

**Fort Knox Mine  
Fairbanks North Star Borough, Alaska, USA  
National Instrument 43-101 Technical Report**

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# 1 SUMMARY

## 1.1 Executive Summary

Kinross Gold Corporation (Kinross) has prepared a Technical Report for the wholly-owned and operated Fort Knox mine (Fort Knox) and Gil project (Gil), located in Fairbanks North Star Borough, Alaska. In June 2018, Kinross completed a Feasibility Study (FS) of an expansion of the Fort Knox open pit, referred to as Gilmore. This report describes the current mining operation as well the extended life of mine including Gilmore. The Technical Report conforms to National Instrument 43-101 Standards of Disclosure for Mineral Projects (NI 43-101) and has an effective date of June 11, 2018. Kinross will be using this Technical Report to support disclosure of mineral resources and mineral reserves at Fort Knox and mineral resources at Gil.

## 1.2 Technical Summary

Kinross' Fort Knox property includes the Fort Knox open pit mine, mill, tailings storage facility, heap leach, the Gil project, and the True North open pit mine (which is under post-closure monitoring). In general, "Fort Knox" in this report refers specifically to the Fort Knox open pit operation or deposit, whereas "Fort Knox property" refers to the broader land package and assets listed previously. Mineral resources for the Fort Knox and Gil deposits are discussed and reported separately.

### 1.2.1 Property Description and Location

Fort Knox is located 42 km by road northeast of the city of Fairbanks, in Alaska, United States of America. Kinross' mining and exploration properties are located within the Fairbanks mining district, a northeast trending belt of lode and placer gold deposits that is one of the largest gold producing areas in the state of Alaska.

The Fort Knox property includes the Fort Knox open pit mine, mill, heap leach, tailings storage facility, True North open pit and the Gil property, and encompasses 31,884 ha. The property package is located within US State Plane, Alaska 5003, Zone 3 coordinates of 419,700 mE, 1,235,600 mN and 461,500 mE, 1,218,200 mN. The Fort Knox open pit mine is located within the boundaries of the State of Alaska Upland Mining Lease (the "Fort Knox Upland Mining Lease"). Surrounding areas are owned or controlled by State mining claims and various leases with the State and private landowners.

All requisite permits have been obtained for mining of the existing Fort Knox open pit mine and are in good standing in all material respects. Current expansion projects for



waste rock and heap leach were approved by the necessary agencies in 2017. Permitting approvals related to the Gilmore expansion are expected to be issued in due course.

### **1.2.2 Accessibility, Climate, Local Resources, Infrastructure, and Physiography**

The Fort Knox mine is situated close to the city of Fairbanks, which is a major population, service, and supply centre for the interior region of Alaska. Fairbanks is the second largest city in Alaska, with an estimated population of approximately 32,000 residents and a further 67,000 residents within the Fairbanks North Star Borough. Services and supplies to support the local and regional needs, along with the mining and processing operations of Kinross, are available in Fairbanks. Fairbanks is served by major airlines and the Alaska Railroad, and is connected to Anchorage and Whitehorse, Canada by a series of well-maintained paved highways.

Access to the Fort Knox mine from Fairbanks is by 34 km of paved highway and 8 km of unpaved road. The True North mine is located 18 km west of Fort Knox and is accessible by an unpaved road.

The Fairbanks area has a continental sub-arctic climate, with long cold winters and short summers. The Fort Knox mine operates 365 days per year. Weather conditions, such as temperature inversions or slippery road surfaces, will typically negatively affect production in the open pit for only portions of a few shifts annually.

The topography of the region comprises low hills and broad valleys occupied by meandering streams, with elevation ranging from 150 to 1,000 m. In the predominantly forested region, vegetation varies by soil-type and includes spruce, birch and willow trees, various shrubs, grasses, and mosses. Permafrost is discontinuous throughout the project area.

### **1.2.3 History**

An Italian prospector named Felix Pedro discovered gold in the Fairbanks mining district in 1902. Between 1902 and 1993, more than 8 Moz of predominately placer gold was mined in the district. In 1984, a geologist discovered visible gold in granite-hosted quartz veins on the Fort Knox property. Between 1987 and 1991, a number of companies conducted extensive exploration work on the Fort Knox, True North, and Gil properties. In 1992, Amex Gold Inc. (now Kinross) acquired ownership of Fort Knox. Construction of the Fort Knox mine and mill operations began in 1995 and was completed in 1997. Commercial production at Fort Knox was achieved on March 1, 1997. In 2008, Kinross



commenced construction of a heap leach processing facility, which was commissioned in 2009.

In 1991, Amax Gold Inc. entered into a joint venture agreement with Teryl Resources Corp. to explore the Gil property. In 2011, Kinross acquired Teryl's remaining interest in the Gil property.

Kinross acquired ownership of the True North property in 1999 as a result of the acquisition of La Teko Resources and from acquiring Newmont's 65% interest in the property.

#### **1.2.4 Geological Setting and Mineralization**

The Fairbanks mining district is located in the northwestern part of the Yukon-Tanana terrane, which consists of Paleoproterozoic, polymetamorphosed schist, of primarily sedimentary origin. The terrane is bounded on the north by the Tintina fault system and on the south by the Denali Fault system. E-W to NW-directed faults and shears are present and are locally an important structural control to mineralization at most gold occurrences in the district.

The Fairbanks Schist, a unit of the Yukon-Tanana terrane, is host to much of the mineralization in the Fairbanks mining district. The dominant lithologies present include grey to brown, fine-grained micaceous-quartz schist and micaceous quartzite. Interlayered within the Fairbanks Schist is the Cleary sequence, a more varied assemblage of metamorphic lithologies. The Fairbanks Schist has undergone amphibolite facies metamorphism followed by a retrograde greenschist facies event.

The Fort Knox, Gilmore Dome, and Pedro Dome plutons are post-metamorphic, Late Cretaceous granitic complexes that intrude the metamorphic rocks in the eastern half of the Fairbanks mining district. A plutonic origin has been ascribed to much of the gold mineralization in the Fairbanks district. Fort Knox is hosted entirely within granite, whereas the other gold occurrences are in favourable metamorphic units or structures, near plutonic rocks.

Gold mineralization at Fort Knox Mine is hosted entirely within the Late Cretaceous Fort Knox granite pluton. The contact with the Fairbanks Schist is abrupt. Drilling indicates that the pluton contacts plunge steeply to the north and south and moderately to the east and west.

Gold occurs within, and along the margins of pegmatite vein swarms and quartz veins and veinlets. Numerous SW-dipping fault zones influence the orientation of the vein

swarms and the geometry of ore zones. Weak to moderate development of vein-and-fracture-controlled phyllic, potassic, albitic, and argillic alteration styles are present. Gold occurs attached to bismuth-minerals, sulfide, and non-sulfide gangue, and as complex intergrowth or solid solution/exsolution texture grains with native bismuth, maldonite, bismuthinite, and/or molybdenite.

Gold mineralization at Gil primarily occurs in quartz-sulphide and quartz-carbonate veins, clay-filled shear zones, and limonite-stained fractures, which crosscut nearly all lithologies. Gold mineralization is widespread, but both gold grade and continuity are related to complex interactions among hydrothermal fluids, host rocks, and structure.

### **1.2.5 Exploration**

Exploration has been undertaken by FGMI, and standard exploration procedures have been used at Fort Knox and Gil including reconnaissance and detailed geologic mapping, soil and rock chip sampling, and trenching based on soil anomalies.

### **1.2.6 Drilling**

The current geologic model for the Fort Knox deposit has been defined by 1,843 drillholes with a total length of 451,417 m. A subset of 1,584 drillholes totalling 384,824 m with valid assay data was used to develop the current resource model. The Gil deposit has been defined by a total of 738 drillholes with a total length of 73,876 m.

Core diameter size has been predominantly HQ3 (61.1 mm) since 2012, and was HQ (63.5 mm) in 2011, PQ3 (83.1 mm) from 1998 to 2010, and PQ (85.0 mm) before 1998. Since 2011, FGMI has used a triple tube recovery system to minimize fines loss. RC holes completed by FGMI typically have a diameter of 139.7 mm.

### **1.2.7 Sample Collection, Preparation, Analyses, and Security**

Both core and RC samples are taken on 1.52 m (5 ft) intervals. Samples are stored in an area with controlled access inside or near the secure core logging facility before being shipped to an independent laboratory, currently ALS Minerals in Vancouver, B.C., Canada.

FGMI's Quality Control and Quality Assurance (QA/QC) program is designed to ensure the accuracy and integrity of the data. The analytical quality control program includes the submission of blank, certified reference material (CRM), and duplicate samples as well as umpire check assaying.



The results of all submitted control samples are carefully monitored, and FGMI's technical staff investigates any samples falling outside of the permitted values, with the batch re-run if necessary. Annual analytical quality control reviews are prepared by site geologists.

### **1.2.8 Data Verification**

A number of verification checks have been performed on data collected from both Fort Knox and Gil, either in support of technical reports or resource models, or as part of FGMI's internal validation process. These include external audits of Fort Knox by SRK in 2014, and by RPA in 2011 and 2008. The Gil database was subject to an internal database audit in 2013.

### **1.2.9 Mineral Processing and Metallurgical Testing**

The relationship between head grade and mill recovery has been investigated by FGMI staff through the life of the operation.

For the Walter Creek Heap Leach, projected recoveries were based on laboratory testing of eight bulk samples which were representative of the material to be leached. At the conclusion of the heap leach operation, the cumulative recovery from all tonnes placed is estimated to be approximately 68% of the contained gold.

A 2016 study of the Gilmore ore body compared the geochemical characteristics of the mined areas of the Fort Knox pluton and the proposed new mining area in the Gilmore dome. With the available geochemical data, it was observed that there is little difference between the two areas. Based on these results, the physical characteristics and mineralogy of Gilmore ore are expected to be similar to previously mined and processed ore from the existing Fort Knox pit. Heap leach testing, including bottle roll and column leach tests, was conducted on samples from the Gilmore property from 2015 to 2017.

Projected heap leach recoveries for Gil are based on laboratory testing of six column tests from FGMI and three column tests conducted by a commercial testing laboratory. Gold recovery in the tests was shown to be related to the solution: ore ratio and leaching time, such that after irrigation with 2.6 tonnes solution per tonne of ore, an average recovery of 70% was projected. Cyanide consumption is also related to the irrigation rate and time.



### 1.2.10 Mineral Resource Estimate

Mineral Resources for Fort Knox (Table 1-1) and Gil (Table 1-2) are reported exclusive of Mineral Reserves within a US\$1,400/oz gold price pit shell, but outside of the Life of Mine US\$1,200/oz gold price pit. Mineral resources are reported at a cutoff grade of 0.10 g/t gold for Fort Knox and 0.21 g/t for Gil.

**Table 1-1: Fort Knox Mineral Resource Estimate Effective December 31, 2017.**

Classification	Tonnes (000's)	Grade (Au g/t)	Ounces (000's)
Measured	6,606	0.36	77
Indicated	110,824	0.33	1,185
<b>Subtotal M&amp;I</b>	<b>117,429</b>	<b>0.33</b>	<b>1,262</b>
Inferred	101,579	0.32	1,031

Notes:

1. Mineral Resources are exclusive of Mineral Reserves.
2. The above mineral resource estimate is classified in accordance with the Canadian Institute of Mining, Metallurgy and Petroleum's "CIM Definition Standards - For Mineral Resources and Mineral Reserves" incorporated by reference into National Instrument 43-101 "Standards of Disclosure for Mineral Projects".
3. Mineral Resources are estimated at a cutoff grade of 0.10 g/t Au based on a gold price of US\$1,400/oz.
4. The mineral resource estimates reported in this technical report are different from those reported in Kinross' year-end mineral reserve and resource statement set out in its news release dated February 14, 2018 and its Annual Information Form dated March 31, 2018. The mineral resource estimate as at December 31, 2017 for Fort Knox has been updated from that previously reported based on the feasibility study work completed during 2018.

**Table 1-2: Gil Mineral Resource Estimate Effective December 31, 2017.**

Classification	Tonnes (000's)	Grade (Au g/t)	Ounces (000's)
Measured	-	-	-
Indicated	29,516	0.56	533
<b>Subtotal M&amp;I</b>	<b>29,516</b>	<b>0.56</b>	<b>533</b>
Inferred	4,026	0.49	63

Notes:

1. Mineral Resources are exclusive of Mineral Reserves.
2. The above mineral resource estimate is classified in accordance with the Canadian Institute of Mining, Metallurgy and Petroleum's "CIM Definition Standards - For Mineral Resources and Mineral Reserves" incorporated by reference into National Instrument 43-101 "Standards of Disclosure for Mineral Projects".
3. Mineral Resources are estimated at a cutoff grade of 0.21 g/t Au based on a gold price of US\$1,400/oz.

### 1.2.11 Mineral Reserve Estimate

The Proven and Probable Mineral Reserves as of December 31, 2017 are based on a gold price of US\$1,200/oz (Table 1-3). Mineral reserves are reported for Fort Knox only; there are currently no reserves for Gil.



**Table 1-3: Fort Knox Mineral Reserve Estimate Effective December 31, 2017.**

<b>Classification</b>	<b>Tonnes (000's)</b>	<b>Grade (Au g/t)</b>	<b>Ounces (000's)</b>
Proven	51,366	0.39	645
Probable	230,870	0.37	2,729
<b>TOTAL</b>	<b>282,236</b>	<b>0.37</b>	<b>3,374</b>
Reserve Stockpile	5,587	0.29	51

Notes:

1. The above mineral resource estimate is classified in accordance with the Canadian Institute of Mining, Metallurgy and Petroleum's "CIM Definition Standards - For Mineral Resources and Mineral Reserves" incorporated by reference into National Instrument 43-101 "Standards of Disclosure for Mineral Projects".
2. The cutoff grades are based on a gold price of US\$1,200/oz.
3. Proven Reserve includes stockpiles.
4. Mineral Reserves are reported to a cutoff grade of 0.41 g/t Au for A-ore (mill), 0.25 g/t for B-ore (stockpile), and 0.10 g/t for C-ore (leach).
5. The mineral reserve estimates reported in this technical report are different from those reported in Kinross' year-end mineral reserve and resource statement set out in its news release dated February 14, 2018 and its Annual Information Form dated March 31, 2018. The mineral reserve estimate as at December 31, 2017 for Fort Knox has been updated from that previously reported based on the feasibility study work completed during 2018.

### 1.2.12 Mining Methods

The Fort Knox Gilmore expansion will be an extension of current operations from 2021 to 2027. The existing operation is a conventional hard-rock open pit using drilling, blasting, loading, hauling and support functions. Currently mine operations are moving approximately 63 to 73 million tonnes of material each year, combining productive mining from open pit and rehandle activities. Of this material volume, approximately 13 to 14 million tonnes per year of the best available grade are processed through a CIL mill facility with waste storage in a tailings facility. An additional 9 to 27 million tonnes of lower grade ore are typically processed via heap leach on the current heap leach facility, Walter Creek. Typical productive mining rates during the Gilmore expansion periods will range from 63 to 75 million tonnes per year.

### 1.2.13 Recovery Methods

Fort Knox currently operates two ore processing lines: a mill operation consisting of crushing, grinding, gravity concentration, agitated cyanide leaching, and a carbon-in-pulp (CIP) circuit; and a run-of-mine valley-fill cyanide heap leaching operation where gold is recovered using two parallel carbon-in-column (CIC) circuits. In the near future, an additional valley-fill heap leach pad will be constructed and operated in series with the existing heap leach pad. Gold is recovered from solution by electrowinning and poured into doré bars at the mill refinery.

Higher grade ore from the Fort Knox mine is processed in the CIP mill located near the Fort Knox open pit. The mill processes ore 24 hours per day, 365 days per year at a nominal capacity of 36,287 t/d (40,000 stpd) of fresh feed. The mill includes a primary crusher, a conventional semi-autogenous mill and two ball mills operating in closed-circuit with hydrocyclones to control grind size, gravity concentrators to recover coarse gold, cyanide tank leaching, recovery of gold on activated carbon in the CIP circuit, and a carbon elution and carbon regeneration circuit. In recent years, typical recovery has been in the range of 81% to 83%.

Fort Knox currently operates a valley-fill run-of-mine heap leach facility, Walter Creek Heap Leach (WCHL). Material is dumped throughout the year with occasional stops when there is too much snow. However, irrigation of the heap is maintained year-round using buried piping and dripper systems. The heap was created by covering the valley ground surface with an impermeable synthetic liner. Run-of-mine ore from the pit and existing stockpiles is hauled uphill, and with addition of lime, is dumped onto existing leach cells in 15 m (50 ft) lifts. The existing WCHL leach pad will continue to operate in series with the new Barnes Creek Heap Leach (BCHL) pad, where the pregnant solution from BCHL will be processed through both existing CIC circuits. Gold is recovered from the strip solution by electrowinning and refined into doré bars at the mill refinery. Leached tailings would remain on the ROM leach pad after the operation.

#### **1.2.14 Project Infrastructure**

The private Fish Creek Road provides access to the property from the state highway. The major pipelines on the site are for dewatering, freshwater, heap leach, decant, and seepage reclaim.

Three waste dumps are located adjacent to the pit; the Barnes Creek, Yellow Pup, and Fish Creek waste dumps. There are typically stockpiles for all ore types (A, B, and C ore). The WCHL pad is located in the upper end of the Walter Creek drainage, immediately upstream of the tailings storage facility. The new BCHL will be located immediately north of the Fort Knox pit. These facilities can process a total of 263 million tonnes of ore, effective January 1, 2018 (73 million tonnes on WCHL, 190 million tonnes on BCHL).

The permitted area of the Tailings Storage Facility (TSF) encompasses approximately 630 ha (1,556 ac). The TSF dam is approximately 1,338 m long and 107 m tall at the crest. It impounds all of the tailings generated by the mill. The TSF and the mill form a closed system for process water. Water used in the mill is pumped from the decant pond and process water that has had the cyanide level reduced to low levels is returned to the decant pond in the tailings slurry.



The fresh water supply reservoir provides make-up water to the Mill and Barge Pond and is located on Fish Creek approximately 5 km below the tailings impoundment and encompasses approximately 70 ha (173 ac).

The Fort Knox monthly electrical power requirement ranges between 32 and 35 Mw, and is supplied by a power line extending from the Golden Valley Electric Association substation at Gold Hill to the Fort Knox site, a distance of approximately 47 km.

Buildings on site include the mill complex, administration and security building, maintenance facility and warehouse, and primary crusher and control office.

### **1.2.15 Environmental Studies, Permitting, and Social or Community Impact**

Fort Knox operates in material compliance with applicable environmental laws and regulations and with Kinross' policies on environment, health and safety. There are no known material environmental concerns at Fort Knox. A comprehensive Environmental, Health, and Safety System is in place and comprises 18 environmental management plans to manage, monitor, and maintain process components site wide.

The TSF is designed and operated according to the Guidelines for Cooperation with the Alaska Dam Safety Program. The Tailings Dam Operation and Maintenance Manual has been developed to include these guidelines, along with the Alaska Department of Environmental Conservation's monitoring requirements. The Tailings Dam Operation and Maintenance Manual is subject to a rigorous review and audit process and is updated on an annual basis.

Various inspections and reviews of the TSF are carried out including: routine, extraordinary, and periodic inspections; quarterly instrumentation reviews; annual dam inspections; internal triennial third-party dam reviews; construction completion reports; failure modes and effects analysis; engineering risk assessment; and dam break analysis.

Kinross estimates the net present value of future cash outflows for site restoration costs at Fort Knox and True North under International Financial Reporting Standards ("IFRS"), International Accounting Standard 37 ("IAS 37") and International Financial Reporting Interpretation Committee 1 ("IFRIC 1") for the year ended December 31, 2017, at approximately US\$98.8 million. Kinross currently has posted approximately US\$98.1 million of letters of credit to various regulatory agencies in connection with its closure obligations at Fort Knox and True North.



### 1.2.16 Capital and Operating Costs

Capital costs for the Gilmore expansion and life-of-mine (LOM) sustaining capital are summarized in Table 1-4 and Table 1-5, respectively.

**Table 1-4: Fort Knox Initial Capital Cost Summary (US\$ x 1,000).**

<b>Initial Capital Cost</b>	<b>Equipment/ Infrastructure</b>	<b>Mine Development</b>	<b>Total</b>
Surface	19,081	82,229	101,309
Processing	58,786	-	58,786
<b>Total</b>	<b>77,867</b>	<b>82,229</b>	<b>160,096</b>

**Table 1-5: Fort Knox Sustaining Capital Cost Summary (US\$ x 1,000).**

<b>Sustaining Capital Cost</b>	<b>Equipment/ Infrastructure</b>	<b>Mine Development</b>	<b>Other</b>	<b>Total</b>
Surface	128,164	343,585	-	471,749
Processing	99,585	-	-	99,585
Other	850	-	4,500	5,350
<b>Total</b>	<b>228,599</b>	<b>343,585</b>	<b>4,500</b>	<b>576,684</b>

Operating costs are tracked and well understood. Total LOM operating costs and 2017 target cost per tonne are summarized in Table 1-6.





**Table 1-6: Fort Knox Operating Cost Summary (US\$ x 1,000).**

<b>Operating Costs</b>	<b>US\$ LOM</b>	<b>Unit Cost</b>
Mining (incl. Capitalized Stripping)	1,322,148	2.19 <sup>1</sup>
Milling Cost	202,495	6.49 <sup>2</sup>
Heap Leach Cost	360,665	1.44 <sup>3</sup>
G&A	325,494	25,038 <sup>4</sup>
<b>Total</b>	<b>2,210,802</b>	

1. \$/tonne mined
2. \$/tonne milled
3. \$/tonne stacked
4. LOM average yearly G&A

### 1.2.17 Economic Analysis

Under NI 43-101 rules, a producing issuer may exclude the information required for Item 22 – Economic Analysis on properties currently in production, unless the Technical Report prepared by the issuer includes a material expansion of current production. Kinross is a producing issuer, the Fort Knox mine is currently in production, and a material expansion of production is not included in the current LOM plans. Kinross has carried out an economic analysis of Fort Knox using the estimates presented in this report and confirms that the outcome is a positive cash flow that supports the statement of Mineral Reserves.

### 1.2.18 Conclusions

Kinross views Fort Knox as a valuable asset in a favourable jurisdiction. With the Gilmore expansion, the Fort Knox mine life has been extended to 2027.

Kinross is confident in the assessment presented in this Technical Report. However, the Fort Knox asset is subject to many risks including, but not limited to: commodity price assumptions (particularly relative movement of gold and oil prices), unanticipated inflation of capital or operating costs, significant changes in equipment productivities, geotechnical assumptions in pit designs, ore dilution or loss, throughput and recovery rate assumptions, availability of financing and changes in modelled taxes.

### 1.2.19 Recommendations

There are no recommendations at this time as Fort Knox is a fully operational mine.



## 2 INTRODUCTION

Kinross Gold Corporation (Kinross) has prepared a Technical Report for the wholly-owned and operated Fort Knox mine (Fort Knox) and Gil project (Gil), located in Fairbanks North Star Borough, Alaska, United States of America, as seen in Figure 2-1. Fairbanks Gold Mining Inc. (FGMI) is Kinross' operating entity for Fort Knox and Gil. The Technical Report conforms to National Instrument 43-101 Standards of Disclosure for Mineral Projects (NI 43-101) and has an effective date of June 11, 2018. Kinross will be using this Technical Report to support disclosure of mineral resources and mineral reserves at Fort Knox and mineral resources at Gil.

In June 2018, Kinross completed a Feasibility Study (FS) of an expansion of the Fort Knox open pit, referred to as Gilmore. This report describes the current mining operation as well the extended life of mine including Gilmore.

All measurement units used in this Technical Report are metric unless stated otherwise, and currency is expressed in US dollars. Metric tonnes and short tons are represented by the abbreviations "t" and "st", respectfully. All other abbreviations that reference tonnes or tons follow this convention, with the exception of "opt" which maintains its common industry meaning of ounces per short ton. For a full list of abbreviations see Section 2.4.

Information used to support this Technical Report has been derived from the reports and documents listed in the References section of this Technical Report.

The use of the terms "we", "us", "our", or "Kinross" in this Technical Report refer to Kinross Gold Corporation.



**Figure 2-1: Fort Knox Mine Location.**

## 2.1 Qualified Persons

The Qualified Person (QP) for this Technical Report is John Sims, AIPG Certified Professional Geologist.

Mr. Sims visited the site most recently in April 2017. During the site visit, Mr. Sims inspected core, sample cutting and logging areas; discussed geology, mineralization, and reviewed geological interpretations with staff; and inspected the major infrastructure and current mining operations. All sections in this Technical Report have been prepared under the supervision of Mr. Sims.

Kinross has a "layered" QP structure, with corporate and site QPs. Site QPs are geologists or engineers in the site technical services organization, and are responsible for ensuring that resource and reserve estimates comply with NI 43-101 standards. The Corporate QPs are in Kinross' corporate Technical Services department, and include experienced professionals in resource geology, mining engineering, metallurgy and geotechnical engineering. For the purpose of resource and reserve estimation, the corporate and site QPs work under the supervision of the Kinross Company QP, Mr. Sims. Although Mr. Sims is the only QP to publicly sign off on Kinross reserves and resources and this Technical Report, it is Kinross policy that the corporate and site QPs meet the requirements to be a QP under NI 43-101.



## **2.2 Information Sources**

Information used to support this Technical Report was derived from previous technical reports on the property, and from the reports and documents listed in the References section of this Technical Report.

Preparation of the Mineral Resource estimates included in this report was supervised by John Sims, Vice-President, Technical Services, Resource Geology and Brownfields Exploration, and Chris Ekstrom, Chief Geologist at Fort Knox.

Preparation of the Mineral Reserve estimates included in this report was supervised by John Sims, Vice-President, Technical Services, Resource Geology and Brownfields Exploration, Todd Carstensen, Director, Mine Planning, Kinross Technical Services and Craig Natrop, Technical Services Manager at Fort Knox.

## **2.3 Effective Dates**

This report has an effective date of June 11, 2018. Resources and reserves are reported effective December 31, 2017.

## 2.4 List of Abbreviations

μ	micron	m	metre
μg	microgram	M	mega (million)
μm	micrometre	m <sup>2</sup>	square metre
°C	degree Celsius	m <sup>3</sup>	cubic metre
°F	degree Fahrenheit	m <sup>3</sup> /h	cubic metres per hour
%	percent	masl	metres above sea level
\$	United States dollar	mE	metres East (coordinates)
ac	acre	min	minute
Au	Gold	ML	million litres
CIC	carbon-in-column	mm	millimetre
CIP	carbon-in-pulp	mN	metres North (coordinates)
cm	centimetre	Moz	million ounces
cm <sup>2</sup>	square centimetre	Mst	million short tons
d	day	Mt	million metric tonnes
dmt	dry metric tonne	Mt/a	million metric tonnes per annum
ft	foot	MW	megawatt
ft <sup>2</sup>	square foot	MWh	megawatt hours
ft <sup>3</sup>	cubic foot	opt	ounces per short ton
g	gram	oz	Troy ounce (31.1035g)
gal	US gallon	st	short ton
gpm	US gallons per minute	st/cf	short tons per cubic foot
g/cc	grams per cubic centimetre	stpa	short tons per year
g/t	grams per tonne	stpd	short tons per day
ha	hectare	t	metric tonne
hp	horsepower	t/a	metric tonnes per year
in	inch	t/d	metric tonnes per day
in <sup>2</sup>	square inch	t/m <sup>3</sup>	metric tonnes per cubic metre
k	thousand (kilo)	US\$	United States dollar
kg	kilogram	US\$/BBL	US\$ per oil barrel (42 US gallons)
kg/t	kilograms per metric tonne	US\$/g	US dollar per gram
km	kilometre	US\$/kWh	US\$ per kilowatt hour
km <sup>2</sup>	square kilometre	US\$/L	US\$ per litre
koz	thousand ounces	US\$/oz	US dollar per Troy ounce
kt	thousand tonnes	US\$/t	US dollar per metric tonne
kt/d	thousand metric tonnes per day		
kW	kilowatt		
kWh	kilowatt-hour		
L	litre		
L/m	litres per minute		
L/t	litres per metric tonne		
lb	pounds		
lb/st	pounds per short ton		



### **3 RELIANCE ON OTHER EXPERTS**

In the preparation of the Technical Report, the Qualified Person relied on information provided by internal Kinross legal counsel for the discussion of legal matters in Sections 4, 19, and 20.

Except for the purposes legislated under provincial securities law, any other use of this report by any third parties is at this party's sole risk.

## **4 PROPERTY DESCRIPTION AND LOCATION**

### **4.1 Location and Overview**

Fort Knox is located 42 km by road northeast of the city of Fairbanks, in Alaska, United States of America (Figure 4-1). It is situated in the Fairbanks North Star Borough. Kinross' mining and exploration properties are located within the Fairbanks mining district, a northeast trending belt of lode and placer gold deposits that is one of the largest gold producing areas in the state of Alaska.

The Fort Knox Mine property includes the Fort Knox open pit mine, mill, heap leach, tailings storage facility, encompassing 30,226 ha. The property package is located within US State Plane, Alaska 5003, Zone 3 coordinates of 419,700 mE, 1,235,600 mN and 461,500 mE, 1,218,200 mN (Figure 4-1).

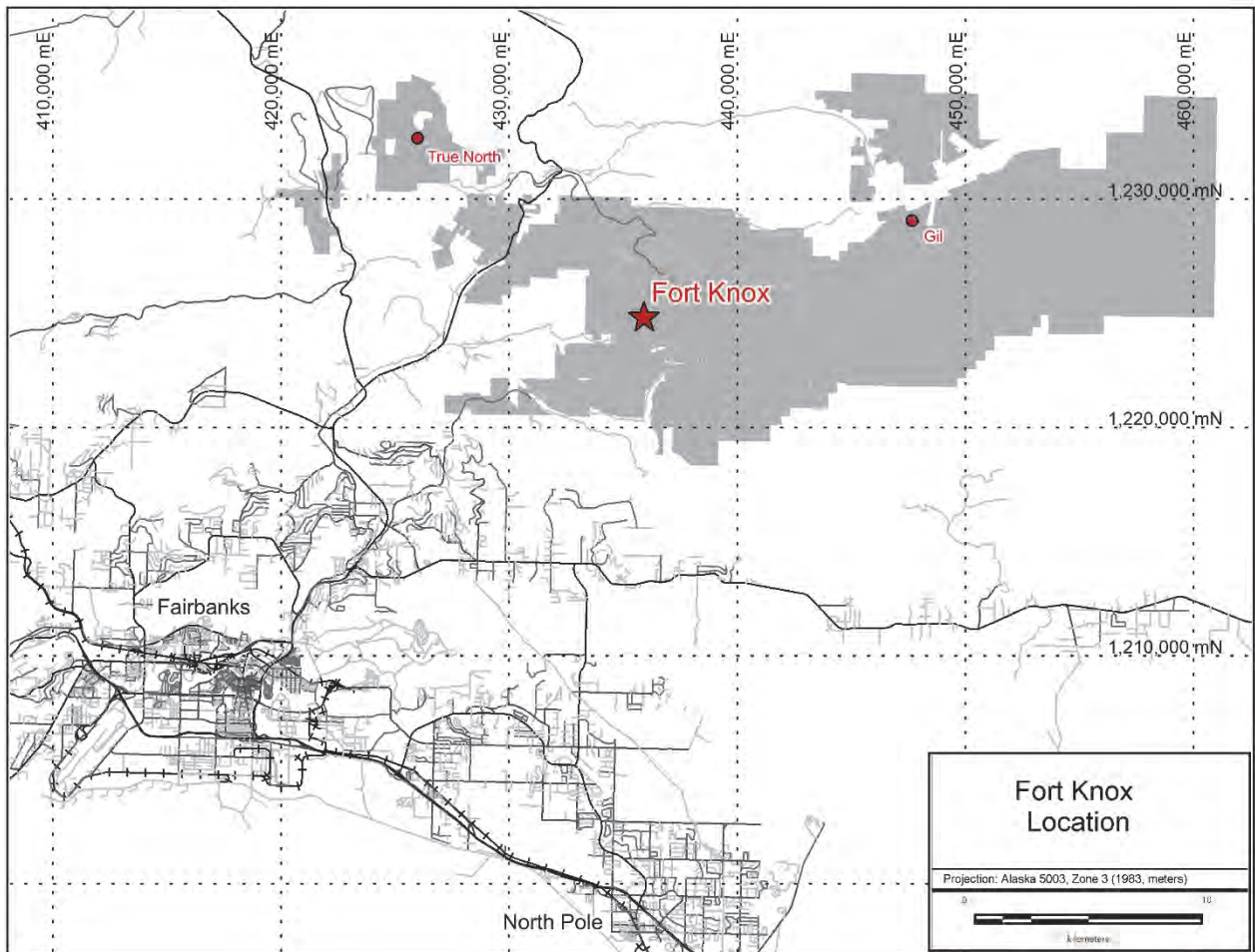
### **4.2 Mineral Tenure and Rights**

#### **4.2.1 Overview**

FGMI controls a large and diverse group of properties that comprise its mineral holdings in the Fairbanks Mining District, summarized in Figure 4-2. These properties include State of Alaska mining claims, patented mining claims and private land. Some of the claims are owned outright, while others are controlled through leases. In total, the Fort Knox property encompasses 31,204 ha (77,107 ac). Mineral reserves at the Fort Knox mine are situated on lands that are covered by the Fort Knox Upland Mining Lease or State Mining Claims.

#### **4.2.2 Leases**

The Fort Knox mine and facilities encompass approximately 3,517 ha (8,691 ac), of which none are federal lands. The project area is predominantly covered by the Amended and Restated Millsite Lease (ADL 414960, 414961) (Figure 4-2, Table 4-1), which covers 3,068 ha (7,581 ac). The Fort Knox ore body is predominantly located within the Fort Knox Upland Mining Lease (ADL 535408) entered into with the Alaska Mental Health Trust Land Authority (MHT) (Figure 4-2, Table 4-1). The portion of the ore body that extends to the west currently outside of ADL 535408 is covered with State of Alaska mining claims that are active and in good standing. A complete listing of State of Alaska Mining Claims for the Fort Knox mine and area is shown in Appendix A.



**Figure 4-1: General Location of Fort Knox Mine and Gil Project.**

An additional 2,059 ha (5,088 ac) of mineral rights are held under the Mental Health Lease, issued by the MHT (ADL 9400275) (Figure 4-2, Table 4-1).



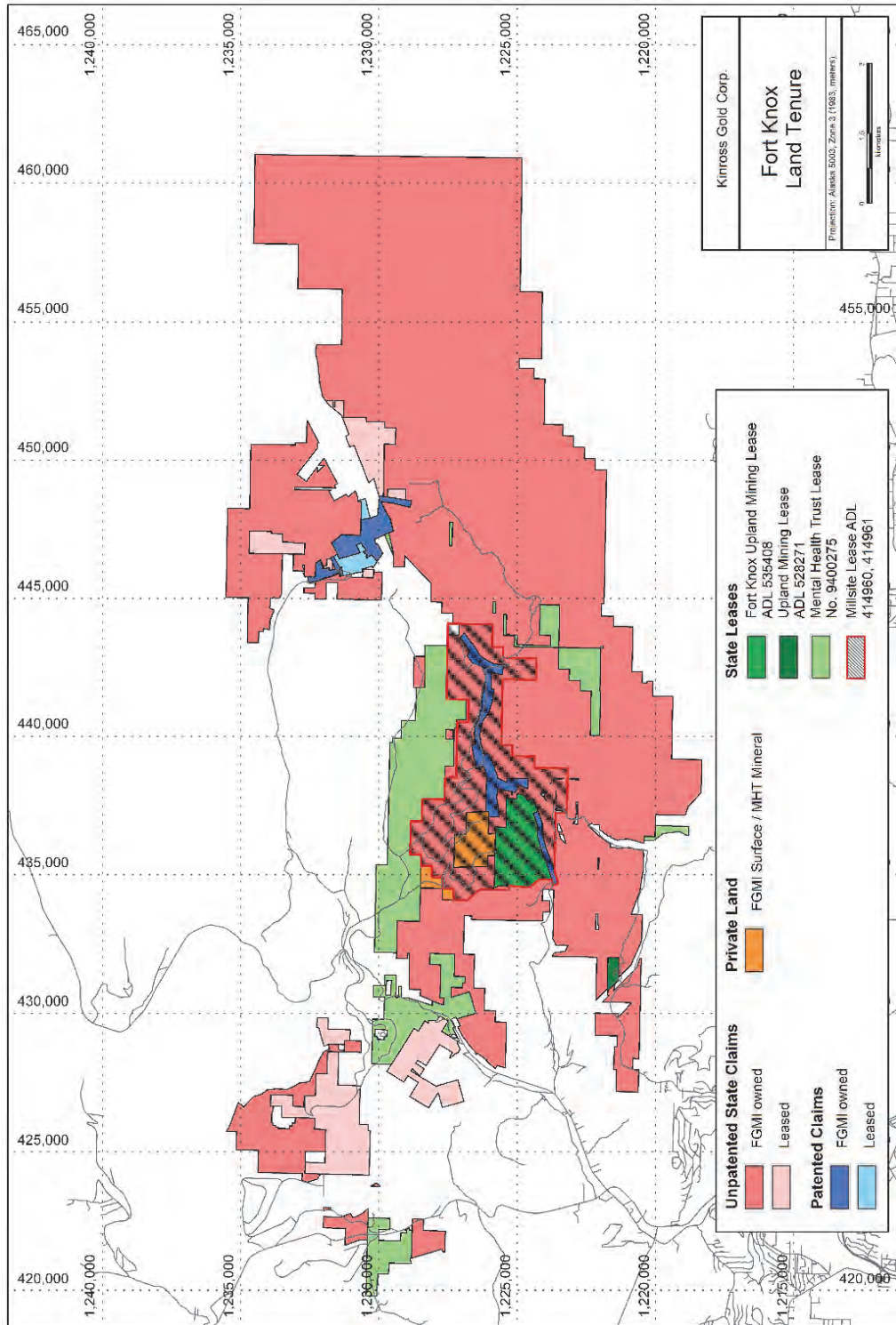


Figure 4-2: Mineral Tenure and Rights at Fort Knox Mine and Gil Project.



**Table 4-1: Mineral Rights – Lease Summary, Fort Knox Property.**

<b>Lease Name</b>	<b>Lease Number</b>	<b>Area (ha)</b>	<b>Area (ac)</b>	<b>Issue Date</b>	<b>Expiry Date</b>
Millsite Lease	ADL 414960, 414961	2,345.78	5,796.56	15 Feb 1994	15 Feb 2024
Fort Knox Upland Mining Lease	ADL 535408	478.95	1,183.5	15 Feb 1994	15 Feb 2034
Upland Mining Lease	ADL 528271	40.47	100	01 Sept 1989	31 Aug 2019
Mental Health Trust Lease	9400275	2,059.04	5,088	1 Aug 2005	31 Jul 2021
<b>TOTAL</b>		<b>4,924.24</b>	<b>12,168.06</b>		

**Table 4-2: Mineral Tenure – Patented Claim Summary, Fort Knox Property.**

<b>Claim Name</b>	<b>Property Name</b>	<b>Owner</b>	<b>Area (ha)</b>	<b>Area (ac)</b>
PAN 0478318	FORT KNOX PATENTED CLAIMS	Fairbanks Gold Mining Inc.	253.13	625.49
PAN 0607988	FISH CREEK PATENTED CLAIMS	Fairbanks Gold Mining Inc.	180.83	446.83
PAN 0228494	STEPOVICH WORM	Fairbanks Gold Mining Inc.	49.03	121.15
PAN 0607978	FAIRBANKS CREEK PATENTED CLAIMS	Fairbanks Gold Mining Inc.	62.54	154.55
PAN 0607840	LOT 1 FISH CREEK	Fairbanks Gold Mining Inc.	62.54	154.55
PAN 0607860	LOT 3 FISH CREEK	Fairbanks Gold Mining Inc.	8.53	21.07
PAN 0567841	SLIPPERY CREEK ASSOCIATION NO 2	Fairbanks Gold Mining Inc.	9.82	24.26
PAN 0567850	SLIPPERY CREEK ASSOCIATION NO 3	Fairbanks Gold Mining Inc.	13.45	33.23
PAN 0226891	GILMORE CREEK	Fairbanks Gold Mining Inc.	18.02	44.52
PAN 0209821	LOWER 8 BELOW	Fairbanks Gold Mining Inc.	6.46	15.96
PAN 0558001	SUNNY SIDE BENCH	Fairbanks Gold Mining Inc.	5.20	12.84
PAN 0558010	9 BELOW	Fairbanks Gold Mining Inc.	7.82	19.33
PAN 0558028	UPPER 8 BELOW	Fairbanks Gold Mining Inc.	5.20	12.84
<b>TOTAL</b>			<b>634.71</b>	<b>1,568.41</b>

### 4.2.3 Mining Claims

Within the broader Fort Knox property, FGMI controls 1,758 State of Alaska mining claims covering an area of approximately 31,884 ha (78,787 ac) (Table 4-3) and 81 patented claims covering an area of approximately 634 ha (1,568 ac) (Table 4-2).

**Table 4-3: Mineral Tenure – Unpatented State Claim Summary, Fort Knox Property.**

<b>Claim Block</b>	<b>Registered Owner</b>	<b>Number of Claims</b>	<b>Area<sup>1</sup> (ha)</b>	<b>Area<sup>1</sup> (ac)</b>	<b>Expiry Date<sup>2</sup></b>	<b>% Held by FGMI</b>
FGMI Fort Knox & Gil	Fairbanks Gold Mining Inc.	1,681	30,266	74,789	30 Nov 2018	100
Leased	Daniel, Margaret, EHB LLC (Deep Creek)	39			30 Nov 2018	100
	Daniel, Margaret Eagen (Clark Creek)	44	1,618	3,998	30 Nov 2018	100
<b>TOTAL</b>		<b>1,758</b>	<b>31,884</b>	<b>78,787</b>		

1. Area calculated by actual land surface held, not as a sum of individual listed claim areas as to not overstate land position due to overlapping claims and incorrectly reported claim areas.
2. Expiry data refers to annual date in which maintenance fees are paid to keep claims active and in good standing.

### 4.3 Other Private Lands

On May 22, 2008 the MHT conveyed to FGMI all right, title and interest to the lands encompassing the Fort Knox mine and mill complex, approximately 717 ha (1,772 ac), reserving unto the MHT all oils, gases, ores, and minerals. This ground is subject to the Fort Knox Upland Mining Lease. In addition, in 2012, FGMI secured the surface rights to 113 ha (280 ac) of private land on the northwest side of the project.

### 4.4 Royalties and Other Encumbrances

The Fort Knox Upland Mining Lease and all State claims carry a 3% royalty, based on net income from production. All Mineral production is subject to a State of Alaska mine license tax, following a three-year grace period after production commences. The mine license tax is US\$4,000 plus 7% of any additional taxable income over US\$100,000. Taxation is after-the-fact and costs are incorporated into yearly budgets as mining taxes per International Financial Reporting Standards and corporate guidance. There has been no production from State claims situated outside the boundaries of the Fort Knox Upland Mining Lease at the Fort Knox mine. Production and main retained royalties are summarized in Table 4-4.



**Table 4-4: Royalties and Other Encumbrances.**

<b>Royalty</b>	<b>Comments</b>
Fort Knox Upland Mining Lease	3% based on net income
State claims	3% based on net income
Stepovich 'Worm' Patented Claims	1% Net Smelter Return (NSR) payable to Stepovich family
Fairbanks Creek – Fish Creek	2-3% NSR on various patented Federal lode claims payable to J. Reeves
Mental Health Overriding Royalty	1% NSR on claims & leases located on Mental Health lands not covered by the Mental Health Trust lease or Fort Knox Upland Mining Lease
Teryl Inc. Overriding Royalty	US\$2.5 M advance royalty upon sale completion; US\$1.5 M advance royalty upon commencement of production; 1% NSR until US\$15 M paid (including the US\$4 M advance payment); 0.5% NSR thereafter for life of mine.

Note: AK mine license tax applies to net income from all production areas.

## **4.5 Permitting**

All requisite permits have been obtained for mining of the existing Fort Knox open pit mine and are in good standing in all material respects. A Feasibility Study of the Gilmore expansion has been completed and will be subject to permitting approvals, which are expected to be issued in due course. Permitting is discussed further in Section 20.3.



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

### 5.1 Accessibility, Local Resources, and Infrastructure

Fort Knox is situated close to the city of Fairbanks, which is a major population, service, and supply centre for the interior region of Alaska (Figure 5-1). Fairbanks is the second largest city in Alaska, and has a population of approximately 32,000 residents. The surrounding areas in the Fairbanks North Star Borough contain a further 67,000 residents. Services and supplies to support the local and regional needs, along with the mining and processing operations of Kinross, are available in Fairbanks. Fairbanks is served by major airlines and the Alaska Railroad, and is connected to Anchorage and Whitehorse, Canada by a series of well-maintained paved highways (Figure 5-1).

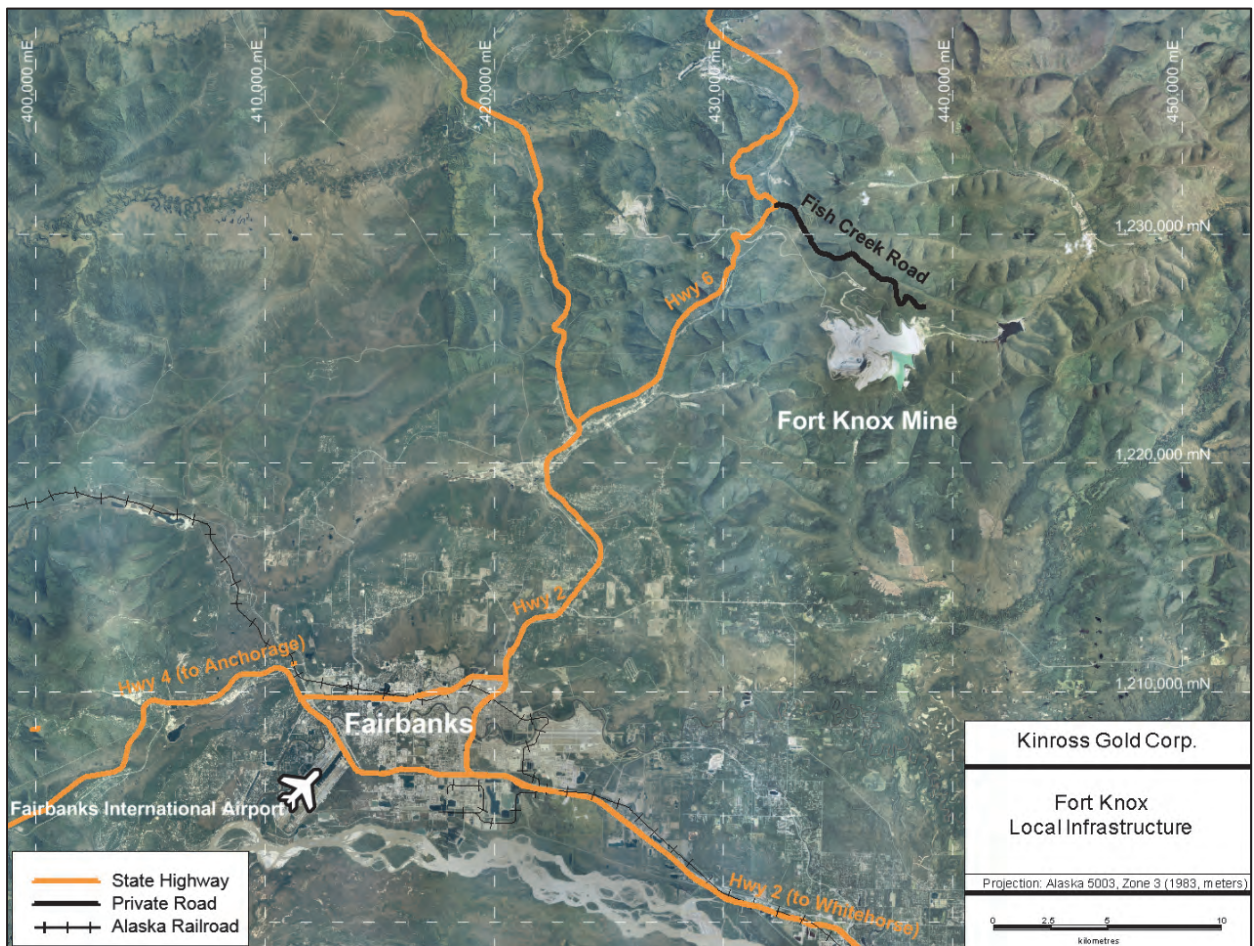


Figure 5-1: Fort Knox Mine Local Infrastructure.

## 5.2 Climate

The Fairbanks area has a continental sub-arctic climate, with long cold winters and short summers. Average winter temperatures are around  $-23^{\circ}\text{C}$ , with low temperatures dropping to the range of  $-40$  to  $-48^{\circ}\text{C}$ . Average summer temperatures are  $+19$  to  $22^{\circ}\text{C}$  with highs occasionally exceeding  $+32^{\circ}\text{C}$ . The annual precipitation in Fairbanks is approximately 31 cm, with the wettest months being June to September and the driest months being February to April. The Fort Knox mine operates 365 days per year. Weather conditions, such as temperature inversions or slippery road surfaces, will typically negatively affect production in the open pit for only portions of a few shifts annually.

## 5.3 Physiography

The topography of the region comprises low hills and broad valleys occupied by meandering streams. The hills are generally rounded with gentle slopes and irregular ridge patterns, the result of numerous gulches and streams that cut the flanks of hills. The most prominent topographic features include Ester Dome, located in the western part of the district at 720 masl, and Pedro Dome, situated in the north-eastern part of the area at 609 masl.

The area is predominantly forested, with vegetation varying with soil-type. Well-drained soils of the uplands and alluvial plains are covered mainly with white spruce and a mixture of broadleaf trees such as paper birch and quaking aspen. The moderately well-drained soils commonly support black spruce and willow forests, with moss, horsetail and grass groundcover. The poorly drained soils with a high permafrost table are found on the northern exposures of the mountain slopes and generally support black spruce, willow, and alder. A thick moss mat, commonly with lichens, provides groundcover and supports a dense cover of shrubs.

Permafrost is discontinuous throughout the property, and does not exist on some north-facing mountain slopes where it normally would be expected. Data collected from exploration boreholes and thermistors installed in the area of the tailings embankment before construction indicate the presence of localized permafrost. Temperature surveys of the monitoring wells indicate that frozen conditions exist mostly on north-facing slopes and in shaded areas on the valley floor. Thermistor readings indicated that temperatures ranged from 1 to  $10^{\circ}\text{C}$ . The majority of soil and rock temperatures in frozen areas ranged from 0 to  $-1^{\circ}\text{C}$  indicating warm permafrost. Data collected during drilling suggests that at some locations the bedrock aquifer may be frozen to significant depths (in excess of 30 m).



## **6 HISTORY**

### **6.1 Prior Ownership**

The first lode-mining claims in the area were originally staked in 1913 by H.A. Currier. The claims were dormant until 1980, when two local prospectors, Joe Taylor and George Johnson staked 19 state mining claims to work placer deposits.

In 1986, the claims were leased to Nye Minerals, which entered into a joint venture agreement with Electrum Resources in 1987. From 1987 to 1991, numerous small mining companies actively explored the claims.

Amax Gold, Inc. (Amax) purchased the Fort Knox project in 1992 and established Fairbanks Gold Mining Inc. (FGMI) as a wholly owned subsidiary to operate the project. In 1993, Amax merged with Cyprus Mines Corporation, forming Cyprus Amax Minerals Co. (Cyprus Amax). Cyprus Amax maintained a 51% interest in Amax.

In 1998, Kinross acquired Amax, and Amax then changed its name to Kinam Gold Inc. and became a subsidiary of Kinross.

In 1991, Amax Gold Inc. entered into a joint venture agreement with Teryl Resources Corp. to explore the Gil property. In 2011, Kinross acquired Teryl's remaining interest in the Gil property.

Kinross acquired ownership of the True North property in 1999 as a result of the acquisition of La Teko Resources and from acquiring Newmont's 65% interest in the property.

In 2007 and 2017, the United States transferred certain ground adjacent to the Fort Knox pit to the State of Alaska. As a result of these transfers, Kinross acquired mining rights pursuant to Alaska State mining claims.

### **6.2 Exploration and Development History**

The Fort Knox area has been actively explored for gold placer deposits since 1902 when Felix Pedro discovered gold in Fish Creek, located downstream of the Fort Knox deposit. Since that initial discovery, the surrounding Fairbanks Mining district has produced in excess of 8 Moz of gold, predominantly from placer deposits, which actively continues.

Exploration for lode gold deposits was very limited during the early history of the region and focused on tracing the source of the placer deposits up headwaters and tributaries

to Fish Creek. Alfred Brooks mapped the area while working for the United States Geological Survey (USGS) in the early 1900's. Brooks' mapping described a large granitic intrusive in the project area.

In 1913, H.A. Currier staked lode mining claims covering auriferous quartz veins on the Melba Creek-Monte Cristo Creek divide (covering part of what is now the Fort Knox gold deposit). A three-stamp mill was constructed on the property, but there is little evidence of any production from the claims. USGS geologists who examined the prospect noted the association of bismuthinite and gold in quartz veins and suggested a relationship between the observed mineralization and the large granitic intrusive located nearby.

Heiner and Wolff (1968) noted that the large amount of placer gold in the Fairbanks District led many workers to conclude that only the roots of the gold veins were left and that there was not enough economic incentive to test the theory by exploration.

After staking 19 state mining claims, Joe Taylor and George Johnson worked the placers of Monte Cristo Creek from 1980 to 1982 and recovered bismuthinite nuggets containing abundant gold. The demonstrated correlation between the gold and bismuth led Taylor and Johnson to prospect the slopes and divide between Melba and Monte Cristo Creeks. The prospecting operations involved panning and trenching, which suggested that Au mineralization was widespread and resulted in the prospectors staking an additional 34 mining claims.

In 1984, Rob Blakestead, a consulting geologist, noted the presence of visible gold in quartz veins hosted by granite in the Fort Knox area. This discovery led to increasing levels of exploration to locate the source of the gold.

FGMI initiated extensive exploration programs on the property including surface geochemical sampling, drilling and geophysics. Soil sampling proved the most useful exploration tool in delineating the ore body during initial exploration of the deposit. Later surface trenching and mapping of the anomalies developed by the soil geochemistry identified the favourable targets.

Ground magnetometer surveys performed in 1987, 1991 and 1992 were employed with limited success. 427 drillholes totaling 79,860 m had been completed on the property by late 1992. This work was followed by the completion of environmental and engineering studies examining the feasibility of commercial production from the deposit.

Construction of the Fort Knox mine and mill operations began in 1995 and was completed in 1997. The capital cost was approximately US\$373 million, including US\$28 million of capitalized interest. Commercial production at Fort Knox began in March 1997.





Fort Knox is mined as a conventional truck and shovel open pit mine and has operated continuously since start up, in seven progressive phases.

The discovery and development of the True North deposit (Figure 4-1) produced ore for the Fort Knox mill from 2001 to 2004.

Fort Knox operated as a mill-only process until the price of gold and known quantities of low grade material enabled the addition of a heap leach process. Modifications were completed on the existing crushing circuit in 2008 to produce crushed material for the Walter Creek heap leach construction. Heap Leach construction is separated into a total of seven stages between 2009 and 2019. The facility includes a valley fill leach pad, solution pumping systems, and a carbon-in-column (CIC) plant. The original solution capacity was 30,000 L/m. The construction of a second CIC plant was completed in July 2013 and has increased the solution capacity to 70,000 L/m. Current flow rate to the CIC processing facility is 61,000 L/m.

### **6.3 Past Production**

Fort Knox has yielded approximately 469 Mt of ore with 7.5 Moz of produced gold since 1996 (Table 6-1).



**Table 6-1: Fort Knox Production Summary.**

Year	Total tonnes processed (000's)	CIP tonnes processed (000's)	Grade (g/t) <sup>1</sup>	Heap Leach tonnes loaded (000's)	Gold produced (oz)
1997	11,000	11,000	1.17	-	320,758
1998	12,466	12,466	0.99	-	365,452
1999	12,536	12,536	0.95	-	351,120
2000	13,606	13,606	0.94	-	362,959
2001	14,209	14,209	1.05	-	411,221
2002	13,843	13,843	1.09	-	410,519
2003	13,685	13,685	1.07	-	391,831
2004	13,239	13,239	0.94	-	338,334
2005	13,050	13,050	0.90	-	329,320
2006	13,462	13,462	0.90	-	333,383
2007	12,722	12,722	0.96	-	338,459
2008	13,769	13,706	0.88	63	329,105
2009	16,224	12,830	0.69	3,394	263,260
2010	25,735	13,206	0.79	12,528	349,729
2011	31,078	13,503	0.56	17,575	289,794
2012	43,153	13,204	0.69	29,950	359,948
2013	42,419	12,668	0.82	29,751	421,641
2014	39,386	13,538	0.66	25,848	379,453
2015	38,664	13,445	0.76	25,219	401,553
2016	42,361	13,219	0.69	29,142	409,844
2017	32,737	12,470	0.84	20,267	381,115
	<b>469,343</b>			<b>193,736</b>	<b>7,538,798</b>

1. Amount represents CIP mill grade only

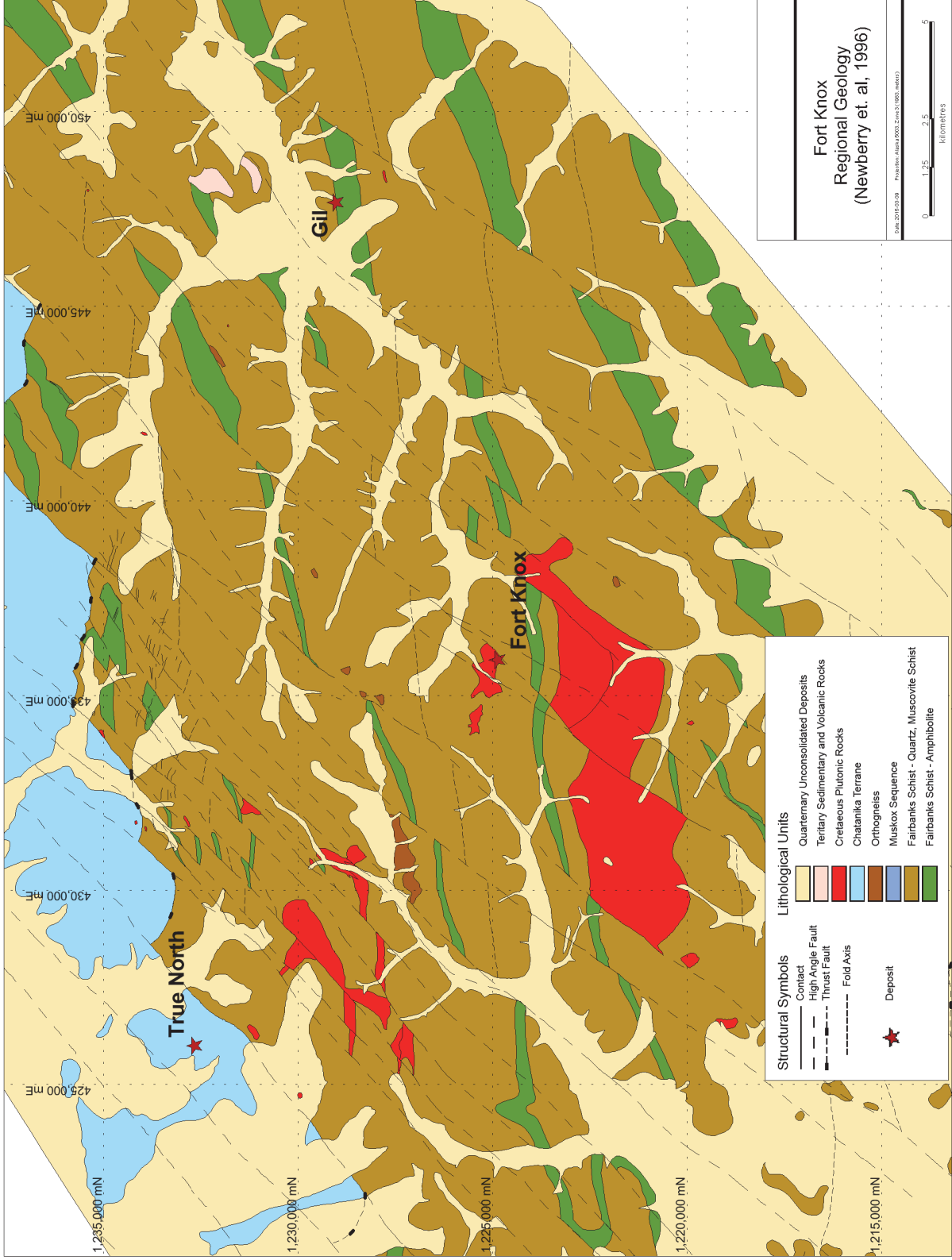
## 7 GEOLOGICAL SETTING AND MINERALIZATION

### 7.1 Regional Geology

The Fairbanks mining district is located in the northwestern part of the Yukon-Tanana terrane (YTT), which consists of Paleoproterozoic, polymetamorphosed schist, of primarily sedimentary origin. The terrane is bounded on the north by the Tintina fault system and on the south by the Denali Fault system (Bundtzen, 1981). Hall (1985) suggests a more complex deformational history identifying four phases of penetrative tectonism. Northeast-trending faults, related to the Tintina and Denali fault systems, are the dominant structural trends. These regional fault systems have created different levels of crustal exposure, through oblique offsets that are primarily dip-slip, with a sinistral sense of shear (Robinson, 1990; Newberry, 1996). E-W to NW-directed faults and shears are present and are locally an important structural control to mineralization at most gold occurrences in the district.

The Fairbanks Schist, a unit of the Yukon-Tanana terrane, is host to much of the mineralization in the Fairbanks mining district (Figure 7-1). The dominant lithologies present include grey to brown, fine-grained micaceous-quartz schist and micaceous quartzite. Interlayered within the Fairbanks Schist is the Cleary sequence, a more varied assemblage of metamorphic lithologies. The Fairbanks Schist has undergone amphibolite facies metamorphism followed by a retrograde greenschist facies event.

The Fort Knox, Gilmore Dome, and Pedro Dome plutons are post-metamorphic, Late Cretaceous (~92 Ma) granitic complexes that intrude the metamorphic rocks in the eastern half of the Fairbanks mining district. A plutonic origin has been ascribed to much of the gold mineralization in the Fairbanks district. Fort Knox is hosted entirely within granite, whereas the other gold occurrences are in favourable metamorphic units or structures, near plutonic rocks.



**Figure 7-1: Regional Geology of the Fairbanks District, Yukon-Tanana Terrane. Simplified from Newberry et al. (1996).**

## 7.2 Local Geology

The Fairbanks district hosts gold in a variety of geologic settings, including:

- the Fort Knox deposit (the largest lode deposit in the district), where gold is hosted in quartz, quartz-sericite, and quartz pegmatite veins, stockwork zones, and mineralized shear zones;
- the Gil project, where gold is hosted in skarns and quartz veins within the skarns;
- the True North deposit, where mineralization is hosted by deformed carbonaceous meta-sediments associated with quartz veins;
- the Ryan Lode deposit, where gold occurs in and adjacent to large-scale shear zones; and
- the Cleary Hill mine, where gold occurs in quartz veins within the Fairbanks Schist.

