz.
6. Mineral resources have been factored for dilution associated with recovery by a conceptual stope design.
7. No legal, political, environmental, or other risks are known to the above referenced QP that could materially affect the potential development of the Mineral Resources reported above.
8. Reporting units are all U.S. customary, Tons: dry short tons; Au (oz./ton).
9. Rounding of tons and ounces, as required by reporting guidelines, may result in apparent differences between tons, grade, and contained metal content.

14.12 Factors that may affect the Mineral Resource Estimate

Factors that may affect the Mineral Resource estimates include:

- Metal price assumptions;
- Changes to design parameter assumptions that pertain to stope design;
- Changes to geotechnical, mining and metallurgical recovery assumptions;
- Changes to the assumptions used to generate the cut-off grade;
- Changes in interpretations of mineralization geometry and continuity of mineralization zones; and

- Changes to the assumptions related to mineral tenure rights and royalty assumptions associated with the royalty burdened properties.

15. MINERAL RESERVE ESTIMATES

The current Kensington Gold Mine Mineral Reserve is built by Coeur mining engineers using Vulcan™ Mining Software, based on geologic resource models that are the result of interpreting the drilling, sampling, and mapping completed during a period spanning over 20 years prior to mine commissioning in 2010, and six and a half years of mine production. Coeur engineers designed stope shapes within the ore zones represented in the models. Mine infrastructure such as access ramps, cross-cuts, and footwall and hanging wall drives have been designed for ore extraction. A detailed three-year development and production schedule and budget were completed to demonstrate that a production rate of 1,900 tons per day could be sustained and the mine plan would be economically viable. The production and development schedule was completed in Deswik® Scheduling software, using inputs designed in Vulcan™ Mining Software.

15.1 Density and Moisture

The density used for all material at the Kensington Mine is measured and averaged to 11.8 cubic feet/ton in situ, with moisture content as a variable quantity, subject to structure and depth. No correction was applied to account for moisture content, all tons are assumed to be dry tons.

15.2 Resource Estimates

The resource models used to evaluate the 2017 Mineral Reserve are comprised of: the 2016 Reserve model and the data gathered from the extensive drilling, mapping and development done in headings developed in Kensington, Raven, and Jualin orebodies during 2017.

15.2.1 2017 Kensington Reserve Models

The regions of the mine currently developed and in production below 1,860-elevation have been extensively drilled, sampled, and mapped to the 180-elevation. Since 2010, multiple iterations of geologic models have been created by Coeur geologists, making use of new data on an annual basis as the models are updated, the most recent of which constitutes the 2017 resource model.

The 2017 Kensington Resource Model is the primary basis for creating reserve plans, using OK resource estimation methods. Production forecasts and reconciliations with mine production sampling and mill production have compared very closely over the course of production, with minor adjustments incorporated over time, as understanding of the orebody improves.

15.2.2 Raven Reserve Model

A preliminary resource model was produced by LCGS in 2011 and reviewed by Mine Development Associates (MDA). LCGS followed MDA's recommendations and produced a model suitable for mine planning in 2012. This model was reviewed by Coeur geologists and Resource Evaluation Inc. The 2014 iteration was a product of changes to the model necessitated by improved QA/QC of the drill data and initial development work on the 820 and 740 Levels. The deposit continues to display tighter splay structures than seen in Kensington, with higher grades concentrated in specific structural entities. Minimal additional drilling was completed in 2016, primarily focused on an estimated high-grade ore chute in lower Raven. Results of this drilling confirmed structural continuity, but did not significantly increase reserves in this region of Raven. Drilling in 2017 focused on upgrading portions of the Raven deposit, however, assay results were delayed. The 2017 drilling data will be used in the 2018 resource upgrade.

15.2.3 Jualin Reserve Model

The Jualin exploration project was begun in 2015 to drive an exploration decline in the hanging wall of the Jualin Vein #4 for the purposes of establishing drilling horizons for conversion of Resource to Reserve. The original completion date was slated for third quarter 2016, and drilling to commence in second quarter 2016. Due to much higher water inflows than anticipated, extensive grouting has been necessary to advance the decline, and advance rates have been suboptimal. As a result, the decline's completion target location and date has been modified. Some drilling was completed in 2016. 2017 saw a significant amount of drilling completed from both surface and underground, as well as resource model adjustments, resulting in the ability to declare some Indicated material. Drilling was targeted to upgrade material to reserve status in Jualin in 2017.

15.2.4 Throughput Rate and Supporting Assumptions

The mining and milling throughput rates are based on the detailed design and sequencing work done in Deswik® Scheduler, and measured milling data. Estimates of development rate are based on measured values, to date, with the jackleg drifting done within the Upper Raven deposit sublevels, and measured advance rates with the existing rubber tired fleet elsewhere in Kensington, Raven, and Jualin. Stope production rates were based on measured values over the past seven and a half years of production. Additional estimates were generated for necessary slushing rates and mucking from draw points based on historic information of mining over the past year in the deposit.

Mining tonnage rates remained steady, which account for production from both Kensington and Raven, and pebble reject feed tons that are sorted and sent back into the mill. Other tonnage rate assumptions have been based on current and historical mining rates. All milling rates have been capped at our permitted maximum throughput rate of 2,000 short tons per day.

15.2.5 Stope Design

Stope design work is done in Vulcan™3D mine planning software by Maptek. Few alternate stope mining methods have been adopted in Kensington mines based on the reserve model and geological settings. Each stope outline is checked for grade against a stope production model as the stope is designed. Designs for ore development drives are completed to efficiently access stopes. The total number of mining shapes designed for this Mineral Reserve was 6,352, with 1,548 mining shapes above mine cut-off grade and with adequate levels of Proven and Probable ore tons, 242 mining shapes as incremental grade, and the remainder being primarily internal waste development, and subsidiary access development, or failing to meet the minimum Proven and Probable tonnage rationale requirements.

Transverse stoping is the main extraction method used in the Main Kensington center area. Stope outlines are created on 40 foot (majority) or 50-foot centers (based on location) using the standard level spacing (approximately 75 feet) and the reserve model. Longitudinal stope designs exist in the fringe regions of Zone 10, much of Zones 12, 30, 35, and 50 and in Raven area. These areas of longitudinal stoping are too narrow (>30 feet) to convert to transverse based on the requisite infrastructure required.

Along with the conventional transverse and longitudinal stopes, there are some blind back stopes and floor benches as well, depending on the reserve model and locations.

After the stope and development triangulations were completed they were checked to ensure there were no duplications, overlaps or gaps between adjacent stopes and surveyed excavations. Reserves were run on the Long-Term Planning (LTP) shapes using the appropriate block model to determine the resource contained within each triangulation. Mined blocks were flagged in the block model so those tons and ounces could not be reported as ore, but only tracked as waste dilution where new designs overlapped or crossed. Stopes at or above cut-off grade were sorted and their component data was listed in the reserve tally by ore zone and mining block, then by breakdown of confidence code (Measured, Indicated, Inferred or Unassigned). Stopes between the incremental cut-off and mine cut-off are tabulated and re-assessed prior to final short-term planning to verify economic viability, or condemnation. Those stopes just at or just below the mill cut-off are incremental shapes that will be assessed on a case-by-case basis as mining proceeds to determine economic viability due to milling and G&A costs with the assumption that the shape is not pursued unless it is mined past on the way to producing viable stopes further out on the access line.

During the stope design process, many thin, high-grade, discontinuous lenses were observed that cannot be economically captured within stope shapes. This results in a large tonnage of scattered, high grade blocks in the remaining resource that is not a significant mining opportunity now. Results of narrow vein mining in Raven are anticipated to give guidance on approaching and potentially securing some of these thin lenses in the future, though they are not included in the reserve if they are not economically viable with currently proven methods and drift sizes.

Mineral Reserves include dilution at zero grade. The criteria for exclusion is based on a ratio of Proven and Probable versus Inferred and Unclassified (I&U) at the time of reporting. Stopes that fail that year's defined exclusion ratio continue to be carried as an LTP shape, for short term planning and evaluation concerns, but are not reported as reserves. These additional shapes will be assessed on a case-by-case basis as we approach them during mining with additional short-term drilling, and mapping data to reevaluate viability. Overall reserve grades are negatively impacted due to the inclusion of the I&U at zero grade within the reserve shapes. While this is generally not the most preferred practice, reconciliations and experience show that much of the I&U will carry grade, but confidence and modeling methods cannot support inclusion of those ounces in reserve statements.

15.2.6 Geotechnical Considerations

Geotechnical considerations are contracted to Rad Langston of Langston & Associates – Geological and Mining Engineers. Langston's recommended support guidelines are provided in Section 29.2. Langston conducts a site visit once or twice a year, on average, to assess the progress, view newly exposed regions of the mine and identify possible changes in needed support requirements. Coeur requests an immediate visit in the event of a demonstrable change in ground characterization encountered in new mining, or a dramatic decrease in the effectiveness of existing ground support of current workings. In general, the diorite within which the ore deposit is hosted is a very strong rock with some overlying structural features because of the shearing in the region that hosts the ore deposit. These structures are used to determine potential block failures and then the ground support is adjusted and drift sizes and shapes are determined accordingly.

15.2.7 Hydrogeological Considerations

Water inflow from the surface is a major concern, requiring constant vigilance for dealing with the variable flow rates, which can average anywhere from 800 gpm to 2,200 gpm throughout the year. Treating the water and discharging back to the environment to meet the required water standards is an integral focus of daily mine operations. With the addition and continued development of the Jualin, water inflow rates are expected to increase to as much as 3,000 gpm.

15.2.8 Ore Dilution and Recovery

Stope reconciliations have been individually completed for nearly all stopes mined since production began in 2010, plus or minus the prior months' stopes. Stope void surveys are cut against the stope designs to measure over mining (dilution) and under mining (ore loss) in the excavated stopes. These evaluations are used to adjust annual estimates of dilution and ore recovery to be expected in our planned shapes, and incorporated in future planning processes.

15.2.9 External Dilution

External dilution in the detailed planning process is the result of mining beyond the designed stope boundaries and occurs in the forms of blasting over break (both intentional and unintentional), hanging wall sloughing and over-digging of backfill in stope floors that are above backfilled stopes.

Stope reconciliations are conducted to measure over-mining in stopes and calculate dilution. Not all over mining is classified as dilution, for example over-blasting in the side walls of primary transverse stopes is not classified as dilution because this material is part of the Mineral Reserve and would be mined later in an adjacent secondary stope. This material is treated as overbreak for the purposes of refinement of blasting practices however. Actual dilution grades are calculated as part of the stope reconciliation.

For Kensington and Raven mine plans a dilution factor of 10% was used by Coeur Engineers for mine planning. For Jualin mine planning a dilution factor of 1.5 feet was used to account for expected narrow vein longitudinal stoping.

The transverse stopes are very stable due to minimal hanging wall exposures of 40 to 50 feet Most of dilution in these stopes has been overbreak caused by over-drilling and blasting, mostly due to drilling by inexperienced operators, with some intentional dilution added due to design considerations to fully extract Reserve tons that cannot be readily obtained otherwise or due to safety concerns requiring additional excavation. Some dilution has occurred due to additional rock and paste fill falling post blast beyond the design criteria, and those tons are captured as unintentional overbreak in the tracking procedures at appropriate grades. Reconciliations performed over time demonstrate marginal improved drilling practices, though anomalous instances still exist. These anomalies are the result of structure at times, and new drillers being trained. Unintentional mining of paste backfill, or cemented rock fill (CRF) has not been excessive to date, though instances of sloughing of material during, and post blast have been observed in secondary stopes, adding 1-3% additional waste dilution in a few select stopes.

The longitudinal stopes create a larger hanging wall exposure area than transverse stopes and require extensive support on the hanging wall that occasionally sloughs and dilutes the broken ore in the stopes. This mining method had previously been avoided in favor of transverse longhole stopes wherever possible, though mineralization constraints with narrower ore widths will require Coeur to employ this technique more and more going forward. Further longitudinal stope work is planned, and adjustments will be made as these new stopes create additional data points for consideration.

Generally, stope reconciliations for the transverse stopes demonstrate that properly drilled stopes realize dilution within a range of 10-15%. The observation from longitudinal stopes shows that limiting the exposure area and proper drilling and blast design bring down the dilution. Dilution in ore headings was not previously measured, although that tracking began in 2015, and the figure approached 23% initially. Efforts are underway to bring this figure down to 10-13% on average. Progress towards year end was showing a downward trend on overall dilution. The dilution factors measured are used in mine planning, and will continue to be utilized until reconciliations demonstrate compelling evidence to change the factor.

A dilution grade of 0.063 opt Au was calculated and has subsequently been used for all external dilution applications. As part of the 2008 LOM plan, the average dilution grade for mine planning was determined by calculating the overall grade of all material below cut-off grade in the 2008 Resource model. The dilution grade was estimated from the total residual tonnage and the remaining ounces of gold that were classified as Measured or Indicated. No Inferred Resource was included in the average dilution grade calculation. Stope reconciliations in all stopes mined demonstrate an external dilution grade of approximately 0.063 opt Au from the production model.

15.2.10 Internal Dilution

Within any given mining shape there is some material included that is below the cut-off grade and material that in some instances does not meet the definition of Indicated or better. This internal dilution is due to the necessity of creating a dimensional shape that simulates the ultimate void created by a stope or heading, for instance the footwall of a stope may need to be steeper than the model shows to get above the angle of repose to ensure the material will flow and be removable from the stope. Material included in the mining shape that is classified as Measured and Indicated and is below cut-off grade, but above the incremental cut-off, is ore, and counted along with the ore-grade material. Internal dilution is the sum of material in unclassified blocks that are outside the model search parameters (and thus have no projected grade), as well as material that does not meet the Indicated Resource criteria and is classified as Inferred; and, true waste contained between ore structures carrying no halo mineralization effects and sampled as waste in drill holes, and modeled as waste in the block model.

The blocks contained within the LTP shapes that are classified as Inferred or Unclassified are included in the Mineral Reserve at zero grade.

15.2.11 Ore Loss and Recovery

Ore loss is ore not recovered in a stope and permanently lost. Ore loss occurs in the forms of blasting under break and unrecovered broken ore in stopes.

Stope reconciliations are done to measure under break in stopes and calculate ore loss. Not all underbreak is classified as ore loss, for example ore planned to be mined but not recovered in the side walls of primary transverse stopes is not classified as lost if the ore can be recovered in an adjacent secondary stope. Ore left behind in the side wall of a secondary stope is typically an ore loss. The same is true for ore left on the hanging and footwalls of longitudinal stopes.

The hanging wall sloughing experienced in the longitudinal stopes is not occurring in the transverse stopes, which have limited hanging wall exposure and stable hanging walls. Much of the hanging wall sloughing issues observed on the 850 Level initially were related to hanging walls exposed on the order of 150 to 200 feet in strike length. Future efforts will attempt to keep the hanging wall exposure to less than 100 feet as much as possible, with an 80-foot strike length the tentative maximum length. Adjustments will be made to these criteria as Coeur gains more experience with these mining methods.

Small quantities of ore have been left in primary stopes throughout time because of cleanup against rib corners, and material left at the extreme end of a stope where remote mucking cannot reasonably extract 100% of the material due to lack of visual acuity, and the angles of wall and rib shapes vs. the mucker bucket shapes. Stope void scans are taken at the end of every stope cleaning cycle, and direction is given to operations for cleanup attempts to capture most of this material, but physical limitations of the equipment and visibility prevent 100% recovery of these tons.

The overall ore loss calculated for the Kensington Mine is 9% and ore recovery is 88%. Ore recovery and loss are applied to different mining situations, as detailed in Table 15-1 for 2016 and Table 15-2 for the prior four years from 2012 to 2015.

Table 15-1 Kensington Ore Recovery Factors – 2017 (Coeur, 2018)

Mining Method	Recovery %	Ore Loss %
Primary Transverse Longhole Stopes	84	8
Secondary Transverse Longhole Stopes	85	14
Longitudinal Longhole Stopes	83	12
Longitudinal Raven Longhole Stopes	77	23
Backstope and floor Benches	N/A	N/A
Drift and Fill	N/A	N/A
Development	100	0
Overall Recovery	86	11

Table 15-2 Kensington Ore Recovery Factors – 2013 to 2016 (Coeur 2018)

Mining Method	Recovery %	Ore Loss %
Primary Transverse Longhole Stopes	85	9
Secondary Transverse Longhole Stopes	89	10
Longitudinal Longhole Stopes	87	13
Longitudinal Raven Longhole Stopes	90	8
Backstope and floor Benches	79	11
Drift and Fill	100	0
Development	100	0
Overall Recovery	86	10

The overall ore loss of 10% is reasonable considering the transverse stoping results to date; the role of transverse stoping as the predominant mining method as the current practice is unchanged, although longitudinal extraction is increasing with time, and new methods may need to be employed.

15.2.12 Cut-off Grades

Cut-off grades are determined through historical costing for Kensington and Raven and through forecasting for Jualin. Table 15-3 and Table 15-5 lists current cut-off grade parameters for Kensington/Raven and Jualin respectively. The incremental material also listed in Table 15-3 and Table 15-5 is related to material that does not include the G&A or mining costs, as those costs are incurred regardless of what the resource classification may be. As such, this material must be removed from the mine and the consideration is whether it goes to the waste pile, or to a low-grade ore pile that only carries the mining and refining costs. The intent of this material handling designation is for the material to only be processed when mill tonnage needs to be sustained, but where it does not offset other above cut-off grade material.

The breakeven cut-off grade calculation is part of the annual reserve estimation process and shows the 2017 cut-off grade calculation based on actual operating costs through mid-year, when reserves were generated, and projected costs through the end of the year.

Table 15-3 Reserve Cut-Off Grade Calculation for Kensington and Raven (Coeur, 2018)

	Units	Reserve 2017	Incremental
Gold Price	$/oz	$1,250	$1,250
Concentrate Refining	$/oz	$34.72	$34.72
Mining	$/ore ton mined	$84.81	$0
Ore Crushing & Process	$/ore ton mined	$39.81	$39.81
G&A	$/ore ton mined	$36.76	$0
Shipping	$/oz sold	$26.89	$26.89
Gold Recovery	%	95.5	95.5
Gold Payable	%	97.5	97.5
External Cut-off Grade, Au	oz/ton mined	0.146	0.036

Table 15-4 Reserve Cut-Off Grade Calculation for Jualin (Coeur, 2018)

	Units	Reserve 2017	Incremental
Gold Price	$/oz	$1,250	$1,250
Concentrate Refining	$/oz	$34.72	$34.72
Mining	$/ore ton mined	$158.21	$0
Ore Crushing & Process	$/ore ton mined	$39.89	$39.72
G&A	$/ore ton mined	$36.76	$0
Shipping	$/oz sold	$26.89	$26.89
Gold Recovery	%	95.5	95.5
Gold Payable	%	97.5	97.5
Hyak Mining Royalty	%	5	5
External Cut-off Grade, Au	oz/ton mined	0.223	0.038

Costs for Mineral Resources evaluation is provided in Table 15-5 and shows the 2017 resource cutoff grade of 0.13 opt Au, based on current costs at mid-year 2017; the Mineral Resource cutoff grade calculation is a continuation of the annual estimation process.

Table 15-5 Resource Estimation Evaluation (Coeur 2018)

Resource	2017 Resource	Explanation
Gold Price ($/oz)	$1,400	MY2017 guidance
Concentrate Shipping and Refining ($/oz)	$62.53	2018 budget, conc. refining costs of $32.24 and shipping of $30.29
Mining ($/ton)	$76.37	2018 budget
Ore Crushing and Process ($/ore ton)	$33.55	2018 budget
G&A ($/ore ton)	$35.19	2018 budget, no shipping costs included from above (-$25)
Gold Recovery (%)	94.5	2018 budget
Gold Payable (%)	97.5	2018 budget
External Cut-off Grade, Au (opt)	0.13	

15.2.13 Ore/Waste Determinations

Material above the defined mine cutoff grade described in the prior section is defined as ore, whereas material that has an estimated grade between ore cut-off and the stated incremental cut-off grade is defined as incremental ore to be processed only as filler. Any material below the incremental cutoff grade is considered waste and is disposed of in a designated waste material disposal location. Internal determination of Incremental cutoff grade material will also be made for production and development muck at movement time, to minimize the lower incremental material delivery to the ore pad during times of large stockpile availability. In low stockpile periods, more of the incremental material may be sent to the mill to maintain consistently near maximum mill throughput rates. This call is simplified by the fact that waste and incremental material make essentially the same travel route, and only differ in final destination upon hitting the portal pad, with a separation of only a few hundred feet between the piles.

15.3 Mineral Reserves Statement

Mineral Reserves, by definition, consider environmental, permitting, legal, title, taxation, socio-economic, marketing, and political factors and constraints. The Mineral Reserves are acceptable to support mine planning. Probable Mineral Reserves included only Measured or Indicated Mineral Resources.

Mineral Reserves are reported using an NSR cut-off based on a gold price of $1,250/oz for all Mineral Reserves (Table 15-6). Pricing for cut-off was based on metal price guidance from Coeur's corporate office.

Table 15-6 Mineral Reserve Statement, Effective December 31, 2017 (Coeur, 2018)

Category	Deposit	Tons	Au Grade (oz/ton)	Contained Au Ounces
Proven	Kensington	1,271,200	0.20	251,800
	Raven	13,500	0.23	3,100
Probable	Kensington	1,499,600	0.19	286,700
	Raven	19,200	0.26	5,000
	Jualin	157,600	0.47	74,100
Total Proven Mineral Reserve		**1,284,700**	**0.20**	**254,900**
Total Probable Mineral Reserve		**1,676,300**	**0.22**	**365,800**
Total Proven + Probable Mineral Reserves		**2,961,000**	**0.21**	**620,700**

1. The QP for the Mineral Reserve estimates is Mr. Kyle Beebe, PE, a Coeur Alaska employee. Mineral Reserves have an effective date of December 31, 2017.
2. CIM definitions were used for Mineral Reserves.
3. Mineral Reserves for Kensington and Raven are the total recovered and diluted Mineral Reserves, specifically the Proven and Probable ore within the designed stopes and development, including internal and external dilution and the surface stockpile. This includes all material above 0.036 opt Au.
4. For Kensington and Raven a gold price of $1,250/oz. was assumed for purposes of designing stopes and development at the overall cut-off grade of 0.146 oz./ton Au for the Mineral Reserve.
5. For Kensington and Raven development ore with grades between 0.036 and 0.146 opt Au is included in the Mineral Reserves.
6. Mineral Reserves for Jualin are the total recovered and diluted Mineral Reserves, specifically the proven and probable ore within the designed stopes and development, including internal and external dilution and the surface stockpile. This includes all material above 0.038 opt Au.
7. For Jualin a gold price of $1,250/ounce Au was assumed for purposes of designing stopes and development at the overall cut-off grade of 0.223 opt Au for the Mineral Reserve.
8. For Jualin development ore with grades between 0.038 and 0.223 opt Au is included in the Mineral Reserves.
9. No legal, political, environmental, or other risks are known to the above referenced QP that could materially affect the potential development of the Mineral Resources reported above.
10. Reporting units are all U.S. customary, Tons: dry short tons; Au (opt).
11. Rounding of tons and ounces, as required by reporting guidelines, may result in apparent differences between tons, grade, and contained metal content.

15.4 Factors that may affect the Mineral Reserve Estimates

Factors that may affect the Mineral Reserve estimates include:

- Metal price assumptions;
- Assumptions relating to geotechnical parameters used in mine design;
- Assumptions that go into defining the NSR cut-off used to constrain Mineral Reserves;
- Appropriate dilution control being able to be maintained;
- Mining and metallurgical recovery assumptions;
- Variations to the expected revenue from short-term marketing and sales contracts; and
- Variations to the permitting, operating or social license regime assumptions.

In the opinion of the QP, the Mineral Reserves for the Project were estimated using core drill data, appropriately considered modifying factors, and industry best practices, and conform to the requirements of CIM (2014).

The Mineral Reserve reported in Table 15-6 are the total recovered and diluted Mineral Reserve, specifically the Proven and Probable ore within the designed stopes and development, including internal and external dilution and the surface stockpile. The Proven Reserve includes the Measured Resource ounces within the designed stopes and development that meet reserve parameters, and the surface ore stockpile at the mill. The Probable Reserve includes the Indicated Resource within the minable shapes that meet reserve parameters, and internal and external dilution. A gold price of $1,250/ounce Au, which equates to a cut-off grade of 0.146 opt Au for Kensington/Raven and a cut-off grade of 0.223 opt Au for Jualin, was assumed for purposes of designing the ore production stopes and associated development for the Mineral Reserve. Development ore with grades between 0.146 and 0.036 opt Au for Kensington/Raven and with grades between 0.223 and 0.038 opt Au for Jualin, is included in the Mineral Reserve as incremental material necessary to produce stope tons.

15.5 Reconciliation

Mine to mill reconciliations are conducted monthly to compare the tons and grade reported for mine and mill production. The reconciliation results through December 31, 2017 are shown in Table 15-7.

Table 15-7 Kensington Gold Mine-Mill Reconciliation (Coeur, 2018)

	2017	2016	Life of Mine	Remarks
Tons	5.6%	6.1%	3.0%	Mine Reports High vs. Mill
Grade	-4.3%	-2.0%	-0.9%	Mine Reports Low vs. Mill
Ounces	1.1%	4.0%	2.1%	Mine Reports High vs. Mill

Mine production results show fewer tons produced and lower grade than the mill processed for the year, and the mine shows slightly lower tons compared to the mill for the Project to date. Overall, reconciliation is largely within the margin of error of the sampling and measuring methods, showing a close correlation between the mine and the mill.

Mine production tons are derived from surveyed voids. The grade is determined from approximately one-third muck/channel samples from ore headings and two-thirds core samples from stope definition drilling. The core samples from stope definition drilling are used along with geologic mapping to produce a detailed geologic model of each stope. Besides production reporting, these stope models are also used for production drilling design and short-range production forecasts.

Reconciliations are also done to compare the results of the short-range production plan and long-range budget plan. The differences between predictions and actual values for given time frames are presented in Table 15-8.

Table 15-8 Kensington Gold Mine-Model Reconciliations (Coeur, 2018)

	2015			2016			2017			Life of Mine		
	Tons	Grade	Ounces	Tons	Grade	Ounces	Tons	Grade	Ounces	Tons	Grade	Ounces
Production vs. Budget Plan (%)	0.8	0.7	1.5	-3.7	-0.3	-4.0	-0.3	-12.2	-12.5	-5.1	-9.5	-14.1
Mine vs. Production (%)	2.0	5.5	7.6	-4.7	1.8	-2.9	4.7	-10.9	-6.8	-4.0	-2.2	-6.1
Mine vs. Budget Plan (%)	0.7	-4.2	-3.5	6.1	-2.0	4.0	5.6	-4.3	1.1	3.0	-0.9	2.1

The “Production” values are based on the mill measured tons, grade, and ounces (Table 15-8). The “Budget Plan” is generated yearly for annual production targets. This plan contains a mix of short-range production models and long-range reserve shapes. Finally, the “Mine” values are based on surveyed voids, and a combination of diamond drill hole samples, channel samples, mapping, and some muck samples to determine best estimates of tons and grade removed from the underground and sent to surface.

15.6 Life of Mine Prediction

The LOM evaluation uses the detailed five-year plan created in Deswik®, and carried through the end of the mine life. Jualin was modeled separately from Kensington and Raven to evaluate different operating scenarios which included “Owner” operated, “Contractor” operated, and combinations of both scenarios. The “Owner” operated scenario returned the best results and was included in the overall LOM plan. The LOM plan results are detailed in Table 15-9.

