TECHNICAL REPORT
Mineral Resource and Mineral Reserve
Florida Canyon Gold Mine
Pershing County Nevada

Prepared for

Argonaut Gold (U.S.) Corp

Prepared by

INDEPENDENT
MINING CONSULTANTS, INC.

Qualified Persons:
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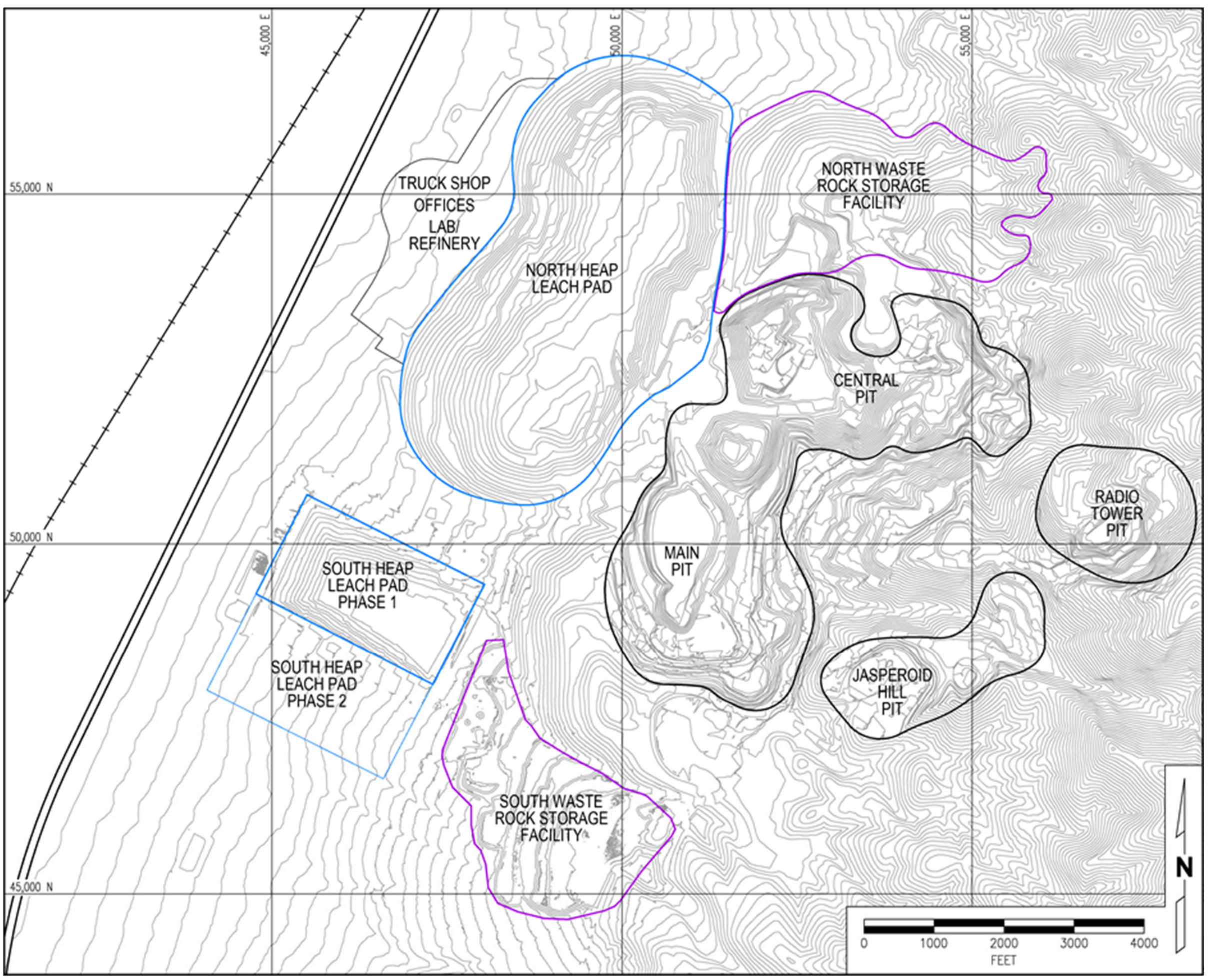
1.0 SUMMARY

Independent Mining Consultants, Inc. (IMC) was requested by Argonaut Gold Inc.. (Argonaut) to review and verify the mineral resources and mineral reserves for the Florida Canyon Mine, located near Lovelock, Nevada. USA. This document is a Technical Report as defined under Canadian NI 43-101 that summarizes the verification work completed by IMC, the mineral resources, and mineral reserves at Florida Canyon.

The Florida Canyon Mine (Florida Canyon Mine, Inc. FCMI) is located 125 miles east of Reno Nevada, and immediately south of Interstate 80. The mine currently produces gold by conventional hard rock open pit mining with processing by 2 stage crushing and heap leaching. The mine was in continuous operation from 1986 through 2011 and then intermittently until 2015. It was reopened in in mid-2016 and has been in operation since that time. There has been a sequence of owners with the penultimate being Alio Gold, Inc. (Alio). Argonaut acquired the property through merger with Alio that closed on July 1, 2020. Figure 1-1 illustrates the general arrangement at site.

Figure 1-1
Florida Canyon Site Map



Source IMC, 2020

<u>Geology</u>

Florida Canyon was a large tonnage, low grade, Neogene aged, epithermal gold system adjacent to an active geothermal system. The close spatial association with the geothermal system has led to a general belief that Florida Canyon is a hot springs-type epithermal gold deposit. Hydrothermal alteration assemblages and the mineralogy of both oxidized and unoxidized gold mineralization at Florida Canyon have been characterized as having formed in a low-sulfidation epithermal environment.

The currently minable portion of Florida Canyon is oxidized and amenable to processing by cyanide leaching. A surface has been interpreted as a boundary between the oxidized and unoxidized mineralization. The gold mineralization continues below the contact as sulfide mineralization which is not currently included in the mineral resource or the mineral reserve.

<u>Data Base</u>

The entire drill hole data base at Florida Canyon dates from 1969 through 2017 with the majority of drilling completed in the 1980's and 1990's. The current data base contains 4,285 drill holes amounting to 1,928,337 ft of drilling and containing 356,278 assayed intervals for gold. All of this drill hole information has been used in the estimation of grade in the block model. However, a substantial volume of rock has been removed from Florida Canyon and about 35% of the assay intervals are no longer in-place. The entire data base is comprised of fire assay data (FA). About 17% of the data has Cyanide Soluble assays in addition to fire assays.

Of the original 4,285 drill holes, 55 are reported to be diamond drilling (DDH) and the rest are reverse circulation (RC) or rotary. There were 18 holes drilled during 2017 by the predecessor to Alio that received proper QAQC procedures. Otherwise, there is no QAQC data available on the data base prior to 2017. Comparisons between the 55 DDH holes and the nearby RC holes (30 ft) indicate a high bias of RC drilling relative to DDH.

The legacy data base of 4,285 drill holes are electronic files that has been transferred from owner to owner without transfer of quality control information. IMC has made an effort to check the legacy data against the most recent 18 hole program drilled in 2017 and against production history. The production history confirms that gold production has occurred over time at Florida Canyon. However, prediction of the volume and grade by the data base and corresponding block models assembled in the last four years has been highly variable.

John Marek (Qualified Person) accepts this data base for the purpose of mineral resources and mineral reserves. That acceptance is qualified by the understanding that the data base contributes to a significant variability in the prediction of mineral resources and mineral reserves.

<u>Model</u>

The current block model of the mineralization at Florida Canyon was assembled by FCMI staff and verified by the Qualified Person, John Marek, at IMC. Prior to this FCMI model there have been three earlier models and mineral resource estimates between 2016 and 2018.

Those models have estimated a wide range mineral resources and mineral reserves from an essentially static data base. The difference in mineral resource tonnage and metal between the three models was roughly 56% in tonnage and 43% in grade. This outcome is indicative of the level of uncertainty and risk associated with the estimation of mineral resources and mineral reserves at Florida Canyon.

As a result, FCMI has taken a somewhat more conservative and practical approach to the development of the block model. Section 14 provides more discussion of the model methods. The FCMI model respected the interpreted oxide-sulfide boundary and added additional diligence to the estimate of in-situ mineralization versus pit backfill material.

A grade boundary at 0.004 oz/ton was developed using an indicator approach with an inverse distance cubed estimator and a 50-50 probability to set the zone of material with a better than 50% chance of being above 0.004 oz/ton.

Fire gold assays were composited to 20 ft downhole lengths and used as input to a 4 pass estimate of block grade using inverse distances cubed. Indicated or better category mineralization has to be within 135 ft of the nearest composite and must be estimated with at least 2 drill holes. Substantial effort was spent by FCMI staff to validate the model against historic blast hole data.

Efforts to compare blast hole production versus model prediction at Florida Canyon are hampered by the fact that blast holes are assayed by cyanide soluble methods (CN) and resource model definition drilling is assayed by fire (FA) methods. There are monthly evaluations of the ratio of CN to FA completed each month that are used to “factor” the CN results so that they can be compared. In addition, the head grade assays are sampler splits from the 2nd stage crusher discharge which are fire assayed to estimate the historic monthly head grades loaded onto the pad (FA).

IMC and the qualified person completed a number of model checks. The most telling and indicative is a production history comparison of model prediction versus ore loaded on the pad. Section 14 provides more explanation of this process. IMC was able to assemble an 18 month comparison of the model prediction versus material delivered to the pad for October 2018 through March 2020. During that period, IMC calculated that the average ratio of FA / CN was 1.20. The operational cutoff during that period was fixed at 0.0055 oz/ton CN. Applying that ratio to the cyanide assay cutoff of 0.0055 oz/ton results in an equivalent fire gold cutoff grade of 0.0066 oz/ton that was applied to the model by IMC.

FCMI provided end of month mine progress geometries for the end of September 2018 as well as the end of March 2020. Those surfaces were used by IMC along with the cutoff grade of 0.0066 oz/ton fire assay to obtain a model reported tonnage of 4,821 ktons at 0.012 oz/ton fire on Table 1-1.

The monthly reports during that period reported the amount of hard rock ore that was mined and sent to the crusher along with ore grade backfill that was also mined and send to the crusher. Only the production reported hard rock was used in the following comparison.

Table 1-1
Model to Mine Production Reconciliation, October 2018 through March 2020 (18 Months)

Production vs Model	Cutoff Grade oz/ton	Cutoff Assay Method	Ore Tons	Head Grade FA oz/ton	Contained Ozs	Difference, Model - Production Negative Means Model Low		
						Tons	Grade	Ounces
Production	0.0055	Cyanide	6,413,625	0.0091	58,224	-24.8%	32.2%	-0.6%
Model	0.0066	Fire	4,821,000	0.012	57,852			

Production is Hard Rock Tonnage and Grade Reported from Month Report Ore Control
Model is the FCMI September 2019 block model
The Test Period is October 2018 through End March 2020

The model did a good job of predicting the metal delivered to the pad for the 18 month test. However the disparity in tonnage and grade is clear. It appears that the model is necessarily conservative in tons so that the predicted ounces are reasonable at the higher grade of the model.

There are a number of occurrences that have contributed to this outcome.

1) Potential high bias of the historic RC drilling
2) Potential low bias of the head grade sample due to loss of fines at the sampler.
3) Internal dilution during ore control where low grade material cannot be segregated from the ore dig shapes.
4) External mining dilution.

One should note that the FCMI model predicts metal to the pad far better than any of the previous three block models. However, the predicted process tonnage is under estimated by 25% paired with the matching overestimation of grade by the model.

As a result of this work the qualified person, John Marek has re-categorized material that has been modeled as "measured" to "indicated" for the reporting of mineral resources. Drill density is sufficiently tight to define measured class material, but the uncertainty of that drilling, the instability of previous models, and the result of an 18 month reconciliation do not support a measured classification which further establishes that there are no "Proven" mineral reserves.

Mineral Resource

The component of the in-ground material that meets the requirements for reasonable expectation of economic extraction and mineral resource was developed using pit optimization software and a gold price of $1,600 USD/Troy Oz. The estimates of cost and recovery input parameters to the pit optimization were assembled by FCMI and IMC based on recent production history and the planning outlook and are summarized on Table 14-10.

Economic benefit was applied to all three classes of measured, indicated, and inferred for the determination of mineral resources The mineral resource on Table 1-2 is sourced from a pit optimization run completed by IMC.

The qualified person for the mineral resources is John Marek of IMC. The risks associated with this statement of resources include: 1) The uncertainty in the data base and the resulting block model may not reflect the distribution of tonnage and grade accurately, and 2) Environmental licensing is not sufficient to cover the entire resource pit because the resource pit may mine somewhat deeper than the estimated water table which is currently not permitted. As a result the qualified person has established that there is no measured category mineralization and any material reported as measured from the model is reported as a component of the indicated mineral resource on Table 1-2. The mineral resource is presented in Metric units on Table 1-4.

Table 1-2
Florida Canyon Mining Inc.
Mineral Resources on 1 June 2020
The Mineral Resource Below Includes the Mineral Reserve

Mining Area	Class	Cutoff Grade		Ktons	Grade	Contained Metal
		NSR$/ton	oz/ton		oz/ton	oz x 1000
Total	**Indicated**	**$3.21**	**0.0043-0.0051**	**151,040**	**0.011**	**1,667**
	Inferred	$3.21	0.0043-0.0051	27,263	0.010	276
Central	Indicated	$3.21	0.0043	58,100	0.011	642
	Inferred	$3.21	0.0043	9,567	0.010	95
Main	Indicated	$3.21	0.0043	38,373	0.010	385
	Inferred	$3.21	0.0043	6,573	0.010	64
Jasperoid	Indicated	$3.21	0.0043	11,931	0.009	105
	Inferred	$3.21	0.0043	2,436	0.008	20
Radio Towers	Indicated	$3.21	0.0051	42,636	0.013	534
	Inferred	$3.21	0.0051	8,687	0.011	98

Notes:

Ktons = 1000 short tons
Grade = troy ounces / short ton
Metal Price of $1,600 USD/troy ounce
Numbers may not add due to rounding
Costs and Recoveries on Table 14-10

Mine Plan and Schedule

A mine plan and schedule for Florida Canyon was developed by IMC and FCMI staff members working together at the mine site in Nevada. A series of 14 mine phase designs were developed including working access roads and practical operating widths. Haul roads are designed 90 ft wide with a maximum gradient of 10%. All mine planning addressed indicated category material (which became probable reserve) and treated inferred as waste.

The phases were used to develop a mine production schedule that sustains ore release to the crusher at 750 ktons/month or 9,000 ktons/year. No adjustments for dilution or mining recovery were incorporated into the mine schedule outside of that already included in the model. The reconciliation differences that are noted previously would imply a 25% dilution at a grade of 0.0. That factor was not applied but should be kept in mind when reviewing the mine schedule and the mineral reserves.

Table 1-3 summarizes the mine production schedule starting on 1 June 2020. The mine plan was developed assuming a gold price of $1,350 /oz. Cutoff grades are at 0.005 oz/ton for three years followed by 0.006 oz/ton for the remaining mine life. The lower cutoff in the early years was established so that sufficient ore would be released at the maximum loading capacity of the equipment typically assigned to the pit.

Table 1-3
Mine Production Schedule

Period	Cutoff oz/ton	Crusher Ktons	Grade oz/ton	Contained Oz x 1000	Waste Ktons	Total Ktons
2020*	0.005	5,250	0.0099	52	10,750	16,000
2021	0.005	9,000	0.0106	95	18,370	27,370
2022	0.005	9,000	0.0120	108	18,370	27,370
2023	0.005	9,000	0.0144	129	16,550	25,550
2024	0.006	9,000	0.0117	105	16,550	25,550
2025	0.006	9,000	0.0114	102	16,550	25,550
2026	0.006	9,000	0.0118	106	16,288	25,288
2027	0.006	9,000	0.0140	126	16,550	25,550
2028	0.006	9,000	0.0127	115	10,283	19,283
2029	0.006	4,926	0.0161	79	2,355	7,281
Total		**82,176**	**0.0124**	**1,019**	**142,616**	**224,792**

* Period of 2020 is from June to December (7 months)

IMC confirmed that approximately 6 additional trucks (100 tons) would have to be purchased or leased during the mine life to assure sufficient haulage capacity to complete the mine schedule assuming that there is no pit backfilling and that the crusher is not moved. Those opportunities would substantially reduce the truck fleet requirements. If backfilling and a crusher move is implemented, an addition of 2 trucks is estimated.

Mineral Reserve

The mineral reserve is the total of all indicated category material that is planned for processing during the mine life. That material becomes the probable mineral reserves. Table 1-4 summarizes the mineral reserve on 1 June 2020.

The qualified person for the mineral reserve is John Marek, of Independent Mining Consultants, Inc. The reader should note that there is a significant risk that the tonnage and grade of the mineral reserve could differ from Table 1-3 by as much as 25%. The results of the historic reconciliation presented earlier, indicate that although the model predicts contained ounces well, the produced tonnage and grade to the process plant can vary from the model prediction by the 25 to 32%. IMC has confirmed that the cost of processing 25% more ore to the crusher still results in an economic mine plan.

Table 1-4
Florida Canyon Mining Inc.
Mineral Reserves on 1 June 2020

Class	Cutoff oz/ton	Ktons	Grade FA oz/ton	Contained ozs x 1000
Probable	0.005 to 0.006	82,176	0.012	1,019

Notes:
The Qualified Person is John Marek, PE, RM-SME
Cutoff Grade 0.005 oz/ton for 3 years then 0.006 oz/ton
Entire mineral reserve categorized as "Probable" by QP
Metal Price = $1,350 / troy ounce gold
Process Cost + G$A = $3.21/ton
Mining Cost = $1.44/ton average
Recovered metal based on the Table 15-1 equation is:
665,000 troy ounces
The reserve pit contains 142.6 MT waste
Mine dilution and recovery have not been added
Mineral reserve tonnage could be 25% higher
with the same reported contained ozs

The mineral reserve is presented in Metric units on Table 1-5

Process

Florida Canyon is a conventional gold/silver heap leach operation where ore passes through two stages of open circuit crushing. Final product runs 80% minus 1½ inch. Historically material was run through a closed circuit crusher and the final product was reduced to ¾ inch. The crushed ore is agglomerated with a polymer binding agent and stacked in 20 foot lifts. Solution is applied through drip tubes at a rate of 0.0028 gpm/ft^2. Discharge (pregnant solution) from the bottom of the pad is sent to carbon columns, a conversion from the original Merrill Crowe process. There is no intermediate or recycled solution. Loaded carbon is pressure stripped, gold is recovered by electrowinning and precipitate is melted into dore' bars. The gold to silver ratio is about 1:1. Stripped carbon is reactivated, acid washed and returned to service.

Recommendations Resource and Mine

The current oxide processing operation at Florida Canyon would benefit from better knowledge of the oxide-sulfide boundary and the water table. There could be more leach amenable material just below the current interpreted sulfide boundary that are not actually sulfides. The tonnage grade, and process metallurgical response of the underlying sulfides is not known.

As result, more drilling is recommended within the Florida Canyon mine area to define the sulfide boundary, water table, and to collect samples for process metallurgical testing. IMC recommends that any future drill program contain sufficient diamond drilling to be able to more accurately access the observed bias of RC drilling, and to provide samples for process testing. It is understood that core drilling is expensive relative to RC, but the cost of misinterpretation that appears to have occurred with the historic RC drilling is much more costly.

The current management and staff at FCMI should be encouraged to continue their improvements augmented with the support and guidance by the Argonaut management team.

The resource modeling staff should continue working toward improving the model. The work reported in this document by FCMI staff is a substantial improvement over previous efforts. However, there is still room to develop a better mine planning model. Ongoing work to that end should be continued.

FCMI staff have ideas to improve the mine operation by potentially backfilling some old pits to shorted waste haul cycles and by moving the ore crushing plant to shorten the ore haul. These are ideas should continue to be planned and evaluated.

Sulfide tonnage, grade, and process options should be evaluated sufficiently timely that if a sulfide operation is warranted, permit applications can be started in time to assure a transition from oxide to sulfide operations without a major hiatus to production.

Recommendations Process

The pond sizing should be carefully reviewed conjunction with updated mine plans whether an additional contingency pond might be required.

If sulfide material is available, both leaching and flotation test work should be initiated. It is likely that the results would be minimum numbers because there is very likely some degree of surface tarnishing on the samples, especially if the samples are old. Drilling for fresh samples is recommended.

The carbon activity should be determined to accurately calculate the potential cost savings of revamping the carbon handling circuit.

Metric Units

The mineral resources and mineral reserves presented on Tables 1-2 and 1-3 in imperial units are summarized on Tables 1-4 and 1-5 in metric units for convenience. Contained metal is reported in troy ounces on all tables.

Table 1-5
Florida Canyon Mining Inc.
Mineral Resources on 1 June 2020, METRIC Units
The Mineral Resource Includes the Mineral Reserve

Mining Area	Class	Cutoff Grade		Ktonnes	Grade	Contained Metal
		NSR$/tonne	gm/tonne		gm/tonne	oz x 1000
Total	**Indicated**	$3.54	0.147 to 0.175	**137,021**	0.379	**1,667**
	Inferred	$3.54	0.147 to 0.175	24,733	0.348	276
Central	Indicated	$3.54	0.147	52,708	0.379	642
	Inferred	$3.54	0.147	8,679	0.339	95
Main	Indicated	$3.54	0.147	34,811	0.344	385
	Inferred	$3.54	0.147	5,963	0.333	64
Jasperoid	Indicated	$3.54	0.147	10,824	0.303	105
	Inferred	$3.54	0.147	2,210	0.278	20
Radio Towers	Indicated	$3.54	0.175	38,679	0.430	534
	Inferred	$3.54	0.175	7,881	0.387	98

Notes:

Ktonnes = 1000 metric tonnes
Grade = grams / metric tonne
Metal Price of $1,600 USD/troy ounce
Numbers may not add due to rounding
Costs and Recoveries on Table 14-10

Table 1-6
Florida Canyon Mining Inc.
Mineral Reserves on 1 June 2020, METRIC Units

Class	Cutoff gm/tonne	Ktonnes	FA Grade oz/tonne	Contained ozs x 1000
Probable	0.171 to 0.206	74,549	0.425	1,019

Notes:
The Qualified Person is John Marek, PE, RM-SME
Cutoff Grade 0.171 gm/tonne for 3 years then 0.206 gm/tonne
Entire mineral reserve categorized as "Probable" by QP
Metal Price = $1,350 / troy ounce gold
Process Cost + G$A = $3.54/tonne
Mining Cost = $1.587/tonne average
Recovered metal based on the Table 15-1 equation is:
665,000 troy ounces
The reserve pit contains 129.4 Mtonne waste
Mine dilution and recovery have not been added
Mineral reserve tonnage could be 25% higher
with the same reported contained ozs

2.0 INTRODUCTION

Independent Mining Consultants, Inc. (IMC) was requested by Argonaut Gold Inc.. (Argonaut) to review and verify the mineral resources and mineral reserves for the Florida Canyon Mine, located near Lovelock, Nevada. USA. This document is a Technical Report as defined under Canadian NI 43-101 that summarizes the verification work completed by IMC, the mineral resources, and mineral reserves at Florida Canyon.

The Florida Canyon Mine (Florida Canyon Mine, Inc. IMC) currently produces gold by conventional hard rock open pit mining with processing by 3 stage crushing and heap leaching. The mine was in continuous operation from 1986 through 2011 and then intermittently until 2015. It was reopened in in mid-2016 and has been in operation since that time. There has been a sequence of several owners with the penultimate being Alio Gold, Inc. (Alio). Argonaut acquired the property through merger with Alio during the second quarter of 2020. The property history of ownership is summarized in Section 6.0.

The drill hole data base, block model, and mine plan were provided to IMC for review by the staff at FCMI. Additional information was obtained from previous technical reports:

> Technical Report – Preliminary Economic Assessment for the Florida Canyon Mine, Pershing County, Nevada, USA. 22 June 2016 by Mine Development Associates, Mine Engineering Services (MDA)
>
> NI 43-101 Technical Report Life of Mine Plan and Mineral Reserves for the Florida Canyon gold Mine, Pershing County, Nevada USA , 8 February 2019, SRK Consulting (U.S.) Inc.

The qualified persons for this Technical report are John Marek, P.E. of IMC and James Arnold P.E. an independent consultant working as a sub-contractor to IMC. Mr. Arnold is responsible for Sections 13 and 17 with contributions to Sections 1, 25, and 26. John Marek accepts responsibility for all other chapters and has relied on experts in the areas of property legal status and environmental permit status.

Mr. Arnold and Mr. Marek visited the Florida Canyon Mine on 18 December 2018. John Marek visited the property again on 9 March 2020.

This report will use imperial units throughout unless stated specifically otherwise. Tons means short tons of 2,000 lbs. Ktons means 1,000 short tons. Grades are in troy ounces per short ton summarized as oz/ton. The mineral resource and mineral reserve tables are provided in both imperial and metric units. The metric tables are direct conversions from the imperial units used in the actual calculations.

3.0 RELIANCE ON OTHER EXPERTS

IMC and John Marek are not qualified to offer an opinion on the legal ownership or tenure of the property position. As such, we have relied upon information provided by FCMI regarding the location and nature of the claims as previously published by FCMI and their parent company in previous Technical Reports.

IMC and John Marek are not qualified to offer an opinion regarding the environmental permit status at Florida Canyon. In consideration that the mine is currently in operation, the qualified person has relied on information provided by Mr. Shane Johnson the Environmental Manager at Florida Canyon regarding current environmental issues and permits.

IMC and John Marek are not qualified to offer an opinion regarding taxation on mine operations in Nevada. IMC has relied on the input and calculations from David A. Ponczoch, Chief Financial Officer of Argonaut Gold Inc. regarding taxation and project economic analysis. Peter C. Dougherty, President and CEO of Argonaut Gold Inc, contributed to the estimated capital and operating costs presented in Section 22 with review by John Marek of IMC.

4.0 PROPERTY DESCRIPTION AND LOCATION

Florida Canyon is located just off Interstate 80, 125 miles northeast of Reno, Nevada. The nearest towns are Winnemucca, 40 miles northeast with a population of 7,763 (2018) and Lovelock, 33 miles southwest, with a population of 1,814 (2018). The highway exit for the Florida Canyon Mine from I-80 is at Imlay, Nevada. The property location is 40.586088 degrees latitude by -118.257365 longitude. Access is reliable via the Interstate year around.

During June of 2016, MDA reported that the land package owned or leased by FCMI covers a total of 29,370 acres. Fee lands total 5,520.4 acres and unpatented claims total 23,849.6 acres. Contained within the fee lands are 19 patented claims totaling 359.9 acres. During 2018, SRK reported identical acreage and claim count. This land position includes both Florida Canyon and the Standard Mine which is located south of Florida Canyon. This report addresses Florida Canyon only and does not include any mineral resources within the Standard Mine property holdings.

Royalty interests at Florida Canyon have been consolidated since publications in 2019 and are reported by FCMI accounting personnel to be:

Able & York International, LLC	2.5% NSR
Maverix Metals, Inc.	3.0% NSR

The Maverix Metals royalty historically changed at different locations across the property. Alio negotiated a fixed 3% royalty with Maverix Metals, Inc on 22 November 2019.

Figure 4-1 illustrates the location of Florida Canyon Mine on the map of Nevada, USA. The detailed description and listing of the FCMI property was published within Appendices A through D of the following report: Technical Report – Preliminary Economic Assessment for the Florida Canyon Mine, Pershing County Nevada, prepared for Rye Patch Gold Corp. by Mine Development Associates, Mine Engineering Services, with an effective date of 16 March 2018.

Argonaut Gold acquired control of the Florida Canyon Mine through a merger with Alio Gold, Inc. The merger agreement between Alio and Argonaut is summarized as follows:

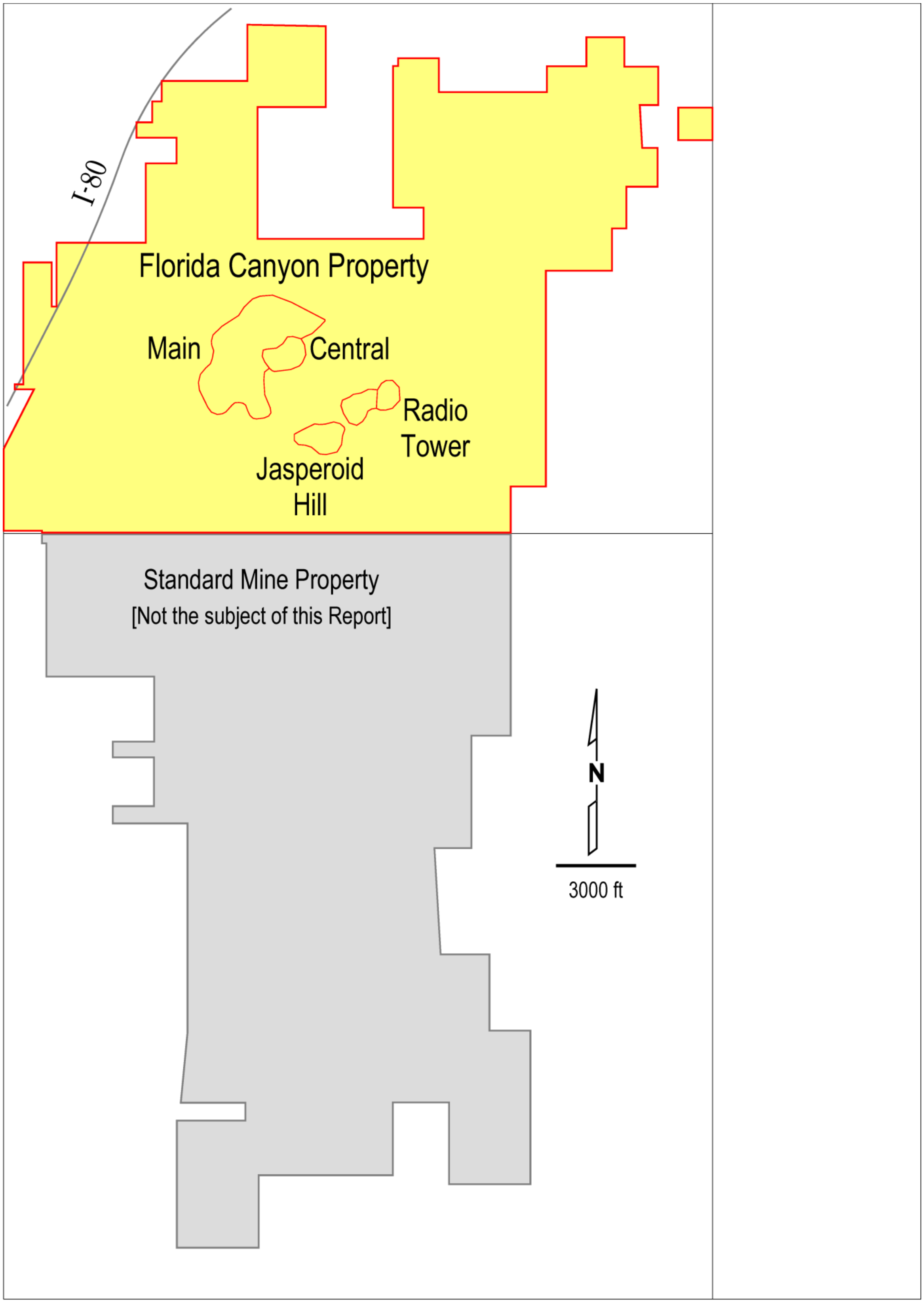
1) Argonaut will acquire all issued and outstanding shares of Alio via a Plan of Arrangement.
2) Share exchange ratio of 0.67 of an Argonaut Share for each Alio Share. Argonaut will hold about 76% and Alio about 24% of the merged company.
3) Alio to appoint 2 board members to the Argonaut board.
4) Management will be the existing Argonaut Executive Team
5) The Transaction is expected to close July 1, 2020.