## 7.3 Fort Knox Deposit Geology and Mineralization

Gold mineralization at Fort Knox Mine is hosted entirely within the Late Cretaceous (~92 Ma), Fort Knox granite pluton (Figure 7-2). The contact with the Fairbanks Schist is abrupt. Drilling indicates that the pluton contacts plunge steeply to the north and south and moderately to the east and west. The surface exposure of the pluton is approximately 1,100 m (3,609 ft) in the east-west direction and 600 m (1,969 ft) north-south.

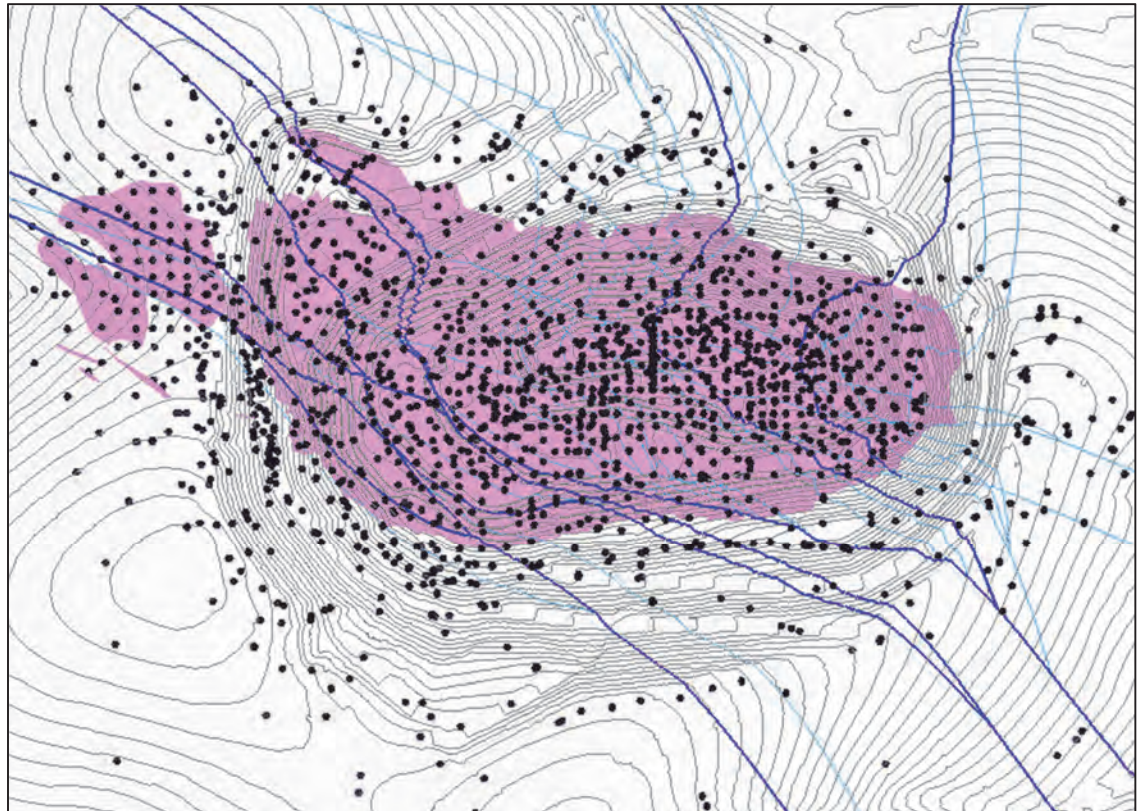
The Fort Knox Pluton has been subdivided into three phases based on grain-size and textural differences. Intrusion of a biotite-rich fine-grained granodiorite was followed by medium-grained porphyritic granite. The youngest intrusive phase is coarse-grained, porphyritic granite (Bakke, 1995). The texture is dominantly porphyritic, with megacrysts of quartz and k-feldspar, which become more sporadic in the fine-grained phase. The pluton is granite-granodiorite in composition, and the mineralogy of all phases is generally sub-equal amounts of quartz (30%), plagioclase (30-40%), and k-feldspar (20 to 30%) (Bakke, 1995; Blum, 1983).

The major structural trends controlling shear vein orientation and mineralization at the deposit-scale are defined by NW-trending, moderately to shallowly SW-dipping fault zones. The fault zones are typically filled with granulated white quartz, and range in thickness from 0.3 to 1.5 m. The zones have mixed groundmass alteration, with a range of phyllic and argillic alteration assemblages. In the vicinity of the fault zones, vein abundance increases and vein orientations are predominantly sub-parallel to the fault direction. The Monte Cristo Fault and Melba Fault zones are regional in extent and offset

the Gilmore Dome Pluton south of Fort Knox and affect the orientation and geometry of the Fort Knox granite.

Gold occurs within and along the margins of pegmatite vein swarms and quartz veins and veinlets. Numerous SW-dipping fault zones influence the orientation of the vein swarms and the geometry of ore zones. Weak to moderate development of vein- and fracture-controlled phyllic, potassic, albitic, and argillic alteration styles is present. Gold is closely associated with bismuth (Bakke, 1995; McCoy et al., 1997). Gold occurs attached to bismuth-minerals, sulfide, and non-sulfide gangue, and as complex intergrowth or solid solution/exsolution texture grains with native bismuth, maldonite, bismuthinite, and/or molybdenite.

The overall sulfide content of the orebody is <0.10%. The orebody is oxidized to the depths of the drilling primarily along NW-trending, SW-dipping fault zones which contain abundant iron oxide and clay gouge along the margins.



**Figure 7-2: Property Geology at Fort Knox. Granitic intrusive is pink, all other rock is schist. Major ore controlling shears are shown in blue.**



Vein-types and associated alteration styles by abundance and relative importance to gold mineralization found at Fort Knox are:

1. Stockwork quartz veins and veinlets, ranging in thickness from micro-scale to 15 cm. These veins possess thin albitic alteration halos. Phyllic alteration envelopes that range in thickness from centimetre to multi-metre scale occur where stockwork veining is abundant near NW fault zones.
2. Pegmatite veins and veinlets: ranging in thickness from micro-scale to 8 cm. Composed of clear to grey quartz, large K-spar megacrysts, and micaceous clots. Potassic alteration halos, rarely exceeding 1 cm thickness, consist of an assemblage of variable amounts of secondary biotite and K-spar overgrowths on primary K-spar within the granite matrix. Veins variably altered with phyllic (quartz-sericite-pyrite) assemblage.
3. Low temperature fracture coatings and chalcedonic veins and breccia composed of zeolite-calcite-clay-chalcedony. Pervasive throughout the deposit in the form of fracture coatings and breccia zones. Argillic alteration halos as much as 7 m in width are developed adjacent to the larger chalcedonic breccia zones. These zones have been largely mined out to-date.

#### **7.4 Gil Deposit Geology and Mineralization**

Brittle deformation at Gil is related to contact metamorphism and the regional amphibolite/greenschist events. At least three penetrative phases of deformation are recognized. As a result, large-scale asymmetric folds and faults are present and trend northeast (35-55°) (Figure 7-3 and Figure 7-4), with variable dip (45-80° NW). The most laterally extensive of these faults are the regional-scale, oblique faults that occur throughout the YTT. The oldest fault surfaces are low-angle reverse faults, sub-parallel to the principal fold axes, and often form the contacts between lithologies.

Conjugate to the northeast-striking faults are numerous northwest-striking faults (300°-360°) that dip steeply to the southwest or vertically. These faults exhibit apparent strike-slip offsets of 15.2 to 45.7 m (50-150 ft), but the displacement is believed to be rotational, or scissor-like, with the footwall rotating counter-clockwise relative to the hanging wall. Distinct, closely-spaced joint sets crosscut nearly all lithologies, are predominantly northwest-striking (295-305°), and crosscut foliation in near-vertical configuration. Joints are commonly in-filled with quartz, quartz-carbonate, and quartz-sulphide (± iron oxide) and are universally important controls to mineralization.

Gold mineralization at Gil primarily occurs in quartz-sulphide and quartz-carbonate veins, clay-filled shear zones, and limonite-stained fractures, which crosscut nearly all lithologies. Gold mineralization is widespread, but grade and continuity are related to complex interactions among hydrothermal fluids, host rocks, and structure.

At Main Gil and South Sourdough, gold mineralization largely appears stratabound within calc-silicate units, however field-level observations support that gold mineralization is predominately localized within veins and joints in highly fractured rock. Veins are discrete, up to 30 cm wide, white quartz veins, and later thinner, discrete, quartz-calcite ( $\pm$  actinolite/pyroxene) veins. Both sets of veins tend to be steeply dipping and crosscut foliation. Alteration in the Main Gil zone is represented by an intense retrograde assemblage of calc-silicate minerals. Hydrothermal fluid interaction with a carbonate-rich protolith and calc-silicate minerals enhanced the precipitation of gold and sulphides.

At North Gil and North Sourdough, gold is almost exclusively associated with quartz veining. These veins occur within quartz-mica schist, feldspathic schist, and calcareous biotite-chlorite-quartz schist. The quartz veins are typically less than 5.1 cm in width and consist of milky-white quartz-arsenopyrite, quartz-calcite, and quartz-feldspar veins. Alteration is vein-controlled and consists of sericitic to potassic (secondary biotite) alteration along vein margins. Pyrite and/or arsenopyrite are the most common accessory minerals observed in the veins, typically in concentrations of <1%.



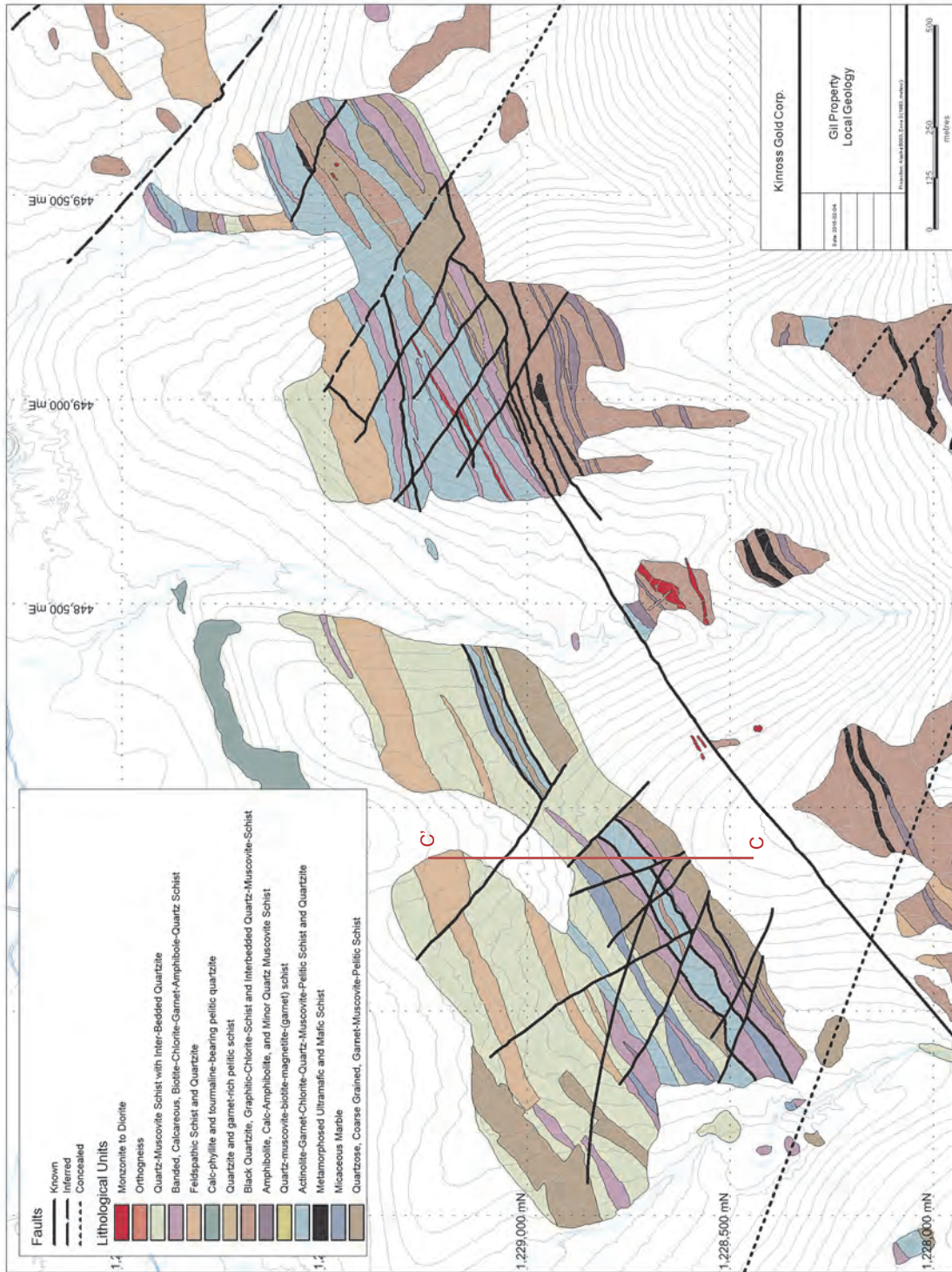


Figure 7-3: Local Geology at Gil (Bundtzen and Laird, 2010; Bundtzen et al., 2014).

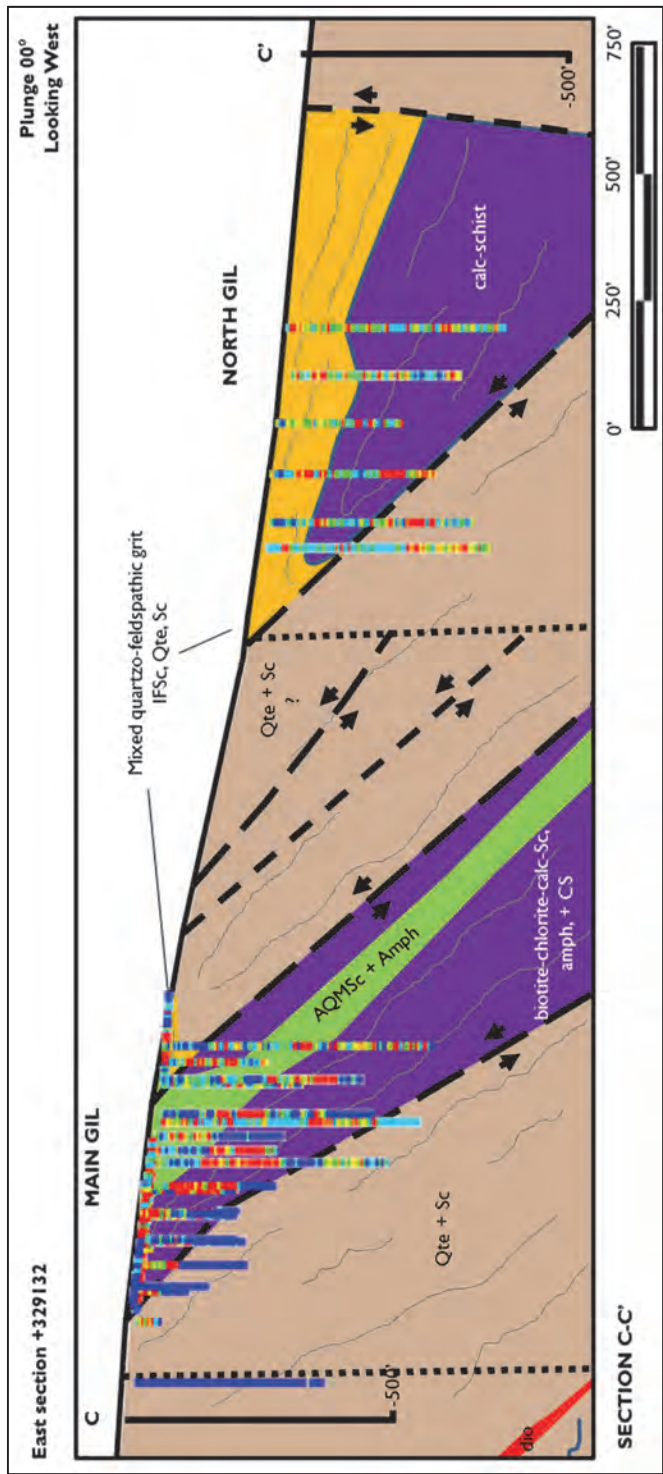


Figure 7-4: Gil Interpreted Geological Cross-section. Section C'-C is shown on Figure 7-3. N.B. Scale is in feet.



## 8 DEPOSIT TYPES

The Fort Knox deposit is classified as an Intrusion-Hosted Mesozonal deposit in the Reduced Intrusion-Related Gold Deposit (RIRG) style (Hart, 2005). RIRG deposits typically occur associated with moderately reduced intrusions in reduced siliciclastic sequences, and have a common association with W-Sn±Mo metallogenic belts. The key characteristics of these deposits are a low sulfide content, association with reduced ore mineral assemblages, and metal assemblages of Au>Ag, Bi, As, W, and Mo (Robert, 2007). The reduced intrusion occurs as equigranular and multiphase granitic stocks and batholiths. Gold is hosted in sheeted veins, which are coeval with their causative intrusion (Robert, 2007). Although these deposits do not have a significant hydrothermal alteration footprint, there are often peripheral mineralization occurrences and proximal thermal alteration, which have a predictable distribution pattern, including secondary aluminosilicates, biotite, and tourmaline, skarns and polymetallic veins (Hart, 2005; Robert, 2007). The Gil deposit is hosted in skarns and quartz veins within the skarns.



## 9 EXPLORATION

Exploration has been undertaken by FGMI, and standard exploration procedures have been used at Fort Knox and Gil, including:

- Reconnaissance and detailed geologic mapping on topographic maps or aerial photographs at scales that are suitable to show the details of observed geologic features. Geologic mapping on topographic base maps is normally completed at a scale of 1 inch = 500 ft, and mapping that is completed from aerial photographs is at a scale of 1 inch = 2,000 ft. This work is undertaken by FGMI employees or contract/consulting geologists;
- Soil and rock chip sampling to determine the presence of Au mineralization, or associated trace elements. These samples are regularly collected during the course of geologic mapping programs by either FGMI employees or contract geologists, under FGMI supervision;
- Soil anomalies were trenched to create exposures of bedrock. The trenches were cut with bulldozers owned and operated by contracting firms. The trenches were mapped and sampled in detail by either contract geologists or FGMI personnel.



## 10 DRILLING

### 10.1 Drilling Methods and Equipment

Fort Knox uses diamond core and reverse-circulation (RC) drilling for exploration and development programs. Currently 41% of the drilling is core, with the remainder RC. Drill programs were completed by various contract drill crews supervised by FGMI geological staff.

RC drillholes at Fort Knox are typically 139.7 mm (5.50 in) in diameter, but can be up to 146.05 mm (5.75 in). RC drilling generally is performed using 6-metre (20 ft) drill rods. Both centre-return hammer and tricone drill bits are used, depending on ground conditions.

Core diameter size has varied at Fort Knox, including PQ3 (83 mm, 3.25 in) from 1998 to 2010, PQ (85 mm, 3.375 in) in 2010, and HQ (63.5 mm, 2.5 in) in 2011. Core diameter size has been predominantly HQ3 (61.1 mm, 2.375 in) since 2012. Since 2011, a triple tube recovery system has been used to minimize loss of fines. Core drilling for geotechnical or oriented cores uses a split-tube, which results in a 2 to 3% (PQ3 – HQ3) reduction in core diameter to accommodate inner tubes. Core drilling is typically performed at a maximum run-length of 1.52 m (5 ft). In 2016, a portion of the exploration drilling used a run-length of 3.04 m (10 ft).

Kinross is not aware of any drilling, sampling, or recovery factors that could materially affect the accuracy and reliability of the results at either Fort Knox or Gil.

### 10.2 Drillhole Summary

#### 10.2.1 Fort Knox

The current geologic model for the Fort Knox deposit has been defined by 1,843 drillholes with a total length of 451,417 m (Table 10-1). A subset of 1,584 drillholes totalling 384,824 m with valid assay data was used to develop the current resource model. Figure 7-2 shows the drillhole distribution at the Fort Knox deposit.





**Table 10-1: Fort Knox Drilling Summary by Campaign and Type.**

Year	With Geologic Data						With Assay Data					
	Core Drilling		RC Drilling		Total Drilling		Core Drilling		RC Drilling		Total Drilling	
	Length (m)	Number of Holes	Length (m)	Number of Holes	Length (m)	Number of Holes	Length (m)	Number of Holes	Length (m)	Number of Holes	Length (m)	Number of Holes
1985	408	9	-	-	408	9	195	9	-	-	195	9
1987	-	-	122	2	122	2	-	-	122	2	122	2
1988	-	-	2,559	32	2,559	32	-	-	2,562	32	2,562	32
1989	693	3	19,518	83	20,211	86	3,955	16	15,457	67	19,412	83
1990	13,901	87	20,767	115	34,668	202	14,246	85	19,960	112	34,206	197
1991	-	-	8,199	45	8,199	45	-	-	7,135	37	7,135	37
1992	-	-	20,138	112	20,138	112	-	-	19,981	109	19,981	109
1993	-	-	-	-	-	-	-	-	-	-	-	-
1994	-	-	-	-	-	-	-	-	-	-	-	-
1995	-	-	-	-	-	-	-	-	-	-	-	-
1996	-	-	-	-	-	-	-	-	-	-	-	-
1997	7,594	29	4,391	22	11,984	51	7,421	29	3,395	17	10,816	46
1998	5,799	25	2,935	16	8,733	41	5,646	25	1,910	11	7,556	36
1999	1,857	12	931	6	2,788	18	1,787	12	588	5	2,375	17
2000	-	-	2,371	7	2,371	7	-	-	783	2	783	2
2001	-	-	-	-	-	-	-	-	-	-	-	-
2002	7,866	36	6,842	47	14,708	83	7,772	37	7,014	48	14,786	85
2003	5,949	25	6,856	33	12,806	58	5,947	25	9,840	43	15,787	68
2004	6,047	26	1,384	5	7,431	31	6,046	26	2,514	10	8,560	36
2005	7,428	26	-	-	7,428	26	7,454	26	-	-	7,454	26
2006	2,367	7	-	-	2,367	7	2,367	7	-	-	2,367	7
2007	9,215	35	4,955	25	14,170	60	9,518	35	4,965	25	14,482	60
2008	16,388	42	22,301	76	8,689	118	16,389	42	18,486	62	34,876	104
2009	13,941	54	22,332	94	36,273	148	13,851	53	19,213	84	33,064	137
2010	2,225	8	16,688	59	18,913	67	1,879	8	14,060	51	15,939	59
2011	3,584	17	19,986	67	23,570	84	2,438	10	19,080	62	21,519	72
2012	6,512	16	19,090	59	25,602	75	4,922	13	15,655	49	20,578	62
2013	5,032	20	7,583	24	12,615	44	1,244	9	4,777	15	6,022	24
2014	8,051	21	12,295	36	20,345	57	5,043	16	9,821	29	14,865	45
2015	8,707	33	23,496	75	32,203	108	6,228	21	19,733	63	25,961	84
2016	20,842	81	13,192	50	34,035	131	15,248	52	10,440	37	25,688	89
2017	28,970	108	9,110	33	38,081	141	16,004	50	1,730	6	17,733	56
<b>Total</b>	<b>183,376</b>	<b>720</b>	<b>268,041</b>	<b>1,123</b>	<b>451,417</b>	<b>1,843</b>	<b>155,600</b>	<b>606</b>	<b>229,221</b>	<b>978</b>	<b>384,824</b>	<b>1,584</b>

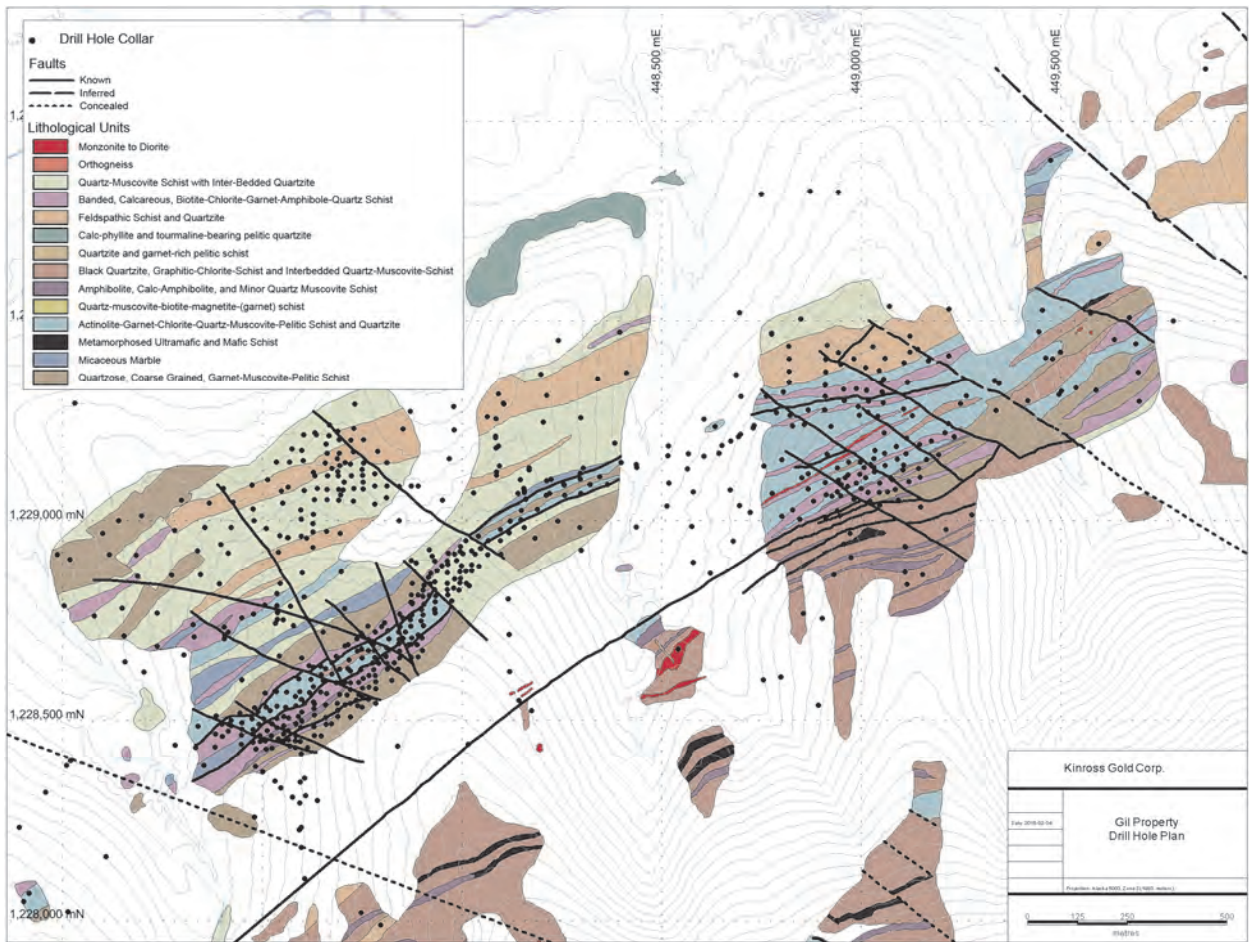


## 10.2.2 Gil

Gil has been defined by a total of 735 drillholes (comprising 581 RC and 154 diamond holes) totalling 73,761 m (Table 10-2). Figure 10-1 shows the drillhole distribution at Gil.

**Table 10-2: Gil Drilling Summary by Campaign and Type.**

Year	RC Drilling		Core Drilling	
	Length (m)	Number of Holes	Length (m)	Number of Holes
1993	0	0	643	8
1994	1,548	23	0	0
1995	1,494	18	0	0
1997	1,243	12	0	0
1998	3,043	28	909	4
1999	1,219	9	951	5
2000	9,118	94	4,920	34
2001	1,230	14	339	5
2002	884	16	1,271	8
2003	9,418	146	2,717	31
2004	1,739	24	0	0
2005	475	9	0	0
2008	1,749	12	0	0
2009	3,830	33	832	6
2010	5,708	50	2,238	15
2011	4,578	36	0	0
2012	3,795	26	2,512	15
2013	1,108	31	4,250	23
2014	0	0	0	0
<b>Total</b>	<b>52,179</b>	<b>581</b>	<b>21,582</b>	<b>154</b>



**Figure 10-1: Gil Drillhole Location Plan.**

### 10.3 Collar and Downhole Surveys

Fort Knox data are collected in a local mine grid. Since 2017, planned collar locations have been imported into an acquire exploration database with a proposed hole number. The planned collar location is laid out by FGMI geologists using a handheld GPS or by the FGMI mine surveyors, depending on location. A foresight and backsight is laid out by Brunton compass or FGMI mine surveyors. After the drillhole is completed, collars are surveyed with Trimble survey equipment by FGMI mine surveyors. Before 2017, the coordinates were collated in Excel. Since 2017, collar surveys have been imported into an acquire database.



Historically, core holes have targeted predominantly NW-SE striking and SW dipping structures in a perpendicular direction with some sub-vertical holes. RC holes were drilled vertically with some exceptions. Angled core holes have been routinely surveyed downhole since 1997. Early core drillholes did not have downhole surveys. Readings from representative drilling indicate that holes usually deviate  $\leq 3^\circ$  over 300 m of length. Since 1997, the Reflex EZ-Shot instrument has been used for downhole surveys, with the exception of 2005 when the FLEXIT SmartTool survey system was used. Drilling contractors complete the Reflex downhole surveys. Downhole surveys were collated in Excel from handwritten sheets received from the drillers. Since 2017, downhole surveys have been entered into an acQuire exploration database by FGMI staff.

#### **10.4 Recovery**

The nature of the mineralization and host rock at the Fort Knox deposit requires that particular care be given to the collection of drillhole samples. At Fort Knox, the median core recovery in 2015 to 2017 was 95% for granite, and 89% for schist. Median RC recovery by weight in 2015 to 2017 was 81% for granite, and 79% for schist. The use of a triple tube recovery system for core has improved recovery in recent years. The centre-return hammer system has been used to counteract the possibility of downhole contamination in RC drilling.

Kinross instructs the assay laboratory to weigh dry RC and core samples as a standard operating procedure. If individual 1.52 m (5 ft) samples are over or underweight, the sample is reviewed for potential downhole contamination or recovery loss with respect to expected recovery.

RC and core drilling mineralized intervals with a calculated recovery greater than 100% or significantly or consistently below nominal 75% recovery are evaluated. The drillhole is compared to adjacent holes and historical production. A decision is then made to accept or reject the assay interval. Rejected samples are flagged in the assay database and they are not used for resource estimation.

#### **10.5 Logging Procedures**

Core is laid out on tables in descending depth order at the core logging facility. The core is wetted and cleaned of drilling residue and fluids. The core is then photographed using a mobile or stationary photo stand. A scale and hole number and interval depth labels are included in the core photographs. Core photographs are reviewed by FGMI staff and retained. Since 2002, digital photographs have been stored on the Fort Knox Mine network.



Before 2017, all logging at Fort Knox was conducted on handwritten logs, compiled in Excel and the original logs retained. Since 2017, all logging has been captured digitally on portable laptop or tablet computers that are linked directly to the acQuire exploration database. RC logging is completed at the drill rig and core logging typically is completed in the core logging facility. Detailed descriptions of rock type, alteration, mineralization, oxidation, structures, and veins are collected as routine geologic logging.

Since 2009, minor oriented core programs were conducted, primarily for geotechnical data. Data are collected with Reflex ACTII or ORI-BLOCK core orientation tools. Oriented core data are typically collected at the drill site, but can also be collected in the core logging facility by staff during the logging process if required. In 2015 and 2017, a limited number of core holes were surveyed with downhole optical and/or acoustic Televiwer instruments for structural data collection. Geotechnical data, including core recovery, RQD, fracture count, and hardness are collected at the core logging facility.

## **10.6 Geotechnical, Hydrogeological and Metallurgical Drilling**

Geotechnical and hydrogeological drilling is conducted with methods and standards similar to the deposit drilling. Where drillholes cross mineralized zones, samples are often collected for assay analysis. Metallurgical samples are typically collected and tested from existing drillhole samples.



## 11 SAMPLE COLLECTION, PREPARATION, ANALYSES, AND SECURITY

### 11.1 Sampling Methodology

For diamond drillholes, the drill helper places each 0.91 to 1.52 m (3 to 5 ft) run of core into a wooden or waxed core box, and depth markers are added at the end of every run. Boxes are labelled with the drillhole number, sequential box number, and depths from and to. Core boxes are transported to the core logging facility by FGMI staff.

When core is received at the core logging facility, geologists or trained technicians check the box numbers and depth markers. After photographing, geotechnical logging, and geological logging, FGMI geologists mark out samples, which are taken on 1.52 m (5 ft) intervals. Before 2017, sample data were recorded on a paper log sheet and then entered into an Excel sheet by a data entry technician. Since 2017, sample intervals and sample numbers have been generated by the acQuire exploration database and a sample list containing: sample ID, from, to, and sample type information is printed for sampling. All core samples are taken as whole core to maintain a representative sample volume and reduce selectivity of fracture controlled mineralization. Sample tags are barcoded and placed on the plastic sample bags before the sample is added. Core samples are placed into the plastic bags and the bags are tied with wire ties and sealed in plastic 5-gallon buckets for secure transport to the assay lab.

For RC drillholes, samples are collected every 1.52 m (5 ft) by a geologist or helper at each drill site. RC samples are collected in pre-numbered Tyvek, cloth, or spun polyethylene bags and tied with the strings attached to the bags. Before 2017, sample data were recorded on a paper log sheet and then entered into Excel. Since 2017, sample intervals and sample numbers have been generated by the acQuire exploration database and a sample list containing: sample ID, from, to, and sample type information is printed for sampling. A small portion of each sample is placed in plastic chip trays and retained.

Currently, FGMI employs water-injected RC drilling. Using this method, the drill cuttings are fed into a cyclone that deposits a stream of sample and drilling fluid into a rotary splitter with a variable speed hydraulic motor that rotates a set of vanes controlling the volume of the split sample. A perforated 5-gallon bucket placed in a washtub collects all of the sample and drill fluids. All the overflow material in the washtub is decanted back into the bucket, reducing sample loss.



Before 2006, this split sample was fed into four 5-gallon buckets set in cascading series to settle out the fine cuttings. A flocculent was added to accelerate settling. The samples were then combined into a master bulk RC sample. Before 1992, dry RC samples were collected. Using this method, the drill cuttings were passed through a collection hose into a cyclone-type dust collector and were split through a Jones splitter. The split fraction of each sample was recorded on the log sheet.

Chip trays are collected from RC drilling and stored for reference. 100% of the core samples are processed for assay analysis. Some geotechnical whole core is retained at the core logging facility for future reference. Sample pulps and coarse rejects are reserved and stored at the laboratory and returned to site.

## 11.2 Sample Security

At diamond core drill sites, waxed cardboard (HQ core) or wooden (HQ & PQ core) core boxes are numbered and secured with lids. Core is transported by FGMI employees and directly supervised FGMI contractors from drill sites to the on-site core logging facility for logging and sampling. Core boxes are stored in a secured area with controlled access near the core logging facility, before being logged and sampled. All individual sample bags are tied with wire ties and placed into plastic buckets with lids, and then loaded onto pallets before being shipped to an independent laboratory.

RC sample bags are tied with strings attached to the bags, and placed in super sacks or tote bags, with approximately 50 samples per bag. The bulk bags are loaded into FGMI trucks and taken to core logging facility by FGMI employees and supervised contractors. Bulk bags containing RC samples are stored in a controlled access area, inside or near the secure core logging facility, before being shipped to an independent laboratory.

A dispatch form is completed by FGMI geologists, containing sample numbers and services requested, and the independent laboratory is notified that a sample pick up is required. The samples are picked up by staff from the independent laboratory and loaded onto laboratory trucks and trailers. A chain of custody form is signed by both parties. A work order confirmation is sent by the laboratory which includes a summary of the analytical work requested and the total samples received. Assay results are returned to FGMI via email in secure pdf files.

## 11.3 Sample Preparation

Upon receipt by the prep laboratory, samples are entered into a Laboratory Information Management System (LIMS), weighed, dried at 150 degrees Fahrenheit, and re-

weighed. For core samples, a primary crusher is used to crush the core samples to 70% passing 19 mm. All samples are reduced to 90% passing 2 mm by final crushing. At this point the coarse crushed samples are riffle-split, primarily to obtain a sub-sample for pulverization. Between 2006 and 2011, Alaska Assay Laboratories riffle-split a 500 gram sub-sample of coarse reject for pulverization. From 2013 to 2016, 1.25 kilograms were riffle-split and split into two sub-samples: a 300 gram sample for pulverization, and a 950 gram coarse archive split. In 2017, 2 kilograms is riffle-split and split to three sub-samples: an 800 gram sample for pulverization, a 1 kilogram coarse archive split, and a 200 gram sample for Terraspec analysis. The coarse reject is retained at the lab for 60 to 90 days and subsequently returned to site for long-term storage.

The sub-sample, varying between 300, 500, or 800 grams, is ring-pulverized to 90 percent passing 150-mesh, and roll-blended to obtain a 300 gram pulp. An extra pulp is prepared from every 20<sup>th</sup> coarse sub-sample for check assays.

Historically the cleaning procedure for sample preparation is a clean rock wash (barren pea gravel, and silica play sand) of crushers and pulverizers before every sample. During 2017, clean rock wash procedure was changed to: the beginning and end of every batch, every 40<sup>th</sup> sample in the batch, and upon request. Clean rock wash is requested where visible gold has been observed in the interval during logging. All clean rock wash material, except for the start and end, is retained, assayed using a 50 gram fire assay (Au-AA24), and reported for QA/QC purposes.

#### **11.4 Sample Analysis**

All exploration samples are submitted to independent commercial analytical laboratories for assay analyses. Before 2002, primary assays were performed by Bondar-Clegg (now owned by ALS) in Vancouver, B.C., with sample preparation performed at their facility in Fairbanks, AK. From 2002 to 2005, all assaying was done by ALS Chemex at their Vancouver, B.C. laboratory, although sample preparation was done at their facility in Fairbanks, AK.

From 2006 to 2011, sample preparation and primary assaying were performed by Alaska Assay Laboratories in Fairbanks, AK. Check assays were performed by ALS Chemex, Vancouver B.C.

In 2012, sample preparation and primary assaying were performed by Acme in Fairbanks, AK. Check assays were performed by ALS, Vancouver, B.C.

From 2013 to the present, all assaying has been done by ALS Minerals at either Vancouver, B.C., or Reno, NV. Sample preparation was done at their facility in



Fairbanks, AK. Check assays were performed by SGS, Vancouver, as well as Acme in Fairbanks, AK, throughout 2013 and 2014. Check assays are performed by SGS, Vancouver since 2015.

At the analytical lab, each pulp is roll homogenized before a 50 gram sample is taken for gold determination by fire assay with an atomic absorption (AA) finish.

The detection limits for Au have varied over time and by laboratory: from 1987 to 2002, the lower detection limit was 0.0343 g/t (0.001 opt); 2002 to 2006, the lower detection limit was 0.005 g/t (0.0001 opt).

From 2006 to 2011, the limit of detection of fire assays was 0.01 g/t (0.0003 opt). In 2012, the limit of detection of fire assays was 0.003 g/t (0.0001 opt). The fire assay limit of detection since 2013 has been consistent at 0.005 g/t (0.0001 opt). Samples above 10 g/t Au are re-assayed with a gravimetric finish consistent with historic practice. Where available, assay results with a gravimetric finish are preferentially used for resource estimation.

Certified copies of the assay certificates were delivered by mail before 2010. Since 2010, analytical results have been received via e-mail. Since 2017, analytical data have been imported directly from electronic certificates into the acQuire database.

## **11.5 Quality Assurance and Quality Control**

### **11.5.1 Description and Procedures**

FGMI's Quality Control and Quality Assurance (QA/QC) program is designed to Measure precision and accuracy, and alert to potential lab errors. The analytical quality control program includes the submission of blank, certified reference material (CRM), and duplicate samples and umpire check assaying. Annual analytical quality control reviews are prepared by FGMI geologists.

Blank material is sourced from reject material from RC or core drillholes that assay below the detection limit of Au. Starting 2016, blank material was directly sourced from Browns Hill Quarry in North Pole, Alaska. Blank material was assayed for Au concentration verification before use. FGMI's technical staff carefully monitors the results of the submitted blanks to check for possible contamination during the analytical process. Batches with samples falling above the acceptable limit are investigated and re-assayed if necessary.

During the 2016 drill program, blank sample insertion rate increased from approximately 0.5% of total samples to 5% of total samples. Additionally, secondary crusher and



pulverization clean rock wash material was retained and analyzed as another control on potential sample contamination.

CRM samples are sourced from Rocklabs Ltd., Auckland, New Zealand, and submitted at a rate of approximately 5% of total samples. FGMI's technical staff monitors the performance of the standard samples submitted for analysis to ensure that the results lie within acceptable tolerance levels. Recent sample performance indicates no significant areas of concern. Table 11-1 summarizes certified reference material used at Fort Knox. Pulp duplicates are requested at the primary lab at a rate of approximately 2.5%.

Since 1991, Fairbanks Gold has conducted check assays at a secondary laboratory. Pulp samples are shipped from the primary laboratory to the secondary umpire laboratory for an independent check at a rate of 5% of total samples.

**Table 11-1: Summary of Standards used at Fort Knox.**

GRADE PPM	GRADE OPT	SOURCE
0.617	0.018	FGMI – Fort Knox
0.96	0.028	FGMI – Fort Knox
1.063	0.031	FGMI – Fort Knox
0	0	FGMI – True North
0.206	0.006	FGMI – True North
0.651	0.019	FGMI – True North
1.989	0.058	FGMI – True North
2.777	0.081	FGMI – True North
6.514	0.19	FGMI – True North
0.171	0.005	FGMI – Gil
0.48	0.014	FGMI – Gil
0	0	FGMI – Gil
0.205	0.006	Rocklabs - OxC72
0.416	0.0121	Rocklabs - OxD73
1.007	0.0294	Rocklabs - OxG70
1.817	0.053	Rocklabs - Oxi67
2.366	0.069	Rocklabs - OxJ64
0.424	0.0124	Rocklabs - OxD128
1.834	0.0535	Rocklabs - Oxi121
2.365	0.069	Rocklabs - OxJ120
0.918	0.0268	Rocklabs - OxG124
0.212	0.0062	Rocklabs - OxC145
0.417	0.0122	Rocklabs - OxD144
0.424	0.0124	Rocklabs - OxD128
1.834	0.0535	Rocklabs - Oxi121

### 11.5.2 Fort Knox Analytical QC Results and Analysis 2015 to 2017

The primary laboratory analytical quality control data for Fort Knox between 2015 and 2017 are summarized in Table 11-2 by year and laboratory. Quality control data during

the time period represents 7.7% of total sample volume.

1161 blank samples were submitted to the primary laboratory during 2015 and 2017. An additional 624 clean rock wash samples were collected and analyzed during the same period. The overall failure rate for both blanks and washes is 1.3%. Fort Knox uses 0.02 ppm as a failure threshold for blank and wash material. Table 11-3 summarizes blank and wash material results.

Ten CRM from Rocklabs Ltd., Auckland, New Zealand, were used between 2015 and 2017. In total, 2,186 CRM samples were submitted to the primary lab, with a total pass rate 97.2%. 205 samples were submitted to the secondary lab with a 96.1% pass rate. Table 11-4 summarizes total standard count by year and laboratory for each year.

Total sample volume of pulp duplicate analyzed by a secondary lab between 2015 and 2017 is 4.2%. The returned fire assay values from the secondary lab pulp duplicates show gold assay values can only be reasonably reproduced typical of deposits with coarse gold in samples.

**Table 11-2: Summary of primary lab sample volume by year and sample type**

Year	Lab	Sample Type	Number of Samples	Number Pass	Percent Pass	Number Fail	Percent Fail	Percent of samples
2015	ALS	Primary	17035					96.26%
		CRM	576	561	97.40%	15	2.60%	3.25%
		Blank	86	85	98.84%	1	1.16%	0.49%
		<b>Total</b>	<b>17697</b>					
2016	ALS	Primary	17655					91.50%
		CRM	891	797	97.08%	26	2.92%	4.62%
		Blank	266	261	98.12%	5	1.88%	1.38%
		Crusher Wash	326	322	98.77%	4	1.23%	1.69%
		Pulverizer Wash	158	158	100.00%	0	0.00%	0.82%
<b>Total</b>	<b>19296</b>							
2017		Primary	13171					89.60%
		CRM	719	679	97.22%	20	2.78%	4.89%
		Blank	809	800	98.89%	9	1.11%	5.50%
		Crusher Wash	70	68	97.14%	2	2.86%	0.48%
		Pulverizer Wash	70	67	95.71%	3	4.29%	0.48%
<b>Total</b>	<b>14699</b>							



**Table 11-3: Summary of blank and wash material analyzed at the primary laboratory**

Year	Lab	Sample Type	Min (Au g/t)	Max (Au g/t)	Accepted Value (Au g/t)	Number of Samples	Number Pass	Percent Pass	Number Fail	Percent Fail
2015	ALS	Blank	0.005	0.025	0.02	86	85	98.84%	1	1.16%
2016	ALS	Blank	0.005	0.254	0.02	266	261	98.12%	5	1.88%
		Crusher Wash	0.001	0.047	0.02	326	322	98.77%	4	1.23%
		Pulverizer Wash	0.001	0.002	0.02	158	158	100.00%	0	0.00%
2017	ALS	Blank	0.005	1.325	0.02	809	800	98.89%	9	1.11%
		Crusher Wash	0.005	0.087	0.02	70	68	97.14%	2	2.86%
		Pulverizer Wash	0.005	0.155	0.02	70	67	95.71%	3	4.29%
Total						1785	1761	98.66%	24	1.34%

### 11.5.3 Fort Knox Analytical QC Results and Analysis 2011 to 2014

As part of a 2014 audit, SRK reviewed the analytical quality control data for Fort Knox from 2011 to 2013. Blank and CRM samples were summarized on time series plots to highlight their performance. Paired data (pulp and analytical duplicates and umpire check assays) were analyzed using bias charts, quantile-quantile, and relative precision plots. The quality control data produced from 2011 and 2014 represent approximately 8% of the total number of samples assayed. 158 blank samples were submitted between 2011 and 2014, with an overall failure rate of 9% based on a warning limit for blank samples of 0.03 g/t Au.

Five CRM from Rocklabs Ltd. were used and in total, 2,806 CRM samples were submitted, with passing rates exceeding 94% at the primary laboratory each year. Pulp duplicates at the primary lab were routinely submitted, and duplicate pair data reviewed. A pulp split was sent as a check sample to the umpire laboratory for 7.4% of samples during 2011 to 2012 and 4.3% in 2013.

SRK's main conclusions are summarized as follows:

- With the exception of one sample from 2012, analyses of blank materials consistently yielded gold values below the warning limit of 0.1 g/t gold. The warning limit is defined by SRK as equivalent to ten times the detection limit of Au (0.01 g/t). In fact only two samples assayed above five times the detection limit of Au. Note that FGMI's own failure limit is set to only three times the detection limit.
- All standards performed within expected ranges and mean grades were similar to expected values. The majority of outliers yielded values consistent with other standards, suggesting that these samples were mislabelled.
- Paired assay data examined by SRK suggest that gold assays can only be reasonably reproduced. Rank half absolute difference (HARD) plots suggest that

43.5% of the 2011 to 2012 pulp duplicate samples and 62.3% of the 2013 pulp duplicate samples have HARD values below 10% indicating that Acme in 2011 to 2012 and ALS in 2013 had difficulties in replicating the original assay value. This is expected from samples containing coarse gold. With the samples below the detection limit removed, some 44.0% of the umpire check assays from 2011 and 2012 were below 10% HARD. Similarly, 35.6% of the umpire check assays from 2013 were below 10% HARD with the primary and secondary laboratories reversed.

- SRK considered that the analytical quality control data reviewed shows that the assay results delivered by the primary laboratories used by FGMI in the EOY 2013 resource estimate are generally sufficiently reliable for the purpose of resource estimation.

#### **11.5.4 Fort Knox Analytical QC Results and Analysis pre-2011**

QA/QC procedures before 2008 are summarized below:

- Blank control samples have been submitted since 1997, with the frequency varying from one per drillhole to one every 30.5 m (100 ft) or every 20<sup>th</sup> sample.
- From 2001 to 2005, in-house standards were prepared by Bondar-Clegg and submitted at a rate of two per core drillhole, and every 30.5 m (100 ft) for RC drillholes. Since 2008, CRM samples from commercial laboratories have been used and inserted approximately every 20<sup>th</sup> sample.
- From 1991 to 2005, FGMI collected separate 1.25 kg samples from every tenth sample collected. Half of these were submitted to the primary lab with the regular dispatch, and the other half to a secondary lab. In addition, every 40<sup>th</sup> sample was re-assayed by the primary lab.
- A more rigorous program of primary laboratory duplicate checks was instituted in 2006 when the primary laboratory was changed. Pulp duplicates were selected randomly by the primary lab, at a frequency of 1 duplicate per 7 samples. In addition, every 20<sup>th</sup> sample was a duplicate that was pulverized by Alaska Assay Laboratories and then shipped to ALS Chemex for secondary lab check assaying. From 2007, 2 samples per 20 were analyzed as pulp duplicates.



**Table 11-4: Total Standards Submitted by Year and Laboratory**

Year	Lab	QC ID	Min (Au g/t)	Max (Au g/t)	Certified Value (Au g/t)	Number of Samples	Pass (< 3 SD)	Within (< 2 SD)	Percent Pass	Number Fail	Percent Fail		
2015	ALS	OxC72	0.191	0.213	0.205	147	144	135	97.96%	3	2.04%		
		OxD73	0.345	1.795	0.416	110	107	106	97.27%	3	2.73%		
		OxG70	0.008	1.04	1.007	116	114	112	98.28%	2	1.72%		
		OxI67	0.411	1.935	1.817	99	95	91	95.96%	4	4.04%		
		OxJ64	1.02	2.43	2.366	104	101	101	97.12%	3	2.88%		
		<b>Total</b>					<b>576</b>	<b>561</b>	<b>545</b>	<b>97.40%</b>	<b>15</b>	<b>2.60%</b>	
2015	SGS	OxC72	0.058	0.206	0.205	8	7	7	87.50%	1	12.50%		
		OxD73	0.397	0.436	0.416	13	13	13	100.00%	0	0.00%		
		OxG70	0.958	1.88	1.007	11	10	10	90.91%	1	9.09%		
		OxI67	1.8	1.91	1.817	10	10	9	100.00%	-	0.00%		
		OxJ64	2.26	2.45	2.366	12	12	12	100.00%	0	0.00%		
		<b>Total</b>					<b>54</b>	<b>52</b>	<b>51</b>	<b>96.30%</b>	<b>2</b>	<b>3.70%</b>	
2016	ALS	OxC72	0.182	0.208	0.205	144	136	120	94.44%	8	5.56%		
		OxD73	0.199	2.24	0.416	99	96	89	96.97%	3	3.03%		
		OxG70	0.916	1.04	1.007	122	120	115	98.36%	2	1.64%		
		OxI67	0.552	1.935	1.817	227	222	214	97.80%	5	2.20%		
		OxJ64	2.15	2.45	2.366	180	177	167	98.33%	3	1.67%		
		OxD128	0.389	0.437	0.424	107	102	82	95.33%	5	4.67%		
		Oxi121	1.77	1.875	1.834	12	12	10	100.00%	0	0.00%		
		<b>Total</b>					<b>891</b>	<b>865</b>	<b>797</b>	<b>97.08%</b>	<b>26</b>	<b>2.92%</b>	
		2016	SGS	OxC72	0.205	0.206	0.205	12	11	11	91.67%	1	8.33%
				OxD73	0.405	1.01	0.416	16	15	14	93.75%	1	6.25%
				OxG70	0.986	2.014	1.007	28	27	27	96.43%	1	3.57%
OxI67	1.75			3.636	1.817	34	33	33	97.06%	1	2.94%		
OxJ64	2.33			2.366	2.366	32	31	30	96.88%	1	3.13%		
OxD128	0.414			0.85	0.424	7	7	5	100.00%	0	0.00%		
Oxi121	0.425			0.425	1.834	1	0	0	0.00%	1	100.00%		
<b>Total</b>							<b>118</b>	<b>113</b>	<b>109</b>	<b>95.76%</b>	<b>5</b>	<b>4.24%</b>	
2017	ALS	OxC72	0.193	0.219	0.205	5	5	5	100.00%	0	0.00%		
		OxD73	0.403	0.422	0.416	3	3	3	100.00%	0	0.00%		
		OxG70	0.993	1.05	1.007	5	5	4	100.00%	0	0.00%		
		OxJ64	2.04	2.53	2.366	109	108	103	99.08%	1	0.92%		
		OxD128	0.397	2.45	0.424	56	54	50	96.43%	2	3.57%		
		Oxi121	1.61	2.36	1.834	159	157	153	98.74%	2	1.26%		
		OxJ120	0.005	3.15	2.365	92	87	86	94.57%	5	5.43%		
		OxG124	0.204	2.33	0.918	80	76	74	95.00%	4	5.00%		
		OxC145	0.19	2.29	0.212	108	103	101	95.37%	5	4.63%		
		OxD144	0.248	0.433	0.417	102	101	100	99.02%	1	0.98%		
		<b>Total</b>					<b>719</b>	<b>699</b>	<b>679</b>	<b>97.22%</b>	<b>20</b>	<b>2.78%</b>	
		2017	SGS	OxJ64	2.32	2.38	2.366	5	5	4	100.00%	0	0.00%
				OxD128	0.407	0.414	0.424	3	3	3	100.00%	0	0.00%
				Oxi121	1.72	1.76	1.834	2	2	2	100.00%	0	0.00%
OxJ120	2.14			2.33	2.365	8	7	7	87.50%	1	12.50%		
OxG124	0.888			0.916	0.918	4	4	2	100.00%	0	0.00%		
OxC145	0.197			0.211	0.212	7	7	5	100.00%	0	0.00%		
OxD144	0.396			0.416	0.417	4	4	3	100.00%	0	0.00%		
<b>Total</b>							<b>33</b>	<b>32</b>	<b>26</b>	<b>96.97%</b>	<b>1</b>	<b>3.03%</b>	

In 2011, RPA reviewed the analytical quality control processes and data for Fort Knox. RPA's main conclusions were:

- The QA/QC procedures for exploration drillholes generally exceeded industry standards.

- The QA/QC results for 2008 exploration samples were documented, however, details on accuracy, precision, and failure rates were not provided and the duplicate scatter plots suggested poor precision. Some tables and graphs were available for the 2009 and 2010 QA/QC results, but no discussion on precision, accuracy, insertion and failure rates were documented.
- Although the lack of formal QA/QC reporting was a significant procedural and documentation issue, it should not have had a material impact on the resource model.

RPA recommended that a standard operating protocol to ensure all of the QC data are compiled and documented on a regular basis should be implemented, and that this should include a QA/QC documentation template with tables, control charts, and graphs, and a description of the insertion rates, failure rates, actions taken, precision levels, and overall accuracy. FGMI implemented RPA's recommendations in 2013 and produces annual QA/QC reviews.

#### **11.5.5 Gil Analytical QC Procedures, Results, and Analysis**

All Gil core and RC samples are submitted to the same QA/QC protocols as Fort Knox, with the following differences and additions.

RC duplicate samples are collected from the sample splitter reject port at a rate of at least 2 per drillhole, at approximately 61 m (200 ft) intervals.

CRM sample frequency is one per 30.5 m (100 ft) for each core and reverse circulation hole. All CRMs in use since 2012 are sourced from Rocklabs Ltd.

Samples that have fire-assay grades greater than 0.3 g/t (0.01 opt) are re-analyzed by the laboratory with the "cold method" cyanide-soluble assay. Samples are exposed to a solution with a concentration of 0.25 to 0.50% CN at 20°C and agitated on a shaker table for one hour.

All analytical data are subjected to QA/QC review and a suite of validation checks prior to import into a database. The pass rate for blank QC samples is 95% (Table 11-5) and the overall pass rate for CRMs is 98% (Table 11-6).



**Table 11-5: Gil 2012 to 2014 Summary of Analytical Quality Control Data – Blanks.**

QC ID	Min (Au g/t)	Max (Au g/t)	Accepted Value (Au g/t)	No. Submitted	No. Returned	No. Pass	% Pass	No. Fail	% Fail
Blank	0	1.44	0.034	755	755	716	94.83	39	5.17

**Table 11-6: Gil 2012 to 2014 Summary of Analytical Quality Control Data – CRM.**

QC ID	Min (Au g/t)	Max (Au g/t)	Certified Value (Au g/t)	No. Submitted	No. Returned	Pass (within 3SD)	Within 2SD	% Pass	No. Fail	% Fail
OxC72	0.0583	0.4423	0.2050	166	166	162	153	97.59	4	2.41
OxD73	0.2194	1.0046	0.4160	162	162	160	152	98.77	2	1.23
OxG70	0.4046	1.7966	1.0070	190	190	189	184	99.47	1	0.53
OxI67	0.9977	2.3074	1.8170	152	152	151	148	99.34	1	0.66
OxJ64	0.2023	2.5406	2.3660	150	150	143	138	95.33	7	4.67
<b>Total</b>				<b>820</b>	<b>820</b>	<b>805</b>	<b>775</b>	<b>98.17</b>	<b>15</b>	<b>1.83</b>

## 11.6 Comment on Sample Preparation, Analyses, and Security

Kinross uses industry standard sample preparation, analysis, data management and security procedures for its drill programs. Kinross is of the opinion that the adequacy of the samples taken, the security of the storage and shipping procedures, the sample preparation, and analytical procedures used meet industry standard practices and that the results are suitable to estimate mineral resources and mineral reserves.



## 12 DATA VERIFICATION

A number of verification checks have been performed on data collected from both Fort Knox and Gil, either in support of technical reports or resource models, or as part of Kinross' internal validation process.

### 12.1 Fort Knox

The resource dataset for Fort Knox was historically stored as a series of comma separated value sheets, which were imported into MineSite software for modeling. Annually, data stored in individual excel spreadsheet drill logs were validated against paper field logs and appended to the database in MineSite. Assay and QC data were manually added to individual excel spreadsheet as assays were received.

In March 2017, an acQuire database was implemented for Fort Knox resource data. Before implementation, stand-alone copies of all digital assay certificates and excel logs were stored on the site network drive.

All digital excel drill logs were recompiled into an Access database due to sample ID truncations in the historic resource dataset. Both the original resource dataset sample IDs (2016 EOY model "1589") and the recompiled sample ID were imported into acQuire during data migration.

Geological logging and geotechnical data were compiled, imported and subjected to standard acQuire internal validation checks, as well as review and comparison by geologists of original and re-logged data. Analytical data were imported directly from csv certificates reissued from laboratories in a standardized format where possible.

Assay data were categorized by year, laboratory, and function (primary or secondary lab). Standard formats and column headers were documented for templates during the importing of data. The data migration and validation was documented throughout the process in 2017.

No corrective bias has been detected and no actions or adjustments have been deemed necessary.

SRK audited the analytical quality control portion of FGMI's QA/QC program in 2014, and concluded that the analytical quality control procedures and data verification measures used by FGMI are adequate to support mineral resource and mineral reserve (MRMR) estimation.

## 12.2 Gil

Collar coordinates are validated through checks with known points, comparison with planned coordinates and investigation of any deviations, and comparison with the digital elevation model.

The Excel files of digitized survey data are verified against the handwritten sheet prior to merging into the database.

Compiled geological logging data undergoes both manual and database validation checks to ensure that values are valid. Any errors are flagged and clarified with the rig geologist prior to being imported into the database.

Excel formulas are used to check analytical data and to flag values that are out of range.

In addition to the validation steps described above in the data collection and merging process, all data in the database are subject to random validation by FGMI staff. Periodically, 5% of the data in the database are verified against hard copy records.

An internal database audit of Gil was conducted in December 2013 (Wilson, 2013). Approximately 12% of drillholes from the Gil database were audited (89 holes totaling 8,919 m). The major conclusions of the internal audit were:

- the assay database was reasonable with only a few input errors and several errors of omission;
- treatment of detection limits for assays were not consistent;
- collar and survey errors consisted of rounding inconsistencies and treatment of downhole survey magnetic declination; and
- geology errors were high due to recoding and re-logging of handwritten logs. Although there was a high error rate for the geology, the final nine lithological units are likely unaffected by the subtle rock code changes.

All significant errors found during the database audit were addressed before the final database release date of January 13, 2014 for the 2014 Gil resource model.

## 12.3 Comment on Data Verification

The process of data verification for Fort Knox and Gil has been performed by FGMI, precursor companies, and external consultancies contracted over the years of the operation. SRK and RPA conducted audits of the data verification processes



(respectively in 2014 and 2011) and found that they are sufficiently reliable to use the analytical and geological data for the purpose of resource estimation.

Data used to support MRMR estimates have been subjected to additional validation, using built-in software program triggers that automatically check data for a range of possible entry errors. Verification checks on surveys, collar coordinates, lithology, and analytical data have also been conducted. The checks are appropriate and consistent with industry standards.

The QP has reviewed the reports, and is of the opinion that the data verification programs undertaken at Fort Knox and Gil show that the analytical and geological databases are of a suitable quality to adequately support geological interpretation and the use of the data in MRMR estimation.

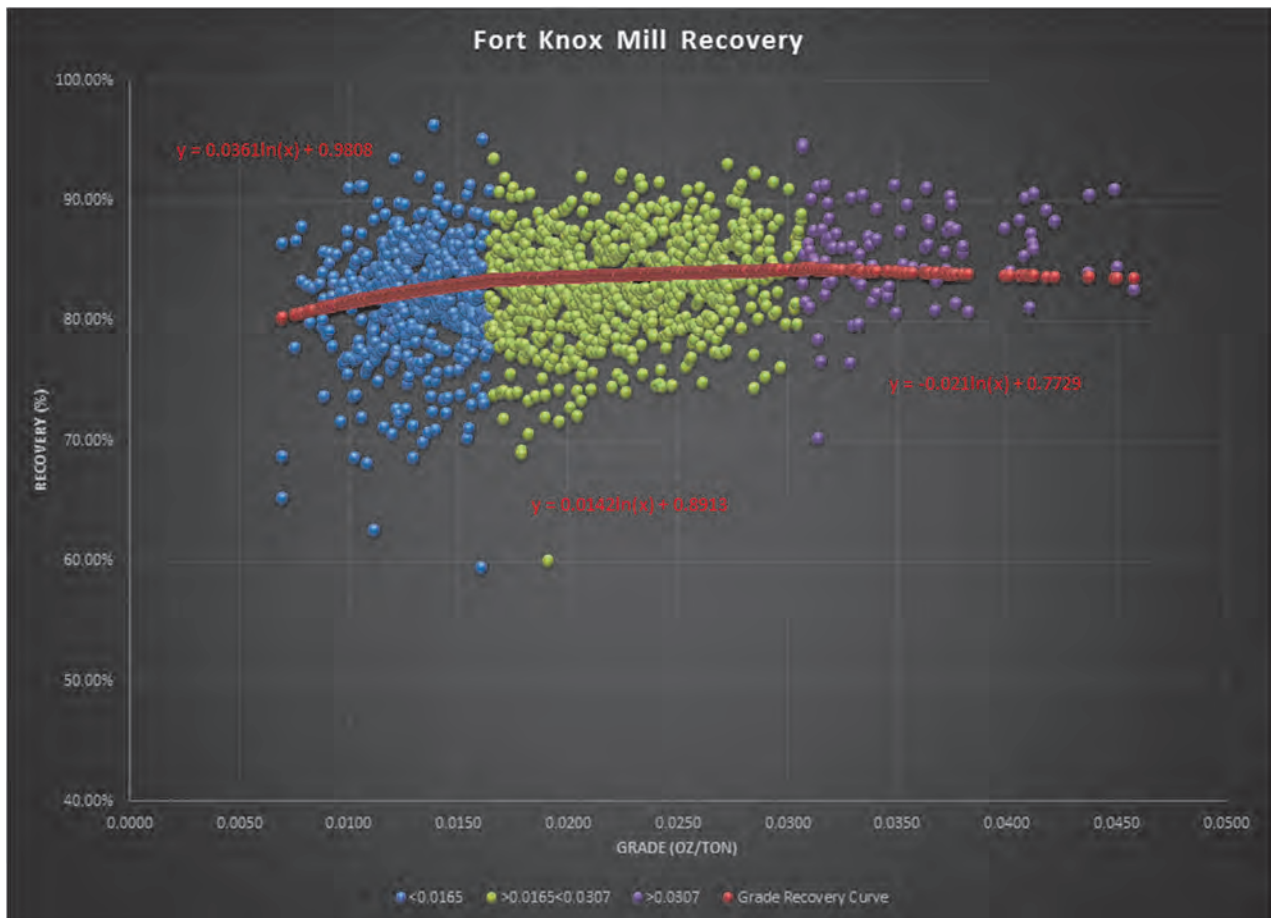


## 13 MINERAL PROCESSING AND METALLURGICAL TESTING

### 13.1 Fort Knox

#### 13.1.1 Mill Recovery

The relationship between head grade and mill recovery has been investigated by FGMI staff through the life of the operation. The relationship is shown in Figure 13-1.