Table 15-9 Kensington, Raven, Jualin Combined Production Life of Mine Summary (Coeur, 2018)

Mine Development	Unit	2018	2019	2020	2021	2022	Total LOM
Kensington							
Capital Drifting	linear feet	5,444	10,469	1,515	-	-	17,428
Capital Raising	linear feet	422	343	729	-	-	1,494
Total Capital Development	linear feet	5,866	10,812	2,244	-	-	18,922
Expensed Waste Development	linear feet	7,070	6,500	6,543	1,141	919	22,173
Ore Development	linear feet	4,424	5,894	3,608	1,249	441	15,616
Total Expensed Development	linear feet	11,494	12,394	10,151	2,390	1,359	37,788
Total Development (Capital + Expensed)	linear feet	17,360	23,206	12,395	2,390	1,359	56,711
Advance Rates	linear feet/day	48	64	34	7	4	
Raven							
Capital Drifting	linear feet	1,534	1,086	1,780	-		4,400
Capital Raising	linear feet	199	73	243	-		514
Total Capital Development	linear feet	1,733	1,159	2,023	-		4,915
Expensed Waste Development	linear feet	-	-	481	18		500
Ore Development	linear feet	664	40	560	-		1,264
Total Expensed Development	linear feet	664	40	1,041	18		1,764
Total Development (Capital + Expensed)	linear feet	2,398	1,199	3,064	18		6,679
Advance Rates	linear feet/day	7	3	8	0		
Jualin							
Capital Drifting	linear feet	1,154	2,853	2,783	563	-	7,353
Capital Raising	linear feet	540	184	130	39	-	893
Total Capital Development	linear feet	1,694	3,037	2,913	602	-	8,246
Expensed Waste Development	linear feet	324	122	255	468	-	1,169
Ore Development	linear feet	178	1,755	1,568	2,568	137	6,207
Total Expensed Development	linear feet	502	1,876	1,823	3,036	137	7,375
Total Development (Capital + Expensed)	linear feet	2,196	4,914	4,736	3,638	137	15,622
Advance Rates	linear feet/day	6	13	13	10	0	

Mine Production	Unit	2018	2019	2020	2021	2022	Total LOM
Kensington							
Ore Tons	Ton	577,508	625,485	628,394	610,132	297,040	2,738,559
Ore Grade	Au oz/Ton	0.20	0.21	0.18	0.19	0.19	0.19
Contained Ounces	Au oz	114,387	129,123	114,787	117,381	55,518	531,195
Waste Tons	Ton	244,259	358,415	169,073	23,599	27,575	822,921
Backfill Tons	Ton	482,827	476,091	685,353	585,793	541,921	2,771,986
Ore Tons per day	Ton/day	1,582	1,714	1,722	1,672	814	
Total Tons per day	Ton/day	2,251	2,696	2,185	1,736	889	
Raven							
Ore Tons	Ton	25,127	143	5,941	1,445		32,655
Ore Grade	Au oz/Ton	0.22	0.30	0.37	0.20		0.25
Contained Ounces	Au oz	5,565	43	2,199	289		8,096
Waste Tons	Ton	22,507	15,297	32,693	246		70,743
Backfill Tons	Ton	60,042	423	19,503	12,681		92,649
Ore Tons per day	Ton/day	69	0	16	4	-	
Total Tons per day	Ton/day	131	42	106	5	-	
Jualin							
Ore Tons	Ton	915	15,487	67,884	48,694	24,577	157,556
Ore Grade	Au oz/Ton	0.28	0.50	0.47	0.48	0.46	0.47
Contained Ounces	Au oz	258	7,746	31,639	23,249	11,197	74,088
Waste Tons	Ton	21,005	53,750	56,368	24,513	907	156,543
Backfill Tons	Ton	-	1,454	45,385	30,150	19,864	96,852
Ore Tons per day	Ton/day	3	42	186	133	67	
Total Tons per day	Ton/day	60	190	340	201	70	
Stockpile (combined pebble and ore)							
Ore Tons	Ton	32,203	-	-	-	-	32,203
Ore Grade	Au oz/Ton	0.23	-	-	-	-	0
Contained Ounces	Au oz	7,327	-	-	-	-	7,327

Mill Production	Unit	2018	2019	2020	2021	2022	Total LOM
Total Ball Mill Feed	Ton	652,967	652,967	654,756	652,967	347,317	2,960,973
Head Grade	Au oz/Ton	0.20	0.21	0.21	0.21	0.20	0.21
Au Ounces Contained	Au oz	130,946	139,358	139,955	139,513	70,934	620,707
Mill Recovery	%	95.5%	95.5%	95.5%	95.5%	95.5%	95.5%
Concentrate Tons	Ton	18,637	19,834	19,919	19,856	10,096	88,342
Concentrate Ounces	Au oz	125,053	133,087	133,657	133,235	67,742	592,775
Smelter Recovery	%	97.5%	97.5%	97.5%	97.5%	97.5%	97.5%
Payable Ounces	Au oz	121,927	129,760	130,316	129,904	66,049	577,955

16. MINING METHODS

16.1 Underground

The primary access to the Kensington and Raven underground mine areas is via the Kensington Portal at the 964 elevation, located on an upper bench adjacent to the main mill site at the base of Lion's Head. This portal is the primary ingress/egress point for all equipment and personnel to access the Kensington and Raven workings. There is a secondary portal at 792-elevation on what is known as the Comet Beach side, geographically located on the Lynn Canal side of the mountain, south of Haines, Alaska, and located on the east side of Lynn Canal.

The Kensington 910 Level is generally considered the mid-point elevation for the mine, with ramp systems extending both up and down from this level to access the upper and lower portions of the Kensington orebody. There is a tertiary drift that is located at 2,050-elevation, which historically was referred to as the Kensington Mine at the turn of the last century, as it accessed the upper reaches of the Kensington orebody. This drift is commonly referred to as the 2,050-drift, to differentiate it from the main Kensington Mine in operation at this time. This small dimension drift, at 8 × 8 feet is connected to the rest of the Kensington workings via an Alimak raise from about 910-elevation up to the 2,050-drift. Historically this raise has been used as both ventilation and waste pass, although only as a waste pass now for all levels above 910.

Fresh air intake for the Kensington and Raven underground ventilation is from the Kensington portal. Air flow is controlled by two booster fans to distribute air to the upper and lower legs of the mine, and two primary fans located on the Comet exhaust leg. A mine layout showing these segments is provided in Figure 16-1 and Figure 16-2.

The Jualin underground mine area is accessed through a separate stand-alone portal at the 926-elevation on an intermediate bench behind the mill and crusher buildings. The Jualin is currently a development project targeting a series of high grade discreet veins running at an approximate azimuth of 327° with a dip of -55°.

Fresh air for Jualin during the exploration phase is drawn through a main fan located at the Jualin Portal and ducted to the face via rolled metal hardline and standard vinyl ventilation bag.

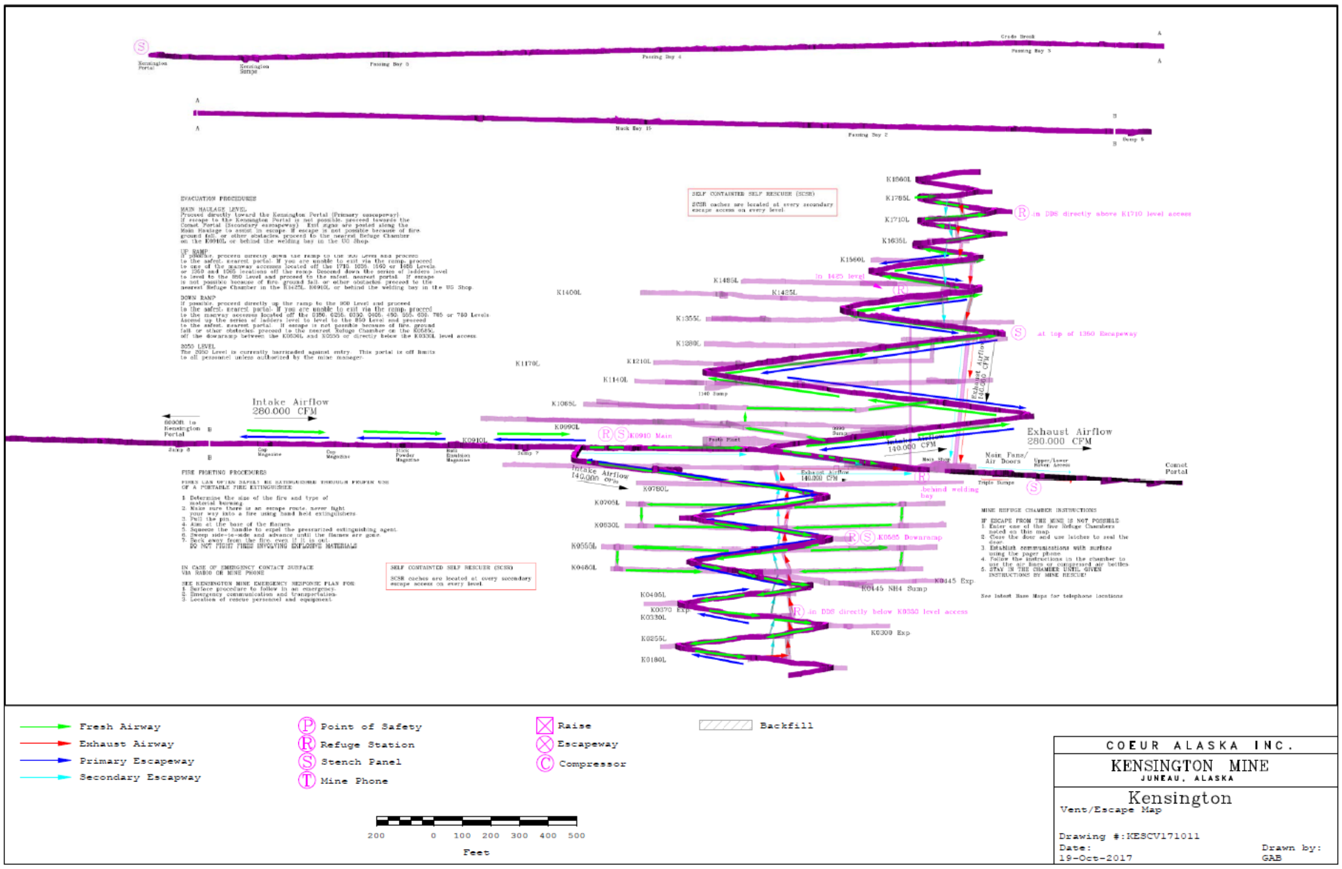


Figure 16-1 A Mine Escapeway and Ventilation Map for Kensington Main

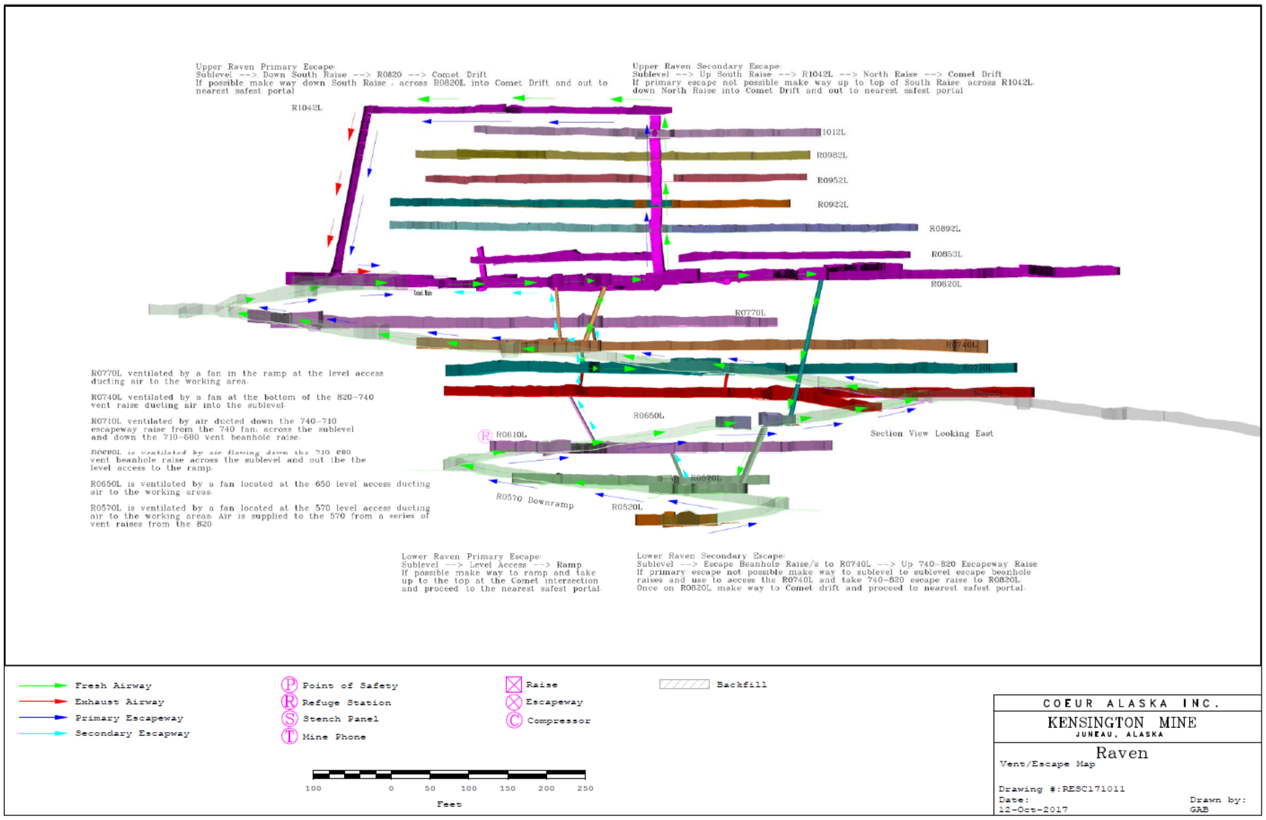


Figure 16-2 Mine Escapeway and Ventilation Map for Raven

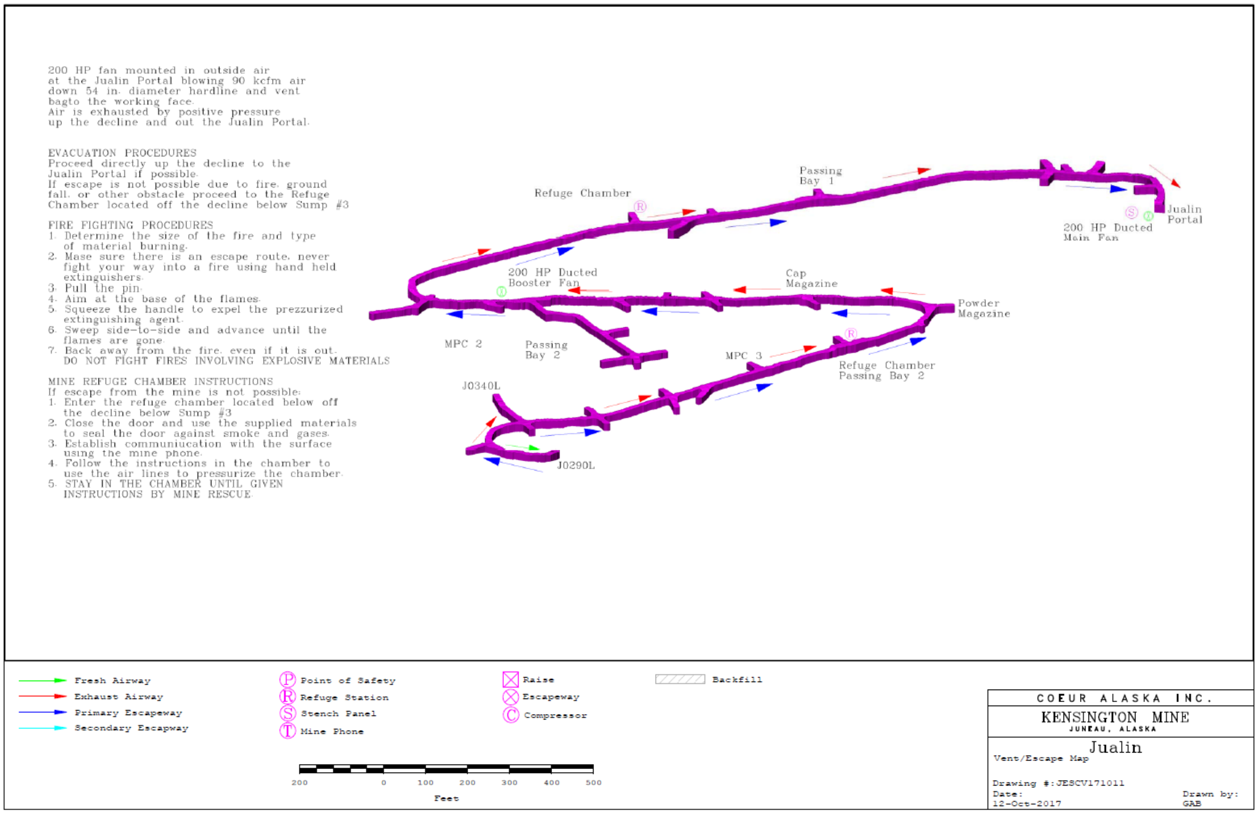


Figure 16-3 Mine Escapeway and Ventilation Map for Jualin

16.1.1 Geotechnical Considerations

Geotechnical conditions underground at Kensington are excellent. No Mine Safety and Health Administration (MSHA) reportable ground falls have occurred at Kensington during the current phase of operation that began in 2009. MSHA reportable ground falls are defined by Title 30 of the Code of Federal Regulations (CFR) as "An unplanned roof fall at or above the anchorage zone in active workings where roof bolts are in use; or, an unplanned roof or rib fall in active workings that impairs ventilation or impedes passage". This is attributable to a stable, competent rock mass, appropriate ground support standards, and proper installation of ground support by the miners.

The interaction of the mining sequence on the overall stability of the hanging wall has been investigated by an outside geotechnical expert, as discussed in Sections 15.2.6 and 29.4. Minor non-reportable occurrences have taken place within open stopes where personnel are not exposed. Regular additional evaluations by an outside geotechnical expert will be ongoing to assess additional changes necessary to the standard, with changing conditions and exposure.

Raven workings have been extended, using guidance from an outside geotechnical expert, with excellent results to date. No MSHA reportable ground falls have been identified in Raven, and more visits by an outside geotechnical expert will allow changes as necessary while Coeur proceeds with operations in this region of the mine.

The use of the existing Ground Support Guidelines (Section 29.2) has been confirmed to be appropriate for use in the Jualin. The use of pillars in the stoping regions is recommended to reduce potential hanging wall dilution and as of the current design that approach is feasible with little or no ore loss. Ground Support Guidelines will continue to be updated as new information and understanding of the geotechnical properties is gained.

16.1.2 Hydrogeological Considerations

There are few hydrogeological considerations to be considered beyond natural inflow of water to the workings within Kensington and Raven orebodies. This inflow is monitored, and the water is captured within the workings to be either treated, or discharged, as per Kensington's permit requirements. Fractures in the host rock that formed because of the regional shear stresses that led to widespread mineralization, extend from surface to below the lowest workings. These fractures contain some water which percolates down into the workings over time. There is a measurable variance in flow within the mine which corresponds with seasonal precipitation events. Water influx decreases with depth as fractures become tighter and fewer, and less weathering of the fractures has occurred over time. Conversely water influx is expected to increase as overburden depth decreases as the up-ramp is extended. 200-300 gpm are expected while mining above the K2050 Level. Water quality from suspended solids and self-introduced contaminants are measured, and treated accordingly, to meet discharge limits.

The Jualin orebody represents a departure from the Kensington and Raven hydrogeological considerations. The Jualin deposit is near surface (600 to 700 feet) with several faults and mineralized veins having surface expression. These surface expressions collect runoff water and along with the historic Jualin mine workings acting as a reservoir channel water to the areas in development for mining. All water from the Jualin must be transported to the main Kensington water system. These flows have taxed the Jualin water handling system and have the possibility to overrun the main Kensington water handling system.

Golder Associates was contracted in 2017 to begin a hydrogeological assessment of the Jualin orebody and associated geological structures. This work consisted of mapping, piezometer installation/monitoring, and flow modeling. In late 2017 Golder recommended the installation of a dewatering well and associated pumping system. The 1,000-foot-deep well will be drilled in Q2 2018 from the J0655 Exploration Drift and will target two known water bearing structures at 325 feet and 960 feet below the collar. Dewatering rates will depend on the treatment capacity at the Comet WTP. The Comet WTP capacity is planned to be increased from 2,400 gpm to 3,000 gpm in 2018. This expansion would allow Jualin dewatering rates of 800 to 1000 gpm in 2018.

16.1.3 Mining Method Selection

Stopping and paste backfill mining methods have been selected and implemented based on the orebody location, ground conditions and geological settings since mine production started.

The primary mining method is transverse longhole stoping with paste backfill and mainly used in the center area at Kensington. Drilling shows that the Kensington orebody narrows to the north and south (4 to 20 feet thick), thus longitudinal longhole stoping is used. In Raven longitudinal longhole stoping is the predominate mining method as the orebody is mainly narrow, between 5 to 20 feet thick, with most of mining in material 5 feet or less in thickness.

A minor amount of drift and fill mining has been done in Kensington Block E (Zone 41). Where a drift is driven (15 × 15 feet) parallel to the ore boundary, and driven within the structure until the vein is too narrow to economically drive on, then the remaining ore is either slabbed out of the drift walls, or in the case of a wider portion of the ore on a given elevation, short headings are driven (15 × 15 feet) and filled with paste or Cemented Rock Fill (CRF). There is no drift and fill in the current Mineral Reserves as most has been converted to narrow longitudinal stopes to limit the amount of lateral development, and improve extraction ratios. Options remain open to employ a drift and fill or cut and fill mining method again in the future depending on circumstances and morphologies.

After being mucked clean, open stopes were filled with waste rock prior to 2013 and paste fill after 2013 when the paste plant was commissioned.

16.1.4 Kensington Mining Methods

A long section of the main Kensington orebody, looking from east to west, is shown Figure 16-4. The regularly sized blocks in green and red represent the primary and secondary shapes of transverse stopes. The longer shapes, and typically pastel hued, represent a mix of longitudinal, and transverse shapes where the orebody is too narrow in general to mine in a transverse fashion.

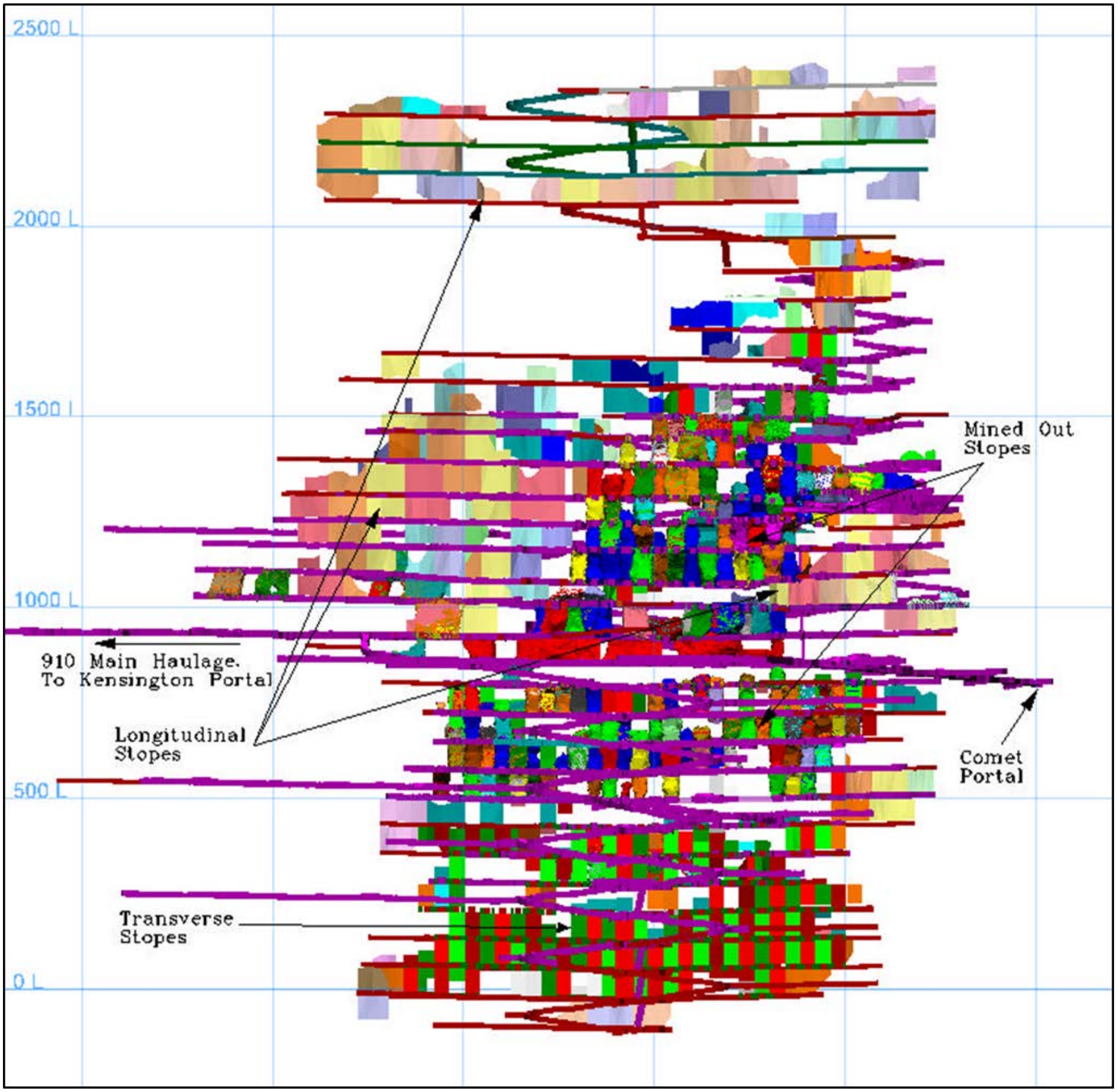


Figure 16-4 Kensington Development, Ore and Mined Shapes (looking West) (Coeur, 2018)

In Kensington transverse stoping, the dimension is primarily 40 feet in width, nominal height of 75 feet, and variable lengths, from 25 to 150 feet along strike. Access ramps (16 × 16 feet) and level development (15 × 15 feet) are driven in the footwall (above 910 level) or hanging wall (below 850 Level) of the orebody with twin boom jumbos, Load/Haul/Dump (LHD) loaders, and teledump low profile mine haul trucks. Ore is extracted by driving across the orebody on two levels, drilling and blasting with 60 to 80 feet vertical rings of blast holes between the two levels at a width of 40 to 50 feet and creating an open stope near perpendicular to the strike of the ore using Cubex and Simba longhole drills. Vertical raising within and outside of the orebody is done with the Cubex longhole drill in most instances. Where greater ground control and dimension control is desired, a raisebore of the appropriate size is selected to pilot a hole between existing excavations and then back-reamed to the desired dimension.

In longitudinal stoping, ore is extracted by driving along the orebody on two levels, drilling and blasting with 60 to 90 feet rings of blast holes drilled down dip creating an open stope parallel to the strike and dip of the ore. Longitudinal stoping is used in ore up to 25 feet wide. Strike lengths will predominantly be constrained to less than 100 feet, with 80 feet as the optimum length open, to prevent hanging wall failures.

The predominant mining method in the start-up plan in 2010 was longitudinal longhole stoping. In response to problems encountered in the execution of the longitudinal stopes, and time constraints, the mining method was changed in 2011 from focusing on longitudinal stopes with transverse stopes where required, to developing transverse stopes with longitudinal stopes where required. The advantages of transverse stoping are:

- Reduced risk of rock mass instability resulting in reduced:
  - Risk of injury to personnel;
  - Dilution;
  - Ore loss;
  - Interruption of production; and
  - Risk of equipment loss.
- Stable hanging walls do not require major rehabilitation.
- Development does not exceed 20 feet wide in man accessed drifts, whereas longitudinal stoping required wide areas up to 60 feet or more in width, to be slabbed and supported with cable bolts at times.
- Stope brows are more stable.
- Better access for stope definition drilling and mapping resulting in better ore control.
- Shorter critical path for development.
- Many more concurrent working areas.

Transverse stopes proved to be a far superior option to longitudinal stopes despite requiring more development footage and longhole drilling than longitudinal stopes. Longitudinal stopes will still be utilized, and as Coeur advances to the fringes of the orebody, the longitudinal stopes will become more prevalent again. The intent is to access longitudinal stopes with a more restricted design length, and a maximum hanging wall exposure of 100 feet, and less in most cases.

Paste fill will be employed to fill longitudinal stopes instead of loose gob muck as used previously due to geotechnical and mine life considerations. A fill with less compaction potential is needed to provide greater passive support and less subsequent potential ground movement. Additionally, the need to place a maximum quantity of tailings material underground to increase the life of the permitted tailings facility is necessary to extend the mine life.

16.1.5 Raven Mining Methods

Figure 16-5 shows a long section of Raven, looking east to west, with current planned development and extraction for the next three years. Additional drilling and sampling work has been done in 2016 and 2017. The orebody is open both up and down dip and minimally along strike. Raven is planned to be mined using longitudinal stoping, and combining with shrinkage stoping, and possible cut and fill depending on the orebody orientation Colors of individual stopes are not indicative of gold grade.