Environmental Liabilities and Permitting

FCMI reports that all environmental and operational permits are in place to continue operations. Specifics of environmental permitting will be summarized in Section 20. The U.S. Bureau of Land Management (BLM) and the State of Nevada regulations require closure and reclamation of mineral projects and a reclamation permit must include a financial surety to ensure that the reclamation will be completed. FCMI has a reclamation surety to fund closure and reclamation of the mine operations disturbance and is currently permitted for reclamation under the state Reclamation Permit #0126 and by the BLM under approval of APO 20 and the FCMI APO20 EA.

FCMI identified a leak from the heap leach pad in 2000. The pad in question is currently inactive. That issue has been addressed with the Nevada Division of Environmental Protection and mitigated with monitoring wells, pump-back from those wells, and repair of the ditches adjacent to the heap leach pads. A trust fund has been established by FCMI to assure compliance with all state requirements. The state has reported that the issue has been mitigated, but the trust has yet to be released by the State of Nevada.

Figure 4-1 Property Location in Nevada Source, Geology.com, 2020



Source: MDA, 2017; modified by IMC, 2020

Figure 4-2: Florida Canyon Land Map

5.0 ACCESSIBILITY, CLIMATE, LOCAL RESOURCES, INFRASTRUCTURE, AND PHYSIOGRAPHY

Florida Canyon is located in the northwestern portion of the Great Basin on the western flank of the north-south trending Humboldt Range. The physiography of the area consists of basin and range structures with the FCMI mine located at the transition from one of the basins and the Humboldt Range. Elevations range from about 4,200 ft on the western side to over 6,000 ft on the east side of the property.

Florida Canyon is located just off of Interstate 80, 125 miles northeast of Reno, Nevada. The nearest towns are Winnemucca, 40 miles northeast with a population of 7,763 (2018) and Lovelock, 33 miles southwest, with a population of 1,814 (2018). The highway exit for the Florida Canyon Mine from I-80 is at Imlay, Nevada. The proximity to the Interstate Highway assures year around access to the mine. Power and water are available for the current operation.

The climate is classified as semi-arid characterized by low rainfall, low humidity, with large annual and daily temperature swings. Average high temperatures range from 30 degrees F in January to 70 degrees F in July. Winter minimum temperatures are typically in the teens Fahrenheit and summer high temperatures can reach 90 degrees F. MDA reported the average annual precipitation for 1935 through late August 2009, obtained from the nearby Rye Patch Dam weather station from the Wester Regional Climate center has been 7.8 inches with most of it comprised of snow in the winter months. The minimum annual precipitation was 3.3 inches and the maximum was 16.2 inches during that time frame. FCMI operates year around.

6.0 HISTORY

The initial portions of this section were published in the Technical Report – Preliminary Economic Assessment for the Florida Canyon Mine, Pershing County, Nevada USA, by Mine Development Associates, Mine Engineering Services, as revised on 22 June 2016. Additional text has been added in the later paragraphs by IMC to update the history to the current situation.

Gold was discovered in 1860 in Humboldt Canyon, which led to the organization of the Imlay Mining District. Numerous claims were filed in the area and the population of Humboldt City grew to 500 by 1863. Mining in the district was limited until 1906 when the Imlay Gold Mine and the Black Jack Mercury Mine were discovered. Production from the district was low. However, continued exploration resulted in the production of gold, silver, mercury, and tungsten from small mines. The most productive mine in the district was the Standard Mine which produced more than $1 million in gold and silver between 1939 and 1949. The Valerie fluorspar deposit near the head of Black Canyon produced about 723 tons of 44% CaF_2. Kaolin and sulfur were also shipped from the district.

In 1969, Homestake Mining Company (Homestake) obtained a lease on property in the Florida Canyon area. Seven widely spaced rotary holes were drilled with marginal results, and the property was dropped. Cordilleran Explorations (Cordex) next leased the property between 1972 and 1978. A comprehensive program of geologic mapping, geochemical sampling, and trenching was completed. A total of 25 of 37 drill holes completed were in a mineralized zone referred to as the West Trend, on the site of present day Florida Canyon Mine. When Cordex dropped their lease in 1978, Flying J Mines carried out a limited heap-leach operation the West Trend material.

Between 1969 and 1982, three major mining companies explored the property and chose not to proceed with development of the deposit. For example, during 1980 and 1981, ASARCO completed a drill program of 69 rotary holes that significantly expanded the known mineralization. The grade was low and ASARCO dropped its interest in the property except for a portion of Section 11 where a 1% Net Profit royalty, now known as the McCullough royalty, remained in effect.

In 1982, Montoro Gold Company (Montoro), a subsidiary of Pegasus Gold Corporation, (Pegasus) acquired the property. Montoro began an aggressive program to expand reserves and enlarge the property position. Detailed geologic mapping and geochemical sampling led to discovery of other anomalous gold occurrences throughout the property. By the end of 1985, 241 drill holes were completed totaling 87,569 ft in the West Trend and adjacent deposits. In addition, 46 holes were completed in other exploration targets to the south and east.

Large-scale column-leach tests were completed in conjunction with additional ore delineation. In November 1985, a decision was made by Pegasus to put the property into production. Permitting and project development followed with startup of a new mine in 1986. Work on processing facilities began in May 1986, with the first ore crushed and delivered to the leach pad in November 1986. During the years that followed, additional drilling added minable material to the project.

Pegasus operated the Florida Canyon Mine until January 1998. Pegasus was an international gold mining company incorporated in Canada, with headquarters in Spokane, Washington and had gold production of 470,000 ounces from six operations in 1997. Pegasus begun having financial problems in 1997 when the price of gold decreased from $370/oz in January to $283/oz in December. During this period, Pegasus' Mt. Todd project came on stream and had serious operational problems. In January 1998, Pegasus was unable to service $238 million in debt and filed for bankruptcy under Chapter 11 of the U.S. Bankruptcy Code.

Under two separate plans of reorganization approved by major creditors and confirmed by the court, certain former Pegasus affiliates emerged from bankruptcy protection during February 1999. The first involved the reorganization of Pegasus Gold International, Inc. (the international exploration affiliate of Pegasus) which was reincorporated as Apollo Gold, Inc. Apollo Gold Inc. became the holding company for three former Pegasus subsidiaries, including FCMI.

Apollo Gold Inc. was acquired during the second quarter of 2002 by Nevoro Gold, Inc. (Nevoro). Nevoro became a publicly traded company on the Toronto Stock Exchange and subsequently changed its name to Apollo Gold Corporation (Apollo). Apollo operated the Florida Canyon Mine and the nearby Standard Mine through its FCMI and SGMI subsidiaries until Jipangu International, the U.S. Subsidiary of Jipangu Inc., acquired the Florida Canyon and Standard properties in November 18, 2005. Jipangu operated the properties until 2015. Jipangu defaulted on debt and the property became majority owned by Admiral Financial. Rye Patch Gold Corp, agreed to acquire the Florida Canyon property and related assets from Admiral Financial Group (Admiral) and Jipangu International, Inc. through acquisition of their three subsidiary companies, FCMI, SGMI, and Jipangu Exploration in consideration for payment of $US 15.0 million and 20 million common shares of Rye Patch at closing. A further contingent payment of $US 5.0 million and 15 million warrants, each warrant exercisable for one common share of Rye Patch at a price of $0.50 per share was payable following commercial production. Rye Patch agreed to assume certain liabilities of the acquired companies to a maximum aggregate amount. Rye Patch operated the property until the second quarter of 2015 and shut down for about a year.

In mid-2016, rye Patch Gold resumed open pit mining and heap leaching operations and declared commercial production in December 2017. In May 2018, Alio Gold acquired Rye Patch Gold by way of a Plan of Arrangement transaction and as a result held 100% of the Florida Canyon and Standard Mine properties. The land position includes the Standard Mines property, but the mineral resources, mineral reserves and mining plan address the Florida Canyon property only.

During the first half of 2020, Argonaut gold acquired control of Florida Canyon through a merger with Alio Gold, Inc. A summary of the merger agreement was presented in Section 4.0.

Mineral resources and mineral reserves have been stated previously for FCMI. The following tables are for historic reference and do not reflect the mineral resources or mineral reserves as currently stated by FCMI and Argonaut.

Table 6-1

Historic Mineral Resource Statements
Florida Canyon

MDA, 16 March 2016			
Class	Cutoff oz/ton	Ktons	Grade oz/ton
Measured	0.006	79,635.4	0.013
Indicated	0.006	4,566.7	0.020
Measured+Indicated	0.006	84,202.1	0.013
Inferred	0.006	3,530.8	0.015

SRK, 31 July 2018			
Class	Cutoff $NSR/Ton	Ktons	Grade oz/ton
Measured	$3.94 to $4.09	115,817	0.012
Indicated	$3.94 to $4.09	30,652	0.011
Measured+Indicated	$3.94 to $4.09	146,469	0.012
Inferred	$3.94 to $4.09	1,550	0.014

Historic Mineral Reserve Statement
Florida Canyon

SRK, 31 July 2018			
Class	Cutoff oz/ton	Ktons	Grade oz/ton
Proven	0.005 to 0.006	80,739	0.011
Probable	0.005 to 0.006	13,896	0.010
Proven+Probable	0.005 to 0.006	94,634	0.011

This information is for historic reference only and does not reflect the current status of mineral resources or mineral reserves.

7.0 GEOLOGIC SETTING AND MINERALIZATION

Florida Canyon is a low grade gold deposit that is hosted in Triassic to Cretaceous sedimentary rocks. It is characterized as Neogene (late Tertiary) epithermal gold deposit that is associated with a geothermal hot springs system. The following text was published in the Technical Report – Preliminary Economic Assessment for the Florida Canyon Mine, Pershing County, Nevada, by Mine Development Associates, Mine Engineering Services, with an effective date of 16 March 2016.

7.1 Regional Geology

The Florida Canyon mine and Standard Mine are situated in northwestern Nevada within the Basin and Range physiographic province, which is typified by a series of northward-trending elongate mountain ranges separated by alluvial valleys. Rocks exposed in the region range in age from Cambrian to Holocene and comprise thick sequences of sedimentary, volcanic, intrusive and metamorphic rocks in a complex structural environment (Johnson, 1977).

The region was subjected to three major pre-Cenozoic periods of deformation, characterized by large-scale folding and thrust faulting (Johnson, 1977), with intervening periods of substantial carbonate and clastic sedimentation. The late Devonian to early Mississippian Antler orogeny formed the Antler highlands, located in present-day central Nevada, east of the area of study. This uplift shed sediment westward into a marine transgressive environment (Taylor et al., 2002).

At the end of the Paleozoic (late Permian) and into the early Triassic, the Sonoma orogeny resulted in deep-water strata thrust eastward tens of miles over rocks of the Antler highlands (Johnson, 1977). During this period, thick sequences of greenstone and rhyolitic flows, tuff, and breccia of the Koipato Group were deposited in a shallow marine setting. Continual sedimentation in the Triassic was characterized by shallow-water marine carbonate deposition (Prida and Natchez Pass formations) grading westward to deeper-water clastic sedimentation, predominately mudstones. During the late Triassic to early Jurassic, sediments of the Grass Valley Formation, grading from fluvial sandstone in the east to fine-grained mudstone in the west, were unconformably deposited over the Prida and Natchez Pass formations (Taylor et al., 2002).

The last major compressional event, the Sevier orogeny, was likely well underway during the late Triassic, with evidence that some mid-Triassic sediments in the region were deposited syntectonically into local troughs formed during the early stages of this tectonic event (Taylor, 2001). During this time, sandstone and mudstone of the Grass Valley Formation were weakly metamorphosed to quartzite, argillite, and slate, with a north-northeast metamorphic foliation (Taylor et al., 2002).

Cenozoic volcanism and later Basin and Range faulting, which commenced about 16 Ma, have complicated and, locally, obscured the older structural features (Johnson, 1977).

7.2 Local Geology

The Florida Canyon and Standard Mine deposits are located in the Humboldt Range, which is a major north-trending anticlinal structure likely formed during the Sevier orogeny (Hastings et al., 1987). The stratigraphy of the Humboldt Range is summarized from Taylor (2001) and Taylor et al. (2002).

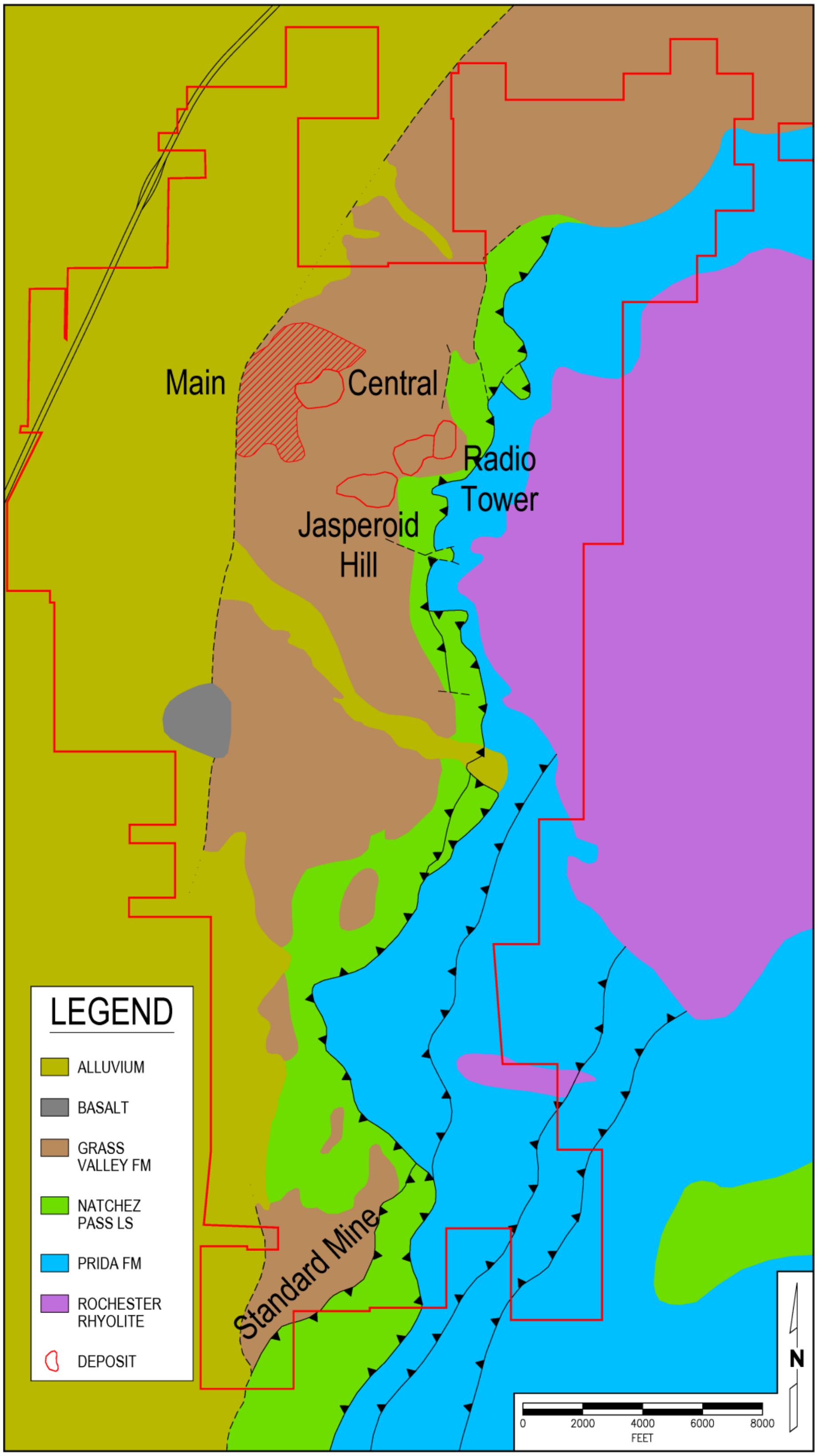
The Florida Canyon area is dominated by a major regional structural zone, termed the Humboldt Structural Zone, which is interpreted to be a 200-km long northeasterly-trending structure zone with left-lateral strike slip movement (Hastings et al., 1987). One of the principal structural features within the Humboldt Structural Zone is the Midas Trench lineament, which abruptly terminates the north end of the Humboldt Range (Rowen and Wetlaufer, 1981). Mineralization and alteration in the Florida Canyon and Standard Mine deposit areas are localized where the Midas Trench lineament is intersected by the north-south trending Basin and Range frontal faults (Hastings et al., 1987).

A generalized geology map of the Florida Canyon and Standard Mine region, showing the locations of known mineralization, is presented in Figure 7-1.

7.3 Florida Canyon Geology

Rocks of the Rochester Rhyolite, Prida Formation, Natchez Pass Limestone, and Grass Valley Formation are exposed in the Florida Canyon Mine area. All of these units are of Triassic age. Sills of mafic composition intrude the Prida Formation and sparse, strongly clay-altered felsic dikes locally cut upward into the Grass Valley Formation. The Humboldt City Thrust Fault separated the Natchez Pass and Grass Valley formations from the underlying Prida Formation, and much of the middle and lower units of the Natchez Pass Limestone have been cut out above the thrust fault. The Florida Canyon gold deposits are hosted by the Grass Valley Formation and Natchez Pass Limestone along with sill/limestone contact zones within Prida Formation. The general strike of the stratigraphy at Florida Canyon is N30^{o}E with a 30 to 40 degree dip to the west.

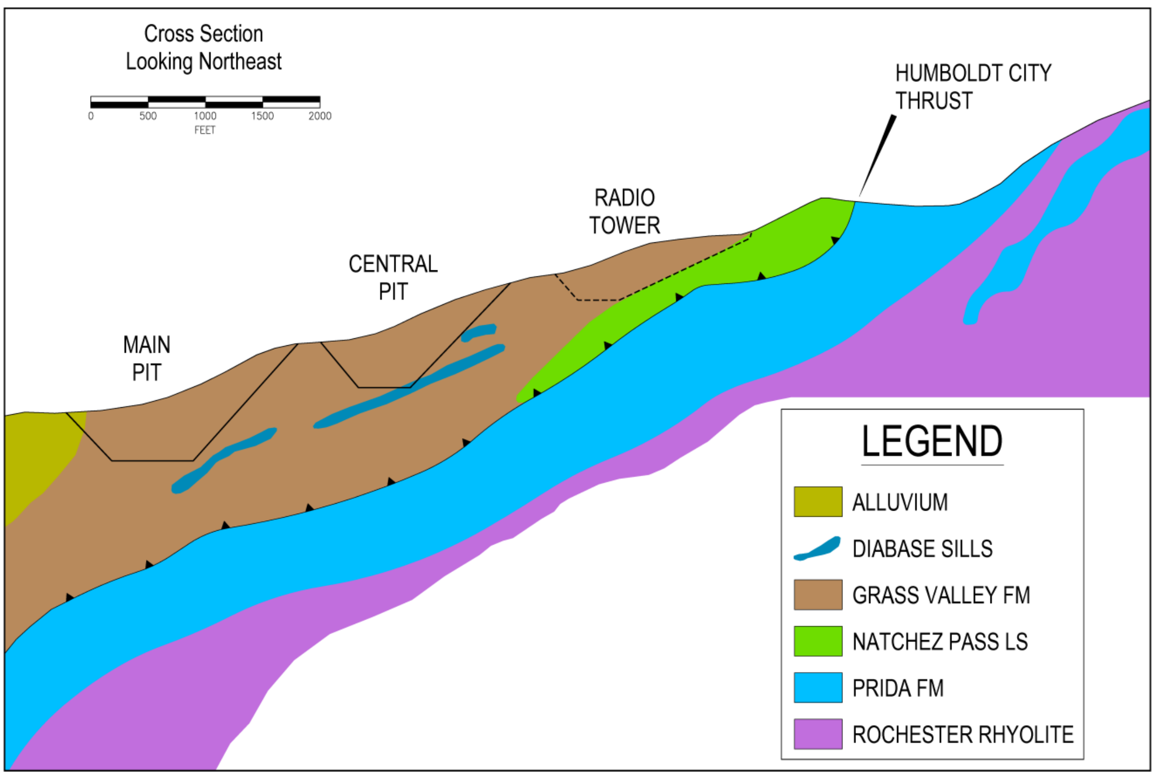
Figure 7-2 is a west-to-east cross section illustrating the general geology of the Florida Canyon deposits. Taylor (2001) described the lithologic and structural characteristics of the Grass Valley Formation in the immediate Florida Canyon Mine area. These descriptions have been updated by Larson (2009, personal communication). The Grass Valley Formation is composed of siltstone with interbedded sandstone lenses, which were metamorphosed to argillite, phyllite, and fine grained quartzite. At the mine site, the Grass Valley Formation can be separated into layers of silty argillite and quartzite separated by dark gray to black phyllite. The layers of more quartz-rich sediment were more strongly and preferentially fractured and faulted during periods of compressional tectonics relative to the phyllite beds. As well, extensional tectonics during Basin and Range formation also resulted in more fault- and fracture-related permeability in the silty beds relative to the phyllite.



Source: MDA, 2017; modified by IMC, 2020

Figure 7-1: Florida Canyon Area Geology

There is a strong N30º to N50ºE structural fabric prevalent in and adjacent to the Florida Canyon deposits, as evidenced by the alignment of quartz veining, shear zones, and well-developed joint sets (Hastings et al., 1987). Byington (1966) also recognized this important structural control to mineralization, particularly in the Main and Madre (aka Brown Derby) deposits. It has also been noted at other locations, specifically the Northeast Extension (aka Central) deposit that the preferentially mineralized structural trend is west-northwest. The north to north-northeast trending Basin and Range fault system limits the western near-surface part of the Florida Canyon oxide deposit. The range-front fault system is a series of subparallel normal faults that “stair step” down to the west, with displacement on individual faults ranging from more than 780ft near the range front to a few feet on parallel structure further to the west (Hastings, 1987). These range-bounding faults are also listric and flatten with depth, which is an important feature in exploring for downdip blocks of mineralization to the west beneath valley-fill alluvium.



Source: MDA, 2017; modified by IMC, 2020

Figure 7-2: Florida Canyon Generalized Geologic Cross Section

7.4 Standard Mine Geology

The Standard Mine is located south of Florida Canyon and has not been in operation for many years. The Standard Mine area includes the North/Intermediate Pit, South Pit, Cordex, High Standard, and Star areas. The Standard Pit is the largest area of historical mining. The stratigraphy of the Standard Mine area is similar to that at Florida Canyon. Structural controls on mineralization differ somewhat between each of the mine areas at the Standard.

Gold mineralization at South Pit is hosted in a folded silty limestone member of the Natchez Pass Limestone. That unit has a synclinal shape that is formed at the intersection of the east-dipping Standard Reverse fault and the west-dipping Humbolt City Thrust. Mineralization at Cordex, North/Intermediate and Star are at the contact between the Grass Valley Formation and the Natchez Pass formation. High Standard occurs in occurs in a thick-bedded limestone and mafic sills of the Prida Formation.

7.5 Mineralization

The location and geometry of the mineralized bodies at Florida Canyon are a result of structure; the presence of favorable silty argillite, quartzite, and limestone host rocks; and the position of the host rocks relative to structural conduits. The higher-grade zones of mineralization tend, in general, to follow the high-angle, northeast- and northwest-trending fault and shear zones. The more moderate- or lower-grade zones are controlled by favorable host rocks more distal to feeder structures.

Rock units that are more favorable hosts to mineralization include silty argillite, hornfels contact zones with mafic sills, karsted limestone, and platy, silty limestone with interbeds of calcareous shale. Local factors that influence the occurrence and geometry of mineralized bodies include variations in folds, foliation, and bedding in favorable units, intersecting structural fabrics, and proximity to low-angle structures (Taylor 2001). Hypogene mineralization at Florida Canyon consists of native gold and electrum associated with quartz, iron oxides, pyrite, marcasite, and arsenopyrite (Hastings et al., 1987). Quartz is the major gangue material. Secondary minerals identified in the Florida Canyon deposits to date include gypsum (likely remobilized from the Grass Valley Formation), alunite, barite, native sulfur, calcite, dolomite, fluorite, anhydrite, pyrargyrite, pyrrhotite, and stibnite. There are two types of hydrothermal, epithermal quartz veins at Florida Canyon (Hastings et al., 1987). The most important are vein swarms and stockworks that contain most of the gold mineralization. These veins generally follow a north-northeast trend (Hastings et al., 1987) and are characterized by colorless, euhedral to subhedral quartz, or banded chalcedonic white to colorless quartz that contains limonite after pyrite (Taylor, 2001).

The second type of hydrothermal quartz veining occurs as large, through-going, banded fissure veins that follow the original north-northeast structural fabric (Hastings et al., 1987). These veins are interpreted to represent a late hydrothermal event that overprinted the earlier episode of gold-bearing quartz veining and stockworks. These veins are characterized by bands of coarse, prismatic quartz alternating with bands of cherty chalcedony and only occasionally contain economic gold grades. Milky white bull-quartz veins, considered to be metamorphic in origin, may also be present in the mineralized zones, but they are not gold bearing (Taylor, 2001). Locally, pervasive silicification is generally associated with areas of high-density quartz veining and/or intense hydrothermal brecciation (Taylor, 2001). Sericite, adularia, clay, and chlorite occur locally in quartz veins, breccia matrix, and on fracture surfaces. There is extensive argillization and bleaching throughout the deposit area, with pervasive hematization that is largely confined to silty units marginal to the bleached areas (Hastings et al., 1987).

A different style of mineralization has been recognized in the more recently discovered deposits east of the original Florida Canyon Main. At Radio Tower, karsted surfaces in Natchez Pass Limestone are replaced by cryptocrystalline silica forming jasperoid and hornfelsed contact zones between mafic sill and limestone are strongly quartz-veined and pyritized. These ore zones represent a likely older event relative to the younger, hot-spring style mineralization in the Main Pit and Madre areas.

8.0 DEPOSIT TYPE

Florida Canyon was a large tonnage low grade Neogene aged epithermal gold system adjacent to an active geothermal system. The close spatial association with the geothermal system has led to a general belief that Florida Canyon is a hot springs-type epithermal gold deposit. Hydrothermal alteration assemblages and the mineralogy of both oxidized and unoxidized gold mineralization at Florida Canyon have been characterized as having formed in a low-sulfidation epithermal environment.

Age dates on adularia from quartz-adularia-sulfide veins in the deposit indicate gold mineralization occurred in at least two episodes about 4.6 to 5.0 million years ago and between 2.2 and 4.6 million years ago along and in the footwall of the NS range bounding fault at the west margin of the Humboldt Range. This mineralization was overprinted by steam-heated alteration and oxidation at various times between 0.9 and 2.2 million years ago. There are no known volcanic or intrusive rocks of similar age nearby, and the deposit has been considered to not be associated with magmatic activity.

9.0 EXPLORATION

There has been no exploration drilling completed at Florida Canyon since 2017. That drilling was completed by Rye Patch Gold Corp, who preceded Alio in ownership of the property. Prior to that, exploration on site was predominately in the form of Reverse Circulation (RC) drilling completed primarily by Pegasus from 1983 through 1997 and Apollo from 1998 to 2004. A few core holes were drilled by Pegasus-Apollo from 1995 to 2002. Drilling history is summarized in Section 10.

Details on early exploration and mapping are not available. The drill program history is summarized in Section 10.0

10.0 DRILLING

The drill hole data base was provided to IMC by the staff at FCMI. The last drill campaign at Florida Canyon was completed in 2017 by Rye Patch gold. Prior to that, the previous drill program was in 2014. As a result, the qualified person has not been able to observe any of the drilling or sample collection. No additional drilling has been added since 2017.

During 2019, FCMI staff reviewed the historic data base and removed or corrected a number of errors that were obvious upon inspection. As a result, the number of holes and particularly the number of sample intervals reported in this document are somewhat less than reported in previous technical reports. This is noted in Table 10-1 regarding drill history.

The current data base contains 4,285 drill holes amounting to 1,928,337 ft of drilling and containing 356,278 assayed intervals for gold. Drilling spanned the period of 1969 through 2017 as summarized on Table 10-1. All of this drill hole information has been used in the estimation of grade in the block model. However, a substantial volume of rock has been removed from Florida Canyon and about 35% of the assay intervals are no longer in-place.