**Figure 13-1: Milling Operation Head Grade versus Recovery Relationship with Operational Data.**

#### 13.1.2 Metallurgical Testing – Walter Creek Heap Leach

##### 13.1.2.1 Heap Leach Testing

Projected heap leach recoveries were based on laboratory testing of eight bulk samples which were representative of the material to be leached. Gold recoveries from the ROM

feeds ranged from 28% (samples 103A and 200A) to 93% (sample 205B). Average gold recovery was 61.2% with an average of 224 days of leaching and rinsing. Gold extraction was progressing from all eight feeds at a slow rate when leaching was terminated, though a longer leaching cycle would slightly increase gold recoveries. From this testwork, the following recovery relation was derived and used in the heap leach model:

$$R_t = R_{max} - \frac{1}{\left[ k \times \text{days} + 100 / (R_{max} - \sum_1^{t-1} \text{Previous recoveries}) \right]}$$

Where,  $R_t$  = recovery over time  
 $R_{max}$  = ultimate recovery  
 k = kinetic factor  
 days = End-of-Month date – Start-of-Month date

$R_{MAX}$  is assigned at 69%, while kinetic factor varies from year to year.

The gold recovery from the heap leach ore was 56% to date at the end of December 2017, and is predicted to be 68% at the conclusion of the operation.

### 13.1.3 Metallurgical Testing – Barnes Creek Heap Leach

Fort Knox ore is considered free milling and has a single style of mineralization. A 2016 study of the Gilmore ore body compared the geochemical characteristics of the mined areas of the Fort Knox pluton and the proposed new mining area in the Gilmore dome. With the available geochemical data, it was observed that there is little difference between the two areas. Based on these results, the physical characteristics and mineralogy of Gilmore ore are expected to be similar to previously mined and processed ore from the existing Fort Knox pit.

#### 13.1.3.1 Heap Leach Testing

Heap leach testing, including bottle roll and column leach tests, was conducted on samples from the Gilmore property from 2015 to 2017 (Table 13-1).

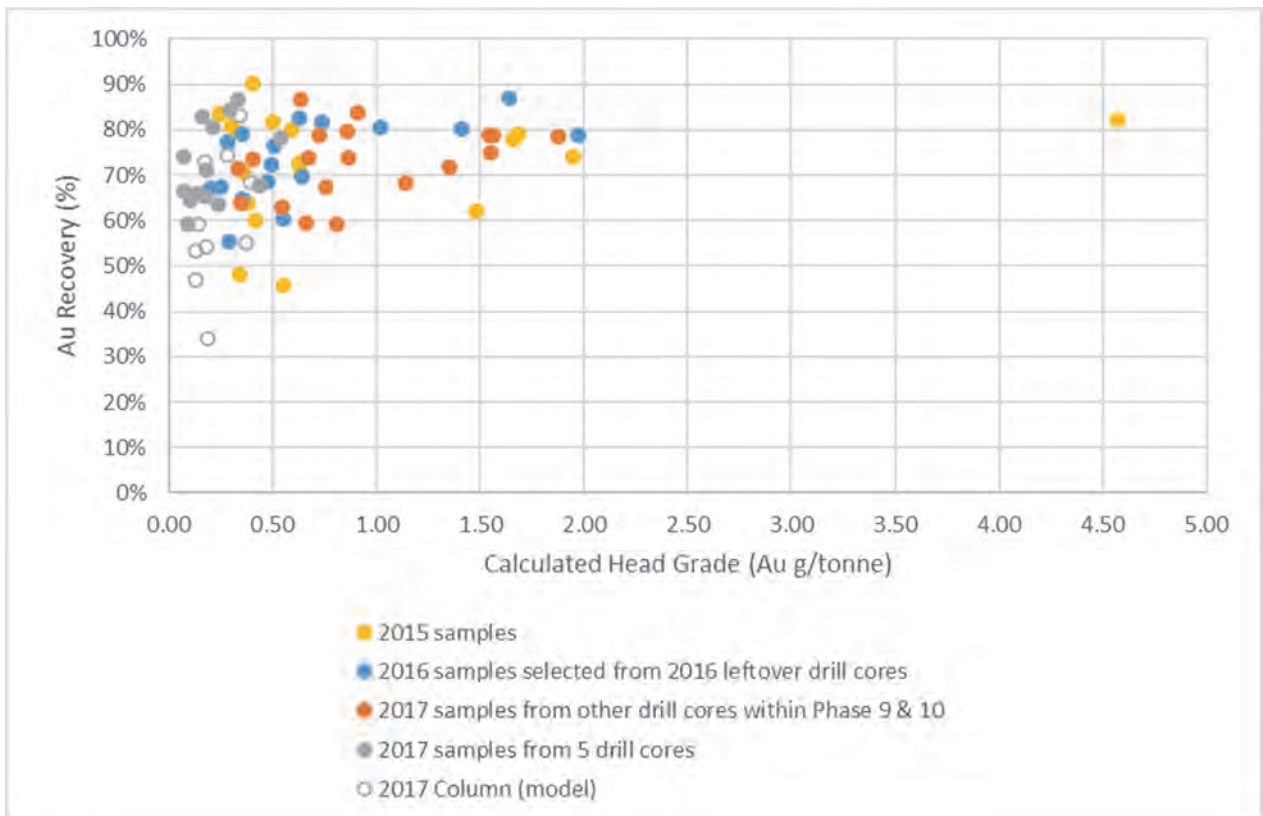
**Table 13-1: Summary of Gilmore Metallurgical Testwork.**

Year of Drilling	Year of Testing	Type of Testwork	Number of Tests
2015	2015	Bottle roll	18
2016	2017	Bottle roll	17
2017	2017	Bottle roll	33
2017	2017	Column	10

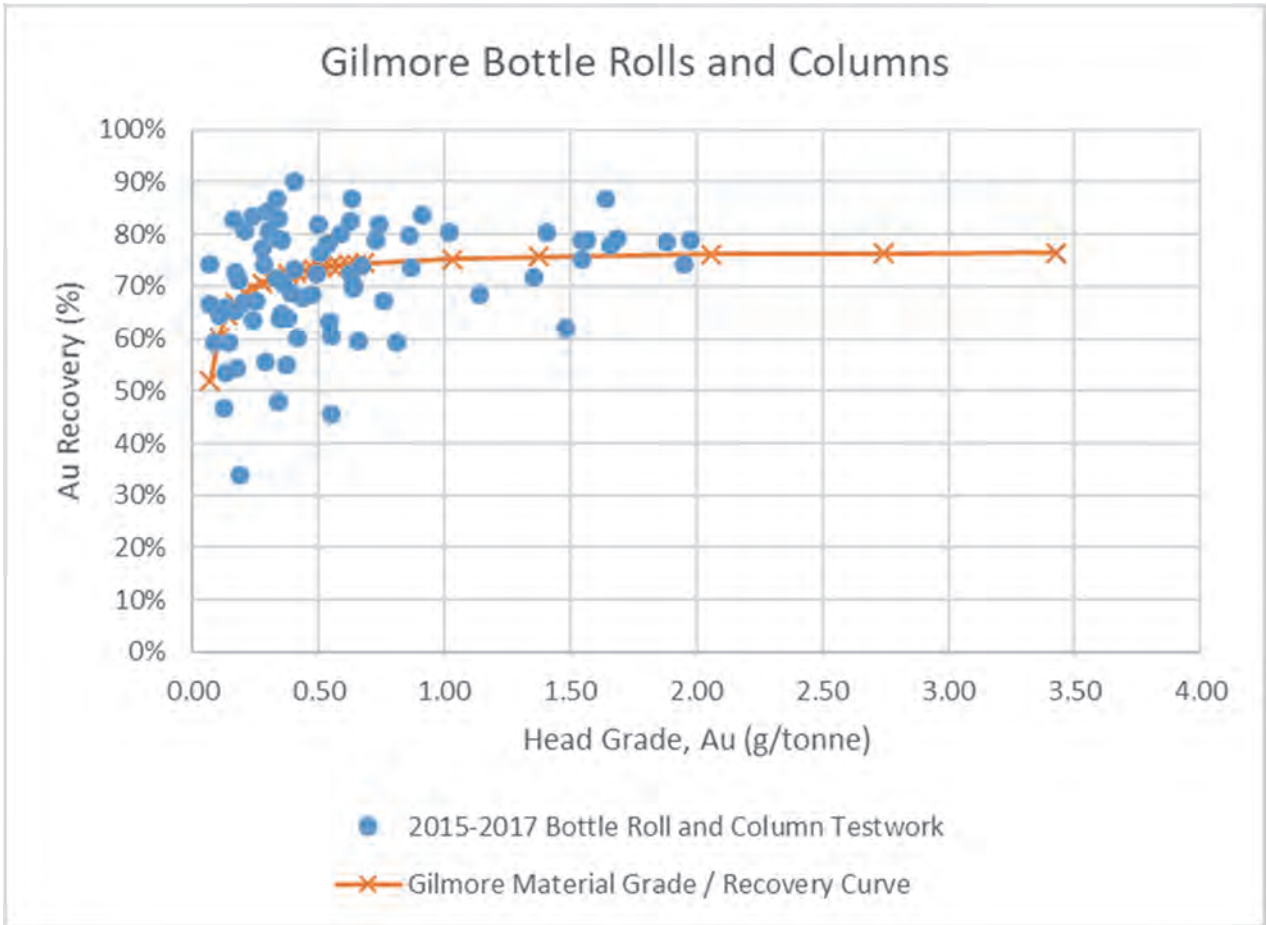
The average gold recovery of all bottle roll tests was 73%. For the column tests, the assayed head grades ranged from 0.127 g/t (0.0037 oz/t) to 0.391 g/t (0.0114 oz/t), with

an average of 0.24 g/t (0.007 oz/t). The average gold recovery was 58% with an average cyanide consumption rate of 0.255 kg/tonne<sub>ore</sub> (0.51 lb/st<sub>ore</sub>). Evaluating the sixty-eight bottle roll tests and the modelled column leach tests results collectively, the average gold recovery is 71%. Gold recovery, for the Gilmore material tested, as a function of head grade is shown in Figure 13-2.

A variable head grade versus tails grade relationship was determined based on these data. The high grade data point (head grade of 4.5 g/t Au) was removed to prevent skewing the relationship. Subsequently, a grade recovery curve was developed using this information and the resultant relationship is shown in Figure 13-3.



**Figure 13-2: Au Recovery vs. Head Grade, Gilmore Phase 9 and 10, Bottle Roll and Column Leach Testwork Results.**



**Figure 13-3: Gold Recovery (R<sub>MAX</sub>) versus Head Grade Curve.**

The Gilmore material grade-recovery curve is described as:

$$R_{max}(\%) = \frac{\text{Head Grade (oz/t Au)} - \{0.2309 \times \text{Head Grade(oz/t Au)} + 0.0005\}}{\text{Head Grade (oz/t Au)}}$$

The same recovery equation, as shown in Section 13.1.2.1, will be used in the BCHL model, where the R<sub>MAX</sub> terms will be determined from the above equation.

### 13.1.3.2 Bond Work Index Testing

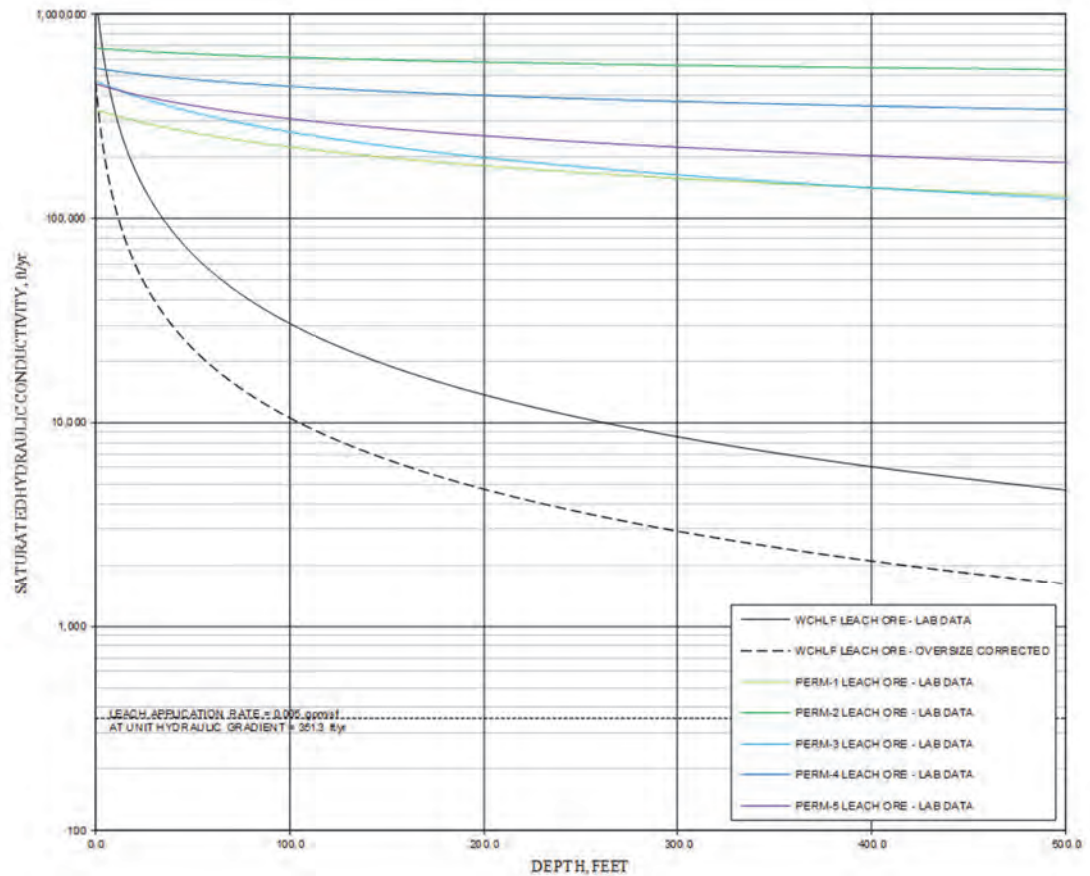
For Bond Work Index (BWI) tests, ten representative samples were prepared from Gilmore core, and compared with three representative samples of the current (Phase 8) ore from SAG mill feed. The average BWI for the Gilmore samples was 13.1 kWh/t, and the average for current ore was 12.9 kWh/t. These test results indicate that there is no significant increase in hardness in the Gilmore ore zones compared with the current mining operation. Therefore, the operating parameters for grinding Gilmore ore can be

the same as those in the current Fort Knox milling strategy. It should also be noted that only a small percentage of ore from Gilmore will be processed in the mill, before mill closure in 2020.

### 13.1.3.3 Hydraulic Analysis

Knight Piésold and Co. completed a geotechnical laboratory testing program on five samples from 2017 drill core. The results provided an assessment of expected hydraulic performance relative to current and historical leach ore being processed on site (as tested in 2012). The testing program included geotechnical index testing, specific gravity, moisture content, and rigid wall permeability testing.

As shown in Figure 13-4, the saturated hydraulic conductivity of each of the leach ore samples is expected to remain well above the leach application rate of 0.005 gpm/ft<sup>2</sup>, which equates to 3.4x10<sup>-4</sup> cm/sec (351.3 ft/year), assuming vertical infiltration. This indicates that the materials represented by the leach ore samples are expected to remain freely drained throughout leach operations.



**Figure 13-4: Leach Ore Saturated Hydraulic Conductivity Profiles.**



### 13.2 Gil

Projected heap leach recoveries for Gil are based on laboratory testing of six column tests from FGMI and three column tests conducted by a commercial testing laboratory (Figure 13-5). Gold recovery and cyanide consumption in the tests were shown to be related to the solution: ore ratio (Figure 13-6). In order for Gil to reach a total of 70% recovery, a 2.6 solution-to-ore ratio must be achieved. The cyanide consumption after attaining 2.6 solution:ore tonnes was measured as 0.05 kg/t (0.1 lb/st).

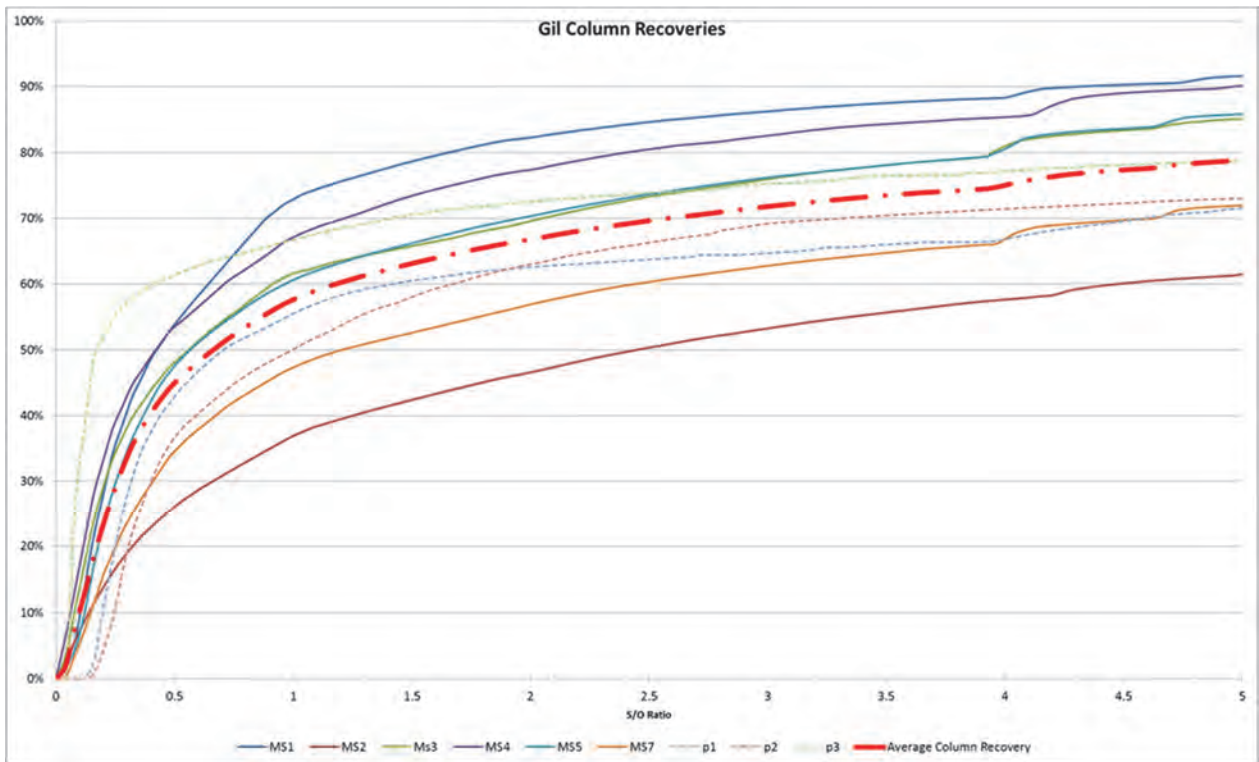


Figure 13-5: Gil Gold Recovery vs Leach Pad Solution Volume.

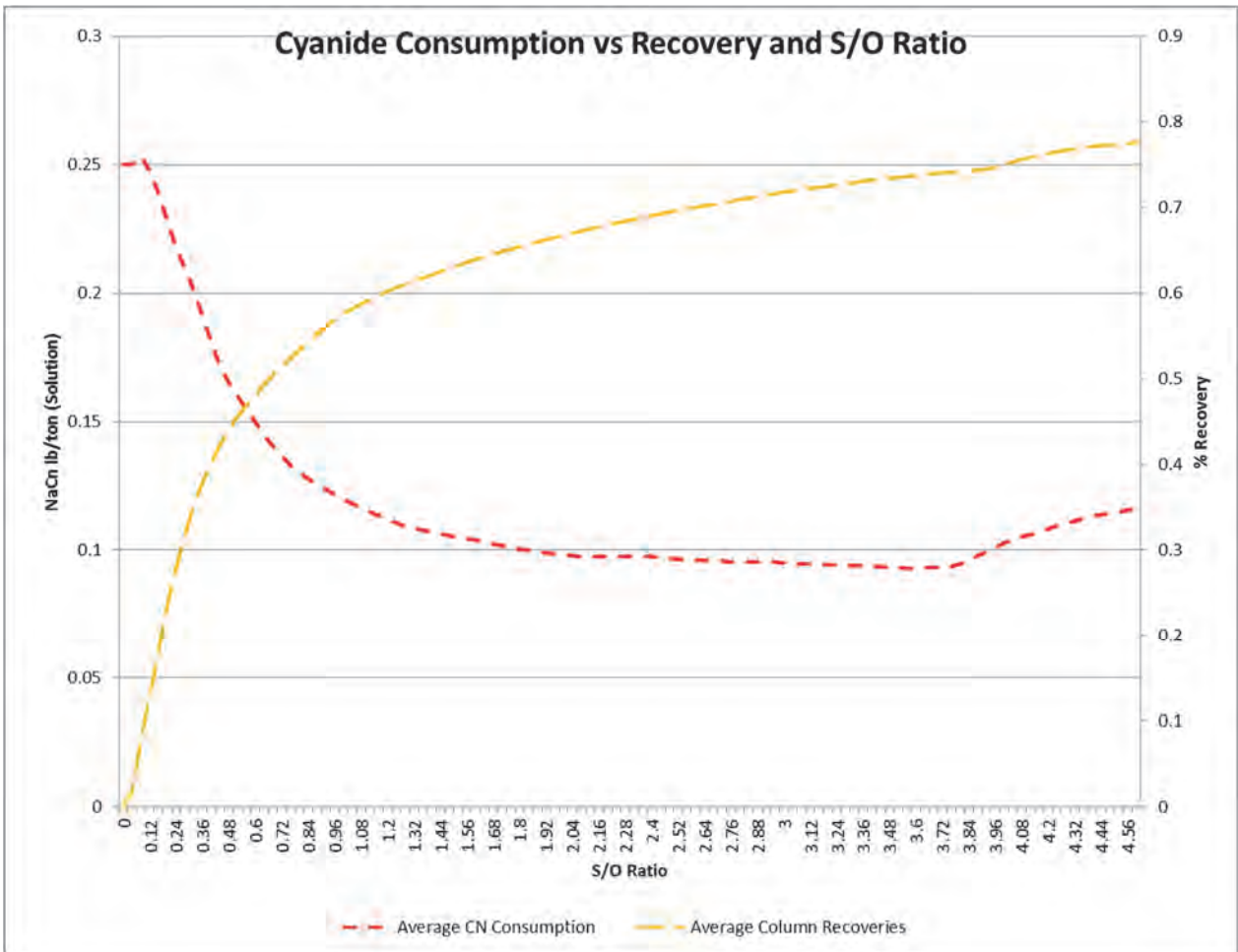


Figure 13-6: Gil Cyanide Consumption vs Recovery.





## 14 MINERAL RESOURCE ESTIMATE

### 14.1 Mineral Resource Statement

This report shows Mineral Resource statements, as of December 31, 2017, for the Fort Knox deposit including Gilmore, and for the Gil deposit. Mineral Resources are reported exclusive of Mineral Reserves within a US\$1,400/oz Au price pit shell, but outside of the Life-of-Mine US\$1,200/oz Au price pit. Mineral Resources are reported at cutoff grades of 0.10 g/t gold for Fort Knox and 0.21 g/t for Gil.

The Fort Knox Mineral Resources were reported below the December 31, 2017 mined surface. Table 14-1 and Table 14-2 show the classified Mineral Resources, exclusive of Mineral Reserves.

The Fort Knox mine has been extracting gold with the existing milling process since 1996. The Walter Creek heap leach pad was added in 2009. The leach process allows for extraction of gold from lower grade material that is not economic at milling costs.

Kinross is not aware of any environmental, permitting, legal, title, location, socio-economic, marketing, political, or other modifying factors that could materially affect the Fort Knox Mineral Resource estimate.

**Table 14-1: Fort Knox Mineral Resource Estimate Effective December 31, 2017.**

Classification	Tonnes (000's)	Grade (Au g/t)	Ounces (000's)
Measured	6,606	0.36	77
Indicated	110,824	0.33	1,185
<b>Subtotal M&amp;I</b>	<b>117,429</b>	<b>0.33</b>	<b>1,262</b>
Inferred	101,579	0.32	1,031

Notes:

1. Mineral Resources are exclusive of Mineral Reserves.
2. The above mineral resource estimate is classified in accordance with the Canadian Institute of Mining, Metallurgy and Petroleum's "CIM Definition Standards - For Mineral Resources and Mineral Reserves" incorporated by reference into National Instrument 43-101 "Standards of Disclosure for Mineral Projects".
3. Mineral Resources are estimated at a cutoff grade of 0.10 g/t Au based on a gold price of US\$1,400/oz.
4. The mineral resource estimates reported in this technical report are different from those reported in Kinross' year-end mineral reserve and resource statement set out in its news release dated February 14, 2018 and its Annual Information Form dated March 31, 2018. The mineral resource estimate as at December 31, 2017 for Fort Knox has been updated from that previously reported based on the feasibility study work completed during 2018.

The Gil Mineral Resource block model was prepared by Kinross Technical Services.

Kinross is not aware of any environmental, permitting, legal, title, location, socio-economic, marketing, political, or other modifying factors, which could materially affect the Gil Mineral Resource.



**Table 14-2: Gil Mineral Resource Estimate Effective December 31, 2017.**

Classification	Tonnes (000's)	Grade (Au g/t)	Ounces (000's)
Measured	-	-	-
Indicated	29,516	0.56	533
<b>Subtotal M&amp;I</b>	<b>29,516</b>	<b>0.56</b>	<b>533</b>
Inferred	4,026	0.49	63

Notes:

1. Mineral Resources are exclusive of Mineral Reserves.
2. The above mineral resource estimate is classified in accordance with the Canadian Institute of Mining, Metallurgy and Petroleum's "CIM Definition Standards - For Mineral Resources and Mineral Reserves" incorporated by reference into National Instrument 43-101 "Standards of Disclosure for Mineral Projects".
3. Mineral Resources are estimated at a cutoff grade of 0.21 g/t Au based on a gold price of US\$1,400/oz.

## 14.2 Fort Knox Mineral Resource Estimate

The Fort Knox resource estimate was prepared by FGMI. Geologic domain solids were prepared using Leapfrog Geo 4.1 software, and Vulcan 10.1 software was used to manually edit the solids, prepare assay data for geostatistical analysis, construct the block model, estimate metal grades, and tabulate mineral resources. Snowden Supervisor software was used to run geostatistical analysis of raw and composited drill hole assay data to inform search distances and orientations based on variography.

### 14.2.1 Data Preparation

The Fort Knox dataset is maintained in an acquire database management system implemented in 2017. Before 2017, data were stored in separate Excel logs and combined within a MineSite software drillhole database.

The average depth of RC holes at Fort Knox through 2017 is 242 m (795 ft). The average depth of core holes is 258.5 m (848 ft). The shortest holes in both categories (less than 20 m) were holes abandoned and subsequently re-drilled with a different drillhole number. As the target depth has consistently increased over time, the longest holes have been drilled in the past five years (21 RC holes longer than 450 m and 14 core holes longer than 500 m).

Within defined zones of mineralization, drillhole spacing is between 15.3 and 91 m (50 to 300 ft). The average drillhole spacing within the 2017 LOM pit shell is 25.6 m (84.0 ft) in all directions.

The Q3 2017 database contains 265,245 nominally 1.52 m (5 ft) long samples. Of these samples, 252,593 have a gold assay greater than or equal to 0.00 g/t. 600 of the 252,593 reporting assay samples have lengths other than 1.52 m and primarily were from end-of-hole samples. Intervals not sampled occur in overburden, the upper very weakly

mineralized schist, and from geotechnical and dewatering holes where sampling was not possible. Intervals not sampled were not used in the estimate and were flagged as ignored with numeric code '-99'. Summary statistics for the drillhole data used for the estimate are provided in Table 14-3.

**Table 14-3: Fort Knox Drillhole Database Statistics.**

Data	RC	Core
Valid Lithology Holes	1123	720
Valid Assay Data Holes	978	606
Valid Assay Metres (m)	229,221	155,600
Average Recovery (%) <sup>1</sup>	77%	90%
Average Hole Length (m)	214	276
Shortest Hole Length (m)	9	5
Longest Hole Length (m)	488	554

Note:

1. Average RC and core recovery by sample weight and theoretical calculation of hole diameter and sample split.

Historic drillhole recoveries have varied with improvements in recent years to drill technology and sampling protocols. Recent drill campaigns have averaged over 90% recovery for core (see Section 10.4).

Data validation checks in accordance with the ongoing Fort Knox QA/QC program are conducted during and after drill programs (see Section 12). No global corrective bias has been detected and no actions or adjustments have been necessary apart from selective assay interval rejection due to suspected contamination or sampling error.

Before doing statistical analyses, all data were imported into Excel, Leapfrog, MineSite, and Vulcan software. A check on the database was performed to search for any obvious errors, and corrections were made by FGMI geologists. Collar locations and downhole surveys are rigorously reviewed by manual verification methods for erroneous data by FGMI's technical staff. Historically, 5 to 10% of logging data were verified against hardcopy logs. Since 2017, direct digital logging in acQuire has been checked in 3D software on an ongoing basis throughout drill programs.

Holes with assay data are rejected from the resource model based on sample recovery, sample weight, drill log comments (i.e., contamination, abnormal drilling), water in the hole comments, and/or visual comparison of assay results from the hole in question and surrounding holes including production blasthole samples. Suspect intervals are examined in cross-section and drill logs are reviewed accordingly. Initial software checks to evaluate downhole contamination and run-length cyclicity are performed on RC data to identify potential suspect holes. As part of Kinross' best practices, the Resource

Modeller and Senior Geologists confer before any data are rejected. Rejected data are tracked separately.

#### 14.2.2 Density Data

The historic density used globally for all domains was 2.56 tonnes/m<sup>3</sup> (tonnage factor of 12.50 ft<sup>3</sup>/ston). This density value was based on analysis of samples using 25 immersion tests (by FGMI), 99 pycnometer tests (by Bondar-Clegg), and one volumetric determination of a bulk sample supplied by FGMI (Mineral Resources Development, 1991; 1999). Bondar Clegg's density determinations average 2.62 tonnes/m<sup>3</sup> (12.24 ft<sup>3</sup>/ston). FGMI's densities for the fine grained, medium grained and coarse grained intrusive units average 2.59, 2.55, and 2.61 tonnes/m<sup>3</sup> (12.38, 12.48, and 12.27 ft<sup>3</sup>/ston), respectively; a density of 2.54 tonnes/m<sup>3</sup> (12.61 ft<sup>3</sup>/ston) was obtained for the bulk sample.

Eight PQ drill core samples were collected in 2008 and analyzed by Alaska Assay in Fairbanks. In 2005 and 2008, 25 geotechnical core samples were tested by Call & Nicholas, Inc. Both sample sets yielded an average rock density of 2.62 tonnes/m<sup>3</sup> (12.22 ft<sup>3</sup>/ston).

In 2010, RPA reviewed the core weight distribution of 1,432 samples in 2004 and noted that a density of 2.56 tonnes/m<sup>3</sup> (12.50 ft<sup>3</sup>/ston) may be too low. The formula applied for a conversion from specific gravity to tonnage factor is:

$$\text{Tonnage Factor (ft}^3\text{/ston)} = 2000 \text{ lbs/ston} / (62.4 \text{ lbs/ft}^3 * \text{SG})$$

When comparing the average sample weight to the theoretical sample weight, RPA showed that actual weight was approximately 7.5% higher. The expected weight for a 1.5 m (5 ft) PQ core sample with 100% recovery would be approximately 20.9 kilograms (46 pounds) and the average actual weight of the samples is 22.5 kilograms (49.7 pounds).

Since 2011, ongoing density analyses of core samples at Fort Knox have been completed using the immersion test for specific gravity at the core logging facility. Beginning in 2017, density samples were taken approximately every 30.5 m (100 ft) down hole on core holes. The method involves determining the mass of the sample in air and the apparent mass of the sample upon immersion in water. Results from 2011 to 2015 confirm a granite density greater than 2.56 tonnes/m<sup>3</sup> may be appropriate.

In 2017, 48 core samples were analyzed using a paraffin wax coat prior to immersion on porous strongly argillic-altered clay-rich samples. By alteration, strongly argillic clay-

altered granite has an average specific gravity of 2.54 tonnes/m<sup>3</sup>, lower than unaltered or weakly altered granite. The results of Fort Knox density data collected since 2005 by rock type are summarized in Table 14-4.

Granite ore and granite waste samples have similar densities. Density results by ore and waste designation are summarized in Table 14-5.

**Table 14-4: Fort Knox Summary of Core Drilling Density Data Since 2005.**

<b>Lithology</b>	<b>Count</b>	<b>SG average (g/m<sup>3</sup>)</b>
GRF	87	2.65
GRM	395	2.61
GRC	475	2.62
Granite Domain	957	2.63
SCH	286	2.70
QTE	175	2.65
Schist Domain	461	2.68
<b>Global</b>	<b>1418</b>	<b>2.65</b>

**Table 14-5: Fort Knox Summary of Core Drilling Density Data by Ore/Waste.**

<b>Types</b>	<b>Average (g/cm<sup>3</sup>)</b>	<b>Count</b>	<b>Min (g/cm<sup>3</sup>)</b>	<b>Max (g/cm<sup>3</sup>)</b>
Granite Waste	2.62	546	2.26	2.85
Granite Ore	2.61	199	2.20	2.72
Schist + QTE	2.68	444	2.28	3.06

### 14.2.3 Structural Model

A polyline and wireframe structural model based on geologic pit mapping data has been updated since 2012. The model consists of primary NW-trending ore faults and associated cross structures.

In 2017, the structural model was updated in Leapfrog Geo using historic bench scale pit mapping, blasthole grade data, oriented core, Acoustic Televiewer downhole surveys, in-pit hyperspectral mineralogic spectrometry, drillhole analytical spectrometry, and high-resolution pit scans using Maptek ISITE software. Compilation and follow-up pit mapping was completed by FGMI geologists with assistance from an SRK Practice Leader in Structural Geology. Fault interactions and fault magnitudes were clarified for use to define structural trends.

The various datasets were integrated in 3D and new structural planes developed from all the available data. The model contains 35 mineralization controlling structures within

two dominant structural families of steep and more moderately SW-dip from WNW- and NW-trending structures. The average spacing of modelled ore structures is 100 m. Bench and wall scale sub-parallel structures and dominant joint sets have greater frequency and were assigned lower magnitudes.

Nine primary structural trends were identified based on continuity and expression in grade-control data. These structures are used to define the overall structural framework of the alteration domains and the segregation of estimate domains. Confidence was assigned from the number of corresponding lines of evidence, from the model inputs. The average spacing of primary structural trends is 300 m.

#### **14.2.4 Geology Model**

In 2005, three granite domains were created to spatially segregate the estimation. In 2006, the eastern portion of domain 30 was separated into a new domain (40). In 2012, these domains were extended laterally and at depth to encompass expanded model limits. In 2017, the four domains were increased to eight to better constrain search orientation changes throughout the deposit, informed from the updated structural model. The eight different structural domains within the main granite lithology have been modelled with codes 10, 15, 20, 25, 30, 40, 50, and 60 from West to East. The granite domains were created in 3D using mineralized trends and geologic pit mapping data, building on the historic interpretation.

In general, domains 30, 40 and 50 are dominated by one or two structural trends. Domains 10-15, and 20-25 are controlled by three to six subparallel trends. The subdomains 15 and 25 demarcate changes across the Monte Cristo NE-trending regional trend. The Monte Cristo zone is expressed as a flexure in the generally planar NW-trending orientation of Fort Knox structures. Domain 60 was added with further drilling in 2016 in the far eastern portion of the pit to isolate geographically and statistically distinct cluster of drill data near the Yellow Pup zone. The boundaries between the granite domains are considered as soft boundaries for grade estimation (Table 14-6). As a result of contact analysis, each domain is interpolated independently but composites from all other granite domains can be used if they fall within the search criteria. Domain variable 'domi17' was flagged with domains 4, 10, 15, 20, 25, 30, 40, 50, 60.

In addition to parent estimate domains in the granite, a secondary domain variable was coded to limit the extrapolation of higher grade structural-controlled zones and dilution from weakly mineralized granite. The secondary subdomains of the granite were generated based on composite logging data including alteration, veining, and structural

data. Drillholes were snapped to and manual wire-framing was used to refine the Leapfrog interpolation. The subdomains were subdivided into three packages in ascending order of flagging precedence:

1. Weakly altered, variably faulted granite which is weakly mineralized. Background granite assigned parent search domain code 10 to 60.
2. Moderately altered, variably faulted granite which is mineralized. Mineralized granite assigned domain code 80.
3. Strongly altered and fault-controlled, mineralized granite. Highly-mineralized granite assigned domain code 90.

The subdomain variables are flagged in 'd17hg' with precedence given to code 80, then 90.

The schist domain (code 4) intersects all granite domains and has flagging precedence over the granite domains. The schist domain was created as an interpolated surface in Leapfrog snapping to drillholes at the primary granite-schist contact. The granite-schist contact surface is modified for each block model with additional information obtained through new drilling, pit and blasthole mapping. The geological domain wireframes are not clipped to the surface topography.

Box and whisker plots and Q-Q plots were generated to assess overlap and if various domains could be combined for outlier restriction, estimation, or composite selection. Contact profiles were generated to confirm the grade interpolation limits along the domain contacts (Figure 14-1). Contacts may be interpreted as either open, showing no significant grade differential at, or near, the contact; or soft, showing gradational grade differential; or hard, showing a sharp grade differential at the domain contact.

The boundaries between the schist domain and granite domains are considered as hard boundaries for grade estimation (Table 14-6). Within the granite, the spatial distribution of grade within run-length and back flagged composites suggest open and soft boundaries for grade estimation due to the gradational nature of the litho-structural domains. The background (domain 10-60) and moderately altered granite (80) domains are considered as open. The background (domain 10-60) and strongly altered granite (90) domains are considered as hard. The moderately altered granite (80) and strongly altered granite (90) are considered as soft. The soft boundary decision is based partially on production reconciliation data.





A lithology variable is coded based on the schist contact with rock above coded as 600-schist and below as 100-granite.

**Table 14-6: Fort Knox Domains and Contact Relationships.**

Domain	Description	Location	Boundary Type <sup>1</sup>											
			4	10	15	20	25	30	40	50	60	80	90	
4	Schist	Global	-	H	H	H	H	H	H	H	H	H	H	H
10	Granite - several trends	West North	H	-	O	O	O	O	O	O	O	O	O	H
15	Granite - one primary trend	West South	H	O	-	O	O	O	O	O	O	O	O	H
20	Granite - several trends	Mid-West North	H	O	O	-	O	O	O	O	O	O	O	H
25	Granite - one primary trend	Mid-West South	H	O	O	O	-	O	O	O	O	O	O	H
30	Granite - one primary trend	Mid	H	O	O	O	O	-	O	O	O	O	O	H
40	Granite - several trends	Mid-East	H	O	O	O	O	O	-	O	O	O	O	H
50	Granite - several trends	East	H	O	O	O	O	O	O	-	O	O	O	H
60	Granite – several trends	Yellow Pup, Far East	H	O	O	O	O	O	O	O	-	O	O	H
80	Granite - mineralized, weak alt	Global	H	O	O	O	O	O	O	O	O	O	-	S
90	Granite - mineralized, strong alt	Global	H	H	H	H	H	H	H	H	H	H	S	-

Note:

1. O = open boundary (samples from either domain), S = soft boundary (90' isometric soft boundary), H= hard boundary

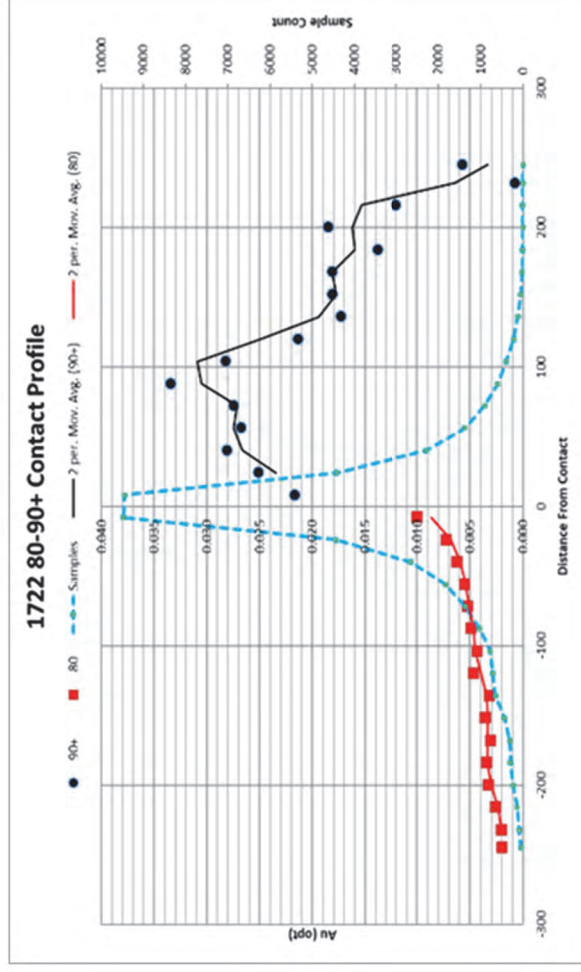
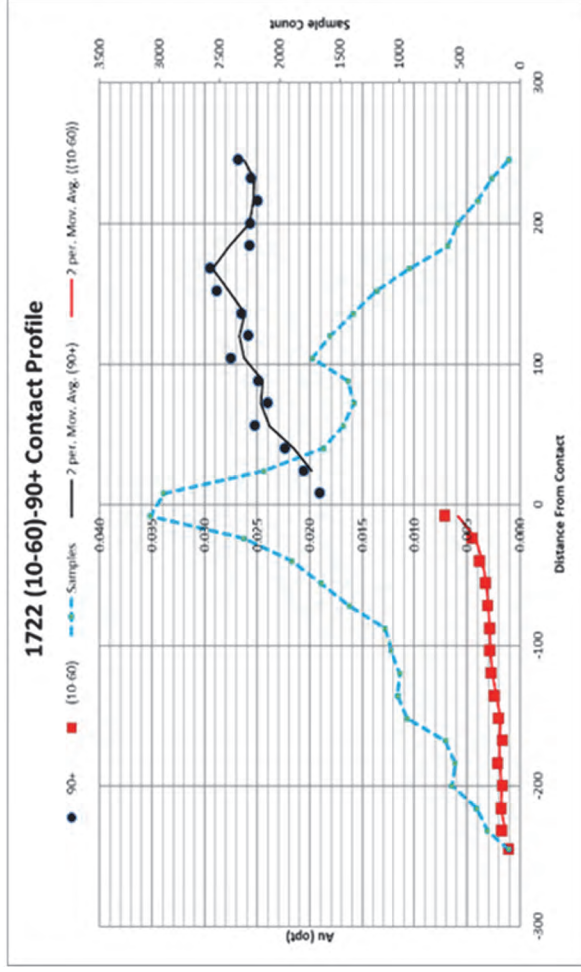
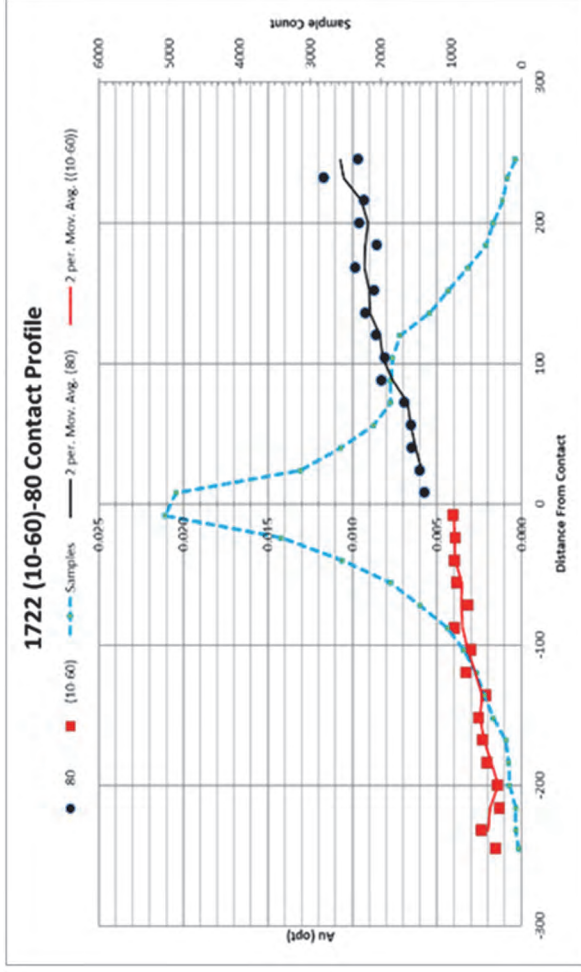
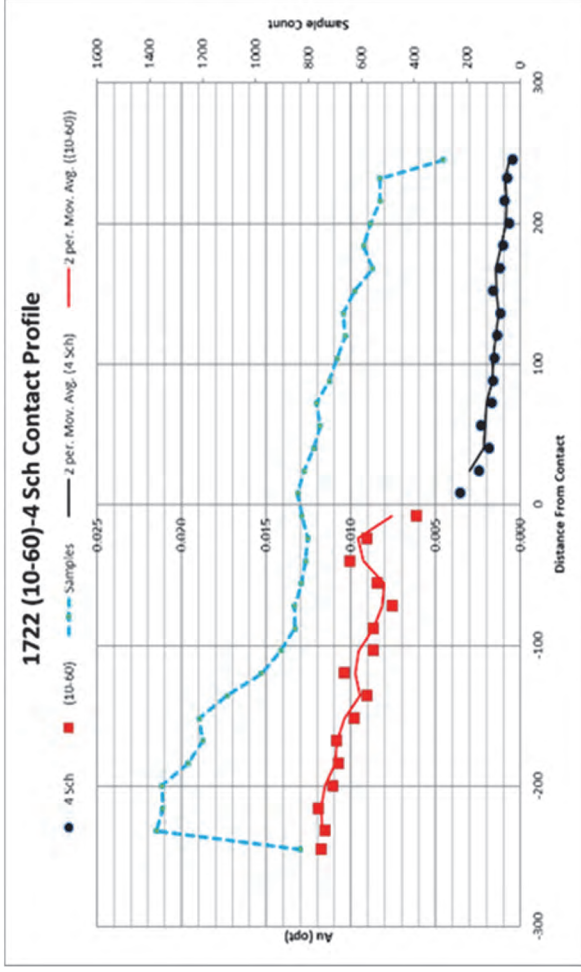


Figure 14-1: Contact Plots of Global Domain Relationships.



### 14.2.5 Outlier Management and Capping Strategy

Historically, high grade raw assays in all granite domains were capped at 17.14 g/t gold (0.5 opt gold) before compositing based on reviews of gold assay cap statistics on a global basis. In 2017, the eight granite domains were reviewed separately with log probability plots and histograms to determine appropriate capping levels summarized in Table 14-7. Capping values reflect inflections on log probability plots at or near the 99.8th percentile. The log probability plot for domain 20 is shown in Figure 14-2. A summary of raw assay data statistics is shown in Table 14-8. In 2017, 302 assay intervals were capped representing 0.18% of all assay data of at least 0.00 g/t.

**Table 14-7: Fort Knox Au Capping Analysis.**

<b>Domain</b>	<b>Au Cap (opt)</b>	<b>Au Cap (g/t)</b>
4	0.15	5.14
10	0.50	17.14
15	0.50	17.14
20	0.60	20.57
25	0.80	27.43
30	0.60	20.57
40	0.60	20.57
50	0.60	20.57
60	0.15	5.14



**Table 14-8: Summary Raw Gold Assay Statistics by Domain.**

**Uncapped**

<b>Assay</b>	<b>All</b>	<b>4</b>	<b>10</b>	<b>15</b>	<b>20</b>	<b>25</b>	<b>30</b>	<b>40</b>	<b>50</b>	<b>60</b>
Samples	252,593	57,374	56,809	8,179	31,593	19,158	21,664	29,532	25,222	3,062
Minimum	0	0	0	0	0	0	0	0	0	0
Maximum	156.03	77.02	73.01	57.91	49.83	156.03	110.51	79.45	80.51	26.92
Mean	0.34	0.03	0.24	0.45	0.41	0.89	0.48	0.58	0.41	0.14
SD	1.64	0.51	1.03	1.58	1.51	2.95	2.40	2.09	1.78	0.65
<b>CV</b>	<b>4.66</b>	<b>10.82</b>	<b>4.06</b>	<b>3.48</b>	<b>3.72</b>	<b>3.35</b>	<b>4.86</b>	<b>3.67</b>	<b>4.20</b>	<b>4.71</b>
90%	0.68	0.07	0.51	0.96	0.75	1.82	0.92	1.13	0.79	0.31
99%	4.62	0.72	2.95	5.48	5.86	10.41	5.07	6.47	5.31	1.68

**Capped**

<b>Assay</b>	<b>All</b>	<b>4</b>	<b>10</b>	<b>15</b>	<b>20</b>	<b>25</b>	<b>30</b>	<b>40</b>	<b>50</b>	<b>60</b>
Samples	252,593	57,374	56,809	8,179	31,593	19,158	21,664	29,532	25,222	3,062
Cap Count	302	53	27	14	34	36	35	59	39	5
Pct_Capped	0.12%	0.09%	0.05%	0.17%	0.11%	0.19%	0.16%	0.20%	0.15%	0.16%
Minimum	0	0	0	0	0	0	0	0	0	0
Maximum	27.40	5.14	17.12	17.12	20.55	27.40	20.55	20.55	20.55	5.14
Mean	0.34	0.03	0.24	0.45	0.41	0.86	0.45	0.55	0.41	0.14
SD	1.64	0.24	0.75	1.23	1.34	2.19	1.34	1.51	1.34	0.34
<b>CV</b>	<b>4.66</b>	<b>6.03</b>	<b>3.14</b>	<b>2.84</b>	<b>3.38</b>	<b>2.58</b>	<b>2.95</b>	<b>2.78</b>	<b>3.30</b>	<b>2.79</b>

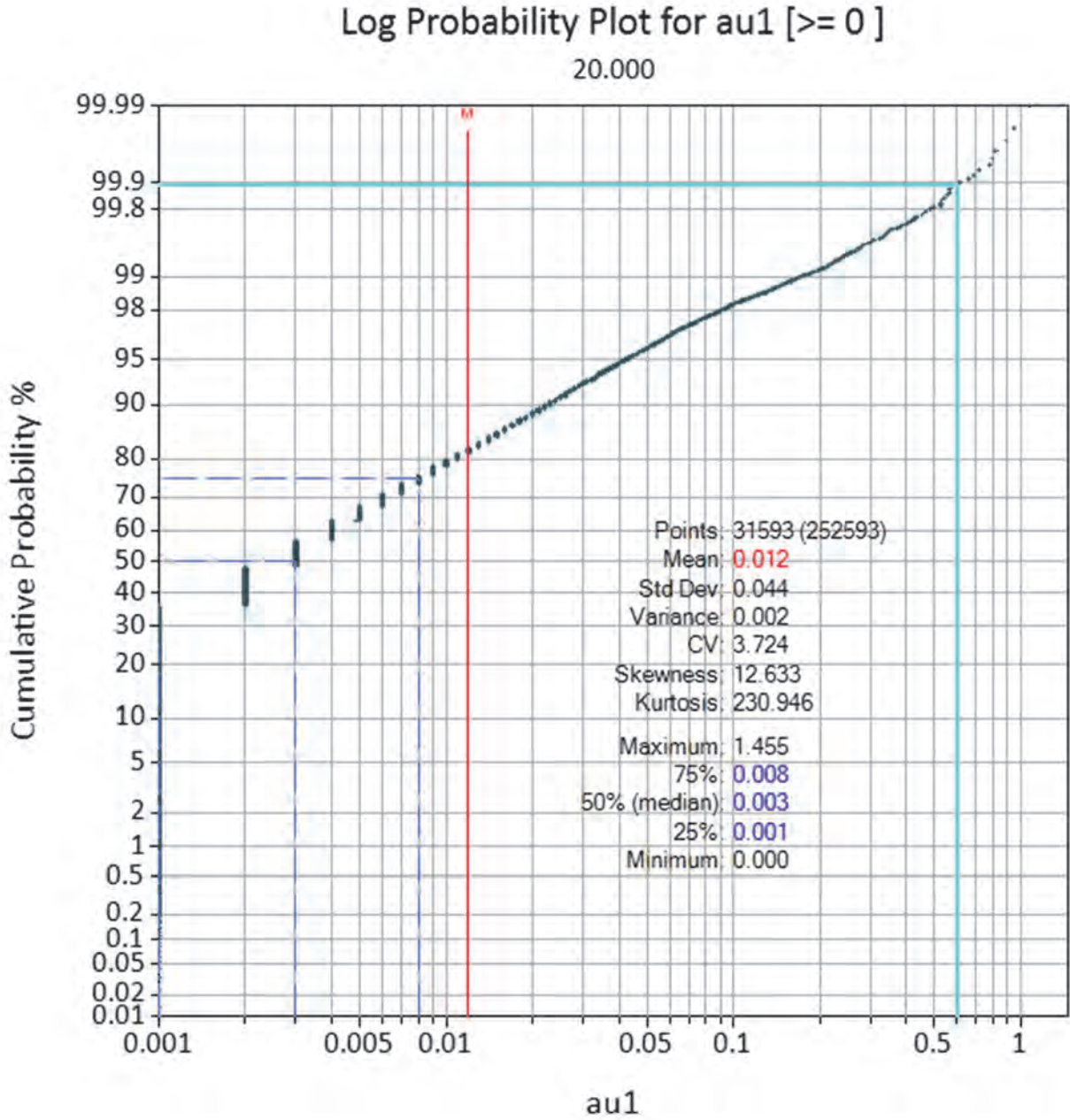


Figure 14-2: Log Cumulative Probability Plot of Uncapped Assay Data (opt) Domain=20.

### 14.2.6 Compositing

Grade-capped assay intervals were combined into nominal 4.6 m (15 ft) downhole composites from top of hole without respect to geologic domain boundaries. Rejected assay intervals were excluded from compositing; reasons for rejection are outlined in Section 14.2.1.

Composites were assigned a code corresponding to the estimate domains flagged by composite centroid. Composite statistics for the Fort Knox deposit are summarized in Table 14-9, by domain. Composites were checked by length versus grade and spatially and no bias affecting estimation was noted.

**Table 14-9: Fort Knox Composite Statistics by Domain.**

Assay	All	4	10	15	20	25	30	40	50	60
Composites	82,943	19,189	18,662	2,455	10,439	6,073	6,847	9,576	8,392	1,033
Minimum	0	0	0	0	0	0	0	0	0	0
Maximum	20.67	5.11	17.14	11.52	17.66	20.67	11.66	17.93	14.81	4.46
Mean	0.31	0.03	0.21	0.45	0.38	0.82	0.38	0.51	0.38	0.14
SD	0.79	0.17	0.51	0.86	0.89	1.44	0.69	1.06	0.89	0.27
CV	2.56	4.06	2.31	1.88	2.45	1.75	1.88	2.07	2.35	2.15
90%	0.72	0.07	0.51	0.99	0.75	1.99	0.82	1.10	0.82	0.31
99%	3.63	0.72	2.37	4.42	4.11	7.78	3.50	5.14	4.66	0.86

### 14.2.7 Density in Domains

Based on density tests, the granite domain and schist domain have separate global densities. To account for historic large sample bulk density tests and the underrepresentation of strongly clay altered samples in onsite testing, an average granite domain density of 2.60 tonnes/m<sup>3</sup> and average schist domain density of 2.62 tonnes/m<sup>3</sup> were used. These separate densities increase density from the historic global density by 1.6% and 2.3% respectively and convert to a 12.3 TF for granite and 12.2 TF for schist.

Density values for the schist and granite are back flagged by centroid based on block lithologic domain.

### 14.2.8 Variography and Continuity Analysis

The spatial continuity of gold was assessed on the basis of variograms, in orientations determined from blasthole data and confirmed with exploration data, with the nugget set from the exploration data downhole variogram. The reliance on grade control data for

spatial continuity orientation stemmed from a recommendation made in 2010 by RPA due to the nature of mineralization and poor continuity fit of exploration data variograms.

The composite exploration data show a high nugget effect combined with relatively long major and semi-major ranges for all domains. Variograms were fit with two spheroidal structures. While reasonable continuity in variograms were achieved, variograms require additional refinement for use with an ordinary kriging (OK) estimate. Table 14-10 summarizes Fort Knox variography parameters, and Table 14-11 summarizes the variogram models used to inform the search ellipsoids for estimation.

Ranges from these models were used to determine the search ellipsoid size and orientation used for grade estimation. Search ellipsoid parameters were created using Supervisor software and imported into Vulcan for estimation. The along-strike (major) and across-strike (semi-major) variograms have ranges of approximately 61 to 152 m (200 to 500 ft). Domain 20 has two subparallel ellipsoid orientations; one for the domain = 90+ (strongly altered subdomain) and a second for remaining passes.

**Table 14-10: Fort Knox Variography Parameters (2<sup>nd</sup> Structure).**

Domain	Description	Nugget	Sill	Rotation			Range (m)		
				Bearing	Plunge	Dip	Major	Semi	Minor
4	4 schist	0.57	0.21	294	-37.2	64.6	82.3	61.0	36.6
10	10west	0.42	0.25	252.4	-31.8	25.7	115.8	73.2	30.2
15	15south	0.47	0.21	121.6	-11.3	-33.34	135.6	100.6	29.9
20	20 hg	0.54	0.42	295.6	-14	43	100.0	91.4	23.2
20	20 mg-lg	0.42	0.3	157.2	-20.7	-40.9	152.4	164.0	30.8
25	25 mid	0.45	0.26	330.3	16.7	31.2	89.9	103.9	20.4
30	30mid	0.44	0.21	285.5	-21.6	28.2	152.4	114.3	34.7
40	40east	0.4	0.25	306.75	-17.4	42.2	94.5	64.3	21.3
50	50 far east	0.64	0.19	134.6	22.5	-45.9	47.2	64.0	18.9
60	60 YP	0.28	0.21	274.4	-58.5	16.7	87.2	76.8	28.3

#### 14.2.9 Gold Grade Interpolation and Spatial Analysis

The block model was generated in Vulcan 10.1 software. The block sizes used was 7.6 x 7.6 x 4.6 m high (25 x 25 x 15 ft). The model was re-blocked to 15.2 x 15.2 x 9.1 m high (50 x 50 x 30 ft) consistent with the historic Fort Knox standard mining unit dimensions.

Model limits extend from 0 to 5,791 m east, 1,524 to 4,420 m north and -308 to 762 m in elevation based on a local grid.





Gold grade is interpolated into the block model using inverse distance squared algorithm ( $ID^2$ ) on capped Au composites. Interpolation parameters include a minimum of 3 composites, a maximum of 8 composites, and a maximum of 2 composites per drillhole.

Search orientations and distances are based on variography by parent search domain outlined in Table 14-11. The interpolation for granite is completed in three passes.

- First pass, highly altered domain (block domain flag:  $d17hg \geq 90$ ), ellipsoid ranges are equal to 1.0 - 1.2x the 2nd structure variogram ranges.
- Second pass, moderately altered domain (block domain flag:  $d17hg \geq 80$ , unestimated pass = 0), ellipsoid ranges are 1.2 - 1.6x the 2nd structure variogram ranges.
- Third pass, background granite and unestimated blocks (block domain flag:  $domi17 = 4$  through 60, pass = 0), ellipsoid ranges match second pass ranges.

Ellipsoid weight ratios are normalized to the search ranges. Ellipsoids were loaded in Vulcan and visually inspected in various locations of the model for fit.



**Table 14-11: Model Estimation Parameters.**

<b>Pass 1 Estimate - Highly Altered Domain 90</b>								
<b>Est Domain</b>	<b>Comp Selection</b>	<b>Major (m)</b>	<b>Semi (m)</b>	<b>Minor (m)</b>	<b>Block Selection</b>	<b>Min Comp</b>	<b>Max Comp</b>	<b>Max/Hole</b>
i10hg	D17HG>=80	115.8	73.2	30.5	DOMI17 = 10, D17HG >= 90	4	15	3
i15hg	D17HG>=80	137.2	100.6	30.5	DOMI17 = 15, D17HG >= 90	4	15	3
i20hg	D17HG>=80	100.6	91.4	24.4	DOMI17 = 20, D17HG >= 90	4	15	3
i25hg	D17HG>=80	91.4	103.6	21.3	DOMI17 = 25, D17HG >= 90	4	15	3
i30hg	D17HG>=80	152.4	115.8	33.5	DOMI17 = 30, D17HG >= 90	4	15	3
i40hg	D17HG>=80	94.5	64.0	21.3	DOMI17 = 40, D17HG >= 90	4	15	3
i50hg	D17HG>=80	54.9	67.1	18.3	DOMI17 = 50, D17HG >= 90	4	15	3
i60hg	D17HG>=80	88.4	76.2	27.4	DOMI17 = 60, D17HG >= 90	4	15	3
<b>Pass 2 Estimate - Moderately Altered Domain 80</b>								
<b>Est Domain (DOMI16)</b>	<b>Comp Selection</b>	<b>Major (m)</b>	<b>Semi (m)</b>	<b>Minor (m)</b>	<b>Block Selection</b>	<b>Min Comp</b>	<b>Max Comp</b>	<b>Max/Hole</b>
i10mg	Open	185.9	115.8	61.0	DOMI17 = 10, D17HG >= 80, Pass = 0	3	8	2
i15mg	Open	189.0	140.2	61.0	DOMI17 = 15, D17HG >= 80, Pass = 0	3	8	2
i20mg	Open	182.9	198.1	61.0	DOMI17 = 20, D17HG >= 80, Pass = 0	3	8	2
i25mg	Open	143.3	167.6	42.7	DOMI17 = 25, D17HG >= 80, Pass = 0	3	8	2
i30mg	Open	182.9	137.2	61.0	DOMI17 = 30, D17HG >= 80, Pass = 0	3	8	2
i40mg	Open	152.4	103.6	54.9	DOMI17 = 40, D17HG >= 80, Pass = 0	3	8	2
i50mg	Open	85.3	109.7	39.6	DOMI17 = 50, D17HG >= 80, Pass = 0	3	8	2
i60mg	Open	140.2	121.9	51.8	DOMI17 = 60, D17HG >= 80, Pass = 0	3	8	2
<b>Pass 3 Estimate - Weakly Altered Domain &lt; 80</b>								
<b>Est Domain (DOMI16)</b>	<b>Comp Selection</b>	<b>Major (m)</b>	<b>Semi (m)</b>	<b>Minor (m)</b>	<b>Block Selection</b>	<b>Min Comp</b>	<b>Max Comp</b>	<b>Max/Hole</b>
i10	D17HG <= 80	185.9	115.8	61.0	DOMI17 = 10 and Pass = 0	3	8	2
i15	D17HG <= 80	189.0	140.2	61.0	DOMI17 = 15 and Pass = 0	3	8	2
i20	D17HG <= 80	182.9	198.1	61.0	DOMI17 = 20 and Pass = 0	3	8	2
i25	D17HG <= 80	143.3	167.6	42.7	DOMI17 = 25 and Pass = 0	3	8	2
i30	D17HG <= 80	182.9	137.2	61.0	DOMI17 = 30 and Pass = 0	3	8	2
i40	D17HG <= 80	152.4	103.6	54.9	DOMI17 = 40 and Pass = 0	3	8	2
i50	D17HG <= 80	85.3	109.7	39.6	DOMI17 = 50 and Pass = 0	3	8	2
i60	D17HG <= 80	140.2	121.9	51.8	DOMI17 = 60 and Pass = 0	3	8	2
schI4	DOMI17 = 4	82.3	61.0	36.6	DOMI17 = 4	3	8	2
zschi4	DOMI17 = 4	61.0	45.7	27.4	DOMI17 = 4 and pass = 0	2	8	2

#### 14.2.10 Resource Classification

The resource classification scheme established at Fort Knox uses the average exploration drilling grid spacing to delineate Measured, Indicated, and Inferred resources (Table 14-12). Prior to 2017, an interpolated isotropic search was used to assign resource category. In 2017, to eliminate artifacts from interpolation, polygons are used to generate a 3D wireframe used to filter coherent block classification together. Classification flagging only applies to blocks with valid estimated gold grades. The ranges of the Indicated and Inferred classification are assessed based on the average of major and semi-major axis range for all granite domains at approximately 85% of the sill for Indicated. Schist estimate classification is capped at Inferred.