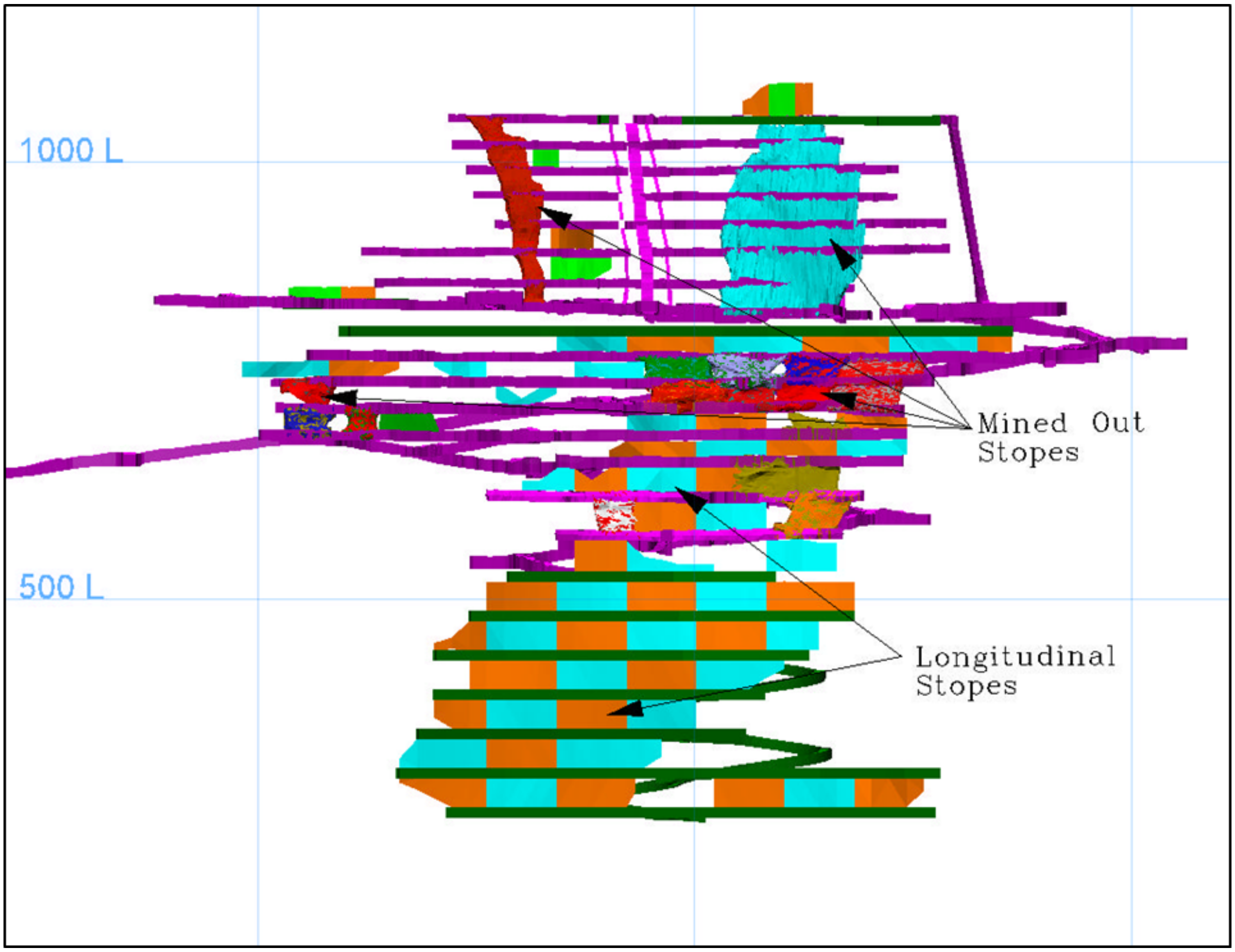


Figure 16-5 Raven Development, Ore and Mined Shapes (looking West) (Coeur, 2018)

Raven lateral development began mid-year 2013 with the raise development commencing in mid-2014. Production stoping started near the end of 2015 and continued throughout 2017.

Upper Raven is accessed by two Alimak raises. The primary raise (10 × 10 feet) is in the south-central portion of the orebody, and is equipped with a manway and equipment slide, and additionally flanked by muck passes to the north and south (4 × 4 feet). Raises can be seen in Figure 16.4 as the magenta/pink triple vertical structure close to the center of the image. The secondary raise (7 × 7 feet) is located on the north end of the orebody and is used solely for escape purposes and man access, and is located primarily in the waste, except the very top of the raise, where it ties into the sublevel driven along the ore structure. The development on the upper portion has been up to 1042 level at the end of 2017.

Lower Raven is accessed by a 12 × 12-foot nominal ramp driven off the Comet main, and currently has ventilation and escapeways from the access level at 820-elevation down to the lower levels. The ramp has been driven down to 520 level access at the end of 2016.

Due to the narrow width of the ore in both upper and lower Raven, both will be mined longitudinally. Upper Raven will be mined using a combination of shrinkage, and a modified longitudinal stoping method. Sublevel jackleg development drifts will be driven off the primary raise on approximate 30 feet vertical centers. Sublevel drift dimensions will be 4 to 8 feet in width and 10 feet high. Stoping will be accomplished in two different manners in the already developed areas of upper Raven. Stopes will be drilled with jackleg drills shrinkage style from the 820 level to the 1042 level or drilled with a track mounted pneumatic longhole drill up and down from every other level from the 820 to the 1042.

All muck from Upper Raven will be removed from the 820 by a four- or six-yard LHD unit pulling from draw points and loading 20-ton trucks. All the access drifts now open to the stope will be barricaded, and the stope backfilled with paste in lifts, with a pause between each panel for curing time. Once the paste column has cured, the next vertical panel section in line will be dropped, moving north to south.

The orebody in lower Raven is pierced approximately every 30 to 50 feet vertically by 12 x 12 feet mechanically-driven development drifts stubbed off varying points on the main ramp and by internal ramps connecting level to level within the orebody. This work is being completed with single boom jumbos, jacklegs, and LHDs. Longitudinal stopes are blasted between levels, mucked along strike, and paste backfilled.

If the grade is high enough and equipment and manpower availability require it, some portions of both upper and lower Raven may be mined using drift and fill.

16.1.6 Jualin Mining Methods

A long section of the Jualin orebody, looking from east to west, is shown Figure 16-6. The regularly sized blocks shown in blue and orange (Figure 16-6) represent longitudinal stopes and are mined in a manner like the lower Raven. Due to a higher density of geologic structures in Jualin the stope length and therefore the hanging wall exposure is limited to 80 feet. If stopes are successfully mined at 80 feet the length may be increased to speed up extraction, barring any ground failures. All stopes in Jualin have been designed with a minimum width of four feet. One third of the designed stopes have an ore width of less than four feet and rely on the high grade of the narrow vein to carry the additional dilution. Narrower stopes have been taken in lower Jualin but not reliably enough to plan on.

Most of the blank areas between designed stopes are mineralized but not with enough thickness to carry a stope. As the longitudinal drifts are driven through these areas the vein will be scrutinized to determine if some other mining method may be utilized such as cut and fill or shrinkage stoping.

The Jualin is currently accessed by a 5,000-foot-long, -15% grade, nominal 15 × 17-foot decline collared from surface at 926 foot elevation. Sumps, electrical bays, refuge stations, and exploration drifts are driven off the decline along its entire length. Colors of individual stopes are not indicative of gold grade.

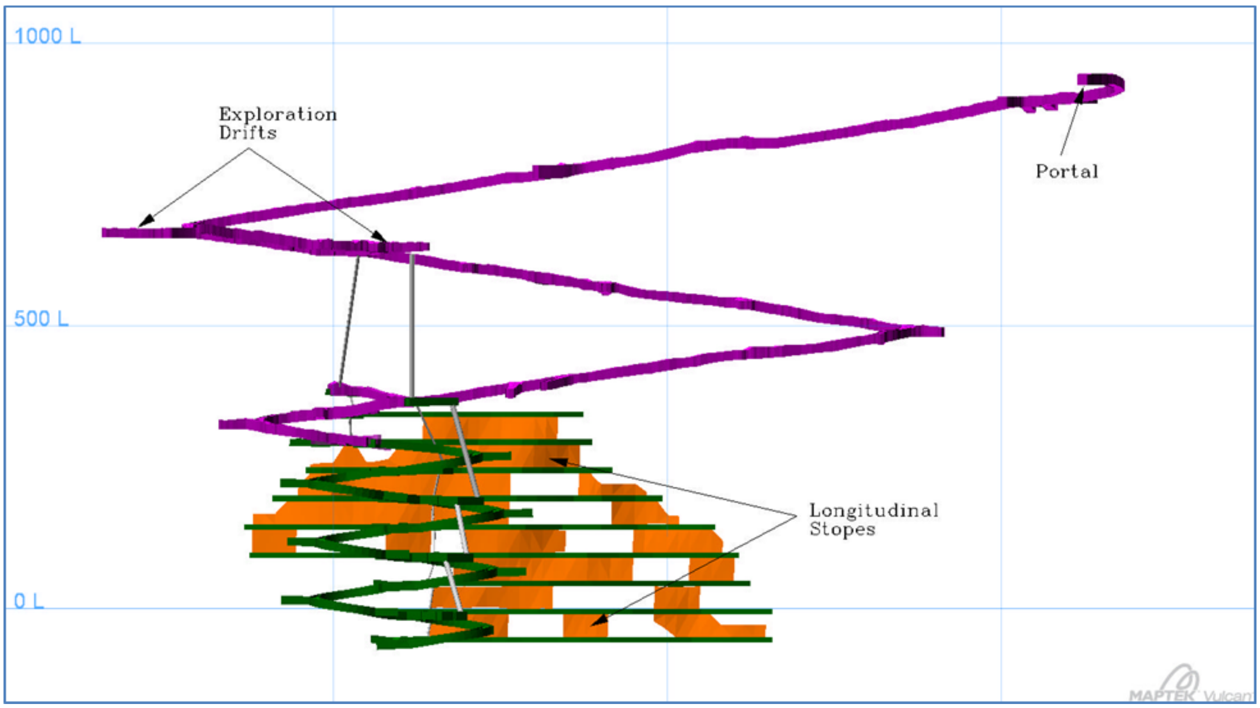


Figure 16-6 Long section of the Jualin orebody, looking from east to west (Coeur, 2018)

16.1.7 Consideration of Marginal Cut-off Grades and Dilution

Marginal cut-off grades are driven by the metal price with costing applied as described in Section 15.2.12. New costing and tracking tools are being implemented in early 2018 to segregate actual costs for the Raven from the Kensington areas, and to have separate, accurate cost estimates going forward in both areas.

A separate cut-off grade has been calculated for Jualin based on forecasted mining costs and historical costs for milling, G&A, refining, as well as a royalty fee not present for Kensington and Raven ounces.

Utilities in all mining areas are primarily focused in a small number of drifts between the ramp and the footwall to have central distribution points to the level, and from level to level. Coeur also considers where utilities would not be damaged because of standard mining methods.

16.1.8 Design Assumptions and Design Criteria

Mining design assumptions for each mining region are typically standardized for each area and mining method assumed. Offsets from the ore, required infrastructure, and support are based on industry standards and best practices, modified by specific location required needs, and operational requirements to safely advance development and production in each area with a minimum of wasted development to maximize efficiency.

16.1.9 Kensington Design Assumptions and Design Criteria

Design work for Kensington follows historic planning goals, with transverse stoping as the primary means of extraction when the orebody is 25 feet or more in width from footwall to hanging wall. When narrower, the region is considered for longitudinal mining, followed by drift and fill alternatives, focusing on the cut-off grade and cost basis to retrieve the ore.

Development is placed such that the ramps are 200 to 250 feet from the orebody. Footwall drifts, when developing for transverse stopes, are placed 100 feet from the orebody, whenever possible, with some consideration given to optimal equipment access. Infrastructure such as vent raises, sumps, utilities, and paste lines corridors are placed whenever possible, between the ramp and footwall and the services are then distributed throughout the level as operations progresses. When developing a level for longitudinal stoping, the drift work is placed within the orebody, and follows the primary structures as much as possible to minimize waste development and allow a retreat mining approach from the farthest extent of the orebody back to the central access corridor. When both mining methods are present on a level, then transverse stoping designs take precedence, and longitudinal work is placed, as possible, where it follows the traditional longitudinal approach.

16.1.10 Raven Design Assumptions and Design Criteria

Raven design criteria are entirely predicated on the development existing within the orebody for the upper regions, with raises being the primary source of ingress/egress, and sublevel development with jacklegs every 30 feet vertically. As Raven is a narrow vein structure, the intent is to minimize dilution by driving drifts as narrow as possible (4-foot minimum width) with jacklegs, slushing the muck to a mill hole, and advancing to the end of the orebody. Then narrow vein longitudinal stope panels will be removed with a small dimension stope drill, and allowing the shot stope muck to fall to the bottom (820) level for mucking.

Lower Raven will be mined with conventional single boom jumbos, jackleg bolting, and LHD/Truck methods, with drifts being 12 × 12 feet for both development and stoping horizons. Extraction will predominantly be done by longitudinal methods like the upper region, but with more flexibility in terms of drift and fill methods.

16.1.11 Jualin Design Assumptions and Design Criteria

Jualin design criteria are based on the experience of mining lower Raven. Jualin will be mined with conventional single and double boom jumbos, jackleg and mechanized bolting, and LHD/Truck methods. Drifts dimensions will be 15 × 17 feet in the ramps and level access stubs, 12 × 12 feet in the level access/infrastructure, and 10 × 10 feet in the longitudinal stope development drifts. Extraction will predominantly be done by longitudinal methods with the potential for some conventional shrinkage stoping on narrower (1 to 2-foot vein width) areas with significant grade.

Levels are currently spaced every 50 feet vertically and are connected by a figure eight ramp. Longitudinal stopes will be drilled with a small dimension stope drill from both the top and bottom to minimize hole length and subsequent drill deviation. The footwall angle of the Jualin longitudinal stopes was designed at a minimum of 55° and resulted in additional planned dilution but was necessary to ensure recoverable stopes. If the grade in the resource model were to drop the additional foot wall dilution may make some stopes uneconomic and cut and fill mining will need to be evaluated.

The ramp is placed 200 to 250 feet from the orebody to provide flexibility in the future should the cut and fill mining method become necessary and internal ramps are needed to access additional levels.

16.1.12 Backfill

Backfill is a combination of cemented paste fill, cemented rock fill (CRF), and straight waste fill. For cemented paste fill a portion of the tailings from the mill is sent back underground via pipe to the paste plant located at the 910-elevation, where the tailings are mixed with a slag/cement binder mix ranging from 1% to 6% binder in stopes. Placement where personnel will be actively developing alongside the paste indicates higher percentages of binders, in the 5 to 6% range, while stope fill is typically 3 to 3.5% to stope alongside. The minimum rate of 1% binders is reserved for secondaries that are encapsulated by rock and waste, and which we can ensure will not be mined alongside in the future.

The cement content is to prevent liquefaction, and moisture entrainment only on the secondaries. Cement content is relied upon for strength elsewhere. The process in all stopes is to build a plug of waste, or a manufactured cement bulkhead at the base, pour a first pass at full planned cement percentage. Once that fill has passed the brow of the bottom development cut, it can cure for 4 to 7 days, at which time a second pour is placed, at equal or lower percentages of cement, depending on stoping activities next to it in the future. Strength testing of paste has shown that when using the slag/cement binder there is more than adequate strength for our final product.

Figure 16-7 shows a scatter plot of varying cement contents tested at differing cure lengths. Mixtures at 1% are still under-reported now. The slag to cement ratio is always 90:10 in the current blend we receive from LaFarge in Seattle.

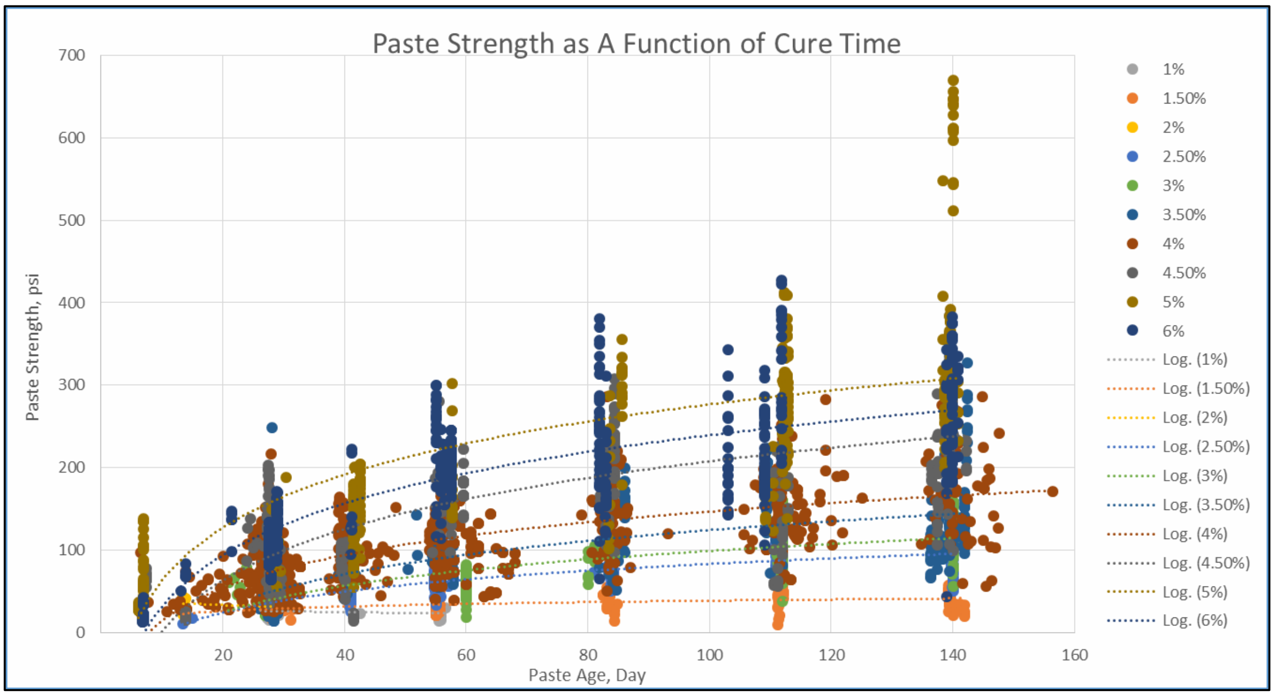


Figure 16-7 Paste Strength Testing Over Time, at Varying Cement Contents (Coeur, 2016)

A new binder product with more environmentally friendly (less carbon emission) performance with comparable strength behavior has been used in paste backfill, since October 2016.

The primary purpose of cemented rock fill currently is to entrain and dispose of potentially acid generating material excavated during the construction of the Tailings Treatment Facility. This material is mixed 2:1 with waste rock and the same binder used for paste fill in a surface plant and trucked underground for placement in secondary stopes below the K0850 Level.

Patterson and Cook was contracted in late 2016 to complete a feasibility study on backfill options for Jualin. Several options were evaluated including pumping or trucking paste from the existing Kensington plant, building a new paste plant for Jualin, and mixing CRF on the surface and trucking underground. At the time of the study a higher production rate was assumed than now thought feasible so the conclusion of trucked CRF from the surface is being reevaluated and trucked paste from the Kensington plant is looking favorable.

Waste filling of stopes and inactive mining areas has increased in 2016 and 2017. As the down ramp gets lower the cycle times for hauling waste increase. In order to meet scheduled targets, waste generated in the down ramp is being used for backfill in down ramp secondary stopes. This has the added benefit of taking up some of the backfill deficit that the paste plant has been unable to fill to date.

16.1.13 Ventilation

Primary ventilation in the Kensington and Raven mine areas is controlled by two 500 HP fans located in the Comet drift, which pull air from the Kensington/Mill side, near the mill bench straight through the mountain and exhaust out the Comet side. Two 200 HP booster fans pull a portion of this fresh air up and down the ramps that then supply air to the remainder of the existing workings. Various 150 HP, 125 HP, 75 HP, and 30 HP fans then direct air flow into each individual level, and active mining headings on those levels.

Primary ventilation of the Jualin mine area is accomplished with a 200 HP duct mounted fan located at the Jualin portal and a 150 HP in-line booster at the J0625 Level directing air through rolled metal hardline and flexible vinyl vent bag to the working areas. The air then exhausts out though the workings back to the portal via the ramp. The life of mine ventilation system consists of a series of ventilation and escape raises from the surface, through the J0625L, and extending down to the current lowest designed level at the JN0060L. Jualin will be negative pressure with a bulkhead installed 200 HP main fan in a runaround on the J0625L. Fresh air will intake through the Jualin portal and exhaust through a 10-foot diameter bored raise to surface daylighting at 760-elevation.

16.1.14 Underground Infrastructure Facilities

The Kensington underground infrastructure is comprised of the main underground shop, the paste plant, and electrical infrastructure. Ventilation raises throughout the mine assist in distributing airflow throughout the mine. Ore and waste passes in the upper region of the mine deliver ore and waste to the 910 Level for haulage out either the Comet or Kensington side of the mine, depending on material type and desired dumping location. Below the 910 Level, all ore and the waste not being used to backfill secondaries is hauled out to surface by haul truck.

16.2 Production Schedule

The mine production schedule is based on a maximum mill throughput rate of 2,000 short tons (st) per day, pursuant to our permit. Coeur Alaska typically processes between 1,750 st and 1,950 st per day with a waste stream of about 10% rejected as a coarse pebble reject, which is then passed through a sorter to further extract ore grade material for re-feed back into the mill. Deswik® planning software was used for the detailed scheduling in a Gantt based format, resulting in a summary of tons and ounces by time period.

16.3 Blasting and Explosives

Blasting underground is controlled from surface, using Orica blasting products. Most blasting is done with emulsion and packaged product. All development and stope blasts are currently focused on emulsion style blasting methods, using either electronic detonators, or Non-Electric detonators (Non-Els).

16.4 Mining Equipment

Major mining equipment is shown in Table 16-1. Ancillary support equipment consists of Getman and MacClean flatbeds, explosives loading vehicles, zoom boom forklifts, Kubota RTV's and tractors, pickups, compressors, and other standard support equipment.

Table 16-1 Major mining equipment, pieces of equipment shown in brackets (Coeur, 2018)

Loader	Haul Truck	Jumbo Drill	Longhole Drill	Bolter
Cat R1300G	Cat AD45B (3)	Atlas Copco M2C SP (2)	Cubex ARIES I.T.H 10084	Atlas Copco Boltec MC (3)
Cat R1700G (4)	WAGNER MT2000 (2)	Atlas Copco S1D	Atlas Copco SIMBA M7C	SANDVIK DS311 DE/C
AC ST710	Cat AD30 (2)	Tamrock Axera 7 S-260	Atlas Copco SIMBA ME7C	
SANDVIK LH204 (2)	SANDVIK TH320	SANDVIK DD422i-60C	Boart StopeMate	
SANDVIK LH410 (2)	SANDVIK TH430 (5)	SANDVIK DD210 (2)		
SANDVIK LH514				

16.5 Comments on Mining Methods

In the opinion of the QP:

- The mining methods used are appropriate to the deposit style and employ conventional mining tools and mechanization;
- The LOM underground mine plan has been appropriately developed to maximize mining efficiencies based on the current knowledge of geotechnical, hydrological, mining, and processing information on the Project;
- The equipment and infrastructure requirements for LOM operations are well understood. Conventional underground mining equipment is used to support the underground mining activities. This equipment is standard to the industry

and has been proven on site. The underground equipment fleet is in good working condition. Appropriate allocation has been made for overhaul and rebuild of underground equipment, as required. The LOM fleet requirements are appropriate to the planned production rate and methods; and

- The predicted mine life is achievable based on the projected annual production rate and the estimated Mineral Reserves.

17. RECOVERY METHODS

17.1 Process Flow Sheet

Figure 17-1 shows the mill flow sheet.

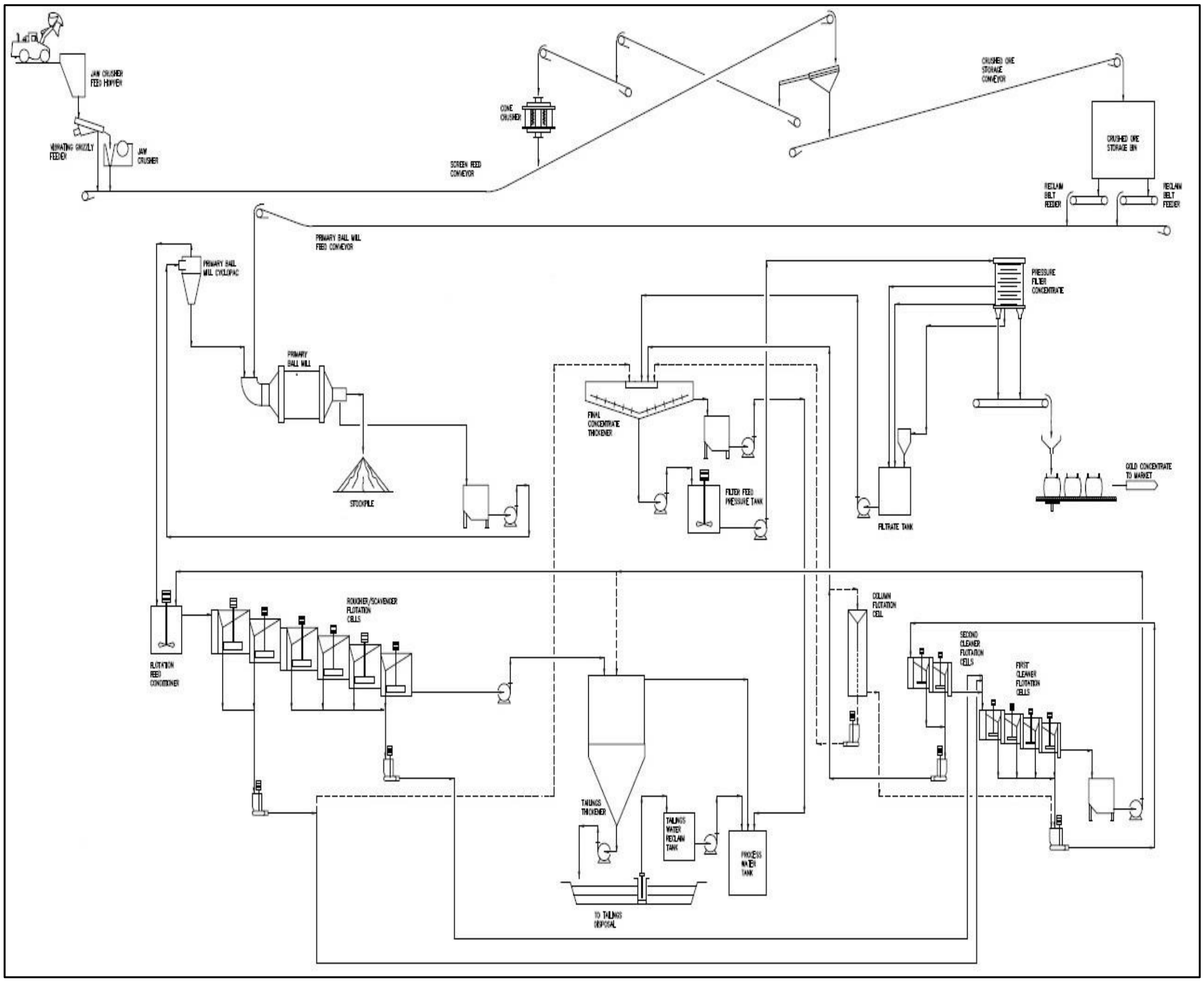


Figure 17-1 Mill Flow Sheet (Coeur, 2014)

17.2 Mineral Processing

Kensington uses a flotation mill to recover gold from sulfide bearing rock. Crushing and milling facilities are located directly south of the Jualin Portal. On the portal bench, the ore is segregated by grade and blended before being fed to the crushing plant. The crushing plant is a two stage, closed-circuit system. Once crushed, the ore is fed to the ball mill and then to the flotation circuit. The initial design for the recovery process was a standard rougher/scavenger, cleaner re-cleaner configuration. The flotation circuit was modified in 2012 to maximize recovery. The product of this facility is a gold concentrate consisting primarily of pyrite.

17.2.1 Crushing

After blending based on grade, ore is fed to the crushing plant using a vibratory feeder. First stage crushing is achieved by using a jaw crusher to reduce the ore size to minus 4 inches. The primary crusher product is fed to a vibrating double deck screen. Until mid- 2012, the lower screen deck separated the material at minus 0.375 inch. In mid-2012, the lower screen deck was changed to 0.75-inch opening, and then a mixture of 1 inch and 1.5-inch openings since 2014. This allows higher throughput by reducing circulating load in the crushing circuit. The oversize screen product is conveyed to a cone crusher, set at 0.75 inch. The secondary crusher product returns to the screen deck. The undersize screen product is fed to the mill. Mill feed is stored in a 1,100-ton capacity fine ore bin.

17.2.2 Grinding

Ore from the fine ore bin is fed to the primary ball mill by a conveyor belt. Grinding is accomplished using a 19.8-feet-long × 11.1-feet diameter ball mill equipped with a 1,250 HP motor. The ball mill discharge is fed to one of two 20-inch cyclones. The cyclone overflow, P_{80} of 210 µm, is fed to the flotation circuit, while the underflow is returned to the ball mill.