There are 3,974 drill holes containing 229,045 assayed intervals for gold remaining in the ground as of end of March 2020 (some are contained in backfill) indicating that roughly 65% of the overall data base has some relevance to the estimation of remaining mineral resources.

Of the original 4,285 drill holes, 55 are reported to be diamond drilling (DDH) and the rest are reverse circulation (RC). The historic record on Table 10-1 which has been reported by previous Technical Reports accounts for 54 DDH holes. The data indicates that one of the DDH holes may have been drilled in 1985 but there is no confirmation of that observation. Figure 10-1 is a plot of all 4,285 drill hole collars at Florida Canyon superimposed over March 2020 topography.

The following descriptions of drilling and sampling are paraphrased from the MDA Technical Report of June 22, 2016.

Reverse Circulation Prior to 2017

Eighty one percent 81% of the drilling at Florida Canyon was completed by the operators Pegasus and/or Apollo. Several contractors were used as noted on Table 10-1. RC drilling was completed using wet methods, where water was injected down-hole from the collar until ground water was intersected in the hole. The slurry of water and drill cuttings was directed to a rotating wet splitter, where the samples were reduced to approximately 10 to 15 lbs and collected in porous sample bags. Bags were pre-labeled with drill hole ID and sample interval. RC samples were collected at 5 ft intervals at the rig by the drill contractor.

RC holes were typically 5.25 inch in diameter though some 6-inch diameter holes were also drilled. According to FCMI personnel that were involved with the historic drilling, all RC was done using a standard RC configuration with a down-hole hammer and interchange (cross-over). There were reports that recovery from RC drilling was generally good but it decreased when strongly fractured or broken ground was encountered. In these instances, tri-cone drilling was often implemented to improve sample recovery.

Small portions of drill cuttings from each drilled interval were collected for geologic logging by placing a small sieve in the sample discharge stream during each drill interval. These samples were placed into compartmentalized RC chip trays with each tray appropriately labeled. Communications with current FCMI personnel indicate that these chip trays are no longer in existence and any re-log or review of the original logging is no longer possible.

The 55 diamond core holes were a mix half vertical and half angle drilling. Angled hole inclinations varied from 40 to 75 degrees. HQ (2.5 inch) and PQ (3.5 inch) core was drilled using standard wire line methods. Drill cores were boxed by the contractor into waxed cardboard boxes at the drill site. Footage blocks were included and the boxes were labeled.

The core was washed, photographed, and logged. Logging included both structure, geologic, and geotechnical parameters. Once logging was complete, the cores were sampled on 5 ft intervals without splitting. Samples were placed in pre-numbered cloth bags by Pegasus and/or Apollo personnel. Since the core was not split, there is no remaining core to review or re-log.

About 20% of all drill holes completed by Pegasus/Apollo were down hole surveyed, and 52% of the holes drilled from 1996 through 2002 were down hole surveyed. Most down hole surveys utilized Reflect Fotobor, or Maxibor multi-shot survey tools. Some were completed with magnetic single-shot survey tools.

During 2018, SRK reported that the 2017 RC drilling completed by Rye Patch Gold, utilized similar methods as reported by Pegasus/Apollo. Sample intervals were 5 ft long and wet cuttings were collected from a rotary splitter, resulting in 10 to 15 lbs of sample.

Table 10-1
Florida Canyon Drill History Summary

Year	Company	Contractor	Drill Type	Number of holes
1969	Flying J Mines	Unknown	RC	7
1972	Cordilleran Exploration	Garrity&Baker, Eklund	RC	10
1973	Cordilleran Exploration	Long	RC	22
1974	Cordilleran Exploration	Eklund	RC	5
1981-1982	Asarco/Homestake	Unknown	RC	69
1983	Pegasus	Eklund	RC	86
1984	Pegasus	Eklund	RC	129
1985	Pegasus	Eklund	RC	77
1986	Pegasus	Eklund	RC	16
1987	Pegasus	Eklund	RC	46
1988	Pegasus	Eklund	RC	181
1989	Pegasus	Eklund	RC	130
1990	Pegasus	Eklund	RC	62
1991	Pegasus	Eklund	RC	123
1991-1993	Pegasus	Eklund	RC	464
1994	Pegasus	Eklund	RC	33
1994	Pegasus	Longyear	DDH	4
1995	Pegasus	Eklund, DeLong, Lang, O'Keefe	RC	394
1995	Pegasus	Hyne, Longyear	DDH	16
1996	Pegasus	Eklund, Lang	RC	259
1996	Pegasus	Hyne, Longyear	DDH	12
1997	Pegasus	Eklund, DeLong, Lang,	RC	445
1997	Pegasus	Hyne	DDH	7
1998	Apollo	DeLong, Hackworth	RC	138
1998	Apollo	Longyear	DDH	7
1999	Apollo	DeLong	RC	93
2000	Apollo	DeLong	RC	276
2001	Apollo	DeLong	RC	72
2001	Apollo	Longyear	DDH	1
2002	Apollo	Eklund, DeLong	RC	209
2003	Apollo	DeLong	RC	171
2003	Apollo	Boart-Longyear	DDH	7
2004	Apollo	DeLong	RC	28
2006	Jipangu	Delong	RC	11
2007	Jipangu	Delong	RC	202
2008	Jipangu	Delong	RC	246
2009	Jipangu	Delong	RC	9
2010	Jipangu	Delong	RC	30
2011	Jipangu	Delong	RC	66
2012	Jipangu	Delong	RC	63
2014	Jipangu	Delong	RC	54
2017	Rye Patch	HD Drilling LLC	RC	18
Total Historic Reported Drilling				4298

IMC counts 55 Core holes in the data base of which 49 contain assay values.
IMC counts 4,230 RC holes in the data base of which 4197 contain assay values.

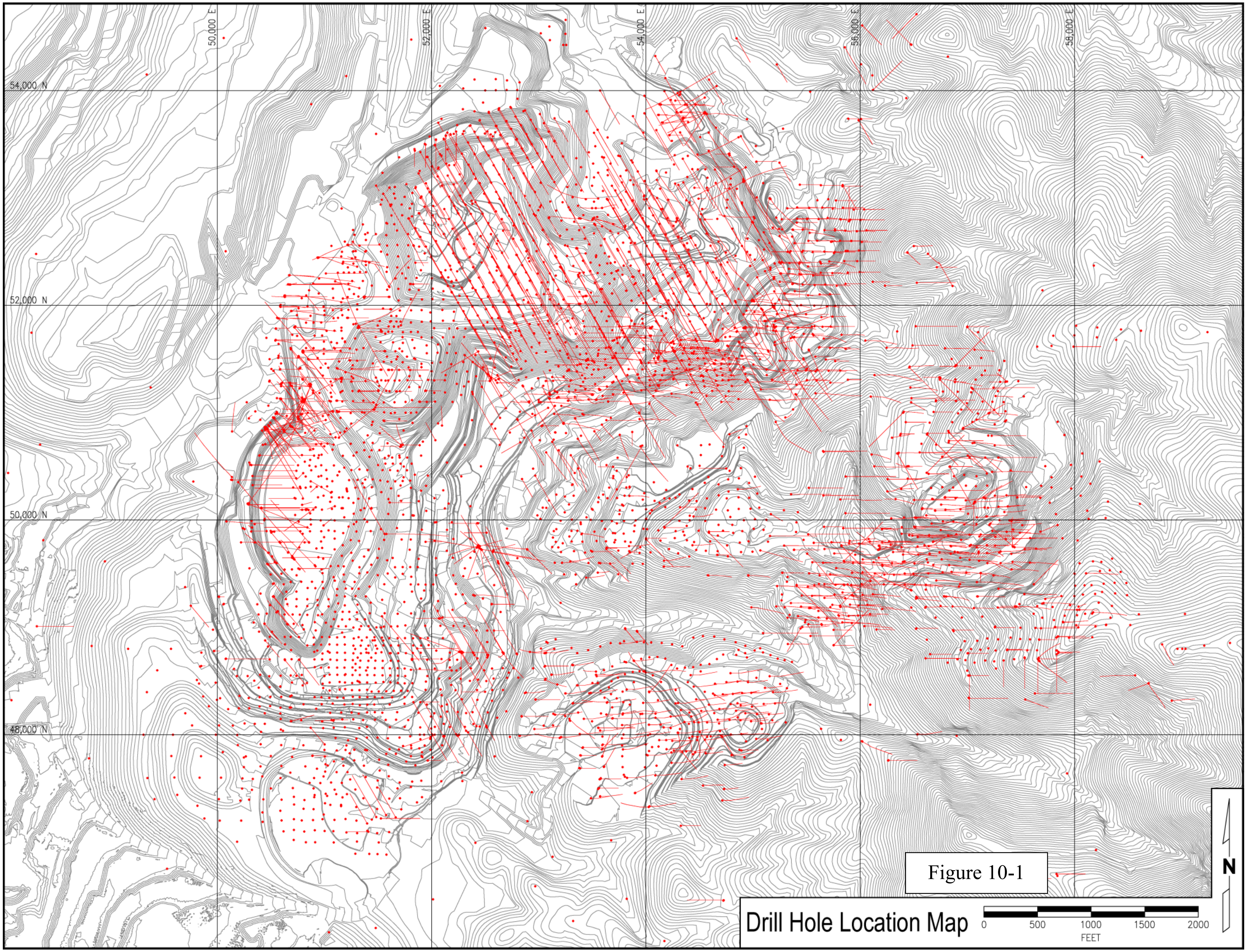


Figure 10-1

Drill Hole Location Map

Source, IMC 2020

11.0 SAMPLE PREPARATION, ANALYSIS AND SECURITY

Limited information is available regarding the procedures applied to the legacy data base at Florida Canyon. The previous technical reports by MDA (2016) and SRK (2018) provide an overview that is summarized below.

Sample collection of RC samples from the rotary splitter at the rig was summarized in Section 10. For diamond drill core, the entire whole core sample was sent for preparation and assayed on 5ft intervals. No split core was retained.

At least 10 different labs have been used over the years for fire assay of drill samples at Florida Canyon. Starting in 1991, American Assay Labs (AAL) has been the primary lab that accounts for 67% of the assays of the entire data base. AAL is ISO 17025 accredited, and Nevada Department of Environmental Protection (NDEP) approved.

The following is a summary of AAL's sample preparation and analytical procedures as reported by MDA in 2016.

Preparation of RC samples consisted of drying the entire sample at approximately 110 deg C, then jaw crushing the entire sample to 100% passing 6-mesh. A riffle splitter is used to split out approximately 500 grams which is pulverized with a ring and puck pulverizer to a nominal -150 mesh. The pulp was then roll mixed and transferred to a sample envelope.

The same general preparation procedures used for RC samples are also used for core samples. After drying, the entire core sample is jaw-crushed to -0.75 inch, and a 3 to 4 lb sub-sample is collected using a riffle splitter. The smaller split is then crushed, split, and pulverized following the same procedures as applied to RC samples.

Gold was analyzed by fire assay using a 30 gram aliquot. After fusion, the gold content is determined by atomic absorption (AA) spectrometry. All samples that return gold values greater than 0.30 oz/ton are reassayed, with gravimetric finish. AAL includes quality control standards and blanks with each sample batch and routinely performs duplicate analyses on about 10% of all sample pulps.

AAL's analytical QAQC program for FCMI samples reportedly consisted of the insertion of 1 standard, one blank and at least four duplicate pulps for every batch of 50 samples assayed. AAL also continually monitored their lab performance by participating in the CANMET round robin surveys.

Starting in June of 2008, FCMI instructed AAL to change duplicate assay procedures so the rerun is completed on a new pulp made from the coarse rejects rather than completing a second analysis on the original pulp.

The most recent 2017 drilling was also assayed at AAL. SRK reported the sample preparation and assay procedures applied to the 2017 drilling in their Technical Report of 2018. The methods are identical to those reported by MDA in earlier years.
The sample security of 2017 drilling was straight forward with samples stored at the Florida Canyon mine until transport by an independent contractor to the AAL lab in Reno. The list of samples shipped was checked by AAL to the samples received to confirm all samples were received.

Recent work during 2020 at the Florida Canyon assay laboratory has identified a situation with 30 gm fire assays that has very likely been ongoing for some time. Head grade samples from the crusher sampler at Florida Canyon are routinely collected on a daily basis. The output from the 2nd stage crush is sampled from the S4 belt every hour with a sample cutter. There are 24 samples per day which are combined and blended into a single sample per shift.

The 30gm fire assays at the FCMI lab have suffered from repeatability issues when routine duplicates are rerun as an internal QAQC check. The issue has been identified with screen fire assays as free gold particles that range in size from 80 to 150 mesh. If a free gold particle occurs in a 30 gm charge, the grade is unstable compared to another 30 gm charge without a free particle.

IMC has not identified this issue with the duplicate assays from the 2017 drilling at AAL. But it is likely that the issue has occurred for some time at Florida Canyon, contributing to the high coefficient of variation within the data base.

Head assay procedures at the Florida Canyon lab have been modified to address this issue as follows:

1) 1,000 gm if sample is pulped and subjected to bottle roll cyanide testing for 16 hour with sufficient cyanide to assure dissolution of the free particles.
2) The bottle roll cyanide solution is assayed.
3) The residue is rinsed and fire assayed with a 30gm charge.
4) The residue assay and the solution assay are combined to determine the gold content.

This method has been implemented for roughly 90 days at site and the results are reported to be highly reproducible. This method has not been applied to any of the assay data used to establish the mineral resource or mineral reserve.

Although the fire assay data base has a high coefficient of variation, there is no indication that the legacy fire assay method is biased. There are potential sample collection bias issues that will be discussed in Section 12, but the assay methods are standard and do not appear to be biased.

The qualified person (John Marek) holds the opinion that the assay methods can be improved, but they are adequate for the determination of mineral resources and mineral reserves. The sample collection of RC samples is potentially biased which will be discussed in Section 12.

12.0 DATA VERIFICATION

The data at FCMI is a digital data base that has been added to multiple times over the years by the staffs and consultants of the previous owners and operators. Unfortunately, there are no physical samples like half core, chip boards, coarse rejects, or pulps that could be used to confirm or validate the data base. IMC further understands that the original paper logs likely completed by geologists since the 1970's or 1980's are no longer in existence.

In a greenfield environment, a relic electronic data set with no physical confirmation would be highly suspect. One would expect to see due diligence twin hole drilling to confirm the legacy data. In this case, the historic mine production and a 2017 drill program by a previous owner are the only physical conformation that is available to the qualified person.

Data Verification was addressed in Technical Reports by MDA in 2016 and by SRK in 2018. IMC has reviewed this information and has taken to the following approach to verify the FCMI legacy data base.

1) The certificates of assay from the 2017 drilling were checked against the data base as a partial confirmation of the assembly of the data base.
2) The inserted QAQC results from the most recent 2017 drill program were analyzed by IMC to develop some comfort in that drill program.
3) The 2017 drilling was compared to the pre-2017 legacy data base on a nearest neighbor basis to gain some confidence in the legacy data from 2014 and earlier.
4) The diamond drilling (DDH) data from the 1990's was compared to the nearby RC data on a nearest neighbor basis to understand if the two drill methods are comparable.
5) Spot checks of the data base were completed by IMC for logical consistency.
6) A reconciliation of the resulting block model against the head samples of ore loaded on the pad was completed to gain some confidence in the overall set of procedures from sample collection, assaying, and modeling.

IMC and John Marek (Qualified Person) hold the opinion that the legacy data base would not withstand the scrutiny of audit if there were no production of metal from Florida Canyon. If this were a green field project without the knowledge of gold production, John Marek would likely not verify the legacy data base for application to mineral reserves and mineral resources.

Florida Canyon has produced gold off and on since1986, which provides credibility to the occurrence of gold in the district. The modeling efforts that will be reported in Section 14, have been modified so that there is a reasonable prediction of ounces delivered to the leach pad over a recent 18 month period. In combination with the modeling efforts reported in Section 14, IMC and John Marek (the Qualified Person) have accepted the data base for the purpose of estimating mineral resources and mineral reserves.

12.1 2017 Data Verification

Certificate Check

The certificate check of the 2017 data identified an observation that is unique to the FCMI data base and apparently consistent throughout the data base. There are two columns for assay data within the information provided to IMC: 1) Gold_opt, and 2) Gold_gr/ton. "Gold_opt" is the gold fire assay information in troy ounces per short ton. The file "Gold_gr/ton" is a calculated field which is grams per short ton. One must exercise caution if using the metric units in that they are not in the standard metric presentation of grams per metric tonne that is equal to parts per million. The unique units are likely designed to work with the material densities in that use Imperial units of short tons at Florida Canyon.

In addition to the fire assayed data, there are occasional cyanide soluble assays in the data base stored in the variables "Gold_AA_opt" and "Gold_AA_gt/ton", the later having the mixed units of grams per short ton.

The variable "Gold_opt" was used for estimation of mineral resources and mineral reserves by FCMI. The cyanide soluble assays were not used for determination of mineral resources or mineral reserves by FCMI, but they were used by IMC where available to check the interpretation of oxide versus un-oxidized in the block model.

There were 18 holes drilled in 2017 by the RC method which reported 1,348 fire gold assays. Every one of the certificates of assay for that data set was checked against the drill hole data base. In general, it appears that trace values recorded as -0.001 oz/ton within the certificates were entered as + 0.001 oz/ton within the assay data base. Although not material, IMC would typically suggest entering half of the trace assay or 0.0005 oz/ton.

In order to understand data storage issues that could be material, IMC reviewed all 1,348 assays for values in error at thresholds of 0.002 oz/ton and 0.004 oz/ton.

> There were 34 intervals (2.52%) with values greater than or equal to 0.002 oz/ton where the data base did not match the assay
>
> There were 17 intervals (1.26%) with values greater than or equal to 0.004 oz/ton where the data base did not match the assay

Scanning these errors above, most were differences of 0.001 oz/ton and would not have a material impact on the mineral resources or mineral reserves. However, it does indicate that more diligence should be applied to data entry going forward as more drilling is added.

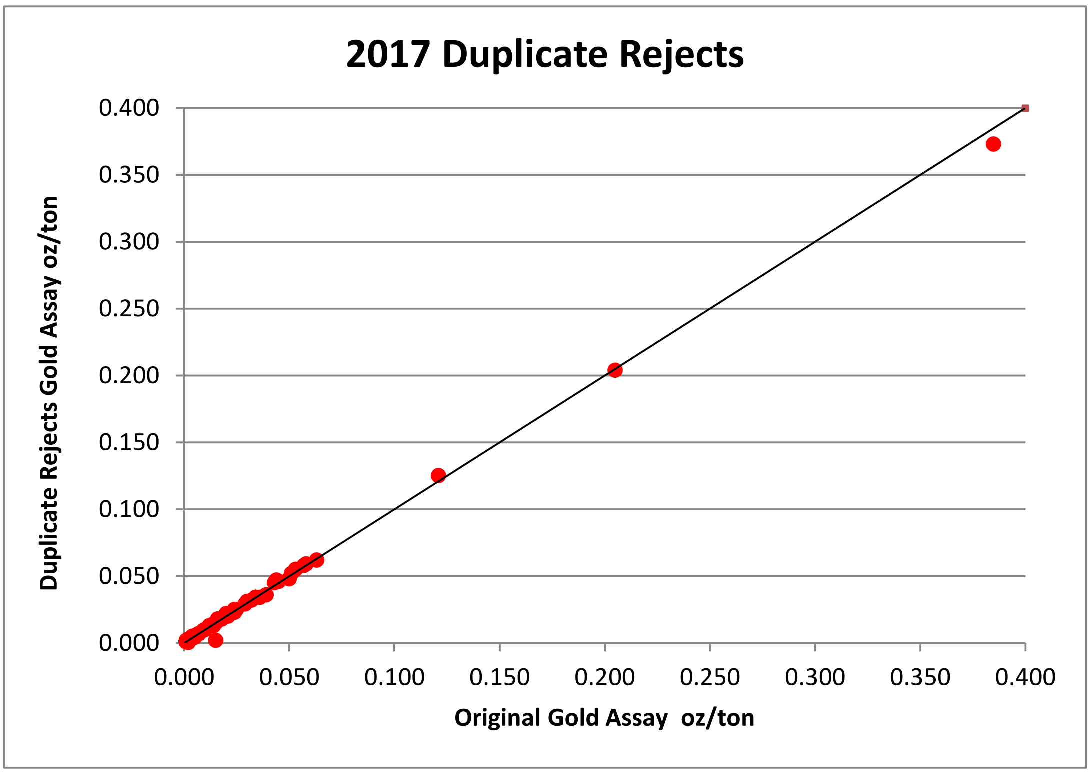
The 2017 drilling amounts to 0.55% of the in-ground assays remaining after March of 2020 (1,305 / 235,718 = 0.55%). That is a small sample of certificates to check. It is however, all that is available at FCMI that is known to the QP.

QAQC, 2017 Duplicate Assays

Roughly 14% of the 2017 coarse rejects were selected and reassayed to confirm the repeatability of both sample preparation and assaying combined. Figure 12-1 is an X-Y plot of that data with the original value on the X axis and the duplicate reject on the Y axis. The plot does not illustrate repeatability issues with the 187 duplicate rejects in this test.

The information with grade ranging from 0.0 to 0.063 oz/ton was selected for basic statistics. There are 152 samples duplicate rejects in that grade range. The mean value of the selected original assays is 0.0091 oz/ton, and the mean of the reassayed rejects is 0.0089 oz/ton. The standard deviation of both samples sets are nearly identical at 0.0136 and 0.0137 respectively.

Figure 12-1

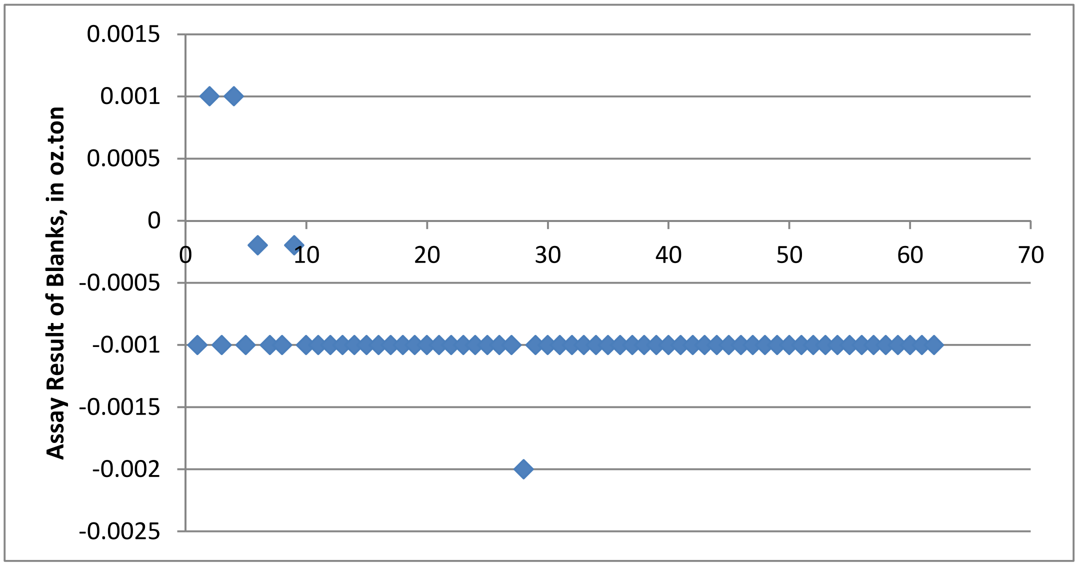


This set of 187 duplicate rejects does not indicate an issue with sample repeatability.

QAQC, 2017 Blanks

Blank samples were inserted by AAL into every batch of the assay stream to confirm that there is no contamination across assay samples. There were 62 inserted blanks out of the 1,348 sample intervals in 2017. Figure 12-2 summarizes the result of the blank assays in the order they were run.

Figure 12-2
AAL Internal Lab Blanks, 2017 Drill Program



62 Samples, 2 were not trace negatives
Those 2 were at 0.001 oz/ton

Of the 62 samples there were 2 that reported 0.001 oz/ton. The results of these blank submissions do not indicate any negative issues with cross contamination in the 2017 data set.

QAQC, Lab Internal Standards

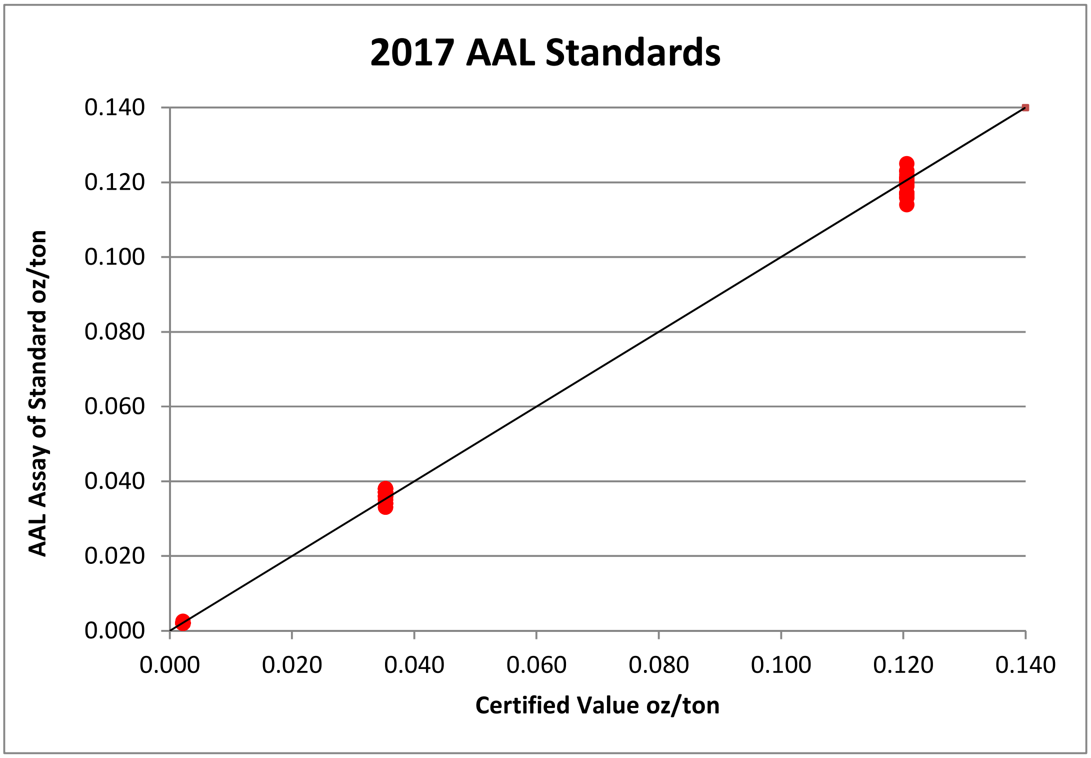
AAL inserts commercially prepared standards (sometimes called certified reference materials) into every assay batch of assays. There is a total of 78 AAL lab standard insertions summarized below:

AAL Inserted Standards

Standard Name	Source	Certified Value oz/ton	Lab Average oz/ton	Number
CDN-GS-1R	CDN Resource Labs	0.0353	0.0359	23
OxA131	Rocklabs	0.0022	0.0020	34
SK78	Rocklabs	0.1206	0.1192	21

Figure 12-3 is a plot of the certified standard value on the X axis and each of the lab results on the Y Axis. The plot indicates that there is no indication of bias and the variability is as expected.

Figure 12-3 Standards



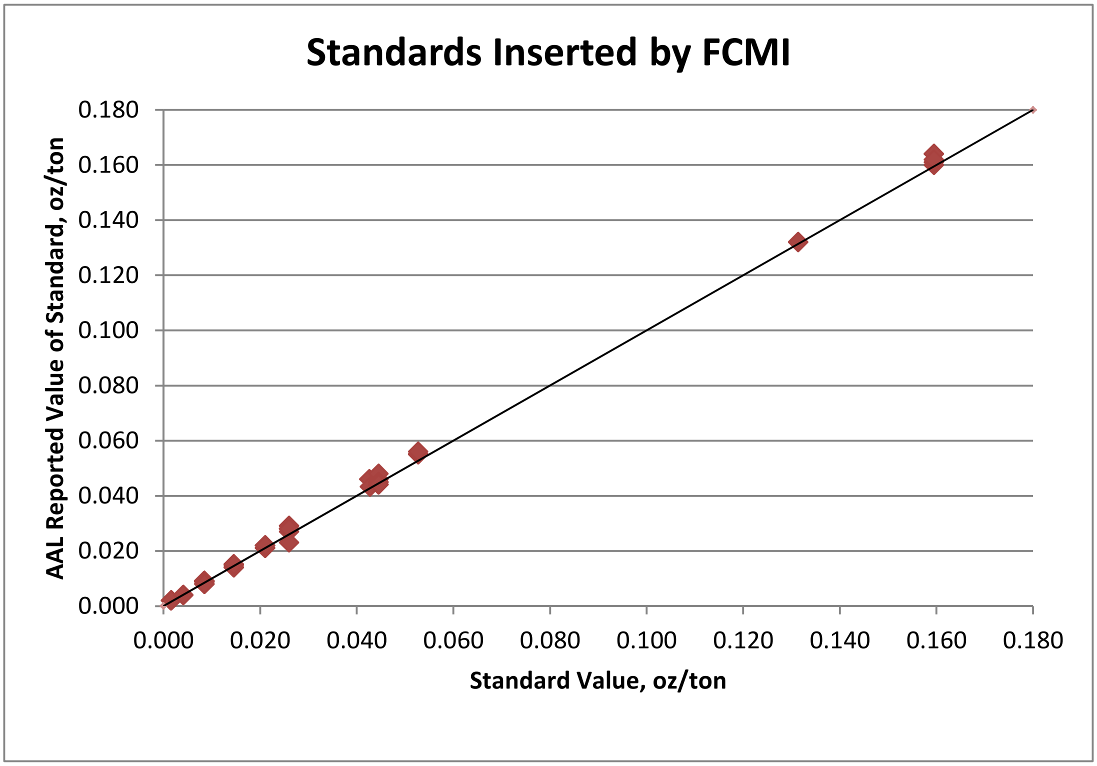
<u>QAQC, 2017, Blind Standards Inserted by FCMI</u>

Throughout the certificates of assay of the 2017 holes there are drill intervals with two results, the second labeled with the letter "A". Those were blind standards inserted by FCMI (Rye Patch Gold Corp) as blind standards to the AAL lab. The standards were acquired from Shea Clark Smith a local supplier of geochemical standards in Reno, Nevada.