- **Measured:** Blocks estimated from three samples from different drillholes located within 32 m (105 ft), provided one sample was within 22.9 m (75 ft);
- **Indicated:** Blocks estimated within 29.0 m radius (95 ft) of drill holes; and
- **Inferred:** Blocks estimated within 36.6 m radius (120 ft) of drill holes.
- **Other Mineralization:** Blocks with a valid Au grade greater than or equal to 0.00 g/t.

**Table 14-12: Fort Knox Classification Summary.**

<b>Classification</b>	<b>Drill Spacing (m (ft))</b>	<b>Average Minimum Sample Distance (m (ft))</b>
Measured	55.4 (182)	14.1 (46.4)
Indicated	58.0 (190)	21.5 (70.6)
Inferred	73.2 (240)	29.4 (96.5)
Other	if estimated	56.7 (186.5)

#### 14.2.11 Consolidated Model

The resource model was re-blocked to reflect the historic and ongoing standard mining unit size employed at Fort Knox of (50x50x30 ft) and to (75x75x30 ft). Domain flagged variables were re-blocked as majority and the interpolated Au grade variable was re-blocked as simple average. A post re-block filter sets mixed estimated and un-estimated blocks to un-estimated (Au=-99) and re-flags density to majority lithologic domain code between granite and schist. The model extents are summarized in Table 14-13.

**Table 14-13: Re-blocked Block Model Extents and Parameters.**

<b>Parameter</b>	<b>505030 model</b>	<b>757545 model</b>
Block Origin Easting <sup>1</sup>	0	0
Block Origin Northing <sup>1</sup>	5,000	5,000
Block Origin Elevation <sup>1</sup>	1,010	1,010
Columns	380	241
Rows	190	126
Levels	117	75
Block Count	8,447,400	2,368,548
Re-block Block Size (ft)	50x50x30	75x75x45
Re-block Block Size (m)	15.2x15.2x9.1	22.9x22.9x13.7
Rotation	N/A	N/A

Note:

1. Local mine grid coordinates in feet.

#### 14.2.12 Block Model Validation

The Fort Knox block model was validated using a number of techniques to confirm the assignment of appropriate variables and grade estimation. These techniques included:

- visual confirmation of block estimates to informing drilling data on plan and sectional views in MineSight and Vulcan software;
- interpolation using nearest neighbour and ordinary kriging (OK) compared to the ID2 model;
- Swath plots for composite data, NN estimate, OK estimate, and the ID2 model (Figure 14-3); and
- grade-tonnage curves (Figure 14-4).

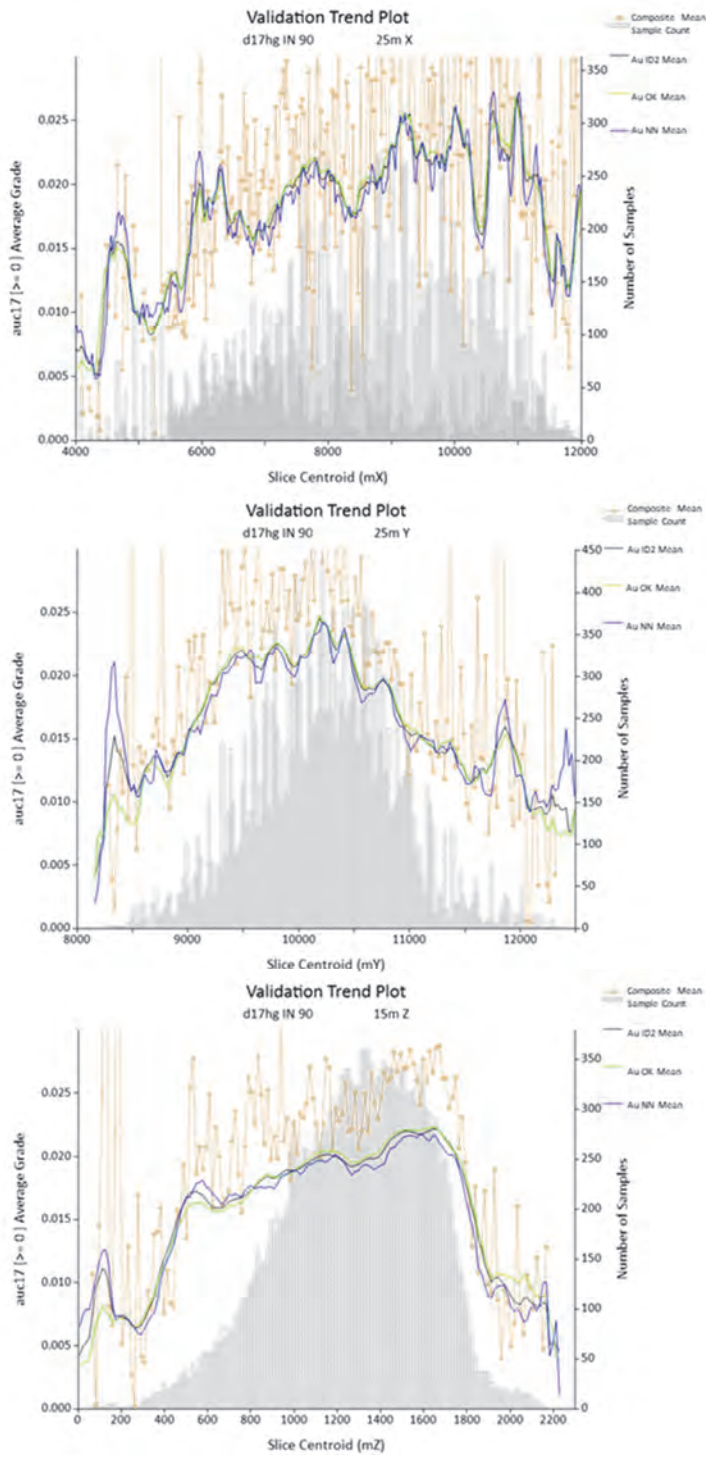


Figure 14-3: SWATH Plots of Au Grades by Easting (X), Northing(Y), and Elevation (Z) (opt)

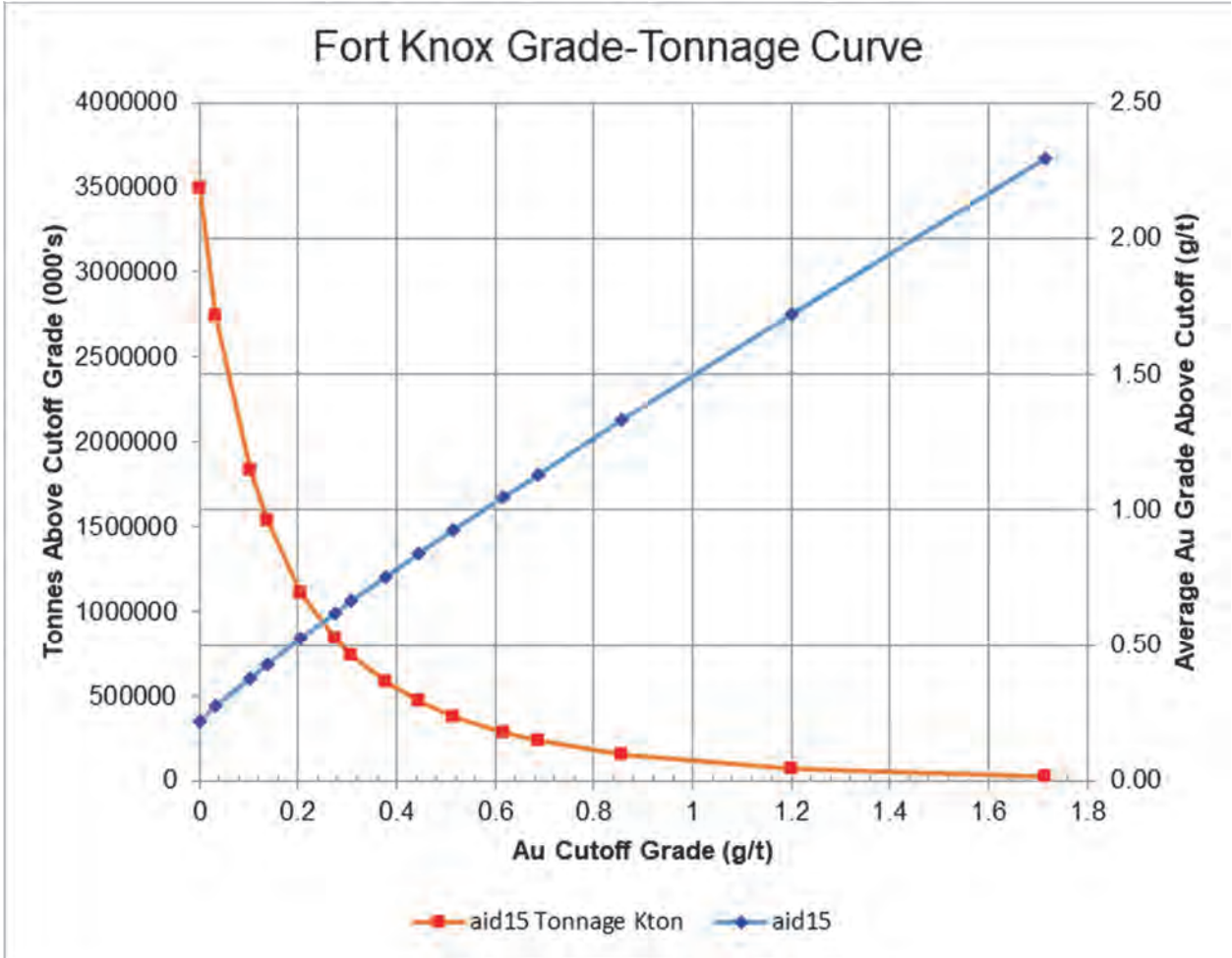


Figure 14-4: Fort Knox Grade-Tonnage Curve.

### 14.2.13 Historical Reconciliation

Fort Knox has over 20 years of blasthole reconciliation data. The mineral model for Fort Knox was reconciled to actual mining to provide an indication as to how well the current Long Term resource model (LTRM) predicts the tonnage and grade of the mineralization. Table 14-14 shows the reconciliation of the A-ore model (predicted) to A-ore mined (actual) at the Fort Knox Mine for the January 2015 – August 2017 time period. The reconciliation is based on grade control data using 0.45 g/t Au (0.0130 opt), 0.31 g/t Au (0.009 opt), and 0.14 g/t Au (0.004 opt) cutoffs for A-ore, B-ore, and C-ore

respectively. Over the 2.5 year time period, the LTRM under-predicted total ore tonnes by 8.7%, over-predicted total ore grade by 0.8% and under-predicted total ore ounces by 7.9%.

**Table 14-14: Production Reconciliation January 2016 through December 2017.**

Source	A-ore			B-ore			C-ore			Total Ore		
	Tonnes (000's)	Grade (g/t)	Au (koz)	Tonnes (000's)	Grade (g/t)	Au (koz)	Tonnes (000's)	Grade (g/t)	Au (koz)	Tonnes (000's)	Grade (g/t)	Au (koz)
Model (predicted) <sup>1</sup>	17,638	0.893	506.6	10,899	0.382	133.7	24,632	0.210	166.7	53,169	0.472	807.0
Mined (actual) <sup>2</sup>	18,274	0.876	514.8	10,899	0.390	136.6	28,648	0.238	218.9	57,821	0.468	870.4
Difference	636	-0.017	8.2	0	0.008	2.9	4,016	0.027	52.3	4,652	-0.004	63.4
% Difference	3.6%	-1.9%	1.6%	0.0%	2.2%	2.2%	16.3%	12.9%	31.4%	8.7%	-0.8%	7.9%

1. Model is the Fort Knox Mineral resource block model (1722).
2. Mined is ore control routing from production block model.

### 14.3 Gil Mineral Resource Estimate

Kinross Technical Services (KTS) prepared the Gil resource estimate using Vulcan software to construct the geological solids, prepare assay data for geostatistical analysis, construct the block model, estimate metal grades, and tabulate mineral resources. Snowden Supervisor software was used to confirm search distances and orientations based on variography.

#### 14.3.1 Database

The Gil database is maintained in Microsoft Access software and .csv files were exported by FGMI Exploration staff and supplied to KTS for the collar, survey, assay, geology, and density tables.

Drillhole spacing at Gil is quite variable by area and lithology, but tends to be most clustered where the high gold grades are located. In general, Gil has the closest spaced drilling and Sourdough has the widest spacing drilling. The units Amph, BCQMSc, and IFS have closer spaced drilling (see Table 14-15 for lithological codes).

There are 47,936 assayed intervals totalling 73,105 m in the database used for estimation, including 39,268 assays greater than 0.00 g/t Au totalling 59,877 m. After intervals or holes were rejected by FGMI's technical staff, based upon sample recovery, potential contamination notes in the drill logs, water in the hole, and/or visual comparison of assay results from hole to surrounding holes, the total number of assay greater than 0.00 g/t Au is 39,033.

In addition to holes rejected by site staff, a contamination review was completed by KTS using SGeMS software utilities. These utilities look for bias between RC and core



drillholes, downhole decay contamination in RC holes, and cyclicity contamination in RC holes. No holes were rejected from estimation after this review.

**Table 14-15: Gil-Sourdough Lithological Codes.**

Rock-Type	Description	Code
OB	Overburden	900
Dio	Diorite	800
Amph	Amphibolite	700
MRBL	Marble	600
BCQMSc	Biotite-chlorite-quartz-mica schist	500
IFSc	Interlayered felsic schist	400
AQMSc	Actinolite-quartz-mica schist	300
Qte	Quartzite	200
QMS	Quartz-mica schist	100

### 14.3.2 Density Data

The descriptive statistics for density are based on raw data by lithology. Each lithological unit has a defined density (Table 14-6). Density measurements are conducted on pieces of skeletonized core, noting depth, lithology type, and oxidation state by using the water displacement (Archimedes) method. Typically, readings are taken every 30.5 m (100 ft) down hole. Samples are fully dried prior to weight in air readings and porous samples are shellacked as needed.

**Table 14-16: Gil Specific Gravity by Domain.**

	OB <sup>1</sup>	AMPH	AQMS	BCQMS	DIO	IFS	MRBL	QMS	Qte
No. Samples	0	17	49	339	20	9	30	406	70
Min		2.6915	2.3948	1.5237	2.3036	2.3197	1.9732	1.3589	1.6414
Max		3.1036	3.1809	3.3985	2.7477	2.558	2.959	3.3388	2.7685
Mean g/cc	1.73	2.90	2.66	2.69	2.61	2.47	2.62	2.62	2.58
Mean st/cf	0.054	0.091	0.083	0.084	0.082	0.077	0.082	0.082	0.080

<sup>1</sup> Specific gravity provided by FGMI

### 14.3.3 Exploratory Data Analysis

Raw drillhole data were loaded into Maptek’s Vulcan 3D modelling software and desurveyed, exported as .csv files and loaded into Snowden’s Supervisor geostatistical software for preliminary exploratory data analysis (EDA).

After preliminary EDA by logged lithology codes, it was determined that interpreted lithology codes would be the most suitable to use.

### 14.3.4 Capping Strategy

Raw assay capping analysis was performed by domain in Supervisor. Final capping values were based on probability plots and capping statistics (Table 14-17). Most of the lithology units (domains) appear to be single distributions with the exception of the IFSc. The IFSc wireframe was built by including other lithology units in areas with minor amounts of IFSc, and this contributed to a bi-modal distribution. KTS determined that it was not possible to spatially separate the populations at this time. The OB, MRBL, and Dio plots were very rough due to a limited number of samples and/or mixing of lithology. KTS based the capping values on inflections in the log-probability plots at, or around the 99<sup>th</sup> percentile. The capping strategy reduced the metal content by 8%.

**Table 14-17: Gil Au Capping Analysis.**

Domain	Number of Samples	Cap level (g/t)	Number of Capped	% Capped	Grade (g/t)	Grade Capped (g/t)	Metal Removed
OB	695	No cap			0.213		
Dio	117	No cap			0.021		
MRBL	270	3.43	2	0.74%	0.295	0.185	37.2%
BCQMS-Amph	11,570	12.00	34	0.29%	0.501	0.480	4.1%
IFS	601	6.86	2	0.33%	0.425	0.415	2.4%
AQMS	3,037	5.14	12	0.40%	0.182	0.165	9.4%
Qte	1,904	6.51	5	0.26%	0.141	0.117	17.1%
QMS	28,195	5.14	88	0.31%	0.147	0.127	14.0%
<b>Total of Capped</b>	<b>45,577</b>	<b>Variable</b>	<b>143</b>	<b>0.31%</b>	<b>0.247</b>	<b>0.226</b>	<b>8.2%</b>

### 14.3.5 Compositing

A 3.05 m (10 ft) composite length was chosen due to the narrow dimensions of the mineralized domains in some areas. Composites were broken at domain contacts down the hole. Since most of the sampling at the project was done on 1.52 m (5 ft) lengths, the resulting composites were either 3.05 m (10 ft) or 1.52 m (5 ft) in length. Scatter plots

of length vs grade were created and KTS determined that there was no grade bias by length.

Descriptive statistics by domain for the composite database for uncapped data, capped data (Table 14-18) and capped and declustered data (Table 14-19) were determined.

**Table 14-18: Gil Uncapped and Capped Au Composite Statistics by Domain<sup>1</sup>.**

Domain	No. of Samples	Uncapped				Capped				
		Min (all)	Au (g/t)	SD	CV	Max (g/t)	Au (g/t)	SD	CV	Max (g/t)
BCQMS-Amph	6,170	0.0000	0.535	1.337	2.47	26.67	0.51	1.06	2.08	12.00
AQMS	1,605	0.0000	0.189	0.651	3.38	12.55	0.17	0.45	2.52	5.14
QMS	14,489	0.0000	0.154	0.720	4.76	41.38	0.13	0.38	2.9	5.14
Dio	64	0.0000	0.024	0.034	2.5	0.34	0.00	0.00		0.00
IFS	326	0.0000	0.483	1.406	2.89	22.66	0.43	0.69	1.6	6.86
MRBL	141	0.0000	0.309	1.440	4.72	16.63	0.20	0.45	2.26	2.78
OB	521	0.0000	0.213	1.029	4.77	21.09	0.00	0.00		0.00
Qte	1,039	0.0000	0.141	0.754	5.31	17.97	0.12	0.45	3.61	6.41

<sup>1</sup> Since both the OB and Dio were not estimated in the block model, only the uncapped statistics are provided.

**Table 14-19: Gil Capped and Declustered Au Statistics by Domain<sup>1</sup>.**

Domain	No. of Samples	Capped and Declustered				
		Min (all)	Au (g/t)	SD	CV	Max (g/t)
BCQMS-Amph	6,170	0.0000	0.456	0.960	2.07	12.00
AQMS	1,605	0.0000	0.165	0.411	2.57	5.14
QMS	14,489	0.0000	0.123	0.343	2.89	5.14
Dio	64	0.0000				0.00
IFS	326	0.0000	0.350	0.549	1.61	6.86
MRBL	141	0.0000	0.247	0.514	2.11	2.78
OB	521	0.0000				0.00
Qte	1,039	0.0000	0.110	0.343	3.18	6.41

<sup>1</sup> Since both the OB and Dio were not estimated in the block model, only the uncapped statistics are provided.

### 14.3.6 Variography

Variogram models by domain were calculated in Snowden Supervisor. Variograms were normal score transformed and then back-transformed for estimation. There are 23 domains (by lithology, by area) in all. No estimate was performed for domains OB, Dio\_1, or Dio\_3. Domain combinations were: Amph\_1 with BCQMS\_1-1, Amph\_3 with BCQMS\_3, Qte\_1 with QMS\_1, and Qte\_2 with QMS\_2. Only 11 of the remaining 16

domains had enough data to produce reasonable variograms (parameters in Table 14-20).

The resultant ellipsoids for each domain were loaded into Vulcan for visual validation that the size, shape, and orientation was geologically reasonable. For domains where variograms could not be created, a best fit search ellipsoid was created and visualized in the same manner.

**Table 14-20: Gil Variography Parameters.**

C0					Structure 1			Structure 2				
	Nugget	about Z	about Y'	about X'	C1 Diff Sill	VULCAN Ellipse Range			C2 Diff Sill	VULCAN Ellipse Range		
						X'	Y'	Z'		X'	Y'	Z'
AQMS_1	0.44	50	-60	-90	0.36	134	243	87	0.20	204	299	118
AQMS_2	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
AQMS_3-1	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
AQMS_3-2	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
BCQMS- Amph_1-1	0.37	127	39	8	0.36	73	82	73	0.27	370	194	127
BCQMS_1-2	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
BCQMS_2-1	0.45	90	0	60	0.38	189	157	110	0.17	339	204	174
BCQMS_2-2	0.40	70	20	-90	0.31	317	102	20	0.29	399	221	48
BCQMS- Amph_3	0.45	140	70	90	0.22	126	104	137	0.33	306	239	151
BCQMS_4	0.21	330	-25	0	0.51	321	157	34	0.28	377	269	61
IFS_2	0.31	5	0	-10	0.20	135	96	11	0.49	365	192	73
MRBL_4	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
QMS_1- Qte_1	0.49	120	0	75	0.37	97	208	127	0.14	197	249	220
QMS_2- Qte_2	0.51	75	0	80	0.27	232	20	175	0.22	285	112	198
QMS_3	0.38	130	-50	180	0.34	82	67	116	0.28	215	207	156
QMS_4	0.49	30	0	70	0.23	139	216	141	0.28	299	340	333

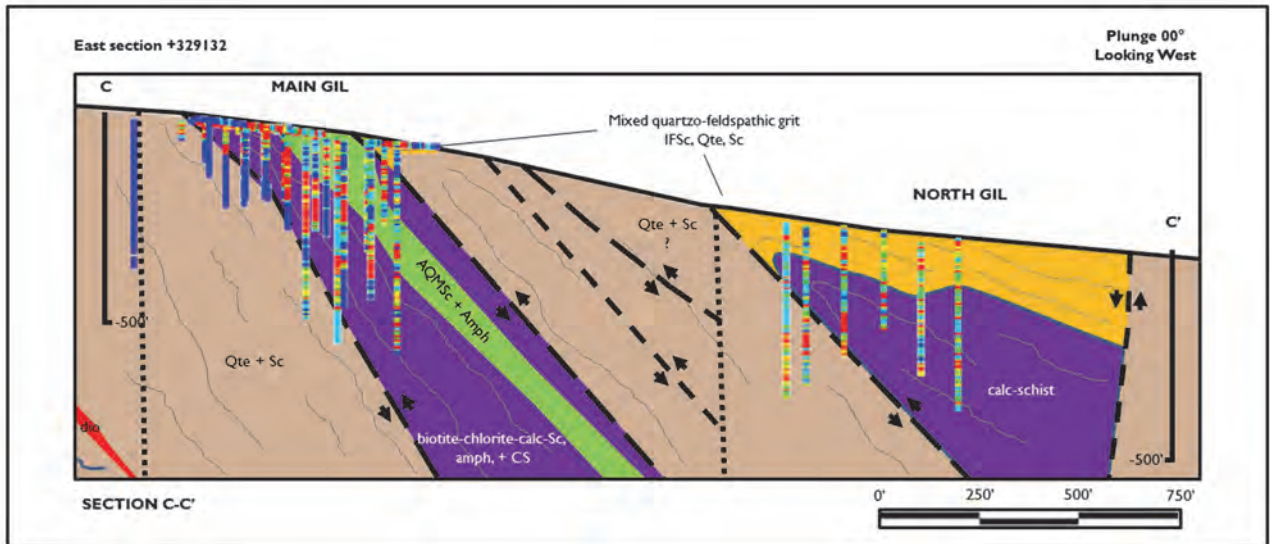
### 14.3.7 Domains

Lithological domains were created (Table 14-16, Table 14-21) with the default lithological unit as QMS. In areas where BCQMSc is folded with AQMSc, the AQMSc shape will overlap and priority coding is used for back-flagging composites and the block model. Figure 14-5 shows a type section through Gil and North Gil.

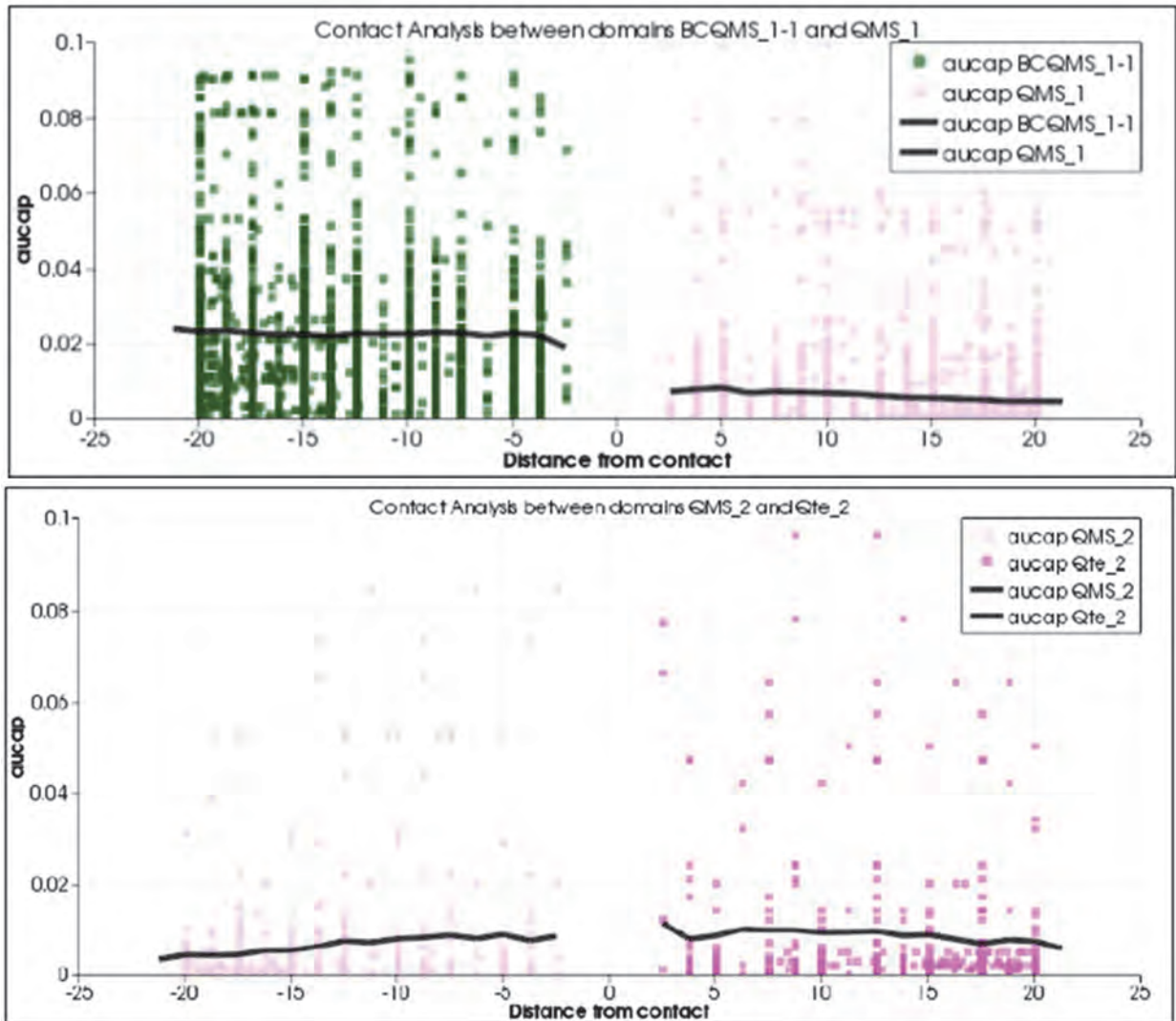
The domains were built using sectional polygons on 15.2 m (50 ft) or 30.5 m (100 ft) centres oriented at an azimuth of 320°, with the exception of the IFSc which was modelled on sections running north-south. Drillholes were snapped to where possible. Overburden was modelled as a surface from both points down the hole and points that maintained a relative distance down the hole where no drilling existed. The oxidation surface was updated with current logging information.

Box and Whisker plots were used to determine if any of the lithological domains could be combined for estimation. The BCQMSc and Amph both have high grade assays, but there is very little Amph modelled so the two were combined for estimation, but not for density coding. Additionally, Qte has a similar grade distribution to the QMS so the two were combined for estimation. The other units either had significantly different grades and/or the shape orientations differed, so they were kept separate.

Contact analysis was completed between most of the domains (examples in Figure 14-6). In general, the domains were treated as hard boundaries due to the difference in lithologies and/or grade in the domains, with some exceptions treated as soft boundaries (Table 14-21) defined as the domain listed being able to use samples from the domains specified as 'soft'.



**Figure 14-5: Gil and North Gil Section View Showing Domains. Location of section C'-C is shown in Figure 7.3. N.B. Scale is in feet.**



**Figure 14-6: Gil Contact Plot Analysis. Showing an example of a hard (BCQMS\_1:QMS\_1) and a soft boundary (QMS 2:QTE 2). N.B. Scale is in feet and Au grade is in opt.**

**Table 14-21: Gil Estimation Domains and Contact Relationships.**

Domain	Code	Boundary with other domains (hard if not specified)		
		Combined domains	Soft Boundary <sup>1</sup>	Soft Boundary for 3 m
QMS_1	110	-	120, 210	331, 332, 420
QMS_2	120	-	110, 220	331, 332, 420
QMS_3	130	-	-	-
QMS_4	140	-	-	-
Qte_1	210	-	110	-
Qte_2	220	-	120	-
AQMS_1	310	-	-	-
AQMS_3-1	331	-	332	110, 120
AQMS_3-2	332	-	331	110, 120
IFSc_1	410	-	-	-
IFSc_2	420	-	-	110, 120
BCQMS_1-1	511	530	-	-
BCQMS_1-2	512	-	-	-
BCQMS_2-1	521	-	-	-
BCQMS_2-2	522	-	-	-
BCQMS_3	530	511	-	-
BCQMS_4	540	-	600	-
MRBL	600	-	540	-
Amph_1	710	-	-	-
Amph_3	730	-	-	-
Dio_1	810	-	-	-
Dio_3	830	-	-	-
OB	900	-	-	-

<sup>1</sup> Defined as the domain listed being able to use samples from the domains specified under 'soft boundary' column.

### 14.3.8 Estimation Methodology

The 0214 block model and resource estimation were built using Vulcan software version 8.2.1 and finalized in February 2014. There were multiple iterations changing search ranges, number of samples, and the inclusion/exclusion of holes. The final model was estimated in Vulcan, exported to a .csv file, and loading into MineSight for resource evaluation. Table 14-22 details the block model origin and extents.



**Table 14-22: Gil 2014 Block Model Origin and Extents.**

	<b>Origin</b>	<b>Block Size (m)</b>	<b>Block Size (ft)</b>	<b>No. of Blocks</b>	<b>Block Offsets</b>
Easting	325,000	6.1	20	550	11,000
Northing	4,028,000	6.1	20	350	7,000
Elevation	0.0	6.1	20	104	2,080

The block model variable 'domain' was coded as a three-digit integer using modelled 3D solids and priority coding. The 'redox' variable was coded as fresh=3 or oxide=1 based on the oxide surface. Once the block model was constructed, the percent block beneath topo (between 0.0 and 1.0) was coding using the most recent Lidar topography. A script to code 'lith' into the blocks was used and was based on the domain variable and a script to code density (st/cf) into the blocks was used based on the domain variable.

A two pass estimation strategy was applied with the highest confidence blocks estimated in pass 1 and the lower confidence blocks in pass 2. Table 14-23 lists the estimation parameters by domain, by pass. All rotation angles, ranges, and sills represent back-transformed data and are in a format used by Vulcan.

For the 11 domains where variography could be completed, the model was estimated using ordinary kriging (OK). Also, each of these domains has a nearest neighbour (NN) and an Au-uncap estimate for validation purposes. For all domains, there was an ID<sup>2</sup> estimate. If no estimate for NN or Au-uncap were completed during the OK run, they are completed during the ID<sup>2</sup> run. During the estimation, the number of composites, number of holes, nearest distance, average distance, number of octants, and grades are stored in each block if the search restrictions are met. Final gold grade ('Au') in the model is coded from a script where the OK value is used if it exists or else the ID<sup>2</sup> value is used.



**Table 14-23: Gil 2014 Resource Model Variables.**

Domain Name	Domain Code	Vulcan Ellipse Rotation			Vulcan Ellipse Range			Composite Codes Used	Comps Used		Discret	Nugget
		Z	Y'	X'	X'	Y'	Z'		Min	Max		
<b>PASS 1</b>												
AQMS_1	310	50	-60	-90	150	225	80	310	6	20	4x4x4	0.44
AQMS_2	320	270	0	-10	200	150	50	320	3	15	4x4x4	N/A
AQMS_3-1	331	55	0	20	150	100	50	331, 332	6	15	4x4x4	N/A
AQMS_3-2	332	55	0	60	200	150	50	331, 332	6	15	4x4x4	N/A
BQMS-Amph_1	511 710	127	39	8	250	150	80	511, 710	5	12	4x4x4	0.37
BCQMS_1-2	512	55	0	10	200	150	50	512	6	15	4x4x4	N/A
BCQMS_2-1	521	90	0	60	250	125	100	521	6	15	4x4x4	0.45
BCQMS_2-2	522	70	20	-90	200	125	50	522	5	20	4x4x4	0.4
BQMS-Amph_3	530 730	140	70	90	200	150	100		5	20	4x4x4	0.45
BCQMS_4	540	330	-25	0	300	200	50	540, 640	6	20	4x4x4	0.21
IFSc_2	420	5	0	-10	250	150	60	420	6	15	4x4x4	0.31
MRBL_4	640	55	0	60	250	150	70	640	3	15	4x4x4	N/A
QMS_1-Qte_3	110 210	120	0	75	150	200	125	110, 120, 130, 140, 210	6	30	4x4x4	0.49
QMS_2-Qte_2	120 220	75	0	80	250	100	150	110, 120, 130, 140, 210	6	32	4x4x4	0.51
QMS_3	130	130	-50	180	150	150	150	110, 120, 130, 140	6	22	4x4x4	0.38
QMS_4	140	30	0	70	200	225	225	110, 120, 130, 140	6	15	4x4x4	0.49
<b>PASS 2</b>												
AQMS_1	310	50	-60	-90	175	250	100	310	1	20	4x4x4	0.44
AQMS_2	320	270	0	-10	225	175	75	320	1	15	4x4x4	N/A
AQMS_3-1	331	55	0	20	150	100	50	331, 332	1	15	4x4x4	N/A
AQMS_3-2	332	55	0	60	200	150	50	331, 332	1	15	4x4x4	N/A
BQMS-Amph_1	511 710	127	39	8	250	150	80	511, 710	1	12	4x4x4	0.37
BCQMS_1-2	512	55	0	10	200	150	50	512	1	15	4x4x4	N/A
BCQMS_2-1	521	90	0	60	250	150	125	521	1	15	4x4x4	0.45
BCQMS_2-2	522	70	20	-90	200	150	75	522	1	20	4x4x4	0.4
BQMS-Amph_3	530 730	140	70	90	200	150	100	530, 730	1	20	4x4x4	0.45
BCQMS_4	540	330	-25	0	300	200	50	540, 640	1	20	4x4x4	0.21
IFSc_2	420	5	0	-10	250	175	80	420	1	15	4x4x4	0.31
MRBL_4	640	55	0	60	250	150	70	640	1	15	4x4x4	N/A
QMS_1-Qte_3	110 210	120	0	75	175	250	150	110, 120, 130, 140, 210	1	30	4x4x4	0.49
QMS_2-Qte_2	120 220	75	0	80	275	125	175	110, 120, 130, 140, 210	1	32	4x4x4	0.51
QMS_3	130	130	-50	180	200	175	175	110, 120, 130, 140	1	22	4x4x4	0.38
QMS_4	140	30	0	70	250	225	225	110, 120, 130, 140	1	15	4x4x4	0.49

### 14.3.9 Resource Classification

The resource classification scheme used for the Gil resource estimation uses the average exploration drilling grid spacing and number of holes per block to delineate Indicated and Inferred resources, as well as 'Other Mineralization'. Since the project has no mining history and the mineralization style is different from the other Kinross project in the district with a reserve (i.e., Fort Knox), no Measured material has been classified. The 2014 block model was classified considering the following criteria:

- **Indicated** (class 2): Blocks with a valid Au grade estimated from two or more drillholes and a NN distance less than or equal to 36.6 m (120 ft);
- **Inferred** (class 3): Blocks with a valid Au grade and a NN distance less than or equal to 36.6 m (120 ft), or blocks with a valid Au grade and a NN distance less than or equal to 68.6 m (225 ft) and has been estimated by two or more hole; and
- **Other Mineralization** (class 4): Blocks with a valid Au grade (greater than or equal to 0.0 g/t).

The range of 36.6 m (120 ft) for Indicated was chosen based on average of the major axis range for all domains at ~80% of the sill.

### 14.3.10 Resource Validation

The block model was validated using a number of techniques to confirm the assignment of appropriate variables and grade estimation. The validation techniques included:

- visual confirmation of block estimates to inform drilling data on plan and sectional views in Vulcan;
- comparison to discrete Gaussian change of support analysis; and
- creation of swath plots to check for bias (Figure 14-7).

No significant biases or errors were noted.

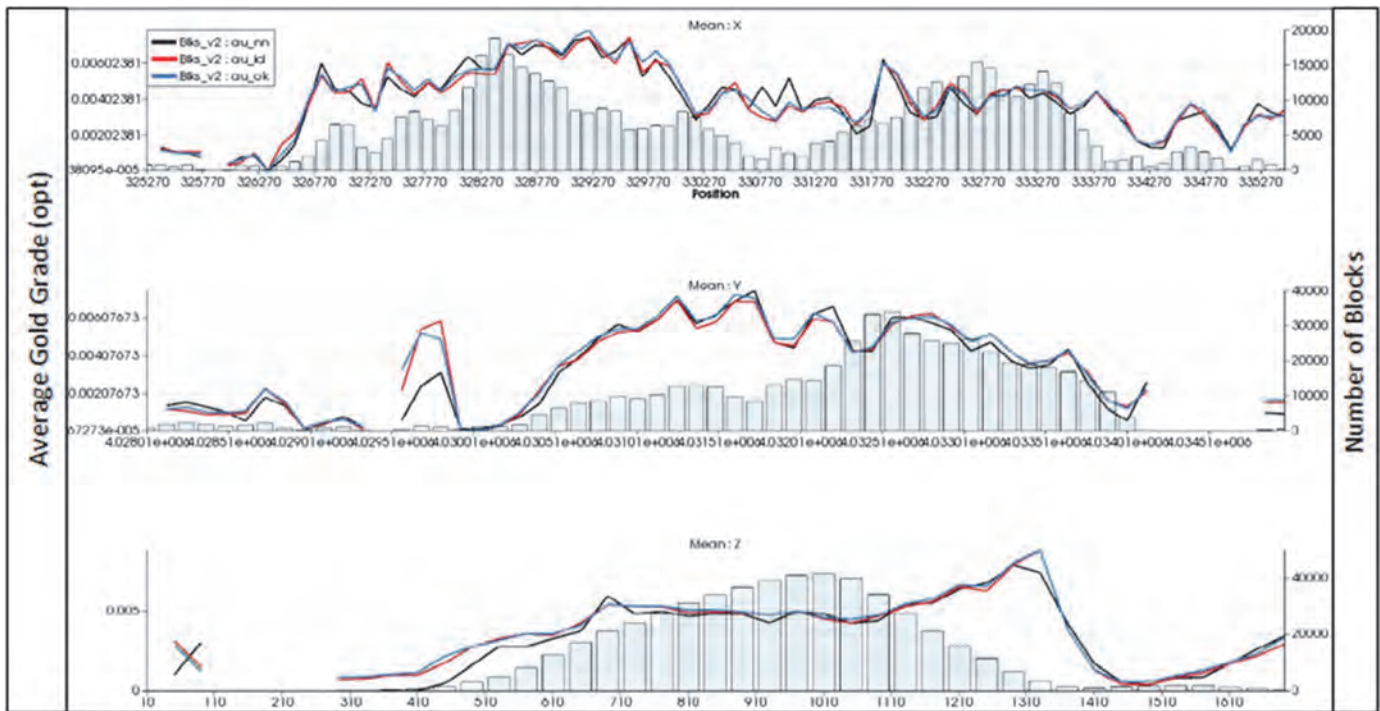


Figure 14-7: Gil Swath Plots by Northing, Easting, and Elevation. N.B. Au grade is in opt.

### 14.3.11 Economic Parameters for Resource Calculation

#### 14.3.11.1 Cutoff Grade

The Resource cutoff grade for Gil of 0.21 g/t gold is derived based on a gold price of US\$1,400/oz and production costs of US\$5.88/t. The cutoff grade derivation is summarized in Table 14-24.

Table 14-24: Gil Resource Cutoff Calculation.

Area	Units	Gil
Gold Price	US\$/oz	1,400
Gold Price	US\$/g	45.01
Recovery (at cutoff grade)	%	70
Effective Revenue	US\$/g	31.51
Less Royalty	US\$/g	-
Less per g Costs	US\$/g	(3.88)
Realized Revenue	US\$/g	27.63
Costs to Produce	US\$/t	5.88
Cutoff (in place)	g/t	0.21
Dilution	%	0
Resource Cutoff Grade	g/t	0.21



#### 14.3.11.2 Pit Shell Parameters

An economic pit shell generated with cost assumptions, metallurgical recoveries, geological and geotechnical considerations was created using MineSight software, which uses the Lerchs-Grossman (LG) algorithm to define blocks that can be mined at a profit. The program then creates an economic shell based on the following information:

- Economic assumptions, including reserve price and consumables;
- Production assumptions (production rate, mining dilution and recovery, and process recovery rates);
- Mining costs;
- Processing costs, including rehandling and process costs;
- Other operating costs (General & Administrative costs, refining/sales costs, royalties, reclamation cost);
- Sustaining capital costs;
- Cutoff grade;
- Average overall slope;
- Starting topography; and
- Geologic grade model with gold grades, density, and lithology



## 15 MINERAL RESERVE ESTIMATE

The Proven and Probable Mineral Reserves as of December 31, 2017 are shown in Table 15-1.

The Mineral Reserves consist of Measured (Proven) and Indicated (Probable) blocks above a cutoff grade of 0.10 g/t gold contained between the December 31, 2017 surface and the ultimate pit design, which in turn was constructed around a Lerchs-Grossmann (LG) pit shell. The Mineral Reserve for the Fort Knox deposit was estimated using the EOY 2017 resource model. Only Measured and Indicated blocks were used to create the LG shell. Inferred blocks are assumed as waste and only waste mining costs were applied in the block valuation. No dilution or mining loss is applied to above cutoff resource estimates.

Stockpiles included in the reserve estimate include higher grade A ore stockpile destined for mill processing, B ore stockpile used for either mill feed or heap leaching depending on the availability of high grade ore for the mill, and C ore low grade stockpile which principally consists of pre-heap leach facility waste rock and is being rehandled to the heap leach facility for processing. The grade of these stockpiles has been estimated based on the historical grade of all granite, as well as stockpile drilling confirmation.

**Table 15-1: Fort Knox Mineral Reserve Estimate Effective December 31, 2017.**

Classification	Tonnes (000's)	Grade (Au g/t)	Ounces (000's)
Proven	51,366	0.39	645
Probable	230,870	0.37	2,729
<b>TOTAL</b>	<b>282,236</b>	<b>0.37</b>	<b>3,374</b>
Reserve Stockpile	5,587	0.29	51

Notes:

1. The above mineral resource estimate is classified in accordance with the Canadian Institute of Mining, Metallurgy and Petroleum's "CIM Definition Standards - For Mineral Resources and Mineral Reserves" incorporated by reference into National Instrument 43-101 "Standards of Disclosure for Mineral Projects".
2. The cutoff grades are based on a gold price of US\$1,200/oz.
3. Proven Reserve includes stockpiles.
4. Mineral Reserves are reported to a cutoff grade of 0.41 g/t Au for A-ore (mill), 0.25 g/t for B-ore (stockpile), and 0.10 g/t for C-ore (leach).
5. The mineral reserve estimates reported in this technical report are different from those reported in Kinross' year-end mineral reserve and resource statement set out in its news release dated February 14, 2018 and its Annual Information Form dated March 31, 2018. The mineral reserve estimate as at December 31, 2017 for Fort Knox has been updated from that previously reported based on the feasibility study work completed during 2018.

### 15.1 Basis of Reserve Estimate and Pit Optimization

Economic pit limits were created using Hexagon MineSight 3-D software. MineSight uses the LG algorithm to define blocks that can be mined at a profit. The program then creates an economic shell based on the following information:

- Starting topography
- Overall slope angles by geotechnical model code
- Metallurgical recoveries by grade and processing destination
- Geologic grade model with gold grades and density
- Process and mining costs
- General and administrative costs
- Incremental vertical bench mining cost
- Downstream costs, such as gold refining, freight and marketing
- Sustaining capital for future equipment replacements

The primary objective of the pit optimization work is to provide the highest possible return from the mineral reserves during the definition of the limits and extraction sequence. An iterative methodology of pit and design optimization incorporates critical economic measures related to impacts on the NPV of the project.

A combination of recent cost data and expected future cost projections are used to generate cost estimates for the pit-limits analysis. The net value for each block was calculated and included in the economic model, based on the costs, gold recoveries and long-term price assumptions. The costs were, in general, split into mining costs (US\$/t), processing costs (US\$/t) and selling/general and administrative costs (US\$/oz) and applied to the economic model. Costs included sustaining capital. The economic model used for evaluating the pit-limits of the Gilmore expansion area only allowed for heap-leach processing financial modelling to be applied, as the CIL mill is not expected to be available at the time of Gilmore pit completion.

The mine operating costs used for pit optimization include major mine equipment capital costs. The mine equipment sustaining capital is used in the economic model to simulate mine capital expenditures when generating the economic pit. An economic shell generated with cost criteria, along with other geotechnical considerations, guides the final pit design.

Mine engineering for the feasibility study began by completing LG runs on the block model using Hexagon MineSight. The LG input parameters are summarized in Table





15-2. The US\$1,200/oz pit shell (hard economic shell) was selected as the final pit shell and used to guide the final pit design.

## 15.2 Comment on Mineral Reserves

In 2014, SRK conducted a review of the resource model to assess the model's suitability for pit optimization, design, and resource estimation, and verification of the mineral reserves. The same party also reviewed the mine planning parameters used in the determination of the mineable resource. SRK concluded that:

- overall, the mineral resource model is a robust and adequate representation of the informing data;
- mineral resource/mineral reserve systems and procedures in place at Fort Knox are adequate and well documented;
- overall good metallurgical performance, operating practices, and control of mill facilities and refinery were demonstrated; and
- that FGMI currently possesses all the permits and authorizations necessary for all facets of the mining, milling, and heap leach operations.

John Sims, AIPG Certified Professional Geologist, has certified that, to the best of his professional judgment as a QP (as defined under NI 43-101), the Mineral Reserve and Resource estimates have been prepared in compliance with NI 43-101, including the CIM Definition Standards incorporated by reference, and conform to generally accepted mining industry practices.

The results of the economic analysis to support Mineral Reserves represent forward-looking information that is subject to a number of known and unknown risks, uncertainties and other factors that may cause actual results to differ materially from those presented here. Areas of uncertainty that may materially affect mineral reserve estimation include:

- Commodity price and exchange rate assumptions;
- Capital and operating cost estimates; and
- Geotechnical slope designs for pit walls.



**Table 15-2: Fort Knox Pit Optimization Parameters.**

Parameter	Unit	Value
Au Reserve Price	US\$/oz	\$1,200
<b>Mining costs</b>		
Base Mining Cost (loading + support + other + sustaining CAPEX)	US\$/t	1.158
Ore Haulage Cost at Reference Bench (1750)	US\$/t	0.650
Incremental Ore Haulage Costs per Bench	US\$/t	0.015
Waste Haulage Cost at Reference Bench (1750)	US\$/t	0.790
Incremental Waste Haulage Costs per Bench	US\$/t	0.008
Drill and Blast >= 2140 bench - 20' x 20' spacing	US\$/t	0.253
Drill and Blast >= 2020 bench - 19' x 19' spacing	US\$/t	0.280
Drill and Blast >= 1690 bench - 18' x 18' spacing	US\$/t	0.312
Drill and Blast >= 1120 bench - 16.5' x 16.5' spacing	US\$/t	0.372
Drill and Blast <= 1090 bench - 15' x 15' spacing	US\$/t	0.450
<b>Processing Costs</b>		
Heap Leach cost (OPEX + CAPEX)	US\$/t ore	0.859
CIL Mill Cost (OPEX + CAPEX)	US\$/t ore	5.715
<b>Other Cost Assumptions</b>		
Tech Services	US\$/oz	12.92
Lab and Refinery Costs	US\$/oz	11.02
G&A Costs	US\$/oz	110.86
Sales Costs/Off-site Refining	US\$/oz	0.90
<b>Metallurgical Recovery</b>		
Heap Leach Maximum Ultimate Recovery	% of Au	$= (Au - (0.2309 * Au + 0.0005)) / Au$
CIL Mill Recovery	% of Au	$Au$ in opt If $Au < 0.0165$ : Rec. % if = $0.0361 * \ln(Au) + 0.9808$ If $0.0307 < Au \leq 0.0165$ : Rec. % = $0.0142 * \ln(Au) + 0.8913$ If $Au \geq 0.0307$ : Rec. % = $-0.02 * \ln(Au) + 0.7729$
<b>Geotechnical Zone Code</b>		
1 Granite	degrees	49
2 Granite	degrees	47
3 Granite	degrees	46
4 Granite	degrees	25
5 Granite	degrees	44
6 Granite	degrees	39
7 Granite	degrees	42
8 Schist	degrees	37
9 Schist	degrees	35
10 Schist	degrees	32
11 Schist	degrees	30
12 Schist	degrees	32
13 Schist	degrees	40
14 Schist	degrees	30
15 Schist	degrees	36
16 Schist	degrees	25
17 Schist	degrees	38
18 Schist	degrees	25
19 Schist	degrees	1°

## 16 MINING METHODS

The Fort Knox Gilmore expansion will be an extension of current operations from 2021 to 2027. The existing operation is a conventional hard-rock open pit using drilling, blasting, loading, hauling and support functions (Figure 16-1). Currently mine operations are moving approximately 63 to 73 million tonnes of material each year, combining productive mining from open pit and rehandle activities. Of this material volume, approximately 13 to 14 million tonnes per year of the best available grade are processed through a CIL mill facility with waste storage in a tailings facility. An additional 9 to 27 million tonnes of lower grade ore are typically processed via heap leach on the Walter Creek heap leach facility. Typical productive mining rates during the Gilmore expansion periods will range from 63 to 75 million tonnes per year.

Mining is currently performed using 9 m (30 ft) benches, which are mined as single benches in schist and in double-bench orientations in granites. Mining rates are determined by calculating the required stripping rate to sustain processing operations over the life of mine plan.

The quantity and type of mining equipment currently at the site was a major component for selecting the mining method for the mine life extension. The current equipment fleet, including necessary equipment retirement replacements, and modest increases in capacity were the basis for costs and productivities used in the economic analysis.

A trade-off study was completed to measure the potential impact of using electric shovels in the Gilmore expansion. No economic benefit was found in switching to electric shovels because the shovel fleet is largely in place, and the large capital costs required for new shovels and supporting infrastructure would not be easily recouped through lower operating costs in the time frame considered. The short bench heights and rapid vertical advance rates employed at Fort Knox are also not seen as being favourable for the use of larger electric shovels.



**Figure 16-1: Excavator and Haul Trucks Working in the Fort Knox Pit.**

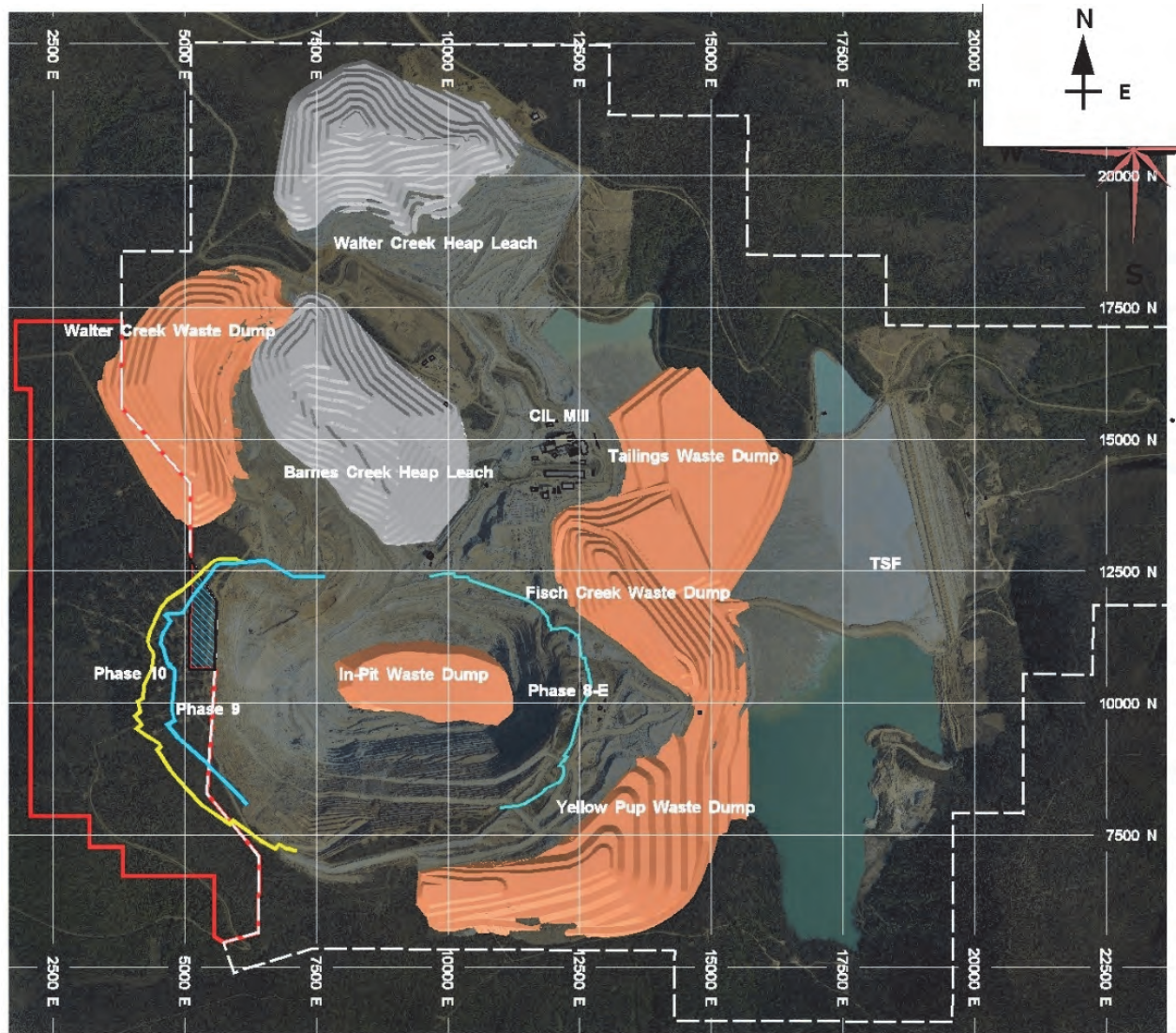
## 16.1 Mine Design and Parameters

The ultimate pit is being mined by phases as shown in Figure 16-2. Figure 16-3 shows a cross section with the pre- and post-Gilmore reserve pits. The basis for the final pit design is the economic LG shell generated using MineSight software as described in Section 15. The resulting optimized economic shell does not include access ramps and is not restricted by equipment mining limitations. The final pit design includes these considerations while maintaining as much of the LG shape as is feasible. The mine design is based on key considerations that include:

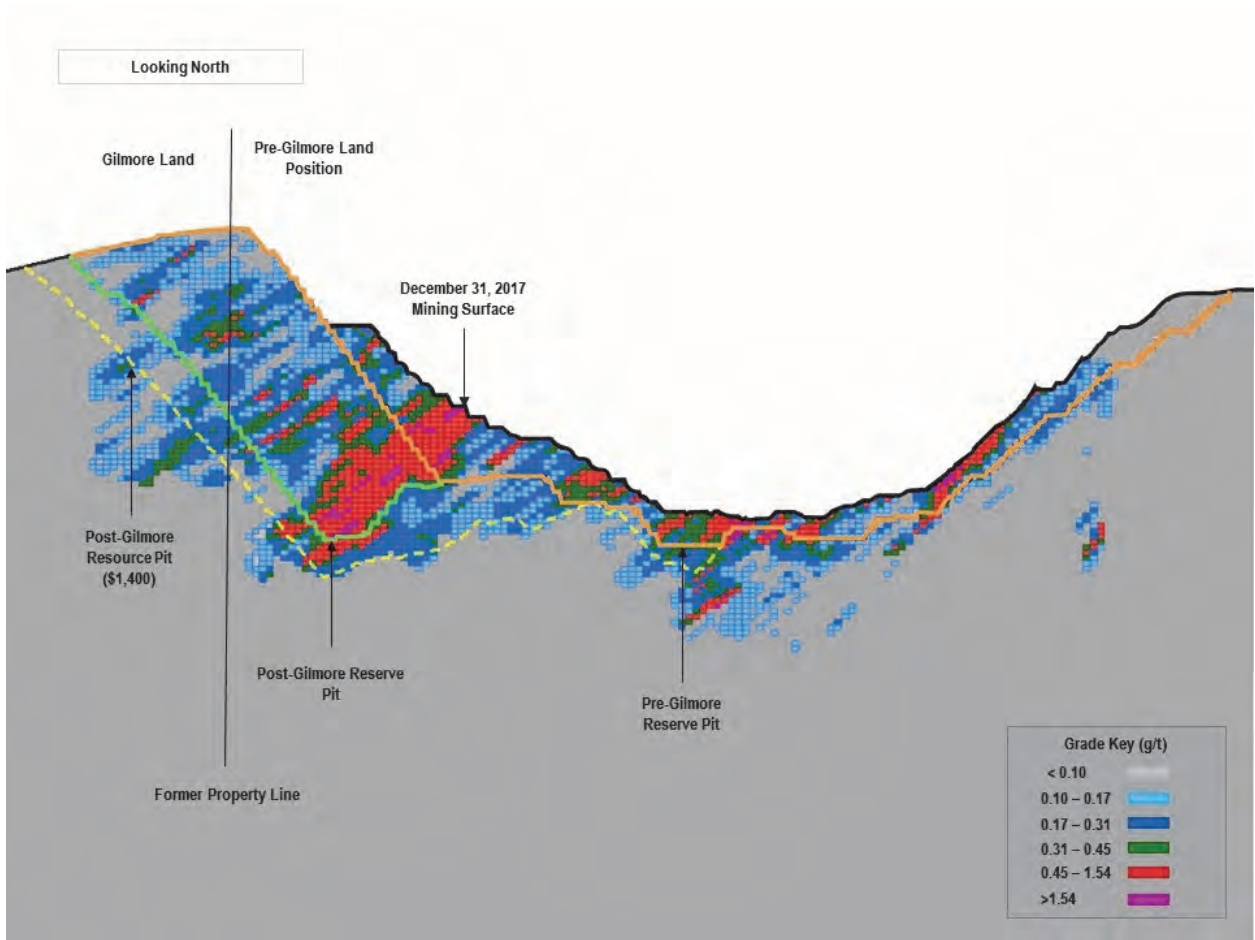
- Compliance with the geotechnical recommendations for slope angle set out by the geotechnical studies;
- Minimum allowable mining width (for any substantial sustained distance) of 36.6 m (120 ft) for practical mining with the existing shovel fleet;
- Haul road access with two lane widths and a maximum effective grade of 10.5% for operation with the existing fleet;



- Bench height that is safely manageable with the existing fleet of Hitachi 5500 excavators without substantial support equipment requirements;
- Pit exits that are close to material destinations, the stockpiles, waste destinations and the primary crusher location.