17.2.3 Flotation

Primary flotation is conducted in a circuit comprised of two rougher cells and four scavenger cells. Until late 2011, all the concentrate produced in the primary circuit was sent to an 11.5-feet-long × 7.2-feet diameter regrind mill, targeting a grind size p_{80} of 38 µm, before being introduced to the cleaning circuit. This secondary grinding step was eliminated to prevent losses due to overgrinding and sliming of target minerals. Rougher flotation product is either sent directly to the concentrate thickener or to the cleaner circuit. Scavenger product is sent directly to the cleaner circuit, which consists of four primary cleaner cells and two secondary re-cleaner cells.

17.2.4 Dewatering

Final cleaner concentrate reports to a concentrate thickener, the underflow of which supplies a filter feed tank. The thickener overflow returns to the process water system. The filter feed tank contents are pumped to a Larox filter press for further dewatering. Dried filter cake from the Larox is weighed into 2-ton FIBCs for shipment to smelters. Filtrate water returns to the process water system.

17.2.5 Tailings

Tailings from the scavenger cells are mixed with flocculent and sent to a 29.5-feet diameter high rate thickener. The underflow is then sent to either the tailings impound dam, or underground to the paste backfill plant. The overflow returns to the process water system.

17.2.6 Reagents

Except for grinding media, reagent mixing, and handling is conducted in a designated, purpose-built reagent room. From there, reagents are distributed throughout the plant. Table 17-1 shows a list of currently used flotation reagents.

Table 17-1 Reagent Typical Daily Reagent Addition Rates (Coeur, 2018)

Reagents	Typical Daily Reagent Addition Rates
Potassium Amyl Xanthate	68 lbs/day
Methyl Isobutyl Carbinol (MIBC -	127 lbs/day
AERO 3894 (promoter)	71 lbs/day
MaxGold 900 (promoter)	10 lbs/day
Steel (grinding media)	675 lbs/day
Z-Flocc 2525	110 lbs/day

17.3 Recovery

The processing arrangement is a modified rougher/scavenger and cleaner/re-cleaner configuration. Reagent addition points were modified to give the telluride mineral (Calaverite) priority in rougher flotation, then allow for flotation of the bulk sulfides – a selective flotation strategy. The discrete Calaverite particles can be floated first, followed by those existing as rinds and inclusions with pyrite. Changes in the reagents addition points helped in maximizing recovery. Flotation recovery is about 96% with an overall recovery of 95%

Additionally, the mill throughput has been increased from a previous maximum of 69 tons per hour in 2012 to 84 tons per hour. This was achieved by splitting flows between paste plant and tailings pond, also by continuous removal of less enriched, harder, granitic rock pebbles that used to be recycled back to the ball mill feed. This system allows the mill to run at peak capacity of 160% above design averaging 149% (original design capacity of 1,250 tpd, or 52 tph). Granitic rock pebbles are rejected using an XRT ore sorting technology, with the positively sorted material fed back into the mill and processed as ore.

17.4 Ore Sorting

In late September 2015, Kensington commissioned a TOMRA COM Tertiary XRT 1200 ore sorter. This device uses XRT to identify pockets of high density mineral (pyrite in this case) on, or in the bulk of, the lower density quartz and diorite being fed to it across the sorter conveyor belt. The software identifies, targets, and tracks the rocks containing mineral, then uses one or more jets of air to alter an individual rock's trajectory at the discharge of the sorter's conveyor belt. Waste goes onto a conveyor belt to be stockpiled separately and the ore onto another conveyor belt to be recycled back to the process. Ore pebbles are fed back through the milling process at an average grade of 0.247 opt Au (24% higher than LOM feed grade).

Through 2017, 167,612 tons of pebbles had been sorted, yielding 13,607 tons of ore containing 3,374 ounces of gold. During normal operation, the average processing rate is 52 tons per hour.

Test work for incorporation of ore sorting technology into the crushing circuit is in progress.

17.5 Product/Materials Handling

Flotation concentrates are thickened and filtered to approximately 10% moisture. Concentrate is loaded into FIBCs; 12 FIBC's are loaded into each 20-foot sea container. Storage space at the mill is limited, so tractor trailer trucks are used to haul sea containers of concentrate product to a staging area at the Kensington port. The containers are staged until the desired lot size is achieved, at which time, a barge takes the lot to Seattle, and a container ship delivers the product to the overseas smelter.

Tailings are pumped 3.5 miles to the tailings impoundment or are pumped underground to the paste plant to create backfill. The paste plant uses a disc filter to decrease the moisture to 20% before the filter cake is mixed with binder and the resulting slurry is pumped to the appropriate stope. Water removed by the disc filter is sent back to the mill as recycled water.

Supernatant water at the tailings impoundment is sent to the Tailings Treatment Facility (TTF) for processing. Ferric chloride and flocculent are added to water to remove fine suspended solids particles. Flocculated solids are settled using a sand ballasted clarifier; settled solids are filter pressed and returned underground. Potassium permanganate is added to oxidize the soluble divalent manganese to insoluble tetravalent manganese. This oxidation is aided using a pyrolusite filter media, which catalyzes the reaction and eliminates any residual permanganate. Final polishing filtration is done using granular activated carbon. The plant discharges into Slate Creek via pipeline.

17.6 Energy, Water, and Process Materials Requirements

The mill requires approximately 1.5 to 2.0 MW of power to operate at full capacity. Currently, there is no expectation for this power demand to increase.

The Kensington Mine is allowed by permit to withdraw water from Johnson Creek, only when creek levels are higher than a permitted level. This provides a back-up source of fresh water to the entire site, including the mill and potable water system, with up to 520 gpm of fresh water being available for mill use. However, the mill requires approximately 1,600 gpm of total water to operate. The difference between the recycled water and total water required for the mill is made up using fresh water. Recycled water is sent from the paste plant, the concentrate and tailings thickeners, and water reclaimed from the tailings impoundment.

The only non-reagent consumable products used at the mill are the FIBCs, which hold the concentrate and small (1 gallon) poly bags used for lab sampling. Approximately 40 FIBCs and 80 poly bags are used per day.

17.7 Production and Recovery Forecast

The Kensington Mine LOM production plan for the mill assumes similar throughputs, recoveries, and concentrate grades to those achieved in recent years, based on projected mill feed grades provided by geology and mine staff for the LOM.

17.8 Comments on Recovery Method

Kensington staff developed the LOM production plan. The process plant is operational, and there are six years of production history that allow for a reasonable assessment of plant performance in a production setting.

The QP has reviewed the information in this section provided by Kensington and considers that there are no data or assumptions in the LOM plan that are significantly different from previous plant operating experience, previous production throughputs and recoveries, or the Project background history.

In the opinion of the QP, the current process facilities are appropriate to the mineralization types provided from the mine. The flow sheet, equipment, and infrastructure are expected to support the current LOM plan.

18. PROJECT INFRASTRUCTURE

18.1 Road, Ports and Logistics

The Slate Creek Cove Marine Terminal Facility and a 5.7 mile all weather access road from the terminal to the mine provides all personnel and materials access to the mine. Site infrastructure is distributed on both Kensington and Jualin property**.**

18.1.1 Kensington Property

Surface facilities at Kensington include 2.3 miles of all-weather access road from Comet Beach to the Comet Portal (850 Level), the mine water treatment facility with two settling ponds, and a development rock storage facility (Figure 4-3).

The Comet Portal was the mine's primary access until 2007, when the Kensington Tunnel (910 Level) connected it with the Jualin property, resulting in a 14,700-foot travel way between the properties. The 850 and 910 Levels contain the main portion of the mine's permanent infrastructure development. Extensive underground development totaling approximately (172,000 feet) has been completed to date.

Underground infrastructure development for the paste backfill plant, maintenance shop, warehouse, explosive storage, dewatering, and ventilation is complete. These facilities are centralized on the 850 and 900 Levels.

A switchback ramp in the footwall connects the 850 Level to the upper producing levels of the mine. The ramp from the 850 Level to the 1400 Level was originally driven by Echo Bay, then enlarged by Coeur and extended up to the 1710 Level, and currently sits just below the 1935 level.

Coeur developed the lower switch back ramp from the 910 Level to access the lower levels of the mine from the hanging wall of the orebody. As of the end of 2017, the ramp was down to the 105 Level and approaching the 30 Level.

Raise development includes a 1,250-foot-long raise connecting the 850 and 2050 Levels. This raise is currently used to transfer waste from the upper levels to the 850 Level. A series of return air raises (RAR) for ventilation and escape raises connect the 850 Level with the Levels up to 1710 level in the upper portion and down to 180 level in the lower portion of the Kensington respectively. The RAR in the upper levels of the mine from 850 to 1785 level also serves as a secondary egress from the upper ramp system. An ore pass is in service between the 900 and 1425 Levels.

The 2050 Level of the mine was driven in the early 1900s and provided access for mining the Eureka, Kensington and Johnson Veins. It is currently accessible by helicopter or on foot and is not part of the mine's operating infrastructure.

The Raven vein is accessed on the 820 Level, between the Comet Portal and the Kensington orebody. Development in the Raven includes several drifts along the ore, seven levels down to the 520, two access raises driven in ore, and an abandoned 200-foot exploration raise driven partially on ore. Sublevels have been driven into the upper portion and most of the stated reserves in the upper portion (above 820 elevation) were mined out using shrinkage stoping in 2017. Lower Raven is in production currently using longitudinal stoping.

18.1.2 Jualin Property

Surface facilities at Jualin include the Slate Creek Cove Marine Terminal, a 5.7-mile access road from the marine terminal to the mine, a 375-person camp, dining facility, administration building with medical clinic, warehouse, run-of-mine ore stockpile, crusher and flotation mill, and a tailings disposal facility at Lower Slate Lake.

The Slate Creek Cove Marine Terminal Facility includes docking capabilities for main line ocean-going barges, personnel ferries, float planes, ramp barges, and landing craft. The marine terminal is the main access point for the mine.

The Kensington Tunnel, completed in July 2007, connects the Jualin mill facilities to the orebody. The tunnel is the primary artery for ore haulage, materials transport, and personnel access. The tunnel includes 9,660 feet of development from the Kensington Portal to the Kensington ramp system.

The Jualin property includes historic mine workings that include the old Jualin and Indiana Mines. The historic Jualin Mine workings have limited access due to ground falls and portal collapse. The main level would require a small amount of rehabilitation to provide safe access. The historic Indiana mine have workings that are accessible from the middle level. The lower level has been plugged with a concrete bulkhead and backfilled. The upper level's portal is collapsed near the surface.

A new exploration decline was started in the third quarter of 2015 to access the Jualin ore deposit from underground. The face at the end of 2017 is approximately 5,000 feet down a 6,200-foot proposed exploration decline. Diamond drilling stations are being built and used for exploration drilling.

Surface roads at the mine are listed in Table 18-1.

Table 18-1 Road Infrastructure (Coeur 2018)

Road	Distance (feet)	Distance (miles)
Main Road, Slate Creek Cove Port to Jualin Portal	30,100	5.7
Spur Road, Main Road to Tails Dam	11,900	2.3
Reclaim Barge Road	2,100	0.4
Pipeline Road, Spur Road to Mill (minus SSG)	9,500	1.8
Comet Portal to Beach	11,700	2.2
Comet WTP Road	500	0.1
Total	65,800	12.5

18.2 Waste Storage Facilities

The solid and liquid wastes that are generated at the site are temporarily stored within containers that contain secondary containment until the waste can be sent off-site for disposal. Hazardous wastes are stored in a hazardous materials storage building until the waste can be shipped off-site to a treatment, storage, and disposal facility (TSDF).

18.3 Water Management

Groundwater that is captured within the underground mine workings is conveyed to the Comet mine water treatment plant and treated and discharged to Sherman Creek. The discharge is permitted as outfall 001 in the Alaska Pollutant Discharge Elimination System (APDES) permit.

Surface water runoff and mill process waters that enter the TTF are treated and discharged to the east fork of Slate Creek. The discharge is permitted as outfall 002 in the APDES permit.

Runoff from the roads and site facilities is managed using best management practices (BMPs), as described in the Stormwater Pollution Prevention Plan (SWPPP). All storm water discharges are covered under EPA Multi-Sector General Permit AKR-06-0000.

18.4 Camps and Accommodation

Camp accommodations include dormitories with 351 beds, a kitchen dining recreation (KDR) facility, gym, and administration building.

18.5 Power and Electrical

Seven 2 MW diesel-powered generators, located on the mill bench, provide power for the camp, mill, mine, and water treatment. A new 10 MW diesel power plant is under construction and is expected to be put into service in 2018 after which the current generators will be decommissioned and removed from site.

18.6 Fuel

Annual fuel consumption at the mine includes 100,000 gallons of propane for mine heat, 3.6 million gallons of diesel for power generation, and 0.9 million gallons of diesel for rolling stock.

A new fuel storage was built on Jualin property in 2017 with 350,000 gallons of storage capacity to meet the demands of the site.

18.7 Water Supply

Potable water is supplied from Johnson Creek and Bay 19 in the mine to a potable water treatment skid located on the mill bench. Treated water is distributed by pipelines to the mill and camp.

18.8 Dams and Tailings Disposal

Stage 2 of the TTF dam was completed in 2012. Total available tailings storage for Stage 2 is approximately 60,000,000 ft^3. As of December 2017, it's estimated that approximately 55,300,000 ft^3 had been placed. Stage 3 construction of the TTF dam will begin in the spring of 2018 and will be complete by the end of 2018. The ultimate tailings storage capacity is 125,000,000 ft^3. Tailings are also permanently placed underground as paste backfill.

18.9 Pipelines

The following pipelines are in place:

- Tails Pipeline from mill to TTF – 6 inch double-wall HDPE, approximately 18,000 feet long. Delivers tailings from the mill to the TTF.
- Reclaim Pipeline from TTF to mill – 6 inch single-wall HDPE, approximately 18,000 feet long. Delivers water from TTF to the mill.
- Slate Creek Diversion Pipeline – 26 inch HDPE pipeline, diverts Slate Creek approximately 3,500 feet around the TTF.

18.10 Comments on Infrastructure

In the opinion of the QP, the existing infrastructure is appropriate to support the current LOM plan to 2024.

19. MARKET STUDIES AND CONTRACTS

19.1 Market Studies

Gold is a freely traded commodity and daily prices are publicly available.

19.2 Commodity Price Projections

Commodity prices used for Mineral Resource and Mineral Reserve estimates are set by Coeur. Future commodity prices are typically derived from industry/vendor forecasted future price indices for a given commodity.

19.3 Contracts

Approximately 75% of Coeur Alaska's concentrate sales are under contract with a smelter in China, while the remainder is sold at spot market rates to financial buyers. The Kensington Mine ships concentrate on a weekly basis and allocates shipments to achieve optimal payment terms within each quarter.

Near- to medium-term treatment and refining charges are expected to remain at current levels due to the desirability of Kensington's concentrate as well as excess global smelting capacity.

19.3.1 Payable

Smelter requirements:

- Au: 97.25 – 97.625% grade dependent deductions:
- Freight: $3,627/per sea container
- Treatment Charge: $165/dry metric ton concentrate
- Refining Charge: $5.20/oz. of payable Au

19.4 Comments on Market Studies and Contracts

In the opinion of the QPs:

- Coeur Alaska can market the bulk concentrates produced from the Project;
- Review of Kensington concentrates indicates there are no other credits or deductions to consider now; and
- The terms contained within the concentrate sales contracts are typical and consistent with standard industry practice, and are like contracts for the supply of concentrates elsewhere in the world.

20. ENVIRONMENTAL STUDIES, PERMITTING, AND SOCIAL OR COMMUNITY IMPACT

20.1 Baseline Studies

Numerous baseline studies have been performed in the Project Area beginning as early as the late 1980s. There have been three Environmental Impact Statement (EIS) documents prepared, including the 1992 Final EIS, 1997 Supplemental EIS and the most recent 2004 Supplemental EIS. Prior to the preparation of these documents, extensive baseline studies were completed around: air, water, aquatic resources, geology, wildlife, soil, vegetation, wetlands, and cultural resources. These baseline studies were utilized to complete each of the EIS documents.

20.2 Environmental Liabilities

Coeur conducts an annual review of its potential reclamation responsibilities company-wide. The total LOM cost for physical reclamation and long-term monitoring of the Kensington Gold Mine is currently estimated to be $25,157,163. For purposes of this report, Coeur utilized the 2017 internal update costs for the total Project, which presents the best information currently available on-site conditions and probable reclamation costs. The estimates are based on unit costs developed using third-party costs, where applicable, and reflect current pricing conditions.

At the time of release of the TTF from reclamation liability, long-term monitoring and maintenance (LTMM) would be implemented based on the schedule developed in the final reclamation plan.

Coeur intends to fund the long-term monitoring component through establishment of a trust agreement with the state and/or federal agencies. In anticipation of this requirement, the company has prefunded the LTMM account with the insurance carrier.

20.3 Closure Plan

A reclamation and closure plan has been prepared and approved by the governing agencies for the Project. The current plan was updated in 2013 and reflects current mining, mitigation, and site facilities. The facility wide reclamation plan is a combination of site-specific reclamation plans for each part of the mine facility that are required under the Plan of Operations for closure of the property. The plan reflects the alternative chosen in the Final Supplemental EIS Record of Decision (ROD) and includes comprehensive cost estimates to be used for bonding purposes. The plan incorporates key reclamation, closure, and monitoring requirements described in the Final Supplemental EIS ROD, and individual, applicable permits for the Project.

20.4 Required Permits

All required local, state, and federal permits for operation have been issued. The key approvals and permits include:

- Environmental Impact Statement and Record of Decision – On December 9, 2004 the U.S. Department of Agriculture - Forest Service Tongass National Forest Supervisor issued its ROD and selection of Alternative D, concluding the Environmental Impact Statement process for the Kensington Project.
- Plan of Operations – The U.S. Department of Agriculture - Forest Service approved the Kensington Gold Project Final Plan of Operations on June 13, 2005. This approval authorized construction and operation to commence on Forest Service-affected lands.
- Alaska Pollutant Discharge Elimination System Permit (APDES) – This permit is required for discharges to waters of the U.S. and includes mine drainage, storm water, and treated process water (from the TTF). Alaska Department of Environmental Conservation (ADEC), the responsible agency, issued the permit in June 2017. ADEC also has primary responsibility for implementation of Sections 301, 306, and 311 of the Clean Water Act (CWA). These relate to water quality standards, New Source Performance Standards (40 CFR Part 440.104), and discharge or spills of oil. The State of Alaska received primacy for the storm water NPDES program in October 2009 and currently administers the storm water discharge program in Alaska. The Multi-Sector General Permit (MSGP) that Coeur Alaska has obtained coverage under through the EPA remains effective though the delegation process and continues to authorize storm water discharges from the Project.
- U.S. Army Corps of Engineers (the Corps) Section 404 Permit(s) – This is required for the Slate Creek Cove dock facilities, dredging or fill activities in wetlands including the Lower Slate Lake TTF dam and impoundment, as well as other facilities that are in designated wetlands. A Section 404 permit is required for placing tailing (fill) in waters of the U.S. The Corps of Engineers issued a permit modification in June 2014 that is valid through June 2019.
- Corps Section 10 Permit(s) – These are required for any structure or work that could obstruct “navigable waters”.
- Non-Point Source Control Program – The Kensington Gold Mine obtained coverage under the EPA Multi-Sector Storm Water Permit for storm water discharges and runoff management regulations. As required by the permit, a Storm Water Pollution Prevention Plan has been developed and implemented for the entire Project site.

- State of Alaska Air Quality Permit – This permit issued by the Alaska Department of Environmental Conservation authorizes point source air emissions for site operations.
- Federal Consultation(s) – Required consultations were completed with the U.S. Fish & Wildlife Service (USFWS) in administering the Endangered Species Act (ESA) and the Bald Eagle Protection Act, and the National Marine Fisheries Service (now referred to as the National Oceanic and Atmospheric Administration [NOAA]) as part of the permitting process. In accordance with the ESA, NOAA Fisheries prepared a Biological Opinion that concluded the Project would not "adversely affect" Threatened or Endangered marine mammals.
- Other Federal Requirements – Other federal authorizations obtained for the Project include the explosives permit (Bureau of Tobacco and Firearms), the Mine Safety & Health Administration program, and Executive Orders 11990 and 11988 (these address minimizing impacts in wetlands and floodplains).
- Water Rights – Water rights and Temporary Water Use Permits were obtained, which authorize the use of surface water and groundwater supplies; compliance is also required to maintain in-stream flow requirements for fisheries maintenance (Alaska Department of Natural Resources [ADNR]).
- Tideland Permit(s) – A lease is required for permanent improvements to tidelands, in this case for dock facilities at Slate Creek Cove (ADNR). The Tidelands Lease for the Slate Creek Cove Dock was finalized in October 2011 by ADNR.
- Rights-of-Way – The access road is authorized by a state right-of-way with DNR issuing a permit for the road improvements that have been completed within the state right-of-way.
- Dam Safety Permit – The State Engineer (ADNR) issued a certificate to modify a dam for construction of stage 3 of the Lower Slate Lake Tailings dam in May 2017. Stage 3 construction of the dam is planned for 2018. A certificate of approval to operate a dam was received on December 22, 2017 for the Lower Slate Lake Tailings dam.
- Wastewater Permit(s) – Engineering review by ADEC was required for sanitary wastewater treatment and disposal systems, such as the facilities at the mine site. ADEC also issued a permit for the treatment and infiltration of domestic waste water from the Jualin camp and office facilities. A Waste Management Permit was issued by ADEC on September 20, 2013. The permit covers the disposal of waste to the TTF, development rock disposal facilities, and underground in the mine.

- Spill Contingency Plan - This plan was required for the storage of fuel on-site as well as the haulage of fuel from the Slate Creek Cove dock to the mine and processing plant (ADEC).
- Fish Passage and Fish Habitat - Permits were issued to divert, obstruct or modify natural flows of an anadromous fishery, or in the case of the TTF, temporarily eliminating the resident fishery. These permits were also required for bridge- related construction activities in the streams. Similar requirements applied to the diversion in Johnson Creek for the operation's water supply (ADFG).
- In-stream Flows - The Project is required to maintain in-stream flows sufficient to support critical fisheries habitat (ADFG).
- City & Borough of Juneau (CBJ) Large Mine Permit - The Project obtained an Allowable Use Permit from the CBJ, which was required for the "rural mine" designation as part of the Mining Ordinance, along with required building permits for Project construction. Additionally, CBJ has issued many building permits for the Project.

20.5 Considerations of Social and Community Impacts

Coeur Alaska has had a long and positive relationship with the community of Juneau and southeast Alaska. The mine operation is well established as an employer providing high paying jobs. Along with direct payroll, millions of dollars go toward local goods, services, and taxes. In addition, Coeur employees volunteer hundreds of hours each year in schools and for local organizations.

Coeur Alaska partners with many stakeholders, including national, regional, and state mining associations; trade organizations; fishing organizations; state and local chambers of commerce; economic development organizations; non-government organizations; and, state and federal governments.

Coeur Alaska has a partnership with the Berners Bay Consortium, which includes three Alaska Native corporations. Since 1996, this partnership has provided these corporations with business opportunities and shareholder employment.

Coeur Alaska focuses on hiring its workforce from local communities and providing those employees with training that will afford them sustained success into the future. Coeur has formed industry and educational partnerships for job training, recruitment, and hiring with the Alaska Department of Labor and the University of Alaska Southeast.

20.6 Comments on Environmental Studies, Permitting, and Social or Community Impacts

In the opinion of the QPs:

- Coeur Alaska has sufficiently addressed the environmental impact of the operation, and subsequent closure and remediation requirements that Mineral Resources and Mineral Reserves can be estimated, and that the mine plan is appropriate and achievable. Closure provisions are appropriately considered. Monitoring programs are in place;
- The mine currently holds the appropriate social licenses to operate;
- Coeur Alaska has developed a community relations plan to identify and ensure an understanding of the needs of the surrounding communities and to determine appropriate programs for filling those needs. The company appropriately monitors socio-economic trends, community perceptions and mining impacts;
- Permits held by Coeur Alaska for the Project are sufficient to ensure that mining activities are conducted within the regulatory framework required by State of Alaska and federal regulations; and
- There are no currently known risks to estimation of Mineral Resource or Mineral Reserves that are not discussed in this Report.

21. CAPITAL AND OPERATING COSTS

21.1 Capital Cost Estimates

LOM capital projections are $96,660,000 and consist of $82,000,000 for sustaining capital, including equipment replacements, $2,130,000 for development projects and $12,530,000 for exploration.

All major capital construction projects needed to maintain consistent production and extraction of Mineral Reserves at Kensington were completed in 2013, except for the third lift to the tails dam and some potential ventilation in future years.

Capital development is a concurrent allocation of costs that are derived by taking the number of capital feet driven times the recorded weighted costs to drive those feet in the period they were driven. Both types of capital expenditures are sustaining and or improvement capital projects. Each project is selected for the current year of operation, based on the annual allocation of corporate capital funds, the effect the project has on production and or the internal rate of return.

Exploration capital is the cost associated with activities involving resource expansion and the conversion of those resources to reserves.

Capital Projects completed during 2017 included warehouse cold storage, reclaim barge upgrades, IT computer refresh, IT server building, and Sandvik equipment purchase.

21.1.1 Basis of Estimate

The Kensington Mine is scheduled to run 24 hours per day, 365 days a year, at or near designed capacity. Financial estimations are based on a zero-base budget approach to building cost estimates for LOM modeling. All applied consumption rates and cost factors are relative to the sites historical financial data and adjusted for anticipated future inflationary increases.

Mine and mill manpower requirements are determined by the respective production rates necessary to meet economic based production requirements. Kensington uses three rotating shifts to cover two, 12-hour shifts per day. The primary shift rotation is two weeks on and two weeks off. Other shift schedules are used on a limited basis to meet varying business needs.

G&A manpower requirements are based on supporting production activities, management of employees and departments, and meeting external reporting/data requirements. The primary shift rotation is four days on and three days off per workweek.

Most of the material costs are based on the applied engineering designs to excavate and maintain safe underground tunneling for the access to and extraction of ore and maintain the equipment necessary to perform these duties. Among the top material costs is diesel, which is estimated on the utilization rates of seven generators needed to provide the electricity needs primarily to the mine and mill and for running the operation/support equipment needed to perform mining activities. In mid to late 2018 a new power plant will be placed in service. This power plant will serve as the primary source of power for the entire mine site.

Table 21-1 shows a summary of the capital cost.

Table 21-1 Capital Cost Summary (Coeur, 2018)

Cost ($M)	2018	2019	2020	2021	2022	LOM
Capital Mine Development	14.3	14.7	9.1	4.3	1.3	43.7
Capital Expenditures – Construction	2.1	0	0	0	0	2.1
Capital Expenditures – Operations	24.4	10.2	2.6	1.1	0	38.3
Exploration Cat 3	5.7	3.8	3.0	0	0	12.5
Total Capital Expenditures	**46.5**	**28.7**	**14.7**	**5.4**	**1.3**	**96.7**

21.2 Operating Cost Estimates

21.2.1 Operating Cost Summary

The LOM operating cost summary is provided in Table 21-2.

Table 21-2 Operating Cost Summary (Coeur, 2018)

Cost ($M)	2018	2019	2020	2021	2022	Total LOM
Mining	53.9	57.6	60.3	59.2	31.4	262.4
Processing	25.6	26.4	26.1	26.0	13.8	117.9
General and Admin	23.6	24.4	24.1	24.0	12.8	108.8
Royalty and Tax	0.9	1.0	1.1	1.1	0.5	4.6
Total operating cost	**104.0**	**109.4**	**111.5**	**110.3**	**58.5**	**493.8**

The actual 2017 operating cost is $957/ounce Au. Actual production and site costs were greater than budget for the 2017 financial year of and are considered to be an accurate estimation of future production/cost forecasts. These costs were applied to cut-off grade calculations and life of mine cost projections. Table 21-3 projects future costs based on 2017 actual values.

Table 21-3 Total Cost per Gold Ounce Recovered (Coeur, 2018)

Area	Cost per Ounce Recovered
Mine Cost	$485
Mill Cost	$227
G&A	$210
Concentrate Shipping, Smelting, and Refining	$35
Royalties	$0.00
Total Cost per Ounce Recovered	**$957**

21.2.2 Comments on Capital and Operating Costs

The QP has reviewed the capital and operating cost provisions for the LOM plan that supports Mineral Reserves and considers that the basis for the estimates that include mine budget data, vendor quotes, and operating experience, is appropriate based on the known mineralization, mining and production schedules, marketing plans, and equipment replacement and maintenance requirements. Appropriate provision has been made in the estimates for the expected mine operating usages including labor, fuel, and power and for closure and environmental considerations. Capital cost estimates include sustaining and contingency estimates.