Multiple certified standards were inserted as indicated on Figure 12-4. In total there were 116 inserted blind standards amounting to 8.6% of the 1,348 assayed intervals in the 2017 drilling.

Figure 12-4 does not indicate any issues with AAL reporting of the inserted certified samples from Shea Clark Smith.

Figure 12-4



Standards Inserted by FCMI
AAL Reported Value of Standard, oz/ton
0.000
0.020
0.040
0.060
0.080
0.100
0.120
0.140
0.160
0.180
Standard Value, oz/ton

12.2 2017 Drilling Compared to Pre 2015 Drilling

The QAQC results from the 2017 drilling indicate that the assay procedures are acceptable for that data set of 18 holes. A nearest neighbor comparison was completed by IMC in order to determine if the 2017 drilling was similar to the previously drilled data and gain some confidence in the application of the full data set.

The nearest neighbor process starts with the 2017 drill intervals and searches the data base for earlier drilling data that is within a prescribed search radius. If the search distance is small, the set of pair data essentially acts like twin drilling. In this case, the search was opened to the size of two model blocks (60 ft) in order to find sufficient numbers of paired data to have some statistical basis. The process is similar to "boundary analysis" commonly applied in resource estimation. IMC applies several statistical hypothesis tests to the paired data to test if the results are sufficient similar to have come from the same population.

Table 12-1 summarizes the results of the nearest neighbor test between the 2017 drilling and all previous drilling. The maximum separation of 60 ft equates to the size of two model blocks.

Table 12-1
Nearest Neighbor Test of 2017 Data vs All Previous Data

2017 Fire Gold Assays versus Previous Years Fire Gold Assays									
Separation	Number	2017 Drilling		All Previous Drilling		Hypothesis Test Results at 95% Conf			
Distance ft	of Pairs	Mean oz/t	Variance	Mean oz/t	Variance	T-Test	Paired -T	Binomial	KS
45	350	0.031	0.0026	0.026	0.0028	Pass	Pass	Fail	Fail
60	455	0.026	0.0021	0.023	0.0023	Pass	Pass	Fail	Fail
2017 Fire Gold 20 Ft Bench Composites versus Previous Years Fire Gold 20 ft Bench Composites									
Separation	Number	2017 Drilling		All Previous Drilling		Hypothesis Test Results at 95% Conf			
Distance ft	of Pairs	Mean oz/t	Variance	Mean oz/t	Variance	T-Test	Paired -T	Binomial	KS
45	79	0.030	0.0014	0.021	0.0012	Pass	Pass	Pass	Pass
60	103	0.026	0.0012	0.022	0.0017	Pass	Pass	Pass	Pass

The results above indicate that the two data sets are from the same population with 95% confidence. The Binomial and Komologov-Smirnoff (KS) tests are rigorous tests of the population variability and shape of the histogram. Compositing smooths the data and reduces the variance which results in the passing results for those two tests.

The 2017 data is a small sample when testing over 350,000 assays, but the indication is that the new drilling where there was conformational QAQC on the assay methods agrees with the earlier drilling where that confirmation QAQC information has been lost. The search distances of 60 ft did not acquire any DDH samples. These tests are comparisons that 2017 RC and previous RC drilling are similar.

12.3 DDH to RC Comparison

RC drilling has many benefits for rapid and low cost collection of relatively large sample volumes for assay. RC sampling also has the potential for down hole contamination which can sometimes produce overall biased assay results. In the experience of IMC and this QP, the RC sampling has the greatest potential for sampling error when sampled rock units that are easily friable or soft enough to allow down hole contamination, or below the water table with wet sampling.

IMC completed a test of the 55 DDH holes against the nearest neighbor RC sampling to test the possibility of sample bias at Florida Canyon. The data was actually filtered to start with the DDH holes that contain assays. That limited the DDH set to 49 drill holes.

Table 12-2 summarizes the nearest neighbor comparisons of DDH to RC for both assays and 20 ft down hole composites in the oxidized portion of the deposit.

Table 12-2
DDH to RC Nearest Neighbor Comparison

2017 Fire Gold Diamond Drilling versus RC Drilling, Assays									
Separation	Number	2017 Drilling		All Previous Drilling		Hypothesis Test Results at 95% Conf			
Distance ft	of Pairs	Mean oz/t	Variance	Mean oz/t	Variance	T-Test	Paired -T	Binomial	KS
15	303	0.010	0.0005	0.016	0.0006	Fail	Fail	Fail	Fail
30	826	0.011	0.0006	0.018	0.0016	Fail	Fail	Fail	Fail
60	1,477	0.011	0.0005	0.026	0.0234	Fail	Fail	Fail	Fail
2017 Fire Gold Diamond Drilling versus RC Drilling, 20 ft Bench Composites After Assay Capping									
Separation	Number	2017 Drilling		All Previous Drilling		Hypothesis Test Results at 95% Conf			
Distance ft	of Pairs	Mean oz/t	Variance	Mean oz/t	Variance	T-Test	Paired -T	Binomial	KS
15	72	0.009	0.0001	0.014	0.0002	Fail	Fail	Fail	Fail
30	198	0.011	0.0002	0.018	0.0004	Fail	Fail	Fail	Fail
60	367	0.011	0.0002	0.020	0.0006	Fail	Fail	Fail	Fail

Table 12-2 illustrates a significant high bias of RC compared to DDH. Some would claim that the DDH is potentially low biased. However, when one considers the results of mine reconciliation in combination with the above table, the higher likelihood is that RC is high biased. At the 30 ft sample spacing (1 model block) the RC is 63% higher grade than DDH.

This author is not a proponent of factoring or correcting data. Statistically, one could convert the RC results to DDH equivalents with the equation: (RC-0.0025) x 0.738 = DDH

The above observations of bias contribute to the opinion of the QP that without production reconciliation, the legacy Florida Canyon data base would be difficult to find appropriate for the determination of mineral reserves.

12.4 Production Reconciliation

Section 14 will provide more background on this topic. A brief summary is presented here to indicate the modeling results that are based on the legacy FCMI data base without modification to the data base.

Reconciliation at Florida Canyon is complicated by the fact that the ore control cutoff applied to blast hole assays is a shake leach cyanide soluble gold. The process head grade assays are from the crushing plant discharge which historically have been fire assay and now being converted to CN bottle roll followed by fire assay on the residue. IMC has analyzed the monthly column leach composites for the 18 month test period and has calculated an average Fire to Cyanide gold ratio of 1.20. Applying that ratio to the cyanide assay cutoff of 0.0055 oz/ton results in an equivalent fire gold cutoff grade of 0.0066 oz/ton that was applied to the model by IMC.

FCMI provided end of month mine progress geometries for the end of September 2018 as well as the end of March 2020 (18 months). Those surfaces were used by IMC along with the cutoff grade of 0.0066 oz/ton fire assay to obtain the model reported tonnage of 4,821 ktons at 0.012 oz/ton fire on Table 12-3.

The monthly reports during that period reported the amount of hard rock ore that was mined and sent to the crusher along with ore grade backfill that was also mined and send to the crusher. Significant effort was spent during modeling to establish the hard rock versus back-fill boundaries (see Section 14). The model reported hard rock material is compared to the ore control hard rock tonnage in this reconciliation. Backfill to the crusher is not included.

The differences on Table 12-4 are clear. The model substantially underestimates tons and overestimates the production head grade. The contained ounces of metal delivered to the pad are nearly identical between the model and actual production for 18 month period.

The model procedure has required effort to significantly limit tonnage in order to match ounces with the overestimated head grade. Interestingly, the over estimation of model grade in percentage is similar to the bias ratio of RC drilling to DDH drilling.

Table 12-3
Model to Mine Production Reconciliation, October 2018 through March 2020 (18 Months)

Production vs Model	Cutoff Grade oz/ton	Cutoff Assay Method	Ore Tons	Head Grade FA oz/ton	Contained Ozs	Difference, Model - Production Negative Means Model Low		
						Tons	Grade	Ounces
Production	0.0055	Cyanide	6,413,625	0.0091	58,224	-24.8%	32.2%	-0.6%
Model	0.0066	Fire	4,821,000	0.012	57,852			

Production is Hard Rock Tonnage and Grade Reported from Month Report Ore Control
Model is the FCMI September 2019 block model
The Test Period is October 2018 through End March 2020

With substantial effort the questionable drill hole data base has provided a reasonable estimate of metal to the leach pad. The field sample of 6.4 million tons of ore removed from the pit is a substantial volume for confirmation of the combined data to model process.

12.5 Other Data Observations

As noted previously, the metric assays stored in the data base represent grams per short ton rather than metric tonne. This may be algebraically useful at Florida Canyon but it could be misleading for future users.

There are 3,248 intervals in the data base where the metric assay reports “no assay” and the fire assay reports 0.0. Care should always be taken in the use of zero versus “no assay”. The majority of these occurrences are long intervals of alluvium or in-fill and dumps. IMC has confirmed that the observed issue is not material to the estimation of mineral resources.

13.0 MINERAL PROCESSING AND METALLURGICAL TESTING

Projecting a recovery number or formula for Florida Canyon is complicated by the fact that different sources of head sample are often used. Assaying techniques have also historically varied. Mined ore grade is taken from blasthole samples. Florida Canyon is no different than other operations in that blasthole assays are only as good as the sampling technique of the blastholes, the ability of operations to prevent comingling of ore and waste during blasting, the precision in delineating ore from waste after blasting and in loading ore that is marked ore and waste that is marked waste. Discrepancies between the mine reported grade, the grade reported by the crusher, column tests and actual gold produced are recognized but not routinely reconciled.

Ore grade to the pads is taken from the crusher sample and the blast hole predicted grade. The crusher sample is taken from the belt by an automatic cutter and split wet. Site personnel feel that the cutter leaves too much fines on the belt and have plans to improve the system. Since the gold generally appears in the fines, it is recognized that the crusher sample routinely under predicts grade.

Monthly column leach tests are run on the ore to the pad. Historically the columns have been leached for variable lengths of time but over the past months this practice has changed and now there is much more consistency in the lab column testing. Recovery numbers are determined by pregnant solution assays and flows, which are used to calculate the gold off the column. The residue or column waste is dried and screened. Each screen split is weighed and fire assayed and a weighted tail assay is determined from the solution and waste numbers. The head grade is back calculated. Column tests are used to predict recoveries and leach cycles. They have been important to Florida Canyon for determination of recoveries and operating parameters.

Depending on the application, FCMI uses fire assays or cyanide dissolution atomic adsorption assays. The correlation between the grade of ore from the mine, determined from blastholes and the grade of ore to the pad, determined from the crusher sample is poor, with the mined grade much higher than the crusher grade. The correlation between the monthly columns and the actual pad recoveries is difficult to determine because determining the pad recovery is complicated by the size of the pads and the multiple lifts. Multiple lifts on the pad make actual leach times highly variable and leach rates can also vary. This means leaching in the columns and leaching of the pads very different. The column tests are very useful, however and they give a good indication whether the recoveries are changing with time or if the leach rates are varying. Reviewing the column leach cycles from the past two years show that there is no deterioration in recovery or leach rates versus historical column testing. Trenching of leached ore on the pad has also shown that the current ore is performing in line with historic results.

Historically Florida Canyon has often used fixed recovery numbers for different rock types. These numbers seemed to match poorly in the short term but matched well over longer terms and the life of the mine. Such is not unusual when dealing with mature properties, especially ones with pad lifts over 150 feet high.

Mine Development Associates (MDA) completed several 43-101 reports on the Florida Canyon resource (most recent, March, 2016) and one of the conclusions that was made from their data is that there is very little correlation between grade and recovery so recoveries were not adjusted based on grade. Finding no correlation between grade and recovery is rare, possibly unique in the industry.

In April, 2016, Bill Pennstrom did a metallurgical review of Florida Canyon operations and historical gold production. Mr. Pennstrom concluded that he supported the historic recovery calculations used internally at the mine and felt that 70.3% was a valid recovery number for crushed ore and 56.3% was appropriate for run of mine ore.

Mine Development Associates completed a metallurgical review in 2016 by rock type and estimated a 71.1 percent recovery weighted by rock type.

In May, 2018, John Marsden completed a metallurgical review that was somewhat more detailed than the Pennstrom review. Mr. Marsden generated regression curves on grade versus recovery. The curves are somewhat aggressive and show a significant drop in recovery as the grade lowers to cutoff thresholds. Marsden's recovery versus grade formulas were:

Central and Main

$$\text{Recovery \%} = ((0.7883 \times \text{Feed Grade}) - 0.00129) \times 100/\text{Feed Grade}$$

Radio Towers

$$\text{Recovery \%} = ((0.7378 \times \text{Feed Grade}) - 0.00168) \times 100/\text{Feed Grade}$$

Perhaps the strongest indicator of the historic recovery at Florida Canyon is the completed Pad 1. The pad's final recovery was 68% but there was a considerable amount of ROM material to the pad.

Florida Canyon uses a gold recovery model that was commercially developed by Forte Dynamics. The Forte model used recovery curves based on historic gold production and column testing and the curves vary between 68 and 75.5 percent by rock type. The Florida Canyon team has developed their own model for gold recovery so now the Forte Dynamics model is one of several tools used and is not relied upon exclusively.

SRK used the Marsden regression formulas for calculating resources and used a flat 70% for the economic model.

Very good records are available on the amount of gold produced by the pads. But to accurately determine recovery one must also have a good head or tails sample. "Good" tails samples are not really feasible on large heap leach pads and, as can be seen from historic data, the head samples at Florida Canyon are dependent on where the sample is taken.

The authors concur with the SRK analyses. Although MDA felt comfortable with a flat recovery regardless of ore grade, we prefer the Marsden formulas that show a reduction in the recovery of low grade material and a higher recovery on better grade ore. Likewise we support the flat 70% recovery used for the economic model. This is supported by historical data and column testing. The Marsden curve could be applied but since the monthly and annual head grades are quite consistent, the application of a recovery formula is unnecessary.

Some Nevada properties see a reduction in recovery as the ore gets deeper in the pit and approaches the sulfide table. Nevada mining properties are variable in this trait with some showing a very clear demarcation in oxide and sulfide zones and others showing a gradual transition where, indeed, the recovery gradually reduces as the sulfide zone is approached. Little test work has been done at Florida Canyon but history does not support an expectation of a broad transition zone so the 70 percent recovery has been maintained throughout the oxides.

The estimates for recovery of run of mine ore varies, but the figure of a reduction of 14-15% versus crushed ore is often cited. We feel this cannot be supported. Some test work and calculations from historic ROM leaching have shown recoveries of ROM material in the low 40s and some approaching that of crushed ore. Further testing of different ores from different areas for varying leach times would be necessary to pin down a supportable recovery figure for the ROM ore. At this time, FCMI no longer plans to send ROM ore to the pad.

Virtually no test work has been done on the sulfide material. Cyanide solution assays show that much of the gold in the sulfides is not refractory. The gold dissolves. But it should not be assumed that this is an indication that the sulfides are leachable in a heap. Hot cyanide assays involve a very high pH and a very aggressive environment that is not comparable to ambient conditions on a leach pad. Also the material in an assay is ground, not crushed, exposing more surface.

14.0 MINERAL RESOURCE ESTIMATE

The mineral resource model was developed by FCMI staff during mid-2019 and implemented for mine planning in September of 2019. The tabulation of mineral resources presented in this section was developed by IMC in June of 2020. The description of the model and methods were reported in an internal FCMI document titled "2019 Resource Model Review" by Guadalupe Navarro and Ronald M Pinto de Silva, dated September 2019. The model methods reported here are based on that report. Where possible, IMC has checked the application of the methods and has reported the results later in Sub-Section 14.6

IMC loaded the data base and block model for independent review and verification. The data base review by IMC has been summarized in Sections 10, 11, and 12.

The Qualified Person for the statement of Mineral Resources presented later in this section is John Marek of Independent Mining Consultants.

14.1 Data Base

The data base provided to IMC by FCMI contained 356,258 gold fire assays with values greater than or equal to 0.001. That count matches the count reported in the 2019 FCMI report.

The following Table 14-1 is an independent calculation of basic statistics from the data base as a check against that reported by FCMI.

Table 14-1
Basic Statistics of Assays of Fire Gold and CN Soluble Gold

	Reported	Tabulated by IMC		
Basic Statistics of Fire Gold	By FCMI	Total	Oxide	Indicative**
Number of Assays >+ 0.001	356,258	356,258	302,557	145,651
Minimum, oz/ton	0.001	0.001	0.001	0.001
Maximum, Before Capping, oz/ton	9.48	9.48	9.48	5.00
Mean, oz/ton	0.009	0.0095	0.0090	0.0062
Standard Deviation, oz/ton	0.04	0.0397	0.0385	0.0281
Coefficient of Variation (SD/Avg)	4.192	4.192	4.257	4.490

	Not Reported	Tabulated by IMC		
Basic Statistics of CN Sol Gold	By FCMI	Total	Oxide	Indicative**
Number of Assays >+ 0.001		58,285	56,714	9,272
Minimum, oz/ton		0.001	0.001	0.001
Maximum, Before Capping, oz/ton		1.20	1.20	0.25
Mean, oz/ton		0.0114	0.0115	0.0069
Standard Deviation, oz/ton		0.0244	0.0247	0.0117
Coefficient of Variation (SD/Avg)		2.149	2.149	1.694

** Indicative Means, Oxide, Not in Fill, and Remaining After March 2020

IMC was able to replicate the basic statistics as reported by FCMI. In addition, IMC added sub-sets of the data for oxide and for the oxide assays remaining after March of 2020 that are not contained in pit backfill. The "oxide" values for fire gold were actually used for grade estimation in the model. The "indicative" column is meant to indicate the assay information that would actually contribute significantly to the remaining mineral resource.

The presentation of the cyanide soluble assays (CN) by IMC indicates why CN was not estimated in the model because there are so few samples available. IMC did use some of the CN data to confirm the oxidation boundary within the model later.

FCMI staff capped assays at 0.200 oz/ton prior to compositing to 20 ft down hole composites. IMC has reviewed the capping level reported by FCMI and finds it appropriate. IMC used a slightly different compositing method for cross checking (bench intercept composites) so the IMC checks are not a precise match to FCMI, but do confirm the procedure and result as reported by FCMI.

FCMI applied a 0.004 oz/ton boundary for estimation that will be discussed a few pages later. Table 14-2 summarizes the FCMI tabulation of composites within the 0.004 oz/ton boundary that were actually used for grade estimation.

Table 14-2
FCMI Composite Statistics

20 ft Composites Reported by FCMI Fire Gold Statistics	Oxide Inside 0.004 oz/ton Shell
Number of Assays >+ 0.001	45,102
Minimum, oz/ton	0.001
Maximum, Before Capping, oz/ton	0.20
Mean, oz/ton	0.0130
Standard Deviation, oz/ton	0.0150
Coefficient of Variation (SD/Avg)	1.185

14.2 Model Description

The FCMI model was assembled in the same block size and coordinate system as previous models reported in the 2016 and 2018 Technical Reports. The coordinate system is a local mine grid system. The model size and location in the mine grid is summarized below:

Table 14-3
Model Location and Block Size

East	386	blocks	48,000	to	59,580	East Coordinate Limits
North	294	blocks	46,000	to	54,820	North Coordinate Limits
Elevation	135	blocks	3,700	to	6,400	Elevation Limits
Block Size	30 x 30	ft in plan	20	ft bench		

The conversion from local grid to NAD83 is reported to be as follows:

NAD83 East -344,620 = Mine Grid East
NAD83 North - 4,442143 = Mine Grid North

Geologic Interpretation

Rock and alteration type codes were assigned to the block model from interpreted solids. Those codes were not used to constrain or limit grade estimation. The alteration code was used to assign density to each block.

An oxide-sulfide boundary surface was interpreted and assigned to the block model. Blocks above the surface were classified as oxide and assigned grade. The current understanding of the process response is that sulfidic material may not respond to cyanide heap leaching, so only oxides were estimated in the model.

IMC used the cyanide soluble data base to check the oxide interpretation within the block model. The cyanide soluble assay divided by the fire assay (CN/FA) ratio is indicative of the cyanide leach amenability of the individual assays. High CN/FA ratios generally indicate "oxide" or cyanide leachable mineralization.

Table 14-4 below summarizes the results of the IMC test.

Table 14-4
Assay Intervals with Cyanide Soluble Assays Remaining in Ground After March 2020

Assays Above the Oxide / Sulfide Surface			
Number of CN Assays	Avg Fa Fa oz/t	Avg CN CN oz/t	Cn/Fa in % Ratio of Means
16,173	0.011	0.010	86.3%
7% of Samples have Cn/Fa Ratio < 50%			

samples now in fill not rejected

Assays Below the Oxide / Sulfide Surface			
Number of CN Assays	Avg Fa Fa oz/t	Avg CN CN oz/t	Cn/Fa in % Ratio of Means
1,553	0.009	0.005	47.9%
68% of Samples have Cn/Fa Ratio > 0.50%			

Table 14-4 indicates that the oxide zone does not contain a significant component of sulfide mineralization. 7% of the available CN soluble data in the oxide zone has CN/FA ratios less than 50%, indicating that only 7% of the intercepts might be refractory to cyanide. By comparison, 68% of the samples within the sulfide zone have CN/FA ratios over 50% indicating that there is some potential for additional heap leach ore in material currently categorized as sulfide.

In summary, the oxide-sulfide contact appears to be conservative in ore tonnage which will help assure that the mineral resource and mineral reserve can be treated with the current heap leach process.

Another contributor to remaining reserve is the definition of hard rock versus backfill material within the pit. During the last 18 months, about 43% if the material sent to the leach pad is old in-pit low grade backfill that was dumped in-pit prior to 2016. That in-fill material is not estimated within this model as there is no sampling that represents in-pit dumps. Ore control, during operations, assays blast holes that penetrate the dump material and Ore dig lines are then laid out if the back-fill meets cutoff grade. This material is expected to be exhausted during this year. It is not expected to be a significant component of future mineral resources or mineral reserves.

FCMI was careful to eliminate the back-fill material from mineral resources and mineral reserves. The boundaries of hard rock versus in-fill were estimated by FCMI as follows: A variable called “fill” was coded depending on the procedure used to establish the presence of fill. If Fill = 1, then the material is in-situ or undisturbed. Previous models assembled by SRK in 2018 and Chris Keech in 2017 developed estimates of the top of hard rock surface. Keech reported that he used 15 historical surfaces to define the lowest combined elevation to be the hard rock surface. Both the Keech and SRK work were combined and modified by FCMI using the deepest extent of hard rock mining from the blast hole data base.

Density Assignment

Rock density estimates remained the same as those assigned by SRK during 2018. The alteration codes were used to control the in-situ material density as summarized below:

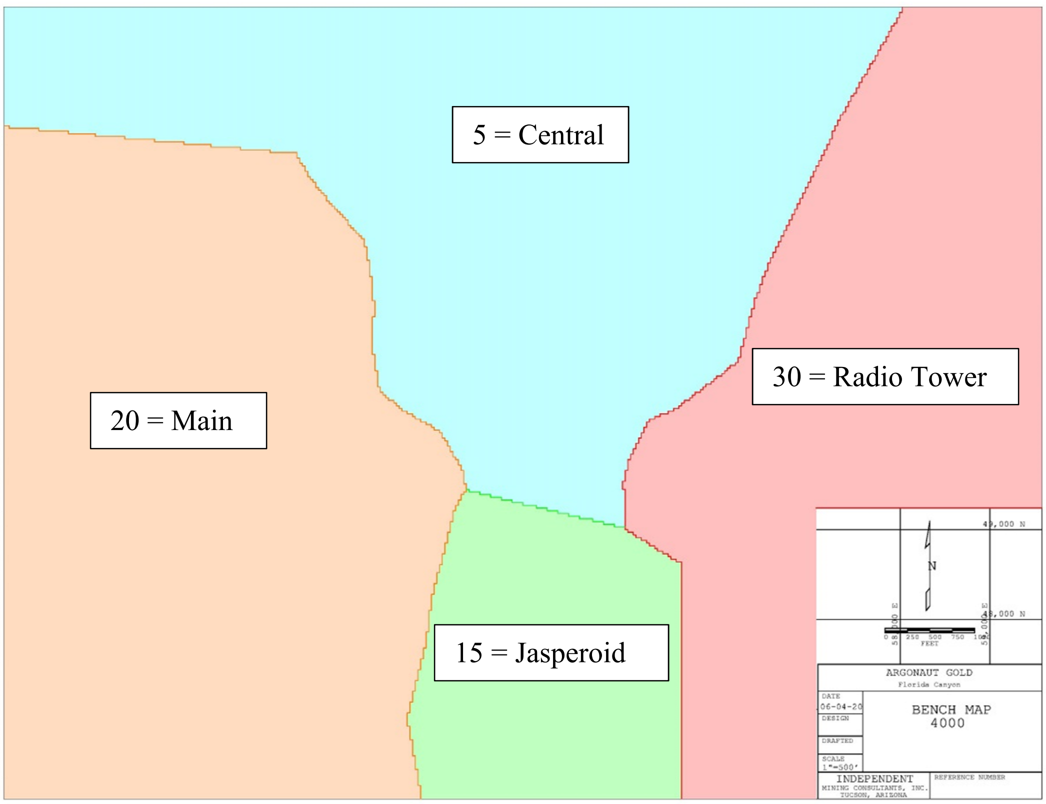
Table 14-5
Bulk Density Assignment

Model Alteration Code	Description	Dry Bulk Density Cuft/ton
40	Default	13.88
50	Fill/Dumps	17.51
60	Hematite	13.88
70	Siliceous	13.88
80	Clay	14.20
90	Sulfide	12.50
100	Alluvium	15.50

Domains

Florida Canyon has four zones with different mineralization orientations caused by local structural trends. Those zones have been defined as search orientation domains by FCMI during their modeling process. The domains align with the mining areas discussed previously. Boundary analysis does not indicate that the domains should be considered as hard boundaries during estimation. They were used to control the direction of the search orientation. The four domains are:

Figure 14-1
Domain Codes and Locations



Source IMC, 2020

14.3 Indicator Grade Shell Boundary

The previous model completed for Florida Canyon suffered from overestimation of both tonnage and grade. In effort to limit the tonnage, FCMI applied a grade boundary using an indicator process. Alternative indicators were tested and compared to an internal model that was based on the blast hole data to arrive at the selected 0.004 oz/ton discriminator.

The 0.004 discriminator was used to estimate an indicator for each block, the result being between 0 and 1. The 0.50 level was assigned to the blocks on a nearest whole block basis, resulting a code ("ozik") set equal to 1.0 if inside the boundary and 0.0 outside the boundary.

The estimation parameters for the 0.004 oz/ton indicator were as follows:

Table 14-6
Indicator Estimation Parameters

Domain	Rotation 1 Strike	Rotation 2 Plunge	Rotation 3 Dip	Search Distances Ft Primary	Secondary	Sub-Vert	Max Comps	Min Comps	Max Comps per Hole	Estimator
5=Central	30	-15	30 NW	300	180	60	10	3	2	1/D^3
15=Jasperiod	15	0	30 W	300	180	60	10	3	2	1/D^3
20=Main	15	0	30 W	300	180	60	10	3	2	1/D^3
30=Radio Tower	45	-15	30 NW	300	180	60	10	3	2	1/D^3

The use of inverse distance cubed was influenced by the requirement to closely follow or "contour" the composite data. The overestimation of tonnage in the past was attributed to grade smearing or broad averaging across a variable range of composite grades. The method selected by FCMI was an appropriate effort to limit the grade smearing and keep the model closely following the supporting composite data base.

The indicator boundary respected the oxide/sulfide surface and does not contain any blocks coded as sulfide.

14.4 Grade Estimation

Block grade estimation was accomplished using inverse distance to the third power (1/D^3). Composites inside of the 0.004 oz/ton grade shell were used to estimate blocks within the same grade shell. No block grades were assigned outside of the grade shell, or into the sulfide zone.

The domains discussed earlier were used to change search orientation but they were not boundaries to the search or grade estimation. Four passes were reportedly used for grade estimation. Each pass applied somewhat longer search distances. Table 14-7 summarizes the estimation parameters applied to the fire gold 20 ft composites.