**Figure 16-2: Fort Knox Mine Phases, Final Pit Design and Site Layout.**

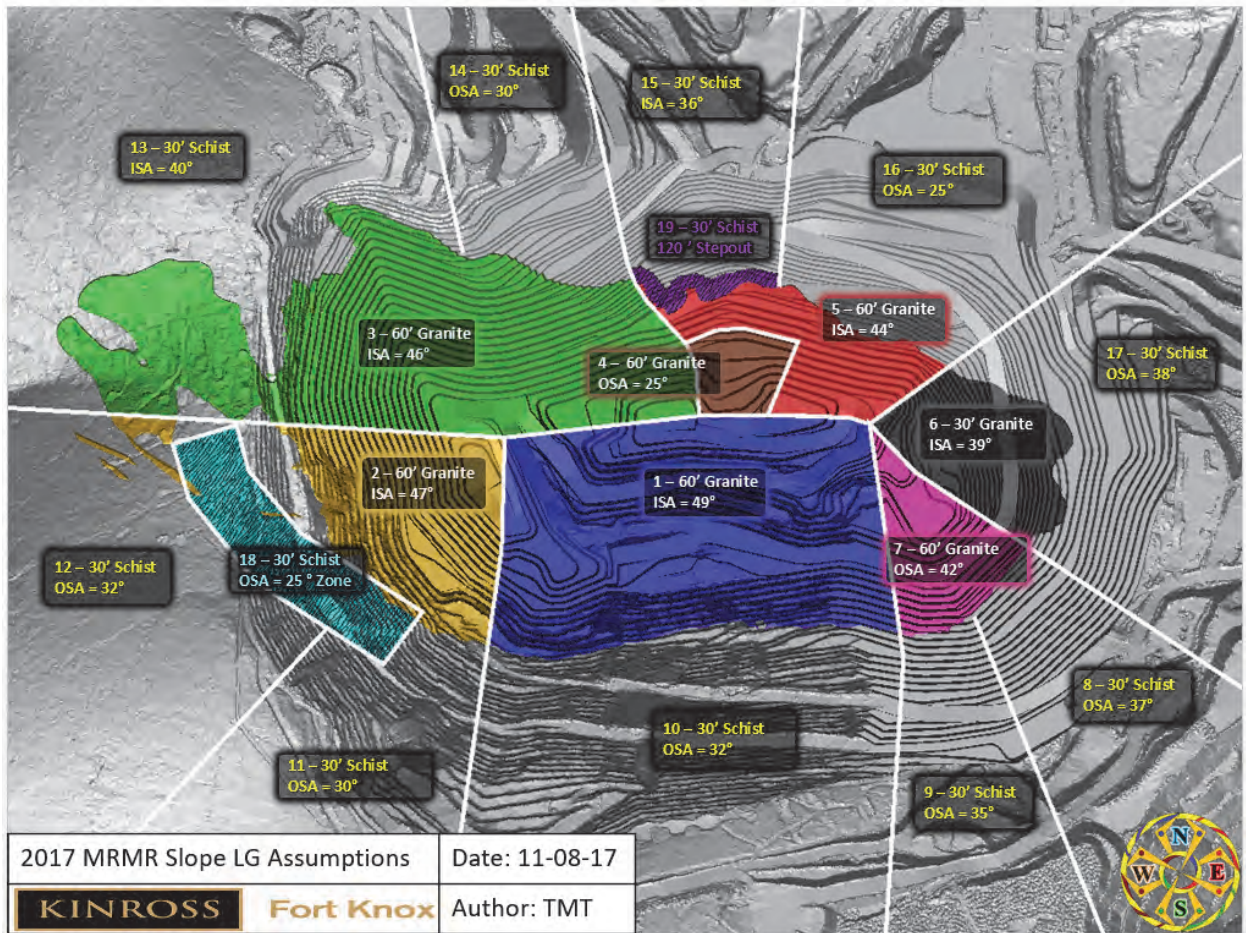


**Figure 16-3: Cross section of Fort Knox as of December 31, 2017, showing the current mining surface (black), the pre-Gilmore reserve pit (orange), post-Gilmore reserve pit (green) and post-Gilmore resource pit (yellow)**

### 16.1.1 Geotechnical Considerations

The pit slope angles used in the pit optimization and design (Table 15-2) are based on annual, independent geotechnical reviews by Call & Nicholas, Inc. Overall slope angles and other design parameters vary by sector, as shown in Figure 16-4.





**Figure 16-4: Fort Knox Geotechnical Slope Sectors.**

### 16.1.2 Hydrogeology

Many northwest-striking structures crosscut the pit and limit lateral hydraulic communication. Therefore, effective pit dewatering requires several pumping well locations to provide sufficient dewatering of the structural compartments. Effective drawdown depends on the ability to install wells that intersect localized higher transmissivity structures. The hydrogeology in the Gilmore footprint is well understood, but very complex.

A significant amount of hydrogeologic data have been collected in the Fort Knox West Wall and Gilmore areas, including: 1) hydrogeologic data collection from over 100 boreholes, 2) hydraulic testing of more than 60 boreholes, 3) groundwater elevation and pressure measurements in over 100 locations, 4) observations of long-term groundwater





response to over 20 dewatering wells, and 5) observations of groundwater response to Phase 7 and Phase 8 mining.

As with past mining phases, a significant general dewatering program will be required to reduce groundwater levels in the mining area and intercept groundwater inflows to active working benches. Groundwater levels in the Gilmore area are currently near surface and require over 150 m of drawdown for each mining phase.

## 16.2 Production Rates and Life-of-Mine

The Fort Knox mine operates 24 hours per day, 365 days per year. The current life-of-mine (LOM) production schedule is summarized in Figure 16-5 and Table 16-1. The LOM plan is an extension of the current Fort Knox mine life, which was planned for completion in 2021 with the end of the Phase 8 East mining phase. Two new pushbacks have been designed and scheduled for the Gilmore expansion area: Phase 9 and Phase 10. Phase 9 contains approximately 156 million tonnes of ore and waste, while Phase 10 contains approximately 230 million tonnes of ore and waste, for a total 386 million tonnes of additional mining.

Initial mining of Gilmore is planned for 2019 as surplus mining equipment capacity is released from the Phase 8 East mining areas. Mining rates increase significantly in 2021 and 2022 as tonnages mined from Phase 8 East decrease. The mining of ore from Phase 9 roughly corresponds to the commissioning of the new Barnes Creek heap leach facility, which is the planned processing destination for the majority of the ore mined from both Phase 9 and 10. Phase 9 contains significant quantities of ore at shallow depths (Figure 16-6). Some ore mined from Phase 9 in 2019 through 2021 will be processed at the Walter Creek heap leach facility as sufficient capacity would not yet be available at Barnes Creek. Mining of Phase 9 is planned for completion in 2024.

Phase 10 mining is planned to start in 2022 when space and vertical advance constraints restrict the development of the Phase 9 pushback. Phase 10 contains little ore in its higher elevations and will not generate significant ore tonnages until 2025. Phase 10 will be completed in 2027, which represents the end of the extended mine life.

The mill CIL processing facility is planned for closure in 2020, after which Fort Knox will become a 100% heap leaching operation. In post mill closure stage, it is planned that all ore materials will be directly processed without the use of stockpiles. All existing ore stockpiles at Fort Knox are scheduled for placement on the leaching facilities before the completion of mining, and as such there is no planned period of stockpile processing at the end of the mine life.

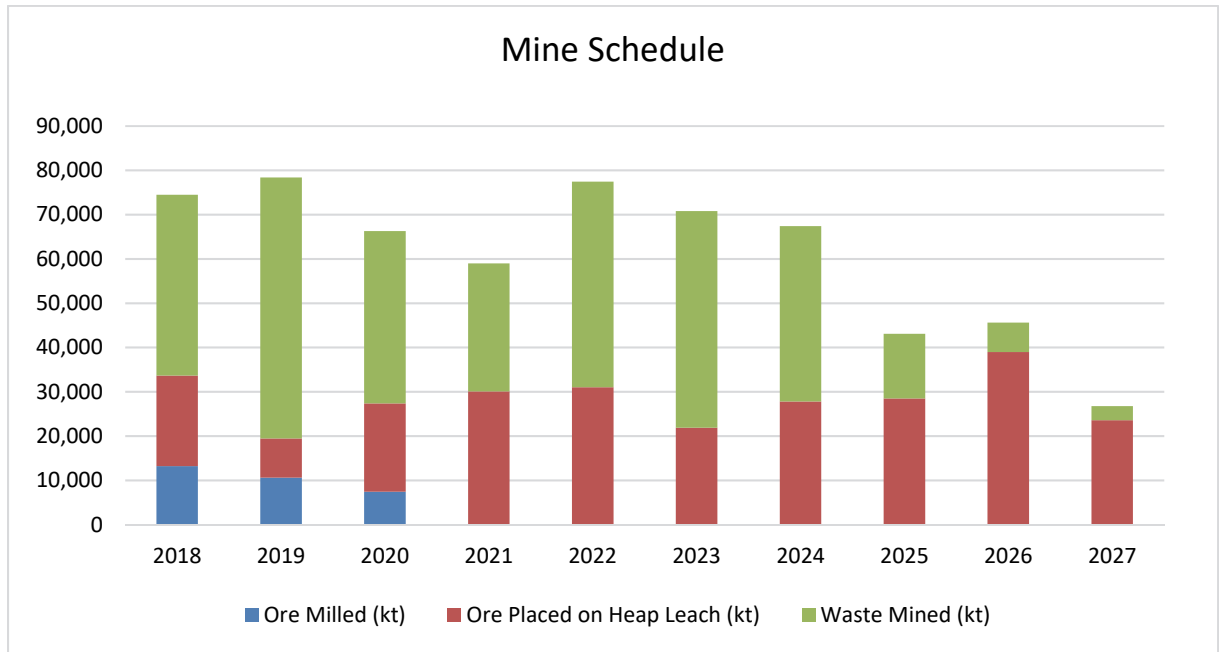


Figure 16-5: Fort Knox Life of Mine Mining and Processing Schedule.

Table 16-1: Fort Knox Life of Mine Plan Production Schedule in Metric Tonnes

Item	Total	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
Total Mined from Pit (k tonne)	603,677	71,282	78,817	64,515	58,099	77,450	70,794	67,388	43,100	45,630	26,601			
Waste (k tonne)	327,028	40,866	58,921	38,924	28,912	46,436	48,932	39,594	14,629	6,652	3,162			
Mined to Stockpile (k tonne)	5,049	2,713	2,336											
Mine to Mill (k tonne)	26,487	10,671	8,996	6,820										
Mine to Leach (k tonne)	245,113	17,032	8,564	18,772	29,187	31,013	21,862	27,794	28,471	38,978	23,439			
Stockpile to Mill (k tonne)	4,728	2,540	1,595	593										
Stockpile to Leach (k tonne)	5,908	3,395	315	1,166	890						141			
Total Mill Feed (k tonne)	31,215	13,212	10,591	7,413										
Total Leach Feed (k tonne)	251,021	20,427	8,879	19,938	30,078	31,013	21,862	27,794	28,471	38,978	23,580			
Contained Au (koz)	3,374	366	290	359	362	260	202	394	374	431	336	0	0	0
Recovered Au (koz)	2,674	312	284	263	274	206	159	215	240	242	240	147	62	30

Notes:

1. Only includes overall increase to stockpile amounts for the year. Does not include strategic stockpiles placed and retrieved within the same year.
2. Current plans have the mill closing at the end of 2020.
3. Contained metal in material sent to process during the year.

4. Heap leach processing will continue after material placement is complete to recover residual Au ounces; this will continue until ounces recovered no longer cover the cost of operating the pad.
5. At the time of publication of this Technical Report, near term mine planning is under review to mitigate the effects of a pit wall failure that occurred in March 2018. While the failure may have some impact on the near-term production schedule, it is not expected that there will be any life of mine production impact.

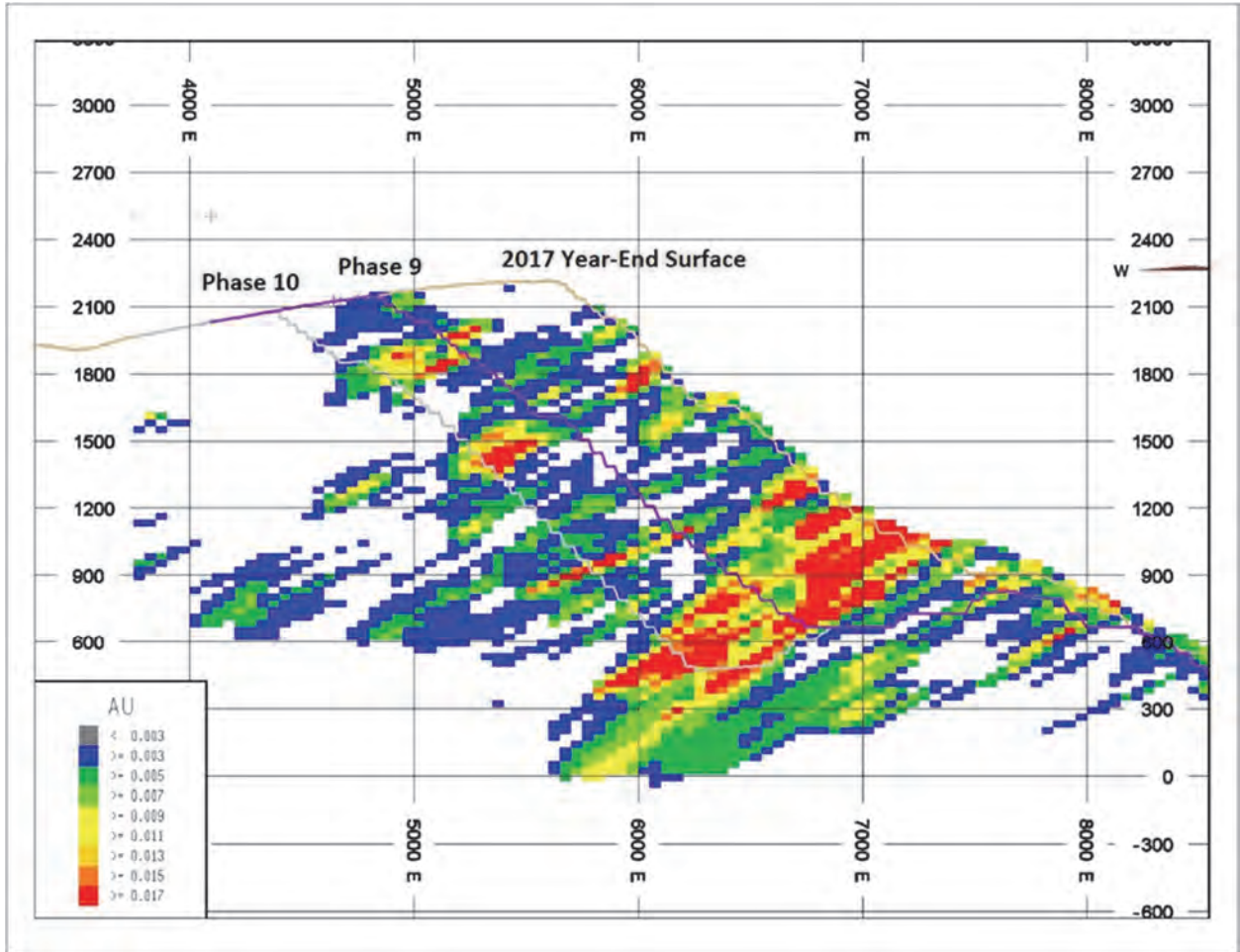


Figure 16-6: Gilmore pushbacks on Section 10,500' N (section looking north).

### 16.3 Stripping Requirements

The ultimate pit contains 327 Mt of waste rock yielding a pit strip ratio of 1.18:1 (waste:ore).



## 16.4 Mine Equipment

Life of mine major mining equipment projections are summarized in Table 16-2. Most of the equipment is equipped with GPS tracking units. A dispatch system is used for production reporting.

**Table 16-2: Projected Primary Mining Fleet Composition.**

Year	HIT EX5500	HIT EX3600	HIT EX8000	CAT 994	CAT 789	CAT 793
2018	3	1		2	9	25
2019	3	1		2	9	25
2020	3			2	6	25
2021	2		1	2	4	25
2022	2		1	2		27
2023	2		1	2		27
2024	2		1	1		28
2025	1		1	1		24
2026	1		1	1		22
2027	1		1	1		22

## 16.5 Personnel Requirements

Fort Knox employs roughly 600 employees. Fort Knox operates two shifts, 24 hours per day, 365 days per year.



## 17 RECOVERY METHODS

Fort Knox currently operates two ore processing lines: a mill operation consisting of crushing, grinding, agitated cyanide leaching, and a carbon-in-pulp (CIP) circuit; and a run-of-mine valley-fill cyanide heap leaching operation where gold is recovered using two parallel carbon-in-column (CIC) circuits. Gold is recovered from solution by electrowinning and poured into doré bars at the mill refinery. A simplified block flow diagram of the existing process at Fort Knox is shown in Figure 17-1.

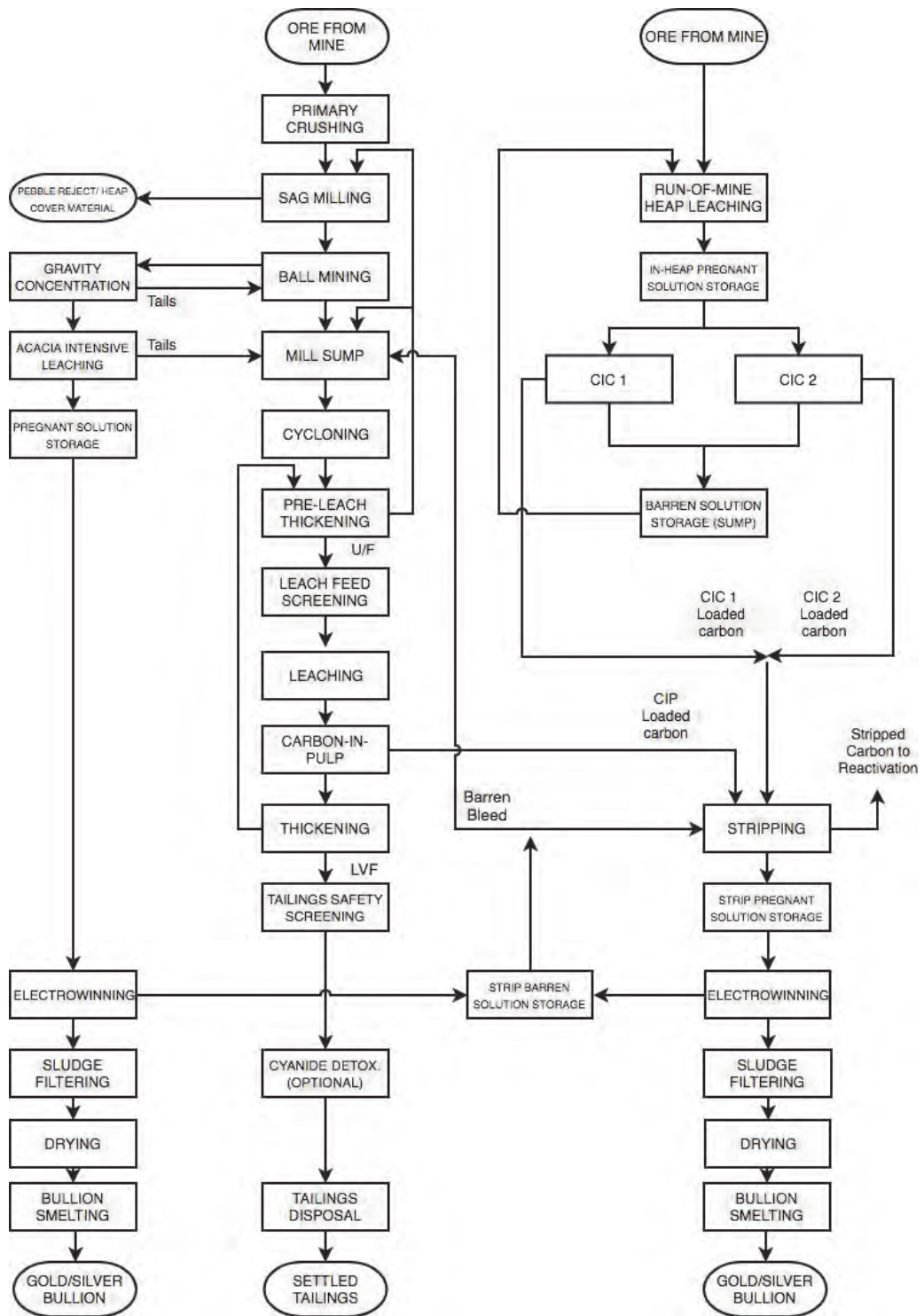
The Fort Knox mill facility (Figure 17-2) was constructed in 1995, the first doré produced in December 1996 and commercial production achieved in March 1997. It is planned to cease operation in late 2020 due to the tailings storage facility (TSF) capacity limitation. Thereafter, ore will be placed on BCHL, regardless of feed grade, until the end of mine life.

### 17.1 Milling Methods and Capacity

Higher grade ore from the Fort Knox mine is processed in the CIP mill located near the Fort Knox open pit. The mill processes ore 24 hours per day, 365 days per year at a nominal capacity of 36,287 t/d (40,000 stpd) of fresh feed. The ore is free milling and has a single style of mineralization, yielding consistent recovery which is related to mill feed grade. In recent years, typical recovery has been in the range of 81% to 83%.

The mill includes a primary crusher, a conventional semi-autogenous mill and two ball mills operating in closed-circuit with hydrocyclones to control grind size, gravity concentrators to recover coarse gold, cyanide tank leaching, recovery of gold on activated carbon in the CIP circuit, and a carbon elution and carbon regeneration circuit.

Mill feed is first crushed to minus 20 cm (8 inch) in the open-circuit primary gyratory crusher located near the Fort Knox pit. The crusher is a 1.52x2.59 m (60x102 in) model with a 700 hp motor and is rated to a nominal capacity of 65,317 t/d (72,000 stpd). The crusher product is transferred 800 m using a conveyor belt to a mill feed coarse ore stockpile with capacity for approximately 272,000 t (300,000 st).



**Figure 17-1: Fort Knox Plant Simplified Process Flow Sheet.**

Three reclaim feeders transfer the coarse ore from the stockpile onto a conveyor belt that feeds a semi-autogenous grinding (SAG) mill with dimensions of 10.4x4.6 m (34x15.25 ft) and powered by two 7,000 hp motors. A vibrating screen (one operating, one standby) classifies the SAG discharge stream. The screen oversize stream (pebbles) is conveyed to a 2.13 m (7 ft) short head cone crusher with a 500 hp motor. Crushed pebbles are usually stockpiled and later hauled by trucks to the dump leach. A system of conveyor belts allows the alternative recirculation of the crushed pebbles to the SAG mill, or to bypass the cone crusher and discharge them directly on the stockpile that transfer material to the dump leach. The SAG screen passing discharge stream feeds the secondary grinding stage.

The secondary grinding stage operates with two parallel grinding lines, each line consisting of one ball mill with dimensions 6.1x9.1 m (20x30 ft) powered by a 7,000 hp motor, and operating in closed-circuit with its own hydrocyclone battery.

A fraction of each ball mill discharge stream and of the grinding mill discharge sump are diverted to a coarse gold recovery circuit. The circuit uses Knelson gravity concentrators to produce a gravity concentrate that is leached under high-temperature and high-intensity conditions in an Acacia reactor. Gold is recovered from solution by electrowinning and poured into doré bars at the mill refinery. Tails from the coarse gold recovery circuit are returned to the grinding circuit.

The grinding circuit hydrocyclone overflow stream is passed through four trash screens before it is discharged into a pre-leach thickener and re-slurried with process water. The slurry discharged by the pre-leach thickener is pumped to a seven-stage agitated leaching tanks (94,000 gallons each) where it is contacted with cyanide solution. Slurry from the leach tanks flows to a series of CIP tanks where the dissolved gold is adsorbed onto activated carbon contained in the slurry. Periodically the carbon in each tank is transferred counter-current to the slurry flow until the carbon reaches its maximum gold loading, then it is removed to the gold elution circuit. In the elution circuit, the gold is stripped from carbon using hot, caustic solution, which is then circulated through electrowinning cells to precipitate the gold, and then refined to gold doré bars. After stripping, carbon is reactivated and returned to the CIP circuit. The CIP tails stream passes through a carbon safety screens before being transferred to the detoxification stage. Detoxed tailings are transferred to the tailings storage facility.





**Figure 17-2: Fort Knox Mill Complex Site Plan.**

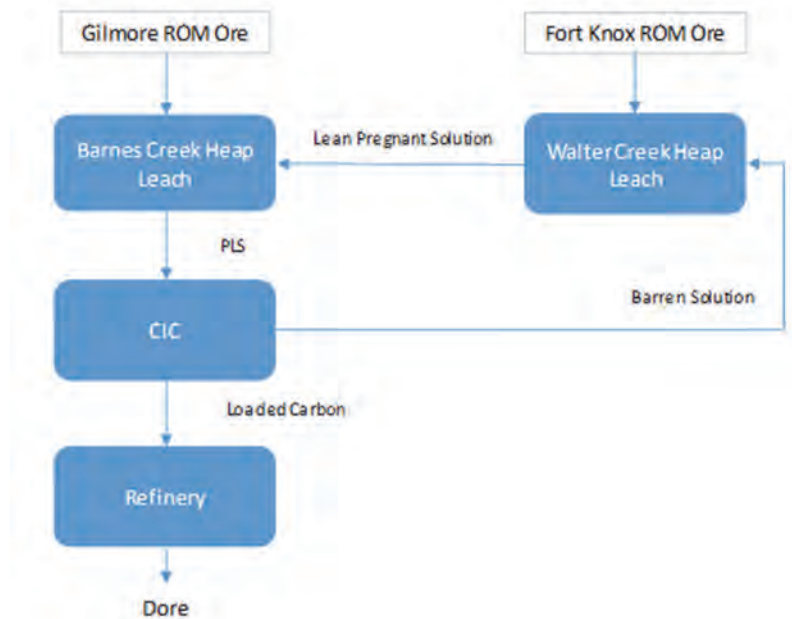
## 17.2 Heap Leach Facilities

Fort Knox currently operates a valley-fill, run-of-mine heap leach, the Walter Creek Heap Leach (WCHL) pad. Material is dumped throughout the year with occasional stops when there is too much snow. However, irrigation of the heap is maintained year-round using buried piping and dripper systems. The heap was created by covering the valley ground surface with an impermeable synthetic liner. Run-of-mine ore from the pit and existing stockpiles is hauled uphill, and with addition of lime, is dumped onto existing leach cells in 15 m (50 ft) lifts. Due to variable cell geometry, the tonnes of ore loaded on each cell can vary significantly and the duration of leaching on each cell may be variable. The newly loaded cell surface is prepared with a bulldozer and then irrigation piping and drippers are used to apply the leaching solution. In the heap leach operation, irrigation of the heap with cyanide solution extracts gold from the ore into solution. The solution is captured within the 416 ML heap reservoir, and is pumped at a fixed rate to the mill to be processed in two parallel carbon-in-column (CIC) circuits with a combined capacity of 61,000 L/m (16,000 gpm).

In the near future, a new heap leach pad, Barnes Creek Heap Leach (BCHL) pad, will be constructed and operated in manner similar to WCHL. The BCHL will be a valley-fill heap leach pad with an in-heap solution storage pond. The BCHL will extend up the valley from the existing Barnes Creek conveyor causeway.

### 17.3 Heap Leach Operations

In the heap leach operation, irrigation of the heap with cyanide solution extracts gold from the ore into solution. The existing Walter Creek Heap Leach (WCHL) leach pad will continue to operate in series with the new Barnes Creek Heap Leach (BCHL) pad (see Figure 16-2 for locations). Barren solution will be pumped to the top of WCHL and the WCHL lean pregnant solution will be pumped to the top of BCHL. The pregnant solution from BCHL will be processed through both existing CIC circuits. The process is generally the same as the current process used at the existing Fort Knox operation. Gold is extracted to activated carbon and periodically stripped. Gold is recovered from the strip solution by electrowinning and refined into doré bars at the mill refinery. Leached tailings would remain on the ROM leach pad after the operation. A high-level block flow diagram is shown in Figure 17-3. The years of stacking onto each pad will be dependent on the mine plan. Especially during ramp up and rinsing periods, flows to the heap leach pads and CICs will be adjusted accordingly.



**Figure 17-3: Block flow diagram for Gilmore Project Processing.**

### 17.4 Power, Water, and Process Material Requirements

#### 17.4.1.1 Electric Power

Near term power consumption is driven primarily by the mill, with the site power forecast ranging from approximately 300,000 MWh per year in 2018 to 200,000 MWh per year in

2020. After mill closure from 2021 onwards, the power requirement will be approximately 80,000 to 90,000 MWh per year, based on heap leach and CIC operations.

#### 17.4.1.2 Water

The extended mine life with Gilmore will use sources of fresh, fire, potable and process water from current operations. Additional water will come from the tailings storage facility (TSF) and will be added as “make up” water in the barren tanks of the CIC plants. Annual water consumption is approximately 5.7 Mm<sup>3</sup>.

#### 17.4.1.3 Cyanide

The cyanide concentration used in the heap leach pads is 0.15 kg/solution tonne (0.3 lb/ton). The initial solution to Walter Creek will have this concentration, and a second addition point between Walter Creek and Barnes Creek will maintain the solution concentration at 0.15 kg/solution tonne. Cyanide is brought to site in a dry form, in approximately 1,000 kg (2,205 lb) crates. These crates arrive in sealed containers and are stored in a dry and secure area that is under surveillance.

Based on historical data, the cyanide consumption is expected to be similar to 2017 levels, averaging 0.033 kg/ solution tonne (0.065 lb/ton). When BCHL is operational, cyanide consumption is expected to increase slightly.

#### 17.4.1.4 Lime

Lime is used in the run-of-mine ore leach system for pH control. The lime specification is 90 to 100% CaOH. The dry lime is delivered by truck and trailer to the mine site and pneumatically transferred into a silo. Lime is fed from the silo into a weigh hopper by a conveyor. The weigh hopper discharges the lime directly into each ore truck hauling ore to the ROM leach pad.

Based on historical data, lime consumption is expected to average 0.33 kg/tonne (0.65 lb/ton).

#### 17.4.1.5 Carbon

Carbon is processed in the carbon strip facility, where loaded carbon is pumped to a loaded carbon holding tank and then to the existing Fort Knox desorption facilities. Barren carbon is regenerated before being pumped back to the last carbon column of the CIC circuits.



Calgon (DG-11 series) carbon is currently used. Future carbon consumption is expected to be similar to 2017 levels, averaging 0.0014 kg of carbon per tonne of solution processed (0.0028 lbs/ton).

#### 17.4.1.6 Antiscalant and Liquid Scale Inhibitor

Antiscalant agents are used to prevent the build-up of scale in the process solution and heap irrigation lines. The antiscalants Chemtreat 2515 and 5105 are used in the heap leach process.

Chemtreat 2515 is pumped directly in the barren solution to mitigate scaling in the barren lines and drip emitters. The 2515 is delivered by tractor-trailer and the rate is approximately 114 L (30 gallons) per day.

Chemtreat 5105 is used during the stripping process to prevent scaling of the heat exchanger plates. The 5105 product is delivered to site in totes and is added at a rate of approximately 38 L (10 gallons) per strip.

## 18 PROJECT INFRASTRUCTURE

### 18.1 Roads and Pipelines

The private Fish Creek Road provides access to the property from the state highway (Figure 5-1, Figure 18-1).

The major pipelines on the site are for dewatering, freshwater, heap leach, decant, and seepage reclaim. Depending on operations, the pipelines have been reconfigured to serve operational requirements. Internal operations and maintenance programs ensure the integrity of all lines.

### 18.2 Dumps, Stockpiles, and Heap Leach

Currently, four waste dumps on surface surrounding the northern and eastern pit rim are planned, along with one in-pit waste dump, which is scheduled for use after the completion of the Phase 8 East pushback (Figure 16-2). Two of the surficial waste dumps are placed on top of portions of the tailings storage facility, and are restricted in the timing of their use by the operation of the CIL Mill and tailings storage facility operations. The current mine schedule generates 327 million tonnes of waste materials. Total storage capacity of the currently designed waste dumps is 425 million tonnes. This excess capacity allows for optimization of haulage requirements by providing options for waste disposal location.

There are three types of stockpiles at Fort Knox:

- An “A” grade ore stockpile adjacent to the mill, which is a high grade stockpile for material with a grade higher than 0.41 g/t Au. This stockpile is used to buffer CIL Mill production during the first three years of the mine schedule. It is expected to be exhausted before mill shutdown and will not be used after that point.
- A “B” grade ore stockpile which grades between 0.25 and 0.41 g/t Au. This stockpile is also used as a back-up source of CIL Mill feed. It is expected that the majority of this stockpile will be milled, and the remainder after mill closure will be rehandled onto the leach pads as equipment availability allows.
- A “C” grade stockpile which primarily consists of historical waste materials that carry sufficient grade to provide economic benefit when leached. These stockpiles are in the footprint of the Barnes Creek heap leach facility, and are scheduled for rehandle as a part of construction.

The Walter Creek heap leach pad is located in the upper end of the Walter Creek drainage, immediately upstream of the tailings storage facility (Figure 18-1). The new Barnes Creek heap leach will be located immediately north of the Fort Knox pit. These facilities can process a total of 263 million tonnes of ore, effective January 1, 2018 (73 million tonnes on Walter Creek, 190 million tonnes on Barnes Creek).

### 18.3 Tailings Disposal

The permitted area of the tailings impoundment encompasses approximately 630 ha (1,556 ac) including areas of tailings material deposition, the tailings embankment 49 ha (121 ac), and the interceptor well system below the embankment. The final placement of tailings material is projected to cover approximately 395 ha (976 ac).

The Tailings Storage Facility (TSF) dam is approximately 1,338 m long and 107 m tall at the crest. It impounds all of the tailings generated by the mill. The TSF and the mill form a closed system for process water. Water used in the mill is pumped from the decant pond and process water that has had the cyanide level reduced to low levels is returned to the decant pond in the tailings slurry.

The original design capacity of the TSF was for approximately 190 million dry tonnes (210 million dry st). With the identification of additional milling reserves, a 16 m (52 ft) modified centreline raise to the original TSF embankment was approved to increase the capacity of the TSF to approximately 271 million dry tonnes (299 million dry st) which accommodates mill production to 2020.

An 8.2 m (27 ft) raise was completed during 2011, and 3.4 m (25 ft) was completed in 2014. The remaining 4.3 m (14 ft) raise was completed in 2015. Once completed, the dam will be constructed to its design height of 469 masl. An additional 0.9 m (3 ft) of camber on the engineered fill (seal zone) and 1.8 m (6 ft) of frost protection will bring the elevation to 472 masl.

Generally, tailings are deposited along the perimeter of the impoundment. Tailings decant water accumulates in the northeast corner of the TSF and is recycled to the mill; the TSF is operated as a zero discharge facility.



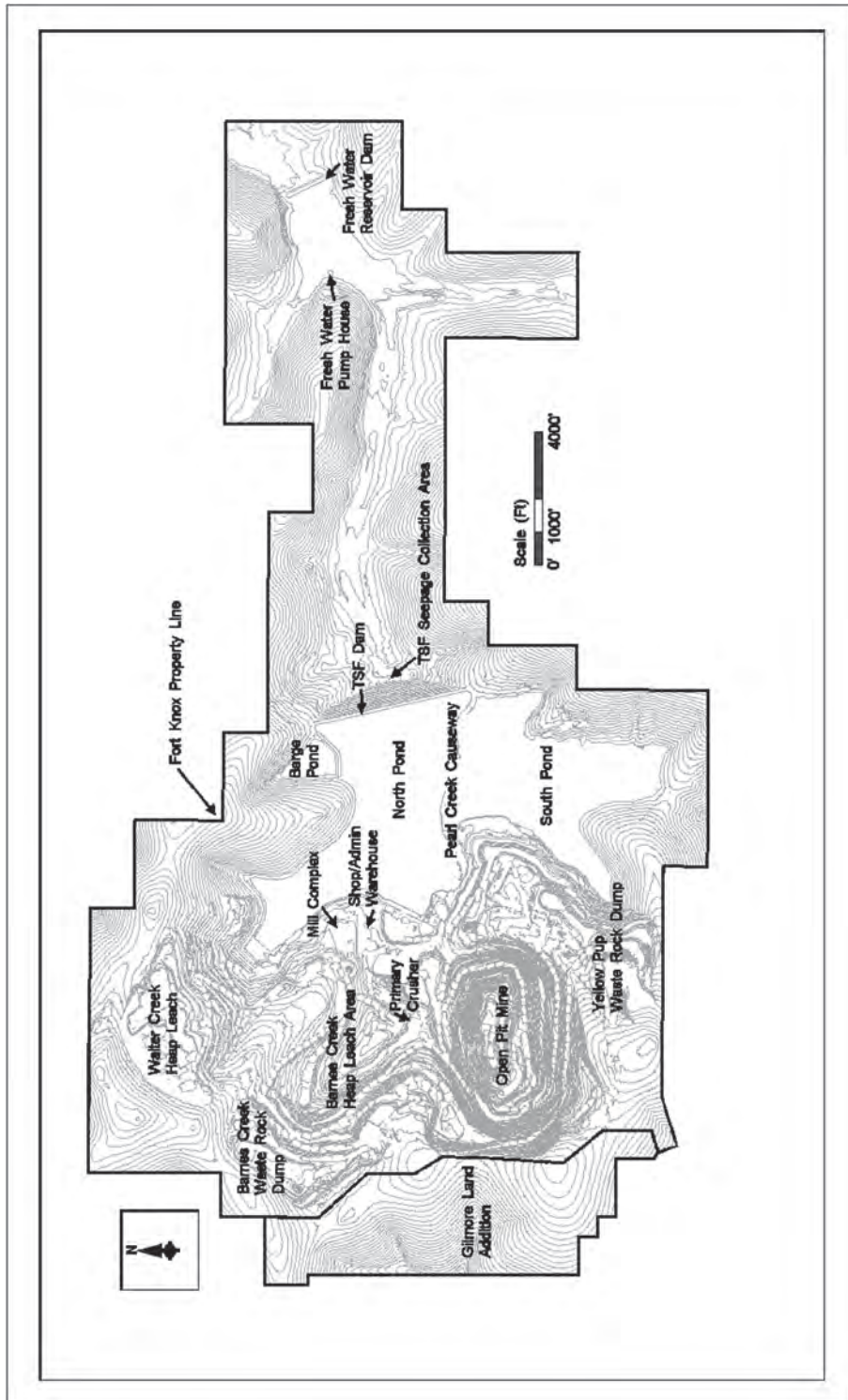


Figure 18-1: Fort Knox Project Infrastructure.



The TSF includes the following infrastructure:

- **Tailings Discharge Line.** Three, 61 cm (24 in) diameter, HDPE, tailings discharge lines, each designed to handle 45,359 t/d (50,000 stpd) of solids, have been installed to carry tailing material from the mill to the impoundment.
- **Barge and Pipeline.** A floating barge located in the northeast corner of the tailings pond is used to pump water from the tailings pond to the mill. The barge is equipped with four, 400 hp pumps pumping at approximately 33,690 L/m (8,900 gpm), as needed.
- **Seepage Collection System.** The seepage moves through the fractured bedrock and is captured by a large lined sump at the downstream toe of the tailings dam. An interceptor system consisting of a series of drains and wells is designed to capture any seepage that is not captured by the sump to maintain the zero discharge status of the facility. Further details are in Section 20.1.2.

#### 18.4 Water Supply

The fresh water supply reservoir (WSR) provides make-up water to the Mill and Barge Pond and is located on Fish Creek approximately three miles below the tailings impoundment. The WSR infrastructure includes the dam, causeway, and spillway complex, and encompasses approximately 70 ha (173 ac).

The fresh water pump house houses the infrastructure that pumps make-up water from the reservoir to the Barge Pond and mill. There are two lines one for each destination. The make-up water is used for the beneficiation process of the gold ore.

#### 18.5 Power Supply

The Fort Knox monthly electrical power requirement currently ranges between 32 and 35 Mw, and is expected to decline post mill closure. There is a power line extending from the Golden Valley Electric Association (GVEA) substation at Gold Hill to the Fort Knox site, a distance of approximately 47 km.

#### 18.6 Buildings and Equipment Areas

Buildings on site include:

- Mill complex (including administration offices)
- CIP and CIC tanks
- Administration and security building
- Maintenance facility and warehouse



- Primary crusher & control office
- Core logging facility
- Truck wash
- Fresh water pump house (on reservoir)
- Powder Mag Storage area
- Cold Storage and Laydown



## 19 MARKET STUDIES AND CONTRACTS

Kinross typically establishes refining agreements with third-parties for refining of doré. Kinross's bullion is sold on the spot market or as doré, by marketing experts retained in-house by Kinross. The terms contained within the refining contracts and sales contracts are typical and consistent with standard industry practice, and are similar to contracts for the supply of bullion and doré elsewhere in the world.



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

### 20.1 Environmental Management

FGMI established an Environmental Management System during initial permitting in 1994 that has been superseded by an Environmental, Health, and Safety System (EHSS). The EHSS comprises 18 comprehensive environmental management plans to manage, monitor, and maintain process components site wide, including:

- Environmental Management Plan;
- Emergency Response Plan;
- Solid Waste Management Plan;
- Dam Emergency Action Plan;
- Water Balance;
- Tailings Dam Operation and Maintenance Manual;
- Water Dam Operation and Maintenance Manual;
- Heap Leach Operation and Maintenance Manual;
- Reclamation and Closure Plan; and
- Mine Monitoring Plan.

A comprehensive environmental obligations register is maintained to track environmental permits, plans, and regulatory obligations. The register provides a tool for Fort Knox environmental management to ensure compliance with environmental obligations relating to permit conditions, agreement commitments, and regulatory and internal requirements.

SRK visited Fort Knox in 2011 as part of a State of Alaska Department of Natural Resources (ADNR) required Environmental Audit (SRK, 2012). SRK confirmed the implementation of the environmental management plans and further integration with the health and safety provisions of the broader EHSS. The audit noted that the basis of the management plans were found to be consistently implemented and that policies were understood and supported by all levels of management. The next major independent audit is scheduled for 2018 as specified by the Plan of Operations Amendment Approval (Alaska Department of Natural Resources, 2014).

In addition to ADNR required audits, Kinross internal environmental audits are conducted biennially to ensure Fort Knox is managing its environmental responsibilities

in a regulatory and internally acceptable manner. The comprehensive internal audits review the mine's environmental program with respect to permit, regulatory, and corporate requirements. The last internal audit occurred in 2015 and found that the environmental program was in compliance with its environmental obligations. The next internal audit is scheduled for 2019.

Operations at the True North site ceased in 2004, and the site underwent demolition and removal of facilities, re-contouring of waste rock facilities, seeding and final reclamation. The True North annual inspection by the ADNRC performed in October 2012 concluded that all major earthwork and reclamation was complete, and FGMI could continue with post-closure monitoring and maintenance (FGMI, 2013). Although operational and environmental plans addressing transportation and noise monitoring are no longer necessary and have been discontinued, FGMI still maintains environmental management plans and a list of compliance responsibilities within the EHSS. The 2012 Environmental Audit by SRK found that surface reclamation has been successful and that the monitoring of water quality should continue (SRK, 2012).

## **20.1.1 Tailings Disposal**

### **20.1.1.1 Overview**

The Tailings Storage Facility (TSF) is designed and operated according to the Guidelines for Cooperation with the Alaska Dam Safety Program (Alaska Department of Natural Resources, 2005). The Tailings Dam Operation and Maintenance Manual has been developed in accordance with these guidelines, along with the Alaska Department of Environmental Conservation's monitoring requirements.

The Tailings Dam Operation and Maintenance Manual is subject to a rigorous review and audit process and is updated on an annual basis. The Manual includes the specification of various inspections. Outside of the Operation and Maintenance inspection requirements there are rigorous construction inspections and a QA/QC program required by the State and Kinross' internal guidance.

### **20.1.1.2 Tailings Dam Operation and Maintenance Manual**

The Tailings Dam Operation and Maintenance Manual addresses three types of inspections:

- Routine Inspections;
- Extraordinary Inspections; and
- Periodic Safety Inspections

Routine inspections are related to day-to-day operations and operator familiarity with normal operations. They provide an early warning of developing issues that have the potential to affect dam safety. Routine inspections include water balance updates, water levels and deposition surveys, pipeline integrity checks, and seepage monitoring. Routine inspections are completed by mill operators, survey department environmental technicians, environmental engineers, and consultants as required, and are recorded, reviewed, and archived.

Extraordinary inspections are initiated when an event occurs that has the potential to cause a problem or indicates that a problem may be developing, i.e., an earthquake, higher than normal precipitation, or unusual or irregular instrumentation readings. The frequency and duration of the extraordinary inspections is dictated by the event. Depending on the severity of the situation the Emergency Action Plan may be activated.

Periodic Safety Inspections (PSI) are performed by the Engineer of Record and are a triennial requirement of the Alaska Dam Safety Program. The TSF dam at Fort Knox is designated as a Class II barrier according to the State of Alaska's Dam Safety Program hazard potential classification system. However, the TSF dam is conservatively designed and built to State of Alaska Class I barrier standards (the highest hazard potential classification). The PSI is a comprehensive review of the dam and appurtenances, with the specific intent of determining potential problems that could lead to a dam failure. Current performance parameters are reviewed and updated accordingly. New performance parameters may be initiated as a result of the PSI. The historical PSI reports are used as a comparison to the current inspection and to verify that any recommendations were followed.

#### 20.1.1.3 QA/QC Program and Construction Inspections

Outside of the Operation and Maintenance inspection requirements there are rigorous construction inspections and a QA/QC program required by the State and Kinross' internal guidance. These are conducted by the Engineer of Record, third-party contractors, and FGMI, and include the following reviews and inspections:

- Quarterly Instrumentation Reviews;
- Annual TSF Dam Inspections;
- Internal Triennial Third-Party TSF Dam Reviews;
- Construction Completion Reports;
- Failure Modes and Effects Analysis;
- Engineering Risk Assessment;
- Dam Break Analysis; and



- Table Top Exercises

Quarterly instrumentation reviews are conducted by the Engineer of Record to review and provide interpretation of the geotechnical and hydraulic instrumentation records for the TSF. The quarterly instrumentation review reports are provided to the Alaska Dam Safety Program. FGMI recently subscribed to a web-based data collection site, and the instrumentation data are entered and immediately available for review by the Engineer of Record.

Annual TSF dam inspections are conducted by the Engineer of Record and includes: a visual of inspection of the dam; review and evaluation of routine inspection and maintenance records; dam management processes; and other information pertinent to the operation and performance of the TSF dam. The inspection report is provided to the Alaska Dam Safety Program, as required by the Certificate of Approval to Operate the Dam.

Kinross internal triennial TSF dam reviews are conducted by an independent consultant with vast knowledge and experience in dam construction and operations. The review is all inclusive of the design, operation, and management of the TSF and dam. The most recent internal third-party review was conducted in September 2016 by LSB Consulting Services. LSB identified four primary review conclusions, which included 14 recommendations. To date, FGMI has completed nine of the recommendations and work is currently underway on the remaining five. Future dam reviews will be completed by an independent four-member panel.

Construction completion reports are developed by the Engineer of Record from daily onsite inspections and the dam raise construction activities QA/QC program. These construction completion reports are provided to the Alaska Dam Safety Program as required by the Certificate of Approval to Modify the TSF dam.

A Failure Modes and Effects Analysis (a technical risk assessment) was required by the May 8, 2014 Revised Certificate of Approval to Modify a Dam (Alaska Department of Natural Resources, 2014). It was completed in April 2015 by third party consultants (SRK Consulting, Tetra Tech, and Robertson GeoConsultants), Alaska Department of Natural Resources, Alaska Department of Environmental Conservation, KP, and Kinross personnel. The next technical risk assessment will be performed in 2019 assessing the closure configuration of the dam. The last two Failure Modes and Effects Analysis were performed during the initial permitting of Fort Knox and in 2015 for the dam raise from 472.4 masl to 474.6 masl.



An internal Engineering Risk Assessment (ERA) was conducted in 2009 and indicated that potential failure modes associated with the TSF dam were found to have low risk rankings due to their extremely low probability of occurrence. The ERA was provided to ADNR before the issuance of the January 26, 2011 Certificate of Approval to Modify a Dam, which authorized the 15.85 m dam raise to 469.4 masl, which was completed in 2015.

A TSF dam break analysis will be completed by KP in 2018. The last TSF dam break analysis was performed in 2010 by SRK. The 2010 analysis concluded that all structures that are within the inundation limits for the hypothetical dam breach are also within the limits of the FEMA designated 100 year and 500 year flood plains for the affected streams and rivers. Additionally, it was concluded that the majority of solids released from the TSF would likely be deposited before the floodwater would reach the confluence of Fish Creek and the Little Chena River.

### **20.1.2 Seepage Interception System**

The TSF dam is designed for seepage to pass beneath the dam in fractured bedrock. The seepage is captured by the pump-back system and the interceptor system. The pump-back system includes a pump-back sump together with a pumping and piping system designed to return the seepage to the TSF. The interceptor system is a series of interceptor wells developed just downstream of the dam.

Most of the seepage passing beneath the dam feeds into a large lined sump where water from the pump-back system and interceptor system is pumped back to the decant pond. Any seepage not captured directly by the pump-back system is captured by the interceptor wells. These wells form a hydraulic barrier preventing any seepage from migrating further downstream and assuring the TSF operates as a zero discharge facility.

A line of groundwater monitoring wells located immediately downstream of the interception system are monitored to insure that no process water is escaping the system and moving downstream. The water quality in the seepage interception system reflects both natural groundwater and tailings seepage quality.

Monthly and quarterly monitoring of the system's groundwater is conducted for observing and determining the system's performance. The groundwater monitoring wells are monitored quarterly in compliance with Waste Management Permit 2014DB0002 Modification 1 and the reports are provided to the agencies.

### 20.1.3 Site Monitoring

The Fort Knox mine Monitoring Plan outlines comprehensive monitoring requirements for the site, including the TSF, the heap leach, the pit lake (at closure), the stream corridor/wetlands and the water supply reservoir. The monitoring plan includes:

- Water quality sampling procedures and analytical profiles and sampling schedules;
- Characterization of acid rock drainage and processed tailings;
- Monitoring of inert solid waste landfills;
- Potable water monitoring requirements;
- Wildlife mortality reporting procedures;
- Documentation, record keeping and reporting requirements; and
- Quality assurance/quality control manual.

The Waste Management Permit 2014DB0002 Modification 1 stipulates that FGMI conduct geochemical monitoring to ensure that there is a low potential for the production of leachate that is acidic or contains levels of metals that would contaminate surface or groundwater. The mediums to be monitored are overburden, development rock, and ROM ore placed on the Walter Creek heap leach facility and tailings samples from the Fort Knox mill.

FGMI analyzes quarterly testing of tailings solids, low grade (heap leach) ore, and topsoil (overburden) for meteoric water mobility procedure testing and acid base accounting.

### 20.1.4 Water Management

#### 20.1.4.1 Decant Water

Water is used to slurry tailings which is discharged to the tailings impoundment by gravity flow or pumping. The water accumulates in the North Pond, South Pond and Barge Pond where it is ultimately pumped back to the mill for reuse in the processing of ore.

#### 20.1.4.2 Seepage Water

The seepage flow regime through the engineered filter zones and along the geosynthetic lined toe drain is collected in a geosynthetic lined sump at the toe of the dam. The seepage that combines with groundwater and migrates around the primary collection zone is captured down gradient by a series of twelve interceptor wells and the 501 drain. See section 20.1.2 for details.



#### 20.1.4.3 Stormwater Runoff

A Stormwater Pollution Prevention Plan is in place and is updated as required. FGMI actively and effectively manages stormwater runoff by establishing and maintaining control structures (i.e., brush berms, rock check dams, velocity reducing structures, stilling basins) along access and service roads.

#### 20.1.5 Hazardous Waste Management

Kinross has been signatory to the International Cyanide Management Code for the Manufacture, Transport, and Use of Cyanide in the Production of Gold (Cyanide Code) since 2005.

The Cyanide Code's development occurred in the early 2000s and it was implemented in 2005 for safe and responsible management of cyanide by an international multi-stakeholder committee under the auspices of the United Nations Environment Program (UNEP) and is administered by the International Cyanide Management Institute (ICMI). As a signatory company, Kinross is required to meet the Code's Principles and Standards of Practice criteria, which is verified by strict independent third-party auditing.

Fort Knox achieved initial certification in February 2008, and received recertification in September 2011 and February 2015. The 2018 recertification audit was performed in March 2018. Fort Knox certification summary audit reports may be found at <http://www.cyanidecode.org>.

FGMI is a Small Quantity Generator under the Resource Conservation and Recovery Act (RCRA), and ships limited quantities of hazardous wastes off site to a permitted treatment, storage and disposal facility. As such, FGMI maintains a Hazardous Materials Registration (Reg. No: 052615 551 079XZ) with the U.S. Department of Transportation. As a Small Quantity Generator, FGMI generates between 100 and 1,000 kg of hazardous waste per month and is required to comply with the RCRA regulations in U.S. Title 40, Code of Federal Regulations.

#### 20.1.6 Air Quality Management

The Fort Knox mine is authorized to operate under two air quality permits (Title I Air Quality Control Minor Permit AQ0053MSS04 and Title V Air Quality Control Operating Permit AQ0053TVP03) for stationary sources issued by the Alaska Department of Environmental Conservation (ADEC) – Division of Air Quality, Air Permits Program.

The Title I minor permit regulates gaseous (sulphur compounds, nitrogen compounds, visible, and fugitive) emissions. The air permits require a variety of parameters to be

collected such as differential pressure drops across baghouses, opacity from emission units and fugitive dust, fuel deliveries and usage, sulphur content, and hours of operation. In addition, source testing is required for stationery sources (such as baghouses and the carbon regeneration kiln), to verify the source is operating correctly. FGMI also submits an estimate of particulate matter  $10\mu$  or less in diameter, oxides of nitrogen, oxides of sulphur, and carbon monoxide. Fort Knox's minor air quality permit does not require source testing unless an opacity test fails.

The Title V operating permit regulates mercury emissions from two activated carbon bed adsorption vessels that control exhaust gases from the carbon regeneration kiln, five electrowinning cells, and refining furnace. The air permit requires a variety of parameters to be collected such as carbon adsorber inlet gas-stream temperatures, hours of operation, carbon monitoring, and concentrate weights. Annual source testing is required and results are submitted to EPA and ADEC within 60 days of the source test.

FGMI submits compliance reports for both air permits with the required information every six months to the Division of Air Quality. A Title V permit compliance certification report is submitted annually to the Division of Air Quality and EPA.

### **20.1.7 Solid Waste Management**

A Solid Waste Management Plan is in place as part of the EHSS. Solid wastes at the site are managed under Waste Management Permit 2014DB0002 Modification 1, which covers disposal of mine waste to the TSF, inert solid waste landfill facilities, the Walter Creek heap leach facility, the open pit mine, and groundwater and surface water monitoring systems at the Fort Knox mine.

A large number of solid waste materials are sent offsite for recycling, significantly reducing the quantities of waste to be managed onsite. The majority of non-hazardous incidental waste that cannot be recycled is shipped offsite for proper disposal. In addition, some quantities of non-hazardous wastes are placed in permitted facilities within the waste rock dumps or burned with ADEC authorized methods.

## **20.2 Permitting**

All requisite permits have been obtained for mining of the existing Fort Knox open pit mine and are in good standing in all material respects (Table 20-1). Current expansion projects for waste rock and heap leach were approved by the necessary agencies in 2014. Approval for the Barnes Creek Heap Leach Facility construction and Certificate of Approval to Construct a Dam was received May 2017 and July 2017, respectively. Pit expansion projects related to the Gilmore property were approved in Quarter 1 2018.



Fort Knox operates under Plan of Operations F20079852, last amended in March 2014, and effective until March 2019. The Plan of Operations authorizes activities upon state lands encompassed by Amended and Restated Millsite Lease, Uplands Mining Lease, and certain private lands. The Plan of Operations contains general, project-specific, and standard stipulations for environmental protection, monitoring, reporting, and reclamation and closure.

**Table 20-1: Key Operating Permits and Environmental Assessments.**

AGENCY	PERMIT #	DESCRIPTION	DATE ISSUED	EXPIRATION/ RENEWAL DUE
EPA	AKR000002352	RCRA Small Quantity Generator	1/26/2012	No Expiration Date – Notification is status changes
EPA, Region 10	Facility # 12779	UIC Class V Closure Plan (Facility #12779) at the Fort Knox Mine	8/21/2006	No Expiration Date
FCC	WPRW650	Radio Station Authorization	6/14/2011	3/2/2021
FCC	WPSH854	Radio Station Authorization	6/14/2011	5/2/2021
Nuclear Regulatory Commission	50-29098-01	Radio Active Materials License	7/12/2011	12/31/2021
Bureau Of Alcohol, Tobacco, Firearms and Explosives	9-AK-090-22-5A-12031	Federal Explosives License / Permit	8/25/2015	1/1/2018 In process by BATFE
US Dept of Transportation & Public Safety	0526155510079XZ	Hazardous Materials Certificate of Registration Year(s) 2015 to 2018	5/26/2015	6/30/2018
Corps of Engineers Fort Knox Mine Environmental Assessment	N/A	Fort Knox Environmental Assessment for the Initial ACOE permitting process	8/1993	Life of the Project
BLM	Authorization Letter	Casual Use Letter authorizing to conduct surface and groundwater monitoring on Gilmore lands	1/19/2018	1/31/2021
Corps of Engineers	POA-1992-574-M19	Fish Creek TSF Dam Raise	3/4/2011	4/30/2021
Corps of Engineers	POA-1992-574-M24	Fill into 2 acres of wetlands for expansion of the Yellow Pup Waste Rock Dump	5/2/2014	4/30/2021
Corps of Engineers	POA-1992-574-M25	Mechanical clearing of 10.4 acres of a borrow source and filling 0.85-acre of wetlands for construction of an access road.	7/2/2014	4/30/2021
Corps of Engineers	POA-1992-574-M26	Authorization of a time extension for POA-1992-574 (M19, M24, and M25)	4/8/2016	4/30/2021



AGENCY	PERMIT #	DESCRIPTION	DATE ISSUED	EXPIRATION/ RENEWAL DUE
ADEC - APDES	AKR06AB17	MSGP Industrial Storm Water Discharge Monitoring – Fort Knox	4/1/2015	3/31/2020
ADEC - APDES	AKR06AB39	MSGP Industrial Storm Water Discharge Monitoring – Gil Exploration Site	4/1/2015	3/31/2020
ADEC - APDES	AKR06AB18	MSGP Industrial Storm Water Discharge Monitoring – True North	4/1/2015	3/31/2020
ADEC - APDES	AKR06AB19	MSGP Industrial Storm Water Discharge Monitoring – Gilmore Exploration Site	4/1/2015	3/31/2020
ADEC - APDES	AK0053643 Minor Modification 1	Wastewater Discharge Authorization Program for Fort Knox Mine Facility	7/28/2017	9/30/2017 Renewal application submitted 3/14/2017
ADEC	AQ0053MSS04	Title 1 Air Quality Control Minor Permit	12/17/2012	No Expiration Date
ADEC	AQ0053TVP03	Title V Air Quality Control Operating Permit	5/31/2017	5/31/2022
ADEC	2014-DB0002 Modification 1	Waste Management Permit for Fort Knox Mine	5/26/2017	3/27/2019
ADEC Drinking Water Program Office	PWSID: 314093 Source ID: WL001	New Well & Water Softener Class: Non-Transient Non-Community (NTNC), Class A; Source: Groundwater	3/4/2009	No Expiration Date
ADEC Drinking Water Program Office	ID #AK2314093	Sanitary Survey Fort Knox Drinking Water	12/18/2015	12/31/2020
ADEC Drinking Water Program Office	PWSID #AK2314093	Fort Knox Priority Measures Plan (PMP) Biennial Update Compliance Certification	12/18/2017	12/31/2019
ADEC Division of Air Quality	AQ0053TVP03	Final Title V Operating Permit for FGMI	5/31/2017	5/31/2022
ADEC Division of Water, Wastewater Discharge Program	File No. 104.45.002	Ft. Knox Mine-ALPM Maintenance Shop Septic System Final Approval to Operate	12/1/2009	No Expiration Date
ADEC Division of Water, Wastewater Discharge Program	File No. 104.45.001	Ft. Knox Gold Mine- Replacement Leachfield, Two New Standard Manholes, Final Approval to Operate	1/19/2007	No Expiration Date
Dept Of Fish & Game	FG93-III-0202	Fish Habitat Permit Solo Creek Culvert	2/15/1994	Upon Third Party Transfer
Dept Of Fish & Game	FG99-III-0097, 0098, 0099, 0100, 0101	Fish Habitat Permit Wetlands Channel #1, #2, #3, #4, #5	5/14/1999, 5/15/1999, 6/1/99,6/9/99	Upon Closure of Mine
Dept Of Fish & Game	FH14-III-0026	Fish Habitat Permit Fish Creek, Nugget Creek, APMA 9156	2/24/2014	12/31/2018
ADNR	ADL 414960 ADL 414961	Second Amendment to Millsite Lease ADL 414960 & 414961	6/1/2011	Mine Life
ADNR	LAS 13988	Certificate of Appropriation Fish Creek for Mining, Milling, Heap Leach 5,245 acre-feet/year Priority date 12/11/1992	12/21/2011	No Expiration Date



AGENCY	PERMIT #	DESCRIPTION	DATE ISSUED	EXPIRATION/ RENEWAL DUE
ADNR	LAS 13987	Water Right - Certificate of Appropriation Interceptor Wells for Mining and Milling 724 acre-feet/year Priority date 12/11/1992	4/22/2015	No Expiration Date
ADNR	LAS 13986	Water Right - Certificate of Appropriation Fish Creek for Freshwater Reservoir impoundment for Mining and Milling 5,350 acre-feet/year Fish Creek for Mining and Milling 456.57 acre-feet/year Priority date 12/11/1992	11/22/2017	No Expiration Date
ADNR	LAS 21760	Water Right - Certificate of Appropriation Dewatering Well Field 1,600 acre-feet/year Priority date 2/3/1998	11/14/2015	No Expiration Date
ADNR	LAS 28161	Permit to Appropriate Water TSF & HL for Mining, Milling, and Heap Leach 13,255 acre-feet/year Priority date 7/20/2010	12/28/2017	12/27/2027
ADNR	LAS 28160	Permit to Appropriate Water Drilled wells for Mining and Milling 3,000 acre-feet/year Priority date 7/20/2010	8/24/2017	8/23/2027
ADNR	LAS 28158	Permit to Appropriate Water Dewatering Wells for Mining and Milling 4,043 acre-feet/year Priority date 7/20/2010	8/24/2017	8/23/2027
ADNR	AK00211	Certificate of Approval to Operate a Dam (Fort Knox Water Dam)	12/24/2015	9/16/2019
ANDR	AK00310	Certificate of Approval To Operate a Dam (Walter Creek Heap Leach Pad Dam)	2/28/2018	8/5/2018
ADNR	AK00310	Certificate of Approval to Modify a Dam (Walter Creek Heap Leach Pad Dam)	11/8/2017	Through Stage 10
ADNR	AK00212	Certificate of Approval To Operate a Dam (Fort Knox Tailings Dam)	6/22/2017	9/23/2018
ADNR	AK00315	Certificate of Approval to Construct a Dam (Barnes Creek Heap Leach Pad Dam)	7/19/2017	Stage 2 Completion
ADNR	ADL 47229	Modified Lease Certificate – Fish Creek	2/15/1994	2/15/2019
ADNR	ADL 535408	Fort Knox Upland Mining Lease	2/15/2014	2/14/2034
ADNR	ADL 414960 ADL 414961	Fort Knox Millsite Permit	2/15/1994	Mine Life





AGENCY	PERMIT #	DESCRIPTION	DATE ISSUED	EXPIRATION/ RENEWAL DUE
ADNR	ADL 414960 & 414961 Addendum	Amended and Restated Millsite Lease	7/3/2007	Mine Life
ADNR	F20149852	Final Plan of Operations Amendment Approval	3/28/2014	3/27/2019
ADNR	Plan of Operations Amendment	Re-routing segment of Fish Creek Road powerline & clearing of a 43-acre area to the N & E of topsoil stockpile for a sub-base material source	4/7/2011	Mine Life
ADNR	Plan of Operations Amendment	Carbon-in-Column Plant #2 Construction Approval	5/7/2012	Mine Life
ADNR	Plan of Operations Amendment	2015 Fuel Island Relocation	6/24/2015	Mine Life
ADNR	Plan of Operations Amendment	Plan of Operation Modification - Carbon in Column Plan #2 Construction amendment and design details approved	7/3/2012	Mine Life
ADNR	Plan of Operations Amendment	Plan of Operation Modification - Proposed Growth Media Stockpile (West of YP WRD) Approval	9/10/2012	Mine Life
ADNR	F20149852RCP.1	Barnes Creek Heap Leach Construction	5/26/2017	Mine Life
ADNR	F20149852RCP.2	Reclamation & Closure Plan Approval	1/26/2018	3/28/2019
ADNR	F20149852POO.4	Clearing & Grubbing for Filter and Seal Material	4/13/2016	Mine Life
ADNR	F20149852POO.5	Install Light Duty Vehicle Spur Road for Fish Creek Road	5/12/2016	Mine Life
ADNR	F20144952POO.7	2017 Drill Pad Construction for Monitoring Wells	4/4/2017	Mine Life
ADNR	F20149852POO.6	Heap Leach Expressway	1/26/2017	Mine Life
ADNR	F20149852POO.8	2018 Powder Magazine Relocation	11/20/2017	Mine Life
ADNR	F20149852POO.9	Phase 9 Pit Expansion & Fish Creek East Waste Rock Expansion	1/26/2018	Mine Life
ADNR	F20149852POO.10	Gilmore Powerline Trail Replacement	3/14/2018	Mine Life
ADNR	F20149852POO.11	Clearing & Grubbing for Subbase Material and Re-establishing Light Duty Vehicle Spur Road for Fish Creek Road	4/4/2018	Mine Life
ADNR	ADL 528271	In the name of Melba Creek Mining, Inc. lease renewed until August 31, 2019	8/31/2009	8/31/2019
ADNR	ADL 415405	Land Use Permit Fish Creek And Fairbanks Creek Road Right Of Way	3/7/1996	Mine Life
ADNR	APMA 9736	Miscellaneous Land Use Permit for Hardrock Exploration Permit #9736	4/30/2014	12/31/2018
ADNR	APMA 9156	Miscellaneous Land Use Permit for Hardrock Exploration Permit #9156 – Gil	4/15/2015	12/31/2019
ADNR	ADL 419213	TSF Jetty Pipeline Road & Re-Alignment of Portion of Fish Creek Road	4/14/2011	Mine Life



AGENCY	PERMIT #	DESCRIPTION	DATE ISSUED	EXPIRATION/ RENEWAL DUE
ADNR – Division Of Forestry	96494	Fort Knox Burn Pit Permit (no permit needed from 9/1 – 3/31)	4/4/2017	8/31/2017
Dept. of Public Safety	N/A	Life And Fire Safety Plan Check	6/29/1999	Construction Approval Archived
Dept. of Public Safety	N/A	Tank Installation Plan Review	1/31/2014	Construction Approval Archived
Dept Of Labor	SEE FILES	Certificate Of Inspection For Fired And Unfired Pressure Vessel	See Files 9/7/2011	As Required
Dept Of Labor	EIN 061325565	Employer Identification	9/1991	Mine Life
Dept Of Labor	BL 1011245	Business License	10/10/2016	12/31/2018
Dept of Revenue	100051	FGMI Mining License	5/1/2017	4/30/2018
Dept of Revenue	99110	Melba Creek Mining License	5/1/2016	4/30/2017 Renewal Submitted
FNSB	NA	FNSB Floodplain Permit	4/28/1994	NA
FNSB	CUO13-94	Conditional Use Permit (Tailing Disposal)	3/1/1994	NA
FNSB	CUO14-94	Conditional Use Permit (Solid Waste Landfill)	3/1/1994	NA
FNSB	12441	Zoning Permit	4/21/1994	NA

1. Agency abbreviations:  
 ADEC – Alaska Department of Environmental Conservation;  
 ADEC-APDES – Alaska Department of Environmental Conservation, Division of Water, Alaska Pollutant Discharge Elimination System Program;  
 ADNR – Alaska Department of Natural Resources  
 BLM – Bureau of Land Management;  
 EPA – Environmental Protection Agency;  
 FCC – Federal Communications Commission; and  
 FNSB – Fairbanks North Star Borough.
2. State extension until renewal of MSGP 2015

### 20.3 Social and Community Requirements

Alaska’s political climate is relatively stable and the state has a long history of resource development. The large-scale metal mining industry is relatively young with only five large-scale operating mines; the oldest of which was first operational in 1989.