22. ECONOMIC ANALYSIS

22.1 Methodology Used

The results of the economic analysis to support Mineral Reserves represent forward-looking information that is subject to several 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 metal prices and concentrate sales contracts; the estimation of Mineral Reserves and Mineral Resources; the realization of Mineral Reserve estimates; the timing and amount of estimated future production; costs of production; capital expenditures; costs and timing of the development of new ore zones; permitting time lines for the tailings storage expansion requirements for additional capital; government regulation of mining operations; environmental risks; unanticipated reclamation expenses; title disputes or claims; and, limitations on insurance coverage.

Factors that may cause actual results to differ from forward-looking statements include: actual results of current reclamation activities; results of economic evaluations; changes in Project parameters as mine and process plans continue to be refined, possible variations in Mineral Reserves, grade or recovery rates; geotechnical considerations during mining; failure of plant, equipment or processes to operate as anticipated; shipping delays and regulations; accidents, labor disputes and other risks of the mining industry; and, delays in obtaining governmental approvals.

22.1.1 Basis of Financial Analysis

To support the declaration of Mineral Reserves, Coeur Alaska prepared an economic analysis to confirm that the economics based on the Mineral Reserves could repay LOM operating and capital costs.

Coeur Alaska records its financial costs on an accrual basis and adheres to U.S. Generally Accepted Accounting Principles (GAAP).

The financial costs used for this analysis are based on the 2018 LOM budget model, which was built on a zero-based budgeting process that was validated through a historical cost comparison from the previous financial year. All the figures in this section are LOM averages and may vary from year to year depending on capital and production needs.

Metal price used in the analysis is $1,250/oz Au.

22.1.2 Sensitivity Analysis

Sensitivity analyses for changes in the principal variables of the financial model, including gold price, ore grade, operating cost and capital cost, have been conducted.

The following tables illustrate the impact of changes to the financial performance and net asset value of the project due to changes in gold price (Table 22-1). Note that there are no cumulative effects of multiple parameter modifications included in the following tables; only one parameter is altered in each case. Sensitivity analysis is based on a base case of $1,250/oz Au and gradational gold prices above and below the base case. Tonnages assumed for cash flow analysis are based on a curved production profile and grade estimation from a sensitivity analysis done using Deswik® Mining software on the Reserve model in December 2017.

Table 22-1 Sensitivity of Project Performance and Net Asset Value to Gold Price (Coeur, 2018)

Gold Price ($/oz)	$NPV_{8\%}$ ($M)	Cash Flow ($M)
1,000	-47	-55
1,200	46	61
1,250 (Base Case)	70	90
1,300	93	118
1,400	187	176

22.2 Mine Production Profile

Table 22-2 summarizes the LOM production profile and cash flow for the Kensington Mineral Reserves. The LOM milling rate is approximately 1,825 tpd at full production.

Table 22-2 Mine Production Profile (Coeur, 2018)

Mined	2018	2019	2020	2021	2022	Total LOM
Tons (×1,000)	643	663	655	653	347	2,961
Ounces (×1,000)	129	141	140	140	71	621
Grade (Au opt)	0.20	0.21	0.21	0.21	0.20	0.21

22.2.1 Operating Costs

Table 22-3 shows the direct cash operating cost forecast.

Table 22-3 Forcasted Direct Cash Operating Cost (Coeur, 2018)

Area	Cost recovered ($/oz Au)
Mine Cost	443
Mill Cost	199
G&A Costs	184
Concentrate Shipping, Smelting, and Refining	35
Total Cost per Ounce Recovered	**860**

22.3 Taxation and Royalties

For this exercise, the Alaska State Royalty at 7% and a Corporate Tax Rate of 15% are applied to the 2018 LOM budget calculated net income.

Coeur Alaska is obligated to pay Echo Bay (Kinross) a scaled net smelter return royalty on 1 million ounces of future gold production after the $32,500,000 purchase price and its construction and development expenditures are recouped. Due to the amount of capital to be recovered, no royalty payments are anticipated for several years.

22.4 Life of Mine Cash Flow

The LOM economic analysis is derived from the total Mineral Reserve and the operating costs summarized in Table 22-4. Overall recovery includes mill and smelter recovery.

Table 22-4 Life of Mine Economic Analysis (Coeur, 2018)

Production	Unit	Life of Mine
Mill throughput	Tons	2,960,973
Head grade	ounce/ton Au	0.21
Contained metal	ounces Au	620,707
Overall recovery	percent	93
Payable Au	ounces Au	577,955
Revenue		
Gold Price	$/ounce Au	1,250
Gross Revenue	$M	722
Refining Cost	$M	20
Net Revenue	$M	703
Operating Costs		
Mining	$M	262
Processing	$M	118
G&A	$M	109
Royalty	$M	5
Total Operating Cost	$M	494
Cash Flow		
Operating Cash Flow	$M	209
LOM Capital	$M	97
Reclamation	$M	22
Net Cash Flow	$M	90
Analysis		
Discount Rate	percent	8
NPV	$M	70

22.5 Comments on Economic Analysis

The QPs have reviewed the economic analysis and confirm that the Project is expected to have positive economics until the end of mine life, which supports Mineral Reserve estimation.

The QPs note that there is upside for the Project if some or all of the Inferred Mineral Resources estimated for the Project can be upgraded to higher confidence Mineral Resource categories and eventually to Mineral Reserves.

23. ADJACENT PROPERTIES

There are no adjacent properties that are relevant to this Report.

24. OTHER RELEVANT DATA AND INFORMATION

There are no additional data that are relevant to this Report.

25. INTERPRETATION AND CONCLUSIONS

The QPs, as authors of this Report, have reviewed the data for the Project and have made the following conclusions and interpretations.

25.1 Mineral Tenure, Surface Rights, Royalties, Environment, Social and Permits

- Mining tenure held by Coeur Alaska in the areas for which Mineral Resources and Mineral Reserves are estimated is valid;
- Coeur Alaska holds, or has the right to obtain, sufficient surface rights to support mining operations over the underground planned LOM that was developed based on the year-end 2017 Mineral Reserves. Coeur Alaska uses other public lands pursuant to special use permits issued by the USFS and leases issued by the State of Alaska;
- Permits held by Coeur Alaska for the Project are sufficient to ensure that mining activities are conducted within the regulatory framework required by State of Alaska and federal regulations;
- Exploration permits are dependent on USFS annual renewal. Although, for the past four years, Coeur Alaska has received the appropriate permits, there is a risk that future permit grant could be delayed;
- Coeur Alaska has sufficiently addressed the environmental impact of the operation, and subsequent closure and remediation requirements that Mineral Resources and Mineral Reserves can be estimated, and that the mine plan is appropriate and achievable. Closure provisions are appropriately considered. Monitoring programs are in place;
- The existing infrastructure, availability of staff, the existing power, water, and communications facilities, the methods whereby goods are transported to the mine, and any planned modifications or supporting studies are sufficiently well- established, or the requirements to establish such, are well understood by Coeur Alaska, and can support the estimation of Mineral Resources and Mineral Reserves and the current mine plan;
- The mine currently holds the appropriate social licenses to operate; and,
- Coeur Alaska has developed a communities' relations plan to identify and ensure an understanding of the needs of the surrounding communities and to determine appropriate programs for filling those needs. The company monitors socio- economic trends, community perceptions and mining impacts.

25.2 Geology and Mineralization

- The geological understanding of the settings, lithologies, and structural and alteration controls on mineralization in the different zones is sufficient to support estimation of Mineral Resources and Mineral Reserves. The geological knowledge of the area is also considered sufficiently acceptable to reliably inform mine planning;
- The mineralization style and setting is well understood and can support the estimation of Mineral Resources and Mineral Reserves. The deposits with economic significance exhibit two distinct habits:
  - High-grade shear-hosted veins of limited strike and dip length within a narrow halo of locally auriferous quartz-veined diorite; and
  - Vein packages comprised of extensional vein arrays, sheeted extensional veins, and stacked en-echelon shear veins.

The QPs concur with the interpretation of a hybrid model style and consider the model and interpreted deposit genesis to be appropriate to support exploration activities.

25.3 Exploration, Drilling, Analysis and Data Verification

- Work completed prior to Coeur acquiring a 100% interest in the Project comprised of extensive surface drilling and underground drilling, surface reconnaissance exploration, geological and structural mapping, geochemical sampling, airborne geophysical surveys, engineering studies and mine development;
- Under Coeur's ownership, work has included geological and structural mapping programs, geochemical sampling, airborne geophysical surveys, surface and underground drilling, engineering studies and mining activities;
- A total of 5,164 drill holes (1,648,247 feet) have been completed over the entire Project Area in the period 1981 to 2017. Of these drill holes, 294 (291,888 feet) are surface holes drilled for exploration or resource development purposes, 3,084 (1,226,266 feet) are underground resource definition drill holes, which are typically drilled on 50 feet, and 1,783 (126,314 feet) are underground stope (pre-production) drill holes that are drilled on cross- and plan-sections spaced on 25 feet The legacy drilling inventory consists of 735 drill holes (408,399 feet), and drill holes under Coeur direction consist of 4,429 drill holes (1,239,848 feet);
- Drill holes are designed to intersect the mineralization as perpendicular as possible; reported mineralized intercepts are typically longer than the true

thickness of the mineralization;

- The quantity and quality of the lithological, geotechnical, collar and downhole survey data collected in the exploration, delineation, underground, and grade control drill programs are sufficient to support Mineral Resource and Mineral Reserve estimation;
- Sampling methods meet industry-standard practice, and are acceptable for Mineral Resource and Mineral Reserve estimation and mine planning purposes;
- The quality of the analytical data is reliable and sample preparation, analysis, and security are generally performed in accordance with exploration best practices and industry standards; and
- Regular internal and external audits of the data undertaken by Coeur since early 2013, has resulted in a significant improvement in the quality of the database and acceptably support the geological interpretations and the database quality, and therefore, support the use of the data in Mineral Resource and Mineral Reserve estimation, and in mine planning.

25.4 Metallurgical Test Work

- Metallurgical test work and associated analytical procedures were appropriate to the mineralization type, appropriate to establish the optimal processing routes, and were performed using samples that are typical of the mineralization styles found within the Project;
- Samples selected for testing were representative of the various types and styles of mineralization. Samples were selected from a range of depths within the deposit. Sufficient samples were taken so that tests were performed on sufficient sample mass. As mining progresses deeper and/or new mining zones are identified, additional variability tests are undertaken, as required;
- Test work results have been confirmed by production data;
- Since mill construction and start-up, numerous internal and external studies have been performed to investigate metallurgical issues and support mill modifications;
- Mill process recovery factors are based on production data, and are considered appropriate to support Mineral Resource and Mineral Reserve estimation, and mine planning;
- Ore hardness, reagent consumptions and process conditions are based on both test work and production data; and
- Recovery factors vary on a day-to-day basis depending on grade and

mineralization type being processed. These variations are expected to trend to the forecast LOM recovery value for monthly or longer reporting periods.

25.5 Mineral Resource and Mineral Reserve Estimates

- Mineral Resources and Mineral Reserves for the Project, which were estimated using core drill data, have been performed to industry best practices, and conform to the requirements of CIM 2014. The Mineral Reserves are acceptable to support mine planning;
- Reviews of the environmental, permitting, legal, title, taxation, socio-economic, marketing and political factors and constraints for the Project could materially affect the potential development of the Mineral Resources or Mineral Reserves using the set of assumptions outlined; and
- Factors that may affect the estimates include: metal price assumptions, assumptions related to geotechnical parameters, assumptions that define the NSR cut-off used to constrain Mineral Resources and Mineral Reserves; maintain appropriate dilution control; mining and metallurgical recovery assumptions; variations to the expected revenue from short-term marketing and sales contracts; and variations to the permitting, operating, or social license regime assumptions.

25.6 Life of Mine Plan

- Underground mine plans are appropriately developed to maximize mining efficiencies based on the current knowledge of geotechnical, hydrological, mining and processing information on the Project;
- Production forecasts are achievable with the current equipment and plant replacements have been acceptably scheduled;
- The predicted mine life is achievable based on the projected annual production rate and the Mineral Reserves estimated;
- The current process facilities are appropriate to the mineralization styles in the underground operations and the existing process facilities will support the current LOM plan;
- Coeur Alaska can market the bulk concentrates produced from the Project. The terms contained within existing sales contracts are typical and consistent with standard industry practice, and are like contracts for the supply of metal concentrates elsewhere in the world;
- Infrastructure required to support mining activities is sufficient for the current LOM.

25.7 Economic Analysis Supporting Mineral Reserve Estimation

- As a producing issuer, Coeur Alaska's economic analysis has been performed to support Mineral Reserve estimation. The QPs have reviewed the economic analysis and confirm that the Project is expected to have positive economics until the end of mine life, which supports Mineral Reserve estimation;
- The results of a sensitivity analysis demonstrate that the Mineral Reserve estimates are most sensitive to variations in metal price, less sensitive to changes in metal grade and recoveries, and least sensitive to fluctuations in operating and capital costs.

25.8 Conclusions

In the opinion of the QPs, the Project has met its objectives. Mineral Resources and Mineral Reserves have been estimated for the Project, a mine has been constructed, mining and milling operations are performing as expected, and reconciliation between mine production and the Mineral Resource model is acceptable. This indicates the data supporting the Mineral Resource and Mineral Reserve estimates were appropriately collected, evaluated and estimated, and the original Project objective of identifying mineralization that could support mining operations has been achieved.

25.9 Risks and Opportunities

The Kensington Mine is a long-established operation with a clear understanding of challenges facing the company in exploiting the ore zones. The following risks and opportunities are noted.

25.10 Risks

Risks that can affect the mining operations, mine plan assumptions, and therefore the Mineral Reserve estimates include:

- Uncontrolled dilution;
- Metal price forecasts are inherently difficult to rely upon. Actual prices will differ to some extent from the forecasts used herein;
- The ability to continue to recruit skilled technical professionals and miners to meet operational needs;
- Mining costs may be higher or lower than expected;
- Environmental compliance may become cost or permit prohibitive; and

- Terms of smelter agreements may change, possibly substantially.

25.11 Opportunities

Project opportunities include:

- Upside potential if some or all the Inferred Mineral Resources estimated for the Project can be upgraded to higher confidence Mineral Resource categories and eventually to Mineral Reserves. Additional potential exists where higher confidence Mineral Resource categories may be able to be upgraded to Mineral Reserves. There is existing exploration potential, which, with appropriate drilling, may also support future Mineral Resource estimation;
- Mine planning to allow the use of the more cost-effective long-hole stoping method may provide upside by increasing production tonnages while potentially decreasing mining costs; and
- A continued enhanced focus on safety may uncover new technology or processes that will further reduce incident frequency and severity.

26. RECOMMENDATIONS

The QPs have reviewed the information on Kensington Gold Mine and have the following recommendations:

- Coeur Alaska should continue with its current plan for core drilling and further development of the Kensington Gold Mine.
- A single-phase work program, for a total cost of $9,800,000 is proposed, and will consist of:
  - Exploration drilling: Additional drilling targeting;
    - The down dip extension of Zone 10/50 – To extend the current resource to -750-elevation;
    - The up-dip extension of the Raven Vein – To connects the high-grade ore shoot on the R1042 Level with surface outcrop;
    - Seward Vein – A surface outcrop of about 8.0 to 10-foot thick massive quartz vein with minor sulfides and specks of visible gold. The Seward vein dips steeply to the east and will be targeted from the K0850 Level;
    - Zone 30;
    - The down dip extension of Jualin Vein #4;
    - Exploration drifting and rehab work; and
    - Include appropriate metallurgical test work programs on new ore zones.

    This work assumes approximately 70,000 feet of drilling and about 750 feet of exploration drifting and rehab, at a total cost of $9,200,000.
  - Mine definition drilling: Stope and infill drilling. This work assumes about 65,000 feet of definition drilling at a total cost of $5,600,000.

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28. ABBREVIATIONS

28.1 Table of Abbreviations

Abbreviation	Explanation
®	registered name
AA	atomic absorption spectroscopy
ARD	acid-rock drainage
BLM	U.S. Bureau of Land Management
CAG	Community Advisory Group
CIM	Canadian Institute of Mining, Metallurgy and Petroleum
G&A	General and Administrative costs
GPS	global positioning system
ICP	inductively-couple plasma
ID	Inverse distance interpolation; number after indicates the power, e.g. ID6 indicates inverse distance to the 6th
LOM	life-of-mine
NI 43-101	Canadian National Instrument 43-101 “Standards of Disclosure for Mineral Projects”
NN	nearest-neighbor/ nearest neighbor
NSR	net smelter return
NW	northwest
OK	ordinary kriging
QA/QC	quality assurance and quality control
QP	Qualified Person
RC	reverse circulation
RMR	rock mass rating
RQD	rock quality designation
SE	southeast
SEIS	Supplemental Environmental Impact Statement
SG	specific gravity
SMU	selective mining unit
SRM	standard reference material
USGS	United States Geological Survey
USFS	United States Forest Service

28.2 Units Measurement Table

Symbol	Meaning
'	foot/feet
"	inches
µm	micrometer (micron)
a	annum/ year
asl	above sea level
ft.	feet
ft^3	cubic foot/cubic feet
ft^3/ton	cubic feet per ton
g	gram
Ga	billion years ago
hp	horsepower
in	inches
km	kilometer
koz	thousand ounces
kV	kilovolt
kW	kilowatt
kWh	kilowatt hour
lb	pound
M	million
m	meter
Ma	million years ago
mi	mile/miles
Moz	million ounces
Mt	million tons
Mt/a	million tons per annum
MW	megawatts
º	degrees
oz	ounce/ounces (troy ounce)
oz/ton	ounces per ton
t	US ton (short ton), 2000 pounds
t/a	tons per annum (tons per year)

28.3 Glossary of Terms

Term	Definition
adit	A passageway or opening driven horizontally into the side of a hill generally for exploring or otherwise opening a mineral deposit.
Ag	Silver, a metallic element.
andesite	A dark colored, fine-grained extrusive rock that, when porphyritic, contains phenocrysts composed primarily of zoned sodic plagioclase (esp. andesine) and one or more of the mafic minerals (e.g. biotite, hornblende, pyroxene), with a groundmass composed generally of the same minerals as the phenocrysts; the extrusive equivalent of diorite.
assay	The chemical analysis of an ore, mineral or concentrate of metal to determine the amount of valuable species.
Au	Gold, a metallic element.
basalt	Dark colored igneous rock, commonly extrusive, composed primarily of calcic plagioclase and pyroxene.
breccia, brecciation	A rock composed of large, angular fragments cemented together in a finer grained matrix. Brecciation is the process of producing a breccia by geologic processes.
chalcopyrite	A bright, brassy-yellow tetragonal mineral with the formula $CuFeS_2$; constitutes an important ore of copper.
concentrate	A product derived from separation of the valuable metal from most of the waste material in the ore.
Cu	Copper, a ductile, malleable reddish-brown metallic mineral.
cut-off grade	The lowest grade of mineral resource considered economic; used in the calculation of reserves and resources in each deposit.
cyanidation	A method of extracting gold or silver by dissolving it in a weak solution of sodium or potassium cyanide.
dacite	A fine-grained extrusive rock with the same general composition as andesite, but having less calcic plagioclase and more quartz.
diamond drill	A type of drill in which the rock cutting is done by abrasion, with a diamond impregnated bit, rather than by percussion. The drill cuts a core of rock, which is recovered in long cylindrical sections. Syn: “core drill”.
dilution	An estimate of the amount of waste or low-grade mineralized rock, which will be mined with the ore as part of normal mining practices in extracting an orebody.
dip	The angle between a horizontal plan and an inclined surface such as a rock formation, fault or vein.

Term	Definition
doré	Gold and silver bullion bars which contain gold, silver and minor amounts of impurities which will be further refined to almost pure metal.
drift	Horizontal passage underground that follows along the length of a vein of rock formation.
epithermal	Formed by low temperature (50° to 200° C) hydrothermal processes.
fault	A fracture in a rock where there has been displacement of the two sides.
flotation	A milling process by which some mineral particles are induced to become attached to bubbles of froth and float, and others to sink, so that the valuable minerals are concentrated and separated from the waste or gangue material.
fracture	Breaks in a rock, usually due to intensive folding or faulting.
galena	A mineral with the chemical formula PbS and an important source of lead, often found in veins with sphalerite.
gangue	Part of an ore deposit from which metal(s) are not extracted.
heap leaching process	A process of extracting gold and silver by placing broken ore on an impermeable pad and applying a diluted cyanide solution that dissolves a portion of the contained gold and silver, which are then recovered in metallurgical processes.
Indicated Mineral Resource	The part of a Mineral Resource for which quantity, grade or quality, densities, shape and physical characteristics can be estimated with a level of confidence sufficient to allow the appropriate application of technical and economic parameters, to support mine planning and evaluation of the economic viability of the deposit. The estimate is based on detailed and reliable exploration and test information gathered through appropriate techniques from locations such as outcrops, trenches, pits, workings and drill holes that are spaced closely enough for geological and grade continuity to be reasonably assumed (CIM 2014).
Inferred Mineral Resource	The part of a Mineral Resource for which the quantity, grade or quality can be estimated based on geological evidence and limited sampling and reasonably assumed, but not verified, geological and grade continuity. The estimate is based on limited information and sampling gathered through appropriate techniques from locations such as outcrops, trenches, pits, workings and drill holes (CIM 2014).

Term	Definition
Measured Mineral Resource	The part of a Mineral Resources for which quantity, grade or quality, densities, shape and physical characteristics are so well established that they can be estimated with confidence sufficient to allow the appropriate application of technical and economic parameters, to support production planning and evaluation of the economic viability of the deposit. The estimate is based on detailed and reliable exploration, sampling and testing information gathered through appropriate techniques from locations such as outcrops, trenches, pits, workings and drill holes that are spaced closely enough to confirm both geological and grade continuity (CIM 2014).
Mineral Reserve	The economically mineable part of a Measured or Indicated Mineral Resource demonstrated by at least a preliminary feasibility study. This study must include adequate information on mining, processing, metallurgical, economic, and other relevant factors that demonstrate, at the time of reporting, that economic extraction can be justified. A Mineral Reserve includes diluting materials and allowances for losses that may occur when the material is mined (CIM 2014).
Mineral Resource	A concentration or occurrence of diamonds, natural solid inorganic material or natural solid fossilized organic material including base and precious metals, coal and industrial minerals in or on the Earth's crust in such form and quantity and of such a grade or quality that it has reasonable prospects for economic extraction. The location, quantity, grade, geological characteristics and continuity of a mineral resource are known, estimated or interpreted from specific geological evidence and knowledge (CIM 2014).
NI 43-101	National Instrument 43-101 Standards of Disclosure for Mineral Projects, promulgated by the Canadian Securities Administrators.
open-pit	A surface working open to daylight, such as a quarry.
ore	Naturally occurring material from which a valuable mineral(s) can be economically extracted.
ore shoot	A pipe-like, ribbon-like, or chimney-like mass of ore within a deposit (usually a vein), representing the more valuable part of a deposit. Syn; "clavo".
Pb	Lead, a soft bluish-white, dense metallic element.
porphyry	An igneous rock of any composition that contains conspicuous, large mineral grains (phenocrysts) in a fine-grained matrix.
Preliminary Feasibility Study	A comprehensive study of the viability of a mineral project that has advanced to a stage where the mining method, in the case of underground mining, or the pit configuration, in the case of an open pit, has been established and an effective method of mineral processing has been determined, and includes a financial analysis based on reasonable assumptions of technical, engineering, legal, operating, economic, social, and environmental factors and the evaluation of other relevant factors which are sufficient for a Qualified Person, acting reasonably, to determine if all or part of the mineral resource may be classified as a mineral reserve (CIM 2014).

Term	Definition
“Probable Mineral Reserves”	The economically mineable part of an Indicated and, in some circumstances, a Measured Mineral Resource demonstrated by at least a preliminary feasibility study. This study must include adequate information on mining, processing, metallurgical, economic, and other relevant factors that demonstrate, at the time of reporting, that economic extraction is justified (CIM 2014).
“Proven Mineral Reserves”	The economically mineable part of a Measured Mineral Resource demonstrated by at least a preliminary feasibility study. This study must include adequate information on mining, processing, metallurgical, economic, and other relevant factors that demonstrate, at the time of reporting, that economic extraction can be justified (CIM 2014).
pyrite	A mineral with the chemical formula FeS_2.
pyroclastic	Rock formed by the mechanical combination of volcanic fragments.
Qualified Person	For the purposes of NI 43-101, an individual who is an engineer or geoscientist with at least five years of experience in mineral exploration, mine development or operation or mineral project assessment, or any combination of these; and has experience relevant to the subject matter of the mineral project; and who is a member in good standing of a recognized self-regulatory organization of engineers or geoscientists.
reverse circulation	A rotary, percussion drilling method in which rock specimens are broken into small pieces, cuttings, and brought to surface by high-pressure air passing in the annulus between an inner and outer drill casing. Abbrev “arc”.
run-of-mine ore	Mined ore, which has not been subjected to any pre-treatment, such as washing, sorting or crushing prior to metallurgical processing.
shrinkage stoping	A method of stoping which utilizes part of the broken ore as a working platform and as support for the walls.
silicified	A rock altered by a silica-bearing hydrothermal fluid.
sphalerite	The main zinc ore, with the chemical formula (Zn, Fe) S, often found in veins with galena.
split	A vein or seam that is separated from the main vein or seam. Syn; “loop”.
stope	An excavation in an underground mine from which ore is being or has been extracted.
strike	The trend or direction of the intersection of a dipping a layer of rock, fault, vein or another geologic feature with a horizontal surface.
tailings	Material rejected after recoverable valuable minerals have been extracted from the ore or concentrate.
ton	2,000 pounds. Syn; short ton.

Term	Definition
tuff	A general term for all consolidated pyroclastic rocks derived from solid volcanic material, which has been blown into the atmosphere by explosive activity.
vein	An epigenetic mineral filling of a fault or other fracture, in tabular or sheet-like form, often with associated replacement of the host rock; a mineral deposit of this form and origin.

29. APPENDIX

29.1 PROPERTY RIGHTS

The properties described in this Exhibit A are situated in all or part of the following sections in the Juneau Recording District, First Judicial District, State of Alaska and Copper River Meridian, Alaska:

T34S, R62E, Sections 27, 28, 29, 30, 31, 32, 33, 34, 35;
T35S, R62E, Sections 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 22, 23, 24, 25, 26, 27, 35, 36; and
T36S, R62E, Sections 1 and 2.

Alaska State Land Survey 93-170 Accretion site: Accretions to Mineral Survey No. 54-B, Mineral Survey No. 38-B and Mineral Survey No. 40-B, according to Alaska State Land Survey 93-170, recorded as Plat No. 94-29 in the Juneau Recording District, First Judicial District, State of Alaska.

Table 29-1 Patented Mining Claims - Kensington Patented Lode and Millsite Claims (Coeur, 2018)

Claim Name(s)	Patent No.	Mineral Survey No.
Ophir Lode	24265	37A
Ophir Mill Site	24265	37B
Bear Lode	24324	38A
Bear No. 2 Mill Site	24324	38B
Savage Lode	24324	39
Seward Lode	24660	40A
Seward Millsite	24660	40B
Seward No. 2 Lode	24660	41
Elmira Lode	25362	42
Northern Belle Lode	25362	43
Yellow Jacket Lode	25362	44
Kensington Lode	25362	45
Eureka Lode	25362	46
Esmeralda Lode	24662	47A
Esmeralda Millsite	24662	47B
Excelsior Lode	24662	48
North West Lode	24662	49
Cumberland Lode	24660	50A
Cumberland Millsite	24660	50B
Comet Lode	24660	51
Thomas Lode	24660	52A
Thomas Millsite	24660	52B
Poor Richard Lode	24660	53
Comet Extension Lode	24660	54A
Comet Extension Millsite	24660	54B
Snowflake Lode	24660	55
Last Chance Lode	24660	56
Banner Lode	24660	57

Claim Name(s)	Patent No.	Mineral Survey No.
Eclipse Lode	24660	58
Hartford Lode	24661	59
Horrible Lode	26397	60
Mexican Lode	26398	61
Northern Light Ex. No. 2 Lode	36096	380
Northern Light Lode	36096	380
Northern Light Ex. No. 1 Emma Lode	36096	380
Lions Tail Lode	1117017	2015
Lions Paw Lode	1117017	2015
Lions Paw No. 1 Lode	1117017	2015
Lions Paw No. 2 Lode	1117017	2015
Lions Paw No. 3 Lode	1117017	2015
Lions Paw No. 4 Lode	1117017	2015
Olga No. 1 Lode	1117017	2015
Olga No. 2 Lode	1117017	2015
Olga No. 3 Lode	1117017	2015
Olga No. 4 Lode	1117017	2015
Bat Lode	1117017	2015
Bee Lode	1117017	2015
Stanley Lode	1117017	2015
Plucky Girl Fraction Lode	1116607	2018
Lucky Boy Fraction Lode	1116607	2018
Arnold Lode	1116607	2018

Note to Table 29-1 Coeur Alaska, Inc. also holds a Grant of Easement for a tunnel across and through the Horrible Lode (MS 60). The Grant of Easement was originally granted to James R. Deagen and Gereldene D. Deagen by Echo Bay Exploration Inc. and recorded on May 25, 1988 at Book 300, Pages 339 through 344 of the Juneau Recording District.