14.5 Mineral Resource Classification

The following criteria were applied by FCMI to establish the mineral resource classification

Measured	65 ft to closest composite and at least 3 drill holes used in grade estimation
Indicated	65 to 135 ft to closest composite and at least 2 drill holes
Inferred	Any remaining blocks with the pass 3 grade estimate not previously classified

Table 14-7
Grade Estimation Parameters

	Rotation 1	Rotation 2	Rotation 3	Search Distances Ft			Max	Min	Max Comps	High Grade Search Limit		
Domain	Strike	Plunge	Dip	Primary	Secondary	Sub-Vert	Comps	Comps	per Hole	Grade Limit	Distance Ft	Estimator
Estimation Pass 1												
5=Central	30	-15	30 NW	75	45	20	6	3	1	0.100 oz/t	15	1/D^3
15=Jasperiod	15	0	30 W	75	45	20	6	3	1	0.100	15	1/D^3
20=Main	15	0	30 W	75	45	20	6	3	1	0.100	15	1/D^3
30=Radio Tower	45	-15	30 NW	75	45	20	6	3	1	0.100	15	1/D^3
Estimation Pass 2										0.100	15	
5=Central	30	-15	30 NW	150	90	40	6	3	1	0.100	15	1/D^3
15=Jasperiod	15	0	30 W	150	90	40	6	3	1	0.100	15	1/D^3
20=Main	15	0	30 W	150	90	40	6	3	1	0.100	15	1/D^3
30=Radio Tower	45	-15	30 NW	150	90	40	6	3	1	0.100	15	1/D^3
Estimation Pass 3										0.100	15	
5=Central	30	-15	30 NW	300	180	60	10	6	1	0.100	15	1/D^3
15=Jasperiod	15	0	30 W	300	180	60	10	6	1	0.100	15	1/D^3
20=Main	15	0	30 W	300	180	60	10	6	1	0.100	15	1/D^3
30=Radio Tower	45	-15	30 NW	300	180	60	10	6	1	0.100	15	1/D^3
Estimation Pass 4										0.100	15	
5=Central	30	-15	30 NW	300	180	60	10	3	2	0.100	15	1/D^3
15=Jasperiod	15	0	30 W	300	180	60	10	3	2	0.100	15	1/D^3
20=Main	15	0	30 W	300	180	60	10	3	2	0.100	15	1/D^3
30=Radio Tower	45	-15	30 NW	300	180	60	10	3	2	0.100	15	1/D^3

14.6 IMC Checks on the Resource Model

IMC completed a number of checks on the resource model. Those included:

1) Visual check on plan and section to confirm classification methods, grade trends, indicator grade boundary, oxide/sulfide contact, and hard rock versus fill contact.
2) Composite to block grade check
3) Reconciliation of 18 months of mine production versus model prediction within the volume mined.

Composite Grade Check

IMC utilizes a procedure for comparison of composites versus the block model that provides a measure of the relative smoothing of the estimation process. The procedure will also identify potential high bias occurrences within the block model. The standard procedures of swath plots and declustered polygonal grade comparisons were completed by FCMI and are not repeated here.

The IMC procedure selects a range of gold cutoff grades that bracket the operational cutoff at the mine. The blocks above that cutoff are selected, and the composites contained within those blocks are reported. The mean grade of the selected blocks should always be less than the mean grade of the contained composites. This is because the blocks were estimated with some composites that were outside of the shape and consequently, somewhat lower grade.

The contained composites in the shape are screened to determine how many are less than the cutoff grade that defined the shape. That count is presented as a percentage of the total number of contained composites. Well zoned deposits with low coefficient of variation can have those sub-grade percentages as low as 8%. Typical values are around 15%. Table 14-8 summarizes the results for this check at Florida Canyon.

Table 14-8
IMC Composite versus Model Check

Cutoff Grade Oz/ton	Percentage of Contained Composites LT Cutoff %	Number of Composites in Shape	Average Grade of Composites oz/ton	Number of Blocks In Shape	Average Grade of Blocks oz/ton
0.003	4.5%	29,606	0.013	323,478	0.011
0.004	10.6%	27,795	0.013	315,101	0.012
0.005	13.5%	23,897	0.015	284,021	0.012
0.0055	14.6%	22,108	0.015	265,306	0.013
0.006	15.4%	20,451	0.016	245,777	0.013
0.007	16.7%	17,439	0.018	208,752	0.015
0.008	17.5%	14,961	0.019	176,805	0.016
0.009	18.6%	12,959	0.021	150,111	0.017
0.010	19.4%	11,274	0.023	128,052	0.019

The selected composites and model geometries did not include blocks coded as backfill and did not include sulfides. The composites were calculated by IMC and are bench intercept composites. The cutoff grade range of 0.006 to 0.007 oz/ton indicates the "percentage less than" to be around 15%. This is a reasonable result for a variable gold deposit.

Reconciliation

The most important function of a block model is its ability to provide a sound basis for mine planning by predicting the tonnage and grade of material above cutoff that is in the ground. To test the functionality of the FCMI model, IMC applied a check of the model against a recent 18 months of mine production history.

Since Alio began operating at Florida Canyon, they have been mining material from the pits that ore control indicates as above cutoff, that is actually in-pit waste dumped during mining by earlier operators. This material contributes to the recent low grades that have occurred at the process plant.

During September of 2018, FCMI staff began to report the amount of hard rock versus in-pit waste that was mined on a month by month basis. IMC was also provided with pit progress surfaces for the end of September 2018 as well as the end of March 2020. During that time, the ore control cutoff was reported as constant at 0.0055 oz/ton CN soluble assay. The block model is based on Fire (FA) assay methods.

The reported head grade of material delivered to the heap leach pad is based on crushed samples collected hourly from the conveyor discharge of the second crush stage. That material is combined for an entire shift and homogenized and assayed by Fire Assay methods to report the head grade delivered on the pad. Monthly composites are made of that material and a monthly column leach test is completed in order to sample the relative recovery of that months material on pad. Those samples are assayed by both FA and CN methods when the column is loaded. IMC utilized that monthly column leach data to compare the ratio between FA and CN assay for the 18-month test period. IMC calculated an FA/CN ratio of 1.198 (round to 1.20) for that period. The current ore control cutoff is 0.0055 oz/ton CN soluble. IMC multiplied that value times 1.20 to obtain an estimated FA cutoff of 0.0066 oz/ton Fire assay for application to the block model.

The monthly reports provide the estimate of hard rock tonnage and grade that was mined, and the historic pit shapes allow us to tabulate the model prediction of the same volume from the FCMI block model. Table 14-9 Summarizes the results of the 18-month reconciliation test/

Table 14-9
18-Month Mine to Model Reconciliation
October 2018 through End March 2020

18 Month Total from Monthly Reports Reported by Ore Control				Block Model Report 0.0066 oz/ton FA Cutoff			Difference, Model - Production Negative Means Model Low		
Material	Ktons	FA Assay Oz/ton	Contained ozs	Ktons	FA Assay Oz/ton	Contained ozs	% Diff Tons	% Diff Grade	% Diff Ounces
Hard Rock **	6,414	0.0091	58,159	4,821	0.012	57,852	-24.8%	32.2%	-0.6%
Back Fill	4,824	0.0077	36,946						
Total Ore Mined With Back fill	11,238	0.0085	95,105						

Ore Stacked on Pad			
Material	Ktons	FA Assay Oz/ton	Contained ozs
Stacked	11,799	0.0080	94,162

** Cutoff Grade for Ore Control was 0.0055 oz/ton CN Sol
Ratio of FA/CN for the 18 months is 1.20 based on Monthly Column Leach Composites
0.0055 Cn Sol x 1.20 = 0.0066 oz/ton Fire Assay to Apply to the FA Basis Block Model

Comparing the hard rock from the pit versus the hard rock prediction from the model indicates that the model is 25% low on ore tonnage and 32% high on grade compared to production. In combination, the prediction of contained ounces on pad is within 0.6%. This result suggests several potential occurrences.

1) The high bias of the RC drilling may have contributed significantly to the difference in grade. The DDH to RC comparisons in Section 12 indicate grade differences where RC was typically 64% higher than DDH.
2) The FCMI modeling team modified the indicator discriminator and estimation parameters until they obtained a close match between a blast hole model and the resource block model. This would indicate that the tonnage could have been constrained in order to obtain a proper estimate of contained ounces.
3) Mine dilution could be more than anticipated. If one adds 25% tonnage to the model estimate at a grade of 0.0 oz/ton, the production reconciliation would be quite close in tonnage and grade.

IMC and the qualified person hold the opinion that some combination of all of the above occurrences are contributing to the differences in reconciliation. There is room for improvement as with any resource model.

Given the results above, the following trends should be expected in the mine plan and operations

1) Contained ounces delivered to pad will be a reasonable estimate, so predicted sales income of metal is relatively reliable.
2) Process costs will be underestimated in that more material will need to be processed to achieve metal production.
3) Leach pad capacity will fill sooner than what the model predicts due to the need to process more ore.
4) Mine operating costs may be invariant, because the same amount of total material moved should result in more low-grade ore and less waste haulage.

Despite the issues discussed above, this model is a more sound predictor of production than recent previous models, which overestimated both tonnage and grade.

Considering that this model and data base have matched 18 months of historic production within 0.6% on contained ounces, IMC and the qualified person have concluded that the model is acceptable for estimation of mineral resources and mineral reserves after application of class limitations.

14.7 Mineral Resource Estimate

The component of the in-ground material that meets the requirements for reasonable expectation of economic extraction and mineral resource was developed using pit optimization software and a gold price of $1,600 USD/Troy Oz. The following estimates of economic and recovery input parameters to the pit optimization were assembled by FCMI and IMC teams based on production history and planning outlook.

Economic benefit was applied to all three classes of measured, indicated, and inferred for the determination of mineral resources. Table 14-10 summarizes the input parameters for determination of mineral resource.

Table 14-10
Pit Optimization Parameters for Determination of Mineral Resource

Item	Description or Value		Units
Mining Cost, Ore		$1.44	$/ton ore
Waste		$1.44	$/ton waste
Process Cost		$2.74	$/ton ore
Mine Site G&A		$0.47	$/ton Ore
Process Recovery in %			
Radio Tower		100 x(0.7378 x Au -0.00168)/Au	%
For All Others		100 x(0.7883 x Au -0.00129)/Au	%
Refining and Selling Cost		$3.48	$/troy Oz
Metal Sales Price		$1,600	$/troy Oz
Royalty		4.6%	of Gross
Slope Angles	Silicified Hard Rock	43	degrees
	Alluvium and Fill	37	degrees
	Central NW Facing Slo|	35	degrees
Cutoff Grades			
NSR, Internal		$3.21	$NSR/ton
NSR, Breakeven		$4.65	$NSR/ton
Fire Gold Internal Radio Tower		0.0051	oz/ton
Fire Gold Breakeven Radio Tower		0.0064	oz/ton
Fire Gold Internal All Others		0.0043	oz/ton
Fire Gold Breakeven All Others		0.0055	oz/ton

The result of applying the above input parameters to the FCMI block model is the following statement of mineral resources on Table 14-11 that reflects the project status at of 1 June 2020. The mineral resource on Table 14-11 is sourced from a pit optimization run completed by IMC. IMC checked their results against FCMI at tabulations of lower metal prices provided by FCMI. The metal price was then increased to $1,600 /oz to reflect current outlook and the corporate philosophy of Argonaut Gold.

The qualified person for the mineral resources is John Marek of IMC. The risks associated with this statement of resources include: 1) The uncertainty in the data base and the resulting block model may not reflect the distribution of tonnage and grade accurately, and 2)

Environmental licensing is not sufficient to cover the entire resource pit because the resource pit may mine somewhat deeper than the estimated water table which is currently not permitted. As a result the qualified person has established that there is no measured category mineralization and any material reported as measured from the model is reported as a component of the indicated mineral resource on Table 14-11

Table 14-11

Florida Canyon Mining Incorporated
Mineral Resources as of 1 June 2020
Includes the Mineral Reserve

Mining Area	Class	Cutoff Grade		Ktons	Grade	Contained Metal
		NSR$/ton	oz/ton		oz/ton	oz x 1000
Total	**Indicated**	**$3.21**	**0.0043-0.0051**	**151,040**	**0.011**	**1,667**
	Inferred	$3.21	0.0043-0.0051	27,263	0.010	276
Central	Indicated	$3.21	0.0043	58,100	0.011	642
	Inferred	$3.21	0.0043	9,567	0.010	95
Main	Indicated	$3.21	0.0043	38,373	0.010	385
	Inferred	$3.21	0.0043	6,573	0.010	64
Jasperoid	Indicated	$3.21	0.0043	11,931	0.009	105
	Inferred	$3.21	0.0043	2,436	0.008	20
Radio Towers	Indicated	$3.21	0.0051	42,636	0.013	534
	Inferred	$3.21	0.0051	8,687	0.011	98

Notes:

Ktons = 1000 short tons
Grade = troy ounces / short ton
Metal Price of $1,600 USD/troy ounce
Numbers may not add due to rounding
Costs and Recoveries on Table 14-10

15.0 MINERAL RESERVES

The mineral reserve for FCMI is the total of all indicated category mineralization that is planned for mining and processing. The mine plan is summarized in Section 16 and was developed by IMC personnel working on site with the FCMI staff. This section reports the mineral reserve, which is the result of that mine plan.

The final pit design that establishes the mineral reserve incorporates mine haul roads and working room for the mining equipment. The final pit design is shown on Figure 15-1. The design of the final pit was guided by the application of pit optimization software to establish a theoretical target that was a guide for the final practical and operational mine plan.

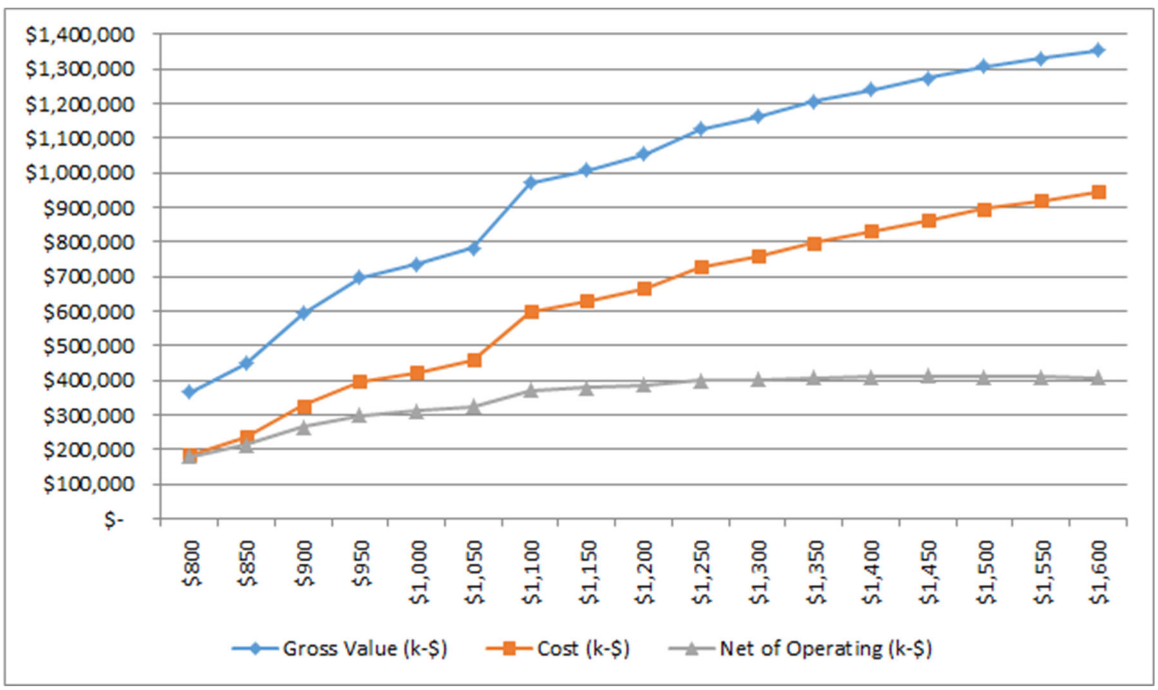
The input parameters to the optimization algorithm (Lerchs Grossman) were based on recent mine and process operating costs incurred at Florida Canyon. Table 15-1 summarizes the input parameters for the optimization runs.

Table 15-1
Pit Optimization Parameters

Item	Description or Value		Units
Mining Cost, Ore		$1.44	$/ton ore
Waste		$1.44	$/ton waste
Process Cost		$2.74	$/ton ore
Mine Site G&A		$0.47	$/ton Ore
Process Recovery in %			
Radio Tower		100 x(0.7378 x Au -0.00168)/Au	%
For All Others		100 x(0.7883 x Au -0.00129)/Au	%
Refining and Selling Cost		$3.48	$/troy Oz
Metal Sales Price		$1,350	$/troy Oz
Royalty		4.6%	of Gross
Slope Angles	Silicified Hard Rock	45	degrees
	Alluvium and Fill	37	degrees
	Central NW Facing Slo|	35	degrees
Cutoff Grades			
NSR, Internal		$3.21	$NSR/ton
NSR, Breakeven		$4.65	$NSR/ton
Fire Gold Internal Radio Tower		0.0057	oz/ton
Fire Gold Breakeven Radio Tower		0.0072	oz/ton
Fire Gold Internal All Others		0.0048	oz/ton
Fire Gold Breakeven All Others		0.0062	oz/ton

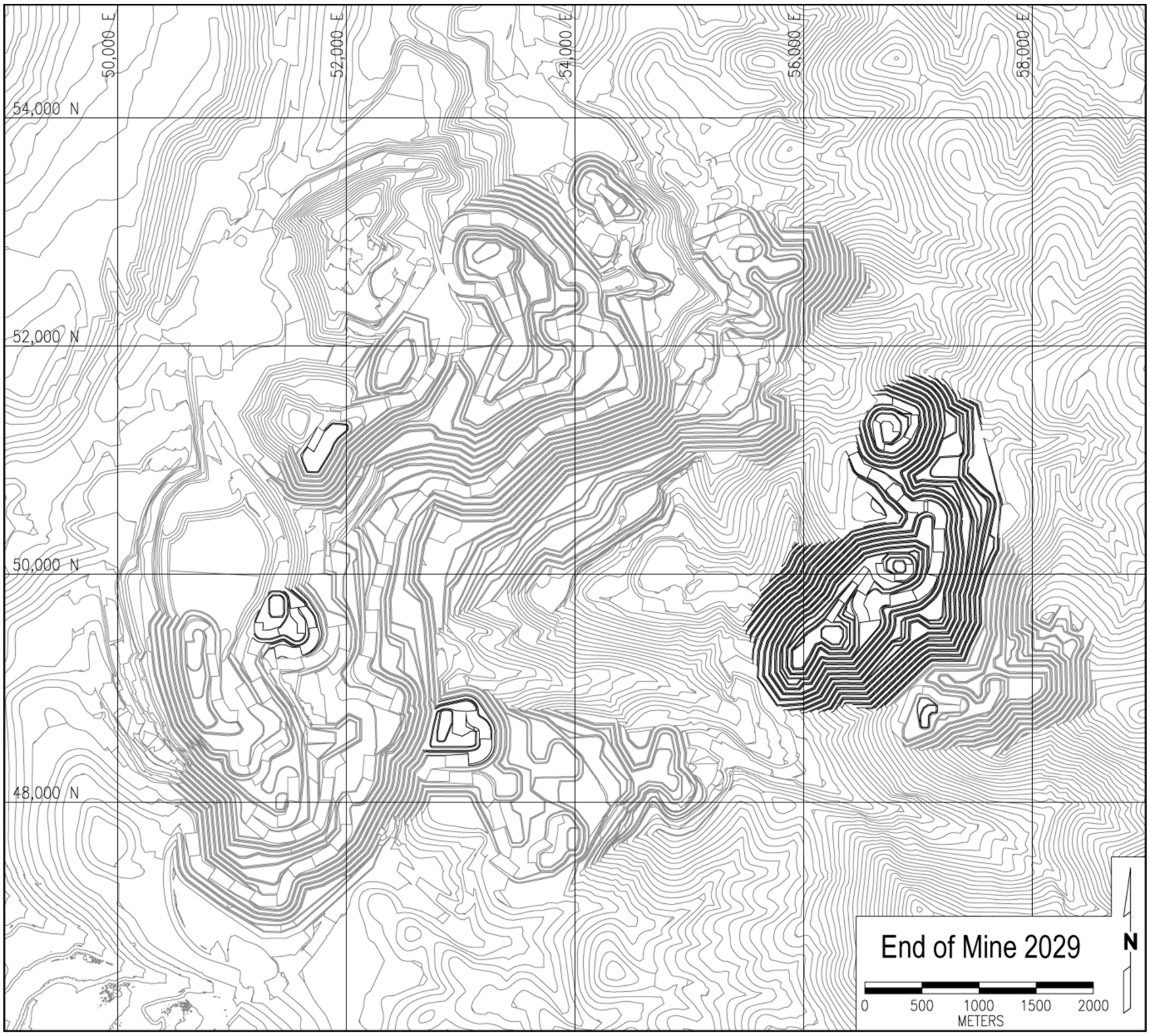
Multiple pits were generated with a range of input gold prices. The economic value of each of those pits was tabulated at the base case metal prices of $1,350/oz. Figure 15-2 illustrates the gross revenue, operating cost, and net income after operating costs. The gray line on Figure 15-2 represents the net income or net value of each pit. The curve flattens substantially for pit sizes above about $1,100/oz, indicating that larger pits add only minor incremental value. As a result, the $1,100/oz it was used as the guide to design a best economic pit at the $1,350/oz design metal price.

Figure 15-2
Value of Theoretical Pits from Optimization
Vertical Axis in USD
Horizontal Axis References Pit Size



The pit on Figure 15-1 is the result of adding access roads and practicality to the theoretical result of the pit optimization software.

Internal to the final pit, a number of mine phase or pushback designs were completed that also incorporated access and operating room. FCMI typically runs with tighter work areas than many mines and that practice was maintained with these phases. A mine production schedule was developed from the phases that would supply 750 tons per month (9,000 ktons/yr) of feed to the crusher. Total loading capacity at the mine is limited to about 70,000 to 75,000 tpd which on an annual basis is 25,550 to 27,375 kton/yr of total mining capacity.



Source IMC, 2020

Figure 15-1
Final Pit for Mineral Reserve
Bold Lines Represent Changes from 2026 to 2029

Those constraints combined with the cutoff grade information summarized on Table 15-1 were used to establish the mine production schedule presented on Table 16-1. The bottom line from that schedule is shown as the mineral reserve on Table 15-2.

The qualified person for the mineral reserve is John Marek, of Independent Mining Consultants, Inc. The reader should note that there is a significant risk that the tonnage and grade of the mineral reserve could differ from Table 15-2 by as much as 25%. The results of the historic reconciliation presented in Section 14, indicate that although the model predicts contained ounces well, the produced tonnage and grade to the process plant can vary from the model prediction by the 25 to 32%. IMC has confirmed that the cost of processing 25% more ore to the crusher still results in an economic mine plan.

The potential occurrence of additional mineral tonnage at a lower than modeled grade is caused by several items:

1) Potential high bias of the historic RC drilling
2) Potential low bias of the head grade sample due to loss of fines at the sampler.
3) Internal dilution during ore control where low grade material cannot be segregated from the ore dig shapes.
4) External mining dilution.

The block model categorizes measured class mineralization based on the density of drilling. Considering the 4 points above, IMC and John Marek hold the opinion that the mineral reserve does not have a component of "proven" mineralization if the mine incurs 25% discrepancies in ore tonnage over 18 months of mine history. As a result, the qualified person has chosen to re-categorize the entire mineral reserve to "probable" rather than "proven and probable".

Table 15-2
Mineral Reserve As of 1 June 2020

Class	Cutoff oz/ton	Ktons	Grade FA oz/ton	Contained ozs x 1000
Probable	0.005 to 0.006	82,176	0.012	1,019

Notes:
The Qualified Person is John Marek, PE, RM-SME
Cutoff Grade 0.005 oz/ton for 3 years then 0.006 oz/ton
Entire mineral reserve categorized as "Probable" by QP
Metal Price = $1,350 / troy ounce gold
Process Cost + G$A = $3.21/ton
Mining Cost = $1.44/ton average
Recovered metal based on the Table 15-1 equation,
665,000 troy ounces
The reserve pit contains 142.6 MT waste
Model reported result with no dilution or recovery
Mineral Reserve could be 25% higher
with the same reported contained ozs

16.0 MINING METHODS

Florida Canyon is a conventional open pit hard rock mining operation. Typical of other mines in Nevada, bench heights are 20 ft and the loading and haulage fleet are 13 to 14 cu yd front loaders matched to 100-ton rigid frame haul trucks. Most of the loading and hauling equipment have been leased from Caterpillar and include Maintenance and Repair contracts on the leased units (MARC).

The mining plan that defined the Mineral Reserve in Section 15.0 was developed by the staff of IMC working on site with the team at FCMI. It should be noted that this mine plan and schedule is practical and IMC check calculations confirm it to be economic at the design prices and at current spot prices. However, there is room for optimization and improvement going forward. Some of the options for improvement will be noted later in this section.

The mine production schedule that establishes the Mineral Reserve is summarized on Table 16-1. Ore production to the crusher is 750 kt/month = 9,000 kt/yr. The bottom line of total mineralization planned for production is the Mineral Reserve presented on Table 15-2.

Table 16-1
Mine Production Schedule

Period	Cutoff oz/ton	Crusher Ktons	Grade oz/ton	Contained Oz x 1000	Waste Ktons	Total Ktons
2020*	0.005	5,250	0.0099	52	10,750	16,000
2021	0.005	9,000	0.0106	95	18,370	27,370
2022	0.005	9,000	0.0120	108	18,370	27,370
2023	0.005	9,000	0.0144	129	16,550	25,550
2024	0.006	9,000	0.0117	105	16,550	25,550
2025	0.006	9,000	0.0114	102	16,550	25,550
2026	0.006	9,000	0.0118	106	16,288	25,288
2027	0.006	9,000	0.0140	126	16,550	25,550
2028	0.006	9,000	0.0127	115	10,283	19,283
2029	0.006	4,926	0.0161	79	2,355	7,281
Total		**82,176**	**0.0124**	**1,019**	**142,616**	**224,792**

* Period of 2020 is from June to December (7 months)

All mineralized material in the plan is categorized as indicated within the resource model. As noted in Section 15, the qualified person, John Marek, has reclassified all mineralization planned for processing as “probable” class due to the uncertainties listed in Section 15.0. Illustrations of the mine plan at select periods of time as well as the final pit are presented later in this section as Figures 16-2 through 16-5.

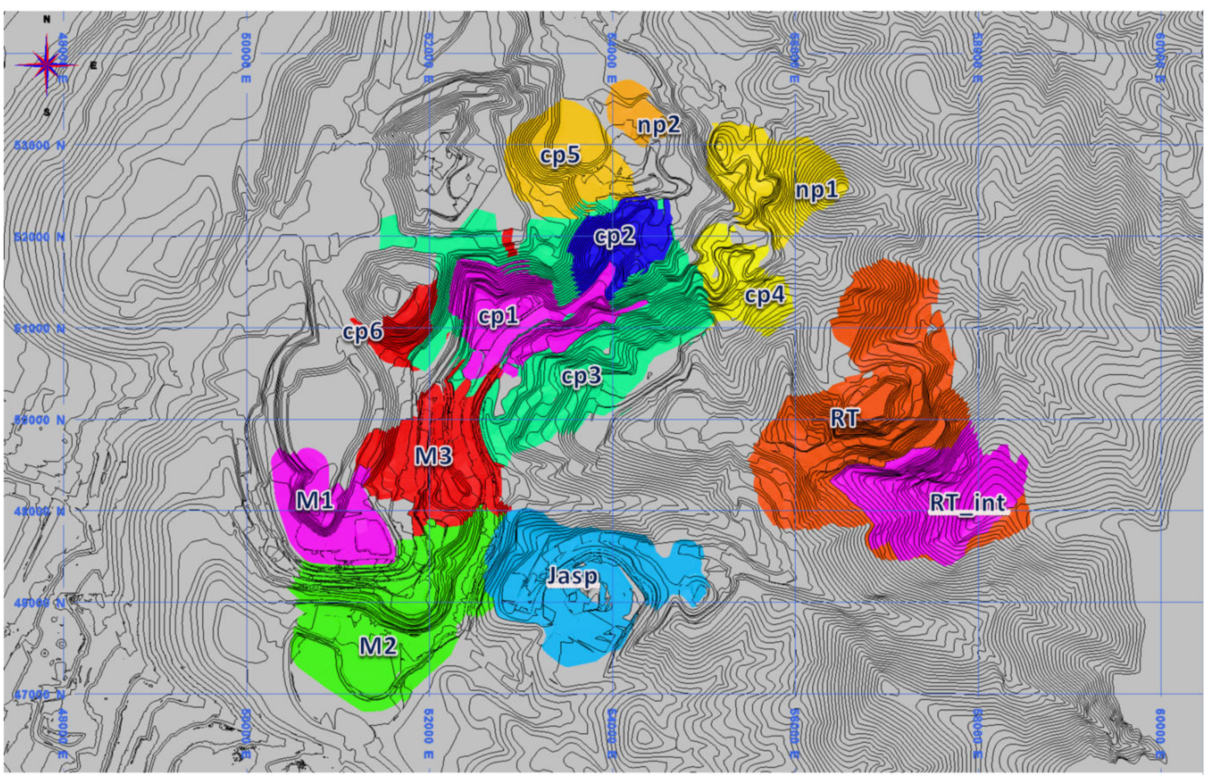
The mine schedule was developed from a set of mine phase or pushback designs. Phase designs are practical expansions of the pit that included all necessary access roads and working room for equipment. FCMI often utilizes pushbacks that are as narrow as 120 to 140 ft. Although not optimal for equipment productivity, many of the current operating conditions at FCMI were retained in the phase designs.

Some of the phase designs were in existence at FCMI prior to this effort. They were adjusted by the IMC team to conform to the new final reserve pit. Other phases were developed during this work to incorporate proper access roads. Earlier mine plans and mineral reserves published previously did not necessarily include appropriate and practical haul road designs.

Interramp Slope angles for phase design were provided by FCMI based on earlier geotechnical recommendations by Golder and Barr Engineering. Interramp Slope angles were: 45 degrees in hard rock, 37 degrees in fill, and 35 degrees for NW Facing pits in the Central Pit.

Haul roads were 90 ft wide at 10% maximum grade. If single lane access was incorporated in the last few benches of a pit, they were 65 ft wide. There were 14 phases utilized for the FCMI production schedule. Figure 16-1 is a simplified illustration of their relative locations.

Figure 16-1
Mine Phase Design Locations



Horizontal Grid = 1000 ft, Source: IMC, 2020

The material contained within the phases at cutoffs of 0.006 and 0.005 oz/ton is summarized below on Table 16-2.