Public perception polling completed in 2014 showed that mining in Alaska is considered important by 4 out of 5 Alaskans (84%). The ranking in Alaska’s interior was the highest; 97% considered mining to be an important part of Alaska’s economy. Overall, the mining industry is viewed favourably.

### 20.4 Mine Closure Requirements and Costs

FGMI maintains a reclamation and closure plan, which outlines comprehensive closure plans and cost estimates (FGMI, 2013).

FGMI's long-term goals for reclamation performed during and after mining and milling operations are to contour, stabilize, and revegetate disturbed areas in order to return the land to a safe, stable and productive condition. FGMI is contouring and stabilizing disturbed areas to create ground conditions that promote vegetation development and provide conditions for colonization by native species. Native grass species available commercially are used for rapid soil stabilization.

The objectives of the reclamation and closure plan (FGMI, 2013) are:

1. Stabilization and protection of soil materials from wind and water erosion.
2. Stabilization of steep slopes through contouring to provide rounded land forms with erosion control.
3. Establishment of long-term, self-sustaining vegetation communities conducive to natural invasion and succession.

#### **20.4.1 Water Management**

The goal of the water management plan will be to protect designated use standards in the receiving water. The strategy is based on model predictions, and as such, it will be subject to review and refinement during the closure period as actual conditions become known. The closure water management plan covers both receiving water and mine site surface water.

#### **20.4.2 Tailings Storage Facility**

During mining, the tailings impoundment water is not discharged; the mill recycles water from the tailings impoundment for reuse in the beneficiation process. After mining, milling and heap leaching activities cease, a spillway will be constructed. When the water meets discharge standards, the TSF spillway will convey seasonal surface water runoff to Fish Creek. The TSF will continue to be operated as a zero discharge facility until the heap leach facility is successfully closed. The tailings impoundment is an unlined facility. Process solution that passes through the bottom of the tailings impoundment is transported with groundwater flow downstream. In addition, water passing through the rock fill of the tailings dam encounters the filter zone of the engineered core, which transports it down to the highly fractured bedrock beneath the dam.

The currently proposed reclamation approach by FGMI uses characteristics of both standard industry approaches to tailings reclamation, and includes areas of open water, wetland boundaries, and dry upland covered areas. Excess water from the south pond will be conveyed to the north ponds in order to stabilize the overall water balance of the facility. Ultimately, as allowed by the final water quality in the impoundment, excess water will be discharged via an engineered spillway into the rehabilitated Fish Creek.

### **20.4.3 Seepage Interception System**

The water quality in the seepage interception system reflects both natural groundwater and tailings seepage quality. Water quality modelling indicates that development of a tailings beach, will reduce the rate of seepage from the tailings. Seepage water quality is predicted to further improve in the initial period following cessation of operations. The seepage interception system will continue to operate, and the seepage water will be pumped to the Barge Pond or the reverse osmosis treatment plant (currently under construction) until water quality standards have been met.

If during the initial closure period water quality trends indicate discontinuation of seepage collection could affect designated uses in the water supply reservoir, passive treatment alternatives will be evaluated.

Closure of the seepage collection system will include:

- Discontinuation of pumping from the seepage collection gallery and wells.
- Removal of pumps, piping, and surface structures for salvage or disposal.
- Plugging and decommission of the seepage collection wells.
- Puncture the sump liner at frequencies and locations that will accommodate the maximum discharge at closure and long term seepage estimates.

### **20.4.4 Pit Lake**

After mining ceases, the pit will initially create a hydraulic sink (Schlumberger Water Services, 2011). The pit will fill up relatively quickly at the beginning of closure due to the volume of water pumped from the Barge Pond and rinse water from the heap leach pad. Once the pit lake has reached the final elevation of 448 m (1470 ft), the level of tailings will be higher than the pit lake water elevation and the water will flow through the fractured bedrock and under the TSF.

Treatment alternatives have been evaluated for implementation during the initial years of pit filling to aid in controlling potentially elevated metals concentrations in the pit lake resulting from tailings decant/seepage water addition.

### **20.4.5 Heap Leach Pad and Waste Dumps**

The proposed method of closure for the Fort Knox heap leach is based on site-specific conditions, facility design, currently available testwork, and the technical analyses completed as part of closure planning. The supporting data and concepts for the closure

of the heap leach is provided in Fort Knox Reclamation and Closure Plan November 2013 for the Walter Creek Heap Leach Facility (Water Management Consultants, 2006).

The reclamation of the heap and waste dumps follows standard industry practice with regrading, cover placement (as necessary), and revegetation. The key factor for consideration will be the quality of runoff and seepage from these facilities, which will contribute to the overall water quality of the TSF post closure. A consolidated growth media balance is presented in the reclamation plan.

#### **20.4.6 Water Supply Reservoir, Solo Creek Causeway and Gil Causeway**

FGMI will leave the water supply reservoir and Solo Creek causeway in place to allow for the long-term use (and maintenance) as a recreational lake and wetland area. Following reclamation and closure of the project process components, the dam, access road and Solo Creek Causeway will be maintained according to the terms defined in the Agreement for Funding Post-Reclamation Obligations between FGMI, ADNR and ADF&G (FGMI, 2013). The Gil Causeway will be breached to allow the free movement of fish from the main lake body into upper reaches of the lake and Last Chance Creek.

The lake will not be available for public use until final reclamation and a period of post-closure monitoring (approximately ten years) is complete and the area is transferred to the State.

#### **20.4.7 Waste Rock Dumps**

Upon cessation of mining at Fort Knox, the waste rock dumps will contain approximately 466 Mt (514 Mst) of waste rock. The area calculated for financial assurance is based on current life-of-mine plans. The current Standardized Reclamation Cost Estimator model estimates that there will be a surface area of 453 ha (1,120 ac) of waste rock dumps requiring reclamation. Reclamation of waste rock dumps will be initiated once that they are no longer required for waste rock disposal. FGMI will concurrently reclaim inactive dumps that will not be subject to future disturbance. Based on the current mining schedule, concurrent reclamation of waste rock dumps is scheduled to begin in 2021.

Reclamation of the waste rock dumps will entail recontouring and growth media placement. The crests of the waste rock dumps will be rounded with material pushed outward to establish a slope of approximately 2.5H:1V or flatter (face angle calculations uses a final slope of 3H:1V). Large boulders that are uncovered during sloping may be left on the surface to provide topographic diversity, microhabitats for wildlife and vegetation, and to break the linear appearance of the final slope. Growth media will be

placed at a depth that will promote successful revegetation, defined as verifying that there is 70% cover three years after the last application of seed and fertilizer.

When final sloping, contouring, and growth media placement (if required) have been completed, waste rock dumps will be ripped along the contour. Contour ripping will reduce the erosion potential by reducing smooth slope length with the series of furrows created that will also increase infiltration. Ripping on the contour will provide micro-habitats for increased moisture retention and seed germination. Brush berms and/or sedimentation berms will be constructed at the toe of dumps where feasible.

Waste rock dumps will be revegetated following completion of earthwork. Due to the rocky, irregular nature of the final slopes, broadcast-seeding methods will be used.

#### **20.4.8 Buildings and Equipment Sites**

Buildings remaining at Fort Knox when production ceases will include the mill building, portable office buildings, truck shop, warehouse, and various other buildings. As facility components of the site are decommissioned, materials, equipment, and some buildings will be removed. Currently, the buildings planned for removal include the tailings barge, tailings seepage building, primary crusher, belt conveyor/drive tower, bulk fuel, and the water reclaim freshwater pump house and heap leach structures all of which are accounted for in the face angle estimate. The majority of the buildings and structures are located within FGMI surface ownership boundaries. Equipment, and piping not needed for the reclamation and monitoring process will be used at another mining site, sold, salvaged, or disposed of in an approved manner. Past experience indicates that most equipment will be either used at other facilities or sold. The remaining buildings will be left in place and put to alternate uses that have yet to be determined.

#### **20.4.9 Reclamation Costs**

Kinross estimates the net present value of future cash outflows for site restoration costs at Fort Knox and True North under International Financial Reporting Standards ("IFRS"), International Accounting Standard 37 ("IAS 37") and International Financial Reporting Interpretation Committee 1 ("IFRIC 1") for the year ended December 31, 2017, at approximately US\$104.1 million. Kinross currently has posted approximately US\$98.1 million of letters of credit to various regulatory agencies in connection with its closure obligations at Fort Knox and True North.

The Alaska Department of Environmental Conservation apportionable amount of financial assurance is US\$98.1 million of this amount US\$58.9 million includes direct costs, mobilization/demobilization and US\$39.2 million as indirect costs.

## 21 CAPITAL AND OPERATING COSTS

### 21.1 Capital Costs

Capital costs for the Gilmore expansion and life-of-mine (LOM) sustaining capital are summarized in Table 21-1 and Table 21-2, respectively.

**Table 21-1: Fort Knox Initial Capital Cost Summary (US\$ x 1,000).**

Initial Capital Cost	Equipment/ Infrastructure	Mine Development	Total
Surface	19,081	82,229	101,309
Processing	58,786	-	58,786
<b>Total</b>	<b>77,867</b>	<b>82,229</b>	<b>160,096</b>

**Table 21-2: Fort Knox Sustaining Capital Cost Summary (US\$ x 1,000).**

Sustaining Capital Cost	Equipment/ Infrastructure	Mine Development	Other	Total
Surface	128,164	343,585	-	471,749
Processing	99,585	-	-	99,585
Other	850	-	4,500	5,350
<b>Total</b>	<b>228,599</b>	<b>343,585</b>	<b>4,500</b>	<b>576,684</b>

### 21.2 Operating Costs

Operating costs are tracked and well understood. Total LOM operating costs and 2017 target cost per tonne are summarized in Table 21-3.

**Table 21-3: Fort Knox Operating Cost Summary (US\$ x 1,000).**

Operating Costs	US\$ LOM	Unit Cost
Mining (incl. Capitalized Stripping)	1,322,148	2.19 <sup>1</sup>
Milling Cost	202,495	6.49 <sup>2</sup>
Heap Leach Cost	360,665	1.44 <sup>3</sup>
G&A	325,494	25,038 <sup>4</sup>
<b>Total</b>	<b>2,210,802</b>	

1. \$/tonne mined
2. \$/tonne milled
3. \$/tonne stacked
4. LOM average yearly G&A





## 22 ECONOMIC ANALYSIS

Under NI 43-101 rules, a producing issuer may exclude the information required for Item 22 – Economic Analysis on properties currently in production, unless the Technical Report prepared by the issuer includes a material expansion of current production. Kinross is a producing issuer, the Fort Knox mine is currently in production, and a material expansion of production is not included in the current LOM plans. Kinross has carried out an economic analysis of Fort Knox using the estimates presented in this report and confirms that the outcome is a positive cash flow that supports the statement of Mineral Reserves.



## **23 ADJACENT PROPERTIES**

No reliance was placed on any information from adjacent properties in the estimation and preparation of the resources and reserves reported in this Technical Report. Adjacent properties are therefore not deemed material to this report.



## **24 OTHER RELEVANT DATA AND INFORMATION**

No additional information or explanation is necessary to make this Technical Report understandable and not misleading.



## 25 INTERPRETATION AND CONCLUSIONS

Kinross views Fort Knox as a valuable asset in a favourable jurisdiction. With the Gilmore expansion, the Fort Knox mine life has been extended to 2027.

Kinross is confident in the assessment presented in this Technical Report. However, the Fort Knox asset is subject to many risks including, but not limited to: commodity price assumptions (particularly relative movement of gold and oil prices), unanticipated inflation of capital or operating costs, significant changes in equipment productivities, geotechnical assumptions in pit designs, ore dilution or loss, throughput and recovery rate assumptions, availability of financing and changes in modelled taxes.



## **26 RECOMMENDATIONS**

There are no recommendations at this time as Fort Knox is a fully operational mine.

## 27 REFERENCES

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## 28 DATE AND SIGNATURE PAGE

The effective date of this Technical Report entitled “Kinross Gold Corporation, Fort Knox mine, Fairbanks North Star Borough, Alaska, USA, NI 43-101 Technical Report” is June 11, 2018.

“Signed and sealed”

John Sims, AIPG Certified Professional Geologist

June 11, 2018



## APPENDIX A – COMPLETE LISTING OF STATE MINING CLAIMS

Case ID	Claim Name	Registered Owners	Grant Date	Expiry Date	Interest
76385	KILLER BEAR #1	Melba Creek Mining, Inc.	1976-07-03	2018-11-30	Owned
76386	GOOD SIGHT	Melba Creek Mining, Inc.	1976-07-04	2018-11-30	Owned
305117	Yellow Pup # 1	Melba Creek Mining, Inc.	1971-06-15	2018-11-30	Owned
305118	Yellow Pup # 2	Melba Creek Mining, Inc.	1976-09-26	2018-11-30	Owned
305119	Yellow Pup # 3	Melba Creek Mining, Inc.	1977-07-18	2018-11-30	Owned
305120	Yellow Pup # 4	Melba Creek Mining, Inc.	1977-07-18	2018-11-30	Owned
305121	Yellow Pup # 5	Melba Creek Mining, Inc.	1977-07-18	2018-11-30	Owned
305122	Yellow Pup # 6	Melba Creek Mining, Inc.	1977-07-18	2018-11-30	Owned
305123	Yellow Pup # 7	Melba Creek Mining, Inc.	1977-07-18	2018-11-30	Owned
305124	Yellow Pup # 8	Melba Creek Mining, Inc.	1977-07-18	2018-11-30	Owned
305125	Yellow Pup # 9	Melba Creek Mining, Inc.	1977-07-18	2018-11-30	Owned
305126	Yellow Pup #10	Melba Creek Mining, Inc.	1977-07-18	2018-11-30	Owned
305127	Yellow Pup #11	Melba Creek Mining, Inc.	1977-07-18	2018-11-30	Owned
305128	Yellow Pup #12	Melba Creek Mining, Inc.	1977-07-18	2018-11-30	Owned
313280	Beauty Spot	Melba Creek Mining, Inc.	1960-06-21	2018-11-30	Owned
313281	Lucky Dog	Melba Creek Mining, Inc.	1960-06-21	2018-11-30	Owned
313282	Bob #1	Melba Creek Mining, Inc.	1975-09-19	2018-11-30	Owned
313319	Pearl Cr. Claim #1	Melba Creek Mining, Inc.	1979-10-04	2018-11-30	Owned
314026	Duffy No. 2	Daniel Peter Eagan	1980-01-21	2018-11-30	Leased
314027	Duffy No. 3	Daniel Peter Eagan	1980-01-21	2018-11-30	Leased
314572	MARS ASSOCIATION	Margaret B. Eagan	1979-11-14	2018-11-30	Leased
315221	LUCKY AMY	Fairbanks Gold Mining, Inc.	1979-11-15	2018-11-30	Owned
319073	Yellow Pup #13	Melba Creek Mining, Inc.	1980-05-10	2018-11-30	Owned
319074	Yellow Pup #14	Melba Creek Mining, Inc.	1980-05-10	2018-11-30	Owned
319076	Yellow Pup #17	Melba Creek Mining, Inc.	1980-05-10	2018-11-30	Owned
319077	Yellow Pup #18	Melba Creek Mining, Inc.	1980-05-10	2018-11-30	Owned
321078	Fort Knox # 3	Melba Creek Mining, Inc.	1980-05-24	2018-11-30	Owned
321079	Fort Knox # 4	Melba Creek Mining, Inc.	1980-05-24	2018-11-30	Owned
321085	Fort Knox #10	Melba Creek Mining, Inc.	1980-05-29	2018-11-30	Owned
321158	M & B Mining Co. # 13	Melba Creek Mining, Inc.	1980-09-18	2018-11-30	Owned
321159	M & B Mining Co. # 14	Melba Creek Mining, Inc.	1980-09-18	2018-11-30	Owned
321160	M & B Mining Co. # 15	Melba Creek Mining, Inc.	1980-09-18	2018-11-30	Owned
321161	M & B Mining Co. # 16	Melba Creek Mining, Inc.	1980-09-18	2018-11-30	Owned
321162	M & B Mining Co. # 17	Melba Creek Mining, Inc.	1980-09-18	2018-11-30	Owned
321163	M & B Mining Co. # 18	Melba Creek Mining, Inc.	1980-09-18	2018-11-30	Owned
321164	M & B Mining Co. # 19	Melba Creek Mining, Inc.	1980-09-19	2018-11-30	Owned
321165	M & B Mining Co. # 20	Melba Creek Mining, Inc.	1980-09-19	2018-11-30	Owned
321166	M & B Mining Co. # 21	Melba Creek Mining, Inc.	1980-09-19	2018-11-30	Owned
321167	M & B Mining Co. # 22	Melba Creek Mining, Inc.	1980-09-19	2018-11-30	Owned
321168	M & B Mining Co. # 25	Melba Creek Mining, Inc.	1980-09-19	2018-11-30	Owned
321169	M & B Mining Co. # 26	Melba Creek Mining, Inc.	1980-09-19	2018-11-30	Owned
321170	M & B Mining Co. # 27	Melba Creek Mining, Inc.	1980-09-19	2018-11-30	Owned
321171	M & B Mining Co. # 28	Melba Creek Mining, Inc.	1980-09-19	2018-11-30	Owned
321172	M & B Mining Co. # 29	Melba Creek Mining, Inc.	1980-09-19	2018-11-30	Owned
321173	M & B Mining Co. # 30	Melba Creek Mining, Inc.	1980-09-19	2018-11-30	Owned
321174	M & B Mining Co. # 31	Melba Creek Mining, Inc.	1980-09-19	2018-11-30	Owned
321175	M & B Mining Co. # 32	Melba Creek Mining, Inc.	1980-09-19	2018-11-30	Owned
321176	M & B Mining Co. # 35	Melba Creek Mining, Inc.	1980-09-19	2018-11-30	Owned
321177	M & B Mining Co. # 36	Melba Creek Mining, Inc.	1980-09-19	2018-11-30	Owned
321178	M & B Mining Co. # 37	Melba Creek Mining, Inc.	1980-09-19	2018-11-30	Owned
322298	GIL # 499	Melba Creek Mining, Inc.	1980-08-15	2018-11-30	Owned
322299	GIL # 500	Melba Creek Mining, Inc.	1980-08-15	2018-11-30	Owned
322300	GIL # 501	Melba Creek Mining, Inc.	1980-08-15	2018-11-30	Owned
322301	GIL # 502	Melba Creek Mining, Inc.	1980-08-18	2018-11-30	Owned
322302	GIL # 503	Melba Creek Mining, Inc.	1980-08-18	2018-11-30	Owned
322303	GIL # 504	Melba Creek Mining, Inc.	1980-08-18	2018-11-30	Owned
322304	GIL # 505	Melba Creek Mining, Inc.	1980-08-18	2018-11-30	Owned



Case ID	Claim Name	Registered Owners	Grant Date	Expiry Date	Interest
322305	GIL # 506	Melba Creek Mining, Inc.	1980-08-18	2018-11-30	Owned
322306	GIL # 596	Melba Creek Mining, Inc.	1980-09-21	2018-11-30	Owned
322307	GIL # 597	Melba Creek Mining, Inc.	1980-08-15	2018-11-30	Owned
322308	GIL # 598	Melba Creek Mining, Inc.	1980-08-15	2018-11-30	Owned
322309	GIL # 599	Melba Creek Mining, Inc.	1980-08-15	2018-11-30	Owned
322310	GIL # 600	Melba Creek Mining, Inc.	1980-08-15	2018-11-30	Owned
322311	GIL # 601	Melba Creek Mining, Inc.	1980-08-15	2018-11-30	Owned
322312	GIL # 602	Melba Creek Mining, Inc.	1980-08-18	2018-11-30	Owned
322313	GIL # 603	Melba Creek Mining, Inc.	1980-08-18	2018-11-30	Owned
322314	GIL # 604	Melba Creek Mining, Inc.	1980-08-18	2018-11-30	Owned
322315	GIL # 605	Melba Creek Mining, Inc.	1980-08-18	2018-11-30	Owned
322316	GIL # 606	Melba Creek Mining, Inc.	1980-08-18	2018-11-30	Owned
322317	GIL # 696	Melba Creek Mining, Inc.	1980-08-15	2018-11-30	Owned
322318	GIL # 697	Melba Creek Mining, Inc.	1980-08-15	2018-11-30	Owned
322319	GIL # 698	Melba Creek Mining, Inc.	1980-08-15	2018-11-30	Owned
322320	GIL # 699	Melba Creek Mining, Inc.	1980-08-15	2018-11-30	Owned
322321	GIL # 700	Melba Creek Mining, Inc.	1980-08-15	2018-11-30	Owned
322322	GIL # 701	Melba Creek Mining, Inc.	1980-08-15	2018-11-30	Owned
322323	GIL # 702	Melba Creek Mining, Inc.	1980-08-19	2018-11-30	Owned
322324	GIL # 703	Melba Creek Mining, Inc.	1980-08-19	2018-11-30	Owned
322325	GIL # 704	Melba Creek Mining, Inc.	1980-08-19	2018-11-30	Owned
322326	GIL # 705	Melba Creek Mining, Inc.	1980-08-19	2018-11-30	Owned
322327	GIL # 796	Melba Creek Mining, Inc.	1980-08-17	2018-11-30	Owned
322328	GIL # 797	Melba Creek Mining, Inc.	1980-08-17	2018-11-30	Owned
322329	GIL # 798	Melba Creek Mining, Inc.	1980-08-17	2018-11-30	Owned
322330	GIL # 799	Melba Creek Mining, Inc.	1980-08-17	2018-11-30	Owned
322331	GIL # 800	Melba Creek Mining, Inc.	1980-08-16	2018-11-30	Owned
322332	GIL # 895	Melba Creek Mining, Inc.	1980-08-17	2018-11-30	Owned
322333	GIL # 896	Melba Creek Mining, Inc.	1980-08-18	2018-11-30	Owned
322334	GIL # 897	Melba Creek Mining, Inc.	1980-08-18	2018-11-30	Owned
322335	GIL # 898	Melba Creek Mining, Inc.	1980-08-17	2018-11-30	Owned
322336	GIL # 994	Melba Creek Mining, Inc.	1980-08-17	2018-11-30	Owned
322337	GIL # 995	Melba Creek Mining, Inc.	1980-08-18	2018-11-30	Owned
322338	GIL # 996	Melba Creek Mining, Inc.	1980-08-18	2018-11-30	Owned
322339	GIL # 997	Melba Creek Mining, Inc.	1980-08-17	2018-11-30	Owned
322754	Daily Double #1	Melba Creek Mining, Inc.	1980-08-27	2018-11-30	Owned
322755	Daily Double #2	Melba Creek Mining, Inc.	1980-08-27	2018-11-30	Owned
322756	Daily Double #3	Melba Creek Mining, Inc.	1980-08-27	2018-11-30	Owned
322757	Daily Double #4	Melba Creek Mining, Inc.	1980-08-27	2018-11-30	Owned
323712	Disc. on Last Chance	Fairbanks Gold Mining, Inc.	1980-05-04	2018-11-30	Owned
323713	No. 1 Above Last Chance	Fairbanks Gold Mining, Inc.	1980-05-04	2018-11-30	Owned
323714	No. 2 Above Last Chance	Fairbanks Gold Mining, Inc.	1980-05-04	2018-11-30	Owned
323715	No. 3 Above Last Chance	Fairbanks Gold Mining, Inc.	1980-05-04	2018-11-30	Owned
323716	No. 4 Above Last Chance	Fairbanks Gold Mining, Inc.	1980-05-04	2018-11-30	Owned
323717	No. 5 Above Last Chance	Fairbanks Gold Mining, Inc.	1980-05-04	2018-11-30	Owned
323718	No. 6 Above Last Chance	Fairbanks Gold Mining, Inc.	1980-05-04	2018-11-30	Owned
323719	No. 7 Above Last Chance	Fairbanks Gold Mining, Inc.	1980-05-04	2018-11-30	Owned
323720	No. 8 Above Last Chance	Fairbanks Gold Mining, Inc.	1980-05-04	2018-11-30	Owned
323721	No. 9 Above Last Chance	Fairbanks Gold Mining, Inc.	1980-05-04	2018-11-30	Owned
323722	No. 10 Above Last Chance	Fairbanks Gold Mining, Inc.	1980-05-04	2018-11-30	Owned
323723	Discovery on Pearl Creek	Melba Creek Mining, Inc.	1980-05-04	2018-11-30	Owned
323724	No. 1 Above on Pearl Cr.	Melba Creek Mining, Inc.	1980-05-04	2018-11-30	Owned
323725	No. 2 Above on Pearl Cr.	Melba Creek Mining, Inc.	1980-05-04	2018-11-30	Owned
323726	No. 3 Above on Pearl Cr.	Melba Creek Mining, Inc.	1980-05-04	2018-11-30	Owned
323727	No. 4 Above on Pearl Cr.	Melba Creek Mining, Inc.	1980-05-04	2018-11-30	Owned
324542	AMY 1	Melba Creek Mining, Inc.	1980-08-13	2018-11-30	Owned
324543	AMY 2	Melba Creek Mining, Inc.	1980-08-13	2018-11-30	Owned
324544	AMY 3	Melba Creek Mining, Inc.	1980-08-13	2018-11-30	Owned
324545	AMY 4	Melba Creek Mining, Inc.	1980-08-13	2018-11-30	Owned
324817	Pearl Cr. Claim #2	Melba Creek Mining, Inc.	1980-03-22	2018-11-30	Owned



Case ID	Claim Name	Registered Owners	Grant Date	Expiry Date	Interest
325984	VTV # 52	Melba Creek Mining, Inc.	1980-10-03	2018-11-30	Owned
328762	JULY # 21	Margaret B. Eagan	1980-09-19	2018-11-30	Leased
328764	JULY # 23	Margaret B. Eagan	1980-09-19	2018-11-30	Leased
330980	JULY #14	Margaret B. Eagan	1981-04-04	2018-11-30	Leased
330981	JULY #15	Margaret B. Eagan	1981-04-04	2018-11-30	Leased
330982	JULY #16	Margaret B. Eagan	1981-04-04	2018-11-30	Leased
330983	JULY #17	Margaret B. Eagan	1981-04-04	2018-11-30	Leased
330984	JULY #18	Margaret B. Eagan	1981-04-04	2018-11-30	Leased
330985	JULY #19	Margaret B. Eagan	1981-04-04	2018-11-30	Leased
331994	GIL # 100	Melba Creek Mining, Inc.	1981-03-16	2018-11-30	Owned
331995	GIL # 101	Melba Creek Mining, Inc.	1981-03-16	2018-11-30	Owned
331996	GIL # 102	Melba Creek Mining, Inc.	1981-03-16	2018-11-30	Owned
331997	GIL # 103	Melba Creek Mining, Inc.	1981-03-17	2018-11-30	Owned
331998	GIL # 104	Melba Creek Mining, Inc.	1981-03-17	2018-11-30	Owned
331999	GIL # 105	Melba Creek Mining, Inc.	1981-03-17	2018-11-30	Owned
332000	GIL # 106	Melba Creek Mining, Inc.	1981-03-17	2018-11-30	Owned
332001	GIL # 107	Melba Creek Mining, Inc.	1981-03-17	2018-11-30	Owned
332002	GIL # 200	Melba Creek Mining, Inc.	1981-03-16	2018-11-30	Owned
332003	GIL # 201	Melba Creek Mining, Inc.	1981-03-16	2018-11-30	Owned
332004	GIL # 202	Melba Creek Mining, Inc.	1981-03-16	2018-11-30	Owned
332005	GIL # 203	Melba Creek Mining, Inc.	1981-03-17	2018-11-30	Owned
332006	GIL # 204	Melba Creek Mining, Inc.	1981-03-17	2018-11-30	Owned
332007	GIL # 205	Melba Creek Mining, Inc.	1981-03-17	2018-11-30	Owned
332008	GIL # 206	Melba Creek Mining, Inc.	1981-03-17	2018-11-30	Owned
332009	GIL # 207	Melba Creek Mining, Inc.	1981-03-17	2018-11-30	Owned
332010	GIL # 300	Melba Creek Mining, Inc.	1981-03-16	2018-11-30	Owned
332011	GIL # 301	Melba Creek Mining, Inc.	1981-03-16	2018-11-30	Owned
332012	GIL # 302	Melba Creek Mining, Inc.	1981-03-16	2018-11-30	Owned
332013	GIL # 303	Melba Creek Mining, Inc.	1981-03-17	2018-11-30	Owned
332014	GIL # 304	Melba Creek Mining, Inc.	1981-03-17	2018-11-30	Owned
332015	GIL # 305	Melba Creek Mining, Inc.	1981-03-17	2018-11-30	Owned
332016	GIL # 306	Melba Creek Mining, Inc.	1981-03-17	2018-11-30	Owned
332017	GIL # 307	Melba Creek Mining, Inc.	1981-03-17	2018-11-30	Owned
332018	GIL # 400	Melba Creek Mining, Inc.	1981-03-16	2018-11-30	Owned
332019	GIL # 401	Melba Creek Mining, Inc.	1981-03-16	2018-11-30	Owned
332020	GIL # 402	Melba Creek Mining, Inc.	1981-03-16	2018-11-30	Owned
332021	GIL # 403	Melba Creek Mining, Inc.	1981-03-17	2018-11-30	Owned
332022	GIL # 404	Melba Creek Mining, Inc.	1981-03-17	2018-11-30	Owned
332023	GIL # 405	Melba Creek Mining, Inc.	1981-03-17	2018-11-30	Owned
332024	GIL # 406	Melba Creek Mining, Inc.	1981-03-17	2018-11-30	Owned
332025	GIL # 407	Melba Creek Mining, Inc.	1981-03-17	2018-11-30	Owned
332258	TOM 101	Melba Creek Mining, Inc.	1981-05-06	2018-11-30	Owned
332259	TOM 102	Melba Creek Mining, Inc.	1981-05-06	2018-11-30	Owned
332260	TOM 103	Melba Creek Mining, Inc.	1981-05-06	2018-11-30	Owned
332261	TOM 200	Melba Creek Mining, Inc.	1981-05-06	2018-11-30	Owned
332262	TOM 201	Melba Creek Mining, Inc.	1981-05-06	2018-11-30	Owned
332263	TOM 202	Melba Creek Mining, Inc.	1981-05-06	2018-11-30	Owned
332264	TOM 203	Melba Creek Mining, Inc.	1981-05-06	2018-11-30	Owned
332265	TOM 300	Melba Creek Mining, Inc.	1981-05-06	2018-11-30	Owned
332266	TOM 301	Melba Creek Mining, Inc.	1981-05-06	2018-11-30	Owned
332267	TOM 302	Melba Creek Mining, Inc.	1981-05-06	2018-11-30	Owned
332268	TOM 400	Melba Creek Mining, Inc.	1981-05-06	2018-11-30	Owned
332269	TOM 401	Melba Creek Mining, Inc.	1981-05-06	2018-11-30	Owned
332270	TOM 402	Melba Creek Mining, Inc.	1981-05-06	2018-11-30	Owned
332422	LAUREL # 1	Melba Creek Mining, Inc.	1980-10-28	2018-11-30	Owned
332423	LAUREL # 2	Melba Creek Mining, Inc.	1980-10-28	2018-11-30	Owned
332424	LAUREL # 3	Melba Creek Mining, Inc.	1980-10-28	2018-11-30	Owned
335147	Duffy No. 3A	Margaret B. Eagan	1981-07-30	2018-11-30	Leased
335148	Duffy No. 4	Margaret B. Eagan	1981-07-30	2018-11-30	Leased
335294	GIL # 694	Melba Creek Mining, Inc.	1981-05-21	2018-11-30	Owned



Case ID	Claim Name	Registered Owners	Grant Date	Expiry Date	Interest
335295	GIL # 695	Melba Creek Mining, Inc.	1981-05-20	2018-11-30	Owned
335296	GIL # 794	Melba Creek Mining, Inc.	1981-06-07	2018-11-30	Owned
335297	GIL # 795	Melba Creek Mining, Inc.	1981-06-07	2018-11-30	Owned
335298	GIL # 894	Melba Creek Mining, Inc.	1981-06-07	2018-11-30	Owned
335299	GIL #7969	Melba Creek Mining, Inc.	1981-06-08	2018-11-30	Owned
335300	GIL #7979	Melba Creek Mining, Inc.	1981-06-08	2018-11-30	Owned
335301	GIL #7989	Melba Creek Mining, Inc.	1981-06-08	2018-11-30	Owned
335302	GIL #7999	Melba Creek Mining, Inc.	1981-06-08	2018-11-30	Owned
336027	GIL # 108	Melba Creek Mining, Inc.	1981-07-25	2018-11-30	Owned
336028	GIL # 208	Melba Creek Mining, Inc.	1981-07-25	2018-11-30	Owned
336029	GIL # 308	Melba Creek Mining, Inc.	1981-07-25	2018-11-30	Owned
336030	GIL # 408	Melba Creek Mining, Inc.	1981-07-25	2018-11-30	Owned
336031	GIL # 507	Melba Creek Mining, Inc.	1981-07-25	2018-11-30	Owned
337434	LAUREL # 4	Melba Creek Mining, Inc.	1980-11-02	2018-11-30	Owned
337435	LAUREL # 5	Melba Creek Mining, Inc.	1980-11-02	2018-11-30	Owned
337436	LAUREL # 6	Melba Creek Mining, Inc.	1980-11-02	2018-11-30	Owned
337437	LAUREL # 7	Melba Creek Mining, Inc.	1980-11-02	2018-11-30	Owned
337438	LAUREL # 8	Melba Creek Mining, Inc.	1980-11-02	2018-11-30	Owned
337439	LAUREL # 9	Melba Creek Mining, Inc.	1980-11-02	2018-11-30	Owned
337440	LAUREL #10	Melba Creek Mining, Inc.	1980-11-02	2018-11-30	Owned
337441	LAUREL #11	Melba Creek Mining, Inc.	1980-11-02	2018-11-30	Owned
338431	GIL # 595	Melba Creek Mining, Inc.	1981-09-12	2018-11-30	Owned
338432	GIL #6945	Melba Creek Mining, Inc.	1981-09-12	2018-11-30	Owned
338433	GIL #7945	Melba Creek Mining, Inc.	1981-09-12	2018-11-30	Owned
338434	GIL #7959	Melba Creek Mining, Inc.	1981-09-12	2018-11-30	Owned
338435	GIL #8905	Melba Creek Mining, Inc.	1981-09-12	2018-11-30	Owned
338436	GIL #8906	Melba Creek Mining, Inc.	1981-09-12	2018-11-30	Owned
338437	GIL #8907	Melba Creek Mining, Inc.	1981-09-12	2018-11-30	Owned
338438	GIL #8945	Melba Creek Mining, Inc.	1981-09-12	2018-11-30	Owned
338439	GIL #8965	Melba Creek Mining, Inc.	1981-09-12	2018-11-30	Owned
338440	GIL #9955	Melba Creek Mining, Inc.	1981-09-12	2018-11-30	Owned
338441	GIL #9965	Melba Creek Mining, Inc.	1981-09-12	2018-11-30	Owned
338933	VTV # 89	Melba Creek Mining, Inc.	1980-10-10	2018-11-30	Owned
338934	VTV # 90	Melba Creek Mining, Inc.	1980-10-10	2018-11-30	Owned
338939	VTV # 95	Melba Creek Mining, Inc.	1980-10-10	2018-11-30	Owned
338940	VTV # 96	Melba Creek Mining, Inc.	1980-10-10	2018-11-30	Owned
338941	VTV # 98	Melba Creek Mining, Inc.	1980-10-16	2018-11-30	Owned
338942	VTV # 99	Melba Creek Mining, Inc.	1980-10-16	2018-11-30	Owned
338945	VTV #102	Melba Creek Mining, Inc.	1980-10-16	2018-11-30	Owned
338946	VTV #104	Melba Creek Mining, Inc.	1980-10-16	2018-11-30	Owned
338947	VTV #105	Melba Creek Mining, Inc.	1980-10-16	2018-11-30	Owned
338948	VTV #106	Melba Creek Mining, Inc.	1980-10-16	2018-11-30	Owned
338951	VTV #109	Melba Creek Mining, Inc.	1980-10-16	2018-11-30	Owned
338952	VTV #110	Melba Creek Mining, Inc.	1980-10-16	2018-11-30	Owned
338953	VTV #111	Melba Creek Mining, Inc.	1980-10-16	2018-11-30	Owned
338954	VTV #112	Melba Creek Mining, Inc.	1980-10-16	2018-11-30	Owned
338955	VTV #113	Melba Creek Mining, Inc.	1980-10-16	2018-11-30	Owned
338956	VTV #114	Melba Creek Mining, Inc.	1980-10-16	2018-11-30	Owned
338957	VTV #115	Melba Creek Mining, Inc.	1980-10-16	2018-11-30	Owned
338958	VTV #116	Melba Creek Mining, Inc.	1980-10-10	2018-11-30	Owned
338959	VTV #117	Melba Creek Mining, Inc.	1980-10-16	2018-11-30	Owned
338960	VTV #118	Melba Creek Mining, Inc.	1980-10-02	2018-11-30	Owned
338961	VTV #119	Melba Creek Mining, Inc.	1980-10-02	2018-11-30	Owned
338962	VTV #120	Melba Creek Mining, Inc.	1980-10-02	2018-11-30	Owned
338963	VTV #121	Melba Creek Mining, Inc.	1980-10-02	2018-11-30	Owned
338964	VTV #122	Melba Creek Mining, Inc.	1980-10-03	2018-11-30	Owned
338965	VTV #123	Melba Creek Mining, Inc.	1980-10-03	2018-11-30	Owned
338966	VTV #124	Melba Creek Mining, Inc.	1980-10-03	2018-11-30	Owned
338971	VTV #129	Melba Creek Mining, Inc.	1980-10-05	2018-11-30	Owned
340351	Bee 1	Peter Eagan	1981-10-18	2018-11-30	Leased



Case ID	Claim Name	Registered Owners	Grant Date	Expiry Date	Interest
340352	Bee 2	Peter Eagan	1981-11-20	2018-11-30	Leased
340461	TOM 100	Melba Creek Mining, Inc.	1981-05-06	2018-11-30	Owned
351645	LAUREL #12	Melba Creek Mining, Inc.	1982-09-02	2018-11-30	Owned
351646	LAUREL #13	Melba Creek Mining, Inc.	1982-09-02	2018-11-30	Owned
352217	GIL # 110	Melba Creek Mining, Inc.	1982-08-28	2018-11-30	Owned
352218	GIL # 111	Melba Creek Mining, Inc.	1982-08-28	2018-11-30	Owned
352219	GIL # 112	Melba Creek Mining, Inc.	1982-08-28	2018-11-30	Owned
352220	GIL # 113	Melba Creek Mining, Inc.	1982-08-28	2018-11-30	Owned
352221	GIL # 114	Melba Creek Mining, Inc.	1982-08-28	2018-11-30	Owned
352233	GIL # 210	Melba Creek Mining, Inc.	1982-08-28	2018-11-30	Owned
352234	GIL # 211	Melba Creek Mining, Inc.	1982-08-28	2018-11-30	Owned
352235	GIL # 212	Melba Creek Mining, Inc.	1982-08-28	2018-11-30	Owned
352241	GIL # 310	Melba Creek Mining, Inc.	1982-08-28	2018-11-30	Owned
352242	GIL # 311	Melba Creek Mining, Inc.	1982-08-28	2018-11-30	Owned
352247	GIL # 410	Melba Creek Mining, Inc.	1982-08-28	2018-11-30	Owned
352248	GIL # 411	Melba Creek Mining, Inc.	1982-08-28	2018-11-30	Owned
352253	GIL # 510	Melba Creek Mining, Inc.	1982-08-28	2018-11-30	Owned
352254	GIL # 511	Melba Creek Mining, Inc.	1982-08-28	2018-11-30	Owned
352255	GIL # 608	Melba Creek Mining, Inc.	1982-08-28	2018-11-30	Owned
352256	GIL # 609	Melba Creek Mining, Inc.	1982-08-28	2018-11-30	Owned
352257	GIL # 610	Melba Creek Mining, Inc.	1982-08-28	2018-11-30	Owned
352258	GIL # 611	Melba Creek Mining, Inc.	1982-08-28	2018-11-30	Owned
352259	GIL # 707	Melba Creek Mining, Inc.	1982-08-28	2018-11-30	Owned
352260	GIL # 708	Melba Creek Mining, Inc.	1982-08-28	2018-11-30	Owned
352261	GIL # 709	Melba Creek Mining, Inc.	1982-08-28	2018-11-30	Owned
352266	GIL # 806	Melba Creek Mining, Inc.	1982-08-28	2018-11-30	Owned
352267	GIL # 807	Melba Creek Mining, Inc.	1982-08-28	2018-11-30	Owned
352268	GIL # 808	Melba Creek Mining, Inc.	1982-08-28	2018-11-30	Owned
352272	GIL # 901	Melba Creek Mining, Inc.	1982-08-28	2018-11-30	Owned
352273	GIL # 902	Melba Creek Mining, Inc.	1982-08-28	2018-11-30	Owned
352274	GIL # 903	Melba Creek Mining, Inc.	1982-08-28	2018-11-30	Owned
352275	GIL # 904	Melba Creek Mining, Inc.	1982-08-28	2018-11-30	Owned
352276	GIL # 905	Melba Creek Mining, Inc.	1982-08-28	2018-11-30	Owned
352277	GIL # 906	Melba Creek Mining, Inc.	1982-08-28	2018-11-30	Owned
352278	GIL # 907	Melba Creek Mining, Inc.	1982-08-28	2018-11-30	Owned
352281	GIL #1011	Melba Creek Mining, Inc.	1982-08-28	2018-11-30	Owned
352282	GIL #1012	Melba Creek Mining, Inc.	1982-08-28	2018-11-30	Owned
352283	GIL #1013	Melba Creek Mining, Inc.	1982-08-28	2018-11-30	Owned
352284	GIL #1014	Melba Creek Mining, Inc.	1982-08-28	2018-11-30	Owned
352285	GIL #1015	Melba Creek Mining, Inc.	1982-08-28	2018-11-30	Owned
352286	GIL #1016	Melba Creek Mining, Inc.	1982-08-28	2018-11-30	Owned
352296	GIL #1112	Melba Creek Mining, Inc.	1982-08-28	2018-11-30	Owned
352297	GIL #1113	Melba Creek Mining, Inc.	1982-08-28	2018-11-30	Owned
352298	GIL #1114	Melba Creek Mining, Inc.	1982-08-28	2018-11-30	Owned
352299	GIL #1115	Melba Creek Mining, Inc.	1982-08-28	2018-11-30	Owned
352300	GIL #1116	Melba Creek Mining, Inc.	1982-08-28	2018-11-30	Owned
352301	GIL #1117	Melba Creek Mining, Inc.	1982-08-28	2018-11-30	Owned
352302	GIL #1118	Melba Creek Mining, Inc.	1982-08-28	2018-11-30	Owned
352303	GIL #1119	Melba Creek Mining, Inc.	1982-08-28	2018-11-30	Owned
352304	GIL #1120	Melba Creek Mining, Inc.	1982-08-28	2018-11-30	Owned
352310	GIL #1214	Melba Creek Mining, Inc.	1982-08-28	2018-11-30	Owned
352311	GIL #1215	Melba Creek Mining, Inc.	1982-08-28	2018-11-30	Owned
352312	GIL #1216	Melba Creek Mining, Inc.	1982-08-28	2018-11-30	Owned
352313	GIL #1217	Melba Creek Mining, Inc.	1982-08-28	2018-11-30	Owned
352314	GIL #1218	Melba Creek Mining, Inc.	1982-08-28	2018-11-30	Owned
352315	GIL #1219	Melba Creek Mining, Inc.	1982-08-28	2018-11-30	Owned
352316	GIL #1220	Melba Creek Mining, Inc.	1982-08-28	2018-11-30	Owned
352322	GIL #1315	Melba Creek Mining, Inc.	1982-08-28	2018-11-30	Owned
352323	GIL #1316	Melba Creek Mining, Inc.	1982-08-28	2018-11-30	Owned
352324	GIL #1317	Melba Creek Mining, Inc.	1982-08-28	2018-11-30	Owned





Case ID	Claim Name	Registered Owners	Grant Date	Expiry Date	Interest
352325	GIL #1318	Melba Creek Mining, Inc.	1982-08-28	2018-11-30	Owned
352326	GIL #1319	Melba Creek Mining, Inc.	1982-08-28	2018-11-30	Owned
352327	GIL #1320	Melba Creek Mining, Inc.	1982-08-28	2018-11-30	Owned
352333	GIL #1416	Melba Creek Mining, Inc.	1982-08-28	2018-11-30	Owned
352334	GIL #1417	Melba Creek Mining, Inc.	1982-08-28	2018-11-30	Owned
352335	GIL #1418	Melba Creek Mining, Inc.	1982-08-28	2018-11-30	Owned
352336	GIL #1419	Melba Creek Mining, Inc.	1982-08-28	2018-11-30	Owned
352337	GIL #1420	Melba Creek Mining, Inc.	1982-08-28	2018-11-30	Owned
352338	GIL #1421	Melba Creek Mining, Inc.	1982-08-28	2018-11-30	Owned
352339	GIL #1422	Melba Creek Mining, Inc.	1982-08-28	2018-11-30	Owned
352340	GIL #1423	Melba Creek Mining, Inc.	1982-08-28	2018-11-30	Owned
352354	GIL #1517	Melba Creek Mining, Inc.	1982-08-28	2018-11-30	Owned
352355	GIL #1518	Melba Creek Mining, Inc.	1982-08-28	2018-11-30	Owned
352356	GIL #1519	Melba Creek Mining, Inc.	1982-08-28	2018-11-30	Owned
352357	GIL #1520	Melba Creek Mining, Inc.	1982-08-28	2018-11-30	Owned
352358	GIL #1521	Melba Creek Mining, Inc.	1982-08-28	2018-11-30	Owned
352359	GIL #1522	Melba Creek Mining, Inc.	1982-08-28	2018-11-30	Owned
352360	GIL #1523	Melba Creek Mining, Inc.	1982-08-28	2018-11-30	Owned
352374	GIL #1618	Melba Creek Mining, Inc.	1982-08-28	2018-11-30	Owned
352375	GIL #1619	Melba Creek Mining, Inc.	1982-08-28	2018-11-30	Owned
352376	GIL #1620	Melba Creek Mining, Inc.	1982-08-28	2018-11-30	Owned
352377	GIL #1621	Melba Creek Mining, Inc.	1982-08-28	2018-11-30	Owned
352378	GIL #1622	Melba Creek Mining, Inc.	1982-08-28	2018-11-30	Owned
352379	GIL #1623	Melba Creek Mining, Inc.	1982-08-28	2018-11-30	Owned
352380	GIL #1624	Melba Creek Mining, Inc.	1982-08-28	2018-11-30	Owned
352381	GIL #1625	Melba Creek Mining, Inc.	1982-08-28	2018-11-30	Owned
352382	GIL #1626	Melba Creek Mining, Inc.	1982-08-28	2018-11-30	Owned
352383	GIL #1627	Melba Creek Mining, Inc.	1982-08-28	2018-11-30	Owned
352384	GIL #1628	Melba Creek Mining, Inc.	1982-08-28	2018-11-30	Owned
352385	GIL #1629	Melba Creek Mining, Inc.	1982-08-28	2018-11-30	Owned
352386	GIL #1630	Melba Creek Mining, Inc.	1982-08-28	2018-11-30	Owned
352387	GIL #1631	Melba Creek Mining, Inc.	1982-08-28	2018-11-30	Owned
352394	GIL #1719	Melba Creek Mining, Inc.	1982-08-28	2018-11-30	Owned
352395	GIL #1720	Melba Creek Mining, Inc.	1982-08-28	2018-11-30	Owned
352396	GIL #1721	Melba Creek Mining, Inc.	1982-08-28	2018-11-30	Owned
352397	GIL #1722	Melba Creek Mining, Inc.	1982-08-28	2018-11-30	Owned
352398	GIL #1723	Melba Creek Mining, Inc.	1982-08-28	2018-11-30	Owned
352399	GIL #1724	Melba Creek Mining, Inc.	1982-08-28	2018-11-30	Owned
352400	GIL #1725	Melba Creek Mining, Inc.	1982-08-28	2018-11-30	Owned
352401	GIL #1726	Melba Creek Mining, Inc.	1982-08-28	2018-11-30	Owned
352402	GIL #1727	Melba Creek Mining, Inc.	1982-08-28	2018-11-30	Owned
352403	GIL #1728	Melba Creek Mining, Inc.	1982-08-28	2018-11-30	Owned
352404	GIL #1729	Melba Creek Mining, Inc.	1982-08-28	2018-11-30	Owned
352405	GIL #1730	Melba Creek Mining, Inc.	1982-08-28	2018-11-30	Owned
352406	GIL #1731	Melba Creek Mining, Inc.	1982-08-28	2018-11-30	Owned
352413	GIL #1820	Melba Creek Mining, Inc.	1982-08-28	2018-11-30	Owned
352414	GIL #1821	Melba Creek Mining, Inc.	1982-08-28	2018-11-30	Owned
352415	GIL #1822	Melba Creek Mining, Inc.	1982-08-28	2018-11-30	Owned
352416	GIL #1823	Melba Creek Mining, Inc.	1982-08-28	2018-11-30	Owned
352417	GIL #1824	Melba Creek Mining, Inc.	1982-08-28	2018-11-30	Owned
352418	GIL #1826	Melba Creek Mining, Inc.	1982-08-28	2018-11-30	Owned
352419	GIL #1827	Melba Creek Mining, Inc.	1982-08-28	2018-11-30	Owned
352420	GIL #1828	Melba Creek Mining, Inc.	1982-08-28	2018-11-30	Owned
352421	GIL #1829	Melba Creek Mining, Inc.	1982-08-28	2018-11-30	Owned
352422	GIL #1830	Melba Creek Mining, Inc.	1982-08-28	2018-11-30	Owned
352423	GIL #1831	Melba Creek Mining, Inc.	1982-08-28	2018-11-30	Owned
352430	GIL #1926	Melba Creek Mining, Inc.	1982-08-28	2018-11-30	Owned
352431	GIL #1927	Melba Creek Mining, Inc.	1982-08-28	2018-11-30	Owned
352432	GIL #1928	Melba Creek Mining, Inc.	1982-08-28	2018-11-30	Owned
352433	GIL #1929	Melba Creek Mining, Inc.	1982-08-28	2018-11-30	Owned





Case ID	Claim Name	Registered Owners	Grant Date	Expiry Date	Interest
352808	Fort Knox #22	Melba Creek Mining, Inc.	1982-10-12	2018-11-30	Owned
352809	Fort Knox #23	Melba Creek Mining, Inc.	1982-10-12	2018-11-30	Owned
352810	Fort Knox #24	Melba Creek Mining, Inc.	1982-10-12	2018-11-30	Owned
352811	Fort Knox #25	Melba Creek Mining, Inc.	1982-10-12	2018-11-30	Owned
352812	Fort Knox #26	Melba Creek Mining, Inc.	1982-10-13	2018-11-30	Owned
352813	Fort Knox #27	Melba Creek Mining, Inc.	1982-10-13	2018-11-30	Owned
352814	Fort Knox #28	Melba Creek Mining, Inc.	1982-10-13	2018-11-30	Owned
352815	Fort Knox #29	Melba Creek Mining, Inc.	1982-10-13	2018-11-30	Owned
352816	Fort Knox #30	Melba Creek Mining, Inc.	1982-10-14	2018-11-30	Owned
352817	Fort Knox #31	Melba Creek Mining, Inc.	1982-10-14	2018-11-30	Owned
352836	Fort Knox #50	Melba Creek Mining, Inc.	1982-10-19	2018-11-30	Owned
354337	LOST NUGGET	Melba Creek Mining, Inc.	1982-11-11	2018-11-30	Owned
355312	TANANA 102	Melba Creek Mining, Inc.	1982-12-07	2018-11-30	Owned
355313	TANANA 103	Melba Creek Mining, Inc.	1982-12-07	2018-11-30	Owned
355314	TANANA 202	Melba Creek Mining, Inc.	1982-12-07	2018-11-30	Owned
355315	TANANA 203	Melba Creek Mining, Inc.	1982-12-07	2018-11-30	Owned
355317	ROSEBUSH 100	Melba Creek Mining, Inc.	1982-12-06	2018-11-30	Owned
355318	ROSEBUSH 101	Melba Creek Mining, Inc.	1982-12-06	2018-11-30	Owned
355319	ROSEBUSH 200	Melba Creek Mining, Inc.	1982-12-06	2018-11-30	Owned
355320	ROSEBUSH 201	Melba Creek Mining, Inc.	1982-12-06	2018-11-30	Owned
355321	ROSEBUSH 201F	Melba Creek Mining, Inc.	1982-12-09	2018-11-30	Owned
355322	ROSEBUSH 204F	Melba Creek Mining, Inc.	1982-12-05	2018-11-30	Owned
355653	NUGGET LOST	Melba Creek Mining, Inc.	1983-01-02	2018-11-30	Owned
500916	PEGGYS NO. 1	Melba Creek Mining, Inc.	1984-04-15	2018-11-30	Owned
500917	PEGGYS NO. 2	Melba Creek Mining, Inc.	1984-04-15	2018-11-30	Owned
500918	PEGGYS NO. 3	Melba Creek Mining, Inc.	1984-04-15	2018-11-30	Owned
500919	PEGGYS NO. 4	Melba Creek Mining, Inc.	1984-04-15	2018-11-30	Owned
502821	ROSEBUSH 102	Melba Creek Mining, Inc.	1984-08-20	2018-11-30	Owned
502822	ROSEBUSH 103	Melba Creek Mining, Inc.	1984-08-20	2018-11-30	Owned
502823	ROSEBUSH 104	Melba Creek Mining, Inc.	1984-08-20	2018-11-30	Owned
502824	ROSEBUSH 105	Melba Creek Mining, Inc.	1984-08-20	2018-11-30	Owned
502825	ROSEBUSH 202	Melba Creek Mining, Inc.	1984-08-20	2018-11-30	Owned
502826	ROSEBUSH 203	Melba Creek Mining, Inc.	1984-08-20	2018-11-30	Owned
502827	ROSEBUSH 204	Melba Creek Mining, Inc.	1984-08-20	2018-11-30	Owned
502828	ROSEBUSH 205	Melba Creek Mining, Inc.	1984-08-20	2018-11-30	Owned
505900	NUG 1	Melba Creek Mining, Inc.	1985-08-30	2018-11-30	Owned
505901	NUG 2	Melba Creek Mining, Inc.	1985-08-30	2018-11-30	Owned
505902	NUG 3	Melba Creek Mining, Inc.	1985-08-30	2018-11-30	Owned
505903	NUG 4	Melba Creek Mining, Inc.	1985-08-30	2018-11-30	Owned
505904	NUG 5	Melba Creek Mining, Inc.	1985-08-30	2018-11-30	Owned
505905	NUG 6	Melba Creek Mining, Inc.	1985-08-30	2018-11-30	Owned
508357	NUG 7	Melba Creek Mining, Inc.	1985-11-08	2018-11-30	Owned
508358	NUG 8	Melba Creek Mining, Inc.	1985-11-08	2018-11-30	Owned
508359	NUG 9	Melba Creek Mining, Inc.	1985-11-08	2018-11-30	Owned
508360	NUG 10	Melba Creek Mining, Inc.	1985-11-08	2018-11-30	Owned
517580	11 BELOW LEFT LIMIT BENCH	Margaret B. Eagan	1987-10-14	2018-11-30	Leased
517964	DIT 1B	Melba Creek Mining, Inc.	1987-11-26	2018-11-30	Owned
517965	DIT 4	Melba Creek Mining, Inc.	1987-11-25	2018-11-30	Owned
517966	DIT 5	Melba Creek Mining, Inc.	1987-11-25	2018-11-30	Owned
517967	DIT 6	Melba Creek Mining, Inc.	1987-11-25	2018-11-30	Owned
517968	DIT 7	Melba Creek Mining, Inc.	1987-11-25	2018-11-30	Owned
517969	DIT 8	Melba Creek Mining, Inc.	1987-11-25	2018-11-30	Owned
517970	DIT 9	Melba Creek Mining, Inc.	1987-11-25	2018-11-30	Owned
517971	DIT 10	Melba Creek Mining, Inc.	1987-11-26	2018-11-30	Owned
517972	DIT 10A	Melba Creek Mining, Inc.	1987-11-26	2018-11-30	Owned
517973	DIT 11	Melba Creek Mining, Inc.	1987-11-25	2018-11-30	Owned
517974	DIT 12	Melba Creek Mining, Inc.	1987-11-26	2018-11-30	Owned
517975	DIT 12A	Melba Creek Mining, Inc.	1987-11-26	2018-11-30	Owned
517976	DIT 13	Melba Creek Mining, Inc.	1987-11-25	2018-11-30	Owned
517977	DIT 14	Melba Creek Mining, Inc.	1987-11-25	2018-11-30	Owned