Table 29-2 Unpatented Mining Claims – Kensington Side Federal Unpatented Claims (Coeur, 2018)

BLM Serial No.	Claim Name
AA 42185	KNS # 19 FRACTION
AA 42186	KNS # 20 FRACTION
AA 42187	KNS # 21 FRACTION
AA 42188	KNS # 22
AA 42189	KNS # 23
AA 42190	KNS # 24
AA 42191	KNS # 25 FRACTION
AA 42192	KNS # 26 FRACTION
AA 42193	KNS # 27 FRACTION
AA 42194	KNS # 28 FRACTION
AA 42195	KNS # 29 FRACTION
AA 42196	KNS # 30 FRACTION
AA 42197	KNS # 31 FRACTION
AA 42198	KNS # 32 FRACTION
AA 42199	KNS # 33 FRACTION
AA 42200	KNS # 34 FRACTION
AA 42201	KNS # 35 FRACTION
AA 42202	KNS # 36 FRACTION

BLM Serial No.		Claim Name
AA	42203	KNS # 37 FRACTION
AA	42204	KNS # 38 FRACTION
AA	42205	KNS # 39 FRACTION
AA	42206	KNS # 40
AA	42207	KNS # 41 FRACTION
AA	42208	KNS # 42 FRACTION
AA	42209	KNS # 43 FRACTION
AA	42210	KNS # 44
AA	42211	KNS # 45 FRACTION
AA	42212	KNS # 46 FRACTION
AA	42213	KNS # 47 FRACTION
AA	42214	KNS # 48 FRACTION
AA	42215	KNS # 49 FRACTION
AA	42216	KNS # 50 FRACTION
AA	42217	KNS # 51 FRACTION
AA	42218	KNS # 52 FRACTION
AA	42219	KNS # 53 FRACTION
AA	42220	KNS # 54 FRACTION
AA	42221	KNS # 55
AA	42222	KNS # 56
AA	42223	KNS # 57
AA	42224	KNS # 58
AA	42225	KNS # 59
AA	42226	KNS # 60
AA	42227	KNS # 61
AA	42228	KNS # 62
AA	42230	KNS # 64
AA	42231	KNS # 65 FRACTION
AA	42232	KNS # 66
AA	42233	KNS # 67
AA	42234	KNS # 68
AA	44071	KNS 63 FRACTION
AA	44072	KNS 64 FRACTION
AA	44948	KNS No. 71
AA	44949	KNS No. 72
AA	44950	KNS No. 73
AA	44951	KNS FRACTION No. 74
AA	44956	KNS No. 79
AA	44957	KNS No. 80
AA	44958	BIG SEVEN FRACTION 1
AA	44959	BIG SEVEN FRACTION 2
AA	44960	BIG SEVEN FRACTION 3
AA	44961	BIG SEVEN NUMBER 1
AA	44962	BIG SEVEN No. 2
AA	46193	BIG SEVEN No. 12
AA	46194	BIG SEVEN No 13
AA	46195	BIG SEVEN No. 14
AA	46196	BIG SEVEN No 15
AA	46197	BIG SEVEN No. 16
AA	50980	BIG SEVEN No 17
AA	50981	BIG SEVEN No 18
AA	50987	BIG SEVEN No 24

BLM Serial No.		Claim Name
AA	50988	BIG SEVEN No 25
AA	50994	BIG SEVEN No 31
AA	51000	BIG SEVEN No 37
AA	51009	KNS No 81 FRACTION
AA	61054	POX 1
AA	61055	POX 2
AA	61056	POX 3
AA	61057	POX 4
AA	61058	POX - 5
AA	61059	POX 6
AA	61060	POX - 7
AA	61061	POX - 8
AA	61062	POX - 9
AA	61063	POX - 10
AA	61064	POX - 11
AA	61065	POX - 12
AA	61066	POX - 13
AA	61067	POX - 14
AA	61068	POX 15
AA	61069	POX 16
AA	61070	POX 17
AA	61071	POX 18
AA	61072	POX 19
AA	61073	POX 20
AA	61074	POX 21
AA	61075	POX - 22
AA	61076	POX - 23
AA	61077	POX 24
AA	61078	POX 25
AA	61079	POX 26
AA	61080	POX 27
AA	61081	POX 28
AA	61082	POX 29
AA	61083	POX 30
AA	61084	POX 31
AA	61085	POX 32
AA	61086	POX 33
AA	61087	POX 34
AA	61088	POX 35
AA	61089	POX 36
AA	61090	POX 37
AA	61091	POX 38
AA	61092	POX 39
AA	61093	POX 40
AA	61094	POX 41
AA	61096	POX 43
AA	61097	POX 44
AA	61098	POX 45
AA	61099	POX 46
AA	61393	COMET #1
AA	61394	COMET #2
AA	61395	COMET #3

BLM Serial No.		Claim Name
AA	61396	COMET #4
AA	61397	COMET #5
AA	61398	COMET #6
AA	61404	COMET #12
AA	61405	COMET #13
AA	61411	COMET #19
AA	61412	COMET #20
AA	61418	COMET #26
AA	61419	COMET #27
AA	61425	COMET #33
AA	61426	COMET #34
AA	61427	COMET #35
AA	61428	COMET #36
AA	61429	COMET #37
AA	61430	COMET #38
AA	61431	COMET #39
AA	61432	COMET #40
AA	61433	COMET #41
AA	61434	COMET #42
AA	61435	COMET #43
AA	61436	COMET #44
AA	61437	COMET #45
AA	61438	COMET #46
AA	61439	COMET #47
AA	61440	COMET #48
AA	61441	COMET #49
AA	61442	COMET #50
AA	61443	COMET #51
AA	61444	COMET #52
AA	61445	COMET #53
AA	61446	COMET #54
AA	61447	COMET #55
AA	61448	COMET #56
AA	61449	COMET #57
AA	61450	COMET #58
AA	61451	COMET #59
AA	61452	COMET #60
AA	61453	COMET #61
AA	61454	COMET #62
AA	61455	COMET #63
AA	61456	COMET #64
AA	61457	COMET #65
AA	61458	COMET #66
AA	61459	COMET #67
AA	61460	COMET #68
AA	61461	COMET #69
AA	61462	COMET #70
AA	61463	COMET #71
AA	61464	COMET #72
AA	61465	COMET #73
AA	61466	COMET #74
AA	61467	COMET #75

BLM Serial No.	Claim Name
AA 61468	COMET #76
AA 61469	COMET #77
AA 61470	COMET #78
AA 61471	COMET #79
AA 61472	COMET #80
AA 61473	COMET #81
AA 61474	COMET #82
AA 61475	COMET #83
AA 61476	COMET #84
AA 61477	COMET #85
AA 61478	COMET #86
AA 61479	COMET #87
AA 61480	COMET #88
AA 61481	COMET #89
AA 61482	COMET #90
AA 61483	COMET #91
AA 61484	COMET #92
AA 61485	COMET #93
AA 61486	COMET #94
AA 61487	COMET #95
AA 61488	COMET #96
AA 61489	COMET #97
AA 61490	COMET #98
AA 61491	COMET #99
AA 61492	COMET #100
AA 61493	COMET #101
AA 61494	COMET #102
AA 61495	COMET #103
AA 61496	COMET #104
AA 61497	COMET #105
AA 61498	COMET #106
AA 61499	COMET #107
AA 61500	COMET #108
AA 61501	COMET #109
AA 61502	COMET #110
AA 61503	COMET #111
AA 61504	COMET #112
AA 61505	COMET #113
AA 61506	COMET #114
AA 61507	COMET #115
AA 61508	COMET #116
AA 61509	COMET #117
AA 61510	COMET #118
AA 61511	COMET #119
AA 61671	POX 5
AA 61672	POX 6
AA 61673	POX 7
AA 61674	POX 8
AA 61675	POX 9
AA 61676	POX 10
AA 61677	POX 11
AA 61678	POX 12

BLM Serial No.		Claim Name
AA	61679	POX 13
AA	61680	POX 14
AA	61681	POX 22
AA	61682	POX 23
AA	61683	POX 42
AA	62965	KNS 100 FRACTION
AA	64393	COMET 211
AA	64394	COMET 212
AA	64395	COMET 213
AA	64396	COMET 214
AA	64397	COMET 215
AA	64398	COMET 216
AA	64399	COMET 217
AA	64400	COMET 218
AA	64401	COMET 219
AA	64402	COMET 220
AA	64403	COMET 221
AA	64404	COMET 222
AA	64405	COMET 223
AA	65035	BIG Seven Number 3
AA	69981	Cover Lode
AA	93665	Beachhead 1
AA	93666	Beachhead 2
AA	93667	Beachhead 3
AA	93668	Beachhead 4
AA	93669	Beachhead 5
AA	93670	Beachhead 6
AA	93671	Beachhead 7
AA	93681	Sentinel 1
AA	93682	Sentinel 2
AA	93683	Sentinel 3
AA	93684	Sentinel 4
AA	93685	Sentinel 5
AA	93686	Sentinel 6
AA	93687	Sentinel 7
AA	93688	Sentinel 8
AA	93689	Sentinel 9
AA	93690	Sentinel 10
AA	93691	Sentinel 11
AA	93692	Sentinel 12
AA	93693	Sentinel 13
AA	93694	Sentinel 14
AA	93695	Sentinel 15
AA	93696	Sentinel 16
AA	93697	Sentinel 17
AA	93698	Sentinel 18
AA	93703	Sentinel 23
AA	93704	Sentinel 24
AA	93710	Sentinel 30
AA	93722	Vigilant 2
AA	93723	Vigilant 3
AA	93724	Vigilant 4

BLM Serial No.	Claim Name
AA 93725	Vigilant 5
AA 93726	Vigilant 6
AA 93899	Avalanche 1
AA 93900	Avalanche 2
AA 93901	Avalanche 3

Table 29-3 Federal Unpatented Mining Claims – Jualin Side (Leased Premises) (Coeur, 2018)

BLM Serial No.	Claim Name
AA 42180	KNS # 14
AA 42181	KNS # 15
AA 42182	KNS # 16
AA 42183	KNS # 17
AA 42184	KNS # 18
AA 60988	GREEK BOY #1
AA 60989	GREEK BOY #2
AA 60990	Greek Boy #3
AA 60991	Greek Boy #4
AA 60992	GREEK BOY #5
AA 60993	GREEK BOY #6
AA 60994	GREEK BOY #7
AA 60995	GREEK BOY #8
AA 61583	MM # 1
AA 61584	MM # 2
AA 61585	MM # 3
AA 61586	MM # 4
AA 61587	MM # 5
AA 61588	MM # 6
AA 61589	MM # 7
AA 61590	MM # 8
AA 61591	MM # 9
AA 61592	MM # 10
AA 61593	MM # 11
AA 61594	MM # 12
AA 61595	MM # 13
AA 61596	MM # 14
AA 61597	MM # 15
AA 61598	MM # 16
AA 61599	MM # 17
AA 61600	MM # 18
AA 61601	MM # 19
AA 61602	MM # 20
AA 61603	MM # 21
AA 61604	MM # 22
AA 61605	MM # 23
AA 61606	MM # 24
AA 61607	MM # 25
AA 61608	MM # 26
AA 61609	MM # 27
AA 61610	MM # 28
AA 61611	MM # 29

BLM Serial No.		Claim Name
AA	61612	MM # 30
AA	61613	MM # 31
AA	61614	MM # 32
AA	61615	MM # 33
AA	61616	MM # 34
AA	61617	MM # 35
AA	61618	MM # 36
AA	61619	MM # 37
AA	61620	MM # 38
AA	61621	MM # 39
AA	61622	MM # 40
AA	61623	MM # 41
AA	61624	MM # 42
AA	61625	MM # 43
AA	61626	MM # 44
AA	61627	MM # 45
AA	61628	MM # 46
AA	61629	MM # 47
AA	61630	MM # 48
AA	61631	MM # 49
AA	61632	MM # 50
AA	61633	MM # 51
AA	61634	MM # 52
AA	61635	MM # 53
AA	61636	MM # 54
AA	61637	MM # 55
AA	61638	MM # 56
AA	61639	MM # 57
AA	61640	MM # 58
AA	61644	MM # 62
AA	61645	MM # 63
AA	61646	MM # 64
AA	61652	MM # 70
AA	61653	MM # 71
AA	61654	MM # 72
AA	61655	MM # 73
AA	61656	MM # 74
AA	61657	MM # 75
AA	61658	MM # 76
AA	61659	MM # 77
AA	61660	MM # 78
AA	61661	MM # 79
AA	61801	SLATE CREEK 3
AA	61802	SLATE CREEK 4
AA	61803	SLATE CREEK 5
AA	61804	SLATE CREEK 6
AA	61805	SLATE CREEK 7
AA	61806	SLATE CREEK 8
AA	61807	SLATE CREEK 9
AA	61808	SLATE CREEK 10
AA	61809	SLATE CREEK 11
AA	61810	SLATE CREEK 12

BLM Serial No.	Claim Name
AA 61811	SLATE CREEK 13
AA 61812	SLATE CREEK 14
AA 61813	SLATE CREEK 18
AA 61814	SLATE CREEK 19
AA 61815	SLATE CREEK 20
AA 61816	SLATE CREEK 21
AA 61817	SLATE CREEK 22
AA 61818	SLATE CREEK 23
AA 61819	SLATE CREEK 24
AA 61820	SLATE CREEK 25
AA 61821	SLATE CREEK 26
AA 61822	SLATE CREEK 27
AA 61823	SLATE CREEK 28
AA 61824	SLATE CREEK 29
AA 61825	SLATE CREEK 30
AA 61826	SLATE CREEK 31
AA 61827	SLATE CREEK 32
AA 61828	SLATE CREEK 33
AA 61829	SLATE CREEK 34
AA 61830	SLATE CREEK 35
AA 61831	SLATE CREEK 36
AA 61832	SLATE CREEK 37
AA 61833	SLATE CREEK 38
AA 61837	SLATE CREEK 42
AA 61838	SLATE CREEK 43
AA 61839	SLATE CREEK 44
AA 61840	SLATE CREEK 45
AA 61841	SLATE CREEK 46
AA 61842	SLATE CREEK 47
AA 61843	SLATE CREEK 48
AA 61844	SLATE CREEK 49
AA 61845	SLATE CREEK 50
AA 61846	SLATE CREEK 51
AA 61847	SLATE CREEK 52
AA 61848	SLATE CREEK 53
AA 61849	SLATE CREEK 63
AA 61850	SLATE CREEK 64
AA 61851	SLATE CREEK 65
AA 61854	SLATE CREEK 68
AA 61855	SLATE CREEK 69
AA 61856	SLATE CREEK 70
AA 61859	SLATE CREEK 82
AA 61860	SLATE CREEK 83
AA 61861	SLATE CREEK 84
AA 61862	SLATE CREEK 85
AA 61863	SLATE CREEK 86
AA 61864	SLATE CREEK 87
AA 61865	SLATE CREEK 88
AA 61866	SLATE CREEK 89
AA 61867	SLATE CREEK 90
AA 61869	SLATE CREEK 94
AA 61870	SLATE CREEK 95

BLM Serial No.		Claim Name
AA	61871	SLATE CREEK 96
AA	61872	SLATE CREEK 97
AA	61899	E.J # 3
AA	61900	E.J # 4
AA	61901	E.J. # 5
AA	61902	E.J # 6
AA	61903	E.J # 7
AA	61904	EJ # 8
AA	61905	EJ # 15
AA	61906	EJ # 16
AA	61907	EJ # 17
AA	61908	EJ # 18
AA	61910	EJ # 19
AA	61911	EJ # 20
AA	61912	EJ # 20S
AA	61913	EJ # 21
AA	61920	MM FRACTION # 1
AA	61921	MM FRACTION # 2
AA	61922	MM FRACTION # 3
AA	61924	INDOMITABLE FRACTION
AA	62971	BLOC # 1
AA	62972	BLOC # 2
AA	62973	BLOC # 3
AA	62974	BLOC # 4
AA	62975	BLOC # 5
AA	62976	BLOC # 6
AA	62977	BLOC # 7
AA	62978	BLOC # 8
AA	62983	BLOC # 13
AA	62984	BLOC # 14
AA	62995	BLOC # 25
AA	62996	BLOC # 26
AA	63007	BLOC # 37
AA	63008	BLOC # 38
AA	63019	BLOC # 49
AA	63020	BLOC # 50
AA	63031	BLOC # 61
AA	63032	BLOC # 62
AA	63648	KY # 1
AA	63649	KY # 2
AA	63650	KY # 3
AA	63651	KY # 4
AA	63655	KY # 8
AA	63656	KY # 9
AA	63657	KY # 10
AA	63658	KY # 11
AA	63664	KY # 17
AA	63665	KY # 18
AA	63666	KY # 19
AA	63667	KY # 20
AA	63668	KY # 21
AA	63669	KY # 22

BLM Serial No.		Claim Name
AA	63674	KY # 27
AA	63675	KY # 28
AA	63676	KY # 29
AA	63677	KY # 30
AA	63684	KY # 37
AA	63685	KY # 38
AA	63686	KY # 39
AA	63687	KY # 40
AA	63694	KY # 47
AA	63695	KY # 48
AA	63696	KY # 49
AA	63697	KY # 50
AA	71931	MANE # 8
AA	71932	MANE # 9
AA	71933	MANE # 10
AA	71934	MANE # 11
AA	71935	MANE # 12
AA	71943	MANE # 28
AA	71944	MANE # 29
AA	71945	MANE # 30
AA	71946	MANE # 31
AA	71947	MANE # 32
AA	71960	MANE # 48
AA	71961	MANE # 49
AA	71962	MANE # 50
AA	71963	MANE # 51
AA	71964	MANE # 52
AA	71978	MANE # 68
AA	71979	MANE # 69
AA	71980	MANE # 70
AA	71981	MANE # 71
AA	71982	MANE # 72
AA	72002	MANE # 98
AA	72003	MANE # 99
AA	72004	MANE # 100
AA	72005	MANE # 101
AA	72006	MANE # 102
AA	72007	Mane # 103
AA	72008	MANE # 104
AA	72009	MANE # 105
AA	72010	MANE # 106
AA	72011	MANE # 107
AA	72012	MANE # 108
AA	72026	MANE # 128
AA	72027	MANE # 129
AA	72028	MANE # 130
AA	72029	Mane # 131
AA	72030	Mane # 132
AA	72031	Mane # 133
AA	72032	MANE # 134
AA	72033	MANE # 135
AA	72034	MANE # 136

BLM Serial No.	Claim Name
AA 72035	MANE # 137
AA 72036	Mane # 138
AA 72037	MANE # 139
AA 72038	MANE # 140
AA 72039	MANE # 141
AA 72040	MANE # 142
AA 72041	MANE # 143
AA 72042	MANE # 144
AA 72050	MANE # 158
AA 72051	MANE # 159
AA 72052	MANE # 160
AA 72053	MANE # 161
AA 72054	Mane # 162
AA 72055	MANE # 163
AA 72056	MANE # 164
AA 72057	MANE # 165
AA 72058	MANE # 166
AA 72059	MANE # 167
AA 72060	MANE # 168
AA 72061	MANE # 169
AA 72062	MANE # 170
AA 72063	MANE # 171
AA 72064	MANE # 172
AA 72065	MANE # 173
AA 72066	MANE # 174
AA 77798	ZACh 1
AA 77799	ZACh 2
AA 77800	ZACh 3
AA 77801	ZACh 4
AA 77802	ZACh 5
AA 77803	ZACh 6
AA 77804	ZACh 7
AA 77805	ZACh 8
AA 77806	ZACh 9
AA 77807	ZACh 10
AA 77808	ZACh 11
AA 77809	ZACh 12
AA 77810	ZACh 13
AA 77811	ZACh 14
AA 77812	Lake # 1
AA 77813	Lake # 2
AA 77814	Lake # 3
AA 77815	Lake # 4
AA 77816	Lake # 5
AA 77817	Lake # 6
AA 78936	CONVEN No. 1
AA 78937	CONVEN No. 2
AA 78938	CONVEN No. 3 Fraction
AA 78939	CONVEN No. 4 Fraction
AA 78941	SLATE No. 1 FRACTION
AA 78942	SLATE No. 2 FRACTION
AA 93672	King Midas 1

BLM Serial No.	Claim Name
AA 93673	King Midas 2
AA 93674	King Midas 3
AA 93675	King Midas 4
AA 93676	King Midas 5
AA 93677	King Midas 6
AA 93678	King Midas 7
AA 93679	King Midas 8
AA 93680	King Midas 9
AA 93699	Sentinel 19
AA 93700	Sentinel 20
AA 93701	Sentinel 21
AA 93702	Sentinel 22
AA 93705	Sentinel 25
AA 93706	Sentinel 26
AA 93707	Sentinel 27
AA 93708	Sentinel 28
AA 93709	Sentinel 29
AA 93711	Sentinel 31
AA 93712	Sentinel 32
AA 93713	Sentinel 33
AA 93714	Sentinel 34
AA 93715	Sentinel 35
AA 93716	Sentinel 36
AA 93717	Sentinel 37
AA 93718	Sentinel 38
AA 93719	Sentinel 39
AA 93720	Sentinel 40
AA 93721	Vigilant 1
AA 93727	Vigilant 9
AA 93728	Vigilant 16
AA 93729	Vigilant 18
AA 93730	Vigilant 20
AA 93731	Vigilant 21
AA 93732	Vigilant 22
AA 93733	Vigilant 23
AA 93734	Vigilant 24
AA 93735	Vigilant 25
AA 93736	Vigilant 26
AA 93737	Vigilant 27

Table 29-4 Unpatented Mining Claims – Kensington – State of Alaska Mining Claims (Coeur, 2018)

DNR ADL Number	Claim Name
ADL 337383	KNS 65 FRACTION
ADL 337384	KNS 66 FRACTION
ADL 337385	KNS 67 FRACTION
ADL 337386	KNS 68 FRACTION
ADL 337387	KNS 69 FRACTION

DNR ADL Number	Claim Name
ADL 337388	KNS 70 FRACTION
ADL 514549	ELLEN
ADL 651758	KNS 71 FRACTION
ADL 719191	Ivanhoe 1
ADL 719192	Ivanhoe 2
ADL 719193	Ivanhoe 3
ADL 719194	Ivanhoe 4
ADL 719195	Ivanhoe 5

Table 29-5 Unpatented Mining Claims – Jualin (Leased Premises) State of Alsaka Mining Claims (Coeur, 2018)

DNR ADL Number	Claim Name
ADL 651759	Undine Millsite

Table 29-6 Kensington Group State of Alaska Claims (Coeur, 2018)

DNR ADL Number	Claim Name
ADL 563238	Casey #11
ADL 563239	Casey #10
ADL 563241	Casey #13
ADL 563242	Casey #14

A Leasehold Estate as created by that certain unrecorded Lease:
DATED: August 5, 2005, as further amended July 1, 2009 and October 24, 2013
LESSOR: Hyak Mining Company, Inc.
LESSEE: Coeur Alaska, Inc. a Delaware Corporation
LEASED PREMISES:
In and to U.S. Mineral Survey No's, 261, 264, 265, 266, and 578 located in the Juneau Recording District, First Judicial District, State of Alaska, and

In and to an undivided 11/36th interest in and to Falls Lode and Diana Lode Mining Claims according to U.S. Mineral Survey No. 880 recorded in the Juneau Recording District, First Judicial District, State of Alaska; and

As further described in Exhibits A-D, attached hereto.

As disclosed by Memorandum of Amended Lease recorded November 30, 2009 in the Juneau Recording District as Document No. 2009-008867-0 and Second Amendment to

Amended Mining Lease Agreement recorded October 25, 2013 in the Juneau Recording District as Document No. 2013-007222-0.

Table 29-7 Hyak Mining Company Lease – Exhibit A – Unpatented Federal Lode Mining Claims (Coeur, 2018)

Hyak Mining Company, Inc. represents and warrants that it is the sole owner of a 100% interest in the property rights associated with the following schedule of claims.

BLM Serial No.	Claim Name	Owner	Location Date
AA 43684	MARIA A LODE	Hyak Mining Company	4/18/1981
AA 43685	MARIA B LODE	Hyak Mining Company	4/18/1981
AA 43686	MARIA C LODE (AMMENDED)	Hyak Mining Company	4/18/1981
AA 43687	THOMAS FRACTION No 6 LODE	Hyak Mining Company	5/2/1981
AA 43688	MARIA J LODE (AMMENDED)	Hyak Mining Company	4/18/1981
AA 43689	MARIA K LODE	Hyak Mining Company	4/18/1981
AA 43690	MARIA L LODE	Hyak Mining Company	4/18/1981
AA 43691	MARIA Y LODE	Hyak Mining Company	5/1/1981
AA 43692	MARIA Z LODE	Hyak Mining Company	5/1/1981
AA 43693	CONTACT No 1	Hyak Mining Company	4/18/1981
AA 43694	CONTACT No. 2 LODE	Hyak Mining Company	4/18/1981
AA 43695	CONTACT No 3 LODE	Hyak Mining Company	4/18/1981
AA 43696	CONTACT No 4	Hyak Mining Company	4/18/1981
AA 43697	CONTACT No. 5 LODE	Hyak Mining Company	5/2/1981
AA 43698	THOMAS No 8 - AMMENDED	Hyak Mining Company	4/18/1981
AA 43887	THOMAS No 1 LODE	Hyak Mining Company	6/6/1981
AA 43888	THOMAS No 2 LODE	Hyak Mining Company	6/6/1981
AA 43889	THOMAS No 3 LODE	Hyak Mining Company	6/6/1981
AA 43890	Thomas No 4	Hyak Mining Company	5/3/1981
AA 43891	THOMAS # 5	Hyak Mining Company	5/3/1981
AA 43892	THOMAS No 6 LODE	Hyak Mining Company	5/2/1981
AA 43893	THOMAS No 7 LODE	Hyak Mining Company	5/2/1981
AA 43894	THOMAS FRACTION	Hyak Mining Company	6/6/1981
AA 43896	MARIA D LODE	Hyak Mining Company	5/2/1981
AA 43897	MARIA E LODE	Hyak Mining Company	6/7/1981
AA 43898	MARIA F LODE	Hyak Mining Company	6/7/1981
AA 43899	MARIA G LODE	Hyak Mining Company	6/8/1981
AA 43900	MARIA H LODE	Hyak Mining Company	6/7/1981
AA 43901	MARIA I LODE	Hyak Mining Company	5/2/1981
AA 43902	MARIA F EXTENSION	Hyak Mining Company	6/13/1981
AA 43903	MARTHA	Hyak Mining Company	6/8/1981
AA 43904	PONCIN	Hyak Mining Company	6/8/1981
AA 45000	SUE DEAN	Hyak Mining Company	7/13/1981
AA 45002	COONJOHN	Hyak Mining Company	7/16/1981
AA 45003	SALLY	Hyak Mining Company	7/16/1981
AA 45004	CHRISTINA	Hyak Mining Company	7/16/1981
AA 45005	STACEY FRACTION	Hyak Mining Company	7/13/1981
AA 45006	MARGEN FRACTION	Hyak Mining Company	7/16/1981
AA 45007	KIRSTEN	Hyak Mining Company	7/13/1981
AA 45009	ROBERT 3	Hyak Mining Company	7/18/1981
AA 45010	ROBERT FRACTION No. 2	Hyak Mining Company	7/18/1981