Table 16-2
Phase Tonnages

Phase	0.006 oz/ton Cutoff		0.005 oz/ton Cutoff		Waste	Total Material
	Ktons	Grade oz/ton	Ktons	Grade oz/ton	Ktons	Ktons
CP_01	1,298	0.0109	1,641	0.0097	4,985	6,625
CP_02	1,701	0.0132	1,942	0.0122	3,947	5,890
CP_03	12,313	0.0137	13,939	0.0128	26,599	40,539
CP_04	1,279	0.0131	1,453	0.0122	2,845	4,298
CP_05	4,620	0.0118	5,375	0.0109	9,274	14,649
CP_06	1,354	0.0133	1,518	0.0124	2,078	3,596
Jasperoid	5,968	0.0102	7,615	0.0092	7,802	15,417
Main_01	3,375	0.0113	3,900	0.0105	2,935	6,836
Main_02	10,246	0.0119	12,447	0.0107	17,228	29,675
Main_03	3,647	0.0092	4,345	0.0086	4,451	8,795
np_01	2,184	0.0150	2,518	0.0137	6,945	9,463
np_02	407	0.0110	469	0.0103	890	1,359
RT	27,737	0.0140	31,093	0.0131	34,823	65,917
RT_internal	2,289	0.0109	2,748	0.0100	8,985	11,733
Total	**78,419**	**0.0127**	**91,003**	**0.0117**	**133,789**	**224,792**

Table 15-1 illustrates that the internal cutoffs vary from 0.0048 to 0.0057 oz/ton depending on the local recovery. Breakeven cutoffs vary from 0.0062 to 0.0072 oz/ton depending on the local recovery.

The schedule on Table 16-1 starts with a 0.005 oz/ton cutoff for 3 years which is the internal cutoff for the material in the early phases. A higher cutoff grade cannot be utilized with the current loading capacity at the mine. If the cutoff grade were higher during the first 3 years, substantially more waste would have to be removed to assure ore release. That level of ore and waste production exceeds the loading capacity of the equipment at Florida Canyon.

Once the required total material movement reduces after year 3, the cutoff grade is increased to 0.006 oz/ton which is the breakeven level for everywhere except Radio Tower where 0.006 reflects the internal cutoff.

IMC limited the vertical development rate to a maximum of 12 benches per year for each pushback when preparing the schedule on Table 16-1. FCMI regularly exceeds that figure in operations.

Figures 16-2 through 16-5 at the end of this section illustrate the mine schedule at the end of years 2020, 2023, 2026, and final pit in 2029.

Mine Equipment

The current fleet of major mine equipment at FCMI is a mix of "legacy" units that are still on hand and the new units leased from Caterpillar.

Legacy Units

Number	Unit	Size
4	Blast Hole Drills	6.75 inch
2	992D Front Loaders	13 cuyd
5	Cat 777 Trucks	100 ton
Plus associated auxiliary equipment		

New Leased Units

Number	Unit	Size
3	992K Front Loaders	14 cuyd
13-16	Cat 777G Trucks	100 ton

As of March 2020, there were 13 new Cat trucks working on site. The lease package includes 3 more trucks for a total of 16. Current practice is to schedule the legacy units as required to load the crushed discharge from the crushing plant and haul it to the leach pad. The new equipment is typically assigned to mine operations.

Currently, all waste is hauled to the two waste storage areas that are north and south of the pit. The current crusher position is south of the Main pit and northeast of the South Leach Pad. Maintaining those haulage destinations would require a staged addition of 6 more 100-ton haul trucks by 2025 to the fleet of 16 planned for in-pit.

There are opportunities to improve the haul profiles in the future by backfilling some pits and potentially moving the crusher closer to the Radio Tower Pit, later in the mine life. Those options are yet to be completely evaluated and optimized. Additional drilling to identify the oxide-sulfide contact more precisely, and to evaluate the economic potential of the sulfides would be prudent prior to any further storage of waste in the completed oxide pits.

Argonaut is planning to make those changes and has shown the capital cost for the crusher move with conveyor handling of crushed ore as soon as the last half of 2020. As noted above, the optimum time for that crusher move may be later in the mine life. That planning work is in progress and the budget allotment for the crusher has been incorporated early.

IMC Tests to Confirm the Reserve is Robust

Several items have been discussed that could have positive and negative impacts on the mine plan and mineral reserve. In order to confirm that the mineral reserve is robust, IMC assembled a simple pre-tax cash flow analysis that is based on the Table 16-1 mine schedule and applied a series of sensitivity tests. These tests were intended to test that the stated reserve is not impaired should several negative situations occur.

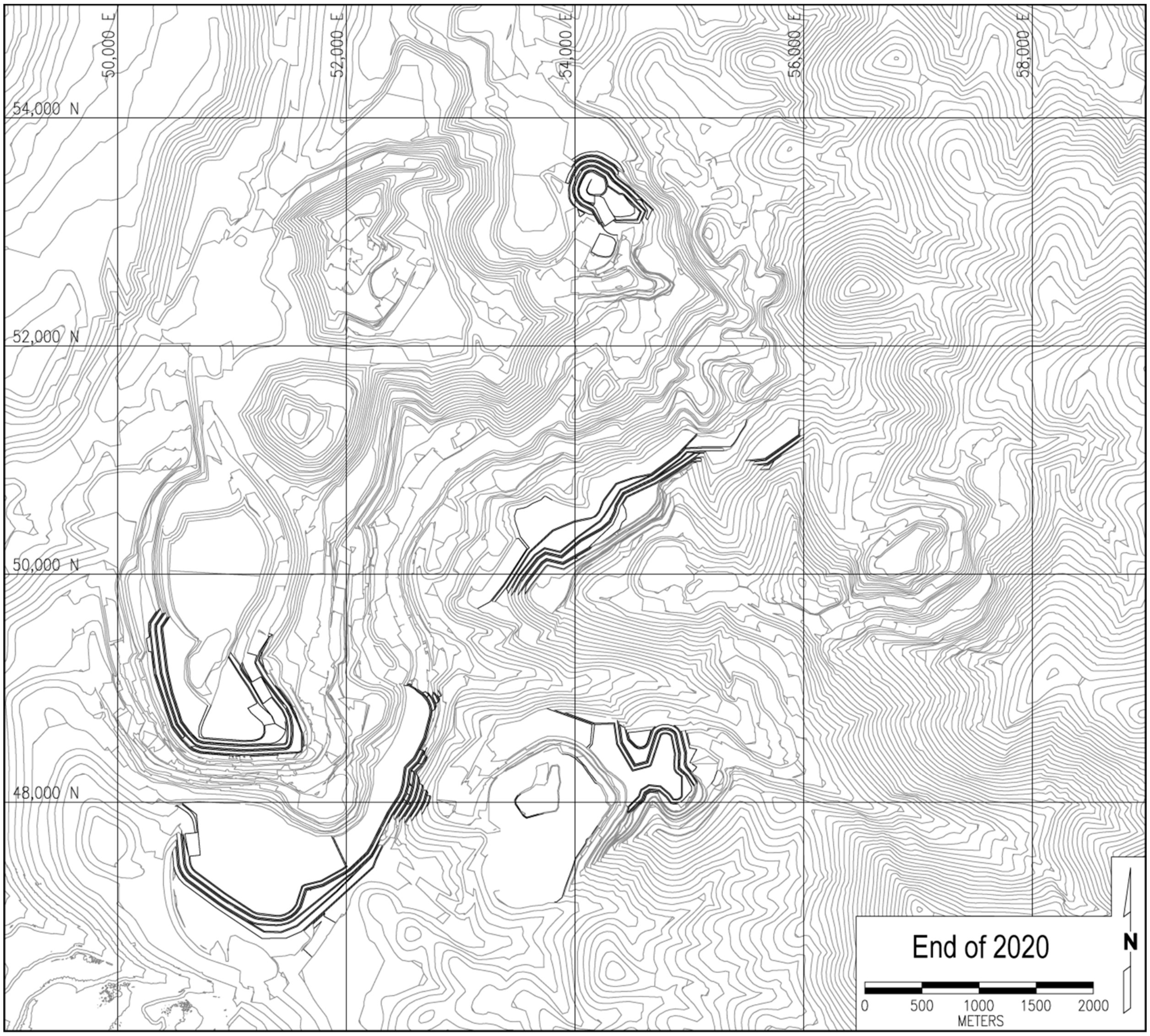
The base case for these tests was established applying the pit optimization economics and recoveries of Table 15-1 combined with the schedule on Table 16-1. Capital costs were also included from budget work by Alio which include the Cat lease, leach pad expansions, sustaining equipment capex, and existing debt burden.

The base case at $1,350/oz gold price has a significantly positive pre-tax cash flow and achieves non-discounted payback during 2023. If one adds the additional 6 trucks as capital purchases at a conservative price of $2 M per unit, payback still occurs in 2023 and the NPV 10% reduces by 13%.

As discussed in Sections 14 and 15, the model reconciliation indicates that 25% more tonnage may be processed at a lower grade in order to produce the ounces in the plan.
A simple test was done by increasing the process operating costs by 25% while still adding the additional 6 haul trucks. The NPV 10% at $1,350 gold was still positive, albeit lower than the base case.

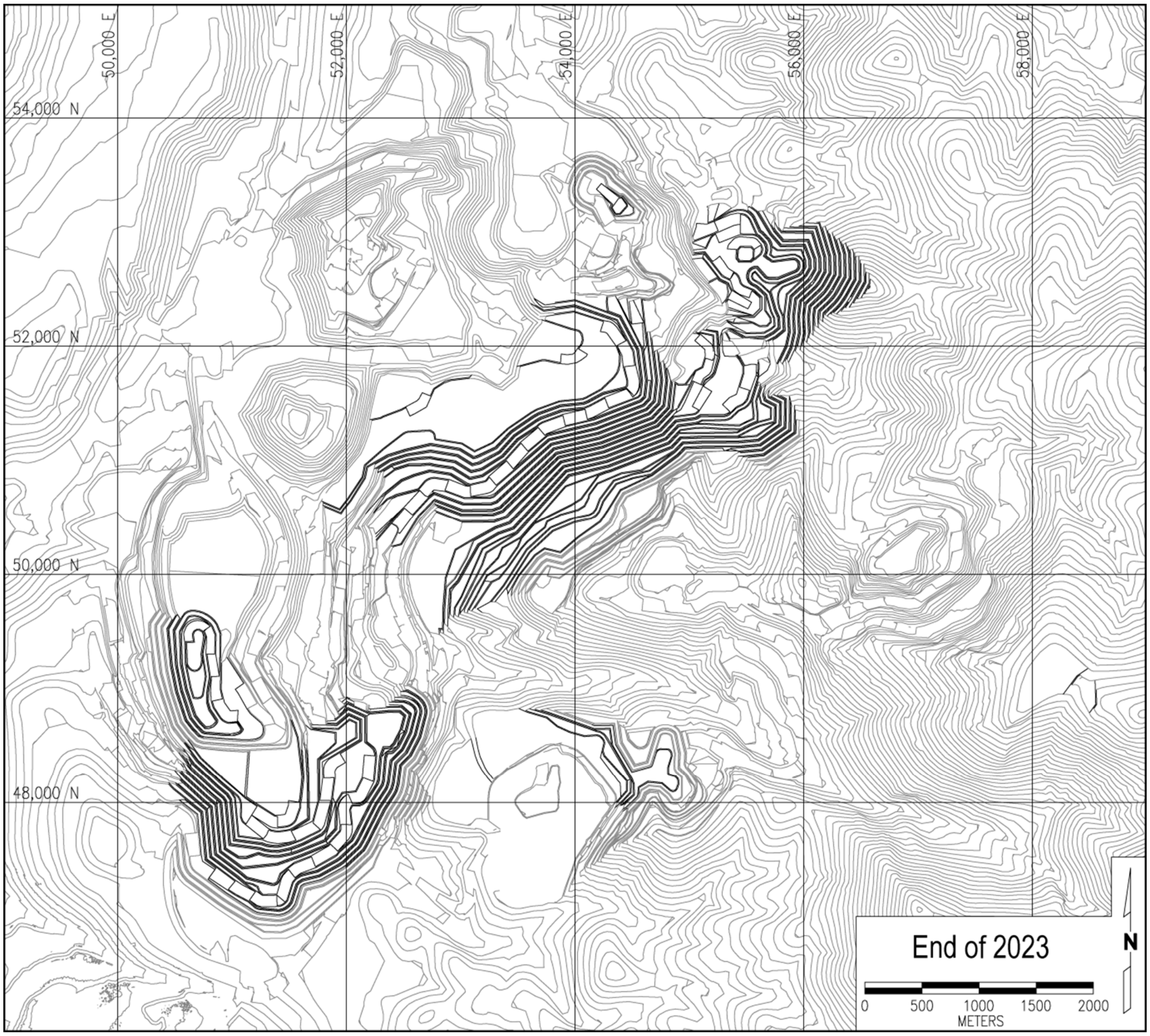
The 25% increase to process cost is a downside evaluation to confirm that the stated contained and recoverable ounces in the mineral reserve are economically robust. If the gold price were dropped to $1,325/oz in combination with all of the negative cases above, the project would breakeven.

As noted earlier, there are a number of upside changes that can occur to the mine plan and haulage plan. The result of these tests indicates to the Qualified Person, that this reported mine plan and consequent Mineral Reserve is economic under a range of possible negative outcomes.



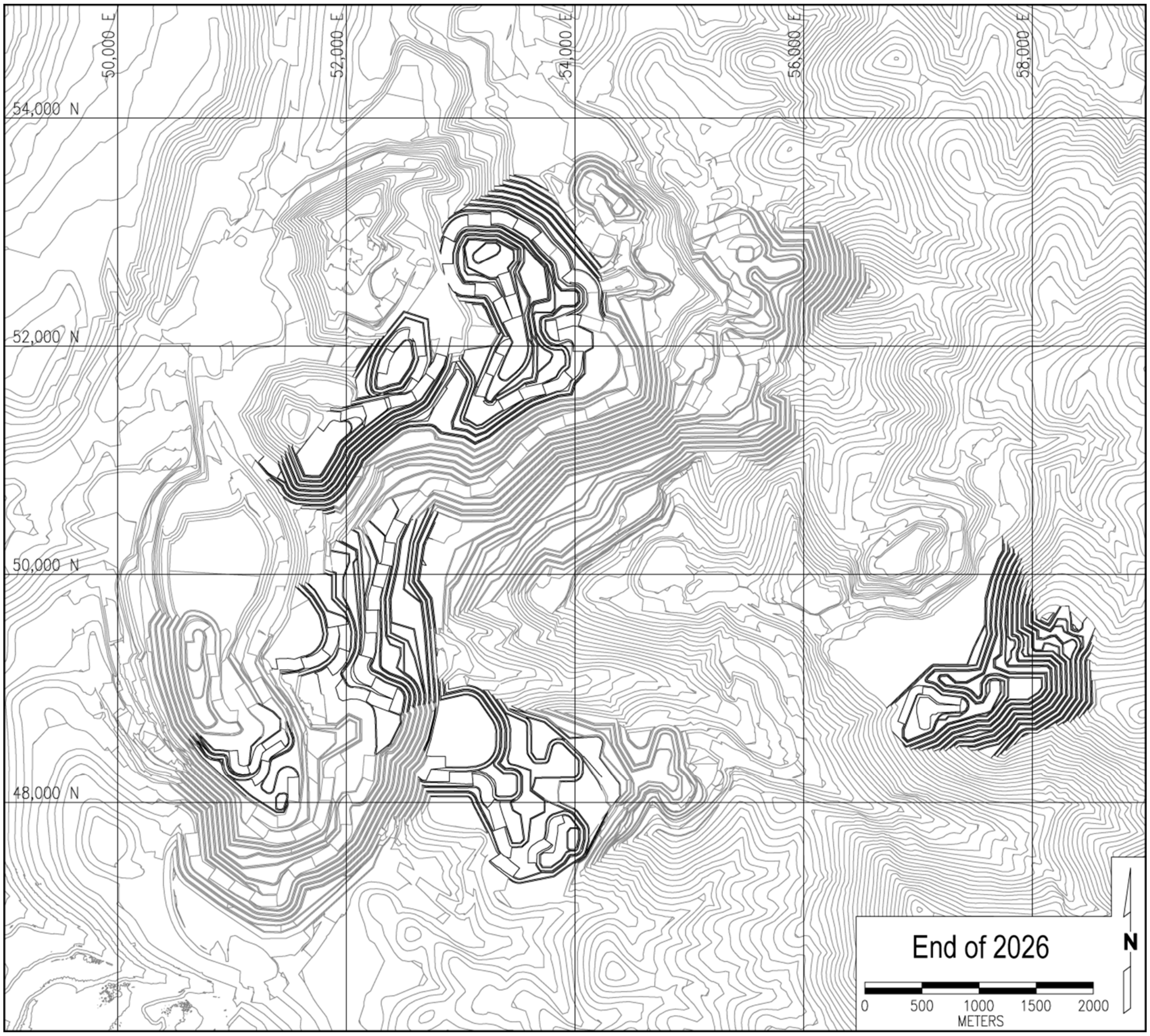
Source, IMC 2020

Figure 16-2
Annual Mine Plan Illustrations, end of Year 2020



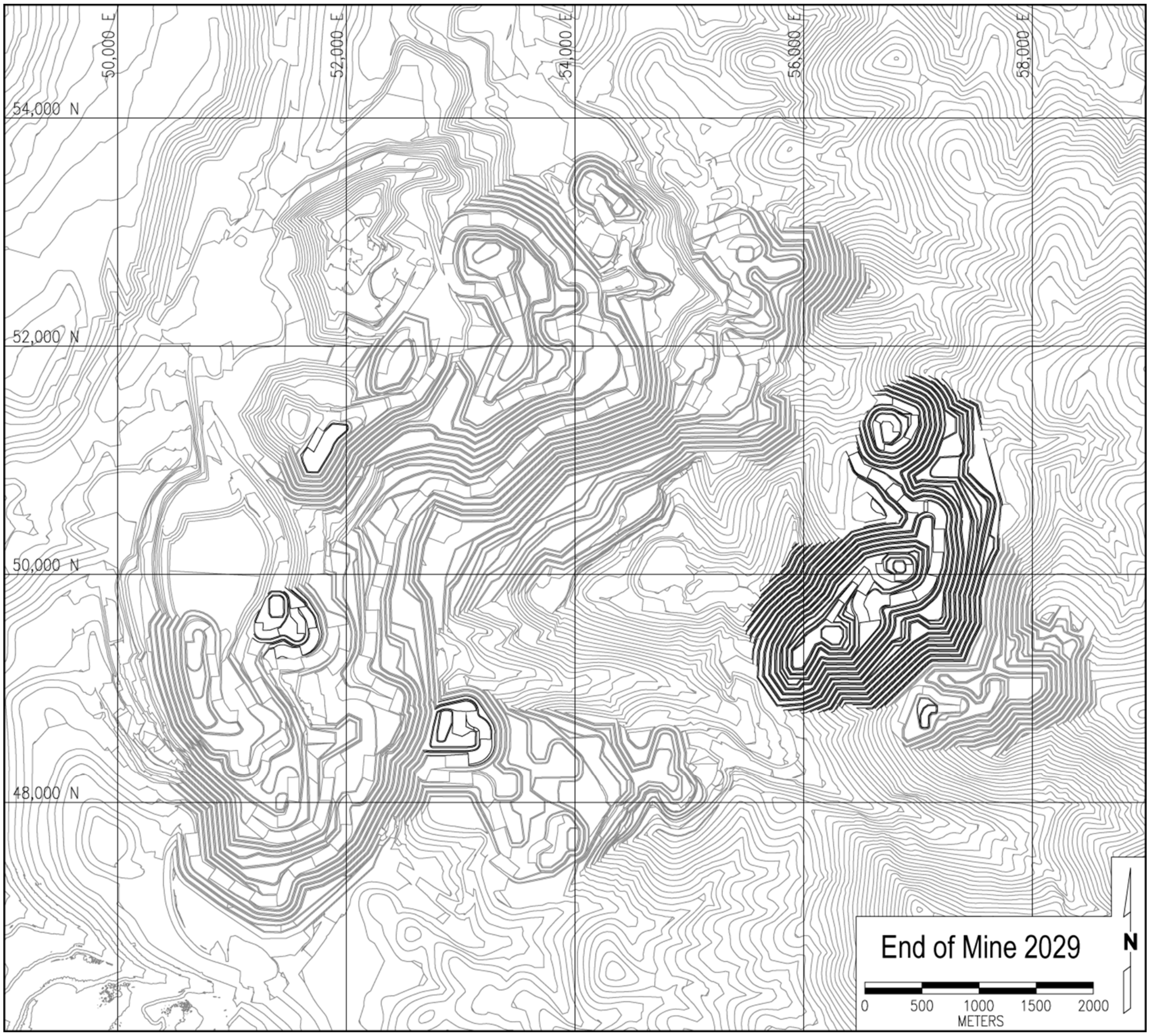
Source, IMC 2020

Figure 16-3
Annual Mine Plan Illustrations, end of Year 2023



Source, IMC 2020

Figure 16-4
Annual Mine Plan Illustrations, end of Year 2026



Source, IMC 2020

Figure 16-5
Annual Mine Plan Illustrations, end of mine life in Year 2029

17.0 RECOVERY METHODS

Florida Canyon is a conventional gold/silver heap leach operation where ore passes through two stages of open circuit crushing. Final product runs 80% minus 1½ inch. Historically material was run through a closed circuit crusher and the final product was reduced to ¾ inch. The crushed ore is agglomerated with a polymer binding agent and stacked in 20 foot lifts. Solution is applied through drip tubes at a rate of 0.0028 gpm/ft^2. Discharge (pregnant solution) from the bottom of the pad is sent to carbon columns, a conversion from the original Merrill Crowe process. There is no intermediate or recycled solution. Loaded carbon is pressure stripped, gold is recovered by electrowinning and precipitate is melted into dore' bars. The gold to silver ratio is about 1:1. Stripped carbon is reactivated, acid washed and returned to service. The volume of carbon being stripped exceeds the capacity of the reactivation kiln so only about 25 percent of the carbon is reactivated per cycle.

The current pond system includes 6 ponds adjacent to the North Heap Leach Pad (barren, pregnant, utility (S2), and 2 contingency ponds for leaching, and a geothermal pond for cooling the geothermal water supply) and 3 ponds at the South Heap Leach Pad (barren, pregnant and contingency).

The Nevada Regulations (445A.425 and .465) require that all process components must be designed to withstand the runoff from a 24-storm event with a return period of 100-years and that the primary fluid management system must be designed to remain fully functional and fully contain all process fluids including all accumulations resulting from a 24-hour storm event with a 25-year recurrence interval. This means that total pond storage (pregnant, barren and contingency) must be able to contain the 25-year 24-hour storm event. An important aspect associated with this criterion is that at all times enough capacity must be reserved in the ponds; i.e. a maximum operating level needs to be established that should not be exceeded unless a 25-year storm occurs. If a smaller rain event causes the maximum operating level to be exceeded, then the water level should be brought back down in a reasonable period (days to a few weeks).

In the past, the ponds were too full and there was a concern of overtopping should a large storm occur; i.e. the above required maximum operating levels had been exceeded because of an excess amount of water accumulating in the systems over a period. This has now been rectified by providing for more evaporation in a dedicated pond. In going forward, the overall water balance of the heap leach system is critical and will need to be better defined based on data and using modeling to establish maximum operating levels and to confirm or reassess the required pond volumes.

Another aspect to be considered is that the Nevada pond design criteria described above are not considered to be adequate for current practice. More typically, pond volume design criteria should accommodate, for example, a three-day 100-year storm event plus the heap drain-down that occurs during this period assuming the leach application solution pumps fail during this period due to power outage.

FCMI is permitted for a total application rate of 9,000 gpm, with 4,000 and 5,000 gpm going respectively to two different pad phases. This means that the maximum application rate of 5,000 gpm on Phase II and the application of 0.0028 gpm/ft^2, 1.7 million ft^2 of heap can be leached, which at a 20-foot lift height amounts to 2.0 million tons (at a stacked density of 120 lbs/ft^3). At a production rate of 800,000 tons per month that amounts to an average leach time for the primary leach (i.e. where the emitters discharge directly on the surface of the newly stacked ore) of 76 days. Following that, leaching can continue with leach solutions being applied via a new stacked layer above this originally stacked ore. This amount of primary leach time is considered adequate, however modifying the current permit constraint of 9,000 gpm should be pursued.

The site visit indicated that the crusher and process areas are very well run. Crusher throughput has been steadily increasing over the past several months. The high efficiency of plant and crusher operations was noteworthy considering the recent changes to staff.

The solution ponds were in danger of overtopping prior to Alio acquisition of the property. That problem has was resolved by the Alio team through excellent solution management. Agglomeration was excellent. The work areas were clean and the leach pads were nothing short of outstanding, showing no ponding, no blowouts, good dispersion, and no “springs” on the pad sides (Figure 17-1). The 0.0028 gpm/ft^2 solution application rate is very good, within industry standard and producing good leach times. The pads are well ripped and there is no evidence of channeling or blinding in the pad. One area of operations that needs attention is the carbon circuit. FCMI plans to replace the kiln but ongoing work on determining carbon activity and the effectiveness of the acid wash circuit should be initiated. A pre-attritioning circuit is not existent and should also be installed to reduce losses from carbon fines.

Figure 17-1, Leach Pad Surface

There is sulfide mineralization below the current oxide operation that might be a future benefit to the project. The cost and recovery for processing sulfides is currently unknown. Florida Canyon sulfides contain pyrrhotite, which is more soluble than pyrite. Pyrrhotite releases ferric iron which is acid generating, meaning the pad will most certainly consume more lime and cyanide than the oxide pads.

Sulfide ore that is amenable to heap leaching is rare. It was done very successfully at Ortiz and possibly elsewhere, but at Ortiz the gold formed a surface film on the pyrite offering readily available gold. It has not been established that this is the case at Florida Canyon. Still, the fact that assay samples readily dissolve in cyanide is encouraging.

Another possibility for sulfide processing is flotation. Newmont has committed to continue, and possibly expand, their toll autoclave processing. Flotation testing on the sulfide material has not been done and should target maximizing gold grade in the concentrate and recovery. Testing would also give an indication of capital and operating costs for a sulfide flotation circuit.

18.0 PROJECT INFRASTRUCTURE

Florida Canyon has been in production intermittently since 1986 and all of the infrastructure that is required to sustain production is in place. Some infrastructure will need to be expanded or modified to complete the mine plan and mineral reserve.

Figure 18-1 is a recent site map provided by FCMI with additions and annotations by IMC. The mine is located adjacent to Interstate 80 which provides easy access to Reno, Salt Lake City, and the nearby mine support communities of Winnemucca and Elko, Nevada. Spare parts, process consumables, blasting agents, and fuel are ready available.

Power is supplied to the mine by a 60-Kv overhead transmission line owned and operated by NV Energy, the major power supplier in the state of Nevada. The power is delivered to an onsite substation. FCMI owns, operates, and maintains the substation. Mine site 25-Kv power lines feed distribution transformers at the crusher, process plant, refining, and other facilities on site.

Water requirements are met with underground wells on site. Florida Canyon has 2,415 acre-feet of water rights which are adequate to meet operational requirements. Some ground water is hot and is pumped to two cooling ponds before distribution via tanks and piping to the required locations on site.

The mine facilities include waste storage areas to the north and south of the pits. Maintenance shops, warehouse, offices, truck wash pad and fuel storage tanks are located just west of the pit and North leach pads.

The crushing plant was moved from the Standard Mine that is south of Florida Canyon to a location just northeast of the South Leach Pad. The plant is a primary jaw crusher with two cone crushers in parallel, two screens and an agglomerator. The crushing plant discharges to a stacker where the material is stored until it can loaded into trucks and transported to the leach pad.

The South Leach Pad is now the active pad. The South Pad is being constructed and utilized in phases. Phase 1 is near capacity and the first stage of the Phase 2 was approved for cyanide application on April 21, 2020. The additional pad area of the initial stage of Phase 2 will allow for more consistent and complete leach cycles going forward.

The active process ponds are located west of the South Pads. Modifications to the pads to correct design issues have been completed and the South Pad system will be used for the remainder of the mine life.

A total of six carbon columns are on site, four at the North pad and two and the South. Gold adsorption is generally completed using the South Pad columns. Carbon is transferred from the columns to a gold recovery plant and stripped of gold in the elution and electrowinning circuits. Barren carbon is acid washed, regenerated and returned to the carbon columns. Gold captured through the elution and electrowinning process is refined at the plant.

The carbon regeneration furnace has had air quality issues in the past. Engineering for modification is underway to resolve that issue in the future

The assay laboratory and metallurgical test laboratory are located in the plant area.