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517978	DIT 15	Melba Creek Mining, Inc.	1987-11-25	2018-11-30	Owned
517979	DIT 16	Melba Creek Mining, Inc.	1987-11-26	2018-11-30	Owned
517980	DIT 16A	Melba Creek Mining, Inc.	1987-11-26	2018-11-30	Owned
518507	Clark 53	EHB, LLC	1987-12-15	2018-11-30	Leased
518508	Clark 54	EHB, LLC	1987-12-15	2018-11-30	Leased
518509	Clark 55	EHB, LLC	1987-12-15	2018-11-30	Leased
518510	Clark 56	EHB, LLC	1987-12-15	2018-11-30	Leased
518511	Clark 62	EHB, LLC	1987-12-15	2018-11-30	Leased
518512	Clark 63	EHB, LLC	1987-12-15	2018-11-30	Leased
518513	Clark 64	EHB, LLC	1987-12-15	2018-11-30	Leased
518514	Clark 72	EHB, LLC	1987-12-15	2018-11-30	Leased
518515	Clark 73	EHB, LLC	1987-12-15	2018-11-30	Leased
518516	Clark 74	EHB, LLC	1987-12-15	2018-11-30	Leased
518517	Clark 81	EHB, LLC	1987-12-15	2018-11-30	Leased
518518	Clark 82	EHB, LLC	1987-12-15	2018-11-30	Leased
518519	Clark 83	EHB, LLC	1987-12-15	2018-11-30	Leased
518520	Clark 84	EHB, LLC	1987-12-15	2018-11-30	Leased
518521	Clark 91	EHB, LLC	1987-12-15	2018-11-30	Leased
518522	Clark 92	EHB, LLC	1987-12-15	2018-11-30	Leased
518523	Clark 93	EHB, LLC	1987-12-15	2018-11-30	Leased
518524	Clark 94	EHB, LLC	1987-12-15	2018-11-30	Leased
518525	Clark 100	EHB, LLC	1987-12-15	2018-11-30	Leased
518526	Clark 101	EHB, LLC	1987-12-15	2018-11-30	Leased
518527	Clark 102	EHB, LLC	1987-12-15	2018-11-30	Leased
518528	Clark 103	EHB, LLC	1987-12-15	2018-11-30	Leased
518529	Clark 111	EHB, LLC	1987-12-16	2018-11-30	Leased
518530	Clark 112	EHB, LLC	1987-12-16	2018-11-30	Leased
518531	Clark 113	EHB, LLC	1987-12-16	2018-11-30	Leased
523232	IVORY J #2	Fairbanks Gold Mining, Inc.	1988-06-05	2018-11-30	Owned
523233	IVORY J #3	Fairbanks Gold Mining, Inc.	1988-06-05	2018-11-30	Owned
525082	NUG 11	Melba Creek Mining, Inc.	1988-09-26	2018-11-30	Owned
525083	NUG 12	Melba Creek Mining, Inc.	1988-09-26	2018-11-30	Owned
525084	NUG 13	Melba Creek Mining, Inc.	1988-09-26	2018-11-30	Owned
525085	NUG 14	Melba Creek Mining, Inc.	1988-09-27	2018-11-30	Owned
525086	NUG 15	Melba Creek Mining, Inc.	1988-09-27	2018-11-30	Owned
525087	NUG 16	Melba Creek Mining, Inc.	1988-09-30	2018-11-30	Owned
525088	NUG 17	Melba Creek Mining, Inc.	1988-09-30	2018-11-30	Owned
525089	NUG 18	Melba Creek Mining, Inc.	1988-09-30	2018-11-30	Owned
525090	NUG 19	Melba Creek Mining, Inc.	1988-09-30	2018-11-30	Owned
525091	NUG 20	Melba Creek Mining, Inc.	1988-09-26	2018-11-30	Owned
525092	NUG 21	Melba Creek Mining, Inc.	1988-09-26	2018-11-30	Owned
525093	NUG 22	Melba Creek Mining, Inc.	1988-09-26	2018-11-30	Owned
525094	NUG 23	Melba Creek Mining, Inc.	1988-09-27	2018-11-30	Owned
525095	NUG 24	Melba Creek Mining, Inc.	1988-09-27	2018-11-30	Owned
525096	NUG 25	Melba Creek Mining, Inc.	1988-09-30	2018-11-30	Owned
525097	NUG 26	Melba Creek Mining, Inc.	1988-09-30	2018-11-30	Owned
525098	NUG 27	Melba Creek Mining, Inc.	1988-09-30	2018-11-30	Owned
525099	NUG 28	Melba Creek Mining, Inc.	1988-09-30	2018-11-30	Owned
525100	NUG 29	Melba Creek Mining, Inc.	1988-09-26	2018-11-30	Owned
525101	NUG 30	Melba Creek Mining, Inc.	1988-09-26	2018-11-30	Owned
525102	NUG 31	Melba Creek Mining, Inc.	1988-09-26	2018-11-30	Owned
525103	NUG 32	Melba Creek Mining, Inc.	1988-09-27	2018-11-30	Owned
525104	NUG 33	Melba Creek Mining, Inc.	1988-09-27	2018-11-30	Owned
525105	NUG 34	Melba Creek Mining, Inc.	1988-09-30	2018-11-30	Owned
525106	NUG 35	Melba Creek Mining, Inc.	1988-09-30	2018-11-30	Owned
525107	NUG 36	Melba Creek Mining, Inc.	1988-09-30	2018-11-30	Owned
525108	NUG 37	Melba Creek Mining, Inc.	1988-09-26	2018-11-30	Owned
525109	NUG 39	Melba Creek Mining, Inc.	1988-09-26	2018-11-30	Owned
525110	NUG 40	Melba Creek Mining, Inc.	1988-09-27	2018-11-30	Owned
525111	NUG 41	Melba Creek Mining, Inc.	1988-09-27	2018-11-30	Owned



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525112	NUG 42	Melba Creek Mining, Inc.	1988-09-27	2018-11-30	Owned
525113	NUG 43	Melba Creek Mining, Inc.	1988-09-27	2018-11-30	Owned
525114	NUG 44	Melba Creek Mining, Inc.	1988-09-27	2018-11-30	Owned
525723	FX 1	Melba Creek Mining, Inc.	1988-08-03	2018-11-30	Owned
525724	FX 2	Melba Creek Mining, Inc.	1988-08-03	2018-11-30	Owned
525725	FX 3	Melba Creek Mining, Inc.	1988-08-04	2018-11-30	Owned
527235	MCM 100	Melba Creek Mining, Inc.	1988-09-16	2018-11-30	Owned
527236	MCM 101	Melba Creek Mining, Inc.	1988-09-16	2018-11-30	Owned
527237	MCM 102	Melba Creek Mining, Inc.	1988-09-16	2018-11-30	Owned
527238	MCM 200	Melba Creek Mining, Inc.	1988-09-16	2018-11-30	Owned
527239	MCM 202	Melba Creek Mining, Inc.	1988-09-16	2018-11-30	Owned
527240	MCM 300	Melba Creek Mining, Inc.	1988-09-16	2018-11-30	Owned
527241	MCM 302	Melba Creek Mining, Inc.	1988-09-16	2018-11-30	Owned
527245	MCM 403	Melba Creek Mining, Inc.	1988-09-16	2018-11-30	Owned
527249	MCM 503	Melba Creek Mining, Inc.	1988-09-16	2018-11-30	Owned
527253	MCM 602	Melba Creek Mining, Inc.	1988-09-15	2018-11-30	Owned
527259	NA 101	Melba Creek Mining, Inc.	2017-12-11	2018-11-30	Owned
527260	NA 200	Melba Creek Mining, Inc.	2017-12-11	2018-11-30	Owned
527261	NA 201	Melba Creek Mining, Inc.	2017-12-11	2018-11-30	Owned
527262	NA 300	Melba Creek Mining, Inc.	2017-12-11	2018-11-30	Owned
527263	NA 301	Melba Creek Mining, Inc.	2017-12-11	2018-11-30	Owned
527264	NA 400	Melba Creek Mining, Inc.	2017-12-11	2018-11-30	Owned
527265	NA 401	Melba Creek Mining, Inc.	2017-12-11	2018-11-30	Owned
527266	NA 500	Melba Creek Mining, Inc.	2017-12-11	2018-11-30	Owned
527267	NA 501	Melba Creek Mining, Inc.	2017-12-11	2018-11-30	Owned
527268	NA 600	Melba Creek Mining, Inc.	2017-12-11	2018-11-30	Owned
527269	NA 601	Melba Creek Mining, Inc.	2017-12-11	2018-11-30	Owned
527270	NA 700	Melba Creek Mining, Inc.	2017-12-11	2018-11-30	Owned
527271	NA 701	Melba Creek Mining, Inc.	2017-12-11	2018-11-30	Owned
527272	NA 800	Melba Creek Mining, Inc.	2011-05-25	2018-11-30	Owned
527273	NA 801	Melba Creek Mining, Inc.	2017-12-11	2018-11-30	Owned
527274	NA 900	Melba Creek Mining, Inc.	2011-05-25	2018-11-30	Owned
527275	NA 901	Melba Creek Mining, Inc.	2011-05-25	2018-11-30	Owned
527276	NA 902	Melba Creek Mining, Inc.	2017-12-11	2018-11-30	Owned
527277	NA 1000	Melba Creek Mining, Inc.	2017-12-11	2018-11-30	Owned
527278	NA 1001	Melba Creek Mining, Inc.	2017-12-11	2018-11-30	Owned
527286	FNE 100	Melba Creek Mining, Inc.	1988-09-21	2018-11-30	Owned
527287	FNE 101	Melba Creek Mining, Inc.	1988-09-21	2018-11-30	Owned
527288	FNE 102	Melba Creek Mining, Inc.	1988-09-21	2018-11-30	Owned
527289	FNE 103	Melba Creek Mining, Inc.	1988-09-21	2018-11-30	Owned
527290	FNE 104	Melba Creek Mining, Inc.	1988-09-21	2018-11-30	Owned
527291	FNE 105	Melba Creek Mining, Inc.	1988-09-21	2018-11-30	Owned
527292	FNE 106	Melba Creek Mining, Inc.	1988-09-21	2018-11-30	Owned
527293	FNE 107	Melba Creek Mining, Inc.	1988-09-28	2018-11-30	Owned
527294	FNE 108	Melba Creek Mining, Inc.	1988-09-28	2018-11-30	Owned
527295	FNE 201	Melba Creek Mining, Inc.	1988-09-21	2018-11-30	Owned
527296	FNE 202	Melba Creek Mining, Inc.	1988-09-21	2018-11-30	Owned
527297	FNE 203	Melba Creek Mining, Inc.	1988-09-21	2018-11-30	Owned
527298	FNE 204	Melba Creek Mining, Inc.	1988-09-21	2018-11-30	Owned
527299	FNE 205	Melba Creek Mining, Inc.	1988-09-21	2018-11-30	Owned
527300	FNE 206	Melba Creek Mining, Inc.	1988-09-21	2018-11-30	Owned
527301	FNE 207	Melba Creek Mining, Inc.	1988-09-21	2018-11-30	Owned
527302	FNE 208	Melba Creek Mining, Inc.	1988-09-21	2018-11-30	Owned
527303	FNE 303	Melba Creek Mining, Inc.	1988-09-27	2018-11-30	Owned
527304	FNE 304	Melba Creek Mining, Inc.	1988-09-27	2018-11-30	Owned
527305	FNE 800	Melba Creek Mining, Inc.	1988-09-27	2018-11-30	Owned
527306	FNE 801	Melba Creek Mining, Inc.	1988-09-27	2018-11-30	Owned
527307	FNE 802	Melba Creek Mining, Inc.	1988-09-27	2018-11-30	Owned
527308	FNE 803	Melba Creek Mining, Inc.	1988-09-27	2018-11-30	Owned
527309	GD 100	Melba Creek Mining, Inc.	1988-09-29	2018-11-30	Owned



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527310	GD 101	Melba Creek Mining, Inc.	1988-09-29	2018-11-30	Owned
527311	GD 200	Melba Creek Mining, Inc.	1988-09-29	2018-11-30	Owned
527312	GD 201	Melba Creek Mining, Inc.	1988-09-29	2018-11-30	Owned
527313	GD 300	Melba Creek Mining, Inc.	1988-09-29	2018-11-30	Owned
527314	GD 301	Melba Creek Mining, Inc.	1988-09-29	2018-11-30	Owned
527315	GD 400	Melba Creek Mining, Inc.	1988-09-29	2018-11-30	Owned
527316	GD 401	Melba Creek Mining, Inc.	1988-09-29	2018-11-30	Owned
527317	GD 402	Melba Creek Mining, Inc.	1988-09-29	2018-11-30	Owned
527319	GD 500	Melba Creek Mining, Inc.	1988-09-29	2018-11-30	Owned
527320	GD 501	Melba Creek Mining, Inc.	1988-09-29	2018-11-30	Owned
528093	AMY 5	Melba Creek Mining, Inc.	1989-04-18	2018-11-30	Owned
528094	AMY 6	Melba Creek Mining, Inc.	1989-04-18	2018-11-30	Owned
528095	AMY 7	Melba Creek Mining, Inc.	1989-04-18	2018-11-30	Owned
528096	AMY 8	Melba Creek Mining, Inc.	1989-04-18	2018-11-30	Owned
530193	MCC 100	Melba Creek Mining, Inc.	1989-06-22	2018-11-30	Owned
530194	MCC 101	Melba Creek Mining, Inc.	1989-06-22	2018-11-30	Owned
530195	MCC 102	Melba Creek Mining, Inc.	1989-06-22	2018-11-30	Owned
530196	MCC 103	Melba Creek Mining, Inc.	1989-06-22	2018-11-30	Owned
530197	MCC 104	Melba Creek Mining, Inc.	1989-06-22	2018-11-30	Owned
530198	MCC 199	Melba Creek Mining, Inc.	1989-06-22	2018-11-30	Owned
530199	MCC 200	Melba Creek Mining, Inc.	1989-06-22	2018-11-30	Owned
530200	MCC 201	Melba Creek Mining, Inc.	1989-06-22	2018-11-30	Owned
530201	MCC 202	Melba Creek Mining, Inc.	1989-06-22	2018-11-30	Owned
530202	MCC 203	Melba Creek Mining, Inc.	1989-06-22	2018-11-30	Owned
530203	MCC 204	Melba Creek Mining, Inc.	1989-06-22	2018-11-30	Owned
530204	MCC 299	Melba Creek Mining, Inc.	1989-06-22	2018-11-30	Owned
530205	MCC 300	Melba Creek Mining, Inc.	1989-06-22	2018-11-30	Owned
530206	MCC 301	Melba Creek Mining, Inc.	1989-06-22	2018-11-30	Owned
530212	MCA 100	Melba Creek Mining, Inc.	1989-06-19	2018-11-30	Owned
530213	MCA 101	Melba Creek Mining, Inc.	1989-06-19	2018-11-30	Owned
530214	MCA 102	Melba Creek Mining, Inc.	1989-06-23	2018-11-30	Owned
530215	MCA 103	Melba Creek Mining, Inc.	1989-06-23	2018-11-30	Owned
530216	MCA 200	Melba Creek Mining, Inc.	1989-06-19	2018-11-30	Owned
530217	MCA 201	Melba Creek Mining, Inc.	1989-06-19	2018-11-30	Owned
530218	MCA 202	Melba Creek Mining, Inc.	1989-06-19	2018-11-30	Owned
530219	MCA 203	Melba Creek Mining, Inc.	1989-06-19	2018-11-30	Owned
530220	MCA 204	Melba Creek Mining, Inc.	1989-06-19	2018-11-30	Owned
530221	MCA 205	Melba Creek Mining, Inc.	1989-06-19	2018-11-30	Owned
530222	MCA 206	Melba Creek Mining, Inc.	1989-06-19	2018-11-30	Owned
530223	MCA 207	Melba Creek Mining, Inc.	1989-07-12	2018-11-30	Owned
530224	MCA 300	Melba Creek Mining, Inc.	1989-06-19	2018-11-30	Owned
530225	MCA 301	Melba Creek Mining, Inc.	1989-06-19	2018-11-30	Owned
530226	MCA 302	Melba Creek Mining, Inc.	1989-06-19	2018-11-30	Owned
530227	MCA 303	Melba Creek Mining, Inc.	1989-06-19	2018-11-30	Owned
530228	MCA 304	Melba Creek Mining, Inc.	1989-06-19	2018-11-30	Owned
530229	MCA 305	Melba Creek Mining, Inc.	1989-06-19	2018-11-30	Owned
530230	MCA 306	Melba Creek Mining, Inc.	1989-06-19	2018-11-30	Owned
530231	MCA 307	Melba Creek Mining, Inc.	1989-07-12	2018-11-30	Owned
530232	MCA 401	Melba Creek Mining, Inc.	1989-06-20	2018-11-30	Owned
530233	MCA 402	Melba Creek Mining, Inc.	1989-06-20	2018-11-30	Owned
530234	MCA 403	Melba Creek Mining, Inc.	1989-06-20	2018-11-30	Owned
530235	MCA 404	Melba Creek Mining, Inc.	1989-06-20	2018-11-30	Owned
530236	MCA 405	Melba Creek Mining, Inc.	1989-06-20	2018-11-30	Owned
530237	MCA 406	Melba Creek Mining, Inc.	1989-06-20	2018-11-30	Owned
530238	MCA 407	Melba Creek Mining, Inc.	1989-07-12	2018-11-30	Owned
530239	MCA 504	Melba Creek Mining, Inc.	1989-06-20	2018-11-30	Owned
530240	MCA 505	Melba Creek Mining, Inc.	1989-06-20	2018-11-30	Owned
530241	MCA 506	Melba Creek Mining, Inc.	1989-06-20	2018-11-30	Owned
530242	MCA 507	Melba Creek Mining, Inc.	1989-07-13	2018-11-30	Owned
530243	MCA 603	Melba Creek Mining, Inc.	1989-07-12	2018-11-30	Owned



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530244	MCA 604	Melba Creek Mining, Inc.	1989-07-12	2018-11-30	Owned
530245	MCA 605	Melba Creek Mining, Inc.	1989-07-12	2018-11-30	Owned
530246	MCA 606	Melba Creek Mining, Inc.	1989-07-13	2018-11-30	Owned
530247	MCA 703	Melba Creek Mining, Inc.	1989-07-12	2018-11-30	Owned
530248	MCA 704	Melba Creek Mining, Inc.	1989-07-12	2018-11-30	Owned
530249	MCA 705	Melba Creek Mining, Inc.	1989-07-13	2018-11-30	Owned
530250	MCA 706	Melba Creek Mining, Inc.	1989-07-13	2018-11-30	Owned
530251	MCA 707	Melba Creek Mining, Inc.	1989-07-13	2018-11-30	Owned
530252	MCA 710	Melba Creek Mining, Inc.	1989-07-17	2018-11-30	Owned
530253	MCA 711	Melba Creek Mining, Inc.	1989-07-16	2018-11-30	Owned
530254	MCA 807	Melba Creek Mining, Inc.	1989-07-14	2018-11-30	Owned
530255	MCA 808	Melba Creek Mining, Inc.	1989-07-14	2018-11-30	Owned
530256	MCA 809	Melba Creek Mining, Inc.	1989-07-15	2018-11-30	Owned
530257	MCA 810	Melba Creek Mining, Inc.	1989-07-15	2018-11-30	Owned
530258	MCA 811	Melba Creek Mining, Inc.	1989-07-16	2018-11-30	Owned
530259	MCA 812	Melba Creek Mining, Inc.	1989-07-17	2018-11-30	Owned
530260	MCA 907	Melba Creek Mining, Inc.	1989-07-14	2018-11-30	Owned
530261	MCA 908	Melba Creek Mining, Inc.	1989-07-14	2018-11-30	Owned
530262	MCA 909	Melba Creek Mining, Inc.	1989-07-15	2018-11-30	Owned
530263	MCA 910	Melba Creek Mining, Inc.	1989-07-15	2018-11-30	Owned
530264	MCA 911	Melba Creek Mining, Inc.	1989-07-16	2018-11-30	Owned
530265	MCA 912	Melba Creek Mining, Inc.	1989-07-17	2018-11-30	Owned
530266	MCA 913	Melba Creek Mining, Inc.	1989-07-17	2018-11-30	Owned
530267	MCA 1009	Melba Creek Mining, Inc.	1989-07-15	2018-11-30	Owned
530268	MCA 1010	Melba Creek Mining, Inc.	1989-07-15	2018-11-30	Owned
530269	MCA 1011	Melba Creek Mining, Inc.	1989-07-16	2018-11-30	Owned
530270	MCA 1012	Melba Creek Mining, Inc.	1989-07-17	2018-11-30	Owned
530271	MCA 1013	Melba Creek Mining, Inc.	1989-07-17	2018-11-30	Owned
530272	MCA 1014	Melba Creek Mining, Inc.	1989-07-17	2018-11-30	Owned
530273	MCA 1110	Melba Creek Mining, Inc.	1989-07-16	2018-11-30	Owned
530274	MCA 1111	Melba Creek Mining, Inc.	1989-07-16	2018-11-30	Owned
530275	MCA 1112	Melba Creek Mining, Inc.	1989-07-16	2018-11-30	Owned
530276	MCA 1113	Melba Creek Mining, Inc.	1989-07-16	2018-11-30	Owned
530277	MCA 1114	Melba Creek Mining, Inc.	1989-07-16	2018-11-30	Owned
530533	NA 9	Melba Creek Mining, Inc.	2017-12-11	2018-11-30	Owned
530541	NA 202	Melba Creek Mining, Inc.	2017-12-11	2018-11-30	Owned
530545	NA 302	Melba Creek Mining, Inc.	2017-12-11	2018-11-30	Owned
530549	NA 402	Melba Creek Mining, Inc.	2017-12-11	2018-11-30	Owned
530554	NA 502	Melba Creek Mining, Inc.	2017-12-11	2018-11-30	Owned
530559	NA 602	Melba Creek Mining, Inc.	2017-12-11	2018-11-30	Owned
530564	NA 702	Melba Creek Mining, Inc.	2017-12-11	2018-11-30	Owned
530569	NA 802	Melba Creek Mining, Inc.	2017-12-11	2018-11-30	Owned
530589	GAG 80	Melba Creek Mining, Inc.	1989-10-05	2018-11-30	Owned
530590	GAG 81	Melba Creek Mining, Inc.	1989-10-01	2018-11-30	Owned
530591	GAG 82	Melba Creek Mining, Inc.	1989-10-01	2018-11-30	Owned
530592	GAG 90	Melba Creek Mining, Inc.	1989-10-05	2018-11-30	Owned
530593	GAG 91	Melba Creek Mining, Inc.	1989-09-30	2018-11-30	Owned
530594	GAG 92	Melba Creek Mining, Inc.	1989-10-01	2018-11-30	Owned
530595	GAG 93	Melba Creek Mining, Inc.	1989-10-05	2018-11-30	Owned
530596	GAG 94	Melba Creek Mining, Inc.	1989-10-05	2018-11-30	Owned
530597	GAG 95	Melba Creek Mining, Inc.	1989-10-05	2018-11-30	Owned
530598	GAG 100	Melba Creek Mining, Inc.	1989-10-05	2018-11-30	Owned
530599	GAG 101	Melba Creek Mining, Inc.	1989-09-30	2018-11-30	Owned
530600	GAG 102	Melba Creek Mining, Inc.	1989-10-01	2018-11-30	Owned
530601	GAG 103	Melba Creek Mining, Inc.	1989-10-01	2018-11-30	Owned
530602	GAG 104	Melba Creek Mining, Inc.	1989-10-05	2018-11-30	Owned
530603	GAG 105	Melba Creek Mining, Inc.	1989-10-05	2018-11-30	Owned
530604	GAG 200	Melba Creek Mining, Inc.	1989-09-30	2018-11-30	Owned
530605	GAG 201	Melba Creek Mining, Inc.	1989-09-29	2018-11-30	Owned
530606	GAG 202	Melba Creek Mining, Inc.	1989-10-01	2018-11-30	Owned





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530607	GAG 203	Melba Creek Mining, Inc.	1989-10-01	2018-11-30	Owned
530608	GAG 204	Melba Creek Mining, Inc.	1989-10-01	2018-11-30	Owned
530609	GAG 205	Melba Creek Mining, Inc.	1989-10-01	2018-11-30	Owned
530610	GAG 300	Melba Creek Mining, Inc.	1989-09-30	2018-11-30	Owned
530611	GAG 301	Melba Creek Mining, Inc.	1989-09-29	2018-11-30	Owned
530612	GAG 302	Melba Creek Mining, Inc.	1989-09-30	2018-11-30	Owned
530613	GAG 303	Melba Creek Mining, Inc.	1989-09-30	2018-11-30	Owned
530614	GAG 304	Melba Creek Mining, Inc.	1989-10-01	2018-11-30	Owned
530615	GAG 305	Melba Creek Mining, Inc.	1989-10-01	2018-11-30	Owned
530616	GAG 400	Melba Creek Mining, Inc.	1989-09-29	2018-11-30	Owned
530617	GAG 401	Melba Creek Mining, Inc.	1989-09-28	2018-11-30	Owned
530618	GAG 402	Melba Creek Mining, Inc.	1989-09-29	2018-11-30	Owned
530619	GAG 403	Melba Creek Mining, Inc.	1989-09-30	2018-11-30	Owned
530620	GAG 404	Melba Creek Mining, Inc.	1989-09-30	2018-11-30	Owned
530621	GAG 405	Melba Creek Mining, Inc.	1989-09-30	2018-11-30	Owned
530622	GAG 500	Melba Creek Mining, Inc.	1989-09-29	2018-11-30	Owned
530623	GAG 501	Melba Creek Mining, Inc.	1989-09-28	2018-11-30	Owned
530624	GAG 502	Melba Creek Mining, Inc.	1989-09-30	2018-11-30	Owned
530625	GAG 503	Melba Creek Mining, Inc.	1989-09-29	2018-11-30	Owned
530626	GAG 504	Melba Creek Mining, Inc.	1989-09-29	2018-11-30	Owned
530627	GAG 505	Melba Creek Mining, Inc.	1989-09-29	2018-11-30	Owned
530628	GAG 600	Melba Creek Mining, Inc.	1989-09-28	2018-11-30	Owned
530629	GAG 601	Melba Creek Mining, Inc.	1989-09-28	2018-11-30	Owned
530630	GAG 602	Melba Creek Mining, Inc.	1989-09-28	2018-11-30	Owned
530631	GAG 603	Melba Creek Mining, Inc.	1989-09-28	2018-11-30	Owned
530632	GAG 604	Melba Creek Mining, Inc.	1989-09-28	2018-11-30	Owned
530633	GAG 605	Melba Creek Mining, Inc.	1989-09-29	2018-11-30	Owned
530634	GAG 700	Melba Creek Mining, Inc.	1989-09-28	2018-11-30	Owned
530635	GAG 701	Melba Creek Mining, Inc.	1989-09-28	2018-11-30	Owned
530636	GAG 702	Melba Creek Mining, Inc.	1989-09-28	2018-11-30	Owned
530637	GAG 703	Melba Creek Mining, Inc.	1989-09-28	2018-11-30	Owned
530638	GAG 704	Melba Creek Mining, Inc.	1989-09-29	2018-11-30	Owned
530639	GAG 705	Melba Creek Mining, Inc.	1989-09-29	2018-11-30	Owned
530676	DUO 604	Melba Creek Mining, Inc.	1989-09-20	2018-11-30	Owned
530678	DUO 611	Melba Creek Mining, Inc.	1989-09-20	2018-11-30	Owned
530684	DUO 705	Melba Creek Mining, Inc.	1989-09-20	2018-11-30	Owned
530687	DUO 708	Melba Creek Mining, Inc.	1989-09-21	2018-11-30	Owned
530688	DUO 711	Melba Creek Mining, Inc.	1989-09-20	2018-11-30	Owned
530689	DUO 805	Melba Creek Mining, Inc.	1989-09-21	2018-11-30	Owned
530690	DUO 806	Melba Creek Mining, Inc.	1989-09-21	2018-11-30	Owned
530691	DUO 807	Melba Creek Mining, Inc.	1989-09-21	2018-11-30	Owned
530692	DUO 808	Melba Creek Mining, Inc.	1989-09-21	2018-11-30	Owned
530693	DUO 809	Melba Creek Mining, Inc.	1989-09-21	2018-11-30	Owned
530694	DUO 810	Melba Creek Mining, Inc.	1989-09-22	2018-11-30	Owned
530898	Fort Knox #32	Melba Creek Mining, Inc.	2017-12-11	2018-11-30	Owned
530899	Fort Knox #33	Melba Creek Mining, Inc.	2017-12-11	2018-11-30	Owned
530900	Fort Knox #36	Melba Creek Mining, Inc.	2017-12-11	2018-11-30	Owned
530901	Fort Knox #51	Melba Creek Mining, Inc.	1982-10-19	2018-11-30	Owned
530903	Fort Knox #54	Melba Creek Mining, Inc.	1982-10-19	2018-11-30	Owned
530904	Fort Knox #55	Melba Creek Mining, Inc.	1982-10-19	2018-11-30	Owned
531211	IVORY JACK #1	Fairbanks Gold Mining, Inc.	1989-08-10	2018-11-30	Owned
531607	NA 100A	Melba Creek Mining, Inc.	2017-12-11	2018-11-30	Owned
531608	NA 100B	Melba Creek Mining, Inc.	1989-09-12	2018-11-30	Owned
531609	NA 200A	Melba Creek Mining, Inc.	2017-12-11	2018-11-30	Owned
531610	NA 300A	Melba Creek Mining, Inc.	2017-12-11	2018-11-30	Owned
531611	NA 400A	Melba Creek Mining, Inc.	2017-12-11	2018-11-30	Owned
531612	NA 500A	Melba Creek Mining, Inc.	1989-09-10	2018-11-30	Owned
531613	NA 600A	Melba Creek Mining, Inc.	1989-09-10	2018-11-30	Owned
531614	NA 700A	Melba Creek Mining, Inc.	1989-09-10	2018-11-30	Owned
531615	NA 800A	Melba Creek Mining, Inc.	2011-05-25	2018-11-30	Owned



Case ID	Claim Name	Registered Owners	Grant Date	Expiry Date	Interest
531818	FH 100	Melba Creek Mining, Inc.	1989-10-27	2018-11-30	Owned
531819	FH 101	Melba Creek Mining, Inc.	1989-10-27	2018-11-30	Owned
531820	FH 102	Melba Creek Mining, Inc.	1989-10-26	2018-11-30	Owned
531821	FH 103	Melba Creek Mining, Inc.	1989-10-27	2018-11-30	Owned
531822	FH 104	Melba Creek Mining, Inc.	1989-10-27	2018-11-30	Owned
531823	FH 105	Melba Creek Mining, Inc.	1989-10-27	2018-11-30	Owned
531824	FH 106	Melba Creek Mining, Inc.	1989-10-27	2018-11-30	Owned
531825	FH 107	Melba Creek Mining, Inc.	1989-10-27	2018-11-30	Owned
531826	FH 200	Melba Creek Mining, Inc.	1989-10-28	2018-11-30	Owned
531827	FH 201	Melba Creek Mining, Inc.	1989-10-28	2018-11-30	Owned
531828	FH 202	Melba Creek Mining, Inc.	1989-10-28	2018-11-30	Owned
531829	FH 203	Melba Creek Mining, Inc.	1989-10-28	2018-11-30	Owned
531830	FH 204	Melba Creek Mining, Inc.	1989-10-28	2018-11-30	Owned
531831	FH 205	Melba Creek Mining, Inc.	1989-10-29	2018-11-30	Owned
531832	FH 206	Melba Creek Mining, Inc.	1989-10-28	2018-11-30	Owned
531833	FH 207	Melba Creek Mining, Inc.	1989-10-28	2018-11-30	Owned
531834	FH 301	Melba Creek Mining, Inc.	1989-10-29	2018-11-30	Owned
531835	FH 302	Melba Creek Mining, Inc.	1989-10-28	2018-11-30	Owned
531836	FH 303	Melba Creek Mining, Inc.	1989-10-28	2018-11-30	Owned
531837	FH 304	Melba Creek Mining, Inc.	1989-10-28	2018-11-30	Owned
531890	Fort Knox #37	Melba Creek Mining, Inc.	2017-12-11	2018-11-30	Owned
532357	DUO 608	Melba Creek Mining, Inc.	1990-03-10	2018-11-30	Owned
532358	DUO 609	Melba Creek Mining, Inc.	1990-03-10	2018-11-30	Owned
532359	DUO 610	Melba Creek Mining, Inc.	1990-03-10	2018-11-30	Owned
532360	DUO 709	Melba Creek Mining, Inc.	1990-03-10	2018-11-30	Owned
532361	DUO 710	Melba Creek Mining, Inc.	1990-03-10	2018-11-30	Owned
532362	DUO 811	Melba Creek Mining, Inc.	1990-03-11	2018-11-30	Owned
532363	DUO 908	Melba Creek Mining, Inc.	1990-03-12	2018-11-30	Owned
532364	DUO 909	Melba Creek Mining, Inc.	1990-03-12	2018-11-30	Owned
532365	DUO 910	Melba Creek Mining, Inc.	1990-03-12	2018-11-30	Owned
532536	NUG 38	Melba Creek Mining, Inc.	1988-09-26	2018-11-30	Owned
555818	MCA Fraction No. 1	Melba Creek Mining, Inc.	1990-09-24	2018-11-30	Owned
555819	MCA Fraction No. 2	Melba Creek Mining, Inc.	1990-09-24	2018-11-30	Owned
555820	MCA Fraction No. 3	Melba Creek Mining, Inc.	1990-09-24	2018-11-30	Owned
556057	GIG 1	Melba Creek Mining, Inc.	1991-03-07	2018-11-30	Owned
556058	GIG 2	Melba Creek Mining, Inc.	1991-03-07	2018-11-30	Owned
556059	GIG 3	Melba Creek Mining, Inc.	1991-03-07	2018-11-30	Owned
556060	GIG 4	Melba Creek Mining, Inc.	1991-03-07	2018-11-30	Owned
556061	GIG 5	Melba Creek Mining, Inc.	1991-03-07	2018-11-30	Owned
556062	GIG 6	Melba Creek Mining, Inc.	1991-03-07	2018-11-30	Owned
556063	GIG 7	Melba Creek Mining, Inc.	1991-03-07	2018-11-30	Owned
556064	GIG 8	Melba Creek Mining, Inc.	1991-03-07	2018-11-30	Owned
556065	GIG 9	Melba Creek Mining, Inc.	1991-03-07	2018-11-30	Owned
556066	GIG 10	Melba Creek Mining, Inc.	1991-03-07	2018-11-30	Owned
556067	GIG 11	Melba Creek Mining, Inc.	1991-03-07	2018-11-30	Owned
556068	GIG 12	Melba Creek Mining, Inc.	1991-03-07	2018-11-30	Owned
556069	GIG 13	Melba Creek Mining, Inc.	1991-03-07	2018-11-30	Owned
556070	GIG 14	Melba Creek Mining, Inc.	1991-03-07	2018-11-30	Owned
556071	GIG 15	Melba Creek Mining, Inc.	1991-03-07	2018-11-30	Owned
556072	GIG 16	Melba Creek Mining, Inc.	1991-03-07	2018-11-30	Owned
556073	GIG 17	Melba Creek Mining, Inc.	1991-03-07	2018-11-30	Owned
556074	GIG 18	Melba Creek Mining, Inc.	1991-03-07	2018-11-30	Owned
556075	GIG 19	Melba Creek Mining, Inc.	1991-03-07	2018-11-30	Owned
556076	GIG 20	Melba Creek Mining, Inc.	1991-03-07	2018-11-30	Owned
556077	GIG 21	Melba Creek Mining, Inc.	1991-03-07	2018-11-30	Owned
556078	GIG 22	Melba Creek Mining, Inc.	1991-03-07	2018-11-30	Owned
556079	GIG 23	Melba Creek Mining, Inc.	1991-03-07	2018-11-30	Owned
556080	G.V. Fraction # 1	Melba Creek Mining, Inc.	1991-05-16	2018-11-30	Owned
556081	G.V. Fraction # 2	Melba Creek Mining, Inc.	1991-05-16	2018-11-30	Owned
556082	G.V. Fraction # 3	Melba Creek Mining, Inc.	1991-05-16	2018-11-30	Owned





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556083	G.V. Fraction # 4	Melba Creek Mining, Inc.	1991-05-16	2018-11-30	Owned
556084	G.V. Fraction # 5	Melba Creek Mining, Inc.	1991-05-16	2018-11-30	Owned
556085	G.V. Fraction # 6	Melba Creek Mining, Inc.	1991-05-16	2018-11-30	Owned
556086	G.V. Fraction # 7	Melba Creek Mining, Inc.	1991-05-16	2018-11-30	Owned
556087	G.V. Fraction # 8	Melba Creek Mining, Inc.	1991-05-16	2018-11-30	Owned
556088	G.V. Fraction # 9	Melba Creek Mining, Inc.	1991-05-16	2018-11-30	Owned
556089	G.V. Fraction #10	Melba Creek Mining, Inc.	1991-05-16	2018-11-30	Owned
556090	G.V. Fraction #11	Melba Creek Mining, Inc.	1991-05-16	2018-11-30	Owned
556091	G. E. # 1	Melba Creek Mining, Inc.	1991-05-16	2018-11-30	Owned
556092	G. E. # 2	Melba Creek Mining, Inc.	1991-05-16	2018-11-30	Owned
556093	G. E. # 3	Melba Creek Mining, Inc.	1991-05-16	2018-11-30	Owned
556094	G. E. # 4	Melba Creek Mining, Inc.	1991-05-16	2018-11-30	Owned
556342	TN-1	Fairbanks Gold Mining, Inc.	1991-09-24	2018-11-30	Owned
556343	TN-2	Fairbanks Gold Mining, Inc.	1991-09-24	2018-11-30	Owned
556344	TN-3	Fairbanks Gold Mining, Inc.	1991-09-24	2018-11-30	Owned
556345	TN-4	Fairbanks Gold Mining, Inc.	1991-09-24	2018-11-30	Owned
556346	TN-5	Fairbanks Gold Mining, Inc.	1991-09-24	2018-11-30	Owned
556347	TN-6	Fairbanks Gold Mining, Inc.	1991-09-24	2018-11-30	Owned
556348	TN-7	Fairbanks Gold Mining, Inc.	1991-09-24	2018-11-30	Owned
556349	TN-8	Fairbanks Gold Mining, Inc.	1991-09-24	2018-11-30	Owned
556350	TN-9	Fairbanks Gold Mining, Inc.	1991-09-24	2018-11-30	Owned
556351	TN-10	Fairbanks Gold Mining, Inc.	1991-09-25	2018-11-30	Owned
556352	TN-11	Fairbanks Gold Mining, Inc.	1991-09-25	2018-11-30	Owned
556505	TN-12	Fairbanks Gold Mining, Inc.	1991-10-08	2018-11-30	Owned
556506	TN-13	Fairbanks Gold Mining, Inc.	1991-10-08	2018-11-30	Owned
556507	TN-14	Fairbanks Gold Mining, Inc.	1991-10-08	2018-11-30	Owned
556508	TN-15	Fairbanks Gold Mining, Inc.	1991-10-10	2018-11-30	Owned
556509	TN-16	Fairbanks Gold Mining, Inc.	1991-10-10	2018-11-30	Owned
556510	TN-17	Fairbanks Gold Mining, Inc.	1991-10-11	2018-11-30	Owned
556511	TN-18	Fairbanks Gold Mining, Inc.	1991-10-10	2018-11-30	Owned
556512	TN-19	Fairbanks Gold Mining, Inc.	1991-10-10	2018-11-30	Owned
556513	TN-20	Fairbanks Gold Mining, Inc.	1991-10-10	2018-11-30	Owned
556514	TN-21	Fairbanks Gold Mining, Inc.	1991-10-11	2018-11-30	Owned
556515	TN-22	Fairbanks Gold Mining, Inc.	1991-10-11	2018-11-30	Owned
556516	TN-23	Fairbanks Gold Mining, Inc.	1991-10-11	2018-11-30	Owned
556517	TN-24	Fairbanks Gold Mining, Inc.	1991-10-12	2018-11-30	Owned
556719	FY 29	Fairbanks Gold Mining, Inc.	1991-12-03	2018-11-30	Owned
556811	DUO 905 Fraction	Melba Creek Mining, Inc.	1991-12-12	2018-11-30	Owned
556812	DUO 906 Fraction	Melba Creek Mining, Inc.	1991-12-12	2018-11-30	Owned
556813	DUO 907 Fraction	Melba Creek Mining, Inc.	1991-12-12	2018-11-30	Owned
556911	UB 1 Fraction	Fairbanks Gold Mining, Inc.	1992-04-28	2018-11-30	Owned
556912	UB 2 Fraction	Fairbanks Gold Mining, Inc.	1992-04-28	2018-11-30	Owned
556913	GD 403	Fairbanks Gold Mining, Inc.	1992-04-29	2018-11-30	Owned
556914	GD 503	Fairbanks Gold Mining, Inc.	1992-04-29	2018-11-30	Owned
556915	GIL 115	Fairbanks Gold Mining, Inc.	1992-04-15	2018-11-30	Owned
556916	GIL 116	Fairbanks Gold Mining, Inc.	1992-04-15	2018-11-30	Owned
556917	GIL 117	Fairbanks Gold Mining, Inc.	1992-04-15	2018-11-30	Owned
556918	GIL 118	Fairbanks Gold Mining, Inc.	1992-04-15	2018-11-30	Owned
556919	GIL 119	Fairbanks Gold Mining, Inc.	1992-04-01	2018-11-30	Owned
556920	GIL 120	Fairbanks Gold Mining, Inc.	1992-04-01	2018-11-30	Owned
556921	GIL 213	Fairbanks Gold Mining, Inc.	1992-04-14	2018-11-30	Owned
556922	GIL 214	Fairbanks Gold Mining, Inc.	1992-04-14	2018-11-30	Owned
556923	GIL 215	Fairbanks Gold Mining, Inc.	1992-04-14	2018-11-30	Owned
556924	GIL 216	Fairbanks Gold Mining, Inc.	1992-04-16	2018-11-30	Owned
556925	GIL 217	Fairbanks Gold Mining, Inc.	1992-04-13	2018-11-30	Owned
556926	GIL 312	Fairbanks Gold Mining, Inc.	1992-04-03	2018-11-30	Owned
556927	GIL 313	Fairbanks Gold Mining, Inc.	1992-04-03	2018-11-30	Owned
556928	GIL 314	Fairbanks Gold Mining, Inc.	1992-04-14	2018-11-30	Owned
556929	GIL 315	Fairbanks Gold Mining, Inc.	1992-04-14	2018-11-30	Owned
556930	GIL 316	Fairbanks Gold Mining, Inc.	1992-04-13	2018-11-30	Owned



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556931	GIL 412	Fairbanks Gold Mining, Inc.	1992-04-03	2018-11-30	Owned
556932	GIL 413	Fairbanks Gold Mining, Inc.	1992-04-03	2018-11-30	Owned
556933	GIL 414	Fairbanks Gold Mining, Inc.	1992-04-13	2018-11-30	Owned
556934	GIL 415	Fairbanks Gold Mining, Inc.	1992-04-13	2018-11-30	Owned
556935	GIL 416	Fairbanks Gold Mining, Inc.	1992-04-13	2018-11-30	Owned
556936	GIL 512	Fairbanks Gold Mining, Inc.	1992-04-03	2018-11-30	Owned
556937	GIL 1017	Fairbanks Gold Mining, Inc.	1992-04-15	2018-11-30	Owned
556938	GIL 1018	Fairbanks Gold Mining, Inc.	1992-04-15	2018-11-30	Owned
556939	GIL 1019	Fairbanks Gold Mining, Inc.	1992-04-15	2018-11-30	Owned
556940	GIL 1020	Fairbanks Gold Mining, Inc.	1992-04-01	2018-11-30	Owned
556941	GIL 1021	Fairbanks Gold Mining, Inc.	1992-04-01	2018-11-30	Owned
556942	GIL 1121	Fairbanks Gold Mining, Inc.	1992-04-01	2018-11-30	Owned
556943	GIL 1221	Fairbanks Gold Mining, Inc.	1992-04-02	2018-11-30	Owned
556944	GIL 1222	Fairbanks Gold Mining, Inc.	1992-04-01	2018-11-30	Owned
556945	GIL 1223	Fairbanks Gold Mining, Inc.	1992-04-01	2018-11-30	Owned
556946	GIL 1321	Fairbanks Gold Mining, Inc.	1992-04-02	2018-11-30	Owned
556947	GIL 1322	Fairbanks Gold Mining, Inc.	1992-04-02	2018-11-30	Owned
556948	GIL 1323	Fairbanks Gold Mining, Inc.	1992-04-02	2018-11-30	Owned
556949	GIL 1324	Fairbanks Gold Mining, Inc.	1992-04-04	2018-11-30	Owned
556950	GIL 1424	Fairbanks Gold Mining, Inc.	1992-04-04	2018-11-30	Owned
556951	GIL 1425	Fairbanks Gold Mining, Inc.	1992-04-04	2018-11-30	Owned
556952	GIL 1524	Fairbanks Gold Mining, Inc.	1992-04-04	2018-11-30	Owned
556953	GIL 1525	Fairbanks Gold Mining, Inc.	1992-04-04	2018-11-30	Owned
556954	GIL 1526	Fairbanks Gold Mining, Inc.	1992-04-06	2018-11-30	Owned
556955	GIL 1527	Fairbanks Gold Mining, Inc.	1992-04-06	2018-11-30	Owned
556956	GIL 1528	Fairbanks Gold Mining, Inc.	1992-04-06	2018-11-30	Owned
556957	GIL 1529	Fairbanks Gold Mining, Inc.	1992-04-06	2018-11-30	Owned
556958	GIL 1530	Fairbanks Gold Mining, Inc.	1992-04-07	2018-11-30	Owned
556959	GIL 1531	Fairbanks Gold Mining, Inc.	1992-04-07	2018-11-30	Owned
556960	GIL 1532	Fairbanks Gold Mining, Inc.	1992-04-07	2018-11-30	Owned
556961	GIL 1533	Fairbanks Gold Mining, Inc.	1992-04-13	2018-11-30	Owned
556962	GIL 1632	Fairbanks Gold Mining, Inc.	1992-04-09	2018-11-30	Owned
556963	GIL 1633	Fairbanks Gold Mining, Inc.	1992-04-13	2018-11-30	Owned
556964	GIL 1732	Fairbanks Gold Mining, Inc.	1992-04-09	2018-11-30	Owned
556965	GIL 1733	Fairbanks Gold Mining, Inc.	1992-04-14	2018-11-30	Owned
556966	GIL 1734	Fairbanks Gold Mining, Inc.	1992-04-14	2018-11-30	Owned
556967	GIL 1832	Fairbanks Gold Mining, Inc.	1992-04-09	2018-11-30	Owned
556968	GIL 1833	Fairbanks Gold Mining, Inc.	1992-04-14	2018-11-30	Owned
556969	GIL 1834	Fairbanks Gold Mining, Inc.	1992-04-14	2018-11-30	Owned
556970	LC 1	Fairbanks Gold Mining, Inc.	1992-05-27	2018-11-30	Owned
556971	LC 2	Fairbanks Gold Mining, Inc.	1992-05-26	2018-11-30	Owned
556972	LC 3	Fairbanks Gold Mining, Inc.	1992-05-20	2018-11-30	Owned
556973	LC 4	Fairbanks Gold Mining, Inc.	1992-05-20	2018-11-30	Owned
556974	LC 5	Fairbanks Gold Mining, Inc.	1992-05-20	2018-11-30	Owned
556975	LC 6	Fairbanks Gold Mining, Inc.	1992-05-20	2018-11-30	Owned
556976	LC 7	Fairbanks Gold Mining, Inc.	1992-05-19	2018-11-30	Owned
556977	LC 8	Fairbanks Gold Mining, Inc.	1992-06-02	2018-11-30	Owned
556978	LC 9	Fairbanks Gold Mining, Inc.	1992-06-02	2018-11-30	Owned
556979	LC 10	Fairbanks Gold Mining, Inc.	1992-06-02	2018-11-30	Owned
556980	LC 11	Fairbanks Gold Mining, Inc.	1992-05-20	2018-11-30	Owned
556981	LC 12	Fairbanks Gold Mining, Inc.	1992-06-02	2018-11-30	Owned
556982	LC 13	Fairbanks Gold Mining, Inc.	1992-06-01	2018-11-30	Owned
556983	LC 14	Fairbanks Gold Mining, Inc.	1992-06-02	2018-11-30	Owned
556984	LC 15	Fairbanks Gold Mining, Inc.	1992-06-02	2018-11-30	Owned
556985	LC 16	Fairbanks Gold Mining, Inc.	1992-05-29	2018-11-30	Owned
556986	LC 17	Fairbanks Gold Mining, Inc.	1992-05-29	2018-11-30	Owned
556987	LC 18	Fairbanks Gold Mining, Inc.	1992-05-28	2018-11-30	Owned
556988	LC 19	Fairbanks Gold Mining, Inc.	1992-05-29	2018-11-30	Owned
556989	LC 20	Fairbanks Gold Mining, Inc.	1992-05-28	2018-11-30	Owned
556990	LC 21	Fairbanks Gold Mining, Inc.	1992-06-02	2018-11-30	Owned



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556991	LC 22	Fairbanks Gold Mining, Inc.	1992-05-28	2018-11-30	Owned
556992	LC 23	Fairbanks Gold Mining, Inc.	1992-06-03	2018-11-30	Owned
556993	LC 24	Fairbanks Gold Mining, Inc.	1992-06-03	2018-11-30	Owned
556994	LC 25	Fairbanks Gold Mining, Inc.	1992-06-03	2018-11-30	Owned
556995	LC 26	Fairbanks Gold Mining, Inc.	1992-06-03	2018-11-30	Owned
556996	LC 27	Fairbanks Gold Mining, Inc.	1992-06-04	2018-11-30	Owned
556997	LC 28	Fairbanks Gold Mining, Inc.	1992-06-03	2018-11-30	Owned
556998	LC 29	Fairbanks Gold Mining, Inc.	1992-06-03	2018-11-30	Owned
556999	LC 30	Fairbanks Gold Mining, Inc.	1992-06-04	2018-11-30	Owned
557000	LC 31	Fairbanks Gold Mining, Inc.	1992-06-09	2018-11-30	Owned
557001	LC 32	Fairbanks Gold Mining, Inc.	1992-06-04	2018-11-30	Owned
557002	LC 33	Fairbanks Gold Mining, Inc.	1992-06-04	2018-11-30	Owned
557003	LC 34	Fairbanks Gold Mining, Inc.	1992-06-04	2018-11-30	Owned
557004	LC 35	Fairbanks Gold Mining, Inc.	1992-06-09	2018-11-30	Owned
557005	LC 36	Fairbanks Gold Mining, Inc.	1992-06-04	2018-11-30	Owned
557006	LC 37	Fairbanks Gold Mining, Inc.	1992-06-04	2018-11-30	Owned
557593	TAT 71	Fairbanks Gold Mining, Inc.	1992-10-11	2018-11-30	Owned
557594	TAT 72	Fairbanks Gold Mining, Inc.	1992-10-11	2018-11-30	Owned
557851	GIL 927	Fairbanks Gold Mining, Inc.	1992-10-30	2018-11-30	Owned
557852	GIL 928	Fairbanks Gold Mining, Inc.	1992-10-30	2018-11-30	Owned
557853	GIL 1022	Fairbanks Gold Mining, Inc.	1992-10-28	2018-11-30	Owned
557854	GIL 1023	Fairbanks Gold Mining, Inc.	1992-10-28	2018-11-30	Owned
557855	GIL 1024	Fairbanks Gold Mining, Inc.	1992-10-28	2018-11-30	Owned
557856	GIL 1025	Fairbanks Gold Mining, Inc.	1992-10-28	2018-11-30	Owned
557857	GIL 1026	Fairbanks Gold Mining, Inc.	1992-11-11	2018-11-30	Owned
557858	GIL 1027	Fairbanks Gold Mining, Inc.	1992-11-12	2018-11-30	Owned
557859	GIL 1028	Fairbanks Gold Mining, Inc.	1992-11-12	2018-11-30	Owned
557860	GIL 1122	Fairbanks Gold Mining, Inc.	1992-11-04	2018-11-30	Owned
557861	GIL 1123	Fairbanks Gold Mining, Inc.	1992-11-04	2018-11-30	Owned
557862	GIL 1124	Fairbanks Gold Mining, Inc.	1992-11-04	2018-11-30	Owned
557863	GIL 1125	Fairbanks Gold Mining, Inc.	1992-11-04	2018-11-30	Owned
557864	GIL 1126	Fairbanks Gold Mining, Inc.	1992-11-04	2018-11-30	Owned
557865	GIL 1127	Fairbanks Gold Mining, Inc.	1992-11-04	2018-11-30	Owned
557866	GIL 1128	Fairbanks Gold Mining, Inc.	1992-11-04	2018-11-30	Owned
557867	GIL 1224	Fairbanks Gold Mining, Inc.	1992-11-10	2018-11-30	Owned
557868	GIL 1225	Fairbanks Gold Mining, Inc.	1992-11-10	2018-11-30	Owned
557869	GIL 1226	Fairbanks Gold Mining, Inc.	1992-11-10	2018-11-30	Owned
557870	GIL 1227	Fairbanks Gold Mining, Inc.	1992-11-10	2018-11-30	Owned
557871	GIL 1228	Fairbanks Gold Mining, Inc.	1992-11-10	2018-11-30	Owned
557872	GIL 1325	Fairbanks Gold Mining, Inc.	1992-11-09	2018-11-30	Owned
557873	GIL 1326	Fairbanks Gold Mining, Inc.	1992-11-09	2018-11-30	Owned
557874	GIL 1327	Fairbanks Gold Mining, Inc.	1992-11-09	2018-11-30	Owned
557875	GIL 1328	Fairbanks Gold Mining, Inc.	1992-11-09	2018-11-30	Owned
557876	GIL 1426	Fairbanks Gold Mining, Inc.	1992-11-09	2018-11-30	Owned
557877	GIL 1427	Fairbanks Gold Mining, Inc.	1992-11-09	2018-11-30	Owned
557878	GIL 1428	Fairbanks Gold Mining, Inc.	1992-11-09	2018-11-30	Owned
557879	GIL 1825	Fairbanks Gold Mining, Inc.	1992-12-15	2018-11-30	Owned
557880	GIL 1920	Fairbanks Gold Mining, Inc.	1992-12-14	2018-11-30	Owned
557881	GIL 1921	Fairbanks Gold Mining, Inc.	1992-12-14	2018-11-30	Owned
557882	GIL 1922	Fairbanks Gold Mining, Inc.	1992-12-14	2018-11-30	Owned
557883	GIL 1923	Fairbanks Gold Mining, Inc.	1992-12-14	2018-11-30	Owned
557884	GIL 1924	Fairbanks Gold Mining, Inc.	1992-12-14	2018-11-30	Owned
557885	GIL 1925	Fairbanks Gold Mining, Inc.	1992-12-11	2018-11-30	Owned
557886	GIL 1930	Fairbanks Gold Mining, Inc.	1992-12-15	2018-11-30	Owned
557887	GIL 2024	Fairbanks Gold Mining, Inc.	1992-12-14	2018-11-30	Owned
557888	GIL 2025	Fairbanks Gold Mining, Inc.	1992-12-11	2018-11-30	Owned
557889	GIL 2026	Fairbanks Gold Mining, Inc.	1992-12-15	2018-11-30	Owned
557890	GIL 2027	Fairbanks Gold Mining, Inc.	1992-12-15	2018-11-30	Owned
557891	GIL 2028	Fairbanks Gold Mining, Inc.	1992-12-15	2018-11-30	Owned
557892	GIL 2029	Fairbanks Gold Mining, Inc.	1992-12-15	2018-11-30	Owned



Case ID	Claim Name	Registered Owners	Grant Date	Expiry Date	Interest
557893	GIL 2030	Fairbanks Gold Mining, Inc.	1992-12-15	2018-11-30	Owned
557894	Goodsight Fractile	Fairbanks Gold Mining, Inc.	1992-11-13	2018-11-30	Owned
557895	Hind Sight Fractile 1A	Fairbanks Gold Mining, Inc.	1992-11-13	2018-11-30	Owned
557896	Hind Sight Fractile 2A	Fairbanks Gold Mining, Inc.	1992-11-13	2018-11-30	Owned
557897	Hind Sight Fractile 3A	Fairbanks Gold Mining, Inc.	1992-11-13	2018-11-30	Owned
557898	Hind Sight Fractile 4A	Fairbanks Gold Mining, Inc.	1992-11-13	2018-11-30	Owned
557964	DUO 911 Fraction	Fairbanks Gold Mining, Inc.	1993-02-11	2018-11-30	Owned
557967	DUO 612	Fairbanks Gold Mining, Inc.	1993-02-17	2018-11-30	Owned
557968	DUO 613	Fairbanks Gold Mining, Inc.	1993-02-17	2018-11-30	Owned
557969	Sliver 1	Fairbanks Gold Mining, Inc.	1993-03-02	2018-11-30	Owned
557970	Sliver 2	Fairbanks Gold Mining, Inc.	1993-03-02	2018-11-30	Owned
557971	Sliver 3	Fairbanks Gold Mining, Inc.	1993-03-01	2018-11-30	Owned
557972	Sliver 4	Fairbanks Gold Mining, Inc.	1993-03-02	2018-11-30	Owned
557973	Sliver 5	Fairbanks Gold Mining, Inc.	1993-02-22	2018-11-30	Owned
557974	Sliver 6	Fairbanks Gold Mining, Inc.	1993-03-01	2018-11-30	Owned
557987	GIL 1933	Fairbanks Gold Mining, Inc.	1993-04-03	2018-11-30	Owned
557988	GIL 1934	Fairbanks Gold Mining, Inc.	1993-04-03	2018-11-30	Owned
557989	GIL 1935	Fairbanks Gold Mining, Inc.	1993-04-02	2018-11-30	Owned
557990	GIL 1936	Fairbanks Gold Mining, Inc.	1993-04-03	2018-11-30	Owned
557991	GIL 2033	Fairbanks Gold Mining, Inc.	1993-04-03	2018-11-30	Owned
557992	GIL 2034	Fairbanks Gold Mining, Inc.	1993-04-03	2018-11-30	Owned
557993	GIL 2035	Fairbanks Gold Mining, Inc.	1993-04-03	2018-11-30	Owned
557994	GIL 2036	Fairbanks Gold Mining, Inc.	1993-04-03	2018-11-30	Owned
557995	GIL 2037	Fairbanks Gold Mining, Inc.	1993-04-03	2018-11-30	Owned
557996	GIL 2133	Fairbanks Gold Mining, Inc.	1993-04-03	2018-11-30	Owned
557997	GIL 2134	Fairbanks Gold Mining, Inc.	1993-04-07	2018-11-30	Owned
557998	GIL 2135	Fairbanks Gold Mining, Inc.	1993-04-07	2018-11-30	Owned
557999	GIL 2136	Fairbanks Gold Mining, Inc.	1993-04-07	2018-11-30	Owned
558000	GIL 2137	Fairbanks Gold Mining, Inc.	1993-04-04	2018-11-30	Owned
558001	GIL 2234	Fairbanks Gold Mining, Inc.	1993-04-09	2018-11-30	Owned
558002	GIL 2235	Fairbanks Gold Mining, Inc.	1993-04-09	2018-11-30	Owned
558003	GIL 2236	Fairbanks Gold Mining, Inc.	1993-04-08	2018-11-30	Owned
558004	GIL 2237	Fairbanks Gold Mining, Inc.	1993-04-04	2018-11-30	Owned
558005	GIL 2238	Fairbanks Gold Mining, Inc.	1993-04-04	2018-11-30	Owned
558006	GIL 2334	Fairbanks Gold Mining, Inc.	1993-04-10	2018-11-30	Owned
558007	GIL 2335	Fairbanks Gold Mining, Inc.	1993-04-10	2018-11-30	Owned
558008	GIL 2336	Fairbanks Gold Mining, Inc.	1993-04-10	2018-11-30	Owned
558009	GIL 2337	Fairbanks Gold Mining, Inc.	1993-04-04	2018-11-30	Owned
558010	GIL 2338	Fairbanks Gold Mining, Inc.	1993-04-04	2018-11-30	Owned
558011	GIL 2435	Fairbanks Gold Mining, Inc.	1993-04-11	2018-11-30	Owned
558012	GIL 2436	Fairbanks Gold Mining, Inc.	1993-04-11	2018-11-30	Owned
558335	Phil 1	Fairbanks Gold Mining, Inc.	1993-08-12	2018-11-30	Owned
558336	Phil 2	Fairbanks Gold Mining, Inc.	1993-08-17	2018-11-30	Owned
558337	Phil 3	Fairbanks Gold Mining, Inc.	1993-08-22	2018-11-30	Owned
558338	Phil 4	Fairbanks Gold Mining, Inc.	1993-08-22	2018-11-30	Owned
558339	Phil 5	Fairbanks Gold Mining, Inc.	1993-08-22	2018-11-30	Owned
558340	Phil 6	Fairbanks Gold Mining, Inc.	1993-08-12	2018-11-30	Owned
558341	Phil 7	Fairbanks Gold Mining, Inc.	1993-08-17	2018-11-30	Owned
558342	Phil 8	Fairbanks Gold Mining, Inc.	1993-08-23	2018-11-30	Owned
558343	Phil 9	Fairbanks Gold Mining, Inc.	1993-08-26	2018-11-30	Owned
558344	Phil 10	Fairbanks Gold Mining, Inc.	1993-08-26	2018-11-30	Owned
558345	Phil 11	Fairbanks Gold Mining, Inc.	1993-08-12	2018-11-30	Owned
558346	Phil 12	Fairbanks Gold Mining, Inc.	1993-08-17	2018-11-30	Owned
558347	Phil 13	Fairbanks Gold Mining, Inc.	1993-08-23	2018-11-30	Owned
558348	Phil 14	Fairbanks Gold Mining, Inc.	1993-08-26	2018-11-30	Owned
558349	Phil 15	Fairbanks Gold Mining, Inc.	1993-08-30	2018-11-30	Owned
558350	Phil 16	Fairbanks Gold Mining, Inc.	1993-08-12	2018-11-30	Owned
558351	Phil 17	Fairbanks Gold Mining, Inc.	1993-08-17	2018-11-30	Owned
558352	Phil 18	Fairbanks Gold Mining, Inc.	1993-08-25	2018-11-30	Owned
558353	Phil 19	Fairbanks Gold Mining, Inc.	1993-08-30	2018-11-30	Owned



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558354	Phil 20	Fairbanks Gold Mining, Inc.	1993-08-30	2018-11-30	Owned
558355	Phil 21	Fairbanks Gold Mining, Inc.	1993-08-12	2018-11-30	Owned
558356	Phil 22	Fairbanks Gold Mining, Inc.	1993-08-17	2018-11-30	Owned
558357	Phil 23	Fairbanks Gold Mining, Inc.	1993-08-25	2018-11-30	Owned
558358	Phil 24	Fairbanks Gold Mining, Inc.	1993-08-30	2018-11-30	Owned
558359	Phil 25	Fairbanks Gold Mining, Inc.	1993-08-30	2018-11-30	Owned
558360	Phil 26	Fairbanks Gold Mining, Inc.	1993-08-12	2018-11-30	Owned
558361	Phil 27	Fairbanks Gold Mining, Inc.	1993-08-17	2018-11-30	Owned
558362	Phil 28	Fairbanks Gold Mining, Inc.	1993-08-25	2018-11-30	Owned
558363	Phil 29	Fairbanks Gold Mining, Inc.	1993-08-30	2018-11-30	Owned
558364	Phil 30	Fairbanks Gold Mining, Inc.	1993-08-30	2018-11-30	Owned
559011	South Slope 14	Fairbanks Gold Mining, Inc.	1994-06-27	2018-11-30	Owned
559378	South Slope 17	Fairbanks Gold Mining, Inc.	1994-10-07	2018-11-30	Owned
559379	South Slope 18	Fairbanks Gold Mining, Inc.	1994-10-07	2018-11-30	Owned
559380	South Slope 19	Fairbanks Gold Mining, Inc.	1994-10-07	2018-11-30	Owned
559381	South Slope 20	Fairbanks Gold Mining, Inc.	1994-09-15	2018-11-30	Owned
559382	South Slope 21	Fairbanks Gold Mining, Inc.	1994-10-01	2018-11-30	Owned
559383	South Slope 22	Fairbanks Gold Mining, Inc.	1994-10-06	2018-11-30	Owned
559384	South Slope 23	Fairbanks Gold Mining, Inc.	1994-10-06	2018-11-30	Owned
559385	South Slope 24	Fairbanks Gold Mining, Inc.	1994-10-06	2018-11-30	Owned
559386	South Slope 25	Fairbanks Gold Mining, Inc.	1994-10-06	2018-11-30	Owned
559387	South Slope 26	Fairbanks Gold Mining, Inc.	1994-09-15	2018-11-30	Owned
559388	South Slope 27	Fairbanks Gold Mining, Inc.	1994-10-01	2018-11-30	Owned
559389	South Slope 28	Fairbanks Gold Mining, Inc.	1994-10-05	2018-11-30	Owned
559390	South Slope 29	Fairbanks Gold Mining, Inc.	1994-10-05	2018-11-30	Owned
559391	South Slope 30	Fairbanks Gold Mining, Inc.	1994-10-05	2018-11-30	Owned
559392	South Slope 31	Fairbanks Gold Mining, Inc.	1994-10-05	2018-11-30	Owned
559393	South Slope 32	Fairbanks Gold Mining, Inc.	1994-09-15	2018-11-30	Owned
559394	South Slope 33	Fairbanks Gold Mining, Inc.	1994-10-01	2018-11-30	Owned
559395	South Slope 34	Fairbanks Gold Mining, Inc.	1994-09-30	2018-11-30	Owned
559396	South Slope 35	Fairbanks Gold Mining, Inc.	1994-09-30	2018-11-30	Owned
559397	South Slope 36	Fairbanks Gold Mining, Inc.	1994-09-30	2018-11-30	Owned
559398	South Slope 37	Fairbanks Gold Mining, Inc.	1994-09-30	2018-11-30	Owned
559399	South Slope 38	Fairbanks Gold Mining, Inc.	1994-09-15	2018-11-30	Owned
559400	South Slope 39	Fairbanks Gold Mining, Inc.	1994-09-27	2018-11-30	Owned
559401	South Slope 40	Fairbanks Gold Mining, Inc.	1994-09-27	2018-11-30	Owned
559402	South Slope 41	Fairbanks Gold Mining, Inc.	1994-10-02	2018-11-30	Owned
559403	South Slope 42	Fairbanks Gold Mining, Inc.	1994-10-02	2018-11-30	Owned
559404	South Slope 43	Fairbanks Gold Mining, Inc.	1994-11-03	2018-11-30	Owned
559405	South Slope 44	Fairbanks Gold Mining, Inc.	1994-11-04	2018-11-30	Owned
559406	South Slope 50	Fairbanks Gold Mining, Inc.	1994-10-28	2018-11-30	Owned
559407	South Slope 51	Fairbanks Gold Mining, Inc.	1994-11-03	2018-11-30	Owned
559408	South Slope 52	Fairbanks Gold Mining, Inc.	1994-11-04	2018-11-30	Owned
559409	South Slope 55	Fairbanks Gold Mining, Inc.	1994-10-28	2018-11-30	Owned
559410	South Slope 56	Fairbanks Gold Mining, Inc.	1994-11-02	2018-11-30	Owned
559411	South Slope 57	Fairbanks Gold Mining, Inc.	1994-11-04	2018-11-30	Owned
559412	South Slope 61	Fairbanks Gold Mining, Inc.	1994-10-28	2018-11-30	Owned
559413	South Slope 62	Fairbanks Gold Mining, Inc.	1994-11-02	2018-11-30	Owned
559414	South Slope 63	Fairbanks Gold Mining, Inc.	1994-11-04	2018-11-30	Owned
559415	South Slope 64	Fairbanks Gold Mining, Inc.	1994-11-14	2018-11-30	Owned
559416	South Slope 65	Fairbanks Gold Mining, Inc.	1994-11-25	2018-11-30	Owned
559417	South Slope 66	Fairbanks Gold Mining, Inc.	1994-11-26	2018-11-30	Owned
559418	South Slope 68	Fairbanks Gold Mining, Inc.	1994-11-02	2018-11-30	Owned
559419	South Slope 69	Fairbanks Gold Mining, Inc.	1994-11-03	2018-11-30	Owned
559420	South Slope 70	Fairbanks Gold Mining, Inc.	1994-11-12	2018-11-30	Owned
559421	South Slope 71	Fairbanks Gold Mining, Inc.	1994-11-15	2018-11-30	Owned
559422	South Slope 80	Fairbanks Gold Mining, Inc.	1994-11-02	2018-11-30	Owned
559423	South Slope 81	Fairbanks Gold Mining, Inc.	1994-11-03	2018-11-30	Owned
559424	South Slope 82	Fairbanks Gold Mining, Inc.	1994-11-14	2018-11-30	Owned
559425	South Slope 83	Fairbanks Gold Mining, Inc.	1994-11-23	2018-11-30	Owned