BLM Serial No.	Claim Name	Owner	Location Date
AA 45011	ROBERT 4	Hyak Mining Company	7/18/1981
AA 45014	LEO STEWART FRACTION	Hyak Mining Company	7/23/1981
AA 45015	CINQ	Hyak Mining Company	7/23/1981
AA 45016	DEUZE	Hyak Mining Company	7/24/1981
AA 45017	NEUF	Hyak Mining Company	7/24/1981
AA 45018	DUEX	Hyak Mining Company	7/24/1981
AA 45019	UNE FRACTION	Hyak Mining Company	7/24/1981
AA 45020	UNE	Hyak Mining Company	7/23/1981
AA 45021	CONTACT No 8	Hyak Mining Company	7/10/1981
AA 45022	CONTACT No 7	Hyak Mining Company	7/10/1981
AA 45023	CONTACT No 6	Hyak Mining Company	6/24/1981
AA 45024	CONTACT No 11	Hyak Mining Company	7/17/1981
AA 45025	CONTACT 111	Hyak Mining Company	7/19/1981
AA 45026	CONTACT 1111	Hyak Mining Company	7/19/1981
AA 45027	CONTACT 1113	Hyak Mining Company	7/20/1981
AA 45028	CONTACT 1112	Hyak Mining Company	7/20/1981
AA 45029	CONTACT 113	Hyak Mining Company	7/20/1981
AA 45030	CONTACT 112	Hyak Mining Company	7/20/1981
AA 45031	CONTACT No 18	Hyak Mining Company	7/18/1981
AA 45032	CONTACT 17	Hyak Mining Company	7/18/1981
AA 45033	CONTACT No 16	Hyak Mining Company	7/18/1981
AA 45034	CONTACT No 15	Hyak Mining Company	7/17/1981
AA 45035	CONTACT No 14	Hyak Mining Company	7/17/1981
AA 45036	CONTACT No 13	Hyak Mining Company	7/17/1981
AA 45037	CONTACT No 12	Hyak Mining Company	7/17/1981
AA 45668	MARTHA EXTENSION	Hyak Mining Company	7/28/1981
AA 45669	BROWNIE	Hyak Mining Company	7/28/1981
AA 45670	SEWANEE	Hyak Mining Company	7/31/1981
AA 45671	DRAKE ESQUIRE	Hyak Mining Company	8/20/1981
AA 45672	MARIA G EXTENSION	Hyak Mining Company	7/28/1981
AA 45673	MR. CHENEY	Hyak Mining Company	8/20/1981
AA 45674	Pretty Patti Fraction	Hyak Mining Company	8/20/1981
AA 45675	MR. FROST FRACTION	Hyak Mining Company	8/20/1981
AA 45676	CONTACT 118 FRACTION	Hyak Mining Company	8/14/1981
AA 45677	CONTACT 1114	Hyak Mining Company	8/12/1981
AA 45678	CONTACT 114	Hyak Mining Company	8/11/1981
AA 45679	CONTACT 115	Hyak Mining Company	8/12/1981
AA 45680	CONTACT 1115	Hyak Mining Company	8/12/1981
AA 45681	CONTACT 1116	Hyak Mining Company	8/13/1981
AA 45682	CONTACT 116	Hyak Mining Company	8/13/1981
AA 45683	CONTACT 117	Hyak Mining Company	8/13/1981
AA 45684	CONTACT 1117	Hyak Mining Company	8/13/1981
AA 45685	CONTACT 1118 FRACTION	Hyak Mining Company	8/14/1981
AA 45686	JANA	Hyak Mining Company	8/15/1981
AA 45687	DENISE	Hyak Mining Company	8/15/1981
AA 45688	MONICA	Hyak Mining Company	8/17/1981
AA 45689	CAROLYN	Hyak Mining Company	8/15/1981
AA 45690	SHANNON	Hyak Mining Company	8/15/1981
AA 45692	LISA	Hyak Mining Company	8/15/1981
AA 45693	ROBINSON	Hyak Mining Company	8/18/1981
AA 45694	DRAKE	Hyak Mining Company	8/18/1981
AA 45695	FROST	Hyak Mining Company	8/18/1981

BLM Serial No.	Claim Name	Owner	Location Date
AA 45696	Wiley Fraction	Hyak Mining Company	8/18/1981
AA 45697	ANNIE FRACTION	Hyak Mining Company	7/31/1981
AA 45698	SARA	Hyak Mining Company	7/31/1981
AA 45699	KATHRYN	Hyak Mining Company	7/31/1981
AA 45700	ANNIE FRACTION 2	Hyak Mining Company	7/31/1981
AA 45701	SANDY ANNE FRACTION	Hyak Mining Company	7/31/1981
AA 45702	SARA FRACTION	Hyak Mining Company	7/31/1981
AA 45703	KATHRYN FRACTION	Hyak Mining Company	7/31/1981
AA 50215	ROBERT 1	Hyak Mining Company	6/22/1982
AA 50216	ROBERT 2	Hyak Mining Company	6/22/1982
AA 50217	ROBERT FRACTION	Hyak Mining Company	6/22/1982
AA 54403	DZ-1	Hyak Mining Company	6/29/1984
AA 54404	DZ-2	Hyak Mining Company	6/29/1984
AA 54405	DZ-3	Hyak Mining Company	6/29/1984
AA 54406	DZ-4	Hyak Mining Company	6/29/1984
AA 54407	DZ 5	Hyak Mining Company	6/29/1984
AA 54408	DZ-6	Hyak Mining Company	6/29/1984
AA 54409	DZ 7	Hyak Mining Company	6/29/1984
AA 54410	DZ 8	Hyak Mining Company	6/29/1984
AA 54411	DZ-9	Hyak Mining Company	6/29/1984
AA 54412	DZ 10	Hyak Mining Company	6/29/1984
AA 54413	DZ-11	Hyak Mining Company	6/29/1984
AA 54414	DZ-12	Hyak Mining Company	6/29/1984
AA 54415	DZ-13	Hyak Mining Company	6/29/1984
AA 54416	DZ-14	Hyak Mining Company	6/29/1984
AA 54417	DZ-15	Hyak Mining Company	6/30/1984
AA 54418	DZ 16	Hyak Mining Company	6/29/1984
AA 54419	DZ-17	Hyak Mining Company	6/29/1984
AA 54420	DZ 18	Hyak Mining Company	6/29/1984
AA 54421	DZ-19	Hyak Mining Company	6/29/1984
AA 54422	DZ-20	Hyak Mining Company	6/29/1984
AA 54423	DZ-21	Hyak Mining Company	6/29/1984
AA 54424	DZ-22	Hyak Mining Company	7/2/1984
AA 54425	DZ-23	Hyak Mining Company	7/2/1984
AA 54426	DZ-24	Hyak Mining Company	7/2/1984
AA 93738	RBT 2	Hyak Mining Company	8/27/2013
AA 93739	RBT 4	Hyak Mining Company	8/27/2013

Hyak Mining Company, Inc. represents and warrants that it is the sole owner of a 100% interest in the property rights associated with the following schedule of claims.

Table 29-8 Hyak Mining Company Lease – Exhibit A – Unpatented Federal Milsite Claim (Coeur, 2018)

BLM Serial No.	Claim Name	Owner	Location Date
AA 43895	Thomas Millsite	Hyak Mining Company	5/1/1981

Hyak Mining Company, Inc. represents and warrants that it is the sole owner of a 100% interest in the property rights associated with the following schedule of claims.

Table 29-9 Hyak Mining Company Lease - Exhibit A - State of Alaska Upland Mining Lease, ADL 720953 (Effective December 1, 2016) (Coeur, 2018)

ADL 720953 includes the following former Hyak Mining Company State of Alaska Mining Claims now closed and converted to this Upland Mining Lease. Upland Mining Lease, ADL 720953, was assigned by Hyak Mining Company to Coeur Alaska, Inc., subject to the terms of the lease between Hyak Mining Company and Coeur Alaska, Inc. as discussed by that Assignment of the Upland Mining Lease Recorded on November 10, 2016 in the Juneau Recording District as Document No. 2016-005592-0.

DNR ADL No.	Claim Name	Owner	Location Date
ADL 309740	HYAK No 1	Hyak Mining Company	5/6/1978
ADL 309741	HYAK No 2	Hyak Mining Company	5/6/1978
ADL 309742	HYAK No 3	Hyak Mining Company	5/7/1978
ADL 323364	HYAK No 4	Hyak Mining Company	8/26/1980
ADL 323365	HYAK No 5	Hyak Mining Company	8/26/1980
ADL 323366	HYAK No 6	Hyak Mining Company	8/26/1980
ADL 323367	HYAK No 7	Hyak Mining Company	8/26/1980
ADL 323368	HYAK No 8	Hyak Mining Company	8/26/1980
ADL 349102	LUCKY CHANCE LODE	Hyak Mining Company	2/29/1982
ADL 503245	HYAK No 9	Hyak Mining Company	11/6/1983
ADL 503246	HYAK No 10	Hyak Mining Company	11/6/1983
ADL 503247	HYAK No 10A	Hyak Mining Company	11/6/1983
ADL 503248	HYAK No 11	Hyak Mining Company	11/6/1983
ADL 509891	HYAK No 1A	Hyak Mining Company	5/6/1983
ADL 509892	HYAK No 1B	Hyak Mining Company	5/6/1983
ADL 719182	Lucky Chance Lode 2	Hyak Mining Company	8/2/2014
ADL 719183	Lockie 1	Hyak Mining Company	8/2/2014
ADL 719184	Lockie 2	Hyak Mining Company	8/2/2014
ADL 719185	Lockie 3	Hyak Mining Company	8/2/2014
ADL 719186	Lockie 4	Hyak Mining Company	8/2/2014
ADL 719187	Lockie 5	Hyak Mining Company	8/2/2014
ADL 719188	Lockie 6	Hyak Mining Company	8/2/2014
ADL 719189	Lockie 7	Hyak Mining Company	8/2/2014
ADL 719190	Lockie 8	Hyak Mining Company	8/2/2014

(Further Security Assignment subject to Alaska Department of Natural Resources prior written approval.)

Table 29-10 Hyak Mining Company Lease - Exhibit B – Unpatented Federal Lode Mining Claims (Coeur, 2018)

BLM Serial No.	Claim Name	Owner	Location Date
AA 60988	GREEK BOY # 1	Coeur Alaska, Inc.	5/5/1987
AA 60989	GREEK BOY # 2	Coeur Alaska, Inc.	5/5/1987
AA 60990	Greek Boy # 3	Coeur Alaska, Inc.	5/5/1987
AA 60991	Greek Boy # 4	Coeur Alaska, Inc.	5/5/1987
AA 60992	GREEK BOY # 5	Coeur Alaska, Inc.	5/5/1987
AA 60993	GREEK BOY # 6	Coeur Alaska, Inc.	5/5/1987
AA 60994	GREEK BOY # 7	Coeur Alaska, Inc.	5/5/1987
AA 60995	GREEK BOY # 8	Coeur Alaska, Inc.	5/5/1987
AA 61583	MM # 1	Coeur Alaska, Inc.	6/16/1987

BLM Serial No.		Claim Name	Owner	Location Date
AA	61584	MM # 2	Coeur Alaska, Inc.	6/16/1987
AA	61585	MM # 3	Coeur Alaska, Inc.	6/16/1987
AA	61586	MM # 4	Coeur Alaska, Inc.	6/19/1987
AA	61587	MM # 5	Coeur Alaska, Inc.	6/16/1987
AA	61588	MM # 6	Coeur Alaska, Inc.	6/16/1987
AA	61589	MM # 7	Coeur Alaska, Inc.	6/16/1987
AA	61590	MM # 8	Coeur Alaska, Inc.	6/16/1987
AA	61591	MM # 9	Coeur Alaska, Inc.	6/19/1987
AA	61592	MM # 10	Coeur Alaska, Inc.	6/19/1987
AA	61593	MM # 11	Coeur Alaska, Inc.	6/19/1987
AA	61594	MM # 12	Coeur Alaska, Inc.	6/16/1987
AA	61595	MM # 13	Coeur Alaska, Inc.	6/16/1987
AA	61596	MM # 14	Coeur Alaska, Inc.	6/16/1987
AA	61597	MM # 15	Coeur Alaska, Inc.	6/16/1987
AA	61598	MM # 16	Coeur Alaska, Inc.	6/16/1987
AA	61599	MM # 17	Coeur Alaska, Inc.	6/18/1987
AA	61600	MM # 18	Coeur Alaska, Inc.	6/18/1987
AA	61601	MM # 19	Coeur Alaska, Inc.	6/18/1987
AA	61602	MM # 20	Coeur Alaska, Inc.	6/19/1987
AA	61603	MM # 21	Coeur Alaska, Inc.	6/15/1987
AA	61604	MM # 22	Coeur Alaska, Inc.	6/15/1987
AA	61605	MM # 23	Coeur Alaska, Inc.	6/15/1987
AA	61606	MM # 24	Coeur Alaska, Inc.	6/15/1987
AA	61607	MM # 25	Coeur Alaska, Inc.	6/18/1987
AA	61608	MM # 26	Coeur Alaska, Inc.	6/18/1987
AA	61609	MM # 27	Coeur Alaska, Inc.	6/18/1987
AA	61610	MM # 28	Coeur Alaska, Inc.	6/18/1987
AA	61611	MM # 29	Coeur Alaska, Inc.	6/18/1987
AA	61612	MM # 30	Coeur Alaska, Inc.	6/17/1987
AA	61613	MM # 31	Coeur Alaska, Inc.	6/15/1987
AA	61614	MM # 32	Coeur Alaska, Inc.	6/15/1987
AA	61615	MM # 33	Coeur Alaska, Inc.	6/15/1987
AA	61616	MM # 34	Coeur Alaska, Inc.	6/15/1987
AA	61617	MM # 35	Coeur Alaska, Inc.	6/15/1987
AA	61618	MM # 36	Coeur Alaska, Inc.	6/15/1987
AA	61619	MM # 37	Coeur Alaska, Inc.	6/17/1987
AA	61620	MM # 38	Coeur Alaska, Inc.	6/17/1987
AA	61621	MM # 39	Coeur Alaska, Inc.	6/17/1987
AA	61622	MM # 40	Coeur Alaska, Inc.	6/17/1987
AA	61623	MM # 41	Coeur Alaska, Inc.	6/14/1987
AA	61624	MM # 42	Coeur Alaska, Inc.	6/14/1987
AA	61625	MM # 43	Coeur Alaska, Inc.	6/14/1987
AA	61626	MM # 44	Coeur Alaska, Inc.	6/14/1987
AA	61627	MM # 45	Coeur Alaska, Inc.	6/14/1987
AA	61628	MM # 46	Coeur Alaska, Inc.	7/12/1987
AA	61629	MM # 47	Coeur Alaska, Inc.	7/12/1987
AA	61630	MM # 48	Coeur Alaska, Inc.	7/12/1987
AA	61631	MM # 49	Coeur Alaska, Inc.	7/12/1987
AA	61632	MM # 50	Coeur Alaska, Inc.	6/14/1987
AA	61633	MM # 51	Coeur Alaska, Inc.	7/12/1987
AA	61634	MM # 52	Coeur Alaska, Inc.	7/12/1987
AA	61635	MM # 53	Coeur Alaska, Inc.	7/12/1987

BLM Serial No.		Claim Name	Owner	Location Date
AA	61636	MM # 54	Coeur Alaska, Inc.	7/12/1987
AA	61637	MM # 55	Coeur Alaska, Inc.	7/12/1987
AA	61638	MM # 56	Coeur Alaska, Inc.	7/12/1987
AA	61639	MM # 57	Coeur Alaska, Inc.	7/12/1987
AA	61640	MM # 58	Coeur Alaska, Inc.	7/11/1987
AA	61644	MM # 62	Coeur Alaska, Inc.	7/11/1987
AA	61645	MM # 63	Coeur Alaska, Inc.	7/11/1987
AA	61646	MM # 64	Coeur Alaska, Inc.	7/11/1987
AA	61652	MM # 70	Coeur Alaska, Inc.	7/11/1987
AA	61653	MM # 71	Coeur Alaska, Inc.	7/12/1987
AA	61654	MM # 72	Coeur Alaska, Inc.	7/12/1987
AA	61655	MM # 73	Coeur Alaska, Inc.	7/12/1987
AA	61656	MM # 74	Coeur Alaska, Inc.	7/12/1987
AA	61657	MM # 75	Coeur Alaska, Inc.	7/10/1987
AA	61658	MM # 76	Coeur Alaska, Inc.	7/10/1987
AA	61659	MM # 77	Coeur Alaska, Inc.	7/10/1987
AA	61660	MM # 78	Coeur Alaska, Inc.	7/10/1987
AA	61661	MM # 79	Coeur Alaska, Inc.	7/10/1987
AA	61801	SLATE CREEK 3	Coeur Alaska, Inc.	8/3/1987
AA	61802	SLATE CREEK 4	Coeur Alaska, Inc.	8/3/1987
AA	61803	SLATE CREEK 5	Coeur Alaska, Inc.	8/3/1987
AA	61804	SLATE CREEK 6	Coeur Alaska, Inc.	8/4/1987
AA	61805	SLATE CREEK 7	Coeur Alaska, Inc.	8/4/1987
AA	61806	SLATE CREEK 8	Coeur Alaska, Inc.	8/3/1987
AA	61807	SLATE CREEK 9	Coeur Alaska, Inc.	8/3/1987
AA	61808	SLATE CREEK 10	Coeur Alaska, Inc.	8/3/1987
AA	61809	SLATE CREEK 11	Coeur Alaska, Inc.	8/3/1987
AA	61810	SLATE CREEK 12	Coeur Alaska, Inc.	8/3/1987
AA	61811	SLATE CREEK 13	Coeur Alaska, Inc.	8/3/1987
AA	61812	SLATE CREEK 14	Coeur Alaska, Inc.	8/3/1987
AA	61813	SLATE CREEK 18	Coeur Alaska, Inc.	8/4/1987
AA	61814	SLATE CREEK 19	Coeur Alaska, Inc.	8/3/1987
AA	61815	SLATE CREEK 20	Coeur Alaska, Inc.	8/3/1987
AA	61816	SLATE CREEK 21	Coeur Alaska, Inc.	8/3/1987
AA	61817	SLATE CREEK 22	Coeur Alaska, Inc.	8/3/1987
AA	61818	SLATE CREEK 23	Coeur Alaska, Inc.	8/3/1987
AA	61819	SLATE CREEK 24	Coeur Alaska, Inc.	8/3/1987
AA	61820	SLATE CREEK 25	Coeur Alaska, Inc.	8/3/1987
AA	61821	SLATE CREEK 26	Coeur Alaska, Inc.	8/3/1987
AA	61822	SLATE CREEK 27	Coeur Alaska, Inc.	8/3/1987
AA	61823	SLATE CREEK 28	Coeur Alaska, Inc.	8/3/1987
AA	61824	SLATE CREEK 29	Coeur Alaska, Inc.	8/3/1987
AA	61825	SLATE CREEK 30	Coeur Alaska, Inc.	8/3/1987
AA	61826	SLATE CREEK 31	Coeur Alaska, Inc.	8/3/1987
AA	61827	SLATE CREEK 32	Coeur Alaska, Inc.	8/3/1987
AA	61828	SLATE CREEK 33	Coeur Alaska, Inc.	8/3/1987
AA	61829	SLATE CREEK 34	Coeur Alaska, Inc.	8/3/1987
AA	61830	SLATE CREEK 35	Coeur Alaska, Inc.	8/3/1987
AA	61831	SLATE CREEK 36	Coeur Alaska, Inc.	8/3/1987
AA	61832	SLATE CREEK 37	Coeur Alaska, Inc.	8/3/1987
AA	61833	SLATE CREEK 38	Coeur Alaska, Inc.	8/3/1987
AA	61837	SLATE CREEK 42	Coeur Alaska, Inc.	8/4/1987

BLM Serial No.		Claim Name	Owner	Location Date
AA	61838	SLATE CREEK 43	Coeur Alaska, Inc.	8/4/1987
AA	61839	SLATE CREEK 44	Coeur Alaska, Inc.	8/4/1987
AA	61840	SLATE CREEK 45	Coeur Alaska, Inc.	8/4/1987
AA	61841	SLATE CREEK 46	Coeur Alaska, Inc.	8/4/1987
AA	61842	SLATE CREEK 47	Coeur Alaska, Inc.	8/4/1987
AA	61843	SLATE CREEK 48	Coeur Alaska, Inc.	8/4/1987
AA	61844	SLATE CREEK 49	Coeur Alaska, Inc.	8/4/1987
AA	61845	SLATE CREEK 50	Coeur Alaska, Inc.	8/4/1987
AA	61846	SLATE CREEK 51	Coeur Alaska, Inc.	8/4/1987
AA	61847	SLATE CREEK 52	Coeur Alaska, Inc.	8/4/1987
AA	61848	SLATE CREEK 53	Coeur Alaska, Inc.	8/4/1987
AA	61849	SLATE CREEK 63	Coeur Alaska, Inc.	8/5/1987
AA	61850	SLATE CREEK 64	Coeur Alaska, Inc.	8/5/1987
AA	61851	SLATE CREEK 65	Coeur Alaska, Inc.	8/5/1987
AA	61854	SLATE CREEK 68	Coeur Alaska, Inc.	8/5/1987
AA	61855	SLATE CREEK 69	Coeur Alaska, Inc.	8/5/1987
AA	61856	SLATE CREEK 70	Coeur Alaska, Inc.	8/5/1987
AA	61859	SLATE CREEK 82	Coeur Alaska, Inc.	8/4/1987
AA	61860	SLATE CREEK 83	Coeur Alaska, Inc.	8/4/1987
AA	61861	SLATE CREEK 84	Coeur Alaska, Inc.	8/4/1987
AA	61862	SLATE CREEK 85	Coeur Alaska, Inc.	8/4/1987
AA	61863	SLATE CREEK 86	Coeur Alaska, Inc.	8/4/1987
AA	61864	SLATE CREEK 87	Coeur Alaska, Inc.	8/4/1987
AA	61865	SLATE CREEK 88	Coeur Alaska, Inc.	8/4/1987
AA	61866	SLATE CREEK 89	Coeur Alaska, Inc.	8/4/1987
AA	61867	SLATE CREEK 90	Coeur Alaska, Inc.	8/4/1987
AA	61869	SLATE CREEK 94	Coeur Alaska, Inc.	8/5/1987
AA	61870	SLATE CREEK 95	Coeur Alaska, Inc.	8/5/1987
AA	61871	SLATE CREEK 96	Coeur Alaska, Inc.	8/5/1987
AA	61872	SLATE CREEK 97	Coeur Alaska, Inc.	8/4/1987
AA	61899	E.J # 3	Coeur Alaska, Inc.	8/4/1987
AA	61900	E.J # 4	Coeur Alaska, Inc.	8/4/1987
AA	61901	E.J. # 5	Coeur Alaska, Inc.	8/4/1987
AA	61902	E.J # 6	Coeur Alaska, Inc.	8/4/1987
AA	61903	E.J # 7	Coeur Alaska, Inc.	8/4/1987
AA	61904	EJ # 8	Coeur Alaska, Inc.	8/4/1987
AA	61905	EJ # 15	Coeur Alaska, Inc.	8/4/1987
AA	61906	EJ # 16	Coeur Alaska, Inc.	8/4/1987
AA	61907	EJ # 17	Coeur Alaska, Inc.	8/4/1987
AA	61908	EJ # 18	Coeur Alaska, Inc.	8/5/1987
AA	61910	EJ # 19	Coeur Alaska, Inc.	8/5/1987
AA	61911	EJ # 20	Coeur Alaska, Inc.	8/5/1987
AA	61912	EJ # 20S	Coeur Alaska, Inc.	8/5/1987
AA	61913	EJ # 21	Coeur Alaska, Inc.	8/5/1987
AA	61920	MM FRACTION # 1	Coeur Alaska, Inc.	8/21/1987
AA	61921	MM FRACTION # 2	Coeur Alaska, Inc.	8/21/1987
AA	61922	MM FRACTION # 3	Coeur Alaska, Inc.	8/21/1987
AA	61924	INDOMITABLE FRACTION	Coeur Alaska, Inc.	8/25/1987
AA	62971	BLOC # 1	Coeur Alaska, Inc.	9/17/1987
AA	62972	BLOC # 2	Coeur Alaska, Inc.	9/17/1987
AA	62973	BLOC # 3	Coeur Alaska, Inc.	9/17/1987
AA	62974	BLOC # 4	Coeur Alaska, Inc.	9/17/1987

BLM Serial No.	Claim Name	Owner	Location Date
AA 62975	BLOC # 5	Coeur Alaska, Inc.	9/17/1987
AA 62976	BLOC # 6	Coeur Alaska, Inc.	9/17/1987
AA 62977	BLOC # 7	Coeur Alaska, Inc.	9/17/1987
AA 62978	BLOC # 8	Coeur Alaska, Inc.	9/18/1987
AA 62983	BLOC # 13	Coeur Alaska, Inc.	9/17/1987
AA 62984	BLOC #14	Coeur Alaska, Inc.	9/17/1987
AA 62995	BLOC # 25	Coeur Alaska, Inc.	10/3/1987
AA 62996	BLOC # 26	Coeur Alaska, Inc.	10/3/1987
AA 63007	BLOC # 37	Coeur Alaska, Inc.	10/3/1987
AA 63008	BLOC # 38	Coeur Alaska, Inc.	10/3/1987
AA 63019	BLOC # 49	Coeur Alaska, Inc.	10/4/1987
AA 63020	BLOC # 50	Coeur Alaska, Inc.	10/4/1987
AA 63031	BLOC # 61	Coeur Alaska, Inc.	10/6/1987
AA 63032	BLOC # 62	Coeur Alaska, Inc.	10/6/1987
AA 63648	KY # 1	Coeur Alaska, Inc.	10/17/1987
AA 63649	KY # 2	Coeur Alaska, Inc.	10/17/1987
AA 63650	KY # 3	Coeur Alaska, Inc.	10/17/1987
AA 63651	KY # 4	Coeur Alaska, Inc.	10/17/1987
AA 63655	KY # 8	Coeur Alaska, Inc.	10/16/1987
AA 63656	KY # 9	Coeur Alaska, Inc.	10/16/1987
AA 63657	KY # 10	Coeur Alaska, Inc.	10/16/1987
AA 63658	KY # 11	Coeur Alaska, Inc.	10/16/1987
AA 63664	KY # 17	Coeur Alaska, Inc.	10/17/1987
AA 63665	KY # 18	Coeur Alaska, Inc.	10/17/1987
AA 63666	KY # 19	Coeur Alaska, Inc.	10/17/1987
AA 63667	KY # 20	Coeur Alaska, Inc.	10/17/1987
AA 63668	KY # 21	Coeur Alaska, Inc.	10/17/1987
AA 63669	KY # 22	Coeur Alaska, Inc.	10/17/1987
AA 63674	KY # 27	Coeur Alaska, Inc.	10/17/1987
AA 63675	KY # 28	Coeur Alaska, Inc.	10/17/1987
AA 63676	KY # 29	Coeur Alaska, Inc.	10/17/1987
AA 63677	KY # 30	Coeur Alaska, Inc.	10/17/1987
AA 63684	KY # 37	Coeur Alaska, Inc.	10/17/1987
AA 63685	KY # 38	Coeur Alaska, Inc.	10/17/1987
AA 63686	KY # 39	Coeur Alaska, Inc.	10/17/1987
AA 63687	KY # 40	Coeur Alaska, Inc.	10/17/1987
AA 63694	KY # 47	Coeur Alaska, Inc.	10/17/1987
AA 63695	KY # 48	Coeur Alaska, Inc.	10/17/1987
AA 63696	KY # 49	Coeur Alaska, Inc.	10/17/1987
AA 63697	KY # 50	Coeur Alaska, Inc.	10/17/1987
AA 71931	MANE # 8	Coeur Alaska, Inc.	9/14/1989
AA 71932	MANE # 9	Coeur Alaska, Inc.	9/14/1989
AA 71933	MANE # 10	Coeur Alaska, Inc.	9/14/1989
AA 71934	MANE # 11	Coeur Alaska, Inc.	9/14/1989
AA 71935	MANE # 12	Coeur Alaska, Inc.	9/14/1989
AA 71943	MANE # 28	Coeur Alaska, Inc.	9/14/1989
AA 71944	MANE # 29	Coeur Alaska, Inc.	9/14/1989
AA 71945	MANE # 30	Coeur Alaska, Inc.	9/14/1989
AA 71946	MANE # 31	Coeur Alaska, Inc.	9/14/1989
AA 71947	MANE # 32	Coeur Alaska, Inc.	9/14/1989
AA 71960	MANE # 48	Coeur Alaska, Inc.	9/14/1989
AA 71961	MANE # 49	Coeur Alaska, Inc.	9/14/1989

BLM Serial No.		Claim Name	Owner	Location Date
AA	71962	MANE # 50	Coeur Alaska, Inc.	9/15/1989
AA	71963	MANE # 51	Coeur Alaska, Inc.	9/15/1989
AA	71964	MANE # 52	Coeur Alaska, Inc.	9/15/1989
AA	71978	MANE # 68	Coeur Alaska, Inc.	9/14/1989
AA	71979	MANE # 69	Coeur Alaska, Inc.	9/14/1989
AA	71980	MANE # 70	Coeur Alaska, Inc.	9/15/1989
AA	71981	MANE # 71	Coeur Alaska, Inc.	9/15/1989
AA	71982	MANE # 72	Coeur Alaska, Inc.	9/15/1989
AA	72002	MANE # 98	Coeur Alaska, Inc.	9/14/1989
AA	72003	MANE # 99	Coeur Alaska, Inc.	9/14/1989
AA	72004	MANE # 100	Coeur Alaska, Inc.	9/15/1989
AA	72005	MANE # 101	Coeur Alaska, Inc.	9/15/1989
AA	72006	MANE # 102	Coeur Alaska, Inc.	9/15/1989
AA	72007	Mane # 103	Coeur Alaska, Inc.	9/15/1989
AA	72008	MANE # 104	Coeur Alaska, Inc.	9/15/1989
AA	72009	MANE # 105	Coeur Alaska, Inc.	9/15/1989
AA	72010	MANE # 106	Coeur Alaska, Inc.	9/15/1989
AA	72011	MANE # 107	Coeur Alaska, Inc.	9/15/1989
AA	72012	MANE # 108	Coeur Alaska, Inc.	9/15/1989
AA	72026	MANE # 128	Coeur Alaska, Inc.	9/15/1989
AA	72027	MANE # 129	Coeur Alaska, Inc.	9/15/1989
AA	72028	MANE # 130	Coeur Alaska, Inc.	9/15/1989
AA	72029	Mane # 131	Coeur Alaska, Inc.	9/15/1989
AA	72030	Mane # 132	Coeur Alaska, Inc.	9/15/1989
AA	72031	Mane # 133	Coeur Alaska, Inc.	9/15/1989
AA	72032	MANE # 134	Coeur Alaska, Inc.	9/15/1989
AA	72033	MANE # 135	Coeur Alaska, Inc.	9/15/1989
AA	72034	MANE # 136	Coeur Alaska, Inc.	9/15/1989
AA	72035	MANE # 137	Coeur Alaska, Inc.	9/15/1989
AA	72036	Mane # 138	Coeur Alaska, Inc.	9/15/1989
AA	72037	MANE # 139	Coeur Alaska, Inc.	9/15/1989
AA	72038	MANE # 140	Coeur Alaska, Inc.	9/15/1989
AA	72039	MANE # 141	Coeur Alaska, Inc.	9/15/1989
AA	72040	MANE # 142	Coeur Alaska, Inc.	9/15/1989
AA	72041	MANE # 143	Coeur Alaska, Inc.	9/15/1989
AA	72042	MANE # 144	Coeur Alaska, Inc.	9/15/1989
AA	72050	MANE # 158	Coeur Alaska, Inc.	9/15/1989
AA	72051	MANE # 159	Coeur Alaska, Inc.	9/15/1989
AA	72052	MANE # 160	Coeur Alaska, Inc.	9/15/1989
AA	72053	MANE # 161	Coeur Alaska, Inc.	9/15/1989
AA	72054	Mane # 162	Coeur Alaska, Inc.	9/15/1989
AA	72055	MANE # 163	Coeur Alaska, Inc.	9/15/1989
AA	72056	MANE # 164	Coeur Alaska, Inc.	9/15/1989
AA	72057	MANE # 165	Coeur Alaska, Inc.	9/15/1989
AA	72058	MANE # 166	Coeur Alaska, Inc.	9/15/1989
AA	72059	MANE # 167	Coeur Alaska, Inc.	9/15/1989
AA	72060	MANE # 168	Coeur Alaska, Inc.	9/15/1989
AA	72061	MANE # 169	Coeur Alaska, Inc.	9/15/1989
AA	72062	MANE # 170	Coeur Alaska, Inc.	9/15/1989
AA	72063	MANE # 171	Coeur Alaska, Inc.	9/15/1989
AA	72064	MANE # 172	Coeur Alaska, Inc.	9/15/1989
AA	72065	MANE # 173	Coeur Alaska, Inc.	9/15/1989

BLM Serial No.	Claim Name	Owner	Location Date
AA 72066	MANE # 174	Coeur Alaska, Inc.	9/15/1989

Coeur represents and warrants that it is the sole owner of a 100% interest in the following unpatented mining claim property rights associated with the following schedule of claims included in this Amended Lease Agreement.