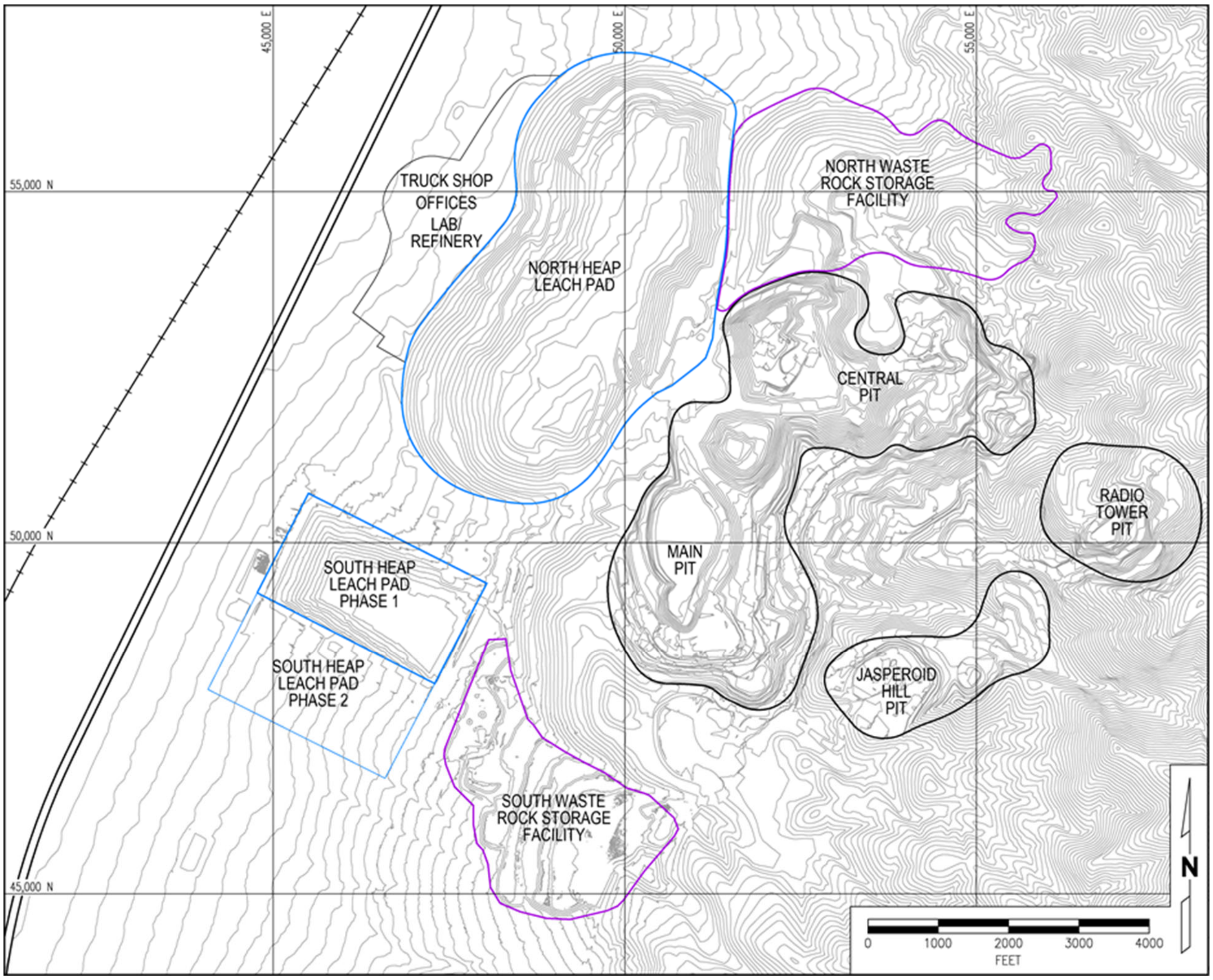


Figure 18-1 Site General Arrangement, Source IMC 2020

19.0 MARKET STUDIES AND CONTRACTS

The mine produces doré gold bars that are shipped to precious metals refineries, the majority going to facilities located in Salt Lake City. IMC is not aware of any contracts or hedging in place for gold sales.

Metal prices selected by Argonaut for development of mineral reserves were $1,350 per troy ounce and $1,600 per troy ounce ($/oz) for publication of mineral resources.

Metal prices were relatively stable through most of 2019. However, by early 2020, all commodities have become highly volatile due to the impacts of the Corona-virus pandemic.

The spot price of gold at the end of 2019 was $1,523/oz. To illustrate the recent volatility, the spot price on June 8, 2020 was $1,692 /oz

The three year backward average at the end of 2019 for gold was, $1,307/oz. Although no longer a criteria, the 3 year backward average is still a reasonable point of comparison for mine planning.

IMC and the qualified person, John Marek, are comfortable with the prices applied to the determination of mineral resources and mineral reserves.

Historic metal prices were extracted from Macrotrends.net between 1 April and 10 June 2020.

20.0 ENVIRONMENTAL STUDIES, PERMITTING, AND SOCIAL COMMUNITY IMPACT

FCMI has all permits in place to continue mine operations. Additional permits that are required for extension of the mine life are in progress to assure continuity of operation. Those are typically associated with the planned expansions of the South leach facility. Much of this text was originally published by SRK in the 2018 Technical Report. Since that publication the discussion has been edited and updated by Shane Johnson, Environmental Manager at FCMI who has been relied on as expert on the subject of environmental compliance at FCMI.

20.1 Environmental Studies

Florida Canyon Mine is partially located on public lands administered by the U.S. Department of the Interior, Bureau of Land Management (BLM), which necessitates approval of the mine Plan of Operations (PoO). Any amendment of the PoO, requires an assessment and disclosure of potential environmental and limited social impacts as part of the BLM's obligations under the National Environmental Policy Act (NEPA).

The Florida Canyon Mine Amended Plan of Operations #20 (referred to herein as APO 20) (ASW 2013) proposed changes to the previously amended and approved PoO, referred to as APO 18. The proposed changes were analyzed under NEPA in the Florida Canyon Mining, Inc. South Expansion Project Environmental Assessment DOI-BLM-NV-W010-2013-0061-EA (FCMI APO 20 EA) (BLM 2014). The FCMI APO 20 EA included baseline data collection and impact assessment for a number of resources, including:

- Air quality
- Cultural resources
- Environmental justice
- Invasive, non-native species
- Migratory birds
- Native American Religious Concerns
- Water quality (surface water/groundwater)
- Economics and social values
- Historic trails
- Noise
- Paleontology
- Public access
- Rangeland management
- Soil
- Special status species
- Vegetation
- Visual resources
- Wildlife

The FCMI APO 20 EA also included an assessment of Cumulative Impacts, which is a standard requirement by the BLM and NEPA. The final EA was offered for public comment from August 19 through September 19, 2014. Four comment letters were received and the FCMI APO 20 EA was revised accordingly. Subsequently, a Finding of No Significant Impact (FONSI) and Decision Record (DR) were issued on November 26, 2014. Additional environmental protection measures and BLM recommended mitigation were outlined in the DR for:

- Migratory birds, special-status species, and wildlife
- Cultural and paleontological resources
- Air emissions
- Nighttime lighting
- Native American religious concerns
- Erosion and sediment control
- Petroleum products/hazardous materials/solid and liquid waste
- Spill prevention, control and countermeasures
- Growth media storage and stockpile management
- Site-wide monitoring
- Vegetation and non-native invasive species
- Public safety, access and signage, etc.

The FCMI APO20 (2013) was approved and is the initial basis of operations at FCMI.

The FCMI APO 20 EA included an impact assessment of Special Status Species. No federally listed endangered or threatened species or their critical habitats are known to occur within the biological resources assessment area. However, based on field surveys and an evaluation of habitat features, BLM sensitive species are present or have the potential to occur within or near the Project Area. Field surveys conducted by AMEC (2014) recorded two sensitive plant species and 21 sensitive animal species utilizing habitats within the Assessment Area, including 4 raptors, 2 migratory birds, 2 small mammals, and 13 bats.

The FCMI APO 20 EA concluded that APO 20 would result in loss of habitat and individuals of two species of sensitive plants present in the Project Area; the sand cholla and Lahontan beardtongue. In fact, the FCMI APO 20 EA found that the implementation of APO 20 could extirpate the local population of Lahontan beardtongue (Penstemon palmeri var. macranthus), which may be at risk from hybridization with the Palmer penstemon (Penstemon palmeri var. palmeri) seeded on areas reclaimed after past mining activities at Florida Canyon. As such, the BLM recommended mitigation measure be implemented to protect this species.

Mitigation for the sensitive plant species was performed in 2015 and consisted of relocating populations.

20.2 Environmental Management Planning

Major management plans for Florida Canyon are described in the following sections. In addition, FCMI holds a number of permits which also have various environmental management requirements.

WPCP Management Plans

Environmental management plans are required under the State of Nevada Water Pollution Control regulations at NAC 445A.398 as part of a site's Water Pollution Control Permit (WPCP). The Florida Canyon Mine WPCP was last renewed in December 2016. The 2016 renewal application included an Operating Plan in Appendix F, which includes the following sections:

- Section 2 - Fluid Management Plan (as required by NAC 445A.398.2)
- Section 3 - Monitoring Plan (as required by NAC 445A.398.3)
- Section 4 – Sampling
- Section 5 - Emergency Response Plan (as required by NAC 445A.398.4)
- Section 6 - Temporary Closure Plan (as required by NAC 445A.398.5)
- Section 7 - Tentative Permanent Closure Plan (as required by NAC 445A.398.6)

A Seasonal Closure Plan was not included in the WPCP application, as per NAC 445A.399, because there are less than 30 consecutive days when the average daily temperature is below freezing at the Florida Canyon Mine,

Waste Rock Management

The WPCP sampling and reporting requirements includes quarterly sampling of waste rock with static testing requirements, followed up by kinetic testing depending on results received. The APO 20 also describes special waste rock management practices for unoxidized sulfide rock. Geochemical evaluations have shown that that waste rock material generated at the Florida Canyon Mine to date generally has an overall net acid-neutralizing potential. However, a small portion of the waste rock to be produced (0.2%) is unoxidized sulfide rock. Waste rock management practices described in the following paragraphs, are included in APO 20 (ASW 2013). The APO 20 mine plan estimates the sulfide material tonnage to be approximately 376,470 tons. This material will be handled in accordance with special waste rock handling procedures that are outlined as follows:

Following blasting and as part of ore/waste control measures, sulfide rock types exposed are segregated in blocks and removed separately from the oxide ore or left in place. Sulfide waste has been historically segregated from oxide (non-reactive) waste and placed within the primary north waste rock storage facility though placement is also authorized for the south waste rock storage facility. The non-oxide cells within the waste rock storage facilities are designed to isolate potentially reactive waste rock from water, air, and the plant root zone, and to prevent unrestricted infiltration of surface water through potentially reactive waste. The cells are also positioned on topographic highs between existing drainage channels and drainage diversions to minimize accumulation of subsurface water within the cell.

Sulfide material cells are constructed by end-dumping sulfide material between 50-foot lifts of oxide material. Following the placement of a 50-foot lift of oxide material growth medium is applied to the regraded waste rock storage facility surface to a minimum thickness of 1-foot to provide a suitable rooting medium for the reclaimed waste rock storage facility. Overall, waste rock storage facility surfaces are graded to a minimum slope of 3 percent away from the reclaimed crest towards the existing ground surface to promote runoff of direct precipitation. Diversion channels prevent run-on of storm water from the adjacent ground surface.

Known Environmental Issues Nitrate Plume

First identified through groundwater monitoring in 2000, the migration of nitrate from beneath the Florida Canyon HLP has been an issue with the Nevada Division of Environmental Protection – Bureau of Regulation and Reclamation (NDEP-BMRR). Several Findings of Alleged Violation (FOAV) and Orders have been issued on this matter; the first, for the release itself and the second for failing to properly address the release (and source). The final FOAV, which was issued on February 18, 2015, effectively shut down the heap from further solution application. The Florida Canyon Mine - Heap Leach Facility Final Permanent Closure Plan WPCP#NEV86001 (Knight Piésold, 2013) was then developed and submitted to the agency for review and approval. The plan involves closure of the center portion of the Florida Canyon HLP, making sure that leach solution applied to the northern portion of the facility would not migrate to the area under closure. One of the process ponds would be converted to an evaporation/transpiration test cell and drain-down from the closed portions of the Florida Canyon HLP would be managed per the plan (NDEP 2016).

The 2016 WPCP renewal included the following permit limitations regarding fluid application on the Florida Canyon HLP:

> Pursuant to the February 2015 Finding of Alleged Violation and Order, the limit of process solution or fresh water application, shall be no closer than 450 feet north of the northern extent of the Stage III separation berm between Stage III HLP expansion and the 1995 HLP expansion. This limit will be surveyed and marked with permanent signs indicating to operators and inspectors the limit, on the ground, at intervals at a maximum distance of 500 feet between each sign and shall be visible from the sign on either side. The South Heap Leach Pad Phase 1 through 3 is exempt from this restriction.

A report has been submitted to the NDEP-BMRR with quality assurance that the center portion of the Florida Canyon HLP has been closed in accordance with the closure plan. Ongoing monitoring and pump back well operation will continue until the site remediation is completed. Pump back system operations and reporting have been incorporated into the WPCP (NDEP 2016).

20.3 Required Permits and Status

A summary of the Florida Canyon Mine permits is included in Table 20-1. In some cases, the Florida Canyon Mine permits overlap with Standard Mine, as indicated. Permit status is discussed in the following sections.

Table 20-1
Current Permits for Florida Canyon

Regulatory Agency	Permit Name/Description	Status	Company	Number
Federal Permits				
BLM	Approved Plan of Operations Amendment APO 20	Approved Dec. 11, 2014	FCMI	APO 20 / BLM Case File Number N64628
BLM	FCMI APO 20 EA and FONSI	Approved November 2014	FCMI	DOI-BLM-NV-W010-2013-0061-EA
USGS	Production Report	Voluntary Survey	FCMI	--
USACE	Clean Water Act 404 Permit	Changes to be filed in 2020	FCMI	SPK-1993-00562, SPK-1994-00672, SPK-1996-25191, SPK-1997-25143, SPK-1998-25164, SPK-2001-25091, SPK-2002-25128
U.S. EPA	Hazardous Waste	Conditionally Exempt Small Generator	FCMI/ SGMI	NV0000441535
FCC	Radio Station Authorization	Expires 1/16/2026	FCMI	Registration No. 0014282289
FCC	Radio Station Authorization	Expires 8/23/2021	FCMI	Registration No. 0020884532
U.S. DOJ/BATF	Federal Explosives License/Permit	Permit held by Southwest Energy	Southwest Energy (Contractor)	9-NV-013-20-7L-00248

Table 20-1 (Continued)
Current permits for Florida Canyon

State				
NDEP-BMRR	Water Pollution Control Permit	Expires August 12, 2021	FCMI	NEV0086001
NDEP-BMRR (Reclamation Branch)	NAC 519A Reclamation Permit APO-20	Effective September 17, 2019	FCMI	#0126
NDEP-BAPC	Class II Air Quality Operating Permit	Issued July 9, 2018	SGMI, FCMI	AP 1041-0106.03
NDEP-BAQP	Mercury Operating Permit to Construct: Phase 2	Issued January 22, 2020	FCMI	AP 1041-2256
NDEP-BWPC	Mining Stormwater General Permit	Annual renewal due June 30, 2020	FCMI	MSW-176
NDEP-BWPC	Mining Stormwater General Permit	Annual renewal due June 30, 2020	SGMI	MSW-175
NDEP-BWPC	Stormwater Pollution Prevention Plan (SWPPP)	Approved. Renewal expected in 2020	FCMI	--
BSDW	Permit to Operate a Public Water System	Annual renewal due October 31, 2020	FCMI	PE-0884-TPOU2
BSDW	Permit to Operate a Public Water System	Annual renewal due October 31, 2020	FCMI	PE-0884-NTNC
NDOW	Industrial Artificial Pond Permit	Expires October 31, 2021	FCMI	S39296
NDOW	Industrial Artificial Pond Permit	Expires December 11, 2021	SGMI	S39297
NDOW	Industrial Artificial Pond Permit	Expires October 31, 2021	FCMI	S39299
NDWR	Florida Canyon Expansion Pond (Application for Approval of the Plans and Specifications for the construction reconstruction or alteration of a Dam)	Issued. Permit fees paid annually	FCMI	J-501

Table 20-1 (Continued)
Current Permits for Florida Canyon

Regulatory Agency	Permit Name/Description	Status	Company	Number
NDWR	Florida Canyon Utility Pond (Application for Approval of the Plans and Specifications for the Construction, Reconstruction or Alternation of a Dam)	Issued. Permit fees paid annually	FCMI	J-468
NDWR	Multiple Pond Locations (Application for Approval of the Plans and Specifications for the Construction, Reconstruction or Alternation of a Dam)	Issued. Permit fees paid annually	FCMI, SGMI	J-458
NDWR	South Process Ponds (Application for Approval of the Plans and Specifications for the Construction, Reconstruction or Alternation of a Dam)	Issued. Permit fees paid annually	FCMI	J-727
Nevada Board for the Regulation of Liquified Petroleum Gas	Liquefied Petroleum Gas Storage	Annual renewal due January 2021	FCMI	5-5450-01 & 5-5450-02
TRI	Toxic Release Inventory State	Annual reporting due July 1, 2020	FCMI/SGMI	N/A
NSFM	Nevada State Fire Marshal Hazardous Materials Permit	Expires February 28, 2021	FCMI	76468
NDEP	Class III Waivered Landfill	Expires January 13, 2021	FCMI	SW342a
NDEP-BWPC	On-site Sewage Disposal System - General Septic	Annual renewal due June 30, 2021	FCMI	GNEVOSDS09 L0095
Pershing County	Nevada Business License - Florida Canyon Mining, Inc.	Expires February 29, 2021	FCMI	NV19991176060
Pershing County	County of Pershing Business License	Expires June 30, 2020	FCMI	License No. 007113

FCMI also has water rights and appropriations, as well as monitor well waivers issued by the Nevada Division of Water Resources (NDWR) for 25 production and monitoring wells at both mines. Water rights issues are discussed in Section 20.3.2.

Federal Permitting

A mine PoO which describes the construction, operation, reclamation, and closure of each facility, along with a cost estimate for financial surety that presents the reclamation and closure costs if the federal agency is forced to reclaim the mine, is typically required for mining operations that are located on (or partially on) public lands administered by a federal agency. In Nevada, this is most often the BLM, as it is concerning the Florida Canyon Mine. This PoO also functions as the Reclamation Permit application for the NDEP-BMRR, who regulate mining on State and private lands (see below).

The "complete" PoO has to provide sufficient detail in order to identify and disclose potential environmental impacts during the mandatory NEPA review process, under which the potential impacts associated with project development are analyzed through the preparation of an Environmental Assessment (EA) and/or an Environmental Impact Statement (EIS). It is important to remember that EAs and EISs are public disclosure documents, not permit or approval documents. They are intended to disclose what, if any, environmental impacts may occur from the project and guide the decisions of the public land managers. The primary difference between the two types of NEPA documents is that an EA is prepared when no significant impacts are expected, or the potential impacts are unknown, and an EIS acknowledges the potential for significant impacts, and analyzes and discloses what those potential impacts are.

The BLM will generally look at several triggers to determine whether an EA or an EIS is the most appropriate document to disclose potential environmental impacts. These triggers include, but are not necessarily limited to:

- Number of acres that are proposed to be disturbed. The BLM will typically, but not always, consider 640 acres of proposed disturbance the threshold level for preparing an EIS. Depending on other factors, discussed below, projects less than 640 acres may still have to have an EIS prepared.
- If the proposed project is projected to have significant impacts to a critical element or resource, an EIS will have to be prepared.
- The BLM's perception of how defendable an EA would be to the public. If the BLM anticipates that there are factors that may not pass an appeal by Non-Governmental Organizations or public opposition is expected to be significant, they are likely to determine that an EIS is necessary from the beginning.

The most recent Florida Canyon Mine PoO is APO 20 (BLM Case File N64628). APO 20 was evaluated under NEPA under the FCMI APO 20 EA (BLM 2014). A FONSI and Decision Record were issued for the FCMI APO 20 EA in November 2014.

On August 15, 2017, President Donald J. Trump issued Executive Order (EO) 13807 titled Establishing Discipline and Accountability in the Environmental Review and Permitting Process for Infrastructure. While EO 13807 was specifically targeted at large infrastructure project, the Secretary of the Interior, through his Order 3355 issued on August 31, 2017, broadened the scope of the streamlining efforts to include all U.S. Department of the

Interior (including the BLM) NEPA analyses. The various BLM districts in Nevada have been attempting to interpret and implement Order 3355 to the best of their abilities. In the event that modifications to the PoO are proposed which would require analysis under NEPA, the project could be affected by these changes.

The other federal permits associated with topics in Table 20-1 which may be required can generally be acquired in much shorter timeframes than PoO authorization.

State Permitting

The State of Nevada requires a number of operational mining permits regardless of the land status of the project. The following are the principal state permits required for mining, regardless of land ownership.

Water Pollution Control Permit – NDEP-BMRR

A WPCP is issued by the Department of Conservation and Natural Resources, NDEP-BMRR, to an operator prior to the construction of any mining, milling, or other beneficiation process activity. The need for a WPCP is not dependent on whether a water discharge is intended, or the quantity of ore to be extracted or processed. Facilities utilizing chemicals for processing ores are generally required to meet zero discharge performance standards. A separate permit may be issued for certain activities at a specific facility, or a permit may be issued for all activities at a single facility. A WPCP is required for the extraction of ore or previously processed material for beneficiation at any site. The WPCP is intended to ensure that Nevada's waters are not degraded by mining operations.

The Florida Canyon Mine is currently permitted under WPCP NEV0086001 which is valid until August 12, 2021.

Reclamation Plan – NDEP-BMRR

The Reclamation Branch issues a Reclamation Permit to an operator prior to construction of any exploration, mining, milling or other beneficiation process activity that proposes to create disturbance over 5 acres or remove in excess of 36,500 tons of material from the earth. The Reclamation Permit, which is issued in conjunction with the BLM 43 CFR § 3809 PoO (when mixed land status is involved), is intended to ensure that the lands disturbed by mining operations are reclaimed to safe and stable conditions to ensure a productive post-mining land use. Both the BLM PoO and NDEP-BMRR Reclamation Permit must include a financial surety to ensure that reclamation will be completed.

The Florida Canyon Mine is currently permitted for reclamation under the state Reclamation Permit #0126, and by the BLM under approval of APO 20 and the FCMI APO 20 EA.

Air Quality Operating Permit – NDEP-BAPC

Air quality permits are issued by the Bureau of Air Pollution Control (BAPC). While permitted separately in other regards, the Class II Air Quality Operating Permit covers both the Florida Canyon Mine and Standard Mines. The Florida Canyon Mine is covered under Class II permit AP1041-0106.03 and Mercury Operating Permit to Construct: Phase 2 (AP 1041-2256).

Water and Stormwater – NDEP-BWPC

Water-related issues (e.g., stormwater discharges, sanitary septic systems, and underground injection control) are generally regulated by the Bureau of Water Pollution Control (BWPC). Stormwater discharge permits are required for certain activities by U.S. EPA regulations at 40 CPR 122.26(b)(14). In compliance with this regulation, the BWPC will issue General Permit (NVR300000) for Stormwater Discharges Associated with Industrial Activity from Metals Mining Activities. The Stormwater Pollution Prevention Plan (SWPPP) is required under this permit.

Water Appropriations – NDWR

The NDWR is responsible for quantifying existing water rights; monitoring water use; distributing water in accordance with court decrees; reviewing water availability; and, reviewing the construction and operation of dams (among other regulatory activities).

Florida Canyon owns 2,415.22 acre-feet (ac-ft) of permitted and certificated underground water rights for the Florida Canyon Mine (Table 20-2). Florida Canyon's water rights are managed and maintained by TEC Civil Engineering Consultants and are currently in good-standing with the NDWR. An inventory of water rights for Florida Canyon and Standard mines is provided in Table 20-2.

Table 20-2
Florida Canyon Water Rights

Permit	Cert. #	Well ID	Div. Rate (cfs)	Duty (AFA)	Notes
48997	13237	PW-2	0.68	102.24	PBU filed for Permit 61203 on 2/1/2011. Certificate issued December 4, 2019. Permits 87181 & 87182 transferred from PW-1 Well (former Permits 48998 & 57097. Total combined duty of all permits is 321.31 AFA
57096	21760		0.1	32.78	
61203			0.11	79.64	
87181			0.9	58.62	
87182			0.2796	48.03	
61707		PW-5	0.100	72.40	
61643		PW-6	1.080	780.98	
61644		PW-7	1.100	796.37	
76621 84125	21653	WS-1	1.000	327.67	PBU for Permit 76621 filed 7/23/2013. Certificate issued December 4, 2019. Total combined duty of both Permits is 527.67 AFA.
			0.6104	200.00	
80979		WS-3	0.300	44.61	Total combined duty of both permits is 89.22 AFA
82831			0.29	44.61	
50061	13953	Trailer 1	0.045	3.13	Total combined duty of both permits is 7.46 AFA
50248	14448	Trailer 2	0.190	4.32	
79819-E		MW-16D	0.020	20.50	Total combined duty of all Environmental Permits is 20.50 AFA. No Proof of Beneficial Use is required
		MW-I	0.030		
79820-E		MW-16	0.010		
		MW-16B	0.020		
		MW-GA	0.030		
		MW-K	0.030		
		MW-M	0.020		
		MW-N	0.020		
		MW-O	0.030		
80098-E		MW-V	0.010		
82357-E		MW-29	0.300		
82358-E		MW-31	0.150		
87426-E		MW-KA	0.020		
1054	27	Humboldt Spring	0.025	18.1	Ownership is confirmed by NDWR.

Other State Permits

Other state permits generally required for mining operations in Nevada include:

- Approval to Operate a Solid Waste System – NDEP, Bureau of Waste Management (BWM)
- Hazardous Waste Management Permit – NDEP, BWM
- Drinking Water Supply Facilities – NDEP, Bureau of Safe Drinking Water (BSDW)
- Industrial Artificial Pond Permit – Nevada Department of Wildlife (NDOW)
- Petroleum Contaminated Soils waiver – NDEP
- Liquified Petroleum Gas Storage – Nevada Board for the Regulation of Liquified These permits can be acquired in much shorter timeframes. Their discussion henceforth is limited.

Local Permitting

A Special Use Permit is generally required by the county; usually a copy of the PoO is sufficient information for the county to review and issue this permit. In some cases, building permits are required as well.

Florida Canyon Permit Compliance

The permits required for operation of the Florida Canyon Mine appear to be in place, and, with a few minor exceptions, in effect. The major operating permits for the mine are the BLM Plan of Operations approval of subsequent amendments (APO 20) which authorize the use and disturbance of federal lands, the WPCP NEV86001 which authorizes the process facilities, and the Class II Air Quality Operating Permit (AP1041-0106.03) which essentially authorizes the mine to operate and control all air emissions.

The other major State permit, the Reclamation Permit #0126 was authorized as part of the approval process for APO 20 on November 4, 2014. The approved permit contains one Schedule of Compliance requirement, which requires FCMI to "Complete installation of all permanent contact and non-contact storm water diversion structures consistent with approved engineering designs". Construction currently continues on the installation of the non-contact storm water diversion structures.

In addition, the 2016 WPCP renewal includes specific facility conditions and limitations including the following schedule of compliance items:

1) Prior to introducing solution into the Process Pond S-1, the Permittee shall complete relining of the pond in accordance with a Division approved design and submit a construction report with as-built drawings and Quality Assurance/Quality Control information. Permit modification fees may apply.

Process Pond S-1 has been abandoned and is scheduled for conversion to a test Evaporative Cell in 2020.

2) Upon closure of the Barren Pond, when cessation of operation allows for removal of the piping and other infrastructure presently blocking access to the existing liner anchor trench, and prior to conversion of the pond to an evapotranspiration cell, the Permittee shall submit to the Division an application for Permit modification proposing replacement of the primary liner using a conventional anchor trench design. The secondary liner, welded to the existing, anchored liner, may remain after testing of the weld, according to a procedure approved by the Division, confirms that it is sound over the entire length.

Future Permit Amendments

No NEPA-level Plan of Operations Amendments are currently under consideration.

Water Pollution Control Permit

Water Pollution Control Permit NEV86001 has been modified to include Phases I and II of the South Heap Leach Pad. Modification for the final Phase III is anticipated to be submitted in 2021.

Air Quality Permit

The permitting branches in the BAPC issue air quality operating permits to stationary and temporary mobile sources that emit regulated pollutants to ensure that these emissions do not harm public health or cause significant deterioration in areas that presently have clean air. A Class II permit, which has been issued to FCMI and covers both Florida Canyon and Standard (AP1041-0106.03), is issued for facilities that emit less than 100 tons per year for any one regulated pollutant and emit less than 25 tons per year total Hazardous Air Pollutants (HAPs) and emit less than 10 tons per year of any one HAP. This permit essentially acts as the facility operating permit, as no mining or processing can occur without it.

The Class II permit currently limits crusher throughput to 1,600 tons per hour and 14-Mtons per year. In the event that FCMI would consider increasing crusher throughput, this permit would need to be modified. The remaining permits activities would be limited to scheduled renewals and updates of older permits. No material permitting issues are anticipated.

Radio Tower

RPG's proposed expansion of the Radio Tower pit is likely to result in the removal of the hill on which two radio towers and one access road are located; thus, necessitating the removal and/or relocation of those facilities. Notwithstanding the legal and financial costs of such an action, FCMI will need to address the permitting consideration of this action. Typically, communication sites on federal public lands are granted under simple rights-of-way (ROW), which should be eclipsed by the underlying mineral rights, and is typically not a high-risk issue. There are three ROW grant authorizations associated with the Radio Tower pit, which include the following serial numbers:

- NVN-005656
- NVN-006407
- NVN-022262

Agreements for the relinquishment of the ROWs should be investigated more closely with FCMI.

FCMI is currently in the process of obtaining all necessary Agency approvals and coordinating the removal and replacement of the Radio Tower site with the appropriate stakeholders. Stakeholders have agreed to a proposed new location.

20.4 Social and Community Requirements

Employees for the operating work force of the Florida Canyon Mine generally come from Winnemucca or Lovelock, Nevada. The FCMI APO 20 EA determined that the mine would result in a temporary positive effect on mine-related employment and income in terms of labor income and secondary employment. It was also concluded that net mineral proceeds, property and sales and use taxes would also increase during the life of the assessed action.

20.5 Mine Closure

<u>Regulatory Requirements</u>

Florida Canyon has a closure plan submitted to agencies per requirements for closure described in detail in the Water Pollution Control regulations (NAC 445A) in Nevada. Agency-approved closure plans for Florida Canyon reside in WPCP #NEV0086001 and a final permanent closure plan was submitted for the Florida Canyon HLP.

Relevant documents are the following:

- Water Pollution Control Permit #NEV0086001 Major Modification Florida Canyon Mine South Area Expansion, Section 7 - Tentative Permanent Closure Plan
- Florida Canyon Mine Heap Leach Facility Final Permanent Closure Plan (Knight Piésold, 2013).