Case ID	Claim Name	Registered Owners	Grant Date	Expiry Date	Interest
559426	South Slope 92	Fairbanks Gold Mining, Inc.	1994-10-13	2018-11-30	Owned
559427	South Slope 93	Fairbanks Gold Mining, Inc.	1994-10-13	2018-11-30	Owned
559428	South Slope 94	Fairbanks Gold Mining, Inc.	1994-10-13	2018-11-30	Owned
559429	South Slope 95	Fairbanks Gold Mining, Inc.	1994-10-13	2018-11-30	Owned
559430	South Slope 96	Fairbanks Gold Mining, Inc.	1994-10-11	2018-11-30	Owned
559431	South Slope 97	Fairbanks Gold Mining, Inc.	1994-10-12	2018-11-30	Owned
559432	South Slope 98	Fairbanks Gold Mining, Inc.	1994-10-07	2018-11-30	Owned
559433	South Slope 99	Fairbanks Gold Mining, Inc.	1994-10-07	2018-11-30	Owned
559434	South Slope 100	Fairbanks Gold Mining, Inc.	1994-10-07	2018-11-30	Owned
559435	South Slope 101	Fairbanks Gold Mining, Inc.	1994-10-07	2018-11-30	Owned
559445	South Slope 131A	Fairbanks Gold Mining, Inc.	1994-10-12	2018-11-30	Owned
559446	South Slope 131	Fairbanks Gold Mining, Inc.	1994-10-03	2018-11-30	Owned
559447	South Slope 132	Fairbanks Gold Mining, Inc.	1994-10-03	2018-11-30	Owned
559448	South Slope 133	Fairbanks Gold Mining, Inc.	1994-10-03	2018-11-30	Owned
559449	South Slope 134	Fairbanks Gold Mining, Inc.	1994-10-03	2018-11-30	Owned
559454	South Slope 139	Fairbanks Gold Mining, Inc.	1994-09-30	2018-11-30	Owned
559459	South Slope 144	Fairbanks Gold Mining, Inc.	1994-09-30	2018-11-30	Owned
559460	JJP 31	Fairbanks Gold Mining, Inc.	2017-12-11	2018-11-30	Owned
559461	JJP 32	Fairbanks Gold Mining, Inc.	2017-12-11	2018-11-30	Owned
559462	JJP 33	Fairbanks Gold Mining, Inc.	2017-12-11	2018-11-30	Owned
559463	JJP 500A	Fairbanks Gold Mining, Inc.	2017-12-11	2018-11-30	Owned
559578	TN-47	Fairbanks Gold Mining, Inc.	1994-10-07	2018-11-30	Owned
559579	TN-48	Fairbanks Gold Mining, Inc.	1994-10-07	2018-11-30	Owned
559580	TN-53	Fairbanks Gold Mining, Inc.	1994-10-07	2018-11-30	Owned
559581	TN-54	Fairbanks Gold Mining, Inc.	1994-10-07	2018-11-30	Owned
559582	TN-55	Fairbanks Gold Mining, Inc.	1994-10-07	2018-11-30	Owned
559583	TN-56	Fairbanks Gold Mining, Inc.	1994-10-07	2018-11-30	Owned
559584	TN-57	Fairbanks Gold Mining, Inc.	1994-11-01	2018-11-30	Owned
559722	TN-68	Fairbanks Gold Mining, Inc.	1994-10-15	2018-11-30	Owned
559723	TN-69	Fairbanks Gold Mining, Inc.	1995-02-06	2018-11-30	Owned
559725	TN-71	Fairbanks Gold Mining, Inc.	1995-02-13	2018-11-30	Owned
559726	TN-72	Fairbanks Gold Mining, Inc.	1995-02-14	2018-11-30	Owned
559727	TN-73	Fairbanks Gold Mining, Inc.	1995-02-13	2018-11-30	Owned
559728	TN-74	Fairbanks Gold Mining, Inc.	1995-02-14	2018-11-30	Owned
559729	TN-75	Fairbanks Gold Mining, Inc.	1995-02-09	2018-11-30	Owned
559730	TN-76	Fairbanks Gold Mining, Inc.	1995-02-09	2018-11-30	Owned
559731	TN-77	Fairbanks Gold Mining, Inc.	1995-02-09	2018-11-30	Owned
559732	TN-78	Fairbanks Gold Mining, Inc.	1995-02-09	2018-11-30	Owned
559733	TN-79	Fairbanks Gold Mining, Inc.	1995-02-13	2018-11-30	Owned
559734	TN-80	Fairbanks Gold Mining, Inc.	1995-02-08	2018-11-30	Owned
559735	TN-81	Fairbanks Gold Mining, Inc.	1995-02-16	2018-11-30	Owned
559736	TN-82	Fairbanks Gold Mining, Inc.	1995-02-15	2018-11-30	Owned
559737	TN-83	Fairbanks Gold Mining, Inc.	1995-02-15	2018-11-30	Owned
559738	South Slope 45	Fairbanks Gold Mining, Inc.	1994-12-13	2018-11-30	Owned
559739	South Slope 46	Fairbanks Gold Mining, Inc.	1995-01-10	2018-11-30	Owned
559740	South Slope 47	Fairbanks Gold Mining, Inc.	1994-12-12	2018-11-30	Owned
559741	South Slope 48	Fairbanks Gold Mining, Inc.	1994-12-09	2018-11-30	Owned
559742	South Slope 49	Fairbanks Gold Mining, Inc.	1994-12-09	2018-11-30	Owned
559743	South Slope 53	Fairbanks Gold Mining, Inc.	1994-12-13	2018-11-30	Owned
559744	South Slope 54	Fairbanks Gold Mining, Inc.	1994-12-22	2018-11-30	Owned
559745	South Slope 58	Fairbanks Gold Mining, Inc.	1994-12-13	2018-11-30	Owned
559746	South Slope 59	Fairbanks Gold Mining, Inc.	1994-12-22	2018-11-30	Owned
559747	South Slope 60	Fairbanks Gold Mining, Inc.	1995-01-20	2018-11-30	Owned
559748	South Slope 67	Fairbanks Gold Mining, Inc.	1995-01-17	2018-11-30	Owned
559749	South Slope 72	Fairbanks Gold Mining, Inc.	1994-12-21	2018-11-30	Owned
559750	South Slope 73	Fairbanks Gold Mining, Inc.	1995-01-17	2018-11-30	Owned
559751	South Slope 74	Fairbanks Gold Mining, Inc.	1995-01-17	2018-11-30	Owned
559752	South Slope 75	Fairbanks Gold Mining, Inc.	1995-01-18	2018-11-30	Owned
559753	South Slope 76	Fairbanks Gold Mining, Inc.	1995-01-18	2018-11-30	Owned
559754	South Slope 77	Fairbanks Gold Mining, Inc.	1995-01-21	2018-11-30	Owned



Case ID	Claim Name	Registered Owners	Grant Date	Expiry Date	Interest
559755	South Slope 78	Fairbanks Gold Mining, Inc.	1995-01-30	2018-11-30	Owned
559756	South Slope 79	Fairbanks Gold Mining, Inc.	1995-01-30	2018-11-30	Owned
559757	South Slope 84	Fairbanks Gold Mining, Inc.	1994-12-20	2018-11-30	Owned
559758	South Slope 85	Fairbanks Gold Mining, Inc.	1995-01-17	2018-11-30	Owned
559759	South Slope 86	Fairbanks Gold Mining, Inc.	1995-01-18	2018-11-30	Owned
559760	South Slope 87	Fairbanks Gold Mining, Inc.	1995-01-19	2018-11-30	Owned
559761	South Slope 88	Fairbanks Gold Mining, Inc.	1995-01-19	2018-11-30	Owned
559762	South Slope 89	Fairbanks Gold Mining, Inc.	1995-01-26	2018-11-30	Owned
559763	South Slope 90	Fairbanks Gold Mining, Inc.	1995-02-01	2018-11-30	Owned
559764	South Slope 91	Fairbanks Gold Mining, Inc.	1995-02-01	2018-11-30	Owned
559765	South Slope 102	Fairbanks Gold Mining, Inc.	1995-02-11	2018-11-30	Owned
559766	South Slope 103	Fairbanks Gold Mining, Inc.	1995-02-11	2018-11-30	Owned
559767	South Slope 104	Fairbanks Gold Mining, Inc.	1995-02-09	2018-11-30	Owned
559768	South Slope 109	Fairbanks Gold Mining, Inc.	1995-02-11	2018-11-30	Owned
559769	South Slope 110	Fairbanks Gold Mining, Inc.	1995-02-15	2018-11-30	Owned
559770	South Slope 111	Fairbanks Gold Mining, Inc.	1995-02-15	2018-11-30	Owned
559771	South Slope 112	Fairbanks Gold Mining, Inc.	1995-02-15	2018-11-30	Owned
559772	South Slope 113	Fairbanks Gold Mining, Inc.	1995-02-16	2018-11-30	Owned
559773	South Slope 117	Fairbanks Gold Mining, Inc.	1995-03-03	2018-11-30	Owned
559774	South Slope 118	Fairbanks Gold Mining, Inc.	1995-03-03	2018-11-30	Owned
559775	South Slope 119	Fairbanks Gold Mining, Inc.	1995-03-03	2018-11-30	Owned
559776	South Slope 120	Fairbanks Gold Mining, Inc.	1995-03-01	2018-11-30	Owned
559777	South Slope 121	Fairbanks Gold Mining, Inc.	1995-03-01	2018-11-30	Owned
559778	South Slope 122	Fairbanks Gold Mining, Inc.	1995-02-16	2018-11-30	Owned
559779	South Slope 125	Fairbanks Gold Mining, Inc.	1995-02-03	2018-11-30	Owned
559780	South Slope 126	Fairbanks Gold Mining, Inc.	1995-02-03	2018-11-30	Owned
559781	South Slope 127	Fairbanks Gold Mining, Inc.	1995-02-01	2018-11-30	Owned
559782	South Slope 128	Fairbanks Gold Mining, Inc.	1995-02-02	2018-11-30	Owned
559783	South Slope 129	Fairbanks Gold Mining, Inc.	1995-02-02	2018-11-30	Owned
559784	South Slope 130	Fairbanks Gold Mining, Inc.	1995-02-02	2018-11-30	Owned
559785	South Slope 135	Fairbanks Gold Mining, Inc.	1995-02-04	2018-11-30	Owned
559786	South Slope 140	Fairbanks Gold Mining, Inc.	1995-02-04	2018-11-30	Owned
559787	South Slope 145	Fairbanks Gold Mining, Inc.	1995-02-04	2018-11-30	Owned
563967	CREEK 7	Fairbanks Gold Mining, Inc.	1996-04-16	2018-11-30	Owned
563968	CREEK 8	Fairbanks Gold Mining, Inc.	1996-04-16	2018-11-30	Owned
563969	CREEK 9	Fairbanks Gold Mining, Inc.	1996-04-16	2018-11-30	Owned
563970	CREEK 10	Fairbanks Gold Mining, Inc.	1996-04-16	2018-11-30	Owned
563971	CREEK 11	Fairbanks Gold Mining, Inc.	1996-04-16	2018-11-30	Owned
563972	CREEK 12	Fairbanks Gold Mining, Inc.	1996-04-16	2018-11-30	Owned
563973	CREEK 13	Fairbanks Gold Mining, Inc.	1996-04-16	2018-11-30	Owned
563974	CREEK 14	Fairbanks Gold Mining, Inc.	1996-04-16	2018-11-30	Owned
563975	CREEK 15	Fairbanks Gold Mining, Inc.	1996-04-16	2018-11-30	Owned
563976	CREEK 16	Fairbanks Gold Mining, Inc.	1996-04-16	2018-11-30	Owned
563989	CREEK 29	Fairbanks Gold Mining, Inc.	1996-04-13	2018-11-30	Owned
563990	CREEK 30	Fairbanks Gold Mining, Inc.	1996-04-13	2018-11-30	Owned
563991	CREEK 31	Fairbanks Gold Mining, Inc.	1996-04-13	2018-11-30	Owned
563992	CREEK 32	Fairbanks Gold Mining, Inc.	1996-04-13	2018-11-30	Owned
563993	CREEK 42	Fairbanks Gold Mining, Inc.	1996-04-11	2018-11-30	Owned
563994	CREEK 43	Fairbanks Gold Mining, Inc.	1996-04-11	2018-11-30	Owned
563995	CREEK 44	Fairbanks Gold Mining, Inc.	1996-04-11	2018-11-30	Owned
563996	CREEK 45	Fairbanks Gold Mining, Inc.	1996-04-11	2018-11-30	Owned
570190	South Slope 146	Fairbanks Gold Mining, Inc.	1995-05-27	2018-11-30	Owned
570191	South Slope 147	Fairbanks Gold Mining, Inc.	1995-05-27	2018-11-30	Owned
570192	South Slope 148	Fairbanks Gold Mining, Inc.	1995-05-27	2018-11-30	Owned
570193	South Slope 149	Fairbanks Gold Mining, Inc.	1995-05-27	2018-11-30	Owned
570194	South Slope 150	Fairbanks Gold Mining, Inc.	1995-05-27	2018-11-30	Owned
570195	South Slope 151	Fairbanks Gold Mining, Inc.	1995-05-30	2018-11-30	Owned
570196	South Slope 152	Fairbanks Gold Mining, Inc.	1995-05-30	2018-11-30	Owned
570197	South Slope 153	Fairbanks Gold Mining, Inc.	1995-05-23	2018-11-30	Owned
570198	South Slope 154	Fairbanks Gold Mining, Inc.	1995-05-23	2018-11-30	Owned





Case ID	Claim Name	Registered Owners	Grant Date	Expiry Date	Interest
570199	South Slope 155	Fairbanks Gold Mining, Inc.	1995-05-23	2018-11-30	Owned
570200	South Slope 156	Fairbanks Gold Mining, Inc.	1995-05-23	2018-11-30	Owned
570202	South Slope 158	Fairbanks Gold Mining, Inc.	1995-05-25	2018-11-30	Owned
570203	South Slope 159	Fairbanks Gold Mining, Inc.	1995-05-25	2018-11-30	Owned
570204	South Slope 160	Fairbanks Gold Mining, Inc.	1995-05-19	2018-11-30	Owned
570205	South Slope 161	Fairbanks Gold Mining, Inc.	1995-05-19	2018-11-30	Owned
570206	South Slope 162	Fairbanks Gold Mining, Inc.	1995-05-19	2018-11-30	Owned
570207	South Slope 163	Fairbanks Gold Mining, Inc.	1995-05-19	2018-11-30	Owned
570208	South Slope 164	Fairbanks Gold Mining, Inc.	1995-05-19	2018-11-30	Owned
570209	South Slope 165	Fairbanks Gold Mining, Inc.	1995-05-19	2018-11-30	Owned
570210	South Slope 166	Fairbanks Gold Mining, Inc.	1995-05-19	2018-11-30	Owned
570211	South Slope 167	Fairbanks Gold Mining, Inc.	1995-04-01	2018-11-30	Owned
570212	South Slope 168	Fairbanks Gold Mining, Inc.	1995-04-01	2018-11-30	Owned
570213	South Slope 169	Fairbanks Gold Mining, Inc.	1995-04-02	2018-11-30	Owned
570216	South Slope 172	Fairbanks Gold Mining, Inc.	1995-05-20	2018-11-30	Owned
570217	South Slope 173	Fairbanks Gold Mining, Inc.	1995-05-20	2018-11-30	Owned
570218	South Slope 174	Fairbanks Gold Mining, Inc.	1995-03-07	2018-11-30	Owned
570219	South Slope 175	Fairbanks Gold Mining, Inc.	1995-03-07	2018-11-30	Owned
570220	South Slope 176	Fairbanks Gold Mining, Inc.	1995-03-29	2018-11-30	Owned
570221	South Slope 177	Fairbanks Gold Mining, Inc.	1995-03-29	2018-11-30	Owned
570222	South Slope 178	Fairbanks Gold Mining, Inc.	1995-03-25	2018-11-30	Owned
570223	South Slope 179	Fairbanks Gold Mining, Inc.	1995-03-25	2018-11-30	Owned
570224	South Slope 180	Fairbanks Gold Mining, Inc.	1995-03-25	2018-11-30	Owned
570225	South Slope 181	Fairbanks Gold Mining, Inc.	1995-03-25	2018-11-30	Owned
570226	South Slope 182	Fairbanks Gold Mining, Inc.	1995-03-25	2018-11-30	Owned
570227	South Slope 183	Fairbanks Gold Mining, Inc.	1995-03-24	2018-11-30	Owned
570228	South Slope 184	Fairbanks Gold Mining, Inc.	1995-03-24	2018-11-30	Owned
570229	South Slope 185	Fairbanks Gold Mining, Inc.	1995-03-24	2018-11-30	Owned
570230	South Slope 195	Fairbanks Gold Mining, Inc.	1995-03-18	2018-11-30	Owned
570231	South Slope 196	Fairbanks Gold Mining, Inc.	1995-03-18	2018-11-30	Owned
570232	South Slope 197	Fairbanks Gold Mining, Inc.	1995-03-18	2018-11-30	Owned
570233	South Slope 198	Fairbanks Gold Mining, Inc.	1995-03-18	2018-11-30	Owned
570234	South Slope 199	Fairbanks Gold Mining, Inc.	1995-03-18	2018-11-30	Owned
570235	South Slope 200	Fairbanks Gold Mining, Inc.	1995-03-23	2018-11-30	Owned
570236	South Slope 201	Fairbanks Gold Mining, Inc.	1995-03-23	2018-11-30	Owned
570237	South Slope 202	Fairbanks Gold Mining, Inc.	1995-03-23	2018-11-30	Owned
570238	South Slope 203	Fairbanks Gold Mining, Inc.	1995-03-23	2018-11-30	Owned
570239	South Slope 204	Fairbanks Gold Mining, Inc.	1995-03-23	2018-11-30	Owned
570240	South Slope 205	Fairbanks Gold Mining, Inc.	1995-03-24	2018-11-30	Owned
570241	South Slope 206	Fairbanks Gold Mining, Inc.	1995-03-24	2018-11-30	Owned
570242	South Slope 216	Fairbanks Gold Mining, Inc.	1995-03-10	2018-11-30	Owned
570243	South Slope 217	Fairbanks Gold Mining, Inc.	1995-03-10	2018-11-30	Owned
570244	South Slope 218	Fairbanks Gold Mining, Inc.	1995-03-10	2018-11-30	Owned
570245	South Slope 219	Fairbanks Gold Mining, Inc.	1995-03-16	2018-11-30	Owned
570246	South Slope 220	Fairbanks Gold Mining, Inc.	1995-03-16	2018-11-30	Owned
570247	South Slope 221	Fairbanks Gold Mining, Inc.	1995-03-16	2018-11-30	Owned
570248	South Slope 222	Fairbanks Gold Mining, Inc.	1995-03-17	2018-11-30	Owned
570249	South Slope 223	Fairbanks Gold Mining, Inc.	1995-03-17	2018-11-30	Owned
570250	South Slope 224	Fairbanks Gold Mining, Inc.	1995-03-17	2018-11-30	Owned
570251	South Slope 225	Fairbanks Gold Mining, Inc.	1995-03-17	2018-11-30	Owned
570252	South Slope 226	Fairbanks Gold Mining, Inc.	1995-03-17	2018-11-30	Owned
570253	South Slope 236	Fairbanks Gold Mining, Inc.	1995-03-08	2018-11-30	Owned
570254	South Slope 237	Fairbanks Gold Mining, Inc.	1995-03-08	2018-11-30	Owned
570255	South Slope 238	Fairbanks Gold Mining, Inc.	1995-03-08	2018-11-30	Owned
570256	South Slope 239	Fairbanks Gold Mining, Inc.	1995-03-08	2018-11-30	Owned
570257	South Slope 240	Fairbanks Gold Mining, Inc.	1995-03-08	2018-11-30	Owned
570258	South Slope 241	Fairbanks Gold Mining, Inc.	1995-03-08	2018-11-30	Owned
571266	FR # 51	Fairbanks Gold Mining, Inc.	1995-11-28	2018-11-30	Owned
571267	FR # 52	Fairbanks Gold Mining, Inc.	1995-11-29	2018-11-30	Owned
571271	FR # 56	Fairbanks Gold Mining, Inc.	1995-11-28	2018-11-30	Owned



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571272	FR # 57	Fairbanks Gold Mining, Inc.	1995-11-28	2018-11-30	Owned
571273	FR # 58	Fairbanks Gold Mining, Inc.	1995-11-29	2018-11-30	Owned
571276	FR # 61	Fairbanks Gold Mining, Inc.	1995-11-29	2018-11-30	Owned
571278	FR # 63	Fairbanks Gold Mining, Inc.	1995-11-29	2018-11-30	Owned
571784	South Slope 207	Fairbanks Gold Mining, Inc.	1996-04-26	2018-11-30	Owned
571785	South Slope 208	Fairbanks Gold Mining, Inc.	1996-04-26	2018-11-30	Owned
571786	South Slope 209	Fairbanks Gold Mining, Inc.	1996-04-21	2018-11-30	Owned
571787	South Slope 210	Fairbanks Gold Mining, Inc.	1996-04-21	2018-11-30	Owned
571788	South Slope 211	Fairbanks Gold Mining, Inc.	1996-04-21	2018-11-30	Owned
571789	South Slope 212	Fairbanks Gold Mining, Inc.	1996-03-19	2018-11-30	Owned
571790	South Slope 213	Fairbanks Gold Mining, Inc.	1996-03-19	2018-11-30	Owned
571791	South Slope 227	Fairbanks Gold Mining, Inc.	1996-04-26	2018-11-30	Owned
571792	South Slope 228	Fairbanks Gold Mining, Inc.	1996-04-19	2018-11-30	Owned
571793	South Slope 229	Fairbanks Gold Mining, Inc.	1996-04-19	2018-11-30	Owned
571794	South Slope 230	Fairbanks Gold Mining, Inc.	1996-04-19	2018-11-30	Owned
571795	South Slope 231	Fairbanks Gold Mining, Inc.	1996-04-14	2018-11-30	Owned
571796	South Slope 232	Fairbanks Gold Mining, Inc.	1996-04-17	2018-11-30	Owned
571797	South Slope 233	Fairbanks Gold Mining, Inc.	1996-04-17	2018-11-30	Owned
571798	South Slope 234	Fairbanks Gold Mining, Inc.	1996-03-21	2018-11-30	Owned
571799	South Slope 235	Fairbanks Gold Mining, Inc.	1996-03-21	2018-11-30	Owned
571800	South Slope 242	Fairbanks Gold Mining, Inc.	1996-04-14	2018-11-30	Owned
571801	South Slope 243	Fairbanks Gold Mining, Inc.	1996-04-14	2018-11-30	Owned
571802	South Slope 244	Fairbanks Gold Mining, Inc.	1996-03-21	2018-11-30	Owned
571803	South Slope 245	Fairbanks Gold Mining, Inc.	1996-03-21	2018-11-30	Owned
571804	South Slope 246	Fairbanks Gold Mining, Inc.	1996-04-13	2018-11-30	Owned
571805	South Slope 247	Fairbanks Gold Mining, Inc.	1996-04-13	2018-11-30	Owned
571806	South Slope 248	Fairbanks Gold Mining, Inc.	1996-04-17	2018-11-30	Owned
571807	South Slope 249	Fairbanks Gold Mining, Inc.	1996-03-20	2018-11-30	Owned
571808	South Slope 250	Fairbanks Gold Mining, Inc.	1996-04-12	2018-11-30	Owned
571809	South Slope 251	Fairbanks Gold Mining, Inc.	1996-04-12	2018-11-30	Owned
571810	South Slope 252	Fairbanks Gold Mining, Inc.	1996-03-20	2018-11-30	Owned
571811	South Slope 253	Fairbanks Gold Mining, Inc.	1996-03-20	2018-11-30	Owned
571812	South Slope 254	Fairbanks Gold Mining, Inc.	1996-04-11	2018-11-30	Owned
571813	South Slope 255	Fairbanks Gold Mining, Inc.	1996-04-11	2018-11-30	Owned
571814	South Slope 256	Fairbanks Gold Mining, Inc.	1996-04-11	2018-11-30	Owned
571815	South Slope 257	Fairbanks Gold Mining, Inc.	1996-04-11	2018-11-30	Owned
571821	South Slope 258	Fairbanks Gold Mining, Inc.	1996-03-22	2018-11-30	Owned
571822	South Slope 259	Fairbanks Gold Mining, Inc.	1996-04-02	2018-11-30	Owned
571823	South Slope 260	Fairbanks Gold Mining, Inc.	1996-04-02	2018-11-30	Owned
571824	South Slope 261	Fairbanks Gold Mining, Inc.	1996-04-02	2018-11-30	Owned
571825	South Slope 262	Fairbanks Gold Mining, Inc.	1996-04-02	2018-11-30	Owned
571826	South Slope 263	Fairbanks Gold Mining, Inc.	1996-03-22	2018-11-30	Owned
571827	South Slope 264	Fairbanks Gold Mining, Inc.	1996-04-01	2018-11-30	Owned
571828	South Slope 265	Fairbanks Gold Mining, Inc.	1996-04-01	2018-11-30	Owned
571829	South Slope 266	Fairbanks Gold Mining, Inc.	1996-04-01	2018-11-30	Owned
571830	South Slope 267	Fairbanks Gold Mining, Inc.	1996-04-10	2018-11-30	Owned
571831	South Slope 268	Fairbanks Gold Mining, Inc.	1996-04-10	2018-11-30	Owned
571832	South Slope 269	Fairbanks Gold Mining, Inc.	1996-03-22	2018-11-30	Owned
571833	South Slope 270	Fairbanks Gold Mining, Inc.	1996-04-08	2018-11-30	Owned
571834	South Slope 271	Fairbanks Gold Mining, Inc.	1996-04-08	2018-11-30	Owned
571835	South Slope 272	Fairbanks Gold Mining, Inc.	1996-04-08	2018-11-30	Owned
571836	South Slope 273	Fairbanks Gold Mining, Inc.	1996-04-08	2018-11-30	Owned
571837	South Slope 274	Fairbanks Gold Mining, Inc.	1996-04-08	2018-11-30	Owned
571838	South Slope 275	Fairbanks Gold Mining, Inc.	1996-03-25	2018-11-30	Owned
571839	South Slope 276	Fairbanks Gold Mining, Inc.	1996-04-06	2018-11-30	Owned
571840	South Slope 277	Fairbanks Gold Mining, Inc.	1996-04-06	2018-11-30	Owned
571841	South Slope 278	Fairbanks Gold Mining, Inc.	1996-04-06	2018-11-30	Owned
571842	South Slope 279	Fairbanks Gold Mining, Inc.	1996-04-06	2018-11-30	Owned
571843	South Slope 280	Fairbanks Gold Mining, Inc.	1996-04-06	2018-11-30	Owned
571844	South Slope 281	Fairbanks Gold Mining, Inc.	1996-04-06	2018-11-30	Owned



Case ID	Claim Name	Registered Owners	Grant Date	Expiry Date	Interest
571845	South Slope 282	Fairbanks Gold Mining, Inc.	1996-03-29	2018-11-30	Owned
571846	South Slope 283	Fairbanks Gold Mining, Inc.	1996-03-29	2018-11-30	Owned
571847	South Slope 284	Fairbanks Gold Mining, Inc.	1996-03-29	2018-11-30	Owned
571848	South Slope 285	Fairbanks Gold Mining, Inc.	1996-04-05	2018-11-30	Owned
571849	South Slope 286	Fairbanks Gold Mining, Inc.	1996-04-07	2018-11-30	Owned
571850	South Slope 287	Fairbanks Gold Mining, Inc.	1996-03-25	2018-11-30	Owned
571851	South Slope 288	Fairbanks Gold Mining, Inc.	1996-04-03	2018-11-30	Owned
571852	South Slope 289	Fairbanks Gold Mining, Inc.	1996-04-03	2018-11-30	Owned
571853	South Slope 290	Fairbanks Gold Mining, Inc.	1996-04-03	2018-11-30	Owned
571854	South Slope 291	Fairbanks Gold Mining, Inc.	1996-04-03	2018-11-30	Owned
571855	South Slope 292	Fairbanks Gold Mining, Inc.	1996-04-03	2018-11-30	Owned
571856	South Slope 293	Fairbanks Gold Mining, Inc.	1996-03-25	2018-11-30	Owned
571857	South Slope 294	Fairbanks Gold Mining, Inc.	1996-04-10	2018-11-30	Owned
571858	South Slope 295	Fairbanks Gold Mining, Inc.	1996-04-10	2018-11-30	Owned
571859	South Slope 296	Fairbanks Gold Mining, Inc.	1996-04-10	2018-11-30	Owned
571860	South Slope 297	Fairbanks Gold Mining, Inc.	1996-03-26	2018-11-30	Owned
571861	South Slope 298	Fairbanks Gold Mining, Inc.	1996-03-16	2018-11-30	Owned
571862	South Slope 299	Fairbanks Gold Mining, Inc.	1996-03-16	2018-11-30	Owned
571863	South Slope 300	Fairbanks Gold Mining, Inc.	1996-03-26	2018-11-30	Owned
571864	South Slope 306	Fairbanks Gold Mining, Inc.	1996-03-30	2018-11-30	Owned
571865	South Slope 307	Fairbanks Gold Mining, Inc.	1996-03-27	2018-11-30	Owned
571866	South Slope 308	Fairbanks Gold Mining, Inc.	1996-03-30	2018-11-30	Owned
571867	South Slope 309	Fairbanks Gold Mining, Inc.	1996-03-30	2018-11-30	Owned
571868	South Slope 310	Fairbanks Gold Mining, Inc.	1996-03-27	2018-11-30	Owned
571869	East Slope 2	Fairbanks Gold Mining, Inc.	1996-03-19	2018-11-30	Owned
571870	East Slope 3	Fairbanks Gold Mining, Inc.	1996-03-19	2018-11-30	Owned
571871	East Slope 4	Fairbanks Gold Mining, Inc.	1996-03-19	2018-11-30	Owned
571872	East Slope 5	Fairbanks Gold Mining, Inc.	1996-03-19	2018-11-30	Owned
571873	East Slope 6	Fairbanks Gold Mining, Inc.	1996-03-20	2018-11-30	Owned
571874	East Slope 7	Fairbanks Gold Mining, Inc.	1996-03-22	2018-11-30	Owned
571875	East Slope 8	Fairbanks Gold Mining, Inc.	1996-03-22	2018-11-30	Owned
571876	East Slope 9	Fairbanks Gold Mining, Inc.	1996-03-25	2018-11-30	Owned
571877	East Slope 10	Fairbanks Gold Mining, Inc.	1996-03-25	2018-11-30	Owned
571878	East Slope 11	Fairbanks Gold Mining, Inc.	1996-03-25	2018-11-30	Owned
571879	East Slope 12	Fairbanks Gold Mining, Inc.	1996-03-25	2018-11-30	Owned
571880	East Slope 13	Fairbanks Gold Mining, Inc.	1996-03-26	2018-11-30	Owned
571881	East Slope 14	Fairbanks Gold Mining, Inc.	1996-03-26	2018-11-30	Owned
571882	East Slope 15	Fairbanks Gold Mining, Inc.	1996-03-26	2018-11-30	Owned
571883	East Slope 16	Fairbanks Gold Mining, Inc.	1996-03-27	2018-11-30	Owned
571884	East Slope 17	Fairbanks Gold Mining, Inc.	1996-03-27	2018-11-30	Owned
572615	PHILBERT 1	Fairbanks Gold Mining, Inc.	1996-08-06	2018-11-30	Owned
572616	PHILBERT 2	Fairbanks Gold Mining, Inc.	1996-08-06	2018-11-30	Owned
572617	PHILBERT 3	Fairbanks Gold Mining, Inc.	1996-08-05	2018-11-30	Owned
572618	PHILBERT 4	Fairbanks Gold Mining, Inc.	1996-07-31	2018-11-30	Owned
572619	PHILBERT 5	Daniel Peter Eagan/Margaret B. Eagan	1996-08-08	2018-11-30	Leased
572620	PHILBERT 6	Fairbanks Gold Mining, Inc.	1996-08-08	2018-11-30	Owned
572621	PHILBERT 7	Fairbanks Gold Mining, Inc.	1996-08-08	2018-11-30	Owned
572622	PHILBERT 8	Fairbanks Gold Mining, Inc.	1996-07-31	2018-11-30	Owned
572623	PHILBERT 9	Daniel Peter Eagan/Margaret B. Eagan	1996-08-14	2018-11-30	Leased
572624	PHILBERT 10	Daniel Peter Eagan/Margaret B. Eagan	1996-08-14	2018-11-30	Leased
572625	PHILBERT 11	Daniel Peter Eagan/Margaret B. Eagan	1996-08-14	2018-11-30	Leased
572626	PHILBERT 12	Fairbanks Gold Mining, Inc.	1996-07-31	2018-11-30	Owned
572627	PHILBERT 13	Daniel Peter Eagan/Margaret B. Eagan	1996-08-13	2018-11-30	Leased
572628	PHILBERT 14	Daniel Peter Eagan/Margaret B. Eagan	1996-08-13	2018-11-30	Leased
572629	PHILBERT 15	Daniel Peter Eagan/Margaret B. Eagan	1996-08-13	2018-11-30	Leased
572630	PHILBERT 16	Fairbanks Gold Mining, Inc.	1996-07-28	2018-11-30	Owned
572631	PHILBERT 17	Daniel Peter Eagan/Margaret B. Eagan	1996-07-26	2018-11-30	Leased
572632	PHILBERT 18	Daniel Peter Eagan/Margaret B. Eagan	1996-07-26	2018-11-30	Leased
572633	PHILBERT 19	Daniel Peter Eagan/Margaret B. Eagan	1996-07-26	2018-11-30	Leased
572634	PHILBERT 20	Fairbanks Gold Mining, Inc.	1996-07-28	2018-11-30	Owned



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572635	PHILBERT 21	Daniel Peter Eagan/Margaret B. Eagan	1996-07-24	2018-11-30	Leased
572636	PHILBERT 22	Daniel Peter Eagan/Margaret B. Eagan	1996-07-20	2018-11-30	Leased
572637	PHILBERT 23	Daniel Peter Eagan/Margaret B. Eagan	1996-07-23	2018-11-30	Leased
572638	PHILBERT 24	Fairbanks Gold Mining, Inc.	1996-07-17	2018-11-30	Owned
572639	PHILBERT 25	Daniel Peter Eagan/Margaret B. Eagan	1996-07-22	2018-11-30	Leased
572640	PHILBERT 26	Fairbanks Gold Mining, Inc.	1996-07-27	2018-11-30	Owned
572641	PHILBERT 27	Fairbanks Gold Mining, Inc.	1996-07-18	2018-11-30	Owned
572642	PHILBERT 28	Fairbanks Gold Mining, Inc.	1996-07-16	2018-11-30	Owned
572643	PHILBERT 29	Daniel Peter Eagan/Margaret B. Eagan	1996-07-11	2018-11-30	Leased
572644	PHILBERT 30	Fairbanks Gold Mining, Inc.	1996-07-11	2018-11-30	Owned
572645	PHILBERT 31	Fairbanks Gold Mining, Inc.	1996-07-12	2018-11-30	Owned
572646	PHILBERT 32	Fairbanks Gold Mining, Inc.	1996-07-13	2018-11-30	Owned
573099	South Slope 157	Fairbanks Gold Mining, Inc.	1996-10-21	2018-11-30	Owned
573100	South Slope 170	Fairbanks Gold Mining, Inc.	1996-10-21	2018-11-30	Owned
573101	South Slope 171	Fairbanks Gold Mining, Inc.	1996-10-21	2018-11-30	Owned
573102	East Slope 1	Fairbanks Gold Mining, Inc.	1996-10-21	2018-11-30	Owned
573103	South Slope 186	Fairbanks Gold Mining, Inc.	1996-09-25	2018-11-30	Owned
573104	South Slope 187	Fairbanks Gold Mining, Inc.	1996-09-25	2018-11-30	Owned
573105	South Slope 188	Fairbanks Gold Mining, Inc.	1996-09-25	2018-11-30	Owned
573106	South Slope 189	Fairbanks Gold Mining, Inc.	1996-09-25	2018-11-30	Owned
573107	South Slope 190	Fairbanks Gold Mining, Inc.	1996-09-25	2018-11-30	Owned
573108	South Slope 191	Fairbanks Gold Mining, Inc.	1996-09-25	2018-11-30	Owned
573109	South Slope 192	Fairbanks Gold Mining, Inc.	1996-09-25	2018-11-30	Owned
573110	South Slope 193	Fairbanks Gold Mining, Inc.	1996-09-25	2018-11-30	Owned
573111	South Slope 194	Fairbanks Gold Mining, Inc.	1996-09-25	2018-11-30	Owned
573112	South Slope 214	Fairbanks Gold Mining, Inc.	1996-09-25	2018-11-30	Owned
573113	South Slope 215	Fairbanks Gold Mining, Inc.	1996-09-25	2018-11-30	Owned
573114	South Slope 301	Fairbanks Gold Mining, Inc.	1996-09-25	2018-11-30	Owned
573115	South Slope 302	Fairbanks Gold Mining, Inc.	1996-09-25	2018-11-30	Owned
573116	South Slope 303	Fairbanks Gold Mining, Inc.	1996-09-25	2018-11-30	Owned
573117	South Slope 304	Fairbanks Gold Mining, Inc.	1996-09-25	2018-11-30	Owned
573118	South Slope 305	Fairbanks Gold Mining, Inc.	1996-09-25	2018-11-30	Owned
573119	LAST FLING 1	Fairbanks Gold Mining, Inc.	1996-09-17	2018-11-30	Owned
573120	LAST FLING 2	Fairbanks Gold Mining, Inc.	1996-09-17	2018-11-30	Owned
573121	LAST FLING 3	Fairbanks Gold Mining, Inc.	1996-09-17	2018-11-30	Owned
573122	LAST FLING 4	Fairbanks Gold Mining, Inc.	1996-09-17	2018-11-30	Owned
573123	LAST FLING 5	Fairbanks Gold Mining, Inc.	1996-09-17	2018-11-30	Owned
573124	LAST FLING 6	Fairbanks Gold Mining, Inc.	1996-09-17	2018-11-30	Owned
573125	LAST FLING 7	Fairbanks Gold Mining, Inc.	1996-09-05	2018-11-30	Owned
573126	LAST FLING 8	Fairbanks Gold Mining, Inc.	1996-09-05	2018-11-30	Owned
573127	LAST FLING 9	Fairbanks Gold Mining, Inc.	1996-09-06	2018-11-30	Owned
573128	LAST FLING 10	Fairbanks Gold Mining, Inc.	1996-09-06	2018-11-30	Owned
573129	LAST FLING 11	Fairbanks Gold Mining, Inc.	1996-09-06	2018-11-30	Owned
573130	LAST FLING 12	Fairbanks Gold Mining, Inc.	1996-09-06	2018-11-30	Owned
573131	LAST FLING 13	Fairbanks Gold Mining, Inc.	1996-09-09	2018-11-30	Owned
573132	LAST FLING 14	Fairbanks Gold Mining, Inc.	1996-09-09	2018-11-30	Owned
573133	LAST FLING 15	Fairbanks Gold Mining, Inc.	1996-09-09	2018-11-30	Owned
573134	LAST FLING 16	Fairbanks Gold Mining, Inc.	1996-09-09	2018-11-30	Owned
573135	LAST FLING 17	Fairbanks Gold Mining, Inc.	1996-09-10	2018-11-30	Owned
573136	LAST FLING 18	Fairbanks Gold Mining, Inc.	1996-09-10	2018-11-30	Owned
573137	LAST FLING 19	Fairbanks Gold Mining, Inc.	1996-09-10	2018-11-30	Owned
573138	LAST FLING 20	Fairbanks Gold Mining, Inc.	1996-09-10	2018-11-30	Owned
602608	TRUE CHAMPION #1	Fairbanks Gold Mining, Inc.	2000-05-02	2018-11-30	Owned
602609	TRUE CHAMPION #2	Fairbanks Gold Mining, Inc.	2000-05-02	2018-11-30	Owned
603311	NMW 1	Fairbanks Gold Mining, Inc.	2000-04-24	2018-11-30	Owned
603312	NMW 2	Fairbanks Gold Mining, Inc.	2000-04-24	2018-11-30	Owned
603313	NMW 3	Fairbanks Gold Mining, Inc.	2000-04-24	2018-11-30	Owned
603314	NMW 4	Fairbanks Gold Mining, Inc.	2000-06-28	2018-11-30	Owned
603315	NMW 5	EHB, LLC	2000-04-26	2018-11-30	Leased
603316	NMW 6	EHB, LLC	2000-05-02	2018-11-30	Leased



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603317	NMW 7	EHB, LLC	2000-04-25	2018-11-30	Leased
603318	NMW 8	Fairbanks Gold Mining, Inc.	2000-04-25	2018-11-30	Owned
603319	NMW 9	Fairbanks Gold Mining, Inc.	2000-04-23	2018-11-30	Owned
603320	NMW 10	Fairbanks Gold Mining, Inc.	2000-04-23	2018-11-30	Owned
603321	NMW 11	Fairbanks Gold Mining, Inc.	2000-04-23	2018-11-30	Owned
603322	NMW 12	Fairbanks Gold Mining, Inc.	2000-04-21	2018-11-30	Owned
603323	NMW 13	Fairbanks Gold Mining, Inc.	2000-04-21	2018-11-30	Owned
603324	NMW 14	Fairbanks Gold Mining, Inc.	2000-04-28	2018-11-30	Owned
603325	NMW 15	Fairbanks Gold Mining, Inc.	2000-04-28	2018-11-30	Owned
603326	NMW 16	Fairbanks Gold Mining, Inc.	2000-04-28	2018-11-30	Owned
603327	NMW 17	Fairbanks Gold Mining, Inc.	2000-04-26	2018-11-30	Owned
603328	NMW 18	Fairbanks Gold Mining, Inc.	2000-04-28	2018-11-30	Owned
603329	NMW 19	Fairbanks Gold Mining, Inc.	2000-04-28	2018-11-30	Owned
604256	FGDC 1	Daniel Peter Eagan/Margaret B. Eagan	2000-12-21	2018-11-30	Leased
604257	FGDC 2	Daniel Peter Eagan/Margaret B. Eagan	2000-12-18	2018-11-30	Leased
604258	FGDC 3	Daniel Peter Eagan/Margaret B. Eagan	2000-12-18	2018-11-30	Leased
604259	FGDC 4	Daniel Peter Eagan/Margaret B. Eagan	2000-12-28	2018-11-30	Leased
604260	FGDC 5	Daniel Peter Eagan/Margaret B. Eagan	2000-12-28	2018-11-30	Leased
604261	FGDC 6	Daniel Peter Eagan/Margaret B. Eagan	2001-01-04	2018-11-30	Leased
604262	FGDC 7	Daniel Peter Eagan/Margaret B. Eagan	2000-12-07	2018-11-30	Leased
604263	FGDC 8	Daniel Peter Eagan/Margaret B. Eagan	2000-12-09	2018-11-30	Leased
604264	FGDC 9	Daniel Peter Eagan/Margaret B. Eagan	2000-12-15	2018-11-30	Leased
604265	FGDC 10	Fairbanks Gold Mining, Inc.	2000-12-07	2018-11-30	Owned
604266	FGDC 11	Fairbanks Gold Mining, Inc.	2000-12-09	2018-11-30	Owned
604267	FGDC 12	Daniel Peter Eagan/Margaret B. Eagan	2000-12-15	2018-11-30	Leased
604268	FGDC 13	Fairbanks Gold Mining, Inc.	2000-11-30	2018-11-30	Owned
604269	FGDC 14	Fairbanks Gold Mining, Inc.	2000-12-09	2018-11-30	Owned
604270	FGDC 15	Fairbanks Gold Mining, Inc.	2000-12-12	2018-11-30	Owned
604271	FGDC 16	Fairbanks Gold Mining, Inc.	2000-12-15	2018-11-30	Owned
604272	FGDC 21	Fairbanks Gold Mining, Inc.	2000-12-05	2018-11-30	Owned
604273	FGDC 22	Fairbanks Gold Mining, Inc.	2000-12-05	2018-11-30	Owned
604274	FGDC 23	Fairbanks Gold Mining, Inc.	2000-12-04	2018-11-30	Owned
604287	MONOPOLY 1	Fairbanks Gold Mining, Inc.	2001-01-19	2018-11-30	Owned
604288	MONOPOLY 2	Fairbanks Gold Mining, Inc.	2001-01-19	2018-11-30	Owned
604289	MONOPOLY 3	Fairbanks Gold Mining, Inc.	2001-01-20	2018-11-30	Owned
604290	MONOPOLY 4	Fairbanks Gold Mining, Inc.	2001-01-19	2018-11-30	Owned
604291	MONOPOLY 5	Fairbanks Gold Mining, Inc.	2001-01-19	2018-11-30	Owned
604292	MONOPOLY 6	Fairbanks Gold Mining, Inc.	2001-01-19	2018-11-30	Owned
604293	MONOPOLY 7	Fairbanks Gold Mining, Inc.	2001-01-19	2018-11-30	Owned
604294	FGDC 17	Fairbanks Gold Mining, Inc.	2001-01-12	2018-11-30	Owned
604295	FGDC 18	Fairbanks Gold Mining, Inc.	2001-01-10	2018-11-30	Owned
604296	FGDC 19	Fairbanks Gold Mining, Inc.	2001-01-10	2018-11-30	Owned
604297	FGDC 20	Fairbanks Gold Mining, Inc.	2001-01-11	2018-11-30	Owned
604298	FREE PARKING	Fairbanks Gold Mining, Inc.	2001-01-09	2018-11-30	Owned
604299	BOARDWALK	Fairbanks Gold Mining, Inc.	2001-01-19	2018-11-30	Owned
604300	WATERWORKS	Fairbanks Gold Mining, Inc.	2001-01-17	2018-11-30	Owned
604316	TREASURE CHEST	Fairbanks Gold Mining, Inc.	2001-02-21	2018-11-30	Owned
604317	PARK PLACE	Fairbanks Gold Mining, Inc.	2001-02-21	2018-11-30	Owned
606173	GARNET	Daniel Peter Eagan/Margaret B. Eagan	2004-04-10	2018-11-30	Leased
606359	BSO #1	Fairbanks Gold Mining, Inc.	2004-10-05	2018-11-30	Owned
606360	BSO #2	Fairbanks Gold Mining, Inc.	2004-10-05	2018-11-30	Owned
606361	BSO #3	Fairbanks Gold Mining, Inc.	2004-10-05	2018-11-30	Owned
606391	SNOW #1	Fairbanks Gold Mining, Inc.	2004-10-28	2018-11-30	Owned
606392	SNOW #2	Fairbanks Gold Mining, Inc.	2004-10-28	2018-11-30	Owned
606393	SNOW #3	Fairbanks Gold Mining, Inc.	2004-10-27	2018-11-30	Owned
606394	SNOW #4	Fairbanks Gold Mining, Inc.	2004-10-27	2018-11-30	Owned
606395	SNOW #5	Fairbanks Gold Mining, Inc.	2004-10-27	2018-11-30	Owned
606396	SOCO #1	Fairbanks Gold Mining, Inc.	2004-11-05	2018-11-30	Owned
606397	SOCO #2	Daniel Peter Eagan/Margaret B. Eagan	2004-11-05	2018-11-30	Leased
606398	SOCO #3	Fairbanks Gold Mining, Inc.	2004-11-05	2018-11-30	Owned





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606399	SOCO #4	Daniel Peter Eagan/Margaret B. Eagan	2004-11-05	2018-11-30	Leased
606400	SOCO #5	Fairbanks Gold Mining, Inc.	2004-11-09	2018-11-30	Owned
606401	SOCO #6	Fairbanks Gold Mining, Inc.	2004-11-09	2018-11-30	Owned
606402	SOCO #7	Fairbanks Gold Mining, Inc.	2004-11-09	2018-11-30	Owned
606403	SOCO #8	Daniel Peter Eagan/Margaret B. Eagan	2004-11-09	2018-11-30	Leased
606405	SOCO #10	Fairbanks Gold Mining, Inc.	2004-11-19	2018-11-30	Owned
606406	SOCO #11	Fairbanks Gold Mining, Inc.	2004-11-19	2018-11-30	Owned
606407	SOCO #12	Fairbanks Gold Mining, Inc.	2004-11-18	2018-11-30	Owned
606408	SOCO #13	Fairbanks Gold Mining, Inc.	2004-11-18	2018-11-30	Owned
606409	SOCO #15	Fairbanks Gold Mining, Inc.	2004-11-18	2018-11-30	Owned
606410	SOCO #16	Fairbanks Gold Mining, Inc.	2004-11-18	2018-11-30	Owned
606411	SOCO #17	Fairbanks Gold Mining, Inc.	2004-11-18	2018-11-30	Owned
606412	SOCO #18	Fairbanks Gold Mining, Inc.	2004-11-17	2018-11-30	Owned
610146	GRAYLING #1	Fairbanks Gold Mining, Inc.	2006-06-23	2018-11-30	Owned
610147	GRAYLING #2	Fairbanks Gold Mining, Inc.	2006-06-29	2018-11-30	Owned
610148	GRAYLING #3	Fairbanks Gold Mining, Inc.	2006-06-29	2018-11-30	Owned
610149	GRAYLING #4	Fairbanks Gold Mining, Inc.	2006-07-12	2018-11-30	Owned
610150	GRAYLING #5	Fairbanks Gold Mining, Inc.	2006-07-17	2018-11-30	Owned
610151	GRAYLING #6	Fairbanks Gold Mining, Inc.	2006-07-17	2018-11-30	Owned
610152	GRAYLING #7	Fairbanks Gold Mining, Inc.	2006-06-23	2018-11-30	Owned
610153	GRAYLING #8	Fairbanks Gold Mining, Inc.	2006-06-23	2018-11-30	Owned
610154	GRAYLING #9	Fairbanks Gold Mining, Inc.	2006-06-29	2018-11-30	Owned
610155	GRAYLING #10	Fairbanks Gold Mining, Inc.	2006-07-14	2018-11-30	Owned
610156	GRAYLING #11	Fairbanks Gold Mining, Inc.	2006-07-14	2018-11-30	Owned
610157	GRAYLING #12	Fairbanks Gold Mining, Inc.	2006-07-17	2018-11-30	Owned
610158	GRAYLING #13	Fairbanks Gold Mining, Inc.	2006-06-27	2018-11-30	Owned
610159	GRAYLING #14	Fairbanks Gold Mining, Inc.	2006-06-30	2018-11-30	Owned
610160	GRAYLING #15	Fairbanks Gold Mining, Inc.	2006-07-05	2018-11-30	Owned
610161	GRAYLING #16	Fairbanks Gold Mining, Inc.	2006-07-05	2018-11-30	Owned
610162	GRAYLING #17	Fairbanks Gold Mining, Inc.	2006-07-07	2018-11-30	Owned
610163	GRAYLING #18	Fairbanks Gold Mining, Inc.	2006-07-10	2018-11-30	Owned
610164	GRAYLING #19	Fairbanks Gold Mining, Inc.	2006-07-10	2018-11-30	Owned
612007	AGN 1	Fairbanks Gold Mining, Inc.	2008-03-31	2018-11-30	Owned
612008	AGN 3	Fairbanks Gold Mining, Inc.	2008-04-01	2018-11-30	Owned
612918	SNOW 6	Fairbanks Gold Mining, Inc.	2008-05-23	2018-11-30	Owned
612919	SNOW 7	Fairbanks Gold Mining, Inc.	2008-05-23	2018-11-30	Owned
612920	AGN 4	Fairbanks Gold Mining, Inc.	2008-05-26	2018-11-30	Owned
615416	FY 30	EHB, LLC	2010-07-30	2018-11-30	Leased
615417	FY 31	EHB, LLC	2010-07-30	2018-11-30	Leased
615992	LR-1	Fairbanks Gold Mining, Inc.	2011-05-11	2018-11-30	Owned
615993	LR-2	Fairbanks Gold Mining, Inc.	2011-05-11	2018-11-30	Owned
615994	LR-3	Fairbanks Gold Mining, Inc.	2011-05-11	2018-11-30	Owned
615995	LR-4	Fairbanks Gold Mining, Inc.	2011-05-11	2018-11-30	Owned
616797	FCF 1	EHB, LLC	2012-02-28	2018-11-30	Leased
616798	FCF 2	EHB, LLC	2012-02-28	2018-11-30	Leased
616799	FCF 3	EHB, LLC	2012-02-28	2018-11-30	Leased
616800	JIC 1	Fairbanks Gold Mining, Inc.	2012-02-28	2018-11-30	Owned
616801	DNA-2	Fairbanks Gold Mining, Inc.	2017-12-11	2018-11-30	Owned
616802	DNA-3	Fairbanks Gold Mining, Inc.	2017-12-11	2018-11-30	Owned
616888	JIC 2	Fairbanks Gold Mining, Inc.	2012-03-27	2018-11-30	Owned
616889	JIC 3	Fairbanks Gold Mining, Inc.	2012-03-27	2018-11-30	Owned
616890	JIC 4	Fairbanks Gold Mining, Inc.	2012-03-27	2018-11-30	Owned
616891	JIC 5	Fairbanks Gold Mining, Inc.	2012-03-22	2018-11-30	Owned
616892	JIC 6	Fairbanks Gold Mining, Inc.	2012-03-22	2018-11-30	Owned
616893	JIC 7	Fairbanks Gold Mining, Inc.	2012-03-27	2018-11-30	Owned
616894	JIC 8	Fairbanks Gold Mining, Inc.	2012-03-27	2018-11-30	Owned
616895	JIC 9	Fairbanks Gold Mining, Inc.	2012-03-27	2018-11-30	Owned
616896	JIC 10	Fairbanks Gold Mining, Inc.	2012-03-27	2018-11-30	Owned
616897	JIC 11	Fairbanks Gold Mining, Inc.	2012-03-27	2018-11-30	Owned
616898	JIC 12	Fairbanks Gold Mining, Inc.	2012-03-27	2018-11-30	Owned



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616899	JIC 13	Fairbanks Gold Mining, Inc.	2012-03-27	2018-11-30	Owned
616912	UW-1	Fairbanks Gold Mining, Inc.	2012-03-30	2018-11-30	Owned
618642	EI 1	Fairbanks Gold Mining, Inc.	2013-08-24	2018-11-30	Owned
618643	EI 2	Fairbanks Gold Mining, Inc.	2013-08-24	2018-11-30	Owned
618650	EI 9	Fairbanks Gold Mining, Inc.	2013-08-24	2018-11-30	Owned
618662	EI 21	Fairbanks Gold Mining, Inc.	2013-08-24	2018-11-30	Owned
618677	EI 36	Fairbanks Gold Mining, Inc.	2013-08-24	2018-11-30	Owned
618678	EI 37	Fairbanks Gold Mining, Inc.	2013-08-24	2018-11-30	Owned
618693	EI 52	Fairbanks Gold Mining, Inc.	2013-08-24	2018-11-30	Owned
618694	EI 53	Fairbanks Gold Mining, Inc.	2013-08-24	2018-11-30	Owned
618695	EI 54	Fairbanks Gold Mining, Inc.	2013-08-24	2018-11-30	Owned
618711	EI 70	Fairbanks Gold Mining, Inc.	2013-08-24	2018-11-30	Owned
618712	EI 71	Fairbanks Gold Mining, Inc.	2013-08-24	2018-11-30	Owned
618713	EI 72	Fairbanks Gold Mining, Inc.	2013-08-24	2018-11-30	Owned
618726	EI 85	Fairbanks Gold Mining, Inc.	2013-08-24	2018-11-30	Owned
618727	EI 86	Fairbanks Gold Mining, Inc.	2013-08-24	2018-11-30	Owned
618728	EI 87	Fairbanks Gold Mining, Inc.	2013-08-24	2018-11-30	Owned
618731	EI 90	Fairbanks Gold Mining, Inc.	2013-08-24	2018-11-30	Owned
618732	EI 91	Fairbanks Gold Mining, Inc.	2013-08-24	2018-11-30	Owned
618733	EI 92	Fairbanks Gold Mining, Inc.	2013-08-24	2018-11-30	Owned
618734	EI 93	Fairbanks Gold Mining, Inc.	2013-08-24	2018-11-30	Owned
618735	EI 94	Fairbanks Gold Mining, Inc.	2013-08-24	2018-11-30	Owned
618736	EI 95	Fairbanks Gold Mining, Inc.	2013-08-24	2018-11-30	Owned
655763	HARD LODGE #1	Daniel Peter Eagan/Margaret B. Eagan	2006-10-11	2018-11-30	Leased
655764	HARD LODGE #2	Daniel Peter Eagan/Margaret B. Eagan	2006-10-11	2018-11-30	Leased
655765	HARD LODGE #3	Daniel Peter Eagan/Margaret B. Eagan	2006-10-10	2018-11-30	Leased
655766	HARD LODGE #4	Daniel Peter Eagan/Margaret B. Eagan	2006-10-10	2018-11-30	Leased
655767	HARD LODGE #5	Daniel Peter Eagan/Margaret B. Eagan	2006-10-10	2018-11-30	Leased
727739	GG 1	Fairbanks Gold Mining, Inc.	2018-04-06	2018-11-30	Owned
727740	GG 2	Fairbanks Gold Mining, Inc.	2018-04-09	2018-11-30	Owned
727741	GG 3	Fairbanks Gold Mining, Inc.	2018-04-09	2018-11-30	Owned
727742	GG 4	Fairbanks Gold Mining, Inc.	2018-04-16	2018-11-30	Owned
527258	NA 100	Melba Creek Mining, Inc.		2018-11-30	Owned
530534	NA 10	Melba Creek Mining, Inc.		2018-11-30	Owned
530535	NA 11	Melba Creek Mining, Inc.		2018-11-30	Owned
530536	NA 12	Melba Creek Mining, Inc.		2018-11-30	Owned
530537	NA 102	Melba Creek Mining, Inc.		2018-11-30	Owned
530538	NA 103	Melba Creek Mining, Inc.		2018-11-30	Owned
530539	NA 104	Melba Creek Mining, Inc.		2018-11-30	Owned
530540	NA 105	Melba Creek Mining, Inc.		2018-11-30	Owned
530542	NA 203	Melba Creek Mining, Inc.		2018-11-30	Owned
530543	NA 204	Melba Creek Mining, Inc.		2018-11-30	Owned
530544	NA 205	Melba Creek Mining, Inc.		2018-11-30	Owned
530546	NA 303	Melba Creek Mining, Inc.		2018-11-30	Owned
530547	NA 304	Melba Creek Mining, Inc.		2018-11-30	Owned
530548	NA 305	Melba Creek Mining, Inc.		2018-11-30	Owned
530550	NA 403	Melba Creek Mining, Inc.		2018-11-30	Owned
530551	NA 404	Melba Creek Mining, Inc.		2018-11-30	Owned
530552	NA 405	Melba Creek Mining, Inc.		2018-11-30	Owned
530553	NA 406	Melba Creek Mining, Inc.		2018-11-30	Owned
530555	NA 503	Melba Creek Mining, Inc.		2018-11-30	Owned
530556	NA 504	Melba Creek Mining, Inc.		2018-11-30	Owned
530557	NA 505	Melba Creek Mining, Inc.		2018-11-30	Owned
530558	NA 506	Melba Creek Mining, Inc.		2018-11-30	Owned
530560	NA 603	Melba Creek Mining, Inc.		2018-11-30	Owned
530561	NA 604	Melba Creek Mining, Inc.		2018-11-30	Owned
530562	NA 605	Melba Creek Mining, Inc.		2018-11-30	Owned
530563	NA 606	Melba Creek Mining, Inc.		2018-11-30	Owned
530565	NA 703	Melba Creek Mining, Inc.		2018-11-30	Owned
530566	NA 704	Melba Creek Mining, Inc.		2018-11-30	Owned





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530567	NA 705	Melba Creek Mining, Inc.		2018-11-30	Owned
530568	NA 706	Melba Creek Mining, Inc.		2018-11-30	Owned
530570	NA 803	Melba Creek Mining, Inc.		2018-11-30	Owned
530571	NA 804	Melba Creek Mining, Inc.		2018-11-30	Owned
530572	NA 805	Melba Creek Mining, Inc.		2018-11-30	Owned
530573	NA 806	Melba Creek Mining, Inc.		2018-11-30	Owned
530574	NA 903	Melba Creek Mining, Inc.		2018-11-30	Owned
530575	NA 904	Melba Creek Mining, Inc.		2018-11-30	Owned
530576	NA 905	Melba Creek Mining, Inc.		2018-11-30	Owned
530577	NA 906	Melba Creek Mining, Inc.		2018-11-30	Owned
530578	NA 907	Melba Creek Mining, Inc.		2018-11-30	Owned
619168	JIC 14	Fairbanks Gold Mining, Inc.		2018-11-30	Owned
619169	JIC 15	Fairbanks Gold Mining, Inc.		2018-11-30	Owned
619170	JIC 16	Fairbanks Gold Mining, Inc.		2018-11-30	Owned