Table 29-11 Hyak Mining Company Lease - Exhibit C –(Coeur, 2018)

Included in the Leased Premises is the following Coeur unpatented mining claim rights associated with the following schedule of claims.

Unpatented Federal Lode Mining Claims

BLM Serial No.	Claim Name	Owner	Location Date
AA 42180	KNS # 14	Coeur Alaska, Inc.	2/7/1981
AA 42181	KNS # 15	Coeur Alaska, Inc.	2/7/1981
AA 42182	KNS # 16	Coeur Alaska, Inc.	2/7/1981
AA 42183	KNS # 17	Coeur Alaska, Inc.	2/7/1981
AA 42184	KNS # 18	Coeur Alaska, Inc.	2/7/1981
AA 77798	ZACh 1	Coeur Alaska, Inc.	9/7/1995
AA 77799	ZACh 2	Coeur Alaska, Inc.	9/7/1995
AA 77800	ZACh 3	Coeur Alaska, Inc.	9/7/1995
AA 77801	ZACh 4	Coeur Alaska, Inc.	9/7/1995
AA 77802	ZACh 5	Coeur Alaska, Inc.	9/8/1995
AA 77803	ZACh 6	Coeur Alaska, Inc.	9/8/1995
AA 77804	ZACh 7	Coeur Alaska, Inc.	9/8/1995
AA 77805	ZACh 8	Coeur Alaska, Inc.	9/11/1995
AA 77806	ZACh 9	Coeur Alaska, Inc.	9/11/1995
AA 77807	ZACh 10	Coeur Alaska, Inc.	9/11/1995
AA 77808	ZACh 11	Coeur Alaska, Inc.	9/11/1995
AA 77809	ZACh 12	Coeur Alaska, Inc.	9/11/1995
AA 77810	ZACh 13	Coeur Alaska, Inc.	9/11/1995
AA 77811	ZACh 14	Coeur Alaska, Inc.	9/11/1995
AA 77812	Lake # 1	Coeur Alaska, Inc.	9/13/1995
AA 77813	Lake # 2	Coeur Alaska, Inc.	9/13/1995
AA 77814	Lake # 3	Coeur Alaska, Inc.	9/13/1995
AA 77815	Lake # 4	Coeur Alaska, Inc.	9/13/1995
AA 77816	Lake # 5	Coeur Alaska, Inc.	9/13/1995
AA 77817	Lake # 6	Coeur Alaska, Inc.	9/13/1995
AA 78936	CONVEN No. 1	Coeur Alaska, Inc.	9/11/1996
AA 78937	CONVEN No. 2	Coeur Alaska, Inc.	9/11/1996
AA 78938	CONVEN No. 3 Fraction	Coeur Alaska, Inc.	9/11/1996
AA 78939	CONVEN No. 4 Fraction	Coeur Alaska, Inc.	9/11/1996
AA 78941	SLATE No. 1 FRACTION	Coeur Alaska, Inc.	9/12/1996
AA 78942	SLATE No. 2 FRACTION	Coeur Alaska, Inc.	9/12/1996
AA 93672	King Midas 1	Coeur Alaska, Inc.	8/27/2013
AA 93673	King Midas 2	Coeur Alaska, Inc.	8/27/2013
AA 93674	King Midas 3	Coeur Alaska, Inc.	8/27/2013
AA 93675	King Midas 4	Coeur Alaska, Inc.	8/27/2013
AA 93676	King Midas 5	Coeur Alaska, Inc.	8/27/2013
AA 93677	King Midas 6	Coeur Alaska, Inc.	8/27/2013
AA 93678	King Midas 7	Coeur Alaska, Inc.	8/27/2013

BLM Serial No.	Claim Name	Owner	Location Date
AA 93679	King Midas 8	Coeur Alaska, Inc.	8/27/2013
AA 93680	King Midas 9	Coeur Alaska, Inc.	8/27/2013
AA 93699	Sentinel 19	Coeur Alaska, Inc.	8/27/2013
AA 93700	Sentinel 20	Coeur Alaska, Inc.	8/27/2013
AA 93701	Sentinel 21	Coeur Alaska, Inc.	8/27/2013
AA 93702	Sentinel 22	Coeur Alaska, Inc.	8/27/2013
AA 93705	Sentinel 25	Coeur Alaska, Inc.	8/27/2013
AA 93706	Sentinel 26	Coeur Alaska, Inc.	8/27/2013
AA 93707	Sentinel 27	Coeur Alaska, Inc.	8/27/2013
AA 93708	Sentinel 28	Coeur Alaska, Inc.	8/27/2013
AA 93709	Sentinel 29	Coeur Alaska, Inc.	8/27/2013
AA 93711	Sentinel 31	Coeur Alaska, Inc.	8/27/2013
AA 93712	Sentinel 32	Coeur Alaska, Inc.	8/27/2013
AA 93713	Sentinel 33	Coeur Alaska, Inc.	8/27/2013
AA 93714	Sentinel 34	Coeur Alaska, Inc.	8/27/2013
AA 93715	Sentinel 35	Coeur Alaska, Inc.	8/27/2013
AA 93716	Sentinel 36	Coeur Alaska, Inc.	8/27/2013
AA 93717	Sentinel 37	Coeur Alaska, Inc.	8/27/2013
AA 93718	Sentinel 38	Coeur Alaska, Inc.	8/27/2013
AA 93719	Sentinel 39	Coeur Alaska, Inc.	8/27/2013
AA 93720	Sentinel 40	Coeur Alaska, Inc.	8/27/2013
AA 93721	Vigilant 1	Coeur Alaska, Inc.	8/27/2013
AA 93727	Vigilant 9	Coeur Alaska, Inc.	8/28/2013
AA 93728	Vigilant 16	Coeur Alaska, Inc.	8/28/2013
AA 93729	Vigilant 18	Coeur Alaska, Inc.	8/28/2013
AA 93730	Vigilant 20	Coeur Alaska, Inc.	8/28/2013
AA 93731	Vigilant 21	Coeur Alaska, Inc.	8/28/2013
AA 93732	Vigilant 22	Coeur Alaska, Inc.	8/28/2013
AA 93733	Vigilant 23	Coeur Alaska, Inc.	8/28/2013
AA 93734	Vigilant 24	Coeur Alaska, Inc.	8/28/2013
AA 93735	Vigilant 25	Coeur Alaska, Inc.	8/28/2013
AA 93736	Vigilant 26	Coeur Alaska, Inc.	8/28/2013
AA 93737	Vigilant 27	Coeur Alaska, Inc.	8/28/2013

State of Alaska Mining Claims

DNR ADL No.	Claim Name	Owner	Location Date
ADL 651759	Undine Millsite	Coeur Alaska, Inc.	11/1/2005

State of Alaska "At-Risk" (State-Selected) Mining Claims

DNR ADL No.	Claim Name	Owner	Location Date
ADL 563238	Casey #11	Coeur Alaska, Inc.	9/13/1995
ADL 563239	Casey #10	Coeur Alaska, Inc.	9/13/1995
ADL 563241	Casey #13	Coeur Alaska, Inc.	9/11/1995
ADL 563242	Casey #14	Coeur Alaska, Inc.	9/11/1995

Table 29-12 Hyak Mining Company Lease - Exhibit D –(Coeur, 2018)

Included in the Leased Premises are the following Hyak Additional property rights and interests:

THE FREMMING PROPERTY

Hyak Mining Company also holds rights pursuant to a Working Agreement with Option to Purchase dated July 14, 1982 between Benjamin D. Fremming, Douglas L. Gregg, Thomas E. Schultz, William A. Wondriska, and Mr. and Mrs. Merrill J. Zay, and of which a Memorandum thereof was recorded on January 7, 1983 in Book 206, Page 922 with the Office of the Recorder, Juneau Recording District, as superseded by that certain Substituted Working Agreement with Option to Purchase dated February 12, 1988, effective April 1, 1982 and of which a Memorandum thereof was recorded on February 16, 1988 in Book 297, Page 009 in the Juneau Recording District, and subsequently amended by that certain agreement dated February 10, 2010 and recorded on April 12, 2011 as Document No. 2011-002269-0 in the Juneau Recording District.

These agreements as amended cover the following patented mining claims:

Patented Lode Mining Claim	U.S. Mineral Survey No.
Indomitable Lode	676
Perhaps Lode	676
Victor Lode	676
Grace R Lode	676
Mystery Lode	676
Humming Bird Lode	676
Mystery Lode Millsite	1496

All situated in the Juneau Recording District, First Judicial District, State of Alaska. and, these agreements as amended cover the following unpatented mining claims:

Federal Unpatented Mining Claims

BLM Serial No.	Claim Name
AA043684	MARIA A LODE
AA043685	MARIA B LODE
AA043686	MARIA C LODE (AMMENDED)
AA043687	THOMAS FRACTION No 6 LODE
AA043688	MARIA J LODE (AMMENDED)
AA043689	MARIA K LODE
AA043690	MARIA L LODE
AA043691	MARIA Y LODE
AA043692	MARIA Z LODE
AA043693	CONTACT No 1
AA043694	CONTACT No. 2 LODE
AA043695	CONTACT No 3 LODE
AA043696	CONTACT No 4

BLM Serial No.	Claim Name
AA043697	CONTACT No. 5 LODE
AA043698	THOMAS No 8 - AMMENDED
AA043887	THOMAS No 1 LODE
AA043888	THOMAS No 2 LODE
AA043889	THOMAS No 3 LODE
AA043890	Thomas No 4
AA043891	THOMAS # 5
AA043892	THOMAS No 6 LODE
AA043893	THOMAS No 7 LODE
AA043894	THOMAS FRACTION
AA043895	Thomas Millsite
AA043896	MARIA D LODE
AA043897	MARIA E LODE
AA043898	MARIA F LODE
AA043899	MARIA G LODE
AA043900	MARIA H LODE
AA043901	MARIA I LODE
AA043902	MARIA F EXTENSION
AA043903	MARTHA
AA043904	PONCIN
AA045000	SUE DEAN
AA045002	COONJOHN
AA045003	SALLY
AA045004	CHRISTINA
AA045005	STACEY FRACTION
AA045006	MARGEN FRACTION
AA045007	KIRSTEN
AA045009	ROBERT 3
AA045010	ROBERT FRACTION No 2
AA045011	ROBERT 4
AA045014	LEO STEWART FRACTION
AA045015	CINQ
AA045016	DEUZE
AA045017	NEUF
AA045018	DUEX
AA045019	UNE FRACTION
AA045020	UNE
AA045021	CONTACT No 8
AA045022	CONTACT No 7
AA045023	CONTACT No 6
AA045024	CONTACT No 11
AA045025	CONTACT 111
AA045026	CONTACT 1111
AA045027	CONTACT 1113
AA045028	CONTACT 1112
AA045029	CONTACT 113
AA045030	CONTACT 112
AA045031	CONTACT No 18
AA045032	CONTACT 17
AA045033	CONTACT No 16
AA045034	CONTACT No 15
AA045035	CONTACT No 14

BLM Serial No.	Claim Name
AA045036	CONTACT No 13
AA045037	CONTACT No 12
AA045668	MARTHA EXTENSION
AA045669	BROWNIE
AA045670	SEWANEE
AA045671	DRAKE ESQUIRE
AA045672	MARIA G EXTENSION
AA045673	MR. CHENEY
AA045674	Pretty Patti Fraction
AA045675	MR. FROST FRACTION
AA045676	CONTACT 118 FRACTION
AA045677	CONTACT 1114
AA045678	CONTACT 114
AA045679	CONTACT 115
AA045680	CONTACT 1115
AA045681	CONTACT 1116
AA045682	CONTACT 116
AA045683	CONTACT 117
AA045684	CONTACT 1117
AA045685	CONTACT 1118 FRACTION
AA045686	JANA
AA045687	DENISE
AA045688	MONICA
AA045689	CAROLYN
AA045690	SHANNON
AA045692	LISA
AA045693	ROBINSON
AA045694	DRAKE
AA045695	FROST
AA045696	Wiley Fraction
AA045697	ANNIE FRACTION
AA045698	SARA
AA045699	KATHRYN
AA045700	ANNIE FRACTION 2
AA045701	SANDY ANNE FRACTION
AA045702	SARA FRACTION
AA045703	KATHRYN FRACTION
AA050215	ROBERT 1
AA050216	ROBERT 2
AA050217	ROBERT FRACTION
AA054403	DZ-1
AA054404	DZ-2
AA054405	DZ-3
AA054406	DZ-4
AA054407	DZ 5
AA054408	DZ-6
AA054409	DZ 7
AA054410	DZ 8
AA054411	DZ-9
AA054412	DZ 10
AA054413	DZ-11
AA054414	DZ-12

BLM Serial No.	Claim Name
AA054415	DZ-13
AA054416	DZ-14
AA054417	DZ-15
AA054418	DZ 16
AA054419	DZ-17
AA054420	DZ 18
AA054421	DZ-19
AA054422	DZ-20
AA054423	DZ-21
AA054424	DZ-22
AA054425	DZ-23
AA054426	DZ-24
AA093738	RBT 2
AA093739	RBT 4

State of Alaska Upland Mining Lease, ADL 720953 (Effective December 1, 2016)

ADL 720953 includes the following former Hyak Mining Company State of Alaska Mining Claims, now closed and converted to this Upland Mining Lease.

DNR ADL No.	Claim Name
ADL 309740	HYAK No 1
ADL 309741	HYAK No 2
ADL 309742	HYAK No 3
ADL 323364	HYAK No 4
ADL 323365	HYAK No 5
ADL 323366	HYAK No 6
ADL 323367	HYAK No 7
ADL 323368	HYAK No 8
ADL 349102	LUCKY CHANCE LODE
ADL 503245	HYAK No 9
ADL 503246	HYAK No 10
ADL 503247	HYAK No 10A
ADL 503248	HYAK No 11
ADL 509891	HYAK No 1A
ADL 509892	HYAK No 1B
ADL 719182	Lucky Chance Lode 2
ADL 719183	Lockie 1
ADL 719184	Lockie 2
ADL 719185	Lockie 3
ADL 719186	Lockie 4
ADL 719187	Lockie 5
ADL 719188	Lockie 6
ADL 719189	Lockie 7
ADL 719190	Lockie 8

(Further Security Assignment subject to Alaska Department of Natural Resources prior written approval.) Hyak has assigned its rights under the above-described Agreements as amended to Coeur subject to the terms of this lease.

FALLS-DIANA PROPERTY

Hyak Mining Company holds a 11/36 ownership interest in U.S. Mineral Survey 880, Patent/Mineral Certificate No. 93684, commonly referred to as the Falls and Diana Claims. Hyak has assigned its rights under the described ownership interests to Coeur subject only to the rights of the other interest holder(s) in the Falls and Diana Property.

SURFACE ESTATE PROPERTY OWNERSHIP - ACQUIRED FROM UNIV. OF AK (May 22, 1991 acquisition date)

U.S. Mineral Surveys 261, 264, 265, 266, and 578, located in Sections 10, 11, 14, 15, Township 35 South, Range 62 East, Copper River Meridian, subject to valid existing rights.

Together with all the improvements thereon, if any, and all rights of Hyak to any and all hereditaments and appurtenances thereto and SUBJECT TO all reservations, easements, restrictions, covenants, encumbrances and exceptions of record.

FALLS DIANA LEASES

A Leasehold Estate as created by that certain unrecorded Lease:

DATED: August 5, 2005
LESSOR: Hyak Mining Company, Inc.
LESSEE: Coeur Alaska, Inc. a Delaware Corporation
In and to an undivided 11/36th interest in and to Falls Lode and Diana Lode Mining Claims according to U.S. Mineral Survey No. 880 recorded in the Juneau Recording District, First Judicial District, State of Alaska.

As disclosed by Memorandum of Amended Lease recorded November 30, 2009 Document No. 2009-008867-0.

A LEASEHOLD ESTATE as created by Memorandum of Lease:

LESSOR: Shari Mydske and Maureen R. Stoll
LESSEE: Coeur Alaska, Inc. a Delaware Corporation
DATED: November 28, 2009
RECORDED: December 9, 2009
DOCUMENT NO.: 2009-009098-0

In and to an undivided 25/36th Interest in and to Falls Lode and Diana Lode Mining Claims according to U.S. Mineral Survey No. 880, Records of the Juneau Recording District, First Judicial District, State of Alaska.

ALASKA TIDELAND LEASE ADL No. 107154

A LEASEHOLD ESTATE as created by Lease:

DATED:	October 16, 2011
LESSOR:	State of Alaska
LESSEE:	Coeur Alaska, Inc.
RECORDED:	October 14, 2011 at Document No. 2011-006035-0

Alaska Tideland Survey No. 1655, located within Section 1, Township 36 South, Range 62 East, Copper River Meridian and according to the Survey Plat recorded in the Juneau Recording District, First Judicial District, State of Alaska, on January 7, 2011 as Plat No. 2011-1. (Assignment subject to Alaska Department of Natural Resources prior written approval.)

Easements, Rights-of-Way, etc.

Rights of the Permittee under Right-of-Way Permit/Easement, ADL No. 105543, recorded May 9, 1996 in Book 447 at Page 601 and amended by instrument recorded August 31, 1999 in Book 526 at page 957 in and to Tracts A and B of Alaska Tideland Survey 1481, according to the survey plat filed in the Juneau Recording District on January 18, 1995 as Plat No. 95-4, and ATS 1550 according to Plat filed in the Juneau Recording District as Plat No. 99-26.

(Assignment subject to Alaska Department of Natural Resources prior written approval.)

Rights of the Grantee under Right-of-Way Easement recorded January 17, 2017 in Document No. 2017-000234-0, Juneau Recording District. This is a grant of a ten (10) year, public, non-exclusive easement and right-of-way along, over, and across the following described tract of land located in the State of Alaska: A state-owned road known as the Jualin Mine Road located within protracted Sections 10, 14, 15, 23, 24, 25 and 36 of Township 35 South, Range 62 East, and protracted Section 1 of Township 36 South, Range 62 East, Copper River Meridian and containing 29.1 acres more or less.

(Assignment may be subject to Alaska Department of Transportation and Public Facilities written approval.)

All located in the Juneau Recording District, First Judicial District, State of Alaska.

Table 29-13 Water Rights Permits

Agency	Date Issued	Permit No.	Description
ADNR	5/5/2005	LAS 11710	Permit to Appropriate Water, Upper Sherman Creek
ADNR	5/5/2005	LAS 13147	Permit to Appropriate Water, Mine groundwater
ADNR	10/17/2006	LAS 24432	Permit to Appropriate Water, Johnson Creek
ADNR	5/5/2005	LAS 24486	Permit to Appropriate Water, East Slate Creek/Lower Slate Lake
ADNR	2/21/2017	TWUA FJ2017-02	Temporary Permit to Appropriate Water, Exploration and Development
ADNR	6/18/2013	TWUP J2013-06	Temporary Permit to Appropriate Water, Exploration and Development

29.2 Ground Support Guidelines

The ground support guidelines are based on recommendations by Rad Langston of Langston & Associates. The guideline is as follows:

COEUR
ALASKA
KENSINGTON GOLD MINE

Kensington Guideline for Rock Bolting	
Mine Operations Department	Guideline Number:
Authorized By: Travis Naugle	Revision Number 002
Original Date: September 26, 2007	Revision Date: July 12, 2010

1. Objective:

To provide a minimum guideline for maintaining stable ground conditions in underground excavations.

2. Scope:

The Rock Bolting Guideline is a critical step in ensuring the safety of all underground employees. The guideline will provide a bolting standard for miners to incorporate while excavating headings.

Rock bolting will be done in the safest possible manner. The miner should first recognize and consider local ground conditions and geological structures, and then incorporate the minimum guidelines as a tool for properly applying ground support.

Rock bolting machines such as the Maclean Bolter, Atlas Copco MC Boltec, and in some cases a jack leg drill, may be used to accomplish these tasks. The safety of the miner will always be at the forefront of the operation when rock bolting. All miners will be trained in recognizing the hazards of ground conditions, and given the opportunity to communicate any potential hazards.

These guidelines are to be applied in headings as they are excavated, after this revision date. Historic workings will be rehabbed as conditions warrant on a case-by- case basis.

3. Potential Hazards:

Ground Inspection – Always begin checking the ground conditions as you enter the work area and do not proceed beyond any areas that are suspected of having loose ground. Ensure that the ground support provided is effective. Scale loose material as necessary to proceed safely.

Ventilation – Ensure the ventilation is adequate to minimize exposures to Respirable Dust and Diesel Particulate Matter.

Hearing Protection – Wear hearing protection while rock bolting and dual hearing protection while bolting with the Maclean or jack leg.

4. Minimum Bolting Requirements for Development Headings:

Includes Ramps, Capital Drifting, Level Development, and Crosscuts.

Heading Type:	Development (D16)		
Width:	Up to 16 ft		
	Type	**Length**	**Spacing**
Primary Support:	Split Set	6 ft	5'x5'
Secondary Support:	Super Swellex	8 ft	Spot bolt as needed
Rib Support:	Split Set	6 ft	5'x5' to within 5' of sill
Screen:	Screen the Back. Ribs as needed		
Mats:	As needed		

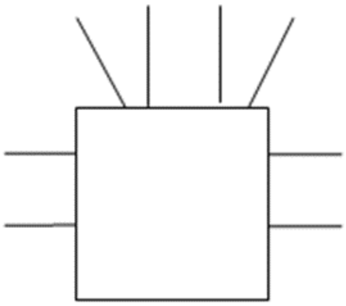

Figure A

5. Minimum Bolting Requirements for Development Intersections (16-30 ft span):
Includes Intersections and other Wide-Span Areas.

Heading Type:	Development (D30)		
Span:	16 - 30 ft		
	Type	**Length**	**Spacing**
Primary Support:	Super Swellex	8 ft	5'x5'
Secondary Support:	Split Set	6 ft	Spot bolt as needed
Rib Support:	Split Set	6 ft	5'x5' to within 5' of sill
Screen:	Screen the Back. Ribs as needed		
Mats:	As needed		

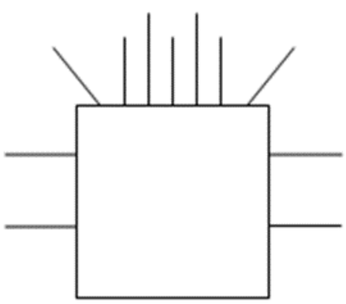

Figure B

6. Minimum Bolting requirements for Ore Headings:
Includes Ore Development and Drift and Fill Headings.

Heading Type:	Ore (O20)

Span:	Up to 20 ft		
	Type	**Length**	**Spacing**
Primary Support:	Split Set	6 ft	5' x 5'
Secondary Support:	Split Set	6 ft	Spot bolt as needed
Rib Support:	Split Set	6 ft	5' spacing to within 7' of sill
Screen:	As needed		
Mats:	As needed		

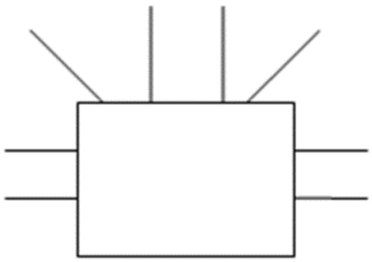

Figure C

7. Minimum Bolting requirements for 20-30 ft wide Ore Headings:
Includes Intersections and other Wide Spans in Ore.

Heading Type:	Ore (O30)		
Span:	20 - 30 ft		
	Type	**Length**	**Spacing**
Primary Support:	Super Swellex	8 ft	6'x6'
Secondary Support:	Split Set	6 ft	Spot bolt as needed
Rib Support:	Split Set/Super Swellex	6/8 ft	5' spacing to within 7' of sill
Screen:	As needed		
Mats:	As needed		

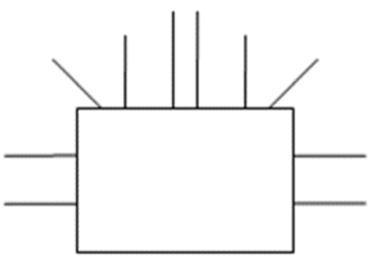

Figure D

8. Minimum Bolting requirements for Headings wider than 30 ft:
Bolting Guidelines will be issued on a case-by-case basis.

9. Minimum Bolting requirements for Manway Raises:
Bolting Guidelines will be issued on a case-by-case basis.

10. Process Review

This Standard Operating Guideline will be reviewed and revised as conditions warrant.

30. EFFECTIVE DATE AND SIGNATURE PAGE

This report titled "Technical Report for the Kensington Gold Mine, Juneau, Southeast Alaska, USA: NI 43-101 Technical Report – Updated Project Study", prepared for Coeur Mining, Inc., with an effective date of December 31, 2017 and a filing date of April 25, 2018, was prepared and signed by the following authors:

1. Dated on April 25, 2018 — (Signed and Sealed) "Mr. Kyle Beebe"

   Mr. Kyle Beebe, PE
   Mine Operations Manager
   Coeur Alaska, Kensington Gold Mine

2. Dated on April 25, 2018 — (Signed and Sealed) "Mr. Isaac K. Oduro"

   Mr. Isaac Oduro, RM SME & MAusIMM (CP)
   Chief Geologist
   Coeur Alaska, Kensington Gold Mine

3. Dated on April 25, 2018 — (Signed and Sealed) "Mr. Raul Mondragon"

   Mr. Raul Mondragon, RM SME
   Director of Metallurgy – Operations Support
   Coeur Mining, Inc.