In addition, the Florida Canyon Mine is permitted under Reclamation Permit #0126. Under this reclamation permit, FCMI is limited to 2,965.3 acres of surface disturbance. Both the BLM's 43 CFR § 3809 and State of Nevada's mine reclamation regulations (NAC 519A) require closure and reclamation for mineral projects. Closure of process facilities is also regulated with the WPCP and the NAC 445A. The reclamation procedures currently used at the mine incorporate the following basic components, as described in APO 20 (ASW 2013):

- Establishment of stable topographic surface and drainage conditions that would be compatible with the surrounding landscape and serve to control erosion.
- Establishment of soil conditions conducive to establishment of a stable plant community through stripping, stockpiling, and application of a suitable growth media.
- Revegetation of disturbed areas to establish a long-term, productive biotic community compatible with proposed post-mining land uses.
- Reduction or elimination of potential environmental impacts.
- Protection of public safety through stabilization, removal, and/or fencing of structures or landforms that could constitute a public hazard.
- Consideration of the long-term visual character of reclaimed areas.

Aside from concurrent reclamation, described below, it is proposed that reclamation activities will be performed in 2 separate timeframes, initial reclamation activities following the cessation of mining and reclamation activities following the proposed post-closure monitoring period.

Factors that could result in changes to the Mine include but are not limited to:

- Delineation drilling of the deposits continues in an effort to better define the precise limits of the ore body. Depending upon this work, the ultimate pit limits could shift.
- The quantity of overburden that can be economically removed to reach the reserves tends to change with time as costs and mining technology change.
- Gold price fluctuations affect economic pit limits.

<u>Reclamation Bonding and Closure Cost Estimates</u>

Pursuant to state and federal regulation, any operator who conducts mining operations under an approved PoO or reclamation permit must furnish a bond in an amount sufficient for stabilizing and reclaiming all areas disturbed by the operations. Conceptual reclamation and closure methods were used by FCMI to evaluate the various components of the project to estimate the reclamation costs. Version 1.1.2 of the Nevada Standardized Reclamation Cost Estimator (SRCE) was used by FCMI to prepare the Florida Canyon Mine reclamation bond cost estimate as part of the Reclamation Permit application. The SRCE uses first principles methods to estimate quantities, productivities, and work hours required for various closure tasks based on inputs from the user. The physical layout, geometry, and dimensions of the proposed project components were based on the current understanding of the site plan and facilities layout. These included current designs for the main project components including the well field infrastructure, and process plant components. Equipment and labor costs were conservatively estimated using state and BLM-approved costs for the 2017 calendar year. The regulatory-required, third-party conducted, reclamation bond cost estimate for the Florida Canyon Mine (as calculated for the December 2017 submittal) was approximately $30M. The first-party (FCMI-conducted) closure cost estimate, provided by FCMI and used in the technical economic model, is $16.8M, and considers the reduced labor and equipment rates of self-implementation over state/federal rates used for bonding, and has taken credit for partial, concurrent cash bond releases during the first few years of reclamation when the majority of the earthworks are customarily completed.

Existing Bonding at Florida Canyon

FCMI has two separate sureties as required by the NDEP and BLM, a trust fund for long-term management of groundwater fluids associated with the leach pad (Florida Canyon Long Term Trust Fund) and a reclamation surety to fund short-term closure and reclamation of the disturbance associated with mining operations. According to NAC 519A.350 these surety instruments can take several forms:

The surety may be one or combination of the following:

- A trust fund
- A bond
- An irrevocable letter of credit
- Insurance
- A corporate guarantee
- Any combination thereof

Although the total liability must be covered by any combination of the above surety types, the type and amount of bond type will vary by site. The financial strength of an operating company will dictate the amount of the bond that can be secured from a third party, and the remainder is usually posted as a cash equivalent financial surety (e.g., Certificate of Deposit). Currently, 10% of the Florida Canyon bond is backed with collateral and 10% of the Standard Mine bond is backed with collateral. The remainder of these appear to be guaranteed by insurance companies.

21.0 CAPITAL AND OPERATING COSTS

The mine capital and operating costs reported here are based on recent operating costs actually incurred at Florida Canyon and on modified budget estimates of planned capital expenditures for the remainder of the mine life. Changes to project capital and operating costs that Argonaut expects to incur are summarized.

<u>Operating Costs</u>

Table 21-1 summarizes the actual average operating costs for the period of January through April 2020. This information was reported in the FCMI monthly reports. The mine operating costs are currently less than expected due to the use of recently leased new equipment from Caterpillar with high availability and productivity. FCMI has an agreement with Caterpillar that includes the equipment lease and a MARC (maintenance and repair contract) to assure equipment availability. The lease costs are reported as capital expenditures.

Mine operating costs are expected to increase with time as the more distal pits begin to make up future production and haul destinations are not changed from current practice. However, if the crusher is relocated and in-pit dumping into finished pits can be utilized, the costs will stay in the range of current prices. Pit designs and scheduling utilized an average mine operating cost which is higher than the value shown below.

Table 21-1
Recent Mine Operating Costs January to April 2020

Cost Category	Production Jan-Apr ktons	Cost Jan-Apr $ x 1000	Unit Cost $/ton	Units
Mining	7,595	ktons total material		
		$9,566	1.26	$/ton Total Material
Processing	2,972	ktons stacked to pad		
Crushing		$2,423	0.82	$/ton Stacked
Leaching		$3,527	1.19	
ADR Plant		$1,020	0.34	
Pad Loading		$794	0.27	
Metallurgy		$119	0.04	
Assay Lab		$408	0.14	
Total Process		$8,291	2.79	$/ton Stacked
Administration		$1,315	0.44	$/ton Stacked
Process + Admin			3.23	$/ton Stacked

<u>Capital Costs</u>

Estimated project life capital costs are summarized on Table 21-2. The source of the estimate was a mine life cash flow analysis assembled by Argonaut in early July 2020 that built on a capital budget developed by Alio.

The Argonaut estimates of capital in $x1,000 are summarized below:

Last Half 2020: Complete the various capital projects including the South Leach Pad Expansion = $11,600
Optimize the crushing and conveying process = $9,000

2021: Plant and equipment sustaining capex = $5,000

2022: Expand the South Leach Pad with the 3rd Phase = $22,000

2023 – 2024: Plant and equipment sustaining capex = $5,000 / yr

2025: Add a 100 ton truck to the fleet at $1,900 plus ongoing sustaining of $5,000

Equipment Capex in every year reflects the Caterpillar lease agreement for the current fleet. Capitalized Debt Payments reflect debt commitments on the books.

Table 21-2
Argonaut Estimated Mine Life Capital Cost Estimate

Mine Life Capex	Mine Life Total $x1000	Annualized Capital Estimate, $ x 1000									
		2020, 6mo	2021	2022	2023	2024	2025	2026	2027	2028	2029
Sustaining Capex	$66,500	$20,600	$5,000	$22,000	$5,000	$5,000	$6,900	$2,000			
Equipment Capex	$46,575	$2,975	$5,100	$5,100	$5,100	$5,100	$5,100	$5,100	$5,100	$5,100	$2,800
<u>Capitalized Dept Payments</u>	<u>$29,958</u>	<u>$3,558</u>	<u>$5,600</u>	<u>$5,200</u>	<u>$5,200</u>	<u>$7,700</u>	<u>$2,700</u>	<u>$0</u>	<u>$0</u>	<u>$0</u>	<u>$0</u>
Total Annual Capital	$143,033	$27,133	$15,700	$32,300	$15,300	$17,800	$14,700	$7,100	$5,100	$5,100	$2,800

The optimal time for the crusher move could be later than 2020 which would delay capital expenditure. During 2021, the pit will utilize the five used 100 ton haul trucks that are currently the fleet to augment the newer leased units. The crusher move is intended to reduce the haul truck fleet requirements so that only one additional unit is required in 2025.

The crusher move is estimated to reduce process opex by $0.27/ton by eliminating the rehandle of crushed ore from the crusher discharge into the haul truck and by reducing haul costs of crushed ore to the pad.

22.0 ECONOMIC ANALYSIS

Table 22-1 summarizes a financial analysis of the current mine plan and mineral reserve with metal prices of $1,350/oz gold and $15.00/oz silver. The unlevered free cash flow is $132.7M and the NPV 5% is $85.0M as of June 1, 2020. The mine life cash cost per ounce averages $881/oz incorporating the silver credit. The following assumptions are incorporated into that analysis:

Gold Price, $1,350/oz
Silver Credits $15.00/oz, Silver byproduct metal production is based on historic credits.

Estimated Capital

Last Half 2020: Complete various capital projects including the South Leach Pad Expansion = $11.6 M
Optimize the crushing and conveying process = $9 M
2021: Plant and equipment sustaining capex = $5 M
2022: Expand the South Leach Pad with the 3rd Phase = $22 M
2023 – 2024: Plant and equipment sustaining capex = $5 M / yr
2025: Add a 100 ton truck to the fleet at $1.9M plus ongoing sustaining of $5 M

Caterpillar Lease is capitalized at $5.1M / year

Mining Operating Cost
$1.44 / ton material moved

Process Operating Cost and G&A
$3.21/ton ore processed in 2020, reducing to $2.94/ton ore process in 2021 after moving the crushing plant.
The optimal time to move the crusher could be somewhat later resulting in delayed capital and extension of the higher operating cost until the move is complete.

Figures 22-1 through 22-3 summarize the project cash flow sensitivity to changes in metal price, capital cost, and operating cost.

Table 22-1
Summary of Financial Analysis

Florida Canyon Mine

(US$ millions, unless otherwise indicated)

	Total / Average	2020E	2021E	2022E	2023E	2024E	2025E	2026E	2027E	2028E	2029E
Mining Schedule											
Mining (000's)											
Oxide	82,176	5,250	9,000	9,000	9,000	9,000	9,000	9,000	9,000	9,000	4,926
Tons Ore Mined	**82,176**	**5,250**	**9,000**	**9,000**	**9,000**	**9,000**	**9,000**	**9,000**	**9,000**	**9,000**	**4,926**
Total Grade											
Mining (oz / t)	0.012	0.010	0.011	0.012	0.014	0.012	0.011	0.012	0.014	0.013	0.016
Waste											
Tons Waste Mined (000's)	142,616	10,750	18,370	18,370	16,550	16,550	16,550	16,288	16,550	10,283	2,355
Strip Ratio (Waste to Ore)	1.74x	2.05x	2.04x	2.04x	1.84x	1.84x	1.84x	1.81x	1.84x	1.14x	0.48x
Total Material Mined											
Tons Material Mined (000's)	224,792	16,000	27,370	27,370	25,550	25,550	25,550	25,288	25,550	19,283	7,281
Processing Schedule											
Crusher Feed											
Mining	82,176	5,250	9,000	9,000	9,000	9,000	9,000	9,000	9,000	9,000	4,926
Tons Ore to Crusher (000's)	**82,176**	**5,250**	**9,000**	**9,000**	**9,000**	**9,000**	**9,000**	**9,000**	**9,000**	**9,000**	**4,926**
Heap Leach - Ore											
Oxide	82,176	5,250	9,000	9,000	9,000	9,000	9,000	9,000	9,000	9,000	4,926
Total Tons Ore to Leach Pad (000's)	**82,176**	**5,250**	**9,000**	**9,000**	**9,000**	**9,000**	**9,000**	**9,000**	**9,000**	**9,000**	**4,926**
Leach Grade Au (goz/ton)	*0.012*	*0.010*	*0.011*	*0.012*	*0.014*	*0.012*	*0.011*	*0.012*	*0.014*	*0.013*	*0.016*
Heap Leach - Contained Au (000's oz)											
Oxide	1,019.2	52.2	95.1	108.3	129.2	105.4	102.4	106.0	126.4	114.7	79.5
Total Contained Au (000's oz)	**1,019.2**	**52.2**	**95.1**	**108.3**	**129.2**	**105.4**	**102.4**	**106.0**	**126.4**	**114.7**	**79.5**
Heap Leach - Recoverable Au — Recovery											
Oxide — 70%	713.5	36.6	66.6	75.8	90.4	73.8	71.7	74.2	88.5	80.3	55.6
Au oz Recoverable (000's)	**713.5**	**36.6**	**66.6**	**75.8**	**90.4**	**73.8**	**71.7**	**74.2**	**88.5**	**80.3**	**55.6**
Au Recovery (%)	*70.0%*	*70.0%*	*70.0%*	*70.0%*	*70.0%*	*70.0%*	*70.0%*	*70.0%*	*70.0%*	*70.0%*	*70.0%*
Drawdown — 20.0	20.0			--	--	--	--	--	--	--	20.0
Au oz Produced (000's)	733.5	36.6	66.6	75.8	90.4	73.8	71.7	74.2	88.5	80.3	75.6
Ag oz Produced (000's)	512.8	31.4	65.8	75.8	79.9	77.6	73.9	66.9	26.3	15.2	--
Au Eq. oz Recovered (000's)	**739.2**	**36.9**	**67.3**	**76.7**	**91.3**	**74.6**	**72.5**	**74.9**	**88.8**	**80.5**	**75.6**
Au Recovery (%)	*72.5%*	*70.7%*	*70.8%*	*70.8%*	*70.7%*	*70.8%*	*70.8%*	*70.7%*	*70.2%*	*70.1%*	*95.2%*
Revenue											
Gold Revenue at $1,350/oz	$990.2	$49.3	$89.9	$102.4	$122.1	$99.6	$96.7	$100.1	$119.5	$108.4	$102.1
Silver Revenue at $15.00 /oz	$7.7	$0.5	$1.0	$1.1	$1.2	$1.2	$1.1	$1.0	$0.4	$0.2	--
Total Revenue	**$997.9**	**$49.8**	**$90.9**	**$103.5**	**$123.3**	**$100.7**	**$97.9**	**$101.1**	**$119.9**	**$108.7**	**$102.1**
Operating Costs											
Total Operating Costs - Per Unit (USD)											
Mining (per ton of material)		$1.44	$1.44	$1.44	$1.44	$1.44	$1.44	$1.44	$1.44	$1.44	$1.44
Processing (per ton processed)		$2.77	$2.50	$2.50	$2.50	$2.50	$2.50	$2.50	$2.50	$2.50	$2.50
Mine G&A (per ton processed)		$0.44	$0.44	$0.44	$0.44	$0.44	$0.44	$0.44	$0.44	$0.44	$0.44
Adjusted Operating Costs - Total (US$ mm)											
Mining	$323.7	$23.0	$39.4	$39.4	$36.8	$36.8	$36.8	$36.4	$36.8	$27.8	$10.5
Processing	$212.9	$14.5	$22.5	$22.5	$22.5	$22.5	$22.5	$22.5	$22.5	$22.5	$18.3
Mine G&A	$36.2	$2.3	$4.0	$4.0	$4.0	$4.0	$4.0	$4.0	$4.0	$4.0	$2.2
Royalty, Bond Payments, NV Proceeds	$78.4	$4.1	$8.6	$10.1	$11.6	$10.2	$9.7	$9.3	$6.6	$4.5	$3.7
Refining	$2.5	$0.1	$0.2	$0.3	$0.3	$0.3	$0.3	$0.3	$0.3	$0.3	$0.3
Total Adjusted Operating Costs	**$653.6**	**$44.1**	**$74.7**	**$76.2**	**$75.1**	**$73.7**	**$73.3**	**$72.4**	**$70.1**	**$59.0**	**$34.9**
Cash Costs - Co-Product (US$/oz Au Eq.)	$884	$1,196	$1,109	$994	$823	$988	$1,011	$967	$790	$733	$462
Cash Costs - By-Product (US$/oz Au)	$881	$1,194	$1,107	$990	$817	$984	$1,007	$963	$788	$732	$462
AISC - Co-Product (US$/oz Au Eq.)	$1,044	$1,850	$1,268	$1,355	$940	$1,304	$1,185	$1,070	$855	$634	$501
AISC - By-Product (US$/oz Au)	$1,041	$1,855	$1,267	$1,355	$936	$1,304	$1,183	$1,067	$853	$633	$501
Fixed Asset Schedule											
Sustaining Capex											
Sustaining - Total Cost (US$ mm)	$66.5	$20.6	$5.0	$22.0	$5.0	$5.0	$6.9	$2.0	--	--	--
Equipment	--										
Equipment - Total Cost (US$ mm)	$46.5	$3.0	$5.1	$5.1	$5.1	$5.1	$5.1	$5.1	$5.1	$5.1	$2.8
Capitalized Debt payments											
Development - Total Cost (US$ mm)	$30.0	$3.6	$5.6	$5.2	$5.2	$7.7	$2.7	--	--	--	--
Total Capital Expenditures	**$143.0**	**$27.1**	**$15.7**	**$32.3**	**$15.3**	**$17.8**	**$14.7**	**$7.1**	**$5.1**	**$5.1**	**$2.8**
Unlevered Free Cash Flow - Pre Tax											
EBIT	$243.9	$4.3	$12.2	$18.9	$35.6	$14.0	$9.2	$11.1	$26.9	$47.0	$64.4
Depreciation	100.4	1.4	4.0	8.4	12.5	13.0	15.4	17.6	22.8	2.6	2.8
Reclamation	(33.5)	--	--	--	--	--	--	--	(10.0)	(13.5)	(10.0)
Capital Expenditures	(143.0)	(27.1)	(15.7)	(32.3)	(15.3)	(17.8)	(14.7)	(7.1)	(5.1)	(5.1)	(2.8)
Unlevered Free Cash Flow	**$167.7**	**($21.4)**	**$0.5**	**($5.0)**	**$32.9**	**$9.2**	**$9.9**	**$21.6**	**$34.6**	**$31.1**	**$54.4**
Discounted Cash Flow - Pre Tax											
Discount Rate											
5%		$109.6	$136.5	$142.8	$154.9	$129.8	$127.1	$123.6	$108.2	$78.9	$51.8
Unlevered Free Cash Flow - After Tax											
EBIT	$243.9	$4.3	$12.2	$18.9	$35.6	$14.0	$9.2	$11.1	$26.9	$47.0	$64.4
Depreciation	$100.4	$1.4	$4.0	$8.4	$12.5	$13.0	$15.4	$17.6	$22.8	$2.6	$2.8
Reclamation	($33.5)	--	--	--	--	--	--	--	($10.0)	($13.5)	($10.0)
Capital Expenditures	($143.0)	($27.1)	($15.7)	($32.3)	($15.3)	($17.8)	($14.7)	($7.1)	($5.1)	($5.1)	($2.8)
Cash Taxes	($35.0)	--	--	($0.5)	($7.3)	($2.6)	($1.9)	($2.7)	($5.0)	($4.4)	($10.5)
Unlevered Free Cash Flow	**$132.7**	**($21.4)**	**$0.5**	**($5.5)**	**$25.6**	**$6.6**	**$7.9**	**$18.9**	**$29.6**	**$26.6**	**$43.9**
Discounted Cash Flow - After Tax											
Discount Rate											
5%		$85.0	$110.7	$115.7	$127.0	$107.8	$106.6	$104.0	$90.3	$65.2	$41.8

Figure 22-1
Project Sensitivity to Metal Price

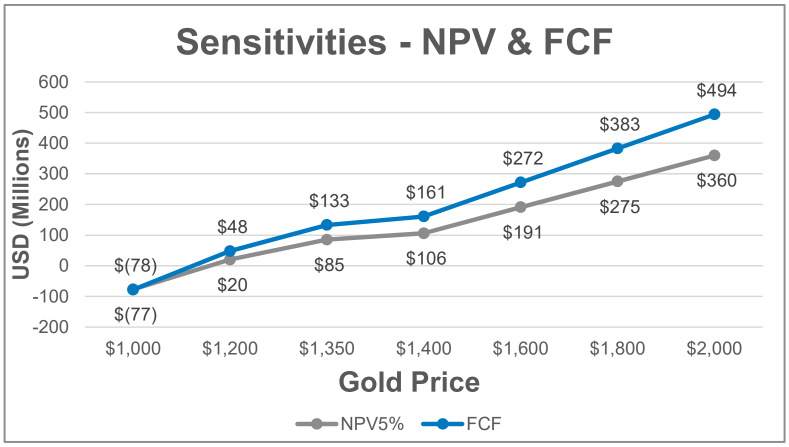


Figure 22-2
Project Sensitivity to Operating Cost

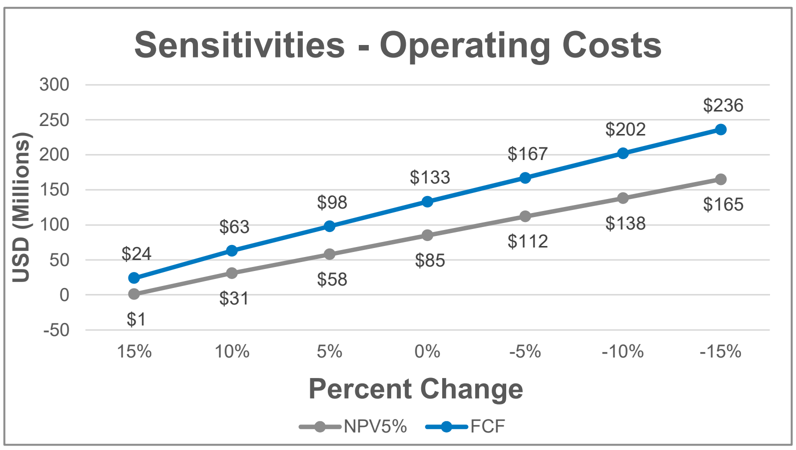
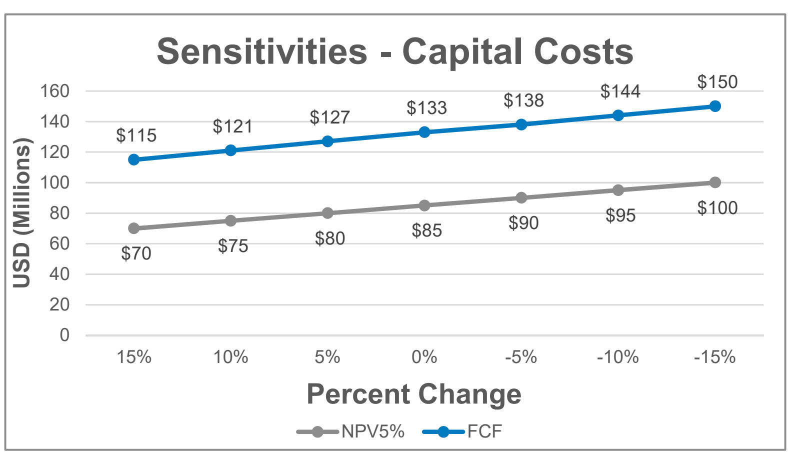


Figure 22-3
Project Sensitivity to Capital Cost



23.0 ADJACENT PROPERTIES

The closest property to Florida Canyon is the Standard Mine located about 3 ½ miles south of Florida Canyon and part of the property position held by Argonaut. The Standard Mine was started operation in 1939. It was operated intermittently as late as 2006. The Standard Mine is not in production and there are no current plans to re-open it.

The Rochester Mine is located about 25 miles south of Florida Canyon which has been producing silver by heap leaching since the early 1980s. Rochester is operated by Coeur Mining.

The Hycroft Mine is located about 50 miles west-northwest of Florida Canyon and produced gold by heap leaching for a number of years.

The Turquoise Ridge mine of Nevada Gold Mines is located 61 miles northeast and their Twin Creeks mine complex is located about 80 miles northeast of Florida Canyon.
Lone Tree of Nevada Gold Mines is about 54 miles east-northeast of FCMI.

The Marigold Mine of SSR Mining is about 55 miles east of Florida Canyon.

24.0 OTHER RELAVENT DATA AND INFORMATION

All relevant data and information has been provided in the previous and subsequent sections of this report.

25.0 INTERPRETATIONS AND CONCLUSIONS

The Florida Canyon project is a low grade heap leach gold operation that has endured multiple owner-operators and variable economic conditions over its mine life.

The deposit has been exploited for many years and the remaining mineral reserves are low grade. Recent efforts to reduce operating costs and improve throughput are necessary and appropriate. Current gold prices in the range of $1,650 to $1,700 per ounce provide some degree of operating cushion to assure continued operation.

Despite the long history, there are challenges to accurately report remaining oxide mineral resources and mineral reserves. Those challenges are exasperated by a data base that by all indications is biased by the drilling and sample collection process. Recent work by FCMI staff to modify the resource model and reconcile against historic production are proper and should be continued. Additional work can be done to further improve the model.

Any long term future at Florida Canyon will be tied to the known sulfide mineralization at depth. The tonnage, grade, extent, and process requirements of that material might contribute to a longer mine life than currently estimated. Only minor work has been done to evaluate sulfide mineralization.

The management and staff currently working at Florida Canyon are well motivated and sufficiently experienced to make substantial improvements in the operation. Over the last 12 to 18 months major improvements have already occurred under the on-site team.

Metallurgy and Processing Conclusions by Jim Arnold

1) Virtually no test work has been done on the sulfide material. Cyanide solution assays show that much of the gold in the sulfides is not refractory. The gold dissolves. But it should not be assumed that this is an indication that the sulfides are leachable in a heap. Hot cyanide assays involve a very high pH and a very aggressive environment that is not comparable to ambient conditions on a leach pad. Also the material in an assay is ground, not crushed, exposing more surface.

2) Cost for processing sulfides is unknown. Florida Canyon sulfides contain pyrrhotite, which is more soluble than pyrite. Pyrrhotite releases ferric iron which is acid generating, meaning the pad will most certainly consume more lime and cyanide than the oxide pads.

3) Sulfide ore that is amenable to heap leaching is rare. It was done very successfully at Ortiz and possibly elsewhere, but at Ortiz the gold formed a surface film on the pyrite. It has not been established that this is the case at Florida Canyon. Still, the fact that assay samples readily dissolve in cyanide is encouraging.

4) Another possibility for sulfide processing is flotation. Newmont has committed to continue, and possibly expand, their toll autoclave processing. Flotation testing on the sulfide material has not been done and should target maximizing gold grade in the concentrate and recovery. Testing would also give an indication of capital and operating costs for a sulfide flotation circuit.

5) The earlier site visit indicated that the crusher and process areas are very well run. Crusher throughput has been steadily increasing over the past several months. The solution ponds were in danger of overtopping earlier in the year before Alio took over but that problem was resolved through excellent solution management. Agglomeration was excellent. The work areas were clean and the leach pads were nothing short of outstanding, showing no ponding, no blowouts, good dispersion, and no "springs" on the pad sides. The 0.0028 gpm/ft^2 solution application rate is very good, within industry standard and producing good leach times. The pads are well ripped and there is no evidence of channeling or blinding in the pad. One area of operations that needs attention is the carbon circuit. FCMI planned to replace the kiln but ongoing work on determining carbon activity and the effectiveness of the acid wash circuit should be initiated. A pre-attritioning circuit is not existent and should also be installed to reduce losses from carbon fines.

6) The estimates for recovery of run of mine ore varies, but the figure of a reduction of 14-15% versus crushed ore is often cited. We feel this cannot be supported. Some test work and calculations from historic ROM leaching have shown recoveries of ROM material in the low 40s and while others approach that of crushed ore. Further testing of different ores from different areas for varying leach times would be necessary to pin a supportable recovery figure for the ROM ore. At this time there is no current plan to leach ROM material.

26.0 RECOMMENDATIONS

Oxide operations at Florida Canyon would benefit from better knowledge of the oxide-sulfide boundary and the water table. There could be more leach amenable material just below the current interpreted sulfide boundary that are not actually sulfides. The tonnage grade, and process metallurgical response of the underlying sulfides is not known.

As result, more drilling is recommended within the Florida Canyon mine area to define the sulfide boundary, water table, and to collect samples for process metallurgical testing. IMC recommends that any future drill program contain sufficient diamond drilling to be able to more accurately access the observed bias of RC drilling, and to provide sample for process testing. It is understood that core drilling is expensive relative to RC, but the cost of misinterpretation that appears to have occurred with the historic RC drilling is much more costly.

The current management and staff at FCMI should be encouraged to continue their improvements augmented with the support and guidance by the Argonaut management team.

The resource modeling staff should continue working toward improving the model. The work reported in this document by FCMI staff is a substantial improvement over previous efforts. However, there is still room to develop a better mine planning model. Ongoing work to that end should be continued.

FCMI staff have ideas to improve the mine operation by potentially backfilling some old pits to shorted waste haul cycles and by moving the ore crushing plant to shorten the ore haul. These are ideas should continue to be planned and evaluated.

Sulfide tonnage, grade, and process options should be evaluated sufficiently timely that if a sulfide operation is warranted, permit applications can be started in time to assure a transition from oxide to sulfide operations without a major hiatus to production.

<u>Metallurgy and Processing: Jim Arnold</u>

The pond sizing should be carefully reviewed to assess whether an additional contingency pond might be required.

If sulfide material is available both leaching and flotation test work should be initiated. It is likely that the results would be minimum numbers because there is very likely some degree of surface tarnishing on the samples, especially if the samples are old. Drilling for fresh samples is recommended.

The carbon activity should be determined to accurately calculate the potential cost savings of revamping the carbon handling circuit.

27.0 REFERENCES

NI 43-101 Technical Report Life of Mine Plan and Mineral Reserves for the Florida Canyon Gold Mine Pershing County, Nevada, USA, by SRK Consulting, Effective 1 November 2018, Published 8 February 2019

Amended Technical Report – Preliminary Economic Assessment for the Florida Canyon Mine, Pershing County, Nevada USA, by Mine Development Associates Mine Engineering Services, Effective 16 March 2016, Published 27 January 2017

Golder Associates Q1 2018 Pit Slope Inspection, Technical Memorandum, 2018

Johnson, M.G., Geology and Mineral Deposits of Pershing County, Nevada, 1977, Nevada Bureau of Mines and geology Bulleting 89.

Keech, C. Mineral Resource Estimate for Florida Canyon Gold Project, Nevada, Internal Memorandum, Rye Patch Gold Corporation, 2027

Taylor, J.D. Apollo Gold Inc. Ore Reserves as of December 21, 2000, 2001, AGI Internal Memo

Taylor et al Florida Canyon Estimate of Oxide Reserves and Mineralization Using Statistical Grade Domains as of December 31, 2001, 2002, Apollo Gold Corporation internal report.

FCMI Monthly Reports, September 2018 through April 2020,